

Friday, February 26, 2010

LOS ALAMOS

NATIONAL LABORATORY

Page 1 of 3
REQUEST NUMBER: 10-2141

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number: 10-2141

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/26/2010

TURNAROUND/REPORT DUE: 3/28/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

Valerie Davis

CNTNR SAMPLE ID

SAMPLE
MATRIX

DATE SAMPLED

SPECIAL
INSTRUCTIONS

EPA 300.0	1	RE36-10-8283	R	2/24/2010	
	1	RE36-10-8284	R	2/24/2010	
	1	RE36-10-8285	R	2/24/2010	
	1	RE36-10-8286	R	2/24/2010	
EPA 901.1	1	RE36-10-8283	R	2/24/2010	
	1	RE36-10-8284	R	2/24/2010	
	1	RE36-10-8285	R	2/24/2010	
	1	RE36-10-8286	R	2/24/2010	
EPA 906.0	1	RE36-10-8283	R	2/24/2010	

Friday, February 26, 2010

Page 2 of 3
REQUEST NUMBER: 10-2141

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
EPA-906.0		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
HASL-300-AM-241		1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
HASL-300-ISOPU		1	RE36-10-8286	R	2/24/2010	
		1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
HASL-300-ISOU		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
		1	RE36-10-8283	R	2/24/2010	
SW-846:6010B		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
SW-846:6020		1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
SW-846:6850		1	RE36-10-8286	R	2/24/2010	
		1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
MAL-846:7374A		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
		1	RE36-10-8283	R	2/24/2010	

Friday, February 26, 2010

REQUEST NUMBER: 10-2141

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:7471A		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
SW-846:9012A		1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
SW-846:9045C		1	RE36-10-8286	R	2/24/2010	
		1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	

Final Page of REQUEST NUMBER 10-2141

Friday, February 26, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2141

LOS ALAMOS

REQUEST NUMBER: 10-2141

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/28/2010

General Engineering Laboratories, Inc.,
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8285	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE36-10-8285	1	POLY	H3	Ice	R
RE36-10-8285	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8285	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-8286	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE36-10-8286	1	POLY	H3	Ice	R
RE36-10-8286	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8286	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-8283	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE36-10-8283	1	POLY	H3	Ice	R
RE36-10-8283	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8283	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-8284	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE36-10-8284	1	POLY	H3	Ice	R
RE36-10-8284	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8284	1	POLY	Perchlorate+CN+N03+pH	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: 2505

EVENT NAME: 4th Qtr. FY09 - SWMU C-36-003 - Threemile Canyon

SAMPLE ID: RE36-10-8283

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		0920		SUB-MEDIA:		TUFF 1	
PRS ID: C-36-003		ok		SAMPLE TECH CODE: HA		ok	
LOCATION ID: 36-610826		↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE: GENERIC		↓		FIELD PREP: NA		↓	
TOP DEPTH: 0		0.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH: 0		0.5		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

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

SAMPLE DESC:

Brown sandy silt, roots

FTB: RE36-10-8296

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-21

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha \leq 25 dpm
Beta/Gamma \leq 2370 dpm

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

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

Jon Roberson

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

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2505

EVENT NAME: 4th Qtr. FY09 - SWMU C-36-003 - Threemile Canyon

SAMPLE ID: RE36-10-8284

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:		OBT3	
TIME COLLECTED (HH:MM)		0940		SUB-MEDIA:		TUFF 1	
PRS ID: C-36-003		ok		SAMPLE TECH CODE: HA		ok	
LOCATION ID: 36-610826		↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE: GENERIC		↓		FIELD PREP: NA		↓	
TOP DEPTH: 0		2.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH: 0		3.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

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

SAMPLE DESC:

Brown sandy silt; roots

SAMPLE COMMENTS: NA

LOCATION DESC: 8-21

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha \leq 15 dpm
Beta/Gamma \leq 2130 dpm

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

73m 2/24/10

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

JonRoberson

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

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2505

EVENT NAME: 4th Qtr. FY09 - SWMU C-36-003 - Threemile Canyon

SAMPLE ID: RE36-10-8285

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:	QBT3		Allh
TIME COLLECTED (HH:MM)		0920		SUB-MEDIA:	TUFF 1		NA
PRS ID:	C-36-003		OK	SAMPLE TECH CODE:	HA		OK
LOCATION ID:	36-610827		↓	FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC		↓	FIELD PREP:	NA		↓
TOP DEPTH:	0		0.0	SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0		0.5	SCREEN/PORT DESC:			NA
FIELD MATRIX:	R		S	EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA	COMPOSITE TIME INTERVAL:	NA	WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION:	NA	BOREHOLE DIRECTION:	NA		

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

SAMPLE DESC:

Brown silty sand, organics

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-12

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha \leq 20 dpm
Beta/Gamma \leq 172 dpm

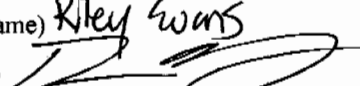

PID $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$ 73m 2/24/16

COLLECTED BY (PRINT)

T. McFarland

REVIEWED BY (PRINT)

Jon Roberson

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

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2505

EVENT NAME: 4th Qtr. FY09 - SWMU C-36-003 - Threemile Canyon

SAMPLE ID: RE36-10-8286

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:	QBT3		Alh
TIME COLLECTED (HH:MM)		0936		SUB-MEDIA:	TUFF 1		NA
PRS ID:	C-36-003	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	36-610827			FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		
TOP DEPTH:	0	2.0		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	3.0		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

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

SAMPLE DESC:

Brown silty sand, roots, few pebbles

SAMPLE COMMENTS:

NA

LOCATION DESC:

8 - 12

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha \leq 36 dpm
Beta/Gamma \leq 2130 dpm



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

73m 2/24/10

COLLECTED BY (PRINT)

T.M. McFarland

REVIEWED BY (PRINT) Jon Roberson

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

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2505

EVENT NAME: 4th Qtr. FY09 - SWMU C-36-003 - Threemile Canyon

SAMPLE ID: RE36-10-8296

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010	MEDIA:	NA		ok	
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	OTHER			
PRS ID:	C-36-003	ok	SAMPLE TECH CODE:	DC			
LOCATION ID:	UNK	36-610826	FIELD QC TYPE:	FTB			
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA			
TOP DEPTH:	0		SAMPLE USAGE:	QC			
BOTTOM DEPTH:	0		SCREEN/PORT DESC:				NA
FIELD MATRIX:	S	↓	EXCAVATED: YES/NO/NA				
COMPOSITE TYPE:	NA		COMPOSITE TIME INTERVAL:	NA			WATER FLOWING: YES/NO/NA
BOREHOLE: YES/NO/NA	NO/NA		BOREHOLE DECLINATION:	NA			BOREHOLE DIRECTION: NA

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

SAMPLE DESC: QC Sample of

RE36-10-8283

SAMPLE COMMENTS:

FTB

LOCATION DESC:

NA

FIELD SCREENING/MEASUREMENT RESULTS:

NA


COLLECTED BY (PRINT)

ThMcFarland

REVIEWED BY (PRINT)

JonRoberson

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Riley Evans	2/24/10	(Printed Name)	2/24/10
(Signature)	1034	(Signature)	4:34
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

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

Section I.

REQUEST NUMBER: 10-2141 VALIDATION DATE: 4/21/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

- The MS %R for perchlorate was > the laboratory UAL, however, the parent sample concentration was >4X the spike concentration and the parent sample, MS and MSD were analyzed at dilutions. Based on professional judgment, no sample results were qualified.

Reviewed by: Mary Donovan


Level: I

Date: 04/22/10


VALIDATOR'S SIGNATURE: _____

Allison Felix


DATE: 4/21/10

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

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The Internal Standard (IS) relative retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC1d	R, PERC1d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The sample result is $\leq 5X$ the concentration of the related analyte in the method blank.	U, PERC4	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was $>5X$.	N/A	J+, PERC4a
<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

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

Yes No N/A				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: 962123

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-8285

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2141

GEL Sample ID: 248250001

Date Filtered: 08-MAR-10

Injection Volume (uL): 20

%Solids: 72

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.694	2.77	12.6	ug/kg		1	17-MAR-10 00:35	per0316065a
	Perchlorate Isotope Ratio			3.04			1	17-MAR-10 00:35	per0316065a
14797-73-0	Perchlorate-101	.694	2.77	12.4	ug/kg		1	17-MAR-10 00:35	per0316065a
	Perchlorate-O(18)			7.23	ug/kg		1	17-MAR-10 00:35	per0316065a

[^] 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 %Solids

AMF
4/21/10

Form J

P perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 962123

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-8286

Date Received: 27-FEB-10

GEL Job No (SDC): 10-2141

GEL Sample ID: 248250002

Date Filtered: 08-MAR-10

Injection Volume (ul): 20

% Solids: 92.5

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	1.08	4.32	11.7	ug/kg		2	17-MAR-10 07:44	per0316118a
	Perchlorate Isotope Ratio			3.15			2	17-MAR-10 07:44	per0316118a
14797-73-0	Perchlorate-101	1.08	4.32	11.1	ug/kg		2	17-MAR-10 07:44	per0316118a
	Perchlorate-O(18)			11.9	ug/kg		2	17-MAR-10 07:44	per0316118a

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

AMF
4/21/10

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: 962123

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-8283

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2141

GEL Sample ID: 248250003

Date Filtered: 08-MAR-10

Injection Volume (uL): 20

% Solids: 93.7

CAS No.	Analyte ^a	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	53.4	214	688	ug/kg		100	17-MAR-10 08:08	per0316121a
	Perchlorate Isotope Ratio			3.04			100	17-MAR-10 08:08	per0316121a
14797-73-0	Perchlorate-101	53.4	214	680	ug/kg		100	17-MAR-10 08:08	per0316121a
	Perchlorate-Q(18)			574	ug/kg		100	17-MAR-10 08:08	per0316121a

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

AMF
4/21/10

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: 962123

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-8284

Date Received: 27-FEB-10

GEL Job No (SDC): 10-2141

GEL Sample ID: 24825004

Date Filtered: 08-MAR-10

Injection Volume (uL): 20

% Solids: 94.5


CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	26.5	106	212	ug/kg		50	17-MAR-10 08:16	per0316122a
	Perchlorate Isotope Ratio			3.12			50	17-MAR-10 08:16	per0316122a
14797-73-0	Perchlorate-101	26.5	106	203	ug/kg		50	17-MAR-10 08:16	per0316122a
	Perchlorate-O(18)			263	ug/kg		50	17-MAR-10 08:16	per0316122a

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

AMF
4/21/10

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

Section I.			
REQUEST NUMBER:	10-2141	VALIDATION DATE:	4/21/10
		LAB CODE:	GEL
CONTRACT LABORATORY NAME: <u>GEL Laboratories LLC</u>			
VALIDATOR: <u>Allison Felix</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. Fe and Na were detected in the MB. All associated Fe sample results and the Na result for sample RE36-10-8283 were detects >50X the MB concentration. These results were not qualified, based on professional judgment. The Na results for samples -8285, -8286, and -8284 were detects >5X but ≤50X the MB concentration and, thus, were qualified JJ14a.
2. The MS %Rs for Ca, Pb, Mg, and K were > the laboratory UALs. The associated sample results were detects and, thus, were qualified J+,I6b. The MS %Rs for Al, Fe, and Mn were outside the laboratory acceptance limits, however, the parent sample results were >4X the spike concentrations. Based on professional judgment, the associated sample results were not qualified.
3. The duplicate RPD for Ca was >35% and the parent sample and duplicate results were ≥5X the PQL. The associated sample results were detects and, thus, were qualified JJ10a.
4. It should be noted that all matrix QC analyses were performed on LANL samples from other RNs and that the parent samples for ICP-AES and ICP-MS were not included in the data package. No sample results were qualified.

Reviewed by: Mary DonovanLevel: IDate: 04/22/10


VALIDATOR'S SIGNATURE: _____

Allison FelixDATE: 4/21/10


DATA VALIDATION COVER SHEET	
5118-1 Data Validation Cover Sheet	Records Use only  ----- 1945 -----
Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

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

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

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	20. The sample result is $\leq 5X$ the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	22. The associated matrix spike recovery was $< 10\%$. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23. The associated matrix spike recovery was $< \text{the LAL}$ 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 $> \text{the UAL}$. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 Metals Analytical Data Validation Checklist	Records Use only  Los Alamos NATIONAL LABORATORY EST. 1942

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26. The sample and the duplicate sample results were $\geq 5X$ the RL and the duplicate RPD was $>20\%$ for water samples and $>35\%$ for soil samples.	UJ, I10a	J, I10a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	28. The LCS percent recovery was $<10\%$. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	29. The LCS percent recover was $<$ the LAL but $>10\%$. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	30. The LCS percent recovery was $>$ the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	32. The quantitating IS area count is $<10\%$ for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

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

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				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: 10-2141

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248250001

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-8285

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 72

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5740000	ug/Kg		9270	27300	27300	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-36-0	Antimony	1360	ug/Kg	U	450	1360	1360	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-38-2	Arsenic	5.81	mg/kg		0.269	1.34	1.34	2	MS	SKJ	04/14/10 00:15	100413-2	959152
7440-39-3	Barium	55800	ug/Kg		136	681	681	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-41-7	Beryllium	0.890	mg/kg		0.0269	0.134	0.134	2	MS	SKJ	04/14/10 00:15	100413-2	959152
7440-43-9	Cadmium	324	ug/Kg	J	136	681	681	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-70-2	Calcium J+,16b	3370000	ug/Kg		10900	34100	34100	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-47-3	Chromium	192000	ug/Kg		204	681	681	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-48-4	Cobalt	902	ug/Kg		204	681	681	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-50-8	Copper	15300	ug/Kg		409	1360	1360	1	P	HSC	04/01/10 05:40	033110B-1	959150
7439-89-6	Iron	8160000	ug/Kg		10900	34100	34100	1	P	HSC	04/01/10 05:40	033110B-1	959150
7439-92-1	Lead J+,16b	14900	ug/Kg		341	1360	1360	1	P	HSC	04/01/10 05:40	033110B-1	959150
7439-95-4	Magnesium J+,16b	900000	ug/Kg		11600	40900	40900	1	P	HSC	04/01/10 05:40	033110B-1	959150
7439-96-5	Manganese	118000	ug/Kg		273	1360	1360	1	P	HSC	04/01/10 05:40	033110B-1	959150
7439-97-6	Mercury	461	ug/kg		4.93	14.5	14.5	1	AV	IXL1	03/17/10 11:05	031710S2-3	958993
7440-02-0	Nickel	6.1	mg/kg		0.134	0.538	0.538	2	MS	SKJ	04/14/10 00:15	100413-2	959152
7440-09-7	Potassium J+,16b	851000	ug/Kg		8720	34100	34100	1	P	HSC	04/01/10 05:40	033110B-1	959150
7782-49-2	Selenium	1.34	mg/kg	U	0.672	1.34	1.34	2	MS	SKJ	04/14/10 00:15	100413-2	959152
7440-22-4	Silver	102000	ug/Kg		136	681	681	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-23-5	Sodium J,14a	120000	ug/Kg		9540	34100	34100	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-28-0	Thallium	0.143	mg/kg	J	0.0807	0.269	0.269	2	MS	SKJ	04/14/10 00:15	100413-2	959152
7440-61-1	Uranium	10.4	mg/kg		0.0177	0.0538	0.0538	2	MS	SKJ	04/14/10 00:15	100413-2	959152
7440-62-2	Vanadium	12600	ug/Kg		136	681	681	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-66-6	Zinc	74200	ug/Kg		450	1360	1360	1	P	HSC	04/01/10 05:40	033110B-1	959150

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958993	958991	SW846 7471A Prep	0.574	g	30	mL	03/16/10	TXB3
959150	959149	SW846 3050B	0.509	g	50	mL	03/11/10	LYH1
959152	959151	SW846 3050B	0.516	g	50	mL	03/11/10	LYH1

AMF
4/21/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2141

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248250002

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-8286

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 92.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5550000	ug/Kg		6710	19700	19700	1	P	HSC	04/01/10 05:42	033110B-1	959150
7440-36-0	Antimony	986	ug/Kg	U	326	986	986	1	P	HSC	04/01/10 05:42	033110B-1	959150
7440-38-2	Arsenic	2.88	mg/kg		0.208	1.04	1.04	2	MS	SKJ	04/14/10 00:20	100413-2	959152
7440-39-3	Barium	49600	ug/Kg		98.6	493	493	1	P	HSC	04/01/10 05:42	033110B-1	959150
7440-41-7	Beryllium	0.478	mg/kg		0.0208	0.104	0.104	2	MS	SKJ	04/14/10 00:20	100413-2	959152
7440-43-9	Cadmium	3350	ug/Kg		98.6	493	493	1	P	HSC	04/01/10 05:42	033110B-1	959150
7440-70-2	Calcium J+,16b	2410000	ug/Kg		7890	24700	24700	1	P	HSC	04/01/10 05:42	033110B-1	959150
7440-47-3	Chromium	97900	ug/Kg		148	493	493	1	P	HSC	04/01/10 05:42	033110B-1	959150
7440-48-4	Cobalt	1280	ug/Kg		148	493	493	1	P	HSC	04/01/10 05:42	033110B-1	959150
7440-50-8	Copper	25200	ug/Kg		296	986	986	1	P	HSC	04/01/10 05:42	033110B-1	959150
7439-89-6	Iron	7270000	ug/Kg		7890	24700	24700	1	P	HSC	04/01/10 05:42	033110B-1	959150
7439-92-1	Lead J+,16b	17400	ug/Kg		247	986	986	1	P	HSC	04/01/10 05:42	033110B-1	959150
7439-95-4	Magnesium J+,16b	1040000	ug/Kg		8390	29600	29600	1	P	HSC	04/01/10 05:42	033110B-1	959150
7439-96-5	Manganese	78100	ug/Kg		197	986	986	1	P	HSC	04/01/10 05:42	033110B-1	959150
7439-97-6	Mercury	254	ug/kg		4.37	12.8	12.8	1	AV	JXL1	03/17/10 11:07	031710S2-3	958993
7440-02-0	Nickel	2.87	mg/kg		0.104	0.417	0.417	2	MS	SKJ	04/14/10 00:20	100413-2	959152
7440-09-7	Potassium J+,16b	846000	ug/Kg		6310	24700	24700	1	P	HSC	04/01/10 05:42	033110B-1	959150
7782-49-2	Selenium	1.04	mg/kg	U	0.521	1.04	1.04	2	MS	SKJ	04/14/10 00:20	100413-2	959152
7440-22-4	Silver	302000	ug/Kg		986	4930	4930	10	P	HSC	04/01/10 05:58	033110B-1	959150
7440-23-5	Sodium J,14a	180000	ug/Kg		6910	24700	24700	1	P	HSC	04/01/10 05:42	033110B-1	959150
7440-28-0	Thallium	0.095	mg/kg	J	0.0625	0.208	0.208	2	MS	SKJ	04/14/10 00:20	100413-2	959152
7440-61-1	Uranium	4.73	mg/kg		0.0137	0.0417	0.0417	2	MS	SKJ	04/14/10 00:20	100413-2	959152
7440-62-2	Vanadium	14600	ug/Kg		98.6	493	493	1	P	HSC	04/01/10 05:42	033110B-1	959150
7440-66-6	Zinc	53200	ug/Kg		326	986	986	1	P	HSC	04/01/10 05:42	033110B-1	959150

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958993	958991	SW846 7471A Prep	0.505	g	30	mL	03/16/10	TXB3
959150	959149	SW846 3050B	0.548	g	50	mL	03/11/10	LYH1
959152	959151	SW846 3050B	0.519	g	50	mL	03/11/10	LYH1

AMF
4/21/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2141

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248250003

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-8283

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 93.7

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5880000	ug/Kg		7100	20900	20900	1	P	HSC	04/01/10 05:44	033110B-1	959150
7440-36-0	Antimony	1040	ug/Kg	U	345	1040	1040	1	P	HSC	04/01/10 05:44	033110B-1	959150
7440-38-2	Arsenic	3.1	mg/kg		0.194	0.971	0.971	2	MS	SKJ	04/14/10 00:24	100413-2	959152
7440-39-3	Barium	52000	ug/Kg		104	522	522	1	P	HSC	04/01/10 05:44	033110B-1	959150
7440-41-7	Beryllium	0.534	mg/kg		0.0194	0.0971	0.0971	2	MS	SKJ	04/14/10 00:24	100413-2	959152
7440-43-9	Cadmium	469	ug/Kg	J	104	522	522	1	P	HSC	04/01/10 05:44	033110B-1	959150
7440-70-2	Calcium J+, I6b	4910000	ug/Kg		8360	26100	26100	1	P	HSC	04/01/10 05:44	033110B-1	959150
7440-47-3	Chromium	108000	ug/Kg		157	522	522	1	P	HSC	04/01/10 05:44	033110B-1	959150
7440-48-4	Cobalt	1090	ug/Kg		157	522	522	1	P	HSC	04/01/10 05:44	033110B-1	959150
7440-50-8	Copper	12300	ug/Kg		313	1040	1040	1	P	HSC	04/01/10 05:44	033110B-1	959150
7439-89-6	Iron	7120000	ug/Kg		8360	26100	26100	1	P	HSC	04/01/10 05:44	033110B-1	959150
7439-92-1	Lead J+, I6b	13600	ug/Kg		261	1040	1040	1	P	HSC	04/01/10 05:44	033110B-1	959150
7439-95-4	Magnesium J+, I6b	1830000	ug/Kg		8880	31300	31300	1	P	HSC	04/01/10 05:44	033110B-1	959150
7439-96-5	Manganese	88400	ug/Kg		209	1040	1040	1	P	HSC	04/01/10 05:44	033110B-1	959150
7439-97-6	Mercury	366	ug/kg		4.11	12.1	12.1	1	AV	JXL1	03/17/10 11:09	031710S2-3	958993
7440-02-0	Nickel	3.36	mg/kg		0.0971	0.388	0.388	2	MS	SKJ	04/14/10 00:24	100413-2	959152
7440-09-7	Potassium J+, I6b	1570000	ug/Kg		6690	26100	26100	1	P	HSC	04/01/10 05:44	033110B-1	959150
7782-49-2	Selenium	0.971	mg/kg	U	0.485	0.971	0.971	2	MS	SKJ	04/14/10 00:24	100413-2	959152
7440-22-4	Silver	215000	ug/Kg		1040	5220	5220	10	P	HSC	04/01/10 06:00	033110B-1	959150
7440-23-5	Sodium	1000000	ug/Kg		7310	26100	26100	1	P	HSC	04/01/10 05:44	033110B-1	959150
7440-28-0	Thallium	0.101	mg/kg	J	0.0582	0.194	0.194	2	MS	SKJ	04/14/10 00:24	100413-2	959152
7440-61-1	Uranium	5.15	mg/kg		0.0128	0.0388	0.0388	2	MS	SKJ	04/14/10 00:24	100413-2	959152
7440-62-2	Vanadium	13400	ug/Kg		104	522	522	1	P	HSC	04/01/10 05:44	033110B-1	959150
7440-66-6	Zinc	58300	ug/Kg		345	1040	1040	1	P	HSC	04/01/10 05:44	033110B-1	959150

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958993	958991	SW846 7471A Prep	0.53	g	30	mL	03/16/10	TXB3
959150	959149	SW846 3050B	0.511	g	50	mL	03/11/10	LYH1
959152	959151	SW846 3050B	0.55	g	50	mL	03/11/10	LYH1

AMF
4/21/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2141

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248250004

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-8284

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 94.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4910000	ug/Kg		6910	20300	20300	1	P	HSC	04/01/10 05:46	033110B-1	959150
7440-36-0	Antimony	1020	ug/Kg	U	335	1020	1020	1	P	HSC	04/01/10 05:46	033110B-1	959150
7440-38-2	Arsenic	2.99	mg/kg		0.208	1.04	1.04	2	MS	SKJ	04/14/10 00:28	100413-2	959152
7440-39-3	Barium	38500	ug/Kg		102	508	508	1	P	HSC	04/01/10 05:46	033110B-1	959150
7440-41-7	Beryllium	0.523	mg/kg		0.0208	0.104	0.104	2	MS	SKJ	04/14/10 00:28	100413-2	959152
7440-43-9	Cadmium	182	ug/Kg	J	102	508	508	1	P	HSC	04/01/10 05:46	033110B-1	959150
7440-70-2	Calcium J+,16b	2660000	ug/Kg		8130	25400	25400	1	P	HSC	04/01/10 05:46	033110B-1	959150
7440-47-3	Chromium	70900	ug/Kg		152	508	508	1	P	HSC	04/01/10 05:46	033110B-1	959150
7440-48-4	Cobalt	977	ug/Kg		152	508	508	1	P	HSC	04/01/10 05:46	033110B-1	959150
7440-50-8	Copper	8410	ug/Kg		305	1020	1020	1	P	HSC	04/01/10 05:46	033110B-1	959150
7439-89-6	Iron	7500000	ug/Kg		8130	25400	25400	1	P	HSC	04/01/10 05:46	033110B-1	959150
7439-92-1	Lead J+,16b	8690	ug/Kg		254	1020	1020	1	P	HSC	04/01/10 05:46	033110B-1	959150
7439-95-4	Magnesium J+,16b	1040000	ug/Kg		8630	30500	30500	1	P	HSC	04/01/10 05:46	033110B-1	959150
7439-96-5	Manganese	90400	ug/Kg		203	1020	1020	1	P	HSC	04/01/10 05:46	033110B-1	959150
7439-97-6	Mercury	309	ug/kg		3.98	11.7	11.7	1	AV	JXL1	03/17/10 11:10	031710S2-3	958993
7440-02-0	Nickel	2.9	mg/kg		0.104	0.417	0.417	2	MS	SKJ	04/14/10 00:28	100413-2	959152
7440-09-7	Potassium J+,16b	893000	ug/Kg		6500	25400	25400	1	P	HSC	04/01/10 05:46	033110B-1	959150
7782-49-2	Selenium	1.04	mg/kg	U	0.521	1.04	1.04	2	MS	SKJ	04/14/10 00:28	100413-2	959152
7440-22-4	Silver	199000	ug/Kg		1020	5080	5080	10	P	HSC	04/01/10 06:02	033110B-1	959150
7440-23-5	Sodium J+,14a	331000	ug/Kg		7110	25400	25400	1	P	HSC	04/01/10 05:46	033110B-1	959150
7440-28-0	Thallium	0.0856	mg/kg	J	0.0625	0.208	0.208	2	MS	SKJ	04/14/10 00:28	100413-2	959152
7440-61-1	Uranium	4.36	mg/kg		0.0138	0.0417	0.0417	2	MS	SKJ	04/14/10 00:28	100413-2	959152
7440-62-2	Vanadium	10500	ug/Kg		102	508	508	1	P	HSC	04/01/10 05:46	033110B-1	959150
7440-66-6	Zinc	49500	ug/Kg		335	1020	1020	1	P	HSC	04/01/10 05:46	033110B-1	959150

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958993	958991	SW846 7471A Prep	0.543	g	30	mL	03/16/10	TXB3
959150	959149	SW846 3050B	0.521	g	50	mL	03/11/10	LYH1
959152	959151	SW846 3050B	0.508	g	50	mL	03/11/10	LYH1

AMF
4/21/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only



Section I.

REQUEST NUMBER: 10-2141 VALIDATION DATE: 4/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix 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): _____ | | | |

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 matrix QC analyses for pH and Total CN were performed on LANL samples from other RNs. No sample results were qualified.

Reviewed by: Mary Donovan


Level: I

Date: 04/22/10


VALIDATOR'S SIGNATURE: _____

Allison Felix


DATE: 4/22/10

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

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

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

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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	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"/>	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: March 25, 2010

Client SDG: 10-2141

Client Sample ID: RE36-10-8285
Sample ID: 248250001
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 27.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.7C	H	6.40	0.010	0.100	SU	1	TXT1	03/03/10	1404	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		1570	85.8	315	ug/kg	1	AXC2	03/10/10	1518	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.92	0.381	1.27	mg/kg	1	VH1	03/22/10	2154	967051	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/22/10	1747	967025
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1108	959213

The following Analytical Methods were performed

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

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

Report Date: March 25, 2010

Client SDG: 10-2141

Client Sample ID: RE36-10-8286
Sample ID: 248250002
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 7.51%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.7C	H	5.93	0.010	0.100	SU	1	TXT1	03/03/10	1406	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		1390	68.1	250	ug/kg	1	AXC2	03/10/10	1519	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.320	1.07	mg/kg	1	VH1	03/22/10	2339	967051	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/22/10	1747	967025
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1108	959213

The following Analytical Methods were performed

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

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

Report Date: March 25, 2010

Client SDG: 10-2141

Client Sample ID: RE36-10-8283
Sample ID: 248250003
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 6.33%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.6C	H	6.23	0.010	0.100	SU	1	TXT1	03/03/10	1408	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		2180	64.8	238	ug/kg	1	AXC2	03/10/10	1519	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		540	2.83	9.43	mg/kg	10	VH1	03/23/10	1855	967051	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/22/10	1747	967025
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1108	959213

The following Analytical Methods were performed

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

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

Report Date: March 25, 2010

Client SDG: 10-2141

Client Sample ID: RE36-10-8284
Sample ID: 248250004
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 5.53%

Project: LANL01004
Client ID: LANL010


Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.5C	H	5.98	0.010	0.100	SU	1	TXT1	03/03/10	1410	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		825	70.6	259	ug/kg	1	AXC2	03/10/10	1520	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		131	2.85	9.51	mg/kg	10	VH1	03/23/10	1921	967051	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/22/10	1747	967025
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1108	959213

The following Analytical Methods were performed

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

DATA VALIDATION COVER SHEET	
5119-1 <div style="text-align: center;">Data Validation Cover Sheet</div>	Records Use only 

Section I.

REQUEST NUMBER: 10-2141 VALIDATION DATE: 4/21/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix 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	<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):


- Sample results which were rejected by the laboratory due to interference or low abundance, were qualified R,R5a. In the QC samples, several results were also rejected by the laboratory. No sample results were qualified.
- An MS was not analyzed for tritium. However, an LCS was analyzed and met acceptance criteria, thus, no sample results were qualified.
- It should be noted that all matrix QC analyses were performed on LANL samples from other RNs. No sample results were qualified.

Reviewed by: Mary Donovan Level: I Date: 04/22/10


VALIDATOR'S SIGNATURE: <u>Allison Felix</u>	DATE: <u>4/21/10</u>
Form 5119-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

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"/>	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 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"/>	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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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

GEL LABORATORIES LLC

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Certificate of Analysis

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

Report Date: March 26, 2010

Client Sample ID: RE36-10-8285
Sample ID: 248250001
Matrix: R
Collect Date: 24-FEB-10
Receive Date: 27-FEB-10
Collector: Client
Moisture: 27.9%

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	0.0183	0.0227	+/-0.00546	0.050	pCi/g		JXD2	03/24/10	2056	964871	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00916	0.0239	+/-0.00781	0.050	pCi/g		JXD2	03/24/10	2109	964872	3
Plutonium-239/240		0.0437	0.0202	+/-0.00946	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		6.10	0.187	+/-0.511	0.100	pCi/g		JXD2	03/25/10	1416	964874	4
Uranium-235/236		0.278	0.114	+/-0.0523	0.100	pCi/g						
Uranium-238		4.51	0.131	+/-0.388	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0529	0.384	+/-0.136	0.200	pCi/g		MXR1	03/19/10	1310	959281	5
Bismuth-211	UI	4.41	R,R5a	0.471	+/-0.406	pCi/g						
Bismuth-214		1.26		0.175	+/-0.136	pCi/g						
Cadmium-109	UI	4.14	R,R5a	1.78	+/-0.825	pCi/g						
Cerium-139	U	-0.0194		0.0748	+/-0.0233	pCi/g						
Cesium-134	U	0.0922		0.131	+/-0.0353	pCi/g						
Cesium-137		0.669		0.0807	+/-0.0725	pCi/g						
Cobalt-60	U	-0.00916		0.0889	+/-0.0279	pCi/g						
Europium-152	U	-0.0319		0.244	+/-0.0844	pCi/g						
Lanthanum-140	U	-0.0448		0.316	+/-0.102	pCi/g						
Lead-212		1.93		0.128	+/-0.130	pCi/g						
Lead-214		1.60		0.187	+/-0.154	pCi/g						
Mercury-203	U	0.0695		0.116	+/-0.0343	pCi/g						
Potassium-40		24.2		0.589	+/-1.53	pCi/g						
Radium-223	U	-0.253		1.67	+/-0.530	pCi/g						
Radium-224	UI	3.83	R,R5a	1.37	+/-0.964	pCi/g						
Radium-226		1.26		0.175	+/-0.136	pCi/g						
Radium-228		1.74		0.346	+/-0.248	pCi/g						
Ruthenium-106	U	-0.163		0.791	+/-0.249	pCi/g						

AMF
4/21/10

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 26, 2010

Client Sample ID:
Sample ID:

RE36-10-8285
248250001

Project:
Client ID: LANL01004
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>											
Sodium-22	U	-0.00258	0.0995	+/-0.0304	0.080	pCi/g					
Strontium-85	U	-0.229	0.131	+/-0.0502		pCi/g					
Thallium-208		0.485	0.0931	+/-0.065	0.080	pCi/g					
Thorium-227	U	0.149	0.664	+/-0.202		pCi/g					
Thorium-231	U	-0.253	1.67	+/-0.530		pCi/g					
Thorium-234		7.92	3.23	+/-2.07	2.00	pCi/g					
Tin-113	U	0.00546	0.121	+/-0.038	0.100	pCi/g					
Uranium-235	U	0.138	0.488	+/-0.149	0.500	pCi/g					
Yttrium-88	U	-0.0291	0.0827	+/-0.0295	0.100	pCi/g					
Rad Liquid Scintillation Analysis											
<i>H3 "As Received"</i>											
Tritium		209	141	+/-50.3	250	pCi/L		KXK2	03/23/10	0724 964058	6

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
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	81.2	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	82.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	50.9	(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.

AMF
4/21/10

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 26, 2010

Client Sample ID: RE36-10-8286
Sample ID: 248250002
Matrix: R
Collect Date: 24-FEB-10
Receive Date: 27-FEB-10
Collector: Client
Moisture: 7.51%

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	0.00414	0.0204	+/-0.00287	0.050	pCi/g		JXD2	03/24/10	2056	964871	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00378	0.0251	+/-0.00268	0.050	pCi/g		JXD2	03/24/10	2109	964872	3
Plutonium-239/240	U	0.0148	0.0212	+/-0.00648	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		3.21	0.130	+/-0.265	0.100	pCi/g		JXD2	03/25/10	1416	964874	4
Uranium-235/236		0.165	0.0792	+/-0.0329	0.100	pCi/g						
Uranium-238		2.62	0.0912	+/-0.222	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	-0.135	0.546	+/-0.160	0.200	pCi/g		MXR1	03/19/10	1310	959281	5
Bismuth-211	UI	4.61	R,R5a	0.406	+/-0.370	pCi/g						
Bismuth-214		1.34		0.140	+/-0.114	pCi/g						
Cadmium-109	UI	2.75	R,R5a	1.84	+/-0.707	pCi/g						
Cerium-139	U	0.0119		0.0688	+/-0.0205	pCi/g						
Cesium-134	U	0.0934		0.109	+/-0.0295	pCi/g						
Cesium-137		0.143		0.0764	+/-0.0365	pCi/g						
Cobalt-60	U	0.0128		0.0803	+/-0.0241	pCi/g						
Europium-152	U	-0.0181		0.206	+/-0.0754	pCi/g						
Lanthanum-140	U	-0.0948		0.237	+/-0.0791	pCi/g						
Lead-212		1.84		0.124	+/-0.130	pCi/g						
Lead-214		1.67		0.148	+/-0.142	pCi/g						
Mercury-203	UI	0.119	R,R5a	0.0889	+/-0.0446	pCi/g						
Potassium-40		27.7		0.646	+/-1.67	pCi/g						
Radium-223	U	-0.547		1.32	+/-0.473	pCi/g						
Radium-224	UI	5.53	R,R5a	1.32	+/-0.899	pCi/g						
Radium-226		1.34		0.140	+/-0.114	pCi/g						
Radium-228		1.98		0.243	+/-0.215	pCi/g						
Ruthenium-106	U	0.0185		0.597	+/-0.182	pCi/g						
Sodium-22	U	0.0169		0.0935	+/-0.028	pCi/g						

AMF
4/21/10

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 26, 2010

Client Sample ID: RE36-10-8286
Sample ID: 248250002

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	-0.173	0.100	+/-0.0357		pCi/g						
Thallium-208		0.490	0.0719	+/-0.0483	0.080	pCi/g						
Thorium-227	U	0.183	0.570	+/-0.162		pCi/g						
Thorium-231	U	-0.547	1.32	+/-0.473		pCi/g						
Thorium-234	U	2.69	4.58	+/-1.34	2.00	pCi/g						
Tin-113	U	0.0108	0.107	+/-0.0316	0.100	pCi/g						
Uranium-235	U	0.150	0.456	+/-0.136	0.500	pCi/g						
Yttrium-88	U	0.0321	0.0888	+/-0.0247	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
<i>H3 "As Received"</i>												
Tritium	U	71.3	142	+/-43.2	250	pCi/L		KXK2	03/23/10	0811	964058	6

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
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	89.2	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	79.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	74.8	(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

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: March 26, 2010

Client Sample ID: RE36-10-8283
Sample ID: 248250003
Matrix: R
Collect Date: 24-FEB-10
Receive Date: 27-FEB-10
Collector: Client
Moisture: 6.33%

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	0.00139	0.0207	+/-0.0021	0.050	pCi/g		JXD2	03/24/10	2056	964871	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00248	0.0258	+/-0.00308	0.050	pCi/g		JXD2	03/24/10	2109	964872	3
Plutonium-239/240	U	0.0166	0.0218	+/-0.00652	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		4.43	0.176	+/-0.377	0.100	pCi/g		JXD2	03/25/10	1416	964874	4
Uranium-235/236		0.147	0.108	+/-0.0355	0.100	pCi/g						
Uranium-238		3.72	0.124	+/-0.322	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.140	0.252	+/-0.0812	0.200	pCi/g		MXR1	03/19/10	1311	959281	5
Bismuth-211	UI	3.93	R,R5a 0.336	+/-0.333		pCi/g						
Bismuth-214		1.38	0.0966	+/-0.107	0.200	pCi/g						
Cadmium-109	UI	2.79	R,R5a 1.08	+/-0.548		pCi/g						
Cerium-139	U	-0.0358	0.0476	+/-0.015	0.050	pCi/g						
Cesium-134	UI	0.110	R,R5a 0.092	+/-0.0277	0.100	pCi/g						
Cesium-137		0.335	0.0678	+/-0.0399	0.100	pCi/g						
Cobalt-60	U	0.00417	0.0641	+/-0.0196	0.100	pCi/g						
Europium-152	U	-0.04	0.149	+/-0.0461	0.200	pCi/g						
Lanthanum-140	U	-0.108	0.154	+/-0.057		pCi/g						
Lead-212		1.87	0.0854	+/-0.126	0.100	pCi/g						
Lead-214		1.43	0.122	+/-0.127	0.100	pCi/g						
Mercury-203	U	0.0142	0.0713	+/-0.0217	0.100	pCi/g						
Potassium-40		27.6	0.410	+/-1.48	1.00	pCi/g						
Radium-223	U	-0.0661	1.02	+/-0.361		pCi/g						
Radium-224	UI	1.62	R,R5a 0.916	+/-0.572		pCi/g						
Radium-226		1.38	0.0966	+/-0.107		pCi/g						
Radium-228		1.84	0.204	+/-0.182	0.500	pCi/g						
Ruthenium-106	U	0.173	0.525	+/-0.153	0.800	pCi/g						
Sodium-22	U	-0.0206	0.068	+/-0.0222	0.080	pCi/g						

AMF
4/21/10

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 26, 2010

Client Sample ID: RE36-10-8283
Sample ID: 248250003

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	0.0307	0.0656	+/-0.0187		pCi/g						
Thallium-208		0.525	0.0513	+/-0.0516	0.080	pCi/g						
Thorium-227	U	-0.304	0.370	+/-0.125		pCi/g						
Thorium-231	U	-0.0661	1.02	+/-0.361		pCi/g						
Thorium-234		3.32	2.03	+/-0.826	2.00	pCi/g						
Tin-113	U	-0.039	0.0712	+/-0.0223	0.100	pCi/g						
Uranium-235	U	0.0585	0.337	+/-0.0993	0.500	pCi/g						
Yttrium-88	U	0.0157	0.0652	+/-0.0185	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
<i>H3 "As Received"</i>												
Tritium		359	150	+/-61.5	250	pCi/L		KXK2	03/23/10	0859	964058	6

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
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.9	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	81.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	56.2	(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

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: March 26, 2010

Client Sample ID: RE36-10-8284
Sample ID: 248250004
Matrix: R
Collect Date: 24-FEB-10
Receive Date: 27-FEB-10
Collector: Client
Moisture: 5.53%

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	0.00103	0.0208	+/-0.00142	0.050	pCi/g		JXD2	03/24/10	2056	964871	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.0026	0.027	+/-0.00323	0.050	pCi/g		JXD2	03/24/10	2109	964872	3
Plutonium-239/240	U	0.0211	0.0228	+/-0.00837	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		3.72	0.141	+/-0.308	0.100	pCi/g		JXD2	03/25/10	1416	964874	4
Uranium-235/236		0.124	0.0862	+/-0.0292	0.100	pCi/g						
Uranium-238		2.88	0.0992	+/-0.245	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0583	0.123	+/-0.0382	0.200	pCi/g		MXR1	03/19/10	1311	959281	5
Bismuth-211	UI	4.40	R,R5a	0.389	+/-0.333	pCi/g						
Bismuth-214		1.42		0.161	+/-0.131	0.200	pCi/g					
Cadmium-109	UI	4.13	R,R5a	1.59	+/-0.543	pCi/g						
Cerium-139	U	0.0126		0.0608	+/-0.0181	0.050	pCi/g					
Cesium-134	U	0.0886		0.135	+/-0.0371	0.100	pCi/g					
Cesium-137		0.326		0.0868	+/-0.0571	0.100	pCi/g					
Cobalt-60	U	0.029		0.103	+/-0.0296	0.100	pCi/g					
Europium-152	U	0.0212		0.205	+/-0.0619	0.200	pCi/g					
Lanthanum-140	U	-0.103		0.275	+/-0.0936	pCi/g						
Lead-212		1.91		0.105	+/-0.120	0.100	pCi/g					
Lead-214		1.60		0.142	+/-0.129	0.100	pCi/g					
Mercury-203	U	0.0472		0.091	+/-0.0283	0.100	pCi/g					
Potassium-40		30.2		0.598	+/-1.76	1.00	pCi/g					
Radium-223	U	-0.505		1.15	+/-0.422	pCi/g						
Radium-224	UI	5.86	R,R5a	1.13	+/-0.945	pCi/g						
Radium-226		1.42		0.161	+/-0.131	pCi/g						
Radium-228		2.06		0.296	+/-0.234	0.500	pCi/g					
Ruthenium-106	U	0.131		0.710	+/-0.213	0.800	pCi/g					
Sodium-22	U	0.0152		0.108	+/-0.0329	0.080	pCi/g					

AMF
4/21/10

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 26, 2010

Client Sample ID: RE36-10-8284
Sample ID: 248250004

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	0.0489	0.0992	+/-0.032		pCi/g						
Thallium-208		0.653	0.0843	+/-0.0625	0.080	pCi/g						
Thorium-227	U	-0.286	0.460	+/-0.155		pCi/g						
Thorium-231	U	-0.505	1.15	+/-0.422		pCi/g						
Thorium-234		2.84	1.18	+/-0.738	2.00	pCi/g						
Tin-113	U	0.00555	0.0989	+/-0.0293	0.100	pCi/g						
Uranium-235	U	0.0786	0.409	+/-0.125	0.500	pCi/g						
Yttrium-88	U	0.00353	0.0989	+/-0.0302	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
<i>H3 "As Received"</i>												
Tritium		477	149	+/-68.6	250	pCi/L		KXK2	03/23/10	0946	964058	6

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
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	89.6	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	76.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	67.3	(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

AMF
4/21/10

Friday, February 26, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2141

LOS ALAMOS

REQUEST NUMBER: 10-2141

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/28/2010

General Engineering Laboratories, Inc.,
Charleston, SC:

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

248250

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8285	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE36-10-8285	1	POLY	H3	Ice	R
RE36-10-8285	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8285	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-8286	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE36-10-8286	1	POLY	H3	Ice	R
RE36-10-8286	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8286	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-8283	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE36-10-8283	1	POLY	H3	Ice	R
RE36-10-8283	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8283	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-8284	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE36-10-8284	1	POLY	H3	Ice	R
RE36-10-8284	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8284	1	POLY	Perchlorate+CN+N03+pH	Ice	R

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

Friday, February 26, 2010

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

Please analyze the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/26/2010

TURNAROUND/REPORT DUE: 3/28/2010

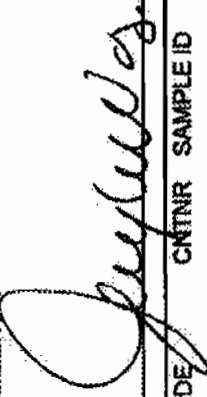
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



Page 1 of 3

REQUEST NUMBER: 10-2141

These Samples are on:

LANL Request Number: 10-2141

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

PRIORITY	METHOD CODE	CNTR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA-300.0	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	EPA-901.1	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	EPA-906.0	1	RE36-10-8283	R	2/24/2010	

Friday, February 26, 2010

REQUEST NUMBER: 10-2141

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:7471A	1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	SW-846:9012A	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	SW-846:9045C	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	

Final Page of REQUEST NUMBER 10-2141



March 06, 2010

www.gel.com

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

Re: LANL ER Project
Work Order: 248250
SDG: 10-2141

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 27, 2010, and analyzed for General Chemistry, Metals, 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: 10-2141
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 248250
SDG: 10-2141

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Case Narrative

**Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 248250
SDG # : 10-2141**

March 06, 2010

Laboratory Identification:

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

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 27, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The original chain of custody was received 3/2/10. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 10/11C 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>
248250001	RE36-10-8285
248250002	RE36-10-8286
248250003	RE36-10-8283
248250004	RE36-10-8284

Case Narrative

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

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

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



Valerie Davis

Project Manager

List of current GEL Certifications as of 06 March 2010

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

Chain of Custody and Supporting Documentation

Friday, February 26, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2141

LOS ALAMOS

REQUEST NUMBER: 10-2141

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/28/2010

General Engineering Laboratories, Inc.,
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

248250

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8285	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE36-10-8285	1	POLY	H3	Ice	R
RE36-10-8285	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8285	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-8286	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE36-10-8286	1	POLY	H3	Ice	R
RE36-10-8286	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8286	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-8283	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE36-10-8283	1	POLY	H3	Ice	R
RE36-10-8283	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8283	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-8284	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE36-10-8284	1	POLY	H3	Ice	R
RE36-10-8284	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8284	1	POLY	Perchlorate+CN+N03+pH	Ice	R

Relinquished By:

Date

Time

Received By:

Date

Time

[Signature]
Printed Name Signature

2/26/10 1400

[Signature]
Printed Name Signature

Printed Name Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

Friday, February 26, 2010

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/26/2010

TURNAROUND/REPORT DUE: 3/28/2010

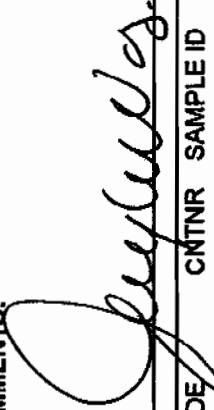
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



REQUEST NUMBER: 10-2141

These Samples are on:

LANL Request Number: 10-2141
Per Agreement Number: 126310011
Project Cost Code: MR3A05529E00

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	EPA:901.1	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	EPA:906.0	1	RE36-10-8283	R	2/24/2010	

Friday, February 26, 2010

Page 2 of 3

REQUEST NUMBER: 10-2141

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA-906.0	1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	HASL-300:AM-241	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	HASL-300:ISOPU	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	HASL-300:ISOU	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	SW-846:6010B	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	SW-846:6020	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	SW-846:6850	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	SW-846:7474A	1	RE36-10-8283	R	2/24/2010	

Friday, February 26, 2010

Page 3 of 3

REQUEST NUMBER: 10-2141

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:7471A	1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	SW-846:9012A	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	SW-846:9045C	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	

Final Page of REQUEST NUMBER 10-2141

SAMPLE RECEIPT & REVIEW FORM

Client: LANL		SDG/ARCOC/Work Order: 10-2141	
Received By: Patricia Dover-Dent		Date Received: 2/27/10	
Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: 60cpm
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

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

Comments:

Fed Ex Tracking Numbers:

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

Subject: Sample Receipt for 2/27/10

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

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

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

Keith,

The lab did not receive any original chain of custodies.

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

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

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

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

The following containers were rec'd without a COC:

RE36-10-7533 and 7535

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

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

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

RE36-10-7491

500ml amber glass H3, 8270+NMED Exp

Thanks,
Dionne

--

Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

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

ORIGIN ID: SAFA (605) 865-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

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

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: MR3A0223CY10

1c

ORIGIN ID: SAFA (605) 865-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

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

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: MR2A0515BYD0

1c

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1 of 2
TRKH 0201 7209 7850 2525
NN MASTER NN

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA



LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: MR3A0223FCY10

1c

1 of 2
TRKH 0201 7209 7850 2606
NN MASTER NN

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA



LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 26 FEB 10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: MR3A0223CY10

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1 of 2
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NN MASTER NN

SATURDAY ### A1
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X0 CHSA



29407
SC-US
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2 of 2
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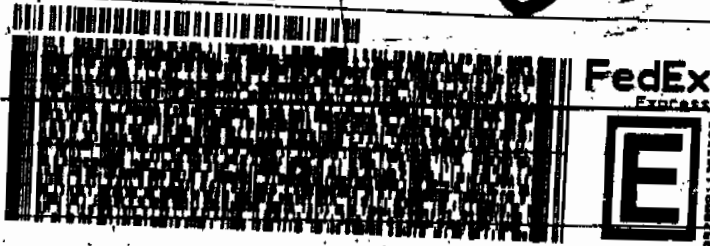
29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 26FEB10
ACTWGT: 87.0 LB MAN
CAD: 0014176/CAFE2450
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BYD0



1 of 2
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NM MASTER NM

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS



TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BYD0



2 of 2
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29407
SC-US
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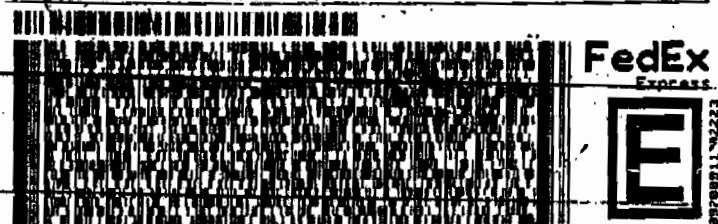


JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 26FEB10
ACTWGT: 58.0 LB MAN
CAD: 0014176/CAFE2450
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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



1 of 3
TRKH 0201 7209 7850 2499
NM MASTER NM

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS



JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2450
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BYD0



1 of 2
TRKH 0201 7209 7850 2569
NM MASTER NM

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS



ORIGIN ID: SAFA (506) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

SHIP DATE: 26FEB10
ACTWT: 63.8 LB MAN
CAD: 0014176/CAFE2450

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171
REF: MR3A0223CY10

5c

ORIGIN ID: SAFA (506) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

SHIP DATE: 26FEB10
ACTWT: 58.0 LB MAN
CAD: 0014176/CAFE2450

LOS ALAMOS, NM 87545
UNITED STATES-US

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171
REF: MR3A0223FCY10

6c

FedEx

Express



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2 of 2
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strN 7209 7850 2569 0201
SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS



LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171
REF: MR3A0223CY10

6c

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2 of 2
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strN 7209 7850 2525 0201
SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS



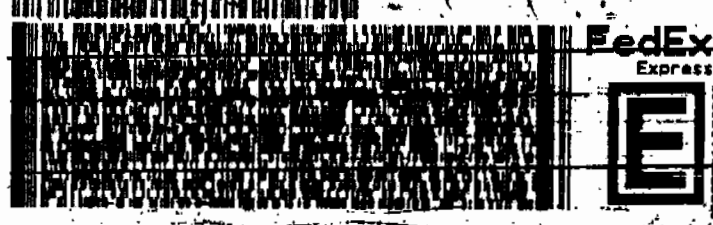
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PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
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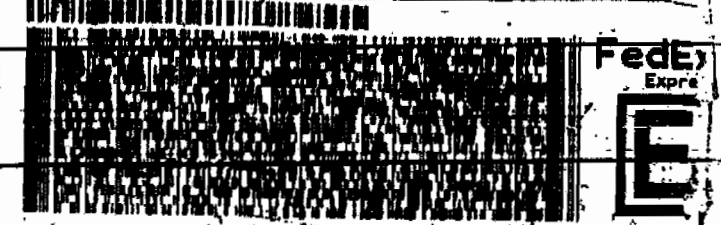


ORIGIN ID: SAFA (805) 555-9999
JOYLENE VALDEZ
GENERAL ENGINEERING LAB
TA00 BLDG 1237 DPO 83
LOS ALAMOS NM 87545
UNITED STATES US
SHIP DATE: 26FEB10
ACTWGT: 39.0 LB MAN
CAD: 0014176/CAFE2450
BILL SENDER
10c
TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD
CHARLESTON SC 29407
(843) 556-8171
REF: MR3A0223CY10



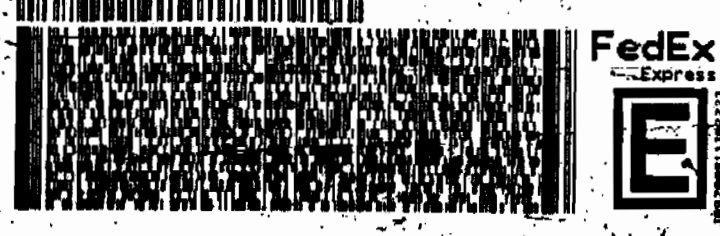
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SATURDAY ### A1
PRIORITY OVERNIGHT
29407
SC-US
CHS
X0 CHSA

ORIGIN ID: SAFA (805) 555-9999
JOYLENE VALDEZ
GENERAL ENGINEERING LAB
TA00 BLDG 1237 DPO 83
LOS ALAMOS NM 87545
UNITED STATES US
SHIP DATE: 26FEB10
ACTWGT: 39.0 LB MAN
CAD: 0014176/CAFE2450
BILL SENDER
11c
TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD
CHARLESTON SC 29407
(843) 556-8171
REF: MR3A0223CY10



1 of 2
MPS# 7209 7850 2628
Matr# 7209 7850 2499 0201
SATURDAY ### A1
PRIORITY OVERNIGHT
29407
SC-US
CHS
X0 CHSA

ORIGIN ID: SAFA (805) 555-9999
JOYLENE VALDEZ
GENERAL ENGINEERING LAB
TA00 BLDG 1237 DPO 83
LOS ALAMOS NM 87545
UNITED STATES US
SHIP DATE: 26FEB10
ACTWGT: 39.0 LB MAN
CAD: 0014176/CAFE2450
BILL SENDER
TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD
CHARLESTON SC 29407
(843) 556-8171
REF: MR3A0223CY10
11c



2 of 3
MPS# 7209 7850 2503
Matr# 7209 7850 2499 0201
SATURDAY ### A1
PRIORITY OVERNIGHT
29407
SC-US
CHS
X0 CHSA

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier Explanation

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

LC/MS/MS PERCHLORATE ANALYSIS

SAMPLE DATA SUMMARY

**Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2141**

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: 962124

Prep Batch Number: 962123

Sample Analysis

Sample ID	Client ID
248250001	RE36-10-8285
248250002	RE36-10-8286
248250003	RE36-10-8283
248250004	RE36-10-8284
1202063741	Interference Check Sample (ICS)
1202063737	Method Blank (MB)
1202063738	Laboratory Control Sample (LCS)
1202063739	248250002(RE36-10-8286) Matrix Spike (MS)
1202063740	248250002(RE36-10-8286) 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-067 REV# 6.

Calibration Information

Initial Calibration

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

CCV Requirements

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

CCB Requirements

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

CCV Requirements

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

Low Level Standard (CRI) Requirements

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

Quality Control (QC) Information

Method Blank (MB) Statement

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

Interference Check Sample (ICS)

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

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

QC Sample Designation

Sample 248250002 (RE36-10-8286) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement

High recoveries were observed for Perchlorate and Perchlorate-101 in the MS (1202063739). The recoveries were 181% and 203%, respectively. The acceptance range is 75-125%. The high recoveries may be the result of the background concentration present in the parent sample and the need to dilute all extracts 1:2 prior to analysis.

Matrix Spike Duplicate (MSD) Recovery Statement

Low recovery for Perchlorate-101 was observed in the MSD (1202063740). The recovery was 69% and the acceptance range is 75-125%. The low recovery may be the result of the background concentration present in the parent sample and the need to dilute all extracts 1:2 prior to analysis.

MS/MSD Relative Percent Difference (RPD) Statement

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

Retention Time Standard Area Acceptance

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

Retention Time

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

Technical Information

Holding Time Specifications

All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or 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

Samples 1202063739 (RE36-10-8286MS), 1202063740 (RE36-10-8286MSD), 248250002 (RE36-10-8286), 248250003 (RE36-10-8283), and 248250004 (RE36-10-8284) were diluted because target analyte concentrations exceeded the calibration range.

Sample Re-extraction/Re-analysis

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

Miscellaneous Information

Data Exception (DER) Documentation

Data exception report (DER ID 805718) was 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: Pat Steen Date: 3/19/2010

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: 962123

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-8285

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2141

GEL Sample ID: 248250001

Date Filtered: 08-MAR-10

Injection Volume (uL): 20

%Solids: 72

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.694	2.77	12.6	ug/kg		1	17-MAR-10 00:35	per0316065a
	Perchlorate Isotope Ratio			3.04			1	17-MAR-10 00:35	per0316065a
14797-73-0	Perchlorate-101	.694	2.77	12.4	ug/kg		1	17-MAR-10 00:35	per0316065a
	Perchlorate-O(18)			7.23	ug/kg		1	17-MAR-10 00:35	per0316065a

[^] 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 quantitative 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: 962123

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-8286

Date Received: 27-FEB-10

GEL Job No (SDC): 10-2141

GEL Sample ID: 248250002

Date Filtered: 08-MAR-10

Injection Volume (uL): 20

%Solids: 92.5

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	1.08	4.32	11.7	ug/kg		2	17-MAR-10 07:44	per0316118a
	Perchlorate Isotope Ratio			3.15			2	17-MAR-10 07:44	per0316118a
14797-73-0	Perchlorate-101	1.08	4.32	11.1	ug/kg		2	17-MAR-10 07:44	per0316118a
	Perchlorate-O(18)			11.9	ug/kg		2	17-MAR-10 07:44	per0316118a

[^] 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: 962123

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-8283

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2141

GEL Sample ID: 248250003

Date Filtered: 08-MAR-10

Injection Volume (mL): 20

%Solids: 93.7

CAS No.	Analyte ^a	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	53.4	214	688	ug/kg		100	17-MAR-10 08:08	per0316121a
	Perchlorate Isotope Ratio			3.04			100	17-MAR-10 08:08	per0316121a
14797-73-0	Perchlorate-101	53.4	214	680	ug/kg		100	17-MAR-10 08:08	per0316121a
	Perchlorate-O(18)			574	ug/kg		100	17-MAR-10 08:08	per0316121a

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

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: 962123

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-8284

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2141

GEL Sample ID: 248250004

Date Filtered: 08-MAR-10

Injection Volume (mL): 20

%Solids: 94.5

CAS No.	Analyte ^a	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	26.5	106	212	ug/kg		50	17-MAR-10 08:16	per0316122a
	Perchlorate Isotope Ratio			3.12			50	17-MAR-10 08:16	per0316122a
14797-73-0	Perchlorate-101	26.5	106	203	ug/kg		50	17-MAR-10 08:16	per0316122a
	Perchlorate-O(18)			263	ug/kg		50	17-MAR-10 08:16	per0316122a

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

QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

Extract Batch Code: 962123

Matrix: SOIL

GEL Job No. (SDG): 10-2141

Date Filtered: 08-MAR-10

Sample ID: 1202063738

Analyte [^]	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.25	ug/kg	112		70 - 130
Perchlorate Isotope Ratio		3.16				-
Perchlorate-101	2.00	2.14	ug/kg	107		70 - 130
Perchlorate-O(18)		4.92	ug/kg			-

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

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL GEL Job No. (SDG): 10-2141

Extract Batch Code: 962123 Date Filtered: 08-MAR-10

Matrix: SOIL Sample ID: 1202063741

Analyte ^a	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.36	ug/kg	118		70 - 130
Perchlorate Isotope Ratio		2.94				
Perchlorate-101	2.00	2.41	ug/kg	121		70 - 130
Perchlorate-O(18)		5.23	ug/kg			

^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.

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

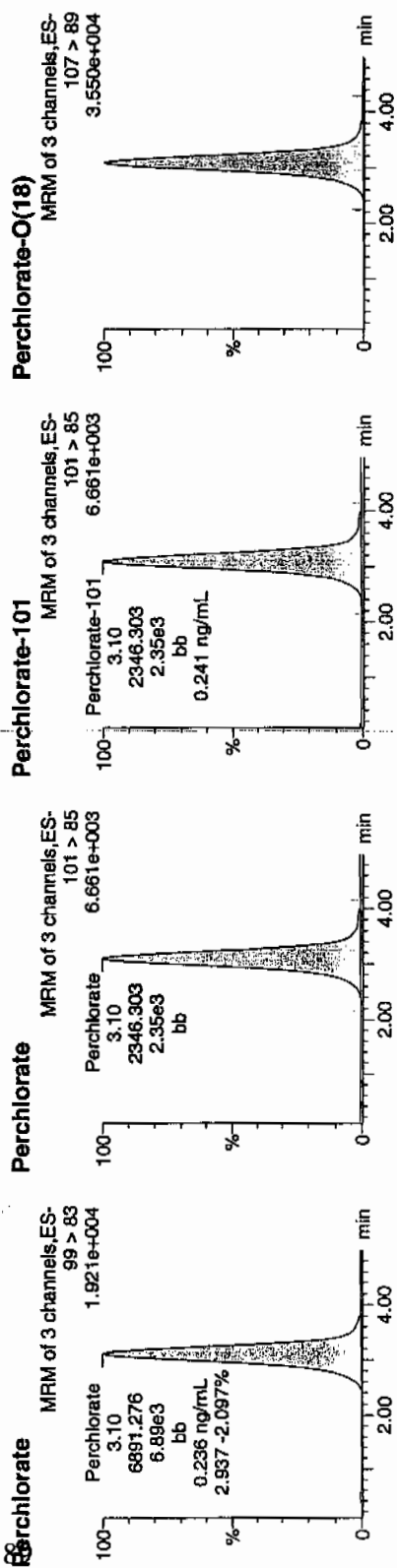
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316064a
Date: 17-Mar-2010
Time: 00:27:23
ID: 1202063741
Vial: 2:1C

03-17-10

1202063741 | 962124 | 5020 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202063741	Perchlorate	99 > 83	3.10	6891.276	6891.276	bb			0.2359	117.96	17.96	1211.2...	2.94
1202063741	Perchlorate-101	101 > 85	3.10	2346.303	2346.303	bb			0.2413	120.66	20.66	305.062	
1202063741	Perchlorate-O(18)	107 > 89	3.09	12508.266	12508.266	bb			0.5235	104.70	4.70	4219.3...	

$$\frac{6891.276}{2346.303} = 2.9371$$

3/15/10

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

Extract Batch Code: 962123

GEL MS/PS ID: 1202063739

GEL MSD/PSD ID: 1202063740

GEL Job No (SDG): 10-2141

Date Extracted: 08-MAR-10

Client ID: RE36-10-8286

QC Type: MS

Compound [^]	Spike Added	Sample Conc	Units	MS Conc	MS Rec	#	MSD Conc	MSD Rec	#	RPD	#	RPD Limit	Recovery Limit
Perchlorate	2.16	11.7	ug/kg	15.6	181	*	13.4	78.7		15.2		30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3.01			3.18			0			-
Perchlorate-101	2.16	11.1	ug/kg	15.5	203	*	12.6	69.4	*	20.5		30	75 - 125
Perchlorate-O(18)	0	11.9	ug/kg	12.2			11.6			4.51			-

[^] 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

GEL Job No.(SDG): 10-2141

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	16-MAR-10	per0316001a	IPB001
Perchlorate-101	0.00	0	NA	16-MAR-10	per0316001a	IPB001
Perchlorate	0.00	0	NA	16-MAR-10	per0316002a	IPB001
Perchlorate-101	0.00	0	NA	16-MAR-10	per0316002a	IPB001

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

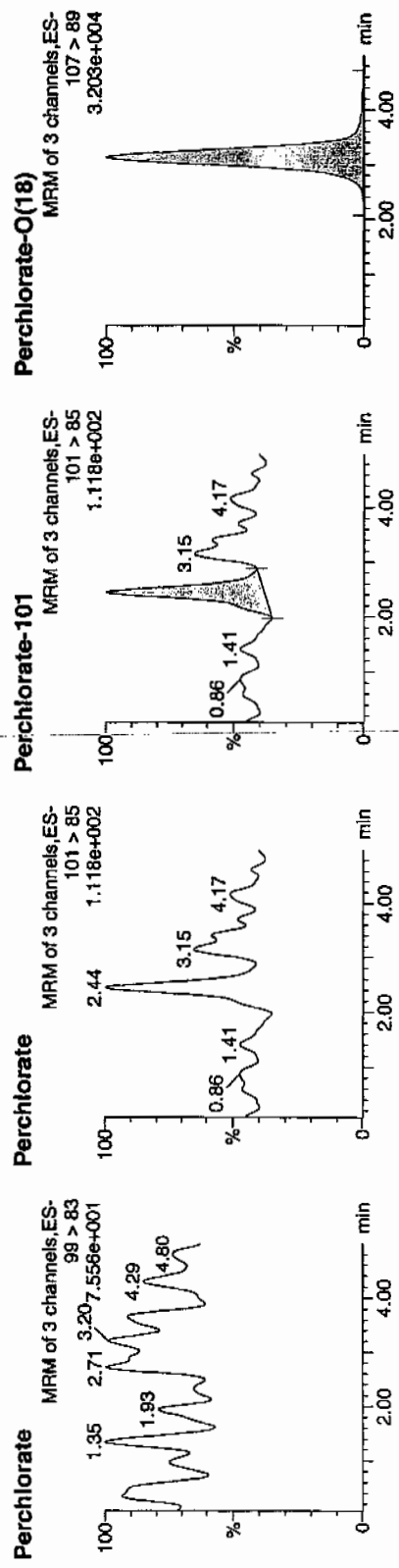
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per031610a.mdb 17 Mar 2010 09:00:50
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031610a.cdb 17 Mar 2010 09:01:07

Name: per0316001a
Date: 16-Mar-2010
Time: 16:00:32
ID: IPB001
Vial: 1:1,A

03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SYN	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85	2.44	20.167	20.167	bb			0.0021	98.89	-1.11	25.880	
IPB001	Perchlorate-O(18)	107 > 89	3.14	11814.019	11814.019	bb			0.4944			1410.2...	

not
3/19/10

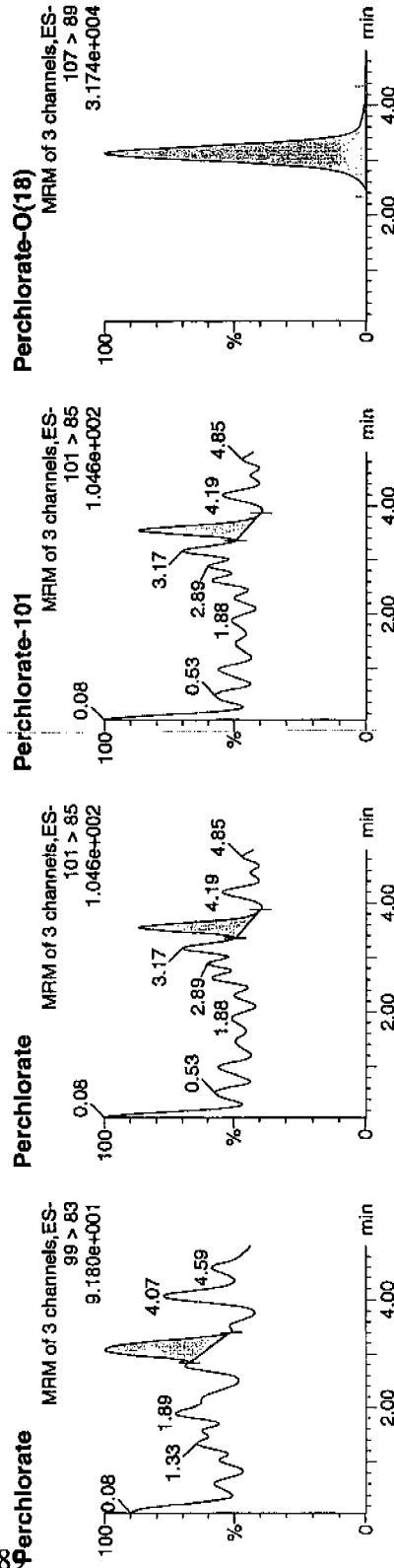
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Sample Name: per0316002a
Date: 16-Mar-2010
Time: 16:08:34
ID: IPB001
Vial: 1:1,A

03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
IPB001	Perchlorate	99 > 83	3.07	11,152	11,152	bb			0.0004			4,095	1.32
IPB001	Perchlorate-101	101 > 85	3.56	8,474	8,474	bb			0.0009			17,995	
IPB001	Perchlorate-O(18)	107 > 89	3.14	11719,820	11719,820	bb			0.4905	98.10	-1.90	1197,1...	

0.004
20.5563
3/17/10

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2141

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	16-MAR-10	per0316008a	IPB002
Perchlorate-101	0.00	0	NA	16-MAR-10	per0316008a	IPB002
Perchlorate	0.00	0	NA	16-MAR-10	per0316010a	IPB003
Perchlorate-101	0.00	0	NA	16-MAR-10	per0316010a	IPB003
Perchlorate	0.00	0	NA	16-MAR-10	per0316015a	IPB004
Perchlorate-101	0.00	0	NA	16-MAR-10	per0316015a	IPB004
Perchlorate	0.00	0	NA	16-MAR-10	per0316023a	IPB005
Perchlorate-101	0.00	0	NA	16-MAR-10	per0316023a	IPB005
Perchlorate	0.00	0	NA	16-MAR-10	per0316027a	IPB006
Perchlorate-101	0.00	0	NA	16-MAR-10	per0316027a	IPB006
Perchlorate	0.00	0	NA	16-MAR-10	per0316036a	IPB007
Perchlorate-101	0.00	0	NA	16-MAR-10	per0316036a	IPB007
Perchlorate	0.00	0	NA	16-MAR-10	per0316049a	IPB008

Perchlorate Continuing Calibration Blank

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

GEL Job No.(SDG): 10-2141

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	16-MAR-10	per0316049a	IPB008
Perchlorate	0.00	0	NA	16-MAR-10	per0316060a	IPB009
Perchlorate-101	0.00	0	NA	16-MAR-10	per0316060a	IPB009
Perchlorate	0.00	0	NA	17-MAR-10	per0316073a	IPB010
Perchlorate-101	0.00	0	NA	17-MAR-10	per0316073a	IPB010
Perchlorate	0.00	0	NA	17-MAR-10	per0316086a	IPB011
Perchlorate-101	0.00	0	NA	17-MAR-10	per0316086a	IPB011
Perchlorate	0.00	0	NA	17-MAR-10	per0316099a	IPB012
Perchlorate-101	0.00	0	NA	17-MAR-10	per0316099a	IPB012
Perchlorate	0.00	0	NA	17-MAR-10	per0316112a	IPB013
Perchlorate-101	0.00	0	NA	17-MAR-10	per0316112a	IPB013
Perchlorate	0.00	0	NA	17-MAR-10	per0316125a	IPB014
Perchlorate-101	0.00	0	NA	17-MAR-10	per0316125a	IPB014

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
 Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Sample Name: per0316008a

Date: 16-Mar-2010

Time: 16:56:40

SO: IPB002

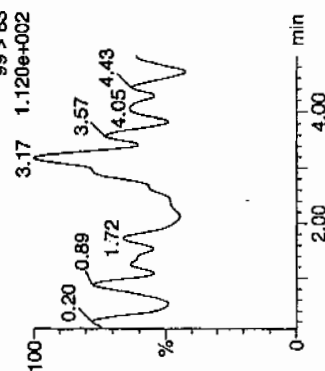
Vial: 1:1,A

80

03-17-10

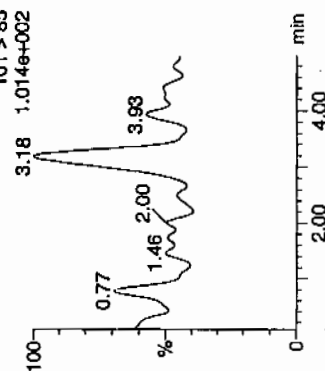
Perchlorate

MRM of 3 channels, ES-
99 > 83



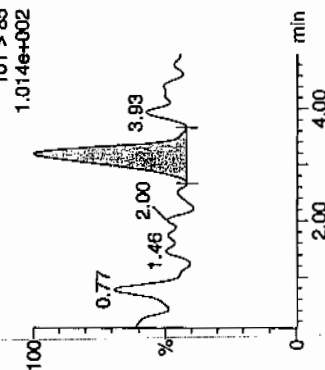
Perchlorate

MRM of 3 channels, ES-
101 > 85



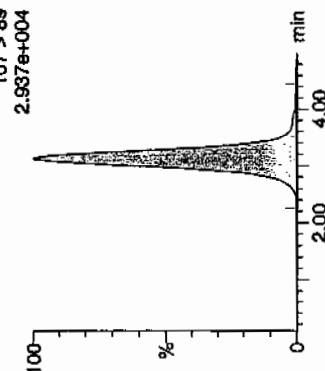
Perchlorate-101

MRM of 3 channels, ES-
101 > 85



Perchlorate-O(18)

MRM of 3 channels, ES-
107 > 89



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85	3.18	21.675	21.675	bb			0.0022	90.84	-9.16	8.964	
IPB002	Perchlorate-O(18)	107 > 89	3.14	10852.298	10852.298	bb			0.4542	90.84	-9.16	2345.6...	

10/17
3/13/10

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
 Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316010a

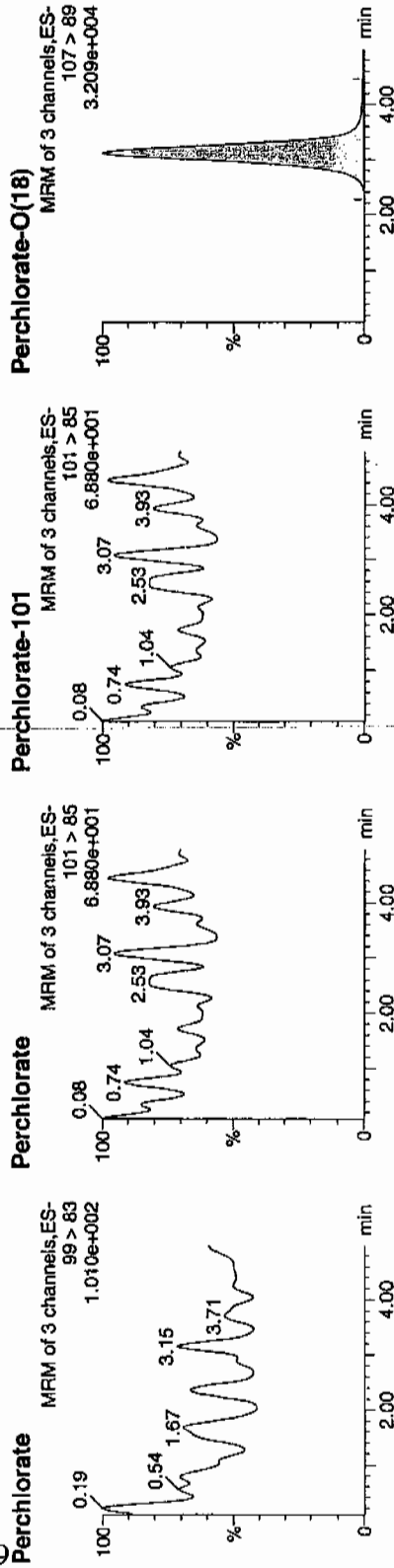
Date: 16-Mar-2010

Time: 17:12:44

ID: IPB003

Vial: 1:1,A

03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85	3.12	11719.064	11719.064	bb			0.4905	98.09	-1.91	360.980	
IPB003	Perchlorate-Q(18)	107 > 89											

4477
3/18/10

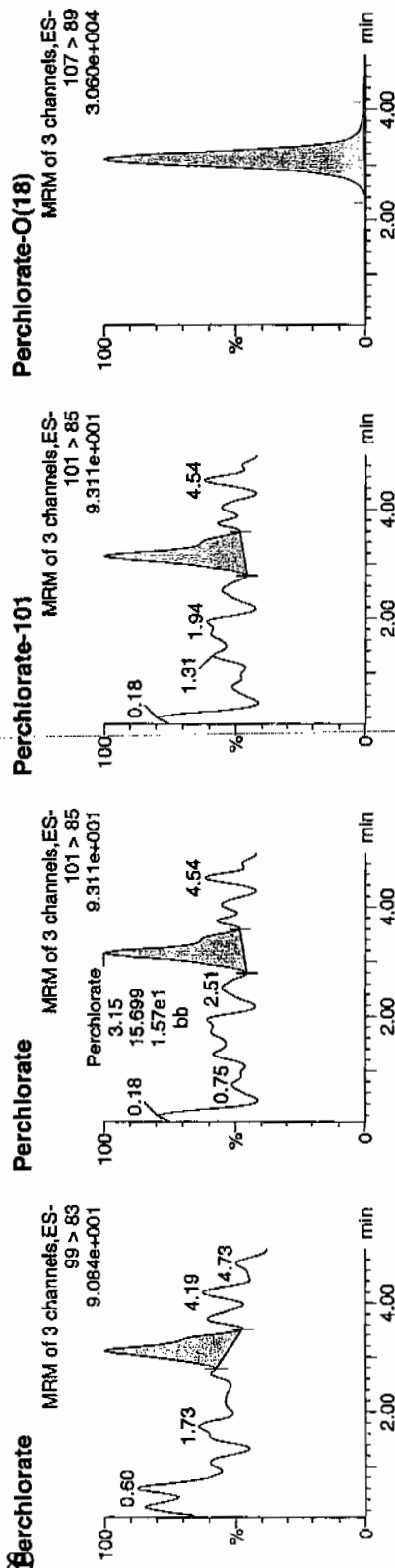
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316015a
Date: 16-Mar-2010
Time: 17:52:55
ID: IPB004
Vial: 1:1,A

03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83	3.10	14.013	14.013	bb			0.0005			14.637	0.89
IPB004	Perchlorate-101	101 > 85	3.15	15.699	15.699	bb			0.0016			11.849	
IPB004	Perchlorate-O(18)	107 > 89	3.11	10917.076	10917.076	bb			0.4569	91.38	-8.62	4536.1...	

0.0005
0.0016
0.4569
14.637
11.849
4536.1...

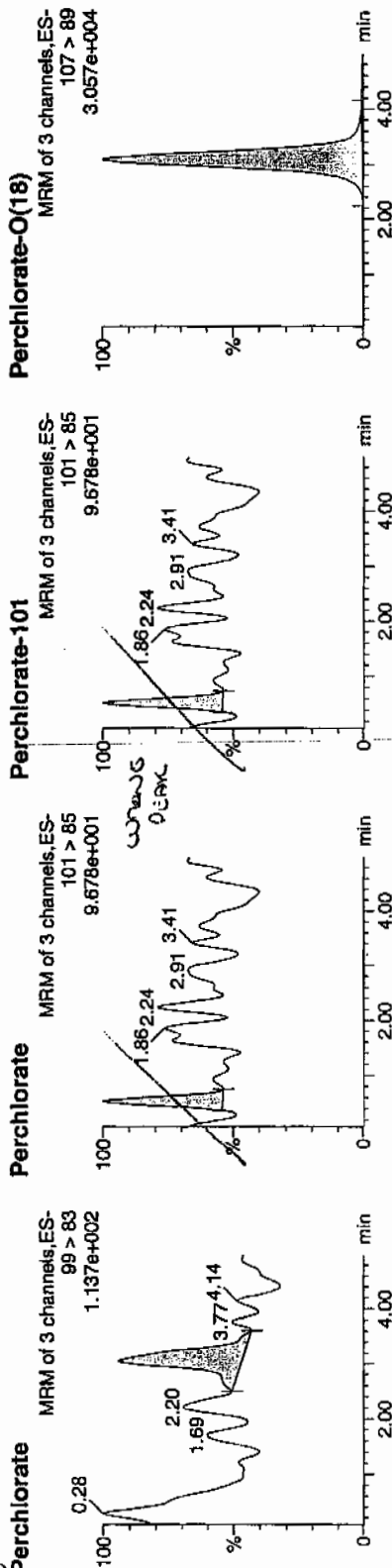
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Sample Name: per0316023a
Date: 16-Mar-2010
Time: 18:57:12
ID: IPB005
Vial: 1:1,A

0323
3/17/10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
IPB005	Perchlorate	99 > 83	3.05	20.337	20.337	bb			0.0007	2.00	33.33	38.968	2.53
IPB005	Perchlorate-101	101 > 85	0.53	8.036	8.036	bb			0.0008			12.160	
IPB005	Perchlorate-O(18)	107 > 89	3.10	10865.716	10865.716	bb			0.4547	90.95	-8.05	902.999	

1487
3/18/10

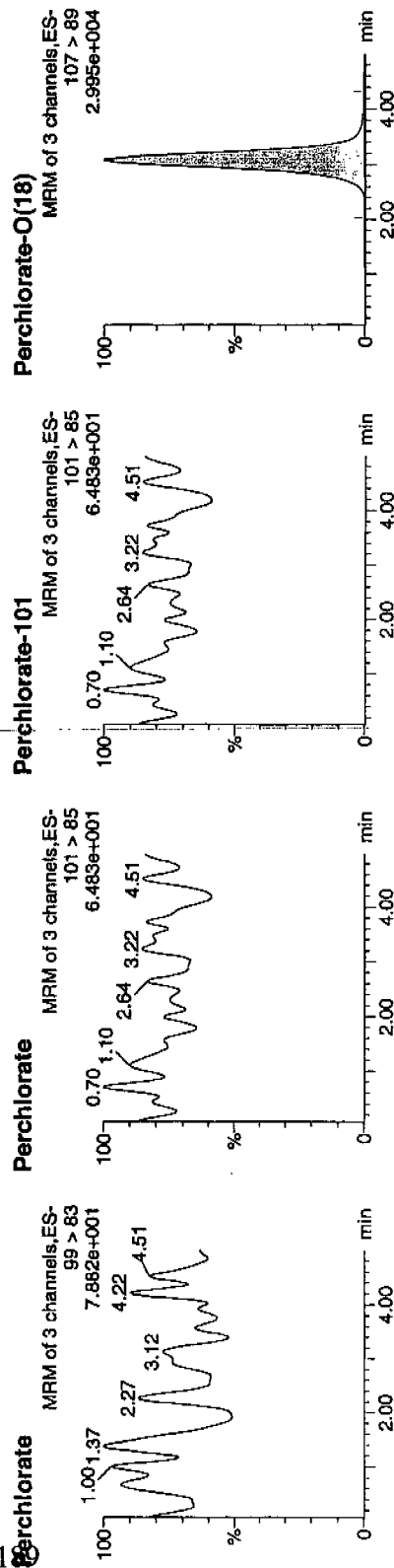
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316027a
Date: 16-Mar-2010
Time: 19:29:22
ID: IPB006
Vial: 1:1,A

03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85	3.09	10701.523	10701.523	bb			0.4479	89.57	-10.43	2319.4...	
IPB006	Perchlorate-O(18)	107 > 89											

2.995e+004
107 > 89
3/18/10

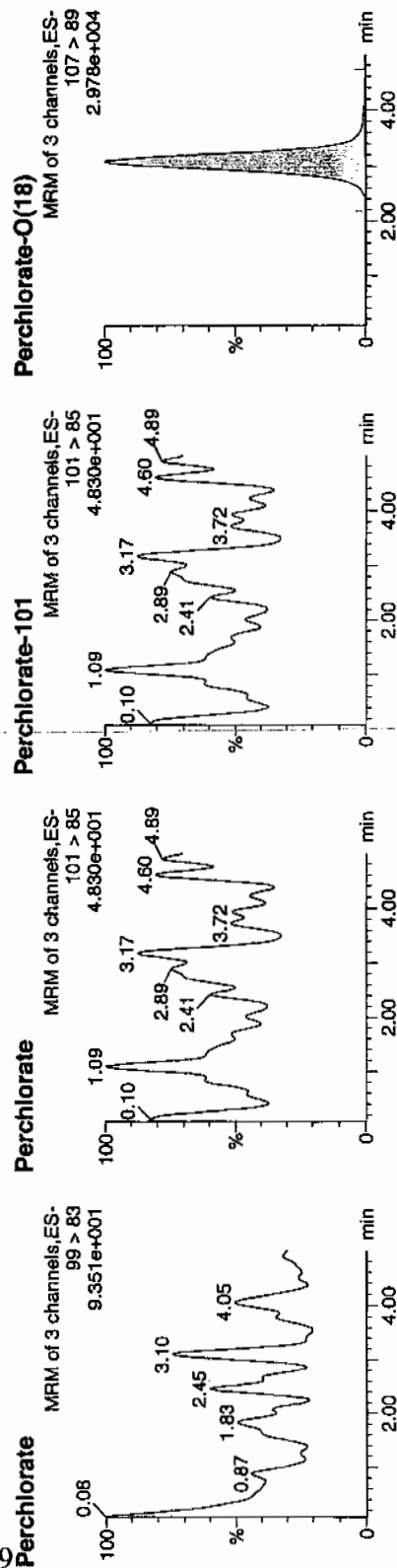
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Sample Name: per0316036a
Date: 16-Mar-2010
Time: 20:41:46
ID: IPB007
Vial: 1:1,A

03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83											0.00
IPB007	Perchlorate-101	101 > 85	3.09	10877.410	10877.410	bb			0.4552	91.05	-8.95	933.419	
IPB007	Perchlorate-O(18)	107 > 89											

not
3/15/10

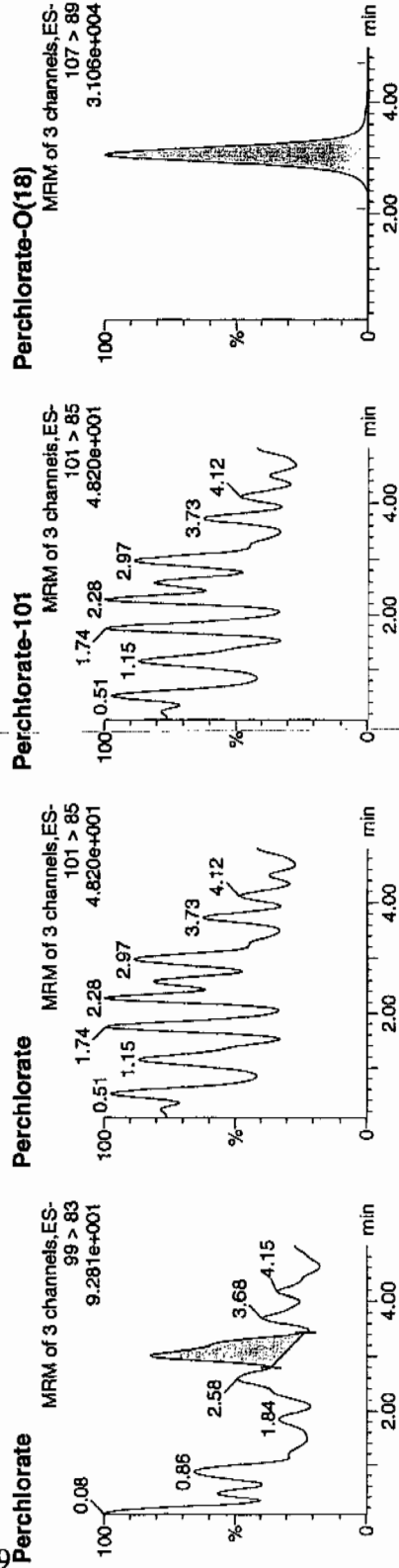
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Sample Name: per0316049a
Date: 16-Mar-2010
Time: 22:26:24
ID: IPB008
Vial: 1:1, A

3/17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83	3.01	16,420	16,420	bb			0.0006			7.784	0.00
IPB008	Perchlorate-101	101 > 85											
IPB008	Perchlorate-O(18)	107 > 89	3.06	11192.282	11192.282	bb			0.4684	93.68	-6.32	3454.6...	

1077
3/18/10

Quantify Sample Report MassLynx 4.0 SP4

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The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316060a

Date: 16-Mar-2010

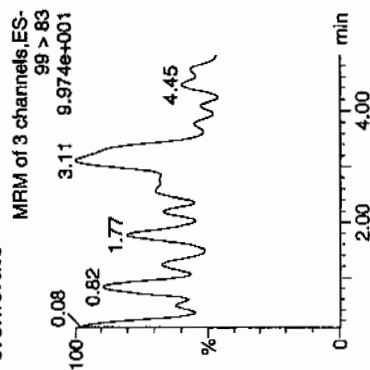
Time: 23:55:02

ID: IPB009

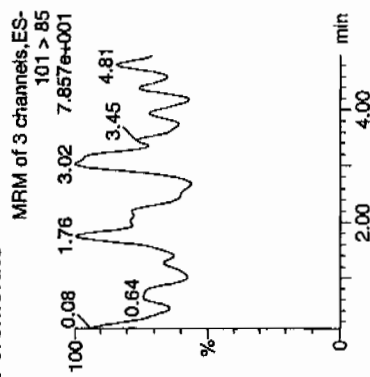
Trial: 1:1,A

03-17-10

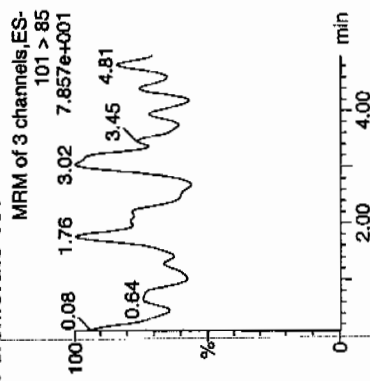
Perchlorate



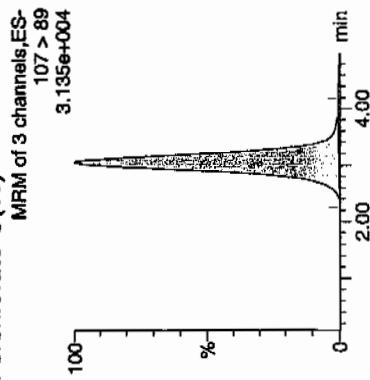
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83											0.00
IPB009	Perchlorate-101	101 > 85											
IPB009	Perchlorate-O(18)	107 > 89	3.05	11205.789	11205.789	bb			0.4690	93.79	-6.21	3795.6...	

4477
3/18/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316073a

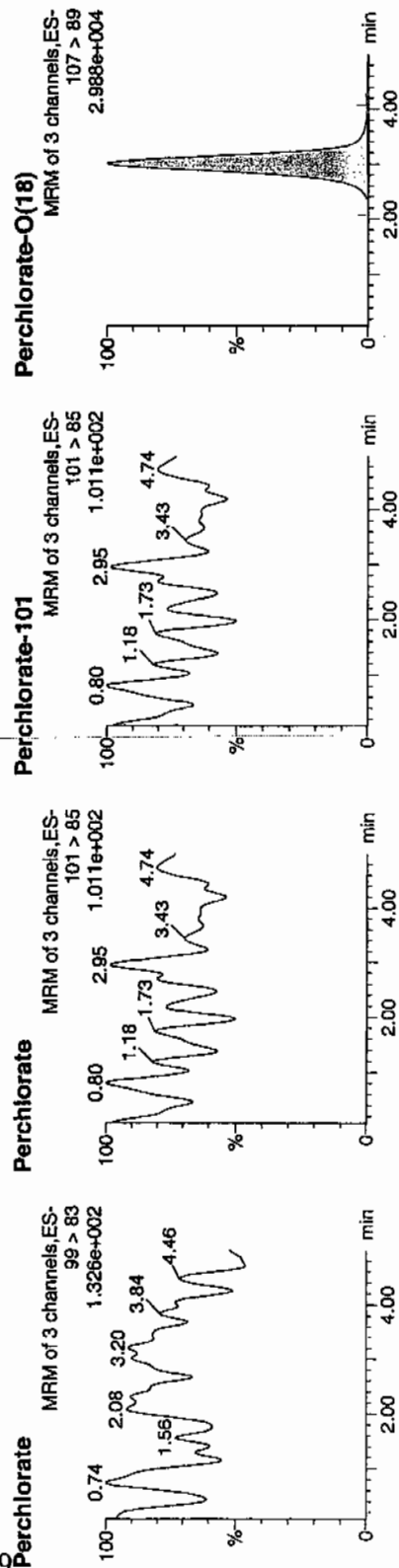
Date: 17-Mar-2010

Time: 01:39:53

ID: IPB010

Label: 1:1,A

06-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB010	Perchlorate	99 > 83											0.00
IPB010	Perchlorate-101	101 > 85	3.01	10866.314	10866.314	bb			0.4548	90.95	✓	-9.05	794.125
IPB010	Perchlorate-O(18)	107 > 89											

μMTP
3/18/10

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
 Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316086a

Date: 17-Mar-2010

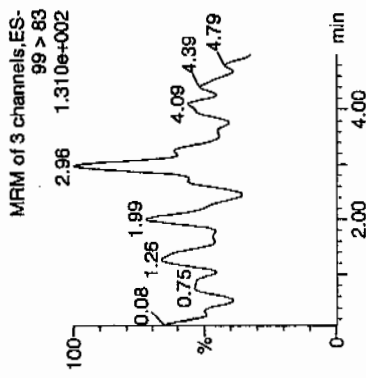
Time: 03:24:46

ID: IPB011

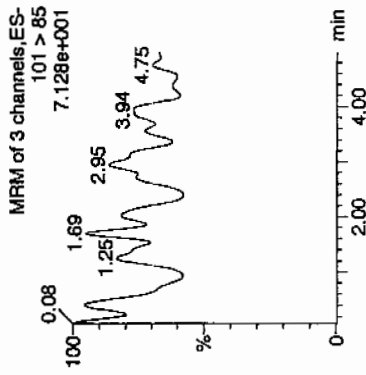
Vial: 1:1,A

03-17-10

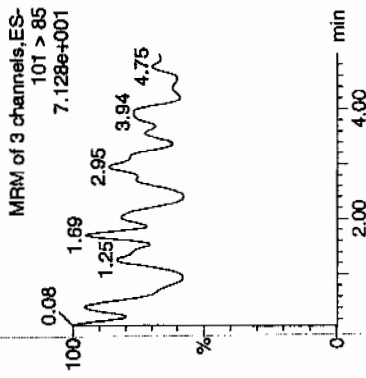
Perchlorate



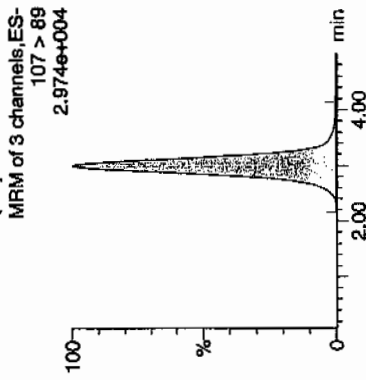
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB011	Perchlorate	99 > 83											0.00
IPB011	Perchlorate-101	101 > 85											
IPB011	Perchlorate-O(18)	107 > 89	3.00	10489.233	10489.233	bb			0.4390	87.80	-12.20	1245.2...	

Perchlorate
3/16/10

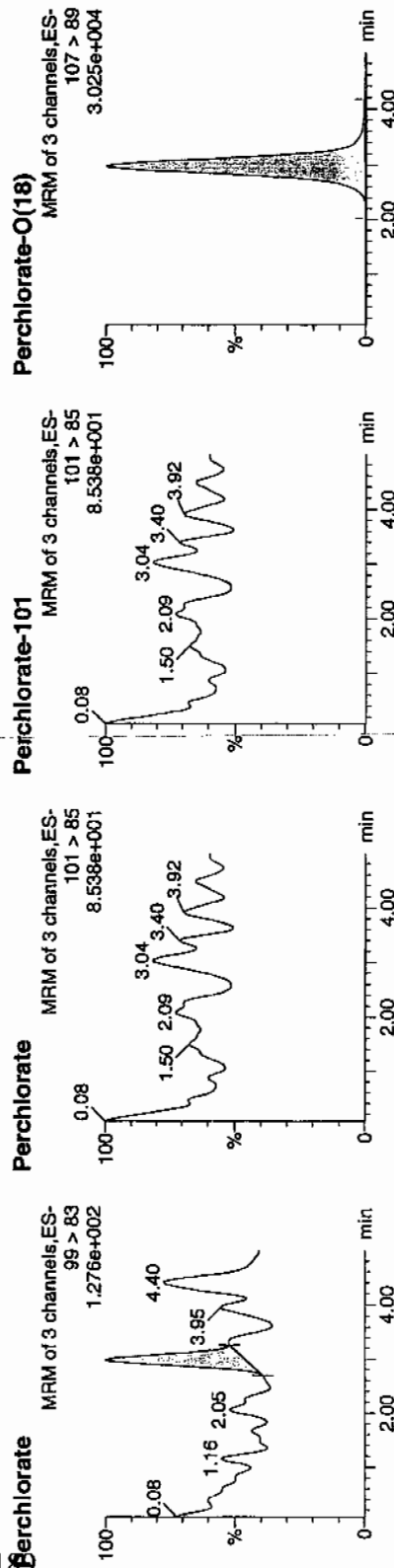
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316099a
Date: 17-Mar-2010
Time: 05:09:51
ID: IPB012
Vial: 1:1,A

03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB012	Perchlorate	99 > 83	2.99	16.577	16.577	bb			0.0006			18.954	0.00
IPB012	Perchlorate-101	101 > 85											
IPB012	Perchlorate-O(18)	107 > 89	2.99	10736.125	10736.125	bb			0.4493	89.86	-10.14	3921.4...	

μm
3/16/10

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qid

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
 Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316112a

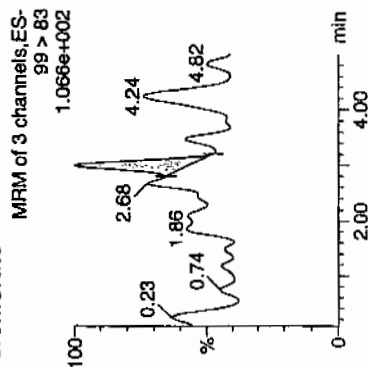
Date: 17-Mar-2010

Time: 06:55:47

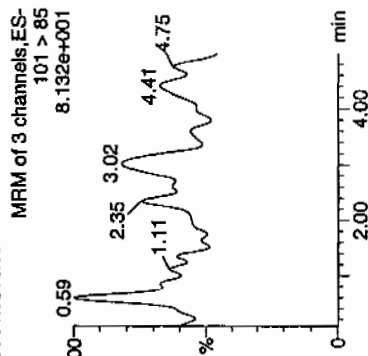
ID: IPB013

Vial: 1:1,A

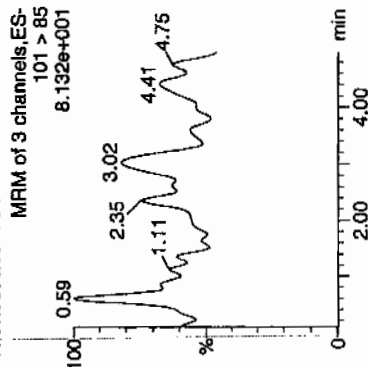
Perchlorate



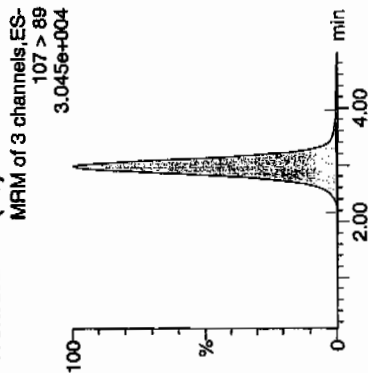
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod Time	Mod Date	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB013	Perchlorate	99 > 83	3.00	8.798	8.798	bb			0.0003			14.108	0.00
IPB013	Perchlorate-101	101 > 85											
IPB013	Perchlorate-O(18)	107 > 89	2.97	10634.489	10634.489	bb			0.4451	89.01	-10.99	1459.7...	

4477
3/18/10

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
 Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Sample Name: per0316125a

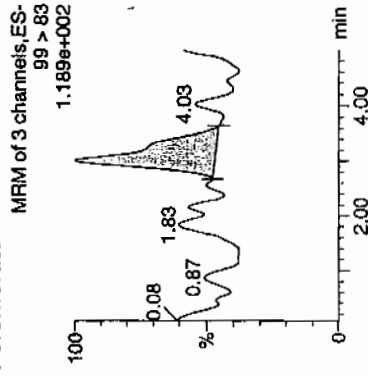
Date: 17-Mar-2010

Time: 08:40:49

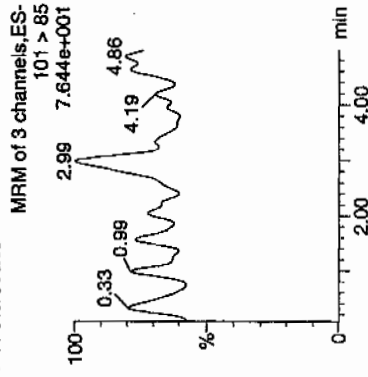
ID: IPB014

Vial: 1:1,A

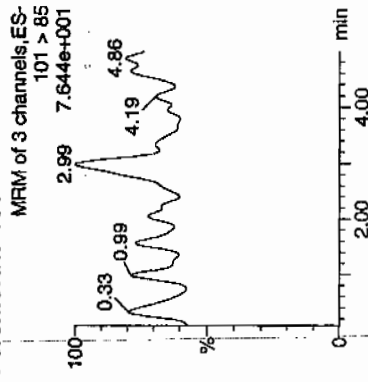
Perchlorate



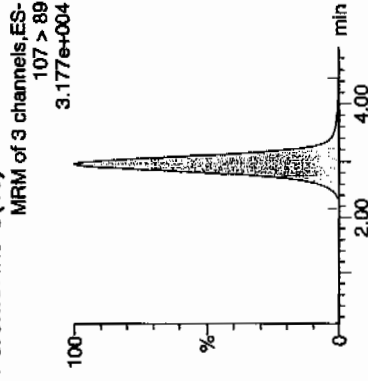
Perchlorate



Perchlorate-101



Perchlorate-O(18)



03-17-10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
IPB014	Perchlorate	99 > 83	3.01	25.524	25.524	bb			0.0009			29.720	0.00
IPB014	Perchlorate-101	101 > 85											
IPB014	Perchlorate-O(18)	107 > 89	2.96	11310.225	11310.225	bb			0.4733	94.67	-5.33	1719.9...	

1477
3/8/10

Nairb.ref

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

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

QUATRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

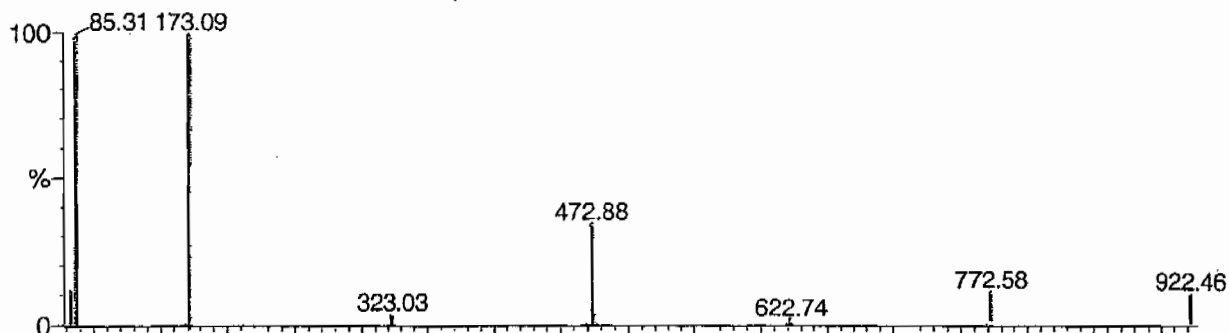
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

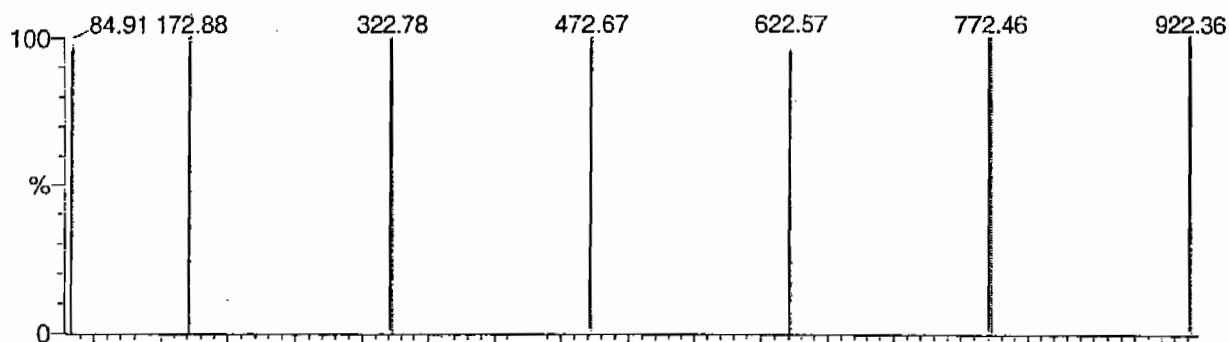
POINTS HIGHLIGHTED BY CURV 01-09-08

Data file: STATMS1 - Uncalibrated

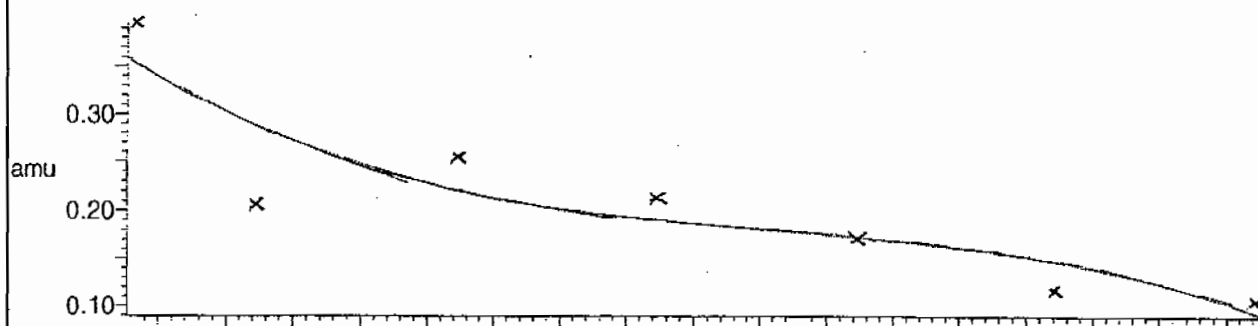
7 matches of 7 tested references



Reference file: Nairb

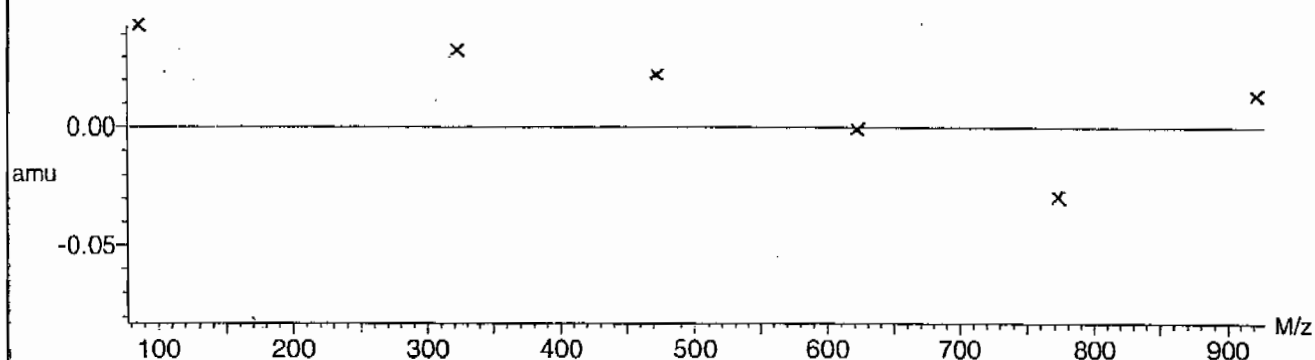


Mass difference (Raw - Ref mass)



Residuals

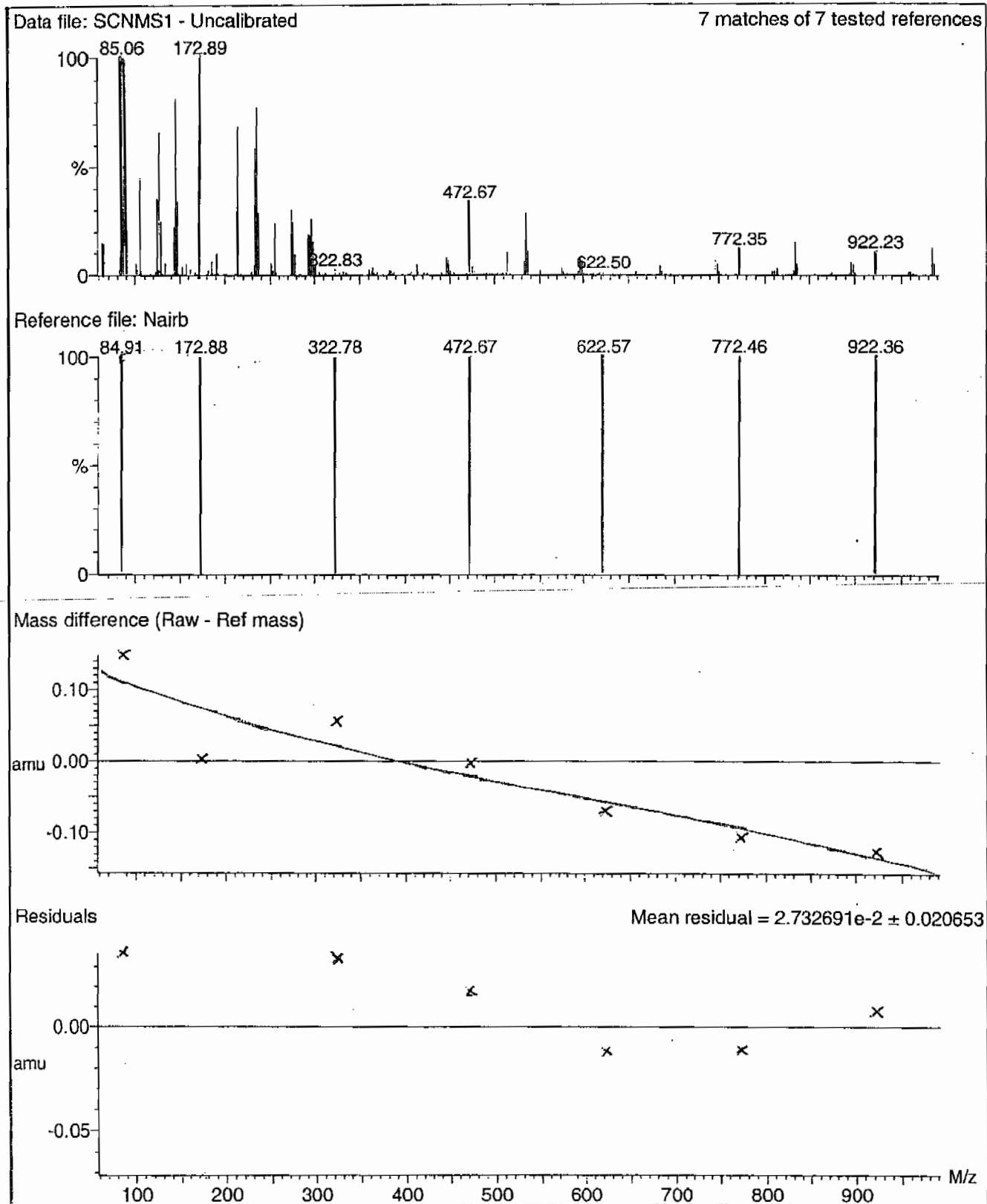
Mean residual = $3.212012 \times 10^{-2} \pm 0.024108$



Calibration Report - MS1 Scanning

Page 1 of 1

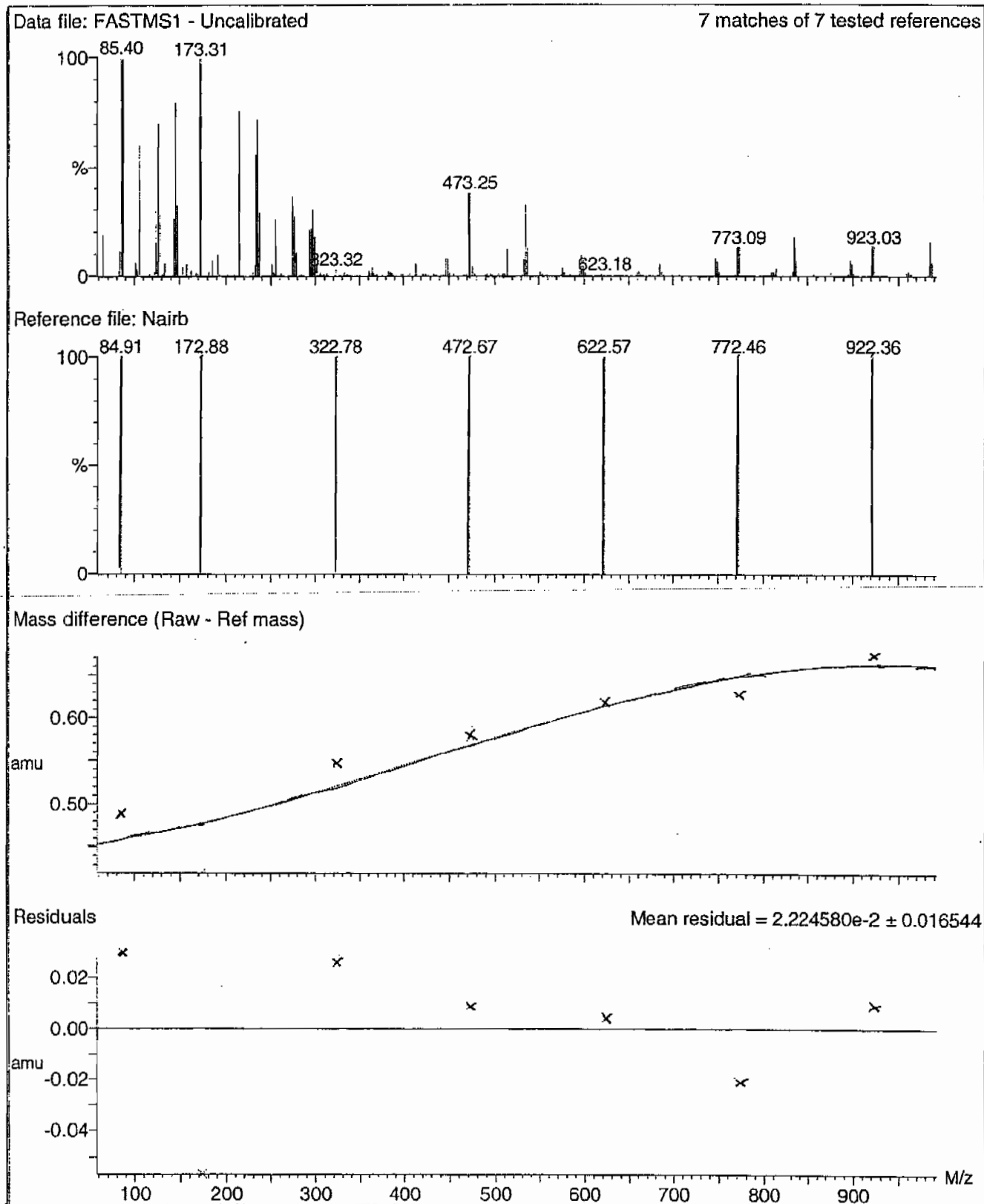
Printed: Tue Jan 08 12:20:09 2008



Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

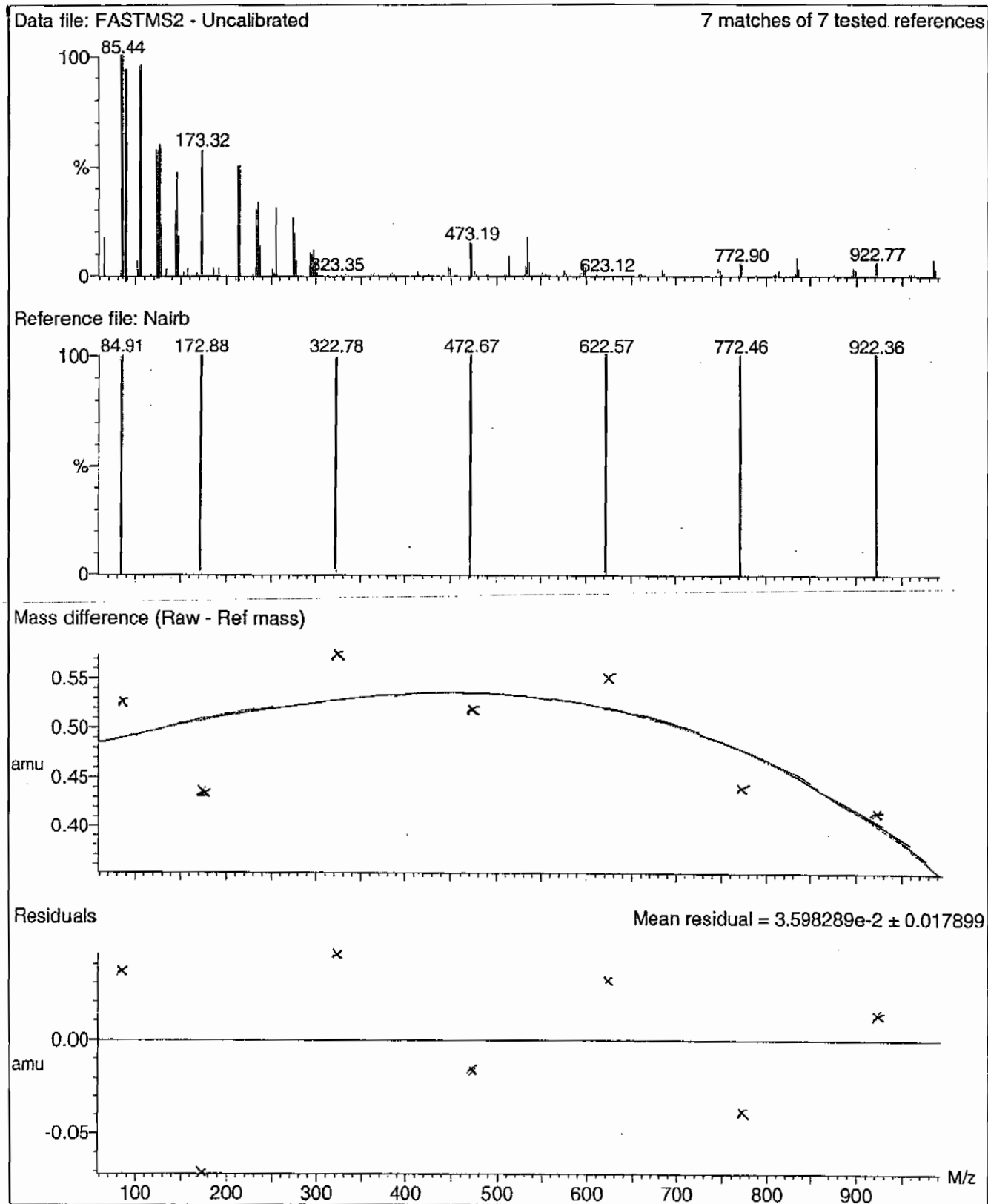
Printed: Tue Jan 08 12:21:04 2008



Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

Printed: Tue Jan 08 12:23:51 2008



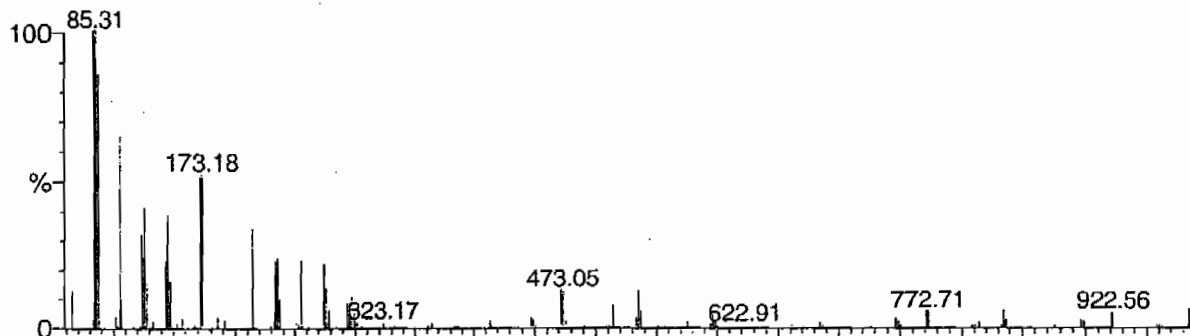
Calibration Report - MS2 Scanning

Page 1 of 1

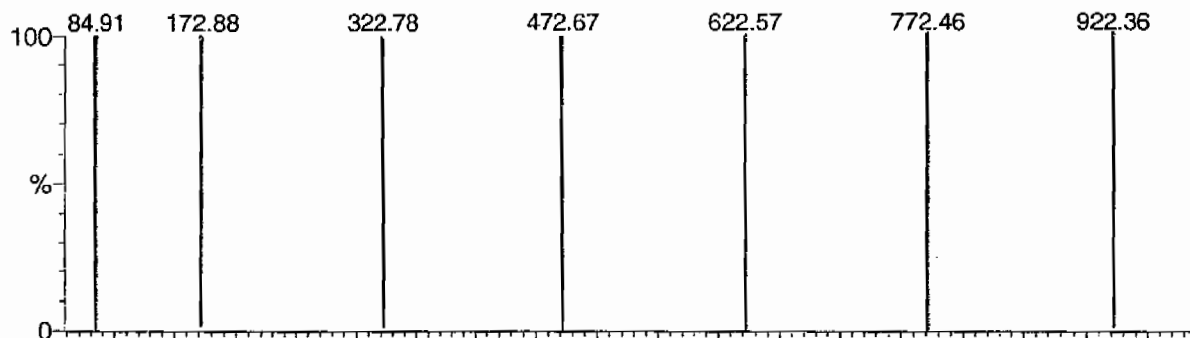
Printed: Tue Jan 08 12:22:56 2008

Data file: SCNMS2 - Uncalibrated

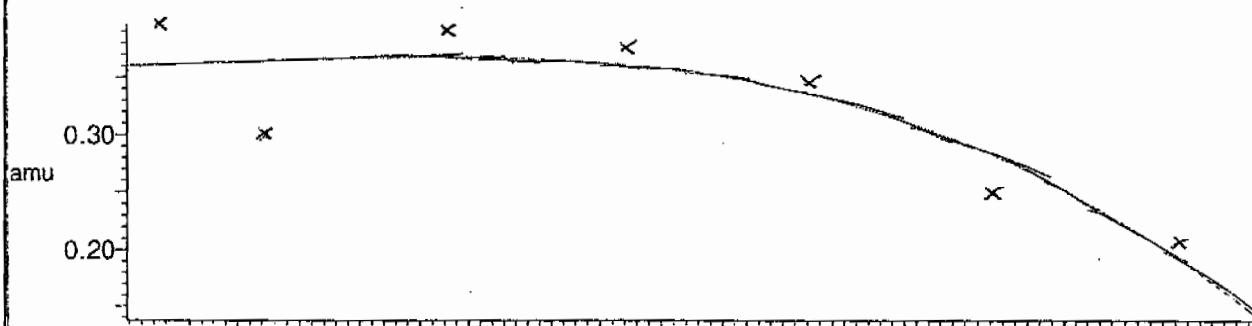
7 matches of 7 tested references



Reference file: Nairb

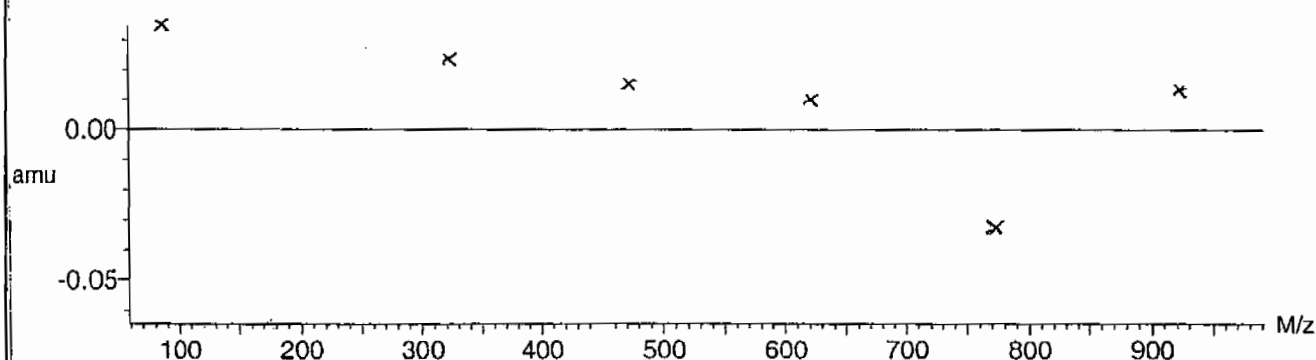


Mass difference (Raw - Ref mass)



Residuals

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



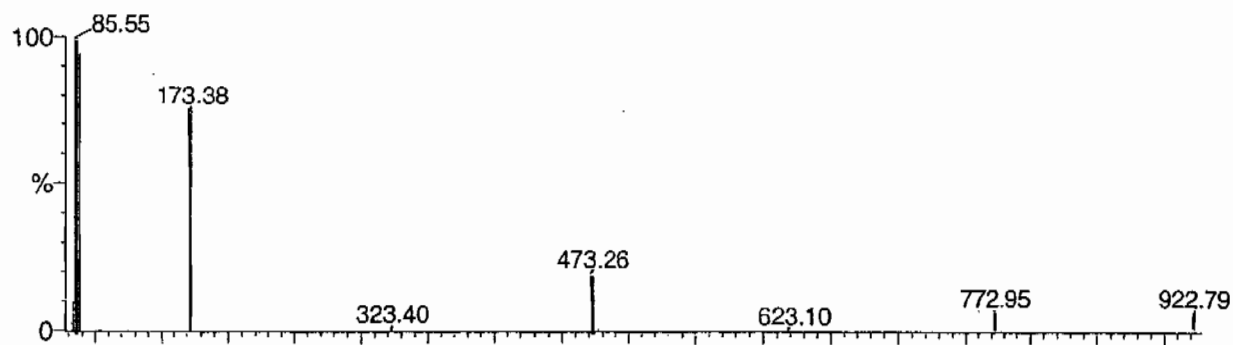
Calibration Report - MS2 Static

Page 1 of 1

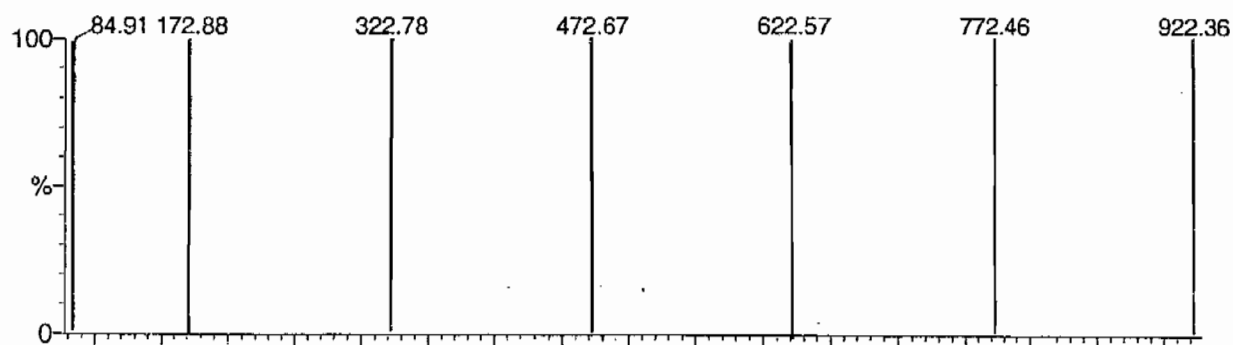
Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

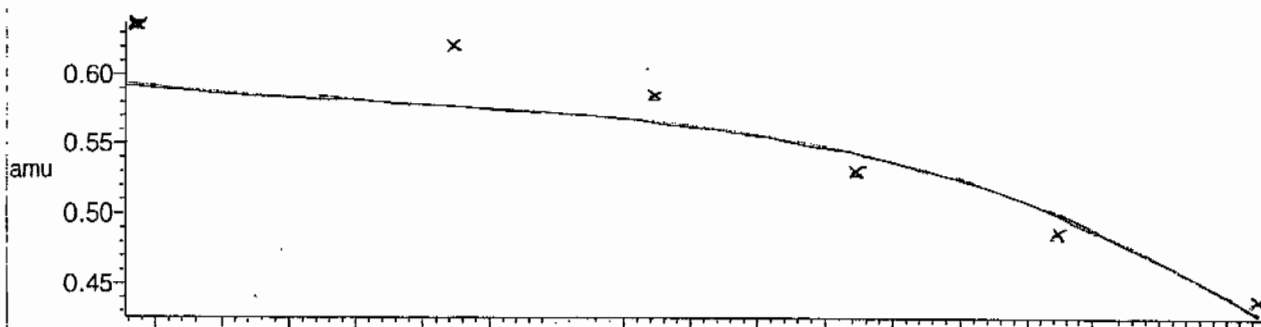
7 matches of 7 tested references



Reference file: Nairb

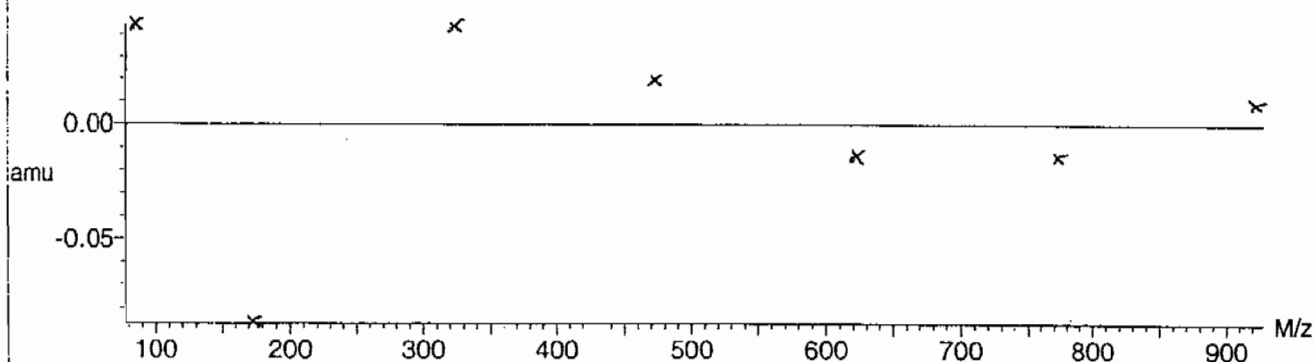


Mass difference (Raw - Ref mass)



Residuals

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



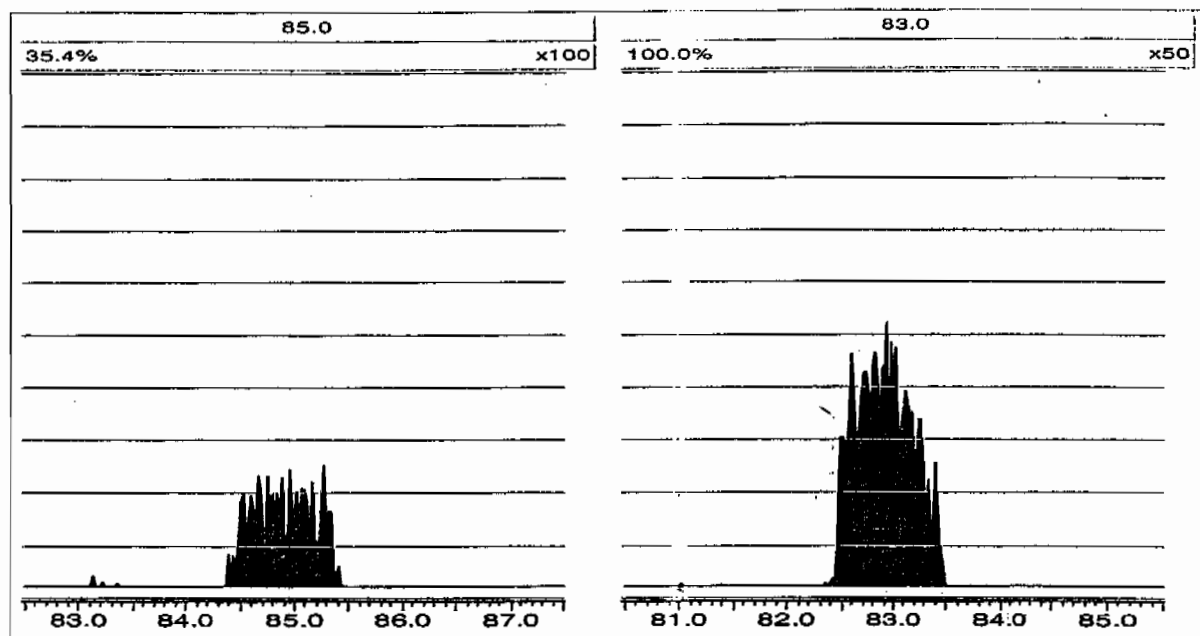
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

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

Printed: Tuesday, March 16, 2010 14:13:45 Eastern Standard Time



Perchlorate RT And Area Summary

GEL Job No.(SDG):- 10-2141

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS

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

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	per0316006a	16-MAR-10	11562.3				
Lower Area Limit			5781.15				
Upper Area Limit			23124.6				
1202063737	per0316062a	17-MAR-10 00:11	11116.7	3.05	3.08528	1.012	
1202063738	per0316063a	17-MAR-10 00:19	11762.3	3.06	3.07282	1.004	
1202063741	per0316064a	17-MAR-10 00:27	12508.3	3.09	3.09775	1.003	
248250001	per0316065a	17-MAR-10 00:35	12458.1	3.05	3.06052	1.003	
248250002	per0316118a	17-MAR-10 07:44	13203.5	2.94	2.9487	1.003	
1202063739	per0316119a	17-MAR-10 07:52	13425.9	2.95	2.96102	1.004	
1202063740	per0316120a	17-MAR-10 08:00	12833.2	2.95	2.96103	1.004	
248250003	per0316121a	17-MAR-10 08:08	12846.6	2.96	2.97347	1.005	

Pertchlorate RT And Area Summary

GEL Job No.(SDC): 10-2141

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS

RPPLC 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	per0316086a	16-MAR-10	11562.3				
Lower Area Limit			5781.15				
Upper Area Limit			23124.6				
248250004	per0316122a	17-MAR-10 08:16	11886.9	2.96	2.9735	1.005	

SAMPLE DATA

Form I

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
Lab Code: GEL
Instrument: LCMSMS
Method: SW846 6850 Modified
Matrix: SOIL
Extraction Batch ID: 962123
Extraction Type: Solid Prep
Sample Volume/Weight: 2.00 g
Concentrated Extract Volume: 20.0

Client Sample No.
RE36-10-8285
Date Received: 27-FEB-10
GEL Job No (SDG): 10-2141
GEL Sample ID: 248250001
Date Filtered: 08-MAR-10
Injection Volume (uL): 20
%Solids: 72

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.694	2.77	12.6	ug/kg		1	17-MAR-10 00:35	per0316065a
	Perchlorate Isotope Ratio			3.04			1	17-MAR-10 00:35	per0316065a
14797-73-0	Perchlorate-101	.694	2.77	12.4	ug/kg		1	17-MAR-10 00:35	per0316065a
	Perchlorate-O(18)			7.23	ug/kg		1	17-MAR-10 00:35	per0316065a

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

*Concentration =

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

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

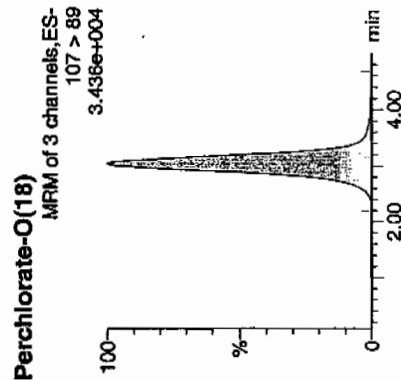
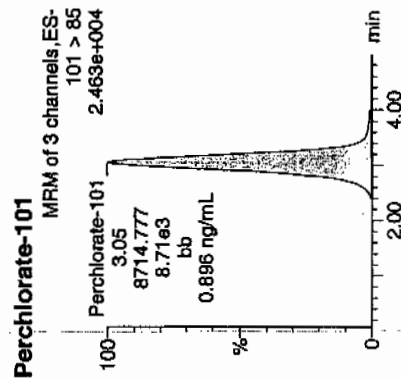
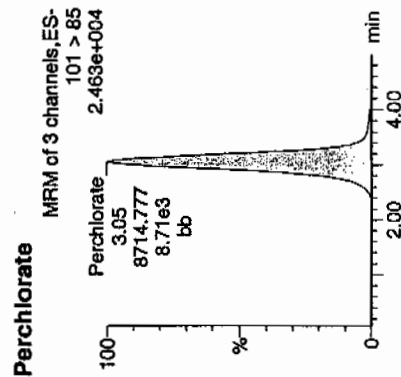
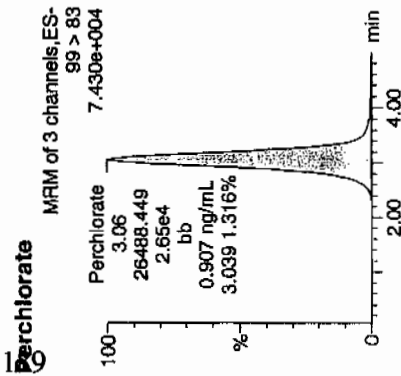
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Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316065a
Date: 17-Mar-2010
Time: 00:35:24
ID: 248250001
Cal: 2:1,D

03-17-10

1520 | 962124 | 5070 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248250001	Perchlorate	99 > 83	3.06	26488.449	26488.449	bb			0.9068			3349.7	3.04
248250001	Perchlorate-101	101 > 85	3.05	8714.777	8714.777	bb			0.8963			1905.4	
248250001	Perchlorate-O(18)	107 > 89	3.05	12458.106	12458.106	bb			0.5214	104.28	4.28	2164.9	

$$\frac{26488.449}{29209.9} \times 100 = 90.7$$

14.77
3/18/10

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: 962123

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-8286

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2141

GEL Sample ID: 248250002

Date Filtered: 08-MAR-10

Injection Volume (uL): 20

%Solids: 92.5

CAS No.	Analyte ^a	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	1.08	4.32	11.7	ug/kg		2	17-MAR-10 07:44	per0316118a
	Perchlorate Isotope Ratio			3.15			2	17-MAR-10 07:44	per0316118a
14797-73-0	Perchlorate-101	1.08	4.32	11.1	ug/kg		2	17-MAR-10 07:44	per0316118a
	Perchlorate-O(18)			11.9	ug/kg		2	17-MAR-10 07:44	per0316118a

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

*Concentration =

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

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

Page 118 of 126

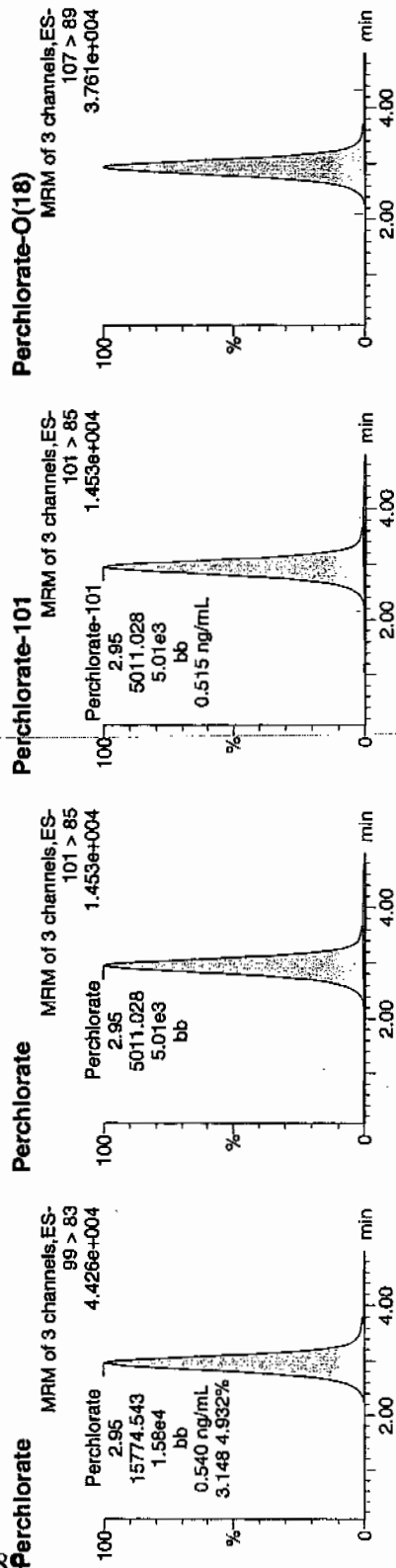
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Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316118a
Date: 17-Mar-2010
Time: 07:44:16
ID: 248250002
Vial: 3:1,A

03-17-10

15774.543 | 962124 | 50525 | 2 | 0



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248250002	Perchlorate	99 > 83	2.95	15774.543	15774.543	bb			0.5400	5065.2...		5065.2...	3.15
248250002	Perchlorate-101	101 > 85	2.95	5011.028	5011.028	bb			0.5154	1868.6...		1868.6...	
248250002	Perchlorate-O(18)	107 > 89	2.94	13203.507	13203.507	bb			0.5526	110.52	10.52	4067.6...	

$\bar{x} = 1.08$
 $\times 2 = 1.03$

1.077
3/18/10

$$\frac{(15774.543)}{29209.9} = 0.540 \times 2 = 1.0801$$

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: 962123

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-8283

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2141

GEL Sample ID: 248250003

Date Filtered: 08-MAR-10

Injection Volume (uL): 20

%Solids: 93.7

CAS No.	Analyte ^a	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	53.4	214	688	ug/kg		100	17-MAR-10 08:08	per0316121a
	Perchlorate Isotope Ratio			3.04			100	17-MAR-10 08:08	per0316121a
14797-73-0	Perchlorate-101	53.4	214	680	ug/kg		100	17-MAR-10 08:08	per0316121a
	Perchlorate-O(18)			574	ug/kg		100	17-MAR-10 08:08	per0316121a

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

*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316121a

Date: 17-Mar-2010 248250003

Time: 08:08:31

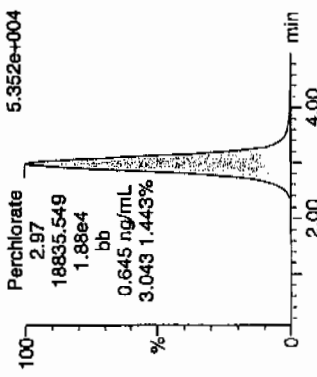
ID: 248825003

Vial: 3:1,D

03-17-10

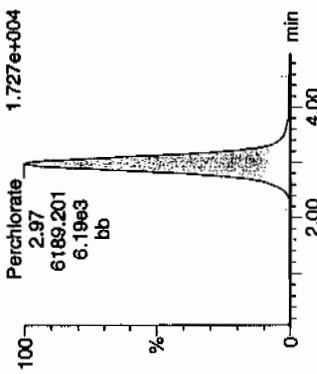
Perchlorate

MRM of 3 channels, ES-
99 > 83



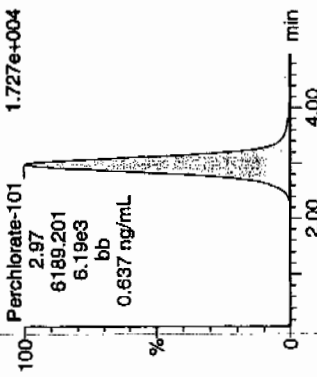
Perchlorate

MRM of 3 channels, ES-
101 > 85



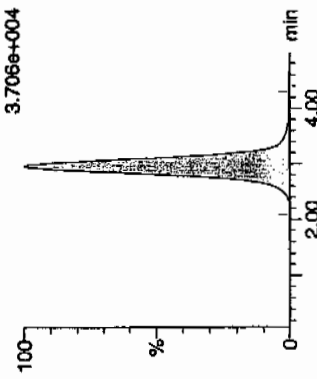
Perchlorate-101

MRM of 3 channels, ES-
101 > 85



Perchlorate-Q(18)

MRM of 3 channels, ES-
107 > 89



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
248825003	Perchlorate	99 > 83	2.97	18835.549	18835.549	bb			0.6448	5623.2...	3.04		
248825003	Perchlorate-101	101 > 85	2.97	6189.201	6189.201	bb			0.6366	648.985			
248825003	Perchlorate-Q(18)	107 > 89	2.96	12846.641	12846.641	bb			0.5376	107.53	7.53	1397.2...	

$$\frac{18835.549}{29209.9} = 0.6449$$

$$\frac{5623.2}{88} = 63.7$$

3/13/10

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: 962123

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-8284

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2141

GEL Sample ID: 248250004

Date Filtered: 08-MAR-10

Injection Volume (uL): 20

%Solids: 94.5

CAS No.	Analyte ^a	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	26.5	106	212	ug/kg		50	17-MAR-10 08:16	per0316122a
	Perchlorate Isotope Ratio			3.12			50	17-MAR-10 08:16	per0316122a
14797-73-0	Perchlorate-101	26.5	106	203	ug/kg		50	17-MAR-10 08:16	per0316122a
	Perchlorate-O(18)			263	ug/kg		50	17-MAR-10 08:16	per0316122a

^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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

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Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316122a

Date: 17-Mar-2010

Time: 08:16:33

ID: 248825004

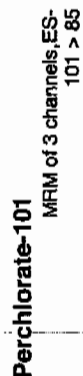
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11 03-17-10

24825004

1522-1962124 | 5020 | 50 | 02

03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248825004	Perchlorate	99 > 83	2.97	11676.169	11676.169	bb		0.3997			869.597	3.12
248825004	Perchlorate-101	101 > 85	2.97	3737.643	3737.643	bb		0.3844			583.060	
248825004	Perchlorate-O(18)	107 > 89	2.96	11886.924	11886.924	bb		0.4975	99.50	-0.50	2782.8...	

= 25.0

X50

= 14.2

100%

3/15/10

STANDARDS DATA

Perchlorate Initial Calibration

CEL Job No.(SDG): 10-2141

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 16-MAR-10

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

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

Parname Perchlorate

Coefficient of Determination:

Calibration Curve: 29209.88

Response Type: External Standard

Curve Type: RF

Form 2

Perchlorate Initial Calibration

GEL Job No.(SDG): 10-2141

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 16-MAR-10

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

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

Paramname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 9772.924

Response Type: External Standard

Curve Type: RF

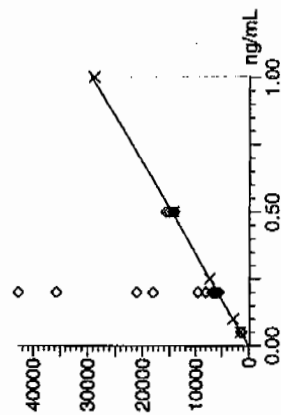
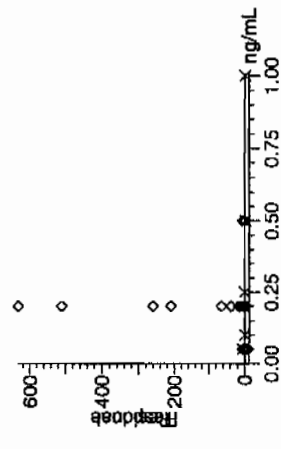
Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

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Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

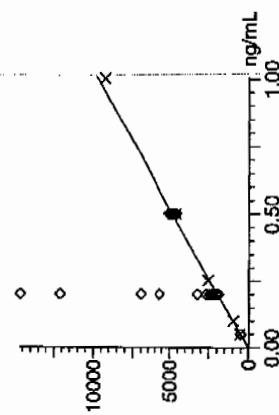
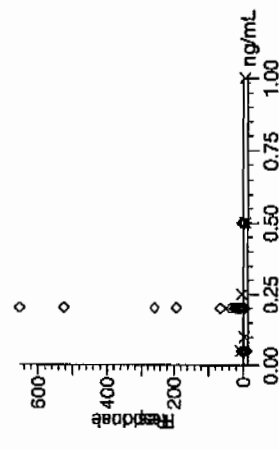
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Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031610a.cdb 17 Mar 2010 09:01:07

Compound name: Perchlorate
Response Factor: 29209.9
RRF SD: 864.153, % Relative SD: 2.95843
Response type: External Std, Area
Curve type: RF



0.00-1.7-10

Compound name: Perchlorate-101
Response Factor: 9722.93
RRF SD: 575.815, % Relative SD: 5.92224
Response type: External Std, Area
Curve type: RF



0.00-1.7-10

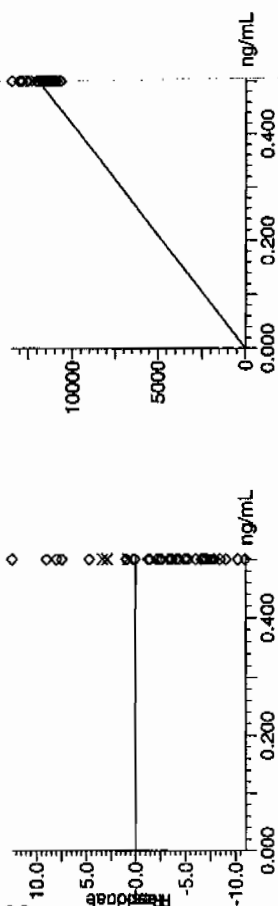
Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 23894.4
RF SD: 799.2, % Relative SD: 3.34471
Response type: External Std, Area
Curve type: RF

03-17-10



Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No. (SDG): 10-2141

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.52	103.03	16-MAR-10 17:04	per0316009a
Perchlorate Isotope Ratio		2.95		16-MAR-10 17:04	per0316009a
Perchlorate-101	.5	.52	104.81	16-MAR-10 17:04	per0316009a

Quantify Sample Report MassLynx 4.0 SP4

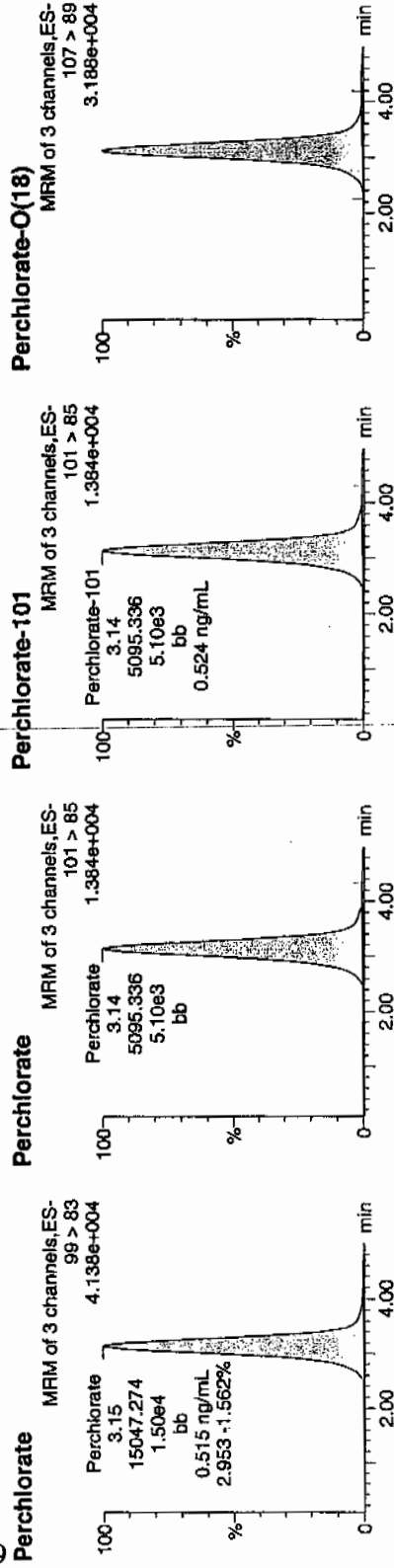
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
 Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316009a
 Date: 16-Mar-2010
 Time: 17:04:42
 ID: WCL100309-06ICV
 Vial: 1:2,A

Pure
 620
 03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06ICV	Perchlorate	99 > 83	3.15	15047.274	15047.274	bb			0.5151	103.03	3.03	765.774	2.95
WCL100309-06ICV	Perchlorate-101	101 > 85	3.14	5095.336	5095.336	bb			0.5241	104.81	4.81	6062.4...	
WCL100309-06ICV	Perchlorate-O(18)	107 > 89	3.12	11358.490	11358.490	bb			0.4754	95.07	-4.93	1508.7...	

$$\frac{15047.274}{29299.9} = 0.515$$

1477
 3/15/10

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

GEL Job No.(SDG): 10-2141

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	97.88	16-MAR-10 18:49	per0316022a
Perchlorate Isotope Ratio		3.15		16-MAR-10 18:49	per0316022a
Perchlorate-101	.5	.47	93.5	16-MAR-10 18:49	per0316022a
Perchlorate	.5	.49	97.54	16-MAR-10 20:33	per0316035a
Perchlorate Isotope Ratio		3.03		16-MAR-10 20:33	per0316035a
Perchlorate-101	.5	.48	96.86	16-MAR-10 20:33	per0316035a
Perchlorate	.5	.52	103.41	16-MAR-10 22:18	per0316048a
Perchlorate Isotope Ratio		3.07		16-MAR-10 22:18	per0316048a
Perchlorate-101	.5	.51	101.33	16-MAR-10 22:18	per0316048a
Perchlorate	.5	.54	107.21	16-MAR-10 23:47	per0316059a
Perchlorate Isotope Ratio		3.14		16-MAR-10 23:47	per0316059a
Perchlorate-101	.5	.51	102.51	16-MAR-10 23:47	per0316059a
Perchlorate	.5	.5	99.22	17-MAR-10 01:31	per0316072a

Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2141

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.01		17-MAR-10 01:31	per0316072a
Perchlorate-101	.5	.5	99.19	17-MAR-10 01:31	per0316072a
Perchlorate	.5	.49	97.46	17-MAR-10 03:16	per0316085a
Perchlorate Isotope Ratio		2.95		17-MAR-10 03:16	per0316085a
Perchlorate-101	.5	.5	99.35	17-MAR-10 03:16	per0316085a
Perchlorate	.5	.5	99.24	17-MAR-10 05:01	per0316098a
Perchlorate Isotope Ratio		3.19		17-MAR-10 05:01	per0316098a
Perchlorate-101	.5	.47	93.57	17-MAR-10 05:01	per0316098a
Perchlorate	.5	.49	97.9	17-MAR-10 06:47	per0316111a
Perchlorate Isotope Ratio		3.04		17-MAR-10 06:47	per0316111a
Perchlorate-101	.5	.48	96.75	17-MAR-10 06:47	per0316111a
Perchlorate	.5	.48	96.24	17-MAR-10 08:32	per0316124a
Perchlorate Isotope Ratio		3.04		17-MAR-10 08:32	per0316124a

Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

GEL Job No.(SDG): 10-2141

Perchlorate-101	.5	.48	95.13	17-MAR-10 08:32	per0816124a
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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Page 22 of 126

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

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Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

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Date: 16-Mar-2010

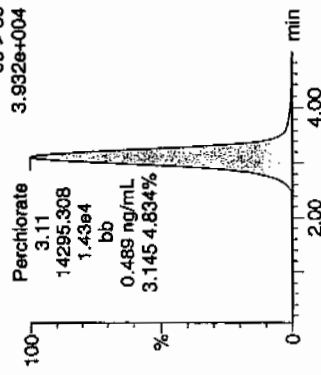
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ID: WCL100309-06CCV

Val: 1:2,A

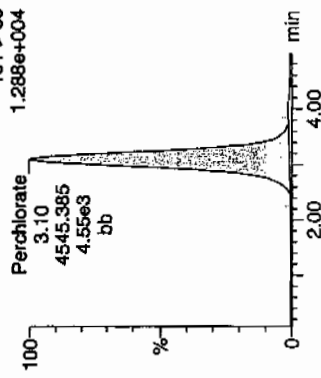
Perchlorate

MRM of 3 channels, ES-
99 > 83



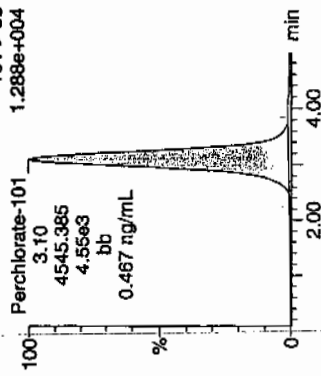
Perchlorate

MRM of 3 channels, ES-
101 > 85



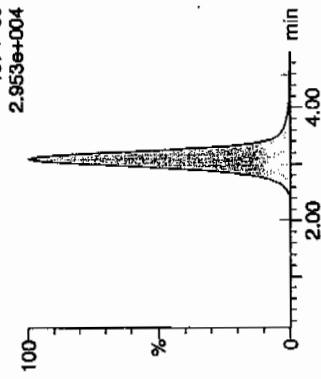
Perchlorate-101

MRM of 3 channels, ES-
101 > 85



Perchlorate-O(18)

MRM of 3 channels, ES-
107 > 89



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	3.11	14295.308	14295.308	bb			0.4894	97.88	-2.12	15740...	3.15
WCL100309-06CCV	Perchlorate-101	101 > 85	3.10	4545.385	4545.385	bb			0.4675	93.50	-6.50	503.156	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	3.10	10724.596	10724.596	bb			0.4488	89.77	-10.23	985.181	

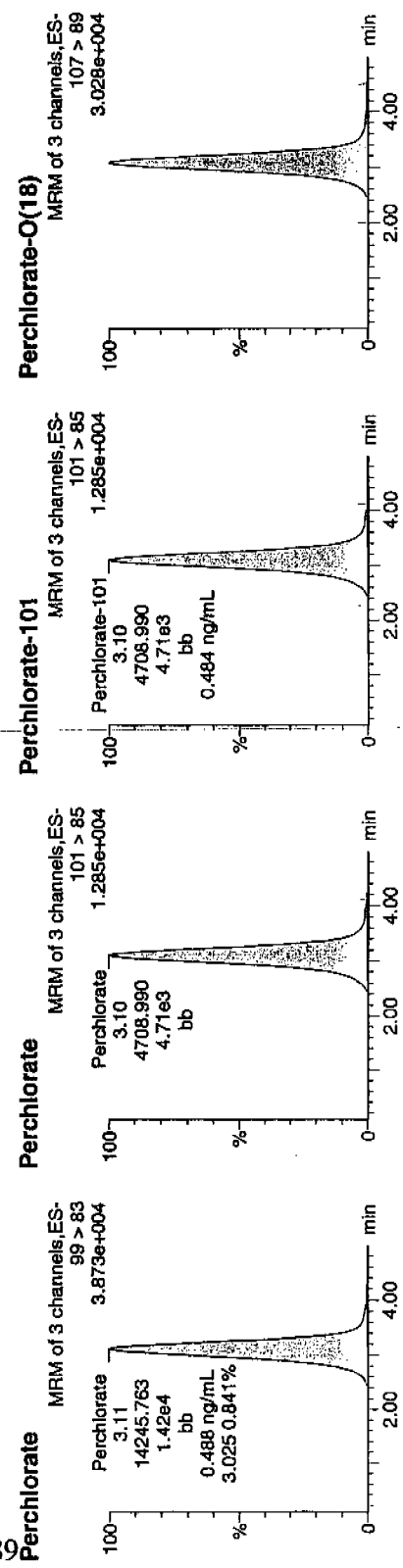
WCL
3/18/10

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316035a
Date: 16-Mar-2010
Time: 20:33:44
File: WCL100309-06CCV
Vial: 1:2.A

Pass
and
03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	ISN	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	3.11	14245.763	14245.763	bb			0.4877	97.54	-2.46	532.304	3.03
WCL100309-06CCV	Perchlorate-101	101 > 85	3.10	4708.990	4708.990	bb			0.4843	96.86	-3.14	2992.1...	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	3.09	11023.469	11023.469	bb			0.4613	92.27	-7.73	1891.5...	

4877
3/18/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316048a

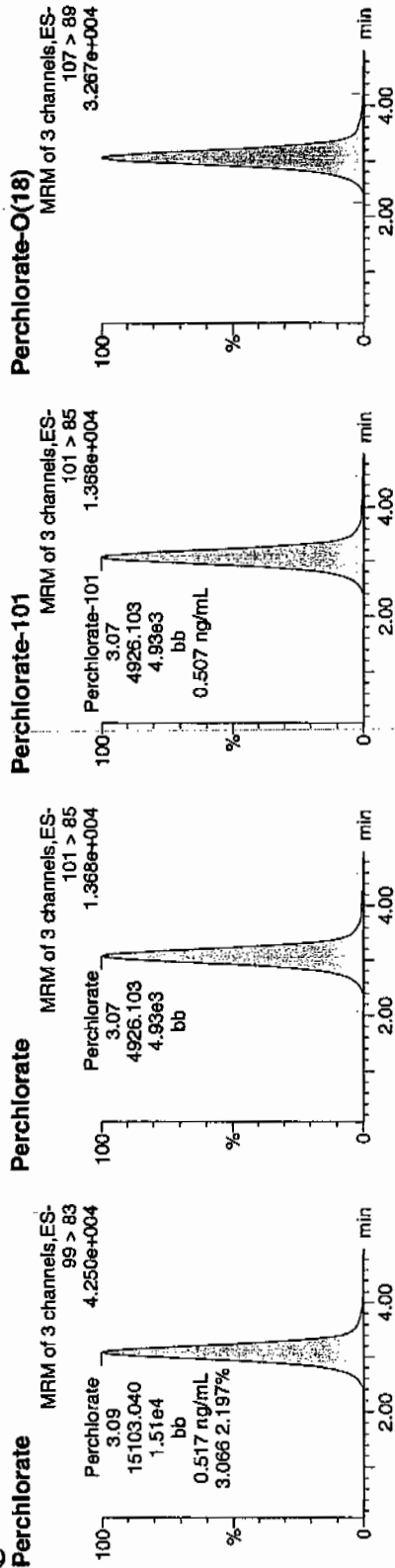
Date: 16-Mar-2010

Time: 22:18:22

ID: WCL100309-06CCV

Vial: 1:2,A

Run
03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	3.09	15103.040	15103.040	bb			0.5171	103.41	3.41	3240.2...	3.07
WCL100309-06CCV	Perchlorate-101	101 > 85	3.07	4926.103	4926.103	bb			0.5066	101.33	1.33	257.517	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	3.06	11624.273	11624.273	bb			0.4865	97.30	-2.70	2205.1...	

not
3/18/10

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
 Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316059a

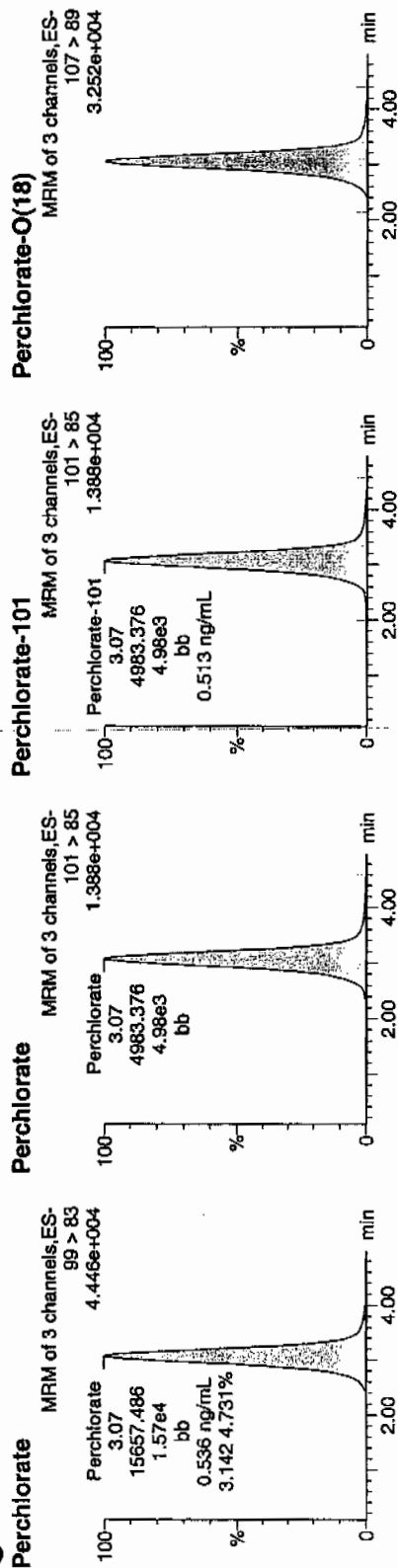
Date: 16-Mar-2010

Time: 23:47:00

ID: WCL100309-06CCV

Vial: 1:2,A

033-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	3.07	15657.486	15657.486	bb			0.5360	107.21	7.21	3252.8...	3.14
WCL100309-06CCV	Perchlorate-101	101 > 85	3.07	4983.376	4983.376	bb			0.5125	102.51	2.51	3152.8...	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	3.05	11688.516	11688.516	bb			0.4892	97.83	-2.17	3018.0...	

not
3/16/10

Quantify Sample Report MassLynx 4.0 SP4

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The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Sample Name: per0316072a

Date: 17-Mar-2010

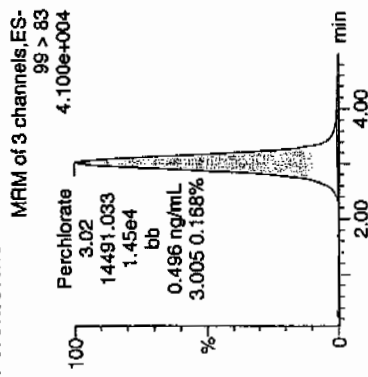
Time: 01:31:35

ID: WCL100309-06CCV

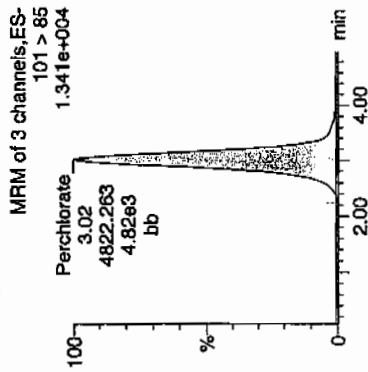
Trial: 1:2,A

Perchlorate
03-17-10

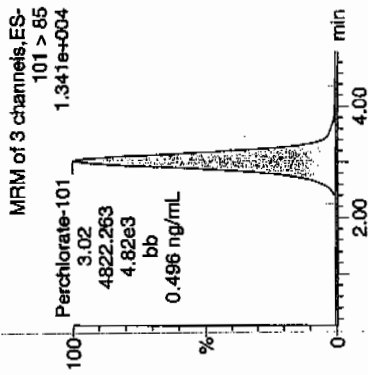
Perchlorate



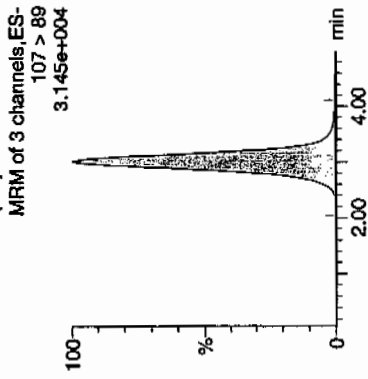
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	3.02	14491.033	14491.033	bb			0.4961	99.22	-0.78	2217.4...	3.01
WCL100309-06CCV	Perchlorate-101	101 > 85	3.02	✓4822.263	✓4822.263	bb			0.4960	99.19	-0.81	897.727	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	3.01	11153.669	11153.669	bb			0.4668	93.36	-6.64	707.033	

not
3/18/10

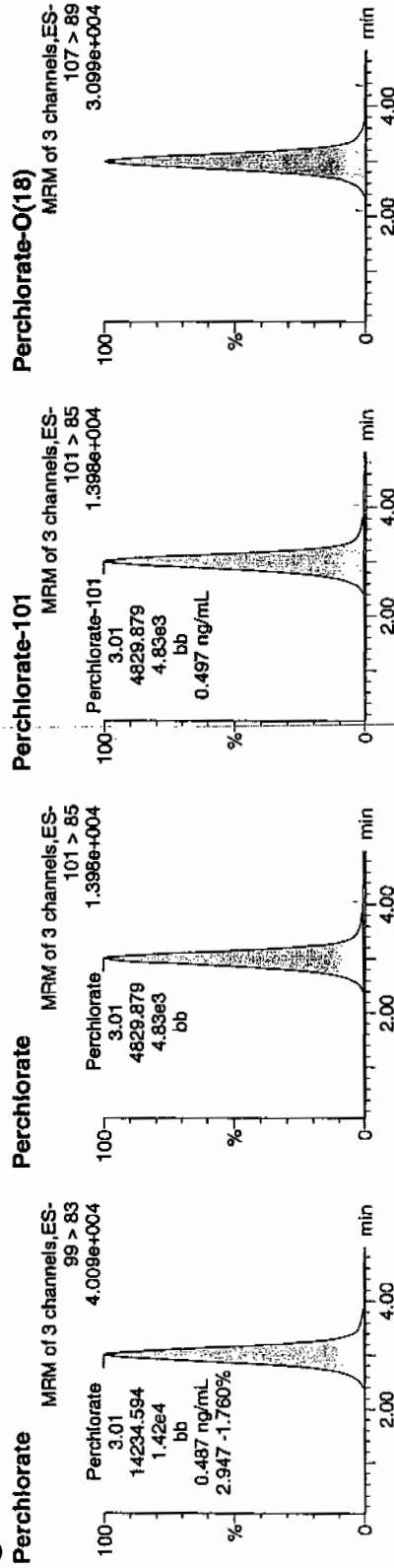
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316085a
Date: 17-Mar-2010
Time: 03:16:29
ID: WCL100309-06CCV
Vial: 1:2A

Per
and
03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	3.01	14234.594	14234.594	bb			0.4873	97.46	-2.54	1070.3...	2.95
WCL100309-06CCV	Perchlorate-101	101 > 85	3.01	4829.879	4829.879	bb			0.4988	99.35	-0.65	3350.8...	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	3.00	11000.735	11000.735	bb			0.4604	92.08	-7.92	3039.7...	

not
3/15/10

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
 Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316098a

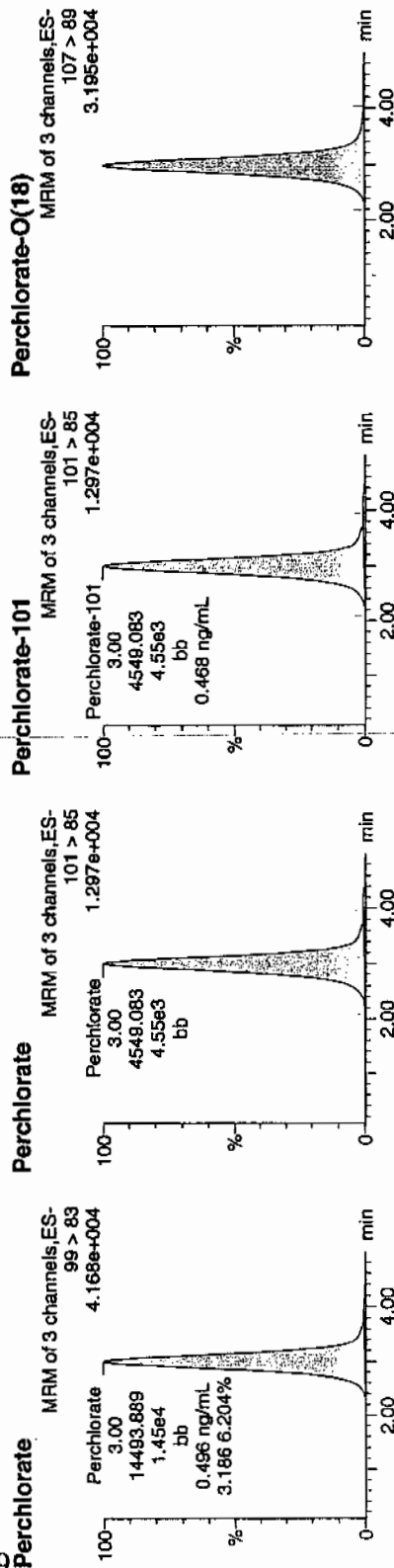
Date: 17-Mar-2010

Time: 05:01:34

ID: WCL100309-06CCV

Vial: 1:2,A

Per
 0.03
 33.17 D



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN/Int Ratio
WCL100309-06CCV	Perchlorate	99 > 83	3.00	14493.889	14493.889	bb			0.4962	99.24	-0.76	1776.4...
WCL100309-06CCV	Perchlorate-101	101 > 85	3.00	4549.083	4549.083	bb			0.4679	93.57	-6.43	751.536
WCL100309-06CCV	Perchlorate-Q(18)	107 > 89	2.99	11228.830	11228.830	bb			0.4689	93.99	-6.01	1405.5...

14477
 3/18/10

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

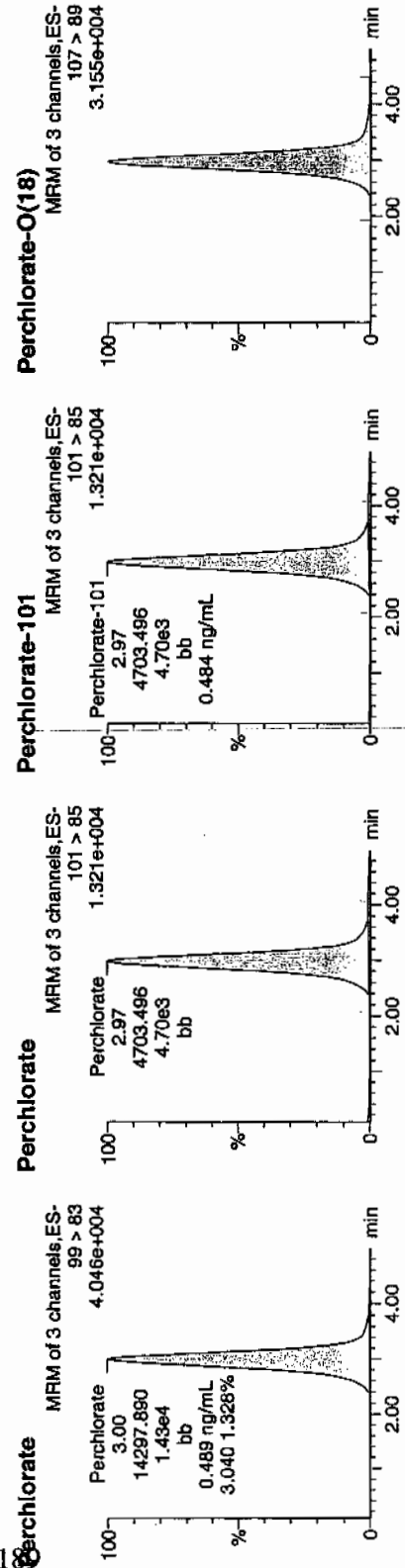
Page 111 of 126

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316111a
Date: 17-Mar-2010
Time: 06:47:30
ID: WCL100309-06CCV
Vial: 1:2,A

Perchlorate
03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	3.00	14297.890	14297.890	bb			0.4895	97.90	-2.10	4374.1...	3.04
WCL100309-06CCV	Perchlorate-101	101 > 85	2.97	4703.496	4703.496	bb			0.4838	96.75	-3.25	1768.6...	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	2.97	11321.011	11321.011	bb			0.4738	94.76	-5.24	4026.8...	

4/17
3/19/10

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316124a

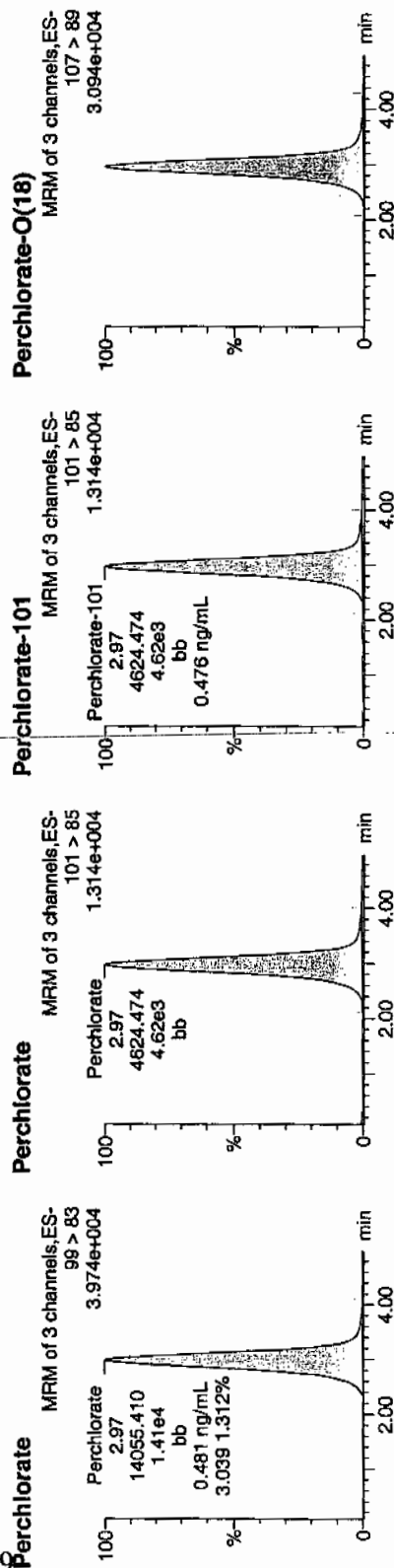
Date: 17-Mar-2010

Time: 08:32:34

ID: WCL100309-06CCV

Vial: 1:2,A

Per
03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	98 > 83	2.97	14055.410	14055.410	bb			0.4812	96.24	-3.76	2240.7...	3.04
WCL100309-06CCV	Perchlorate-101	101 > 85	2.97	4624.474	4624.474	bb			0.4756	95.13	-4.87	1342.0...	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	2.96	10940.999	10940.999	bb			0.4579	91.58	-8.42	1152.1...	

14055
3/18/10

Perchlorate MDL Verification

GEL Job No.(SDG): 10-2141

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	98.61	16-MAR-10 17:20	per0316011a
Perchlorate Isotope Ratio		2.87		16-MAR-10 17:20	per0316011a
Perchlorate-101	.05	.05	103.28	16-MAR-10 17:20	per0316011a
Perchlorate	.05	.05	93.33	16-MAR-10 19:05	per0316024a
Perchlorate Isotope Ratio		2.62		16-MAR-10 19:05	per0316024a
Perchlorate-101	.05	.05	106.93	16-MAR-10 19:05	per0316024a
Perchlorate	.05	.05	95.82	16-MAR-10 20:49	per0316037a
Perchlorate Isotope Ratio		2.91		16-MAR-10 20:49	per0316037a
Perchlorate-101	.05	.05	98.91	16-MAR-10 20:49	per0316037a
Perchlorate	.05	.05	94.44	16-MAR-10 22:34	per0316050a
Perchlorate Isotope Ratio		2.96		16-MAR-10 22:34	per0316050a

Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2141

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate-101	.05	.05	95.81	16-MAR-10 22:34	per0316050a
Perchlorate	.05	.05	106.19	17-MAR-10 00:03	per0316061a
Perchlorate Isotope Ratio		3.06		17-MAR-10 00:03	per0316061a
Perchlorate-101	.05	.05	104.38	17-MAR-10 00:03	per0316061a
Perchlorate	.05	.05	102.48	17-MAR-10 01:47	per0316074a
Perchlorate Isotope Ratio		3.21		17-MAR-10 01:47	per0316074a
Perchlorate-101	.05	.05	96.05	17-MAR-10 01:47	per0316074a
Perchlorate	.05	.05	96.19	17-MAR-10 03:32	per0316087a
Perchlorate Isotope Ratio		3.26		17-MAR-10 03:32	per0316087a
Perchlorate-101	.05	.04	88.55	17-MAR-10 03:32	per0316087a
Perchlorate	.05	.04	89.36	17-MAR-10 05:17	per0316100a

Form 3

Perchlorate MDL Verifications

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

GEL Job No.(SDG): 10-2141

Perchlorate Isotope Ratio		2.89		17-MAR-10 05:17	per0316100a
Perchlorate-101	.05	.05	92.99	17-MAR-10 05:17	per0316100a
Perchlorate	.05	.05	100.47	17-MAR-10 07:03	per0316113a
Perchlorate Isotope Ratio		2.92		17-MAR-10 07:03	per0316113a
Perchlorate-101	.05	.05	103.48	17-MAR-10 07:03	per0316113a
Perchlorate	.05	.05	106.68	17-MAR-10 08:48	per0316126a
Perchlorate Isotope Ratio		3.33		17-MAR-10 08:48	per0316126a
Perchlorate-101	.05	.05	96.37	17-MAR-10 08:48	per0316126a

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

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Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Sample Name: per0316011a

Date: 16-Mar-2010

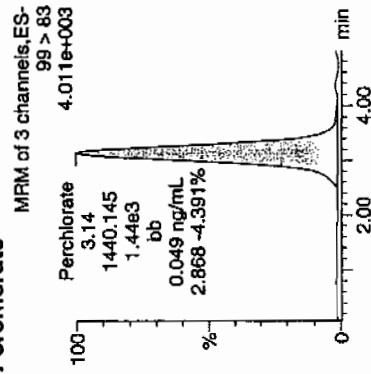
Time: 17:20:47

File: WCL100309-07CRI

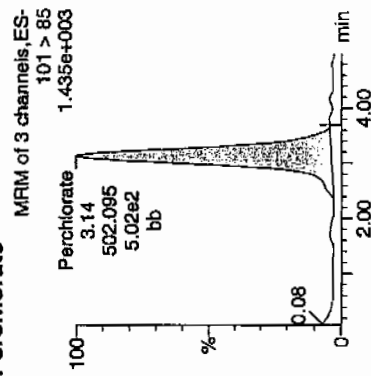
Vial: 1:2,B

Per
WCL
03-17-10

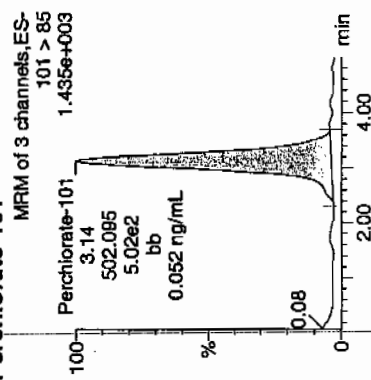
Perchlorate



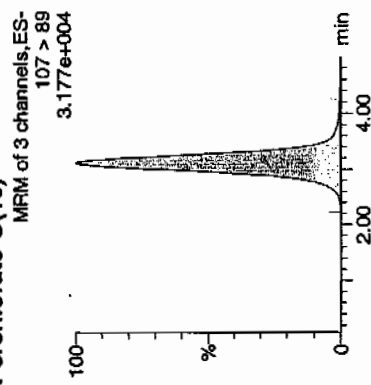
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod	Date	Mod	Time	ng/mL	%Rec	%Dev	S/N	Ion	Ratio
WCL100309-07CRI	Perchlorate	99 > 83	3.14	1440.145	1440.145	bb					0.0493	98.61	-1.39	486.148	2.87	
WCL100309-07CRI	Perchlorate-101	101 > 85	3.14	502.095	502.095	bb					0.0516	103.28	3.28	106.460		
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	3.11	11655.735	11655.735	bb					0.4878	97.56	-2.44	2271.4...		

$$\frac{1440.145}{29209.9} = 0.0493$$

WCL
3/15/10

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
 Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316024a

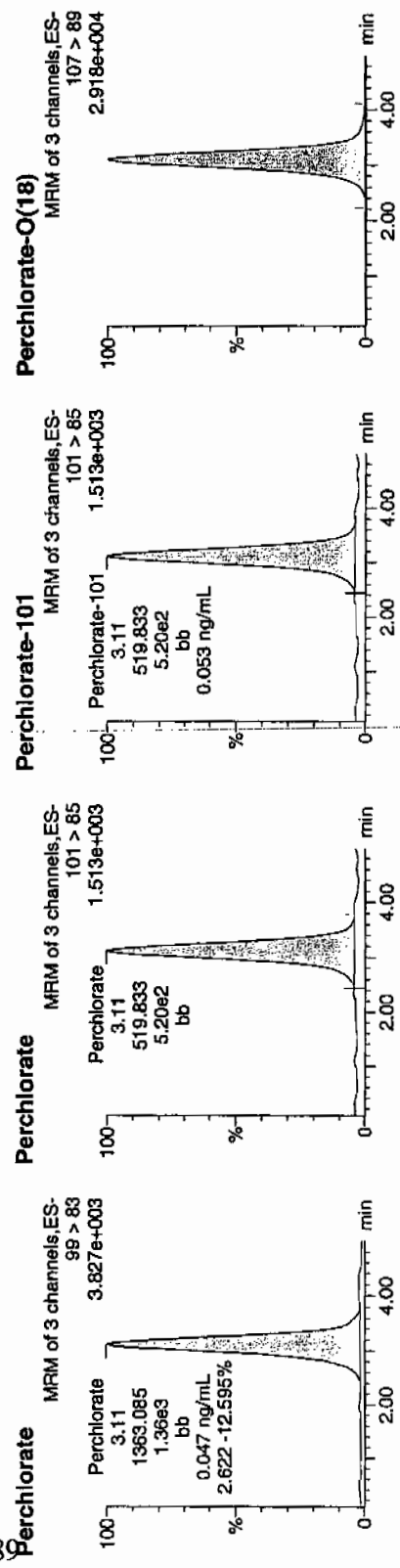
Date: 16-Mar-2010

Time: 19:05:15

ID: WCL100309-07CRI

Vial: 1:2,B

Per
 03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	3.11	1363.085	1363.085	bb			-0.0467	93.33	-6.67	332.530	2.62
WCL100309-07CRI	Perchlorate-101	101 > 85	3.11	519.833	519.833	bb			0.0535	106.93	6.93	214.332	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	3.10	10637.331	10637.331	bb			0.4452	89.04	-10.96	2115.3...	

Left
 3/18/10

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

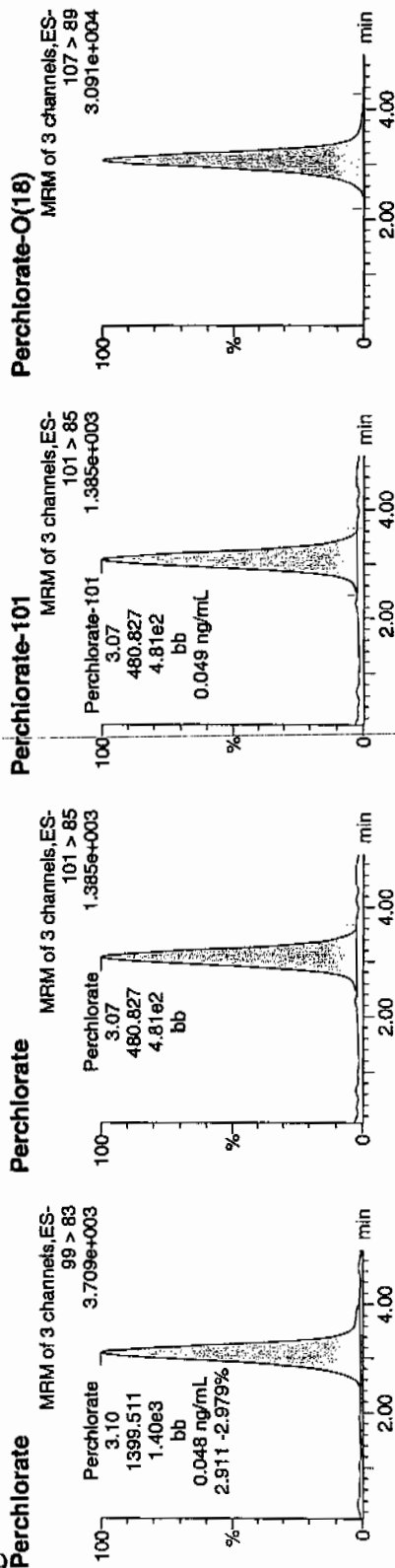
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Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Sample Name: per0316037a
Date: 16-Mar-2010
Time: 20:49:48
ID: WCL100309-07CRI
Vial: 1:2,B

*Perp
and
03-17-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	3.10	1399.511	1399.511	bb			0.0479	95.82	-4.18	130.048	2.91
WCL100309-07CRI	Perchlorate-101	101 > 85	3.07	480.827	480.827	bb			0.0495	98.91	-1.09	127.669	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	3.07	11129.948	11129.948	bb			0.4658	93.16	-6.84	1249.9...	

*WCL
3/16/10*

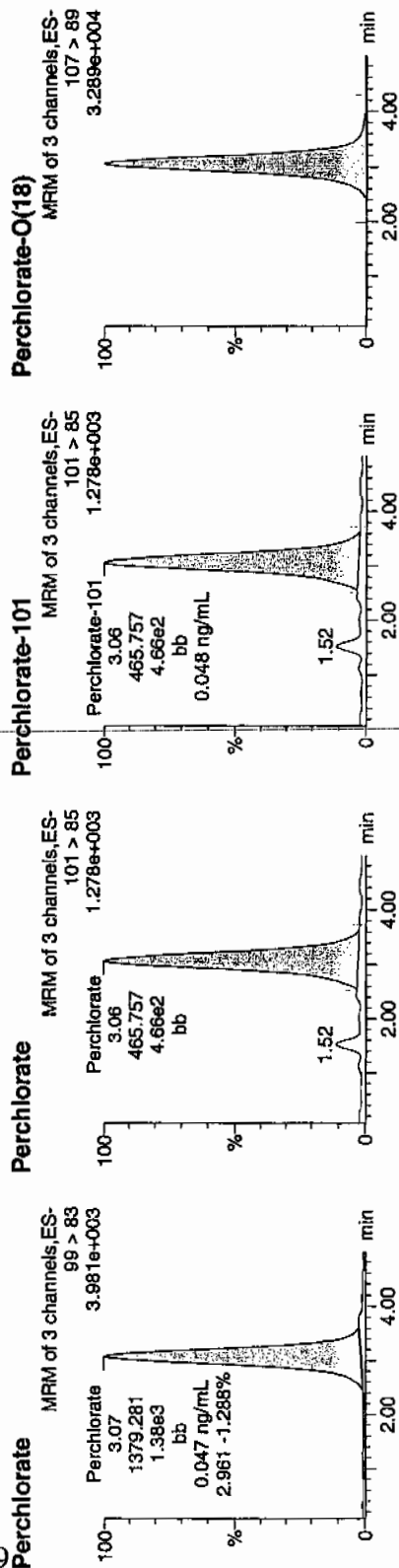
Quantify Sample Report MassLynx 4.0 SP4 The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316050a
Date: 16-Mar-2010
Time: 22:34:27
ID: WCL100309-07CRI
Vial: 1:2,B

Perchlorate
03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	3.07	1379.281	1379.281	bb			0.0472	94.44	-5.56	338.835	2.96
WCL100309-07CRI	Perchlorate-101	101 > 85	3.06	465.757	465.757	bb			0.0479	95.81	-4.19	84.114	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	3.06	11766.454	11766.454	bb			0.4924	98.49	-1.51	940.442	

1.52
5/18/10

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

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Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Sample Name: per0316061a

Date: 17-Mar-2010

Time: 00:03:05

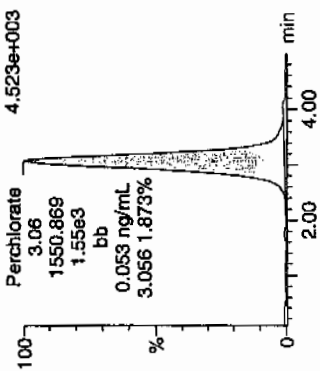
ID: WCL100309-07CRI

Vial: 1:2,B

Perchlorate
03.17.10

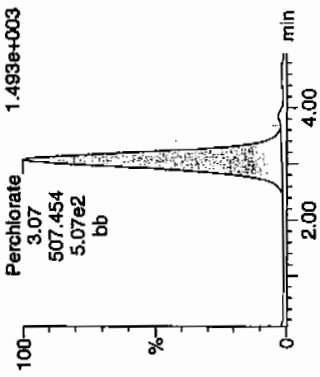
Perchlorate

MRM of 3 channels, ES-
99 > 83
4.523e+003



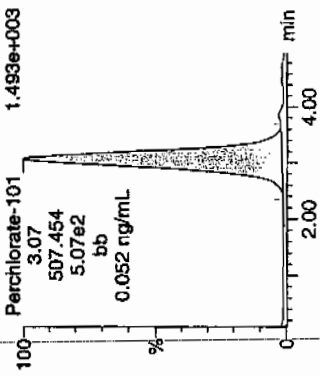
Perchlorate

MRM of 3 channels, ES-
101 > 85
1.493e+003



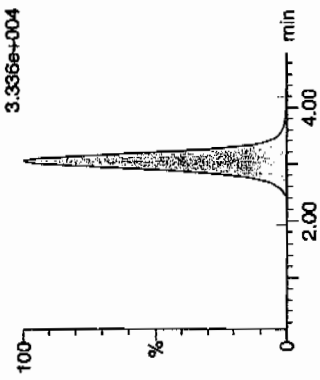
Perchlorate-101

MRM of 3 channels, ES-
101 > 85
1.493e+003



Perchlorate-O(18)

MRM of 3 channels, ES-
107 > 89
3.336e+004



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	3.06	1550.869	1550.869	bb			0.0531	106.19	6.19	242.285	3.06
WCL100309-07CRI	Perchlorate-101	101 > 85	3.07	507.454	507.454	bb			0.0522	104.38	4.38	54.514	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	3.05	11953.760	11953.760	bb			0.5003	100.05	0.05	738.699	

WCL
3/18/10

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
 Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316074a

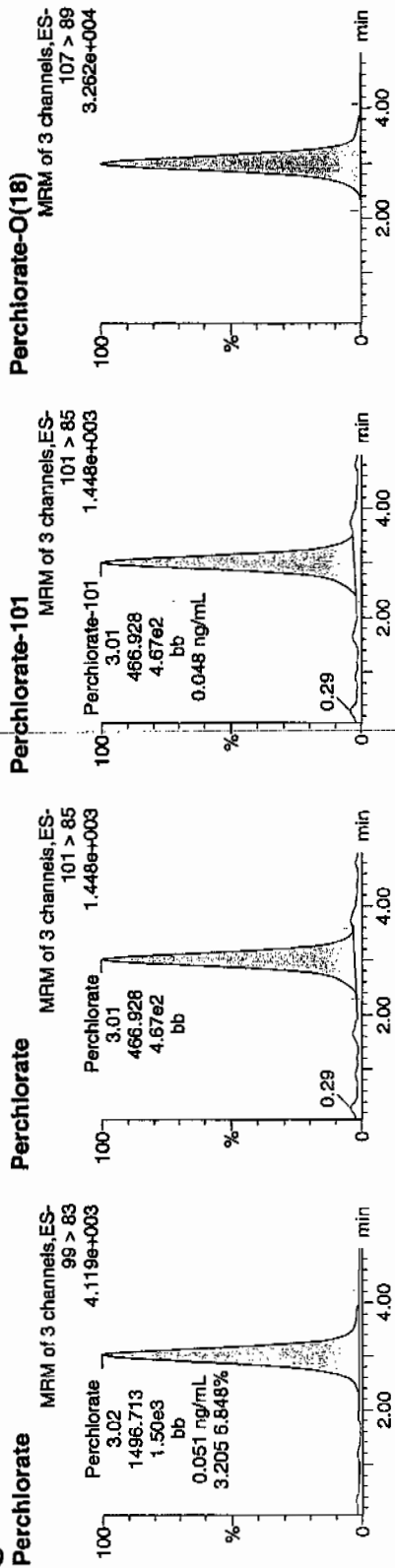
Date: 17-Mar-2010

Time: 01:47:55

ID: WCL100309-07CRI

Vial: 1:2,B

Per
 03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	3.02	1496.713	1496.713	bb			0.0512	102.48	2.48	601.276	3.21
WCL100309-07CRI	Perchlorate-101	101 > 85	3.01	466.928	466.928	bb			0.0480	96.05	-3.95	134.539	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	3.01	11511.645	11511.645	bb			0.4818	96.35	-3.65	2957.1...	

107
 3/18/10

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

File Name: per0316087a

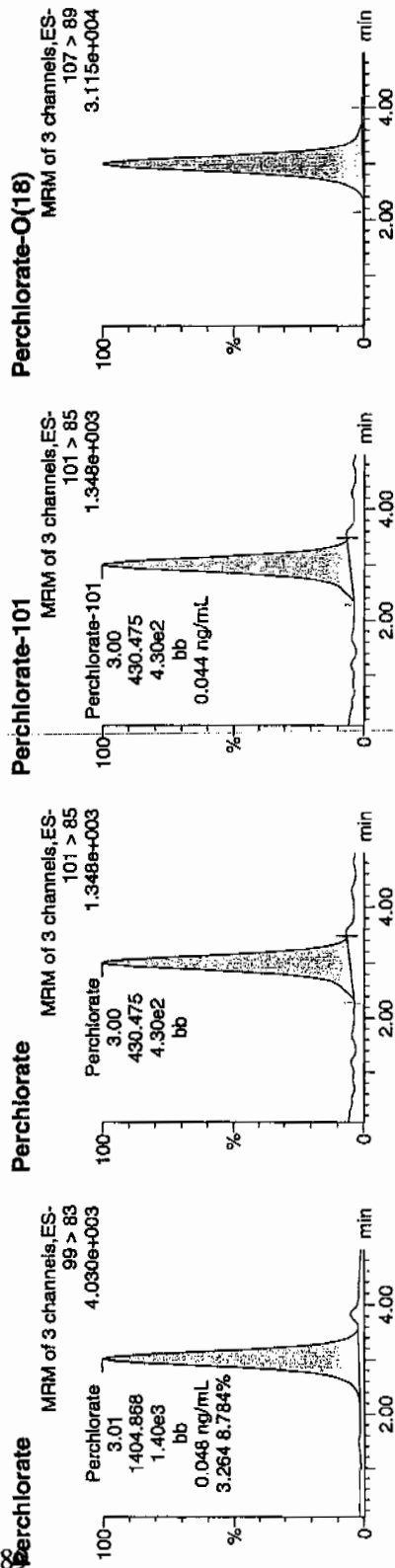
Date: 17-Mar-2010

Time: 03:32:49

ID: WCL100309-07CRI

Vial: 1:2,B

Per
033
03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	3.01	1404.868	1404.868	bb			0.0481	96.19	-3.81	960.501	3.26
WCL100309-07CRI	Perchlorate-101	101 > 85	3.00	430.475	430.475	bb			0.0443	88.55	-11.45	188.319	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	3.00	10936.855	10936.855	bb			0.4577	91.54	-8.46	1135.0...	

4477
3/15/10

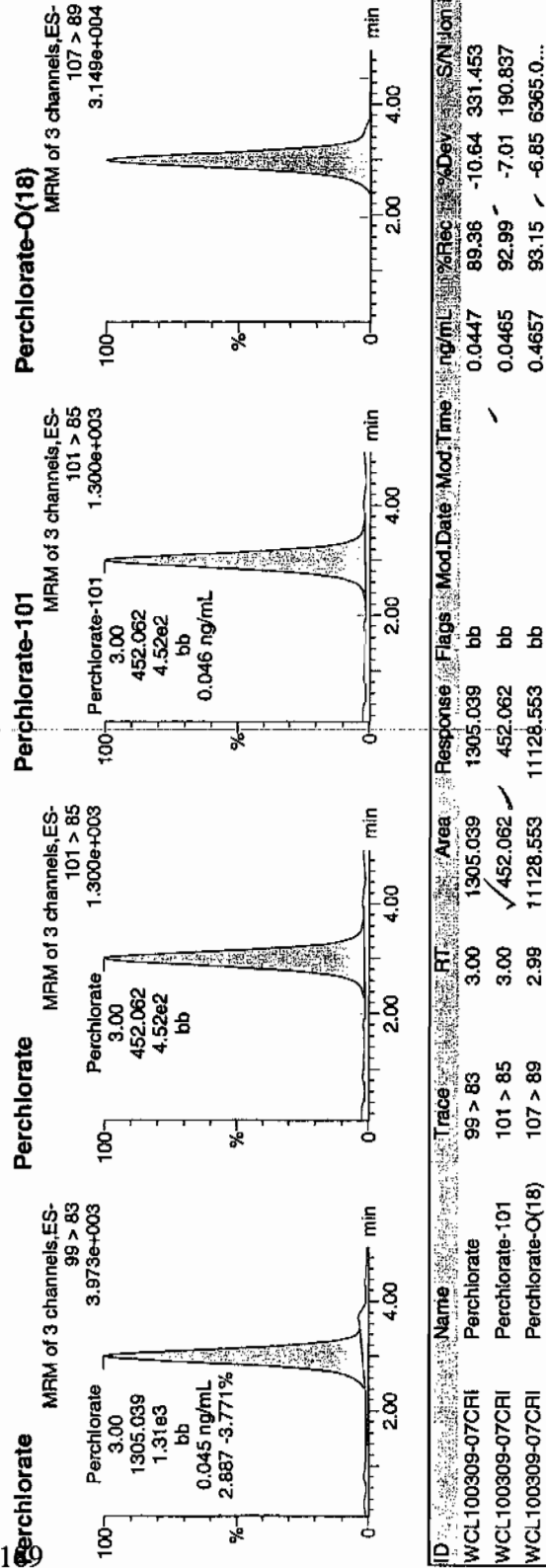
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316100a
Date: 17-Mar-2010
Time: 05:17:53
ID: WCL100309-07CRI
Vial: 1:2,B

Pure
and
3/17/10



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ratio
WCL100309-07CRI	Perchlorate	99 > 83	3.00	1305.039	1305.039	bb			0.0447	89.36	-10.64	331.453	2.89
WCL100309-07CRI	Perchlorate-101	101 > 85	3.00	452.062	452.062	bb			0.0465	92.99	-7.01	190.837	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	2.99	11128.553	11128.553	bb			0.4657	93.15	-6.85	6365.0...	

3/18/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316113a

Date: 17-Mar-2010

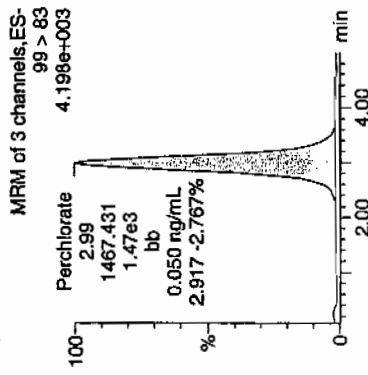
Time: 07:03:49

ID: WCL100309-07CRI

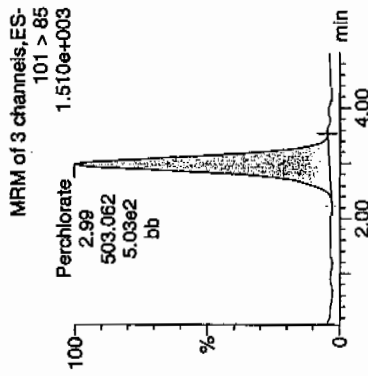
Vial: 1:2,B

Pure
33.1710

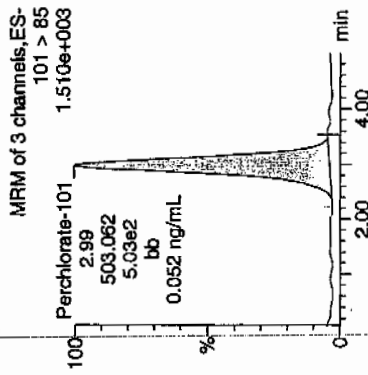
Perchlorate



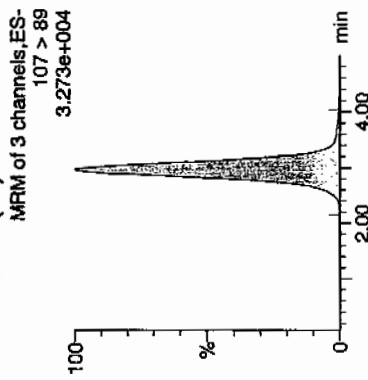
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod	Date	Mod	Time	ng/mL	%Rec	%Dev	S/N	Ion	Ratio
WCL100309-07CRI	Perchlorate	99 > 83	2.99	1467.431	1467.431	bb					0.0502	100.47	0.47	231.106	2.92	
WCL100309-07CRI	Perchlorate-101	101 > 85	2.99	503.062	503.062	bb					0.0517	103.48	3.48	236.042		
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	2.97	11421.953	11421.953	bb					0.4780	95.60	-4.40	5243.2...		

1077
3/18/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316125a

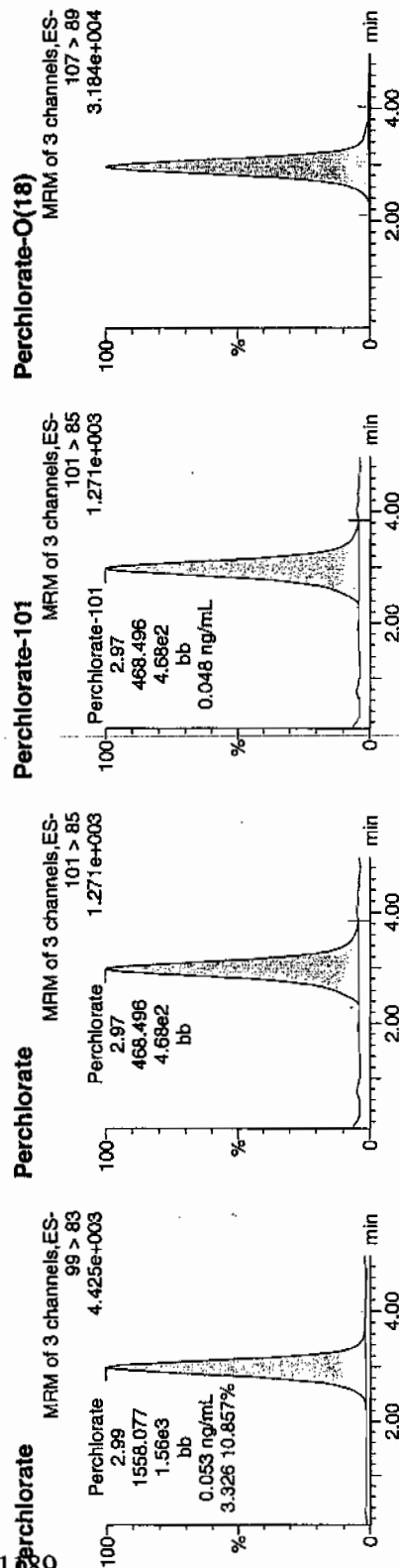
Date: 17-Mar-2010

Time: 08:48:51

ID: WCL100309-07CRI

Vial: 1,2,B

Pure
03.17.10



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	2.99	1558.077	1558.077	bb			0.0533	106.68	6.68	827.957	3.33
WCL100309-07CRI	Perchlorate-101	101 > 85	2.97	468.496	468.496	bb			0.0482	96.37	-3.63	43.409	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	2.96	11165.035	11165.035	bb			0.4673	93.45	-6.55	729.422	

WCL
3/16/10

QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 962123

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

MB

Date Received: 08-MAR-10

GEL Job No (SDG): 10-2141

GEL Sample ID: 1202063737

Date Filtered: 08-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	17-MAR-10 00:11	per0316062a
	Perchlorate Isotope Ratio						1	17-MAR-10 00:11	per0316062a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	17-MAR-10 00:11	per0316062a
	Perchlorate-O(18)			4.65	ug/kg		1	17-MAR-10 00:11	per0316062a

[^] 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\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
 Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316062a

Date: 17-Mar-2010

Time: 00:11:07

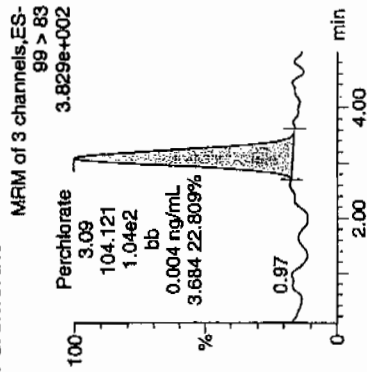
ID: 1202063737

Vial: 2:1,A

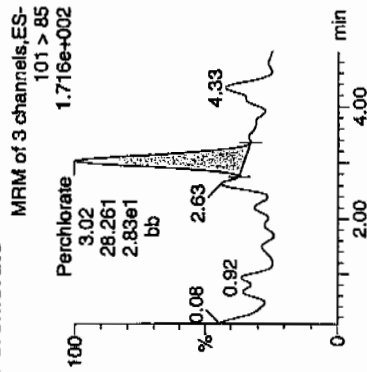
03-17-10

1202063737 | 1202063737 | 1202063737

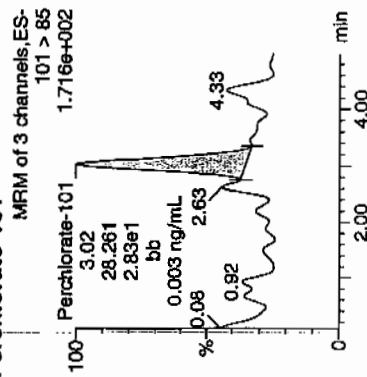
Perchlorate



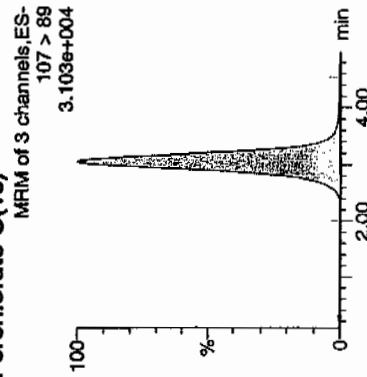
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
1202063737	Perchlorate	99 > 83	3.09	104.121	104.121	bb			0.0036			48.072	3.68
1202063737	Perchlorate-101	101 > 85	3.02	28.261	28.261	bb			0.0029			9.394	
1202063737	Perchlorate-O(18)	107 > 89	3.05	1116.747	1116.747	bb			0.4652	93.05	-6.95	1091.4...	

1202063737

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: 962123

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

LCS

Date Received: 08-MAR-10

GEL Job No (SDG): 10-2141

GEL Sample ID: 1202063738

Date Filtered: 08-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	2.25	ug/kg		1	17-MAR-10 00:19	per0316063a
	Perchlorate Isotope Ratio			3.16			1	17-MAR-10 00:19	per0316063a
14797-73-0	Perchlorate-101	.5	2	2.14	ug/kg		1	17-MAR-10 00:19	per0316063a
	Perchlorate-O(18)			4.92	ug/kg		1	17-MAR-10 00:19	per0316063a

[^] 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\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
 Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316063a

Date: 17-Mar-2010

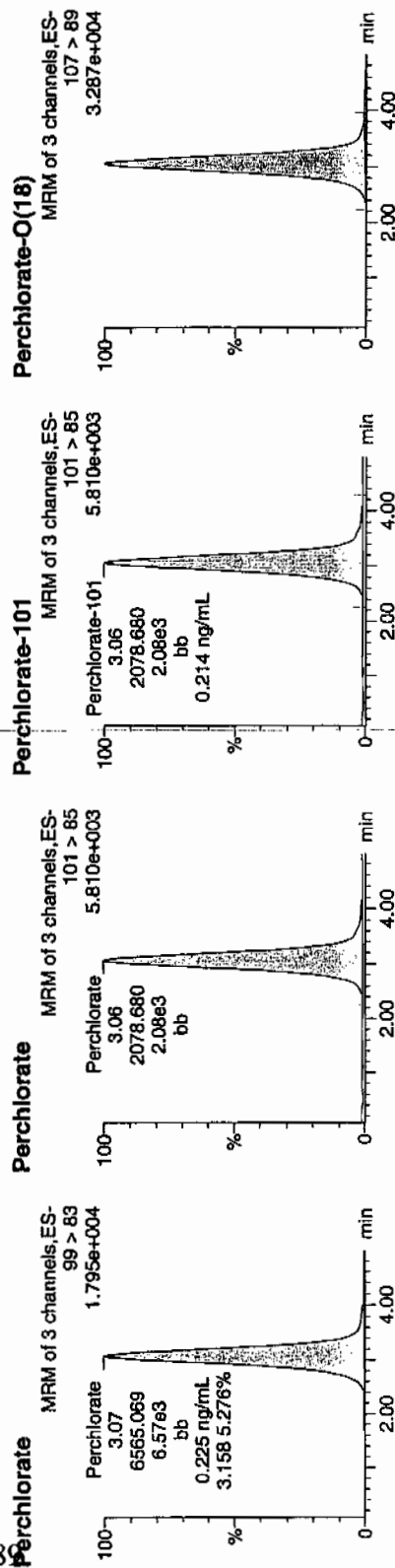
Time: 00:19:21

ID: 1202063738

Vial: 2:1,B

03-17-10

1202063738 | 962124 | 5020 | 45 | 11



$$\frac{6565.069}{29209.9} = 0.2248$$

3/18/10

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: 962123

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-8286MS

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2141

GEL Sample ID: 1202063739

Date Filtered: 08-MAR-10

Injection Volume (uL): 20

%Solids: 92.5

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	1.08	4.32	15.6	ug/kg		2	17-MAR-10 07:52	per0316119a
	Perchlorate Isotope Ratio			3.01			2	17-MAR-10 07:52	per0316119a
14797-73-0	Perchlorate-101	1.08	4.32	15.5	ug/kg		2	17-MAR-10 07:52	per0316119a
	Perchlorate-O(18)			12.2	ug/kg		2	17-MAR-10 07:52	per0316119a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids
Aliquot

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
 Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Sample Name: per0316119a

Date: 17-Mar-2010

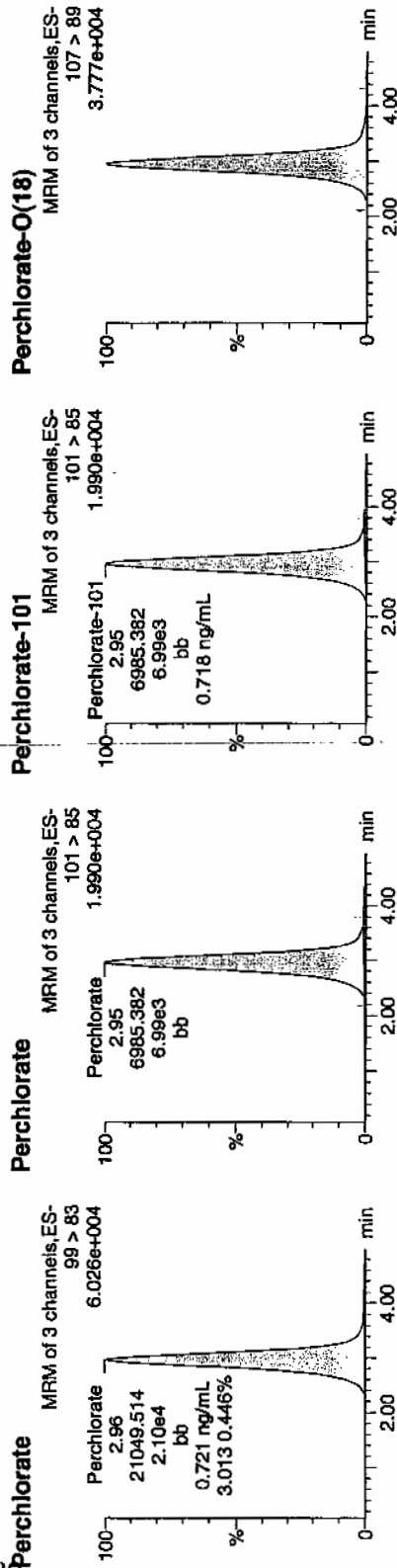
Time: 07:52:29

ID: 1202063739

Vial: 3:1,B

03-17-10

1202063739 | 5020 | MS | 2 | OL



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202063739	Perchlorate	99 > 83	2.96	21049.514	21049.514	bb			0.7206	360.31	260.31	1829.1...	3.01
1202063739	Perchlorate-101	101 > 85	2.96	21049.514	21049.514	bb			0.7184	359.22	259.22	727.106	
1202063739	Perchlorate-O(18)	107 > 89	2.96	13425.915	13425.915	bb			0.5619	112.38	12.38	725.961	

1.44
 1.44
 1.44

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: 962123

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-8286MSD

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2141

GEL Sample ID: 1202063740

Date Filtered: 08-MAR-10

Injection Volume (uL): 20

%Solids: 92.5

CAS No.	Analyte [^]	MDL	RL	Conc [*]	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	1.08	4.32	13.4	ug/kg		2	17-MAR-10 08:00	per0316120a
	Perchlorate Isotope Ratio			3.18			2	17-MAR-10 08:00	per0316120a
14797-73-0	Perchlorate-101	1.08	4.32	12.6	ug/kg		2	17-MAR-10 08:00	per0316120a
	Perchlorate-O(18)			11.6	ug/kg		2	17-MAR-10 08:00	per0316120a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
 Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Sample Name: per0316120a

Date: 17-Mar-2010

Time: 08:00:31

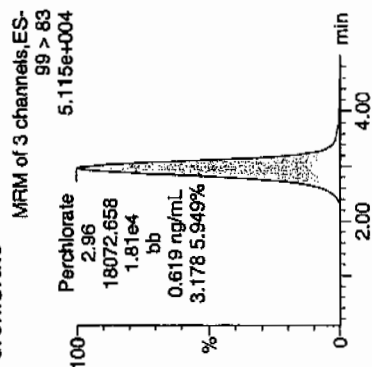
ID: 1202063740

Vial: 3:1,C

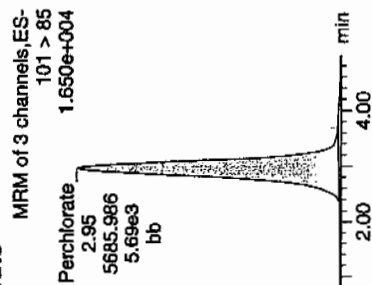
03-17-10

1202063740 | 5020 | 150 | 2/10

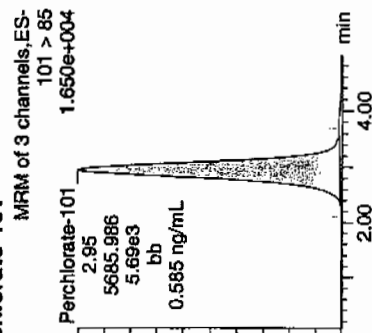
Perchlorate



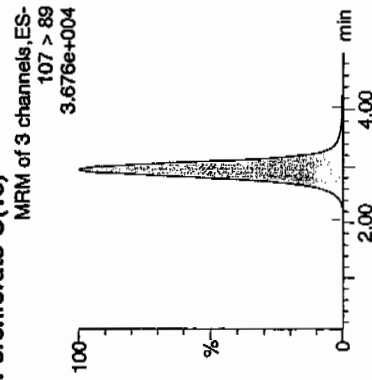
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
1202063740	Perchlorate	99 > 83	2.96	18072.658	18072.658	bb			0.6187	309.36	209.36	2581.8...	3.18
1202063740	Perchlorate-101	101 > 85	2.95	5685.986	5685.986	bb			0.5848	292.40	192.40	1324.3...	
1202063740	Perchlorate-O(18)	107 > 89	2.95	12833.217	12833.217	bb			0.5371	107.42	7.42	769.660	

1.24
 1.17
 3/18/10

MISCELLANEOUS DATA

Isotope Ratio Criteria

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

2.31-3.85

Tune Criteria

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

Prep Logbook

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

Batch ID: 962123 Verified by: _____
 Analyst: Jareth Shirley
 Method: SW846 6850 Modified
 Lab SOP: GL-OA-E-067 REV# 6
 Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202063737 MB	08-MAR-2010 14:29:00	2	20	10
1202063738 LCS	08-MAR-2010 14:29:00	2	20	10
248250001	08-MAR-2010 14:29:00	2	20	10
248250002	08-MAR-2010 14:29:00	2	20	10
1202063739 MS (248250002)	08-MAR-2010 14:29:00	2	20	10
1202063740 MSD (248250002)	08-MAR-2010 14:29:00	2	20	10
248250003	08-MAR-2010 14:29:00	2	20	10
248250004	08-MAR-2010 14:29:00	2	20	10
248386003	08-MAR-2010 14:29:00	2	20	10
248386004	08-MAR-2010 14:29:00	2	20	10
248549001	08-MAR-2010 14:29:00	2	20	10
248549002	08-MAR-2010 14:29:00	2	20	10
248549003	08-MAR-2010 14:29:00	2	20	10
248549004	08-MAR-2010 14:29:00	2	20	10
248549005	08-MAR-2010 14:29:00	2	20	10
248549006	08-MAR-2010 14:29:00	2	20	10
248682001	08-MAR-2010 14:29:00	2	20	10
248682002	08-MAR-2010 14:29:00	2	20	10
248682003	08-MAR-2010 14:29:00	2	20	10
1202063741 ICS	08-MAR-2010 14:29:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
ICS	1202063741	10 ug/L ICV/CCV Second Source	UCL100226-01.2	.4	mL	Desalting cartridges used: 100217-1-H & 100209-1-Ba
LCS	1202063738	10 ug/L ICV/CCV Second Source	UCL100226-01.2	.4	mL	
MS	1202063739	10 ug/L ICV/CCV Second Source	UCL100226-01.2	.4	mL	
MSD	1202063740	10 ug/L ICV/CCV Second Source	UCL100226-01.2	.4	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LOMSMS#2

Date: 03/16/10
 Extr. Injection Volume: 20uL
 Sequence Number: per031610a
 Initial Calibration Date: 03/16/10

Method: EPA 8850-Modified
 Int. Std.: UCL100210-01
 Mobile Phase Lot#: 1278668, 1271949
 Standard-Samp Reagent Lot#: 1271949

Reviewed BY: LMH
 Date: 3/15/10
 SOP: GL-OA-E-067 Rev.6
 Alt Check Std. ID: WCL100309-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0316001a	IPB001	CWW	3/16/2010 16:00			1		USE	B
per0316002a	IPB001	CWW	3/16/2010 16:08			1		USE	B
per0316003a	WCLICAL-01	CWW	3/16/2010 16:16			1		USE	I
per0316004a	WCLICAL-02	CWW	3/16/2010 16:24			1		USE	I
per0316005a	WCLICAL-03	CWW	3/16/2010 16:32			1		USE	I
per0316006a	WCLICAL-04	CWW	3/16/2010 16:40			1		USE	I
per0316007a	WCLICAL-05	CWW	3/16/2010 16:48			1		USE	I
per0316008a	IPB002	CWW	3/16/2010 16:56			1		USE	B
per0316009a	WCLICV	CWW	3/16/2010 17:04			1		USE	C
per0316010a	IPB003	CWW	3/16/2010 17:12			1		USE	B
per0316011a	WCLCRI	CWW	3/16/2010 17:20			1		USE	C
per0316012a	248633001	CWW	3/16/2010 17:28	962119	LPTP10-S1	5000	PTQA	USE	S
per0316013a	1202063730	CWW	3/16/2010 17:36	962119	LPTP10-S2	5000	PTQA	USE	S
per0316014a	248065008	CWW	3/16/2010 17:44	958968	10-2086	1		USE	S
per0316015a	IPB004	CWW	3/16/2010 17:52			1		USE	B
per0316016a	1202054236	CWW	3/16/2010 18:00	957953	10-1976-1	1	LANL	USE	S
per0316017a	1202054237	CWW	3/16/2010 18:09	957953	10-1976-1	1	LANL	USE	S
per0316018a	1202054240	CWW	3/16/2010 18:17	957953	10-1976-1	1	LANL	USE	S
per0316019a	247781001	CWW	3/16/2010 18:25	957953	10-1976-1	1	LANL	USE	S
per0316020a	1202054238	CWW	3/16/2010 18:33	957953	10-1976-1	1	LANL	USE	S
per0316021a	1202054239	CWW	3/16/2010 18:41	957953	10-1976-1	1	LANL	USE	S
per0316022a	WCLCCV	CWW	3/16/2010 18:49			1		USE	C
per0316023a	IPB005	CWW	3/16/2010 18:57			1		USE	B
per0316024a	WCLCRI	CWW	3/16/2010 19:05			1		USE	C
per0316025a	247781002	CWW	3/16/2010 19:13	957953	10-1976-1	1	LANL	USE	S
per0316026a	247781003	CWW	3/16/2010 19:21	957953	10-1976-1	1	LANL	USE	S
per0316027a	IPB006	CWW	3/16/2010 19:29			1		USE	B
per0316028a	1202063732	CWW	3/16/2010 19:37	962121	10-2256	1	LANL	USE	S
per0316029a	1202063733	CWW	3/16/2010 19:45	962121	10-2256	1	LANL	USE	S

per0316030a	1202063736	CWW	3/16/2010 19:53	962121	10-2256	1	LANL	USE	S
per0316031a	248666001	CWW	3/16/2010 20:01	962121	10-2256	1	LANL	USE	S
per0316032a	1202063734	CWW	3/16/2010 20:09	962121	10-2256	1	LANL	USE	S
per0316033a	1202063735	CWW	3/16/2010 20:17	962121	10-2256	1	LANL	USE	S
per0316034a	248666002	CWW	3/16/2010 20:25	962121	10-2256	1	LANL	USE	S
per0316035a	WCLCCV	CWW	3/16/2010 20:33			1		USE	C
per0316036a	IPB007	CWW	3/16/2010 20:41			1		USE	B
per0316037a	WCLCRI	CWW	3/16/2010 20:49			1		USE	C
per0316038a	248666003	CWW	3/16/2010 20:57	962121	10-2256	1	LANL	USE	S
per0316039a	248666004	CWW	3/16/2010 21:05	962121	10-2256	1	LANL	USE	S
per0316040a	248666005	CWW	3/16/2010 21:13	962121	10-2256	1	LANL	USE	S
per0316041a	248666006	CWW	3/16/2010 21:22	962121	10-2256	1	LANL	USE	S
per0316042a	248666007	CWW	3/16/2010 21:30	962121	10-2256	1	LANL	USE	S
per0316043a	248666008	CWW	3/16/2010 21:38	962121	10-2256	1	LANL	USE	S
per0316044a	248666009	CWW	3/16/2010 21:46	962121	10-2256	1	LANL	USE	S
per0316045a	248666010	CWW	3/16/2010 21:54	962121	10-2256	1	LANL	USE	S
per0316046a	248666011	CWW	3/16/2010 22:02	962121	10-2256	1	LANL	USE	S
per0316047a	248666012	CWW	3/16/2010 22:10	962121	10-2256	1	LANL	USE	S
per0316048a	WCLCCV	CWW	3/16/2010 22:18			1		USE	C
per0316049a	IPB008	CWW	3/16/2010 22:26			1		USE	B
per0316050a	WCLCRI	CWW	3/16/2010 22:34			1		USE	C
per0316051a	248666013	CWW	3/16/2010 22:42	962121	10-2256	1	LANL	USE	S
per0316052a	248666014	CWW	3/16/2010 22:50	962121	10-2256	1	LANL	USE	S
per0316053a	248666015	CWW	3/16/2010 22:58	962121	10-2256	1	LANL	USE	S
per0316054a	248666016	CWW	3/16/2010 23:06	962121	10-2256	1	LANL	USE	S
per0316055a	248666017	CWW	3/16/2010 23:14	962121	10-2256	1	LANL	USE	S
per0316056a	248666018	CWW	3/16/2010 23:22	962121	10-2256	1	LANL	USE	S
per0316057a	248666019	CWW	3/16/2010 23:30	962121	10-2256	1	LANL	USE	S
per0316058a	248666020	CWW	3/16/2010 23:38	962121	10-2256	1	LANL	USE	S
per0316059a	WCLCCV	CWW	3/16/2010 23:47			1		USE	C
per0316060a	IPB009	CWW	3/16/2010 23:55			1		USE	B
per0316061a	WCLCRI	CWW	3/17/2010 0:03			1		USE	C
per0316062a	1202063737	CWW	3/17/2010 0:11	962124	VARIOUS	1	LANL	USE	S
per0316063a	1202063738	CWW	3/17/2010 0:19	962124	VARIOUS	1	LANL	USE	S
per0316064a	1202063741	CWW	3/17/2010 0:27	962124	VARIOUS	1	LANL	USE	S
per0316065a	248250001	CWW	3/17/2010 0:35	962124	10-2141	1	LANL	USE	S
per0316066a	248250002	CWW	3/17/2010 0:43	962124	10-2141	1	LANL	DUSE-DL	S

per0316067a	1202063739	CWW	3/17/2010 0:51	962124	10-2141	1	LANL	DUSE-DL	S
per0316068a	1202063740	CWW	3/17/2010 0:59	962124	10-2141	1	LANL	DUSE-DL	S
per0316069a	248250003	CWW	3/17/2010 1:07	962124	10-2141	1	LANL	DUSE-DL	S
per0316070a	248250004	CWW	3/17/2010 1:15	962124	10-2141	1	LANL	DUSE-DL	S
per0316071a	248386003	CWW	3/17/2010 1:23	962124	10-2164	1	LANL	DUSE-RA	S
per0316072a	WCLCCV	CWW	3/17/2010 1:31			1		USE	C
per0316073a	IPB010	CWW	3/17/2010 1:39			1		USE	B
per0316074a	WCLCRI	CWW	3/17/2010 1:47			1		USE	C
per0316075a	248386004	CWW	3/17/2010 1:55	962124	10-2164	1	LANL	USE	S
per0316076a	248549001	CWW	3/17/2010 2:04	962124	10-2214	1	LANL	USE	S
per0316077a	248549002	CWW	3/17/2010 2:12	962124	10-2214	1	LANL	USE	S
per0316078a	248549003	CWW	3/17/2010 2:20	962124	10-2214	1	LANL	USE	S
per0316079a	248549004	CWW	3/17/2010 2:28	962124	10-2214	1	LANL	USE	S
per0316080a	248549005	CWW	3/17/2010 2:36	962124	10-2214	1	LANL	USE	S
per0316081a	248549006	CWW	3/17/2010 2:44	962124	10-2214	1	LANL	USE	S
per0316082a	248682001	CWW	3/17/2010 2:52	962124	10-2259	1	LANL	USE	S
per0316083a	248682002	CWW	3/17/2010 3:00	962124	10-2259	1	LANL	USE	S
per0316084a	248682003	CWW	3/17/2010 3:08	962124	10-2259	1	LANL	USE	S
per0316085a	WCLCCV	CWW	3/17/2010 3:16			1		USE	C
per0316086a	IPB011	CWW	3/17/2010 3:24			1		USE	B
per0316087a	WCLCRI	CWW	3/17/2010 3:32			1		USE	C
per0316088a	1202063757	CWW	3/17/2010 3:40	962136	VARIOUS	1	LANL	USE	S
per0316089a	1202063758	CWW	3/17/2010 3:49	962136	VARIOUS	1	LANL	USE	S
per0316090a	1202063761	CWW	3/17/2010 3:57	962136	VARIOUS	1	LANL	USE	S
per0316091a	248375001	CWW	3/17/2010 4:05	962136	10-2155-1	1	LANL	USE	S
per0316092a	248375002	CWW	3/17/2010 4:13	962136	10-2155-1	1	LANL	USE	S
per0316093a	248407001	CWW	3/17/2010 4:21	962136	10-2188	1	LANL	USE	S
per0316094a	1202063759	CWW	3/17/2010 4:29	962136	10-2188	1	LANL	USE	S
per0316095a	1202063760	CWW	3/17/2010 4:37	962136	10-2188	1	LANL	USE	S
per0316096a	248419001	CWW	3/17/2010 4:45	962136	10-2191-1	1	LANL	USE	S
per0316097a	248419002	CWW	3/17/2010 4:53	962136	10-2191-1	1	LANL	USE	S
per0316098a	WCLCCV	CWW	3/17/2010 5:01			1		USE	C
per0316099a	IPB012	CWW	3/17/2010 5:09			1		USE	B
per0316100a	WCLCRI	CWW	3/17/2010 5:17			1		USE	C
per0316101a	248516001	CWW	3/17/2010 5:25	962136	10-2197-1	1	LANL	USE	S
per0316102a	248516002	CWW	3/17/2010 5:34	962136	10-2197-1	1	LANL	USE	S
per0316103a	248518001	CWW	3/17/2010 5:42	962136	10-2198-1	1	LANL	USE	S

per0316104a	248523001	CWW	3/17/2010 5:50	962136	10-2203	1	LANL	USE	S
per0316105a	248533001	CWW	3/17/2010 5:58	962136	10-2211-1	1	LANL	USE	S
per0316106a	248535001	CWW	3/17/2010 6:07	962136	10-2208-1	1	LANL	USE	S
per0316107a	248535002	CWW	3/17/2010 6:15	962136	10-2208-1	1	LANL	USE	S
per0316108a	248551001	CWW	3/17/2010 6:23	962136	10-2214-1	1	LANL	USE	S
per0316109a	248551002	CWW	3/17/2010 6:31	962136	10-2214-1	1	LANL	USE	S
per0316110a	248638001	CWW	3/17/2010 6:39	962136	10-2234-1	1	LANL	USE	S
per0316111a	WCLCCV	CWW	3/17/2010 6:47			1		USE	C
per0316112a	IPB013	CWW	3/17/2010 6:55			1		USE	B
per0316113a	WCLCRI	CWW	3/17/2010 7:03			1		USE	C
per0316114a	248649001	CWW	3/17/2010 7:11	962136	10-2240-1	1	LANL	USE	S
per0316115a	248649002	CWW	3/17/2010 7:20	962136	10-2240-1	1	LANL	USE	S
per0316116a	248685001	CWW	3/17/2010 7:28	962136	10-2259-1	1	LANL	USE	S
per0316117a	248685002	CWW	3/17/2010 7:36	962136	10-2259-1	1	LANL	USE	S
per0316118a	248250002	CWW	3/17/2010 7:44	962124	10-2141	2	LANL	USE	S
per0316119a	1202063739	CWW	3/17/2010 7:52	962124	10-2141	2	LANL	USE	S
per0316120a	1202063740	CWW	3/17/2010 8:00	962124	10-2141	2	LANL	USE	S
per0316121a	248250003	CWW	3/17/2010 8:08	962124	10-2141	100	LANL	USE	S
per0316122a	248250004	CWW	3/17/2010 8:16	962124	10-2141	50	LANL	USE	S
per0316123a	248386003	CWW	3/17/2010 8:24	962124	10-2164	1	LANL	USE	S
per0316124a	WCLCCV	CWW	3/17/2010 8:32			1		USE	C
per0316125a	IPB014	CWW	3/17/2010 8:40			1		USE	B
per0316126a	WCLCRI	CWW	3/17/2010 8:48			1		USE	C

GEL Laboratories LLC
Form GEL-DER

DER Report No.: 805718

Revision No.: 1

DATA EXCEPTION REPORT

Mo. Day Yr. 17-MAR-10	Division: Federal	Quality Criteria: Others	Type: Process
Instrument Type: LC-MS/MS	Test / Method: SW846 6850 Modified	Matrix Type: Solid	Client Code: LANL010
Batch ID: 962124	Sample Numbers: See below		
Potentially affected work order(s) (SDG): 248250(10-2141), 248386(10-2164), 248549(10-2214), 248682(10-2259)			
Application Issues: Failed Recovery for MSD/PSD Failed Recovery for MS/PS			
Specification and Requirements Exception Description:		DER Disposition:	
<p>1. High recoveries were observed for Perchlorate and Perchlorate-101 in 1202063739 (MS). The recoveries were 181% and 203%, respectively. The acceptance range is 75-125%.</p> <p>2. Low recovery for Perchlorate-101 was observed in 1202063740 (MSD). The recovery was 69% and the acceptance range is 75-125%.</p>		<p>1. & 2. The outliers observed for the matrix spikes may be the result of the background concentration present in the parent sample, 248250002, and the need to dilute all at 2x prior to analysis.</p>	

Originator's Name:

Charles Wilson 17-MAR-10

Data Validator/Group Leader:

Michael Penny 18-MAR-10

Metals Analysis

Case Narrative

**Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2141**

Sample Analysis

Sample ID	Client ID
248250001	RE36-10-8285
248250002	RE36-10-8286
248250003	RE36-10-8283
248250004	RE36-10-8284
1202056979	Method Blank (MB) ICP
1202056984	Laboratory Control Sample (LCS)
1202056981	248247001(RE36-10-8464L) Serial Dilution (SD)
1202056980	248247001(RE36-10-8464D) Sample Duplicate (DUP)
1202056982	248247001(RE36-10-8464S) Matrix Spike (MS)
1202056983	248247001(RE36-10-8464SD) Matrix Spike Duplicate (MSD)
1202056985	Method Blank (MB) ICP-MS
1202056990	Laboratory Control Sample (LCS)
1202056987	248247001(RE36-10-8464L) Serial Dilution (SD)
1202056986	248247001(RE36-10-8464D) Sample Duplicate (DUP)
1202056988	248247001(RE36-10-8464S) Matrix Spike (MS)
1202056989	248247001(RE36-10-8464SD) Matrix Spike Duplicate (MSD)
1202056652	Method Blank (MB) CVAA
1202056653	Laboratory Control Sample (LCS)
1202056656	248256001(RE46-10-13534L) Serial Dilution (SD)
1202056654	248256001(RE46-10-13534D) Sample Duplicate (DUP)
1202056655	248256001(RE46-10-13534S) Matrix Spike (MS)
1202056657	248256001(RE46-10-13534SD) Matrix Spike Duplicate (MSD)

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

Method/Analysis Information

Analytical Batch: 959150, 959152 and 958993

Prep Batch :	959149, 959151 and 958991
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 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 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 standards met the advisory control limits with the exceptions of beryllium and uranium that recovered outside of the advisory control limits of 70-130%.

ICSA/ICSAB Statement

All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements

All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements

All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information**Method Blank (MB) Statement**

The method blank analyzed with this SDG met the exception of iron. The samples in this SDG contained the above noted analytes at concentrations more than ten times the amount present in the method blank (MB), therefore the data was not adversely affected.

Laboratory Control Sample (LCS) Recovery

The LCS analyzed with this SDG met the acceptance criteria of percent recovery with the exception of antimony. Silver and/or antimony did not meet the recovery acceptance criteria for the LCS. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures.

Quality Control (QC) Sample Statement

The following samples were selected as the quality control (QC) samples for this SDG: 248247001 (RE36-10-8464)-ICP and ICP-MS and 248256001 (RE46-10-13534)-CVAA.

Matrix Spike (MS) Recovery Statement

The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of calcium, lead, magnesium and potassium as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement

The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of calcium, magnesium and potassium as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement

The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of lead

as indicated by the “*” qualifier.

Duplicate Relative Percent Difference (RPD) Statement

The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of mercury and calcium 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 248250002, 248250003 and 248250004 on the ICP required dilutions in order to bring over range silver concentrations within the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information

The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not

generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER ID 805464 and 814411. A copy is included in the Miscellaneous Data section of this package.

Additional Comments

Additional comments were not required for this SDG.

Certification Statement

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

Review Validation:

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

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

Reviewer: Nick-Colel Elmore Date: 4.15.10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2141

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248250001

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-8285

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 72

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5740000	ug/Kg		9270	27300	27300	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-36-0	Antimony	1360	ug/Kg	U	450	1360	1360	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-38-2	Arsenic	5.81	mg/kg		0.269	1.34	1.34	2	MS	SKJ	04/14/10 00:15	100413-2	959152
7440-39-3	Barium	55800	ug/Kg		136	681	681	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-41-7	Beryllium	0.890	mg/kg		0.0269	0.134	0.134	2	MS	SKJ	04/14/10 00:15	100413-2	959152
7440-43-9	Cadmium	324	ug/Kg	J	136	681	681	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-70-2	Calcium	3370000	ug/Kg		10900	34100	34100	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-47-3	Chromium	192000	ug/Kg		204	681	681	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-48-4	Cobalt	902	ug/Kg		204	681	681	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-50-8	Copper	15300	ug/Kg		409	1360	1360	1	P	HSC	04/01/10 05:40	033110B-1	959150
7439-89-6	Iron	8160000	ug/Kg		10900	34100	34100	1	P	HSC	04/01/10 05:40	033110B-1	959150
7439-92-1	Lead	14900	ug/Kg		341	1360	1360	1	P	HSC	04/01/10 05:40	033110B-1	959150
7439-95-4	Magnesium	900000	ug/Kg		11600	40900	40900	1	P	HSC	04/01/10 05:40	033110B-1	959150
7439-96-5	Manganese	118000	ug/Kg		273	1360	1360	1	P	HSC	04/01/10 05:40	033110B-1	959150
7439-97-6	Mercury	461	ug/kg		4.93	14.5	14.5	1	AV	JXL1	03/17/10 11:05	031710S2-3	958993
7440-02-0	Nickel	6.1	mg/kg		0.134	0.538	0.538	2	MS	SKJ	04/14/10 00:15	100413-2	959152
7440-09-7	Potassium	851000	ug/Kg		8720	34100	34100	1	P	HSC	04/01/10 05:40	033110B-1	959150
7782-49-2	Selenium	1.34	mg/kg	U	0.672	1.34	1.34	2	MS	SKJ	04/14/10 00:15	100413-2	959152
7440-22-4	Silver	102000	ug/Kg		136	681	681	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-23-5	Sodium	120000	ug/Kg		9540	34100	34100	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-28-0	Thallium	0.143	mg/kg	J	0.0807	0.269	0.269	2	MS	SKJ	04/14/10 00:15	100413-2	959152
7440-61-1	Uranium	10.4	mg/kg		0.0177	0.0538	0.0538	2	MS	SKJ	04/14/10 00:15	100413-2	959152
7440-62-2	Vanadium	12600	ug/Kg		136	681	681	1	P	HSC	04/01/10 05:40	033110B-1	959150
7440-66-6	Zinc	74200	ug/Kg		450	1360	1360	1	P	HSC	04/01/10 05:40	033110B-1	959150

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958993	958991	SW846 7471A Prep	0.574	g	30	mL	03/16/10	TXB3
959150	959149	SW846 3050B	0.509	g	50	mL	03/11/10	LYH1
959152	959151	SW846 3050B	0.516	g	50	mL	03/11/10	LYH1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2141

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248250002

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-8286

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 92.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5550000	ug/Kg		6710	19700	19700	1	P	HSC	04/01/10 05:42	033110B-1	959150
7440-36-0	Antimony	986	ug/Kg	U	326	986	986	1	P	HSC	04/01/10 05:42	033110B-1	959150
7440-38-2	Arsenic	2.88	mg/kg		0.208	1.04	1.04	2	MS	SKJ	04/14/10 00:20	100413-2	959152
7440-39-3	Barium	49600	ug/Kg		98.6	493	493	1	P	HSC	04/01/10 05:42	033110B-1	959150
7440-41-7	Beryllium	0.478	mg/kg		0.0208	0.104	0.104	2	MS	SKJ	04/14/10 00:20	100413-2	959152
7440-43-9	Cadmium	3350	ug/Kg		98.6	493	493	1	P	HSC	04/01/10 05:42	033110B-1	959150
7440-70-2	Calcium	2410000	ug/Kg		7890	24700	24700	1	P	HSC	04/01/10 05:42	033110B-1	959150
7440-47-3	Chromium	97900	ug/Kg		148	493	493	1	P	HSC	04/01/10 05:42	033110B-1	959150
7440-48-4	Cobalt	1280	ug/Kg		148	493	493	1	P	HSC	04/01/10 05:42	033110B-1	959150
7440-50-8	Copper	25200	ug/Kg		296	986	986	1	P	HSC	04/01/10 05:42	033110B-1	959150
7439-89-6	Iron	7270000	ug/Kg		7890	24700	24700	1	P	HSC	04/01/10 05:42	033110B-1	959150
7439-92-1	Lead	17400	ug/Kg		247	986	986	1	P	HSC	04/01/10 05:42	033110B-1	959150
7439-95-4	Magnesium	1040000	ug/Kg		8390	29600	29600	1	P	HSC	04/01/10 05:42	033110B-1	959150
7439-96-5	Manganese	78100	ug/Kg		197	986	986	1	P	HSC	04/01/10 05:42	033110B-1	959150
7439-97-6	Mercury	254	ug/kg		4.37	12.8	12.8	1	AV	JXL1	03/17/10 11:07	031710S2-3	958993
7440-02-0	Nickel	2.87	mg/kg		0.104	0.417	0.417	2	MS	SKJ	04/14/10 00:20	100413-2	959152
7440-09-7	Potassium	846000	ug/Kg		6310	24700	24700	1	P	HSC	04/01/10 05:42	033110B-1	959150
7782-49-2	Selenium	1.04	mg/kg	U	0.521	1.04	1.04	2	MS	SKJ	04/14/10 00:20	100413-2	959152
7440-22-4	Silver	302000	ug/Kg		986	4930	4930	10	P	HSC	04/01/10 05:58	033110B-1	959150
7440-23-5	Sodium	180000	ug/Kg		6910	24700	24700	1	P	HSC	04/01/10 05:42	033110B-1	959150
7440-28-0	Thallium	0.095	mg/kg	J	0.0625	0.208	0.208	2	MS	SKJ	04/14/10 00:20	100413-2	959152
7440-61-1	Uranium	4.73	mg/kg		0.0137	0.0417	0.0417	2	MS	SKJ	04/14/10 00:20	100413-2	959152
7440-62-2	Vanadium	14600	ug/Kg		98.6	493	493	1	P	HSC	04/01/10 05:42	033110B-1	959150
7440-66-6	Zinc	53200	ug/Kg		326	986	986	1	P	HSC	04/01/10 05:42	033110B-1	959150

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958993	958991	SW846 7471A Prep	0.505	g	30	mL	03/16/10	TXB3
959150	959149	SW846 3050B	0.548	g	50	mL	03/11/10	LYH1
959152	959151	SW846 3050B	0.519	g	50	mL	03/11/10	LYH1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2141

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248250003

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-8283

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 93.7

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5880000	ug/Kg		7100	20900	20900	1	P	HSC	04/01/10 05:44	033110B-1	959150
7440-36-0	Antimony	1040	ug/Kg	U	345	1040	1040	1	P	HSC	04/01/10 05:44	033110B-1	959150
7440-38-2	Arsenic	3.1	mg/kg		0.194	0.971	0.971	2	MS	SKJ	04/14/10 00:24	100413-2	959152
7440-39-3	Barium	52000	ug/Kg		104	522	522	1	P	HSC	04/01/10 05:44	033110B-1	959150
7440-41-7	Beryllium	0.534	mg/kg		0.0194	0.0971	0.0971	2	MS	SKJ	04/14/10 00:24	100413-2	959152
7440-43-9	Cadmium	469	ug/Kg	J	104	522	522	1	P	HSC	04/01/10 05:44	033110B-1	959150
7440-70-2	Calcium	4910000	ug/Kg		8360	26100	26100	1	P	HSC	04/01/10 05:44	033110B-1	959150
7440-47-3	Chromium	108000	ug/Kg		157	522	522	1	P	HSC	04/01/10 05:44	033110B-1	959150
7440-48-4	Cobalt	1090	ug/Kg		157	522	522	1	P	HSC	04/01/10 05:44	033110B-1	959150
7440-50-8	Copper	12300	ug/Kg		313	1040	1040	1	P	HSC	04/01/10 05:44	033110B-1	959150
7439-89-6	Iron	7120000	ug/Kg		8360	26100	26100	1	P	HSC	04/01/10 05:44	033110B-1	959150
7439-92-1	Lead	13600	ug/Kg		261	1040	1040	1	P	HSC	04/01/10 05:44	033110B-1	959150
7439-95-4	Magnesium	1830000	ug/Kg		8880	31300	31300	1	P	HSC	04/01/10 05:44	033110B-1	959150
7439-96-5	Manganese	88400	ug/Kg		209	1040	1040	1	P	HSC	04/01/10 05:44	033110B-1	959150
7439-97-6	Mercury	366	ug/kg		4.11	12.1	12.1	1	AV	JXL1	03/17/10 11:09	031710S2-3	958993
7440-02-0	Nickel	3.36	mg/kg		0.0971	0.388	0.388	2	MS	SKJ	04/14/10 00:24	100413-2	959152
7440-09-7	Potassium	1570000	ug/Kg		6690	26100	26100	1	P	HSC	04/01/10 05:44	033110B-1	959150
7782-49-2	Selenium	0.971	mg/kg	U	0.485	0.971	0.971	2	MS	SKJ	04/14/10 00:24	100413-2	959152
7440-22-4	Silver	215000	ug/Kg		1040	5220	5220	10	P	HSC	04/01/10 06:00	033110B-1	959150
7440-23-5	Sodium	1000000	ug/Kg		7310	26100	26100	1	P	HSC	04/01/10 05:44	033110B-1	959150
7440-28-0	Thallium	0.101	mg/kg	J	0.0582	0.194	0.194	2	MS	SKJ	04/14/10 00:24	100413-2	959152
7440-61-1	Uranium	5.15	mg/kg		0.0128	0.0388	0.0388	2	MS	SKJ	04/14/10 00:24	100413-2	959152
7440-62-2	Vanadium	13400	ug/Kg		104	522	522	1	P	HSC	04/01/10 05:44	033110B-1	959150
7440-66-6	Zinc	58300	ug/Kg		345	1040	1040	1	P	HSC	04/01/10 05:44	033110B-1	959150

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958993	958991	SW846 7471A Prep	0.53	g	30	mL	03/16/10	TXB3
959150	959149	SW846 3050B	0.511	g	50	mL	03/11/10	LYH1
959152	959151	SW846 3050B	0.55	g	50	mL	03/11/10	LYH1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2141

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248250004

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-8284

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 94.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4910000	ug/Kg		6910	20300	20300	1	P	HSC	04/01/10 05:46	033110B-1	959150
7440-36-0	Antimony	1020	ug/Kg	U	335	1020	1020	1	P	HSC	04/01/10 05:46	033110B-1	959150
7440-38-2	Arsenic	2.99	mg/kg		0.208	1.04	1.04	2	MS	SKJ	04/14/10 00:28	100413-2	959152
7440-39-3	Barium	38500	ug/Kg		102	508	508	1	P	HSC	04/01/10 05:46	033110B-1	959150
7440-41-7	Beryllium	0.523	mg/kg		0.0208	0.104	0.104	2	MS	SKJ	04/14/10 00:28	100413-2	959152
7440-43-9	Cadmium	182	ug/Kg	J	102	508	508	1	P	HSC	04/01/10 05:46	033110B-1	959150
7440-70-2	Calcium	2660000	ug/Kg		8130	25400	25400	1	P	HSC	04/01/10 05:46	033110B-1	959150
7440-47-3	Chromium	70900	ug/Kg		152	508	508	1	P	HSC	04/01/10 05:46	033110B-1	959150
7440-48-4	Cobalt	977	ug/Kg		152	508	508	1	P	HSC	04/01/10 05:46	033110B-1	959150
7440-50-8	Copper	8410	ug/Kg		305	1020	1020	1	P	HSC	04/01/10 05:46	033110B-1	959150
7439-89-6	Iron	7500000	ug/Kg		8130	25400	25400	1	P	HSC	04/01/10 05:46	033110B-1	959150
7439-92-1	Lead	8690	ug/Kg		254	1020	1020	1	P	HSC	04/01/10 05:46	033110B-1	959150
7439-95-4	Magnesium	1040000	ug/Kg		8630	30500	30500	1	P	HSC	04/01/10 05:46	033110B-1	959150
7439-96-5	Manganese	90400	ug/Kg		203	1020	1020	1	P	HSC	04/01/10 05:46	033110B-1	959150
7439-97-6	Mercury	309	ug/kg		3.98	11.7	11.7	1	AV	JXL1	03/17/10 11:10	031710S2-3	958993
7440-02-0	Nickel	2.9	mg/kg		0.104	0.417	0.417	2	MS	SKJ	04/14/10 00:28	100413-2	959152
7440-09-7	Potassium	893000	ug/Kg		6500	25400	25400	1	P	HSC	04/01/10 05:46	033110B-1	959150
7782-49-2	Selenium	1.04	mg/kg	U	0.521	1.04	1.04	2	MS	SKJ	04/14/10 00:28	100413-2	959152
7440-22-4	Silver	199000	ug/Kg		1020	5080	5080	10	P	HSC	04/01/10 06:02	033110B-1	959150
7440-23-5	Sodium	331000	ug/Kg		7110	25400	25400	1	P	HSC	04/01/10 05:46	033110B-1	959150
7440-28-0	Thallium	0.0856	mg/kg	J	0.0625	0.208	0.208	2	MS	SKJ	04/14/10 00:28	100413-2	959152
7440-61-1	Uranium	4.36	mg/kg		0.0138	0.0417	0.0417	2	MS	SKJ	04/14/10 00:28	100413-2	959152
7440-62-2	Vanadium	10500	ug/Kg		102	508	508	1	P	HSC	04/01/10 05:46	033110B-1	959150
7440-66-6	Zinc	49500	ug/Kg		335	1020	1020	1	P	HSC	04/01/10 05:46	033110B-1	959150

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt/vol.	Units	Final wt/vol.	Units	Date	Analyst
958993	958991	SW846 7471A Prep	0.543	g	30	mL	03/16/10	TXB3
959150	959149	SW846 3050B	0.521	g	50	mL	03/11/10	LYH1
959152	959151	SW846 3050B	0.508	g	50	mL	03/11/10	LYH1

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICV01										
	Mercury	5.13	ug/L	5	ug/L	102.6	90.0 – 110.0	AV	17-MAR-10 09:48	031710S2-3
	Aluminum	5150	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Antimony	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Barium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Cadmium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Calcium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Chromium	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Cobalt	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Copper	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Lead	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Magnesium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Manganese	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Potassium	2520	ug/L	2500	ug/L	100.7	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Silver	258	ug/L	250	ug/L	103.3	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Sodium	2510	ug/L	2500	ug/L	100.5	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Arsenic	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	13-APR-10 19:08	100413-2
	Beryllium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	13-APR-10 19:08	100413-2
	Nickel	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	13-APR-10 19:08	100413-2
	Selenium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	13-APR-10 19:08	100413-2
	Thallium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	13-APR-10 19:08	100413-2
	Uranium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	13-APR-10 19:08	100413-2
CCV01										
	Mercury	5.11	ug/L	5	ug/L	102.3	80.0 – 120.0	AV	17-MAR-10 09:53	031710S2-3
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Antimony	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Barium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Cadmium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Magnesium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Manganese	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Potassium	5700	ug/L	5000	ug/L	113.9	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Vanadium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Arsenic	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	13-APR-10 19:28	100413-2
	Beryllium	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	13-APR-10 19:28	100413-2
	Nickel	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	13-APR-10 19:28	100413-2
	Selenium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	13-APR-10 19:28	100413-2
	Thallium	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	13-APR-10 19:28	100413-2
	Uranium	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	13-APR-10 19:28	100413-2
CCV02	Mercury	5.2	ug/L	5	ug/L	104	80.0 – 120.0	AV	17-MAR-10 10:13	031710S2-3
	Aluminum	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Antimony	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Barium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Cadmium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Calcium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Chromium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Iron	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Lead	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Magnesium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Potassium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Silver	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Zinc	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Arsenic	51.7	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	13-APR-10 20:09	100413-2
	Beryllium	55.7	ug/L	50	ug/L	111.4	90.0 – 110.0	MS	13-APR-10 20:09	100413-2
	Nickel	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	13-APR-10 20:09	100413-2
	Selenium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	13-APR-10 20:09	100413-2
	Thallium	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	13-APR-10 20:09	100413-2
	Uranium	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	13-APR-10 20:09	100413-2
CCV03	Mercury	5.22	ug/L	5	ug/L	104.4	80.0 – 120.0	AV	17-MAR-10 10:33	031710S2-3
	Aluminum	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Antimony	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Barium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Cadmium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Chromium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Cobalt	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Iron	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Lead	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Potassium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Vanadium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Zinc	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Arsenic	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	13-APR-10 20:42	100413-2
	Beryllium	54.8	ug/L	50	ug/L	109.5	90.0 – 110.0	MS	13-APR-10 20:42	100413-2
	Nickel	48.6	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	13-APR-10 20:42	100413-2
	Selenium	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	13-APR-10 20:42	100413-2
	Thallium	49.6	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	13-APR-10 20:42	100413-2
	Uranium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	13-APR-10 20:42	100413-2
CCV04										
	Mercury	4.91	ug/L	5	ug/L	98.3	80.0 – 120.0	AV	17-MAR-10 10:54	031710S2-3
	Aluminum	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Antimony	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Barium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Cadmium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Chromium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Copper	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Iron	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Magnesium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Potassium	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Silver	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Sodium	9730	ug/L	10000	ug/L	97.3	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Vanadium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Zinc	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Arsenic	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	13-APR-10 21:19	100413-2
	Beryllium	54.4	ug/L	50	ug/L	108.7	90.0 – 110.0	MS	13-APR-10 21:19	100413-2

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Nickel	48.7	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	13-APR-10 21:19	100413-2
	Selenium	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	13-APR-10 21:19	100413-2
	Thallium	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	13-APR-10 21:19	100413-2
	Uranium	51	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	13-APR-10 21:19	100413-2
CCV05										
	Mercury	4.93	ug/L	5	ug/L	98.6	80.0 – 120.0	AV	17-MAR-10 11:14	031710S2-3
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Antimony	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Barium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Cadmium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Calcium	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Chromium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Copper	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Iron	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Lead	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Magnesium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Manganese	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Potassium	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Silver	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Sodium	9760	ug/L	10000	ug/L	97.6	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Vanadium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Zinc	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Arsenic	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	13-APR-10 22:00	100413-2
	Beryllium	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	13-APR-10 22:00	100413-2
	Nickel	49.1	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	13-APR-10 22:00	100413-2
	Selenium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	13-APR-10 22:00	100413-2
	Thallium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	13-APR-10 22:00	100413-2
	Uranium	50.9	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	13-APR-10 22:00	100413-2

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV06										
	Mercury	4.96	ug/L	5	ug/L	99.1	80.0 – 120.0	AV	17-MAR-10 11:34	031710S2-3
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Antimony	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Barium	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Cadmium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Calcium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Chromium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Copper	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Iron	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Lead	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Manganese	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Potassium	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Silver	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Sodium	9750	ug/L	10000	ug/L	97.5	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Vanadium	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Zinc	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Arsenic	51.1	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	13-APR-10 22:33	100413-2
	Beryllium	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	13-APR-10 22:33	100413-2
	Nickel	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	13-APR-10 22:33	100413-2
	Selenium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	13-APR-10 22:33	100413-2
	Thallium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	13-APR-10 22:33	100413-2
	Uranium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	13-APR-10 22:33	100413-2
CCV07										
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Antimony	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Barium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Cadmium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Calcium	4910	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Chromium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Copper	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Iron	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Manganese	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Silver	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Sodium	9770	ug/L	10000	ug/L	97.7	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Vanadium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Zinc	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Arsenic	50.8	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	13-APR-10 23:01	100413-2
	Beryllium	54.1	ug/L	50	ug/L	108.2	90.0 – 110.0	MS	13-APR-10 23:01	100413-2
	Nickel	48.4	ug/L	50	ug/L	96.8	90.0 – 110.0	MS	13-APR-10 23:01	100413-2
	Selenium	50.5	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	13-APR-10 23:01	100413-2
	Thallium	49.7	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	13-APR-10 23:01	100413-2
	Uranium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	13-APR-10 23:01	100413-2
CCV08	Aluminum	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1
	Antimony	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1
	Barium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1
	Cadmium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1
	Calcium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1
	Chromium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1
	Cobalt	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1
	Copper	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1
	Iron	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Manganese	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1
	Potassium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1
	Silver	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1
	Sodium	9710	ug/L	10000	ug/L	97.1	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1
	Vanadium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1
	Zinc	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1
	Arsenic	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	13-APR-10 23:47	100413-2
	Beryllium	54	ug/L	50	ug/L	108	90.0 – 110.0	MS	13-APR-10 23:47	100413-2
	Nickel	48.4	ug/L	50	ug/L	96.8	90.0 – 110.0	MS	13-APR-10 23:47	100413-2
	Selenium	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	13-APR-10 23:47	100413-2
	Thallium	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	13-APR-10 23:47	100413-2
	Uranium	51.2	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	13-APR-10 23:47	100413-2
CCV09	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	31-MAR-10 21:55	033110B-1
	Antimony	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31-MAR-10 21:55	033110B-1
	Barium	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31-MAR-10 21:55	033110B-1
	Cadmium	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31-MAR-10 21:55	033110B-1
	Calcium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	31-MAR-10 21:55	033110B-1
	Chromium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31-MAR-10 21:55	033110B-1
	Cobalt	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31-MAR-10 21:55	033110B-1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	31-MAR-10 21:55	033110B-1
	Iron	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31-MAR-10 21:55	033110B-1
	Lead	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31-MAR-10 21:55	033110B-1
	Magnesium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31-MAR-10 21:55	033110B-1
	Manganese	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31-MAR-10 21:55	033110B-1
	Potassium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	31-MAR-10 21:55	033110B-1
	Silver	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31-MAR-10 21:55	033110B-1
	Sodium	9660	ug/L	10000	ug/L	96.6	90.0 – 110.0	P	31-MAR-10 21:55	033110B-1
	Vanadium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31-MAR-10 21:55	033110B-1
	Zinc	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31-MAR-10 21:55	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Arsenic	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	14-APR-10 00:32	100413-2
	Beryllium	53.8	ug/L	50	ug/L	107.7	90.0 – 110.0	MS	14-APR-10 00:32	100413-2
	Nickel	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	14-APR-10 00:32	100413-2
	Selenium	50	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	14-APR-10 00:32	100413-2
	Thallium	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	14-APR-10 00:32	100413-2
	Uranium	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	14-APR-10 00:32	100413-2
CCV10										
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Antimony	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Cadmium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Calcium	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Chromium	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Cobalt	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Copper	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Iron	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Lead	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Magnesium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Manganese	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Silver	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Sodium	9610	ug/L	10000	ug/L	96.1	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Vanadium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Zinc	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
CCV11										
	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Antimony	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Barium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Cadmium	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Calcium	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Chromium	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Cobalt	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Copper	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Iron	4800	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Lead	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Magnesium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Manganese	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Potassium	4800	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Silver	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Sodium	9560	ug/L	10000	ug/L	95.6	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Vanadium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Zinc	472	ug/L	500	ug/L	94.5	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
CCV12	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Antimony	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Barium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Cadmium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Calcium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Chromium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Cobalt	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Copper	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Lead	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Magnesium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Manganese	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Silver	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Sodium	9590	ug/L	10000	ug/L	95.9	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Vanadium	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Zinc	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV13										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Antimony	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Cadmium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Calcium	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Chromium	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Iron	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Lead	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Magnesium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Manganese	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Potassium	4800	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Silver	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Sodium	9620	ug/L	10000	ug/L	96.2	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Vanadium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Zinc	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
CCV14										
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 23:44	033110B-1
	Antimony	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31-MAR-10 23:44	033110B-1
	Barium	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31-MAR-10 23:44	033110B-1
	Cadmium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31-MAR-10 23:44	033110B-1
	Calcium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	31-MAR-10 23:44	033110B-1
	Chromium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31-MAR-10 23:44	033110B-1
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31-MAR-10 23:44	033110B-1
	Copper	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31-MAR-10 23:44	033110B-1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31-MAR-10 23:44	033110B-1
	Lead	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31-MAR-10 23:44	033110B-1
	Magnesium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	31-MAR-10 23:44	033110B-1
	Manganese	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31-MAR-10 23:44	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Potassium	4790	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	31-MAR-10 23:44	033110B-1
	Silver	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31-MAR-10 23:44	033110B-1
	Sodium	9600	ug/L	10000	ug/L	96	90.0 – 110.0	P	31-MAR-10 23:44	033110B-1
	Vanadium	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31-MAR-10 23:44	033110B-1
	Zinc	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31-MAR-10 23:44	033110B-1
CCV15	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	01-APR-10 00:02	033110B-1
	Antimony	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01-APR-10 00:02	033110B-1
	Barium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 00:02	033110B-1
	Cadmium	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	01-APR-10 00:02	033110B-1
	Calcium	4820	ug/L	5000	ug/L	96.3	90.0 – 110.0	P	01-APR-10 00:02	033110B-1
	Chromium	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01-APR-10 00:02	033110B-1
	Cobalt	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01-APR-10 00:02	033110B-1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01-APR-10 00:02	033110B-1
	Iron	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	01-APR-10 00:02	033110B-1
	Lead	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	01-APR-10 00:02	033110B-1
	Magnesium	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	01-APR-10 00:02	033110B-1
	Manganese	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 00:02	033110B-1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	01-APR-10 00:02	033110B-1
	Silver	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 00:02	033110B-1
	Sodium	9580	ug/L	10000	ug/L	95.8	90.0 – 110.0	P	01-APR-10 00:02	033110B-1
	Vanadium	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 00:02	033110B-1
	Zinc	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	01-APR-10 00:02	033110B-1
CCV16	Aluminum	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	01-APR-10 00:18	033110B-1
	Antimony	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01-APR-10 00:18	033110B-1
	Barium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01-APR-10 00:18	033110B-1
	Cadmium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 00:18	033110B-1
	Calcium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	01-APR-10 00:18	033110B-1
	Chromium	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	01-APR-10 00:18	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cobalt	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 00:18	033110B-1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01-APR-10 00:18	033110B-1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	01-APR-10 00:18	033110B-1
	Lead	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 00:18	033110B-1
	Magnesium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	01-APR-10 00:18	033110B-1
	Manganese	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	01-APR-10 00:18	033110B-1
	Potassium	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	01-APR-10 00:18	033110B-1
	Silver	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 00:18	033110B-1
	Sodium	9650	ug/L	10000	ug/L	96.5	90.0 – 110.0	P	01-APR-10 00:18	033110B-1
	Vanadium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	01-APR-10 00:18	033110B-1
	Zinc	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01-APR-10 00:18	033110B-1
CCV17	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Antimony	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Barium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Cadmium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Calcium	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Chromium	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Cobalt	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Copper	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Iron	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Lead	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Magnesium	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Manganese	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Potassium	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Silver	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Sodium	9630	ug/L	10000	ug/L	96.3	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Vanadium	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Zinc	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	01-APR-10 00:42	033110B-1

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV18										
	Aluminum	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Antimony	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Cadmium	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Calcium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Chromium	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Cobalt	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Copper	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Lead	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Magnesium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Manganese	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Potassium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Silver	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Sodium	9660	ug/L	10000	ug/L	96.6	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Vanadium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Zinc	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
CCV19										
	Aluminum	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Antimony	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Barium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Cadmium	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Calcium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Chromium	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Cobalt	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Iron	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Lead	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Magnesium	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Manganese	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 01:30	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Potassium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Silver	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Sodium	9650	ug/L	10000	ug/L	96.5	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Vanadium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Zinc	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
CCV20	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Antimony	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Barium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Cadmium	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Calcium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Chromium	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Copper	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Iron	4810	ug/L	5000	ug/L	96.3	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Lead	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Magnesium	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Manganese	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Potassium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Silver	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Sodium	9700	ug/L	10000	ug/L	97	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Vanadium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Zinc	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
CCV21	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	01-APR-10 02:19	033110B-1
	Antimony	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01-APR-10 02:19	033110B-1
	Barium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01-APR-10 02:19	033110B-1
	Cadmium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01-APR-10 02:19	033110B-1
	Calcium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	01-APR-10 02:19	033110B-1
	Chromium	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	01-APR-10 02:19	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cobalt	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 02:19	033110B-1
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	01-APR-10 02:19	033110B-1
	Iron	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	01-APR-10 02:19	033110B-1
	Lead	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 02:19	033110B-1
	Magnesium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	01-APR-10 02:19	033110B-1
	Manganese	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 02:19	033110B-1
	Potassium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	01-APR-10 02:19	033110B-1
	Silver	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01-APR-10 02:19	033110B-1
	Sodium	9830	ug/L	10000	ug/L	98.3	90.0 – 110.0	P	01-APR-10 02:19	033110B-1
	Vanadium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 02:19	033110B-1
	Zinc	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	01-APR-10 02:19	033110B-1
CCV22	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Antimony	475	ug/L	500	ug/L	95	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Barium	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Cadmium	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Calcium	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Chromium	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Cobalt	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Iron	4780	ug/L	5000	ug/L	95.5	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Lead	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Magnesium	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Manganese	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Potassium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Silver	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Sodium	11600	ug/L	10000	ug/L	115.7	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Vanadium	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Zinc	470	ug/L	500	ug/L	94.1	90.0 – 110.0	P	01-APR-10 02:47	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV23										
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Antimony	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Barium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Cadmium	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Calcium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Chromium	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Cobalt	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Iron	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Lead	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Magnesium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Manganese	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Potassium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Silver	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Sodium	10300	ug/L	10000	ug/L	102.8	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Vanadium	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Zinc	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
CCV24										
	Aluminum	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Antimony	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Barium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Cadmium	475	ug/L	500	ug/L	95	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Calcium	4820	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Chromium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Cobalt	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Iron	4790	ug/L	5000	ug/L	95.8	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Lead	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Magnesium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Manganese	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01-APR-10 04:39	033110B-1

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Potassium	4810	ug/L	5000	ug/L	96.1	90.0 - 110.0	P	01-APR-10 04:39	033110B-1
	Silver	476	ug/L	500	ug/L	95.2	90.0 - 110.0	P	01-APR-10 04:39	033110B-1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 - 110.0	P	01-APR-10 04:39	033110B-1
	Vanadium	479	ug/L	500	ug/L	95.9	90.0 - 110.0	P	01-APR-10 04:39	033110B-1
	Zinc	473	ug/L	500	ug/L	94.7	90.0 - 110.0	P	01-APR-10 04:39	033110B-1
CCV25	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
	Antimony	476	ug/L	500	ug/L	95.3	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
	Barium	478	ug/L	500	ug/L	95.6	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
	Cadmium	476	ug/L	500	ug/L	95.3	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
	Calcium	4820	ug/L	5000	ug/L	96.5	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
	Chromium	473	ug/L	500	ug/L	94.6	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
	Cobalt	480	ug/L	500	ug/L	95.9	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
	Copper	477	ug/L	500	ug/L	95.5	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
	Iron	4800	ug/L	5000	ug/L	96	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
	Lead	481	ug/L	500	ug/L	96.1	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
	Magnesium	4920	ug/L	5000	ug/L	98.4	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
	Manganese	480	ug/L	500	ug/L	96.1	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
	Potassium	4880	ug/L	5000	ug/L	97.6	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
	Silver	476	ug/L	500	ug/L	95.2	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
	Sodium	9800	ug/L	10000	ug/L	98	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
	Vanadium	481	ug/L	500	ug/L	96.1	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
	Zinc	473	ug/L	500	ug/L	94.7	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
CCV26	Aluminum	4900	ug/L	5000	ug/L	98	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Antimony	474	ug/L	500	ug/L	94.8	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Barium	477	ug/L	500	ug/L	95.5	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Cadmium	476	ug/L	500	ug/L	95.1	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Calcium	4820	ug/L	5000	ug/L	96.4	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Chromium	474	ug/L	500	ug/L	94.7	90.0 - 110.0	P	01-APR-10 05:25	033110B-1

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Copper	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Iron	4810	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Lead	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Magnesium	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Manganese	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Potassium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Silver	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Sodium	9780	ug/L	10000	ug/L	97.8	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Vanadium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Zinc	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
CCV27	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Antimony	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Barium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Cadmium	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Calcium	4810	ug/L	5000	ug/L	96.3	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Chromium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Cobalt	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Copper	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Iron	4800	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Lead	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Magnesium	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Manganese	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Potassium	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Silver	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Sodium	9740	ug/L	10000	ug/L	97.4	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Vanadium	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Zinc	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01-APR-10 05:48	033110B-1

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV28										
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 - 110.0	P	01-APR-10 06:04	033110B-1
	Antimony	480	ug/L	500	ug/L	96	90.0 - 110.0	P	01-APR-10 06:04	033110B-1
	Barium	478	ug/L	500	ug/L	95.5	90.0 - 110.0	P	01-APR-10 06:04	033110B-1
	Cadmium	477	ug/L	500	ug/L	95.3	90.0 - 110.0	P	01-APR-10 06:04	033110B-1
	Calcium	4840	ug/L	5000	ug/L	96.7	90.0 - 110.0	P	01-APR-10 06:04	033110B-1
	Chromium	475	ug/L	500	ug/L	94.9	90.0 - 110.0	P	01-APR-10 06:04	033110B-1
	Cobalt	479	ug/L	500	ug/L	95.7	90.0 - 110.0	P	01-APR-10 06:04	033110B-1
	Copper	476	ug/L	500	ug/L	95.2	90.0 - 110.0	P	01-APR-10 06:04	033110B-1
	Iron	4810	ug/L	5000	ug/L	96.2	90.0 - 110.0	P	01-APR-10 06:04	033110B-1
	Lead	483	ug/L	500	ug/L	96.7	90.0 - 110.0	P	01-APR-10 06:04	033110B-1
	Magnesium	4930	ug/L	5000	ug/L	98.5	90.0 - 110.0	P	01-APR-10 06:04	033110B-1
	Manganese	479	ug/L	500	ug/L	95.9	90.0 - 110.0	P	01-APR-10 06:04	033110B-1
	Potassium	4950	ug/L	5000	ug/L	99	90.0 - 110.0	P	01-APR-10 06:04	033110B-1
	Silver	476	ug/L	500	ug/L	95.3	90.0 - 110.0	P	01-APR-10 06:04	033110B-1
	Sodium	9740	ug/L	10000	ug/L	97.4	90.0 - 110.0	P	01-APR-10 06:04	033110B-1
	Vanadium	480	ug/L	500	ug/L	96	90.0 - 110.0	P	01-APR-10 06:04	033110B-1
	Zinc	474	ug/L	500	ug/L	94.8	90.0 - 110.0	P	01-APR-10 06:04	033110B-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CRDL01										
	Mercury	.199	ug/L	.2	ug/L	99.5	70.0 – 130.0	AV	17-MAR-10 09:52	031710S2-3
	Nickel	2.28	ug/L	2	ug/L	114.1	70.0 – 130.0	MS	13-APR-10 19:16	100413-2
	Thallium	1.22	ug/L	1	ug/L	121.8	70.0 – 130.0	MS	13-APR-10 19:16	100413-2
	Arsenic	6.05	ug/L	5	ug/L	121	70.0 – 130.0	MS	13-APR-10 19:16	100413-2
	Uranium	.292	ug/L	.2	ug/L	146	70.0 – 130.0	MS	13-APR-10 19:16	100413-2
	Selenium	5.77	ug/L	5	ug/L	115.4	70.0 – 130.0	MS	13-APR-10 19:16	100413-2
	Beryllium	.662	ug/L	.5	ug/L	132.4	70.0 – 130.0	MS	13-APR-10 19:16	100413-2
PQL01										
	Aluminum	204	ug/L	200	ug/L	101.9	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Lead	11.2	ug/L	10	ug/L	112	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Chromium	4.91	ug/L	5	ug/L	98.3	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Cadmium	5.05	ug/L	5	ug/L	101	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Barium	4.99	ug/L	5	ug/L	99.9	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Antimony	9.66	ug/L	10	ug/L	96.6	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Sodium	280	ug/L	300	ug/L	93.3	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Silver	4.61	ug/L	5	ug/L	92.3	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Potassium	150	ug/L	150	ug/L	99.9	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Manganese	10.3	ug/L	10	ug/L	103.1	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Magnesium	311	ug/L	300	ug/L	103.7	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Calcium	212	ug/L	200	ug/L	106.2	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Zinc	10.1	ug/L	10	ug/L	101	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Vanadium	4.74	ug/L	5	ug/L	94.8	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Copper	10	ug/L	10	ug/L	100	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Cobalt	5.18	ug/L	5	ug/L	103.6	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Iron	102	ug/L	100	ug/L	102.4	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
PQL02										
	Chromium	4.65	ug/L	5	ug/L	93	70.0 – 130.0	P	01-APR-10 01:24	033110B-1
	Lead	8.58	ug/L	10	ug/L	85.8	70.0 – 130.0	P	01-APR-10 01:24	033110B-1
	Cadmium	4.82	ug/L	5	ug/L	96.5	70.0 – 130.0	P	01-APR-10 01:24	033110B-1
	Barium	5	ug/L	5	ug/L	100	70.0 – 130.0	P	01-APR-10 01:24	033110B-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Antimony	8.18	ug/L	10	ug/L	81.8	70.0 - 130.0	P	01-APR-10 01:24	033110B-1
	Sodium	284	ug/L	300	ug/L	94.7	70.0 - 130.0	P	01-APR-10 01:24	033110B-1
	Silver	3.97	ug/L	5	ug/L	79.4	70.0 - 130.0	P	01-APR-10 01:24	033110B-1
	Potassium	372	ug/L	150	ug/L	248	70.0 - 130.0	P	01-APR-10 01:24	033110B-1
	Manganese	10.5	ug/L	10	ug/L	105.2	70.0 - 130.0	P	01-APR-10 01:24	033110B-1
	Magnesium	294	ug/L	300	ug/L	98	70.0 - 130.0	P	01-APR-10 01:24	033110B-1
	Iron	112	ug/L	100	ug/L	112.2	70.0 - 130.0	P	01-APR-10 01:24	033110B-1
	Cobalt	5.01	ug/L	5	ug/L	100.2	70.0 - 130.0	P	01-APR-10 01:24	033110B-1
	Copper	9.87	ug/L	10	ug/L	98.7	70.0 - 130.0	P	01-APR-10 01:24	033110B-1
	Vanadium	4.27	ug/L	5	ug/L	85.4	70.0 - 130.0	P	01-APR-10 01:24	033110B-1
	Aluminum	209	ug/L	200	ug/L	104.6	70.0 - 130.0	P	01-APR-10 01:24	033110B-1
	Zinc	9.61	ug/L	10	ug/L	96.1	70.0 - 130.0	P	01-APR-10 01:24	033110B-1
	Calcium	221	ug/L	200	ug/L	110.3	70.0 - 130.0	P	01-APR-10 01:24	033110B-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2141

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
ICB01	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	17-MAR-10 09:50	031710S2-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 18:48	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 18:48	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 18:48	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 18:48	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 18:48	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 18:48	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 18:48	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 18:48	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 18:48	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 18:48	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 18:48	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 18:48	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 18:48	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 18:48	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 18:48	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 18:48	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 18:48	033110B-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-APR-10 19:12	100413-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	13-APR-10 19:12	100413-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	13-APR-10 19:12	100413-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-APR-10 19:12	100413-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	13-APR-10 19:12	100413-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	13-APR-10 19:12	100413-2
CCB01	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	17-MAR-10 09:55	031710S2-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 19:01	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 19:01	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:01	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:01	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 19:01	033110B-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2141

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	31-MAR-10 19:01	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 19:01	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 19:01	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 19:01	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 19:01	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 19:01	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 19:01	033110B-1
	Potassium	298.29	+/-250		64.0	250	SOL	P	31-MAR-10 19:01	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:01	033110B-1
	Sodium	140.13	+/-250	J	70.0	250	SOL	P	31-MAR-10 19:01	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:01	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 19:01	033110B-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-APR-10 19:32	100413-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	13-APR-10 19:32	100413-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	13-APR-10 19:32	100413-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-APR-10 19:32	100413-2
	Thallium	0.324	+/-1	J	0.3	1.0	SOL	MS	13-APR-10 19:32	100413-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	13-APR-10 19:32	100413-2
CCB02	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	17-MAR-10 10:15	031710S2-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 19:08	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 19:08	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:08	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:08	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 19:08	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 19:08	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 19:08	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 19:08	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 19:08	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 19:08	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 19:08	033110B-1

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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2141

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ng/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 19:08	033110B-1
	Potassium	98.66	+/-250	J	64.0	250	SOL	P	31-MAR-10 19:08	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:08	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 19:08	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:08	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 19:08	033110B-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-APR-10 20:13	100413-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	13-APR-10 20:13	100413-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	13-APR-10 20:13	100413-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-APR-10 20:13	100413-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	13-APR-10 20:13	100413-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	13-APR-10 20:13	100413-2
CCB03	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	17-MAR-10 10:35	031710S2-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 19:29	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 19:29	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:29	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:29	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 19:29	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 19:29	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 19:29	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 19:29	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 19:29	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 19:29	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 19:29	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 19:29	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 19:29	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:29	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 19:29	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:29	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 19:29	033110B-1

Metals
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SDG No.: 10-2141

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-APR-10 20:46	100413-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	13-APR-10 20:46	100413-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	13-APR-10 20:46	100413-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-APR-10 20:46	100413-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	13-APR-10 20:46	100413-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	13-APR-10 20:46	100413-2
CCB04	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	17-MAR-10 10:55	031710S2-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 19:50	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 19:50	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:50	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:50	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 19:50	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 19:50	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 19:50	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 19:50	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 19:50	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 19:50	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 19:50	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 19:50	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 19:50	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:50	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 19:50	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:50	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 19:50	033110B-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-APR-10 21:23	100413-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	13-APR-10 21:23	100413-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	13-APR-10 21:23	100413-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-APR-10 21:23	100413-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	13-APR-10 21:23	100413-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	13-APR-10 21:23	100413-2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2141

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>
CCB05	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	17-MAR-10 11:15	031710S2-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 20:21	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 20:21	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 20:21	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 20:21	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 20:21	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 20:21	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 20:21	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 20:21	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 20:21	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 20:21	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 20:21	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 20:21	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 20:21	033110B-1
	Silver	-1.07	+/-5	J	1.0	5.0	SOL	P	31-MAR-10 20:21	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 20:21	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 20:21	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 20:21	033110B-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-APR-10 22:04	100413-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	13-APR-10 22:04	100413-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	13-APR-10 22:04	100413-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-APR-10 22:04	100413-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	13-APR-10 22:04	100413-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	13-APR-10 22:04	100413-2
CCB06	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	17-MAR-10 11:35	031710S2-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 20:48	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 20:48	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 20:48	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 20:48	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 20:48	033110B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2141

Contract: LANL01004

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<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	31-MAR-10 20:48	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 20:48	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 20:48	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 20:48	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 20:48	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 20:48	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 20:48	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 20:48	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 20:48	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 20:48	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 20:48	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 20:48	033110B-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-APR-10 22:37	100413-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	13-APR-10 22:37	100413-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	13-APR-10 22:37	100413-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-APR-10 22:37	100413-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	13-APR-10 22:37	100413-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	13-APR-10 22:37	100413-2
CCB07	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 21:18	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 21:18	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 21:18	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 21:18	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 21:18	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 21:18	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 21:18	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 21:18	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 21:18	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 21:18	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 21:18	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 21:18	033110B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2141

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<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 21:18	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 21:18	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 21:18	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 21:18	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 21:18	033110B-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-APR-10 23:05	100413-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	13-APR-10 23:05	100413-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	13-APR-10 23:05	100413-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-APR-10 23:05	100413-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	13-APR-10 23:05	100413-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	13-APR-10 23:05	100413-2
CCB08	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 21:41	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 21:41	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 21:41	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 21:41	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 21:41	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 21:41	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 21:41	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 21:41	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 21:41	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 21:41	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 21:41	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 21:41	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 21:41	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 21:41	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 21:41	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 21:41	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 21:41	033110B-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-APR-10 23:51	100413-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	13-APR-10 23:51	100413-2

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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2141

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>
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	13-APR-10 23:51	100413-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-APR-10 23:51	100413-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	13-APR-10 23:51	100413-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	13-APR-10 23:51	100413-2
CCB09	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 21:57	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 21:57	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 21:57	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 21:57	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 21:57	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 21:57	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 21:57	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 21:57	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 21:57	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 21:57	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 21:57	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 21:57	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 21:57	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 21:57	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 21:57	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 21:57	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 21:57	033110B-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	14-APR-10 00:36	100413-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	14-APR-10 00:36	100413-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	14-APR-10 00:36	100413-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	14-APR-10 00:36	100413-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	14-APR-10 00:36	100413-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	14-APR-10 00:36	100413-2
CCB10	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 22:14	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 22:14	033110B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2141

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>
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 22:14	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 22:14	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 22:14	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 22:14	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 22:14	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 22:14	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 22:14	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 22:14	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 22:14	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 22:14	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 22:14	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 22:14	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 22:14	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 22:14	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 22:14	033110B-1
CCB11	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 22:37	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 22:37	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 22:37	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 22:37	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 22:37	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 22:37	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 22:37	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 22:37	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 22:37	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 22:37	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 22:37	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 22:37	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 22:37	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 22:37	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 22:37	033110B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2141

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>
CCB12	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 22:37	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 22:37	033110B-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 22:58	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 22:58	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 22:58	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 22:58	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 22:58	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 22:58	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 22:58	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 22:58	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 22:58	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 22:58	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 22:58	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 22:58	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 22:58	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 22:58	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 22:58	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 22:58	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 22:58	033110B-1
CCB13	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 23:20	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 23:20	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 23:20	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 23:20	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 23:20	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 23:20	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 23:20	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 23:20	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 23:20	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 23:20	033110B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2141

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>
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 23:20	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 23:20	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 23:20	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 23:20	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 23:20	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 23:20	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 23:20	033110B-1
CCB14	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 23:46	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 23:46	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 23:46	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 23:46	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 23:46	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 23:46	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 23:46	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 23:46	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 23:46	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 23:46	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 23:46	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 23:46	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 23:46	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 23:46	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 23:46	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 23:46	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 23:46	033110B-1
CCB15	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 00:04	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 00:04	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 00:04	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 00:04	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 00:04	033110B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2141

Contract: LANL01004

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<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	01-APR-10 00:04	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 00:04	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 00:04	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 00:04	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 00:04	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 00:04	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 00:04	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	01-APR-10 00:04	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 00:04	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	01-APR-10 00:04	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 00:04	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 00:04	033110B-1
CCB16	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 00:20	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 00:20	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 00:20	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 00:20	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 00:20	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 00:20	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 00:20	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 00:20	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 00:20	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 00:20	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 00:20	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 00:20	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	01-APR-10 00:20	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 00:20	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	01-APR-10 00:20	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 00:20	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 00:20	033110B-1

Metals
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SDG No.: 10-2141

Contract: LANL01004

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<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>
CCB17	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 00:45	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 00:45	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 00:45	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 00:45	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 00:45	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 00:45	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 00:45	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 00:45	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 00:45	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 00:45	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 00:45	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 00:45	033110B-1
	Potassium	130.01	+/-250	J	64.0	250	SOL	P	01-APR-10 00:45	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 00:45	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	01-APR-10 00:45	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 00:45	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 00:45	033110B-1
CCB18	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 01:09	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 01:09	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 01:09	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 01:09	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 01:09	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 01:09	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 01:09	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 01:09	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 01:09	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 01:09	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 01:09	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 01:09	033110B-1
	Potassium	195.24	+/-250	J	64.0	250	SOL	P	01-APR-10 01:09	033110B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2141

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 01:09	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	01-APR-10 01:09	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 01:09	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 01:09	033110B-1
CCB19	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 01:32	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 01:32	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 01:32	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 01:32	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 01:32	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 01:32	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 01:32	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 01:32	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 01:32	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 01:32	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 01:32	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 01:32	033110B-1
	Potassium	168.28	+/-250	J	64.0	250	SOL	P	01-APR-10 01:32	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 01:32	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	01-APR-10 01:32	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 01:32	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 01:32	033110B-1
CCB20	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 01:55	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 01:55	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 01:55	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 01:55	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 01:55	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 01:55	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 01:55	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 01:55	033110B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2141

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>
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 01:55	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 01:55	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 01:55	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 01:55	033110B-1
	Potassium	90.72	+/-250	J	64.0	250	SOL	P	01-APR-10 01:55	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 01:55	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	01-APR-10 01:55	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 01:55	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 01:55	033110B-1
CCB21	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 02:21	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 02:21	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 02:21	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 02:21	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 02:21	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 02:21	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 02:21	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 02:21	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 02:21	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 02:21	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 02:21	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 02:21	033110B-1
	Potassium	135.28	+/-250	J	64.0	250	SOL	P	01-APR-10 02:21	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 02:21	033110B-1
	Sodium	101.82	+/-250	J	70.0	250	SOL	P	01-APR-10 02:21	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 02:21	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 02:21	033110B-1
CCB22	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 02:49	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 02:49	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 02:49	033110B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2141

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	01-APR-10 02:49	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 02:49	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 02:49	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 02:49	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 02:49	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 02:49	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 02:49	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 02:49	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 02:49	033110B-1
	Potassium	180.17	+/-250	J	64.0	250	SOL	P	01-APR-10 02:49	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 02:49	033110B-1
	Sodium	1333.6	+/-250		70.0	250	SOL	P	01-APR-10 02:49	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 02:49	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 02:49	033110B-1
CCB23	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 03:15	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 03:15	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 03:15	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 03:15	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 03:15	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 03:15	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 03:15	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 03:15	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 03:15	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 03:15	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 03:15	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 03:15	033110B-1
	Potassium	79.28	+/-250	J	64.0	250	SOL	P	01-APR-10 03:15	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 03:15	033110B-1
	Sodium	570.33	+/-250		70.0	250	SOL	P	01-APR-10 03:15	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 03:15	033110B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2141

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>
CCB24	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 03:15	033110B-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 04:41	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 04:41	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 04:41	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 04:41	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 04:41	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 04:41	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 04:41	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 04:41	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 04:41	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 04:41	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 04:41	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 04:41	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	01-APR-10 04:41	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 04:41	033110B-1
	Sodium	192.35	+/-250	J	70.0	250	SOL	P	01-APR-10 04:41	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 04:41	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 04:41	033110B-1
CCB25	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 05:05	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 05:05	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 05:05	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 05:05	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 05:05	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 05:05	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 05:05	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 05:05	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 05:05	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 05:05	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 05:05	033110B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2141

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 05:05	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	01-APR-10 05:05	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 05:05	033110B-1
	Sodium	165.15	+/-250	J	70.0	250	SOL	P	01-APR-10 05:05	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 05:05	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 05:05	033110B-1
CCB26	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 05:27	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 05:27	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 05:27	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 05:27	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 05:27	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 05:27	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 05:27	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 05:27	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 05:27	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 05:27	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 05:27	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 05:27	033110B-1
	Potassium	94.5	+/-250	J	64.0	250	SOL	P	01-APR-10 05:27	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 05:27	033110B-1
	Sodium	132.11	+/-250	J	70.0	250	SOL	P	01-APR-10 05:27	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 05:27	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 05:27	033110B-1
CCB27	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 05:51	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 05:51	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 05:51	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 05:51	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 05:51	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 05:51	033110B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2141

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>
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 05:51	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 05:51	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 05:51	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 05:51	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 05:51	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 05:51	033110B-1
	Potassium	118.7	+/-250	J	64.0	250	SOL	P	01-APR-10 05:51	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 05:51	033110B-1
	Sodium	102.83	+/-250	J	70.0	250	SOL	P	01-APR-10 05:51	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 05:51	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 05:51	033110B-1
CCB28	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 06:06	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 06:06	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 06:06	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 06:06	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 06:06	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 06:06	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 06:06	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 06:06	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 06:06	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 06:06	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 06:06	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 06:06	033110B-1
	Potassium	99.52	+/-250	J	64.0	250	SOL	P	01-APR-10 06:06	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 06:06	033110B-1
	Sodium	93.82	+/-250	J	70.0	250	SOL	P	01-APR-10 06:06	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 06:06	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 06:06	033110B-1

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-2141
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>
1202056652	Mercury	3.74	ug/kg	+/-11	U	AV	3.74	11
1202056979	Aluminum	6450	ug/Kg	+/-19000	U	P	6450	19000
	Antimony	313	ug/Kg	+/-949	U	P	313	949
	Barium	94.9	ug/Kg	+/-474	U	P	94.9	474
	Cadmium	94.9	ug/Kg	+/-474	U	P	94.9	474
	Calcium	7590	ug/Kg	+/-23700	U	P	7590	23700
	Chromium	142	ug/Kg	+/-474	U	P	142	474
	Cobalt	142	ug/Kg	+/-474	U	P	142	474
	Copper	285	ug/Kg	+/-949	U	P	285	949
	Iron	10500	ug/Kg	+/-23700	J	P	7590	23700
	Lead	237	ug/Kg	+/-949	U	P	237	949
	Magnesium	8060	ug/Kg	+/-28500	U	P	8060	28500
	Manganese	190	ug/Kg	+/-949	U	P	190	949
	Potassium	6070	ug/Kg	+/-23700	U	P	6070	23700
	Silver	94.9	ug/Kg	+/-474	U	P	94.9	474
	Sodium	13300	ug/Kg	+/-23700	J	P	6640	23700
	Vanadium	94.9	ug/Kg	+/-474	U	P	94.9	474
	Zinc	313	ug/Kg	+/-949	U	P	313	949
1202056985	Arsenic	0.179	mg/kg	+/-0.894	U	MS	0.179	0.894
	Beryllium	0.0179	mg/kg	+/-0.0895	U	MS	0.0179	0.0895
	Nickel	0.0895	mg/kg	+/-0.358	U	MS	0.0895	0.358
	Selenium	0.447	mg/kg	+/-0.894	U	MS	0.447	0.894
	Thallium	0.0537	mg/kg	+/-0.179	U	MS	0.0537	0.179
	Uranium	0.0118	mg/kg	+/-0.0358	U	MS	0.0118	0.0358

METALS
-4-
Interference Check Sample

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Aluminum	502000	ug/L	500000	ug/L	100	80.0 – 120.0	31-MAR-10 18:53	033110B-1
	Antimony	0.296	ug/L					31-MAR-10 18:53	033110B-1
	Barium	0.205	ug/L					31-MAR-10 18:53	033110B-1
	Cadmium	-1.97	ug/L					31-MAR-10 18:53	033110B-1
	Calcium	480000	ug/L	500000	ug/L	96	80.0 – 120.0	31-MAR-10 18:53	033110B-1
	Chromium	1.07	ug/L					31-MAR-10 18:53	033110B-1
	Cobalt	-6.06	ug/L					31-MAR-10 18:53	033110B-1
	Copper	4.63	ug/L					31-MAR-10 18:53	033110B-1
	Iron	190000	ug/L	200000	ug/L	95	80.0 – 120.0	31-MAR-10 18:53	033110B-1
	Lead	-4.1	ug/L					31-MAR-10 18:53	033110B-1
	Magnesium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	31-MAR-10 18:53	033110B-1
	Manganese	3.58	ug/L					31-MAR-10 18:53	033110B-1
	Potassium	-119.0	ug/L					31-MAR-10 18:53	033110B-1
	Silver	-2.44	ug/L					31-MAR-10 18:53	033110B-1
	Sodium	38.8	ug/L					31-MAR-10 18:53	033110B-1
	Vanadium	-0.082	ug/L					31-MAR-10 18:53	033110B-1
	Zinc	8.58	ug/L					31-MAR-10 18:53	033110B-1
ICSAB01									
	Aluminum	507000	ug/L	500000	ug/L	101	80.0 – 120.0	31-MAR-10 18:55	033110B-1
	Antimony	504	ug/L	500	ug/L	101	80.0 – 120.0	31-MAR-10 18:55	033110B-1
	Barium	499	ug/L	500	ug/L	99.8	80.0 – 120.0	31-MAR-10 18:55	033110B-1
	Cadmium	476	ug/L	500	ug/L	95.3	80.0 – 120.0	31-MAR-10 18:55	033110B-1
	Calcium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	31-MAR-10 18:55	033110B-1
	Chromium	484	ug/L	500	ug/L	96.7	80.0 – 120.0	31-MAR-10 18:55	033110B-1
	Cobalt	442	ug/L	500	ug/L	88.5	80.0 – 120.0	31-MAR-10 18:55	033110B-1
	Copper	542	ug/L	500	ug/L	108	80.0 – 120.0	31-MAR-10 18:55	033110B-1
	Iron	192000	ug/L	200000	ug/L	96	80.0 – 120.0	31-MAR-10 18:55	033110B-1
	Lead	464	ug/L	500	ug/L	92.8	80.0 – 120.0	31-MAR-10 18:55	033110B-1
	Magnesium	485000	ug/L	500000	ug/L	97	80.0 – 120.0	31-MAR-10 18:55	033110B-1

METALS
-4-
Interference Check Sample

SDG No: 10-2141

Contract: LANL01004

Lab Code: GEL

ICS:

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Manganese	486	ug/L	500	ug/L	97.2	80.0 – 120.0	31-MAR-10 18:55	033110B-1
	Potassium	5550	ug/L	5000	ug/L	111	80.0 – 120.0	31-MAR-10 18:55	033110B-1
	Silver	267	ug/L	250	ug/L	107	80.0 – 120.0	31-MAR-10 18:55	033110B-1
	Sodium	5330	ug/L	5000	ug/L	107	80.0 – 120.0	31-MAR-10 18:55	033110B-1
	Vanadium	513	ug/L	500	ug/L	103	80.0 – 120.0	31-MAR-10 18:55	033110B-1
	Zinc	494	ug/L	500	ug/L	98.8	80.0 – 120.0	31-MAR-10 18:55	033110B-1

METALS

-4-

Interference Check Sample

SDG No: 10-2141

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	-0.361	ug/L					13-APR-10 19:20	100413-2
	Beryllium	0.103	ug/L					13-APR-10 19:20	100413-2
	Nickel	2.78	ug/L					13-APR-10 19:20	100413-2
	Selenium	-1.05	ug/L					13-APR-10 19:20	100413-2
	Thallium	-0.004	ug/L					13-APR-10 19:20	100413-2
	Uranium	-0.012	ug/L					13-APR-10 19:20	100413-2
ICSAB01									
	Arsenic	20.6	ug/L	20	ug/L	103	80.0 - 120.0	13-APR-10 19:24	100413-2
	Beryllium	22.1	ug/L	20	ug/L	110	80.0 - 120.0	13-APR-10 19:24	100413-2
	Nickel	21.7	ug/L	23.31	ug/L	93	80.0 - 120.0	13-APR-10 19:24	100413-2
	Selenium	20.9	ug/L	20	ug/L	104	80.0 - 120.0	13-APR-10 19:24	100413-2
	Thallium	19.3	ug/L	20	ug/L	96.7	80.0 - 120.0	13-APR-10 19:24	100413-2
	Uranium	21.4	ug/L	20	ug/L	107	80.0 - 120.0	13-APR-10 19:24	100413-2

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-2141

Client ID RE46-10-13534S

Contract: LANL01004

Level: Low

Matrix: SOIL

% Solids: 86

Sample ID: 248256001

Spike ID: 1202056655

<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	204		71.5		140	94.8		AV

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-2141 Client ID RE46-10-13534SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 86

Sample ID: 248256001 Spike ID: 1202056657

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	203		71.5		131	101		AV

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-2141 Client ID RE36-10-8464S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 90.5

Sample ID: 248247001 Spike ID: 1202056982

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		6570000		3680000		508000	569	N/A	P
Antimony	ug/Kg	75-125	41600		347	U	50800	81.8		P
Barium	ug/Kg	75-125	89400		43700		50800	90		P
Cadmium	ug/Kg	75-125	45500		105	U	50800	89.5		P
Calcium	ug/Kg	75-125	2060000		1410000		508000	129	N	P
Chromium	ug/Kg	75-125	56800		8370		50800	95.3		P
Cobalt	ug/Kg	75-125	51400		6750		50800	87.9		P
Copper	ug/Kg	75-125	57000		5360		50800	102		P
Iron	ug/Kg		10900000		9910000		508000	186	N/A	P
Lead	ug/Kg	75-125	77900		7580		50800	138	N	P
Magnesium	ug/Kg	75-125	1410000		692000		508000	142	N	P
Manganese	ug/Kg		346000		331000		50800	28.7	N/A	P
Potassium	ug/Kg	75-125	1330000		612000		508000	141	N	P
Silver	ug/Kg	75-125	45300		105	U	50800	89.2		P
Sodium	ug/Kg	75-125	745000		251000		508000	97.2		P
Vanadium	ug/Kg	75-125	58700		7540		50800	101		P
Zinc	ug/Kg	75-125	94100		45400		50800	95.9		P

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-2141 Client ID: RE36-10-8464SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 90.5

Sample ID: 248247001 Spike ID: 1202056983

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/Kg	75-125	42200		347	U	51600	81.9		P
Barium	ug/Kg	75-125	91300		43700		51600	92.3		P
Cadmium	ug/Kg	75-125	46200		105	U	51600	89.5		P
Calcium	ug/Kg	75-125	2230000		1410000		516000	160	N	P
Chromium	ug/Kg	75-125	61200		8370		51600	102		P
Cobalt	ug/Kg	75-125	52400		6750		51600	88.5		P
Copper	ug/Kg	75-125	57800		5360		51600	102		P
Iron	ug/Kg		11500000		9910000		516000	303	N/A	P
Lead	ug/Kg	75-125	58000		7580		51600	97.8		P
Magnesium	ug/Kg	75-125	1450000		692000		516000	147	N	P
Manganese	ug/Kg		367000		331000		51600	70.2	N/A	P
Potassium	ug/Kg	75-125	1370000		612000		516000	148	N	P
Silver	ug/Kg	75-125	46200		105	U	51600	89.5		P
Sodium	ug/Kg	75-125	751000		251000		516000	97		P
Vanadium	ug/Kg	75-125	58800		7540		51600	99.3		P
Zinc	ug/Kg	75-125	98100		45400		51600	102		P
Aluminum	ug/Kg		6730000		3680000		516000	591	N/A	P

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-2141 Client ID RE36-10-8464S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 90.5

Sample ID: 248247001 Spike ID: 1202056988

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	9.74		1.16		8.11	106		MS
Beryllium	mg/kg	75-125	5.78		0.561		5.07	103		MS
Nickel	mg/kg	75-125	8.98		4.04		5.07	97.4		MS
Selenium	mg/kg	75-125	2.01		0.517	U	2.03	95.9		MS
Thallium	mg/kg	75-125	9.73		0.062	U	10.1	95.5		MS
Uranium	mg/kg	75-125	5.77		0.55		5.07	103		MS

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-2141 Client ID RE36-10-8464SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 90.5

Sample ID: 248247001 Spike ID: 1202056989

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	mg/kg	75-125	5.45		0.561		4.96	98.6		MS
Arsenic	mg/kg	75-125	8.71		1.16		7.94	95.1		MS
Nickel	mg/kg	75-125	8.63		4.04		4.96	92.5		MS
Selenium	mg/kg	75-125	1.86		0.517	U	1.98	90.6		MS
Thallium	mg/kg	75-125	9.14		0.062	U	9.92	91.8		MS
Uranium	mg/kg	75-125	5.55		0.55		4.96	101		MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-2141

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE46-10-13534D

Sample ID: 248256001

Duplicate ID: 1202056654

Percent Solids for Dup: 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-12.7	71.5		44.9		45.7	*	AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-2141**Contract:** LANL01004**Lab Code:** GEL**Matrix:** SOLID**Level:** Low**Client ID:** RE46-10-13534SD**Sample ID:** 1202056655**Duplicate ID:** 1202056657**Percent Solids for Dup:** 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	204		203		.502		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-2141

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE36-10-8464D

Sample ID: 248247001

Duplicate ID: 1202056980

Percent Solids for Dup: 90.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20%	3680000		3730000		1.35		P
Antimony	ug/Kg		347 U		338 U				P
Barium	ug/Kg	+/-20%	43700		42300		3.13		P
Cadmium	ug/Kg		105 U		102 U				P
Calcium	ug/Kg	+/-20%	1410000		2310000		48.3	*	P
Chromium	ug/Kg	+/-20%	8370		9260		10.1		P
Cobalt	ug/Kg	+/-20%	6750		6480		3.95		P
Copper	ug/Kg	+/-20%	5360		5850		8.78		P
Iron	ug/Kg	+/-20%	9910000		9630000		2.81		P
Lead	ug/Kg	+/-20%	7580		7520		.749		P
Magnesium	ug/Kg	+/-20%	692000		751000		8.22		P
Manganese	ug/Kg	+/-20%	331000		296000		11.3		P
Potassium	ug/Kg	+/-20%	612000		627000		2.37		P
Silver	ug/Kg		105 U		102 U				P
Sodium	ug/Kg	+/-20%	251000		251000		.253		P
Vanadium	ug/Kg	+/-20%	7540		7900		4.66		P
Zinc	ug/Kg	+/-20%	45400		43200		4.94		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-2141

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE36-10-8464SD

Sample ID: 1202056982

Duplicate ID: 1202056983

Percent Solids for Dup: 90.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20	6570000		6730000		2.41		P
Antimony	ug/Kg	+/-20	41600		42200		1.51		P
Barium	ug/Kg	+/-20	89400		91300		2.07		P
Cadmium	ug/Kg	+/-20	45500		46200		1.49		P
Calcium	ug/Kg	+/-20	2060000		2230000		7.94		P
Chromium	ug/Kg	+/-20	56800		61200		7.46		P
Cobalt	ug/Kg	+/-20	51400		52400		1.92		P
Copper	ug/Kg	+/-20	57000		57800		1.49		P
Iron	ug/Kg	+/-20	10900000		11500000		5.53		P
Lead	ug/Kg	+/-20	77900		58000		29.3	*	P
Magnesium	ug/Kg	+/-20	1410000		1450000		2.42		P
Manganese	ug/Kg	+/-20	346000		367000		6.06		P
Potassium	ug/Kg	+/-20	1330000		1370000		3.48		P
Silver	ug/Kg	+/-20	45300		46200		1.87		P
Sodium	ug/Kg	+/-20	745000		751000		.797		P
Vanadium	ug/Kg	+/-20	58700		58800		.0648		P
Zinc	ug/Kg	+/-20	94100		98100		4.17		P

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-2141

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE36-10-8464D

Sample ID: 248247001

Duplicate ID: 1202056986

Percent Solids for Dup: 90.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-1.04	1.16		1.13		2.43		MS
Beryllium	mg/kg	+/-20%	0.561		0.566		1.01		MS
Nickel	mg/kg	+/-20%	4.04		4.65		14		MS
Selenium	mg/kg		0.517 U		0.521 U				MS
Thallium	mg/kg		0.062 U		0.0626 U				MS
Uranium	mg/kg	+/-20%	0.55		0.615		11.3		MS

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-2141

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE36-10-8464SD

Sample ID: 1202056988

Duplicate ID: 1202056989

Percent Solids for Dup: 90.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-20	9.74		8.71		11.2		MS
Beryllium	mg/kg	+/-20	5.78		5.45		5.91		MS
Nickel	mg/kg	+/-20	8.98		8.63		3.95		MS
Selenium	mg/kg	+/-20	2.01		1.86		7.64		MS
Thallium	mg/kg	+/-20	9.73		9.14		6.18		MS
Uranium	mg/kg	+/-20	5.77		5.55		3.97		MS

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-2141

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>
1202056653	Mercury	ug/kg	5150	5780		112	71.6-128.3	AV

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-2141

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>
1202056984								
	Potassium	ug/Kg	4300000	4100000		95.4	74-127	P
	Silver	ug/Kg	30100	28500		94.6	66-134	P
	Sodium	ug/Kg	1020000	1000000		98	74-127	P
	Vanadium	ug/Kg	115000	118000		102	79-121	P
	Zinc	ug/Kg	594000	560000		94.2	80-121	P
	Aluminum	ug/Kg	10500000	9750000		92.9	56-144	P
	Antimony	ug/Kg	173000	103000		59.7	71-130	P
	Barium	ug/Kg	198000	181000		91.6	80-120	P
	Cadmium	ug/Kg	60700	57000		93.8	81-120	P
	Calcium	ug/Kg	9870000	9400000		95.3	83-117	P
	Chromium	ug/Kg	236000	227000		96	80-120	P
	Cobalt	ug/Kg	91200	89000		97.6	81-120	P
	Copper	ug/Kg	174000	180000		104	81-118	P
	Iron	ug/Kg	18000000	18200000		101	51-149	P
	Lead	ug/Kg	86000	81000		94.2	79-121	P
	Magnesium	ug/Kg	4000000	3770000		94.2	79-122	P
	Manganese	ug/Kg	558000	523000		93.8	81-119	P

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-2141

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>
1202056990								
	Arsenic	mg/kg	104	109		104	78-123	MS
	Beryllium	mg/kg	77.6	89.9		116	84-116	MS
	Nickel	mg/kg	134	144		107	78-123	MS
	Selenium	mg/kg	286	297		104	77-123	MS
	Thallium	mg/kg	121	130		108	78-122	MS
	Uranium	mg/kg	2.13	2.04		95.9	73-127	MS

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-2141 **Client ID** RE46-10-13534L**Contract:** LANL01004**Matrix:** SOLID **Level:** Low**Sample ID:** 248256001 **Serial Dilution ID:** 1202056656

<u>Analyte</u>	<u>Initial</u> <u>Value</u> <u>ug/L</u>	<u>C</u>	<u>Serial</u> <u>Value</u> <u>ug/L</u>	<u>C</u>	<u>%</u> <u>Difference</u>	<u>Qual</u>	<u>Acceptance</u> <u>Limit</u>	<u>M</u>
Mercury	1.14		1.05		7.89			AV

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-2141 Client ID RE36-10-8464L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 248247001 Serial Dilution ID: 1202056981

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	35000		35900		2.43		10	P
Antimony	3.3	U	16.5	U				P
Barium	415		423		1.93		10	P
Cadmium	1	U	5	U				P
Calcium	13400		13700		1.87		10	P
Chromium	79.5		81		1.89		10	P
Cobalt	64.1		66		2.96			P
Copper	50.9		47	J	7.66			P
Iron	94100		96500		2.55		10	P
Lead	72		75.5		4.86			P
Magnesium	6570		6750		2.74		10	P
Manganese	3140		3260		3.66		10	P
Potassium	5810		6000		3.27		10	P
Silver	1	U	5	U				P
Sodium	2390		2870		19.9			P
Vanadium	71.6		70.5		1.54		10	P
Zinc	431		437		1.39		10	P

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-2141 Client ID RE36-10-8464L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 248247001 Serial Dilution ID: 1202056987

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	5.61		5.3	J	5.53			MS
Beryllium	2.71		2.94		8.49			MS
Nickel	19.5		21.7		11.3			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.3	U	1.5	U				MS
Uranium	2.66		2.84		6.77			MS

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2141

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	959149						
1202056979	MB for batch 959149	MB	S	11-MAR-10	.527g	50mL	
1202056984	LCS for batch 959149	LCS	S	11-MAR-10	.518g	50mL	
1202056982	RE36-10-8464S	MS	S	11-MAR-10	.544g	50mL	
1202056983	RE36-10-8464SD	MSD	S	11-MAR-10	.536g	50mL	
1202056980	RE36-10-8464D	DUP	S	11-MAR-10	.54g	50mL	
248250001	RE36-10-8285	SAMPLE	S	11-MAR-10	.509g	50mL	
248250002	RE36-10-8286	SAMPLE	S	11-MAR-10	.548g	50mL	
248250003	RE36-10-8283	SAMPLE	S	11-MAR-10	.511g	50mL	
248250004	RE36-10-8284	SAMPLE	S	11-MAR-10	.521g	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2141

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	959151						
1202056985	MB for batch 959151	MB	S	11-MAR-10	.559g	50mL	
1202056990	LCS for batch 959151	LCS	S	11-MAR-10	.51g	50mL	
1202056988	RE36-10-8464S	MS	S	11-MAR-10	.545g	50mL	
1202056989	RE36-10-8464SD	MSD	S	11-MAR-10	.557g	50mL	
1202056986	RE36-10-8464D	DUP	S	11-MAR-10	.53g	50mL	
248250001	RE36-10-8285	SAMPLE	S	11-MAR-10	.516g	50mL	
248250002	RE36-10-8286	SAMPLE	S	11-MAR-10	.519g	50mL	
248250003	RE36-10-8283	SAMPLE	S	11-MAR-10	.55g	50mL	
248250004	RE36-10-8284	SAMPLE	S	11-MAR-10	.508g	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2141

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	958991						
1202056652	MB for batch 958991	MB	S	16-MAR-10	.545g	30mL	
1202056653	LCS for batch 958991	LCS	S	16-MAR-10	.206g	30mL	
1202056655	RE46-10-13534S	MS	S	16-MAR-10	.5g	30mL	
1202056657	RE46-10-13534SD	MSD	S	16-MAR-10	.534g	30mL	
1202056654	RE46-10-13534D	DUP	S	16-MAR-10	.549g	30mL	
248250001	RE36-10-8285	SAMPLE	S	16-MAR-10	.574g	30mL	
248250002	RE36-10-8286	SAMPLE	S	16-MAR-10	.505g	30mL	
248250003	RE36-10-8283	SAMPLE	S	16-MAR-10	.53g	30mL	
248250004	RE36-10-8284	SAMPLE	S	16-MAR-10	.543g	30mL	

SW846

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 13-APR-10

End Date: 14-APR-10

Client Sdg: 10-2141

Method MS

Data File: 100413-2

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	18:56:00			X		X											X	X			X	X			
S10	1	19:00:00			X		X											X	X			X	X			
S100	1	19:04:00			X		X											X	X			X	X			
ICV01	1	19:08:00			X		X											X	X			X	X			
ICB01	1	19:12:00			X		X											X	X			X	X			
CRDL01	1	19:16:00			X		X											X	X			X	X			
ICSA01	1	19:20:00			X		X											X	X			X	X			
ICSAB01	1	19:24:00			X		X											X	X			X	X			
CCV01	1	19:28:00			X		X											X	X			X	X			
CCB01	1	19:32:00			X		X											X	X			X	X			
ZZZZZZ	2	19:37:00																								
ZZZZZZ	40	19:41:00																								
ZZZZZZ	2	19:45:00																								
ZZZZZZ	2	19:49:00																								
ZZZZZZ	2	19:53:00																								
ZZZZZZ	2	19:57:00																								
ZZZZZZ	10	20:01:00																								
ZZZZZZ	2	20:05:00																								
CCV02	1	20:09:00			X		X											X	X			X	X			
CCB02	1	20:13:00			X		X											X	X			X	X			
ZZZZZZ	2	20:17:00																								
ZZZZZZ	2	20:21:00																								
ZZZZZZ	2	20:26:00																								
ZZZZZZ	2	20:30:00																								
ZZZZZZ	2	20:34:00																								
ZZZZZZ	2	20:38:00																								
CCV03	1	20:42:00			X		X											X	X			X	X			
CCB03	1	20:46:00			X		X											X	X			X	X			
ZZZZZZ	2	20:50:00																								
ZZZZZZ	2	20:54:00																								
ZZZZZZ	2	20:58:00																								
ZZZZZZ	2	21:02:00																								
ZZZZZZ	2	21:06:00																								
ZZZZZZ	2	21:11:00																								
ZZZZZZ	2	21:15:00																								
CCV04	1	21:19:00			X		X											X	X			X	X			
CCB04	1	21:23:00			X		X											X	X			X	X			
ZZZZZZ	2	21:27:00																								
ZZZZZZ	40	21:31:00																								
ZZZZZZ	2	21:35:00																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																	
ZZZZZZ	2	21:39:00																	
ZZZZZZ	2	21:43:00																	
ZZZZZZ	2	21:47:00																	
ZZZZZZ	10	21:51:00																	
ZZZZZZ	2	21:56:00																	
CCV05	1	22:00:00		X	X					X	X				X	X			
CCB05	1	22:04:00		X	X					X	X				X	X			
ZZZZZZ	2	22:08:00																	
ZZZZZZ	2	22:12:00																	
ZZZZZZ	2	22:16:00																	
ZZZZZZ	2	22:20:00																	
ZZZZZZ	2	22:24:00																	
ZZZZZZ	2	22:28:00																	
CCV06	1	22:33:00		X	X					X	X				X	X			
CCB06	1	22:37:00		X	X					X	X				X	X			
ZZZZZZ	2	22:41:00																	
ZZZZZZ	2	22:45:00																	
ZZZZZZ	2	22:49:00																	
ZZZZZZ	2	22:53:00																	
ZZZZZZ	2	22:57:00																	
CCV07	1	23:01:00		X	X					X	X				X	X			
CCB07	1	23:05:00		X	X					X	X				X	X			
1202056985	2	23:10:00		X	X					X	X				X	X			
1202056990	40	23:14:00		X	X					X	X				X	X			
ZZZZZZ	2	23:18:00																	
1202056986	2	23:22:00		X	X					X	X				X	X			
1202056988	2	23:26:00		X	X					X	X				X	X			
1202056989	2	23:30:00		X	X					X	X				X	X			
1202056987	10	23:34:00		X	X					X	X				X	X			
ZZZZZZ	2	23:38:00																	
ZZZZZZ	2	23:42:00																	
CCV08	1	23:47:00		X	X					X	X				X	X			
CCB08	1	23:51:00		X	X					X	X				X	X			
ZZZZZZ	2	23:55:00																	
ZZZZZZ	2	23:59:00																	
ZZZZZZ	2	00:03:00																	
ZZZZZZ	2	00:07:00																	
ZZZZZZ	2	00:11:00																	
248250001	2	00:15:00		X	X					X	X				X	X			
248250002	2	00:20:00		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
248250003	2	00:24:00			X		X											X	X			X	X			
248250004	2	00:28:00			X		X											X	X			X	X			
CCV09	1	00:32:00			X		X											X	X			X	X			
CCB09	1	00:36:00			X		X											X	X			X	X			

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: HG3

Start Date: 17-MAR-10

Client Sdg: 10-2141

Method AV

Data File: 031710S2-3

End Date: 17-MAR-10

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:38:00															X									
S0.2	1	09:40:00															X									
S0.5	1	09:42:00															X									
S2.0	1	09:43:00															X									
S5.0	1	09:45:00															X									
S10.0	1	09:47:00															X									
ICV01	1	09:48:00															X									
ICB01	1	09:50:00															X									
CRDL01	1	09:52:00															X									
CCV01	1	09:53:00															X									
CCB01	1	09:55:00															X									
ZZZZZZ	1	09:57:00																								
ZZZZZZ	10	09:58:00																								
ZZZZZZ	1	10:00:00																								
ZZZZZZ	1	10:02:00																								
ZZZZZZ	1	10:03:00																								
ZZZZZZ	1	10:05:00																								
ZZZZZZ	5	10:07:00																								
ZZZZZZ	1	10:08:00																								
ZZZZZZ	1	10:10:00																								
ZZZZZZ	1	10:12:00																								
CCV02	1	10:13:00															X									
CCB02	1	10:15:00															X									
ZZZZZZ	1	10:17:00																								
ZZZZZZ	1	10:18:00																								
ZZZZZZ	1	10:20:00																								
ZZZZZZ	1	10:22:00																								
ZZZZZZ	1	10:24:00																								
ZZZZZZ	1	10:25:00																								
ZZZZZZ	1	10:27:00																								
ZZZZZZ	1	10:28:00																								
ZZZZZZ	1	10:30:00																								
ZZZZZZ	1	10:32:00																								
CCV03	1	10:33:00															X									
CCB03	1	10:35:00															X									
ZZZZZZ	1	10:37:00																								
ZZZZZZ	1	10:38:00																								
ZZZZZZ	1	10:40:00																								
ZZZZZZ	1	10:42:00																								
ZZZZZZ	1	10:43:00																								

Samp No.	D/F	Run Time
1202056652	1	10:45:00
1202056653	10	10:47:00
ZZZZZL	1	10:49:00
ZZZZZZ	1	10:50:00
ZZZZZZ	1	10:52:00
CCV04	1	10:54:00
CCB04	1	10:55:00
ZZZZZZ	1	10:57:00
ZZZZZZ	1	10:59:00
ZZZZZZ	1	11:00:00
ZZZZZZ	1	11:02:00
ZZZZZZ	1	11:04:00
248250001	1	11:05:00
248250002	1	11:07:00
248250003	1	11:09:00
248250004	1	11:10:00
ZZZZZZ	1	11:12:00
CCV05	1	11:14:00
CCB05	1	11:15:00
1202056654	1	11:17:00
1202056655	1	11:19:00
1202056657	1	11:20:00
1202056656	5	11:22:00
ZZZZZZ	1	11:24:00
ZZZZZZ	1	11:25:00
ZZZZZZ	1	11:27:00
ZZZZZZ	1	11:29:00
ZZZZZZ	1	11:30:00
ZZZZZZ	1	11:32:00
CCV06	1	11:34:00
CCB06	1	11:35:00

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA4

Start Date: 31-MAR-10

Client Sdg: 10-2141

Method P

Data File: 033110B-1

End Date: 01-APR-10

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	18:36:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S0.1	1	18:39:00		X		X		X		X	X	X		X		X			X		X				X	X
S0.5	1	18:41:00	X	X		X		X	X	X	X	X		X	X	X			X		X				X	X
SCAL	1	18:43:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S10	1	18:45:00	X					X					X		X							X				
ICV01	1	18:47:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICB01	1	18:48:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL01	1	18:51:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSA01	1	18:53:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSA01	1	18:55:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR01	1	18:56:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR02	1	18:57:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV01	1	18:59:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB01	1	19:01:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV02	1	19:06:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB02	1	19:08:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	19:11:00																								
ZZZZZZ	1	19:14:00																								
ZZZZZZ	1	19:16:00																								
ZZZZZZ	1	19:19:00																								
ZZZZZZ	1	19:22:00																								
ZZZZZZ	5	19:24:00																								
CCV03	1	19:27:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB03	1	19:29:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	19:32:00																								
ZZZZZZ	1	19:35:00																								
ZZZZZZ	1	19:38:00																								
ZZZZZZ	1	19:41:00																								
ZZZZZZ	1	19:44:00																								
CCV04	1	19:48:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB04	1	19:50:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	19:53:00																								
ZZZZZZ	1	19:56:00																								
ZZZZZZ	1	19:58:00																								
ZZZZZZ	1	20:01:00																								
ZZZZZZ	1	20:04:00																								
ZZZZZZ	1	20:06:00																								
ZZZZZZ	5	20:09:00																								
ZZZZZZ	1	20:12:00																								
ZZZZZZ	1	20:15:00																								

Samp No.	D/F	Run Time																				
CCV05	1	20:18:00	X	X		X		X	X	X	X	X	X	X	X		X	X	X		X	X
CCB05	1	20:21:00	X	X		X		X	X	X	X	X	X	X	X		X	X	X		X	X
ZZZZZZ	1	20:23:00																				
ZZZZZZ	1	20:27:00																				
ZZZZZZ	1	20:29:00																				
ZZZZZZ	1	20:31:00																				
ZZZZZZ	1	20:33:00																				
ZZZZZZ	5	20:35:00																				
ZZZZZZ	1	20:37:00																				
ZZZZZZ	1	20:40:00																				
ZZZZZZ	1	20:43:00																				
CCV06	1	20:46:00	X	X		X		X	X	X	X	X	X	X	X		X	X	X		X	X
CCB06	1	20:48:00	X	X		X		X	X	X	X	X	X	X	X		X	X	X		X	X
ZZZZZZ	1	20:51:00																				
ZZZZZZ	1	20:54:00																				
ZZZZZZ	1	20:56:00																				
ZZZZZZ	1	20:59:00																				
ZZZZZZ	1	21:02:00																				
ZZZZZZ	1	21:04:00																				
ZZZZZZ	1	21:06:00																				
ZZZZZZ	1	21:08:00																				
ZZZZZZ	1	21:11:00																				
ZZZZZZ	1	21:13:00																				
CCV07	1	21:16:00	X	X		X		X	X	X	X	X	X	X	X		X	X	X		X	X
CCB07	1	21:18:00	X	X		X		X	X	X	X	X	X	X	X		X	X	X		X	X
ZZZZZZ	1	21:21:00																				
ZZZZZZ	1	21:24:00																				
ZZZZZZ	1	21:25:00																				
ZZZZZZ	1	21:27:00																				
ZZZZZZ	1	21:29:00																				
ZZZZZZ	1	21:31:00																				
ZZZZZZ	1	21:33:00																				
ZZZZZZ	5	21:36:00																				
ZZZZZZ	1	21:37:00																				
CCV08	1	21:39:00	X	X		X		X	X	X	X	X	X	X	X		X	X	X		X	X
CCB08	1	21:41:00	X	X		X		X	X	X	X	X	X	X	X		X	X	X		X	X
ZZZZZZ	1	21:45:00																				
ZZZZZZ	1	21:47:00																				
ZZZZZZ	1	21:49:00																				
ZZZZZZ	1	21:51:00																				

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	1	21:53:00																								
CCV09	1	21:55:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB09	1	21:57:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	22:00:00																								
ZZZZZZ	1	22:03:00																								
ZZZZZZ	1	22:04:00																								
ZZZZZZ	1	22:06:00																								
ZZZZZZ	1	22:08:00																								
ZZZZZZ	1	22:09:00																								
ZZZZZZ	5	22:10:00																								
CCV10	1	22:12:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB10	1	22:14:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	22:17:00																								
ZZZZZZ	1	22:20:00																								
ZZZZZZ	1	22:22:00																								
ZZZZZZ	1	22:24:00																								
ZZZZZZ	1	22:26:00																								
ZZZZZZ	1	22:28:00																								
ZZZZZZ	1	22:31:00																								
ZZZZZZ	1	22:33:00																								
CCV11	1	22:35:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB11	1	22:37:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	22:40:00																								
ZZZZZZ	1	22:42:00																								
ZZZZZZ	1	22:45:00																								
ZZZZZZ	1	22:47:00																								
ZZZZZZ	1	22:49:00																								
ZZZZZZ	1	22:52:00																								
ZZZZZZ	1	22:54:00																								
CCV12	1	22:56:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB12	1	22:58:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	23:01:00																								
ZZZZZZ	1	23:04:00																								
ZZZZZZ	1	23:05:00																								
ZZZZZZ	1	23:07:00																								
ZZZZZZ	1	23:09:00																								
ZZZZZZ	1	23:10:00																								
ZZZZZZ	5	23:12:00																								
ZZZZZZ	1	23:14:00																								
ZZZZZZ	1	23:16:00																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																		
CCV13	1	23:18:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X
CCB13	1	23:20:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X
ZZZZZZ	1	23:23:00																		
ZZZZZZ	1	23:25:00																		
ZZZZZZ	1	23:27:00																		
ZZZZZZ	1	23:29:00																		
ZZZZZZ	1	23:32:00																		
ZZZZZZ	1	23:34:00																		
ZZZZZZ	1	23:35:00																		
ZZZZZZ	1	23:38:00																		
ZZZZZZ	1	23:40:00																		
ZZZZZZ	1	23:42:00																		
CCV14	1	23:44:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X
CCB14	1	23:46:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X
ZZZZZZ	1	23:49:00																		
ZZZZZZ	1	23:52:00																		
ZZZZZZ	1	23:53:00																		
ZZZZZZ	1	23:55:00																		
ZZZZZZ	1	23:57:00																		
ZZZZZZ	1	23:58:00																		
ZZZZZZ	5	00:00:00																		
CCV15	1	00:02:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X
CCB15	1	00:04:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X
ZZZZZZ	1	00:07:00																		
ZZZZZZ	1	00:09:00																		
ZZZZZZ	1	00:11:00																		
ZZZZZZ	1	00:14:00																		
ZZZZZZ	1	00:16:00																		
CCV16	1	00:18:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X
CCB16	1	00:20:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X
ZZZZZZ	1	00:23:00																		
ZZZZZZ	1	00:25:00																		
ZZZZZZ	1	00:27:00																		
ZZZZZZ	1	00:29:00																		
ZZZZZZ	1	00:31:00																		
ZZZZZZ	1	00:32:00																		
ZZZZZZ	5	00:34:00																		
ZZZZZZ	1	00:36:00																		
ZZZZZZ	1	00:38:00																		
ZZZZZZ	1	00:40:00																		

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
CCV17	1	00:42:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB17	1	00:45:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	00:48:00																								
ZZZZZZ	1	00:50:00																								
ZZZZZZ	1	00:52:00																								
ZZZZZZ	1	00:54:00																								
ZZZZZZ	1	00:56:00																								
ZZZZZZ	1	00:58:00																								
ZZZZZZ	1	01:00:00																								
ZZZZZZ	1	01:02:00																								
ZZZZZZ	1	01:04:00																								
CCV18	1	01:06:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB18	1	01:09:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	01:12:00																								
ZZZZZZ	1	01:14:00																								
ZZZZZZ	1	01:16:00																								
ZZZZZZ	1	01:18:00																								
ZZZZZZ	1	01:20:00																								
ZZZZZZ	1	01:22:00																								
PQL02	1	01:24:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	01:27:00																								
ZZZZZZ	1	01:29:00																								
CCV19	1	01:30:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB19	1	01:32:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	01:35:00																								
ZZZZZZ	1	01:38:00																								
ZZZZZZ	1	01:40:00																								
ZZZZZZ	1	01:43:00																								
ZZZZZZ	1	01:45:00																								
ZZZZZZ	1	01:48:00																								
ZZZZZZ	5	01:50:00																								
CCV20	1	01:53:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB20	1	01:55:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	01:58:00																								
ZZZZZZ	1	02:01:00																								
ZZZZZZ	1	02:03:00																								
ZZZZZZ	1	02:05:00																								
ZZZZZZ	1	02:08:00																								
ZZZZZZ	1	02:10:00																								
ZZZZZZ	5	02:12:00																								

Samp No.	D/F	Run Time																								
ZZZZZZ	1	02:15:00																								
ZZZZZZ	1	02:17:00																								
CCV21	1	02:19:00	X	X		X		X	X	X	X	X	X	X	X			X		X	X			X	X	
CCB21	1	02:21:00	X	X		X		X	X	X	X	X	X	X	X			X		X	X			X	X	
ZZZZZZ	1	02:24:00																								
ZZZZZZ	1	02:27:00																								
ZZZZZZ	1	02:29:00																								
ZZZZZZ	1	02:31:00																								
ZZZZZZ	1	02:33:00																								
ZZZZZZ	1	02:36:00																								
ZZZZZZ	5	02:38:00																								
ZZZZZZ	1	02:40:00																								
ZZZZZZ	1	02:43:00																								
CCV22	1	02:47:00	X	X		X		X	X	X	X	X	X	X	X			X		X	X			X	X	
CCB22	1	02:49:00	X	X		X		X	X	X	X	X	X	X	X			X		X	X			X	X	
ZZZZZZ	1	02:51:00																								
ZZZZZZ	1	02:55:00																								
ZZZZZZ	1	02:57:00																								
ZZZZZZ	1	02:59:00																								
ZZZZZZ	1	03:01:00																								
ZZZZZZ	1	03:03:00																								
ZZZZZZ	1	03:05:00																								
ZZZZZZ	5	03:07:00																								
ZZZZZZ	1	03:09:00																								
ZZZZZZ	1	03:11:00																								
CCV23	1	03:13:00	X	X		X		X	X	X	X	X	X	X	X			X		X	X			X	X	
CCB23	1	03:15:00	X	X		X		X	X	X	X	X	X	X	X			X		X	X			X	X	
CCV24	1	04:39:00	X	X		X		X	X	X	X	X	X	X	X			X		X	X			X	X	
CCB24	1	04:41:00	X	X		X		X	X	X	X	X	X	X	X			X		X	X			X	X	
ZZZZZZ	10	04:59:00																								
ZZZZZZ	10	05:01:00																								
CCV25	1	05:03:00	X	X		X		X	X	X	X	X	X	X	X			X		X	X			X	X	
CCB25	1	05:05:00	X	X		X		X	X	X	X	X	X	X	X			X		X	X			X	X	
1202056979	1	05:08:00	X	X		X		X	X	X	X	X	X	X	X			X		X	X			X	X	
1202056984	1	05:10:00	X	X		X		X	X	X	X	X	X	X	X			X		X	X			X	X	
ZZZZZZ	1	05:12:00																								
1202056980	1	05:14:00	X	X		X		X	X	X	X	X	X	X	X			X		X	X			X	X	
1202056982	1	05:16:00	X	X		X		X	X	X	X	X	X	X	X			X		X	X			X	X	
1202056983	1	05:17:00	X	X		X		X	X	X	X	X	X	X	X			X		X	X			X	X	
1202056981	5	05:18:00	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
ZZZZZZ	1	05:21:00																								
ZZZZZZ	1	05:23:00																								
CCV26	1	05:25:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB26	1	05:27:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	05:30:00																								
ZZZZZZ	1	05:32:00																								
ZZZZZZ	1	05:34:00																								
ZZZZZZ	1	05:36:00																								
ZZZZZZ	1	05:38:00																								
248250001	1	05:40:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248250002	1	05:42:00	X	X		X		X	X	X	X	X	X	X	X	X			X			X			X	X
248250003	1	05:44:00	X	X		X		X	X	X	X	X	X	X	X	X			X			X			X	X
248250004	1	05:46:00	X	X		X		X	X	X	X	X	X	X	X	X			X			X			X	X
CCV27	1	05:48:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB27	1	05:51:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
248250002	10	05:58:00																			X					
248250003	10	06:00:00																			X					
248250004	10	06:02:00																			X					
CCV28	1	06:04:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB28	1	06:06:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2141

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP/MS	<u>Analyte</u>	<u>Wavelength (nm)</u>	<u>MDL</u>	<u>RDL</u>
			<u>ug/L</u>	<u>ug/L</u>
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. 10-2141

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 15-JUN-09

		<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u> <u>ug/L</u>	<u>RDL</u> <u>ug/L</u>
MERCURY	<u>Analyte</u>			
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2141

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: GELGEL Job No: **10-2141**

Contract: LANL01004

Instrument: OPTIMA4

Effective Dates: **22-MAR-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Aluminum	Antimony	Arsenic	Barium	Beryllium
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-2141**

Contract: LANL01004

Instrument: OPTIMA4

Effective Dates: **22-MAR-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-2141

Contract: LANL01004

Instrument: OPTIMA4

Effective Dates: 22-MAR-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-2141**

Contract: LANL01004

Instrument: OPTIMA4

Effective Dates: **22-MAR-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-2141**

Contract: LANL01004

Instrument: OPTIMA4

Effective Dates: **22-MAR-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-2141

Contract: LANL01004

Instrument: OPTIMA4

Effective Dates: 22-MAR-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-2141

Contract: LANL01004

Lab Code: GEL

Instrument ID ICPMS5

<u>Analyte</u>	<u>Integration Time (msec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

METALS
-12-
Linear Ranges

SDG NO. 10-2141

Contract: LANL01004

Lab Code: GEL

Instrument ID OPTIMA4

<u>Analyte</u>	<u>Integration Time (sec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10
Aluminum	20	500000	ug/L	01-FEB-10
Antimony	20	10000	ug/L	01-FEB-10
Arsenic	20	10000	ug/L	01-FEB-10
Barium	20	15000	ug/L	01-FEB-10
Beryllium	20	3000	ug/L	01-FEB-10
Cadmium	20	10000	ug/L	01-FEB-10
Calcium	20	500000	ug/L	01-FEB-10
Chromium	20	25000	ug/L	01-FEB-10
Cobalt	20	10000	ug/L	01-FEB-10
Copper	20	20000	ug/L	01-FEB-10
Iron	20	500000	ug/L	01-FEB-10
Lead	20	25000	ug/L	01-FEB-10
Magnesium	20	500000	ug/L	01-FEB-10
Manganese	20	10000	ug/L	01-FEB-10
Nickel	20	10000	ug/L	01-FEB-10
Potassium	20	300000	ug/L	01-FEB-10
Selenium	20	10000	ug/L	01-FEB-10
Silver	20	1000	ug/L	01-FEB-10
Sodium	20	500000	ug/L	01-FEB-10
Thallium	20	10000	ug/L	01-FEB-10
Uranium	20	15000	ug/L	01-FEB-10

Raw Data

=====
Analysis Begun

Start Time: 3/31/2010 18:36:27

Plasma On Time: 3/29/2010 18:07:58

Logged In Analyst: optima4

Technique: ICP Continuous

Spectrometer Model: Optima 7300 DV, S/N 077C0022701 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif

Batch ID:

Results Data Set: 033110B

Results Library: C:\pe\optima4\Results\Results.mdb

=====
Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 3/31/2010 18:36:30

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc RADIAL	146983.1	146983.1	101 %	18:37:03
1	Al 396.153Radial†	-46.6	-46.3	[0.00] µg/L	18:37:23
1	Ca 317.933Radial†	562.9	558.9	[0.00] µg/L	18:37:23
1	Fe 238.204 Radial†	148.8	147.8	[0.00] µg/L	18:37:23
1	K 766.490 Radial†	1565.6	1554.3	[0.00] µg/L	18:37:03
1	Mg 279.077 IEC†	207.4	205.9	[0.00] µg/L	18:37:23
1	Na 589.592 Radial†	1216.0	1207.3	[0.00] µg/L	18:37:03
1	Sr 421.552†	-110.9	-110.1	[0.00] µg/L	18:37:03
1	Sc 361.383	1704607.6	1704607.6	99.208 %	18:38:25
1	Y 371.029	1018376.3	1018376.3	99.190 %	18:38:25
1	Ag 328.068†	3963.8	3995.4	[0.00] µg/L	18:38:27
1	As 188.979†	-17.7	-17.9	[0.00] µg/L	18:38:48
1	B 249.677†	3489.7	3517.5	[0.00] µg/L	18:38:27
1	Ba 233.527†	-145.9	-147.0	[0.00] µg/L	18:38:48
1	Be 313.107†	-965.4	-973.1	[0.00] µg/L	18:38:27
1	Cd 226.502†	-106.0	-106.8	[0.00] µg/L	18:38:48
1	Co 228.616†	-174.9	-176.3	[0.00] µg/L	18:38:48
1	Cr 267.716†	129.8	130.8	[0.00] µg/L	18:38:48
1	Cu 324.752†	2846.5	2869.3	[0.00] µg/L	18:38:27
1	Mn 257.610†	253.9	255.9	[0.00] µg/L	18:38:48
1	Mo 202.031†	-24.9	-25.1	[0.00] µg/L	18:38:48
1	Ni 231.604†	-72.6	-73.1	[0.00] µg/L	18:38:48
1	P 214.914†	-29.6	-29.8	[0.00] µg/L	18:38:48
1	Pb 220.353†	106.5	107.4	[0.00] µg/L	18:38:48
1	S 181.975 Axial†	102.6	103.4	[0.00] µg/L	18:38:48
1	Sb 206.836†	81.9	82.6	[0.00] µg/L	18:38:48
1	Se 196.026†	14.5	14.6	[0.00] µg/L	18:38:48
1	SiO2†	1812.7	1827.1	[0.00] µg/L	18:38:27
1	Si 251.611†	747.0	752.9	[0.00] µg/L	18:38:27
1	Sn 189.927†	-6.9	-6.9	[0.00] µg/L	18:38:48
1	Ti 334.940†	920.6	928.0	[0.00] µg/L	18:38:27
1	Tl 190.801†	-108.2	-109.0	[0.00] µg/L	18:38:48
1	U 409.014†	-161.2	-162.4	[0.00] µg/L	18:38:27
1	V 292.402†	343.5	346.2	[0.00] µg/L	18:38:27
1	Zn 213.857†	560.7	565.2	[0.00] µg/L	18:38:48
2	Sc RADIAL	145077.9	145077.9	99.4 %	18:37:25
2	Al 396.153Radial†	-80.7	-81.2	[0.00] µg/L	18:37:45
2	Ca 317.933Radial†	555.7	559.0	[0.00] µg/L	18:37:45
2	Fe 238.204 Radial†	152.0	152.9	[0.00] µg/L	18:37:45
2	K 766.490 Radial†	1581.8	1591.1	[0.00] µg/L	18:37:25
2	Mg 279.077 IEC†	207.4	208.6	[0.00] µg/L	18:37:45
2	Na 589.592 Radial†	1309.5	1317.2	[0.00] µg/L	18:37:25
2	Sr 421.552†	-50.0	-50.3	[0.00] µg/L	18:37:25
2	Sc 361.383	1730517.4	1730517.4	100.72 %	18:38:50
2	Y 371.029	1034150.1	1034150.1	100.73 %	18:38:50
2	Ag 328.068†	4314.8	4284.1	[0.00] µg/L	18:38:52
2	As 188.979†	-23.3	-23.2	[0.00] µg/L	18:39:12

2	B 249.677†	3487.4	3462.6	[0.00]	µg/L	18:38:52
2	Ba 233.527†	-138.3	-137.3	[0.00]	µg/L	18:39:12
2	Be 313.107†	-1181.9	-1173.5	[0.00]	µg/L	18:38:52
2	Cd 226.502†	-128.3	-127.3	[0.00]	µg/L	18:39:12
2	Co 228.616†	-207.1	-205.6	[0.00]	µg/L	18:39:12
2	Cr 267.716†	187.0	185.7	[0.00]	µg/L	18:39:12
2	Cu 324.752†	3037.7	3016.1	[0.00]	µg/L	18:38:52
2	Mn 257.610†	235.4	233.7	[0.00]	µg/L	18:39:12
2	Mo 202.031†	-14.8	-14.7	[0.00]	µg/L	18:39:12
2	Ni 231.604†	-77.5	-77.0	[0.00]	µg/L	18:39:12
2	P 214.914†	-7.1	-7.0	[0.00]	µg/L	18:39:12
2	Pb 220.353†	82.7	82.1	[0.00]	µg/L	18:39:12
2	S 181.975 Axial†	101.1	100.4	[0.00]	µg/L	18:39:12
2	Sb 206.836†	84.6	84.0	[0.00]	µg/L	18:39:12
2	Se 196.026†	9.6	9.5	[0.00]	µg/L	18:39:12
2	SiO2†	1764.6	1752.0	[0.00]	µg/L	18:38:52
2	Si 251.611†	909.0	902.5	[0.00]	µg/L	18:38:52
2	Sn 189.927†	4.1	4.0	[0.00]	µg/L	18:39:12
2	Ti 334.940†	1042.4	1035.0	[0.00]	µg/L	18:38:52
2	Tl 190.801†	-124.1	-123.3	[0.00]	µg/L	18:39:12
2	U 409.014†	-390.5	-387.7	[0.00]	µg/L	18:38:52
2	V 292.402†	355.1	352.6	[0.00]	µg/L	18:38:52
2	Zn 213.857†	564.8	560.8	[0.00]	µg/L	18:39:12
3	Sc RADIAL	145728.3	145728.3	99.9	%	18:37:47
3	Al 396.153Radial†	-62.0	-62.1	[0.00]	µg/L	18:38:07
3	Ca 317.933Radial†	563.1	563.9	[0.00]	µg/L	18:38:07
3	Fe 238.204 Radial†	143.5	143.7	[0.00]	µg/L	18:38:07
3	K 766.490 Radial†	1486.8	1488.8	[0.00]	µg/L	18:37:47
3	Mg 279.077 IEC†	157.4	157.6	[0.00]	µg/L	18:38:07
3	Na 589.592 Radial†	1346.0	1347.9	[0.00]	µg/L	18:37:47
3	Sr 421.552†	-245.1	-245.5	[0.00]	µg/L	18:37:47
3	Sc 361.383	1719527.8	1719527.8	100.08	%	18:39:14
3	Y 371.029	1027539.8	1027539.8	100.08	%	18:39:14
3	Ag 328.068†	3997.7	3994.6	[0.00]	µg/L	18:39:16
3	As 188.979†	-20.0	-20.0	[0.00]	µg/L	18:39:36
3	B 249.677†	3540.3	3537.6	[0.00]	µg/L	18:39:16
3	Ba 233.527†	-123.3	-123.2	[0.00]	µg/L	18:39:36
3	Be 313.107†	-1048.2	-1047.4	[0.00]	µg/L	18:39:16
3	Cd 226.502†	-120.5	-120.4	[0.00]	µg/L	18:39:36
3	Co 228.616†	-189.2	-189.0	[0.00]	µg/L	18:39:36
3	Cr 267.716†	219.3	219.2	[0.00]	µg/L	18:39:36
3	Cu 324.752†	3033.6	3031.3	[0.00]	µg/L	18:39:16
3	Mn 257.610†	222.3	222.2	[0.00]	µg/L	18:39:36
3	Mo 202.031†	-20.4	-20.4	[0.00]	µg/L	18:39:36
3	Ni 231.604†	-79.5	-79.4	[0.00]	µg/L	18:39:36
3	P 214.914†	-17.1	-17.1	[0.00]	µg/L	18:39:36
3	Pb 220.353†	69.7	69.7	[0.00]	µg/L	18:39:36
3	S 181.975 Axial†	111.4	111.3	[0.00]	µg/L	18:39:36
3	Sb 206.836†	76.0	76.0	[0.00]	µg/L	18:39:36
3	Se 196.026†	21.7	21.7	[0.00]	µg/L	18:39:36
3	SiO2†	1748.3	1747.0	[0.00]	µg/L	18:39:16
3	Si 251.611†	854.9	854.3	[0.00]	µg/L	18:39:16
3	Sn 189.927†	-0.5	-0.5	[0.00]	µg/L	18:39:36
3	Ti 334.940†	895.3	894.7	[0.00]	µg/L	18:39:16
3	Tl 190.801†	-117.8	-117.8	[0.00]	µg/L	18:39:36
3	U 409.014†	-259.7	-259.5	[0.00]	µg/L	18:39:16
3	V 292.402†	512.9	512.6	[0.00]	µg/L	18:39:16
3	Zn 213.857†	567.7	567.3	[0.00]	µg/L	18:39:36

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1718217.6	13004.50	0.76%	100.00 %
Sc RADIAL	145929.8	968.46	0.66%	100 %
Y 371.029	1026688.7	7921.26	0.77%	100.000 %
Ag 328.068†	4091.4	166.92	4.08%	[0.00] µg/L
Al 396.153Radial†	-63.2	17.46	27.63%	[0.00] µg/L
As 188.979†	-20.4	2.68	13.16%	[0.00] µg/L
B 249.677†	3505.9	38.80	1.11%	[0.00] µg/L
Ba 233.527†	-135.9	11.99	8.83%	[0.00] µg/L

Be 313.107†	-1064.7	101.30	9.51%	[0.00]	µg/L
Ca 317.933Radial†	560.6	2.89	0.52%	[0.00]	µg/L
Cd 226.502†	-118.2	10.43	8.83%	[0.00]	µg/L
Co 228.616†	-190.3	14.72	7.73%	[0.00]	µg/L
Cr 267.716†	178.6	44.62	24.99%	[0.00]	µg/L
Cu 324.752†	2972.2	89.48	3.01%	[0.00]	µg/L
Fe 238.204 Radial†	148.1	4.61	3.11%	[0.00]	µg/L
K 766.490 Radial†	1544.8	51.81	3.35%	[0.00]	µg/L
Mg 279.077 IEC†	190.7	28.69	15.04%	[0.00]	µg/L
Mn 257.610†	237.3	17.14	7.23%	[0.00]	µg/L
Mo 202.031†	-20.1	5.18	25.80%	[0.00]	µg/L
Na 589.592 Radial†	1290.8	73.89	5.72%	[0.00]	µg/L
Ni 231.604†	-76.5	3.18	4.16%	[0.00]	µg/L
P 214.914†	-18.0	11.42	63.61%	[0.00]	µg/L
Pb 220.353†	86.4	19.23	22.27%	[0.00]	µg/L
S 181.975 Axial†	105.1	5.63	5.36%	[0.00]	µg/L
Sb 206.836†	80.8	4.27	5.29%	[0.00]	µg/L
Se 196.026†	15.3	6.14	40.18%	[0.00]	µg/L
SiO2†	1775.4	44.90	2.53%	[0.00]	µg/L
Si 251.611†	836.6	76.33	9.12%	[0.00]	µg/L
Sn 189.927†	-1.1	5.51	492.60%	[0.00]	µg/L
Sr 421.552†	-135.3	99.98	73.90%	[0.00]	µg/L
Ti 334.940†	952.5	73.33	7.70%	[0.00]	µg/L
Tl 190.801†	-116.7	7.17	6.15%	[0.00]	µg/L
U 409.014†	-269.9	113.01	41.87%	[0.00]	µg/L
V 292.402†	403.8	94.24	23.34%	[0.00]	µg/L
Zn 213.857†	564.4	3.32	0.59%	[0.00]	µg/L

Sequence No.: 2

Sample ID: S0.1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 2

Date Collected: 3/31/2010 18:39:45

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc RADIAL	144945.8	144945.8	99.3 %	18:40:16
1	K 766.490 Radial†	4177.9	2661.5	[1000] µg/L	18:40:16
1	Sr 421.552†	48790.2	49256.8	[100] µg/L	18:40:16
1	Sc 361.383	1738207.5	1738207.5	101.16 %	18:40:38
1	Y 371.029	1035658.2	1035658.2	100.87 %	18:40:38
1	Ag 328.068†	31505.9	27052.2	[100] µg/L	18:40:40
1	As 188.979†	319.4	336.1	[100] µg/L	18:41:00
1	B 249.677†	10182.7	6559.7	[100] µg/L	18:40:40
1	Ba 233.527†	25238.0	25083.6	[100] µg/L	18:40:40
1	Be 313.107†	372065.7	368851.5	[100] µg/L	18:40:38
1	Cd 226.502†	16206.1	16137.9	[100] µg/L	18:40:40
1	Co 228.616†	8180.0	8276.3	[100] µg/L	18:41:00
1	Cr 267.716†	13182.1	12852.0	[100] µg/L	18:40:40
1	Cu 324.752†	28766.5	25463.5	[100] µg/L	18:40:40
1	Mn 257.610†	84629.1	83418.6	[100] µg/L	18:40:40
1	Mo 202.031†	3388.6	3369.7	[100] µg/L	18:41:00
1	Ni 231.604†	8784.7	8760.2	[100] µg/L	18:40:40
1	P 214.914†	2330.2	2321.4	[500] µg/L	18:41:00
1	Pb 220.353†	1931.7	1823.1	[100] µg/L	18:41:00
1	S 181.975 Axial†	386.6	277.1	[200] µg/L	18:41:00
1	Sb 206.836†	932.6	841.0	[100] µg/L	18:41:00
1	Se 196.026†	288.8	270.2	[100] µg/L	18:41:00
1	SiO2†	12629.3	10708.7	[1069.5] µg/L	18:40:40
1	Si 251.611†	34601.6	33367.1	[500] µg/L	18:40:40
1	Sn 189.927†	1637.3	1619.6	[100] µg/L	18:41:00
1	Ti 334.940†	108213.7	106016.7	[100] µg/L	18:40:40
1	Tl 190.801†	724.1	832.5	[100] µg/L	18:41:00
1	U 409.014†	1714.9	1965.0	[100] µg/L	18:40:40
1	V 292.402†	20866.1	20222.4	[100] µg/L	18:40:40
1	Zn 213.857†	18689.8	17910.4	[100] µg/L	18:40:40
2	Sc RADIAL	144384.1	144384.1	98.9 %	18:40:18
2	K 766.490 Radial†	4099.7	2598.8	[1000] µg/L	18:40:18
2	Sr 421.552†	48913.4	49572.3	[100] µg/L	18:40:18
2	Sc 361.383	1718136.8	1718136.8	99.995 %	18:41:02
2	Y 371.029	1023615.0	1023615.0	99.701 %	18:41:02
2	Ag 328.068†	31474.0	27384.1	[100] µg/L	18:41:04
2	As 188.979†	316.2	336.6	[100] µg/L	18:41:24
2	B 249.677†	10249.3	6743.9	[100] µg/L	18:41:04
2	Ba 233.527†	25403.3	25540.3	[100] µg/L	18:41:04
2	Be 313.107†	368011.0	369093.1	[100] µg/L	18:41:02
2	Cd 226.502†	16403.0	16522.0	[100] µg/L	18:41:04
2	Co 228.616†	8194.1	8384.8	[100] µg/L	18:41:24
2	Cr 267.716†	13299.6	13121.6	[100] µg/L	18:41:04
2	Cu 324.752†	29042.8	26072.0	[100] µg/L	18:41:04
2	Mn 257.610†	85481.9	85248.7	[100] µg/L	18:41:04
2	Mo 202.031†	3415.9	3436.2	[100] µg/L	18:41:24
2	Ni 231.604†	9104.3	9181.2	[100] µg/L	18:41:04
2	P 214.914†	2327.9	2346.0	[500] µg/L	18:41:24
2	Pb 220.353†	1943.3	1857.0	[100] µg/L	18:41:24
2	S 181.975 Axial†	382.9	277.8	[200] µg/L	18:41:24
2	Sb 206.836†	933.1	852.4	[100] µg/L	18:41:24
2	Se 196.026†	282.7	267.4	[100] µg/L	18:41:24
2	SiO2†	12728.6	10953.9	[1069.5] µg/L	18:41:04
2	Si 251.611†	35105.7	34270.8	[500] µg/L	18:41:04
2	Sn 189.927†	1643.4	1644.6	[100] µg/L	18:41:24
2	Ti 334.940†	109258.0	108310.6	[100] µg/L	18:41:04
2	Tl 190.801†	742.2	858.9	[100] µg/L	18:41:24
2	U 409.014†	1747.4	2017.4	[100] µg/L	18:41:04
2	V 292.402†	20863.1	20460.2	[100] µg/L	18:41:04

2	Zn 213.857†	18913.1	18349.6	[100]	µg/L	18:41:04
3	Sc RADIAL	144888.2	144888.2	99.3	%	18:40:20
3	K 766.490 Radial†	4194.1	2679.5	[1000]	µg/L	18:40:20
3	Sr 421.552†	48878.7	49365.4	[100]	µg/L	18:40:20
3	Sc 361.383	1720712.1	1720712.1	100.15	%	18:41:26
3	Y 371.029	1025149.2	1025149.2	99.850	%	18:41:26
3	Ag 328.068†	30653.6	26517.7	[100]	µg/L	18:41:28
3	As 188.979†	311.4	331.3	[100]	µg/L	18:41:48
3	B 249.677†	10032.3	6511.9	[100]	µg/L	18:41:28
3	Ba 233.527†	24571.6	24671.8	[100]	µg/L	18:41:28
3	Be 313.107†	369363.0	369892.2	[100]	µg/L	18:41:26
3	Cd 226.502†	15800.2	15895.5	[100]	µg/L	18:41:28
3	Co 228.616†	7941.4	8120.2	[100]	µg/L	18:41:48
3	Cr 267.716†	12878.6	12681.3	[100]	µg/L	18:41:28
3	Cu 324.752†	28237.0	25223.9	[100]	µg/L	18:41:28
3	Mn 257.610†	82709.3	82352.2	[100]	µg/L	18:41:28
3	Mo 202.031†	3317.5	3332.8	[100]	µg/L	18:41:48
3	Ni 231.604†	8579.1	8643.1	[100]	µg/L	18:41:28
3	P 214.914†	2246.6	2261.3	[500]	µg/L	18:41:48
3	Pb 220.353†	1888.8	1799.7	[100]	µg/L	18:41:48
3	S 181.975 Axial†	370.3	264.7	[200]	µg/L	18:41:48
3	Sb 206.836†	914.8	832.6	[100]	µg/L	18:41:48
3	Se 196.026†	294.0	278.3	[100]	µg/L	18:41:48
3	SiO2†	12365.6	10572.3	[1069.5]	µg/L	18:41:28
3	Si 251.611†	33612.6	32727.3	[500]	µg/L	18:41:28
3	Sn 189.927†	1589.9	1588.8	[100]	µg/L	18:41:48
3	Ti 334.940†	106005.7	104899.5	[100]	µg/L	18:41:28
3	Tl 190.801†	699.9	815.6	[100]	µg/L	18:41:48
3	U 409.014†	1493.0	1760.7	[100]	µg/L	18:41:28
3	V 292.402†	20303.9	19870.7	[100]	µg/L	18:41:28
3	Zn 213.857†	18249.8	17659.0	[100]	µg/L	18:41:28

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1725685.5	10920.55	0.63%	100.43 %
Sc RADIAL	144739.3	309.02	0.21%	99.2 %
Y 371.029	1028140.8	6555.30	0.64%	100.14 %
Ag 328.068†	26984.7	437.11	1.62%	[100] µg/L
As 188.979†	334.7	2.93	0.88%	[100] µg/L
B 249.677†	6605.2	122.52	1.85%	[100] µg/L
Ba 233.527†	25098.6	434.45	1.73%	[100] µg/L
Be 313.107†	369278.9	544.69	0.15%	[100] µg/L
Cd 226.502†	16185.1	315.91	1.95%	[100] µg/L
Co 228.616†	8260.4	133.02	1.61%	[100] µg/L
Cr 267.716†	12885.0	222.00	1.72%	[100] µg/L
Cu 324.752†	25586.4	437.23	1.71%	[100] µg/L
K 766.490 Radial†	2646.6	42.33	1.60%	[1000] µg/L
Mn 257.610†	83673.1	1464.94	1.75%	[100] µg/L
Mo 202.031†	3379.6	52.39	1.55%	[100] µg/L
Ni 231.604†	8861.5	282.97	3.19%	[100] µg/L
P 214.914†	2309.6	43.55	1.89%	[500] µg/L
Pb 220.353†	1826.6	28.83	1.58%	[100] µg/L
S 181.975 Axial†	273.2	7.39	2.70%	[200] µg/L
Sb 206.836†	842.0	9.91	1.18%	[100] µg/L
Se 196.026†	272.0	5.61	2.06%	[100] µg/L
SiO2†	10744.9	193.37	1.80%	[1069.5] µg/L
Si 251.611†	33455.1	775.50	2.32%	[500] µg/L
Sn 189.927†	1617.7	27.99	1.73%	[100] µg/L
Sr 421.552†	49398.1	160.32	0.32%	[100] µg/L
Ti 334.940†	106408.9	1739.07	1.63%	[100] µg/L
Tl 190.801†	835.7	21.85	2.61%	[100] µg/L
U 409.014†	1914.4	135.63	7.09%	[100] µg/L
V 292.402†	20184.4	296.62	1.47%	[100] µg/L
Zn 213.857†	17973.0	349.52	1.94%	[100] µg/L

Sequence No.: 3
 Sample ID: S0.5
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 3
 Date Collected: 3/31/2010 18:41:56
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc RADIAL	139976.0	139976.0	95.9 %	18:42:27
1	Al 396.153Radial†	25919.4	27085.0	[5000] µg/L	18:42:27
1	Ca 317.933Radial†	87385.1	90541.3	[5000] µg/L	18:42:27
1	K 766.490 Radial†	14430.7	13499.7	[5000] µg/L	18:42:27
1	Mg 279.077 IEC†	13338.9	13715.6	[5000] µg/L	18:42:27
1	Sr 421.552†	229015.2	238891.4	[500] µg/L	18:42:25
1	Sc 361.383	1645400.7	1645400.7	95.762 %	18:42:40
1	Y 371.029	975342.9	975342.9	94.999 %	18:42:40
1	Ag 328.068†	131294.3	133013.3	[500] µg/L	18:42:40
1	As 188.979†	1571.6	1661.5	[500] µg/L	18:43:00
1	B 249.677†	35172.1	33222.7	[500] µg/L	18:42:40
1	Ba 233.527†	117348.5	122677.6	[500] µg/L	18:42:40
1	Be 313.107†	1744827.1	1823108.9	[500] µg/L	18:42:40
1	Cd 226.502†	75312.3	78763.4	[500] µg/L	18:42:40
1	Co 228.616†	38245.0	40127.8	[500] µg/L	18:42:40
1	Cr 267.716†	60545.4	63046.3	[500] µg/L	18:42:40
1	Cu 324.752†	123884.9	126395.2	[500] µg/L	18:42:40
1	Mn 257.610†	385575.1	402401.4	[500] µg/L	18:42:40
1	Mo 202.031†	16410.2	17156.5	[500] µg/L	18:43:00
1	Ni 231.604†	41126.2	43022.7	[500] µg/L	18:42:40
1	P 214.914†	11303.9	11822.1	[2500] µg/L	18:43:00
1	Pb 220.353†	8787.6	9090.2	[500] µg/L	18:43:00
1	S 181.975 Axial†	1381.6	1337.7	[1000] µg/L	18:43:00
1	Sb 206.836†	4130.5	4232.5	[500] µg/L	18:43:00
1	Se 196.026†	1340.7	1384.8	[500] µg/L	18:43:00
1	SiO2†	54250.1	54875.6	[5347.5] µg/L	18:42:40
1	Si 251.611†	163679.1	170086.1	[2500] µg/L	18:42:40
1	Sn 189.927†	7746.5	8090.4	[500] µg/L	18:43:00
1	Ti 334.940†	510093.6	531715.2	[500] µg/L	18:42:40
1	Tl 190.801†	3808.0	4093.2	[500] µg/L	18:43:00
1	U 409.014†	6985.6	7564.6	[500] µg/L	18:42:40
1	V 292.402†	96986.0	100874.3	[500] µg/L	18:42:40
1	Zn 213.857†	84527.8	87704.2	[500] µg/L	18:42:40
2	Sc RADIAL	141210.3	141210.3	96.8 %	18:42:31
2	Al 396.153Radial†	26176.8	27114.9	[5000] µg/L	18:42:31
2	Ca 317.933Radial†	88277.8	90667.6	[5000] µg/L	18:42:31
2	K 766.490 Radial†	14658.6	13603.8	[5000] µg/L	18:42:31
2	Mg 279.077 IEC†	13508.7	13769.5	[5000] µg/L	18:42:31
2	Sr 421.552†	232944.0	240864.6	[500] µg/L	18:42:29
2	Sc 361.383	1687203.1	1687203.1	98.195 %	18:43:03
2	Y 371.029	998510.1	998510.1	97.255 %	18:43:03
2	Ag 328.068†	134607.0	132990.0	[500] µg/L	18:43:03
2	As 188.979†	1586.5	1636.0	[500] µg/L	18:43:23
2	B 249.677†	36433.6	33597.5	[500] µg/L	18:43:03
2	Ba 233.527†	121232.8	123597.1	[500] µg/L	18:43:03
2	Be 313.107†	1799842.1	1833991.9	[500] µg/L	18:43:03
2	Cd 226.502†	78158.8	79713.7	[500] µg/L	18:43:03
2	Co 228.616†	39721.5	40642.0	[500] µg/L	18:43:03
2	Cr 267.716†	62227.1	63192.4	[500] µg/L	18:43:03
2	Cu 324.752†	127576.9	126949.9	[500] µg/L	18:43:03
2	Mn 257.610†	397913.1	404990.4	[500] µg/L	18:43:03
2	Mo 202.031†	16475.5	16798.5	[500] µg/L	18:43:23
2	Ni 231.604†	42320.9	43175.4	[500] µg/L	18:43:03
2	P 214.914†	11321.5	11547.6	[2500] µg/L	18:43:23
2	Pb 220.353†	8841.9	8918.0	[500] µg/L	18:43:23
2	S 181.975 Axial†	1404.5	1325.2	[1000] µg/L	18:43:23
2	Sb 206.836†	4150.6	4146.1	[500] µg/L	18:43:23
2	Se 196.026†	1352.6	1362.2	[500] µg/L	18:43:23
2	SiO2†	55913.1	55165.5	[5347.5] µg/L	18:43:03

2	Si 251.611†	169027.8	171298.3	[2500] µg/L	18:43:03
2	Sn 189.927†	7793.7	7938.1	[500] µg/L	18:43:23
2	Ti 334.940†	524282.8	532967.8	[500] µg/L	18:43:03
2	Tl 190.801†	3829.1	4016.1	[500] µg/L	18:43:23
2	U 409.014†	7204.4	7606.8	[500] µg/L	18:43:03
2	V 292.402†	99476.3	100901.1	[500] µg/L	18:43:03
2	Zn 213.857†	87574.3	88619.7	[500] µg/L	18:43:03
3	Sc RADIAL	139845.9	139845.9	95.8 %	18:42:35
3	Al 396.153Radial†	25970.7	27163.8	[5000] µg/L	18:42:35
3	Ca 317.933Radial†	87048.7	90275.0	[5000] µg/L	18:42:35
3	K 766.490 Radial†	14322.7	13401.0	[5000] µg/L	18:42:35
3	Mg 279.077 IEC†	13177.9	13560.5	[5000] µg/L	18:42:35
3	Sr 421.552†	232490.3	242739.9	[500] µg/L	18:42:33
3	Sc 361.383	1671427.9	1671427.9	97.277 %	18:43:26
3	Y 371.029	990579.4	990579.4	96.483 %	18:43:26
3	Ag 328.068†	132744.3	132368.9	[500] µg/L	18:43:26
3	As 188.979†	1563.8	1627.9	[500] µg/L	18:43:46
3	B 249.677†	35824.9	33321.9	[500] µg/L	18:43:26
3	Ba 233.527†	119283.9	122759.0	[500] µg/L	18:43:26
3	Be 313.107†	1775117.0	1825874.0	[500] µg/L	18:43:26
3	Cd 226.502†	77044.3	79319.2	[500] µg/L	18:43:26
3	Co 228.616†	39106.1	40391.2	[500] µg/L	18:43:26
3	Cr 267.716†	61510.3	63053.6	[500] µg/L	18:43:26
3	Cu 324.752†	125724.5	126271.8	[500] µg/L	18:43:26
3	Mn 257.610†	391730.1	402458.9	[500] µg/L	18:43:26
3	Mo 202.031†	16447.7	16928.2	[500] µg/L	18:43:46
3	Ni 231.604†	41833.4	43081.0	[500] µg/L	18:43:26
3	P 214.914†	11306.9	11641.3	[2500] µg/L	18:43:46
3	Pb 220.353†	8817.9	8978.4	[500] µg/L	18:43:46
3	S 181.975 Axial†	1403.6	1337.8	[1000] µg/L	18:43:46
3	Sb 206.836†	4107.1	4141.3	[500] µg/L	18:43:46
3	Se 196.026†	1356.4	1379.1	[500] µg/L	18:43:46
3	SiO2†	55098.9	54865.9	[5347.5] µg/L	18:43:26
3	Si 251.611†	166541.0	170366.5	[2500] µg/L	18:43:26
3	Sn 189.927†	7776.3	7995.1	[500] µg/L	18:43:46
3	Ti 334.940†	517688.6	531228.1	[500] µg/L	18:43:26
3	Tl 190.801†	3841.1	4065.3	[500] µg/L	18:43:46
3	U 409.014†	7259.9	7733.0	[500] µg/L	18:43:26
3	V 292.402†	98243.7	100590.2	[500] µg/L	18:43:26
3	Zn 213.857†	86383.4	88237.2	[500] µg/L	18:43:26

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1668010.6	21109.69	1.27%	97.078 %
Sc RADIAL	140344.1	753.01	0.54%	96.2 %
Y 371.029	988144.1	11774.03	1.19%	96.246 %
Ag 328.068†	132790.8	365.49	0.28%	[500] µg/L
Al 396.153Radial†	27121.2	39.74	0.15%	[5000] µg/L
As 188.979†	1641.8	17.55	1.07%	[500] µg/L
B 249.677†	33380.7	194.18	0.58%	[500] µg/L
Ba 233.527†	123011.2	509.04	0.41%	[500] µg/L
Be 313.107†	1827658.3	5656.67	0.31%	[500] µg/L
Ca 317.933Radial†	90494.7	200.40	0.22%	[5000] µg/L
Cd 226.502†	79265.5	477.42	0.60%	[500] µg/L
Co 228.616†	40387.0	257.10	0.64%	[500] µg/L
Cr 267.716†	63097.4	82.35	0.13%	[500] µg/L
Cu 324.752†	126538.9	361.18	0.29%	[500] µg/L
K 766.490 Radial†	13501.5	101.39	0.75%	[5000] µg/L
Mg 279.077 IEC†	13681.9	108.49	0.79%	[5000] µg/L
Mn 257.610†	403283.6	1478.44	0.37%	[500] µg/L
Mo 202.031†	16961.0	181.25	1.07%	[500] µg/L
Ni 231.604†	43093.0	77.04	0.18%	[500] µg/L
P 214.914†	11670.4	139.54	1.20%	[2500] µg/L
Pb 220.353†	8995.5	87.32	0.97%	[500] µg/L
S 181.975 Axial†	1333.6	7.24	0.54%	[1000] µg/L
Sb 206.836†	4173.3	51.32	1.23%	[500] µg/L
Se 196.026†	1375.4	11.73	0.85%	[500] µg/L
SiO2†	54969.0	170.25	0.31%	[5347.5] µg/L
Si 251.611†	170583.6	634.61	0.37%	[2500] µg/L

Sn 189.927†	8007.9	76.96	0.96%	[500] µg/L
Sr 421.552†	240832.0	1924.44	0.80%	[500] µg/L
Ti 334.940†	531970.4	897.45	0.17%	[500] µg/L
Tl 190.801†	4058.2	39.03	0.96%	[500] µg/L
U 409.014†	7634.8	87.65	1.15%	[500] µg/L
V 292.402†	100788.5	172.29	0.17%	[500] µg/L
Zn 213.857†	88187.0	459.83	0.52%	[500] µg/L

Sequence No.: 4

Sample ID: SCAL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/31/2010 18:43:55

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc RADIAL	140246.3	140246.3	96.1	%	18:44:26
1	Al 396.153Radial†	52689.3	54887.7	[10000]	µg/L	18:44:26
1	Ca 317.933Radial†	176157.7	182735.9	[10000]	µg/L	18:44:26
1	Fe 238.204 Radial†	157034.9	163250.7	[10000]	µg/L	18:44:26
1	K 766.490 Radial†	27864.8	27449.2	[10000]	µg/L	18:44:26
1	Mg 279.077 IEC†	26628.7	27517.1	[10000]	µg/L	18:44:26
1	Na 589.592 Radial†	71367.5	72968.9	[10000]	µg/L	18:44:26
1	Sr 421.552†	465887.4	484902.9	[1000]	µg/L	18:44:24
1	Sc 361.383	1660058.9	1660058.9	96.615	%	18:44:39
1	Y 371.029	978012.9	978012.9	95.259	%	18:44:39
1	Ag 328.068†	268618.1	273937.5	[1000]	µg/L	18:44:41
1	As 188.979†	3193.8	3326.1	[1000]	µg/L	18:45:01
1	B 249.677†	69762.5	68700.7	[1000]	µg/L	18:44:41
1	Ba 233.527†	242316.3	250941.5	[1000]	µg/L	18:44:41
1	Be 313.107†	3555578.2	3681209.5	[1000]	µg/L	18:44:39
1	Cd 226.502†	156604.8	162209.5	[1000]	µg/L	18:44:41
1	Co 228.616†	78951.1	81907.4	[1000]	µg/L	18:44:41
1	Cr 267.716†	125005.7	129206.6	[1000]	µg/L	18:44:41
1	Cu 324.752†	255303.1	261275.2	[1000]	µg/L	18:44:41
1	Mn 257.610†	781879.7	809034.9	[1000]	µg/L	18:44:39
1	Mo 202.031†	33228.9	34413.1	[1000]	µg/L	18:44:41
1	Ni 231.604†	84765.4	87811.6	[1000]	µg/L	18:44:41
1	P 214.914†	22636.2	23447.2	[5000]	µg/L	18:45:01
1	Pb 220.353†	17407.6	17931.0	[1000]	µg/L	18:45:01
1	S 181.975 Axial†	2706.2	2696.0	[2000]	µg/L	18:45:01
1	Sb 206.836†	8264.7	8473.4	[1000]	µg/L	18:45:01
1	Se 196.026†	2709.4	2789.0	[1000]	µg/L	18:45:01
1	SiO2†	108329.2	110349.0	[10695]	µg/L	18:44:41
1	Si 251.611†	331285.5	342055.2	[5000]	µg/L	18:44:41
1	Sn 189.927†	15541.6	16087.2	[1000]	µg/L	18:45:01
1	Ti 334.940†	1037686.9	1073088.8	[1000]	µg/L	18:44:39
1	Tl 190.801†	7778.7	8167.9	[1000]	µg/L	18:45:01
1	U 409.014†	16858.3	17718.8	[1000]	µg/L	18:44:41
1	V 292.402†	201478.5	208133.3	[1000]	µg/L	18:44:41
1	Zn 213.857†	174510.7	180060.2	[1000]	µg/L	18:44:41
2	Sc RADIAL	138844.4	138844.4	95.1	%	18:44:30
2	Al 396.153Radial†	52161.3	54886.4	[10000]	µg/L	18:44:30
2	Ca 317.933Radial†	173493.6	181786.6	[10000]	µg/L	18:44:30
2	Fe 238.204 Radial†	154887.4	162643.3	[10000]	µg/L	18:44:30
2	K 766.490 Radial†	27455.0	27311.3	[10000]	µg/L	18:44:30
2	Mg 279.077 IEC†	26420.5	27578.1	[10000]	µg/L	18:44:30
2	Na 589.592 Radial†	70508.9	72816.3	[10000]	µg/L	18:44:30
2	Sr 421.552†	460810.9	484461.8	[1000]	µg/L	18:44:28
2	Sc 361.383	1689699.6	1689699.6	98.340	%	18:45:04
2	Y 371.029	993860.1	993860.1	96.802	%	18:45:04
2	Ag 328.068†	266910.5	267323.9	[1000]	µg/L	18:45:06
2	As 188.979†	3218.4	3293.1	[1000]	µg/L	18:45:26
2	B 249.677†	69508.7	67175.9	[1000]	µg/L	18:45:06
2	Ba 233.527†	241134.5	245340.1	[1000]	µg/L	18:45:06
2	Be 313.107†	3627090.7	3689371.8	[1000]	µg/L	18:45:04
2	Cd 226.502†	155509.2	158252.0	[1000]	µg/L	18:45:06
2	Co 228.616†	78490.7	80005.8	[1000]	µg/L	18:45:06
2	Cr 267.716†	124369.4	126289.8	[1000]	µg/L	18:45:06
2	Cu 324.752†	253180.3	254481.2	[1000]	µg/L	18:45:06
2	Mn 257.610†	797903.6	811133.0	[1000]	µg/L	18:45:04
2	Mo 202.031†	33052.4	33630.3	[1000]	µg/L	18:45:06
2	Ni 231.604†	84350.1	85850.2	[1000]	µg/L	18:45:06
2	P 214.914†	22849.9	23253.5	[5000]	µg/L	18:45:26
2	Pb 220.353†	17581.2	17791.6	[1000]	µg/L	18:45:26

2	S 181.975 Axial†	2749.5	2690.8	[2000]	µg/L	18:45:26
2	Sb 206.836†	8294.0	8353.2	[1000]	µg/L	18:45:26
2	Se 196.026†	2710.1	2740.6	[1000]	µg/L	18:45:26
2	SiO2†	107785.0	107828.8	[10695]	µg/L	18:45:06
2	Si 251.611†	329317.5	334039.0	[5000]	µg/L	18:45:06
2	Sn 189.927†	15680.3	15946.1	[1000]	µg/L	18:45:26
2	Ti 334.940†	1057357.1	1074250.2	[1000]	µg/L	18:45:04
2	Tl 190.801†	7829.0	8077.8	[1000]	µg/L	18:45:26
2	U 409.014†	16641.8	17192.5	[1000]	µg/L	18:45:06
2	V 292.402†	200063.6	203036.4	[1000]	µg/L	18:45:06
2	Zn 213.857†	173774.1	176142.5	[1000]	µg/L	18:45:06
3	Sc RADIAL	142431.7	142431.7	97.6	%	18:44:34
3	Al 396.153Radial†	53146.2	54514.7	[10000]	µg/L	18:44:34
3	Ca 317.933Radial†	178392.5	182213.1	[10000]	µg/L	18:44:34
3	Fe 238.204 Radial†	159216.9	162979.1	[10000]	µg/L	18:44:34
3	K 766.490 Radial†	28289.6	27439.6	[10000]	µg/L	18:44:34
3	Mg 279.077 IEC†	27285.4	27764.8	[10000]	µg/L	18:44:34
3	Na 589.592 Radial†	72542.7	73033.5	[10000]	µg/L	18:44:34
3	Sr 421.552†	461335.7	472801.1	[1000]	µg/L	18:44:32
3	Sc 361.383	1671450.9	1671450.9	97.278	%	18:45:29
3	Y 371.029	984698.6	984698.6	95.910	%	18:45:29
3	Ag 328.068†	268839.9	272270.6	[1000]	µg/L	18:45:31
3	As 188.979†	3207.1	3317.1	[1000]	µg/L	18:45:51
3	B 249.677†	69920.1	68370.5	[1000]	µg/L	18:45:31
3	Ba 233.527†	242785.5	249714.4	[1000]	µg/L	18:45:31
3	Be 313.107†	3559181.4	3659831.0	[1000]	µg/L	18:45:29
3	Cd 226.502†	156473.3	160969.5	[1000]	µg/L	18:45:31
3	Co 228.616†	79020.9	81422.2	[1000]	µg/L	18:45:31
3	Cr 267.716†	125294.1	128621.2	[1000]	µg/L	18:45:31
3	Cu 324.752†	255275.0	259445.3	[1000]	µg/L	18:45:31
3	Mn 257.610†	783171.7	804847.3	[1000]	µg/L	18:45:29
3	Mo 202.031†	33174.1	34122.4	[1000]	µg/L	18:45:31
3	Ni 231.604†	84877.1	87328.4	[1000]	µg/L	18:45:31
3	P 214.914†	22811.2	23467.5	[5000]	µg/L	18:45:51
3	Pb 220.353†	17557.7	17962.6	[1000]	µg/L	18:45:51
3	S 181.975 Axial†	2739.9	2711.5	[2000]	µg/L	18:45:51
3	Sb 206.836†	8307.3	8458.9	[1000]	µg/L	18:45:51
3	Se 196.026†	2720.6	2781.4	[1000]	µg/L	18:45:51
3	SiO2†	108495.7	109756.0	[10695]	µg/L	18:45:31
3	Si 251.611†	331529.5	339969.0	[5000]	µg/L	18:45:31
3	Sn 189.927†	15666.1	16105.6	[1000]	µg/L	18:45:51
3	Ti 334.940†	1040566.4	1068728.6	[1000]	µg/L	18:45:29
3	Tl 190.801†	7842.2	8178.3	[1000]	µg/L	18:45:51
3	U 409.014†	16964.7	17709.3	[1000]	µg/L	18:45:31
3	V 292.402†	201223.5	206449.9	[1000]	µg/L	18:45:31
3	Zn 213.857†	174624.2	178945.7	[1000]	µg/L	18:45:31

Mean Data: SCAL

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	1673736.5	14951.98	0.89%	97.411	%
Sc RADIAL	140507.5	1807.88	1.29%	96.3	%
Y 371.029	985523.8	7955.77	0.81%	95.991	%
Ag 328.068†	271177.3	3439.65	1.27%	[1000]	µg/L
Al 396.153Radial†	54762.9	214.99	0.39%	[10000]	µg/L
As 188.979†	3312.1	17.04	0.51%	[1000]	µg/L
B 249.677†	68082.4	802.18	1.18%	[1000]	µg/L
Ba 233.527†	248665.4	2944.35	1.18%	[1000]	µg/L
Be 313.107†	3676804.1	15255.21	0.41%	[1000]	µg/L
Ca 317.933Radial†	182245.2	475.46	0.26%	[10000]	µg/L
Cd 226.502†	160477.0	2024.24	1.26%	[1000]	µg/L
Co 228.616†	81111.8	988.08	1.22%	[1000]	µg/L
Cr 267.716†	128039.2	1543.01	1.21%	[1000]	µg/L
Cu 324.752†	258400.5	3515.45	1.36%	[1000]	µg/L
Fe 238.204 Radial†	162957.7	304.26	0.19%	[10000]	µg/L
K 766.490 Radial†	27400.1	77.00	0.28%	[10000]	µg/L
Mg 279.077 IEC†	27620.0	129.06	0.47%	[10000]	µg/L
Mn 257.610†	808338.4	3200.20	0.40%	[1000]	µg/L
Mo 202.031†	34055.3	395.69	1.16%	[1000]	µg/L
Na 589.592 Radial†	72939.6	111.55	0.15%	[10000]	µg/L

Ni 231.604†	86996.7	1021.87	1.17%	[1000] µg/L
P 214.914†	23389.4	118.12	0.51%	[5000] µg/L
Pb 220.353†	17895.1	91.02	0.51%	[1000] µg/L
S 181.975 Axial†	2699.4	10.77	0.40%	[2000] µg/L
Sb 206.836†	8428.5	65.64	0.78%	[1000] µg/L
Se 196.026†	2770.3	26.05	0.94%	[1000] µg/L
SiO2†	109311.3	1317.66	1.21%	[10695] µg/L
Si 251.611†	338687.7	4158.85	1.23%	[5000] µg/L
Sn 189.927†	16046.3	87.25	0.54%	[1000] µg/L
Sr 421.552†	480721.9	6863.20	1.43%	[1000] µg/L
Ti 334.940†	1072022.5	2911.16	0.27%	[1000] µg/L
Tl 190.801†	8141.3	55.30	0.68%	[1000] µg/L
U 409.014†	17540.2	301.14	1.72%	[1000] µg/L
V 292.402†	205873.2	2596.95	1.26%	[1000] µg/L
Zn 213.857†	178382.8	2018.56	1.13%	[1000] µg/L

Sequence No.: 5

Sample ID: S10

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 3/31/2010 18:45:59

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc RADIAL	139343.3	139343.3	95.5 %	18:46:28
1	Al 396.153Radial†	256543.2	268732.8	[50000] µg/L	18:46:28
1	Ca 317.933Radial†	856588.9	896517.6	[50000] µg/L	18:46:28
1	Fe 238.204 Radial†	309603.0	324089.2	[20000] µg/L	18:46:28
1	Mg 279.077 IEC†	128261.6	134133.6	[50000] µg/L	18:46:28
1	Na 589.592 Radial†	141053.4	146429.9	[20000] µg/L	18:46:28
1	Sc 361.383	1636602.8	1636602.8	95.250 %	18:46:50
1	Y 371.029	965973.5	965973.5	94.086 %	18:46:50
2	Sc RADIAL	137624.0	137624.0	94.3 %	18:46:30
2	Al 396.153Radial†	254363.4	269777.6	[50000] µg/L	18:46:30
2	Ca 317.933Radial†	846244.8	896755.8	[50000] µg/L	18:46:30
2	Fe 238.204 Radial†	305781.9	324087.9	[20000] µg/L	18:46:30
2	Mg 279.077 IEC†	126264.9	133694.4	[50000] µg/L	18:46:30
2	Na 589.592 Radial†	139489.2	146616.7	[20000] µg/L	18:46:30
2	Sc 361.383	1622381.6	1622381.6	94.422 %	18:46:53
2	Y 371.029	956849.7	956849.7	93.198 %	18:46:53
3	Sc RADIAL	137980.0	137980.0	94.6 %	18:46:32
3	Al 396.153Radial†	255245.7	270015.0	[50000] µg/L	18:46:32
3	Ca 317.933Radial†	849307.2	897679.9	[50000] µg/L	18:46:32
3	Fe 238.204 Radial†	306725.7	324249.8	[20000] µg/L	18:46:32
3	Mg 279.077 IEC†	127087.0	134218.4	[50000] µg/L	18:46:32
3	Na 589.592 Radial†	139780.8	146543.6	[20000] µg/L	18:46:32
3	Sc 361.383	1649813.3	1649813.3	96.019 %	18:46:56
3	Y 371.029	972430.3	972430.3	94.715 %	18:46:56

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib. Conc. Units
Sc 361.383	1636265.9	13718.97	0.84%	95.230 %
Sc RADIAL	138315.8	907.47	0.66%	94.8 %
Y 371.029	965084.5	7828.26	0.81%	94.000 %
Al 396.153Radial†	269508.5	682.17	0.25%	[50000] µg/L
Ca 317.933Radial†	896984.4	613.95	0.07%	[50000] µg/L
Fe 238.204 Radial†	324142.3	93.07	0.03%	[20000] µg/L
Mg 279.077 IEC†	134015.5	281.29	0.21%	[50000] µg/L
Na 589.592 Radial†	146530.1	94.09	0.06%	[20000] µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	270.1	0.00000	0.999966	
Al 396.153Radial	3	Lin Thru 0	0.0	5.394	0.00000	0.999995	
As 188.979	3	Lin Thru 0	0.0	3.307	0.00000	0.999994	
B 249.677	3	Lin Thru 0	0.0	67.80	0.00000	0.999967	
Ba 233.527	3	Lin Thru 0	0.0	248.2	0.00000	0.999990	
Be 313.107	3	Lin Thru 0	0.0	3673	0.00000	0.999997	
Ca 317.933Radial	3	Lin Thru 0	0.0	17.95	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	160.1	0.00000	0.999988	
Co 228.616	3	Lin Thru 0	0.0	81.06	0.00000	0.999997	
Cr 267.716	3	Lin Thru 0	0.0	127.7	0.00000	0.999983	
Cu 324.752	3	Lin Thru 0	0.0	257.3	0.00000	0.999966	
Fe 238.204 Radia	2	Lin Thru 0	0.0	16.22	0.00000	0.999998	
K 766.490 Radial	3	Lin Thru 0	0.0	2.731	0.00000	0.999979	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.684	0.00000	0.999981	
Mn 257.610	3	Lin Thru 0	0.0	808.2	0.00000	0.999995	
Mo 202.031	3	Lin Thru 0	0.0	34.03	0.00000	0.999999	
Na 589.592 Radia	2	Lin Thru 0	0.0	7.320	0.00000	0.999998	

Ni 231.604	3	Lin Thru 0	0.0	86.85	0.00000	0.999991
P 214.914	3	Lin Thru 0	0.0	4.675	0.00000	0.999999
Pb 220.353	3	Lin Thru 0	0.0	17.92	0.00000	0.999996
S 181.975 Axial	3	Lin Thru 0	0.0	1.347	0.00000	0.999988
Sb 206.836	3	Lin Thru 0	0.0	8.412	0.00000	0.999992
Se 196.026	3	Lin Thru 0	0.0	2.766	0.00000	0.999995
SiO2	3	Lin Thru 0	0.0	10.23	0.00000	0.999996
Si 251.611	3	Lin Thru 0	0.0	67.83	0.00000	0.999995
Sn 189.927	3	Lin Thru 0	0.0	16.04	0.00000	0.999999
Sr 421.552	3	Lin Thru 0	0.0	481.0	0.00000	0.999997
Ti 334.940	3	Lin Thru 0	0.0	1070	0.00000	0.999995
Tl 190.801	3	Lin Thru 0	0.0	8.138	0.00000	0.999996
U 409.014	3	Lin Thru 0	0.0	17.10	0.00000	0.998547
V 292.402	3	Lin Thru 0	0.0	205.0	0.00000	0.999964
Zn 213.857	3	Lin Thru 0	0.0	178.0	0.00000	0.999990

Sequence No.: 6

Sample ID: ICV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 3/31/2010 18:47:03

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	142728.0	142728.0	97.8 %		18:47:35
1	Al 396.153Radial†	27196.1	27869.4	5141.6 µg/L	5141.6 ppb	18:47:35
1	Ca 317.933Radial†	89393.1	90837.9	5060.0 µg/L	5060.0 ppb	18:47:35
1	Fe 238.204 Radial†	80412.9	82068.7	5058.2 µg/L	5058.2 ppb	18:47:35
1	K 766.490 Radial†	8352.4	6995.0	2558.1 µg/L	2558.1 ppb	18:47:35
1	Mg 279.077 IEC†	14148.2	14274.9	5327.6 µg/L	5327.6 ppb	18:47:35
1	Na 589.592 Radial†	19150.9	18289.7	2496.3 µg/L	2496.3 ppb	18:47:35
1	Sr 421.552†	250356.1	256107.6	532.39 µg/L	532.39 ppb	18:47:33
1	Sc 361.383	1677195.1	1677195.1	97.612 %		18:47:48
1	Y 371.029	995806.6	995806.6	96.992 %		18:47:48
1	Ag 328.068†	70215.3	67841.3	257.54 µg/L	257.54 ppb	18:47:48
1	As 188.979†	1526.8	1584.5	486.58 µg/L	486.58 ppb	18:47:50
1	B 249.677†	37075.8	34476.8	506.67 µg/L	506.67 ppb	18:47:48
1	Ba 233.527†	122696.8	125833.7	507.50 µg/L	507.50 ppb	18:47:48
1	Be 313.107†	933729.3	957632.1	260.88 µg/L	260.88 ppb	18:47:48
1	Cd 226.502†	77657.9	79675.5	497.37 µg/L	497.37 ppb	18:47:48
1	Co 228.616†	40998.4	42191.5	520.85 µg/L	520.85 ppb	18:47:50
1	Cr 267.716†	62225.7	63569.1	497.75 µg/L	497.75 ppb	18:47:50
1	Cu 324.752†	130541.7	130762.4	509.73 µg/L	509.73 ppb	18:47:48
1	Mn 257.610†	407677.2	417411.4	516.24 µg/L	516.24 ppb	18:47:48
1	Mo 202.031†	18097.1	18559.8	545.92 µg/L	545.92 ppb	18:47:50
1	Ni 231.604†	43663.1	44807.6	515.93 µg/L	515.93 ppb	18:47:50
1	P 214.914†	11760.6	12066.2	2571.9 µg/L	2571.9 ppb	18:47:50
1	Pb 220.353†	9089.2	9225.1	516.68 µg/L	516.68 ppb	18:47:50
1	S 181.975 Axial†	3477.6	3457.6	2572.2 µg/L	2572.2 ppb	18:47:50
1	Sb 206.836†	4253.6	4276.8	510.30 µg/L	510.30 ppb	18:47:50
1	Se 196.026†	6905.2	7058.8	2550 µg/L	2550 ppb	18:47:50
1	SiO2†	106599.4	107431.3	10477 µg/L	10477 ppb	18:47:48
1	Si 251.611†	325209.4	332327.1	4888.6 µg/L	4888.6 ppb	18:47:48
1	Sn 189.927†	8509.6	8718.8	545.19 µg/L	545.19 ppb	18:47:50
1	Ti 334.940†	517306.5	529006.8	493.58 µg/L	493.58 ppb	18:47:48
1	Tl 190.801†	4208.4	4428.0	551.50 µg/L	551.50 ppb	18:47:50
1	U 409.014†	7246.7	7693.8	480.75 µg/L	480.75 ppb	18:47:48
1	V 292.402†	101371.8	103447.4	511.74 µg/L	511.74 ppb	18:47:48
1	Zn 213.857†	89039.6	90653.0	505.19 µg/L	505.19 ppb	18:47:48
2	Sc RADIAL	141472.3	141472.3	96.9 %		18:47:39
2	Al 396.153Radial†	26888.4	27798.8	5129.2 µg/L	5129.2 ppb	18:47:39
2	Ca 317.933Radial†	88063.7	90277.8	5028.8 µg/L	5028.8 ppb	18:47:39
2	Fe 238.204 Radial†	79583.4	81942.8	5050.5 µg/L	5050.5 ppb	18:47:39
2	K 766.490 Radial†	8113.5	6824.4	2495.6 µg/L	2495.6 ppb	18:47:39
2	Mg 279.077 IEC†	13969.8	14219.3	5306.5 µg/L	5306.5 ppb	18:47:39
2	Na 589.592 Radial†	19176.1	18489.5	2523.7 µg/L	2523.7 ppb	18:47:39
2	Sr 421.552†	244831.9	252681.3	525.27 µg/L	525.27 ppb	18:47:37
2	Sc 361.383	1698788.6	1698788.6	98.869 %		18:47:53
2	Y 371.029	1007373.3	1007373.3	98.119 %		18:47:53
2	Ag 328.068†	71291.0	68014.9	258.16 µg/L	258.16 ppb	18:47:53
2	As 188.979†	1532.9	1570.8	482.29 µg/L	482.29 ppb	18:47:55
2	B 249.677†	37726.0	34651.6	509.29 µg/L	509.29 ppb	18:47:53
2	Ba 233.527†	124221.9	125778.5	507.27 µg/L	507.27 ppb	18:47:53
2	Be 313.107†	946768.4	958661.3	261.16 µg/L	261.16 ppb	18:47:53
2	Cd 226.502†	78878.8	79899.1	498.76 µg/L	498.76 ppb	18:47:53
2	Co 228.616†	40427.2	41079.9	507.13 µg/L	507.13 ppb	18:47:55
2	Cr 267.716†	61613.4	62139.5	486.55 µg/L	486.55 ppb	18:47:55
2	Cu 324.752†	131991.8	130529.2	508.81 µg/L	508.81 ppb	18:47:53
2	Mn 257.610†	413215.3	417704.0	516.60 µg/L	516.60 ppb	18:47:53
2	Mo 202.031†	17824.6	18048.5	530.89 µg/L	530.89 ppb	18:47:55
2	Ni 231.604†	43042.2	43611.0	502.15 µg/L	502.15 ppb	18:47:55
2	P 214.914†	11581.1	11731.5	2500.3 µg/L	2500.3 ppb	18:47:55
2	Pb 220.353†	8959.4	8975.5	502.70 µg/L	502.70 ppb	18:47:55

2	S 181.975 Axial†	3387.2	3320.9	2470.5 µg/L	2470.5 ppb	18:47:55
2	Sb 206.836†	4183.4	4150.4	495.20 µg/L	495.20 ppb	18:47:55
2	Se 196.026†	6756.5	6818.5	2470 µg/L	2470 ppb	18:47:55
2	SiO2†	108026.4	107486.5	10483 µg/L	10483 ppb	18:47:53
2	Si 251.611†	330001.8	332939.4	4897.9 µg/L	4897.9 ppb	18:47:53
2	Sn 189.927†	8332.5	8429.0	527.12 µg/L	527.12 ppb	18:47:55
2	Ti 334.940†	523598.9	528634.8	493.24 µg/L	493.24 ppb	18:47:53
2	Tl 190.801†	4130.1	4294.0	535.11 µg/L	535.11 ppb	18:47:55
2	U 409.014†	7323.1	7676.7	479.70 µg/L	479.70 ppb	18:47:53
2	V 292.402†	102428.7	103196.4	510.32 µg/L	510.32 ppb	18:47:53
2	Zn 213.857†	90500.4	90971.0	507.07 µg/L	507.07 ppb	18:47:53
3	Sc RADIAL	141074.5	141074.5	96.7 %		18:47:43
3	Al 396.153Radial†	27024.0	28017.2	5169.9 µg/L	5169.9 ppb	18:47:43
3	Ca 317.933Radial†	88402.3	90884.2	5062.6 µg/L	5062.6 ppb	18:47:43
3	Fe 238.204 Radial†	79763.1	82360.1	5076.2 µg/L	5076.2 ppb	18:47:43
3	K 766.490 Radial†	8103.8	6838.0	2500.5 µg/L	2500.5 ppb	18:47:43
3	Mg 279.077 IEC†	14069.6	14363.2	5360.0 µg/L	5360.0 ppb	18:47:43
3	Na 589.592 Radial†	19066.5	18431.9	2515.8 µg/L	2515.8 ppb	18:47:43
3	Sr 421.552†	247012.7	255649.2	531.44 µg/L	531.44 ppb	18:47:41
3	Sc 361.383	1692022.5	1692022.5	98.475 %		18:47:58
3	Y 371.029	1004104.0	1004104.0	97.800 %		18:47:58
3	Ag 328.068†	71156.1	68166.3	258.74 µg/L	258.74 ppb	18:47:58
3	As 188.979†	1530.4	1574.5	483.34 µg/L	483.34 ppb	18:48:00
3	B 249.677†	37553.2	34628.7	508.97 µg/L	508.97 ppb	18:47:58
3	Ba 233.527†	123711.5	125762.6	507.21 µg/L	507.21 ppb	18:47:58
3	Be 313.107†	941930.7	957578.0	260.87 µg/L	260.87 ppb	18:47:58
3	Cd 226.502†	78415.4	79747.6	497.81 µg/L	497.81 ppb	18:47:58
3	Co 228.616†	39781.6	40587.8	501.06 µg/L	501.06 ppb	18:48:00
3	Cr 267.716†	60612.6	61372.4	480.54 µg/L	480.54 ppb	18:48:00
3	Cu 324.752†	131599.2	130664.3	509.34 µg/L	509.34 ppb	18:47:58
3	Mn 257.610†	411605.2	417740.2	516.64 µg/L	516.64 ppb	18:47:58
3	Mo 202.031†	17622.4	17915.3	526.98 µg/L	526.98 ppb	18:48:00
3	Ni 231.604†	42378.9	43111.5	496.40 µg/L	496.40 ppb	18:48:00
3	P 214.914†	11404.8	11599.3	2472.0 µg/L	2472.0 ppb	18:48:00
3	Pb 220.353†	8867.2	8918.1	499.49 µg/L	499.49 ppb	18:48:00
3	S 181.975 Axial†	3288.2	3234.1	2406.0 µg/L	2406.0 ppb	18:48:00
3	Sb 206.836†	4104.8	4087.6	487.75 µg/L	487.75 ppb	18:48:00
3	Se 196.026†	6722.3	6811.1	2460 µg/L	2460 ppb	18:48:00
3	SiO2†	107577.1	107467.2	10482 µg/L	10482 ppb	18:47:58
3	Si 251.611†	328691.1	332943.1	4898.1 µg/L	4898.1 ppb	18:47:58
3	Sn 189.927†	8196.6	8324.7	520.62 µg/L	520.62 ppb	18:48:00
3	Ti 334.940†	522557.7	529695.2	494.23 µg/L	494.23 ppb	18:47:58
3	Tl 190.801†	3987.3	4165.7	519.39 µg/L	519.39 ppb	18:48:00
3	U 409.014†	7372.3	7756.3	484.40 µg/L	484.40 ppb	18:47:58
3	V 292.402†	102179.3	103357.4	511.03 µg/L	511.03 ppb	18:47:58
3	Zn 213.857†	89790.3	90616.0	505.12 µg/L	505.12 ppb	18:47:58

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1689335.4	98.319 %	0.6428			0.65%
Sc RADIAL	141758.3	97.1 %	0.59			0.61%
Y 371.029	1002428.0	97.637 %	0.5808			0.59%
Ag 328.068†	68007.5	258.15 µg/L	0.601	258.15 ppb	0.601	0.23%
QC value within limits for Ag 328.068 Recovery = 103.26%						
Al 396.153Radial†	27895.2	5146.9 µg/L	20.85	5146.9 ppb	20.85	0.41%
QC value within limits for Al 396.153Radial Recovery = 102.94%						
As 188.979†	1576.6	484.07 µg/L	2.239	484.07 ppb	2.239	0.46%
QC value within limits for As 188.979 Recovery = 96.81%						
B 249.677†	34585.7	508.31 µg/L	1.434	508.31 ppb	1.434	0.28%
QC value within limits for B 249.677 Recovery = 101.66%						
Ba 233.527†	125791.6	507.32 µg/L	0.154	507.32 ppb	0.154	0.03%
QC value within limits for Ba 233.527 Recovery = 101.46%						
Be 313.107†	957957.1	260.97 µg/L	0.166	260.97 ppb	0.166	0.06%
QC value within limits for Be 313.107 Recovery = 104.39%						
Ca 317.933Radial†	90666.6	5050.5 µg/L	18.80	5050.5 ppb	18.80	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.01%						
Cd 226.502†	79774.1	497.98 µg/L	0.711	497.98 ppb	0.711	0.14%
QC value within limits for Cd 226.502 Recovery = 99.60%						
Co 228.616†	41286.4	509.68 µg/L	10.138	509.68 ppb	10.138	1.99%

QC value within limits for Co 228.616 Recovery = 101.94%							
Cr 267.716†	62360.3	488.28 µg/L	8.733	488.28 ppb	8.733	1.79%	
QC value within limits for Cr 267.716 Recovery = 97.66%							
Cu 324.752†	130652.0	509.29 µg/L	0.460	509.29 ppb	0.460	0.09%	
QC value within limits for Cu 324.752 Recovery = 101.86%							
Fe 238.204 Radial†	82123.9	5061.6 µg/L	13.19	5061.6 ppb	13.19	0.26%	
QC value within limits for Fe 238.204 Radial Recovery = 101.23%							
K 766.490 Radial†	6885.8	2518.1 µg/L	34.72	2518.1 ppb	34.72	1.38%	
QC value within limits for K 766.490 Radial Recovery = 100.72%							
Mg 279.077 IEC†	14285.8	5331.4 µg/L	26.95	5331.4 ppb	26.95	0.51%	
QC value within limits for Mg 279.077 IEC Recovery = 106.63%							
Mn 257.610†	417618.5	516.49 µg/L	0.223	516.49 ppb	0.223	0.04%	
QC value within limits for Mn 257.610 Recovery = 103.30%							
Mo 202.031†	18174.5	534.59 µg/L	9.999	534.59 ppb	9.999	1.87%	
QC value within limits for Mo 202.031 Recovery = 106.92%							
Na 589.592 Radial†	18403.7	2511.9 µg/L	14.08	2511.9 ppb	14.08	0.56%	
QC value within limits for Na 589.592 Radial Recovery = 100.48%							
Ni 231.604†	43843.4	504.82 µg/L	10.036	504.82 ppb	10.036	1.99%	
QC value within limits for Ni 231.604 Recovery = 100.96%							
P 214.914†	11799.0	2514.8 µg/L	51.47	2514.8 ppb	51.47	2.05%	
QC value within limits for P 214.914 Recovery = 100.59%							
Pb 220.353†	9039.6	506.29 µg/L	9.140	506.29 ppb	9.140	1.81%	
QC value within limits for Pb 220.353 Recovery = 101.26%							
S 181.975 Axial†	3337.5	2482.9 µg/L	83.76	2482.9 ppb	83.76	3.37%	
QC value within limits for S 181.975 Axial Recovery = 99.32%							
Sb 206.836†	4171.6	497.75 µg/L	11.489	497.75 ppb	11.489	2.31%	
QC value within limits for Sb 206.836 Recovery = 99.55%							
Se 196.026†	6896.1	2500 µg/L	50.9	2500 ppb	50.9	2.04%	
QC value within limits for Se 196.026 Recovery = 99.81%							
SiO2†	107461.7	10481 µg/L	3.1	10481 ppb	3.1	0.03%	
QC value within limits for SiO2 Recovery = 98.00%							
Si 251.611†	332736.6	4894.9 µg/L	5.44	4894.9 ppb	5.44	0.11%	
QC value within limits for Si 251.611 Recovery = 97.90%							
Sn 189.927†	8490.8	530.98 µg/L	12.731	530.98 ppb	12.731	2.40%	
QC value within limits for Sn 189.927 Recovery = 106.20%							
Sr 421.552†	254812.7	529.70 µg/L	3.867	529.70 ppb	3.867	0.73%	
QC value within limits for Sr 421.552 Recovery = 105.94%							
Ti 334.940†	529112.2	493.68 µg/L	0.501	493.68 ppb	0.501	0.10%	
QC value within limits for Ti 334.940 Recovery = 98.74%							
Tl 190.801†	4295.9	535.33 µg/L	16.060	535.33 ppb	16.060	3.00%	
QC value within limits for Tl 190.801 Recovery = 107.07%							
U 409.014†	7709.0	481.62 µg/L	2.468	481.62 ppb	2.468	0.51%	
QC value within limits for U 409.014 Recovery = 96.32%							
V 292.402†	103333.7	511.03 µg/L	0.714	511.03 ppb	0.714	0.14%	
QC value within limits for V 292.402 Recovery = 102.21%							
Zn 213.857†	90746.7	505.79 µg/L	1.109	505.79 ppb	1.109	0.22%	
QC value within limits for Zn 213.857 Recovery = 101.16%							
All analyte(s) passed QC.							

Sequence No.: 7
 Sample ID: ICB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 10
 Date Collected: 3/31/2010 18:48:09
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	141820.7	141820.7	97.2 %		18:48:38
1	Al 396.153Radial†	-23.3	39.2	7.2759 µg/L	7.2759 ppb	18:48:58
1	Ca 317.933Radial†	601.1	58.0	3.2284 µg/L	3.2284 ppb	18:48:58
1	Fe 238.204 Radial†	172.3	29.2	1.7975 µg/L	1.7975 ppb	18:48:58
1	K 766.490 Radial†	1651.6	154.7	56.635 µg/L	56.635 ppb	18:48:38
1	Mg 279.077 IEC†	178.4	-7.1	-2.6584 µg/L	-2.6584 ppb	18:48:58
1	Na 589.592 Radial†	1421.8	172.2	23.470 µg/L	23.470 ppb	18:48:38
1	Sr 421.552†	-137.1	-5.8	-0.0120 µg/L	-0.0120 ppb	18:48:38
1	Sc 361.383	1683915.8	1683915.8	98.004 %		18:50:00
1	Y 371.029	1008438.2	1008438.2	98.222 %		18:50:00
1	Ag 328.068†	3988.4	-21.8	-0.0966 µg/L	-0.0966 ppb	18:50:02
1	As 188.979†	-16.6	3.4	1.0196 µg/L	1.0196 ppb	18:50:22
1	B 249.677†	3689.5	258.8	3.8157 µg/L	3.8157 ppb	18:50:02
1	Ba 233.527†	-144.6	-11.7	-0.0475 µg/L	-0.0475 ppb	18:50:22
1	Be 313.107†	-835.0	212.7	0.0556 µg/L	0.0556 ppb	18:50:02
1	Cd 226.502†	-86.3	30.1	0.1877 µg/L	0.1877 ppb	18:50:22
1	Co 228.616†	-156.6	30.5	0.3761 µg/L	0.3761 ppb	18:50:22
1	Cr 267.716†	188.6	13.8	0.1142 µg/L	0.1142 ppb	18:50:22
1	Cu 324.752†	2866.9	-46.9	-0.1882 µg/L	-0.1882 ppb	18:50:02
1	Mn 257.610†	237.6	5.2	0.0065 µg/L	0.0065 ppb	18:50:22
1	Mo 202.031†	-20.5	-0.8	-0.0238 µg/L	-0.0238 ppb	18:50:22
1	Ni 231.604†	-85.2	-10.4	-0.1202 µg/L	-0.1202 ppb	18:50:22
1	P 214.914†	-19.5	-2.0	-0.4133 µg/L	-0.4133 ppb	18:50:22
1	Pb 220.353†	104.1	19.8	1.1130 µg/L	1.1130 ppb	18:50:22
1	S 181.975 Axial†	94.9	-8.2	-6.0991 µg/L	-6.0991 ppb	18:50:22
1	Sb 206.836†	83.0	3.9	0.4581 µg/L	0.4581 ppb	18:50:22
1	Se 196.026†	16.9	2.0	0.709 µg/L	0.709 ppb	18:50:22
1	SiO2†	1750.1	10.4	1.0001 µg/L	1.0001 ppb	18:50:22
1	Si 251.611†	692.5	-130.0	-1.9216 µg/L	-1.9216 ppb	18:50:02
1	Sn 189.927†	12.8	14.2	0.8842 µg/L	0.8842 ppb	18:50:22
1	Ti 334.940†	967.2	34.4	0.0355 µg/L	0.0355 ppb	18:50:02
1	Tl 190.801†	-113.3	1.1	0.1286 µg/L	0.1286 ppb	18:50:22
1	U 409.014†	-392.4	-130.5	-7.6641 µg/L	-7.6641 ppb	18:50:02
1	V 292.402†	288.2	-109.7	-0.5404 µg/L	-0.5404 ppb	18:50:02
1	Zn 213.857†	580.6	28.0	0.1584 µg/L	0.1584 ppb	18:50:22
2	Sc RADIAL	141475.5	141475.5	96.9 %		18:49:00
2	Al 396.153Radial†	-59.5	1.9	0.3293 µg/L	0.3293 ppb	18:49:20
2	Ca 317.933Radial†	582.6	40.4	2.2485 µg/L	2.2485 ppb	18:49:20
2	Fe 238.204 Radial†	177.4	34.9	2.1506 µg/L	2.1506 ppb	18:49:20
2	K 766.490 Radial†	1678.4	186.4	68.259 µg/L	68.259 ppb	18:49:00
2	Mg 279.077 IEC†	195.6	11.1	4.1266 µg/L	4.1266 ppb	18:49:20
2	Na 589.592 Radial†	1313.4	64.0	8.6800 µg/L	8.6800 ppb	18:49:00
2	Sr 421.552†	-263.2	-136.2	-0.2832 µg/L	-0.2832 ppb	18:49:00
2	Sc 361.383	1681105.0	1681105.0	97.840 %		18:50:24
2	Y 371.029	1006809.9	1006809.9	98.064 %		18:50:24
2	Ag 328.068†	3899.5	-105.8	-0.4010 µg/L	-0.4010 ppb	18:50:26
2	As 188.979†	-14.2	5.9	1.7810 µg/L	1.7810 ppb	18:50:47
2	B 249.677†	3479.7	50.7	0.7461 µg/L	0.7461 ppb	18:50:26
2	Ba 233.527†	-126.1	7.0	0.0284 µg/L	0.0284 ppb	18:50:47
2	Be 313.107†	-932.6	111.6	0.0281 µg/L	0.0281 ppb	18:50:26
2	Cd 226.502†	-94.6	21.5	0.1342 µg/L	0.1342 ppb	18:50:47
2	Co 228.616†	-159.1	27.7	0.3416 µg/L	0.3416 ppb	18:50:47
2	Cr 267.716†	205.7	31.7	0.2541 µg/L	0.2541 ppb	18:50:47
2	Cu 324.752†	2760.4	-150.9	-0.5921 µg/L	-0.5921 ppb	18:50:26
2	Mn 257.610†	248.9	17.1	0.0210 µg/L	0.0210 ppb	18:50:47
2	Mo 202.031†	-6.8	13.1	0.3848 µg/L	0.3848 ppb	18:50:47
2	Ni 231.604†	-77.1	-2.3	-0.0264 µg/L	-0.0264 ppb	18:50:47
2	P 214.914†	-8.5	9.3	1.9937 µg/L	1.9937 ppb	18:50:47
2	Pb 220.353†	88.9	4.5	0.2582 µg/L	0.2582 ppb	18:50:47

2	S 181.975 Axial†	97.2	-5.7	-4.2111 µg/L	-4.2111 ppb	18:50:47
2	Sb 206.836†	84.7	5.7	0.6836 µg/L	0.6836 ppb	18:50:47
2	Se 196.026†	31.5	16.9	6.11 µg/L	6.11 ppb	18:50:47
2	SiO2†	1754.7	18.0	1.7515 µg/L	1.7515 ppb	18:50:47
2	Si 251.611†	708.6	-112.3	-1.6605 µg/L	-1.6605 ppb	18:50:26
2	Sn 189.927†	-0.8	0.3	0.0171 µg/L	0.0171 ppb	18:50:47
2	Ti 334.940†	917.4	-14.9	-0.0112 µg/L	-0.0112 ppb	18:50:26
2	Tl 190.801†	-109.7	4.5	0.5537 µg/L	0.5537 ppb	18:50:47
2	U 409.014†	-392.0	-130.8	-7.6468 µg/L	-7.6468 ppb	18:50:26
2	V 292.402†	396.5	1.4	0.0068 µg/L	0.0068 ppb	18:50:26
2	Zn 213.857†	557.8	5.7	0.0323 µg/L	0.0323 ppb	18:50:47
3	Sc RADIAL	140788.0	140788.0	96.5 %		18:49:22
3	Al 396.153Radial†	-53.3	8.0	1.4950 µg/L	1.4950 ppb	18:49:42
3	Ca 317.933Radial†	570.5	30.7	1.7106 µg/L	1.7106 ppb	18:49:42
3	Fe 238.204 Radial†	153.8	11.4	0.7002 µg/L	0.7002 ppb	18:49:42
3	K 766.490 Radial†	1509.3	19.7	7.1988 µg/L	7.1988 ppb	18:49:22
3	Mg 279.077 IEC†	187.5	3.6	1.3339 µg/L	1.3339 ppb	18:49:42
3	Na 589.592 Radial†	1241.2	-4.3	-0.5891 µg/L	-0.5891 ppb	18:49:22
3	Sr 421.552†	-62.3	70.7	0.1469 µg/L	0.1469 ppb	18:49:22
3	Sc 361.383	1702475.2	1702475.2	99.084 %		18:50:49
3	Y 371.029	1019278.2	1019278.2	99.278 %		18:50:49
3	Ag 328.068†	3893.2	-162.2	-0.6047 µg/L	-0.6047 ppb	18:50:51
3	As 188.979†	-11.0	9.3	2.8073 µg/L	2.8073 ppb	18:51:11
3	B 249.677†	3493.6	20.0	0.2957 µg/L	0.2957 ppb	18:50:51
3	Ba 233.527†	-155.1	-20.7	-0.0837 µg/L	-0.0837 ppb	18:51:11
3	Be 313.107†	-918.7	137.5	0.0367 µg/L	0.0367 ppb	18:50:51
3	Cd 226.502†	-90.2	27.2	0.1697 µg/L	0.1697 ppb	18:51:11
3	Co 228.616†	-191.5	-3.0	-0.0369 µg/L	-0.0369 ppb	18:51:11
3	Cr 267.716†	192.8	16.1	0.1277 µg/L	0.1277 ppb	18:51:11
3	Cu 324.752†	2902.8	-42.6	-0.1675 µg/L	-0.1675 ppb	18:50:51
3	Mn 257.610†	221.1	-14.1	-0.0175 µg/L	-0.0175 ppb	18:51:11
3	Mo 202.031†	-27.6	-7.7	-0.2274 µg/L	-0.2274 ppb	18:51:11
3	Ni 231.604†	-80.3	-4.5	-0.0519 µg/L	-0.0519 ppb	18:51:11
3	P 214.914†	-10.6	7.3	1.5639 µg/L	1.5639 ppb	18:51:11
3	Pb 220.353†	87.5	1.9	0.1068 µg/L	0.1068 ppb	18:51:11
3	S 181.975 Axial†	108.2	4.2	3.0845 µg/L	3.0845 ppb	18:51:11
3	Sb 206.836†	65.7	-14.5	-1.7326 µg/L	-1.7326 ppb	18:51:11
3	Se 196.026†	1.4	-13.8	-5.00 µg/L	-5.00 ppb	18:51:11
3	SiO2†	1771.9	13.0	1.2622 µg/L	1.2622 ppb	18:51:11
3	Si 251.611†	804.4	-24.7	-0.3658 µg/L	-0.3658 ppb	18:50:51
3	Sn 189.927†	10.9	12.2	0.7583 µg/L	0.7583 ppb	18:51:11
3	Ti 334.940†	1048.8	105.9	0.0999 µg/L	0.0999 ppb	18:50:51
3	Tl 190.801†	-119.3	-3.7	-0.4558 µg/L	-0.4558 ppb	18:51:11
3	U 409.014†	-309.5	-42.5	-2.4891 µg/L	-2.4891 ppb	18:50:51
3	V 292.402†	382.0	-18.2	-0.0926 µg/L	-0.0926 ppb	18:50:51
3	Zn 213.857†	566.8	7.7	0.0435 µg/L	0.0435 ppb	18:51:11

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1689165.4	98.309 %	0.6758			0.69%
Sc RADIAL	141361.4	96.9 %	0.36			0.37%
Y 371.029	1011508.8	98.521 %	0.6601			0.67%
Ag 328.068†	-96.6	-0.3674 µg/L	0.25571	-0.3674 ppb	0.25571	69.60%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	16.4	3.0334 µg/L	3.72004	3.0334 ppb	3.72004	122.63%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	6.2	1.8693 µg/L	0.89713	1.8693 ppb	0.89713	47.99%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	109.8	1.6192 µg/L	1.91554	1.6192 ppb	1.91554	118.30%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-8.5	-0.0343 µg/L	0.05718	-0.0343 ppb	0.05718	166.90%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	153.9	0.0401 µg/L	0.01409	0.0401 ppb	0.01409	35.11%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	43.0	2.3958 µg/L	0.76955	2.3958 ppb	0.76955	32.12%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	26.3	0.1639 µg/L	0.02723	0.1639 ppb	0.02723	16.61%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	18.4	0.2269 µg/L	0.22917	0.2269 ppb	0.22917	100.99%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	20.5	0.1654 µg/L	0.07718	0.1654 ppb	0.07718	46.67%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-80.1	-0.3159 µg/L	0.23936	-0.3159 ppb	0.23936	75.77%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	25.1	1.5494 µg/L	0.75637	1.5494 ppb	0.75637	48.82%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	120.3	44.031 µg/L	32.4227	44.031 ppb	32.4227	73.64%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	2.5	0.9341 µg/L	3.41013	0.9341 ppb	3.41013	365.09%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	2.7	0.0033 µg/L	0.01944	0.0033 ppb	0.01944	582.64%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	1.5	0.0446 µg/L	0.31176	0.0446 ppb	0.31176	699.61%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	77.3	10.520 µg/L	12.1345	10.520 ppb	12.1345	115.35%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-5.7	-0.0661 µg/L	0.04849	-0.0661 ppb	0.04849	73.31%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	4.9	1.0481 µg/L	1.28372	1.0481 ppb	1.28372	122.48%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	8.7	0.4927 µg/L	0.54252	0.4927 ppb	0.54252	110.12%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-3.2	-2.4085 µg/L	4.84991	-2.4085 ppb	4.84991	201.36%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-1.6	-0.1970 µg/L	1.33468	-0.1970 ppb	1.33468	677.58%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	1.7	0.603 µg/L	5.5558	0.603 ppb	5.5558	920.66%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	13.8	1.3380 µg/L	0.38138	1.3380 ppb	0.38138	28.50%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	-89.0	-1.3160 µg/L	0.83316	-1.3160 ppb	0.83316	63.31%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	8.9	0.5532 µg/L	0.46851	0.5532 ppb	0.46851	84.69%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-23.8	-0.0494 µg/L	0.21749	-0.0494 ppb	0.21749	439.99%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	41.8	0.0414 µg/L	0.05575	0.0414 ppb	0.05575	134.62%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	0.6	0.0755 µg/L	0.50686	0.0755 ppb	0.50686	671.21%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-101.3	-5.9334 µg/L	2.98281	-5.9334 ppb	2.98281	50.27%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-42.2	-0.2088 µg/L	0.29151	-0.2088 ppb	0.29151	139.64%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	13.8	0.0780 µg/L	0.06978	0.0780 ppb	0.06978	89.41%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 8

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 3/31/2010 18:51:18

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	140861.4	140861.4	96.5 %		18:51:48
1	Al 396.153Radial†	987.6	1086.3	200.96 µg/L	200.96 ppb	18:51:50
1	Ca 317.933Radial†	4191.0	3781.2	210.63 µg/L	210.63 ppb	18:51:50
1	Fe 238.204 Radial†	1792.5	1708.9	105.32 µg/L	105.32 ppb	18:51:50
1	K 766.490 Radial†	1849.3	371.1	135.70 µg/L	135.70 ppb	18:51:48
1	Mg 279.077 IEC†	1004.6	850.0	316.85 µg/L	316.85 ppb	18:51:50
1	Na 589.592 Radial†	3218.7	2043.7	279.07 µg/L	279.07 ppb	18:51:50
1	Sr 421.552†	2356.1	2576.2	5.3541 µg/L	5.3541 ppb	18:51:50
1	Sc 361.383	1696993.3	1696993.3	98.765 %		18:52:02
1	Y 371.029	1016566.5	1016566.5	99.014 %		18:52:02
1	Ag 328.068†	5094.4	1066.7	4.0516 µg/L	4.0516 ppb	18:52:04
1	As 188.979†	82.8	104.2	31.603 µg/L	31.603 ppb	18:52:24
1	B 249.677†	6532.0	3107.8	45.816 µg/L	45.816 ppb	18:52:04
1	Ba 233.527†	1080.9	1230.2	4.9619 µg/L	4.9619 ppb	18:52:24
1	Be 313.107†	16638.5	17911.3	4.8913 µg/L	4.8913 ppb	18:52:04
1	Cd 226.502†	682.8	809.6	5.0479 µg/L	5.0479 ppb	18:52:24
1	Co 228.616†	230.9	424.1	5.2325 µg/L	5.2325 ppb	18:52:24
1	Cr 267.716†	759.8	590.7	4.5885 µg/L	4.5885 ppb	18:52:24
1	Cu 324.752†	5375.4	2470.4	9.6665 µg/L	9.6665 ppb	18:52:04
1	Mn 257.610†	8461.3	8329.9	10.294 µg/L	10.294 ppb	18:52:04
1	Mo 202.031†	297.2	321.0	9.4457 µg/L	9.4457 ppb	18:52:24
1	Ni 231.604†	359.2	440.2	5.0686 µg/L	5.0686 ppb	18:52:24
1	P 214.914†	662.2	688.4	147.09 µg/L	147.09 ppb	18:52:24
1	Pb 220.353†	275.6	192.6	10.753 µg/L	10.753 ppb	18:52:24
1	S 181.975 Axial†	231.8	129.7	96.360 µg/L	96.360 ppb	18:52:24
1	Sb 206.836†	150.3	71.3	8.5656 µg/L	8.5656 ppb	18:52:24
1	Se 196.026†	92.5	78.4	28.4 µg/L	28.4 ppb	18:52:24
1	SiO2†	3882.7	2155.9	210.31 µg/L	210.31 ppb	18:52:04
1	Si 251.611†	7564.5	6822.6	100.39 µg/L	100.39 ppb	18:52:04
1	Sn 189.927†	162.8	165.9	10.360 µg/L	10.360 ppb	18:52:24
1	Ti 334.940†	6150.6	5275.0	4.8870 µg/L	4.8870 ppb	18:52:04
1	Tl 190.801†	46.5	163.8	20.204 µg/L	20.204 ppb	18:52:24
1	U 409.014†	536.3	812.9	47.827 µg/L	47.827 ppb	18:52:04
1	V 292.402†	1270.3	882.4	4.4384 µg/L	4.4384 ppb	18:52:04
1	Zn 213.857†	2321.2	1785.9	9.9841 µg/L	9.9841 ppb	18:52:24
2	Sc RADIAL	140936.7	140936.7	96.6 %		18:51:52
2	Al 396.153Radial†	972.6	1070.3	198.01 µg/L	198.01 ppb	18:51:54
2	Ca 317.933Radial†	4253.2	3843.3	214.09 µg/L	214.09 ppb	18:51:54
2	Fe 238.204 Radial†	1742.6	1656.2	102.08 µg/L	102.08 ppb	18:51:54
2	K 766.490 Radial†	1908.6	431.4	157.79 µg/L	157.79 ppb	18:51:52
2	Mg 279.077 IEC†	969.9	813.6	303.26 µg/L	303.26 ppb	18:51:54
2	Na 589.592 Radial†	3291.7	2117.5	289.13 µg/L	289.13 ppb	18:51:54
2	Sr 421.552†	2245.5	2460.3	5.1132 µg/L	5.1132 ppb	18:51:54
2	Sc 361.383	1687966.3	1687966.3	98.239 %		18:52:26
2	Y 371.029	1011019.5	1011019.5	98.474 %		18:52:26
2	Ag 328.068†	5292.9	1296.4	4.8998 µg/L	4.8998 ppb	18:52:28
2	As 188.979†	83.0	104.8	31.803 µg/L	31.803 ppb	18:52:48
2	B 249.677†	6698.9	3313.0	48.843 µg/L	48.843 ppb	18:52:28
2	Ba 233.527†	1087.4	1242.7	5.0120 µg/L	5.0120 ppb	18:52:48
2	Be 313.107†	16507.3	17867.9	4.8796 µg/L	4.8796 ppb	18:52:28
2	Cd 226.502†	680.2	810.6	5.0545 µg/L	5.0545 ppb	18:52:48
2	Co 228.616†	236.4	430.9	5.3167 µg/L	5.3167 ppb	18:52:48
2	Cr 267.716†	835.7	672.2	5.2260 µg/L	5.2260 ppb	18:52:48
2	Cu 324.752†	5528.6	2655.4	10.385 µg/L	10.385 ppb	18:52:28
2	Mn 257.610†	8398.7	8312.0	10.272 µg/L	10.272 ppb	18:52:28
2	Mo 202.031†	283.2	308.3	9.0728 µg/L	9.0728 ppb	18:52:48
2	Ni 231.604†	357.6	440.5	5.0722 µg/L	5.0722 ppb	18:52:48
2	P 214.914†	662.1	691.9	147.84 µg/L	147.84 ppb	18:52:48
2	Pb 220.353†	294.5	213.4	11.913 µg/L	11.913 ppb	18:52:48

2	S 181.975 Axial†	239.0	138.2	102.73 µg/L	102.73 ppb	18:52:48
2	Sb 206.836†	162.6	84.7	10.140 µg/L	10.140 ppb	18:52:48
2	Se 196.026†	98.4	84.9	30.8 µg/L	30.8 ppb	18:52:48
2	SiO2†	3912.9	2207.6	215.37 µg/L	215.37 ppb	18:52:28
2	Si 251.611†	7475.2	6772.6	99.658 µg/L	99.658 ppb	18:52:28
2	Sn 189.927†	165.0	169.0	10.554 µg/L	10.554 ppb	18:52:48
2	Ti 334.940†	5906.4	5059.7	4.6867 µg/L	4.6867 ppb	18:52:28
2	Tl 190.801†	41.0	158.5	19.548 µg/L	19.548 ppb	18:52:48
2	U 409.014†	539.0	818.5	48.142 µg/L	48.142 ppb	18:52:28
2	V 292.402†	1219.4	837.5	4.2189 µg/L	4.2189 ppb	18:52:28
2	Zn 213.857†	2338.9	1816.4	10.155 µg/L	10.155 ppb	18:52:48
3	Sc RADIAL	141853.7	141853.7	97.2 %		18:51:56
3	Al 396.153Radial†	1054.0	1147.5	212.32 µg/L	212.32 ppb	18:51:58
3	Ca 317.933Radial†	4255.4	3817.1	212.63 µg/L	212.63 ppb	18:51:58
3	Fe 238.204 Radial†	1716.2	1617.5	99.690 µg/L	99.690 ppb	18:51:58
3	K 766.490 Radial†	1916.0	426.3	155.92 µg/L	155.92 ppb	18:51:56
3	Mg 279.077 IEC†	1001.3	839.3	312.86 µg/L	312.86 ppb	18:51:58
3	Na 589.592 Radial†	3186.5	1987.3	271.34 µg/L	271.34 ppb	18:51:58
3	Sr 421.552†	2248.0	2447.8	5.0873 µg/L	5.0873 ppb	18:51:58
3	Sc 361.383	1703589.6	1703589.6	99.149 %		18:52:50
3	Y 371.029	1020076.1	1020076.1	99.356 %		18:52:50
3	Ag 328.068†	5329.5	1283.9	4.8863 µg/L	4.8863 ppb	18:52:52
3	As 188.979†	68.9	89.8	27.263 µg/L	27.263 ppb	18:53:13
3	B 249.677†	6826.1	3378.8	49.814 µg/L	49.814 ppb	18:52:52
3	Ba 233.527†	1095.4	1240.7	5.0047 µg/L	5.0047 ppb	18:53:13
3	Be 313.107†	16765.5	17974.2	4.9127 µg/L	4.9127 ppb	18:52:52
3	Cd 226.502†	685.3	809.4	5.0473 µg/L	5.0473 ppb	18:53:13
3	Co 228.616†	212.4	404.5	4.9910 µg/L	4.9910 ppb	18:53:13
3	Cr 267.716†	807.3	635.7	4.9297 µg/L	4.9297 ppb	18:53:13
3	Cu 324.752†	5461.8	2536.5	9.9340 µg/L	9.9340 ppb	18:52:52
3	Mn 257.610†	8558.8	8395.0	10.374 µg/L	10.374 ppb	18:52:52
3	Mo 202.031†	286.1	308.6	9.0804 µg/L	9.0804 ppb	18:53:13
3	Ni 231.604†	341.2	420.7	4.8437 µg/L	4.8437 ppb	18:53:13
3	P 214.914†	668.0	691.7	147.81 µg/L	147.81 ppb	18:53:13
3	Pb 220.353†	280.1	196.2	10.941 µg/L	10.941 ppb	18:53:13
3	S 181.975 Axial†	229.3	126.2	93.811 µg/L	93.811 ppb	18:53:13
3	Sb 206.836†	165.2	85.8	10.280 µg/L	10.280 ppb	18:53:13
3	Se 196.026†	109.6	95.3	34.5 µg/L	34.5 ppb	18:53:13
3	SiO2†	3891.1	2149.2	209.66 µg/L	209.66 ppb	18:52:52
3	Si 251.611†	7576.0	6804.5	100.13 µg/L	100.13 ppb	18:52:52
3	Sn 189.927†	163.2	165.7	10.345 µg/L	10.345 ppb	18:53:13
3	Ti 334.940†	6177.6	5278.1	4.8843 µg/L	4.8843 ppb	18:52:52
3	Tl 190.801†	27.8	144.7	17.868 µg/L	17.868 ppb	18:53:13
3	U 409.014†	779.2	1055.8	62.094 µg/L	62.094 ppb	18:52:52
3	V 292.402†	1501.4	1110.5	5.5591 µg/L	5.5591 ppb	18:52:52
3	Zn 213.857†	2359.0	1814.8	10.149 µg/L	10.149 ppb	18:53:13

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1696183.1	98.718 %	0.4565			0.46%
Sc RADIAL	141217.3	96.8 %	0.38			0.39%
Y 371.029	1015887.4	98.948 %	0.4448			0.45%
Ag 328.068†	1215.7	4.6126 µg/L	0.48588	4.6126 ppb	0.48588	10.53%
QC value within limits for Ag 328.068 Recovery = 92.25%						
Al 396.153Radial†	1101.4	203.76 µg/L	7.553	203.76 ppb	7.553	3.71%
QC value within limits for Al 396.153Radial Recovery = 101.88%						
As 188.979†	99.6	30.223 µg/L	2.5657	30.223 ppb	2.5657	8.49%
QC value within limits for As 188.979 Recovery = 100.74%						
B 249.677†	3266.5	48.158 µg/L	2.0851	48.158 ppb	2.0851	4.33%
QC value within limits for B 249.677 Recovery = 96.32%						
Ba 233.527†	1237.9	4.9928 µg/L	0.02706	4.9928 ppb	0.02706	0.54%
QC value within limits for Ba 233.527 Recovery = 99.86%						
Be 313.107†	17917.8	4.8945 µg/L	0.01680	4.8945 ppb	0.01680	0.34%
QC value within limits for Be 313.107 Recovery = 97.89%						
Ca 317.933Radial†	3813.9	212.45 µg/L	1.736	212.45 ppb	1.736	0.82%
QC value within limits for Ca 317.933Radial Recovery = 106.22%						
Cd 226.502†	809.8	5.0499 µg/L	0.00397	5.0499 ppb	0.00397	0.08%
QC value within limits for Cd 226.502 Recovery = 101.00%						
Co 228.616†	419.8	5.1801 µg/L	0.16905	5.1801 ppb	0.16905	3.26%

QC value within limits for Co 228.616 Recovery = 103.60%							
Cr 267.716†	632.8	4.9147 µg/L	0.31903	4.9147 ppb	0.31903	6.49%	
QC value within limits for Cr 267.716 Recovery = 98.29%							
Cu 324.752†	2554.1	9.9952 µg/L	0.36319	9.9952 ppb	0.36319	3.63%	
QC value within limits for Cu 324.752 Recovery = 99.95%							
Fe 238.204 Radial†	1660.8	102.36 µg/L	2.828	102.36 ppb	2.828	2.76%	
QC value within limits for Fe 238.204 Radial Recovery = 102.36%							
K 766.490 Radial†	409.6	149.80 µg/L	12.246	149.80 ppb	12.246	8.17%	
QC value within limits for K 766.490 Radial Recovery = 99.87%							
Mg 279.077 IEC†	834.3	310.99 µg/L	6.984	310.99 ppb	6.984	2.25%	
QC value within limits for Mg 279.077 IEC Recovery = 103.66%							
Mn 257.610†	8345.6	10.313 µg/L	0.0539	10.313 ppb	0.0539	0.52%	
QC value within limits for Mn 257.610 Recovery = 103.13%							
Mo 202.031†	312.7	9.1996 µg/L	0.21314	9.1996 ppb	0.21314	2.32%	
QC value within limits for Mo 202.031 Recovery = 92.00%							
Na 589.592 Radial†	2049.5	279.85 µg/L	8.919	279.85 ppb	8.919	3.19%	
QC value within limits for Na 589.592 Radial Recovery = 93.28%							
Ni 231.604†	433.8	4.9948 µg/L	0.13089	4.9948 ppb	0.13089	2.62%	
QC value within limits for Ni 231.604 Recovery = 99.90%							
P 214.914†	690.7	147.58 µg/L	0.423	147.58 ppb	0.423	0.29%	
QC value within limits for P 214.914 Recovery = 98.39%							
Pb 220.353†	200.7	11.202 µg/L	0.6223	11.202 ppb	0.6223	5.56%	
QC value within limits for Pb 220.353 Recovery = 112.02%							
S 181.975 Axial†	131.4	97.634 µg/L	4.5940	97.634 ppb	4.5940	4.71%	
QC value within limits for S 181.975 Axial Recovery = 97.63%							
Sb 206.836†	80.6	9.6618 µg/L	0.95194	9.6618 ppb	0.95194	9.85%	
QC value within limits for Sb 206.836 Recovery = 96.62%							
Se 196.026†	86.2	31.2 µg/L	3.09	31.2 ppb	3.09	9.88%	
QC value within limits for Se 196.026 Recovery = 104.17%							
SiO2†	2170.9	211.78 µg/L	3.127	211.78 ppb	3.127	1.48%	
QC value within limits for SiO2 Recovery = 99.43%							
Si 251.611†	6799.9	100.06 µg/L	0.371	100.06 ppb	0.371	0.37%	
QC value within limits for Si 251.611 Recovery = 100.06%							
Sn 189.927†	166.9	10.420 µg/L	0.1167	10.420 ppb	0.1167	1.12%	
QC value within limits for Sn 189.927 Recovery = 104.20%							
Sr 421.552†	2494.8	5.1849 µg/L	0.14714	5.1849 ppb	0.14714	2.84%	
QC value within limits for Sr 421.552 Recovery = 103.70%							
Ti 334.940†	5204.3	4.8193 µg/L	0.11489	4.8193 ppb	0.11489	2.38%	
QC value within limits for Ti 334.940 Recovery = 96.39%							
Tl 190.801†	155.6	19.207 µg/L	1.2048	19.207 ppb	1.2048	6.27%	
QC value within limits for Tl 190.801 Recovery = 96.03%							
U 409.014†	895.8	52.688 µg/L	8.1477	52.688 ppb	8.1477	15.46%	
QC value within limits for U 409.014 Recovery = 105.38%							
V 292.402†	943.5	4.7388 µg/L	0.71883	4.7388 ppb	0.71883	15.17%	
QC value within limits for V 292.402 Recovery = 94.78%							
Zn 213.857†	1805.7	10.096 µg/L	0.0971	10.096 ppb	0.0971	0.96%	
QC value within limits for Zn 213.857 Recovery = 100.96%							
All analyte(s) passed QC.							

Sequence No.: 9

Sample ID: IC5A

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 103

Date Collected: 3/31/2010 18:53:20

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: IC5A

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	132242.6	132242.6	90.6 %		18:53:53
1	Al 396.153Radial†	2422897.8	2673731.8	495710 µg/L	495710 ppb	18:53:51
1	Ca 317.933Radial†	7691621.4	8487146.3	472770 µg/L	472770 ppb	18:53:51
1	Fe 238.204 Radial†	2755313.8	3040341.6	187390 µg/L	187390 ppb	18:53:51
1	K 766.490 Radial†	1640.2	265.2	-138.93 µg/L	-138.93 ppb	18:53:53
1	Mg 279.077 IEC†	1160629.2	1280564.0	476960 µg/L	476960 ppb	18:53:51
1	Na 589.592 Radial†	1484.0	346.8	47.294 µg/L	47.294 ppb	18:53:53
1	Sr 421.552†	1473.7	1761.6	-0.0382 µg/L	-0.0382 ppb	18:53:53
1	Sc 361.383	1517022.4	1517022.4	88.290 %		18:54:06
1	Y 371.029	894868.4	894868.4	87.161 %		18:54:06
1	Ag 328.068†	6255.0	2993.2	-1.9729 µg/L	-1.9729 ppb	18:54:06
1	As 188.979†	-100.1	-93.0	13.877 µg/L	13.877 ppb	18:54:26
1	B 249.677†	3380.9	323.4	4.7554 µg/L	4.7554 ppb	18:54:06
1	Ba 233.527†	434.1	627.6	0.1345 µg/L	0.1345 ppb	18:54:26
1	Be 313.107†	-1147.6	-235.1	-0.0621 µg/L	-0.0621 ppb	18:54:06
1	Cd 226.502†	2412.4	2850.5	-1.8998 µg/L	-1.8998 ppb	18:54:26
1	Co 228.616†	123.8	330.6	-5.6944 µg/L	-5.6944 ppb	18:54:26
1	Cr 267.716†	198.7	46.5	1.0479 µg/L	1.0479 ppb	18:54:26
1	Cu 324.752†	-5619.3	-9336.8	3.9046 µg/L	3.9046 ppb	18:54:06
1	Mn 257.610†	16860.5	18859.4	3.9217 µg/L	3.9217 ppb	18:54:06
1	Mo 202.031†	-556.1	-609.8	-1.7911 µg/L	-1.7911 ppb	18:54:26
1	Ni 231.604†	185.4	286.5	3.2984 µg/L	3.2984 ppb	18:54:26
1	P 214.914†	178.3	219.9	29.959 µg/L	29.959 ppb	18:54:26
1	Pb 220.353†	-392.3	-530.7	-4.9340 µg/L	-4.9340 ppb	18:54:26
1	S 181.975 Axial†	184.5	103.9	77.024 µg/L	77.024 ppb	18:54:26
1	Sb 206.836†	109.1	42.8	-0.8364 µg/L	-0.8364 ppb	18:54:26
1	Se 196.026†	-143.5	-177.8	0.756 µg/L	0.756 ppb	18:54:26
1	SiO2†	1661.3	106.3	10.857 µg/L	10.857 ppb	18:54:26
1	Si 251.611†	457.4	-318.5	-4.4771 µg/L	-4.4771 ppb	18:54:26
1	Sn 189.927†	41.8	48.5	3.1002 µg/L	3.1002 ppb	18:54:26
1	Ti 334.940†	22402.5	24421.1	-3.7208 µg/L	-3.7208 ppb	18:54:06
1	Tl 190.801†	-159.3	-63.8	-7.4175 µg/L	-7.4175 ppb	18:54:26
1	U 409.014†	-141.4	109.7	-14.558 µg/L	-14.558 ppb	18:54:06
1	V 292.402†	4081.9	4219.5	0.6141 µg/L	0.6141 ppb	18:54:06
1	Zn 213.857†	4369.0	4384.0	8.5615 µg/L	8.5615 ppb	18:54:26
2	Sc RADIAL	132040.0	132040.0	90.5 %		18:53:58
2	Al 396.153Radial†	2444947.4	2702202.7	500990 µg/L	500990 ppb	18:53:56
2	Ca 317.933Radial†	7800125.3	8620085.6	480170 µg/L	480170 ppb	18:53:56
2	Fe 238.204 Radial†	2791790.4	3085319.9	190160 µg/L	190160 ppb	18:53:56
2	K 766.490 Radial†	1740.8	379.1	-100.42 µg/L	-100.42 ppb	18:53:58
2	Mg 279.077 IEC†	1178560.0	1302345.9	485070 µg/L	485070 ppb	18:53:56
2	Na 589.592 Radial†	1410.4	267.9	36.479 µg/L	36.479 ppb	18:53:58
2	Sr 421.552†	1434.5	1720.7	-0.1811 µg/L	-0.1811 ppb	18:53:58
2	Sc 361.383	1500109.7	1500109.7	87.306 %		18:54:29
2	Y 371.029	884042.0	884042.0	86.106 %		18:54:29
2	Ag 328.068†	6203.9	3014.6	-2.1211 µg/L	-2.1211 ppb	18:54:29
2	As 188.979†	-119.9	-117.0	7.2444 µg/L	7.2444 ppb	18:54:49
2	B 249.677†	3505.1	508.8	7.4908 µg/L	7.4908 ppb	18:54:29
2	Ba 233.527†	482.5	688.5	0.3435 µg/L	0.3435 ppb	18:54:49
2	Be 313.107†	-1215.4	-327.4	-0.0902 µg/L	-0.0902 ppb	18:54:29
2	Cd 226.502†	2441.6	2914.8	-1.7901 µg/L	-1.7901 ppb	18:54:49
2	Co 228.616†	105.8	311.5	-6.0736 µg/L	-6.0736 ppb	18:54:49
2	Cr 267.716†	217.8	70.9	1.2432 µg/L	1.2432 ppb	18:54:49
2	Cu 324.752†	-5483.5	-9253.0	4.8451 µg/L	4.8451 ppb	18:54:29
2	Mn 257.610†	16639.0	18821.0	3.5450 µg/L	3.5450 ppb	18:54:29
2	Mo 202.031†	-590.4	-656.1	-2.8945 µg/L	-2.8945 ppb	18:54:49
2	Ni 231.604†	122.0	216.3	2.4904 µg/L	2.4904 ppb	18:54:49
2	P 214.914†	170.4	213.2	27.815 µg/L	27.815 ppb	18:54:49
2	Pb 220.353†	-391.2	-534.5	-4.9028 µg/L	-4.9028 ppb	18:54:49

2	S 181.975 Axial†	176.5	97.2	71.982 µg/L	71.982 ppb	18:54:49
2	Sb 206.836†	116.0	52.0	0.1714 µg/L	0.1714 ppb	18:54:49
2	Se 196.026†	-172.4	-212.7	-10.9 µg/L	-10.9 ppb	18:54:49
2	SiO2†	1633.2	95.3	9.7946 µg/L	9.7946 ppb	18:54:49
2	Si 251.611†	508.3	-254.3	-3.5215 µg/L	-3.5215 ppb	18:54:49
2	Sn 189.927†	60.8	70.8	4.4873 µg/L	4.4873 ppb	18:54:49
2	Ti 334.940†	21754.3	23964.7	-4.6112 µg/L	-4.6112 ppb	18:54:29
2	Tl 190.801†	-183.8	-93.9	-11.124 µg/L	-11.124 ppb	18:54:49
2	U 409.014†	-286.0	-57.7	-24.699 µg/L	-24.699 ppb	18:54:29
2	V 292.402†	3918.7	4084.7	-0.3553 µg/L	-0.3553 ppb	18:54:29
2	Zn 213.857†	4368.9	4439.7	8.6032 µg/L	8.6032 ppb	18:54:49
3	Sc RADIAL	128528.5	128528.5	88.1 %		18:54:02
3	Al 396.153Radial†	2425420.2	2753857.9	510560 µg/L	510560 ppb	18:54:00
3	Ca 317.933Radial†	7690261.2	8730875.1	486340 µg/L	486340 ppb	18:54:00
3	Fe 238.204 Radial†	2749581.2	3121695.4	192400 µg/L	192400 ppb	18:54:00
3	K 766.490 Radial†	1659.5	339.4	-118.61 µg/L	-118.61 ppb	18:54:02
3	Mg 279.077 IEC†	1158065.5	1314663.8	489660 µg/L	489660 ppb	18:54:00
3	Na 589.592 Radial†	1347.0	238.6	32.485 µg/L	32.485 ppb	18:54:02
3	Sr 421.552†	1492.5	1829.9	-0.0025 µg/L	-0.0025 ppb	18:54:02
3	Sc 361.383	1514195.4	1514195.4	88.126 %		18:54:52
3	Y 371.029	891947.3	891947.3	86.876 %		18:54:52
3	Ag 328.068†	6032.7	2754.1	-3.2379 µg/L	-3.2379 ppb	18:54:52
3	As 188.979†	-108.0	-102.2	12.211 µg/L	12.211 ppb	18:55:12
3	B 249.677†	3436.5	393.7	5.7936 µg/L	5.7936 ppb	18:54:52
3	Ba 233.527†	448.2	644.5	0.1380 µg/L	0.1380 ppb	18:55:12
3	Be 313.107†	-1158.8	-250.2	-0.0644 µg/L	-0.0644 ppb	18:54:52
3	Cd 226.502†	2438.6	2885.4	-2.2095 µg/L	-2.2095 ppb	18:55:12
3	Co 228.616†	90.0	292.5	-6.4255 µg/L	-6.4255 ppb	18:55:12
3	Cr 267.716†	181.2	27.0	0.9095 µg/L	0.9095 ppb	18:55:12
3	Cu 324.752†	-5570.7	-9293.5	5.1506 µg/L	5.1506 ppb	18:54:52
3	Mn 257.610†	16733.6	18751.0	3.2706 µg/L	3.2706 ppb	18:54:52
3	Mo 202.031†	-556.7	-611.6	-1.4146 µg/L	-1.4146 ppb	18:55:12
3	Ni 231.604†	136.4	231.3	2.6634 µg/L	2.6634 ppb	18:55:12
3	P 214.914†	188.3	231.6	32.331 µg/L	32.331 ppb	18:55:12
3	Pb 220.353†	-364.7	-500.2	-2.4766 µg/L	-2.4766 ppb	18:55:12
3	S 181.975 Axial†	176.2	94.9	70.345 µg/L	70.345 ppb	18:55:12
3	Sb 206.836†	127.8	64.2	1.5521 µg/L	1.5521 ppb	18:55:12
3	Se 196.026†	-157.0	-193.4	-3.16 µg/L	-3.16 ppb	18:55:12
3	SiO2†	1710.0	165.0	16.582 µg/L	16.582 ppb	18:55:12
3	Si 251.611†	438.9	-338.5	-4.7759 µg/L	-4.7759 ppb	18:55:12
3	Sn 189.927†	52.5	60.6	3.8554 µg/L	3.8554 ppb	18:55:12
3	Ti 334.940†	21892.4	23889.7	-4.9005 µg/L	-4.9005 ppb	18:54:52
3	Tl 190.801†	-161.6	-66.7	-7.7840 µg/L	-7.7840 ppb	18:55:12
3	U 409.014†	-54.1	208.5	-9.3710 µg/L	-9.3710 ppb	18:54:52
3	V 292.402†	3967.3	4098.1	-0.5042 µg/L	-0.5042 ppb	18:54:52
3	Zn 213.857†	4428.1	4460.3	8.5816 µg/L	8.5816 ppb	18:55:12

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1510442.5	87.908 %	0.5273			0.60%
Sc RADIAL	130937.0	89.7 %	1.43			1.59%
Y 371.029	890285.9	86.714 %	0.5456			0.63%
Ag 328.068†	2920.6	-2.4440 µg/L	0.69159	-2.4440 ppb	0.69159	28.30%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	2709930.8	502420 µg/L	7530.6	502420 ppb	7530.6	1.50%
QC value within limits for Al 396.153Radial Recovery = 100.48%						
As 188.979†	-104.0	11.111 µg/L	3.4505	11.111 ppb	3.4505	31.06%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	408.6	6.0133 µg/L	1.38084	6.0133 ppb	1.38084	22.96%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	653.5	0.2053 µg/L	0.11966	0.2053 ppb	0.11966	58.27%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-270.9	-0.0722 µg/L	0.01558	-0.0722 ppb	0.01558	21.57%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	8612702.4	479760 µg/L	6797.7	479760 ppb	6797.7	1.42%
QC value within limits for Ca 317.933Radial Recovery = 95.95%						
Cd 226.502†	2883.6	-1.9665 µg/L	0.21751	-1.9665 ppb	0.21751	11.06%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	311.5	-6.0645 µg/L	0.36562	-6.0645 ppb	0.36562	6.03%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	48.1	1.0668 µg/L	0.16765	1.0668 ppb	0.16765	15.71%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-9294.4	4.6334 µg/L	0.64943	4.6334 ppb	0.64943	14.02%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	3082452.3	189980 µg/L	2511.7	189980 ppb	2511.7	1.32%	
QC value within limits for Fe 238.204 Radial Recovery = 94.99%							
K 766.490 Radial†	327.9	-119.32 µg/L	19.263	-119.32 ppb	19.263	16.14%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	1299191.2	483900 µg/L	6431.4	483900 ppb	6431.4	1.33%	
QC value within limits for Mg 279.077 IEC Recovery = 96.78%							
Mn 257.610†	18810.4	3.5791 µg/L	0.32691	3.5791 ppb	0.32691	9.13%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-625.9	-2.0334 µg/L	0.76912	-2.0334 ppb	0.76912	37.82%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	284.5	38.753 µg/L	7.6619	38.753 ppb	7.6619	19.77%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	244.7	2.8174 µg/L	0.42544	2.8174 ppb	0.42544	15.10%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	221.6	30.035 µg/L	2.2592	30.035 ppb	2.2592	7.52%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-521.8	-4.1045 µg/L	1.40989	-4.1045 ppb	1.40989	34.35%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	98.7	73.117 µg/L	3.4814	73.117 ppb	3.4814	4.76%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	53.0	0.2957 µg/L	1.19909	0.2957 ppb	1.19909	405.55%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-194.6	-4.44 µg/L	5.948	-4.44 ppb	5.948	133.85%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	122.2	12.411 µg/L	3.6511	12.411 ppb	3.6511	29.42%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	-303.8	-4.2582 µg/L	0.65524	-4.2582 ppb	0.65524	15.39%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	60.0	3.8143 µg/L	0.69446	3.8143 ppb	0.69446	18.21%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	1770.7	-0.0740 µg/L	0.09453	-0.0740 ppb	0.09453	127.80%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	24091.8	-4.4108 µg/L	0.61484	-4.4108 ppb	0.61484	13.94%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-74.8	-8.7751 µg/L	2.04236	-8.7751 ppb	2.04236	23.27%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	86.8	-16.209 µg/L	7.7964	-16.209 ppb	7.7964	48.10%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	4134.1	-0.0818 µg/L	0.60724	-0.0818 ppb	0.60724	742.33%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	4428.0	8.5821 µg/L	0.02081	8.5821 ppb	0.02081	0.24%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 10

Sample ID: ICSAB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 104

Date Collected: 3/31/2010 18:55:20

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	128923.7	128923.7	88.3 %		18:55:52
1	Al 396.153Radial†	2441585.6	2763714.4	512370 µg/L	512370 ppb	18:55:50
1	Ca 317.933Radial†	7758514.8	8781367.4	489160 µg/L	489160 ppb	18:55:50
1	Fe 238.204 Radial†	2782554.2	3149448.4	194110 µg/L	194110 ppb	18:55:50
1	K 766.490 Radial†	15194.3	15653.8	5486.8 µg/L	5486.8 ppb	18:55:52
1	Mg 279.077 IEC†	1148118.0	1299373.7	483970 µg/L	483970 ppb	18:55:52
1	Na 589.592 Radial†	35618.0	39025.6	5326.3 µg/L	5326.3 ppb	18:55:52
1	Sr 421.552†	218553.1	247517.3	510.75 µg/L	510.75 ppb	18:55:52
1	Sc 361.383	1501848.4	1501848.4	87.407 %		18:56:05
1	Y 371.029	885934.6	885934.6	86.290 %		18:56:05
1	Ag 328.068†	68208.1	73943.4	266.87 µg/L	266.87 ppb	18:56:05
1	As 188.979†	1287.3	1493.1	500.98 µg/L	500.98 ppb	18:56:07
1	B 249.677†	33851.7	35222.8	517.92 µg/L	517.92 ppb	18:56:05
1	Ba 233.527†	108371.1	124119.8	498.16 µg/L	498.16 ppb	18:56:05
1	Be 313.107†	784555.4	898650.0	244.84 µg/L	244.84 ppb	18:56:05
1	Cd 226.502†	69032.6	79096.3	473.84 µg/L	473.84 ppb	18:56:05
1	Co 228.616†	31520.5	36252.0	437.70 µg/L	437.70 ppb	18:56:07
1	Cr 267.716†	53782.3	61352.1	481.07 µg/L	481.07 ppb	18:56:07
1	Cu 324.752†	114717.9	128272.9	540.53 µg/L	540.53 ppb	18:56:05
1	Mn 257.610†	356699.6	407851.6	484.93 µg/L	484.93 ppb	18:56:05
1	Mo 202.031†	13953.9	15984.3	486.45 µg/L	486.45 ppb	18:56:07
1	Ni 231.604†	34191.5	39194.0	451.29 µg/L	451.29 ppb	18:56:07
1	P 214.914†	10448.2	11971.4	2535.7 µg/L	2535.7 ppb	18:56:07
1	Pb 220.353†	6755.9	7642.9	453.53 µg/L	453.53 ppb	18:56:07
1	S 181.975 Axial†	3250.1	3613.3	2687.1 µg/L	2687.1 ppb	18:56:07
1	Sb 206.836†	3785.3	4249.8	500.40 µg/L	500.40 ppb	18:56:07
1	Se 196.026†	5624.0	6419.0	2390 µg/L	2390 ppb	18:56:07
1	SiO2†	99846.0	112455.3	10971 µg/L	10971 ppb	18:56:05
1	Si 251.611†	306352.4	349651.7	5145.5 µg/L	5145.5 ppb	18:56:05
1	Sn 189.927†	6636.1	7593.3	475.14 µg/L	475.14 ppb	18:56:07
1	Ti 334.940†	496139.0	566664.5	502.37 µg/L	502.37 ppb	18:56:05
1	Tl 190.801†	3058.5	3615.8	452.56 µg/L	452.56 ppb	18:56:07
1	U 409.014†	7410.9	8748.5	521.43 µg/L	521.43 ppb	18:56:05
1	V 292.402†	94726.2	107969.5	513.01 µg/L	513.01 ppb	18:56:05
1	Zn 213.857†	80178.7	91165.5	492.35 µg/L	492.35 ppb	18:56:05
2	Sc RADIAL	130306.5	130306.5	89.3 %		18:55:57
2	Al 396.153Radial†	2425762.3	2716664.8	503640 µg/L	503640 ppb	18:55:54
2	Ca 317.933Radial†	7696197.0	8618379.7	480080 µg/L	480080 ppb	18:55:54
2	Fe 238.204 Radial†	2760250.1	3091044.9	190510 µg/L	190510 ppb	18:55:54
2	K 766.490 Radial†	15576.4	15899.2	5580.2 µg/L	5580.2 ppb	18:55:57
2	Mg 279.077 IEC†	1163916.5	1303274.7	485430 µg/L	485430 ppb	18:55:57
2	Na 589.592 Radial†	35962.5	38983.4	5320.4 µg/L	5320.4 ppb	18:55:57
2	Sr 421.552†	221063.2	247703.0	511.20 µg/L	511.20 ppb	18:55:57
2	Sc 361.383	1503774.7	1503774.7	87.519 %		18:56:10
2	Y 371.029	887039.9	887039.9	86.398 %		18:56:10
2	Ag 328.068†	68293.1	73940.5	267.10 µg/L	267.10 ppb	18:56:10
2	As 188.979†	1349.3	1562.1	521.08 µg/L	521.08 ppb	18:56:12
2	B 249.677†	33920.1	35251.3	518.32 µg/L	518.32 ppb	18:56:10
2	Ba 233.527†	108643.6	124272.4	498.82 µg/L	498.82 ppb	18:56:10
2	Be 313.107†	786963.6	900251.8	245.27 µg/L	245.27 ppb	18:56:10
2	Cd 226.502†	69426.5	79445.1	476.40 µg/L	476.40 ppb	18:56:10
2	Co 228.616†	32044.4	36804.3	444.70 µg/L	444.70 ppb	18:56:12
2	Cr 267.716†	54375.8	61951.4	485.63 µg/L	485.63 ppb	18:56:12
2	Cu 324.752†	115372.1	128852.4	542.29 µg/L	542.29 ppb	18:56:10
2	Mn 257.610†	357810.4	408598.0	485.80 µg/L	485.80 ppb	18:56:10
2	Mo 202.031†	14059.7	16084.7	489.29 µg/L	489.29 ppb	18:56:12
2	Ni 231.604†	34695.4	39719.6	457.34 µg/L	457.34 ppb	18:56:12
2	P 214.914†	10657.1	12194.8	2584.0 µg/L	2584.0 ppb	18:56:12
2	Pb 220.353†	7007.7	7920.6	468.62 µg/L	468.62 ppb	18:56:12

2	S 181.975 Axial†	3226.8	3581.8	2663.8 µg/L	2663.8 ppb	18:56:12
2	Sb 206.836†	3801.0	4262.2	501.96 µg/L	501.96 ppb	18:56:12
2	Se 196.026†	5730.0	6531.8	2430 µg/L	2430 ppb	18:56:12
2	SiO2†	100449.1	112998.1	11024 µg/L	11024 ppb	18:56:10
2	Si 251.611†	307929.3	351004.4	5165.3 µg/L	5165.3 ppb	18:56:10
2	Sn 189.927†	6796.2	7766.5	485.94 µg/L	485.94 ppb	18:56:12
2	Ti 334.940†	498020.9	568087.6	503.35 µg/L	503.35 ppb	18:56:10
2	Tl 190.801†	3159.1	3726.2	466.12 µg/L	466.12 ppb	18:56:12
2	U 409.014†	7207.8	8505.6	507.68 µg/L	507.68 ppb	18:56:10
2	V 292.402†	94912.3	108043.3	513.79 µg/L	513.79 ppb	18:56:10
2	Zn 213.857†	80541.8	91462.8	494.31 µg/L	494.31 ppb	18:56:10
3	Sc RADIAL	130048.3	130048.3	89.1 %		18:56:01
3	Al 396.153Radial†	2433855.1	2731140.9	506330 µg/L	506330 ppb	18:55:59
3	Ca 317.933Radial†	7718645.4	8660686.5	482430 µg/L	482430 ppb	18:55:59
3	Fe 238.204 Radial†	2766938.5	3104689.2	191350 µg/L	191350 ppb	18:55:59
3	K 766.490 Radial†	15537.1	15889.7	5575.7 µg/L	5575.7 ppb	18:56:01
3	Mg 279.077 IEC†	1162812.5	1304624.6	485930 µg/L	485930 ppb	18:56:01
3	Na 589.592 Radial†	36095.8	39213.0	5351.8 µg/L	5351.8 ppb	18:56:01
3	Sr 421.552†	220343.8	247387.5	510.53 µg/L	510.53 ppb	18:56:01
3	Sc 361.383	1505253.1	1505253.1	87.605 %		18:56:15
3	Y 371.029	887796.9	887796.9	86.472 %		18:56:15
3	Ag 328.068†	68315.0	73888.9	266.85 µg/L	266.85 ppb	18:56:15
3	As 188.979†	1427.8	1650.2	547.91 µg/L	547.91 ppb	18:56:17
3	B 249.677†	34091.4	35408.8	520.64 µg/L	520.64 ppb	18:56:15
3	Ba 233.527†	108923.3	124469.7	499.60 µg/L	499.60 ppb	18:56:15
3	Be 313.107†	788697.2	901347.5	245.57 µg/L	245.57 ppb	18:56:15
3	Cd 226.502†	69816.9	79812.9	478.61 µg/L	478.61 ppb	18:56:15
3	Co 228.616†	32104.8	36837.3	445.06 µg/L	445.06 ppb	18:56:17
3	Cr 267.716†	54241.6	61737.2	483.97 µg/L	483.97 ppb	18:56:17
3	Cu 324.752†	115315.5	128658.2	541.67 µg/L	541.67 ppb	18:56:15
3	Mn 257.610†	358650.2	409155.1	486.47 µg/L	486.47 ppb	18:56:15
3	Mo 202.031†	13985.2	15983.9	486.37 µg/L	486.37 ppb	18:56:17
3	Ni 231.604†	34565.9	39532.8	455.19 µg/L	455.19 ppb	18:56:17
3	P 214.914†	10680.3	12209.4	2587.2 µg/L	2587.2 ppb	18:56:17
3	Pb 220.353†	7037.5	7946.8	470.21 µg/L	470.21 ppb	18:56:17
3	S 181.975 Axial†	3275.8	3634.2	2702.6 µg/L	2702.6 ppb	18:56:17
3	Sb 206.836†	3858.4	4323.5	509.22 µg/L	509.22 ppb	18:56:17
3	Se 196.026†	5760.2	6559.9	2440 µg/L	2440 ppb	18:56:17
3	SiO2†	100355.9	112779.0	11003 µg/L	11003 ppb	18:56:15
3	Si 251.611†	307749.7	350453.9	5157.2 µg/L	5157.2 ppb	18:56:15
3	Sn 189.927†	6900.6	7878.0	492.90 µg/L	492.90 ppb	18:56:17
3	Ti 334.940†	498757.3	568369.4	503.63 µg/L	503.63 ppb	18:56:15
3	Tl 190.801†	3121.0	3679.2	460.34 µg/L	460.34 ppb	18:56:17
3	U 409.014†	7255.1	8551.4	510.28 µg/L	510.28 ppb	18:56:15
3	V 292.402†	95008.3	108046.4	513.68 µg/L	513.68 ppb	18:56:15
3	Zn 213.857†	80688.3	91539.7	494.68 µg/L	494.68 ppb	18:56:15

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1503625.4	87.511 %	0.0994			0.11%
Sc RADIAL	129759.5	88.9 %	0.50			0.57%
Y 371.029	886923.8	86.387 %	0.0912			0.11%
Ag 328.068†	73924.3	266.94 µg/L	0.141	266.94 ppb	0.141	0.05%
QC value within limits for Ag 328.068 Recovery = 106.78%						
Al 396.153Radial†	2737173.4	507450 µg/L	4467.8	507450 ppb	4467.8	0.88%
QC value within limits for Al 396.153Radial Recovery = 101.49%						
As 188.979†	1568.5	523.32 µg/L	23.543	523.32 ppb	23.543	4.50%
QC value within limits for As 188.979 Recovery = 104.66%						
B 249.677†	35294.3	518.96 µg/L	1.468	518.96 ppb	1.468	0.28%
QC value within limits for B 249.677 Recovery = 103.79%						
Ba 233.527†	124287.3	498.86 µg/L	0.724	498.86 ppb	0.724	0.15%
QC value within limits for Ba 233.527 Recovery = 99.77%						
Be 313.107†	900083.1	245.23 µg/L	0.367	245.23 ppb	0.367	0.15%
QC value within limits for Be 313.107 Recovery = 98.09%						
Ca 317.933Radial†	8686811.2	483890 µg/L	4711.2	483890 ppb	4711.2	0.97%
QC value within limits for Ca 317.933Radial Recovery = 96.78%						
Cd 226.502†	79451.4	476.29 µg/L	2.386	476.29 ppb	2.386	0.50%
QC value within limits for Cd 226.502 Recovery = 95.26%						
Co 228.616†	36631.2	442.49 µg/L	4.152	442.49 ppb	4.152	0.94%

QC value within limits for Co 228.616 Recovery = 88.50%							
Cr 267.716†	61680.2	483.56 µg/L	2.310	483.56 ppb	2.310	0.48%	
QC value within limits for Cr 267.716 Recovery = 96.71%							
Cu 324.752†	128594.5	541.50 µg/L	0.893	541.50 ppb	0.893	0.16%	
QC value within limits for Cu 324.752 Recovery = 108.30%							
Fe 238.204 Radial†	3115060.8	191990 µg/L	1883.0	191990 ppb	1883.0	0.98%	
QC value within limits for Fe 238.204 Radial Recovery = 96.00%							
K 766.490 Radial†	15814.2	5547.6 µg/L	52.66	5547.6 ppb	52.66	0.95%	
QC value within limits for K 766.490 Radial Recovery = 110.95%							
Mg 279.077 IEC†	1302424.3	485110 µg/L	1017.4	485110 ppb	1017.4	0.21%	
QC value within limits for Mg 279.077 IEC Recovery = 97.02%							
Mn 257.610†	408534.9	485.73 µg/L	0.774	485.73 ppb	0.774	0.16%	
QC value within limits for Mn 257.610 Recovery = 97.15%							
Mo 202.031†	16017.6	487.37 µg/L	1.662	487.37 ppb	1.662	0.34%	
QC value within limits for Mo 202.031 Recovery = 97.47%							
Na 589.592 Radial†	39074.0	5332.8 µg/L	16.68	5332.8 ppb	16.68	0.31%	
QC value within limits for Na 589.592 Radial Recovery = 106.66%							
Ni 231.604†	39482.1	454.61 µg/L	3.068	454.61 ppb	3.068	0.67%	
QC value within limits for Ni 231.604 Recovery = 90.92%							
P 214.914†	12125.2	2569.0 µg/L	28.88	2569.0 ppb	28.88	1.12%	
QC value within limits for P 214.914 Recovery = 102.76%							
Pb 220.353†	7836.8	464.12 µg/L	9.210	464.12 ppb	9.210	1.98%	
QC value within limits for Pb 220.353 Recovery = 92.82%							
S 181.975 Axial†	3609.8	2684.5 µg/L	19.56	2684.5 ppb	19.56	0.73%	
QC value within limits for S 181.975 Axial Recovery = 107.38%							
Sb 206.836†	4278.5	503.86 µg/L	4.707	503.86 ppb	4.707	0.93%	
QC value within limits for Sb 206.836 Recovery = 100.77%							
Se 196.026†	6503.6	2420 µg/L	26.4	2420 ppb	26.4	1.09%	
QC value within limits for Se 196.026 Recovery = 96.73%							
SiO2†	112744.1	10999 µg/L	26.6	10999 ppb	26.6	0.24%	
QC value within limits for SiO2 Recovery = 102.85%							
Si 251.611†	350370.0	5156.0 µg/L	9.97	5156.0 ppb	9.97	0.19%	
QC value within limits for Si 251.611 Recovery = 103.12%							
Sn 189.927†	7745.9	484.66 µg/L	8.948	484.66 ppb	8.948	1.85%	
QC value within limits for Sn 189.927 Recovery = 96.93%							
Sr 421.552†	247536.0	510.83 µg/L	0.344	510.83 ppb	0.344	0.07%	
QC value within limits for Sr 421.552 Recovery = 102.17%							
Ti 334.940†	567707.2	503.12 µg/L	0.662	503.12 ppb	0.662	0.13%	
QC value within limits for Ti 334.940 Recovery = 100.62%							
Tl 190.801†	3673.7	459.67 µg/L	6.804	459.67 ppb	6.804	1.48%	
QC value within limits for Tl 190.801 Recovery = 91.93%							
U 409.014†	8601.8	513.13 µg/L	7.307	513.13 ppb	7.307	1.42%	
QC value within limits for U 409.014 Recovery = 102.63%							
V 292.402†	108019.7	513.49 µg/L	0.422	513.49 ppb	0.422	0.08%	
QC value within limits for V 292.402 Recovery = 102.70%							
Zn 213.857†	91389.3	493.78 µg/L	1.251	493.78 ppb	1.251	0.25%	
QC value within limits for Zn 213.857 Recovery = 98.76%							

All analyte(s) passed QC.

Sequence No.: 11

Sample ID: LRI

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 105

Date Collected: 3/31/2010 18:56:26

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: LRI

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	128043.7	128043.7	87.7 %		18:56:58
1	Al 396.153Radial†	2381304.8	2714005.3	503180 µg/L	503180 ppb	18:56:56
1	Ca 317.933Radial†	7611014.0	8673613.0	483150 µg/L	483150 ppb	18:56:56
1	Fe 238.204 Radial†	6523125.5	7434173.2	458200 µg/L	458200 ppb	18:56:56
1	K 766.490 Radial†	2256.7	1027.2	53.040 µg/L	53.040 ppb	18:56:58
1	Mg 279.077 IEC†	1139739.5	1298755.6	483500 µg/L	483500 ppb	18:56:56
1	Na 589.592 Radial†	3271680.6	3727401.1	509210 µg/L	509210 ppb	18:56:56
1	Sr 421.552†	5079.9	5924.8	8.5355 µg/L	8.5355 ppb	18:56:58
1	Sc 361.383	1451583.4	1451583.4	84.482 %		18:57:26
1	Y 371.029	852879.4	852879.4	83.071 %		18:57:26
1	Ag 328.068†	2264.1	-1411.5	-0.2309 µg/L	-0.2309 ppb	18:57:26
1	As 188.979†	-305.1	-340.8	-0.3436 µg/L	-0.3436 ppb	18:57:28
1	B 249.677†	4415.2	1720.3	25.330 µg/L	25.330 ppb	18:57:26
1	Ba 233.527†	738.1	1009.5	-1.7895 µg/L	-1.7895 ppb	18:57:28
1	Be 313.107†	-15542.1	-17332.3	0.1527 µg/L	0.1527 ppb	18:57:26
1	Cd 226.502†	6136.8	7382.3	-2.0728 µg/L	-2.0728 ppb	18:57:28
1	Co 228.616†	663.9	976.1	-11.855 µg/L	-11.855 ppb	18:57:28
1	Cr 267.716†	326.4	207.8	-1.0531 µg/L	-1.0531 ppb	18:57:28
1	Cu 324.752†	-15976.1	-21882.9	8.0863 µg/L	8.0863 ppb	18:57:26
1	Mn 257.610†	18213.2	21321.4	5.9920 µg/L	5.9920 ppb	18:57:26
1	Mo 202.031†	-937.6	-1089.8	-5.0578 µg/L	-5.0578 ppb	18:57:26
1	Ni 231.604†	147.8	251.5	2.8954 µg/L	2.8954 ppb	18:57:28
1	P 214.914†	945.2	1136.8	44.272 µg/L	44.272 ppb	18:57:28
1	Pb 220.353†	-112.1	-219.1	-7.8626 µg/L	-7.8626 ppb	18:57:28
1	S 181.975 Axial†	176.1	103.3	76.471 µg/L	76.471 ppb	18:57:28
1	Sb 206.836†	186.9	140.4	7.1485 µg/L	7.1485 ppb	18:57:28
1	Se 196.026†	-404.8	-494.4	-4.21 µg/L	-4.21 ppb	18:57:28
1	SiO2†	1963.2	548.4	54.447 µg/L	54.447 ppb	18:57:28
1	Si 251.611†	-2032.7	-3242.6	-47.410 µg/L	-47.410 ppb	18:57:28
1	Sn 189.927†	64.2	77.1	4.9002 µg/L	4.9002 ppb	18:57:28
1	Ti 334.940†	26623.1	30560.8	-4.8606 µg/L	-4.8606 ppb	18:57:26
1	Tl 190.801†	-158.4	-70.8	-8.1165 µg/L	-8.1165 ppb	18:57:28
1	U 409.014†	232638.7	275640.9	16036 µg/L	16036 ppb	18:57:26
1	V 292.402†	7227.0	8150.7	1.9065 µg/L	1.9065 ppb	18:57:28
1	Zn 213.857†	8608.4	9625.2	9.4603 µg/L	9.4603 ppb	18:57:28
2	Sc RADIAL	127587.1	127587.1	87.4 %		18:57:03
2	Al 396.153Radial†	2344707.9	2681859.2	497220 µg/L	497220 ppb	18:57:01
2	Ca 317.933Radial†	7463583.8	8536029.3	475490 µg/L	475490 ppb	18:57:01
2	Fe 238.204 Radial†	6391908.1	7310696.0	450590 µg/L	450590 ppb	18:57:01
2	K 766.490 Radial†	2390.9	1189.8	117.32 µg/L	117.32 ppb	18:57:03
2	Mg 279.077 IEC†	1114206.6	1274200.4	474360 µg/L	474360 ppb	18:57:01
2	Na 589.592 Radial†	3209939.6	3670127.4	501380 µg/L	501380 ppb	18:57:01
2	Sr 421.552†	5135.8	6009.4	8.7715 µg/L	8.7715 ppb	18:57:03
2	Sc 361.383	1456448.3	1456448.3	84.765 %		18:57:30
2	Y 371.029	856251.9	856251.9	83.399 %		18:57:30
2	Ag 328.068†	2013.8	-1715.7	-1.0926 µg/L	-1.0926 ppb	18:57:30
2	As 188.979†	-237.9	-260.3	22.297 µg/L	22.297 ppb	18:57:32
2	B 249.677†	4229.1	1483.4	21.834 µg/L	21.834 ppb	18:57:30
2	Ba 233.527†	835.0	1121.0	-1.2428 µg/L	-1.2428 ppb	18:57:32
2	Be 313.107†	-15397.0	-17099.7	0.2214 µg/L	0.2214 ppb	18:57:30
2	Cd 226.502†	6036.4	7239.5	-2.1644 µg/L	-2.1644 ppb	18:57:32
2	Co 228.616†	696.8	1012.4	-11.010 µg/L	-11.010 ppb	18:57:32
2	Cr 267.716†	355.9	241.2	-0.9572 µg/L	-0.9572 ppb	18:57:32
2	Cu 324.752†	-16236.3	-22126.7	5.7984 µg/L	5.7984 ppb	18:57:30
2	Mn 257.610†	18248.7	21291.3	6.3374 µg/L	6.3374 ppb	18:57:30
2	Mo 202.031†	-933.0	-1080.6	-5.2559 µg/L	-5.2559 ppb	18:57:30
2	Ni 231.604†	134.2	234.9	2.7046 µg/L	2.7046 ppb	18:57:32
2	P 214.914†	1061.2	1269.9	76.619 µg/L	76.619 ppb	18:57:32
2	Pb 220.353†	-99.7	-204.1	-7.1629 µg/L	-7.1629 ppb	18:57:32

2	S 181.975 Axial†	67.9	-24.9	-18.790 µg/L	-18.790 ppb	18:57:32
2	Sb 206.836†	102.8	40.5	-4.5964 µg/L	-4.5964 ppb	18:57:32
2	Se 196.026†	-406.6	-495.0	-7.05 µg/L	-7.05 ppb	18:57:32
2	SiO2†	1830.8	384.5	38.395 µg/L	38.395 ppb	18:57:32
2	Si 251.611†	-1934.6	-3118.9	-45.598 µg/L	-45.598 ppb	18:57:32
2	Sn 189.927†	82.4	98.3	6.2185 µg/L	6.2185 ppb	18:57:32
2	Ti 334.940†	25364.2	28970.4	-5.8085 µg/L	-5.8085 ppb	18:57:30
2	Tl 190.801†	-211.8	-133.2	-15.794 µg/L	-15.794 ppb	18:57:32
2	U 409.014†	233675.5	275944.1	16055 µg/L	16055 ppb	18:57:30
2	V 292.402†	7224.5	8119.2	2.5727 µg/L	2.5727 ppb	18:57:32
2	Zn 213.857†	8699.2	9698.3	10.651 µg/L	10.651 ppb	18:57:32
3	Sc RADIAL	127845.5	127845.5	87.6 %		18:57:07
3	Al 396.153Radial†	2359012.1	2692767.9	499240 µg/L	499240 ppb	18:57:05
3	Ca 317.933Radial†	7510342.6	8572152.9	477500 µg/L	477500 ppb	18:57:05
3	Fe 238.204 Radial†	6434548.4	7344595.4	452680 µg/L	452680 ppb	18:57:05
3	K 766.490 Radial†	2440.5	1241.0	134.70 µg/L	134.70 ppb	18:57:07
3	Mg 279.077 IEC†	1121897.2	1280403.8	476670 µg/L	476670 ppb	18:57:05
3	Na 589.592 Radial†	3229732.0	3685301.0	503460 µg/L	503460 ppb	18:57:05
3	Sr 421.552†	4859.4	5682.0	8.0751 µg/L	8.0751 ppb	18:57:07
3	Sc 361.383	1472435.6	1472435.6	85.696 %		18:57:35
3	Y 371.029	865581.1	865581.1	84.308 %		18:57:35
3	Ag 328.068†	2006.5	-1749.9	-1.2878 µg/L	-1.2878 ppb	18:57:35
3	As 188.979†	-242.4	-262.5	22.088 µg/L	22.088 ppb	18:57:37
3	B 249.677†	4311.3	1525.1	22.443 µg/L	22.443 ppb	18:57:35
3	Ba 233.527†	597.3	832.8	-2.4315 µg/L	-2.4315 ppb	18:57:37
3	Be 313.107†	-15503.1	-17026.2	0.2432 µg/L	0.2432 ppb	18:57:35
3	Cd 226.502†	5998.3	7117.7	-3.1440 µg/L	-3.1440 ppb	18:57:37
3	Co 228.616†	825.0	1153.0	-9.3850 µg/L	-9.3850 ppb	18:57:37
3	Cr 267.716†	265.1	130.8	-1.7837 µg/L	-1.7837 ppb	18:57:37
3	Cu 324.752†	-16427.6	-22141.9	6.1120 µg/L	6.1120 ppb	18:57:35
3	Mn 257.610†	18616.4	21486.6	6.4820 µg/L	6.4820 ppb	18:57:35
3	Mo 202.031†	-951.0	-1089.6	-5.3968 µg/L	-5.3968 ppb	18:57:35
3	Ni 231.604†	238.5	354.9	4.0862 µg/L	4.0862 ppb	18:57:37
3	P 214.914†	1053.2	1246.9	70.775 µg/L	70.775 ppb	18:57:37
3	Pb 220.353†	-34.4	-126.5	-2.7794 µg/L	-2.7794 ppb	18:57:37
3	S 181.975 Axial†	188.2	114.6	84.800 µg/L	84.800 ppb	18:57:37
3	Sb 206.836†	165.1	111.8	3.8601 µg/L	3.8601 ppb	18:57:37
3	Se 196.026†	-442.3	-531.4	-19.5 µg/L	-19.5 ppb	18:57:37
3	SiO2†	1893.1	433.7	43.156 µg/L	43.156 ppb	18:57:37
3	Si 251.611†	-1908.7	-3063.9	-44.810 µg/L	-44.810 ppb	18:57:37
3	Sn 189.927†	139.3	163.7	10.296 µg/L	10.296 ppb	18:57:37
3	Ti 334.940†	26025.3	29416.9	-5.5292 µg/L	-5.5292 ppb	18:57:35
3	Tl 190.801†	-218.6	-138.4	-16.446 µg/L	-16.446 ppb	18:57:37
3	U 409.014†	236329.7	276048.2	16061 µg/L	16061 ppb	18:57:35
3	V 292.402†	7144.2	7933.0	1.4413 µg/L	1.4413 ppb	18:57:37
3	Zn 213.857†	8714.2	9604.4	9.9077 µg/L	9.9077 ppb	18:57:37

Mean Data: LRI

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1460155.8	84.981 %		0.6349			0.75%
Sc RADIAL	127825.4	87.6 %		0.16			0.18%
Y 371.029	858237.5	83.593 %		0.6409			0.77%
Ag 328.068†	-1625.7	-0.8704 µg/L		0.56237	-0.8704 ppb	0.56237	64.61%
Al 396.153Radial†	2696210.8	499880 µg/L		3030.8	499880 ppb	3030.8	0.61%
QC value within limits for Al 396.153Radial Recovery = 99.98%							
As 188.979†	-287.9	14.680 µg/L		13.0115	14.680 ppb	13.0115	88.63%
B 249.677†	1576.2	23.202 µg/L		1.8679	23.202 ppb	1.8679	8.05%
Ba 233.527†	987.8	-1.8213 µg/L		0.59497	-1.8213 ppb	0.59497	32.67%
Be 313.107†	-17152.7	0.2058 µg/L		0.04725	0.2058 ppb	0.04725	22.96%
Ca 317.933Radial†	8593931.8	478720 µg/L		3973.4	478720 ppb	3973.4	0.83%
QC value within limits for Ca 317.933Radial Recovery = 95.74%							
Cd 226.502†	7246.5	-2.4604 µg/L		0.59380	-2.4604 ppb	0.59380	24.13%
Co 228.616†	1047.2	-10.750 µg/L		1.2554	-10.750 ppb	1.2554	11.68%
Cr 267.716†	193.3	-1.2647 µg/L		0.45201	-1.2647 ppb	0.45201	35.74%
Cu 324.752†	-22050.5	6.6655 µg/L		1.24035	6.6655 ppb	1.24035	18.61%
Fe 238.204 Radial†	7363154.9	453820 µg/L		3932.0	453820 ppb	3932.0	0.87%
QC value within limits for Fe 238.204 Radial Recovery = 90.76%							
K 766.490 Radial†	1152.7	101.69 µg/L		43.017	101.69 ppb	43.017	42.30%
Mg 279.077 IEC†	1284453.2	478180 µg/L		4754.0	478180 ppb	4754.0	0.99%

QC value within limits for Mg 279.077 IEC Recovery = 95.64%							
Mn 257.610†	21366.4	6.2705 µg/L	0.25177	6.2705 ppb	0.25177	4.02%	
Mo 202.031†	-1086.7	-5.2368 µg/L	0.17026	-5.2368 ppb	0.17026	3.25%	
Na 589.592 Radial†	3694276.5	504680 µg/L	4053.7	504680 ppb	4053.7	0.80%	
QC value within limits for Na 589.592 Radial Recovery = 100.94%							
Ni 231.604†	280.4	3.2287 µg/L	0.74869	3.2287 ppb	0.74869	23.19%	
P 214.914†	1217.9	63.889 µg/L	17.2380	63.889 ppb	17.2380	26.98%	
Pb 220.353†	-183.2	-5.9350 µg/L	2.75510	-5.9350 ppb	2.75510	46.42%	
S 181.975 Axial†	64.3	47.494 µg/L	57.5543	47.494 ppb	57.5543	121.18%	
Sb 206.836†	97.6	2.1374 µg/L	6.05903	2.1374 ppb	6.05903	283.48%	
Se 196.026†	-506.9	-10.3 µg/L	8.13	-10.3 ppb	8.13	79.29%	
SiO2†	455.6	45.333 µg/L	8.2442	45.333 ppb	8.2442	18.19%	
Si 251.611†	-3141.8	-45.939 µg/L	1.3330	-45.939 ppb	1.3330	2.90%	
Sn 189.927†	113.0	7.1383 µg/L	2.81321	7.1383 ppb	2.81321	39.41%	
Sr 421.552†	5872.1	8.4607 µg/L	0.35414	8.4607 ppb	0.35414	4.19%	
Ti 334.940†	29649.4	-5.3994 µg/L	0.48710	-5.3994 ppb	0.48710	9.02%	
Tl 190.801†	-114.1	-13.452 µg/L	4.6323	-13.452 ppb	4.6323	34.44%	
U 409.014†	275877.8	16051 µg/L	13.0	16051 ppb	13.0	0.08%	
QC value within limits for U 409.014 Recovery = 107.00%							
V 292.402†	8067.6	1.9735 µg/L	0.56868	1.9735 ppb	0.56868	28.82%	
Zn 213.857†	9642.6	10.006 µg/L	0.6012	10.006 ppb	0.6012	6.01%	
All analyte(s) passed QC.							

Sequence No.: 12

Sample ID: LR2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 108

Date Collected: 3/31/2010 18:57:44

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	138428.5	138428.5	94.9	%		18:58:18
1	Al 396.153Radial†	2589.6	2793.1	65.979	µg/L	65.979 ppb	18:58:20
1	Ca 317.933Radial†	2182.0	1739.6	96.903	µg/L	96.903 ppb	18:58:20
1	Fe 238.204 Radial†	-202.3	-361.4	-22.274	µg/L	-22.274 ppb	18:58:20
1	K 766.490 Radial†	763320.3	803139.1	294040	µg/L	294040 ppb	18:58:18
1	Mg 279.077 IEC†	-318.7	-526.7	41.787	µg/L	41.787 ppb	18:58:20
1	Na 589.592 Radial†	4722.3	3687.4	242.24	µg/L	242.24 ppb	18:58:18
1	Sr 421.552†	4464241.5	4706289.3	9784.1	µg/L	9784.1 ppb	18:58:15
1	Sc 361.383	1644054.1	1644054.1	95.684	%		18:58:42
1	Y 371.029	958940.9	958940.9	93.401	%		18:58:42
1	Ag 328.068†	-28181.7	-33544.4	-7.2060	µg/L	-7.2060 ppb	18:58:44
1	As 188.979†	32117.0	33586.2	10409	µg/L	10409 ppb	18:58:44
1	B 249.677†	322787.1	333842.2	4891.3	µg/L	4891.3 ppb	18:58:42
1	Ba 233.527†	3263599.9	3410957.3	13754	µg/L	13754 ppb	18:58:42
1	Be 313.107†	10059777.2	10514640.1	2862.8	µg/L	2862.8 ppb	18:58:38
1	Cd 226.502†	1463937.1	1530093.7	9561.7	µg/L	9561.7 ppb	18:58:42
1	Co 228.616†	720309.4	752993.0	9307.6	µg/L	9307.6 ppb	18:58:42
1	Cr 267.716†	2891693.7	3021959.9	23671	µg/L	23671 ppb	18:58:42
1	Cu 324.752†	4894436.4	5112253.1	19872	µg/L	19872 ppb	18:58:42
1	Mn 257.610†	7191165.6	7515323.1	9298.7	µg/L	9298.7 ppb	18:58:42
1	Mo 202.031†	316742.4	331050.8	9732.5	µg/L	9732.5 ppb	18:58:44
1	Ni 231.604†	799875.1	836034.2	9626.3	µg/L	9626.3 ppb	18:58:42
1	P 214.914†	68547.5	71657.7	15093	µg/L	15093 ppb	18:58:44
1	Pb 220.353†	401154.4	419164.2	23428	µg/L	23428 ppb	18:58:42
1	S 181.975 Axial†	67316.5	70248.1	52247	µg/L	52247 ppb	18:58:44
1	Sb 206.836†	80773.2	84336.1	9841.1	µg/L	9841.1 ppb	18:58:44
1	Se 196.026†	26033.9	27193.0	9830	µg/L	9830 ppb	18:58:44
1	SiO2†	974638.1	1016828.8	98967	µg/L	98967 ppb	18:58:42
1	Si 251.611†	3010622.9	3145596.0	46180	µg/L	46180 ppb	18:58:42
1	Sn 189.927†	151635.6	158477.0	9912.7	µg/L	9912.7 ppb	18:58:44
1	Ti 334.940†	10132846.9	10588988.8	9885.3	µg/L	9885.3 ppb	18:58:38
1	Tl 190.801†	74051.0	77508.1	9673.9	µg/L	9673.9 ppb	18:58:44
1	U 409.014†	-10469.2	-10671.6	-21.061	µg/L	-21.061 ppb	18:58:44
1	V 292.402†	1944343.2	2031649.1	10104	µg/L	10104 ppb	18:58:42
1	Zn 213.857†	2422227.0	2530929.6	14143	µg/L	14143 ppb	18:58:42
2	Sc RADIAL	138489.8	138489.8	94.9	%		18:58:24
2	Al 396.153Radial†	2632.4	2837.1	80.052	µg/L	80.052 ppb	18:58:26
2	Ca 317.933Radial†	2111.9	1664.8	92.734	µg/L	92.734 ppb	18:58:26
2	Fe 238.204 Radial†	-168.1	-325.2	-20.046	µg/L	-20.046 ppb	18:58:26
2	K 766.490 Radial†	768501.7	808242.3	295910	µg/L	295910 ppb	18:58:24
2	Mg 279.077 IEC†	-343.1	-552.3	29.128	µg/L	29.128 ppb	18:58:26
2	Na 589.592 Radial†	4657.2	3616.6	230.89	µg/L	230.89 ppb	18:58:24
2	Sr 421.552†	4443237.9	4682072.2	9733.8	µg/L	9733.8 ppb	18:58:22
2	Sc 361.383	1654174.4	1654174.4	96.273	%		18:58:52
2	Y 371.029	964160.7	964160.7	93.910	%		18:58:52
2	Ag 328.068†	-27980.3	-33155.0	-5.4230	µg/L	-5.4230 ppb	18:58:54
2	As 188.979†	31657.2	32903.2	10204	µg/L	10204 ppb	18:58:54
2	B 249.677†	326358.6	335488.1	4915.4	µg/L	4915.4 ppb	18:58:52
2	Ba 233.527†	3296633.7	3424402.5	13809	µg/L	13809 ppb	18:58:52
2	Be 313.107†	10113068.4	10505672.2	2860.3	µg/L	2860.3 ppb	18:58:48
2	Cd 226.502†	1483425.3	1540976.0	9629.7	µg/L	9629.7 ppb	18:58:52
2	Co 228.616†	729085.8	757503.5	9363.3	µg/L	9363.3 ppb	18:58:52
2	Cr 267.716†	2922280.8	3035241.6	23775	µg/L	23775 ppb	18:58:52
2	Cu 324.752†	4934401.1	5122469.9	19912	µg/L	19912 ppb	18:58:52
2	Mn 257.610†	7264987.1	7546022.1	9336.7	µg/L	9336.7 ppb	18:58:52
2	Mo 202.031†	314514.5	326711.4	9605.0	µg/L	9605.0 ppb	18:58:54
2	Ni 231.604†	809217.8	840624.1	9679.2	µg/L	9679.2 ppb	18:58:52
2	P 214.914†	67979.1	70628.9	14873	µg/L	14873 ppb	18:58:54
2	Pb 220.353†	406432.6	422081.8	23591	µg/L	23591 ppb	18:58:52

2	S 181.975 Axial†	66600.5	69074.0	51374 µg/L	51374 ppb	18:58:54
2	Sb 206.836†	80074.2	83093.5	9689.8 µg/L	9689.8 ppb	18:58:54
2	Se 196.026†	25686.7	26665.9	9640 µg/L	9640 ppb	18:58:54
2	SiO2†	986400.6	1022814.9	99557 µg/L	99557 ppb	18:58:52
2	Si 251.611†	3046941.6	3164070.8	46455 µg/L	46455 ppb	18:58:52
2	Sn 189.927†	150469.1	156295.8	9776.7 µg/L	9776.7 ppb	18:58:54
2	Ti 334.940†	10189195.0	10582728.8	9879.4 µg/L	9879.4 ppb	18:58:48
2	Tl 190.801†	73611.8	76578.5	9559.6 µg/L	9559.6 ppb	18:58:54
2	U 409.014†	-10364.3	-10495.7	-9.0352 µg/L	-9.0352 ppb	18:58:54
2	V 292.402†	1961854.5	2037406.1	10131 µg/L	10131 ppb	18:58:52
2	Zn 213.857†	2448683.7	2542922.9	14210 µg/L	14210 ppb	18:58:52
3	Sc RADIAL	137437.4	137437.4	94.2 %		18:58:31
3	Al 396.153Radial†	2618.6	2843.6	77.986 µg/L	77.986 ppb	18:58:33
3	Ca 317.933Radial†	2227.5	1804.6	100.52 µg/L	100.52 ppb	18:58:33
3	Fe 238.204 Radial†	-164.9	-323.2	-19.923 µg/L	-19.923 ppb	18:58:33
3	K 766.490 Radial†	765491.4	811247.2	297010 µg/L	297010 ppb	18:58:31
3	Mg 279.077 IEC†	-295.0	-503.9	48.881 µg/L	48.881 ppb	18:58:33
3	Na 589.592 Radial†	4456.0	3440.6	205.87 µg/L	205.87 ppb	18:58:31
3	Sr 421.552†	4441067.4	4715621.3	9803.5 µg/L	9803.5 ppb	18:58:29
3	Sc 361.383	1660837.4	1660837.4	96.660 %		18:59:01
3	Y 371.029	967825.2	967825.2	94.267 %		18:59:01
3	Ag 328.068†	-28451.9	-33526.3	-6.5821 µg/L	-6.5821 ppb	18:59:04
3	As 188.979†	32300.2	33436.5	10365 µg/L	10365 ppb	18:59:04
3	B 249.677†	328722.2	336573.4	4931.3 µg/L	4931.3 ppb	18:59:01
3	Ba 233.527†	3317615.9	3432372.0	13841 µg/L	13841 ppb	18:59:01
3	Be 313.107†	10133998.6	10485182.6	2854.7 µg/L	2854.7 ppb	18:58:58
3	Cd 226.502†	1494854.9	1546618.8	9664.9 µg/L	9664.9 ppb	18:59:01
3	Co 228.616†	734092.5	759645.0	9389.8 µg/L	9389.8 ppb	18:59:01
3	Cr 267.716†	2940364.9	3041773.0	23826 µg/L	23826 ppb	18:59:01
3	Cu 324.752†	4964197.6	5132733.3	19952 µg/L	19952 ppb	18:59:01
3	Mn 257.610†	7309991.3	7562306.7	9356.8 µg/L	9356.8 ppb	18:59:01
3	Mo 202.031†	318101.3	329111.4	9675.5 µg/L	9675.5 ppb	18:59:04
3	Ni 231.604†	815203.0	843443.9	9711.6 µg/L	9711.6 ppb	18:59:01
3	P 214.914†	69129.8	71536.1	15067 µg/L	15067 ppb	18:59:04
3	Pb 220.353†	409679.7	423747.3	23684 µg/L	23684 ppb	18:59:01
3	S 181.975 Axial†	67967.3	70210.4	52219 µg/L	52219 ppb	18:59:04
3	Sb 206.836†	81066.4	83786.4	9772.6 µg/L	9772.6 ppb	18:59:04
3	Se 196.026†	26138.8	27026.6	9770 µg/L	9770 ppb	18:59:04
3	SiO2†	993772.6	1026331.1	99898 µg/L	99898 ppb	18:59:01
3	Si 251.611†	3070650.4	3175901.7	46628 µg/L	46628 ppb	18:59:01
3	Sn 189.927†	152708.7	157985.7	9882.0 µg/L	9882.0 ppb	18:59:04
3	Ti 334.940†	10211863.8	10563720.7	9861.6 µg/L	9861.6 ppb	18:58:58
3	Tl 190.801†	74486.4	77176.5	9633.0 µg/L	9633.0 ppb	18:59:04
3	U 409.014†	-10678.1	-10777.2	-24.287 µg/L	-24.287 ppb	18:59:04
3	V 292.402†	1973672.0	2041456.5	10152 µg/L	10152 ppb	18:59:01
3	Zn 213.857†	2465384.0	2549996.1	14250 µg/L	14250 ppb	18:59:01

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1653021.9	96.206 %	0.4918			0.51%
Sc RADIAL	138118.6	94.6 %	0.40			0.43%
Y 371.029	963642.3	93.859 %	0.4349			0.46%
Ag 328.068†	-33408.6	-6.4037 µg/L	0.90480	-6.4037 ppb	0.90480	14.13%
Al 396.153Radial†	2824.6	74.672 µg/L	7.5994	74.672 ppb	7.5994	10.18%
As 188.979†	33308.6	10326 µg/L	108.5	10326 ppb	108.5	1.05%
QC value within limits for As 188.979 Recovery = 103.26%						
B 249.677†	335301.2	4912.7 µg/L	20.14	4912.7 ppb	20.14	0.41%
QC value within limits for B 249.677 Recovery = 98.25%						
Ba 233.527†	3422577.3	13801 µg/L	43.6	13801 ppb	43.6	0.32%
QC value within limits for Ba 233.527 Recovery = 92.01%						
Be 313.107†	10501831.6	2859.3 µg/L	4.11	2859.3 ppb	4.11	0.14%
QC value within limits for Be 313.107 Recovery = 95.31%						
Ca 317.933Radial†	1736.3	96.720 µg/L	3.8970	96.720 ppb	3.8970	4.03%
Cd 226.502†	1539229.5	9618.8 µg/L	52.49	9618.8 ppb	52.49	0.55%
QC value within limits for Cd 226.502 Recovery = 96.19%						
Co 228.616†	756713.8	9353.6 µg/L	41.95	9353.6 ppb	41.95	0.45%
QC value within limits for Co 228.616 Recovery = 93.54%						
Cr 267.716†	3032991.5	23758 µg/L	79.1	23758 ppb	79.1	0.33%
QC value within limits for Cr 267.716 Recovery = 95.03%						

Cu 324.752†	5122485.4	19912 µg/L	39.8	19912 ppb	39.8	0.20%
QC value within limits for Cu 324.752 Recovery = 99.56%						
Fe 238.204 Radial†	-336.6	-20.748 µg/L	1.3234	-20.748 ppb	1.3234	6.38%
K 766.490 Radial†	807542.9	295650 µg/L	1500.7	295650 ppb	1500.7	0.51%
QC value within limits for K 766.490 Radial Recovery = 98.55%						
Mg 279.077 IEC†	-527.6	39.932 µg/L	10.0061	39.932 ppb	10.0061	25.06%
Mn 257.610†	7541217.3	9330.7 µg/L	29.52	9330.7 ppb	29.52	0.32%
QC value within limits for Mn 257.610 Recovery = 93.31%						
Mo 202.031†	328957.9	9671.0 µg/L	63.88	9671.0 ppb	63.88	0.66%
QC value within limits for Mo 202.031 Recovery = 96.71%						
Na 589.592 Radial†	3581.5	226.33 µg/L	18.607	226.33 ppb	18.607	8.22%
Ni 231.604†	840034.1	9672.4 µg/L	43.06	9672.4 ppb	43.06	0.45%
QC value within limits for Ni 231.604 Recovery = 96.72%						
P 214.914†	71274.3	15011 µg/L	120.3	15011 ppb	120.3	0.80%
QC value within limits for P 214.914 Recovery = 100.07%						
Pb 220.353†	421664.4	23568 µg/L	129.3	23568 ppb	129.3	0.55%
QC value within limits for Pb 220.353 Recovery = 94.27%						
S 181.975 Axial†	69844.2	51947 µg/L	496.0	51947 ppb	496.0	0.95%
QC value within limits for S 181.975 Axial Recovery = 103.89%						
Sb 206.836†	83738.7	9767.8 µg/L	75.75	9767.8 ppb	75.75	0.78%
QC value within limits for Sb 206.836 Recovery = 97.68%						
Se 196.026†	26961.8	9750 µg/L	97.4	9750 ppb	97.4	1.00%
QC value within limits for Se 196.026 Recovery = 97.47%						
SiO2†	1021991.6	99474 µg/L	471.0	99474 ppb	471.0	0.47%
QC value within limits for SiO2 Recovery = 92.97%						
Si 251.611†	3161856.2	46421 µg/L	225.8	46421 ppb	225.8	0.49%
QC value within limits for Si 251.611 Recovery = 92.84%						
Sn 189.927†	157586.2	9857.1 µg/L	71.32	9857.1 ppb	71.32	0.72%
QC value within limits for Sn 189.927 Recovery = 98.57%						
Sr 421.552†	4701327.6	9773.8 µg/L	36.00	9773.8 ppb	36.00	0.37%
QC value within limits for Sr 421.552 Recovery = 97.74%						
Ti 334.940†	10578479.4	9875.4 µg/L	12.32	9875.4 ppb	12.32	0.12%
QC value within limits for Ti 334.940 Recovery = 98.75%						
Tl 190.801†	77087.7	9622.1 µg/L	57.90	9622.1 ppb	57.90	0.60%
QC value within limits for Tl 190.801 Recovery = 96.22%						
U 409.014†	-10648.1	-18.128 µg/L	8.0380	-18.128 ppb	8.0380	44.34%
V 292.402†	2036837.3	10129 µg/L	24.0	10129 ppb	24.0	0.24%
QC value within limits for V 292.402 Recovery = 101.29%						
Zn 213.857†	2541282.9	14201 µg/L	53.8	14201 ppb	53.8	0.38%
QC value within limits for Zn 213.857 Recovery = 94.68%						
All analyte(s) passed QC.						

Sequence No.: 13

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/31/2010 18:59:11

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	142139.5	142139.5	97.4 %		18:59:45
1	Al 396.153Radial†	26433.8	27201.9	5020.1 µg/L	5020.1 ppb	18:59:45
1	Ca 317.933Radial†	88689.7	90494.1	5040.9 µg/L	5040.9 ppb	18:59:45
1	Fe 238.204 Radial†	79307.5	81274.2	5009.2 µg/L	5009.2 ppb	18:59:45
1	K 766.490 Radial†	16771.4	15673.9	5734.3 µg/L	5734.3 ppb	18:59:45
1	Mg 279.077 IEC†	13660.1	13833.7	5162.1 µg/L	5162.1 ppb	18:59:45
1	Na 589.592 Radial†	73293.1	73956.7	10098 µg/L	10098 ppb	18:59:45
1	Sr 421.552†	230485.0	236766.3	492.18 µg/L	492.18 ppb	18:59:42
1	Sc 361.383	1685039.5	1685039.5	98.069 %		19:00:11
1	Y 371.029	998501.4	998501.4	97.255 %		19:00:11
1	Ag 328.068†	132676.3	131197.3	491.97 µg/L	491.97 ppb	19:00:11
1	As 188.979†	1601.0	1652.9	507.06 µg/L	507.06 ppb	19:00:31
1	B 249.677†	36255.7	33463.6	491.81 µg/L	491.81 ppb	19:00:11
1	Ba 233.527†	119950.7	122448.3	493.83 µg/L	493.83 ppb	19:00:11
1	Be 313.107†	1777442.6	1813504.8	493.92 µg/L	493.92 ppb	19:00:11
1	Cd 226.502†	77121.2	78757.9	491.64 µg/L	491.64 ppb	19:00:11
1	Co 228.616†	39140.7	40101.7	495.05 µg/L	495.05 ppb	19:00:11
1	Cr 267.716†	61794.1	62832.3	491.97 µg/L	491.97 ppb	19:00:11
1	Cu 324.752†	126997.2	126525.5	493.24 µg/L	493.24 ppb	19:00:11
1	Mn 257.610†	392842.9	400340.6	495.12 µg/L	495.12 ppb	19:00:11
1	Mo 202.031†	16539.5	16885.3	496.69 µg/L	496.69 ppb	19:00:31
1	Ni 231.604†	41890.8	42792.1	492.72 µg/L	492.72 ppb	19:00:11
1	P 214.914†	11336.8	11578.0	2467.8 µg/L	2467.8 ppb	19:00:31
1	Pb 220.353†	8936.3	9025.8	505.42 µg/L	505.42 ppb	19:00:31
1	S 181.975 Axial†	1440.2	1363.5	1016.7 µg/L	1016.7 ppb	19:00:31
1	Sb 206.836†	4150.3	4151.2	494.66 µg/L	494.66 ppb	19:00:31
1	Se 196.026†	1355.8	1367.2	496 µg/L	496 ppb	19:00:31
1	SiO2†	55729.4	55051.3	5359.5 µg/L	5359.5 ppb	19:00:11
1	Si 251.611†	167770.7	170237.6	2499.9 µg/L	2499.9 ppb	19:00:11
1	Sn 189.927†	7832.4	7987.8	499.62 µg/L	499.62 ppb	19:00:31
1	Ti 334.940†	519447.4	528722.7	493.33 µg/L	493.33 ppb	19:00:11
1	Tl 190.801†	3833.0	4025.2	501.97 µg/L	501.97 ppb	19:00:31
1	U 409.014†	7396.5	7812.0	486.67 µg/L	486.67 ppb	19:00:11
1	V 292.402†	98795.4	100336.9	496.05 µg/L	496.05 ppb	19:00:11
1	Zn 213.857†	87637.0	88798.1	494.94 µg/L	494.94 ppb	19:00:11
2	Sc RADIAL	141405.1	141405.1	96.9 %		18:59:49
2	Al 396.153Radial†	26316.7	27222.0	5023.9 µg/L	5023.9 ppb	18:59:49
2	Ca 317.933Radial†	88132.2	90391.6	5035.2 µg/L	5035.2 ppb	18:59:49
2	Fe 238.204 Radial†	78428.2	80789.6	4979.4 µg/L	4979.4 ppb	18:59:49
2	K 766.490 Radial†	16577.4	15563.0	5693.7 µg/L	5693.7 ppb	18:59:49
2	Mg 279.077 IEC†	13417.4	13656.1	5095.9 µg/L	5095.9 ppb	18:59:49
2	Na 589.592 Radial†	72730.8	73767.2	10072 µg/L	10072 ppb	18:59:49
2	Sr 421.552†	231214.8	238748.4	496.30 µg/L	496.30 ppb	18:59:47
2	Sc 361.383	1693366.2	1693366.2	98.554 %		19:00:35
2	Y 371.029	1002117.3	1002117.3	97.607 %		19:00:35
2	Ag 328.068†	134028.3	131903.9	494.57 µg/L	494.57 ppb	19:00:35
2	As 188.979†	1592.6	1636.4	502.08 µg/L	502.08 ppb	19:00:55
2	B 249.677†	36515.2	33545.2	493.02 µg/L	493.02 ppb	19:00:35
2	Ba 233.527†	120680.2	122587.1	494.39 µg/L	494.39 ppb	19:00:35
2	Be 313.107†	1789722.9	1817053.1	494.89 µg/L	494.89 ppb	19:00:35
2	Cd 226.502†	77769.6	79029.1	493.33 µg/L	493.33 ppb	19:00:35
2	Co 228.616†	39338.4	40106.1	495.11 µg/L	495.11 ppb	19:00:35
2	Cr 267.716†	62316.9	63052.8	493.70 µg/L	493.70 ppb	19:00:35
2	Cu 324.752†	127673.8	126575.3	493.42 µg/L	493.42 ppb	19:00:35
2	Mn 257.610†	395604.2	401172.7	496.16 µg/L	496.16 ppb	19:00:35
2	Mo 202.031†	16605.0	16868.7	496.20 µg/L	496.20 ppb	19:00:55
2	Ni 231.604†	42250.6	42947.2	494.51 µg/L	494.51 ppb	19:00:35
2	P 214.914†	11392.0	11577.2	2467.6 µg/L	2467.6 ppb	19:00:55
2	Pb 220.353†	8993.4	9039.0	506.15 µg/L	506.15 ppb	19:00:55

2	S 181.975 Axial†	1441.0	1357.1	1011.9 µg/L	1011.9 ppb	19:00:55
2	Sb 206.836†	4173.3	4153.7	494.93 µg/L	494.93 ppb	19:00:55
2	Se 196.026†	1369.6	1374.4	499 µg/L	499 ppb	19:00:55
2	SiO2†	55740.1	54782.8	5333.3 µg/L	5333.3 ppb	19:00:35
2	Si 251.611†	168764.7	170404.9	2502.4 µg/L	2502.4 ppb	19:00:35
2	Sn 189.927†	7855.7	7972.1	498.64 µg/L	498.64 ppb	19:00:55
2	Ti 334.940†	522510.2	529225.9	493.80 µg/L	493.80 ppb	19:00:35
2	Tl 190.801†	3874.1	4047.6	504.73 µg/L	504.73 ppb	19:00:55
2	U 409.014†	7341.8	7719.4	481.23 µg/L	481.23 ppb	19:00:35
2	V 292.402†	99158.5	100210.0	495.43 µg/L	495.43 ppb	19:00:35
2	Zn 213.857†	88086.4	88814.8	495.03 µg/L	495.03 ppb	19:00:35
3	Sc RADIAL	143105.8	143105.8	98.1 %		18:59:53
3	Al 396.153Radial†	26546.6	27133.7	5007.7 µg/L	5007.7 ppb	18:59:53
3	Ca 317.933Radial†	89145.0	90343.6	5032.5 µg/L	5032.5 ppb	18:59:53
3	Fe 238.204 Radial†	79321.5	80738.7	4976.2 µg/L	4976.2 ppb	18:59:53
3	K 766.490 Radial†	16684.6	15469.1	5659.4 µg/L	5659.4 ppb	18:59:53
3	Mg 279.077 IEC†	13656.7	13735.5	5125.4 µg/L	5125.4 ppb	18:59:53
3	Na 589.592 Radial†	73452.5	73611.2	10051 µg/L	10051 ppb	18:59:53
3	Sr 421.552†	233202.1	237939.3	494.62 µg/L	494.62 ppb	18:59:51
3	Sc 361.383	1698557.6	1698557.6	98.856 %		19:00:58
3	Y 371.029	1005300.2	1005300.2	97.917 %		19:00:58
3	Ag 328.068†	134027.1	131487.0	493.03 µg/L	493.03 ppb	19:00:58
3	As 188.979†	1600.3	1639.2	502.90 µg/L	502.90 ppb	19:01:18
3	B 249.677†	36626.1	33544.1	493.00 µg/L	493.00 ppb	19:00:58
3	Ba 233.527†	120865.6	122400.4	493.64 µg/L	493.64 ppb	19:00:58
3	Be 313.107†	1794818.7	1816657.7	494.78 µg/L	494.78 ppb	19:00:58
3	Cd 226.502†	77952.7	78973.1	492.98 µg/L	492.98 ppb	19:00:58
3	Co 228.616†	39410.3	40056.7	494.50 µg/L	494.50 ppb	19:00:58
3	Cr 267.716†	62267.5	62809.6	491.79 µg/L	491.79 ppb	19:00:58
3	Cu 324.752†	127710.6	126216.6	492.03 µg/L	492.03 ppb	19:00:58
3	Mn 257.610†	396581.9	400934.9	495.86 µg/L	495.86 ppb	19:00:58
3	Mo 202.031†	16557.8	16769.5	493.29 µg/L	493.29 ppb	19:01:18
3	Ni 231.604†	42318.2	42884.5	493.78 µg/L	493.78 ppb	19:00:58
3	P 214.914†	11368.7	11518.2	2455.0 µg/L	2455.0 ppb	19:01:18
3	Pb 220.353†	8920.7	8937.6	500.48 µg/L	500.48 ppb	19:01:18
3	S 181.975 Axial†	1449.3	1361.0	1014.8 µg/L	1014.8 ppb	19:01:18
3	Sb 206.836†	4163.9	4131.2	492.23 µg/L	492.23 ppb	19:01:18
3	Se 196.026†	1367.7	1368.2	497 µg/L	497 ppb	19:01:18
3	SiO2†	55966.4	54838.9	5338.9 µg/L	5338.9 ppb	19:00:58
3	Si 251.611†	169027.1	170146.9	2498.6 µg/L	2498.6 ppb	19:00:58
3	Sn 189.927†	7816.0	7907.6	494.62 µg/L	494.62 ppb	19:01:18
3	Ti 334.940†	523522.3	528629.3	493.24 µg/L	493.24 ppb	19:00:58
3	Tl 190.801†	3828.1	3989.1	497.54 µg/L	497.54 ppb	19:01:18
3	U 409.014†	7431.2	7787.1	485.18 µg/L	485.18 ppb	19:00:58
3	V 292.402†	99434.0	100181.1	495.25 µg/L	495.25 ppb	19:00:58
3	Zn 213.857†	87848.2	88300.5	492.15 µg/L	492.15 ppb	19:00:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1692321.1	98.493 %	0.3969			0.40%
Sc RADIAL	142216.8	97.5 %	0.58			0.60%
Y 371.029	1001973.0	97.593 %	0.3313			0.34%
Ag 328.068†	131529.4	493.19 µg/L	1.309	493.19 ppb	1.309	0.27%
QC value within limits for Ag 328.068 Recovery = 98.64%						
Al 396.153Radial†	27185.9	5017.2 µg/L	8.50	5017.2 ppb	8.50	0.17%
QC value within limits for Al 396.153Radial Recovery = 100.34%						
As 188.979†	1642.8	504.02 µg/L	2.669	504.02 ppb	2.669	0.53%
QC value within limits for As 188.979 Recovery = 100.80%						
B 249.677†	33517.6	492.61 µg/L	0.690	492.61 ppb	0.690	0.14%
QC value within limits for B 249.677 Recovery = 98.52%						
Ba 233.527†	122478.6	493.95 µg/L	0.391	493.95 ppb	0.391	0.08%
QC value within limits for Ba 233.527 Recovery = 98.79%						
Be 313.107†	1815738.5	494.53 µg/L	0.529	494.53 ppb	0.529	0.11%
QC value within limits for Be 313.107 Recovery = 98.91%						
Ca 317.933Radial†	90409.8	5036.2 µg/L	4.28	5036.2 ppb	4.28	0.09%
QC value within limits for Ca 317.933Radial Recovery = 100.72%						
Cd 226.502†	78920.1	492.65 µg/L	0.896	492.65 ppb	0.896	0.18%
QC value within limits for Cd 226.502 Recovery = 98.53%						
Co 228.616†	40088.2	494.89 µg/L	0.337	494.89 ppb	0.337	0.07%

QC value within limits for Co 228.616 Recovery = 98.98%							
Cr 267.716†	62898.2	492.49 µg/L	1.054	492.49 ppb	1.054	0.21%	
QC value within limits for Cr 267.716 Recovery = 98.50%							
Cu 324.752†	126439.1	492.90 µg/L	0.756	492.90 ppb	0.756	0.15%	
QC value within limits for Cu 324.752 Recovery = 98.58%							
Fe 238.204 Radial†	80934.2	4988.3 µg/L	18.22	4988.3 ppb	18.22	0.37%	
QC value within limits for Fe 238.204 Radial Recovery = 99.77%							
K 766.490 Radial†	15568.7	5695.8 µg/L	37.52	5695.8 ppb	37.52	0.66%	
QC value greater than the upper limit for K 766.490 Radial Recovery = 113.92%							
Mg 279.077 IEC†	13741.8	5127.8 µg/L	33.15	5127.8 ppb	33.15	0.65%	
QC value within limits for Mg 279.077 IEC Recovery = 102.56%							
Mn 257.610†	400816.1	495.71 µg/L	0.532	495.71 ppb	0.532	0.11%	
QC value within limits for Mn 257.610 Recovery = 99.14%							
Mo 202.031†	16841.2	495.39 µg/L	1.841	495.39 ppb	1.841	0.37%	
QC value within limits for Mo 202.031 Recovery = 99.08%							
Na 589.592 Radial†	73778.4	10074 µg/L	23.6	10074 ppb	23.6	0.23%	
QC value within limits for Na 589.592 Radial Recovery = 100.74%							
Ni 231.604†	42874.6	493.67 µg/L	0.898	493.67 ppb	0.898	0.18%	
QC value within limits for Ni 231.604 Recovery = 98.73%							
P 214.914†	11557.8	2463.5 µg/L	7.33	2463.5 ppb	7.33	0.30%	
QC value within limits for P 214.914 Recovery = 98.54%							
Pb 220.353†	9000.8	504.02 µg/L	3.083	504.02 ppb	3.083	0.61%	
QC value within limits for Pb 220.353 Recovery = 100.80%							
S 181.975 Axial†	1360.5	1014.5 µg/L	2.43	1014.5 ppb	2.43	0.24%	
QC value within limits for S 181.975 Axial Recovery = 101.45%							
Sb 206.836†	4145.4	493.94 µg/L	1.484	493.94 ppb	1.484	0.30%	
QC value within limits for Sb 206.836 Recovery = 98.79%							
Se 196.026†	1370.0	497 µg/L	1.4	497 ppb	1.4	0.28%	
QC value within limits for Se 196.026 Recovery = 99.49%							
SiO2†	54891.0	5343.9 µg/L	13.80	5343.9 ppb	13.80	0.26%	
QC value within limits for SiO2 Recovery = 99.93%							
Si 251.611†	170263.1	2500.3 µg/L	1.90	2500.3 ppb	1.90	0.08%	
QC value within limits for Si 251.611 Recovery = 100.01%							
Sn 189.927†	7955.8	497.63 µg/L	2.649	497.63 ppb	2.649	0.53%	
QC value within limits for Sn 189.927 Recovery = 99.53%							
Sr 421.552†	237818.0	494.37 µg/L	2.072	494.37 ppb	2.072	0.42%	
QC value within limits for Sr 421.552 Recovery = 98.87%							
Ti 334.940†	528859.3	493.46 µg/L	0.302	493.46 ppb	0.302	0.06%	
QC value within limits for Ti 334.940 Recovery = 98.69%							
Tl 190.801†	4020.6	501.41 µg/L	3.629	501.41 ppb	3.629	0.72%	
QC value within limits for Tl 190.801 Recovery = 100.28%							
U 409.014†	7772.9	484.36 µg/L	2.811	484.36 ppb	2.811	0.58%	
QC value within limits for U 409.014 Recovery = 96.87%							
V 292.402†	100242.7	495.58 µg/L	0.417	495.58 ppb	0.417	0.08%	
QC value within limits for V 292.402 Recovery = 99.12%							
Zn 213.857†	88637.8	494.04 µg/L	1.641	494.04 ppb	1.641	0.33%	
QC value within limits for Zn 213.857 Recovery = 98.81%							
QC Failed. Continue with analysis.							

Sequence No.: 14

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/31/2010 19:01:26

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	142576.4	142576.4	97.7 %		19:01:55
1	Al 396.153Radial†	57.6	122.1	22.616 µg/L	22.616 ppb	19:02:15
1	Ca 317.933Radial†	950.3	412.1	22.954 µg/L	22.954 ppb	19:02:15
1	Fe 238.204 Radial†	408.4	269.9	16.636 µg/L	16.636 ppb	19:02:15
1	K 766.490 Radial†	2351.3	861.8	315.49 µg/L	315.49 ppb	19:01:55
1	Mg 279.077 IEC†	256.3	71.6	26.675 µg/L	26.675 ppb	19:02:15
1	Na 589.592 Radial†	2324.7	1088.6	148.44 µg/L	148.44 ppb	19:01:55
1	Sr 421.552†	-47.4	86.8	0.1802 µg/L	0.1802 ppb	19:01:55
1	Sc 361.383	1712993.6	1712993.6	99.696 %		19:03:03
1	Y 371.029	1024574.5	1024574.5	99.794 %		19:03:03
1	Ag 328.068†	3862.6	-217.0	-0.8055 µg/L	-0.8055 ppb	19:03:05
1	As 188.979†	-11.7	8.6	2.6096 µg/L	2.6096 ppb	19:03:25
1	B 249.677†	3681.1	186.4	2.7486 µg/L	2.7486 ppb	19:03:05
1	Ba 233.527†	-102.8	32.7	0.1316 µg/L	0.1316 ppb	19:03:25
1	Be 313.107†	-845.8	216.4	0.0592 µg/L	0.0592 ppb	19:03:05
1	Cd 226.502†	-69.1	48.9	0.3038 µg/L	0.3038 ppb	19:03:25
1	Co 228.616†	-171.2	18.6	0.2289 µg/L	0.2289 ppb	19:03:25
1	Cr 267.716†	235.5	57.6	0.4508 µg/L	0.4508 ppb	19:03:25
1	Cu 324.752†	3139.9	177.3	0.6930 µg/L	0.6930 ppb	19:03:05
1	Mn 257.610†	387.8	151.7	0.1866 µg/L	0.1866 ppb	19:03:25
1	Mo 202.031†	-0.9	19.2	0.5643 µg/L	0.5643 ppb	19:03:25
1	Ni 231.604†	-84.9	-8.7	-0.0996 µg/L	-0.0996 ppb	19:03:25
1	P 214.914†	-24.3	-6.5	-1.3891 µg/L	-1.3891 ppb	19:03:25
1	Pb 220.353†	141.3	55.4	3.0911 µg/L	3.0911 ppb	19:03:25
1	S 181.975 Axial†	113.5	8.8	6.5060 µg/L	6.5060 ppb	19:03:25
1	Sb 206.836†	76.0	-4.6	-0.5451 µg/L	-0.5451 ppb	19:03:25
1	Se 196.026†	20.7	5.5	2.01 µg/L	2.01 ppb	19:03:25
1	SiO2†	1808.7	38.9	3.7615 µg/L	3.7615 ppb	19:03:25
1	Si 251.611†	1158.0	325.0	4.7734 µg/L	4.7734 ppb	19:03:05
1	Sn 189.927†	23.2	24.4	1.5199 µg/L	1.5199 ppb	19:03:25
1	Ti 334.940†	1109.4	160.3	0.1476 µg/L	0.1476 ppb	19:03:05
1	Tl 190.801†	-105.0	11.4	1.4002 µg/L	1.4002 ppb	19:03:25
1	U 409.014†	-251.8	17.3	0.9993 µg/L	0.9993 ppb	19:03:05
1	V 292.402†	359.4	-43.3	-0.2046 µg/L	-0.2046 ppb	19:03:05
1	Zn 213.857†	837.7	275.9	1.5483 µg/L	1.5483 ppb	19:03:25
2	Sc RADIAL	143802.6	143802.6	98.5 %		19:02:17
2	Al 396.153Radial†	-23.6	39.2	7.2646 µg/L	7.2646 ppb	19:02:37
2	Ca 317.933Radial†	724.5	174.6	9.7279 µg/L	9.7279 ppb	19:02:37
2	Fe 238.204 Radial†	241.4	96.9	5.9704 µg/L	5.9704 ppb	19:02:37
2	K 766.490 Radial†	2344.6	834.5	305.50 µg/L	305.50 ppb	19:02:17
2	Mg 279.077 IEC†	184.0	-4.0	-1.5026 µg/L	-1.5026 ppb	19:02:37
2	Na 589.592 Radial†	2222.6	964.7	131.52 µg/L	131.52 ppb	19:02:17
2	Sr 421.552†	-22.7	112.3	0.2333 µg/L	0.2333 ppb	19:02:17
2	Sc 361.383	1715539.4	1715539.4	99.844 %		19:03:27
2	Y 371.029	1025697.2	1025697.2	99.903 %		19:03:27
2	Ag 328.068†	4157.7	72.8	0.2757 µg/L	0.2757 ppb	19:03:30
2	As 188.979†	-16.7	3.7	1.1138 µg/L	1.1138 ppb	19:03:50
2	B 249.677†	3652.6	152.4	2.2465 µg/L	2.2465 ppb	19:03:30
2	Ba 233.527†	-103.8	31.9	0.1289 µg/L	0.1289 ppb	19:03:50
2	Be 313.107†	-800.4	263.0	0.0711 µg/L	0.0711 ppb	19:03:30
2	Cd 226.502†	-101.0	17.0	0.1059 µg/L	0.1059 ppb	19:03:50
2	Co 228.616†	-175.3	14.7	0.1813 µg/L	0.1813 ppb	19:03:50
2	Cr 267.716†	251.6	73.5	0.5772 µg/L	0.5772 ppb	19:03:50
2	Cu 324.752†	3073.4	105.9	0.4112 µg/L	0.4112 ppb	19:03:30
2	Mn 257.610†	351.3	114.6	0.1418 µg/L	0.1418 ppb	19:03:50
2	Mo 202.031†	-12.8	7.2	0.2126 µg/L	0.2126 ppb	19:03:50
2	Ni 231.604†	-67.1	9.3	0.1072 µg/L	0.1072 ppb	19:03:50
2	P 214.914†	-27.6	-9.7	-2.0622 µg/L	-2.0622 ppb	19:03:50
2	Pb 220.353†	95.6	9.4	0.5244 µg/L	0.5244 ppb	19:03:50

2	S 181.975 Axial†	105.7	0.8	0.6240 µg/L	0.6240 ppb	19:03:50
2	Sb 206.836†	85.0	4.3	0.5093 µg/L	0.5093 ppb	19:03:50
2	Se 196.026†	19.1	3.9	1.40 µg/L	1.40 ppb	19:03:50
2	SiO2†	1782.4	9.8	0.9335 µg/L	0.9335 ppb	19:03:50
2	Si 251.611†	944.9	109.8	1.6073 µg/L	1.6073 ppb	19:03:30
2	Sn 189.927†	21.6	22.8	1.4197 µg/L	1.4197 ppb	19:03:50
2	Ti 334.940†	960.9	9.8	0.0100 µg/L	0.0100 ppb	19:03:30
2	Tl 190.801†	-107.7	8.8	1.0828 µg/L	1.0828 ppb	19:03:50
2	U 409.014†	-298.4	-28.9	-1.6511 µg/L	-1.6511 ppb	19:03:30
2	V 292.402†	549.1	146.2	0.7161 µg/L	0.7161 ppb	19:03:30
2	Zn 213.857†	814.7	251.5	1.4114 µg/L	1.4114 ppb	19:03:50
3	Sc RADIAL	143637.2	143637.2	98.4 %		19:02:39
3	Al 396.153Radial†	-43.2	19.4	3.5840 µg/L	3.5840 ppb	19:03:00
3	Ca 317.933Radial†	715.6	166.4	9.2706 µg/L	9.2706 ppb	19:03:00
3	Fe 238.204 Radial†	242.5	98.3	6.0580 µg/L	6.0580 ppb	19:03:00
3	K 766.490 Radial†	2256.9	748.2	273.88 µg/L	273.88 ppb	19:02:39
3	Mg 279.077 IEC†	205.1	17.7	6.5824 µg/L	6.5824 ppb	19:03:00
3	Na 589.592 Radial†	2284.1	1029.7	140.43 µg/L	140.43 ppb	19:02:39
3	Sr 421.552†	11.7	147.2	0.3060 µg/L	0.3060 ppb	19:02:39
3	Sc 361.383	1722456.3	1722456.3	100.25 %		19:03:52
3	Y 371.029	1029533.6	1029533.6	100.28 %		19:03:52
3	Ag 328.068†	4007.1	-94.2	-0.3350 µg/L	-0.3350 ppb	19:03:54
3	As 188.979†	-18.8	1.6	0.4750 µg/L	0.4750 ppb	19:04:14
3	B 249.677†	3639.8	125.0	1.8421 µg/L	1.8421 ppb	19:03:54
3	Ba 233.527†	-117.1	19.1	0.0776 µg/L	0.0776 ppb	19:04:14
3	Be 313.107†	-721.4	345.0	0.0939 µg/L	0.0939 ppb	19:03:54
3	Cd 226.502†	-93.0	25.4	0.1581 µg/L	0.1581 ppb	19:04:14
3	Co 228.616†	-173.2	17.6	0.2167 µg/L	0.2167 ppb	19:04:14
3	Cr 267.716†	211.6	32.5	0.2552 µg/L	0.2552 ppb	19:04:14
3	Cu 324.752†	3092.5	112.7	0.4392 µg/L	0.4392 ppb	19:03:54
3	Mn 257.610†	342.1	104.0	0.1284 µg/L	0.1284 ppb	19:04:14
3	Mo 202.031†	-15.6	4.5	0.1336 µg/L	0.1336 ppb	19:04:14
3	Ni 231.604†	-90.2	-13.4	-0.1547 µg/L	-0.1547 ppb	19:04:14
3	P 214.914†	-22.3	-4.2	-0.9047 µg/L	-0.9047 ppb	19:04:14
3	Pb 220.353†	117.3	30.6	1.7079 µg/L	1.7079 ppb	19:04:14
3	S 181.975 Axial†	114.1	8.7	6.4890 µg/L	6.4890 ppb	19:04:14
3	Sb 206.836†	80.1	-1.0	-0.1107 µg/L	-0.1107 ppb	19:04:14
3	Se 196.026†	9.2	-6.1	-2.20 µg/L	-2.20 ppb	19:04:14
3	SiO2†	1811.5	31.7	3.0742 µg/L	3.0742 ppb	19:04:14
3	Si 251.611†	907.7	68.9	1.0043 µg/L	1.0043 ppb	19:03:54
3	Sn 189.927†	22.3	23.4	1.4577 µg/L	1.4577 ppb	19:04:14
3	Ti 334.940†	846.3	-108.3	-0.1015 µg/L	-0.1015 ppb	19:03:54
3	Tl 190.801†	-114.4	2.6	0.3215 µg/L	0.3215 ppb	19:04:14
3	U 409.014†	-270.6	-0.0	0.0667 µg/L	0.0667 ppb	19:03:54
3	V 292.402†	646.7	241.3	1.1790 µg/L	1.1790 ppb	19:03:54
3	Zn 213.857†	803.7	237.3	1.3332 µg/L	1.3332 ppb	19:04:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1716996.5	99.929 %	0.2850			0.29%
Sc RADIAL	143338.8	98.2 %	0.46			0.46%
Y 371.029	1026601.8	99.992 %	0.2533			0.25%
Ag 328.068†	-79.5	-0.2883 µg/L	0.54213	-0.2883 ppb	0.54213	188.07%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	60.2	11.155 µg/L	10.0946	11.155 ppb	10.0946	90.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	4.6	1.3995 µg/L	1.09560	1.3995 ppb	1.09560	78.29%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	154.6	2.2791 µg/L	0.45415	2.2791 ppb	0.45415	19.93%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	27.9	0.1127 µg/L	0.03047	0.1127 ppb	0.03047	27.04%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	274.8	0.0748 µg/L	0.01765	0.0748 ppb	0.01765	23.61%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	251.0	13.984 µg/L	7.7715	13.984 ppb	7.7715	55.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	30.5	0.1893 µg/L	0.10254	0.1893 ppb	0.10254	54.18%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	17.0	0.2090 µg/L	0.02473	0.2090 ppb	0.02473	11.83%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	54.5	0.4277 µg/L	0.16226	0.4277 ppb	0.16226	37.93%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	132.0	0.5144 µg/L	0.15523	0.5144 ppb	0.15523	30.17%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	155.0	9.5549 µg/L	6.13280	9.5549 ppb	6.13280	64.18%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	814.8	298.29 µg/L	21.721	298.29 ppb	21.721	7.28%	
QC value greater than the upper limit for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	28.4	10.585 µg/L	14.5091	10.585 ppb	14.5091	137.07%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	123.4	0.1523 µg/L	0.03051	0.1523 ppb	0.03051	20.04%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	10.3	0.3035 µg/L	0.22930	0.3035 ppb	0.22930	75.54%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	1027.7	140.13 µg/L	8.461	140.13 ppb	8.461	6.04%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-4.3	-0.0490 µg/L	0.13810	-0.0490 ppb	0.13810	281.55%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-6.8	-1.4520 µg/L	0.58130	-1.4520 ppb	0.58130	40.03%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	31.8	1.7745 µg/L	1.28462	1.7745 ppb	1.28462	72.39%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	6.1	4.5397 µg/L	3.39110	4.5397 ppb	3.39110	74.70%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-0.4	-0.0489 µg/L	0.52991	-0.0489 ppb	0.52991	>999.9%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	1.1	0.402 µg/L	2.2740	0.402 ppb	2.2740	564.97%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	26.8	2.5897 µg/L	1.47490	2.5897 ppb	1.47490	56.95%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	167.9	2.4617 µg/L	2.02458	2.4617 ppb	2.02458	82.24%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	23.5	1.4657 µg/L	0.05055	1.4657 ppb	0.05055	3.45%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	115.4	0.2398 µg/L	0.06313	0.2398 ppb	0.06313	26.32%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	20.6	0.0187 µg/L	0.12478	0.0187 ppb	0.12478	667.52%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	7.6	0.9348 µg/L	0.55437	0.9348 ppb	0.55437	59.30%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-3.9	-0.1950 µg/L	1.34448	-0.1950 ppb	1.34448	689.39%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	114.7	0.5635 µg/L	0.70433	0.5635 ppb	0.70433	125.00%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	254.9	1.4310 µg/L	0.10892	1.4310 ppb	0.10892	7.61%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
QC Failed. Continue with analysis.							

=====
Analysis Begun

Start Time: 3/31/2010 19:06:02

Plasma On Time: 3/29/2010 18:07:58

Logged In Analyst: optima4

Technique: ICP Continuous

Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif

Batch ID:

Results Data Set: 033110B

Results Library: C:\pe\optima4\Results\Results.mdb

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Method Loaded

Method Name: Gen Eng fast_new Si

Method Last Saved: 3/31/2010 18:15:19

IEC File: 031810.iec

MSF File:

Method Description:

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

Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/31/2010 19:06:03

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	142053.7	142053.7	97.3 %		19:06:36
1	Al 396.153Radial†	26187.8	26965.5	4976.4 µg/L	4976.4 ppb	19:06:36
1	Ca 317.933Radial†	87895.1	89732.8	4998.5 µg/L	4998.5 ppb	19:06:36
1	Fe 238.204 Radial†	78245.6	80232.5	4945.0 µg/L	4945.0 ppb	19:06:36

1	K 766.490 Radial†	15026.3	13891.5	5081.8 µg/L	5081.8 ppb	19:06:36
1	Mg 279.077 IEC†	13439.2	13615.2	5080.7 µg/L	5080.7 ppb	19:06:36
1	Na 589.592 Radial†	71676.4	72341.3	9878.2 µg/L	9878.2 ppb	19:06:36
1	Sr 421.552†	230855.8	237290.2	493.27 µg/L	493.27 ppb	19:06:34
1	Sc 361.383	1692635.7	1692635.7	98.511 %		19:06:49
1	Y 371.029	1002740.0	1002740.0	97.667 %		19:06:49
1	Ag 328.068†	133490.2	131416.3	492.76 µg/L	492.76 ppb	19:06:49
1	As 188.979†	1592.7	1637.1	502.26 µg/L	502.26 ppb	19:07:09
1	B 249.677†	36019.4	33057.9	485.83 µg/L	485.83 ppb	19:06:49
1	Ba 233.527†	119977.2	121926.4	491.73 µg/L	491.73 ppb	19:06:49
1	Be 313.107†	1788795.8	1816895.8	494.84 µg/L	494.84 ppb	19:06:49
1	Cd 226.502†	77305.4	78591.9	490.61 µg/L	490.61 ppb	19:06:49
1	Co 228.616†	39248.1	40031.6	494.19 µg/L	494.19 ppb	19:06:49
1	Cr 267.716†	61675.1	62428.6	488.81 µg/L	488.81 ppb	19:06:49
1	Cu 324.752†	126554.7	125495.2	489.22 µg/L	489.22 ppb	19:06:49
1	Mn 257.610†	394217.2	399938.0	494.63 µg/L	494.63 ppb	19:06:49
1	Mo 202.031†	16588.6	16859.4	495.93 µg/L	495.93 ppb	19:07:09
1	Ni 231.604†	41959.1	42669.8	491.31 µg/L	491.31 ppb	19:06:49
1	P 214.914†	11467.5	11658.8	2485.2 µg/L	2485.2 ppb	19:07:09
1	Pb 220.353†	8908.4	8956.6	501.56 µg/L	501.56 ppb	19:07:09
1	S 181.975 Axial†	1431.0	1347.6	1004.9 µg/L	1004.9 ppb	19:07:09
1	Sb 206.836†	4198.6	4181.2	498.27 µg/L	498.27 ppb	19:07:09
1	Se 196.026†	1378.4	1384.0	502 µg/L	502 ppb	19:07:09
1	SiO2†	55424.9	54487.2	5304.4 µg/L	5304.4 ppb	19:06:49
1	Si 251.611†	167452.8	169147.1	2483.8 µg/L	2483.8 ppb	19:06:49
1	Sn 189.927†	7877.5	7997.7	500.23 µg/L	500.23 ppb	19:07:09
1	Ti 334.940†	520670.2	527586.9	492.28 µg/L	492.28 ppb	19:06:49
1	Tl 190.801†	3872.9	4048.2	504.78 µg/L	504.78 ppb	19:07:09
1	U 409.014†	7291.5	7671.6	478.40 µg/L	478.40 ppb	19:06:49
1	V 292.402†	98968.4	100060.4	494.68 µg/L	494.68 ppb	19:06:49
1	Zn 213.857†	86928.5	87677.9	488.67 µg/L	488.67 ppb	19:06:49
2	Sc RADIAL	141682.9	141682.9	97.1 %		19:06:40
2	Al 396.153Radial†	26223.0	27072.3	4996.3 µg/L	4996.3 ppb	19:06:40
2	Ca 317.933Radial†	87546.1	89609.7	4991.6 µg/L	4991.6 ppb	19:06:40
2	Fe 238.204 Radial†	78166.5	80361.4	4953.0 µg/L	4953.0 ppb	19:06:40
2	K 766.490 Radial†	14890.1	13791.7	5045.3 µg/L	5045.3 ppb	19:06:40
2	Mg 279.077 IEC†	13407.1	13618.3	5081.7 µg/L	5081.7 ppb	19:06:40
2	Na 589.592 Radial†	71442.4	72293.1	9871.6 µg/L	9871.6 ppb	19:06:40
2	Sr 421.552†	234429.9	241592.0	502.22 µg/L	502.22 ppb	19:06:38
2	Sc 361.383	1693933.2	1693933.2	98.587 %		19:07:12
2	Y 371.029	1002754.3	1002754.3	97.669 %		19:07:12
2	Ag 328.068†	133887.2	131715.3	493.86 µg/L	493.86 ppb	19:07:12
2	As 188.979†	1584.7	1627.8	499.44 µg/L	499.44 ppb	19:07:32
2	B 249.677†	36086.4	33097.9	486.42 µg/L	486.42 ppb	19:07:12
2	Ba 233.527†	120244.1	122103.7	492.44 µg/L	492.44 ppb	19:07:12
2	Be 313.107†	1788194.1	1814894.6	494.30 µg/L	494.30 ppb	19:07:12
2	Cd 226.502†	77647.5	78878.9	492.40 µg/L	492.40 ppb	19:07:12
2	Co 228.616†	39316.5	40070.5	494.67 µg/L	494.67 ppb	19:07:12
2	Cr 267.716†	61922.8	62632.0	490.40 µg/L	490.40 ppb	19:07:12
2	Cu 324.752†	126725.3	125569.8	489.51 µg/L	489.51 ppb	19:07:12
2	Mn 257.610†	394218.9	399633.2	494.25 µg/L	494.25 ppb	19:07:12
2	Mo 202.031†	16463.2	16719.3	491.81 µg/L	491.81 ppb	19:07:32
2	Ni 231.604†	42154.2	42835.0	493.21 µg/L	493.21 ppb	19:07:12
2	P 214.914†	11314.3	11494.4	2450.0 µg/L	2450.0 ppb	19:07:32
2	Pb 220.353†	8825.1	8865.3	496.44 µg/L	496.44 ppb	19:07:32
2	S 181.975 Axial†	1411.2	1326.4	989.11 µg/L	989.11 ppb	19:07:32
2	Sb 206.836†	4167.4	4146.3	494.02 µg/L	494.02 ppb	19:07:32
2	Se 196.026†	1363.3	1367.5	497 µg/L	497 ppb	19:07:32
2	SiO2†	55444.1	54463.6	5302.3 µg/L	5302.3 ppb	19:07:12
2	Si 251.611†	167875.0	169445.1	2488.3 µg/L	2488.3 ppb	19:07:12
2	Sn 189.927†	7786.1	7898.8	494.07 µg/L	494.07 ppb	19:07:32
2	Ti 334.940†	520698.2	527210.5	491.92 µg/L	491.92 ppb	19:07:12
2	Tl 190.801†	3845.2	4017.0	500.93 µg/L	500.93 ppb	19:07:32
2	U 409.014†	7348.6	7723.9	481.39 µg/L	481.39 ppb	19:07:12
2	V 292.402†	98856.0	99869.4	493.71 µg/L	493.71 ppb	19:07:12
2	Zn 213.857†	87044.0	87727.5	488.93 µg/L	488.93 ppb	19:07:12
3	Sc RADIAL	140290.8	140290.8	96.1 %		19:06:44
3	Al 396.153Radial†	26121.4	27234.6	5026.5 µg/L	5026.5 ppb	19:06:44
3	Ca 317.933Radial†	86648.1	89570.3	4989.4 µg/L	4989.4 ppb	19:06:44
3	Fe 238.204 Radial†	77524.7	80492.7	4961.1 µg/L	4961.1 ppb	19:06:44
3	K 766.490 Radial†	14881.5	13934.9	5097.7 µg/L	5097.7 ppb	19:06:44

3	Mg 279.077 IEC†	13262.2	13604.5	5076.6 µg/L	5076.6 ppb	19:06:44
3	Na 589.592 Radial†	70817.9	72373.6	9882.6 µg/L	9882.6 ppb	19:06:44
3	Sr 421.552†	230738.3	240148.1	499.21 µg/L	499.21 ppb	19:06:42
3	Sc 361.383	1701566.9	1701566.9	99.031 %		19:07:35
3	Y 371.029	1007094.6	1007094.6	98.092 %		19:07:35
3	Ag 328.068†	134475.4	131699.9	493.82 µg/L	493.82 ppb	19:07:35
3	As 188.979†	1593.4	1629.4	499.91 µg/L	499.91 ppb	19:07:55
3	B 249.677†	36488.9	33340.1	489.99 µg/L	489.99 ppb	19:07:35
3	Ba 233.527†	120822.0	122140.2	492.59 µg/L	492.59 ppb	19:07:35
3	Be 313.107†	1801771.9	1820467.8	495.82 µg/L	495.82 ppb	19:07:35
3	Cd 226.502†	78139.4	79022.2	493.29 µg/L	493.29 ppb	19:07:35
3	Co 228.616†	39662.8	40241.2	496.77 µg/L	496.77 ppb	19:07:35
3	Cr 267.716†	62197.1	62627.2	490.36 µg/L	490.36 ppb	19:07:35
3	Cu 324.752†	127822.8	126101.4	491.58 µg/L	491.58 ppb	19:07:35
3	Mn 257.610†	397277.8	400928.1	495.85 µg/L	495.85 ppb	19:07:35
3	Mo 202.031†	16490.8	16672.2	490.43 µg/L	490.43 ppb	19:07:55
3	Ni 231.604†	42326.5	42817.2	493.01 µg/L	493.01 ppb	19:07:35
3	P 214.914†	11342.9	11471.9	2445.2 µg/L	2445.2 ppb	19:07:55
3	Pb 220.353†	8843.5	8843.7	495.23 µg/L	495.23 ppb	19:07:55
3	S 181.975 Axial†	1419.8	1328.6	990.72 µg/L	990.72 ppb	19:07:55
3	Sb 206.836†	4178.4	4138.4	493.07 µg/L	493.07 ppb	19:07:55
3	Se 196.026†	1363.2	1361.3	494 µg/L	494 ppb	19:07:55
3	SiO2†	56222.5	54997.3	5354.5 µg/L	5354.5 ppb	19:07:35
3	Si 251.611†	169502.3	170324.4	2501.3 µg/L	2501.3 ppb	19:07:35
3	Sn 189.927†	7808.9	7886.4	493.30 µg/L	493.30 ppb	19:07:55
3	Ti 334.940†	523661.8	527833.6	492.50 µg/L	492.50 ppb	19:07:35
3	Tl 190.801†	3856.9	4011.4	500.25 µg/L	500.25 ppb	19:07:55
3	U 409.014†	7413.7	7756.2	483.37 µg/L	483.37 ppb	19:07:35
3	V 292.402†	99576.3	100146.9	495.05 µg/L	495.05 ppb	19:07:35
3	Zn 213.857†	87808.2	88103.1	491.04 µg/L	491.04 ppb	19:07:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1696045.3	98.710 %	0.2809			0.28%
Sc RADIAL	141342.5	96.9 %	0.64			0.66%
Y 371.029	1004196.3	97.809 %	0.2445			0.25%
Ag 328.068†	131610.5	493.48 µg/L	0.624	493.48 ppb	0.624	0.13%
QC value within limits for Ag 328.068 Recovery = 98.70%						
Al 396.153Radial†	27090.8	4999.7 µg/L	25.24	4999.7 ppb	25.24	0.50%
QC value within limits for Al 396.153Radial Recovery = 99.99%						
As 188.979†	1631.4	500.54 µg/L	1.508	500.54 ppb	1.508	0.30%
QC value within limits for As 188.979 Recovery = 100.11%						
B 249.677†	33165.3	487.41 µg/L	2.247	487.41 ppb	2.247	0.46%
QC value within limits for B 249.677 Recovery = 97.48%						
Ba 233.527†	122056.8	492.25 µg/L	0.460	492.25 ppb	0.460	0.09%
QC value within limits for Ba 233.527 Recovery = 98.45%						
Be 313.107†	1817419.4	494.99 µg/L	0.769	494.99 ppb	0.769	0.16%
QC value within limits for Be 313.107 Recovery = 99.00%						
Ca 317.933Radial†	89637.6	4993.2 µg/L	4.72	4993.2 ppb	4.72	0.09%
QC value within limits for Ca 317.933Radial Recovery = 99.86%						
Cd 226.502†	78831.0	492.10 µg/L	1.368	492.10 ppb	1.368	0.28%
QC value within limits for Cd 226.502 Recovery = 98.42%						
Co 228.616†	40114.4	495.21 µg/L	1.376	495.21 ppb	1.376	0.28%
QC value within limits for Co 228.616 Recovery = 99.04%						
Cr 267.716†	62562.6	489.86 µg/L	0.907	489.86 ppb	0.907	0.19%
QC value within limits for Cr 267.716 Recovery = 97.97%						
Cu 324.752†	125722.1	490.10 µg/L	1.288	490.10 ppb	1.288	0.26%
QC value within limits for Cu 324.752 Recovery = 98.02%						
Fe 238.204 Radial†	80362.2	4953.0 µg/L	8.02	4953.0 ppb	8.02	0.16%
QC value within limits for Fe 238.204 Radial Recovery = 99.06%						
K 766.490 Radial†	13872.7	5074.9 µg/L	26.88	5074.9 ppb	26.88	0.53%
QC value within limits for K 766.490 Radial Recovery = 101.50%						
Mg 279.077 IEC†	13612.7	5079.7 µg/L	2.74	5079.7 ppb	2.74	0.05%
QC value within limits for Mg 279.077 IEC Recovery = 101.59%						
Mn 257.610†	400166.4	494.91 µg/L	0.838	494.91 ppb	0.838	0.17%
QC value within limits for Mn 257.610 Recovery = 98.98%						
Mo 202.031†	16750.3	492.72 µg/L	2.861	492.72 ppb	2.861	0.58%
QC value within limits for Mo 202.031 Recovery = 98.54%						
Na 589.592 Radial†	72336.0	9877.5 µg/L	5.51	9877.5 ppb	5.51	0.06%

QC value within limits for Na 589.592 Radial Recovery = 98.77%							
Ni 231.604†	42774.0	492.51 µg/L	1.044	492.51 ppb	1.044	0.21%	
QC value within limits for Ni 231.604 Recovery = 98.50%							
P 214.914†	11541.7	2460.1 µg/L	21.83	2460.1 ppb	21.83	0.89%	
QC value within limits for P 214.914 Recovery = 98.40%							
Pb 220.353†	8888.5	497.74 µg/L	3.356	497.74 ppb	3.356	0.67%	
QC value within limits for Pb 220.353 Recovery = 99.55%							
S 181.975 Axial†	1334.2	994.90 µg/L	8.662	994.90 ppb	8.662	0.87%	
QC value within limits for S 181.975 Axial Recovery = 99.49%							
Sb 206.836†	4155.3	495.12 µg/L	2.767	495.12 ppb	2.767	0.56%	
QC value within limits for Sb 206.836 Recovery = 99.02%							
Se 196.026†	1370.9	498 µg/L	4.2	498 ppb	4.2	0.85%	
QC value within limits for Se 196.026 Recovery = 99.56%							
SiO2†	54649.4	5320.4 µg/L	29.56	5320.4 ppb	29.56	0.56%	
QC value within limits for SiO2 Recovery = 99.49%							
Si 251.611†	169638.9	2491.1 µg/L	9.08	2491.1 ppb	9.08	0.36%	
QC value within limits for Si 251.611 Recovery = 99.65%							
Sn 189.927†	7927.7	495.87 µg/L	3.802	495.87 ppb	3.802	0.77%	
QC value within limits for Sn 189.927 Recovery = 99.17%							
Sr 421.552†	239676.8	498.23 µg/L	4.551	498.23 ppb	4.551	0.91%	
QC value within limits for Sr 421.552 Recovery = 99.65%							
Ti 334.940†	527543.7	492.23 µg/L	0.293	492.23 ppb	0.293	0.06%	
QC value within limits for Ti 334.940 Recovery = 98.45%							
Tl 190.801†	4025.5	501.99 µg/L	2.440	501.99 ppb	2.440	0.49%	
QC value within limits for Tl 190.801 Recovery = 100.40%							
U 409.014†	7717.2	481.05 µg/L	2.502	481.05 ppb	2.502	0.52%	
QC value within limits for U 409.014 Recovery = 96.21%							
V 292.402†	100025.5	494.48 µg/L	0.691	494.48 ppb	0.691	0.14%	
QC value within limits for V 292.402 Recovery = 98.90%							
Zn 213.857†	87836.2	489.55 µg/L	1.301	489.55 ppb	1.301	0.27%	
QC value within limits for Zn 213.857 Recovery = 97.91%							
All analyte(s) passed QC.							

Sequence No.: 2
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 3/31/2010 19:08:04
 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	143606.3	143606.3	98.4 %		19:08:33
1	Al 396.153Radial†	-40.6	21.9	4.0709 µg/L	4.0709 ppb	19:08:53
1	Ca 317.933Radial†	593.8	42.8	2.3863 µg/L	2.3863 ppb	19:08:53
1	Fe 238.204 Radial†	181.2	36.0	2.2211 µg/L	2.2211 ppb	19:08:53
1	K 766.490 Radial†	1807.5	291.9	106.87 µg/L	106.87 ppb	19:08:33
1	Mg 279.077 IEC†	167.1	-20.9	-7.7799 µg/L	-7.7799 ppb	19:08:53
1	Na 589.592 Radial†	1829.3	568.1	77.508 µg/L	77.508 ppb	19:08:33
1	Sr 421.552†	-159.2	-26.5	-0.0550 µg/L	-0.0550 ppb	19:08:33
1	Sc 361.383	1699498.0	1699498.0	98.911 %		19:09:55
1	Y 371.029	1016806.2	1016806.2	99.037 %		19:09:55
1	Ag 328.068†	3769.0	-280.8	-1.0378 µg/L	-1.0378 ppb	19:09:57
1	As 188.979†	-4.4	15.9	4.8042 µg/L	4.8042 ppb	19:10:17
1	B 249.677†	3588.4	122.0	1.7978 µg/L	1.7978 ppb	19:09:57
1	Ba 233.527†	-115.2	19.4	0.0783 µg/L	0.0783 ppb	19:10:17
1	Be 313.107†	-954.3	99.8	0.0273 µg/L	0.0273 ppb	19:09:57
1	Cd 226.502†	-91.5	25.7	0.1602 µg/L	0.1602 ppb	19:10:17
1	Co 228.616†	-158.7	29.9	0.3690 µg/L	0.3690 ppb	19:10:17
1	Cr 267.716†	173.6	-3.0	-0.0236 µg/L	-0.0236 ppb	19:10:17
1	Cu 324.752†	3195.6	258.6	1.0054 µg/L	1.0054 ppb	19:09:57
1	Mn 257.610†	286.5	52.4	0.0651 µg/L	0.0651 ppb	19:10:17
1	Mo 202.031†	-26.1	-6.3	-0.1854 µg/L	-0.1854 ppb	19:10:17
1	Ni 231.604†	-117.6	-42.4	-0.4885 µg/L	-0.4885 ppb	19:10:17
1	P 214.914†	-30.3	-12.6	-2.7014 µg/L	-2.7014 ppb	19:10:17
1	Pb 220.353†	88.8	3.4	0.1879 µg/L	0.1879 ppb	19:10:17
1	S 181.975 Axial†	97.0	-6.9	-5.1546 µg/L	-5.1546 ppb	19:10:17
1	Sb 206.836†	72.1	-8.0	-0.9474 µg/L	-0.9474 ppb	19:10:17
1	Se 196.026†	15.9	0.8	0.281 µg/L	0.281 ppb	19:10:17
1	SiO2†	1782.8	27.1	2.6348 µg/L	2.6348 ppb	19:09:57
1	Si 251.611†	842.6	15.3	0.2204 µg/L	0.2204 ppb	19:09:57
1	Sn 189.927†	17.4	18.7	1.1657 µg/L	1.1657 ppb	19:10:17
1	Ti 334.940†	982.6	40.9	0.0388 µg/L	0.0388 ppb	19:09:57
1	Tl 190.801†	-115.4	-0.0	-0.0031 µg/L	-0.0031 ppb	19:10:17
1	U 409.014†	-263.1	3.9	0.2381 µg/L	0.2381 ppb	19:09:57
1	V 292.402†	432.1	33.1	0.1592 µg/L	0.1592 ppb	19:09:57
1	Zn 213.857†	662.7	105.6	0.5956 µg/L	0.5956 ppb	19:10:17
2	Sc RADIAL	143906.0	143906.0	98.6 %		19:08:55
2	Al 396.153Radial†	-30.9	31.9	5.9210 µg/L	5.9210 ppb	19:09:15
2	Ca 317.933Radial†	576.5	24.0	1.3374 µg/L	1.3374 ppb	19:09:15
2	Fe 238.204 Radial†	194.8	49.4	3.0451 µg/L	3.0451 ppb	19:09:15
2	K 766.490 Radial†	1821.8	302.6	110.79 µg/L	110.79 ppb	19:08:55
2	Mg 279.077 IEC†	181.6	-6.5	-2.4285 µg/L	-2.4285 ppb	19:09:15
2	Na 589.592 Radial†	1674.8	407.6	55.585 µg/L	55.585 ppb	19:08:55
2	Sr 421.552†	-76.3	57.9	0.1204 µg/L	0.1204 ppb	19:08:55
2	Sc 361.383	1701303.0	1701303.0	99.016 %		19:10:20
2	Y 371.029	1018421.2	1018421.2	99.195 %		19:10:20
2	Ag 328.068†	4174.8	124.9	0.4507 µg/L	0.4507 ppb	19:10:22
2	As 188.979†	-9.4	10.9	3.3020 µg/L	3.3020 ppb	19:10:42
2	B 249.677†	3516.0	45.1	0.6647 µg/L	0.6647 ppb	19:10:22
2	Ba 233.527†	-149.1	-14.7	-0.0595 µg/L	-0.0595 ppb	19:10:42
2	Be 313.107†	-839.9	216.4	0.0569 µg/L	0.0569 ppb	19:10:22
2	Cd 226.502†	-102.1	15.1	0.0939 µg/L	0.0939 ppb	19:10:42
2	Co 228.616†	-188.6	-0.1	-0.0019 µg/L	-0.0019 ppb	19:10:42
2	Cr 267.716†	211.4	34.9	0.2788 µg/L	0.2788 ppb	19:10:42
2	Cu 324.752†	2916.8	-26.4	-0.1080 µg/L	-0.1080 ppb	19:10:22
2	Mn 257.610†	284.4	50.0	0.0619 µg/L	0.0619 ppb	19:10:42
2	Mo 202.031†	-25.0	-5.2	-0.1530 µg/L	-0.1530 ppb	19:10:42
2	Ni 231.604†	-103.9	-28.5	-0.3278 µg/L	-0.3278 ppb	19:10:42
2	P 214.914†	-33.0	-15.3	-3.2711 µg/L	-3.2711 ppb	19:10:42
2	Pb 220.353†	114.7	29.5	1.6503 µg/L	1.6503 ppb	19:10:42

2	S 181.975 Axial†	99.7	-4.4	-3.2387 µg/L	-3.2387 ppb	19:10:42
2	Sb 206.836†	76.2	-3.9	-0.4635 µg/L	-0.4635 ppb	19:10:42
2	Se 196.026†	16.5	1.4	0.491 µg/L	0.491 ppb	19:10:42
2	SiO2†	1763.9	6.1	0.5919 µg/L	0.5919 ppb	19:10:22
2	Si 251.611†	911.5	84.0	1.2359 µg/L	1.2359 ppb	19:10:22
2	Sn 189.927†	8.3	9.5	0.5950 µg/L	0.5950 ppb	19:10:42
2	Ti 334.940†	886.7	-57.0	-0.0503 µg/L	-0.0503 ppb	19:10:22
2	Tl 190.801†	-114.1	1.5	0.1759 µg/L	0.1759 ppb	19:10:42
2	U 409.014†	-383.3	-117.2	-6.8703 µg/L	-6.8703 ppb	19:10:22
2	V 292.402†	344.9	-55.5	-0.2761 µg/L	-0.2761 ppb	19:10:22
2	Zn 213.857†	648.7	90.7	0.5114 µg/L	0.5114 ppb	19:10:42
3	Sc RADIAL	142315.2	142315.2	97.5 %		19:09:17
3	Al 396.153Radial†	-52.2	9.6	1.7667 µg/L	1.7667 ppb	19:09:37
3	Ca 317.933Radial†	577.3	31.3	1.7458 µg/L	1.7458 ppb	19:09:37
3	Fe 238.204 Radial†	193.7	50.5	3.1105 µg/L	3.1105 ppb	19:09:37
3	K 766.490 Radial†	1715.2	213.9	78.318 µg/L	78.318 ppb	19:09:17
3	Mg 279.077 IEC†	194.2	8.4	3.1563 µg/L	3.1563 ppb	19:09:37
3	Na 589.592 Radial†	1682.9	434.8	59.332 µg/L	59.332 ppb	19:09:17
3	Sr 421.552†	-204.0	-73.9	-0.1537 µg/L	-0.1537 ppb	19:09:17
3	Sc 361.383	1707432.2	1707432.2	99.372 %		19:10:44
3	Y 371.029	1021900.0	1021900.0	99.534 %		19:10:44
3	Ag 328.068†	4053.2	-12.6	-0.0528 µg/L	-0.0528 ppb	19:10:46
3	As 188.979†	-2.3	18.1	5.4690 µg/L	5.4690 ppb	19:11:06
3	B 249.677†	3514.8	31.1	0.4591 µg/L	0.4591 ppb	19:10:46
3	Ba 233.527†	-138.9	-3.9	-0.0159 µg/L	-0.0159 ppb	19:11:06
3	Be 313.107†	-1076.7	-18.8	-0.0056 µg/L	-0.0056 ppb	19:10:46
3	Cd 226.502†	-100.3	17.3	0.1074 µg/L	0.1074 ppb	19:11:06
3	Co 228.616†	-200.8	-11.7	-0.1450 µg/L	-0.1450 ppb	19:11:06
3	Cr 267.716†	180.7	3.3	0.0269 µg/L	0.0269 ppb	19:11:06
3	Cu 324.752†	3029.2	76.1	0.2948 µg/L	0.2948 ppb	19:10:46
3	Mn 257.610†	296.9	61.5	0.0760 µg/L	0.0760 ppb	19:11:06
3	Mo 202.031†	-3.7	16.3	0.4802 µg/L	0.4802 ppb	19:11:06
3	Ni 231.604†	-90.5	-14.6	-0.1676 µg/L	-0.1676 ppb	19:11:06
3	P 214.914†	-14.2	3.7	0.7799 µg/L	0.7799 ppb	19:11:06
3	Pb 220.353†	92.0	6.2	0.3485 µg/L	0.3485 ppb	19:11:06
3	S 181.975 Axial†	108.0	3.6	2.6796 µg/L	2.6796 ppb	19:11:06
3	Sb 206.836†	87.9	7.6	0.9107 µg/L	0.9107 ppb	19:11:06
3	Se 196.026†	15.0	-0.2	-0.060 µg/L	-0.060 ppb	19:11:06
3	SiO2†	1735.7	-28.7	-2.8190 µg/L	-2.8190 ppb	19:10:46
3	Si 251.611†	790.1	-41.5	-0.6182 µg/L	-0.6182 ppb	19:10:46
3	Sn 189.927†	-1.2	-0.1	-0.0053 µg/L	-0.0053 ppb	19:11:06
3	Ti 334.940†	766.5	-181.2	-0.1688 µg/L	-0.1688 ppb	19:10:46
3	Tl 190.801†	-101.0	15.0	1.8436 µg/L	1.8436 ppb	19:11:06
3	U 409.014†	-295.6	-27.6	-1.6324 µg/L	-1.6324 ppb	19:10:46
3	V 292.402†	332.8	-68.9	-0.3322 µg/L	-0.3322 ppb	19:10:46
3	Zn 213.857†	625.3	64.8	0.3648 µg/L	0.3648 ppb	19:11:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1702744.4	99.099 %	0.2420			0.24%
Sc RADIAL	143275.8	98.2 %	0.58			0.59%
Y 371.029	1019042.5	99.255 %	0.2535			0.26%
Ag 328.068†	-56.2	-0.2133 µg/L	0.75716	-0.2133 ppb	0.75716	354.96%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	21.2	3.9195 µg/L	2.08128	3.9195 ppb	2.08128	53.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	15.0	4.5251 µg/L	1.11017	4.5251 ppb	1.11017	24.53%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	66.0	0.9738 µg/L	0.72094	0.9738 ppb	0.72094	74.03%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	0.3	0.0009 µg/L	0.07043	0.0009 ppb	0.07043	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	99.2	0.0262 µg/L	0.03124	0.0262 ppb	0.03124	119.39%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	32.7	1.8232 µg/L	0.52869	1.8232 ppb	0.52869	29.00%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	19.4	0.1205 µg/L	0.03504	0.1205 ppb	0.03504	29.08%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	6.0	0.0740 µg/L	0.26530	0.0740 ppb	0.26530	358.50%

Cr	267.716†	11.7	0.0940 µg/L	0.16198	0.0940 ppb	0.16198	172.24%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	102.8	0.3974 µg/L	0.56376	0.3974 ppb	0.56376	141.85%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	45.3	2.7923 µg/L	0.49571	2.7923 ppb	0.49571	17.75%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	269.5	98.660 µg/L	17.7254	98.660 ppb	17.7254	17.97%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-6.3	-2.3507 µg/L	5.46855	-2.3507 ppb	5.46855	232.63%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	54.6	0.0677 µg/L	0.00738	0.0677 ppb	0.00738	10.91%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	1.6	0.0473 µg/L	0.37526	0.0473 ppb	0.37526	793.90%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	470.2	64.142 µg/L	11.7262	64.142 ppb	11.7262	18.28%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	-28.5	-0.3280 µg/L	0.16046	-0.3280 ppb	0.16046	48.93%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-8.1	-1.7309 µg/L	2.19296	-1.7309 ppb	2.19296	126.69%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	13.0	0.7289 µg/L	0.80200	0.7289 ppb	0.80200	110.03%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-2.6	-1.9046 µg/L	4.08395	-1.9046 ppb	4.08395	214.43%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	-1.4	-0.1667 µg/L	0.96394	-0.1667 ppb	0.96394	578.22%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	0.7	0.238 µg/L	0.2782	0.238 ppb	0.2782	117.02%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		1.5	0.1359 µg/L	2.75534	0.1359 ppb	2.75534	>999.9%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	19.3	0.2794 µg/L	0.92845	0.2794 ppb	0.92845	332.33%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	9.4	0.5851 µg/L	0.58554	0.5851 ppb	0.58554	100.07%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-14.1	-0.0294 µg/L	0.13885	-0.0294 ppb	0.13885	471.87%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-65.8	-0.0601 µg/L	0.10414	-0.0601 ppb	0.10414	173.25%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	5.5	0.6721 µg/L	1.01847	0.6721 ppb	1.01847	151.53%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-47.0	-2.7549 µg/L	3.68475	-2.7549 ppb	3.68475	133.75%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-30.4	-0.1497 µg/L	0.26898	-0.1497 ppb	0.26898	179.67%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	87.0	0.4906 µg/L	0.11682	0.4906 ppb	0.11682	23.81%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/31/2010 19:27:41

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	144745.8	144745.8	99.2 %		19:28:15
1	Al 396.153Radial†	26764.4	27046.5	4991.6 µg/L	4991.6 ppb	19:28:15
1	Ca 317.933Radial†	89467.8	89639.1	4993.2 µg/L	4993.2 ppb	19:28:15
1	Fe 238.204 Radial†	79722.2	80226.2	4944.7 µg/L	4944.7 ppb	19:28:15
1	K 766.490 Radial†	14982.5	13560.3	4960.6 µg/L	4960.6 ppb	19:28:15
1	Mg 279.077 IEC†	13759.9	13681.8	5105.4 µg/L	5105.4 ppb	19:28:15
1	Na 589.592 Radial†	72591.2	71894.2	9817.2 µg/L	9817.2 ppb	19:28:15
1	Sr 421.552†	234529.9	236583.6	491.80 µg/L	491.80 ppb	19:28:12
1	Sc 361.383	1725305.4	1725305.4	100.41 %		19:28:27
1	Y 371.029	1020728.0	1020728.0	99.419 %		19:28:27
1	Ag 328.068†	136300.1	131648.8	493.59 µg/L	493.59 ppb	19:28:27
1	As 188.979†	1633.4	1647.0	505.23 µg/L	505.23 ppb	19:28:47
1	B 249.677†	36849.8	33192.5	487.82 µg/L	487.82 ppb	19:28:27
1	Ba 233.527†	122221.5	121855.2	491.44 µg/L	491.44 ppb	19:28:27
1	Be 313.107†	1820741.4	1814326.2	494.14 µg/L	494.14 ppb	19:28:27
1	Cd 226.502†	78844.9	78639.2	490.90 µg/L	490.90 ppb	19:28:27
1	Co 228.616†	39847.3	39874.0	492.24 µg/L	492.24 ppb	19:28:27
1	Cr 267.716†	62843.9	62407.1	488.65 µg/L	488.65 ppb	19:28:27
1	Cu 324.752†	129009.2	125507.0	489.26 µg/L	489.26 ppb	19:28:27
1	Mn 257.610†	401352.4	399466.3	494.04 µg/L	494.04 ppb	19:28:27
1	Mo 202.031†	16754.7	16705.9	491.42 µg/L	491.42 ppb	19:28:47
1	Ni 231.604†	42787.5	42688.2	491.52 µg/L	491.52 ppb	19:28:27
1	P 214.914†	11575.7	11546.1	2461.1 µg/L	2461.1 ppb	19:28:47
1	Pb 220.353†	8987.5	8864.2	496.39 µg/L	496.39 ppb	19:28:47
1	S 181.975 Axial†	1425.3	1314.4	980.21 µg/L	980.21 ppb	19:28:47
1	Sb 206.836†	4236.7	4138.5	493.11 µg/L	493.11 ppb	19:28:47
1	Se 196.026†	1383.3	1362.3	495 µg/L	495 ppb	19:28:47
1	SiO2†	56481.4	54474.0	5303.3 µg/L	5303.3 ppb	19:28:27
1	Si 251.611†	170572.5	169035.2	2482.3 µg/L	2482.3 ppb	19:28:27
1	Sn 189.927†	7932.0	7900.5	494.17 µg/L	494.17 ppb	19:28:47
1	Ti 334.940†	529379.1	526251.8	491.03 µg/L	491.03 ppb	19:28:27
1	Tl 190.801†	3920.2	4020.8	501.40 µg/L	501.40 ppb	19:28:47
1	U 409.014†	7328.3	7568.1	472.22 µg/L	472.22 ppb	19:28:27
1	V 292.402†	100463.2	99646.7	492.61 µg/L	492.61 ppb	19:28:27
1	Zn 213.857†	88617.6	87689.1	488.73 µg/L	488.73 ppb	19:28:27
2	Sc RADIAL	143128.0	143128.0	98.1 %		19:28:19
2	Al 396.153Radial†	26390.4	26970.3	4977.5 µg/L	4977.5 ppb	19:28:19
2	Ca 317.933Radial†	88547.9	89720.6	4997.8 µg/L	4997.8 ppb	19:28:19
2	Fe 238.204 Radial†	78967.6	80365.3	4953.2 µg/L	4953.2 ppb	19:28:19
2	K 766.490 Radial†	14857.2	13603.3	4976.3 µg/L	4976.3 ppb	19:28:19
2	Mg 279.077 IEC†	13593.0	13668.4	5100.4 µg/L	5100.4 ppb	19:28:19
2	Na 589.592 Radial†	71676.1	71788.4	9802.7 µg/L	9802.7 ppb	19:28:19
2	Sr 421.552†	234348.1	239070.9	496.98 µg/L	496.98 ppb	19:28:17
2	Sc 361.383	1734628.6	1734628.6	100.96 %		19:28:51
2	Y 371.029	1025716.4	1025716.4	99.905 %		19:28:51
2	Ag 328.068†	136816.4	131430.6	492.82 µg/L	492.82 ppb	19:28:51
2	As 188.979†	1631.9	1636.9	502.17 µg/L	502.17 ppb	19:29:11
2	B 249.677†	37069.7	33213.1	488.12 µg/L	488.12 ppb	19:28:51
2	Ba 233.527†	122992.1	121964.3	491.88 µg/L	491.88 ppb	19:28:51
2	Be 313.107†	1838526.2	1822196.9	496.29 µg/L	496.29 ppb	19:28:51
2	Cd 226.502†	79892.7	79255.0	494.75 µg/L	494.75 ppb	19:28:51
2	Co 228.616†	40292.1	40101.3	495.05 µg/L	495.05 ppb	19:28:51
2	Cr 267.716†	63389.6	62611.4	490.23 µg/L	490.23 ppb	19:28:51
2	Cu 324.752†	129959.6	125757.9	490.25 µg/L	490.25 ppb	19:28:51
2	Mn 257.610†	404701.1	400635.0	495.49 µg/L	495.49 ppb	19:28:51
2	Mo 202.031†	16826.1	16687.0	490.86 µg/L	490.86 ppb	19:29:11
2	Ni 231.604†	43211.3	42879.0	493.72 µg/L	493.72 ppb	19:28:51
2	P 214.914†	11647.2	11554.9	2462.9 µg/L	2462.9 ppb	19:29:11
2	Pb 220.353†	9025.0	8853.2	495.76 µg/L	495.76 ppb	19:29:11

2	S 181.975 Axial†	1448.9	1330.1	991.87 µg/L	991.87 ppb	19:29:11
2	Sb 206.836†	4260.0	4138.9	493.13 µg/L	493.13 ppb	19:29:11
2	Se 196.026†	1384.1	1355.7	492 µg/L	492 ppb	19:29:11
2	SiO2†	56922.3	54608.4	5316.4 µg/L	5316.4 ppb	19:28:51
2	Si 251.611†	172250.5	169784.3	2493.3 µg/L	2493.3 ppb	19:28:51
2	Sn 189.927†	7982.8	7908.4	494.67 µg/L	494.67 ppb	19:29:11
2	Ti 334.940†	533116.5	527120.2	491.83 µg/L	491.83 ppb	19:28:51
2	Tl 190.801†	3941.1	4020.5	501.37 µg/L	501.37 ppb	19:29:11
2	U 409.014†	7625.6	7823.4	487.25 µg/L	487.25 ppb	19:28:51
2	V 292.402†	101346.4	99983.8	494.26 µg/L	494.26 ppb	19:28:51
2	Zn 213.857†	89423.9	88013.5	490.54 µg/L	490.54 ppb	19:28:51
3	Sc RADIAL	145496.7	145496.7	99.7 %		19:28:23
3	Al 396.153Radial†	26858.9	27002.0	4983.3 µg/L	4983.3 ppb	19:28:23
3	Ca 317.933Radial†	90156.6	89864.4	5005.8 µg/L	5005.8 ppb	19:28:23
3	Fe 238.204 Radial†	80315.1	80406.1	4955.7 µg/L	4955.7 ppb	19:28:23
3	K 766.490 Radial†	15083.0	13583.2	4968.9 µg/L	4968.9 ppb	19:28:23
3	Mg 279.077 IEC†	13878.0	13728.6	5122.9 µg/L	5122.9 ppb	19:28:23
3	Na 589.592 Radial†	72879.8	71805.9	9805.1 µg/L	9805.1 ppb	19:28:23
3	Sr 421.552†	234221.7	235054.0	488.62 µg/L	488.62 ppb	19:28:21
3	Sc 361.383	1725210.5	1725210.5	100.41 %		19:29:14
3	Y 371.029	1019973.4	1019973.4	99.346 %		19:29:14
3	Ag 328.068†	135997.1	131354.5	492.51 µg/L	492.51 ppb	19:29:14
3	As 188.979†	1616.1	1629.9	500.07 µg/L	500.07 ppb	19:29:34
3	B 249.677†	36719.7	33065.0	485.94 µg/L	485.94 ppb	19:29:14
3	Ba 233.527†	122082.7	121723.7	490.91 µg/L	490.91 ppb	19:29:14
3	Be 313.107†	1823924.9	1817596.6	495.03 µg/L	495.03 ppb	19:29:14
3	Cd 226.502†	79138.6	78936.0	492.75 µg/L	492.75 ppb	19:29:14
3	Co 228.616†	39917.6	39946.1	493.13 µg/L	493.13 ppb	19:29:14
3	Cr 267.716†	63023.3	62589.2	490.08 µg/L	490.08 ppb	19:29:14
3	Cu 324.752†	129255.3	125759.2	490.24 µg/L	490.24 ppb	19:29:14
3	Mn 257.610†	401870.3	400004.1	494.71 µg/L	494.71 ppb	19:29:14
3	Mo 202.031†	16781.3	16733.4	492.23 µg/L	492.23 ppb	19:29:34
3	Ni 231.604†	42953.4	42855.8	493.45 µg/L	493.45 ppb	19:29:14
3	P 214.914†	11608.1	11579.0	2468.1 µg/L	2468.1 ppb	19:29:34
3	Pb 220.353†	9009.0	8886.1	497.61 µg/L	497.61 ppb	19:29:34
3	S 181.975 Axial†	1440.9	1330.0	991.78 µg/L	991.78 ppb	19:29:34
3	Sb 206.836†	4230.2	4132.2	492.36 µg/L	492.36 ppb	19:29:34
3	Se 196.026†	1386.3	1365.4	496 µg/L	496 ppb	19:29:34
3	SiO2†	56734.1	54728.8	5328.1 µg/L	5328.1 ppb	19:29:14
3	Si 251.611†	171053.5	169523.6	2489.4 µg/L	2489.4 ppb	19:29:14
3	Sn 189.927†	7957.3	7926.1	495.77 µg/L	495.77 ppb	19:29:34
3	Ti 334.940†	529976.9	526876.1	491.61 µg/L	491.61 ppb	19:29:14
3	Tl 190.801†	3905.9	4006.8	499.68 µg/L	499.68 ppb	19:29:34
3	U 409.014†	7243.0	7483.6	467.35 µg/L	467.35 ppb	19:29:14
3	V 292.402†	100691.8	99879.9	493.76 µg/L	493.76 ppb	19:29:14
3	Zn 213.857†	88689.8	87765.9	489.15 µg/L	489.15 ppb	19:29:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1728381.5	100.59 %	0.315			0.31%
Sc RADIAL	144456.8	99.0 %	0.83			0.84%
Y 371.029	1022139.3	99.557 %	0.3040			0.31%
Ag 328.068†	131478.0	492.97 µg/L	0.557	492.97 ppb	0.557	0.11%
QC value within limits for Ag 328.068 Recovery = 98.59%						
Al 396.153Radial†	27006.3	4984.1 µg/L	7.09	4984.1 ppb	7.09	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.68%						
As 188.979†	1637.9	502.49 µg/L	2.596	502.49 ppb	2.596	0.52%
QC value within limits for As 188.979 Recovery = 100.50%						
B 249.677†	33156.9	487.29 µg/L	1.181	487.29 ppb	1.181	0.24%
QC value within limits for B 249.677 Recovery = 97.46%						
Ba 233.527†	121847.7	491.41 µg/L	0.486	491.41 ppb	0.486	0.10%
QC value within limits for Ba 233.527 Recovery = 98.28%						
Be 313.107†	1818039.9	495.15 µg/L	1.079	495.15 ppb	1.079	0.22%
QC value within limits for Be 313.107 Recovery = 99.03%						
Ca 317.933Radial†	89741.4	4998.9 µg/L	6.35	4998.9 ppb	6.35	0.13%
QC value within limits for Ca 317.933Radial Recovery = 99.98%						
Cd 226.502†	78943.4	492.80 µg/L	1.924	492.80 ppb	1.924	0.39%
QC value within limits for Cd 226.502 Recovery = 98.56%						
Co 228.616†	39973.8	493.47 µg/L	1.433	493.47 ppb	1.433	0.29%

QC value within limits for Co 228.616 Recovery = 98.69%							
Cr 267.716†	62535.9	489.65 µg/L	0.875	489.65 ppb	0.875	0.18%	
QC value within limits for Cr 267.716 Recovery = 97.93%							
Cu 324.752†	125674.7	489.91 µg/L	0.568	489.91 ppb	0.568	0.12%	
QC value within limits for Cu 324.752 Recovery = 97.98%							
Fe 238.204 Radial†	80332.5	4951.2 µg/L	5.81	4951.2 ppb	5.81	0.12%	
QC value within limits for Fe 238.204 Radial Recovery = 99.02%							
K 766.490 Radial†	13582.3	4968.6 µg/L	7.88	4968.6 ppb	7.88	0.16%	
QC value within limits for K 766.490 Radial Recovery = 99.37%							
Mg 279.077 IEC†	13692.9	5109.5 µg/L	11.80	5109.5 ppb	11.80	0.23%	
QC value within limits for Mg 279.077 IEC Recovery = 102.19%							
Mn 257.610†	400035.1	494.75 µg/L	0.724	494.75 ppb	0.724	0.15%	
QC value within limits for Mn 257.610 Recovery = 98.95%							
Mo 202.031†	16708.8	491.50 µg/L	0.686	491.50 ppb	0.686	0.14%	
QC value within limits for Mo 202.031 Recovery = 98.30%							
Na 589.592 Radial†	71829.5	9808.4 µg/L	7.75	9808.4 ppb	7.75	0.08%	
QC value within limits for Na 589.592 Radial Recovery = 98.08%							
Ni 231.604†	42807.7	492.90 µg/L	1.199	492.90 ppb	1.199	0.24%	
QC value within limits for Ni 231.604 Recovery = 98.58%							
P 214.914†	11560.0	2464.0 µg/L	3.63	2464.0 ppb	3.63	0.15%	
QC value within limits for P 214.914 Recovery = 98.56%							
Pb 220.353†	8867.8	496.59 µg/L	0.942	496.59 ppb	0.942	0.19%	
QC value within limits for Pb 220.353 Recovery = 99.32%							
S 181.975 Axial†	1324.9	987.95 µg/L	6.702	987.95 ppb	6.702	0.68%	
QC value within limits for S 181.975 Axial Recovery = 98.80%							
Sb 206.836†	4136.5	492.87 µg/L	0.436	492.87 ppb	0.436	0.09%	
QC value within limits for Sb 206.836 Recovery = 98.57%							
Se 196.026†	1361.2	494 µg/L	1.8	494 ppb	1.8	0.36%	
QC value within limits for Se 196.026 Recovery = 98.85%							
SiO2†	54603.7	5315.9 µg/L	12.44	5315.9 ppb	12.44	0.23%	
QC value within limits for SiO2 Recovery = 99.41%							
Si 251.611†	169447.7	2488.3 µg/L	5.61	2488.3 ppb	5.61	0.23%	
QC value within limits for Si 251.611 Recovery = 99.53%							
Sn 189.927†	7911.7	494.87 µg/L	0.819	494.87 ppb	0.819	0.17%	
QC value within limits for Sn 189.927 Recovery = 98.97%							
Sr 421.552†	236902.8	492.47 µg/L	4.215	492.47 ppb	4.215	0.86%	
QC value within limits for Sr 421.552 Recovery = 98.49%							
Ti 334.940†	526749.4	491.49 µg/L	0.416	491.49 ppb	0.416	0.08%	
QC value within limits for Ti 334.940 Recovery = 98.30%							
Tl 190.801†	4016.0	500.82 µg/L	0.981	500.82 ppb	0.981	0.20%	
QC value within limits for Tl 190.801 Recovery = 100.16%							
U 409.014†	7625.0	475.61 µg/L	10.374	475.61 ppb	10.374	2.18%	
QC value within limits for U 409.014 Recovery = 95.12%							
V 292.402†	99836.8	493.54 µg/L	0.847	493.54 ppb	0.847	0.17%	
QC value within limits for V 292.402 Recovery = 98.71%							
Zn 213.857†	87822.9	489.47 µg/L	0.946	489.47 ppb	0.946	0.19%	
QC value within limits for Zn 213.857 Recovery = 97.89%							

All analyte(s) passed QC.

Sequence No.: 10

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/31/2010 19:29:42

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	145475.6	145475.6	99.7 %		19:30:11
1	Al 396.153Radial†	-75.1	-12.2	-2.2232 µg/L	-2.2232 ppb	19:30:31
1	Ca 317.933Radial†	587.7	29.0	1.6154 µg/L	1.6154 ppb	19:30:31
1	Fe 238.204 Radial†	164.7	17.2	1.0571 µg/L	1.0571 ppb	19:30:31
1	K 766.490 Radial†	1612.2	72.5	26.524 µg/L	26.524 ppb	19:30:11
1	Mg 279.077 IEC†	187.3	-2.8	-1.0689 µg/L	-1.0689 ppb	19:30:31
1	Na 589.592 Radial†	1489.8	203.6	27.794 µg/L	27.794 ppb	19:30:11
1	Sr 421.552†	-307.3	-173.0	-0.3597 µg/L	-0.3597 ppb	19:30:11
1	Sc 361.383	1698492.9	1698492.9	98.852 %		19:31:33
1	Y 371.029	1016683.6	1016683.6	99.025 %		19:31:33
1	Ag 328.068†	3801.1	-246.1	-0.8975 µg/L	-0.8975 ppb	19:31:35
1	As 188.979†	-17.7	2.5	0.7531 µg/L	0.7531 ppb	19:31:55
1	B 249.677†	3427.3	-38.8	-0.5719 µg/L	-0.5719 ppb	19:31:35
1	Ba 233.527†	-135.5	-1.2	-0.0047 µg/L	-0.0047 ppb	19:31:55
1	Be 313.107†	-787.7	267.8	0.0745 µg/L	0.0745 ppb	19:31:35
1	Cd 226.502†	-126.1	-9.3	-0.0586 µg/L	-0.0586 ppb	19:31:55
1	Co 228.616†	-187.3	0.8	0.0098 µg/L	0.0098 ppb	19:31:55
1	Cr 267.716†	185.7	9.3	0.0694 µg/L	0.0694 ppb	19:31:55
1	Cu 324.752†	2920.3	-18.0	-0.0655 µg/L	-0.0655 ppb	19:31:35
1	Mn 257.610†	272.9	38.8	0.0481 µg/L	0.0481 ppb	19:31:55
1	Mo 202.031†	-42.5	-22.9	-0.6735 µg/L	-0.6735 ppb	19:31:55
1	Ni 231.604†	-89.8	-14.3	-0.1646 µg/L	-0.1646 ppb	19:31:55
1	P 214.914†	-7.3	10.6	2.2741 µg/L	2.2741 ppb	19:31:55
1	Pb 220.353†	105.5	20.3	1.1296 µg/L	1.1296 ppb	19:31:55
1	S 181.975 Axial†	107.5	3.7	2.7631 µg/L	2.7631 ppb	19:31:55
1	Sb 206.836†	82.4	2.5	0.2868 µg/L	0.2868 ppb	19:31:55
1	Se 196.026†	15.9	0.8	0.284 µg/L	0.284 ppb	19:31:55
1	SiO2†	1750.8	-4.2	-0.4021 µg/L	-0.4021 ppb	19:31:55
1	Si 251.611†	831.1	4.2	0.0667 µg/L	0.0667 ppb	19:31:35
1	Sn 189.927†	9.7	11.0	0.6833 µg/L	0.6833 ppb	19:31:55
1	Ti 334.940†	1069.9	129.8	0.1193 µg/L	0.1193 ppb	19:31:35
1	Tl 190.801†	-107.7	7.8	0.9584 µg/L	0.9584 ppb	19:31:55
1	U 409.014†	-179.0	88.9	5.2323 µg/L	5.2323 ppb	19:31:35
1	V 292.402†	528.0	130.3	0.6323 µg/L	0.6323 ppb	19:31:35
1	Zn 213.857†	590.7	33.1	0.1869 µg/L	0.1869 ppb	19:31:55
2	Sc RADIAL	144319.0	144319.0	98.9 %		19:30:33
2	Al 396.153Radial†	-78.7	-16.4	-3.0556 µg/L	-3.0556 ppb	19:30:53
2	Ca 317.933Radial†	611.2	57.5	3.2020 µg/L	3.2020 ppb	19:30:53
2	Fe 238.204 Radial†	171.3	25.1	1.5453 µg/L	1.5453 ppb	19:30:53
2	K 766.490 Radial†	1571.9	44.7	16.347 µg/L	16.347 ppb	19:30:33
2	Mg 279.077 IEC†	180.9	-7.8	-2.8873 µg/L	-2.8873 ppb	19:30:53
2	Na 589.592 Radial†	1390.8	115.6	15.771 µg/L	15.771 ppb	19:30:33
2	Sr 421.552†	-219.7	-86.8	-0.1805 µg/L	-0.1805 ppb	19:30:33
2	Sc 361.383	1734133.7	1734133.7	100.93 %		19:31:58
2	Y 371.029	1037702.6	1037702.6	101.07 %		19:31:58
2	Ag 328.068†	3823.7	-302.8	-1.1204 µg/L	-1.1204 ppb	19:32:00
2	As 188.979†	-14.9	5.6	1.6918 µg/L	1.6918 ppb	19:32:20
2	B 249.677†	3536.1	-2.3	-0.0340 µg/L	-0.0340 ppb	19:32:00
2	Ba 233.527†	-136.5	0.6	0.0024 µg/L	0.0024 ppb	19:32:20
2	Be 313.107†	-795.6	276.4	0.0756 µg/L	0.0756 ppb	19:32:00
2	Cd 226.502†	-86.6	32.4	0.2024 µg/L	0.2024 ppb	19:32:20
2	Co 228.616†	-173.2	18.7	0.2305 µg/L	0.2305 ppb	19:32:20
2	Cr 267.716†	178.6	-1.6	-0.0131 µg/L	-0.0131 ppb	19:32:20
2	Cu 324.752†	2720.4	-276.8	-1.0746 µg/L	-1.0746 ppb	19:32:00
2	Mn 257.610†	233.8	-5.6	-0.0068 µg/L	-0.0068 ppb	19:32:20
2	Mo 202.031†	-11.0	9.2	0.2711 µg/L	0.2711 ppb	19:32:20
2	Ni 231.604†	-67.5	9.6	0.1106 µg/L	0.1106 ppb	19:32:20
2	P 214.914†	-23.6	-5.5	-1.1584 µg/L	-1.1584 ppb	19:32:20
2	Pb 220.353†	95.4	8.1	0.4532 µg/L	0.4532 ppb	19:32:20

2	S 181.975 Axial†	102.0	-4.0	-2.9595 µg/L	-2.9595 ppb	19:32:20
2	Sb 206.836†	80.5	-1.1	-0.1231 µg/L	-0.1231 ppb	19:32:20
2	Se 196.026†	11.1	-4.2	-1.53 µg/L	-1.53 ppb	19:32:20
2	SiO2†	1780.0	-11.7	-1.1573 µg/L	-1.1573 ppb	19:32:20
2	Si 251.611†	833.5	-10.8	-0.1648 µg/L	-0.1648 ppb	19:32:00
2	Sn 189.927†	4.9	6.0	0.3748 µg/L	0.3748 ppb	19:32:20
2	Ti 334.940†	959.8	-1.5	-0.0015 µg/L	-0.0015 ppb	19:32:00
2	Tl 190.801†	-121.4	-3.6	-0.4439 µg/L	-0.4439 ppb	19:32:20
2	U 409.014†	-253.2	19.1	1.1109 µg/L	1.1109 ppb	19:32:00
2	V 292.402†	396.6	-10.8	-0.0495 µg/L	-0.0495 ppb	19:32:00
2	Zn 213.857†	608.7	38.7	0.2171 µg/L	0.2171 ppb	19:32:20
3	Sc RADIAL	143412.5	143412.5	98.3 %		19:30:55
3	Al 396.153Radial†	-61.2	0.9	0.1676 µg/L	0.1676 ppb	19:31:15
3	Ca 317.933Radial†	592.5	42.3	2.3561 µg/L	2.3561 ppb	19:31:15
3	Fe 238.204 Radial†	168.4	23.2	1.4324 µg/L	1.4324 ppb	19:31:15
3	K 766.490 Radial†	1616.9	100.5	36.805 µg/L	36.805 ppb	19:30:55
3	Mg 279.077 IEC†	171.0	-16.7	-6.2040 µg/L	-6.2040 ppb	19:31:15
3	Na 589.592 Radial†	1303.8	35.9	4.8761 µg/L	4.8761 ppb	19:30:55
3	Sr 421.552†	-236.1	-105.0	-0.2183 µg/L	-0.2183 ppb	19:30:55
3	Sc 361.383	1715805.0	1715805.0	99.860 %		19:32:22
3	Y 371.029	1026242.1	1026242.1	99.956 %		19:32:22
3	Ag 328.068†	4010.0	-75.8	-0.2851 µg/L	-0.2851 ppb	19:32:24
3	As 188.979†	-13.5	6.8	2.0688 µg/L	2.0688 ppb	19:32:44
3	B 249.677†	3513.5	12.5	0.1850 µg/L	0.1850 ppb	19:32:24
3	Ba 233.527†	-128.9	6.8	0.0274 µg/L	0.0274 ppb	19:32:44
3	Be 313.107†	-697.9	365.9	0.0986 µg/L	0.0986 ppb	19:32:24
3	Cd 226.502†	-106.1	12.0	0.0747 µg/L	0.0747 ppb	19:32:44
3	Co 228.616†	-189.4	0.6	0.0078 µg/L	0.0078 ppb	19:32:44
3	Cr 267.716†	196.4	18.1	0.1446 µg/L	0.1446 ppb	19:32:44
3	Cu 324.752†	2902.2	-65.9	-0.2591 µg/L	-0.2591 ppb	19:32:24
3	Mn 257.610†	273.8	36.9	0.0459 µg/L	0.0459 ppb	19:32:44
3	Mo 202.031†	-16.2	3.9	0.1137 µg/L	0.1137 ppb	19:32:44
3	Ni 231.604†	-88.7	-12.3	-0.1412 µg/L	-0.1412 ppb	19:32:44
3	P 214.914†	-24.0	-6.1	-1.2988 µg/L	-1.2988 ppb	19:32:44
3	Pb 220.353†	103.9	17.7	0.9897 µg/L	0.9897 ppb	19:32:44
3	S 181.975 Axial†	107.4	2.5	1.8491 µg/L	1.8491 ppb	19:32:44
3	Sb 206.836†	83.4	2.7	0.3244 µg/L	0.3244 ppb	19:32:44
3	Se 196.026†	19.7	4.5	1.61 µg/L	1.61 ppb	19:32:44
3	SiO2†	1808.2	35.4	3.4538 µg/L	3.4538 ppb	19:32:44
3	Si 251.611†	977.1	141.9	2.0894 µg/L	2.0894 ppb	19:32:24
3	Sn 189.927†	2.2	3.3	0.2061 µg/L	0.2061 ppb	19:32:44
3	Ti 334.940†	999.8	48.7	0.0474 µg/L	0.0474 ppb	19:32:24
3	Tl 190.801†	-111.5	5.0	0.6198 µg/L	0.6198 ppb	19:32:44
3	U 409.014†	-328.9	-59.4	-3.4761 µg/L	-3.4761 ppb	19:32:24
3	V 292.402†	400.2	-3.0	-0.0153 µg/L	-0.0153 ppb	19:32:24
3	Zn 213.857†	599.5	35.9	0.2028 µg/L	0.2028 ppb	19:32:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1716143.9	99.879 %	1.0373			1.04%
Sc RADIAL	144402.4	99.0 %	0.71			0.72%
Y 371.029	1026876.1	100.02 %	1.025			1.02%
Ag 328.068†	-208.2	-0.7677 µg/L	0.43252	-0.7677 ppb	0.43252	56.34%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-9.2	-1.7037 µg/L	1.67317	-1.7037 ppb	1.67317	98.21%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	5.0	1.5046 µg/L	0.67750	1.5046 ppb	0.67750	45.03%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-9.5	-0.1403 µg/L	0.38951	-0.1403 ppb	0.38951	277.57%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	2.1	0.0084 µg/L	0.01681	0.0084 ppb	0.01681	200.54%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	303.4	0.0829 µg/L	0.01359	0.0829 ppb	0.01359	16.40%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	42.9	2.3912 µg/L	0.79388	2.3912 ppb	0.79388	33.20%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	11.7	0.0728 µg/L	0.13050	0.0728 ppb	0.13050	179.15%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	6.7	0.0827 µg/L	0.12800	0.0827 ppb	0.12800	154.81%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	8.6	0.0669 µg/L	0.07889	0.0669 ppb	0.07889	117.87%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-120.3	-0.4664 µg/L	0.53553	-0.4664 ppb	0.53553	114.82%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	21.8	1.3449 µg/L	0.25554	1.3449 ppb	0.25554	19.00%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	72.5	26.559 µg/L	10.2293	26.559 ppb	10.2293	38.52%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-9.1	-3.3867 µg/L	2.60377	-3.3867 ppb	2.60377	76.88%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	23.4	0.0291 µg/L	0.03107	0.0291 ppb	0.03107	106.92%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-3.3	-0.0962 µg/L	0.50606	-0.0962 ppb	0.50606	525.95%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	118.4	16.147 µg/L	11.4636	16.147 ppb	11.4636	70.99%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-5.7	-0.0651 µg/L	0.15260	-0.0651 ppb	0.15260	234.56%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-0.3	-0.0611 µg/L	2.02349	-0.0611 ppb	2.02349	>999.9%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	15.4	0.8575 µg/L	0.35710	0.8575 ppb	0.35710	41.64%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	0.7	0.5509 µg/L	3.07426	0.5509 ppb	3.07426	558.02%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	1.4	0.1627 µg/L	0.24819	0.1627 ppb	0.24819	152.55%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	0.3	0.122 µg/L	1.5761	0.122 ppb	1.5761	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	6.5	0.6315 µg/L	2.47323	0.6315 ppb	2.47323	391.67%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	45.1	0.6638 µg/L	1.24006	0.6638 ppb	1.24006	186.82%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	6.8	0.4214 µg/L	0.24200	0.4214 ppb	0.24200	57.43%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-121.6	-0.2528 µg/L	0.09445	-0.2528 ppb	0.09445	37.35%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	59.0	0.0550 µg/L	0.06076	0.0550 ppb	0.06076	110.38%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	3.1	0.3781 µg/L	0.73174	0.3781 ppb	0.73174	193.54%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	16.2	0.9557 µg/L	4.35630	0.9557 ppb	4.35630	455.82%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	38.8	0.1892 µg/L	0.38415	0.1892 ppb	0.38415	203.07%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	35.9	0.2023 µg/L	0.01507	0.2023 ppb	0.01507	7.45%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 16

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/31/2010 19:48:07

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	142074.6	142074.6	97.4 %		19:48:41
1	Al 396.153Radial†	26307.3	27084.3	4998.9 µg/L	4998.9 ppb	19:48:41
1	Ca 317.933Radial†	86883.3	88680.2	4939.8 µg/L	4939.8 ppb	19:48:41
1	Fe 238.204 Radial†	77361.0	79312.1	4888.3 µg/L	4888.3 ppb	19:48:41
1	K 766.490 Radial†	14600.0	13451.4	4920.7 µg/L	4920.7 ppb	19:48:41
1	Mg 279.077 IEC†	13319.4	13490.1	5033.8 µg/L	5033.8 ppb	19:48:41
1	Na 589.592 Radial†	70751.2	71380.2	9747.0 µg/L	9747.0 ppb	19:48:41
1	Sr 421.552†	226373.4	232651.3	483.63 µg/L	483.63 ppb	19:48:39
1	Sc 361.383	1707292.7	1707292.7	99.364 %		19:48:54
1	Y 371.029	1010159.7	1010159.7	98.390 %		19:48:54
1	Ag 328.068†	133110.0	129870.3	486.98 µg/L	486.98 ppb	19:48:54
1	As 188.979†	1576.3	1606.7	492.97 µg/L	492.97 ppb	19:49:14
1	B 249.677†	35756.1	32479.0	477.32 µg/L	477.32 ppb	19:48:54
1	Ba 233.527†	119643.5	120545.0	486.15 µg/L	486.15 ppb	19:48:54
1	Be 313.107†	1782114.7	1794583.1	488.77 µg/L	488.77 ppb	19:48:54
1	Cd 226.502†	76871.1	77481.2	483.67 µg/L	483.67 ppb	19:48:54
1	Co 228.616†	39104.8	39545.3	488.18 µg/L	488.18 ppb	19:48:54
1	Cr 267.716†	61488.3	61703.2	483.11 µg/L	483.11 ppb	19:48:54
1	Cu 324.752†	126677.7	124516.1	485.41 µg/L	485.41 ppb	19:48:54
1	Mn 257.610†	392328.2	394601.4	488.03 µg/L	488.03 ppb	19:48:54
1	Mo 202.031†	16345.9	16470.5	484.49 µg/L	484.49 ppb	19:49:14
1	Ni 231.604†	41875.3	42219.8	486.13 µg/L	486.13 ppb	19:48:54
1	P 214.914†	11193.1	11282.7	2404.8 µg/L	2404.8 ppb	19:49:14
1	Pb 220.353†	8730.4	8699.9	487.18 µg/L	487.18 ppb	19:49:14
1	S 181.975 Axial†	1383.4	1287.2	959.96 µg/L	959.96 ppb	19:49:14
1	Sb 206.836†	4107.0	4052.4	482.84 µg/L	482.84 ppb	19:49:14
1	Se 196.026†	1342.1	1335.4	485 µg/L	485 ppb	19:49:14
1	SiO2†	55335.6	53914.4	5248.9 µg/L	5248.9 ppb	19:48:54
1	Si 251.611†	167076.9	167309.4	2457.0 µg/L	2457.0 ppb	19:48:54
1	Sn 189.927†	7693.0	7743.4	484.36 µg/L	484.36 ppb	19:49:14
1	Ti 334.940†	519233.7	521603.7	486.68 µg/L	486.68 ppb	19:48:54
1	Tl 190.801†	3814.7	3955.8	493.34 µg/L	493.34 ppb	19:49:14
1	U 409.014†	7610.9	7929.5	493.08 µg/L	493.08 ppb	19:48:54
1	V 292.402†	98525.0	98751.7	488.17 µg/L	488.17 ppb	19:48:54
1	Zn 213.857†	86407.4	86395.9	481.51 µg/L	481.51 ppb	19:48:54
2	Sc RADIAL	141314.4	141314.4	96.8 %		19:48:45
2	Al 396.153Radial†	26070.1	26984.8	4980.3 µg/L	4980.3 ppb	19:48:45
2	Ca 317.933Radial†	86198.1	88452.8	4927.2 µg/L	4927.2 ppb	19:48:45
2	Fe 238.204 Radial†	76905.6	79269.3	4885.7 µg/L	4885.7 ppb	19:48:45
2	K 766.490 Radial†	14469.9	13397.8	4901.1 µg/L	4901.1 ppb	19:48:45
2	Mg 279.077 IEC†	13056.5	13292.2	4960.2 µg/L	4960.2 ppb	19:48:45
2	Na 589.592 Radial†	70248.5	71252.1	9729.5 µg/L	9729.5 ppb	19:48:45
2	Sr 421.552†	230623.8	238291.3	495.36 µg/L	495.36 ppb	19:48:43
2	Sc 361.383	1705432.9	1705432.9	99.256 %		19:49:17
2	Y 371.029	1009468.8	1009468.8	98.323 %		19:49:17
2	Ag 328.068†	133787.0	130698.5	490.05 µg/L	490.05 ppb	19:49:17
2	As 188.979†	1570.4	1602.5	491.73 µg/L	491.73 ppb	19:49:37
2	B 249.677†	35970.0	32733.8	481.06 µg/L	481.06 ppb	19:49:17
2	Ba 233.527†	120220.9	121258.0	489.03 µg/L	489.03 ppb	19:49:17
2	Be 313.107†	1787251.2	1801714.0	490.71 µg/L	490.71 ppb	19:49:17
2	Cd 226.502†	77339.1	78037.0	487.14 µg/L	487.14 ppb	19:49:17
2	Co 228.616†	39270.6	39755.3	490.78 µg/L	490.78 ppb	19:49:17
2	Cr 267.716†	61757.1	62041.5	485.78 µg/L	485.78 ppb	19:49:17
2	Cu 324.752†	126820.0	124798.5	486.50 µg/L	486.50 ppb	19:49:17
2	Mn 257.610†	394508.1	397228.3	491.28 µg/L	491.28 ppb	19:49:17
2	Mo 202.031†	16426.8	16570.0	487.42 µg/L	487.42 ppb	19:49:37
2	Ni 231.604†	41982.9	42374.1	487.91 µg/L	487.91 ppb	19:49:17
2	P 214.914†	11261.9	11364.3	2422.2 µg/L	2422.2 ppb	19:49:37
2	Pb 220.353†	8823.1	8802.9	492.95 µg/L	492.95 ppb	19:49:37

2	S 181.975 Axial†	1396.0	1301.4	970.49 µg/L	970.49 ppb	19:49:37
2	Sb 206.836†	4148.9	4099.2	488.41 µg/L	488.41 ppb	19:49:37
2	Se 196.026†	1355.8	1350.7	490 µg/L	490 ppb	19:49:37
2	SiO2†	55442.9	54083.1	5265.3 µg/L	5265.3 ppb	19:49:17
2	Si 251.611†	167481.5	167900.5	2465.6 µg/L	2465.6 ppb	19:49:17
2	Sn 189.927†	7735.0	7794.1	487.53 µg/L	487.53 ppb	19:49:37
2	Ti 334.940†	520412.2	523360.9	488.34 µg/L	488.34 ppb	19:49:17
2	Tl 190.801†	3830.1	3975.4	495.78 µg/L	495.78 ppb	19:49:37
2	U 409.014†	7376.5	7701.7	479.90 µg/L	479.90 ppb	19:49:17
2	V 292.402†	98853.0	99190.2	490.34 µg/L	490.34 ppb	19:49:17
2	Zn 213.857†	86774.5	86860.6	484.11 µg/L	484.11 ppb	19:49:17
3	Sc RADIAL	143116.0	143116.0	98.1 %		19:48:49
3	Al 396.153Radial†	26236.6	26815.6	4949.0 µg/L	4949.0 ppb	19:48:49
3	Ca 317.933Radial†	87307.0	88462.9	4927.7 µg/L	4927.7 ppb	19:48:49
3	Fe 238.204 Radial†	77796.7	79178.1	4880.1 µg/L	4880.1 ppb	19:48:49
3	K 766.490 Radial†	14380.3	13118.2	4798.8 µg/L	4798.8 ppb	19:48:49
3	Mg 279.077 IEC†	13346.6	13418.3	5007.1 µg/L	5007.1 ppb	19:48:49
3	Na 589.592 Radial†	71057.8	71164.1	9717.6 µg/L	9717.6 ppb	19:48:49
3	Sr 421.552†	230412.2	235077.6	488.67 µg/L	488.67 ppb	19:48:47
3	Sc 361.383	1721387.2	1721387.2	100.18 %		19:49:40
3	Y 371.029	1018897.4	1018897.4	99.241 %		19:49:40
3	Ag 328.068†	134640.8	130301.5	488.57 µg/L	488.57 ppb	19:49:40
3	As 188.979†	1609.9	1627.2	499.20 µg/L	499.20 ppb	19:50:00
3	B 249.677†	36341.2	32768.4	481.57 µg/L	481.57 ppb	19:49:40
3	Ba 233.527†	121012.1	120925.1	487.69 µg/L	487.69 ppb	19:49:40
3	Be 313.107†	1805276.3	1803016.9	491.06 µg/L	491.06 ppb	19:49:40
3	Cd 226.502†	78051.9	78026.4	487.08 µg/L	487.08 ppb	19:49:40
3	Co 228.616†	39637.9	39755.2	490.78 µg/L	490.78 ppb	19:49:40
3	Cr 267.716†	62404.8	62111.3	486.33 µg/L	486.33 ppb	19:49:40
3	Cu 324.752†	128037.0	124829.0	486.61 µg/L	486.61 ppb	19:49:40
3	Mn 257.610†	397828.4	396858.6	490.82 µg/L	490.82 ppb	19:49:40
3	Mo 202.031†	16520.4	16510.1	485.66 µg/L	485.66 ppb	19:50:00
3	Ni 231.604†	42275.1	42273.8	486.75 µg/L	486.75 ppb	19:49:40
3	P 214.914†	11329.3	11326.4	2414.1 µg/L	2414.1 ppb	19:50:00
3	Pb 220.353†	8851.7	8749.0	489.94 µg/L	489.94 ppb	19:50:00
3	S 181.975 Axial†	1397.8	1290.2	962.16 µg/L	962.16 ppb	19:50:00
3	Sb 206.836†	4164.3	4075.8	485.60 µg/L	485.60 ppb	19:50:00
3	Se 196.026†	1362.5	1344.7	488 µg/L	488 ppb	19:50:00
3	SiO2†	55884.7	54006.4	5257.8 µg/L	5257.8 ppb	19:49:40
3	Si 251.611†	169043.3	167895.4	2465.6 µg/L	2465.6 ppb	19:49:40
3	Sn 189.927†	7803.9	7790.6	487.31 µg/L	487.31 ppb	19:50:00
3	Ti 334.940†	525263.4	523343.7	488.32 µg/L	488.32 ppb	19:49:40
3	Tl 190.801†	3853.4	3963.0	494.25 µg/L	494.25 ppb	19:50:00
3	U 409.014†	7327.8	7584.2	473.02 µg/L	473.02 ppb	19:49:40
3	V 292.402†	99734.3	99146.8	490.11 µg/L	490.11 ppb	19:49:40
3	Zn 213.857†	87677.5	86951.6	484.63 µg/L	484.63 ppb	19:49:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1711370.9	99.602 %	0.5077			0.51%
Sc RADIAL	142168.3	97.4 %	0.62			0.64%
Y 371.029	1012841.9	98.651 %	0.5119			0.52%
Ag 328.068†	130290.1	488.54 µg/L	1.538	488.54 ppb	1.538	0.31%
QC value within limits for Ag 328.068 Recovery = 97.71%						
Al 396.153Radial†	26961.6	4976.1 µg/L	25.20	4976.1 ppb	25.20	0.51%
QC value within limits for Al 396.153Radial Recovery = 99.52%						
As 188.979†	1612.2	494.63 µg/L	4.004	494.63 ppb	4.004	0.81%
QC value within limits for As 188.979 Recovery = 98.93%						
B 249.677†	32660.4	479.98 µg/L	2.326	479.98 ppb	2.326	0.48%
QC value within limits for B 249.677 Recovery = 96.00%						
Ba 233.527†	120909.3	487.62 µg/L	1.439	487.62 ppb	1.439	0.30%
QC value within limits for Ba 233.527 Recovery = 97.52%						
Be 313.107†	1799771.3	490.18 µg/L	1.233	490.18 ppb	1.233	0.25%
QC value within limits for Be 313.107 Recovery = 98.04%						
Ca 317.933Radial†	88532.0	4931.6 µg/L	7.16	4931.6 ppb	7.16	0.15%
QC value within limits for Ca 317.933Radial Recovery = 98.63%						
Cd 226.502†	77848.2	485.96 µg/L	1.986	485.96 ppb	1.986	0.41%
QC value within limits for Cd 226.502 Recovery = 97.19%						
Co 228.616†	39685.3	489.91 µg/L	1.497	489.91 ppb	1.497	0.31%

QC value within limits for Co 228.616 Recovery = 97.98%							
Cr 267.716†	61952.0	485.07 µg/L	1.718	485.07 ppb	1.718	0.35%	
QC value within limits for Cr 267.716 Recovery = 97.01%							
Cu 324.752†	124714.6	486.17 µg/L	0.662	486.17 ppb	0.662	0.14%	
QC value within limits for Cu 324.752 Recovery = 97.23%							
Fe 238.204 Radial†	79253.2	4884.7 µg/L	4.22	4884.7 ppb	4.22	0.09%	
QC value within limits for Fe 238.204 Radial Recovery = 97.69%							
K 766.490 Radial†	13322.5	4873.5 µg/L	65.48	4873.5 ppb	65.48	1.34%	
QC value within limits for K 766.490 Radial Recovery = 97.47%							
Mg 279.077 IEC†	13400.2	5000.4 µg/L	37.28	5000.4 ppb	37.28	0.75%	
QC value within limits for Mg 279.077 IEC Recovery = 100.01%							
Mn 257.610†	396229.4	490.04 µg/L	1.761	490.04 ppb	1.761	0.36%	
QC value within limits for Mn 257.610 Recovery = 98.01%							
Mo 202.031†	16516.9	485.86 µg/L	1.472	485.86 ppb	1.472	0.30%	
QC value within limits for Mo 202.031 Recovery = 97.17%							
Na 589.592 Radial†	71265.4	9731.4 µg/L	14.79	9731.4 ppb	14.79	0.15%	
QC value within limits for Na 589.592 Radial Recovery = 97.31%							
Ni 231.604†	42289.2	486.93 µg/L	0.902	486.93 ppb	0.902	0.19%	
QC value within limits for Ni 231.604 Recovery = 97.39%							
P 214.914†	11324.5	2413.7 µg/L	8.72	2413.7 ppb	8.72	0.36%	
QC value within limits for P 214.914 Recovery = 96.55%							
Pb 220.353†	8750.6	490.02 µg/L	2.885	490.02 ppb	2.885	0.59%	
QC value within limits for Pb 220.353 Recovery = 98.00%							
S 181.975 Axial†	1292.9	964.20 µg/L	5.551	964.20 ppb	5.551	0.58%	
QC value within limits for S 181.975 Axial Recovery = 96.42%							
Sb 206.836†	4075.8	485.62 µg/L	2.784	485.62 ppb	2.784	0.57%	
QC value within limits for Sb 206.836 Recovery = 97.12%							
Se 196.026†	1343.6	488 µg/L	2.8	488 ppb	2.8	0.57%	
QC value within limits for Se 196.026 Recovery = 97.58%							
SiO2†	54001.3	5257.4 µg/L	8.20	5257.4 ppb	8.20	0.16%	
QC value within limits for SiO2 Recovery = 98.31%							
Si 251.611†	167701.8	2462.7 µg/L	4.98	2462.7 ppb	4.98	0.20%	
QC value within limits for Si 251.611 Recovery = 98.51%							
Sn 189.927†	7776.0	486.40 µg/L	1.771	486.40 ppb	1.771	0.36%	
QC value within limits for Sn 189.927 Recovery = 97.28%							
Sr 421.552†	235340.1	489.22 µg/L	5.882	489.22 ppb	5.882	1.20%	
QC value within limits for Sr 421.552 Recovery = 97.84%							
Ti 334.940†	522769.4	487.78 µg/L	0.949	487.78 ppb	0.949	0.19%	
QC value within limits for Ti 334.940 Recovery = 97.56%							
Tl 190.801†	3964.8	494.46 µg/L	1.233	494.46 ppb	1.233	0.25%	
QC value within limits for Tl 190.801 Recovery = 98.89%							
U 409.014†	7738.5	482.00 µg/L	10.196	482.00 ppb	10.196	2.12%	
QC value within limits for U 409.014 Recovery = 96.40%							
V 292.402†	99029.6	489.54 µg/L	1.192	489.54 ppb	1.192	0.24%	
QC value within limits for V 292.402 Recovery = 97.91%							
Zn 213.857†	86736.0	483.41 µg/L	1.671	483.41 ppb	1.671	0.35%	
QC value within limits for Zn 213.857 Recovery = 96.68%							

All analyte(s) passed QC.

Sequence No.: 17

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/31/2010 19:50:08

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	143600.6	143600.6	98.4 %		19:50:37
1	Al 396.153Radial†	-51.1	11.3	2.1044 µg/L	2.1044 ppb	19:50:57
1	Ca 317.933Radial†	586.6	35.5	1.9797 µg/L	1.9797 ppb	19:50:57
1	Fe 238.204 Radial†	144.0	-1.8	-0.1088 µg/L	-0.1088 ppb	19:50:57
1	K 766.490 Radial†	1486.8	-33.9	-12.412 µg/L	-12.412 ppb	19:50:37
1	Mg 279.077 IEC†	173.5	-14.4	-5.3870 µg/L	-5.3870 ppb	19:50:57
1	Na 589.592 Radial†	1458.3	191.2	26.130 µg/L	26.130 ppb	19:50:37
1	Sr 421.552†	-289.3	-158.8	-0.3301 µg/L	-0.3301 ppb	19:50:37
1	Sc 361.383	1727301.6	1727301.6	100.53 %		19:51:45
1	Y 371.029	1033229.5	1033229.5	100.64 %		19:51:45
1	Ag 328.068†	3918.0	-194.0	-0.7232 µg/L	-0.7232 ppb	19:51:47
1	As 188.979†	-11.4	9.0	2.7325 µg/L	2.7325 ppb	19:52:07
1	B 249.677†	3507.2	-17.2	-0.2546 µg/L	-0.2546 ppb	19:52:07
1	Ba 233.527†	-159.6	-22.9	-0.0923 µg/L	-0.0923 ppb	19:52:07
1	Be 313.107†	-960.5	109.3	0.0290 µg/L	0.0290 ppb	19:51:47
1	Cd 226.502†	-87.8	30.8	0.1926 µg/L	0.1926 ppb	19:52:07
1	Co 228.616†	-159.6	31.5	0.3887 µg/L	0.3887 ppb	19:52:07
1	Cr 267.716†	221.5	41.8	0.3292 µg/L	0.3292 ppb	19:52:07
1	Cu 324.752†	2909.7	-77.8	-0.3046 µg/L	-0.3046 ppb	19:51:47
1	Mn 257.610†	275.7	37.0	0.0460 µg/L	0.0460 ppb	19:52:07
1	Mo 202.031†	-30.5	-10.3	-0.3033 µg/L	-0.3033 ppb	19:52:07
1	Ni 231.604†	-82.7	-5.8	-0.0664 µg/L	-0.0664 ppb	19:52:07
1	P 214.914†	-17.8	0.3	0.0611 µg/L	0.0611 ppb	19:52:07
1	Pb 220.353†	92.7	5.8	0.3254 µg/L	0.3254 ppb	19:52:07
1	S 181.975 Axial†	92.1	-13.5	-10.016 µg/L	-10.016 ppb	19:52:07
1	Sb 206.836†	70.2	-11.0	-1.3187 µg/L	-1.3187 ppb	19:52:07
1	Se 196.026†	23.8	8.4	3.03 µg/L	3.03 ppb	19:52:07
1	SiO2†	1746.0	-38.6	-3.7620 µg/L	-3.7620 ppb	19:52:07
1	Si 251.611†	804.0	-36.7	-0.5381 µg/L	-0.5381 ppb	19:51:47
1	Sn 189.927†	-0.2	0.9	0.0546 µg/L	0.0546 ppb	19:52:07
1	Ti 334.940†	954.9	-2.7	-0.0011 µg/L	-0.0011 ppb	19:51:47
1	Tl 190.801†	-118.5	-1.2	-0.1445 µg/L	-0.1445 ppb	19:52:07
1	U 409.014†	-315.9	-44.3	-2.6009 µg/L	-2.6009 ppb	19:51:47
1	V 292.402†	377.6	-28.1	-0.1408 µg/L	-0.1408 ppb	19:51:47
1	Zn 213.857†	598.1	30.5	0.1719 µg/L	0.1719 ppb	19:52:07
2	Sc RADIAL	143131.7	143131.7	98.1 %		19:50:59
2	Al 396.153Radial†	-32.2	30.3	5.6296 µg/L	5.6296 ppb	19:51:19
2	Ca 317.933Radial†	576.7	27.4	1.5269 µg/L	1.5269 ppb	19:51:19
2	Fe 238.204 Radial†	158.7	13.7	0.8423 µg/L	0.8423 ppb	19:51:19
2	K 766.490 Radial†	1675.4	163.4	59.819 µg/L	59.819 ppb	19:50:59
2	Mg 279.077 IEC†	212.3	25.7	9.5785 µg/L	9.5785 ppb	19:51:19
2	Na 589.592 Radial†	1429.9	167.0	22.764 µg/L	22.764 ppb	19:50:59
2	Sr 421.552†	-273.0	-143.1	-0.2975 µg/L	-0.2975 ppb	19:50:59
2	Sc 361.383	1718494.8	1718494.8	100.02 %		19:52:09
2	Y 371.029	1028699.8	1028699.8	100.20 %		19:52:09
2	Ag 328.068†	4047.8	-44.2	-0.1507 µg/L	-0.1507 ppb	19:52:11
2	As 188.979†	-18.3	2.1	0.6206 µg/L	0.6206 ppb	19:52:32
2	B 249.677†	3519.8	13.3	0.1962 µg/L	0.1962 ppb	19:52:32
2	Ba 233.527†	-147.0	-11.2	-0.0449 µg/L	-0.0449 ppb	19:52:32
2	Be 313.107†	-767.5	297.4	0.0836 µg/L	0.0836 ppb	19:52:11
2	Cd 226.502†	-96.5	21.7	0.1357 µg/L	0.1357 ppb	19:52:32
2	Co 228.616†	-176.2	14.1	0.1739 µg/L	0.1739 ppb	19:52:32
2	Cr 267.716†	180.3	1.7	0.0063 µg/L	0.0063 ppb	19:52:32
2	Cu 324.752†	2889.0	-83.7	-0.3176 µg/L	-0.3176 ppb	19:52:11
2	Mn 257.610†	264.9	27.6	0.0338 µg/L	0.0338 ppb	19:52:32
2	Mo 202.031†	-22.6	-2.5	-0.0728 µg/L	-0.0728 ppb	19:52:32
2	Ni 231.604†	-57.5	19.1	0.2195 µg/L	0.2195 ppb	19:52:32
2	P 214.914†	4.9	22.9	4.9039 µg/L	4.9039 ppb	19:52:32
2	Pb 220.353†	90.9	4.5	0.2430 µg/L	0.2430 ppb	19:52:32

2	S 181.975 Axial†	92.8	-12.3	-9.1413 µg/L	-9.1413 ppb	19:52:32
2	Sb 206.836†	91.0	10.1	1.2060 µg/L	1.2060 ppb	19:52:32
2	Se 196.026†	23.4	8.1	2.95 µg/L	2.95 ppb	19:52:32
2	SiO2†	1770.3	-5.4	-0.5347 µg/L	-0.5347 ppb	19:52:32
2	Si 251.611†	816.5	-20.2	-0.3025 µg/L	-0.3025 ppb	19:52:11
2	Sn 189.927†	13.1	14.3	0.8887 µg/L	0.8887 ppb	19:52:32
2	Ti 334.940†	824.8	-127.9	-0.1238 µg/L	-0.1238 ppb	19:52:11
2	Tl 190.801†	-110.8	5.9	0.7247 µg/L	0.7247 ppb	19:52:32
2	U 409.014†	-118.9	151.0	8.8426 µg/L	8.8426 ppb	19:52:11
2	V 292.402†	441.7	37.8	0.1896 µg/L	0.1896 ppb	19:52:11
2	Zn 213.857†	569.1	4.5	0.0243 µg/L	0.0243 ppb	19:52:32
3	Sc RADIAL	142404.0	142404.0	97.6 %		19:51:21
3	Al 396.153Radial†	-37.8	24.5	4.5543 µg/L	4.5543 ppb	19:51:41
3	Ca 317.933Radial†	603.4	57.8	3.2194 µg/L	3.2194 ppb	19:51:41
3	Fe 238.204 Radial†	154.3	10.0	0.6188 µg/L	0.6188 ppb	19:51:41
3	K 766.490 Radial†	1584.3	78.7	28.824 µg/L	28.824 ppb	19:51:21
3	Mg 279.077 IEC†	168.4	-18.1	-6.7588 µg/L	-6.7588 ppb	19:51:41
3	Na 589.592 Radial†	1217.4	-43.3	-5.9413 µg/L	-5.9413 ppb	19:51:21
3	Sr 421.552†	-213.0	-83.0	-0.1726 µg/L	-0.1726 ppb	19:51:21
3	Sc 361.383	1725113.7	1725113.7	100.40 %		19:52:34
3	Y 371.029	1032434.0	1032434.0	100.56 %		19:52:34
3	Ag 328.068†	4136.4	28.4	0.1103 µg/L	0.1103 ppb	19:52:36
3	As 188.979†	-21.2	-0.8	-0.2286 µg/L	-0.2286 ppb	19:52:56
3	B 249.677†	3487.8	-32.0	-0.4730 µg/L	-0.4730 ppb	19:52:56
3	Ba 233.527†	-148.1	-11.7	-0.0471 µg/L	-0.0471 ppb	19:52:56
3	Be 313.107†	-958.9	109.7	0.0307 µg/L	0.0307 ppb	19:52:36
3	Cd 226.502†	-100.1	18.5	0.1156 µg/L	0.1156 ppb	19:52:56
3	Co 228.616†	-181.7	9.3	0.1151 µg/L	0.1151 ppb	19:52:56
3	Cr 267.716†	179.3	-0.0	-0.0022 µg/L	-0.0022 ppb	19:52:56
3	Cu 324.752†	2944.1	-39.9	-0.1527 µg/L	-0.1527 ppb	19:52:36
3	Mn 257.610†	258.6	20.3	0.0254 µg/L	0.0254 ppb	19:52:56
3	Mo 202.031†	-33.3	-13.1	-0.3839 µg/L	-0.3839 ppb	19:52:56
3	Ni 231.604†	-89.6	-12.8	-0.1471 µg/L	-0.1471 ppb	19:52:56
3	P 214.914†	-5.5	12.5	2.6899 µg/L	2.6899 ppb	19:52:56
3	Pb 220.353†	86.1	-0.6	-0.0367 µg/L	-0.0367 ppb	19:52:56
3	S 181.975 Axial†	105.1	-0.4	-0.3195 µg/L	-0.3195 ppb	19:52:56
3	Sb 206.836†	78.4	-2.7	-0.3234 µg/L	-0.3234 ppb	19:52:56
3	Se 196.026†	32.5	17.1	6.18 µg/L	6.18 ppb	19:52:56
3	SiO2†	1714.4	-67.8	-6.6340 µg/L	-6.6340 ppb	19:52:56
3	Si 251.611†	948.1	107.7	1.5850 µg/L	1.5850 ppb	19:52:36
3	Sn 189.927†	18.5	19.5	1.2178 µg/L	1.2178 ppb	19:52:56
3	Ti 334.940†	1054.7	98.0	0.0910 µg/L	0.0910 ppb	19:52:36
3	Tl 190.801†	-105.2	11.9	1.4675 µg/L	1.4675 ppb	19:52:56
3	U 409.014†	-221.6	49.1	2.8801 µg/L	2.8801 ppb	19:52:36
3	V 292.402†	431.8	26.3	0.1262 µg/L	0.1262 ppb	19:52:36
3	Zn 213.857†	567.6	1.0	0.0065 µg/L	0.0065 ppb	19:52:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1723636.7	100.32 %	0.267			0.27%
Sc RADIAL	143045.4	98.0 %	0.41			0.42%
Y 371.029	1031454.4	100.46 %	0.236			0.23%
Ag 328.068†	-69.9	-0.2546 µg/L	0.42634	-0.2546 ppb	0.42634	167.48%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	22.0	4.0961 µg/L	1.80672	4.0961 ppb	1.80672	44.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	3.4	1.0415 µg/L	1.52480	1.0415 ppb	1.52480	146.41%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-12.0	-0.1771 µg/L	0.34126	-0.1771 ppb	0.34126	192.69%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-15.2	-0.0614 µg/L	0.02676	-0.0614 ppb	0.02676	43.56%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	172.1	0.0478 µg/L	0.03107	0.0478 ppb	0.03107	65.02%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	40.2	2.2420 µg/L	0.87622	2.2420 ppb	0.87622	39.08%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	23.7	0.1480 µg/L	0.03996	0.1480 ppb	0.03996	27.01%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	18.3	0.2259 µg/L	0.14405	0.2259 ppb	0.14405	63.76%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	14.5	0.1111 µg/L	0.18892	0.1111 ppb	0.18892	170.01%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-67.1	-0.2583 µg/L	0.09167	-0.2583 ppb	0.09167	35.50%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	7.3	0.4508 µg/L	0.49733	0.4508 ppb	0.49733	110.33%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	69.4	25.411 µg/L	36.2364	25.411 ppb	36.2364	142.60%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-2.3	-0.8557 µg/L	9.06232	-0.8557 ppb	9.06232	>999.9%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	28.3	0.0350 µg/L	0.01036	0.0350 ppb	0.01036	29.56%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-8.6	-0.2533 µg/L	0.16143	-0.2533 ppb	0.16143	63.73%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	105.0	14.318 µg/L	17.6253	14.318 ppb	17.6253	123.10%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	0.2	0.0020 µg/L	0.19262	0.0020 ppb	0.19262	>999.9%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	11.9	2.5516 µg/L	2.42435	2.5516 ppb	2.42435	95.01%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	3.2	0.1772 µg/L	0.18975	0.1772 ppb	0.18975	107.07%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-8.7	-6.4924 µg/L	5.36374	-6.4924 ppb	5.36374	82.62%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-1.2	-0.1454 µg/L	1.27176	-0.1454 ppb	1.27176	874.71%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	11.2	4.05 µg/L	1.843	4.05 ppb	1.843	45.47%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-37.2	-3.6436 µg/L	3.05138	-3.6436 ppb	3.05138	83.75%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	16.9	0.2481 µg/L	1.16372	0.2481 ppb	1.16372	469.00%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	11.6	0.7204 µg/L	0.59961	0.7204 ppb	0.59961	83.23%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-128.3	-0.2667 µg/L	0.08309	-0.2667 ppb	0.08309	31.15%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-10.9	-0.0113 µg/L	0.10776	-0.0113 ppb	0.10776	953.77%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	5.6	0.6826 µg/L	0.80682	0.6826 ppb	0.80682	118.21%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	51.9	3.0406 µg/L	5.72342	3.0406 ppb	5.72342	188.23%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	12.0	0.0584 µg/L	0.17533	0.0584 ppb	0.17533	300.44%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	12.0	0.0676 µg/L	0.09081	0.0676 ppb	0.09081	134.41%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 27

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/31/2010 20:18:48

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	143153.1	143153.1	98.1 %		20:19:22
1	Al 396.153Radial†	26168.1	26738.9	4934.8 µg/L	4934.8 ppb	20:19:22
1	Ca 317.933Radial†	87812.2	88954.8	4955.1 µg/L	4955.1 ppb	20:19:22
1	Fe 238.204 Radial†	78188.9	79557.4	4903.4 µg/L	4903.4 ppb	20:19:22
1	K 766.490 Radial†	14678.9	13418.9	4908.8 µg/L	4908.8 ppb	20:19:22
1	Mg 279.077 IEC†	13438.9	13508.9	5040.9 µg/L	5040.9 ppb	20:19:22
1	Na 589.592 Radial†	71303.4	71395.6	9749.1 µg/L	9749.1 ppb	20:19:22
1	Sr 421.552†	231815.5	236447.2	491.52 µg/L	491.52 ppb	20:19:20
1	Sc 361.383	1733210.9	1733210.9	100.87 %		20:19:49
1	Y 371.029	1024566.6	1024566.6	99.793 %		20:19:49
1	Ag 328.068†	135811.2	130544.9	489.48 µg/L	489.48 ppb	20:19:49
1	As 188.979†	1620.4	1626.8	499.06 µg/L	499.06 ppb	20:20:09
1	B 249.677†	36886.7	33061.7	485.90 µg/L	485.90 ppb	20:19:49
1	Ba 233.527†	122122.4	121201.8	488.80 µg/L	488.80 ppb	20:19:49
1	Be 313.107†	1820796.8	1806110.5	491.91 µg/L	491.91 ppb	20:19:49
1	Cd 226.502†	79174.4	78607.7	490.71 µg/L	490.71 ppb	20:19:49
1	Co 228.616†	39967.4	39811.9	491.48 µg/L	491.48 ppb	20:19:49
1	Cr 267.716†	62802.0	62080.2	486.08 µg/L	486.08 ppb	20:19:49
1	Cu 324.752†	129193.6	125103.8	487.69 µg/L	487.69 ppb	20:19:49
1	Mn 257.610†	400949.3	397243.5	491.30 µg/L	491.30 ppb	20:19:49
1	Mo 202.031†	16640.3	16516.4	485.85 µg/L	485.85 ppb	20:20:09
1	Ni 231.604†	42932.4	42637.5	490.94 µg/L	490.94 ppb	20:19:49
1	P 214.914†	11516.5	11434.8	2437.3 µg/L	2437.3 ppb	20:20:09
1	Pb 220.353†	8939.2	8775.5	491.41 µg/L	491.41 ppb	20:20:09
1	S 181.975 Axial†	1432.0	1314.6	980.26 µg/L	980.26 ppb	20:20:09
1	Sb 206.836†	4200.0	4082.8	486.45 µg/L	486.45 ppb	20:20:09
1	Se 196.026†	1380.3	1353.0	491 µg/L	491 ppb	20:20:09
1	SiO2†	56585.0	54320.2	5288.5 µg/L	5288.5 ppb	20:19:49
1	Si 251.611†	171480.3	169160.3	2484.2 µg/L	2484.2 ppb	20:19:49
1	Sn 189.927†	7899.9	7832.7	489.93 µg/L	489.93 ppb	20:20:09
1	Ti 334.940†	528670.3	523144.4	488.13 µg/L	488.13 ppb	20:19:49
1	Tl 190.801†	3879.4	3962.5	494.19 µg/L	494.19 ppb	20:20:09
1	U 409.014†	7456.1	7661.5	477.56 µg/L	477.56 ppb	20:19:49
1	V 292.402†	100505.8	99232.6	490.53 µg/L	490.53 ppb	20:19:49
1	Zn 213.857†	88711.3	87379.4	487.00 µg/L	487.00 ppb	20:19:49
2	Sc RADIAL	145636.2	145636.2	99.8 %		20:19:26
2	Al 396.153Radial†	26516.1	26632.7	4915.0 µg/L	4915.0 ppb	20:19:26
2	Ca 317.933Radial†	89356.1	88975.7	4956.3 µg/L	4956.3 ppb	20:19:26
2	Fe 238.204 Radial†	79820.2	79833.0	4920.4 µg/L	4920.4 ppb	20:19:26
2	K 766.490 Radial†	14884.7	13369.9	4890.9 µg/L	4890.9 ppb	20:19:26
2	Mg 279.077 IEC†	13655.2	13492.0	5034.7 µg/L	5034.7 ppb	20:19:26
2	Na 589.592 Radial†	72574.2	71429.7	9753.8 µg/L	9753.8 ppb	20:19:26
2	Sr 421.552†	229556.2	230154.3	478.44 µg/L	478.44 ppb	20:19:24
2	Sc 361.383	1728845.1	1728845.1	100.62 %		20:20:12
2	Y 371.029	1022537.6	1022537.6	99.596 %		20:20:12
2	Ag 328.068†	135255.7	130332.9	488.71 µg/L	488.71 ppb	20:20:12
2	As 188.979†	1619.6	1630.0	500.04 µg/L	500.04 ppb	20:20:32
2	B 249.677†	36772.6	33040.7	485.59 µg/L	485.59 ppb	20:20:12
2	Ba 233.527†	121898.2	121284.8	489.14 µg/L	489.14 ppb	20:20:12
2	Be 313.107†	1814391.8	1804303.2	491.42 µg/L	491.42 ppb	20:20:12
2	Cd 226.502†	79019.6	78652.0	490.98 µg/L	490.98 ppb	20:20:12
2	Co 228.616†	39865.2	39810.5	491.46 µg/L	491.46 ppb	20:20:12
2	Cr 267.716†	62636.0	62072.4	486.01 µg/L	486.01 ppb	20:20:12
2	Cu 324.752†	128465.8	124703.9	486.15 µg/L	486.15 ppb	20:20:12
2	Mn 257.610†	400168.4	397471.3	491.58 µg/L	491.58 ppb	20:20:12
2	Mo 202.031†	16701.4	16618.8	488.86 µg/L	488.86 ppb	20:20:32
2	Ni 231.604†	42806.4	42619.8	490.74 µg/L	490.74 ppb	20:20:12
2	P 214.914†	11559.5	11506.4	2452.7 µg/L	2452.7 ppb	20:20:32
2	Pb 220.353†	8967.3	8825.8	494.22 µg/L	494.22 ppb	20:20:32

2	S 181.975 Axial†	1438.1	1324.2	987.46 µg/L	987.46 ppb	20:20:32
2	Sb 206.836†	4222.2	4115.5	490.38 µg/L	490.38 ppb	20:20:32
2	Se 196.026†	1378.4	1354.7	492 µg/L	492 ppb	20:20:32
2	SiO2†	56546.5	54423.5	5298.4 µg/L	5298.4 ppb	20:20:12
2	Si 251.611†	170798.4	168911.9	2480.5 µg/L	2480.5 ppb	20:20:12
2	Sn 189.927†	7975.7	7927.8	495.86 µg/L	495.86 ppb	20:20:32
2	Ti 334.940†	527695.2	523498.9	488.46 µg/L	488.46 ppb	20:20:12
2	Tl 190.801†	3917.6	4010.2	500.05 µg/L	500.05 ppb	20:20:32
2	U 409.014†	7647.3	7870.2	489.74 µg/L	489.74 ppb	20:20:12
2	V 292.402†	100177.9	99158.3	490.21 µg/L	490.21 ppb	20:20:12
2	Zn 213.857†	88577.4	87468.5	487.50 µg/L	487.50 ppb	20:20:12
3	Sc RADIAL	145946.5	145946.5	100 %		20:19:30
3	Al 396.153Radial†	26926.1	26986.3	4980.6 µg/L	4980.6 ppb	20:19:30
3	Ca 317.933Radial†	89888.2	89317.4	4975.3 µg/L	4975.3 ppb	20:19:30
3	Fe 238.204 Radial†	79999.4	79842.2	4921.0 µg/L	4921.0 ppb	20:19:30
3	K 766.490 Radial†	15067.7	13521.2	4946.3 µg/L	4946.3 ppb	20:19:30
3	Mg 279.077 IEC†	13820.0	13627.7	5085.2 µg/L	5085.2 ppb	20:19:30
3	Na 589.592 Radial†	72903.4	71604.2	9777.6 µg/L	9777.6 ppb	20:19:30
3	Sr 421.552†	233932.9	234041.4	486.52 µg/L	486.52 ppb	20:19:28
3	Sc 361.383	1729036.7	1729036.7	100.63 %		20:20:35
3	Y 371.029	1022141.3	1022141.3	99.557 %		20:20:35
3	Ag 328.068†	135415.2	130476.4	489.24 µg/L	489.24 ppb	20:20:35
3	As 188.979†	1624.2	1634.3	501.36 µg/L	501.36 ppb	20:20:55
3	B 249.677†	36712.7	32977.1	484.65 µg/L	484.65 ppb	20:20:35
3	Ba 233.527†	121713.3	121087.6	488.34 µg/L	488.34 ppb	20:20:35
3	Be 313.107†	1816122.4	1805823.1	491.83 µg/L	491.83 ppb	20:20:35
3	Cd 226.502†	78922.7	78547.0	490.33 µg/L	490.33 ppb	20:20:35
3	Co 228.616†	39794.6	39735.9	490.54 µg/L	490.54 ppb	20:20:35
3	Cr 267.716†	62716.2	62145.2	486.58 µg/L	486.58 ppb	20:20:35
3	Cu 324.752†	128635.8	124858.6	486.75 µg/L	486.75 ppb	20:20:35
3	Mn 257.610†	399725.7	396987.2	490.98 µg/L	490.98 ppb	20:20:35
3	Mo 202.031†	16642.9	16558.8	487.09 µg/L	487.09 ppb	20:20:55
3	Ni 231.604†	42654.8	42464.4	488.95 µg/L	488.95 ppb	20:20:35
3	P 214.914†	11489.1	11435.1	2437.4 µg/L	2437.4 ppb	20:20:55
3	Pb 220.353†	8938.2	8795.9	492.55 µg/L	492.55 ppb	20:20:55
3	S 181.975 Axial†	1425.7	1311.7	978.16 µg/L	978.16 ppb	20:20:55
3	Sb 206.836†	4196.0	4088.9	487.18 µg/L	487.18 ppb	20:20:55
3	Se 196.026†	1380.4	1356.5	493 µg/L	493 ppb	20:20:55
3	SiO2†	56405.9	54277.6	5284.2 µg/L	5284.2 ppb	20:20:35
3	Si 251.611†	170675.9	168771.4	2478.4 µg/L	2478.4 ppb	20:20:35
3	Sn 189.927†	7906.9	7858.6	491.55 µg/L	491.55 ppb	20:20:55
3	Ti 334.940†	526963.4	522713.5	487.72 µg/L	487.72 ppb	20:20:35
3	Tl 190.801†	3898.2	3990.5	497.62 µg/L	497.62 ppb	20:20:55
3	U 409.014†	7622.6	7844.8	488.24 µg/L	488.24 ppb	20:20:35
3	V 292.402†	100122.2	99092.0	489.87 µg/L	489.87 ppb	20:20:35
3	Zn 213.857†	88619.8	87500.9	487.69 µg/L	487.69 ppb	20:20:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1730364.2	100.71 %	0.144			0.14%
Sc RADIAL	144911.9	99.3 %	1.05			1.06%
Y 371.029	1023081.8	99.649 %	0.1267			0.13%
Ag 328.068†	130451.4	489.14 µg/L	0.396	489.14 ppb	0.396	0.08%
QC value within limits for Ag 328.068 Recovery = 97.83%						
Al 396.153Radial†	26786.0	4943.5 µg/L	33.66	4943.5 ppb	33.66	0.68%
QC value within limits for Al 396.153Radial Recovery = 98.87%						
As 188.979†	1630.4	500.15 µg/L	1.155	500.15 ppb	1.155	0.23%
QC value within limits for As 188.979 Recovery = 100.03%						
B 249.677†	33026.5	485.38 µg/L	0.648	485.38 ppb	0.648	0.13%
QC value within limits for B 249.677 Recovery = 97.08%						
Ba 233.527†	121191.4	488.76 µg/L	0.399	488.76 ppb	0.399	0.08%
QC value within limits for Ba 233.527 Recovery = 97.75%						
Be 313.107†	1805412.3	491.72 µg/L	0.263	491.72 ppb	0.263	0.05%
QC value within limits for Be 313.107 Recovery = 98.34%						
Ca 317.933Radial†	89082.6	4962.3 µg/L	11.34	4962.3 ppb	11.34	0.23%
QC value within limits for Ca 317.933Radial Recovery = 99.25%						
Cd 226.502†	78602.2	490.67 µg/L	0.330	490.67 ppb	0.330	0.07%
QC value within limits for Cd 226.502 Recovery = 98.13%						
Co 228.616†	39786.1	491.16 µg/L	0.537	491.16 ppb	0.537	0.11%

QC value within limits for Co 228.616 Recovery = 98.23%							
Cr 267.716†	62099.2	486.22 µg/L	0.311	486.22 ppb	0.311	0.06%	
QC value within limits for Cr 267.716 Recovery = 97.24%							
Cu 324.752†	124888.8	486.86 µg/L	0.777	486.86 ppb	0.777	0.16%	
QC value within limits for Cu 324.752 Recovery = 97.37%							
Fe 238.204 Radial†	79744.2	4914.9 µg/L	9.97	4914.9 ppb	9.97	0.20%	
QC value within limits for Fe 238.204 Radial Recovery = 98.30%							
K 766.490 Radial†	13436.7	4915.3 µg/L	28.26	4915.3 ppb	28.26	0.57%	
QC value within limits for K 766.490 Radial Recovery = 98.31%							
Mg 279.077 IEC†	13542.9	5053.6 µg/L	27.54	5053.6 ppb	27.54	0.54%	
QC value within limits for Mg 279.077 IEC Recovery = 101.07%							
Mn 257.610†	397234.0	491.28 µg/L	0.301	491.28 ppb	0.301	0.06%	
QC value within limits for Mn 257.610 Recovery = 98.26%							
Mo 202.031†	16564.7	487.26 µg/L	1.512	487.26 ppb	1.512	0.31%	
QC value within limits for Mo 202.031 Recovery = 97.45%							
Na 589.592 Radial†	71476.5	9760.2 µg/L	15.27	9760.2 ppb	15.27	0.16%	
QC value within limits for Na 589.592 Radial Recovery = 97.60%							
Ni 231.604†	42573.9	490.21 µg/L	1.097	490.21 ppb	1.097	0.22%	
QC value within limits for Ni 231.604 Recovery = 98.04%							
P 214.914†	11458.8	2442.5 µg/L	8.83	2442.5 ppb	8.83	0.36%	
QC value within limits for P 214.914 Recovery = 97.70%							
Pb 220.353†	8799.1	492.73 µg/L	1.412	492.73 ppb	1.412	0.29%	
QC value within limits for Pb 220.353 Recovery = 98.55%							
S 181.975 Axial†	1316.8	981.96 µg/L	4.877	981.96 ppb	4.877	0.50%	
QC value within limits for S 181.975 Axial Recovery = 98.20%							
Sb 206.836†	4095.7	488.00 µg/L	2.090	488.00 ppb	2.090	0.43%	
QC value within limits for Sb 206.836 Recovery = 97.60%							
Se 196.026†	1354.7	492 µg/L	0.6	492 ppb	0.6	0.13%	
QC value within limits for Se 196.026 Recovery = 98.38%							
SiO2†	54340.4	5290.4 µg/L	7.26	5290.4 ppb	7.26	0.14%	
QC value within limits for SiO2 Recovery = 98.93%							
Si 251.611†	168947.8	2481.0 µg/L	2.92	2481.0 ppb	2.92	0.12%	
QC value within limits for Si 251.611 Recovery = 99.24%							
Sn 189.927†	7873.0	492.45 µg/L	3.064	492.45 ppb	3.064	0.62%	
QC value within limits for Sn 189.927 Recovery = 98.49%							
Sr 421.552†	233547.6	485.49 µg/L	6.601	485.49 ppb	6.601	1.36%	
QC value within limits for Sr 421.552 Recovery = 97.10%							
Ti 334.940†	523118.9	488.10 µg/L	0.369	488.10 ppb	0.369	0.08%	
QC value within limits for Ti 334.940 Recovery = 97.62%							
Tl 190.801†	3987.7	497.29 µg/L	2.942	497.29 ppb	2.942	0.59%	
QC value within limits for Tl 190.801 Recovery = 99.46%							
U 409.014†	7792.1	485.18 µg/L	6.641	485.18 ppb	6.641	1.37%	
QC value within limits for U 409.014 Recovery = 97.04%							
V 292.402†	99160.9	490.20 µg/L	0.333	490.20 ppb	0.333	0.07%	
QC value within limits for V 292.402 Recovery = 98.04%							
Zn 213.857†	87449.6	487.40 µg/L	0.359	487.40 ppb	0.359	0.07%	
QC value within limits for Zn 213.857 Recovery = 97.48%							
All analyte(s) passed QC.							

Sequence No.: 28

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/31/2010 20:21:03

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	146174.9	146174.9	100 %		20:21:32
1	Al 396.153Radial†	-79.4	-16.1	-2.9762 µg/L	-2.9762 ppb	20:21:52
1	Ca 317.933Radial†	607.9	46.3	2.5767 µg/L	2.5767 ppb	20:21:52
1	Fe 238.204 Radial†	175.5	27.1	1.6726 µg/L	1.6726 ppb	20:21:52
1	K 766.490 Radial†	1577.3	29.9	10.948 µg/L	10.948 ppb	20:21:32
1	Mg 279.077 IEC†	206.8	15.8	5.8733 µg/L	5.8733 ppb	20:21:52
1	Na 589.592 Radial†	1475.9	182.7	24.946 µg/L	24.946 ppb	20:21:32
1	Sr 421.552†	-270.2	-134.5	-0.2796 µg/L	-0.2796 ppb	20:21:32
1	Sc 361.383	1719316.1	1719316.1	100.06 %		20:22:40
1	Y 371.029	1027520.1	1027520.1	100.08 %		20:22:40
1	Ag 328.068†	3648.5	-445.2	-1.6556 µg/L	-1.6556 ppb	20:22:42
1	As 188.979†	-10.6	9.8	2.9605 µg/L	2.9605 ppb	20:23:02
1	B 249.677†	3416.1	-91.9	-1.3568 µg/L	-1.3568 ppb	20:22:42
1	Ba 233.527†	-134.2	1.8	0.0069 µg/L	0.0069 ppb	20:23:02
1	Be 313.107†	-785.4	279.8	0.0750 µg/L	0.0750 ppb	20:22:42
1	Cd 226.502†	-108.1	10.2	0.0635 µg/L	0.0635 ppb	20:23:02
1	Co 228.616†	-170.8	19.6	0.2418 µg/L	0.2418 ppb	20:23:02
1	Cr 267.716†	211.4	32.7	0.2593 µg/L	0.2593 ppb	20:23:02
1	Cu 324.752†	2952.3	-21.8	-0.0873 µg/L	-0.0873 ppb	20:22:42
1	Mn 257.610†	205.0	-32.4	-0.0403 µg/L	-0.0403 ppb	20:23:02
1	Mo 202.031†	-26.7	-6.6	-0.1949 µg/L	-0.1949 ppb	20:23:02
1	Ni 231.604†	-85.9	-9.3	-0.1075 µg/L	-0.1075 ppb	20:23:02
1	P 214.914†	-27.5	-9.5	-2.0307 µg/L	-2.0307 ppb	20:23:02
1	Pb 220.353†	49.6	-36.9	-2.0549 µg/L	-2.0549 ppb	20:23:02
1	S 181.975 Axial†	90.7	-14.4	-10.672 µg/L	-10.672 ppb	20:23:02
1	Sb 206.836†	90.3	9.4	1.1175 µg/L	1.1175 ppb	20:23:02
1	Se 196.026†	14.0	-1.3	-0.483 µg/L	-0.483 ppb	20:23:02
1	SiO2†	1815.4	38.8	3.7882 µg/L	3.7882 ppb	20:22:42
1	Si 251.611†	978.4	141.2	2.0787 µg/L	2.0787 ppb	20:22:42
1	Sn 189.927†	12.7	13.8	0.8612 µg/L	0.8612 ppb	20:23:02
1	Ti 334.940†	944.8	-8.3	-0.0067 µg/L	-0.0067 ppb	20:22:42
1	Tl 190.801†	-123.6	-6.9	-0.8478 µg/L	-0.8478 ppb	20:23:02
1	U 409.014†	-334.8	-64.7	-3.7948 µg/L	-3.7948 ppb	20:22:42
1	V 292.402†	364.6	-39.5	-0.1962 µg/L	-0.1962 ppb	20:22:42
1	Zn 213.857†	609.9	45.1	0.2536 µg/L	0.2536 ppb	20:23:02
2	Sc RADIAL	146261.6	146261.6	100 %		20:21:54
2	Al 396.153Radial†	-54.4	8.9	1.6620 µg/L	1.6620 ppb	20:22:14
2	Ca 317.933Radial†	618.8	56.9	3.1671 µg/L	3.1671 ppb	20:22:14
2	Fe 238.204 Radial†	170.1	21.6	1.3318 µg/L	1.3318 ppb	20:22:14
2	K 766.490 Radial†	1690.5	141.9	51.938 µg/L	51.938 ppb	20:21:54
2	Mg 279.077 IEC†	158.6	-32.4	-12.093 µg/L	-12.093 ppb	20:22:14
2	Na 589.592 Radial†	1436.5	142.5	19.415 µg/L	19.415 ppb	20:21:54
2	Sr 421.552†	-283.2	-147.2	-0.3061 µg/L	-0.3061 ppb	20:21:54
2	Sc 361.383	1736802.1	1736802.1	101.08 %		20:23:04
2	Y 371.029	1037454.3	1037454.3	101.05 %		20:23:04
2	Ag 328.068†	3948.2	-185.4	-0.6882 µg/L	-0.6882 ppb	20:23:06
2	As 188.979†	-24.7	-4.1	-1.2374 µg/L	-1.2374 ppb	20:23:27
2	B 249.677†	3576.8	32.6	0.4812 µg/L	0.4812 ppb	20:23:06
2	Ba 233.527†	-102.2	34.7	0.1396 µg/L	0.1396 ppb	20:23:27
2	Be 313.107†	-962.5	112.5	0.0317 µg/L	0.0317 ppb	20:23:06
2	Cd 226.502†	-108.2	11.1	0.0694 µg/L	0.0694 ppb	20:23:27
2	Co 228.616†	-196.2	-3.8	-0.0464 µg/L	-0.0464 ppb	20:23:27
2	Cr 267.716†	207.6	26.8	0.2073 µg/L	0.2073 ppb	20:23:27
2	Cu 324.752†	2974.7	-29.3	-0.1113 µg/L	-0.1113 ppb	20:23:06
2	Mn 257.610†	216.8	-22.8	-0.0277 µg/L	-0.0277 ppb	20:23:27
2	Mo 202.031†	-26.2	-5.9	-0.1726 µg/L	-0.1726 ppb	20:23:27
2	Ni 231.604†	-83.0	-5.6	-0.0648 µg/L	-0.0648 ppb	20:23:27
2	P 214.914†	-18.2	-0.1	-0.0033 µg/L	-0.0033 ppb	20:23:27
2	Pb 220.353†	96.9	9.5	0.5245 µg/L	0.5245 ppb	20:23:27

2	S 181.975 Axial†	101.1	-5.0	-3.7428 µg/L	-3.7428 ppb	20:23:27
2	Sb 206.836†	77.7	-4.0	-0.4743 µg/L	-0.4743 ppb	20:23:27
2	Se 196.026†	10.0	-5.3	-1.93 µg/L	-1.93 ppb	20:23:27
2	SiO2†	1822.3	27.5	2.6742 µg/L	2.6742 ppb	20:23:06
2	Si 251.611†	856.2	10.5	0.1497 µg/L	0.1497 ppb	20:23:06
2	Sn 189.927†	15.8	16.8	1.0464 µg/L	1.0464 ppb	20:23:27
2	Ti 334.940†	965.6	2.7	0.0021 µg/L	0.0021 ppb	20:23:06
2	Tl 190.801†	-105.1	12.7	1.5599 µg/L	1.5599 ppb	20:23:27
2	U 409.014†	-213.8	58.4	3.3839 µg/L	3.3839 ppb	20:23:06
2	V 292.402†	306.8	-100.3	-0.4881 µg/L	-0.4881 ppb	20:23:06
2	Zn 213.857†	601.0	30.1	0.1695 µg/L	0.1695 ppb	20:23:27
3	Sc RADIAL	145163.3	145163.3	99.5 %		20:22:16
3	Al 396.153Radial†	-66.5	-3.7	-0.6680 µg/L	-0.6680 ppb	20:22:36
3	Ca 317.933Radial†	599.5	42.1	2.3456 µg/L	2.3456 ppb	20:22:36
3	Fe 238.204 Radial†	160.3	13.1	0.8047 µg/L	0.8047 ppb	20:22:36
3	K 766.490 Radial†	1445.8	-91.3	-33.426 µg/L	-33.426 ppb	20:22:16
3	Mg 279.077 IEC†	163.3	-26.5	-9.9007 µg/L	-9.9007 ppb	20:22:36
3	Na 589.592 Radial†	1438.5	155.3	21.242 µg/L	21.242 ppb	20:22:16
3	Sr 421.552†	-217.7	-83.6	-0.1738 µg/L	-0.1738 ppb	20:22:16
3	Sc 361.383	1747018.8	1747018.8	101.68 %		20:23:29
3	Y 371.029	1043372.0	1043372.0	101.62 %		20:23:29
3	Ag 328.068†	3928.6	-227.6	-0.8550 µg/L	-0.8550 ppb	20:23:31
3	As 188.979†	-14.6	6.0	1.8114 µg/L	1.8114 ppb	20:23:51
3	B 249.677†	3628.2	62.5	0.9207 µg/L	0.9207 ppb	20:23:31
3	Ba 233.527†	-150.3	-11.9	-0.0482 µg/L	-0.0482 ppb	20:23:51
3	Be 313.107†	-1063.0	19.3	0.0023 µg/L	0.0023 ppb	20:23:31
3	Cd 226.502†	-104.1	15.8	0.0984 µg/L	0.0984 ppb	20:23:51
3	Co 228.616†	-183.5	9.9	0.1217 µg/L	0.1217 ppb	20:23:51
3	Cr 267.716†	179.0	-2.6	-0.0122 µg/L	-0.0122 ppb	20:23:51
3	Cu 324.752†	3108.9	85.4	0.3239 µg/L	0.3239 ppb	20:23:31
3	Mn 257.610†	215.7	-25.1	-0.0307 µg/L	-0.0307 ppb	20:23:51
3	Mo 202.031†	-32.3	-11.7	-0.3450 µg/L	-0.3450 ppb	20:23:51
3	Ni 231.604†	-84.7	-6.8	-0.0779 µg/L	-0.0779 ppb	20:23:51
3	P 214.914†	-27.0	-8.6	-1.8417 µg/L	-1.8417 ppb	20:23:51
3	Pb 220.353†	93.1	5.2	0.2966 µg/L	0.2966 ppb	20:23:51
3	S 181.975 Axial†	107.7	0.8	0.6238 µg/L	0.6238 ppb	20:23:51
3	Sb 206.836†	73.2	-8.8	-1.0551 µg/L	-1.0551 ppb	20:23:51
3	Se 196.026†	-3.4	-18.6	-6.74 µg/L	-6.74 ppb	20:23:51
3	SiO2†	1790.0	-14.9	-1.4424 µg/L	-1.4424 ppb	20:23:31
3	Si 251.611†	917.7	66.0	0.9787 µg/L	0.9787 ppb	20:23:31
3	Sn 189.927†	-2.4	-1.3	-0.0792 µg/L	-0.0792 ppb	20:23:51
3	Ti 334.940†	1230.7	257.8	0.2458 µg/L	0.2458 ppb	20:23:31
3	Tl 190.801†	-121.9	-3.2	-0.3892 µg/L	-0.3892 ppb	20:23:51
3	U 409.014†	-444.6	-167.4	-9.7866 µg/L	-9.7866 ppb	20:23:31
3	V 292.402†	407.2	-3.3	-0.0267 µg/L	-0.0267 ppb	20:23:31
3	Zn 213.857†	572.9	-1.0	-0.0054 µg/L	-0.0054 ppb	20:23:51

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1734379.0	100.94 %	0.815			0.81%
Sc RADIAL	145866.6	100.0 %	0.42			0.42%
Y 371.029	1036115.5	100.92 %	0.780			0.77%
Ag 328.068†	-286.1	-1.0663 µg/L	0.51712	-1.0663 ppb	0.51712	48.50%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-3.6	-0.6608 µg/L	2.31909	-0.6608 ppb	2.31909	350.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	3.9	1.1781 µg/L	2.16942	1.1781 ppb	2.16942	184.14%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	1.0	0.0150 µg/L	1.20824	0.0150 ppb	1.20824	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	8.2	0.0328 µg/L	0.09650	0.0328 ppb	0.09650	294.60%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	137.2	0.0363 µg/L	0.03660	0.0363 ppb	0.03660	100.74%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	48.4	2.6965 µg/L	0.42361	2.6965 ppb	0.42361	15.71%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	12.4	0.0771 µg/L	0.01869	0.0771 ppb	0.01869	24.25%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	8.6	0.1057 µg/L	0.14474	0.1057 ppb	0.14474	136.94%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	19.0	0.1515 µg/L	0.14414	0.1515 ppb	0.14414	95.17%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	11.4	0.0418 µg/L	0.24463	0.0418 ppb	0.24463	585.58%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	20.6	1.2697 µg/L	0.43727	1.2697 ppb	0.43727	34.44%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	26.8	9.8201 µg/L	42.69298	9.8201 ppb	42.69298	434.75%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-14.4	-5.3735 µg/L	9.80148	-5.3735 ppb	9.80148	182.40%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-26.8	-0.0329 µg/L	0.00657	-0.0329 ppb	0.00657	19.97%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-8.1	-0.2375 µg/L	0.09374	-0.2375 ppb	0.09374	39.47%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	160.1	21.868 µg/L	2.8179	21.868 ppb	2.8179	12.89%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-7.2	-0.0834 µg/L	0.02187	-0.0834 ppb	0.02187	26.22%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-6.1	-1.2919 µg/L	1.11996	-1.2919 ppb	1.11996	86.69%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-7.4	-0.4112 µg/L	1.42800	-0.4112 ppb	1.42800	347.25%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-6.2	-4.5969 µg/L	5.69602	-4.5969 ppb	5.69602	123.91%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-1.1	-0.1373 µg/L	1.12485	-0.1373 ppb	1.12485	819.31%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-8.4	-3.05 µg/L	3.277	-3.05 ppb	3.277	107.40%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	17.1	1.6733 µg/L	2.75522	1.6733 ppb	2.75522	164.66%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	72.6	1.0690 µg/L	0.96766	1.0690 ppb	0.96766	90.52%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	9.8	0.6095 µg/L	0.60356	0.6095 ppb	0.60356	99.03%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-121.8	-0.2532 µg/L	0.06998	-0.2532 ppb	0.06998	27.64%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	84.1	0.0804 µg/L	0.14329	0.0804 ppb	0.14329	178.21%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	0.9	0.1076 µg/L	1.27840	0.1076 ppb	1.27840	>999.9%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-57.9	-3.3992 µg/L	6.59417	-3.3992 ppb	6.59417	193.99%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-47.7	-0.2370 µg/L	0.23337	-0.2370 ppb	0.23337	98.47%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	24.7	0.1393 µg/L	0.13213	0.1393 ppb	0.13213	94.89%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 38

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/31/2010 20:46:32

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	142658.3	142658.3	97.8 %		20:47:06
1	Al 396.153Radial†	26173.0	26836.4	4953.1 µg/L	4953.1 ppb	20:47:06
1	Ca 317.933Radial†	86811.8	88242.0	4915.4 µg/L	4915.4 ppb	20:47:06
1	Fe 238.204 Radial†	77308.1	78932.9	4864.9 µg/L	4864.9 ppb	20:47:06
1	K 766.490 Radial†	14453.8	13240.4	4843.5 µg/L	4843.5 ppb	20:47:06
1	Mg 279.077 IEC†	13219.2	13331.7	4974.8 µg/L	4974.8 ppb	20:47:06
1	Na 589.592 Radial†	70981.3	71318.3	9738.6 µg/L	9738.6 ppb	20:47:06
1	Sr 421.552†	229479.6	234877.4	488.26 µg/L	488.26 ppb	20:47:04
1	Sc 361.383	1717986.8	1717986.8	99.987 %		20:47:18
1	Y 371.029	1016974.2	1016974.2	99.054 %		20:47:18
1	Ag 328.068†	133861.9	129788.4	486.66 µg/L	486.66 ppb	20:47:18
1	As 188.979†	1570.9	1591.4	488.31 µg/L	488.31 ppb	20:47:39
1	B 249.677†	35888.7	32387.7	475.97 µg/L	475.97 ppb	20:47:18
1	Ba 233.527†	120089.3	120241.3	484.93 µg/L	484.93 ppb	20:47:18
1	Be 313.107†	1788228.5	1789533.4	487.39 µg/L	487.39 ppb	20:47:18
1	Cd 226.502†	77187.6	77316.2	482.64 µg/L	482.64 ppb	20:47:18
1	Co 228.616†	39259.0	39454.6	487.07 µg/L	487.07 ppb	20:47:18
1	Cr 267.716†	61734.0	61563.8	482.03 µg/L	482.03 ppb	20:47:18
1	Cu 324.752†	127051.0	124095.8	483.76 µg/L	483.76 ppb	20:47:18
1	Mn 257.610†	394153.9	393969.6	487.25 µg/L	487.25 ppb	20:47:18
1	Mo 202.031†	16323.5	16345.7	480.82 µg/L	480.82 ppb	20:47:39
1	Ni 231.604†	42025.4	42107.6	484.84 µg/L	484.84 ppb	20:47:18
1	P 214.914†	11165.4	11184.8	2383.9 µg/L	2383.9 ppb	20:47:39
1	Pb 220.353†	8721.1	8635.9	483.61 µg/L	483.61 ppb	20:47:39
1	S 181.975 Axial†	1384.6	1279.7	954.32 µg/L	954.32 ppb	20:47:39
1	Sb 206.836†	4121.5	4041.3	481.48 µg/L	481.48 ppb	20:47:39
1	Se 196.026†	1330.1	1315.0	478 µg/L	478 ppb	20:47:39
1	SiO2†	55658.0	53890.1	5246.7 µg/L	5246.7 ppb	20:47:18
1	Si 251.611†	168475.5	167661.6	2462.2 µg/L	2462.2 ppb	20:47:18
1	Sn 189.927†	7694.7	7696.9	481.46 µg/L	481.46 ppb	20:47:39
1	Ti 334.940†	521521.0	520638.5	485.79 µg/L	485.79 ppb	20:47:18
1	Tl 190.801†	3795.7	3912.8	488.05 µg/L	488.05 ppb	20:47:39
1	U 409.014†	7470.6	7741.5	482.06 µg/L	482.06 ppb	20:47:18
1	V 292.402†	99032.8	98642.4	487.59 µg/L	487.59 ppb	20:47:18
1	Zn 213.857†	86847.2	86294.4	480.95 µg/L	480.95 ppb	20:47:18
2	Sc RADIAL	142003.0	142003.0	97.3 %		20:47:10
2	Al 396.153Radial†	25928.5	26708.7	4929.4 µg/L	4929.4 ppb	20:47:10
2	Ca 317.933Radial†	86471.0	88301.6	4918.7 µg/L	4918.7 ppb	20:47:10
2	Fe 238.204 Radial†	76877.1	78854.9	4860.1 µg/L	4860.1 ppb	20:47:10
2	K 766.490 Radial†	14481.3	13337.0	4878.8 µg/L	4878.8 ppb	20:47:10
2	Mg 279.077 IEC†	13250.2	13425.9	5009.9 µg/L	5009.9 ppb	20:47:10
2	Na 589.592 Radial†	70794.9	71461.8	9758.2 µg/L	9758.2 ppb	20:47:10
2	Sr 421.552†	230824.3	237342.5	493.38 µg/L	493.38 ppb	20:47:08
2	Sc 361.383	1705978.0	1705978.0	99.288 %		20:47:42
2	Y 371.029	1010151.3	1010151.3	98.389 %		20:47:42
2	Ag 328.068†	132428.5	129287.2	484.78 µg/L	484.78 ppb	20:47:42
2	As 188.979†	1571.4	1603.0	491.82 µg/L	491.82 ppb	20:48:02
2	B 249.677†	35678.8	32428.9	476.59 µg/L	476.59 ppb	20:47:42
2	Ba 233.527†	119061.0	120051.1	484.16 µg/L	484.16 ppb	20:47:42
2	Be 313.107†	1771852.0	1785628.8	486.33 µg/L	486.33 ppb	20:47:42
2	Cd 226.502†	76647.7	77315.8	482.64 µg/L	482.64 ppb	20:47:42
2	Co 228.616†	38849.5	39318.5	485.39 µg/L	485.39 ppb	20:47:42
2	Cr 267.716†	61408.7	61670.7	482.88 µg/L	482.88 ppb	20:47:42
2	Cu 324.752†	125575.7	123504.5	481.46 µg/L	481.46 ppb	20:47:42
2	Mn 257.610†	390410.2	392973.9	486.01 µg/L	486.01 ppb	20:47:42
2	Mo 202.031†	16220.6	16357.1	481.16 µg/L	481.16 ppb	20:48:02
2	Ni 231.604†	41645.6	42020.9	483.84 µg/L	483.84 ppb	20:47:42
2	P 214.914†	11149.7	11247.7	2397.4 µg/L	2397.4 ppb	20:48:02
2	Pb 220.353†	8713.0	8689.1	486.58 µg/L	486.58 ppb	20:48:02

2	S 181.975 Axial†	1386.6	1291.5	963.10 µg/L	963.10 ppb	20:48:02
2	Sb 206.836†	4077.2	4025.7	479.62 µg/L	479.62 ppb	20:48:02
2	Se 196.026†	1343.8	1338.2	486 µg/L	486 ppb	20:48:02
2	SiO2†	55264.2	53885.3	5246.2 µg/L	5246.2 ppb	20:47:42
2	Si 251.611†	166831.6	167191.9	2455.3 µg/L	2455.3 ppb	20:47:42
2	Sn 189.927†	7685.8	7742.0	484.27 µg/L	484.27 ppb	20:48:02
2	Ti 334.940†	517135.3	519893.0	485.10 µg/L	485.10 ppb	20:47:42
2	Tl 190.801†	3798.0	3941.9	491.62 µg/L	491.62 ppb	20:48:02
2	U 409.014†	7240.4	7562.3	471.53 µg/L	471.53 ppb	20:47:42
2	V 292.402†	98205.8	98506.6	486.93 µg/L	486.93 ppb	20:47:42
2	Zn 213.857†	85981.0	86033.4	479.49 µg/L	479.49 ppb	20:47:42
3	Sc RADIAL	143540.2	143540.2	98.4 %		20:47:14
3	Al 396.153Radial†	26297.7	26798.6	4945.9 µg/L	4945.9 ppb	20:47:14
3	Ca 317.933Radial†	87479.0	88374.7	4922.8 µg/L	4922.8 ppb	20:47:14
3	Fe 238.204 Radial†	77829.6	78977.1	4867.7 µg/L	4867.7 ppb	20:47:14
3	K 766.490 Radial†	14541.2	13238.5	4842.8 µg/L	4842.8 ppb	20:47:14
3	Mg 279.077 IEC†	13331.1	13362.3	4986.3 µg/L	4986.3 ppb	20:47:14
3	Na 589.592 Radial†	71517.8	71417.6	9752.2 µg/L	9752.2 ppb	20:47:14
3	Sr 421.552†	229529.4	233485.7	485.36 µg/L	485.36 ppb	20:47:12
3	Sc 361.383	1697774.9	1697774.9	98.810 %		20:48:05
3	Y 371.029	1005288.7	1005288.7	97.916 %		20:48:05
3	Ag 328.068†	132337.3	129839.4	486.83 µg/L	486.83 ppb	20:48:05
3	As 188.979†	1566.3	1605.5	492.60 µg/L	492.60 ppb	20:48:25
3	B 249.677†	35561.4	32483.7	477.39 µg/L	477.39 ppb	20:48:05
3	Ba 233.527†	118631.6	120195.8	484.75 µg/L	484.75 ppb	20:48:05
3	Be 313.107†	1768996.7	1791361.7	487.89 µg/L	487.89 ppb	20:48:05
3	Cd 226.502†	76298.6	77335.5	482.76 µg/L	482.76 ppb	20:48:05
3	Co 228.616†	38681.6	39337.6	485.62 µg/L	485.62 ppb	20:48:05
3	Cr 267.716†	61122.4	61679.8	482.95 µg/L	482.95 ppb	20:48:05
3	Cu 324.752†	125325.9	123862.7	482.85 µg/L	482.85 ppb	20:48:05
3	Mn 257.610†	389691.1	394146.1	487.47 µg/L	487.47 ppb	20:48:05
3	Mo 202.031†	16294.8	16511.0	485.68 µg/L	485.68 ppb	20:48:25
3	Ni 231.604†	41366.1	41940.7	482.92 µg/L	482.92 ppb	20:48:05
3	P 214.914†	11228.3	11381.4	2426.0 µg/L	2426.0 ppb	20:48:25
3	Pb 220.353†	8735.3	8754.1	490.22 µg/L	490.22 ppb	20:48:25
3	S 181.975 Axial†	1387.1	1298.7	968.51 µg/L	968.51 ppb	20:48:25
3	Sb 206.836†	4142.3	4111.4	489.88 µg/L	489.88 ppb	20:48:25
3	Se 196.026†	1325.9	1326.6	482 µg/L	482 ppb	20:48:25
3	SiO2†	55019.2	53906.4	5248.0 µg/L	5248.0 ppb	20:48:05
3	Si 251.611†	166054.7	167217.6	2455.6 µg/L	2455.6 ppb	20:48:05
3	Sn 189.927†	7713.9	7807.9	488.38 µg/L	488.38 ppb	20:48:25
3	Ti 334.940†	515323.4	520575.8	485.74 µg/L	485.74 ppb	20:48:05
3	Tl 190.801†	3789.8	3952.1	492.88 µg/L	492.88 ppb	20:48:25
3	U 409.014†	7240.2	7597.3	473.61 µg/L	473.61 ppb	20:48:05
3	V 292.402†	97793.8	98567.5	487.28 µg/L	487.28 ppb	20:48:05
3	Zn 213.857†	85880.1	86349.8	481.27 µg/L	481.27 ppb	20:48:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1707246.6	99.361 %	0.5916			0.60%
Sc RADIAL	142733.8	97.8 %	0.53			0.54%
Y 371.029	1010804.8	98.453 %	0.5717			0.58%
Ag 328.068†	129638.4	486.09 µg/L	1.137	486.09 ppb	1.137	0.23%
QC value within limits for Ag 328.068 Recovery = 97.22%						
Al 396.153Radial†	26781.2	4942.8 µg/L	12.14	4942.8 ppb	12.14	0.25%
QC value within limits for Al 396.153Radial Recovery = 98.86%						
As 188.979†	1600.0	490.91 µg/L	2.283	490.91 ppb	2.283	0.47%
QC value within limits for As 188.979 Recovery = 98.18%						
B 249.677†	32433.4	476.65 µg/L	0.713	476.65 ppb	0.713	0.15%
QC value within limits for B 249.677 Recovery = 95.33%						
Ba 233.527†	120162.7	484.61 µg/L	0.401	484.61 ppb	0.401	0.08%
QC value within limits for Ba 233.527 Recovery = 96.92%						
Be 313.107†	1788841.3	487.20 µg/L	0.798	487.20 ppb	0.798	0.16%
QC value within limits for Be 313.107 Recovery = 97.44%						
Ca 317.933Radial†	88306.1	4919.0 µg/L	3.70	4919.0 ppb	3.70	0.08%
QC value within limits for Ca 317.933Radial Recovery = 98.38%						
Cd 226.502†	77322.5	482.68 µg/L	0.070	482.68 ppb	0.070	0.01%
QC value within limits for Cd 226.502 Recovery = 96.54%						
Co 228.616†	39370.2	486.02 µg/L	0.909	486.02 ppb	0.909	0.19%

QC value within limits for Co 228.616 Recovery = 97.20%							
Cr 267.716†	61638.1	482.62 µg/L	0.509	482.62 ppb	0.509	0.11%	
QC value within limits for Cr 267.716 Recovery = 96.52%							
Cu 324.752†	123821.0	482.69 µg/L	1.162	482.69 ppb	1.162	0.24%	
QC value within limits for Cu 324.752 Recovery = 96.54%							
Fe 238.204 Radial†	78921.6	4864.2 µg/L	3.82	4864.2 ppb	3.82	0.08%	
QC value within limits for Fe 238.204 Radial Recovery = 97.28%							
K 766.490 Radial†	13272.0	4855.1 µg/L	20.61	4855.1 ppb	20.61	0.42%	
QC value within limits for K 766.490 Radial Recovery = 97.10%							
Mg 279.077 IEC†	13373.3	4990.3 µg/L	17.90	4990.3 ppb	17.90	0.36%	
QC value within limits for Mg 279.077 IEC Recovery = 99.81%							
Mn 257.610†	393696.5	486.91 µg/L	0.783	486.91 ppb	0.783	0.16%	
QC value within limits for Mn 257.610 Recovery = 97.38%							
Mo 202.031†	16404.6	482.56 µg/L	2.714	482.56 ppb	2.714	0.56%	
QC value within limits for Mo 202.031 Recovery = 96.51%							
Na 589.592 Radial†	71399.2	9749.7 µg/L	10.02	9749.7 ppb	10.02	0.10%	
QC value within limits for Na 589.592 Radial Recovery = 97.50%							
Ni 231.604†	42023.1	483.87 µg/L	0.961	483.87 ppb	0.961	0.20%	
QC value within limits for Ni 231.604 Recovery = 96.77%							
P 214.914†	11271.3	2402.4 µg/L	21.48	2402.4 ppb	21.48	0.89%	
QC value within limits for P 214.914 Recovery = 96.10%							
Pb 220.353†	8693.1	486.80 µg/L	3.313	486.80 ppb	3.313	0.68%	
QC value within limits for Pb 220.353 Recovery = 97.36%							
S 181.975 Axial†	1290.0	961.98 µg/L	7.160	961.98 ppb	7.160	0.74%	
QC value within limits for S 181.975 Axial Recovery = 96.20%							
Sb 206.836†	4059.4	483.66 µg/L	5.466	483.66 ppb	5.466	1.13%	
QC value within limits for Sb 206.836 Recovery = 96.73%							
Se 196.026†	1326.6	482 µg/L	4.2	482 ppb	4.2	0.87%	
QC value within limits for Se 196.026 Recovery = 96.34%							
SiO2†	53893.9	5247.0 µg/L	0.96	5247.0 ppb	0.96	0.02%	
QC value within limits for SiO2 Recovery = 98.12%							
Si 251.611†	167357.0	2457.7 µg/L	3.93	2457.7 ppb	3.93	0.16%	
QC value within limits for Si 251.611 Recovery = 98.31%							
Sn 189.927†	7748.9	484.70 µg/L	3.480	484.70 ppb	3.480	0.72%	
QC value within limits for Sn 189.927 Recovery = 96.94%							
Sr 421.552†	235235.2	489.00 µg/L	4.060	489.00 ppb	4.060	0.83%	
QC value within limits for Sr 421.552 Recovery = 97.80%							
Ti 334.940†	520369.1	485.54 µg/L	0.386	485.54 ppb	0.386	0.08%	
QC value within limits for Ti 334.940 Recovery = 97.11%							
Tl 190.801†	3935.6	490.85 µg/L	2.502	490.85 ppb	2.502	0.51%	
QC value within limits for Tl 190.801 Recovery = 98.17%							
U 409.014†	7633.7	475.73 µg/L	5.576	475.73 ppb	5.576	1.17%	
QC value within limits for U 409.014 Recovery = 95.15%							
V 292.402†	98572.2	487.27 µg/L	0.331	487.27 ppb	0.331	0.07%	
QC value within limits for V 292.402 Recovery = 97.45%							
Zn 213.857†	86225.9	480.57 µg/L	0.949	480.57 ppb	0.949	0.20%	
QC value within limits for Zn 213.857 Recovery = 96.11%							

All analyte(s) passed QC.

Sequence No.: 39

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/31/2010 20:48:32

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	143100.4	143100.4	98.1 %		20:49:01
1	Al 396.153Radial†	-68.2	-6.4	-1.1706 µg/L	-1.1706 ppb	20:49:21
1	Ca 317.933Radial†	633.3	85.2	4.7476 µg/L	4.7476 ppb	20:49:21
1	Fe 238.204 Radial†	162.0	17.1	1.0551 µg/L	1.0551 ppb	20:49:21
1	K 766.490 Radial†	1505.7	-9.3	-3.4148 µg/L	-3.4148 ppb	20:49:01
1	Mg 279.077 IEC†	188.6	1.6	0.6053 µg/L	0.6053 ppb	20:49:21
1	Na 589.592 Radial†	1635.8	377.3	51.550 µg/L	51.550 ppb	20:49:01
1	Sr 421.552†	-135.1	-2.5	-0.0052 µg/L	-0.0052 ppb	20:49:01
1	Sc 361.383	1714287.6	1714287.6	99.771 %		20:50:09
1	Y 371.029	1025603.7	1025603.7	99.894 %		20:50:09
1	Ag 328.068†	3929.0	-153.4	-0.5739 µg/L	-0.5739 ppb	20:50:11
1	As 188.979†	-14.7	5.7	1.7126 µg/L	1.7126 ppb	20:50:31
1	B 249.677†	3483.3	-14.6	-0.2161 µg/L	-0.2161 ppb	20:50:31
1	Ba 233.527†	-124.6	11.0	0.0445 µg/L	0.0445 ppb	20:50:31
1	Be 313.107†	-819.1	243.7	0.0640 µg/L	0.0640 ppb	20:50:11
1	Cd 226.502†	-96.3	21.7	0.1352 µg/L	0.1352 ppb	20:50:31
1	Co 228.616†	-181.4	8.5	0.1049 µg/L	0.1049 ppb	20:50:31
1	Cr 267.716†	159.9	-18.3	-0.1371 µg/L	-0.1371 ppb	20:50:31
1	Cu 324.752†	2837.6	-128.1	-0.5041 µg/L	-0.5041 ppb	20:50:11
1	Mn 257.610†	255.9	19.2	0.0238 µg/L	0.0238 ppb	20:50:31
1	Mo 202.031†	-30.3	-10.3	-0.3020 µg/L	-0.3020 ppb	20:50:31
1	Ni 231.604†	-89.5	-13.2	-0.1520 µg/L	-0.1520 ppb	20:50:31
1	P 214.914†	-14.0	3.9	0.8495 µg/L	0.8495 ppb	20:50:31
1	Pb 220.353†	127.8	41.7	2.3324 µg/L	2.3324 ppb	20:50:31
1	S 181.975 Axial†	105.4	0.6	0.4193 µg/L	0.4193 ppb	20:50:31
1	Sb 206.836†	61.7	-18.9	-2.2534 µg/L	-2.2534 ppb	20:50:31
1	Se 196.026†	16.8	1.6	0.564 µg/L	0.564 ppb	20:50:31
1	SiO2†	1750.1	-21.3	-2.0737 µg/L	-2.0737 ppb	20:50:31
1	Si 251.611†	904.3	69.8	1.0310 µg/L	1.0310 ppb	20:50:11
1	Sn 189.927†	3.7	4.9	0.3040 µg/L	0.3040 ppb	20:50:31
1	Ti 334.940†	1043.2	93.0	0.0902 µg/L	0.0902 ppb	20:50:11
1	Tl 190.801†	-125.6	-9.3	-1.1347 µg/L	-1.1347 ppb	20:50:31
1	U 409.014†	-400.9	-131.9	-7.6954 µg/L	-7.6954 ppb	20:50:11
1	V 292.402†	469.6	66.9	0.3171 µg/L	0.3171 ppb	20:50:11
1	Zn 213.857†	595.1	32.0	0.1811 µg/L	0.1811 ppb	20:50:31
2	Sc RADIAL	142884.5	142884.5	97.9 %		20:49:23
2	Al 396.153Radial†	-69.1	-7.4	-1.3818 µg/L	-1.3818 ppb	20:49:43
2	Ca 317.933Radial†	615.2	67.8	3.7747 µg/L	3.7747 ppb	20:49:43
2	Fe 238.204 Radial†	156.5	11.7	0.7231 µg/L	0.7231 ppb	20:49:43
2	K 766.490 Radial†	1609.8	99.3	36.354 µg/L	36.354 ppb	20:49:23
2	Mg 279.077 IEC†	180.2	-6.7	-2.4821 µg/L	-2.4821 ppb	20:49:43
2	Na 589.592 Radial†	1524.3	266.0	36.311 µg/L	36.311 ppb	20:49:23
2	Sr 421.552†	-167.8	-36.0	-0.0750 µg/L	-0.0750 ppb	20:49:23
2	Sc 361.383	1705708.0	1705708.0	99.272 %		20:50:33
2	Y 371.029	1021576.7	1021576.7	99.502 %		20:50:33
2	Ag 328.068†	3789.2	-274.4	-1.0230 µg/L	-1.0230 ppb	20:50:35
2	As 188.979†	-3.7	16.6	5.0206 µg/L	5.0206 ppb	20:50:56
2	B 249.677†	3504.5	24.3	0.3589 µg/L	0.3589 ppb	20:50:56
2	Ba 233.527†	-135.1	-0.3	-0.0007 µg/L	-0.0007 ppb	20:50:56
2	Be 313.107†	-1027.1	30.1	0.0056 µg/L	0.0056 ppb	20:50:35
2	Cd 226.502†	-117.9	-0.5	-0.0035 µg/L	-0.0035 ppb	20:50:56
2	Co 228.616†	-184.4	4.6	0.0565 µg/L	0.0565 ppb	20:50:56
2	Cr 267.716†	197.3	20.1	0.1648 µg/L	0.1648 ppb	20:50:56
2	Cu 324.752†	2986.4	36.0	0.1330 µg/L	0.1330 ppb	20:50:35
2	Mn 257.610†	208.3	-27.5	-0.0339 µg/L	-0.0339 ppb	20:50:56
2	Mo 202.031†	-10.1	9.9	0.2925 µg/L	0.2925 ppb	20:50:56
2	Ni 231.604†	-71.6	4.4	0.0504 µg/L	0.0504 ppb	20:50:56
2	P 214.914†	-25.7	-7.9	-1.7048 µg/L	-1.7048 ppb	20:50:56
2	Pb 220.353†	88.5	2.8	0.1610 µg/L	0.1610 ppb	20:50:56

2	S 181.975 Axial†	98.5	-5.8	-4.3120 µg/L	-4.3120 ppb	20:50:56
2	Sb 206.836†	86.1	5.9	0.7055 µg/L	0.7055 ppb	20:50:56
2	Se 196.026†	6.1	-9.2	-3.32 µg/L	-3.32 ppb	20:50:56
2	SiO2†	1800.3	38.1	3.7206 µg/L	3.7206 ppb	20:50:56
2	Si 251.611†	941.5	111.8	1.6453 µg/L	1.6453 ppb	20:50:35
2	Sn 189.927†	-2.9	-1.8	-0.1151 µg/L	-0.1151 ppb	20:50:56
2	Ti 334.940†	825.1	-121.4	-0.1096 µg/L	-0.1096 ppb	20:50:35
2	Tl 190.801†	-103.9	12.0	1.4793 µg/L	1.4793 ppb	20:50:56
2	U 409.014†	-414.7	-147.9	-8.6275 µg/L	-8.6275 ppb	20:50:35
2	V 292.402†	468.7	68.3	0.3311 µg/L	0.3311 ppb	20:50:35
2	Zn 213.857†	586.6	26.4	0.1479 µg/L	0.1479 ppb	20:50:56
3	Sc RADIAL	143556.4	143556.4	98.4 %		20:49:45
3	Al 396.153Radial†	-49.6	12.8	2.3684 µg/L	2.3684 ppb	20:50:05
3	Ca 317.933Radial†	619.9	69.5	3.8728 µg/L	3.8728 ppb	20:50:05
3	Fe 238.204 Radial†	160.9	15.5	0.9527 µg/L	0.9527 ppb	20:50:05
3	K 766.490 Radial†	1716.2	199.8	73.139 µg/L	73.139 ppb	20:49:45
3	Mg 279.077 IEC†	179.3	-8.5	-3.1618 µg/L	-3.1618 ppb	20:50:05
3	Na 589.592 Radial†	1571.2	306.3	41.786 µg/L	41.786 ppb	20:49:45
3	Sr 421.552†	-111.1	22.4	0.0465 µg/L	0.0465 ppb	20:49:45
3	Sc 361.383	1721625.0	1721625.0	100.20 %		20:50:58
3	Y 371.029	1030085.4	1030085.4	100.33 %		20:50:58
3	Ag 328.068†	3859.6	-239.4	-0.8861 µg/L	-0.8861 ppb	20:51:00
3	As 188.979†	-27.5	-7.1	-2.1453 µg/L	-2.1453 ppb	20:51:20
3	B 249.677†	3491.5	-21.3	-0.3158 µg/L	-0.3158 ppb	20:51:20
3	Ba 233.527†	-142.3	-6.2	-0.0248 µg/L	-0.0248 ppb	20:51:20
3	Be 313.107†	-950.3	116.3	0.0315 µg/L	0.0315 ppb	20:51:00
3	Cd 226.502†	-122.0	-3.6	-0.0224 µg/L	-0.0224 ppb	20:51:20
3	Co 228.616†	-167.0	23.7	0.2921 µg/L	0.2921 ppb	20:51:20
3	Cr 267.716†	146.9	-32.0	-0.2498 µg/L	-0.2498 ppb	20:51:20
3	Cu 324.752†	3019.8	41.6	0.1616 µg/L	0.1616 ppb	20:51:00
3	Mn 257.610†	238.8	1.0	0.0014 µg/L	0.0014 ppb	20:51:20
3	Mo 202.031†	-20.4	-0.3	-0.0095 µg/L	-0.0095 ppb	20:51:20
3	Ni 231.604†	-92.9	-16.2	-0.1861 µg/L	-0.1861 ppb	20:51:20
3	P 214.914†	-16.8	1.2	0.2638 µg/L	0.2638 ppb	20:51:20
3	Pb 220.353†	96.5	9.9	0.5545 µg/L	0.5545 ppb	20:51:20
3	S 181.975 Axial†	97.9	-7.4	-5.4692 µg/L	-5.4692 ppb	20:51:20
3	Sb 206.836†	70.1	-10.9	-1.2853 µg/L	-1.2853 ppb	20:51:20
3	Se 196.026†	24.0	8.7	3.13 µg/L	3.13 ppb	20:51:20
3	SiO2†	1761.3	-17.6	-1.7243 µg/L	-1.7243 ppb	20:51:20
3	Si 251.611†	890.7	52.3	0.7682 µg/L	0.7682 ppb	20:51:00
3	Sn 189.927†	7.5	8.6	0.5361 µg/L	0.5361 ppb	20:51:20
3	Ti 334.940†	901.9	-52.4	-0.0483 µg/L	-0.0483 ppb	20:51:00
3	Tl 190.801†	-111.0	5.9	0.7212 µg/L	0.7212 ppb	20:51:20
3	U 409.014†	-279.5	-9.1	-0.5238 µg/L	-0.5238 ppb	20:51:00
3	V 292.402†	424.3	19.7	0.0944 µg/L	0.0944 ppb	20:51:00
3	Zn 213.857†	577.4	11.9	0.0677 µg/L	0.0677 ppb	20:51:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1713873.5	99.747 %	0.4637			0.46%
Sc RADIAL	143180.4	98.1 %	0.24			0.24%
Y 371.029	1025755.3	99.909 %	0.4146			0.41%
Ag 328.068†	-222.4	-0.8276 µg/L	0.23017	-0.8276 ppb	0.23017	27.81%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-0.3	-0.0614 µg/L	2.10685	-0.0614 ppb	2.10685	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	5.1	1.5293 µg/L	3.58647	1.5293 ppb	3.58647	234.51%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-3.9	-0.0576 µg/L	0.36418	-0.0576 ppb	0.36418	631.86%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	1.5	0.0063 µg/L	0.03518	0.0063 ppb	0.03518	557.71%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	130.0	0.0337 µg/L	0.02929	0.0337 ppb	0.02929	86.91%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	74.2	4.1317 µg/L	0.53563	4.1317 ppb	0.53563	12.96%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	5.9	0.0364 µg/L	0.08602	0.0364 ppb	0.08602	236.18%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	12.3	0.1512 µg/L	0.12445	0.1512 ppb	0.12445	82.31%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-10.0	-0.0740 µg/L	0.21436	-0.0740 ppb	0.21436	289.62%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-16.8	-0.0698 µg/L	0.37636	-0.0698 ppb	0.37636	538.93%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	14.8	0.9103 µg/L	0.16999	0.9103 ppb	0.16999	18.67%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	96.6	35.359 µg/L	38.2865	35.359 ppb	38.2865	108.28%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-4.5	-1.6795 µg/L	2.00766	-1.6795 ppb	2.00766	119.54%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	-2.4	-0.0029 µg/L	0.02906	-0.0029 ppb	0.02906	>999.9%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-0.2	-0.0064 µg/L	0.29725	-0.0064 ppb	0.29725	>999.9%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	316.6	43.216 µg/L	7.7194	43.216 ppb	7.7194	17.86%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-8.3	-0.0959 µg/L	0.12783	-0.0959 ppb	0.12783	133.28%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-0.9	-0.1972 µg/L	1.33806	-0.1972 ppb	1.33806	678.62%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	18.1	1.0159 µg/L	1.15693	1.0159 ppb	1.15693	113.88%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-4.2	-3.1206 µg/L	3.11977	-3.1206 ppb	3.11977	99.97%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-8.0	-0.9444 µg/L	1.50862	-0.9444 ppb	1.50862	159.74%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	0.4	0.124 µg/L	3.2508	0.124 ppb	3.2508	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-0.2	-0.0258 µg/L	3.24918	-0.0258 ppb	3.24918	>999.9%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	78.0	1.1482 µg/L	0.45012	1.1482 ppb	0.45012	39.20%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	3.9	0.2417 µg/L	0.33003	0.2417 ppb	0.33003	136.56%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-5.4	-0.0112 µg/L	0.06093	-0.0112 ppb	0.06093	542.16%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-26.9	-0.0226 µg/L	0.10236	-0.0226 ppb	0.10236	453.52%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	2.9	0.3552 µg/L	1.34488	0.3552 ppb	1.34488	378.59%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-96.3	-5.6156 µg/L	4.43418	-5.6156 ppb	4.43418	78.96%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	51.6	0.2475 µg/L	0.13284	0.2475 ppb	0.13284	53.67%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	23.4	0.1323 µg/L	0.05829	0.1323 ppb	0.05829	44.08%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 50

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/31/2010 21:16:09

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	140518.4	140518.4	96.3 %		21:16:42
1	Al 396.153Radial†	25783.9	26840.0	4953.4 µg/L	4953.4 ppb	21:16:42
1	Ca 317.933Radial†	85524.3	88257.2	4916.3 µg/L	4916.3 ppb	21:16:42
1	Fe 238.204 Radial†	76323.1	79114.2	4876.1 µg/L	4876.1 ppb	21:16:42
1	K 766.490 Radial†	14404.9	13414.9	4907.4 µg/L	4907.4 ppb	21:16:42
1	Mg 279.077 IEC†	13081.5	13394.6	4998.4 µg/L	4998.4 ppb	21:16:42
1	Na 589.592 Radial†	70242.3	71656.5	9784.8 µg/L	9784.8 ppb	21:16:42
1	Sr 421.552†	226316.6	235167.3	488.86 µg/L	488.86 ppb	21:16:40
1	Sc 361.383	1669103.9	1669103.9	97.142 %		21:16:55
1	Y 371.029	989417.5	989417.5	96.370 %		21:16:55
1	Ag 328.068†	129569.0	129290.2	484.77 µg/L	484.77 ppb	21:16:55
1	As 188.979†	1551.4	1617.4	496.19 µg/L	496.19 ppb	21:17:15
1	B 249.677†	34680.4	32195.0	473.14 µg/L	473.14 ppb	21:16:55
1	Ba 233.527†	116237.8	119794.0	483.13 µg/L	483.13 ppb	21:16:55
1	Be 313.107†	1725182.2	1777010.7	483.98 µg/L	483.98 ppb	21:16:55
1	Cd 226.502†	74430.6	76738.9	479.03 µg/L	479.03 ppb	21:16:55
1	Co 228.616†	37838.5	39142.2	483.21 µg/L	483.21 ppb	21:16:55
1	Cr 267.716†	59798.9	61379.9	480.59 µg/L	480.59 ppb	21:16:55
1	Cu 324.752†	122989.1	123635.9	481.97 µg/L	481.97 ppb	21:16:55
1	Mn 257.610†	381507.5	392496.1	485.42 µg/L	485.42 ppb	21:16:55
1	Mo 202.031†	16149.2	16644.5	489.61 µg/L	489.61 ppb	21:17:15
1	Ni 231.604†	40427.6	41693.7	480.07 µg/L	480.07 ppb	21:16:55
1	P 214.914†	11040.4	11383.2	2426.3 µg/L	2426.3 ppb	21:17:15
1	Pb 220.353†	8616.0	8783.1	491.85 µg/L	491.85 ppb	21:17:15
1	S 181.975 Axial†	1370.2	1305.5	973.53 µg/L	973.53 ppb	21:17:15
1	Sb 206.836†	4075.4	4114.5	490.34 µg/L	490.34 ppb	21:17:15
1	Se 196.026†	1325.8	1349.6	490 µg/L	490 ppb	21:17:15
1	SiO2†	53789.9	53597.3	5217.7 µg/L	5217.7 ppb	21:16:55
1	Si 251.611†	162739.1	166691.2	2447.8 µg/L	2447.8 ppb	21:16:55
1	Sn 189.927†	7604.8	7829.7	489.73 µg/L	489.73 ppb	21:17:15
1	Ti 334.940†	504929.9	518835.1	484.11 µg/L	484.11 ppb	21:16:55
1	Tl 190.801†	3752.3	3979.4	496.21 µg/L	496.21 ppb	21:17:15
1	U 409.014†	7197.9	7679.6	478.26 µg/L	478.26 ppb	21:16:55
1	V 292.402†	95634.0	98044.3	484.76 µg/L	484.76 ppb	21:16:55
1	Zn 213.857†	83598.9	85494.4	476.49 µg/L	476.49 ppb	21:16:55
2	Sc RADIAL	141583.7	141583.7	97.0 %		21:16:47
2	Al 396.153Radial†	25881.7	26739.3	4934.9 µg/L	4934.9 ppb	21:16:47
2	Ca 317.933Radial†	85790.3	87863.1	4894.3 µg/L	4894.3 ppb	21:16:47
2	Fe 238.204 Radial†	76348.3	78543.7	4841.0 µg/L	4841.0 ppb	21:16:47
2	K 766.490 Radial†	14349.6	13245.3	4845.3 µg/L	4845.3 ppb	21:16:47
2	Mg 279.077 IEC†	13161.7	13375.0	4991.0 µg/L	4991.0 ppb	21:16:47
2	Na 589.592 Radial†	70371.9	71241.2	9728.1 µg/L	9728.1 ppb	21:16:47
2	Sr 421.552†	225549.9	232608.6	483.54 µg/L	483.54 ppb	21:16:44
2	Sc 361.383	1700896.9	1700896.9	98.992 %		21:17:18
2	Y 371.029	1006820.6	1006820.6	98.065 %		21:17:18
2	Ag 328.068†	132249.7	129505.0	485.59 µg/L	485.59 ppb	21:17:18
2	As 188.979†	1564.2	1600.5	491.07 µg/L	491.07 ppb	21:17:38
2	B 249.677†	35612.0	32468.8	477.17 µg/L	477.17 ppb	21:17:18
2	Ba 233.527†	119305.1	120655.9	486.60 µg/L	486.60 ppb	21:17:18
2	Be 313.107†	1771257.8	1790359.7	487.62 µg/L	487.62 ppb	21:17:18
2	Cd 226.502†	76605.7	77504.0	483.82 µg/L	483.82 ppb	21:17:18
2	Co 228.616†	38857.8	39443.8	486.94 µg/L	486.94 ppb	21:17:18
2	Cr 267.716†	61346.5	61792.6	483.83 µg/L	483.83 ppb	21:17:18
2	Cu 324.752†	126079.4	124391.1	484.90 µg/L	484.90 ppb	21:17:18
2	Mn 257.610†	390683.2	394424.4	487.81 µg/L	487.81 ppb	21:17:18
2	Mo 202.031†	16315.1	16501.3	485.39 µg/L	485.39 ppb	21:17:38
2	Ni 231.604†	41564.0	42063.8	484.33 µg/L	484.33 ppb	21:17:18
2	P 214.914†	11170.5	11302.2	2409.0 µg/L	2409.0 ppb	21:17:38
2	Pb 220.353†	8716.3	8718.6	488.24 µg/L	488.24 ppb	21:17:38

2	S 181.975 Axial†	1376.8	1285.7	958.84 µg/L	958.84 ppb	21:17:38
2	Sb 206.836†	4095.5	4056.4	483.32 µg/L	483.32 ppb	21:17:38
2	Se 196.026†	1341.9	1340.3	487 µg/L	487 ppb	21:17:38
2	SiO2†	55368.1	54156.5	5272.5 µg/L	5272.5 ppb	21:17:18
2	Si 251.611†	166631.9	167492.1	2459.6 µg/L	2459.6 ppb	21:17:18
2	Sn 189.927†	7705.9	7785.5	486.98 µg/L	486.98 ppb	21:17:38
2	Ti 334.940†	516370.1	520675.9	485.83 µg/L	485.83 ppb	21:17:18
2	Tl 190.801†	3799.4	3954.7	493.19 µg/L	493.19 ppb	21:17:38
2	U 409.014†	7223.0	7566.5	471.79 µg/L	471.79 ppb	21:17:18
2	V 292.402†	97908.7	98501.9	486.96 µg/L	486.96 ppb	21:17:18
2	Zn 213.857†	86115.5	86428.0	481.70 µg/L	481.70 ppb	21:17:18
3	Sc RADIAL	140610.0	140610.0	96.4 %		21:16:51
3	Al 396.153Radial†	25934.1	26978.5	4979.2 µg/L	4979.2 ppb	21:16:51
3	Ca 317.933Radial†	85400.8	88071.2	4905.9 µg/L	4905.9 ppb	21:16:51
3	Fe 238.204 Radial†	76011.3	78739.0	4853.0 µg/L	4853.0 ppb	21:16:51
3	K 766.490 Radial†	14473.0	13475.8	4929.7 µg/L	4929.7 ppb	21:16:51
3	Mg 279.077 IEC†	13077.3	13381.4	4993.4 µg/L	4993.4 ppb	21:16:51
3	Na 589.592 Radial†	70342.7	71713.3	9792.5 µg/L	9792.5 ppb	21:16:51
3	Sr 421.552†	223908.2	232514.8	483.35 µg/L	483.35 ppb	21:16:49
3	Sc 361.383	1690270.1	1690270.1	98.373 %		21:17:42
3	Y 371.029	1001275.7	1001275.7	97.525 %		21:17:42
3	Ag 328.068†	131972.5	130063.1	487.66 µg/L	487.66 ppb	21:17:42
3	As 188.979†	1560.3	1606.5	492.89 µg/L	492.89 ppb	21:18:02
3	B 249.677†	35493.5	32574.4	478.72 µg/L	478.72 ppb	21:17:42
3	Ba 233.527†	118281.0	120372.5	485.46 µg/L	485.46 ppb	21:17:42
3	Be 313.107†	1758207.7	1788343.2	487.07 µg/L	487.07 ppb	21:17:42
3	Cd 226.502†	76039.5	77415.0	483.26 µg/L	483.26 ppb	21:17:42
3	Co 228.616†	38697.3	39527.5	487.97 µg/L	487.97 ppb	21:17:42
3	Cr 267.716†	61022.9	61853.3	484.31 µg/L	484.31 ppb	21:17:42
3	Cu 324.752†	124975.7	124069.9	483.65 µg/L	483.65 ppb	21:17:42
3	Mn 257.610†	388217.6	394399.3	487.78 µg/L	487.78 ppb	21:17:42
3	Mo 202.031†	16264.5	16553.5	486.93 µg/L	486.93 ppb	21:18:02
3	Ni 231.604†	41303.6	42063.1	484.33 µg/L	484.33 ppb	21:17:42
3	P 214.914†	11171.7	11374.3	2424.5 µg/L	2424.5 ppb	21:18:02
3	Pb 220.353†	8697.8	8755.2	490.29 µg/L	490.29 ppb	21:18:02
3	S 181.975 Axial†	1394.3	1312.3	978.61 µg/L	978.61 ppb	21:18:02
3	Sb 206.836†	4104.7	4091.7	487.54 µg/L	487.54 ppb	21:18:02
3	Se 196.026†	1335.6	1342.4	487 µg/L	487 ppb	21:18:02
3	SiO2†	54853.9	53985.5	5255.7 µg/L	5255.7 ppb	21:17:42
3	Si 251.611†	165452.6	167351.7	2457.5 µg/L	2457.5 ppb	21:17:42
3	Sn 189.927†	7688.5	7816.7	488.93 µg/L	488.93 ppb	21:18:02
3	Ti 334.940†	512939.3	520467.8	485.64 µg/L	485.64 ppb	21:17:42
3	Tl 190.801†	3797.1	3976.5	495.87 µg/L	495.87 ppb	21:18:02
3	U 409.014†	7116.8	7504.3	468.21 µg/L	468.21 ppb	21:17:42
3	V 292.402†	97506.3	98714.7	488.01 µg/L	488.01 ppb	21:17:42
3	Zn 213.857†	85518.8	86368.4	481.37 µg/L	481.37 ppb	21:17:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1686757.0	98.169 %	0.9420			0.96%
Sc RADIAL	140904.0	96.6 %	0.40			0.42%
Y 371.029	999171.3	97.320 %	0.8659			0.89%
Ag 328.068†	129619.5	486.01 µg/L	1.489	486.01 ppb	1.489	0.31%
QC value within limits for Ag 328.068 Recovery = 97.20%						
Al 396.153Radial†	26852.6	4955.8 µg/L	22.23	4955.8 ppb	22.23	0.45%
QC value within limits for Al 396.153Radial Recovery = 99.12%						
As 188.979†	1608.1	493.38 µg/L	2.596	493.38 ppb	2.596	0.53%
QC value within limits for As 188.979 Recovery = 98.68%						
B 249.677†	32412.8	476.35 µg/L	2.879	476.35 ppb	2.879	0.60%
QC value within limits for B 249.677 Recovery = 95.27%						
Ba 233.527†	120274.1	485.06 µg/L	1.771	485.06 ppb	1.771	0.37%
QC value within limits for Ba 233.527 Recovery = 97.01%						
Be 313.107†	1785237.9	486.22 µg/L	1.958	486.22 ppb	1.958	0.40%
QC value within limits for Be 313.107 Recovery = 97.24%						
Ca 317.933Radial†	88063.9	4905.5 µg/L	10.98	4905.5 ppb	10.98	0.22%
QC value within limits for Ca 317.933Radial Recovery = 98.11%						
Cd 226.502†	77219.3	482.04 µg/L	2.617	482.04 ppb	2.617	0.54%
QC value within limits for Cd 226.502 Recovery = 96.41%						
Co 228.616†	39371.2	486.04 µg/L	2.502	486.04 ppb	2.502	0.51%

QC value within limits for Co 228.616 Recovery = 97.21%							
Cr 267.716†	61675.3	482.91 µg/L	2.021	482.91 ppb	2.021	0.42%	
QC value within limits for Cr 267.716 Recovery = 96.58%							
Cu 324.752†	124032.3	483.51 µg/L	1.468	483.51 ppb	1.468	0.30%	
QC value within limits for Cu 324.752 Recovery = 96.70%							
Fe 238.204 Radial†	78799.0	4856.7 µg/L	17.87	4856.7 ppb	17.87	0.37%	
QC value within limits for Fe 238.204 Radial Recovery = 97.13%							
K 766.490 Radial†	13378.7	4894.1 µg/L	43.71	4894.1 ppb	43.71	0.89%	
QC value within limits for K 766.490 Radial Recovery = 97.88%							
Mg 279.077 IEC†	13383.7	4994.3 µg/L	3.76	4994.3 ppb	3.76	0.08%	
QC value within limits for Mg 279.077 IEC Recovery = 99.89%							
Mn 257.610†	393773.3	487.00 µg/L	1.369	487.00 ppb	1.369	0.28%	
QC value within limits for Mn 257.610 Recovery = 97.40%							
Mo 202.031†	16566.4	487.31 µg/L	2.131	487.31 ppb	2.131	0.44%	
QC value within limits for Mo 202.031 Recovery = 97.46%							
Na 589.592 Radial†	71537.0	9768.5 µg/L	35.17	9768.5 ppb	35.17	0.36%	
QC value within limits for Na 589.592 Radial Recovery = 97.68%							
Ni 231.604†	41940.2	482.91 µg/L	2.458	482.91 ppb	2.458	0.51%	
QC value within limits for Ni 231.604 Recovery = 96.58%							
P 214.914†	11353.2	2419.9 µg/L	9.51	2419.9 ppb	9.51	0.39%	
QC value within limits for P 214.914 Recovery = 96.80%							
Pb 220.353†	8752.3	490.13 µg/L	1.809	490.13 ppb	1.809	0.37%	
QC value within limits for Pb 220.353 Recovery = 98.03%							
S 181.975 Axial†	1301.2	970.33 µg/L	10.267	970.33 ppb	10.267	1.06%	
QC value within limits for S 181.975 Axial Recovery = 97.03%							
Sb 206.836†	4087.6	487.07 µg/L	3.532	487.07 ppb	3.532	0.73%	
QC value within limits for Sb 206.836 Recovery = 97.41%							
Se 196.026†	1344.1	488 µg/L	1.8	488 ppb	1.8	0.36%	
QC value within limits for Se 196.026 Recovery = 97.61%							
SiO2†	53913.1	5248.7 µg/L	28.09	5248.7 ppb	28.09	0.54%	
QC value within limits for SiO2 Recovery = 98.15%							
Si 251.611†	167178.3	2455.0 µg/L	6.34	2455.0 ppb	6.34	0.26%	
QC value within limits for Si 251.611 Recovery = 98.20%							
Sn 189.927†	7810.6	488.55 µg/L	1.414	488.55 ppb	1.414	0.29%	
QC value within limits for Sn 189.927 Recovery = 97.71%							
Sr 421.552†	233430.2	485.25 µg/L	3.129	485.25 ppb	3.129	0.64%	
QC value within limits for Sr 421.552 Recovery = 97.05%							
Ti 334.940†	519992.9	485.19 µg/L	0.943	485.19 ppb	0.943	0.19%	
QC value within limits for Ti 334.940 Recovery = 97.04%							
Tl 190.801†	3970.2	495.09 µg/L	1.653	495.09 ppb	1.653	0.33%	
QC value within limits for Tl 190.801 Recovery = 99.02%							
U 409.014†	7583.5	472.76 µg/L	5.091	472.76 ppb	5.091	1.08%	
QC value within limits for U 409.014 Recovery = 94.55%							
V 292.402†	98420.3	486.58 µg/L	1.660	486.58 ppb	1.660	0.34%	
QC value within limits for V 292.402 Recovery = 97.32%							
Zn 213.857†	86097.0	479.85 µg/L	2.921	479.85 ppb	2.921	0.61%	
QC value within limits for Zn 213.857 Recovery = 95.97%							

All analyte(s) passed QC.

Sequence No.: 51

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/31/2010 21:18:10

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	142340.5	142340.5	97.5 %		21:18:39
1	Al 396.153Radial†	-77.4	-16.2	-2.9808 µg/L	-2.9808 ppb	21:18:59
1	Ca 317.933Radial†	613.3	68.2	3.7996 µg/L	3.7996 ppb	21:18:59
1	Fe 238.204 Radial†	174.0	30.3	1.8673 µg/L	1.8673 ppb	21:18:59
1	K 766.490 Radial†	1617.0	113.0	41.366 µg/L	41.366 ppb	21:18:39
1	Mg 279.077 IEC†	173.7	-12.6	-4.7201 µg/L	-4.7201 ppb	21:18:59
1	Na 589.592 Radial†	1689.2	441.0	60.210 µg/L	60.210 ppb	21:18:39
1	Sr 421.552†	-87.4	45.7	0.0949 µg/L	0.0949 ppb	21:18:39
1	Sc 361.383	1691761.1	1691761.1	98.460 %		21:19:47
1	Y 371.029	1013835.9	1013835.9	98.748 %		21:19:47
1	Ag 328.068†	3999.1	-29.8	-0.1074 µg/L	-0.1074 ppb	21:19:49
1	As 188.979†	-10.2	10.0	3.0117 µg/L	3.0117 ppb	21:20:09
1	B 249.677†	3413.6	-39.0	-0.5756 µg/L	-0.5756 ppb	21:19:49
1	Ba 233.527†	-138.5	-4.8	-0.0197 µg/L	-0.0197 ppb	21:20:09
1	Be 313.107†	-974.4	75.0	0.0212 µg/L	0.0212 ppb	21:19:49
1	Cd 226.502†	-119.6	-3.3	-0.0208 µg/L	-0.0208 ppb	21:20:09
1	Co 228.616†	-162.5	25.3	0.3117 µg/L	0.3117 ppb	21:20:09
1	Cr 267.716†	206.6	31.2	0.2430 µg/L	0.2430 ppb	21:20:09
1	Cu 324.752†	2962.7	36.8	0.1452 µg/L	0.1452 ppb	21:19:49
1	Mn 257.610†	261.8	28.6	0.0356 µg/L	0.0356 ppb	21:20:09
1	Mo 202.031†	-32.6	-13.1	-0.3839 µg/L	-0.3839 ppb	21:20:09
1	Ni 231.604†	-104.8	-29.9	-0.3447 µg/L	-0.3447 ppb	21:20:09
1	P 214.914†	-11.4	6.4	1.3624 µg/L	1.3624 ppb	21:20:09
1	Pb 220.353†	75.5	-9.7	-0.5434 µg/L	-0.5434 ppb	21:20:09
1	S 181.975 Axial†	111.4	8.1	5.9955 µg/L	5.9955 ppb	21:20:09
1	Sb 206.836†	80.6	1.0	0.1122 µg/L	0.1122 ppb	21:20:09
1	Se 196.026†	3.3	-12.0	-4.33 µg/L	-4.33 ppb	21:20:09
1	SiO2†	1809.6	62.5	6.1130 µg/L	6.1130 ppb	21:20:09
1	Si 251.611†	946.2	124.4	1.8365 µg/L	1.8365 ppb	21:19:49
1	Sn 189.927†	4.9	6.1	0.3820 µg/L	0.3820 ppb	21:20:09
1	Ti 334.940†	770.9	-169.6	-0.1590 µg/L	-0.1590 ppb	21:19:49
1	Tl 190.801†	-120.5	-5.8	-0.7102 µg/L	-0.7102 ppb	21:20:09
1	U 409.014†	-225.3	41.0	2.4000 µg/L	2.4000 ppb	21:19:49
1	V 292.402†	398.1	0.6	0.0014 µg/L	0.0014 ppb	21:19:49
1	Zn 213.857†	596.3	41.2	0.2333 µg/L	0.2333 ppb	21:20:09
2	Sc RADIAL	140388.8	140388.8	96.2 %		21:19:01
2	Al 396.153Radial†	-40.1	21.6	4.0106 µg/L	4.0106 ppb	21:19:21
2	Ca 317.933Radial†	583.2	45.7	2.5430 µg/L	2.5430 ppb	21:19:21
2	Fe 238.204 Radial†	163.9	22.3	1.3738 µg/L	1.3738 ppb	21:19:21
2	K 766.490 Radial†	1756.0	280.5	102.70 µg/L	102.70 ppb	21:19:01
2	Mg 279.077 IEC†	185.4	2.0	0.7420 µg/L	0.7420 ppb	21:19:21
2	Na 589.592 Radial†	1757.4	535.9	73.122 µg/L	73.122 ppb	21:19:01
2	Sr 421.552†	-150.8	-21.5	-0.0447 µg/L	-0.0447 ppb	21:19:01
2	Sc 361.383	1725840.2	1725840.2	100.44 %		21:20:11
2	Y 371.029	1031661.1	1031661.1	100.48 %		21:20:11
2	Ag 328.068†	4128.5	18.9	0.0653 µg/L	0.0653 ppb	21:20:13
2	As 188.979†	-6.9	13.5	4.0841 µg/L	4.0841 ppb	21:20:34
2	B 249.677†	3476.1	-45.2	-0.6676 µg/L	-0.6676 ppb	21:20:13
2	Ba 233.527†	-122.5	13.9	0.0557 µg/L	0.0557 ppb	21:20:34
2	Be 313.107†	-1003.4	65.7	0.0171 µg/L	0.0171 ppb	21:20:13
2	Cd 226.502†	-100.9	17.7	0.1106 µg/L	0.1106 ppb	21:20:34
2	Co 228.616†	-165.4	25.6	0.3157 µg/L	0.3157 ppb	21:20:34
2	Cr 267.716†	175.4	-3.9	-0.0289 µg/L	-0.0289 ppb	21:20:34
2	Cu 324.752†	2951.3	-34.0	-0.1338 µg/L	-0.1338 ppb	21:20:13
2	Mn 257.610†	228.4	-9.9	-0.0123 µg/L	-0.0123 ppb	21:20:34
2	Mo 202.031†	-29.3	-9.0	-0.2659 µg/L	-0.2659 ppb	21:20:34
2	Ni 231.604†	-82.5	-5.6	-0.0645 µg/L	-0.0645 ppb	21:20:34
2	P 214.914†	-14.3	3.8	0.8123 µg/L	0.8123 ppb	21:20:34
2	Pb 220.353†	82.1	-4.7	-0.2595 µg/L	-0.2595 ppb	21:20:34

2	S 181.975 Axial†	91.3	-14.1	-10.498 µg/L	-10.498 ppb	21:20:34
2	Sb 206.836†	71.7	-9.4	-1.1204 µg/L	-1.1204 ppb	21:20:34
2	Se 196.026†	16.3	0.9	0.337 µg/L	0.337 ppb	21:20:34
2	SiO2†	1744.2	-38.9	-3.7990 µg/L	-3.7990 ppb	21:20:34
2	Si 251.611†	837.7	-2.5	-0.0368 µg/L	-0.0368 ppb	21:20:13
2	Sn 189.927†	6.2	7.3	0.4532 µg/L	0.4532 ppb	21:20:34
2	Ti 334.940†	756.2	-199.7	-0.1855 µg/L	-0.1855 ppb	21:20:13
2	Tl 190.801†	-123.1	-5.9	-0.7309 µg/L	-0.7309 ppb	21:20:34
2	U 409.014†	-314.2	-43.0	-2.5195 µg/L	-2.5195 ppb	21:20:13
2	V 292.402†	382.0	-23.5	-0.1192 µg/L	-0.1192 ppb	21:20:13
2	Zn 213.857†	586.1	19.1	0.1074 µg/L	0.1074 ppb	21:20:34
3	Sc RADIAL	142445.8	142445.8	97.6 %		21:19:23
3	Al 396.153Radial†	-90.2	-29.2	-5.4175 µg/L	-5.4175 ppb	21:19:43
3	Ca 317.933Radial†	593.8	47.8	2.6599 µg/L	2.6599 ppb	21:19:43
3	Fe 238.204 Radial†	167.0	23.0	1.4166 µg/L	1.4166 ppb	21:19:43
3	K 766.490 Radial†	1597.6	91.9	33.647 µg/L	33.647 ppb	21:19:23
3	Mg 279.077 IEC†	184.4	-1.8	-0.6658 µg/L	-0.6658 ppb	21:19:43
3	Na 589.592 Radial†	1758.3	510.5	69.717 µg/L	69.717 ppb	21:19:23
3	Sr 421.552†	-153.0	-21.4	-0.0445 µg/L	-0.0445 ppb	21:19:23
3	Sc 361.383	1713474.3	1713474.3	99.724 %		21:20:36
3	Y 371.029	1024068.4	1024068.4	99.745 %		21:20:36
3	Ag 328.068†	4150.2	70.3	0.2535 µg/L	0.2535 ppb	21:20:38
3	As 188.979†	-9.9	10.5	3.1681 µg/L	3.1681 ppb	21:20:58
3	B 249.677†	3600.1	104.2	1.5371 µg/L	1.5371 ppb	21:20:38
3	Ba 233.527†	-126.3	9.2	0.0373 µg/L	0.0373 ppb	21:20:58
3	Be 313.107†	-965.7	96.3	0.0240 µg/L	0.0240 ppb	21:20:38
3	Cd 226.502†	-105.6	12.3	0.0767 µg/L	0.0767 ppb	21:20:58
3	Co 228.616†	-193.8	-4.0	-0.0492 µg/L	-0.0492 ppb	21:20:58
3	Cr 267.716†	191.2	13.1	0.1087 µg/L	0.1087 ppb	21:20:58
3	Cu 324.752†	2975.4	11.4	0.0383 µg/L	0.0383 ppb	21:20:38
3	Mn 257.610†	236.4	-0.2	-0.0002 µg/L	-0.0002 ppb	21:20:58
3	Mo 202.031†	-19.1	0.9	0.0276 µg/L	0.0276 ppb	21:20:58
3	Ni 231.604†	-66.0	10.3	0.1188 µg/L	0.1188 ppb	21:20:58
3	P 214.914†	-5.2	12.7	2.7193 µg/L	2.7193 ppb	21:20:58
3	Pb 220.353†	57.4	-28.8	-1.6039 µg/L	-1.6039 ppb	21:20:58
3	S 181.975 Axial†	102.3	-2.4	-1.8005 µg/L	-1.8005 ppb	21:20:58
3	Sb 206.836†	78.7	-1.9	-0.2267 µg/L	-0.2267 ppb	21:20:58
3	Se 196.026†	18.0	2.8	0.995 µg/L	0.995 ppb	21:20:58
3	SiO2†	1745.8	-24.7	-2.4280 µg/L	-2.4280 ppb	21:20:58
3	Si 251.611†	1027.5	193.7	2.8516 µg/L	2.8516 ppb	21:20:38
3	Sn 189.927†	9.3	10.4	0.6506 µg/L	0.6506 ppb	21:20:58
3	Ti 334.940†	1090.0	140.5	0.1344 µg/L	0.1344 ppb	21:20:38
3	Tl 190.801†	-127.7	-11.4	-1.3953 µg/L	-1.3953 ppb	21:20:58
3	U 409.014†	-395.2	-126.4	-7.3813 µg/L	-7.3813 ppb	21:20:38
3	V 292.402†	441.4	38.8	0.1850 µg/L	0.1850 ppb	21:20:38
3	Zn 213.857†	582.7	19.9	0.1107 µg/L	0.1107 ppb	21:20:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1710358.5	99.543 %	1.0041			1.01%
Sc RADIAL	141725.0	97.1 %	0.79			0.82%
Y 371.029	1023188.4	99.659 %	0.8713			0.87%
Ag 328.068†	19.8	0.0705 µg/L	0.18052	0.0705 ppb	0.18052	256.19%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-7.9	-1.4626 µg/L	4.89399	-1.4626 ppb	4.89399	334.61%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	11.3	3.4213 µg/L	0.57932	3.4213 ppb	0.57932	16.93%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	6.7	0.0980 µg/L	1.24716	0.0980 ppb	1.24716	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	6.1	0.0244 µg/L	0.03927	0.0244 ppb	0.03927	160.74%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	79.0	0.0208 µg/L	0.00345	0.0208 ppb	0.00345	16.63%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	53.9	3.0008 µg/L	0.69420	3.0008 ppb	0.69420	23.13%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	8.9	0.0555 µg/L	0.06825	0.0555 ppb	0.06825	123.01%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	15.6	0.1927 µg/L	0.20954	0.1927 ppb	0.20954	108.73%

QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	13.5	0.1076 µg/L	0.13596 0.1076 ppb 0.13596 126.39%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	4.7	0.0166 µg/L	0.14075 0.0166 ppb 0.14075 850.04%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	25.2	1.5526 µg/L	0.27342 1.5526 ppb 0.27342 17.61%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	161.8	59.237 µg/L	37.8362 59.237 ppb 37.8362 63.87%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	-4.1	-1.5480 µg/L	2.83593 -1.5480 ppb 2.83593 183.20%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	6.2	0.0077 µg/L	0.02490 0.0077 ppb 0.02490 322.21%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	-7.1	-0.2074 µg/L	0.21190 -0.2074 ppb 0.21190 102.16%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	495.8	67.683 µg/L	6.6920 67.683 ppb 6.6920 9.89%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	-8.4	-0.0968 µg/L	0.23339 -0.0968 ppb 0.23339 241.07%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	7.6	1.6313 µg/L	0.98157 1.6313 ppb 0.98157 60.17%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-14.4	-0.8023 µg/L	0.70858 -0.8023 ppb 0.70858 88.32%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-2.8	-2.1010 µg/L	8.25080 -2.1010 ppb 8.25080 392.71%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	-3.4	-0.4117 µg/L	0.63677 -0.4117 ppb 0.63677 154.68%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	-2.8	-0.998 µg/L	2.9005 -0.998 ppb 2.9005 290.74%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	-0.4	-0.0380 µg/L	5.37088 -0.0380 ppb 5.37088 >999.9%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	105.2	1.5504 µg/L	1.46530 1.5504 ppb 1.46530 94.51%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	7.9	0.4953 µg/L	0.13914 0.4953 ppb 0.13914 28.09%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	0.9	0.0019 µg/L	0.08056 0.0019 ppb 0.08056 >999.9%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	-76.2	-0.0700 µg/L	0.17755 -0.0700 ppb 0.17755 253.50%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	-7.7	-0.9455 µg/L	0.38970 -0.9455 ppb 0.38970 41.22%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	-42.8	-2.5003 µg/L	4.89065 -2.5003 ppb 4.89065 195.61%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	5.3	0.0224 µg/L	0.15317 0.0224 ppb 0.15317 684.80%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	26.7	0.1505 µg/L	0.07173 0.1505 ppb 0.07173 47.67%
QC value within limits for Zn 213.857	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 61

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/31/2010 21:39:57

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	143665.7	143665.7	98.4 %		21:40:31
1	Al 396.153Radial†	26354.7	26833.2	4952.4 µg/L	4952.4 ppb	21:40:31
1	Ca 317.933Radial†	87317.1	88132.5	4909.3 µg/L	4909.3 ppb	21:40:31
1	Fe 238.204 Radial†	78178.3	79262.3	4885.2 µg/L	4885.2 ppb	21:40:31
1	K 766.490 Radial†	14683.9	13370.5	4891.1 µg/L	4891.1 ppb	21:40:31
1	Mg 279.077 IEC†	13397.8	13418.2	5007.1 µg/L	5007.1 ppb	21:40:31
1	Na 589.592 Radial†	71164.9	70995.6	9694.5 µg/L	9694.5 ppb	21:40:31
1	Sr 421.552†	233220.3	237030.9	492.73 µg/L	492.73 ppb	21:40:29
1	Sc 361.383	1721068.9	1721068.9	100.17 %		21:40:44
1	Y 371.029	1018507.5	1018507.5	99.203 %		21:40:44
1	Ag 328.068†	133737.4	129424.5	485.29 µg/L	485.29 ppb	21:40:44
1	As 188.979†	1607.1	1624.8	498.43 µg/L	498.43 ppb	21:41:04
1	B 249.677†	35997.3	32431.8	476.62 µg/L	476.62 ppb	21:40:44
1	Ba 233.527†	120429.2	120365.5	485.43 µg/L	485.43 ppb	21:40:44
1	Be 313.107†	1795349.9	1793440.3	488.46 µg/L	488.46 ppb	21:40:44
1	Cd 226.502†	77524.8	77514.6	483.88 µg/L	483.88 ppb	21:40:44
1	Co 228.616†	39299.3	39424.5	486.69 µg/L	486.69 ppb	21:40:44
1	Cr 267.716†	61864.3	61583.2	482.19 µg/L	482.19 ppb	21:40:44
1	Cu 324.752†	127127.0	123944.2	483.17 µg/L	483.17 ppb	21:40:44
1	Mn 257.610†	395346.6	394454.4	487.85 µg/L	487.85 ppb	21:40:44
1	Mo 202.031†	16480.7	16473.5	484.58 µg/L	484.58 ppb	21:41:04
1	Ni 231.604†	41947.7	41954.7	483.08 µg/L	483.08 ppb	21:40:44
1	P 214.914†	11320.1	11319.3	2412.7 µg/L	2412.7 ppb	21:41:04
1	Pb 220.353†	8845.0	8744.0	489.65 µg/L	489.65 ppb	21:41:04
1	S 181.975 Axial†	1407.4	1300.0	969.45 µg/L	969.45 ppb	21:41:04
1	Sb 206.836†	4164.4	4076.7	485.74 µg/L	485.74 ppb	21:41:04
1	Se 196.026†	1354.0	1336.4	485 µg/L	485 ppb	21:41:04
1	SiO2†	55679.1	53811.5	5238.8 µg/L	5238.8 ppb	21:40:44
1	Si 251.611†	168734.5	167618.4	2461.5 µg/L	2461.5 ppb	21:40:44
1	Sn 189.927†	7779.1	7767.4	485.85 µg/L	485.85 ppb	21:41:04
1	Ti 334.940†	522596.2	520777.9	485.92 µg/L	485.92 ppb	21:40:44
1	Tl 190.801†	3874.4	3984.7	496.88 µg/L	496.88 ppb	21:41:04
1	U 409.014†	7407.3	7664.9	477.49 µg/L	477.49 ppb	21:40:44
1	V 292.402†	98914.4	98346.8	486.18 µg/L	486.18 ppb	21:40:44
1	Zn 213.857†	87152.2	86443.4	481.80 µg/L	481.80 ppb	21:40:44
2	Sc RADIAL	145456.2	145456.2	99.7 %		21:40:35
2	Al 396.153Radial†	26834.6	26985.2	4980.5 µg/L	4980.5 ppb	21:40:35
2	Ca 317.933Radial†	88881.4	88610.2	4935.9 µg/L	4935.9 ppb	21:40:35
2	Fe 238.204 Radial†	79662.0	79773.3	4916.7 µg/L	4916.7 ppb	21:40:35
2	K 766.490 Radial†	14845.0	13348.6	4883.1 µg/L	4883.1 ppb	21:40:35
2	Mg 279.077 IEC†	13510.7	13364.0	4986.9 µg/L	4986.9 ppb	21:40:35
2	Na 589.592 Radial†	72176.6	71120.8	9711.6 µg/L	9711.6 ppb	21:40:35
2	Sr 421.552†	230930.1	231817.3	481.90 µg/L	481.90 ppb	21:40:33
2	Sc 361.383	1718468.2	1718468.2	100.01 %		21:41:07
2	Y 371.029	1016391.1	1016391.1	98.997 %		21:41:07
2	Ag 328.068†	133896.2	129785.3	486.62 µg/L	486.62 ppb	21:41:07
2	As 188.979†	1611.9	1632.1	500.64 µg/L	500.64 ppb	21:41:27
2	B 249.677†	36060.3	32549.2	478.36 µg/L	478.36 ppb	21:41:07
2	Ba 233.527†	120340.6	120458.9	485.81 µg/L	485.81 ppb	21:41:07
2	Be 313.107†	1792650.3	1793453.6	488.45 µg/L	488.45 ppb	21:41:07
2	Cd 226.502†	77583.4	77690.3	484.97 µg/L	484.97 ppb	21:41:07
2	Co 228.616†	39213.4	39398.0	486.37 µg/L	486.37 ppb	21:41:07
2	Cr 267.716†	61991.1	61803.5	483.93 µg/L	483.93 ppb	21:41:07
2	Cu 324.752†	127061.9	124071.2	483.66 µg/L	483.66 ppb	21:41:07
2	Mn 257.610†	395040.3	394745.5	488.21 µg/L	488.21 ppb	21:41:07
2	Mo 202.031†	16505.0	16522.7	486.03 µg/L	486.03 ppb	21:41:27
2	Ni 231.604†	42190.5	42260.9	486.60 µg/L	486.60 ppb	21:41:07
2	P 214.914†	11360.6	11376.9	2425.0 µg/L	2425.0 ppb	21:41:27
2	Pb 220.353†	8840.9	8753.2	490.18 µg/L	490.18 ppb	21:41:27

2	S 181.975 Axial†	1398.8	1293.6	964.68 µg/L	964.68 ppb	21:41:27
2	Sb 206.836†	4174.1	4092.7	487.64 µg/L	487.64 ppb	21:41:27
2	Se 196.026†	1355.3	1339.8	486 µg/L	486 ppb	21:41:27
2	SiO2†	55809.3	54025.8	5259.7 µg/L	5259.7 ppb	21:41:07
2	Si 251.611†	168475.9	167614.8	2461.4 µg/L	2461.4 ppb	21:41:07
2	Sn 189.927†	7806.2	7806.1	488.27 µg/L	488.27 ppb	21:41:27
2	Ti 334.940†	521521.1	520492.6	485.66 µg/L	485.66 ppb	21:41:07
2	Tl 190.801†	3825.2	3941.3	491.55 µg/L	491.55 ppb	21:41:27
2	U 409.014†	7087.5	7356.3	459.54 µg/L	459.54 ppb	21:41:07
2	V 292.402†	99089.1	98670.9	487.77 µg/L	487.77 ppb	21:41:07
2	Zn 213.857†	87415.4	86838.2	483.99 µg/L	483.99 ppb	21:41:07
3	Sc RADIAL	143191.9	143191.9	98.1 %		21:40:39
3	Al 396.153Radial†	26557.8	27128.8	5007.1 µg/L	5007.1 ppb	21:40:39
3	Ca 317.933Radial†	87348.5	88458.0	4927.5 µg/L	4927.5 ppb	21:40:39
3	Fe 238.204 Radial†	78236.9	79584.7	4905.1 µg/L	4905.1 ppb	21:40:39
3	K 766.490 Radial†	14659.9	13395.4	4900.3 µg/L	4900.3 ppb	21:40:39
3	Mg 279.077 IEC†	13262.5	13325.4	4972.5 µg/L	4972.5 ppb	21:40:39
3	Na 589.592 Radial†	71088.0	71156.4	9716.5 µg/L	9716.5 ppb	21:40:39
3	Sr 421.552†	229311.5	233831.2	486.08 µg/L	486.08 ppb	21:40:37
3	Sc 361.383	1712233.1	1712233.1	99.652 %		21:41:30
3	Y 371.029	1012145.6	1012145.6	98.583 %		21:41:30
3	Ag 328.068†	133864.3	130240.8	488.35 µg/L	488.35 ppb	21:41:30
3	As 188.979†	1597.0	1622.9	497.89 µg/L	497.89 ppb	21:41:50
3	B 249.677†	36087.2	32707.4	480.68 µg/L	480.68 ppb	21:41:30
3	Ba 233.527†	120029.4	120584.8	486.32 µg/L	486.32 ppb	21:41:30
3	Be 313.107†	1789689.6	1797009.6	489.43 µg/L	489.43 ppb	21:41:30
3	Cd 226.502†	77607.6	77997.0	486.89 µg/L	486.89 ppb	21:41:30
3	Co 228.616†	39237.2	39564.7	488.42 µg/L	488.42 ppb	21:41:30
3	Cr 267.716†	61895.9	61933.7	484.93 µg/L	484.93 ppb	21:41:30
3	Cu 324.752†	126699.8	124170.4	484.06 µg/L	484.06 ppb	21:41:30
3	Mn 257.610†	394236.6	395377.2	488.99 µg/L	488.99 ppb	21:41:30
3	Mo 202.031†	16435.8	16513.3	485.75 µg/L	485.75 ppb	21:41:50
3	Ni 231.604†	42100.7	42324.4	487.33 µg/L	487.33 ppb	21:41:30
3	P 214.914†	11331.6	11389.1	2427.6 µg/L	2427.6 ppb	21:41:50
3	Pb 220.353†	8803.4	8747.8	489.86 µg/L	489.86 ppb	21:41:50
3	S 181.975 Axial†	1399.9	1299.7	969.26 µg/L	969.26 ppb	21:41:50
3	Sb 206.836†	4147.7	4081.4	486.29 µg/L	486.29 ppb	21:41:50
3	Se 196.026†	1361.2	1350.7	490 µg/L	490 ppb	21:41:50
3	SiO2†	55566.3	53985.2	5255.7 µg/L	5255.7 ppb	21:41:30
3	Si 251.611†	168537.6	168290.1	2471.4 µg/L	2471.4 ppb	21:41:30
3	Sn 189.927†	7783.2	7811.5	488.60 µg/L	488.60 ppb	21:41:50
3	Ti 334.940†	520012.8	520877.8	486.02 µg/L	486.02 ppb	21:41:30
3	Tl 190.801†	3855.0	3985.2	496.95 µg/L	496.95 ppb	21:41:50
3	U 409.014†	7438.0	7733.9	481.69 µg/L	481.69 ppb	21:41:30
3	V 292.402†	98978.3	98920.4	489.01 µg/L	489.01 ppb	21:41:30
3	Zn 213.857†	86968.8	86708.3	483.25 µg/L	483.25 ppb	21:41:30

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1717256.7	99.944 %	0.2643			0.26%
Sc RADIAL	144104.6	98.7 %	0.82			0.83%
Y 371.029	1015681.4	98.928 %	0.3156			0.32%
Ag 328.068†	129816.8	486.75 µg/L	1.535	486.75 ppb	1.535	0.32%
QC value within limits for Ag 328.068 Recovery = 97.35%						
Al 396.153Radial†	26982.4	4980.0 µg/L	27.38	4980.0 ppb	27.38	0.55%
QC value within limits for Al 396.153Radial Recovery = 99.60%						
As 188.979†	1626.6	498.99 µg/L	1.460	498.99 ppb	1.460	0.29%
QC value within limits for As 188.979 Recovery = 99.80%						
B 249.677†	32562.8	478.55 µg/L	2.037	478.55 ppb	2.037	0.43%
QC value within limits for B 249.677 Recovery = 95.71%						
Ba 233.527†	120469.8	485.85 µg/L	0.444	485.85 ppb	0.444	0.09%
QC value within limits for Ba 233.527 Recovery = 97.17%						
Be 313.107†	1794634.5	488.78 µg/L	0.562	488.78 ppb	0.562	0.12%
QC value within limits for Be 313.107 Recovery = 97.76%						
Ca 317.933Radial†	88400.3	4924.2 µg/L	13.59	4924.2 ppb	13.59	0.28%
QC value within limits for Ca 317.933Radial Recovery = 98.48%						
Cd 226.502†	77734.0	485.25 µg/L	1.525	485.25 ppb	1.525	0.31%
QC value within limits for Cd 226.502 Recovery = 97.05%						
Co 228.616†	39462.4	487.16 µg/L	1.106	487.16 ppb	1.106	0.23%

QC value within limits for Co 228.616 Recovery = 97.43%							
Cr 267.716†	61773.5	483.68 µg/L	1.389	483.68 ppb	1.389	0.29%	
QC value within limits for Cr 267.716 Recovery = 96.74%							
Cu 324.752†	124061.9	483.63 µg/L	0.443	483.63 ppb	0.443	0.09%	
QC value within limits for Cu 324.752 Recovery = 96.73%							
Fe 238.204 Radial†	79540.1	4902.4 µg/L	15.93	4902.4 ppb	15.93	0.32%	
QC value within limits for Fe 238.204 Radial Recovery = 98.05%							
K 766.490 Radial†	13371.5	4891.5 µg/L	8.58	4891.5 ppb	8.58	0.18%	
QC value within limits for K 766.490 Radial Recovery = 97.83%							
Mg 279.077 IEC†	13369.2	4988.8 µg/L	17.36	4988.8 ppb	17.36	0.35%	
QC value within limits for Mg 279.077 IEC Recovery = 99.78%							
Mn 257.610†	394859.0	488.35 µg/L	0.584	488.35 ppb	0.584	0.12%	
QC value within limits for Mn 257.610 Recovery = 97.67%							
Mo 202.031†	16503.2	485.45 µg/L	0.769	485.45 ppb	0.769	0.16%	
QC value within limits for Mo 202.031 Recovery = 97.09%							
Na 589.592 Radial†	71090.9	9707.5 µg/L	11.54	9707.5 ppb	11.54	0.12%	
QC value within limits for Na 589.592 Radial Recovery = 97.08%							
Ni 231.604†	42180.0	485.67 µg/L	2.276	485.67 ppb	2.276	0.47%	
QC value within limits for Ni 231.604 Recovery = 97.13%							
P 214.914†	11361.8	2421.7 µg/L	7.97	2421.7 ppb	7.97	0.33%	
QC value within limits for P 214.914 Recovery = 96.87%							
Pb 220.353†	8748.3	489.90 µg/L	0.268	489.90 ppb	0.268	0.05%	
QC value within limits for Pb 220.353 Recovery = 97.98%							
S 181.975 Axial†	1297.8	967.80 µg/L	2.698	967.80 ppb	2.698	0.28%	
QC value within limits for S 181.975 Axial Recovery = 96.78%							
Sb 206.836†	4083.6	486.56 µg/L	0.979	486.56 ppb	0.979	0.20%	
QC value within limits for Sb 206.836 Recovery = 97.31%							
Se 196.026†	1342.3	487 µg/L	2.7	487 ppb	2.7	0.55%	
QC value within limits for Se 196.026 Recovery = 97.48%							
SiO2†	53940.8	5251.4 µg/L	11.08	5251.4 ppb	11.08	0.21%	
QC value within limits for SiO2 Recovery = 98.20%							
Si 251.611†	167841.1	2464.8 µg/L	5.72	2464.8 ppb	5.72	0.23%	
QC value within limits for Si 251.611 Recovery = 98.59%							
Sn 189.927†	7795.0	487.58 µg/L	1.501	487.58 ppb	1.501	0.31%	
QC value within limits for Sn 189.927 Recovery = 97.52%							
Sr 421.552†	234226.5	486.90 µg/L	5.466	486.90 ppb	5.466	1.12%	
QC value within limits for Sr 421.552 Recovery = 97.38%							
Ti 334.940†	520716.1	485.87 µg/L	0.182	485.87 ppb	0.182	0.04%	
QC value within limits for Ti 334.940 Recovery = 97.17%							
Tl 190.801†	3970.4	495.13 µg/L	3.095	495.13 ppb	3.095	0.63%	
QC value within limits for Tl 190.801 Recovery = 99.03%							
U 409.014†	7585.0	472.91 µg/L	11.768	472.91 ppb	11.768	2.49%	
QC value within limits for U 409.014 Recovery = 94.58%							
V 292.402†	98646.0	487.65 µg/L	1.415	487.65 ppb	1.415	0.29%	
QC value within limits for V 292.402 Recovery = 97.53%							
Zn 213.857†	86663.3	483.01 µg/L	1.115	483.01 ppb	1.115	0.23%	
QC value within limits for Zn 213.857 Recovery = 96.60%							

All analyte(s) passed QC.

Sequence No.: 62

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/31/2010 21:41:59

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	143435.3	143435.3	98.3 %		21:42:30
1	Al 396.153Radial†	-56.2	6.0	1.1301 µg/L	1.1301 ppb	21:42:50
1	Ca 317.933Radial†	581.9	31.5	1.7535 µg/L	1.7535 ppb	21:42:50
1	Fe 238.204 Radial†	220.1	75.9	4.6750 µg/L	4.6750 ppb	21:42:50
1	K 766.490 Radial†	1630.1	113.7	41.604 µg/L	41.604 ppb	21:42:30
1	Mg 279.077 IEC†	185.9	-1.6	-0.5986 µg/L	-0.5986 ppb	21:42:50
1	Na 589.592 Radial†	1456.5	191.1	26.064 µg/L	26.064 ppb	21:42:30
1	Sr 421.552†	-303.2	-173.2	-0.3600 µg/L	-0.3600 ppb	21:42:30
1	Sc 361.383	1716104.0	1716104.0	99.877 %		21:43:52
1	Y 371.029	1026337.9	1026337.9	99.966 %		21:43:52
1	Ag 328.068†	4103.4	17.0	0.0542 µg/L	0.0542 ppb	21:43:54
1	As 188.979†	-11.9	8.5	2.5574 µg/L	2.5574 ppb	21:44:14
1	B 249.677†	3527.0	25.5	0.3738 µg/L	0.3738 ppb	21:43:54
1	Ba 233.527†	-143.0	-7.3	-0.0298 µg/L	-0.0298 ppb	21:44:14
1	Be 313.107†	-770.0	293.7	0.0782 µg/L	0.0782 ppb	21:43:54
1	Cd 226.502†	-77.7	40.4	0.2520 µg/L	0.2520 ppb	21:44:14
1	Co 228.616†	-153.6	36.5	0.4505 µg/L	0.4505 ppb	21:44:14
1	Cr 267.716†	176.1	-2.3	-0.0133 µg/L	-0.0133 ppb	21:44:14
1	Cu 324.752†	3046.8	78.3	0.3006 µg/L	0.3006 ppb	21:43:54
1	Mn 257.610†	328.7	91.9	0.1137 µg/L	0.1137 ppb	21:44:14
1	Mo 202.031†	-27.4	-7.4	-0.2173 µg/L	-0.2173 ppb	21:44:14
1	Ni 231.604†	-77.8	-1.3	-0.0154 µg/L	-0.0154 ppb	21:44:14
1	P 214.914†	-3.8	14.1	3.0202 µg/L	3.0202 ppb	21:44:14
1	Pb 220.353†	91.6	5.4	0.3025 µg/L	0.3025 ppb	21:44:14
1	S 181.975 Axial†	84.3	-20.7	-15.370 µg/L	-15.370 ppb	21:44:14
1	Sb 206.836†	85.3	4.6	0.5436 µg/L	0.5436 ppb	21:44:14
1	Se 196.026†	18.7	3.4	1.24 µg/L	1.24 ppb	21:44:14
1	SiO2†	1789.6	16.4	1.6035 µg/L	1.6035 ppb	21:44:14
1	Si 251.611†	934.5	99.0	1.4600 µg/L	1.4600 ppb	21:43:54
1	Sn 189.927†	6.5	7.6	0.4757 µg/L	0.4757 ppb	21:44:14
1	Ti 334.940†	967.5	16.2	0.0175 µg/L	0.0175 ppb	21:43:54
1	Tl 190.801†	-127.3	-10.8	-1.3305 µg/L	-1.3305 ppb	21:44:14
1	U 409.014†	-367.5	-98.1	-5.7438 µg/L	-5.7438 ppb	21:43:54
1	V 292.402†	375.1	-28.2	-0.1442 µg/L	-0.1442 ppb	21:43:54
1	Zn 213.857†	580.1	16.4	0.0915 µg/L	0.0915 ppb	21:44:14
2	Sc RADIAL	141870.3	141870.3	97.2 %		21:42:52
2	Al 396.153Radial†	-65.2	-3.9	-0.6977 µg/L	-0.6977 ppb	21:43:12
2	Ca 317.933Radial†	617.6	74.7	4.1593 µg/L	4.1593 ppb	21:43:12
2	Fe 238.204 Radial†	216.5	74.5	4.5946 µg/L	4.5946 ppb	21:43:12
2	K 766.490 Radial†	1775.2	281.2	102.95 µg/L	102.95 ppb	21:42:52
2	Mg 279.077 IEC†	182.1	-3.4	-1.2877 µg/L	-1.2877 ppb	21:43:12
2	Na 589.592 Radial†	1482.8	234.5	31.940 µg/L	31.940 ppb	21:42:52
2	Sr 421.552†	-167.3	-36.8	-0.0764 µg/L	-0.0764 ppb	21:42:52
2	Sc 361.383	1723490.8	1723490.8	100.31 %		21:44:16
2	Y 371.029	1031447.1	1031447.1	100.46 %		21:44:16
2	Ag 328.068†	4201.6	97.3	0.3501 µg/L	0.3501 ppb	21:44:18
2	As 188.979†	-15.3	5.1	1.5573 µg/L	1.5573 ppb	21:44:38
2	B 249.677†	3665.3	148.2	2.1841 µg/L	2.1841 ppb	21:44:18
2	Ba 233.527†	-146.0	-9.7	-0.0400 µg/L	-0.0400 ppb	21:44:38
2	Be 313.107†	-1050.7	17.2	0.0045 µg/L	0.0045 ppb	21:44:18
2	Cd 226.502†	-111.8	6.7	0.0414 µg/L	0.0414 ppb	21:44:38
2	Co 228.616†	-164.6	26.2	0.3234 µg/L	0.3234 ppb	21:44:38
2	Cr 267.716†	226.4	47.1	0.3695 µg/L	0.3695 ppb	21:44:38
2	Cu 324.752†	2823.9	-156.9	-0.6096 µg/L	-0.6096 ppb	21:44:18
2	Mn 257.610†	284.0	45.8	0.0568 µg/L	0.0568 ppb	21:44:38
2	Mo 202.031†	-36.4	-16.2	-0.4763 µg/L	-0.4763 ppb	21:44:38
2	Ni 231.604†	-100.6	-23.8	-0.2736 µg/L	-0.2736 ppb	21:44:38
2	P 214.914†	-35.6	-17.5	-3.7362 µg/L	-3.7362 ppb	21:44:38
2	Pb 220.353†	84.0	-2.6	-0.1459 µg/L	-0.1459 ppb	21:44:38

2	S 181.975 Axial†	89.5	-15.8	-11.745 µg/L	-11.745 ppb	21:44:38
2	Sb 206.836†	89.4	8.3	0.9755 µg/L	0.9755 ppb	21:44:38
2	Se 196.026†	9.9	-5.4	-1.96 µg/L	-1.96 ppb	21:44:38
2	SiO2†	1777.4	-3.4	-0.3192 µg/L	-0.3192 ppb	21:44:38
2	Si 251.611†	834.3	-4.8	-0.0658 µg/L	-0.0658 ppb	21:44:18
2	Sn 189.927†	1.7	2.8	0.1770 µg/L	0.1770 ppb	21:44:38
2	Ti 334.940†	895.6	-59.6	-0.0554 µg/L	-0.0554 ppb	21:44:18
2	Tl 190.801†	-122.5	-5.4	-0.6750 µg/L	-0.6750 ppb	21:44:38
2	U 409.014†	-282.1	-11.3	-0.7096 µg/L	-0.7096 ppb	21:44:18
2	V 292.402†	242.6	-162.0	-0.7943 µg/L	-0.7943 ppb	21:44:18
2	Zn 213.857†	573.6	7.4	0.0434 µg/L	0.0434 ppb	21:44:38
3	Sc RADIAL	144958.5	144958.5	99.3 %		21:43:14
3	Al 396.153Radial†	-37.5	25.5	4.7369 µg/L	4.7369 ppb	21:43:34
3	Ca 317.933Radial†	583.6	27.0	1.5021 µg/L	1.5021 ppb	21:43:34
3	Fe 238.204 Radial†	192.7	45.8	2.8253 µg/L	2.8253 ppb	21:43:34
3	K 766.490 Radial†	1497.6	-37.2	-13.616 µg/L	-13.616 ppb	21:43:14
3	Mg 279.077 IEC†	178.6	-10.9	-4.0718 µg/L	-4.0718 ppb	21:43:34
3	Na 589.592 Radial†	1440.0	158.8	21.708 µg/L	21.708 ppb	21:43:14
3	Sr 421.552†	-197.6	-63.6	-0.1322 µg/L	-0.1322 ppb	21:43:14
3	Sc 361.383	1740188.5	1740188.5	101.28 %		21:44:40
3	Y 371.029	1039891.9	1039891.9	101.29 %		21:44:40
3	Ag 328.068†	3928.5	-212.5	-0.7881 µg/L	-0.7881 ppb	21:44:42
3	As 188.979†	-8.6	11.9	3.6004 µg/L	3.6004 ppb	21:45:02
3	B 249.677†	3552.8	2.1	0.0294 µg/L	0.0294 ppb	21:44:42
3	Ba 233.527†	-133.9	3.6	0.0140 µg/L	0.0140 ppb	21:45:02
3	Be 313.107†	-962.7	114.2	0.0329 µg/L	0.0329 ppb	21:44:42
3	Cd 226.502†	-89.8	29.5	0.1840 µg/L	0.1840 ppb	21:45:02
3	Co 228.616†	-162.5	29.8	0.3679 µg/L	0.3679 ppb	21:45:02
3	Cr 267.716†	179.3	-1.5	-0.0165 µg/L	-0.0165 ppb	21:45:02
3	Cu 324.752†	2942.1	-67.2	-0.2559 µg/L	-0.2559 ppb	21:44:42
3	Mn 257.610†	335.1	93.6	0.1159 µg/L	0.1159 ppb	21:45:02
3	Mo 202.031†	-28.8	-8.4	-0.2468 µg/L	-0.2468 ppb	21:45:02
3	Ni 231.604†	-82.6	-5.1	-0.0583 µg/L	-0.0583 ppb	21:45:02
3	P 214.914†	-27.4	-9.1	-1.9410 µg/L	-1.9410 ppb	21:45:02
3	Pb 220.353†	64.5	-22.7	-1.2712 µg/L	-1.2712 ppb	21:45:02
3	S 181.975 Axial†	101.1	-5.2	-3.8697 µg/L	-3.8697 ppb	21:45:02
3	Sb 206.836†	85.4	3.5	0.4065 µg/L	0.4065 ppb	21:45:02
3	Se 196.026†	13.5	-2.0	-0.710 µg/L	-0.710 ppb	21:45:02
3	SiO2†	1812.3	14.0	1.3744 µg/L	1.3744 ppb	21:45:02
3	Si 251.611†	970.3	121.4	1.7924 µg/L	1.7924 ppb	21:44:42
3	Sn 189.927†	1.9	3.0	0.1856 µg/L	0.1856 ppb	21:45:02
3	Ti 334.940†	941.7	-22.7	-0.0233 µg/L	-0.0233 ppb	21:44:42
3	Tl 190.801†	-117.2	1.0	0.1129 µg/L	0.1129 ppb	21:45:02
3	U 409.014†	-171.3	100.7	5.8492 µg/L	5.8492 ppb	21:44:42
3	V 292.402†	265.0	-142.2	-0.6925 µg/L	-0.6925 ppb	21:44:42
3	Zn 213.857†	580.1	8.4	0.0472 µg/L	0.0472 ppb	21:45:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1726594.5	100.49 %	0.718			0.71%
Sc RADIAL	143421.3	98.3 %	1.06			1.08%
Y 371.029	1032559.0	100.57 %	0.667			0.66%
Ag 328.068†	-32.7	-0.1280 µg/L	0.59056	-0.1280 ppb	0.59056	461.54%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	9.2	1.7231 µg/L	2.76540	1.7231 ppb	2.76540	160.49%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	8.5	2.5717 µg/L	1.02165	2.5717 ppb	1.02165	39.73%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	58.6	0.8625 µg/L	1.15748	0.8625 ppb	1.15748	134.21%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-4.5	-0.0186 µg/L	0.02870	-0.0186 ppb	0.02870	154.38%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	141.7	0.0385 µg/L	0.03721	0.0385 ppb	0.03721	96.57%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	44.4	2.4716 µg/L	1.46699	2.4716 ppb	1.46699	59.35%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	25.6	0.1591 µg/L	0.10748	0.1591 ppb	0.10748	67.54%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	30.9	0.3806 µg/L	0.06452	0.3806 ppb	0.06452	16.95%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	14.5	0.1132 µg/L	0.22191	0.1132 ppb	0.22191	195.99%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-48.6	-0.1883 µg/L	0.45884	-0.1883 ppb	0.45884	243.64%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	65.4	4.0316 µg/L	1.04544	4.0316 ppb	1.04544	25.93%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	119.2	43.647 µg/L	58.3112	43.647 ppb	58.3112	133.60%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-5.3	-1.9860 µg/L	1.83888	-1.9860 ppb	1.83888	92.59%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	77.1	0.0955 µg/L	0.03352	0.0955 ppb	0.03352	35.12%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-10.7	-0.3135 µg/L	0.14177	-0.3135 ppb	0.14177	45.22%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	194.8	26.570 µg/L	5.1349	26.570 ppb	5.1349	19.33%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-10.1	-0.1158 µg/L	0.13833	-0.1158 ppb	0.13833	119.49%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-4.2	-0.8857 µg/L	3.49964	-0.8857 ppb	3.49964	395.14%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-6.6	-0.3715 µg/L	0.81072	-0.3715 ppb	0.81072	218.21%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-13.9	-10.328 µg/L	5.8795	-10.328 ppb	5.8795	56.93%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	5.5	0.6419 µg/L	0.29695	0.6419 ppb	0.29695	46.26%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-1.3	-0.475 µg/L	1.6120	-0.475 ppb	1.6120	339.40%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	9.0	0.8862 µg/L	1.05021	0.8862 ppb	1.05021	118.50%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	71.9	1.0622 µg/L	0.99095	1.0622 ppb	0.99095	93.29%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	4.5	0.2794 µg/L	0.17000	0.2794 ppb	0.17000	60.84%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-91.2	-0.1896 µg/L	0.15021	-0.1896 ppb	0.15021	79.25%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-22.1	-0.0204 µg/L	0.03654	-0.0204 ppb	0.03654	179.40%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-5.1	-0.6309 µg/L	0.72270	-0.6309 ppb	0.72270	114.55%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-2.9	-0.2014 µg/L	5.81317	-0.2014 ppb	5.81317	>999.9%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-110.8	-0.5437 µg/L	0.34967	-0.5437 ppb	0.34967	64.31%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	10.7	0.0607 µg/L	0.02675	0.0607 ppb	0.02675	44.07%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 68

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/31/2010 21:55:36

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	142583.3	142583.3	97.7 %		21:56:11
1	Al 396.153Radial†	26125.5	26801.9	4946.6 µg/L	4946.6 ppb	21:56:11
1	Ca 317.933Radial†	86256.4	87720.3	4886.4 µg/L	4886.4 ppb	21:56:11
1	Fe 238.204 Radial†	77373.7	79041.6	4871.6 µg/L	4871.6 ppb	21:56:11
1	K 766.490 Radial†	14581.9	13379.4	4894.4 µg/L	4894.4 ppb	21:56:11
1	Mg 279.077 IEC†	13220.1	13339.7	4977.8 µg/L	4977.8 ppb	21:56:11
1	Na 589.592 Radial†	70221.6	70578.9	9637.6 µg/L	9637.6 ppb	21:56:11
1	Sr 421.552†	231094.9	236654.1	491.95 µg/L	491.95 ppb	21:56:08
1	Sc 361.383	1721792.2	1721792.2	100.21 %		21:56:38
1	Y 371.029	1018476.9	1018476.9	99.200 %		21:56:38
1	Ag 328.068†	132257.1	127891.1	479.55 µg/L	479.55 ppb	21:56:38
1	As 188.979†	1611.5	1628.5	499.47 µg/L	499.47 ppb	21:56:58
1	B 249.677†	35480.1	31900.5	468.81 µg/L	468.81 ppb	21:56:38
1	Ba 233.527†	119040.9	118929.6	479.64 µg/L	479.64 ppb	21:56:38
1	Be 313.107†	1767471.5	1764866.8	480.67 µg/L	480.67 ppb	21:56:38
1	Cd 226.502†	76426.9	76386.5	476.83 µg/L	476.83 ppb	21:56:38
1	Co 228.616†	38708.1	38818.0	479.20 µg/L	479.20 ppb	21:56:38
1	Cr 267.716†	61091.8	60786.4	475.95 µg/L	475.95 ppb	21:56:38
1	Cu 324.752†	125542.2	122309.4	476.81 µg/L	476.81 ppb	21:56:38
1	Mn 257.610†	389445.6	388399.8	480.36 µg/L	480.36 ppb	21:56:38
1	Mo 202.031†	16429.4	16415.4	482.87 µg/L	482.87 ppb	21:56:58
1	Ni 231.604†	41557.9	41548.1	478.40 µg/L	478.40 ppb	21:56:38
1	P 214.914†	11328.9	11323.4	2413.6 µg/L	2413.6 ppb	21:56:58
1	Pb 220.353†	8812.2	8707.5	487.61 µg/L	487.61 ppb	21:56:58
1	S 181.975 Axial†	1392.1	1284.2	957.66 µg/L	957.66 ppb	21:56:58
1	Sb 206.836†	4144.5	4055.1	483.24 µg/L	483.24 ppb	21:56:58
1	Se 196.026†	1364.7	1346.6	489 µg/L	489 ppb	21:56:58
1	SiO2†	55188.2	53298.2	5188.7 µg/L	5188.7 ppb	21:56:38
1	Si 251.611†	166961.4	165778.2	2434.4 µg/L	2434.4 ppb	21:56:38
1	Sn 189.927†	7776.6	7761.6	485.47 µg/L	485.47 ppb	21:56:58
1	Ti 334.940†	514606.5	512585.6	478.27 µg/L	478.27 ppb	21:56:38
1	Tl 190.801†	3826.9	3935.6	490.75 µg/L	490.75 ppb	21:56:58
1	U 409.014†	7289.4	7544.1	470.15 µg/L	470.15 ppb	21:56:38
1	V 292.402†	98070.8	97463.4	481.83 µg/L	481.83 ppb	21:56:38
1	Zn 213.857†	85920.7	85177.9	474.72 µg/L	474.72 ppb	21:56:38
2	Sc RADIAL	143543.2	143543.2	98.4 %		21:56:15
2	Al 396.153Radial†	26329.4	26830.4	4951.8 µg/L	4951.8 ppb	21:56:15
2	Ca 317.933Radial†	87214.1	88103.5	4907.7 µg/L	4907.7 ppb	21:56:15
2	Fe 238.204 Radial†	78175.0	79326.6	4889.2 µg/L	4889.2 ppb	21:56:15
2	K 766.490 Radial†	14759.5	13460.1	4923.9 µg/L	4923.9 ppb	21:56:15
2	Mg 279.077 IEC†	13306.4	13336.9	4976.8 µg/L	4976.8 ppb	21:56:15
2	Na 589.592 Radial†	70918.2	70806.4	9668.6 µg/L	9668.6 ppb	21:56:15
2	Sr 421.552†	232565.2	236567.1	491.77 µg/L	491.77 ppb	21:56:13
2	Sc 361.383	1725354.7	1725354.7	100.42 %		21:57:01
2	Y 371.029	1021259.3	1021259.3	99.471 %		21:57:01
2	Ag 328.068†	133310.0	128667.2	482.44 µg/L	482.44 ppb	21:57:01
2	As 188.979†	1621.3	1635.0	501.47 µg/L	501.47 ppb	21:57:21
2	B 249.677†	36007.3	32352.4	475.47 µg/L	475.47 ppb	21:57:01
2	Ba 233.527†	119720.2	119360.8	481.38 µg/L	481.38 ppb	21:57:01
2	Be 313.107†	1782951.5	1776640.9	483.88 µg/L	483.88 ppb	21:57:01
2	Cd 226.502†	77092.6	76891.9	479.99 µg/L	479.99 ppb	21:57:01
2	Co 228.616†	39093.6	39122.2	482.96 µg/L	482.96 ppb	21:57:01
2	Cr 267.716†	61575.2	61141.9	478.73 µg/L	478.73 ppb	21:57:01
2	Cu 324.752†	126592.7	123096.8	479.87 µg/L	479.87 ppb	21:57:01
2	Mn 257.610†	393017.2	391154.2	483.76 µg/L	483.76 ppb	21:57:01
2	Mo 202.031†	16523.6	16475.3	484.63 µg/L	484.63 ppb	21:57:21
2	Ni 231.604†	41848.9	41752.3	480.75 µg/L	480.75 ppb	21:57:01
2	P 214.914†	11396.2	11367.0	2422.9 µg/L	2422.9 ppb	21:57:21
2	Pb 220.353†	8867.2	8744.1	489.65 µg/L	489.65 ppb	21:57:21

2	S 181.975 Axial†	1408.6	1297.7	967.74 µg/L	967.74 ppb	21:57:21
2	Sb 206.836†	4160.8	4062.8	484.14 µg/L	484.14 ppb	21:57:21
2	Se 196.026†	1350.1	1329.2	483 µg/L	483 ppb	21:57:21
2	SiO2†	55415.3	53410.7	5199.6 µg/L	5199.6 ppb	21:57:01
2	Si 251.611†	167453.3	165924.1	2436.5 µg/L	2436.5 ppb	21:57:01
2	Sn 189.927†	7843.1	7811.7	488.60 µg/L	488.60 ppb	21:57:21
2	Ti 334.940†	518046.3	514950.8	480.48 µg/L	480.48 ppb	21:57:01
2	Tl 190.801†	3874.0	3974.7	495.58 µg/L	495.58 ppb	21:57:21
2	U 409.014†	7327.0	7566.6	471.56 µg/L	471.56 ppb	21:57:01
2	V 292.402†	98567.7	97756.1	483.29 µg/L	483.29 ppb	21:57:01
2	Zn 213.857†	86827.5	85903.9	478.78 µg/L	478.78 ppb	21:57:01
3	Sc RADIAL	146360.8	146360.8	100 %		21:56:19
3	Al 396.153Radial†	26877.7	26861.7	4957.8 µg/L	4957.8 ppb	21:56:19
3	Ca 317.933Radial†	89496.1	88672.0	4939.4 µg/L	4939.4 ppb	21:56:19
3	Fe 238.204 Radial†	80024.7	79640.9	4908.6 µg/L	4908.6 ppb	21:56:19
3	K 766.490 Radial†	15000.5	13411.5	4906.1 µg/L	4906.1 ppb	21:56:19
3	Mg 279.077 IEC†	13753.4	13522.1	5045.7 µg/L	5045.7 ppb	21:56:19
3	Na 589.592 Radial†	72413.6	70909.6	9682.7 µg/L	9682.7 ppb	21:56:19
3	Sr 421.552†	230747.3	230203.0	478.54 µg/L	478.54 ppb	21:56:17
3	Sc 361.383	1718966.4	1718966.4	100.04 %		21:57:24
3	Y 371.029	1017028.5	1017028.5	99.059 %		21:57:24
3	Ag 328.068†	132653.9	128504.7	481.80 µg/L	481.80 ppb	21:57:24
3	As 188.979†	1590.5	1610.2	493.94 µg/L	493.94 ppb	21:57:44
3	B 249.677†	35824.6	32303.1	474.74 µg/L	474.74 ppb	21:57:24
3	Ba 233.527†	119070.9	119154.9	480.55 µg/L	480.55 ppb	21:57:24
3	Be 313.107†	1772306.3	1772598.9	482.78 µg/L	482.78 ppb	21:57:24
3	Cd 226.502†	76616.2	76701.1	478.79 µg/L	478.79 ppb	21:57:24
3	Co 228.616†	38830.3	39003.7	481.49 µg/L	481.49 ppb	21:57:24
3	Cr 267.716†	61234.2	61029.0	477.86 µg/L	477.86 ppb	21:57:24
3	Cu 324.752†	125521.6	122494.7	477.53 µg/L	477.53 ppb	21:57:24
3	Mn 257.610†	389961.8	389554.7	481.78 µg/L	481.78 ppb	21:57:24
3	Mo 202.031†	16335.5	16348.5	480.91 µg/L	480.91 ppb	21:57:44
3	Ni 231.604†	41630.1	41688.5	480.01 µg/L	480.01 ppb	21:57:24
3	P 214.914†	11241.7	11254.8	2398.9 µg/L	2398.9 ppb	21:57:44
3	Pb 220.353†	8795.7	8705.5	487.50 µg/L	487.50 ppb	21:57:44
3	S 181.975 Axial†	1388.4	1282.7	956.57 µg/L	956.57 ppb	21:57:44
3	Sb 206.836†	4126.6	4043.9	481.85 µg/L	481.85 ppb	21:57:44
3	Se 196.026†	1345.6	1329.7	483 µg/L	483 ppb	21:57:44
3	SiO2†	54983.2	53183.9	5177.6 µg/L	5177.6 ppb	21:57:24
3	Si 251.611†	166469.4	165560.3	2431.2 µg/L	2431.2 ppb	21:57:24
3	Sn 189.927†	7725.1	7722.8	483.05 µg/L	483.05 ppb	21:57:44
3	Ti 334.940†	514909.1	513732.3	479.34 µg/L	479.34 ppb	21:57:24
3	Tl 190.801†	3822.2	3937.2	490.94 µg/L	490.94 ppb	21:57:44
3	U 409.014†	7179.0	7445.8	464.34 µg/L	464.34 ppb	21:57:24
3	V 292.402†	97706.1	97259.8	480.82 µg/L	480.82 ppb	21:57:24
3	Zn 213.857†	86111.6	85509.7	476.57 µg/L	476.57 ppb	21:57:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1722037.8	100.22 %	0.186			0.19%
Sc RADIAL	144162.4	98.8 %	1.35			1.36%
Y 371.029	1018921.6	99.243 %	0.2094			0.21%
Ag 328.068†	128354.3	481.26 µg/L	1.519	481.26 ppb	1.519	0.32%
QC value within limits for Ag 328.068 Recovery = 96.25%						
Al 396.153Radial†	26831.3	4952.1 µg/L	5.59	4952.1 ppb	5.59	0.11%
QC value within limits for Al 396.153Radial Recovery = 99.04%						
As 188.979†	1624.5	498.29 µg/L	3.898	498.29 ppb	3.898	0.78%
QC value within limits for As 188.979 Recovery = 99.66%						
B 249.677†	32185.3	473.01 µg/L	3.650	473.01 ppb	3.650	0.77%
QC value within limits for B 249.677 Recovery = 94.60%						
Ba 233.527†	119148.4	480.52 µg/L	0.870	480.52 ppb	0.870	0.18%
QC value within limits for Ba 233.527 Recovery = 96.10%						
Be 313.107†	1771368.9	482.44 µg/L	1.629	482.44 ppb	1.629	0.34%
QC value within limits for Be 313.107 Recovery = 96.49%						
Ca 317.933Radial†	88165.3	4911.2 µg/L	26.67	4911.2 ppb	26.67	0.54%
QC value within limits for Ca 317.933Radial Recovery = 98.22%						
Cd 226.502†	76659.8	478.54 µg/L	1.594	478.54 ppb	1.594	0.33%
QC value within limits for Cd 226.502 Recovery = 95.71%						
Co 228.616†	38981.3	481.22 µg/L	1.892	481.22 ppb	1.892	0.39%

QC value within limits for Co 228.616 Recovery = 96.24%							
Cr 267.716†	60985.7	477.51 µg/L	1.423	477.51 ppb	1.423	0.30%	
QC value within limits for Cr 267.716 Recovery = 95.50%							
Cu 324.752†	122633.6	478.07 µg/L	1.603	478.07 ppb	1.603	0.34%	
QC value within limits for Cu 324.752 Recovery = 95.61%							
Fe 238.204 Radial†	79336.4	4889.8 µg/L	18.48	4889.8 ppb	18.48	0.38%	
QC value within limits for Fe 238.204 Radial Recovery = 97.80%							
K 766.490 Radial†	13417.0	4908.2 µg/L	14.87	4908.2 ppb	14.87	0.30%	
QC value within limits for K 766.490 Radial Recovery = 98.16%							
Mg 279.077 IEC†	13399.6	5000.1 µg/L	39.49	5000.1 ppb	39.49	0.79%	
QC value within limits for Mg 279.077 IEC Recovery = 100.00%							
Mn 257.610†	389702.9	481.97 µg/L	1.712	481.97 ppb	1.712	0.36%	
QC value within limits for Mn 257.610 Recovery = 96.39%							
Mo 202.031†	16413.1	482.80 µg/L	1.864	482.80 ppb	1.864	0.39%	
QC value within limits for Mo 202.031 Recovery = 96.56%							
Na 589.592 Radial†	70765.0	9663.0 µg/L	23.10	9663.0 ppb	23.10	0.24%	
QC value within limits for Na 589.592 Radial Recovery = 96.63%							
Ni 231.604†	41663.0	479.72 µg/L	1.203	479.72 ppb	1.203	0.25%	
QC value within limits for Ni 231.604 Recovery = 95.94%							
P 214.914†	11315.0	2411.8 µg/L	12.10	2411.8 ppb	12.10	0.50%	
QC value within limits for P 214.914 Recovery = 96.47%							
Pb 220.353†	8719.0	488.25 µg/L	1.215	488.25 ppb	1.215	0.25%	
QC value within limits for Pb 220.353 Recovery = 97.65%							
S 181.975 Axial†	1288.2	960.66 µg/L	6.158	960.66 ppb	6.158	0.64%	
QC value within limits for S 181.975 Axial Recovery = 96.07%							
Sb 206.836†	4053.9	483.08 µg/L	1.155	483.08 ppb	1.155	0.24%	
QC value within limits for Sb 206.836 Recovery = 96.62%							
Se 196.026†	1335.2	485 µg/L	3.6	485 ppb	3.6	0.74%	
QC value within limits for Se 196.026 Recovery = 96.96%							
SiO2†	53297.6	5188.7 µg/L	10.99	5188.7 ppb	10.99	0.21%	
QC value within limits for SiO2 Recovery = 97.03%							
Si 251.611†	165754.2	2434.1 µg/L	2.66	2434.1 ppb	2.66	0.11%	
QC value within limits for Si 251.611 Recovery = 97.36%							
Sn 189.927†	7765.4	485.71 µg/L	2.782	485.71 ppb	2.782	0.57%	
QC value within limits for Sn 189.927 Recovery = 97.14%							
Sr 421.552†	234474.7	487.42 µg/L	7.692	487.42 ppb	7.692	1.58%	
QC value within limits for Sr 421.552 Recovery = 97.48%							
Ti 334.940†	513756.2	479.37 µg/L	1.105	479.37 ppb	1.105	0.23%	
QC value within limits for Ti 334.940 Recovery = 95.87%							
Tl 190.801†	3949.2	492.42 µg/L	2.733	492.42 ppb	2.733	0.56%	
QC value within limits for Tl 190.801 Recovery = 98.48%							
U 409.014†	7518.8	468.68 µg/L	3.825	468.68 ppb	3.825	0.82%	
QC value within limits for U 409.014 Recovery = 93.74%							
V 292.402†	97493.1	481.98 µg/L	1.241	481.98 ppb	1.241	0.26%	
QC value within limits for V 292.402 Recovery = 96.40%							
Zn 213.857†	85530.5	476.69 µg/L	2.032	476.69 ppb	2.032	0.43%	
QC value within limits for Zn 213.857 Recovery = 95.34%							
All analyte(s) passed QC.							

Sequence No.: 69

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/31/2010 21:57:52

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	143488.6	143488.6	98.3 %		21:58:23
1	Al 396.153Radial†	-31.2	31.5	5.8461 µg/L	5.8461 ppb	21:58:43
1	Ca 317.933Radial†	626.0	76.1	4.2401 µg/L	4.2401 ppb	21:58:43
1	Fe 238.204 Radial†	255.1	111.3	6.8602 µg/L	6.8602 ppb	21:58:43
1	K 766.490 Radial†	1658.0	141.4	51.764 µg/L	51.764 ppb	21:58:23
1	Mg 279.077 IEC†	183.2	-4.4	-1.6504 µg/L	-1.6504 ppb	21:58:43
1	Na 589.592 Radial†	1420.1	153.5	20.919 µg/L	20.919 ppb	21:58:23
1	Sr 421.552†	-123.6	9.6	0.0200 µg/L	0.0200 ppb	21:58:23
1	Sc 361.383	1741228.6	1741228.6	101.34 %		21:59:30
1	Y 371.029	1041005.9	1041005.9	101.39 %		21:59:30
1	Ag 328.068†	3951.0	-192.6	-0.7198 µg/L	-0.7198 ppb	21:59:33
1	As 188.979†	-17.3	3.3	0.9894 µg/L	0.9894 ppb	21:59:53
1	B 249.677†	3598.6	45.2	0.6651 µg/L	0.6651 ppb	21:59:33
1	Ba 233.527†	-97.3	39.9	0.1606 µg/L	0.1606 ppb	21:59:53
1	Be 313.107†	-658.8	414.6	0.1114 µg/L	0.1114 ppb	21:59:33
1	Cd 226.502†	-98.4	21.1	0.1311 µg/L	0.1311 ppb	21:59:53
1	Co 228.616†	-161.8	30.7	0.3780 µg/L	0.3780 ppb	21:59:53
1	Cr 267.716†	182.4	1.5	0.0155 µg/L	0.0155 ppb	21:59:53
1	Cu 324.752†	3144.1	130.4	0.5038 µg/L	0.5038 ppb	21:59:33
1	Mn 257.610†	336.5	94.8	0.1174 µg/L	0.1174 ppb	21:59:53
1	Mo 202.031†	-24.2	-3.8	-0.1104 µg/L	-0.1104 ppb	21:59:53
1	Ni 231.604†	-79.3	-1.7	-0.0200 µg/L	-0.0200 ppb	21:59:53
1	P 214.914†	-16.3	1.8	0.3858 µg/L	0.3858 ppb	21:59:53
1	Pb 220.353†	84.1	-3.4	-0.1849 µg/L	-0.1849 ppb	21:59:53
1	S 181.975 Axial†	105.7	-0.8	-0.5879 µg/L	-0.5879 ppb	21:59:53
1	Sb 206.836†	91.1	9.1	1.0753 µg/L	1.0753 ppb	21:59:53
1	Se 196.026†	16.7	1.2	0.419 µg/L	0.419 ppb	21:59:53
1	SiO2†	1811.1	11.8	1.1639 µg/L	1.1639 ppb	21:59:53
1	Si 251.611†	939.6	90.6	1.3388 µg/L	1.3388 ppb	21:59:33
1	Sn 189.927†	-4.7	-3.6	-0.2217 µg/L	-0.2217 ppb	21:59:53
1	Ti 334.940†	1178.8	210.6	0.1990 µg/L	0.1990 ppb	21:59:33
1	Tl 190.801†	-99.6	18.4	2.2591 µg/L	2.2591 ppb	21:59:53
1	U 409.014†	-357.9	-83.3	-4.8719 µg/L	-4.8719 ppb	21:59:33
1	V 292.402†	400.4	-8.7	-0.0477 µg/L	-0.0477 ppb	21:59:33
1	Zn 213.857†	586.5	14.3	0.0794 µg/L	0.0794 ppb	21:59:53
2	Sc RADIAL	142543.2	142543.2	97.7 %		21:58:45
2	Al 396.153Radial†	-54.4	7.5	1.4064 µg/L	1.4064 ppb	21:59:05
2	Ca 317.933Radial†	611.6	65.6	3.6535 µg/L	3.6535 ppb	21:59:05
2	Fe 238.204 Radial†	253.5	111.4	6.8653 µg/L	6.8653 ppb	21:59:05
2	K 766.490 Radial†	1678.4	173.5	63.518 µg/L	63.518 ppb	21:58:45
2	Mg 279.077 IEC†	176.5	-10.0	-3.7286 µg/L	-3.7286 ppb	21:59:05
2	Na 589.592 Radial†	1442.2	185.7	25.313 µg/L	25.313 ppb	21:58:45
2	Sr 421.552†	-245.0	-115.6	-0.2403 µg/L	-0.2403 ppb	21:58:45
2	Sc 361.383	1719454.2	1719454.2	100.07 %		21:59:55
2	Y 371.029	1027865.1	1027865.1	100.11 %		21:59:55
2	Ag 328.068†	4168.7	74.3	0.2835 µg/L	0.2835 ppb	21:59:57
2	As 188.979†	-13.3	7.1	2.1498 µg/L	2.1498 ppb	22:00:17
2	B 249.677†	3486.4	-22.0	-0.3249 µg/L	-0.3249 ppb	21:59:57
2	Ba 233.527†	-114.3	21.7	0.0871 µg/L	0.0871 ppb	22:00:17
2	Be 313.107†	-912.6	152.8	0.0438 µg/L	0.0438 ppb	21:59:57
2	Cd 226.502†	-107.0	11.3	0.0695 µg/L	0.0695 ppb	22:00:17
2	Co 228.616†	-180.3	10.1	0.1246 µg/L	0.1246 ppb	22:00:17
2	Cr 267.716†	201.1	22.4	0.1701 µg/L	0.1701 ppb	22:00:17
2	Cu 324.752†	3016.0	41.6	0.1688 µg/L	0.1688 ppb	21:59:57
2	Mn 257.610†	311.1	73.6	0.0912 µg/L	0.0912 ppb	22:00:17
2	Mo 202.031†	-34.1	-14.0	-0.4113 µg/L	-0.4113 ppb	22:00:17
2	Ni 231.604†	-98.0	-21.4	-0.2463 µg/L	-0.2463 ppb	22:00:17
2	P 214.914†	-36.4	-18.4	-3.9363 µg/L	-3.9363 ppb	22:00:17
2	Pb 220.353†	83.9	-2.5	-0.1482 µg/L	-0.1482 ppb	22:00:17

2	S 181.975 Axial†	99.2	-5.9	-4.3840 µg/L	-4.3840 ppb	22:00:17
2	Sb 206.836†	64.9	-16.0	-1.9121 µg/L	-1.9121 ppb	22:00:17
2	Se 196.026†	15.3	0.0	0.021 µg/L	0.021 ppb	22:00:17
2	SiO2†	1788.3	11.6	1.1476 µg/L	1.1476 ppb	22:00:17
2	Si 251.611†	930.7	93.5	1.3835 µg/L	1.3835 ppb	21:59:57
2	Sn 189.927†	-0.8	0.3	0.0189 µg/L	0.0189 ppb	22:00:17
2	Ti 334.940†	1073.2	119.9	0.1093 µg/L	0.1093 ppb	21:59:57
2	Tl 190.801†	-128.3	-11.5	-1.4187 µg/L	-1.4187 ppb	22:00:17
2	U 409.014†	-143.3	126.7	7.4052 µg/L	7.4052 ppb	21:59:57
2	V 292.402†	396.1	-8.0	-0.0385 µg/L	-0.0385 ppb	21:59:57
2	Zn 213.857†	572.5	7.7	0.0442 µg/L	0.0442 ppb	22:00:17
3	Sc RADIAL	144454.1	144454.1	99.0 %		21:59:07
3	Al 396.153Radial†	-50.8	11.9	2.2219 µg/L	2.2219 ppb	21:59:27
3	Ca 317.933Radial†	619.6	65.3	3.6394 µg/L	3.6394 ppb	21:59:27
3	Fe 238.204 Radial†	231.3	85.6	5.2750 µg/L	5.2750 ppb	21:59:27
3	K 766.490 Radial†	1512.1	-17.2	-6.3033 µg/L	-6.3033 ppb	21:59:07
3	Mg 279.077 IEC†	192.0	3.2	1.1976 µg/L	1.1976 ppb	21:59:27
3	Na 589.592 Radial†	1347.2	70.1	9.5868 µg/L	9.5868 ppb	21:59:07
3	Sr 421.552†	-129.4	4.5	0.0094 µg/L	0.0094 ppb	21:59:07
3	Sc 361.383	1726759.9	1726759.9	100.50 %		22:00:19
3	Y 371.029	1032580.6	1032580.6	100.57 %		22:00:19
3	Ag 328.068†	4194.8	82.6	0.3040 µg/L	0.3040 ppb	22:00:21
3	As 188.979†	-19.7	0.7	0.2129 µg/L	0.2129 ppb	22:00:41
3	B 249.677†	3651.6	127.6	1.8815 µg/L	1.8815 ppb	22:00:21
3	Ba 233.527†	-116.8	19.7	0.0794 µg/L	0.0794 ppb	22:00:41
3	Be 313.107†	-870.8	198.2	0.0524 µg/L	0.0524 ppb	22:00:21
3	Cd 226.502†	-85.6	33.0	0.2057 µg/L	0.2057 ppb	22:00:41
3	Co 228.616†	-171.1	20.1	0.2475 µg/L	0.2475 ppb	22:00:41
3	Cr 267.716†	156.8	-22.6	-0.1724 µg/L	-0.1724 ppb	22:00:41
3	Cu 324.752†	2930.7	-56.0	-0.2209 µg/L	-0.2209 ppb	22:00:21
3	Mn 257.610†	308.3	69.5	0.0859 µg/L	0.0859 ppb	22:00:41
3	Mo 202.031†	-28.4	-8.1	-0.2389 µg/L	-0.2389 ppb	22:00:41
3	Ni 231.604†	-67.6	9.2	0.1060 µg/L	0.1060 ppb	22:00:41
3	P 214.914†	-14.4	3.6	0.7813 µg/L	0.7813 ppb	22:00:41
3	Pb 220.353†	81.9	-4.8	-0.2670 µg/L	-0.2670 ppb	22:00:41
3	S 181.975 Axial†	100.0	-5.5	-4.1081 µg/L	-4.1081 ppb	22:00:41
3	Sb 206.836†	58.7	-22.4	-2.6589 µg/L	-2.6589 ppb	22:00:41
3	Se 196.026†	9.4	-5.9	-2.14 µg/L	-2.14 ppb	22:00:41
3	SiO2†	1781.8	-2.4	-0.2353 µg/L	-0.2353 ppb	22:00:41
3	Si 251.611†	974.4	133.0	1.9607 µg/L	1.9607 ppb	22:00:21
3	Sn 189.927†	6.8	7.8	0.4886 µg/L	0.4886 ppb	22:00:41
3	Ti 334.940†	1012.5	55.0	0.0535 µg/L	0.0535 ppb	22:00:21
3	Tl 190.801†	-115.8	1.4	0.1780 µg/L	0.1780 ppb	22:00:41
3	U 409.014†	-360.3	-88.6	-5.1619 µg/L	-5.1619 ppb	22:00:21
3	V 292.402†	483.1	77.0	0.3681 µg/L	0.3681 ppb	22:00:21
3	Zn 213.857†	572.8	5.5	0.0300 µg/L	0.0300 ppb	22:00:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1729147.6	100.64 %	0.645			0.64%
Sc RADIAL	143495.3	98.3 %	0.65			0.67%
Y 371.029	1033817.2	100.69 %	0.648			0.64%
Ag 328.068†	-11.9	-0.0441 µg/L	0.58526	-0.0441 ppb	0.58526	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	17.0	3.1581 µg/L	2.36331	3.1581 ppb	2.36331	74.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	3.7	1.1173 µg/L	0.97478	1.1173 ppb	0.97478	87.24%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	50.3	0.7405 µg/L	1.10513	0.7405 ppb	1.10513	149.23%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	27.1	0.1090 µg/L	0.04480	0.1090 ppb	0.04480	41.10%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	255.2	0.0692 µg/L	0.03680	0.0692 ppb	0.03680	53.16%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	69.0	3.8443 µg/L	0.34280	3.8443 ppb	0.34280	8.92%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	21.8	0.1354 µg/L	0.06821	0.1354 ppb	0.06821	50.36%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	20.3	0.2500 µg/L	0.12669	0.2500 ppb	0.12669	50.67%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	0.4	0.0044 µg/L	0.17156	0.0044 ppb	0.17156	>999.9%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	38.7	0.1505 µg/L	0.36269	0.1505 ppb	0.36269	240.92%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	102.8	6.3335 µg/L	0.91666	6.3335 ppb	0.91666	14.47%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	99.2	36.326 µg/L	37.3832	36.326 ppb	37.3832	102.91%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-3.7	-1.3938 µg/L	2.47310	-1.3938 ppb	2.47310	177.43%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	79.3	0.0982 µg/L	0.01685	0.0982 ppb	0.01685	17.17%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-8.6	-0.2535 µg/L	0.15099	-0.2535 ppb	0.15099	59.56%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	136.4	18.606 µg/L	8.1142	18.606 ppb	8.1142	43.61%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-4.6	-0.0534 µg/L	0.17854	-0.0534 ppb	0.17854	334.31%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-4.3	-0.9231 µg/L	2.61701	-0.9231 ppb	2.61701	283.51%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-3.6	-0.2000 µg/L	0.06080	-0.2000 ppb	0.06080	30.40%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-4.1	-3.0267 µg/L	2.11654	-3.0267 ppb	2.11654	69.93%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-9.8	-1.1652 µg/L	1.97594	-1.1652 ppb	1.97594	169.57%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-1.6	-0.566 µg/L	1.3761	-0.566 ppb	1.3761	243.25%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	7.0	0.6921 µg/L	0.80317	0.6921 ppb	0.80317	116.05%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	105.7	1.5610 µg/L	0.34690	1.5610 ppb	0.34690	22.22%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	1.5	0.0953 µg/L	0.36125	0.0953 ppb	0.36125	379.10%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-33.8	-0.0703 µg/L	0.14733	-0.0703 ppb	0.14733	209.53%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	128.5	0.1206 µg/L	0.07341	0.1206 ppb	0.07341	60.86%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	2.8	0.3394 µg/L	1.84422	0.3394 ppb	1.84422	543.31%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-15.1	-0.8762 µg/L	7.17337	-0.8762 ppb	7.17337	818.68%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	20.1	0.0940 µg/L	0.23744	0.0940 ppb	0.23744	252.67%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	9.2	0.0512 µg/L	0.02545	0.0512 ppb	0.02545	49.72%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 77

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/31/2010 22:12:55

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	144265.2	144265.2	98.9 %		22:13:29
1	Al 396.153Radial†	26382.4	26750.0	4937.0 µg/L	4937.0 ppb	22:13:29
1	Ca 317.933Radial†	86791.9	87232.7	4859.2 µg/L	4859.2 ppb	22:13:29
1	Fe 238.204 Radial†	77447.1	78192.6	4819.3 µg/L	4819.3 ppb	22:13:29
1	K 766.490 Radial†	14619.5	13243.4	4844.7 µg/L	4844.7 ppb	22:13:29
1	Mg 279.077 IEC†	13211.3	13173.0	4915.8 µg/L	4915.8 ppb	22:13:29
1	Na 589.592 Radial†	70822.8	70349.2	9606.2 µg/L	9606.2 ppb	22:13:29
1	Sr 421.552†	230249.1	233041.1	484.44 µg/L	484.44 ppb	22:13:27
1	Sc 361.383	1718218.3	1718218.3	100.00 %		22:13:42
1	Y 371.029	1017558.5	1017558.5	99.111 %		22:13:42
1	Ag 328.068†	131861.6	127770.2	479.08 µg/L	479.08 ppb	22:13:42
1	As 188.979†	1610.7	1631.1	500.23 µg/L	500.23 ppb	22:14:02
1	B 249.677†	35422.2	31916.3	469.05 µg/L	469.05 ppb	22:13:42
1	Ba 233.527†	118202.1	118337.9	477.26 µg/L	477.26 ppb	22:13:42
1	Be 313.107†	1762457.8	1763521.9	480.31 µg/L	480.31 ppb	22:13:42
1	Cd 226.502†	75826.8	75945.0	474.08 µg/L	474.08 ppb	22:13:42
1	Co 228.616†	38510.6	38700.9	477.76 µg/L	477.76 ppb	22:13:42
1	Cr 267.716†	60814.9	60636.3	474.77 µg/L	474.77 ppb	22:13:42
1	Cu 324.752†	125406.1	122433.9	477.29 µg/L	477.29 ppb	22:13:42
1	Mn 257.610†	388459.2	388221.8	480.14 µg/L	480.14 ppb	22:13:42
1	Mo 202.031†	16438.1	16458.2	484.12 µg/L	484.12 ppb	22:14:02
1	Ni 231.604†	41348.4	41424.9	476.98 µg/L	476.98 ppb	22:13:42
1	P 214.914†	11268.3	11286.3	2405.7 µg/L	2405.7 ppb	22:14:02
1	Pb 220.353†	8791.6	8705.2	487.48 µg/L	487.48 ppb	22:14:02
1	S 181.975 Axial†	1392.6	1287.6	960.21 µg/L	960.21 ppb	22:14:02
1	Sb 206.836†	4153.0	4072.2	485.30 µg/L	485.30 ppb	22:14:02
1	Se 196.026†	1350.2	1334.9	485 µg/L	485 ppb	22:14:02
1	SiO2†	54803.6	53028.2	5162.3 µg/L	5162.3 ppb	22:13:42
1	Si 251.611†	165311.8	164475.2	2415.2 µg/L	2415.2 ppb	22:13:42
1	Sn 189.927†	7742.7	7743.8	484.36 µg/L	484.36 ppb	22:14:02
1	Ti 334.940†	513691.3	512738.5	478.42 µg/L	478.42 ppb	22:13:42
1	Tl 190.801†	3841.3	3958.0	493.49 µg/L	493.49 ppb	22:14:02
1	U 409.014†	7369.5	7639.3	475.58 µg/L	475.58 ppb	22:13:42
1	V 292.402†	97334.2	96930.4	479.25 µg/L	479.25 ppb	22:13:42
1	Zn 213.857†	85434.2	84869.8	473.01 µg/L	473.01 ppb	22:13:42
2	Sc RADIAL	145847.8	145847.8	99.9 %		22:13:33
2	Al 396.153Radial†	26431.3	26509.4	4892.7 µg/L	4892.7 ppb	22:13:33
2	Ca 317.933Radial†	87616.4	87105.0	4852.1 µg/L	4852.1 ppb	22:13:33
2	Fe 238.204 Radial†	78290.7	78186.6	4818.9 µg/L	4818.9 ppb	22:13:33
2	K 766.490 Radial†	14711.5	13175.0	4819.6 µg/L	4819.6 ppb	22:13:33
2	Mg 279.077 IEC†	13383.0	13199.9	4925.6 µg/L	4925.6 ppb	22:13:33
2	Na 589.592 Radial†	71537.8	70287.2	9597.8 µg/L	9597.8 ppb	22:13:33
2	Sr 421.552†	230007.1	230271.7	478.68 µg/L	478.68 ppb	22:13:31
2	Sc 361.383	1739608.4	1739608.4	101.24 %		22:14:05
2	Y 371.029	1028848.9	1028848.9	100.21 %		22:14:05
2	Ag 328.068†	134324.7	128581.6	482.14 µg/L	482.14 ppb	22:14:05
2	As 188.979†	1606.6	1607.2	493.02 µg/L	493.02 ppb	22:14:25
2	B 249.677†	36291.4	32339.3	475.28 µg/L	475.28 ppb	22:14:05
2	Ba 233.527†	120672.3	119324.3	481.23 µg/L	481.23 ppb	22:14:05
2	Be 313.107†	1801555.4	1780467.6	484.92 µg/L	484.92 ppb	22:14:05
2	Cd 226.502†	77540.6	76705.4	478.83 µg/L	478.83 ppb	22:14:05
2	Co 228.616†	39324.4	39031.1	481.84 µg/L	481.84 ppb	22:14:05
2	Cr 267.716†	61962.6	61022.1	477.79 µg/L	477.79 ppb	22:14:05
2	Cu 324.752†	127723.3	123180.5	480.19 µg/L	480.19 ppb	22:14:05
2	Mn 257.610†	396691.5	391576.4	484.29 µg/L	484.29 ppb	22:14:05
2	Mo 202.031†	16408.8	16227.1	477.33 µg/L	477.33 ppb	22:14:25
2	Ni 231.604†	42066.6	41625.8	479.29 µg/L	479.29 ppb	22:14:05
2	P 214.914†	11256.1	11135.6	2373.5 µg/L	2373.5 ppb	22:14:25
2	Pb 220.353†	8760.6	8566.5	479.72 µg/L	479.72 ppb	22:14:25

2	S 181.975 Axial†	1379.1	1257.1	937.49 µg/L	937.49 ppb	22:14:25
2	Sb 206.836†	4126.7	3995.1	476.00 µg/L	476.00 ppb	22:14:25
2	Se 196.026†	1344.9	1313.1	477 µg/L	477 ppb	22:14:25
2	SiO2†	55878.0	53415.5	5200.4 µg/L	5200.4 ppb	22:14:05
2	Si 251.611†	168787.2	165875.2	2436.0 µg/L	2436.0 ppb	22:14:05
2	Sn 189.927†	7780.5	7685.9	480.76 µg/L	480.76 ppb	22:14:25
2	Ti 334.940†	523148.0	515762.7	481.24 µg/L	481.24 ppb	22:14:05
2	Tl 190.801†	3840.1	3909.5	487.59 µg/L	487.59 ppb	22:14:25
2	U 409.014†	7476.8	7654.7	476.77 µg/L	476.77 ppb	22:14:05
2	V 292.402†	99532.4	97904.8	483.95 µg/L	483.95 ppb	22:14:05
2	Zn 213.857†	87491.3	85851.1	478.50 µg/L	478.50 ppb	22:14:05
3	Sc RADIAL	145510.3	145510.3	99.7 %		22:13:37
3	Al 396.153Radial†	26649.3	26789.4	4944.6 µg/L	4944.6 ppb	22:13:37
3	Ca 317.933Radial†	87905.2	87598.0	4879.6 µg/L	4879.6 ppb	22:13:37
3	Fe 238.204 Radial†	78514.4	78592.6	4844.0 µg/L	4844.0 ppb	22:13:37
3	K 766.490 Radial†	14626.3	13123.7	4800.8 µg/L	4800.8 ppb	22:13:37
3	Mg 279.077 IEC†	13367.9	13215.7	4931.5 µg/L	4931.5 ppb	22:13:37
3	Na 589.592 Radial†	71662.6	70578.3	9637.6 µg/L	9637.6 ppb	22:13:37
3	Sr 421.552†	228923.8	229719.0	477.53 µg/L	477.53 ppb	22:13:35
3	Sc 361.383	1738267.6	1738267.6	101.17 %		22:14:28
3	Y 371.029	1027936.3	1027936.3	100.12 %		22:14:28
3	Ag 328.068†	134212.1	128572.7	482.09 µg/L	482.09 ppb	22:14:28
3	As 188.979†	1598.1	1600.0	490.84 µg/L	490.84 ppb	22:14:48
3	B 249.677†	36163.6	32240.6	473.82 µg/L	473.82 ppb	22:14:28
3	Ba 233.527†	120556.5	119301.7	481.14 µg/L	481.14 ppb	22:14:28
3	Be 313.107†	1796851.1	1777190.1	484.03 µg/L	484.03 ppb	22:14:28
3	Cd 226.502†	77464.7	76689.4	478.73 µg/L	478.73 ppb	22:14:28
3	Co 228.616†	39399.0	39134.9	483.12 µg/L	483.12 ppb	22:14:28
3	Cr 267.716†	61725.8	60835.3	476.33 µg/L	476.33 ppb	22:14:28
3	Cu 324.752†	127349.1	122907.9	479.13 µg/L	479.13 ppb	22:14:28
3	Mn 257.610†	395160.9	390365.7	482.79 µg/L	482.79 ppb	22:14:28
3	Mo 202.031†	16361.5	16192.8	476.33 µg/L	476.33 ppb	22:14:48
3	Ni 231.604†	41980.9	41573.2	478.68 µg/L	478.68 ppb	22:14:28
3	P 214.914†	11184.1	11073.0	2360.1 µg/L	2360.1 ppb	22:14:48
3	Pb 220.353†	8741.7	8554.5	479.05 µg/L	479.05 ppb	22:14:48
3	S 181.975 Axial†	1393.5	1272.4	948.88 µg/L	948.88 ppb	22:14:48
3	Sb 206.836†	4119.1	3990.8	475.48 µg/L	475.48 ppb	22:14:48
3	Se 196.026†	1344.8	1314.0	477 µg/L	477 ppb	22:14:48
3	SiO2†	55631.5	53214.4	5180.9 µg/L	5180.9 ppb	22:14:28
3	Si 251.611†	168426.4	165647.1	2432.6 µg/L	2432.6 ppb	22:14:28
3	Sn 189.927†	7707.1	7619.3	476.60 µg/L	476.60 ppb	22:14:48
3	Ti 334.940†	521295.0	514329.6	479.91 µg/L	479.91 ppb	22:14:28
3	Tl 190.801†	3816.8	3889.5	485.09 µg/L	485.09 ppb	22:14:48
3	U 409.014†	7397.3	7581.9	472.42 µg/L	472.42 ppb	22:14:28
3	V 292.402†	99170.7	97623.1	482.55 µg/L	482.55 ppb	22:14:28
3	Zn 213.857†	87280.4	85709.2	477.71 µg/L	477.71 ppb	22:14:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1732031.4	100.80 %	0.697			0.69%
Sc RADIAL	145207.8	99.5 %	0.57			0.57%
Y 371.029	1024781.2	99.814 %	0.6109			0.61%
Ag 328.068†	128308.2	481.10 µg/L	1.752	481.10 ppb	1.752	0.36%
QC value within limits for Ag 328.068 Recovery = 96.22%						
Al 396.153Radial†	26682.9	4924.7 µg/L	28.05	4924.7 ppb	28.05	0.57%
QC value within limits for Al 396.153Radial Recovery = 98.49%						
As 188.979†	1612.8	494.70 µg/L	4.918	494.70 ppb	4.918	0.99%
QC value within limits for As 188.979 Recovery = 98.94%						
B 249.677†	32165.4	472.71 µg/L	3.255	472.71 ppb	3.255	0.69%
QC value within limits for B 249.677 Recovery = 94.54%						
Ba 233.527†	118988.0	479.88 µg/L	2.269	479.88 ppb	2.269	0.47%
QC value within limits for Ba 233.527 Recovery = 95.98%						
Be 313.107†	1773726.5	483.09 µg/L	2.447	483.09 ppb	2.447	0.51%
QC value within limits for Be 313.107 Recovery = 96.62%						
Ca 317.933Radial†	87311.9	4863.6 µg/L	14.25	4863.6 ppb	14.25	0.29%
QC value within limits for Ca 317.933Radial Recovery = 97.27%						
Cd 226.502†	76446.6	477.21 µg/L	2.714	477.21 ppb	2.714	0.57%
QC value within limits for Cd 226.502 Recovery = 95.44%						
Co 228.616†	38955.6	480.91 µg/L	2.798	480.91 ppb	2.798	0.58%

QC value within limits for Co 228.616 Recovery = 96.18%							
Cr 267.716†	60831.2	476.30 µg/L	1.512	476.30 ppb	1.512	0.32%	
QC value within limits for Cr 267.716 Recovery = 95.26%							
Cu 324.752†	122840.8	478.87 µg/L	1.470	478.87 ppb	1.470	0.31%	
QC value within limits for Cu 324.752 Recovery = 95.77%							
Fe 238.204 Radial†	78324.0	4827.4 µg/L	14.34	4827.4 ppb	14.34	0.30%	
QC value within limits for Fe 238.204 Radial Recovery = 96.55%							
K 766.490 Radial†	13180.7	4821.7 µg/L	21.99	4821.7 ppb	21.99	0.46%	
QC value within limits for K 766.490 Radial Recovery = 96.43%							
Mg 279.077 IEC†	13196.2	4924.3 µg/L	7.93	4924.3 ppb	7.93	0.16%	
QC value within limits for Mg 279.077 IEC Recovery = 98.49%							
Mn 257.610†	390054.6	482.41 µg/L	2.102	482.41 ppb	2.102	0.44%	
QC value within limits for Mn 257.610 Recovery = 96.48%							
Mo 202.031†	16292.7	479.26 µg/L	4.241	479.26 ppb	4.241	0.88%	
QC value within limits for Mo 202.031 Recovery = 95.85%							
Na 589.592 Radial†	70404.9	9613.9 µg/L	20.97	9613.9 ppb	20.97	0.22%	
QC value within limits for Na 589.592 Radial Recovery = 96.14%							
Ni 231.604†	41541.3	478.32 µg/L	1.200	478.32 ppb	1.200	0.25%	
QC value within limits for Ni 231.604 Recovery = 95.66%							
P 214.914†	11165.0	2379.7 µg/L	23.45	2379.7 ppb	23.45	0.99%	
QC value within limits for P 214.914 Recovery = 95.19%							
Pb 220.353†	8608.8	482.08 µg/L	4.685	482.08 ppb	4.685	0.97%	
QC value within limits for Pb 220.353 Recovery = 96.42%							
S 181.975 Axial†	1272.4	948.86 µg/L	11.360	948.86 ppb	11.360	1.20%	
QC value within limits for S 181.975 Axial Recovery = 94.89%							
Sb 206.836†	4019.3	478.92 µg/L	5.524	478.92 ppb	5.524	1.15%	
QC value within limits for Sb 206.836 Recovery = 95.78%							
Se 196.026†	1320.7	480 µg/L	4.5	480 ppb	4.5	0.93%	
QC value within limits for Se 196.026 Recovery = 95.91%							
SiO2†	53219.4	5181.2 µg/L	19.05	5181.2 ppb	19.05	0.37%	
QC value within limits for SiO2 Recovery = 96.89%							
Si 251.611†	165332.5	2427.9 µg/L	11.15	2427.9 ppb	11.15	0.46%	
QC value within limits for Si 251.611 Recovery = 97.12%							
Sn 189.927†	7683.0	480.57 µg/L	3.879	480.57 ppb	3.879	0.81%	
QC value within limits for Sn 189.927 Recovery = 96.11%							
Sr 421.552†	231010.6	480.22 µg/L	3.701	480.22 ppb	3.701	0.77%	
QC value within limits for Sr 421.552 Recovery = 96.04%							
Ti 334.940†	514276.9	479.86 µg/L	1.412	479.86 ppb	1.412	0.29%	
QC value within limits for Ti 334.940 Recovery = 95.97%							
Tl 190.801†	3919.0	488.72 µg/L	4.311	488.72 ppb	4.311	0.88%	
QC value within limits for Tl 190.801 Recovery = 97.74%							
U 409.014†	7625.3	474.92 µg/L	2.247	474.92 ppb	2.247	0.47%	
QC value within limits for U 409.014 Recovery = 94.98%							
V 292.402†	97486.1	481.92 µg/L	2.411	481.92 ppb	2.411	0.50%	
QC value within limits for V 292.402 Recovery = 96.38%							
Zn 213.857†	85476.7	476.40 µg/L	2.970	476.40 ppb	2.970	0.62%	
QC value within limits for Zn 213.857 Recovery = 95.28%							

All analyte(s) passed QC.

Sequence No.: 78

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/31/2010 22:14:56

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	144616.5	144616.5	99.1 %		22:15:27
1	Al 396.153Radial†	-140.4	-78.5	-14.533 µg/L	-14.533 ppb	22:15:27
1	Ca 317.933Radial†	605.1	50.0	2.7853 µg/L	2.7853 ppb	22:15:47
1	Fe 238.204 Radial†	190.6	44.2	2.7255 µg/L	2.7255 ppb	22:15:47
1	K 766.490 Radial†	1690.5	161.1	58.992 µg/L	58.992 ppb	22:15:27
1	Mg 279.077 IEC†	189.8	0.8	0.2999 µg/L	0.2999 ppb	22:15:47
1	Na 589.592 Radial†	1316.3	37.4	5.0628 µg/L	5.0628 ppb	22:15:27
1	Sr 421.552†	-196.7	-63.2	-0.1315 µg/L	-0.1315 ppb	22:15:27
1	Sc 361.383	1731481.4	1731481.4	100.77 %		22:16:34
1	Y 371.029	1035707.2	1035707.2	100.88 %		22:16:34
1	Ag 328.068†	4207.6	84.0	0.3025 µg/L	0.3025 ppb	22:16:37
1	As 188.979†	-21.2	-0.7	-0.1971 µg/L	-0.1971 ppb	22:16:57
1	B 249.677†	3625.9	92.2	1.3590 µg/L	1.3590 ppb	22:16:37
1	Ba 233.527†	-157.7	-20.7	-0.0841 µg/L	-0.0841 ppb	22:16:57
1	Be 313.107†	-910.7	160.9	0.0444 µg/L	0.0444 ppb	22:16:37
1	Cd 226.502†	-114.4	4.7	0.0290 µg/L	0.0290 ppb	22:16:57
1	Co 228.616†	-176.3	15.4	0.1898 µg/L	0.1898 ppb	22:16:57
1	Cr 267.716†	195.1	15.0	0.1155 µg/L	0.1155 ppb	22:16:57
1	Cu 324.752†	2860.5	-133.6	-0.5170 µg/L	-0.5170 ppb	22:16:37
1	Mn 257.610†	321.7	82.0	0.1014 µg/L	0.1014 ppb	22:16:57
1	Mo 202.031†	-34.6	-14.3	-0.4198 µg/L	-0.4198 ppb	22:16:57
1	Ni 231.604†	-65.6	11.4	0.1312 µg/L	0.1312 ppb	22:16:57
1	P 214.914†	-28.4	-10.2	-2.1783 µg/L	-2.1783 ppb	22:16:57
1	Pb 220.353†	66.3	-20.6	-1.1536 µg/L	-1.1536 ppb	22:16:57
1	S 181.975 Axial†	101.3	-4.5	-3.3505 µg/L	-3.3505 ppb	22:16:57
1	Sb 206.836†	79.6	-1.9	-0.2288 µg/L	-0.2288 ppb	22:16:57
1	Se 196.026†	12.5	-2.8	-1.02 µg/L	-1.02 ppb	22:16:57
1	SiO2†	1786.4	-2.7	-0.2591 µg/L	-0.2591 ppb	22:16:57
1	Si 251.611†	1082.1	237.2	3.4988 µg/L	3.4988 ppb	22:16:37
1	Sn 189.927†	9.2	10.2	0.6390 µg/L	0.6390 ppb	22:16:57
1	Ti 334.940†	1075.1	114.3	0.1060 µg/L	0.1060 ppb	22:16:37
1	Tl 190.801†	-105.3	12.2	1.4953 µg/L	1.4953 ppb	22:16:57
1	U 409.014†	-238.6	33.2	1.8871 µg/L	1.8871 ppb	22:16:37
1	V 292.402†	220.7	-184.8	-0.9046 µg/L	-0.9046 ppb	22:16:37
1	Zn 213.857†	605.7	36.6	0.2048 µg/L	0.2048 ppb	22:16:57
2	Sc RADIAL	144344.2	144344.2	98.9 %		22:15:49
2	Al 396.153Radial†	-228.5	-167.8	-31.103 µg/L	-31.103 ppb	22:15:49
2	Ca 317.933Radial†	612.9	59.1	3.2922 µg/L	3.2922 ppb	22:16:09
2	Fe 238.204 Radial†	199.9	54.0	3.3254 µg/L	3.3254 ppb	22:16:09
2	K 766.490 Radial†	1458.2	-70.5	-25.815 µg/L	-25.815 ppb	22:15:49
2	Mg 279.077 IEC†	169.1	-19.8	-7.3659 µg/L	-7.3659 ppb	22:16:09
2	Na 589.592 Radial†	1297.4	20.8	2.8708 µg/L	2.8708 ppb	22:15:49
2	Sr 421.552†	-320.5	-188.8	-0.3925 µg/L	-0.3925 ppb	22:15:49
2	Sc 361.383	1722284.8	1722284.8	100.24 %		22:16:59
2	Y 371.029	1030621.8	1030621.8	100.38 %		22:16:59
2	Ag 328.068†	3896.9	-203.7	-0.7475 µg/L	-0.7475 ppb	22:17:01
2	As 188.979†	-7.9	12.5	3.7833 µg/L	3.7833 ppb	22:17:21
2	B 249.677†	3506.6	-7.6	-0.1120 µg/L	-0.1120 ppb	22:17:01
2	Ba 233.527†	-125.5	10.7	0.0428 µg/L	0.0428 ppb	22:17:21
2	Be 313.107†	-756.3	310.2	0.0866 µg/L	0.0866 ppb	22:17:01
2	Cd 226.502†	-110.8	7.7	0.0475 µg/L	0.0475 ppb	22:17:21
2	Co 228.616†	-191.9	-1.2	-0.0145 µg/L	-0.0145 ppb	22:17:21
2	Cr 267.716†	200.7	21.6	0.1639 µg/L	0.1639 ppb	22:17:21
2	Cu 324.752†	2989.4	10.2	0.0458 µg/L	0.0458 ppb	22:17:01
2	Mn 257.610†	314.3	76.3	0.0947 µg/L	0.0947 ppb	22:17:21
2	Mo 202.031†	-21.3	-1.1	-0.0337 µg/L	-0.0337 ppb	22:17:21
2	Ni 231.604†	-74.0	2.7	0.0313 µg/L	0.0313 ppb	22:17:21
2	P 214.914†	-16.7	1.3	0.2808 µg/L	0.2808 ppb	22:17:21
2	Pb 220.353†	91.3	4.7	0.2555 µg/L	0.2555 ppb	22:17:21

2	S 181.975 Axial†	95.8	-9.5	-7.0189 µg/L	-7.0189 ppb	22:17:21
2	Sb 206.836†	59.0	-22.0	-2.6184 µg/L	-2.6184 ppb	22:17:21
2	Se 196.026†	19.9	4.6	1.68 µg/L	1.68 ppb	22:17:21
2	SiO2†	1789.5	9.9	0.9655 µg/L	0.9655 ppb	22:17:21
2	Si 251.611†	1004.6	165.6	2.4397 µg/L	2.4397 ppb	22:17:01
2	Sn 189.927†	5.2	6.3	0.3919 µg/L	0.3919 ppb	22:17:21
2	Ti 334.940†	826.1	-128.4	-0.1222 µg/L	-0.1222 ppb	22:17:01
2	Tl 190.801†	-126.0	-9.1	-1.1150 µg/L	-1.1150 ppb	22:17:21
2	U 409.014†	-147.1	123.1	7.1898 µg/L	7.1898 ppb	22:17:01
2	V 292.402†	373.1	-31.5	-0.1489 µg/L	-0.1489 ppb	22:17:01
2	Zn 213.857†	593.5	27.6	0.1540 µg/L	0.1540 ppb	22:17:21
3	Sc RADIAL	145056.9	145056.9	99.4 %		22:16:11
3	Al 396.153Radial†	-231.1	-169.3	-31.367 µg/L	-31.367 ppb	22:16:11
3	Ca 317.933Radial†	599.6	42.6	2.3739 µg/L	2.3739 ppb	22:16:31
3	Fe 238.204 Radial†	195.6	48.6	2.9983 µg/L	2.9983 ppb	22:16:31
3	K 766.490 Radial†	1826.4	292.6	107.12 µg/L	107.12 ppb	22:16:11
3	Mg 279.077 IEC†	196.4	6.8	2.5372 µg/L	2.5372 ppb	22:16:31
3	Na 589.592 Radial†	1266.4	-16.8	-2.3909 µg/L	-2.3909 ppb	22:16:11
3	Sr 421.552†	-165.7	-31.4	-0.0654 µg/L	-0.0654 ppb	22:16:11
3	Sc 361.383	1742676.0	1742676.0	101.42 %		22:17:23
3	Y 371.029	1041139.7	1041139.7	101.41 %		22:17:23
3	Ag 328.068†	4264.5	113.3	0.4163 µg/L	0.4163 ppb	22:17:25
3	As 188.979†	-11.3	9.2	2.7834 µg/L	2.7834 ppb	22:17:45
3	B 249.677†	3554.8	-1.0	-0.0144 µg/L	-0.0144 ppb	22:17:25
3	Ba 233.527†	-135.5	2.2	0.0087 µg/L	0.0087 ppb	22:17:45
3	Be 313.107†	-714.6	360.1	0.0972 µg/L	0.0972 ppb	22:17:25
3	Cd 226.502†	-111.8	8.0	0.0493 µg/L	0.0493 ppb	22:17:45
3	Co 228.616†	-185.9	7.0	0.0867 µg/L	0.0867 ppb	22:17:45
3	Cr 267.716†	198.7	17.4	0.1382 µg/L	0.1382 ppb	22:17:45
3	Cu 324.752†	2855.8	-156.5	-0.6100 µg/L	-0.6100 ppb	22:17:25
3	Mn 257.610†	318.4	76.7	0.0948 µg/L	0.0948 ppb	22:17:45
3	Mo 202.031†	-37.1	-16.5	-0.4859 µg/L	-0.4859 ppb	22:17:45
3	Ni 231.604†	-94.7	-16.9	-0.1940 µg/L	-0.1940 ppb	22:17:45
3	P 214.914†	-18.0	0.2	0.0565 µg/L	0.0565 ppb	22:17:45
3	Pb 220.353†	70.5	-16.9	-0.9439 µg/L	-0.9439 ppb	22:17:45
3	S 181.975 Axial†	101.6	-4.9	-3.6429 µg/L	-3.6429 ppb	22:17:45
3	Sb 206.836†	72.7	-9.2	-1.0967 µg/L	-1.0967 ppb	22:17:45
3	Se 196.026†	9.5	-5.9	-2.14 µg/L	-2.14 ppb	22:17:45
3	SiO2†	1777.4	-22.9	-2.2297 µg/L	-2.2297 ppb	22:17:45
3	Si 251.611†	827.6	-20.5	-0.2986 µg/L	-0.2986 ppb	22:17:25
3	Sn 189.927†	4.4	5.4	0.3390 µg/L	0.3390 ppb	22:17:45
3	Ti 334.940†	1103.2	135.2	0.1273 µg/L	0.1273 ppb	22:17:25
3	Tl 190.801†	-112.8	5.5	0.6715 µg/L	0.6715 ppb	22:17:45
3	U 409.014†	-323.3	-48.8	-2.8536 µg/L	-2.8536 ppb	22:17:25
3	V 292.402†	418.1	8.4	0.0344 µg/L	0.0344 ppb	22:17:25
3	Zn 213.857†	602.9	30.0	0.1695 µg/L	0.1695 ppb	22:17:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1732147.4	100.81 %	0.594			0.59%
Sc RADIAL	144672.5	99.1 %	0.25			0.25%
Y 371.029	1035822.9	100.89 %	0.512			0.51%
Ag 328.068†	-2.2	-0.0096 µg/L	0.64157	-0.0096 ppb	0.64157	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-138.5	-25.667 µg/L	9.6439	-25.667 ppb	9.6439	37.57%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	7.0	2.1232 µg/L	2.07069	2.1232 ppb	2.07069	97.53%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	27.9	0.4109 µg/L	0.82253	0.4109 ppb	0.82253	200.20%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-2.6	-0.0109 µg/L	0.06567	-0.0109 ppb	0.06567	605.19%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	277.1	0.0761 µg/L	0.02793	0.0761 ppb	0.02793	36.72%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	50.6	2.8171 µg/L	0.45995	2.8171 ppb	0.45995	16.33%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	6.8	0.0420 µg/L	0.01123	0.0420 ppb	0.01123	26.78%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	7.1	0.0873 µg/L	0.10216	0.0873 ppb	0.10216	116.98%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	18.0	0.1392 µg/L	0.02421	0.1392 ppb	0.02421	17.39%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-93.3	-0.3604 µg/L	0.35483	-0.3604 ppb	0.35483	98.44%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	48.9	3.0164 µg/L	0.30037	3.0164 ppb	0.30037	9.96%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	127.7	46.766 µg/L	67.3062	46.766 ppb	67.3062	143.92%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-4.0	-1.5096 µg/L	5.19362	-1.5096 ppb	5.19362	344.04%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	78.3	0.0969 µg/L	0.00386	0.0969 ppb	0.00386	3.98%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-10.7	-0.3132 µg/L	0.24424	-0.3132 ppb	0.24424	77.99%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	13.8	1.8476 µg/L	3.83078	1.8476 ppb	3.83078	207.34%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-0.9	-0.0105 µg/L	0.16660	-0.0105 ppb	0.16660	>999.9%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-2.9	-0.6137 µg/L	1.35968	-0.6137 ppb	1.35968	221.57%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-10.9	-0.6140 µg/L	0.76029	-0.6140 ppb	0.76029	123.82%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-6.3	-4.6708 µg/L	2.03882	-4.6708 ppb	2.03882	43.65%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-11.0	-1.3147 µg/L	1.20959	-1.3147 ppb	1.20959	92.01%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-1.4	-0.495 µg/L	1.9625	-0.495 ppb	1.9625	396.16%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-5.2	-0.5078 µg/L	1.61206	-0.5078 ppb	1.61206	317.46%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	127.4	1.8800 µg/L	1.95958	1.8800 ppb	1.95958	104.24%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	7.3	0.4566 µg/L	0.16011	0.4566 ppb	0.16011	35.06%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-94.5	-0.1965 µg/L	0.17296	-0.1965 ppb	0.17296	88.04%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	40.4	0.0370 µg/L	0.13834	0.0370 ppb	0.13834	373.72%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	2.9	0.3506 µg/L	1.33442	0.3506 ppb	1.33442	380.62%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	35.8	2.0744 µg/L	5.02435	2.0744 ppb	5.02435	242.20%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-69.3	-0.3397 µg/L	0.49772	-0.3397 ppb	0.49772	146.53%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	31.4	0.1761 µg/L	0.02602	0.1761 ppb	0.02602	14.78%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 87

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/31/2010 22:35:22

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	146768.4	146768.4	101 %		22:35:57
1	Al 396.153Radial†	26541.6	26453.2	4882.0 µg/L	4882.0 ppb	22:35:57
1	Ca 317.933Radial†	87649.0	86587.6	4823.3 µg/L	4823.3 ppb	22:35:57
1	Fe 238.204 Radial†	78561.3	77964.3	4805.2 µg/L	4805.2 ppb	22:35:57
1	K 766.490 Radial†	14622.8	12994.5	4753.5 µg/L	4753.5 ppb	22:35:57
1	Mg 279.077 IEC†	13408.4	13141.1	4903.8 µg/L	4903.8 ppb	22:35:57
1	Na 589.592 Radial†	71672.4	69972.1	9554.8 µg/L	9554.8 ppb	22:35:57
1	Sr 421.552†	232413.6	231220.9	480.66 µg/L	480.66 ppb	22:35:55
1	Sc 361.383	1722923.1	1722923.1	100.27 %		22:36:24
1	Y 371.029	1019811.3	1019811.3	99.330 %		22:36:24
1	Ag 328.068†	132254.4	127801.8	479.17 µg/L	479.17 ppb	22:36:24
1	As 188.979†	1604.2	1620.1	496.89 µg/L	496.89 ppb	22:36:44
1	B 249.677†	35283.6	31681.3	465.60 µg/L	465.60 ppb	22:36:24
1	Ba 233.527†	118323.2	118135.9	476.44 µg/L	476.44 ppb	22:36:24
1	Be 313.107†	1761219.9	1757474.5	478.66 µg/L	478.66 ppb	22:36:24
1	Cd 226.502†	75730.6	75642.0	472.19 µg/L	472.19 ppb	22:36:24
1	Co 228.616†	38400.5	38485.9	475.11 µg/L	475.11 ppb	22:36:24
1	Cr 267.716†	60661.3	60317.0	472.27 µg/L	472.27 ppb	22:36:24
1	Cu 324.752†	125755.4	122439.8	477.30 µg/L	477.30 ppb	22:36:24
1	Mn 257.610†	387911.3	386614.6	478.15 µg/L	478.15 ppb	22:36:24
1	Mo 202.031†	16408.6	16383.8	481.94 µg/L	481.94 ppb	22:36:44
1	Ni 231.604†	41320.9	41284.6	475.36 µg/L	475.36 ppb	22:36:24
1	P 214.914†	11214.8	11202.1	2387.7 µg/L	2387.7 ppb	22:36:44
1	Pb 220.353†	8739.6	8629.4	483.24 µg/L	483.24 ppb	22:36:44
1	S 181.975 Axial†	1375.5	1266.7	944.65 µg/L	944.65 ppb	22:36:44
1	Sb 206.836†	4120.0	4027.9	480.04 µg/L	480.04 ppb	22:36:44
1	Se 196.026†	1343.5	1324.5	481 µg/L	481 ppb	22:36:44
1	SiO2†	54771.8	52846.8	5144.7 µg/L	5144.7 ppb	22:36:24
1	Si 251.611†	165253.5	163965.6	2407.7 µg/L	2407.7 ppb	22:36:24
1	Sn 189.927†	7717.2	7697.3	481.45 µg/L	481.45 ppb	22:36:44
1	Ti 334.940†	514309.0	511951.9	477.69 µg/L	477.69 ppb	22:36:24
1	Tl 190.801†	3827.4	3933.6	490.49 µg/L	490.49 ppb	22:36:44
1	U 409.014†	7235.3	7485.4	466.50 µg/L	466.50 ppb	22:36:24
1	V 292.402†	97370.2	96700.5	478.09 µg/L	478.09 ppb	22:36:24
1	Zn 213.857†	85150.2	84353.3	470.11 µg/L	470.11 ppb	22:36:24
2	Sc RADIAL	145116.2	145116.2	99.4 %		22:36:01
2	Al 396.153Radial†	26297.2	26507.8	4892.7 µg/L	4892.7 ppb	22:36:01
2	Ca 317.933Radial†	86940.1	86866.9	4838.8 µg/L	4838.8 ppb	22:36:01
2	Fe 238.204 Radial†	77803.3	78091.3	4813.1 µg/L	4813.1 ppb	22:36:01
2	K 766.490 Radial†	14545.6	13082.4	4785.7 µg/L	4785.7 ppb	22:36:01
2	Mg 279.077 IEC†	13274.5	13158.2	4909.9 µg/L	4909.9 ppb	22:36:01
2	Na 589.592 Radial†	70981.1	70088.2	9570.6 µg/L	9570.6 ppb	22:36:01
2	Sr 421.552†	232627.8	234067.2	486.57 µg/L	486.57 ppb	22:35:59
2	Sc 361.383	1750269.1	1750269.1	101.87 %		22:36:47
2	Y 371.029	1035573.7	1035573.7	100.87 %		22:36:47
2	Ag 328.068†	134676.3	128118.7	480.37 µg/L	480.37 ppb	22:36:47
2	As 188.979†	1582.5	1573.9	482.89 µg/L	482.89 ppb	22:37:07
2	B 249.677†	35971.3	31806.7	467.44 µg/L	467.44 ppb	22:36:47
2	Ba 233.527†	120638.2	118564.9	478.17 µg/L	478.17 ppb	22:36:47
2	Be 313.107†	1795938.6	1764115.6	480.47 µg/L	480.47 ppb	22:36:47
2	Cd 226.502†	77211.3	75915.5	473.90 µg/L	473.90 ppb	22:36:47
2	Co 228.616†	39183.6	38656.4	477.21 µg/L	477.21 ppb	22:36:47
2	Cr 267.716†	61805.5	60495.1	473.67 µg/L	473.67 ppb	22:36:47
2	Cu 324.752†	127636.0	122326.5	476.86 µg/L	476.86 ppb	22:36:47
2	Mn 257.610†	395566.1	388085.1	479.97 µg/L	479.97 ppb	22:36:47
2	Mo 202.031†	16264.4	15986.6	470.26 µg/L	470.26 ppb	22:37:07
2	Ni 231.604†	42110.5	41415.9	476.87 µg/L	476.87 ppb	22:36:47
2	P 214.914†	11123.1	10937.4	2331.1 µg/L	2331.1 ppb	22:37:07
2	Pb 220.353†	8695.2	8449.6	473.18 µg/L	473.18 ppb	22:37:07

2	S 181.975 Axial†	1380.2	1249.8	932.06 µg/L	932.06 ppb	22:37:07
2	Sb 206.836†	4108.8	3952.7	470.89 µg/L	470.89 ppb	22:37:07
2	Se 196.026†	1336.5	1296.8	471 µg/L	471 ppb	22:37:07
2	SiO2†	55876.6	53078.0	5167.8 µg/L	5167.8 ppb	22:36:47
2	Si 251.611†	168292.8	164374.4	2414.0 µg/L	2414.0 ppb	22:36:47
2	Sn 189.927†	7640.8	7502.0	469.28 µg/L	469.28 ppb	22:37:07
2	Ti 334.940†	522795.1	512268.9	477.98 µg/L	477.98 ppb	22:36:47
2	Tl 190.801†	3793.4	3840.6	479.07 µg/L	479.07 ppb	22:37:07
2	U 409.014†	7388.2	7522.7	468.79 µg/L	468.79 ppb	22:36:47
2	V 292.402†	99257.8	97036.4	479.62 µg/L	479.62 ppb	22:36:47
2	Zn 213.857†	87026.0	84867.9	472.99 µg/L	472.99 ppb	22:36:47
3	Sc RADIAL	145049.2	145049.2	99.4 %		22:36:05
3	Al 396.153Radial†	26335.5	26558.6	4901.9 µg/L	4901.9 ppb	22:36:05
3	Ca 317.933Radial†	86672.0	86637.6	4826.1 µg/L	4826.1 ppb	22:36:05
3	Fe 238.204 Radial†	77423.0	77745.0	4791.7 µg/L	4791.7 ppb	22:36:05
3	K 766.490 Radial†	14708.1	13252.7	4848.1 µg/L	4848.1 ppb	22:36:05
3	Mg 279.077 IEC†	13164.0	13053.2	4870.9 µg/L	4870.9 ppb	22:36:05
3	Na 589.592 Radial†	70826.5	69965.7	9553.9 µg/L	9553.9 ppb	22:36:05
3	Sr 421.552†	229385.5	230913.4	480.02 µg/L	480.02 ppb	22:36:03
3	Sc 361.383	1736886.0	1736886.0	101.09 %		22:37:10
3	Y 371.029	1026663.5	1026663.5	99.998 %		22:37:10
3	Ag 328.068†	133353.0	127828.3	479.31 µg/L	479.31 ppb	22:37:10
3	As 188.979†	1594.0	1597.2	489.96 µg/L	489.96 ppb	22:37:30
3	B 249.677†	35849.9	31958.7	469.68 µg/L	469.68 ppb	22:37:10
3	Ba 233.527†	119879.0	118726.4	478.82 µg/L	478.82 ppb	22:37:10
3	Be 313.107†	1785527.0	1767400.4	481.37 µg/L	481.37 ppb	22:37:10
3	Cd 226.502†	76637.4	75931.9	474.00 µg/L	474.00 ppb	22:37:10
3	Co 228.616†	38956.3	38727.9	478.10 µg/L	478.10 ppb	22:37:10
3	Cr 267.716†	61487.6	60648.2	474.86 µg/L	474.86 ppb	22:37:10
3	Cu 324.752†	126940.5	122603.9	477.95 µg/L	477.95 ppb	22:37:10
3	Mn 257.610†	392870.7	388410.8	480.37 µg/L	480.37 ppb	22:37:10
3	Mo 202.031†	16306.3	16151.1	475.10 µg/L	475.10 ppb	22:37:30
3	Ni 231.604†	41574.5	41204.2	474.44 µg/L	474.44 ppb	22:37:10
3	P 214.914†	11178.5	11076.3	2360.8 µg/L	2360.8 ppb	22:37:30
3	Pb 220.353†	8729.7	8549.5	478.76 µg/L	478.76 ppb	22:37:30
3	S 181.975 Axial†	1377.2	1257.3	937.66 µg/L	937.66 ppb	22:37:30
3	Sb 206.836†	4126.4	4001.2	476.72 µg/L	476.72 ppb	22:37:30
3	Se 196.026†	1332.7	1303.1	473 µg/L	473 ppb	22:37:30
3	SiO2†	55324.3	52954.3	5155.5 µg/L	5155.5 ppb	22:37:10
3	Si 251.611†	167461.4	164825.0	2420.5 µg/L	2420.5 ppb	22:37:10
3	Sn 189.927†	7692.4	7610.8	476.07 µg/L	476.07 ppb	22:37:30
3	Ti 334.940†	518784.6	512256.1	477.97 µg/L	477.97 ppb	22:37:10
3	Tl 190.801†	3813.8	3889.5	485.08 µg/L	485.08 ppb	22:37:30
3	U 409.014†	7519.5	7708.6	479.68 µg/L	479.68 ppb	22:37:10
3	V 292.402†	98557.8	97094.7	479.97 µg/L	479.97 ppb	22:37:10
3	Zn 213.857†	86550.8	85056.1	474.07 µg/L	474.07 ppb	22:37:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1736692.7	101.08 %	0.796			0.79%
Sc RADIAL	145644.6	99.8 %	0.67			0.67%
Y 371.029	1027349.5	100.06 %	0.770			0.77%
Ag 328.068†	127916.2	479.62 µg/L	0.654	479.62 ppb	0.654	0.14%
QC value within limits for Ag 328.068 Recovery = 95.92%						
Al 396.153Radial†	26506.5	4892.2 µg/L	9.94	4892.2 ppb	9.94	0.20%
QC value within limits for Al 396.153Radial Recovery = 97.84%						
As 188.979†	1597.1	489.91 µg/L	7.000	489.91 ppb	7.000	1.43%
QC value within limits for As 188.979 Recovery = 97.98%						
B 249.677†	31815.6	467.57 µg/L	2.043	467.57 ppb	2.043	0.44%
QC value within limits for B 249.677 Recovery = 93.51%						
Ba 233.527†	118475.7	477.81 µg/L	1.229	477.81 ppb	1.229	0.26%
QC value within limits for Ba 233.527 Recovery = 95.56%						
Be 313.107†	1762996.8	480.17 µg/L	1.379	480.17 ppb	1.379	0.29%
QC value within limits for Be 313.107 Recovery = 96.03%						
Ca 317.933Radial†	86697.4	4829.4 µg/L	8.30	4829.4 ppb	8.30	0.17%
QC value within limits for Ca 317.933Radial Recovery = 96.59%						
Cd 226.502†	75829.8	473.36 µg/L	1.017	473.36 ppb	1.017	0.21%
QC value within limits for Cd 226.502 Recovery = 94.67%						
Co 228.616†	38623.4	476.81 µg/L	1.535	476.81 ppb	1.535	0.32%

QC value within limits for Co 228.616 Recovery = 95.36%							
Cr 267.716†	60486.8	473.60 µg/L	1.293	473.60 ppb	1.293	0.27%	
QC value within limits for Cr 267.716 Recovery = 94.72%							
Cu 324.752†	122456.7	477.37 µg/L	0.545	477.37 ppb	0.545	0.11%	
QC value within limits for Cu 324.752 Recovery = 95.47%							
Fe 238.204 Radial†	77933.5	4803.3 µg/L	10.80	4803.3 ppb	10.80	0.22%	
QC value within limits for Fe 238.204 Radial Recovery = 96.07%							
K 766.490 Radial†	13109.8	4795.8 µg/L	48.06	4795.8 ppb	48.06	1.00%	
QC value within limits for K 766.490 Radial Recovery = 95.92%							
Mg 279.077 IEC†	13117.5	4894.9 µg/L	20.99	4894.9 ppb	20.99	0.43%	
QC value within limits for Mg 279.077 IEC Recovery = 97.90%							
Mn 257.610†	387703.5	479.50 µg/L	1.185	479.50 ppb	1.185	0.25%	
QC value within limits for Mn 257.610 Recovery = 95.90%							
Mo 202.031†	16173.9	475.77 µg/L	5.865	475.77 ppb	5.865	1.23%	
QC value within limits for Mo 202.031 Recovery = 95.15%							
Na 589.592 Radial†	70008.7	9559.8 µg/L	9.43	9559.8 ppb	9.43	0.10%	
QC value within limits for Na 589.592 Radial Recovery = 95.60%							
Ni 231.604†	41301.6	475.56 µg/L	1.231	475.56 ppb	1.231	0.26%	
QC value within limits for Ni 231.604 Recovery = 95.11%							
P 214.914†	11071.9	2359.9 µg/L	28.31	2359.9 ppb	28.31	1.20%	
QC value within limits for P 214.914 Recovery = 94.39%							
Pb 220.353†	8542.8	478.39 µg/L	5.044	478.39 ppb	5.044	1.05%	
QC value within limits for Pb 220.353 Recovery = 95.68%							
S 181.975 Axial†	1257.9	938.13 µg/L	6.311	938.13 ppb	6.311	0.67%	
QC value within limits for S 181.975 Axial Recovery = 93.81%							
Sb 206.836†	3994.0	475.89 µg/L	4.631	475.89 ppb	4.631	0.97%	
QC value within limits for Sb 206.836 Recovery = 95.18%							
Se 196.026†	1308.1	475 µg/L	5.3	475 ppb	5.3	1.11%	
QC value within limits for Se 196.026 Recovery = 95.00%							
SiO2†	52959.7	5156.0 µg/L	11.56	5156.0 ppb	11.56	0.22%	
QC value within limits for SiO2 Recovery = 96.42%							
Si 251.611†	164388.3	2414.1 µg/L	6.40	2414.1 ppb	6.40	0.27%	
QC value within limits for Si 251.611 Recovery = 96.56%							
Sn 189.927†	7603.3	475.60 µg/L	6.099	475.60 ppb	6.099	1.28%	
QC value within limits for Sn 189.927 Recovery = 95.12%							
Sr 421.552†	232067.2	482.42 µg/L	3.615	482.42 ppb	3.615	0.75%	
QC value within limits for Sr 421.552 Recovery = 96.48%							
Ti 334.940†	512159.0	477.88 µg/L	0.166	477.88 ppb	0.166	0.03%	
QC value within limits for Ti 334.940 Recovery = 95.58%							
Tl 190.801†	3887.9	484.88 µg/L	5.710	484.88 ppb	5.710	1.18%	
QC value within limits for Tl 190.801 Recovery = 96.98%							
U 409.014†	7572.3	471.66 µg/L	7.041	471.66 ppb	7.041	1.49%	
QC value within limits for U 409.014 Recovery = 94.33%							
V 292.402†	96943.8	479.22 µg/L	0.996	479.22 ppb	0.996	0.21%	
QC value within limits for V 292.402 Recovery = 95.84%							
Zn 213.857†	84759.1	472.39 µg/L	2.045	472.39 ppb	2.045	0.43%	
QC value within limits for Zn 213.857 Recovery = 94.48%							
All analyte(s) passed QC.							

Sequence No.: 88

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/31/2010 22:37:38

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	146107.1	146107.1	100 %		22:38:09
1	Al 396.153Radial†	-28.6	34.6	6.4326 µg/L	6.4326 ppb	22:38:29
1	Ca 317.933Radial†	565.6	4.4	0.2431 µg/L	0.2431 ppb	22:38:29
1	Fe 238.204 Radial†	221.6	73.2	4.5130 µg/L	4.5130 ppb	22:38:29
1	K 766.490 Radial†	1670.7	123.9	45.355 µg/L	45.355 ppb	22:38:09
1	Mg 279.077 IEC†	188.3	-2.7	-1.0050 µg/L	-1.0050 ppb	22:38:29
1	Na 589.592 Radial†	1308.8	16.4	2.2067 µg/L	2.2067 ppb	22:38:09
1	Sr 421.552†	-138.0	-2.6	-0.0053 µg/L	-0.0053 ppb	22:38:09
1	Sc 361.383	1751605.7	1751605.7	101.94 %		22:39:16
1	Y 371.029	1046872.7	1046872.7	101.97 %		22:39:16
1	Ag 328.068†	3943.9	-222.7	-0.8222 µg/L	-0.8222 ppb	22:39:19
1	As 188.979†	-21.0	-0.2	-0.0602 µg/L	-0.0602 ppb	22:39:39
1	B 249.677†	3436.3	-135.1	-1.9931 µg/L	-1.9931 ppb	22:39:19
1	Ba 233.527†	-130.5	7.8	0.0313 µg/L	0.0313 ppb	22:39:39
1	Be 313.107†	-714.8	363.6	0.1002 µg/L	0.1002 ppb	22:39:19
1	Cd 226.502†	-97.0	23.1	0.1438 µg/L	0.1438 ppb	22:39:39
1	Co 228.616†	-170.5	23.0	0.2839 µg/L	0.2839 ppb	22:39:39
1	Cr 267.716†	208.7	26.1	0.2018 µg/L	0.2018 ppb	22:39:39
1	Cu 324.752†	2943.0	-85.3	-0.3274 µg/L	-0.3274 ppb	22:39:19
1	Mn 257.610†	329.7	86.2	0.1066 µg/L	0.1066 ppb	22:39:39
1	Mo 202.031†	-31.9	-11.2	-0.3304 µg/L	-0.3304 ppb	22:39:39
1	Ni 231.604†	-81.9	-3.9	-0.0443 µg/L	-0.0443 ppb	22:39:39
1	P 214.914†	-23.2	-4.8	-1.0060 µg/L	-1.0060 ppb	22:39:39
1	Pb 220.353†	102.8	14.4	0.8016 µg/L	0.8016 ppb	22:39:39
1	S 181.975 Axial†	97.2	-9.7	-7.2332 µg/L	-7.2332 ppb	22:39:39
1	Sb 206.836†	61.0	-21.0	-2.4992 µg/L	-2.4992 ppb	22:39:39
1	Se 196.026†	8.3	-7.1	-2.58 µg/L	-2.58 ppb	22:39:39
1	SiO2†	1795.0	-14.6	-1.4272 µg/L	-1.4272 ppb	22:39:39
1	Si 251.611†	1014.2	158.3	2.3344 µg/L	2.3344 ppb	22:39:19
1	Sn 189.927†	9.8	10.8	0.6712 µg/L	0.6712 ppb	22:39:39
1	Ti 334.940†	912.7	-57.2	-0.0550 µg/L	-0.0550 ppb	22:39:19
1	Tl 190.801†	-104.8	13.9	1.7060 µg/L	1.7060 ppb	22:39:39
1	U 409.014†	-207.3	66.5	3.8783 µg/L	3.8783 ppb	22:39:19
1	V 292.402†	371.1	-39.7	-0.1942 µg/L	-0.1942 ppb	22:39:19
1	Zn 213.857†	603.0	27.1	0.1525 µg/L	0.1525 ppb	22:39:39
2	Sc RADIAL	143516.2	143516.2	98.3 %		22:38:31
2	Al 396.153Radial†	-59.7	2.6	0.4739 µg/L	0.4739 ppb	22:38:51
2	Ca 317.933Radial†	574.3	23.4	1.3043 µg/L	1.3043 ppb	22:38:51
2	Fe 238.204 Radial†	211.6	67.1	4.1330 µg/L	4.1330 ppb	22:38:51
2	K 766.490 Radial†	1530.2	11.2	4.0876 µg/L	4.0876 ppb	22:38:31
2	Mg 279.077 IEC†	186.7	-0.9	-0.3295 µg/L	-0.3295 ppb	22:38:51
2	Na 589.592 Radial†	1309.3	40.6	5.5370 µg/L	5.5370 ppb	22:38:31
2	Sr 421.552†	-195.1	-63.1	-0.1312 µg/L	-0.1312 ppb	22:38:31
2	Sc 361.383	1725150.1	1725150.1	100.40 %		22:39:41
2	Y 371.029	1031944.0	1031944.0	100.51 %		22:39:41
2	Ag 328.068†	3865.7	-241.3	-0.8900 µg/L	-0.8900 ppb	22:39:43
2	As 188.979†	-15.4	5.0	1.5151 µg/L	1.5151 ppb	22:40:03
2	B 249.677†	3665.2	144.6	2.1317 µg/L	2.1317 ppb	22:39:43
2	Ba 233.527†	-135.5	0.9	0.0032 µg/L	0.0032 ppb	22:40:03
2	Be 313.107†	-881.3	187.0	0.0526 µg/L	0.0526 ppb	22:39:43
2	Cd 226.502†	-123.0	-4.3	-0.0274 µg/L	-0.0274 ppb	22:40:03
2	Co 228.616†	-162.8	28.2	0.3479 µg/L	0.3479 ppb	22:40:03
2	Cr 267.716†	195.8	16.5	0.1246 µg/L	0.1246 ppb	22:40:03
2	Cu 324.752†	2834.1	-149.5	-0.5757 µg/L	-0.5757 ppb	22:39:43
2	Mn 257.610†	312.2	73.7	0.0911 µg/L	0.0911 ppb	22:40:03
2	Mo 202.031†	-20.8	-0.7	-0.0196 µg/L	-0.0196 ppb	22:40:03
2	Ni 231.604†	-63.9	12.8	0.1478 µg/L	0.1478 ppb	22:40:03
2	P 214.914†	-29.3	-11.2	-2.4036 µg/L	-2.4036 ppb	22:40:03
2	Pb 220.353†	74.7	-12.0	-0.6719 µg/L	-0.6719 ppb	22:40:03

2	S 181.975 Axial†	114.1	8.6	6.4080 µg/L	6.4080 ppb	22:40:03
2	Sb 206.836†	83.7	2.5	0.2984 µg/L	0.2984 ppb	22:40:03
2	Se 196.026†	7.4	-7.9	-2.83 µg/L	-2.83 ppb	22:40:03
2	SiO2†	1757.4	-25.0	-2.4389 µg/L	-2.4389 ppb	22:40:03
2	Si 251.611†	1016.3	175.6	2.5912 µg/L	2.5912 ppb	22:39:43
2	Sn 189.927†	-5.9	-4.8	-0.2983 µg/L	-0.2983 ppb	22:40:03
2	Ti 334.940†	1008.8	52.2	0.0465 µg/L	0.0465 ppb	22:39:43
2	Tl 190.801†	-108.8	8.3	1.0191 µg/L	1.0191 ppb	22:40:03
2	U 409.014†	-175.4	95.2	5.5468 µg/L	5.5468 ppb	22:39:43
2	V 292.402†	347.2	-58.0	-0.2792 µg/L	-0.2792 ppb	22:39:43
2	Zn 213.857†	581.3	14.6	0.0808 µg/L	0.0808 ppb	22:40:03
3	Sc RADIAL	142981.4	142981.4	98.0 %		22:38:53
3	Al 396.153Radial†	-63.0	-1.1	-0.2113 µg/L	-0.2113 ppb	22:39:13
3	Ca 317.933Radial†	581.1	32.5	1.8108 µg/L	1.8108 ppb	22:39:13
3	Fe 238.204 Radial†	194.5	50.4	3.1050 µg/L	3.1050 ppb	22:39:13
3	K 766.490 Radial†	1679.9	169.7	62.139 µg/L	62.139 ppb	22:38:53
3	Mg 279.077 IEC†	195.7	9.0	3.3615 µg/L	3.3615 ppb	22:39:13
3	Na 589.592 Radial†	1209.6	-56.3	-7.7449 µg/L	-7.7449 ppb	22:38:53
3	Sr 421.552†	-420.0	-293.4	-0.6100 µg/L	-0.6100 ppb	22:38:53
3	Sc 361.383	1753013.9	1753013.9	102.03 %		22:40:05
3	Y 371.029	1047401.1	1047401.1	102.02 %		22:40:05
3	Ag 328.068†	4060.3	-111.6	-0.4113 µg/L	-0.4113 ppb	22:40:07
3	As 188.979†	-11.1	9.5	2.8753 µg/L	2.8753 ppb	22:40:27
3	B 249.677†	3619.9	42.1	0.6207 µg/L	0.6207 ppb	22:40:07
3	Ba 233.527†	-139.2	-0.6	-0.0023 µg/L	-0.0023 ppb	22:40:27
3	Be 313.107†	-869.8	212.1	0.0585 µg/L	0.0585 ppb	22:40:07
3	Cd 226.502†	-85.5	34.4	0.2145 µg/L	0.2145 ppb	22:40:27
3	Co 228.616†	-181.0	12.9	0.1588 µg/L	0.1588 ppb	22:40:27
3	Cr 267.716†	175.3	-6.8	-0.0550 µg/L	-0.0550 ppb	22:40:27
3	Cu 324.752†	3044.4	11.7	0.0483 µg/L	0.0483 ppb	22:40:07
3	Mn 257.610†	307.5	64.2	0.0793 µg/L	0.0793 ppb	22:40:27
3	Mo 202.031†	-12.0	8.3	0.2441 µg/L	0.2441 ppb	22:40:27
3	Ni 231.604†	-69.0	8.9	0.1028 µg/L	0.1028 ppb	22:40:27
3	P 214.914†	-27.3	-8.8	-1.8805 µg/L	-1.8805 ppb	22:40:27
3	Pb 220.353†	81.8	-6.2	-0.3453 µg/L	-0.3453 ppb	22:40:27
3	S 181.975 Axial†	99.7	-7.4	-5.4573 µg/L	-5.4573 ppb	22:40:27
3	Sb 206.836†	92.0	9.3	1.1113 µg/L	1.1113 ppb	22:40:27
3	Se 196.026†	22.0	6.3	2.27 µg/L	2.27 ppb	22:40:27
3	SiO2†	1796.0	-15.0	-1.4822 µg/L	-1.4822 ppb	22:40:27
3	Si 251.611†	1008.2	151.7	2.2299 µg/L	2.2299 ppb	22:40:07
3	Sn 189.927†	5.8	6.8	0.4238 µg/L	0.4238 ppb	22:40:27
3	Ti 334.940†	774.2	-193.7	-0.1822 µg/L	-0.1822 ppb	22:40:07
3	Tl 190.801†	-131.2	-12.0	-1.4719 µg/L	-1.4719 ppb	22:40:27
3	U 409.014†	-231.1	43.4	2.5310 µg/L	2.5310 ppb	22:40:07
3	V 292.402†	394.8	-16.8	-0.0781 µg/L	-0.0781 ppb	22:40:07
3	Zn 213.857†	584.2	8.2	0.0446 µg/L	0.0446 ppb	22:40:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1743256.5	101.46 %	0.914			0.90%
Sc RADIAL	144201.5	98.8 %	1.15			1.16%
Y 371.029	1042072.6	101.50 %	0.855			0.84%
Ag 328.068†	-191.9	-0.7079 µg/L	0.25904	-0.7079 ppb	0.25904	36.59%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	12.0	2.2317 µg/L	3.65416	2.2317 ppb	3.65416	163.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	4.8	1.4434 µg/L	1.46904	1.4434 ppb	1.46904	101.78%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	17.2	0.2531 µg/L	2.08681	0.2531 ppb	2.08681	824.51%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	2.7	0.0107 µg/L	0.01797	0.0107 ppb	0.01797	167.33%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	254.2	0.0704 µg/L	0.02593	0.0704 ppb	0.02593	36.81%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	20.1	1.1194 µg/L	0.80006	1.1194 ppb	0.80006	71.47%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	17.7	0.1103 µg/L	0.12437	0.1103 ppb	0.12437	112.78%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	21.4	0.2635 µg/L	0.09616	0.2635 ppb	0.09616	36.49%

QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	11.9 0.0905 µg/L	0.13175 0.0905 ppb	0.13175 145.64%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	-74.4 -0.2849 µg/L	0.31418 -0.2849 ppb	0.31418 110.27%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	63.6 3.9170 µg/L	0.72840 3.9170 ppb	0.72840 18.60%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	101.6 37.194 µg/L	29.8738 37.194 ppb	29.8738 80.32%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	1.8 0.6757 µg/L	2.35038 0.6757 ppb	2.35038 347.86%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	74.7 0.0923 µg/L	0.01373 0.0923 ppb	0.01373 14.87%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	-1.2 -0.0353 µg/L	0.28757 -0.0353 ppb	0.28757 814.16%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	0.2 -0.0004 µg/L	6.91054 -0.0004 ppb	6.91054 >999.9%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	6.0 0.0687 µg/L	0.10050 0.0687 ppb	0.10050 146.19%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-8.3 -1.7634 µg/L	0.70616 -1.7634 ppb	0.70616 40.05%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-1.2 -0.0719 µg/L	0.77383 -0.0719 ppb	0.77383 >999.9%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-2.8 -2.0942 µg/L	7.41644 -2.0942 ppb	7.41644 354.14%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	-3.0 -0.3632 µg/L	1.89399 -0.3632 ppb	1.89399 521.51%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	-2.9 -1.05 µg/L	2.877 -1.05 ppb	2.877 275.00%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	-18.2 -1.7828 µg/L	0.56893 -1.7828 ppb	0.56893 31.91%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	161.9 2.3852 µg/L	0.18594 2.3852 ppb	0.18594 7.80%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	4.3 0.2656 µg/L	0.50378 0.2656 ppb	0.50378 189.70%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	-119.7 -0.2488 µg/L	0.31901 -0.2488 ppb	0.31901 128.20%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	-66.2 -0.0636 µg/L	0.11461 -0.0636 ppb	0.11461 180.26%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	3.4 0.4177 µg/L	1.67214 0.4177 ppb	1.67214 400.28%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	68.3 3.9854 µg/L	1.51076 3.9854 ppb	1.51076 37.91%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	-38.2 -0.1839 µg/L	0.10096 -0.1839 ppb	0.10096 54.91%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	16.6 0.0927 µg/L	0.05489 0.0927 ppb	0.05489 59.24%
QC value within limits for Zn 213.857	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 96

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/31/2010 22:56:09

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	145631.0	145631.0	99.8 %		22:56:43
1	Al 396.153Radial†	26317.9	26435.1	4879.0 µg/L	4879.0 ppb	22:56:43
1	Ca 317.933Radial†	87097.4	86715.5	4830.4 µg/L	4830.4 ppb	22:56:43
1	Fe 238.204 Radial†	78015.7	78027.6	4809.1 µg/L	4809.1 ppb	22:56:43
1	K 766.490 Radial†	14649.7	13135.0	4805.0 µg/L	4805.0 ppb	22:56:43
1	Mg 279.077 IEC†	13278.4	13115.0	4893.9 µg/L	4893.9 ppb	22:56:43
1	Na 589.592 Radial†	71207.1	70062.4	9567.1 µg/L	9567.1 ppb	22:56:43
1	Sr 421.552†	231874.1	232485.1	483.29 µg/L	483.29 ppb	22:56:41
1	Sc 361.383	1757611.7	1757611.7	102.29 %		22:56:56
1	Y 371.029	1039190.8	1039190.8	101.22 %		22:56:56
1	Ag 328.068†	134897.1	127782.2	479.15 µg/L	479.15 ppb	22:56:56
1	As 188.979†	1621.9	1605.9	492.61 µg/L	492.61 ppb	22:57:16
1	B 249.677†	36392.3	32070.7	471.32 µg/L	471.32 ppb	22:56:56
1	Ba 233.527†	121741.3	119148.6	480.52 µg/L	480.52 ppb	22:56:56
1	Be 313.107†	1813624.8	1774040.0	483.17 µg/L	483.17 ppb	22:56:56
1	Cd 226.502†	78396.2	76757.2	479.15 µg/L	479.15 ppb	22:56:56
1	Co 228.616†	39678.3	38979.3	481.20 µg/L	481.20 ppb	22:56:56
1	Cr 267.716†	62522.7	60942.8	477.17 µg/L	477.17 ppb	22:56:56
1	Cu 324.752†	128539.8	122686.5	478.27 µg/L	478.27 ppb	22:56:56
1	Mn 257.610†	399485.0	390293.9	482.70 µg/L	482.70 ppb	22:56:56
1	Mo 202.031†	16513.7	16163.7	475.47 µg/L	475.47 ppb	22:57:16
1	Ni 231.604†	42651.4	41771.9	480.97 µg/L	480.97 ppb	22:56:56
1	P 214.914†	11360.0	11123.4	2370.9 µg/L	2370.9 ppb	22:57:16
1	Pb 220.353†	8842.6	8558.1	479.24 µg/L	479.24 ppb	22:57:16
1	S 181.975 Axial†	1375.6	1239.7	924.58 µg/L	924.58 ppb	22:57:16
1	Sb 206.836†	4166.7	3992.4	475.65 µg/L	475.65 ppb	22:57:16
1	Se 196.026†	1353.0	1307.4	475 µg/L	475 ppb	22:57:16
1	SiO2†	56776.4	53728.4	5231.1 µg/L	5231.1 ppb	22:56:56
1	Si 251.611†	171826.2	167138.4	2454.6 µg/L	2454.6 ppb	22:56:56
1	Sn 189.927†	7798.3	7624.6	476.93 µg/L	476.93 ppb	22:57:16
1	Ti 334.940†	526436.4	513684.7	479.31 µg/L	479.31 ppb	22:56:56
1	Tl 190.801†	3828.8	3859.7	481.43 µg/L	481.43 ppb	22:57:16
1	U 409.014†	7470.8	7573.2	471.86 µg/L	471.86 ppb	22:56:56
1	V 292.402†	100068.8	97422.2	481.57 µg/L	481.57 ppb	22:56:56
1	Zn 213.857†	87978.3	85442.0	476.19 µg/L	476.19 ppb	22:56:56
2	Sc RADIAL	144482.4	144482.4	99.0 %		22:56:47
2	Al 396.153Radial†	26344.0	26671.1	4922.7 µg/L	4922.7 ppb	22:56:47
2	Ca 317.933Radial†	86633.5	86940.8	4842.9 µg/L	4842.9 ppb	22:56:47
2	Fe 238.204 Radial†	77683.1	78313.2	4826.7 µg/L	4826.7 ppb	22:56:47
2	K 766.490 Radial†	14601.3	13202.8	4829.8 µg/L	4829.8 ppb	22:56:47
2	Mg 279.077 IEC†	13248.2	13190.2	4922.0 µg/L	4922.0 ppb	22:56:47
2	Na 589.592 Radial†	70771.3	70189.4	9584.4 µg/L	9584.4 ppb	22:56:47
2	Sr 421.552†	233206.6	235678.1	489.92 µg/L	489.92 ppb	22:56:45
2	Sc 361.383	1751539.4	1751539.4	101.94 %		22:57:19
2	Y 371.029	1035412.0	1035412.0	100.85 %		22:57:19
2	Ag 328.068†	134751.3	128096.4	480.32 µg/L	480.32 ppb	22:57:19
2	As 188.979†	1631.1	1620.5	497.03 µg/L	497.03 ppb	22:57:39
2	B 249.677†	36471.6	32271.9	474.29 µg/L	474.29 ppb	22:57:19
2	Ba 233.527†	121221.0	119050.7	480.13 µg/L	480.13 ppb	22:57:19
2	Be 313.107†	1805248.5	1771969.6	482.61 µg/L	482.61 ppb	22:57:19
2	Cd 226.502†	78107.8	76740.0	479.04 µg/L	479.04 ppb	22:57:19
2	Co 228.616†	39424.5	38864.8	479.79 µg/L	479.79 ppb	22:57:19
2	Cr 267.716†	62345.8	60981.1	477.48 µg/L	477.48 ppb	22:57:19
2	Cu 324.752†	127964.1	122557.5	477.76 µg/L	477.76 ppb	22:57:19
2	Mn 257.610†	398107.9	390296.9	482.71 µg/L	482.71 ppb	22:57:19
2	Mo 202.031†	16505.0	16211.0	476.86 µg/L	476.86 ppb	22:57:39
2	Ni 231.604†	42337.4	41608.5	479.09 µg/L	479.09 ppb	22:57:19
2	P 214.914†	11365.0	11166.7	2380.1 µg/L	2380.1 ppb	22:57:39
2	Pb 220.353†	8862.8	8607.8	482.03 µg/L	482.03 ppb	22:57:39

2	S 181.975 Axial†	1404.8	1273.1	949.37 µg/L	949.37 ppb	22:57:39
2	Sb 206.836†	4167.5	4007.4	477.45 µg/L	477.45 ppb	22:57:39
2	Se 196.026†	1357.3	1316.2	478 µg/L	478 ppb	22:57:39
2	SiO2†	56527.9	53677.1	5226.0 µg/L	5226.0 ppb	22:57:19
2	Si 251.611†	170943.4	166854.8	2450.4 µg/L	2450.4 ppb	22:57:19
2	Sn 189.927†	7812.4	7664.9	479.44 µg/L	479.44 ppb	22:57:39
2	Ti 334.940†	524724.5	513789.4	479.40 µg/L	479.40 ppb	22:57:19
2	Tl 190.801†	3882.8	3925.7	489.55 µg/L	489.55 ppb	22:57:39
2	U 409.014†	7388.4	7517.7	468.65 µg/L	468.65 ppb	22:57:19
2	V 292.402†	99869.4	97565.6	482.28 µg/L	482.28 ppb	22:57:19
2	Zn 213.857†	87691.1	85458.4	476.30 µg/L	476.30 ppb	22:57:19
3	Sc RADIAL	144138.2	144138.2	98.8 %		22:56:51
3	Al 396.153Radial†	26172.1	26560.6	4902.1 µg/L	4902.1 ppb	22:56:51
3	Ca 317.933Radial†	86609.0	87124.9	4853.2 µg/L	4853.2 ppb	22:56:51
3	Fe 238.204 Radial†	77490.8	78305.8	4826.3 µg/L	4826.3 ppb	22:56:51
3	K 766.490 Radial†	14542.9	13178.9	4821.0 µg/L	4821.0 ppb	22:56:51
3	Mg 279.077 IEC†	13135.4	13108.0	4891.4 µg/L	4891.4 ppb	22:56:51
3	Na 589.592 Radial†	70800.9	70390.1	9611.9 µg/L	9611.9 ppb	22:56:51
3	Sr 421.552†	232137.5	235158.2	488.84 µg/L	488.84 ppb	22:56:49
3	Sc 361.383	1748212.6	1748212.6	101.75 %		22:57:42
3	Y 371.029	1033770.3	1033770.3	100.69 %		22:57:42
3	Ag 328.068†	134805.9	128401.6	481.45 µg/L	481.45 ppb	22:57:42
3	As 188.979†	1610.5	1603.2	491.81 µg/L	491.81 ppb	22:58:02
3	B 249.677†	36492.0	32359.9	475.58 µg/L	475.58 ppb	22:57:42
3	Ba 233.527†	121511.9	119562.9	482.19 µg/L	482.19 ppb	22:57:42
3	Be 313.107†	1811861.4	1781839.1	485.29 µg/L	485.29 ppb	22:57:42
3	Cd 226.502†	78364.1	77137.8	481.53 µg/L	481.53 ppb	22:57:42
3	Co 228.616†	39460.6	38973.8	481.13 µg/L	481.13 ppb	22:57:42
3	Cr 267.716†	62297.9	61050.5	478.02 µg/L	478.02 ppb	22:57:42
3	Cu 324.752†	128147.5	122976.6	479.39 µg/L	479.39 ppb	22:57:42
3	Mn 257.610†	398765.2	391686.1	484.43 µg/L	484.43 ppb	22:57:42
3	Mo 202.031†	16552.7	16288.7	479.14 µg/L	479.14 ppb	22:58:02
3	Ni 231.604†	42492.4	41839.9	481.76 µg/L	481.76 ppb	22:57:42
3	P 214.914†	11389.8	11212.3	2389.9 µg/L	2389.9 ppb	22:58:02
3	Pb 220.353†	8877.9	8639.2	483.79 µg/L	483.79 ppb	22:58:02
3	S 181.975 Axial†	1392.1	1263.1	942.01 µg/L	942.01 ppb	22:58:02
3	Sb 206.836†	4168.0	4015.6	478.46 µg/L	478.46 ppb	22:58:02
3	Se 196.026†	1374.8	1335.9	485 µg/L	485 ppb	22:58:02
3	SiO2†	56586.5	53840.3	5241.9 µg/L	5241.9 ppb	22:57:42
3	Si 251.611†	171481.5	167702.7	2462.9 µg/L	2462.9 ppb	22:57:42
3	Sn 189.927†	7818.8	7685.8	480.75 µg/L	480.75 ppb	22:58:02
3	Ti 334.940†	524855.7	514897.9	480.44 µg/L	480.44 ppb	22:57:42
3	Tl 190.801†	3874.8	3925.0	489.48 µg/L	489.48 ppb	22:58:02
3	U 409.014†	7274.8	7419.8	462.99 µg/L	462.99 ppb	22:57:42
3	V 292.402†	99852.2	97735.2	483.13 µg/L	483.13 ppb	22:57:42
3	Zn 213.857†	87879.4	85807.2	478.24 µg/L	478.24 ppb	22:57:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1752454.6	101.99 %	0.277			0.27%
Sc RADIAL	144750.5	99.2 %	0.54			0.54%
Y 371.029	1036124.4	100.92 %	0.271			0.27%
Ag 328.068†	128093.4	480.30 µg/L	1.150	480.30 ppb	1.150	0.24%
QC value within limits for Ag 328.068 Recovery = 96.06%						
Al 396.153Radial†	26555.6	4901.2 µg/L	21.86	4901.2 ppb	21.86	0.45%
QC value within limits for Al 396.153Radial Recovery = 98.02%						
As 188.979†	1609.8	493.81 µg/L	2.810	493.81 ppb	2.810	0.57%
QC value within limits for As 188.979 Recovery = 98.76%						
B 249.677†	32234.2	473.73 µg/L	2.187	473.73 ppb	2.187	0.46%
QC value within limits for B 249.677 Recovery = 94.75%						
Ba 233.527†	119254.1	480.95 µg/L	1.096	480.95 ppb	1.096	0.23%
QC value within limits for Ba 233.527 Recovery = 96.19%						
Be 313.107†	1775949.6	483.69 µg/L	1.416	483.69 ppb	1.416	0.29%
QC value within limits for Be 313.107 Recovery = 96.74%						
Ca 317.933Radial†	86927.1	4842.2 µg/L	11.42	4842.2 ppb	11.42	0.24%
QC value within limits for Ca 317.933Radial Recovery = 96.84%						
Cd 226.502†	76878.3	479.91 µg/L	1.404	479.91 ppb	1.404	0.29%
QC value within limits for Cd 226.502 Recovery = 95.98%						
Co 228.616†	38939.3	480.71 µg/L	0.798	480.71 ppb	0.798	0.17%

QC value within limits for Co 228.616 Recovery = 96.14%							
Cr 267.716†	60991.5	477.56 µg/L	0.432	477.56 ppb	0.432	0.09%	
QC value within limits for Cr 267.716 Recovery = 95.51%							
Cu 324.752†	122740.2	478.47 µg/L	0.832	478.47 ppb	0.832	0.17%	
QC value within limits for Cu 324.752 Recovery = 95.69%							
Fe 238.204 Radial†	78215.5	4820.7 µg/L	10.03	4820.7 ppb	10.03	0.21%	
QC value within limits for Fe 238.204 Radial Recovery = 96.41%							
K 766.490 Radial†	13172.2	4818.6 µg/L	12.58	4818.6 ppb	12.58	0.26%	
QC value within limits for K 766.490 Radial Recovery = 96.37%							
Mg 279.077 IEC†	13137.7	4902.4 µg/L	16.98	4902.4 ppb	16.98	0.35%	
QC value within limits for Mg 279.077 IEC Recovery = 98.05%							
Mn 257.610†	390759.0	483.28 µg/L	0.994	483.28 ppb	0.994	0.21%	
QC value within limits for Mn 257.610 Recovery = 96.66%							
Mo 202.031†	16221.2	477.16 µg/L	1.856	477.16 ppb	1.856	0.39%	
QC value within limits for Mo 202.031 Recovery = 95.43%							
Na 589.592 Radial†	70214.0	9587.8 µg/L	22.57	9587.8 ppb	22.57	0.24%	
QC value within limits for Na 589.592 Radial Recovery = 95.88%							
Ni 231.604†	41740.1	480.61 µg/L	1.369	480.61 ppb	1.369	0.28%	
QC value within limits for Ni 231.604 Recovery = 96.12%							
P 214.914†	11167.5	2380.3 µg/L	9.50	2380.3 ppb	9.50	0.40%	
QC value within limits for P 214.914 Recovery = 95.21%							
Pb 220.353†	8601.7	481.69 µg/L	2.292	481.69 ppb	2.292	0.48%	
QC value within limits for Pb 220.353 Recovery = 96.34%							
S 181.975 Axial†	1258.6	938.65 µg/L	12.730	938.65 ppb	12.730	1.36%	
QC value within limits for S 181.975 Axial Recovery = 93.87%							
Sb 206.836†	4005.1	477.19 µg/L	1.420	477.19 ppb	1.420	0.30%	
QC value within limits for Sb 206.836 Recovery = 95.44%							
Se 196.026†	1319.8	479 µg/L	5.3	479 ppb	5.3	1.10%	
QC value within limits for Se 196.026 Recovery = 95.85%							
SiO2†	53748.6	5233.0 µg/L	8.10	5233.0 ppb	8.10	0.15%	
QC value within limits for SiO2 Recovery = 97.86%							
Si 251.611†	167232.0	2456.0 µg/L	6.34	2456.0 ppb	6.34	0.26%	
QC value within limits for Si 251.611 Recovery = 98.24%							
Sn 189.927†	7658.4	479.04 µg/L	1.940	479.04 ppb	1.940	0.41%	
QC value within limits for Sn 189.927 Recovery = 95.81%							
Sr 421.552†	234440.5	487.35 µg/L	3.562	487.35 ppb	3.562	0.73%	
QC value within limits for Sr 421.552 Recovery = 97.47%							
Ti 334.940†	514124.0	479.72 µg/L	0.631	479.72 ppb	0.631	0.13%	
QC value within limits for Ti 334.940 Recovery = 95.94%							
Tl 190.801†	3903.4	486.82 µg/L	4.666	486.82 ppb	4.666	0.96%	
QC value within limits for Tl 190.801 Recovery = 97.36%							
U 409.014†	7503.6	467.83 µg/L	4.493	467.83 ppb	4.493	0.96%	
QC value within limits for U 409.014 Recovery = 93.57%							
V 292.402†	97574.3	482.33 µg/L	0.781	482.33 ppb	0.781	0.16%	
QC value within limits for V 292.402 Recovery = 96.47%							
Zn 213.857†	85569.2	476.91 µg/L	1.152	476.91 ppb	1.152	0.24%	
QC value within limits for Zn 213.857 Recovery = 95.38%							

All analyte(s) passed QC.

Sequence No.: 97

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/31/2010 22:58:10

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	141781.4	141781.4	97.2 %		22:58:41
1	Al 396.153Radial†	-65.9	-4.6	-0.8469 µg/L	-0.8469 ppb	22:59:01
1	Ca 317.933Radial†	606.5	63.7	3.5473 µg/L	3.5473 ppb	22:59:01
1	Fe 238.204 Radial†	221.5	79.9	4.9227 µg/L	4.9227 ppb	22:59:01
1	K 766.490 Radial†	1686.2	190.7	69.835 µg/L	69.835 ppb	22:58:41
1	Mg 279.077 IEC†	181.6	-3.8	-1.4362 µg/L	-1.4362 ppb	22:59:01
1	Na 589.592 Radial†	1287.3	34.2	4.6057 µg/L	4.6057 ppb	22:58:41
1	Sr 421.552†	-190.2	-60.5	-0.1257 µg/L	-0.1257 ppb	22:58:41
1	Sc 361.383	1743048.5	1743048.5	101.45 %		23:00:02
1	Y 371.029	1041073.0	1041073.0	101.40 %		23:00:02
1	Ag 328.068†	4154.9	4.3	0.0197 µg/L	0.0197 ppb	23:00:05
1	As 188.979†	-19.4	1.2	0.3644 µg/L	0.3644 ppb	23:00:25
1	B 249.677†	3572.5	15.7	0.2315 µg/L	0.2315 ppb	23:00:05
1	Ba 233.527†	-115.3	22.2	0.0893 µg/L	0.0893 ppb	23:00:25
1	Be 313.107†	-922.1	155.7	0.0428 µg/L	0.0428 ppb	23:00:05
1	Cd 226.502†	-111.2	8.6	0.0533 µg/L	0.0533 ppb	23:00:25
1	Co 228.616†	-179.8	13.1	0.1612 µg/L	0.1612 ppb	23:00:25
1	Cr 267.716†	180.6	-0.5	-0.0052 µg/L	-0.0052 ppb	23:00:25
1	Cu 324.752†	2865.9	-147.1	-0.5698 µg/L	-0.5698 ppb	23:00:05
1	Mn 257.610†	329.0	87.1	0.1078 µg/L	0.1078 ppb	23:00:25
1	Mo 202.031†	-23.8	-3.4	-0.1000 µg/L	-0.1000 ppb	23:00:25
1	Ni 231.604†	-90.2	-12.4	-0.1430 µg/L	-0.1430 ppb	23:00:25
1	P 214.914†	-18.9	-0.7	-0.1360 µg/L	-0.1360 ppb	23:00:25
1	Pb 220.353†	97.7	10.0	0.5542 µg/L	0.5542 ppb	23:00:25
1	S 181.975 Axial†	106.4	-0.2	-0.1288 µg/L	-0.1288 ppb	23:00:25
1	Sb 206.836†	101.1	18.9	2.2415 µg/L	2.2415 ppb	23:00:25
1	Se 196.026†	15.2	-0.3	-0.115 µg/L	-0.115 ppb	23:00:25
1	SiO2†	1920.2	117.5	11.486 µg/L	11.486 ppb	23:00:25
1	Si 251.611†	1352.7	496.8	7.3252 µg/L	7.3252 ppb	23:00:05
1	Sn 189.927†	0.5	1.6	0.0974 µg/L	0.0974 ppb	23:00:25
1	Ti 334.940†	839.4	-125.1	-0.1173 µg/L	-0.1173 ppb	23:00:05
1	Tl 190.801†	-111.8	6.4	0.7917 µg/L	0.7917 ppb	23:00:25
1	U 409.014†	-248.6	24.8	1.4614 µg/L	1.4614 ppb	23:00:05
1	V 292.402†	448.0	37.9	0.1842 µg/L	0.1842 ppb	23:00:05
1	Zn 213.857†	592.5	19.7	0.1113 µg/L	0.1113 ppb	23:00:25
2	Sc RADIAL	145003.3	145003.3	99.4 %		22:59:03
2	Al 396.153Radial†	-37.6	25.3	4.6756 µg/L	4.6756 ppb	22:59:23
2	Ca 317.933Radial†	575.8	18.9	1.0553 µg/L	1.0553 ppb	22:59:23
2	Fe 238.204 Radial†	212.8	66.1	4.0710 µg/L	4.0710 ppb	22:59:23
2	K 766.490 Radial†	1744.9	211.3	77.353 µg/L	77.353 ppb	22:59:03
2	Mg 279.077 IEC†	193.4	3.9	1.4593 µg/L	1.4593 ppb	22:59:23
2	Na 589.592 Radial†	1264.0	-18.7	-2.6277 µg/L	-2.6277 ppb	22:59:03
2	Sr 421.552†	-251.3	-117.6	-0.2446 µg/L	-0.2446 ppb	22:59:03
2	Sc 361.383	1760622.4	1760622.4	102.47 %		23:00:27
2	Y 371.029	1051993.8	1051993.8	102.46 %		23:00:27
2	Ag 328.068†	3995.9	-191.7	-0.7159 µg/L	-0.7159 ppb	23:00:29
2	As 188.979†	-7.1	13.4	4.0498 µg/L	4.0498 ppb	23:00:49
2	B 249.677†	3525.8	-65.0	-0.9588 µg/L	-0.9588 ppb	23:00:29
2	Ba 233.527†	-156.5	-16.9	-0.0684 µg/L	-0.0684 ppb	23:00:49
2	Be 313.107†	-952.5	135.1	0.0377 µg/L	0.0377 ppb	23:00:29
2	Cd 226.502†	-136.2	-14.7	-0.0924 µg/L	-0.0924 ppb	23:00:49
2	Co 228.616†	-206.8	-11.5	-0.1422 µg/L	-0.1422 ppb	23:00:49
2	Cr 267.716†	203.7	20.2	0.1559 µg/L	0.1559 ppb	23:00:49
2	Cu 324.752†	2945.2	-98.0	-0.3777 µg/L	-0.3777 ppb	23:00:29
2	Mn 257.610†	295.4	51.0	0.0631 µg/L	0.0631 ppb	23:00:49
2	Mo 202.031†	-5.0	15.2	0.4464 µg/L	0.4464 ppb	23:00:49
2	Ni 231.604†	-100.3	-21.4	-0.2461 µg/L	-0.2461 ppb	23:00:49
2	P 214.914†	-24.8	-6.2	-1.3412 µg/L	-1.3412 ppb	23:00:49
2	Pb 220.353†	104.7	15.8	0.8832 µg/L	0.8832 ppb	23:00:49

2	S 181.975 Axial†	95.9	-11.5	-8.5333 µg/L	-8.5333 ppb	23:00:49
2	Sb 206.836†	88.7	5.7	0.6835 µg/L	0.6835 ppb	23:00:49
2	Se 196.026†	21.7	5.9	2.15 µg/L	2.15 ppb	23:00:49
2	SiO2†	1898.9	77.8	7.5925 µg/L	7.5925 ppb	23:00:49
2	Si 251.611†	1381.8	512.0	7.5445 µg/L	7.5445 ppb	23:00:29
2	Sn 189.927†	-7.0	-5.7	-0.3531 µg/L	-0.3531 ppb	23:00:49
2	Ti 334.940†	1192.4	211.2	0.1959 µg/L	0.1959 ppb	23:00:29
2	Tl 190.801†	-124.7	-5.0	-0.6143 µg/L	-0.6143 ppb	23:00:49
2	U 409.014†	-223.7	51.6	2.9674 µg/L	2.9674 ppb	23:00:29
2	V 292.402†	244.3	-165.3	-0.7998 µg/L	-0.7998 ppb	23:00:29
2	Zn 213.857†	583.4	4.9	0.0292 µg/L	0.0292 ppb	23:00:49
3	Sc RADIAL	144406.4	144406.4	99.0 %		22:59:25
3	Al 396.153Radial†	-65.2	-2.7	-0.5137 µg/L	-0.5137 ppb	22:59:45
3	Ca 317.933Radial†	603.1	48.9	2.7231 µg/L	2.7231 ppb	22:59:45
3	Fe 238.204 Radial†	209.2	63.3	3.9000 µg/L	3.9000 ppb	22:59:45
3	K 766.490 Radial†	1469.9	-59.4	-21.748 µg/L	-21.748 ppb	22:59:25
3	Mg 279.077 IEC†	181.9	-6.9	-2.5712 µg/L	-2.5712 ppb	22:59:45
3	Na 589.592 Radial†	1182.1	-96.2	-13.128 µg/L	-13.128 ppb	22:59:25
3	Sr 421.552†	-255.8	-123.2	-0.2561 µg/L	-0.2561 ppb	22:59:25
3	Sc 361.383	1746264.7	1746264.7	101.63 %		23:00:51
3	Y 371.029	1044189.6	1044189.6	101.70 %		23:00:51
3	Ag 328.068†	4224.2	64.9	0.2383 µg/L	0.2383 ppb	23:00:53
3	As 188.979†	-13.6	7.0	2.1128 µg/L	2.1128 ppb	23:01:13
3	B 249.677†	3523.5	-39.0	-0.5757 µg/L	-0.5757 ppb	23:00:53
3	Ba 233.527†	-133.8	4.2	0.0170 µg/L	0.0170 ppb	23:01:13
3	Be 313.107†	-788.4	289.0	0.0783 µg/L	0.0783 ppb	23:00:53
3	Cd 226.502†	-90.0	29.6	0.1844 µg/L	0.1844 ppb	23:01:13
3	Co 228.616†	-170.7	22.4	0.2760 µg/L	0.2760 ppb	23:01:13
3	Cr 267.716†	211.8	29.8	0.2347 µg/L	0.2347 ppb	23:01:13
3	Cu 324.752†	2885.9	-132.7	-0.5161 µg/L	-0.5161 ppb	23:00:53
3	Mn 257.610†	381.2	137.9	0.1707 µg/L	0.1707 ppb	23:01:13
3	Mo 202.031†	-12.3	8.0	0.2345 µg/L	0.2345 ppb	23:01:13
3	Ni 231.604†	-88.3	-10.3	-0.1190 µg/L	-0.1190 ppb	23:01:13
3	P 214.914†	-16.7	1.5	0.3230 µg/L	0.3230 ppb	23:01:13
3	Pb 220.353†	101.8	13.8	0.7699 µg/L	0.7699 ppb	23:01:13
3	S 181.975 Axial†	95.5	-11.1	-8.2190 µg/L	-8.2190 ppb	23:01:13
3	Sb 206.836†	89.0	6.7	0.8032 µg/L	0.8032 ppb	23:01:13
3	Se 196.026†	12.4	-3.0	-1.09 µg/L	-1.09 ppb	23:01:13
3	SiO2†	1870.7	65.3	6.3610 µg/L	6.3610 ppb	23:01:13
3	Si 251.611†	1192.8	337.1	4.9610 µg/L	4.9610 ppb	23:00:53
3	Sn 189.927†	11.3	12.3	0.7657 µg/L	0.7657 ppb	23:01:13
3	Ti 334.940†	1019.6	50.7	0.0482 µg/L	0.0482 ppb	23:00:53
3	Tl 190.801†	-120.0	-1.4	-0.1679 µg/L	-0.1679 ppb	23:01:13
3	U 409.014†	-299.5	-24.8	-1.4500 µg/L	-1.4500 ppb	23:00:53
3	V 292.402†	406.4	-3.9	-0.0172 µg/L	-0.0172 ppb	23:00:53
3	Zn 213.857†	589.9	16.1	0.0909 µg/L	0.0909 ppb	23:01:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1749978.5	101.85 %	0.545			0.53%
Sc RADIAL	143730.4	98.5 %	1.17			1.19%
Y 371.029	1045752.1	101.86 %	0.548			0.54%
Ag 328.068†	-40.8	-0.1526 µg/L	0.49988	-0.1526 ppb	0.49988	327.49%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	6.0	1.1050 µg/L	3.09673	1.1050 ppb	3.09673	280.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	7.2	2.1757 µg/L	1.84349	2.1757 ppb	1.84349	84.73%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-29.4	-0.4343 µg/L	0.60762	-0.4343 ppb	0.60762	139.91%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	3.2	0.0126 µg/L	0.07891	0.0126 ppb	0.07891	623.91%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	193.3	0.0529 µg/L	0.02208	0.0529 ppb	0.02208	41.72%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	43.8	2.4419 µg/L	1.26955	2.4419 ppb	1.26955	51.99%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	7.8	0.0484 µg/L	0.13846	0.0484 ppb	0.13846	286.00%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	8.0	0.0983 µg/L	0.21607	0.0983 ppb	0.21607	219.74%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	16.5	0.1285 µg/L	0.12227	0.1285 ppb	0.12227	95.18%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-125.9	-0.4879 µg/L	0.09911	-0.4879 ppb	0.09911	20.31%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	69.7	4.2979 µg/L	0.54779	4.2979 ppb	0.54779	12.75%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	114.2	41.813 µg/L	55.1735	41.813 ppb	55.1735	131.95%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-2.3	-0.8494 µg/L	2.07835	-0.8494 ppb	2.07835	244.70%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	92.0	0.1138 µg/L	0.05404	0.1138 ppb	0.05404	47.47%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	6.6	0.1936 µg/L	0.27547	0.1936 ppb	0.27547	142.26%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-26.9	-3.7166 µg/L	8.91683	-3.7166 ppb	8.91683	239.92%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-14.7	-0.1693 µg/L	0.06752	-0.1693 ppb	0.06752	39.87%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-1.8	-0.3847 µg/L	0.85955	-0.3847 ppb	0.85955	223.42%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	13.2	0.7358 µg/L	0.16715	0.7358 ppb	0.16715	22.72%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-7.6	-5.6270 µg/L	4.76418	-5.6270 ppb	4.76418	84.67%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	10.4	1.2427 µg/L	0.86705	1.2427 ppb	0.86705	69.77%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	0.9	0.315 µg/L	1.6662	0.315 ppb	1.6662	528.34%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	86.8	8.4797 µg/L	2.67504	8.4797 ppb	2.67504	31.55%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	448.6	6.6103 µg/L	1.43246	6.6103 ppb	1.43246	21.67%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	2.7	0.1700 µg/L	0.56292	0.1700 ppb	0.56292	331.12%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-100.4	-0.2088 µg/L	0.07220	-0.2088 ppb	0.07220	34.57%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	45.6	0.0423 µg/L	0.15668	0.0423 ppb	0.15668	370.64%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	0.0	0.0032 µg/L	0.71841	0.0032 ppb	0.71841	>999.9%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	17.2	0.9930 µg/L	2.24566	0.9930 ppb	2.24566	226.16%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-43.8	-0.2109 µg/L	0.51982	-0.2109 ppb	0.51982	246.42%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	13.5	0.0771 µg/L	0.04274	0.0771 ppb	0.04274	55.43%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 107

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/31/2010 23:18:25

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	144621.4	144621.4	99.1 %		23:18:59
1	Al 396.153Radial†	26323.5	26624.9	4914.2 µg/L	4914.2 ppb	23:18:59
1	Ca 317.933Radial†	86890.8	87116.3	4852.7 µg/L	4852.7 ppb	23:18:59
1	Fe 238.204 Radial†	77681.3	78236.0	4822.0 µg/L	4822.0 ppb	23:18:59
1	K 766.490 Radial†	14559.5	13146.4	4809.1 µg/L	4809.1 ppb	23:18:59
1	Mg 279.077 IEC†	13260.2	13189.4	4921.6 µg/L	4921.6 ppb	23:18:59
1	Na 589.592 Radial†	71065.1	70417.2	9615.6 µg/L	9615.6 ppb	23:18:59
1	Sr 421.552†	226802.4	228989.5	476.02 µg/L	476.02 ppb	23:18:57
1	Sc 361.383	1740302.6	1740302.6	101.29 %		23:19:12
1	Y 371.029	1028952.4	1028952.4	100.22 %		23:19:12
1	Ag 328.068†	133614.5	127827.5	479.30 µg/L	479.30 ppb	23:19:12
1	As 188.979†	1600.2	1600.2	490.89 µg/L	490.89 ppb	23:19:32
1	B 249.677†	35788.1	31828.1	467.74 µg/L	467.74 ppb	23:19:12
1	Ba 233.527†	120219.9	118830.1	479.24 µg/L	479.24 ppb	23:19:12
1	Be 313.107†	1792744.0	1771058.2	482.36 µg/L	482.36 ppb	23:19:12
1	Cd 226.502†	77213.0	76351.3	476.62 µg/L	476.62 ppb	23:19:12
1	Co 228.616†	39286.0	38977.8	481.18 µg/L	481.18 ppb	23:19:12
1	Cr 267.716†	61813.7	60850.7	476.45 µg/L	476.45 ppb	23:19:12
1	Cu 324.752†	127063.4	122478.8	477.46 µg/L	477.46 ppb	23:19:12
1	Mn 257.610†	394634.0	389388.7	481.58 µg/L	481.58 ppb	23:19:12
1	Mo 202.031†	16315.2	16128.2	474.43 µg/L	474.43 ppb	23:19:32
1	Ni 231.604†	42026.4	41569.6	478.64 µg/L	478.64 ppb	23:19:12
1	P 214.914†	11190.5	11066.4	2358.7 µg/L	2358.7 ppb	23:19:32
1	Pb 220.353†	8740.7	8543.3	478.42 µg/L	478.42 ppb	23:19:32
1	S 181.975 Axial†	1377.8	1255.2	936.10 µg/L	936.10 ppb	23:19:32
1	Sb 206.836†	4144.7	4011.3	477.89 µg/L	477.89 ppb	23:19:32
1	Se 196.026†	1340.6	1308.3	475 µg/L	475 ppb	23:19:32
1	SiO2†	55627.7	53146.4	5174.3 µg/L	5174.3 ppb	23:19:12
1	Si 251.611†	168264.2	165292.3	2427.4 µg/L	2427.4 ppb	23:19:12
1	Sn 189.927†	7681.2	7584.9	474.45 µg/L	474.45 ppb	23:19:32
1	Ti 334.940†	520666.2	513106.3	478.76 µg/L	478.76 ppb	23:19:12
1	Tl 190.801†	3808.4	3876.8	483.51 µg/L	483.51 ppb	23:19:32
1	U 409.014†	7415.2	7590.9	472.81 µg/L	472.81 ppb	23:19:12
1	V 292.402†	98786.7	97129.3	480.13 µg/L	480.13 ppb	23:19:12
1	Zn 213.857†	87000.0	85331.6	475.59 µg/L	475.59 ppb	23:19:12
2	Sc RADIAL	142472.1	142472.1	97.6 %		23:19:03
2	Al 396.153Radial†	25927.4	26619.8	4913.0 µg/L	4913.0 ppb	23:19:03
2	Ca 317.933Radial†	85608.6	87125.7	4853.2 µg/L	4853.2 ppb	23:19:03
2	Fe 238.204 Radial†	76614.2	78325.4	4827.5 µg/L	4827.5 ppb	23:19:03
2	K 766.490 Radial†	14271.1	13072.6	4782.1 µg/L	4782.1 ppb	23:19:03
2	Mg 279.077 IEC†	13162.7	13291.5	4959.8 µg/L	4959.8 ppb	23:19:03
2	Na 589.592 Radial†	70188.6	70601.3	9640.7 µg/L	9640.7 ppb	23:19:03
2	Sr 421.552†	229468.1	235172.4	488.87 µg/L	488.87 ppb	23:19:01
2	Sc 361.383	1723519.2	1723519.2	100.31 %		23:19:35
2	Y 371.029	1019447.3	1019447.3	99.295 %		23:19:35
2	Ag 328.068†	132544.4	128045.3	480.11 µg/L	480.11 ppb	23:19:35
2	As 188.979†	1616.7	1632.0	500.53 µg/L	500.53 ppb	23:19:55
2	B 249.677†	35773.7	32157.7	472.61 µg/L	472.61 ppb	23:19:35
2	Ba 233.527†	119609.8	119377.7	481.45 µg/L	481.45 ppb	23:19:35
2	Be 313.107†	1778804.5	1774397.6	483.27 µg/L	483.27 ppb	23:19:35
2	Cd 226.502†	76467.8	76350.8	476.61 µg/L	476.61 ppb	23:19:35
2	Co 228.616†	38765.7	38836.8	479.44 µg/L	479.44 ppb	23:19:35
2	Cr 267.716†	61178.2	60811.4	476.15 µg/L	476.15 ppb	23:19:35
2	Cu 324.752†	126162.4	122802.1	478.71 µg/L	478.71 ppb	23:19:35
2	Mn 257.610†	391126.3	389685.9	481.95 µg/L	481.95 ppb	23:19:35
2	Mo 202.031†	16388.5	16358.2	481.19 µg/L	481.19 ppb	23:19:55
2	Ni 231.604†	41688.5	41636.7	479.42 µg/L	479.42 ppb	23:19:35
2	P 214.914†	11227.5	11210.9	2389.5 µg/L	2389.5 ppb	23:19:55
2	Pb 220.353†	8752.6	8639.3	483.80 µg/L	483.80 ppb	23:19:55

2	S 181.975 Axial†	1387.2	1277.9	952.97 µg/L	952.97 ppb	23:19:55
2	Sb 206.836†	4153.3	4059.7	483.76 µg/L	483.76 ppb	23:19:55
2	Se 196.026†	1345.0	1325.6	481 µg/L	481 ppb	23:19:55
2	SiO2†	55194.2	53249.1	5184.0 µg/L	5184.0 ppb	23:19:35
2	Si 251.611†	166652.6	165303.4	2427.5 µg/L	2427.5 ppb	23:19:35
2	Sn 189.927†	7721.4	7698.8	481.56 µg/L	481.56 ppb	23:19:55
2	Ti 334.940†	516481.7	513940.5	479.54 µg/L	479.54 ppb	23:19:35
2	Tl 190.801†	3825.6	3930.5	490.14 µg/L	490.14 ppb	23:19:55
2	U 409.014†	7186.2	7434.0	463.72 µg/L	463.72 ppb	23:19:35
2	V 292.402†	98156.4	97450.7	481.75 µg/L	481.75 ppb	23:19:35
2	Zn 213.857†	86133.5	85304.1	475.43 µg/L	475.43 ppb	23:19:35
3	Sc RADIAL	143809.9	143809.9	98.5 %		23:19:07
3	Al 396.153Radial†	26240.2	26690.2	4926.1 µg/L	4926.1 ppb	23:19:07
3	Ca 317.933Radial†	86148.8	86858.1	4838.3 µg/L	4838.3 ppb	23:19:07
3	Fe 238.204 Radial†	77300.3	78291.6	4825.4 µg/L	4825.4 ppb	23:19:07
3	K 766.490 Radial†	14495.5	13164.4	4815.7 µg/L	4815.7 ppb	23:19:07
3	Mg 279.077 IEC†	13104.6	13107.1	4891.0 µg/L	4891.0 ppb	23:19:07
3	Na 589.592 Radial†	70560.3	70309.6	9600.9 µg/L	9600.9 ppb	23:19:07
3	Sr 421.552†	228660.9	232166.8	482.62 µg/L	482.62 ppb	23:19:05
3	Sc 361.383	1735011.3	1735011.3	100.98 %		23:19:58
3	Y 371.029	1026280.7	1026280.7	99.960 %		23:19:58
3	Ag 328.068†	133432.9	128050.0	480.14 µg/L	480.14 ppb	23:19:58
3	As 188.979†	1602.2	1607.1	492.96 µg/L	492.96 ppb	23:20:18
3	B 249.677†	35929.6	32076.0	471.40 µg/L	471.40 ppb	23:19:58
3	Ba 233.527†	120028.3	119002.3	479.93 µg/L	479.93 ppb	23:19:58
3	Be 313.107†	1790709.1	1774441.1	483.28 µg/L	483.28 ppb	23:19:58
3	Cd 226.502†	76990.5	76363.5	476.69 µg/L	476.69 ppb	23:19:58
3	Co 228.616†	38992.1	38805.0	479.05 µg/L	479.05 ppb	23:19:58
3	Cr 267.716†	61553.2	60778.9	475.89 µg/L	475.89 ppb	23:19:58
3	Cu 324.752†	126757.9	122558.7	477.77 µg/L	477.77 ppb	23:19:58
3	Mn 257.610†	393545.3	389498.8	481.72 µg/L	481.72 ppb	23:19:58
3	Mo 202.031†	16392.4	16253.8	478.12 µg/L	478.12 ppb	23:20:18
3	Ni 231.604†	41888.6	41559.7	478.53 µg/L	478.53 ppb	23:19:58
3	P 214.914†	11251.6	11160.7	2378.8 µg/L	2378.8 ppb	23:20:18
3	Pb 220.353†	8767.6	8596.3	481.39 µg/L	481.39 ppb	23:20:18
3	S 181.975 Axial†	1362.8	1244.5	928.19 µg/L	928.19 ppb	23:20:18
3	Sb 206.836†	4134.8	4013.9	478.27 µg/L	478.27 ppb	23:20:18
3	Se 196.026†	1346.5	1318.2	479 µg/L	479 ppb	23:20:18
3	SiO2†	55432.8	53120.9	5171.6 µg/L	5171.6 ppb	23:19:58
3	Si 251.611†	167686.3	165226.7	2426.4 µg/L	2426.4 ppb	23:19:58
3	Sn 189.927†	7743.2	7669.3	479.72 µg/L	479.72 ppb	23:20:18
3	Ti 334.940†	520000.5	514014.7	479.61 µg/L	479.61 ppb	23:19:58
3	Tl 190.801†	3827.1	3906.8	487.22 µg/L	487.22 ppb	23:20:18
3	U 409.014†	7368.8	7567.3	471.52 µg/L	471.52 ppb	23:19:58
3	V 292.402†	98829.1	97468.7	481.82 µg/L	481.82 ppb	23:19:58
3	Zn 213.857†	86772.4	85368.1	475.79 µg/L	475.79 ppb	23:19:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1732944.4	100.86 %	0.499			0.50%
Sc RADIAL	143634.5	98.4 %	0.74			0.76%
Y 371.029	1024893.5	99.825 %	0.4775			0.48%
Ag 328.068†	127974.3	479.85 µg/L	0.478	479.85 ppb	0.478	0.10%
QC value within limits for Ag 328.068 Recovery = 95.97%						
Al 396.153Radial†	26645.0	4917.8 µg/L	7.28	4917.8 ppb	7.28	0.15%
QC value within limits for Al 396.153Radial Recovery = 98.36%						
As 188.979†	1613.1	494.79 µg/L	5.073	494.79 ppb	5.073	1.03%
QC value within limits for As 188.979 Recovery = 98.96%						
B 249.677†	32020.6	470.58 µg/L	2.536	470.58 ppb	2.536	0.54%
QC value within limits for B 249.677 Recovery = 94.12%						
Ba 233.527†	119070.1	480.21 µg/L	1.130	480.21 ppb	1.130	0.24%
QC value within limits for Ba 233.527 Recovery = 96.04%						
Be 313.107†	1773298.9	482.97 µg/L	0.528	482.97 ppb	0.528	0.11%
QC value within limits for Be 313.107 Recovery = 96.59%						
Ca 317.933Radial†	87033.4	4848.1 µg/L	8.46	4848.1 ppb	8.46	0.17%
QC value within limits for Ca 317.933Radial Recovery = 96.96%						
Cd 226.502†	76355.2	476.64 µg/L	0.045	476.64 ppb	0.045	0.01%
QC value within limits for Cd 226.502 Recovery = 95.33%						
Co 228.616†	38873.2	479.89 µg/L	1.134	479.89 ppb	1.134	0.24%

QC value within limits for Co 228.616 Recovery = 95.98%							
Cr 267.716†	60813.7	476.16 µg/L	0.280	476.16 ppb	0.280	0.06%	
QC value within limits for Cr 267.716 Recovery = 95.23%							
Cu 324.752†	122613.2	477.98 µg/L	0.651	477.98 ppb	0.651	0.14%	
QC value within limits for Cu 324.752 Recovery = 95.60%							
Fe 238.204 Radial†	78284.3	4825.0 µg/L	2.78	4825.0 ppb	2.78	0.06%	
QC value within limits for Fe 238.204 Radial Recovery = 96.50%							
K 766.490 Radial†	13127.8	4802.3 µg/L	17.82	4802.3 ppb	17.82	0.37%	
QC value within limits for K 766.490 Radial Recovery = 96.05%							
Mg 279.077 IEC†	13196.0	4924.2 µg/L	34.46	4924.2 ppb	34.46	0.70%	
QC value within limits for Mg 279.077 IEC Recovery = 98.48%							
Mn 257.610†	389524.5	481.75 µg/L	0.185	481.75 ppb	0.185	0.04%	
QC value within limits for Mn 257.610 Recovery = 96.35%							
Mo 202.031†	16246.8	477.91 µg/L	3.385	477.91 ppb	3.385	0.71%	
QC value within limits for Mo 202.031 Recovery = 95.58%							
Na 589.592 Radial†	70442.7	9619.1 µg/L	20.17	9619.1 ppb	20.17	0.21%	
QC value within limits for Na 589.592 Radial Recovery = 96.19%							
Ni 231.604†	41588.7	478.86 µg/L	0.483	478.86 ppb	0.483	0.10%	
QC value within limits for Ni 231.604 Recovery = 95.77%							
P 214.914†	11146.0	2375.7 µg/L	15.67	2375.7 ppb	15.67	0.66%	
QC value within limits for P 214.914 Recovery = 95.03%							
Pb 220.353†	8593.0	481.20 µg/L	2.697	481.20 ppb	2.697	0.56%	
QC value within limits for Pb 220.353 Recovery = 96.24%							
S 181.975 Axial†	1259.2	939.09 µg/L	12.659	939.09 ppb	12.659	1.35%	
QC value within limits for S 181.975 Axial Recovery = 93.91%							
Sb 206.836†	4028.3	479.97 µg/L	3.284	479.97 ppb	3.284	0.68%	
QC value within limits for Sb 206.836 Recovery = 95.99%							
Se 196.026†	1317.4	478 µg/L	3.1	478 ppb	3.1	0.65%	
QC value within limits for Se 196.026 Recovery = 95.67%							
SiO2†	53172.1	5176.6 µg/L	6.53	5176.6 ppb	6.53	0.13%	
QC value within limits for SiO2 Recovery = 96.80%							
Si 251.611†	165274.1	2427.1 µg/L	0.62	2427.1 ppb	0.62	0.03%	
QC value within limits for Si 251.611 Recovery = 97.08%							
Sn 189.927†	7651.0	478.58 µg/L	3.688	478.58 ppb	3.688	0.77%	
QC value within limits for Sn 189.927 Recovery = 95.72%							
Sr 421.552†	232109.6	482.50 µg/L	6.428	482.50 ppb	6.428	1.33%	
QC value within limits for Sr 421.552 Recovery = 96.50%							
Ti 334.940†	513687.1	479.31 µg/L	0.472	479.31 ppb	0.472	0.10%	
QC value within limits for Ti 334.940 Recovery = 95.86%							
Tl 190.801†	3904.7	486.96 µg/L	3.327	486.96 ppb	3.327	0.68%	
QC value within limits for Tl 190.801 Recovery = 97.39%							
U 409.014†	7530.7	469.35 µg/L	4.918	469.35 ppb	4.918	1.05%	
QC value within limits for U 409.014 Recovery = 93.87%							
V 292.402†	97349.6	481.23 µg/L	0.958	481.23 ppb	0.958	0.20%	
QC value within limits for V 292.402 Recovery = 96.25%							
Zn 213.857†	85334.6	475.60 µg/L	0.184	475.60 ppb	0.184	0.04%	
QC value within limits for Zn 213.857 Recovery = 95.12%							

All analyte(s) passed QC.

Sequence No.: 108

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/31/2010 23:20:27

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	144721.0	144721.0	99.2 %		23:20:58
1	Al 396.153Radial†	-83.6	-21.0	-3.8947 µg/L	-3.8947 ppb	23:21:18
1	Ca 317.933Radial†	580.4	24.7	1.3750 µg/L	1.3750 ppb	23:21:18
1	Fe 238.204 Radial†	196.1	49.7	3.0605 µg/L	3.0605 ppb	23:21:18
1	K 766.490 Radial†	1602.1	70.7	25.883 µg/L	25.883 ppb	23:20:58
1	Mg 279.077 IEC†	205.0	16.0	5.9406 µg/L	5.9406 ppb	23:21:18
1	Na 589.592 Radial†	1213.9	-66.8	-9.1423 µg/L	-9.1423 ppb	23:20:58
1	Sr 421.552†	-55.9	78.9	0.1640 µg/L	0.1640 ppb	23:20:58
1	Sc 361.383	1740172.6	1740172.6	101.28 %		23:22:05
1	Y 371.029	1040560.6	1040560.6	101.35 %		23:22:05
1	Ag 328.068†	3851.9	-288.0	-1.0737 µg/L	-1.0737 ppb	23:22:08
1	As 188.979†	-3.9	16.5	4.9867 µg/L	4.9867 ppb	23:22:28
1	B 249.677†	3520.7	-29.6	-0.4370 µg/L	-0.4370 ppb	23:22:08
1	Ba 233.527†	-128.4	9.1	0.0366 µg/L	0.0366 ppb	23:22:28
1	Be 313.107†	-942.4	134.2	0.0343 µg/L	0.0343 ppb	23:22:08
1	Cd 226.502†	-109.3	10.3	0.0637 µg/L	0.0637 ppb	23:22:28
1	Co 228.616†	-168.6	23.8	0.2936 µg/L	0.2936 ppb	23:22:28
1	Cr 267.716†	186.3	5.4	0.0484 µg/L	0.0484 ppb	23:22:28
1	Cu 324.752†	2967.4	-42.3	-0.1696 µg/L	-0.1696 ppb	23:22:08
1	Mn 257.610†	341.2	99.6	0.1230 µg/L	0.1230 ppb	23:22:28
1	Mo 202.031†	-26.0	-5.6	-0.1652 µg/L	-0.1652 ppb	23:22:28
1	Ni 231.604†	-86.6	-8.9	-0.1030 µg/L	-0.1030 ppb	23:22:28
1	P 214.914†	2.1	20.0	4.2896 µg/L	4.2896 ppb	23:22:28
1	Pb 220.353†	89.4	1.9	0.1123 µg/L	0.1123 ppb	23:22:28
1	S 181.975 Axial†	95.7	-10.5	-7.8226 µg/L	-7.8226 ppb	23:22:28
1	Sb 206.836†	91.9	9.9	1.1769 µg/L	1.1769 ppb	23:22:28
1	Se 196.026†	23.5	7.9	2.85 µg/L	2.85 ppb	23:22:28
1	SiO2†	1814.1	15.9	1.5390 µg/L	1.5390 ppb	23:22:28
1	Si 251.611†	917.6	69.4	1.0187 µg/L	1.0187 ppb	23:22:08
1	Sn 189.927†	16.5	17.4	1.0880 µg/L	1.0880 ppb	23:22:28
1	Ti 334.940†	1176.4	209.1	0.1979 µg/L	0.1979 ppb	23:22:08
1	Tl 190.801†	-110.5	7.6	0.9307 µg/L	0.9307 ppb	23:22:28
1	U 409.014†	-401.5	-126.5	-7.3869 µg/L	-7.3869 ppb	23:22:08
1	V 292.402†	444.8	35.4	0.1657 µg/L	0.1657 ppb	23:22:08
1	Zn 213.857†	587.2	15.4	0.0869 µg/L	0.0869 ppb	23:22:28
2	Sc RADIAL	144189.3	144189.3	98.8 %		23:21:20
2	Al 396.153Radial†	-42.6	20.1	3.7335 µg/L	3.7335 ppb	23:21:40
2	Ca 317.933Radial†	605.6	52.4	2.9175 µg/L	2.9175 ppb	23:21:40
2	Fe 238.204 Radial†	235.5	90.2	5.5587 µg/L	5.5587 ppb	23:21:40
2	K 766.490 Radial†	1804.3	281.3	102.99 µg/L	102.99 ppb	23:21:20
2	Mg 279.077 IEC†	185.5	-3.0	-1.1298 µg/L	-1.1298 ppb	23:21:40
2	Na 589.592 Radial†	1392.4	118.4	16.088 µg/L	16.088 ppb	23:21:20
2	Sr 421.552†	-172.0	-38.8	-0.0807 µg/L	-0.0807 ppb	23:21:20
2	Sc 361.383	1750632.4	1750632.4	101.89 %		23:22:30
2	Y 371.029	1045632.3	1045632.3	101.85 %		23:22:30
2	Ag 328.068†	3884.1	-279.2	-1.0517 µg/L	-1.0517 ppb	23:22:32
2	As 188.979†	-9.6	10.9	3.2935 µg/L	3.2935 ppb	23:22:52
2	B 249.677†	3509.8	-61.1	-0.9032 µg/L	-0.9032 ppb	23:22:32
2	Ba 233.527†	-114.7	23.2	0.0931 µg/L	0.0931 ppb	23:22:52
2	Be 313.107†	-767.6	311.3	0.0822 µg/L	0.0822 ppb	23:22:32
2	Cd 226.502†	-108.6	11.6	0.0718 µg/L	0.0718 ppb	23:22:52
2	Co 228.616†	-145.0	48.0	0.5919 µg/L	0.5919 ppb	23:22:52
2	Cr 267.716†	155.6	-25.9	-0.1960 µg/L	-0.1960 ppb	23:22:52
2	Cu 324.752†	2910.6	-115.5	-0.4545 µg/L	-0.4545 ppb	23:22:32
2	Mn 257.610†	337.8	94.3	0.1167 µg/L	0.1167 ppb	23:22:52
2	Mo 202.031†	-28.0	-7.4	-0.2186 µg/L	-0.2186 ppb	23:22:52
2	Ni 231.604†	-82.4	-4.3	-0.0499 µg/L	-0.0499 ppb	23:22:52
2	P 214.914†	-26.2	-7.8	-1.6582 µg/L	-1.6582 ppb	23:22:52
2	Pb 220.353†	84.8	-3.2	-0.1707 µg/L	-0.1707 ppb	23:22:52

2	S 181.975 Axial†	94.4	-12.4	-9.1963 µg/L	-9.1963 ppb	23:22:52
2	Sb 206.836†	90.2	7.7	0.9179 µg/L	0.9179 ppb	23:22:52
2	Se 196.026†	18.0	2.4	0.844 µg/L	0.844 ppb	23:22:52
2	SiO2†	1787.8	-20.7	-2.0247 µg/L	-2.0247 ppb	23:22:52
2	Si 251.611†	881.0	28.1	0.4136 µg/L	0.4136 ppb	23:22:32
2	Sn 189.927†	7.3	8.3	0.5186 µg/L	0.5186 ppb	23:22:52
2	Ti 334.940†	950.4	-19.7	-0.0148 µg/L	-0.0148 ppb	23:22:32
2	Tl 190.801†	-105.4	13.3	1.6208 µg/L	1.6208 ppb	23:22:52
2	U 409.014†	-420.2	-142.5	-8.3714 µg/L	-8.3714 ppb	23:22:32
2	V 292.402†	279.7	-129.3	-0.6400 µg/L	-0.6400 ppb	23:22:32
2	Zn 213.857†	564.2	-10.7	-0.0598 µg/L	-0.0598 ppb	23:22:52
3	Sc RADIAL	144369.9	144369.9	98.9 %		23:21:42
3	Al 396.153Radial†	-72.5	-10.1	-1.8730 µg/L	-1.8730 ppb	23:22:02
3	Ca 317.933Radial†	584.3	30.1	1.6744 µg/L	1.6744 ppb	23:22:02
3	Fe 238.204 Radial†	204.0	58.1	3.5807 µg/L	3.5807 ppb	23:22:02
3	K 766.490 Radial†	1674.9	148.2	54.270 µg/L	54.270 ppb	23:21:42
3	Mg 279.077 IEC†	184.9	-3.8	-1.4254 µg/L	-1.4254 ppb	23:22:02
3	Na 589.592 Radial†	1285.3	8.4	1.0985 µg/L	1.0985 ppb	23:21:42
3	Sr 421.552†	-188.2	-55.0	-0.1143 µg/L	-0.1143 ppb	23:21:42
3	Sc 361.383	1741492.2	1741492.2	101.35 %		23:22:54
3	Y 371.029	1040823.4	1040823.4	101.38 %		23:22:54
3	Ag 328.068†	4356.2	206.6	0.7527 µg/L	0.7527 ppb	23:22:56
3	As 188.979†	-10.3	10.2	3.0901 µg/L	3.0901 ppb	23:23:16
3	B 249.677†	3495.4	-57.2	-0.8448 µg/L	-0.8448 ppb	23:22:56
3	Ba 233.527†	-104.9	32.3	0.1301 µg/L	0.1301 ppb	23:23:16
3	Be 313.107†	-758.4	316.4	0.0840 µg/L	0.0840 ppb	23:22:56
3	Cd 226.502†	-93.1	26.3	0.1638 µg/L	0.1638 ppb	23:23:16
3	Co 228.616†	-177.9	14.8	0.1826 µg/L	0.1826 ppb	23:23:16
3	Cr 267.716†	215.5	34.0	0.2721 µg/L	0.2721 ppb	23:23:16
3	Cu 324.752†	2926.0	-85.3	-0.3369 µg/L	-0.3369 ppb	23:22:56
3	Mn 257.610†	318.8	77.2	0.0956 µg/L	0.0956 ppb	23:23:16
3	Mo 202.031†	-22.0	-1.7	-0.0489 µg/L	-0.0489 ppb	23:23:16
3	Ni 231.604†	-129.1	-50.8	-0.5854 µg/L	-0.5854 ppb	23:23:16
3	P 214.914†	-27.8	-9.5	-2.0268 µg/L	-2.0268 ppb	23:23:16
3	Pb 220.353†	99.2	11.4	0.6440 µg/L	0.6440 ppb	23:23:16
3	S 181.975 Axial†	104.2	-2.2	-1.6435 µg/L	-1.6435 ppb	23:23:16
3	Sb 206.836†	80.2	-1.7	-0.2024 µg/L	-0.2024 ppb	23:23:16
3	Se 196.026†	-2.8	-18.0	-6.52 µg/L	-6.52 ppb	23:23:16
3	SiO2†	1785.7	-13.5	-1.3191 µg/L	-1.3191 ppb	23:23:16
3	Si 251.611†	942.5	93.3	1.3760 µg/L	1.3760 ppb	23:22:56
3	Sn 189.927†	-0.1	1.0	0.0628 µg/L	0.0628 ppb	23:23:16
3	Ti 334.940†	1040.9	74.5	0.0726 µg/L	0.0726 ppb	23:22:56
3	Tl 190.801†	-122.9	-4.6	-0.5664 µg/L	-0.5664 ppb	23:23:16
3	U 409.014†	-398.4	-123.1	-7.2165 µg/L	-7.2165 ppb	23:22:56
3	V 292.402†	352.1	-56.4	-0.2799 µg/L	-0.2799 ppb	23:22:56
3	Zn 213.857†	592.9	20.6	0.1194 µg/L	0.1194 ppb	23:23:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1744099.1	101.51 %	0.332			0.33%
Sc RADIAL	144426.7	99.0 %	0.19			0.19%
Y 371.029	1042338.8	101.52 %	0.278			0.27%
Ag 328.068†	-120.2	-0.4576 µg/L	1.04821	-0.4576 ppb	1.04821	229.09%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-3.7	-0.6781 µg/L	3.95199	-0.6781 ppb	3.95199	582.82%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	12.5	3.7901 µg/L	1.04128	3.7901 ppb	1.04128	27.47%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-49.3	-0.7283 µg/L	0.25394	-0.7283 ppb	0.25394	34.87%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	21.5	0.0866 µg/L	0.04706	0.0866 ppb	0.04706	54.35%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	254.0	0.0668 µg/L	0.02820	0.0668 ppb	0.02820	42.19%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	35.7	1.9890 µg/L	0.81790	1.9890 ppb	0.81790	41.12%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	16.1	0.0998 µg/L	0.05561	0.0998 ppb	0.05561	55.74%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	28.9	0.3560 µg/L	0.21172	0.3560 ppb	0.21172	59.47%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	4.5	0.0415 µg/L	0.23416	0.0415 ppb	0.23416	564.27%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-81.0	-0.3203 µg/L	0.14318	-0.3203 ppb	0.14318	44.70%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	66.0	4.0666 µg/L	1.31807	4.0666 ppb	1.31807	32.41%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	166.7	61.047 µg/L	38.9970	61.047 ppb	38.9970	63.88%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	3.0	1.1285 µg/L	4.17006	1.1285 ppb	4.17006	369.53%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	90.4	0.1118 µg/L	0.01435	0.1118 ppb	0.01435	12.84%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-4.9	-0.1442 µg/L	0.08677	-0.1442 ppb	0.08677	60.15%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	20.0	2.6814 µg/L	12.68942	2.6814 ppb	12.68942	473.24%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-21.4	-0.2461 µg/L	0.29505	-0.2461 ppb	0.29505	119.90%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	0.9	0.2015 µg/L	3.54518	0.2015 ppb	3.54518	>999.9%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	3.4	0.1952 µg/L	0.41363	0.1952 ppb	0.41363	211.92%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-8.4	-6.2208 µg/L	4.02315	-6.2208 ppb	4.02315	64.67%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	5.3	0.6308 µg/L	0.73310	0.6308 ppb	0.73310	116.22%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-2.6	-0.941 µg/L	4.9356	-0.941 ppb	4.9356	524.57%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-6.1	-0.6016 µg/L	1.88709	-0.6016 ppb	1.88709	313.69%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	63.6	0.9361 µg/L	0.48651	0.9361 ppb	0.48651	51.97%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	8.9	0.5565 µg/L	0.51367	0.5565 ppb	0.51367	92.31%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-5.0	-0.0103 µg/L	0.15190	-0.0103 ppb	0.15190	>999.9%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	87.9	0.0852 µg/L	0.10689	0.0852 ppb	0.10689	125.39%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	5.4	0.6617 µg/L	1.11813	0.6617 ppb	1.11813	168.98%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-130.7	-7.6583 µg/L	0.62345	-7.6583 ppb	0.62345	8.14%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-50.1	-0.2514 µg/L	0.40359	-0.2514 ppb	0.40359	160.55%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	8.4	0.0488 µg/L	0.09550	0.0488 ppb	0.09550	195.59%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 119

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/31/2010 23:44:28

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	144132.6	144132.6	98.8 %		23:45:03
1	Al 396.153Radial†	26296.2	26687.3	4925.8 µg/L	4925.8 ppb	23:45:03
1	Ca 317.933Radial†	86285.0	86800.3	4835.1 µg/L	4835.1 ppb	23:45:03
1	Fe 238.204 Radial†	77336.8	78153.0	4816.9 µg/L	4816.9 ppb	23:45:03
1	K 766.490 Radial†	14372.8	13007.2	4758.2 µg/L	4758.2 ppb	23:45:03
1	Mg 279.077 IEC†	13164.6	13138.1	4902.5 µg/L	4902.5 ppb	23:45:03
1	Na 589.592 Radial†	70648.2	70238.4	9591.2 µg/L	9591.2 ppb	23:45:03
1	Sr 421.552†	230039.5	233043.2	484.45 µg/L	484.45 ppb	23:45:01
1	Sc 361.383	1743955.0	1743955.0	101.50 %		23:45:30
1	Y 371.029	1030705.1	1030705.1	100.39 %		23:45:30
1	Ag 328.068†	134389.6	128314.9	481.13 µg/L	481.13 ppb	23:45:30
1	As 188.979†	1617.5	1614.0	495.08 µg/L	495.08 ppb	23:45:50
1	B 249.677†	36323.2	32281.3	474.42 µg/L	474.42 ppb	23:45:30
1	Ba 233.527†	120941.4	119292.4	481.10 µg/L	481.10 ppb	23:45:30
1	Be 313.107†	1804931.8	1779359.2	484.62 µg/L	484.62 ppb	23:45:30
1	Cd 226.502†	77856.9	76826.1	479.58 µg/L	479.58 ppb	23:45:30
1	Co 228.616†	39432.5	39040.8	481.96 µg/L	481.96 ppb	23:45:30
1	Cr 267.716†	62111.2	61016.0	477.74 µg/L	477.74 ppb	23:45:30
1	Cu 324.752†	127832.7	122973.9	479.39 µg/L	479.39 ppb	23:45:30
1	Mn 257.610†	396902.5	390807.7	483.34 µg/L	483.34 ppb	23:45:30
1	Mo 202.031†	16367.7	16146.2	474.96 µg/L	474.96 ppb	23:45:50
1	Ni 231.604†	42121.9	41576.8	478.73 µg/L	478.73 ppb	23:45:30
1	P 214.914†	11245.4	11097.4	2365.3 µg/L	2365.3 ppb	23:45:50
1	Pb 220.353†	8777.1	8561.2	479.42 µg/L	479.42 ppb	23:45:50
1	S 181.975 Axial†	1374.9	1249.5	931.87 µg/L	931.87 ppb	23:45:50
1	Sb 206.836†	4133.7	3991.9	475.58 µg/L	475.58 ppb	23:45:50
1	Se 196.026†	1363.1	1327.7	482 µg/L	482 ppb	23:45:50
1	SiO2†	56167.1	53562.8	5214.9 µg/L	5214.9 ppb	23:45:30
1	Si 251.611†	170045.6	166699.5	2448.2 µg/L	2448.2 ppb	23:45:30
1	Sn 189.927†	7739.8	7626.7	477.06 µg/L	477.06 ppb	23:45:50
1	Ti 334.940†	523080.4	514408.2	479.98 µg/L	479.98 ppb	23:45:30
1	Tl 190.801†	3815.6	3875.9	483.43 µg/L	483.43 ppb	23:45:50
1	U 409.014†	7450.4	7610.3	474.06 µg/L	474.06 ppb	23:45:30
1	V 292.402†	99368.6	97498.3	481.94 µg/L	481.94 ppb	23:45:30
1	Zn 213.857†	87576.9	85720.0	477.77 µg/L	477.77 ppb	23:45:30
2	Sc RADIAL	143500.3	143500.3	98.3 %		23:45:07
2	Al 396.153Radial†	26117.8	26623.2	4913.8 µg/L	4913.8 ppb	23:45:07
2	Ca 317.933Radial†	85980.2	86875.2	4839.3 µg/L	4839.3 ppb	23:45:07
2	Fe 238.204 Radial†	77018.6	78174.4	4818.2 µg/L	4818.2 ppb	23:45:07
2	K 766.490 Radial†	14350.9	13049.0	4773.5 µg/L	4773.5 ppb	23:45:07
2	Mg 279.077 IEC†	13097.3	13128.4	4899.0 µg/L	4899.0 ppb	23:45:07
2	Na 589.592 Radial†	70405.7	70306.9	9600.5 µg/L	9600.5 ppb	23:45:07
2	Sr 421.552†	230191.6	234224.0	486.90 µg/L	486.90 ppb	23:45:05
2	Sc 361.383	1741142.3	1741142.3	101.33 %		23:45:53
2	Y 371.029	1028976.3	1028976.3	100.22 %		23:45:53
2	Ag 328.068†	133876.6	128022.6	480.04 µg/L	480.04 ppb	23:45:53
2	As 188.979†	1611.4	1610.6	494.02 µg/L	494.02 ppb	23:46:13
2	B 249.677†	36111.0	32129.7	472.20 µg/L	472.20 ppb	23:45:53
2	Ba 233.527†	120384.6	118935.4	479.66 µg/L	479.66 ppb	23:45:53
2	Be 313.107†	1798241.9	1775630.2	483.61 µg/L	483.61 ppb	23:45:53
2	Cd 226.502†	77471.2	76569.4	477.98 µg/L	477.98 ppb	23:45:53
2	Co 228.616†	39116.7	38792.0	478.89 µg/L	478.89 ppb	23:45:53
2	Cr 267.716†	61760.5	60768.7	475.81 µg/L	475.81 ppb	23:45:53
2	Cu 324.752†	127313.2	122664.7	478.18 µg/L	478.18 ppb	23:45:53
2	Mn 257.610†	395198.2	389757.6	482.04 µg/L	482.04 ppb	23:45:53
2	Mo 202.031†	16425.2	16229.0	477.39 µg/L	477.39 ppb	23:46:13
2	Ni 231.604†	42030.8	41554.0	478.46 µg/L	478.46 ppb	23:45:53
2	P 214.914†	11285.9	11155.2	2377.7 µg/L	2377.7 ppb	23:46:13
2	Pb 220.353†	8805.0	8602.7	481.74 µg/L	481.74 ppb	23:46:13

2	S 181.975 Axial†	1386.2	1262.9	941.84 µg/L	941.84 ppb	23:46:13
2	Sb 206.836†	4124.1	3989.0	475.29 µg/L	475.29 ppb	23:46:13
2	Se 196.026†	1357.9	1324.8	481 µg/L	481 ppb	23:46:13
2	SiO2†	55814.1	53303.9	5189.5 µg/L	5189.5 ppb	23:45:53
2	Si 251.611†	169030.5	165968.4	2437.3 µg/L	2437.3 ppb	23:45:53
2	Sn 189.927†	7760.3	7659.3	479.09 µg/L	479.09 ppb	23:46:13
2	Ti 334.940†	520780.4	512971.1	478.64 µg/L	478.64 ppb	23:45:53
2	Tl 190.801†	3842.4	3908.4	487.42 µg/L	487.42 ppb	23:46:13
2	U 409.014†	7450.4	7622.2	474.73 µg/L	474.73 ppb	23:45:53
2	V 292.402†	99152.5	97443.2	481.69 µg/L	481.69 ppb	23:45:53
2	Zn 213.857†	86966.1	85256.7	475.17 µg/L	475.17 ppb	23:45:53
3	Sc RADIAL	141926.1	141926.1	97.3 %		23:45:11
3	Al 396.153Radial†	25922.6	26717.1	4931.1 µg/L	4931.1 ppb	23:45:11
3	Ca 317.933Radial†	85061.3	86900.2	4840.7 µg/L	4840.7 ppb	23:45:11
3	Fe 238.204 Radial†	76232.3	78234.7	4821.9 µg/L	4821.9 ppb	23:45:11
3	K 766.490 Radial†	14404.4	13266.0	4852.9 µg/L	4852.9 ppb	23:45:11
3	Mg 279.077 IEC†	13020.1	13196.7	4924.4 µg/L	4924.4 ppb	23:45:11
3	Na 589.592 Radial†	69631.1	70304.6	9600.1 µg/L	9600.1 ppb	23:45:11
3	Sr 421.552†	231949.9	238628.3	496.06 µg/L	496.06 ppb	23:45:09
3	Sc 361.383	1729820.2	1729820.2	100.68 %		23:46:16
3	Y 371.029	1022158.2	1022158.2	99.559 %		23:46:16
3	Ag 328.068†	132876.1	127893.4	479.56 µg/L	479.56 ppb	23:46:16
3	As 188.979†	1593.5	1603.2	491.79 µg/L	491.79 ppb	23:46:36
3	B 249.677†	35994.3	32247.0	473.92 µg/L	473.92 ppb	23:46:16
3	Ba 233.527†	119768.8	119101.4	480.33 µg/L	480.33 ppb	23:46:16
3	Be 313.107†	1786026.7	1775111.9	483.47 µg/L	483.47 ppb	23:46:16
3	Cd 226.502†	76950.6	76552.6	477.87 µg/L	477.87 ppb	23:46:16
3	Co 228.616†	38889.1	38818.6	479.22 µg/L	479.22 ppb	23:46:16
3	Cr 267.716†	61424.2	60833.7	476.31 µg/L	476.31 ppb	23:46:16
3	Cu 324.752†	126247.1	122428.1	477.27 µg/L	477.27 ppb	23:46:16
3	Mn 257.610†	392394.3	389525.1	481.75 µg/L	481.75 ppb	23:46:16
3	Mo 202.031†	16372.3	16282.5	478.96 µg/L	478.96 ppb	23:46:36
3	Ni 231.604†	41712.3	41509.0	477.95 µg/L	477.95 ppb	23:46:16
3	P 214.914†	11238.3	11180.9	2383.2 µg/L	2383.2 ppb	23:46:36
3	Pb 220.353†	8781.7	8636.4	483.62 µg/L	483.62 ppb	23:46:36
3	S 181.975 Axial†	1376.5	1262.2	941.29 µg/L	941.29 ppb	23:46:36
3	Sb 206.836†	4136.7	4028.2	479.97 µg/L	479.97 ppb	23:46:36
3	Se 196.026†	1358.7	1334.3	485 µg/L	485 ppb	23:46:36
3	SiO2†	55649.6	53501.0	5208.7 µg/L	5208.7 ppb	23:46:16
3	Si 251.611†	167782.3	165820.3	2435.1 µg/L	2435.1 ppb	23:46:16
3	Sn 189.927†	7733.5	7682.7	480.55 µg/L	480.55 ppb	23:46:36
3	Ti 334.940†	517675.9	513251.1	478.89 µg/L	478.89 ppb	23:46:16
3	Tl 190.801†	3823.0	3914.0	488.10 µg/L	488.10 ppb	23:46:36
3	U 409.014†	7497.8	7717.4	480.25 µg/L	480.25 ppb	23:46:16
3	V 292.402†	98366.1	97302.5	481.02 µg/L	481.02 ppb	23:46:16
3	Zn 213.857†	86593.9	85448.7	476.25 µg/L	476.25 ppb	23:46:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1738305.8	101.17 %	0.435			0.43%
Sc RADIAL	143186.3	98.1 %	0.78			0.79%
Y 371.029	1027279.9	100.06 %	0.440			0.44%
Ag 328.068†	128076.9	480.24 µg/L	0.801	480.24 ppb	0.801	0.17%
QC value within limits for Ag 328.068 Recovery = 96.05%						
Al 396.153Radial†	26675.9	4923.5 µg/L	8.88	4923.5 ppb	8.88	0.18%
QC value within limits for Al 396.153Radial Recovery = 98.47%						
As 188.979†	1609.3	493.63 µg/L	1.680	493.63 ppb	1.680	0.34%
QC value within limits for As 188.979 Recovery = 98.73%						
B 249.677†	32219.3	473.51 µg/L	1.168	473.51 ppb	1.168	0.25%
QC value within limits for B 249.677 Recovery = 94.70%						
Ba 233.527†	119109.7	480.37 µg/L	0.719	480.37 ppb	0.719	0.15%
QC value within limits for Ba 233.527 Recovery = 96.07%						
Be 313.107†	1776700.4	483.90 µg/L	0.630	483.90 ppb	0.630	0.13%
QC value within limits for Be 313.107 Recovery = 96.78%						
Ca 317.933Radial†	86858.6	4838.4 µg/L	2.90	4838.4 ppb	2.90	0.06%
QC value within limits for Ca 317.933Radial Recovery = 96.77%						
Cd 226.502†	76649.4	478.48 µg/L	0.958	478.48 ppb	0.958	0.20%
QC value within limits for Cd 226.502 Recovery = 95.70%						
Co 228.616†	38883.8	480.02 µg/L	1.687	480.02 ppb	1.687	0.35%

QC value within limits for Co 228.616 Recovery = 96.00%							
Cr	267.716†	60872.8	476.62 µg/L	1.005	476.62 ppb	1.005	0.21%
QC value within limits for Cr 267.716 Recovery = 95.32%							
Cu	324.752†	122688.9	478.28 µg/L	1.061	478.28 ppb	1.061	0.22%
QC value within limits for Cu 324.752 Recovery = 95.66%							
Fe	238.204 Radial†	78187.4	4819.0 µg/L	2.61	4819.0 ppb	2.61	0.05%
QC value within limits for Fe 238.204 Radial Recovery = 96.38%							
K	766.490 Radial†	13107.4	4794.9 µg/L	50.84	4794.9 ppb	50.84	1.06%
QC value within limits for K 766.490 Radial Recovery = 95.90%							
Mg	279.077 IEC†	13154.4	4908.6 µg/L	13.80	4908.6 ppb	13.80	0.28%
QC value within limits for Mg 279.077 IEC Recovery = 98.17%							
Mn	257.610†	390030.2	482.38 µg/L	0.846	482.38 ppb	0.846	0.18%
QC value within limits for Mn 257.610 Recovery = 96.48%							
Mo	202.031†	16219.2	477.10 µg/L	2.018	477.10 ppb	2.018	0.42%
QC value within limits for Mo 202.031 Recovery = 95.42%							
Na	589.592 Radial†	70283.3	9597.3 µg/L	5.29	9597.3 ppb	5.29	0.06%
QC value within limits for Na 589.592 Radial Recovery = 95.97%							
Ni	231.604†	41546.6	478.38 µg/L	0.397	478.38 ppb	0.397	0.08%
QC value within limits for Ni 231.604 Recovery = 95.68%							
P	214.914†	11144.5	2375.4 µg/L	9.15	2375.4 ppb	9.15	0.39%
QC value within limits for P 214.914 Recovery = 95.02%							
Pb	220.353†	8600.1	481.59 µg/L	2.106	481.59 ppb	2.106	0.44%
QC value within limits for Pb 220.353 Recovery = 96.32%							
S	181.975 Axial†	1258.2	938.33 µg/L	5.605	938.33 ppb	5.605	0.60%
QC value within limits for S 181.975 Axial Recovery = 93.83%							
Sb	206.836†	4003.0	476.94 µg/L	2.622	476.94 ppb	2.622	0.55%
QC value within limits for Sb 206.836 Recovery = 95.39%							
Se	196.026†	1329.0	483 µg/L	1.8	483 ppb	1.8	0.37%
QC value within limits for Se 196.026 Recovery = 96.51%							
SiO2†		53455.9	5204.4 µg/L	13.25	5204.4 ppb	13.25	0.25%
QC value within limits for SiO2 Recovery = 97.32%							
Si	251.611†	166162.8	2440.2 µg/L	6.98	2440.2 ppb	6.98	0.29%
QC value within limits for Si 251.611 Recovery = 97.61%							
Sn	189.927†	7656.2	478.90 µg/L	1.752	478.90 ppb	1.752	0.37%
QC value within limits for Sn 189.927 Recovery = 95.78%							
Sr	421.552†	235298.5	489.13 µg/L	6.119	489.13 ppb	6.119	1.25%
QC value within limits for Sr 421.552 Recovery = 97.83%							
Ti	334.940†	513543.5	479.17 µg/L	0.712	479.17 ppb	0.712	0.15%
QC value within limits for Ti 334.940 Recovery = 95.83%							
Tl	190.801†	3899.5	486.32 µg/L	2.525	486.32 ppb	2.525	0.52%
QC value within limits for Tl 190.801 Recovery = 97.26%							
U	409.014†	7650.0	476.34 µg/L	3.400	476.34 ppb	3.400	0.71%
QC value within limits for U 409.014 Recovery = 95.27%							
V	292.402†	97414.7	481.55 µg/L	0.473	481.55 ppb	0.473	0.10%
QC value within limits for V 292.402 Recovery = 96.31%							
Zn	213.857†	85475.1	476.40 µg/L	1.307	476.40 ppb	1.307	0.27%
QC value within limits for Zn 213.857 Recovery = 95.28%							

All analyte(s) passed QC.

Sequence No.: 120

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/31/2010 23:46:45

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	143139.1	143139.1	98.1 %		23:47:16
1	Al 396.153Radial†	-44.4	17.9	3.3413 µg/L	3.3413 ppb	23:47:36
1	Ca 317.933Radial†	582.0	32.8	1.8256 µg/L	1.8256 ppb	23:47:36
1	Fe 238.204 Radial†	254.9	111.7	6.8857 µg/L	6.8857 ppb	23:47:36
1	K 766.490 Radial†	1616.9	103.6	37.929 µg/L	37.929 ppb	23:47:16
1	Mg 279.077 IEC†	177.5	-9.8	-3.6543 µg/L	-3.6543 ppb	23:47:36
1	Na 589.592 Radial†	1371.1	107.0	14.589 µg/L	14.589 ppb	23:47:16
1	Sr 421.552†	-218.3	-87.3	-0.1815 µg/L	-0.1815 ppb	23:47:16
1	Sc 361.383	1721067.2	1721067.2	100.17 %		23:48:23
1	Y 371.029	1029992.5	1029992.5	100.32 %		23:48:23
1	Ag 328.068†	4263.3	164.8	0.5898 µg/L	0.5898 ppb	23:48:26
1	As 188.979†	-17.1	3.3	0.9838 µg/L	0.9838 ppb	23:48:46
1	B 249.677†	3587.8	76.0	1.1202 µg/L	1.1202 ppb	23:48:26
1	Ba 233.527†	-139.7	-3.6	-0.0153 µg/L	-0.0153 ppb	23:48:46
1	Be 313.107†	-1283.0	-216.2	-0.0609 µg/L	-0.0609 ppb	23:48:26
1	Cd 226.502†	-112.6	5.8	0.0354 µg/L	0.0354 ppb	23:48:46
1	Co 228.616†	-173.9	16.7	0.2052 µg/L	0.2052 ppb	23:48:46
1	Cr 267.716†	180.0	1.2	0.0142 µg/L	0.0142 ppb	23:48:46
1	Cu 324.752†	2926.2	-50.8	-0.2020 µg/L	-0.2020 ppb	23:48:26
1	Mn 257.610†	341.1	103.2	0.1279 µg/L	0.1279 ppb	23:48:46
1	Mo 202.031†	-33.0	-12.8	-0.3775 µg/L	-0.3775 ppb	23:48:46
1	Ni 231.604†	-84.7	-8.0	-0.0923 µg/L	-0.0923 ppb	23:48:46
1	P 214.914†	-12.9	5.1	1.1019 µg/L	1.1019 ppb	23:48:46
1	Pb 220.353†	98.0	11.4	0.6420 µg/L	0.6420 ppb	23:48:46
1	S 181.975 Axial†	101.0	-4.2	-3.1438 µg/L	-3.1438 ppb	23:48:46
1	Sb 206.836†	91.8	10.9	1.2860 µg/L	1.2860 ppb	23:48:46
1	Se 196.026†	14.8	-0.5	-0.177 µg/L	-0.177 ppb	23:48:46
1	SiO2†	1836.2	57.8	5.6538 µg/L	5.6538 ppb	23:48:46
1	Si 251.611†	1107.2	268.8	3.9640 µg/L	3.9640 ppb	23:48:26
1	Sn 189.927†	7.5	8.6	0.5360 µg/L	0.5360 ppb	23:48:46
1	Ti 334.940†	947.2	-6.9	-0.0034 µg/L	-0.0034 ppb	23:48:26
1	Tl 190.801†	-108.0	8.8	1.0752 µg/L	1.0752 ppb	23:48:46
1	U 409.014†	-383.9	-113.4	-6.6898 µg/L	-6.6898 ppb	23:48:26
1	V 292.402†	195.1	-209.0	-1.0288 µg/L	-1.0288 ppb	23:48:26
1	Zn 213.857†	592.8	27.4	0.1540 µg/L	0.1540 ppb	23:48:46
2	Sc RADIAL	142955.7	142955.7	98.0 %		23:47:38
2	Al 396.153Radial†	-78.4	-16.8	-3.1397 µg/L	-3.1397 ppb	23:47:58
2	Ca 317.933Radial†	568.8	20.0	1.1154 µg/L	1.1154 ppb	23:47:58
2	Fe 238.204 Radial†	246.3	103.3	6.3692 µg/L	6.3692 ppb	23:47:58
2	K 766.490 Radial†	1462.0	-52.3	-19.161 µg/L	-19.161 ppb	23:47:38
2	Mg 279.077 IEC†	183.1	-3.8	-1.4109 µg/L	-1.4109 ppb	23:47:58
2	Na 589.592 Radial†	1236.3	-28.8	-3.9154 µg/L	-3.9154 ppb	23:47:38
2	Sr 421.552†	-279.2	-149.7	-0.3112 µg/L	-0.3112 ppb	23:47:38
2	Sc 361.383	1746509.7	1746509.7	101.65 %		23:48:48
2	Y 371.029	1042959.8	1042959.8	101.58 %		23:48:48
2	Ag 328.068†	4265.0	104.5	0.3736 µg/L	0.3736 ppb	23:48:50
2	As 188.979†	-11.7	8.8	2.6655 µg/L	2.6655 ppb	23:49:10
2	B 249.677†	3506.2	-56.5	-0.8332 µg/L	-0.8332 ppb	23:48:50
2	Ba 233.527†	-121.9	16.0	0.0640 µg/L	0.0640 ppb	23:49:10
2	Be 313.107†	-723.9	352.5	0.0944 µg/L	0.0944 ppb	23:48:50
2	Cd 226.502†	-117.5	2.6	0.0156 µg/L	0.0156 ppb	23:49:10
2	Co 228.616†	-180.5	12.8	0.1572 µg/L	0.1572 ppb	23:49:10
2	Cr 267.716†	177.3	-4.1	-0.0284 µg/L	-0.0284 ppb	23:49:10
2	Cu 324.752†	3022.2	1.1	0.0009 µg/L	0.0009 ppb	23:48:50
2	Mn 257.610†	312.9	70.6	0.0874 µg/L	0.0874 ppb	23:49:10
2	Mo 202.031†	-8.4	11.8	0.3482 µg/L	0.3482 ppb	23:49:10
2	Ni 231.604†	-112.1	-33.8	-0.3893 µg/L	-0.3893 ppb	23:49:10
2	P 214.914†	-28.4	-10.0	-2.1529 µg/L	-2.1529 ppb	23:49:10
2	Pb 220.353†	61.6	-25.8	-1.4338 µg/L	-1.4338 ppb	23:49:10

2	S 181.975 Axial†	110.6	3.7	2.7632 µg/L	2.7632 ppb	23:49:10
2	Sb 206.836†	80.8	-1.3	-0.1519 µg/L	-0.1519 ppb	23:49:10
2	Se 196.026†	7.2	-8.2	-2.97 µg/L	-2.97 ppb	23:49:10
2	SiO2†	1816.0	11.2	1.0819 µg/L	1.0819 ppb	23:49:10
2	Si 251.611†	1081.7	227.6	3.3494 µg/L	3.3494 ppb	23:48:50
2	Sn 189.927†	2.0	3.1	0.1923 µg/L	0.1923 ppb	23:49:10
2	Ti 334.940†	932.7	-34.9	-0.0304 µg/L	-0.0304 ppb	23:48:50
2	Tl 190.801†	-106.3	12.1	1.4842 µg/L	1.4842 ppb	23:49:10
2	U 409.014†	-364.3	-88.6	-5.2117 µg/L	-5.2117 ppb	23:48:50
2	V 292.402†	290.2	-118.3	-0.5776 µg/L	-0.5776 ppb	23:48:50
2	Zn 213.857†	597.7	23.6	0.1343 µg/L	0.1343 ppb	23:49:10
3	Sc RADIAL	142060.8	142060.8	97.3 %		23:48:00
3	Al 396.153Radial†	-74.7	-13.5	-2.5097 µg/L	-2.5097 ppb	23:48:20
3	Ca 317.933Radial†	575.1	30.2	1.6799 µg/L	1.6799 ppb	23:48:20
3	Fe 238.204 Radial†	223.1	81.1	4.9991 µg/L	4.9991 ppb	23:48:20
3	K 766.490 Radial†	1632.6	132.3	48.447 µg/L	48.447 ppb	23:48:00
3	Mg 279.077 IEC†	208.7	23.7	8.8315 µg/L	8.8315 ppb	23:48:20
3	Na 589.592 Radial†	1308.6	53.4	7.2507 µg/L	7.2507 ppb	23:48:00
3	Sr 421.552†	-258.5	-130.3	-0.2709 µg/L	-0.2709 ppb	23:48:00
3	Sc 361.383	1726289.1	1726289.1	100.47 %		23:49:12
3	Y 371.029	1031437.7	1031437.7	100.46 %		23:49:12
3	Ag 328.068†	4170.2	59.3	0.2058 µg/L	0.2058 ppb	23:49:14
3	As 188.979†	-17.6	2.8	0.8598 µg/L	0.8598 ppb	23:49:34
3	B 249.677†	3575.5	52.9	0.7802 µg/L	0.7802 ppb	23:49:14
3	Ba 233.527†	-111.6	24.8	0.0994 µg/L	0.0994 ppb	23:49:34
3	Be 313.107†	-874.1	194.7	0.0518 µg/L	0.0518 ppb	23:49:14
3	Cd 226.502†	-142.0	-23.1	-0.1448 µg/L	-0.1448 ppb	23:49:34
3	Co 228.616†	-193.8	-2.6	-0.0317 µg/L	-0.0317 ppb	23:49:34
3	Cr 267.716†	191.0	11.5	0.0933 µg/L	0.0933 ppb	23:49:34
3	Cu 324.752†	2976.0	-10.1	-0.0417 µg/L	-0.0417 ppb	23:49:14
3	Mn 257.610†	330.2	91.4	0.1127 µg/L	0.1127 ppb	23:49:34
3	Mo 202.031†	-17.5	2.7	0.0796 µg/L	0.0796 ppb	23:49:34
3	Ni 231.604†	-80.8	-3.9	-0.0446 µg/L	-0.0446 ppb	23:49:34
3	P 214.914†	-31.6	-13.5	-2.8878 µg/L	-2.8878 ppb	23:49:34
3	Pb 220.353†	72.3	-14.4	-0.8013 µg/L	-0.8013 ppb	23:49:34
3	S 181.975 Axial†	108.9	3.3	2.4479 µg/L	2.4479 ppb	23:49:34
3	Sb 206.836†	90.6	9.4	1.1111 µg/L	1.1111 ppb	23:49:34
3	Se 196.026†	27.8	12.4	4.47 µg/L	4.47 ppb	23:49:34
3	SiO2†	1848.9	64.9	6.3403 µg/L	6.3403 ppb	23:49:34
3	Si 251.611†	1214.9	372.7	5.4917 µg/L	5.4917 ppb	23:49:14
3	Sn 189.927†	3.0	4.1	0.2558 µg/L	0.2558 ppb	23:49:34
3	Ti 334.940†	1155.8	197.9	0.1859 µg/L	0.1859 ppb	23:49:14
3	Tl 190.801†	-94.9	22.3	2.7336 µg/L	2.7336 ppb	23:49:34
3	U 409.014†	-341.4	-69.9	-4.1301 µg/L	-4.1301 ppb	23:49:14
3	V 292.402†	256.5	-148.5	-0.7266 µg/L	-0.7266 ppb	23:49:14
3	Zn 213.857†	589.1	22.0	0.1232 µg/L	0.1232 ppb	23:49:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1731288.6	100.76 %	0.782			0.78%
Sc RADIAL	142718.5	97.8 %	0.40			0.40%
Y 371.029	1034796.7	100.79 %	0.692			0.69%
Ag 328.068†	109.5	0.3897 µg/L	0.19255	0.3897 ppb	0.19255	49.40%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-4.1	-0.7694 µg/L	3.57387	-0.7694 ppb	3.57387	464.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	5.0	1.5030 µg/L	1.00867	1.5030 ppb	1.00867	67.11%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	24.1	0.3557 µg/L	1.04358	0.3557 ppb	1.04358	293.37%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	12.4	0.0494 µg/L	0.05873	0.0494 ppb	0.05873	118.93%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	110.4	0.0284 µg/L	0.08023	0.0284 ppb	0.08023	282.02%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	27.7	1.5403 µg/L	0.37512	1.5403 ppb	0.37512	24.35%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-4.9	-0.0313 µg/L	0.09882	-0.0313 ppb	0.09882	315.68%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	9.0	0.1102 µg/L	0.12522	0.1102 ppb	0.12522	113.62%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	2.9	0.0263 µg/L	0.06173	0.0263 ppb	0.06173	234.26%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-20.0	-0.0809 µg/L	0.10696	-0.0809 ppb	0.10696	132.15%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	98.7	6.0847 µg/L	0.97498	6.0847 ppb	0.97498	16.02%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	61.2	22.405 µg/L	36.3791	22.405 ppb	36.3791	162.37%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	3.4	1.2555 µg/L	6.65627	1.2555 ppb	6.65627	530.18%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	88.4	0.1093 µg/L	0.02047	0.1093 ppb	0.02047	18.73%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	0.6	0.0168 µg/L	0.36692	0.0168 ppb	0.36692	>999.9%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	43.9	5.9749 µg/L	9.31815	5.9749 ppb	9.31815	155.96%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-15.2	-0.1754 µg/L	0.18674	-0.1754 ppb	0.18674	106.47%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-6.1	-1.3129 µg/L	2.12332	-1.3129 ppb	2.12332	161.72%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-9.6	-0.5310 µg/L	1.06398	-0.5310 ppb	1.06398	200.37%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	0.9	0.6891 µg/L	3.32317	0.6891 ppb	3.32317	482.25%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	6.3	0.7484 µg/L	0.78460	0.7484 ppb	0.78460	104.84%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	1.2	0.441 µg/L	3.7613	0.441 ppb	3.7613	853.72%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	44.6	4.3586 µg/L	2.85844	4.3586 ppb	2.85844	65.58%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	289.7	4.2683 µg/L	1.10310	4.2683 ppb	1.10310	25.84%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	5.3	0.3280 µg/L	0.18288	0.3280 ppb	0.18288	55.75%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-122.4	-0.2545 µg/L	0.06637	-0.2545 ppb	0.06637	26.08%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	52.0	0.0507 µg/L	0.11782	0.0507 ppb	0.11782	232.33%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	14.4	1.7643 µg/L	0.86396	1.7643 ppb	0.86396	48.97%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-90.6	-5.3439 µg/L	1.28496	-5.3439 ppb	1.28496	24.05%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-158.6	-0.7777 µg/L	0.22990	-0.7777 ppb	0.22990	29.56%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	24.3	0.1372 µg/L	0.01563	0.1372 ppb	0.01563	11.39%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 128

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 4/1/2010 0:02:20

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	142272.6	142272.6	97.5 %		00:02:55
1	Al 396.153Radial†	25834.9	26562.2	4902.5 µg/L	4902.5 ppb	00:02:55
1	Ca 317.933Radial†	85088.7	86715.4	4830.4 µg/L	4830.4 ppb	00:02:55
1	Fe 238.204 Radial†	76256.0	78068.0	4811.6 µg/L	4811.6 ppb	00:02:55
1	K 766.490 Radial†	14327.9	13151.4	4811.0 µg/L	4811.0 ppb	00:02:55
1	Mg 279.077 IEC†	13155.4	13302.9	4964.0 µg/L	4964.0 ppb	00:02:55
1	Na 589.592 Radial†	69875.1	70380.5	9610.5 µg/L	9610.5 ppb	00:02:55
1	Sr 421.552†	226540.9	232499.5	483.31 µg/L	483.31 ppb	00:02:53
1	Sc 361.383	1723344.7	1723344.7	100.30 %		00:03:22
1	Y 371.029	1018123.7	1018123.7	99.166 %		00:03:22
1	Ag 328.068†	131945.7	127461.8	477.92 µg/L	477.92 ppb	00:03:22
1	As 188.979†	1604.1	1619.7	496.75 µg/L	496.75 ppb	00:03:42
1	B 249.677†	35591.1	31979.3	469.98 µg/L	469.98 ppb	00:03:22
1	Ba 233.527†	118724.6	118507.2	477.94 µg/L	477.94 ppb	00:03:22
1	Be 313.107†	1771703.0	1767496.7	481.39 µg/L	481.39 ppb	00:03:22
1	Cd 226.502†	76335.7	76226.8	475.84 µg/L	475.84 ppb	00:03:22
1	Co 228.616†	38760.4	38835.4	479.42 µg/L	479.42 ppb	00:03:22
1	Cr 267.716†	60900.3	60540.6	474.03 µg/L	474.03 ppb	00:03:22
1	Cu 324.752†	125251.0	121906.2	475.23 µg/L	475.23 ppb	00:03:22
1	Mn 257.610†	389076.6	387681.8	479.47 µg/L	479.47 ppb	00:03:22
1	Mo 202.031†	16257.1	16228.8	477.38 µg/L	477.38 ppb	00:03:42
1	Ni 231.604†	41472.4	41425.6	476.99 µg/L	476.99 ppb	00:03:22
1	P 214.914†	11164.5	11149.2	2376.4 µg/L	2376.4 ppb	00:03:42
1	Pb 220.353†	8662.0	8549.9	478.80 µg/L	478.80 ppb	00:03:42
1	S 181.975 Axial†	1361.8	1252.7	934.24 µg/L	934.24 ppb	00:03:42
1	Sb 206.836†	4090.1	3997.1	476.28 µg/L	476.28 ppb	00:03:42
1	Se 196.026†	1338.2	1318.9	479 µg/L	479 ppb	00:03:42
1	SiO2†	54668.7	52730.7	5133.5 µg/L	5133.5 ppb	00:03:22
1	Si 251.611†	165532.9	164203.9	2411.3 µg/L	2411.3 ppb	00:03:22
1	Sn 189.927†	7662.0	7640.4	477.90 µg/L	477.90 ppb	00:03:42
1	Ti 334.940†	512908.7	510430.3	476.26 µg/L	476.26 ppb	00:03:22
1	Tl 190.801†	3797.9	3903.2	486.73 µg/L	486.73 ppb	00:03:42
1	U 409.014†	7179.6	7428.1	463.23 µg/L	463.23 ppb	00:03:22
1	V 292.402†	97641.8	96947.5	479.26 µg/L	479.26 ppb	00:03:22
1	Zn 213.857†	85689.4	84870.1	473.01 µg/L	473.01 ppb	00:03:22
2	Sc RADIAL	141674.6	141674.6	97.1 %		00:02:59
2	Al 396.153Radial†	25757.6	26594.5	4908.2 µg/L	4908.2 ppb	00:02:59
2	Ca 317.933Radial†	84226.0	86195.1	4801.4 µg/L	4801.4 ppb	00:02:59
2	Fe 238.204 Radial†	75439.4	77557.1	4780.1 µg/L	4780.1 ppb	00:02:59
2	K 766.490 Radial†	14248.6	13131.7	4803.8 µg/L	4803.8 ppb	00:02:59
2	Mg 279.077 IEC†	12899.8	13096.5	4887.2 µg/L	4887.2 ppb	00:02:59
2	Na 589.592 Radial†	69141.1	69926.9	9548.6 µg/L	9548.6 ppb	00:02:59
2	Sr 421.552†	226612.3	233553.9	485.51 µg/L	485.51 ppb	00:02:57
2	Sc 361.383	1708258.8	1708258.8	99.420 %		00:03:45
2	Y 371.029	1010097.1	1010097.1	98.384 %		00:03:45
2	Ag 328.068†	130950.0	127622.0	478.53 µg/L	478.53 ppb	00:03:45
2	As 188.979†	1596.3	1626.0	498.65 µg/L	498.65 ppb	00:04:05
2	B 249.677†	35330.7	32030.8	470.74 µg/L	470.74 ppb	00:03:45
2	Ba 233.527†	117712.3	118534.4	478.05 µg/L	478.05 ppb	00:03:45
2	Be 313.107†	1753739.6	1765028.3	480.72 µg/L	480.72 ppb	00:03:45
2	Cd 226.502†	75285.2	75842.3	473.44 µg/L	473.44 ppb	00:03:45
2	Co 228.616†	38223.9	38637.1	476.98 µg/L	476.98 ppb	00:03:45
2	Cr 267.716†	60168.0	60340.2	472.45 µg/L	472.45 ppb	00:03:45
2	Cu 324.752†	124409.3	122162.4	476.22 µg/L	476.22 ppb	00:03:45
2	Mn 257.610†	385236.3	387244.9	478.93 µg/L	478.93 ppb	00:03:45
2	Mo 202.031†	16271.7	16386.7	482.02 µg/L	482.02 ppb	00:04:05
2	Ni 231.604†	41015.7	41331.3	475.90 µg/L	475.90 ppb	00:03:45
2	P 214.914†	11176.6	11259.7	2400.0 µg/L	2400.0 ppb	00:04:05
2	Pb 220.353†	8757.4	8722.1	488.42 µg/L	488.42 ppb	00:04:05

2	S 181.975 Axial†	1369.4	1272.3	948.85 µg/L	948.85 ppb	00:04:05
2	Sb 206.836†	4104.3	4047.4	482.36 µg/L	482.36 ppb	00:04:05
2	Se 196.026†	1334.2	1326.7	482 µg/L	482 ppb	00:04:05
2	SiO2†	54367.2	52908.8	5150.7 µg/L	5150.7 ppb	00:03:45
2	Si 251.611†	164236.7	164357.7	2413.5 µg/L	2413.5 ppb	00:03:45
2	Sn 189.927†	7684.5	7730.4	483.52 µg/L	483.52 ppb	00:04:05
2	Ti 334.940†	509083.5	511098.8	476.89 µg/L	476.89 ppb	00:03:45
2	Tl 190.801†	3778.4	3917.1	488.46 µg/L	488.46 ppb	00:04:05
2	U 409.014†	7230.8	7542.9	469.95 µg/L	469.95 ppb	00:03:45
2	V 292.402†	96807.6	96968.1	479.41 µg/L	479.41 ppb	00:03:45
2	Zn 213.857†	85025.4	84956.7	473.50 µg/L	473.50 ppb	00:03:45
3	Sc RADIAL	141547.4	141547.4	97.0 %		00:03:03
3	Al 396.153Radial†	25657.4	26515.0	4893.6 µg/L	4893.6 ppb	00:03:03
3	Ca 317.933Radial†	84401.5	86454.0	4815.8 µg/L	4815.8 ppb	00:03:03
3	Fe 238.204 Radial†	75869.9	78070.8	4811.8 µg/L	4811.8 ppb	00:03:03
3	K 766.490 Radial†	14363.1	13263.0	4851.8 µg/L	4851.8 ppb	00:03:03
3	Mg 279.077 IEC†	13049.5	13262.8	4949.1 µg/L	4949.1 ppb	00:03:03
3	Na 589.592 Radial†	69248.3	70101.5	9572.4 µg/L	9572.4 ppb	00:03:03
3	Sr 421.552†	225485.7	232602.1	483.53 µg/L	483.53 ppb	00:03:01
3	Sc 361.383	1723903.5	1723903.5	100.33 %		00:04:08
3	Y 371.029	1019569.4	1019569.4	99.307 %		00:04:08
3	Ag 328.068†	132444.2	127916.0	479.62 µg/L	479.62 ppb	00:04:08
3	As 188.979†	1613.5	1628.6	499.46 µg/L	499.46 ppb	00:04:28
3	B 249.677†	35582.2	31958.9	469.67 µg/L	469.67 ppb	00:04:08
3	Ba 233.527†	119047.5	118790.7	479.08 µg/L	479.08 ppb	00:04:08
3	Be 313.107†	1772270.1	1767489.4	481.39 µg/L	481.39 ppb	00:04:08
3	Cd 226.502†	76487.5	76353.5	476.63 µg/L	476.63 ppb	00:04:08
3	Co 228.616†	38833.9	38896.2	480.17 µg/L	480.17 ppb	00:04:08
3	Cr 267.716†	61033.0	60653.2	474.91 µg/L	474.91 ppb	00:04:08
3	Cu 324.752†	125468.6	122082.6	475.91 µg/L	475.91 ppb	00:04:08
3	Mn 257.610†	389266.3	387745.1	479.55 µg/L	479.55 ppb	00:04:08
3	Mo 202.031†	16339.7	16305.9	479.65 µg/L	479.65 ppb	00:04:28
3	Ni 231.604†	41581.8	41521.1	478.09 µg/L	478.09 ppb	00:04:08
3	P 214.914†	11255.6	11236.5	2395.1 µg/L	2395.1 ppb	00:04:28
3	Pb 220.353†	8754.3	8639.1	483.78 µg/L	483.78 ppb	00:04:28
3	S 181.975 Axial†	1381.4	1271.8	948.44 µg/L	948.44 ppb	00:04:28
3	Sb 206.836†	4114.1	4019.7	478.99 µg/L	478.99 ppb	00:04:28
3	Se 196.026†	1349.5	1329.8	483 µg/L	483 ppb	00:04:28
3	SiO2†	54853.6	52897.3	5149.7 µg/L	5149.7 ppb	00:04:08
3	Si 251.611†	165883.5	164499.8	2415.6 µg/L	2415.6 ppb	00:04:08
3	Sn 189.927†	7726.9	7702.6	481.78 µg/L	481.78 ppb	00:04:28
3	Ti 334.940†	513749.8	511102.8	476.89 µg/L	476.89 ppb	00:04:08
3	Tl 190.801†	3835.7	3939.7	491.22 µg/L	491.22 ppb	00:04:28
3	U 409.014†	7224.4	7470.4	465.75 µg/L	465.75 ppb	00:04:08
3	V 292.402†	97852.6	97126.1	480.16 µg/L	480.16 ppb	00:04:08
3	Zn 213.857†	85877.0	85029.4	473.89 µg/L	473.89 ppb	00:04:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1718502.3	100.02 %	0.517			0.52%
Sc RADIAL	141831.6	97.2 %	0.27			0.27%
Y 371.029	1015930.0	98.952 %	0.4970			0.50%
Ag 328.068†	127666.6	478.69 µg/L	0.860	478.69 ppb	0.860	0.18%
QC value within limits for Ag 328.068 Recovery = 95.74%						
Al 396.153Radial†	26557.2	4901.4 µg/L	7.37	4901.4 ppb	7.37	0.15%
QC value within limits for Al 396.153Radial Recovery = 98.03%						
As 188.979†	1624.7	498.29 µg/L	1.393	498.29 ppb	1.393	0.28%
QC value within limits for As 188.979 Recovery = 99.66%						
B 249.677†	31989.7	470.13 µg/L	0.552	470.13 ppb	0.552	0.12%
QC value within limits for B 249.677 Recovery = 94.03%						
Ba 233.527†	118610.7	478.35 µg/L	0.631	478.35 ppb	0.631	0.13%
QC value within limits for Ba 233.527 Recovery = 95.67%						
Be 313.107†	1766671.5	481.16 µg/L	0.387	481.16 ppb	0.387	0.08%
QC value within limits for Be 313.107 Recovery = 96.23%						
Ca 317.933Radial†	86454.8	4815.9 µg/L	14.49	4815.9 ppb	14.49	0.30%
QC value within limits for Ca 317.933Radial Recovery = 96.32%						
Cd 226.502†	76140.8	475.30 µg/L	1.661	475.30 ppb	1.661	0.35%
QC value within limits for Cd 226.502 Recovery = 95.06%						
Co 228.616†	38789.5	478.86 µg/L	1.671	478.86 ppb	1.671	0.35%

QC value within limits for Co 228.616 Recovery = 95.77%							
Cr	267.716†	60511.3	473.80 µg/L	1.244	473.80 ppb	1.244	0.26%
QC value within limits for Cr 267.716 Recovery = 94.76%							
Cu	324.752†	122050.4	475.79 µg/L	0.509	475.79 ppb	0.509	0.11%
QC value within limits for Cu 324.752 Recovery = 95.16%							
Fe	238.204 Radial†	77898.6	4801.2 µg/L	18.23	4801.2 ppb	18.23	0.38%
QC value within limits for Fe 238.204 Radial Recovery = 96.02%							
K	766.490 Radial†	13182.1	4822.2 µg/L	25.92	4822.2 ppb	25.92	0.54%
QC value within limits for K 766.490 Radial Recovery = 96.44%							
Mg	279.077 IEC†	13220.7	4933.4 µg/L	40.70	4933.4 ppb	40.70	0.82%
QC value within limits for Mg 279.077 IEC Recovery = 98.67%							
Mn	257.610†	387557.3	479.32 µg/L	0.335	479.32 ppb	0.335	0.07%
QC value within limits for Mn 257.610 Recovery = 95.86%							
Mo	202.031†	16307.1	479.68 µg/L	2.318	479.68 ppb	2.318	0.48%
QC value within limits for Mo 202.031 Recovery = 95.94%							
Na	589.592 Radial†	70136.3	9577.2 µg/L	31.25	9577.2 ppb	31.25	0.33%
QC value within limits for Na 589.592 Radial Recovery = 95.77%							
Ni	231.604†	41426.0	476.99 µg/L	1.093	476.99 ppb	1.093	0.23%
QC value within limits for Ni 231.604 Recovery = 95.40%							
P	214.914†	11215.1	2390.5 µg/L	12.46	2390.5 ppb	12.46	0.52%
QC value within limits for P 214.914 Recovery = 95.62%							
Pb	220.353†	8637.0	483.66 µg/L	4.812	483.66 ppb	4.812	0.99%
QC value within limits for Pb 220.353 Recovery = 96.73%							
S	181.975 Axial†	1265.6	943.84 µg/L	8.319	943.84 ppb	8.319	0.88%
QC value within limits for S 181.975 Axial Recovery = 94.38%							
Sb	206.836†	4021.4	479.21 µg/L	3.045	479.21 ppb	3.045	0.64%
QC value within limits for Sb 206.836 Recovery = 95.84%							
Se	196.026†	1325.1	481 µg/L	2.0	481 ppb	2.0	0.42%
QC value within limits for Se 196.026 Recovery = 96.23%							
SiO2†		52845.6	5144.6 µg/L	9.64	5144.6 ppb	9.64	0.19%
QC value within limits for SiO2 Recovery = 96.21%							
Si	251.611†	164353.8	2413.5 µg/L	2.15	2413.5 ppb	2.15	0.09%
QC value within limits for Si 251.611 Recovery = 96.54%							
Sn	189.927†	7691.1	481.07 µg/L	2.875	481.07 ppb	2.875	0.60%
QC value within limits for Sn 189.927 Recovery = 96.21%							
Sr	421.552†	232885.1	484.12 µg/L	1.209	484.12 ppb	1.209	0.25%
QC value within limits for Sr 421.552 Recovery = 96.82%							
Ti	334.940†	510877.3	476.68 µg/L	0.363	476.68 ppb	0.363	0.08%
QC value within limits for Ti 334.940 Recovery = 95.34%							
Tl	190.801†	3920.0	488.80 µg/L	2.267	488.80 ppb	2.267	0.46%
QC value within limits for Tl 190.801 Recovery = 97.76%							
U	409.014†	7480.5	466.31 µg/L	3.394	466.31 ppb	3.394	0.73%
QC value within limits for U 409.014 Recovery = 93.26%							
V	292.402†	97013.9	479.61 µg/L	0.482	479.61 ppb	0.482	0.10%
QC value within limits for V 292.402 Recovery = 95.92%							
Zn	213.857†	84952.0	473.47 µg/L	0.445	473.47 ppb	0.445	0.09%
QC value within limits for Zn 213.857 Recovery = 94.69%							

All analyte(s) passed QC.

Sequence No.: 129

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 4/1/2010 0:04:36

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	143892.3	143892.3	98.6 %		00:05:07
1	Al 396.153Radial†	-53.6	8.8	1.6408 µg/L	1.6408 ppb	00:05:27
1	Ca 317.933Radial†	596.6	44.5	2.4784 µg/L	2.4784 ppb	00:05:27
1	Fe 238.204 Radial†	205.5	60.3	3.7183 µg/L	3.7183 ppb	00:05:27
1	K 766.490 Radial†	1617.6	95.8	35.061 µg/L	35.061 ppb	00:05:07
1	Mg 279.077 IEC†	160.3	-28.1	-10.484 µg/L	-10.484 ppb	00:05:27
1	Na 589.592 Radial†	1235.1	-38.2	-5.2555 µg/L	-5.2555 ppb	00:05:07
1	Sr 421.552†	-186.7	-54.0	-0.1123 µg/L	-0.1123 ppb	00:05:07
1	Sc 361.383	1744559.9	1744559.9	101.53 %		00:06:14
1	Y 371.029	1042741.7	1042741.7	101.56 %		00:06:14
1	Ag 328.068†	4186.7	32.1	0.1193 µg/L	0.1193 ppb	00:06:17
1	As 188.979†	-18.7	2.0	0.5980 µg/L	0.5980 ppb	00:06:37
1	B 249.677†	3571.6	11.8	0.1730 µg/L	0.1730 ppb	00:06:17
1	Ba 233.527†	-139.2	-1.2	-0.0046 µg/L	-0.0046 ppb	00:06:37
1	Be 313.107†	-1043.9	36.6	0.0085 µg/L	0.0085 ppb	00:06:17
1	Cd 226.502†	-108.8	11.0	0.0685 µg/L	0.0685 ppb	00:06:37
1	Co 228.616†	-174.1	18.9	0.2327 µg/L	0.2327 ppb	00:06:37
1	Cr 267.716†	183.3	2.0	0.0199 µg/L	0.0199 ppb	00:06:37
1	Cu 324.752†	3077.4	58.7	0.2245 µg/L	0.2245 ppb	00:06:17
1	Mn 257.610†	338.8	96.5	0.1197 µg/L	0.1197 ppb	00:06:37
1	Mo 202.031†	-20.8	-0.4	-0.0123 µg/L	-0.0123 ppb	00:06:37
1	Ni 231.604†	-93.1	-15.2	-0.1747 µg/L	-0.1747 ppb	00:06:37
1	P 214.914†	-36.4	-17.9	-3.8259 µg/L	-3.8259 ppb	00:06:37
1	Pb 220.353†	57.3	-30.0	-1.6686 µg/L	-1.6686 ppb	00:06:37
1	S 181.975 Axial†	88.1	-18.3	-13.601 µg/L	-13.601 ppb	00:06:37
1	Sb 206.836†	79.5	-2.5	-0.2998 µg/L	-0.2998 ppb	00:06:37
1	Se 196.026†	9.3	-6.1	-2.21 µg/L	-2.21 ppb	00:06:37
1	SiO2†	1791.0	-11.4	-1.1250 µg/L	-1.1250 ppb	00:06:37
1	Si 251.611†	1010.1	158.3	2.3292 µg/L	2.3292 ppb	00:06:17
1	Sn 189.927†	11.2	12.2	0.7593 µg/L	0.7593 ppb	00:06:37
1	Ti 334.940†	1000.8	33.1	0.0339 µg/L	0.0339 ppb	00:06:17
1	Tl 190.801†	-110.0	8.4	1.0319 µg/L	1.0319 ppb	00:06:37
1	U 409.014†	-359.2	-83.8	-4.8714 µg/L	-4.8714 ppb	00:06:17
1	V 292.402†	522.7	111.1	0.5380 µg/L	0.5380 ppb	00:06:17
1	Zn 213.857†	593.2	19.8	0.1119 µg/L	0.1119 ppb	00:06:37
2	Sc RADIAL	143483.1	143483.1	98.3 %		00:05:29
2	Al 396.153Radial†	-16.6	46.3	8.5924 µg/L	8.5924 ppb	00:05:49
2	Ca 317.933Radial†	577.4	26.6	1.4835 µg/L	1.4835 ppb	00:05:49
2	Fe 238.204 Radial†	204.6	60.0	3.6989 µg/L	3.6989 ppb	00:05:49
2	K 766.490 Radial†	1704.3	188.6	69.053 µg/L	69.053 ppb	00:05:29
2	Mg 279.077 IEC†	189.1	1.6	0.6009 µg/L	0.6009 ppb	00:05:49
2	Na 589.592 Radial†	1220.1	-49.9	-6.8835 µg/L	-6.8835 ppb	00:05:29
2	Sr 421.552†	-161.7	-29.2	-0.0607 µg/L	-0.0607 ppb	00:05:29
2	Sc 361.383	1736410.2	1736410.2	101.06 %		00:06:39
2	Y 371.029	1038399.6	1038399.6	101.14 %		00:06:39
2	Ag 328.068†	4135.3	0.6	-0.0060 µg/L	-0.0060 ppb	00:06:41
2	As 188.979†	-19.2	1.4	0.4208 µg/L	0.4208 ppb	00:07:01
2	B 249.677†	3492.1	-50.3	-0.7427 µg/L	-0.7427 ppb	00:06:41
2	Ba 233.527†	-117.3	19.8	0.0792 µg/L	0.0792 ppb	00:07:01
2	Be 313.107†	-747.8	324.8	0.0886 µg/L	0.0886 ppb	00:06:41
2	Cd 226.502†	-105.9	13.4	0.0831 µg/L	0.0831 ppb	00:07:01
2	Co 228.616†	-184.9	7.4	0.0911 µg/L	0.0911 ppb	00:07:01
2	Cr 267.716†	192.3	11.7	0.0910 µg/L	0.0910 ppb	00:07:01
2	Cu 324.752†	2966.8	-36.5	-0.1408 µg/L	-0.1408 ppb	00:06:41
2	Mn 257.610†	298.6	58.2	0.0720 µg/L	0.0720 ppb	00:07:01
2	Mo 202.031†	-25.8	-5.5	-0.1614 µg/L	-0.1614 ppb	00:07:01
2	Ni 231.604†	-94.3	-16.8	-0.1933 µg/L	-0.1933 ppb	00:07:01
2	P 214.914†	-43.0	-24.6	-5.2673 µg/L	-5.2673 ppb	00:07:01
2	Pb 220.353†	50.6	-36.3	-2.0267 µg/L	-2.0267 ppb	00:07:01

2	S 181.975 Axial†	98.0	-8.1	-5.9976 µg/L	-5.9976 ppb	00:07:01
2	Sb 206.836†	73.1	-8.5	-1.0121 µg/L	-1.0121 ppb	00:07:01
2	Se 196.026†	7.4	-8.0	-2.88 µg/L	-2.88 ppb	00:07:01
2	SiO2†	1801.8	7.6	0.7460 µg/L	0.7460 ppb	00:07:01
2	Si 251.611†	1048.9	201.3	2.9711 µg/L	2.9711 ppb	00:06:41
2	Sn 189.927†	-3.4	-2.2	-0.1383 µg/L	-0.1383 ppb	00:07:01
2	Ti 334.940†	957.4	-5.2	-0.0051 µg/L	-0.0051 ppb	00:06:41
2	Tl 190.801†	-118.7	-0.7	-0.0961 µg/L	-0.0961 ppb	00:07:01
2	U 409.014†	-264.8	7.9	0.4182 µg/L	0.4182 ppb	00:06:41
2	V 292.402†	254.9	-151.6	-0.7409 µg/L	-0.7409 ppb	00:06:41
2	Zn 213.857†	612.2	41.4	0.2335 µg/L	0.2335 ppb	00:07:01
3	Sc RADIAL	142535.7	142535.7	97.7 %		00:05:51
3	Al 396.153Radial†	-83.5	-22.3	-4.1548 µg/L	-4.1548 ppb	00:06:11
3	Ca 317.933Radial†	597.4	51.0	2.8434 µg/L	2.8434 ppb	00:06:11
3	Fe 238.204 Radial†	191.0	47.4	2.9218 µg/L	2.9218 ppb	00:06:11
3	K 766.490 Radial†	1524.6	16.2	5.9151 µg/L	5.9151 ppb	00:05:51
3	Mg 279.077 IEC†	219.6	34.1	12.715 µg/L	12.715 ppb	00:06:11
3	Na 589.592 Radial†	1205.9	-56.2	-7.6775 µg/L	-7.6775 ppb	00:05:51
3	Sr 421.552†	-165.9	-34.5	-0.0718 µg/L	-0.0718 ppb	00:05:51
3	Sc 361.383	1751391.9	1751391.9	101.93 %		00:07:03
3	Y 371.029	1047163.4	1047163.4	101.99 %		00:07:03
3	Ag 328.068†	4086.1	-82.7	-0.3037 µg/L	-0.3037 ppb	00:07:05
3	As 188.979†	-20.4	0.3	0.0989 µg/L	0.0989 ppb	00:07:25
3	B 249.677†	3537.9	-35.0	-0.5172 µg/L	-0.5172 ppb	00:07:05
3	Ba 233.527†	-136.9	1.6	0.0063 µg/L	0.0063 ppb	00:07:25
3	Be 313.107†	-940.8	141.7	0.0400 µg/L	0.0400 ppb	00:07:05
3	Cd 226.502†	-99.2	20.8	0.1299 µg/L	0.1299 ppb	00:07:25
3	Co 228.616†	-163.1	30.3	0.3737 µg/L	0.3737 ppb	00:07:25
3	Cr 267.716†	180.0	-1.9	-0.0191 µg/L	-0.0191 ppb	00:07:25
3	Cu 324.752†	2988.8	-40.1	-0.1508 µg/L	-0.1508 ppb	00:07:05
3	Mn 257.610†	300.0	57.1	0.0701 µg/L	0.0701 ppb	00:07:25
3	Mo 202.031†	-9.2	11.0	0.3249 µg/L	0.3249 ppb	00:07:25
3	Ni 231.604†	-68.4	9.4	0.1086 µg/L	0.1086 ppb	00:07:25
3	P 214.914†	-25.2	-6.8	-1.4485 µg/L	-1.4485 ppb	00:07:25
3	Pb 220.353†	102.3	13.9	0.7747 µg/L	0.7747 ppb	00:07:25
3	S 181.975 Axial†	101.0	-6.0	-4.4167 µg/L	-4.4167 ppb	00:07:25
3	Sb 206.836†	94.0	11.4	1.3649 µg/L	1.3649 ppb	00:07:25
3	Se 196.026†	14.1	-1.5	-0.521 µg/L	-0.521 ppb	00:07:25
3	SiO2†	1807.8	-1.8	-0.1882 µg/L	-0.1882 ppb	00:07:25
3	Si 251.611†	933.4	79.1	1.1603 µg/L	1.1603 ppb	00:07:05
3	Sn 189.927†	4.0	5.0	0.3117 µg/L	0.3117 ppb	00:07:25
3	Ti 334.940†	864.7	-104.2	-0.1002 µg/L	-0.1002 ppb	00:07:05
3	Tl 190.801†	-114.3	4.5	0.5538 µg/L	0.5538 ppb	00:07:25
3	U 409.014†	-194.1	79.5	4.6318 µg/L	4.6318 ppb	00:07:05
3	V 292.402†	357.1	-53.4	-0.2545 µg/L	-0.2545 ppb	00:07:05
3	Zn 213.857†	596.1	20.4	0.1133 µg/L	0.1133 ppb	00:07:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1744120.7	101.51 %	0.437			0.43%
Sc RADIAL	143303.7	98.2 %	0.48			0.49%
Y 371.029	1042768.2	101.57 %	0.427			0.42%
Ag 328.068†	-16.6	-0.0635 µg/L	0.21725	-0.0635 ppb	0.21725	342.30%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	10.9	2.0261 µg/L	6.38236	2.0261 ppb	6.38236	315.00%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.2	0.3726 µg/L	0.25303	0.3726 ppb	0.25303	67.91%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-24.5	-0.3623 µg/L	0.47710	-0.3623 ppb	0.47710	131.69%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	6.7	0.0270 µg/L	0.04553	0.0270 ppb	0.04553	168.83%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	167.7	0.0457 µg/L	0.04035	0.0457 ppb	0.04035	88.33%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	40.7	2.2684 µg/L	0.70382	2.2684 ppb	0.70382	31.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	15.1	0.0938 µg/L	0.03210	0.0938 ppb	0.03210	34.21%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	18.9	0.2325 µg/L	0.14130	0.2325 ppb	0.14130	60.78%

Cr	267.716†	QC value within limits for Co 228.616	Recovery = Not calculated			
		3.9	0.0306 µg/L	0.05579	0.0306 ppb	0.05579 182.28%
Cu	324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated			
		-5.9	-0.0224 µg/L	0.21387	-0.0224 ppb	0.21387 955.96%
Fe	238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated			
		55.9	3.4463 µg/L	0.45435	3.4463 ppb	0.45435 13.18%
K	766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated			
		100.2	36.676 µg/L	31.5999	36.676 ppb	31.5999 86.16%
Mg	279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated			
		2.5	0.9439 µg/L	11.60357	0.9439 ppb	11.60357 >999.9%
Mn	257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated			
		70.6	0.0873 µg/L	0.02814	0.0873 ppb	0.02814 32.24%
Mo	202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated			
		1.7	0.0504 µg/L	0.24911	0.0504 ppb	0.24911 494.16%
Na	589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated			
		-48.1	-6.6055 µg/L	1.23471	-6.6055 ppb	1.23471 18.69%
Ni	231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated			
		-7.5	-0.0864 µg/L	0.16920	-0.0864 ppb	0.16920 195.76%
P	214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated			
		-16.4	-3.5139 µg/L	1.92839	-3.5139 ppb	1.92839 54.88%
Pb	220.353†	QC value within limits for P 214.914	Recovery = Not calculated			
		-17.4	-0.9735 µg/L	1.52458	-0.9735 ppb	1.52458 156.60%
S	181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated			
		-10.8	-8.0052 µg/L	4.91049	-8.0052 ppb	4.91049 61.34%
Sb	206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated			
		0.1	0.0176 µg/L	1.21991	0.0176 ppb	1.21991 >999.9%
Se	196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated			
		-5.2	-1.87 µg/L	1.214	-1.87 ppb	1.214 64.95%
SiO2†		QC value within limits for Se 196.026	Recovery = Not calculated			
		-1.9	-0.1891 µg/L	0.93549	-0.1891 ppb	0.93549 494.80%
Si	251.611†	QC value within limits for SiO2	Recovery = Not calculated			
		146.3	2.1535 µg/L	0.91811	2.1535 ppb	0.91811 42.63%
Sn	189.927†	QC value within limits for Si 251.611	Recovery = Not calculated			
		5.0	0.3109 µg/L	0.44879	0.3109 ppb	0.44879 144.35%
Sr	421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated			
		-39.2	-0.0816 µg/L	0.02715	-0.0816 ppb	0.02715 33.27%
Ti	334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated			
		-25.4	-0.0238 µg/L	0.06900	-0.0238 ppb	0.06900 289.80%
Tl	190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated			
		4.1	0.4965 µg/L	0.56617	0.4965 ppb	0.56617 114.03%
U	409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated			
		1.2	0.0595 µg/L	4.76174	0.0595 ppb	4.76174 >999.9%
V	292.402†	QC value within limits for U 409.014	Recovery = Not calculated			
		-31.3	-0.1525 µg/L	0.64551	-0.1525 ppb	0.64551 423.36%
Zn	213.857†	QC value within limits for V 292.402	Recovery = Not calculated			
		27.2	0.1529 µg/L	0.06978	0.1529 ppb	0.06978 45.64%

QC value within limits for Zn 213.857 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 135

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/1/2010 0:18:32

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	143693.3	143693.3	98.5 %		00:19:06
1	Al 396.153Radial†	26289.1	26761.5	4939.5 µg/L	4939.5 ppb	00:19:06
1	Ca 317.933Radial†	86223.9	87005.4	4846.5 µg/L	4846.5 ppb	00:19:06
1	Fe 238.204 Radial†	77323.2	78378.5	4830.8 µg/L	4830.8 ppb	00:19:06
1	K 766.490 Radial†	14642.3	13325.5	4874.7 µg/L	4874.7 ppb	00:19:06
1	Mg 279.077 IEC†	13274.7	13290.6	4959.3 µg/L	4959.3 ppb	00:19:06
1	Na 589.592 Radial†	70897.3	70710.0	9655.5 µg/L	9655.5 ppb	00:19:06
1	Sr 421.552†	232660.3	236416.7	491.46 µg/L	491.46 ppb	00:19:04
1	Sc 361.383	1732669.7	1732669.7	100.84 %		00:19:19
1	Y 371.029	1023558.0	1023558.0	99.695 %		00:19:19
1	Ag 328.068†	133158.4	127956.3	479.77 µg/L	479.77 ppb	00:19:19
1	As 188.979†	1602.0	1609.0	493.54 µg/L	493.54 ppb	00:19:39
1	B 249.677†	35761.2	31957.0	469.65 µg/L	469.65 ppb	00:19:19
1	Ba 233.527†	119556.3	118694.9	478.69 µg/L	478.69 ppb	00:19:19
1	Be 313.107†	1785943.3	1772111.6	482.65 µg/L	482.65 ppb	00:19:19
1	Cd 226.502†	76830.5	76307.9	476.34 µg/L	476.34 ppb	00:19:19
1	Co 228.616†	38954.2	38819.6	479.23 µg/L	479.23 ppb	00:19:19
1	Cr 267.716†	61438.6	60747.5	475.65 µg/L	475.65 ppb	00:19:19
1	Cu 324.752†	126552.0	122524.2	477.63 µg/L	477.63 ppb	00:19:19
1	Mn 257.610†	392610.6	389098.6	481.22 µg/L	481.22 ppb	00:19:19
1	Mo 202.031†	16258.5	16143.0	474.86 µg/L	474.86 ppb	00:19:39
1	Ni 231.604†	41699.2	41427.9	477.01 µg/L	477.01 ppb	00:19:19
1	P 214.914†	11155.2	11080.1	2361.6 µg/L	2361.6 ppb	00:19:39
1	Pb 220.353†	8723.1	8564.0	479.58 µg/L	479.58 ppb	00:19:39
1	S 181.975 Axial†	1371.1	1254.6	935.65 µg/L	935.65 ppb	00:19:39
1	Sb 206.836†	4108.1	3993.0	475.73 µg/L	475.73 ppb	00:19:39
1	Se 196.026†	1329.1	1302.7	473 µg/L	473 ppb	00:19:39
1	SiO2†	54892.2	52659.0	5126.6 µg/L	5126.6 ppb	00:19:19
1	Si 251.611†	165952.1	163731.3	2404.4 µg/L	2404.4 ppb	00:19:19
1	Sn 189.927†	7677.7	7614.8	476.32 µg/L	476.32 ppb	00:19:39
1	Ti 334.940†	518688.0	513409.1	479.05 µg/L	479.05 ppb	00:19:19
1	Tl 190.801†	3776.5	3861.7	481.67 µg/L	481.67 ppb	00:19:39
1	U 409.014†	7234.1	7443.7	464.23 µg/L	464.23 ppb	00:19:19
1	V 292.402†	98487.7	97262.4	480.77 µg/L	480.77 ppb	00:19:19
1	Zn 213.857†	86132.8	84849.9	472.89 µg/L	472.89 ppb	00:19:19
2	Sc RADIAL	143019.1	143019.1	98.0 %		00:19:11
2	Al 396.153Radial†	26072.5	26666.3	4922.0 µg/L	4922.0 ppb	00:19:11
2	Ca 317.933Radial†	85527.1	86707.1	4829.9 µg/L	4829.9 ppb	00:19:11
2	Fe 238.204 Radial†	76547.8	77957.5	4804.8 µg/L	4804.8 ppb	00:19:11
2	K 766.490 Radial†	14325.9	13072.7	4782.1 µg/L	4782.1 ppb	00:19:11
2	Mg 279.077 IEC†	13110.0	13186.1	4920.4 µg/L	4920.4 ppb	00:19:11
2	Na 589.592 Radial†	70292.2	70432.0	9617.6 µg/L	9617.6 ppb	00:19:11
2	Sr 421.552†	230289.2	235111.2	488.74 µg/L	488.74 ppb	00:19:08
2	Sc 361.383	1739470.1	1739470.1	101.24 %		00:19:42
2	Y 371.029	1026926.3	1026926.3	100.02 %		00:19:42
2	Ag 328.068†	133611.7	127887.8	479.55 µg/L	479.55 ppb	00:19:42
2	As 188.979†	1611.8	1612.5	494.58 µg/L	494.58 ppb	00:20:03
2	B 249.677†	36044.8	32098.6	471.73 µg/L	471.73 ppb	00:19:42
2	Ba 233.527†	120143.8	118811.8	479.16 µg/L	479.16 ppb	00:19:42
2	Be 313.107†	1795420.8	1774549.5	483.31 µg/L	483.31 ppb	00:19:42
2	Cd 226.502†	77193.5	76368.5	476.73 µg/L	476.73 ppb	00:19:42
2	Co 228.616†	39216.7	38927.8	480.56 µg/L	480.56 ppb	00:19:42
2	Cr 267.716†	61736.3	60803.5	476.08 µg/L	476.08 ppb	00:19:42
2	Cu 324.752†	127273.9	122746.7	478.50 µg/L	478.50 ppb	00:19:42
2	Mn 257.610†	394321.6	389266.6	481.43 µg/L	481.43 ppb	00:19:42
2	Mo 202.031†	16252.9	16074.4	472.85 µg/L	472.85 ppb	00:20:03
2	Ni 231.604†	41949.4	41513.4	478.00 µg/L	478.00 ppb	00:19:42
2	P 214.914†	11147.1	11028.9	2350.7 µg/L	2350.7 ppb	00:20:03
2	Pb 220.353†	8700.2	8507.6	476.42 µg/L	476.42 ppb	00:20:03

2	S 181.975 Axial†	1373.5	1251.6	933.42 µg/L	933.42 ppb	00:20:03
2	Sb 206.836†	4110.6	3979.5	474.09 µg/L	474.09 ppb	00:20:03
2	Se 196.026†	1335.2	1303.6	473 µg/L	473 ppb	00:20:03
2	SiO2†	55200.8	52751.0	5135.7 µg/L	5135.7 ppb	00:19:42
2	Si 251.611†	166801.0	163926.5	2407.3 µg/L	2407.3 ppb	00:19:42
2	Sn 189.927†	7667.4	7574.8	473.83 µg/L	473.83 ppb	00:20:03
2	Ti 334.940†	521126.8	513807.3	479.42 µg/L	479.42 ppb	00:19:42
2	Tl 190.801†	3808.6	3878.7	483.77 µg/L	483.77 ppb	00:20:03
2	U 409.014†	7502.8	7681.0	478.15 µg/L	478.15 ppb	00:19:42
2	V 292.402†	99014.7	97401.2	481.44 µg/L	481.44 ppb	00:19:42
2	Zn 213.857†	86840.8	85215.4	474.94 µg/L	474.94 ppb	00:19:42
3	Sc RADIAL	143471.6	143471.6	98.3 %		00:19:15
3	Al 396.153Radial†	26187.7	26699.6	4927.9 µg/L	4927.9 ppb	00:19:15
3	Ca 317.933Radial†	86128.1	87043.2	4848.6 µg/L	4848.6 ppb	00:19:15
3	Fe 238.204 Radial†	76980.1	78150.9	4816.7 µg/L	4816.7 ppb	00:19:15
3	K 766.490 Radial†	14484.8	13188.2	4824.4 µg/L	4824.4 ppb	00:19:15
3	Mg 279.077 IEC†	13105.7	13139.6	4903.2 µg/L	4903.2 ppb	00:19:15
3	Na 589.592 Radial†	70971.5	70896.7	9681.1 µg/L	9681.1 ppb	00:19:15
3	Sr 421.552†	228010.1	232051.9	482.38 µg/L	482.38 ppb	00:19:13
3	Sc 361.383	1723745.5	1723745.5	100.32 %		00:20:06
3	Y 371.029	1018567.1	1018567.1	99.209 %		00:20:06
3	Ag 328.068†	132594.6	128078.0	480.26 µg/L	480.26 ppb	00:20:06
3	As 188.979†	1613.1	1628.3	499.38 µg/L	499.38 ppb	00:20:26
3	B 249.677†	35759.3	32138.8	472.33 µg/L	472.33 ppb	00:20:06
3	Ba 233.527†	118916.1	118670.6	478.60 µg/L	478.60 ppb	00:20:06
3	Be 313.107†	1776332.6	1771700.7	482.54 µg/L	482.54 ppb	00:20:06
3	Cd 226.502†	76456.3	76329.3	476.48 µg/L	476.48 ppb	00:20:06
3	Co 228.616†	38757.5	38823.5	479.27 µg/L	479.27 ppb	00:20:06
3	Cr 267.716†	61060.8	60686.4	475.16 µg/L	475.16 ppb	00:20:06
3	Cu 324.752†	125991.6	122615.4	477.99 µg/L	477.99 ppb	00:20:06
3	Mn 257.610†	390315.2	388826.2	480.89 µg/L	480.89 ppb	00:20:06
3	Mo 202.031†	16307.2	16275.0	478.74 µg/L	478.74 ppb	00:20:26
3	Ni 231.604†	41420.9	41364.6	476.28 µg/L	476.28 ppb	00:20:06
3	P 214.914†	11239.1	11221.0	2391.8 µg/L	2391.8 ppb	00:20:26
3	Pb 220.353†	8736.0	8621.6	482.80 µg/L	482.80 ppb	00:20:26
3	S 181.975 Axial†	1373.7	1264.3	942.85 µg/L	942.85 ppb	00:20:26
3	Sb 206.836†	4128.8	4034.7	480.77 µg/L	480.77 ppb	00:20:26
3	Se 196.026†	1340.4	1320.9	480 µg/L	480 ppb	00:20:26
3	SiO2†	54541.9	52591.7	5119.8 µg/L	5119.8 ppb	00:20:06
3	Si 251.611†	164960.5	163595.0	2402.3 µg/L	2402.3 ppb	00:20:06
3	Sn 189.927†	7724.8	7701.2	481.70 µg/L	481.70 ppb	00:20:26
3	Ti 334.940†	516519.7	513910.8	479.51 µg/L	479.51 ppb	00:20:06
3	Tl 190.801†	3789.6	3894.1	485.67 µg/L	485.67 ppb	00:20:26
3	U 409.014†	7419.9	7666.0	477.31 µg/L	477.31 ppb	00:20:06
3	V 292.402†	98262.8	97543.9	482.19 µg/L	482.19 ppb	00:20:06
3	Zn 213.857†	86081.7	85241.2	475.10 µg/L	475.10 ppb	00:20:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1731961.8	100.80 %	0.459			0.46%
Sc RADIAL	143394.7	98.3 %	0.24			0.24%
Y 371.029	1023017.1	99.642 %	0.4096			0.41%
Ag 328.068†	127974.1	479.86 µg/L	0.363	479.86 ppb	0.363	0.08%
QC value within limits for Ag 328.068 Recovery = 95.97%						
Al 396.153Radial†	26709.1	4929.8 µg/L	8.93	4929.8 ppb	8.93	0.18%
QC value within limits for Al 396.153Radial Recovery = 98.60%						
As 188.979†	1616.6	495.84 µg/L	3.115	495.84 ppb	3.115	0.63%
QC value within limits for As 188.979 Recovery = 99.17%						
B 249.677†	32064.8	471.24 µg/L	1.407	471.24 ppb	1.407	0.30%
QC value within limits for B 249.677 Recovery = 94.25%						
Ba 233.527†	118725.8	478.82 µg/L	0.303	478.82 ppb	0.303	0.06%
QC value within limits for Ba 233.527 Recovery = 95.76%						
Be 313.107†	1772787.2	482.83 µg/L	0.420	482.83 ppb	0.420	0.09%
QC value within limits for Be 313.107 Recovery = 96.57%						
Ca 317.933Radial†	86918.5	4841.7 µg/L	10.25	4841.7 ppb	10.25	0.21%
QC value within limits for Ca 317.933Radial Recovery = 96.83%						
Cd 226.502†	76335.3	476.52 µg/L	0.194	476.52 ppb	0.194	0.04%
QC value within limits for Cd 226.502 Recovery = 95.30%						
Co 228.616†	38857.0	479.69 µg/L	0.758	479.69 ppb	0.758	0.16%

QC value within limits for Co 228.616 Recovery = 95.94%							
Cr 267.716†	60745.8	475.63 µg/L	0.458	475.63 ppb	0.458	0.10%	
QC value within limits for Cr 267.716 Recovery = 95.13%							
Cu 324.752†	122628.7	478.04 µg/L	0.438	478.04 ppb	0.438	0.09%	
QC value within limits for Cu 324.752 Recovery = 95.61%							
Fe 238.204 Radial†	78162.3	4817.4 µg/L	12.99	4817.4 ppb	12.99	0.27%	
QC value within limits for Fe 238.204 Radial Recovery = 96.35%							
K 766.490 Radial†	13195.4	4827.1 µg/L	46.33	4827.1 ppb	46.33	0.96%	
QC value within limits for K 766.490 Radial Recovery = 96.54%							
Mg 279.077 IEC†	13205.4	4927.6 µg/L	28.77	4927.6 ppb	28.77	0.58%	
QC value within limits for Mg 279.077 IEC Recovery = 98.55%							
Mn 257.610†	389063.8	481.18 µg/L	0.275	481.18 ppb	0.275	0.06%	
QC value within limits for Mn 257.610 Recovery = 96.24%							
Mo 202.031†	16164.1	475.48 µg/L	2.996	475.48 ppb	2.996	0.63%	
QC value within limits for Mo 202.031 Recovery = 95.10%							
Na 589.592 Radial†	70679.5	9651.4 µg/L	31.92	9651.4 ppb	31.92	0.33%	
QC value within limits for Na 589.592 Radial Recovery = 96.51%							
Ni 231.604†	41435.3	477.10 µg/L	0.860	477.10 ppb	0.860	0.18%	
QC value within limits for Ni 231.604 Recovery = 95.42%							
P 214.914†	11110.0	2368.0 µg/L	21.28	2368.0 ppb	21.28	0.90%	
QC value within limits for P 214.914 Recovery = 94.72%							
Pb 220.353†	8564.4	479.60 µg/L	3.191	479.60 ppb	3.191	0.67%	
QC value within limits for Pb 220.353 Recovery = 95.92%							
S 181.975 Axial†	1256.8	937.31 µg/L	4.928	937.31 ppb	4.928	0.53%	
QC value within limits for S 181.975 Axial Recovery = 93.73%							
Sb 206.836†	4002.4	476.86 µg/L	3.479	476.86 ppb	3.479	0.73%	
QC value within limits for Sb 206.836 Recovery = 95.37%							
Se 196.026†	1309.1	475 µg/L	3.7	475 ppb	3.7	0.78%	
QC value within limits for Se 196.026 Recovery = 95.07%							
SiO2†	52667.2	5127.4 µg/L	7.96	5127.4 ppb	7.96	0.16%	
QC value within limits for SiO2 Recovery = 95.88%							
Si 251.611†	163751.0	2404.7 µg/L	2.52	2404.7 ppb	2.52	0.10%	
QC value within limits for Si 251.611 Recovery = 96.19%							
Sn 189.927†	7630.3	477.28 µg/L	4.026	477.28 ppb	4.026	0.84%	
QC value within limits for Sn 189.927 Recovery = 95.46%							
Sr 421.552†	234526.6	487.53 µg/L	4.658	487.53 ppb	4.658	0.96%	
QC value within limits for Sr 421.552 Recovery = 97.51%							
Ti 334.940†	513709.0	479.33 µg/L	0.247	479.33 ppb	0.247	0.05%	
QC value within limits for Ti 334.940 Recovery = 95.87%							
Tl 190.801†	3878.2	483.70 µg/L	1.997	483.70 ppb	1.997	0.41%	
QC value within limits for Tl 190.801 Recovery = 96.74%							
U 409.014†	7596.9	473.23 µg/L	7.805	473.23 ppb	7.805	1.65%	
QC value within limits for U 409.014 Recovery = 94.65%							
V 292.402†	97402.5	481.47 µg/L	0.711	481.47 ppb	0.711	0.15%	
QC value within limits for V 292.402 Recovery = 96.29%							
Zn 213.857†	85102.2	474.31 µg/L	1.230	474.31 ppb	1.230	0.26%	
QC value within limits for Zn 213.857 Recovery = 94.86%							
All analyte(s) passed QC.							

Sequence No.: 136

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/1/2010 0:20:34

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	143009.9	143009.9	98.0 %		00:21:03
1	Al 396.153Radial†	-51.4	10.8	1.9902 µg/L	1.9902 ppb	00:21:23
1	Ca 317.933Radial†	642.8	95.4	5.3133 µg/L	5.3133 ppb	00:21:23
1	Fe 238.204 Radial†	242.1	99.0	6.0996 µg/L	6.0996 ppb	00:21:23
1	K 766.490 Radial†	1742.8	233.6	85.512 µg/L	85.512 ppb	00:21:03
1	Mg 279.077 IEC†	198.4	11.8	4.3899 µg/L	4.3899 ppb	00:21:23
1	Na 589.592 Radial†	1320.5	56.6	7.6578 µg/L	7.6578 ppb	00:21:03
1	Sr 421.552†	-179.2	-47.6	-0.0989 µg/L	-0.0989 ppb	00:21:03
1	Sc 361.383	1732574.4	1732574.4	100.84 %		00:22:11
1	Y 371.029	1034944.7	1034944.7	100.80 %		00:22:11
1	Ag 328.068†	3967.9	-156.4	-0.6012 µg/L	-0.6012 ppb	00:22:13
1	As 188.979†	-22.3	-1.8	-0.5282 µg/L	-0.5282 ppb	00:22:33
1	B 249.677†	3471.6	-63.1	-0.9312 µg/L	-0.9312 ppb	00:22:13
1	Ba 233.527†	-105.4	31.3	0.1257 µg/L	0.1257 ppb	00:22:33
1	Be 313.107†	-924.2	148.2	0.0371 µg/L	0.0371 ppb	00:22:13
1	Cd 226.502†	-101.6	17.5	0.1086 µg/L	0.1086 ppb	00:22:33
1	Co 228.616†	-161.2	30.5	0.3758 µg/L	0.3758 ppb	00:22:33
1	Cr 267.716†	181.5	1.4	0.0194 µg/L	0.0194 ppb	00:22:33
1	Cu 324.752†	2984.5	-12.4	-0.0561 µg/L	-0.0561 ppb	00:22:13
1	Mn 257.610†	353.9	113.7	0.1405 µg/L	0.1405 ppb	00:22:33
1	Mo 202.031†	-15.2	5.0	0.1471 µg/L	0.1471 ppb	00:22:33
1	Ni 231.604†	-82.1	-4.9	-0.0564 µg/L	-0.0564 ppb	00:22:33
1	P 214.914†	-21.6	-3.4	-0.7405 µg/L	-0.7405 ppb	00:22:33
1	Pb 220.353†	58.7	-28.2	-1.5645 µg/L	-1.5645 ppb	00:22:33
1	S 181.975 Axial†	95.1	-10.7	-7.9545 µg/L	-7.9545 ppb	00:22:33
1	Sb 206.836†	91.5	9.9	1.1817 µg/L	1.1817 ppb	00:22:33
1	Se 196.026†	8.6	-6.7	-2.43 µg/L	-2.43 ppb	00:22:33
1	SiO2†	1790.8	0.6	0.0484 µg/L	0.0484 ppb	00:22:13
1	Si 251.611†	1020.2	175.2	2.5808 µg/L	2.5808 ppb	00:22:13
1	Sn 189.927†	0.3	1.4	0.0914 µg/L	0.0914 ppb	00:22:33
1	Ti 334.940†	1320.8	357.3	0.3381 µg/L	0.3381 ppb	00:22:13
1	Tl 190.801†	-122.8	-5.1	-0.6310 µg/L	-0.6310 ppb	00:22:33
1	U 409.014†	-460.1	-186.4	-10.938 µg/L	-10.938 ppb	00:22:13
1	V 292.402†	259.1	-146.8	-0.7228 µg/L	-0.7228 ppb	00:22:13
1	Zn 213.857†	639.8	70.1	0.3935 µg/L	0.3935 ppb	00:22:33
2	Sc RADIAL	145208.1	145208.1	99.5 %		00:21:25
2	Al 396.153Radial†	-65.6	-2.7	-0.5302 µg/L	-0.5302 ppb	00:21:45
2	Ca 317.933Radial†	617.9	60.4	3.3625 µg/L	3.3625 ppb	00:21:45
2	Fe 238.204 Radial†	235.5	88.5	5.4567 µg/L	5.4567 ppb	00:21:45
2	K 766.490 Radial†	1643.3	106.7	39.066 µg/L	39.066 ppb	00:21:25
2	Mg 279.077 IEC†	181.7	-8.1	-2.9996 µg/L	-2.9996 ppb	00:21:45
2	Na 589.592 Radial†	1254.4	-30.2	-4.1540 µg/L	-4.1540 ppb	00:21:25
2	Sr 421.552†	-222.0	-87.8	-0.1826 µg/L	-0.1826 ppb	00:21:25
2	Sc 361.383	1746141.6	1746141.6	101.63 %		00:22:35
2	Y 371.029	1043093.8	1043093.8	101.60 %		00:22:35
2	Ag 328.068†	4083.1	-73.6	-0.2839 µg/L	-0.2839 ppb	00:22:37
2	As 188.979†	-16.6	4.0	1.2226 µg/L	1.2226 ppb	00:22:58
2	B 249.677†	3623.9	60.1	0.8842 µg/L	0.8842 ppb	00:22:37
2	Ba 233.527†	-136.2	1.9	0.0073 µg/L	0.0073 ppb	00:22:58
2	Be 313.107†	-917.5	161.8	0.0425 µg/L	0.0425 ppb	00:22:37
2	Cd 226.502†	-112.9	7.1	0.0435 µg/L	0.0435 ppb	00:22:58
2	Co 228.616†	-155.9	36.9	0.4553 µg/L	0.4553 ppb	00:22:58
2	Cr 267.716†	191.2	9.5	0.0788 µg/L	0.0788 ppb	00:22:58
2	Cu 324.752†	3030.9	10.2	0.0363 µg/L	0.0363 ppb	00:22:37
2	Mn 257.610†	340.6	97.9	0.1212 µg/L	0.1212 ppb	00:22:58
2	Mo 202.031†	-3.6	16.6	0.4868 µg/L	0.4868 ppb	00:22:58
2	Ni 231.604†	-126.7	-48.2	-0.5549 µg/L	-0.5549 ppb	00:22:58
2	P 214.914†	-18.2	0.0	-0.0021 µg/L	-0.0021 ppb	00:22:58
2	Pb 220.353†	80.1	-7.6	-0.4191 µg/L	-0.4191 ppb	00:22:58

2	S 181.975 Axial†	92.6	-14.0	-10.355 µg/L	-10.355 ppb	00:22:58
2	Sb 206.836†	74.8	-7.3	-0.8573 µg/L	-0.8573 ppb	00:22:58
2	Se 196.026†	29.6	13.8	5.00 µg/L	5.00 ppb	00:22:58
2	SiO2†	1807.1	2.8	0.2551 µg/L	0.2551 ppb	00:22:37
2	Si 251.611†	912.7	61.5	0.8976 µg/L	0.8976 ppb	00:22:37
2	Sn 189.927†	5.4	6.4	0.3994 µg/L	0.3994 ppb	00:22:58
2	Ti 334.940†	911.5	-55.7	-0.0496 µg/L	-0.0496 ppb	00:22:37
2	Tl 190.801†	-107.6	10.8	1.3219 µg/L	1.3219 ppb	00:22:58
2	U 409.014†	-364.0	-88.2	-5.1839 µg/L	-5.1839 ppb	00:22:37
2	V 292.402†	324.6	-84.4	-0.4104 µg/L	-0.4104 ppb	00:22:37
2	Zn 213.857†	602.5	28.4	0.1627 µg/L	0.1627 ppb	00:22:58
3	Sc RADIAL	142939.6	142939.6	98.0 %		00:21:47
3	Al 396.153Radial†	-66.5	-4.7	-0.8930 µg/L	-0.8930 ppb	00:22:07
3	Ca 317.933Radial†	598.8	50.7	2.8256 µg/L	2.8256 ppb	00:22:07
3	Fe 238.204 Radial†	216.5	73.0	4.4964 µg/L	4.4964 ppb	00:22:07
3	K 766.490 Radial†	1593.8	82.4	30.155 µg/L	30.155 ppb	00:21:47
3	Mg 279.077 IEC†	176.4	-10.6	-3.9486 µg/L	-3.9486 ppb	00:22:07
3	Na 589.592 Radial†	1336.7	73.9	10.067 µg/L	10.067 ppb	00:21:47
3	Sr 421.552†	-79.1	54.6	0.1134 µg/L	0.1134 ppb	00:21:47
3	Sc 361.383	1720285.6	1720285.6	100.12 %		00:23:00
3	Y 371.029	1027937.7	1027937.7	100.12 %		00:23:00
3	Ag 328.068†	3952.7	-143.5	-0.5516 µg/L	-0.5516 ppb	00:23:02
3	As 188.979†	-14.9	5.5	1.6581 µg/L	1.6581 ppb	00:23:22
3	B 249.677†	3577.4	67.2	0.9901 µg/L	0.9901 ppb	00:23:02
3	Ba 233.527†	-138.9	-2.8	-0.0116 µg/L	-0.0116 ppb	00:23:22
3	Be 313.107†	-853.9	211.9	0.0539 µg/L	0.0539 ppb	00:23:02
3	Cd 226.502†	-97.9	20.4	0.1268 µg/L	0.1268 ppb	00:23:22
3	Co 228.616†	-169.6	20.9	0.2575 µg/L	0.2575 ppb	00:23:22
3	Cr 267.716†	194.2	15.4	0.1307 µg/L	0.1307 ppb	00:23:22
3	Cu 324.752†	2897.3	-78.4	-0.3143 µg/L	-0.3143 ppb	00:23:02
3	Mn 257.610†	316.9	79.2	0.0982 µg/L	0.0982 ppb	00:23:22
3	Mo 202.031†	-2.4	17.7	0.5206 µg/L	0.5206 ppb	00:23:22
3	Ni 231.604†	-79.7	-3.1	-0.0357 µg/L	-0.0357 ppb	00:23:22
3	P 214.914†	-14.8	3.1	0.6703 µg/L	0.6703 ppb	00:23:22
3	Pb 220.353†	65.3	-21.2	-1.1703 µg/L	-1.1703 ppb	00:23:22
3	S 181.975 Axial†	96.4	-8.8	-6.5340 µg/L	-6.5340 ppb	00:23:22
3	Sb 206.836†	95.7	14.7	1.7585 µg/L	1.7585 ppb	00:23:22
3	Se 196.026†	27.8	12.5	4.51 µg/L	4.51 ppb	00:23:22
3	SiO2†	1722.4	-55.0	-5.4009 µg/L	-5.4009 ppb	00:23:02
3	Si 251.611†	906.7	69.0	1.0061 µg/L	1.0061 ppb	00:23:02
3	Sn 189.927†	9.3	10.4	0.6455 µg/L	0.6455 ppb	00:23:22
3	Ti 334.940†	750.5	-203.0	-0.1841 µg/L	-0.1841 ppb	00:23:02
3	Tl 190.801†	-113.2	3.6	0.4390 µg/L	0.4390 ppb	00:23:22
3	U 409.014†	-484.4	-213.9	-12.531 µg/L	-12.531 ppb	00:23:02
3	V 292.402†	320.4	-83.8	-0.4117 µg/L	-0.4117 ppb	00:23:02
3	Zn 213.857†	604.4	39.2	0.2202 µg/L	0.2202 ppb	00:23:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1733000.6	100.86 %	0.753			0.75%
Sc RADIAL	143719.2	98.5 %	0.88			0.90%
Y 371.029	1035325.4	100.84 %	0.739			0.73%
Ag 328.068†	-124.5	-0.4789 µg/L	0.17068	-0.4789 ppb	0.17068	35.64%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	1.1	0.1890 µg/L	1.57038	0.1890 ppb	1.57038	830.86%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	2.6	0.7841 µg/L	1.15723	0.7841 ppb	1.15723	147.58%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	21.4	0.3144 µg/L	1.08004	0.3144 ppb	1.08004	343.55%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	10.1	0.0405 µg/L	0.07440	0.0405 ppb	0.07440	183.92%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	174.0	0.0445 µg/L	0.00860	0.0445 ppb	0.00860	19.32%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	68.8	3.8338 µg/L	1.30912	3.8338 ppb	1.30912	34.15%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	15.0	0.0930 µg/L	0.04379	0.0930 ppb	0.04379	47.11%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	29.4	0.3629 µg/L	0.09956	0.3629 ppb	0.09956	27.44%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	8.8	0.0763 µg/L	0.05570	0.0763 ppb	0.05570	73.02%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-26.9	-0.1114 µg/L	0.18174	-0.1114 ppb	0.18174	163.21%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	86.8	5.3509 µg/L	0.80679	5.3509 ppb	0.80679	15.08%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	140.9	51.578 µg/L	29.7235	51.578 ppb	29.7235	57.63%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-2.3	-0.8527 µg/L	4.56498	-0.8527 ppb	4.56498	535.33%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	96.9	0.1200 µg/L	0.02117	0.1200 ppb	0.02117	17.65%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	13.1	0.3848 µg/L	0.20656	0.3848 ppb	0.20656	53.68%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	33.4	4.5235 µg/L	7.61088	4.5235 ppb	7.61088	168.25%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-18.7	-0.2157 µg/L	0.29398	-0.2157 ppb	0.29398	136.32%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-0.1	-0.0241 µg/L	0.70567	-0.0241 ppb	0.70567	>999.9%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-19.0	-1.0513 µg/L	0.58190	-1.0513 ppb	0.58190	55.35%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-11.2	-8.2812 µg/L	1.93130	-8.2812 ppb	1.93130	23.32%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	5.8	0.6943 µg/L	1.37431	0.6943 ppb	1.37431	197.94%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	6.5	2.36 µg/L	4.154	2.36 ppb	4.154	176.05%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-17.2	-1.6992 µg/L	3.20748	-1.6992 ppb	3.20748	188.77%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	101.9	1.4948 µg/L	0.94203	1.4948 ppb	0.94203	63.02%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	6.1	0.3788 µg/L	0.27765	0.3788 ppb	0.27765	73.30%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-26.9	-0.0560 µg/L	0.15260	-0.0560 ppb	0.15260	272.31%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	32.9	0.0348 µg/L	0.27113	0.0348 ppb	0.27113	779.57%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	3.1	0.3767 µg/L	0.97795	0.3767 ppb	0.97795	259.64%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-162.8	-9.5509 µg/L	3.86489	-9.5509 ppb	3.86489	40.47%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-105.0	-0.5150 µg/L	0.18000	-0.5150 ppb	0.18000	34.95%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	45.9	0.2588 µg/L	0.12016	0.2588 ppb	0.12016	46.42%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 147

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/1/2010 0:42:50

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	145422.4	145422.4	99.7 %		00:43:24
1	Al 396.153Radial†	26455.2	26610.7	4911.5 µg/L	4911.5 ppb	00:43:24
1	Ca 317.933Radial†	86831.3	86573.7	4822.5 µg/L	4822.5 ppb	00:43:24
1	Fe 238.204 Radial†	77746.7	77869.8	4799.4 µg/L	4799.4 ppb	00:43:24
1	K 766.490 Radial†	15151.4	13659.4	4997.0 µg/L	4997.0 ppb	00:43:24
1	Mg 279.077 IEC†	13235.9	13091.4	4885.2 µg/L	4885.2 ppb	00:43:24
1	Na 589.592 Radial†	71616.2	70575.3	9637.0 µg/L	9637.0 ppb	00:43:24
1	Sr 421.552†	232582.8	233529.5	485.46 µg/L	485.46 ppb	00:43:22
1	Sc 361.383	1743598.2	1743598.2	101.48 %		00:43:51
1	Y 371.029	1031066.0	1031066.0	100.43 %		00:43:51
1	Ag 328.068†	133467.0	127432.8	477.84 µg/L	477.84 ppb	00:43:51
1	As 188.979†	1622.1	1618.8	496.49 µg/L	496.49 ppb	00:44:11
1	B 249.677†	35840.6	31813.0	467.53 µg/L	467.53 ppb	00:43:51
1	Ba 233.527†	120186.4	118572.7	478.20 µg/L	478.20 ppb	00:43:51
1	Be 313.107†	1790824.1	1765820.8	480.94 µg/L	480.94 ppb	00:43:51
1	Cd 226.502†	76550.4	75554.3	471.64 µg/L	471.64 ppb	00:43:51
1	Co 228.616†	38943.5	38566.9	476.11 µg/L	476.11 ppb	00:43:51
1	Cr 267.716†	61701.1	60624.4	474.67 µg/L	474.67 ppb	00:43:51
1	Cu 324.752†	126928.7	122108.9	476.02 µg/L	476.02 ppb	00:43:51
1	Mn 257.610†	393495.6	387530.4	479.28 µg/L	479.28 ppb	00:43:51
1	Mo 202.031†	16401.2	16182.5	476.02 µg/L	476.02 ppb	00:44:11
1	Ni 231.604†	41723.3	41192.5	474.30 µg/L	474.30 ppb	00:43:51
1	P 214.914†	11221.8	11076.4	2360.8 µg/L	2360.8 ppb	00:44:11
1	Pb 220.353†	8738.0	8524.4	477.36 µg/L	477.36 ppb	00:44:11
1	S 181.975 Axial†	1370.2	1245.2	928.69 µg/L	928.69 ppb	00:44:11
1	Sb 206.836†	4135.6	3994.6	475.95 µg/L	475.95 ppb	00:44:11
1	Se 196.026†	1352.3	1317.3	478 µg/L	478 ppb	00:44:11
1	SiO2†	55049.3	52472.6	5108.4 µg/L	5108.4 ppb	00:43:51
1	Si 251.611†	166176.8	162921.3	2392.5 µg/L	2392.5 ppb	00:43:51
1	Sn 189.927†	7712.3	7601.2	475.47 µg/L	475.47 ppb	00:44:11
1	Ti 334.940†	521331.2	512790.0	478.47 µg/L	478.47 ppb	00:43:51
1	Tl 190.801†	3813.4	3874.6	483.26 µg/L	483.26 ppb	00:44:11
1	U 409.014†	7540.1	7700.2	479.18 µg/L	479.18 ppb	00:43:51
1	V 292.402†	98936.9	97093.0	479.96 µg/L	479.96 ppb	00:43:51
1	Zn 213.857†	85977.6	84161.6	469.05 µg/L	469.05 ppb	00:43:51
2	Sc RADIAL	145725.8	145725.8	99.9 %		00:43:28
2	Al 396.153Radial†	26577.9	26678.3	4924.3 µg/L	4924.3 ppb	00:43:28
2	Ca 317.933Radial†	86949.3	86510.4	4819.0 µg/L	4819.0 ppb	00:43:28
2	Fe 238.204 Radial†	77908.9	77869.8	4799.4 µg/L	4799.4 ppb	00:43:28
2	K 766.490 Radial†	15116.5	13592.9	4972.6 µg/L	4972.6 ppb	00:43:28
2	Mg 279.077 IEC†	13204.2	13032.0	4862.9 µg/L	4862.9 ppb	00:43:28
2	Na 589.592 Radial†	71600.4	70409.8	9614.4 µg/L	9614.4 ppb	00:43:28
2	Sr 421.552†	232081.7	232541.8	483.40 µg/L	483.40 ppb	00:43:26
2	Sc 361.383	1761627.7	1761627.7	102.53 %		00:44:14
2	Y 371.029	1041782.4	1041782.4	101.47 %		00:44:14
2	Ag 328.068†	135437.6	128008.7	479.98 µg/L	479.98 ppb	00:44:14
2	As 188.979†	1618.9	1599.4	490.58 µg/L	490.58 ppb	00:44:34
2	B 249.677†	36451.8	32047.6	470.98 µg/L	470.98 ppb	00:44:14
2	Ba 233.527†	121402.3	118546.6	478.09 µg/L	478.09 ppb	00:44:14
2	Be 313.107†	1815831.0	1772149.9	482.66 µg/L	482.66 ppb	00:44:14
2	Cd 226.502†	77854.0	76053.7	474.76 µg/L	474.76 ppb	00:44:14
2	Co 228.616†	39625.6	38839.4	479.47 µg/L	479.47 ppb	00:44:14
2	Cr 267.716†	62161.5	60451.1	473.32 µg/L	473.32 ppb	00:44:14
2	Cu 324.752†	128573.2	122432.6	477.28 µg/L	477.28 ppb	00:44:14
2	Mn 257.610†	398371.0	388317.0	480.26 µg/L	480.26 ppb	00:44:14
2	Mo 202.031†	16410.2	16025.9	471.42 µg/L	471.42 ppb	00:44:34
2	Ni 231.604†	42364.7	41397.3	476.66 µg/L	476.66 ppb	00:44:14
2	P 214.914†	11239.3	10980.3	2340.3 µg/L	2340.3 ppb	00:44:34
2	Pb 220.353†	8812.8	8509.3	476.51 µg/L	476.51 ppb	00:44:34

2	S 181.975 Axial†	1368.5	1229.8	917.16 µg/L	917.16 ppb	00:44:34
2	Sb 206.836†	4132.0	3949.3	470.52 µg/L	470.52 ppb	00:44:34
2	Se 196.026†	1324.7	1276.8	464 µg/L	464 ppb	00:44:34
2	SiO2†	55692.7	52545.0	5115.6 µg/L	5115.6 ppb	00:44:14
2	Si 251.611†	168404.8	163418.4	2399.9 µg/L	2399.9 ppb	00:44:14
2	Sn 189.927†	7723.1	7533.9	471.28 µg/L	471.28 ppb	00:44:34
2	Ti 334.940†	526897.4	512961.1	478.63 µg/L	478.63 ppb	00:44:14
2	Tl 190.801†	3822.8	3845.3	479.65 µg/L	479.65 ppb	00:44:34
2	U 409.014†	7487.3	7572.7	471.77 µg/L	471.77 ppb	00:44:14
2	V 292.402†	100123.8	97252.7	480.69 µg/L	480.69 ppb	00:44:14
2	Zn 213.857†	87731.8	85005.5	473.77 µg/L	473.77 ppb	00:44:14
3	Sc RADIAL	145384.0	145384.0	99.6 %		00:43:32
3	Al 396.153Radial†	26816.5	26980.4	4980.1 µg/L	4980.1 ppb	00:43:32
3	Ca 317.933Radial†	87178.4	86945.1	4843.2 µg/L	4843.2 ppb	00:43:32
3	Fe 238.204 Radial†	78269.7	78415.4	4833.0 µg/L	4833.0 ppb	00:43:32
3	K 766.490 Radial†	15108.8	13620.7	4982.8 µg/L	4982.8 ppb	00:43:32
3	Mg 279.077 IEC†	13407.1	13266.7	4950.4 µg/L	4950.4 ppb	00:43:32
3	Na 589.592 Radial†	71569.6	70547.5	9633.2 µg/L	9633.2 ppb	00:43:32
3	Sr 421.552†	232881.6	233891.1	486.21 µg/L	486.21 ppb	00:43:30
3	Sc 361.383	1742785.1	1742785.1	101.43 %		00:44:37
3	Y 371.029	1031123.9	1031123.9	100.43 %		00:44:37
3	Ag 328.068†	133463.3	127490.6	478.04 µg/L	478.04 ppb	00:44:37
3	As 188.979†	1602.4	1600.2	490.85 µg/L	490.85 ppb	00:44:57
3	B 249.677†	35982.1	31968.9	469.83 µg/L	469.83 ppb	00:44:37
3	Ba 233.527†	120198.2	118639.6	478.47 µg/L	478.47 ppb	00:44:37
3	Be 313.107†	1793841.1	1769618.6	481.97 µg/L	481.97 ppb	00:44:37
3	Cd 226.502†	76743.1	75779.4	473.04 µg/L	473.04 ppb	00:44:37
3	Co 228.616†	39088.6	38727.9	478.09 µg/L	478.09 ppb	00:44:37
3	Cr 267.716†	61579.9	60533.3	473.97 µg/L	473.97 ppb	00:44:37
3	Cu 324.752†	127002.6	122240.1	476.52 µg/L	476.52 ppb	00:44:37
3	Mn 257.610†	393720.4	387932.9	479.78 µg/L	479.78 ppb	00:44:37
3	Mo 202.031†	16368.1	16157.5	475.29 µg/L	475.29 ppb	00:44:57
3	Ni 231.604†	41714.9	41203.3	474.43 µg/L	474.43 ppb	00:44:37
3	P 214.914†	11213.9	11073.8	2360.3 µg/L	2360.3 ppb	00:44:57
3	Pb 220.353†	8765.9	8556.0	479.14 µg/L	479.14 ppb	00:44:57
3	S 181.975 Axial†	1369.3	1244.9	928.45 µg/L	928.45 ppb	00:44:57
3	Sb 206.836†	4132.6	3993.6	475.83 µg/L	475.83 ppb	00:44:57
3	Se 196.026†	1350.4	1316.1	478 µg/L	478 ppb	00:44:57
3	SiO2†	54988.6	52438.1	5105.0 µg/L	5105.0 ppb	00:44:37
3	Si 251.611†	166378.2	163196.2	2396.5 µg/L	2396.5 ppb	00:44:37
3	Sn 189.927†	7736.3	7628.4	477.16 µg/L	477.16 ppb	00:44:57
3	Ti 334.940†	521282.1	512981.2	478.65 µg/L	478.65 ppb	00:44:37
3	Tl 190.801†	3826.1	3888.8	485.00 µg/L	485.00 ppb	00:44:57
3	U 409.014†	7233.1	7401.1	461.69 µg/L	461.69 ppb	00:44:37
3	V 292.402†	98911.9	97113.8	480.04 µg/L	480.04 ppb	00:44:37
3	Zn 213.857†	86546.2	84761.8	472.42 µg/L	472.42 ppb	00:44:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1749337.0	101.81 %	0.620			0.61%
Sc RADIAL	145510.7	99.7 %	0.13			0.13%
Y 371.029	1034657.4	100.78 %	0.601			0.60%
Ag 328.068†	127644.0	478.62 µg/L	1.180	478.62 ppb	1.180	0.25%
QC value within limits for Ag 328.068 Recovery = 95.72%						
Al 396.153Radial†	26756.5	4938.6 µg/L	36.47	4938.6 ppb	36.47	0.74%
QC value within limits for Al 396.153Radial Recovery = 98.77%						
As 188.979†	1606.1	492.64 µg/L	3.336	492.64 ppb	3.336	0.68%
QC value within limits for As 188.979 Recovery = 98.53%						
B 249.677†	31943.2	469.45 µg/L	1.755	469.45 ppb	1.755	0.37%
QC value within limits for B 249.677 Recovery = 93.89%						
Ba 233.527†	118586.3	478.25 µg/L	0.193	478.25 ppb	0.193	0.04%
QC value within limits for Ba 233.527 Recovery = 95.65%						
Be 313.107†	1769196.4	481.85 µg/L	0.866	481.85 ppb	0.866	0.18%
QC value within limits for Be 313.107 Recovery = 96.37%						
Ca 317.933Radial†	86676.4	4828.2 µg/L	13.08	4828.2 ppb	13.08	0.27%
QC value within limits for Ca 317.933Radial Recovery = 96.56%						
Cd 226.502†	75795.8	473.15 µg/L	1.563	473.15 ppb	1.563	0.33%
QC value within limits for Cd 226.502 Recovery = 94.63%						
Co 228.616†	38711.4	477.89 µg/L	1.690	477.89 ppb	1.690	0.35%

QC value within limits for Co 228.616 Recovery = 95.58%							
Cr 267.716†	60536.3	473.99 µg/L	0.676	473.99 ppb	0.676	0.14%	
QC value within limits for Cr 267.716 Recovery = 94.80%							
Cu 324.752†	122260.5	476.61 µg/L	0.631	476.61 ppb	0.631	0.13%	
QC value within limits for Cu 324.752 Recovery = 95.32%							
Fe 238.204 Radial†	78051.7	4810.6 µg/L	19.41	4810.6 ppb	19.41	0.40%	
QC value within limits for Fe 238.204 Radial Recovery = 96.21%							
K 766.490 Radial†	13624.4	4984.1 µg/L	12.24	4984.1 ppb	12.24	0.25%	
QC value within limits for K 766.490 Radial Recovery = 99.68%							
Mg 279.077 IEC†	13130.0	4899.5 µg/L	45.49	4899.5 ppb	45.49	0.93%	
QC value within limits for Mg 279.077 IEC Recovery = 97.99%							
Mn 257.610†	387926.8	479.77 µg/L	0.487	479.77 ppb	0.487	0.10%	
QC value within limits for Mn 257.610 Recovery = 95.95%							
Mo 202.031†	16121.9	474.24 µg/L	2.474	474.24 ppb	2.474	0.52%	
QC value within limits for Mo 202.031 Recovery = 94.85%							
Na 589.592 Radial†	70510.9	9628.2 µg/L	12.09	9628.2 ppb	12.09	0.13%	
QC value within limits for Na 589.592 Radial Recovery = 96.28%							
Ni 231.604†	41264.4	475.13 µg/L	1.327	475.13 ppb	1.327	0.28%	
QC value within limits for Ni 231.604 Recovery = 95.03%							
P 214.914†	11043.5	2353.8 µg/L	11.71	2353.8 ppb	11.71	0.50%	
QC value within limits for P 214.914 Recovery = 94.15%							
Pb 220.353†	8529.9	477.67 µg/L	1.340	477.67 ppb	1.340	0.28%	
QC value within limits for Pb 220.353 Recovery = 95.53%							
S 181.975 Axial†	1240.0	924.77 µg/L	6.587	924.77 ppb	6.587	0.71%	
QC value within limits for S 181.975 Axial Recovery = 92.48%							
Sb 206.836†	3979.2	474.10 µg/L	3.102	474.10 ppb	3.102	0.65%	
QC value within limits for Sb 206.836 Recovery = 94.82%							
Se 196.026†	1303.4	473 µg/L	8.3	473 ppb	8.3	1.76%	
QC value within limits for Se 196.026 Recovery = 94.66%							
SiO2†	52485.2	5109.7 µg/L	5.44	5109.7 ppb	5.44	0.11%	
QC value within limits for SiO2 Recovery = 95.55%							
Si 251.611†	163178.7	2396.3 µg/L	3.71	2396.3 ppb	3.71	0.15%	
QC value within limits for Si 251.611 Recovery = 95.85%							
Sn 189.927†	7587.8	474.63 µg/L	3.030	474.63 ppb	3.030	0.64%	
QC value within limits for Sn 189.927 Recovery = 94.93%							
Sr 421.552†	233320.8	485.02 µg/L	1.452	485.02 ppb	1.452	0.30%	
QC value within limits for Sr 421.552 Recovery = 97.00%							
Ti 334.940†	512910.7	478.58 µg/L	0.100	478.58 ppb	0.100	0.02%	
QC value within limits for Ti 334.940 Recovery = 95.72%							
Tl 190.801†	3869.6	482.64 µg/L	2.728	482.64 ppb	2.728	0.57%	
QC value within limits for Tl 190.801 Recovery = 96.53%							
U 409.014†	7558.0	470.88 µg/L	8.779	470.88 ppb	8.779	1.86%	
QC value within limits for U 409.014 Recovery = 94.18%							
V 292.402†	97153.2	480.23 µg/L	0.396	480.23 ppb	0.396	0.08%	
QC value within limits for V 292.402 Recovery = 96.05%							
Zn 213.857†	84643.0	471.74 µg/L	2.432	471.74 ppb	2.432	0.52%	
QC value within limits for Zn 213.857 Recovery = 94.35%							
All analyte(s) passed QC.							

Sequence No.: 148

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/1/2010 0:45:05

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	145813.7	145813.7	99.9 %		00:45:34
1	Al 396.153Radial†	-21.5	41.7	7.7141 µg/L	7.7141 ppb	00:45:54
1	Ca 317.933Radial†	660.7	100.6	5.6043 µg/L	5.6043 ppb	00:45:54
1	Fe 238.204 Radial†	255.4	107.5	6.6275 µg/L	6.6275 ppb	00:45:54
1	K 766.490 Radial†	1930.6	387.4	141.83 µg/L	141.83 ppb	00:45:34
1	Mg 279.077 IEC†	169.2	-21.4	-7.9590 µg/L	-7.9590 ppb	00:45:54
1	Na 589.592 Radial†	1419.6	130.0	17.627 µg/L	17.627 ppb	00:45:34
1	Sr 421.552†	-123.1	12.1	0.0251 µg/L	0.0251 ppb	00:45:34
1	Sc 361.383	1750408.8	1750408.8	101.87 %		00:46:42
1	Y 371.029	1046340.0	1046340.0	101.91 %		00:46:42
1	Ag 328.068†	4173.7	5.5	0.0313 µg/L	0.0313 ppb	00:46:44
1	As 188.979†	-12.6	8.0	2.4214 µg/L	2.4214 ppb	00:47:04
1	B 249.677†	3555.6	-15.7	-0.2323 µg/L	-0.2323 ppb	00:47:04
1	Ba 233.527†	-101.3	36.4	0.1474 µg/L	0.1474 ppb	00:47:04
1	Be 313.107†	-795.6	283.7	0.0772 µg/L	0.0772 ppb	00:46:44
1	Cd 226.502†	-95.6	24.3	0.1514 µg/L	0.1514 ppb	00:47:04
1	Co 228.616†	-179.6	14.0	0.1728 µg/L	0.1728 ppb	00:47:04
1	Cr 267.716†	177.0	-4.8	-0.0365 µg/L	-0.0365 ppb	00:47:04
1	Cu 324.752†	2909.7	-116.1	-0.4503 µg/L	-0.4503 ppb	00:46:44
1	Mn 257.610†	386.8	142.4	0.1765 µg/L	0.1765 ppb	00:47:04
1	Mo 202.031†	-2.5	17.7	0.5193 µg/L	0.5193 ppb	00:47:04
1	Ni 231.604†	-67.3	10.4	0.1201 µg/L	0.1201 ppb	00:47:04
1	P 214.914†	-26.0	-7.6	-1.6208 µg/L	-1.6208 ppb	00:47:04
1	Pb 220.353†	94.4	6.3	0.3548 µg/L	0.3548 ppb	00:47:04
1	S 181.975 Axial†	101.3	-5.6	-4.1728 µg/L	-4.1728 ppb	00:47:04
1	Sb 206.836†	78.6	-3.7	-0.4248 µg/L	-0.4248 ppb	00:47:04
1	Se 196.026†	14.9	-0.6	-0.221 µg/L	-0.221 ppb	00:47:04
1	SiO2†	1836.9	27.8	2.6939 µg/L	2.6939 ppb	00:47:04
1	Si 251.611†	938.9	85.0	1.2435 µg/L	1.2435 ppb	00:46:44
1	Sn 189.927†	6.9	7.9	0.4933 µg/L	0.4933 ppb	00:47:04
1	Ti 334.940†	1245.9	270.5	0.2536 µg/L	0.2536 ppb	00:46:44
1	Tl 190.801†	-106.7	11.9	1.4748 µg/L	1.4748 ppb	00:47:04
1	U 409.014†	-279.4	-4.3	-0.1987 µg/L	-0.1987 ppb	00:46:44
1	V 292.402†	610.8	195.8	0.9591 µg/L	0.9591 ppb	00:46:44
1	Zn 213.857†	602.2	26.7	0.1490 µg/L	0.1490 ppb	00:47:04
2	Sc RADIAL	145033.3	145033.3	99.4 %		00:45:56
2	Al 396.153Radial†	-65.1	-2.3	-0.4158 µg/L	-0.4158 ppb	00:46:16
2	Ca 317.933Radial†	657.9	101.4	5.6466 µg/L	5.6466 ppb	00:46:16
2	Fe 238.204 Radial†	255.9	109.4	6.7397 µg/L	6.7397 ppb	00:46:16
2	K 766.490 Radial†	1898.9	365.8	133.93 µg/L	133.93 ppb	00:45:56
2	Mg 279.077 IEC†	184.6	-5.0	-1.8665 µg/L	-1.8665 ppb	00:46:16
2	Na 589.592 Radial†	1425.5	143.5	19.480 µg/L	19.480 ppb	00:45:56
2	Sr 421.552†	-181.0	-46.9	-0.0975 µg/L	-0.0975 ppb	00:45:56
2	Sc 361.383	1733689.5	1733689.5	100.90 %		00:47:06
2	Y 371.029	1035932.6	1035932.6	100.90 %		00:47:06
2	Ag 328.068†	4170.2	41.6	0.1255 µg/L	0.1255 ppb	00:47:08
2	As 188.979†	-26.8	-6.2	-1.8781 µg/L	-1.8781 ppb	00:47:28
2	B 249.677†	3534.2	-3.2	-0.0484 µg/L	-0.0484 ppb	00:47:28
2	Ba 233.527†	-142.6	-5.5	-0.0225 µg/L	-0.0225 ppb	00:47:28
2	Be 313.107†	-653.6	416.9	0.1076 µg/L	0.1076 ppb	00:47:08
2	Cd 226.502†	-96.3	22.8	0.1415 µg/L	0.1415 ppb	00:47:28
2	Co 228.616†	-179.3	12.7	0.1558 µg/L	0.1558 ppb	00:47:28
2	Cr 267.716†	198.6	18.3	0.1585 µg/L	0.1585 ppb	00:47:28
2	Cu 324.752†	3088.6	88.8	0.3301 µg/L	0.3301 ppb	00:47:08
2	Mn 257.610†	332.3	92.1	0.1140 µg/L	0.1140 ppb	00:47:28
2	Mo 202.031†	-28.0	-7.7	-0.2262 µg/L	-0.2262 ppb	00:47:28
2	Ni 231.604†	-93.8	-16.5	-0.1899 µg/L	-0.1899 ppb	00:47:28
2	P 214.914†	-21.8	-3.7	-0.7885 µg/L	-0.7885 ppb	00:47:28
2	Pb 220.353†	61.7	-25.2	-1.3944 µg/L	-1.3944 ppb	00:47:28

2	S 181.975 Axial†	90.5	-15.4	-11.437 µg/L	-11.437 ppb	00:47:28
2	Sb 206.836†	79.2	-2.4	-0.2858 µg/L	-0.2858 ppb	00:47:28
2	Se 196.026†	19.9	4.4	1.59 µg/L	1.59 ppb	00:47:28
2	SiO2†	1761.9	-29.2	-2.8510 µg/L	-2.8510 ppb	00:47:28
2	Si 251.611†	952.2	107.2	1.5818 µg/L	1.5818 ppb	00:47:08
2	Sn 189.927†	1.6	2.7	0.1708 µg/L	0.1708 ppb	00:47:28
2	Ti 334.940†	1138.7	176.0	0.1727 µg/L	0.1727 ppb	00:47:08
2	Tl 190.801†	-112.9	4.8	0.5868 µg/L	0.5868 ppb	00:47:28
2	U 409.014†	-610.9	-335.5	-19.639 µg/L	-19.639 ppb	00:47:08
2	V 292.402†	335.6	-71.2	-0.3633 µg/L	-0.3633 ppb	00:47:08
2	Zn 213.857†	609.0	39.1	0.2201 µg/L	0.2201 ppb	00:47:28
3	Sc RADIAL	144640.1	144640.1	99.1 %		00:46:18
3	Al 396.153Radial†	-16.5	46.5	8.6229 µg/L	8.6229 ppb	00:46:38
3	Ca 317.933Radial†	641.2	86.3	4.8083 µg/L	4.8083 ppb	00:46:38
3	Fe 238.204 Radial†	234.4	88.4	5.4482 µg/L	5.4482 ppb	00:46:38
3	K 766.490 Radial†	1840.5	312.1	114.26 µg/L	114.26 ppb	00:46:18
3	Mg 279.077 IEC†	179.1	-10.0	-3.7407 µg/L	-3.7407 ppb	00:46:38
3	Na 589.592 Radial†	1296.3	17.0	2.2230 µg/L	2.2230 ppb	00:46:18
3	Sr 421.552†	-133.6	0.5	0.0010 µg/L	0.0010 ppb	00:46:18
3	Sc 361.383	1767241.8	1767241.8	102.85 %		00:47:31
3	Y 371.029	1055815.3	1055815.3	102.84 %		00:47:31
3	Ag 328.068†	4233.0	24.2	0.0732 µg/L	0.0732 ppb	00:47:33
3	As 188.979†	-18.4	2.5	0.7561 µg/L	0.7561 ppb	00:47:53
3	B 249.677†	3514.8	-88.6	-1.3075 µg/L	-1.3075 ppb	00:47:53
3	Ba 233.527†	-120.1	19.1	0.0763 µg/L	0.0763 ppb	00:47:53
3	Be 313.107†	-970.1	121.5	0.0322 µg/L	0.0322 ppb	00:47:33
3	Cd 226.502†	-78.9	41.4	0.2583 µg/L	0.2583 ppb	00:47:53
3	Co 228.616†	-184.4	11.0	0.1355 µg/L	0.1355 ppb	00:47:53
3	Cr 267.716†	190.1	6.2	0.0509 µg/L	0.0509 ppb	00:47:53
3	Cu 324.752†	2968.8	-85.8	-0.3350 µg/L	-0.3350 ppb	00:47:33
3	Mn 257.610†	335.2	88.6	0.1098 µg/L	0.1098 ppb	00:47:53
3	Mo 202.031†	-18.5	2.1	0.0614 µg/L	0.0614 ppb	00:47:53
3	Ni 231.604†	-69.8	8.6	0.0995 µg/L	0.0995 ppb	00:47:53
3	P 214.914†	-21.0	-2.5	-0.5265 µg/L	-0.5265 ppb	00:47:53
3	Pb 220.353†	70.5	-17.8	-0.9923 µg/L	-0.9923 ppb	00:47:53
3	S 181.975 Axial†	109.4	1.3	0.9740 µg/L	0.9740 ppb	00:47:53
3	Sb 206.836†	82.2	-0.9	-0.1044 µg/L	-0.1044 ppb	00:47:53
3	Se 196.026†	22.8	6.9	2.49 µg/L	2.49 ppb	00:47:53
3	SiO2†	1817.9	-7.9	-0.7787 µg/L	-0.7787 ppb	00:47:53
3	Si 251.611†	954.5	91.5	1.3450 µg/L	1.3450 ppb	00:47:33
3	Sn 189.927†	5.8	6.8	0.4211 µg/L	0.4211 ppb	00:47:53
3	Ti 334.940†	1018.9	38.1	0.0372 µg/L	0.0372 ppb	00:47:33
3	Tl 190.801†	-118.1	1.9	0.2233 µg/L	0.2233 ppb	00:47:53
3	U 409.014†	-329.7	-50.7	-3.0245 µg/L	-3.0245 ppb	00:47:33
3	V 292.402†	193.7	-215.4	-1.0528 µg/L	-1.0528 ppb	00:47:33
3	Zn 213.857†	612.8	31.3	0.1753 µg/L	0.1753 ppb	00:47:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1750446.7	101.88 %	0.976			0.96%
Sc RADIAL	145162.4	99.5 %	0.41			0.41%
Y 371.029	1046029.3	101.88 %	0.969			0.95%
Ag 328.068†	23.8	0.0767 µg/L	0.04716	0.0767 ppb	0.04716	61.52%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	28.7	5.3071 µg/L	4.97697	5.3071 ppb	4.97697	93.78%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.4	0.4331 µg/L	2.16790	0.4331 ppb	2.16790	500.51%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-35.9	-0.5294 µg/L	0.68010	-0.5294 ppb	0.68010	128.47%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	16.7	0.0671 µg/L	0.08530	0.0671 ppb	0.08530	127.20%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	274.1	0.0723 µg/L	0.03793	0.0723 ppb	0.03793	52.45%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	96.1	5.3530 µg/L	0.47226	5.3530 ppb	0.47226	8.82%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	29.5	0.1837 µg/L	0.06479	0.1837 ppb	0.06479	35.27%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	12.6	0.1547 µg/L	0.01867	0.1547 ppb	0.01867	12.07%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	6.6	0.0576 µg/L	0.09767	0.0576 ppb	0.09767	169.60%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-37.7	-0.1518 µg/L	0.42126	-0.1518 ppb	0.42126	277.60%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	101.8	6.2718 µg/L	0.71549	6.2718 ppb	0.71549	11.41%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	355.1	130.01 µg/L	14.197	130.01 ppb	14.197	10.92%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-12.1	-4.5221 µg/L	3.12050	-4.5221 ppb	3.12050	69.01%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	107.7	0.1334 µg/L	0.03737	0.1334 ppb	0.03737	28.01%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	4.0	0.1182 µg/L	0.37600	0.1182 ppb	0.37600	318.18%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	96.8	13.110 µg/L	9.4739	13.110 ppb	9.4739	72.26%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	0.9	0.0099 µg/L	0.17332	0.0099 ppb	0.17332	>999.9%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-4.6	-0.9786 µg/L	0.57141	-0.9786 ppb	0.57141	58.39%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-12.3	-0.6773 µg/L	0.91616	-0.6773 ppb	0.91616	135.26%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-6.6	-4.8786 µg/L	6.23561	-4.8786 ppb	6.23561	127.82%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-2.3	-0.2716 µg/L	0.16066	-0.2716 ppb	0.16066	59.14%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	3.6	1.28 µg/L	1.379	1.28 ppb	1.379	107.38%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-3.1	-0.3119 µg/L	2.80175	-0.3119 ppb	2.80175	898.16%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	94.6	1.3901 µg/L	0.17359	1.3901 ppb	0.17359	12.49%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	5.8	0.3617 µg/L	0.16924	0.3617 ppb	0.16924	46.78%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-11.4	-0.0238 µg/L	0.06494	-0.0238 ppb	0.06494	273.03%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	161.5	0.1545 µg/L	0.10934	0.1545 ppb	0.10934	70.77%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	6.2	0.7616 µg/L	0.64382	0.7616 ppb	0.64382	84.53%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-130.2	-7.6208 µg/L	10.50370	-7.6208 ppb	10.50370	137.83%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-30.3	-0.1523 µg/L	1.02242	-0.1523 ppb	1.02242	671.32%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	32.4	0.1815 µg/L	0.03598	0.1815 ppb	0.03598	19.83%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 158

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/1/2010 1:06:58

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	146522.6	146522.6	100 %		01:07:32
1	Al 396.153Radial†	26773.8	26728.7	4933.4 µg/L	4933.4 ppb	01:07:32
1	Ca 317.933Radial†	87529.0	86614.3	4824.8 µg/L	4824.8 ppb	01:07:32
1	Fe 238.204 Radial†	78541.6	78075.8	4812.1 µg/L	4812.1 ppb	01:07:32
1	K 766.490 Radial†	15525.2	13917.7	5091.5 µg/L	5091.5 ppb	01:07:32
1	Mg 279.077 IEC†	13414.6	13169.6	4914.3 µg/L	4914.3 ppb	01:07:32
1	Na 589.592 Radial†	72095.2	70512.7	9628.4 µg/L	9628.4 ppb	01:07:32
1	Sr 421.552†	235357.5	234540.5	487.56 µg/L	487.56 ppb	01:07:30
1	Sc 361.383	1762084.8	1762084.8	102.55 %		01:07:59
1	Y 371.029	1041330.1	1041330.1	101.43 %		01:07:59
1	Ag 328.068†	134973.9	127522.4	478.16 µg/L	478.16 ppb	01:07:59
1	As 188.979†	1631.3	1611.1	494.16 µg/L	494.16 ppb	01:08:19
1	B 249.677†	36407.7	31995.5	470.22 µg/L	470.22 ppb	01:07:59
1	Ba 233.527†	121835.6	118938.4	479.67 µg/L	479.67 ppb	01:07:59
1	Be 313.107†	1812562.4	1768503.2	481.66 µg/L	481.66 ppb	01:07:59
1	Cd 226.502†	77806.6	75987.8	474.35 µg/L	474.35 ppb	01:07:59
1	Co 228.616†	39537.1	38743.2	478.28 µg/L	478.28 ppb	01:07:59
1	Cr 267.716†	62417.9	60685.5	475.17 µg/L	475.17 ppb	01:07:59
1	Cu 324.752†	128335.3	122168.2	476.24 µg/L	476.24 ppb	01:07:59
1	Mn 257.610†	398229.3	388078.1	479.96 µg/L	479.96 ppb	01:07:59
1	Mo 202.031†	16581.6	16188.8	476.21 µg/L	476.21 ppb	01:08:19
1	Ni 231.604†	42325.1	41347.9	476.09 µg/L	476.09 ppb	01:07:59
1	P 214.914†	11363.6	11098.7	2365.6 µg/L	2365.6 ppb	01:08:19
1	Pb 220.353†	8809.5	8503.8	476.23 µg/L	476.23 ppb	01:08:19
1	S 181.975 Axial†	1388.1	1248.5	931.12 µg/L	931.12 ppb	01:08:19
1	Sb 206.836†	4172.3	3987.6	475.12 µg/L	475.12 ppb	01:08:19
1	Se 196.026†	1355.6	1306.5	474 µg/L	474 ppb	01:08:19
1	SiO2†	55579.1	52420.1	5103.2 µg/L	5103.2 ppb	01:07:59
1	Si 251.611†	167664.3	162653.7	2388.5 µg/L	2388.5 ppb	01:07:59
1	Sn 189.927†	7816.4	7622.9	476.82 µg/L	476.82 ppb	01:08:19
1	Ti 334.940†	526571.2	512509.7	478.21 µg/L	478.21 ppb	01:07:59
1	Tl 190.801†	3871.8	3892.1	485.40 µg/L	485.40 ppb	01:08:19
1	U 409.014†	7269.4	7358.4	459.25 µg/L	459.25 ppb	01:07:59
1	V 292.402†	100190.2	97292.2	480.93 µg/L	480.93 ppb	01:07:59
1	Zn 213.857†	87537.1	84793.4	472.58 µg/L	472.58 ppb	01:07:59
2	Sc RADIAL	146791.9	146791.9	101 %		01:07:36
2	Al 396.153Radial†	27048.5	26952.8	4975.0 µg/L	4975.0 ppb	01:07:36
2	Ca 317.933Radial†	87767.1	86691.0	4829.0 µg/L	4829.0 ppb	01:07:36
2	Fe 238.204 Radial†	78690.1	78079.8	4812.4 µg/L	4812.4 ppb	01:07:36
2	K 766.490 Radial†	15502.6	13866.8	5072.9 µg/L	5072.9 ppb	01:07:36
2	Mg 279.077 IEC†	13437.6	13167.9	4913.6 µg/L	4913.6 ppb	01:07:36
2	Na 589.592 Radial†	72405.6	70689.6	9652.5 µg/L	9652.5 ppb	01:07:36
2	Sr 421.552†	234136.0	232896.1	484.14 µg/L	484.14 ppb	01:07:34
2	Sc 361.383	1778604.4	1778604.4	103.51 %		01:08:22
2	Y 371.029	1050375.8	1050375.8	102.31 %		01:08:22
2	Ag 328.068†	136891.1	128152.0	480.51 µg/L	480.51 ppb	01:08:22
2	As 188.979†	1644.9	1609.4	493.66 µg/L	493.66 ppb	01:08:42
2	B 249.677†	36899.1	32140.4	472.35 µg/L	472.35 ppb	01:08:22
2	Ba 233.527†	123076.9	119034.1	480.06 µg/L	480.06 ppb	01:08:22
2	Be 313.107†	1839423.0	1778036.1	484.26 µg/L	484.26 ppb	01:08:22
2	Cd 226.502†	78945.9	76383.7	476.82 µg/L	476.82 ppb	01:08:22
2	Co 228.616†	40112.8	38941.2	480.73 µg/L	480.73 ppb	01:08:22
2	Cr 267.716†	63218.4	60893.4	476.79 µg/L	476.79 ppb	01:08:22
2	Cu 324.752†	130086.8	122697.9	478.30 µg/L	478.30 ppb	01:08:22
2	Mn 257.610†	403480.0	389543.9	481.77 µg/L	481.77 ppb	01:08:22
2	Mo 202.031†	16656.0	16110.6	473.91 µg/L	473.91 ppb	01:08:42
2	Ni 231.604†	42857.3	41478.7	477.60 µg/L	477.60 ppb	01:08:22
2	P 214.914†	11457.7	11086.6	2363.0 µg/L	2363.0 ppb	01:08:42
2	Pb 220.353†	8947.0	8556.9	479.18 µg/L	479.18 ppb	01:08:42

2	S 181.975 Axial†	1398.9	1246.4	929.54 µg/L	929.54 ppb	01:08:42
2	Sb 206.836†	4203.2	3979.6	474.11 µg/L	474.11 ppb	01:08:42
2	Se 196.026†	1349.5	1288.4	468 µg/L	468 ppb	01:08:42
2	SiO2†	56478.7	52785.7	5139.0 µg/L	5139.0 ppb	01:08:22
2	Si 251.611†	170057.2	163446.9	2400.2 µg/L	2400.2 ppb	01:08:22
2	Sn 189.927†	7878.0	7611.7	476.13 µg/L	476.13 ppb	01:08:42
2	Ti 334.940†	533494.1	514428.5	480.00 µg/L	480.00 ppb	01:08:22
2	Tl 190.801†	3890.7	3875.3	483.36 µg/L	483.36 ppb	01:08:42
2	U 409.014†	7435.4	7452.8	464.82 µg/L	464.82 ppb	01:08:22
2	V 292.402†	101287.4	97444.7	481.66 µg/L	481.66 ppb	01:08:22
2	Zn 213.857†	88719.7	85143.1	474.54 µg/L	474.54 ppb	01:08:22
3	Sc RADIAL	146092.3	146092.3	100 %		01:07:40
3	Al 396.153Radial†	26892.5	26925.8	4970.0 µg/L	4970.0 ppb	01:07:40
3	Ca 317.933Radial†	87875.3	87217.0	4858.3 µg/L	4858.3 ppb	01:07:40
3	Fe 238.204 Radial†	78732.4	78496.7	4838.1 µg/L	4838.1 ppb	01:07:40
3	K 766.490 Radial†	15647.7	14085.6	5152.9 µg/L	5152.9 ppb	01:07:40
3	Mg 279.077 IEC†	13491.9	13286.2	4957.7 µg/L	4957.7 ppb	01:07:40
3	Na 589.592 Radial†	72348.8	70977.5	9691.8 µg/L	9691.8 ppb	01:07:40
3	Sr 421.552†	235009.5	234883.4	488.27 µg/L	488.27 ppb	01:07:38
3	Sc 361.383	1770348.4	1770348.4	103.03 %		01:08:45
3	Y 371.029	1045407.1	1045407.1	101.82 %		01:08:45
3	Ag 328.068†	136122.4	128022.6	480.04 µg/L	480.04 ppb	01:08:45
3	As 188.979†	1638.1	1610.2	493.91 µg/L	493.91 ppb	01:09:05
3	B 249.677†	36651.5	32066.4	471.25 µg/L	471.25 ppb	01:08:45
3	Ba 233.527†	122673.9	119197.4	480.72 µg/L	480.72 ppb	01:08:45
3	Be 313.107†	1829445.6	1776639.3	483.88 µg/L	483.88 ppb	01:08:45
3	Cd 226.502†	78812.0	76609.4	478.23 µg/L	478.23 ppb	01:08:45
3	Co 228.616†	40059.1	39069.8	482.31 µg/L	482.31 ppb	01:08:45
3	Cr 267.716†	62827.7	60799.1	476.05 µg/L	476.05 ppb	01:08:45
3	Cu 324.752†	129210.5	122433.4	477.28 µg/L	477.28 ppb	01:08:45
3	Mn 257.610†	402215.3	390134.2	482.50 µg/L	482.50 ppb	01:08:45
3	Mo 202.031†	16594.4	16125.8	474.36 µg/L	474.36 ppb	01:09:05
3	Ni 231.604†	42691.2	41510.6	477.96 µg/L	477.96 ppb	01:08:45
3	P 214.914†	11386.0	11068.7	2359.2 µg/L	2359.2 ppb	01:09:05
3	Pb 220.353†	8898.6	8550.2	478.81 µg/L	478.81 ppb	01:09:05
3	S 181.975 Axial†	1408.3	1261.7	940.94 µg/L	940.94 ppb	01:09:05
3	Sb 206.836†	4205.9	4001.2	476.70 µg/L	476.70 ppb	01:09:05
3	Se 196.026†	1357.9	1302.6	473 µg/L	473 ppb	01:09:05
3	SiO2†	56197.3	52767.1	5137.2 µg/L	5137.2 ppb	01:08:45
3	Si 251.611†	169573.7	163743.8	2404.6 µg/L	2404.6 ppb	01:08:45
3	Sn 189.927†	7850.8	7620.8	476.69 µg/L	476.69 ppb	01:09:05
3	Ti 334.940†	530475.4	513902.1	479.51 µg/L	479.51 ppb	01:08:45
3	Tl 190.801†	3897.8	3899.7	486.34 µg/L	486.34 ppb	01:09:05
3	U 409.014†	7446.2	7496.8	467.41 µg/L	467.41 ppb	01:08:45
3	V 292.402†	100857.9	97484.1	481.85 µg/L	481.85 ppb	01:08:45
3	Zn 213.857†	88341.1	85175.3	474.71 µg/L	474.71 ppb	01:08:45

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1770345.9	103.03 %	0.481			0.47%
Sc RADIAL	146468.9	100 %	0.2			0.24%
Y 371.029	1045704.3	101.85 %	0.441			0.43%
Ag 328.068†	127899.0	479.57 µg/L	1.241	479.57 ppb	1.241	0.26%
QC value within limits for Ag 328.068 Recovery = 95.91%						
Al 396.153Radial†	26869.1	4959.5 µg/L	22.74	4959.5 ppb	22.74	0.46%
QC value within limits for Al 396.153Radial Recovery = 99.19%						
As 188.979†	1610.2	493.91 µg/L	0.253	493.91 ppb	0.253	0.05%
QC value within limits for As 188.979 Recovery = 98.78%						
B 249.677†	32067.4	471.27 µg/L	1.065	471.27 ppb	1.065	0.23%
QC value within limits for B 249.677 Recovery = 94.25%						
Ba 233.527†	119056.6	480.15 µg/L	0.528	480.15 ppb	0.528	0.11%
QC value within limits for Ba 233.527 Recovery = 96.03%						
Be 313.107†	1774392.9	483.27 µg/L	1.403	483.27 ppb	1.403	0.29%
QC value within limits for Be 313.107 Recovery = 96.65%						
Ca 317.933Radial†	86840.8	4837.4 µg/L	18.28	4837.4 ppb	18.28	0.38%
QC value within limits for Ca 317.933Radial Recovery = 96.75%						
Cd 226.502†	76327.0	476.46 µg/L	1.965	476.46 ppb	1.965	0.41%
QC value within limits for Cd 226.502 Recovery = 95.29%						
Co 228.616†	38918.0	480.44 µg/L	2.030	480.44 ppb	2.030	0.42%

QC value within limits for Co 228.616 Recovery = 96.09%							
Cr 267.716†	60792.6	476.00 µg/L	0.813	476.00 ppb	0.813	0.17%	
QC value within limits for Cr 267.716 Recovery = 95.20%							
Cu 324.752†	122433.2	477.28 µg/L	1.032	477.28 ppb	1.032	0.22%	
QC value within limits for Cu 324.752 Recovery = 95.46%							
Fe 238.204 Radial†	78217.4	4820.8 µg/L	14.91	4820.8 ppb	14.91	0.31%	
QC value within limits for Fe 238.204 Radial Recovery = 96.42%							
K 766.490 Radial†	13956.7	5105.8 µg/L	41.90	5105.8 ppb	41.90	0.82%	
QC value within limits for K 766.490 Radial Recovery = 102.12%							
Mg 279.077 IEC†	13207.9	4928.5 µg/L	25.24	4928.5 ppb	25.24	0.51%	
QC value within limits for Mg 279.077 IEC Recovery = 98.57%							
Mn 257.610†	389252.0	481.41 µg/L	1.309	481.41 ppb	1.309	0.27%	
QC value within limits for Mn 257.610 Recovery = 96.28%							
Mo 202.031†	16141.8	474.83 µg/L	1.219	474.83 ppb	1.219	0.26%	
QC value within limits for Mo 202.031 Recovery = 94.97%							
Na 589.592 Radial†	70726.6	9657.6 µg/L	32.02	9657.6 ppb	32.02	0.33%	
QC value within limits for Na 589.592 Radial Recovery = 96.58%							
Ni 231.604†	41445.7	477.22 µg/L	0.992	477.22 ppb	0.992	0.21%	
QC value within limits for Ni 231.604 Recovery = 95.44%							
P 214.914†	11084.6	2362.6 µg/L	3.23	2362.6 ppb	3.23	0.14%	
QC value within limits for P 214.914 Recovery = 94.50%							
Pb 220.353†	8537.0	478.07 µg/L	1.609	478.07 ppb	1.609	0.34%	
QC value within limits for Pb 220.353 Recovery = 95.61%							
S 181.975 Axial†	1252.2	933.87 µg/L	6.179	933.87 ppb	6.179	0.66%	
QC value within limits for S 181.975 Axial Recovery = 93.39%							
Sb 206.836†	3989.5	475.31 µg/L	1.305	475.31 ppb	1.305	0.27%	
QC value within limits for Sb 206.836 Recovery = 95.06%							
Se 196.026†	1299.2	472 µg/L	3.5	472 ppb	3.5	0.73%	
QC value within limits for Se 196.026 Recovery = 94.36%							
SiO2†	52657.7	5126.5 µg/L	20.17	5126.5 ppb	20.17	0.39%	
QC value within limits for SiO2 Recovery = 95.87%							
Si 251.611†	163281.5	2397.8 µg/L	8.32	2397.8 ppb	8.32	0.35%	
QC value within limits for Si 251.611 Recovery = 95.91%							
Sn 189.927†	7618.4	476.55 µg/L	0.370	476.55 ppb	0.370	0.08%	
QC value within limits for Sn 189.927 Recovery = 95.31%							
Sr 421.552†	234106.7	486.66 µg/L	2.208	486.66 ppb	2.208	0.45%	
QC value within limits for Sr 421.552 Recovery = 97.33%							
Ti 334.940†	513613.4	479.24 µg/L	0.924	479.24 ppb	0.924	0.19%	
QC value within limits for Ti 334.940 Recovery = 95.85%							
Tl 190.801†	3889.0	485.03 µg/L	1.526	485.03 ppb	1.526	0.31%	
QC value within limits for Tl 190.801 Recovery = 97.01%							
U 409.014†	7436.0	463.82 µg/L	4.171	463.82 ppb	4.171	0.90%	
QC value within limits for U 409.014 Recovery = 92.76%							
V 292.402†	97407.0	481.48 µg/L	0.487	481.48 ppb	0.487	0.10%	
QC value within limits for V 292.402 Recovery = 96.30%							
Zn 213.857†	85037.3	473.94 µg/L	1.182	473.94 ppb	1.182	0.25%	
QC value within limits for Zn 213.857 Recovery = 94.79%							

All analyte(s) passed QC.

Sequence No.: 159

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/1/2010 1:09:13

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	146128.5	146128.5	100 %		01:09:42
1	Al 396.153Radial†	21.7	84.8	15.716 µg/L	15.716 ppb	01:10:02
1	Ca 317.933Radial†	736.1	174.5	9.7222 µg/L	9.7222 ppb	01:10:02
1	Fe 238.204 Radial†	312.8	164.3	10.127 µg/L	10.127 ppb	01:10:02
1	K 766.490 Radial†	2113.9	566.2	207.29 µg/L	207.29 ppb	01:09:42
1	Mg 279.077 IEC†	213.9	22.9	8.5204 µg/L	8.5204 ppb	01:10:02
1	Na 589.592 Radial†	1401.2	108.5	14.644 µg/L	14.644 ppb	01:09:42
1	Sr 421.552†	-140.7	-5.2	-0.0110 µg/L	-0.0110 ppb	01:09:42
1	Sc 361.383	1779002.1	1779002.1	103.54 %		01:11:04
1	Y 371.029	1062055.8	1062055.8	103.44 %		01:11:04
1	Ag 328.068†	4011.9	-216.6	-0.7870 µg/L	-0.7870 ppb	01:11:06
1	As 188.979†	-3.3	17.2	5.2109 µg/L	5.2109 ppb	01:11:26
1	B 249.677†	3579.4	-48.7	-0.7204 µg/L	-0.7204 ppb	01:11:06
1	Ba 233.527†	-100.8	38.5	0.1554 µg/L	0.1554 ppb	01:11:26
1	Be 313.107†	-912.4	183.5	0.0524 µg/L	0.0524 ppb	01:11:06
1	Cd 226.502†	-113.0	9.1	0.0554 µg/L	0.0554 ppb	01:11:26
1	Co 228.616†	-162.1	33.7	0.4158 µg/L	0.4158 ppb	01:11:26
1	Cr 267.716†	218.6	32.5	0.2490 µg/L	0.2490 ppb	01:11:26
1	Cu 324.752†	2858.4	-211.5	-0.8135 µg/L	-0.8135 ppb	01:11:06
1	Mn 257.610†	394.6	143.8	0.1776 µg/L	0.1776 ppb	01:11:26
1	Mo 202.031†	-10.8	9.7	0.2849 µg/L	0.2849 ppb	01:11:26
1	Ni 231.604†	-102.3	-22.3	-0.2566 µg/L	-0.2566 ppb	01:11:26
1	P 214.914†	-11.8	6.6	1.4104 µg/L	1.4104 ppb	01:11:26
1	Pb 220.353†	58.5	-29.9	-1.6702 µg/L	-1.6702 ppb	01:11:26
1	S 181.975 Axial†	94.9	-13.4	-9.9448 µg/L	-9.9448 ppb	01:11:26
1	Sb 206.836†	73.9	-9.4	-1.1181 µg/L	-1.1181 ppb	01:11:26
1	Se 196.026†	3.0	-12.4	-4.47 µg/L	-4.47 ppb	01:11:26
1	SiO2†	1673.9	-158.6	-15.514 µg/L	-15.514 ppb	01:11:06
1	Si 251.611†	875.4	8.9	0.1281 µg/L	0.1281 ppb	01:11:06
1	Sn 189.927†	-1.0	0.1	0.0104 µg/L	0.0104 ppb	01:11:26
1	Ti 334.940†	1332.9	334.8	0.3090 µg/L	0.3090 ppb	01:11:06
1	Tl 190.801†	-105.0	15.3	1.8866 µg/L	1.8866 ppb	01:11:26
1	U 409.014†	-139.3	135.4	7.9422 µg/L	7.9422 ppb	01:11:06
1	V 292.402†	520.5	98.9	0.4905 µg/L	0.4905 ppb	01:11:06
1	Zn 213.857†	599.7	14.8	0.0844 µg/L	0.0844 ppb	01:11:26
2	Sc RADIAL	146813.6	146813.6	101 %		01:10:04
2	Al 396.153Radial†	-26.8	36.6	6.7739 µg/L	6.7739 ppb	01:10:24
2	Ca 317.933Radial†	799.6	234.2	13.044 µg/L	13.044 ppb	01:10:24
2	Fe 238.204 Radial†	380.9	230.5	14.206 µg/L	14.206 ppb	01:10:24
2	K 766.490 Radial†	2016.0	459.1	168.07 µg/L	168.07 ppb	01:10:04
2	Mg 279.077 IEC†	199.3	7.4	2.7300 µg/L	2.7300 ppb	01:10:24
2	Na 589.592 Radial†	1532.0	232.0	31.539 µg/L	31.539 ppb	01:10:04
2	Sr 421.552†	-276.0	-139.1	-0.2892 µg/L	-0.2892 ppb	01:10:04
2	Sc 361.383	1772846.3	1772846.3	103.18 %		01:11:28
2	Y 371.029	1058367.3	1058367.3	103.09 %		01:11:28
2	Ag 328.068†	3953.0	-260.2	-0.9687 µg/L	-0.9687 ppb	01:11:30
2	As 188.979†	-11.1	9.6	2.9020 µg/L	2.9020 ppb	01:11:51
2	B 249.677†	3504.7	-109.2	-1.6118 µg/L	-1.6118 ppb	01:11:30
2	Ba 233.527†	-93.1	45.6	0.1835 µg/L	0.1835 ppb	01:11:51
2	Be 313.107†	-921.0	172.1	0.0458 µg/L	0.0458 ppb	01:11:30
2	Cd 226.502†	-118.2	3.6	0.0212 µg/L	0.0212 ppb	01:11:51
2	Co 228.616†	-173.4	22.3	0.2745 µg/L	0.2745 ppb	01:11:51
2	Cr 267.716†	185.2	0.9	0.0101 µg/L	0.0101 ppb	01:11:51
2	Cu 324.752†	2984.8	-79.4	-0.3090 µg/L	-0.3090 ppb	01:11:30
2	Mn 257.610†	358.6	110.3	0.1363 µg/L	0.1363 ppb	01:11:51
2	Mo 202.031†	-18.5	2.1	0.0628 µg/L	0.0628 ppb	01:11:51
2	Ni 231.604†	-79.0	-0.0	-0.0005 µg/L	-0.0005 ppb	01:11:51
2	P 214.914†	-17.7	0.8	0.1744 µg/L	0.1744 ppb	01:11:51
2	Pb 220.353†	91.7	2.4	0.1393 µg/L	0.1393 ppb	01:11:51

2	S 181.975 Axial†	93.2	-14.7	-10.902 µg/L	-10.902 ppb	01:11:51
2	Sb 206.836†	88.1	4.5	0.5418 µg/L	0.5418 ppb	01:11:51
2	Se 196.026†	30.0	13.8	4.99 µg/L	4.99 ppb	01:11:51
2	SiO2†	1856.5	23.9	2.3278 µg/L	2.3278 ppb	01:11:30
2	Si 251.611†	711.9	-146.6	-2.1655 µg/L	-2.1655 ppb	01:11:30
2	Sn 189.927†	7.1	8.0	0.4985 µg/L	0.4985 ppb	01:11:51
2	Ti 334.940†	1070.6	85.1	0.0810 µg/L	0.0810 ppb	01:11:30
2	Tl 190.801†	-109.4	10.7	1.3129 µg/L	1.3129 ppb	01:11:51
2	U 409.014†	-338.3	-58.0	-3.3954 µg/L	-3.3954 ppb	01:11:30
2	V 292.402†	407.5	-8.8	-0.0463 µg/L	-0.0463 ppb	01:11:30
2	Zn 213.857†	608.7	25.6	0.1424 µg/L	0.1424 ppb	01:11:51
3	Sc RADIAL	143813.7	143813.7	98.5 %		01:10:26
3	Al 396.153Radial†	-37.9	24.7	4.5852 µg/L	4.5852 ppb	01:10:46
3	Ca 317.933Radial†	675.0	124.4	6.9283 µg/L	6.9283 ppb	01:10:46
3	Fe 238.204 Radial†	268.6	124.4	7.6689 µg/L	7.6689 ppb	01:10:46
3	K 766.490 Radial†	2088.7	574.6	210.37 µg/L	210.37 ppb	01:10:26
3	Mg 279.077 IEC†	196.5	8.7	3.2166 µg/L	3.2166 ppb	01:10:46
3	Na 589.592 Radial†	1456.5	187.1	25.377 µg/L	25.377 ppb	01:10:26
3	Sr 421.552†	-185.3	-52.7	-0.1097 µg/L	-0.1097 ppb	01:10:26
3	Sc 361.383	1766720.8	1766720.8	102.82 %		01:11:53
3	Y 371.029	1055436.7	1055436.7	102.80 %		01:11:53
3	Ag 328.068†	4141.9	-63.2	-0.2377 µg/L	-0.2377 ppb	01:11:55
3	As 188.979†	-13.9	6.9	2.0745 µg/L	2.0745 ppb	01:12:15
3	B 249.677†	3478.7	-122.7	-1.8116 µg/L	-1.8116 ppb	01:11:55
3	Ba 233.527†	-110.8	28.1	0.1129 µg/L	0.1129 ppb	01:12:15
3	Be 313.107†	-876.4	212.4	0.0574 µg/L	0.0574 ppb	01:11:55
3	Cd 226.502†	-103.6	17.5	0.1084 µg/L	0.1084 ppb	01:12:15
3	Co 228.616†	-163.0	31.7	0.3914 µg/L	0.3914 ppb	01:12:15
3	Cr 267.716†	182.9	-0.6	-0.0038 µg/L	-0.0038 ppb	01:12:15
3	Cu 324.752†	2678.2	-367.6	-1.4282 µg/L	-1.4282 ppb	01:11:55
3	Mn 257.610†	398.1	149.9	0.1853 µg/L	0.1853 ppb	01:12:15
3	Mo 202.031†	-22.2	-1.5	-0.0432 µg/L	-0.0432 ppb	01:12:15
3	Ni 231.604†	-66.6	11.8	0.1354 µg/L	0.1354 ppb	01:12:15
3	P 214.914†	-21.4	-2.9	-0.5979 µg/L	-0.5979 ppb	01:12:15
3	Pb 220.353†	84.0	-4.7	-0.2620 µg/L	-0.2620 ppb	01:12:15
3	S 181.975 Axial†	104.4	-3.6	-2.6485 µg/L	-2.6485 ppb	01:12:15
3	Sb 206.836†	79.6	-3.4	-0.4028 µg/L	-0.4028 ppb	01:12:15
3	Se 196.026†	9.2	-6.3	-2.29 µg/L	-2.29 ppb	01:12:15
3	SiO2†	1792.3	-32.2	-3.1590 µg/L	-3.1590 ppb	01:11:55
3	Si 251.611†	915.0	53.3	0.7827 µg/L	0.7827 ppb	01:11:55
3	Sn 189.927†	8.6	9.4	0.5891 µg/L	0.5891 ppb	01:12:15
3	Ti 334.940†	1052.9	71.4	0.0672 µg/L	0.0672 ppb	01:11:55
3	Tl 190.801†	-98.3	21.1	2.5907 µg/L	2.5907 ppb	01:12:15
3	U 409.014†	-302.2	-24.1	-1.4147 µg/L	-1.4147 ppb	01:11:55
3	V 292.402†	386.4	-28.0	-0.1388 µg/L	-0.1388 ppb	01:11:55
3	Zn 213.857†	594.9	14.1	0.0789 µg/L	0.0789 ppb	01:12:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1772856.4	103.18 %	0.357			0.35%
Sc RADIAL	145585.3	99.8 %	1.08			1.08%
Y 371.029	1058619.9	103.11 %	0.323			0.31%
Ag 328.068†	-180.0	-0.6645 µg/L	0.38057	-0.6645 ppb	0.38057	57.27%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	48.7	9.0249 µg/L	5.89678	9.0249 ppb	5.89678	65.34%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	11.2	3.3958 µg/L	1.62548	3.3958 ppb	1.62548	47.87%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-93.6	-1.3813 µg/L	0.58098	-1.3813 ppb	0.58098	42.06%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	37.4	0.1506 µg/L	0.03553	0.1506 ppb	0.03553	23.59%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	189.3	0.0519 µg/L	0.00580	0.0519 ppb	0.00580	11.19%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	177.7	9.8982 µg/L	3.06173	9.8982 ppb	3.06173	30.93%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	10.1	0.0617 µg/L	0.04391	0.0617 ppb	0.04391	71.22%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	29.3	0.3606 µg/L	0.07550	0.3606 ppb	0.07550	20.94%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	10.9	0.0851 µg/L	0.14212	0.0851 ppb	0.14212	167.04%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-219.5	-0.8502 µg/L	0.56051	-0.8502 ppb	0.56051	65.93%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	173.1	10.667 µg/L	3.3019	10.667 ppb	3.3019	30.95%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	533.3	195.24 µg/L	23.585	195.24 ppb	23.585	12.08%	
QC value greater than the upper limit for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	13.0	4.8223 µg/L	3.21185	4.8223 ppb	3.21185	66.60%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	134.7	0.1664 µg/L	0.02633	0.1664 ppb	0.02633	15.82%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	3.4	0.1015 µg/L	0.16744	0.1015 ppb	0.16744	165.00%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	175.9	23.853 µg/L	8.5497	23.853 ppb	8.5497	35.84%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-3.5	-0.0406 µg/L	0.19901	-0.0406 ppb	0.19901	490.53%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	1.5	0.3289 µg/L	1.01302	0.3289 ppb	1.01302	307.97%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-10.7	-0.5976 µg/L	0.95031	-0.5976 ppb	0.95031	159.02%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-10.5	-7.8319 µg/L	4.51438	-7.8319 ppb	4.51438	57.64%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-2.8	-0.3264 µg/L	0.83261	-0.3264 ppb	0.83261	255.12%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-1.6	-0.590 µg/L	4.9553	-0.590 ppb	4.9553	839.18%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-55.7	-5.4482 µg/L	9.13833	-5.4482 ppb	9.13833	167.73%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	-28.1	-0.4183 µg/L	1.54819	-0.4183 ppb	1.54819	370.16%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	5.9	0.3660 µg/L	0.31130	0.3660 ppb	0.31130	85.06%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-65.7	-0.1366 µg/L	0.14107	-0.1366 ppb	0.14107	103.24%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	163.8	0.1524 µg/L	0.13582	0.1524 ppb	0.13582	89.12%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	15.7	1.9301 µg/L	0.63996	1.9301 ppb	0.63996	33.16%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	17.8	1.0440 µg/L	6.05550	1.0440 ppb	6.05550	580.00%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	20.7	0.1018 µg/L	0.33976	0.1018 ppb	0.33976	333.78%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	18.2	0.1019 µg/L	0.03517	0.1019 ppb	0.03517	34.52%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 166

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 4/1/2010 1:24:54

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	145220.2	145220.2	99.5 %		01:25:27
1	Al 396.153Radial†	1026.0	1094.2	202.46 µg/L	202.46 ppb	01:25:29
1	Ca 317.933Radial†	4609.9	4071.8	226.82 µg/L	226.82 ppb	01:25:29
1	Fe 238.204 Radial†	1968.1	1829.6	112.77 µg/L	112.77 ppb	01:25:29
1	K 766.490 Radial†	2608.3	1076.2	393.87 µg/L	393.87 ppb	01:25:27
1	Mg 279.077 IEC†	981.2	795.3	296.44 µg/L	296.44 ppb	01:25:29
1	Na 589.592 Radial†	3274.2	1999.4	272.79 µg/L	272.79 ppb	01:25:29
1	Sr 421.552†	2468.6	2615.9	5.4365 µg/L	5.4365 ppb	01:25:29
1	Sc 361.383	1776914.9	1776914.9	103.42 %		01:25:54
1	Y 371.029	1061110.4	1061110.4	103.35 %		01:25:54
1	Ag 328.068†	5516.0	1242.4	4.6974 µg/L	4.6974 ppb	01:25:57
1	As 188.979†	79.4	97.1	29.467 µg/L	29.467 ppb	01:26:17
1	B 249.677†	6876.6	3143.6	46.345 µg/L	46.345 ppb	01:25:57
1	Ba 233.527†	1126.3	1225.0	4.9403 µg/L	4.9403 ppb	01:26:17
1	Be 313.107†	16623.4	17138.9	4.6807 µg/L	4.6807 ppb	01:25:57
1	Cd 226.502†	669.1	765.2	4.7696 µg/L	4.7696 ppb	01:26:17
1	Co 228.616†	220.9	403.9	4.9828 µg/L	4.9828 ppb	01:26:17
1	Cr 267.716†	800.6	595.6	4.6277 µg/L	4.6277 ppb	01:26:17
1	Cu 324.752†	5654.8	2495.8	9.7651 µg/L	9.7651 ppb	01:25:57
1	Mn 257.610†	8984.8	8450.8	10.444 µg/L	10.444 ppb	01:25:57
1	Mo 202.031†	291.8	302.2	8.8937 µg/L	8.8937 ppb	01:26:17
1	Ni 231.604†	331.0	396.6	4.5665 µg/L	4.5665 ppb	01:26:17
1	P 214.914†	634.8	631.8	134.99 µg/L	134.99 ppb	01:26:17
1	Pb 220.353†	254.6	159.8	8.9233 µg/L	8.9233 ppb	01:26:17
1	S 181.975 Axial†	226.2	113.6	84.457 µg/L	84.457 ppb	01:26:17
1	Sb 206.836†	153.4	67.5	8.1023 µg/L	8.1023 ppb	01:26:17
1	Se 196.026†	96.6	78.2	28.3 µg/L	28.3 ppb	01:26:17
1	SiO2†	4027.2	2118.8	206.70 µg/L	206.70 ppb	01:25:57
1	Si 251.611†	8009.6	6908.5	101.67 µg/L	101.67 ppb	01:25:57
1	Sn 189.927†	160.9	156.7	9.7865 µg/L	9.7865 ppb	01:26:17
1	Ti 334.940†	6771.9	5595.7	5.1890 µg/L	5.1890 ppb	01:25:57
1	Tl 190.801†	67.2	181.6	22.405 µg/L	22.405 ppb	01:26:17
1	U 409.014†	545.7	797.6	46.916 µg/L	46.916 ppb	01:25:57
1	V 292.402†	1274.9	829.0	4.1708 µg/L	4.1708 ppb	01:25:57
1	Zn 213.857†	2347.0	1705.1	9.5327 µg/L	9.5327 ppb	01:26:17
2	Sc RADIAL	148650.7	148650.7	102 %		01:25:31
2	Al 396.153Radial†	1080.9	1124.3	208.05 µg/L	208.05 ppb	01:25:33
2	Ca 317.933Radial†	4471.0	3828.6	213.27 µg/L	213.27 ppb	01:25:33
2	Fe 238.204 Radial†	1972.4	1788.2	110.21 µg/L	110.21 ppb	01:25:33
2	K 766.490 Radial†	2667.2	1073.6	392.91 µg/L	392.91 ppb	01:25:31
2	Mg 279.077 IEC†	1006.3	797.2	297.13 µg/L	297.13 ppb	01:25:33
2	Na 589.592 Radial†	3405.2	2052.1	279.99 µg/L	279.99 ppb	01:25:33
2	Sr 421.552†	2412.0	2503.1	5.2022 µg/L	5.2022 ppb	01:25:33
2	Sc 361.383	1752674.4	1752674.4	102.01 %		01:26:19
2	Y 371.029	1046889.1	1046889.1	101.97 %		01:26:19
2	Ag 328.068†	5262.6	1067.8	4.0634 µg/L	4.0634 ppb	01:26:21
2	As 188.979†	81.9	100.6	30.526 µg/L	30.526 ppb	01:26:41
2	B 249.677†	6633.0	2996.7	44.179 µg/L	44.179 ppb	01:26:21
2	Ba 233.527†	1099.4	1213.7	4.8951 µg/L	4.8951 ppb	01:26:41
2	Be 313.107†	16736.8	17472.4	4.7722 µg/L	4.7722 ppb	01:26:21
2	Cd 226.502†	673.3	778.3	4.8519 µg/L	4.8519 ppb	01:26:41
2	Co 228.616†	218.4	404.4	4.9890 µg/L	4.9890 ppb	01:26:41
2	Cr 267.716†	786.8	592.8	4.6041 µg/L	4.6041 ppb	01:26:41
2	Cu 324.752†	5584.1	2502.1	9.7910 µg/L	9.7910 ppb	01:26:21
2	Mn 257.610†	8982.0	8568.1	10.589 µg/L	10.589 ppb	01:26:21
2	Mo 202.031†	278.4	293.0	8.6217 µg/L	8.6217 ppb	01:26:41
2	Ni 231.604†	348.2	417.8	4.8109 µg/L	4.8109 ppb	01:26:41
2	P 214.914†	648.8	654.0	139.73 µg/L	139.73 ppb	01:26:41
2	Pb 220.353†	240.3	149.2	8.3257 µg/L	8.3257 ppb	01:26:41

2	S 181.975 Axial†	223.5	114.0	84.730 µg/L	84.730 ppb	01:26:41
2	Sb 206.836†	159.4	75.4	9.0387 µg/L	9.0387 ppb	01:26:41
2	Se 196.026†	79.4	62.6	22.7 µg/L	22.7 ppb	01:26:41
2	SiO2†	3966.6	2113.3	206.17 µg/L	206.17 ppb	01:26:21
2	Si 251.611†	8005.3	7011.3	103.19 µg/L	103.19 ppb	01:26:21
2	Sn 189.927†	153.6	151.7	9.4764 µg/L	9.4764 ppb	01:26:41
2	Ti 334.940†	6801.6	5715.3	5.2994 µg/L	5.2994 ppb	01:26:21
2	Tl 190.801†	48.3	164.0	20.242 µg/L	20.242 ppb	01:26:41
2	U 409.014†	577.6	836.2	49.218 µg/L	49.218 ppb	01:26:21
2	V 292.402†	1425.6	993.8	4.9734 µg/L	4.9734 ppb	01:26:21
2	Zn 213.857†	2317.2	1707.3	9.5440 µg/L	9.5440 ppb	01:26:41
3	Sc RADIAL	146336.5	146336.5	100 %		01:25:35
3	Al 396.153Radial†	1112.5	1172.6	217.01 µg/L	217.01 ppb	01:25:37
3	Ca 317.933Radial†	4552.4	3979.1	221.65 µg/L	221.65 ppb	01:25:37
3	Fe 238.204 Radial†	1996.3	1842.6	113.57 µg/L	113.57 ppb	01:25:37
3	K 766.490 Radial†	2451.7	900.1	329.39 µg/L	329.39 ppb	01:25:35
3	Mg 279.077 IEC†	967.1	773.7	288.40 µg/L	288.40 ppb	01:25:37
3	Na 589.592 Radial†	3492.4	2191.9	299.15 µg/L	299.15 ppb	01:25:37
3	Sr 421.552†	2344.6	2473.4	5.1402 µg/L	5.1402 ppb	01:25:37
3	Sc 361.383	1751598.8	1751598.8	101.94 %		01:26:43
3	Y 371.029	1046534.1	1046534.1	101.93 %		01:26:43
3	Ag 328.068†	5015.1	828.2	3.1557 µg/L	3.1557 ppb	01:26:45
3	As 188.979†	89.0	107.7	32.652 µg/L	32.652 ppb	01:27:05
3	B 249.677†	6730.4	3096.2	45.646 µg/L	45.646 ppb	01:26:45
3	Ba 233.527†	1166.2	1279.9	5.1609 µg/L	5.1609 ppb	01:27:05
3	Be 313.107†	16935.5	17677.5	4.8269 µg/L	4.8269 ppb	01:26:45
3	Cd 226.502†	672.1	777.5	4.8467 µg/L	4.8467 ppb	01:27:05
3	Co 228.616†	224.3	410.3	5.0620 µg/L	5.0620 ppb	01:27:05
3	Cr 267.716†	800.6	606.8	4.7164 µg/L	4.7164 ppb	01:27:05
3	Cu 324.752†	5648.2	2568.4	10.046 µg/L	10.046 ppb	01:26:45
3	Mn 257.610†	8916.3	8509.1	10.517 µg/L	10.517 ppb	01:26:45
3	Mo 202.031†	275.9	290.7	8.5554 µg/L	8.5554 ppb	01:27:05
3	Ni 231.604†	332.7	402.9	4.6388 µg/L	4.6388 ppb	01:27:05
3	P 214.914†	657.4	662.8	141.62 µg/L	141.62 ppb	01:27:05
3	Pb 220.353†	243.1	152.1	8.4924 µg/L	8.4924 ppb	01:27:05
3	S 181.975 Axial†	226.5	117.1	87.048 µg/L	87.048 ppb	01:27:05
3	Sb 206.836†	145.2	61.6	7.3917 µg/L	7.3917 ppb	01:27:05
3	Se 196.026†	93.5	76.4	27.7 µg/L	27.7 ppb	01:27:05
3	SiO2†	3991.1	2139.6	208.75 µg/L	208.75 ppb	01:26:45
3	Si 251.611†	7913.3	6925.9	101.93 µg/L	101.93 ppb	01:26:45
3	Sn 189.927†	158.3	156.4	9.7675 µg/L	9.7675 ppb	01:27:05
3	Ti 334.940†	6518.0	5441.2	5.0458 µg/L	5.0458 ppb	01:26:45
3	Tl 190.801†	63.4	178.9	22.063 µg/L	22.063 ppb	01:27:05
3	U 409.014†	512.4	772.5	45.420 µg/L	45.420 ppb	01:26:45
3	V 292.402†	1152.1	726.3	3.6657 µg/L	3.6657 ppb	01:26:45
3	Zn 213.857†	2354.5	1745.2	9.7578 µg/L	9.7578 ppb	01:27:05

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1760396.0	102.45 %	0.833			0.81%
Sc RADIAL	146735.8	101 %	1.2			1.19%
Y 371.029	1051511.2	102.42 %	0.810			0.79%
Ag 328.068†	1046.1	3.9722 µg/L	0.77487	3.9722 ppb	0.77487	19.51%
QC value within limits for Ag 328.068 Recovery = 79.44%						
Al 396.153Radial†	1130.4	209.17 µg/L	7.341	209.17 ppb	7.341	3.51%
QC value within limits for Al 396.153Radial Recovery = 104.59%						
As 188.979†	101.8	30.882 µg/L	1.6220	30.882 ppb	1.6220	5.25%
QC value within limits for As 188.979 Recovery = 102.94%						
B 249.677†	3078.8	45.390 µg/L	1.1055	45.390 ppb	1.1055	2.44%
QC value within limits for B 249.677 Recovery = 90.78%						
Ba 233.527†	1239.5	4.9988 µg/L	0.14223	4.9988 ppb	0.14223	2.85%
QC value within limits for Ba 233.527 Recovery = 99.98%						
Be 313.107†	17429.6	4.7599 µg/L	0.07386	4.7599 ppb	0.07386	1.55%
QC value within limits for Be 313.107 Recovery = 95.20%						
Ca 317.933Radial†	3959.9	220.58 µg/L	6.838	220.58 ppb	6.838	3.10%
QC value within limits for Ca 317.933Radial Recovery = 110.29%						
Cd 226.502†	773.7	4.8227 µg/L	0.04609	4.8227 ppb	0.04609	0.96%
QC value within limits for Cd 226.502 Recovery = 96.45%						
Co 228.616†	406.2	5.0113 µg/L	0.04406	5.0113 ppb	0.04406	0.88%

QC value within limits for Co 228.616 Recovery = 100.23%							
Cr 267.716†	598.4	4.6494 µg/L	0.05919	4.6494 ppb	0.05919	1.27%	
QC value within limits for Cr 267.716 Recovery = 92.99%							
Cu 324.752†	2522.1	9.8673 µg/L	0.15510	9.8673 ppb	0.15510	1.57%	
QC value within limits for Cu 324.752 Recovery = 98.67%							
Fe 238.204 Radial†	1820.2	112.18 µg/L	1.752	112.18 ppb	1.752	1.56%	
QC value within limits for Fe 238.204 Radial Recovery = 112.18%							
K 766.490 Radial†	1016.7	372.06 µg/L	36.956	372.06 ppb	36.956	9.93%	
QC value greater than the upper limit for K 766.490 Radial Recovery = 248.04%							
Mg 279.077 IEC†	788.7	293.99 µg/L	4.853	293.99 ppb	4.853	1.65%	
QC value within limits for Mg 279.077 IEC Recovery = 98.00%							
Mn 257.610†	8509.3	10.517 µg/L	0.0726	10.517 ppb	0.0726	0.69%	
QC value within limits for Mn 257.610 Recovery = 105.17%							
Mo 202.031†	295.3	8.6903 µg/L	0.17928	8.6903 ppb	0.17928	2.06%	
QC value within limits for Mo 202.031 Recovery = 86.90%							
Na 589.592 Radial†	2081.1	283.97 µg/L	13.624	283.97 ppb	13.624	4.80%	
QC value within limits for Na 589.592 Radial Recovery = 94.66%							
Ni 231.604†	405.8	4.6721 µg/L	0.12559	4.6721 ppb	0.12559	2.69%	
QC value within limits for Ni 231.604 Recovery = 93.44%							
P 214.914†	649.5	138.78 µg/L	3.418	138.78 ppb	3.418	2.46%	
QC value within limits for P 214.914 Recovery = 92.52%							
Pb 220.353†	153.7	8.5805 µg/L	0.30842	8.5805 ppb	0.30842	3.59%	
QC value within limits for Pb 220.353 Recovery = 85.80%							
S 181.975 Axial†	114.9	85.411 µg/L	1.4236	85.411 ppb	1.4236	1.67%	
QC value within limits for S 181.975 Axial Recovery = 85.41%							
Sb 206.836†	68.2	8.1776 µg/L	0.82605	8.1776 ppb	0.82605	10.10%	
QC value within limits for Sb 206.836 Recovery = 81.78%							
Se 196.026†	72.4	26.3 µg/L	3.10	26.3 ppb	3.10	11.79%	
QC value within limits for Se 196.026 Recovery = 87.51%							
SiO2†	2123.9	207.21 µg/L	1.360	207.21 ppb	1.360	0.66%	
QC value within limits for SiO2 Recovery = 97.28%							
Si 251.611†	6948.6	102.26 µg/L	0.814	102.26 ppb	0.814	0.80%	
QC value within limits for Si 251.611 Recovery = 102.26%							
Sn 189.927†	154.9	9.6768 µg/L	0.17381	9.6768 ppb	0.17381	1.80%	
QC value within limits for Sn 189.927 Recovery = 96.77%							
Sr 421.552†	2530.8	5.2596 µg/L	0.15629	5.2596 ppb	0.15629	2.97%	
QC value within limits for Sr 421.552 Recovery = 105.19%							
Ti 334.940†	5584.1	5.1781 µg/L	0.12719	5.1781 ppb	0.12719	2.46%	
QC value within limits for Ti 334.940 Recovery = 103.56%							
Tl 190.801†	174.8	21.570 µg/L	1.1626	21.570 ppb	1.1626	5.39%	
QC value within limits for Tl 190.801 Recovery = 107.85%							
U 409.014†	802.1	47.184 µg/L	1.9131	47.184 ppb	1.9131	4.05%	
QC value within limits for U 409.014 Recovery = 94.37%							
V 292.402†	849.7	4.2700 µg/L	0.65948	4.2700 ppb	0.65948	15.44%	
QC value within limits for V 292.402 Recovery = 85.40%							
Zn 213.857†	1719.2	9.6115 µg/L	0.12684	9.6115 ppb	0.12684	1.32%	
QC value within limits for Zn 213.857 Recovery = 96.11%							
QC Failed. Continue with analysis.							

Sequence No.: 169

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/1/2010 1:30:35

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	142269.6	142269.6	97.5 %		01:31:08
1	Al 396.153Radial†	26265.9	27004.9	4984.5 µg/L	4984.5 ppb	01:31:08
1	Ca 317.933Radial†	85749.5	87395.0	4868.2 µg/L	4868.2 ppb	01:31:08
1	Fe 238.204 Radial†	76157.7	77968.9	4805.5 µg/L	4805.5 ppb	01:31:08
1	K 766.490 Radial†	14863.6	13701.2	5012.2 µg/L	5012.2 ppb	01:31:08
1	Mg 279.077 IEC†	13087.6	13233.6	4938.2 µg/L	4938.2 ppb	01:31:08
1	Na 589.592 Radial†	70110.3	70623.2	9643.5 µg/L	9643.5 ppb	01:31:08
1	Sr 421.552†	227619.3	233610.5	485.62 µg/L	485.62 ppb	01:31:06
1	Sc 361.383	1737460.4	1737460.4	101.12 %		01:31:21
1	Y 371.029	1026728.3	1026728.3	100.00 %		01:31:21
1	Ag 328.068†	133485.2	127915.4	479.59 µg/L	479.59 ppb	01:31:21
1	As 188.979†	1620.0	1622.4	497.58 µg/L	497.58 ppb	01:31:41
1	B 249.677†	35927.2	32023.4	470.63 µg/L	470.63 ppb	01:31:21
1	Ba 233.527†	119703.8	118513.9	477.96 µg/L	477.96 ppb	01:31:21
1	Be 313.107†	1789882.8	1771124.1	482.37 µg/L	482.37 ppb	01:31:21
1	Cd 226.502†	77069.2	76333.9	476.51 µg/L	476.51 ppb	01:31:21
1	Co 228.616†	38976.7	38735.3	478.19 µg/L	478.19 ppb	01:31:21
1	Cr 267.716†	61508.0	60648.2	474.88 µg/L	474.88 ppb	01:31:21
1	Cu 324.752†	126624.4	122249.8	476.55 µg/L	476.55 ppb	01:31:21
1	Mn 257.610†	392973.5	388384.0	480.34 µg/L	480.34 ppb	01:31:21
1	Mo 202.031†	16410.6	16248.9	477.97 µg/L	477.97 ppb	01:31:41
1	Ni 231.604†	41598.2	41214.0	474.55 µg/L	474.55 ppb	01:31:21
1	P 214.914†	11285.5	11178.5	2382.7 µg/L	2382.7 ppb	01:31:41
1	Pb 220.353†	8747.8	8564.6	479.64 µg/L	479.64 ppb	01:31:41
1	S 181.975 Axial†	1374.4	1254.1	935.33 µg/L	935.33 ppb	01:31:41
1	Sb 206.836†	4142.8	4016.1	478.53 µg/L	478.53 ppb	01:31:41
1	Se 196.026†	1343.3	1313.1	477 µg/L	477 ppb	01:31:41
1	SiO2†	54906.9	52523.5	5113.2 µg/L	5113.2 ppb	01:31:21
1	Si 251.611†	165514.0	162844.3	2391.3 µg/L	2391.3 ppb	01:31:21
1	Sn 189.927†	7741.6	7657.0	478.94 µg/L	478.94 ppb	01:31:41
1	Ti 334.940†	519154.2	512451.9	478.16 µg/L	478.16 ppb	01:31:21
1	Tl 190.801†	3844.3	3918.4	488.62 µg/L	488.62 ppb	01:31:41
1	U 409.014†	7036.4	7228.4	451.59 µg/L	451.59 ppb	01:31:21
1	V 292.402†	98555.4	97060.1	479.81 µg/L	479.81 ppb	01:31:21
1	Zn 213.857†	86480.2	84958.0	473.52 µg/L	473.52 ppb	01:31:21
2	Sc RADIAL	145492.3	145492.3	99.7 %		01:31:12
2	Al 396.153Radial†	26699.5	26843.0	4954.3 µg/L	4954.3 ppb	01:31:12
2	Ca 317.933Radial†	88239.7	87944.4	4898.8 µg/L	4898.8 ppb	01:31:12
2	Fe 238.204 Radial†	78454.6	78542.4	4840.9 µg/L	4840.9 ppb	01:31:12
2	K 766.490 Radial†	15155.4	13656.2	4995.8 µg/L	4995.8 ppb	01:31:12
2	Mg 279.077 IEC†	13542.7	13392.7	4997.5 µg/L	4997.5 ppb	01:31:12
2	Na 589.592 Radial†	71767.1	70692.1	9653.0 µg/L	9653.0 ppb	01:31:12
2	Sr 421.552†	228188.0	229009.4	476.06 µg/L	476.06 ppb	01:31:10
2	Sc 361.383	1723000.0	1723000.0	100.28 %		01:31:44
2	Y 371.029	1017920.8	1017920.8	99.146 %		01:31:44
2	Ag 328.068†	131837.8	127380.5	477.62 µg/L	477.62 ppb	01:31:44
2	As 188.979†	1612.3	1628.2	499.35 µg/L	499.35 ppb	01:32:04
2	B 249.677†	35506.1	31901.7	468.84 µg/L	468.84 ppb	01:31:44
2	Ba 233.527†	118538.3	118345.2	477.28 µg/L	477.28 ppb	01:31:44
2	Be 313.107†	1770416.1	1766566.8	481.14 µg/L	481.14 ppb	01:31:44
2	Cd 226.502†	75820.7	75728.5	472.72 µg/L	472.72 ppb	01:31:44
2	Co 228.616†	38468.3	38551.9	475.92 µg/L	475.92 ppb	01:31:44
2	Cr 267.716†	60774.3	60427.1	473.14 µg/L	473.14 ppb	01:31:44
2	Cu 324.752†	125187.6	121867.9	475.08 µg/L	475.08 ppb	01:31:44
2	Mn 257.610†	388045.5	386731.2	478.29 µg/L	478.29 ppb	01:31:44
2	Mo 202.031†	16407.0	16381.6	481.87 µg/L	481.87 ppb	01:32:04
2	Ni 231.604†	41306.7	41268.5	475.18 µg/L	475.18 ppb	01:31:44
2	P 214.914†	11273.6	11260.3	2400.2 µg/L	2400.2 ppb	01:32:04
2	Pb 220.353†	8792.2	8681.5	486.15 µg/L	486.15 ppb	01:32:04

2	S 181.975 Axial†	1379.3	1270.4	947.45 µg/L	947.45 ppb	01:32:04
2	Sb 206.836†	4139.2	4046.9	482.29 µg/L	482.29 ppb	01:32:04
2	Se 196.026†	1342.4	1323.4	481 µg/L	481 ppb	01:32:04
2	SiO2†	54127.5	52201.9	5081.6 µg/L	5081.6 ppb	01:31:44
2	Si 251.611†	163587.2	162296.6	2383.1 µg/L	2383.1 ppb	01:31:44
2	Sn 189.927†	7748.5	7728.1	483.38 µg/L	483.38 ppb	01:32:04
2	Ti 334.940†	513666.6	511288.3	477.06 µg/L	477.06 ppb	01:31:44
2	Tl 190.801†	3848.1	3954.1	493.00 µg/L	493.00 ppb	01:32:04
2	U 409.014†	7224.9	7474.7	465.94 µg/L	465.94 ppb	01:31:44
2	V 292.402†	97625.8	96951.0	479.31 µg/L	479.31 ppb	01:31:44
2	Zn 213.857†	85297.5	84496.3	470.92 µg/L	470.92 ppb	01:31:44
3	Sc RADIAL	144017.2	144017.2	98.7 %		01:31:16
3	Al 396.153Radial†	26612.6	27029.2	4989.1 µg/L	4989.1 ppb	01:31:16
3	Ca 317.933Radial†	87344.0	87943.4	4898.8 µg/L	4898.8 ppb	01:31:16
3	Fe 238.204 Radial†	77641.1	78524.1	4839.7 µg/L	4839.7 ppb	01:31:16
3	K 766.490 Radial†	15113.2	13769.2	5037.1 µg/L	5037.1 ppb	01:31:16
3	Mg 279.077 IEC†	13475.2	13463.5	5023.8 µg/L	5023.8 ppb	01:31:16
3	Na 589.592 Radial†	71081.3	70734.5	9658.7 µg/L	9658.7 ppb	01:31:16
3	Sr 421.552†	230195.4	233387.7	485.16 µg/L	485.16 ppb	01:31:14
3	Sc 361.383	1737670.0	1737670.0	101.13 %		01:32:07
3	Y 371.029	1026144.0	1026144.0	99.947 %		01:32:07
3	Ag 328.068†	133325.2	127741.3	478.98 µg/L	478.98 ppb	01:32:07
3	As 188.979†	1614.3	1616.6	495.84 µg/L	495.84 ppb	01:32:27
3	B 249.677†	36063.6	32154.0	472.55 µg/L	472.55 ppb	01:32:07
3	Ba 233.527†	119791.6	118586.4	478.26 µg/L	478.26 ppb	01:32:07
3	Be 313.107†	1794420.6	1775397.7	483.54 µg/L	483.54 ppb	01:32:07
3	Cd 226.502†	76706.1	75965.7	474.21 µg/L	474.21 ppb	01:32:07
3	Co 228.616†	39092.4	38845.1	479.54 µg/L	479.54 ppb	01:32:07
3	Cr 267.716†	61552.9	60685.3	475.16 µg/L	475.16 ppb	01:32:07
3	Cu 324.752†	126672.9	122282.6	476.70 µg/L	476.70 ppb	01:32:07
3	Mn 257.610†	392785.8	388151.5	480.05 µg/L	480.05 ppb	01:32:07
3	Mo 202.031†	16368.2	16205.0	476.69 µg/L	476.69 ppb	01:32:27
3	Ni 231.604†	41743.6	41352.8	476.15 µg/L	476.15 ppb	01:32:07
3	P 214.914†	11241.9	11134.0	2373.1 µg/L	2373.1 ppb	01:32:27
3	Pb 220.353†	8768.9	8584.4	480.73 µg/L	480.73 ppb	01:32:27
3	S 181.975 Axial†	1366.4	1246.1	929.32 µg/L	929.32 ppb	01:32:27
3	Sb 206.836†	4129.1	4002.1	476.84 µg/L	476.84 ppb	01:32:27
3	Se 196.026†	1336.5	1306.3	474 µg/L	474 ppb	01:32:27
3	SiO2†	54817.6	52428.6	5104.0 µg/L	5104.0 ppb	01:32:07
3	Si 251.611†	165658.0	162967.0	2393.1 µg/L	2393.1 ppb	01:32:07
3	Sn 189.927†	7715.6	7630.3	477.28 µg/L	477.28 ppb	01:32:27
3	Ti 334.940†	519188.2	512423.6	478.12 µg/L	478.12 ppb	01:32:07
3	Tl 190.801†	3815.9	3889.9	485.12 µg/L	485.12 ppb	01:32:27
3	U 409.014†	7283.4	7471.8	465.86 µg/L	465.86 ppb	01:32:07
3	V 292.402†	98744.6	97235.4	480.66 µg/L	480.66 ppb	01:32:07
3	Zn 213.857†	86568.5	85035.0	473.94 µg/L	473.94 ppb	01:32:07

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1732710.1	100.84 %	0.489			0.49%
Sc RADIAL	143926.4	98.6 %	1.11			1.12%
Y 371.029	1023597.7	99.699 %	0.4797			0.48%
Ag 328.068†	127679.1	478.73 µg/L	1.007	478.73 ppb	1.007	0.21%
QC value within limits for Ag 328.068 Recovery = 95.75%						
Al 396.153Radial†	26959.0	4976.0 µg/L	18.89	4976.0 ppb	18.89	0.38%
QC value within limits for Al 396.153Radial Recovery = 99.52%						
As 188.979†	1622.4	497.59 µg/L	1.754	497.59 ppb	1.754	0.35%
QC value within limits for As 188.979 Recovery = 99.52%						
B 249.677†	32026.3	470.67 µg/L	1.854	470.67 ppb	1.854	0.39%
QC value within limits for B 249.677 Recovery = 94.13%						
Ba 233.527†	118481.8	477.83 µg/L	0.498	477.83 ppb	0.498	0.10%
QC value within limits for Ba 233.527 Recovery = 95.57%						
Be 313.107†	1771029.5	482.35 µg/L	1.202	482.35 ppb	1.202	0.25%
QC value within limits for Be 313.107 Recovery = 96.47%						
Ca 317.933Radial†	87760.9	4888.6 µg/L	17.65	4888.6 ppb	17.65	0.36%
QC value within limits for Ca 317.933Radial Recovery = 97.77%						
Cd 226.502†	76009.3	474.48 µg/L	1.907	474.48 ppb	1.907	0.40%
QC value within limits for Cd 226.502 Recovery = 94.90%						
Co 228.616†	38710.8	477.88 µg/L	1.828	477.88 ppb	1.828	0.38%

QC value within limits for Co 228.616 Recovery = 95.58%							
Cr 267.716†	60586.9	474.39 µg/L	1.096	474.39 ppb	1.096	0.23%	
QC value within limits for Cr 267.716 Recovery = 94.88%							
Cu 324.752†	122133.4	476.11 µg/L	0.893	476.11 ppb	0.893	0.19%	
QC value within limits for Cu 324.752 Recovery = 95.22%							
Fe 238.204 Radial†	78345.1	4828.7 µg/L	20.09	4828.7 ppb	20.09	0.42%	
QC value within limits for Fe 238.204 Radial Recovery = 96.57%							
K 766.490 Radial†	13708.9	5015.0 µg/L	20.81	5015.0 ppb	20.81	0.42%	
QC value within limits for K 766.490 Radial Recovery = 100.30%							
Mg 279.077 IEC†	13363.2	4986.5 µg/L	43.85	4986.5 ppb	43.85	0.88%	
QC value within limits for Mg 279.077 IEC Recovery = 99.73%							
Mn 257.610†	387755.6	479.56 µg/L	1.108	479.56 ppb	1.108	0.23%	
QC value within limits for Mn 257.610 Recovery = 95.91%							
Mo 202.031†	16278.5	478.84 µg/L	2.702	478.84 ppb	2.702	0.56%	
QC value within limits for Mo 202.031 Recovery = 95.77%							
Na 589.592 Radial†	70683.3	9651.7 µg/L	7.67	9651.7 ppb	7.67	0.08%	
QC value within limits for Na 589.592 Radial Recovery = 96.52%							
Ni 231.604†	41278.5	475.29 µg/L	0.805	475.29 ppb	0.805	0.17%	
QC value within limits for Ni 231.604 Recovery = 95.06%							
P 214.914†	11190.9	2385.3 µg/L	13.71	2385.3 ppb	13.71	0.57%	
QC value within limits for P 214.914 Recovery = 95.41%							
Pb 220.353†	8610.1	482.17 µg/L	3.492	482.17 ppb	3.492	0.72%	
QC value within limits for Pb 220.353 Recovery = 96.43%							
S 181.975 Axial†	1256.9	937.36 µg/L	9.234	937.36 ppb	9.234	0.99%	
QC value within limits for S 181.975 Axial Recovery = 93.74%							
Sb 206.836†	4021.7	479.22 µg/L	2.786	479.22 ppb	2.786	0.58%	
QC value within limits for Sb 206.836 Recovery = 95.84%							
Se 196.026†	1314.3	477 µg/L	3.1	477 ppb	3.1	0.65%	
QC value within limits for Se 196.026 Recovery = 95.45%							
SiO2†	52384.6	5099.6 µg/L	16.25	5099.6 ppb	16.25	0.32%	
QC value within limits for SiO2 Recovery = 95.36%							
Si 251.611†	162702.6	2389.2 µg/L	5.32	2389.2 ppb	5.32	0.22%	
QC value within limits for Si 251.611 Recovery = 95.57%							
Sn 189.927†	7671.8	479.87 µg/L	3.150	479.87 ppb	3.150	0.66%	
QC value within limits for Sn 189.927 Recovery = 95.97%							
Sr 421.552†	232002.6	482.28 µg/L	5.394	482.28 ppb	5.394	1.12%	
QC value within limits for Sr 421.552 Recovery = 96.46%							
Ti 334.940†	512054.6	477.78 µg/L	0.622	477.78 ppb	0.622	0.13%	
QC value within limits for Ti 334.940 Recovery = 95.56%							
Tl 190.801†	3920.8	488.92 µg/L	3.950	488.92 ppb	3.950	0.81%	
QC value within limits for Tl 190.801 Recovery = 97.78%							
U 409.014†	7391.6	461.13 µg/L	8.265	461.13 ppb	8.265	1.79%	
QC value within limits for U 409.014 Recovery = 92.23%							
V 292.402†	97082.1	479.92 µg/L	0.679	479.92 ppb	0.679	0.14%	
QC value within limits for V 292.402 Recovery = 95.98%							
Zn 213.857†	84829.8	472.79 µg/L	1.636	472.79 ppb	1.636	0.35%	
QC value within limits for Zn 213.857 Recovery = 94.56%							
All analyte(s) passed QC.							

Sequence No.: 170

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/1/2010 1:32:36

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	144650.2	144650.2	99.1 %		01:33:05
1	Al 396.153Radial†	55.6	119.3	22.113 µg/L	22.113 ppb	01:33:25
1	Ca 317.933Radial†	1021.9	470.4	26.200 µg/L	26.200 ppb	01:33:25
1	Fe 238.204 Radial†	306.2	160.8	9.9101 µg/L	9.9101 ppb	01:33:25
1	K 766.490 Radial†	1926.7	399.0	146.05 µg/L	146.05 ppb	01:33:05
1	Mg 279.077 IEC†	254.5	66.1	24.617 µg/L	24.617 ppb	01:33:25
1	Na 589.592 Radial†	1387.7	109.2	14.783 µg/L	14.783 ppb	01:33:05
1	Sr 421.552†	-207.2	-73.8	-0.1536 µg/L	-0.1536 ppb	01:33:05
1	Sc 361.383	1731773.4	1731773.4	100.79 %		01:34:13
1	Y 371.029	1034993.2	1034993.2	100.81 %		01:34:13
1	Ag 328.068†	4219.4	95.0	0.3480 µg/L	0.3480 ppb	01:34:15
1	As 188.979†	-14.9	5.6	1.6865 µg/L	1.6865 ppb	01:34:35
1	B 249.677†	3568.7	34.9	0.5127 µg/L	0.5127 ppb	01:34:15
1	Ba 233.527†	-137.0	-0.1	-0.0009 µg/L	-0.0009 ppb	01:34:35
1	Be 313.107†	-780.2	290.6	0.0800 µg/L	0.0800 ppb	01:34:15
1	Cd 226.502†	-91.2	27.8	0.1726 µg/L	0.1726 ppb	01:34:35
1	Co 228.616†	-160.4	31.2	0.3844 µg/L	0.3844 ppb	01:34:35
1	Cr 267.716†	211.8	31.6	0.2451 µg/L	0.2451 ppb	01:34:35
1	Cu 324.752†	2967.0	-28.5	-0.1059 µg/L	-0.1059 ppb	01:34:15
1	Mn 257.610†	310.1	70.4	0.0862 µg/L	0.0862 ppb	01:34:35
1	Mo 202.031†	-19.2	1.0	0.0313 µg/L	0.0313 ppb	01:34:35
1	Ni 231.604†	-38.5	38.4	0.4416 µg/L	0.4416 ppb	01:34:35
1	P 214.914†	-26.9	-8.7	-1.8628 µg/L	-1.8628 ppb	01:34:35
1	Pb 220.353†	65.3	-21.6	-1.2051 µg/L	-1.2051 ppb	01:34:35
1	S 181.975 Axial†	106.1	0.2	0.1331 µg/L	0.1331 ppb	01:34:35
1	Sb 206.836†	73.4	-8.0	-0.9578 µg/L	-0.9578 ppb	01:34:35
1	Se 196.026†	15.6	0.2	0.068 µg/L	0.068 ppb	01:34:35
1	SiO2†	1796.3	6.8	0.6595 µg/L	0.6595 ppb	01:34:35
1	Si 251.611†	840.5	-2.6	-0.0425 µg/L	-0.0425 ppb	01:34:15
1	Sn 189.927†	7.4	8.4	0.5243 µg/L	0.5243 ppb	01:34:35
1	Ti 334.940†	956.0	-4.0	-0.0063 µg/L	-0.0063 ppb	01:34:15
1	Tl 190.801†	-113.8	3.8	0.4619 µg/L	0.4619 ppb	01:34:35
1	U 409.014†	-221.8	49.8	2.8783 µg/L	2.8783 ppb	01:34:15
1	V 292.402†	291.0	-115.1	-0.5590 µg/L	-0.5590 ppb	01:34:15
1	Zn 213.857†	611.2	42.0	0.2323 µg/L	0.2323 ppb	01:34:35
2	Sc RADIAL	143480.2	143480.2	98.3 %		01:33:27
2	Al 396.153Radial†	35.4	99.2	18.400 µg/L	18.400 ppb	01:33:47
2	Ca 317.933Radial†	923.3	378.5	21.086 µg/L	21.086 ppb	01:33:47
2	Fe 238.204 Radial†	279.8	136.5	8.4133 µg/L	8.4133 ppb	01:33:47
2	K 766.490 Radial†	2033.7	523.6	191.70 µg/L	191.70 ppb	01:33:27
2	Mg 279.077 IEC†	230.6	43.8	16.325 µg/L	16.325 ppb	01:33:47
2	Na 589.592 Radial†	1388.8	121.8	16.463 µg/L	16.463 ppb	01:33:27
2	Sr 421.552†	-108.3	25.1	0.0520 µg/L	0.0520 ppb	01:33:27
2	Sc 361.383	1749816.9	1749816.9	101.84 %		01:34:37
2	Y 371.029	1045017.7	1045017.7	101.79 %		01:34:37
2	Ag 328.068†	4151.7	-14.6	-0.0529 µg/L	-0.0529 ppb	01:34:40
2	As 188.979†	-13.8	6.8	2.0524 µg/L	2.0524 ppb	01:35:00
2	B 249.677†	3626.5	55.1	0.8113 µg/L	0.8113 ppb	01:34:40
2	Ba 233.527†	-104.2	33.5	0.1349 µg/L	0.1349 ppb	01:35:00
2	Be 313.107†	-899.2	181.7	0.0507 µg/L	0.0507 ppb	01:34:40
2	Cd 226.502†	-104.7	15.4	0.0953 µg/L	0.0953 ppb	01:35:00
2	Co 228.616†	-169.5	23.9	0.2945 µg/L	0.2945 ppb	01:35:00
2	Cr 267.716†	201.1	18.9	0.1446 µg/L	0.1446 ppb	01:35:00
2	Cu 324.752†	2829.6	-193.8	-0.7479 µg/L	-0.7479 ppb	01:34:40
2	Mn 257.610†	297.6	54.9	0.0673 µg/L	0.0673 ppb	01:35:00
2	Mo 202.031†	-24.5	-4.0	-0.1177 µg/L	-0.1177 ppb	01:35:00
2	Ni 231.604†	-90.3	-12.1	-0.1396 µg/L	-0.1396 ppb	01:35:00
2	P 214.914†	-13.7	4.5	0.9779 µg/L	0.9779 ppb	01:35:00
2	Pb 220.353†	69.0	-18.6	-1.0426 µg/L	-1.0426 ppb	01:35:00

2	S 181.975 Axial†	90.5	-16.2	-12.038 µg/L	-12.038 ppb	01:35:00
2	Sb 206.836†	72.9	-9.3	-1.1038 µg/L	-1.1038 ppb	01:35:00
2	Se 196.026†	26.1	10.3	3.74 µg/L	3.74 ppb	01:35:00
2	SiO2†	1690.9	-115.0	-11.246 µg/L	-11.246 ppb	01:35:00
2	Si 251.611†	970.1	116.0	1.7095 µg/L	1.7095 ppb	01:34:40
2	Sn 189.927†	4.5	5.5	0.3461 µg/L	0.3461 ppb	01:35:00
2	Ti 334.940†	1033.1	61.9	0.0554 µg/L	0.0554 ppb	01:34:40
2	Tl 190.801†	-109.0	9.6	1.1795 µg/L	1.1795 ppb	01:35:00
2	U 409.014†	-207.0	66.6	3.8786 µg/L	3.8786 ppb	01:34:40
2	V 292.402†	361.7	-48.6	-0.2362 µg/L	-0.2362 ppb	01:34:40
2	Zn 213.857†	609.4	34.0	0.1917 µg/L	0.1917 ppb	01:35:00
3	Sc RADIAL	144046.9	144046.9	98.7 %		01:33:49
3	Al 396.153Radial†	17.0	80.4	14.927 µg/L	14.927 ppb	01:34:10
3	Ca 317.933Radial†	885.2	336.2	18.727 µg/L	18.727 ppb	01:34:10
3	Fe 238.204 Radial†	250.9	106.1	6.5367 µg/L	6.5367 ppb	01:34:10
3	K 766.490 Radial†	1975.4	456.4	167.09 µg/L	167.09 ppb	01:33:49
3	Mg 279.077 IEC†	216.2	28.3	10.536 µg/L	10.536 ppb	01:34:10
3	Na 589.592 Radial†	1284.3	10.3	1.2517 µg/L	1.2517 ppb	01:33:49
3	Sr 421.552†	-129.3	4.3	0.0087 µg/L	0.0087 ppb	01:33:49
3	Sc 361.383	1747720.5	1747720.5	101.72 %		01:35:02
3	Y 371.029	1042519.0	1042519.0	101.54 %		01:35:02
3	Ag 328.068†	4083.2	-77.1	-0.2760 µg/L	-0.2760 ppb	01:35:04
3	As 188.979†	-23.1	-2.4	-0.7100 µg/L	-0.7100 ppb	01:35:24
3	B 249.677†	3447.3	-116.8	-1.7241 µg/L	-1.7241 ppb	01:35:04
3	Ba 233.527†	-100.7	36.9	0.1482 µg/L	0.1482 ppb	01:35:24
3	Be 313.107†	-1007.0	74.7	0.0236 µg/L	0.0236 ppb	01:35:04
3	Cd 226.502†	-108.8	11.3	0.0697 µg/L	0.0697 ppb	01:35:24
3	Co 228.616†	-158.9	34.1	0.4206 µg/L	0.4206 ppb	01:35:24
3	Cr 267.716†	198.6	16.7	0.1225 µg/L	0.1225 ppb	01:35:24
3	Cu 324.752†	2971.0	-51.4	-0.1894 µg/L	-0.1894 ppb	01:35:04
3	Mn 257.610†	275.0	33.1	0.0405 µg/L	0.0405 ppb	01:35:24
3	Mo 202.031†	-29.3	-8.8	-0.2571 µg/L	-0.2571 ppb	01:35:24
3	Ni 231.604†	-102.1	-23.9	-0.2749 µg/L	-0.2749 ppb	01:35:24
3	P 214.914†	-27.0	-8.6	-1.8213 µg/L	-1.8213 ppb	01:35:24
3	Pb 220.353†	72.1	-15.5	-0.8740 µg/L	-0.8740 ppb	01:35:24
3	S 181.975 Axial†	95.4	-11.3	-8.3648 µg/L	-8.3648 ppb	01:35:24
3	Sb 206.836†	83.3	1.1	0.1275 µg/L	0.1275 ppb	01:35:24
3	Se 196.026†	15.1	-0.5	-0.158 µg/L	-0.158 ppb	01:35:24
3	SiO2†	1778.9	-26.5	-2.5941 µg/L	-2.5941 ppb	01:35:24
3	Si 251.611†	839.8	-10.9	-0.1611 µg/L	-0.1611 ppb	01:35:04
3	Sn 189.927†	6.7	7.7	0.4774 µg/L	0.4774 ppb	01:35:24
3	Ti 334.940†	921.8	-46.3	-0.0480 µg/L	-0.0480 ppb	01:35:04
3	Tl 190.801†	-117.9	0.8	0.0949 µg/L	0.0949 ppb	01:35:24
3	U 409.014†	-88.3	183.1	10.689 µg/L	10.689 ppb	01:35:04
3	V 292.402†	353.6	-56.1	-0.2694 µg/L	-0.2694 ppb	01:35:04
3	Zn 213.857†	615.1	40.3	0.2274 µg/L	0.2274 ppb	01:35:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1743103.6	101.45 %	0.574			0.57%
Sc RADIAL	144059.1	98.7 %	0.40			0.41%
Y 371.029	1040843.3	101.38 %	0.508			0.50%
Ag 328.068†	1.1	0.0064 µg/L	0.31617	0.0064 ppb	0.31617	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	99.6	18.480 µg/L	3.5934	18.480 ppb	3.5934	19.45%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	3.3	1.0096 µg/L	1.50042	1.0096 ppb	1.50042	148.61%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-9.0	-0.1334 µg/L	1.38566	-0.1334 ppb	1.38566	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	23.4	0.0941 µg/L	0.08251	0.0941 ppb	0.08251	87.72%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	182.3	0.0514 µg/L	0.02823	0.0514 ppb	0.02823	54.91%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	395.0	22.004 µg/L	3.8206	22.004 ppb	3.8206	17.36%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	18.2	0.1125 µg/L	0.05357	0.1125 ppb	0.05357	47.61%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	29.7	0.3665 µg/L	0.06493	0.3665 ppb	0.06493	17.72%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	22.4	0.1708 µg/L	0.06537	0.1708 ppb	0.06537	38.28%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-91.2	-0.3477 µg/L	0.34907	-0.3477 ppb	0.34907	100.39%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	134.5	8.2867 µg/L	1.69027	8.2867 ppb	1.69027	20.40%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	459.7	168.28 µg/L	22.848	168.28 ppb	22.848	13.58%	
QC value greater than the upper limit for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	46.1	17.159 µg/L	7.0777	17.159 ppb	7.0777	41.25%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	52.8	0.0647 µg/L	0.02293	0.0647 ppb	0.02293	35.46%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-3.9	-0.1145 µg/L	0.14420	-0.1145 ppb	0.14420	125.93%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	80.4	10.833 µg/L	8.3397	10.833 ppb	8.3397	76.99%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	0.8	0.0091 µg/L	0.38069	0.0091 ppb	0.38069	>999.9%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-4.3	-0.9020 µg/L	1.62822	-0.9020 ppb	1.62822	180.50%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-18.6	-1.0406 µg/L	0.16556	-1.0406 ppb	0.16556	15.91%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-9.1	-6.7567 µg/L	6.24300	-6.7567 ppb	6.24300	92.40%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-5.4	-0.6447 µg/L	0.67274	-0.6447 ppb	0.67274	104.35%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	3.3	1.22 µg/L	2.190	1.22 ppb	2.190	179.88%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-44.9	-4.3935 µg/L	6.15338	-4.3935 ppb	6.15338	140.06%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	34.1	0.5020 µg/L	1.04746	0.5020 ppb	1.04746	208.67%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	7.2	0.4493 µg/L	0.09239	0.4493 ppb	0.09239	20.57%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-14.8	-0.0310 µg/L	0.10839	-0.0310 ppb	0.10839	350.04%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	3.9	0.0003 µg/L	0.05203	0.0003 ppb	0.05203	>999.9%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	4.7	0.5788 µg/L	0.55162	0.5788 ppb	0.55162	95.31%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	99.8	5.8153 µg/L	4.25029	5.8153 ppb	4.25029	73.09%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-73.3	-0.3549 µg/L	0.17756	-0.3549 ppb	0.17756	50.04%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	38.8	0.2171 µg/L	0.02218	0.2171 ppb	0.02218	10.22%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 178

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/1/2010 1:53:27

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	144889.1	144889.1	99.3 %		01:54:01
1	Al 396.153Radial†	26444.1	26697.2	4927.6 µg/L	4927.6 ppb	01:54:01
1	Ca 317.933Radial†	86941.0	87004.9	4846.5 µg/L	4846.5 ppb	01:54:01
1	Fe 238.204 Radial†	77758.3	78168.7	4817.8 µg/L	4817.8 ppb	01:54:01
1	K 766.490 Radial†	14897.6	13459.8	4923.9 µg/L	4923.9 ppb	01:54:01
1	Mg 279.077 IEC†	13366.3	13271.6	4952.3 µg/L	4952.3 ppb	01:54:01
1	Na 589.592 Radial†	71709.3	70933.5	9686.0 µg/L	9686.0 ppb	01:54:01
1	Sr 421.552†	230601.0	232392.6	483.09 µg/L	483.09 ppb	01:53:59
1	Sc 361.383	1732100.0	1732100.0	100.81 %		01:54:28
1	Y 371.029	1023099.6	1023099.6	99.650 %		01:54:28
1	Ag 328.068†	133137.6	127979.1	479.85 µg/L	479.85 ppb	01:54:28
1	As 188.979†	1612.3	1619.7	496.76 µg/L	496.76 ppb	01:54:48
1	B 249.677†	35874.9	32081.5	471.48 µg/L	471.48 ppb	01:54:28
1	Ba 233.527†	119611.7	118788.9	479.07 µg/L	479.07 ppb	01:54:28
1	Be 313.107†	1788545.3	1775275.2	483.50 µg/L	483.50 ppb	01:54:28
1	Cd 226.502†	76870.4	76372.5	476.75 µg/L	476.75 ppb	01:54:28
1	Co 228.616†	38991.6	38869.4	479.84 µg/L	479.84 ppb	01:54:28
1	Cr 267.716†	61212.0	60542.8	474.05 µg/L	474.05 ppb	01:54:28
1	Cu 324.752†	126385.1	122399.9	477.14 µg/L	477.14 ppb	01:54:28
1	Mn 257.610†	391844.9	388467.0	480.44 µg/L	480.44 ppb	01:54:28
1	Mo 202.031†	16253.3	16143.1	474.86 µg/L	474.86 ppb	01:54:48
1	Ni 231.604†	41701.3	41443.5	477.19 µg/L	477.19 ppb	01:54:28
1	P 214.914†	11179.5	11107.9	2367.6 µg/L	2367.6 ppb	01:54:48
1	Pb 220.353†	8738.5	8582.1	480.59 µg/L	480.59 ppb	01:54:48
1	S 181.975 Axial†	1413.8	1297.4	967.45 µg/L	967.45 ppb	01:54:48
1	Sb 206.836†	4129.4	4015.5	478.42 µg/L	478.42 ppb	01:54:48
1	Se 196.026†	1321.4	1295.6	470 µg/L	470 ppb	01:54:48
1	SiO2†	54758.0	52543.7	5115.3 µg/L	5115.3 ppb	01:54:28
1	Si 251.611†	165491.5	163328.5	2398.5 µg/L	2398.5 ppb	01:54:28
1	Sn 189.927†	7680.8	7620.3	476.66 µg/L	476.66 ppb	01:54:48
1	Ti 334.940†	517868.9	512765.7	478.45 µg/L	478.45 ppb	01:54:28
1	Tl 190.801†	3805.2	3891.4	485.31 µg/L	485.31 ppb	01:54:48
1	U 409.014†	7130.8	7343.6	458.38 µg/L	458.38 ppb	01:54:28
1	V 292.402†	98453.8	97260.9	480.75 µg/L	480.75 ppb	01:54:28
1	Zn 213.857†	86275.4	85019.5	473.84 µg/L	473.84 ppb	01:54:28
2	Sc RADIAL	144090.9	144090.9	98.7 %		01:54:05
2	Al 396.153Radial†	26312.9	26711.9	4930.1 µg/L	4930.1 ppb	01:54:05
2	Ca 317.933Radial†	86199.8	86739.3	4831.7 µg/L	4831.7 ppb	01:54:05
2	Fe 238.204 Radial†	77277.1	78115.2	4814.5 µg/L	4814.5 ppb	01:54:05
2	K 766.490 Radial†	14795.3	13439.4	4916.4 µg/L	4916.4 ppb	01:54:05
2	Mg 279.077 IEC†	13254.1	13232.5	4937.8 µg/L	4937.8 ppb	01:54:05
2	Na 589.592 Radial†	71224.5	70842.7	9673.6 µg/L	9673.6 ppb	01:54:05
2	Sr 421.552†	226568.0	229594.7	477.28 µg/L	477.28 ppb	01:54:03
2	Sc 361.383	1743024.7	1743024.7	101.44 %		01:54:51
2	Y 371.029	1028485.3	1028485.3	100.17 %		01:54:51
2	Ag 328.068†	133695.0	127700.8	478.84 µg/L	478.84 ppb	01:54:51
2	As 188.979†	1633.2	1630.3	499.98 µg/L	499.98 ppb	01:55:11
2	B 249.677†	35991.2	31973.1	469.88 µg/L	469.88 ppb	01:54:51
2	Ba 233.527†	120399.9	118822.2	479.21 µg/L	479.21 ppb	01:54:51
2	Be 313.107†	1803686.2	1779080.5	484.55 µg/L	484.55 ppb	01:54:51
2	Cd 226.502†	77645.9	76659.1	478.54 µg/L	478.54 ppb	01:54:51
2	Co 228.616†	39225.9	38858.0	479.70 µg/L	479.70 ppb	01:54:51
2	Cr 267.716†	61891.8	60832.4	476.31 µg/L	476.31 ppb	01:54:51
2	Cu 324.752†	127393.6	122608.3	477.96 µg/L	477.96 ppb	01:54:51
2	Mn 257.610†	395069.2	389209.2	481.36 µg/L	481.36 ppb	01:54:51
2	Mo 202.031†	16503.6	16288.8	479.15 µg/L	479.15 ppb	01:55:11
2	Ni 231.604†	41973.3	41452.5	477.30 µg/L	477.30 ppb	01:54:51
2	P 214.914†	11383.8	11239.8	2395.8 µg/L	2395.8 ppb	01:55:11
2	Pb 220.353†	8825.3	8613.3	482.34 µg/L	482.34 ppb	01:55:11

2	S 181.975 Axial†	1446.2	1320.5	984.64 µg/L	984.64 ppb	01:55:11
2	Sb 206.836†	4171.5	4031.4	480.35 µg/L	480.35 ppb	01:55:11
2	Se 196.026†	1358.8	1324.1	481 µg/L	481 ppb	01:55:11
2	SiO2†	55126.8	52566.8	5117.4 µg/L	5117.4 ppb	01:54:51
2	Si 251.611†	166831.3	163620.3	2402.7 µg/L	2402.7 ppb	01:54:51
2	Sn 189.927†	7808.6	7698.6	481.54 µg/L	481.54 ppb	01:55:11
2	Ti 334.940†	521492.7	513118.1	478.77 µg/L	478.77 ppb	01:54:51
2	Tl 190.801†	3856.9	3918.7	488.67 µg/L	488.67 ppb	01:55:11
2	U 409.014†	7461.6	7625.3	474.87 µg/L	474.87 ppb	01:54:51
2	V 292.402†	99126.3	97311.7	481.07 µg/L	481.07 ppb	01:54:51
2	Zn 213.857†	86941.8	85140.0	474.52 µg/L	474.52 ppb	01:54:51
3	Sc RADIAL	143189.9	143189.9	98.1 %		01:54:09
3	Al 396.153Radial†	26288.8	26855.0	4956.7 µg/L	4956.7 ppb	01:54:09
3	Ca 317.933Radial†	85899.6	86982.7	4845.3 µg/L	4845.3 ppb	01:54:09
3	Fe 238.204 Radial†	76674.9	77993.9	4807.1 µg/L	4807.1 ppb	01:54:09
3	K 766.490 Radial†	14694.1	13430.5	4913.1 µg/L	4913.1 ppb	01:54:09
3	Mg 279.077 IEC†	13109.4	13169.5	4914.3 µg/L	4914.3 ppb	01:54:09
3	Na 589.592 Radial†	71187.8	71259.1	9730.5 µg/L	9730.5 ppb	01:54:09
3	Sr 421.552†	229587.3	234115.6	486.67 µg/L	486.67 ppb	01:54:07
3	Sc 361.383	1732756.5	1732756.5	100.85 %		01:55:14
3	Y 371.029	1023226.1	1023226.1	99.663 %		01:55:14
3	Ag 328.068†	132868.9	127662.6	478.70 µg/L	478.70 ppb	01:55:14
3	As 188.979†	1613.1	1619.9	496.83 µg/L	496.83 ppb	01:55:34
3	B 249.677†	36177.8	32368.3	475.71 µg/L	475.71 ppb	01:55:14
3	Ba 233.527†	119703.3	118834.8	479.26 µg/L	479.26 ppb	01:55:14
3	Be 313.107†	1791615.1	1777647.1	484.16 µg/L	484.16 ppb	01:55:14
3	Cd 226.502†	76911.2	76384.1	476.82 µg/L	476.82 ppb	01:55:14
3	Co 228.616†	38990.6	38853.8	479.65 µg/L	479.65 ppb	01:55:14
3	Cr 267.716†	61496.0	60801.5	476.06 µg/L	476.06 ppb	01:55:14
3	Cu 324.752†	126455.9	122422.6	477.24 µg/L	477.24 ppb	01:55:14
3	Mn 257.610†	392850.6	389317.1	481.49 µg/L	481.49 ppb	01:55:14
3	Mo 202.031†	16363.5	16246.3	477.90 µg/L	477.90 ppb	01:55:34
3	Ni 231.604†	41768.3	41494.4	477.78 µg/L	477.78 ppb	01:55:14
3	P 214.914†	11227.0	11150.7	2376.7 µg/L	2376.7 ppb	01:55:34
3	Pb 220.353†	8769.4	8609.4	482.12 µg/L	482.12 ppb	01:55:34
3	S 181.975 Axial†	1409.8	1292.9	964.13 µg/L	964.13 ppb	01:55:34
3	Sb 206.836†	4149.1	4033.4	480.58 µg/L	480.58 ppb	01:55:34
3	Se 196.026†	1348.9	1322.3	480 µg/L	480 ppb	01:55:34
3	SiO2†	54793.8	52558.7	5116.7 µg/L	5116.7 ppb	01:55:14
3	Si 251.611†	165958.9	163729.8	2404.3 µg/L	2404.3 ppb	01:55:14
3	Sn 189.927†	7740.4	7676.6	480.17 µg/L	480.17 ppb	01:55:34
3	Ti 334.940†	518815.4	513509.7	479.14 µg/L	479.14 ppb	01:55:14
3	Tl 190.801†	3816.6	3901.3	486.54 µg/L	486.54 ppb	01:55:34
3	U 409.014†	7409.2	7616.9	474.38 µg/L	474.38 ppb	01:55:14
3	V 292.402†	98541.2	97310.6	481.05 µg/L	481.05 ppb	01:55:14
3	Zn 213.857†	86396.5	85107.2	474.34 µg/L	474.34 ppb	01:55:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1735960.4	101.03 %	0.357			0.35%
Sc RADIAL	144056.6	98.7 %	0.58			0.59%
Y 371.029	1024937.0	99.829 %	0.2994			0.30%
Ag 328.068†	127780.9	479.13 µg/L	0.627	479.13 ppb	0.627	0.13%
QC value within limits for Ag 328.068 Recovery = 95.83%						
Al 396.153Radial†	26754.7	4938.1 µg/L	16.14	4938.1 ppb	16.14	0.33%
QC value within limits for Al 396.153Radial Recovery = 98.76%						
As 188.979†	1623.3	497.86 µg/L	1.841	497.86 ppb	1.841	0.37%
QC value within limits for As 188.979 Recovery = 99.57%						
B 249.677†	32141.0	472.36 µg/L	3.012	472.36 ppb	3.012	0.64%
QC value within limits for B 249.677 Recovery = 94.47%						
Ba 233.527†	118815.3	479.18 µg/L	0.096	479.18 ppb	0.096	0.02%
QC value within limits for Ba 233.527 Recovery = 95.84%						
Be 313.107†	1777334.3	484.07 µg/L	0.526	484.07 ppb	0.526	0.11%
QC value within limits for Be 313.107 Recovery = 96.81%						
Ca 317.933Radial†	86909.0	4841.2 µg/L	8.21	4841.2 ppb	8.21	0.17%
QC value within limits for Ca 317.933Radial Recovery = 96.82%						
Cd 226.502†	76471.9	477.37 µg/L	1.013	477.37 ppb	1.013	0.21%
QC value within limits for Cd 226.502 Recovery = 95.47%						
Co 228.616†	38860.4	479.73 µg/L	0.099	479.73 ppb	0.099	0.02%

QC value within limits for Co 228.616 Recovery = 95.95%							
Cr 267.716†	60725.6	475.47 µg/L	1.238	475.47 ppb	1.238	0.26%	
QC value within limits for Cr 267.716 Recovery = 95.09%							
Cu 324.752†	122476.9	477.45 µg/L	0.449	477.45 ppb	0.449	0.09%	
QC value within limits for Cu 324.752 Recovery = 95.49%							
Fe 238.204 Radial†	78092.6	4813.1 µg/L	5.52	4813.1 ppb	5.52	0.11%	
QC value within limits for Fe 238.204 Radial Recovery = 96.26%							
K 766.490 Radial†	13443.2	4917.8 µg/L	5.50	4917.8 ppb	5.50	0.11%	
QC value within limits for K 766.490 Radial Recovery = 98.36%							
Mg 279.077 IEC†	13224.5	4934.8 µg/L	19.15	4934.8 ppb	19.15	0.39%	
QC value within limits for Mg 279.077 IEC Recovery = 98.70%							
Mn 257.610†	388997.8	481.10 µg/L	0.573	481.10 ppb	0.573	0.12%	
QC value within limits for Mn 257.610 Recovery = 96.22%							
Mo 202.031†	16226.1	477.30 µg/L	2.201	477.30 ppb	2.201	0.46%	
QC value within limits for Mo 202.031 Recovery = 95.46%							
Na 589.592 Radial†	71011.8	9696.7 µg/L	29.92	9696.7 ppb	29.92	0.31%	
QC value within limits for Na 589.592 Radial Recovery = 96.97%							
Ni 231.604†	41463.5	477.42 µg/L	0.312	477.42 ppb	0.312	0.07%	
QC value within limits for Ni 231.604 Recovery = 95.48%							
P 214.914†	11166.1	2380.0 µg/L	14.38	2380.0 ppb	14.38	0.60%	
QC value within limits for P 214.914 Recovery = 95.20%							
Pb 220.353†	8601.6	481.68 µg/L	0.950	481.68 ppb	0.950	0.20%	
QC value within limits for Pb 220.353 Recovery = 96.34%							
S 181.975 Axial†	1303.6	972.07 µg/L	11.009	972.07 ppb	11.009	1.13%	
QC value within limits for S 181.975 Axial Recovery = 97.21%							
Sb 206.836†	4026.7	479.79 µg/L	1.184	479.79 ppb	1.184	0.25%	
QC value within limits for Sb 206.836 Recovery = 95.96%							
Se 196.026†	1314.0	477 µg/L	5.8	477 ppb	5.8	1.21%	
QC value within limits for Se 196.026 Recovery = 95.43%							
SiO2†	52556.4	5116.5 µg/L	1.05	5116.5 ppb	1.05	0.02%	
QC value within limits for SiO2 Recovery = 95.68%							
Si 251.611†	163559.6	2401.8 µg/L	3.02	2401.8 ppb	3.02	0.13%	
QC value within limits for Si 251.611 Recovery = 96.07%							
Sn 189.927†	7665.2	479.46 µg/L	2.517	479.46 ppb	2.517	0.53%	
QC value within limits for Sn 189.927 Recovery = 95.89%							
Sr 421.552†	232034.3	482.35 µg/L	4.743	482.35 ppb	4.743	0.98%	
QC value within limits for Sr 421.552 Recovery = 96.47%							
Ti 334.940†	513131.2	478.79 µg/L	0.346	478.79 ppb	0.346	0.07%	
QC value within limits for Ti 334.940 Recovery = 95.76%							
Tl 190.801†	3903.8	486.84 µg/L	1.702	486.84 ppb	1.702	0.35%	
QC value within limits for Tl 190.801 Recovery = 97.37%							
U 409.014†	7528.6	469.21 µg/L	9.385	469.21 ppb	9.385	2.00%	
QC value within limits for U 409.014 Recovery = 93.84%							
V 292.402†	97294.4	480.96 µg/L	0.176	480.96 ppb	0.176	0.04%	
QC value within limits for V 292.402 Recovery = 96.19%							
Zn 213.857†	85088.9	474.23 µg/L	0.349	474.23 ppb	0.349	0.07%	
QC value within limits for Zn 213.857 Recovery = 94.85%							

All analyte(s) passed QC.

Sequence No.: 179

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/1/2010 1:55:42

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	145551.6	145551.6	99.7 %		01:56:11
1	Al 396.153Radial†	-65.8	-2.8	-0.5143 µg/L	-0.5143 ppb	01:56:31
1	Ca 317.933Radial†	666.6	107.8	6.0037 µg/L	6.0037 ppb	01:56:31
1	Fe 238.204 Radial†	142.8	-5.0	-0.3060 µg/L	-0.3060 ppb	01:56:31
1	K 766.490 Radial†	1839.3	299.3	109.59 µg/L	109.59 ppb	01:56:11
1	Mg 279.077 IEC†	181.2	-9.0	-3.3548 µg/L	-3.3548 ppb	01:56:31
1	Na 589.592 Radial†	1588.0	301.3	41.070 µg/L	41.070 ppb	01:56:11
1	Sr 421.552†	-333.1	-198.7	-0.4132 µg/L	-0.4132 ppb	01:56:11
1	Sc 361.383	1751779.3	1751779.3	101.95 %		01:57:33
1	Y 371.029	1045514.8	1045514.8	101.83 %		01:57:33
1	Ag 328.068†	4128.8	-41.7	-0.1593 µg/L	-0.1593 ppb	01:57:35
1	As 188.979†	-12.8	7.8	2.3692 µg/L	2.3692 ppb	01:57:55
1	B 249.677†	3541.5	-32.3	-0.4767 µg/L	-0.4767 ppb	01:57:35
1	Ba 233.527†	-108.9	29.0	0.1170 µg/L	0.1170 ppb	01:57:55
1	Be 313.107†	-1073.9	11.4	0.0014 µg/L	0.0014 ppb	01:57:35
1	Cd 226.502†	-112.0	8.4	0.0522 µg/L	0.0522 ppb	01:57:55
1	Co 228.616†	-179.5	14.2	0.1753 µg/L	0.1753 ppb	01:57:55
1	Cr 267.716†	181.7	-0.3	0.0020 µg/L	0.0020 ppb	01:57:55
1	Cu 324.752†	3003.9	-25.8	-0.1050 µg/L	-0.1050 ppb	01:57:35
1	Mn 257.610†	273.3	30.8	0.0383 µg/L	0.0383 ppb	01:57:55
1	Mo 202.031†	-22.7	-2.2	-0.0633 µg/L	-0.0633 ppb	01:57:55
1	Ni 231.604†	-96.5	-18.1	-0.2088 µg/L	-0.2088 ppb	01:57:55
1	P 214.914†	-18.3	0.0	0.0166 µg/L	0.0166 ppb	01:57:55
1	Pb 220.353†	65.4	-22.2	-1.2353 µg/L	-1.2353 ppb	01:57:55
1	S 181.975 Axial†	114.5	7.3	5.3871 µg/L	5.3871 ppb	01:57:55
1	Sb 206.836†	62.6	-19.4	-2.3048 µg/L	-2.3048 ppb	01:57:55
1	Se 196.026†	0.8	-14.5	-5.25 µg/L	-5.25 ppb	01:57:55
1	SiO2†	1800.8	-9.1	-0.8957 µg/L	-0.8957 ppb	01:57:35
1	Si 251.611†	889.3	35.7	0.5242 µg/L	0.5242 ppb	01:57:35
1	Sn 189.927†	7.5	8.5	0.5302 µg/L	0.5302 ppb	01:57:55
1	Ti 334.940†	969.2	-1.9	0.0010 µg/L	0.0010 ppb	01:57:35
1	Tl 190.801†	-112.3	6.6	0.8079 µg/L	0.8079 ppb	01:57:55
1	U 409.014†	-372.7	-95.6	-5.5813 µg/L	-5.5813 ppb	01:57:35
1	V 292.402†	449.1	36.7	0.1747 µg/L	0.1747 ppb	01:57:35
1	Zn 213.857†	603.1	27.2	0.1540 µg/L	0.1540 ppb	01:57:55
2	Sc RADIAL	142463.2	142463.2	97.6 %		01:56:33
2	Al 396.153Radial†	-76.0	-14.7	-2.7386 µg/L	-2.7386 ppb	01:56:53
2	Ca 317.933Radial†	631.4	86.2	4.8021 µg/L	4.8021 ppb	01:56:53
2	Fe 238.204 Radial†	165.0	20.9	1.2889 µg/L	1.2889 ppb	01:56:53
2	K 766.490 Radial†	1754.3	252.2	92.343 µg/L	92.343 ppb	01:56:33
2	Mg 279.077 IEC†	178.3	-8.0	-2.9828 µg/L	-2.9828 ppb	01:56:53
2	Na 589.592 Radial†	1488.6	234.0	31.890 µg/L	31.890 ppb	01:56:33
2	Sr 421.552†	-267.3	-138.5	-0.2880 µg/L	-0.2880 ppb	01:56:33
2	Sc 361.383	1744511.1	1744511.1	101.53 %		01:57:57
2	Y 371.029	1040880.2	1040880.2	101.38 %		01:57:57
2	Ag 328.068†	4095.8	-57.3	-0.2333 µg/L	-0.2333 ppb	01:58:00
2	As 188.979†	-19.9	0.8	0.2405 µg/L	0.2405 ppb	01:58:20
2	B 249.677†	3689.6	128.1	1.8892 µg/L	1.8892 ppb	01:58:00
2	Ba 233.527†	-127.7	10.1	0.0404 µg/L	0.0404 ppb	01:58:20
2	Be 313.107†	-779.7	296.7	0.0769 µg/L	0.0769 ppb	01:58:00
2	Cd 226.502†	-116.8	3.2	0.0196 µg/L	0.0196 ppb	01:58:20
2	Co 228.616†	-181.5	11.6	0.1430 µg/L	0.1430 ppb	01:58:20
2	Cr 267.716†	210.9	29.2	0.2383 µg/L	0.2383 ppb	01:58:20
2	Cu 324.752†	3046.1	27.9	0.0982 µg/L	0.0982 ppb	01:58:00
2	Mn 257.610†	284.4	42.8	0.0531 µg/L	0.0531 ppb	01:58:20
2	Mo 202.031†	-4.2	15.9	0.4681 µg/L	0.4681 ppb	01:58:20
2	Ni 231.604†	-89.6	-11.8	-0.1354 µg/L	-0.1354 ppb	01:58:20
2	P 214.914†	-29.1	-10.7	-2.2834 µg/L	-2.2834 ppb	01:58:20
2	Pb 220.353†	83.5	-4.1	-0.2188 µg/L	-0.2188 ppb	01:58:20

2	S 181.975 Axial†	133.9	26.8	19.886 µg/L	19.886 ppb	01:58:20
2	Sb 206.836†	67.1	-14.7	-1.7443 µg/L	-1.7443 ppb	01:58:20
2	Se 196.026†	24.1	8.4	3.04 µg/L	3.04 ppb	01:58:20
2	SiO2†	1798.4	-4.0	-0.4169 µg/L	-0.4169 ppb	01:58:00
2	Si 251.611†	966.5	115.4	1.6906 µg/L	1.6906 ppb	01:58:00
2	Sn 189.927†	9.5	10.5	0.6536 µg/L	0.6536 ppb	01:58:20
2	Ti 334.940†	894.2	-71.8	-0.0616 µg/L	-0.0616 ppb	01:58:00
2	Tl 190.801†	-110.7	7.6	0.9340 µg/L	0.9340 ppb	01:58:20
2	U 409.014†	-495.6	-218.2	-12.786 µg/L	-12.786 ppb	01:58:00
2	V 292.402†	320.0	-88.6	-0.4349 µg/L	-0.4349 ppb	01:58:00
2	Zn 213.857†	606.1	32.5	0.1834 µg/L	0.1834 ppb	01:58:20
3	Sc RADIAL	143784.8	143784.8	98.5 %		01:56:55
3	Al 396.153Radial†	-72.4	-10.2	-1.8918 µg/L	-1.8918 ppb	01:57:15
3	Ca 317.933Radial†	626.3	75.1	4.1820 µg/L	4.1820 ppb	01:57:15
3	Fe 238.204 Radial†	157.5	11.8	0.7268 µg/L	0.7268 ppb	01:57:15
3	K 766.490 Radial†	1711.0	191.8	70.214 µg/L	70.214 ppb	01:56:55
3	Mg 279.077 IEC†	214.1	26.6	9.9191 µg/L	9.9191 ppb	01:57:15
3	Na 589.592 Radial†	1356.1	85.6	11.626 µg/L	11.626 ppb	01:56:55
3	Sr 421.552†	-269.5	-138.2	-0.2874 µg/L	-0.2874 ppb	01:56:55
3	Sc 361.383	1767911.3	1767911.3	102.89 %		01:58:22
3	Y 371.029	1054011.1	1054011.1	102.66 %		01:58:22
3	Ag 328.068†	4196.4	-13.0	-0.0637 µg/L	-0.0637 ppb	01:58:24
3	As 188.979†	-5.7	14.8	4.4830 µg/L	4.4830 ppb	01:58:44
3	B 249.677†	3663.7	54.9	0.8087 µg/L	0.8087 ppb	01:58:24
3	Ba 233.527†	-114.6	24.5	0.0982 µg/L	0.0982 ppb	01:58:44
3	Be 313.107†	-1093.4	2.1	-0.0012 µg/L	-0.0012 ppb	01:58:24
3	Cd 226.502†	-92.8	28.0	0.1751 µg/L	0.1751 ppb	01:58:44
3	Co 228.616†	-185.7	9.8	0.1208 µg/L	0.1208 ppb	01:58:44
3	Cr 267.716†	201.6	17.3	0.1401 µg/L	0.1401 ppb	01:58:44
3	Cu 324.752†	2911.8	-142.3	-0.5572 µg/L	-0.5572 ppb	01:58:24
3	Mn 257.610†	263.8	19.2	0.0233 µg/L	0.0233 ppb	01:58:44
3	Mo 202.031†	-26.6	-5.8	-0.1698 µg/L	-0.1698 ppb	01:58:44
3	Ni 231.604†	-69.8	8.7	0.0998 µg/L	0.0998 ppb	01:58:44
3	P 214.914†	-16.2	2.2	0.4867 µg/L	0.4867 ppb	01:58:44
3	Pb 220.353†	83.9	-4.8	-0.2669 µg/L	-0.2669 ppb	01:58:44
3	S 181.975 Axial†	120.1	11.7	8.6560 µg/L	8.6560 ppb	01:58:44
3	Sb 206.836†	85.7	2.5	0.2913 µg/L	0.2913 ppb	01:58:44
3	Se 196.026†	9.9	-5.6	-2.04 µg/L	-2.04 ppb	01:58:44
3	SiO2†	1848.3	21.0	2.0528 µg/L	2.0528 ppb	01:58:24
3	Si 251.611†	874.0	12.9	0.1899 µg/L	0.1899 ppb	01:58:24
3	Sn 189.927†	4.6	5.5	0.3453 µg/L	0.3453 ppb	01:58:44
3	Ti 334.940†	814.2	-161.2	-0.1490 µg/L	-0.1490 ppb	01:58:24
3	Tl 190.801†	-128.8	-8.5	-1.0474 µg/L	-1.0474 ppb	01:58:44
3	U 409.014†	-381.6	-101.0	-5.9442 µg/L	-5.9442 ppb	01:58:24
3	V 292.402†	270.2	-141.1	-0.6936 µg/L	-0.6936 ppb	01:58:24
3	Zn 213.857†	596.7	15.5	0.0866 µg/L	0.0866 ppb	01:58:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1754733.9	102.13 %	0.697			0.68%
Sc RADIAL	143933.2	98.6 %	1.06			1.08%
Y 371.029	1046802.0	101.96 %	0.649			0.64%
Ag 328.068†	-37.3	-0.1521 µg/L	0.08501	-0.1521 ppb	0.08501	55.89%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-9.2	-1.7149 µg/L	1.12269	-1.7149 ppb	1.12269	65.47%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	7.8	2.3642 µg/L	2.12124	2.3642 ppb	2.12124	89.72%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	50.2	0.7404 µg/L	1.18445	0.7404 ppb	1.18445	159.98%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	21.2	0.0852 µg/L	0.03992	0.0852 ppb	0.03992	46.87%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	103.4	0.0257 µg/L	0.04438	0.0257 ppb	0.04438	172.67%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	89.7	4.9959 µg/L	0.92619	4.9959 ppb	0.92619	18.54%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	13.2	0.0823 µg/L	0.08201	0.0823 ppb	0.08201	99.61%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	11.9	0.1464 µg/L	0.02744	0.1464 ppb	0.02744	18.74%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	15.4	0.1268 µg/L	0.11872	0.1268 ppb	0.11872	93.63%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-46.7	-0.1880 µg/L	0.33551	-0.1880 ppb	0.33551	178.43%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	9.2	0.5699 µg/L	0.80892	0.5699 ppb	0.80892	141.94%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	247.8	90.715 µg/L	19.7374	90.715 ppb	19.7374	21.76%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	3.2	1.1938 µg/L	7.55858	1.1938 ppb	7.55858	633.14%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	30.9	0.0382 µg/L	0.01490	0.0382 ppb	0.01490	38.98%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	2.7	0.0783 µg/L	0.34173	0.0783 ppb	0.34173	436.17%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	207.0	28.195 µg/L	15.0656	28.195 ppb	15.0656	53.43%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-7.1	-0.0815 µg/L	0.16123	-0.0815 ppb	0.16123	197.84%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-2.8	-0.5934 µg/L	1.48237	-0.5934 ppb	1.48237	249.82%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-10.4	-0.5737 µg/L	0.57348	-0.5737 ppb	0.57348	99.97%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	15.2	11.310 µg/L	7.6051	11.310 ppb	7.6051	67.24%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-10.5	-1.2526 µg/L	1.36613	-1.2526 ppb	1.36613	109.06%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-3.9	-1.42 µg/L	4.177	-1.42 ppb	4.177	294.77%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	2.6	0.2467 µg/L	1.58234	0.2467 ppb	1.58234	641.29%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	54.7	0.8015 µg/L	0.78785	0.8015 ppb	0.78785	98.29%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	8.2	0.5097 µg/L	0.15517	0.5097 ppb	0.15517	30.44%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-158.5	-0.3295 µg/L	0.07245	-0.3295 ppb	0.07245	21.99%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-78.3	-0.0699 µg/L	0.07531	-0.0699 ppb	0.07531	107.82%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	1.9	0.2315 µg/L	1.10938	0.2315 ppb	1.10938	479.17%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-138.3	-8.1038 µg/L	4.05883	-8.1038 ppb	4.05883	50.09%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-64.3	-0.3180 µg/L	0.44583	-0.3180 ppb	0.44583	140.21%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	25.1	0.1413 µg/L	0.04962	0.1413 ppb	0.04962	35.11%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 189
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 7
 Date Collected: 4/1/2010 2:19:04
 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	142482.1	142482.1	97.6 %		02:19:37
1	Al 396.153Radial†	25864.4	26553.4	4900.9 µg/L	4900.9 ppb	02:19:37
1	Ca 317.933Radial†	85331.9	86836.1	4837.1 µg/L	4837.1 ppb	02:19:37
1	Fe 238.204 Radial†	75728.7	77413.1	4771.3 µg/L	4771.3 ppb	02:19:37
1	K 766.490 Radial†	14888.6	13704.1	5013.3 µg/L	5013.3 ppb	02:19:37
1	Mg 279.077 IEC†	12988.0	13111.5	4892.7 µg/L	4892.7 ppb	02:19:37
1	Na 589.592 Radial†	71527.5	71967.5	9827.2 µg/L	9827.2 ppb	02:19:37
1	Sr 421.552†	227636.6	233280.1	484.94 µg/L	484.94 ppb	02:19:35
1	Sc 361.383	1730429.7	1730429.7	100.71 %		02:20:04
1	Y 371.029	1022608.2	1022608.2	99.603 %		02:20:04
1	Ag 328.068†	131919.2	126896.9	475.83 µg/L	475.83 ppb	02:20:04
1	As 188.979†	1608.5	1617.5	496.07 µg/L	496.07 ppb	02:20:24
1	B 249.677†	35428.5	31672.6	465.47 µg/L	465.47 ppb	02:20:04
1	Ba 233.527†	118521.9	117821.3	475.17 µg/L	475.17 ppb	02:20:04
1	Be 313.107†	1771161.4	1759726.5	479.27 µg/L	479.27 ppb	02:20:04
1	Cd 226.502†	75681.8	75265.9	469.84 µg/L	469.84 ppb	02:20:04
1	Co 228.616†	38563.9	38482.0	475.06 µg/L	475.06 ppb	02:20:04
1	Cr 267.716†	60790.8	60183.2	471.23 µg/L	471.23 ppb	02:20:04
1	Cu 324.752†	125721.3	121861.9	475.05 µg/L	475.05 ppb	02:20:04
1	Mn 257.610†	388444.5	385465.8	476.73 µg/L	476.73 ppb	02:20:04
1	Mo 202.031†	16270.9	16176.2	475.83 µg/L	475.83 ppb	02:20:24
1	Ni 231.604†	41269.7	41054.9	472.72 µg/L	472.72 ppb	02:20:04
1	P 214.914†	11152.5	11091.7	2364.2 µg/L	2364.2 ppb	02:20:24
1	Pb 220.353†	8708.1	8560.3	479.37 µg/L	479.37 ppb	02:20:24
1	S 181.975 Axial†	1839.5	1721.4	1282.3 µg/L	1282.3 ppb	02:20:24
1	Sb 206.836†	4096.9	3987.2	475.12 µg/L	475.12 ppb	02:20:24
1	Se 196.026†	1319.7	1295.1	470 µg/L	470 ppb	02:20:24
1	SiO2†	54111.4	51954.2	5057.7 µg/L	5057.7 ppb	02:20:04
1	Si 251.611†	163829.4	161836.7	2376.5 µg/L	2376.5 ppb	02:20:04
1	Sn 189.927†	7696.6	7643.4	478.09 µg/L	478.09 ppb	02:20:24
1	Ti 334.940†	514200.9	509619.5	475.51 µg/L	475.51 ppb	02:20:04
1	Tl 190.801†	3756.8	3847.0	479.82 µg/L	479.82 ppb	02:20:24
1	U 409.014†	7265.9	7484.6	466.47 µg/L	466.47 ppb	02:20:04
1	V 292.402†	97858.9	96764.5	478.34 µg/L	478.34 ppb	02:20:04
1	Zn 213.857†	85251.2	84085.2	468.63 µg/L	468.63 ppb	02:20:04
2	Sc RADIAL	143417.3	143417.3	98.3 %		02:19:41
2	Al 396.153Radial†	26013.9	26532.9	4897.2 µg/L	4897.2 ppb	02:19:41
2	Ca 317.933Radial†	85954.2	86899.4	4840.6 µg/L	4840.6 ppb	02:19:41
2	Fe 238.204 Radial†	76353.0	77542.5	4779.2 µg/L	4779.2 ppb	02:19:41
2	K 766.490 Radial†	14792.4	13506.7	4941.0 µg/L	4941.0 ppb	02:19:41
2	Mg 279.077 IEC†	13150.5	13190.2	4921.9 µg/L	4921.9 ppb	02:19:41
2	Na 589.592 Radial†	72142.5	72115.6	9847.5 µg/L	9847.5 ppb	02:19:41
2	Sr 421.552†	229319.1	233471.7	485.34 µg/L	485.34 ppb	02:19:39
2	Sc 361.383	1743349.5	1743349.5	101.46 %		02:20:27
2	Y 371.029	1028716.5	1028716.5	100.20 %		02:20:27
2	Ag 328.068†	133300.6	127287.6	477.31 µg/L	477.31 ppb	02:20:27
2	As 188.979†	1596.4	1593.8	488.89 µg/L	488.89 ppb	02:20:47
2	B 249.677†	35997.3	31972.5	469.88 µg/L	469.88 ppb	02:20:27
2	Ba 233.527†	120018.6	118424.3	477.60 µg/L	477.60 ppb	02:20:27
2	Be 313.107†	1796503.1	1771669.7	482.53 µg/L	482.53 ppb	02:20:27
2	Cd 226.502†	77106.3	76113.0	475.13 µg/L	475.13 ppb	02:20:27
2	Co 228.616†	39051.0	38678.3	477.48 µg/L	477.48 ppb	02:20:27
2	Cr 267.716†	61466.3	60401.6	472.94 µg/L	472.94 ppb	02:20:27
2	Cu 324.752†	126763.9	121964.2	475.45 µg/L	475.45 ppb	02:20:27
2	Mn 257.610†	393146.3	387241.5	478.93 µg/L	478.93 ppb	02:20:27
2	Mo 202.031†	16303.2	16088.2	473.25 µg/L	473.25 ppb	02:20:47
2	Ni 231.604†	41851.6	41324.8	475.83 µg/L	475.83 ppb	02:20:27
2	P 214.914†	11183.1	11039.8	2353.0 µg/L	2353.0 ppb	02:20:47
2	Pb 220.353†	8703.6	8491.7	475.54 µg/L	475.54 ppb	02:20:47

2	S 181.975 Axial†	1799.8	1668.8	1243.2 µg/L	1243.2 ppb	02:20:47
2	Sb 206.836†	4122.9	3982.7	474.52 µg/L	474.52 ppb	02:20:47
2	Se 196.026†	1342.9	1308.3	475 µg/L	475 ppb	02:20:47
2	SiO2†	55076.9	52507.6	5111.9 µg/L	5111.9 ppb	02:20:27
2	Si 251.611†	165962.8	162733.8	2389.7 µg/L	2389.7 ppb	02:20:27
2	Sn 189.927†	7680.9	7571.3	473.60 µg/L	473.60 ppb	02:20:47
2	Ti 334.940†	519896.2	511448.9	477.22 µg/L	477.22 ppb	02:20:27
2	Tl 190.801†	3764.8	3827.2	477.42 µg/L	477.42 ppb	02:20:47
2	U 409.014†	7312.8	7477.3	466.23 µg/L	466.23 ppb	02:20:27
2	V 292.402†	99237.6	97403.3	481.44 µg/L	481.44 ppb	02:20:27
2	Zn 213.857†	86569.5	84757.1	472.38 µg/L	472.38 ppb	02:20:27
3	Sc RADIAL	142522.4	142522.4	97.7 %		02:19:45
3	Al 396.153Radial†	26049.5	26735.5	4934.6 µg/L	4934.6 ppb	02:19:45
3	Ca 317.933Radial†	85524.1	87008.2	4846.7 µg/L	4846.7 ppb	02:19:45
3	Fe 238.204 Radial†	76071.6	77742.2	4791.5 µg/L	4791.5 ppb	02:19:45
3	K 766.490 Radial†	14775.5	13584.0	4969.3 µg/L	4969.3 ppb	02:19:45
3	Mg 279.077 IEC†	13130.2	13253.4	4945.6 µg/L	4945.6 ppb	02:19:45
3	Na 589.592 Radial†	71535.5	71954.9	9825.5 µg/L	9825.5 ppb	02:19:45
3	Sr 421.552†	230430.6	236074.9	490.75 µg/L	490.75 ppb	02:19:43
3	Sc 361.383	1739029.7	1739029.7	101.21 %		02:20:50
3	Y 371.029	1026889.1	1026889.1	100.02 %		02:20:50
3	Ag 328.068†	133069.1	127385.2	477.66 µg/L	477.66 ppb	02:20:50
3	As 188.979†	1625.4	1626.3	498.73 µg/L	498.73 ppb	02:21:10
3	B 249.677†	35984.4	32047.9	470.99 µg/L	470.99 ppb	02:20:50
3	Ba 233.527†	119885.1	118586.2	478.26 µg/L	478.26 ppb	02:20:50
3	Be 313.107†	1792265.9	1771881.4	482.58 µg/L	482.58 ppb	02:20:50
3	Cd 226.502†	76820.8	76019.6	474.55 µg/L	474.55 ppb	02:20:50
3	Co 228.616†	39099.9	38822.3	479.26 µg/L	479.26 ppb	02:20:50
3	Cr 267.716†	61364.7	60451.8	473.33 µg/L	473.33 ppb	02:20:50
3	Cu 324.752†	126363.1	121878.6	475.12 µg/L	475.12 ppb	02:20:50
3	Mn 257.610†	392632.0	387695.9	479.49 µg/L	479.49 ppb	02:20:50
3	Mo 202.031†	16380.6	16204.6	476.67 µg/L	476.67 ppb	02:21:10
3	Ni 231.604†	41859.0	41434.6	477.09 µg/L	477.09 ppb	02:20:50
3	P 214.914†	11258.2	11141.4	2374.8 µg/L	2374.8 ppb	02:21:10
3	Pb 220.353†	8758.8	8567.6	479.78 µg/L	479.78 ppb	02:21:10
3	S 181.975 Axial†	1801.3	1674.7	1247.6 µg/L	1247.6 ppb	02:21:10
3	Sb 206.836†	4138.4	4008.0	477.59 µg/L	477.59 ppb	02:21:10
3	Se 196.026†	1350.9	1319.5	479 µg/L	479 ppb	02:21:10
3	SiO2†	54848.5	52416.7	5102.8 µg/L	5102.8 ppb	02:20:50
3	Si 251.611†	165580.0	162761.9	2390.1 µg/L	2390.1 ppb	02:20:50
3	Sn 189.927†	7757.7	7666.0	479.50 µg/L	479.50 ppb	02:21:10
3	Ti 334.940†	519132.4	511967.1	477.70 µg/L	477.70 ppb	02:20:50
3	Tl 190.801†	3760.5	3832.2	478.02 µg/L	478.02 ppb	02:21:10
3	U 409.014†	7409.7	7590.9	472.81 µg/L	472.81 ppb	02:20:50
3	V 292.402†	98761.8	97176.0	480.37 µg/L	480.37 ppb	02:20:50
3	Zn 213.857†	86374.1	84776.0	472.48 µg/L	472.48 ppb	02:20:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1737602.9	101.13 %	0.383			0.38%
Sc RADIAL	142807.3	97.9 %	0.36			0.37%
Y 371.029	1026071.2	99.940 %	0.3054			0.31%
Ag 328.068†	127189.9	476.93 µg/L	0.975	476.93 ppb	0.975	0.20%
QC value within limits for Ag 328.068 Recovery = 95.39%						
Al 396.153Radial†	26607.3	4910.9 µg/L	20.62	4910.9 ppb	20.62	0.42%
QC value within limits for Al 396.153Radial Recovery = 98.22%						
As 188.979†	1612.5	494.56 µg/L	5.091	494.56 ppb	5.091	1.03%
QC value within limits for As 188.979 Recovery = 98.91%						
B 249.677†	31897.6	468.78 µg/L	2.921	468.78 ppb	2.921	0.62%
QC value within limits for B 249.677 Recovery = 93.76%						
Ba 233.527†	118277.3	477.01 µg/L	1.625	477.01 ppb	1.625	0.34%
QC value within limits for Ba 233.527 Recovery = 95.40%						
Be 313.107†	1767759.2	481.46 µg/L	1.895	481.46 ppb	1.895	0.39%
QC value within limits for Be 313.107 Recovery = 96.29%						
Ca 317.933Radial†	86914.6	4841.5 µg/L	4.85	4841.5 ppb	4.85	0.10%
QC value within limits for Ca 317.933Radial Recovery = 96.83%						
Cd 226.502†	75799.5	473.17 µg/L	2.901	473.17 ppb	2.901	0.61%
QC value within limits for Cd 226.502 Recovery = 94.63%						
Co 228.616†	38660.9	477.27 µg/L	2.108	477.27 ppb	2.108	0.44%

QC value within limits for Co 228.616 Recovery = 95.45%							
Cr 267.716†	60345.5	472.50 µg/L	1.117	472.50 ppb	1.117	0.24%	
QC value within limits for Cr 267.716 Recovery = 94.50%							
Cu 324.752†	121901.6	475.21 µg/L	0.213	475.21 ppb	0.213	0.04%	
QC value within limits for Cu 324.752 Recovery = 95.04%							
Fe 238.204 Radial†	77565.9	4780.7 µg/L	10.22	4780.7 ppb	10.22	0.21%	
QC value within limits for Fe 238.204 Radial Recovery = 95.61%							
K 766.490 Radial†	13598.3	4974.5 µg/L	36.41	4974.5 ppb	36.41	0.73%	
QC value within limits for K 766.490 Radial Recovery = 99.49%							
Mg 279.077 IEC†	13185.0	4920.1 µg/L	26.48	4920.1 ppb	26.48	0.54%	
QC value within limits for Mg 279.077 IEC Recovery = 98.40%							
Mn 257.610†	386801.1	478.38 µg/L	1.457	478.38 ppb	1.457	0.30%	
QC value within limits for Mn 257.610 Recovery = 95.68%							
Mo 202.031†	16156.3	475.25 µg/L	1.783	475.25 ppb	1.783	0.38%	
QC value within limits for Mo 202.031 Recovery = 95.05%							
Na 589.592 Radial†	72012.7	9833.4 µg/L	12.23	9833.4 ppb	12.23	0.12%	
QC value within limits for Na 589.592 Radial Recovery = 98.33%							
Ni 231.604†	41271.4	475.21 µg/L	2.249	475.21 ppb	2.249	0.47%	
QC value within limits for Ni 231.604 Recovery = 95.04%							
P 214.914†	11091.0	2364.0 µg/L	10.88	2364.0 ppb	10.88	0.46%	
QC value within limits for P 214.914 Recovery = 94.56%							
Pb 220.353†	8539.8	478.23 µg/L	2.340	478.23 ppb	2.340	0.49%	
QC value within limits for Pb 220.353 Recovery = 95.65%							
S 181.975 Axial†	1688.3	1257.7 µg/L	21.41	1257.7 ppb	21.41	1.70%	
QC value greater than the upper limit for S 181.975 Axial Recovery = 125.77%							
Sb 206.836†	3992.6	475.74 µg/L	1.625	475.74 ppb	1.625	0.34%	
QC value within limits for Sb 206.836 Recovery = 95.15%							
Se 196.026†	1307.6	475 µg/L	4.4	475 ppb	4.4	0.93%	
QC value within limits for Se 196.026 Recovery = 94.96%							
SiO2†	52292.8	5090.8 µg/L	29.05	5090.8 ppb	29.05	0.57%	
QC value within limits for SiO2 Recovery = 95.20%							
Si 251.611†	162444.1	2385.4 µg/L	7.77	2385.4 ppb	7.77	0.33%	
QC value within limits for Si 251.611 Recovery = 95.42%							
Sn 189.927†	7626.9	477.06 µg/L	3.084	477.06 ppb	3.084	0.65%	
QC value within limits for Sn 189.927 Recovery = 95.41%							
Sr 421.552†	234275.6	487.01 µg/L	3.246	487.01 ppb	3.246	0.67%	
QC value within limits for Sr 421.552 Recovery = 97.40%							
Ti 334.940†	511011.8	476.81 µg/L	1.149	476.81 ppb	1.149	0.24%	
QC value within limits for Ti 334.940 Recovery = 95.36%							
Tl 190.801†	3835.5	478.42 µg/L	1.250	478.42 ppb	1.250	0.26%	
QC value within limits for Tl 190.801 Recovery = 95.68%							
U 409.014†	7517.6	468.51 µg/L	3.732	468.51 ppb	3.732	0.80%	
QC value within limits for U 409.014 Recovery = 93.70%							
V 292.402†	97114.6	480.05 µg/L	1.572	480.05 ppb	1.572	0.33%	
QC value within limits for V 292.402 Recovery = 96.01%							
Zn 213.857†	84539.4	471.17 µg/L	2.196	471.17 ppb	2.196	0.47%	
QC value within limits for Zn 213.857 Recovery = 94.23%							
QC Failed. Continue with analysis.							

Sequence No.: 190

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/1/2010 2:21:19

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	142533.7	142533.7	97.7 %		02:21:48
1	Al 396.153Radial†	-46.3	15.8	2.9384 µg/L	2.9384 ppb	02:22:08
1	Ca 317.933Radial†	812.0	270.8	15.085 µg/L	15.085 ppb	02:22:08
1	Fe 238.204 Radial†	148.9	4.3	0.2664 µg/L	0.2664 ppb	02:22:08
1	K 766.490 Radial†	1893.6	393.9	144.21 µg/L	144.21 ppb	02:21:48
1	Mg 279.077 IEC†	191.4	5.2	1.9452 µg/L	1.9452 ppb	02:22:08
1	Na 589.592 Radial†	2030.7	788.2	107.55 µg/L	107.55 ppb	02:21:48
1	Sr 421.552†	35.6	171.7	0.3569 µg/L	0.3569 ppb	02:21:48
1	Sc 361.383	1757302.0	1757302.0	102.27 %		02:22:56
1	Y 371.029	1047691.3	1047691.3	102.05 %		02:22:56
1	Ag 328.068†	4173.8	-10.5	-0.0333 µg/L	-0.0333 ppb	02:22:58
1	As 188.979†	-24.8	-3.9	-1.1733 µg/L	-1.1733 ppb	02:23:18
1	B 249.677†	3656.0	68.8	1.0136 µg/L	1.0136 ppb	02:22:58
1	Ba 233.527†	-145.3	-6.2	-0.0251 µg/L	-0.0251 ppb	02:23:18
1	Be 313.107†	-953.7	132.2	0.0373 µg/L	0.0373 ppb	02:22:58
1	Cd 226.502†	-109.3	11.3	0.0707 µg/L	0.0707 ppb	02:23:18
1	Co 228.616†	-176.7	17.5	0.2164 µg/L	0.2164 ppb	02:23:18
1	Cr 267.716†	172.3	-10.1	-0.0824 µg/L	-0.0824 ppb	02:23:18
1	Cu 324.752†	2966.4	-71.8	-0.2751 µg/L	-0.2751 ppb	02:22:58
1	Mn 257.610†	287.6	44.0	0.0543 µg/L	0.0543 ppb	02:23:18
1	Mo 202.031†	-24.1	-3.5	-0.1021 µg/L	-0.1021 ppb	02:23:18
1	Ni 231.604†	-64.1	13.9	0.1596 µg/L	0.1596 ppb	02:23:18
1	P 214.914†	-11.1	7.1	1.5277 µg/L	1.5277 ppb	02:23:18
1	Pb 220.353†	81.6	-6.6	-0.3717 µg/L	-0.3717 ppb	02:23:18
1	S 181.975 Axial†	419.7	305.3	226.72 µg/L	226.72 ppb	02:23:18
1	Sb 206.836†	83.6	0.9	0.1126 µg/L	0.1126 ppb	02:23:18
1	Se 196.026†	22.7	6.9	2.50 µg/L	2.50 ppb	02:23:18
1	SiO2†	1807.8	-7.8	-0.7674 µg/L	-0.7674 ppb	02:23:18
1	Si 251.611†	1015.5	156.3	2.3014 µg/L	2.3014 ppb	02:22:58
1	Sn 189.927†	11.0	11.9	0.7393 µg/L	0.7393 ppb	02:23:18
1	Ti 334.940†	1008.0	33.1	0.0294 µg/L	0.0294 ppb	02:22:58
1	Tl 190.801†	-73.5	44.8	5.5056 µg/L	5.5056 ppb	02:23:18
1	U 409.014†	-199.5	74.9	4.3804 µg/L	4.3804 ppb	02:22:58
1	V 292.402†	420.5	7.4	0.0374 µg/L	0.0374 ppb	02:22:58
1	Zn 213.857†	628.6	50.2	0.2812 µg/L	0.2812 ppb	02:23:18
2	Sc RADIAL	140995.2	140995.2	96.6 %		02:22:10
2	Al 396.153Radial†	-49.6	11.8	2.2042 µg/L	2.2042 ppb	02:22:30
2	Ca 317.933Radial†	775.8	242.4	13.501 µg/L	13.501 ppb	02:22:30
2	Fe 238.204 Radial†	150.8	8.0	0.4928 µg/L	0.4928 ppb	02:22:30
2	K 766.490 Radial†	1849.8	369.8	135.37 µg/L	135.37 ppb	02:22:10
2	Mg 279.077 IEC†	181.9	-2.5	-0.9202 µg/L	-0.9202 ppb	02:22:30
2	Na 589.592 Radial†	2008.5	787.9	107.52 µg/L	107.52 ppb	02:22:10
2	Sr 421.552†	-96.1	35.9	0.0745 µg/L	0.0745 ppb	02:22:10
2	Sc 361.383	1746876.6	1746876.6	101.67 %		02:23:21
2	Y 371.029	1042581.7	1042581.7	101.55 %		02:23:21
2	Ag 328.068†	4096.2	-62.4	-0.2478 µg/L	-0.2478 ppb	02:23:23
2	As 188.979†	-17.8	2.8	0.8504 µg/L	0.8504 ppb	02:23:43
2	B 249.677†	3611.1	45.9	0.6766 µg/L	0.6766 ppb	02:23:23
2	Ba 233.527†	-113.1	24.6	0.0985 µg/L	0.0985 ppb	02:23:43
2	Be 313.107†	-508.9	564.1	0.1524 µg/L	0.1524 ppb	02:23:23
2	Cd 226.502†	-89.1	30.5	0.1906 µg/L	0.1906 ppb	02:23:43
2	Co 228.616†	-178.9	14.3	0.1770 µg/L	0.1770 ppb	02:23:43
2	Cr 267.716†	186.9	5.3	0.0438 µg/L	0.0438 ppb	02:23:43
2	Cu 324.752†	2747.0	-270.3	-1.0536 µg/L	-1.0536 ppb	02:23:23
2	Mn 257.610†	273.0	31.2	0.0387 µg/L	0.0387 ppb	02:23:43
2	Mo 202.031†	-29.7	-9.1	-0.2682 µg/L	-0.2682 ppb	02:23:43
2	Ni 231.604†	-105.3	-27.1	-0.3115 µg/L	-0.3115 ppb	02:23:43
2	P 214.914†	-22.0	-3.6	-0.7656 µg/L	-0.7656 ppb	02:23:43
2	Pb 220.353†	78.2	-9.5	-0.5265 µg/L	-0.5265 ppb	02:23:43

2	S 181.975 Axial†	415.2	303.3	225.21 µg/L	225.21 ppb	02:23:43
2	Sb 206.836†	72.3	-9.7	-1.1644 µg/L	-1.1644 ppb	02:23:43
2	Se 196.026†	13.2	-2.3	-0.833 µg/L	-0.833 ppb	02:23:43
2	SiO2†	1822.3	17.1	1.6785 µg/L	1.6785 ppb	02:23:43
2	Si 251.611†	1063.6	209.5	3.0940 µg/L	3.0940 ppb	02:23:23
2	Sn 189.927†	-4.2	-3.0	-0.1854 µg/L	-0.1854 ppb	02:23:43
2	Ti 334.940†	904.9	-62.5	-0.0564 µg/L	-0.0564 ppb	02:23:23
2	Tl 190.801†	-70.1	47.7	5.8552 µg/L	5.8552 ppb	02:23:43
2	U 409.014†	-342.8	-67.3	-3.9879 µg/L	-3.9879 ppb	02:23:23
2	V 292.402†	211.0	-196.3	-0.9629 µg/L	-0.9629 ppb	02:23:23
2	Zn 213.857†	601.6	27.3	0.1562 µg/L	0.1562 ppb	02:23:43
3	Sc RADIAL	142382.8	142382.8	97.6 %		02:22:32
3	Al 396.153Radial†	-56.5	5.3	0.9959 µg/L	0.9959 ppb	02:22:53
3	Ca 317.933Radial†	740.0	197.9	11.024 µg/L	11.024 ppb	02:22:53
3	Fe 238.204 Radial†	137.9	-6.8	-0.4201 µg/L	-0.4201 ppb	02:22:53
3	K 766.490 Radial†	1843.8	344.9	126.26 µg/L	126.26 ppb	02:22:32
3	Mg 279.077 IEC†	185.6	-0.4	-0.1653 µg/L	-0.1653 ppb	02:22:53
3	Na 589.592 Radial†	1905.7	662.4	90.378 µg/L	90.378 ppb	02:22:32
3	Sr 421.552†	-190.5	-59.9	-0.1247 µg/L	-0.1247 ppb	02:22:32
3	Sc 361.383	1733759.3	1733759.3	100.90 %		02:23:45
3	Y 371.029	1035483.6	1035483.6	100.86 %		02:23:45
3	Ag 328.068†	3971.4	-155.6	-0.5722 µg/L	-0.5722 ppb	02:23:47
3	As 188.979†	-15.3	5.2	1.5781 µg/L	1.5781 ppb	02:24:07
3	B 249.677†	3495.0	-42.2	-0.6226 µg/L	-0.6226 ppb	02:23:47
3	Ba 233.527†	-129.0	8.0	0.0318 µg/L	0.0318 ppb	02:24:07
3	Be 313.107†	-783.0	288.7	0.0811 µg/L	0.0811 ppb	02:23:47
3	Cd 226.502†	-94.8	24.2	0.1513 µg/L	0.1513 ppb	02:24:07
3	Co 228.616†	-199.6	-7.5	-0.0925 µg/L	-0.0925 ppb	02:24:07
3	Cr 267.716†	165.2	-14.9	-0.1233 µg/L	-0.1233 ppb	02:24:07
3	Cu 324.752†	3082.5	82.7	0.3282 µg/L	0.3282 ppb	02:23:47
3	Mn 257.610†	277.9	38.1	0.0471 µg/L	0.0471 ppb	02:24:07
3	Mo 202.031†	-27.7	-7.4	-0.2175 µg/L	-0.2175 ppb	02:24:07
3	Ni 231.604†	-100.3	-22.8	-0.2630 µg/L	-0.2630 ppb	02:24:07
3	P 214.914†	3.0	20.9	4.4747 µg/L	4.4747 ppb	02:24:07
3	Pb 220.353†	86.0	-1.2	-0.0714 µg/L	-0.0714 ppb	02:24:07
3	S 181.975 Axial†	402.3	293.6	218.02 µg/L	218.02 ppb	02:24:07
3	Sb 206.836†	82.0	0.5	0.0548 µg/L	0.0548 ppb	02:24:07
3	Se 196.026†	21.9	6.5	2.35 µg/L	2.35 ppb	02:24:07
3	SiO2†	1796.2	4.7	0.4621 µg/L	0.4621 ppb	02:24:07
3	Si 251.611†	1001.5	155.9	2.2994 µg/L	2.2994 ppb	02:23:47
3	Sn 189.927†	4.7	5.8	0.3603 µg/L	0.3603 ppb	02:24:07
3	Ti 334.940†	986.8	25.4	0.0207 µg/L	0.0207 ppb	02:23:47
3	Tl 190.801†	-44.3	72.8	8.9372 µg/L	8.9372 ppb	02:24:07
3	U 409.014†	-127.6	143.4	8.3576 µg/L	8.3576 ppb	02:23:47
3	V 292.402†	301.5	-105.0	-0.5092 µg/L	-0.5092 ppb	02:23:47
3	Zn 213.857†	581.7	12.1	0.0693 µg/L	0.0693 ppb	02:24:07

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1745979.3	101.62 %	0.687			0.68%
Sc RADIAL	141970.6	97.3 %	0.58			0.60%
Y 371.029	1041918.9	101.48 %	0.597			0.59%
Ag 328.068†	-76.2	-0.2844 µg/L	0.27132	-0.2844 ppb	0.27132	95.39%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	11.0	2.0462 µg/L	0.98085	2.0462 ppb	0.98085	47.94%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.4	0.4184 µg/L	1.42565	0.4184 ppb	1.42565	340.75%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	24.2	0.3559 µg/L	0.86394	0.3559 ppb	0.86394	242.77%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	8.8	0.0350 µg/L	0.06186	0.0350 ppb	0.06186	176.58%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	328.3	0.0903 µg/L	0.05810	0.0903 ppb	0.05810	64.34%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	237.0	13.203 µg/L	2.0466	13.203 ppb	2.0466	15.50%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	22.0	0.1375 µg/L	0.06111	0.1375 ppb	0.06111	44.43%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	8.1	0.1003 µg/L	0.16815	0.1003 ppb	0.16815	167.65%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-6.6	-0.0540 µg/L	0.08710	-0.0540 ppb	0.08710	161.40%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-86.5	-0.3335 µg/L	0.69273	-0.3335 ppb	0.69273	207.71%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	1.8	0.1130 µg/L	0.47541	0.1130 ppb	0.47541	420.63%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	369.6	135.28 µg/L	8.974	135.28 ppb	8.974	6.63%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	0.8	0.2866 µg/L	1.48517	0.2866 ppb	1.48517	518.27%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	37.8	0.0467 µg/L	0.00782	0.0467 ppb	0.00782	16.75%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-6.7	-0.1959 µg/L	0.08513	-0.1959 ppb	0.08513	43.45%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	746.2	101.82 µg/L	9.907	101.82 ppb	9.907	9.73%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-12.0	-0.1383 µg/L	0.25912	-0.1383 ppb	0.25912	187.35%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	8.1	1.7456 µg/L	2.62689	1.7456 ppb	2.62689	150.49%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-5.7	-0.3232 µg/L	0.23141	-0.3232 ppb	0.23141	71.60%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	300.7	223.31 µg/L	4.649	223.31 ppb	4.649	2.08%
QC value greater than the upper limit for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-2.8	-0.3323 µg/L	0.72115	-0.3323 ppb	0.72115	217.00%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	3.7	1.34 µg/L	1.882	1.34 ppb	1.882	140.61%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	4.7	0.4577 µg/L	1.22296	0.4577 ppb	1.22296	267.19%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	173.9	2.5649 µg/L	0.45818	2.5649 ppb	0.45818	17.86%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	4.9	0.3047 µg/L	0.46487	0.3047 ppb	0.46487	152.55%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	49.2	0.1022 µg/L	0.24199	0.1022 ppb	0.24199	236.77%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-1.3	-0.0021 µg/L	0.04720	-0.0021 ppb	0.04720	>999.9%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	55.1	6.7660 µg/L	1.88839	6.7660 ppb	1.88839	27.91%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	50.3	2.9167 µg/L	6.30153	2.9167 ppb	6.30153	216.05%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-98.0	-0.4782 µg/L	0.50087	-0.4782 ppb	0.50087	104.74%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	29.9	0.1689 µg/L	0.10651	0.1689 ppb	0.10651	63.06%
QC value within limits for Zn 213.857 Recovery = Not calculated						

QC Failed. Continue with analysis.

Sequence No.: 200

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/1/2010 2:47:00

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	144350.1	144350.1	98.9 %		02:47:33
1	Al 396.153Radial†	26228.7	26578.9	4905.8 µg/L	4905.8 ppb	02:47:33
1	Ca 317.933Radial†	86007.1	86387.7	4812.1 µg/L	4812.1 ppb	02:47:33
1	Fe 238.204 Radial†	76839.4	77532.2	4778.6 µg/L	4778.6 ppb	02:47:33
1	K 766.490 Radial†	15343.0	13966.1	5108.9 µg/L	5108.9 ppb	02:47:33
1	Mg 279.077 IEC†	13163.3	13116.7	4894.5 µg/L	4894.5 ppb	02:47:33
1	Na 589.592 Radial†	85523.5	85168.6	11631 µg/L	11631 ppb	02:47:33
1	Sr 421.552†	229491.2	232137.9	482.56 µg/L	482.56 ppb	02:47:31
1	Sc 361.383	1735080.7	1735080.7	100.98 %		02:47:46
1	Y 371.029	1023835.7	1023835.7	99.722 %		02:47:46
1	Ag 328.068†	132112.4	126737.1	475.24 µg/L	475.24 ppb	02:47:46
1	As 188.979†	1600.3	1605.1	492.29 µg/L	492.29 ppb	02:48:06
1	B 249.677†	35710.3	31857.4	468.19 µg/L	468.19 ppb	02:47:46
1	Ba 233.527†	119099.4	118077.7	476.20 µg/L	476.20 ppb	02:47:46
1	Be 313.107†	1782783.3	1766521.3	481.13 µg/L	481.13 ppb	02:47:46
1	Cd 226.502†	75967.8	75347.7	470.35 µg/L	470.35 ppb	02:47:46
1	Co 228.616†	38757.3	38570.9	476.16 µg/L	476.16 ppb	02:47:46
1	Cr 267.716†	60943.8	60172.9	471.14 µg/L	471.14 ppb	02:47:46
1	Cu 324.752†	126054.9	121857.5	475.04 µg/L	475.04 ppb	02:47:46
1	Mn 257.610†	390617.1	386583.5	478.11 µg/L	478.11 ppb	02:47:46
1	Mo 202.031†	16192.2	16054.9	472.27 µg/L	472.27 ppb	02:48:06
1	Ni 231.604†	41343.1	41017.9	472.29 µg/L	472.29 ppb	02:47:46
1	P 214.914†	11104.9	11015.0	2347.7 µg/L	2347.7 ppb	02:48:06
1	Pb 220.353†	8631.3	8461.0	473.82 µg/L	473.82 ppb	02:48:06
1	S 181.975 Axial†	1898.0	1774.5	1321.7 µg/L	1321.7 ppb	02:48:06
1	Sb 206.836†	4090.9	3970.4	473.06 µg/L	473.06 ppb	02:48:06
1	Se 196.026†	1334.9	1306.7	474 µg/L	474 ppb	02:48:06
1	SiO2†	54695.2	52388.2	5100.2 µg/L	5100.2 ppb	02:47:46
1	Si 251.611†	165090.7	162649.7	2388.5 µg/L	2388.5 ppb	02:47:46
1	Sn 189.927†	7654.2	7581.0	474.20 µg/L	474.20 ppb	02:48:06
1	Ti 334.940†	517218.9	511239.5	477.02 µg/L	477.02 ppb	02:47:46
1	Tl 190.801†	3732.0	3812.4	475.58 µg/L	475.58 ppb	02:48:06
1	U 409.014†	7426.6	7624.3	474.65 µg/L	474.65 ppb	02:47:46
1	V 292.402†	98126.3	96768.8	478.33 µg/L	478.33 ppb	02:47:46
1	Zn 213.857†	85631.0	84234.3	469.47 µg/L	469.47 ppb	02:47:46
2	Sc RADIAL	143197.9	143197.9	98.1 %		02:47:37
2	Al 396.153Radial†	26070.2	26630.7	4915.4 µg/L	4915.4 ppb	02:47:37
2	Ca 317.933Radial†	85328.2	86395.4	4812.6 µg/L	4812.6 ppb	02:47:37
2	Fe 238.204 Radial†	76209.4	77515.2	4777.6 µg/L	4777.6 ppb	02:47:37
2	K 766.490 Radial†	15238.0	13983.9	5115.5 µg/L	5115.5 ppb	02:47:37
2	Mg 279.077 IEC†	12996.4	13053.6	4871.0 µg/L	4871.0 ppb	02:47:37
2	Na 589.592 Radial†	84353.8	84672.3	11563 µg/L	11563 ppb	02:47:37
2	Sr 421.552†	228444.9	232938.2	484.23 µg/L	484.23 ppb	02:47:35
2	Sc 361.383	1729977.8	1729977.8	100.68 %		02:48:09
2	Y 371.029	1021138.1	1021138.1	99.459 %		02:48:09
2	Ag 328.068†	132255.3	127264.8	477.20 µg/L	477.20 ppb	02:48:09
2	As 188.979†	1600.4	1609.8	493.75 µg/L	493.75 ppb	02:48:29
2	B 249.677†	35924.0	32173.9	472.86 µg/L	472.86 ppb	02:48:09
2	Ba 233.527†	118874.7	118202.5	476.71 µg/L	476.71 ppb	02:48:09
2	Be 313.107†	1779803.9	1768769.7	481.74 µg/L	481.74 ppb	02:48:09
2	Cd 226.502†	76106.7	75707.5	472.60 µg/L	472.60 ppb	02:48:09
2	Co 228.616†	38701.0	38628.3	476.87 µg/L	476.87 ppb	02:48:09
2	Cr 267.716†	61014.5	60421.2	473.09 µg/L	473.09 ppb	02:48:09
2	Cu 324.752†	126154.1	122324.3	476.85 µg/L	476.85 ppb	02:48:09
2	Mn 257.610†	389925.2	387037.3	478.68 µg/L	478.68 ppb	02:48:09
2	Mo 202.031†	16171.0	16081.2	473.04 µg/L	473.04 ppb	02:48:29
2	Ni 231.604†	41427.6	41222.5	474.65 µg/L	474.65 ppb	02:48:09
2	P 214.914†	11099.7	11042.2	2353.5 µg/L	2353.5 ppb	02:48:29
2	Pb 220.353†	8601.5	8456.6	473.58 µg/L	473.58 ppb	02:48:29

2	S 181.975 Axial†	1845.1	1727.5	1286.8 µg/L	1286.8 ppb	02:48:29
2	Sb 206.836†	4100.2	3991.5	475.56 µg/L	475.56 ppb	02:48:29
2	Se 196.026†	1327.8	1303.5	473 µg/L	473 ppb	02:48:29
2	SiO2†	54326.1	52181.4	5080.0 µg/L	5080.0 ppb	02:48:09
2	Si 251.611†	164905.6	162948.1	2392.9 µg/L	2392.9 ppb	02:48:09
2	Sn 189.927†	7653.3	7602.4	475.54 µg/L	475.54 ppb	02:48:29
2	Ti 334.940†	516285.7	511823.6	477.57 µg/L	477.57 ppb	02:48:09
2	Tl 190.801†	3663.6	3755.4	468.58 µg/L	468.58 ppb	02:48:29
2	U 409.014†	7377.7	7597.4	473.10 µg/L	473.10 ppb	02:48:09
2	V 292.402†	97929.6	96860.1	478.79 µg/L	478.79 ppb	02:48:09
2	Zn 213.857†	85635.6	84489.1	470.89 µg/L	470.89 ppb	02:48:09
3	Sc RADIAL	145242.2	145242.2	99.5 %		02:47:41
3	Al 396.153Radial†	26268.1	26455.7	4882.8 µg/L	4882.8 ppb	02:47:41
3	Ca 317.933Radial†	86324.1	86172.1	4800.1 µg/L	4800.1 ppb	02:47:41
3	Fe 238.204 Radial†	77185.1	77402.4	4770.6 µg/L	4770.6 ppb	02:47:41
3	K 766.490 Radial†	15378.8	13906.8	5087.2 µg/L	5087.2 ppb	02:47:41
3	Mg 279.077 IEC†	13138.0	13009.5	4854.7 µg/L	4854.7 ppb	02:47:41
3	Na 589.592 Radial†	85226.4	84339.0	11517 µg/L	11517 ppb	02:47:41
3	Sr 421.552†	228321.6	229537.8	477.16 µg/L	477.16 ppb	02:47:39
3	Sc 361.383	1722897.8	1722897.8	100.27 %		02:48:32
3	Y 371.029	1017279.7	1017279.7	99.084 %		02:48:32
3	Ag 328.068†	131579.2	127130.4	476.70 µg/L	476.70 ppb	02:48:32
3	As 188.979†	1572.0	1588.0	487.15 µg/L	487.15 ppb	02:48:52
3	B 249.677†	35666.5	32063.7	471.23 µg/L	471.23 ppb	02:48:32
3	Ba 233.527†	118266.8	118081.4	476.22 µg/L	476.22 ppb	02:48:32
3	Be 313.107†	1769881.6	1766138.5	481.02 µg/L	481.02 ppb	02:48:32
3	Cd 226.502†	75739.9	75652.3	472.25 µg/L	472.25 ppb	02:48:32
3	Co 228.616†	38545.9	38631.5	476.90 µg/L	476.90 ppb	02:48:32
3	Cr 267.716†	60533.7	60190.7	471.28 µg/L	471.28 ppb	02:48:32
3	Cu 324.752†	125338.4	122025.7	475.69 µg/L	475.69 ppb	02:48:32
3	Mn 257.610†	387950.9	386659.8	478.21 µg/L	478.21 ppb	02:48:32
3	Mo 202.031†	16180.5	16156.6	475.26 µg/L	475.26 ppb	02:48:52
3	Ni 231.604†	41057.6	41022.6	472.35 µg/L	472.35 ppb	02:48:32
3	P 214.914†	11090.2	11078.0	2361.2 µg/L	2361.2 ppb	02:48:52
3	Pb 220.353†	8596.5	8486.8	475.26 µg/L	475.26 ppb	02:48:52
3	S 181.975 Axial†	1808.3	1698.3	1265.1 µg/L	1265.1 ppb	02:48:52
3	Sb 206.836†	4086.2	3994.3	475.96 µg/L	475.96 ppb	02:48:52
3	Se 196.026†	1329.9	1311.0	476 µg/L	476 ppb	02:48:52
3	SiO2†	54093.6	52171.3	5078.9 µg/L	5078.9 ppb	02:48:32
3	Si 251.611†	163851.5	162569.8	2387.3 µg/L	2387.3 ppb	02:48:32
3	Sn 189.927†	7645.7	7626.1	477.02 µg/L	477.02 ppb	02:48:52
3	Ti 334.940†	513965.1	511616.4	477.38 µg/L	477.38 ppb	02:48:32
3	Tl 190.801†	3647.7	3754.5	468.47 µg/L	468.47 ppb	02:48:52
3	U 409.014†	7387.3	7637.1	475.41 µg/L	475.41 ppb	02:48:32
3	V 292.402†	97466.6	96798.1	478.51 µg/L	478.51 ppb	02:48:32
3	Zn 213.857†	85311.1	84515.0	471.05 µg/L	471.05 ppb	02:48:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1729318.8	100.65 %	0.356			0.35%
Sc RADIAL	144263.4	98.9 %	0.70			0.71%
Y 371.029	1020751.1	99.422 %	0.3209			0.32%
Ag 328.068†	127044.1	476.38 µg/L	1.017	476.38 ppb	1.017	0.21%
QC value within limits for Ag 328.068 Recovery = 95.28%						
Al 396.153Radial†	26555.1	4901.3 µg/L	16.73	4901.3 ppb	16.73	0.34%
QC value within limits for Al 396.153Radial Recovery = 98.03%						
As 188.979†	1601.0	491.06 µg/L	3.468	491.06 ppb	3.468	0.71%
QC value within limits for As 188.979 Recovery = 98.21%						
B 249.677†	32031.7	470.76 µg/L	2.368	470.76 ppb	2.368	0.50%
QC value within limits for B 249.677 Recovery = 94.15%						
Ba 233.527†	118120.5	476.38 µg/L	0.286	476.38 ppb	0.286	0.06%
QC value within limits for Ba 233.527 Recovery = 95.28%						
Be 313.107†	1767143.2	481.30 µg/L	0.387	481.30 ppb	0.387	0.08%
QC value within limits for Be 313.107 Recovery = 96.26%						
Ca 317.933Radial†	86318.4	4808.3 µg/L	7.06	4808.3 ppb	7.06	0.15%
QC value within limits for Ca 317.933Radial Recovery = 96.17%						
Cd 226.502†	75569.2	471.73 µg/L	1.211	471.73 ppb	1.211	0.26%
QC value within limits for Cd 226.502 Recovery = 94.35%						
Co 228.616†	38610.2	476.64 µg/L	0.421	476.64 ppb	0.421	0.09%

QC value within limits for Co 228.616 Recovery = 95.33%							
Cr	267.716†	60261.6	471.83 µg/L	1.086	471.83 ppb	1.086	0.23%
QC value within limits for Cr 267.716 Recovery = 94.37%							
Cu	324.752†	122069.2	475.86 µg/L	0.918	475.86 ppb	0.918	0.19%
QC value within limits for Cu 324.752 Recovery = 95.17%							
Fe	238.204 Radial†	77483.3	4775.6 µg/L	4.35	4775.6 ppb	4.35	0.09%
QC value within limits for Fe 238.204 Radial Recovery = 95.51%							
K	766.490 Radial†	13952.3	5103.9 µg/L	14.77	5103.9 ppb	14.77	0.29%
QC value within limits for K 766.490 Radial Recovery = 102.08%							
Mg	279.077 IEC†	13059.9	4873.4 µg/L	20.02	4873.4 ppb	20.02	0.41%
QC value within limits for Mg 279.077 IEC Recovery = 97.47%							
Mn	257.610†	386760.2	478.33 µg/L	0.301	478.33 ppb	0.301	0.06%
QC value within limits for Mn 257.610 Recovery = 95.67%							
Mo	202.031†	16097.6	473.52 µg/L	1.551	473.52 ppb	1.551	0.33%
QC value within limits for Mo 202.031 Recovery = 94.70%							
Na	589.592 Radial†	84726.6	11570 µg/L	57.0	11570 ppb	57.0	0.49%
QC value greater than the upper limit for Na 589.592 Radial Recovery = 115.70%							
Ni	231.604†	41087.6	473.09 µg/L	1.345	473.09 ppb	1.345	0.28%
QC value within limits for Ni 231.604 Recovery = 94.62%							
P	214.914†	11045.1	2354.2 µg/L	6.76	2354.2 ppb	6.76	0.29%
QC value within limits for P 214.914 Recovery = 94.17%							
Pb	220.353†	8468.1	474.22 µg/L	0.911	474.22 ppb	0.911	0.19%
QC value within limits for Pb 220.353 Recovery = 94.84%							
S	181.975 Axial†	1733.4	1291.2 µg/L	28.53	1291.2 ppb	28.53	2.21%
QC value greater than the upper limit for S 181.975 Axial Recovery = 129.12%							
Sb	206.836†	3985.4	474.86 µg/L	1.568	474.86 ppb	1.568	0.33%
QC value within limits for Sb 206.836 Recovery = 94.97%							
Se	196.026†	1307.1	475 µg/L	1.4	475 ppb	1.4	0.29%
QC value within limits for Se 196.026 Recovery = 94.93%							
SiO2†		52247.0	5086.4 µg/L	12.02	5086.4 ppb	12.02	0.24%
QC value within limits for SiO2 Recovery = 95.12%							
Si	251.611†	162722.5	2389.6 µg/L	2.95	2389.6 ppb	2.95	0.12%
QC value within limits for Si 251.611 Recovery = 95.58%							
Sn	189.927†	7603.1	475.58 µg/L	1.408	475.58 ppb	1.408	0.30%
QC value within limits for Sn 189.927 Recovery = 95.12%							
Sr	421.552†	231538.0	481.32 µg/L	3.696	481.32 ppb	3.696	0.77%
QC value within limits for Sr 421.552 Recovery = 96.26%							
Ti	334.940†	511559.8	477.32 µg/L	0.278	477.32 ppb	0.278	0.06%
QC value within limits for Ti 334.940 Recovery = 95.46%							
Tl	190.801†	3774.1	470.88 µg/L	4.075	470.88 ppb	4.075	0.87%
QC value within limits for Tl 190.801 Recovery = 94.18%							
U	409.014†	7619.6	474.39 µg/L	1.174	474.39 ppb	1.174	0.25%
QC value within limits for U 409.014 Recovery = 94.88%							
V	292.402†	96809.0	478.54 µg/L	0.232	478.54 ppb	0.232	0.05%
QC value within limits for V 292.402 Recovery = 95.71%							
Zn	213.857†	84412.8	470.47 µg/L	0.867	470.47 ppb	0.867	0.18%
QC value within limits for Zn 213.857 Recovery = 94.09%							
QC Failed. Continue with analysis.							

Sequence No.: 201

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/1/2010 2:49:00

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	143285.4	143285.4	98.2 %		02:49:29
1	Al 396.153Radial†	-71.7	-9.8	-1.8058 µg/L	-1.8058 ppb	02:49:49
1	Ca 317.933Radial†	595.1	45.5	2.5347 µg/L	2.5347 ppb	02:49:49
1	Fe 238.204 Radial†	146.6	1.2	0.0760 µg/L	0.0760 ppb	02:49:49
1	K 766.490 Radial†	1934.3	425.2	155.46 µg/L	155.46 ppb	02:49:29
1	Mg 279.077 IEC†	167.1	-20.5	-7.6406 µg/L	-7.6406 ppb	02:49:49
1	Na 589.592 Radial†	11220.6	10136.9	1384.7 µg/L	1384.7 ppb	02:49:29
1	Sr 421.552†	-193.9	-62.2	-0.1292 µg/L	-0.1292 ppb	02:49:29
1	Sc 361.383	1752326.8	1752326.8	101.99 %		02:50:37
1	Y 371.029	1044520.1	1044520.1	101.74 %		02:50:37
1	Ag 328.068†	3984.9	-184.1	-0.6824 µg/L	-0.6824 ppb	02:50:39
1	As 188.979†	-14.0	6.6	1.9969 µg/L	1.9969 ppb	02:50:59
1	B 249.677†	3624.3	47.8	0.7042 µg/L	0.7042 ppb	02:50:39
1	Ba 233.527†	-123.5	14.7	0.0593 µg/L	0.0593 ppb	02:50:59
1	Be 313.107†	-829.9	251.0	0.0684 µg/L	0.0684 ppb	02:50:39
1	Cd 226.502†	-84.0	35.8	0.2237 µg/L	0.2237 ppb	02:50:59
1	Co 228.616†	-162.6	30.8	0.3804 µg/L	0.3804 ppb	02:50:59
1	Cr 267.716†	186.9	4.7	0.0364 µg/L	0.0364 ppb	02:50:59
1	Cu 324.752†	2988.3	-42.0	-0.1631 µg/L	-0.1631 ppb	02:50:39
1	Mn 257.610†	271.5	29.0	0.0361 µg/L	0.0361 ppb	02:50:59
1	Mo 202.031†	-30.2	-9.6	-0.2810 µg/L	-0.2810 ppb	02:50:59
1	Ni 231.604†	-95.4	-17.1	-0.1966 µg/L	-0.1966 ppb	02:50:59
1	P 214.914†	-38.5	-19.8	-4.2327 µg/L	-4.2327 ppb	02:50:59
1	Pb 220.353†	75.5	-12.4	-0.6917 µg/L	-0.6917 ppb	02:50:59
1	S 181.975 Axial†	433.7	320.2	237.80 µg/L	237.80 ppb	02:50:59
1	Sb 206.836†	88.2	5.6	0.6633 µg/L	0.6633 ppb	02:50:59
1	Se 196.026†	18.1	2.5	0.898 µg/L	0.898 ppb	02:50:59
1	SiO2†	1786.4	-23.7	-2.3127 µg/L	-2.3127 ppb	02:50:59
1	Si 251.611†	933.6	78.8	1.1640 µg/L	1.1640 ppb	02:50:39
1	Sn 189.927†	3.6	4.6	0.2882 µg/L	0.2882 ppb	02:50:59
1	Ti 334.940†	1101.4	127.4	0.1196 µg/L	0.1196 ppb	02:50:39
1	Tl 190.801†	-18.8	98.2	12.068 µg/L	12.068 ppb	02:50:59
1	U 409.014†	-269.8	5.3	0.3076 µg/L	0.3076 ppb	02:50:39
1	V 292.402†	393.5	-18.0	-0.0903 µg/L	-0.0903 ppb	02:50:39
1	Zn 213.857†	640.1	63.2	0.3564 µg/L	0.3564 ppb	02:50:59
2	Sc RADIAL	142448.9	142448.9	97.6 %		02:49:51
2	Al 396.153Radial†	-80.1	-18.9	-3.4987 µg/L	-3.4987 ppb	02:50:11
2	Ca 317.933Radial†	604.0	58.1	3.2391 µg/L	3.2391 ppb	02:50:11
2	Fe 238.204 Radial†	136.7	-8.1	-0.4962 µg/L	-0.4962 ppb	02:50:11
2	K 766.490 Radial†	1971.5	474.9	173.64 µg/L	173.64 ppb	02:49:51
2	Mg 279.077 IEC†	181.3	-4.9	-1.8347 µg/L	-1.8347 ppb	02:50:11
2	Na 589.592 Radial†	11007.1	9985.3	1364.0 µg/L	1364.0 ppb	02:49:51
2	Sr 421.552†	-296.7	-168.7	-0.3506 µg/L	-0.3506 ppb	02:49:51
2	Sc 361.383	1743448.5	1743448.5	101.47 %		02:51:01
2	Y 371.029	1039864.1	1039864.1	101.28 %		02:51:01
2	Ag 328.068†	4186.0	34.1	0.0996 µg/L	0.0996 ppb	02:51:04
2	As 188.979†	-18.5	2.2	0.6509 µg/L	0.6509 ppb	02:51:24
2	B 249.677†	3669.2	110.2	1.6256 µg/L	1.6256 ppb	02:51:04
2	Ba 233.527†	-125.5	12.1	0.0485 µg/L	0.0485 ppb	02:51:24
2	Be 313.107†	-764.5	311.2	0.0800 µg/L	0.0800 ppb	02:51:04
2	Cd 226.502†	-111.8	8.0	0.0499 µg/L	0.0499 ppb	02:51:24
2	Co 228.616†	-195.5	-2.4	-0.0291 µg/L	-0.0291 ppb	02:51:24
2	Cr 267.716†	178.0	-3.1	-0.0126 µg/L	-0.0126 ppb	02:51:24
2	Cu 324.752†	3031.4	15.3	0.0464 µg/L	0.0464 ppb	02:51:04
2	Mn 257.610†	270.9	29.7	0.0368 µg/L	0.0368 ppb	02:51:24
2	Mo 202.031†	-18.7	1.6	0.0481 µg/L	0.0481 ppb	02:51:24
2	Ni 231.604†	-92.0	-14.2	-0.1629 µg/L	-0.1629 ppb	02:51:24
2	P 214.914†	-21.9	-3.6	-0.7804 µg/L	-0.7804 ppb	02:51:24
2	Pb 220.353†	94.2	6.4	0.3702 µg/L	0.3702 ppb	02:51:24

2	S 181.975 Axial†	418.8	307.7	228.47 µg/L	228.47 ppb	02:51:24
2	Sb 206.836†	71.8	-10.1	-1.1978 µg/L	-1.1978 ppb	02:51:24
2	Se 196.026†	10.4	-5.0	-1.84 µg/L	-1.84 ppb	02:51:24
2	SiO2†	1814.8	13.2	1.2903 µg/L	1.2903 ppb	02:51:24
2	Si 251.611†	895.5	45.9	0.6794 µg/L	0.6794 ppb	02:51:04
2	Sn 189.927†	-7.6	-6.4	-0.3979 µg/L	-0.3979 ppb	02:51:24
2	Ti 334.940†	806.3	-157.9	-0.1409 µg/L	-0.1409 ppb	02:51:04
2	Tl 190.801†	-3.5	113.3	13.912 µg/L	13.912 ppb	02:51:24
2	U 409.014†	-544.2	-266.5	-15.615 µg/L	-15.615 ppb	02:51:04
2	V 292.402†	282.2	-125.7	-0.6229 µg/L	-0.6229 ppb	02:51:04
2	Zn 213.857†	590.2	17.3	0.0980 µg/L	0.0980 ppb	02:51:24
3	Sc RADIAL	145771.5	145771.5	99.9 %		02:50:13
3	Al 396.153Radial†	-87.3	-24.2	-4.4567 µg/L	-4.4567 ppb	02:50:33
3	Ca 317.933Radial†	622.8	62.9	3.5055 µg/L	3.5055 ppb	02:50:33
3	Fe 238.204 Radial†	153.4	5.5	0.3375 µg/L	0.3375 ppb	02:50:33
3	K 766.490 Radial†	2120.5	578.0	211.41 µg/L	211.41 ppb	02:50:13
3	Mg 279.077 IEC†	197.6	7.1	2.6404 µg/L	2.6404 ppb	02:50:33
3	Na 589.592 Radial†	10446.1	9166.6	1252.1 µg/L	1252.1 ppb	02:50:13
3	Sr 421.552†	-272.9	-137.9	-0.2867 µg/L	-0.2867 ppb	02:50:13
3	Sc 361.383	1749649.9	1749649.9	101.83 %		02:51:26
3	Y 371.029	1043874.1	1043874.1	101.67 %		02:51:26
3	Ag 328.068†	3981.6	-181.3	-0.6631 µg/L	-0.6631 ppb	02:51:28
3	As 188.979†	-17.4	3.3	0.9850 µg/L	0.9850 ppb	02:51:48
3	B 249.677†	3525.0	-44.2	-0.6527 µg/L	-0.6527 ppb	02:51:28
3	Ba 233.527†	-136.8	1.5	0.0057 µg/L	0.0057 ppb	02:51:48
3	Be 313.107†	-989.5	93.0	0.0288 µg/L	0.0288 ppb	02:51:28
3	Cd 226.502†	-106.6	13.6	0.0847 µg/L	0.0847 ppb	02:51:48
3	Co 228.616†	-172.6	20.8	0.2569 µg/L	0.2569 ppb	02:51:48
3	Cr 267.716†	208.9	26.6	0.1986 µg/L	0.1986 ppb	02:51:48
3	Cu 324.752†	2628.4	-391.1	-1.5098 µg/L	-1.5098 ppb	02:51:28
3	Mn 257.610†	274.5	32.3	0.0398 µg/L	0.0398 ppb	02:51:48
3	Mo 202.031†	-38.7	-17.9	-0.5273 µg/L	-0.5273 ppb	02:51:48
3	Ni 231.604†	-80.2	-2.2	-0.0256 µg/L	-0.0256 ppb	02:51:48
3	P 214.914†	-9.6	8.5	1.8368 µg/L	1.8368 ppb	02:51:48
3	Pb 220.353†	66.4	-21.2	-1.1913 µg/L	-1.1913 ppb	02:51:48
3	S 181.975 Axial†	404.6	292.3	217.02 µg/L	217.02 ppb	02:51:48
3	Sb 206.836†	87.9	5.5	0.6461 µg/L	0.6461 ppb	02:51:48
3	Se 196.026†	5.0	-10.4	-3.73 µg/L	-3.73 ppb	02:51:48
3	SiO2†	1783.0	-24.4	-2.3667 µg/L	-2.3667 ppb	02:51:48
3	Si 251.611†	951.4	97.7	1.4500 µg/L	1.4500 ppb	02:51:28
3	Sn 189.927†	-5.8	-4.6	-0.2885 µg/L	-0.2885 ppb	02:51:48
3	Ti 334.940†	790.5	-176.3	-0.1697 µg/L	-0.1697 ppb	02:51:28
3	Tl 190.801†	34.7	150.7	18.513 µg/L	18.513 ppb	02:51:48
3	U 409.014†	-71.7	199.5	11.634 µg/L	11.634 ppb	02:51:28
3	V 292.402†	308.0	-101.3	-0.4907 µg/L	-0.4907 ppb	02:51:28
3	Zn 213.857†	628.3	52.6	0.2965 µg/L	0.2965 ppb	02:51:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1748475.0	101.76 %	0.265			0.26%
Sc RADIAL	143835.3	98.6 %	1.18			1.20%
Y 371.029	1042752.8	101.56 %	0.246			0.24%
Ag 328.068†	-110.4	-0.4153 µg/L	0.44602	-0.4153 ppb	0.44602	107.40%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-17.6	-3.2537 µg/L	1.34234	-3.2537 ppb	1.34234	41.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	4.0	1.2109 µg/L	0.70088	1.2109 ppb	0.70088	57.88%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	38.0	0.5590 µg/L	1.14606	0.5590 ppb	1.14606	205.01%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	9.5	0.0379 µg/L	0.02832	0.0379 ppb	0.02832	74.82%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	218.4	0.0591 µg/L	0.02684	0.0591 ppb	0.02684	45.41%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	55.5	3.0931 µg/L	0.50159	3.0931 ppb	0.50159	16.22%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	19.1	0.1194 µg/L	0.09196	0.1194 ppb	0.09196	77.00%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	16.4	0.2027 µg/L	0.21008	0.2027 ppb	0.21008	103.62%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	9.4	0.0741 µg/L	0.11055	0.0741 ppb	0.11055	149.18%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-139.3	-0.5421 µg/L	0.84454	-0.5421 ppb	0.84454	155.78%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-0.4	-0.0276 µg/L	0.42641	-0.0276 ppb	0.42641	>999.9%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	492.7	180.17 µg/L	28.541	180.17 ppb	28.541	15.84%
QC value greater than the upper limit for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-6.1	-2.2783 µg/L	5.15483	-2.2783 ppb	5.15483	226.26%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	30.3	0.0376 µg/L	0.00196	0.0376 ppb	0.00196	5.21%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-8.6	-0.2534 µg/L	0.28865	-0.2534 ppb	0.28865	113.92%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	9762.9	1333.6 µg/L	71.33	1333.6 ppb	71.33	5.35%
QC value greater than the upper limit for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-11.2	-0.1284 µg/L	0.09057	-0.1284 ppb	0.09057	70.55%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-5.0	-1.0588 µg/L	3.04432	-1.0588 ppb	3.04432	287.53%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-9.0	-0.5043 µg/L	0.79745	-0.5043 ppb	0.79745	158.14%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	306.7	227.76 µg/L	10.409	227.76 ppb	10.409	4.57%
QC value greater than the upper limit for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	0.4	0.0372 µg/L	1.06958	0.0372 ppb	1.06958	>999.9%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-4.3	-1.56 µg/L	2.327	-1.56 ppb	2.327	149.47%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-11.7	-1.1297 µg/L	2.09595	-1.1297 ppb	2.09595	185.53%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	74.2	1.0978 µg/L	0.38957	1.0978 ppb	0.38957	35.49%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-2.1	-0.1327 µg/L	0.36862	-0.1327 ppb	0.36862	277.72%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-122.9	-0.2555 µg/L	0.11395	-0.2555 ppb	0.11395	44.59%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-68.9	-0.0636 µg/L	0.15935	-0.0636 ppb	0.15935	250.39%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	120.7	14.831 µg/L	3.3194	14.831 ppb	3.3194	22.38%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-20.6	-1.2243 µg/L	13.68877	-1.2243 ppb	13.68877	>999.9%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-81.6	-0.4013 µg/L	0.27732	-0.4013 ppb	0.27732	69.10%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	44.4	0.2503 µg/L	0.13524	0.2503 ppb	0.13524	54.03%
QC value within limits for Zn 213.857 Recovery = Not calculated						
QC Failed. Continue with analysis.						

Sequence No.: 212

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/1/2010 3:13:23

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	141609.9	141609.9	97.0 %		03:13:57
1	Al 396.153Radial†	25900.5	26753.8	4938.0 µg/L	4938.0 ppb	03:13:57
1	Ca 317.933Radial†	84686.8	86709.6	4830.1 µg/L	4830.1 ppb	03:13:57
1	Fe 238.204 Radial†	75392.8	77544.5	4779.4 µg/L	4779.4 ppb	03:13:57
1	K 766.490 Radial†	14527.6	13426.0	4911.4 µg/L	4911.4 ppb	03:13:57
1	Mg 279.077 IEC†	12920.6	13124.0	4897.4 µg/L	4897.4 ppb	03:13:57
1	Na 589.592 Radial†	74132.9	75103.5	10256 µg/L	10256 ppb	03:13:57
1	Sr 421.552†	227259.6	234327.5	487.12 µg/L	487.12 ppb	03:13:55
1	Sc 361.383	1724519.1	1724519.1	100.37 %		03:14:24
1	Y 371.029	1016919.2	1016919.2	99.048 %		03:14:24
1	Ag 328.068†	131759.4	127186.5	476.91 µg/L	476.91 ppb	03:14:24
1	As 188.979†	1617.4	1631.9	500.43 µg/L	500.43 ppb	03:14:44
1	B 249.677†	35573.7	31937.8	469.37 µg/L	469.37 ppb	03:14:24
1	Ba 233.527†	118495.9	118198.7	476.69 µg/L	476.69 ppb	03:14:24
1	Be 313.107†	1772888.7	1767475.2	481.39 µg/L	481.39 ppb	03:14:24
1	Cd 226.502†	76042.0	75882.4	473.69 µg/L	473.69 ppb	03:14:24
1	Co 228.616†	38682.7	38731.7	478.14 µg/L	478.14 ppb	03:14:24
1	Cr 267.716†	60883.2	60482.1	473.56 µg/L	473.56 ppb	03:14:24
1	Cu 324.752†	125481.8	122051.1	475.79 µg/L	475.79 ppb	03:14:24
1	Mn 257.610†	388799.5	387141.5	478.80 µg/L	478.80 ppb	03:14:24
1	Mo 202.031†	16283.3	16243.8	477.82 µg/L	477.82 ppb	03:14:44
1	Ni 231.604†	41425.2	41350.3	476.12 µg/L	476.12 ppb	03:14:24
1	P 214.914†	11209.4	11186.4	2384.4 µg/L	2384.4 ppb	03:14:44
1	Pb 220.353†	8704.1	8585.9	480.80 µg/L	480.80 ppb	03:14:44
1	S 181.975 Axial†	1493.0	1382.4	1030.6 µg/L	1030.6 ppb	03:14:44
1	Sb 206.836†	4161.7	4065.7	484.45 µg/L	484.45 ppb	03:14:44
1	Se 196.026†	1343.1	1322.9	480 µg/L	480 ppb	03:14:44
1	SiO2†	54169.2	52195.9	5081.2 µg/L	5081.2 ppb	03:14:24
1	Si 251.611†	163798.3	162363.2	2384.2 µg/L	2384.2 ppb	03:14:24
1	Sn 189.927†	7708.8	7681.8	480.49 µg/L	480.49 ppb	03:14:44
1	Ti 334.940†	514144.0	511312.8	477.09 µg/L	477.09 ppb	03:14:24
1	Tl 190.801†	3782.7	3885.5	484.56 µg/L	484.56 ppb	03:14:44
1	U 409.014†	7391.9	7634.8	475.26 µg/L	475.26 ppb	03:14:24
1	V 292.402†	97528.5	96768.3	478.40 µg/L	478.40 ppb	03:14:24
1	Zn 213.857†	85289.7	84413.7	470.45 µg/L	470.45 ppb	03:14:24
2	Sc RADIAL	143935.9	143935.9	98.6 %		03:14:01
2	Al 396.153Radial†	26331.1	26759.0	4939.2 µg/L	4939.2 ppb	03:14:01
2	Ca 317.933Radial†	86594.3	87233.3	4859.2 µg/L	4859.2 ppb	03:14:01
2	Fe 238.204 Radial†	76913.8	77831.2	4797.0 µg/L	4797.0 ppb	03:14:01
2	K 766.490 Radial†	14816.5	13476.9	4930.0 µg/L	4930.0 ppb	03:14:01
2	Mg 279.077 IEC†	13220.5	13212.9	4930.4 µg/L	4930.4 ppb	03:14:01
2	Na 589.592 Radial†	75550.6	75306.4	10283 µg/L	10283 ppb	03:14:01
2	Sr 421.552†	228497.8	231798.4	481.86 µg/L	481.86 ppb	03:13:59
2	Sc 361.383	1738137.6	1738137.6	101.16 %		03:14:47
2	Y 371.029	1025437.7	1025437.7	99.878 %		03:14:47
2	Ag 328.068†	132376.0	126767.5	475.37 µg/L	475.37 ppb	03:14:47
2	As 188.979†	1591.5	1593.6	488.85 µg/L	488.85 ppb	03:15:07
2	B 249.677†	35851.5	31934.8	469.33 µg/L	469.33 ppb	03:14:47
2	Ba 233.527†	119360.5	118128.5	476.41 µg/L	476.41 ppb	03:14:47
2	Be 313.107†	1783349.2	1763975.7	480.43 µg/L	480.43 ppb	03:14:47
2	Cd 226.502†	76462.8	75704.7	472.58 µg/L	472.58 ppb	03:14:47
2	Co 228.616†	38867.0	38611.9	476.66 µg/L	476.66 ppb	03:14:47
2	Cr 267.716†	61200.5	60320.6	472.29 µg/L	472.29 ppb	03:14:47
2	Cu 324.752†	126080.6	121663.5	474.29 µg/L	474.29 ppb	03:14:47
2	Mn 257.610†	391256.7	386535.4	478.05 µg/L	478.05 ppb	03:14:47
2	Mo 202.031†	16230.4	16064.5	472.55 µg/L	472.55 ppb	03:15:07
2	Ni 231.604†	41463.0	41064.4	472.83 µg/L	472.83 ppb	03:14:47
2	P 214.914†	11143.5	11033.8	2351.8 µg/L	2351.8 ppb	03:15:07
2	Pb 220.353†	8645.1	8459.7	473.74 µg/L	473.74 ppb	03:15:07

2	S 181.975 Axial†	1480.0	1357.9	1012.4 µg/L	1012.4 ppb	03:15:07
2	Sb 206.836†	4116.5	3988.5	475.20 µg/L	475.20 ppb	03:15:07
2	Se 196.026†	1336.1	1305.6	474 µg/L	474 ppb	03:15:07
2	SiO2†	54693.6	52291.4	5090.8 µg/L	5090.8 ppb	03:14:47
2	Si 251.611†	165270.6	162539.9	2386.9 µg/L	2386.9 ppb	03:14:47
2	Sn 189.927†	7648.8	7562.3	473.03 µg/L	473.03 ppb	03:15:07
2	Ti 334.940†	517308.4	510427.2	476.26 µg/L	476.26 ppb	03:14:47
2	Tl 190.801†	3752.9	3826.6	477.32 µg/L	477.32 ppb	03:15:07
2	U 409.014†	7552.0	7735.3	481.16 µg/L	481.16 ppb	03:14:47
2	V 292.402†	98376.4	96845.2	478.71 µg/L	478.71 ppb	03:14:47
2	Zn 213.857†	86281.1	84727.8	472.24 µg/L	472.24 ppb	03:14:47
3	Sc RADIAL	140443.4	140443.4	96.2 %		03:14:05
3	Al 396.153Radial†	25676.7	26743.0	4936.2 µg/L	4936.2 ppb	03:14:05
3	Ca 317.933Radial†	83864.4	86579.9	4822.8 µg/L	4822.8 ppb	03:14:05
3	Fe 238.204 Radial†	74604.1	77370.4	4768.6 µg/L	4768.6 ppb	03:14:05
3	K 766.490 Radial†	14449.6	13469.3	4927.2 µg/L	4927.2 ppb	03:14:05
3	Mg 279.077 IEC†	12779.0	13087.5	4883.7 µg/L	4883.7 ppb	03:14:05
3	Na 589.592 Radial†	73771.5	75362.6	10291 µg/L	10291 ppb	03:14:05
3	Sr 421.552†	229430.1	238528.0	495.85 µg/L	495.85 ppb	03:14:03
3	Sc 361.383	1744274.4	1744274.4	101.52 %		03:15:10
3	Y 371.029	1028879.6	1028879.6	100.21 %		03:15:10
3	Ag 328.068†	133589.1	127502.1	478.11 µg/L	478.11 ppb	03:15:10
3	As 188.979†	1613.5	1609.8	493.74 µg/L	493.74 ppb	03:15:30
3	B 249.677†	36166.0	32119.8	472.05 µg/L	472.05 ppb	03:15:10
3	Ba 233.527†	120009.6	118352.7	477.31 µg/L	477.31 ppb	03:15:10
3	Be 313.107†	1795578.5	1769820.0	482.02 µg/L	482.02 ppb	03:15:10
3	Cd 226.502†	77434.5	76396.0	476.90 µg/L	476.90 ppb	03:15:10
3	Co 228.616†	39130.1	38735.9	478.19 µg/L	478.19 ppb	03:15:10
3	Cr 267.716†	61711.0	60610.6	474.57 µg/L	474.57 ppb	03:15:10
3	Cu 324.752†	126753.5	121887.8	475.15 µg/L	475.15 ppb	03:15:10
3	Mn 257.610†	393731.0	387612.0	479.39 µg/L	479.39 ppb	03:15:10
3	Mo 202.031†	16276.7	16053.6	472.23 µg/L	472.23 ppb	03:15:30
3	Ni 231.604†	41761.2	41213.9	474.55 µg/L	474.55 ppb	03:15:10
3	P 214.914†	11200.9	11051.6	2355.6 µg/L	2355.6 ppb	03:15:30
3	Pb 220.353†	8718.4	8501.8	476.10 µg/L	476.10 ppb	03:15:30
3	S 181.975 Axial†	1486.9	1359.7	1013.6 µg/L	1013.6 ppb	03:15:30
3	Sb 206.836†	4107.0	3964.8	472.37 µg/L	472.37 ppb	03:15:30
3	Se 196.026†	1339.3	1304.0	474 µg/L	474 ppb	03:15:30
3	SiO2†	55056.5	52458.7	5107.1 µg/L	5107.1 ppb	03:15:10
3	Si 251.611†	166125.1	162806.9	2390.8 µg/L	2390.8 ppb	03:15:10
3	Sn 189.927†	7727.3	7613.0	476.20 µg/L	476.20 ppb	03:15:30
3	Ti 334.940†	520001.8	511281.2	477.06 µg/L	477.06 ppb	03:15:10
3	Tl 190.801†	3778.8	3839.0	478.87 µg/L	478.87 ppb	03:15:30
3	U 409.014†	7370.2	7530.0	469.31 µg/L	469.31 ppb	03:15:10
3	V 292.402†	99255.0	97368.5	481.27 µg/L	481.27 ppb	03:15:10
3	Zn 213.857†	86767.5	84906.9	473.24 µg/L	473.24 ppb	03:15:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1735643.7	101.01 %	0.588			0.58%
Sc RADIAL	141996.4	97.3 %	1.22			1.25%
Y 371.029	1023745.5	99.713 %	0.5997			0.60%
Ag 328.068†	127152.0	476.79 µg/L	1.372	476.79 ppb	1.372	0.29%
QC value within limits for Ag 328.068 Recovery = 95.36%						
Al 396.153Radial†	26751.9	4937.8 µg/L	1.49	4937.8 ppb	1.49	0.03%
QC value within limits for Al 396.153Radial Recovery = 98.76%						
As 188.979†	1611.8	494.34 µg/L	5.814	494.34 ppb	5.814	1.18%
QC value within limits for As 188.979 Recovery = 98.87%						
B 249.677†	31997.5	470.25 µg/L	1.562	470.25 ppb	1.562	0.33%
QC value within limits for B 249.677 Recovery = 94.05%						
Ba 233.527†	118226.6	476.81 µg/L	0.463	476.81 ppb	0.463	0.10%
QC value within limits for Ba 233.527 Recovery = 95.36%						
Be 313.107†	1767090.3	481.28 µg/L	0.799	481.28 ppb	0.799	0.17%
QC value within limits for Be 313.107 Recovery = 96.26%						
Ca 317.933Radial†	86840.9	4837.4 µg/L	19.27	4837.4 ppb	19.27	0.40%
QC value within limits for Ca 317.933Radial Recovery = 96.75%						
Cd 226.502†	75994.4	474.39 µg/L	2.244	474.39 ppb	2.244	0.47%
QC value within limits for Cd 226.502 Recovery = 94.88%						
Co 228.616†	38693.1	477.67 µg/L	0.870	477.67 ppb	0.870	0.18%

QC value within limits for Co 228.616 Recovery = 95.53%							
Cr 267.716†	60471.1	473.47 µg/L	1.143	473.47 ppb	1.143	0.24%	
QC value within limits for Cr 267.716 Recovery = 94.69%							
Cu 324.752†	121867.4	475.08 µg/L	0.752	475.08 ppb	0.752	0.16%	
QC value within limits for Cu 324.752 Recovery = 95.02%							
Fe 238.204 Radial†	77582.0	4781.7 µg/L	14.34	4781.7 ppb	14.34	0.30%	
QC value within limits for Fe 238.204 Radial Recovery = 95.63%							
K 766.490 Radial†	13457.4	4922.9 µg/L	10.06	4922.9 ppb	10.06	0.20%	
QC value within limits for K 766.490 Radial Recovery = 98.46%							
Mg 279.077 IEC†	13141.5	4903.8 µg/L	24.00	4903.8 ppb	24.00	0.49%	
QC value within limits for Mg 279.077 IEC Recovery = 98.08%							
Mn 257.610†	387096.3	478.75 µg/L	0.669	478.75 ppb	0.669	0.14%	
QC value within limits for Mn 257.610 Recovery = 95.75%							
Mo 202.031†	16120.7	474.20 µg/L	3.139	474.20 ppb	3.139	0.66%	
QC value within limits for Mo 202.031 Recovery = 94.84%							
Na 589.592 Radial†	75257.5	10277 µg/L	18.6	10277 ppb	18.6	0.18%	
QC value within limits for Na 589.592 Radial Recovery = 102.77%							
Ni 231.604†	41209.5	474.50 µg/L	1.647	474.50 ppb	1.647	0.35%	
QC value within limits for Ni 231.604 Recovery = 94.90%							
P 214.914†	11090.6	2363.9 µg/L	17.85	2363.9 ppb	17.85	0.75%	
QC value within limits for P 214.914 Recovery = 94.56%							
Pb 220.353†	8515.8	476.88 µg/L	3.596	476.88 ppb	3.596	0.75%	
QC value within limits for Pb 220.353 Recovery = 95.38%							
S 181.975 Axial†	1366.7	1018.9 µg/L	10.18	1018.9 ppb	10.18	1.00%	
QC value within limits for S 181.975 Axial Recovery = 101.89%							
Sb 206.836†	4006.3	477.34 µg/L	6.318	477.34 ppb	6.318	1.32%	
QC value within limits for Sb 206.836 Recovery = 95.47%							
Se 196.026†	1310.8	476 µg/L	3.8	476 ppb	3.8	0.80%	
QC value within limits for Se 196.026 Recovery = 95.20%							
SiO2†	52315.3	5093.0 µg/L	13.10	5093.0 ppb	13.10	0.26%	
QC value within limits for SiO2 Recovery = 95.24%							
Si 251.611†	162570.0	2387.3 µg/L	3.34	2387.3 ppb	3.34	0.14%	
QC value within limits for Si 251.611 Recovery = 95.49%							
Sn 189.927†	7619.0	476.57 µg/L	3.740	476.57 ppb	3.740	0.78%	
QC value within limits for Sn 189.927 Recovery = 95.31%							
Sr 421.552†	234884.6	488.27 µg/L	7.067	488.27 ppb	7.067	1.45%	
QC value within limits for Sr 421.552 Recovery = 97.65%							
Ti 334.940†	511007.1	476.80 µg/L	0.473	476.80 ppb	0.473	0.10%	
QC value within limits for Ti 334.940 Recovery = 95.36%							
Tl 190.801†	3850.4	480.25 µg/L	3.815	480.25 ppb	3.815	0.79%	
QC value within limits for Tl 190.801 Recovery = 96.05%							
U 409.014†	7633.4	475.24 µg/L	5.925	475.24 ppb	5.925	1.25%	
QC value within limits for U 409.014 Recovery = 95.05%							
V 292.402†	96994.0	479.46 µg/L	1.574	479.46 ppb	1.574	0.33%	
QC value within limits for V 292.402 Recovery = 95.89%							
Zn 213.857†	84682.8	471.98 µg/L	1.410	471.98 ppb	1.410	0.30%	
QC value within limits for Zn 213.857 Recovery = 94.40%							
All analyte(s) passed QC.							

Sequence No.: 213

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/1/2010 3:15:38

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	146013.2	146013.2	100 %		03:16:07
1	Al 396.153Radial†	-89.2	-25.9	-4.8031 µg/L	-4.8031 ppb	03:16:27
1	Ca 317.933Radial†	761.2	200.2	11.150 µg/L	11.150 ppb	03:16:27
1	Fe 238.204 Radial†	162.9	14.7	0.9060 µg/L	0.9060 ppb	03:16:27
1	K 766.490 Radial†	1654.3	108.5	39.646 µg/L	39.646 ppb	03:16:07
1	Mg 279.077 IEC†	192.8	2.0	0.7445 µg/L	0.7445 ppb	03:16:27
1	Na 589.592 Radial†	5426.7	4132.8	564.56 µg/L	564.56 ppb	03:16:07
1	Sr 421.552†	-218.9	-83.4	-0.1736 µg/L	-0.1736 ppb	03:16:07
1	Sc 361.383	1755516.5	1755516.5	102.17 %		03:17:15
1	Y 371.029	1046303.4	1046303.4	101.91 %		03:17:15
1	Ag 328.068†	4349.4	165.6	0.6100 µg/L	0.6100 ppb	03:17:17
1	As 188.979†	-32.6	-11.5	-3.4798 µg/L	-3.4798 ppb	03:17:37
1	B 249.677†	3627.4	44.4	0.6533 µg/L	0.6533 ppb	03:17:17
1	Ba 233.527†	-142.6	-3.7	-0.0155 µg/L	-0.0155 ppb	03:17:37
1	Be 313.107†	-765.9	315.0	0.0874 µg/L	0.0874 ppb	03:17:17
1	Cd 226.502†	-98.0	22.3	0.1390 µg/L	0.1390 ppb	03:17:37
1	Co 228.616†	-150.7	42.8	0.5276 µg/L	0.5276 ppb	03:17:37
1	Cr 267.716†	198.5	15.7	0.1183 µg/L	0.1183 ppb	03:17:37
1	Cu 324.752†	3047.8	10.9	0.0471 µg/L	0.0471 ppb	03:17:17
1	Mn 257.610†	326.4	82.2	0.1017 µg/L	0.1017 ppb	03:17:37
1	Mo 202.031†	-26.4	-5.8	-0.1704 µg/L	-0.1704 ppb	03:17:37
1	Ni 231.604†	-110.3	-31.4	-0.3616 µg/L	-0.3616 ppb	03:17:37
1	P 214.914†	-26.0	-7.5	-1.5967 µg/L	-1.5967 ppb	03:17:37
1	Pb 220.353†	82.4	-5.8	-0.3262 µg/L	-0.3262 ppb	03:17:37
1	S 181.975 Axial†	207.3	97.8	72.634 µg/L	72.634 ppb	03:17:37
1	Sb 206.836†	77.7	-4.8	-0.5732 µg/L	-0.5732 ppb	03:17:37
1	Se 196.026†	14.9	-0.7	-0.237 µg/L	-0.237 ppb	03:17:37
1	SiO2†	1831.7	17.5	1.7076 µg/L	1.7076 ppb	03:17:37
1	Si 251.611†	802.8	-50.8	-0.7486 µg/L	-0.7486 ppb	03:17:17
1	Sn 189.927†	3.5	4.5	0.2809 µg/L	0.2809 ppb	03:17:37
1	Ti 334.940†	712.4	-255.3	-0.2405 µg/L	-0.2405 ppb	03:17:17
1	Tl 190.801†	-96.0	22.8	2.7858 µg/L	2.7858 ppb	03:17:37
1	U 409.014†	-181.9	91.8	5.3242 µg/L	5.3242 ppb	03:17:17
1	V 292.402†	247.6	-161.5	-0.7853 µg/L	-0.7853 ppb	03:17:17
1	Zn 213.857†	614.2	36.7	0.2080 µg/L	0.2080 ppb	03:17:37
2	Sc RADIAL	141829.3	141829.3	97.2 %		03:16:29
2	Al 396.153Radial†	-77.3	-16.3	-3.0254 µg/L	-3.0254 ppb	03:16:49
2	Ca 317.933Radial†	693.9	153.4	8.5423 µg/L	8.5423 ppb	03:16:49
2	Fe 238.204 Radial†	133.5	-10.7	-0.6592 µg/L	-0.6592 ppb	03:16:49
2	K 766.490 Radial†	1842.1	350.6	128.27 µg/L	128.27 ppb	03:16:29
2	Mg 279.077 IEC†	213.2	28.7	10.681 µg/L	10.681 ppb	03:16:49
2	Na 589.592 Radial†	5347.1	4210.9	575.15 µg/L	575.15 ppb	03:16:29
2	Sr 421.552†	-126.7	4.9	0.0101 µg/L	0.0101 ppb	03:16:29
2	Sc 361.383	1757358.9	1757358.9	102.28 %		03:17:39
2	Y 371.029	1047817.2	1047817.2	102.06 %		03:17:39
2	Ag 328.068†	4203.5	18.4	0.0721 µg/L	0.0721 ppb	03:17:42
2	As 188.979†	-7.7	12.8	3.8720 µg/L	3.8720 ppb	03:18:02
2	B 249.677†	3621.3	34.7	0.5123 µg/L	0.5123 ppb	03:17:42
2	Ba 233.527†	-113.1	25.3	0.1018 µg/L	0.1018 ppb	03:18:02
2	Be 313.107†	-827.3	255.9	0.0718 µg/L	0.0718 ppb	03:17:42
2	Cd 226.502†	-109.0	11.6	0.0724 µg/L	0.0724 ppb	03:18:02
2	Co 228.616†	-206.5	-11.6	-0.1430 µg/L	-0.1430 ppb	03:18:02
2	Cr 267.716†	179.5	-3.1	-0.0299 µg/L	-0.0299 ppb	03:18:02
2	Cu 324.752†	2992.6	-46.2	-0.1738 µg/L	-0.1738 ppb	03:17:42
2	Mn 257.610†	319.5	75.1	0.0925 µg/L	0.0925 ppb	03:18:02
2	Mo 202.031†	-17.2	3.2	0.0951 µg/L	0.0951 ppb	03:18:02
2	Ni 231.604†	-94.1	-15.5	-0.1782 µg/L	-0.1782 ppb	03:18:02
2	P 214.914†	-17.1	1.3	0.2745 µg/L	0.2745 ppb	03:18:02
2	Pb 220.353†	67.0	-20.9	-1.1697 µg/L	-1.1697 ppb	03:18:02

2	S 181.975 Axial†	199.8	90.3	67.037 µg/L	67.037 ppb	03:18:02
2	Sb 206.836†	85.0	2.3	0.2720 µg/L	0.2720 ppb	03:18:02
2	Se 196.026†	11.9	-3.7	-1.31 µg/L	-1.31 ppb	03:18:02
2	SiO2†	1802.0	-13.5	-1.3278 µg/L	-1.3278 ppb	03:18:02
2	Si 251.611†	853.5	-2.1	-0.0332 µg/L	-0.0332 ppb	03:17:42
2	Sn 189.927†	2.7	3.8	0.2351 µg/L	0.2351 ppb	03:18:02
2	Ti 334.940†	1024.2	48.8	0.0421 µg/L	0.0421 ppb	03:17:42
2	Tl 190.801†	-77.9	40.5	4.9714 µg/L	4.9714 ppb	03:18:02
2	U 409.014†	-154.4	118.9	6.9321 µg/L	6.9321 ppb	03:17:42
2	V 292.402†	333.3	-77.9	-0.3746 µg/L	-0.3746 ppb	03:17:42
2	Zn 213.857†	602.9	25.1	0.1422 µg/L	0.1422 ppb	03:18:02
3	Sc RADIAL	143153.6	143153.6	98.1 %		03:16:51
3	Al 396.153Radial†	-75.1	-13.4	-2.4564 µg/L	-2.4564 ppb	03:17:11
3	Ca 317.933Radial†	714.7	168.0	9.3594 µg/L	9.3594 ppb	03:17:11
3	Fe 238.204 Radial†	146.0	0.7	0.0418 µg/L	0.0418 ppb	03:17:11
3	K 766.490 Radial†	1703.0	191.3	69.930 µg/L	69.930 ppb	03:16:51
3	Mg 279.077 IEC†	177.5	-9.7	-3.6301 µg/L	-3.6301 ppb	03:17:11
3	Na 589.592 Radial†	5368.9	4182.2	571.28 µg/L	571.28 ppb	03:16:51
3	Sr 421.552†	-157.6	-25.4	-0.0529 µg/L	-0.0529 ppb	03:16:51
3	Sc 361.383	1742509.2	1742509.2	101.41 %		03:18:04
3	Y 371.029	1039202.5	1039202.5	101.22 %		03:18:04
3	Ag 328.068†	4021.3	-126.2	-0.4729 µg/L	-0.4729 ppb	03:18:06
3	As 188.979†	-17.7	2.9	0.8639 µg/L	0.8639 ppb	03:18:26
3	B 249.677†	3474.3	-80.0	-1.1801 µg/L	-1.1801 ppb	03:18:06
3	Ba 233.527†	-135.7	2.0	0.0074 µg/L	0.0074 ppb	03:18:26
3	Be 313.107†	-1003.8	74.8	0.0214 µg/L	0.0214 ppb	03:18:06
3	Cd 226.502†	-66.8	52.3	0.3269 µg/L	0.3269 ppb	03:18:26
3	Co 228.616†	-182.8	10.1	0.1245 µg/L	0.1245 ppb	03:18:26
3	Cr 267.716†	178.6	-2.5	-0.0225 µg/L	-0.0225 ppb	03:18:26
3	Cu 324.752†	2996.2	-17.8	-0.0665 µg/L	-0.0665 ppb	03:18:06
3	Mn 257.610†	303.6	62.1	0.0770 µg/L	0.0770 ppb	03:18:26
3	Mo 202.031†	-36.1	-15.6	-0.4577 µg/L	-0.4577 ppb	03:18:26
3	Ni 231.604†	-76.5	1.0	0.0119 µg/L	0.0119 ppb	03:18:26
3	P 214.914†	-26.3	-8.0	-1.7122 µg/L	-1.7122 ppb	03:18:26
3	Pb 220.353†	16.7	-69.9	-3.9062 µg/L	-3.9062 ppb	03:18:26
3	S 181.975 Axial†	199.1	91.3	67.801 µg/L	67.801 ppb	03:18:26
3	Sb 206.836†	75.6	-6.2	-0.7491 µg/L	-0.7491 ppb	03:18:26
3	Se 196.026†	21.3	5.7	2.07 µg/L	2.07 ppb	03:18:26
3	SiO2†	1802.2	1.7	0.1875 µg/L	0.1875 ppb	03:18:26
3	Si 251.611†	978.5	128.3	1.8991 µg/L	1.8991 ppb	03:18:06
3	Sn 189.927†	-5.2	-4.0	-0.2499 µg/L	-0.2499 ppb	03:18:26
3	Ti 334.940†	957.8	-8.1	-0.0083 µg/L	-0.0083 ppb	03:18:06
3	Tl 190.801†	-79.3	38.5	4.7229 µg/L	4.7229 ppb	03:18:26
3	U 409.014†	-215.9	57.0	3.2904 µg/L	3.2904 ppb	03:18:06
3	V 292.402†	245.3	-161.9	-0.7924 µg/L	-0.7924 ppb	03:18:06
3	Zn 213.857†	594.0	21.4	0.1198 µg/L	0.1198 ppb	03:18:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1751794.9	101.95 %	0.471			0.46%
Sc RADIAL	143665.3	98.4 %	1.47			1.49%
Y 371.029	1044441.0	101.73 %	0.448			0.44%
Ag 328.068†	19.3	0.0697 µg/L	0.54146	0.0697 ppb	0.54146	776.48%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-18.5	-3.4283 µg/L	1.22412	-3.4283 ppb	1.22412	35.71%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.4	0.4187 µg/L	3.69605	0.4187 ppb	3.69605	882.73%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-0.3	-0.0048 µg/L	1.02026	-0.0048 ppb	1.02026	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	7.9	0.0312 µg/L	0.06218	0.0312 ppb	0.06218	199.06%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	215.2	0.0602 µg/L	0.03450	0.0602 ppb	0.03450	57.32%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	173.8	9.6837 µg/L	1.33353	9.6837 ppb	1.33353	13.77%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	28.7	0.1794 µg/L	0.13199	0.1794 ppb	0.13199	73.56%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	13.8	0.1697 µg/L	0.33756	0.1697 ppb	0.33756	198.94%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	3.4	0.0219 µg/L	0.08351	0.0219 ppb	0.08351	380.68%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-17.7	-0.0644 µg/L	0.11047	-0.0644 ppb	0.11047	171.52%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	1.6	0.0962 µg/L	0.78405	0.0962 ppb	0.78405	815.18%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	216.8	79.281 µg/L	45.0446	79.281 ppb	45.0446	56.82%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	7.0	2.5984 µg/L	7.33330	2.5984 ppb	7.33330	282.23%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	73.1	0.0904 µg/L	0.01246	0.0904 ppb	0.01246	13.78%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-6.0	-0.1777 µg/L	0.27645	-0.1777 ppb	0.27645	155.60%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	4175.3	570.33 µg/L	5.360	570.33 ppb	5.360	0.94%
QC value greater than the upper limit for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-15.3	-0.1760 µg/L	0.18678	-0.1760 ppb	0.18678	106.15%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-4.7	-1.0115 µg/L	1.11516	-1.0115 ppb	1.11516	110.25%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-32.2	-1.8007 µg/L	1.87157	-1.8007 ppb	1.87157	103.93%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	93.1	69.157 µg/L	3.0351	69.157 ppb	3.0351	4.39%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-2.9	-0.3501 µg/L	0.54589	-0.3501 ppb	0.54589	155.93%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	0.5	0.172 µg/L	1.7265	0.172 ppb	1.7265	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	1.9	0.1891 µg/L	1.51771	0.1891 ppb	1.51771	802.57%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	25.1	0.3725 µg/L	1.36967	0.3725 ppb	1.36967	367.74%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	1.4	0.0887 µg/L	0.29412	0.0887 ppb	0.29412	331.60%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-34.7	-0.0721 µg/L	0.09333	-0.0721 ppb	0.09333	129.40%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-71.5	-0.0689 µg/L	0.15073	-0.0689 ppb	0.15073	218.77%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	33.9	4.1600 µg/L	1.19656	4.1600 ppb	1.19656	28.76%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	89.3	5.1822 µg/L	1.82498	5.1822 ppb	1.82498	35.22%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-133.8	-0.6508 µg/L	0.23918	-0.6508 ppb	0.23918	36.75%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	27.7	0.1566 µg/L	0.04589	0.1566 ppb	0.04589	29.30%
QC value within limits for Zn 213.857 Recovery = Not calculated						
QC Failed. Continue with analysis.						

=====
Analysis Begun

Start Time: 4/1/2010 4:39:11

Plasma On Time: 3/29/2010 18:07:58

Logged In Analyst: optima4

Technique: ICP Continuous

Spectrometer Model: Optima 7300 DV, S/N 077C0022701 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif

Batch ID:

Results Data Set: 033110B

Results Library: C:\pe\optima4\Results\Results.mdb

Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 4/1/2010 4:39:15

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	143287.7	143287.7	98.2 %		04:39:48
1	Al 396.153Radial†	26097.1	26641.5	4917.1 µg/L	4917.1 ppb	04:39:48
1	Ca 317.933Radial†	85617.7	86635.8	4826.0 µg/L	4826.0 ppb	04:39:48
1	Fe 238.204 Radial†	76602.7	77867.1	4799.3 µg/L	4799.3 ppb	04:39:48
1	K 766.490 Radial†	14400.8	13121.5	4800.0 µg/L	4800.0 ppb	04:39:48
1	Mg 279.077 IEC†	13124.0	13175.3	4916.5 µg/L	4916.5 ppb	04:39:48
1	Na 589.592 Radial†	72250.3	72291.7	9871.7 µg/L	9871.7 ppb	04:39:48
1	Sr 421.552†	228422.2	232769.3	483.88 µg/L	483.88 ppb	04:39:46
1	Sc 361.383	1726307.9	1726307.9	100.47 %		04:40:15
1	Y 371.029	1017838.7	1017838.7	99.138 %		04:40:15
1	Ag 328.068†	131459.1	126751.6	475.29 µg/L	475.29 ppb	04:40:15
1	As 188.979†	1615.7	1628.5	499.42 µg/L	499.42 ppb	04:40:35
1	B 249.677†	35679.8	32006.7	470.38 µg/L	470.38 ppb	04:40:15
1	Ba 233.527†	118546.6	118126.9	476.40 µg/L	476.40 ppb	04:40:15
1	Be 313.107†	1779033.6	1771761.0	482.55 µg/L	482.55 ppb	04:40:15
1	Cd 226.502†	76138.3	75899.6	473.80 µg/L	473.80 ppb	04:40:15
1	Co 228.616†	38752.8	38761.5	478.51 µg/L	478.51 ppb	04:40:15
1	Cr 267.716†	60891.1	60427.2	473.15 µg/L	473.15 ppb	04:40:15
1	Cu 324.752†	125489.3	121928.9	475.31 µg/L	475.31 ppb	04:40:15
1	Mn 257.610†	389201.0	387139.7	478.80 µg/L	478.80 ppb	04:40:15
1	Mo 202.031†	16304.5	16248.1	477.95 µg/L	477.95 ppb	04:40:35
1	Ni 231.604†	41496.9	41378.9	476.45 µg/L	476.45 ppb	04:40:15
1	P 214.914†	11260.2	11225.4	2392.7 µg/L	2392.7 ppb	04:40:35
1	Pb 220.353†	8733.2	8605.9	481.93 µg/L	481.93 ppb	04:40:35
1	S 181.975 Axial†	1431.2	1319.5	983.83 µg/L	983.83 ppb	04:40:35
1	Sb 206.836†	4117.8	4017.7	478.76 µg/L	478.76 ppb	04:40:35
1	Se 196.026†	1330.5	1309.0	475 µg/L	475 ppb	04:40:35
1	SiO2†	54190.9	52161.5	5077.8 µg/L	5077.8 ppb	04:40:15
1	Si 251.611†	164264.5	162658.1	2388.5 µg/L	2388.5 ppb	04:40:15
1	Sn 189.927†	7744.6	7709.4	482.20 µg/L	482.20 ppb	04:40:35
1	Ti 334.940†	513495.3	510136.3	476.00 µg/L	476.00 ppb	04:40:15
1	Tl 190.801†	3787.9	3886.8	484.71 µg/L	484.71 ppb	04:40:35
1	U 409.014†	7087.0	7323.7	457.14 µg/L	457.14 ppb	04:40:15
1	V 292.402†	97888.5	97025.9	479.64 µg/L	479.64 ppb	04:40:15
1	Zn 213.857†	85804.6	84838.1	472.83 µg/L	472.83 ppb	04:40:15
2	Sc RADIAL	142551.2	142551.2	97.7 %		04:39:52
2	Al 396.153Radial†	25918.7	26596.2	4908.8 µg/L	4908.8 ppb	04:39:52
2	Ca 317.933Radial†	85143.9	86601.2	4824.0 µg/L	4824.0 ppb	04:39:52
2	Fe 238.204 Radial†	76012.3	77665.7	4786.8 µg/L	4786.8 ppb	04:39:52
2	K 766.490 Radial†	14216.0	13008.1	4758.5 µg/L	4758.5 ppb	04:39:52
2	Mg 279.077 IEC†	13129.0	13249.5	4944.1 µg/L	4944.1 ppb	04:39:52
2	Na 589.592 Radial†	71942.3	72356.6	9880.6 µg/L	9880.6 ppb	04:39:52
2	Sr 421.552†	228072.6	233613.4	485.63 µg/L	485.63 ppb	04:39:50
2	Sc 361.383	1732601.9	1732601.9	100.84 %		04:40:38
2	Y 371.029	1021854.8	1021854.8	99.529 %		04:40:38
2	Ag 328.068†	132036.8	126849.2	475.64 µg/L	475.64 ppb	04:40:38
2	As 188.979†	1613.9	1620.8	497.09 µg/L	497.09 ppb	04:40:58

2	B 249.677†	35753.7	31951.0	469.56 µg/L	469.56 ppb	04:40:38
2	Ba 233.527†	119080.4	118227.7	476.81 µg/L	476.81 ppb	04:40:38
2	Be 313.107†	1784759.1	1771006.5	482.34 µg/L	482.34 ppb	04:40:38
2	Cd 226.502†	76654.3	76136.1	475.28 µg/L	475.28 ppb	04:40:38
2	Co 228.616†	38853.1	38720.8	478.01 µg/L	478.01 ppb	04:40:38
2	Cr 267.716†	61138.8	60452.7	473.35 µg/L	473.35 ppb	04:40:38
2	Cu 324.752†	125614.8	121599.7	474.02 µg/L	474.02 ppb	04:40:38
2	Mn 257.610†	390618.9	387138.6	478.80 µg/L	478.80 ppb	04:40:38
2	Mo 202.031†	16345.0	16229.4	477.40 µg/L	477.40 ppb	04:40:58
2	Ni 231.604†	41628.9	41359.8	476.23 µg/L	476.23 ppb	04:40:38
2	P 214.914†	11287.1	11211.3	2389.8 µg/L	2389.8 ppb	04:40:58
2	Pb 220.353†	8756.9	8597.8	481.48 µg/L	481.48 ppb	04:40:58
2	S 181.975 Axial†	1433.6	1316.6	981.73 µg/L	981.73 ppb	04:40:58
2	Sb 206.836†	4163.7	4048.4	482.39 µg/L	482.39 ppb	04:40:58
2	Se 196.026†	1356.8	1330.3	483 µg/L	483 ppb	04:40:58
2	SiO2†	54513.7	52285.8	5090.0 µg/L	5090.0 ppb	04:40:38
2	Si 251.611†	164749.7	162545.4	2386.9 µg/L	2386.9 ppb	04:40:38
2	Sn 189.927†	7762.2	7698.9	481.55 µg/L	481.55 ppb	04:40:58
2	Ti 334.940†	515261.7	510031.4	475.90 µg/L	475.90 ppb	04:40:38
2	Tl 190.801†	3793.6	3878.7	483.72 µg/L	483.72 ppb	04:40:58
2	U 409.014†	6995.8	7207.6	450.31 µg/L	450.31 ppb	04:40:38
2	V 292.402†	98077.2	96859.1	478.82 µg/L	478.82 ppb	04:40:38
2	Zn 213.857†	86253.0	84972.5	473.59 µg/L	473.59 ppb	04:40:38
3	Sc RADIAL	145083.0	145083.0	99.4 %		04:39:56
3	Al 396.153Radial†	26230.8	26447.1	4880.9 µg/L	4880.9 ppb	04:39:56
3	Ca 317.933Radial†	86647.7	86592.8	4823.6 µg/L	4823.6 ppb	04:39:56
3	Fe 238.204 Radial†	77399.8	77703.5	4789.2 µg/L	4789.2 ppb	04:39:56
3	K 766.490 Radial†	14738.6	13279.9	4858.0 µg/L	4858.0 ppb	04:39:56
3	Mg 279.077 IEC†	13305.7	13192.7	4923.1 µg/L	4923.1 ppb	04:39:56
3	Na 589.592 Radial†	73184.6	72321.0	9875.6 µg/L	9875.6 ppb	04:39:56
3	Sr 421.552†	226923.1	228382.9	474.76 µg/L	474.76 ppb	04:39:54
3	Sc 361.383	1715600.7	1715600.7	99.848 %		04:41:01
3	Y 371.029	1011465.9	1011465.9	98.517 %		04:41:01
3	Ag 328.068†	131101.9	127210.5	477.01 µg/L	477.01 ppb	04:41:01
3	As 188.979†	1621.5	1644.3	504.20 µg/L	504.20 ppb	04:41:21
3	B 249.677†	35572.5	32120.8	472.07 µg/L	472.07 ppb	04:41:01
3	Ba 233.527†	117882.9	118198.6	476.69 µg/L	476.69 ppb	04:41:01
3	Be 313.107†	1768142.0	1771903.7	482.59 µg/L	482.59 ppb	04:41:01
3	Cd 226.502†	76042.9	76277.0	476.16 µg/L	476.16 ppb	04:41:01
3	Co 228.616†	38526.8	38775.8	478.69 µg/L	478.69 ppb	04:41:01
3	Cr 267.716†	60518.3	60432.1	473.17 µg/L	473.17 ppb	04:41:01
3	Cu 324.752†	124833.7	122051.9	475.80 µg/L	475.80 ppb	04:41:01
3	Mn 257.610†	387412.1	387765.8	479.57 µg/L	479.57 ppb	04:41:01
3	Mo 202.031†	16333.0	16378.0	481.77 µg/L	481.77 ppb	04:41:21
3	Ni 231.604†	41283.4	41422.9	476.95 µg/L	476.95 ppb	04:41:01
3	P 214.914†	11331.2	11366.5	2422.9 µg/L	2422.9 ppb	04:41:21
3	Pb 220.353†	8778.6	8705.6	487.49 µg/L	487.49 ppb	04:41:21
3	S 181.975 Axial†	1431.3	1328.5	990.54 µg/L	990.54 ppb	04:41:21
3	Sb 206.836†	4139.6	4065.1	484.45 µg/L	484.45 ppb	04:41:21
3	Se 196.026†	1365.1	1351.9	491 µg/L	491 ppb	04:41:21
3	SiO2†	53906.3	52213.2	5082.7 µg/L	5082.7 ppb	04:41:01
3	Si 251.611†	163125.7	162537.9	2386.7 µg/L	2386.7 ppb	04:41:01
3	Sn 189.927†	7757.8	7770.8	486.03 µg/L	486.03 ppb	04:41:21
3	Ti 334.940†	510802.1	510628.7	476.45 µg/L	476.45 ppb	04:41:01
3	Tl 190.801†	3813.8	3936.3	490.80 µg/L	490.80 ppb	04:41:21
3	U 409.014†	7313.0	7594.1	472.95 µg/L	472.95 ppb	04:41:01
3	V 292.402†	97247.2	96991.7	479.52 µg/L	479.52 ppb	04:41:01
3	Zn 213.857†	85421.1	84987.0	473.67 µg/L	473.67 ppb	04:41:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1724836.8	100.39 %	0.500			0.50%
Sc RADIAL	143640.6	98.4 %	0.89			0.91%
Y 371.029	1017053.1	99.061 %	0.5103			0.52%
Ag 328.068†	126937.1	475.98 µg/L	0.908	475.98 ppb	0.908	0.19%
QC value within limits for Ag 328.068 Recovery = 95.20%						
Al 396.153Radial†	26561.6	4902.3 µg/L	18.96	4902.3 ppb	18.96	0.39%
QC value within limits for Al 396.153Radial Recovery = 98.05%						
As 188.979†	1631.2	500.24 µg/L	3.626	500.24 ppb	3.626	0.72%

QC value within limits for As 188.979 Recovery = 100.05%							
B 249.677†	32026.2	470.67 µg/L	1.276	470.67 ppb	1.276	0.27%	
QC value within limits for B 249.677 Recovery = 94.13%							
Ba 233.527†	118184.4	476.64 µg/L	0.209	476.64 ppb	0.209	0.04%	
QC value within limits for Ba 233.527 Recovery = 95.33%							
Be 313.107†	1771557.1	482.49 µg/L	0.134	482.49 ppb	0.134	0.03%	
QC value within limits for Be 313.107 Recovery = 96.50%							
Ca 317.933Radial†	86610.0	4824.5 µg/L	1.27	4824.5 ppb	1.27	0.03%	
QC value within limits for Ca 317.933Radial Recovery = 96.49%							
Cd 226.502†	76104.3	475.08 µg/L	1.192	475.08 ppb	1.192	0.25%	
QC value within limits for Cd 226.502 Recovery = 95.02%							
Co 228.616†	38752.7	478.40 µg/L	0.352	478.40 ppb	0.352	0.07%	
QC value within limits for Co 228.616 Recovery = 95.68%							
Cr 267.716†	60437.3	473.22 µg/L	0.111	473.22 ppb	0.111	0.02%	
QC value within limits for Cr 267.716 Recovery = 94.64%							
Cu 324.752†	121860.2	475.04 µg/L	0.917	475.04 ppb	0.917	0.19%	
QC value within limits for Cu 324.752 Recovery = 95.01%							
Fe 238.204 Radial†	77745.4	4791.8 µg/L	6.60	4791.8 ppb	6.60	0.14%	
QC value within limits for Fe 238.204 Radial Recovery = 95.84%							
K 766.490 Radial†	13136.5	4805.5 µg/L	49.98	4805.5 ppb	49.98	1.04%	
QC value within limits for K 766.490 Radial Recovery = 96.11%							
Mg 279.077 IEC†	13205.8	4927.9 µg/L	14.43	4927.9 ppb	14.43	0.29%	
QC value within limits for Mg 279.077 IEC Recovery = 98.56%							
Mn 257.610†	387348.0	479.06 µg/L	0.448	479.06 ppb	0.448	0.09%	
QC value within limits for Mn 257.610 Recovery = 95.81%							
Mo 202.031†	16285.2	479.04 µg/L	2.378	479.04 ppb	2.378	0.50%	
QC value within limits for Mo 202.031 Recovery = 95.81%							
Na 589.592 Radial†	72323.1	9875.9 µg/L	4.46	9875.9 ppb	4.46	0.05%	
QC value within limits for Na 589.592 Radial Recovery = 98.76%							
Ni 231.604†	41387.2	476.54 µg/L	0.373	476.54 ppb	0.373	0.08%	
QC value within limits for Ni 231.604 Recovery = 95.31%							
P 214.914†	11267.7	2401.8 µg/L	18.34	2401.8 ppb	18.34	0.76%	
QC value within limits for P 214.914 Recovery = 96.07%							
Pb 220.353†	8636.4	483.63 µg/L	3.350	483.63 ppb	3.350	0.69%	
QC value within limits for Pb 220.353 Recovery = 96.73%							
S 181.975 Axial†	1321.5	985.37 µg/L	4.601	985.37 ppb	4.601	0.47%	
QC value within limits for S 181.975 Axial Recovery = 98.54%							
Sb 206.836†	4043.7	481.86 µg/L	2.883	481.86 ppb	2.883	0.60%	
QC value within limits for Sb 206.836 Recovery = 96.37%							
Se 196.026†	1330.4	483 µg/L	7.8	483 ppb	7.8	1.61%	
QC value within limits for Se 196.026 Recovery = 96.61%							
SiO2†	52220.2	5083.5 µg/L	6.12	5083.5 ppb	6.12	0.12%	
QC value within limits for SiO2 Recovery = 95.06%							
Si 251.611†	162580.5	2387.3 µg/L	1.01	2387.3 ppb	1.01	0.04%	
QC value within limits for Si 251.611 Recovery = 95.49%							
Sn 189.927†	7726.3	483.26 µg/L	2.422	483.26 ppb	2.422	0.50%	
QC value within limits for Sn 189.927 Recovery = 96.65%							
Sr 421.552†	231588.5	481.42 µg/L	5.838	481.42 ppb	5.838	1.21%	
QC value within limits for Sr 421.552 Recovery = 96.28%							
Ti 334.940†	510265.5	476.11 µg/L	0.294	476.11 ppb	0.294	0.06%	
QC value within limits for Ti 334.940 Recovery = 95.22%							
Tl 190.801†	3900.6	486.41 µg/L	3.834	486.41 ppb	3.834	0.79%	
QC value within limits for Tl 190.801 Recovery = 97.28%							
U 409.014†	7375.1	460.13 µg/L	11.614	460.13 ppb	11.614	2.52%	
QC value within limits for U 409.014 Recovery = 92.03%							
V 292.402†	96958.9	479.33 µg/L	0.445	479.33 ppb	0.445	0.09%	
QC value within limits for V 292.402 Recovery = 95.87%							
Zn 213.857†	84932.5	473.36 µg/L	0.461	473.36 ppb	0.461	0.10%	
QC value within limits for Zn 213.857 Recovery = 94.67%							
All analyte(s) passed QC.							

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/1/2010 4:41:28

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	143373.6	143373.6	98.2 %		04:41:57
1	Al 396.153Radial†	-59.0	3.2	0.6063 µg/L	0.6063 ppb	04:42:17
1	Ca 317.933Radial†	610.3	60.6	3.3742 µg/L	3.3742 ppb	04:42:17
1	Fe 238.204 Radial†	143.9	-1.6	-0.1011 µg/L	-0.1011 ppb	04:42:17
1	K 766.490 Radial†	1628.1	112.4	41.110 µg/L	41.110 ppb	04:41:57
1	Mg 279.077 IEC†	185.8	-1.6	-0.5987 µg/L	-0.5987 ppb	04:42:17
1	Na 589.592 Radial†	2734.6	1492.5	203.86 µg/L	203.86 ppb	04:41:57
1	Sr 421.552†	-214.3	-82.8	-0.1722 µg/L	-0.1722 ppb	04:41:57
1	Sc 361.383	1732099.1	1732099.1	100.81 %		04:43:19
1	Y 371.029	1032748.2	1032748.2	100.59 %		04:43:19
1	Ag 328.068†	4008.6	-114.9	-0.4361 µg/L	-0.4361 ppb	04:43:21
1	As 188.979†	-17.1	3.4	1.0343 µg/L	1.0343 ppb	04:43:41
1	B 249.677†	3528.4	-5.8	-0.0861 µg/L	-0.0861 ppb	04:43:41
1	Ba 233.527†	-146.5	-9.4	-0.0381 µg/L	-0.0381 ppb	04:43:41
1	Be 313.107†	-845.1	226.4	0.0592 µg/L	0.0592 ppb	04:43:21
1	Cd 226.502†	-90.7	28.2	0.1764 µg/L	0.1764 ppb	04:43:41
1	Co 228.616†	-169.3	22.3	0.2757 µg/L	0.2757 ppb	04:43:41
1	Cr 267.716†	178.0	-2.0	-0.0096 µg/L	-0.0096 ppb	04:43:41
1	Cu 324.752†	2996.2	-0.0	-0.0066 µg/L	-0.0066 ppb	04:43:21
1	Mn 257.610†	282.8	43.2	0.0535 µg/L	0.0535 ppb	04:43:41
1	Mo 202.031†	-29.9	-9.5	-0.2805 µg/L	-0.2805 ppb	04:43:41
1	Ni 231.604†	-73.9	3.2	0.0369 µg/L	0.0369 ppb	04:43:41
1	P 214.914†	-36.9	-18.6	-3.9857 µg/L	-3.9857 ppb	04:43:41
1	Pb 220.353†	70.2	-16.8	-0.9308 µg/L	-0.9308 ppb	04:43:41
1	S 181.975 Axial†	133.9	27.8	20.636 µg/L	20.636 ppb	04:43:41
1	Sb 206.836†	78.1	-3.3	-0.3983 µg/L	-0.3983 ppb	04:43:41
1	Se 196.026†	32.9	17.4	6.28 µg/L	6.28 ppb	04:43:41
1	SiO2†	1779.2	-10.4	-1.0120 µg/L	-1.0120 ppb	04:43:41
1	Si 251.611†	845.5	2.1	0.0358 µg/L	0.0358 ppb	04:43:21
1	Sn 189.927†	-2.5	-1.4	-0.0870 µg/L	-0.0870 ppb	04:43:41
1	Ti 334.940†	882.6	-77.0	-0.0685 µg/L	-0.0685 ppb	04:43:21
1	Tl 190.801†	-105.8	11.7	1.4409 µg/L	1.4409 ppb	04:43:41
1	U 409.014†	-411.3	-138.2	-8.0813 µg/L	-8.0813 ppb	04:43:21
1	V 292.402†	394.9	-12.0	-0.0670 µg/L	-0.0670 ppb	04:43:21
1	Zn 213.857†	593.5	24.3	0.1361 µg/L	0.1361 ppb	04:43:41
2	Sc RADIAL	143802.0	143802.0	98.5 %		04:42:19
2	Al 396.153Radial†	-54.2	8.2	1.5220 µg/L	1.5220 ppb	04:42:39
2	Ca 317.933Radial†	610.8	59.2	3.2991 µg/L	3.2991 ppb	04:42:39
2	Fe 238.204 Radial†	141.6	-4.4	-0.2687 µg/L	-0.2687 ppb	04:42:39
2	K 766.490 Radial†	1509.8	-12.6	-4.6466 µg/L	-4.6466 ppb	04:42:19
2	Mg 279.077 IEC†	191.0	3.1	1.1672 µg/L	1.1672 ppb	04:42:39
2	Na 589.592 Radial†	2525.6	1272.1	173.79 µg/L	173.79 ppb	04:42:19
2	Sr 421.552†	-133.7	-0.4	-0.0008 µg/L	-0.0008 ppb	04:42:19
2	Sc 361.383	1725107.0	1725107.0	100.40 %		04:43:43
2	Y 371.029	1028743.2	1028743.2	100.20 %		04:43:43
2	Ag 328.068†	4338.9	230.2	0.8513 µg/L	0.8513 ppb	04:43:45
2	As 188.979†	-24.2	-3.8	-1.1405 µg/L	-1.1405 ppb	04:44:06
2	B 249.677†	3556.5	36.4	0.5369 µg/L	0.5369 ppb	04:44:06
2	Ba 233.527†	-138.7	-2.3	-0.0093 µg/L	-0.0093 ppb	04:44:06
2	Be 313.107†	-958.2	110.3	0.0305 µg/L	0.0305 ppb	04:43:45
2	Cd 226.502†	-124.6	-5.9	-0.0369 µg/L	-0.0369 ppb	04:44:06
2	Co 228.616†	-183.4	7.7	0.0945 µg/L	0.0945 ppb	04:44:06
2	Cr 267.716†	193.1	13.7	0.1062 µg/L	0.1062 ppb	04:44:06
2	Cu 324.752†	2935.8	-48.1	-0.1859 µg/L	-0.1859 ppb	04:43:45
2	Mn 257.610†	275.2	36.8	0.0455 µg/L	0.0455 ppb	04:44:06
2	Mo 202.031†	-24.3	-4.1	-0.1207 µg/L	-0.1207 ppb	04:44:06
2	Ni 231.604†	-96.5	-19.6	-0.2260 µg/L	-0.2260 ppb	04:44:06
2	P 214.914†	-28.9	-10.9	-2.3173 µg/L	-2.3173 ppb	04:44:06
2	Pb 220.353†	68.9	-17.7	-0.9902 µg/L	-0.9902 ppb	04:44:06

2	S 181.975 Axial†	144.6	39.0	28.959 µg/L	28.959 ppb	04:44:06
2	Sb 206.836†	82.8	1.6	0.1930 µg/L	0.1930 ppb	04:44:06
2	Se 196.026†	13.2	-2.1	-0.772 µg/L	-0.772 ppb	04:44:06
2	SiO2†	1774.3	-8.1	-0.7975 µg/L	-0.7975 ppb	04:44:06
2	Si 251.611†	687.2	-152.1	-2.2442 µg/L	-2.2442 ppb	04:43:45
2	Sn 189.927†	7.2	8.3	0.5190 µg/L	0.5190 ppb	04:44:06
2	Ti 334.940†	945.0	-11.3	-0.0112 µg/L	-0.0112 ppb	04:43:45
2	Tl 190.801†	-90.8	26.2	3.2215 µg/L	3.2215 ppb	04:44:06
2	U 409.014†	-245.8	25.1	1.4530 µg/L	1.4530 ppb	04:43:45
2	V 292.402†	358.7	-46.5	-0.2265 µg/L	-0.2265 ppb	04:43:45
2	Zn 213.857†	578.1	11.4	0.0658 µg/L	0.0658 ppb	04:44:06
3	Sc RADIAL	141813.5	141813.5	97.2 %		04:42:41
3	Al 396.153Radial†	-65.8	-4.5	-0.8345 µg/L	-0.8345 ppb	04:43:01
3	Ca 317.933Radial†	618.1	75.5	4.2049 µg/L	4.2049 ppb	04:43:01
3	Fe 238.204 Radial†	142.6	-1.4	-0.0853 µg/L	-0.0853 ppb	04:43:01
3	K 766.490 Radial†	1729.0	234.4	85.796 µg/L	85.796 ppb	04:42:41
3	Mg 279.077 IEC†	198.0	13.1	4.8715 µg/L	4.8715 ppb	04:43:01
3	Na 589.592 Radial†	2673.4	1460.2	199.40 µg/L	199.40 ppb	04:42:41
3	Sr 421.552†	-143.1	-12.0	-0.0250 µg/L	-0.0250 ppb	04:42:41
3	Sc 361.383	1732501.7	1732501.7	100.83 %		04:44:08
3	Y 371.029	1032645.9	1032645.9	100.58 %		04:44:08
3	Ag 328.068†	3993.4	-130.9	-0.4838 µg/L	-0.4838 ppb	04:44:10
3	As 188.979†	-18.1	2.4	0.7230 µg/L	0.7230 ppb	04:44:30
3	B 249.677†	3533.8	-1.3	-0.0196 µg/L	-0.0196 ppb	04:44:30
3	Ba 233.527†	-129.6	7.4	0.0296 µg/L	0.0296 ppb	04:44:30
3	Be 313.107†	-1067.5	6.0	0.0021 µg/L	0.0021 ppb	04:44:10
3	Cd 226.502†	-108.9	10.2	0.0637 µg/L	0.0637 ppb	04:44:30
3	Co 228.616†	-170.6	21.1	0.2607 µg/L	0.2607 ppb	04:44:30
3	Cr 267.716†	195.5	15.4	0.1189 µg/L	0.1189 ppb	04:44:30
3	Cu 324.752†	2879.6	-116.3	-0.4504 µg/L	-0.4504 ppb	04:44:10
3	Mn 257.610†	262.7	23.2	0.0286 µg/L	0.0286 ppb	04:44:30
3	Mo 202.031†	-19.1	1.1	0.0321 µg/L	0.0321 ppb	04:44:30
3	Ni 231.604†	-96.0	-18.7	-0.2148 µg/L	-0.2148 ppb	04:44:30
3	P 214.914†	-20.0	-1.8	-0.3852 µg/L	-0.3852 ppb	04:44:30
3	Pb 220.353†	56.6	-30.2	-1.6887 µg/L	-1.6887 ppb	04:44:30
3	S 181.975 Axial†	141.1	34.9	25.923 µg/L	25.923 ppb	04:44:30
3	Sb 206.836†	81.1	-0.4	-0.0510 µg/L	-0.0510 ppb	04:44:30
3	Se 196.026†	12.9	-2.5	-0.899 µg/L	-0.899 ppb	04:44:30
3	SiO2†	1779.3	-10.8	-1.0593 µg/L	-1.0593 ppb	04:44:30
3	Si 251.611†	861.9	18.2	0.2649 µg/L	0.2649 ppb	04:44:10
3	Sn 189.927†	5.8	6.8	0.4260 µg/L	0.4260 ppb	04:44:30
3	Ti 334.940†	938.4	-21.9	-0.0215 µg/L	-0.0215 ppb	04:44:10
3	Tl 190.801†	-79.9	37.4	4.5956 µg/L	4.5956 ppb	04:44:30
3	U 409.014†	-243.8	28.1	1.6356 µg/L	1.6356 ppb	04:44:10
3	V 292.402†	389.1	-17.9	-0.0856 µg/L	-0.0856 ppb	04:44:10
3	Zn 213.857†	585.6	16.3	0.0935 µg/L	0.0935 ppb	04:44:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1729902.6	100.68 %	0.242			0.24%
Sc RADIAL	142996.4	98.0 %	0.72			0.73%
Y 371.029	1031379.1	100.46 %	0.222			0.22%
Ag 328.068†	-5.2	-0.0229 µg/L	0.75745	-0.0229 ppb	0.75745	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	2.3	0.4313 µg/L	1.18793	0.4313 ppb	1.18793	275.45%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.7	0.2056 µg/L	1.17610	0.2056 ppb	1.17610	571.96%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	9.8	0.1437 µg/L	0.34209	0.1437 ppb	0.34209	237.99%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-1.4	-0.0059 µg/L	0.03400	-0.0059 ppb	0.03400	572.37%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	114.2	0.0306 µg/L	0.02853	0.0306 ppb	0.02853	93.24%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	65.1	3.6261 µg/L	0.50270	3.6261 ppb	0.50270	13.86%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	10.9	0.0678 µg/L	0.10671	0.0678 ppb	0.10671	157.49%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	17.0	0.2103 µg/L	0.10057	0.2103 ppb	0.10057	47.83%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	9.0	0.0718 µg/L	0.07083	0.0718 ppb	0.07083	98.61%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-54.8	-0.2143 µg/L	0.22327	-0.2143 ppb	0.22327	104.19%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-2.5	-0.1517 µg/L	0.10163	-0.1517 ppb	0.10163	67.00%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	111.4	40.753 µg/L	45.2224	40.753 ppb	45.2224	110.97%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	4.9	1.8133 µg/L	2.79173	1.8133 ppb	2.79173	153.96%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	34.4	0.0425 µg/L	0.01273	0.0425 ppb	0.01273	29.95%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-4.2	-0.1230 µg/L	0.15627	-0.1230 ppb	0.15627	127.01%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	1408.3	192.35 µg/L	16.225	192.35 ppb	16.225	8.43%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-11.7	-0.1346 µg/L	0.14863	-0.1346 ppb	0.14863	110.41%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-10.5	-2.2294 µg/L	1.80186	-2.2294 ppb	1.80186	80.82%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-21.6	-1.2032 µg/L	0.42148	-1.2032 ppb	0.42148	35.03%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	33.9	25.173 µg/L	4.2121	25.173 ppb	4.2121	16.73%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-0.7	-0.0854 µg/L	0.29713	-0.0854 ppb	0.29713	347.82%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	4.3	1.54 µg/L	4.109	1.54 ppb	4.109	267.42%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-9.8	-0.9563 µg/L	0.13954	-0.9563 ppb	0.13954	14.59%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	-43.9	-0.6479 µg/L	1.38724	-0.6479 ppb	1.38724	214.13%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	4.6	0.2860 µg/L	0.32637	0.2860 ppb	0.32637	114.11%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-31.7	-0.0660 µg/L	0.09279	-0.0660 ppb	0.09279	140.62%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-36.7	-0.0337 µg/L	0.03052	-0.0337 ppb	0.03052	90.51%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	25.1	3.0860 µg/L	1.58170	3.0860 ppb	1.58170	51.25%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-28.3	-1.6643 µg/L	5.55810	-1.6643 ppb	5.55810	333.97%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-25.5	-0.1264 µg/L	0.08722	-0.1264 ppb	0.08722	69.01%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	17.4	0.0985 µg/L	0.03542	0.0985 ppb	0.03542	35.97%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 3

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/1/2010 5:03:28

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	142807.7	142807.7	97.9 %		05:04:01
1	Al 396.153Radial†	25827.6	26455.4	4882.8 µg/L	4882.8 ppb	05:04:01
1	Ca 317.933Radial†	85131.8	86432.4	4814.6 µg/L	4814.6 ppb	05:04:01
1	Fe 238.204 Radial†	76139.6	77656.0	4786.2 µg/L	4786.2 ppb	05:04:01
1	K 766.490 Radial†	14464.3	13235.7	4841.8 µg/L	4841.8 ppb	05:04:01
1	Mg 279.077 IEC†	13031.2	13125.4	4897.8 µg/L	4897.8 ppb	05:04:01
1	Na 589.592 Radial†	71380.8	71650.5	9784.0 µg/L	9784.0 ppb	05:04:01
1	Sr 421.552†	227350.2	232455.8	483.22 µg/L	483.22 ppb	05:03:59
1	Sc 361.383	1717799.5	1717799.5	99.976 %		05:04:14
1	Y 371.029	1012953.8	1012953.8	98.662 %		05:04:14
1	Ag 328.068†	130945.5	126886.0	475.82 µg/L	475.82 ppb	05:04:14
1	As 188.979†	1607.9	1628.6	499.44 µg/L	499.44 ppb	05:04:34
1	B 249.677†	35595.1	32097.9	471.73 µg/L	471.73 ppb	05:04:14
1	Ba 233.527†	118233.7	118398.3	477.50 µg/L	477.50 ppb	05:04:14
1	Be 313.107†	1774199.8	1775696.3	483.62 µg/L	483.62 ppb	05:04:14
1	Cd 226.502†	76081.9	76218.6	475.79 µg/L	475.79 ppb	05:04:14
1	Co 228.616†	38613.8	38813.5	479.15 µg/L	479.15 ppb	05:04:14
1	Cr 267.716†	60590.4	60426.6	473.13 µg/L	473.13 ppb	05:04:14
1	Cu 324.752†	125518.0	122576.4	477.83 µg/L	477.83 ppb	05:04:14
1	Mn 257.610†	388744.5	388601.9	480.61 µg/L	480.61 ppb	05:04:14
1	Mo 202.031†	16098.9	16122.9	474.27 µg/L	474.27 ppb	05:04:34
1	Ni 231.604†	41299.4	41386.0	476.53 µg/L	476.53 ppb	05:04:14
1	P 214.914†	11164.5	11185.1	2384.1 µg/L	2384.1 ppb	05:04:34
1	Pb 220.353†	8658.1	8573.8	480.12 µg/L	480.12 ppb	05:04:34
1	S 181.975 Axial†	1400.4	1295.7	966.14 µg/L	966.14 ppb	05:04:34
1	Sb 206.836†	4069.8	3989.9	475.40 µg/L	475.40 ppb	05:04:34
1	Se 196.026†	1337.9	1323.0	480 µg/L	480 ppb	05:04:34
1	SiO2†	54209.1	52446.9	5105.9 µg/L	5105.9 ppb	05:04:14
1	Si 251.611†	164159.3	163362.7	2399.0 µg/L	2399.0 ppb	05:04:14
1	Sn 189.927†	7642.2	7645.2	478.20 µg/L	478.20 ppb	05:04:34
1	Ti 334.940†	511471.4	510643.4	476.46 µg/L	476.46 ppb	05:04:14
1	Tl 190.801†	3776.4	3894.0	485.62 µg/L	485.62 ppb	05:04:34
1	U 409.014†	7331.2	7602.9	473.54 µg/L	473.54 ppb	05:04:14
1	V 292.402†	97611.9	97231.8	480.62 µg/L	480.62 ppb	05:04:14
1	Zn 213.857†	85344.1	84800.5	472.62 µg/L	472.62 ppb	05:04:14
2	Sc RADIAL	142177.1	142177.1	97.4 %		05:04:05
2	Al 396.153Radial†	25933.0	26680.7	4924.5 µg/L	4924.5 ppb	05:04:05
2	Ca 317.933Radial†	84882.8	86562.6	4821.9 µg/L	4821.9 ppb	05:04:05
2	Fe 238.204 Radial†	75981.4	77838.8	4797.5 µg/L	4797.5 ppb	05:04:05
2	K 766.490 Radial†	14617.1	13458.2	4923.2 µg/L	4923.2 ppb	05:04:05
2	Mg 279.077 IEC†	13046.8	13200.5	4925.8 µg/L	4925.8 ppb	05:04:05
2	Na 589.592 Radial†	71119.0	71705.3	9791.4 µg/L	9791.4 ppb	05:04:05
2	Sr 421.552†	226461.7	232574.3	483.47 µg/L	483.47 ppb	05:04:03
2	Sc 361.383	1718896.3	1718896.3	100.04 %		05:04:37
2	Y 371.029	1012872.8	1012872.8	98.654 %		05:04:37
2	Ag 328.068†	131183.7	127040.5	476.38 µg/L	476.38 ppb	05:04:37
2	As 188.979†	1601.5	1621.2	497.20 µg/L	497.20 ppb	05:04:57
2	B 249.677†	35702.0	32182.0	472.96 µg/L	472.96 ppb	05:04:37
2	Ba 233.527†	118547.9	118637.0	478.46 µg/L	478.46 ppb	05:04:37
2	Be 313.107†	1777707.2	1778070.0	484.27 µg/L	484.27 ppb	05:04:37
2	Cd 226.502†	76355.4	76443.4	477.19 µg/L	477.19 ppb	05:04:37
2	Co 228.616†	38719.9	38894.9	480.16 µg/L	480.16 ppb	05:04:37
2	Cr 267.716†	60616.0	60413.5	473.03 µg/L	473.03 ppb	05:04:37
2	Cu 324.752†	125459.3	122437.5	477.29 µg/L	477.29 ppb	05:04:37
2	Mn 257.610†	388816.5	388425.7	480.39 µg/L	480.39 ppb	05:04:37
2	Mo 202.031†	16138.4	16152.1	475.13 µg/L	475.13 ppb	05:04:57
2	Ni 231.604†	41418.0	41478.1	477.59 µg/L	477.59 ppb	05:04:37
2	P 214.914†	11169.5	11183.1	2383.7 µg/L	2383.7 ppb	05:04:57
2	Pb 220.353†	8675.4	8585.6	480.78 µg/L	480.78 ppb	05:04:57

2	S 181.975 Axial†	1419.5	1313.8	979.63 µg/L	979.63 ppb	05:04:57
2	Sb 206.836†	4079.9	3997.5	476.31 µg/L	476.31 ppb	05:04:57
2	Se 196.026†	1332.5	1316.7	478 µg/L	478 ppb	05:04:57
2	SiO2†	54300.2	52503.4	5111.4 µg/L	5111.4 ppb	05:04:37
2	Si 251.611†	164532.5	163631.0	2402.9 µg/L	2402.9 ppb	05:04:37
2	Sn 189.927†	7645.3	7643.4	478.09 µg/L	478.09 ppb	05:04:57
2	Ti 334.940†	511854.9	510700.3	476.52 µg/L	476.52 ppb	05:04:37
2	Tl 190.801†	3771.1	3886.3	484.66 µg/L	484.66 ppb	05:04:57
2	U 409.014†	7189.9	7456.9	465.01 µg/L	465.01 ppb	05:04:37
2	V 292.402†	97709.7	97267.3	480.79 µg/L	480.79 ppb	05:04:37
2	Zn 213.857†	85652.3	85054.1	474.04 µg/L	474.04 ppb	05:04:37
3	Sc RADIAL	142516.5	142516.5	97.7 %		05:04:10
3	Al 396.153Radial†	26016.1	26702.4	4928.5 µg/L	4928.5 ppb	05:04:10
3	Ca 317.933Radial†	85309.6	86792.2	4834.7 µg/L	4834.7 ppb	05:04:10
3	Fe 238.204 Radial†	76361.8	78042.5	4810.1 µg/L	4810.1 ppb	05:04:10
3	K 766.490 Radial†	14534.2	13337.5	4879.1 µg/L	4879.1 ppb	05:04:10
3	Mg 279.077 IEC†	13094.3	13217.2	4932.1 µg/L	4932.1 ppb	05:04:10
3	Na 589.592 Radial†	71498.7	71920.3	9820.8 µg/L	9820.8 ppb	05:04:10
3	Sr 421.552†	226956.2	232527.1	483.37 µg/L	483.37 ppb	05:04:07
3	Sc 361.383	1715888.7	1715888.7	99.864 %		05:05:00
3	Y 371.029	1012085.0	1012085.0	98.578 %		05:05:00
3	Ag 328.068†	130932.7	127019.0	476.29 µg/L	476.29 ppb	05:05:00
3	As 188.979†	1600.5	1623.0	497.74 µg/L	497.74 ppb	05:05:21
3	B 249.677†	35703.4	32246.0	473.91 µg/L	473.91 ppb	05:05:00
3	Ba 233.527†	118252.2	118548.6	478.10 µg/L	478.10 ppb	05:05:00
3	Be 313.107†	1772238.1	1775708.2	483.62 µg/L	483.62 ppb	05:05:00
3	Cd 226.502†	75982.3	76203.6	475.70 µg/L	475.70 ppb	05:05:00
3	Co 228.616†	38592.7	38835.4	479.42 µg/L	479.42 ppb	05:05:00
3	Cr 267.716†	60479.0	60382.5	472.79 µg/L	472.79 ppb	05:05:00
3	Cu 324.752†	125163.3	122361.0	476.99 µg/L	476.99 ppb	05:05:00
3	Mn 257.610†	387741.8	388030.8	479.90 µg/L	479.90 ppb	05:05:00
3	Mo 202.031†	16166.2	16208.2	476.78 µg/L	476.78 ppb	05:05:21
3	Ni 231.604†	41397.3	41530.0	478.19 µg/L	478.19 ppb	05:05:00
3	P 214.914†	11229.6	11262.8	2400.7 µg/L	2400.7 ppb	05:05:21
3	Pb 220.353†	8666.5	8591.9	481.14 µg/L	481.14 ppb	05:05:21
3	S 181.975 Axial†	1402.0	1298.8	968.50 µg/L	968.50 ppb	05:05:21
3	Sb 206.836†	4079.3	4004.1	477.12 µg/L	477.12 ppb	05:05:21
3	Se 196.026†	1348.8	1335.4	485 µg/L	485 ppb	05:05:21
3	SiO2†	54197.4	52495.6	5110.5 µg/L	5110.5 ppb	05:05:00
3	Si 251.611†	164034.6	163420.6	2399.8 µg/L	2399.8 ppb	05:05:00
3	Sn 189.927†	7674.5	7686.0	480.75 µg/L	480.75 ppb	05:05:21
3	Ti 334.940†	510082.1	509821.9	475.70 µg/L	475.70 ppb	05:05:00
3	Tl 190.801†	3787.1	3908.9	487.43 µg/L	487.43 ppb	05:05:21
3	U 409.014†	7110.7	7390.3	461.07 µg/L	461.07 ppb	05:05:00
3	V 292.402†	97399.7	97128.1	480.12 µg/L	480.12 ppb	05:05:00
3	Zn 213.857†	85456.2	85007.8	473.77 µg/L	473.77 ppb	05:05:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1717528.2	99.960 %	0.0886			0.09%
Sc RADIAL	142500.4	97.7 %	0.22			0.22%
Y 371.029	1012637.2	98.631 %	0.0467			0.05%
Ag 328.068†	126981.9	476.17 µg/L	0.302	476.17 ppb	0.302	0.06%
QC value within limits for Ag 328.068 Recovery = 95.23%						
Al 396.153Radial†	26612.8	4911.9 µg/L	25.30	4911.9 ppb	25.30	0.52%
QC value within limits for Al 396.153Radial Recovery = 98.24%						
As 188.979†	1624.3	498.13 µg/L	1.168	498.13 ppb	1.168	0.23%
QC value within limits for As 188.979 Recovery = 99.63%						
B 249.677†	32175.3	472.87 µg/L	1.095	472.87 ppb	1.095	0.23%
QC value within limits for B 249.677 Recovery = 94.57%						
Ba 233.527†	118528.0	478.02 µg/L	0.486	478.02 ppb	0.486	0.10%
QC value within limits for Ba 233.527 Recovery = 95.60%						
Be 313.107†	1776491.5	483.84 µg/L	0.372	483.84 ppb	0.372	0.08%
QC value within limits for Be 313.107 Recovery = 96.77%						
Ca 317.933Radial†	86595.7	4823.7 µg/L	10.15	4823.7 ppb	10.15	0.21%
QC value within limits for Ca 317.933Radial Recovery = 96.47%						
Cd 226.502†	76288.5	476.23 µg/L	0.839	476.23 ppb	0.839	0.18%
QC value within limits for Cd 226.502 Recovery = 95.25%						
Co 228.616†	38847.9	479.58 µg/L	0.520	479.58 ppb	0.520	0.11%

QC value within limits for Co 228.616 Recovery = 95.92%							
Cr 267.716†	60407.5	472.98 µg/L	0.173	472.98 ppb	0.173	0.04%	
QC value within limits for Cr 267.716 Recovery = 94.60%							
Cu 324.752†	122458.3	477.37 µg/L	0.427	477.37 ppb	0.427	0.09%	
QC value within limits for Cu 324.752 Recovery = 95.47%							
Fe 238.204 Radial†	77845.8	4797.9 µg/L	11.92	4797.9 ppb	11.92	0.25%	
QC value within limits for Fe 238.204 Radial Recovery = 95.96%							
K 766.490 Radial†	13343.8	4881.4 µg/L	40.76	4881.4 ppb	40.76	0.83%	
QC value within limits for K 766.490 Radial Recovery = 97.63%							
Mg 279.077 IEC†	13181.0	4918.5 µg/L	18.24	4918.5 ppb	18.24	0.37%	
QC value within limits for Mg 279.077 IEC Recovery = 98.37%							
Mn 257.610†	388352.8	480.30 µg/L	0.362	480.30 ppb	0.362	0.08%	
QC value within limits for Mn 257.610 Recovery = 96.06%							
Mo 202.031†	16161.0	475.39 µg/L	1.275	475.39 ppb	1.275	0.27%	
QC value within limits for Mo 202.031 Recovery = 95.08%							
Na 589.592 Radial†	71758.7	9798.8 µg/L	19.47	9798.8 ppb	19.47	0.20%	
QC value within limits for Na 589.592 Radial Recovery = 97.99%							
Ni 231.604†	41464.7	477.44 µg/L	0.840	477.44 ppb	0.840	0.18%	
QC value within limits for Ni 231.604 Recovery = 95.49%							
P 214.914†	11210.3	2389.5 µg/L	9.72	2389.5 ppb	9.72	0.41%	
QC value within limits for P 214.914 Recovery = 95.58%							
Pb 220.353†	8583.8	480.68 µg/L	0.522	480.68 ppb	0.522	0.11%	
QC value within limits for Pb 220.353 Recovery = 96.14%							
S 181.975 Axial†	1302.8	971.42 µg/L	7.208	971.42 ppb	7.208	0.74%	
QC value within limits for S 181.975 Axial Recovery = 97.14%							
Sb 206.836†	3997.2	476.28 µg/L	0.861	476.28 ppb	0.861	0.18%	
QC value within limits for Sb 206.836 Recovery = 95.26%							
Se 196.026†	1325.0	481 µg/L	3.4	481 ppb	3.4	0.71%	
QC value within limits for Se 196.026 Recovery = 96.22%							
SiO2†	52482.0	5109.3 µg/L	2.96	5109.3 ppb	2.96	0.06%	
QC value within limits for SiO2 Recovery = 95.54%							
Si 251.611†	163471.4	2400.6 µg/L	2.08	2400.6 ppb	2.08	0.09%	
QC value within limits for Si 251.611 Recovery = 96.02%							
Sn 189.927†	7658.2	479.01 µg/L	1.501	479.01 ppb	1.501	0.31%	
QC value within limits for Sn 189.927 Recovery = 95.80%							
Sr 421.552†	232519.1	483.36 µg/L	0.124	483.36 ppb	0.124	0.03%	
QC value within limits for Sr 421.552 Recovery = 96.67%							
Ti 334.940†	510388.5	476.23 µg/L	0.458	476.23 ppb	0.458	0.10%	
QC value within limits for Ti 334.940 Recovery = 95.25%							
Tl 190.801†	3896.4	485.90 µg/L	1.405	485.90 ppb	1.405	0.29%	
QC value within limits for Tl 190.801 Recovery = 97.18%							
U 409.014†	7483.4	466.54 µg/L	6.373	466.54 ppb	6.373	1.37%	
QC value within limits for U 409.014 Recovery = 93.31%							
V 292.402†	97209.1	480.51 µg/L	0.345	480.51 ppb	0.345	0.07%	
QC value within limits for V 292.402 Recovery = 96.10%							
Zn 213.857†	84954.1	473.48 µg/L	0.754	473.48 ppb	0.754	0.16%	
QC value within limits for Zn 213.857 Recovery = 94.70%							

All analyte(s) passed QC.

Sequence No.: 4

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/1/2010 5:05:28

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	145743.0	145743.0	99.9 %		05:05:57
1	Al 396.153Radial†	-25.5	37.7	6.9946 µg/L	6.9946 ppb	05:06:17
1	Ca 317.933Radial†	624.7	64.9	3.6148 µg/L	3.6148 ppb	05:06:17
1	Fe 238.204 Radial†	160.3	12.4	0.7656 µg/L	0.7656 ppb	05:06:17
1	K 766.490 Radial†	1619.2	76.5	27.962 µg/L	27.962 ppb	05:05:57
1	Mg 279.077 IEC†	177.4	-13.0	-4.8668 µg/L	-4.8668 ppb	05:06:17
1	Na 589.592 Radial†	2580.0	1292.5	176.54 µg/L	176.54 ppb	05:05:57
1	Sr 421.552†	-206.7	-71.7	-0.1490 µg/L	-0.1490 ppb	05:05:57
1	Sc 361.383	1758359.3	1758359.3	102.34 %		05:07:19
1	Y 371.029	1047204.1	1047204.1	102.00 %		05:07:19
1	Ag 328.068†	4319.7	129.7	0.4450 µg/L	0.4450 ppb	05:07:21
1	As 188.979†	-5.9	14.6	4.3999 µg/L	4.3999 ppb	05:07:41
1	B 249.677†	3629.0	40.2	0.5931 µg/L	0.5931 ppb	05:07:21
1	Ba 233.527†	-169.9	-30.2	-0.1218 µg/L	-0.1218 ppb	05:07:41
1	Be 313.107†	-1022.3	65.7	0.0101 µg/L	0.0101 ppb	05:07:21
1	Cd 226.502†	-89.3	30.9	0.1929 µg/L	0.1929 ppb	05:07:41
1	Co 228.616†	-193.1	1.7	0.0204 µg/L	0.0204 ppb	05:07:41
1	Cr 267.716†	166.1	-16.3	-0.1072 µg/L	-0.1072 ppb	05:07:41
1	Cu 324.752†	2915.1	-123.7	-0.5021 µg/L	-0.5021 ppb	05:07:21
1	Mn 257.610†	289.9	46.0	0.0571 µg/L	0.0571 ppb	05:07:41
1	Mo 202.031†	-26.5	-5.8	-0.1707 µg/L	-0.1707 ppb	05:07:41
1	Ni 231.604†	-96.2	-17.5	-0.2015 µg/L	-0.2015 ppb	05:07:41
1	P 214.914†	-38.6	-19.8	-4.2211 µg/L	-4.2211 ppb	05:07:41
1	Pb 220.353†	57.3	-30.4	-1.6754 µg/L	-1.6754 ppb	05:07:41
1	S 181.975 Axial†	137.0	28.8	21.413 µg/L	21.413 ppb	05:07:41
1	Sb 206.836†	81.3	-1.4	-0.1639 µg/L	-0.1639 ppb	05:07:41
1	Se 196.026†	14.5	-1.1	-0.428 µg/L	-0.428 ppb	05:07:41
1	SiO2†	1795.9	-20.4	-2.0072 µg/L	-2.0072 ppb	05:07:41
1	Si 251.611†	842.2	-13.6	-0.2043 µg/L	-0.2043 ppb	05:07:21
1	Sn 189.927†	14.5	15.3	0.9535 µg/L	0.9535 ppb	05:07:41
1	Ti 334.940†	896.1	-76.9	-0.0607 µg/L	-0.0607 ppb	05:07:21
1	Tl 190.801†	-107.4	11.8	1.4419 µg/L	1.4419 ppb	05:07:41
1	U 409.014†	-728.7	-442.1	-25.868 µg/L	-25.868 ppb	05:07:21
1	V 292.402†	356.0	-55.9	-0.2924 µg/L	-0.2924 ppb	05:07:21
1	Zn 213.857†	611.8	33.4	0.1892 µg/L	0.1892 ppb	05:07:41
2	Sc RADIAL	143898.7	143898.7	98.6 %		05:06:19
2	Al 396.153Radial†	-55.8	6.7	1.2330 µg/L	1.2330 ppb	05:06:39
2	Ca 317.933Radial†	606.4	54.4	3.0284 µg/L	3.0284 ppb	05:06:39
2	Fe 238.204 Radial†	158.8	12.9	0.7968 µg/L	0.7968 ppb	05:06:39
2	K 766.490 Radial†	1417.0	-107.8	-39.494 µg/L	-39.494 ppb	05:06:19
2	Mg 279.077 IEC†	183.4	-4.7	-1.7523 µg/L	-1.7523 ppb	05:06:39
2	Na 589.592 Radial†	2345.9	1088.2	148.69 µg/L	148.69 ppb	05:06:19
2	Sr 421.552†	-178.6	-45.8	-0.0953 µg/L	-0.0953 ppb	05:06:19
2	Sc 361.383	1742400.7	1742400.7	101.41 %		05:07:43
2	Y 371.029	1037760.1	1037760.1	101.08 %		05:07:43
2	Ag 328.068†	4154.9	5.9	0.0126 µg/L	0.0126 ppb	05:07:46
2	As 188.979†	-12.6	8.0	2.4108 µg/L	2.4108 ppb	05:08:06
2	B 249.677†	3668.4	111.6	1.6444 µg/L	1.6444 ppb	05:07:46
2	Ba 233.527†	-119.9	17.6	0.0702 µg/L	0.0702 ppb	05:08:06
2	Be 313.107†	-953.3	124.6	0.0347 µg/L	0.0347 ppb	05:07:46
2	Cd 226.502†	-98.5	21.1	0.1314 µg/L	0.1314 ppb	05:08:06
2	Co 228.616†	-169.6	23.1	0.2846 µg/L	0.2846 ppb	05:08:06
2	Cr 267.716†	210.1	28.6	0.2214 µg/L	0.2214 ppb	05:08:06
2	Cu 324.752†	3022.7	8.5	0.0356 µg/L	0.0356 ppb	05:07:46
2	Mn 257.610†	280.0	38.8	0.0481 µg/L	0.0481 ppb	05:08:06
2	Mo 202.031†	-19.8	0.6	0.0163 µg/L	0.0163 ppb	05:08:06
2	Ni 231.604†	-119.3	-41.2	-0.4741 µg/L	-0.4741 ppb	05:08:06
2	P 214.914†	-19.4	-1.2	-0.2554 µg/L	-0.2554 ppb	05:08:06
2	Pb 220.353†	78.8	-8.6	-0.4842 µg/L	-0.4842 ppb	05:08:06

2	S 181.975 Axial†	123.0	16.3	12.075 µg/L	12.075 ppb	05:08:06
2	Sb 206.836†	74.6	-7.2	-0.8639 µg/L	-0.8639 ppb	05:08:06
2	Se 196.026†	21.6	6.0	2.19 µg/L	2.19 ppb	05:08:06
2	SiO2†	1761.0	-38.8	-3.8022 µg/L	-3.8022 ppb	05:08:06
2	Si 251.611†	806.3	-41.5	-0.6147 µg/L	-0.6147 ppb	05:07:46
2	Sn 189.927†	5.9	6.9	0.4326 µg/L	0.4326 ppb	05:08:06
2	Ti 334.940†	926.6	-38.8	-0.0372 µg/L	-0.0372 ppb	05:07:46
2	Tl 190.801†	-119.0	-0.7	-0.0930 µg/L	-0.0930 ppb	05:08:06
2	U 409.014†	-227.2	45.8	2.6178 µg/L	2.6178 ppb	05:07:46
2	V 292.402†	193.5	-213.0	-1.0360 µg/L	-1.0360 ppb	05:07:46
2	Zn 213.857†	609.0	36.1	0.2058 µg/L	0.2058 ppb	05:08:06
3	Sc RADIAL	142638.4	142638.4	97.7 %		05:06:41
3	Al 396.153Radial†	-22.0	40.7	7.5557 µg/L	7.5557 ppb	05:07:01
3	Ca 317.933Radial†	630.0	84.0	4.6771 µg/L	4.6771 ppb	05:07:01
3	Fe 238.204 Radial†	132.8	-12.2	-0.7538 µg/L	-0.7538 ppb	05:07:01
3	K 766.490 Radial†	1613.6	106.1	38.801 µg/L	38.801 ppb	05:06:41
3	Mg 279.077 IEC†	175.0	-11.7	-4.3601 µg/L	-4.3601 ppb	05:07:01
3	Na 589.592 Radial†	2479.7	1246.1	170.20 µg/L	170.20 ppb	05:06:41
3	Sr 421.552†	-208.4	-77.9	-0.1620 µg/L	-0.1620 ppb	05:06:41
3	Sc 361.383	1738163.3	1738163.3	101.16 %		05:08:08
3	Y 371.029	1035970.5	1035970.5	100.90 %		05:08:08
3	Ag 328.068†	4302.8	162.0	0.5833 µg/L	0.5833 ppb	05:08:10
3	As 188.979†	-21.8	-1.2	-0.3610 µg/L	-0.3610 ppb	05:08:30
3	B 249.677†	3574.8	27.9	0.4114 µg/L	0.4114 ppb	05:08:10
3	Ba 233.527†	-149.0	-11.4	-0.0465 µg/L	-0.0465 ppb	05:08:30
3	Be 313.107†	-873.2	201.5	0.0526 µg/L	0.0526 ppb	05:08:10
3	Cd 226.502†	-120.0	-0.4	-0.0024 µg/L	-0.0024 ppb	05:08:30
3	Co 228.616†	-182.7	9.7	0.1193 µg/L	0.1193 ppb	05:08:30
3	Cr 267.716†	174.3	-6.2	-0.0433 µg/L	-0.0433 ppb	05:08:30
3	Cu 324.752†	2971.9	-34.4	-0.1402 µg/L	-0.1402 ppb	05:08:10
3	Mn 257.610†	245.6	5.5	0.0070 µg/L	0.0070 ppb	05:08:30
3	Mo 202.031†	-34.6	-14.1	-0.4150 µg/L	-0.4150 ppb	05:08:30
3	Ni 231.604†	-92.5	-15.0	-0.1724 µg/L	-0.1724 ppb	05:08:30
3	P 214.914†	-13.5	4.6	0.9950 µg/L	0.9950 ppb	05:08:30
3	Pb 220.353†	106.1	18.5	1.0399 µg/L	1.0399 ppb	05:08:30
3	S 181.975 Axial†	143.8	37.1	27.534 µg/L	27.534 ppb	05:08:30
3	Sb 206.836†	58.1	-23.4	-2.7867 µg/L	-2.7867 ppb	05:08:30
3	Se 196.026†	4.1	-11.2	-4.05 µg/L	-4.05 ppb	05:08:30
3	SiO2†	1756.7	-38.8	-3.7752 µg/L	-3.7752 ppb	05:08:30
3	Si 251.611†	899.3	52.4	0.7804 µg/L	0.7804 ppb	05:08:10
3	Sn 189.927†	-7.1	-5.9	-0.3704 µg/L	-0.3704 ppb	05:08:30
3	Ti 334.940†	1084.8	119.8	0.1155 µg/L	0.1155 ppb	05:08:10
3	Tl 190.801†	-119.1	-1.1	-0.1349 µg/L	-0.1349 ppb	05:08:30
3	U 409.014†	-403.1	-128.6	-7.5533 µg/L	-7.5533 ppb	05:08:10
3	V 292.402†	284.4	-122.7	-0.6080 µg/L	-0.6080 ppb	05:08:10
3	Zn 213.857†	580.8	9.7	0.0558 µg/L	0.0558 ppb	05:08:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1746307.8	101.63 %	0.620			0.61%
Sc RADIAL	144093.4	98.7 %	1.07			1.08%
Y 371.029	1040311.6	101.33 %	0.588			0.58%
Ag 328.068†	99.2	0.3470 µg/L	0.29770	0.3470 ppb	0.29770	85.80%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	28.3	5.2611 µg/L	3.49970	5.2611 ppb	3.49970	66.52%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	7.1	2.1499 µg/L	2.39113	2.1499 ppb	2.39113	111.22%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	59.9	0.8830 µg/L	0.66564	0.8830 ppb	0.66564	75.39%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-8.0	-0.0327 µg/L	0.09673	-0.0327 ppb	0.09673	295.93%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	130.6	0.0325 µg/L	0.02135	0.0325 ppb	0.02135	65.76%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	67.7	3.7735 µg/L	0.83573	3.7735 ppb	0.83573	22.15%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	17.2	0.1073 µg/L	0.09986	0.1073 ppb	0.09986	93.05%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	11.5	0.1414 µg/L	0.13348	0.1414 ppb	0.13348	94.37%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	2.0	0.0236 µg/L	0.17422	0.0236 ppb	0.17422	737.23%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-49.9	-0.2022 µg/L	0.27414	-0.2022 ppb	0.27414	135.56%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	4.4	0.2695 µg/L	0.88639	0.2695 ppb	0.88639	328.85%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	24.9	9.0894 µg/L	42.42237	9.0894 ppb	42.42237	466.72%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-9.8	-3.6597 µg/L	1.67122	-3.6597 ppb	1.67122	45.67%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	30.1	0.0374 µg/L	0.02669	0.0374 ppb	0.02669	71.39%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-6.4	-0.1898 µg/L	0.21627	-0.1898 ppb	0.21627	113.95%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	1208.9	165.15 µg/L	14.597	165.15 ppb	14.597	8.84%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-24.5	-0.2827 µg/L	0.16642	-0.2827 ppb	0.16642	58.87%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-5.5	-1.1605 µg/L	2.72331	-1.1605 ppb	2.72331	234.67%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-6.8	-0.3732 µg/L	1.36106	-0.3732 ppb	1.36106	364.65%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	27.4	20.340 µg/L	7.7851	20.340 ppb	7.7851	38.27%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-10.7	-1.2715 µg/L	1.35806	-1.2715 ppb	1.35806	106.81%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-2.1	-0.764 µg/L	3.1328	-0.764 ppb	3.1328	410.20%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-32.7	-3.1949 µg/L	1.02864	-3.1949 ppb	1.02864	32.20%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	-0.9	-0.0129 µg/L	0.71695	-0.0129 ppb	0.71695	>999.9%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	5.4	0.3386 µg/L	0.66691	0.3386 ppb	0.66691	196.97%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-65.1	-0.1354 µg/L	0.03536	-0.1354 ppb	0.03536	26.10%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	1.4	0.0059 µg/L	0.09568	0.0059 ppb	0.09568	>999.9%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	3.3	0.4047 µg/L	0.89852	0.4047 ppb	0.89852	222.02%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-175.0	-10.268 µg/L	14.4354	-10.268 ppb	14.4354	140.59%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-130.5	-0.6455 µg/L	0.37319	-0.6455 ppb	0.37319	57.82%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	26.4	0.1503 µg/L	0.08227	0.1503 ppb	0.08227	54.74%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 5

Sample ID: 1202056979|959150|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 303

Date Collected: 4/1/2010 5:08:37

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056979|959150|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	141645.1	141645.1	97.1 %		05:09:09
1	Al 396.153Radial†	-36.5	25.6	4.7564 µg/L	4.7564 ppb	05:09:11
1	Ca 317.933Radial†	1029.1	499.7	27.835 µg/L	27.835 ppb	05:09:11
1	Fe 238.204 Radial†	1869.1	1777.5	109.56 µg/L	109.56 ppb	05:09:11
1	K 766.490 Radial†	1533.8	35.4	12.944 µg/L	12.944 ppb	05:09:09
1	Mg 279.077 IEC†	165.9	-19.8	-7.4852 µg/L	-7.4852 ppb	05:09:11
1	Na 589.592 Radial†	2268.9	1046.8	142.99 µg/L	142.99 ppb	05:09:11
1	Sr 421.552†	47.2	184.0	0.3822 µg/L	0.3822 ppb	05:09:11
1	Sc 361.383	1716682.4	1716682.4	99.911 %		05:09:22
1	Y 371.029	1020677.0	1020677.0	99.414 %		05:09:22
1	Ag 328.068†	4100.6	12.9	0.0532 µg/L	0.0532 ppb	05:09:24
1	As 188.979†	-7.4	13.0	3.9513 µg/L	3.9513 ppb	05:09:45
1	B 249.677†	3665.2	162.6	2.3976 µg/L	2.3976 ppb	05:09:24
1	Ba 233.527†	-117.3	18.5	0.0733 µg/L	0.0733 ppb	05:09:45
1	Be 313.107†	-931.7	132.1	0.0361 µg/L	0.0361 ppb	05:09:24
1	Cd 226.502†	-119.6	-1.5	-0.0209 µg/L	-0.0209 ppb	05:09:45
1	Co 228.616†	-181.8	8.3	0.0972 µg/L	0.0972 ppb	05:09:45
1	Cr 267.716†	190.7	12.3	0.0999 µg/L	0.0999 ppb	05:09:45
1	Cu 324.752†	2878.6	-91.0	-0.3378 µg/L	-0.3378 ppb	05:09:24
1	Mn 257.610†	1078.8	842.5	1.0424 µg/L	1.0424 ppb	05:09:45
1	Mo 202.031†	-24.2	-4.2	-0.1189 µg/L	-0.1189 ppb	05:09:45
1	Ni 231.604†	-78.4	-1.9	-0.0221 µg/L	-0.0221 ppb	05:09:45
1	P 214.914†	-28.4	-10.5	-2.2992 µg/L	-2.2992 ppb	05:09:45
1	Pb 220.353†	91.8	5.5	0.3055 µg/L	0.3055 ppb	05:09:45
1	S 181.975 Axial†	159.1	54.2	40.265 µg/L	40.265 ppb	05:09:45
1	Sb 206.836†	62.1	-18.7	-2.2261 µg/L	-2.2261 ppb	05:09:45
1	Se 196.026†	15.9	0.6	0.264 µg/L	0.264 ppb	05:09:45
1	SiO2†	2189.0	415.6	40.606 µg/L	40.606 ppb	05:09:24
1	Si 251.611†	2149.6	1315.0	19.378 µg/L	19.378 ppb	05:09:24
1	Sn 189.927†	23.1	24.2	1.5102 µg/L	1.5102 ppb	05:09:45
1	Ti 334.940†	1299.2	347.8	0.3261 µg/L	0.3261 ppb	05:09:24
1	Tl 190.801†	-111.1	5.5	0.6836 µg/L	0.6836 ppb	05:09:45
1	U 409.014†	-264.3	5.4	0.3302 µg/L	0.3302 ppb	05:09:24
1	V 292.402†	518.7	115.4	0.5505 µg/L	0.5505 ppb	05:09:24
1	Zn 213.857†	1015.8	452.3	2.5298 µg/L	2.5298 ppb	05:09:45
2	Sc RADIAL	142645.5	142645.5	97.7 %		05:09:13
2	Al 396.153Radial†	-33.0	29.5	5.4815 µg/L	5.4815 ppb	05:09:15
2	Ca 317.933Radial†	1124.6	589.9	32.858 µg/L	32.858 ppb	05:09:15
2	Fe 238.204 Radial†	1880.4	1775.6	109.44 µg/L	109.44 ppb	05:09:15
2	K 766.490 Radial†	1607.5	99.8	36.496 µg/L	36.496 ppb	05:09:13
2	Mg 279.077 IEC†	182.3	-4.2	-1.6596 µg/L	-1.6596 ppb	05:09:15
2	Na 589.592 Radial†	2324.7	1087.4	148.52 µg/L	148.52 ppb	05:09:15
2	Sr 421.552†	29.3	165.3	0.3434 µg/L	0.3434 ppb	05:09:15
2	Sc 361.383	1717722.6	1717722.6	99.971 %		05:09:47
2	Y 371.029	1021318.9	1021318.9	99.477 %		05:09:47
2	Ag 328.068†	4134.0	43.8	0.1407 µg/L	0.1407 ppb	05:09:49
2	As 188.979†	-11.9	8.4	2.5705 µg/L	2.5705 ppb	05:10:09
2	B 249.677†	3590.4	85.6	1.2618 µg/L	1.2618 ppb	05:09:49
2	Ba 233.527†	-100.2	35.6	0.1416 µg/L	0.1416 ppb	05:10:09
2	Be 313.107†	-1165.9	-101.6	-0.0311 µg/L	-0.0311 ppb	05:09:49
2	Cd 226.502†	-120.7	-2.6	-0.0274 µg/L	-0.0274 ppb	05:10:09
2	Co 228.616†	-183.1	7.1	0.0824 µg/L	0.0824 ppb	05:10:09
2	Cr 267.716†	240.8	62.3	0.5004 µg/L	0.5004 ppb	05:10:09
2	Cu 324.752†	3069.9	98.6	0.3895 µg/L	0.3895 ppb	05:09:49
2	Mn 257.610†	1096.7	859.7	1.0635 µg/L	1.0635 ppb	05:10:09
2	Mo 202.031†	-34.3	-14.2	-0.4145 µg/L	-0.4145 ppb	05:10:09
2	Ni 231.604†	-60.3	16.2	0.1870 µg/L	0.1870 ppb	05:10:09
2	P 214.914†	-17.1	0.9	0.1251 µg/L	0.1251 ppb	05:10:09
2	Pb 220.353†	77.2	-9.2	-0.5065 µg/L	-0.5065 ppb	05:10:09

2	S 181.975 Axial†	161.9	56.9	42.250 µg/L	42.250 ppb	05:10:09
2	Sb 206.836†	68.6	-12.2	-1.4674 µg/L	-1.4674 ppb	05:10:09
2	Se 196.026†	5.9	-9.4	-3.36 µg/L	-3.36 ppb	05:10:09
2	SiO2†	2287.9	513.2	50.162 µg/L	50.162 ppb	05:09:49
2	Si 251.611†	2035.5	1199.6	17.685 µg/L	17.685 ppb	05:09:49
2	Sn 189.927†	12.6	13.7	0.8568 µg/L	0.8568 ppb	05:10:09
2	Ti 334.940†	1218.9	266.7	0.2547 µg/L	0.2547 ppb	05:09:49
2	Tl 190.801†	-101.2	15.5	1.9011 µg/L	1.9011 ppb	05:10:09
2	U 409.014†	-467.2	-197.5	-11.589 µg/L	-11.589 ppb	05:09:49
2	V 292.402†	307.6	-96.1	-0.4907 µg/L	-0.4907 ppb	05:09:49
2	Zn 213.857†	987.0	422.9	2.3627 µg/L	2.3627 ppb	05:10:09
3	Sc RADIAL	142697.7	142697.7	97.8 %		05:09:17
3	Al 396.153Radial†	-91.2	-30.1	-5.5557 µg/L	-5.5557 ppb	05:09:19
3	Ca 317.933Radial†	1051.8	515.0	28.688 µg/L	28.688 ppb	05:09:19
3	Fe 238.204 Radial†	1948.3	1844.3	113.67 µg/L	113.67 ppb	05:09:19
3	K 766.490 Radial†	1457.7	-54.1	-19.819 µg/L	-19.819 ppb	05:09:17
3	Mg 279.077 IEC†	129.7	-58.0	-21.735 µg/L	-21.735 ppb	05:09:19
3	Na 589.592 Radial†	2175.0	933.4	127.53 µg/L	127.53 ppb	05:09:19
3	Sr 421.552†	202.2	342.0	0.7109 µg/L	0.7109 ppb	05:09:19
3	Sc 361.383	1715264.6	1715264.6	99.828 %		05:10:11
3	Y 371.029	1020778.1	1020778.1	99.424 %		05:10:11
3	Ag 328.068†	3940.9	-143.7	-0.5465 µg/L	-0.5465 ppb	05:10:13
3	As 188.979†	-16.7	3.7	1.1353 µg/L	1.1353 ppb	05:10:33
3	B 249.677†	3487.1	-12.8	-0.1907 µg/L	-0.1907 ppb	05:10:13
3	Ba 233.527†	-107.1	28.6	0.1134 µg/L	0.1134 ppb	05:10:33
3	Be 313.107†	-1157.4	-94.7	-0.0280 µg/L	-0.0280 ppb	05:10:13
3	Cd 226.502†	-105.3	12.7	0.0670 µg/L	0.0670 ppb	05:10:33
3	Co 228.616†	-154.2	35.8	0.4359 µg/L	0.4359 ppb	05:10:33
3	Cr 267.716†	185.9	7.7	0.0696 µg/L	0.0696 ppb	05:10:33
3	Cu 324.752†	3003.4	36.4	0.1515 µg/L	0.1515 ppb	05:10:13
3	Mn 257.610†	1105.3	869.9	1.0769 µg/L	1.0769 ppb	05:10:33
3	Mo 202.031†	-33.1	-13.1	-0.3815 µg/L	-0.3815 ppb	05:10:33
3	Ni 231.604†	-101.8	-25.5	-0.2932 µg/L	-0.2932 ppb	05:10:33
3	P 214.914†	-36.3	-18.4	-4.0000 µg/L	-4.0000 ppb	05:10:33
3	Pb 220.353†	70.4	-15.9	-0.8869 µg/L	-0.8869 ppb	05:10:33
3	S 181.975 Axial†	164.2	59.4	44.112 µg/L	44.112 ppb	05:10:33
3	Sb 206.836†	74.4	-6.3	-0.7592 µg/L	-0.7592 ppb	05:10:33
3	Se 196.026†	19.5	4.2	1.57 µg/L	1.57 ppb	05:10:33
3	SiO2†	2140.9	369.2	36.094 µg/L	36.094 ppb	05:10:13
3	Si 251.611†	2236.2	1403.5	20.694 µg/L	20.694 ppb	05:10:13
3	Sn 189.927†	6.7	7.9	0.4917 µg/L	0.4917 ppb	05:10:33
3	Ti 334.940†	1261.4	311.0	0.2961 µg/L	0.2961 ppb	05:10:13
3	Tl 190.801†	-112.1	4.4	0.5413 µg/L	0.5413 ppb	05:10:33
3	U 409.014†	-396.4	-127.2	-7.4728 µg/L	-7.4728 ppb	05:10:13
3	V 292.402†	345.5	-57.7	-0.3023 µg/L	-0.3023 ppb	05:10:13
3	Zn 213.857†	1007.4	444.7	2.4880 µg/L	2.4880 ppb	05:10:33

Mean Data: 1202056979|959150|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Std.Dev.	RSD
Sc 361.383	1716556.5	99.903 %		0.0718			0.07%
Sc RADIAL	142329.5	97.5 %		0.41			0.42%
Y 371.029	1020924.6	99.439 %		0.0336			0.03%
Ag 328.068†	-29.0	-0.1175 µg/L		0.37407	-0.1175 ppb	0.37407	318.24%
Al 396.153Radial†	8.3	1.5607 µg/L		6.17369	1.5607 ppb	6.17369	395.56%
As 188.979†	8.4	2.5524 µg/L		1.40810	2.5524 ppb	1.40810	55.17%
B 249.677†	78.4	1.1562 µg/L		1.29736	1.1562 ppb	1.29736	112.21%
Ba 233.527†	27.5	0.1094 µg/L		0.03433	0.1094 ppb	0.03433	31.37%
Be 313.107†	-21.4	-0.0077 µg/L		0.03794	-0.0077 ppb	0.03794	492.90%
Ca 317.933Radial†	534.9	29.794 µg/L		2.6881	29.794 ppb	2.6881	9.02%
Cd 226.502†	2.9	0.0062 µg/L		0.05274	0.0062 ppb	0.05274	844.73%
Co 228.616†	17.1	0.2052 µg/L		0.19993	0.2052 ppb	0.19993	97.44%
Cr 267.716†	27.4	0.2233 µg/L		0.24045	0.2233 ppb	0.24045	107.69%
Cu 324.752†	14.6	0.0677 µg/L		0.37077	0.0677 ppb	0.37077	547.39%
Fe 238.204 Radial†	1799.1	110.89 µg/L		2.411	110.89 ppb	2.411	2.17%
K 766.490 Radial†	27.0	9.8737 µg/L		28.28300	9.8737 ppb	28.28300	286.45%
Mg 279.077 IEC†	-27.4	-10.293 µg/L		10.3281	-10.293 ppb	10.3281	100.34%
Mn 257.610†	857.4	1.0609 µg/L		0.01737	1.0609 ppb	0.01737	1.64%
Mo 202.031†	-10.5	-0.3050 µg/L		0.16202	-0.3050 ppb	0.16202	53.13%
Na 589.592 Radial†	1022.5	139.68 µg/L		10.877	139.68 ppb	10.877	7.79%

Ni 231.604†	-3.7	-0.0428 µg/L	0.24076	-0.0428 ppb	0.24076	562.67%
P 214.914†	-9.3	-2.0580 µg/L	2.07311	-2.0580 ppb	2.07311	100.73%
Pb 220.353†	-6.5	-0.3627 µg/L	0.60910	-0.3627 ppb	0.60910	167.96%
S 181.975 Axial†	56.8	42.209 µg/L	1.9238	42.209 ppb	1.9238	4.56%
Sb 206.836†	-12.4	-1.4842 µg/L	0.73363	-1.4842 ppb	0.73363	49.43%
Se 196.026†	-1.5	-0.508 µg/L	2.5520	-0.508 ppb	2.5520	501.97%
SiO2†	432.7	42.287 µg/L	7.1830	42.287 ppb	7.1830	16.99%
Si 251.611†	1306.0	19.252 µg/L	1.5084	19.252 ppb	1.5084	7.83%
Sn 189.927†	15.3	0.9529 µg/L	0.51600	0.9529 ppb	0.51600	54.15%
Sr 421.552†	230.4	0.4788 µg/L	0.20189	0.4788 ppb	0.20189	42.16%
Ti 334.940†	308.5	0.2923 µg/L	0.03585	0.2923 ppb	0.03585	12.26%
Tl 190.801†	8.4	1.0420 µg/L	0.74739	1.0420 ppb	0.74739	71.73%
U 409.014†	-106.4	-6.2440 µg/L	6.05411	-6.2440 ppb	6.05411	96.96%
V 292.402†	-12.8	-0.0809 µg/L	0.55480	-0.0809 ppb	0.55480	686.18%
Zn 213.857†	440.0	2.4602 µg/L	0.08696	2.4602 ppb	0.08696	3.53%

Sequence No.: 6

Sample ID: 1202056984|959150|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 304

Date Collected: 4/1/2010 5:10:42

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056984|959150|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	146674.8	146674.8	101 %		05:11:14
1	Al 396.153Radial†	548382.9	545660.5	101140 µg/L	101140 ppb	05:11:14
1	Ca 317.933Radial†	1754701.8	1745228.0	97216 µg/L	97216 ppb	05:11:12
1	Fe 238.204 Radial†	3072806.2	3057049.5	188420 µg/L	188420 ppb	05:11:12
1	K 766.490 Radial†	118430.3	116283.9	42528 µg/L	42528 ppb	05:11:14
1	Mg 279.077 IEC†	106449.1	105717.7	39239 µg/L	39239 ppb	05:11:14
1	Na 589.592 Radial†	77952.9	76266.1	10381 µg/L	10381 ppb	05:11:14
1	Sr 421.552†	1098250.2	1092806.8	2271.1 µg/L	2271.1 ppb	05:11:12
1	Sc 361.383	1748796.2	1748796.2	101.78 %		05:11:43
1	Y 371.029	1112981.0	1112981.0	108.40 %		05:11:43
1	Ag 328.068†	82858.2	77318.0	295.60 µg/L	295.60 ppb	05:11:43
1	As 188.979†	3457.8	3417.7	1099.5 µg/L	1099.5 ppb	05:11:45
1	B 249.677†	104172.6	98845.2	1454.6 µg/L	1454.6 ppb	05:11:43
1	Ba 233.527†	475104.9	466933.3	1880.1 µg/L	1880.1 ppb	05:11:43
1	Be 313.107†	2946880.8	2896417.8	788.55 µg/L	788.55 ppb	05:11:43
1	Cd 226.502†	99145.1	97529.7	590.02 µg/L	590.02 ppb	05:11:43
1	Co 228.616†	76536.5	75388.5	922.53 µg/L	922.53 ppb	05:11:43
1	Cr 267.716†	304945.1	299434.5	2350.7 µg/L	2350.7 ppb	05:11:43
1	Cu 324.752†	484607.7	473161.9	1867.6 µg/L	1867.6 ppb	05:11:43
1	Mn 257.610†	4465435.6	4387117.9	5426.1 µg/L	5426.1 ppb	05:11:43
1	Mo 202.031†	17033.6	16755.8	501.02 µg/L	501.02 ppb	05:11:45
1	Ni 231.604†	119843.7	117824.7	1356.7 µg/L	1356.7 ppb	05:11:43
1	P 214.914†	36956.8	36328.6	7647.6 µg/L	7647.6 ppb	05:11:45
1	Pb 220.353†	15199.1	14847.0	837.57 µg/L	837.57 ppb	05:11:45
1	S 181.975 Axial†	5473.6	5272.9	3919.7 µg/L	3919.7 ppb	05:11:45
1	Sb 206.836†	9492.6	9245.8	1071.6 µg/L	1071.6 ppb	05:11:45
1	Se 196.026†	7735.2	7584.7	2810 µg/L	2810 ppb	05:11:45
1	SiO2†	863100.0	846232.9	82684 µg/L	82684 ppb	05:11:43
1	Si 251.611†	2663269.2	2615864.0	38552 µg/L	38552 ppb	05:11:43
1	Sn 189.927†	16115.6	15834.9	1006.9 µg/L	1006.9 ppb	05:11:45
1	Ti 334.940†	6394062.9	6281306.9	5867.1 µg/L	5867.1 ppb	05:11:43
1	Tl 190.801†	9217.0	9172.5	1204.5 µg/L	1204.5 ppb	05:11:45
1	U 409.014†	-5330.9	-4967.8	-225.94 µg/L	-225.94 ppb	05:11:43
1	V 292.402†	256940.1	252043.6	1219.2 µg/L	1219.2 ppb	05:11:43
1	Zn 213.857†	1056855.8	1037811.7	5803.8 µg/L	5803.8 ppb	05:11:43
2	Sc RADIAL	145570.4	145570.4	99.8 %		05:11:19
2	Al 396.153Radial†	542887.4	544290.6	100890 µg/L	100890 ppb	05:11:19
2	Ca 317.933Radial†	1741170.1	1744907.4	97198 µg/L	97198 ppb	05:11:16
2	Fe 238.204 Radial†	3048147.0	3055522.8	188320 µg/L	188320 ppb	05:11:16
2	K 766.490 Radial†	117348.0	116092.8	42458 µg/L	42458 ppb	05:11:19
2	Mg 279.077 IEC†	104926.1	104994.4	38970 µg/L	38970 ppb	05:11:19
2	Na 589.592 Radial†	77177.2	76076.9	10355 µg/L	10355 ppb	05:11:19
2	Sr 421.552†	1092771.6	1095604.3	2276.9 µg/L	2276.9 ppb	05:11:16
2	Sc 361.383	1751184.4	1751184.4	101.92 %		05:11:49
2	Y 371.029	1114133.4	1114133.4	108.52 %		05:11:49
2	Ag 328.068†	82602.4	76956.0	294.24 µg/L	294.24 ppb	05:11:49
2	As 188.979†	3392.4	3348.9	1078.6 µg/L	1078.6 ppb	05:11:51
2	B 249.677†	104405.1	98933.7	1455.9 µg/L	1455.9 ppb	05:11:49
2	Ba 233.527†	476003.0	467177.9	1881.1 µg/L	1881.1 ppb	05:11:49
2	Be 313.107†	2948209.9	2893773.4	787.83 µg/L	787.83 ppb	05:11:49
2	Cd 226.502†	99487.9	97733.2	591.30 µg/L	591.30 ppb	05:11:49
2	Co 228.616†	76624.2	75372.0	922.33 µg/L	922.33 ppb	05:11:49
2	Cr 267.716†	304958.5	299038.9	2347.6 µg/L	2347.6 ppb	05:11:49
2	Cu 324.752†	484907.2	472806.4	1866.2 µg/L	1866.2 ppb	05:11:49
2	Mn 257.610†	4469750.7	4385368.6	5424.0 µg/L	5424.0 ppb	05:11:49
2	Mo 202.031†	16898.8	16600.8	496.45 µg/L	496.45 ppb	05:11:51
2	Ni 231.604†	119966.8	117784.9	1356.2 µg/L	1356.2 ppb	05:11:49
2	P 214.914†	36807.7	36132.8	7605.7 µg/L	7605.7 ppb	05:11:51
2	Pb 220.353†	15258.8	14885.2	839.67 µg/L	839.67 ppb	05:11:51

2	S 181.975 Axial†	5444.5	5237.0	3893.0 µg/L	3893.0 ppb	05:11:51
2	Sb 206.836†	9345.6	9088.8	1052.9 µg/L	1052.9 ppb	05:11:51
2	Se 196.026†	7655.0	7495.6	2770 µg/L	2770 ppb	05:11:51
2	SiO2†	863994.3	845953.9	82657 µg/L	82657 ppb	05:11:49
2	Si 251.611†	2666102.9	2615075.9	38541 µg/L	38541 ppb	05:11:49
2	Sn 189.927†	16031.1	15730.4	1000.4 µg/L	1000.4 ppb	05:11:51
2	Ti 334.940†	6399015.9	6277599.3	5863.6 µg/L	5863.6 ppb	05:11:49
2	Tl 190.801†	9142.0	9086.5	1193.8 µg/L	1193.8 ppb	05:11:51
2	U 409.014†	-5359.9	-4989.1	-227.27 µg/L	-227.27 ppb	05:11:49
2	V 292.402†	256941.3	251700.5	1217.5 µg/L	1217.5 ppb	05:11:49
2	Zn 213.857†	1058337.8	1037849.7	5804.0 µg/L	5804.0 ppb	05:11:49
3	Sc RADIAL	145944.2	145944.2	100 %		05:11:23
3	Al 396.153Radial†	545423.7	545433.1	101100 µg/L	101100 ppb	05:11:23
3	Ca 317.933Radial†	1757328.7	1756594.6	97849 µg/L	97849 ppb	05:11:21
3	Fe 238.204 Radial†	3076827.3	3076375.5	189610 µg/L	189610 ppb	05:11:21
3	K 766.490 Radial†	117720.1	116163.7	42484 µg/L	42484 ppb	05:11:23
3	Mg 279.077 IEC†	105045.1	104844.0	38913 µg/L	38913 ppb	05:11:23
3	Na 589.592 Radial†	77195.9	75897.5	10331 µg/L	10331 ppb	05:11:23
3	Sr 421.552†	1103360.3	1103386.7	2293.1 µg/L	2293.1 ppb	05:11:21
3	Sc 361.383	1742513.2	1742513.2	101.41 %		05:11:55
3	Y 371.029	1109632.8	1109632.8	108.08 %		05:11:55
3	Ag 328.068†	82369.5	77129.6	294.86 µg/L	294.86 ppb	05:11:55
3	As 188.979†	3458.4	3430.6	1103.6 µg/L	1103.6 ppb	05:11:57
3	B 249.677†	103792.2	98839.1	1454.5 µg/L	1454.5 ppb	05:11:55
3	Ba 233.527†	472681.4	466226.7	1877.2 µg/L	1877.2 ppb	05:11:55
3	Be 313.107†	2928816.7	2889045.3	786.55 µg/L	786.55 ppb	05:11:55
3	Cd 226.502†	98645.0	97387.8	589.00 µg/L	589.00 ppb	05:11:55
3	Co 228.616†	76248.4	75375.6	922.30 µg/L	922.30 ppb	05:11:55
3	Cr 267.716†	303128.7	298723.7	2345.2 µg/L	2345.2 ppb	05:11:55
3	Cu 324.752†	481975.5	472283.2	1864.4 µg/L	1864.4 ppb	05:11:55
3	Mn 257.610†	4442752.9	4380571.1	5418.0 µg/L	5418.0 ppb	05:11:55
3	Mo 202.031†	16971.2	16754.6	501.02 µg/L	501.02 ppb	05:11:57
3	Ni 231.604†	118905.9	117324.6	1350.9 µg/L	1350.9 ppb	05:11:55
3	P 214.914†	37224.5	36723.4	7731.3 µg/L	7731.3 ppb	05:11:57
3	Pb 220.353†	15221.0	14922.4	841.73 µg/L	841.73 ppb	05:11:57
3	S 181.975 Axial†	5416.6	5236.0	3892.3 µg/L	3892.3 ppb	05:11:57
3	Sb 206.836†	9558.9	9344.8	1083.4 µg/L	1083.4 ppb	05:11:57
3	Se 196.026†	7733.4	7610.3	2820 µg/L	2820 ppb	05:11:57
3	SiO2†	858529.0	844783.3	82542 µg/L	82542 ppb	05:11:55
3	Si 251.611†	2647531.4	2609780.7	38463 µg/L	38463 ppb	05:11:55
3	Sn 189.927†	16182.3	15957.8	1014.6 µg/L	1014.6 ppb	05:11:57
3	Ti 334.940†	6362946.0	6273275.9	5859.6 µg/L	5859.6 ppb	05:11:55
3	Tl 190.801†	9288.0	9275.2	1217.0 µg/L	1217.0 ppb	05:11:57
3	U 409.014†	-5226.4	-4883.7	-221.47 µg/L	-221.47 ppb	05:11:55
3	V 292.402†	255419.9	251454.9	1216.2 µg/L	1216.2 ppb	05:11:55
3	Zn 213.857†	1050783.4	1035568.1	5791.1 µg/L	5791.1 ppb	05:11:55

Mean Data: 1202056984|959150|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1747497.9	101.70 %	0.261			0.26%
Sc RADIAL	146063.1	100 %	0.4			0.38%
Y 371.029	1112249.1	108.33 %	0.228			0.21%
Ag 328.068†	77134.5	294.90 µg/L	0.682	294.90 ppb	0.682	0.23%
Al 396.153Radial†	545128.1	101040 µg/L	136.0	101040 ppb	136.0	0.13%
As 188.979†	3399.1	1093.9 µg/L	13.39	1093.9 ppb	13.39	1.22%
B 249.677†	98872.7	1455.0 µg/L	0.78	1455.0 ppb	0.78	0.05%
Ba 233.527†	466779.3	1879.5 µg/L	2.00	1879.5 ppb	2.00	0.11%
Be 313.107†	2893078.8	787.64 µg/L	1.016	787.64 ppb	1.016	0.13%
Ca 317.933Radial†	1748910.0	97421 µg/L	370.8	97421 ppb	370.8	0.38%
Cd 226.502†	97550.2	590.10 µg/L	1.150	590.10 ppb	1.150	0.19%
Co 228.616†	75378.7	922.38 µg/L	0.123	922.38 ppb	0.123	0.01%
Cr 267.716†	299065.7	2347.8 µg/L	2.77	2347.8 ppb	2.77	0.12%
Cu 324.752†	472750.5	1866.0 µg/L	1.63	1866.0 ppb	1.63	0.09%
Fe 238.204 Radial†	3062982.6	188780 µg/L	716.4	188780 ppb	716.4	0.38%
K 766.490 Radial†	116180.2	42490 µg/L	35.3	42490 ppb	35.3	0.08%
Mg 279.077 IEC†	105185.4	39041 µg/L	174.4	39041 ppb	174.4	0.45%
Mn 257.610†	4384352.5	5422.7 µg/L	4.19	5422.7 ppb	4.19	0.08%
Mo 202.031†	16703.7	499.50 µg/L	2.638	499.50 ppb	2.638	0.53%
Na 589.592 Radial†	76080.1	10356 µg/L	25.2	10356 ppb	25.2	0.24%

Ni 231.604†	117644.7	1354.6 µg/L	3.20	1354.6 ppb	3.20	0.24%
P 214.914†	36394.9	7661.6 µg/L	63.95	7661.6 ppb	63.95	0.83%
Pb 220.353†	14884.8	839.66 µg/L	2.079	839.66 ppb	2.079	0.25%
S 181.975 Axial†	5248.6	3901.7 µg/L	15.61	3901.7 ppb	15.61	0.40%
Sb 206.836†	9226.5	1069.3 µg/L	15.39	1069.3 ppb	15.39	1.44%
Se 196.026†	7563.5	2800 µg/L	21.9	2800 ppb	21.9	0.78%
SiO2†	845656.7	82628 µg/L	75.3	82628 ppb	75.3	0.09%
Si 251.611†	2613573.5	38519 µg/L	48.8	38519 ppb	48.8	0.13%
Sn 189.927†	15841.0	1007.3 µg/L	7.09	1007.3 ppb	7.09	0.70%
Sr 421.552†	1097265.9	2280.4 µg/L	11.39	2280.4 ppb	11.39	0.50%
Ti 334.940†	6277394.0	5863.4 µg/L	3.73	5863.4 ppb	3.73	0.06%
Tl 190.801†	9178.1	1205.1 µg/L	11.57	1205.1 ppb	11.57	0.96%
U 409.014†	-4946.9	-224.89 µg/L	3.036	-224.89 ppb	3.036	1.35%
Concentration less than lower limit for U 409.014.						
V 292.402†	251733.0	1217.6 µg/L	1.51	1217.6 ppb	1.51	0.12%
Zn 213.857†	1037076.5	5799.6 µg/L	7.40	5799.6 ppb	7.40	0.13%

Sequence No.: 8

Sample ID: 1202056980|959150|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 306

Date Collected: 4/1/2010 5:14:18

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056980|959150|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	144974.4	144974.4	99.3 %		05:14:50
1	Al 396.153Radial†	195387.7	196738.4	36475 µg/L	36475 ppb	05:14:50
1	Ca 317.933Radial†	402730.2	404823.5	22550 µg/L	22550 ppb	05:14:50
1	Fe 238.204 Radial†	1537249.2	1547231.3	95362 µg/L	95362 ppb	05:14:48
1	K 766.490 Radial†	18162.9	16737.8	6114.6 µg/L	6114.6 ppb	05:14:50
1	Mg 279.077 IEC†	19970.0	19910.9	7336.8 µg/L	7336.8 ppb	05:14:50
1	Na 589.592 Radial†	19130.6	17965.9	2448.9 µg/L	2448.9 ppb	05:14:50
1	Sr 421.552†	51906.0	52383.4	108.73 µg/L	108.73 ppb	05:14:50
1	Sc 361.383	1723988.4	1723988.4	100.34 %		05:15:17
1	Y 371.029	1283677.8	1283677.8	125.03 %		05:15:17
1	Ag 328.068†	4595.2	488.5	0.3923 µg/L	0.3923 ppb	05:15:17
1	As 188.979†	23.0	43.3	35.345 µg/L	35.345 ppb	05:15:37
1	B 249.677†	5037.9	1515.2	22.106 µg/L	22.106 ppb	05:15:17
1	Ba 233.527†	103041.2	102832.2	413.22 µg/L	413.22 ppb	05:15:17
1	Be 313.107†	28322.1	29292.0	7.8517 µg/L	7.8517 ppb	05:15:17
1	Cd 226.502†	1528.9	1642.0	0.2587 µg/L	0.2587 ppb	05:15:37
1	Co 228.616†	5418.7	5590.9	64.425 µg/L	64.425 ppb	05:15:37
1	Cr 267.716†	11603.8	11386.4	92.036 µg/L	92.036 ppb	05:15:37
1	Cu 324.752†	14318.4	11298.3	57.698 µg/L	57.698 ppb	05:15:17
1	Mn 257.610†	2340428.0	2332356.6	2885.3 µg/L	2885.3 ppb	05:15:17
1	Mo 202.031†	154.7	174.3	9.0581 µg/L	9.0581 ppb	05:15:37
1	Ni 231.604†	5501.0	5559.1	64.009 µg/L	64.009 ppb	05:15:37
1	P 214.914†	3325.4	3332.2	655.60 µg/L	655.60 ppb	05:15:37
1	Pb 220.353†	1380.3	1289.3	74.990 µg/L	74.990 ppb	05:15:37
1	S 181.975 Axial†	1766.5	1655.5	1229.4 µg/L	1229.4 ppb	05:15:37
1	Sb 206.836†	85.0	3.9	-2.0624 µg/L	-2.0624 ppb	05:15:37
1	Se 196.026†	-54.4	-69.5	7.55 µg/L	7.55 ppb	05:15:37
1	SiO2†	696945.8	692837.5	67719 µg/L	67719 ppb	05:15:17
1	Si 251.611†	2139802.9	2131803.7	31429 µg/L	31429 ppb	05:15:17
1	Sn 189.927†	359.0	358.9	31.377 µg/L	31.377 ppb	05:15:37
1	Ti 334.940†	2868317.1	2857763.3	2670.0 µg/L	2670.0 ppb	05:15:17
1	Tl 190.801†	-458.7	-340.5	-7.2604 µg/L	-7.2604 ppb	05:15:37
1	U 409.014†	-7309.9	-7015.5	-407.14 µg/L	-407.14 ppb	05:15:17
1	V 292.402†	18924.3	18457.2	77.664 µg/L	77.664 ppb	05:15:17
1	Zn 213.857†	77440.4	76616.7	421.61 µg/L	421.61 ppb	05:15:17
2	Sc RADIAL	145263.7	145263.7	99.5 %		05:14:54
2	Al 396.153Radial†	195512.7	196472.3	36426 µg/L	36426 ppb	05:14:54
2	Ca 317.933Radial†	403052.6	404340.0	22523 µg/L	22523 ppb	05:14:54
2	Fe 238.204 Radial†	1516631.0	1523436.5	93895 µg/L	93895 ppb	05:14:52
2	K 766.490 Radial†	18058.0	16596.0	6062.7 µg/L	6062.7 ppb	05:14:54
2	Mg 279.077 IEC†	19970.6	19871.5	7323.4 µg/L	7323.4 ppb	05:14:54
2	Na 589.592 Radial†	19104.8	17901.5	2440.2 µg/L	2440.2 ppb	05:14:54
2	Sr 421.552†	51978.7	52352.3	108.66 µg/L	108.66 ppb	05:14:54
2	Sc 361.383	1778003.4	1778003.4	103.48 %		05:15:40
2	Y 371.029	1323118.8	1323118.8	128.87 %		05:15:40
2	Ag 328.068†	4329.9	92.9	-1.0706 µg/L	-1.0706 ppb	05:15:40
2	As 188.979†	6.5	26.7	29.960 µg/L	29.960 ppb	05:16:00
2	B 249.677†	5203.4	1522.5	22.223 µg/L	22.223 ppb	05:15:40
2	Ba 233.527†	106494.3	103049.3	414.11 µg/L	414.11 ppb	05:15:40
2	Be 313.107†	29547.3	29618.5	7.9409 µg/L	7.9409 ppb	05:15:40
2	Cd 226.502†	1519.6	1586.7	0.0669 µg/L	0.0669 ppb	05:16:00
2	Co 228.616†	5402.5	5411.2	62.284 µg/L	62.284 ppb	05:16:00
2	Cr 267.716†	11585.5	11017.3	89.092 µg/L	89.092 ppb	05:16:00
2	Cu 324.752†	14626.4	11162.3	56.955 µg/L	56.955 ppb	05:15:40
2	Mn 257.610†	2420140.9	2338525.9	2892.9 µg/L	2892.9 ppb	05:15:40
2	Mo 202.031†	137.3	152.7	8.3673 µg/L	8.3673 ppb	05:16:00
2	Ni 231.604†	5507.6	5398.9	62.165 µg/L	62.165 ppb	05:16:00
2	P 214.914†	3303.9	3210.7	630.60 µg/L	630.60 ppb	05:16:00
2	Pb 220.353†	1362.2	1230.0	71.728 µg/L	71.728 ppb	05:16:00

2	S 181.975 Axial†	1758.1	1594.0	1183.7 µg/L	1183.7 ppb	05:16:00
2	Sb 206.836†	80.7	-2.9	-2.8119 µg/L	-2.8119 ppb	05:16:00
2	Se 196.026†	-67.6	-80.6	3.05 µg/L	3.05 ppb	05:16:00
2	SiO2†	721350.7	695319.7	67961 µg/L	67961 ppb	05:15:40
2	Si 251.611†	2214091.6	2138805.7	31532 µg/L	31532 ppb	05:15:40
2	Sn 189.927†	355.2	344.4	30.482 µg/L	30.482 ppb	05:16:00
2	Ti 334.940†	2961144.1	2860622.4	2672.7 µg/L	2672.7 ppb	05:15:40
2	Tl 190.801†	-459.8	-327.7	-5.6344 µg/L	-5.6344 ppb	05:16:00
2	U 409.014†	-7519.6	-6996.8	-405.69 µg/L	-405.69 ppb	05:15:40
2	V 292.402†	19387.1	18331.4	77.184 µg/L	77.184 ppb	05:15:40
2	Zn 213.857†	80038.4	76782.7	422.71 µg/L	422.71 ppb	05:15:40
3	Sc RADIAL	146224.0	146224.0	100 %		05:14:58
3	Al 396.153Radial†	196723.0	196390.4	36410 µg/L	36410 ppb	05:14:58
3	Ca 317.933Radial†	406358.0	404979.8	22559 µg/L	22559 ppb	05:14:58
3	Fe 238.204 Radial†	1513263.9	1510071.0	93072 µg/L	93072 ppb	05:14:56
3	K 766.490 Radial†	18513.8	16931.8	6185.6 µg/L	6185.6 ppb	05:14:58
3	Mg 279.077 IEC†	20188.2	19956.9	7355.9 µg/L	7355.9 ppb	05:14:58
3	Na 589.592 Radial†	19364.5	18034.7	2458.2 µg/L	2458.2 ppb	05:14:58
3	Sr 421.552†	52358.6	52388.5	108.74 µg/L	108.74 ppb	05:14:58
3	Sc 361.383	1752395.7	1752395.7	101.99 %		05:16:03
3	Y 371.029	1305482.2	1305482.2	127.15 %		05:16:03
3	Ag 328.068†	4105.0	-66.5	-1.6660 µg/L	-1.6660 ppb	05:16:03
3	As 188.979†	12.9	33.0	31.706 µg/L	31.706 ppb	05:16:23
3	B 249.677†	5062.2	1457.5	21.261 µg/L	21.261 ppb	05:16:03
3	Ba 233.527†	104850.8	102941.7	413.69 µg/L	413.69 ppb	05:16:03
3	Be 313.107†	29246.7	29740.9	7.9735 µg/L	7.9735 ppb	05:16:03
3	Cd 226.502†	1547.2	1635.3	0.4570 µg/L	0.4570 ppb	05:16:23
3	Co 228.616†	5407.2	5492.0	63.325 µg/L	63.325 ppb	05:16:23
3	Cr 267.716†	11589.5	11184.9	90.378 µg/L	90.378 ppb	05:16:23
3	Cu 324.752†	14414.7	11161.4	56.831 µg/L	56.831 ppb	05:16:03
3	Mn 257.610†	2380968.3	2334293.5	2887.7 µg/L	2887.7 ppb	05:16:03
3	Mo 202.031†	142.9	160.2	8.5544 µg/L	8.5544 ppb	05:16:23
3	Ni 231.604†	5514.7	5483.7	63.141 µg/L	63.141 ppb	05:16:23
3	P 214.914†	3301.0	3254.6	640.54 µg/L	640.54 ppb	05:16:23
3	Pb 220.353†	1377.8	1264.5	73.679 µg/L	73.679 ppb	05:16:23
3	S 181.975 Axial†	1761.2	1621.8	1204.4 µg/L	1204.4 ppb	05:16:23
3	Sb 206.836†	86.2	3.7	-2.0385 µg/L	-2.0385 ppb	05:16:23
3	Se 196.026†	-45.3	-59.6	10.3 µg/L	10.3 ppb	05:16:23
3	SiO2†	708373.7	692782.4	67713 µg/L	67713 ppb	05:16:03
3	Si 251.611†	2174329.6	2131085.6	31418 µg/L	31418 ppb	05:16:03
3	Sn 189.927†	351.9	346.1	30.588 µg/L	30.588 ppb	05:16:23
3	Ti 334.940†	2918149.5	2860282.4	2672.4 µg/L	2672.4 ppb	05:16:03
3	Tl 190.801†	-449.3	-323.8	-5.1835 µg/L	-5.1835 ppb	05:16:23
3	U 409.014†	-7456.5	-7041.2	-408.17 µg/L	-408.17 ppb	05:16:03
3	V 292.402†	18969.4	18195.7	76.615 µg/L	76.615 ppb	05:16:03
3	Zn 213.857†	78800.0	76698.7	422.32 µg/L	422.32 ppb	05:16:03

Mean Data: 1202056980|959150|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1751462.5	101.93 %	1.573			1.54%
Sc RADIAL	145487.4	99.7 %	0.45			0.45%
Y 371.029	1304092.9	127.02 %	1.924			1.52%
Ag 328.068†	171.6	-0.7814 µg/L	1.05922	-0.7814 ppb	1.05922	135.55%
Al 396.153Radial†	196533.7	36437 µg/L	33.7	36437 ppb	33.7	0.09%
As 188.979†	34.3	32.337 µg/L	2.7478	32.337 ppb	2.7478	8.50%
B 249.677†	1498.4	21.863 µg/L	0.5251	21.863 ppb	0.5251	2.40%
Ba 233.527†	102941.0	413.67 µg/L	0.447	413.67 ppb	0.447	0.11%
Be 313.107†	29550.5	7.9220 µg/L	0.06305	7.9220 ppb	0.06305	0.80%
Ca 317.933Radial†	404714.4	22544 µg/L	18.6	22544 ppb	18.6	0.08%
Cd 226.502†	1621.3	0.2609 µg/L	0.19504	0.2609 ppb	0.19504	74.76%
Co 228.616†	5498.0	63.345 µg/L	1.0704	63.345 ppb	1.0704	1.69%
Cr 267.716†	11196.2	90.502 µg/L	1.4761	90.502 ppb	1.4761	1.63%
Cu 324.752†	11207.3	57.161 µg/L	0.4689	57.161 ppb	0.4689	0.82%
Fe 238.204 Radial†	1526912.9	94110 µg/L	1160.1	94110 ppb	1160.1	1.23%
K 766.490 Radial†	16755.2	6121.0 µg/L	61.72	6121.0 ppb	61.72	1.01%
Mg 279.077 IEC†	19913.1	7338.7 µg/L	16.34	7338.7 ppb	16.34	0.22%
Mn 257.610†	2335058.7	2888.6 µg/L	3.91	2888.6 ppb	3.91	0.14%
Mo 202.031†	162.4	8.6599 µg/L	0.35731	8.6599 ppb	0.35731	4.13%
Na 589.592 Radial†	17967.4	2449.1 µg/L	9.04	2449.1 ppb	9.04	0.37%

Ni 231.604†	5480.6	63.105 µg/L	0.9226	63.105 ppb	0.9226	1.46%
P 214.914†	3265.9	642.25 µg/L	12.586	642.25 ppb	12.586	1.96%
Pb 220.353†	1261.3	73.466 µg/L	1.6414	73.466 ppb	1.6414	2.23%
S 181.975 Axial†	1623.8	1205.8 µg/L	22.90	1205.8 ppb	22.90	1.90%
Sb 206.836†	1.6	-2.3043 µg/L	0.43978	-2.3043 ppb	0.43978	19.09%
Se 196.026†	-69.9	6.98 µg/L	3.674	6.98 ppb	3.674	52.64%
SiO2†	693646.6	67798 µg/L	141.7	67798 ppb	141.7	0.21%
Si 251.611†	2133898.4	31460 µg/L	62.9	31460 ppb	62.9	0.20%
Sn 189.927†	349.8	30.816 µg/L	0.4890	30.816 ppb	0.4890	1.59%
Sr 421.552†	52374.7	108.71 µg/L	0.041	108.71 ppb	0.041	0.04%
Ti 334.940†	2859556.1	2671.7 µg/L	1.46	2671.7 ppb	1.46	0.05%
Tl 190.801†	-330.7	-6.0261 µg/L	1.09246	-6.0261 ppb	1.09246	18.13%
U 409.014†	-7017.9	-407.00 µg/L	1.246	-407.00 ppb	1.246	0.31%
Concentration less than lower limit for U 409.014.						
V 292.402†	18328.1	77.154 µg/L	0.5248	77.154 ppb	0.5248	0.68%
Zn 213.857†	76699.4	422.21 µg/L	0.558	422.21 ppb	0.558	0.13%

Sequence No.: 9

Sample ID: 1202056982|959150|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 307

Date Collected: 4/1/2010 5:16:31

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056982|959150|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	146730.1	146730.1	101 %		05:17:03
1	Al 396.153Radial†	350005.4	348159.5	64526 µg/L	64526 ppb	05:17:03
1	Ca 317.933Radial†	367042.7	364480.0	20303 µg/L	20303 ppb	05:17:03
1	Fe 238.204 Radial†	1713022.7	1703530.7	105000 µg/L	105000 ppb	05:17:01
1	K 766.490 Radial†	37591.2	35841.4	13102 µg/L	13102 ppb	05:17:03
1	Mg 279.077 IEC†	37980.3	37582.4	13924 µg/L	13924 ppb	05:17:03
1	Na 589.592 Radial†	55355.9	53763.2	7333.0 µg/L	7333.0 ppb	05:17:03
1	Sr 421.552†	271987.7	270639.4	562.48 µg/L	562.48 ppb	05:17:01
1	Sc 361.383	1732765.2	1732765.2	100.85 %		05:17:31
1	Y 371.029	1429607.3	1429607.3	139.24 %		05:17:31
1	Ag 328.068†	124407.7	119271.8	446.33 µg/L	446.33 ppb	05:17:31
1	As 188.979†	1620.8	1627.6	522.37 µg/L	522.37 ppb	05:17:33
1	B 249.677†	36179.6	32369.9	475.61 µg/L	475.61 ppb	05:17:31
1	Ba 233.527†	220231.3	218518.2	879.73 µg/L	879.73 ppb	05:17:31
1	Be 313.107†	1739645.8	1726105.1	469.93 µg/L	469.93 ppb	05:17:31
1	Cd 226.502†	73840.3	73338.5	447.30 µg/L	447.30 ppb	05:17:31
1	Co 228.616†	41875.3	41714.0	510.12 µg/L	510.12 ppb	05:17:33
1	Cr 267.716†	71635.4	70855.4	557.98 µg/L	557.98 ppb	05:17:31
1	Cu 324.752†	144340.1	140156.0	560.49 µg/L	560.49 ppb	05:17:31
1	Mn 257.610†	2771205.3	2747702.1	3398.9 µg/L	3398.9 ppb	05:17:31
1	Mo 202.031†	16185.5	16069.7	476.87 µg/L	476.87 ppb	05:17:33
1	Ni 231.604†	47541.7	47219.0	543.69 µg/L	543.69 ppb	05:17:33
1	P 214.914†	6054.4	6021.5	1224.5 µg/L	1224.5 ppb	05:17:33
1	Pb 220.353†	13890.8	13687.8	770.89 µg/L	770.89 ppb	05:17:33
1	S 181.975 Axial†	8301.9	8127.2	6039.1 µg/L	6039.1 ppb	05:17:33
1	Sb 206.836†	3598.9	3487.8	413.09 µg/L	413.09 ppb	05:17:33
1	Se 196.026†	1250.8	1225.0	479 µg/L	479 ppb	05:17:33
1	SiO2†	730288.7	722382.1	70586 µg/L	70586 ppb	05:17:31
1	Si 251.611†	2255220.7	2235450.2	32947 µg/L	32947 ppb	05:17:31
1	Sn 189.927†	8614.7	8543.5	545.50 µg/L	545.50 ppb	05:17:33
1	Ti 334.940†	4132697.4	4097048.4	3827.0 µg/L	3827.0 ppb	05:17:31
1	Tl 190.801†	3309.5	3398.4	466.54 µg/L	466.54 ppb	05:17:33
1	U 409.014†	-3447.4	-3148.5	-152.01 µg/L	-152.01 ppb	05:17:31
1	V 292.402†	121425.3	120002.1	577.93 µg/L	577.93 ppb	05:17:31
1	Zn 213.857†	169035.7	167052.2	926.18 µg/L	926.18 ppb	05:17:31
2	Sc RADIAL	144766.3	144766.3	99.2 %		05:17:07
2	Al 396.153Radial†	345806.9	348649.2	64618 µg/L	64618 ppb	05:17:07
2	Ca 317.933Radial†	362296.8	364647.8	20312 µg/L	20312 ppb	05:17:07
2	Fe 238.204 Radial†	1733879.2	1747665.6	107720 µg/L	107720 ppb	05:17:05
2	K 766.490 Radial†	36869.1	35620.7	13021 µg/L	13021 ppb	05:17:07
2	Mg 279.077 IEC†	37566.1	37677.3	13957 µg/L	13957 ppb	05:17:07
2	Na 589.592 Radial†	54678.2	53826.9	7341.8 µg/L	7341.8 ppb	05:17:07
2	Sr 421.552†	274381.6	276721.9	575.13 µg/L	575.13 ppb	05:17:05
2	Sc 361.383	1738902.9	1738902.9	101.20 %		05:17:37
2	Y 371.029	1434804.8	1434804.8	139.75 %		05:17:37
2	Ag 328.068†	124603.0	119029.4	445.43 µg/L	445.43 ppb	05:17:37
2	As 188.979†	1594.8	1596.2	513.49 µg/L	513.49 ppb	05:17:39
2	B 249.677†	36391.1	32452.3	476.86 µg/L	476.86 ppb	05:17:37
2	Ba 233.527†	220921.8	218429.7	879.34 µg/L	879.34 ppb	05:17:37
2	Be 313.107†	1744925.1	1725232.9	469.70 µg/L	469.70 ppb	05:17:37
2	Cd 226.502†	74034.0	73271.5	446.59 µg/L	446.59 ppb	05:17:37
2	Co 228.616†	41174.1	40874.6	499.62 µg/L	499.62 ppb	05:17:39
2	Cr 267.716†	72087.8	71051.7	559.60 µg/L	559.60 ppb	05:17:37
2	Cu 324.752†	144908.3	140212.3	561.11 µg/L	561.11 ppb	05:17:37
2	Mn 257.610†	2781499.6	2748174.7	3399.5 µg/L	3399.5 ppb	05:17:37
2	Mo 202.031†	15976.0	15806.0	469.23 µg/L	469.23 ppb	05:17:39
2	Ni 231.604†	46788.2	46308.1	533.20 µg/L	533.20 ppb	05:17:39
2	P 214.914†	6000.8	5947.4	1206.9 µg/L	1206.9 ppb	05:17:39
2	Pb 220.353†	13731.6	13481.9	759.29 µg/L	759.29 ppb	05:17:39

2	S 181.975 Axial†	8081.5	7880.3	5855.7 µg/L	5855.7 ppb	05:17:39
2	Sb 206.836†	3573.5	3450.2	408.43 µg/L	408.43 ppb	05:17:39
2	Se 196.026†	1241.6	1211.6	475 µg/L	475 ppb	05:17:39
2	SiO2†	732580.9	722091.0	70558 µg/L	70558 ppb	05:17:37
2	Si 251.611†	2260644.1	2232915.8	32910 µg/L	32910 ppb	05:17:37
2	Sn 189.927†	8524.6	8424.3	538.07 µg/L	538.07 ppb	05:17:39
2	Ti 334.940†	4145268.0	4095005.0	3825.1 µg/L	3825.1 ppb	05:17:37
2	Tl 190.801†	3332.4	3409.4	467.92 µg/L	467.92 ppb	05:17:39
2	U 409.014†	-3206.8	-2898.8	-138.04 µg/L	-138.04 ppb	05:17:37
2	V 292.402†	121808.9	119956.2	577.36 µg/L	577.36 ppb	05:17:37
2	Zn 213.857†	169472.8	166892.4	925.06 µg/L	925.06 ppb	05:17:37
3	Sc RADIAL	145325.4	145325.4	99.6 %		05:17:12
3	Al 396.153Radial†	348157.4	349668.5	64806 µg/L	64806 ppb	05:17:12
3	Ca 317.933Radial†	363620.7	364572.2	20308 µg/L	20308 ppb	05:17:12
3	Fe 238.204 Radial†	1741036.9	1748129.1	107740 µg/L	107740 ppb	05:17:09
3	K 766.490 Radial†	37101.4	35710.9	13054 µg/L	13054 ppb	05:17:12
3	Mg 279.077 IEC†	37510.3	37475.5	13882 µg/L	13882 ppb	05:17:12
3	Na 589.592 Radial†	54799.8	53736.9	7329.5 µg/L	7329.5 ppb	05:17:12
3	Sr 421.552†	275296.3	276576.4	574.83 µg/L	574.83 ppb	05:17:09
3	Sc 361.383	1756770.6	1756770.6	102.24 %		05:17:43
3	Y 371.029	1449924.8	1449924.8	141.22 %		05:17:43
3	Ag 328.068†	126039.8	119182.4	446.01 µg/L	446.01 ppb	05:17:43
3	As 188.979†	1638.0	1622.4	521.42 µg/L	521.42 ppb	05:17:45
3	B 249.677†	36914.8	32598.8	479.00 µg/L	479.00 ppb	05:17:43
3	Ba 233.527†	223611.3	218839.9	880.99 µg/L	880.99 ppb	05:17:43
3	Be 313.107†	1768601.2	1730853.4	471.23 µg/L	471.23 ppb	05:17:43
3	Cd 226.502†	75280.6	73746.7	449.55 µg/L	449.55 ppb	05:17:43
3	Co 228.616†	42231.6	41495.1	507.28 µg/L	507.28 ppb	05:17:45
3	Cr 267.716†	72760.4	70985.1	559.08 µg/L	559.08 ppb	05:17:43
3	Cu 324.752†	146321.5	140138.2	560.83 µg/L	560.83 ppb	05:17:43
3	Mn 257.610†	2814264.0	2752266.7	3404.5 µg/L	3404.5 ppb	05:17:43
3	Mo 202.031†	16256.9	15920.2	472.59 µg/L	472.59 ppb	05:17:45
3	Ni 231.604†	47817.5	46844.7	539.38 µg/L	539.38 ppb	05:17:45
3	P 214.914†	6294.5	6174.3	1255.4 µg/L	1255.4 ppb	05:17:45
3	Pb 220.353†	14057.3	13662.4	769.39 µg/L	769.39 ppb	05:17:45
3	S 181.975 Axial†	8467.5	8176.7	6075.8 µg/L	6075.8 ppb	05:17:45
3	Sb 206.836†	3587.8	3428.2	405.88 µg/L	405.88 ppb	05:17:45
3	Se 196.026†	1348.1	1303.3	508 µg/L	508 ppb	05:17:45
3	SiO2†	741288.2	723245.0	70670 µg/L	70670 ppb	05:17:43
3	Si 251.611†	2287515.9	2236479.0	32962 µg/L	32962 ppb	05:17:43
3	Sn 189.927†	8703.1	8513.2	543.62 µg/L	543.62 ppb	05:17:45
3	Ti 334.940†	4192468.5	4099510.8	3829.3 µg/L	3829.3 ppb	05:17:43
3	Tl 190.801†	3385.6	3428.0	470.23 µg/L	470.23 ppb	05:17:45
3	U 409.014†	-3258.8	-2917.4	-139.04 µg/L	-139.04 ppb	05:17:43
3	V 292.402†	123293.2	120183.7	578.49 µg/L	578.49 ppb	05:17:43
3	Zn 213.857†	171801.3	167466.6	928.25 µg/L	928.25 ppb	05:17:43

Mean Data: 1202056982|959150|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1742812.9	101.43 %	%	0.726			0.72%
Sc RADIAL	145607.3	99.8 %	%	0.69			0.69%
Y 371.029	1438112.3	140.07 %	%	1.028			0.73%
Ag 328.068†	119161.2	445.92 µg/L	µg/L	0.456	445.92 ppb	0.456	0.10%
Al 396.153Radial†	348825.7	64650 µg/L	µg/L	142.8	64650 ppb	142.8	0.22%
As 188.979†	1615.4	519.09 µg/L	µg/L	4.876	519.09 ppb	4.876	0.94%
B 249.677†	32473.7	477.16 µg/L	µg/L	1.711	477.16 ppb	1.711	0.36%
Ba 233.527†	218595.9	880.02 µg/L	µg/L	0.864	880.02 ppb	0.864	0.10%
Be 313.107†	1727397.1	470.29 µg/L	µg/L	0.824	470.29 ppb	0.824	0.18%
Ca 317.933Radial†	364566.7	20308 µg/L	µg/L	4.7	20308 ppb	4.7	0.02%
Cd 226.502†	73452.2	447.81 µg/L	µg/L	1.550	447.81 ppb	1.550	0.35%
Co 228.616†	41361.3	505.67 µg/L	µg/L	5.429	505.67 ppb	5.429	1.07%
Cr 267.716†	70964.1	558.89 µg/L	µg/L	0.827	558.89 ppb	0.827	0.15%
Cu 324.752†	140168.8	560.81 µg/L	µg/L	0.311	560.81 ppb	0.311	0.06%
Fe 238.204 Radial†	1733108.4	106820 µg/L	µg/L	1578.8	106820 ppb	1578.8	1.48%
K 766.490 Radial†	35724.3	13059 µg/L	µg/L	40.6	13059 ppb	40.6	0.31%
Mg 279.077 IEC†	37578.4	13921 µg/L	µg/L	37.7	13921 ppb	37.7	0.27%
Mn 257.610†	2749381.1	3401.0 µg/L	µg/L	3.10	3401.0 ppb	3.10	0.09%
Mo 202.031†	15932.0	472.90 µg/L	µg/L	3.829	472.90 ppb	3.829	0.81%
Na 589.592 Radial†	53775.6	7334.8 µg/L	µg/L	6.34	7334.8 ppb	6.34	0.09%

Ni 231.604†	46790.6	538.76 µg/L	5.272	538.76 ppb	5.272	0.98%
P 214.914†	6047.7	1228.9 µg/L	24.59	1228.9 ppb	24.59	2.00%
Pb 220.353†	13610.7	766.52 µg/L	6.312	766.52 ppb	6.312	0.82%
S 181.975 Axial†	8061.4	5990.2 µg/L	117.91	5990.2 ppb	117.91	1.97%
Sb 206.836†	3455.4	409.14 µg/L	3.652	409.14 ppb	3.652	0.89%
Se 196.026†	1246.6	488 µg/L	18.1	488 ppb	18.1	3.72%
SiO2†	722572.7	70605 µg/L	58.6	70605 ppb	58.6	0.08%
Si 251.611†	2234948.3	32940 µg/L	27.0	32940 ppb	27.0	0.08%
Sn 189.927†	8493.7	542.40 µg/L	3.867	542.40 ppb	3.867	0.71%
Sr 421.552†	274645.9	570.81 µg/L	7.215	570.81 ppb	7.215	1.26%
Ti 334.940†	4097188.1	3827.1 µg/L	2.11	3827.1 ppb	2.11	0.06%
Tl 190.801†	3411.9	468.23 µg/L	1.867	468.23 ppb	1.867	0.40%
U 409.014†	-2988.2	-143.03 µg/L	7.796	-143.03 ppb	7.796	5.45%
Concentration less than lower limit for U 409.014.						
V 292.402†	120047.3	577.93 µg/L	0.567	577.93 ppb	0.567	0.10%
Zn 213.857†	167137.1	926.50 µg/L	1.617	926.50 ppb	1.617	0.17%

Sequence No.: 10

Sample ID: 1202056983|959150|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 308

Date Collected: 4/1/2010 5:17:52

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056983|959150|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	144959.9	144959.9	99.3 %		05:18:24
1	Al 396.153Radial†	349425.8	351826.8	65207 µg/L	65207 ppb	05:18:24
1	Ca 317.933Radial†	386870.7	388898.4	21663 µg/L	21663 ppb	05:18:24
1	Fe 238.204 Radial†	1791403.0	1803240.0	111140 µg/L	111140 ppb	05:18:22
1	K 766.490 Radial†	37855.2	36563.7	13366 µg/L	13366 ppb	05:18:24
1	Mg 279.077 IEC†	37906.1	37969.0	14063 µg/L	14063 ppb	05:18:24
1	Na 589.592 Radial†	54478.4	53552.1	7304.0 µg/L	7304.0 ppb	05:18:24
1	Sr 421.552†	267917.7	269845.4	560.82 µg/L	560.82 ppb	05:18:22
1	Sc 361.383	1733199.3	1733199.3	100.87 %		05:18:38
1	Y 371.029	1364927.1	1364927.1	132.94 %		05:18:38
1	Ag 328.068†	124734.7	119565.1	447.49 µg/L	447.49 ppb	05:18:38
1	As 188.979†	1535.2	1542.3	498.25 µg/L	498.25 ppb	05:18:40
1	B 249.677†	35609.1	31795.4	467.16 µg/L	467.16 ppb	05:18:38
1	Ba 233.527†	221774.8	219993.7	885.59 µg/L	885.59 ppb	05:18:38
1	Be 313.107†	1738006.3	1724047.8	469.44 µg/L	469.44 ppb	05:18:38
1	Cd 226.502†	74098.7	73576.4	448.14 µg/L	448.14 ppb	05:18:38
1	Co 228.616†	41480.7	41312.4	504.86 µg/L	504.86 ppb	05:18:40
1	Cr 267.716†	76247.9	75410.2	593.65 µg/L	593.65 ppb	05:18:38
1	Cu 324.752†	143942.6	139726.2	559.91 µg/L	559.91 ppb	05:18:38
1	Mn 257.610†	2902888.5	2877558.9	3559.5 µg/L	3559.5 ppb	05:18:38
1	Mo 202.031†	15732.5	15616.6	463.80 µg/L	463.80 ppb	05:18:40
1	Ni 231.604†	47978.2	47640.0	548.54 µg/L	548.54 ppb	05:18:40
1	P 214.914†	5622.0	5591.3	1128.4 µg/L	1128.4 ppb	05:18:40
1	Pb 220.353†	10027.1	9854.0	556.68 µg/L	556.68 ppb	05:18:40
1	S 181.975 Axial†	8246.6	8070.2	5996.7 µg/L	5996.7 ppb	05:18:40
1	Sb 206.836†	3549.7	3438.2	406.33 µg/L	406.33 ppb	05:18:40
1	Se 196.026†	1189.5	1163.9	459 µg/L	459 ppb	05:18:40
1	SiO2†	721554.7	713542.2	69723 µg/L	69723 ppb	05:18:38
1	Si 251.611†	2226172.7	2206093.3	32515 µg/L	32515 ppb	05:18:38
1	Sn 189.927†	8194.4	8124.7	519.71 µg/L	519.71 ppb	05:18:40
1	Ti 334.940†	4233395.2	4195849.5	3919.2 µg/L	3919.2 ppb	05:18:38
1	Tl 190.801†	3305.1	3393.2	467.21 µg/L	467.21 ppb	05:18:40
1	U 409.014†	476.1	741.9	74.672 µg/L	74.672 ppb	05:18:38
1	V 292.402†	119821.3	118381.7	569.46 µg/L	569.46 ppb	05:18:38
1	Zn 213.857†	173734.4	171668.2	951.47 µg/L	951.47 ppb	05:18:38
2	Sc RADIAL	144942.3	144942.3	99.3 %		05:18:28
2	Al 396.153Radial†	349695.5	352141.0	65265 µg/L	65265 ppb	05:18:28
2	Ca 317.933Radial†	386419.6	388491.5	21641 µg/L	21641 ppb	05:18:28
2	Fe 238.204 Radial†	1807391.3	1819556.0	112150 µg/L	112150 ppb	05:18:26
2	K 766.490 Radial†	37654.5	36366.3	13293 µg/L	13293 ppb	05:18:28
2	Mg 279.077 IEC†	37859.3	37926.5	14046 µg/L	14046 ppb	05:18:28
2	Na 589.592 Radial†	54323.9	53403.2	7283.7 µg/L	7283.7 ppb	05:18:28
2	Sr 421.552†	270151.0	272126.7	565.57 µg/L	565.57 ppb	05:18:26
2	Sc 361.383	1738086.1	1738086.1	101.16 %		05:18:44
2	Y 371.029	1368887.2	1368887.2	133.33 %		05:18:44
2	Ag 328.068†	125307.3	119783.5	448.32 µg/L	448.32 ppb	05:18:44
2	As 188.979†	1548.5	1551.2	501.19 µg/L	501.19 ppb	05:18:46
2	B 249.677†	35783.5	31868.5	468.21 µg/L	468.21 ppb	05:18:44
2	Ba 233.527†	222158.6	219754.9	884.62 µg/L	884.62 ppb	05:18:44
2	Be 313.107†	1742913.8	1724054.9	469.45 µg/L	469.45 ppb	05:18:44
2	Cd 226.502†	74173.0	73443.3	447.20 µg/L	447.20 ppb	05:18:44
2	Co 228.616†	42128.2	41836.9	511.27 µg/L	511.27 ppb	05:18:46
2	Cr 267.716†	76370.4	75318.8	592.96 µg/L	592.96 ppb	05:18:44
2	Cu 324.752†	144687.6	140061.4	561.37 µg/L	561.37 ppb	05:18:44
2	Mn 257.610†	2910841.8	2877330.0	3559.3 µg/L	3559.3 ppb	05:18:44
2	Mo 202.031†	16064.6	15901.0	472.20 µg/L	472.20 ppb	05:18:46
2	Ni 231.604†	48683.5	48203.5	555.03 µg/L	555.03 ppb	05:18:46
2	P 214.914†	5681.3	5634.4	1136.9 µg/L	1136.9 ppb	05:18:46
2	Pb 220.353†	10247.4	10043.8	567.27 µg/L	567.27 ppb	05:18:46

2	S 181.975 Axial†	8430.5	8229.0	6114.7 µg/L	6114.7 ppb	05:18:46
2	Sb 206.836†	3605.4	3483.3	411.82 µg/L	411.82 ppb	05:18:46
2	Se 196.026†	1324.8	1294.4	507 µg/L	507 ppb	05:18:46
2	SiO2†	723345.2	713301.1	69699 µg/L	69699 ppb	05:18:44
2	Si 251.611†	2232936.1	2206574.3	32522 µg/L	32522 ppb	05:18:44
2	Sn 189.927†	8315.2	8221.2	525.74 µg/L	525.74 ppb	05:18:46
2	Ti 334.940†	4249696.3	4200164.5	3923.3 µg/L	3923.3 ppb	05:18:44
2	Tl 190.801†	3390.5	3468.4	476.47 µg/L	476.47 ppb	05:18:46
2	U 409.014†	712.3	974.1	88.058 µg/L	88.058 ppb	05:18:44
2	V 292.402†	120316.4	118537.2	570.20 µg/L	570.20 ppb	05:18:44
2	Zn 213.857†	174322.1	171765.0	951.87 µg/L	951.87 ppb	05:18:44
3	Sc RADIAL	145798.0	145798.0	99.9 %		05:18:32
3	Al 396.153Radial†	351881.4	352262.7	65288 µg/L	65288 ppb	05:18:32
3	Ca 317.933Radial†	389535.6	389327.2	21687 µg/L	21687 ppb	05:18:32
3	Fe 238.204 Radial†	1789915.6	1791385.7	110410 µg/L	110410 ppb	05:18:30
3	K 766.490 Radial†	37911.5	36401.0	13306 µg/L	13306 ppb	05:18:32
3	Mg 279.077 IEC†	38083.0	37926.7	14048 µg/L	14048 ppb	05:18:32
3	Na 589.592 Radial†	54521.3	53279.8	7266.8 µg/L	7266.8 ppb	05:18:32
3	Sr 421.552†	268193.2	268570.9	558.17 µg/L	558.17 ppb	05:18:30
3	Sc 361.383	1738919.4	1738919.4	101.20 %		05:18:50
3	Y 371.029	1370268.5	1370268.5	133.46 %		05:18:50
3	Ag 328.068†	125045.3	119465.2	447.14 µg/L	447.14 ppb	05:18:50
3	As 188.979†	1551.8	1553.7	501.57 µg/L	501.57 ppb	05:18:52
3	B 249.677†	35926.8	31993.2	470.07 µg/L	470.07 ppb	05:18:50
3	Ba 233.527†	222456.6	219944.1	885.40 µg/L	885.40 ppb	05:18:50
3	Be 313.107†	1744475.1	1724771.9	469.64 µg/L	469.64 ppb	05:18:50
3	Cd 226.502†	74338.2	73571.4	448.19 µg/L	448.19 ppb	05:18:50
3	Co 228.616†	41831.9	41524.2	507.51 µg/L	507.51 ppb	05:18:52
3	Cr 267.716†	76470.6	75381.7	593.39 µg/L	593.39 ppb	05:18:50
3	Cu 324.752†	144816.6	140120.4	561.34 µg/L	561.34 ppb	05:18:50
3	Mn 257.610†	2914898.9	2879959.9	3562.5 µg/L	3562.5 ppb	05:18:50
3	Mo 202.031†	16006.9	15836.4	470.23 µg/L	470.23 ppb	05:18:52
3	Ni 231.604†	48444.8	47944.6	552.05 µg/L	552.05 ppb	05:18:52
3	P 214.914†	5730.3	5680.0	1147.8 µg/L	1147.8 ppb	05:18:52
3	Pb 220.353†	10180.9	9973.3	563.39 µg/L	563.39 ppb	05:18:52
3	S 181.975 Axial†	8334.1	8129.9	6041.0 µg/L	6041.0 ppb	05:18:52
3	Sb 206.836†	3588.8	3465.3	409.65 µg/L	409.65 ppb	05:18:52
3	Se 196.026†	1218.7	1188.9	468 µg/L	468 ppb	05:18:52
3	SiO2†	723698.4	713307.4	69699 µg/L	69699 ppb	05:18:50
3	Si 251.611†	2232991.5	2205571.2	32507 µg/L	32507 ppb	05:18:50
3	Sn 189.927†	8229.4	8132.6	520.22 µg/L	520.22 ppb	05:18:52
3	Ti 334.940†	4254153.0	4202554.9	3925.5 µg/L	3925.5 ppb	05:18:50
3	Tl 190.801†	3368.9	3445.4	473.69 µg/L	473.69 ppb	05:18:52
3	U 409.014†	702.8	964.3	87.872 µg/L	87.872 ppb	05:18:50
3	V 292.402†	120244.5	118409.2	569.74 µg/L	569.74 ppb	05:18:50
3	Zn 213.857†	174361.2	171721.0	951.83 µg/L	951.83 ppb	05:18:50

Mean Data: 1202056983|959150|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1736734.9	101.08 %	0.180			0.18%
Sc RADIAL	145233.4	99.5 %	0.34			0.34%
Y 371.029	1368027.6	133.25 %	0.270			0.20%
Ag 328.068†	119604.6	447.65 µg/L	0.605	447.65 ppb	0.605	0.14%
Al 396.153Radial†	352076.8	65253 µg/L	41.5	65253 ppb	41.5	0.06%
As 188.979†	1549.0	500.33 µg/L	1.814	500.33 ppb	1.814	0.36%
B 249.677†	31885.7	468.48 µg/L	1.472	468.48 ppb	1.472	0.31%
Ba 233.527†	219897.6	885.20 µg/L	0.516	885.20 ppb	0.516	0.06%
Be 313.107†	1724291.5	469.51 µg/L	0.114	469.51 ppb	0.114	0.02%
Ca 317.933Radial†	388905.7	21664 µg/L	23.3	21664 ppb	23.3	0.11%
Cd 226.502†	73530.4	447.84 µg/L	0.553	447.84 ppb	0.553	0.12%
Co 228.616†	41557.9	507.88 µg/L	3.225	507.88 ppb	3.225	0.63%
Cr 267.716†	75370.2	593.33 µg/L	0.349	593.33 ppb	0.349	0.06%
Cu 324.752†	139969.3	560.87 µg/L	0.838	560.87 ppb	0.838	0.15%
Fe 238.204 Radial†	1804727.2	111230 µg/L	871.7	111230 ppb	871.7	0.78%
K 766.490 Radial†	36443.7	13322 µg/L	38.6	13322 ppb	38.6	0.29%
Mg 279.077 IEC†	37940.8	14052 µg/L	9.1	14052 ppb	9.1	0.06%
Mn 257.610†	2878282.9	3560.4 µg/L	1.80	3560.4 ppb	1.80	0.05%
Mo 202.031†	15784.7	468.74 µg/L	4.393	468.74 ppb	4.393	0.94%
Na 589.592 Radial†	53411.7	7284.8 µg/L	18.60	7284.8 ppb	18.60	0.26%

Ni 231.604†	47929.4	551.87 µg/L	3.248	551.87 ppb	3.248	0.59%
P 214.914†	5635.2	1137.7 µg/L	9.73	1137.7 ppb	9.73	0.86%
Pb 220.353†	9957.1	562.44 µg/L	5.353	562.44 ppb	5.353	0.95%
S 181.975 Axial†	8143.0	6050.8 µg/L	59.61	6050.8 ppb	59.61	0.99%
Sb 206.836†	3462.3	409.26 µg/L	2.764	409.26 ppb	2.764	0.68%
Se 196.026†	1215.7	478 µg/L	25.3	478 ppb	25.3	5.29%
SiO2†	713383.6	69707 µg/L	13.6	69707 ppb	13.6	0.02%
Si 251.611†	2206079.6	32514 µg/L	7.4	32514 ppb	7.4	0.02%
Sn 189.927†	8159.5	521.89 µg/L	3.343	521.89 ppb	3.343	0.64%
Sr 421.552†	270181.0	561.52 µg/L	3.745	561.52 ppb	3.745	0.67%
Ti 334.940†	4199523.0	3922.7 µg/L	3.17	3922.7 ppb	3.17	0.08%
Tl 190.801†	3435.7	472.45 µg/L	4.751	472.45 ppb	4.751	1.01%
U 409.014†	893.4	83.534 µg/L	7.6757	83.534 ppb	7.6757	9.19%
V 292.402†	118442.7	569.80 µg/L	0.374	569.80 ppb	0.374	0.07%
Zn 213.857†	171718.1	951.72 µg/L	0.218	951.72 ppb	0.218	0.02%

Sequence No.: 11

Sample ID: 1202056981|959150|5

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 309

Date Collected: 4/1/2010 5:18:59

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056981|959150|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	144771.3	144771.3	99.2 %		05:19:29
1	Al 396.153Radial†	38680.9	39053.6	7240.5 µg/L	7240.5 ppb	05:19:31
1	Ca 317.933Radial†	49613.1	49449.5	2754.5 µg/L	2754.5 ppb	05:19:31
1	Fe 238.204 Radial†	310245.1	312579.6	19265 µg/L	19265 ppb	05:19:29
1	K 766.490 Radial†	4879.6	3373.8	1232.9 µg/L	1232.9 ppb	05:19:31
1	Mg 279.077 IEC†	3839.7	3679.7	1354.5 µg/L	1354.5 ppb	05:19:31
1	Na 589.592 Radial†	5449.3	4202.1	572.96 µg/L	572.96 ppb	05:19:31
1	Sr 421.552†	8426.9	8629.6	17.919 µg/L	17.919 ppb	05:19:31
1	Sc 361.383	1753785.8	1753785.8	102.07 %		05:19:57
1	Y 371.029	1093346.4	1093346.4	106.49 %		05:19:57
1	Ag 328.068†	4056.6	-117.1	-0.7726 µg/L	-0.7726 ppb	05:19:57
1	As 188.979†	-17.9	2.8	5.3315 µg/L	5.3315 ppb	05:20:17
1	B 249.677†	3925.8	340.3	4.9691 µg/L	4.9691 ppb	05:20:17
1	Ba 233.527†	21233.1	20938.3	84.138 µg/L	84.138 ppb	05:20:17
1	Be 313.107†	5106.5	6067.6	1.6122 µg/L	1.6122 ppb	05:19:57
1	Cd 226.502†	238.1	351.5	0.1750 µg/L	0.1750 ppb	05:20:17
1	Co 228.616†	990.8	1161.0	13.404 µg/L	13.404 ppb	05:20:17
1	Cr 267.716†	2189.1	1966.1	15.998 µg/L	15.998 ppb	05:20:17
1	Cu 324.752†	4675.1	1608.0	8.9915 µg/L	8.9915 ppb	05:19:57
1	Mn 257.610†	537549.1	526410.0	651.22 µg/L	651.22 ppb	05:19:57
1	Mo 202.031†	-3.6	16.6	1.2793 µg/L	1.2793 ppb	05:20:17
1	Ni 231.604†	939.6	997.1	11.481 µg/L	11.481 ppb	05:20:17
1	P 214.914†	543.9	550.8	106.26 µg/L	106.26 ppb	05:20:17
1	Pb 220.353†	361.7	268.0	15.611 µg/L	15.611 ppb	05:20:17
1	S 181.975 Axial†	404.6	291.4	216.36 µg/L	216.36 ppb	05:20:17
1	Sb 206.836†	83.7	1.2	-0.3435 µg/L	-0.3435 ppb	05:20:17
1	Se 196.026†	-7.3	-22.4	-1.56 µg/L	-1.56 ppb	05:20:17
1	SiO2†	138790.1	134200.0	13117 µg/L	13117 ppb	05:19:57
1	Si 251.611†	425488.1	416022.3	6133.3 µg/L	6133.3 ppb	05:19:57
1	Sn 189.927†	31.6	32.1	3.8567 µg/L	3.8567 ppb	05:20:17
1	Ti 334.940†	602074.4	588911.4	550.21 µg/L	550.21 ppb	05:19:57
1	Tl 190.801†	-210.1	-89.1	-3.6965 µg/L	-3.6965 ppb	05:20:17
1	U 409.014†	-2577.7	-2255.5	-130.99 µg/L	-130.99 ppb	05:19:57
1	V 292.402†	3879.6	3397.1	14.012 µg/L	14.012 ppb	05:20:17
1	Zn 213.857†	16722.3	15818.7	87.116 µg/L	87.116 ppb	05:20:17
2	Sc RADIAL	145139.2	145139.2	99.5 %		05:19:33
2	Al 396.153Radial†	37690.7	37959.2	7037.6 µg/L	7037.6 ppb	05:19:35
2	Ca 317.933Radial†	48327.3	48030.0	2675.5 µg/L	2675.5 ppb	05:19:35
2	Fe 238.204 Radial†	311618.5	313167.7	19302 µg/L	19302 ppb	05:19:33
2	K 766.490 Radial†	4765.0	3246.1	1186.2 µg/L	1186.2 ppb	05:19:35
2	Mg 279.077 IEC†	3760.5	3590.3	1321.1 µg/L	1321.1 ppb	05:19:35
2	Na 589.592 Radial†	5324.0	4062.2	553.89 µg/L	553.89 ppb	05:19:35
2	Sr 421.552†	8086.1	8265.4	17.162 µg/L	17.162 ppb	05:19:35
2	Sc 361.383	1746449.8	1746449.8	101.64 %		05:20:20
2	Y 371.029	1089950.3	1089950.3	106.16 %		05:20:20
2	Ag 328.068†	4186.3	27.2	-0.2125 µg/L	-0.2125 ppb	05:20:20
2	As 188.979†	-6.3	14.1	8.7540 µg/L	8.7540 ppb	05:20:40
2	B 249.677†	3893.5	324.7	4.7389 µg/L	4.7389 ppb	05:20:40
2	Ba 233.527†	21441.6	21230.8	85.317 µg/L	85.317 ppb	05:20:40
2	Be 313.107†	5242.2	6222.1	1.6597 µg/L	1.6597 ppb	05:20:20
2	Cd 226.502†	234.8	349.2	0.1573 µg/L	0.1573 ppb	05:20:40
2	Co 228.616†	973.4	1148.0	13.243 µg/L	13.243 ppb	05:20:40
2	Cr 267.716†	2232.9	2018.2	16.395 µg/L	16.395 ppb	05:20:40
2	Cu 324.752†	4812.5	1762.5	9.6106 µg/L	9.6106 ppb	05:20:20
2	Mn 257.610†	534039.2	525169.0	649.69 µg/L	649.69 ppb	05:20:20
2	Mo 202.031†	-2.0	18.1	1.3247 µg/L	1.3247 ppb	05:20:40
2	Ni 231.604†	973.8	1034.5	11.912 µg/L	11.912 ppb	05:20:40
2	P 214.914†	518.2	527.8	101.27 µg/L	101.27 ppb	05:20:40
2	Pb 220.353†	323.6	232.0	13.574 µg/L	13.574 ppb	05:20:40

2	S 181.975 Axial†	406.2	294.6	218.78 µg/L	218.78 ppb	05:20:40
2	Sb 206.836†	60.5	-21.3	-3.0213 µg/L	-3.0213 ppb	05:20:40
2	Se 196.026†	12.3	-3.2	5.43 µg/L	5.43 ppb	05:20:40
2	SiO2†	138177.6	134168.6	13114 µg/L	13114 ppb	05:20:20
2	Si 251.611†	423017.8	415343.0	6123.3 µg/L	6123.3 ppb	05:20:20
2	Sn 189.927†	38.6	39.1	4.2933 µg/L	4.2933 ppb	05:20:40
2	Ti 334.940†	599899.5	589249.3	550.52 µg/L	550.52 ppb	05:20:20
2	Tl 190.801†	-190.1	-70.4	-1.3890 µg/L	-1.3890 ppb	05:20:40
2	U 409.014†	-2258.4	-1952.0	-113.26 µg/L	-113.26 ppb	05:20:20
2	V 292.402†	3892.5	3425.8	14.162 µg/L	14.162 ppb	05:20:40
2	Zn 213.857†	16828.8	15992.3	88.081 µg/L	88.081 ppb	05:20:40
3	Sc RADIAL	145300.1	145300.1	99.6 %		05:19:37
3	Al 396.153Radial†	38848.1	39079.7	7245.3 µg/L	7245.3 ppb	05:19:39
3	Ca 317.933Radial†	49850.7	49506.1	2757.7 µg/L	2757.7 ppb	05:19:39
3	Fe 238.204 Radial†	312049.9	313254.1	19307 µg/L	19307 ppb	05:19:37
3	K 766.490 Radial†	4725.0	3200.7	1169.5 µg/L	1169.5 ppb	05:19:39
3	Mg 279.077 IEC†	3888.6	3714.7	1367.5 µg/L	1367.5 ppb	05:19:39
3	Na 589.592 Radial†	5610.5	4344.0	592.40 µg/L	592.40 ppb	05:19:39
3	Sr 421.552†	8320.8	8492.1	17.633 µg/L	17.633 ppb	05:19:39
3	Sc 361.383	1763584.6	1763584.6	102.64 %		05:20:43
3	Y 371.029	1099868.8	1099868.8	107.13 %		05:20:43
3	Ag 328.068†	4382.7	178.5	0.3332 µg/L	0.3332 ppb	05:20:43
3	As 188.979†	-11.6	9.0	7.2195 µg/L	7.2195 ppb	05:21:03
3	B 249.677†	3902.6	296.3	4.3215 µg/L	4.3215 ppb	05:21:03
3	Ba 233.527†	21397.7	20983.1	84.318 µg/L	84.318 ppb	05:21:03
3	Be 313.107†	5244.9	6174.7	1.6438 µg/L	1.6438 ppb	05:20:43
3	Cd 226.502†	257.3	368.9	0.2794 µg/L	0.2794 ppb	05:21:03
3	Co 228.616†	968.4	1133.8	13.067 µg/L	13.067 ppb	05:21:03
3	Cr 267.716†	2243.6	2007.3	16.316 µg/L	16.316 ppb	05:21:03
3	Cu 324.752†	4861.3	1764.1	9.6105 µg/L	9.6105 ppb	05:20:43
3	Mn 257.610†	540886.8	526735.6	651.62 µg/L	651.62 ppb	05:20:43
3	Mo 202.031†	2.7	22.7	1.4612 µg/L	1.4612 ppb	05:21:03
3	Ni 231.604†	961.6	1013.4	11.669 µg/L	11.669 ppb	05:21:03
3	P 214.914†	536.0	540.2	103.94 µg/L	103.94 ppb	05:21:03
3	Pb 220.353†	374.3	278.3	16.180 µg/L	16.180 ppb	05:21:03
3	S 181.975 Axial†	399.5	284.2	211.05 µg/L	211.05 ppb	05:21:03
3	Sb 206.836†	63.2	-19.3	-2.7813 µg/L	-2.7813 ppb	05:21:03
3	Se 196.026†	-1.4	-16.6	0.572 µg/L	0.572 ppb	05:21:03
3	SiO2†	139913.4	134538.9	13150 µg/L	13150 ppb	05:20:43
3	Si 251.611†	429029.2	417156.1	6150.1 µg/L	6150.1 ppb	05:20:43
3	Sn 189.927†	26.1	26.5	3.5139 µg/L	3.5139 ppb	05:21:03
3	Ti 334.940†	606784.0	590222.4	551.43 µg/L	551.43 ppb	05:20:43
3	Tl 190.801†	-164.3	-43.4	1.9360 µg/L	1.9360 ppb	05:21:03
3	U 409.014†	-2454.4	-2121.4	-123.15 µg/L	-123.15 ppb	05:20:43
3	V 292.402†	3932.4	3427.5	14.163 µg/L	14.163 ppb	05:21:03
3	Zn 213.857†	16787.0	15790.8	86.953 µg/L	86.953 ppb	05:21:03

Mean Data: 1202056981|959150|5

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1754606.7	102.12 %		0.500			0.49%
Sc RADIAL	145070.2	99.4 %		0.19			0.19%
Y 371.029	1094388.5	106.59 %		0.491			0.46%
Ag 328.068†	29.5	-0.2173 µg/L		0.55287	-0.2173 ppb	0.55287	254.42%
Al 396.153Radial†	38697.5	7174.4 µg/L		118.56	7174.4 ppb	118.56	1.65%
As 188.979†	8.7	7.1017 µg/L		1.71431	7.1017 ppb	1.71431	24.14%
B 249.677†	320.4	4.6765 µg/L		0.32827	4.6765 ppb	0.32827	7.02%
Ba 233.527†	21050.7	84.591 µg/L		0.6348	84.591 ppb	0.6348	0.75%
Be 313.107†	6154.8	1.6386 µg/L		0.02414	1.6386 ppb	0.02414	1.47%
Ca 317.933Radial†	48995.2	2729.2 µg/L		46.59	2729.2 ppb	46.59	1.71%
Cd 226.502†	356.5	0.2039 µg/L		0.06596	0.2039 ppb	0.06596	32.34%
Co 228.616†	1147.6	13.238 µg/L		0.1687	13.238 ppb	0.1687	1.27%
Cr 267.716†	1997.2	16.236 µg/L		0.2100	16.236 ppb	0.2100	1.29%
Cu 324.752†	1711.5	9.4042 µg/L		0.35744	9.4042 ppb	0.35744	3.80%
Fe 238.204 Radial†	313000.5	19291 µg/L		22.6	19291 ppb	22.6	0.12%
K 766.490 Radial†	3273.6	1196.2 µg/L		32.85	1196.2 ppb	32.85	2.75%
Mg 279.077 IEC†	3661.6	1347.7 µg/L		23.92	1347.7 ppb	23.92	1.77%
Mn 257.610†	526104.8	650.84 µg/L		1.022	650.84 ppb	1.022	0.16%
Mo 202.031†	19.1	1.3551 µg/L		0.09467	1.3551 ppb	0.09467	6.99%
Na 589.592 Radial†	4202.8	573.08 µg/L		19.260	573.08 ppb	19.260	3.36%

Ni 231.604†	1015.0	11.687 µg/L	0.2161	11.687 ppb	0.2161	1.85%
P 214.914†	539.6	103.82 µg/L	2.501	103.82 ppb	2.501	2.41%
Pb 220.353†	259.4	15.122 µg/L	1.3704	15.122 ppb	1.3704	9.06%
S 181.975 Axial†	290.1	215.40 µg/L	3.954	215.40 ppb	3.954	1.84%
Sb 206.836†	-13.1	-2.0487 µg/L	1.48164	-2.0487 ppb	1.48164	72.32%
Se 196.026†	-14.1	1.48 µg/L	3.581	1.48 ppb	3.581	241.53%
SiO2†	134302.5	13127 µg/L	20.1	13127 ppb	20.1	0.15%
Si 251.611†	416173.8	6135.6 µg/L	13.51	6135.6 ppb	13.51	0.22%
Sn 189.927†	32.6	3.8880 µg/L	0.39063	3.8880 ppb	0.39063	10.05%
Sr 421.552†	8462.4	17.571 µg/L	0.3820	17.571 ppb	0.3820	2.17%
Ti 334.940†	589461.0	550.72 µg/L	0.635	550.72 ppb	0.635	0.12%
Tl 190.801†	-67.6	-1.0498 µg/L	2.83156	-1.0498 ppb	2.83156	269.71%
U 409.014†	-2109.7	-122.46 µg/L	8.886	-122.46 ppb	8.886	7.26%
Concentration less than lower limit for U 409.014.						
V 292.402†	3416.8	14.112 µg/L	0.0870	14.112 ppb	0.0870	0.62%
Zn 213.857†	15867.3	87.383 µg/L	0.6098	87.383 ppb	0.6098	0.70%

Sequence No.: 14

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/1/2010 5:25:20

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	142109.2	142109.2	97.4 %		05:25:54
1	Al 396.153Radial†	25776.4	26532.6	4897.2 µg/L	4897.2 ppb	05:25:54
1	Ca 317.933Radial†	84821.4	86541.3	4820.7 µg/L	4820.7 ppb	05:25:54
1	Fe 238.204 Radial†	76100.5	77998.3	4807.3 µg/L	4807.3 ppb	05:25:54
1	K 766.490 Radial†	14457.5	13301.4	4865.9 µg/L	4865.9 ppb	05:25:54
1	Mg 279.077 IEC†	12927.9	13084.8	4882.6 µg/L	4882.6 ppb	05:25:54
1	Na 589.592 Radial†	70953.9	71570.7	9773.1 µg/L	9773.1 ppb	05:25:54
1	Sr 421.552†	225114.8	231302.2	480.83 µg/L	480.83 ppb	05:25:52
1	Sc 361.383	1720021.0	1720021.0	100.10 %		05:26:07
1	Y 371.029	1014640.3	1014640.3	98.826 %		05:26:07
1	Ag 328.068†	131353.4	127124.2	476.69 µg/L	476.69 ppb	05:26:07
1	As 188.979†	1548.2	1566.9	480.79 µg/L	480.79 ppb	05:26:27
1	B 249.677†	35677.1	32133.8	472.25 µg/L	472.25 ppb	05:26:07
1	Ba 233.527†	118456.3	118468.0	477.78 µg/L	477.78 ppb	05:26:07
1	Be 313.107†	1773301.1	1772506.5	482.75 µg/L	482.75 ppb	05:26:07
1	Cd 226.502†	76144.4	76182.7	475.57 µg/L	475.57 ppb	05:26:07
1	Co 228.616†	38814.2	38963.8	481.01 µg/L	481.01 ppb	05:26:07
1	Cr 267.716†	60767.8	60525.5	473.92 µg/L	473.92 ppb	05:26:07
1	Cu 324.752†	125732.9	122628.8	478.03 µg/L	478.03 ppb	05:26:07
1	Mn 257.610†	389049.0	388403.8	480.37 µg/L	480.37 ppb	05:26:07
1	Mo 202.031†	16074.3	16077.5	472.94 µg/L	472.94 ppb	05:26:27
1	Ni 231.604†	41434.5	41467.6	477.47 µg/L	477.47 ppb	05:26:07
1	P 214.914†	11070.6	11076.9	2360.9 µg/L	2360.9 ppb	05:26:27
1	Pb 220.353†	8624.5	8529.0	477.63 µg/L	477.63 ppb	05:26:27
1	S 181.975 Axial†	1382.5	1276.0	951.51 µg/L	951.51 ppb	05:26:27
1	Sb 206.836†	4042.7	3957.6	471.52 µg/L	471.52 ppb	05:26:27
1	Se 196.026†	1318.0	1301.4	473 µg/L	473 ppb	05:26:27
1	SiO2†	54725.0	52892.3	5149.5 µg/L	5149.5 ppb	05:26:07
1	Si 251.611†	165361.4	164351.5	2413.6 µg/L	2413.6 ppb	05:26:07
1	Sn 189.927†	7550.2	7543.4	471.86 µg/L	471.86 ppb	05:26:27
1	Ti 334.940†	512626.4	511136.4	476.93 µg/L	476.93 ppb	05:26:07
1	Tl 190.801†	3775.0	3887.7	484.84 µg/L	484.84 ppb	05:26:27
1	U 409.014†	7058.9	7321.4	457.10 µg/L	457.10 ppb	05:26:07
1	V 292.402†	97846.4	97340.0	481.12 µg/L	481.12 ppb	05:26:07
1	Zn 213.857†	85664.4	85010.2	473.79 µg/L	473.79 ppb	05:26:07
2	Sc RADIAL	141199.5	141199.5	96.8 %		05:25:58
2	Al 396.153Radial†	25565.2	26484.9	4888.2 µg/L	4888.2 ppb	05:25:58
2	Ca 317.933Radial†	84361.1	86626.7	4825.4 µg/L	4825.4 ppb	05:25:58
2	Fe 238.204 Radial†	75494.7	77875.7	4799.8 µg/L	4799.8 ppb	05:25:58
2	K 766.490 Radial†	14378.9	13315.8	4871.1 µg/L	4871.1 ppb	05:25:58
2	Mg 279.077 IEC†	12864.9	13105.1	4890.3 µg/L	4890.3 ppb	05:25:58
2	Na 589.592 Radial†	70502.5	71573.6	9773.5 µg/L	9773.5 ppb	05:25:58
2	Sr 421.552†	225485.6	233174.7	484.72 µg/L	484.72 ppb	05:25:56
2	Sc 361.383	1714706.6	1714706.6	99.796 %		05:26:30
2	Y 371.029	1012156.1	1012156.1	98.585 %		05:26:30
2	Ag 328.068†	130751.1	126927.5	475.95 µg/L	475.95 ppb	05:26:30
2	As 188.979†	1581.6	1605.2	492.35 µg/L	492.35 ppb	05:26:50
2	B 249.677†	35530.5	32097.4	471.72 µg/L	471.72 ppb	05:26:30
2	Ba 233.527†	118013.0	118390.5	477.47 µg/L	477.47 ppb	05:26:30
2	Be 313.107†	1765713.5	1770393.6	482.18 µg/L	482.18 ppb	05:26:30
2	Cd 226.502†	75961.6	76235.3	475.89 µg/L	475.89 ppb	05:26:30
2	Co 228.616†	38581.1	38850.4	479.61 µg/L	479.61 ppb	05:26:30
2	Cr 267.716†	60576.5	60522.0	473.88 µg/L	473.88 ppb	05:26:30
2	Cu 324.752†	125190.1	122474.3	477.44 µg/L	477.44 ppb	05:26:30
2	Mn 257.610†	388016.0	388573.2	480.57 µg/L	480.57 ppb	05:26:30
2	Mo 202.031†	16143.1	16196.2	476.42 µg/L	476.42 ppb	05:26:50
2	Ni 231.604†	41114.6	41275.3	475.25 µg/L	475.25 ppb	05:26:30
2	P 214.914†	11143.5	11184.3	2383.9 µg/L	2383.9 ppb	05:26:50
2	Pb 220.353†	8667.0	8598.3	481.49 µg/L	481.49 ppb	05:26:50

2	S 181.975 Axial†	1406.7	1304.5	972.73 µg/L	972.73 ppb	05:26:50
2	Sb 206.836†	4072.2	3999.7	476.57 µg/L	476.57 ppb	05:26:50
2	Se 196.026†	1332.7	1320.2	479 µg/L	479 ppb	05:26:50
2	SiO2†	54308.5	52644.4	5125.1 µg/L	5125.1 ppb	05:26:30
2	Si 251.611†	164475.8	163976.0	2408.0 µg/L	2408.0 ppb	05:26:30
2	Sn 189.927†	7621.3	7638.0	477.75 µg/L	477.75 ppb	05:26:50
2	Ti 334.940†	510463.7	510556.4	476.39 µg/L	476.39 ppb	05:26:30
2	Tl 190.801†	3772.9	3897.3	486.00 µg/L	486.00 ppb	05:26:50
2	U 409.014†	7234.6	7519.3	468.54 µg/L	468.54 ppb	05:26:30
2	V 292.402†	97054.2	96849.2	478.77 µg/L	478.77 ppb	05:26:30
2	Zn 213.857†	85259.7	84869.8	473.02 µg/L	473.02 ppb	05:26:30
3	Sc RADIAL	140766.0	140766.0	96.5 %		05:26:03
3	Al 396.153Radial†	25588.2	26590.1	4907.9 µg/L	4907.9 ppb	05:26:03
3	Ca 317.933Radial†	83962.6	86482.1	4817.4 µg/L	4817.4 ppb	05:26:03
3	Fe 238.204 Radial†	75418.7	78037.2	4809.7 µg/L	4809.7 ppb	05:26:03
3	K 766.490 Radial†	14639.8	13632.1	4986.9 µg/L	4986.9 ppb	05:26:03
3	Mg 279.077 IEC†	12762.5	13040.0	4865.9 µg/L	4865.9 ppb	05:26:03
3	Na 589.592 Radial†	70478.6	71773.2	9800.7 µg/L	9800.7 ppb	05:26:03
3	Sr 421.552†	226456.8	234899.3	488.30 µg/L	488.30 ppb	05:26:01
3	Sc 361.383	1728398.3	1728398.3	100.59 %		05:26:54
3	Y 371.029	1020054.8	1020054.8	99.354 %		05:26:54
3	Ag 328.068†	131808.1	126940.3	475.98 µg/L	475.98 ppb	05:26:54
3	As 188.979†	1576.6	1587.7	487.06 µg/L	487.06 ppb	05:27:14
3	B 249.677†	35623.6	31907.9	468.93 µg/L	468.93 ppb	05:26:54
3	Ba 233.527†	118888.6	118324.1	477.20 µg/L	477.20 ppb	05:26:54
3	Be 313.107†	1775775.0	1766380.0	481.08 µg/L	481.08 ppb	05:26:54
3	Cd 226.502†	76473.6	76141.3	475.31 µg/L	475.31 ppb	05:26:54
3	Co 228.616†	38807.3	38769.0	478.60 µg/L	478.60 ppb	05:26:54
3	Cr 267.716†	60978.6	60440.9	473.26 µg/L	473.26 ppb	05:26:54
3	Cu 324.752†	125716.1	122003.4	475.59 µg/L	475.59 ppb	05:26:54
3	Mn 257.610†	390074.1	387539.2	479.30 µg/L	479.30 ppb	05:26:54
3	Mo 202.031†	16123.4	16048.6	472.08 µg/L	472.08 ppb	05:27:14
3	Ni 231.604†	41447.0	41279.4	475.30 µg/L	475.30 ppb	05:26:54
3	P 214.914†	11104.3	11056.9	2356.7 µg/L	2356.7 ppb	05:27:14
3	Pb 220.353†	8630.8	8493.6	475.65 µg/L	475.65 ppb	05:27:14
3	S 181.975 Axial†	1393.5	1280.2	954.65 µg/L	954.65 ppb	05:27:14
3	Sb 206.836†	4077.0	3972.1	473.24 µg/L	473.24 ppb	05:27:14
3	Se 196.026†	1316.6	1293.6	470 µg/L	470 ppb	05:27:14
3	SiO2†	54892.1	52793.4	5139.9 µg/L	5139.9 ppb	05:26:54
3	Si 251.611†	165940.5	164126.5	2410.3 µg/L	2410.3 ppb	05:26:54
3	Sn 189.927†	7579.1	7535.6	471.37 µg/L	471.37 ppb	05:27:14
3	Ti 334.940†	513415.9	509439.2	475.35 µg/L	475.35 ppb	05:26:54
3	Tl 190.801†	3764.6	3859.1	481.31 µg/L	481.31 ppb	05:27:14
3	U 409.014†	7012.8	7241.4	452.32 µg/L	452.32 ppb	05:26:54
3	V 292.402†	97958.8	96978.0	479.34 µg/L	479.34 ppb	05:26:54
3	Zn 213.857†	85992.9	84922.0	473.31 µg/L	473.31 ppb	05:26:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1721042.0	100.16 %	0.402			0.40%
Sc RADIAL	141358.2	96.9 %	0.47			0.48%
Y 371.029	1015617.1	98.922 %	0.3934			0.40%
Ag 328.068†	126997.3	476.21 µg/L	0.419	476.21 ppb	0.419	0.09%
QC value within limits for Ag 328.068 Recovery = 95.24%						
Al 396.153Radial†	26535.9	4897.7 µg/L	9.87	4897.7 ppb	9.87	0.20%
QC value within limits for Al 396.153Radial Recovery = 97.95%						
As 188.979†	1586.6	486.74 µg/L	5.788	486.74 ppb	5.788	1.19%
QC value within limits for As 188.979 Recovery = 97.35%						
B 249.677†	32046.4	470.96 µg/L	1.785	470.96 ppb	1.785	0.38%
QC value within limits for B 249.677 Recovery = 94.19%						
Ba 233.527†	118394.2	477.48 µg/L	0.291	477.48 ppb	0.291	0.06%
QC value within limits for Ba 233.527 Recovery = 95.50%						
Be 313.107†	1769760.0	482.00 µg/L	0.848	482.00 ppb	0.848	0.18%
QC value within limits for Be 313.107 Recovery = 96.40%						
Ca 317.933Radial†	86550.0	4821.2 µg/L	4.05	4821.2 ppb	4.05	0.08%
QC value within limits for Ca 317.933Radial Recovery = 96.42%						
Cd 226.502†	76186.5	475.59 µg/L	0.295	475.59 ppb	0.295	0.06%
QC value within limits for Cd 226.502 Recovery = 95.12%						
Co 228.616†	38861.1	479.74 µg/L	1.208	479.74 ppb	1.208	0.25%

QC value within limits for Co 228.616 Recovery = 95.95%							
Cr 267.716†	60496.1	473.68 µg/L	0.370	473.68 ppb	0.370	0.08%	
QC value within limits for Cr 267.716 Recovery = 94.74%							
Cu 324.752†	122368.8	477.02 µg/L	1.270	477.02 ppb	1.270	0.27%	
QC value within limits for Cu 324.752 Recovery = 95.40%							
Fe 238.204 Radial†	77970.4	4805.6 µg/L	5.20	4805.6 ppb	5.20	0.11%	
QC value within limits for Fe 238.204 Radial Recovery = 96.11%							
K 766.490 Radial†	13416.5	4908.0 µg/L	68.42	4908.0 ppb	68.42	1.39%	
QC value within limits for K 766.490 Radial Recovery = 98.16%							
Mg 279.077 IEC†	13076.6	4879.6 µg/L	12.46	4879.6 ppb	12.46	0.26%	
QC value within limits for Mg 279.077 IEC Recovery = 97.59%							
Mn 257.610†	388172.1	480.08 µg/L	0.686	480.08 ppb	0.686	0.14%	
QC value within limits for Mn 257.610 Recovery = 96.02%							
Mo 202.031†	16107.4	473.81 µg/L	2.300	473.81 ppb	2.300	0.49%	
QC value within limits for Mo 202.031 Recovery = 94.76%							
Na 589.592 Radial†	71639.1	9782.4 µg/L	15.80	9782.4 ppb	15.80	0.16%	
QC value within limits for Na 589.592 Radial Recovery = 97.82%							
Ni 231.604†	41340.7	476.01 µg/L	1.265	476.01 ppb	1.265	0.27%	
QC value within limits for Ni 231.604 Recovery = 95.20%							
P 214.914†	11106.0	2367.2 µg/L	14.66	2367.2 ppb	14.66	0.62%	
QC value within limits for P 214.914 Recovery = 94.69%							
Pb 220.353†	8540.3	478.26 µg/L	2.974	478.26 ppb	2.974	0.62%	
QC value within limits for Pb 220.353 Recovery = 95.65%							
S 181.975 Axial†	1286.9	959.63 µg/L	11.455	959.63 ppb	11.455	1.19%	
QC value within limits for S 181.975 Axial Recovery = 95.96%							
Sb 206.836†	3976.5	473.78 µg/L	2.571	473.78 ppb	2.571	0.54%	
QC value within limits for Sb 206.836 Recovery = 94.76%							
Se 196.026†	1305.0	474 µg/L	5.0	474 ppb	5.0	1.05%	
QC value within limits for Se 196.026 Recovery = 94.78%							
SiO2†	52776.7	5138.2 µg/L	12.30	5138.2 ppb	12.30	0.24%	
QC value within limits for SiO2 Recovery = 96.09%							
Si 251.611†	164151.3	2410.6 µg/L	2.83	2410.6 ppb	2.83	0.12%	
QC value within limits for Si 251.611 Recovery = 96.43%							
Sn 189.927†	7572.3	473.66 µg/L	3.553	473.66 ppb	3.553	0.75%	
QC value within limits for Sn 189.927 Recovery = 94.73%							
Sr 421.552†	233125.4	484.62 µg/L	3.740	484.62 ppb	3.740	0.77%	
QC value within limits for Sr 421.552 Recovery = 96.92%							
Ti 334.940†	510377.3	476.22 µg/L	0.804	476.22 ppb	0.804	0.17%	
QC value within limits for Ti 334.940 Recovery = 95.24%							
Tl 190.801†	3881.4	484.05 µg/L	2.444	484.05 ppb	2.444	0.50%	
QC value within limits for Tl 190.801 Recovery = 96.81%							
U 409.014†	7360.7	459.32 µg/L	8.335	459.32 ppb	8.335	1.81%	
QC value within limits for U 409.014 Recovery = 91.86%							
V 292.402†	97055.7	479.74 µg/L	1.225	479.74 ppb	1.225	0.26%	
QC value within limits for V 292.402 Recovery = 95.95%							
Zn 213.857†	84934.0	473.37 µg/L	0.390	473.37 ppb	0.390	0.08%	
QC value within limits for Zn 213.857 Recovery = 94.67%							

All analyte(s) passed QC.

Sequence No.: 15

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/1/2010 5:27:22

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	145094.0	145094.0	99.4 %		05:27:51
1	Al 396.153Radial†	-59.9	3.0	0.5652 µg/L	0.5652 ppb	05:28:11
1	Ca 317.933Radial†	628.5	71.6	3.9876 µg/L	3.9876 ppb	05:28:11
1	Fe 238.204 Radial†	231.1	84.3	5.1988 µg/L	5.1988 ppb	05:28:11
1	K 766.490 Radial†	1820.3	286.0	104.68 µg/L	104.68 ppb	05:27:51
1	Mg 279.077 IEC†	165.9	-23.8	-8.8786 µg/L	-8.8786 ppb	05:28:11
1	Na 589.592 Radial†	2325.2	1047.8	143.05 µg/L	143.05 ppb	05:27:51
1	Sr 421.552†	-266.7	-132.9	-0.2764 µg/L	-0.2764 ppb	05:27:51
1	Sc 361.383	1722926.7	1722926.7	100.27 %		05:29:12
1	Y 371.029	1027333.0	1027333.0	100.06 %		05:29:12
1	Ag 328.068†	4191.9	89.0	0.3300 µg/L	0.3300 ppb	05:29:14
1	As 188.979†	-14.3	6.1	1.8420 µg/L	1.8420 ppb	05:29:35
1	B 249.677†	3542.8	27.2	0.3995 µg/L	0.3995 ppb	05:29:14
1	Ba 233.527†	-162.8	-26.5	-0.1069 µg/L	-0.1069 ppb	05:29:35
1	Be 313.107†	-852.4	214.6	0.0591 µg/L	0.0591 ppb	05:29:14
1	Cd 226.502†	-86.1	32.3	0.2010 µg/L	0.2010 ppb	05:29:35
1	Co 228.616†	-156.4	34.4	0.4236 µg/L	0.4236 ppb	05:29:35
1	Cr 267.716†	203.5	24.4	0.1896 µg/L	0.1896 ppb	05:29:35
1	Cu 324.752†	2961.9	-18.5	-0.0692 µg/L	-0.0692 ppb	05:29:14
1	Mn 257.610†	392.9	154.6	0.1916 µg/L	0.1916 ppb	05:29:35
1	Mo 202.031†	-28.3	-8.1	-0.2386 µg/L	-0.2386 ppb	05:29:35
1	Ni 231.604†	-88.9	-12.2	-0.1403 µg/L	-0.1403 ppb	05:29:35
1	P 214.914†	-15.1	2.9	0.6266 µg/L	0.6266 ppb	05:29:35
1	Pb 220.353†	85.7	-0.9	-0.0513 µg/L	-0.0513 ppb	05:29:35
1	S 181.975 Axial†	131.0	25.6	19.013 µg/L	19.013 ppb	05:29:35
1	Sb 206.836†	80.9	-0.1	-0.0219 µg/L	-0.0219 ppb	05:29:35
1	Se 196.026†	19.7	4.3	1.57 µg/L	1.57 ppb	05:29:35
1	SiO2†	1905.1	124.5	12.167 µg/L	12.167 ppb	05:29:35
1	Si 251.611†	1275.1	435.1	6.4120 µg/L	6.4120 ppb	05:29:14
1	Sn 189.927†	11.4	12.5	0.7792 µg/L	0.7792 ppb	05:29:35
1	Ti 334.940†	919.0	-36.1	-0.0338 µg/L	-0.0338 ppb	05:29:14
1	Tl 190.801†	-127.5	-10.5	-1.2909 µg/L	-1.2909 ppb	05:29:35
1	U 409.014†	-235.2	35.4	2.0582 µg/L	2.0582 ppb	05:29:14
1	V 292.402†	370.1	-34.7	-0.1702 µg/L	-0.1702 ppb	05:29:14
1	Zn 213.857†	634.8	68.7	0.3862 µg/L	0.3862 ppb	05:29:35
2	Sc RADIAL	144080.7	144080.7	98.7 %		05:28:13
2	Al 396.153Radial†	-53.3	9.2	1.7250 µg/L	1.7250 ppb	05:28:33
2	Ca 317.933Radial†	591.5	38.5	2.1464 µg/L	2.1464 ppb	05:28:33
2	Fe 238.204 Radial†	210.0	64.6	3.9798 µg/L	3.9798 ppb	05:28:33
2	K 766.490 Radial†	1746.6	224.2	82.066 µg/L	82.066 ppb	05:28:13
2	Mg 279.077 IEC†	193.0	4.8	1.7636 µg/L	1.7636 ppb	05:28:33
2	Na 589.592 Radial†	2300.1	1038.8	141.84 µg/L	141.84 ppb	05:28:13
2	Sr 421.552†	-165.2	-32.0	-0.0666 µg/L	-0.0666 ppb	05:28:13
2	Sc 361.383	1740859.5	1740859.5	101.32 %		05:29:37
2	Y 371.029	1036711.8	1036711.8	100.98 %		05:29:37
2	Ag 328.068†	4348.9	200.9	0.7572 µg/L	0.7572 ppb	05:29:39
2	As 188.979†	-20.1	0.5	0.1512 µg/L	0.1512 ppb	05:29:59
2	B 249.677†	3481.8	-69.4	-1.0237 µg/L	-1.0237 ppb	05:29:39
2	Ba 233.527†	-139.2	-1.6	-0.0061 µg/L	-0.0061 ppb	05:29:59
2	Be 313.107†	-922.0	154.7	0.0434 µg/L	0.0434 ppb	05:29:39
2	Cd 226.502†	-72.0	47.2	0.2941 µg/L	0.2941 ppb	05:29:59
2	Co 228.616†	-175.5	17.1	0.2107 µg/L	0.2107 ppb	05:29:59
2	Cr 267.716†	196.7	15.6	0.1188 µg/L	0.1188 ppb	05:29:59
2	Cu 324.752†	2833.0	-176.1	-0.6798 µg/L	-0.6798 ppb	05:29:39
2	Mn 257.610†	379.8	137.6	0.1701 µg/L	0.1701 ppb	05:29:59
2	Mo 202.031†	-32.1	-11.6	-0.3419 µg/L	-0.3419 ppb	05:29:59
2	Ni 231.604†	-73.2	4.3	0.0493 µg/L	0.0493 ppb	05:29:59
2	P 214.914†	-25.7	-7.4	-1.5832 µg/L	-1.5832 ppb	05:29:59
2	Pb 220.353†	91.3	3.7	0.2019 µg/L	0.2019 ppb	05:29:59

2	S 181.975 Axial†	123.5	16.9	12.513 µg/L	12.513 ppb	05:29:59
2	Sb 206.836†	64.2	-17.5	-2.0852 µg/L	-2.0852 ppb	05:29:59
2	Se 196.026†	10.7	-4.7	-1.68 µg/L	-1.68 ppb	05:29:59
2	SiO2†	1876.6	76.9	7.5240 µg/L	7.5240 ppb	05:29:59
2	Si 251.611†	1432.5	577.3	8.5170 µg/L	8.5170 ppb	05:29:39
2	Sn 189.927†	-4.1	-2.9	-0.1802 µg/L	-0.1802 ppb	05:29:59
2	Ti 334.940†	871.5	-92.4	-0.0882 µg/L	-0.0882 ppb	05:29:39
2	Tl 190.801†	-105.4	12.6	1.5543 µg/L	1.5543 ppb	05:29:59
2	U 409.014†	-197.5	74.9	4.4195 µg/L	4.4195 ppb	05:29:39
2	V 292.402†	546.5	135.6	0.6611 µg/L	0.6611 ppb	05:29:39
2	Zn 213.857†	610.3	38.0	0.2130 µg/L	0.2130 ppb	05:29:59
3	Sc RADIAL	142537.5	142537.5	97.7 %		05:28:35
3	Al 396.153Radial†	-60.6	1.2	0.2221 µg/L	0.2221 ppb	05:28:55
3	Ca 317.933Radial†	625.4	79.7	4.4403 µg/L	4.4403 ppb	05:28:55
3	Fe 238.204 Radial†	216.0	73.0	4.4993 µg/L	4.4993 ppb	05:28:55
3	K 766.490 Radial†	1767.0	264.3	96.750 µg/L	96.750 ppb	05:28:35
3	Mg 279.077 IEC†	187.3	1.1	0.4011 µg/L	0.4011 ppb	05:28:55
3	Na 589.592 Radial†	2058.1	816.3	111.43 µg/L	111.43 ppb	05:28:35
3	Sr 421.552†	-153.3	-21.6	-0.0450 µg/L	-0.0450 ppb	05:28:35
3	Sc 361.383	1734315.4	1734315.4	100.94 %		05:30:01
3	Y 371.029	1034008.1	1034008.1	100.71 %		05:30:01
3	Ag 328.068†	3960.1	-168.1	-0.6218 µg/L	-0.6218 ppb	05:30:03
3	As 188.979†	-1.8	18.5	5.6093 µg/L	5.6093 ppb	05:30:23
3	B 249.677†	3485.6	-52.6	-0.7772 µg/L	-0.7772 ppb	05:30:03
3	Ba 233.527†	-157.6	-20.3	-0.0820 µg/L	-0.0820 ppb	05:30:23
3	Be 313.107†	-656.4	414.4	0.1129 µg/L	0.1129 ppb	05:30:03
3	Cd 226.502†	-113.8	5.5	0.0337 µg/L	0.0337 ppb	05:30:23
3	Co 228.616†	-169.5	22.4	0.2758 µg/L	0.2758 ppb	05:30:23
3	Cr 267.716†	226.0	45.3	0.3548 µg/L	0.3548 ppb	05:30:23
3	Cu 324.752†	2923.9	-75.5	-0.2921 µg/L	-0.2921 ppb	05:30:03
3	Mn 257.610†	366.0	125.3	0.1550 µg/L	0.1550 ppb	05:30:23
3	Mo 202.031†	-25.2	-4.9	-0.1429 µg/L	-0.1429 ppb	05:30:23
3	Ni 231.604†	-101.4	-24.0	-0.2758 µg/L	-0.2758 ppb	05:30:23
3	P 214.914†	-13.1	5.0	1.0675 µg/L	1.0675 ppb	05:30:23
3	Pb 220.353†	64.9	-22.1	-1.2346 µg/L	-1.2346 ppb	05:30:23
3	S 181.975 Axial†	129.8	23.6	17.494 µg/L	17.494 ppb	05:30:23
3	Sb 206.836†	87.0	5.4	0.6334 µg/L	0.6334 ppb	05:30:23
3	Se 196.026†	10.7	-4.7	-1.70 µg/L	-1.70 ppb	05:30:23
3	SiO2†	1882.5	89.6	8.7541 µg/L	8.7541 ppb	05:30:23
3	Si 251.611†	1382.2	532.8	7.8517 µg/L	7.8517 ppb	05:30:03
3	Sn 189.927†	11.8	12.8	0.7982 µg/L	0.7982 ppb	05:30:23
3	Ti 334.940†	879.1	-81.6	-0.0764 µg/L	-0.0764 ppb	05:30:03
3	Tl 190.801†	-116.9	0.8	0.1011 µg/L	0.1011 ppb	05:30:23
3	U 409.014†	-266.9	5.4	0.3199 µg/L	0.3199 ppb	05:30:03
3	V 292.402†	413.0	5.4	0.0263 µg/L	0.0263 ppb	05:30:03
3	Zn 213.857†	613.4	43.3	0.2445 µg/L	0.2445 ppb	05:30:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1732700.5	100.84 %	0.528			0.52%
Sc RADIAL	143904.1	98.6 %	0.88			0.89%
Y 371.029	1032684.3	100.58 %	0.470			0.47%
Ag 328.068†	40.6	0.1551 µg/L	0.70592	0.1551 ppb	0.70592	455.07%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	4.5	0.8374 µg/L	0.78760	0.8374 ppb	0.78760	94.05%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	8.4	2.5342 µg/L	2.79413	2.5342 ppb	2.79413	110.26%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-31.6	-0.4672 µg/L	0.76060	-0.4672 ppb	0.76060	162.81%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-16.1	-0.0650 µg/L	0.05251	-0.0650 ppb	0.05251	80.77%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	261.2	0.0718 µg/L	0.03646	0.0718 ppb	0.03646	50.77%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	63.3	3.5248 µg/L	1.21495	3.5248 ppb	1.21495	34.47%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	28.3	0.1763 µg/L	0.13198	0.1763 ppb	0.13198	74.87%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	24.6	0.3034 µg/L	0.10911	0.3034 ppb	0.10911	35.97%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	28.4	0.2211 µg/L	0.12108	0.2211 ppb	0.12108	54.77%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-90.0	-0.3471 µg/L	0.30898	-0.3471 ppb	0.30898	89.03%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	74.0	4.5593 µg/L	0.61170	4.5593 ppb	0.61170	13.42%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	258.2	94.499 µg/L	11.4743	94.499 ppb	11.4743	12.14%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-6.0	-2.2380 µg/L	5.79119	-2.2380 ppb	5.79119	258.77%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	139.1	0.1722 µg/L	0.01838	0.1722 ppb	0.01838	10.67%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-8.2	-0.2411 µg/L	0.09951	-0.2411 ppb	0.09951	41.27%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	967.6	132.11 µg/L	17.919	132.11 ppb	17.919	13.56%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-10.6	-0.1222 µg/L	0.16331	-0.1222 ppb	0.16331	133.60%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	0.1	0.0370 µg/L	1.42036	0.0370 ppb	1.42036	>999.9%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-6.4	-0.3613 µg/L	0.76677	-0.3613 ppb	0.76677	212.21%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	22.0	16.340 µg/L	3.4002	16.340 ppb	3.4002	20.81%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-4.1	-0.4912 µg/L	1.41878	-0.4912 ppb	1.41878	288.83%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-1.7	-0.603 µg/L	1.8834	-0.603 ppb	1.8834	312.20%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	97.0	9.4816 µg/L	2.40526	9.4816 ppb	2.40526	25.37%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	515.1	7.5935 µg/L	1.07596	7.5935 ppb	1.07596	14.17%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	7.5	0.4657 µg/L	0.55945	0.4657 ppb	0.55945	120.12%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-62.2	-0.1293 µg/L	0.12779	-0.1293 ppb	0.12779	98.81%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-70.0	-0.0661 µg/L	0.02865	-0.0661 ppb	0.02865	43.32%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	1.0	0.1215 µg/L	1.42267	0.1215 ppb	1.42267	>999.9%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	38.6	2.2659 µg/L	2.05768	2.2659 ppb	2.05768	90.81%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	35.4	0.1724 µg/L	0.43447	0.1724 ppb	0.43447	252.00%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	50.0	0.2812 µg/L	0.09229	0.2812 ppb	0.09229	32.82%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 21

Sample ID: 248250001|959150|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 317

Date Collected: 4/1/2010 5:40:50

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248250001|959150|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	150889.6	150889.6	103 %		05:41:22
1	Al 396.153Radial†	231191.7	223655.5	41465 µg/L	41465 ppb	05:41:20
1	Ca 317.933Radial†	460486.9	444789.8	24777 µg/L	24777 ppb	05:41:22
1	Fe 238.204 Radial†	988424.1	955785.8	58909 µg/L	58909 ppb	05:41:20
1	K 766.490 Radial†	19168.5	16993.7	6207.1 µg/L	6207.1 ppb	05:41:22
1	Mg 279.077 IEC†	18726.5	17920.3	6626.3 µg/L	6626.3 ppb	05:41:22
1	Na 589.592 Radial†	8018.3	6463.9	877.52 µg/L	877.52 ppb	05:41:22
1	Sr 421.552†	77622.1	75205.9	156.15 µg/L	156.15 ppb	05:41:22
1	Sc 361.383	1767585.8	1767585.8	102.87 %		05:41:35
1	Y 371.029	1217097.1	1217097.1	118.55 %		05:41:35
1	Ag 328.068†	212884.8	202847.6	750.86 µg/L	750.86 ppb	05:41:35
1	As 188.979†	7.0	27.2	34.782 µg/L	34.782 ppb	05:41:55
1	B 249.677†	6378.0	2693.9	39.699 µg/L	39.699 ppb	05:41:35
1	Ba 233.527†	104524.2	101740.8	409.29 µg/L	409.29 ppb	05:41:35
1	Be 313.107†	20936.8	21416.8	5.7738 µg/L	5.7738 ppb	05:41:35
1	Cd 226.502†	1301.2	1383.0	2.4560 µg/L	2.4560 ppb	05:41:55
1	Co 228.616†	569.8	744.2	6.7704 µg/L	6.7704 ppb	05:41:55
1	Cr 267.716†	184731.6	179393.5	1407.0 µg/L	1407.0 ppb	05:41:35
1	Cu 324.752†	30698.1	26868.5	113.02 µg/L	113.02 ppb	05:41:35
1	Mn 257.610†	719872.9	699529.8	865.11 µg/L	865.11 ppb	05:41:35
1	Mo 202.031†	7.3	27.1	3.2810 µg/L	3.2810 ppb	05:41:55
1	Ni 231.604†	2197.0	2212.2	25.471 µg/L	25.471 ppb	05:41:55
1	P 214.914†	6714.8	6545.2	1368.2 µg/L	1368.2 ppb	05:41:55
1	Pb 220.353†	2045.9	1902.4	108.90 µg/L	108.90 ppb	05:41:55
1	S 181.975 Axial†	5986.0	5713.8	4243.0 µg/L	4243.0 ppb	05:41:55
1	Sb 206.836†	261.1	172.9	-1.2942 µg/L	-1.2942 ppb	05:41:55
1	Se 196.026†	-44.5	-58.5	-0.904 µg/L	-0.904 ppb	05:41:55
1	SiO2†	420889.5	407358.8	39815 µg/L	39815 ppb	05:41:35
1	Si 251.611†	1297511.2	1260435.6	18582 µg/L	18582 ppb	05:41:35
1	Sn 189.927†	690.5	672.4	46.855 µg/L	46.855 ppb	05:41:55
1	Ti 334.940†	1613900.3	1567872.0	1464.5 µg/L	1464.5 ppb	05:41:35
1	Tl 190.801†	-300.9	-175.8	-4.0152 µg/L	-4.0152 ppb	05:41:55
1	U 409.014†	-3627.9	-3256.7	-193.42 µg/L	-193.42 ppb	05:41:35
1	V 292.402†	20157.6	19190.8	91.967 µg/L	91.967 ppb	05:41:35
1	Zn 213.857†	101234.2	97842.3	544.40 µg/L	544.40 ppb	05:41:35
2	Sc RADIAL	146519.0	146519.0	100 %		05:41:26
2	Al 396.153Radial†	232284.2	231413.3	42904 µg/L	42904 ppb	05:41:24
2	Ca 317.933Radial†	446311.9	443956.6	24730 µg/L	24730 ppb	05:41:26
2	Fe 238.204 Radial†	995034.2	990884.8	61072 µg/L	61072 ppb	05:41:24
2	K 766.490 Radial†	18772.9	17152.6	6264.9 µg/L	6264.9 ppb	05:41:26
2	Mg 279.077 IEC†	18121.0	17857.4	6601.0 µg/L	6601.0 ppb	05:41:26
2	Na 589.592 Radial†	7783.0	6460.9	877.05 µg/L	877.05 ppb	05:41:26
2	Sr 421.552†	75675.5	75506.5	156.78 µg/L	156.78 ppb	05:41:26
2	Sc 361.383	1773217.2	1773217.2	103.20 %		05:41:58
2	Y 371.029	1220845.7	1220845.7	118.91 %		05:41:58
2	Ag 328.068†	213510.2	202796.4	750.65 µg/L	750.65 ppb	05:41:58
2	As 188.979†	1.0	21.4	33.547 µg/L	33.547 ppb	05:42:18
2	B 249.677†	6217.5	2518.8	37.116 µg/L	37.116 ppb	05:41:58
2	Ba 233.527†	104920.7	101802.3	409.51 µg/L	409.51 ppb	05:41:58
2	Be 313.107†	20742.9	21164.2	5.7021 µg/L	5.7021 ppb	05:41:58
2	Cd 226.502†	1300.0	1377.9	2.1962 µg/L	2.1962 ppb	05:42:18
2	Co 228.616†	572.6	745.1	6.6693 µg/L	6.6693 ppb	05:42:18
2	Cr 267.716†	185860.0	179916.6	1411.1 µg/L	1411.1 ppb	05:41:58
2	Cu 324.752†	30513.8	26595.2	112.27 µg/L	112.27 ppb	05:41:58
2	Mn 257.610†	723160.9	700493.4	866.30 µg/L	866.30 ppb	05:41:58
2	Mo 202.031†	-9.7	10.7	2.8818 µg/L	2.8818 ppb	05:42:18
2	Ni 231.604†	2180.7	2189.5	25.211 µg/L	25.211 ppb	05:42:18
2	P 214.914†	6712.5	6522.3	1362.2 µg/L	1362.2 ppb	05:42:18
2	Pb 220.353†	2055.4	1905.3	109.09 µg/L	109.09 ppb	05:42:18

2	S 181.975 Axial†	5984.2	5693.6	4227.9 µg/L	4227.9 ppb	05:42:18
2	Sb 206.836†	289.6	199.8	1.7971 µg/L	1.7971 ppb	05:42:18
2	Se 196.026†	-35.3	-49.5	3.10 µg/L	3.10 ppb	05:42:18
2	SiO2†	423429.8	408520.9	39929 µg/L	39929 ppb	05:41:58
2	Si 251.611†	1303992.7	1262710.4	18616 µg/L	18616 ppb	05:41:58
2	Sn 189.927†	686.8	666.7	46.508 µg/L	46.508 ppb	05:42:18
2	Ti 334.940†	1622158.3	1570891.5	1467.3 µg/L	1467.3 ppb	05:41:58
2	Tl 190.801†	-268.4	-143.4	0.0005 µg/L	0.0005 ppb	05:42:18
2	U 409.014†	-3814.4	-3426.2	-203.82 µg/L	-203.82 ppb	05:41:58
2	V 292.402†	20243.9	19212.2	91.847 µg/L	91.847 ppb	05:41:58
2	Zn 213.857†	101651.2	97933.9	544.71 µg/L	544.71 ppb	05:41:58
3	Sc RADIAL	148112.1	148112.1	101 %		05:41:30
3	Al 396.153Radial†	229679.7	226358.7	41967 µg/L	41967 ppb	05:41:28
3	Ca 317.933Radial†	451908.8	444689.7	24771 µg/L	24771 ppb	05:41:30
3	Fe 238.204 Radial†	982081.9	967463.6	59629 µg/L	59629 ppb	05:41:28
3	K 766.490 Radial†	18946.5	17122.6	6254.2 µg/L	6254.2 ppb	05:41:30
3	Mg 279.077 IEC†	18300.6	17840.3	6595.9 µg/L	6595.9 ppb	05:41:30
3	Na 589.592 Radial†	7963.6	6555.5	889.98 µg/L	889.98 ppb	05:41:30
3	Sr 421.552†	76562.4	75569.6	156.91 µg/L	156.91 ppb	05:41:30
3	Sc 361.383	1777651.8	1777651.8	103.46 %		05:42:21
3	Y 371.029	1224292.6	1224292.6	119.25 %		05:42:21
3	Ag 328.068†	213679.8	202444.3	749.37 µg/L	749.37 ppb	05:42:21
3	As 188.979†	-0.4	19.9	32.746 µg/L	32.746 ppb	05:42:41
3	B 249.677†	6236.2	2521.8	37.162 µg/L	37.162 ppb	05:42:21
3	Ba 233.527†	105085.4	101707.8	409.14 µg/L	409.14 ppb	05:42:21
3	Be 313.107†	20844.2	21212.0	5.7164 µg/L	5.7164 ppb	05:42:21
3	Cd 226.502†	1325.3	1399.1	2.4811 µg/L	2.4811 ppb	05:42:41
3	Co 228.616†	546.9	718.9	6.4200 µg/L	6.4200 ppb	05:42:41
3	Cr 267.716†	185691.6	179304.6	1406.3 µg/L	1406.3 ppb	05:42:21
3	Cu 324.752†	30716.5	26717.3	112.53 µg/L	112.53 ppb	05:42:21
3	Mn 257.610†	722842.4	698437.6	863.76 µg/L	863.76 ppb	05:42:21
3	Mo 202.031†	4.2	24.2	3.2214 µg/L	3.2214 ppb	05:42:41
3	Ni 231.604†	2242.7	2244.3	25.841 µg/L	25.841 ppb	05:42:41
3	P 214.914†	6766.5	6558.2	1370.6 µg/L	1370.6 ppb	05:42:41
3	Pb 220.353†	2093.8	1937.4	110.87 µg/L	110.87 ppb	05:42:41
3	S 181.975 Axial†	6040.0	5733.0	4257.2 µg/L	4257.2 ppb	05:42:41
3	Sb 206.836†	275.9	185.9	0.2378 µg/L	0.2378 ppb	05:42:41
3	Se 196.026†	-37.3	-51.3	1.96 µg/L	1.96 ppb	05:42:41
3	SiO2†	423487.7	407553.4	39834 µg/L	39834 ppb	05:42:21
3	Si 251.611†	1304159.5	1259719.5	18572 µg/L	18572 ppb	05:42:21
3	Sn 189.927†	691.0	669.1	46.647 µg/L	46.647 ppb	05:42:41
3	Ti 334.940†	1622727.2	1567520.2	1464.2 µg/L	1464.2 ppb	05:42:21
3	Tl 190.801†	-266.3	-140.7	0.3031 µg/L	0.3031 ppb	05:42:41
3	U 409.014†	-3744.1	-3349.0	-198.95 µg/L	-198.95 ppb	05:42:21
3	V 292.402†	20433.8	19346.8	92.645 µg/L	92.645 ppb	05:42:21
3	Zn 213.857†	101809.3	97841.0	544.32 µg/L	544.32 ppb	05:42:21

Mean Data: 248250001|959150|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1772818.3	103.18 %	0.294			0.28%
Sc RADIAL	148506.9	102 %	1.5			1.49%
Y 371.029	1220745.1	118.90 %	0.351			0.29%
Ag 328.068†	202696.1	750.30 µg/L	0.809	750.30 ppb	0.809	0.11%
Al 396.153Radial†	227142.5	42112 µg/L	730.1	42112 ppb	730.1	1.73%
As 188.979†	22.8	33.692 µg/L	1.0255	33.692 ppb	1.0255	3.04%
B 249.677†	2578.2	37.992 µg/L	1.4784	37.992 ppb	1.4784	3.89%
Ba 233.527†	101750.3	409.31 µg/L	0.182	409.31 ppb	0.182	0.04%
Be 313.107†	21264.3	5.7308 µg/L	0.03797	5.7308 ppb	0.03797	0.66%
Ca 317.933Radial†	444478.7	24759 µg/L	25.3	24759 ppb	25.3	0.10%
Cd 226.502†	1386.7	2.3778 µg/L	0.15775	2.3778 ppb	0.15775	6.63%
Co 228.616†	736.1	6.6199 µg/L	0.18036	6.6199 ppb	0.18036	2.72%
Cr 267.716†	179538.2	1408.1 µg/L	2.63	1408.1 ppb	2.63	0.19%
Cu 324.752†	26727.0	112.61 µg/L	0.383	112.61 ppb	0.383	0.34%
Fe 238.204 Radial†	971378.1	59870 µg/L	1101.6	59870 ppb	1101.6	1.84%
K 766.490 Radial†	17089.6	6242.1 µg/L	30.78	6242.1 ppb	30.78	0.49%
Mg 279.077 IEC†	17872.7	6607.7 µg/L	16.28	6607.7 ppb	16.28	0.25%
Mn 257.610†	699486.9	865.05 µg/L	1.271	865.05 ppb	1.271	0.15%
Mo 202.031†	20.7	3.1280 µg/L	0.21533	3.1280 ppb	0.21533	6.88%
Na 589.592 Radial†	6493.4	881.52 µg/L	7.334	881.52 ppb	7.334	0.83%

Ni 231.604†	2215.3	25.508 µg/L	0.3166	25.508 ppb	0.3166	1.24%
P 214.914†	6541.9	1367.0 µg/L	4.36	1367.0 ppb	4.36	0.32%
Pb 220.353†	1915.0	109.62 µg/L	1.084	109.62 ppb	1.084	0.99%
S 181.975 Axial†	5713.4	4242.7 µg/L	14.64	4242.7 ppb	14.64	0.34%
Sb 206.836†	186.2	0.2469 µg/L	1.54571	0.2469 ppb	1.54571	625.99%
Se 196.026†	-53.1	1.39 µg/L	2.063	1.39 ppb	2.063	148.96%
SiO2†	407811.1	39860 µg/L	60.8	39860 ppb	60.8	0.15%
Si 251.611†	1260955.2	18590 µg/L	23.0	18590 ppb	23.0	0.12%
Sn 189.927†	669.4	46.670 µg/L	0.1744	46.670 ppb	0.1744	0.37%
Sr 421.552†	75427.3	156.62 µg/L	0.404	156.62 ppb	0.404	0.26%
Ti 334.940†	1568761.3	1465.4 µg/L	1.73	1465.4 ppb	1.73	0.12%
Tl 190.801†	-153.3	-1.2372 µg/L	2.41055	-1.2372 ppb	2.41055	194.84%
U 409.014†	-3344.0	-198.73 µg/L	5.201	-198.73 ppb	5.201	2.62%
Concentration less than lower limit for U 409.014.						
V 292.402†	19250.0	92.153 µg/L	0.4303	92.153 ppb	0.4303	0.47%
Zn 213.857†	97872.4	544.47 µg/L	0.207	544.47 ppb	0.207	0.04%

Sequence No.: 22

Sample ID: 248250002|959150|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 318

Date Collected: 4/1/2010 5:42:48

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248250002|959150|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	145176.1	145176.1	99.5 %		05:43:20
1	Al 396.153Radial†	300637.3	302261.3	56039 µg/L	56039 ppb	05:43:18
1	Ca 317.933Radial†	436920.3	438627.9	24433 µg/L	24433 ppb	05:43:20
1	Fe 238.204 Radial†	1182130.4	1188119.3	73228 µg/L	73228 ppb	05:43:18
1	K 766.490 Radial†	24878.0	23462.3	8571.7 µg/L	8571.7 ppb	05:43:20
1	Mg 279.077 IEC†	28530.9	28488.3	10552 µg/L	10552 ppb	05:43:20
1	Na 589.592 Radial†	14552.9	13337.6	1814.4 µg/L	1814.4 ppb	05:43:20
1	Sr 421.552†	82064.0	82625.3	171.58 µg/L	171.58 ppb	05:43:20
1	Sc 361.383	1746079.6	1746079.6	101.62 %		05:43:33
1	Y 371.029	1172197.2	1172197.2	114.17 %		05:43:33
1	Ag 328.068†	877158.3	859070.2	3181.3 µg/L	3181.3 ppb	05:43:33
1	As 188.979†	39.7	59.5	43.811 µg/L	43.811 ppb	05:43:53
1	B 249.677†	5937.1	2336.5	34.404 µg/L	34.404 ppb	05:43:33
1	Ba 233.527†	127011.0	125120.1	503.35 µg/L	503.35 ppb	05:43:33
1	Be 313.107†	26414.6	27057.8	7.2747 µg/L	7.2747 ppb	05:43:33
1	Cd 226.502†	6656.8	6668.8	33.971 µg/L	33.971 ppb	05:43:53
1	Co 228.616†	1124.9	1297.2	12.862 µg/L	12.862 ppb	05:43:53
1	Cr 267.716†	128514.2	126284.9	991.60 µg/L	991.60 ppb	05:43:33
1	Cu 324.752†	67138.0	63094.5	255.90 µg/L	255.90 ppb	05:43:33
1	Mn 257.610†	651170.4	640542.5	791.93 µg/L	791.93 ppb	05:43:33
1	Mo 202.031†	35.7	55.2	4.7632 µg/L	4.7632 ppb	05:43:53
1	Ni 231.604†	3356.9	3379.8	38.916 µg/L	38.916 ppb	05:43:53
1	P 214.914†	6148.4	6068.2	1258.0 µg/L	1258.0 ppb	05:43:53
1	Pb 220.353†	3170.2	3033.3	174.33 µg/L	174.33 ppb	05:43:53
1	S 181.975 Axial†	8598.0	8355.7	6204.8 µg/L	6204.8 ppb	05:43:53
1	Sb 206.836†	212.1	127.9	-0.6177 µg/L	-0.6177 ppb	05:43:53
1	Se 196.026†	-62.5	-76.7	-2.63 µg/L	-2.63 ppb	05:43:53
1	SiO2†	769519.1	755464.6	73840 µg/L	73840 ppb	05:43:33
1	Si 251.611†	2359947.3	2321453.4	34225 µg/L	34225 ppb	05:43:33
1	Sn 189.927†	367.8	363.0	32.205 µg/L	32.205 ppb	05:43:53
1	Ti 334.940†	3089118.9	3038873.7	2838.7 µg/L	2838.7 ppb	05:43:33
1	Tl 190.801†	-396.7	-273.7	-2.0132 µg/L	-2.0132 ppb	05:43:53
1	U 409.014†	-5601.8	-5242.5	-309.29 µg/L	-309.29 ppb	05:43:33
1	V 292.402†	32572.6	31649.0	148.10 µg/L	148.10 ppb	05:43:33
1	Zn 213.857†	99327.0	97177.7	539.99 µg/L	539.99 ppb	05:43:33
2	Sc RADIAL	145229.3	145229.3	99.5 %		05:43:24
2	Al 396.153Radial†	304435.9	305967.5	56726 µg/L	56726 ppb	05:43:22
2	Ca 317.933Radial†	437921.0	439472.6	24480 µg/L	24480 ppb	05:43:24
2	Fe 238.204 Radial†	1201419.1	1207065.7	74396 µg/L	74396 ppb	05:43:22
2	K 766.490 Radial†	24984.4	23560.1	8607.3 µg/L	8607.3 ppb	05:43:24
2	Mg 279.077 IEC†	28671.3	28618.9	10599 µg/L	10599 ppb	05:43:24
2	Na 589.592 Radial†	14666.7	13446.6	1829.3 µg/L	1829.3 ppb	05:43:24
2	Sr 421.552†	82082.8	82614.0	171.56 µg/L	171.56 ppb	05:43:24
2	Sc 361.383	1750765.9	1750765.9	101.89 %		05:43:56
2	Y 371.029	1175235.4	1175235.4	114.47 %		05:43:56
2	Ag 328.068†	879245.7	858808.3	3180.3 µg/L	3180.3 ppb	05:43:56
2	As 188.979†	51.2	70.6	47.464 µg/L	47.464 ppb	05:44:16
2	B 249.677†	6060.6	2442.1	35.960 µg/L	35.960 ppb	05:43:56
2	Ba 233.527†	127653.9	125416.6	504.53 µg/L	504.53 ppb	05:43:56
2	Be 313.107†	26386.4	26960.5	7.2474 µg/L	7.2474 ppb	05:43:56
2	Cd 226.502†	6654.8	6649.3	33.727 µg/L	33.727 ppb	05:44:16
2	Co 228.616†	1151.0	1320.0	13.083 µg/L	13.083 ppb	05:44:16
2	Cr 267.716†	129225.2	126644.3	994.45 µg/L	994.45 ppb	05:43:56
2	Cu 324.752†	67264.6	63041.9	255.87 µg/L	255.87 ppb	05:43:56
2	Mn 257.610†	653621.4	641232.7	792.78 µg/L	792.78 ppb	05:43:56
2	Mo 202.031†	32.4	51.9	4.7143 µg/L	4.7143 ppb	05:44:16
2	Ni 231.604†	3390.8	3404.3	39.198 µg/L	39.198 ppb	05:44:16
2	P 214.914†	6174.6	6077.7	1259.4 µg/L	1259.4 ppb	05:44:16
2	Pb 220.353†	3212.1	3066.0	176.17 µg/L	176.17 ppb	05:44:16

2	S 181.975 Axial†	8640.2	8374.5	6218.8 µg/L	6218.8 ppb	05:44:16
2	Sb 206.836†	215.1	130.2	-0.3967 µg/L	-0.3967 ppb	05:44:16
2	Se 196.026†	-41.7	-56.2	5.20 µg/L	5.20 ppb	05:44:16
2	SiO2†	772164.7	756034.1	73896 µg/L	73896 ppb	05:43:56
2	Si 251.611†	2369326.3	2324441.8	34269 µg/L	34269 ppb	05:43:56
2	Sn 189.927†	374.8	369.0	32.579 µg/L	32.579 ppb	05:44:16
2	Ti 334.940†	3098206.3	3039655.3	2839.4 µg/L	2839.4 ppb	05:43:56
2	Tl 190.801†	-392.0	-268.0	-1.3061 µg/L	-1.3061 ppb	05:44:16
2	U 409.014†	-5660.0	-5284.8	-312.00 µg/L	-312.00 ppb	05:43:56
2	V 292.402†	32758.8	31746.0	148.46 µg/L	148.46 ppb	05:43:56
2	Zn 213.857†	99670.7	97253.3	540.30 µg/L	540.30 ppb	05:43:56
3	Sc RADIAL	145855.6	145855.6	99.9 %		05:43:28
3	Al 396.153Radial†	302333.3	302550.3	56092 µg/L	56092 ppb	05:43:26
3	Ca 317.933Radial†	440291.8	439955.1	24507 µg/L	24507 ppb	05:43:28
3	Fe 238.204 Radial†	1193705.4	1194164.3	73601 µg/L	73601 ppb	05:43:26
3	K 766.490 Radial†	24921.9	23389.8	8545.1 µg/L	8545.1 ppb	05:43:28
3	Mg 279.077 IEC†	28844.0	28668.0	10618 µg/L	10618 ppb	05:43:28
3	Na 589.592 Radial†	14649.3	13365.9	1818.3 µg/L	1818.3 ppb	05:43:28
3	Sr 421.552†	82683.3	82860.7	172.07 µg/L	172.07 ppb	05:43:28
3	Sc 361.383	1719081.8	1719081.8	100.05 %		05:44:19
3	Y 371.029	1155790.7	1155790.7	112.57 %		05:44:19
3	Ag 328.068†	861809.9	857285.3	3174.7 µg/L	3174.7 ppb	05:44:19
3	As 188.979†	53.4	73.8	48.211 µg/L	48.211 ppb	05:44:39
3	B 249.677†	5899.7	2390.8	35.204 µg/L	35.204 ppb	05:44:19
3	Ba 233.527†	124470.7	124544.0	501.03 µg/L	501.03 ppb	05:44:19
3	Be 313.107†	25547.5	26599.3	7.1465 µg/L	7.1465 ppb	05:44:19
3	Cd 226.502†	6592.6	6707.5	34.174 µg/L	34.174 ppb	05:44:39
3	Co 228.616†	1124.3	1314.1	13.048 µg/L	13.048 ppb	05:44:39
3	Cr 267.716†	126378.7	126136.6	990.46 µg/L	990.46 ppb	05:44:19
3	Cu 324.752†	66104.5	63099.1	255.97 µg/L	255.97 ppb	05:44:19
3	Mn 257.610†	639413.7	638855.0	789.84 µg/L	789.84 ppb	05:44:19
3	Mo 202.031†	19.6	39.6	4.3226 µg/L	4.3226 ppb	05:44:39
3	Ni 231.604†	3345.6	3420.4	39.383 µg/L	39.383 ppb	05:44:39
3	P 214.914†	6107.3	6122.2	1269.3 µg/L	1269.3 ppb	05:44:39
3	Pb 220.353†	3203.5	3115.5	178.91 µg/L	178.91 ppb	05:44:39
3	S 181.975 Axial†	8486.3	8377.0	6220.6 µg/L	6220.6 ppb	05:44:39
3	Sb 206.836†	201.4	120.4	-1.4960 µg/L	-1.4960 ppb	05:44:39
3	Se 196.026†	-50.0	-65.3	1.62 µg/L	1.62 ppb	05:44:39
3	SiO2†	754556.3	752401.6	73541 µg/L	73541 ppb	05:44:19
3	Si 251.611†	2314095.1	2312095.2	34087 µg/L	34087 ppb	05:44:19
3	Sn 189.927†	370.4	371.4	32.708 µg/L	32.708 ppb	05:44:39
3	Ti 334.940†	3036167.6	3033688.8	2833.8 µg/L	2833.8 ppb	05:44:19
3	Tl 190.801†	-386.0	-269.1	-1.5094 µg/L	-1.5094 ppb	05:44:39
3	U 409.014†	-5707.2	-5434.4	-320.64 µg/L	-320.64 ppb	05:44:19
3	V 292.402†	31946.4	31526.6	147.45 µg/L	147.45 ppb	05:44:19
3	Zn 213.857†	97277.5	96664.2	537.06 µg/L	537.06 ppb	05:44:19

Mean Data: 248250002|959150|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1738642.5	101.19 %		0.995			0.98%
Sc RADIAL	145420.3	99.7 %		0.26			0.26%
Y 371.029	1167741.1	113.74 %		1.019			0.90%
Ag 328.068†	858387.9	3178.8 µg/L		3.58	3178.8 ppb	3.58	0.11%
Concentration greater than upper limit for Ag 328.068.							
Al 396.153Radial†	303593.0	56286 µg/L		382.2	56286 ppb	382.2	0.68%
As 188.979†	67.9	46.495 µg/L		2.3544	46.495 ppb	2.3544	5.06%
B 249.677†	2389.8	35.189 µg/L		0.7781	35.189 ppb	0.7781	2.21%
Ba 233.527†	125026.9	502.97 µg/L		1.784	502.97 ppb	1.784	0.35%
Be 313.107†	26872.5	7.2229 µg/L		0.06756	7.2229 ppb	0.06756	0.94%
Ca 317.933Radial†	439351.9	24474 µg/L		37.4	24474 ppb	37.4	0.15%
Cd 226.502†	6675.2	33.958 µg/L		0.2241	33.958 ppb	0.2241	0.66%
Co 228.616†	1310.4	12.998 µg/L		0.1189	12.998 ppb	0.1189	0.91%
Cr 267.716†	126355.3	992.17 µg/L		2.059	992.17 ppb	2.059	0.21%
Cu 324.752†	63078.5	255.91 µg/L		0.051	255.91 ppb	0.051	0.02%
Fe 238.204 Radial†	1196449.8	73742 µg/L		596.5	73742 ppb	596.5	0.81%
K 766.490 Radial†	23470.8	8574.7 µg/L		31.21	8574.7 ppb	31.21	0.36%
Mg 279.077 IEC†	28591.7	10590 µg/L		34.3	10590 ppb	34.3	0.32%
Mn 257.610†	640210.1	791.52 µg/L		1.513	791.52 ppb	1.513	0.19%
Mo 202.031†	48.9	4.6000 µg/L		0.24148	4.6000 ppb	0.24148	5.25%

Na 589.592 Radial†	13383.4	1820.7 µg/L	7.70	1820.7 ppb	7.70	0.42%
Ni 231.604†	3401.5	39.166 µg/L	0.2351	39.166 ppb	0.2351	0.60%
P 214.914†	6089.4	1262.2 µg/L	6.17	1262.2 ppb	6.17	0.49%
Pb 220.353†	3071.6	176.47 µg/L	2.305	176.47 ppb	2.305	1.31%
S 181.975 Axial†	8369.1	6214.7 µg/L	8.65	6214.7 ppb	8.65	0.14%
Sb 206.836†	126.2	-0.8368 µg/L	0.58145	-0.8368 ppb	0.58145	69.49%
Se 196.026†	-66.1	1.40 µg/L	3.921	1.40 ppb	3.921	280.92%
SiO2†	754633.4	73759 µg/L	191.0	73759 ppb	191.0	0.26%
Si 251.611†	2319330.1	34193 µg/L	95.0	34193 ppb	95.0	0.28%
Sn 189.927†	367.8	32.497 µg/L	0.2613	32.497 ppb	0.2613	0.80%
Sr 421.552†	82700.0	171.74 µg/L	0.289	171.74 ppb	0.289	0.17%
Ti 334.940†	3037405.9	2837.3 µg/L	3.03	2837.3 ppb	3.03	0.11%
Tl 190.801†	-270.3	-1.6096 µg/L	0.36406	-1.6096 ppb	0.36406	22.62%
U 409.014†	-5320.6	-313.97 µg/L	5.928	-313.97 ppb	5.928	1.89%
Concentration less than lower limit for U 409.014.						
V 292.402†	31640.5	148.00 µg/L	0.511	148.00 ppb	0.511	0.35%
Zn 213.857†	97031.7	539.12 µg/L	1.788	539.12 ppb	1.788	0.33%

Sequence No.: 23

Sample ID: 248250003|959150|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 319

Date Collected: 4/1/2010 5:44:48

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248250003|959150|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	148367.0	148367.0	102 %		05:45:20
1	Al 396.153Radial†	308177.4	303178.1	56209 µg/L	56209 ppb	05:45:20
1	Ca 317.933Radial†	858137.4	843479.9	46985 µg/L	46985 ppb	05:45:18
1	Fe 238.204 Radial†	1124991.9	1106363.2	68189 µg/L	68189 ppb	05:45:18
1	K 766.490 Radial†	43267.1	41011.6	14991 µg/L	14991 ppb	05:45:20
1	Mg 279.077 IEC†	48015.1	47035.7	17466 µg/L	17466 ppb	05:45:20
1	Na 589.592 Radial†	72693.8	70208.9	9578.0 µg/L	9578.0 ppb	05:45:20
1	Sr 421.552†	128193.2	126222.6	262.04 µg/L	262.04 ppb	05:45:20
1	Sc 361.383	1742888.0	1742888.0	101.44 %		05:45:33
1	Y 371.029	1141606.4	1141606.4	111.19 %		05:45:33
1	Ag 328.068†	608336.4	595634.1	2205.1 µg/L	2205.1 ppb	05:45:33
1	As 188.979†	21.8	41.9	37.775 µg/L	37.775 ppb	05:45:53
1	B 249.677†	10500.9	6846.3	100.93 µg/L	100.93 ppb	05:45:33
1	Ba 233.527†	125021.6	123387.8	496.42 µg/L	496.42 ppb	05:45:33
1	Be 313.107†	22772.5	23514.9	6.3256 µg/L	6.3256 ppb	05:45:33
1	Cd 226.502†	1779.6	1872.6	4.5403 µg/L	4.5403 ppb	05:45:53
1	Co 228.616†	905.1	1082.6	10.478 µg/L	10.478 ppb	05:45:53
1	Cr 267.716†	133856.7	131783.4	1034.3 µg/L	1034.3 ppb	05:45:33
1	Cu 324.752†	30923.3	27513.4	117.12 µg/L	117.12 ppb	05:45:33
1	Mn 257.610†	693292.4	683241.7	844.50 µg/L	844.50 ppb	05:45:33
1	Mo 202.031†	99.2	117.9	6.5258 µg/L	6.5258 ppb	05:45:53
1	Ni 231.604†	2593.4	2633.2	30.319 µg/L	30.319 ppb	05:45:53
1	P 214.914†	13300.1	13129.8	2773.5 µg/L	2773.5 ppb	05:45:53
1	Pb 220.353†	2354.4	2234.7	128.69 µg/L	128.69 ppb	05:45:53
1	S 181.975 Axial†	33843.5	33259.4	24698 µg/L	24698 ppb	05:45:53
1	Sb 206.836†	226.9	142.9	0.6174 µg/L	0.6174 ppb	05:45:53
1	Se 196.026†	-47.7	-62.3	0.906 µg/L	0.906 ppb	05:45:53
1	SiO2†	598767.6	588516.7	57522 µg/L	57522 ppb	05:45:33
1	Si 251.611†	1842248.1	1815334.7	26763 µg/L	26763 ppb	05:45:33
1	Sn 189.927†	732.0	722.7	51.450 µg/L	51.450 ppb	05:45:53
1	Ti 334.940†	2059683.5	2029576.4	1895.7 µg/L	1895.7 ppb	05:45:33
1	Tl 190.801†	-305.6	-184.6	-0.5354 µg/L	-0.5354 ppb	05:45:53
1	U 409.014†	-4697.0	-4360.7	-256.53 µg/L	-256.53 ppb	05:45:33
1	V 292.402†	28134.1	27332.1	128.68 µg/L	128.68 ppb	05:45:33
1	Zn 213.857†	102063.0	100053.9	556.10 µg/L	556.10 ppb	05:45:33
2	Sc RADIAL	149198.6	149198.6	102 %		05:45:24
2	Al 396.153Radial†	310117.1	303385.9	56247 µg/L	56247 ppb	05:45:24
2	Ca 317.933Radial†	860150.3	840744.5	46833 µg/L	46833 ppb	05:45:22
2	Fe 238.204 Radial†	1128761.1	1103882.8	68037 µg/L	68037 ppb	05:45:22
2	K 766.490 Radial†	43847.8	41342.4	15112 µg/L	15112 ppb	05:45:24
2	Mg 279.077 IEC†	48434.0	47182.1	17521 µg/L	17521 ppb	05:45:24
2	Na 589.592 Radial†	73323.5	70426.2	9607.6 µg/L	9607.6 ppb	05:45:24
2	Sr 421.552†	129160.0	126465.5	262.55 µg/L	262.55 ppb	05:45:24
2	Sc 361.383	1754531.6	1754531.6	102.11 %		05:45:56
2	Y 371.029	1148485.8	1148485.8	111.86 %		05:45:56
2	Ag 328.068†	613000.0	596221.2	2207.2 µg/L	2207.2 ppb	05:45:56
2	As 188.979†	24.4	44.3	38.494 µg/L	38.494 ppb	05:46:16
2	B 249.677†	10731.5	7003.5	103.24 µg/L	103.24 ppb	05:45:56
2	Ba 233.527†	126256.9	123779.6	498.00 µg/L	498.00 ppb	05:45:56
2	Be 313.107†	22997.1	23585.8	6.3426 µg/L	6.3426 ppb	05:45:56
2	Cd 226.502†	1786.3	1867.5	4.5244 µg/L	4.5244 ppb	05:46:16
2	Co 228.616†	912.8	1084.2	10.508 µg/L	10.508 ppb	05:46:16
2	Cr 267.716†	135030.6	132057.3	1036.5 µg/L	1036.5 ppb	05:45:56
2	Cu 324.752†	31325.6	27705.1	117.84 µg/L	117.84 ppb	05:45:56
2	Mn 257.610†	699687.5	684968.6	846.64 µg/L	846.64 ppb	05:45:56
2	Mo 202.031†	100.2	118.2	6.5290 µg/L	6.5290 ppb	05:46:16
2	Ni 231.604†	2567.2	2590.6	29.828 µg/L	29.828 ppb	05:46:16
2	P 214.914†	13304.1	13046.7	2755.8 µg/L	2755.8 ppb	05:46:16
2	Pb 220.353†	2395.5	2259.5	130.09 µg/L	130.09 ppb	05:46:16

2	S 181.975 Axial†	33973.8	33165.6	24628 µg/L	24628 ppb	05:46:16
2	Sb 206.836†	202.2	117.2	-2.4746 µg/L	-2.4746 ppb	05:46:16
2	Se 196.026†	-44.4	-58.8	2.11 µg/L	2.11 ppb	05:46:16
2	SiO2†	605178.3	590877.4	57753 µg/L	57753 ppb	05:45:56
2	Si 251.611†	1861227.9	1821869.1	26859 µg/L	26859 ppb	05:45:56
2	Sn 189.927†	723.9	710.0	50.661 µg/L	50.661 ppb	05:46:16
2	Ti 334.940†	2074678.9	2030786.2	1896.8 µg/L	1896.8 ppb	05:45:56
2	Tl 190.801†	-310.2	-187.1	-0.8410 µg/L	-0.8410 ppb	05:46:16
2	U 409.014†	-4862.2	-4491.7	-264.20 µg/L	-264.20 ppb	05:45:56
2	V 292.402†	28152.9	27166.4	127.90 µg/L	127.90 ppb	05:45:56
2	Zn 213.857†	103277.2	100575.2	559.05 µg/L	559.05 ppb	05:45:56
3	Sc RADIAL	148583.8	148583.8	102 %		05:45:28
3	Al 396.153Radial†	309362.3	303899.7	56343 µg/L	56343 ppb	05:45:28
3	Ca 317.933Radial†	861098.9	845157.4	47079 µg/L	47079 ppb	05:45:26
3	Fe 238.204 Radial†	1128090.9	1107792.9	68278 µg/L	68278 ppb	05:45:26
3	K 766.490 Radial†	43546.3	41223.8	15068 µg/L	15068 ppb	05:45:28
3	Mg 279.077 IEC†	48149.2	47098.4	17490 µg/L	17490 ppb	05:45:28
3	Na 589.592 Radial†	72886.8	70294.1	9589.6 µg/L	9589.6 ppb	05:45:28
3	Sr 421.552†	128640.9	126478.4	262.57 µg/L	262.57 ppb	05:45:28
3	Sc 361.383	1750008.0	1750008.0	101.85 %		05:46:19
3	Y 371.029	1145710.0	1145710.0	111.59 %		05:46:19
3	Ag 328.068†	611012.4	595821.4	2205.7 µg/L	2205.7 ppb	05:46:19
3	As 188.979†	17.8	37.9	36.593 µg/L	36.593 ppb	05:46:39
3	B 249.677†	10429.6	6734.2	99.273 µg/L	99.273 ppb	05:46:19
3	Ba 233.527†	126150.8	123995.0	498.87 µg/L	498.87 ppb	05:46:19
3	Be 313.107†	23065.1	23710.8	6.3727 µg/L	6.3727 ppb	05:46:19
3	Cd 226.502†	1766.5	1852.6	4.4056 µg/L	4.4056 ppb	05:46:39
3	Co 228.616†	893.0	1067.1	10.284 µg/L	10.284 ppb	05:46:39
3	Cr 267.716†	134492.8	131871.1	1035.0 µg/L	1035.0 ppb	05:46:19
3	Cu 324.752†	31122.8	27585.2	117.40 µg/L	117.40 ppb	05:46:19
3	Mn 257.610†	697588.1	684678.6	846.28 µg/L	846.28 ppb	05:46:19
3	Mo 202.031†	106.8	125.0	6.7386 µg/L	6.7386 ppb	05:46:39
3	Ni 231.604†	2553.8	2583.9	29.752 µg/L	29.752 ppb	05:46:39
3	P 214.914†	13337.1	13112.8	2769.8 µg/L	2769.8 ppb	05:46:39
3	Pb 220.353†	2408.9	2278.7	131.17 µg/L	131.17 ppb	05:46:39
3	S 181.975 Axial†	33958.4	33236.4	24681 µg/L	24681 ppb	05:46:39
3	Sb 206.836†	227.3	142.3	0.5398 µg/L	0.5398 ppb	05:46:39
3	Se 196.026†	-57.7	-71.9	-2.57 µg/L	-2.57 ppb	05:46:39
3	SiO2†	602402.0	589683.5	57636 µg/L	57636 ppb	05:46:19
3	Si 251.611†	1852620.3	1818129.3	26804 µg/L	26804 ppb	05:46:19
3	Sn 189.927†	720.5	708.5	50.562 µg/L	50.562 ppb	05:46:39
3	Ti 334.940†	2068306.9	2029781.8	1895.9 µg/L	1895.9 ppb	05:46:19
3	Tl 190.801†	-307.7	-185.5	-0.6394 µg/L	-0.6394 ppb	05:46:39
3	U 409.014†	-5072.4	-4710.3	-276.97 µg/L	-276.97 ppb	05:46:19
3	V 292.402†	28299.2	27381.3	128.91 µg/L	128.91 ppb	05:46:19
3	Zn 213.857†	102885.1	100451.7	558.33 µg/L	558.33 ppb	05:46:19

Mean Data: 248250003|959150|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1749142.5	101.80 %	0.342			0.34%
Sc RADIAL	148716.5	102 %	0.3			0.29%
Y 371.029	1145267.4	111.55 %	0.337			0.30%
Ag 328.068†	595892.3	2206.0 µg/L	1.11	2206.0 ppb	1.11	0.05%
Concentration greater than upper limit for Ag 328.068.						
Al 396.153Radial†	303487.9	56266 µg/L	68.9	56266 ppb	68.9	0.12%
As 188.979†	41.3	37.620 µg/L	0.9596	37.620 ppb	0.9596	2.55%
B 249.677†	6861.3	101.15 µg/L	1.995	101.15 ppb	1.995	1.97%
Ba 233.527†	123720.8	497.77 µg/L	1.240	497.77 ppb	1.240	0.25%
Be 313.107†	23603.8	6.3470 µg/L	0.02388	6.3470 ppb	0.02388	0.38%
Ca 317.933Radial†	843127.3	46966 µg/L	124.1	46966 ppb	124.1	0.26%
Cd 226.502†	1864.2	4.4901 µg/L	0.07361	4.4901 ppb	0.07361	1.64%
Co 228.616†	1078.0	10.424 µg/L	0.1215	10.424 ppb	0.1215	1.17%
Cr 267.716†	131903.9	1035.3 µg/L	1.09	1035.3 ppb	1.09	0.11%
Cu 324.752†	27601.2	117.45 µg/L	0.362	117.45 ppb	0.362	0.31%
Fe 238.204 Radial†	1106013.0	68168 µg/L	121.9	68168 ppb	121.9	0.18%
K 766.490 Radial†	41192.6	15057 µg/L	61.3	15057 ppb	61.3	0.41%
Mg 279.077 IEC†	47105.4	17492 µg/L	27.5	17492 ppb	27.5	0.16%
Mn 257.610†	684296.3	845.80 µg/L	1.143	845.80 ppb	1.143	0.14%
Mo 202.031†	120.3	6.5978 µg/L	0.12193	6.5978 ppb	0.12193	1.85%

Na 589.592 Radial†	70309.7	9591.7 µg/L	14.91	9591.7 ppb	14.91	0.16%
Ni 231.604†	2602.6	29.967 µg/L	0.3079	29.967 ppb	0.3079	1.03%
P 214.914†	13096.4	2766.4 µg/L	9.32	2766.4 ppb	9.32	0.34%
Pb 220.353†	2257.6	129.98 µg/L	1.244	129.98 ppb	1.244	0.96%
S 181.975 Axial†	33220.5	24669 µg/L	36.3	24669 ppb	36.3	0.15%
Sb 206.836†	134.1	-0.4392 µg/L	1.76318	-0.4392 ppb	1.76318	401.48%
Se 196.026†	-64.3	0.147 µg/L	2.4295	0.147 ppb	2.4295	>999.9%
SiO2†	589692.6	57637 µg/L	115.4	57637 ppb	115.4	0.20%
Si 251.611†	1818444.4	26809 µg/L	48.3	26809 ppb	48.3	0.18%
Sn 189.927†	713.8	50.891 µg/L	0.4865	50.891 ppb	0.4865	0.96%
Sr 421.552†	126388.8	262.39 µg/L	0.300	262.39 ppb	0.300	0.11%
Ti 334.940†	2030048.2	1896.2 µg/L	0.60	1896.2 ppb	0.60	0.03%
Tl 190.801†	-185.7	-0.6719 µg/L	0.15538	-0.6719 ppb	0.15538	23.12%
U 409.014†	-4520.9	-265.90 µg/L	10.324	-265.90 ppb	10.324	3.88%
Concentration less than lower limit for U 409.014.						
V 292.402†	27293.3	128.50 µg/L	0.531	128.50 ppb	0.531	0.41%
Zn 213.857†	100360.3	557.82 µg/L	1.538	557.82 ppb	1.538	0.28%

Sequence No.: 24

Sample ID: 248250004|959150|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 320

Date Collected: 4/1/2010 5:46:47

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248250004|959150|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	146134.7	146134.7	100 %			05:47:19
1	Al 396.153Radial†	258828.2	258528.5	47931 µg/L		47931 ppb	05:47:17
1	Ca 317.933Radial†	465640.9	464427.4	25870 µg/L		25870 ppb	05:47:17
1	Fe 238.204 Radial†	1184909.5	1183099.7	72919 µg/L		72919 ppb	05:47:17
1	K 766.490 Radial†	25741.6	24160.7	8828.7 µg/L		8828.7 ppb	05:47:19
1	Mg 279.077 IEC†	28148.9	27918.7	10340 µg/L		10340 ppb	05:47:19
1	Na 589.592 Radial†	25176.6	23850.4	3250.4 µg/L		3250.4 ppb	05:47:19
1	Sr 421.552†	73982.4	74013.9	153.67 µg/L		153.67 ppb	05:47:19
1	Sc 361.383	1770558.6	1770558.6	103.05 %			05:47:32
1	Y 371.029	1168421.2	1168421.2	113.80 %			05:47:32
1	Ag 328.068†	575320.0	554221.1	2051.9 µg/L		2051.9 ppb	05:47:32
1	As 188.979†	25.3	44.9	36.567 µg/L		36.567 ppb	05:47:52
1	B 249.677†	7977.0	4235.3	62.419 µg/L		62.419 ppb	05:47:32
1	Ba 233.527†	97164.1	94427.6	379.65 µg/L		379.65 ppb	05:47:32
1	Be 313.107†	23000.5	23385.3	6.2938 µg/L		6.2938 ppb	05:47:32
1	Cd 226.502†	1430.4	1506.3	1.7526 µg/L		1.7526 ppb	05:47:52
1	Co 228.616†	890.0	1054.0	9.7021 µg/L		9.7021 ppb	05:47:52
1	Cr 267.716†	91913.7	89018.0	699.62 µg/L		699.62 ppb	05:47:32
1	Cu 324.752†	22157.0	18529.8	82.717 µg/L		82.717 ppb	05:47:32
1	Mn 257.610†	742778.5	720583.3	890.97 µg/L		890.97 ppb	05:47:32
1	Mo 202.031†	17.1	36.6	4.1873 µg/L		4.1873 ppb	05:47:52
1	Ni 231.604†	2222.9	2233.7	25.719 µg/L		25.719 ppb	05:47:52
1	P 214.914†	7578.0	7371.9	1537.2 µg/L		1537.2 ppb	05:47:52
1	Pb 220.353†	1597.5	1463.9	85.498 µg/L		85.498 ppb	05:47:52
1	S 181.975 Axial†	12476.7	12002.9	8913.1 µg/L		8913.1 ppb	05:47:52
1	Sb 206.836†	183.1	96.9	0.0793 µg/L		0.0793 ppb	05:47:52
1	Se 196.026†	-65.7	-79.0	-3.51 µg/L		-3.51 ppb	05:47:52
1	SiO2†	571230.8	552568.8	54009 µg/L		54009 ppb	05:47:32
1	Si 251.611†	1757979.7	1705174.0	25139 µg/L		25139 ppb	05:47:32
1	Sn 189.927†	547.7	532.6	40.855 µg/L		40.855 ppb	05:47:52
1	Ti 334.940†	2503849.0	2428878.0	2268.9 µg/L		2268.9 ppb	05:47:32
1	Tl 190.801†	-323.1	-196.8	1.6563 µg/L		1.6563 ppb	05:47:52
1	U 409.014†	-4567.0	-4162.1	-247.50 µg/L		-247.50 ppb	05:47:32
1	V 292.402†	23815.6	22707.8	103.82 µg/L		103.82 ppb	05:47:32
1	Zn 213.857†	91367.2	88101.8	488.79 µg/L		488.79 ppb	05:47:32
2	Sc RADIAL	145765.2	145765.2	99.9 %			05:47:23
2	Al 396.153Radial†	261408.3	261766.6	48531 µg/L		48531 ppb	05:47:21
2	Ca 317.933Radial†	471458.7	471430.5	26261 µg/L		26261 ppb	05:47:21
2	Fe 238.204 Radial†	1199986.6	1201193.4	74034 µg/L		74034 ppb	05:47:21
2	K 766.490 Radial†	25618.5	24102.6	8807.2 µg/L		8807.2 ppb	05:47:23
2	Mg 279.077 IEC†	27843.1	27683.8	10251 µg/L		10251 ppb	05:47:23
2	Na 589.592 Radial†	25238.1	23975.8	3267.5 µg/L		3267.5 ppb	05:47:23
2	Sr 421.552†	74165.2	74384.2	154.43 µg/L		154.43 ppb	05:47:23
2	Sc 361.383	1751189.5	1751189.5	101.92 %			05:47:55
2	Y 371.029	1156426.3	1156426.3	112.64 %			05:47:55
2	Ag 328.068†	568340.5	553548.2	2049.4 µg/L		2049.4 ppb	05:47:55
2	As 188.979†	14.5	34.6	33.679 µg/L		33.679 ppb	05:48:15
2	B 249.677†	7950.4	4294.8	63.297 µg/L		63.297 ppb	05:47:55
2	Ba 233.527†	95934.1	94263.6	378.97 µg/L		378.97 ppb	05:47:55
2	Be 313.107†	22523.7	23164.4	6.2283 µg/L		6.2283 ppb	05:47:55
2	Cd 226.502†	1458.0	1548.7	1.9005 µg/L		1.9005 ppb	05:48:15
2	Co 228.616†	875.2	1049.0	9.5814 µg/L		9.5814 ppb	05:48:15
2	Cr 267.716†	90554.9	88671.3	696.96 µg/L		696.96 ppb	05:47:55
2	Cu 324.752†	21792.2	18409.6	82.395 µg/L		82.395 ppb	05:47:55
2	Mn 257.610†	733037.4	718998.3	889.01 µg/L		889.01 ppb	05:47:55
2	Mo 202.031†	25.6	45.2	4.4805 µg/L		4.4805 ppb	05:48:15
2	Ni 231.604†	2222.2	2256.8	25.986 µg/L		25.986 ppb	05:48:15
2	P 214.914†	7634.1	7508.3	1565.8 µg/L		1565.8 ppb	05:48:15
2	Pb 220.353†	1587.3	1471.0	85.905 µg/L		85.905 ppb	05:48:15

2	S 181.975 Axial†	12544.6	12203.4	9062.0 µg/L	9062.0 ppb	05:48:15
2	Sb 206.836†	189.1	104.7	1.0324 µg/L	1.0324 ppb	05:48:15
2	Se 196.026†	-57.8	-72.0	-0.595 µg/L	-0.595 ppb	05:48:15
2	SiO2†	563039.0	550662.5	53822 µg/L	53822 ppb	05:47:55
2	Si 251.611†	1732772.3	1699310.6	25052 µg/L	25052 ppb	05:47:55
2	Sn 189.927†	549.3	540.1	41.307 µg/L	41.307 ppb	05:48:15
2	Ti 334.940†	2471340.9	2423857.3	2264.3 µg/L	2264.3 ppb	05:47:55
2	Tl 190.801†	-345.0	-221.8	-1.4721 µg/L	-1.4721 ppb	05:48:15
2	U 409.014†	-4828.1	-4467.3	-265.64 µg/L	-265.64 ppb	05:47:55
2	V 292.402†	23401.1	22556.7	102.95 µg/L	102.95 ppb	05:47:55
2	Zn 213.857†	89840.4	87584.5	485.77 µg/L	485.77 ppb	05:47:55
3	Sc RADIAL	144825.4	144825.4	99.2 %		05:47:27
3	Al 396.153Radial†	260369.2	262417.8	48652 µg/L	48652 ppb	05:47:25
3	Ca 317.933Radial†	471040.1	474071.5	26408 µg/L	26408 ppb	05:47:25
3	Fe 238.204 Radial†	1198409.7	1207400.2	74417 µg/L	74417 ppb	05:47:25
3	K 766.490 Radial†	25263.3	23911.2	8737.1 µg/L	8737.1 ppb	05:47:27
3	Mg 279.077 IEC†	27669.7	27690.0	10253 µg/L	10253 ppb	05:47:27
3	Na 589.592 Radial†	24985.2	23884.9	3255.2 µg/L	3255.2 ppb	05:47:27
3	Sr 421.552†	73237.4	73931.2	153.49 µg/L	153.49 ppb	05:47:27
3	Sc 361.383	1753290.1	1753290.1	102.04 %		05:48:18
3	Y 371.029	1157780.7	1157780.7	112.77 %		05:48:18
3	Ag 328.068†	569540.1	554055.8	2051.3 µg/L	2051.3 ppb	05:48:18
3	As 188.979†	20.8	40.7	35.607 µg/L	35.607 ppb	05:48:38
3	B 249.677†	7752.0	4091.0	60.291 µg/L	60.291 ppb	05:48:18
3	Ba 233.527†	96049.1	94263.6	378.97 µg/L	378.97 ppb	05:48:18
3	Be 313.107†	22598.9	23211.5	6.2428 µg/L	6.2428 ppb	05:48:18
3	Cd 226.502†	1436.1	1525.6	1.7157 µg/L	1.7157 ppb	05:48:38
3	Co 228.616†	876.6	1049.4	9.5657 µg/L	9.5657 ppb	05:48:38
3	Cr 267.716†	90693.0	88700.2	697.19 µg/L	697.19 ppb	05:48:18
3	Cu 324.752†	22022.8	18610.0	83.234 µg/L	83.234 ppb	05:48:18
3	Mn 257.610†	735263.6	720318.3	890.65 µg/L	890.65 ppb	05:48:18
3	Mo 202.031†	22.7	42.3	4.4130 µg/L	4.4130 ppb	05:48:38
3	Ni 231.604†	2253.4	2284.8	26.308 µg/L	26.308 ppb	05:48:38
3	P 214.914†	7601.4	7467.3	1556.8 µg/L	1556.8 ppb	05:48:38
3	Pb 220.353†	1579.7	1461.7	85.379 µg/L	85.379 ppb	05:48:38
3	S 181.975 Axial†	12482.7	12127.9	9006.0 µg/L	9006.0 ppb	05:48:38
3	Sb 206.836†	172.7	88.4	-0.9171 µg/L	-0.9171 ppb	05:48:38
3	Se 196.026†	-49.4	-63.7	2.56 µg/L	2.56 ppb	05:48:38
3	SiO2†	564970.4	551893.5	53943 µg/L	53943 ppb	05:48:18
3	Si 251.611†	1738325.5	1702715.8	25103 µg/L	25103 ppb	05:48:18
3	Sn 189.927†	534.6	525.0	40.377 µg/L	40.377 ppb	05:48:38
3	Ti 334.940†	2478145.3	2427620.5	2267.8 µg/L	2267.8 ppb	05:48:18
3	Tl 190.801†	-329.1	-205.8	0.5420 µg/L	0.5420 ppb	05:48:38
3	U 409.014†	-4738.2	-4373.5	-260.16 µg/L	-260.16 ppb	05:48:18
3	V 292.402†	23672.9	22795.6	104.08 µg/L	104.08 ppb	05:48:18
3	Zn 213.857†	90156.6	87788.7	486.88 µg/L	486.88 ppb	05:48:18

Mean Data: 248250004|959150|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1758346.0	102.34 %	0.619			0.60%
Sc RADIAL	145575.1	99.8 %	0.46			0.46%
Y 371.029	1160876.1	113.07 %	0.640			0.57%
Ag 328.068†	553941.7	2050.9 µg/L	1.32	2050.9 ppb	1.32	0.06%
Concentration greater than upper limit for Ag 328.068.						
Al 396.153Radial†	260904.3	48371 µg/L	386.2	48371 ppb	386.2	0.80%
As 188.979†	40.1	35.284 µg/L	1.4709	35.284 ppb	1.4709	4.17%
B 249.677†	4207.1	62.002 µg/L	1.5457	62.002 ppb	1.5457	2.49%
Ba 233.527†	94318.3	379.20 µg/L	0.391	379.20 ppb	0.391	0.10%
Be 313.107†	23253.7	6.2550 µg/L	0.03443	6.2550 ppb	0.03443	0.55%
Ca 317.933Radial†	469976.4	26180 µg/L	277.6	26180 ppb	277.6	1.06%
Cd 226.502†	1526.9	1.7896 µg/L	0.09779	1.7896 ppb	0.09779	5.46%
Co 228.616†	1050.8	9.6164 µg/L	0.07463	9.6164 ppb	0.07463	0.78%
Cr 267.716†	88796.5	697.92 µg/L	1.473	697.92 ppb	1.473	0.21%
Cu 324.752†	18516.5	82.782 µg/L	0.4234	82.782 ppb	0.4234	0.51%
Fe 238.204 Radial†	1197231.1	73790 µg/L	778.2	73790 ppb	778.2	1.05%
K 766.490 Radial†	24058.2	8791.0 µg/L	47.91	8791.0 ppb	47.91	0.54%
Mg 279.077 IEC†	27764.2	10281 µg/L	50.5	10281 ppb	50.5	0.49%
Mn 257.610†	719966.6	890.21 µg/L	1.050	890.21 ppb	1.050	0.12%
Mo 202.031†	41.4	4.3603 µg/L	0.15354	4.3603 ppb	0.15354	3.52%

Na 589.592 Radial†	23903.7	3257.7 µg/L	8.84	3257.7 ppb	8.84	0.27%
Ni 231.604†	2258.4	26.004 µg/L	0.2950	26.004 ppb	0.2950	1.13%
P 214.914†	7449.2	1553.3 µg/L	14.59	1553.3 ppb	14.59	0.94%
Pb 220.353†	1465.6	85.594 µg/L	0.2759	85.594 ppb	0.2759	0.32%
S 181.975 Axial†	12111.4	8993.7 µg/L	75.20	8993.7 ppb	75.20	0.84%
Sb 206.836†	96.7	0.0649 µg/L	0.97483	0.0649 ppb	0.97483	>999.9%
Se 196.026†	-71.6	-0.517 µg/L	3.0343	-0.517 ppb	3.0343	587.34%
SiO2†	551708.3	53924 µg/L	94.5	53924 ppb	94.5	0.18%
Si 251.611†	1702400.1	25098 µg/L	43.4	25098 ppb	43.4	0.17%
Sn 189.927†	532.6	40.846 µg/L	0.4651	40.846 ppb	0.4651	1.14%
Sr 421.552†	74109.8	153.86 µg/L	0.501	153.86 ppb	0.501	0.33%
Ti 334.940†	2426785.3	2267.0 µg/L	2.43	2267.0 ppb	2.43	0.11%
Tl 190.801†	-208.2	0.2421 µg/L	1.58563	0.2421 ppb	1.58563	654.97%
U 409.014†	-4334.3	-257.77 µg/L	9.303	-257.77 ppb	9.303	3.61%
Concentration less than lower limit for U 409.014.						
V 292.402†	22686.7	103.62 µg/L	0.590	103.62 ppb	0.590	0.57%
Zn 213.857†	87825.0	487.15 µg/L	1.529	487.15 ppb	1.529	0.31%

Sequence No.: 25

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/1/2010 5:48:46

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	143412.4	143412.4	98.3 %		05:49:20
1	Al 396.153Radial†	26401.8	26928.4	4970.4 µg/L	4970.4 ppb	05:49:20
1	Ca 317.933Radial†	85354.2	86291.8	4806.8 µg/L	4806.8 ppb	05:49:20
1	Fe 238.204 Radial†	76673.8	77871.6	4799.5 µg/L	4799.5 ppb	05:49:20
1	K 766.490 Radial†	14895.1	13611.7	4979.5 µg/L	4979.5 ppb	05:49:20
1	Mg 279.077 IEC†	13059.8	13098.4	4887.8 µg/L	4887.8 ppb	05:49:20
1	Na 589.592 Radial†	71028.8	70984.7	9692.9 µg/L	9692.9 ppb	05:49:20
1	Sr 421.552†	229178.2	233336.3	485.05 µg/L	485.05 ppb	05:49:18
1	Sc 361.383	1730211.6	1730211.6	100.70 %		05:49:47
1	Y 371.029	1019921.2	1019921.2	99.341 %		05:49:47
1	Ag 328.068†	132371.2	127362.2	477.57 µg/L	477.57 ppb	05:49:47
1	As 188.979†	1580.3	1589.7	487.69 µg/L	487.69 ppb	05:50:07
1	B 249.677†	35992.5	32237.1	473.77 µg/L	473.77 ppb	05:49:47
1	Ba 233.527†	119122.3	118432.3	477.63 µg/L	477.63 ppb	05:49:47
1	Be 313.107†	1783529.6	1772230.7	482.68 µg/L	482.68 ppb	05:49:47
1	Cd 226.502†	76519.0	76106.7	475.09 µg/L	475.09 ppb	05:49:47
1	Co 228.616†	39087.0	39006.3	481.53 µg/L	481.53 ppb	05:49:47
1	Cr 267.716†	61067.6	60465.7	473.44 µg/L	473.44 ppb	05:49:47
1	Cu 324.752†	126249.6	122402.2	477.15 µg/L	477.15 ppb	05:49:47
1	Mn 257.610†	390842.1	387895.4	479.74 µg/L	479.74 ppb	05:49:47
1	Mo 202.031†	16272.1	16179.3	475.93 µg/L	475.93 ppb	05:50:07
1	Ni 231.604†	41554.3	41342.8	476.03 µg/L	476.03 ppb	05:49:47
1	P 214.914†	11229.3	11169.4	2380.7 µg/L	2380.7 ppb	05:50:07
1	Pb 220.353†	8733.4	8586.5	480.84 µg/L	480.84 ppb	05:50:07
1	S 181.975 Axial†	1425.4	1310.4	977.11 µg/L	977.11 ppb	05:50:07
1	Sb 206.836†	4105.8	3996.5	476.20 µg/L	476.20 ppb	05:50:07
1	Se 196.026†	1349.6	1324.9	481 µg/L	481 ppb	05:50:07
1	SiO2†	54887.0	52731.2	5133.6 µg/L	5133.6 ppb	05:49:47
1	Si 251.611†	166441.0	164450.6	2415.0 µg/L	2415.0 ppb	05:49:47
1	Sn 189.927†	7680.6	7628.5	477.17 µg/L	477.17 ppb	05:50:07
1	Ti 334.940†	515593.8	511067.1	476.86 µg/L	476.86 ppb	05:49:47
1	Tl 190.801†	3810.3	3900.6	486.41 µg/L	486.41 ppb	05:50:07
1	U 409.014†	7255.0	7474.6	465.99 µg/L	465.99 ppb	05:49:47
1	V 292.402†	98177.3	97092.9	479.95 µg/L	479.95 ppb	05:49:47
1	Zn 213.857†	86203.6	85041.6	473.98 µg/L	473.98 ppb	05:49:47
2	Sc RADIAL	142196.1	142196.1	97.4 %		05:49:24
2	Al 396.153Radial†	26051.6	26798.8	4946.2 µg/L	4946.2 ppb	05:49:24
2	Ca 317.933Radial†	84815.3	86481.7	4817.4 µg/L	4817.4 ppb	05:49:24
2	Fe 238.204 Radial†	76151.2	78002.6	4807.6 µg/L	4807.6 ppb	05:49:24
2	K 766.490 Radial†	14651.7	13491.6	4935.5 µg/L	4935.5 ppb	05:49:24
2	Mg 279.077 IEC†	12902.3	13050.4	4870.0 µg/L	4870.0 ppb	05:49:24
2	Na 589.592 Radial†	70951.4	71523.6	9766.6 µg/L	9766.6 ppb	05:49:24
2	Sr 421.552†	226963.0	233057.6	484.48 µg/L	484.48 ppb	05:49:22
2	Sc 361.383	1711422.3	1711422.3	99.605 %		05:50:10
2	Y 371.029	1009637.8	1009637.8	98.339 %		05:50:10
2	Ag 328.068†	130850.2	127278.3	477.22 µg/L	477.22 ppb	05:50:10
2	As 188.979†	1598.7	1625.4	498.49 µg/L	498.49 ppb	05:50:30
2	B 249.677†	35154.5	31788.2	467.16 µg/L	467.16 ppb	05:50:10
2	Ba 233.527†	117404.2	118006.2	475.92 µg/L	475.92 ppb	05:50:10
2	Be 313.107†	1756284.2	1764322.3	480.52 µg/L	480.52 ppb	05:50:10
2	Cd 226.502†	75197.1	75613.9	472.01 µg/L	472.01 ppb	05:50:10
2	Co 228.616†	38365.9	38708.5	477.85 µg/L	477.85 ppb	05:50:10
2	Cr 267.716†	60355.4	60416.4	473.07 µg/L	473.07 ppb	05:50:10
2	Cu 324.752†	124533.5	122055.7	475.79 µg/L	475.79 ppb	05:50:10
2	Mn 257.610†	385706.8	387001.0	478.63 µg/L	478.63 ppb	05:50:10
2	Mo 202.031†	16262.3	16346.9	480.85 µg/L	480.85 ppb	05:50:30
2	Ni 231.604†	41042.2	41281.7	475.33 µg/L	475.33 ppb	05:50:10
2	P 214.914†	11266.0	11328.7	2414.8 µg/L	2414.8 ppb	05:50:30
2	Pb 220.353†	8729.0	8677.3	485.93 µg/L	485.93 ppb	05:50:30

2	S 181.975 Axial†	1419.3	1319.9	984.19 µg/L	984.19 ppb	05:50:30
2	Sb 206.836†	4110.4	4045.9	482.15 µg/L	482.15 ppb	05:50:30
2	Se 196.026†	1329.1	1319.1	479 µg/L	479 ppb	05:50:30
2	SiO2†	54209.3	52649.2	5125.4 µg/L	5125.4 ppb	05:50:10
2	Si 251.611†	164109.6	163924.7	2407.1 µg/L	2407.1 ppb	05:50:10
2	Sn 189.927†	7715.7	7747.5	484.58 µg/L	484.58 ppb	05:50:30
2	Ti 334.940†	508781.4	509849.0	475.74 µg/L	475.74 ppb	05:50:10
2	Tl 190.801†	3813.9	3945.7	491.95 µg/L	491.95 ppb	05:50:30
2	U 409.014†	6854.2	7151.3	447.01 µg/L	447.01 ppb	05:50:10
2	V 292.402†	96859.0	96839.8	478.75 µg/L	478.75 ppb	05:50:10
2	Zn 213.857†	84794.5	84566.7	471.31 µg/L	471.31 ppb	05:50:10
3	Sc RADIAL	141335.7	141335.7	96.9 %		05:49:28
3	Al 396.153Radial†	26120.4	27032.6	4989.8 µg/L	4989.8 ppb	05:49:28
3	Ca 317.933Radial†	84304.0	86483.7	4817.5 µg/L	4817.5 ppb	05:49:28
3	Fe 238.204 Radial†	75608.4	77917.9	4802.4 µg/L	4802.4 ppb	05:49:28
3	K 766.490 Radial†	14536.3	13464.0	4925.4 µg/L	4925.4 ppb	05:49:28
3	Mg 279.077 IEC†	12814.7	13040.5	4866.2 µg/L	4866.2 ppb	05:49:28
3	Na 589.592 Radial†	70539.5	71541.6	9769.1 µg/L	9769.1 ppb	05:49:28
3	Sr 421.552†	227249.7	234771.7	488.04 µg/L	488.04 ppb	05:49:26
3	Sc 361.383	1733201.8	1733201.8	100.87 %		05:50:33
3	Y 371.029	1022663.1	1022663.1	99.608 %		05:50:33
3	Ag 328.068†	132633.2	127395.2	477.67 µg/L	477.67 ppb	05:50:33
3	As 188.979†	1582.5	1589.2	487.52 µg/L	487.52 ppb	05:50:53
3	B 249.677†	36094.1	32276.2	474.35 µg/L	474.35 ppb	05:50:33
3	Ba 233.527†	119057.4	118163.9	476.55 µg/L	476.55 ppb	05:50:33
3	Be 313.107†	1787762.0	1773370.8	482.99 µg/L	482.99 ppb	05:50:33
3	Cd 226.502†	76586.0	76042.1	474.69 µg/L	474.69 ppb	05:50:33
3	Co 228.616†	38990.5	38843.7	479.52 µg/L	479.52 ppb	05:50:33
3	Cr 267.716†	61083.4	60376.7	472.75 µg/L	472.75 ppb	05:50:33
3	Cu 324.752†	126318.2	122253.9	476.57 µg/L	476.57 ppb	05:50:33
3	Mn 257.610†	391061.7	387443.6	479.18 µg/L	479.18 ppb	05:50:33
3	Mo 202.031†	16268.9	16148.3	475.02 µg/L	475.02 ppb	05:50:53
3	Ni 231.604†	41668.5	41384.8	476.52 µg/L	476.52 ppb	05:50:33
3	P 214.914†	11230.7	11151.6	2376.9 µg/L	2376.9 ppb	05:50:53
3	Pb 220.353†	8738.5	8576.5	480.29 µg/L	480.29 ppb	05:50:53
3	S 181.975 Axial†	1428.3	1310.9	977.43 µg/L	977.43 ppb	05:50:53
3	Sb 206.836†	4099.1	3982.8	474.57 µg/L	474.57 ppb	05:50:53
3	Se 196.026†	1336.9	1310.1	476 µg/L	476 ppb	05:50:53
3	SiO2†	55101.1	52849.4	5145.2 µg/L	5145.2 ppb	05:50:33
3	Si 251.611†	166788.7	164510.2	2415.9 µg/L	2415.9 ppb	05:50:33
3	Sn 189.927†	7690.0	7624.6	476.92 µg/L	476.92 ppb	05:50:53
3	Ti 334.940†	516020.5	510606.7	476.44 µg/L	476.44 ppb	05:50:33
3	Tl 190.801†	3800.5	3884.3	484.40 µg/L	484.40 ppb	05:50:53
3	U 409.014†	7160.9	7368.9	459.75 µg/L	459.75 ppb	05:50:33
3	V 292.402†	98149.4	96897.1	478.98 µg/L	478.98 ppb	05:50:33
3	Zn 213.857†	86284.5	84974.1	473.60 µg/L	473.60 ppb	05:50:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1724945.2	100.39 %	0.687			0.68%
Sc RADIAL	142314.7	97.5 %	0.72			0.73%
Y 371.029	1017407.4	99.096 %	0.6688			0.67%
Ag 328.068†	127345.2	477.49 µg/L	0.237	477.49 ppb	0.237	0.05%
QC value within limits for Ag 328.068 Recovery = 95.50%						
Al 396.153Radial†	26919.9	4968.8 µg/L	21.86	4968.8 ppb	21.86	0.44%
QC value within limits for Al 396.153Radial Recovery = 99.38%						
As 188.979†	1601.5	491.23 µg/L	6.288	491.23 ppb	6.288	1.28%
QC value within limits for As 188.979 Recovery = 98.25%						
B 249.677†	32100.5	471.76 µg/L	3.994	471.76 ppb	3.994	0.85%
QC value within limits for B 249.677 Recovery = 94.35%						
Ba 233.527†	118200.8	476.70 µg/L	0.868	476.70 ppb	0.868	0.18%
QC value within limits for Ba 233.527 Recovery = 95.34%						
Be 313.107†	1769974.6	482.06 µg/L	1.344	482.06 ppb	1.344	0.28%
QC value within limits for Be 313.107 Recovery = 96.41%						
Ca 317.933Radial†	86419.1	4813.9 µg/L	6.14	4813.9 ppb	6.14	0.13%
QC value within limits for Ca 317.933Radial Recovery = 96.28%						
Cd 226.502†	75920.9	473.93 µg/L	1.674	473.93 ppb	1.674	0.35%
QC value within limits for Cd 226.502 Recovery = 94.79%						
Co 228.616†	38852.9	479.64 µg/L	1.841	479.64 ppb	1.841	0.38%

QC value within limits for Co 228.616 Recovery = 95.93%							
Cr 267.716†	60419.6	473.09 µg/L	0.346	473.09 ppb	0.346	0.07%	
QC value within limits for Cr 267.716 Recovery = 94.62%							
Cu 324.752†	122237.3	476.51 µg/L	0.684	476.51 ppb	0.684	0.14%	
QC value within limits for Cu 324.752 Recovery = 95.30%							
Fe 238.204 Radial†	77930.7	4803.2 µg/L	4.09	4803.2 ppb	4.09	0.09%	
QC value within limits for Fe 238.204 Radial Recovery = 96.06%							
K 766.490 Radial†	13522.5	4946.8 µg/L	28.77	4946.8 ppb	28.77	0.58%	
QC value within limits for K 766.490 Radial Recovery = 98.94%							
Mg 279.077 IEC†	13063.1	4874.6 µg/L	11.52	4874.6 ppb	11.52	0.24%	
QC value within limits for Mg 279.077 IEC Recovery = 97.49%							
Mn 257.610†	387446.7	479.18 µg/L	0.553	479.18 ppb	0.553	0.12%	
QC value within limits for Mn 257.610 Recovery = 95.84%							
Mo 202.031†	16224.9	477.27 µg/L	3.139	477.27 ppb	3.139	0.66%	
QC value within limits for Mo 202.031 Recovery = 95.45%							
Na 589.592 Radial†	71350.0	9742.9 µg/L	43.25	9742.9 ppb	43.25	0.44%	
QC value within limits for Na 589.592 Radial Recovery = 97.43%							
Ni 231.604†	41336.4	475.96 µg/L	0.597	475.96 ppb	0.597	0.13%	
QC value within limits for Ni 231.604 Recovery = 95.19%							
P 214.914†	11216.5	2390.8 µg/L	20.86	2390.8 ppb	20.86	0.87%	
QC value within limits for P 214.914 Recovery = 95.63%							
Pb 220.353†	8613.4	482.35 µg/L	3.112	482.35 ppb	3.112	0.65%	
QC value within limits for Pb 220.353 Recovery = 96.47%							
S 181.975 Axial†	1313.7	979.57 µg/L	4.000	979.57 ppb	4.000	0.41%	
QC value within limits for S 181.975 Axial Recovery = 97.96%							
Sb 206.836†	4008.4	477.64 µg/L	3.993	477.64 ppb	3.993	0.84%	
QC value within limits for Sb 206.836 Recovery = 95.53%							
Se 196.026†	1318.0	479 µg/L	2.7	479 ppb	2.7	0.56%	
QC value within limits for Se 196.026 Recovery = 95.72%							
SiO2†	52743.2	5134.7 µg/L	9.97	5134.7 ppb	9.97	0.19%	
QC value within limits for SiO2 Recovery = 96.02%							
Si 251.611†	164295.2	2412.7 µg/L	4.82	2412.7 ppb	4.82	0.20%	
QC value within limits for Si 251.611 Recovery = 96.51%							
Sn 189.927†	7666.9	479.55 µg/L	4.353	479.55 ppb	4.353	0.91%	
QC value within limits for Sn 189.927 Recovery = 95.91%							
Sr 421.552†	233721.9	485.86 µg/L	1.912	485.86 ppb	1.912	0.39%	
QC value within limits for Sr 421.552 Recovery = 97.17%							
Ti 334.940†	510507.6	476.35 µg/L	0.570	476.35 ppb	0.570	0.12%	
QC value within limits for Ti 334.940 Recovery = 95.27%							
Tl 190.801†	3910.2	487.59 µg/L	3.906	487.59 ppb	3.906	0.80%	
QC value within limits for Tl 190.801 Recovery = 97.52%							
U 409.014†	7331.6	457.58 µg/L	9.674	457.58 ppb	9.674	2.11%	
QC value within limits for U 409.014 Recovery = 91.52%							
V 292.402†	96943.2	479.23 µg/L	0.636	479.23 ppb	0.636	0.13%	
QC value within limits for V 292.402 Recovery = 95.85%							
Zn 213.857†	84860.8	472.96 µg/L	1.440	472.96 ppb	1.440	0.30%	
QC value within limits for Zn 213.857 Recovery = 94.59%							

All analyte(s) passed QC.

Sequence No.: 26

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/1/2010 5:51:01

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	143857.1	143857.1	98.6 %		05:51:30
1	Al 396.153Radial†	-190.3	-129.8	-24.073 µg/L	-24.073 ppb	05:51:30
1	Ca 317.933Radial†	662.4	111.4	6.2040 µg/L	6.2040 ppb	05:51:50
1	Fe 238.204 Radial†	240.6	95.9	5.9120 µg/L	5.9120 ppb	05:51:50
1	K 766.490 Radial†	1827.4	309.0	113.10 µg/L	113.10 ppb	05:51:30
1	Mg 279.077 IEC†	175.4	-12.8	-4.7672 µg/L	-4.7672 ppb	05:51:50
1	Na 589.592 Radial†	2010.1	748.3	102.12 µg/L	102.12 ppb	05:51:30
1	Sr 421.552†	-121.3	12.2	0.0254 µg/L	0.0254 ppb	05:51:30
1	Sc 361.383	1744647.3	1744647.3	101.54 %		05:52:38
1	Y 371.029	1039852.7	1039852.7	101.28 %		05:52:38
1	Ag 328.068†	4231.3	75.8	0.2964 µg/L	0.2964 ppb	05:52:40
1	As 188.979†	-7.4	13.0	3.9399 µg/L	3.9399 ppb	05:53:00
1	B 249.677†	3576.6	16.5	0.2423 µg/L	0.2423 ppb	05:52:40
1	Ba 233.527†	-119.0	18.7	0.0755 µg/L	0.0755 ppb	05:53:00
1	Be 313.107†	-677.2	397.7	0.1113 µg/L	0.1113 ppb	05:52:40
1	Cd 226.502†	-106.3	13.5	0.0838 µg/L	0.0838 ppb	05:53:00
1	Co 228.616†	-169.0	23.9	0.2944 µg/L	0.2944 ppb	05:53:00
1	Cr 267.716†	182.7	1.3	0.0029 µg/L	0.0029 ppb	05:53:00
1	Cu 324.752†	2933.5	-83.2	-0.3139 µg/L	-0.3139 ppb	05:52:40
1	Mn 257.610†	360.3	117.6	0.1457 µg/L	0.1457 ppb	05:53:00
1	Mo 202.031†	-13.1	7.1	0.2103 µg/L	0.2103 ppb	05:53:00
1	Ni 231.604†	-81.2	-3.4	-0.0393 µg/L	-0.0393 ppb	05:53:00
1	P 214.914†	-3.1	15.0	3.1893 µg/L	3.1893 ppb	05:53:00
1	Pb 220.353†	103.2	15.2	0.8412 µg/L	0.8412 ppb	05:53:00
1	S 181.975 Axial†	129.0	22.0	16.316 µg/L	16.316 ppb	05:53:00
1	Sb 206.836†	84.3	2.2	0.2646 µg/L	0.2646 ppb	05:53:00
1	Se 196.026†	21.1	5.5	2.01 µg/L	2.01 ppb	05:53:00
1	SiO2†	1943.3	138.5	13.536 µg/L	13.536 ppb	05:52:40
1	Si 251.611†	1317.1	460.6	6.7875 µg/L	6.7875 ppb	05:52:40
1	Sn 189.927†	-1.7	-0.6	-0.0361 µg/L	-0.0361 ppb	05:53:00
1	Ti 334.940†	1048.3	79.9	0.0710 µg/L	0.0710 ppb	05:52:40
1	Tl 190.801†	-113.2	5.2	0.6447 µg/L	0.6447 ppb	05:53:00
1	U 409.014†	-98.4	172.9	10.129 µg/L	10.129 ppb	05:52:40
1	V 292.402†	473.1	62.1	0.3114 µg/L	0.3114 ppb	05:52:40
1	Zn 213.857†	651.9	77.6	0.4356 µg/L	0.4356 ppb	05:53:00
2	Sc RADIAL	142277.4	142277.4	97.5 %		05:51:52
2	Al 396.153Radial†	-195.3	-137.1	-25.405 µg/L	-25.405 ppb	05:51:52
2	Ca 317.933Radial†	631.6	87.2	4.8601 µg/L	4.8601 ppb	05:52:12
2	Fe 238.204 Radial†	243.7	101.8	6.2746 µg/L	6.2746 ppb	05:52:12
2	K 766.490 Radial†	1831.8	334.1	122.30 µg/L	122.30 ppb	05:51:52
2	Mg 279.077 IEC†	198.1	12.5	4.6598 µg/L	4.6598 ppb	05:52:12
2	Na 589.592 Radial†	1973.8	733.7	100.12 µg/L	100.12 ppb	05:51:52
2	Sr 421.552†	-198.1	-68.0	-0.1413 µg/L	-0.1413 ppb	05:51:52
2	Sc 361.383	1755613.8	1755613.8	102.18 %		05:53:02
2	Y 371.029	1045342.2	1045342.2	101.82 %		05:53:02
2	Ag 328.068†	4084.8	-93.6	-0.3512 µg/L	-0.3512 ppb	05:53:05
2	As 188.979†	-11.6	9.0	2.7333 µg/L	2.7333 ppb	05:53:25
2	B 249.677†	3520.0	-60.9	-0.8996 µg/L	-0.8996 ppb	05:53:05
2	Ba 233.527†	-151.0	-11.9	-0.0485 µg/L	-0.0485 ppb	05:53:25
2	Be 313.107†	-734.9	345.5	0.0944 µg/L	0.0944 ppb	05:53:05
2	Cd 226.502†	-81.7	38.3	0.2382 µg/L	0.2382 ppb	05:53:25
2	Co 228.616†	-166.1	27.8	0.3426 µg/L	0.3426 ppb	05:53:25
2	Cr 267.716†	197.3	14.5	0.1126 µg/L	0.1126 ppb	05:53:25
2	Cu 324.752†	2823.4	-209.0	-0.8098 µg/L	-0.8098 ppb	05:53:05
2	Mn 257.610†	296.5	52.9	0.0653 µg/L	0.0653 ppb	05:53:25
2	Mo 202.031†	-26.0	-5.3	-0.1565 µg/L	-0.1565 ppb	05:53:25
2	Ni 231.604†	-104.8	-26.1	-0.3005 µg/L	-0.3005 ppb	05:53:25
2	P 214.914†	-27.4	-8.8	-1.8872 µg/L	-1.8872 ppb	05:53:25
2	Pb 220.353†	67.2	-20.6	-1.1524 µg/L	-1.1524 ppb	05:53:25

2	S 181.975 Axial†	133.6	25.7	19.101 µg/L	19.101 ppb	05:53:25
2	Sb 206.836†	85.0	2.4	0.2820 µg/L	0.2820 ppb	05:53:25
2	Se 196.026†	5.0	-10.4	-3.75 µg/L	-3.75 ppb	05:53:25
2	SiO2†	1920.1	103.8	10.144 µg/L	10.144 ppb	05:53:05
2	Si 251.611†	1212.7	350.3	5.1635 µg/L	5.1635 ppb	05:53:05
2	Sn 189.927†	6.6	7.5	0.4712 µg/L	0.4712 ppb	05:53:25
2	Ti 334.940†	1263.1	283.7	0.2643 µg/L	0.2643 ppb	05:53:05
2	Tl 190.801†	-114.3	4.8	0.5878 µg/L	0.5878 ppb	05:53:25
2	U 409.014†	-255.6	19.7	1.1243 µg/L	1.1243 ppb	05:53:05
2	V 292.402†	308.3	-102.1	-0.4992 µg/L	-0.4992 ppb	05:53:05
2	Zn 213.857†	622.2	44.6	0.2519 µg/L	0.2519 ppb	05:53:25
3	Sc RADIAL	143992.1	143992.1	98.7 %		05:52:14
3	Al 396.153Radial†	-137.4	-76.1	-14.103 µg/L	-14.103 ppb	05:52:14
3	Ca 317.933Radial†	645.0	93.1	5.1853 µg/L	5.1853 ppb	05:52:34
3	Fe 238.204 Radial†	216.1	70.9	4.3718 µg/L	4.3718 ppb	05:52:34
3	K 766.490 Radial†	1849.6	329.7	120.69 µg/L	120.69 ppb	05:52:14
3	Mg 279.077 IEC†	181.7	-6.5	-2.4380 µg/L	-2.4380 ppb	05:52:34
3	Na 589.592 Radial†	2041.7	778.4	106.23 µg/L	106.23 ppb	05:52:14
3	Sr 421.552†	-161.6	-28.5	-0.0593 µg/L	-0.0593 ppb	05:52:14
3	Sc 361.383	1751304.2	1751304.2	101.93 %		05:53:27
3	Y 371.029	1043123.9	1043123.9	101.60 %		05:53:27
3	Ag 328.068†	4042.1	-125.7	-0.4738 µg/L	-0.4738 ppb	05:53:29
3	As 188.979†	-14.7	5.9	1.7883 µg/L	1.7883 ppb	05:53:49
3	B 249.677†	3573.4	-0.0	-0.0007 µg/L	-0.0007 ppb	05:53:29
3	Ba 233.527†	-123.8	14.4	0.0582 µg/L	0.0582 ppb	05:53:49
3	Be 313.107†	-862.8	218.2	0.0565 µg/L	0.0565 ppb	05:53:29
3	Cd 226.502†	-104.2	16.0	0.0993 µg/L	0.0993 ppb	05:53:49
3	Co 228.616†	-189.1	4.8	0.0589 µg/L	0.0589 ppb	05:53:49
3	Cr 267.716†	233.6	50.6	0.4042 µg/L	0.4042 ppb	05:53:49
3	Cu 324.752†	2978.5	-50.0	-0.2016 µg/L	-0.2016 ppb	05:53:29
3	Mn 257.610†	332.2	88.6	0.1098 µg/L	0.1098 ppb	05:53:49
3	Mo 202.031†	-22.9	-2.4	-0.0712 µg/L	-0.0712 ppb	05:53:49
3	Ni 231.604†	-83.0	-4.9	-0.0567 µg/L	-0.0567 ppb	05:53:49
3	P 214.914†	-31.5	-13.0	-2.7749 µg/L	-2.7749 ppb	05:53:49
3	Pb 220.353†	87.3	-0.8	-0.0374 µg/L	-0.0374 ppb	05:53:49
3	S 181.975 Axial†	135.1	27.5	20.442 µg/L	20.442 ppb	05:53:49
3	Sb 206.836†	71.7	-10.5	-1.2527 µg/L	-1.2527 ppb	05:53:49
3	Se 196.026†	24.8	9.1	3.28 µg/L	3.28 ppb	05:53:49
3	SiO2†	1960.3	147.9	14.451 µg/L	14.451 ppb	05:53:29
3	Si 251.611†	1381.3	518.6	7.6414 µg/L	7.6414 ppb	05:53:29
3	Sn 189.927†	11.5	12.4	0.7700 µg/L	0.7700 ppb	05:53:49
3	Ti 334.940†	924.1	-45.9	-0.0388 µg/L	-0.0388 ppb	05:53:29
3	Tl 190.801†	-113.9	4.9	0.6058 µg/L	0.6058 ppb	05:53:49
3	U 409.014†	-442.0	-163.8	-9.5606 µg/L	-9.5606 ppb	05:53:29
3	V 292.402†	473.5	60.7	0.2903 µg/L	0.2903 ppb	05:53:29
3	Zn 213.857†	619.3	43.1	0.2421 µg/L	0.2421 ppb	05:53:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1750521.8	101.88 %	0.322			0.32%
Sc RADIAL	143375.5	98.2 %	0.65			0.66%
Y 371.029	1042772.9	101.57 %	0.269			0.26%
Ag 328.068†	-47.8	-0.1762 µg/L	0.41384	-0.1762 ppb	0.41384	234.86%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-114.3	-21.194 µg/L	6.1769	-21.194 ppb	6.1769	29.14%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	9.3	2.8205 µg/L	1.07844	2.8205 ppb	1.07844	38.24%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-14.8	-0.2194 µg/L	0.60155	-0.2194 ppb	0.60155	274.24%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	7.1	0.0284 µg/L	0.06714	0.0284 ppb	0.06714	236.17%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	320.5	0.0874 µg/L	0.02807	0.0874 ppb	0.02807	32.11%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	97.2	5.4165 µg/L	0.70116	5.4165 ppb	0.70116	12.94%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	22.6	0.1404 µg/L	0.08503	0.1404 ppb	0.08503	60.56%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	18.8	0.2320 µg/L	0.15179	0.2320 ppb	0.15179	65.44%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	22.2	0.1732 µg/L	0.20743	0.1732 ppb	0.20743	119.74%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-114.0	-0.4418 µg/L	0.32363	-0.4418 ppb	0.32363	73.25%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	89.6	5.5195 µg/L	1.01034	5.5195 ppb	1.01034	18.30%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	324.2	118.70 µg/L	4.914	118.70 ppb	4.914	4.14%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-2.3	-0.8485 µg/L	4.91038	-0.8485 ppb	4.91038	578.73%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	86.4	0.1069 µg/L	0.04026	0.1069 ppb	0.04026	37.65%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-0.2	-0.0058 µg/L	0.19198	-0.0058 ppb	0.19198	>999.9%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	753.5	102.83 µg/L	3.115	102.83 ppb	3.115	3.03%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-11.5	-0.1322 µg/L	0.14601	-0.1322 ppb	0.14601	110.48%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-2.3	-0.4909 µg/L	3.21789	-0.4909 ppb	3.21789	655.48%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-2.1	-0.1162 µg/L	0.99914	-0.1162 ppb	0.99914	859.83%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	25.1	18.620 µg/L	2.1044	18.620 ppb	2.1044	11.30%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-2.0	-0.2354 µg/L	0.88107	-0.2354 ppb	0.88107	374.30%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	1.4	0.512 µg/L	3.7435	0.512 ppb	3.7435	730.53%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	130.1	12.710 µg/L	2.2688	12.710 ppb	2.2688	17.85%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	443.2	6.5308 µg/L	1.25874	6.5308 ppb	1.25874	19.27%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	6.4	0.4017 µg/L	0.40750	0.4017 ppb	0.40750	101.44%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-28.1	-0.0584 µg/L	0.08335	-0.0584 ppb	0.08335	142.66%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	105.9	0.0989 µg/L	0.15342	0.0989 ppb	0.15342	155.20%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	5.0	0.6127 µg/L	0.02907	0.6127 ppb	0.02907	4.74%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	9.6	0.5642 µg/L	9.85669	0.5642 ppb	9.85669	>999.9%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	6.9	0.0342 µg/L	0.46201	0.0342 ppb	0.46201	>999.9%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	55.1	0.3099 µg/L	0.10900	0.3099 ppb	0.10900	35.18%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

=====
Analysis Begun

Start Time: 4/1/2010 5:58:06

Plasma On Time: 3/29/2010 18:07:58

Logged In Analyst: optima4

Technique: ICP Continuous

Spectrometer Model: Optima 7300 DV, S/N 077C0022701 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif

Batch ID:

Results Data Set: 033110B

Results Library: C:\pe\optima4\Results\Results.mdb

=====
Sequence No.: 1

Autosampler Location: 301

Sample ID: 248250002|959150|10

Date Collected: 4/1/2010 5:58:10

Analyst: HSC

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: 248250002|959150|10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	144332.8	144332.8	98.9	%		05:58:42
1	Al 396.153Radial†	30431.4	30831.3	5716.1	µg/L	5716.1 ppb	05:58:44
1	Ca 317.933Radial†	43972.9	43898.8	2445.3	µg/L	2445.3 ppb	05:58:44
1	Fe 238.204 Radial†	118843.5	120010.3	7396.7	µg/L	7396.7 ppb	05:58:44
1	K 766.490 Radial†	4108.7	2609.4	953.48	µg/L	953.48 ppb	05:58:44
1	Mg 279.077 IEC†	2980.1	2822.4	1045.2	µg/L	1045.2 ppb	05:58:44
1	Na 589.592 Radial†	2960.6	1702.6	231.74	µg/L	231.74 ppb	05:58:44
1	Sr 421.552†	8043.6	8267.9	17.169	µg/L	17.169 ppb	05:58:44
1	Sc 361.383	1771103.1	1771103.1	103.08	%		05:59:10
1	Y 371.029	1062689.3	1062689.3	103.51	%		05:59:10
1	Ag 328.068†	89371.2	82611.2	305.86	µg/L	305.86 ppb	05:59:10
1	As 188.979†	-0.6	19.8	8.5657	µg/L	8.5657 ppb	05:59:30
1	B 249.677†	3783.8	164.9	2.4266	µg/L	2.4266 ppb	05:59:30
1	Ba 233.527†	12551.3	12312.4	49.529	µg/L	49.529 ppb	05:59:30
1	Be 313.107†	1681.7	2696.1	0.7113	µg/L	0.7113 ppb	05:59:10
1	Cd 226.502†	559.6	661.1	3.3529	µg/L	3.3529 ppb	05:59:30
1	Co 228.616†	-58.0	134.0	1.3342	µg/L	1.3342 ppb	05:59:30
1	Cr 267.716†	12987.0	12420.6	97.569	µg/L	97.569 ppb	05:59:30
1	Cu 324.752†	9051.6	5809.1	23.619	µg/L	23.619 ppb	05:59:10
1	Mn 257.610†	66433.5	64212.5	79.389	µg/L	79.389 ppb	05:59:10
1	Mo 202.031†	-33.9	-12.8	-0.0598	µg/L	-0.0598 ppb	05:59:30
1	Ni 231.604†	243.6	312.9	3.6022	µg/L	3.6022 ppb	05:59:30
1	P 214.914†	563.1	564.2	116.69	µg/L	116.69 ppb	05:59:30
1	Pb 220.353†	396.3	298.1	17.167	µg/L	17.167 ppb	05:59:30
1	S 181.975 Axial†	915.2	782.8	581.27	µg/L	581.27 ppb	05:59:30
1	Sb 206.836†	80.2	-3.0	-1.9219	µg/L	-1.9219 ppb	05:59:30
1	Se 196.026†	2.4	-12.9	-2.19	µg/L	-2.19 ppb	05:59:30
1	SiO2†	76812.1	72743.1	7110.0	µg/L	7110.0 ppb	05:59:10
1	Si 251.611†	233059.9	225264.1	3321.0	µg/L	3321.0 ppb	05:59:10
1	Sn 189.927†	40.6	40.5	3.4502	µg/L	3.4502 ppb	05:59:30
1	Ti 334.940†	303935.6	293907.5	274.56	µg/L	274.56 ppb	05:59:10
1	Tl 190.801†	-138.5	-17.7	0.8833	µg/L	0.8833 ppb	05:59:30
1	U 409.014†	-1609.7	-1291.8	-75.873	µg/L	-75.873 ppb	05:59:10
1	V 292.402†	3486.5	2978.6	13.859	µg/L	13.859 ppb	05:59:30
1	Zn 213.857†	10418.5	9543.0	53.010	µg/L	53.010 ppb	05:59:30
2	Sc RADIAL	145820.5	145820.5	99.9	%		05:58:46
2	Al 396.153Radial†	30334.7	30420.6	5640.0	µg/L	5640.0 ppb	05:58:48
2	Ca 317.933Radial†	44251.2	43723.8	2435.6	µg/L	2435.6 ppb	05:58:48
2	Fe 238.204 Radial†	119399.7	119341.1	7355.5	µg/L	7355.5 ppb	05:58:48
2	K 766.490 Radial†	3859.1	2317.2	846.52	µg/L	846.52 ppb	05:58:48
2	Mg 279.077 IEC†	3060.2	2871.8	1063.7	µg/L	1063.7 ppb	05:58:48
2	Na 589.592 Radial†	3163.6	1875.2	255.42	µg/L	255.42 ppb	05:58:48
2	Sr 421.552†	7936.2	8077.4	16.773	µg/L	16.773 ppb	05:58:48
2	Sc 361.383	1738903.7	1738903.7	101.20	%		05:59:33
2	Y 371.029	1044999.1	1044999.1	101.78	%		05:59:33
2	Ag 328.068†	88071.2	82932.1	307.06	µg/L	307.06 ppb	05:59:33
2	As 188.979†	-8.6	11.9	6.1905	µg/L	6.1905 ppb	05:59:53

2	B 249.677†	3741.6	191.2	2.8134 µg/L	2.8134 ppb	05:59:53
2	Ba 233.527†	12579.7	12565.9	50.552 µg/L	50.552 ppb	05:59:53
2	Be 313.107†	1597.4	2643.1	0.6994 µg/L	0.6994 ppb	05:59:33
2	Cd 226.502†	564.6	676.1	3.4513 µg/L	3.4513 ppb	05:59:53
2	Co 228.616†	-47.7	143.2	1.4511 µg/L	1.4511 ppb	05:59:53
2	Cr 267.716†	12998.7	12665.5	99.479 µg/L	99.479 ppb	05:59:53
2	Cu 324.752†	8750.8	5674.4	23.098 µg/L	23.098 ppb	05:59:33
2	Mn 257.610†	65526.5	64509.8	79.756 µg/L	79.756 ppb	05:59:33
2	Mo 202.031†	-27.3	-6.9	0.1130 µg/L	0.1130 ppb	05:59:53
2	Ni 231.604†	247.4	320.9	3.6953 µg/L	3.6953 ppb	05:59:53
2	P 214.914†	564.6	575.9	119.20 µg/L	119.20 ppb	05:59:53
2	Pb 220.353†	369.1	278.4	16.058 µg/L	16.058 ppb	05:59:53
2	S 181.975 Axial†	931.8	815.7	605.70 µg/L	605.70 ppb	05:59:53
2	Sb 206.836†	89.7	7.9	-0.6594 µg/L	-0.6594 ppb	05:59:53
2	Se 196.026†	5.9	-9.4	-0.924 µg/L	-0.924 ppb	05:59:53
2	SiO2†	75652.6	72977.3	7132.9 µg/L	7132.9 ppb	05:59:33
2	Si 251.611†	229815.1	226244.6	3335.5 µg/L	3335.5 ppb	05:59:33
2	Sn 189.927†	34.0	34.8	3.0984 µg/L	3.0984 ppb	05:59:53
2	Ti 334.940†	300365.1	295839.4	276.36 µg/L	276.36 ppb	05:59:33
2	Tl 190.801†	-145.9	-27.5	-0.2964 µg/L	-0.2964 ppb	05:59:53
2	U 409.014†	-1431.6	-1144.7	-67.242 µg/L	-67.242 ppb	05:59:33
2	V 292.402†	3499.5	3054.1	14.246 µg/L	14.246 ppb	05:59:53
2	Zn 213.857†	10464.4	9775.5	54.320 µg/L	54.320 ppb	05:59:53
3	Sc RADIAL	144781.7	144781.7	99.2 %		05:58:50
3	Al 396.153Radial†	30404.9	30709.2	5693.5 µg/L	5693.5 ppb	05:58:52
3	Ca 317.933Radial†	44072.5	43861.4	2443.3 µg/L	2443.3 ppb	05:58:52
3	Fe 238.204 Radial†	119305.5	120103.5	7402.4 µg/L	7402.4 ppb	05:58:52
3	K 766.490 Radial†	3895.1	2381.3	869.97 µg/L	869.97 ppb	05:58:52
3	Mg 279.077 IEC†	2892.7	2725.0	1008.9 µg/L	1008.9 ppb	05:58:52
3	Na 589.592 Radial†	3071.2	1804.8	245.78 µg/L	245.78 ppb	05:58:52
3	Sr 421.552†	8041.6	8240.6	17.113 µg/L	17.113 ppb	05:58:52
3	Sc 361.383	1773195.6	1773195.6	103.20 %		05:59:55
3	Y 371.029	1064819.6	1064819.6	103.71 %		05:59:55
3	Ag 328.068†	89636.2	82765.6	306.44 µg/L	306.44 ppb	05:59:55
3	As 188.979†	-8.0	12.6	6.4027 µg/L	6.4027 ppb	06:00:16
3	B 249.677†	3765.0	142.3	2.0923 µg/L	2.0923 ppb	06:00:16
3	Ba 233.527†	12650.3	12393.9	49.857 µg/L	49.857 ppb	06:00:16
3	Be 313.107†	1705.1	2716.9	0.7199 µg/L	0.7199 ppb	05:59:55
3	Cd 226.502†	576.1	676.4	3.4482 µg/L	3.4482 ppb	06:00:16
3	Co 228.616†	-34.6	156.8	1.6151 µg/L	1.6151 ppb	06:00:16
3	Cr 267.716†	13029.4	12446.8	97.767 µg/L	97.767 ppb	06:00:16
3	Cu 324.752†	9044.6	5792.0	23.561 µg/L	23.561 ppb	05:59:55
3	Mn 257.610†	66426.3	64129.5	79.288 µg/L	79.288 ppb	05:59:55
3	Mo 202.031†	-44.4	-23.0	-0.3595 µg/L	-0.3595 ppb	06:00:16
3	Ni 231.604†	280.7	348.6	4.0133 µg/L	4.0133 ppb	06:00:16
3	P 214.914†	588.4	588.1	121.80 µg/L	121.80 ppb	06:00:16
3	Pb 220.353†	385.1	286.8	16.527 µg/L	16.527 ppb	06:00:16
3	S 181.975 Axial†	935.5	801.5	595.15 µg/L	595.15 ppb	06:00:16
3	Sb 206.836†	68.4	-14.5	-3.2998 µg/L	-3.2998 ppb	06:00:16
3	Se 196.026†	6.3	-9.1	-0.794 µg/L	-0.794 ppb	06:00:16
3	SiO2†	77064.1	72899.3	7125.3 µg/L	7125.3 ppb	05:59:55
3	Si 251.611†	233678.7	225596.9	3325.9 µg/L	3325.9 ppb	05:59:55
3	Sn 189.927†	48.5	48.1	3.9249 µg/L	3.9249 ppb	06:00:16
3	Ti 334.940†	304783.1	294380.8	275.01 µg/L	275.01 ppb	05:59:55
3	Tl 190.801†	-139.9	-18.8	0.7487 µg/L	0.7487 ppb	06:00:16
3	U 409.014†	-1441.5	-1126.9	-66.244 µg/L	-66.244 ppb	05:59:55
3	V 292.402†	3459.6	2948.6	13.716 µg/L	13.716 ppb	06:00:16
3	Zn 213.857†	10476.0	9586.8	53.252 µg/L	53.252 ppb	06:00:16

Mean Data: 248250002|959150|10

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
Sc 361.383	1761067.4	102.49	%	1.119			1.09%
Sc RADIAL	144978.3	99.3	%	0.52			0.53%
Y 371.029	1057502.7	103.00	%	1.060			1.03%
Ag 328.068†	82769.6	306.45	µg/L	0.602	306.45 ppb	0.602	0.20%
Al 396.153Radial†	30653.7	5683.2	µg/L	39.11	5683.2 ppb	39.11	0.69%
As 188.979†	14.8	7.0530	µg/L	1.31433	7.0530 ppb	1.31433	18.64%
B 249.677†	166.1	2.4441	µg/L	0.36087	2.4441 ppb	0.36087	14.76%
Ba 233.527†	12424.1	49.979	µg/L	0.5220	49.979 ppb	0.5220	1.04%

Be 313.107†	2685.4	0.7102 µg/L	0.01026	0.7102 ppb	0.01026	1.44%
Ca 317.933Radial†	43828.0	2441.4 µg/L	5.13	2441.4 ppb	5.13	0.21%
Cd 226.502†	671.2	3.4175 µg/L	0.05594	3.4175 ppb	0.05594	1.64%
Co 228.616†	144.7	1.4668 µg/L	0.14110	1.4668 ppb	0.14110	9.62%
Cr 267.716†	12511.0	98.272 µg/L	1.0500	98.272 ppb	1.0500	1.07%
Cu 324.752†	5758.5	23.426 µg/L	0.2858	23.426 ppb	0.2858	1.22%
Fe 238.204 Radial†	119818.3	7384.9 µg/L	25.63	7384.9 ppb	25.63	0.35%
K 766.490 Radial†	2435.9	889.99 µg/L	56.220	889.99 ppb	56.220	6.32%
Mg 279.077 IEC†	2806.4	1039.3 µg/L	27.86	1039.3 ppb	27.86	2.68%
Mn 257.610†	64283.9	79.478 µg/L	0.2465	79.478 ppb	0.2465	0.31%
Mo 202.031†	-14.2	-0.1021 µg/L	0.23908	-0.1021 ppb	0.23908	234.11%
Na 589.592 Radial†	1794.2	244.31 µg/L	11.904	244.31 ppb	11.904	4.87%
Ni 231.604†	327.4	3.7703 µg/L	0.21556	3.7703 ppb	0.21556	5.72%
P 214.914†	576.1	119.23 µg/L	2.554	119.23 ppb	2.554	2.14%
Pb 220.353†	287.8	16.584 µg/L	0.5567	16.584 ppb	0.5567	3.36%
S 181.975 Axial†	800.0	594.04 µg/L	12.251	594.04 ppb	12.251	2.06%
Sb 206.836†	-3.2	-1.9604 µg/L	1.32064	-1.9604 ppb	1.32064	67.37%
Se 196.026†	-10.5	-1.30 µg/L	0.769	-1.30 ppb	0.769	59.09%
SiO2†	72873.2	7122.7 µg/L	11.65	7122.7 ppb	11.65	0.16%
Si 251.611†	225701.9	3327.5 µg/L	7.35	3327.5 ppb	7.35	0.22%
Sn 189.927†	41.1	3.4912 µg/L	0.41476	3.4912 ppb	0.41476	11.88%
Sr 421.552†	8195.3	17.018 µg/L	0.2142	17.018 ppb	0.2142	1.26%
Ti 334.940†	294709.2	275.31 µg/L	0.938	275.31 ppb	0.938	0.34%
Tl 190.801†	-21.4	0.4452 µg/L	0.64577	0.4452 ppb	0.64577	145.06%
U 409.014†	-1187.8	-69.787 µg/L	5.2948	-69.787 ppb	5.2948	7.59%
Concentration less than lower limit for U 409.014.						
V 292.402†	2993.7	13.940 µg/L	0.2742	13.940 ppb	0.2742	1.97%
Zn 213.857†	9635.1	53.527 µg/L	0.6969	53.527 ppb	0.6969	1.30%

Sequence No.: 2

Sample ID: 248250003|959150|10

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 302

Date Collected: 4/1/2010 6:00:24

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248250003|959150|10

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	143704.7	143704.7	98.5 %		06:00:54
1	Al 396.153Radial†	29304.0	29820.9	5528.8 µg/L	5528.8 ppb	06:00:56
1	Ca 317.933Radial†	81331.5	82030.2	4569.4 µg/L	4569.4 ppb	06:00:56
1	Fe 238.204 Radial†	107408.5	108923.4	6713.4 µg/L	6713.4 ppb	06:00:56
1	K 766.490 Radial†	5600.2	4142.1	1514.1 µg/L	1514.1 ppb	06:00:56
1	Mg 279.077 IEC†	4802.0	4685.7	1740.1 µg/L	1740.1 ppb	06:00:56
1	Na 589.592 Radial†	8381.2	7220.2	985.01 µg/L	985.01 ppb	06:00:56
1	Sr 421.552†	12022.3	12343.8	25.626 µg/L	25.626 ppb	06:00:56
1	Sc 361.383	1776301.2	1776301.2	103.38 %		06:01:22
1	Y 371.029	1061781.5	1061781.5	103.42 %		06:01:22
1	Ag 328.068†	61753.4	55642.7	205.93 µg/L	205.93 ppb	06:01:22
1	As 188.979†	-10.0	10.7	5.6666 µg/L	5.6666 ppb	06:01:42
1	B 249.677†	4169.3	527.1	7.7668 µg/L	7.7668 ppb	06:01:42
1	Ba 233.527†	12157.3	11895.7	47.857 µg/L	47.857 ppb	06:01:42
1	Be 313.107†	1613.2	2625.2	0.6939 µg/L	0.6939 ppb	06:01:22
1	Cd 226.502†	98.5	213.4	0.6286 µg/L	0.6286 ppb	06:01:42
1	Co 228.616†	-26.0	165.2	1.7526 µg/L	1.7526 ppb	06:01:42
1	Cr 267.716†	13176.5	12567.1	98.677 µg/L	98.677 ppb	06:01:42
1	Cu 324.752†	5508.5	2356.1	10.125 µg/L	10.125 ppb	06:01:22
1	Mn 257.610†	69733.5	67216.0	83.080 µg/L	83.080 ppb	06:01:22
1	Mo 202.031†	-27.8	-6.8	0.1022 µg/L	0.1022 ppb	06:01:42
1	Ni 231.604†	174.4	245.2	2.8232 µg/L	2.8232 ppb	06:01:42
1	P 214.914†	1229.2	1206.9	254.75 µg/L	254.75 ppb	06:01:42
1	Pb 220.353†	284.5	188.9	10.950 µg/L	10.950 ppb	06:01:42
1	S 181.975 Axial†	3259.7	3048.1	2263.4 µg/L	2263.4 ppb	06:01:42
1	Sb 206.836†	78.0	-5.4	-2.2078 µg/L	-2.2078 ppb	06:01:42
1	Se 196.026†	2.9	-12.5	-2.25 µg/L	-2.25 ppb	06:01:42
1	SiO2†	58785.2	55087.6	5384.3 µg/L	5384.3 ppb	06:01:22
1	Si 251.611†	177226.0	170594.3	2515.0 µg/L	2515.0 ppb	06:01:22
1	Sn 189.927†	85.8	84.2	5.8431 µg/L	5.8431 ppb	06:01:42
1	Ti 334.940†	196864.6	189474.7	176.99 µg/L	176.99 ppb	06:01:22
1	Tl 190.801†	-134.9	-13.8	0.3786 µg/L	0.3786 ppb	06:01:42
1	U 409.014†	-1499.5	-1180.6	-69.231 µg/L	-69.231 ppb	06:01:22
1	V 292.402†	3018.7	2516.2	11.777 µg/L	11.777 ppb	06:01:42
1	Zn 213.857†	10591.9	9681.2	53.794 µg/L	53.794 ppb	06:01:42
2	Sc RADIAL	145053.3	145053.3	99.4 %		06:00:58
2	Al 396.153Radial†	29155.2	29394.5	5449.7 µg/L	5449.7 ppb	06:01:00
2	Ca 317.933Radial†	81021.5	80950.5	4509.3 µg/L	4509.3 ppb	06:01:00
2	Fe 238.204 Radial†	106664.3	107160.7	6604.7 µg/L	6604.7 ppb	06:01:00
2	K 766.490 Radial†	5547.4	4036.2	1475.3 µg/L	1475.3 ppb	06:01:00
2	Mg 279.077 IEC†	4648.1	4485.4	1665.5 µg/L	1665.5 ppb	06:01:00
2	Na 589.592 Radial†	8433.6	7193.8	981.45 µg/L	981.45 ppb	06:01:00
2	Sr 421.552†	11907.8	12115.0	25.151 µg/L	25.151 ppb	06:01:00
2	Sc 361.383	1754458.9	1754458.9	102.11 %		06:01:45
2	Y 371.029	1049753.0	1049753.0	102.25 %		06:01:45
2	Ag 328.068†	60907.5	55558.0	205.63 µg/L	205.63 ppb	06:01:45
2	As 188.979†	-4.4	16.1	7.2875 µg/L	7.2875 ppb	06:02:05
2	B 249.677†	4156.3	564.5	8.3204 µg/L	8.3204 ppb	06:02:05
2	Ba 233.527†	12097.7	11983.6	48.213 µg/L	48.213 ppb	06:02:05
2	Be 313.107†	1504.5	2538.1	0.6725 µg/L	0.6725 ppb	06:01:45
2	Cd 226.502†	84.3	200.8	0.5612 µg/L	0.5612 ppb	06:02:05
2	Co 228.616†	-71.0	120.8	1.2117 µg/L	1.2117 ppb	06:02:05
2	Cr 267.716†	13120.9	12671.3	99.485 µg/L	99.485 ppb	06:02:05
2	Cu 324.752†	5530.1	2443.6	10.453 µg/L	10.453 ppb	06:01:45
2	Mn 257.610†	68827.6	67168.5	83.024 µg/L	83.024 ppb	06:01:45
2	Mo 202.031†	-23.6	-3.0	0.2071 µg/L	0.2071 ppb	06:02:05
2	Ni 231.604†	214.8	286.9	3.3035 µg/L	3.3035 ppb	06:02:05
2	P 214.914†	1196.7	1190.0	251.16 µg/L	251.16 ppb	06:02:05
2	Pb 220.353†	317.8	224.9	12.954 µg/L	12.954 ppb	06:02:05

2	S 181.975 Axial†	3246.1	3074.0	2282.7 µg/L	2282.7 ppb	06:02:05
2	Sb 206.836†	91.2	8.4	-0.5779 µg/L	-0.5779 ppb	06:02:05
2	Se 196.026†	12.4	-3.1	1.11 µg/L	1.11 ppb	06:02:05
2	SiO2†	57967.0	54994.2	5375.2 µg/L	5375.2 ppb	06:01:45
2	Si 251.611†	174312.3	169875.0	2504.4 µg/L	2504.4 ppb	06:01:45
2	Sn 189.927†	67.1	66.8	4.7641 µg/L	4.7641 ppb	06:02:05
2	Ti 334.940†	194772.1	189796.2	177.29 µg/L	177.29 ppb	06:01:45
2	Tl 190.801†	-141.9	-22.3	-0.6588 µg/L	-0.6588 ppb	06:02:05
2	U 409.014†	-1351.5	-1053.7	-61.781 µg/L	-61.781 ppb	06:01:45
2	V 292.402†	3020.2	2554.0	11.982 µg/L	11.982 ppb	06:02:05
2	Zn 213.857†	10580.7	9797.7	54.457 µg/L	54.457 ppb	06:02:05
3	Sc RADIAL	144319.8	144319.8	98.9 %		06:01:02
3	Al 396.153Radial†	29133.6	29521.8	5473.3 µg/L	5473.3 ppb	06:01:04
3	Ca 317.933Radial†	81333.5	81680.2	4549.9 µg/L	4549.9 ppb	06:01:04
3	Fe 238.204 Radial†	107021.3	108067.0	6660.6 µg/L	6660.6 ppb	06:01:04
3	K 766.490 Radial†	5680.6	4199.2	1535.0 µg/L	1535.0 ppb	06:01:04
3	Mg 279.077 IEC†	4838.2	4701.4	1746.0 µg/L	1746.0 ppb	06:01:04
3	Na 589.592 Radial†	8425.7	7228.9	986.19 µg/L	986.19 ppb	06:01:04
3	Sr 421.552†	12048.7	12318.4	25.574 µg/L	25.574 ppb	06:01:04
3	Sc 361.383	1756086.0	1756086.0	102.20 %		06:02:08
3	Y 371.029	1051032.2	1051032.2	102.37 %		06:02:08
3	Ag 328.068†	60915.1	55510.2	205.45 µg/L	205.45 ppb	06:02:08
3	As 188.979†	-12.0	8.6	5.0539 µg/L	5.0539 ppb	06:02:28
3	B 249.677†	4163.9	568.2	8.3758 µg/L	8.3758 ppb	06:02:28
3	Ba 233.527†	12170.7	12044.1	48.456 µg/L	48.456 ppb	06:02:28
3	Be 313.107†	1472.1	2505.0	0.6635 µg/L	0.6635 ppb	06:02:08
3	Cd 226.502†	105.9	221.8	0.6864 µg/L	0.6864 ppb	06:02:28
3	Co 228.616†	-80.9	111.1	1.0896 µg/L	1.0896 ppb	06:02:28
3	Cr 267.716†	13187.6	12724.7	99.904 µg/L	99.904 ppb	06:02:28
3	Cu 324.752†	5528.0	2436.6	10.436 µg/L	10.436 ppb	06:02:08
3	Mn 257.610†	68834.0	67112.4	82.951 µg/L	82.951 ppb	06:02:08
3	Mo 202.031†	-3.9	16.3	0.7781 µg/L	0.7781 ppb	06:02:28
3	Ni 231.604†	208.6	280.6	3.2310 µg/L	3.2310 ppb	06:02:28
3	P 214.914†	1233.7	1225.1	258.63 µg/L	258.63 ppb	06:02:28
3	Pb 220.353†	320.0	226.7	13.059 µg/L	13.059 ppb	06:02:28
3	S 181.975 Axial†	3271.3	3095.7	2298.8 µg/L	2298.8 ppb	06:02:28
3	Sb 206.836†	91.0	8.2	-0.6050 µg/L	-0.6050 ppb	06:02:28
3	Se 196.026†	16.8	1.2	2.69 µg/L	2.69 ppb	06:02:28
3	SiO2†	57800.0	54778.3	5354.1 µg/L	5354.1 ppb	06:02:08
3	Si 251.611†	174546.9	169946.4	2505.5 µg/L	2505.5 ppb	06:02:08
3	Sn 189.927†	65.0	64.7	4.6333 µg/L	4.6333 ppb	06:02:28
3	Ti 334.940†	195032.0	189873.8	177.36 µg/L	177.36 ppb	06:02:08
3	Tl 190.801†	-136.2	-16.6	0.0470 µg/L	0.0470 ppb	06:02:28
3	U 409.014†	-1350.7	-1051.6	-61.675 µg/L	-61.675 ppb	06:02:08
3	V 292.402†	3016.0	2547.1	11.951 µg/L	11.951 ppb	06:02:28
3	Zn 213.857†	10615.5	9822.2	54.589 µg/L	54.589 ppb	06:02:28

Mean Data: 248250003|959150|10

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1762282.0	102.56 %		0.708			0.69%
Sc RADIAL	144359.3	98.9 %		0.46			0.47%
Y 371.029	1054188.9	102.68 %		0.643			0.63%
Ag 328.068†	55570.3	205.67 µg/L		0.242	205.67 ppb	0.242	0.12%
Al 396.153Radial†	29579.1	5483.9 µg/L		40.58	5483.9 ppb	40.58	0.74%
As 188.979†	11.8	6.0027 µg/L		1.15410	6.0027 ppb	1.15410	19.23%
B 249.677†	553.3	8.1543 µg/L		0.33675	8.1543 ppb	0.33675	4.13%
Ba 233.527†	11974.5	48.176 µg/L		0.3013	48.176 ppb	0.3013	0.63%
Be 313.107†	2556.1	0.6766 µg/L		0.01564	0.6766 ppb	0.01564	2.31%
Ca 317.933Radial†	81553.6	4542.9 µg/L		30.68	4542.9 ppb	30.68	0.68%
Cd 226.502†	212.0	0.6254 µg/L		0.06264	0.6254 ppb	0.06264	10.02%
Co 228.616†	132.4	1.3513 µg/L		0.35288	1.3513 ppb	0.35288	26.11%
Cr 267.716†	12654.4	99.355 µg/L		0.6237	99.355 ppb	0.6237	0.63%
Cu 324.752†	2412.1	10.338 µg/L		0.1847	10.338 ppb	0.1847	1.79%
Fe 238.204 Radial†	108050.4	6659.6 µg/L		54.33	6659.6 ppb	54.33	0.82%
K 766.490 Radial†	4125.8	1508.2 µg/L		30.27	1508.2 ppb	30.27	2.01%
Mg 279.077 IEC†	4624.2	1717.2 µg/L		44.83	1717.2 ppb	44.83	2.61%
Mn 257.610†	67165.7	83.018 µg/L		0.0643	83.018 ppb	0.0643	0.08%
Mo 202.031†	2.2	0.3624 µg/L		0.36376	0.3624 ppb	0.36376	100.36%
Na 589.592 Radial†	7214.3	984.22 µg/L		2.472	984.22 ppb	2.472	0.25%

Ni 231.604†	270.9	3.1192 µg/L	0.25891	3.1192 ppb	0.25891	8.30%
P 214.914†	1207.3	254.85 µg/L	3.737	254.85 ppb	3.737	1.47%
Pb 220.353†	213.5	12.321 µg/L	1.1886	12.321 ppb	1.1886	9.65%
S 181.975 Axial†	3072.6	2281.7 µg/L	17.73	2281.7 ppb	17.73	0.78%
Sb 206.836†	3.8	-1.1302 µg/L	0.93331	-1.1302 ppb	0.93331	82.58%
Se 196.026†	-4.8	0.513 µg/L	2.5228	0.513 ppb	2.5228	491.62%
SiO2†	54953.4	5371.2 µg/L	15.51	5371.2 ppb	15.51	0.29%
Si 251.611†	170138.6	2508.3 µg/L	5.84	2508.3 ppb	5.84	0.23%
Sn 189.927†	71.9	5.0802 µg/L	0.66394	5.0802 ppb	0.66394	13.07%
Sr 421.552†	12259.1	25.450 µg/L	0.2605	25.450 ppb	0.2605	1.02%
Ti 334.940†	189714.9	177.22 µg/L	0.196	177.22 ppb	0.196	0.11%
Tl 190.801†	-17.5	-0.0777 µg/L	0.52982	-0.0777 ppb	0.52982	681.52%
U 409.014†	-1095.3	-64.229 µg/L	4.3322	-64.229 ppb	4.3322	6.74%
Concentration less than lower limit for U 409.014.						
V 292.402†	2539.1	11.903 µg/L	0.1105	11.903 ppb	0.1105	0.93%
Zn 213.857†	9767.0	54.280 µg/L	0.4258	54.280 ppb	0.4258	0.78%

Sequence No.: 3

Sample ID: 248250004|959150|10

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 303

Date Collected: 4/1/2010 6:02:36

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248250004|959150|10

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	145329.8	145329.8	99.6 %		06:03:06
1	Al 396.153Radial†	25837.8	26007.6	4821.8 µg/L	4821.8 ppb	06:03:08
1	Ca 317.933Radial†	46982.7	46616.0	2596.7 µg/L	2596.7 ppb	06:03:08
1	Fe 238.204 Radial†	118833.2	119175.6	7345.3 µg/L	7345.3 ppb	06:03:08
1	K 766.490 Radial†	4146.5	2618.8	957.08 µg/L	957.08 ppb	06:03:08
1	Mg 279.077 IEC†	2950.3	2771.8	1026.4 µg/L	1026.4 ppb	06:03:08
1	Na 589.592 Radial†	4162.6	2889.0	393.82 µg/L	393.82 ppb	06:03:08
1	Sr 421.552†	7252.5	7417.7	15.401 µg/L	15.401 ppb	06:03:08
1	Sc 361.383	1770505.8	1770505.8	103.04 %		06:03:20
1	Y 371.029	1060619.2	1060619.2	103.30 %		06:03:20
1	Ag 328.068†	58533.4	52713.4	195.12 µg/L	195.12 ppb	06:03:20
1	As 188.979†	-16.6	4.3	3.5796 µg/L	3.5796 ppb	06:03:40
1	B 249.677†	3947.6	325.2	4.7902 µg/L	4.7902 ppb	06:03:40
1	Ba 233.527†	9409.7	9267.6	37.258 µg/L	37.258 ppb	06:03:40
1	Be 313.107†	1200.6	2229.9	0.5912 µg/L	0.5912 ppb	06:03:20
1	Cd 226.502†	43.8	160.8	0.2328 µg/L	0.2328 ppb	06:03:40
1	Co 228.616†	-69.8	122.6	1.1784 µg/L	1.1784 ppb	06:03:40
1	Cr 267.716†	9093.2	8646.1	67.983 µg/L	67.983 ppb	06:03:40
1	Cu 324.752†	4886.6	1770.0	7.9336 µg/L	7.9336 ppb	06:03:20
1	Mn 257.610†	73928.3	71507.7	88.416 µg/L	88.416 ppb	06:03:20
1	Mo 202.031†	-12.0	8.5	0.5614 µg/L	0.5614 ppb	06:03:40
1	Ni 231.604†	132.4	205.0	2.3607 µg/L	2.3607 ppb	06:03:40
1	P 214.914†	724.2	720.7	150.18 µg/L	150.18 ppb	06:03:40
1	Pb 220.353†	207.7	115.1	6.8132 µg/L	6.8132 ppb	06:03:40
1	S 181.975 Axial†	1300.7	1157.2	859.36 µg/L	859.36 ppb	06:03:40
1	Sb 206.836†	95.6	12.0	0.3082 µg/L	0.3082 ppb	06:03:40
1	Se 196.026†	7.4	-8.1	-0.441 µg/L	-0.441 ppb	06:03:40
1	SiO2†	55939.1	52511.7	5132.5 µg/L	5132.5 ppb	06:03:20
1	Si 251.611†	168362.5	162553.7	2396.5 µg/L	2396.5 ppb	06:03:20
1	Sn 189.927†	62.0	61.3	4.5531 µg/L	4.5531 ppb	06:03:40
1	Ti 334.940†	239694.4	231663.0	216.42 µg/L	216.42 ppb	06:03:20
1	Tl 190.801†	-127.0	-6.6	1.6613 µg/L	1.6613 ppb	06:03:40
1	U 409.014†	-1207.2	-901.7	-53.200 µg/L	-53.200 ppb	06:03:20
1	V 292.402†	2576.7	2096.9	9.5118 µg/L	9.5118 ppb	06:03:40
1	Zn 213.857†	9365.7	8524.7	47.266 µg/L	47.266 ppb	06:03:40
2	Sc RADIAL	143082.6	143082.6	98.0 %		06:03:10
2	Al 396.153Radial†	25672.4	26246.4	4866.1 µg/L	4866.1 ppb	06:03:12
2	Ca 317.933Radial†	46553.2	46918.9	2613.6 µg/L	2613.6 ppb	06:03:12
2	Fe 238.204 Radial†	117885.5	120083.1	7401.2 µg/L	7401.2 ppb	06:03:12
2	K 766.490 Radial†	3901.9	2434.8	889.68 µg/L	889.68 ppb	06:03:12
2	Mg 279.077 IEC†	2931.4	2799.0	1036.5 µg/L	1036.5 ppb	06:03:12
2	Na 589.592 Radial†	4026.0	2815.3	383.81 µg/L	383.81 ppb	06:03:12
2	Sr 421.552†	7176.0	7454.1	15.476 µg/L	15.476 ppb	06:03:12
2	Sc 361.383	1765545.5	1765545.5	102.75 %		06:03:43
2	Y 371.029	1057614.7	1057614.7	103.01 %		06:03:43
2	Ag 328.068†	58502.9	52843.3	195.58 µg/L	195.58 ppb	06:03:43
2	As 188.979†	-10.2	10.4	5.4667 µg/L	5.4667 ppb	06:04:03
2	B 249.677†	3952.0	340.1	5.0125 µg/L	5.0125 ppb	06:04:03
2	Ba 233.527†	9482.6	9364.2	37.646 µg/L	37.646 ppb	06:04:03
2	Be 313.107†	1205.8	2238.2	0.5896 µg/L	0.5896 ppb	06:03:43
2	Cd 226.502†	31.6	149.0	0.1534 µg/L	0.1534 ppb	06:04:03
2	Co 228.616†	-102.1	90.9	0.7856 µg/L	0.7856 ppb	06:04:03
2	Cr 267.716†	9153.2	8729.2	68.646 µg/L	68.646 ppb	06:04:03
2	Cu 324.752†	4762.6	1662.7	7.5141 µg/L	7.5141 ppb	06:03:43
2	Mn 257.610†	74036.8	71814.8	88.796 µg/L	88.796 ppb	06:03:43
2	Mo 202.031†	-35.4	-14.4	-0.1085 µg/L	-0.1085 ppb	06:04:03
2	Ni 231.604†	134.1	207.0	2.3838 µg/L	2.3838 ppb	06:04:03
2	P 214.914†	717.6	716.4	149.23 µg/L	149.23 ppb	06:04:03
2	Pb 220.353†	228.1	135.6	7.9675 µg/L	7.9675 ppb	06:04:03

2	S 181.975 Axial†	1305.9	1165.9	865.75 µg/L	865.75 ppb	06:04:03
2	Sb 206.836†	87.3	4.2	-0.6370 µg/L	-0.6370 ppb	06:04:03
2	Se 196.026†	7.0	-8.5	-0.561 µg/L	-0.561 ppb	06:04:03
2	SiO2†	55831.2	52559.2	5137.2 µg/L	5137.2 ppb	06:03:43
2	Si 251.611†	168476.8	163124.0	2404.9 µg/L	2404.9 ppb	06:03:43
2	Sn 189.927†	60.8	60.3	4.4931 µg/L	4.4931 ppb	06:04:03
2	Ti 334.940†	240063.1	232675.3	217.37 µg/L	217.37 ppb	06:03:43
2	Tl 190.801†	-141.1	-20.7	-0.0569 µg/L	-0.0569 ppb	06:04:03
2	U 409.014†	-1428.7	-1120.6	-66.002 µg/L	-66.002 ppb	06:03:43
2	V 292.402†	2588.0	2114.8	9.5797 µg/L	9.5797 ppb	06:04:03
2	Zn 213.857†	9450.6	8632.8	47.869 µg/L	47.869 ppb	06:04:03
3	Sc RADIAL	145120.7	145120.7	99.4 %		06:03:14
3	Al 396.153Radial†	25598.3	25804.2	4784.1 µg/L	4784.1 ppb	06:03:16
3	Ca 317.933Radial†	46195.1	45892.1	2556.4 µg/L	2556.4 ppb	06:03:16
3	Fe 238.204 Radial†	116898.3	117401.9	7235.9 µg/L	7235.9 ppb	06:03:16
3	K 766.490 Radial†	4091.2	2569.2	938.95 µg/L	938.95 ppb	06:03:16
3	Mg 279.077 IEC†	2902.9	2728.4	1010.3 µg/L	1010.3 ppb	06:03:16
3	Na 589.592 Radial†	3985.9	2717.4	370.39 µg/L	370.39 ppb	06:03:16
3	Sr 421.552†	7032.4	7206.9	14.963 µg/L	14.963 ppb	06:03:16
3	Sc 361.383	1769354.2	1769354.2	102.98 %		06:04:06
3	Y 371.029	1059896.3	1059896.3	103.23 %		06:04:06
3	Ag 328.068†	58678.6	52891.3	195.76 µg/L	195.76 ppb	06:04:06
3	As 188.979†	-4.5	16.0	7.0983 µg/L	7.0983 ppb	06:04:26
3	B 249.677†	4010.1	388.3	5.7217 µg/L	5.7217 ppb	06:04:26
3	Ba 233.527†	9442.9	9305.8	37.413 µg/L	37.413 ppb	06:04:26
3	Be 313.107†	1194.4	2224.6	0.5856 µg/L	0.5856 ppb	06:04:06
3	Cd 226.502†	32.4	149.7	0.1751 µg/L	0.1751 ppb	06:04:26
3	Co 228.616†	-59.0	133.0	1.3129 µg/L	1.3129 ppb	06:04:26
3	Cr 267.716†	9206.2	8761.6	68.895 µg/L	68.895 ppb	06:04:26
3	Cu 324.752†	4599.9	1494.7	6.8360 µg/L	6.8360 ppb	06:04:06
3	Mn 257.610†	74298.4	71913.8	88.920 µg/L	88.920 ppb	06:04:06
3	Mo 202.031†	-31.4	-10.4	0.0017 µg/L	0.0017 ppb	06:04:26
3	Ni 231.604†	130.3	203.0	2.3378 µg/L	2.3378 ppb	06:04:26
3	P 214.914†	720.2	717.4	149.54 µg/L	149.54 ppb	06:04:26
3	Pb 220.353†	208.4	116.0	6.8700 µg/L	6.8700 ppb	06:04:26
3	S 181.975 Axial†	1311.4	1168.4	867.65 µg/L	867.65 ppb	06:04:26
3	Sb 206.836†	90.1	6.7	-0.3409 µg/L	-0.3409 ppb	06:04:26
3	Se 196.026†	3.1	-12.2	-1.98 µg/L	-1.98 ppb	06:04:26
3	SiO2†	55931.3	52539.5	5135.3 µg/L	5135.3 ppb	06:04:06
3	Si 251.611†	168819.1	163103.4	2404.6 µg/L	2404.6 ppb	06:04:06
3	Sn 189.927†	57.1	56.6	4.2591 µg/L	4.2591 ppb	06:04:26
3	Ti 334.940†	240514.5	232610.7	217.31 µg/L	217.31 ppb	06:04:06
3	Tl 190.801†	-127.8	-7.5	1.5644 µg/L	1.5644 ppb	06:04:26
3	U 409.014†	-1447.5	-1135.8	-66.855 µg/L	-66.855 ppb	06:04:06
3	V 292.402†	2600.9	2122.0	9.6340 µg/L	9.6340 ppb	06:04:26
3	Zn 213.857†	9458.7	8620.9	47.819 µg/L	47.819 ppb	06:04:26

Mean Data: 248250004|959150|10

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1768468.5	102.92 %	0.151			0.15%
Sc RADIAL	144511.1	99.0 %	0.85			0.86%
Y 371.029	1059376.7	103.18 %	0.153			0.15%
Ag 328.068†	52816.0	195.49 µg/L	0.333	195.49 ppb	0.333	0.17%
Al 396.153Radial†	26019.4	4824.0 µg/L	41.04	4824.0 ppb	41.04	0.85%
As 188.979†	10.2	5.3815 µg/L	1.76090	5.3815 ppb	1.76090	32.72%
B 249.677†	351.2	5.1748 µg/L	0.48651	5.1748 ppb	0.48651	9.40%
Ba 233.527†	9312.6	37.439 µg/L	0.1954	37.439 ppb	0.1954	0.52%
Be 313.107†	2230.9	0.5888 µg/L	0.00287	0.5888 ppb	0.00287	0.49%
Ca 317.933Radial†	46475.7	2588.9 µg/L	29.39	2588.9 ppb	29.39	1.14%
Cd 226.502†	153.1	0.1871 µg/L	0.04102	0.1871 ppb	0.04102	21.92%
Co 228.616†	115.5	1.0923 µg/L	0.27399	1.0923 ppb	0.27399	25.08%
Cr 267.716†	8712.3	68.508 µg/L	0.4712	68.508 ppb	0.4712	0.69%
Cu 324.752†	1642.5	7.4279 µg/L	0.55386	7.4279 ppb	0.55386	7.46%
Fe 238.204 Radial†	118886.9	7327.5 µg/L	84.05	7327.5 ppb	84.05	1.15%
K 766.490 Radial†	2540.9	928.57 µg/L	34.878	928.57 ppb	34.878	3.76%
Mg 279.077 IEC†	2766.4	1024.4 µg/L	13.20	1024.4 ppb	13.20	1.29%
Mn 257.610†	71745.4	88.711 µg/L	0.2622	88.711 ppb	0.2622	0.30%
Mo 202.031†	-5.5	0.1515 µg/L	0.35920	0.1515 ppb	0.35920	237.08%
Na 589.592 Radial†	2807.2	382.67 µg/L	11.759	382.67 ppb	11.759	3.07%

Ni 231.604†	205.0	2.3608 µg/L	0.02299	2.3608 ppb	0.02299	0.97%
P 214.914†	718.1	149.65 µg/L	0.486	149.65 ppb	0.486	0.32%
Pb 220.353†	122.2	7.2169 µg/L	0.65066	7.2169 ppb	0.65066	9.02%
S 181.975 Axial†	1163.8	864.25 µg/L	4.345	864.25 ppb	4.345	0.50%
Sb 206.836†	7.6	-0.2232 µg/L	0.48347	-0.2232 ppb	0.48347	216.58%
Se 196.026†	-9.6	-0.993 µg/L	0.8544	-0.993 ppb	0.8544	86.02%
SiO2†	52536.8	5135.0 µg/L	2.34	5135.0 ppb	2.34	0.05%
Si 251.611†	162927.0	2402.0 µg/L	4.77	2402.0 ppb	4.77	0.20%
Sn 189.927†	59.4	4.4351 µg/L	0.15533	4.4351 ppb	0.15533	3.50%
Sr 421.552†	7359.6	15.280 µg/L	0.2772	15.280 ppb	0.2772	1.81%
Ti 334.940†	232316.4	217.03 µg/L	0.532	217.03 ppb	0.532	0.25%
Tl 190.801†	-11.6	1.0563 µg/L	0.96520	1.0563 ppb	0.96520	91.38%
U 409.014†	-1052.7	-62.019 µg/L	7.6494	-62.019 ppb	7.6494	12.33%
Concentration less than lower limit for U 409.014.						
V 292.402†	2111.2	9.5752 µg/L	0.06121	9.5752 ppb	0.06121	0.64%
Zn 213.857†	8592.8	47.651 µg/L	0.3345	47.651 ppb	0.3345	0.70%

Sequence No.: 4

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/1/2010 6:04:33

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	142848.8	142848.8	97.9 %		06:05:06
1	Al 396.153Radial†	26284.1	26914.2	4967.7 µg/L	4967.7 ppb	06:05:06
1	Ca 317.933Radial†	85756.1	87045.1	4848.8 µg/L	4848.8 ppb	06:05:06
1	Fe 238.204 Radial†	76615.7	78120.0	4814.8 µg/L	4814.8 ppb	06:05:06
1	K 766.490 Radial†	14635.7	13406.6	4904.4 µg/L	4904.4 ppb	06:05:06
1	Mg 279.077 IEC†	13109.8	13201.8	4926.4 µg/L	4926.4 ppb	06:05:06
1	Na 589.592 Radial†	71209.9	71454.9	9757.2 µg/L	9757.2 ppb	06:05:06
1	Sr 421.552†	229336.0	234417.5	487.30 µg/L	487.30 ppb	06:05:04
1	Sc 361.383	1722533.9	1722533.9	100.25 %		06:05:19
1	Y 371.029	1016004.9	1016004.9	98.959 %		06:05:19
1	Ag 328.068†	131502.2	127081.2	476.52 µg/L	476.52 ppb	06:05:19
1	As 188.979†	1603.1	1619.4	496.68 µg/L	496.68 ppb	06:05:39
1	B 249.677†	35665.3	32070.0	471.31 µg/L	471.31 ppb	06:05:19
1	Ba 233.527†	118687.8	118526.2	478.01 µg/L	478.01 ppb	06:05:19
1	Be 313.107†	1774677.2	1771294.9	482.42 µg/L	482.42 ppb	06:05:19
1	Cd 226.502†	76426.8	76353.5	476.63 µg/L	476.63 ppb	06:05:19
1	Co 228.616†	38731.3	38824.5	479.29 µg/L	479.29 ppb	06:05:19
1	Cr 267.716†	61003.8	60672.4	475.06 µg/L	475.06 ppb	06:05:19
1	Cu 324.752†	125233.2	121947.2	475.39 µg/L	475.39 ppb	06:05:19
1	Mn 257.610†	388434.4	387223.8	478.90 µg/L	478.90 ppb	06:05:19
1	Mo 202.031†	16274.4	16253.7	478.11 µg/L	478.11 ppb	06:05:39
1	Ni 231.604†	41552.7	41525.1	478.13 µg/L	478.13 ppb	06:05:19
1	P 214.914†	11262.8	11252.5	2398.5 µg/L	2398.5 ppb	06:05:39
1	Pb 220.353†	8749.1	8640.8	483.88 µg/L	483.88 ppb	06:05:39
1	S 181.975 Axial†	1398.8	1290.2	962.13 µg/L	962.13 ppb	06:05:39
1	Sb 206.836†	4130.9	4039.7	481.34 µg/L	481.34 ppb	06:05:39
1	Se 196.026†	1348.3	1329.7	483 µg/L	483 ppb	06:05:39
1	SiO2†	54482.6	52570.7	5117.8 µg/L	5117.8 ppb	06:05:19
1	Si 251.611†	165149.6	163899.2	2406.8 µg/L	2406.8 ppb	06:05:19
1	Sn 189.927†	7696.2	7678.0	480.25 µg/L	480.25 ppb	06:05:39
1	Ti 334.940†	511528.2	509293.9	475.20 µg/L	475.20 ppb	06:05:19
1	Tl 190.801†	3814.7	3921.9	489.01 µg/L	489.01 ppb	06:05:39
1	U 409.014†	7216.3	7468.1	465.59 µg/L	465.59 ppb	06:05:19
1	V 292.402†	97722.3	97073.6	479.89 µg/L	479.89 ppb	06:05:19
1	Zn 213.857†	85933.0	85153.3	474.59 µg/L	474.59 ppb	06:05:19
2	Sc RADIAL	143157.1	143157.1	98.1 %		06:05:11
2	Al 396.153Radial†	26258.8	26830.6	4952.3 µg/L	4952.3 ppb	06:05:11
2	Ca 317.933Radial†	85806.3	86907.6	4841.1 µg/L	4841.1 ppb	06:05:11
2	Fe 238.204 Radial†	76698.8	78036.1	4809.7 µg/L	4809.7 ppb	06:05:11
2	K 766.490 Radial†	14842.8	13585.5	4969.9 µg/L	4969.9 ppb	06:05:11
2	Mg 279.077 IEC†	13118.0	13181.3	4918.7 µg/L	4918.7 ppb	06:05:11
2	Na 589.592 Radial†	71063.7	71149.2	9715.4 µg/L	9715.4 ppb	06:05:11
2	Sr 421.552†	227333.3	231871.5	482.01 µg/L	482.01 ppb	06:05:08
2	Sc 361.383	1723631.7	1723631.7	100.32 %		06:05:42
2	Y 371.029	1016796.5	1016796.5	99.036 %		06:05:42
2	Ag 328.068†	131746.9	127241.7	477.09 µg/L	477.09 ppb	06:05:42
2	As 188.979†	1596.7	1612.1	494.45 µg/L	494.45 ppb	06:06:03
2	B 249.677†	35726.6	32108.4	471.89 µg/L	471.89 ppb	06:05:42
2	Ba 233.527†	118582.9	118346.3	477.29 µg/L	477.29 ppb	06:05:42
2	Be 313.107†	1774613.3	1770103.8	482.09 µg/L	482.09 ppb	06:05:42
2	Cd 226.502†	76324.6	76203.0	475.69 µg/L	475.69 ppb	06:05:42
2	Co 228.616†	38620.9	38689.9	477.62 µg/L	477.62 ppb	06:05:42
2	Cr 267.716†	60898.2	60528.3	473.95 µg/L	473.95 ppb	06:05:42
2	Cu 324.752†	125590.6	122223.9	476.44 µg/L	476.44 ppb	06:05:42
2	Mn 257.610†	388871.4	387412.6	479.14 µg/L	479.14 ppb	06:05:42
2	Mo 202.031†	16208.5	16177.7	475.88 µg/L	475.88 ppb	06:06:03
2	Ni 231.604†	41345.4	41292.0	475.45 µg/L	475.45 ppb	06:05:42
2	P 214.914†	11244.3	11227.0	2393.1 µg/L	2393.1 ppb	06:06:03
2	Pb 220.353†	8700.1	8586.4	480.84 µg/L	480.84 ppb	06:06:03

2	S 181.975 Axial†	1408.7	1299.2	968.77 µg/L	968.77 ppb	06:06:03
2	Sb 206.836†	4113.4	4019.6	478.94 µg/L	478.94 ppb	06:06:03
2	Se 196.026†	1341.4	1321.9	480 µg/L	480 ppb	06:06:03
2	SiO2†	54603.8	52657.0	5126.3 µg/L	5126.3 ppb	06:05:42
2	Si 251.611†	165044.8	163689.8	2403.8 µg/L	2403.8 ppb	06:05:42
2	Sn 189.927†	7680.7	7657.7	478.98 µg/L	478.98 ppb	06:06:03
2	Ti 334.940†	512566.6	510004.0	475.88 µg/L	475.88 ppb	06:05:42
2	Tl 190.801†	3806.4	3911.1	487.71 µg/L	487.71 ppb	06:06:03
2	U 409.014†	6895.7	7144.0	446.60 µg/L	446.60 ppb	06:05:42
2	V 292.402†	97622.9	96912.5	479.06 µg/L	479.06 ppb	06:05:42
2	Zn 213.857†	85650.2	84816.7	472.72 µg/L	472.72 ppb	06:05:42
3	Sc RADIAL	141046.6	141046.6	96.7 %		06:05:15
3	Al 396.153Radial†	25865.4	26824.1	4951.0 µg/L	4951.0 ppb	06:05:15
3	Ca 317.933Radial†	84124.5	86476.5	4817.1 µg/L	4817.1 ppb	06:05:15
3	Fe 238.204 Radial†	75443.5	77907.3	4801.7 µg/L	4801.7 ppb	06:05:15
3	K 766.490 Radial†	14628.9	13590.6	4971.7 µg/L	4971.7 ppb	06:05:15
3	Mg 279.077 IEC†	12956.9	13214.8	4931.2 µg/L	4931.2 ppb	06:05:15
3	Na 589.592 Radial†	70294.6	71437.4	9754.8 µg/L	9754.8 ppb	06:05:15
3	Sr 421.552†	227562.4	235576.2	489.71 µg/L	489.71 ppb	06:05:13
3	Sc 361.383	1728559.5	1728559.5	100.60 %		06:06:06
3	Y 371.029	1019765.4	1019765.4	99.326 %		06:06:06
3	Ag 328.068†	131608.2	126729.4	475.23 µg/L	475.23 ppb	06:06:06
3	As 188.979†	1615.5	1626.2	498.73 µg/L	498.73 ppb	06:06:26
3	B 249.677†	35907.2	32186.5	473.03 µg/L	473.03 ppb	06:06:06
3	Ba 233.527†	118992.7	118416.6	477.57 µg/L	477.57 ppb	06:06:06
3	Be 313.107†	1782275.3	1772676.8	482.80 µg/L	482.80 ppb	06:06:06
3	Cd 226.502†	76844.3	76502.7	477.56 µg/L	477.56 ppb	06:06:06
3	Co 228.616†	38816.6	38774.7	478.67 µg/L	478.67 ppb	06:06:06
3	Cr 267.716†	61167.4	60622.9	474.68 µg/L	474.68 ppb	06:06:06
3	Cu 324.752†	125851.5	122126.3	476.08 µg/L	476.08 ppb	06:06:06
3	Mn 257.610†	390603.4	388029.2	479.90 µg/L	479.90 ppb	06:06:06
3	Mo 202.031†	16349.4	16271.6	478.64 µg/L	478.64 ppb	06:06:26
3	Ni 231.604†	41595.0	41422.7	476.95 µg/L	476.95 ppb	06:06:06
3	P 214.914†	11332.2	11282.4	2404.9 µg/L	2404.9 ppb	06:06:26
3	Pb 220.353†	8802.7	8663.7	485.16 µg/L	485.16 ppb	06:06:26
3	S 181.975 Axial†	1418.6	1305.1	973.15 µg/L	973.15 ppb	06:06:26
3	Sb 206.836†	4127.2	4021.6	479.21 µg/L	479.21 ppb	06:06:26
3	Se 196.026†	1358.4	1335.0	485 µg/L	485 ppb	06:06:26
3	SiO2†	55113.6	53008.4	5160.6 µg/L	5160.6 ppb	06:06:06
3	Si 251.611†	165801.1	163972.6	2407.9 µg/L	2407.9 ppb	06:06:06
3	Sn 189.927†	7751.7	7706.5	482.02 µg/L	482.02 ppb	06:06:26
3	Ti 334.940†	514213.3	510184.3	476.04 µg/L	476.04 ppb	06:06:06
3	Tl 190.801†	3835.7	3929.4	489.97 µg/L	489.97 ppb	06:06:26
3	U 409.014†	7159.6	7386.7	460.91 µg/L	460.91 ppb	06:06:06
3	V 292.402†	98291.0	97299.1	480.99 µg/L	480.99 ppb	06:06:06
3	Zn 213.857†	86223.5	85143.2	474.54 µg/L	474.54 ppb	06:06:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1724908.4	100.39 %	0.187			0.19%
Sc RADIAL	142350.8	97.5 %	0.78			0.80%
Y 371.029	1017522.3	99.107 %	0.1931			0.19%
Ag 328.068†	127017.5	476.28 µg/L	0.952	476.28 ppb	0.952	0.20%
QC value within limits for Ag 328.068 Recovery = 95.26%						
Al 396.153Radial†	26856.3	4957.0 µg/L	9.30	4957.0 ppb	9.30	0.19%
QC value within limits for Al 396.153Radial Recovery = 99.14%						
As 188.979†	1619.2	496.62 µg/L	2.139	496.62 ppb	2.139	0.43%
QC value within limits for As 188.979 Recovery = 99.32%						
B 249.677†	32121.6	472.08 µg/L	0.876	472.08 ppb	0.876	0.19%
QC value within limits for B 249.677 Recovery = 94.42%						
Ba 233.527†	118429.7	477.62 µg/L	0.366	477.62 ppb	0.366	0.08%
QC value within limits for Ba 233.527 Recovery = 95.52%						
Be 313.107†	1771358.5	482.44 µg/L	0.353	482.44 ppb	0.353	0.07%
QC value within limits for Be 313.107 Recovery = 96.49%						
Ca 317.933Radial†	86809.7	4835.6 µg/L	16.53	4835.6 ppb	16.53	0.34%
QC value within limits for Ca 317.933Radial Recovery = 96.71%						
Cd 226.502†	76353.1	476.63 µg/L	0.937	476.63 ppb	0.937	0.20%
QC value within limits for Cd 226.502 Recovery = 95.33%						
Co 228.616†	38763.0	478.53 µg/L	0.840	478.53 ppb	0.840	0.18%

QC value within limits for Co 228.616 Recovery = 95.71%							
Cr 267.716†	60607.9	474.56 µg/L	0.566	474.56 ppb	0.566	0.12%	
QC value within limits for Cr 267.716 Recovery = 94.91%							
Cu 324.752†	122099.1	475.97 µg/L	0.537	475.97 ppb	0.537	0.11%	
QC value within limits for Cu 324.752 Recovery = 95.19%							
Fe 238.204 Radial†	78021.2	4808.7 µg/L	6.60	4808.7 ppb	6.60	0.14%	
QC value within limits for Fe 238.204 Radial Recovery = 96.17%							
K 766.490 Radial†	13527.5	4948.6 µg/L	38.37	4948.6 ppb	38.37	0.78%	
QC value within limits for K 766.490 Radial Recovery = 98.97%							
Mg 279.077 IEC†	13199.3	4925.4 µg/L	6.33	4925.4 ppb	6.33	0.13%	
QC value within limits for Mg 279.077 IEC Recovery = 98.51%							
Mn 257.610†	387555.2	479.31 µg/L	0.521	479.31 ppb	0.521	0.11%	
QC value within limits for Mn 257.610 Recovery = 95.86%							
Mo 202.031†	16234.3	477.55 µg/L	1.466	477.55 ppb	1.466	0.31%	
QC value within limits for Mo 202.031 Recovery = 95.51%							
Na 589.592 Radial†	71347.2	9742.5 µg/L	23.47	9742.5 ppb	23.47	0.24%	
QC value within limits for Na 589.592 Radial Recovery = 97.42%							
Ni 231.604†	41413.3	476.84 µg/L	1.345	476.84 ppb	1.345	0.28%	
QC value within limits for Ni 231.604 Recovery = 95.37%							
P 214.914†	11254.0	2398.8 µg/L	5.93	2398.8 ppb	5.93	0.25%	
QC value within limits for P 214.914 Recovery = 95.95%							
Pb 220.353†	8630.3	483.29 µg/L	2.215	483.29 ppb	2.215	0.46%	
QC value within limits for Pb 220.353 Recovery = 96.66%							
S 181.975 Axial†	1298.2	968.01 µg/L	5.544	968.01 ppb	5.544	0.57%	
QC value within limits for S 181.975 Axial Recovery = 96.80%							
Sb 206.836†	4027.0	479.83 µg/L	1.314	479.83 ppb	1.314	0.27%	
QC value within limits for Sb 206.836 Recovery = 95.97%							
Se 196.026†	1328.8	482 µg/L	2.4	482 ppb	2.4	0.50%	
QC value within limits for Se 196.026 Recovery = 96.50%							
SiO2†	52745.4	5134.9 µg/L	22.63	5134.9 ppb	22.63	0.44%	
QC value within limits for SiO2 Recovery = 96.02%							
Si 251.611†	163853.8	2406.2 µg/L	2.13	2406.2 ppb	2.13	0.09%	
QC value within limits for Si 251.611 Recovery = 96.25%							
Sn 189.927†	7680.7	480.42 µg/L	1.529	480.42 ppb	1.529	0.32%	
QC value within limits for Sn 189.927 Recovery = 96.08%							
Sr 421.552†	233955.1	486.34 µg/L	3.940	486.34 ppb	3.940	0.81%	
QC value within limits for Sr 421.552 Recovery = 97.27%							
Ti 334.940†	509827.4	475.71 µg/L	0.442	475.71 ppb	0.442	0.09%	
QC value within limits for Ti 334.940 Recovery = 95.14%							
Tl 190.801†	3920.8	488.90 µg/L	1.135	488.90 ppb	1.135	0.23%	
QC value within limits for Tl 190.801 Recovery = 97.78%							
U 409.014†	7332.9	457.70 µg/L	9.895	457.70 ppb	9.895	2.16%	
QC value within limits for U 409.014 Recovery = 91.54%							
V 292.402†	97095.1	479.98 µg/L	0.967	479.98 ppb	0.967	0.20%	
QC value within limits for V 292.402 Recovery = 96.00%							
Zn 213.857†	85037.8	473.95 µg/L	1.068	473.95 ppb	1.068	0.23%	
QC value within limits for Zn 213.857 Recovery = 94.79%							
All analyte(s) passed QC.							

Sequence No.: 5

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/1/2010 6:06:33

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	141464.9	141464.9	96.9 %		06:07:02
1	Al 396.153Radial†	-69.9	-8.9	-1.6257 µg/L	-1.6257 ppb	06:07:22
1	Ca 317.933Radial†	620.8	79.8	4.4479 µg/L	4.4479 ppb	06:07:22
1	Fe 238.204 Radial†	188.4	46.2	2.8471 µg/L	2.8471 ppb	06:07:22
1	K 766.490 Radial†	1672.9	180.9	66.223 µg/L	66.223 ppb	06:07:02
1	Mg 279.077 IEC†	181.5	-3.5	-1.3105 µg/L	-1.3105 ppb	06:07:22
1	Na 589.592 Radial†	2015.0	787.8	107.57 µg/L	107.57 ppb	06:07:02
1	Sr 421.552†	-160.4	-30.2	-0.0629 µg/L	-0.0629 ppb	06:07:02
1	Sc 361.383	1739256.7	1739256.7	101.22 %		06:08:10
1	Y 371.029	1037512.8	1037512.8	101.05 %		06:08:10
1	Ag 328.068†	4217.1	74.7	0.2549 µg/L	0.2549 ppb	06:08:12
1	As 188.979†	-29.9	-9.2	-2.7714 µg/L	-2.7714 ppb	06:08:32
1	B 249.677†	3555.1	6.2	0.0910 µg/L	0.0910 ppb	06:08:12
1	Ba 233.527†	-107.8	29.4	0.1178 µg/L	0.1178 ppb	06:08:32
1	Be 313.107†	-895.9	179.7	0.0448 µg/L	0.0448 ppb	06:08:12
1	Cd 226.502†	-119.8	-0.2	-0.0016 µg/L	-0.0016 ppb	06:08:32
1	Co 228.616†	-192.4	0.3	0.0035 µg/L	0.0035 ppb	06:08:32
1	Cr 267.716†	247.4	65.8	0.5261 µg/L	0.5261 ppb	06:08:32
1	Cu 324.752†	2980.0	-28.3	-0.1208 µg/L	-0.1208 ppb	06:08:12
1	Mn 257.610†	284.9	44.2	0.0548 µg/L	0.0548 ppb	06:08:32
1	Mo 202.031†	-36.1	-15.6	-0.4591 µg/L	-0.4591 ppb	06:08:32
1	Ni 231.604†	-102.1	-24.4	-0.2804 µg/L	-0.2804 ppb	06:08:32
1	P 214.914†	-26.6	-8.3	-1.7798 µg/L	-1.7798 ppb	06:08:32
1	Pb 220.353†	103.2	15.6	0.8803 µg/L	0.8803 ppb	06:08:32
1	S 181.975 Axial†	117.0	10.5	7.8121 µg/L	7.8121 ppb	06:08:32
1	Sb 206.836†	71.9	-9.8	-1.1826 µg/L	-1.1826 ppb	06:08:32
1	Se 196.026†	30.7	15.1	5.45 µg/L	5.45 ppb	06:08:32
1	SiO2†	1811.8	14.5	1.4364 µg/L	1.4364 ppb	06:08:32
1	Si 251.611†	1024.9	175.9	2.6015 µg/L	2.6015 ppb	06:08:12
1	Sn 189.927†	-6.3	-5.1	-0.3193 µg/L	-0.3193 ppb	06:08:32
1	Ti 334.940†	984.3	19.9	0.0242 µg/L	0.0242 ppb	06:08:12
1	Tl 190.801†	-119.7	-1.6	-0.1978 µg/L	-0.1978 ppb	06:08:32
1	U 409.014†	-508.9	-232.9	-13.640 µg/L	-13.640 ppb	06:08:12
1	V 292.402†	323.8	-83.9	-0.4213 µg/L	-0.4213 ppb	06:08:12
1	Zn 213.857†	596.6	24.9	0.1416 µg/L	0.1416 ppb	06:08:32
2	Sc RADIAL	141541.1	141541.1	97.0 %		06:07:24
2	Al 396.153Radial†	-92.5	-32.2	-5.9364 µg/L	-5.9364 ppb	06:07:44
2	Ca 317.933Radial†	647.1	106.6	5.9380 µg/L	5.9380 ppb	06:07:44
2	Fe 238.204 Radial†	166.0	23.1	1.4211 µg/L	1.4211 ppb	06:07:44
2	K 766.490 Radial†	1883.9	397.6	145.54 µg/L	145.54 ppb	06:07:24
2	Mg 279.077 IEC†	188.4	3.5	1.2984 µg/L	1.2984 ppb	06:07:44
2	Na 589.592 Radial†	1902.0	670.2	91.429 µg/L	91.429 ppb	06:07:24
2	Sr 421.552†	-162.1	-31.8	-0.0662 µg/L	-0.0662 ppb	06:07:24
2	Sc 361.383	1753065.4	1753065.4	102.03 %		06:08:34
2	Y 371.029	1044680.5	1044680.5	101.75 %		06:08:34
2	Ag 328.068†	4104.7	-68.3	-0.2518 µg/L	-0.2518 ppb	06:08:36
2	As 188.979†	-5.8	14.7	4.4380 µg/L	4.4380 ppb	06:08:57
2	B 249.677†	3555.2	-21.3	-0.3162 µg/L	-0.3162 ppb	06:08:36
2	Ba 233.527†	-108.8	29.2	0.1173 µg/L	0.1173 ppb	06:08:57
2	Be 313.107†	-992.9	91.6	0.0261 µg/L	0.0261 ppb	06:08:36
2	Cd 226.502†	-129.6	-8.8	-0.0553 µg/L	-0.0553 ppb	06:08:57
2	Co 228.616†	-159.5	34.0	0.4197 µg/L	0.4197 ppb	06:08:57
2	Cr 267.716†	159.1	-22.7	-0.1807 µg/L	-0.1807 ppb	06:08:57
2	Cu 324.752†	2960.7	-70.3	-0.2696 µg/L	-0.2696 ppb	06:08:36
2	Mn 257.610†	249.8	7.6	0.0093 µg/L	0.0093 ppb	06:08:57
2	Mo 202.031†	-38.7	-17.9	-0.5247 µg/L	-0.5247 ppb	06:08:57
2	Ni 231.604†	-95.8	-17.4	-0.2000 µg/L	-0.2000 ppb	06:08:57
2	P 214.914†	-25.9	-7.4	-1.5857 µg/L	-1.5857 ppb	06:08:57
2	Pb 220.353†	91.9	3.7	0.2024 µg/L	0.2024 ppb	06:08:57

2	S 181.975 Axial†	117.0	9.6	7.1513 µg/L	7.1513 ppb	06:08:57
2	Sb 206.836†	80.1	-2.3	-0.2809 µg/L	-0.2809 ppb	06:08:57
2	Se 196.026†	9.0	-6.4	-2.31 µg/L	-2.31 ppb	06:08:57
2	SiO2†	1834.9	23.0	2.2679 µg/L	2.2679 ppb	06:08:57
2	Si 251.611†	1128.6	269.6	3.9822 µg/L	3.9822 ppb	06:08:36
2	Sn 189.927†	-1.4	-0.3	-0.0169 µg/L	-0.0169 ppb	06:08:57
2	Ti 334.940†	1073.2	99.3	0.0913 µg/L	0.0913 ppb	06:08:36
2	Tl 190.801†	-124.6	-5.4	-0.6669 µg/L	-0.6669 ppb	06:08:57
2	U 409.014†	-207.9	66.1	3.8481 µg/L	3.8481 ppb	06:08:36
2	V 292.402†	352.2	-58.6	-0.2898 µg/L	-0.2898 ppb	06:08:36
2	Zn 213.857†	609.0	32.5	0.1836 µg/L	0.1836 ppb	06:08:57
3	Sc RADIAL	144453.8	144453.8	99.0 %		06:07:46
3	Al 396.153Radial†	-42.6	20.2	3.7469 µg/L	3.7469 ppb	06:08:06
3	Ca 317.933Radial†	626.5	72.3	4.0283 µg/L	4.0283 ppb	06:08:06
3	Fe 238.204 Radial†	173.7	27.3	1.6854 µg/L	1.6854 ppb	06:08:06
3	K 766.490 Radial†	1763.8	237.1	86.784 µg/L	86.784 ppb	06:07:46
3	Mg 279.077 IEC†	167.7	-21.3	-7.9299 µg/L	-7.9299 ppb	06:08:06
3	Na 589.592 Radial†	1875.8	604.1	82.457 µg/L	82.457 ppb	06:07:46
3	Sr 421.552†	-228.9	-96.0	-0.1996 µg/L	-0.1996 ppb	06:07:46
3	Sc 361.383	1745062.4	1745062.4	101.56 %		06:08:59
3	Y 371.029	1040171.5	1040171.5	101.31 %		06:08:59
3	Ag 328.068†	4134.6	-20.3	-0.0602 µg/L	-0.0602 ppb	06:09:01
3	As 188.979†	-25.0	-4.3	-1.2996 µg/L	-1.2996 ppb	06:09:21
3	B 249.677†	3548.1	-12.4	-0.1830 µg/L	-0.1830 ppb	06:09:01
3	Ba 233.527†	-155.6	-17.4	-0.0701 µg/L	-0.0701 ppb	06:09:21
3	Be 313.107†	-930.2	148.8	0.0443 µg/L	0.0443 ppb	06:09:01
3	Cd 226.502†	-114.6	5.4	0.0333 µg/L	0.0333 ppb	06:09:21
3	Co 228.616†	-195.2	-1.9	-0.0238 µg/L	-0.0238 ppb	06:09:21
3	Cr 267.716†	183.3	1.9	0.0050 µg/L	0.0050 ppb	06:09:21
3	Cu 324.752†	2946.5	-71.0	-0.2656 µg/L	-0.2656 ppb	06:09:01
3	Mn 257.610†	289.0	47.2	0.0588 µg/L	0.0588 ppb	06:09:21
3	Mo 202.031†	-22.9	-2.5	-0.0730 µg/L	-0.0730 ppb	06:09:21
3	Ni 231.604†	-82.4	-4.6	-0.0527 µg/L	-0.0527 ppb	06:09:21
3	P 214.914†	-14.4	3.8	0.8236 µg/L	0.8236 ppb	06:09:21
3	Pb 220.353†	97.7	9.8	0.5376 µg/L	0.5376 ppb	06:09:21
3	S 181.975 Axial†	113.1	6.3	4.7120 µg/L	4.7120 ppb	06:09:21
3	Sb 206.836†	70.8	-11.2	-1.3260 µg/L	-1.3260 ppb	06:09:21
3	Se 196.026†	8.7	-6.7	-2.39 µg/L	-2.39 ppb	06:09:21
3	SiO2†	1871.0	66.8	6.5242 µg/L	6.5242 ppb	06:09:21
3	Si 251.611†	887.7	37.5	0.5500 µg/L	0.5500 ppb	06:09:01
3	Sn 189.927†	7.2	8.2	0.5133 µg/L	0.5133 ppb	06:09:21
3	Ti 334.940†	729.6	-234.2	-0.2232 µg/L	-0.2232 ppb	06:09:01
3	Tl 190.801†	-130.3	-11.6	-1.4299 µg/L	-1.4299 ppb	06:09:21
3	U 409.014†	-56.7	214.0	12.514 µg/L	12.514 ppb	06:09:01
3	V 292.402†	408.3	-1.8	-0.0011 µg/L	-0.0011 ppb	06:09:01
3	Zn 213.857†	612.1	38.3	0.2153 µg/L	0.2153 ppb	06:09:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1745794.8	101.60 %	0.404			0.40%
Sc RADIAL	142486.6	97.6 %	1.17			1.20%
Y 371.029	1040788.3	101.37 %	0.353			0.35%
Ag 328.068†	-4.6	-0.0190 µg/L	0.25586	-0.0190 ppb	0.25586	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-6.9	-1.2717 µg/L	4.85131	-1.2717 ppb	4.85131	381.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.4	0.1223 µg/L	3.80923	0.1223 ppb	3.80923	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-9.2	-0.1361 µg/L	0.20761	-0.1361 ppb	0.20761	152.58%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	13.7	0.0550 µg/L	0.10831	0.0550 ppb	0.10831	196.90%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	140.0	0.0384 µg/L	0.01065	0.0384 ppb	0.01065	27.75%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	86.3	4.8047 µg/L	1.00363	4.8047 ppb	1.00363	20.89%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-1.2	-0.0078 µg/L	0.04462	-0.0078 ppb	0.04462	568.50%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	10.8	0.1331 µg/L	0.24853	0.1331 ppb	0.24853	186.69%

Cr	267.716†	15.0	0.1168 µg/L	0.36641	0.1168 ppb	0.36641	313.73%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-56.5	-0.2187 µg/L	0.08480	-0.2187 ppb	0.08480	38.78%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	32.2	1.9846 µg/L	0.75860	1.9846 ppb	0.75860	38.22%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	271.9	99.516 µg/L	41.1633	99.516 ppb	41.1633	41.36%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-7.1	-2.6474 µg/L	4.75720	-2.6474 ppb	4.75720	179.70%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	33.0	0.0409 µg/L	0.02746	0.0409 ppb	0.02746	67.07%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	-12.0	-0.3523 µg/L	0.24406	-0.3523 ppb	0.24406	69.28%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	687.4	93.818 µg/L	12.7246	93.818 ppb	12.7246	13.56%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	-15.4	-0.1777 µg/L	0.11551	-0.1777 ppb	0.11551	65.01%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-4.0	-0.8473 µg/L	1.45028	-0.8473 ppb	1.45028	171.16%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	9.7	0.5401 µg/L	0.33897	0.5401 ppb	0.33897	62.76%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	8.8	6.5585 µg/L	1.63285	6.5585 ppb	1.63285	24.90%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	-7.8	-0.9298 µg/L	0.56654	-0.9298 ppb	0.56654	60.93%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	0.7	0.246 µg/L	4.5033	0.246 ppb	4.5033	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		34.8	3.4095 µg/L	2.72927	3.4095 ppb	2.72927	80.05%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	161.0	2.3779 µg/L	1.72699	2.3779 ppb	1.72699	72.63%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	0.9	0.0591 µg/L	0.42147	0.0591 ppb	0.42147	713.75%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-52.7	-0.1095 µg/L	0.07802	-0.1095 ppb	0.07802	71.22%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-38.3	-0.0359 µg/L	0.16561	-0.0359 ppb	0.16561	461.28%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	-6.2	-0.7649 µg/L	0.62189	-0.7649 ppb	0.62189	81.31%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	15.8	0.9074 µg/L	13.32231	0.9074 ppb	13.32231	>999.9%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-48.1	-0.2374 µg/L	0.21493	-0.2374 ppb	0.21493	90.53%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	31.9	0.1802 µg/L	0.03700	0.1802 ppb	0.03700	20.54%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

ICPMS #5 Daily Performance Report

Sample ID: Sample

Sample Date/Time: Tuesday, April 13, 2010 11:33:12

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.1054

Tuning File: c:\elandata\Tuning\default2.tun

Optimization File: c:\elandata\Optimize\default.dac

Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35

Current Dead Time (ns): 35

Number of Replicates: 5

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD
Be	9.0		1541.9		1541.883		43.705		2.8
Mg	24.0		38738.9		38738.859		434.290		1.1
Co	58.9		63185.8		63185.831		373.250		0.6
Rh	102.9		123622.6		123622.601		766.014		0.6
In	114.9		178721.4		178721.441		1254.626		0.7
Pb	208.0		214246.1		214246.105		2038.893		1.0
[> Ba	137.9		169586.4		169586.427		957.403		0.6
[Ba++	69.0		1987.6		0.012		0.000		2.3
[> Ce	139.9		205613.0		205612.974		1509.978		0.7
[CeO	155.9		4192.2		0.020		0.000		2.1
Bkgd	220.0		19.8		19.800		2.564		13.0

Current Optimization File Data

Current Value	Description
0.86	Nebulizer Gas Flow
6.75	Lens Voltage
1450.00	ICP RF Power
-1812.50	Analog Stage Voltage
1300.00	Pulse Stage Voltage
200.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	7.0	3372.1
Co	59	21	7.8	60333.1
In	115	21	9.5	172853.8

ICPMS #5 Instrument Tuning Report

File Name: 100413.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	606	2072	0.540
Be	9.0	9.0	2061	2088	0.543
Mg	24.0	24.0	5699	2085	0.562
Mg	25.0	25.0	5939	2085	0.540
Mg	26.0	26.0	6187	2100	0.545
Co	58.9	59.0	14193	2125	0.528
Rh	102.9	102.9	24880	2180	0.530
In	114.9	114.9	27796	2200	0.535
Ce	139.9	139.9	33878	2220	0.547
Pb	206.0	206.0	49948	2305	0.522
Pb	207.0	207.0	50171	2240	0.593
Pb	208.0	208.0	50451	2280	0.636
U	238.1	238.0	57731	2295	0.641

ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Tuesday, April 13, 2010 18:56:12

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Vanl soil.mth

Dataset File: C:\elandata\Dataset\100413\Blank.179

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9		ug/L			19
>	Sc	45		ug/L		445594	
[	Ni	60		ug/L		130	
>	Ge	74		ug/L		254044	
|	As	75		ug/L		-12	
|	Se	77		ug/L		3810	
|	Se	82		ug/L		-3	
[	Kr	83		ug/L		86	
>	Lu	175		ug/L		349004	
|	Tl	205		ug/L		2870	
|	U	238		ug/L		660	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Linear Thru Zero	
Tl	205	Simple Linear	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Dil Diff	Duplicate Rel. % Difference
[	Be	9						
] >	Sc	45						
[	Ni	60						
] >	Ge	74						
|	As	75						
|	Se	77						
|	Se	82						
[	Kr	83						
] >	Lu	175						
|	Tl	205						
[	U	238						

QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

QC Action

Sample ID: Blank

Report Date/Time: Tuesday, April 13, 2010 18:56:54

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Tuesday, April 13, 2010 19:00:17

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100413\Standard 1.180

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	10.000	ug/L	0.282	1604	0.004
[>	Sc	45		ug/L		444363	444363.334
[	Ni	60	10.000	ug/L	1.699	9645	0.021
[>	Ge	74		ug/L		252669	252669.102
|	As	75	10.000	ug/L	5.043	6831	0.027
|	Se	77		ug/L		4272	0.002
|	Se	82	10.000	ug/L	1.966	709	0.003
[	Kr	83		ug/L		75	-0.000
[>	Lu	175		ug/L		350994	350993.990
|	Tl	205	10.000	ug/L	3.157	164485	0.461
[	U	238	10.000	ug/L	0.649	401696	1.143

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recov	Dilution %	Di	Duplicate	Rel. %	Difference
[	Be	9											
[>	Sc	45											
[	Ni	60											
[>	Ge	74											
|	As	75											
|	Se	77											
|	Se	82											
[	Kr	83											
[>	Lu	175											
|	Tl	205											
[	U	238											

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

QC Action

Sample ID: Standard 1

Report Date/Time: Tuesday, April 13, 2010 19:00:57

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Tuesday, April 13, 2010 19:04:20

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ani soil.mth

Dataset File: C:\elandata\Dataset\100413\Standard 2.181

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	99.972	ug/L	4.421	15744	0.035
[>	Sc	45		ug/L		453169	453169.172
[	Ni	60	99.954	ug/L	2.681	92801	0.205
[>	Ge	74		ug/L		253890	253890.125
[	As	75	100.015	ug/L	1.222	69813	0.275
[	Se	77		ug/L		8695	0.019
[	Se	82	99.957	ug/L	1.179	6855	0.027
[	Kr	83		ug/L		107	0.000
[>	Lu	175		ug/L		355412	355412.036
[	Tl	205	99.902	ug/L	2.482	1491556	4.190
[	U	238	99.924	ug/L	1.001	3772659	10.613

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9					
[>	Sc	45					
[	Ni	60					
[>	Ge	74					
[	As	75					
[	Se	77					
[	Se	82					
[	Kr	83					
[>	Lu	175					
[	Tl	205					
[	U	238					

QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

QC Action

Sample ID: Standard 2

Report Date/Time: Tuesday, April 13, 2010 19:05:00

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Tuesday, April 13, 2010 19:08:23

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 1.182

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	50.493	ug/L	6.745	7924	0.018
>	Sc	45		ug/L		451255	451254.648
[	Ni	60	51.423	ug/L	1.981	47617	0.105
>	Ge	74		ug/L		254009	254009.371
|	As	75	50.580	ug/L	3.327	35310	0.139
|	Se	77		ug/L		6322	0.010
|	Se	82	50.364	ug/L	3.025	3453	0.014
[	Kr	83		ug/L		93	0.000
>	Lu	175		ug/L		356880	356880.491
|	Tl	205	50.690	ug/L	2.329	761378	2.126
[	U	238	49.756	ug/L	1.818	1886294	5.285

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9	100.986					
>	Sc	45		101.3				
[	Ni	60	102.846					
>	Ge	74		100.0				
|	As	75	101.160					
|	Se	77						
|	Se	82	100.729					
[	Kr	83						
>	Lu	175		102.3				
|	Tl	205	101.380					
[	U	238	99.512					

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

QC Action

Sample ID: QC Std 1

Report Date/Time: Tuesday, April 13, 2010 19:09:04

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Tuesday, April 13, 2010 19:12:29

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\anal soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 2.183

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.014	ug/L	87.945	21	0.000
> Sc	45		ug/L		448722	448722.472
Ni	60	-0.013	ug/L	68.509	119	-0.000
> Ge	74		ug/L		252383	252383.425
As	75	0.064	ug/L	175.229	33	0.000
Se	77		ug/L		3928	0.001
Se	82	0.249	ug/L	7.710	14	0.000
Kr	83		ug/L		83	-0.000
> Lu	175		ug/L		351120	351119.525
Tl	205	0.186	ug/L	3.717	5620	0.008
U	238	0.005	ug/L	19.904	865	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		100.7			
Ni	60					
> Ge	74		99.3			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		100.6			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

Sample ID: QC Std 2

Report Date/Time: Tuesday, April 13, 2010 19:13:12

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Tuesday, April 13, 2010 19:16:35

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Vanl soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 3.184

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.662	ug/L	16.453	122	0.000
Sc	45		ug/L		449650	449650.218
Ni	60	2.282	ug/L	3.948	2231	0.005
Ge	74		ug/L		251355	251355.187
As	75	6.052	ug/L	2.311	4170	0.017
Se	77		ug/L		3672	-0.000
Se	82	5.772	ug/L	3.928	389	0.002
Kr	83		ug/L		79	-0.000
Lu	175		ug/L		353165	353165.001
Tl	205	1.218	ug/L	1.671	20948	0.051
U	238	0.292	ug/L	2.945	11636	0.031

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9	132.467				
Sc	45		100.9			
Ni	60	114.112				
Ge	74		98.9			
As	75	121.035				
Se	77					
Se	82	115.432				
Kr	83					
Lu	175		101.2			
Tl	205	121.846				
U	238	146.242				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 3	Be	9CRDL is out of limits
QC Std 3	U	238CRDL is out of limits

Sample ID: QC Std 3

Report Date/Time: Tuesday, April 13, 2010 19:17:16

Page 1

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Tuesday, April 13, 2010 19:20:39

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 4.185

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.103	ug/L	50.064	33	0.000
> Sc	45		ug/L		421635	421635.197
Ni	60	2.779	ug/L	2.051	2521	0.006
> Ge	74		ug/L		231310	231310.332
As	75	-0.361	ug/L	174.402	-243	-0.001
Se	77		ug/L		4201	0.003
Se	82	-1.049	ug/L	39.941	-69	-0.000
Kr	83		ug/L		172	0.000
> Lu	175		ug/L		322577	322577.208
Tl	205	-0.004	ug/L	70.177	2594	-0.000
U	238	-0.012	ug/L	0.726	204	-0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dif	Duplicate Rel. % Difference
Be	9					
> Sc	45		94.6			
Ni	60	83.948				
> Ge	74		91.1			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		92.4			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: QC Std 4

Report Date/Time: Tuesday, April 13, 2010 19:21:21

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Tuesday, April 13, 2010 19:24:44

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ani soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 5.186

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	22.051	ug/L	10.901	3216	0.008
> Sc	45		ug/L		418038	418037.921
Ni	60	21.668	ug/L	3.166	18655	0.044
> Ge	74		ug/L		233103	233102.772
As	75	20.576	ug/L	2.617	13177	0.057
Se	77		ug/L		4507	0.004
Se	82	20.866	ug/L	5.343	1311	0.006
Kr	83		ug/L		171	0.000
> Lu	175		ug/L		323073	323072.629
Tl	205	19.336	ug/L	1.538	264615	0.811
U	238	21.379	ug/L	1.769	734175	2.271

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9	110.256				
> Sc	45		93.8			
Ni	60	92.955				
> Ge	74		91.8			
As	75	102.879				
Se	77					
Se	82	104.331				
Kr	83					
> Lu	175		92.6			
Tl	205	96.680				
U	238	106.895				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: QC Std 5

Report Date/Time: Tuesday, April 13, 2010 19:25:26

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Tuesday, April 13, 2010 19:28:50

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 6.187

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	52.299	ug/L	6.742	8132	0.018
[> Sc	45		ug/L		446886	446885.892
[Ni	60	50.085	ug/L	3.133	45922	0.103
[> Ge	74		ug/L		246224	246224.362
| As	75	50.712	ug/L	2.285	34321	0.139
| Se	77		ug/L		5995	0.009
| Se	82	51.768	ug/L	5.984	3441	0.014
[Kr	83		ug/L		84	0.000
[> Lu	175		ug/L		349907	349906.710
| Tl	205	49.372	ug/L	2.445	727303	2.071
[U	238	49.990	ug/L	1.170	1858636	5.310

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[Be	9	104.597				
[> Sc	45		100.3			
[Ni	60	100.170				
[> Ge	74		96.9			
| As	75	101.424				
| Se	77					
| Se	82	103.536				
[Kr	83					
[> Lu	175		100.3			
| Tl	205	98.744				
[U	238	99.980				

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

QC Action

Sample ID: QC Std 6

Report Date/Time: Tuesday, April 13, 2010 19:29:31

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Tuesday, April 13, 2010 19:32:56

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Vanl soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 7.188

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	-0.034	ug/L	57.982	13	-0.000
[> Sc	45		ug/L		441514	441513.645
[Ni	60	-0.011	ug/L	111.503	119	-0.000
[> Ge	74		ug/L		244978	244978.365
| As	75	-0.092	ug/L	238.142	-72	-0.000
| Se	77		ug/L		3767	0.000
| Se	82	-0.012	ug/L	1142.349	-4	-0.000
[Kr	83		ug/L		83	0.000
[> Lu	175		ug/L		343676	343675.889
| Tl	205	0.324	ug/L	2.992	7490	0.014
[U	238	0.006	ug/L	19.101	885	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[Be	9					
[> Sc	45		99.1			
[Ni	60					
[> Ge	74		96.4			
| As	75					
| Se	77					
| Se	82					
[Kr	83					
[> Lu	175		98.5			
| Tl	205					
[U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: QC Std 7

Report Date/Time: Tuesday, April 13, 2010 19:33:39

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, April 13, 2010 20:09:39

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Vanl soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.197

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	55.715	ug/L	7.601	8592	0.019
> Sc	45		ug/L		443949	443949.183
Ni	60	49.855	ug/L	1.908	45424	0.102
> Ge	74		ug/L		242696	242696.352
As	75	51.652	ug/L	1.568	34459	0.142
Se	77		ug/L		5623	0.008
Se	82	51.017	ug/L	2.354	3343	0.014
Kr	83		ug/L		79	-0.000
> Lu	175		ug/L		346303	346303.461
Tl	205	50.085	ug/L	1.936	730163	2.100
U	238	50.668	ug/L	0.998	1864231	5.382

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9	111.430					
> Sc	45		99.6				
Ni	60	99.710					
> Ge	74		95.5				
As	75	103.304					
Se	77						
Se	82	102.033					
Kr	83						
> Lu	175		99.2				
Tl	205	100.170					
U	238	101.336					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Be	9	CCV is out of limits (+/- 10%)

Sample ID: QC Std 8

Report Date/Time: Tuesday, April 13, 2010 20:10:21

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QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 13, 2010 20:13:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Vanl soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.198

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.003	ug/L	1295.742	18	-0.000
> Sc	45		ug/L		440793	440793.036
Ni	60	-0.018	ug/L	54.025	113	-0.000
> Ge	74		ug/L		241228	241227.718
As	75	0.184	ug/L	46.513	111	0.001
Se	77		ug/L		3187	-0.002
Se	82	0.679	ug/L	21.277	41	0.000
Kr	83		ug/L		74	-0.000
> Lu	175		ug/L		340351	340351.139
Tl	205	0.214	ug/L	7.703	5845	0.009
U	238	0.005	ug/L	31.139	810	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		98.9				
Ni	60						
> Ge	74		95.0				
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175		97.5				
Tl	205						
U	238						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: QC Std 9

Report Date/Time: Tuesday, April 13, 2010 20:14:29

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QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, April 13, 2010 20:42:22

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.205

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	54.759	ug/L	4.874	8274	0.019
> Sc	45		ug/L		434593	434592.615
Ni	60	48.638	ug/L	1.610	43384	0.100
> Ge	74		ug/L		236941	236940.810
As	75	51.247	ug/L	3.030	33367	0.141
Se	77		ug/L		5279	0.007
Se	82	53.315	ug/L	4.185	3408	0.014
Kr	83		ug/L		91	0.000
> Lu	175		ug/L		339645	339644.555
Tl	205	49.628	ug/L	2.432	709571	2.081
U	238	50.501	ug/L	1.194	1822195	5.364

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9	109.517				
> Sc	45		97.5			
Ni	60	97.277				
> Ge	74		93.3			
As	75	102.494				
Se	77					
Se	82	106.630				
Kr	83					
> Lu	175		97.3			
Tl	205	99.256				
U	238	101.002				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: QC Std 8

Report Date/Time: Tuesday, April 13, 2010 20:43:04

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QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 13, 2010 20:46:28

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ani soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.206

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.004	ug/L	872.528	19	0.000
> Sc	45		ug/L		430488	430487.529
Ni	60	-0.021	ug/L	62.894	107	-0.000
> Ge	74		ug/L		235273	235273.278
As	75	0.335	ug/L	106.950	204	0.001
Se	77		ug/L		3031	-0.002
Se	82	1.568	ug/L	42.431	97	0.000
Kr	83		ug/L		78	-0.000
> Lu	175		ug/L		338574	338574.449
Tl	205	0.187	ug/L	6.245	5440	0.008
U	238	0.005	ug/L	27.419	815	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel.	% Difference
Be	9						
> Sc	45		96.6				
Ni	60						
> Ge	74		92.6				
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175		97.0				
Tl	205						
U	238						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: QC Std 9

Report Date/Time: Tuesday, April 13, 2010 20:47:11

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QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, April 13, 2010 21:19:11

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.214

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	54.357	ug/L	6.822	8443	0.019
Sc	45		ug/L		446968	446968.450
Ni	60	48.657	ug/L	1.021	44640	0.100
Ge	74		ug/L		244811	244811.344
As	75	50.472	ug/L	1.342	33965	0.139
Se	77		ug/L		5438	0.007
Se	82	51.092	ug/L	2.757	3377	0.014
Kr	83		ug/L		94	0.000
Lu	175		ug/L		342022	342021.972
Tl	205	50.446	ug/L	1.529	726226	2.116
U	238	51.043	ug/L	2.664	1854277	5.421

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. % Difference
Be	9	108.714				
Sc	45		100.3			
Ni	60	97.314				
Ge	74		96.4			
As	75	100.944				
Se	77					
Se	82	102.185				
Kr	83					
Lu	175		98.0			
Tl	205	100.891				
U	238	102.087				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

Sample ID: QC Std 8

Report Date/Time: Tuesday, April 13, 2010 21:19:53

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 13, 2010 21:23:18

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.215

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.002	ug/L	878.977	18	-0.000
> Sc	45		ug/L		446443	446443.357
Ni	60	-0.024	ug/L	35.726	108	-0.000
> Ge	74		ug/L		242490	242490.488
As	75	0.115	ug/L	82.812	65	0.000
Se	77		ug/L		3054	-0.002
Se	82	0.436	ug/L	98.704	25	0.000
Kr	83		ug/L		79	-0.000
> Lu	175		ug/L		339061	339061.237
Tl	205	0.169	ug/L	11.493	5192	0.007
U	238	0.005	ug/L	11.025	815	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		100.2			
Ni	60					
> Ge	74		95.5			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		97.2			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

QC Action

Sample ID: QC Std 9

Report Date/Time: Tuesday, April 13, 2010 21:24:01

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, April 13, 2010 22:00:10

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Vanl soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.224

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	54.402	ug/L	9.487	8260	0.019
> Sc	45		ug/L		436956	436955.815
Ni	60	49.138	ug/L	0.352	44072	0.101
> Ge	74		ug/L		239779	239779.169
As	75	49.880	ug/L	0.813	32877	0.137
Se	77		ug/L		5353	0.007
Se	82	50.395	ug/L	4.218	3262	0.014
Kr	83		ug/L		96	0.000
> Lu	175		ug/L		337283	337282.635
Tl	205	50.366	ug/L	3.052	714920	2.112
U	238	50.940	ug/L	1.128	1825248	5.410

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9	108.804				
> Sc	45		98.1			
Ni	60	98.275				
> Ge	74		94.4			
As	75	99.760				
Se	77					
Se	82	100.791				
Kr	83					
> Lu	175		96.6			
Tl	205	100.732				
U	238	101.880				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

Sample ID: QC Std 8

Report Date/Time: Tuesday, April 13, 2010 22:00:52

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 13, 2010 22:04:16

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.225

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.031	ug/L	50.968	13	-0.000
> Sc	45		ug/L		429133	429133.032
Ni	60	-0.025	ug/L	42.376	104	-0.000
> Ge	74		ug/L		234512	234512.031
As	75	-0.111	ug/L	238.188	-82	-0.000
Se	77		ug/L		3018	-0.002
Se	82	0.012	ug/L	2849.190	-2	0.000
Kr	83		ug/L		76	-0.000
> Lu	175		ug/L		333848	333848.305
Tl	205	0.169	ug/L	10.913	5114	0.007
U	238	0.005	ug/L	24.888	798	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		96.3			
Ni	60					
> Ge	74		92.3			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		95.7			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

QC Action

Sample ID: QC Std 9

Report Date/Time: Tuesday, April 13, 2010 22:04:59

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, April 13, 2010 22:33:00

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.232

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	52.990	ug/L	4.977	8187	0.018
[>	Sc	45		ug/L		444298	444297.656
[	Ni	60	48.274	ug/L	0.454	44030	0.099
[>	Ge	74		ug/L		240072	240072.098
[	As	75	51.144	ug/L	0.458	33751	0.141
[	Se	77		ug/L		5197	0.007
[	Se	82	50.406	ug/L	2.237	3266	0.014
[	Kr	83		ug/L		95	0.000
[>	Lu	175		ug/L		335587	335586.926
[	Tl	205	49.885	ug/L	2.060	704626	2.092
[	U	238	50.990	ug/L	3.121	1817114	5.416

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel.	% Difference
[	Be	9	105.980					
[>	Sc	45		99.7				
[	Ni	60	96.548					
[>	Ge	74		94.5				
[	As	75	102.288					
[	Se	77						
[	Se	82	100.812					
[	Kr	83						
[>	Lu	175		96.2				
[	Tl	205	99.771					
[	U	238	101.979					

QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

QC Action

Sample ID: QC Std 8

Report Date/Time: Tuesday, April 13, 2010 22:33:42

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 13, 2010 22:37:06

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ani soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.233

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.008	ug/L	186.939	20	0.000
> Sc	45		ug/L		441060	441060.407
Ni	60	-0.038	ug/L	23.812	95	-0.000
> Ge	74		ug/L		241609	241608.963
As	75	-0.125	ug/L	143.084	-94	-0.000
Se	77		ug/L		2927	-0.003
Se	82	-0.066	ug/L	474.093	-8	-0.000
Kr	83		ug/L		84	0.000
> Lu	175		ug/L		333904	333904.174
Tl	205	0.137	ug/L	5.943	4663	0.006
U	238	0.006	ug/L	15.217	832	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		99.0			
Ni	60					
> Ge	74		95.1			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		95.7			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: QC Std 9

Report Date/Time: Tuesday, April 13, 2010 22:37:49

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, April 13, 2010 23:01:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Vanl soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.239

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	54.091	ug/L	4.108	8245	0.019
>	Sc	45		ug/L		438310	438310.405
[	Ni	60	48.393	ug/L	2.466	43529	0.099
>	Ge	74		ug/L		235675	235674.556
|	As	75	50.830	ug/L	1.106	32930	0.140
|	Se	77		ug/L		5179	0.007
|	Se	82	50.535	ug/L	0.979	3216	0.014
[	Kr	83		ug/L		101	0.000
>	Lu	175		ug/L		333946	333945.955
|	Tl	205	49.646	ug/L	2.126	697847	2.082
[	U	238	50.917	ug/L	1.704	1806242	5.408

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9	108.182					
>	Sc	45		98.4				
[	Ni	60	96.786					
>	Ge	74		92.8				
|	As	75	101.660					
|	Se	77						
|	Se	82	101.070					
[	Kr	83						
>	Lu	175		95.7				
|	Tl	205	99.293					
[	U	238	101.833					

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

QC Action

Sample ID: QC Std 8

Report Date/Time: Tuesday, April 13, 2010 23:02:28

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 13, 2010 23:05:52

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ani soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.240

Concentration Results

	Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.002		ug/L	482.265	18	0.000
[>	Sc	45			ug/L		429776	429776.403
[	Ni	60	-0.022		ug/L	61.873	106	-0.000
[>	Ge	74			ug/L		232179	232178.814
|	As	75	0.214		ug/L	233.343	129	0.001
|	Se	77			ug/L		2774	-0.003
|	Se	82	0.029		ug/L	525.249	-1	0.000
[	Kr	83			ug/L		80	0.000
[>	Lu	175			ug/L		332645	332644.914
|	Tl	205	0.140		ug/L	9.630	4685	0.006
|	U	238	0.006		ug/L	17.652	839	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[Be	9					
[> Sc	45		96.5			
[Ni	60					
[> Ge	74		91.4			
| As	75					
| Se	77					
| Se	82					
[Kr	83					
[> Lu	175		95.3			
| Tl	205					
[U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: QC Std 9

Report Date/Time: Tuesday, April 13, 2010 23:06:35

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202056985

Sample Date/Time: Tuesday, April 13, 2010 23:10:00

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 959152[2]skj

Method File: c:\elandata\Method\anl soil.mth

Dataset File: C:\elandata\Dataset\100413\1202056985.241

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	-0.030	ug/L	81.000	14	-0.000
[>	Sc	45		ug/L		442764	442763.817
[	Ni	60	0.087	ug/L	27.581	208	0.000
[>	Ge	74		ug/L		236656	236656.310
|	As	75	-0.031	ug/L	420.060	-31	-0.000
|	Se	77		ug/L		2104	-0.006
|	Se	82	-0.022	ug/L	602.960	-5	-0.000
[	Kr	83		ug/L		75	-0.000
[>	Lu	175		ug/L		342542	342541.666
|	Tl	205	0.002	ug/L	166.385	2846	0.000
[	U	238	-0.013	ug/L	3.294	170	-0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9					
[>	Sc	45		99.4			
[	Ni	60					
[>	Ge	74		93.2			
|	As	75					
|	Se	77					
|	Se	82					
[	Kr	83					
[>	Lu	175		98.1			
|	Tl	205					
[	U	238					

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

QC Action

Sample ID: 1202056985

Report Date/Time: Tuesday, April 13, 2010 23:10:42

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202056990

Sample Date/Time: Tuesday, April 13, 2010 23:14:06

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 959152|40|skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100413\1202056990.242

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	22.937	ug/L	3.553	3477	0.008
[>	Sc	45		ug/L		434634	434633.577
[	Ni	60	36.661	ug/L	3.541	32723	0.075
[>	Ge	74		ug/L		235123	235122.792
|	As	75	27.680	ug/L	1.491	17886	0.076
|	Se	77		ug/L		6529	0.013
|	Se	82	75.778	ug/L	1.515	4812	0.020
[	Kr	83		ug/L		101	0.000
[>	Lu	175		ug/L		332794	332794.184
|	Tl	205	33.184	ug/L	0.464	465855	1.392
[	U	238	0.521	ug/L	0.849	19052	0.055

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9						
[>	Sc	45		97.5				
[	Ni	60						
[>	Ge	74		92.6				
|	As	75						
|	Se	77						
|	Se	82						
[	Kr	83						
[>	Lu	175		95.4				
|	Tl	205						
[	U	238						

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

QC Action

Sample ID: 1202056990

Report Date/Time: Tuesday, April 13, 2010 23:14:48

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202056986

Sample Date/Time: Tuesday, April 13, 2010 23:22:20

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 959152|2|skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100413\1202056986.244

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.716	ug/L	4.839	471	0.001
> Sc	45		ug/L		478818	478818.004
Ni	60	22.275	ug/L	2.753	21966	0.046
> Ge	74		ug/L		236697	236697.016
As	75	5.426	ug/L	2.325	3520	0.015
Se	77		ug/L		2065	-0.006
Se	82	0.078	ug/L	421.366	2	0.000
Kr	83		ug/L		146	0.000
> Lu	175		ug/L		360269	360268.853
Tl	205	0.119	ug/L	8.007	4766	0.005
U	238	2.950	ug/L	0.979	113541	0.313

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		107.5			
Ni	60					
> Ge	74		93.2			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		103.2			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: 1202056986

Report Date/Time: Tuesday, April 13, 2010 23:23:03

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202056988

Sample Date/Time: Tuesday, April 13, 2010 23:26:27

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 959152[2]skj

Method File: c:\elandata\Method\Vanl soil.mth

Dataset File: C:\elandata\Dataset\100413\1202056988.245

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	28.516	ug/L	6.042	4833	0.010
> Sc	45		ug/L		486844	486844.298
[Ni	60	44.250	ug/L	2.024	44226	0.091
> Ge	74		ug/L		236894	236893.691
| As	75	48.039	ug/L	0.601	31283	0.132
| Se	77		ug/L		2706	-0.004
| Se	82	9.889	ug/L	0.146	630	0.003
[Kr	83		ug/L		162	0.000
> Lu	175		ug/L		369066	369066.281
| Tl	205	47.959	ug/L	1.598	745287	2.011
[U	238	28.462	ug/L	1.982	1116510	3.023

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[Be	9					
> Sc	45		109.3			
[Ni	60					
> Ge	74		93.2			
| As	75					
| Se	77					
| Se	82					
[Kr	83					
> Lu	175		105.7			
| Tl	205					
[U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

Sample ID: 1202056988

Report Date/Time: Tuesday, April 13, 2010 23:27:10

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202056989

Sample Date/Time: Tuesday, April 13, 2010 23:30:34

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 959152[2]skj

Method File: c:\elandata\Method\Nani soil.mth

Dataset File: C:\elandata\Dataset\100413\1202056989.246

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	27.471	ug/L	5.168	4672	0.010
> Sc	45		ug/L		488435	488434.922
Ni	60	43.473	ug/L	1.546	43595	0.089
> Ge	74		ug/L		239507	239507.388
As	75	43.901	ug/L	3.914	28893	0.121
Se	77		ug/L		2663	-0.004
Se	82	9.363	ug/L	2.023	603	0.003
Kr	83		ug/L		172	0.000
> Lu	175		ug/L		367056	367056.163
Tl	205	46.075	ug/L	2.606	712042	1.932
U	238	27.956	ug/L	2.647	1090503	2.969

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		109.6			
Ni	60					
> Ge	74		94.3			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		105.2			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: 1202056989

Report Date/Time: Tuesday, April 13, 2010 23:31:17

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202056987

Sample Date/Time: Tuesday, April 13, 2010 23:34:42

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 959152|10|skj

Method File: c:\elandata\Method\Nanl soil.mth

Dataset File: C:\elandata\Dataset\100413\1202056987.247

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.588	ug/L	2.063	109	0.000
Sc	45		ug/L		444659	444658.513
Ni	60	4.337	ug/L	2.108	4076	0.009
Ge	74		ug/L		234437	234436.824
As	75	1.064	ug/L	39.434	673	0.003
Se	77		ug/L		2620	-0.004
Se	82	-0.013	ug/L	2794.499	-4	-0.000
Kr	83		ug/L		86	0.000
Lu	175		ug/L		334461	334460.680
Tl	205	0.040	ug/L	15.049	3308	0.002
U	238	0.568	ug/L	3.662	20786	0.060

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		99.8			
Ni	60					
Ge	74		92.3			
As	75					
Se	77					
Se	82					
Kr	83					
Lu	175		95.8			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: 1202056987

Report Date/Time: Tuesday, April 13, 2010 23:35:24

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, April 13, 2010 23:47:02

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\anal soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.250

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	54.007	ug/L	7.052	8004	0.019
>	Sc	45		ug/L		426530	426529.786
[	Ni	60	48.395	ug/L	1.209	42374	0.099
>	Ge	74		ug/L		232777	232777.353
|	As	75	50.663	ug/L	3.592	32404	0.139
|	Se	77		ug/L		5089	0.007
|	Se	82	49.468	ug/L	8.041	3106	0.013
[	Kr	83		ug/L		95	0.000
>	Lu	175		ug/L		324648	324647.795
|	Ti	205	50.441	ug/L	0.791	689442	2.115
[	U	238	51.232	ug/L	0.749	1767243	5.442

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Ti	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9	108.015				
>	Sc	45		95.7			
[	Ni	60	96.791				
>	Ge	74		91.6			
|	As	75	101.325				
|	Se	77					
|	Se	82	98.937				
[	Kr	83					
>	Lu	175		93.0			
|	Ti	205	100.883				
[	U	238	102.465				

QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

QC Action

Sample ID: QC Std 8

Report Date/Time: Tuesday, April 13, 2010 23:47:44

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 13, 2010 23:51:09

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Vanl soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.251

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.022	ug/L	99.305	21	0.000
[>	Sc	45		ug/L		423358	423357.697
[	Ni	60	-0.030	ug/L	21.035	97	-0.000
[>	Ge	74		ug/L		228560	228560.231
[	As	75	0.176	ug/L	297.057	101	0.000
[	Se	77		ug/L		2677	-0.003
[	Se	82	-0.026	ug/L	560.347	-5	-0.000
[	Kr	83		ug/L		80	0.000
[>	Lu	175		ug/L		319461	319460.996
[	Tl	205	0.187	ug/L	5.932	5134	0.008
[	U	238	0.007	ug/L	14.292	853	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9						
[>	Sc	45		95.0				
[	Ni	60						
[>	Ge	74		90.0				
[	As	75						
[	Se	77						
[	Se	82						
[	Kr	83						
[>	Lu	175		91.5				
[	Tl	205						
[	U	238						

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

QC Action

Sample ID: QC Std 9

Report Date/Time: Tuesday, April 13, 2010 23:51:52

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 248250001

Sample Date/Time: Wednesday, April 14, 2010 00:15:55

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959152|2|skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100413\248250001.257

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	3.310	ug/L	9.092	582	0.001
[>	Sc	45		ug/L		488789	488788.974
[	Ni	60	22.686	ug/L	1.986	22835	0.046
[>	Ge	74		ug/L		236839	236839.390
|	As	75	21.611	ug/L	4.041	14056	0.059
|	Se	77		ug/L		2031	-0.006
|	Se	82	1.712	ug/L	14.544	106	0.000
[	Kr	83		ug/L		190	0.000
[>	Lu	175		ug/L		353905	353905.109
|	Tl	205	0.533	ug/L	3.503	10812	0.022
[	U	238	38.809	ug/L	4.853	1457975	4.122

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recovery	Dilution %	Dil	Duplicate	Rel. %	Difference
[	Be	9											
[>	Sc	45				109.7							
[	Ni	60											
[>	Ge	74				93.2							
|	As	75											
|	Se	77											
|	Se	82											
[	Kr	83											
[>	Lu	175				101.4							
|	Tl	205											
[	U	238											

QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

QC Action

Sample ID: 248250001

Report Date/Time: Wednesday, April 14, 2010 00:16:38

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 248250002

Sample Date/Time: Wednesday, April 14, 2010 00:20:02

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959152|2|skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100413\248250002.258

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	2.293	ug/L	9.393	418	0.001
> Sc	45		ug/L		499292	499292.304
[Ni	60	13.780	ug/L	4.038	14224	0.028
> Ge	74		ug/L		240981	240980.895
| As	75	13.809	ug/L	4.430	9134	0.038
| Se	77		ug/L		1918	-0.007
| Se	82	0.239	ug/L	93.699	12	0.000
[Kr	83		ug/L		172	0.000
> Lu	175		ug/L		365014	365013.728
| Tl	205	0.456	ug/L	3.061	9979	0.019
[U	238	22.716	ug/L	0.810	881380	2.413

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[Be	9					
> Sc	45		112.1			
[Ni	60					
> Ge	74		94.9			
| As	75					
| Se	77					
| Se	82					
[Kr	83					
> Lu	175		104.6			
| Tl	205					
[U	238					

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

QC Action

Sample ID: 248250002

Report Date/Time: Wednesday, April 14, 2010 00:20:45

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 248250003

Sample Date/Time: Wednesday, April 14, 2010 00:24:10

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959152|2|skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100413\248250003.259

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.749	ug/L	4.022	492	0.001
> Sc	45		ug/L		494561	494560.954
Ni	60	17.284	ug/L	3.679	17633	0.035
> Ge	74		ug/L		241171	241170.651
As	75	15.947	ug/L	2.841	10565	0.044
Se	77		ug/L		2087	-0.006
Se	82	0.988	ug/L	11.919	61	0.000
Kr	83		ug/L		175	0.000
> Lu	175		ug/L		352472	352472.000
Tl	205	0.520	ug/L	2.959	10575	0.022
U	238	26.544	ug/L	2.372	994073	2.819

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		111.0			
Ni	60					
> Ge	74		94.9			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		101.0			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: 248250003

Report Date/Time: Wednesday, April 14, 2010 00:24:53

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 248250004

Sample Date/Time: Wednesday, April 14, 2010 00:28:18

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959152|2|skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100413\248250004.260

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	2.509	ug/L	4.240	447	0.001
[> Sc	45		ug/L		490806	490806.081
[Ni	60	13.900	ug/L	2.518	14101	0.028
[> Ge	74		ug/L		239751	239751.027
| As	75	14.334	ug/L	4.351	9436	0.039
| Se	77		ug/L		1956	-0.007
| Se	82	0.379	ug/L	109.343	21	0.000
[Kr	83		ug/L		174	0.000
[> Lu	175		ug/L		353272	353272.044
| Tl	205	0.411	ug/L	2.008	8987	0.017
[U	238	20.905	ug/L	4.196	784800	2.220

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[Be	9					
[> Sc	45		110.1			
[Ni	60					
[> Ge	74		94.4			
| As	75					
| Se	77					
| Se	82					
[Kr	83					
[> Lu	175		101.2			
| Tl	205					
[U	238					

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

QC Action

Sample ID: 248250004

Report Date/Time: Wednesday, April 14, 2010 00:29:01

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Wednesday, April 14, 2010 00:32:25

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\anal soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.261

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	53.841	ug/L	8.860	8155	0.019
Sc	45		ug/L		436015	436014.780
Ni	60	48.474	ug/L	0.816	43384	0.099
Ge	74		ug/L		237078	237077.728
As	75	50.804	ug/L	0.277	33110	0.140
Se	77		ug/L		4901	0.006
Se	82	49.957	ug/L	0.188	3198	0.014
Kr	83		ug/L		111	0.000
Lu	175		ug/L		332442	332441.746
Tl	205	49.578	ug/L	1.754	693897	2.079
U	238	50.437	ug/L	0.289	1781554	5.357

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9	107.681				
Sc	45		97.9			
Ni	60	96.949				
Ge	74		93.3			
As	75	101.608				
Se	77					
Se	82	99.914				
Kr	83					
Lu	175		95.3			
Tl	205	99.157				
U	238	100.874				

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

QC Action

Sample ID: QC Std 8

Report Date/Time: Wednesday, April 14, 2010 00:33:06

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Wednesday, April 14, 2010 00:36:31

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.262

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.018	ug/L	110.791	15	-0.000
> Sc	45		ug/L		422746	422745.766
Ni	60	-0.014	ug/L	70.787	111	-0.000
> Ge	74		ug/L		232979	232979.441
As	75	-0.018	ug/L	2316.777	-23	-0.000
Se	77		ug/L		2595	-0.004
Se	82	0.033	ug/L	474.578	-1	0.000
Kr	83		ug/L		85	0.000
> Lu	175		ug/L		326485	326485.123
Tl	205	0.159	ug/L	9.651	4859	0.007
U	238	0.007	ug/L	5.937	853	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike	% Recovery	Dilution	% Dil	Duplicate	Rel. % Difference
Be	9										
> Sc	45				94.9						
Ni	60										
> Ge	74				91.7						
As	75										
Se	77										
Se	82										
Kr	83										
> Lu	175				93.5						
Tl	205										
U	238										

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

QC Action

Sample ID: QC Std 9

Report Date/Time: Wednesday, April 14, 2010 00:37:14

Page 1

QC Action Line: No QC out of limits detected

=====
Analysis BegunLogged In Analyst: Administrator
Spectrometer Model: FIMS-100, S/N B050-9550Technique: AA FIMS-MHS
Autosampler Model: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\031710S1.SIF

Batch ID:

Results Data Set: 031710S2

Results Library: C:\data-AA\Administrator\Results\Results.mdb

=====
Sequence No.: 1
Sample ID: Calib Blank
Analyst:Autosampler Location: 1
Date Collected: 3/17/2010 09:37:29
Data Type: Original-----
Replicate Data: Calib Blank

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1		[0.00]	0.0002	-0.0002	0.0002	09:38:19	Yes
2		[0.00]	0.0002	-0.0002	0.0002	09:38:49	Yes
Mean:		[0.00]	0.0002				
SD:		0.00	0.0000				
%RSD:		0.00	1.02				

Auto-zero performed.=====
Sequence No.: 2
Sample ID: S0.2
Analyst:Autosampler Location: 2
Date Collected: 3/17/2010 09:39:08
Data Type: Original-----
Replicate Data: S0.2

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1		[0.2]	0.0026	0.0125	0.0028	09:39:59	Yes
2		[0.2]	0.0026	0.0127	0.0028	09:40:29	Yes
Mean:		[0.2]	0.0026				
SD:		0.0	0.0000				
%RSD:		0.0	0.59				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01304 Intercept: 0.00000=====
Sequence No.: 3
Sample ID: S0.5
Analyst:Autosampler Location: 3
Date Collected: 3/17/2010 09:40:48
Data Type: Original-----
Replicate Data: S0.5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1		[0.5]	0.0066	0.0314	0.0068	09:41:38	Yes
2		[0.5]	0.0065	0.0307	0.0067	09:42:08	Yes
Mean:		[0.5]	0.0066				
SD:		0.0	0.0000				
%RSD:		0.0	0.58				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999998 Slope: 0.01311 Intercept: -0.00000=====
Sequence No.: 4
Sample ID: S2.0
Analyst:Autosampler Location: 4
Date Collected: 3/17/2010 09:42:28
Data Type: Original-----
Replicate Data: S2.0

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored

1	[2.0]	0.0259	0.1207	0.0261	09:43:19	Yes
2	[2.0]	0.0259	0.1200	0.0261	09:43:49	Yes
Mean:	[2.0]	0.0259				
SD:	0.0	0.0000				
%RSD:	0.0	0.07				
Standard number 3 applied. [2.0]						
Correlation Coef.: 0.999995 Slope: 0.01293 Intercept: 0.00003						

```

=====
Sequence No.: 5                      Autosampler Location: 5
Sample ID: S5.0                     Date Collected: 3/17/2010 09:44:09
Analyst:                            Data Type: Original
=====

```

Replicate Data: S5.0

Repl #	Sample Conc ug/L	Std Conc ug/L	Blk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0635	0.2947	0.0637	09:45:01	Yes
2		[5.0]	0.0631	0.2930	0.0633	09:45:31	Yes
Mean:		[5.0]	0.0633				
SD:		0.0	0.0003				
%RSD:		0.0	0.40				
Standard number 4 applied. [5.0]							
Correlation Coef.: 0.999960 Slope: 0.01266 Intercept: 0.00018							

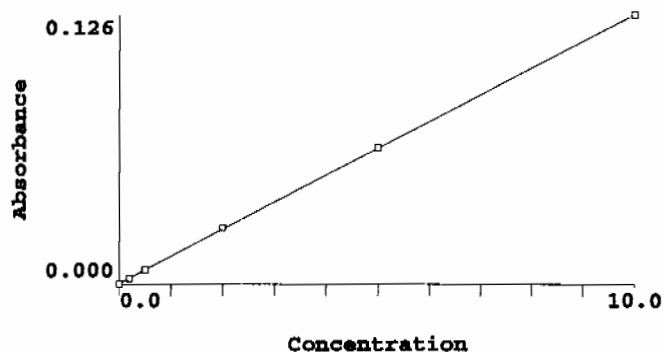
```

=====
Sequence No.: 6                      Autosampler Location: 6
Sample ID: S10.0                     Date Collected: 3/17/2010 09:45:51
Analyst:                            Data Type: Original
=====

```

Replicate Data: S10.0

Repl #	Sample Conc ug/L	Std Conc ug/L	Blk Corr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1260	0.5863	0.1262	09:46:41	Yes
2		[10.0]	0.1253	0.5799	0.1255	09:47:11	Yes
Mean:		[10.0]	0.1257				
SD:		0.0	0.0005				
%RSD:		0.0	0.41				
Standard number 5 applied. [10.0]							
Correlation Coef.: 0.999982 Slope: 0.01256 Intercept: 0.00029							



Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.023	0.00	1.0
S0.2	0.0026	0.2	0.185	0.00	0.6
S0.5	0.0066	0.5	0.499	0.00	0.6
S2.0	0.0259	2.0	2.038	0.00	0.1
S5.0	0.0633	5.0	5.017	0.00	0.4
S10.0	0.1257	10.0	9.984	0.00	0.4
Correlation Coef.: 0.999982 Slope: 0.01256 Intercept: 0.00029					

Sequence No.: 7
Sample ID: ICV
Analyst:

Autosampler Location: 9
Date Collected: 3/17/2010 09:47:30
Data Type: Original

Replicate Data: ICV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.147	5.147	0.0649	0.2998	0.0651	09:48:21	Yes
2	5.115	5.115	0.0645	0.2978	0.0647	09:48:51	Yes
Mean:	5.131	5.131	0.0647				
SD:	0.023	0.023	0.0003				
%RSD:	0.444	0.444	0.44				

QC value within limits for Hg 253.7 Recovery = 102.62%
All analyte(s) passed QC.

Sequence No.: 8
Sample ID: ICB
Analyst:

Autosampler Location: 10
Date Collected: 3/17/2010 09:49:11
Data Type: Original

Replicate Data: ICB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	0.0003	0.0027	0.0004	09:50:02	Yes
2	-0.003	-0.003	0.0002	0.0028	0.0004	09:50:32	Yes
Mean:	-0.003	-0.003	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	14.23	14.23	2.15				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9
Sample ID: CRDL
Analyst:

Autosampler Location: 11
Date Collected: 3/17/2010 09:50:52
Data Type: Original

Replicate Data: CRDL

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.204	0.204	0.0029	0.0153	0.0030	09:51:44	Yes
2	0.194	0.194	0.0027	0.0138	0.0029	09:52:13	Yes
Mean:	0.199	0.199	0.0028				
SD:	0.007	0.007	0.0001				
%RSD:	3.655	3.655	3.28				

QC value within limits for Hg 253.7 Recovery = 99.54%
All analyte(s) passed QC.

Sequence No.: 10
Sample ID: CCV
Analyst:

Autosampler Location: 7
Date Collected: 3/17/2010 09:52:33
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.127	5.127	0.0647	0.2981	0.0649	09:53:24	Yes
2	5.101	5.101	0.0644	0.2968	0.0645	09:53:53	Yes
Mean:	5.114	5.114	0.0645				
SD:	0.018	0.018	0.0002				
%RSD:	0.360	0.360	0.36				

QC value within limits for Hg 253.7 Recovery = 102.29%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:

Autosampler Location: 8
Date Collected: 3/17/2010 09:54:12
Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.015	-0.015	0.0001	0.0013	0.0003	09:55:03	Yes
2	-0.017	-0.017	0.0001	0.0011	0.0003	09:55:33	Yes
Mean:	-0.016	-0.016	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	8.640	8.640	20.06				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

=====

Sequence No.: 12
Sample ID: 1202056199|958764|1
Analyst: JXL

Autosampler Location: 12
Date Collected: 3/17/2010 09:55:52
Data Type: Original

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.012	-0.012	0.0001	0.0017	0.0003	09:56:44	Yes
2	-0.011	-0.011	0.0002	0.0018	0.0003	09:57:14	Yes
Mean:	-0.011	-0.011	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	11.25	11.25	11.37				

=====

Sequence No.: 13
Sample ID: 1202056200|958764|10
Analyst: JXL

Autosampler Location: 13
Date Collected: 3/17/2010 09:57:34
Data Type: Original

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.314	3.314	0.0419	0.1944	0.0421	09:58:26	Yes
2	3.316	3.316	0.0419	0.1936	0.0421	09:58:56	Yes
Mean:	3.315	3.315	0.0419				
SD:	0.002	0.002	0.0000				
%RSD:	0.058	0.058	0.06				

=====

Sequence No.: 14
Sample ID: 248159001|958764|1
Analyst: JXL

Autosampler Location: 14
Date Collected: 3/17/2010 09:59:16
Data Type: Original

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.057	0.057	0.0010	0.0057	0.0012	10:00:07	Yes
2	0.056	0.056	0.0010	0.0058	0.0012	10:00:37	Yes
Mean:	0.057	0.057	0.0010				
SD:	0.001	0.001	0.0000				
%RSD:	1.266	1.266	0.90				

=====

Sequence No.: 15
Sample ID: 1202056201|958764|1
Analyst: JXL

Autosampler Location: 15
Date Collected: 3/17/2010 10:00:56
Data Type: Original

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.130	0.130	0.0019	0.0106	0.0021	10:01:46	Yes
2	0.139	0.139	0.0020	0.0121	0.0022	10:02:16	Yes
Mean:	0.134	0.134	0.0020				
SD:	0.006	0.006	0.0001				

1	0.355	0.355	0.0047	0.0229	0.0049	10:10:03	Yes
2	0.359	0.359	0.0048	0.0230	0.0050	10:10:33	Yes
Mean:	0.357	0.357	0.0048				
SD:	0.003	0.003	0.0000				
%RSD:	0.925	0.925	0.87				

Sequence No.: 21

Autosampler Location: 21

Sample ID: 248159004|958764|1

Date Collected: 3/17/2010 10:10:52

Analyst: JXL

Data Type: Original

Replicate Data: 248159004|958764|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.317	0.317	0.0043	0.0211	0.0045	10:11:44	Yes
2	0.321	0.321	0.0043	0.0210	0.0045	10:12:13	Yes
Mean:	0.319	0.319	0.0043				
SD:	0.002	0.002	0.0000				
%RSD:	0.716	0.716	0.67				

Sequence No.: 22

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/17/2010 10:12:33

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.209	5.209	0.0657	0.3013	0.0659	10:13:24	Yes
2	5.190	5.190	0.0655	0.2997	0.0657	10:13:54	Yes
Mean:	5.199	5.199	0.0656				
SD:	0.014	0.014	0.0002				
%RSD:	0.262	0.262	0.26				

QC value within limits for Hg 253.7 Recovery = 103.99%
All analyte(s) passed QC.

Sequence No.: 23

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/17/2010 10:14:13

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.013	-0.013	0.0001	0.0018	0.0003	10:15:03	Yes
2	-0.015	-0.015	0.0001	0.0017	0.0003	10:15:33	Yes
Mean:	-0.014	-0.014	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	10.04	10.04	17.02				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24

Autosampler Location: 22

Sample ID: 248159005|958764|1

Date Collected: 3/17/2010 10:15:52

Analyst: JXL

Data Type: Original

Replicate Data: 248159005|958764|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.190	0.190	0.0027	0.0133	0.0029	10:16:44	Yes
2	0.187	0.187	0.0026	0.0131	0.0028	10:17:14	Yes
Mean:	0.188	0.188	0.0027				
SD:	0.002	0.002	0.0000				
%RSD:	1.003	1.003	0.89				

SD: 0.003 0.003 0.0000
%RSD: 4.214 4.214 3.12

Sequence No.: 30
Sample ID: 248171003|958764|1
Analyst: JXL

Autosampler Location: 28
Date Collected: 3/17/2010 10:25:59
Data Type: Original

Replicate Data: 248171003|958764|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.394	0.394	0.0052	0.0249	0.0054	10:26:49	Yes
2	0.389	0.389	0.0052	0.0243	0.0054	10:27:19	Yes
Mean:	0.392	0.392	0.0052				
SD:	0.003	0.003	0.0000				
%RSD:	0.863	0.863	0.82				

Sequence No.: 31
Sample ID: 248171004|958764|1
Analyst: JXL

Autosampler Location: 29
Date Collected: 3/17/2010 10:27:38
Data Type: Original

Replicate Data: 248171004|958764|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.269	0.269	0.0037	0.0180	0.0039	10:28:29	Yes
2	0.270	0.270	0.0037	0.0178	0.0039	10:28:59	Yes
Mean:	0.270	0.270	0.0037				
SD:	0.001	0.001	0.0000				
%RSD:	0.275	0.275	0.25				

Sequence No.: 32
Sample ID: 248171005|958764|1
Analyst: JXL

Autosampler Location: 30
Date Collected: 3/17/2010 10:29:18
Data Type: Original

Replicate Data: 248171005|958764|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	88.91	88.91	1.1169	6.6233	1.1171	10:30:09	Yes
Sample concentration is greater than that of the highest standard.							
2	88.18	88.18	1.1078	6.5621	1.1080	10:30:38	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	88.54	88.54	1.1123				
SD:	0.512	0.512	0.0064				
%RSD:	0.578	0.578	0.58				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 33
Sample ID: 248176001|958764|1
Analyst: JXL

Autosampler Location: 31
Date Collected: 3/17/2010 10:30:57
Data Type: Original

Replicate Data: 248176001|958764|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.166	0.166	0.0024	0.0060	0.0026	10:31:48	Yes
2	0.173	0.173	0.0025	0.0095	0.0027	10:32:18	Yes
Mean:	0.169	0.169	0.0024				
SD:	0.005	0.005	0.0001				
%RSD:	3.035	3.035	2.67				

Sequence No.: 34
Sample ID: CCV
Analyst:

Autosampler Location: 7
Date Collected: 3/17/2010 10:32:37
Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.238	5.238	0.0661	0.3035	0.0663	10:33:28	Yes
2	5.207	5.207	0.0657	0.3015	0.0659	10:33:58	Yes
Mean:	5.222	5.222	0.0659				
SD:	0.022	0.022	0.0003				
%RSD:	0.428	0.428	0.43				

QC value within limits for Hg 253.7 Recovery = 104.45%
All analyte(s) passed QC.

=====

Sequence No.: 35

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/17/2010 10:34:17

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.018	0.018	0.0005	0.0027	0.0007	10:35:07	Yes
2	0.016	0.016	0.0005	0.0029	0.0007	10:35:37	Yes
Mean:	0.017	0.017	0.0005				
SD:	0.001	0.001	0.0000				
%RSD:	7.579	7.579	3.28				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

=====

Sequence No.: 36

Autosampler Location: 32

Sample ID: 248176002|958764|1

Date Collected: 3/17/2010 10:35:56

Analyst: JXL

Data Type: Original

Replicate Data: 248176002|958764|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.740	0.740	0.0096	0.0448	0.0098	10:36:47	Yes
2	0.737	0.737	0.0095	0.0448	0.0097	10:37:17	Yes
Mean:	0.739	0.739	0.0096				
SD:	0.003	0.003	0.0000				
%RSD:	0.367	0.367	0.36				

=====

Sequence No.: 37

Autosampler Location: 33

Sample ID: 248176003|958764|1

Date Collected: 3/17/2010 10:37:36

Analyst: JXL

Data Type: Original

Replicate Data: 248176003|958764|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.251	0.251	0.0034	0.0166	0.0036	10:38:27	Yes
2	0.246	0.246	0.0034	0.0157	0.0036	10:38:57	Yes
Mean:	0.248	0.248	0.0034				
SD:	0.004	0.004	0.0000				
%RSD:	1.503	1.503	1.38				

=====

Sequence No.: 38

Autosampler Location: 34

Sample ID: 248176004|958764|1

Date Collected: 3/17/2010 10:39:16

Analyst: JXL

Data Type: Original

Replicate Data: 248176004|958764|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.047	0.047	0.0009	0.0048	0.0011	10:40:07	Yes
2	0.047	0.047	0.0009	0.0047	0.0011	10:40:37	Yes
Mean:	0.047	0.047	0.0009				

SD: 0.000 0.000 0.0000
%RSD: 0.188 0.188 0.13

Sequence No.: 39
Sample ID: 248176005|958764|1
Analyst: JXL

Autosampler Location: 35
Date Collected: 3/17/2010 10:40:57
Data Type: Original

Replicate Data: 248176005|958764|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.046	0.046	0.0009	0.0049	0.0011	10:41:48	Yes
2	0.044	0.044	0.0008	0.0046	0.0010	10:42:18	Yes
Mean:	0.045	0.045	0.0008				
SD:	0.001	0.001	0.0000				
%RSD:	3.117	3.117	2.06				

Sequence No.: 40
Sample ID: 248176006|958764|1
Analyst: JXL

Autosampler Location: 36
Date Collected: 3/17/2010 10:42:38
Data Type: Original

Replicate Data: 248176006|958764|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.180	0.180	0.0025	0.0126	0.0027	10:43:29	Yes
2	0.176	0.176	0.0025	0.0123	0.0027	10:43:59	Yes
Mean:	0.178	0.178	0.0025				
SD:	0.003	0.003	0.0000				
%RSD:	1.493	1.493	1.32				

Sequence No.: 41
Sample ID: 1202056652|958993|1
Analyst: JXL

Autosampler Location: 37
Date Collected: 3/17/2010 10:44:20
Data Type: Original

Replicate Data: 1202056652|958993|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.003	-0.003	0.0003	0.0022	0.0004	10:45:11	Yes
2	-0.006	-0.006	0.0002	0.0017	0.0004	10:45:41	Yes
Mean:	-0.005	-0.005	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	51.05	51.05	12.67				

Sequence No.: 42
Sample ID: 1202056653|958993|10
Analyst: JXL

Autosampler Location: 38
Date Collected: 3/17/2010 10:46:01
Data Type: Original

Replicate Data: 1202056653|958993|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.980	3.980	0.0503	0.2321	0.0505	10:46:52	Yes
2	3.956	3.956	0.0500	0.2302	0.0502	10:47:22	Yes
Mean:	3.968	3.968	0.0501				
SD:	0.017	0.017	0.0002				
%RSD:	0.426	0.426	0.42				

Sequence No.: 43
Sample ID: 248247001|958993|1
Analyst: JXL

Autosampler Location: 39
Date Collected: 3/17/2010 10:47:42
Data Type: Original

Replicate Data: 248247001|958993|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------

#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.465	0.465	0.0061	0.0292	0.0063	10:48:33	Yes
2	0.465	0.465	0.0061	0.0286	0.0063	10:49:03	Yes
Mean:	0.465	0.465	0.0061				
SD:	0.000	0.000	0.0000				
%RSD:	0.048	0.048	0.05				

Sequence No.: 44

Sample ID: 248247002|958993|1

Analyst: JXL

Autosampler Location: 40

Date Collected: 3/17/2010 10:49:22

Data Type: Original

Replicate Data: 248247002|958993|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.881	0.881	0.0114	0.0529	0.0115	10:50:14	Yes
2	0.882	0.882	0.0114	0.0531	0.0116	10:50:43	Yes
Mean:	0.882	0.882	0.0114				
SD:	0.001	0.001	0.0000				
%RSD:	0.107	0.107	0.10				

Sequence No.: 45

Sample ID: 248247003|958993|1

Analyst: JXL

Autosampler Location: 41

Date Collected: 3/17/2010 10:51:03

Data Type: Original

Replicate Data: 248247003|958993|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.153	0.153	0.0022	0.0111	0.0024	10:51:54	Yes
2	0.153	0.153	0.0022	0.0111	0.0024	10:52:24	Yes
Mean:	0.153	0.153	0.0022				
SD:	0.000	0.000	0.0000				
%RSD:	0.015	0.015	0.01				

Sequence No.: 46

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/17/2010 10:52:44

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.910	4.910	0.0620	0.2873	0.0622	10:53:34	Yes
2	4.916	4.916	0.0620	0.2864	0.0622	10:54:03	Yes
Mean:	4.913	4.913	0.0620				
SD:	0.004	0.004	0.0001				
%RSD:	0.084	0.084	0.08				

QC value within limits for Hg 253.7 Recovery = 98.27%

All analyte(s) passed QC.

Sequence No.: 47

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/17/2010 10:54:22

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.014	-0.014	0.0001	0.0012	0.0003	10:55:13	Yes
2	-0.013	-0.013	0.0001	0.0014	0.0003	10:55:43	Yes
Mean:	-0.014	-0.014	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	5.038	5.038	7.89				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Mean: 0.284 0.284 0.0039
SD: 0.000 0.000 0.0000
%RSD: 0.133 0.133 0.12

Sequence No.: 53
Sample ID: 248250001|958993|1
Analyst: JXL

Autosampler Location: 47
Date Collected: 3/17/2010 11:04:24
Data Type: Original

Replicate Data: 248250001|958993|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	6.370	6.370	0.0803	0.3825	0.0805	11:05:15	Yes
2	6.345	6.345	0.0800	0.3770	0.0802	11:05:45	Yes
Mean:	6.358	6.358	0.0801				
SD:	0.018	0.018	0.0002				
%RSD:	0.277	0.277	0.28				

Sequence No.: 54
Sample ID: 248250002|958993|1
Analyst: JXL

Autosampler Location: 48
Date Collected: 3/17/2010 11:06:05
Data Type: Original

Replicate Data: 248250002|958993|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.990	3.990	0.0504	0.2382	0.0506	11:06:57	Yes
2	3.931	3.931	0.0497	0.2341	0.0499	11:07:27	Yes
Mean:	3.960	3.960	0.0500				
SD:	0.041	0.041	0.0005				
%RSD:	1.042	1.042	1.04				

Sequence No.: 55
Sample ID: 248250003|958993|1
Analyst: JXL

Autosampler Location: 49
Date Collected: 3/17/2010 11:07:47
Data Type: Original

Replicate Data: 248250003|958993|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	6.057	6.057	0.0764	0.3598	0.0766	11:08:39	Yes
2	6.046	6.046	0.0762	0.3573	0.0764	11:09:09	Yes
Mean:	6.052	6.052	0.0763				
SD:	0.008	0.008	0.0001				
%RSD:	0.135	0.135	0.13				

Sequence No.: 56
Sample ID: 248250004|958993|1
Analyst: JXL

Autosampler Location: 50
Date Collected: 3/17/2010 11:09:29
Data Type: Original

Replicate Data: 248250004|958993|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.307	5.307	0.0669	0.3153	0.0671	11:10:20	Yes
2	5.267	5.267	0.0664	0.3117	0.0666	11:10:49	Yes
Mean:	5.287	5.287	0.0667				
SD:	0.028	0.028	0.0004				
%RSD:	0.531	0.531	0.53				

Sequence No.: 57
Sample ID: 248256001|958993|1
Analyst: JXL

Autosampler Location: 51
Date Collected: 3/17/2010 11:11:09
Data Type: Original

Replicate Data: 248256001|958993|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.138	1.138	0.0146	0.0672	0.0148	11:12:01	Yes
2	1.140	1.140	0.0146	0.0672	0.0148	11:12:30	Yes
Mean:	1.139	1.139	0.0146				
SD:	0.001	0.001	0.0000				
%RSD:	0.099	0.099	0.10				

Sequence No.: 58

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/17/2010 11:12:50

Analyst:

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.942	4.942	0.0623	0.2863	0.0625	11:13:41	Yes
2	4.917	4.917	0.0620	0.2843	0.0622	11:14:11	Yes
Mean:	4.929	4.929	0.0622				
SD:	0.017	0.017	0.0002				
%RSD:	0.353	0.353	0.35				

QC value within limits for Hg 253.7 Recovery = 98.59%

All analyte(s) passed QC.

Sequence No.: 59

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/17/2010 11:14:30

Analyst:

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.017	-0.017	0.0001	0.0010	0.0003	11:15:20	Yes
2	-0.013	-0.013	0.0001	0.0016	0.0003	11:15:50	Yes
Mean:	-0.015	-0.015	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	14.68	14.68	28.15				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 60

Autosampler Location: 52

Sample ID: 1202056654|958993|1

Date Collected: 3/17/2010 11:16:09

Analyst: JXL

Data Type: Original

Replicate Data: 1202056654|958993|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.706	0.706	0.0092	0.0432	0.0093	11:17:00	Yes
2	0.706	0.706	0.0092	0.0426	0.0093	11:17:30	Yes
Mean:	0.706	0.706	0.0092				
SD:	0.000	0.000	0.0000				
%RSD:	0.011	0.011	0.01				

Sequence No.: 61

Autosampler Location: 53

Sample ID: 1202056655|958993|1

Date Collected: 3/17/2010 11:17:50

Analyst: JXL

Data Type: Original

Replicate Data: 1202056655|958993|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.922	2.922	0.0370	0.1708	0.0372	11:18:40	Yes
2	2.920	2.920	0.0370	0.1707	0.0372	11:19:10	Yes
Mean:	2.921	2.921	0.0370				
SD:	0.001	0.001	0.0000				
%RSD:	0.032	0.032	0.03				

Sequence No.: 62

Sample ID: 1202056657|958993|1

Analyst: JXL

Autosampler Location: 54

Date Collected: 3/17/2010 11:19:30

Data Type: Original

Replicate Data: 1202056657|958993|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.128	3.128	0.0396	0.1825	0.0398	11:20:21	Yes
2	3.080	3.080	0.0390	0.1807	0.0392	11:20:51	Yes
Mean:	3.104	3.104	0.0393				
SD:	0.034	0.034	0.0004				
%RSD:	1.080	1.080	1.07				

Sequence No.: 63

Sample ID: 1202056656|958993|5

Analyst: JXL

Autosampler Location: 55

Date Collected: 3/17/2010 11:21:10

Data Type: Original

Replicate Data: 1202056656|958993|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.210	0.210	0.0029	0.0142	0.0031	11:22:02	Yes
2	0.209	0.209	0.0029	0.0142	0.0031	11:22:31	Yes
Mean:	0.210	0.210	0.0029				
SD:	0.000	0.000	0.0000				
%RSD:	0.211	0.211	0.19				

Sequence No.: 64

Sample ID: 248256002|958993|1

Analyst: JXL

Autosampler Location: 56

Date Collected: 3/17/2010 11:22:51

Data Type: Original

Replicate Data: 248256002|958993|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.160	0.160	0.0023	0.0114	0.0025	11:23:42	Yes
2	0.160	0.160	0.0023	0.0113	0.0025	11:24:12	Yes
Mean:	0.160	0.160	0.0023				
SD:	0.000	0.000	0.0000				
%RSD:	0.048	0.048	0.04				

Sequence No.: 65

Sample ID: 248256003|958993|1

Analyst: JXL

Autosampler Location: 57

Date Collected: 3/17/2010 11:24:31

Data Type: Original

Replicate Data: 248256003|958993|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.972	0.972	0.0125	0.0580	0.0127	11:25:22	Yes
2	0.963	0.963	0.0124	0.0573	0.0126	11:25:52	Yes
Mean:	0.967	0.967	0.0124				
SD:	0.007	0.007	0.0001				
%RSD:	0.707	0.707	0.69				

Sequence No.: 66

Sample ID: 248256004|958993|1

Analyst: JXL

Autosampler Location: 58

Date Collected: 3/17/2010 11:26:12

Data Type: Original

Replicate Data: 248256004|958993|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.146	0.146	0.0021	0.0104	0.0023	11:27:03	Yes

2	0.141	0.141	0.0021	0.0099	0.0022	11:27:33	Yes
Mean:	0.143	0.143	0.0021				
SD:	0.004	0.004	0.0000				
%RSD:	2.686	2.686	2.32				

Sequence No.: 67

Autosampler Location: 59

Sample ID: 248256005|958993|1

Date Collected: 3/17/2010 11:27:53

Analyst: JXL

Data Type: Original

Replicate Data: 248256005|958993|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.010	0.010	0.0004	0.0023	0.0006	11:28:44	Yes
2	0.010	0.010	0.0004	0.0024	0.0006	11:29:14	Yes
Mean:	0.010	0.010	0.0004				
SD:	0.000	0.000	0.0000				
%RSD:	2.750	2.750	0.83				

Sequence No.: 68

Autosampler Location: 60

Sample ID: 248256006|958993|1

Date Collected: 3/17/2010 11:29:34

Analyst: JXL

Data Type: Original

Replicate Data: 248256006|958993|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.044	0.044	0.0008	0.0042	0.0010	11:30:26	Yes
2	0.042	0.042	0.0008	0.0042	0.0010	11:30:56	Yes
Mean:	0.043	0.043	0.0008				
SD:	0.001	0.001	0.0000				
%RSD:	2.360	2.360	1.54				

Sequence No.: 69

Autosampler Location: 61

Sample ID: 248256007|958993|1

Date Collected: 3/17/2010 11:31:16

Analyst: JXL

Data Type: Original

Replicate Data: 248256007|958993|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.109	0.109	0.0017	0.0080	0.0019	11:32:08	Yes
2	0.108	0.108	0.0016	0.0081	0.0018	11:32:37	Yes
Mean:	0.109	0.109	0.0017				
SD:	0.001	0.001	0.0000				
%RSD:	0.471	0.471	0.39				

Sequence No.: 70

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/17/2010 11:32:58

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.959	4.959	0.0626	0.2876	0.0628	11:33:48	Yes
2	4.953	4.953	0.0625	0.2870	0.0627	11:34:18	Yes
Mean:	4.956	4.956	0.0625				
SD:	0.004	0.004	0.0001				
%RSD:	0.086	0.086	0.09				

QC value within limits for Hg 253.7 Recovery = 99.12%
All analyte(s) passed QC.

Sequence No.: 71

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/17/2010 11:34:37

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.023	-0.023	0.0000	0.0002	0.0002	11:35:28	Yes
2	-0.023	-0.023	-0.0000	0.0002	0.0002	11:35:58	Yes
Mean:	-0.023	-0.023	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	2.227	2.227	274.82				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

=====

Sequence No.: 72
Sample ID: 1202068551|964202|1
Analyst: JXL

Autosampler Location: 62
Date Collected: 3/17/2010 11:36:17
Data Type: Original

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.022	-0.022	0.0000	0.0002	0.0002	11:37:08	Yes
2	-0.023	-0.023	-0.0000	0.0003	0.0002	11:37:38	Yes
Mean:	-0.023	-0.023	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	2.685	2.685	422.20				

=====

Sequence No.: 73
Sample ID: 1202068552|964202|10
Analyst: JXL

Autosampler Location: 63
Date Collected: 3/17/2010 11:37:58
Data Type: Original

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.048	4.048	0.0511	0.2339	0.0513	11:38:49	Yes
2	4.059	4.059	0.0513	0.2340	0.0515	11:39:19	Yes
Mean:	4.053	4.053	0.0512				
SD:	0.008	0.008	0.0001				
%RSD:	0.194	0.194	0.19				

=====

Sequence No.: 74
Sample ID: 248527002|964202|1
Analyst: JXL

Autosampler Location: 64
Date Collected: 3/17/2010 11:39:38
Data Type: Original

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.092	0.092	0.0014	0.0069	0.0016	11:40:29	Yes
2	0.091	0.091	0.0014	0.0068	0.0016	11:40:59	Yes
Mean:	0.091	0.091	0.0014				
SD:	0.001	0.001	0.0000				
%RSD:	0.583	0.583	0.47				

=====

Sequence No.: 75
Sample ID: 1202068553|964202|1
Analyst: JXL

Autosampler Location: 65
Date Collected: 3/17/2010 11:41:19
Data Type: Original

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.055	0.055	0.0010	0.0048	0.0012	11:42:10	Yes
2	0.058	0.058	0.0010	0.0049	0.0012	11:42:40	Yes
Mean:	0.057	0.057	0.0010				
SD:	0.002	0.002	0.0000				

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 959151.0 Verified by: _____ Lab SOP: GL-MA-E-009 REV# 19
 Analyst: Louis Hall Instrument: Sartorius Balance B-001
 Method: SW846 3050B

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check
1202056985 MB	11-MAR-2010 10:00:00	0.559	50	89.44544	<2
1202056990 LCS	11-MAR-2010 10:00:00	0.51	50	98.03922	<2
248247001	11-MAR-2010 10:00:00	0.535	50	93.45794	<2
1202056986 DUP (248247001)	11-MAR-2010 10:00:00	0.53	50	94.33962	<2
1202056987 SDIL.T (248247001)	11-MAR-2010 10:00:00	0.535	50	93.45794	<2
1202056988 MS (248247001)	11-MAR-2010 10:00:00	0.545	50	91.74312	<2
1202056989 MSD (248247001)	11-MAR-2010 10:00:00	0.557	50	89.76661	<2
248247002	11-MAR-2010 10:00:00	0.521	50	95.96929	<2
248247003	11-MAR-2010 10:00:00	0.517	50	96.71118	<2
248247004	11-MAR-2010 10:00:00	0.51	50	98.03922	<2
248247005	11-MAR-2010 10:00:00	0.537	50	93.10987	<2
248247006	11-MAR-2010 10:00:00	0.541	50	92.42144	<2
248247007	11-MAR-2010 10:00:00	0.537	50	93.10987	<2
248247008	11-MAR-2010 10:00:00	0.512	50	97.65625	<2
248250001	11-MAR-2010 10:00:00	0.516	50	96.89922	<2
248250002	11-MAR-2010 10:00:00	0.519	50	96.33911	<2
248250003	11-MAR-2010 10:00:00	0.55	50	90.90909	<2
248250004	11-MAR-2010 10:00:00	0.508	50	98.4252	<2

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202056990	Metals Soil LCS SRM ICPMS	U062540-MS	.51	g	
MS	1202056988	ICP-MS Spike for soil products.	U042709-A	.5	mL	
MS	1202056988	ICP-MS Spike for Soil Products	U042709-B	.5	mL	
MSD	1202056989	ICP-MS Spike for soil products.	U042709-A	.5	mL	
MSD	1202056989	ICP-MS Spike for Soil Products	U042709-B	.5	mL	
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL	
REGNT	All	Nitric Acid CONC.	1277919	5	mL	

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 959149.0

Analyst: Louis Hall

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: Sartorius Balance B-001

Verified by:

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202056984	Metals Soil LCS SRM ICP/Hg	UI062540-I	.518	g
MS	1202056982	Metals Spike Mix I	UI1268741-01	.25	mL
MS	1202056982	Metals Spike Mix II	UI1268744-06	.25	mL
MSD	1202056983	Metals Spike Mix I	UI1268741-01	.25	mL
MSD	1202056983	Metals Spike Mix II	UI1268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202056979 MB	11-MAR-2010 10:45:00	Soil	0.527	50	94.87666	<2
1202056984 LCS	11-MAR-2010 10:45:00	Soil	0.518	50	96.5251	<2
248247001	11-MAR-2010 10:45:00	Soil	0.525	50	95.2381	<2
1202056980 DUP (248247001)	11-MAR-2010 10:45:00	Soil	0.54	50	92.59259	<2
1202056981 SDILT (248247001)	11-MAR-2010 10:45:00	Soil	0.54	50	92.59259	<2
1202056982 MS (248247001)	11-MAR-2010 10:45:00	Soil	0.544	50	91.91176	<2
1202056983 MSD (248247001)	11-MAR-2010 10:45:00	Soil	0.536	50	93.28358	<2
248247002	11-MAR-2010 10:45:00	Soil	0.514	50	97.27626	<2
248247003	11-MAR-2010 10:45:00	Soil	0.522	50	95.78544	<2
248247004	11-MAR-2010 10:45:00	Soil	0.507	50	98.61933	<2
248247005	11-MAR-2010 10:45:00	Soil	0.523	50	95.60229	<2
248247006	11-MAR-2010 10:45:00	Soil	0.52	50	96.15385	<2
248247007	11-MAR-2010 10:45:00	Soil	0.505	50	99.0099	<2
248247008	11-MAR-2010 10:45:00	Soil	0.513	50	97.46589	<2
248250001	11-MAR-2010 10:45:00	Soil	0.509	50	98.23183	<2
248250002	11-MAR-2010 10:45:00	Soil	0.548	50	91.24088	<2
248250003	11-MAR-2010 10:45:00	Soil	0.511	50	97.84736	<2
248250004	11-MAR-2010 10:45:00	Soil	0.521	50	95.96929	<2

Reagent/Solvent Lot ID Description Amount Comments:

1277916	HYDROCHLORIC ACID	10 mL	
1277919	Nitric Acid CONC.	1.25 mL	

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: 958991.0
Analyst: Tara Griffin
Method: SW846 7471A Prep
Lab SOP: GL-MA-E-010 REV# 23
Instrument: BAL-002

Verified by:

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202056653	Metals LCS Soil SRM	UT031809A	.206	g
MS	1202056655	Mercury soil working intermediate standard for MS	WHG100316-14	.3	mL
MSD	1202056657	Mercury soil working intermediate standard for MS	WHG100316-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202056652 MB	16-MAR-2010 12:55:00	Soil	0.545	30	55.04587	
1202056653 LCS	16-MAR-2010 12:55:00	Soil	0.206	30	145.63107	
248247001	16-MAR-2010 12:55:00	Soil	0.504	30	59.52381	
248247002	16-MAR-2010 12:55:00	Soil	0.554	30	54.15162	
248247003	16-MAR-2010 12:55:00	Soil	0.546	30	54.94505	
248247004	16-MAR-2010 12:55:00	Soil	0.558	30	53.76344	
248247005	16-MAR-2010 12:55:00	Soil	0.5	30	60	
248247006	16-MAR-2010 12:55:00	Soil	0.527	30	56.926	
248247007	16-MAR-2010 12:55:00	Soil	0.534	30	56.17978	
248247008	16-MAR-2010 12:55:00	Soil	0.559	30	53.66726	
248250001	16-MAR-2010 12:55:00	Soil	0.574	30	52.26481	
248250002	16-MAR-2010 12:55:00	Soil	0.505	30	59.40594	
248250003	16-MAR-2010 12:55:00	Soil	0.53	30	56.60377	
248250004	16-MAR-2010 12:55:00	Soil	0.543	30	55.24862	
248256001	16-MAR-2010 12:55:00	Soil	0.556	30	53.95683	
1202056654 DUP (248256001)	16-MAR-2010 12:55:00	Soil	0.549	30	54.64481	
1202056655 MS (248256001)	16-MAR-2010 12:55:00	Soil	0.5	30	60	
1202056657 MSD (248256001)	16-MAR-2010 12:55:00	Soil	0.534	30	56.17978	
1202056656 SDILT (248256001)	16-MAR-2010 12:55:00	Soil	0.556	30	53.95683	
248256002	16-MAR-2010 12:55:00	Soil	0.52	30	57.69231	
248256003	16-MAR-2010 12:55:00	Soil	0.527	30	56.926	
248256004	16-MAR-2010 12:55:00	Soil	0.549	30	54.64481	
248256005	16-MAR-2010 12:55:00	Soil	0.535	30	56.07477	
248256006	16-MAR-2010 12:55:00	Soil	0.502	30	59.76096	
248256007	16-MAR-2010 12:55:00	Soil	0.5	30	60	

Reagent/Solvent Lot ID **Description** **Amount**
 Analytical Logbook version 1 11-04-2002
 GEL Laboratories LLC

Prep Logbook

Batch ID: 958991.0
Analyst: Tara Griffin
Method: SW846 7471A Prep
Lab SOP: GL-MA-E-010 REV# 23
Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202056653	Metals LCS Soil SRM	UI031809A	.206	g
MS	1202056655	Mercury soil working intermediate standard for MS	WHG100316-14	.3	mL
MSD	1202056657	Mercury soil working intermediate standard for MS	WHG100316-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check	1
1255532-C	Hg reducing agent	2 mL					
1274391-1	NITRIC ACID	.375 mL					
1277235-A	Hydrochloric Acid Conc.	1.125 mL					
1277238-C	5% KMnO4 solution	7.5 mL					
WHG100316-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL					
WHG100316-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL					
WHG100316-09	Mercury Working 1st Source CAL S 2.0	300 uL					
WHG100316-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL					
WHG100316-11	Mercury Working 1st Source CAL S 10.0	1.5 mL					
WHG100316-12	Mercury Working 2nd Source S 5.0/ICV	750 uL					

Comments:
Sample 248256001 is a rocky brown soil.
Digestion Start Date: 16-MAR-10 12:55
Digestion End Date: 16-MAR-10 13:25

DATA EXCEPTION REPORT

Mo. Day Yr. 17-MAR-10	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: MERCURY	Test / Method: SW846 7471A	Matrix Type: Solid	Client Code: LANL
Batch ID: 958993	Sample Numbers: See Below		
Potentially affected work order(s)(SDG): 248247(10-2138-1),248250(10-2141),248256(10-2146)			
Application Issues: Failed RPD for DUP			
Specification and Requirements Exception Description:		DER Disposition:	
1. Failed RPD for DUP: QC 1202056654DUP		1. The sample and sample duplicate % RPD failed outside the control limits for Hg due to possible sample non-homogeneity and/or matrix interference. Sample is a rocky, brown soil. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.	

Originator's Name:

Jason Loy

17-MAR-10

Data Validator/Group Leader:

Eric Lawson

18-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr. 06-APR-10	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: ICP	Test / Method: SW846 3050B/6010B	Matrix Type: Solid	Client Code: LANL
Batch ID: 959150	Sample Numbers: See Below		

Potentially affected work order(s)(SDG): 248247(10-2138-1),248250(10-2141)

Application Issues:

Failed RPD for DUP
Method Blank contamination
Failed Recovery for MSD/PSD
Failed Recovery for LCS/LCSD
Failed Recovery for MS/PS
Failed RPD for MS/MSD, or PS/PSD

**Specification and Requirements
Exception Description:**

1. Failed Recovery for MS/PS:
QC 1202056982MS
2. Failed RPD for DUP:
QC 1202056980DUP
3. Failed RPD for MS/MSD, or PS/PSD:
QC 1202056983MSD
4. Failed Recovery for LCS/LCSD:
QC 1202056984LCS
5. Failed Recovery for MSD/PSD:
QC 1202056983MSD
6. Method Blank Contamination:
QC 1202056979MB

DER Disposition:

1. The matrix spike recovery failed outside of the control limits for calcium,lead,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.
2. The sample and sample duplicate % RPD failed outside the control limits for calcium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
3. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for lead due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
4. Silver and/or antimony did not meet the recovery acceptance criteria for the LCS. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures.
5. The matrix spike duplicate recovery failed outside of the control limits for calcium,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.
6. The samples in this SDG contained iron at concentrations more than ten times the amount present in the method blank (MB), therefore the data was not adversely affected

Originator's Name:

Helen Camello 09-APR-10

Data Validator/Group Leader:

Nik-Cole Elmore 15-APR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex

Description: Mercury Source Standard #1 1,000 mg/L

Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company

Description: Mercury Source Standard #2 1,000 mg/L

Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA

Description: Metals LCS Soil SRM

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI042709-A **Opened:** 27-APR-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-APR-09 **Lot Number :** 1015749
Type: Source Material **Expires:** 27-APR-10
Employee: Bryan Davis
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

Serial ID: UI042709-B **Opened:** 27-APR-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-APR-09 **Lot Number :** 1015749
Type: Source Material **Expires:** 27-APR-10
Employee: Bryan Davis
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: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
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Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 12-JAN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg
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		

Standard Logbook

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L +/- 0.5% IN 5% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL Str **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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Standard Logbook

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H₂O(NH₄)₂SiF₆
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H₂O(NH₄)₂SiF₆
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO₃
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO₃
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Standard Logbook

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H2O/tr HF
Supplier: ENVIRONMENTAL EXPRESS
Description: SILICON 1000mg/L H2O/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICESA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100310-49.13 **Opened:** 31-MAR-10 **Amount :** 100 ml
Name: Trace ICP ICESAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 01-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100317-06 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-MAR-10 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019161
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI100317-07 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-MAR-10 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019162
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI100317-08 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-MAR-10 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019163
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI100318-11 **Opened:** 18-MAR-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 18-MAR-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 18-MAR-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100325-40 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
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

Standard Logbook

Serial ID: UI100325-41 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Standard Logbook

Serial ID: UI1268741-01 **Opened:** 11-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1268744-06 **Opened:** 11-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UMS100226-01 **Opened:** 26-FEB-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 26-FEB-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-104JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
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Standard Logbook

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100226-02 **Opened:** 26-FEB-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCaSPIKEA **Received:** 26-FEB-10 **Lot Number :** 21-103JB
Type: Source Material **Expires:** 26-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100226-03 **Opened:** 26-FEB-10 **Amount :** 250 ml
Name: ICPMSCaSPIKEC **Received:** 26-FEB-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-102JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100316-01 **Opened:** 16-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 16-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 17-MAR-10 **Solvent :** 1mL HNO3 + Type1 H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L

Standard Logbook

Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100316-02 Opened: 16-MAR-10 Pipet Id : Minou1
 Name: MHGINTER2 Received: 16-MAR-10 Solvent : 2% HNO3-1274391
 Type: Intermediate Expires: 17-MAR-10
 Employee: Tara Griffin
 Supplier: GEL
 Description: Mercury Intermediate 2nd Source 200 ug/L
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100316-07 Opened: 16-MAR-10 Pipet Id : Hg1289245
 Name: MHGWORKCALS0.2CRA Received: 16-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 23-MAR-10
 Employee: Tara Griffin
 Supplier: GEL
 Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100316-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100316-08 Opened: 16-MAR-10 Pipet Id : Hg1289245
 Name: MHGWORKCALS0.5 Received: 16-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 23-MAR-10
 Employee: Tara Griffin Verified: 20-JUL-07
 Supplier: GEL
 Description: Mercury Working Standard 1st Source CAL S 0.5
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100316-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100316-09 Opened: 16-MAR-10 Pipet Id : Hg1289245
 Name: MHGWORKCALS2.0 Received: 16-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 23-MAR-10
 Employee: Tara Griffin Verified: 20-JUL-07
 Supplier: GEL
 Description: Mercury Working 1st Source CAL S 2.0
 Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100316-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100316-10 Opened: 16-MAR-10 Pipet Id : Hg1289245
 Name: MHGWORKCALS5.0CCV Received: 16-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 23-MAR-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.
IHG100316-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100316-11 Opened: 16-MAR-10 Pipet Id : Hg1289245
 Name: MHGWORKCALS10.0 Received: 16-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 23-MAR-10
 Employee: Tara Griffin
 Supplier: GEL
 Description: Mercury Working 1st Source CAL S 10.0
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100316-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100316-12 Opened: 16-MAR-10 Pipet Id : Hg1289245
 Name: MHGWORKS5.0ICV Received: 16-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 23-MAR-10
 Employee: Tara Griffin Verified: 20-JUL-07
 Supplier: GEL
 Description: Mercury Working 2nd Source S 5.0/ICV
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100316-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100316-14 Opened: 16-MAR-10 Pipet Id : Hg1289245
 Name: MHGSOILMSSPIKE Received: 16-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 23-MAR-10
 Employee: Tara Griffin Verified: 20-JUL-07
 Supplier: GEL
 Description: Mercury soil working intermediate standard for MS
 Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100331-42 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100331-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100331-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100331-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100331-43 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100331-44 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1293083
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100331-45 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100331-46 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1293083
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100331-47 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL & 1%HNO3-1293083
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100413-04 **Opened:** 13-APR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 13-APR-10 **Balance Id :** 4025216
Type: Working **Expires:** 14-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1300209
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100413-04A **Opened:** 13-APR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 13-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 14-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100413-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100413-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100413-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100413-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: <u>WMS100413-05</u>	Opened: <u>13-APR-10</u>	Balance Id : <u>40245216</u>
Name: <u>ICPMS ICV</u>	Received: <u>13-APR-10</u>	Pipet Id : <u>3541598</u>
Type: <u>Working</u>	Expires: <u>14-APR-10</u>	Solvent : <u>2%HNO3/1%HCl - 1300209</u>
Employee: <u>Paul Boyd</u>		
Supplier: <u>GEL</u>		
Description: <u>ICPMS ICV</u>		
Comments: <u>None</u>		

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100413-06 **Opened:** 13-APR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 13-APR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 14-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Alliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100413-07 **Opened:** 13-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 13-APR-10 **Lot Number :** 1010773
Type: Working **Expires:** 14-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1300209
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100413-08 **Opened:** 13-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 13-APR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 14-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxylamine Hydrochloride
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Standard Logbook

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1277235-A **Opened:** 01-MAR-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 01-MAR-11
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1277916 **Opened:** 02-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 02-MAR-10 **Preservative Id :** 5 none
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID

Standard Logbook

Comments: None

Serial ID: 1277919 Opened: 02-MAR-10 Lot Number : J 04043 L
 Name: I-HNO3 Received: 02-MAR-10
 Type: Reagent/Solvent Expires: 02-MAR-11
 Employee: Francena Armstrong
 Supplier: BAKER
 Description: Nitric Acid CONC.
 Comments: None

Serial ID: 1291278 Opened: 25-MAR-10 Lot Number : J 08035 L
 Name: I-HNO3 Received: 25-MAR-10
 Type: Reagent/Solvent Expires: 25-MAR-11
 Employee: Anthony Green
 Supplier: BAKER
 Description: Nitric Acid CONC.
 Comments: None

Serial ID: 1293083 Opened: 29-MAR-10 Amount : 20 L
 Name: B-ICP-RINSE SOLN Received: 29-MAR-10 Lot Number : H04040+G34050
 Type: Reagent/Solvent Expires: 04-APR-10 Solvent : 3%HCL+1%HNO3
 Employee: Helen Camello
 Supplier: GEL
 Description: 3%HCL+1%HNO3 RINSE SOLN.
 Comments: None

Serial ID: 1300209 Opened: 12-APR-10 Solvent : Type | Water
 Name: B-2%HNO3/1%HCL-ICPMS Received: 12-APR-10
 Type: Reagent/Solvent Expires: 19-APR-10
 Employee: Paul Boyd
 Supplier: GEL
 Description: 2%HNO3/1%HCL Solution (Type | Water)
 Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
1277916	I-HCL	36.5-38.0	90 mL	9 l	N/A
1291278	I-HNO3	69.0-70.0	180 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

**General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2141**

Method/Analysis Information

Product: pH

Analytical Batch: 960262 **Method:** SW9045C pH

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9045C/9045D:

Sample ID	Client ID
248250001	RE36-10-8285
248250002	RE36-10-8286
248250003	RE36-10-8283
248250004	RE36-10-8284
1202059707	248202001(RE36-10-8282) Sample Duplicate (DUP)
1202059708	248241001(RE36-10-7458) Sample Duplicate (DUP)
1202059709	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-008 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Electrode analysis was performed on a PerpHect pH Meter Orion 370.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 248202001 (RE36-10-8282) and 248241001 (RE36-10-7458).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times

The following samples from this sample group were received by the lab outside of the method specified holding time: 1202059707 (RE36-10-8282), 1202059708 (RE36-10-7458), 248250001 (RE36-10-8285), 248250002 (RE36-10-8286), 248250003 (RE36-10-8283) and 248250004 (RE36-10-8284).

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information**Data Exception (DER) Documentation**

A DER was not required for this SDG.

Additional Comments

Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: Cyanide, Total
Analytical Batch: 959214 **Method:** SW9012A Cyanide and Total
Prep Batch : 959213 **Method:** SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
248250001	RE36-10-8285
248250002	RE36-10-8286
248250003	RE36-10-8283
248250004	RE36-10-8284
1202057153	Method Blank (MB)
1202057154	248241003(RE36-10-7454) Sample Duplicate (DUP)
1202057155	248241004(RE36-10-7460) Sample Duplicate (DUP)
1202057156	248241003(RE36-10-7454) Matrix Spike (MS)
1202057157	248241004(RE36-10-7460) Matrix Spike (MS)
1202057158	248241003(RE36-10-7454) Matrix Spike Duplicate (MSD)
1202057159	248241004(RE36-10-7460) Matrix Spike Duplicate (MSD)
1202057160	Laboratory Control Sample (LCS)

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

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 248241003 (RE36-10-7454) and 248241004 (RE36-10-7460).

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. 1202057155 (RE36-10-7460).

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 sample in this sample group was diluted due to high concentration: 1202057160 (LCS).

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation

A DER was not required for this SDG.

Additional Comments

Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: Ion Chromatography
Analytical Batch: 967051 **Method:** EPA 300.0 Nitrate in Soil
Prep Batch : 967025 **Method:** EPA 300.0 PREP

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
248250001	RE36-10-8285
248250002	RE36-10-8286
248250003	RE36-10-8283
248250004	RE36-10-8284
1202075482	Method Blank (MB)
1202075483	248250001(RE36-10-8285) Sample Duplicate (DUP)
1202075484	248374013(RE36-10-7521) Sample Duplicate (DUP)
1202075485	248250001(RE36-10-8285) Matrix Spike (MS)
1202075486	248374013(RE36-10-7521) Matrix Spike (MS)
1202075487	248250001(RE36-10-8285) Matrix Spike Duplicate (MSD)
1202075488	248374013(RE36-10-7521) Matrix Spike Duplicate (MSD)
1202075489	Laboratory Control Sample (LCS)

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

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 248250001 (RE36-10-8285) and 248374013 (RE36-10-7521).

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 RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times

All samples in this SDG met the specified holding time.

Sample Dilutions

The following samples in this sample group were diluted due to high concentration: 248250003 (RE36-10-8283) and 248250004 (RE36-10-8284).

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation

A DER was not required for this SDG.

Manual Integrations

Manual integrations were not required for the samples in 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: Nik-DeAElman Date: 3-26-10

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: 10-2141 GEL Work Order: 248250

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

Nik-DeAElmone 3.21.10

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 25, 2010

Client SDG: 10-2141

Client Sample ID: RE36-10-8285
Sample ID: 248250001
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 27.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.7C	H	6.40	0.010	0.100	SU	1	TXT1	03/03/10	1404	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		1570	85.8	315	ug/kg	1	AXC2	03/10/10	1518	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.92	0.381	1.27	mg/kg	1	VH1	03/22/10	2154	967051	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/22/10	1747	967025
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1108	959213

The following Analytical Methods were performed

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

GEL LABORATORIES LLC

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Certificate of Analysis

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

Report Date: March 25, 2010

Client SDG: 10-2141

Client Sample ID: RE36-10-8286
Sample ID: 248250002
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 7.51%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.7C	H	5.93	0.010	0.100	SU	1	TXT1	03/03/10	1406	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		1390	68.1	250	ug/kg	1	AXC2	03/10/10	1519	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.320	1.07	mg/kg	1	VH1	03/22/10	2339	967051	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/22/10	1747	967025
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1108	959213

The following Analytical Methods were performed

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

GEL LABORATORIES LLC

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Certificate of Analysis

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

Report Date: March 25, 2010

Client SDG: 10-2141

Client Sample ID: RE36-10-8283
Sample ID: 248250003
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 6.33%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.6C	H	6.23	0.010	0.100	SU	1	TXT1	03/03/10	1408	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		2180	64.8	238	ug/kg	1	AXC2	03/10/10	1519	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		540	2.83	9.43	mg/kg	10	VH1	03/23/10	1855	967051	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/22/10	1747	967025
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1108	959213

The following Analytical Methods were performed

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

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 25, 2010

Client SDG: 10-2141

Client Sample ID: RE36-10-8284
Sample ID: 248250004
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 5.53%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.5C	H	5.98	0.010	0.100	SU	1	TXT1	03/03/10	1410	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		825	70.6	259	ug/kg	1	AXC2	03/10/10	1520	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		131	2.85	9.51	mg/kg	10	VH1	03/23/10	1921	967051	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/22/10	1747	967025
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1108	959213

The following Analytical Methods were performed

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

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 25, 2010

Page 1 of 3

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

Contact: Ms. Joylene Valdez

Workorder: 248250

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Electrode Analysis											
Batch	960262										
QC1202059707	248202001	DUP									
pH	H	6.74	H	6.73	SU	0.148		(0%-10%)	TXT1	03/03/10	13:30
QC1202059708	248241001	DUP									
pH	H	5.24	H	5.21	SU	0.574		(0%-10%)		03/03/10	13:37
QC1202059709	LCS										
pH	7.00			6.98	SU		99.7	(95%-105%)		03/03/10	13:24
Flow Injection Analysis											
Batch	959214										
QC1202057154	248241003	DUP									
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	03/10/10	14:52
QC1202057155	248241004	DUP									
Cyanide, Total	J	112	J	159	ug/kg	34.9 ^		(+/-271)		03/10/10	14:55
QC1202057160	LCS										
Cyanide, Total	67900			59800	ug/kg		88	(32%-157%)		03/10/10	14:50
QC1202057153	MB										
Cyanide, Total			U	250	ug/kg					03/10/10	14:49
QC1202057156	248241003	MS									
Cyanide, Total	4860	U	ND	4530	ug/kg		93.2	(26%-158%)		03/10/10	14:53
QC1202057157	248241004	MS									
Cyanide, Total	5520	J	112	5050	ug/kg		89.5	(26%-158%)		03/10/10	14:56
QC1202057158	248241003	MSD									
Cyanide, Total	5340	U	ND	5180	ug/kg	13.4	97.1	(0%-30%)		03/10/10	14:54
QC1202057159	248241004	MSD									
Cyanide, Total	5210	J	112	4900	ug/kg	3.02	92	(0%-30%)		03/10/10	14:57
Ion Chromatography											
Batch	967051										
QC1202075483	248250001	DUP									
Nitrate-N		1.92		1.88	mg/kg	2.42 ^		(+/-1.26)	VH1	03/22/10	22:21
QC1202075484	248374013	DUP									
Nitrate-N	U	ND	U	ND	mg/kg	N/A				03/23/10	08:21
QC1202075489	LCS										
Nitrate-N	50.0			47.6	mg/kg		95.3	(90%-110%)		03/22/10	21:28
QC1202075482	MB										
Nitrate-N			U	1.00	mg/kg					03/22/10	21:02
QC1202075485	248250001	MS									
Nitrate-N	62.9		1.92	60.0	mg/kg		92.3	(90%-110%)		03/22/10	22:47
QC1202075486	248374013	MS									
Nitrate-N	62.5	U	ND	60.1	mg/kg		96.2	(90%-110%)		03/23/10	08:47
QC1202075487	248250001	MSD									
Nitrate-N	63.3		1.92	60.3	mg/kg	0.552	92.2	(0%-20%)		03/22/10	23:13
QC1202075488	248374013	MSD									
Nitrate-N	63.6	U	ND	61.3	mg/kg	1.94	96.4	(0%-20%)		03/23/10	09:13

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QC Summary

Workorder: 248250

Page 2 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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Notes:

RER is calculated at the 95% confidence level (2-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- UJ Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- h Preparation or preservation holding time was exceeded

GEL LABORATORIES LLC

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QC Summary

Workorder: 248250

Page 3 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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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: 25-MAR-2010 16:42

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2141

Flow Injection Analysis

Method: SW846 9012A

Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	10-MAR-2010 10:58:04	OM_3-10-2010_10-49-24	146	150	97.3	(90%-110%)	Yes
CCV	10-MAR-2010 14:46:09	OM_3-10-2010_14-44-38	101	100	101	(90%-110%)	Yes
CCV	10-MAR-2010 14:58:37	OM_3-10-2010_14-44-38	99.4	100	99.4	(90%-110%)	Yes
CCV	10-MAR-2010 15:11:01	OM_3-10-2010_14-44-38	102	100	102	(90%-110%)	Yes
CCV	10-MAR-2010 15:23:25	OM_3-10-2010_14-44-38	101	100	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	10-MAR-2010 10:59:54	OM_3-10-2010_10-49-24	-0.144	10	Yes
CCB	10-MAR-2010 14:47:59	OM_3-10-2010_14-44-38	-1.25	10	Yes
CCB	10-MAR-2010 15:00:26	OM_3-10-2010_14-44-38	-1.36	10	Yes
CCB	10-MAR-2010 15:12:52	OM_3-10-2010_14-44-38	-2.08	10	Yes
CCB	10-MAR-2010 15:25:14	OM_3-10-2010_14-44-38	-1.31	10	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 25-MAR-2010 16:42

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2141

Ion Chromatography

Method: EPA 300.0

Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Nitrate-N

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	22-MAR-2010 14:31:00	100322	4.7703	5	95.4	(90%-110%)	Yes
CCV	22-MAR-2010 20:10:00	100322	7.2466	7.5	96.6	(90%-110%)	Yes
CCV	23-MAR-2010 01:23:00	100322	4.7583	5	95.2	(90%-110%)	Yes
CCV	23-MAR-2010 06:36:00	100322	7.2521	7.5	96.7	(90%-110%)	Yes
CCV	23-MAR-2010 09:39:00	100322	4.7662	5	95.3	(90%-110%)	Yes
ICV	23-MAR-2010 14:34:00	100323	4.7607	5	95.2	(90%-110%)	Yes
CCV	23-MAR-2010 18:03:00	100323	4.7548	5	95.1	(90%-110%)	Yes
CCV	23-MAR-2010 19:47:00	100323	7.2591	7.5	96.8	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	22-MAR-2010 14:57:00	100322	0	0.1	Yes
CCB	22-MAR-2010 20:36:00	100322	0	0.1	Yes
CCB	23-MAR-2010 01:49:00	100322	0	0.1	Yes
CCB	23-MAR-2010 07:02:00	100322	0	0.1	Yes
CCB	23-MAR-2010 10:05:00	100322	0	0.1	Yes
ICB	23-MAR-2010 15:00:00	100323	0	0.1	Yes
CCB	23-MAR-2010 18:29:00	100323	0	0.1	Yes
CCB	23-MAR-2010 20:13:00	100323	0	0.1	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: 959213.0
Analyst: Alan Stanley
Method: SW846 9010B Prep
Lab SOP: GL-GC-E-067 REV# 13
Instrument: Sartorius Balance B-001

Verified by:

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202057160	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202057156	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202057157	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202057158	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202057159	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202057153 MB	10-MAR-2010 11:07:00	Soil	0.5	25	50	>12
1202057160 LCS	10-MAR-2010 11:07:00	Soil	0.25	25	100	>12
248241003	10-MAR-2010 11:07:00	Soil	0.54	25	46.2963	>12
1202057154 DUP (248241003)	10-MAR-2010 11:07:00	Soil	0.53	25	47.16981	>12
1202057156 MS (248241003)	10-MAR-2010 11:07:00	Soil	0.56	25	44.64286	>12
1202057158 MSD (248241003)	10-MAR-2010 11:07:00	Soil	0.51	25	49.01961	>12
248241004	10-MAR-2010 11:07:00	Soil	0.5	25	50	>12
1202057155 DUP (248241004)	10-MAR-2010 11:07:00	Soil	0.51	25	49.01961	>12
1202057157 MS (248241004)	10-MAR-2010 11:07:00	Soil	0.5	25	50	>12
1202057159 MSD (248241004)	10-MAR-2010 11:07:00	Soil	0.53	25	47.16981	>12
248241005	10-MAR-2010 11:07:00	Soil	0.51	25	49.01961	>12
248241006	10-MAR-2010 11:07:00	Soil	0.51	25	49.01961	>12
248241007	10-MAR-2010 11:07:00	Soil	0.55	25	45.45455	>12
248241008	10-MAR-2010 11:07:00	Soil	0.53	25	47.16981	>12
248241009	10-MAR-2010 11:07:00	Soil	0.53	25	47.16981	>12
248241010	10-MAR-2010 11:07:00	Soil	0.5	25	50	>12
248247001	10-MAR-2010 11:07:00	Soil	0.5	25	50	>12
248247002	10-MAR-2010 11:08:00	Soil	0.51	25	49.01961	>12
248247003	10-MAR-2010 11:08:00	Soil	0.59	25	42.37288	>12
248247004	10-MAR-2010 11:08:00	Soil	0.59	25	42.37288	>12
248247005	10-MAR-2010 11:08:00	Soil	0.52	25	48.07692	>12

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Prep Logbook

Batch ID: 959213.0
Analyst: Alan Stanley
Method: SW846 9010B Prep
Lab SOP: GL-GC-E-067 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202057160	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202057156	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202057157	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202057158	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202057159	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
248247006	10-MAR-2010 11:08:00	Soil	0.52	25	48.07692	>12
248247007	10-MAR-2010 11:08:00	Soil	0.55	25	45.45455	>12
248247008	10-MAR-2010 11:08:00	Soil	0.52	25	48.07692	>12
248250001	10-MAR-2010 11:08:00	Soil	0.55	25	45.45455	>12
248250002	10-MAR-2010 11:08:00	Soil	0.54	25	46.2963	>12
248250003	10-MAR-2010 11:08:00	Soil	0.56	25	44.64286	>12
248250004	10-MAR-2010 11:08:00	Soil	0.51	25	49.01961	>12

Reagent/Solvent Lot ID	Description	Amount	Comments:
1260189-C	50% H2SO4 CN Prep	2.5 mL	
1270661-C	Bismuth Nitrate Solution	1.25 mL	
1270663-C	0.8N H3NO3S	1.25 mL	
1270669-C	51% MgCl2 Soln	1 mL	
1273851-C	0.25N Sodium Hydroxide Solution	25 mL	
WCN100310-07	150 ppb CN Distilled ICV Standard	.0375 mL	

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/10/2010 10:50:55	OM_3-10-2010_10-49-24
150 ppb		1	axc2	3/10/2010 10:51:47	OM_3-10-2010_10-49-24
100 ppb		1	axc2	3/10/2010 10:52:40	OM_3-10-2010_10-49-24
50 ppb		1	axc2	3/10/2010 10:53:32	OM_3-10-2010_10-49-24
10 ppb		1	axc2	3/10/2010 10:54:26	OM_3-10-2010_10-49-24
CRDL 5.0 ppb		1	axc2	3/10/2010 10:55:20	OM_3-10-2010_10-49-24
ICAL-00		1	axc2	3/10/2010 10:56:14	OM_3-10-2010_10-49-24
ICV		1	axc2	3/10/2010 10:58:04	OM_3-10-2010_10-49-24
ICB		1	axc2	3/10/2010 10:59:54	OM_3-10-2010_10-49-24
CRDL		1	axc2	3/10/2010 11:01:43	OM_3-10-2010_10-49-24
1202066540	963300	1	axc2	3/10/2010 11:03:32	OM_3-10-2010_10-49-24
1202066541	963300	1	axc2	3/10/2010 11:04:26	OM_3-10-2010_10-49-24
248455001	963300	1	axc2	3/10/2010 11:05:19	OM_3-10-2010_10-49-24
248455002	963300	1	axc2	3/10/2010 11:06:12	OM_3-10-2010_10-49-24
248455003	963300	1	axc2	3/10/2010 11:07:05	OM_3-10-2010_10-49-24
248523001	963300	1	axc2	3/10/2010 11:07:58	OM_3-10-2010_10-49-24
248792001	963300	1	axc2	3/10/2010 11:08:51	OM_3-10-2010_10-49-24
1202066542	963300	1	axc2	3/10/2010 11:09:43	OM_3-10-2010_10-49-24
1202066543	963300	1	axc2	3/10/2010 11:10:36	OM_3-10-2010_10-49-24
1202066544	963300	1	axc2	3/10/2010 11:11:28	OM_3-10-2010_10-49-24
CCV		1	axc2	3/10/2010 11:12:20	OM_3-10-2010_10-49-24
CCB		1	axc2	3/10/2010 11:14:10	OM_3-10-2010_10-49-24
1202057145	959212	1	axc2	3/10/2010 11:15:58	OM_3-10-2010_10-49-24
1202057152	959212	25	axc2	3/10/2010 11:16:50	OM_3-10-2010_10-49-24
248159003	959212	1	axc2	3/10/2010 11:17:42	OM_3-10-2010_10-49-24
1202057146	959212	1	axc2	3/10/2010 11:18:34	OM_3-10-2010_10-49-24
1202057148	959212	1	axc2	3/10/2010 11:19:25	OM_3-10-2010_10-49-24
1202057150	959212	1	axc2	3/10/2010 11:20:19	OM_3-10-2010_10-49-24
248159004	959212	1	axc2	3/10/2010 11:21:13	OM_3-10-2010_10-49-24
1202057147	959212	1	axc2	3/10/2010 11:22:06	OM_3-10-2010_10-49-24
1202057149	959212	1	axc2	3/10/2010 11:23:00	OM_3-10-2010_10-49-24
1202057151	959212	1	axc2	3/10/2010 11:23:53	OM_3-10-2010_10-49-24
CCV		1	axc2	3/10/2010 11:24:45	OM_3-10-2010_10-49-24
CCB		1	axc2	3/10/2010 11:26:35	OM_3-10-2010_10-49-24
248159005	959212	1	axc2	3/10/2010 11:28:24	OM_3-10-2010_10-49-24
248159006	959212	1	axc2	3/10/2010 11:29:17	OM_3-10-2010_10-49-24
248163001	959212	1	axc2	3/10/2010 11:30:10	OM_3-10-2010_10-49-24
248163002	959212	1	axc2	3/10/2010 11:31:02	OM_3-10-2010_10-49-24
248163003	959212	1	axc2	3/10/2010 11:31:55	OM_3-10-2010_10-49-24
248163004	959212	1	axc2	3/10/2010 11:32:48	OM_3-10-2010_10-49-24
248163005	959212	1	axc2	3/10/2010 11:33:40	OM_3-10-2010_10-49-24
248163006	959212	1	axc2	3/10/2010 11:34:32	OM_3-10-2010_10-49-24
248163007	959212	1	axc2	3/10/2010 11:35:24	OM_3-10-2010_10-49-24
248163008	959212	1	axc2	3/10/2010 11:36:15	OM_3-10-2010_10-49-24
CCV		1	axc2	3/10/2010 11:37:08	OM_3-10-2010_10-49-24
CCB		1	axc2	3/10/2010 11:38:58	OM_3-10-2010_10-49-24
248163009	959212	1	axc2	3/10/2010 11:40:49	OM_3-10-2010_10-49-24
248163010	959212	1	axc2	3/10/2010 11:41:42	OM_3-10-2010_10-49-24
248163011	959212	1	axc2	3/10/2010 11:42:36	OM_3-10-2010_10-49-24
248163012	959212	1	axc2	3/10/2010 11:43:29	OM_3-10-2010_10-49-24
248163013	959212	1	axc2	3/10/2010 11:44:22	OM_3-10-2010_10-49-24
248163014	959212	1	axc2	3/10/2010 11:45:16	OM_3-10-2010_10-49-24
248241001	959212	1	axc2	3/10/2010 11:46:08	OM_3-10-2010_10-49-24
248241002	959212	1	axc2	3/10/2010 11:47:02	OM_3-10-2010_10-49-24
1202061941	961284	1	axc2	3/10/2010 11:47:54	OM_3-10-2010_10-49-24
1202061948	961284	25	axc2	3/10/2010 11:48:47	OM_3-10-2010_10-49-24
CCV		1	axc2	3/10/2010 11:49:39	OM_3-10-2010_10-49-24
CCB		1	axc2	3/10/2010 11:51:29	OM_3-10-2010_10-49-24

247914001	961284	1	axc2	3/10/2010	11:53:18	OM_3-10-2010_10-49-24
247923001	961284	1	axc2	3/10/2010	11:54:10	OM_3-10-2010_10-49-24
247927001	961284	1	axc2	3/10/2010	11:55:02	OM_3-10-2010_10-49-24
247930001	961284	1	axc2	3/10/2010	11:55:55	OM_3-10-2010_10-49-24
247933001	961284	1	axc2	3/10/2010	11:56:46	OM_3-10-2010_10-49-24
247939001	961284	1	axc2	3/10/2010	11:57:41	OM_3-10-2010_10-49-24
247941001	961284	1	axc2	3/10/2010	11:58:34	OM_3-10-2010_10-49-24
247943001	961284	1	axc2	3/10/2010	11:59:28	OM_3-10-2010_10-49-24
247945001	961284	1	axc2	3/10/2010	12:00:22	OM_3-10-2010_10-49-24
248515001	961284	1	axc2	3/10/2010	12:01:15	OM_3-10-2010_10-49-24
CCV		1	axc2	3/10/2010	12:02:08	OM_3-10-2010_10-49-24
CCB		1	axc2	3/10/2010	12:03:58	OM_3-10-2010_10-49-24
1202061942	961284	1	axc2	3/10/2010	12:05:48	OM_3-10-2010_10-49-24
1202061944	961284	1	axc2	3/10/2010	12:06:40	OM_3-10-2010_10-49-24
1202061946	961284	1	axc2	3/10/2010	12:07:33	OM_3-10-2010_10-49-24
248515002	961284	1	axc2	3/10/2010	12:08:26	OM_3-10-2010_10-49-24
1202061943	961284	1	axc2	3/10/2010	12:09:19	OM_3-10-2010_10-49-24
1202061945	961284	1	axc2	3/10/2010	12:10:11	OM_3-10-2010_10-49-24
1202061947	961284	1	axc2	3/10/2010	12:11:04	OM_3-10-2010_10-49-24
248515003	961284	1	axc2	3/10/2010	12:11:56	OM_3-10-2010_10-49-24
248526001	961284	1	axc2	3/10/2010	12:12:49	OM_3-10-2010_10-49-24
248560001	961284	1	axc2	3/10/2010	12:13:41	OM_3-10-2010_10-49-24
CCV		1	axc2	3/10/2010	12:14:33	OM_3-10-2010_10-49-24
CCB		1	axc2	3/10/2010	12:16:23	OM_3-10-2010_10-49-24
248560002	961284	1	axc2	3/10/2010	12:18:13	OM_3-10-2010_10-49-24
248560003	961284	1	axc2	3/10/2010	12:19:08	OM_3-10-2010_10-49-24
248560004	961284	1	axc2	3/10/2010	12:20:02	OM_3-10-2010_10-49-24
248560005	961284	1	axc2	3/10/2010	12:20:55	OM_3-10-2010_10-49-24
248560006	961284	1	axc2	3/10/2010	12:21:49	OM_3-10-2010_10-49-24
248560007	961284	1	axc2	3/10/2010	12:22:42	OM_3-10-2010_10-49-24
1202061965	961291	1	axc2	3/10/2010	12:23:36	OM_3-10-2010_10-49-24
1202061967	961291	1	axc2	3/10/2010	12:24:29	OM_3-10-2010_10-49-24
247914001	961291	1	axc2	3/10/2010	12:25:23	OM_3-10-2010_10-49-24
247923001	961291	1	axc2	3/10/2010	12:26:15	OM_3-10-2010_10-49-24
CCV		1	axc2	3/10/2010	12:27:07	OM_3-10-2010_10-49-24
CCB		1	axc2	3/10/2010	12:28:57	OM_3-10-2010_10-49-24
247927001	961291	1	axc2	3/10/2010	12:30:46	OM_3-10-2010_10-49-24
247930001	961291	1	axc2	3/10/2010	12:31:39	OM_3-10-2010_10-49-24
247933001	961291	1	axc2	3/10/2010	12:32:31	OM_3-10-2010_10-49-24
247939001	961291	1	axc2	3/10/2010	12:33:24	OM_3-10-2010_10-49-24
1202061966	961291	1	axc2	3/10/2010	12:34:16	OM_3-10-2010_10-49-24
247941001	961291	1	axc2	3/10/2010	12:35:10	OM_3-10-2010_10-49-24
247943001	961291	1	axc2	3/10/2010	12:36:04	OM_3-10-2010_10-49-24
247945001	961291	1	axc2	3/10/2010	12:36:58	OM_3-10-2010_10-49-24
247927001*	961291	10	axc2	3/10/2010	12:39:51	OM_3-10-2010_10-49-24
	961291	1	axc2	3/10/2010	12:40:44	OM_3-10-2010_10-49-24
CCV		1	axc2	3/10/2010	12:41:37	OM_3-10-2010_10-49-24
CCB		1	axc2	3/10/2010	12:43:27	OM_3-10-2010_10-49-24
247927001	961291	2	axc2	3/10/2010	12:45:16	OM_3-10-2010_10-49-24
CCV		1	axc2	3/10/2010	12:46:09	OM_3-10-2010_10-49-24
CCB		1	axc2	3/10/2010	12:47:59	OM_3-10-2010_10-49-24

Original Run Filename: OM_3-10-2010_10-49-24.OMN created 3/10/2010 10:49:24
 Original Run Author's Signature: [axc2]
 Current Run Filename: OM_3-10-2010_10-49-24.OMN last modified 3/10/2010 12:49:04
 Current Run Author's Signature: [axc2]
 Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
 Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE		Detection Time	ADF	MDF	Description
			Conc. (ug/L)	Area (Vs)				
WCN100310-01	1	S1	200	11.1	3/10/2010@10:50:55			200 ppb
WCN100310-02	1	S2	150	8.08	3/10/2010@10:51:47			150 ppb
WCN100310-03	1	S3	100	5.35	3/10/2010@10:52:40			100 ppb
WCN100310-04	1	S4	50.0	2.95	3/10/2010@10:53:32			50 ppb
WCN100310-05	1	S5	10.0	0.687	3/10/2010@10:54:26			10 ppb
WCN100310-06	1	S6	5.00	0.407	3/10/2010@10:55:20			CRDL 5.0 ppb
WCN100310-08	1	S7	0.00	0.0471	3/10/2010@10:56:14			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99958 > 0.99500					
Message			Pass					
Action			Continue					
WCN100310-07	1	S8	146	8.03	3/10/2010@10:58:04			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			-2.4 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-2.4 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100310-08	1	S7	-0.144	0.0944	3/10/2010@10:59:54			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-0.144 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.144 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100310-06	1	S6	6.05	0.429	3/10/2010@11:01:43			CRDL
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			6.05 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			6.05 > 2.50					
Message			Pass					
Action			None					
1202066540|963300|MB	1	1	-0.804	0.0587	3/10/2010@11:03:32			
1202066541|LCS	1	2	48.9	2.75	3/10/2010@11:04:26			
248455001	1	3	-0.811	0.0583	3/10/2010@11:05:19			
248455002	1	4	-0.508	0.0747	3/10/2010@11:06:12			
248455003	1	5	0.519	0.130	3/10/2010@11:07:05			
248523001	1	6	-1.98	-0.00475	3/10/2010@11:07:58			
248792001	1	7	-1.30	0.0317	3/10/2010@11:08:51			
1202066542|DUP	1	8	-1.63	0.0140	3/10/2010@11:09:43			
1202066543|MS	1	9	102	5.61	3/10/2010@11:10:36			
1202066544|MSD	1	10	103	5.67	3/10/2010@11:11:28			
WCN100310-03	1	S3	101	5.56	3/10/2010@11:12:20			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			0.8 < 10.0					

Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			0.8 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100310-08	1	S7	-1.88	3.30e-4	3/10/2010@11:14:10			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.88 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.88 > -5.00					
Message			CCB Passed					
Action			Continue					
1202057145|959212|MB	1	11	-1.54	0.0188	3/10/2010@11:15:58			
1202057152|LCS	1	12	24.9	1.45	3/10/2010@11:16:50		25.00	
248159003	1	13	-0.859	0.0557	3/10/2010@11:17:42			
1202057146|DUP	1	14	-0.0820	0.0977	3/10/2010@11:18:34			
1202057148|MS	1	15	93.7	5.17	3/10/2010@11:19:25			
1202057150|MSD	1	16	88.3	4.88	3/10/2010@11:20:19			
248159004	1	17	1.45	0.181	3/10/2010@11:21:13			
1202057147|DUP	1	18	1.28	0.171	3/10/2010@11:22:06			
1202057149|MS	1	19	77.1	4.28	3/10/2010@11:23:00			
1202057151|MSD	1	20	85.3	4.72	3/10/2010@11:23:53			
WCN100310-03	1	S3	101	5.56	3/10/2010@11:24:45			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			0.9 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			0.9 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100310-08	1	S7	-1.09	0.0433	3/10/2010@11:26:35			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.09 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.09 > -5.00					
Message			CCB Passed					
Action			Continue					
248159005	1	21	0.0956	0.107	3/10/2010@11:28:24			
248159006	1	22	-0.492	0.0755	3/10/2010@11:29:17			
248163001	1	23	-1.05	0.0453	3/10/2010@11:30:10			
248163002	1	24	-1.26	0.0340	3/10/2010@11:31:02			
248163003	1	25	-0.725	0.0630	3/10/2010@11:31:55			
248163004	1	26	-1.30	0.0320	3/10/2010@11:32:48			
248163005	1	27	-0.971	0.0496	3/10/2010@11:33:40			
248163006	1	28	-0.534	0.0733	3/10/2010@11:34:32			
248163007	1	29	-0.822	0.0577	3/10/2010@11:35:24			
248163008	1	30	-1.89	-3.60e-4	3/10/2010@11:36:15			
WCN100310-03	1	S3	99.6	5.49	3/10/2010@11:37:08			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			-0.4 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-0.4 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100310-08	1	S7	-0.973	0.0495	3/10/2010@11:38:58			CCB
Known Conc:			0.00					

DQM Test: > + Concentration Limit									
Result:		-0.973 < 5.00							
Message		CCB Passed							
Action		Continue							
DQM Test: < - Concentration Limit									
Result:		-0.973 > -5.00							
Message		CCB Passed							
Action		Continue							
248163009	1	31	-1.13	0.0408	3/10/2010@11:40:49				
248163010	1	32	-1.06	0.0447	3/10/2010@11:41:42				
248163011	1	33	-0.202	0.0912	3/10/2010@11:42:36				
248163012	1	34	-0.820	0.0578	3/10/2010@11:43:29				
248163013	1	35	-0.101	0.0967	3/10/2010@11:44:22				
248163014	1	36	-1.03	0.0465	3/10/2010@11:45:16				
248241001	1	37	6.98	0.480	3/10/2010@11:46:08				
248241002	1	38	4.24	0.332	3/10/2010@11:47:02				
1202061941|961284|MB	1	39	-1.88	1.84e-4	3/10/2010@11:47:54				
1202061948|LCS	1	40	30.0	1.73	3/10/2010@11:48:47	25.00			
WCN100310-03	1	S3	101	5.59	3/10/2010@11:49:39			CCV	
Known Conc:			100						
DQM Test: > + Percent Relative Difference									
Result:		1.4 < 10.0							
Message		CCV Passed							
Action		Continue							
DQM Test: < - Percent Relative Difference									
Result:		1.4 < 10.0							
Message		CCV Passed							
Action		Continue							
WCN100310-08	1	S7	-2.16	-0.0149	3/10/2010@11:51:29			CCB	
Known Conc:			0.00						
DQM Test: > + Concentration Limit									
Result:		-2.16 < 5.00							
Message		CCB Passed							
Action		Continue							
DQM Test: < - Concentration Limit									
Result:		-2.16 > -5.00							
Message		CCB Passed							
Action		Continue							
247914001	1	41	-0.276	0.0873	3/10/2010@11:53:18				
247923001	1	42	25.1	1.46	3/10/2010@11:54:10				
247927001	1	43	140	7.65	3/10/2010@11:55:02				
247930001	1	44	81.5	4.51	3/10/2010@11:55:55				
247933001	1	45	25.7	1.49	3/10/2010@11:56:46				
247939001	1	46	22.4	1.32	3/10/2010@11:57:41				
247941001	1	47	36.9	2.10	3/10/2010@11:58:34				
247943001	1	48	55.1	3.08	3/10/2010@11:59:28				
247945001	1	49	2.04	0.213	3/10/2010@12:00:22				
248515001	1	50	-0.256	0.0883	3/10/2010@12:01:15				
WCN100310-03	1	S3	101	5.55	3/10/2010@12:02:08			CCV	
Known Conc:			100						
DQM Test: > + Percent Relative Difference									
Result:		0.7 < 10.0							
Message		CCV Passed							
Action		Continue							
DQM Test: < - Percent Relative Difference									
Result:		0.7 < 10.0							
Message		CCV Passed							
Action		Continue							
WCN100310-08	1	S7	-1.39	0.0269	3/10/2010@12:03:58			CCB	
Known Conc:			0.00						
DQM Test: > + Concentration Limit									
Result:		-1.39 < 5.00							
Message		CCB Passed							
Action		Continue							
DQM Test: < - Concentration Limit									
Result:		-1.39 > -5.00							
Message		CCB Passed							
Action		Continue							

1202061942	DUP	1	51	-0.751	0.0615	3/10/2010@12:05:48		
1202061944	MS	1	52	73.9	4.10	3/10/2010@12:06:40		
1202061946	MSD	1	53	86.2	4.76	3/10/2010@12:07:33		
248515002		1	54	10.0	0.646	3/10/2010@12:08:26		
1202061943	DUP	1	55	3.99	0.318	3/10/2010@12:09:19		
1202061945	MS	1	56	55.5	3.11	3/10/2010@12:10:11		
1202061947	MSD	1	57	70.4	3.91	3/10/2010@12:11:04		
248515003		1	58	1.39	0.177	3/10/2010@12:11:56		
248526001		1	59	0.704	0.140	3/10/2010@12:12:49		
248560001		1	60	-0.799	0.0590	3/10/2010@12:13:41		
WCN100310-03		1	S3	100	5.53	3/10/2010@12:14:33		CCV
Known Conc:				100				
DQM Test: > + Percent Relative Difference								
Result:				0.2 < 10.0				
Message				CCV Passed				
Action				Continue				
DQM Test: < - Percent Relative Difference								
Result:				0.2 < 10.0				
Message				CCV Passed				
Action				Continue				
WCN100310-08		1	S7	-1.48	0.0223	3/10/2010@12:16:23		CCB
Known Conc:				0.00				
DQM Test: > + Concentration Limit								
Result:				-1.48 < 5.00				
Message				CCB Passed				
Action				Continue				
DQM Test: < - Concentration Limit								
Result:				-1.48 > -5.00				
Message				CCB Passed				
Action				Continue				
248560002		1	61	-1.89	0.00	3/10/2010@12:18:13		
248560003		1	62	-0.0166	0.101	3/10/2010@12:19:08		
248560004		1	63	0.426	0.125	3/10/2010@12:20:02		
248560005		1	64	-0.706	0.0640	3/10/2010@12:20:55		
248560006		1	65	-0.316	0.0851	3/10/2010@12:21:49		
248560007		1	66	-1.15	0.0398	3/10/2010@12:22:42		
1202061965	961291|MB	1	67	-1.97	-0.00435	3/10/2010@12:23:36		
1202061967	LCS	1	68	-0.934	0.0516	3/10/2010@12:24:29		
247914001		1	69	5.31	0.389	3/10/2010@12:25:23		
247923001		1	70	30.3	1.74	3/10/2010@12:26:15		
WCN100310-03		1	S3	102	5.61	3/10/2010@12:27:07		CCV
Known Conc:				100				
DQM Test: > + Percent Relative Difference								
Result:				1.8 < 10.0				
Message				CCV Passed				
Action				Continue				
DQM Test: < - Percent Relative Difference								
Result:				1.8 < 10.0				
Message				CCV Passed				
Action				Continue				
WCN100310-08		1	S7	-1.89	-2.03e-4	3/10/2010@12:28:57		CCB
Known Conc:				0.00				
DQM Test: > + Concentration Limit								
Result:				-1.89 < 5.00				
Message				CCB Passed				
Action				Continue				
DQM Test: < - Concentration Limit								
Result:				-1.89 > -5.00				
Message				CCB Passed				
Action				Continue				
247927001		1	71	225	12.3	3/10/2010@12:30:46		
247930001		1	72	92.5	5.11	3/10/2010@12:31:39		
247933001		1	73	66.3	3.69	3/10/2010@12:32:31		
247939001		1	74	74.5	4.13	3/10/2010@12:33:24		
1202061966	DUP	1	75	60.7	3.39	3/10/2010@12:34:16		
247941001		1	76	42.1	2.38	3/10/2010@12:35:10		
247943001		1	77	80.7	4.47	3/10/2010@12:36:04		
247945001		1	78	0.195	0.113	3/10/2010@12:36:58		

247927001	1	71	381	20.7	3/10/2010@12:39:51	10.00	
Sample106	1	1	-1.79	0.00544	3/10/2010@12:40:44		
WCN100310-03	1	S3	100	5.51	3/10/2010@12:41:37		CCV
Known Conc:		100					
DQM Test: > + Percent Relative Difference							
Result:		0.0 < 10.0					
Message		CCV Passed					
Action		Continue					
DQM Test: < - Percent Relative Difference							
Result:		0.0 < 10.0					
Message		CCV Passed					
Action		Continue					
WCN100310-08	1	S7	-2.00	-0.00603	3/10/2010@12:43:27		CCB
Known Conc:		0.00					
DQM Test: > + Concentration Limit							
Result:		-2.00 < 5.00					
Message		CCB Passed					
Action		Continue					
DQM Test: < - Concentration Limit							
Result:		-2.00 > -5.00					
Message		CCB Passed					
Action		Continue					
247927001	1	71	114	6.29	3/10/2010@12:45:16	2.00	
WCN100310-03	1	S3	101	5.58	3/10/2010@12:46:09		CCV
Known Conc:		100					
DQM Test: > + Percent Relative Difference							
Result:		1.3 < 10.0					
Message		CCV Passed					
Action		Continue					
DQM Test: < - Percent Relative Difference							
Result:		1.3 < 10.0					
Message		CCV Passed					
Action		Continue					
WCN100310-08	1	S7	-1.89	1.71e-4	3/10/2010@12:47:59		CCB
Known Conc:		0.00					
DQM Test: > + Concentration Limit							
Result:		-1.89 < 5.00					
Message		CCB Passed					
Action		Continue					
DQM Test: < - Concentration Limit							
Result:		-1.89 > -5.00					
Message		CCB Passed					
Action		Continue					

Analyte Properties Table for OM_3-10-2010_10-49-24.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Calibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

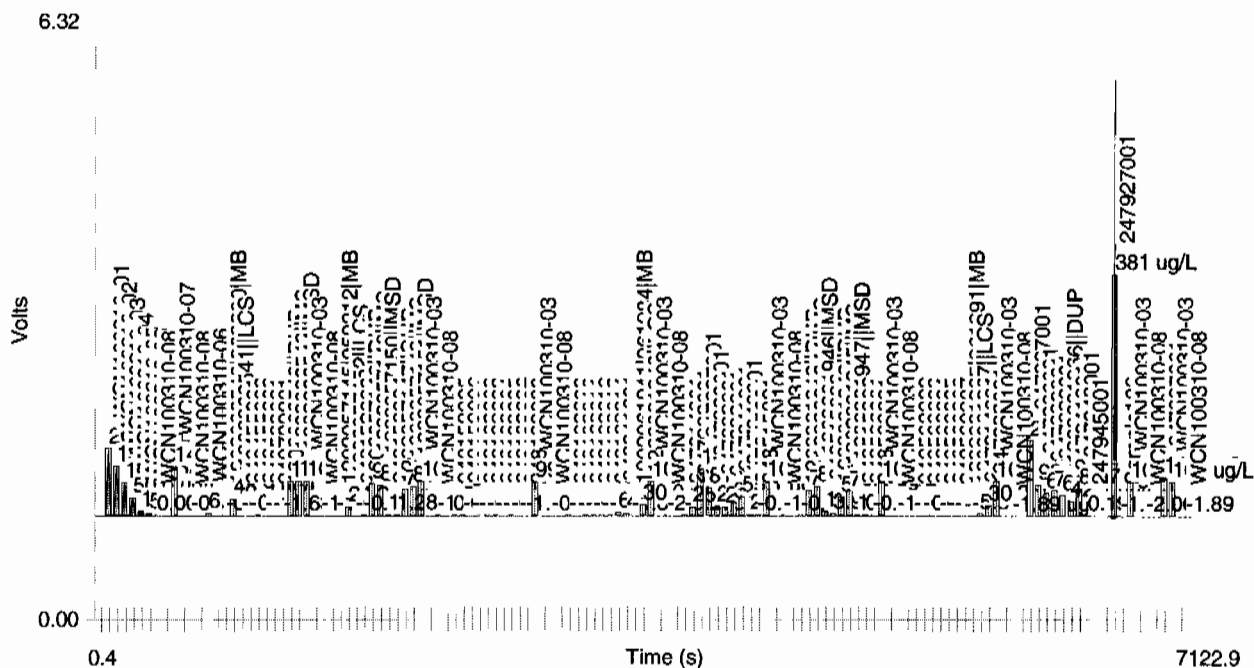
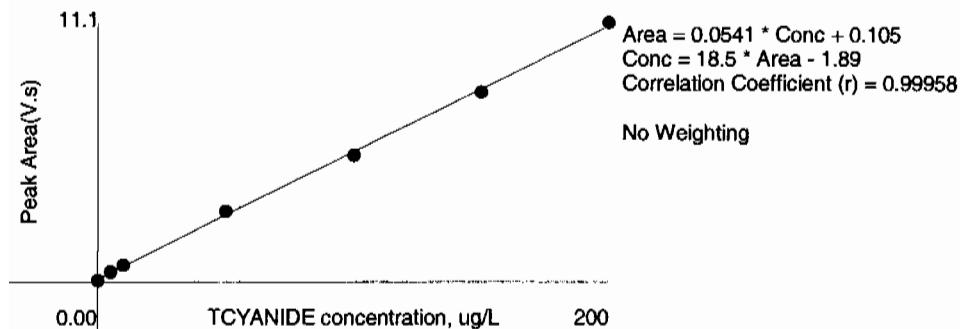


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	11.1	0.707	-1.3	3/10/2010	10:51:58
2	150	1	8.08	0.519	1.6	3/10/2010	10:52:50
3	100	1	5.35	0.347	3.0	3/10/2010	10:53:42
4	50.0	1	2.95	0.188	-5.0	3/10/2010	10:54:35
5	10.0	1	0.687	0.0433	-6.4	3/10/2010	10:55:28
6	5.00	1	0.407	0.0241	-8.2	3/10/2010	10:56:22
7	0.00	1	0.0471	0.00103		3/10/2010	10:57:16

Figure 1: TCYANIDE



This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	3/10/2010 14:46:09	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010 14:47:59	OM_3-10-2010_14-44-38
1202057153	959214	1	axc2	3/10/2010 14:49:49	OM_3-10-2010_14-44-38
1202057160	959214	25	axc2	3/10/2010 14:50:42	OM_3-10-2010_14-44-38
248241003	959214	1	axc2	3/10/2010 14:51:36	OM_3-10-2010_14-44-38
1202057154	959214	1	axc2	3/10/2010 14:52:29	OM_3-10-2010_14-44-38
1202057156	959214	1	axc2	3/10/2010 14:53:21	OM_3-10-2010_14-44-38
1202057158	959214	1	axc2	3/10/2010 14:54:14	OM_3-10-2010_14-44-38
248241004	959214	1	axc2	3/10/2010 14:55:07	OM_3-10-2010_14-44-38
1202057155	959214	1	axc2	3/10/2010 14:55:59	OM_3-10-2010_14-44-38
1202057157	959214	1	axc2	3/10/2010 14:56:52	OM_3-10-2010_14-44-38
1202057159	959214	1	axc2	3/10/2010 14:57:44	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010 14:58:37	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010 15:00:26	OM_3-10-2010_14-44-38
248241005	959214	1	axc2	3/10/2010 15:02:15	OM_3-10-2010_14-44-38
248241006	959214	1	axc2	3/10/2010 15:03:07	OM_3-10-2010_14-44-38
248241007	959214	1	axc2	3/10/2010 15:03:58	OM_3-10-2010_14-44-38
248241008	959214	1	axc2	3/10/2010 15:04:50	OM_3-10-2010_14-44-38
248241009	959214	1	axc2	3/10/2010 15:05:41	OM_3-10-2010_14-44-38
248241010	959214	1	axc2	3/10/2010 15:06:35	OM_3-10-2010_14-44-38
248247001	959214	1	axc2	3/10/2010 15:07:29	OM_3-10-2010_14-44-38
248247002	959214	1	axc2	3/10/2010 15:08:23	OM_3-10-2010_14-44-38
248247003	959214	1	axc2	3/10/2010 15:09:16	OM_3-10-2010_14-44-38
248247004	959214	1	axc2	3/10/2010 15:10:09	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010 15:11:01	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010 15:12:52	OM_3-10-2010_14-44-38
248247005	959214	1	axc2	3/10/2010 15:14:40	OM_3-10-2010_14-44-38
248247006	959214	1	axc2	3/10/2010 15:15:34	OM_3-10-2010_14-44-38
248247007	959214	1	axc2	3/10/2010 15:16:26	OM_3-10-2010_14-44-38
248247008	959214	1	axc2	3/10/2010 15:17:19	OM_3-10-2010_14-44-38
248250001	959214	1	axc2	3/10/2010 15:18:11	OM_3-10-2010_14-44-38
248250002	959214	1	axc2	3/10/2010 15:19:04	OM_3-10-2010_14-44-38
248250003	959214	1	axc2	3/10/2010 15:19:56	OM_3-10-2010_14-44-38
248250004	959214	1	axc2	3/10/2010 15:20:48	OM_3-10-2010_14-44-38
1202059694	960266	1	axc2	3/10/2010 15:21:40	OM_3-10-2010_14-44-38
1202059701	960266	25	axc2	3/10/2010 15:22:31	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010 15:23:25	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010 15:25:14	OM_3-10-2010_14-44-38
248256001	960266	1	axc2	3/10/2010 15:27:04	OM_3-10-2010_14-44-38
248256002	960266	1	axc2	3/10/2010 15:27:58	OM_3-10-2010_14-44-38
248256003	960266	1	axc2	3/10/2010 15:28:51	OM_3-10-2010_14-44-38
248256004	960266	1	axc2	3/10/2010 15:29:45	OM_3-10-2010_14-44-38
248256005	960266	1	axc2	3/10/2010 15:30:38	OM_3-10-2010_14-44-38
248256006	960266	1	axc2	3/10/2010 15:31:31	OM_3-10-2010_14-44-38
248256007	960266	1	axc2	3/10/2010 15:32:25	OM_3-10-2010_14-44-38
248374008	960266	1	axc2	3/10/2010 15:33:18	OM_3-10-2010_14-44-38
1202059695	960266	1	axc2	3/10/2010 15:34:10	OM_3-10-2010_14-44-38
1202059697	960266	1	axc2	3/10/2010 15:35:02	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010 15:35:55	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010 15:37:45	OM_3-10-2010_14-44-38
1202059699	960266	1	axc2	3/10/2010 15:39:33	OM_3-10-2010_14-44-38
248374009	960266	1	axc2	3/10/2010 15:40:26	OM_3-10-2010_14-44-38
1202059696	960266	1	axc2	3/10/2010 15:41:18	OM_3-10-2010_14-44-38
1202059698	960266	1	axc2	3/10/2010 15:42:10	OM_3-10-2010_14-44-38
1202059700	960266	1	axc2	3/10/2010 15:43:02	OM_3-10-2010_14-44-38
248374010	960266	1	axc2	3/10/2010 15:43:56	OM_3-10-2010_14-44-38
248374011	960266	1	axc2	3/10/2010 15:44:50	OM_3-10-2010_14-44-38
248374012	960266	1	axc2	3/10/2010 15:45:44	OM_3-10-2010_14-44-38

248374013	960266	1	axc2	3/10/2010	15:46:37	OM_3-10-2010_14-44-38
248389002	960266	1	axc2	3/10/2010	15:47:31	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	15:48:24	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	15:50:14	OM_3-10-2010_14-44-38
248389003	960266	1	axc2	3/10/2010	15:52:03	OM_3-10-2010_14-44-38
248396001	960266	1	axc2	3/10/2010	15:52:56	OM_3-10-2010_14-44-38
248396002	960266	1	axc2	3/10/2010	15:53:49	OM_3-10-2010_14-44-38
248396003	960266	1	axc2	3/10/2010	15:54:43	OM_3-10-2010_14-44-38
248396004	960266	1	axc2	3/10/2010	15:55:35	OM_3-10-2010_14-44-38
248396005	960266	1	axc2	3/10/2010	15:56:28	OM_3-10-2010_14-44-38
1202059686	960263	1	axc2	3/10/2010	15:57:20	OM_3-10-2010_14-44-38
1202059693	960263	25	axc2	3/10/2010	15:58:12	OM_3-10-2010_14-44-38
248371008	960263	1	axc2	3/10/2010	15:59:05	OM_3-10-2010_14-44-38
1202059687	960263	1	axc2	3/10/2010	15:59:56	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	16:00:49	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	16:02:39	OM_3-10-2010_14-44-38
1202059689	960263	1	axc2	3/10/2010	16:04:30	OM_3-10-2010_14-44-38
1202059691	960263	1	axc2	3/10/2010	16:05:24	OM_3-10-2010_14-44-38
248371009	960263	1	axc2	3/10/2010	16:06:18	OM_3-10-2010_14-44-38
1202059688	960263	1	axc2	3/10/2010	16:07:12	OM_3-10-2010_14-44-38
1202059690	960263	1	axc2	3/10/2010	16:08:05	OM_3-10-2010_14-44-38
1202059692	960263	1	axc2	3/10/2010	16:08:59	OM_3-10-2010_14-44-38
248371010	960263	1	axc2	3/10/2010	16:09:53	OM_3-10-2010_14-44-38
248371011	960263	1	axc2	3/10/2010	16:10:45	OM_3-10-2010_14-44-38
248371012	960263	1	axc2	3/10/2010	16:11:38	OM_3-10-2010_14-44-38
248371013	960263	1	axc2	3/10/2010	16:12:32	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	16:13:24	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	16:15:15	OM_3-10-2010_14-44-38
248371014	960263	1	axc2	3/10/2010	16:17:03	OM_3-10-2010_14-44-38
248371015	960263	1	axc2	3/10/2010	16:17:55	OM_3-10-2010_14-44-38
248371016	960263	1	axc2	3/10/2010	16:18:48	OM_3-10-2010_14-44-38
248371017	960263	1	axc2	3/10/2010	16:19:40	OM_3-10-2010_14-44-38
248371018	960263	1	axc2	3/10/2010	16:20:32	OM_3-10-2010_14-44-38
248371019	960263	1	axc2	3/10/2010	16:21:27	OM_3-10-2010_14-44-38
248371020	960263	1	axc2	3/10/2010	16:22:22	OM_3-10-2010_14-44-38
248374001*	960263	1	axc2	3/10/2010	16:23:16	OM_3-10-2010_14-44-38
248374002	960263	1	axc2	3/10/2010	16:24:10	OM_3-10-2010_14-44-38
248374003	960263	1	axc2	3/10/2010	16:25:04	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	16:25:56	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	16:27:46	OM_3-10-2010_14-44-38
248374001	960263	1	axc2	3/10/2010	16:29:36	OM_3-10-2010_14-44-38
248374004	960263	1	axc2	3/10/2010	16:30:31	OM_3-10-2010_14-44-38
248374005	960263	1	axc2	3/10/2010	16:31:23	OM_3-10-2010_14-44-38
248374006	960263	1	axc2	3/10/2010	16:32:18	OM_3-10-2010_14-44-38
248374007	960263	1	axc2	3/10/2010	16:33:10	OM_3-10-2010_14-44-38
1202059677	960259	1	axc2	3/10/2010	16:34:03	OM_3-10-2010_14-44-38
1202059684	960259	25	axc2	3/10/2010	16:34:56	OM_3-10-2010_14-44-38
248371001	960259	1	axc2	3/10/2010	16:35:49	OM_3-10-2010_14-44-38
248371002	960259	1	axc2	3/10/2010	16:36:41	OM_3-10-2010_14-44-38
248371003	960259	1	axc2	3/10/2010	16:37:34	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	16:38:27	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	16:40:17	OM_3-10-2010_14-44-38
248371004	960259	1	axc2	3/10/2010	16:42:05	OM_3-10-2010_14-44-38
248371005	960259	1	axc2	3/10/2010	16:43:00	OM_3-10-2010_14-44-38
248371006	960259	1	axc2	3/10/2010	16:43:54	OM_3-10-2010_14-44-38
248371007	960259	1	axc2	3/10/2010	16:44:49	OM_3-10-2010_14-44-38
248408015	960259	1	axc2	3/10/2010	16:45:43	OM_3-10-2010_14-44-38
1202059678	960259	1	axc2	3/10/2010	16:46:37	OM_3-10-2010_14-44-38
1202059680	960259	1	axc2	3/10/2010	16:47:31	OM_3-10-2010_14-44-38
1202059682	960259	1	axc2	3/10/2010	16:48:25	OM_3-10-2010_14-44-38

248408016	960259	1	axc2	3/10/2010	16:49:18	OM_3-10-2010_14-44-38
1202059679	960259	1	axc2	3/10/2010	16:50:12	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	16:51:04	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	16:52:54	OM_3-10-2010_14-44-38
1202059681	960259	1	axc2	3/10/2010	16:54:44	OM_3-10-2010_14-44-38
1202059683	960259	1	axc2	3/10/2010	16:55:37	OM_3-10-2010_14-44-38
248408017	960259	1	axc2	3/10/2010	16:56:30	OM_3-10-2010_14-44-38
248408018	960259	1	axc2	3/10/2010	16:57:23	OM_3-10-2010_14-44-38
248418001	960259	1	axc2	3/10/2010	16:58:15	OM_3-10-2010_14-44-38
248418002	960259	1	axc2	3/10/2010	16:59:08	OM_3-10-2010_14-44-38
248418003	960259	1	axc2	3/10/2010	17:00:02	OM_3-10-2010_14-44-38
248418004	960259	1	axc2	3/10/2010	17:00:57	OM_3-10-2010_14-44-38
248418005	960259	1	axc2	3/10/2010	17:01:51	OM_3-10-2010_14-44-38
248418006	960259	1	axc2	3/10/2010	17:02:45	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	17:03:38	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	17:05:28	OM_3-10-2010_14-44-38
248418007	960259	1	axc2	3/10/2010	17:07:18	OM_3-10-2010_14-44-38
248418008	960259	1	axc2	3/10/2010	17:08:12	OM_3-10-2010_14-44-38
248418009	960259	1	axc2	3/10/2010	17:09:07	OM_3-10-2010_14-44-38
1202059669	960257	1	axc2	3/10/2010	17:10:01	OM_3-10-2010_14-44-38
1202059676	960257	25	axc2	3/10/2010	17:10:54	OM_3-10-2010_14-44-38
248383001	960257	1	axc2	3/10/2010	17:11:48	OM_3-10-2010_14-44-38
1202059670	960257	1	axc2	3/10/2010	17:12:41	OM_3-10-2010_14-44-38
1202059672	960257	1	axc2	3/10/2010	17:13:34	OM_3-10-2010_14-44-38
1202059674	960257	1	axc2	3/10/2010	17:14:27	OM_3-10-2010_14-44-38
248383002	960257	1	axc2	3/10/2010	17:15:20	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	17:16:12	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	17:18:03	OM_3-10-2010_14-44-38
1202059671	960257	1	axc2	3/10/2010	17:19:52	OM_3-10-2010_14-44-38
1202059673	960257	1	axc2	3/10/2010	17:20:46	OM_3-10-2010_14-44-38
1202059675	960257	1	axc2	3/10/2010	17:21:41	OM_3-10-2010_14-44-38
248383003	960257	1	axc2	3/10/2010	17:22:36	OM_3-10-2010_14-44-38
248383004	960257	1	axc2	3/10/2010	17:23:30	OM_3-10-2010_14-44-38
248383005	960257	1	axc2	3/10/2010	17:24:25	OM_3-10-2010_14-44-38
248383006	960257	1	axc2	3/10/2010	17:25:19	OM_3-10-2010_14-44-38
248408001	960257	1	axc2	3/10/2010	17:26:13	OM_3-10-2010_14-44-38
248408002	960257	1	axc2	3/10/2010	17:27:07	OM_3-10-2010_14-44-38
248408003	960257	1	axc2	3/10/2010	17:28:01	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	17:28:53	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	17:30:44	OM_3-10-2010_14-44-38
248408004	960257	1	axc2	3/10/2010	17:32:33	OM_3-10-2010_14-44-38
248408005	960257	1	axc2	3/10/2010	17:33:26	OM_3-10-2010_14-44-38
248408006	960257	1	axc2	3/10/2010	17:34:20	OM_3-10-2010_14-44-38
248408007	960257	1	axc2	3/10/2010	17:35:13	OM_3-10-2010_14-44-38
248408008	960257	1	axc2	3/10/2010	17:36:06	OM_3-10-2010_14-44-38
248408009	960257	1	axc2	3/10/2010	17:36:59	OM_3-10-2010_14-44-38
248408010	960257	1	axc2	3/10/2010	17:37:54	OM_3-10-2010_14-44-38
248408011	960257	1	axc2	3/10/2010	17:38:49	OM_3-10-2010_14-44-38
248408012	960257	1	axc2	3/10/2010	17:39:43	OM_3-10-2010_14-44-38
248408013	960257	1	axc2	3/10/2010	17:40:38	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	17:41:31	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	17:43:21	OM_3-10-2010_14-44-38
248408014	960257	1	axc2	3/10/2010	17:45:11	OM_3-10-2010_14-44-38
1202061972*	961296	1	axc2	3/10/2010	17:46:05	OM_3-10-2010_14-44-38
1202061982	961296	1	axc2	3/10/2010	17:46:59	OM_3-10-2010_14-44-38
248321002	961296	1	axc2	3/10/2010	17:47:53	OM_3-10-2010_14-44-38
1202061973	961296	1	axc2	3/10/2010	17:48:48	OM_3-10-2010_14-44-38
1202061976	961296	1	axc2	3/10/2010	17:49:42	OM_3-10-2010_14-44-38
1202061979	961296	1	axc2	3/10/2010	17:50:35	OM_3-10-2010_14-44-38
248547001	961296	1	axc2	3/10/2010	17:51:28	OM_3-10-2010_14-44-38

1202061975	961296	1	axc2	3/10/2010	17:52:22	OM_3-10-2010_14-44-38
1202061978	961296	1	axc2	3/10/2010	17:53:15	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	17:54:08	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	17:55:58	OM_3-10-2010_14-44-38
1202061981	961296	1	axc2	3/10/2010	17:57:47	OM_3-10-2010_14-44-38
248605001	961296	1	axc2	3/10/2010	17:58:42	OM_3-10-2010_14-44-38
248622001	961296	1	axc2	3/10/2010	17:59:37	OM_3-10-2010_14-44-38
248622002	961296	1	axc2	3/10/2010	18:00:32	OM_3-10-2010_14-44-38
248622003	961296	1	axc2	3/10/2010	18:01:26	OM_3-10-2010_14-44-38
248622004	961296	1	axc2	3/10/2010	18:02:21	OM_3-10-2010_14-44-38
248622005	961296	1	axc2	3/10/2010	18:03:15	OM_3-10-2010_14-44-38
248622006	961296	1	axc2	3/10/2010	18:04:10	OM_3-10-2010_14-44-38
248626002	961296	1	axc2	3/10/2010	18:05:04	OM_3-10-2010_14-44-38
248629002	961296	1	axc2	3/10/2010	18:05:58	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	18:06:50	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	18:08:41	OM_3-10-2010_14-44-38
248668001	961296	1	axc2	3/10/2010	18:10:31	OM_3-10-2010_14-44-38
1202064174	961296	1	axc2	3/10/2010	18:11:25	OM_3-10-2010_14-44-38
1202064175	961296	1	axc2	3/10/2010	18:12:18	OM_3-10-2010_14-44-38
1202064176	961296	1	axc2	3/10/2010	18:13:12	OM_3-10-2010_14-44-38
248668003	961296	1	axc2	3/10/2010	18:14:05	OM_3-10-2010_14-44-38
248668006	961296	1	axc2	3/10/2010	18:14:58	OM_3-10-2010_14-44-38
248690002	961296	1	axc2	3/10/2010	18:15:54	OM_3-10-2010_14-44-38
1202061974	961296	1	axc2	3/10/2010	18:16:49	OM_3-10-2010_14-44-38
1202061977	961296	1	axc2	3/10/2010	18:17:44	OM_3-10-2010_14-44-38
1202061980	961296	1	axc2	3/10/2010	18:18:39	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	18:19:31	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	18:21:22	OM_3-10-2010_14-44-38
1202061972*	961296	1	axc2	3/10/2010	18:23:12	OM_3-10-2010_14-44-38
1202064171	962270	1	axc2	3/10/2010	18:24:07	OM_3-10-2010_14-44-38
1202064173	962270	250	axc2	3/10/2010	18:25:01	OM_3-10-2010_14-44-38
248632001	962270	1	axc2	3/10/2010	18:25:56	OM_3-10-2010_14-44-38
1202064172	962270	1	axc2	3/10/2010	18:26:50	OM_3-10-2010_14-44-38
248726001	962270	1	axc2	3/10/2010	18:27:44	OM_3-10-2010_14-44-38
248727001	962270	1	axc2	3/10/2010	18:28:39	OM_3-10-2010_14-44-38
1202061114	960944	1	axc2	3/10/2010	18:29:33	OM_3-10-2010_14-44-38
1202061116	960944	250	axc2	3/10/2010	18:30:27	OM_3-10-2010_14-44-38
247941001	960944	1	axc2	3/10/2010	18:31:20	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	18:32:13	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	18:34:04	OM_3-10-2010_14-44-38
247943001	960944	1	axc2	3/10/2010	18:35:54	OM_3-10-2010_14-44-38
248227001	960944	1	axc2	3/10/2010	18:36:47	OM_3-10-2010_14-44-38
1202061115	960944	1	axc2	3/10/2010	18:37:43	OM_3-10-2010_14-44-38
248228001	960944	1	axc2	3/10/2010	18:38:38	OM_3-10-2010_14-44-38
1202061972	961296	1	axc2	3/10/2010	18:39:33	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	18:40:26	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	18:42:16	OM_3-10-2010_14-44-38

Original Run Filename: OM_3-10-2010_14-44-38.OMN created 3/10/2010 14:44:38
 Original Run Author's Signature: [axc2]
 Current Run Filename: OM_3-10-2010_14-44-38.OMN last modified 3/10/2010 18:43:21
 Current Run Author's Signature: [axc2]
 Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
 Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE		Detection Time	ADF	MDF	Description
			Conc. (ug/L)	Area (Vs)				
WCN100310-03	1	S3	101	5.59	3/10/2010@14:46:09			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			1.4 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			1.4 < 10.0					
Message			CCV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100310-08	1	S7	-1.25	0.0344	3/10/2010@14:47:59			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.25 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.25 > -5.00					
Message			CCB Passed					
Action			Continue					
1202057153|959214|MB	1	1	-1.89	-2.63e-4	3/10/2010@14:49:49			
1202057160||LCS	1	2	23.9	1.40	3/10/2010@14:50:42		25.00	
248241003	1	3	-0.868	0.0552	3/10/2010@14:51:36			
1202057154||DUP	1	4	-0.808	0.0585	3/10/2010@14:52:29			
1202057156||MS	1	5	93.2	5.15	3/10/2010@14:53:21			
1202057158||MSD	1	6	97.1	5.35	3/10/2010@14:54:14			
248241004	1	7	2.02	0.212	3/10/2010@14:55:07			
1202057155||DUP	1	8	2.93	0.261	3/10/2010@14:55:59			
1202057157||MS	1	9	91.5	5.06	3/10/2010@14:56:52			
1202057159||MSD	1	10	94.1	5.19	3/10/2010@14:57:44			
WCN100310-03	1	S3	99.4	5.48	3/10/2010@14:58:37			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			-0.6 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-0.6 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100310-08	1	S7	-1.36	0.0284	3/10/2010@15:00:26			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.36 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.36 > -5.00					
Message			CCB Passed					
Action			Continue					
248241005	1	11	2.21	0.222	3/10/2010@15:02:15			
248241006	1	12	9.19	0.600	3/10/2010@15:03:07			
248241007	1	13	23.5	1.38	3/10/2010@15:03:58			
248241008	1	14	18.9	1.12	3/10/2010@15:04:50			
248241009	1	15	5.54	0.402	3/10/2010@15:05:41			

248241010	1	16	10.9	0.691	3/10/2010@15:06:35		
248247001	1	17	-0.0248	0.101	3/10/2010@15:07:29		
248247002	1	18	-0.174	0.0928	3/10/2010@15:08:23		
248247003	1	19	0.0492	0.105	3/10/2010@15:09:16		
248247004	1	20	-0.0334	0.100	3/10/2010@15:10:09		
WCN100310-03	1	S3	102	5.60	3/10/2010@15:11:01		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			1.7 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			1.7 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100310-08	1	S7	-2.08	-0.0106	3/10/2010@15:12:52		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-2.08 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-2.08 > -5.00				
Message			CCB Passed				
Action			Continue				
248247005	1	21	-0.240	0.0892	3/10/2010@15:14:40		
248247006	1	22	0.203	0.113	3/10/2010@15:15:34		
248247007	1	23	-0.185	0.0922	3/10/2010@15:16:26		
248247008	1	24	0.122	0.109	3/10/2010@15:17:19		
248250001	1	25	24.9	1.45	3/10/2010@15:18:11		
248250002	1	26	27.8	1.60	3/10/2010@15:19:04		
248250003	1	27	45.7	2.58	3/10/2010@15:19:56		
248250004	1	28	15.9	0.964	3/10/2010@15:20:48		
1202059694|960266|MB	1	29	-1.07	0.0444	3/10/2010@15:21:40		
1202059701|LCS	1	30	33.9	1.94	3/10/2010@15:22:31	25.00	
WCN100310-03	1	S3	101	5.58	3/10/2010@15:23:25		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			1.2 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			1.2 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100310-08	1	S7	-1.31	0.0313	3/10/2010@15:25:14		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.31 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.31 > -5.00				
Message			CCB Passed				
Action			Continue				
248256001	1	31	-0.892	0.0539	3/10/2010@15:27:04		
248256002	1	32	-1.06	0.0447	3/10/2010@15:27:58		
248256003	1	33	-1.19	0.0378	3/10/2010@15:28:51		
248256004	1	34	-1.41	0.0256	3/10/2010@15:29:45		
248256005	1	35	0.792	0.145	3/10/2010@15:30:38		
248256006	1	36	-1.39	0.0271	3/10/2010@15:31:31		
248256007	1	37	-1.28	0.0330	3/10/2010@15:32:25		
248374008	1	38	5.88	0.420	3/10/2010@15:33:18		
1202059695|DUP	1	39	4.57	0.349	3/10/2010@15:34:10		
1202059697|MS	1	40	85.0	4.70	3/10/2010@15:35:02		
WCN100310-03	1	S3	101	5.58	3/10/2010@15:35:55		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							

			Result:	1.2 < 10.0				
			Message	CCV Passed				
			Action	Continue				
DQM Test: < - Percent Relative Difference								
			Result:	1.2 < 10.0				
			Message	CCV Passed				
			Action	Continue				
WCN100310-08	1	S7		-1.31	0.0311	3/10/2010@15:37:45		CCB
			Known Conc:	0.00				
DQM Test: > + Concentration Limit								
			Result:	-1.31 < 5.00				
			Message	CCB Passed				
			Action	Continue				
DQM Test: < - Concentration Limit								
			Result:	-1.31 > -5.00				
			Message	CCB Passed				
			Action	Continue				
1202059699||MSD	1	41		84.8	4.69	3/10/2010@15:39:33		
248374009	1	42		3.15	0.272	3/10/2010@15:40:26		
1202059696||DUP	1	43		3.02	0.265	3/10/2010@15:41:18		
1202059698||MS	1	44		94.0	5.19	3/10/2010@15:42:10		
1202059700||MSD	1	45		93.9	5.18	3/10/2010@15:43:02		
248374010	1	46		1.68	0.193	3/10/2010@15:43:56		
248374011	1	47		0.479	0.128	3/10/2010@15:44:50		
248374012	1	48		0.249	0.116	3/10/2010@15:45:44		
248374013	1	49		9.65	0.624	3/10/2010@15:46:37		
248389002	1	50		-1.29	0.0321	3/10/2010@15:47:31		
WCN100310-03	1	S3		100	5.52	3/10/2010@15:48:24		CCV
			Known Conc:	100				
DQM Test: > + Percent Relative Difference								
			Result:	0.2 < 10.0				
			Message	CCV Passed				
			Action	Continue				
DQM Test: < - Percent Relative Difference								
			Result:	0.2 < 10.0				
			Message	CCV Passed				
			Action	Continue				
WCN100310-08	1	S7		-2.34	-0.0244	3/10/2010@15:50:14		CCB
			Known Conc:	0.00				
DQM Test: > + Concentration Limit								
			Result:	-2.34 < 5.00				
			Message	CCB Passed				
			Action	Continue				
DQM Test: < - Concentration Limit								
			Result:	-2.34 > -5.00				
			Message	CCB Passed				
			Action	Continue				
248389003	1	51		-1.16	0.0394	3/10/2010@15:52:03		
248396001	1	52		-1.18	0.0381	3/10/2010@15:52:56		
248396002	1	53		-1.36	0.0285	3/10/2010@15:53:49		
248396003	1	54		-1.30	0.0318	3/10/2010@15:54:43		
248396004	1	55		-1.19	0.0380	3/10/2010@15:55:35		
248396005	1	56		-1.31	0.0315	3/10/2010@15:56:28		
1202059686|960263|MB	1	57		-1.34	0.0298	3/10/2010@15:57:20		
1202059693||LCS	1	58		25.7	1.49	3/10/2010@15:58:12	25.00	
248371008	1	59		-0.223	0.0901	3/10/2010@15:59:05		
1202059687||DUP	1	60		-0.110	0.0962	3/10/2010@15:59:56		
WCN100310-03	1	S3		101	5.57	3/10/2010@16:00:49		CCV
			Known Conc:	100				
DQM Test: > + Percent Relative Difference								
			Result:	1.1 < 10.0				
			Message	CCV Passed				
			Action	Continue				
DQM Test: < - Percent Relative Difference								
			Result:	1.1 < 10.0				
			Message	CCV Passed				
			Action	Continue				
WCN100310-08	1	S7		-1.38	0.0278	3/10/2010@16:02:39		CCB

Known Conc:			0.00					
			DQM Test: > + Concentration Limit					
Result:			-1.38 < 5.00					
Message			CCB Passed					
Action			Continue					
			DQM Test: < - Concentration Limit					
Result:			-1.38 > -5.00					
Message			CCB Passed					
Action			Continue					
1202059689	MS	1	61	81.1	4.49	3/10/2010@16:04:30		
1202059691	MSD	1	62	82.2	4.55	3/10/2010@16:05:24		
248371009		1	63	0.778	0.144	3/10/2010@16:06:18		
1202059688	DUP	1	64	0.979	0.155	3/10/2010@16:07:12		
1202059690	MS	1	65	79.3	4.39	3/10/2010@16:08:05		
1202059692	MSD	1	66	83.8	4.64	3/10/2010@16:08:59		
248371010		1	67	6.81	0.471	3/10/2010@16:09:53		
248371011		1	68	-0.217	0.0904	3/10/2010@16:10:45		
248371012		1	69	-0.606	0.0694	3/10/2010@16:11:38		
248371013		1	70	-0.723	0.0631	3/10/2010@16:12:32		
WCN100310-03		1	S3	99.9	5.51	3/10/2010@16:13:24		CCV
Known Conc:			100					
			DQM Test: > + Percent Relative Difference					
Result:			-0.1 < 10.0					
Message			CCV Passed					
Action			Continue					
			DQM Test: < - Percent Relative Difference					
Result:			-0.1 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100310-08		1	S7	-1.22	0.0361	3/10/2010@16:15:15		CCB
Known Conc:			0.00					
			DQM Test: > + Concentration Limit					
Result:			-1.22 < 5.00					
Message			CCB Passed					
Action			Continue					
			DQM Test: < - Concentration Limit					
Result:			-1.22 > -5.00					
Message			CCB Passed					
Action			Continue					
248371014		1	71	0.304	0.119	3/10/2010@16:17:03		
248371015		1	72	0.547	0.132	3/10/2010@16:17:55		
248371016		1	73	-0.154	0.0938	3/10/2010@16:18:48		
248371017		1	74	1.73	0.196	3/10/2010@16:19:40		
248371018		1	75	2.61	0.243	3/10/2010@16:20:32		
248371019		1	76	0.297	0.118	3/10/2010@16:21:27		
248371020		1	77	2.04	0.213	3/10/2010@16:22:22		
248374001		1	78	5.50	0.400	3/10/2010@16:23:16		
248374002		1	79	9.51	0.616	3/10/2010@16:24:10		
248374003		1	80	5.30	0.389	3/10/2010@16:25:04		
WCN100310-03		1	S3	100	5.52	3/10/2010@16:25:56		CCV
Known Conc:			100					
			DQM Test: > + Percent Relative Difference					
Result:			0.1 < 10.0					
Message			CCV Passed					
Action			Continue					
			DQM Test: < - Percent Relative Difference					
Result:			0.1 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100310-08		1	S7	-1.22	0.0359	3/10/2010@16:27:46		CCB
Known Conc:			0.00					
			DQM Test: > + Concentration Limit					
Result:			-1.22 < 5.00					
Message			CCB Passed					
Action			Continue					
			DQM Test: < - Concentration Limit					
Result:			-1.22 > -5.00					
Message			CCB Passed					

		Action	Continue						
248374001	1	78	3.52	0.293	3/10/2010@16:29:36				
248374004	1	81	10.3	0.658	3/10/2010@16:30:31				
248374005	1	82	2.68	0.247	3/10/2010@16:31:23				
248374006	1	83	4.44	0.342	3/10/2010@16:32:18				
248374007	1	84	3.05	0.267	3/10/2010@16:33:10				
1202059677|960259|MB	1	85	-1.17	0.0391	3/10/2010@16:34:03				
1202059684||LCS	1	86	22.9	1.34	3/10/2010@16:34:56		25.00		
248371001	1	87	8.42	0.558	3/10/2010@16:35:49				
248371002	1	88	1.39	0.177	3/10/2010@16:36:41				
248371003	1	89	1.33	0.174	3/10/2010@16:37:34				
WCN100310-03	1	S3	104	5.73	3/10/2010@16:38:27				CCV
Known Conc:			100						
DQM Test: > + Percent Relative Difference									
Result:			3.9 < 10.0						
Message			CCV Passed						
Action			Continue						
DQM Test: < - Percent Relative Difference									
Result:			3.9 < 10.0						
Message			CCV Passed						
Action			Continue						
WCN100310-08	1	S7	-1.45	0.0234	3/10/2010@16:40:17				CCB
Known Conc:			0.00						
DQM Test: > + Concentration Limit									
Result:			-1.45 < 5.00						
Message			CCB Passed						
Action			Continue						
DQM Test: < - Concentration Limit									
Result:			-1.45 > -5.00						
Message			CCB Passed						
Action			Continue						
248371004	1	90	2.35	0.229	3/10/2010@16:42:05				
248371005	1	91	3.82	0.309	3/10/2010@16:43:00				
248371006	1	92	1.71	0.194	3/10/2010@16:43:54				
248371007	1	93	1.33	0.174	3/10/2010@16:44:49				
248408015	1	94	4.84	0.364	3/10/2010@16:45:43				
1202059678|DUP	1	95	27.2	1.58	3/10/2010@16:46:37				
1202059680|MS	1	96	82.3	4.56	3/10/2010@16:47:31				
1202059682|MSD	1	97	88.5	4.89	3/10/2010@16:48:25				
248408016	1	98	0.241	0.115	3/10/2010@16:49:18				
1202059679|DUP	1	99	0.124	0.109	3/10/2010@16:50:12				
WCN100310-03	1	S3	104	5.73	3/10/2010@16:51:04				CCV
Known Conc:			100						
DQM Test: > + Percent Relative Difference									
Result:			4.1 < 10.0						
Message			CCV Passed						
Action			Continue						
DQM Test: < - Percent Relative Difference									
Result:			4.1 < 10.0						
Message			CCV Passed						
Action			Continue						
WCN100310-08	1	S7	-2.02	-0.00711	3/10/2010@16:52:54				CCB
Known Conc:			0.00						
DQM Test: > + Concentration Limit									
Result:			-2.02 < 5.00						
Message			CCB Passed						
Action			Continue						
DQM Test: < - Concentration Limit									
Result:			-2.02 > -5.00						
Message			CCB Passed						
Action			Continue						
1202059681|MS	1	100	96.2	5.31	3/10/2010@16:54:44				
1202059683|MSD	1	101	95.6	5.27	3/10/2010@16:55:37				
248408017	1	102	10.2	0.656	3/10/2010@16:56:30				
248408018	1	103	0.330	0.120	3/10/2010@16:57:23				
248418001	1	104	-0.290	0.0865	3/10/2010@16:58:15				
248418002	1	105	-0.923	0.0522	3/10/2010@16:59:08				
248418003	1	106	0.887	0.150	3/10/2010@17:00:02				

248418004	1	107	-0.602	0.0696	3/10/2010@17:00:57		
248418005	1	108	-0.0596	0.0989	3/10/2010@17:01:51		
248418006	1	109	0.649	0.137	3/10/2010@17:02:45		
WCN100310-03	1	S3	106	5.85	3/10/2010@17:03:38		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			6.2 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			6.2 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100310-08	1	S7	-2.06	-0.00904	3/10/2010@17:05:28		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-2.06 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-2.06 > -5.00				
Message			CCB Passed				
Action			Continue				
248418007	1	110	2.86	0.257	3/10/2010@17:07:18		
248418008	1	111	-0.216	0.0905	3/10/2010@17:08:12		
248418009	1	112	10.2	0.655	3/10/2010@17:09:07		
1202059669|960257|MB	1	113	-1.02	0.0470	3/10/2010@17:10:01		
1202059676|LCS	1	114	24.4	1.42	3/10/2010@17:10:54	25.00	
248383001	1	115	-0.461	0.0772	3/10/2010@17:11:48		
1202059670|DUP	1	116	-0.401	0.0805	3/10/2010@17:12:41		
1202059672|MS	1	117	92.5	5.11	3/10/2010@17:13:34		
1202059674|MSD	1	118	98.3	5.42	3/10/2010@17:14:27		
248383002	1	119	2.54	0.240	3/10/2010@17:15:20		
WCN100310-03	1	S3	104	5.73	3/10/2010@17:16:12		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			4.0 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			4.0 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100310-08	1	S7	-1.33	0.0300	3/10/2010@17:18:03		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.33 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.33 > -5.00				
Message			CCB Passed				
Action			Continue				
1202059671|DUP	1	120	2.11	0.216	3/10/2010@17:19:52		
1202059673|MS	1	121	95.8	5.29	3/10/2010@17:20:46		
1202059675|MSD	1	122	96.6	5.33	3/10/2010@17:21:41		
248383003	1	123	1.20	0.167	3/10/2010@17:22:36		
248383004	1	124	-0.736	0.0624	3/10/2010@17:23:30		
248383005	1	125	-0.877	0.0547	3/10/2010@17:24:25		
248383006	1	126	-0.944	0.0511	3/10/2010@17:25:19		
248408001	1	127	1.28	0.171	3/10/2010@17:26:13		
248408002	1	128	6.21	0.438	3/10/2010@17:27:07		
248408003	1	129	75.3	4.18	3/10/2010@17:28:01		
WCN100310-03	1	S3	104	5.72	3/10/2010@17:28:53		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			3.8 < 10.0				
Message			CCV Passed				

		Action	Continue				
DQM Test: < - Percent Relative Difference							
		Result:	3.8 < 10.0				
		Message	CCV Passed				
		Action	Continue				
WCN100310-08	1	S7	-1.42	0.0253	3/10/2010@17:30:44		CCB
		Known Conc:	0.00				
DQM Test: > + Concentration Limit							
		Result:	-1.42 < 5.00				
		Message	CCB Passed				
		Action	Continue				
DQM Test: < - Concentration Limit							
		Result:	-1.42 > -5.00				
		Message	CCB Passed				
		Action	Continue				
248408004	1	130	-0.845	0.0564	3/10/2010@17:32:33		
248408005	1	131	-0.117	0.0958	3/10/2010@17:33:26		
248408006	1	132	0.423	0.125	3/10/2010@17:34:20		
248408007	1	133	2.01	0.211	3/10/2010@17:35:13		
248408008	1	134	0.455	0.127	3/10/2010@17:36:06		
248408009	1	135	1.57	0.187	3/10/2010@17:36:59		
248408010	1	136	-1.32	0.0308	3/10/2010@17:37:54		
248408011	1	137	0.684	0.139	3/10/2010@17:38:49		
248408012	1	138	0.769	0.144	3/10/2010@17:39:43		
248408013	1	139	-0.833	0.0571	3/10/2010@17:40:38		
WCN100310-03	1	S3	104	5.72	3/10/2010@17:41:31		CCV
		Known Conc:	100				
DQM Test: > + Percent Relative Difference							
		Result:	3.8 < 10.0				
		Message	CCV Passed				
		Action	Continue				
DQM Test: < - Percent Relative Difference							
		Result:	3.8 < 10.0				
		Message	CCV Passed				
		Action	Continue				
WCN100310-08	1	S7	-0.935	0.0516	3/10/2010@17:43:21		CCB
		Known Conc:	0.00				
DQM Test: > + Concentration Limit							
		Result:	-0.935 < 5.00				
		Message	CCB Passed				
		Action	Continue				
DQM Test: < - Concentration Limit							
		Result:	-0.935 > -5.00				
		Message	CCB Passed				
		Action	Continue				
248408014	1	140	-0.494	0.0754	3/10/2010@17:45:11		
1202061972|961296|MB	1	141	12.6	0.782	3/10/2010@17:46:05		
1202061982|LCS	1	142	51.3	2.88	3/10/2010@17:46:59		
248321002	1	143	-0.134	0.0949	3/10/2010@17:47:53		
1202061973|DUP	1	144	-0.820	0.0578	3/10/2010@17:48:48		
1202061976|MS	1	145	103	5.68	3/10/2010@17:49:42		
1202061979|MSD	1	146	86.4	4.78	3/10/2010@17:50:35		
248547001	1	147	-1.23	0.0354	3/10/2010@17:51:28		
1202061975|DUP	1	148	-1.51	0.0202	3/10/2010@17:52:22		
1202061978|MS	1	149	74.2	4.12	3/10/2010@17:53:15		
WCN100310-03	1	S3	104	5.75	3/10/2010@17:54:08		CCV
		Known Conc:	100				
DQM Test: > + Percent Relative Difference							
		Result:	4.3 < 10.0				
		Message	CCV Passed				
		Action	Continue				
DQM Test: < - Percent Relative Difference							
		Result:	4.3 < 10.0				
		Message	CCV Passed				
		Action	Continue				
WCN100310-08	1	S7	-1.38	0.0274	3/10/2010@17:55:58		CCB
		Known Conc:	0.00				
DQM Test: > + Concentration Limit							

			Result:	-1.38 < 5.00				
			Message	CCB Passed				
			Action	Continue				
DQM Test: < - Concentration Limit								
			Result:	-1.38 > -5.00				
			Message	CCB Passed				
			Action	Continue				
1202061981	MSD	1	150	84.0	4.65	3/10/2010@17:57:47		
248605001		1	151	39.4	2.23	3/10/2010@17:58:42		
248622001		1	152	-0.368	0.0823	3/10/2010@17:59:37		
248622002		1	153	-0.636	0.0678	3/10/2010@18:00:32		
248622003		1	154	-0.771	0.0604	3/10/2010@18:01:26		
248622004		1	155	-0.412	0.0799	3/10/2010@18:02:21		
248622005		1	156	-0.857	0.0558	3/10/2010@18:03:15		
248622006		1	157	0.861	0.149	3/10/2010@18:04:10		
248626002		1	158	0.246	0.115	3/10/2010@18:05:04		
248629002		1	159	20.9	1.23	3/10/2010@18:05:58		
WCN100310-03		1	S3	104	5.75	3/10/2010@18:06:50		CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
			Result:	4.4 < 10.0				
			Message	CCV Passed				
			Action	Continue				
DQM Test: < - Percent Relative Difference								
			Result:	4.4 < 10.0				
			Message	CCV Passed				
			Action	Continue				
WCN100310-08		1	S7	-1.02	0.0470	3/10/2010@18:08:41		CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
			Result:	-1.02 < 5.00				
			Message	CCB Passed				
			Action	Continue				
DQM Test: < - Concentration Limit								
			Result:	-1.02 > -5.00				
			Message	CCB Passed				
			Action	Continue				
248668001		1	160	-1.80	0.00460	3/10/2010@18:10:31		
1202064174	DUP	1	161	-1.28	0.0327	3/10/2010@18:11:25		
1202064175	MS	1	162	76.1	4.22	3/10/2010@18:12:18		
1202064176	MSD	1	163	79.7	4.41	3/10/2010@18:13:12		
248668003		1	164	-1.22	0.0361	3/10/2010@18:14:05		
248668006		1	165	-1.44	0.0240	3/10/2010@18:14:58		
248690002		1	166	-1.12	0.0415	3/10/2010@18:15:54		
1202061974	DUP	1	167	-0.892	0.0539	3/10/2010@18:16:49		
1202061977	MS	1	168	102	5.63	3/10/2010@18:17:44		
1202061980	MSD	1	169	98.3	5.42	3/10/2010@18:18:39		
WCN100310-03		1	S3	105	5.77	3/10/2010@18:19:31		CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
			Result:	4.8 < 10.0				
			Message	CCV Passed				
			Action	Continue				
DQM Test: < - Percent Relative Difference								
			Result:	4.8 < 10.0				
			Message	CCV Passed				
			Action	Continue				
WCN100310-08		1	S7	-2.37	-0.0259	3/10/2010@18:21:22		CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
			Result:	-2.37 < 5.00				
			Message	CCB Passed				
			Action	Continue				
DQM Test: < - Concentration Limit								
			Result:	-2.37 > -5.00				
			Message	CCB Passed				
			Action	Continue				
1202061972	961296|MB	1	141	12.8	0.797	3/10/2010@18:23:12		

1202064171	962270	MB	1	170	-1.59	0.0162	3/10/2010@18:24:07		
1202064173	LCS		1	171	84.7	4.68	3/10/2010@18:25:01	250.00	
248632001			1	172	2.73	0.250	3/10/2010@18:25:56		
1202064172	DUP		1	173	-1.87	0.00117	3/10/2010@18:26:50		
248726001			1	174	-1.42	0.0252	3/10/2010@18:27:44		
248727001			1	175	-1.40	0.0261	3/10/2010@18:28:39		
1202061114	960944	MB	1	176	-1.77	0.00623	3/10/2010@18:29:33		
1202061116	LCS		1	177	77.2	4.28	3/10/2010@18:30:27	250.00	
247941001			1	178	-1.64	0.0137	3/10/2010@18:31:20		
WCN100310-03			1	S3	106	5.83	3/10/2010@18:32:13		CCV
Known Conc:				100					
DQM Test: > + Percent Relative Difference									
Result:				5.9 < 10.0					
Message				CCV Passed					
Action				Continue					
DQM Test: < - Percent Relative Difference									
Result:				5.9 < 10.0					
Message				CCV Passed					
Action				Continue					
WCN100310-08			1	S7	-0.983	0.0490	3/10/2010@18:34:04		CCB
Known Conc:				0.00					
DQM Test: > + Concentration Limit									
Result:				-0.983 < 5.00					
Message				CCB Passed					
Action				Continue					
DQM Test: < - Concentration Limit									
Result:				-0.983 > -5.00					
Message				CCB Passed					
Action				Continue					
247943001			1	179	-2.19	-0.0161	3/10/2010@18:35:54		
248227001			1	180	-1.83	0.00300	3/10/2010@18:36:47		
1202061115	DUP		1	181	-2.26	-0.0203	3/10/2010@18:37:43		
248228001			1	182	14.5	0.889	3/10/2010@18:38:38		
1202061972	961296	MB	1	141	-1.54	0.0186	3/10/2010@18:39:33		
WCN100310-03			1	S3	105	5.79	3/10/2010@18:40:26		CCV
Known Conc:				100					
DQM Test: > + Percent Relative Difference									
Result:				5.0 < 10.0					
Message				CCV Passed					
Action				Continue					
DQM Test: < - Percent Relative Difference									
Result:				5.0 < 10.0					
Message				CCV Passed					
Action				Continue					
WCN100310-08			1	S7	-1.35	0.0290	3/10/2010@18:42:16		CCB
Known Conc:				0.00					
DQM Test: > + Concentration Limit									
Result:				-1.35 < 5.00					
Message				CCB Passed					
Action				Continue					
DQM Test: < - Concentration Limit									
Result:				-1.35 > -5.00					
Message				CCB Passed					
Action				Continue					

Analyte Properties Table for OM_3-10-2010_14-44-38.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Calibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar

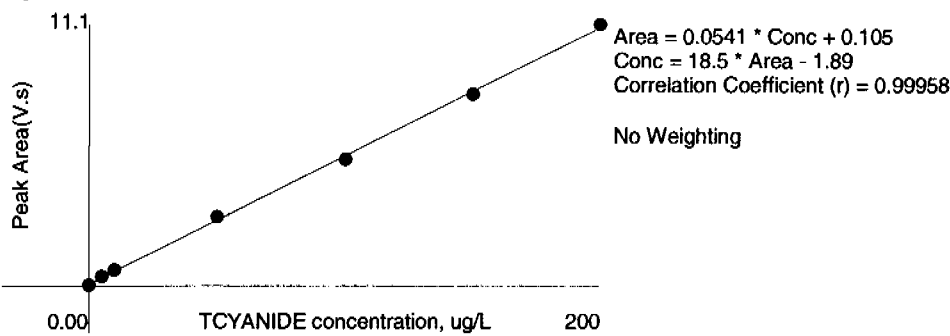
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

[illegible]

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	11.1	0.707	-1.3	3/10/2010	10:51:58
2	150	1	8.08	0.519	1.6	3/10/2010	10:52:50
3	100	1	5.35	0.347	3.0	3/10/2010	10:53:42
4	50.0	1	2.95	0.188	-5.0	3/10/2010	10:54:35
5	10.0	1	0.687	0.0433	-6.4	3/10/2010	10:55:28
6	5.00	1	0.407	0.0241	-8.2	3/10/2010	10:56:22
7	0.00	1	0.0471	0.00103		3/10/2010	10:57:16

Figure 1: TCYANIDE



Ion Chromatography

Prep Logbook

Ion Chromatography (IC)

Batch ID: 967025.0

Analyst: Virginia Winger

Method: EPA 300.0 PREP

Lab SOP: GL-GC-E-086 REV# 17

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202075489	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL
MS	1202075485	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL
MS	1202075486	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL
MSD	1202075487	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL
MSD	1202075488	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202075482 MB	22-MAR-2010 17:47:00	Soil	4	40	10	
1202075489 LCS	22-MAR-2010 17:47:00	Soil	4	40	10	
248250001	22-MAR-2010 17:47:00	Soil	4.37	40	9.15332	
1202075483 DUP (248250001)	22-MAR-2010 17:47:00	Soil	4.4	40	9.09091	
1202075485 MS (248250001)	22-MAR-2010 17:47:00	Soil	4.41	40	9.07029	
1202075487 MSD (248250001)	22-MAR-2010 17:47:00	Soil	4.38	40	9.13242	
248250002	22-MAR-2010 17:47:00	Soil	4.06	40	9.85222	
248250003	22-MAR-2010 17:47:00	Soil	4.53	40	8.83002	
248250004	22-MAR-2010 17:47:00	Soil	4.45	40	8.98876	
248374001	22-MAR-2010 17:47:00	Soil	4.37	40	9.15332	
248374002	22-MAR-2010 17:47:00	Soil	4.62	40	8.65801	
248374003	22-MAR-2010 17:47:00	Soil	4.69	40	8.52878	
248374004	22-MAR-2010 17:47:00	Soil	4.54	40	8.81057	
248374005	22-MAR-2010 17:47:00	Soil	4.72	40	8.47458	
248374006	22-MAR-2010 17:47:00	Soil	4.47	40	8.94855	
248374007	22-MAR-2010 17:47:00	Soil	4.08	40	9.80392	
248374008	22-MAR-2010 17:47:00	Soil	4.37	40	9.15332	
248374009	22-MAR-2010 17:47:00	Soil	4.01	40	9.97506	
248374010	22-MAR-2010 17:47:00	Soil	4.39	40	9.11162	
248374011	22-MAR-2010 17:47:00	Soil	4.62	40	8.65801	
248374012	22-MAR-2010 17:47:00	Soil	4.81	40	8.31601	
248374013	22-MAR-2010 17:47:00	Soil	4.1	40	9.7561	
1202075484 DUP (248374013)	22-MAR-2010 17:47:00	Soil	4.11	40	9.73236	

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Prep Logbook

Batch ID: 967025.0		Verified by:		Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
Analyst: Virginia Winingar				LCS	1202075489	GEL-ANION-4C Spiking Solution	UTC100224SPK	.8	mL
Method: EPA 300.0 PREP				MS	1202075485	GEL-ANION-4C Spiking Solution	UTC100224SPK	.8	mL
Lab SOP: GL-GC-E-086 REV# 17				MS	1202075486	GEL-ANION-4C Spiking Solution	UTC100224SPK	.8	mL
Instrument: Sartorius Balance B-001				MSD	1202075487	GEL-ANION-4C Spiking Solution	UTC100224SPK	.8	mL
				MSD	1202075488	GEL-ANION-4C Spiking Solution	UTC100224SPK	.8	mL

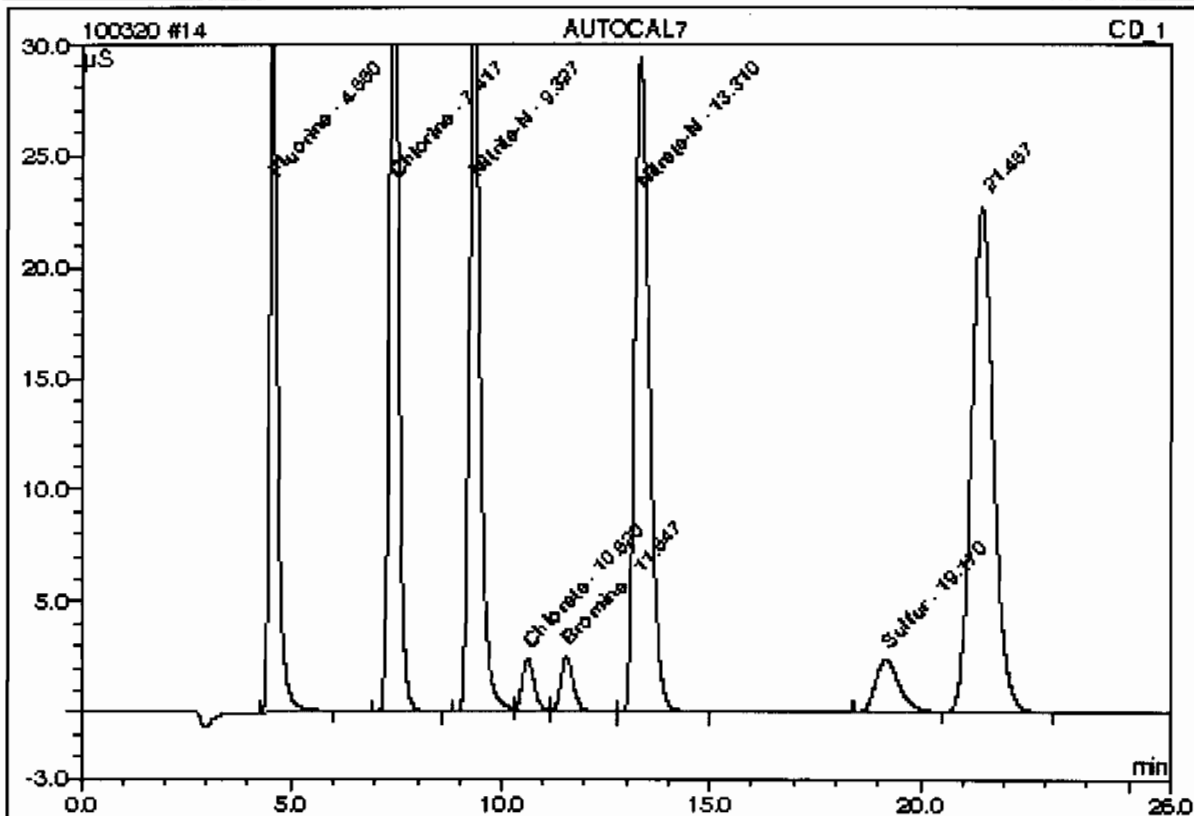
Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202075486 MS (248374013)	22-MAR-2010 17:47:00	Soil	4.15	40	9.63855	
1202075488 MSD (248374013)	22-MAR-2010 17:47:00	Soil	4.08	40	9.80392	
Reagent/Solvent Lot ID	Description	Amount	Comments:			

This is runlog for Sequence 100323.seq for IC5

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	03/04/10 14:23		1	100323	VH1
ICAL-06	03/04/10 14:50		1	100323	VH1
ICAL-05	03/04/10 15:16		1	100323	VH1
ICAL-04	03/04/10 15:42		1	100323	VH1
ICAL-03	03/04/10 16:08		1	100323	VH1
ICAL-02	03/04/10 16:34		1	100323	VH1
ICAL-01	03/04/10 17:00		1	100323	VH1
ICAL-07	03/04/10 14:23		1	100323	VH1
ICAL-06	03/04/10 14:50		1	100323	VH1
ICAL-05	03/04/10 15:16		1	100323	VH1
ICAL-04	03/04/10 15:42		1	100323	VH1
ICAL-03	03/04/10 16:08		1	100323	VH1
ICAL-02	03/04/10 16:34		1	100323	VH1
ICAL-01	03/04/10 17:00		1	100323	VH1

14 AUTOCAL7

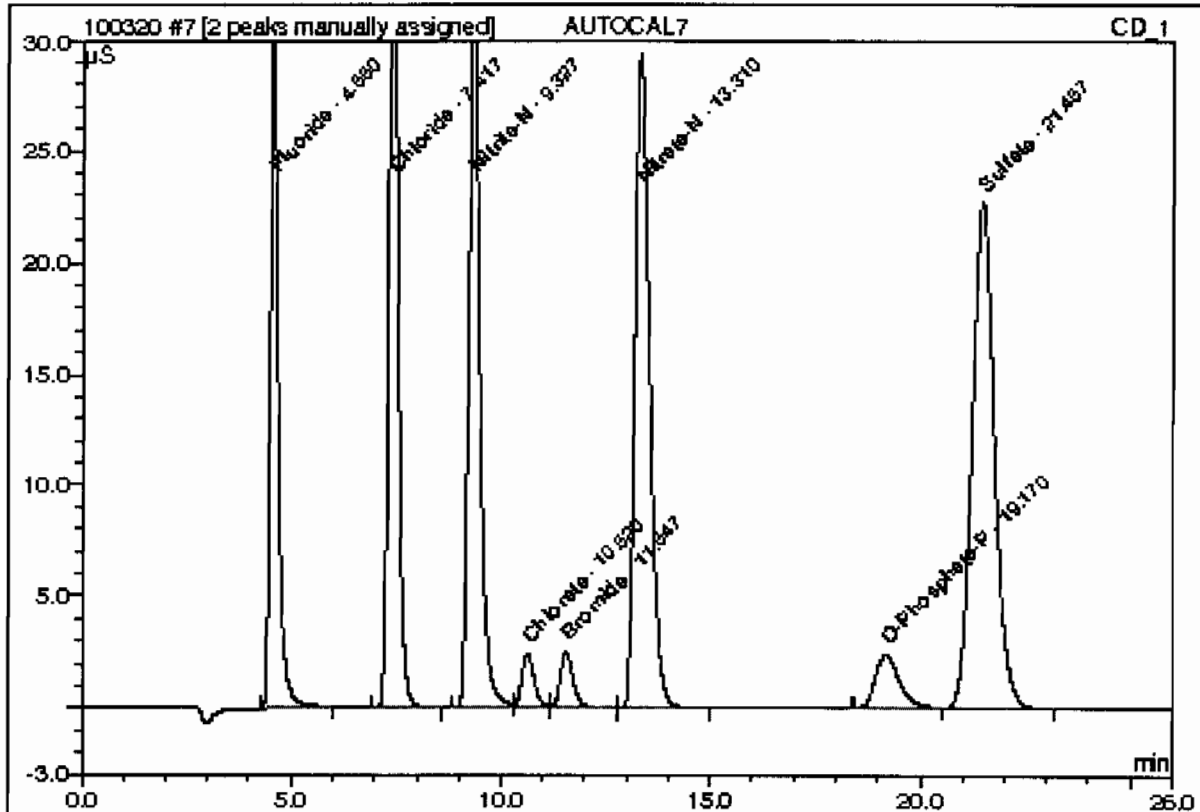
Sample Name:	AUTOCAL7	Injection Volume:	50.0
Vial Number:	53	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410b	Sample Amount:	1.0000
Recording Time:	3/4/2010 14:23	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGC086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.56	Fluorine	10.0000	10.1053		6.78975	12.13
2	7.42	Chlorine	20.0000	20.3932		10.40386	18.58
3	9.33	Nitrite-N	10.0000	10.0724		9.88714	17.30
4	10.62	Chlorate	5.0000	5.0959		0.84685	1.51
5	11.55	Bromine	5.0000	5.0748		0.89683	1.60
6	13.31	Nitrate-N	10.0000	10.1469		11.88216	21.22
n.a.	n.a.	O-Phosphate-P	5.0000	n.a.	n.a.	n.a.	n.a.
7	19.17	Sulfur	13.3320	12.8477		1.56584	2.80
Total:				73.7362	0.000	42.072	75.15

7 AUTOCAL7

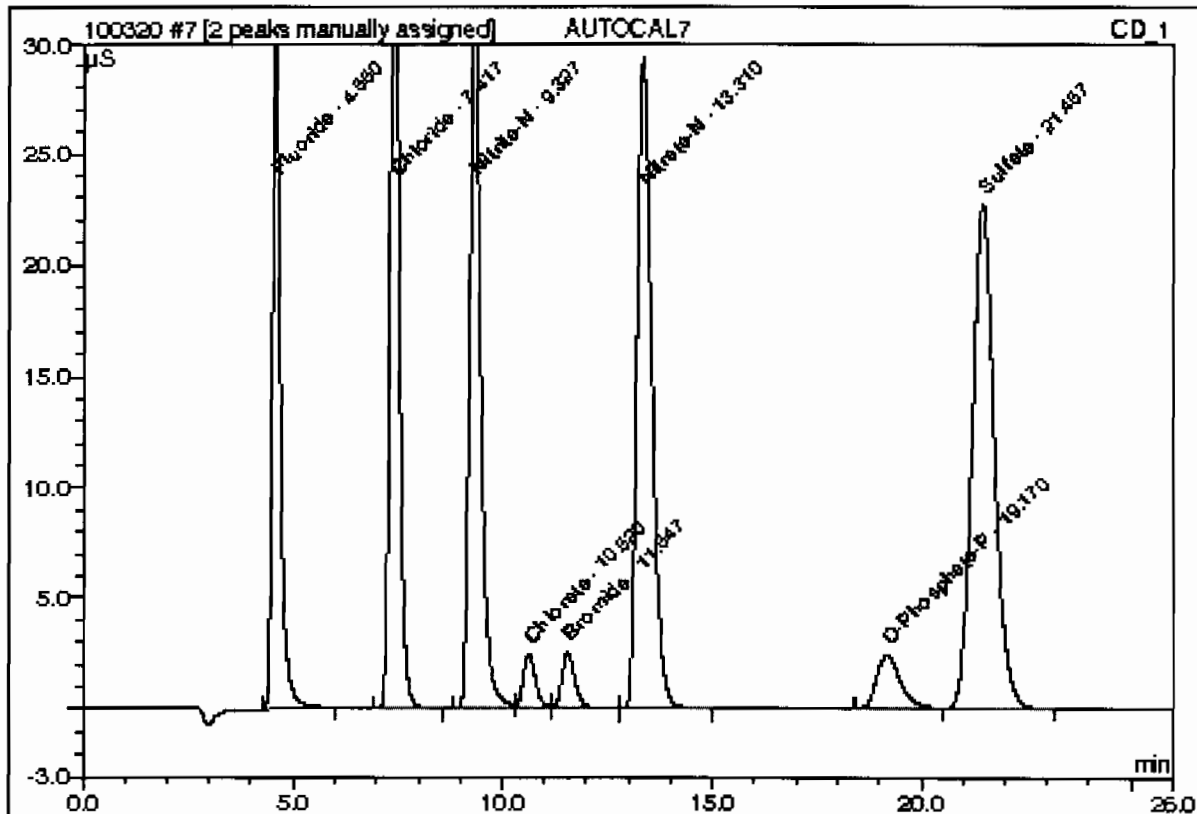
Sample Name:	AUTOCAL7	Injection Volume:	50.0
Vial Number:	53	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 14:23	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.56	Fluoride	10.0000	10.1024		6.78975	12.13
2	7.42	Chloride	20.0000	20.3991		10.40386	18.58
3	9.33	Nitrate-N	10.0000	10.0712		9.68714	17.30
4	10.82	Chlorate	5.0000	5.0916		0.84685	1.51
5	11.55	Bromide	5.0000	5.0721		0.89683	1.60
6	13.31	Nitrate-N	10.0000	10.1458		11.88216	21.22
7	19.17	O-Phosphate-P	5.0000	5.0452		1.56584	2.80
8	21.46	Sulfate	40.0000	72.9932		13.91454	24.85
Total:				138.9206	0.000	55.987	100.00

7 AUTOCAL7

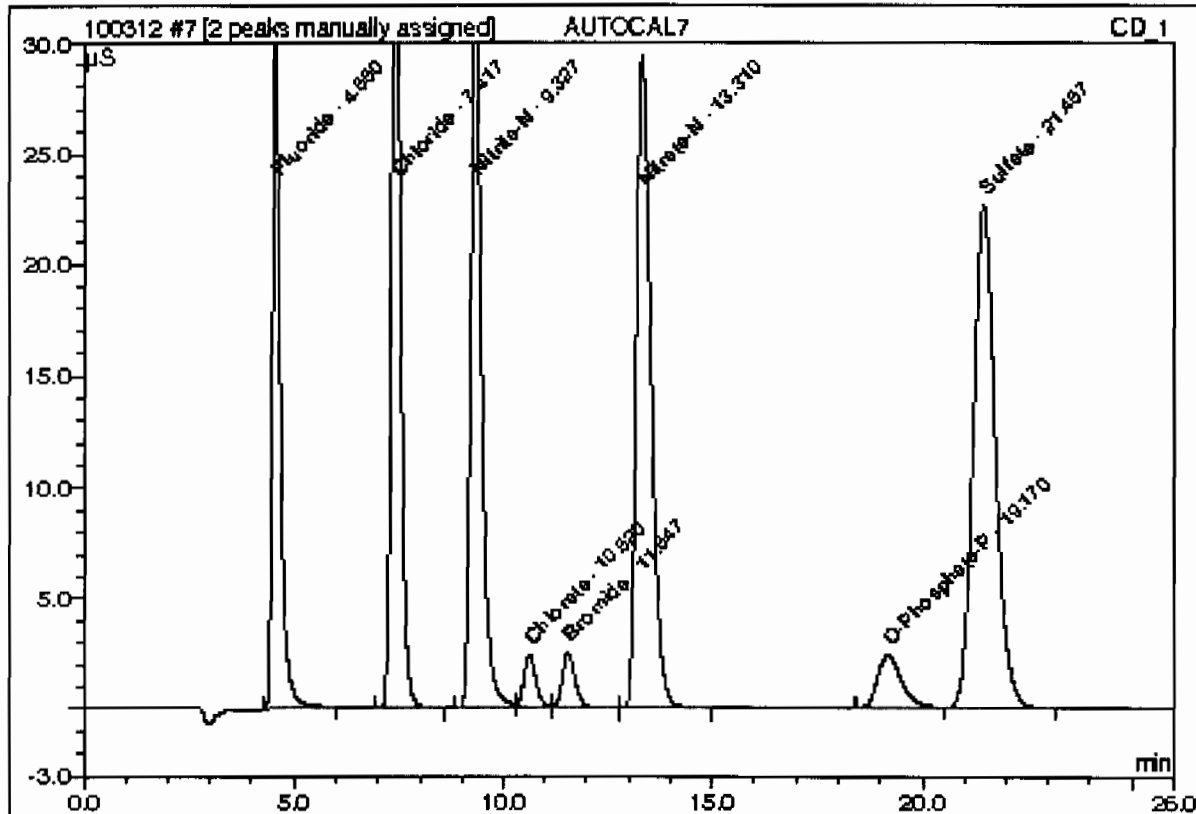
Sample Name:	AUTOCAL7	Injection Volume:	50.0
Vial Number:	53	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 14:23	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
1	4.56	Fluoride	10.0000	10.1053		6.78975	12.13
2	7.42	Chloride	20.0000	20.4150		10.40386	18.58
3	9.33	Nitrite-N	10.0000	10.0766		9.68714	17.30
4	10.62	Chlorate	5.0000	5.1012		0.84685	1.51
5	11.55	Bromide	5.0000	5.0772		0.89683	1.60
6	13.31	Nitrate-N	10.0000	10.1540		11.86216	21.22
7	19.17	O-Phosphate-P	5.0000	5.0452		1.56584	2.80
8	21.46	Sulfate	40.0000	40.4600		13.91454	24.85
Total:				106.4544	0.000	55.987	100.00

7 AUTOCL7

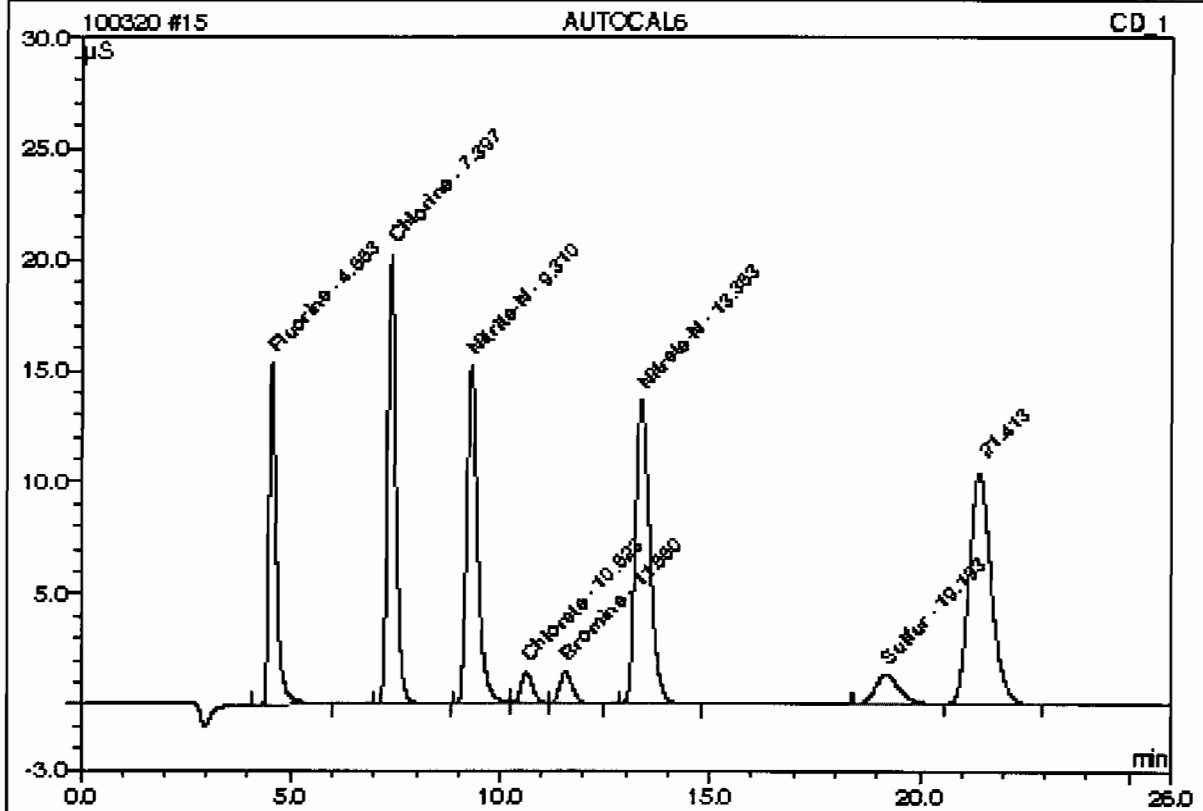
Sample Name:	AUTOCL7	Injection Volume:	50.0
Vial Number:	53	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 14:23	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;0058



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel.Area %
1	4.56	Fluoride	10.0000	10.1053		6.78975	12.13
2	7.42	Chloride	20.0000	20.4150		10.40386	18.58
3	9.33	Nitrite-N	10.0000	10.0766		9.88714	17.30
4	10.62	Chlorate	5.0000	5.1012		0.84685	1.51
5	11.55	Bromide	5.0000	5.0772		0.89683	1.60
6	13.31	Nitrate-N	10.0000	10.1540		11.88216	21.22
7	19.17	O-Phosphate-P	5.0000	5.0452		1.56584	2.80
8	21.46	Sulfate	40.0000	40.4800		13.91454	24.85
Total:				106.4544	0.000	55.987	100.00

15 AUTOCL6

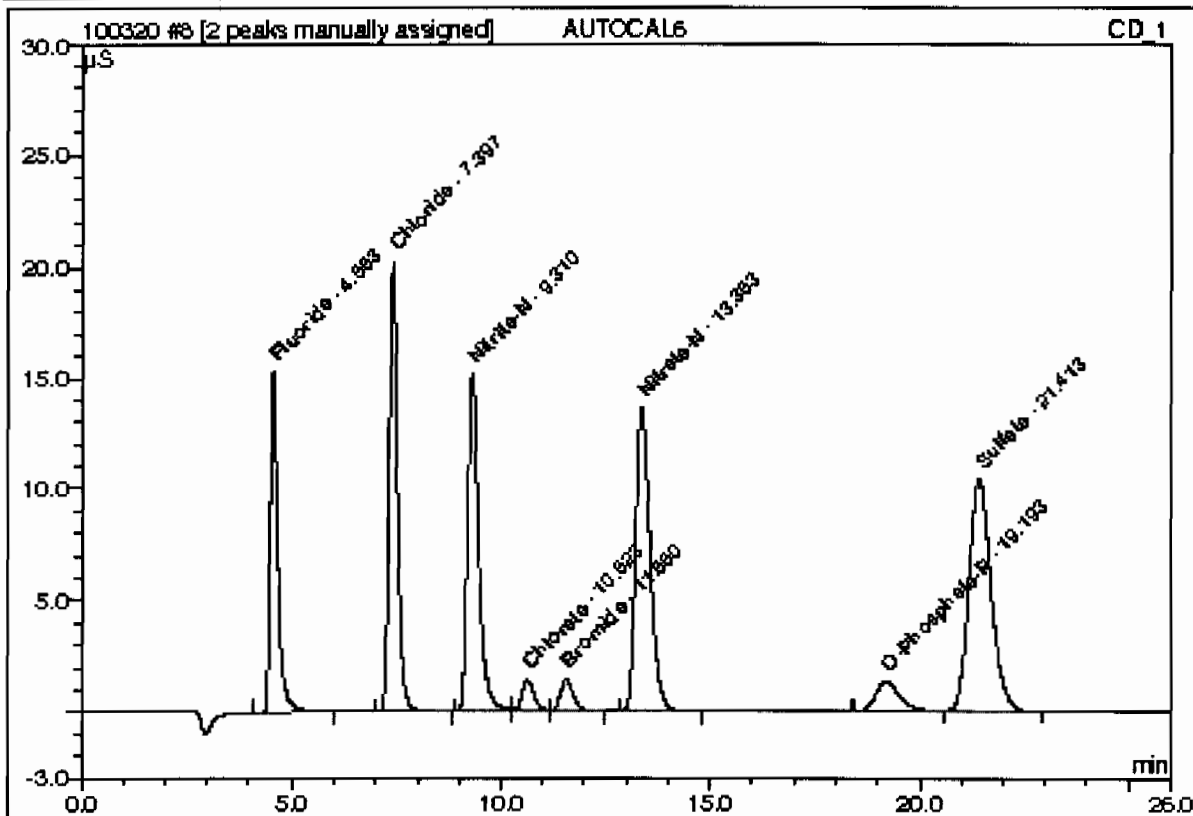
Sample Name:	AUTOCL6	Injection Volume:	50.0
Vial Number:	54	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410b	Sample Amount:	1.0000
Recording Time:	3/19/2010 14:50	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086,300;8056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluorine	5.0000	4.8013		3.20119	12.15
2	7.40	Chlorine	10.0000	9.1981		4.84497	17.83
3	9.31	Nitrite-N	5.0000	4.8662		4.83736	17.80
4	10.62	Chlorate	3.0000	2.9882		0.49085	1.86
5	11.55	Bromine	3.0000	2.9849		0.52386	1.99
6	13.35	Nitrate-N	5.0000	4.7160		5.44514	20.66
n.a.	n.a.	O-Phosphate-P	3.0000	n.a.	n.a.	n.a.	n.a.
7	19.19	Sulfur	6.6666	6.0785		0.90545	3.44
Total:				35.6332	0.000	19.849	75.33

8 AUTOCAL6

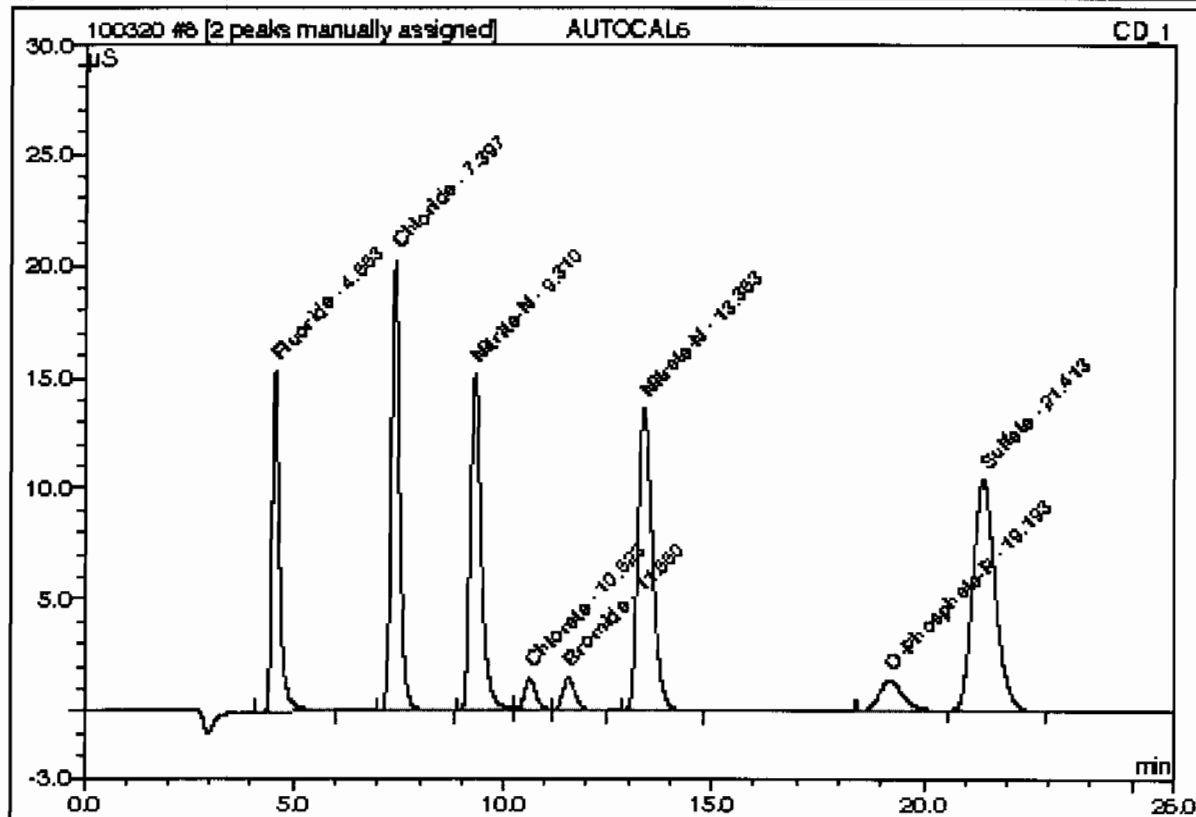
Sample Name:	AUTOCAL 6	Injection Volume:	50.0
Vial Number:	54	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 14:50	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area $\mu\text{S} \cdot \text{min}$	Rel. Area %
1	4.55	Fluoride	5.0000	4.8043		3.20119	12.15
2	7.40	Chloride	10.0000	9.1896		4.84497	17.83
3	9.31	Nitrite-N	5.0000	4.8670		4.83736	17.80
4	10.62	Chlorate	3.0000	2.9888		0.49085	1.86
5	11.55	Bromide	3.0000	2.9854		0.52386	1.99
6	13.35	Nitrate-N	5.0000	4.7165		5.44514	20.66
7	19.19	O-Phosphate-P	3.0000	2.9592		0.90545	3.44
8	21.41	Sulfate	20.0000	33.7849		6.50161	24.67
Total:				66.2957	0.000	26.350	100.00

8 AUTOCAL6

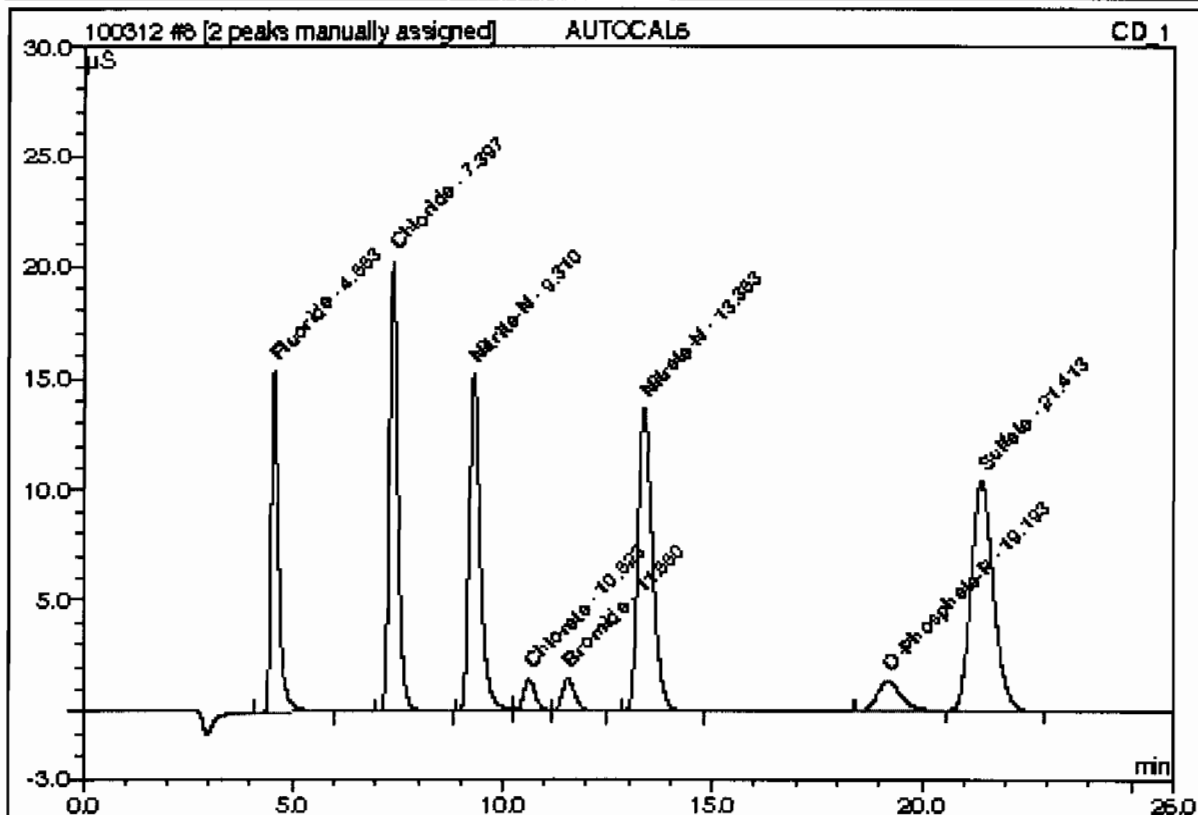
Sample Name:	AUTOCAL 6	Injection Volume:	50.0
Vial Number:	54	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 14:50	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel.Area %
1	4.55	Fluoride	5.0000	4.8013		3.20119	12.15
2	7.40	Chloride	10.0000	9.1707		4.64497	17.63
3	9.31	Nitrite-N	5.0000	4.6611		4.63736	17.60
4	10.62	Chlorate	3.0000	2.9859		0.49085	1.86
5	11.55	Bromide	3.0000	2.9839		0.52386	1.99
6	13.35	Nitrate-N	5.0000	4.7072		5.44514	20.66
7	19.19	O-Phosphate-P	3.0000	2.9592		0.90545	3.44
8	21.41	Sulfate	20.0000	19.0809		6.50161	24.67
Total:				51.5503	0.000	26.350	100.00

8 AUTOCAL6

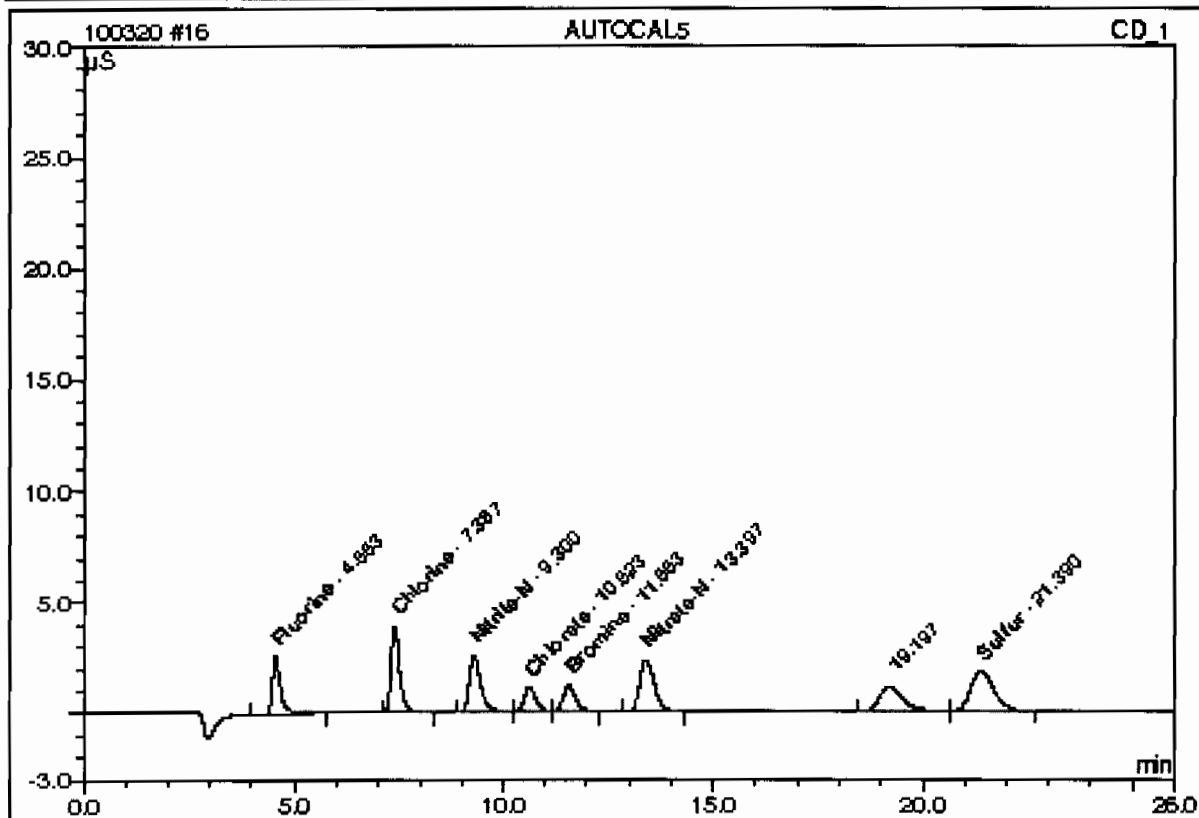
Sample Name:	AUTOCAL6	Injection Volume:	50.0
Vial Number:	54	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 14:50	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;0056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.55	Fluoride	5.0000	4.8013		3.20119	12.15
2	7.40	Chloride	10.0000	9.1707		4.84497	17.63
3	9.31	Nitrite-N	5.0000	4.8611		4.63736	17.60
4	10.62	Chlorate	3.0000	2.9859		0.49085	1.86
5	11.55	Bromide	3.0000	2.9839		0.52366	1.99
6	13.35	Nitrate-N	5.0000	4.7072		5.44514	20.66
7	19.19	O-Phosphate-P	3.0000	2.9592		0.90545	3.44
8	21.41	Sulfate	20.0000	19.0809		6.50161	24.67
Total:				51.5503	0.000	26.350	100.00

16 AUTOCAL5

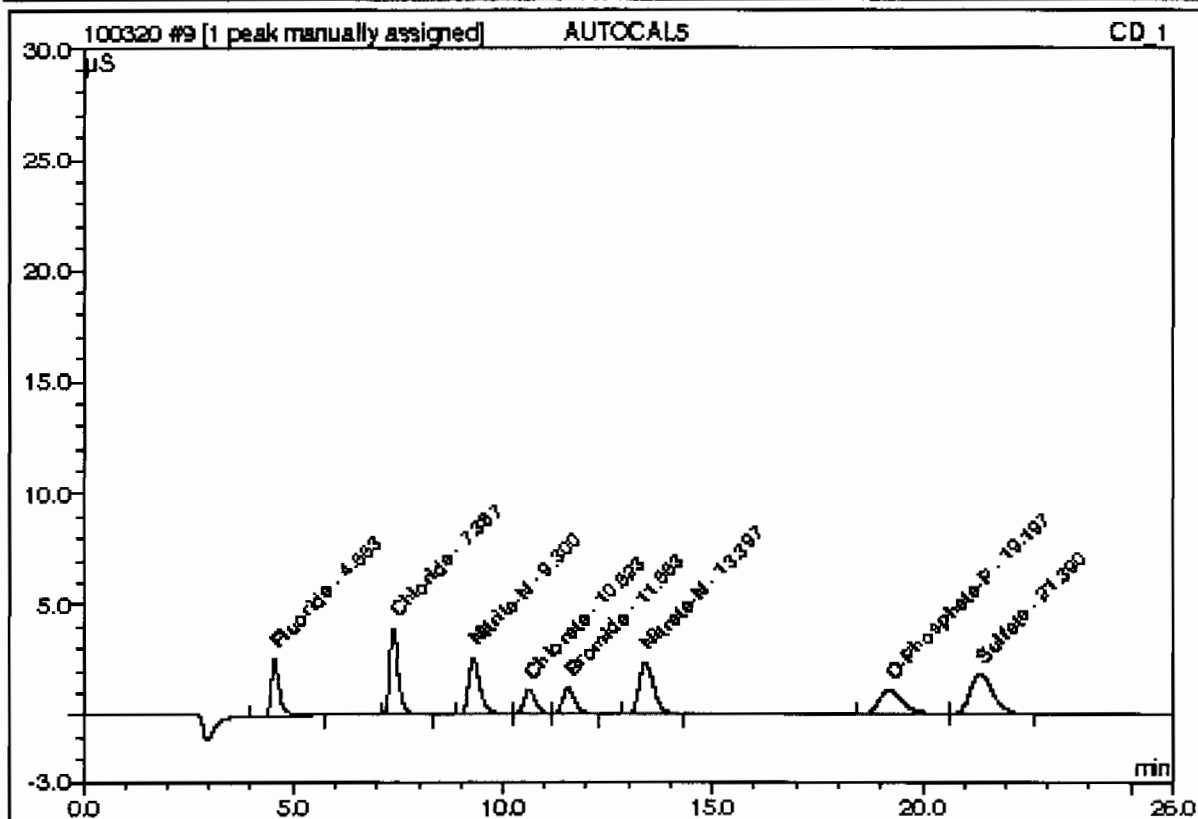
Sample Name:	AUTOCAL5	Injection Volume:	50.0
Vial Number:	55	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410b	Sample Amount:	1.0000
Recording Time:	3/4/2010 15:16	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.55	Fluorine	1.0000	0.9239		0.57776	9.81
2	7.39	Chlorine	2.0000	1.9883		0.93617	15.57
3	9.30	Nitrite-N	1.0000	0.9333		0.82271	13.68
4	10.62	Chlorate	2.5000	2.3242		0.37870	6.30
5	11.55	Bromine	2.5000	2.3659		0.41339	6.88
6	13.40	Nitrate-N	1.0000	0.9227		0.94898	15.78
n.a.	n.a.	O-Phosphate-P	2.5000	n.a.	n.a.	n.a.	n.a.
8	21.39	Sulfur	1.3332	8.9413		1.18473	19.71
Total:				18.3994	0.000	5.262	87.53

9 AUTOCAL5

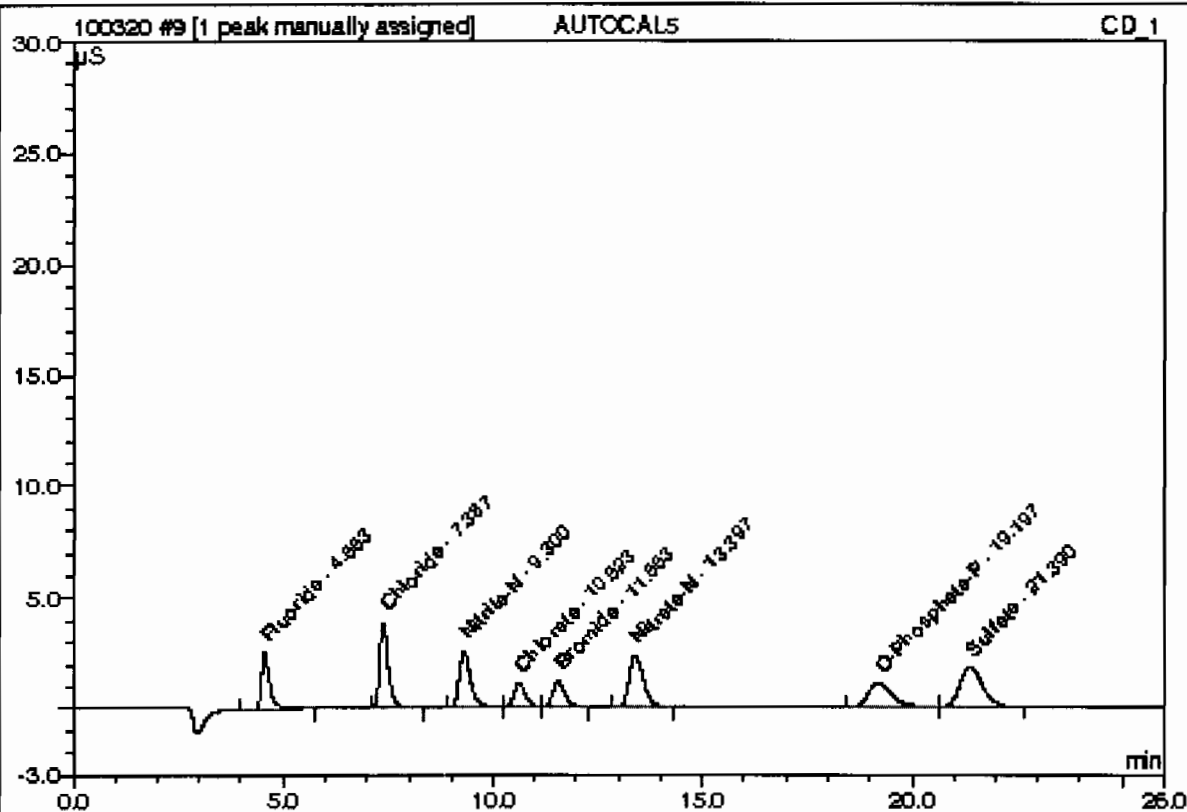
Sample Name:	AUTOCAL5	Injection Volume:	50.0
Vial Number:	55	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 15:18	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.55	Fluoride	1.0000	0.9311		0.57776	9.61
2	7.39	Chloride	2.0000	1.9705		0.93617	15.57
3	9.30	Nitrite-N	1.0000	0.9357		0.82271	13.68
4	10.62	Chlorate	2.5000	2.3263		0.37870	6.30
5	11.55	Bromide	2.5000	2.3673		0.41339	6.88
6	13.40	Nitrate-N	1.0000	0.9243		0.94898	15.78
7	19.20	O-Phosphate-P	2.5000	2.4675		0.74977	12.47
8	21.39	Sulfate	4.0000	5.6629		1.18473	19.71
Total:				17.5856	0.000	6.012	100.00

9 AUTOCAL5

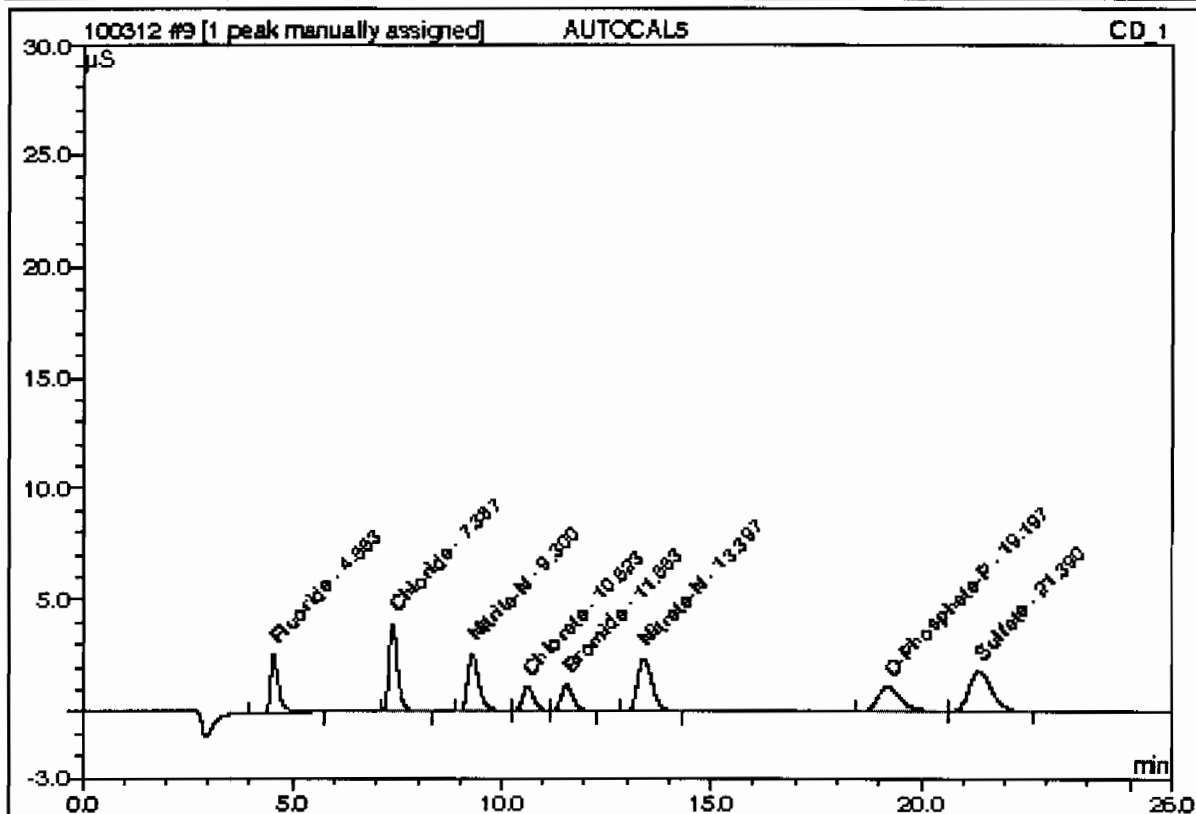
Sample Name:	AUTOCAL5	Injection Volume:	50.0
Vial Number:	55	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 15:16	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.55	Fluoride	1.0000	0.9239		0.57776	9.61
2	7.39	Chloride	2.0000	1.9292		0.93617	15.57
3	9.30	Nitrite-N	1.0000	0.9213		0.82271	13.68
4	10.62	Chlorate	2.5000	2.3194		0.37870	6.30
5	11.55	Bromide	2.5000	2.3636		0.41339	6.88
6	13.40	Nitrate-N	1.0000	0.9027		0.94898	15.78
7	19.20	O-Phosphate-P	2.5000	2.4675		0.74977	12.47
8	21.39	Sulfate	4.0000	3.7326		1.18473	19.71
Total:				15.5805	0.000	6.012	100.00

9 AUTOCAL5

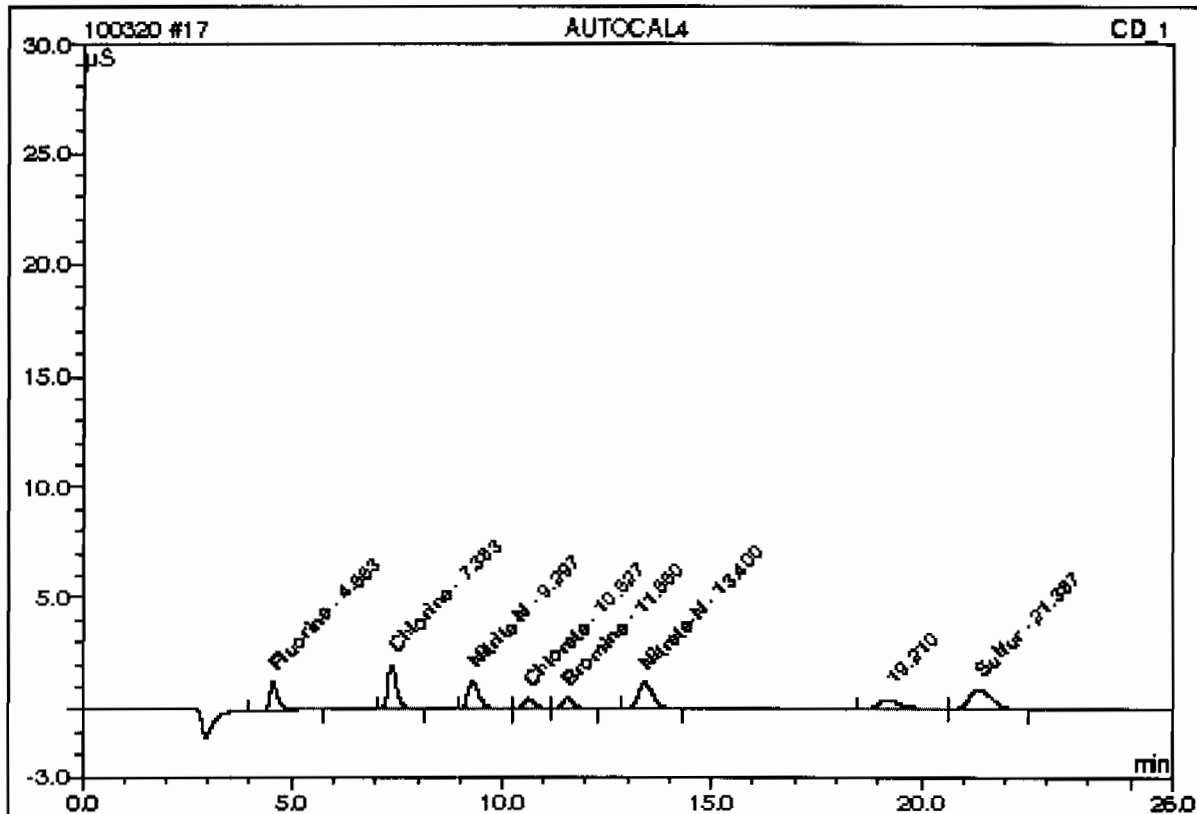
Sample Name:	AUTOCAL5	Injection Volume:	50.0
Vial Number:	55	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 15:16	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGC086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area $\mu\text{S} \cdot \text{min}$	Rel. Area %
1	4.55	Fluoride	1.0000	0.9239		0.57776	9.61
2	7.39	Chloride	2.0000	1.9292		0.93617	15.57
3	9.30	Nitrite-N	1.0000	0.9213		0.82271	13.68
4	10.62	Chlorate	2.5000	2.3194		0.37870	6.30
5	11.55	Bromide	2.5000	2.3638		0.41339	6.88
6	13.40	Nitrate-N	1.0000	0.9027		0.94898	15.78
7	19.20	O-Phosphate-P	2.5000	2.4675		0.74977	12.47
8	21.39	Sulfate	4.0000	3.7326		1.18473	19.71
Total:				15.5605	0.000	6.012	100.00

17 AUTOCAL4

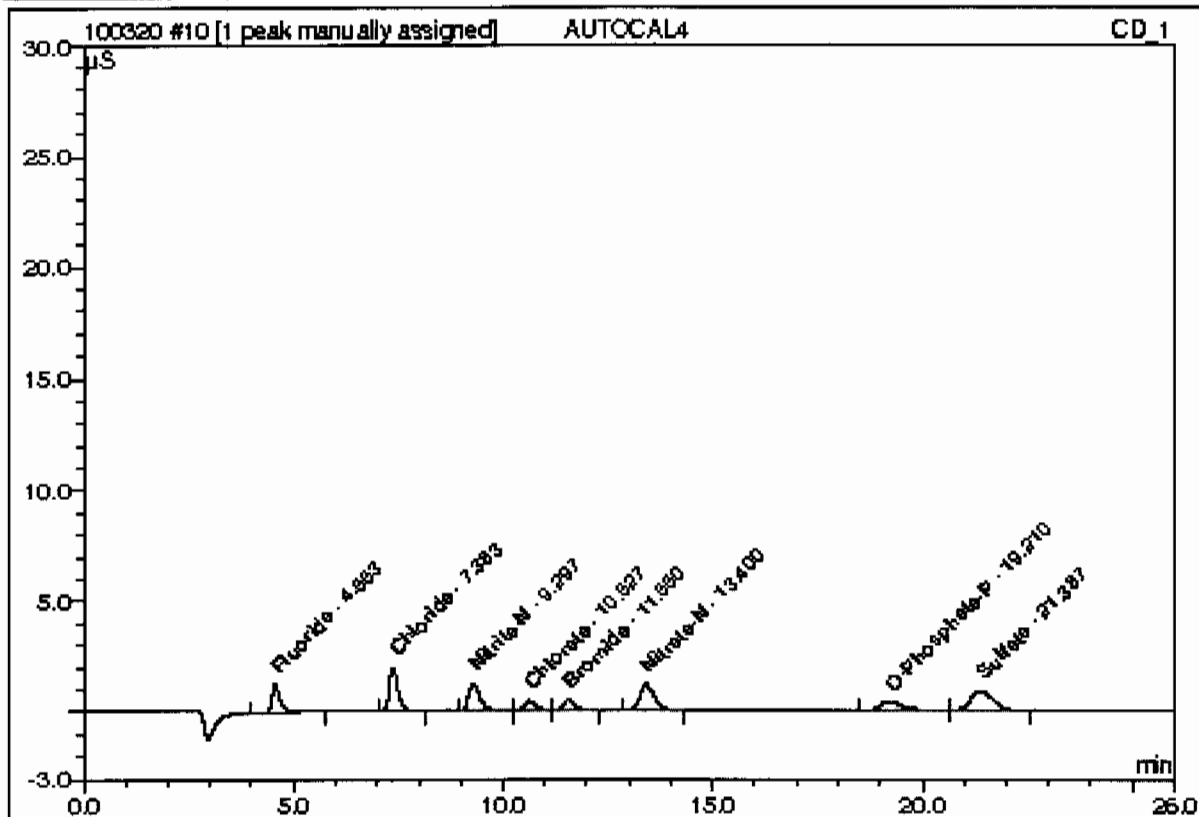
Sample Name:	AUTOCAL4	Injection Volume:	50.0
Vial Number:	55	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410b	Sample Amount:	1.0000
Recording Time:	3/4/2010 15:42	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.55	Fluorine	0.5000	0.5069		0.29564	10.35
2	7.38	Chlorine	1.0000	1.1063		0.48247	16.89
3	9.30	Nitrite-N	0.5000	0.5036		0.40590	14.21
4	10.63	Chlorate	1.0000	0.9818		0.15198	5.32
5	11.55	Bromine	1.0000	0.9917		0.16816	5.89
6	13.40	Nitrate-N	0.5000	0.5217		0.47368	16.58
n.a.	n.a.	O-Phosphate-P	1.0000	n.a.	n.a.	n.a.	n.a.
8	21.39	Sulfur	0.6666	2.8453		0.59002	20.65
Total:				7.4573	0.000	2.568	89.89

10 AUTOCAL4

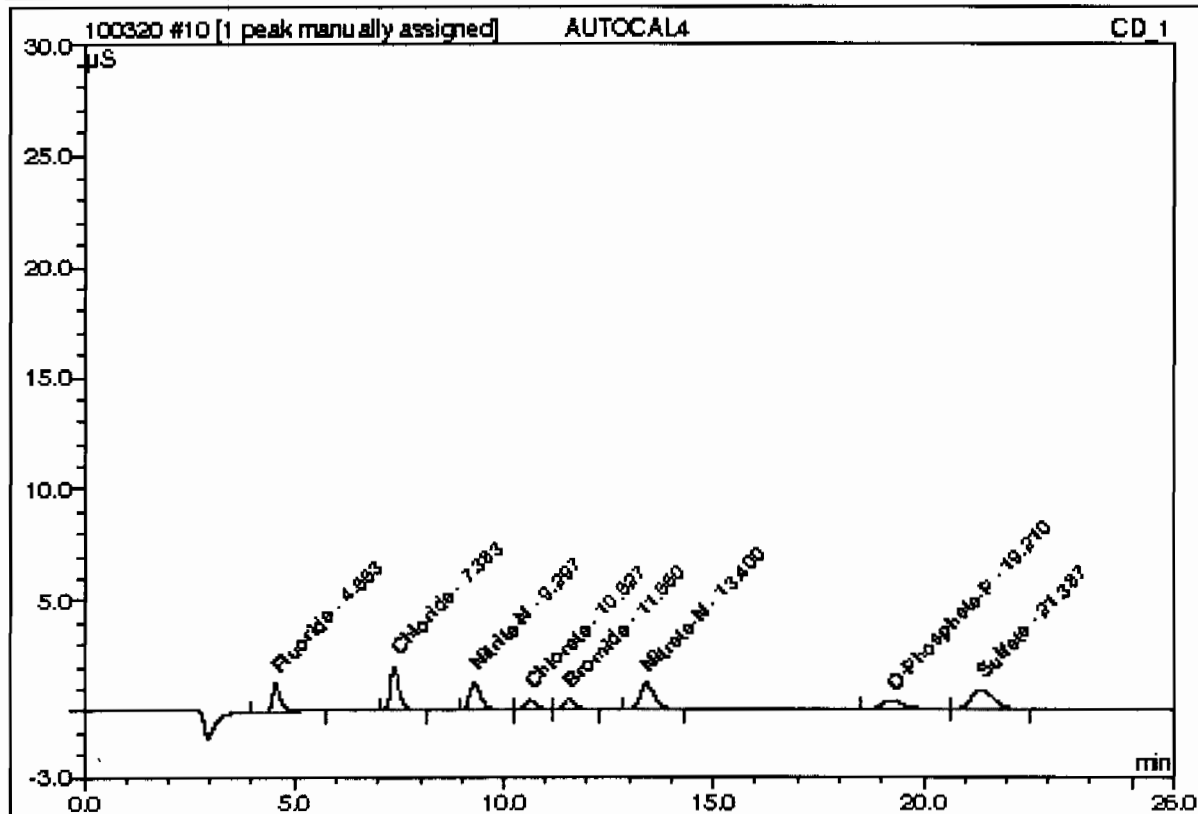
Sample Name:	AUTOCAL4	Injection Volume:	50.0
Vial Number:	55	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 15:42	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.55	Fluoride	0.5000	0.5146		0.29564	10.35
2	7.38	Chloride	1.0000	1.0874		0.48247	16.89
3	9.30	Nitrite-N	0.5000	0.5061		0.40590	14.21
4	10.63	Chlorate	1.0000	0.9871		0.15198	5.32
5	11.55	Bromide	1.0000	0.9953		0.16816	5.89
6	13.40	Nitrate-N	0.5000	0.5235		0.47368	16.58
7	19.21	O-Phosphate-P	1.0000	1.0113		0.28875	10.11
8	21.39	Sulfate	2.0000	2.5173		0.59002	20.85
Total:				8.1425	0.000	2.857	100.00

10 AUTOCAL4

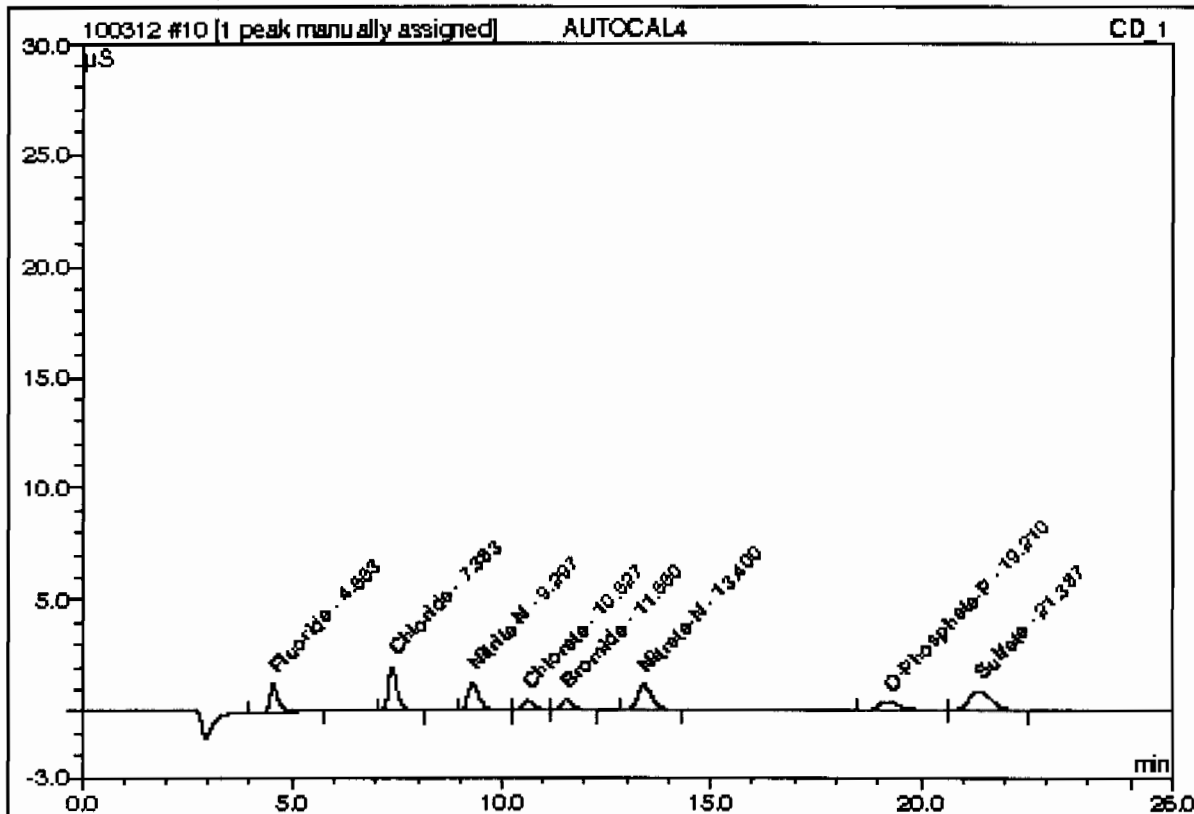
Sample Name:	AUTOCAL4	Injection Volume:	50.0
Vial Number:	55	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 15:42	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE08;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.55	Fluoride	0.5000	0.5069		0.29564	10.35
2	7.38	Chloride	1.0000	1.0433		0.48247	16.89
3	9.30	Nitrite-N	0.5000	0.4909		0.40590	14.21
4	10.63	Chlorate	1.0000	0.9722		0.15198	5.32
5	11.55	Bromide	1.0000	0.9875		0.16816	5.89
6	13.40	Nitrate-N	0.5000	0.5005		0.47368	16.58
7	19.21	O-Phosphate-P	1.0000	1.0113		0.28875	10.11
8	21.39	Sulfate	2.0000	2.0158		0.59002	20.85
Total:				7.5285	0.000	2.857	100.00

10 AUTOCAL4

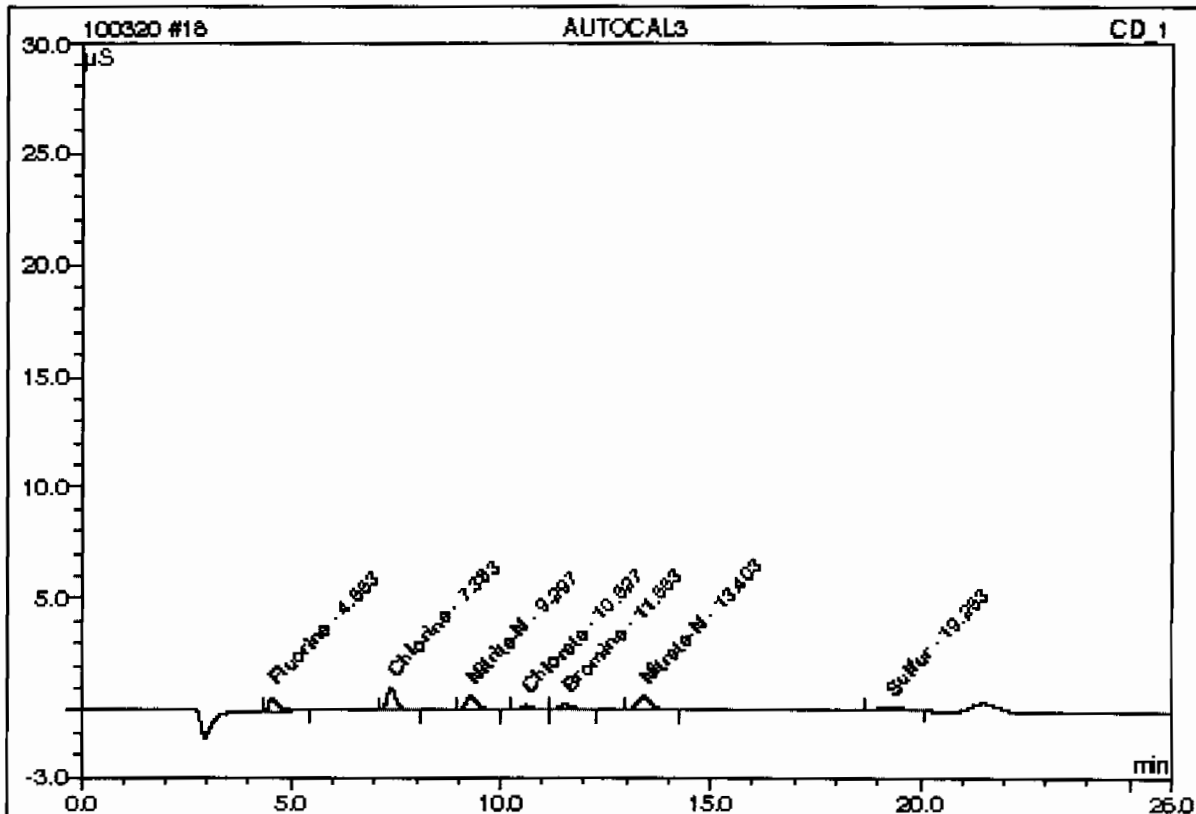
Sample Name:	AUTOCAL4	Injection Volume:	50.0
Vial Number:	55	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 15:42	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;0056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluoride	0.5000	0.5069		0.29564	10.35
2	7.38	Chloride	1.0000	1.0433		0.48247	16.89
3	9.30	Nitrite-N	0.5000	0.4909		0.40590	14.21
4	10.63	Chlorate	1.0000	0.9722		0.15198	5.32
5	11.55	Bromide	1.0000	0.9875		0.16816	5.89
6	13.40	Nitrate-N	0.5000	0.5005		0.47368	16.58
7	19.21	O-Phosphate-P	1.0000	1.0113		0.28875	10.11
8	21.39	Sulfate	2.0000	2.0158		0.59002	20.65
Total:				7.5285	0.000	2.857	100.00

18 AUTOCAL3

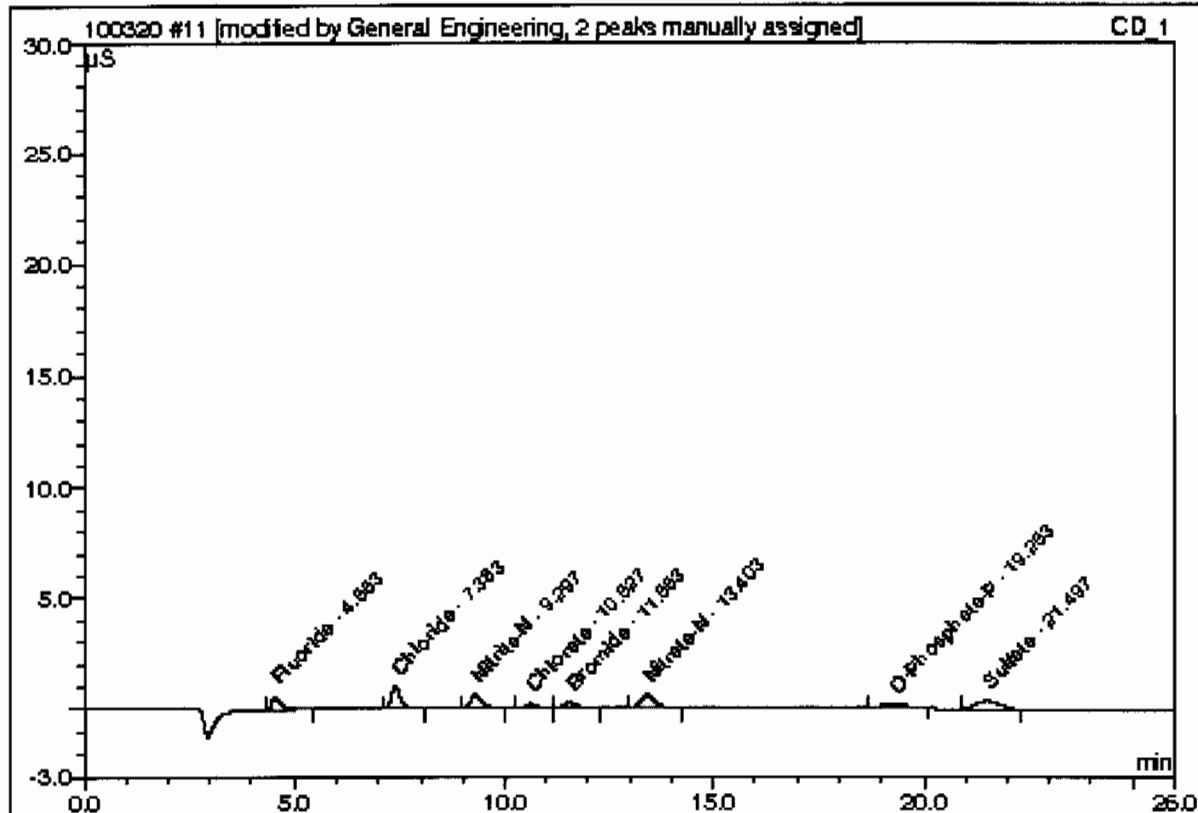
Sample Name:	AUTOCAL3	Injection Volume:	50.0
Vial Number:	55	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410b	Sample Amount:	1.0000
Recording Time:	3/4/2010 16:08	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluorine	0.2500	0.2772		0.14021	12.88
2	7.38	Chlorine	0.5000	0.6458		0.24562	22.56
3	9.30	Nitrite-N	0.2500	0.2894		0.19817	18.20
4	10.63	Chlorate	0.5000	0.5279		0.07531	6.92
5	11.55	Bromine	0.5000	0.5268		0.08520	7.82
6	13.40	Nitrate-N	0.2500	0.3208		0.23559	21.64
n.a.	n.a.	O-Phosphate-P	0.5000	n.a.	n.a.	n.a.	n.a.
7	19.25	Sulfur	0.3333	-2.0877		0.10878	9.99
Total:				0.5003	0.000	1.089	100.00

11 AUTOCAL3

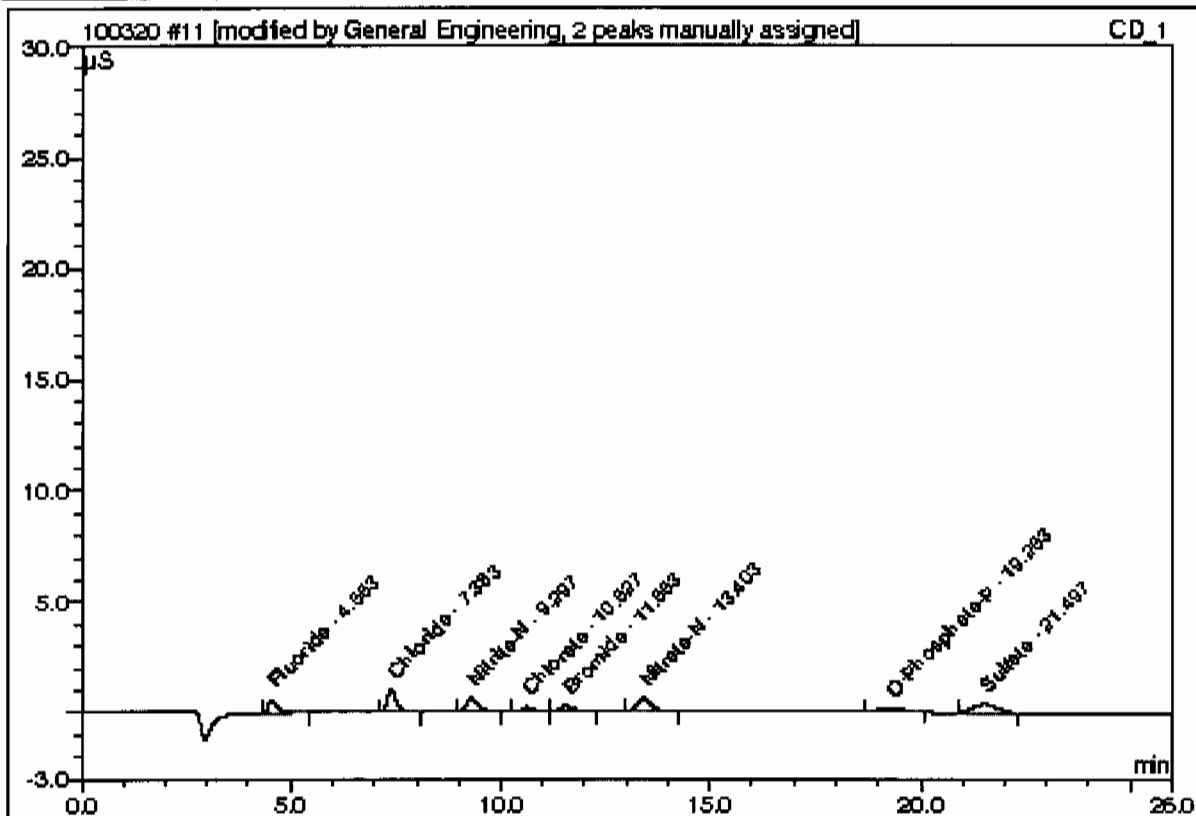
Sample Name:	AUTOCAL3	Injection Volume:	50.0
Vial Number:	55	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 16:08	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.55	Fluoride	0.2500	0.2851		0.14021	10.28
2	7.38	Chloride	0.5000	0.6264		0.24582	17.97
3	9.30	Nitrite-N	0.2500	0.2920		0.19817	14.50
4	10.63	Chlorate	0.5000	0.5342		0.07531	5.51
5	11.55	Bromide	0.5000	0.5311		0.08520	6.23
6	13.40	Nitrate-N	0.2500	0.3226		0.23559	17.23
7	19.25	O-Phosphate-P	0.5000	0.4428		0.10878	7.96
8	21.50	Sulfate	1.0000	0.9683		0.27825	20.35
Total:				3.9026	0.000	1.367	100.00

11 AUTOCAL3

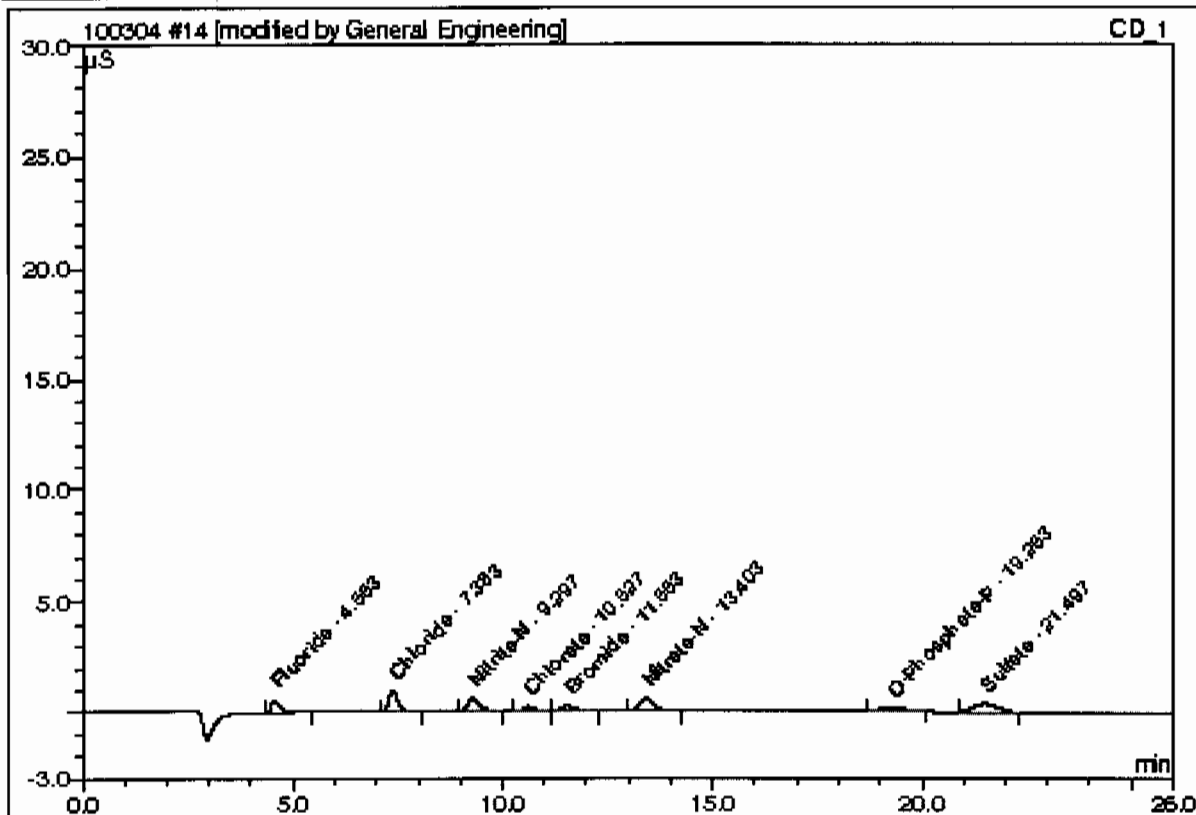
Sample Name:	AUTOCAL3	Injection Volume:	50.0
Vial Number:	55	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 16:08	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588; GLGC086; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.55	Fluoride	0.2500	0.2772		0.14021	10.26
2	7.38	Chloride	0.5000	0.5809		0.24562	17.97
3	9.30	Nitrite-N	0.2500	0.2763		0.19817	14.50
4	10.63	Chlorate	0.5000	0.5166		0.07531	5.51
5	11.55	Bromide	0.5000	0.5219		0.08520	6.23
6	13.40	Nitrate-N	0.2500	0.2991		0.23559	17.23
7	19.25	O-Phosphate-P	0.5000	0.4428		0.10878	7.96
8	21.50	Sulfate	1.0000	1.1158		0.27825	20.35
Total:				4.0306	0.000	1.367	100.00

14 AUTOCAL3

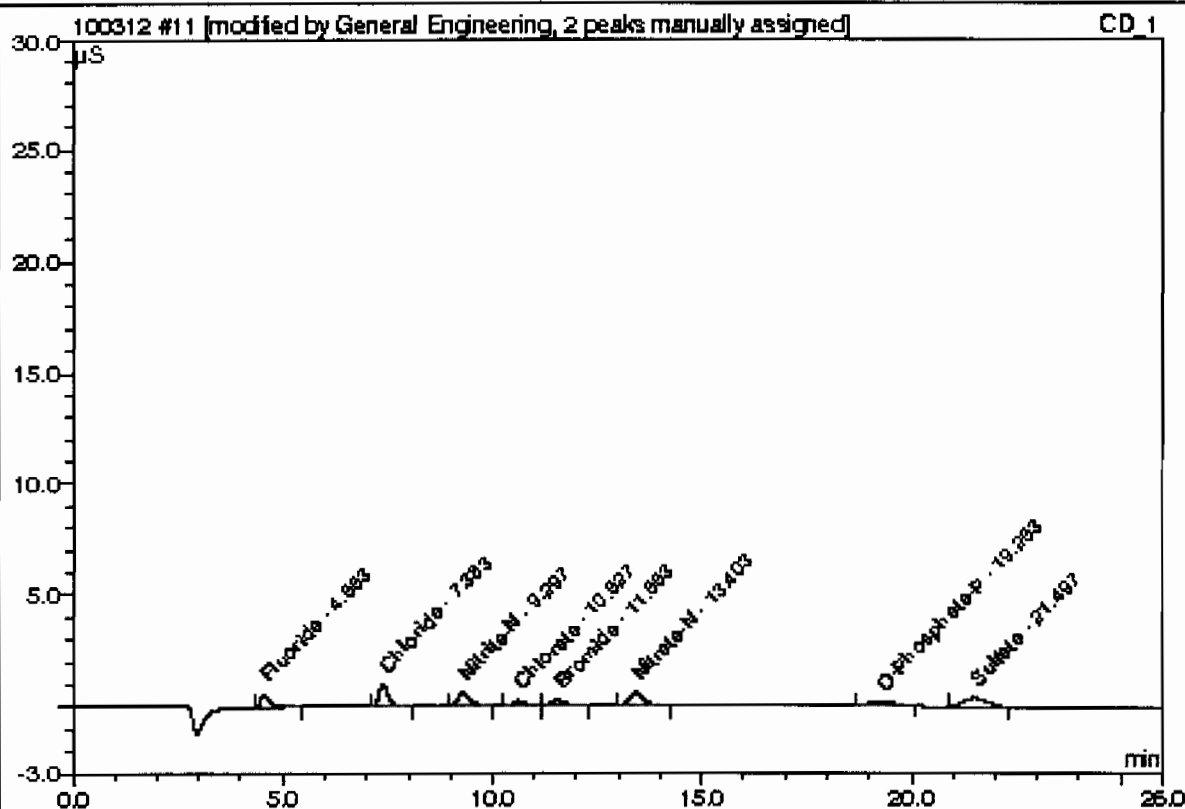
Sample Name:	AUTOCAL3	Injection Volume:	50.0
Vial Number:	55	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 16:08	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.55	Fluoride	0.2500	0.2772		0.14021	10.26
2	7.38	Chloride	0.5000	0.5809		0.24562	17.97
3	9.30	Nitrite-N	0.2500	0.2763		0.19817	14.50
4	10.63	Chlorate	0.5000	0.5166		0.07531	5.51
5	11.55	Bromide	0.5000	0.5219		0.08520	6.23
6	13.40	Nitrate-N	0.2500	0.2991		0.23559	17.23
7	19.25	O-Phosphate-P	0.5000	0.4428		0.10878	7.96
8	21.50	Sulfate	1.0000	1.1158		0.27825	20.35
Total:				4.0306	0.000	1.367	100.00

11 AUTOCAL3

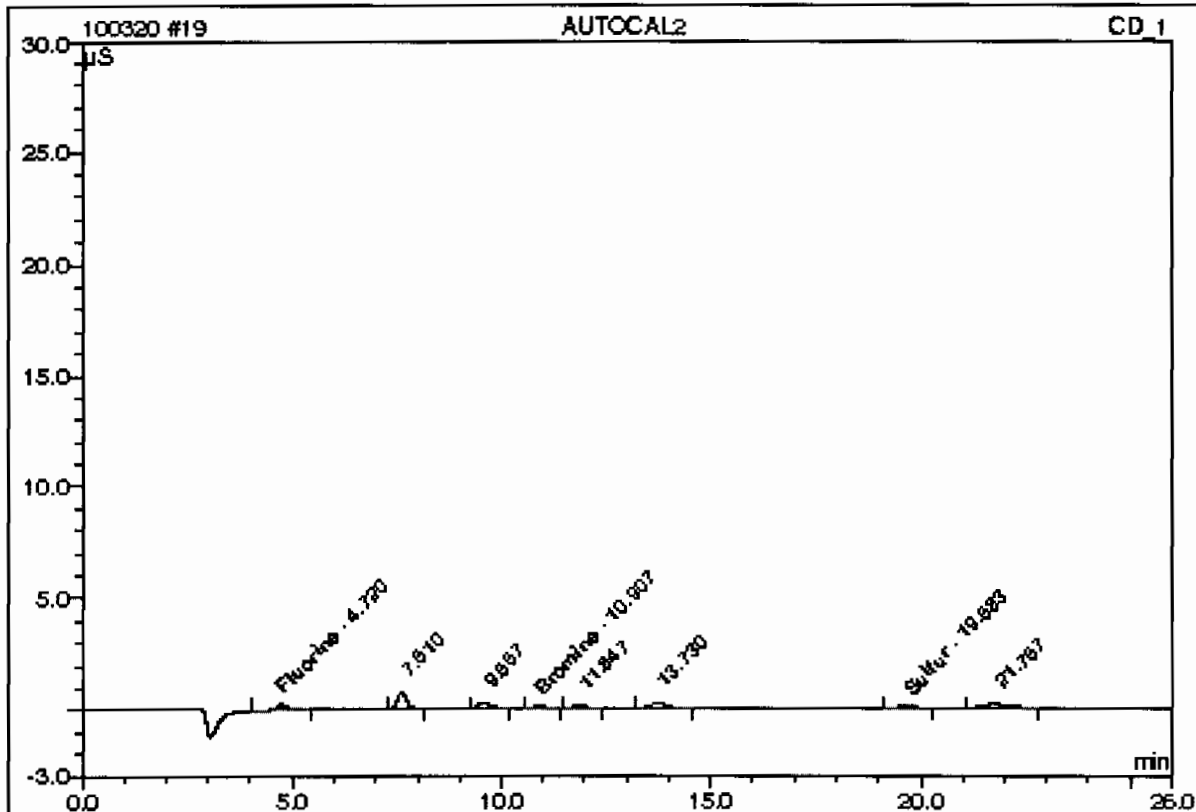
Sample Name:	AUTOCAL3	Injection Volume:	50.0
Vial Number:	55	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 16:08	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;0056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.55	Fluoride	0.2500	0.2772		0.14021	10.26
2	7.38	Chloride	0.5000	0.5809		0.24562	17.97
3	9.30	Nitrite-N	0.2500	0.2763		0.19817	14.50
4	10.63	Chlorate	0.5000	0.5166		0.07531	5.51
5	11.55	Bromide	0.5000	0.5219		0.08520	6.23
6	13.40	Nitrate-N	0.2500	0.2991		0.23559	17.23
7	19.25	O-Phosphate-P	0.5000	0.4428		0.10878	7.96
8	21.50	Sulfate	1.0000	1.1158		0.27825	20.35
Total:				4.0306	0.000	1.367	100.00

19 AUTOCAL2

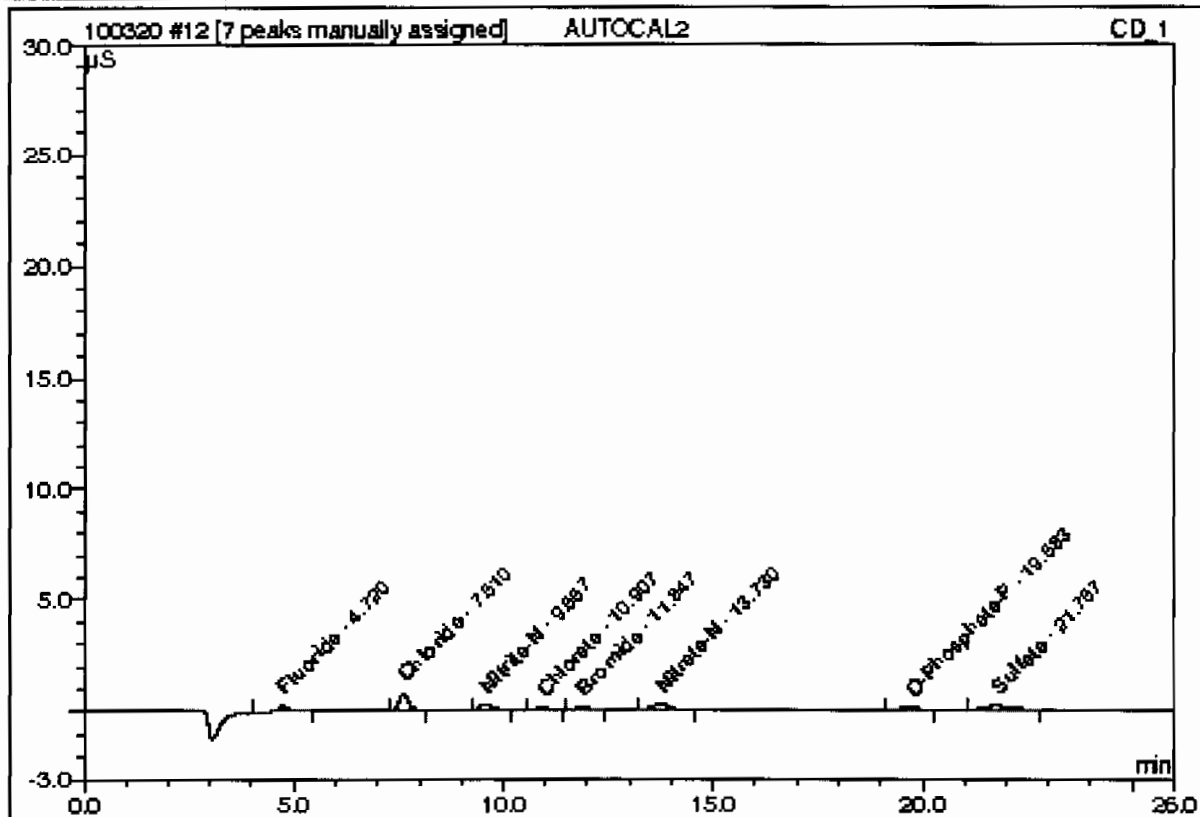
Sample Name:	AUTOCAL2	Injection Volume:	50.0
Vial Number:	54	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410b	Sample Amount:	1.0000
Recording Time:	3/4/2010 16:34	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.72	Fluorine	0.1000	0.1654		0.06456	10.19
n.a.	n.a.	Chlorine	0.2000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.1000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.2000	n.a.	n.a.	n.a.	n.a.
4	10.91	Bromine	0.2000	0.2063		0.02800	4.42
n.a.	n.a.	Nitrate-N	0.1000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	19.68	Sulfur	0.1333	-2.9575		0.02392	3.78
Total:				-2.5857	0.000	0.116	18.38

12 AUTOCAL2

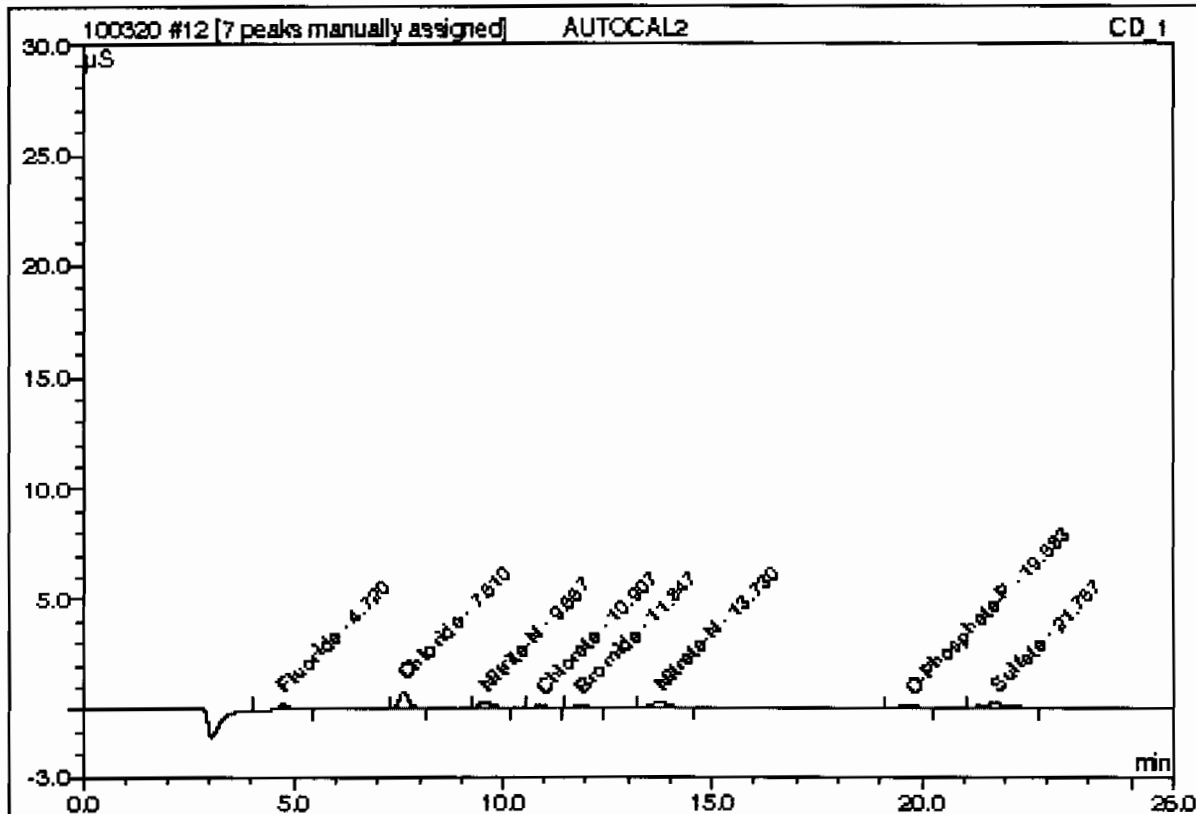
Sample Name:	AUTOCAL2	Injection Volume:	50.0
Vial Number:	54	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 16:34	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.72	Fluoride	0.1000	0.1734		0.06456	10.19
2	7.81	Chloride	0.2000	0.5056		0.18356	28.97
3	9.57	Nitrate-N	0.1000	0.1681		0.07789	12.29
4	10.91	Chlorate	0.2000	0.2547		0.02800	4.42
5	11.85	Bromide	0.2000	0.2322		0.03177	5.01
6	13.73	Nitrate-N	0.1000	0.2106		0.10276	16.22
7	19.68	O-Phosphate-P	0.2000	0.1748		0.02392	3.78
8	21.77	Sulfate	0.4000	0.0374		0.12115	19.12
Total:				1.7568	0.000	0.634	100.00

12 AUTOCAL2

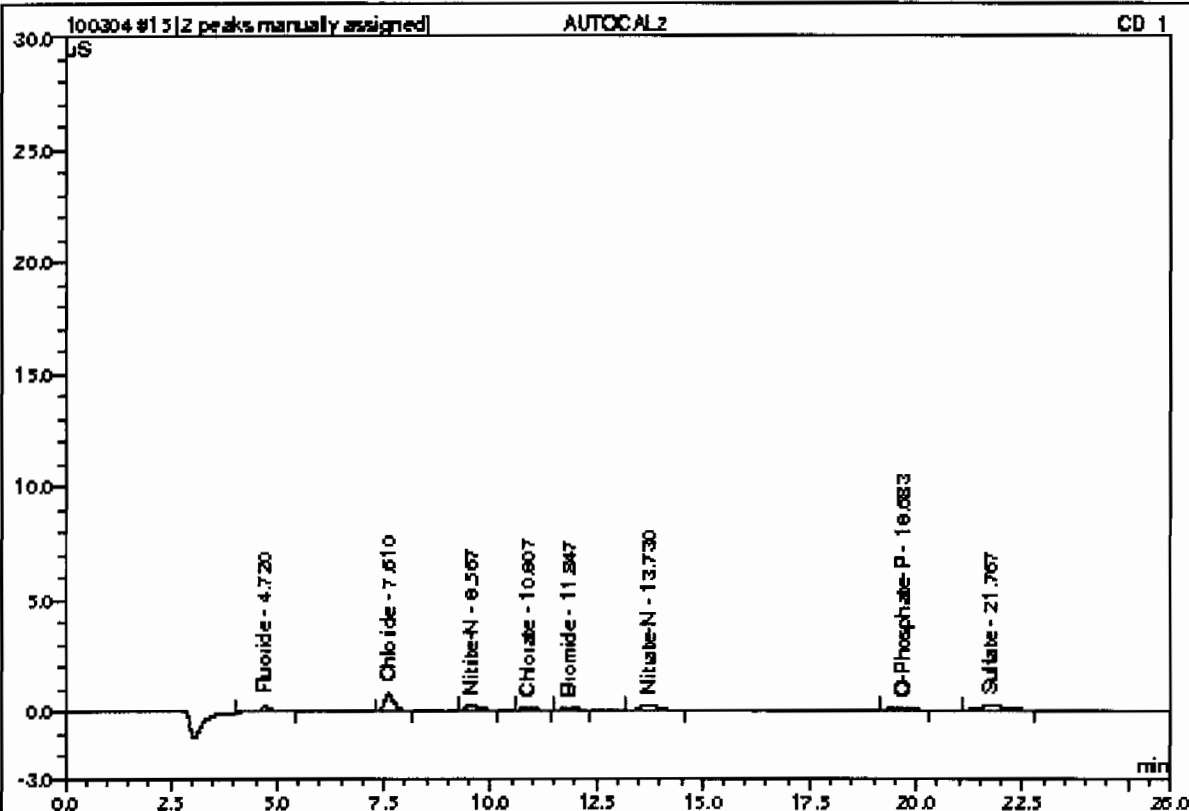
Sample Name:	AUTOCAL2	Injection Volume:	50.0
Vial Number:	54	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 16:34	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.72	Fluoride	0.1000	0.1654		0.06456	10.19
2	7.61	Chloride	0.2000	0.4597		0.18356	28.97
3	9.57	Nitrite-N	0.1000	0.1521		0.07789	12.29
4	10.91	Chlorate	0.2000	0.2355		0.02800	4.42
5	11.85	Bromide	0.2000	0.2220		0.03177	5.01
6	13.73	Nitrate-N	0.1000	0.1867		0.10276	16.22
7	19.68	O-Phosphate-P	0.2000	0.1748		0.02392	3.78
8	21.77	Sulfate	0.4000	0.6623		0.12115	19.12
Total:				2.2585	0.000	0.634	100.00

15 AUTOCL2

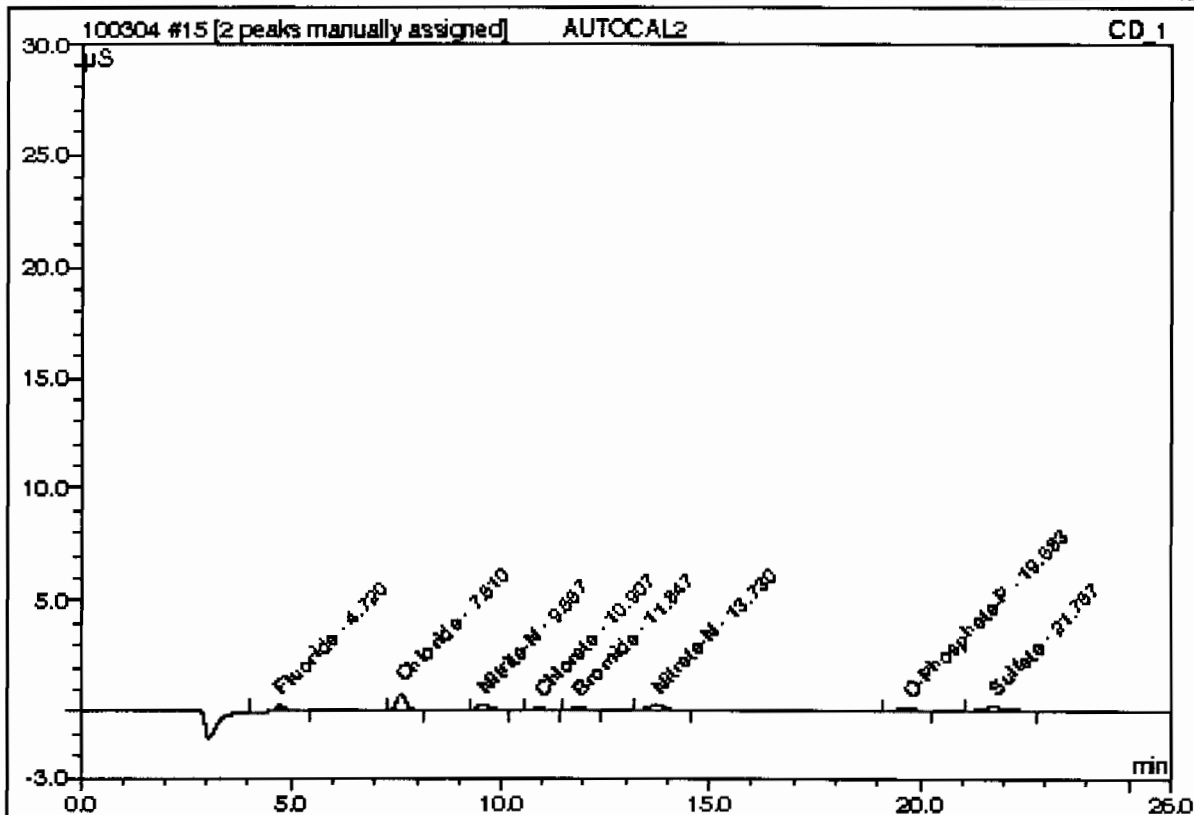
Sample Name:	AUTOCL2	Injection Volume:	50.0
Vial Number:	54	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 16:34	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGC086;300;0056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.72	Fluoride	0.1000	0.1654		0.06456	10.19
2	7.61	Chloride	0.2000	0.4597		0.18356	28.97
3	9.57	Nitrite-N	0.1000	0.1521		0.07789	12.29
4	10.91	Chlorate	0.2000	0.2355		0.02800	4.42
5	11.85	Bromide	0.2000	0.2220		0.03177	5.01
6	13.73	Nitrate-N	0.1000	0.1867		0.10276	16.22
7	19.68	O-Phosphate-P	0.2000	0.1748		0.02392	3.78
8	21.77	Sulfate	0.4000	0.6623		0.12115	19.12
Total:				2.2585	0.000	0.634	100.00

15 AUTOCAL2

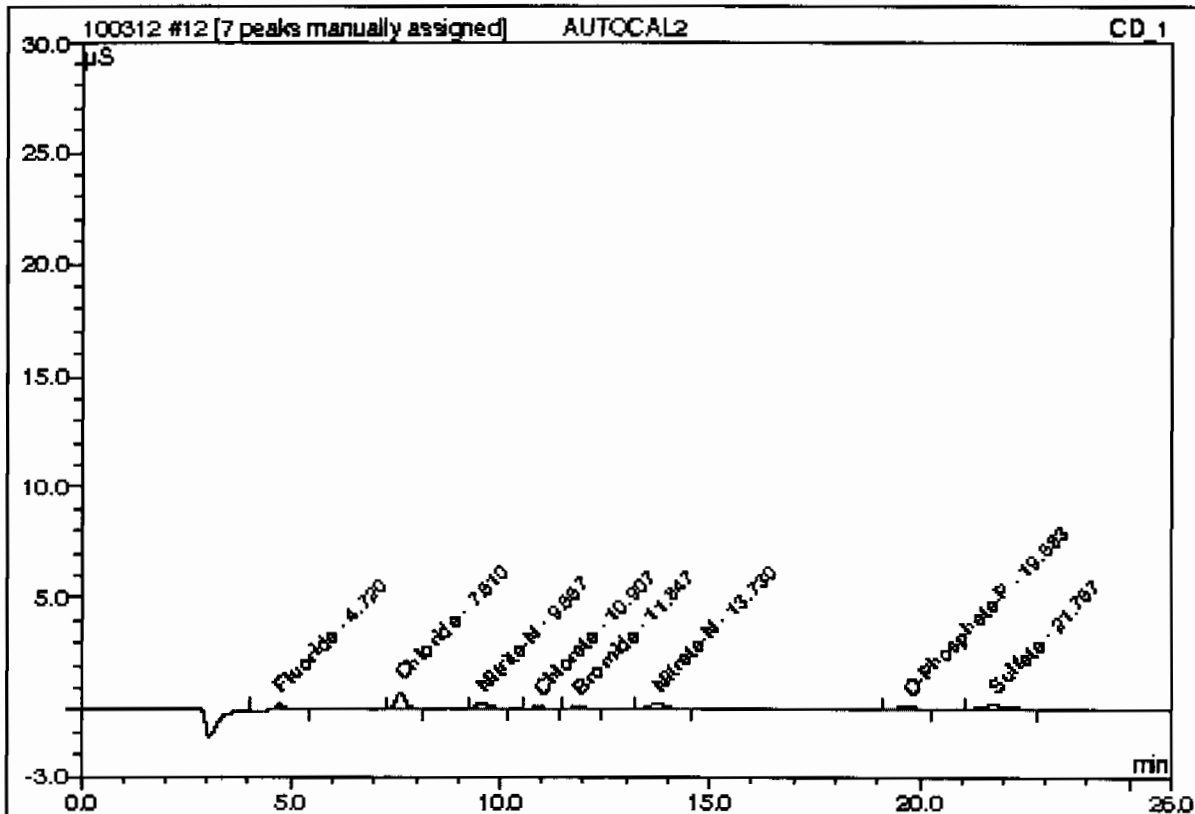
Sample Name:	AUTOCAL2	Injection Volume:	50.0
Vial Number:	54	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 16:34	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.72	Fluoride	0.1000	0.1654		0.06456	10.19
2	7.81	Chloride	0.2000	0.4597		0.18356	28.97
3	9.57	Nitrite-N	0.1000	0.1521		0.07789	12.29
4	10.91	Chlorate	0.2000	0.2355		0.02800	4.42
5	11.85	Bromide	0.2000	0.2220		0.03177	5.01
6	13.73	Nitrate-N	0.1000	0.1867		0.10276	16.22
7	19.68	O-Phosphate-P	0.2000	0.1748		0.02392	3.78
8	21.77	Sulfate	0.4000	0.6623		0.12115	19.12
Total:				2.2585	0.000	0.634	100.00

12 AUTOCAL2

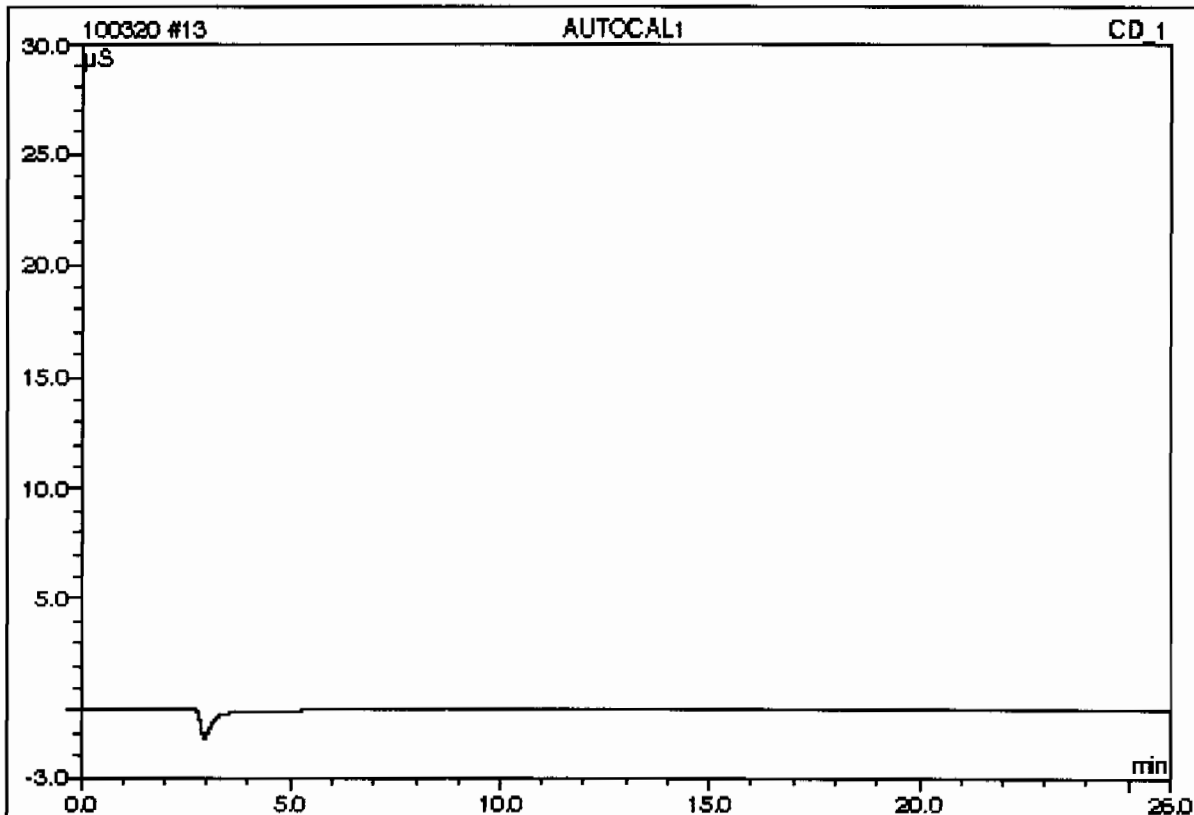
Sample Name:	AUTOCAL2	Injection Volume:	50.0
Vial Number:	54	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 16:34	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGC086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area uS*min	Rel. Area %
1	4.72	Fluoride	0.1000	0.1654		0.06456	10.19
2	7.81	Chloride	0.2000	0.4597		0.18356	28.97
3	9.57	Nitrate-N	0.1000	0.1521		0.07789	12.29
4	10.91	Chlorate	0.2000	0.2355		0.02800	4.42
5	11.85	Bromide	0.2000	0.2220		0.03177	5.01
6	13.73	Nitrate-N	0.1000	0.1867		0.10276	16.22
7	19.68	O-Phosphate-P	0.2000	0.1748		0.02392	3.78
8	21.77	Sulfate	0.4000	0.6623		0.12115	19.12
Total:				2.2585	0.000	0.634	100.00

13 AUTOCAL1

Sample Name:	AUTOCAL1	Injection Volume:	50.0
Vial Number:	54	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 17:00	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



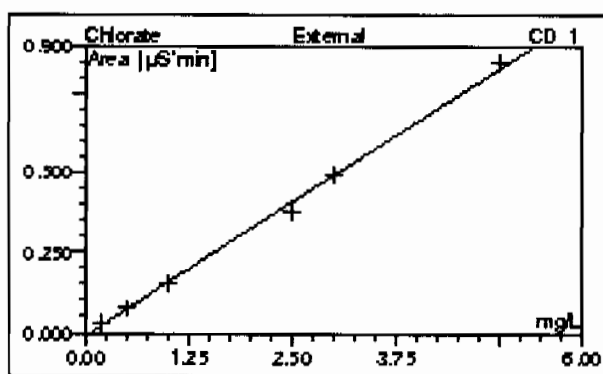
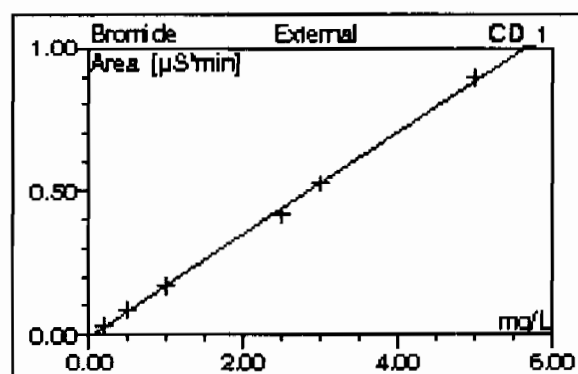
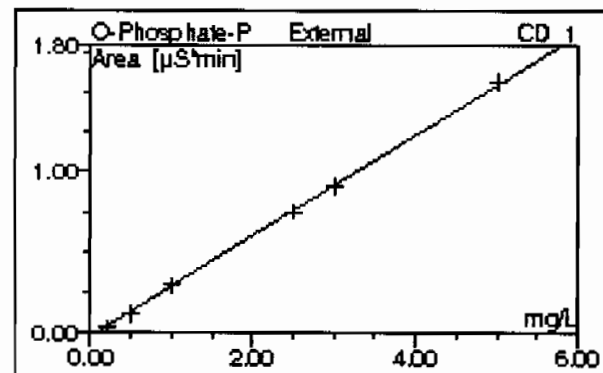
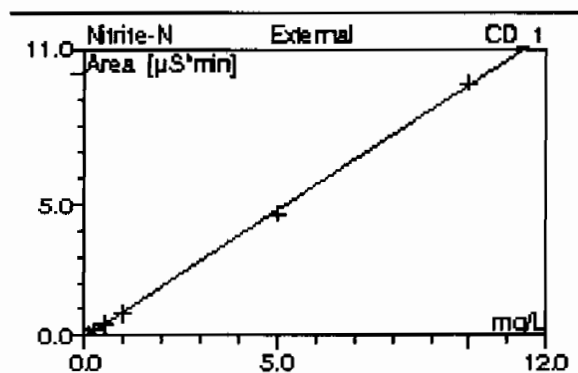
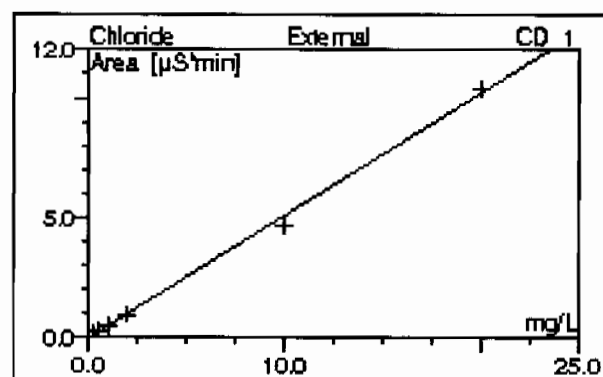
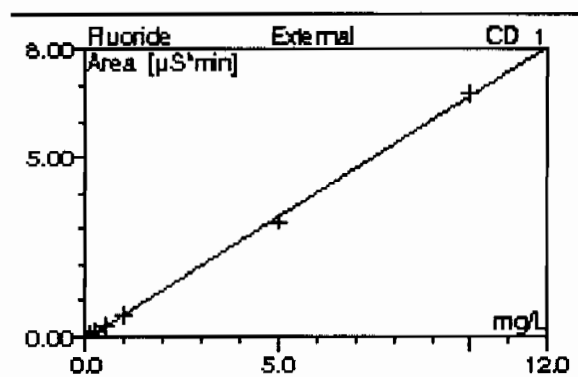
No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

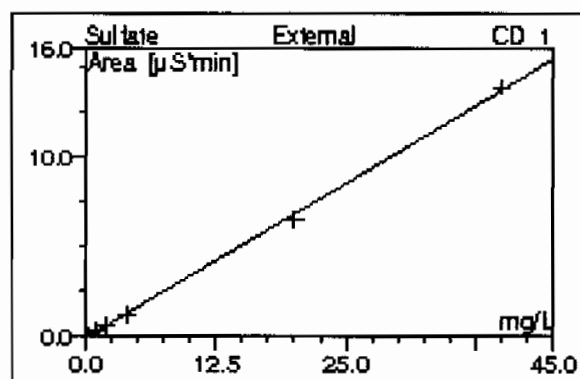
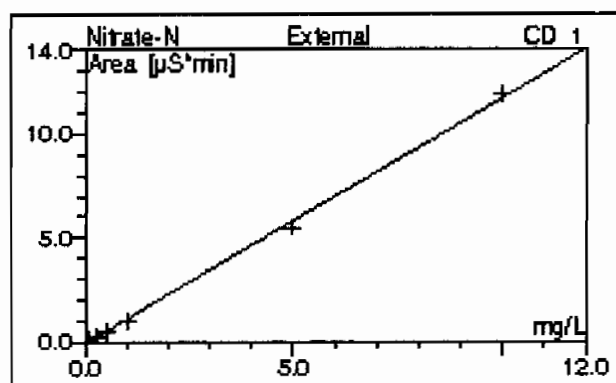
13 AUTOCAL1

Sample Name: AUTOCAL1
Vial Number: 54
Sample Type: standard
Control Program: AS23
Quantif. Method: 030410an
Recording Time: 3/4/2010 17:00
Run Time (min): 26.00

Injection Volume: 50.0
Channel: CD_1
Dilution Factor: 1.0000
Sample Weight: 1.0000
Sample Amount: 1.0000
Analyst: VH1

Column: AS23-002588; GL GC E086;300;9056





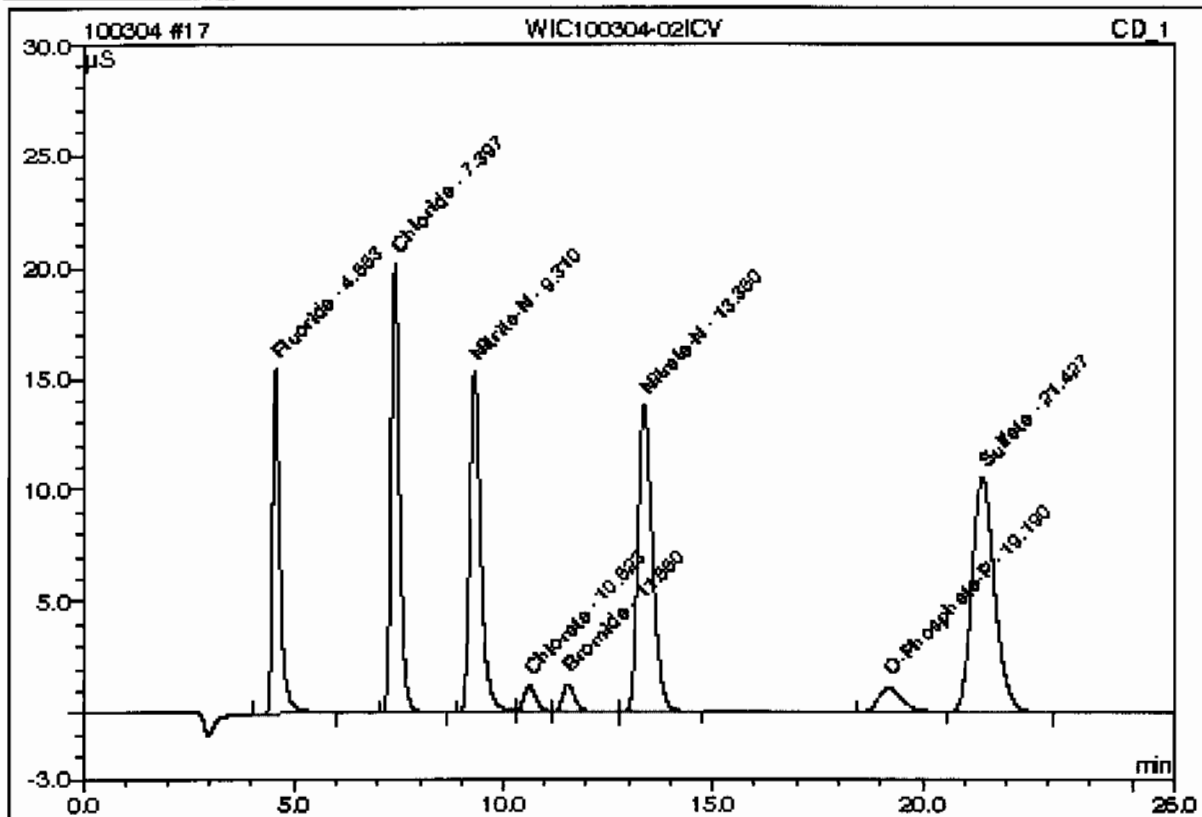
No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	OLO#	99.9227	-0.0473	0.6766	0.0000
n.a.	n.a.	Chloride	OLO#	99.7042	-0.0519	0.5122	0.0000
n.a.	n.a.	Nitrite-N	OLO#	99.9562	-0.0694	0.9682	0.0000
n.a.	n.a.	Chlorate	OLO#	99.7341	-0.0116	0.1683	0.0000
n.a.	n.a.	Bromide	OLO#	99.8472	-0.0078	0.1782	0.0000
n.a.	n.a.	Nitrate-N	OLO#	99.8383	-0.1179	1.1818	0.0000
n.a.	n.a.	O-Phosphate-P	OLO#	99.9487	-0.0314	0.3166	0.0000
n.a.	n.a.	Sulfate	OLO#	99.9034	-0.1083	0.3464	0.0000
Average:				99.8569	-0.0557	0.5435	0.0000

This is runlog for Sequence 100304.seq for IC5

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/04/10 13:05		1	100304	VH1
BLK	03/04/10 13:31		1	100304	VH1
BLK	03/04/10 13:57		1	100304	VH1
ICAL-07	03/04/10 14:23		1	100304	VH1
ICAL-06	03/04/10 14:50		1	100304	VH1
ICAL-05	03/04/10 15:16		1	100304	VH1
ICAL-04	03/04/10 15:42		1	100304	VH1
ICAL-03	03/04/10 16:08		1	100304	VH1
ICAL-02	03/04/10 16:34		1	100304	VH1
ICAL-01	03/04/10 17:00		1	100304	VH1
ICV	03/04/10 17:26		1	100304	VH1
ICB	03/04/10 17:52		1	100304	VH1
1202059074	03/04/10 18:18	960003	1	100304	VH1
1202059078	03/04/10 18:44	960003	1	100304	VH1
248337001	03/04/10 19:10	960003	1	100304	VH1
1202059075	03/04/10 19:37	960003	1	100304	VH1
1202059076	03/04/10 20:03	960003	1	100304	VH1
1202059077	03/04/10 20:29	960003	1	100304	VH1
CVH	03/04/10 20:55		1	100304	VH1
CCB	03/04/10 21:21		1	100304	VH1
248478006	03/04/10 21:47	960447	1	100304	VH1
248478007	03/04/10 22:13	960447	1	100304	VH1
248478008	03/04/10 22:39	960447	1	100304	VH1
248478009	03/04/10 23:05	960447	1	100304	VH1
248478010	03/04/10 23:31	960447	1	100304	VH1
248478011	03/04/10 23:57	960447	1	100304	VH1

17 WIC100304-02ICV

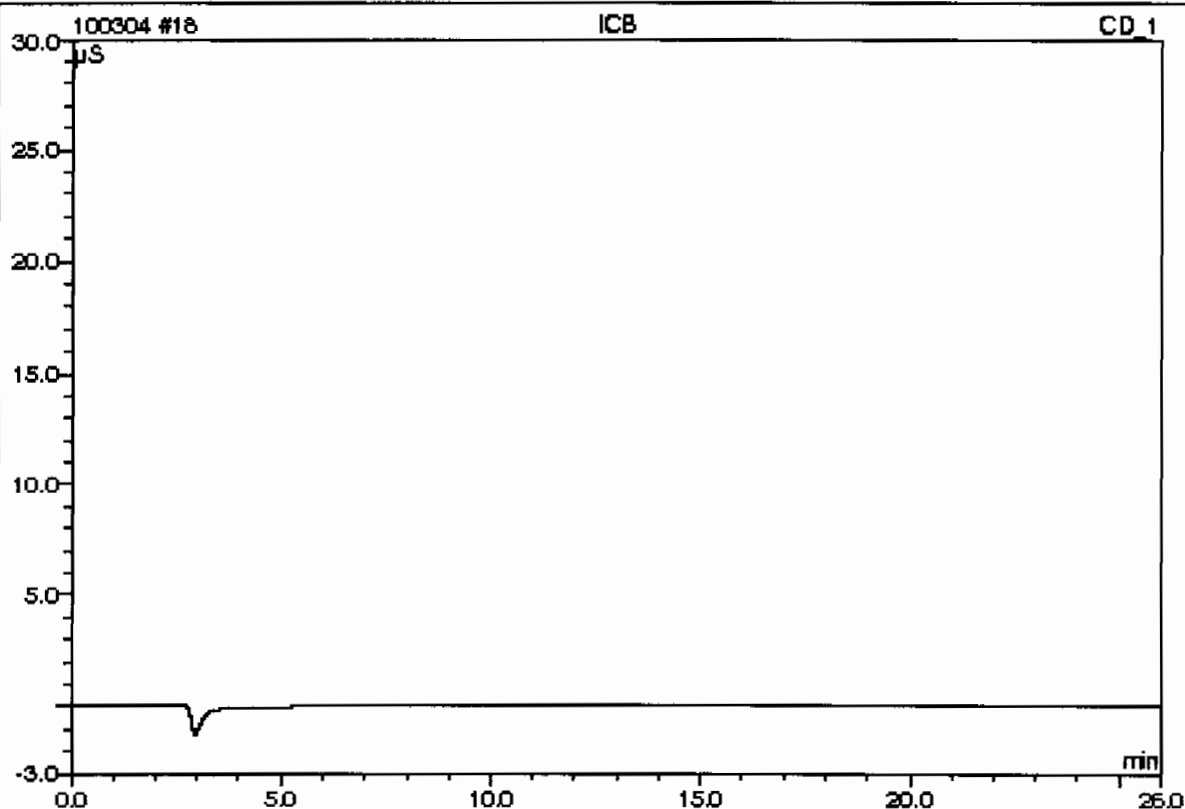
Sample Name:	WIC100304-02ICV	Injection Volume:	50.0
Vial Number:	92	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 17:26	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluoride	n.a.	4.8322		3.22206	12.29
2	7.40	Chloride	n.a.	9.1730		4.84616	17.72
3	9.31	Nitrite-N	n.a.	4.9007		4.67562	17.83
4	10.62	Chlorate	n.a.	2.5303		0.41419	1.58
5	11.55	Bromide	n.a.	2.5575		0.44789	1.71
6	13.35	Nitrate-N	n.a.	4.7464		5.49149	20.94
7	19.19	O-Phosphate-P	n.a.	2.5093		0.76301	2.91
8	21.43	Sulfate	n.a.	19.2478		6.55943	25.02
Total:				50.4972	0.000	26.220	100.00

18 ICB

Sample Name:	ICB	Injection Volume:	50.0
Vial Number:	90	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/4/2010 17:52	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



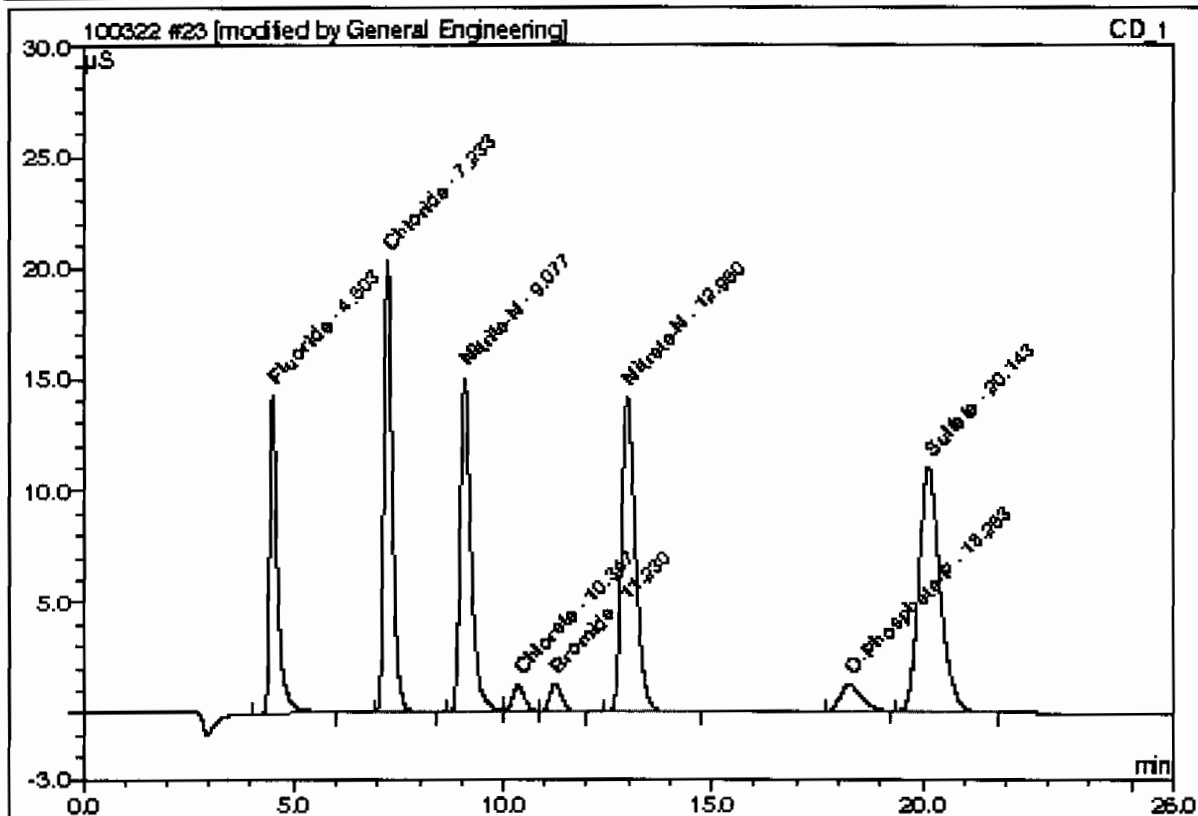
No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100322.seq for IC5

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/22/10 13:39		1	100322	VH1
BLK	03/22/10 14:05		1	100322	VH1
ICV	03/22/10 14:31		1	100322	VH1
ICB	03/22/10 14:57		1	100322	VH1
247862001	03/22/10 15:23	964437	2000000	100322	VH1
1202069067	03/22/10 15:49	964437	2000000	100322	VH1
1202069068	03/22/10 16:15	964437	2000000	100322	VH1
CVH	03/22/10 16:41		1	100322	VH1
CCB	03/22/10 17:07		1	100322	VH1
248097006	03/22/10 17:34	964919	1	100322	VH1
1202077366	03/22/10 18:00	964919	1	100322	VH1
1202077367	03/22/10 18:26	964919	1	100322	VH1
CCV	03/22/10 18:52		1	100322	VH1
CCB	03/22/10 19:18		1	100322	VH1
248044001	03/22/10 19:44	966823	5	100322	VH1
CVH	03/22/10 20:10		1	100322	VH1
CCB	03/22/10 20:36		1	100322	VH1
1202075482	03/22/10 21:02	967051	1	100322	VH1
1202075489	03/22/10 21:28	967051	1	100322	VH1
248250001	03/22/10 21:54	967051	1	100322	VH1
1202075483	03/22/10 22:21	967051	1	100322	VH1
1202075485	03/22/10 22:47	967051	1	100322	VH1
1202075487	03/22/10 23:13	967051	1	100322	VH1
248250002	03/22/10 23:39	967051	1	100322	VH1

23 WIC100322-02ICV

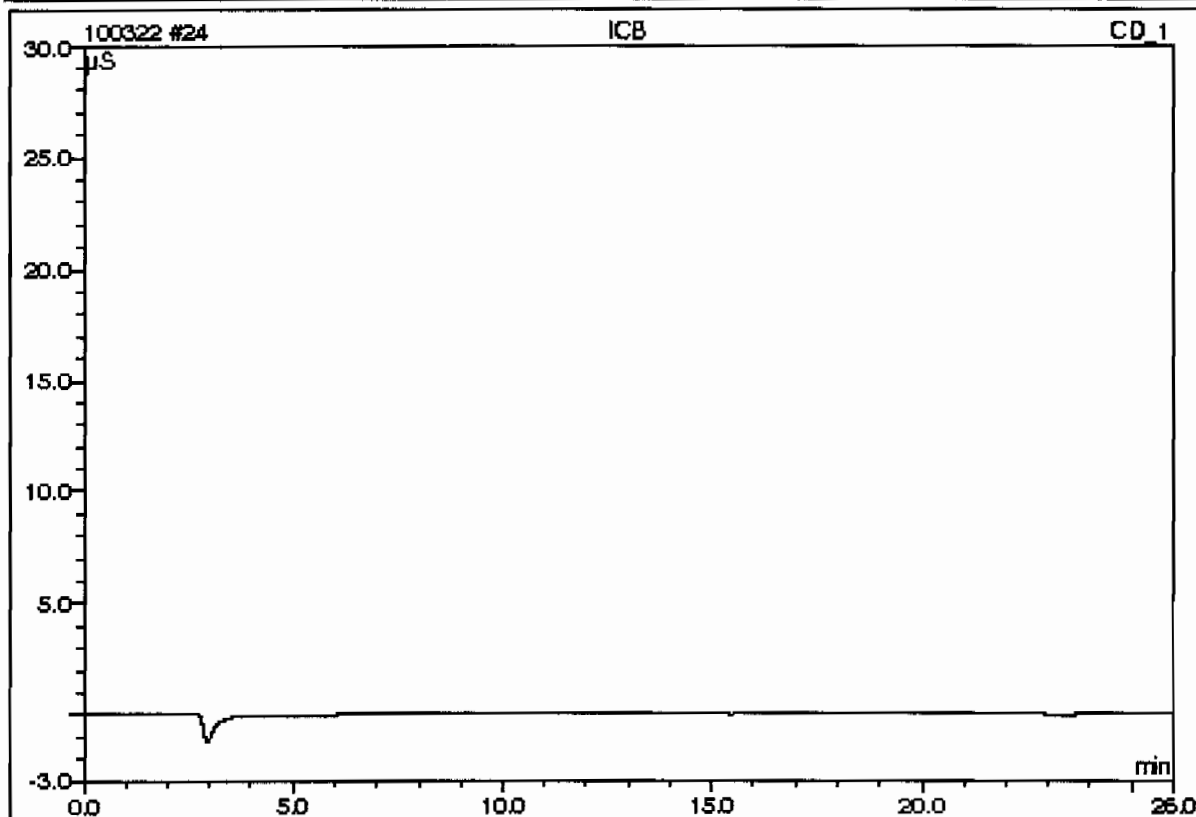
Sample Name:	WIC100322-02ICV	Injection Volume:	50.0
Vial Number:	93	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/22/2010 14:31	Analyst:	VH1
Run Time (min):	22.92	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.50	Fluoride	n.a.	4.7008		3.13314	12.09
2	7.23	Chloride	n.a.	9.1357		4.62706	17.86
3	9.08	Nitrite-N	n.a.	4.8029		4.58094	17.88
4	10.35	Chlorate	n.a.	2.4389		0.39847	1.54
5	11.23	Bromide	n.a.	2.4053		0.42078	1.62
6	12.98	Nitrate-N	n.a.	4.7703		5.51986	21.31
7	18.26	O-Phosphate-P	n.a.	2.4055		0.73014	2.82
8	20.14	Sulfate	n.a.	19.0630		6.49540	25.07
Total:				49.7203	0.000	25.906	100.00

24 ICB

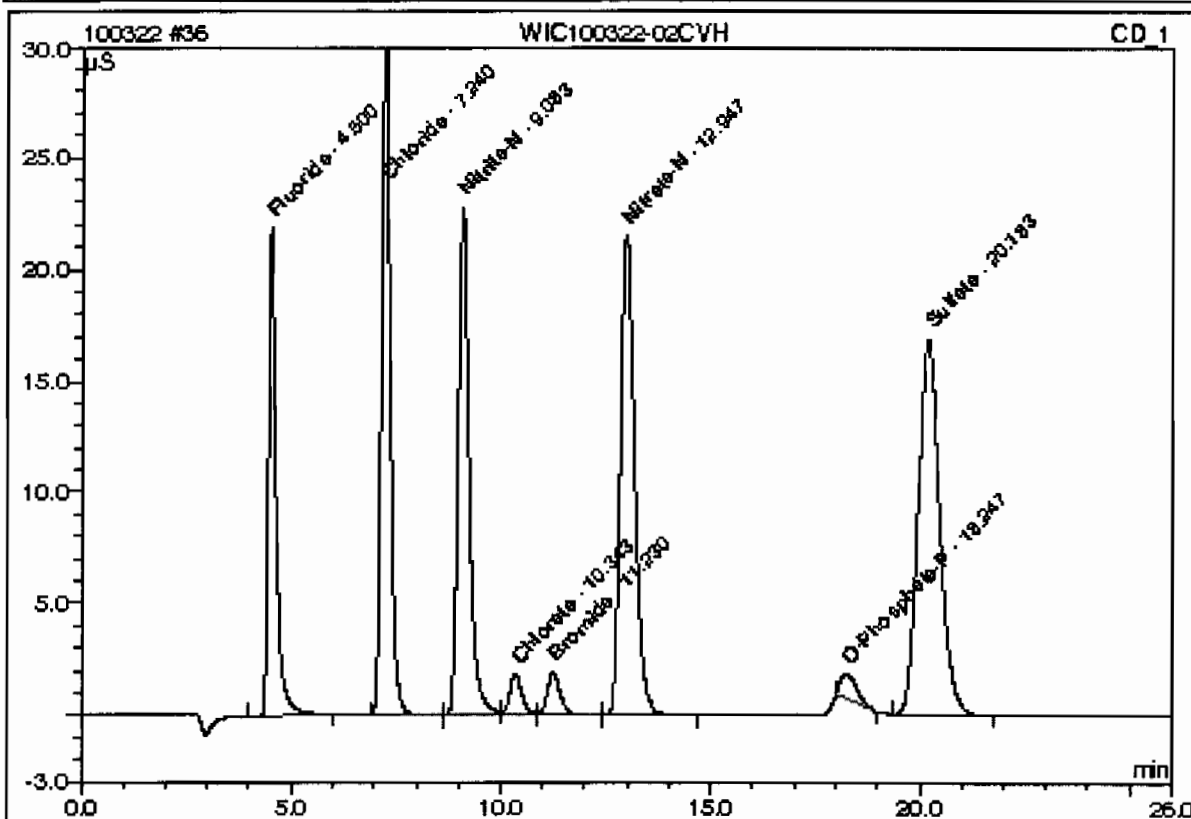
Sample Name:	ICB	Injection Volume:	50.0
Vial Number:	90	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/22/2010 14:57	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

36 WIC100322-02CVH

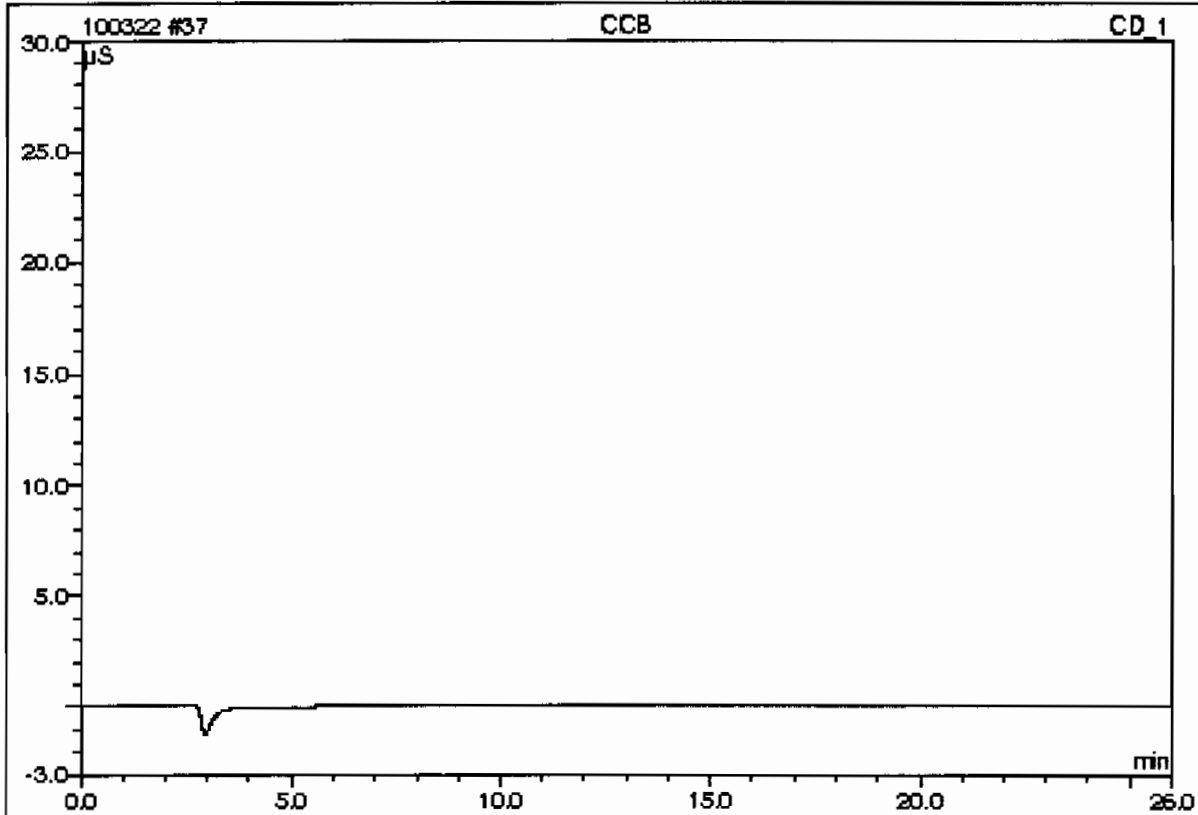
Sample Name:	WIC100322-02CVH	Injection Volume:	50.0
Vial Number:	93	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/22/2010 20:10	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
1	4.50	Fluoride	n.a.	7.0751		4.73961	12.18
2	7.24	Chloride	n.a.	14.0000		7.11835	18.29
3	9.08	Nitrate-N	n.a.	7.2575		6.95765	17.87
4	10.34	Chlorate	n.a.	3.7633		0.62169	1.60
5	11.23	Bromide	n.a.	3.7577		0.66173	1.70
6	12.95	Nitrite-N	n.a.	7.2466		8.44615	21.70
7	18.25	O-Phosphate-P	n.a.	1.8351		0.48623	1.25
8	20.18	Sulfate	n.a.	28.8842		9.89761	25.42
Total:				73.6195	0.000	38.929	100.00

37 CCB

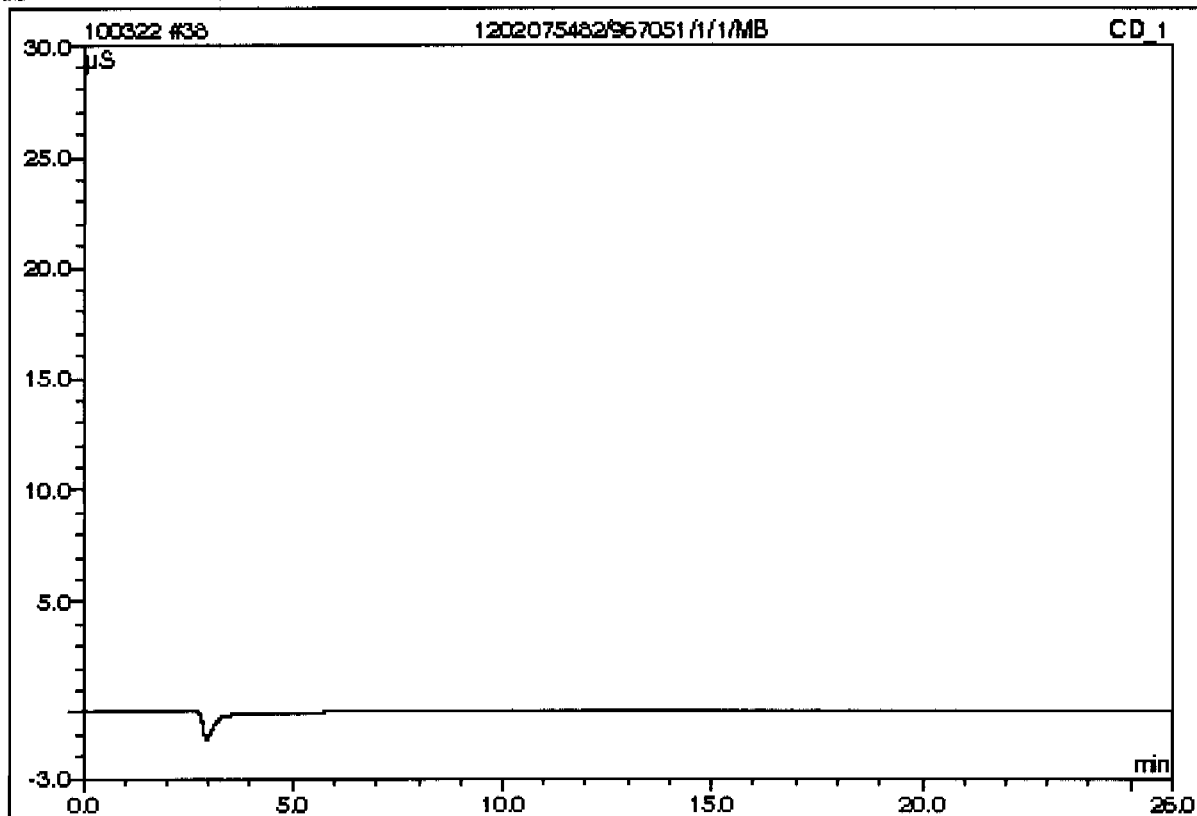
Sample Name:	CCB	Injection Volume:	50.0
Vial Number:	94	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/22/2010 20:36	Analys:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

38 1202075482/967051/1/1/MB

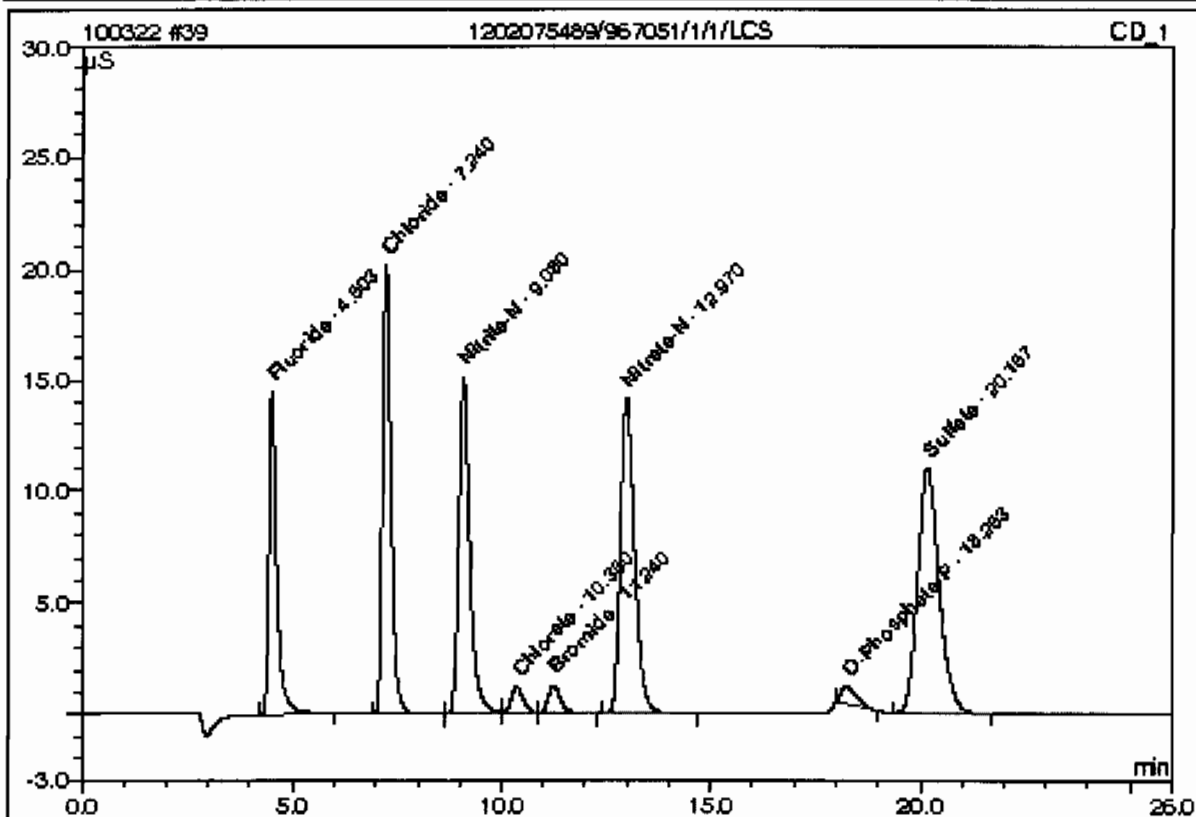
Sample Name:	1202075482/967051/1/1/MB	Injection Volume:	50.0
Vial Number:	92	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/22/2010 21:02	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588; GLGC086; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

39 1202075489/967051/1/1/LCS

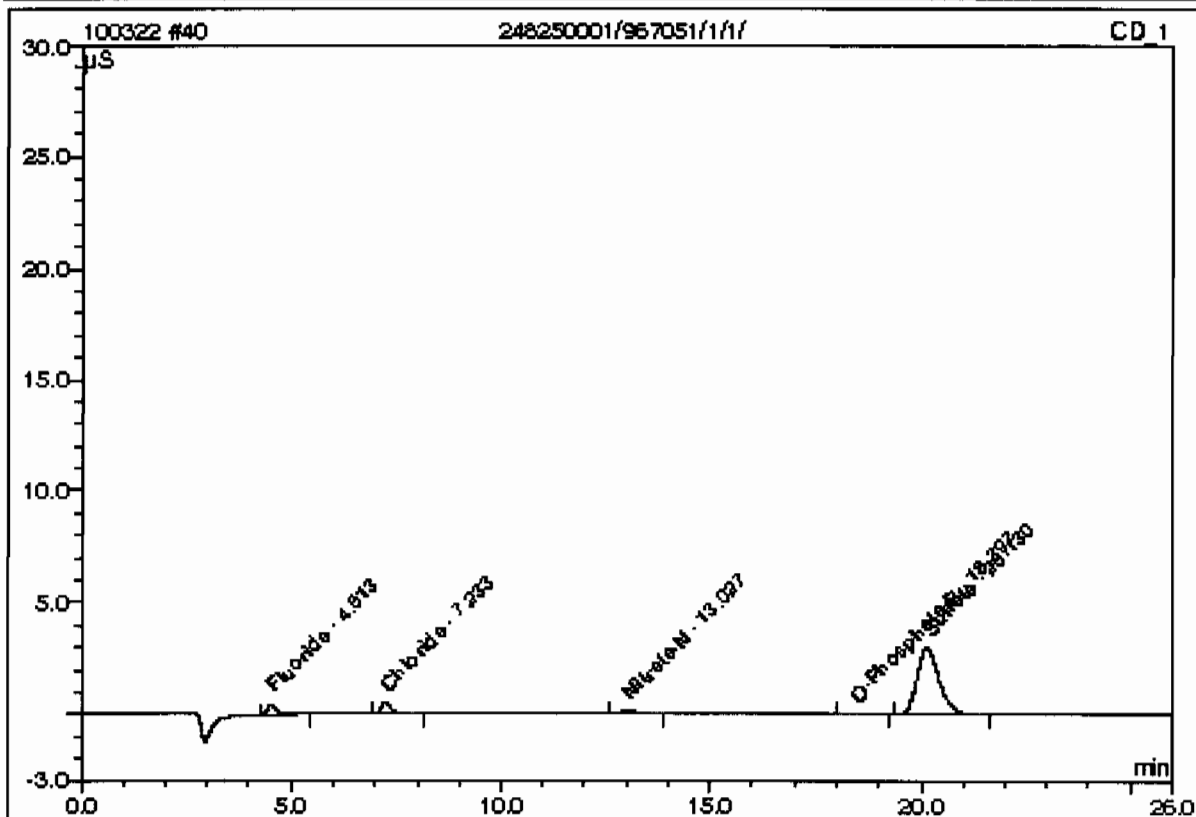
Sample Name:	1202075489/967051/1/1/LCS	Injection Volume:	50.0
Vial Number:	93	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/22/2010 21:28	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
1	4.50	Fluoride	n.a.	4.7228		3.14806	12.28
2	7.24	Chloride	n.a.	9.1495		4.83415	18.07
3	9.08	Nitrate-N	n.a.	4.8528		4.82933	18.05
4	10.35	Chlorate	n.a.	2.5950		0.42507	1.66
5	11.24	Bromide	n.a.	2.5569		0.44779	1.75
6	12.97	Nitrate-N	n.a.	4.7636		5.51178	21.49
7	18.26	O-Phosphate-P	n.a.	1.1934		0.34640	1.35
8	20.17	Sulfate	n.a.	19.0768		6.50019	25.35
Total:				48.9109	0.000	25.643	100.00

40 248250001/967051/1/1/

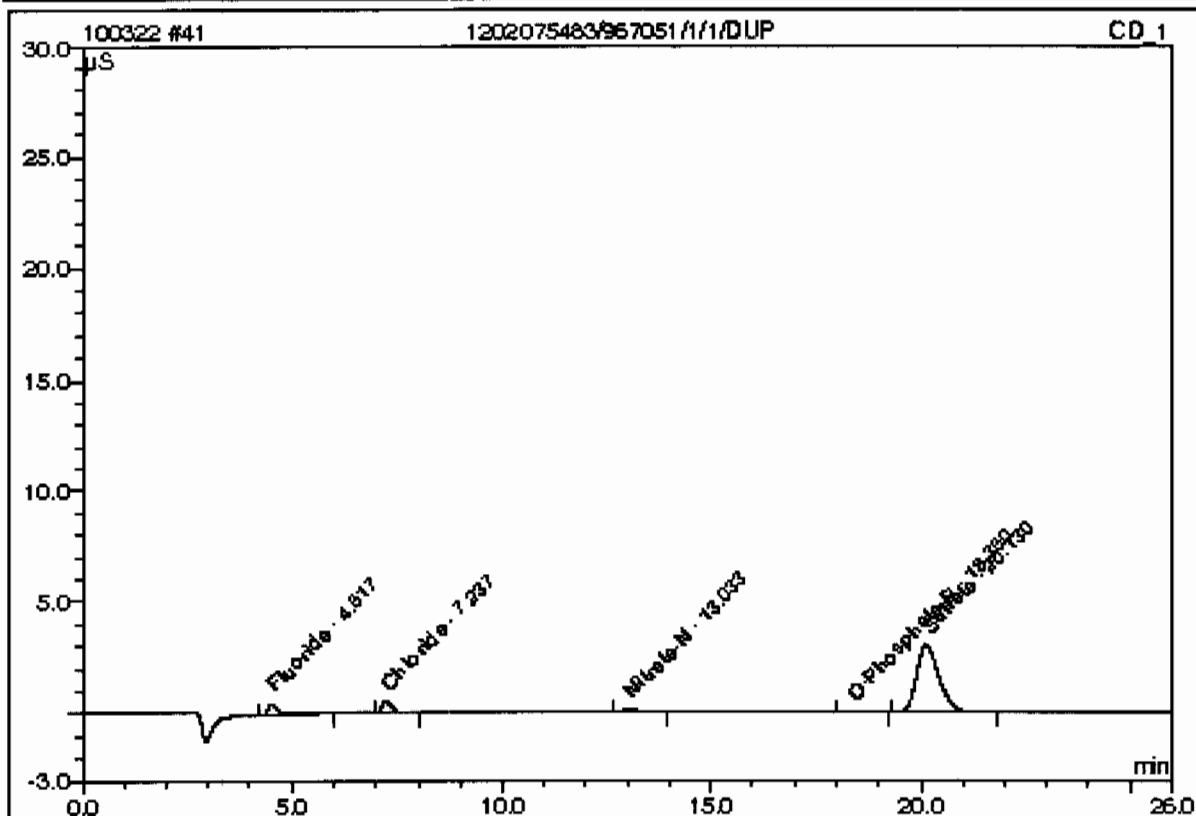
Sample Name:	248250001/967051/1/1/	Injection Volume:	50.0
Vial Number:	94	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/22/2010 21:54	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
1	4.51	Fluoride	n.a.	0.2585		0.12754	5.76
2	7.23	Chloride	n.a.	0.3786		0.14204	6.41
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.03	Nitrate-N	n.a.	0.1514		0.06100	2.75
4	18.40	O-Phosphate-P	n.a.	0.1914		0.02918	1.32
5	20.13	Sulfate	n.a.	5.6709		1.85620	83.77
Total:				6.6508	0.000	2.216	100.00

41 1202075483/967051/1/1/DUP

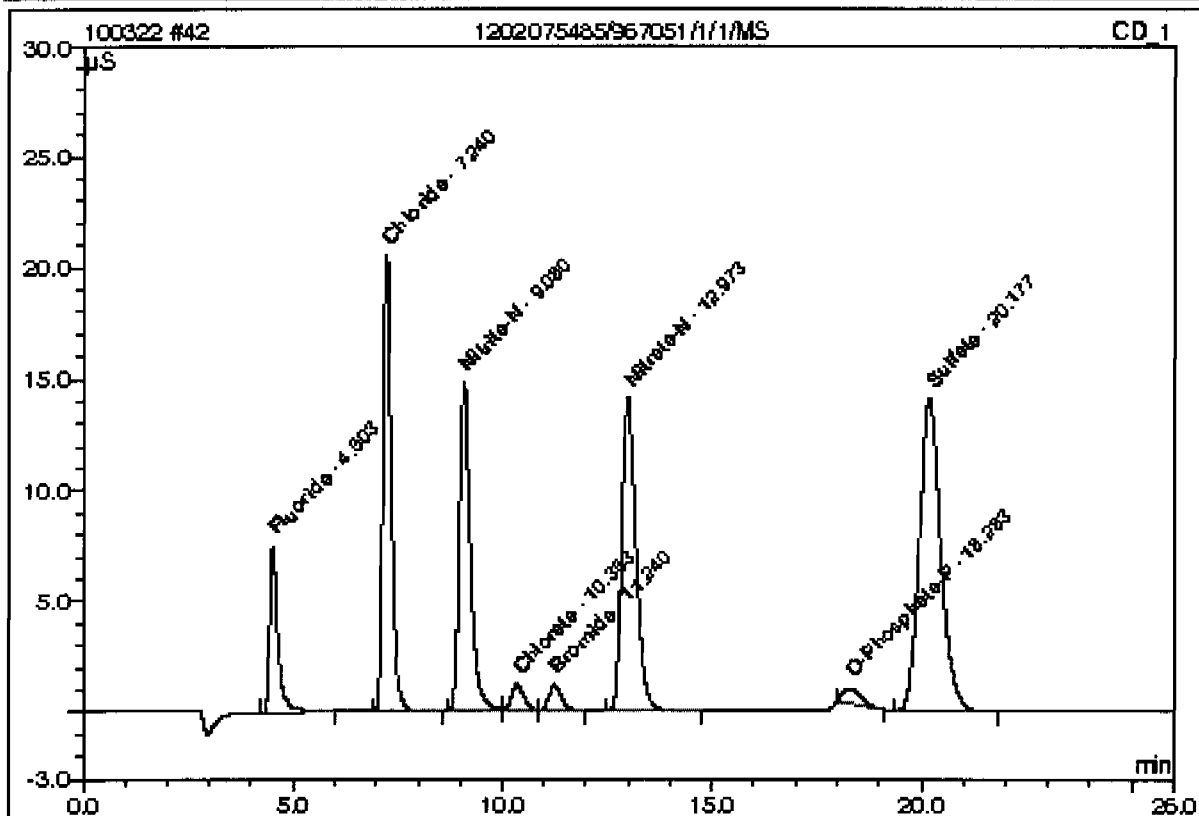
Sample Name:	1202075483/967051/1/1/DUP	Injection Volume:	50.0
Vial Number:	95	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/22/2010 22:21	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area $\mu\text{S} \cdot \text{min}$	Rel. Area %
1	4.52	Fluoride	n.a.	0.2786		0.14113	6.34
2	7.24	Chloride	n.a.	0.3731		0.13923	6.26
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.03	Nitrate-N	n.a.	0.1488		0.05795	2.61
4	18.35	O-Phosphate-P	n.a.	0.1649		0.02714	1.22
5	20.13	Sulfate	n.a.	5.6792		1.85905	83.57
Total:				6.6646	0.000	2.225	100.00

42 1202075485/967051/1/1/MS

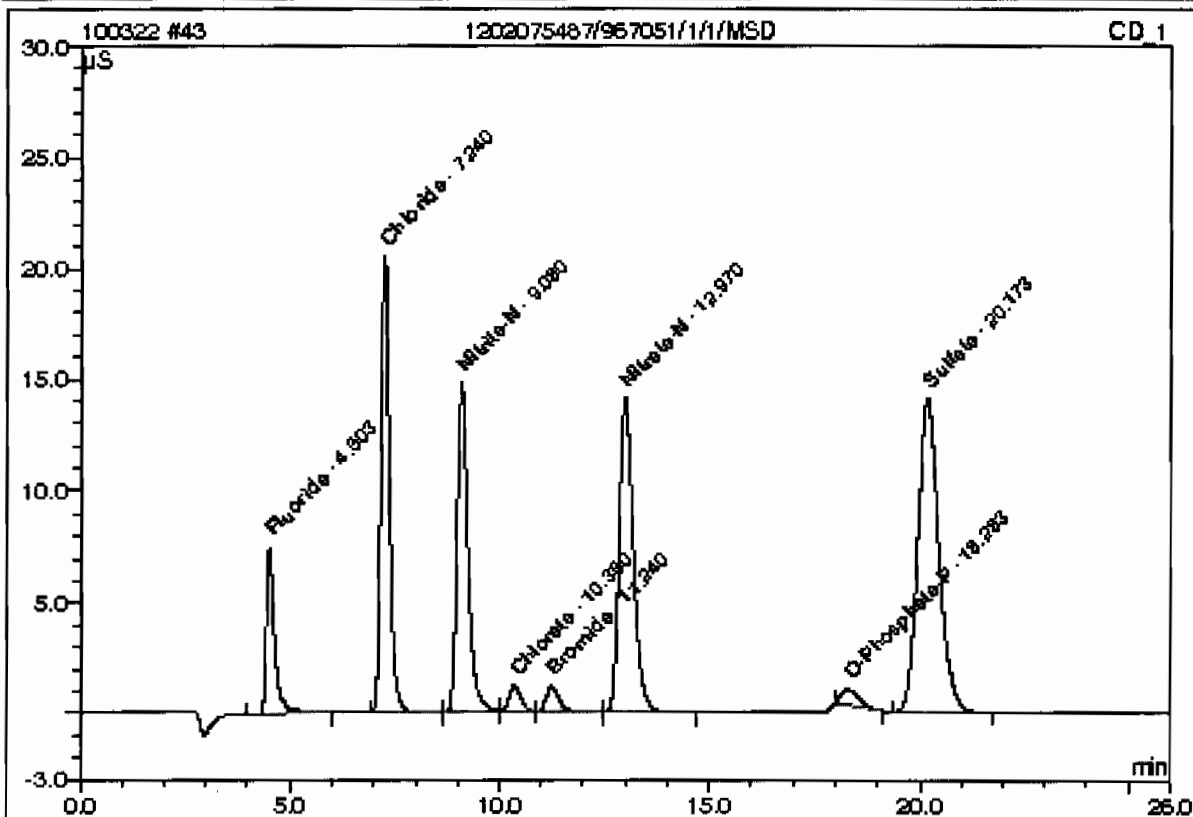
Sample Name:	1202075485/967051/1/1/MS	Injection Volume:	50.0
Vial Number:	96	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/22/2010 22:47	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
1	4.50	Fluoride	n.a.	2.6001		1.71189	6.80
2	7.24	Chloride	n.a.	9.3263		4.72471	18.23
3	9.08	Nitrite-N	n.a.	4.7428		4.52280	17.45
4	10.35	Chlorate	n.a.	2.3883		0.39029	1.51
5	11.24	Bromide	n.a.	2.1889		0.38221	1.47
6	12.97	Nitrate-N	n.a.	4.7655		5.51405	21.27
7	18.28	O-Phosphate-P	n.a.	1.1777		0.34143	1.32
8	20.18	Sulfate	n.a.	24.3652		8.33216	32.15
Total:				51.5549	0.000	25.920	100.00

43 1202075487/967051/1/1/MSD

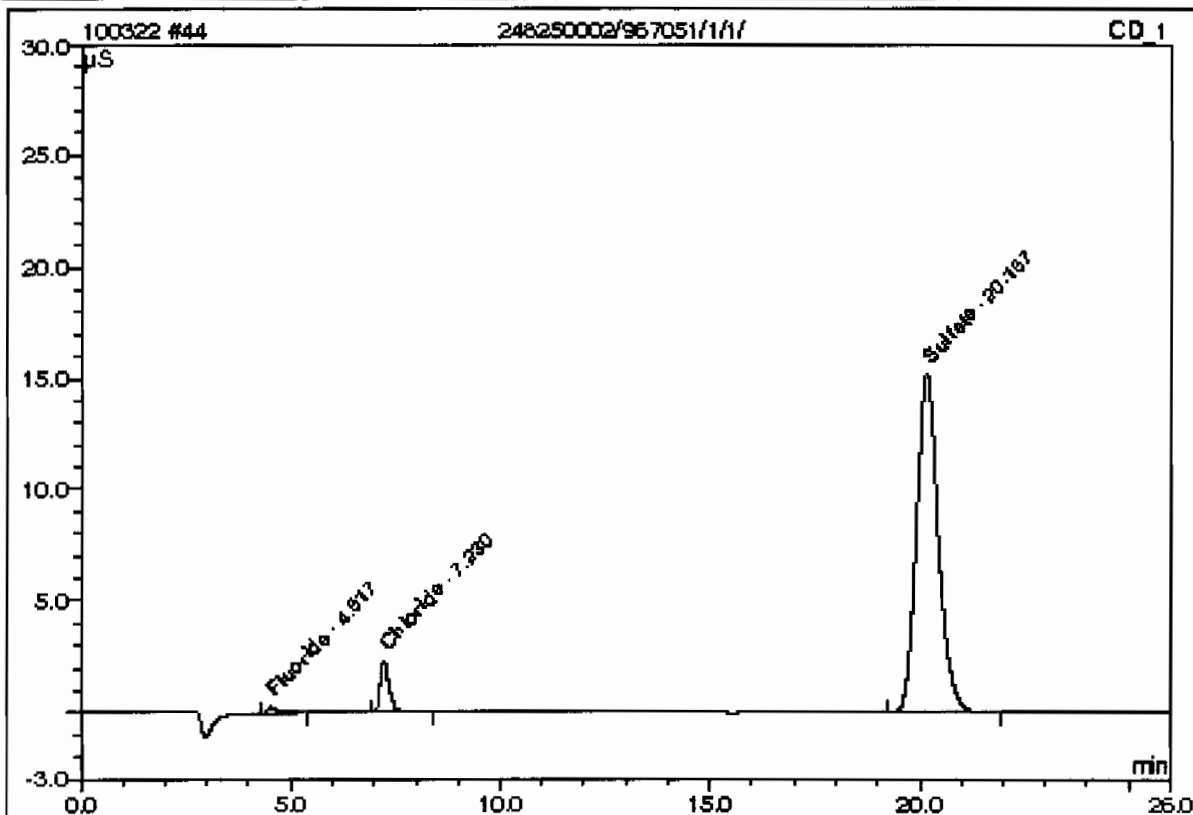
Sample Name:	1202075487/967051/1/1/MSD	Injection Volume:	50.0
Vial Number:	97	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/22/2010 23:13	Analysis:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area $\mu\text{S} \cdot \text{min}$	Rel.Area %
1	4.50	Fluoride	n.a.	2.6012		1.71261	6.59
2	7.24	Chloride	n.a.	9.3277		4.72540	18.20
3	9.08	Nitrite-N	n.a.	4.7598		4.53920	17.48
4	10.35	Chlorate	n.a.	2.5489		0.41732	1.61
5	11.24	Bromide	n.a.	2.3306		0.40747	1.57
6	12.97	Nitrate-N	n.a.	4.7593		5.50666	21.20
7	18.28	O-Phosphate-P	n.a.	1.1662		0.33781	1.30
8	20.17	Sulfate	n.a.	24.3378		8.32265	32.05
Total:				51.8315	0.000	25.969	100.00

44 248250002/967051/1/1/

Sample Name:	248250002/967051/1/1/	Injection Volume:	50.0
Vial Number:	98	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/22/2010 23:39	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588; GLGCE086; 300; 9056



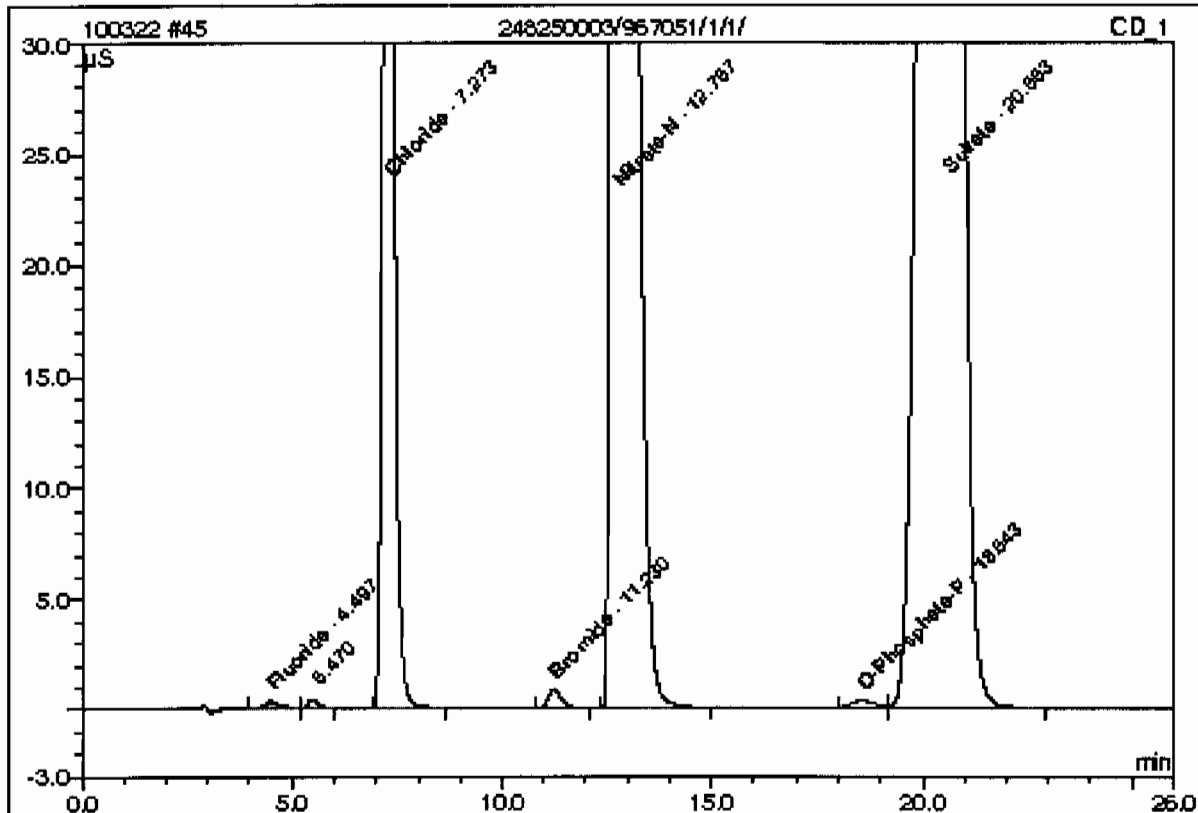
No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
1	4.52	Fluoride	n.a.	0.1786		0.07350	0.75
2	7.23	Chloride	n.a.	1.2203		0.57313	5.87
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.16	Sulfate	n.a.	26.6246		9.11483	93.38
Total:				28.0235	0.000	9.761	100.00

This is runlog for Sequence 100322.seq for IC5

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
248250003	03/23/10 00:05	967051	1	100322	VH1
248250004	03/23/10 00:31	967051	1	100322	VH1
248374001	03/23/10 00:57	967051	1	100322	VH1
CCV	03/23/10 01:23		1	100322	VH1
CCB	03/23/10 01:49		1	100322	VH1
248374002	03/23/10 02:15	967051	1	100322	VH1
248374003	03/23/10 02:41	967051	1	100322	VH1
248374004	03/23/10 03:08	967051	1	100322	VH1
248374005	03/23/10 03:34	967051	1	100322	VH1
248374006	03/23/10 04:00	967051	1	100322	VH1
248374007	03/23/10 04:26	967051	1	100322	VH1
248374008	03/23/10 04:52	967051	1	100322	VH1
248374009	03/23/10 05:18	967051	1	100322	VH1
248374010	03/23/10 05:44	967051	1	100322	VH1
248374011	03/23/10 06:10	967051	1	100322	VH1
CVH	03/23/10 06:36		1	100322	VH1
CCB	03/23/10 07:02		1	100322	VH1
248374012	03/23/10 07:28	967051	1	100322	VH1
248374013	03/23/10 07:55	967051	1	100322	VH1
1202075484	03/23/10 08:21	967051	1	100322	VH1
1202075486	03/23/10 08:47	967051	1	100322	VH1
1202075488	03/23/10 09:13	967051	1	100322	VH1
CCV	03/23/10 09:39		1	100322	VH1
CCB	03/23/10 10:05		1	100322	VH1

45 248250003/967051/1/1/

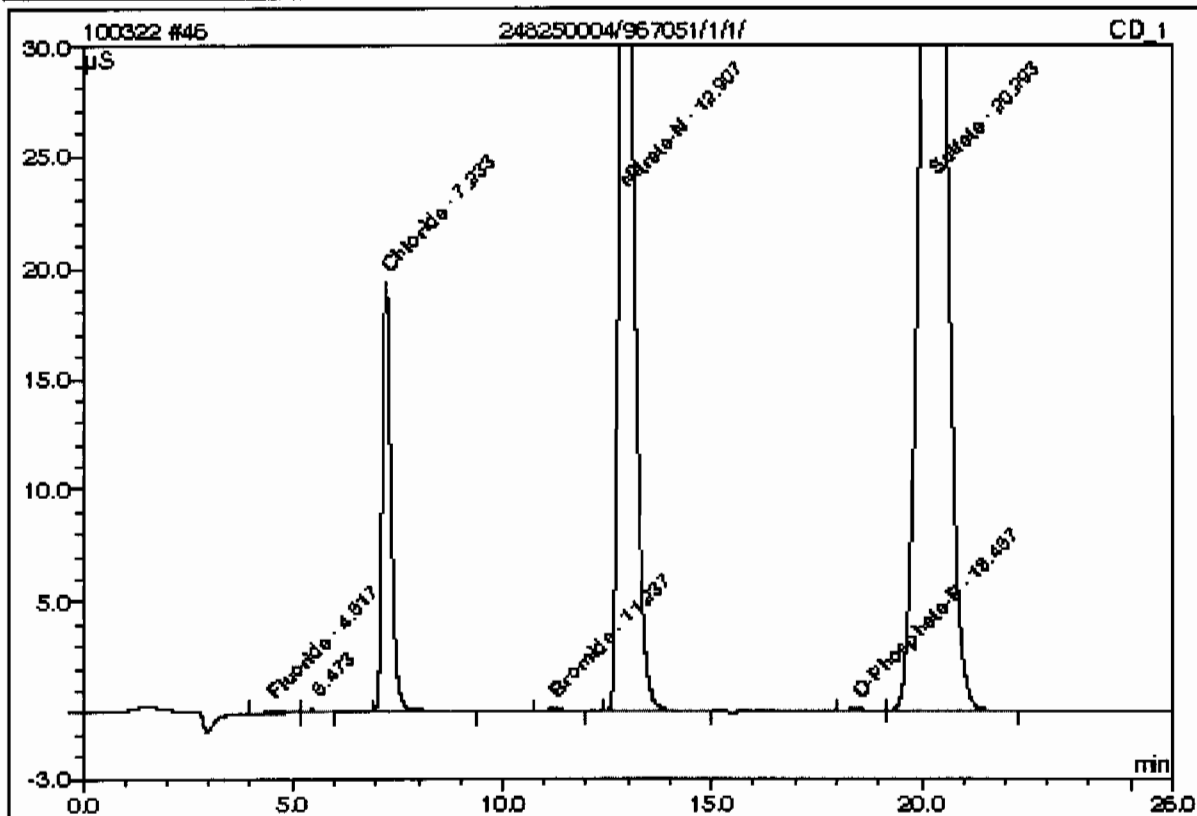
Sample Name:	248250003/967051/1/1/	Injection Volume:	50.0
Vial Number:	99	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 0:05	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.50	Fluoride	n.a.	0.2314		0.10922	0.04
3	7.27	Chloride	n.a.	41.5125		21.20917	8.43
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
4	11.23	Bromide	n.a.	1.7966		0.31232	0.12
5	12.76	Nitrate-N	n.a.	73.9914		87.32539	34.71
6	18.54	O-Phosphate-P	n.a.	0.7912		0.21907	0.09
7	20.56	Sulfate	n.a.	411.0523		142.28590	56.56
Total:				529.3753	0.000	251.461	99.96

46 248250004/967051/1/1/

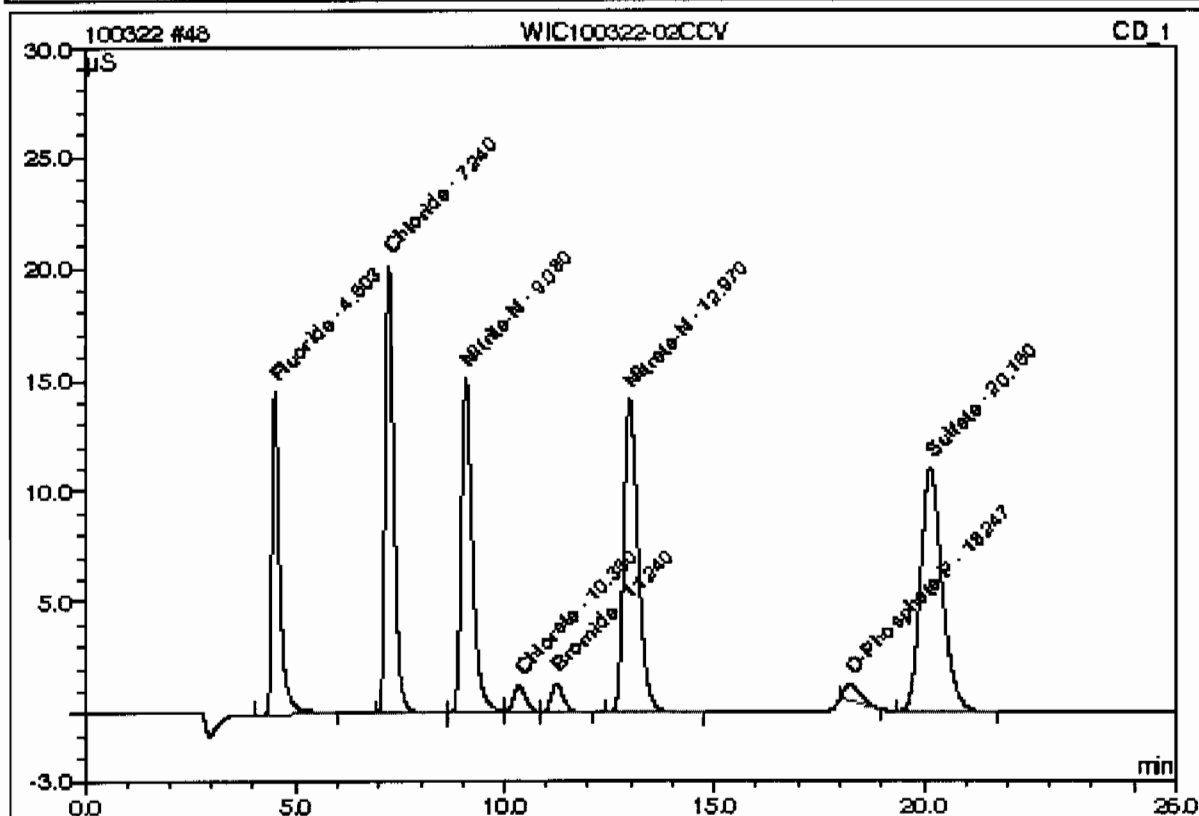
Sample Name:	248250004/967051/1/1/	Injection Volume:	50.0
Vial Number:	100	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 0:31	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGC086;300;8056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area uS*min	Rel. Area %
1	4.52	Fluoride	n.a.	0.1393		0.04691	0.08
3	7.23	Chloride	n.a.	9.0207		4.56816	7.38
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
4	11.24	Bromide	n.a.	0.4506		0.07249	0.12
5	12.91	Nitrate-N	n.a.	14.9966		17.60516	28.43
6	18.47	O-Phosphate-P	n.a.	0.3010		0.06387	0.10
7	20.29	Sulfate	n.a.	114.4367		39.53417	63.84
Total:				139.3448	0.000	61.891	99.94

48 WIC100322-02CCV

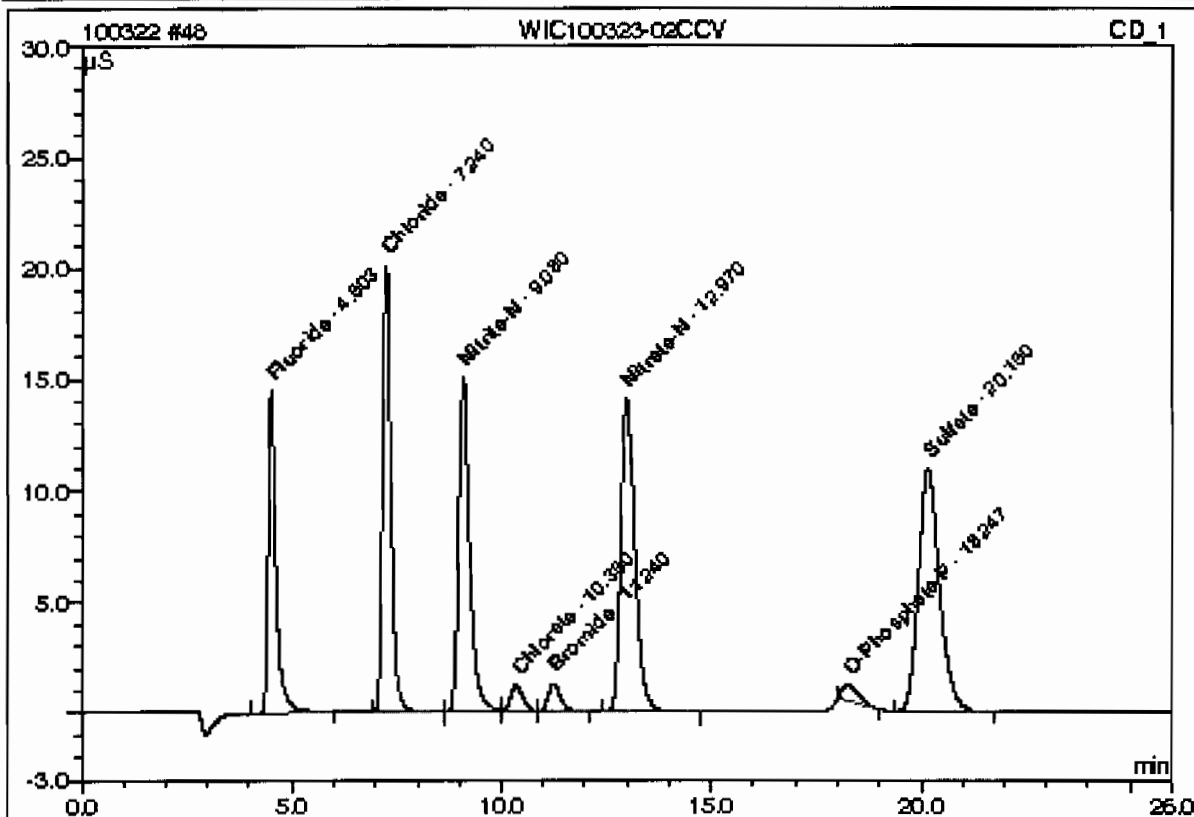
Sample Name:	WIC100322-02CCV	Injection Volume:	50.0
Vial Number:	102	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 1:23	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;8056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.50	Fluoride	n.a.	4.7237		3.14868	12.31
2	7.24	Chloride	n.a.	9.1492		4.83400	18.11
3	9.08	Nitrite-N	n.a.	4.8490		4.82563	18.08
4	10.35	Chlorate	n.a.	2.5749		0.42170	1.65
5	11.24	Bromide	n.a.	2.5327		0.44347	1.73
6	12.97	Nitrate-N	n.a.	4.7583		5.50548	21.52
7	18.25	O-Phosphate-P	n.a.	1.1063		0.31883	1.25
8	20.16	Sulfate	n.a.	19.0451		6.48921	25.36
Total:				48.7393	0.000	25.587	100.00

48 WIC100323-02CCV

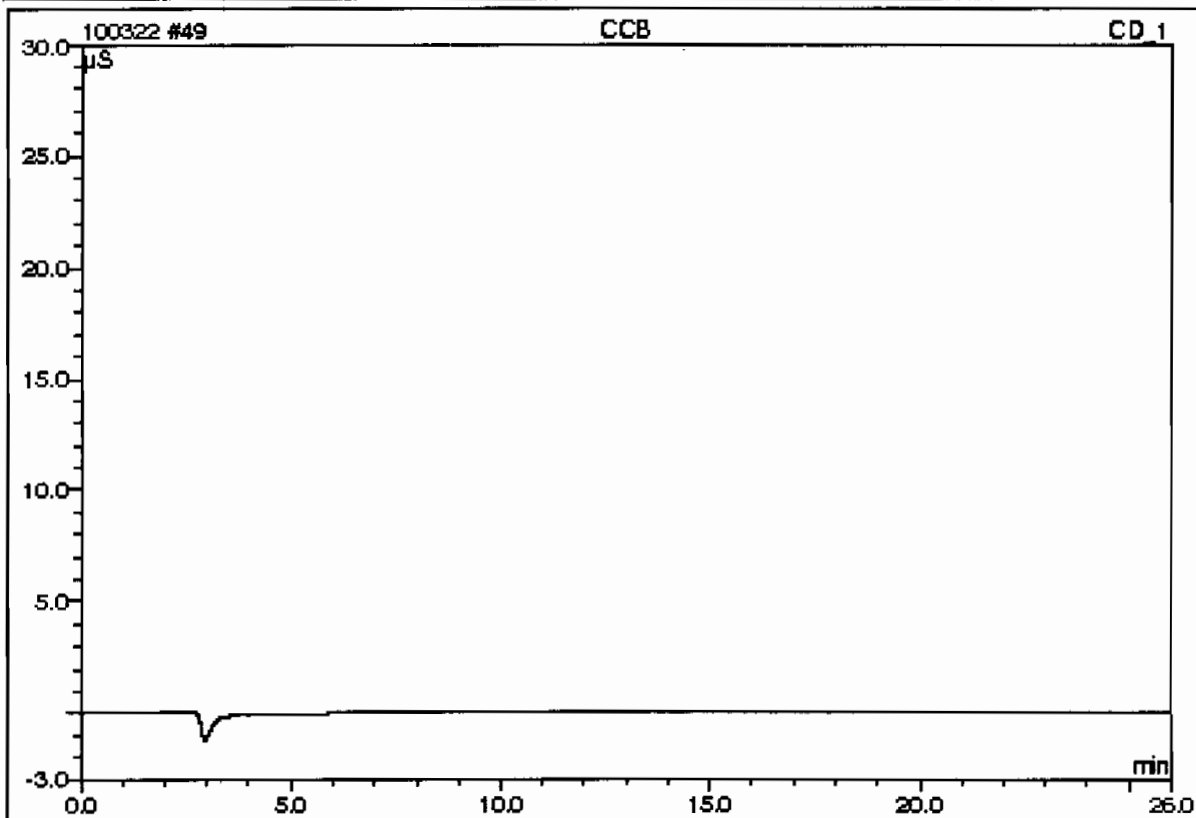
Sample Name:	WIC100323-02CCV	Injection Volume:	50.0
Vial Number:	102	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 1:23	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.50	Fluoride	n.a.	4.7237		3.14868	12.31
2	7.24	Chloride	n.a.	9.1492		4.83400	18.11
3	9.08	Nitrite-N	n.a.	4.8490		4.82563	18.08
4	10.35	Chlorate	n.a.	2.5749		0.42170	1.65
5	11.24	Bromide	n.a.	2.5327		0.44347	1.73
6	12.97	Nitrate-N	n.a.	4.7583		5.50548	21.52
7	18.25	O-Phosphate-P	n.a.	1.1063		0.31883	1.25
8	20.16	Sulfate	n.a.	19.0451		6.48921	25.36
Total:				48.7393	0.000	25.587	100.00

49 CCB

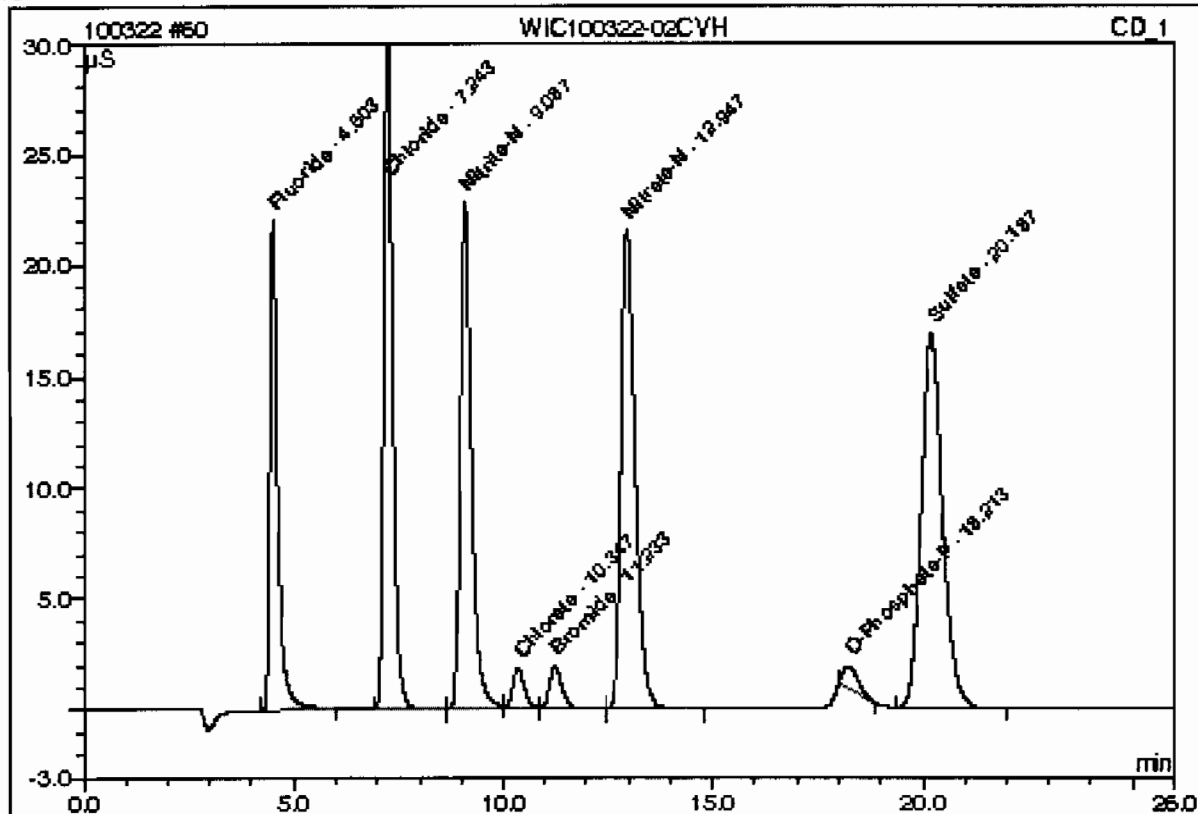
Sample Name:	CCB	Injection Volume:	50.0
Vial Number:	103	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 1:49	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGC086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area uS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	<u>n.a.</u>	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	<u>n.a.</u>	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	<u>n.a.</u>	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	<u>n.a.</u>	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	<u>n.a.</u>	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	<u>n.a.</u>	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	<u>n.a.</u>	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	<u>n.a.</u>	n.a.
Total:				0.0000	0.000	0.000	0.00

60 WIC100322-02CVH

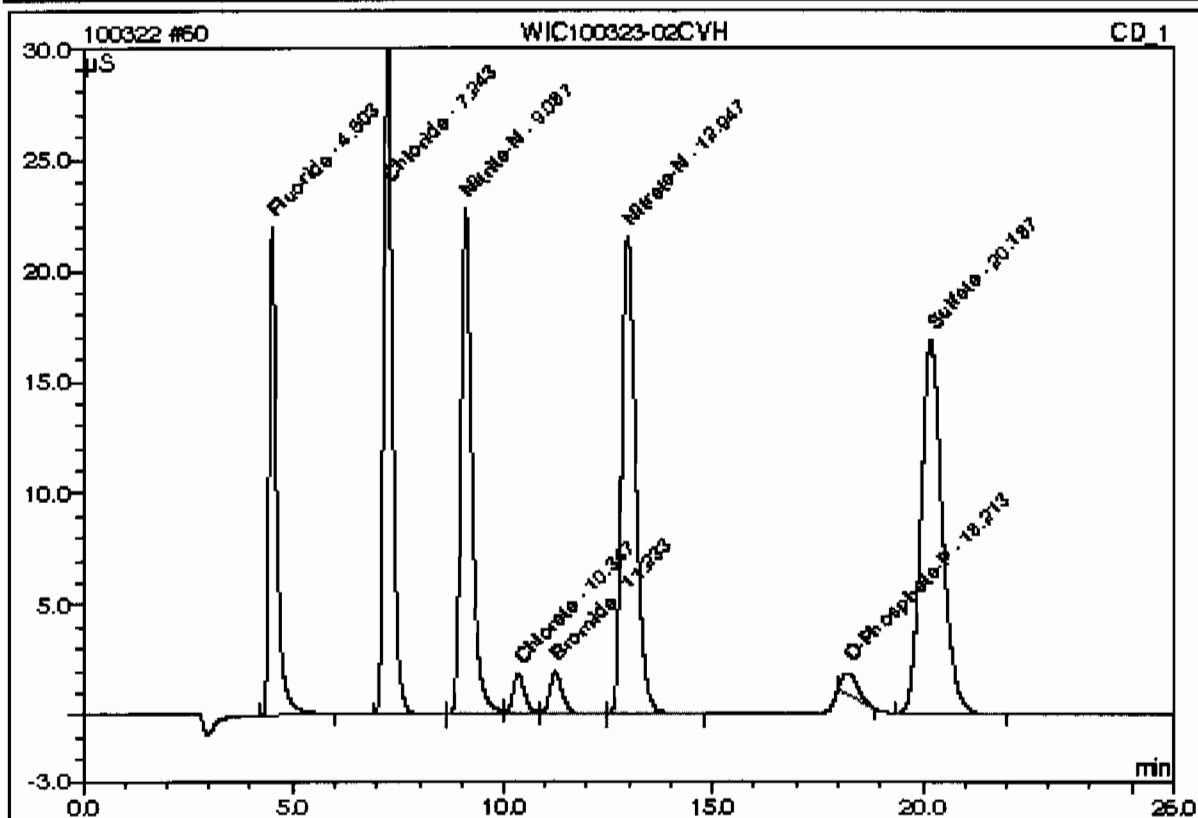
Sample Name:	WIC100322-02CVH	Injection Volume:	50.0
Vial Number:	114	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 6:36	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGC086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.50	Fluoride	n.a.	7.0760		4.74017	12.21
2	7.24	Chloride	n.a.	13.9980		7.11733	18.33
3	9.09	Nitrite-N	n.a.	7.2573		6.95739	17.92
4	10.35	Chlorate	n.a.	3.7663		0.82220	1.60
5	11.23	Bromide	n.a.	3.7378		0.85819	1.69
6	12.95	Nitrate-N	n.a.	7.2521		8.45270	21.77
7	18.21	O-Phosphate-P	n.a.	1.3434		0.39390	1.01
8	20.19	Sulfate	n.a.	28.8654		9.89110	25.47
Total:				73.2963	0.000	38.833	100.00

60 WIC100323-02CVH

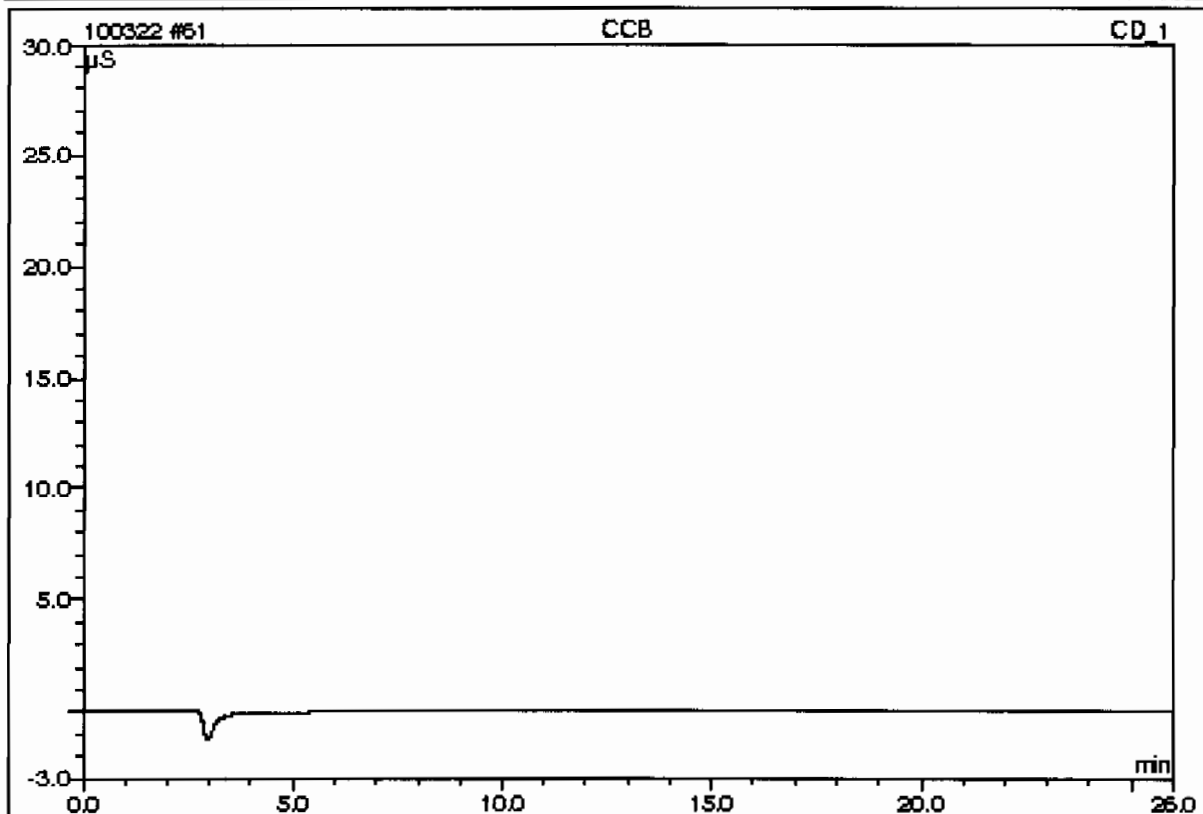
Sample Name:	WIC100323-02CVH	Injection Volume:	50.0
Vial Number:	114	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 6:36	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.50	Fluoride	n.a.	7.0760		4.74017	12.21
2	7.24	Chloride	n.a.	13.9980		7.11733	18.33
3	9.09	Nitrite-N	n.a.	7.2573		6.95739	17.92
4	10.35	Chlorate	n.a.	3.7663		0.82220	1.80
5	11.23	Bromide	n.a.	3.7378		0.65819	1.69
6	12.95	Nitrate-N	n.a.	7.2521		8.45270	21.77
7	18.21	O-Phosphate-P	n.a.	1.3434		0.39390	1.01
8	20.19	Sulfate	n.a.	28.8654		9.89110	25.47
Total:				73.2963	0.000	38.833	100.00

61 CCB

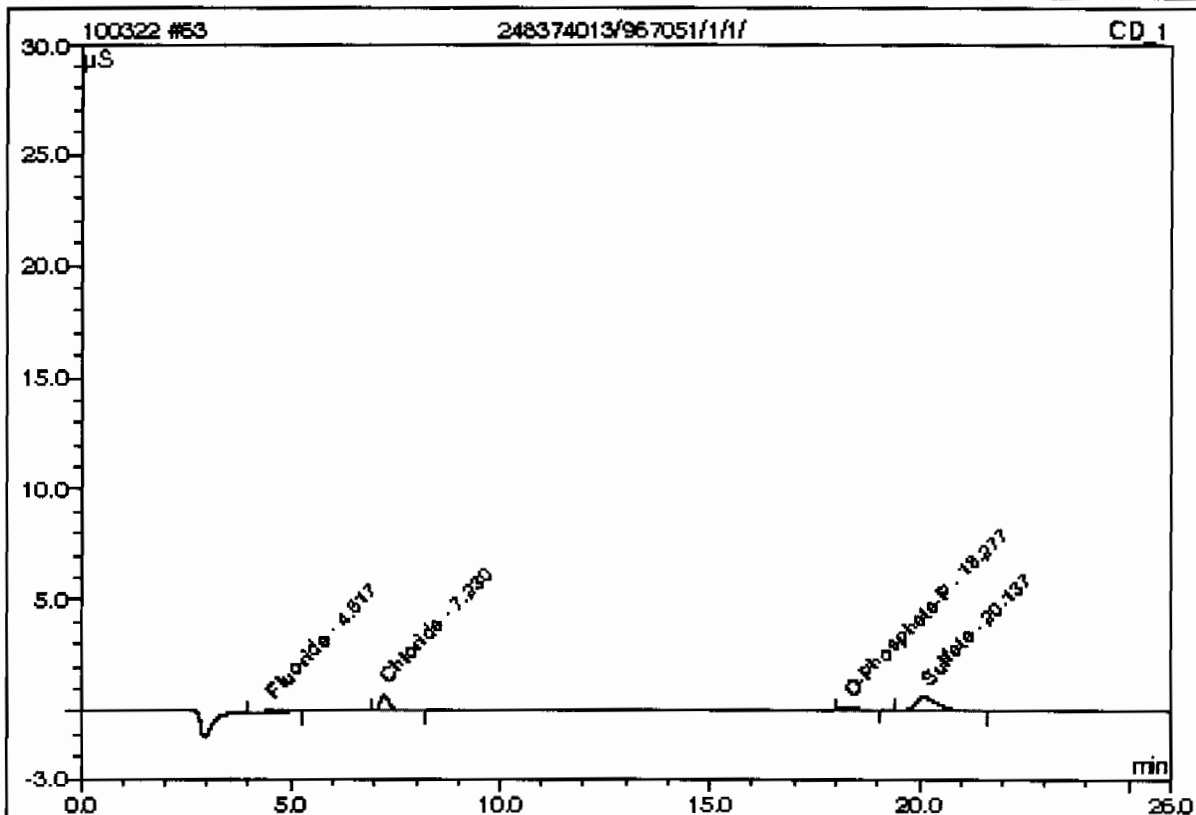
Sample Name:	CCB	Injection Volume:	50.0
Vial Number:	115	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 7:02	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

63 248374013/967051/1/1/

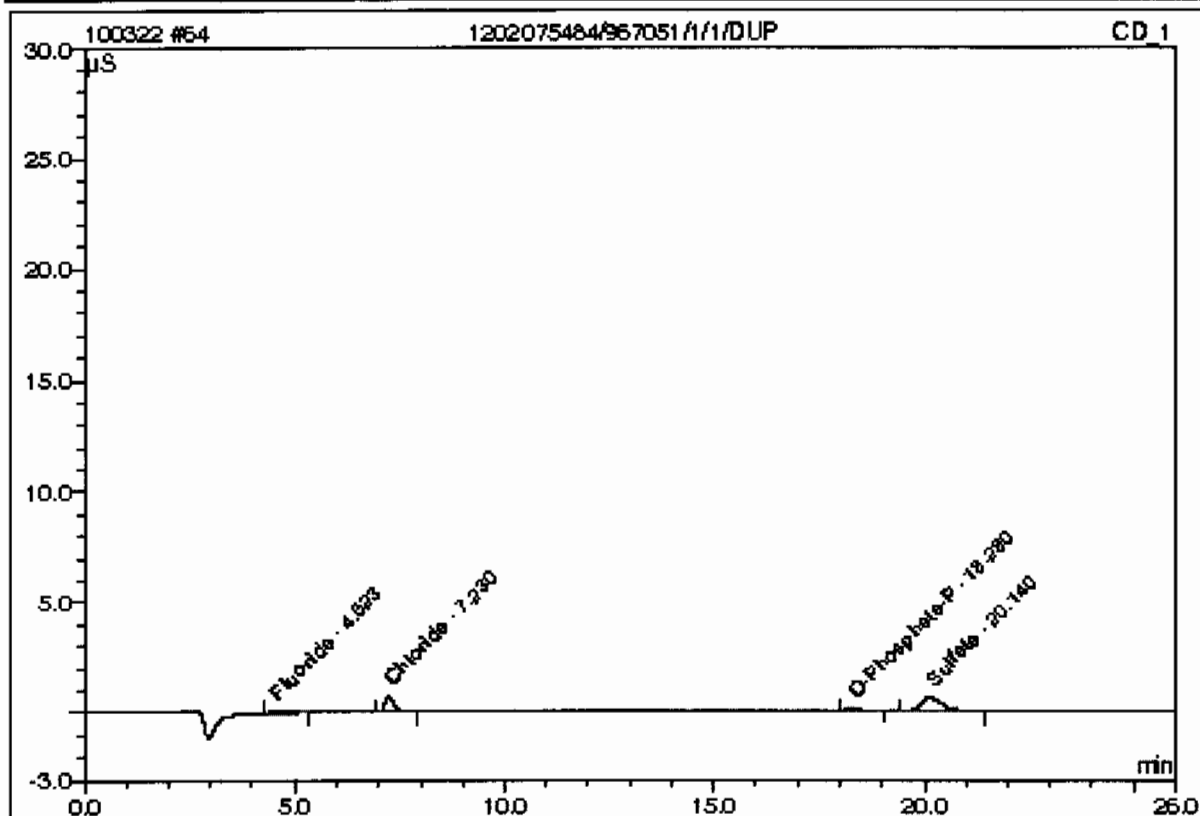
Sample Name:	248374013/967051/1/1/	Injection Volume:	50.0
Vial Number:	117	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 7:55	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.52	Fluoride	n.a.	0.1193		0.03341	5.16
2	7.23	Chloride	n.a.	0.4497		0.17843	27.55
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
3	18.28	O-Phosphate-P	n.a.	0.2148		0.03660	5.65
4	20.14	Sulfate	n.a.	1.4653		0.39932	61.65
Total:				2.2492	0.000	0.648	100.00

64 1202075484/967051/1/1/DUP

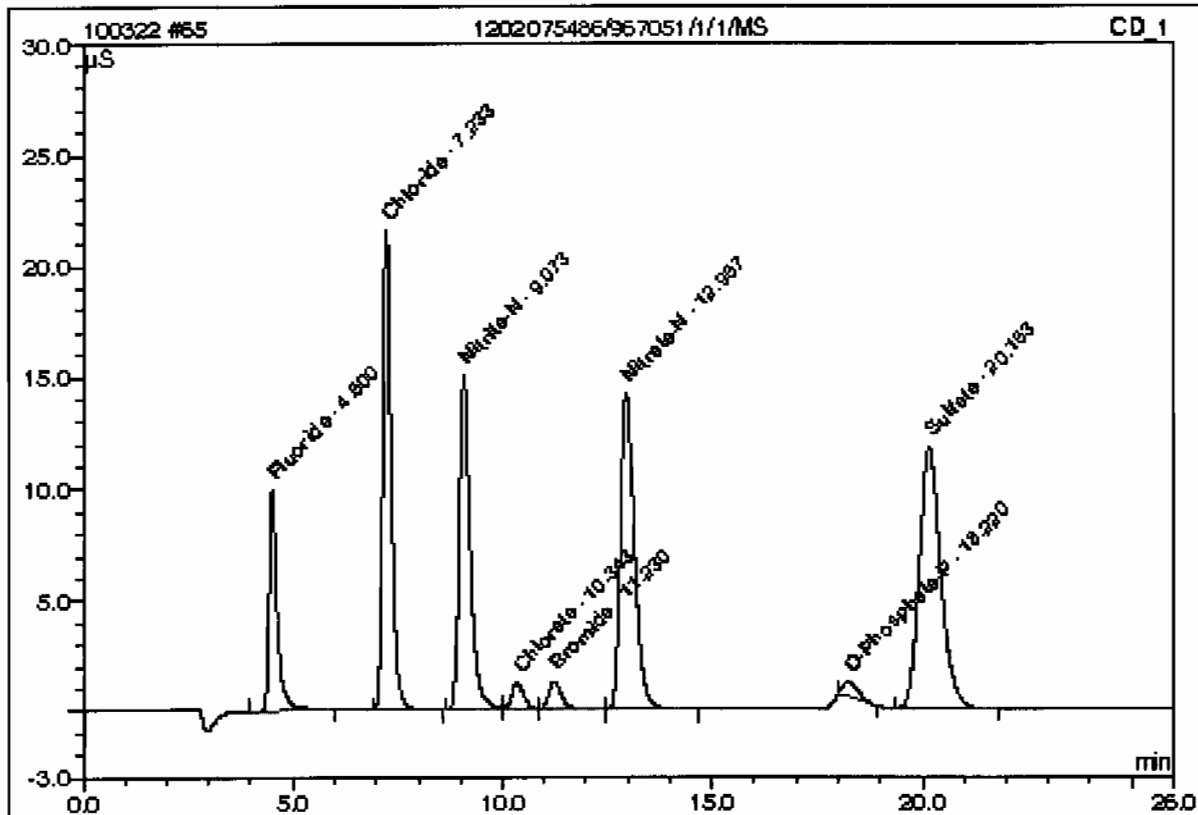
Sample Name:	1202075484/967051/1/1/DUP	Injection Volume:	50.0
Vial Number:	118	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 8:21	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.52	Fluoride	n.a.	0.1167		0.03163	4.97
2	7.23	Chloride	n.a.	0.4421		0.17453	27.43
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
3	18.28	O-Phosphate-P	n.a.	0.2196		0.03811	5.99
4	20.14	Sulfate	n.a.	1.4445		0.39209	61.62
Total:				2.2228	0.000	0.636	100.00

65 1202075486/967051/1/1/MS

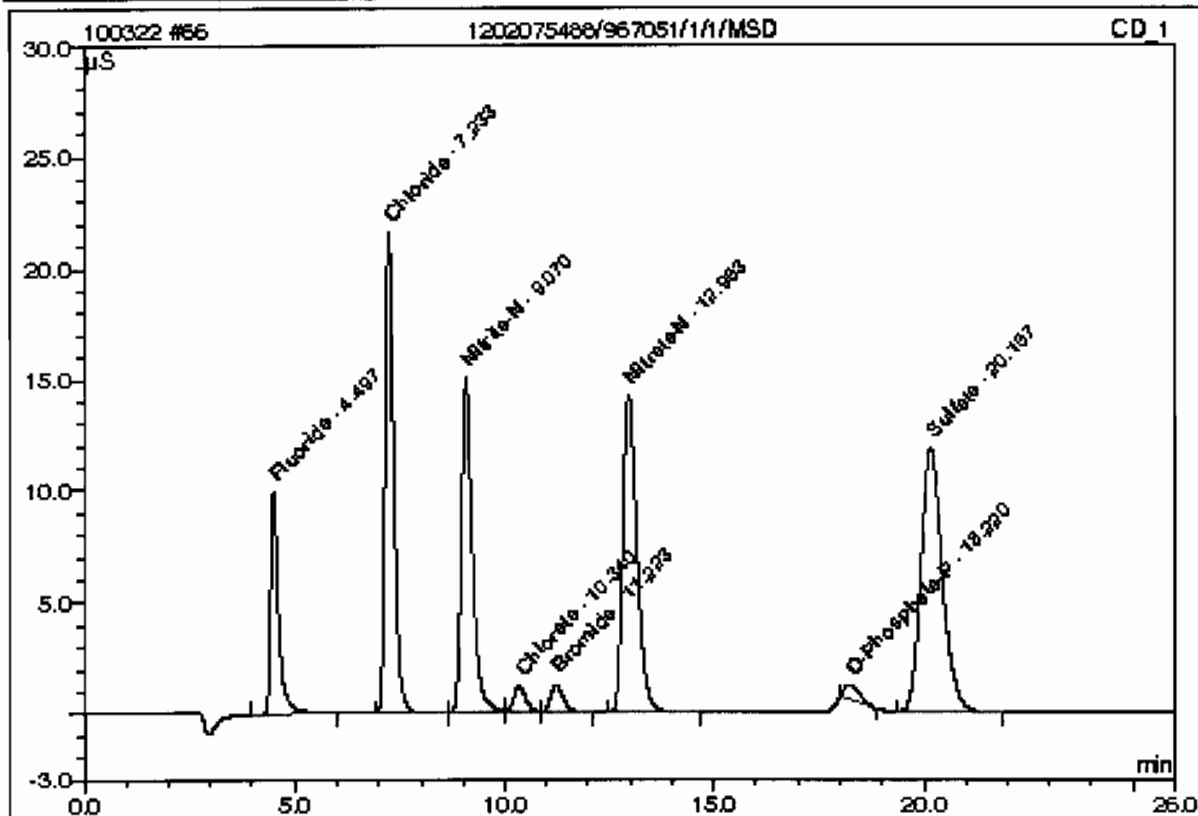
Sample Name:	1202075486/967051/1/1/MS	Injection Volume:	50.0
Vial Number:	119	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 8:47	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;0056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.50	Fluoride	n.a.	3.3698		2.23259	8.76
2	7.23	Chloride	n.a.	9.7913		4.96282	19.47
3	9.07	Nitrite-N	n.a.	4.8303		4.80747	18.08
4	10.34	Chlorate	n.a.	2.5914		0.42446	1.67
5	11.23	Bromide	n.a.	2.5884		0.45339	1.78
6	12.96	Nitrate-N	n.a.	4.8084		5.56476	21.83
7	18.22	O-Phosphate-P	n.a.	0.9603		0.27261	1.07
8	20.16	Sulfate	n.a.	20.4381		6.97175	27.35
Total:				49.3779	0.000	25.490	100.00

66 1202075488/967051/1/1/MSD

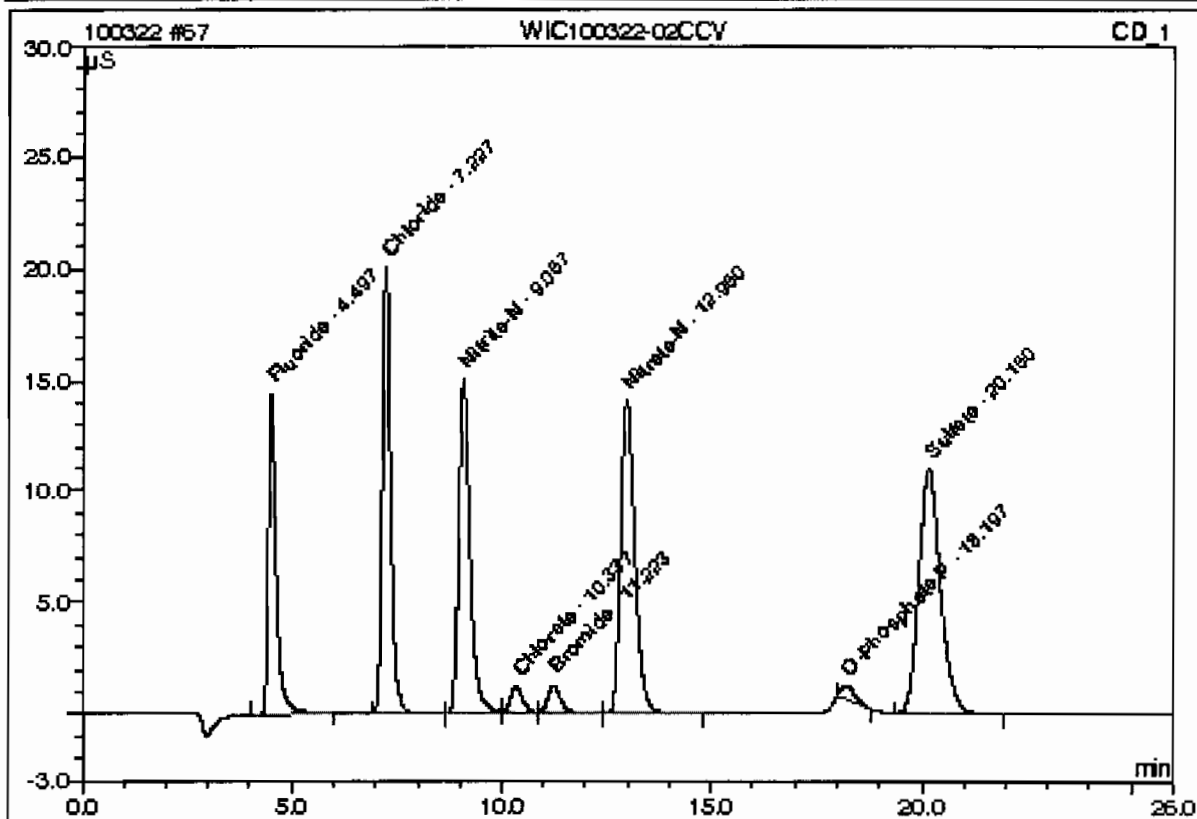
Sample Name:	1202075488/967051/1/1/MSD	Injection Volume:	50.0
Vial Number:	120	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 9:13	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9058



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area uS*min	Rel.Area %
1	4.50	Fluoride	n.a.	3.3818		2.24076	8.77
2	7.23	Chloride	n.a.	9.8180		4.97651	19.47
3	9.07	Nitrate-N	n.a.	4.8522		4.82867	18.11
4	10.34	Chlorate	n.a.	2.6094		0.42749	1.67
5	11.22	Bromide	n.a.	2.5847		0.44917	1.78
6	12.95	Nitrate-N	n.a.	4.8201		5.57858	21.83
7	18.22	O-Phosphate-P	n.a.	0.9258		0.26169	1.02
8	20.16	Sulfate	n.a.	20.5008		6.99346	27.36
Total:				49.4727	0.000	25.556	100.00

67 WIC100322-02CCV

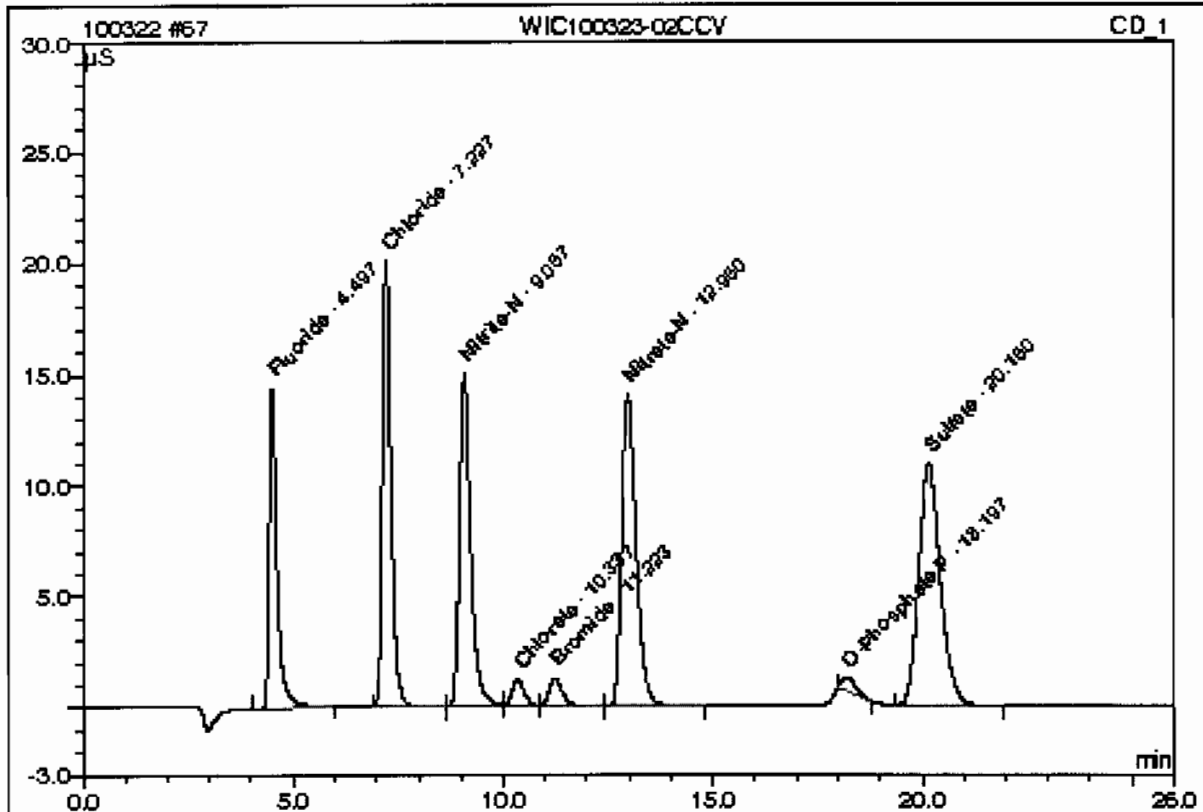
Sample Name:	WIC100322-02CCV	Injection Volume:	50.0
Vial Number:	121	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 9:39	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area $\mu\text{S} \cdot \text{min}$	Rel. Area %
1	4.50	Fluoride	n.a.	4.7300		3.15294	12.34
2	7.23	Chloride	n.a.	9.1423		4.83045	18.13
3	9.07	Nitrate-N	n.a.	4.8547		4.83114	18.13
4	10.34	Chlorate	n.a.	2.6053		0.42681	1.67
5	11.22	Bromide	n.a.	2.6036		0.45611	1.79
6	12.95	Nitrate-N	n.a.	4.7662		5.51483	21.59
7	18.20	O-Phosphate-P	n.a.	0.8153		0.22689	0.89
8	20.15	Sulfate	n.a.	19.0864		6.50352	25.46
Total:				48.6039	0.000	25.542	100.00

67 WIC100323-02CCV

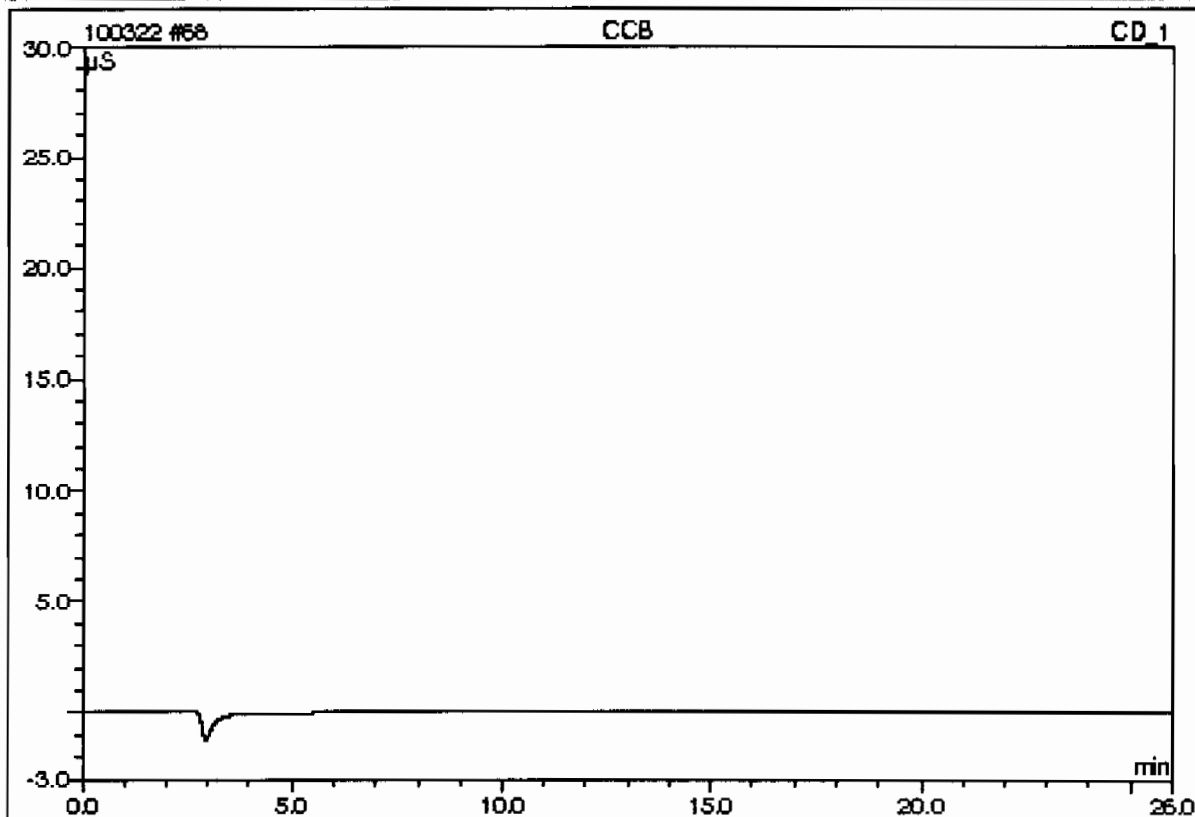
Sample Name:	WIC100323-02CCV	Injection Volume:	50.0
Vial Number:	121	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 9:39	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9058



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.50	Fluoride	n.a.	4.7300		3.15294	12.34
2	7.23	Chloride	n.a.	9.1423		4.63045	18.13
3	9.07	Nitrite-N	n.a.	4.8547		4.63114	18.13
4	10.34	Chlorate	n.a.	2.6053		0.42681	1.67
5	11.22	Bromide	n.a.	2.6036		0.45611	1.79
6	12.95	Nitrate-N	n.a.	4.7862		5.51483	21.59
7	18.20	O-Phosphate-P	n.a.	0.8153		0.22669	0.89
8	20.15	Sulfate	n.a.	19.0864		6.50352	25.46
Total:				48.6039	0.000	25.542	100.00

68 CCB

Sample Name:	CCB	Injection Volume:	50.0
Vial Number:	122	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 10:05	Analysis:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



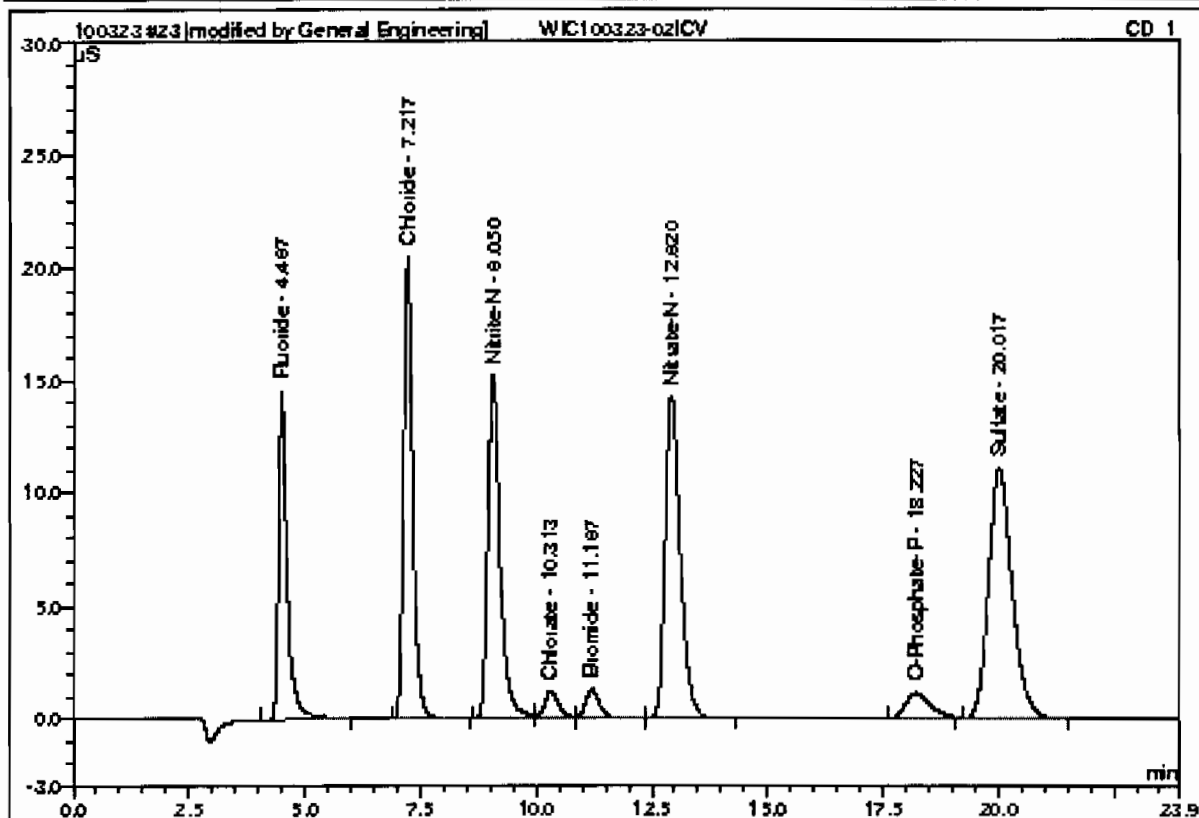
No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	<u>n.a.</u>	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	<u>n.a.</u>	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	<u>n.a.</u>	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	<u>n.a.</u>	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	<u>n.a.</u>	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	<u>n.a.</u>	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	<u>n.a.</u>	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	<u>n.a.</u>	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100323.seq for IC5

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/23/10 13:42		1	100323	VH1
BLK	03/23/10 14:08		1	100323	VH1
ICV	03/23/10 14:34		1	100323	VH1
ICB	03/23/10 15:00		1	100323	VH1
1202078668	03/23/10 15:26	968287	1	100323	VH1
1202078671	03/23/10 15:52	968287	1	100323	VH1
249806001	03/23/10 16:18	968287	1	100323	VH1
1202078669	03/23/10 16:44	968287	1	100323	VH1
1202078670	03/23/10 17:11	968287	1	100323	VH1
249806002	03/23/10 17:37	968287	1	100323	VH1
CCV	03/23/10 18:03		1	100323	VH1
CCB	03/23/10 18:29		1	100323	VH1
248250003	03/23/10 18:55	967051	10	100323	VH1
248250004	03/23/10 19:21	967051	10	100323	VH1
CVH	03/23/10 19:47		1	100323	VH1
CCB	03/23/10 20:13		1	100323	VH1
249318001	03/23/10 20:39	964916	1	100323	VH1
1202070175	03/23/10 21:05	964916	1	100323	VH1
1202070176	03/23/10 21:32	964916	1	100323	VH1
249318002	03/23/10 21:58	964916	1	100323	VH1
249318003	03/23/10 22:24	964916	1	100323	VH1
249318004	03/23/10 22:50	964916	1	100323	VH1
249318005	03/23/10 23:16	964916	1	100323	VH1
249318007	03/23/10 23:42	964916	1	100323	VH1

23 WIC100323-02ICV

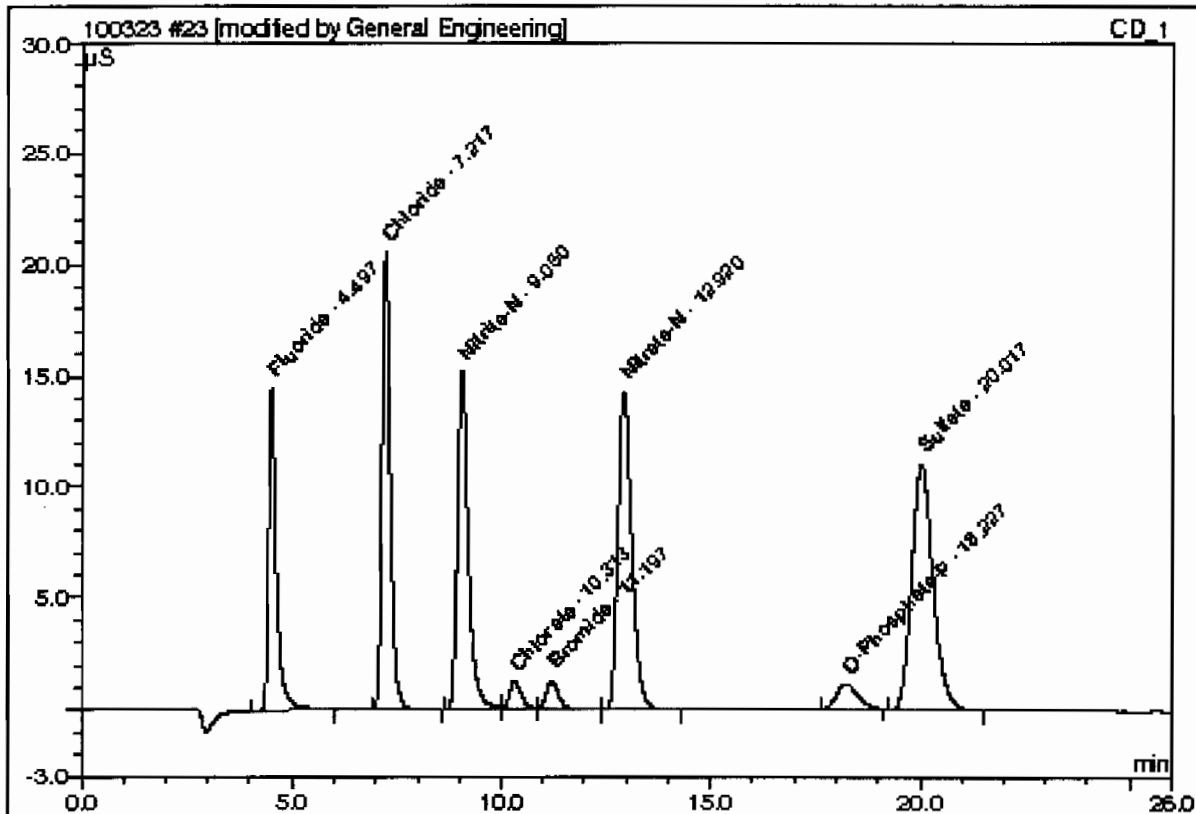
Sample Name:	WIC100323-02ICV	Injection Volume:	50.0
Vial Number:	93	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 14:34	Analyst:	VH1
Run Time (min):	23.92	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area $\mu\text{S} \cdot \text{min}$	Rel. Area %
1	4.50	Fluoride	n.a.	4.7156		3.14317	12.10
2	7.22	Chloride	n.a.	9.1610		4.84004	17.87
3	9.05	Nitrite-N	n.a.	4.8421		4.81889	17.79
4	10.31	Chlorate	n.a.	2.6116		0.42787	1.65
5	11.20	Bromide	n.a.	2.5821		0.45227	1.74
6	12.92	Nitrate-N	n.a.	4.7607		5.50829	21.21
7	18.23	O-Phosphate-P	n.a.	2.2514		0.68136	2.62
8	20.02	Sulfate	n.a.	19.0600		6.49436	25.01
Total:				49.9845	0.000	25.966	100.00

23 WIC100323-02ICV

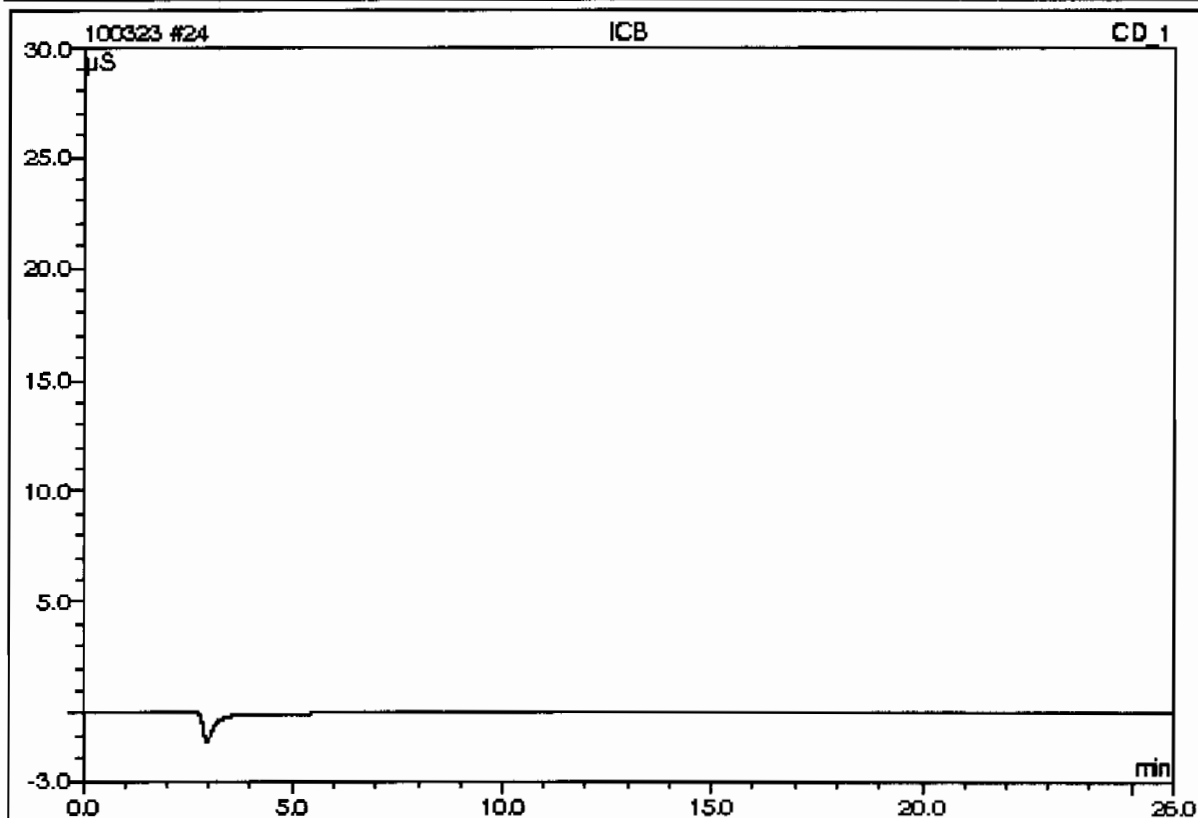
Sample Name:	WIC100323-02ICV	Injection Volume:	50.0
Vial Number:	93	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 14:34	Analyst:	VH1
Run Time (min):	23.92	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.50	Fluoride	n.a.	4.7156		3.14317	12.10
2	7.22	Chloride	n.a.	9.1610		4.64004	17.87
3	9.05	Nitrate-N	n.a.	4.8421		4.61889	17.79
4	10.31	Chlorate	n.a.	2.6116		0.42787	1.65
5	11.20	Bromide	n.a.	2.5821		0.45227	1.74
6	12.92	Nitrate-N	n.a.	4.7607		5.50829	21.21
7	18.23	O-Phosphate-P	n.a.	2.2514		0.68136	2.62
8	20.02	Sulfate	n.a.	19.0600		6.49436	25.01
Total:				49.9845	0.000	25.966	100.00

24 ICB

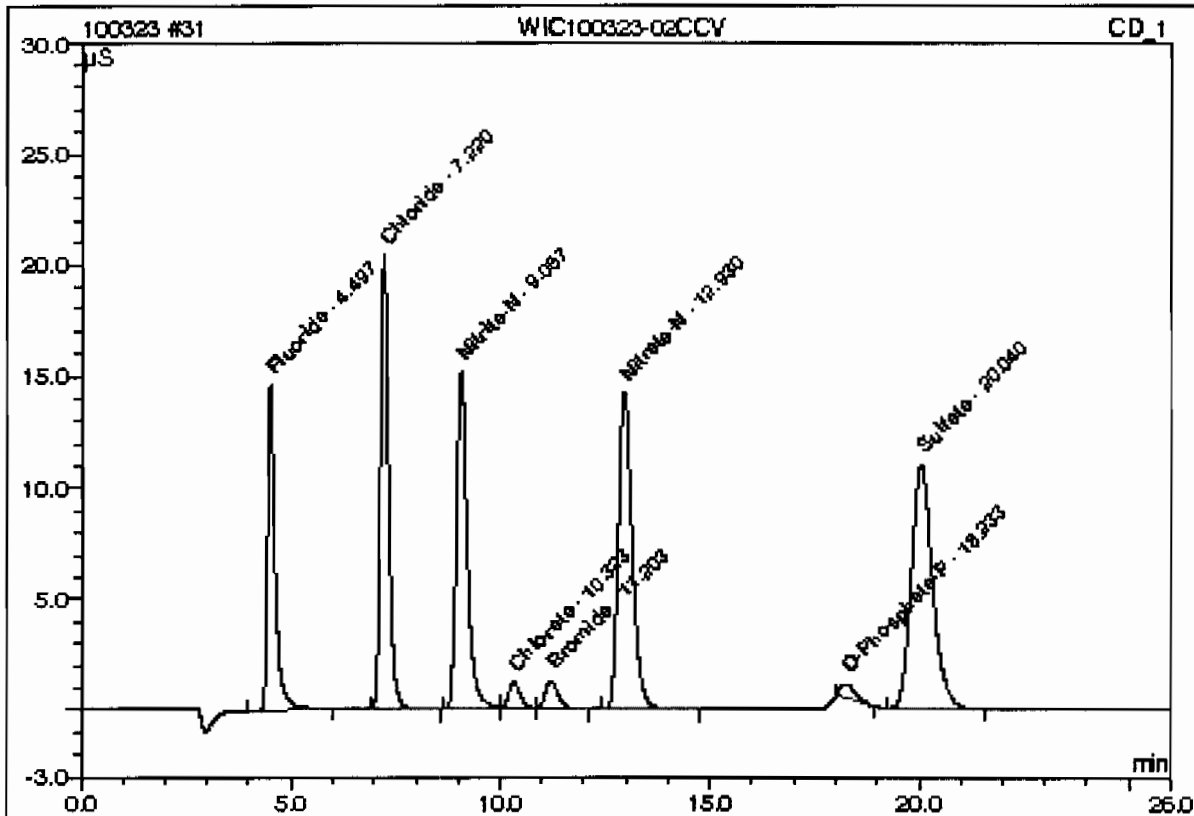
Sample Name:	ICB	Injection Volume:	50.0
Vial Number:	90	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 15:00	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGC086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

31 WIC100323-02CCV

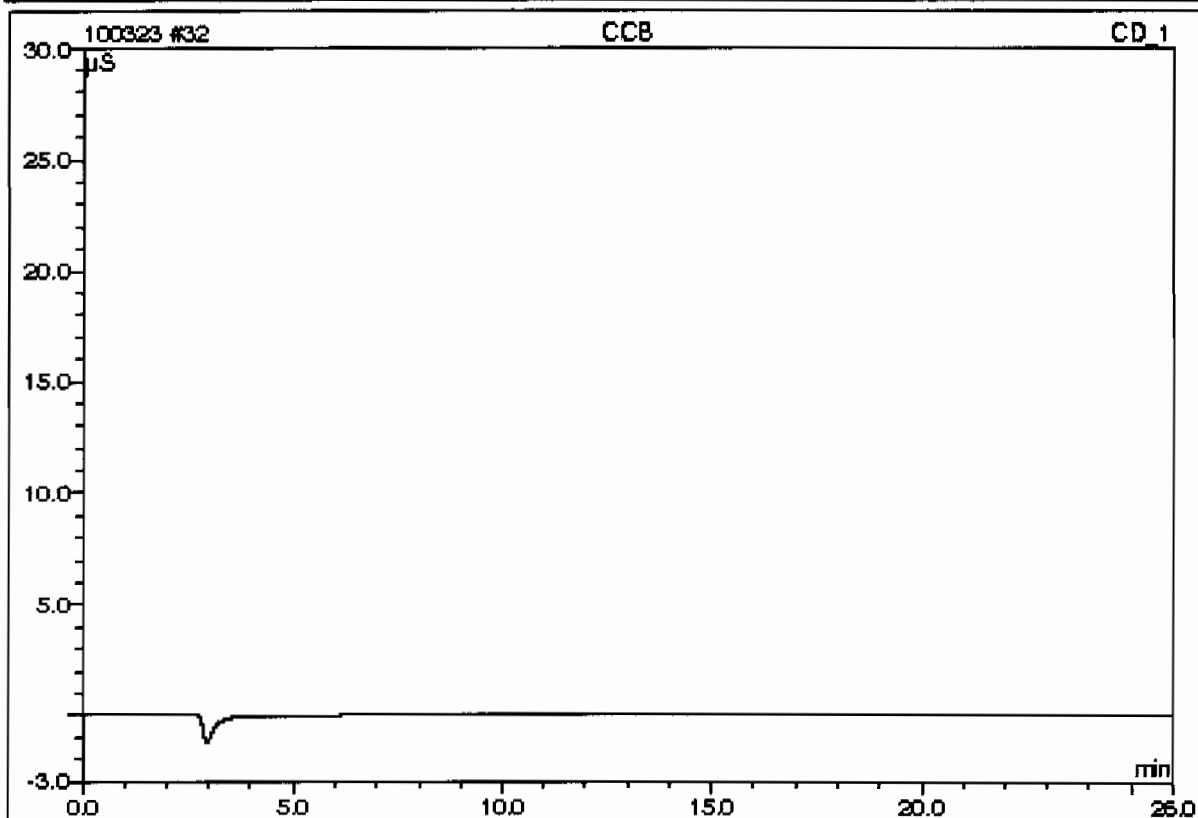
Sample Name:	WIC100323-02CCV	Injection Volume:	50.0
Vial Number:	102	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 18:03	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.50	Fluoride	n.a.	4.7166		3.14519	12.32
2	7.22	Chloride	n.a.	9.1369		4.62767	18.13
3	9.06	Nitrite-N	n.a.	4.8437		4.62048	18.10
4	10.32	Chlorate	n.a.	2.5730		0.42137	1.65
5	11.20	Bromide	n.a.	2.5427		0.44524	1.74
6	12.93	Nitrate-N	n.a.	4.7548		5.50141	21.55
7	18.23	O-Phosphate-P	n.a.	0.9635		0.27361	1.07
8	20.04	Sulfate	n.a.	19.0613		6.49482	25.44
Total:				48.5944	0.000	25.530	100.00

32 CCB

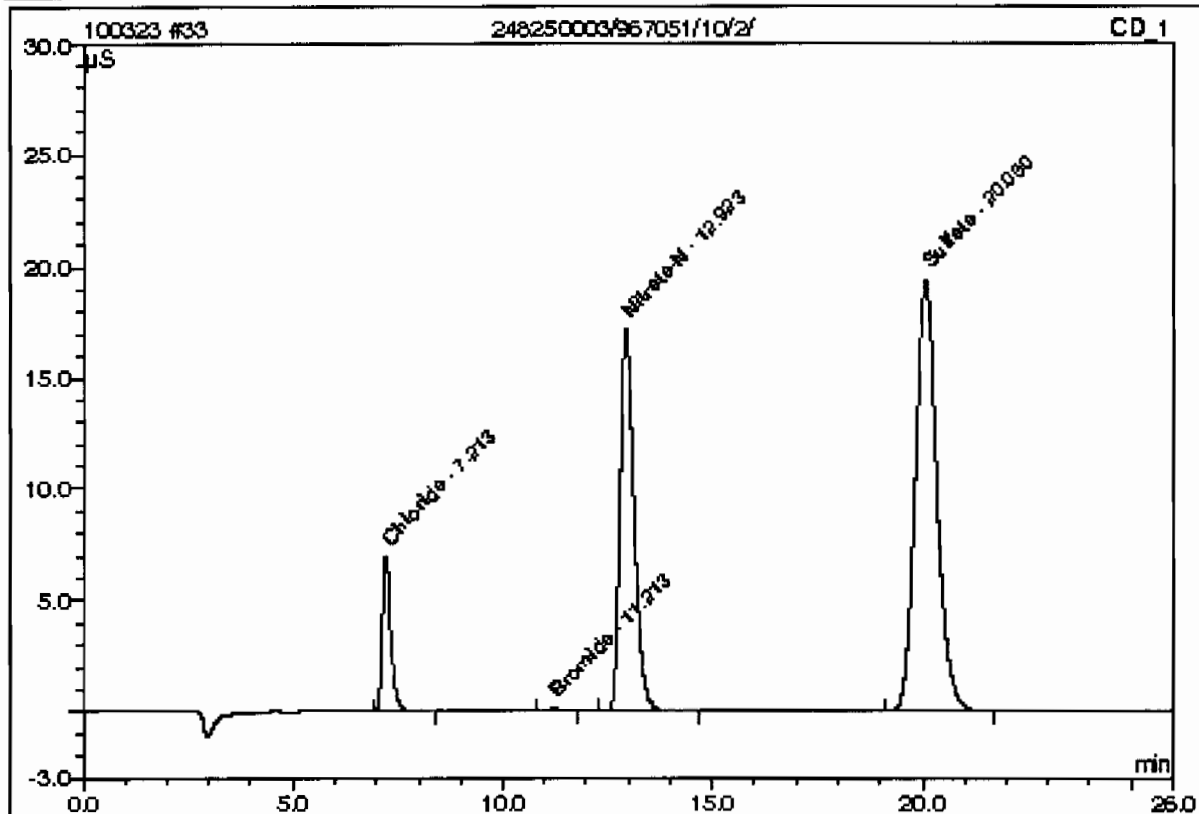
Sample Name:	CCB	Injection Volume:	50.0
Vial Number:	94	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 18:29	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

33 248250003/967051/10/2/

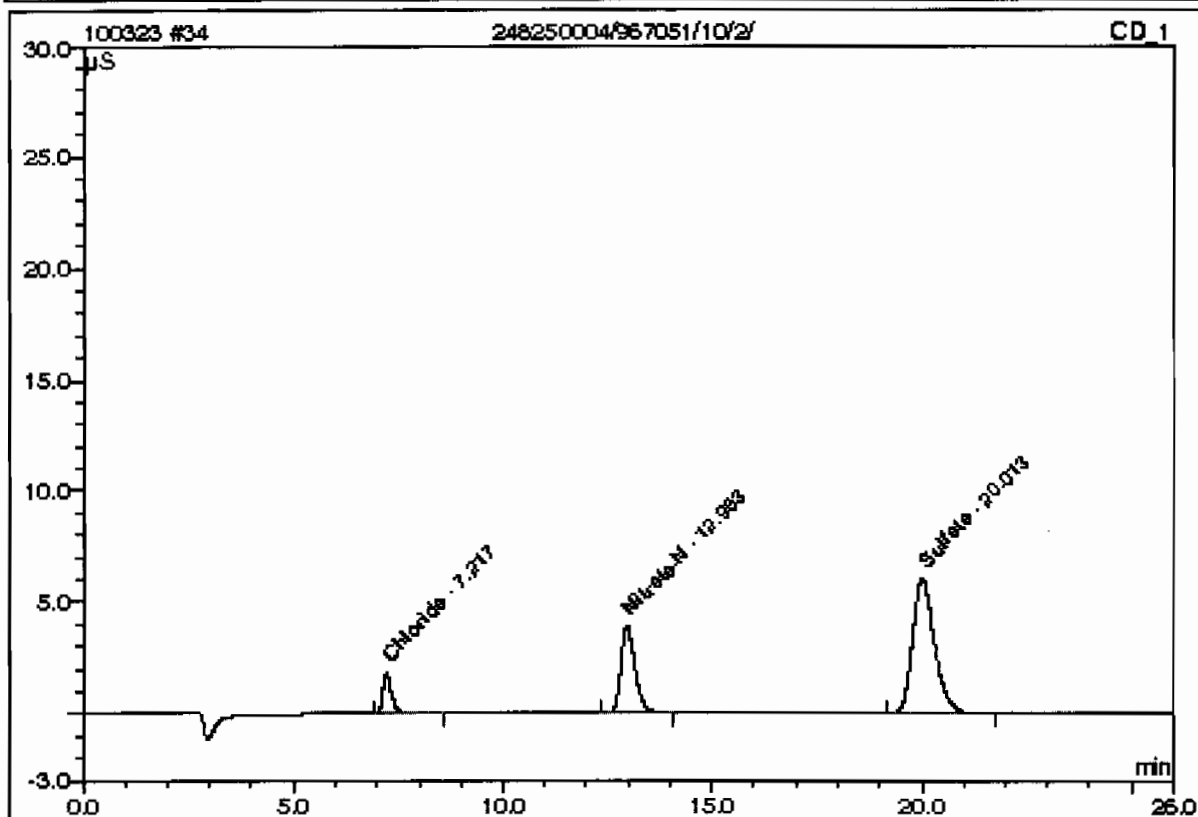
Sample Name:	248250003/967051/10/2/	Injection Volume:	50.0
Vial Number:	99	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 18:55	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.21	Chloride	n.a.	3.3184	n.a.	1.84768	8.32
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
2	11.21	Bromide	n.a.	0.2475	n.a.	0.03632	0.18
3	12.92	Nitrate-N	n.a.	5.7285	n.a.	6.65212	33.59
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.08	Sulfate	n.a.	33.4184	n.a.	11.46830	57.91
Total:				42.7129	0.000	19.804	100.00

34 248250004/967051/10/2/

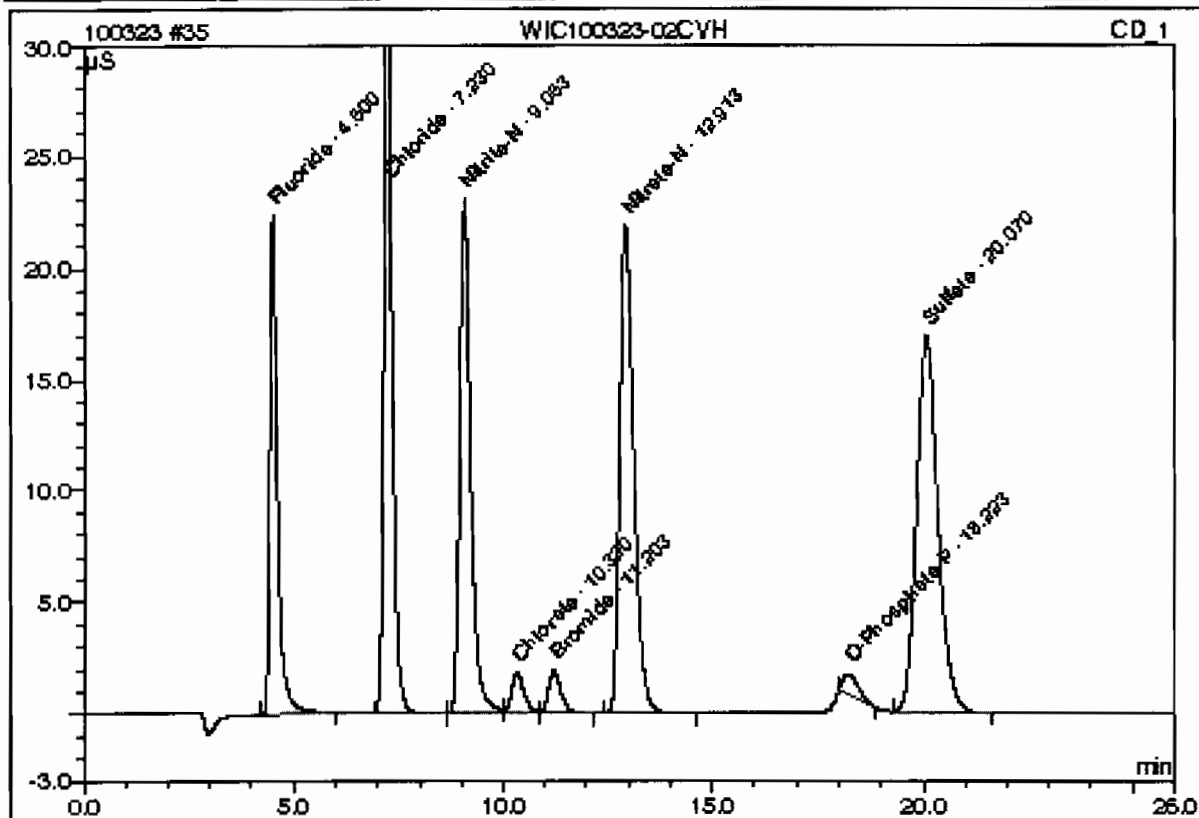
Sample Name:	248250004/967051/10/2/	Injection Volume:	50.0
Vial Number:	100	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 19:21	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.22	Chloride	n.a.	0.9751		0.44754	8.01
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
2	12.96	Nitrate-N	n.a.	1.3732		1.50496	26.93
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.01	Sulfate	n.a.	10.8097		3.63636	65.06
Total:				13.1580	0.000	5.589	100.00

35 WIC100323-02CVH

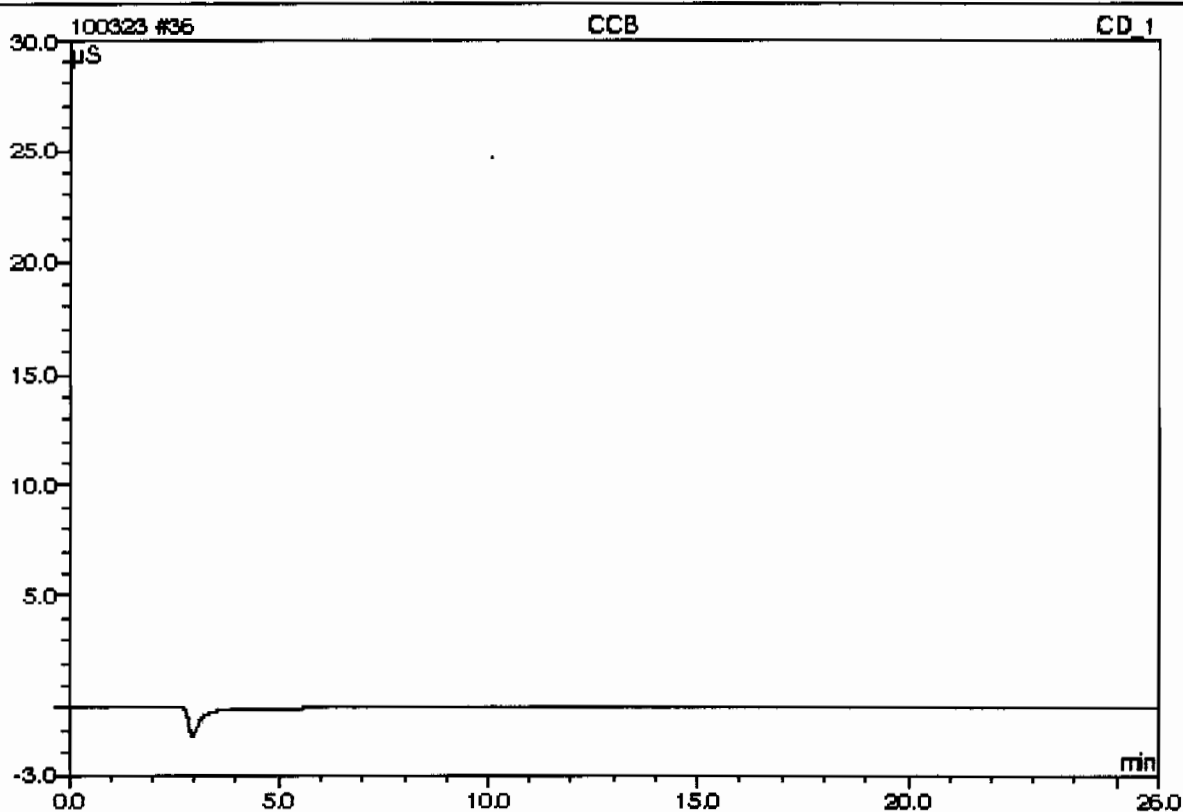
Sample Name:	WIC100323-02CVH	Injection Volume:	50.0
Vial Number:	102	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 19:47	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.50	Fluoride	n.a.	7.0721		4.73753	12.20
2	7.23	Chloride	n.a.	14.0132		7.12516	18.35
3	9.06	Nitrite-N	n.a.	7.2527		6.95294	17.91
4	10.32	Chlorate	n.a.	3.7477		0.61906	1.59
5	11.20	Bromide	n.a.	3.7120		0.65360	1.68
6	12.91	Nitrate-N	n.a.	7.2591		8.46093	21.79
7	18.22	O-Phosphate-P	n.a.	1.3374		0.39199	1.01
8	20.07	Sulfate	n.a.	28.8356		9.88075	25.45
Total:				73.2298	0.000	38.822	100.00

36 CCB

Sample Name:	CCB	Injection Volume:	50.0
Vial Number:	94	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	030410an	Sample Amount:	1.0000
Recording Time:	3/23/2010 20:13	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

pH

pH / Corrosivity LogBook

Analyst: TXT1

Batch: 960262

Lab SOP: GL-GC-E-008 REV# 17

Description: pH

Method: SW846 9045C/9045D

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202059709	IMM100209-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parname	Initial Wt(g)	Final Vol(mL)	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1202059709 LCS		Soil	10:30	10:35	03-MAR-10 13:24	pH	20	20	6.98	20.8°C	7	99.714	
1202059709 LCS		Soil	10:30	10:35	03-MAR-10 13:24	pH 2	20	20	6.98	20.9°C	7	99.714	
248202001		Soil	10:30	10:35	03-MAR-10 13:28	pH	20	20	6.74	21.1°C			
248202001		Soil	10:30	10:35	03-MAR-10 13:28	pH 2	20	20	6.74	21.1°C			.148
1202059707 DUP	248202001	Soil	10:30	10:35	03-MAR-10 13:30	pH	20	20	6.73	21.0°C			
1202059707 DUP	248202001	Soil	10:30	10:35	03-MAR-10 13:30	pH 2	20	20	6.73	21.0°C			.148
248202002		Soil	10:30	10:35	03-MAR-10 13:32	pH	20	20	7.41	21.0°C			
248202002		Soil	10:30	10:35	03-MAR-10 13:32	pH 2	20	20	7.41	21.0°C			
248241001		Soil	10:30	10:35	03-MAR-10 13:34	pH	20	20	5.24	21.0°C			
248241001		Soil	10:30	10:35	03-MAR-10 13:34	pH 2	20	20	5.24	21.0°C			
CCV			10:30	10:35	03-MAR-10 13:36	pH	20	20	7.02	20.0°C	7	100.286	
CCV			10:30	10:35	03-MAR-10 13:36	pH 2	20	20	7.02	20.0°C	7	100.286	
1202059708 DUP	248241001	Soil	10:30	10:35	03-MAR-10 13:37	pH	20	20	5.21	20.8°C			.574
1202059708 DUP	248241001	Soil	10:30	10:35	03-MAR-10 13:37	pH 2	20	20	5.21	20.9°C			.574
248241002		Soil	10:30	10:35	03-MAR-10 13:39	pH	20	20	6.73	20.8°C			
248241002		Soil	10:30	10:35	03-MAR-10 13:39	pH 2	20	20	6.74	20.8°C			
248241003		Soil	10:30	10:35	03-MAR-10 13:42	pH	20	20	7.77	20.8°C			
248241003		Soil	10:30	10:35	03-MAR-10 13:42	pH 2	20	20	7.76	20.8°C			
248241004		Soil	10:30	10:35	03-MAR-10 13:43	pH	20	20	6.55	20.7°C			
248241004		Soil	10:30	10:35	03-MAR-10 13:43	pH 2	20	20	6.59	20.7°C			
248241005		Soil	10:30	10:35	03-MAR-10 13:46	pH	20	20	6.16	20.3°C			
248241005		Soil	10:30	10:35	03-MAR-10 13:46	pH 2	20	20	6.16	20.4°C			
CCV			10:30	10:35	03-MAR-10 13:47	pH	20	20	7.02	19.2°C	7	100.286	
CCV			10:30	10:35	03-MAR-10 13:47	pH 2	20	20	7.02	19.2°C	7	100.286	
248241006		Soil	10:30	10:35	03-MAR-10 13:49	pH	20	20	6.39	20.3°C			
248241006		Soil	10:30	10:35	03-MAR-10 13:49	pH 2	20	20	6.4	20.3°C			
248241007		Soil	10:30	10:35	03-MAR-10 13:57	pH	20	20	6.87	20.0°C			
248241007		Soil	10:30	10:35	03-MAR-10 13:57	pH 2	20	20	6.86	20.0°C			

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pH / Corrosivity LogBook

Analyst: TXT1
Batch: 960262
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: SW846 9045C/9045D

Type: CCV
Sample Id: 240
Serial Number: IMM091029-PH
Description: PH 7 BUFFER FOR PH
LCS
1202059709
IMM100209-01
LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parname	Initial Wt(g)	Final Vol(mL)	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
248241008		Soil	10:30	10:35	03-MAR-10 13:57	pH	20	20	5.63	19.9C			
248241008		Soil	10:30	10:35	03-MAR-10 13:57	pH 2	20	20	5.63	19.8C			
248241009		Soil	10:30	10:35	03-MAR-10 13:59	pH	20	20	6.9	20.0C			
248241009		Soil	10:30	10:35	03-MAR-10 13:59	pH 2	20	20	6.91	20.0C			
248241010		Soil	10:30	10:35	03-MAR-10 14:00	pH	20	20	6.91	19.8C			
248241010		Soil	10:30	10:35	03-MAR-10 14:00	pH 2	20	20	6.91	19.8C			
CCV			10:30	10:35	03-MAR-10 14:02	pH	20	20	7.03	18.4C	7	100.429	
CCV			10:30	10:35	03-MAR-10 14:02	pH 2	20	20	7.02	18.4C	7	100.286	
248250001		Soil	10:30	10:35	03-MAR-10 14:04	pH	20	20	6.4	19.7C			
248250001		Soil	10:30	10:35	03-MAR-10 14:04	pH 2	20	20	6.4	19.7C			
248250002		Soil	10:30	10:35	03-MAR-10 14:06	pH	20	20	5.93	19.7C			
248250002		Soil	10:30	10:35	03-MAR-10 14:06	pH 2	20	20	5.93	19.7C			
248250003		Soil	10:30	10:35	03-MAR-10 14:08	pH	20	20	6.23	19.6C			
248250003		Soil	10:30	10:35	03-MAR-10 14:08	pH 2	20	20	6.24	19.6C			
248250004		Soil	10:30	10:35	03-MAR-10 14:10	pH	20	20	5.98	19.5C			
248250004		Soil	10:30	10:35	03-MAR-10 14:10	pH 2	20	20	5.99	19.5C			
CCV			10:30	10:35	03-MAR-10 14:11	pH	20	20	7.02	18.3C	7	100.286	
CCV			10:30	10:35	03-MAR-10 14:11	pH 2	20	20	7.02	18.3C	7	100.286	

Comments:

Calibration Information:				Comments:			
Run Date:	03-MAR-10 12:16	Standard	Observed	Theoretical	C	%Recovery	
Instrument:	PHX370	12:16 IMM100303-PH1	4.02	4	19	100.5	
Analyst:	TXT1	12:16 IMM100303-PH2	7.02	7	19	100.29	
		12:16 UPH100303-PH3	10.01	10	19	100.1	
		12:16 UPH100303-PH4	2.08	2	19	104	
		12:16 UPH100303-PH5	11.99	12	19	99.917	
		12:16 IMM100303-PH6	7	7	19	100	

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RADIOLOGICAL ANALYSIS

**Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2141**

Method/Analysis Information

Product: Dry Weight-Percent Moisture

Analytical Method: Dry Soil Prep

Analytical Batch Number: 959187

Sample ID	Client ID
248250001	RE36-10-8285
248250002	RE36-10-8286
248250003	RE36-10-8283
248250004	RE36-10-8284
1202057047	248248001(RE36-10-8464) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Designated QC

The following sample was used for QC: 248248001 (RE36-10-8464). The QC was from LANL work order 248248.

QC Information

All of the QC samples met the required acceptance limits.

CSU

Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:**Holding Time**

All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:**Data Exception (DER) Documentation**

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

Additional Comments

Additional comments were not required for this sample set.

Blank Decision Level

Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	AM241
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	964871
Prep Batch Number:	959187

Sample ID	Client ID
248250001	RE36-10-8285
248250002	RE36-10-8286
248250003	RE36-10-8283
248250004	RE36-10-8284
1202070038	Method Blank (MB)
1202070039	248258001(RE46-10-13534) Sample Duplicate (DUP)
1202070040	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 solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

Aliquot for sample 1202070038 (MB) was changed to 1.0 per client request.

Designated QC

The following sample was used for QC: 248258001 (RE46-10-13534). The QC was from LANL work order 248258.

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:

Data Exception (DER) Documentation

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

Manual Integration

No manual integrations were performed on data in this batch.

Additional Comments

The MDCs are calculated using a blank population.

Blank Decision Level

The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	ISOPU
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	964872
Prep Batch Number:	959187

Sample ID	Client ID
248250001	RE36-10-8285
248250002	RE36-10-8286
248250003	RE36-10-8283
248250004	RE36-10-8284
1202070043	Method Blank (MB)
1202070044	248258001(RE46-10-13534) Sample Duplicate (DUP)
1202070045	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 solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

Aliquot for sample 1202070043 (MB) was changed to 1.0 per client request.

Designated QC

The following sample was used for QC: 248258001 (RE46-10-13534). The QC was from LANL work order 248258.

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:

Data Exception (DER) Documentation

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

Manual Integration

No manual integrations were performed on data in this batch.

Additional Comments

The MDCs are calculated using a blank population.

Blank Decision Level

The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	ISOU
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	964874
Prep Batch Number:	959187

Sample ID	Client ID
248250001	RE36-10-8285
248250002	RE36-10-8286
248250003	RE36-10-8283
248250004	RE36-10-8284
1202070047	Method Blank (MB)
1202070048	248258001(RE46-10-13534) Sample Duplicate (DUP)
1202070049	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 solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

Aliquot for sample 1202070047 (MB) was changed to 1.0 per client request.

Designated QC

The following sample was used for QC: 248258001 (RE46-10-13534). The QC was from LANL work order 248258.

QC Information

All of the QC samples met the required acceptance limits.

CSU

The U233/234 and U238 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:

Data Exception (DER) Documentation

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

Manual Integration

No manual integrations were performed on data in this batch.

Additional Comments

The MDCs are calculated using a blank population.

Blank Decision Level

The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product: GAMMA SPEC
Analytical Method: DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method: Dry Soil Prep
Analytical Batch Number: 959281
Prep Batch Number: 959187

Sample ID	Client ID
248250001	RE36-10-8285
248250002	RE36-10-8286
248250003	RE36-10-8283
248250004	RE36-10-8284
1202057358	Method Blank (MB)
1202057359	248258001(RE46-10-13534) Sample Duplicate (DUP)
1202057360	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# 19.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met. The initial Calibrations were performed in April 2009, June 2009, October 2009, November 2009, January 2010 and February 2010.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

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 volumes in this batch.

Designated QC

The following sample was used for QC: 248258001 (RE46-10-13534). The QC was from LANL work order 248258.

QC Information

All of the QC samples met the required acceptance limits.

CSU

The method blank 1202057358 (MB) result is greater than 1.65 times the CSU but less than the MDC for Na-22.

Technical Information:**Holding Time**

All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis

Sample 1202057358 (MB) was recounted due to a suspected blank false positive.

Miscellaneous Information:**Data Exception (DER) Documentation**

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

Additional Comments

Additional comments were not required for this sample set.

Blank Decision Level

The blank result is less than the decision level.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	248250001	RE36-10-8285
			248250002	RE36-10-8286
			248250003	RE36-10-8283
			248250004	RE36-10-8284
			1202057359	RE46-10-13534(248258001DUP)
		Cadmium-109	248250001	RE36-10-8285
			248250002	RE36-10-8286
			248250003	RE36-10-8283
			1202057359	RE46-10-13534(248258001DUP)
			248250002	RE36-10-8286
		Mercury-203	1202057359	RE46-10-13534(248258001DUP)
			248250001	RE36-10-8285
		Radium-224	248250002	RE36-10-8286
			248250003	RE36-10-8283
			248250004	RE36-10-8284
			1202057359	RE46-10-13534(248258001DUP)
UI	Data rejected due to low abundance.	Cadmium-109	248250004	RE36-10-8284
		Cesium-134	248250003	RE36-10-8283
		Strontium-85	1202057359	RE46-10-13534(248258001DUP)

Method/Analysis Information

Product: H3
Analytical Method: GL-RAD-A-002
Analytical Batch Number: 964058

Sample ID	Client ID
248250001	RE36-10-8285
248250002	RE36-10-8286
248250003	RE36-10-8283
248250004	RE36-10-8284
1202068219	Method Blank (MB)
1202068220	248376005(RE36-10-7496) Sample Duplicate (DUP)
1202068221	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

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: 248376005 (RE36-10-7496). The QC was from LANL work order 248376.

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:**Data Exception (DER) Documentation**

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

Additional Comments

Additional comments were not required for this sample set.

Blank Decision Level

The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

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: _____

Ramona Welch 5/25/10

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: 10-2141 GEL Work Order: 248250

The Qualifiers in this report are defined as follows:

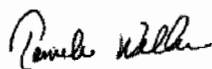
- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.

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

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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: March 26, 2010

Client Sample ID: RE36-10-8285
Sample ID: 248250001
Matrix: R
Collect Date: 24-FEB-10
Receive Date: 27-FEB-10
Collector: Client
Moisture: 27.9%

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	0.0183	0.0227	+/-0.00546	0.050	pCi/g		JXD2	03/24/10	2056	964871	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00916	0.0239	+/-0.00781	0.050	pCi/g		JXD2	03/24/10	2109	964872	3
Plutonium-239/240		0.0437	0.0202	+/-0.00946	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		6.10	0.187	+/-0.511	0.100	pCi/g		JXD2	03/25/10	1416	964874	4
Uranium-235/236		0.278	0.114	+/-0.0523	0.100	pCi/g						
Uranium-238		4.51	0.131	+/-0.388	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0529	0.384	+/-0.136	0.200	pCi/g		MXR1	03/19/10	1310	959281	5
Bismuth-211	UI	4.41	0.471	+/-0.406		pCi/g						
Bismuth-214		1.26	0.175	+/-0.136	0.200	pCi/g						
Cadmium-109	UI	4.14	1.78	+/-0.825		pCi/g						
Cerium-139	U	-0.0194	0.0748	+/-0.0233	0.050	pCi/g						
Cesium-134	U	0.0922	0.131	+/-0.0353	0.100	pCi/g						
Cesium-137		0.669	0.0807	+/-0.0725	0.100	pCi/g						
Cobalt-60	U	-0.00916	0.0889	+/-0.0279	0.100	pCi/g						
Europium-152	U	-0.0319	0.244	+/-0.0844	0.200	pCi/g						
Lanthanum-140	U	-0.0448	0.316	+/-0.102		pCi/g						
Lead-212		1.93	0.128	+/-0.130	0.100	pCi/g						
Lead-214		1.60	0.187	+/-0.154	0.100	pCi/g						
Mercury-203	U	0.0695	0.116	+/-0.0343	0.100	pCi/g						
Potassium-40		24.2	0.589	+/-1.53	1.00	pCi/g						
Radium-223	U	-0.253	1.67	+/-0.530		pCi/g						
Radium-224	UI	3.83	1.37	+/-0.964		pCi/g						
Radium-226		1.26	0.175	+/-0.136		pCi/g						
Radium-228		1.74	0.346	+/-0.248	0.500	pCi/g						
Ruthenium-106	U	-0.163	0.791	+/-0.249	0.800	pCi/g						

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

Report Date: March 26, 2010

Client Sample ID: RE36-10-8285
Sample ID: 248250001
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>												
Sodium-22	U	-0.00258	0.0995	+/-0.0304	0.080	pCi/g						
Strontium-85	U	-0.229	0.131	+/-0.0502		pCi/g						
Thallium-208		0.485	0.0931	+/-0.065	0.080	pCi/g						
Thorium-227	U	0.149	0.664	+/-0.202		pCi/g						
Thorium-231	U	-0.253	1.67	+/-0.530		pCi/g						
Thorium-234		7.92	3.23	+/-2.07	2.00	pCi/g						
Tin-113	U	0.00546	0.121	+/-0.038	0.100	pCi/g						
Uranium-235	U	0.138	0.488	+/-0.149	0.500	pCi/g						
Yttrium-88	U	-0.0291	0.0827	+/-0.0295	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
<i>H3 "As Received"</i>												
Tritium		209	141	+/-50.3	250	pCi/L		KXK2	03/23/10	0724	964058	6

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
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	81.2	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	82.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	50.9	(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.

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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: March 26, 2010

Client Sample ID: RE36-10-8285
Sample ID: 248250001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
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BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).
Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

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

Report Date: March 26, 2010

Client Sample ID: RE36-10-8286
Sample ID: 248250002
Matrix: R
Collect Date: 24-FEB-10
Receive Date: 27-FEB-10
Collector: Client
Moisture: 7.51%

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	0.00414	0.0204	+/-0.00287	0.050	pCi/g		JXD2	03/24/10	2056	964871	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00378	0.0251	+/-0.00268	0.050	pCi/g		JXD2	03/24/10	2109	964872	3
Plutonium-239/240	U	0.0148	0.0212	+/-0.00648	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		3.21	0.130	+/-0.265	0.100	pCi/g		JXD2	03/25/10	1416	964874	4
Uranium-235/236		0.165	0.0792	+/-0.0329	0.100	pCi/g						
Uranium-238		2.62	0.0912	+/-0.222	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	-0.135	0.546	+/-0.160	0.200	pCi/g		MXR1	03/19/10	1310	959281	5
Bismuth-211	UI	4.61	0.406	+/-0.370		pCi/g						
Bismuth-214		1.34	0.140	+/-0.114	0.200	pCi/g						
Cadmium-109	UI	2.75	1.84	+/-0.707		pCi/g						
Cerium-139	U	0.0119	0.0688	+/-0.0205	0.050	pCi/g						
Cesium-134	U	0.0934	0.109	+/-0.0295	0.100	pCi/g						
Cesium-137		0.143	0.0764	+/-0.0365	0.100	pCi/g						
Cobalt-60	U	0.0128	0.0803	+/-0.0241	0.100	pCi/g						
Europium-152	U	-0.0181	0.206	+/-0.0754	0.200	pCi/g						
Lanthanum-140	U	-0.0948	0.237	+/-0.0791		pCi/g						
Lead-212		1.84	0.124	+/-0.130	0.100	pCi/g						
Lead-214		1.67	0.148	+/-0.142	0.100	pCi/g						
Mercury-203	UI	0.119	0.0889	+/-0.0446	0.100	pCi/g						
Potassium-40		27.7	0.646	+/-1.67	1.00	pCi/g						
Radium-223	U	-0.547	1.32	+/-0.473		pCi/g						
Radium-224	UI	5.53	1.32	+/-0.899		pCi/g						
Radium-226		1.34	0.140	+/-0.114		pCi/g						
Radium-228		1.98	0.243	+/-0.215	0.500	pCi/g						
Ruthenium-106	U	0.0185	0.597	+/-0.182	0.800	pCi/g						
Sodium-22	U	0.0169	0.0935	+/-0.028	0.080	pCi/g						

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Certificate of Analysis

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

Report Date: March 26, 2010

Client Sample ID:
Sample ID:

RE36-10-8286
248250002

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	-0.173	0.100	+/-0.0357		pCi/g						
Thallium-208		0.490	0.0719	+/-0.0483	0.080	pCi/g						
Thorium-227	U	0.183	0.570	+/-0.162		pCi/g						
Thorium-231	U	-0.547	1.32	+/-0.473		pCi/g						
Thorium-234	U	2.69	4.58	+/-1.34	2.00	pCi/g						
Tin-113	U	0.0108	0.107	+/-0.0316	0.100	pCi/g						
Uranium-235	U	0.150	0.456	+/-0.136	0.500	pCi/g						
Yttrium-88	U	0.0321	0.0888	+/-0.0247	0.100	pCi/g						

Rad Liquid Scintillation Analysis

H3 "As Received"

Tritium	U	71.3	142	+/-43.2	250	pCi/L		KXK2	03/23/10	0811	964058	6
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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
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	89.2	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	79.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	74.8	(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

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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: March 26, 2010

Client Sample ID: RE36-10-8286
Sample ID: 248250002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time Batch	Mtd.
-----------	-----------	--------	----	-----	----	-------	----	---------	------	------------	------

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).
Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
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: March 26, 2010

Client Sample ID: RE36-10-8283
Sample ID: 248250003
Matrix: R
Collect Date: 24-FEB-10
Receive Date: 27-FEB-10
Collector: Client
Moisture: 6.33%

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	0.00139	0.0207	+/-0.0021	0.050	pCi/g		JXD2	03/24/10	2056	964871	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.00248	0.0258	+/-0.00308	0.050	pCi/g		JXD2	03/24/10	2109	964872	3
Plutonium-239/240	U	0.0166	0.0218	+/-0.00652	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		4.43	0.176	+/-0.377	0.100	pCi/g		JXD2	03/25/10	1416	964874	4
Uranium-235/236		0.147	0.108	+/-0.0355	0.100	pCi/g						
Uranium-238		3.72	0.124	+/-0.322	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.140	0.252	+/-0.0812	0.200	pCi/g		MXR1	03/19/10	1311	959281	5
Bismuth-211	UI	3.93	0.336	+/-0.333		pCi/g						
Bismuth-214		1.38	0.0966	+/-0.107	0.200	pCi/g						
Cadmium-109	UI	2.79	1.08	+/-0.548		pCi/g						
Cerium-139	U	-0.0358	0.0476	+/-0.015	0.050	pCi/g						
Cesium-134	UI	0.110	0.092	+/-0.0277	0.100	pCi/g						
Cesium-137		0.335	0.0678	+/-0.0399	0.100	pCi/g						
Cobalt-60	U	0.00417	0.0641	+/-0.0196	0.100	pCi/g						
Europium-152	U	-0.04	0.149	+/-0.0461	0.200	pCi/g						
Lanthanum-140	U	-0.108	0.154	+/-0.057		pCi/g						
Lead-212		1.87	0.0854	+/-0.126	0.100	pCi/g						
Lead-214		1.43	0.122	+/-0.127	0.100	pCi/g						
Mercury-203	U	0.0142	0.0713	+/-0.0217	0.100	pCi/g						
Potassium-40		27.6	0.410	+/-1.48	1.00	pCi/g						
Radium-223	U	-0.0661	1.02	+/-0.361		pCi/g						
Radium-224	UI	1.62	0.916	+/-0.572		pCi/g						
Radium-226		1.38	0.0966	+/-0.107		pCi/g						
Radium-228		1.84	0.204	+/-0.182	0.500	pCi/g						
Ruthenium-106	U	0.173	0.525	+/-0.153	0.800	pCi/g						
Sodium-22	U	-0.0206	0.068	+/-0.0222	0.080	pCi/g						

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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: March 26, 2010

Client Sample ID: RE36-10-8283
Sample ID: 248250003

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	0.0307	0.0656	+/-0.0187		pCi/g					
Thallium-208		0.525	0.0513	+/-0.0516	0.080	pCi/g					
Thorium-227	U	-0.304	0.370	+/-0.125		pCi/g					
Thorium-231	U	-0.0661	1.02	+/-0.361		pCi/g					
Thorium-234		3.32	2.03	+/-0.826	2.00	pCi/g					
Tin-113	U	-0.039	0.0712	+/-0.0223	0.100	pCi/g					
Uranium-235	U	0.0585	0.337	+/-0.0993	0.500	pCi/g					
Yttrium-88	U	0.0157	0.0652	+/-0.0185	0.100	pCi/g					

Rad Liquid Scintillation Analysis

H3 "As Received"

Tritium		359	150	+/-61.5	250	pCi/L	KXK2	03/23/10	0859	964058	6
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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
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.9	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	81.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	56.2	(50%-105%)

Notes:

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

The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound

< Result is less than value reported

> Result is greater than value reported

A The TIC is a suspected aldol-condensation product

B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

BD Results are either below the MDC or tracer recovery is low

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Certificate of Analysis

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

Report Date: March 26, 2010

Client Sample ID: RE36-10-8283
Sample ID: 248250003
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time Batch	Mtd.
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C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).
Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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

Report Date: March 26, 2010

Client Sample ID: RE36-10-8284
Sample ID: 248250004
Matrix: R
Collect Date: 24-FEB-10
Receive Date: 27-FEB-10
Collector: Client
Moisture: 5.53%

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	0.00103	0.0208	+/-0.00142	0.050	pCi/g		JXD2	03/24/10	2056	964871	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.0026	0.027	+/-0.00323	0.050	pCi/g		JXD2	03/24/10	2109	964872	3
Plutonium-239/240	U	0.0211	0.0228	+/-0.00837	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		3.72	0.141	+/-0.308	0.100	pCi/g		JXD2	03/25/10	1416	964874	4
Uranium-235/236		0.124	0.0862	+/-0.0292	0.100	pCi/g						
Uranium-238		2.88	0.0992	+/-0.245	0.100	pCi/g						
Rad Gamma Spec Analysis												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0583	0.123	+/-0.0382	0.200	pCi/g		MXR1	03/19/10	1311	959281	5
Bismuth-211	UI	4.40	0.389	+/-0.333		pCi/g						
Bismuth-214		1.42	0.161	+/-0.131	0.200	pCi/g						
Cadmium-109	UI	4.13	1.59	+/-0.543		pCi/g						
Cerium-139	U	0.0126	0.0608	+/-0.0181	0.050	pCi/g						
Cesium-134	U	0.0886	0.135	+/-0.0371	0.100	pCi/g						
Cesium-137		0.326	0.0868	+/-0.0571	0.100	pCi/g						
Cobalt-60	U	0.029	0.103	+/-0.0296	0.100	pCi/g						
Europium-152	U	0.0212	0.205	+/-0.0619	0.200	pCi/g						
Lanthanum-140	U	-0.103	0.275	+/-0.0936		pCi/g						
Lead-212		1.91	0.105	+/-0.120	0.100	pCi/g						
Lead-214		1.60	0.142	+/-0.129	0.100	pCi/g						
Mercury-203	U	0.0472	0.091	+/-0.0283	0.100	pCi/g						
Potassium-40		30.2	0.598	+/-1.76	1.00	pCi/g						
Radium-223	U	-0.505	1.15	+/-0.422		pCi/g						
Radium-224	UI	5.86	1.13	+/-0.945		pCi/g						
Radium-226		1.42	0.161	+/-0.131		pCi/g						
Radium-228		2.06	0.296	+/-0.234	0.500	pCi/g						
Ruthenium-106	U	0.131	0.710	+/-0.213	0.800	pCi/g						
Sodium-22	U	0.0152	0.108	+/-0.0329	0.080	pCi/g						

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Certificate of Analysis

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

Report Date: March 26, 2010

Client Sample ID:
Sample ID:

RE36-10-8284
248250004

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	0.0489	0.0992	+/-0.032		pCi/g					
Thallium-208		0.653	0.0843	+/-0.0625	0.080	pCi/g					
Thorium-227	U	-0.286	0.460	+/-0.155		pCi/g					
Thorium-231	U	-0.505	1.15	+/-0.422		pCi/g					
Thorium-234		2.84	1.18	+/-0.738	2.00	pCi/g					
Tin-113	U	0.00555	0.0989	+/-0.0293	0.100	pCi/g					
Uranium-235	U	0.0786	0.409	+/-0.125	0.500	pCi/g					
Yttrium-88	U	0.00353	0.0989	+/-0.0302	0.100	pCi/g					

Rad Liquid Scintillation Analysis

H3 "As Received"

Tritium		477	149	+/-68.6	250	pCi/L	KXK2	03/23/10	0946	964058	6
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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
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	89.6	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	76.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	67.3	(50%-105%)

Notes:

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

The Qualifiers in this report are defined as follows :

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

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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: March 26, 2010

Client Sample ID: RE36-10-8284
Sample ID: 248250004
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
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C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).
Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

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QC Summary

Report Date: March 26, 2010

Page 1 of 7

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico
Contact: Ms. Joylene Valdez
Workorder: 248250

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	964871										
QC1202070039	248258001	DUP									
Americium-241		U	0.000365	U	0.00249	pCi/g	0.260	(0-1)	JXD2	03/25/1007:54	
		TPU:	+/-0.00219		+/-0.0019						
		Yield:	85.1		88.2						
QC1202070040	LCS										
Americium-241	33.1				31.5	pCi/g	94.9	(75%-125%)		03/25/1007:54	
		TPU:			+/-2.30						
		Yield:			99.4						
QC1202070038	MB										
Americium-241		U	0.00148		0.00148	pCi/g				03/25/1007:54	
		TPU:	+/-0.00427								
		Yield:	91.1								
Batch	964872										
QC1202070044	248258001	DUP									
Plutonium-238		U	0.00414	U	-0.000279	pCi/g	0.329	(0-1)	JXD2	03/24/1021:09	
		TPU:	+/-0.00341		+/-0.00329						
		Yield:	87.9		87.4						
Plutonium-239/240		U	0.00878	U	0.0105	pCi/g	0.0875	(0-1)			
		TPU:	+/-0.00533		+/-0.00432						
		Yield:	87.9		87.4						
QC1202070045	LCS										
Plutonium-238					4.66	pCi/g		(75%-125%)			
		TPU:			+/-0.455						
		Yield:			88.2						
Plutonium-239/240	41.8				40.4	pCi/g	96.8	(75%-125%)			
		TPU:			+/-2.88						
		Yield:			88.2						
QC1202070043	MB										
Plutonium-238		U	0.00107		0.00107	pCi/g					
		TPU:	+/-0.00332								
		Yield:	95.8								
Plutonium-239/240		U	-0.000838		-0.000838	pCi/g					
		TPU:	+/-0.00272								
		Yield:	95.8								
Batch	964874										
QC1202070048	248258001	DUP									
Uranium-233/234			0.885		0.929	pCi/g	0.127	(0-1)	JXD2	03/25/1012:59	
		TPU:	+/-0.0878		+/-0.0858						
		Yield:	88.6		87.8						
Uranium-235/236		U	0.0549	U	0.0197	pCi/g	0.638	(0-1)			
		TPU:	+/-0.017		+/-0.0105						
		Yield:	88.6		87.8						
Uranium-238			0.905		0.891	pCi/g	0.0399	(0-1)			
		TPU:	+/-0.0893		+/-0.0829						

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QC Summary

Workorder: 248250

Page 2 of 7

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	964874										
QC1202070049	LCS	Yield:	88.6	87.8							
Uranium-233/234				5.78	pCi/g					03/25/1012:59	
		TPU:		+/-0.520							
		Yield:		99.7							
Uranium-235/236			U	0.192	pCi/g						
		TPU:		+/-0.0615							
		Yield:		99.7							
Uranium-238	5.75			5.49	pCi/g		95.5 (75%-125%)				
		TPU:		+/-0.498							
		Yield:		99.7							
QC1202070047	MB										
Uranium-233/234			U	0.00911	pCi/g					03/25/1012:59	
		TPU:		+/-0.00412							
		Yield:		96.3							
Uranium-235/236			U	0.00517	pCi/g						
		TPU:		+/-0.00519							
		Yield:		96.3							
Uranium-238			U	0.00558	pCi/g						
		TPU:		+/-0.00282							
		Yield:		96.3							
Rad Gamma Spec											
Batch	959281										
QC1202057359	248258001	DUP									
Americium-241		U	-0.0614	U	-0.0504	pCi/g	0.0298	(0-1)	MXR1	03/19/1015:33	
		TPU:	+/-0.083		+/-0.102						
Bismuth-211		UI	4.25	UI	3.52	pCi/g	0.704	(0-1)			
		TPU:	+/-0.217		+/-0.304						
Bismuth-214			1.28		1.37	pCi/g	0.205	(0-1)			
		TPU:	+/-0.0842		+/-0.116						
Cadmium-109		UI	2.30	UI	3.04	pCi/g	0.336	(0-1)			
		TPU:	+/-0.516		+/-0.587						
Cerium-139		U	0.00853	U	-0.0117	pCi/g	0.344	(0-1)			
		TPU:	+/-0.0129		+/-0.0164						
Cesium-134		U	0.0717	U	0.060	pCi/g	0.100	(0-1)			
		TPU:	+/-0.0297		+/-0.0285						
Cesium-137		U	0.0408	U	0.0193	pCi/g	0.282	(0-1)			
		TPU:	+/-0.0154		+/-0.0227						
Cobalt-60		U	0.0226	U	0.0265	pCi/g	0.0493	(0-1)			
		TPU:	+/-0.0159		+/-0.0238						
Europium-152		U	-0.02	U	-0.00187	pCi/g	0.0787	(0-1)			
		TPU:	+/-0.0483		+/-0.0667						
Lanthanum-140		U	0.0197	U	0.0215	pCi/g	0.00785	(0-1)			
		TPU:	+/-0.0505		+/-0.0655						
Lead-212			1.83		1.91	pCi/g	0.203	(0-1)			
		TPU:	+/-0.0822		+/-0.117						
Lead-214			1.54		1.28	pCi/g	0.648	(0-1)			
		TPU:	+/-0.0895		+/-0.116						
Mercury-203		U	0.0528	UI	0.135	pCi/g	0.651	(0-1)			
		TPU:	+/-0.0182		+/-0.0446						

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QC Summary

Workorder: 248250

Page 3 of 7

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	959281										
Potassium-40		33.0		33.9	pCi/g	0.130		(0-1)			
		TPU: +/-1.47		+/-1.80							
Radium-223		U 0.259	U	0.156	pCi/g	0.0697		(0-1)			
		TPU: +/-0.305		+/-0.435							
Radium-224		UI 4.32	UI	4.89	pCi/g	0.230		(0-1)			
		TPU: +/-0.515		+/-0.735							
Radium-226		1.28		1.37	pCi/g	0.205		(0-1)			
		TPU: +/-0.0842		+/-0.116							
Radium-228		1.76		1.75	pCi/g	0.0228		(0-1)			
		TPU: +/-0.171		+/-0.202							
Ruthenium-106		U 0.0229	U	0.0539	pCi/g	0.0489		(0-1)			
		TPU: +/-0.134		+/-0.183							
Sodium-22		U -0.0424	U	0.0353	pCi/g	0.843		(0-1)			
		TPU: +/-0.0201		+/-0.0259							
Strontium-85		UI 0.107	UI	0.141	pCi/g	0.369		(0-1)			
		TPU: +/-0.0197		+/-0.026							
Thallium-208		0.530		0.529	pCi/g	0.0045		(0-1)			
		TPU: +/-0.0413		+/-0.0475							
Thorium-227		U 0.0832	U	-0.27	pCi/g	0.703		(0-1)			
		TPU: +/-0.108		+/-0.143							
Thorium-231		U 0.259	U	0.156	pCi/g	0.0697		(0-1)			
		TPU: +/-0.305		+/-0.435							
Thorium-234		U 1.79		3.12	pCi/g	0.330		(0-1)			
		TPU: +/-0.738		+/-1.28							
Tin-113		U -0.0421	U	-0.0187	pCi/g	0.260		(0-1)			
		TPU: +/-0.0182		+/-0.0269							
Uranium-235		U -0.028	U	-0.0345	pCi/g	0.0162		(0-1)			
		TPU: +/-0.0905		+/-0.112							
Yttrium-88		U 0.00627	U	0.00598	pCi/g	0.00427		(0-1)			
		TPU: +/-0.0141		+/-0.0195							
QC1202057360	LCS										
Americium-241	15.9			13.5	pCi/g		84.6 (75%-125%)			03/19/10	13:22
		TPU: +/-0.693									
Bismuth-211				2.57	pCi/g						
		TPU: +/-0.341									
Bismuth-214				0.627	pCi/g						
		TPU: +/-0.126									
Cadmium-109				27.7	pCi/g						
		TPU: +/-1.95									
Cerium-139			U	0.0492	pCi/g						
		TPU: +/-0.0237									
Cesium-134			U	0.0573	pCi/g						
		TPU: +/-0.0466									
Cesium-137	5.55			5.77	pCi/g		104 (75%-125%)				
		TPU: +/-0.285									
Cobalt-60	6.34			6.27	pCi/g		98.9 (75%-125%)				
		TPU: +/-0.343									
Europium-152			U	-0.0904	pCi/g						
		TPU: +/-0.094									
Lanthanum-140			U	-0.0889	pCi/g						
		TPU: +/-0.0659									

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QC Summary

Workorder: 248250

Page 4 of 7

Parmname	NOM	Sample Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec									
Batch	959281								
Lead-212			0.890	pCi/g					
	TPU:		+/-0.104						
Lead-214			0.934	pCi/g					
	TPU:		+/-0.126						
Mercury-203		U	0.0171	pCi/g					
	TPU:		+/-0.0332						
Potassium-40			1.20	pCi/g					
	TPU:		+/-0.355						
Radium-223		U	-0.0948	pCi/g					
	TPU:		+/-0.565						
Radium-224			2.85	pCi/g					
	TPU:		+/-0.656						
Radium-226			0.627	pCi/g					
	TPU:		+/-0.126						
Radium-228			1.10	pCi/g					
	TPU:		+/-0.286						
Ruthenium-106		U	0.0424	pCi/g					
	TPU:		+/-0.305						
Sodium-22		U	0.0203	pCi/g					
	TPU:		+/-0.029						
Strontium-85		U	0.0132	pCi/g					
	TPU:		+/-0.0422						
Thallium-208			0.478	pCi/g					
	TPU:		+/-0.0682						
Thorium-227		U	-0.109	pCi/g					
	TPU:		+/-0.222						
Thorium-231		U	-0.0948	pCi/g					
	TPU:		+/-0.565						
Thorium-234		U	-0.741	pCi/g					
	TPU:		+/-1.29						
Tin-113		U	-0.0471	pCi/g					
	TPU:		+/-0.0465						
Uranium-235		U	0.0627	pCi/g					
	TPU:		+/-0.148						
Yttrium-88		U	-0.0278	pCi/g					
	TPU:		+/-0.0278						
QC1202057358 MB									
Americium-241		U	-0.0698	pCi/g					03/22/1010:34
	TPU:		+/-0.0466						
Bismuth-211		U	0.014	pCi/g					
	TPU:		+/-0.0666						
Bismuth-214		U	0.0274	pCi/g					
	TPU:		+/-0.0241						
Cadmium-109		U	-0.479	pCi/g					
	TPU:		+/-0.220						
Cerium-139		U	0.00107	pCi/g					
	TPU:		+/-0.00905						
Cesium-134		U	-0.00528	pCi/g					
	TPU:		+/-0.014						
Cesium-137		U	0.0164	pCi/g					
	TPU:		+/-0.0107						

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QC Summary

Workorder: 248250

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Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	959281										
Cobalt-60			U	0.0101	pCi/g						
	TPU:			+/-0.00932							
Europium-152			U	0.00434	pCi/g						
	TPU:			+/-0.0289							
Lanthanum-140			U	0.00251	pCi/g						
	TPU:			+/-0.0267							
Lead-212			U	-0.0224	pCi/g						
	TPU:			+/-0.0218							
Lead-214			U	0.0296	pCi/g						
	TPU:			+/-0.023							
Mercury-203			U	0.00723	pCi/g						
	TPU:			+/-0.0113							
Potassium-40			U	-0.0597	pCi/g						
	TPU:			+/-0.151							
Radium-223			U	-0.491	pCi/g						
	TPU:			+/-0.198							
Radium-224			U	-0.0173	pCi/g						
	TPU:			+/-0.208							
Radium-226			U	0.0274	pCi/g						
	TPU:			+/-0.0241							
Radium-228			U	-0.0131	pCi/g						
	TPU:			+/-0.0473							
Ruthenium-106			U	-0.0722	pCi/g						
	TPU:			+/-0.102							
Sodium-22			U	0.0241	pCi/g						
	TPU:			+/-0.0126							
Strontium-85			U	-0.0736	pCi/g						
	TPU:			+/-0.0191							
Thallium-208			U	-0.00689	pCi/g						
	TPU:			+/-0.0138							
Thorium-227			U	-0.0233	pCi/g						
	TPU:			+/-0.0737							
Thorium-231			U	-0.491	pCi/g						
	TPU:			+/-0.198							
Thorium-234			U	-0.899	pCi/g						
	TPU:			+/-0.432							
Tin-113			U	0.0197	pCi/g						
	TPU:			+/-0.0148							
Uranium-235			U	-0.177	pCi/g						
	TPU:			+/-0.0633							
Yttrium-88			U	0.0117	pCi/g						
	TPU:			+/-0.0135							
Rad Liquid Scintillation											
Batch	964058										
QC1202068220	248376005	DUP									
Tritium		U	8.32	U	-3.35	pCi/L	0.0728	(0-1)	KXX2	03/23/1021:40	
	TPU:		+/-40.2		+/-39.9						
QC1202068221	LCS										
Tritium	5530				5610	pCi/L	101	(80%-120%)		03/23/1022:27	
	TPU:				+/-466						

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QC Summary

Workorder: 248250

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Parmname	NOM	Sample Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation									
Batch	964058								
QC1202068219	MB								
Tritium		U	-33.4	pCi/L					03/23/1020:52
	TPU:		+/-38.4						

Notes:

The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- UJ Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- h Preparation or preservation holding time was exceeded

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QC Summary

Workorder: 248250

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Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
----------	-----	--------	------	----	-------	-----	------	-------	-------	------	------

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, Rev10

Batch# 964 871 Product: Am Date: 3/26/10

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 RCL/ 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 RCL/ 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 initialed and dated.	✓		
No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMF, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JopLM1- 3/26/10Secondary Review Performed By: NgLdus 3/26/10

3/27

LANL

Am/Cm Que Sheet

12-MAR-10

Batch #: 964871

Analyst: JXD2

First Client Due Date: 27-MAR-10

Internal Due Date: 16-MAR-10

Comments:

Tracer(s): Am243/Cm244

LCS Code(s):

Prep Date: 03/16/10

Initials: JXD

Pipet ID: 2771057

Balance ID: 50410272

Expiration Date: 05/15/10

Expiration Date: 05/15/10

Vol(s): 0.1

Vol(s): 0.1

Vol(s): 0.1

Witness: JXD 3/11/10

Wet/Dry

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Label #	Aliquot (g/110)	Am/Cm	Det #
248248001-1	RE36-10-8464	SAMPLE	.05 pCi/g	SOIL	LANL010	24-FEB-10	1	1.258	241		
248248002-1	RE36-10-8475	SAMPLE	.05 pCi/g	SOIL	LANL010	24-FEB-10	2	1.251	242		
248248003-1	RE36-10-8481	SAMPLE	.05 pCi/g	SOIL	LANL010	24-FEB-10	3	1.250	243		
248248004-1	RE36-10-8485	SAMPLE	.05 pCi/g	SOIL	LANL010	24-FEB-10	4	1.252	244		
248248005-1	RE36-10-8477	SAMPLE	.05 pCi/g	SOIL	LANL010	24-FEB-10	5	1.254	245		
248248006-1	RE36-10-8479	SAMPLE	.05 pCi/g	SOIL	LANL010	24-FEB-10	6	1.250	246		
248248007-1	RE36-10-8484	SAMPLE	.05 pCi/g	SOIL	LANL010	24-FEB-10	7	1.252	247		
248248008-1	RE36-10-8481	SAMPLE	.05 pCi/g	SOIL	LANL010	24-FEB-10	8	1.251	248		
248250001-1	RE36-10-8285	SAMPLE	.05 pCi/g	SOIL	LANL010	24-FEB-10	9	1.255	249		
248250002-1	RE36-10-8286	SAMPLE	.05 pCi/g	SOIL	LANL010	24-FEB-10	10	1.251	250		
248250003-1	RE36-10-8283	SAMPLE	.05 pCi/g	SOIL	LANL010	24-FEB-10	11	1.250	251		
248250004-1	RE36-10-8284	SAMPLE	.05 pCi/g	SOIL	LANL010	24-FEB-10	12	1.258	252		
248258001-1	RE46-10-13534	SAMPLE	.05 pCi/g	SOIL	LANL010	25-FEB-10	13	1.254	89		
248258002-1	RE46-10-13539	SAMPLE	.05 pCi/g	SOIL	LANL010	25-FEB-10	14	1.250	254		
248258003-1	RE46-10-13538	SAMPLE	.05 pCi/g	SOIL	LANL010	25-FEB-10	15	1.254	89		
248258004-1	RE46-10-13536	SAMPLE	.05 pCi/g	SOIL	LANL010	25-FEB-10	16	1.256	90		
248258005-1	RE46-10-13537	SAMPLE	.05 pCi/g	SOIL	LANL010	25-FEB-10	17	1.253	91		
248258006-1	RE46-10-13535	SAMPLE	.05 pCi/g	SOIL	LANL010	25-FEB-10	18	1.255	93		
248258007-1	RE46-10-13542	SAMPLE	.05 pCi/g	SOIL	LANL010	25-FEB-10	19	1.253	94		
1202070038-1	MB for batch 964871	MB	.05 pCi/g	SOIL	QC ACCOUNT		20	1	232		
1202070039-1	RE46-10-13534(248258001DUP)	DUP	.05 pCi/g	SOIL	QC ACCOUNT	25-FEB-10	21	1.252	233		
1202070040-1	LCS for batch 964871	LCS	.05 pCi/g	SOIL	QC ACCOUNT		22	0.101	234		

* SEM 0244-B exp 04/30/20 0.101g

Choose SOP Used: GL-RAD-A-001
GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: JXD 3/26/10

Blank Correction Report

Batch ID 964871

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202070039	DUP	Americium-241	1.25 g	0.00249	0.0019	0.0211	.001184	pCi/g	YES
1202070040	LCS	Americium-241	0.101 g	31.5	2.30	0.230	.014653465	pCi/g	NO
1202070038	MB	Americium-241	1.00 g	0.00148	0.00427	0.026	.00148	pCi/g	YES
248248001	RE36-10-8464	Americium-241	1.26 g	-0.00558	0.00279	0.0256	.001174603	pCi/g	YES
248248002	RE36-10-8475	Americium-241	1.25 g	0.00205	0.00297	0.0222	.001184	pCi/g	YES
248248004	RE36-10-8485	Americium-241	1.25 g	0.00588	0.00303	0.0226	.001184	pCi/g	YES
248248005	RE36-10-8477	Americium-241	1.25 g	0.00014	0.00189	0.0225	.001184	pCi/g	YES
248248006	RE36-10-8479	Americium-241	1.25 g	0.00855	0.0036	0.0217	.001184	pCi/g	NO
248248007	RE36-10-8484	Americium-241	1.25 g	-0.00204	0.00218	0.020	.001184	pCi/g	YES
248248008	RE36-10-8481	Americium-241	1.25 g	0.000522	0.00253	0.0221	.001184	pCi/g	YES
248250001	RE36-10-8285	Americium-241	1.26 g	0.0183	0.00546	0.0227	.001174603	pCi/g	NO
248250002	RE36-10-8286	Americium-241	1.25 g	0.00414	0.00287	0.0204	.001184	pCi/g	YES
248250003	RE36-10-8283	Americium-241	1.25 g	0.00139	0.0021	0.0207	.001184	pCi/g	YES
248250004	RE36-10-8284	Americium-241	1.26 g	0.00103	0.00142	0.0208	.001174603	pCi/g	YES
248258001	RE46-10-13534	Americium-241	1.25 g	0.000365	0.00219	0.0314	.001184	pCi/g	YES
248258002	RE46-10-13539	Americium-241	1.26 g	-0.000118	0.00164	0.0194	.001174603	pCi/g	YES
248258003	RE46-10-13538	Americium-241	1.25 g	-8.11E-05	0.00174	0.0255	.001184	pCi/g	YES
248258004	RE46-10-13536	Americium-241	1.26 g	0.00285	0.00211	0.0228	.001174603	pCi/g	YES
248258005	RE46-10-13537	Americium-241	1.25 g	-0.00182	0.00155	0.0227	.001184	pCi/g	YES
248258006	RE46-10-13535	Americium-241	1.26 g	-0.00208	0.00264	0.0242	.001174603	pCi/g	YES
248258007	RE46-10-13542	Americium-241	1.25 g	0.0017	0.00176	0.0258	.001184	pCi/g	YES

GEL Laboratories LLC ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 964871 SAMPLE ID : S0248250001_AM SAMPLE QTY : 1.255 G SAMPLE DATE : 24-FEB-2010 00:00:00 ANALYST : JXD2 % YIELD : 81.156		CHAMBER : 249 DETECTOR S/N : 79442 AVERAGE %EFFICIENCY : 39.6696 COUNT DATE : 24-MAR-2010 20:56:26 ELAPSED LIVE TIME(SEC) : 43200.00	LIB FILE : ENV_ALPHA_AM BKG FILE : B249.CNF;91 BKG DATE : 21-MAR-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W249.CNF;33 CAL DATE : 28-FEB-2010
---	--	---	--

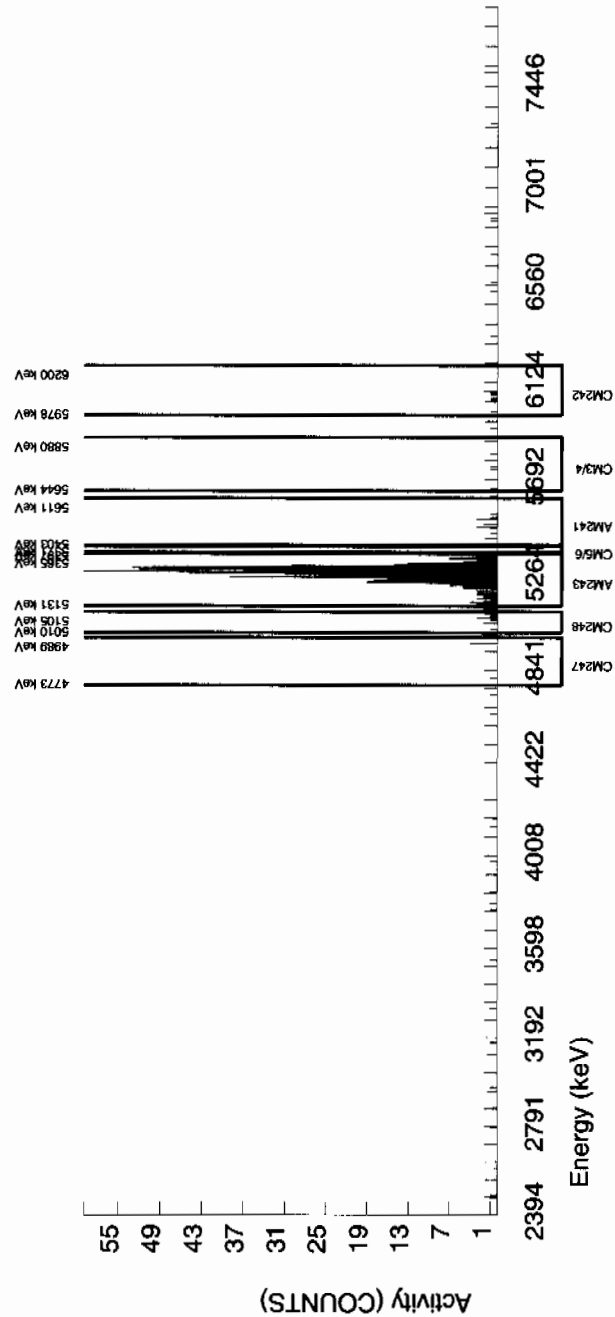
TRACER ID : 445-96-2-SS NUCLIDE : AM243 NOMINAL : 2.9166E+00 dpm RESULTS : 2.3670E+00 dpm	MS/MSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3152E+01 pCi/G	LCS/LCSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3152E+01 pCi/G
--	---	---

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5498.860	35.708	13.000	11.826	0.000	2.7707	99.94000	1.83E-02	5.46E-03	9.26E-03	2.27E-02	5.33E-03
AM243	5270.000	5281.711	51.204	676.000	674.560	1.440	1.2000	99.78000	1.05E+00	7.83E-02	4.02E-03	1.22E-02	4.04E-02
CM-242	6102.000	6054.709	7.244	8.000	8.000	0.000	4.0092	100.0000	1.40E-02	5.04E-03	1.34E-02	3.10E-02	4.96E-03
CM-3/4	5795.020	5723.009	0.000	5.000	3.560	1.440	4.8510	100.0000	5.53E-03	3.83E-03	1.62E-02	3.66E-02	3.82E-03
CM-5/6	5386.000	5374.260	7.244	3.000	3.000	0.000	6.1294	86.09000	5.40E-03	3.13E-03	2.38E-02	5.24E-02	3.12E-03
CM-247	4946.000	4934.949	4.932	6.000	4.560	1.440	6.3427	79.30000	8.90E-03	5.21E-03	2.67E-02	5.87E-02	5.18E-03
CM-248	5078.600	5071.587	29.532	13.000	12.280	0.720	11.0244	91.00000	2.09E-02	6.40E-03	4.05E-02	8.56E-02	6.26E-03

NOTES:

- * BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
- * BKG Sg of AM243 calculated as sqrt(BKG AREA).
- * Corrections made to the following net area due to tracer impurity:
AM-241



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER	964871
SAMPLE ID	S0248250002_AM
SAMPLE QTY	1.251 G
SAMPLE DATE	24-FEB-2010 00:00:00
ANALYST	JXD2
% YIELD	89.223

CHAMBER : 250
DETECTOR S/N : 79443
AVERAGE %EFFICIENCY : 40.2400
COUNT DATE : 24-MAR-2010 20:56:30
ELAPSED LIVE TIME(SEC) : 43200.00

```
LIB FILE      : ENV_ALPHA_AM
BKG FILE      : B250.CNF;91
BKG DATE      : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE      : W250.CNF;31
CAL DATE      : 28-FEB-2010
```

TRACER	ID	: 445-96-2-SS
	NUCLIDE	: AM243
	NOMINAL	: 2.9166E+00 dpm
	RESULTS	: 2.6022E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3152E+01 pCi/G

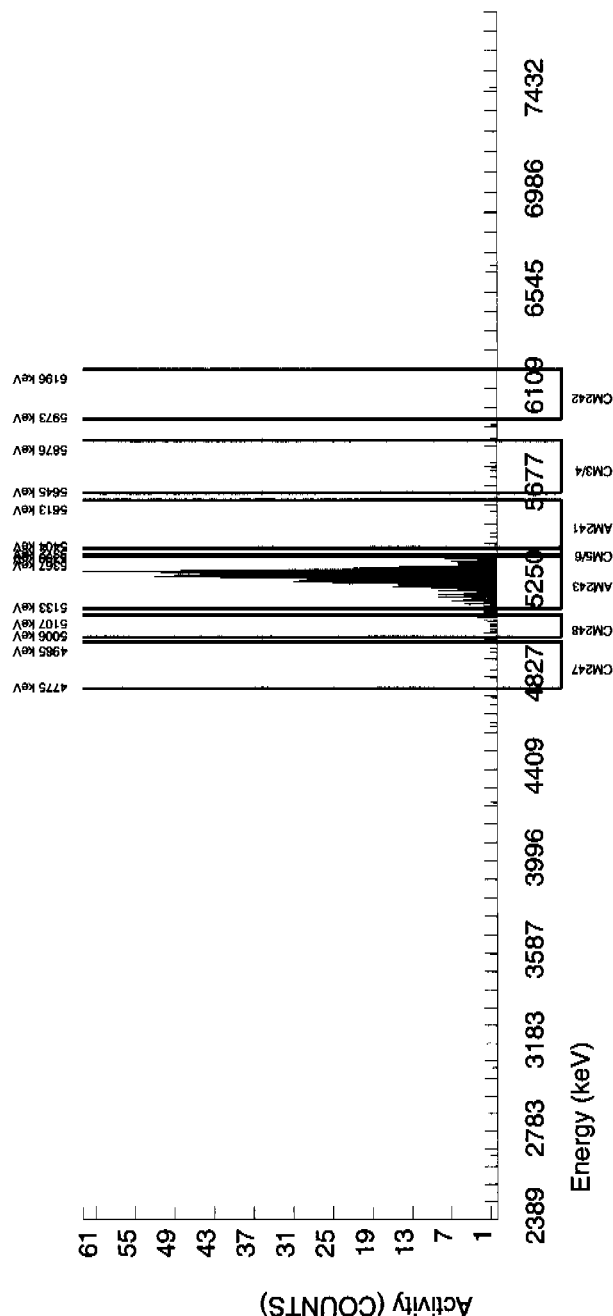
LCS/LCSD	
ID	: 0244-B
NUCLIDE	: AM-241
NOMINAL	: 3.3152E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5483.068	0.000	5.000	2.971	0.720	2.7707	99.94000	4.14E-03	2.87E-03	8.33E-03	2.04E-02	2.86E-03
AM243	5270.000	5276.410	38.534	753.000	752.280	0.720	0.8485	99.78000	1.05E+00	7.63E-02	2.56E-03	8.89E-03	3.83E-02
CM-242	6102.000	5984.167	4.906	1.000	1.000	0.000	0.4092	100.0000	1.58E-03	1.58E-03	1.20E-02	2.79E-02	1.58E-03
CM-3/4	5795.020	5752.194	63.783	4.000	4.000	0.000	4.8510	100.0000	5.59E-03	2.82E-03	1.46E-02	3.29E-02	2.79E-03
CM-5/6	5386.000	5374.754	0.000	8.000	8.000	0.000	6.1294	86.09000	1.29E-02	4.65E-03	2.14E-02	4.72E-02	4.58E-03
CM-247	4946.000	4924.833	0.000	7.000	7.000	0.000	6.3427	79.30000	1.23E-02	4.71E-03	2.40E-02	5.28E-02	4.65E-03
CM-248	5078.600	5073.347	0.000	14.000	14.000	0.000	11.0244	91.00000	2.14E-02	5.88E-03	3.64E-02	7.70E-02	5.73E-03

NOTES:

- * BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
* BKG Sg of AM243 calculated as $\text{sqr}(\text{BKG AREA})$.
* Corrections made to the following net area
due to tracer impurity:
AM-241



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 964871 SAMPLE ID : S0248250003_AM SAMPLE QTY : 1.250 G SAMPLE DATE : 24-FEB-2010 00:00:00 ANALYST : JXD2 % YIELD : 87.885	CHAMBER : 251 DETECTOR S/N : 79444 AVERAGE %EFFICIENCY : 40.4400 COUNT DATE : 24-MAR-2010 20:56:32 ELAPSED LIVE TIME(SEC) : 43200.00	LIB FILE : ENV_ALPHA_AM BKG FILE : B251.CNF:91 BKG DATE : 21-MAR-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W251.CNF:31 CAL DATE : 28-FEB-2010
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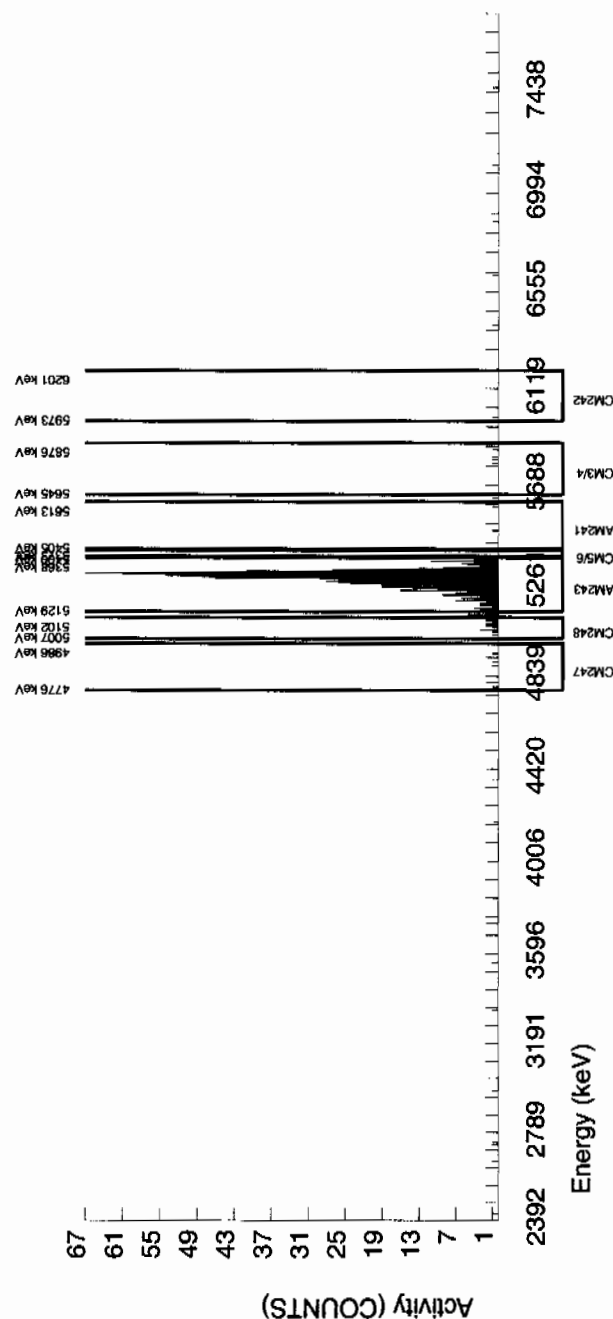
TRACER ID : 445-96-2-SS NUCLIDE : AM243 NOMINAL : 2.9166E+00 dpm RESULTS : 2.5632E+00 dpm	MS/MSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3152E+01 pCi/G	LCS/LCSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3152E+01 pCi/G
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NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5527.719	103.104	3.000	0.984	0.720	2.7707	99.94000	1.39E-03	2.10E-03	8.42E-03	2.07E-02	2.10E-03
AM243	5270.000	5280.116	35.757	749.000	744.680	4.320	2.0785	99.78000	1.05E+00	7.67E-02	6.33E-03	1.65E-02	3.87E-02
CM-242	6102.000	5986.845	19.757	2.000	2.000	0.000	4.0092	100.00000	3.19E-03	2.26E-03	1.22E-02	2.82E-02	2.25E-03
CM-3/4	5795.020	5783.806	182.748	5.000	4.280	0.720	4.8510	100.00000	6.05E-03	3.34E-03	1.47E-02	3.33E-02	3.32E-03
CM-5/6	5386.000	5375.452	0.000	9.000	9.000	0.000	6.1294	86.09000	1.47E-02	4.99E-03	2.16E-02	4.77E-02	4.91E-03
CM-247	4946.000	4863.837	4.939	8.000	4.400	3.600	6.3427	79.30000	7.81E-03	5.80E-03	2.43E-02	5.34E-02	5.78E-03
CM-248	5078.600	5065.483	44.391	17.000	17.000	0.000	11.0244	91.00000	2.63E-02	6.59E-03	3.68E-02	7.78E-02	6.38E-03

NOTES:

- * BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
- * BKG Sg of AM243 calculated as $\sqrt{\text{BKG AREA}}$.
- * Corrections made to the following net area due to tracer impurity:
AM-241



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 964871 SAMPLE ID : S0248250004_AM SAMPLE QTY : 1.258 G SAMPLE DATE : 24-FEB-2010 00:00:00 ANALYST : JXD2 % YIELD : 89.575				CHAMBER : 252 DETECTOR S/N : 79445 AVERAGE %EFFICIENCY : 39.1229 COUNT DATE : 24-MAR-2010 20:56:36 ELAPSED LIVE TIME(SEC) : 43200.00				LIB FILE : ENV_ALPHA_AM BKG FILE : B252.CNF;91 BKG DATE : 21-MAR-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W252.CNF;31 CAL DATE : 28-FEB-2010					
TRACER ID : 445-96-2-SS NUCLIDE : AM243 NOMINAL : 2.9166E+00 dpm RESULTS : 2.6125E+00 dpm				MS/MSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3152E+01 pCi/G				LCS/LCSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3152E+01 pCi/G					
NUCLIDE ACTIVITY SUMMARY													
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5488.850	4.939	2.000	0.722	0.000	2.7707	99.94000	1.03E-03	1.42E-03	8.49E-03	2.08E-02	1.42E-03
AM243	5270.000	5276.607	40.710	735.000	734.280	0.720	0.8485	99.78000	1.04E+00	7.64E-02	2.60E-03	9.06E-03	3.86E-02
CM-242	6102.000	6056.557	4.939	8.000	8.000	0.000	4.0092	100.0000	1.29E-02	4.62E-03	1.23E-02	2.84E-02	4.54E-02
CM-3/4	5795.020	5777.832	4.939	7.000	7.000	0.000	4.8510	100.0000	9.96E-03	3.82E-03	1.49E-02	3.35E-02	3.77E-03
CM-5/6	5386.000	5382.302	9.879	6.000	6.000	0.000	6.1294	86.09000	9.89E-03	4.09E-03	2.18E-02	4.81E-02	4.04E-03
CM-247	4946.000	4862.673	64.213	4.000	4.000	0.000	6.3427	79.30000	7.16E-03	3.61E-03	2.45E-02	5.38E-02	3.58E-03
CM-248	5078.600	5070.679	0.000	18.000	18.000	0.000	11.0244	91.00000	2.81E-02	6.85E-03	3.71E-02	7.84E-02	6.62E-03

NOTES:

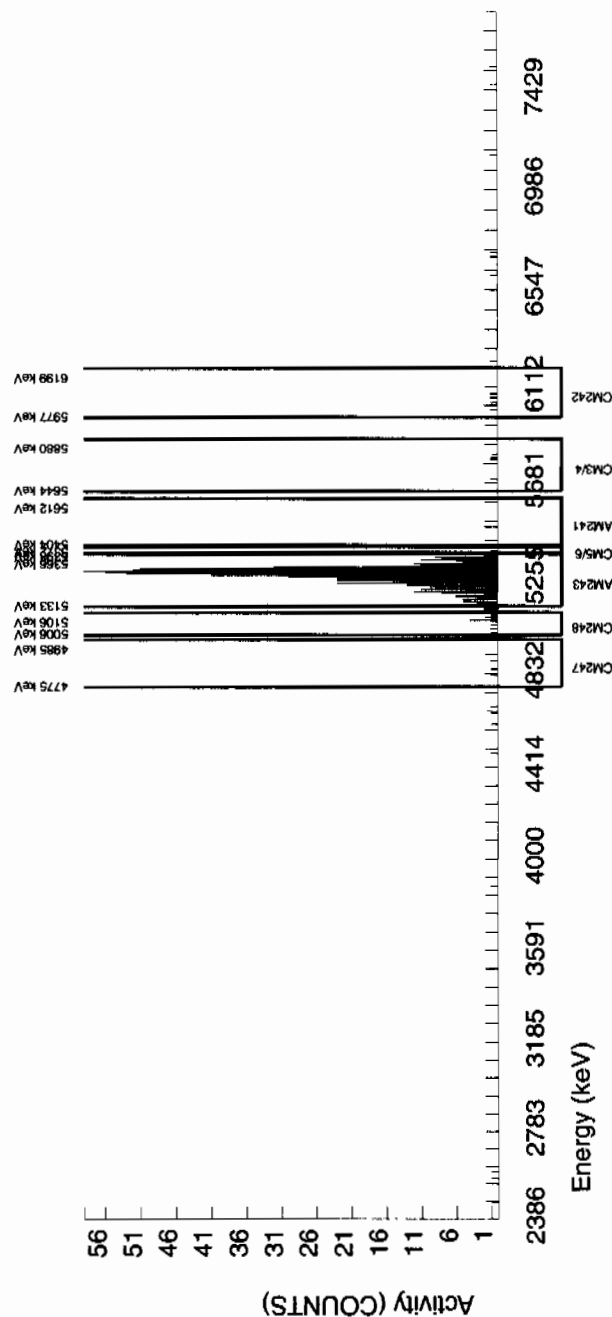
* BKG Sg calculated via blank population.

(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:

AM-241



BATCH NUMBER : 964871 SAMPLE ID : S0248258001_AM SAMPLE QTY : 1.254 G SAMPLE DATE : 25-FEB-2010 00:00:00 ANALYST : JXD2 % YIELD : 85.114	CHAMBER : 089 DETECTOR S/N : 78262 AVERAGE %EFFICIENCY : 30.5954 COUNT DATE : 25-MAR-2010 23:38:21 ELAPSED LIVE TIME(SEC) : 37903.63	LIB FILE : ENV_ALPHA_AM BKG FILE : B089.CNF:729 BKG DATE : 21-MAR-2010 BKG LIVE TIME(SEC) : 59999.99 EFF FILE : W089.CNF:197 CAL DATE : 12-MAR-2010											
TRACER ID : 445-96-2-SS NUCLIDE : AM243 NOMINAL : 2.9165E+00 dpm RESULTS : 2.4824E+00 dpm	MS/MSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3152E+01 pCi/G	LCS/LCSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3152E+01 pCi/G											
NUCLIDE ACTIVITY SUMMARY													
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5479.046	4.998	1.000	0.167	0.000	2.7707	99.94000	3.65E-04	2.19E-03	1.27E-02	3.14E-02	2.19E-03
AM243	5270.000	5276.445	28.659	480.000	478.737	1.263	1.1240	99.78000	1.05E+00	8.66E-02	5.17E-03	1.63E-02	4.80E-02
CM-242	6102.000	6086.238	0.000	0.000	0.000	0.000	4.0092	100.0000	0.00E+00	2.48E-03	1.84E-02	4.27E-02	2.47E-03
CM-3/4	5795.020	5772.782	139.958	5.000	5.000	0.000	4.8510	100.0000	1.10E-02	4.96E-03	2.23E-02	5.04E-02	4.90E-03
CM-5/6	5386.000	5379.929	9.372	2.000	2.000	0.000	6.1294	86.09000	5.07E-03	3.60E-03	3.27E-02	7.22E-02	3.59E-03
CM-247	4946.000	4834.511	24.992	2.000	2.000	0.000	6.3427	79.30000	5.51E-03	3.91E-03	3.67E-02	8.09E-02	3.89E-03
CM-248	5078.600	5062.548	39.988	3.000	3.000	0.000	11.0244	91.00000	7.20E-03	4.19E-03	5.56E-02	1.18E-01	4.16E-03

NOTES:

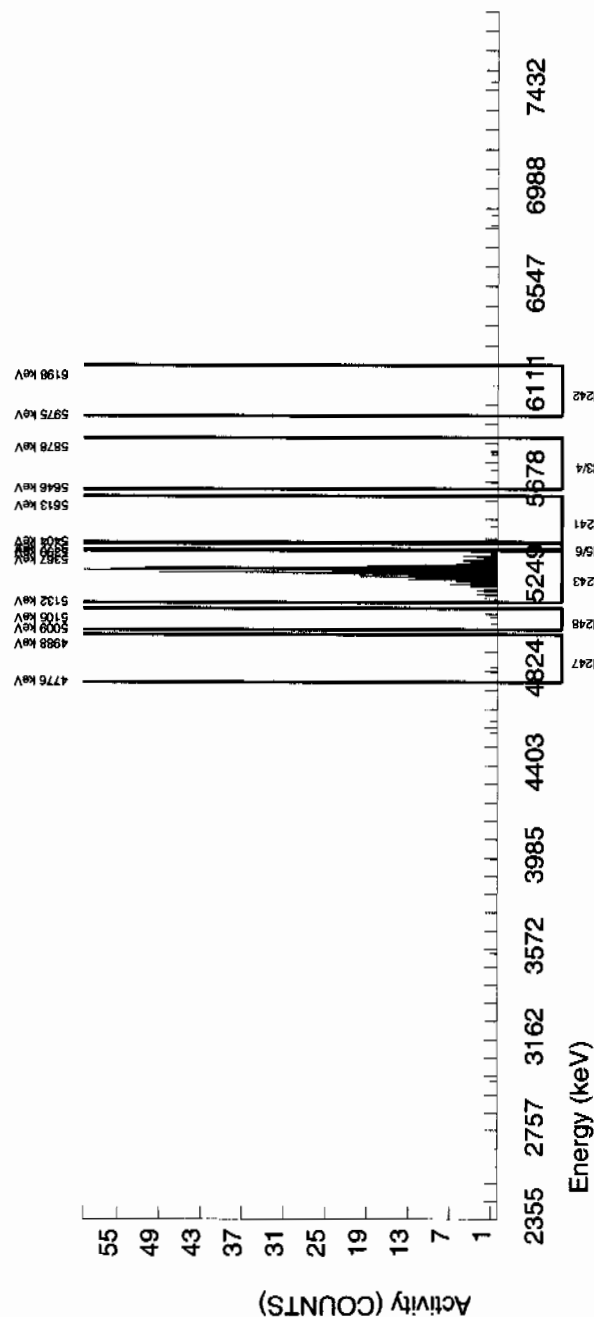
* BKG Sg calculated via blank population.

DATA Sg calculated via B1
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:

AM-241



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 964871				CHAMBER : 232				LIB FILE : ENV_ALPHA_AM					
SAMPLE ID : S1202070038_AM				DETECTOR S/N : 79425				BKG FILE : B232.CNF:93					
SAMPLE QTY : 1.000 G				AVERAGE %EFFICIENCY : 38.7095				BKG DATE : 21-MAR-2010					
SAMPLE DATE : 16-MAR-2010 00:00:00				COUNT DATE : 25-MAR-2010 07:54:52				BKG LIVE TIME(SEC) : 60000.00					
ANALYST : JXD2				ELAPSED LIVE TIME(SEC) : 43200.00				EFF FILE : W232.CNF:30					
% YIELD : 91.094								CAL DATE : 28-FEB-2010					
TRACER				MS/MSD				LCS/LCSD					
ID : 445-96-2-SS				ID : 0244-B				ID : 0244-B					
NUCLIDE : AM243				NUCLIDE : AM-241				NUCLIDE : AM-241					
NOMINAL : 2.9165E+00 dpm				NOMINAL : 3.3149E+01 pCi/G				NOMINAL : 3.3149E+01 pCi/G					
RESULTS : 2.6568E+00 dpm													
NUCLIDE ACTIVITY SUMMARY													
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5524.715	4.988	5.000	0.835	2.880	2.7707	99.94000	1.48E-03	4.27E-03	1.06E-02	2.60E-02	4.27E-03
AM-243	5270.000	5288.790	18.490	741.000	738.840	2.160	1.4697	99.78000	1.31E+00	9.60E-02	5.64E-03	1.61E-02	4.85E-02
CM-242	6102.000	6065.504	4.988	1.000	1.000	0.000	4.0092	100.0000	1.85E-03	1.85E-03	1.53E-02	3.55E-02	1.85E-03
CM-3/4	5795.020	5748.026	104.129	7.000	7.000	0.000	4.8510	100.0000	1.24E-02	4.76E-03	1.86E-02	4.19E-02	4.70E-03
CM-5/6	5386.000	5383.408	0.000	27.000	26.280	0.720	6.1294	86.09000	5.42E-02	1.13E-02	2.73E-02	6.01E-02	1.08E-02
CM-247	4946.000	4975.762	4.988	1.000	0.280	0.720	6.3427	79.30000	6.26E-04	2.76E-03	3.06E-02	6.73E-02	2.76E-03
CM-248	5078.600	5057.893	59.858	5.000	3.560	1.440	11.0244	91.00000	6.94E-03	4.81E-03	4.64E-02	9.80E-02	4.79E-03

NOTES:

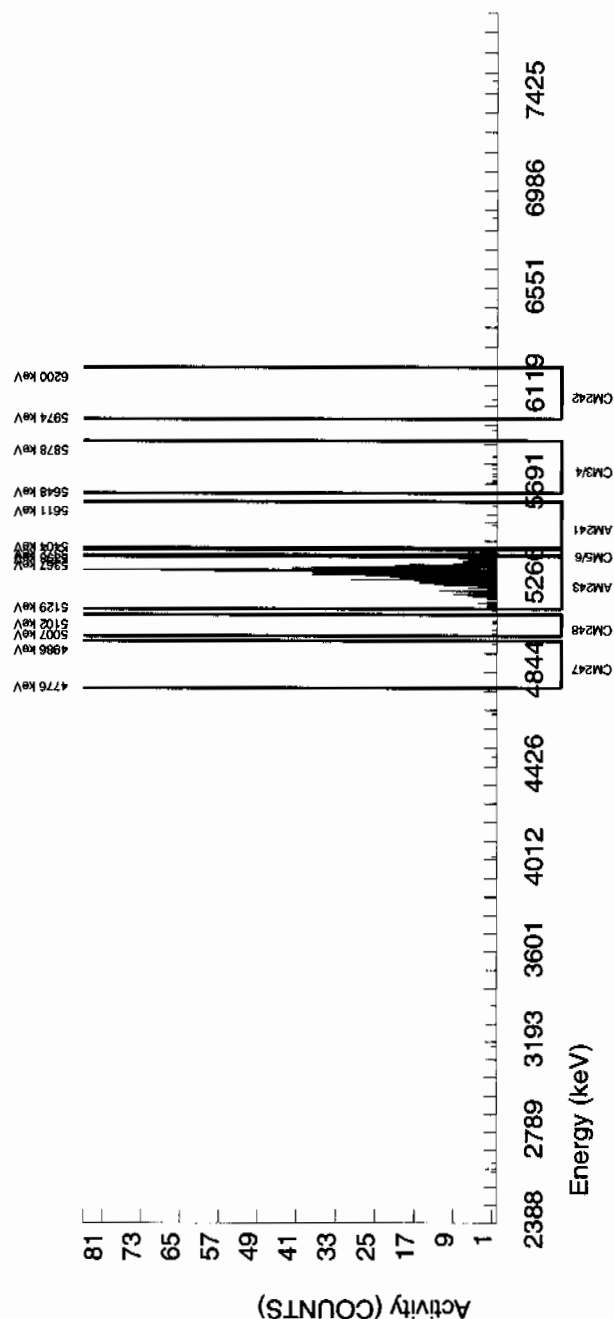
* BKG Sg calculated via blank population.

(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:

AM-241



GEL Laboratories LLC ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 964871 SAMPLE ID : S1202070039_AM SAMPLE QTY : 1.252 G SAMPLE DATE : 25-FEB-2010 00:00:00 ANALYST : JXD2 % YIELD : 88.212		CHAMBER : 233 DETECTOR S/N : 79426 AVERAGE %EFFICIENCY : 39.4029 COUNT DATE : 25-MAR-2010 07:54:56 ELAPSED LIVE TIME(SEC) : 43200.00	LIB FILE : ENV_ALPHA_AM BKG FILE : B233.CNF:92 BKG DATE : 21-MAR-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W233.CNF:31 CAL DATE : 2-MAR-2010
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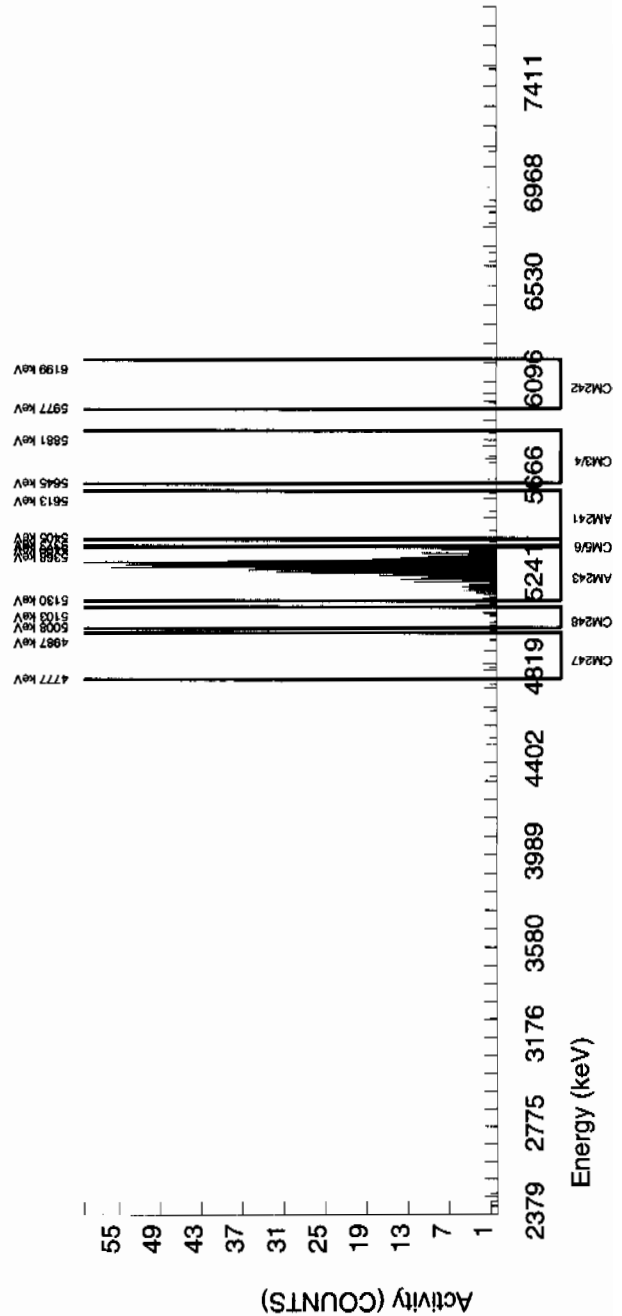
TRACER ID : 445-96-2-SS NUCLIDE : AM243 NOMINAL : 2.9165E+00 dpm RESULTS : 2.5727E+00 dpm	MS/MSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3152E+01 pCi/G	LCS/LCSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3152E+01 pCi/G
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NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5525.584	157.608	3.000	1.733	0.000	2.7707	99.94000	2.49E-03	1.90E-03	8.60E-03	2.11E-02	1.89E-03
AM243	5270.000	5283.130	53.105	729.000	728.280	0.720	0.8485	99.78000	1.05E+00	7.69E-02	2.64E-03	9.18E-03	3.89E-02
CM-242	6102.000	6024.467	4.925	4.000	3.280	0.720	4.0092	100.0000	5.33E-03	3.47E-03	1.24E-02	2.88E-02	3.45E-03
CM-3/4	5795.020	5791.577	4.925	7.000	5.560	1.440	4.8510	100.0000	8.02E-03	4.12E-03	1.50E-02	3.40E-02	4.09E-03
CM-5/6	5386.000	5381.586	9.851	5.000	4.280	0.720	6.1294	86.09000	7.15E-03	3.95E-03	2.21E-02	4.87E-02	3.92E-03
CM-247	4946.000	4906.590	4.925	6.000	5.280	0.720	6.3427	79.30000	9.57E-03	4.67E-03	2.48E-02	5.45E-02	4.63E-03
CM-248	5078.600	5055.664	4.925	9.000	8.280	0.720	11.0244	91.00000	1.31E-02	4.94E-03	3.76E-02	7.94E-02	4.87E-03

NOTES:

- * BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
- * BKG Sg of AM243 calculated as sqrt(BKG AREA).
- * Corrections made to the following net area due to tracer impurity:
AM-241

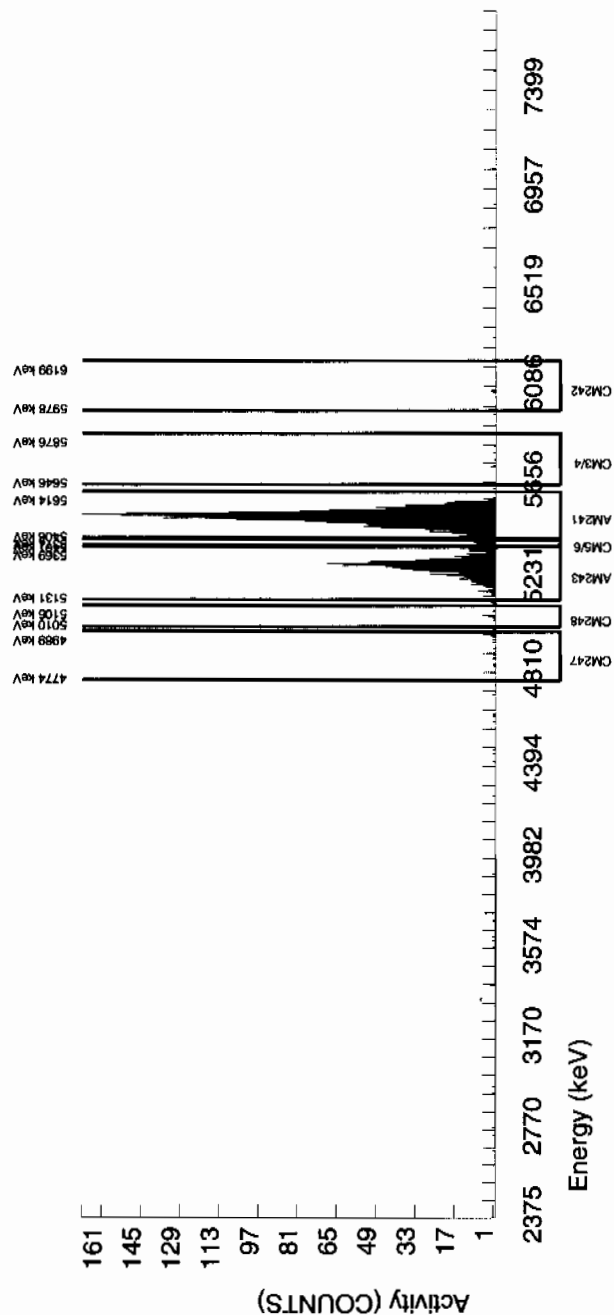


GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 964871 SAMPLE ID : S1202070040_AM SAMPLE QTY : 0.101 G SAMPLE DATE : 16-MAR-2010 00:00:00 ANALYST : JXD2 % YIELD : 99.444				CHAMBER : 234 DETECTOR S/N : 79427 AVERAGE %EFFICIENCY : 39.7384 COUNT DATE : 25-MAR-2010 07:54:58 ELAPSED LIVE TIME(SEC) : 43200.00				LIB FILE : ENV_ALPHA_AM BKG FILE : B234.CNF;92 BKG DATE : 21-MAR-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W234.CNF;30 CAL DATE : 28-FEB-2010					
TRACER ID : 445-96-2-SS NUCLIDE : AM243 NOMINAL : 2.9165E+00 dpm RESULTS : 2.9003E+00 dpm				MS/MSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3149E+01 pCi/G				LCS/LCSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3149E+01 pCi/G					
NUCLIDE ACTIVITY SUMMARY													
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5503.818	42.317	2008.000	2006.559	0.000	2.7707	99.94000	3.15E+01	2.30E+00	9.38E-02	2.30E-01	7.03E-01
AM243	5270.000	5283.761	42.998	828.000	828.000	0.000	0.0000	99.78000	1.30E+01	1.01E+00	0.00E+00	4.26E-02	4.52E-01
CM-242	6102.000	6070.465	11.824	5.000	5.000	0.000	4.0092	100.0000	8.16E-02	3.69E-02	1.36E-01	3.14E-01	3.65E-02
CM-3/4	5795.020	5764.097	7.217	6.000	5.280	0.720	4.8510	100.0000	8.28E-02	4.05E-02	1.64E-01	3.71E-01	4.01E-02
CM-5/6	5386.000	5389.020	0.000	52.000	52.000	0.000	6.1294	86.09000	9.47E-01	1.47E-01	2.41E-01	5.31E-01	1.31E-01
CM-247	4946.000	4916.669	9.828	15.000	13.560	1.440	6.3427	79.30000	2.68E-01	8.13E-02	2.70E-01	5.95E-01	7.92E-02
CM-248	5078.600	5070.623	7.371	9.000	9.000	0.000	11.0244	91.00000	1.55E-01	5.28E-02	4.10E-01	8.66E-01	5.17E-02

NOTES:

- * BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
- * BKG Sg of AM243 calculated as sqrt(BKG AREA).
- * Corrections made to the following net area due to tracer impurity:
AM-241



Radiochemistry Batch Checklist, Rev10

Batch# 964872Product: PuDate: 3/25/10

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%.	✓		
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.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms.			
All line outs initialed and dated.	✓		
No transcription errors are apparent.			
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: J. L. M. I. - 3/25/10Secondary Review Performed By: On 3/25/10

3/27

LANL

Plutonium Que Sheet

12-MAR-10

Batch #: 964872 Pu-236 Analyst: JXD2 First Client Due Date: 27-MAR-10 Internal Due Date: 16-MAR-10

Tracer Isotope(s): Pu-242/Pu-238 Tracer Code: 1420-C Expiration Date: 03/04/11 Vol: 0.1 NA

LCS Isotope(s): Pu-239/Pu-238 LCS Code: NA Expiration Date: NA Vol: NA

Spike Isotope(s): Pu-239/Pu-238 Spike Code: NA Expiration Date: NA Vol: NA

Prep Date: 03/10/10 Initials: JXD Pipet ID: 2921058 Balance ID: 50910222 Witness: 3/31/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Aliquot (g/l/r)	Pu Det #
248248001-1	RE36-10-8464	SAMPLE	.05 pCi/g		SOIL	LANL010	24-FEB-10	1	1	1.258	45
248248002-1	RE36-10-8475	SAMPLE	.05 pCi/g		SOIL	LANL010	24-FEB-10	2	2	1.251	46
248248003-1	RE36-10-8471	SAMPLE	.05 pCi/g		SOIL	LANL010	24-FEB-10	3	3	1.250	48
248248004-1	RE36-10-8485	SAMPLE	.05 pCi/g		SOIL	LANL010	24-FEB-10	4	4	1.252	65
248248005-1	RE36-10-8477	SAMPLE	.05 pCi/g		SOIL	LANL010	24-FEB-10	5	5	1.254	66
248248006-1	RE36-10-8479	SAMPLE	.05 pCi/g		SOIL	LANL010	24-FEB-10	6	6	1.250	67
248248007-1	RE36-10-8484	SAMPLE	.05 pCi/g		SOIL	LANL010	24-FEB-10	7	7	1.252	68
248248008-1	RE36-10-8481	SAMPLE	.05 pCi/g		SOIL	LANL010	24-FEB-10	8	8	1.251	69
248250001-1	RE36-10-8285	SAMPLE	.05 pCi/g		SOIL	LANL010	24-FEB-10	9	9	1.255	72
248250002-1	RE36-10-8286	SAMPLE	.05 pCi/g		SOIL	LANL010	24-FEB-10	10	10	1.251	73
248250003-1	RE36-10-8283	SAMPLE	.05 pCi/g		SOIL	LANL010	24-FEB-10	11	11	1.250	74
248250004-1	RE36-10-8284	SAMPLE	.05 pCi/g		SOIL	LANL010	24-FEB-10	12	12	1.258	75
248258001-1	RE46-10-13534	SAMPLE	.05 pCi/g		SOIL	LANL010	25-FEB-10	13	13	1.254	76
248258002-1	RE46-10-13539	SAMPLE	.05 pCi/g		SOIL	LANL010	25-FEB-10	14	14	1.258	77
248258003-1	RE46-10-13538	SAMPLE	.05 pCi/g		SOIL	LANL010	25-FEB-10	15	15	1.254	79
248258004-1	RE46-10-13536	SAMPLE	.05 pCi/g		SOIL	LANL010	25-FEB-10	16	16	1.258	80
248258005-1	RE46-10-13537	SAMPLE	.05 pCi/g		SOIL	LANL010	25-FEB-10	17	17	1.253	81
248258006-1	RE46-10-13535	SAMPLE	.05 pCi/g		SOIL	LANL010	25-FEB-10	18	18	1.255	82
248258007-1	RE46-10-13542	SAMPLE	.05 pCi/g		SOIL	LANL010	25-FEB-10	19	19	1.253	83
1202070043-1	MB for batch 964872	MB	.05 pCi/g		SOIL	QC ACCOUNT		20	20	1.00	84
1202070044-1	RE46-10-13534(248258001DUP)	DUP	.05 pCi/g		SOIL	QC ACCOUNT	25-FEB-10	21	21	1.252	85
1202070045-1	LCS for batch 964872	LCS	.05 pCi/g		SOIL	QC ACCOUNT		22	22	0.101	86

* SUM 02448 exp 07/30/20 0.101g

Data Reviewed By: JPLML-3/25/10

Choose SOP Used: GL-RAD-A-010 GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION Circle One

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 964872

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202070044	DUP	Plutonium-238	1.25 g	-0.000279	0.00329	0.0232	.000856	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0105	0.00432	0.0196	-.0008704	pCi/g	NO
1202070045	LCS	Plutonium-238	0.101 g	4.66	0.455	0.307	.010594059	pCi/g	NO
		Plutonium-239/240	0.101 g	40.4	2.88	0.260	-.00829703	pCi/g	NO
1202070043	MB	Plutonium-238	1.00 g	0.00107	0.00332	0.0253	.00107	pCi/g	YES
		Plutonium-239/240	1.00 g	-0.000838	0.00272	0.0214	-.000838	pCi/g	NO
248248001	RE36-10-8464	Plutonium-238	1.26 g	0.00534	0.0031	0.0236	.000849206	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00711	0.00358	0.020	-.00086508	pCi/g	NO
248248002	RE36-10-8475	Plutonium-238	1.25 g	0.00199	0.00247	0.0207	.000856	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00467	0.00271	0.0175	-.0006704	pCi/g	NO
248248003	RE36-10-8471	Plutonium-238	1.25 g	0.00888	0.00662	0.0225	.000856	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00468	0.00453	0.019	-.0006704	pCi/g	YES
248248004	RE36-10-8485	Plutonium-238	1.25 g	0.00202	0.00716	0.0248	.000856	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00478	0.0042	0.021	-.0006704	pCi/g	NO
248248005	RE36-10-8477	Plutonium-238	1.25 g	0.000927	0.00609	0.0237	.000856	pCi/g	YES
		Plutonium-239/240	1.25 g	0.000998	0.00311	0.020	-.0006704	pCi/g	NO
248248006	RE36-10-8479	Plutonium-238	1.25 g	-0.00689	0.00363	0.0254	.000856	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00926	0.00562	0.0215	-.0006704	pCi/g	NO
248248007	RE36-10-8484	Plutonium-238	1.25 g	0.00234	0.00291	0.0243	.000856	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00183	0.00183	0.0205	-.0006704	pCi/g	NO
248248008	RE36-10-8481	Plutonium-238	1.25 g	0.00558	0.00324	0.0247	.000856	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00536	0.00326	0.0209	-.0006704	pCi/g	YES
248250001	RE36-10-8285	Plutonium-238	1.26 g	0.00916	0.00781	0.0239	.000849206	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0437	0.00946	0.0202	-.00066508	pCi/g	NO
248250002	RE36-10-8286	Plutonium-238	1.25 g	0.00378	0.00268	0.0251	.000856	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0148	0.00648	0.0212	-.0006704	pCi/g	NO
248250003	RE36-10-8283	Plutonium-238	1.25 g	0.00248	0.00308	0.0258	.000856	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0166	0.00652	0.0218	-.0006704	pCi/g	NO
248250004	RE36-10-8284	Plutonium-238	1.26 g	0.0026	0.00323	0.027	.000849206	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0211	0.00837	0.0228	-.00066508	pCi/g	NO
248258001	RE46-10-13534	Plutonium-238	1.25 g	0.00414	0.00341	0.0241	.000856	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00878	0.00533	0.0204	-.0006704	pCi/g	NO
248258002	RE46-10-13539	Plutonium-238	1.26 g	-0.00546	0.00334	0.0218	.000849206	pCi/g	YES
		Plutonium-239/240	1.26 g	-0.000263	0.0031	0.0185	-.00066508	pCi/g	NO
248258003	RE46-10-13538	Plutonium-238	1.25 g	0.00053	0.00233	0.0251	.000856	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00756	0.00381	0.0212	-.0006704	pCi/g	NO
248258004	RE46-10-13536	Plutonium-238	1.26 g	0.00585	0.00381	0.0237	.000849206	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00535	0.00311	0.020	-.00066508	pCi/g	NO
248258005	RE46-10-13537	Plutonium-238	1.25 g	0.000471	0.00207	0.0223	.000856	pCi/g	YES

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Allquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248258005	RE46-10-13537	Plutonium-239/240	1.25 g	0.00047	0.00207	0.0189	-.0006704	pCi/g	NO
248258006	RE46-10-13535	Plutonium-238	1.26 g	-0.0013	0.00223	0.024	.000849208	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00361	0.00256	0.0203	-.00066508	pCi/g	NO
248258007	RE46-10-13542	Plutonium-238	1.25 g	0.00518	0.0058	0.0212	.000856	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00683	0.00377	0.0179	-.0006704	pCi/g	NO

GEL Laboratories LLC ALPHA SPECTROSCOPY REPORT

<p>BATCH NUMBER : 964872 SAMPLE ID : S0248250001_PU SAMPLE QTY : 1.255 G SAMPLE DATE : 24-FEB-2010 00:00:00 ANALYST : JXD2 % YIELD : 82.230</p>	<p>CHAMBER : 072 DETECTOR S/N : 45-149AA3 AVERAGE %EFFICIENCY : 33.6853 COUNT DATE : 24-MAR-2010 21:09:20 ELAPSED LIVE TIME(SEC) : 43199.99</p>	<p>LIB FILE : ENV_ALPHA_PU BKG FILE : B072.CNF;1110 BKG DATE : 21-MAR-2010 BKG LIVE TIME(SEC) : 59999.99 EFF FILE : W072.CNF;279 CAL DATE : 12-MAR-2010</p>
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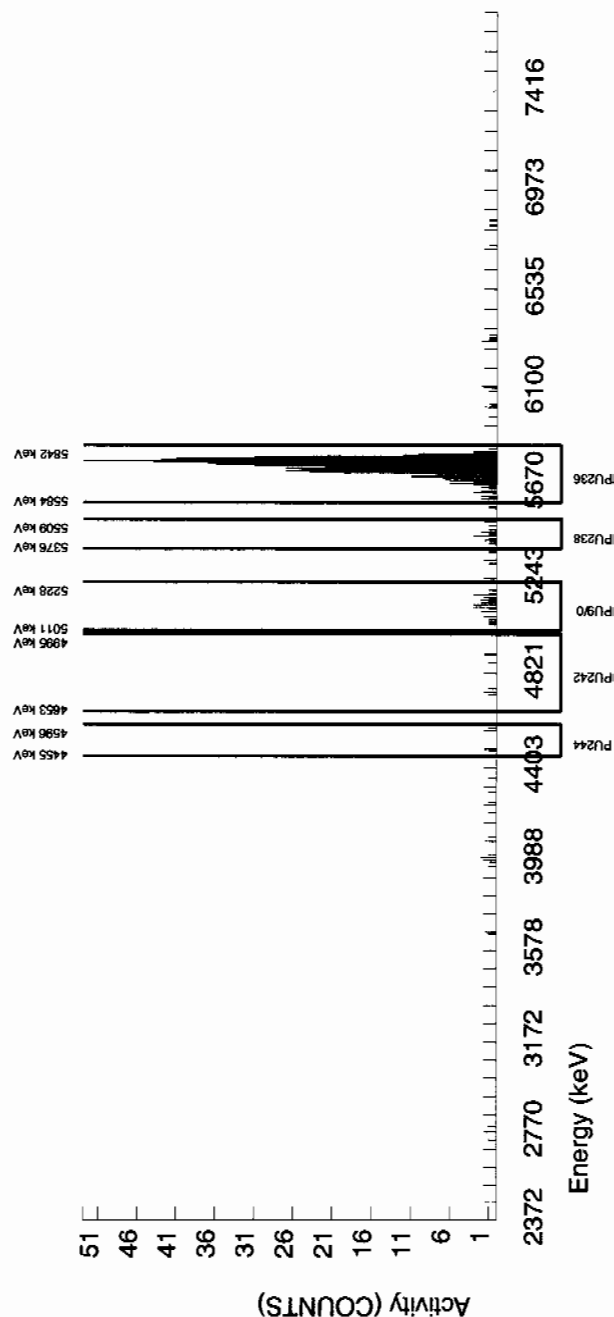
<p>TRACER ID : 1430-C NUCLIDE : PU-236 NOMINAL : 3.0180E+00 dpm RESULTS : 2.4817E+00 dpm</p>	<p>MS/MSD ID : 0244-B NUCLIDE : PU-9/0 NOMINAL : 4.1778E+01 pCi/G</p>	<p>LCS/LCSD ID : 0244-B NUCLIDE : PU-9/0 NOMINAL : 4.1778E+01 pCi/G</p>
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NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5756.020	58.467	599.000	590.360	8.640	2.9394	100.0000	1.08E+00	7.82E-02	1.14E-02	2.77E-02	4.51E-02
PU-238	5499.000	5439.345	18.517	13.000	5.080	7.920	2.4495	99.900000	9.16E-03	7.81E-03	9.52E-03	2.39E-02	7.80E-03
PU-9/0	5155.000	5130.080	74.272	25.000	24.280	0.720	1.9732	99.900000	4.37E-02	9.46E-03	7.67E-03	2.02E-02	9.10E-03
PU242	4890.000	4787.827	138.641	3.000	1.560	1.440	*****	100.0000	2.81E-03	3.62E-03	4.84E-01	9.73E-01	3.62E-03
PU-244	4589.000	4535.665	99.029	2.000	0.560	1.440	6.4609	99.900000	1.01E-03	3.14E-03	2.51E-02	5.51E-02	3.14E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

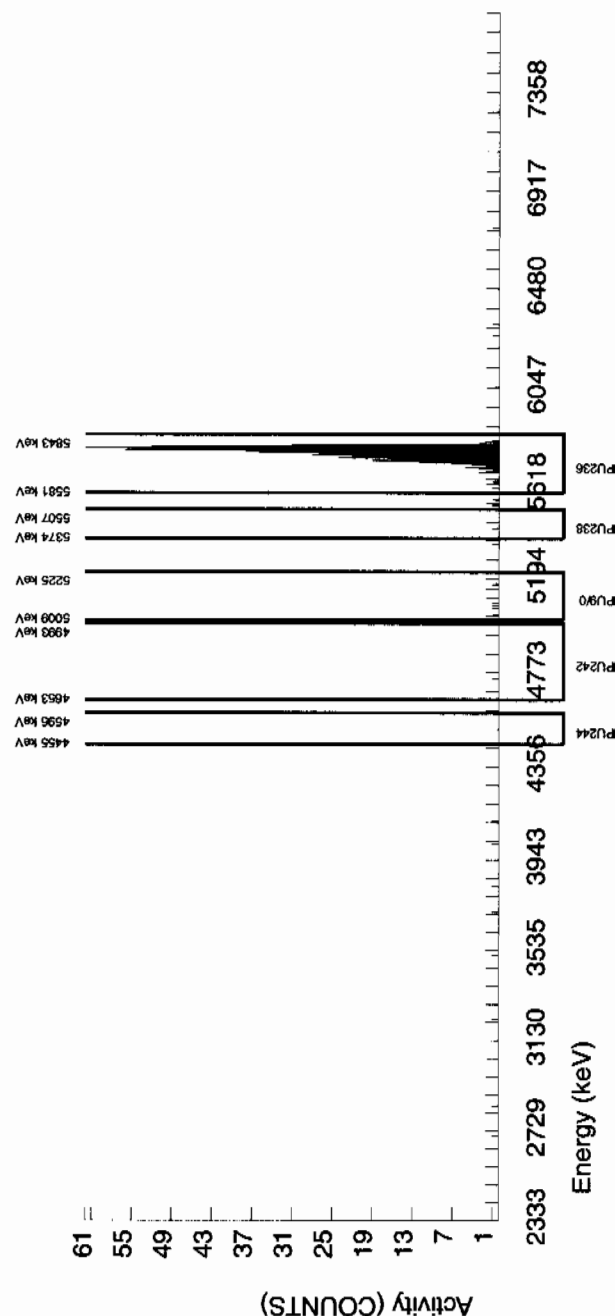


GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 964872 SAMPLE ID : S0248250002_PU SAMPLE QTY : 1.251 G SAMPLE DATE : 24-FEB-2010 00:00:00 ANALYST : JXD2 % YIELD : 79.944		CHAMBER : 073 DETECTOR S/N : 78775 AVERAGE %EFFICIENCY : 33.1763 COUNT DATE : 24-MAR-2010 21:09:20 ELAPSED LIVE TIME(SEC) : 43199.99	LIB FILE : ENV_ALPHA_PU BKG FILE : B073.CNF;1112 BKG DATE : 21-MAR-2010 BKG LIVE TIME(SEC) : 59999.99 EFF FILE : W073.CNF;287 CAL DATE : 12-MAR-2010
TRACER ID : 1430-C NUCLIDE : PU-236 NOMINAL : 3.0180E+00 dpm RESULTS : 2.4127E+00 dpm	MS/MSD ID : 0244-B NUCLIDE : PU-9/0 NOMINAL : 4.1778E+01 pCi/G	LCS/LCSD ID : 0244-B NUCLIDE : PU-9/0 NOMINAL : 4.1778E+01 pCi/G	
NUCLIDE ACTIVITY SUMMARY			
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM
PU-236	5749.000	5766.967	32.302
PU-238	5499.000	5400.196	0.000
PU-9/0	5155.000	5103.843	4.931
PU-242	4890.000	4707.427	88.764
PU-244	4589.000	4524.877	0.000
	GROSS AREA	NET AREA	BKG AREA
	566.000	565.280	0.720
	2.000	2.000	0.000
	10.000	7.840	2.160
	2.000	-1.600	3.600
	0.000	0.000	0.000
	%ABUN	BKG Sg	ACTIVITY pCi/G
	100.0000	0.8485	1.09E+00
	99.900000	2.4495	3.78E-03
	99.900000	1.9732	1.48E-02
	100.0000	*****	-3.02E-03
	99.900000	6.4609	0.00E+00
	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G
	7.90E-02	3.45E-03	1.20E-02
	2.68E-03	9.97E-03	2.51E-02
	6.48E-03	8.03E-03	2.12E-02
	4.04E-03	5.07E-01	1.02E+00
	1.89E-03	2.63E-02	5.77E-02
	UNC pCi/G		
	4.58E-02		
	2.67E-03		
	6.42E-03		
	4.04E-03		
	1.89E-03		

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
* BKG Sg of PU-236 calculated as sqrt(BKG AREA).



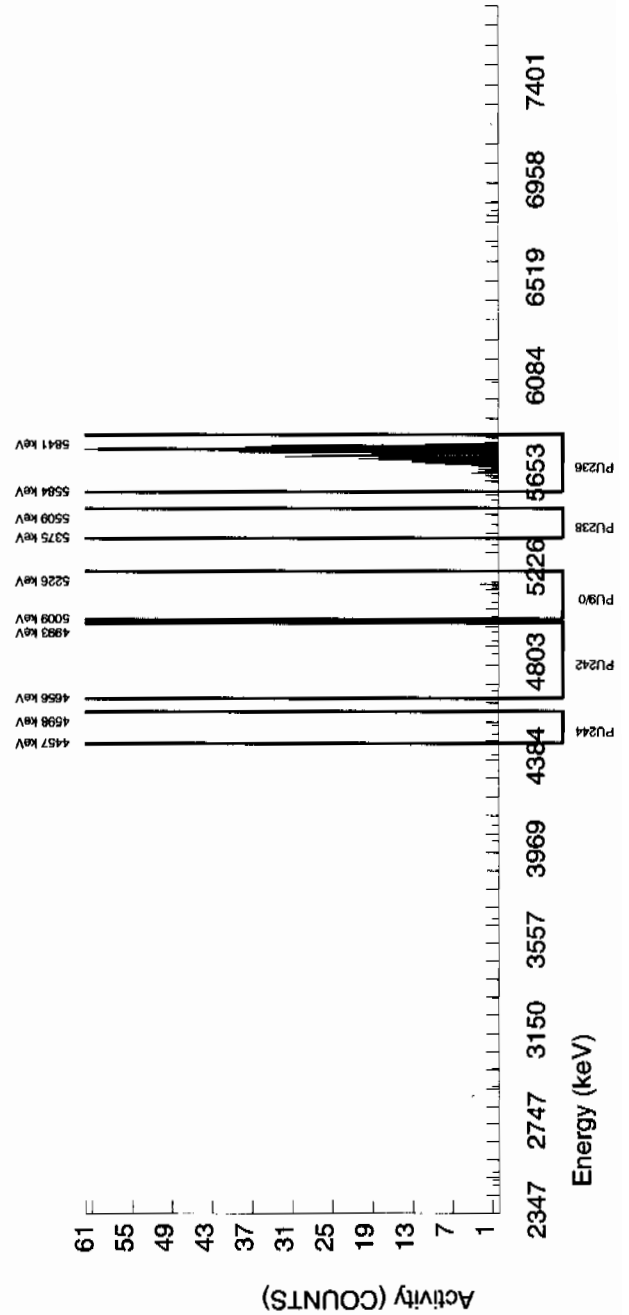
GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 964872 SAMPLE ID : S0248250003_PU SAMPLE QTY : 1.250 G SAMPLE DATE : 24-FEB-2010 00:00:00 ANALYST : JXD2 % YIELD : 81.453				CHAMBER : 074 DETECTOR S/N : 78266 AVERAGE %EFFICIENCY : 31.7138 COUNT DATE : 24-MAR-2010 21:09:20 ELAPSED LIVE TIME(SEC) : 43199.99				LIB FILE : ENV_ALPHA_PU BKG FILE : B074.CNF;1134 BKG DATE : 21-MAR-2010 BKG LIVE TIME(SEC) : 59999.99 EFF FILE : W074.CNF;334 CAL DATE : 12-MAR-2010					
TRACER ID : 1430-C NUCLIDE : PU-236 NOMINAL : 3.0180E+00 dpm RESULTS : 2.4582E+00 dpm				MS/MSD ID : 0244-B NUCLIDE : PU-9/0 NOMINAL : 4.1778E+01 pCi/G				LCS/LCSD ID : 0244-B NUCLIDE : PU-9/0 NOMINAL : 4.1778E+01 pCi/G					
NUCLIDE ACTIVITY SUMMARY													
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5764.090	45.713	552.000	550.560	1.440	1.2000	100.0000	1.09E+00	7.98E-02	5.02E-03	1.53E-02	4.65E-02
PU-238	5499.000	5460.571	44.710	2.000	1.280	0.720	2.4495	99.90000	2.48E-03	3.08E-03	1.02E-02	2.58E-02	3.08E-03
PU-9/0	5155.000	5128.004	4.968	10.000	8.560	1.440	1.9732	99.90000	1.66E-02	6.52E-03	8.26E-03	2.18E-02	6.44E-03
PU242	4890.000	4816.794	0.000	5.000	2.120	2.880	*****	100.0000	4.11E-03	5.16E-03	5.21E-01	1.05E+00	5.15E-03
PU-244	4589.000	4522.366	39.742	2.000	0.560	1.440	6.4609	99.90000	1.09E-03	3.38E-03	2.70E-02	5.93E-02	3.38E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).



GEL Laboratories LLC ALPHA SPECTROSCOPY REPORT

<p>BATCH NUMBER : 964872 SAMPLE ID : S0248250004_PU SAMPLE QTY : 1.258 G SAMPLE DATE : 24-FEB-2010 00:00:00 ANALYST : JXD2 % YIELD : 76.198</p>	<p>CHAMBER : 075 DETECTOR S/N : 80010 AVERAGE %EFFICIENCY : 32.1597 COUNT DATE : 24-MAR-2010 21:09:20 ELAPSED LIVE TIME(SEC) : 43199.99</p>	<p>LIB FILE : ENV_ALPHA_PU BKG FILE : B075.CNF;1115 BKG DATE : 21-MAR-2010 BKG LIVE TIME(SEC) : 59999.99 EFF FILE : W075.CNF;292 CAL DATE : 12-MAR-2010</p>
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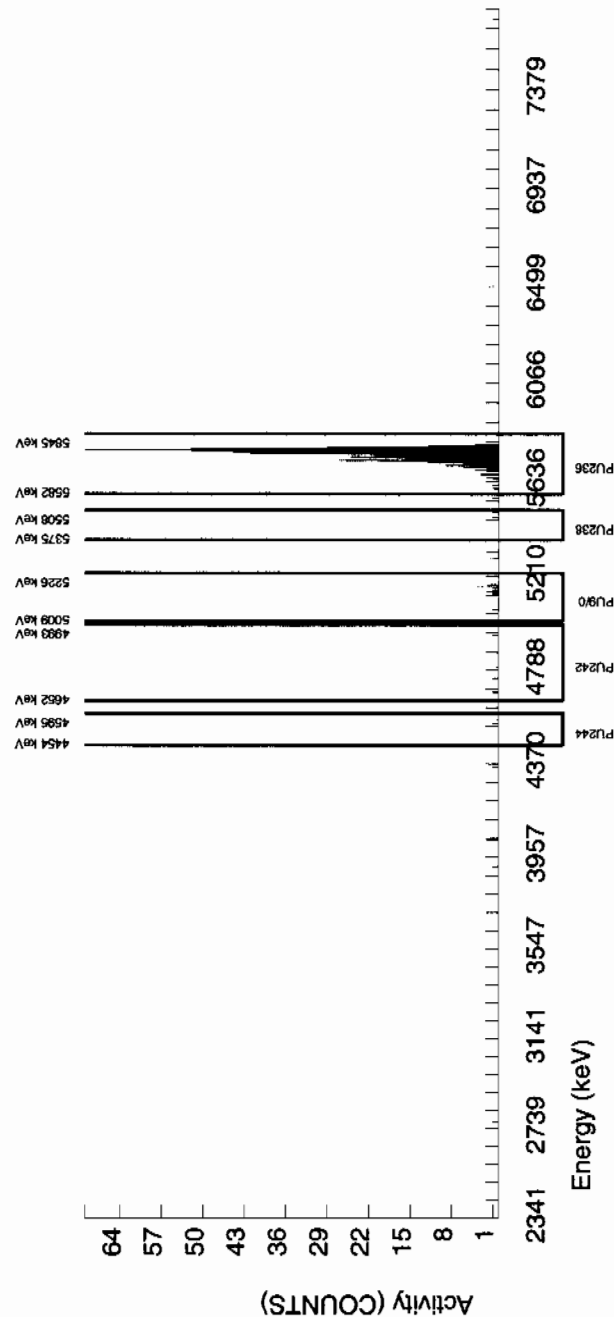
<p>TRACER ID : 1430-C NUCLIDE : PU-236 NOMINAL : 3.0180E+00 dpm RESULTS : 2.2996E+00 dpm</p>	<p>MS/MSD ID : 0244-B NUCLIDE : PU-9/0 NOMINAL : 4.1778E+01 pCi/G</p>	<p>LCS/LCSD ID : 0244-B NUCLIDE : PU-9/0 NOMINAL : 4.1778E+01 pCi/G</p>
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NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5758.430	25.624	523.000	522.280	0.720	0.8485	100.0000	1.08E+00	8.07E-02	3.72E-03	1.29E-02	4.73E-02
PU-238	5499.000	5491.731	24.749	2.000	1.280	0.720	2.4495	99.900000	2.60E-03	3.23E-03	1.07E-02	2.70E-02	3.23E-03
PU-9/0	5155.000	5150.722	5.749	14.000	10.400	3.600	1.9732	99.900000	2.11E-02	8.37E-03	8.65E-03	2.28E-02	8.27E-03
PU242	4890.000	4802.707	0.000	8.000	6.560	1.440	*****	100.0000	1.33E-02	6.15E-03	5.46E-01	1.10E+00	6.10E-03
PU-244	4589.000	4560.572	19.799	2.000	1.280	0.720	6.4609	99.900000	2.60E-03	3.23E-03	2.83E-02	6.21E-02	3.22E-03

NOTES:

- * BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
- * BKG Sg of PU-236 calculated as sqrt(BKG AREA).



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER	: 964872
SAMPLE ID	: S0248258001_PU
SAMPLE QTY	: 1.254 G
SAMPLE DATE	: 25-FEB-2010 00:00:00
ANALYST	: JXD2
% YIELD	: 87.914

CHAMBER : 076
DETECTOR S/N : 78779
AVERAGE %EFFICIENCY : 31.3281
COUNT DATE : 24-MAR-2000
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE	:	ENV_ALPHA_PU
BKG FILE	:	B076.CNF:1118
BKG DATE	:	21-MAR-2010
BKG LIVE TIME(SEC)	:	59999.99
EFF FILE	:	W076.CNF:297
CAL DATE	:	12-MAR-2010

TRACER	ID	: 1430-C
	NUCLIDE	: PU-236
	NOMINAL	: 3.0160E
	RESULTS	: 2.6515E

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E

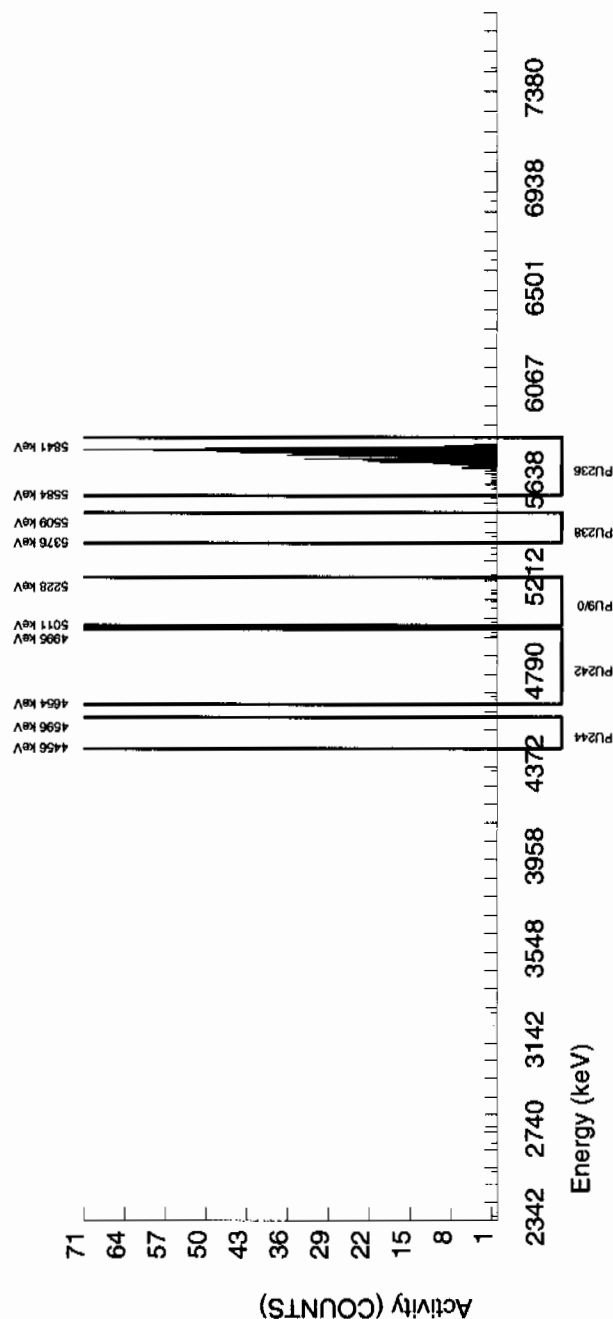
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5770.062	35.253	587.000	587.000	0.000	0.0000	100.0000	1.08E+00	7.77E-02	0.00E+00	4.91E-03	4.47E-02
PU-238	5499.000	5422.478	4.952	3.000	2.280	0.720	2.4495	99.90000	4.14E-03	3.41E-03	9.58E-03	2.41E-02	3.40E-03
PU-9/0	5155.000	5139.312	0.000	7.000	4.840	2.160	1.9732	99.90000	8.78E-03	5.33E-03	7.72E-03	2.04E-02	5.30E-03
PU242	4890.000	4807.974	292.149	5.000	3.560	1.440	*****	100.0000	6.45E-03	4.47E-03	4.87E-01	9.79E-01	4.45E-03
PU-244	4589.000	4525.916	0.000	0.000	-0.720	0.720	6.4609	99.90000	-1.31E-03	2.24E-03	2.53E-02	5.55E-02	2.23E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

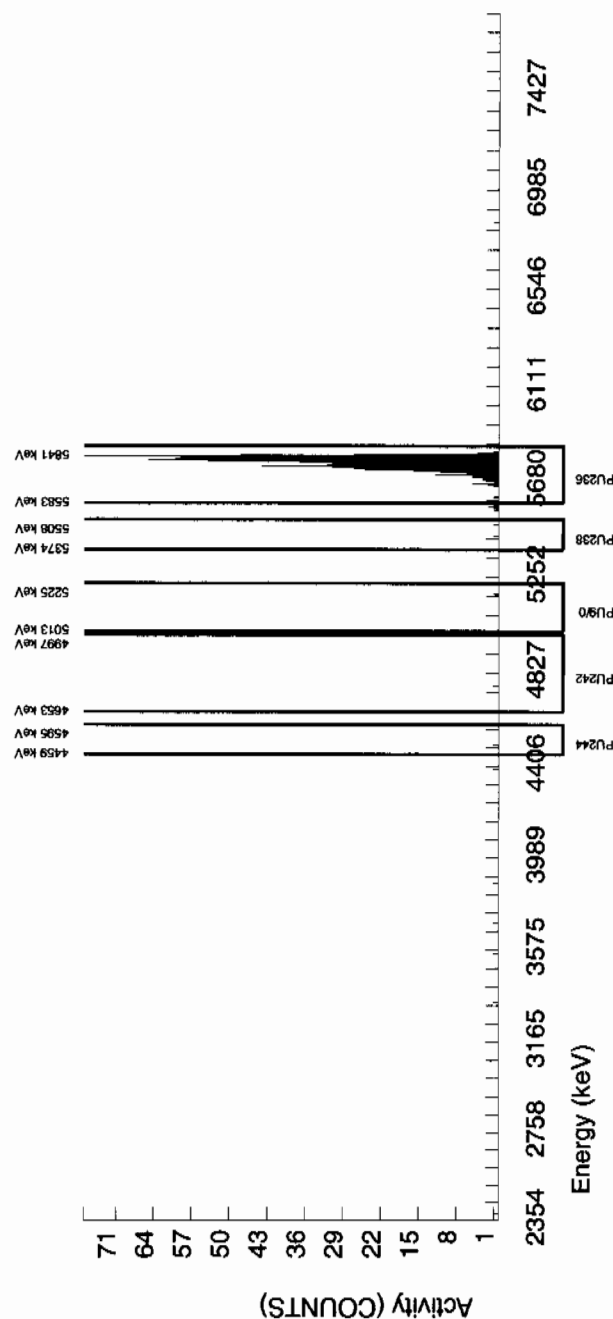
* BKG Sg of PU-236 calculated as $\sqrt{\text{BKG AREA}}$.



NOTES:

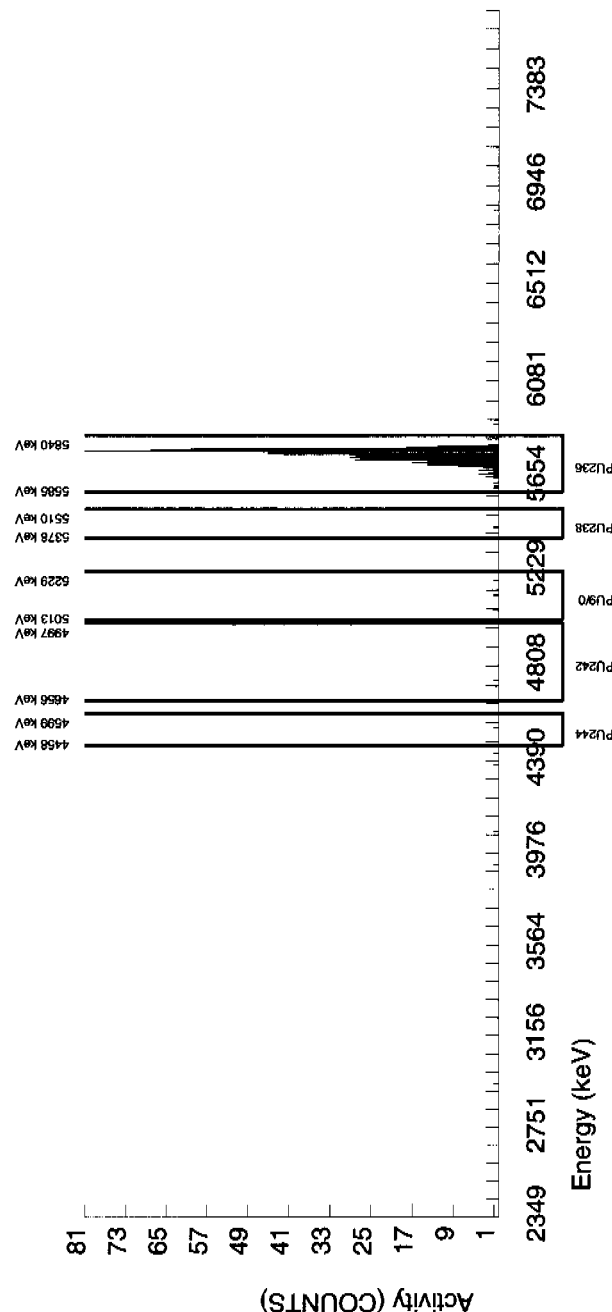
* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as $\sqrt{\text{BKG AREA}}$.



NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
* BKG Sg of PU-236 calculated as sqrt(BKG AREA).



GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 964872
SAMPLE ID : S1202070045_PU
SAMPLE QTY : 0.101 G
SAMPLE DATE : 16-MAR-2010 00:00:00
ANALYST : JXD2
% YIELD : 88.197

CHAMBER : 086
DETECTOR S/N : 78198
AVERAGE %EFFICIENCY : 30.3911
COUNT DATE : 24-MAR-2010 21:09:22
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B086.CNF;1034
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W086.CNF;285
CAL DATE : 12-MAR-2010

TRACER ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9782E+00 dpm
RESULTS : 2.6267E+00 dpm

MS/MSD ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

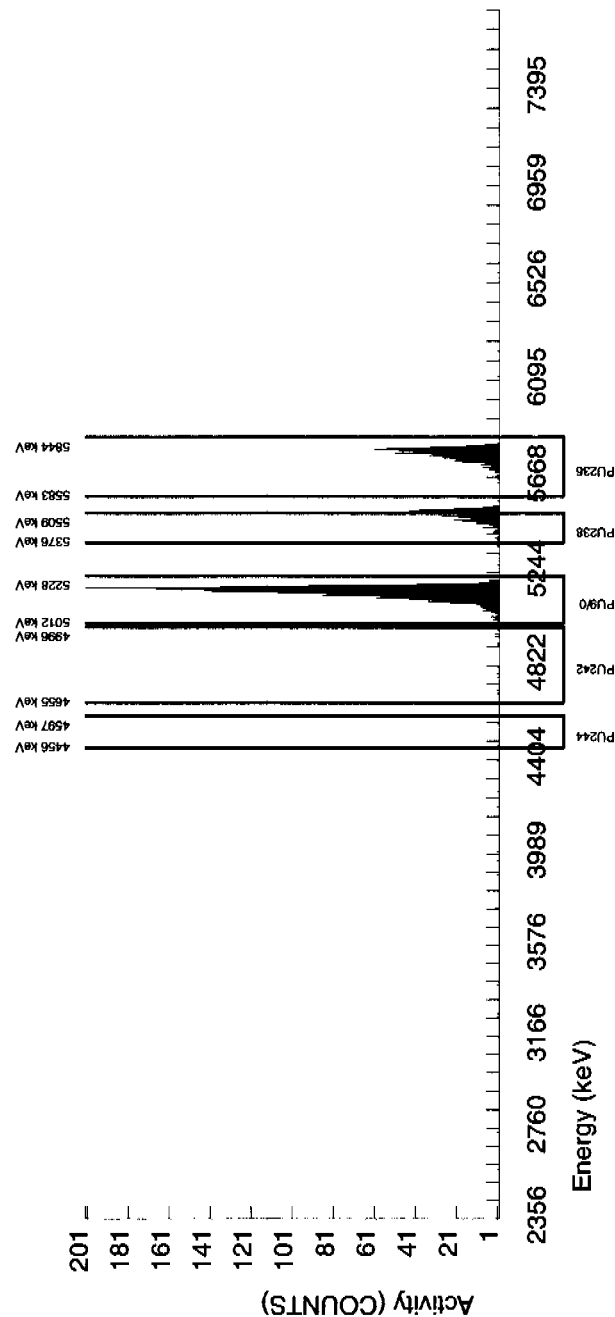
LCS/LCSD ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5774.605	39.277	572.000	571.280	0.720	0.8485	100.0000	1.33E+01	1.05E+00	4.23E-02	1.47E-01	5.56E-01
PU-238	5499.000	5481.586	0.000	203.000	201.560	1.440	2.4495	99.900000	4.66E+00	4.55E-01	1.22E-01	3.07E-01	3.30E-01
PU-9/0	5155.000	5159.844	35.612	1750.000	1747.840	2.160	1.9732	99.900000	4.04E+01	2.88E+00	9.85E-02	2.60E-01	9.68E-01
PU242	4890.000	4877.403	15.082	13.000	10.840	2.160	*****	100.0000	2.51E-01	8.98E-02	6.21E+00	1.25E+01	8.82E-02
PU-244	4589.000	4500.523	104.948	4.000	3.280	0.720	6.4609	99.900000	7.59E-02	4.94E-02	3.22E-01	7.08E-01	4.92E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
* BKG Sg of PU-236 calculated as sqrt(BKG AREA).



Radiochemistry Batch Checklist, Rev10

Batch# 964874 Product: U Date: 3/26/10

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 RCL/ 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 RCL/ LLD.	✓		
(If rad samples, < 5% of lowest activity)	✓		Case narrative
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 initialed and dated.	✓		
No transcription errors are apparent.			
Aux data is correct.			N/A
Client Special requirements case 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 Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and discussion verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Joplin - 3/26/10Secondary Review Performed By: Myers 3/26/10

3/27

LANL

Uranium Que Sheet

12-MAR-10

Batch #: 964874 Analyst: JXD2 First Client Due Date: 27-MAR-10 Internal Due Date: 16-MAR-10
 Tracer Isotope: U-232U-236 Tracer Code: 1233-H Expiration Date: 12/04/10 Vol: 0.1
 LCS Isotope: U-238 LCS Code: Expiration Date: Vol: NA
 Spike Isotope: U-238 Spike Code: Expiration Date: Vol: NA
 Prep Date: 03/16/10 Initials: JXD Balance ID: 50710222 Witness: AB 3/16/10

Sample ID	Client Description	Type	Hazard Code	Mis CRDL	Matrix	Client	Collection Date	Pos.	Label #	Weight Aliquot (g/l/l)	U Det #
248248001-1	RE36-10-8464	SAMPLE		.1 pCi/g	SOIL	LANL010	24-FEB-10	1	1	0.503	121
248248002-1	RE36-10-8475	SAMPLE		.1 pCi/g	SOIL	LANL010	24-FEB-10	2	2	0.501	122
248248003-1	RE36-10-8471	SAMPLE		.1 pCi/g	SOIL	LANL010	24-FEB-10	3	3	0.502	123
248248004-1	RE36-10-8485	SAMPLE		.1 pCi/g	SOIL	LANL010	24-FEB-10	4	4	0.503	124
248248005-1	RE36-10-8477	SAMPLE		.1 pCi/g	SOIL	LANL010	24-FEB-10	5	5	0.502	125
248248006-1	RE36-10-8479	SAMPLE		.1 pCi/g	SOIL	LANL010	24-FEB-10	6	6	0.508	126
248248007-1	RE36-10-8484	SAMPLE		.1 pCi/g	SOIL	LANL010	24-FEB-10	7	7	0.505	127
248248008-1	RE36-10-8481	SAMPLE		.1 pCi/g	SOIL	LANL010	24-FEB-10	8	8	0.501	128
248250001-1	RE36-10-8285	SAMPLE		.1 pCi/g	SOIL	LANL010	24-FEB-10	9	9	0.504	129
248250002-1	RE36-10-8286	SAMPLE		.1 pCi/g	SOIL	LANL010	24-FEB-10	10	10	0.506	130
248250003-1	RE36-10-8283	SAMPLE		.1 pCi/g	SOIL	LANL010	24-FEB-10	11	11	0.503	131
248250004-1	RE36-10-8284	SAMPLE		.1 pCi/g	SOIL	LANL010	24-FEB-10	12	12	0.506	132
248250001-1	RE46-10-13534	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	13	13	0.501	133
248250002-1	RE46-10-13539	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	14	14	0.509	134
248250003-1	RE46-10-13538	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	15	15	0.500	135
248250004-1	RE46-10-13536	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	16	16	0.506	136
248250005-1	RE46-10-13537	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	17	17	0.500	139
248250006-1	RE46-10-13535	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	18	18	0.509	140
248250007-1	RE46-10-13542	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	19	19	0.502	4
1202070047-1	MB for batch 964874	MB		.1 pCi/g	SOIL	QC ACCOUNT		20	20	1	5
1202070048-1	RE46-10-13534(248250001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	25-FEB-10	21	21	0.501	6
1202070049-1	LCS for batch 964874	LCS		.1 pCi/g	SOIL	QC ACCOUNT		22	22	0.102	

* SEM 0244-A exp 10/31/20 0.102g

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH OF DIGESTION
 Circle One

Data Reviewed By: JdML-3/26/12

Blank Correction Report

Batch ID 964874

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202070048	DUP	Uranium-233/234	0.501 g	0.929	0.0858	0.0901	.018183633	pCi/g	NO
		Uranium-235/236	0.501 g	0.0197	0.0105	0.055	.010319361	pCi/g	YES
		Uranium-238	0.501 g	0.891	0.0829	0.0633	.011137725	pCi/g	NO
1202070049	LCS	Uranium-233/234	0.102 g	5.78	0.520	0.364	.089313725	pCi/g	NO
		Uranium-235/236	0.102 g	0.192	0.0615	0.222	.050686275	pCi/g	YES
		Uranium-238	0.102 g	5.49	0.498	0.256	.054705882	pCi/g	NO
1202070047	MB	Uranium-233/234	1.00 g	0.00911	0.00412	0.0393	.00911	pCi/g	YES
		Uranium-235/236	1.00 g	0.00517	0.00519	0.024	.00517	pCi/g	YES
		Uranium-238	1.00 g	0.00558	0.00282	0.0276	.00558	pCi/g	YES
248248001	RE36-10-8484	Uranium-233/234	0.503 g	0.971	0.0943	0.113	.018111332	pCi/g	NO
		Uranium-235/236	0.503 g	0.0546	0.0183	0.0691	.010278330	pCi/g	NO
		Uranium-238	0.503 g	1.07	0.102	0.0796	.011093439	pCi/g	NO
248248002	RE36-10-8475	Uranium-233/234	0.501 g	1.03	0.0967	0.105	.018183633	pCi/g	NO
		Uranium-235/236	0.501 g	0.0643	0.019	0.064	.010319361	pCi/g	NO
		Uranium-238	0.501 g	0.963	0.0916	0.0737	.011137725	pCi/g	NO
248248003	RE36-10-8471	Uranium-233/234	0.502 g	1.12	0.103	0.105	.018147410	pCi/g	NO
		Uranium-235/236	0.502 g	0.0229	0.0122	0.0639	.010298805	pCi/g	YES
		Uranium-238	0.502 g	1.08	0.100	0.0735	.011115538	pCi/g	NO
248248004	RE36-10-8485	Uranium-233/234	0.503 g	1.13	0.110	0.129	.018111332	pCi/g	NO
		Uranium-235/236	0.503 g	0.0677	0.0217	0.0786	.010278330	pCi/g	NO
		Uranium-238	0.503 g	1.22	0.117	0.0905	.011093439	pCi/g	NO
248248005	RE36-10-8477	Uranium-233/234	0.502 g	0.973	0.0948	0.114	.018147410	pCi/g	NO
		Uranium-235/236	0.502 g	0.020	0.0101	0.0698	.010298805	pCi/g	YES
		Uranium-238	0.502 g	0.948	0.093	0.0804	.011115538	pCi/g	NO
248248006	RE36-10-8479	Uranium-233/234	0.508 g	1.03	0.0983	0.111	.017933071	pCi/g	NO
		Uranium-235/236	0.508 g	0.0633	0.0182	0.0679	.010177165	pCi/g	NO
		Uranium-238	0.508 g	1.17	0.109	0.0781	.010984252	pCi/g	NO
248248007	RE36-10-8484	Uranium-233/234	0.505 g	0.954	0.0921	0.110	.018039604	pCi/g	NO
		Uranium-235/236	0.505 g	0.0385	0.0139	0.0671	.010237624	pCi/g	YES
		Uranium-238	0.505 g	0.842	0.0836	0.0772	.011049505	pCi/g	NO
248248008	RE36-10-8481	Uranium-233/234	0.501 g	0.958	0.094	0.115	.018183633	pCi/g	NO
		Uranium-235/236	0.501 g	0.0405	0.0146	0.0705	.010319361	pCi/g	YES
		Uranium-238	0.501 g	1.02	0.0989	0.0812	.011137725	pCi/g	NO
248250001	RE36-10-8285	Uranium-233/234	0.504 g	6.10	0.511	0.187	.018075397	pCi/g	NO
		Uranium-235/236	0.504 g	0.278	0.0523	0.114	.010257937	pCi/g	NO
		Uranium-238	0.504 g	4.51	0.388	0.131	.011071429	pCi/g	NO
248250002	RE36-10-8286	Uranium-233/234	0.506 g	3.21	0.265	0.130	.018003953	pCi/g	NO
		Uranium-235/236	0.506 g	0.165	0.0329	0.0792	.010217391	pCi/g	NO
		Uranium-238	0.506 g	2.62	0.222	0.0912	.011027668	pCi/g	NO
248250003	RE36-10-8283	Uranium-233/234	0.503 g	4.43	0.377	0.176	.018111332	pCi/g	NO
		Uranium-235/236	0.503 g	0.147	0.0355	0.108	.010278330	pCi/g	NO

Blank Correction Report

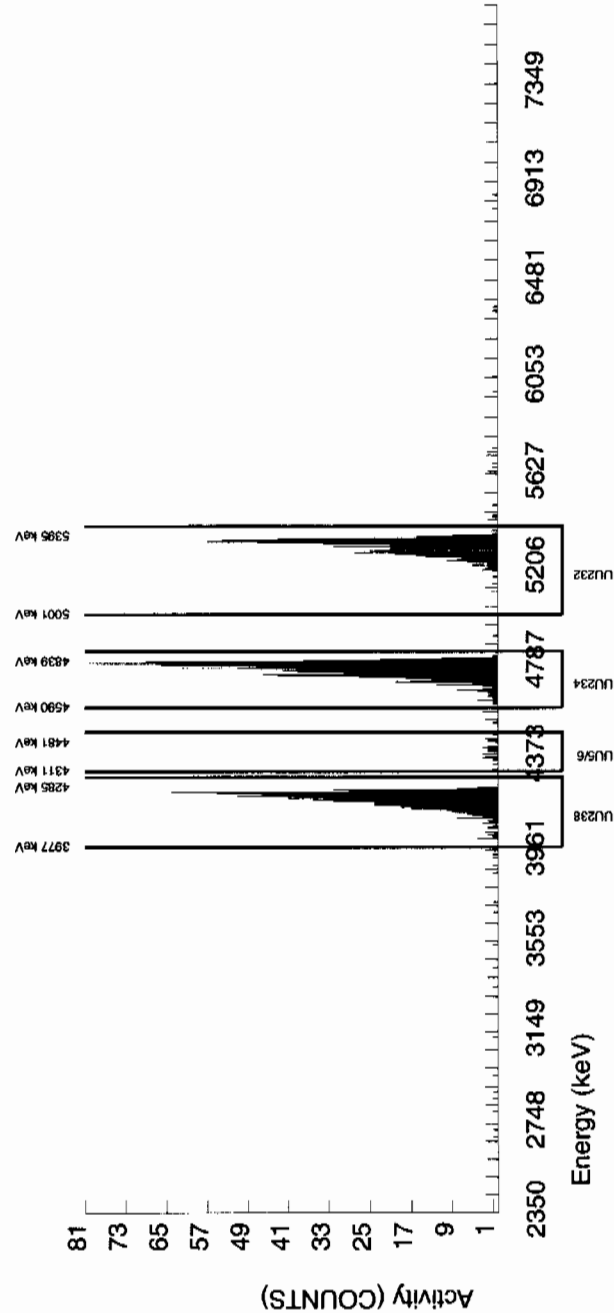
GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <SX Corrected Blank
248250003	RE36-10-8283	Uranium-238	0.503 g	3.72	0.322	0.124	.011083439	pCi/g	NO
248250004	RE36-10-8284	Uranium-233/234	0.508 g	3.72	0.308	0.141	.018003953	pCi/g	NO
		Uranium-235/236	0.508 g	0.124	0.0292	0.0862	.010217391	pCi/g	NO
		Uranium-238	0.508 g	2.88	0.245	0.0992	.011027668	pCi/g	NO
248258001	RE46-10-13534	Uranium-233/234	0.501 g	0.885	0.0878	0.114	.018183633	pCi/g	NO
		Uranium-235/236	0.501 g	0.0549	0.017	0.0696	.010319361	pCi/g	NO
		Uranium-238	0.501 g	0.905	0.0893	0.0801	.011137725	pCi/g	NO
248258002	RE46-10-13539	Uranium-233/234	0.509 g	0.855	0.0825	0.0985	.017897839	pCi/g	NO
		Uranium-235/236	0.509 g	0.0475	0.0147	0.0602	.010157171	pCi/g	YES
		Uranium-238	0.509 g	0.856	0.0822	0.0692	.010962672	pCi/g	NO
248258003	RE46-10-13538	Uranium-233/234	0.500 g	0.792	0.0789	0.106	.01822	pCi/g	NO
		Uranium-235/236	0.500 g	0.065	0.0192	0.0647	.01034	pCi/g	NO
		Uranium-238	0.500 g	0.838	0.0826	0.0745	.01116	pCi/g	NO
248258004	RE46-10-13536	Uranium-233/234	0.508 g	0.835	0.0817	0.103	.018003953	pCi/g	NO
		Uranium-235/236	0.508 g	0.0181	0.0112	0.0631	.010217391	pCi/g	YES
		Uranium-238	0.508 g	0.839	0.0821	0.0726	.011027668	pCi/g	NO
248258005	RE46-10-13537	Uranium-233/234	0.500 g	0.834	0.0824	0.104	.01822	pCi/g	NO
		Uranium-235/236	0.500 g	0.073	0.019	0.0636	.01034	pCi/g	NO
		Uranium-238	0.500 g	0.938	0.0896	0.0732	.01116	pCi/g	NO
248258006	RE46-10-13535	Uranium-233/234	0.509 g	0.772	0.0768	0.101	.017897839	pCi/g	NO
		Uranium-235/236	0.509 g	0.0442	0.0143	0.0616	.010157171	pCi/g	YES
		Uranium-238	0.509 g	0.826	0.0807	0.0709	.010962672	pCi/g	NO
248258007	RE46-10-13542	Uranium-233/234	0.502 g	0.792	0.0748	0.0851	.018147410	pCi/g	NO
		Uranium-235/236	0.502 g	0.0559	0.0159	0.052	.010298805	pCi/g	NO
		Uranium-238	0.502 g	0.824	0.0773	0.0598	.011115538	pCi/g	NO

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 964874 SAMPLE ID : S0248250001_UU SAMPLE QTY : 0.504 G SAMPLE DATE : 24-FEB-2010 00:00:00 ANALYST : JXD2 % YIELD : 50.909				CHAMBER : 129 DETECTOR S/N : 76227 AVERAGE %EFFICIENCY : 26.5015 COUNT DATE : 25-MAR-2010 14:16:43 ELAPSED LIVE TIME(SEC) : 60000.00				LIB FILE : ENV_ALPHA_UU BKG FILE : B129.CNF;461 BKG DATE : 21-MAR-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W129.CNF;132 CAL DATE : 18-MAR-2010					
TRACER ID : 1283-H NUCLIDE : U232 NOMINAL : 4.5028E+00 dpm RESULTS : 2.2923E+00 dpm				MS/MSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G				LCS/LCSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G					
NUCLIDE ACTIVITY SUMMARY													
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5309.064	38.713	609.000	607.000	2.000	1.4142	100.0000	4.02E+00	3.50E-01	2.18E-02	6.15E-02	1.64E-01
U-3/4	4763.020	4761.310	64.685	924.000	921.385	2.000	5.4790	100.0000	6.10E+00	5.11E-01	8.44E-02	1.87E-01	2.02E-01
U-235	4391.000	4401.079	137.133	34.000	34.000	0.000	2.4127	80.900000	2.78E-01	5.23E-02	4.60E-02	1.14E-01	4.77E-02
U-238	4184.730	4188.619	42.778	683.000	681.000	2.000	3.6781	100.0000	4.51E+00	3.88E-01	5.67E-02	1.31E-01	1.73E-01

NOTES:

- * BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
- * BKG Sg of U232 calculated as sqrt(BKG AREA).
- * Corrections made to the following net area due to tracer impurity:
U-3/4

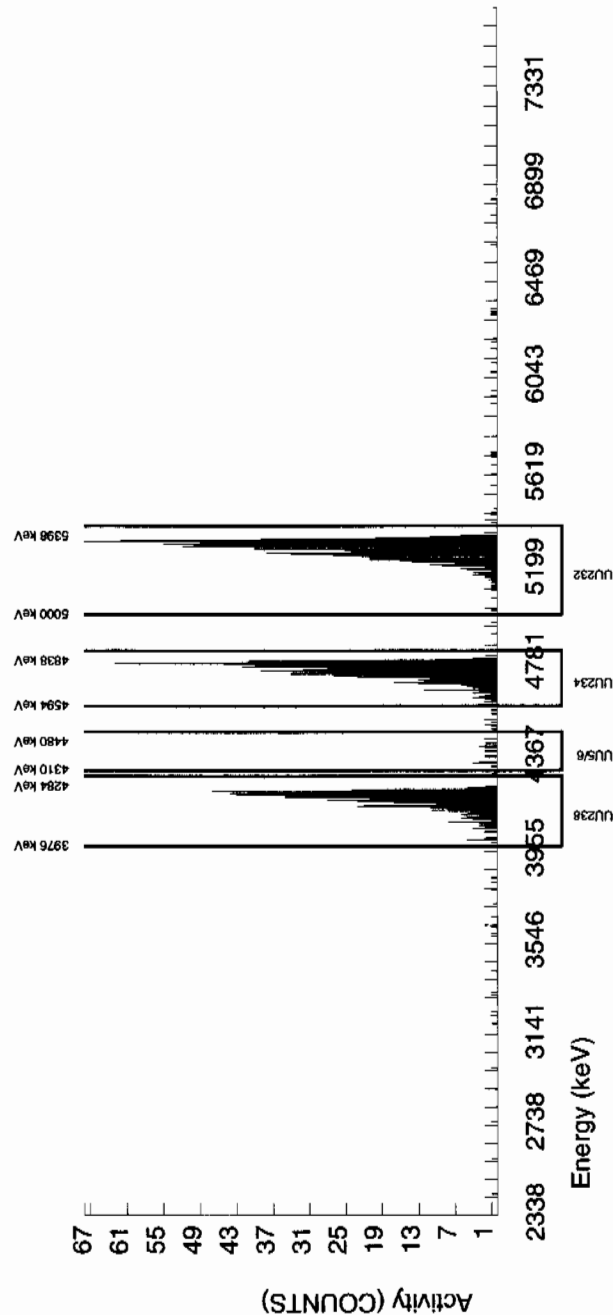


GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 964874 SAMPLE ID : S0248250002_UU SAMPLE QTY : 0.506 G SAMPLE DATE : 24-FEB-2010 00:00:00 ANALYST : JXD2 % YIELD : 74.845				CHAMBER : 130 DETECTOR S/N : 76228 AVERAGE %EFFICIENCY : 25.8660 COUNT DATE : 25-MAR-2010 14:16:46 ELAPSED LIVE TIME(SEC) : 60000.00				LIB FILE : ENV_ALPHA_UU BKG FILE : B130.CNF;461 BKG DATE : 21-MAR-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W130.CNF;134 CAL DATE : 18-MAR-2010					
TRACER ID : 1283-H NUCLIDE : U232 NOMINAL : 4.5028E+00 dpm RESULTS : 3.3701E+00 dpm				MS/MSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G				LCS/LCSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G					
NUCLIDE ACTIVITY SUMMARY													
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5298.103	65.374	871.000	871.000	0.000	0.0000	100.0000	4.01E+00	3.25E-01	0.00E+00	1.25E-02	1.36E-01
U-3/4	4763.020	4752.808	58.882	699.000	697.118	1.000	5.4790	100.0000	3.21E+00	2.65E-01	5.86E-02	1.30E-01	1.22E-01
U-235	4391.000	4390.896	78.476	29.000	29.000	0.000	2.4127	80.90000	1.65E-01	3.29E-02	3.19E-02	7.92E-02	3.06E-02
U-238	4184.730	4181.600	43.649	570.000	569.000	1.000	3.6781	100.0000	2.62E+00	2.22E-01	3.93E-02	9.12E-02	1.10E-01

NOTES:

- * BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
- * BKG Sg of U232 calculated as sqrt(BKG AREA).
- * Corrections made to the following net area due to tracer impurity:
U-3/4

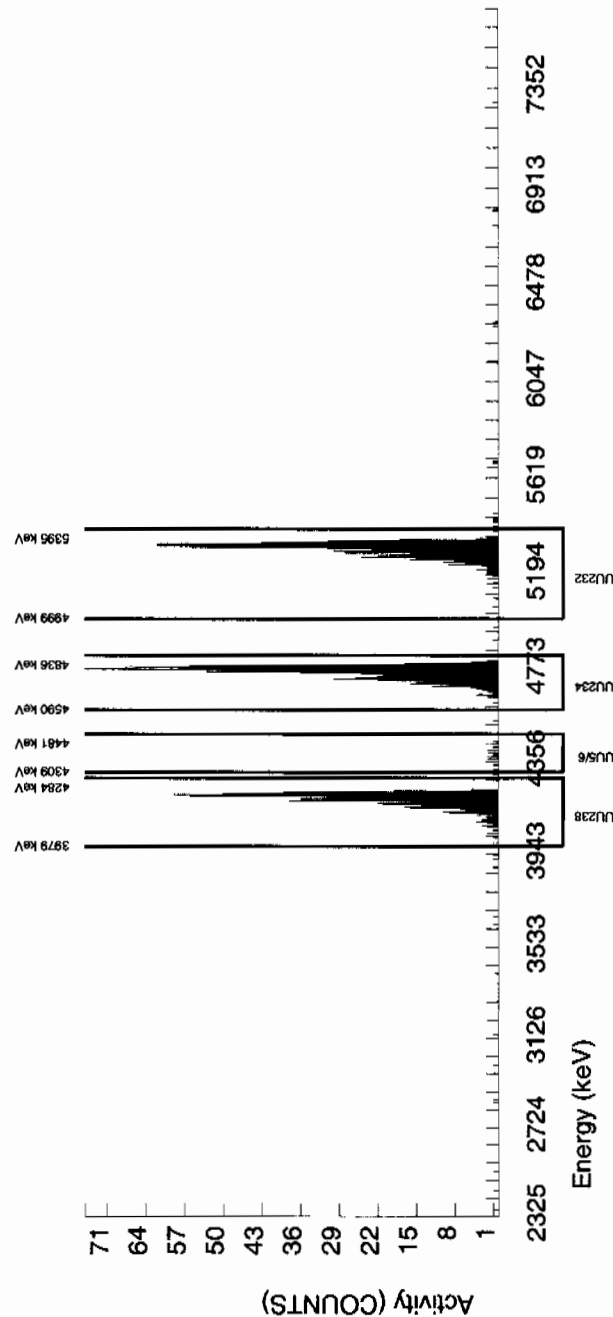


GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 964874 SAMPLE ID : S0248250003_UU SAMPLE QTY : 0.503 G SAMPLE DATE : 24-FEB-2010 00:00:00 ANALYST : JXD2 % YIELD : 56.247				CHAMBER : 131 DETECTOR S/N : 80008 AVERAGE %EFFICIENCY : 25.4483 COUNT DATE : 25-MAR-2010 14:16:49 ELAPSED LIVE TIME(SEC) : 60000.00				LIB FILE : ENV_ALPHA_UU BKG FILE : B131.CNF;459 BKG DATE : 21-MAR-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W131.CNF;136 CAL DATE : 18-MAR-2010					
TRACER ID : 1283-H NUCLIDE : U232 NOMINAL : 4.5028E+00 dpm RESULTS : 2.5327E+00 dpm				MS/MSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G				LCS/LCSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G					
NUCLIDE ACTIVITY SUMMARY													
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.551	29.765	647.000	644.000	3.000	1.7321	100.0000	4.03E+00	3.47E-01	2.52E-02	6.74E-02	1.60E-01
U-3/4	4763.020	4762.396	32.837	710.000	707.348	2.000	5.4790	100.0000	4.43E+00	3.77E-01	7.97E-02	1.76E-01	1.67E-01
U-235	4391.000	4392.265	44.683	19.000	19.000	0.000	2.4127	80.90000	1.47E-01	3.55E-02	4.34E-02	1.08E-01	3.37E-02
U-238	4184.730	4189.536	43.905	594.000	594.000	0.000	3.6781	100.0000	3.72E+00	3.22E-01	5.35E-02	1.24E-01	1.52E-01

NOTES:

- * BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
- * BKG Sg of U232 calculated as sqrt(BKG AREA).
- * Corrections made to the following net area due to tracer impurity:
U-3/4

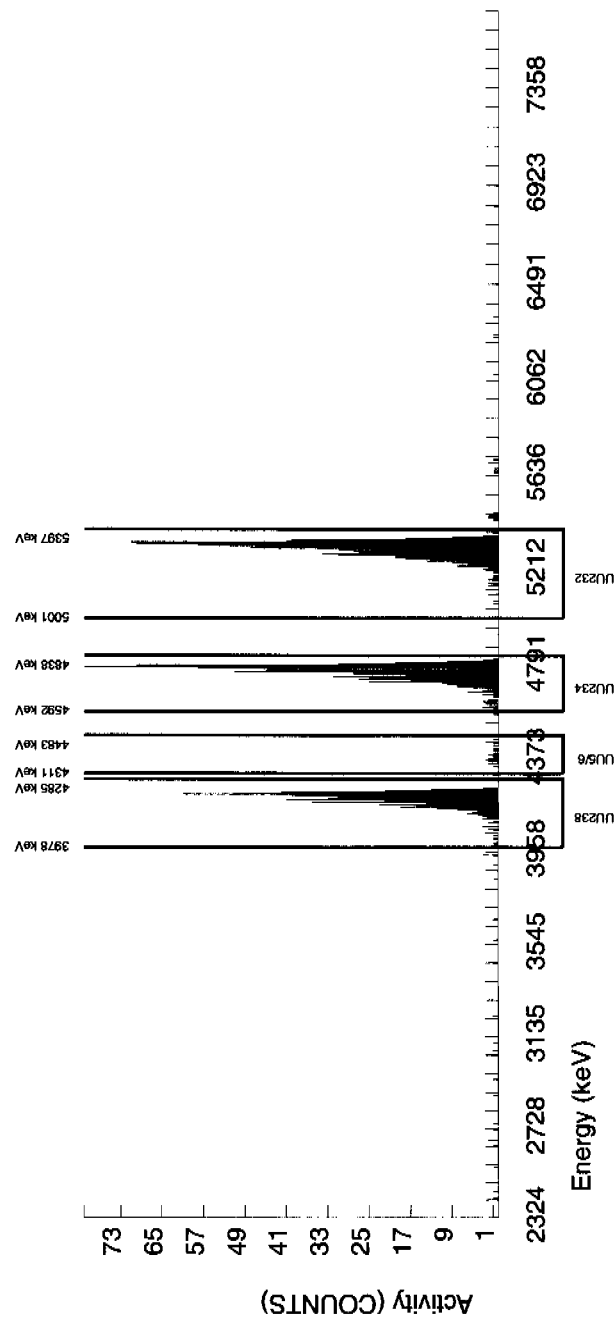


GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 964874 SAMPLE ID : S0248250004_UU SAMPLE QTY : 0.506 G SAMPLE DATE : 24-FEB-2010 00:00:00 ANALYST : JXD2 % YIELD : 67.259				CHAMBER : 132 DETECTOR S/N : 67579 AVERAGE %EFFICIENCY : 26.4369 COUNT DATE : 25-MAR-2010 14:16:51 ELAPSED LIVE TIME(SEC) : 60000.00				LIB FILE : ENV_ALPHA_UU BKG FILE : B132.CNF:455 BKG DATE : 22-MAR-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W132.CNF:134 CAL DATE : 18-MAR-2010					
TRACER ID : 1283-H NUCLIDE : U232 NOMINAL : 4.5028E+00 dpm RESULTS : 3.0286E+00 dpm				MS/MSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G				LCS/LCSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G					
NUCLIDE ACTIVITY SUMMARY													
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5311.913	39.262	800.000	800.000	0.000	0.0000	100.0000	4.01E+00	3.30E-01	0.00E+00	1.36E-02	1.42E-01
U-3/4	4763.020	4768.391	36.489	744.000	743.190	0.000	5.4790	100.0000	3.72E+00	3.08E-01	6.38E-02	1.41E-01	1.36E-01
U-235	4391.000	4399.107	40.290	20.000	20.000	0.000	2.4127	80.90000	1.24E-01	2.92E-02	3.47E-02	8.62E-02	2.77E-02
U-238	4184.730	4198.231	49.364	575.000	575.000	0.000	3.6781	100.0000	2.88E+00	2.45E-01	4.28E-02	9.92E-02	1.20E-01

NOTES:

- * BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
- * BKG Sg of U232 calculated as sqrt(BKG AREA).
- * Corrections made to the following net area due to tracer impurity:
U-3/4

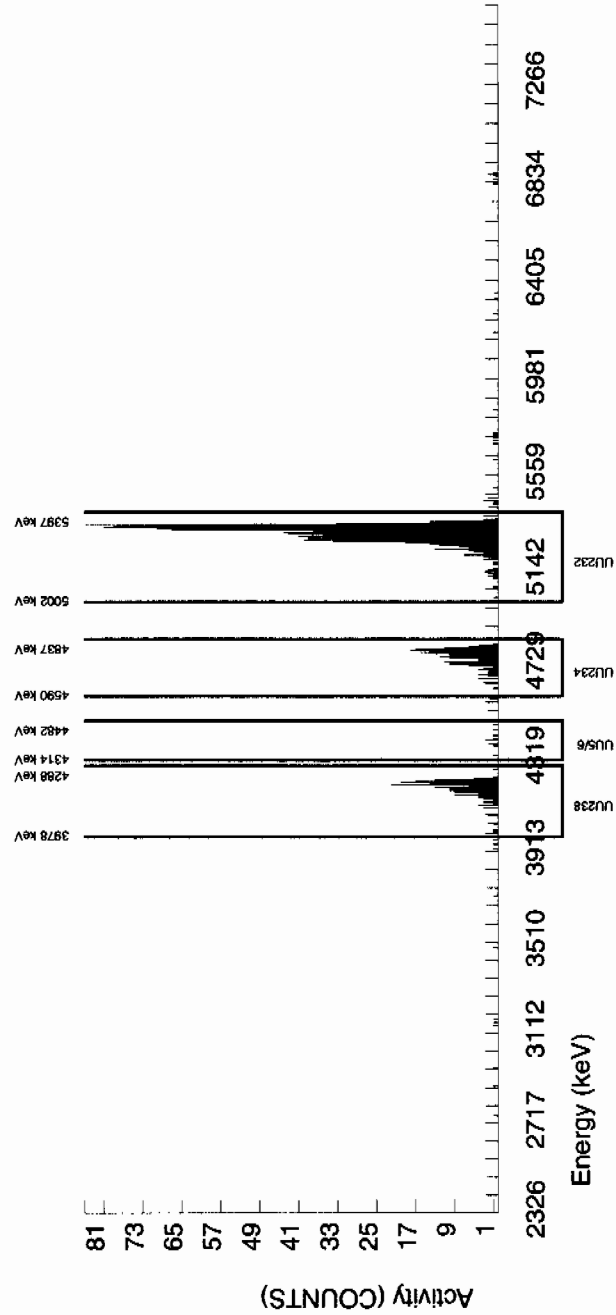


GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 964874 SAMPLE ID : S0248258001_UU SAMPLE QTY : 0.501 G SAMPLE DATE : 25-FEB-2010 00:00:00 ANALYST : JXD2 % YIELD : 88.582				CHAMBER : 133 DETECTOR S/N : 76229 AVERAGE %EFFICIENCY : 25.1168 COUNT DATE : 25-MAR-2010 14:16:54 ELAPSED LIVE TIME(SEC) : 60000.00				LIB FILE : ENV_ALPHA_UU BKG FILE : B133.CNF:446 BKG DATE : 22-MAR-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W133.CNF:125 CAL DATE : 18-MAR-2010					
TRACER ID : 1283-H NUCLIDE : U232 NOMINAL : 4.5027E+00 dpm RESULTS : 3.9886E+00 dpm				MS/MSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G				LCS/LCSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G					
NUCLIDE ACTIVITY SUMMARY													
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5308.806	38.639	1004.000	1001.000	3.000	1.7321	100.0000	4.05E+00	3.21E-01	1.63E-02	4.35E-02	1.28E-01
U-3/4	4763.020	4762.808	71.032	220.000	218.986	0.000	5.4790	100.0000	8.85E-01	8.78E-02	5.15E-02	1.14E-01	5.98E-02
U-235	4391.000	4398.074	7.146	11.000	11.000	0.000	2.4127	80.900000	5.49E-02	1.70E-02	2.80E-02	6.96E-02	1.66E-02
U-238	4184.730	4191.735	38.146	224.000	224.000	0.000	3.6781	100.0000	9.05E-01	8.93E-02	3.46E-02	8.01E-02	6.05E-02

NOTES:

- * BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
- * BKG Sg of U232 calculated as sqrt(BKG AREA).
- * Corrections made to the following net area due to tracer impurity:
U-3/4

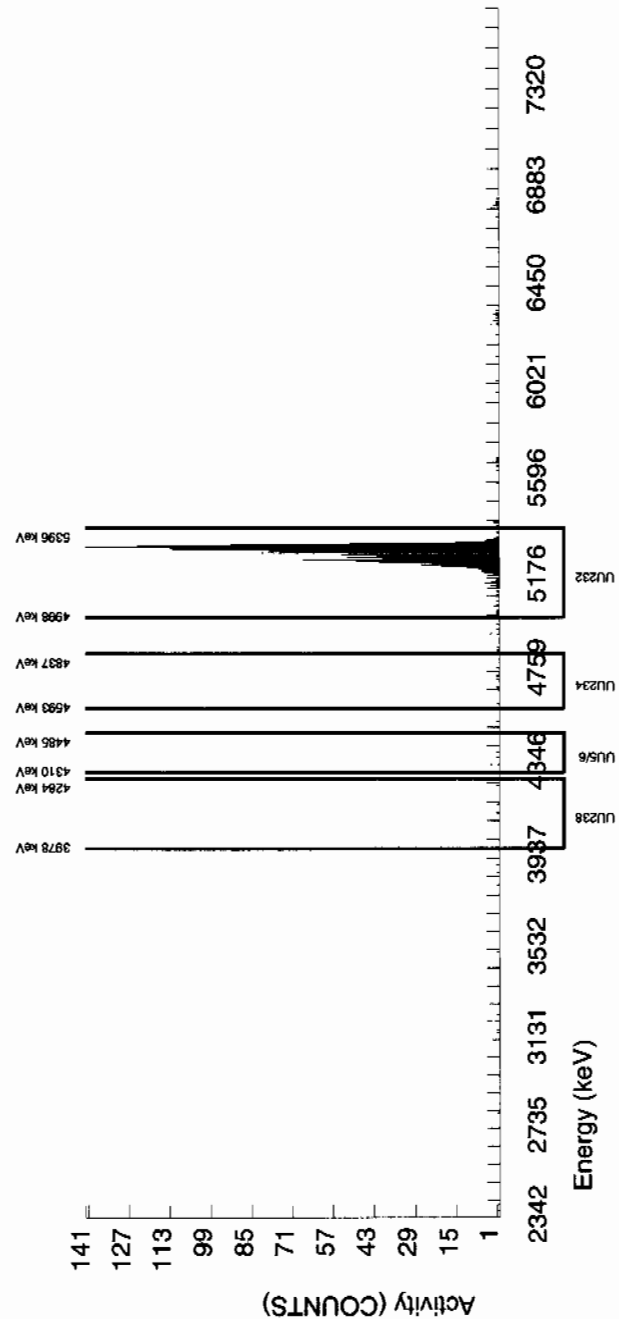


GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 964874 SAMPLE ID : S1202070047_UU SAMPLE QTY : 1.000 G SAMPLE DATE : 16-MAR-2010 00:00:00 ANALYST : JXD2 % YIELD : 96.269				CHAMBER : 005 DETECTOR S/N : 79454 AVERAGE %EFFICIENCY : 33.5469 COUNT DATE : 25-MAR-2010 12:59:05 ELAPSED LIVE TIME(SEC) : 59999.99				LIB FILE : ENV_ALPHA_UU BKG FILE : B005.CNF;1115 BKG DATE : 21-MAR-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W005.CNF;339 CAL DATE : 4-MAR-2010					
TRACER ID : 1283-H NUCLIDE : U232 NOMINAL : 4.5003E+00 dpm RESULTS : 4.3324E+00 dpm				MS/MSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G				LCS/LCSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G					
NUCLIDE ACTIVITY SUMMARY													
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5288.693	38.429	1458.000	1453.000	5.000	2.2361	100.0000	2.03E+00	1.52E-01	7.26E-03	1.83E-02	5.34E-02
U-3/4	4763.020	4731.064	190.446	9.000	6.528	1.000	5.4790	100.0000	9.11E-03	4.12E-03	1.78E-02	3.93E-02	4.07E-03
U-235	4391.000	4366.408	0.000	6.000	3.000	3.000	2.4127	80.90000	5.17E-03	5.18E-03	9.68E-03	2.40E-02	5.17E-03
U-238	4184.730	4178.012	121.471	4.000	4.000	0.000	3.6781	100.0000	5.58E-03	2.82E-03	1.19E-02	2.76E-02	2.79E-03

NOTES:

- * BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
- * BKG Sg of U232 calculated as sqrt(BKG AREA).
- * Corrections made to the following net area due to tracer impurity:
U-3/4



GEL Laboratories LLC ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 964874 SAMPLE ID : S1202070048_UU SAMPLE QTY : 0.501 G SAMPLE DATE : 25-FEB-2010 00:00:00 ANALYST : JXD2 % YIELD : 87.750		CHAMBER : 006 DETECTOR S/N : 79455 AVERAGE %EFFICIENCY : 32.0671 COUNT DATE : 25-MAR-2010 12:59:05 ELAPSED LIVE TIME(SEC) : 59999.99	LIB FILE : ENV_ALPHA_UU BKG FILE : B006.CNF;1128 BKG DATE : 21-MAR-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W006.CNF;363 CAL DATE : 4-MAR-2010
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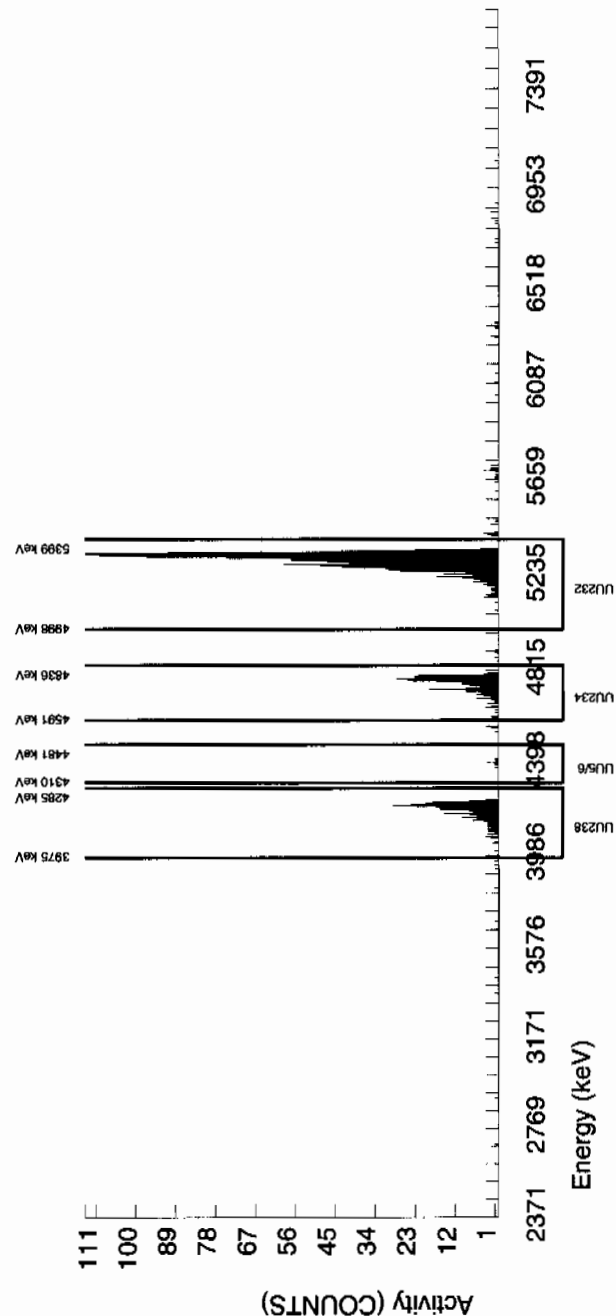
TRACER ID : 1283-H NUCLIDE : U232 NOMINAL : 4.5027E+00 dpm RESULTS : 3.9511E+00 dpm	MS/MSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G	LCS/LCSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/G
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NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5308.655	54.027	1267.000	1266.000	1.000	1.0000	100.0000	4.05E+00	3.09E-01	7.43E-03	2.35E-02	1.14E-01
U-3/4	4763.020	4759.281	64.085	294.000	290.717	2.000	5.4790	100.0000	9.29E-01	8.58E-02	4.07E-02	9.01E-02	5.49E-02
U-235	4391.000	4405.361	44.573	6.000	5.000	1.000	2.4127	80.90000	1.97E-02	1.05E-02	2.22E-02	5.50E-02	1.04E-02
U-238	4184.730	4187.155	51.606	279.000	279.000	0.000	3.6781	100.0000	8.91E-01	8.29E-02	2.73E-02	6.33E-02	5.34E-02

NOTES:

- * BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
- * BKG Sg of U232 calculated as sqrt(BKG AREA).
- * Corrections made to the following net area due to tracer impurity:
U-3/4



GEL Laboratories LLC ALPHA SPECTROSCOPY REPORT

<p>BATCH NUMBER : 964874 SAMPLE ID : S1202070049_UU SAMPLE QTY : 0.102 G SAMPLE DATE : 16-MAR-2010 00:00:00 ANALYST : JXD2 % YIELD : 99.653</p>	<p>CHAMBER : 009 DETECTOR S/N : 72528 AVERAGE %EFFICIENCY : 34.3260 COUNT DATE : 25-MAR-2010 12:59:06 ELAPSED LIVE TIME(SEC) : 60000.00</p>	<p>LIB FILE : ENV_ALPHA_UU BKG FILE : B009.CNF:1116 BKG DATE : 21-MAR-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W009.CNF:309 CAL DATE : 4-MAR-2010</p>
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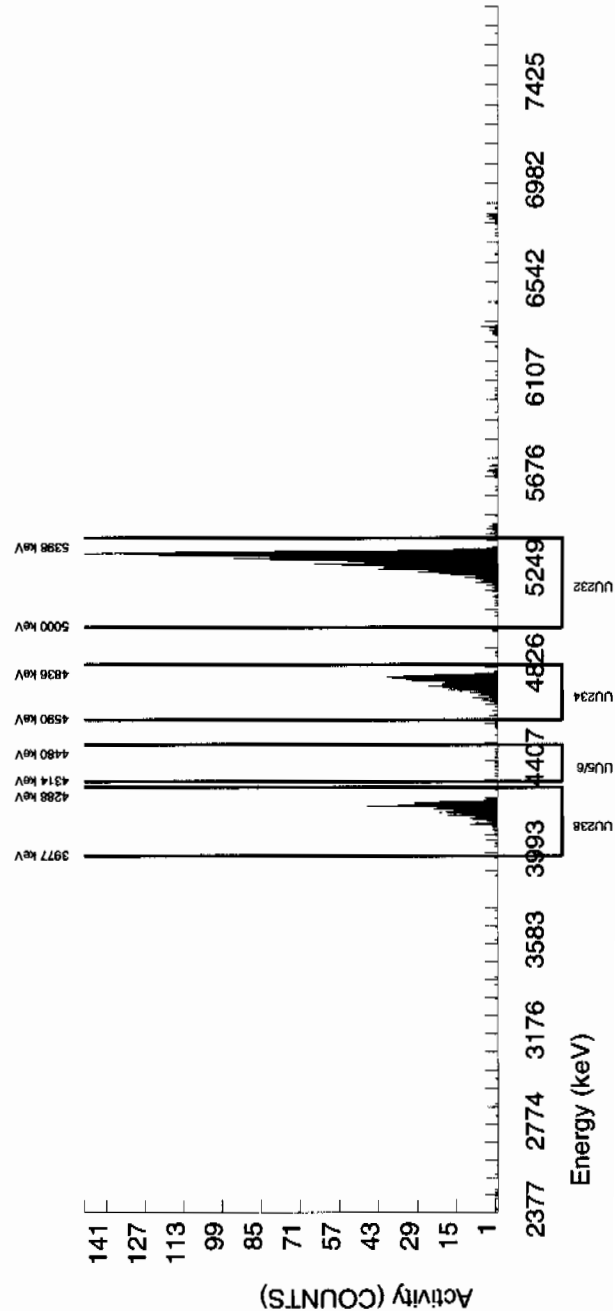
<p>TRACER ID : 1283-H NUCLIDE : U232 NOMINAL : 4.5003E+00 dpm RESULTS : 4.4847E+00 dpm</p>	<p>MS/MSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/g</p>	<p>LCS/LCSD ID : 0244-A NUCLIDE : U-238 NOMINAL : 5.7500E+00 pCi/g</p>
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NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/g	TPU 1-SIGMA	DLC pCi/g	MDC pCi/g	UNC pCi/g
U232	5302.100	5303.813	39.568	1549.000	1539.000	10.000	3.1623	100.0000	1.99E+01	1.61E+00	9.50E-02	2.25E-01	5.10E-01
U-3/4	4763.020	4757.287	55.230	449.000	447.441	0.000	5.4790	100.0000	5.78E+00	5.20E-01	1.65E-01	3.64E-01	2.73E-01
U-235	4391.000	4406.916	118.703	13.000	12.000	1.000	2.4127	80.90000	1.91E-01	6.15E-02	8.96E-02	2.22E-01	5.97E-02
U-238	4184.730	4188.958	27.751	426.000	425.000	1.000	3.6781	100.0000	5.49E+00	4.98E-01	1.10E-01	2.56E-01	2.67E-01

NOTES:

- * BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
- * BKG Sg of U232 calculated as sqrt(BKG AREA).
- * Corrections made to the following net area due to tracer impurity:
U-3/4



959281

Radiochemistry Batch Checklist, Rev10

Batch# 959281-15Product: Y3Date: 3/23/10

3/23/10

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 initiated 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 stated.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) 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

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By:

[Signature] 3/23/10

Secondary Review Performed By:

[Signature] 3/23/10

LANL

3/27/10

03/01/2010

Gamma Spec Que Sheet 1.6-3/11/10

Batch #: 959281

Analyst: MXR1

First Client Due Date: 03/27/2010

Internal Due Date: 03/16/2010

Gamma Spike Isotope: Mixed Gamma

Spike Code: MSExpiration Date: MSVol: MSNominal Concentration: MS

Gamma LCS Isotope: Mixed Gamma

LCS Code: 1032-AExpiration Date: 1032-AVol: 1.0 mLNominal Concentration: MSInitials: MSPrep Date: 3/4/10Library: SOUPWitness: MSVol: MSNominal Concentration: MS

Wet/Dry

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Aliquot (1/g F)	Detector	Sealing Date/Time (If Applicable)
248250001-1	RE36-10-8285	SAMPLE	LANL010	SOIL	24-FEB-10 12:00:00	MS	CAN	80.96	1	3/4/10
248250002-1	RE36-10-8286	SAMPLE	LANL010	SOIL	24-FEB-10 12:00:00	MS		127.87	15	
248250003-1	RE36-10-8283	SAMPLE	LANL010	SOIL	24-FEB-10 12:00:00	MS		118.61	16	
248250004-1	RE36-10-8284	SAMPLE	LANL010	SOIL	24-FEB-10 12:00:00	MS		113.55	17	
248250001-1	RE46-10-13534	SAMPLE	LANL010	SOIL	25-FEB-10 12:00:00	MS		132.71	18	
248250002-1	RE46-10-13539	SAMPLE	LANL010	SOIL	25-FEB-10 12:00:00	MS		123.72	19	
248250003-1	RE46-10-13538	SAMPLE	LANL010	SOIL	25-FEB-10 12:00:00	MS		126.37	20	
248250004-1	RE46-10-13536	SAMPLE	LANL010	SOIL	25-FEB-10 12:00:00	MS		121.94	21	
248250005-1	RE46-10-13537	SAMPLE	LANL010	SOIL	25-FEB-10 12:00:00	MS		122.99	22	
248250006-1	RE46-10-13535	SAMPLE	LANL010	SOIL	25-FEB-10 12:00:00	MS		119.86	23	
248250007-1	RE46-10-13542	SAMPLE	LANL010	SOIL	25-FEB-10 12:00:00	MS		126.80	25	
1202057358-1	MB	MB	QC ACCOUNT	SOIL	3/4/10	MS		132.71	23	3/23/10
1202057359-1	DUP RE46-10-13534(248258001)	DUP	QC ACCOUNT	SOIL	25-FEB-10 12:00:00	MS		132.71	1	
1202057360-1	LCS	LCS	QC ACCOUNT	SOIL	3/4/10	MS		155.44	2	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: MS 3/23/10

Page 1 of 1

MS

MS 3/23/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
959281	248250001	SAMPLE	19-MAR-10		Americium-241	0.05287	0.3839	0.200
					Cerium-139	-0.01939	0.07478	0.050
					Cesium-134	0.09217	0.1307	0.100
					Europium-152	-0.03194	0.2444	0.200
					Mercury-203	0.06949	0.1162	0.100
					Sodium-22	-0.00258	0.09951	0.080
					Tin-113	0.00546	0.121	0.100
959281	248250002	SAMPLE	19-MAR-10		Americium-241	-0.1353	0.5462	0.200
					Cerium-139	0.01186	0.06881	0.050
					Cesium-134	0.09335	0.1091	0.100
					Europium-152	-0.01813	0.2064	0.200
					Sodium-22	0.01687	0.09348	0.080
					Thorium-234	2.685	4.576	2.00
					Tin-113	0.01079	0.107	0.100
959281	248250003	SAMPLE	19-MAR-10		Americium-241	0.14	0.2521	0.200
959281	248250004	SAMPLE	19-MAR-10		Cerium-139	0.0126	0.06081	0.050
					Cesium-134	0.08862	0.1346	0.100
					Cobalt-60	0.02895	0.1025	0.100
					Europium-152	0.02118	0.2047	0.200
					Sodium-22	0.01521	0.1084	0.080
959281	248258001	SAMPLE	19-MAR-10		Americium-241	-0.06144	0.2897	0.200
					Thorium-234	1.786	2.614	2.00
959281	248258002	SAMPLE	19-MAR-10		Americium-241	-0.1534	0.2956	0.200
					Cerium-139	-0.02037	0.05903	0.050
					Thorium-234	1.006	2.67	2.00
959281	248258003	SAMPLE	19-MAR-10		Americium-241	0.1125	0.2042	0.200
					Cerium-139	-0.00164	0.05085	0.050
959281	248258004	SAMPLE	19-MAR-10		Sodium-22	-0.00403	0.1028	0.080
959281	248258005	SAMPLE	19-MAR-10		Americium-241	0.1097	0.2435	0.200
					Cerium-139	-0.03041	0.05173	0.050
					Thorium-234	1.866	2.069	2.00
959281	248258006	SAMPLE	19-MAR-10		Americium-241	-0.2079	0.3723	0.200
					Cerium-139	0.00674	0.06152	0.050
					Cesium-134	0.04749	0.1048	0.100
					Sodium-22	0.00832	0.0921	0.080
					Thorium-234	1.739	3.338	2.00
959281	248258007	SAMPLE	19-MAR-10		Sodium-22	0.0412	0.08921	0.080
959281	1202057358	MB	22-MAR-10					
959281	1202057359	DUP	19-MAR-10		Americium-241	-0.05039	0.309	0.200
					Cerium-139	-0.01166	0.05679	0.050
					Cesium-134	0.06004	0.1025	0.100
					Sodium-22	0.03533	0.09252	0.080
959281	1202057360	LCS	19-MAR-10		Cerium-139	0.0492	0.08559	0.050
					Cesium-134	0.05729	0.1638	0.100
					Europium-152	-0.09039	0.317	0.200

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
959281	1202057360	LCS	19-MAR-10		Mercury-203	0.01712	0.1192	0.100
					Ruthenium-106	0.04236	1.057	0.800
					Sodium-22	0.02034	0.1012	0.080
					Thorium-234	-0.741	4.383	2.00
					Tin-113	-0.04712	0.1545	0.100
					Uranium-235	0.06269	0.5268	0.500

Gamma Review Report based on Result > MDA for Batch:959281

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248250001	24-FEB-10 12:00	19-MAR-10 13:10	23	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	1.743	0.2478	pCi/g	0.346	N	911.6 3	1.423	IDENTIFIED 12.91	<input type="checkbox"/>	
Barium-137m	0.6331	0.06856	pCi/g	0.07637	N	662.2 2	1.584	IDENTIFIED 10.02	<input type="checkbox"/>	
Bismuth-211	4.406	0.4058	pCi/g	0.4712	Y	352.3 2	1.459	IDENTIFIED 8.012	<input checked="" type="checkbox"/>	U±
Bismuth-212	1.979	0.5333	pCi/g	1.616	N	0 5 0	FAIL_ABUND 0		<input type="checkbox"/>	
Bismuth-214	1.256	0.1359	pCi/g	0.175	0.200	609.7 2	1.477	IDENTIFIED 9.625	<input type="checkbox"/>	
Cadmium-109	4.139	0.8247	pCi/g	1.778	Y	87.34 3	1.397	IDENTIFIED 19.37	<input checked="" type="checkbox"/>	U±
Cadmium-115	66.21	107.6	pCi/g	0	N	0 5 0	SHORT_HLIF 0		<input type="checkbox"/>	
Cerium-143	21630	7010	pCi/g	0	N	0 5 0	SHORT_HLIF 0		<input type="checkbox"/>	
Cesium-137	0.6688	0.07245	pCi/g	0.08067	0.100	662.2 2	1.584	IDENTIFIED 10.02	<input type="checkbox"/>	
Gross Gamma	9.944	1.433	pCi/g	4.311	N	0			<input type="checkbox"/>	
Iodine-133	1.50E+06	2.63E+06	pCi/g	0	N	0 5 0	SHORT_HLIF 0		<input type="checkbox"/>	
Lead-212	1.929	0.1295	pCi/g	0.1278	0.100	239.1 2	1.171	IDENTIFIED 4.384	<input type="checkbox"/>	
Lead-214	1.599	0.1537	pCi/g	0.1871	0.100	352.3 2	1.459	IDENTIFIED 8.012	<input type="checkbox"/>	
Molybdenum-99	64.63	68.96	pCi/g	0	N	0 5 0	SHORT_HLIF 0		<input type="checkbox"/>	
Neptunium-237	1.193	0.2686	pCi/g	0.5217	N	87.34 3	1.397	IDENTIFIED 19.37	<input type="checkbox"/>	
Potassium-40	24.16	1.528	pCi/g	0.5892	1.00	1461 1	2.015	IDENTIFIED 4.498	<input type="checkbox"/>	
Radium-224	3.83	0.964	pCi/g	1.37	Y	241.9 1	1.879	IDENTIFIED 24.75	<input checked="" type="checkbox"/>	U±
Radium-226	1.256	0.1359	pCi/g	0.175	Y	609.7 2	1.477	IDENTIFIED 9.625	<input type="checkbox"/>	
Radium-228	1.743	0.2478	pCi/g	0.346	0.500	911.6 3	1.423	IDENTIFIED 12.91	<input type="checkbox"/>	
Thallium-208	0.4852	0.06502	pCi/g	0.09312	0.080	583.8 1	1.432	IDENTIFIED 12.61	<input type="checkbox"/>	
Thorium-228	1.929	0.1295	pCi/g	0.1278	N	239.1 2	1.171	IDENTIFIED 4.384	<input type="checkbox"/>	
Thorium-232	1.743	0.2478	pCi/g	0.346	N	911.6 3	1.423	IDENTIFIED 12.91	<input type="checkbox"/>	
Thorium-234	7.918	2.067	pCi/g	3.232	2.00	63.17 2	1.246	IDENTIFIED 24.51	<input type="checkbox"/>	
Tin-126	0.3998	0.07966	pCi/g	0.1726	N	87.34 3	1.397	IDENTIFIED 19.37	<input type="checkbox"/>	
Total Uranium	23.621	6.15E-06	ug/g	4.8113	N	0			<input type="checkbox"/>	
Uranium-238	7.918	2.067	pCi/g	3.232	N	63.17 2	1.246	IDENTIFIED 24.51	<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
248250002	24-FEB-10 12:00	19-MAR-10 13:10	23	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	1.98	0.2154	pCi/g	0.243	N	911.3 3	1.69	IDENTIFIED 9.037	<input type="checkbox"/>	
Barium-137m	0.1354	0.03455	pCi/g	0.07233	N	661.7 2	1.944	IDENTIFIED 25.18	<input type="checkbox"/>	
Bismuth-211	4.611	0.3698	pCi/g	0.4057	Y	351.8 2	1.591	IDENTIFIED 6.291	<input checked="" type="checkbox"/>	U±
Bismuth-212	2.473	0.5217	pCi/g	1.405	N	0 7 0	FAIL_ABUND 0		<input type="checkbox"/>	
Bismuth-214	1.342	0.1144	pCi/g	0.1396	0.200	609.3 2	1.841	IDENTIFIED 6.916	<input type="checkbox"/>	
Cadmium-109	2.754	0.7067	pCi/g	1.838	Y	87.53 3	1.366	IDENTIFIED 24.9	<input checked="" type="checkbox"/>	U±
Cadmium-115	109.8	82.24	pCi/g	0	N	0 7 0	SHORT_HLIF 0		<input type="checkbox"/>	
Cerium-143	67470	10470	pCi/g	0	N	0 7 0	SHORT_HLIF 0		<input type="checkbox"/>	
Cesium-137	0.1431	0.03651	pCi/g	0.07641	0.100	661.7 2	1.944	IDENTIFIED 25.18	<input type="checkbox"/>	
Gross Gamma	9.704	1.517	pCi/g	3.924	N	0			<input type="checkbox"/>	
Iodine-133	3.10E+06	2.03E+06	pCi/g	0	N	0 7 0	SHORT_HLIF 0		<input type="checkbox"/>	
Lead-212	1.84	0.1304	pCi/g	0.1235	0.100	238.7 2	1.365	IDENTIFIED 3.811	<input type="checkbox"/>	
Lead-214	1.674	0.1419	pCi/g	0.1475	0.100	351.8 2	1.591	IDENTIFIED 6.291	<input type="checkbox"/>	
Mercury-203	0.1185	0.04461	pCi/g	0.08886	0.100	278 1	1.477	IDENTIFIED 37.23	<input checked="" type="checkbox"/>	U±
Neptunium-237	0.7938	0.22	pCi/g	0.5453	N	87.53 3	1.366	IDENTIFIED 24.9	<input type="checkbox"/>	
Niobium-95m	0.4594	0.1081	pCi/g	0.3495	N	0 7 0	NOT_IDENTI 0		<input type="checkbox"/>	
Potassium-40	27.68	1.669	pCi/g	0.6459	1.00	1460 1	1.722	IDENTIFIED 3.495	<input type="checkbox"/>	
Promethium-149	731.3	678.3	pCi/g	0	N	0 7 0	SHORT_HLIF 0		<input type="checkbox"/>	
Radium-224	5.527	0.8992	pCi/g	1.324	Y	241.7 1	2.04	IDENTIFIED 15.3	<input checked="" type="checkbox"/>	U±
Radium-226	1.342	0.1144	pCi/g	0.1396	Y	609.3 2	1.841	IDENTIFIED 6.916	<input type="checkbox"/>	
Radium-228	1.98	0.2154	pCi/g	0.243	0.500	911.3 3	1.69	IDENTIFIED 9.037	<input type="checkbox"/>	

Technetium-99m	4.52E+24 0	pCi/g 0	N	0	7	0	SHORT_HLIF 0	<input type="checkbox"/>
Thallium-208 ✓	0.4902	0.04833	pCi/g 0.07191	0.080	583.3	1	1.456 IDENTIFIED 8.736	<input type="checkbox"/>
Thorium-228 <i>UL</i>	1.84	0.1304	pCi/g 0.1235	N	238.7	2	1.365 IDENTIFIED 3.811	<input type="checkbox"/>
Thorium-232 <i>UL</i>	1.98	0.2154	pCi/g 0.243	N	911.3	3	1.69 IDENTIFIED 9.037	<input type="checkbox"/>
Tin-126 HE	0.266	0.06826	pCi/g 0.1789	N	87.53	3	1.366 IDENTIFIED 24.9	<input type="checkbox"/>
Total Uranium	8.058	3.97E-06 ug/g	6.8121	N	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
248250003	24-FEB-10 12:00	19-MAR-10 13:11	23	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228 <i>UL</i>	1.84	0.1822	pCi/g 0.2043	N	910.9	3	1.506	IDENTIFIED 7.797	<input type="checkbox"/>	
Annihilation Rad.	0.142	0.03646	pCi/g 0.04313	N	511	1	1.948	IDENTIFIED 25.23	<input type="checkbox"/>	
Barium-137m <i>UL</i>	0.3171	0.03775	pCi/g 0.06414	N	661.6	2	1.423	IDENTIFIED 11.04	<input type="checkbox"/>	
Bismuth-211 <i>INT</i>	3.925	0.3331	pCi/g 0.3356	Y	351.7	2	1.124	IDENTIFIED 6.498	<input checked="" type="checkbox"/> <i>UI</i>	
Bismuth-212 HE	1.747	0.3729	pCi/g 1.192	N	0	8	0	FAIL_ABUND 0	<input type="checkbox"/>	
Bismuth-214 ✓	1.384	0.1073	pCi/g 0.09661	0.200	609.1	2	1.333	IDENTIFIED 5.653	<input type="checkbox"/>	
Cadmium-109 <i>INT</i>	2.79	0.5477	pCi/g 1.084	Y	87.17	3	1.047	IDENTIFIED 19.05	<input checked="" type="checkbox"/> <i>UI</i>	
Cerium-143	30280	5844	pCi/g 0	N	0	8	0	SHORT_HLIF 0	<input type="checkbox"/>	
Cesium-134 <i>LA</i>	0.1101	0.02774	pCi/g 0.09196	0.100	0	8	0	FAIL_ABUND 0	<input checked="" type="checkbox"/> <i>UI</i>	Data rejected due to low abundance.
Cesium-137 ✓	0.335	0.03988	pCi/g 0.06776	0.100	661.6	2	1.423	IDENTIFIED 11.04	<input type="checkbox"/>	
Gross Gamma	10.36	1.433	pCi/g 4.107	N	0				<input type="checkbox"/>	
Iodine-133 HE	3.50E+05	1.55E+06	pCi/g 0	N	0	8	0	SHORT_HLIF 0	<input type="checkbox"/>	
Lead-210 HE	5.012	2.466	pCi/g 4.788	N	46.44	1	0.6414	IDENTIFIED 48.98	<input type="checkbox"/>	
Lead-212 ✓	1.866	0.1257	pCi/g 0.08542	0.100	238.5	2	0.9734	IDENTIFIED 3.178	<input type="checkbox"/>	
Lead-214 ✓	1.425	0.1271	pCi/g 0.1221	0.100	351.7	2	1.124	IDENTIFIED 6.498	<input type="checkbox"/>	
Molybdenum-99 HE	35.05	45.62	pCi/g 0	N	0	8	0	SHORT_HLIF 0	<input type="checkbox"/>	
Neptunium-237 <i>UL</i>	0.804	0.179	pCi/g 0.3493	N	87.17	3	1.047	IDENTIFIED 19.05	<input type="checkbox"/>	
Potassium-40 ✓	27.57	1.479	pCi/g 0.4096	1.00	1460	1	1.927	IDENTIFIED 3.075	<input type="checkbox"/>	
Promethium-149 <i>UL</i>	1228	542	pCi/g 0	N	0	8	0	SHORT_HLIF 0	<input type="checkbox"/>	
Protactinium-234m HE	13.73	4.194	pCi/g 9.621	N	0	8	0	FAIL_ABUND 0	<input type="checkbox"/>	
Radium-224 <i>INT</i>	1.619	0.5717	pCi/g 0.9156	Y	240.6	1	1.303	IDENTIFIED 34.87	<input checked="" type="checkbox"/> <i>UI</i>	
Radium-226 ✓	1.384	0.1073	pCi/g 0.09661	Y	609.1	2	1.333	IDENTIFIED 5.653	<input type="checkbox"/>	
Radium-228 ✓	1.84	0.1822	pCi/g 0.2043	0.500	910.9	3	1.506	IDENTIFIED 7.797	<input type="checkbox"/>	
Technetium-99m	1.47E+25 0		pCi/g 0	N	0	8	0	SHORT_HLIF 0	<input type="checkbox"/>	
Thallium-208 ✓	0.5251	0.05157	pCi/g 0.05133	0.080	583	1	1.244	IDENTIFIED 8.482	<input type="checkbox"/>	
Thorium-228 <i>UL</i>	1.866	0.1257	pCi/g 0.08542	N	238.5	2	0.9734	IDENTIFIED 3.178	<input type="checkbox"/>	
Thorium-232 <i>UL</i>	1.84	0.1822	pCi/g 0.2043	N	910.9	3	1.506	IDENTIFIED 7.797	<input type="checkbox"/>	
Thorium-234 ✓	3.321	0.8256	pCi/g 2.03	2.00	63.4	2	0.8557	IDENTIFIED 23.2	<input type="checkbox"/>	
Tin-126 <i>UL</i>	0.2695	0.05291	pCi/g 0.1293	N	87.17	3	1.047	IDENTIFIED 19.05	<input type="checkbox"/>	
Total Uranium	9.9079	2.46E-06 ug/g	3.022	N	0				<input type="checkbox"/>	
Uranium-238 HE	3.321	0.8256	pCi/g 2.03	N	63.4	2	0.8557	IDENTIFIED 23.2	<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
248250004	24-FEB-10 12:00	19-MAR-10 13:11	23	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228 <i>UL</i>	2.056	0.2343	pCi/g 0.2955	N	911	3	1.574	IDENTIFIED 9.779	<input type="checkbox"/>	
Annihilation Rad. HE	0.1234	0.04808	pCi/g 0.06517	N	510.6	1	1.754	IDENTIFIED 38.71	<input type="checkbox"/>	
Barium-137m <i>UL</i>	0.3083	0.05406	pCi/g 0.08217	N	662.1	2	1.317	IDENTIFIED 17.02	<input type="checkbox"/>	
Bismuth-211 <i>INT</i>	4.399	0.3333	pCi/g 0.3893	Y	351.9	2	1.139	IDENTIFIED 5.972	<input checked="" type="checkbox"/> <i>UI</i>	
Bismuth-212 <i>UL</i>	3.221	0.6487	pCi/g 1.755	N	0	6	0	FAIL_ABUND 0	<input type="checkbox"/>	
Bismuth-214 ✓	1.417	0.1314	pCi/g 0.1614	0.200	609.2	2	1.28	IDENTIFIED 7.734	<input type="checkbox"/>	
Cadmium-109 <i>INT</i>	4.126	0.543	pCi/g 1.585	Y	0	6	0	NOT_IDENTI 0	<input checked="" type="checkbox"/> <i>UI</i>	Data rejected due to low abundance.
Cadmium-115 HE <i>3/20/10</i>	98.44	84.43	pCi/g 0	N	0	6	0	SHORT_HLIF 0	<input type="checkbox"/>	
Cerium-143	28360	5901	pCi/g 0	N	0	6	0	SHORT_HLIF 0	<input type="checkbox"/>	
Cesium-137 ✓	0.3257	0.05711	pCi/g 0.08681	0.100	662.1	2	1.317	IDENTIFIED 17.02	<input type="checkbox"/>	
Gross Gamma	11.27	1.688	pCi/g 5.069	N	0				<input type="checkbox"/>	
Lead-212 ✓	1.913	0.1197	pCi/g 0.1049	0.100	238.7	2	1.076	IDENTIFIED 3.677	<input type="checkbox"/>	

Lead-214	✓	1.596	0.1287	pCi/g	0.1416	0.100	351.9	2	1.139	IDENTIFIED	5.972	<input type="checkbox"/>
Neptunium-237	u	2.085	0.3317	pCi/g	0.3286	N	86.26	2	1.174	IDENTIFIED	10.92	<input type="checkbox"/>
Potassium-40	✓	30.24	1.764	pCi/g	0.5983	1.00	1460	1	1.879	IDENTIFIED	3.787	<input type="checkbox"/>
Promethium-149	HE	6.146	622.2	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Radium-224	INT	5.863	0.9454	pCi/g	1.125	Y	241.6	1	1.99	IDENTIFIED	15.48	✓ u
Radium-226	✓	1.417	0.1314	pCi/g	0.1614	Y	609.2	2	1.28	IDENTIFIED	7.734	<input type="checkbox"/>
Radium-228	✓	2.056	0.2343	pCi/g	0.2955	0.500	911	3	1.574	IDENTIFIED	9.779	<input type="checkbox"/>
Technetium-99m		1.91E+25	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-208	✓	0.6531	0.06252	pCi/g	0.08425	0.080	583.3	1	1.588	IDENTIFIED	8.327	<input type="checkbox"/>
Thorium-228	u	1.913	0.1197	pCi/g	0.1049	N	238.7	2	1.076	IDENTIFIED	3.677	<input type="checkbox"/>
Thorium-232	u	2.056	0.2343	pCi/g	0.2955	N	911	3	1.574	IDENTIFIED	9.779	<input type="checkbox"/>
Thorium-234	✓	2.841	0.7377	pCi/g	1.183	2.00	63.41	2	0.9553	IDENTIFIED	24.16	<input type="checkbox"/>
Tin-126	u	0.6989	0.08361	pCi/g	0.1029	N	86.26	2	1.174	IDENTIFIED	10.92	<input type="checkbox"/>
Total Uranium		8.4884	2.20E-06 ug/g	1.7634	N		0					<input type="checkbox"/>
Uranium-238	u	2.841	0.7377	pCi/g	1.183	N	63.41	2	0.9553	IDENTIFIED	24.16	<input type="checkbox"/>

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248258001	25-FEB-10 12:00	19-MAR-10 13:11	22	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb	Act	Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.762	0.1711	pCi/g	0.1672	N	910.6	3	1.71	IDENTIFIED	6.956	<input type="checkbox"/>		
Annihilation Rad.		0.1166	0.02804	pCi/g	0.03609	N	510.5	1	2.019	IDENTIFIED	23.81	<input type="checkbox"/>		
Bismuth-211	INT	4.251	0.2168	pCi/g	0.2736	Y	351.8	2	1.366	IDENTIFIED	3.962	✓ u		
Bismuth-212	u	2.325	0.3243	pCi/g	0.9946	N	0	5	0	FAIL_ABUND	0	<input type="checkbox"/>		
Bismuth-214	✓	1.284	0.08424	pCi/g	0.09054	0.200	609	2	1.68	IDENTIFIED	4.779	<input type="checkbox"/>		
Cadmium-109	INT	2.296	0.5158	pCi/g	1.123	Y	87.1	3	1.252	IDENTIFIED	21.99	✓ u		
Cadmium-115	HE	10.12	40.27	pCi/g	0	N	0	5	0	SHORT_HLIF	0	<input type="checkbox"/>		
Cerium-143		23220	3577	pCi/g	0	N	0	5	0	SHORT_HLIF	0	<input type="checkbox"/>		
Gross Gamma		10.1	1.152	pCi/g	2.681	N	0					<input type="checkbox"/>		
Lead-212	✓	1.829	0.08217	pCi/g	0.07633	0.100	238.6	2	1.199	IDENTIFIED	2.683	<input type="checkbox"/>		
Lead-214	✓	1.543	0.08945	pCi/g	0.09068	0.100	351.8	2	1.366	IDENTIFIED	3.962	<input type="checkbox"/>		
Neptunium-237	HE	0.6628	0.1643	pCi/g	0.402	N	87.1	3	1.252	IDENTIFIED	21.99	<input type="checkbox"/>		
Potassium-40	✓	33	1.471	pCi/g	0.4032	1.00	1460	1	2.325	IDENTIFIED	2.336	<input type="checkbox"/>		
Promethium-149	HE	450.9	352.1	pCi/g	0	N	0	5	0	SHORT_HLIF	0	<input type="checkbox"/>		
Radium-224	INT	4.315	0.5151	pCi/g	0.817	Y	241.6	1	1.711	IDENTIFIED	11.61	✓ u		
Radium-226	✓	1.284	0.08424	pCi/g	0.09054	Y	609	2	1.68	IDENTIFIED	4.779	<input type="checkbox"/>		
Radium-228	✓	1.762	0.1711	pCi/g	0.1672	0.500	910.6	3	1.71	IDENTIFIED	6.956	<input type="checkbox"/>		
Strontium-85	u	0.107	0.01966	pCi/g	0.06667	Y	0	5	0	NOT_IDENTI	0	✓ UI		Data rejected due to low abundance.
Thallium-208	✓	0.5296	0.04126	pCi/g	0.04765	0.080	582.9	1	1.577	IDENTIFIED	6.737	<input type="checkbox"/>		
Thorium-228	u	1.829	0.08217	pCi/g	0.07633	N	238.6	2	1.199	IDENTIFIED	2.683	<input type="checkbox"/>		
Thorium-232	u	1.762	0.1711	pCi/g	0.1672	N	910.6	3	1.71	IDENTIFIED	6.956	<input type="checkbox"/>		
Tin-126	HE	0.2221	0.0499	pCi/g	0.1371	N	87.1	3	1.252	IDENTIFIED	21.99	<input type="checkbox"/>		
Total Uranium		5.2991	2.20E-06 ug/g	3.8905	N		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
248258002	25-FEB-10 12:00	19-MAR-10 13:12	22.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb	Act	Rpt	Err(%)	Qual	Qual Comment
Actinium-228	u	2.359	0.2496	pCi/g	0.6278	N	0	12	0	FAIL_ABUND	0	<input type="checkbox"/>		
Annihilation Rad.		0.1244	0.03299	pCi/g	0.05301	N	510.8	1	1.321	IDENTIFIED	26.36	<input type="checkbox"/>		
Bismuth-211	INT	4.552	0.3016	pCi/g	0.3557	Y	351.8	2	1.217	IDENTIFIED	5.806	✓ u		
Bismuth-212	u	3.395	0.5579	pCi/g	1.381	N	0	12	0	FAIL_ABUND	0	<input type="checkbox"/>		
Bismuth-214	✓	1.473	0.1079	pCi/g	0.1297	0.200	609.5	2	1.804	IDENTIFIED	6.163	<input type="checkbox"/>		
Cadmium-109	INT	3.964	0.8006	pCi/g	1.492	Y	86.88	3	1.259	IDENTIFIED	19.71	✓ u		
Cadmium-115	HE	0.1571	55.39	pCi/g	0	N	0	12	0	SHORT_HLIF	0	<input type="checkbox"/>		
Cerium-143		35790	5168	pCi/g	0	N	0	12	0	SHORT_HLIF	0	<input type="checkbox"/>		
Cesium-134	u	0.1095	0.03344	pCi/g	0.1046	0.100	0	12	0	FAIL_ABUND	0	✓ UI		Data rejected due to low abundance.
Cesium-135	HE	0.4141	0.1019	pCi/g	0.3382	N	0	12	0	NOT_IDENTI	0	<input type="checkbox"/>		
Gross Gamma		10.93	1.577	pCi/g	3.681	N	0					<input type="checkbox"/>		

Iodine-133	HE	4.93E+05	8.49E+05	pCi/g	0	N	0	12	0	SHORT_HLIF	0	<input type="checkbox"/>
Lead-212	✓	1.863	0.09267	pCi/g	0.1138	0.100	238.6	2	1.172	IDENTIFIED	3.389	<input type="checkbox"/>
Lead-214	✓	1.652	0.1186	pCi/g	0.1294	0.100	351.8	2	1.217	IDENTIFIED	5.806	<input type="checkbox"/>
Molybdenum-99	HE	50.57	38.18	pCi/g	0	N	0	12	0	SHORT_HLIF	0	<input type="checkbox"/>
Neptunium-237	ML	1.144	0.2604	pCi/g	0.4613	N	86.88	3	1.259	IDENTIFIED	19.71	<input type="checkbox"/>
Niobium-95m	HE	0.3863	0.1019	pCi/g	0.3165	N	0	12	0	NOT_IDENTI	0	<input type="checkbox"/>
Potassium-40	✓	35.86	1.692	pCi/g	0.595	1.00	1461	1	2.159	IDENTIFIED	2.898	<input type="checkbox"/>
Promethium-149	HE	451.1	448	pCi/g	0	N	0	12	0	SHORT_HLIF	0	<input type="checkbox"/>
Radium-224	INT	5.919	0.8788	pCi/g	1.219	Y	241.5	1	2.223	IDENTIFIED	14.57	<input checked="" type="checkbox"/> UI
Radium-226	✓	1.473	0.1079	pCi/g	0.1297	Y	609.5	2	1.804	IDENTIFIED	6.163	<input type="checkbox"/>
Radium-228	U	2.359	0.2496	pCi/g	0.6278	0.500	0	12	0	FAIL_ABUND	0	<input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Thallium-208	✓	0.6601	0.04883	pCi/g	0.06031	0.080	583.3	1	1.652	IDENTIFIED	6.572	<input type="checkbox"/>
Thorium-228	ML	1.863	0.09267	pCi/g	0.1138	N	238.6	2	1.172	IDENTIFIED	3.389	<input type="checkbox"/>
Thorium-232	ML	2.359	0.2496	pCi/g	0.6278	N	0	12	0	FAIL_ABUND	0	<input type="checkbox"/>
Tin-126	ML	0.3834	0.07745	pCi/g	0.145	N	86.88	3	1.259	IDENTIFIED	19.71	<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
248258003	25-FEB-10 12:00	19-MAR-10 13:12	22.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	ML	1.933	0.2072	pCi/g	0.2259	N	911.9	3	1.526	IDENTIFIED 8.685 <input type="checkbox"/>
Annihilation Rad.		0.1723	0.03643	pCi/g	0.04253	N	511	1	2.227	IDENTIFIED 20.63 <input type="checkbox"/>
Bismuth-211	INT	4.844	0.336	pCi/g	0.3338	Y	352	2	1.287	IDENTIFIED 5.024 <input checked="" type="checkbox"/> UI
Bismuth-212	HE	2.254	0.5362	pCi/g	1.186	N	0	6	0	FAIL_ABUND 0 <input type="checkbox"/>
Bismuth-214	✓	1.343	0.1178	pCi/g	0.108	0.200	609.9	2	1.538	IDENTIFIED 6.766 <input type="checkbox"/>
Cadmium-109	INT	4.469	0.5538	pCi/g	1.148	Y	87.34	3	1.377	IDENTIFIED 11.47 <input checked="" type="checkbox"/> UI
Cerium-143		16850	3315	pCi/g	0	N	0	6	0	SHORT_HLIF 0 <input type="checkbox"/>
Cesium-134	ML	0.1012	0.04025	pCi/g	0.08847	0.100	0	6	0	FAIL_ABUND 0 <input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Gross Gamma		11.75	1.561	pCi/g	3.992	N	0			<input type="checkbox"/>
Iodine-133	HE	5.05E+05	7.10E+05	pCi/g	0	N	0	6	0	SHORT_HLIF 0 <input type="checkbox"/>
Lead-212	✓	2.104	0.1272	pCi/g	0.0865	0.100	238.7	2	1.197	IDENTIFIED 2.836 <input type="checkbox"/>
Lead-214	✓	1.758	0.1312	pCi/g	0.1214	0.100	352	2	1.287	IDENTIFIED 5.024 <input type="checkbox"/>
Neptunium-237	ML	1.29	0.2094	pCi/g	0.3349	N	87.34	3	1.377	IDENTIFIED 11.47 <input type="checkbox"/>
Potassium-40	✓	39.85	2.004	pCi/g	0.52	1.00	1462	1	1.844	IDENTIFIED 2.505 <input type="checkbox"/>
Radium-224	INT	5.833	0.7412	pCi/g	0.9269	Y	241.7	1	1.873	IDENTIFIED 11.75 <input checked="" type="checkbox"/> UI
Radium-226	✓	1.343	0.1178	pCi/g	0.108	Y	609.9	2	1.538	IDENTIFIED 6.766 <input type="checkbox"/>
Radium-228	✓	1.933	0.2072	pCi/g	0.2259	0.500	911.9	3	1.526	IDENTIFIED 8.685 <input type="checkbox"/>
Sodium-24	HE	2.75E+07	7.87E+08	pCi/g	0	N	0	6	0	SHORT_HLIF 0 <input type="checkbox"/>
Strontium-85	U	0.1321	0.02478	pCi/g	0.08471	Y	0	6	0	NOT_IDENTI 0 <input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Thallium-208	✓	0.6586	0.05825	pCi/g	0.05664	0.080	583.6	1	1.303	IDENTIFIED 7.201 <input type="checkbox"/>
Thorium-228	ML	2.104	0.1272	pCi/g	0.0865	N	238.7	2	1.197	IDENTIFIED 2.836 <input type="checkbox"/>
Thorium-232	ML	1.933	0.2072	pCi/g	0.2259	N	911.9	3	1.526	IDENTIFIED 8.685 <input type="checkbox"/>
Thorium-234	✓	2.931	0.716	pCi/g	1.709	2.00	63.27	2	1.01	IDENTIFIED 22.75 <input type="checkbox"/>
Tin-126	ML	0.4324	0.05357	pCi/g	0.1114	N	87.34	3	1.377	IDENTIFIED 11.47 <input type="checkbox"/>
Total Uranium		8.7039	2.13E-06	ug/g	2.5443	N	0			<input type="checkbox"/>
Uranium-238	HE	2.931	0.716	pCi/g	1.709	N	63.27	2	1.01	IDENTIFIED 22.75 <input type="checkbox"/>

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248258004	25-FEB-10 12:00	19-MAR-10 13:13	22.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	ML	1.901	0.2258	pCi/g	0.3058	N	910.8	3	1.338	IDENTIFIED 10.34 <input type="checkbox"/>
Bismuth-211	INT	5.04	0.3498	pCi/g	0.3428	Y	351.7	2	1.109	IDENTIFIED 5.276 <input checked="" type="checkbox"/> UI
Bismuth-212	HE	2.098	0.8081	pCi/g	1.587	N	0	4	0	FAIL_ABUND 0 <input type="checkbox"/>
Bismuth-214	✓	1.3	0.1298	pCi/g	0.1369	0.200	609.2	2	1.074	IDENTIFIED 8.031 <input type="checkbox"/>
Cadmium-109	INT	4.056	0.3969	pCi/g	0.7994	Y	87.23	3	0.915	IDENTIFIED 8.598 <input checked="" type="checkbox"/> UI
Cerium-143		10290	2904	pCi/g	0	N	0	4	0	SHORT_HLIF 0 <input type="checkbox"/>
Cesium-134	U	0.1337	0.03844	pCi/g	0.1307	0.100	0	4	0	FAIL_ABUND 0 <input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Gross Gamma		10.82	1.352	pCi/g	3.61	N	0			<input type="checkbox"/>

Iodine-133	HE	4.24E+05	8.86E+05	pCi/g	0	N	0	4	0	SHORT_HLIF	0	<input type="checkbox"/>
Lead-210	HE	0.9785	0.3308	pCi/g	0.6582	N	46.48	1	0.5791	IDENTIFIED	33.47	<input type="checkbox"/>
Lead-212	✓	2.003	0.1181	pCi/g	0.08486	0.100	238.5	2	0.8558	IDENTIFIED	3.13	<input type="checkbox"/>
Lead-214	✓	1.829	0.1366	pCi/g	0.1248	0.100	351.7	2	1.109	IDENTIFIED	5.276	<input type="checkbox"/>
Neptunium-237	u	1.171	0.1679	pCi/g	0.234	N	87.23	3	0.915	IDENTIFIED	8.598	<input type="checkbox"/>
Potassium-40	✓	35.07	1.942	pCi/g	0.7507	1.00	1460	1	2.098	IDENTIFIED	3.529	<input type="checkbox"/>
Radium-224	INT	5.698	0.8165	pCi/g	0.9121	Y	241.5	1	1.881	IDENTIFIED	13.62	<input checked="" type="checkbox"/> u
Radium-226	✓	1.3	0.1298	pCi/g	0.1369	Y	609.2	2	1.074	IDENTIFIED	8.031	<input type="checkbox"/>
Radium-228	✓	1.901	0.2258	pCi/g	0.3058	0.500	910.8	3	1.338	IDENTIFIED	10.34	<input type="checkbox"/>
Thallium-208	✓	0.7188	0.06978	pCi/g	0.07269	0.080	583	1	1.156	IDENTIFIED	8.04	<input type="checkbox"/>
Thorium-228	u	2.003	0.1181	pCi/g	0.08486	N	238.5	2	0.8558	IDENTIFIED	3.13	<input type="checkbox"/>
Thorium-232	u	1.901	0.2258	pCi/g	0.3058	N	910.8	3	1.338	IDENTIFIED	10.34	<input type="checkbox"/>
Thorium-234	✓	1.498	0.4224	pCi/g	0.8688	2.00	63.33	2	0.9582	IDENTIFIED	26.71	<input type="checkbox"/>
Tin-126	u	0.3923	0.03839	pCi/g	0.07873	N	87.23	3	0.915	IDENTIFIED	8.598	<input type="checkbox"/>
Total Uranium		4.5385	1.26E-06	ug/g	1.295	N		0				<input type="checkbox"/>
Uranium-238	HE	1.498	0.4224	pCi/g	0.8688	N	63.33	2	0.9582	IDENTIFIED	26.71	<input type="checkbox"/>

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248258005	25-FEB-10 12:00	19-MAR-10 13:13	22.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	u	2.127	0.2094	pCi/g	0.2323	N	911.3	3	1.862	IDENTIFIED 7.144 <input type="checkbox"/>
Annihilation Rad.		0.1697	0.03972	pCi/g	0.04444	N	511	1	1.972	IDENTIFIED 22.87 <input type="checkbox"/>
Bismuth-211	INT	4.222	0.3383	pCi/g	0.3349	Y	352.1	2	1.341	IDENTIFIED 5.515 <input checked="" type="checkbox"/> u
Bismuth-212	h	1.881	0.3261	pCi/g	1.082	N	0	8	0	FAIL_ABUND 0 <input type="checkbox"/>
Bismuth-214	✓	1.341	0.1058	pCi/g	0.1132	0.200	609.4	2	1.75	IDENTIFIED 5.315 <input type="checkbox"/>
Cadmium-109	INT	3.922	0.5635	pCi/g	1.325	Y	87.18	3	1.274	IDENTIFIED 13.58 <input checked="" type="checkbox"/> u
Cerium-143		30050	4871	pCi/g	0	N	0	8	0	SHORT_HLIF 0 <input type="checkbox"/>
Cesium-134	u	0.1262	0.02547	pCi/g	0.0905	0.100	0	8	0	NOT_IDENTI 0 <input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Gross Gamma		11.25	1.447	pCi/g	2.458	N	0	0	0	<input type="checkbox"/>
Iodine-133	HE	5.63E+05	7.19E+05	pCi/g	0	N	0	8	0	SHORT_HLIF 0 <input type="checkbox"/>
Lead-212	✓	2.139	0.1529	pCi/g	0.09388	0.100	238.7	2	1.234	IDENTIFIED 2.685 <input type="checkbox"/>
Lead-214	✓	1.532	0.1298	pCi/g	0.1181	0.100	352.1	2	1.341	IDENTIFIED 5.515 <input type="checkbox"/>
Molybdenum-99	HE	46.03	35.38	pCi/g	0	N	0	8	0	SHORT_HLIF 0 <input type="checkbox"/>
Neptunium-237	u	1.132	0.2013	pCi/g	0.4236	N	87.18	3	1.274	IDENTIFIED 13.58 <input type="checkbox"/>
Niobium-95m	HE	0.2389	0.07781	pCi/g	0.2383	N	0	8	0	NOT_IDENTI 0 <input type="checkbox"/>
Potassium-40	✓	40.08	2.02	pCi/g	0.4467	1.00	1461	1	2.634	IDENTIFIED 2.103 <input type="checkbox"/>
Promethium-149	HE	226.1	415.1	pCi/g	0	N	0	8	0	SHORT_HLIF 0 <input type="checkbox"/>
Radium-224	INT	4.494	0.7438	pCi/g	1.005	Y	241.6	1	1.886	IDENTIFIED 15.32 <input checked="" type="checkbox"/> u
Radium-226	✓	1.341	0.1058	pCi/g	0.1132	Y	609.4	2	1.75	IDENTIFIED 5.315 <input type="checkbox"/>
Radium-228	✓	2.127	0.2094	pCi/g	0.2323	0.500	911.3	3	1.862	IDENTIFIED 7.144 <input type="checkbox"/>
Strontium-85	h	0.1671	0.02611	pCi/g	0.0839	Y	0	8	0	NOT_IDENTI 0 <input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Thallium-208	✓	0.5906	0.05061	pCi/g	0.05674	0.080	583.3	1	1.669	IDENTIFIED 6.639 <input type="checkbox"/>
Thorium-228	u	2.139	0.1529	pCi/g	0.09388	N	238.7	2	1.234	IDENTIFIED 2.685 <input type="checkbox"/>
Thorium-232	u	2.127	0.2094	pCi/g	0.2323	N	911.3	3	1.862	IDENTIFIED 7.144 <input type="checkbox"/>
Tin-126	u	0.3794	0.05451	pCi/g	0.1287	N	87.18	3	1.274	IDENTIFIED 13.58 <input type="checkbox"/>
Total Uranium		5.5714	2.32E-06	ug/g	3.08	N	0	0	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
248258006	25-FEB-10 12:00	19-MAR-10 13:14	22.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	u	2.024	0.203	pCi/g	0.2641	N	910.3	3	1.671	IDENTIFIED 8.08 <input type="checkbox"/>
Annihilation Rad.		0.1764	0.04542	pCi/g	0.05505	N	510.5	1	2.637	IDENTIFIED 25.58 <input type="checkbox"/>
Bismuth-211	INT	3.82	0.259	pCi/g	0.3962	Y	351.5	2	1.382	IDENTIFIED 5.947 <input checked="" type="checkbox"/> u
Bismuth-212	HE	1.999	0.4658	pCi/g	1.275	N	0	6	0	FAIL_ABUND 0 <input type="checkbox"/>
Bismuth-214	✓	1.179	0.09825	pCi/g	0.1373	0.200	608.6	2	1.45	IDENTIFIED 7.418 <input type="checkbox"/>
Cadmium-109	INT	3.973	0.6296	pCi/g	1.535	Y	86.95	3	1.219	IDENTIFIED 15.09 <input checked="" type="checkbox"/> u
Cerium-143		42440	6562	pCi/g	0	N	0	6	0	SHORT_HLIF 0 <input type="checkbox"/>

Cesium-135	HE	0.3801	0.1176	pCi/g	0.3668	N	0	6	0	NOT_IDENTI	0	<input type="checkbox"/>
Gross Gamma		9.703	1.388	pCi/g	3.219	N			0			<input type="checkbox"/>
Iodine-135		6.29E+22	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Lead-212	✓	1.943	0.09701	pCi/g	0.1115	0.100	238.2	2	1.268	IDENTIFIED	3.431	<input type="checkbox"/>
Lead-214	✓	1.386	0.1015	pCi/g	0.135	0.100	351.5	2	1.382	IDENTIFIED	5.947	<input type="checkbox"/>
Neptunium-237	✓	1.147	0.2179	pCi/g	0.4525	N	86.95	3	1.219	IDENTIFIED	15.09	<input type="checkbox"/>
Niobium-95m	✓	0.8966	0.1104	pCi/g	0.3666	N	0	6	0	NOT_IDENTI	0	<input type="checkbox"/>
Potassium-40	✓	33.48	1.641	pCi/g	0.694	1.00	1459	1	2.136	IDENTIFIED	3.164	<input type="checkbox"/>
Promethium-149	HE	705.9	492.4	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Radium-224	INT	4.15	0.5686	pCi/g	1.195	Y	241.2	1	1.774	IDENTIFIED	13.41	<input checked="" type="checkbox"/> U+
Radium-226	✓	1.179	0.09825	pCi/g	0.1373	Y	608.6	2	1.45	IDENTIFIED	7.418	<input type="checkbox"/>
Radium-228	✓	2.024	0.203	pCi/g	0.2641	0.500	910.3	3	1.671	IDENTIFIED	8.08	<input type="checkbox"/>
Thallium-208	✓	0.5685	0.0457	pCi/g	0.07394	0.080	582.4	1	1.503	IDENTIFIED	7.356	<input type="checkbox"/>
Thorium-228	✓	1.943	0.09701	pCi/g	0.1115	N	238.2	2	1.268	IDENTIFIED	3.431	<input type="checkbox"/>
Thorium-232	✓	2.024	0.203	pCi/g	0.2641	N	910.3	3	1.671	IDENTIFIED	8.08	<input type="checkbox"/>
Tin-126	✓	0.3843	0.0609	pCi/g	0.1494	N	86.95	3	1.219	IDENTIFIED	15.09	<input type="checkbox"/>
Total Uranium		5.2233	2.82E-06 ug/g	4.9694	N				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
248258007	25-FEB-10 12:00	19-MAR-10 13:14	22.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	2.422	0.2344	pCi/g	0.2322	N	911.1 3	1.62	IDENTIFIED 7.507		
Annihilation Rad. HE	0.1134	0.03778	pCi/g	0.05079	N	510.7 1	1.547	IDENTIFIED 32.91		
Bismuth-211	4.96	0.3591	pCi/g	0.3237	Y	351.9 2	1.207	IDENTIFIED 4.975	U+	
Bismuth-212	2.513	0.4596	pCi/g	1.355	N	0 4	0	FAIL_ABUND 0		
Bismuth-214	1.372	0.1154	pCi/g	0.1133	0.200	609.3 2	1.173	IDENTIFIED 5.833		
Cadmium-109	3.991	0.3965	pCi/g	0.7852	Y	87.14 3	1.039	IDENTIFIED 8.372	U+	
Cerium-143	16010	3220	pCi/g	0	N	0 4	0	SHORT_HLIF 0		
Cesium-134	0.16	0.03746	pCi/g	0.1048	0.100	0 4	0	FAIL_ABUND 0	UI	Data rejected due to low abundance.
Europium-155 HE	0.1501	0.05138	pCi/g	0.1257	N	105.5 1	1.14	IDENTIFIED 33.72		
Gross Gamma	11.49	1.567	pCi/g	3.647	N		0			
Lead-210 HE	1.303	0.3583	pCi/g	0.6007	N	46.65 1	0.9566	IDENTIFIED 27.01		
Lead-212	2.072	0.1319	pCi/g	0.08239	0.100	238.6 2	1.011	IDENTIFIED 2.81		
Lead-214	1.8	0.1395	pCi/g	0.1178	0.100	351.9 2	1.207	IDENTIFIED 4.975		
Neptunium-237	1.152	0.1664	pCi/g	0.2196	N	87.14 3	1.039	IDENTIFIED 8.372		
Potassium-40	35.81	1.8	pCi/g	0.3839	1.00	1461 1	2.208	IDENTIFIED 2.668		
Radium-224	5.207	0.5063	pCi/g	0.8841	Y	241.5 1	1.681	IDENTIFIED 8.179	U+	
Radium-226	1.372	0.1154	pCi/g	0.1133	Y	609.3 2	1.173	IDENTIFIED 5.833		
Radium-228	2.422	0.2344	pCi/g	0.2322	0.500	911.1 3	1.62	IDENTIFIED 7.507		
Technetium-99m	2.53E+24	0	pCi/g	0	N	0 4	0	SHORT_HLIF 0		
Tellurium-125m HE	14.83	5.186	pCi/g	12.66	N	109 1	1.16	IDENTIFIED 34.33		
Thallium-208	0.6003	0.05452	pCi/g	0.06937	0.080	583.2 1	1.104	IDENTIFIED 7.126		
Thorium-228	2.072	0.1319	pCi/g	0.08239	N	238.6 2	1.011	IDENTIFIED 2.81		
Thorium-232	2.422	0.2344	pCi/g	0.2322	N	911.1 3	1.62	IDENTIFIED 7.507		
Thorium-234	1.726	0.4793	pCi/g	0.8226	2.00	63.31 2	0.712	IDENTIFIED 26.1		
Tin-126	0.386	0.03835	pCi/g	0.07581	N	87.14 3	1.039	IDENTIFIED 8.372		
Total Uranium	5.1752	1.43E-06 ug/g	1.2264	N		0				
Uranium-238 HE	1.726	0.4793	pCi/g	0.8226	N	63.31 2	0.712	IDENTIFIED 26.1		

*** = 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
1202057358		19-MAR-10 13:14	0	MB	LOAD	1		GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Cerium-143 HE	15.13	50.13	pCi/g	0	N	0	4	0	SHORT_HLIF 0	<input type="checkbox"/>
Iodine-133	6148	2593	pCi/g	0	N	0	4	0	SHORT_HLIF 0	<input type="checkbox"/>
Iodine-135 HE	2.32E+13	4.99E+15	pCi/g	0	N	0	4	0	SHORT_HLIF 0	<input type="checkbox"/>
Sodium-24 HE	3.86E+05	4.04E+05	pCi/g	0	N	0	4	0	SHORT_HLIF 0	<input type="checkbox"/>
Thallium-208	0.05116	0.01987	pCi/g	0.03676	0.080	582.7	1	2.304	IDENTIFIED 38.56	<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
1202057359	25-FEB-10 12:00	19-MAR-10 15:33	22.1	DUP	LOAD	1		LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy	*** FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	1.745	0.2016	pCi/g	0.2583	N	911.8	3	1.321 IDENTIFIED	9.902	
Annihilation Rad. HE	0.1016	0.04075	pCi/g	0.04855	N	511.4	1	1.861 IDENTIFIED	39.89	
Bismuth-211	3.518	0.3041	pCi/g	0.4134	Y	352.3	2	1.241 IDENTIFIED	7.356	UT
Bismuth-212	3.033	0.5011	pCi/g	1.445	N	0	4	0 FAIL_ABUND	0	
Bismuth-214	1.366	0.1159	pCi/g	0.1245	0.200	609.9	2	1.321 IDENTIFIED	6.885	
Cadmium-109	3.037	0.5868	pCi/g	1.43	Y	87.25	3	1.32 IDENTIFIED	18.74	UT
Cerium-143	10890	3089	pCi/g	0	N	0	4	0 SHORT_HLIF	0	
Gross Gamma	9.924	1.511	pCi/g	3.617	N	0				
Lead-212	1.91	0.117	pCi/g	0.1079	0.100	239	2	1.332 IDENTIFIED	3.417	
Lead-214	1.277	0.1159	pCi/g	0.1403	0.100	352.3	2	1.241 IDENTIFIED	7.356	
Mercury-203	0.1345	0.0446	pCi/g	0.07888	0.100	278.2	1	1.645 IDENTIFIED	32.83	UT
Molybdenum-99 HE	13.68	43.68	pCi/g	0	N	0	4	0 SHORT_HLIF	0	
Neptunium-237	0.8765	0.1927	pCi/g	0.4836	N	87.25	3	1.32 IDENTIFIED	18.74	
Potassium-40	33.85	1.804	pCi/g	0.6194	1.00	1461	1	2.107 IDENTIFIED	2.939	
Radium-224	4.891	0.7351	pCi/g	1.156	Y	242	1	1.879 IDENTIFIED	14.33	UT
Radium-226	1.366	0.1159	pCi/g	0.1245	Y	609.9	2	1.321 IDENTIFIED	6.885	
Radium-228	1.745	0.2016	pCi/g	0.2583	0.500	911.8	3	1.321 IDENTIFIED	9.902	
Strontium-85	0.1407	0.02598	pCi/g	0.09133	Y	0	4	0 NOT_IDENTI	0	UI Data rejected due to low abundance.
Thallium-208	0.5288	0.04754	pCi/g	0.06842	0.080	583.5	1	1.514 IDENTIFIED	7.762	
Thorium-228	1.91	0.117	pCi/g	0.1079	N	239	2	1.332 IDENTIFIED	3.417	
Thorium-232	1.745	0.2016	pCi/g	0.2583	N	911.8	3	1.321 IDENTIFIED	9.902	
Thorium-234	3.118	1.28	pCi/g	2.598	2.00	63.42	2	0.9867 IDENTIFIED	40.07	
Tin-126	0.2938	0.05676	pCi/g	0.139	N	87.25	3	1.32 IDENTIFIED	18.74	
Total Uranium	9.2613	3.81E-06	ug/g	3.8685	N	0				
Uranium-238 HE	3.118	1.28	pCi/g	2.598	N	63.42	2	0.9867 IDENTIFIED	40.07	

*** = 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
1202057360		19-MAR-10 13:22	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	1.104	0.2858	pCi/g	0.8014	N	0	8	0 FAIL_ABUND	0	
Americium-241	13.46	0.6934	pCi/g	0.6275	0.200	59.21	1	1.05 IDENTIFIED	3.112	84.6
Barium-137m	5.457	0.2693	pCi/g	0.1047	N	661.1	2	1.532 IDENTIFIED	2.402	
Bismuth-211	2.574	0.3408	pCi/g	0.6844	Y	351.5	2	1.151 IDENTIFIED	11.92	
Bismuth-214	0.6265	0.1262	pCi/g	0.2259	0.200	608.8	2	0.9496 IDENTIFIED	19.43	
Cadmium-109	27.71	1.951	pCi/g	2.187	Y	87.67	3	1.056 IDENTIFIED	4.952	
Cerium-143	871.2	269.3	pCi/g	0	N	0	8	0 SHORT_HLIF	0	
Cesium-137	5.765	0.2849	pCi/g	0.1106	0.100	661.1	2	1.532 IDENTIFIED	2.402	103.9
Cobalt-57 HE	0.127	0.03864	pCi/g	0.06649	N	121.4	1	0.9804 IDENTIFIED	30.14	
Cobalt-60	6.274	0.3432	pCi/g	0.09938	0.100	1332	1	2.086 IDENTIFIED	2.872	95.9
Gross Gamma	26.3	2.658	pCi/g	3.318	N	0				
Iodine-133 HE	12360	8379	pCi/g	0	N	0	8	0 SHORT_HLIF	0	
Lead-212	0.89	0.1036	pCi/g	0.217	0.100	238.2	2	1.014 IDENTIFIED	9.784	
Lead-214	0.9341	0.1263	pCi/g	0.2489	0.100	351.5	2	1.151 IDENTIFIED	11.92	
Neptunium-237	8.078	1.02	pCi/g	0.7009	N	87.67	3	1.056 IDENTIFIED	4.952	
Potassium-40	1.195	0.355	pCi/g	0.8319	1.00	1460	1	2.368 IDENTIFIED	29.33	
Radium-224	2.849	0.6559	pCi/g	2.262	Y	0	8	0 NOT_IDENTI	0	
Radium-226	0.6265	0.1262	pCi/g	0.2259	Y	608.8	2	0.9496 IDENTIFIED	19.43	
Radium-228	1.104	0.2858	pCi/g	0.8014	0.500	0	8	0 FAIL_ABUND	0	
Silver-110m	0.4374	0.05576	pCi/g	0.2002	N	0	8	0 NOT_IDENTI	0	
Sodium-24 HE	3.10E+05	7.93E+05	pCi/g	0	N	0	8	0 SHORT_HLIF	0	
Thallium-208	0.4782	0.06818	pCi/g	0.1083	0.080	582.3	1	1.397 IDENTIFIED	13.35	
Thorium-228	0.89	0.1036	pCi/g	0.217	N	238.2	2	1.014 IDENTIFIED	9.784	
Thorium-232 HE	1.104	0.2858	pCi/g	0.8014	N	0	8	0 FAIL_ABUND	0	

Tin-126 2.707 0.1906 pCi/g 0.2149 N 87.67 3 1.056 IDENTIFIED 4.952 ☐

*** = Number of isotopes identified with a keyline at this energy.

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Technetium-99m	2.53E+24 0	pCi/g 0	N	0	4	0	SHORT_HLIF 0	<input type="checkbox"/>
Tellurium-125m HE	14.83 5.186	pCi/g 12.66	N	109	1	1.16	IDENTIFIED 34.33	<input type="checkbox"/>
Thallium-208	0.6003 0.05452	pCi/g 0.06937 0.080	583.2	1	1.104	IDENTIFIED 7.126	<input type="checkbox"/>	
Thorium-228	2.072 0.1319	pCi/g 0.08239	N	238.6	2	1.011	IDENTIFIED 2.81	<input type="checkbox"/>
Thorium-232	2.422 0.2344	pCi/g 0.2322	N	911.1	3	1.62	IDENTIFIED 7.507	<input type="checkbox"/>
Thorium-234	1.726 0.4793	pCi/g 0.8226 2.00	63.31	2	0.712	IDENTIFIED 26.1	<input type="checkbox"/>	
Tin-126	0.386 0.03835	pCi/g 0.07581	N	87.14	3	1.039	IDENTIFIED 8.372	<input type="checkbox"/>
Total Uranium	5.1762 1.43E-06 ug/g	1.2264	N	0				<input type="checkbox"/>
Uranium-238 HE	1.726 0.4793	pCi/g 0.8226	N	63.31	2	0.712	IDENTIFIED 26.1	<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
1202057358		22-MAR-10 10:34	0	MB	LOAD	2		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb	Act	Rpt	Err(%)	Qual	Qual Comment
Cadmium-115 HE	6.82	9.625	pCi/g 0	N	0	5	0	SHORT_HLIF	0			<input type="checkbox"/>	
Cerium-143 HE	286.9	198.8	pCi/g 0	N	0	5	0	SHORT_HLIF	0			<input type="checkbox"/>	
Iodine-133 HE	11120	26470	pCi/g 0	N	0	5	0	SHORT_HLIF	0			<input type="checkbox"/>	
Sodium-24 HE	1.32E+06	8.53E+06	pCi/g 0	N	0	5	0	SHORT_HLIF	0			<input type="checkbox"/>	
Technetium-99m	3.40E+18 0		pCi/g 0	N	0	5	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
1202057359	25-FEB-10 12:00	19-MAR-10 15:33	22.1	DUP	LOAD	1		LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb	Act	Rpt	Err(%)	Qual	Qual Comment
Actinium-228	1.745	0.2016	pCi/g 0.2583	N	911.8	3	1.321	IDENTIFIED	9.902			<input type="checkbox"/>	
Annihilation Rad. HE	0.1016	0.04075	pCi/g 0.04855	N	511.4	1	1.861	IDENTIFIED	39.89			<input type="checkbox"/>	
Bismuth-211	3.518	0.3041	pCi/g 0.4134	Y	352.3	2	1.241	IDENTIFIED	7.356			<input type="checkbox"/>	
Bismuth-212	3.033	0.5011	pCi/g 1.445	N	0	4	0	FAIL_ABUND	0			<input type="checkbox"/>	
Bismuth-214	1.366	0.1159	pCi/g 0.1245	0.200	609.9	2	1.321	IDENTIFIED	6.885			<input type="checkbox"/>	
Cadmium-109	3.037	0.5868	pCi/g 1.43	Y	87.25	3	1.32	IDENTIFIED	18.74			<input type="checkbox"/>	
Cerium-143	10890	3089	pCi/g 0	N	0	4	0	SHORT_HLIF	0			<input type="checkbox"/>	
Gross Gamma	9.924	1.511	pCi/g 3.617	N	0							<input type="checkbox"/>	
Lead-212	1.91	0.117	pCi/g 0.1079	0.100	239	2	1.332	IDENTIFIED	3.417			<input type="checkbox"/>	
Lead-214	1.277	0.1159	pCi/g 0.1403	0.100	352.3	2	1.241	IDENTIFIED	7.356			<input type="checkbox"/>	
Mercury-203	0.1345	0.0446	pCi/g 0.07888	0.100	278.2	1	1.645	IDENTIFIED	32.83			<input type="checkbox"/>	
Molybdenum-99 HE	13.68	43.68	pCi/g 0	N	0	4	0	SHORT_HLIF	0			<input type="checkbox"/>	
Neptunium-237	0.8765	0.1927	pCi/g 0.4836	N	87.25	3	1.32	IDENTIFIED	18.74			<input type="checkbox"/>	
Potassium-40	33.85	1.804	pCi/g 0.6194	1.00	1461	1	2.107	IDENTIFIED	2.939			<input type="checkbox"/>	
Radium-224	4.891	0.7351	pCi/g 1.156	Y	242	1	1.879	IDENTIFIED	14.33			<input type="checkbox"/>	
Radium-226	1.366	0.1159	pCi/g 0.1245	Y	609.9	2	1.321	IDENTIFIED	6.885			<input type="checkbox"/>	
Radium-228	1.745	0.2016	pCi/g 0.2583	0.500	911.8	3	1.321	IDENTIFIED	9.902			<input type="checkbox"/>	
Strontium-85	0.1407	0.02598	pCi/g 0.09133	Y	0	4	0	NOT_IDENTI	0			<input checked="" type="checkbox"/>	Data rejected due to low abundance.
Thallium-208	0.5288	0.04754	pCi/g 0.06842	0.080	583.5	1	1.514	IDENTIFIED	7.762			<input type="checkbox"/>	
Thorium-228	1.91	0.117	pCi/g 0.1079	N	239	2	1.332	IDENTIFIED	3.417			<input type="checkbox"/>	
Thorium-232	1.745	0.2016	pCi/g 0.2583	N	911.8	3	1.321	IDENTIFIED	9.902			<input type="checkbox"/>	
Thorium-234	3.118	1.28	pCi/g 2.598	2.00	63.42	2	0.9867	IDENTIFIED	40.07			<input type="checkbox"/>	
Tin-126	0.2938	0.05676	pCi/g 0.139	N	87.25	3	1.32	IDENTIFIED	18.74			<input type="checkbox"/>	
Total Uranium	9.2613	3.81E-06 ug/g	3.8685	N	0							<input type="checkbox"/>	

EE
3/23/10

Result Greater Than DL

ME
2/23/10

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
959281	248258006	SAMPLE	19-MAR-10	Radium-226	1.179	0.09825	pCi/g	0.06871	Y
				Radium-228	2.024	0.203	pCi/g	0.1321	0.500
				Strontium-85	0.06055	0.02388	pCi/g	0.04231	Y
				Thallium-208	0.5685	0.0457	pCi/g	0.03699	0.080
				Thorium-234	1.739	0.9491	pCi/g	1.67	2.00
959281	248258007	SAMPLE	19-MAR-10	Bismuth-211	4.96	0.3591	pCi/g	0.1619	Y
				Bismuth-214	1.372	0.1154	pCi/g	0.05667	0.200
				Cadmium-109	3.991	0.3965	pCi/g	0.3928	Y
				Cerium-143	16010	3220	pCi/g	0	N
				Cesium-134	0.16	0.03746	pCi/g	0.05241	0.100
				Gross Gamma	11.49	1.567	pCi/g	1.77	N
				Lead-212	2.072	0.1319	pCi/g	0.04122	0.100
				Lead-214	1.8	0.1395	pCi/g	0.05892	0.100
				Potassium-40	35.81	1.8	pCi/g	0.192	1.00
				Radium-224	5.207	0.5063	pCi/g	0.4423	Y
				Radium-226	1.372	0.1154	pCi/g	0.05667	Y
				Radium-228	2.422	0.2344	pCi/g	0.1162	0.500
				Strontium-85	0.06423	0.0244	pCi/g	0.03902	Y
				Technetium-99m	2.53E+24	0	pCi/g	0	N
				Tellurium-125m	14.83	5.186	pCi/g	6.336	N
				Thallium-208	0.6003	0.05452	pCi/g	0.03471	0.080
				Thorium-234	1.726	0.4793	pCi/g	0.4116	2.00
959281	1202057358	MB	22-MAR-10	Cadmium-115	6.82	9.625	pCi/g	0	N
				Cerium-143	286.9	198.8	pCi/g	0	N
				Iodine-133	11120	26470	pCi/g	0	N
				Sodium-24	1.32E+06	8.53E+06	pCi/g	0	N
				Technetium-99m	3.40E+18	0	pCi/g	0	N
959281	1202057359	DUP	19-MAR-10	Bismuth-211	3.518	0.3041	pCi/g	0.2068	Y
				Bismuth-214	1.366	0.1159	pCi/g	0.06227	0.200
				Cadmium-109	3.037	0.5868	pCi/g	0.7152	Y
				Cerium-143	10890	3089	pCi/g	0	N
				Cesium-134	0.06004	0.02854	pCi/g	0.05126	0.100
				Gross Gamma	9.924	1.511	pCi/g	1.759	N
				Lead-212	1.91	0.117	pCi/g	0.05396	0.100
				Lead-214	1.277	0.1159	pCi/g	0.07021	0.100
				Mercury-203	0.1345	0.0446	pCi/g	0.03948	0.100
				Molybdenum-99	13.68	43.68	pCi/g	0	N

ME
3/23/10

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 15:10:35.90

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*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                    *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248250001.CNF;1
Sample date        : 24-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 13:10:01
Sample ID          : G248250001 Sample quantity : 8.09600E+01 GRAM
Detector name      : GAM01 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.91 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity : 5.00000
Batch ID           : 959281 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	63.17*	174	414	1.25	127.08	122	11	2.42E-02	24.5	
2	3	74.90*	242	293	1.19	150.51	145	15	3.36E-02	13.7	9.32E-01
3	3	77.16*	436	280	1.15	155.04	145	15	6.06E-02	8.2	
4	4	87.34*	166	296	1.40	175.38	166	28	2.30E-02	19.4	2.18E+00
5	4	90.05	134	242	1.21	180.80	166	28	1.86E-02	21.4	
6	4	92.67*	487	309	1.60	186.05	166	28	6.76E-02	9.1	
7	0	186.08*	295	246	1.27	372.76	366	11	4.09E-02	12.6	
8	0	209.79	77	180	1.63	420.15	416	9	1.06E-02	33.6	
9	4	239.05*	788	123	1.17	478.64	472	21	1.09E-01	4.4	9.34E-01
10	4	241.92	146	157	1.88	484.37	472	21	2.03E-02	24.8	
11	0	270.38	75	147	1.78	541.27	536	10	1.05E-02	32.2	
12	0	295.70	195	159	1.21	591.86	587	11	2.71E-02	14.4	
13	0	338.78	123	159	1.38	677.98	672	11	1.71E-02	21.9	
14	0	352.30*	396	134	1.46	705.00	699	13	5.50E-02	8.0	
15	0	583.77*	190	95	1.43	1167.67	1162	11	2.65E-02	12.6	
16	0	609.67*	254	71	1.48	1219.43	1214	13	3.53E-02	9.6	
17	0	662.24	236	66	1.58	1324.50	1318	16	3.27E-02	10.0	
18	0	727.61	50	34	1.00	1455.15	1450	11	7.00E-03	26.2	
19	0	795.44	24	23	1.41	1590.73	1587	7	3.40E-03	38.1	
20	0	860.93	44	34	1.58	1721.62	1714	11	6.12E-03	29.5	
21	0	911.63*	140	42	1.42	1822.96	1817	12	1.94E-02	12.9	
22	0	968.55*	126	44	1.51	1936.70	1928	16	1.75E-02	15.1	
23	0	1120.79*	40	16	1.56	2240.97	2237	9	5.50E-03	26.6	
24	0	1238.79	43	27	2.13	2476.81	2471	12	5.94E-03	28.7	
25	0	1461.26*	525	4	2.01	2921.42	2913	15	7.29E-02	4.5	
26	0	1765.78*	28	14	1.44	3529.95	3524	11	3.90E-03	34.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 19-MAR-2010 15:10:38

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Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248250001.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 24-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 13:10:01
Sample ID         : G248250001 Sample quantity : 80.960 GRAM
Sample type       : SOLID Sample geometry :
Detector name     : GAMMA1 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.91 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	+	1460.82	*	2.416E+01	3.056E+00	5.979E-01	5.316E-02	40.411
CD-109	+	88.03	*	4.139E+00	1.649E+00	1.839E+00	1.740E-01	2.250
SN-126	+	64.28		3.052E+00	1.562E+00	1.235E+00	1.817E-01	2.471
	+	86.94		1.662E+00	9.437E-01	7.477E-01	3.104E-01	2.223
	+	87.57	*	3.998E-01	1.593E-01	1.786E-01	1.682E-02	2.239
BA-137M	+	661.66	*	6.331E-01	1.371E-01	7.791E-02	6.382E-03	8.126
CS-137	+	661.66	*	6.688E-01	1.449E-01	8.231E-02	6.756E-03	8.126
TL-208		277.37		6.126E-01	6.005E-01	1.041E+00	1.342E-01	0.589
	+	583.19	*	4.852E-01	1.300E-01	9.508E-02	8.624E-03	5.103
	+	860.56		1.074E+00	6.417E-01	7.657E-01	7.335E-02	1.403
BI-211		72.87		3.352E+00	5.489E+00	8.153E+00	6.687E-01	0.411
	+	351.06	*	4.406E+00	8.115E-01	4.828E-01	4.392E-02	9.125
PB-212	+	74.82		2.623E+00	7.916E-01	8.554E-01	1.095E-01	3.066
	+	77.11		2.696E+00	4.966E-01	4.883E-01	4.143E-02	5.521
	+	238.63	*	1.929E+00	2.590E-01	1.313E-01	1.335E-02	14.694
		300.09		1.962E+00	1.422E+00	2.260E+00	2.468E-01	0.868
BI-214	+	609.32	*	1.256E+00	2.719E-01	1.786E-01	1.770E-02	7.030
	+	1120.29		1.031E+00	5.598E-01	6.315E-01	6.788E-02	1.633
	+	1764.49		1.031E+00	7.066E-01	5.753E-01	4.825E-02	1.792
PB-214	+	74.82		4.648E+00	1.378E+00	1.516E+00	1.743E-01	3.066
	+	77.11		4.752E+00	9.592E-01	8.608E-01	1.019E-01	5.521
	+	242.00		2.166E+00	1.098E+00	7.986E-01	8.610E-02	2.712
	+	295.22		1.328E+00	4.111E-01	3.982E-01	4.458E-02	3.335
	+	351.93	*	1.599E+00	3.074E-01	1.916E-01	2.037E-02	8.343
RA-224	+	240.99	*	3.830E+00	1.928E+00	1.407E+00	1.279E-01	2.722
RA-226	+	609.32	*	1.256E+00	2.719E-01	1.786E-01	1.770E-02	7.030
	+	1120.29		1.031E+00	5.598E-01	6.315E-01	6.788E-02	1.633
	+	1764.49		1.031E+00	7.066E-01	5.753E-01	4.825E-02	1.792
AC-228	+	338.32		1.519E+00	9.184E-01	6.101E-01	2.547E-01	2.490
	+	911.20	*	1.743E+00	4.956E-01	3.523E-01	4.197E-02	4.947
	+	968.97		2.713E+00	1.055E+00	6.222E-01	1.523E-01	4.360
RA-228	+	338.32		1.519E+00	9.184E-01	6.101E-01	2.547E-01	2.490
	+	911.20	*	1.743E+00	4.956E-01	3.523E-01	4.197E-02	4.947
	+	968.97		2.713E+00	1.055E+00	6.222E-01	1.523E-01	4.360

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	74.82		2.623E+00	7.499E-01	8.554E-01	7.192E-02	3.066
	+	77.11		2.696E+00	4.966E-01	4.883E-01	4.143E-02	5.521
	+	238.63	*	1.929E+00	2.590E-01	1.313E-01	1.335E-02	14.694
		300.09		1.962E+00	1.850E+00	2.260E+00	1.385E+00	0.868
TH-232	+	338.32		1.519E+00	6.774E-01	6.101E-01	5.370E-02	2.490
	+	911.20	*	1.743E+00	4.956E-01	3.523E-01	4.197E-02	4.947
	+	968.97		2.713E+00	1.055E+00	6.222E-01	1.523E-01	4.360
TH-234	+	63.29	*	7.918E+00	4.134E+00	3.350E+00	6.017E-01	2.364
	+	92.59		9.711E+00	2.797E+00	1.487E+00	3.314E-01	6.528
U-235	+	89.96		3.345E+00	1.655E+00	1.856E+00	4.615E-01	1.802
	+	93.35		7.335E+00	2.170E+00	1.117E+00	2.599E-01	6.568
		143.76	*	1.383E-01	2.985E-01	5.030E-01	8.509E-02	0.275
		163.33		2.853E-01	6.397E-01	1.098E+00	1.965E-01	0.260
	+	185.72		4.629E-01	1.230E-01	1.009E-01	8.766E-03	4.589
		205.31		-1.624E-01	8.705E-01	1.265E+00	2.310E-01	-0.128
NP-237	+	86.48	*	1.193E+00	5.372E-01	5.396E-01	1.238E-01	2.210
		95.86		2.734E-02	1.560E+00	2.224E+00	5.361E-01	0.012
U-238	+	63.29	*	7.918E+00	4.134E+00	3.350E+00	6.017E-01	2.364
	+	92.59		9.711E+00	1.981E+00	1.487E+00	1.356E-01	6.528

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-3.017E-01	5.895E-01	9.003E-01	8.189E-02	-0.335
NA-22		1274.54	*	-2.580E-03	6.071E-02	1.011E-01	8.488E-03	-0.026
NA-24		1368.63	*	-4.045E+03	6.071E-02	Half-Life too short		
SC-46		889.28	*	2.093E-02	5.959E-02	1.017E-01	9.196E-03	0.206
	+	1120.55		1.862E-01	1.003E-01	1.849E-01	1.553E-02	1.007
V-48		944.13		4.152E-01	1.728E+00	2.905E+00	2.616E-01	0.143
		983.53	*	6.382E-02	1.588E-01	2.702E-01	2.412E-02	0.236
		1312.11		-8.144E-02	1.601E-01	2.456E-01	2.083E-02	-0.332
CR-51		320.08	*	-5.005E-01	7.227E-01	1.090E+00	1.025E-01	-0.459
MN-54		834.85	*	-6.644E-03	6.141E-02	9.966E-02	8.871E-03	-0.067
CO-56		846.77	*	-3.686E-04	6.402E-02	1.049E-01	9.374E-03	-0.004
		1037.84		-4.158E-01	5.290E-01	7.633E-01	7.030E-02	-0.545
	+	1238.28		3.349E-01	1.945E-01	3.019E-01	2.581E-02	1.109
		1771.35		-1.849E+00	6.721E-01	4.763E-01	3.987E-02	-3.882
CO-57		122.06	*	-5.163E-03	3.964E-02	6.242E-02	5.494E-03	-0.083
		136.47		-1.824E-01	3.040E-01	5.012E-01	4.626E-02	-0.364
CO-58		810.76	*	-6.286E-02	6.137E-02	8.735E-02	7.727E-03	-0.720
FE-59		1099.45	*	-2.867E-02	1.688E-01	2.661E-01	2.453E-02	-0.108
		1291.59		4.484E-02	2.161E-01	3.698E-01	3.557E-02	0.121
CO-60		1173.23		-4.836E-03	6.271E-02	1.043E-01	8.442E-03	-0.046
		1332.49	*	-9.159E-03	5.569E-02	9.027E-02	7.694E-03	-0.101
ZN-65		1115.54	*	-1.031E-01	1.790E-01	2.229E-01	1.881E-02	-0.462
SE-75		121.12		-5.381E-04	2.118E-01	3.361E-01	3.767E-02	-0.002
		136.00		-3.491E-02	5.997E-02	9.901E-02	8.571E-03	-0.353
		264.66	*	-3.968E-02	8.043E-02	1.115E-01	1.025E-02	-0.356

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	279.54			9.912E-02	1.818E-01	3.090E-01	2.921E-02	0.321
	400.66			-9.144E-02	4.620E-01	7.230E-01	7.728E-02	-0.126
SR-85	514.00	*		-2.292E-01	1.005E-01	1.341E-01	1.137E-02	-1.709
Y-88	898.04			2.044E-02	7.029E-02	1.186E-01	1.079E-02	0.172
	1836.06	*		-2.913E-02	5.902E-02	8.381E-02	6.893E-03	-0.348
Y-91	1204.77	*		7.883E+00	3.592E+01	6.160E+01	5.047E+00	0.128
NB-94	702.65	*		7.856E-03	4.834E-02	8.149E-02	6.841E-03	0.096
	871.09			-9.523E-03	5.115E-02	8.179E-02	7.359E-03	-0.116
NB-95	765.81	*		6.528E-02	7.999E-02	1.407E-01	1.220E-02	0.464
NB-95M	235.69	*		2.787E-02	2.168E-01	3.199E-01	3.286E-02	0.087
ZR-95	724.19			-1.155E-01	1.634E-01	2.079E-01	1.919E-02	-0.555
	756.73	*		-1.965E-02	1.150E-01	1.863E-01	1.776E-02	-0.105
MO-99	140.51			-1.569E-04	1.150E-01	Half-Life	too short	
	181.07			-7.690E-05	1.150E-01	Half-Life	too short	
	366.42			-2.883E-04	1.150E-01	Half-Life	too short	
	739.50	*		6.463E-05	1.150E-01	Half-Life	too short	
	777.92			-4.532E-04	1.150E-01	Half-Life	too short	
TC-99M	140.51	*		-1.206E+20	1.150E-01	Half-Life	too short	
RU-103	497.08	*		2.366E-02	7.386E-02	1.216E-01	1.686E-02	0.195
+	610.33			1.491E+01	3.753E+00	4.986E+00	8.089E-01	2.990
RH-106	621.93	*		-1.630E-01	4.984E-01	8.069E-01	1.056E-01	-0.202
	1050.41			-2.026E+00	4.143E+00	6.263E+00	5.462E-01	-0.323
RU-106	621.93	*		-1.630E-01	4.981E-01	8.069E-01	6.740E-02	-0.202
	1050.41			-2.026E+00	4.143E+00	6.263E+00	5.462E-01	-0.323
AG-108M	433.94	*		8.811E-04	5.154E-02	8.322E-02	7.122E-03	0.011
	614.28			-2.764E-04	6.427E-02	9.342E-02	8.098E-03	-0.003
	722.91			-3.547E-02	6.265E-02	8.199E-02	7.189E-03	-0.433
AG-110M	657.76	*		3.013E-02	5.453E-02	8.540E-02	7.242E-03	0.353
	677.62			2.778E-01	5.309E-01	9.222E-01	7.867E-02	0.301
	706.68			1.870E-02	3.423E-01	5.706E-01	4.946E-02	0.033
	763.94			-1.028E-01	2.791E-01	4.447E-01	3.955E-02	-0.231
	884.68			-4.811E-02	8.122E-02	1.232E-01	1.145E-02	-0.391
	937.49			-7.021E-02	1.837E-01	2.854E-01	2.659E-02	-0.246
	1384.29			-1.155E-01	2.466E-01	3.778E-01	3.333E-02	-0.306
	1505.03			-2.041E-01	4.027E-01	5.954E-01	5.155E-02	-0.343
SN-113	391.69	*		5.458E-03	7.600E-02	1.239E-01	1.032E-02	0.044
CD-115	260.90			-9.332E-04	7.600E-02	Half-Life	too short	
	492.35			-2.364E-04	7.600E-02	Half-Life	too short	
	527.90	*		6.621E-05	7.600E-02	Half-Life	too short	
SN-117M	156.02			-7.695E-01	5.128E+00	8.606E+00	7.329E-01	-0.089
	158.56	*		5.942E-02	1.221E-01	2.104E-01	1.791E-02	0.282
TE-123M	159.00	*		2.357E-02	4.405E-02	7.609E-02	6.519E-03	0.310
SB-124	602.73			1.999E-02	7.082E-02	1.150E-01	9.672E-03	0.174
	645.85			-1.550E-02	8.095E-01	1.347E+00	1.183E-01	-0.012
	722.78			-3.404E-01	6.938E-01	9.211E-01	8.002E-02	-0.370
	1690.97	*		-1.043E-01	1.405E-01	1.886E-01	1.675E-02	-0.553
SB-125	427.87	*		-1.854E-01	1.607E-01	2.339E-01	1.967E-02	-0.793
	463.37			4.510E-01	5.090E-01	8.643E-01	7.816E-02	0.522
	600.60			8.601E-02	2.795E-01	4.798E-01	4.350E-02	0.179

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-125M	635.95			-1.057E-01	3.812E-01	6.174E-01	5.573E-02	-0.171
	109.28	*		3.100E+00	1.696E+01	2.725E+01	2.873E+00	0.114
	388.63			2.799E-01	4.080E-01	6.952E-01	5.631E-02	0.403
	666.33	*		3.986E-01	5.241E-01	8.404E-01	6.904E-02	0.474
SB-126	753.82			8.992E-01	4.341E+00	7.319E+00	6.308E-01	0.123
	414.70			-9.163E-02	1.889E-01	2.929E-01	2.395E-02	-0.313
	666.50			1.400E-01	1.800E-01	2.898E-01	2.381E-02	0.483
	695.00			9.339E-02	1.922E-01	3.328E-01	2.781E-02	0.281
	697.00			2.338E-02	6.381E-01	1.063E+00	8.893E-02	0.022
	720.70	*		1.317E-01	3.601E-01	5.865E-01	4.972E-02	0.224
SB-127	856.80			-7.706E-01	1.352E+00	1.735E+00	1.554E-01	-0.444
	252.40			3.698E+00	2.833E+01	4.722E+01	2.003E+01	0.078
	473.00			1.070E+01	1.142E+01	1.960E+01	2.944E+00	0.546
	685.70	*		1.733E+00	8.377E+00	1.419E+01	1.959E+00	0.122
	783.70			3.006E+01	2.344E+01	4.267E+01	6.342E+00	0.704
I-131	80.19			1.436E+01	1.847E+01	2.229E+01	1.973E+00	0.644
	284.31			1.973E+00	4.545E+00	7.687E+00	7.394E-01	0.257
	364.49	*		4.215E-02	3.787E-01	6.213E-01	5.608E-02	0.068
TE-132	636.99			-1.954E+00	4.506E+00	7.180E+00	6.377E-01	-0.272
	49.72			-1.159E+02	1.767E+02	2.774E+02	3.727E+01	-0.418
	111.76			-1.784E+02	2.885E+02	4.425E+02	5.997E+01	-0.403
	116.30			-8.618E+01	2.406E+02	3.743E+02	5.081E+01	-0.230
BA-133	228.16	*		-1.799E+00	6.209E+00	1.016E+01	1.815E+00	-0.177
	81.00			1.450E-01	1.923E-01	2.306E-01	3.600E-02	0.629
	276.40			3.293E-01	5.709E-01	9.412E-01	1.359E-01	0.350
	302.85			3.675E-02	2.214E-01	3.675E-01	4.913E-02	0.100
I-133	356.01	*		-3.347E-02	8.173E-02	1.118E-01	1.446E-02	-0.299
	383.85			-7.885E-02	4.733E-01	7.582E-01	9.193E-02	-0.104
	529.87	*		1.497E+00	4.733E-01	Half-Life	too short	
	875.33			-6.433E+01	4.733E-01	Half-Life	too short	
CS-134	1298.22			-2.775E+01	4.733E-01	Half-Life	too short	
	563.25			1.495E-02	5.792E-01	9.752E-01	8.351E-02	0.015
	569.33			-5.510E-02	3.098E-01	5.125E-01	4.403E-02	-0.108
	604.72			-7.482E-03	6.028E-02	8.645E-02	7.284E-03	-0.087
+ 795.86	795.86	*		9.217E-02	7.066E-02	1.332E-01	1.177E-02	0.692
	801.95			-5.090E-01	6.712E-01	1.024E+00	9.061E-02	-0.497
	1365.19			1.078E+00	1.756E+00	3.205E+00	2.874E-01	0.336
	268.22	*		2.473E-01	2.757E-01	4.269E-01	4.452E-02	0.579
CS-135	546.56			-3.692E+18	2.757E-01	Half-Life	too short	
I-135	836.80			-5.739E+18	2.757E-01	Half-Life	too short	
	1038.76			-6.257E+18	2.757E-01	Half-Life	too short	
	1131.51			6.003E+17	2.757E-01	Half-Life	too short	
	1260.41	*		-5.209E+17	2.757E-01	Half-Life	too short	
	1457.56			1.076E+20	2.757E-01	Half-Life	too short	
	1678.03			-1.425E+18	2.757E-01	Half-Life	too short	
	1791.20			4.453E+18	2.757E-01	Half-Life	too short	
	153.25			5.540E-01	1.921E+00	3.287E+00	3.350E-01	0.169
CS-136	176.60			1.875E-01	1.145E+00	1.939E+00	1.844E-01	0.097
	273.65			-1.538E+00	1.398E+00	1.824E+00	1.796E-01	-0.843

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	340.55			1.106E+00	4.531E-01	7.520E-01	6.852E-02	1.470
	818.51			-6.641E-03	1.570E-01	2.566E-01	2.275E-02	-0.026
	1048.07	*		-8.856E-02	2.400E-01	3.675E-01	3.344E-02	-0.241
	1235.36			5.756E-02	1.464E+00	2.126E+00	2.451E-01	0.027
CE-139	165.86	*		-1.939E-02	4.661E-02	7.701E-02	6.558E-03	-0.252
BA-140	162.66			1.709E-01	1.815E+00	3.074E+00	2.798E-01	0.056
	304.85			-3.177E+00	3.381E+00	4.986E+00	1.466E+00	-0.637
	423.72			7.821E+00	5.462E+00	8.766E+00	2.875E+00	0.892
	537.26	*		6.248E-01	6.832E-01	1.176E+00	3.986E-01	0.531
LA-140	328.76			3.171E-01	8.039E-01	1.345E+00	1.261E-01	0.236
	487.02			-3.292E-02	3.482E-01	5.530E-01	4.966E-02	-0.060
	815.77			-4.813E-01	6.852E-01	1.017E+00	1.000E-01	-0.473
	1596.21	*		-4.477E-02	2.037E-01	3.202E-01	2.763E-02	-0.140
CE-141	145.44	*		2.590E-03	1.093E-01	1.811E-01	1.575E-02	0.014
CE-143	57.36			1.277E-02	1.093E-01	Half-Life	too short	
	293.27	*		2.163E-02	1.093E-01	Half-Life	too short	
	664.57			5.951E-01	1.093E-01	Half-Life	too short	
	721.93			-5.248E-02	1.093E-01	Half-Life	too short	
CE-144	80.12			3.970E+00	5.134E+00	6.195E+00	5.402E-01	0.641
	133.52	*		1.215E-01	3.147E-01	5.069E-01	7.748E-02	0.240
PM-144	476.78			-8.210E-02	1.106E-01	1.650E-01	1.515E-02	-0.497
	618.01			4.234E-02	5.255E-02	9.174E-02	7.906E-03	0.461
	696.49	*		-2.423E-03	5.468E-02	9.039E-02	7.568E-03	-0.027
PR-144	696.51	*		-2.061E-01	4.107E+00	6.785E+00	5.676E-01	-0.030
	1489.16			-1.864E+01	1.819E+01	2.279E+01	1.973E+00	-0.818
PM-146	453.88	*		-7.517E-03	6.779E-02	1.080E-01	1.119E-02	-0.070
	633.25			-1.036E+00	2.090E+00	3.249E+00	1.239E+00	-0.319
	735.93			-1.277E-01	2.197E-01	3.353E-01	9.388E-02	-0.381
	747.24			-3.880E-02	1.460E-01	2.342E-01	3.412E-02	-0.166
ND-147	91.11	+		1.787E+00	7.852E-01	1.600E+00	1.582E-01	1.117
	319.41			-1.000E+01	8.923E+00	1.297E+01	1.164E+00	-0.771
	531.02	*		-3.136E-01	1.451E+00	2.402E+00	3.573E-01	-0.131
PM-149	285.90	*		-2.507E-04	1.451E+00	Half-Life	too short	
EU-152	121.78			-2.605E-03	1.125E-01	1.782E-01	1.791E-02	-0.015
	244.70			4.144E-01	5.251E-01	8.131E-01	7.401E-02	0.510
	344.28	*		-3.194E-02	1.687E-01	2.505E-01	2.315E-02	-0.128
	778.90			-2.078E-01	4.152E-01	6.476E-01	5.644E-02	-0.321
	964.08			7.345E-01	5.469E-01	9.111E-01	8.173E-02	0.806
	1085.87			1.032E-01	6.387E-01	1.051E+00	9.006E-02	0.098
	1112.07			3.650E-01	4.726E-01	8.322E-01	7.029E-02	0.439
	1408.01			5.638E-02	2.745E-01	4.697E-01	4.046E-02	0.120
GD-153	69.67			9.290E-01	3.075E+00	4.510E+00	3.617E-01	0.206
	97.43	*		-6.008E-02	1.514E-01	2.095E-01	1.861E-02	-0.287
	103.18			-1.714E-01	1.842E-01	2.793E-01	2.436E-02	-0.614
EU-154	123.07			-5.713E-02	8.285E-02	1.261E-01	1.446E-02	-0.453
	723.31			-2.628E-01	2.909E-01	3.574E-01	3.351E-02	-0.735
	873.19			-1.979E-01	4.081E-01	6.242E-01	7.600E-02	-0.317
	996.26			-5.701E-01	6.432E-01	9.229E-01	1.625E-01	-0.618
	1004.73			-1.162E-01	3.782E-01	5.917E-01	6.997E-02	-0.196

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	+	1274.44	*	1.485E-02	1.678E-01	2.846E-01	3.188E-02	0.052
		86.55		4.862E-01	1.939E-01	2.778E-01	2.610E-02	1.750
		105.31	*	1.691E-01	1.666E-01	2.780E-01	2.444E-02	0.608
TB-160	+	86.79		1.388E+00	5.531E-01	7.888E-01	7.366E-02	1.759
		197.04		3.086E-01	8.899E-01	1.515E+00	1.332E-01	0.204
		215.65		5.298E-01	1.189E+00	1.968E+00	1.760E-01	0.269
		298.57		1.098E-01	2.158E-01	3.242E-01	2.947E-02	0.339
		879.36	*	2.361E-01	2.301E-01	4.190E-01	3.779E-02	0.563
		962.29		3.666E-01	1.097E+00	1.634E+00	1.467E-01	0.224
		966.15		6.289E-01	4.775E-01	7.708E-01	6.911E-02	0.816
HO-166M		1177.93		3.065E-01	5.772E-01	1.024E+00	8.303E-02	0.299
		1271.85		-1.639E-01	1.045E+00	1.706E+00	1.430E-01	-0.096
		80.57		2.198E-01	5.642E-01	6.582E-01	5.764E-02	0.334
		184.41		2.151E-01	6.060E-02	1.101E-01	9.558E-03	1.953
		280.46		-1.118E-01	1.364E-01	2.131E-01	1.948E-02	-0.525
		410.95		3.385E-01	4.086E-01	6.996E-01	5.706E-02	0.484
		711.68	*	-7.969E-04	9.705E-02	1.608E-01	1.356E-02	-0.005
		752.31		2.647E-01	4.272E-01	7.482E-01	6.444E-02	0.354
		810.29		-9.117E-02	8.391E-02	1.178E-01	1.039E-02	-0.774
		67.75		-7.240E-02	2.083E-01	2.941E-01	2.331E-02	-0.246
TA-182		100.11		2.849E-01	3.037E-01	4.952E-01	4.354E-02	0.575
		152.43		1.255E-01	5.356E-01	9.149E-01	7.795E-02	0.137
		222.11		2.933E-01	5.513E-01	9.432E-01	8.475E-02	0.311
	+	1121.30		5.070E-01	2.731E-01	4.834E-01	4.060E-02	1.049
		1189.05		2.704E-01	5.043E-01	8.920E-01	7.265E-02	0.303
		1221.41	*	-1.368E-01	3.060E-01	4.865E-01	4.010E-02	-0.281
		1231.02		1.369E-01	8.172E-01	1.296E+00	1.072E-01	0.106
IR-192	+	295.96		1.058E+00	3.203E-01	4.455E-01	4.082E-02	2.375
		308.46		5.636E-02	1.611E-01	2.704E-01	2.457E-02	0.208
		316.51	*	6.771E-03	6.011E-02	9.928E-02	8.945E-03	0.068
		468.07		-7.013E-02	1.308E-01	2.007E-01	1.813E-02	-0.349
HG-203		70.83		1.421E+00	2.533E+00	3.756E+00	5.927E-01	0.378
		72.87		9.391E-01	1.542E+00	2.284E+00	3.496E-01	0.411
		279.20	*	6.949E-02	6.858E-02	1.193E-01	1.116E-02	0.583
BI-207		72.81		1.383E-01	3.143E-01	4.630E-01	3.795E-02	0.299
	+	74.97		7.562E-01	2.161E-01	3.476E-01	2.897E-02	2.176
		569.70		-6.433E-03	4.657E-02	7.726E-02	6.545E-03	-0.083
		1063.66	*	6.488E-03	7.645E-02	1.249E-01	1.083E-02	0.052
		1770.23		-2.400E-01	8.456E-01	1.059E+00	8.866E-02	-0.227
PB-210		46.54	*	7.238E+00	6.191E+00	1.040E+01	9.741E-01	0.696
PB-211		404.85	*	-3.465E-01	1.207E+00	1.892E+00	9.138E-01	-0.183
		427.09		-1.905E+00	2.707E+00	3.878E+00	1.791E+00	-0.491
BI-212	+	832.01		-2.429E-01	1.666E+00	2.687E+00	1.394E+00	-0.090
		727.33	*	1.979E+00	1.067E+00	1.647E+00	2.039E-01	1.202
		785.37		9.231E-01	5.107E+00	8.563E+00	7.483E-01	0.108
		1620.50		-8.295E-01	3.823E+00	6.009E+00	5.171E-01	-0.138
RN-219	+	271.23		8.168E-01	5.340E-01	6.892E-01	7.377E-02	1.185
		401.81	*	5.526E-01	6.660E-01	1.138E+00	1.659E-01	0.486
RA-223		81.07		2.899E-01	4.370E-01	5.220E-01	4.594E-02	0.555

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		83.79		5.053E-02	2.275E-01	3.280E-01	2.967E-02	0.154
		94.87		2.446E+00	8.111E-01	1.311E+00	1.179E-01	1.867
		144.24		2.731E-01	1.005E+00	1.685E+00	1.610E-01	0.162
		154.21		1.876E-02	5.794E-01	9.808E-01	9.171E-02	0.019
	+	269.46		6.346E-01	4.136E-01	5.369E-01	5.000E-02	1.182
		323.87	*	-2.526E-01	1.060E+00	1.707E+00	2.986E-01	-0.148
	+	338.28		6.029E+00	2.736E+00	3.578E+00	4.367E-01	1.685
AC-227		79.69		1.604E+00	2.242E+00	3.055E+00	5.276E-01	0.525
		235.96		-8.260E-03	2.469E-01	3.598E-01	3.855E-02	-0.023
		256.23	*	1.492E-01	4.036E-01	6.816E-01	8.468E-02	0.219
		299.98		2.353E+00	1.558E+00	2.484E+00	3.235E-01	0.947
		304.50		-4.295E+00	2.695E+00	3.791E+00	6.356E-01	-1.133
		334.37		7.459E-02	3.184E+00	4.569E+00	7.178E-01	0.016
TH-227		79.80		2.750E+00	3.370E+00	4.030E+00	8.789E-01	0.682
		235.96		-8.260E-03	2.469E-01	3.598E-01	3.653E-02	-0.023
		256.23	*	1.492E-01	4.038E-01	6.816E-01	9.499E-02	0.219
		299.98		2.353E+00	1.558E+00	2.484E+00	3.235E-01	0.947
		304.50		-4.295E+00	2.695E+00	3.791E+00	6.356E-01	-1.133
		334.37		7.459E-02	3.184E+00	4.569E+00	7.178E-01	0.016
TH-229		85.43		7.026E-01	3.307E-01	5.618E-01	5.169E-02	1.251
	+	88.47		6.163E-01	2.456E-01	3.589E-01	3.382E-02	1.717
		193.51	*	-3.333E-01	7.950E-01	1.304E+00	1.142E-01	-0.256
	+	210.85		2.659E+00	1.802E+00	2.417E+00	2.152E-01	1.100
PA-231		283.69	*	9.687E-01	2.228E+00	3.764E+00	5.608E-01	0.257
		301.36		1.198E+00	1.004E+00	1.575E+00	1.966E-01	0.761
TH-231		81.07		2.899E-01	4.370E-01	5.220E-01	4.594E-02	0.555
		83.79		5.053E-02	2.275E-01	3.280E-01	2.967E-02	0.154
		94.87		2.446E+00	8.111E-01	1.311E+00	1.179E-01	1.867
		144.24		2.731E-01	1.005E+00	1.685E+00	1.610E-01	0.162
		154.21		1.876E-02	5.794E-01	9.808E-01	9.171E-02	0.019
	+	269.46		6.346E-01	4.136E-01	5.369E-01	5.000E-02	1.182
		323.87	*	-2.526E-01	1.060E+00	1.707E+00	2.986E-01	-0.148
	+	338.28		6.029E+00	2.736E+00	3.578E+00	4.367E-01	1.685
PA-233		300.13		9.750E-01	7.149E-01	1.125E+00	1.699E-01	0.867
		311.90	*	5.728E-02	1.052E-01	1.784E-01	1.652E-02	0.321
		340.48		3.374E+00	1.484E+00	2.139E+00	5.161E-01	1.577
PA-234		94.67		9.064E-01	3.051E-01	5.091E-01	6.451E-02	1.780
		98.44		5.268E-02	1.664E-01	2.348E-01	1.311E-01	0.224
		111.00		7.542E-02	2.841E-01	4.581E-01	5.552E-02	0.165
		131.20		1.452E-02	1.714E-01	2.722E-01	2.353E-02	0.053
		569.50		-1.089E-02	4.174E-01	6.994E-01	5.925E-02	-0.016
		733.00		-4.669E-02	6.013E-01	8.520E-01	1.888E-01	-0.055
		880.51		3.135E-01	4.448E-01	7.837E-01	7.069E-02	0.400
		883.24		-3.291E-01	5.157E-01	6.976E-01	4.693E-01	-0.472
		926.50		-9.574E-02	2.787E-01	4.335E-01	1.102E-01	-0.221
		946.00	*	-1.526E-01	4.155E-01	6.393E-01	1.211E-01	-0.239
		949.00		1.750E-01	5.956E-01	1.009E+00	9.079E-02	0.173
PA-234M		766.42		2.874E+01	2.387E+01	3.517E+01	1.785E+01	0.817
		1001.03	*	5.088E+00	8.479E+00	1.457E+01	1.485E+00	0.349

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	99.53			2.289E-01	2.752E-01	4.291E-01	3.780E-02	0.534
	103.37			-1.240E-01	1.611E-01	2.464E-01	2.148E-02	-0.503
	106.12			5.813E-02	1.344E-01	2.186E-01	1.898E-02	0.266
	117.23	*		-7.580E-02	6.009E-01	9.477E-01	8.257E-02	-0.080
	228.18			-9.745E-02	3.296E-01	5.395E-01	4.868E-02	-0.181
	277.60			2.743E-01	2.741E-01	4.765E-01	4.358E-02	0.576
AM-241	59.54	*		5.287E-02	2.714E-01	3.982E-01	3.281E-02	0.133
CM-247	278.00			1.401E+00	1.173E+00	2.057E+00	1.881E-01	0.681
	287.50			-5.663E-01	1.933E+00	3.123E+00	2.851E-01	-0.181
	402.40	*		2.313E-02	6.153E-02	1.024E-01	8.305E-03	0.226
CF-249	252.80			-1.608E-01	1.532E+00	2.523E+00	2.303E-01	-0.064
	333.37			-7.620E-02	3.461E-01	4.857E-01	4.300E-02	-0.157
	388.16	*		5.246E-02	6.139E-02	1.060E-01	8.596E-03	0.495
CF-251	177.52	*		4.756E-02	1.994E-01	3.389E-01	2.919E-02	0.140
	227.38			-4.682E-01	5.366E-01	8.474E-01	7.643E-02	-0.553
	285.41			-2.121E-01	3.420E+00	5.612E+00	5.126E-01	-0.038
ANH-511	511.00	*		2.299E-02	7.909E-02	1.440E-01	1.220E-02	0.160

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]G248250001      *
* Acquisition date   : 19-MAR-2010 13:10:01 Detector SN# :                  *
* Detector ID        : GAM01 Sensitivity      : 5.000                      *
* Geometry           : CAN Energy tolerance: 1.500                      *
* Elapsed live time  : 0 02:00:00.00 Abundance limit : 75.000           *
* Elapsed real time  : 0 02:00:00.91 Half life ratio : 8.000            *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 24-FEB-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G248250001 Analyst initials: MXR1                 *
* Batch Number       : 959281 Sample Quantity : 8.0960E+01 GRAM          *
* Recovery           : 1.00000 Carrier Weight : 0.00000                 *
*****
*                                     QC DATA                               *
*
* Standard Weight    : 0.00000                                           *
* CALIB. DATE/TIME   : 12-JAN-2010 15:15:52 MS Isotope :                  *
* MSD DPM             : 0.000 MSD Isotope :                               *
* LCS DPM             : 0.000 LCS Isotope :                               *
* LCSD DPM            : 0.000 LCSD Isotope :                             *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.416E+01	2.995E+00	5.892E-01	0.000E+00
CD-109	4.139E+00	1.616E+00	1.778E+00	0.000E+00
SN-126	3.998E-01	1.561E-01	1.726E-01	0.000E+00
BA-137M	6.331E-01	1.344E-01	7.637E-02	0.000E+00
CS-137	6.688E-01	1.420E-01	8.067E-02	0.000E+00
TL-208	4.852E-01	1.274E-01	9.312E-02	0.000E+00
BI-211	4.406E+00	7.953E-01	4.712E-01	0.000E+00
PB-212	1.929E+00	2.538E-01	1.278E-01	0.000E+00
BI-214	1.256E+00	2.664E-01	1.750E-01	0.000E+00
PB-214	1.599E+00	3.013E-01	1.871E-01	0.000E+00
RA-224	3.830E+00	1.889E+00	1.370E+00	0.000E+00
RA-226	1.256E+00	2.664E-01	1.750E-01	0.000E+00
AC-228	1.743E+00	4.857E-01	3.460E-01	0.000E+00
RA-228	1.743E+00	4.857E-01	3.460E-01	0.000E+00
TH-228	1.929E+00	2.538E-01	1.278E-01	0.000E+00
TH-232	1.743E+00	4.857E-01	3.460E-01	0.000E+00
TH-234	7.918E+00	4.051E+00	3.232E+00	0.000E+00
U-235	1.383E-01	2.925E-01	4.880E-01	0.000E+00
NP-237	1.193E+00	5.264E-01	5.217E-01	0.000E+00
U-238	7.918E+00	4.051E+00	3.232E+00	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	-3.017E-01	5.777E-01	8.805E-01	0.000E+00 NOT IDENT.
NA-22	-2.580E-03	5.950E-02	9.951E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	7.121E+09	0.000E+00	0.000E+00 SHORT HLIF
SC-46	2.093E-02	5.840E-02	9.990E-02	0.000E+00 FAIL ABUN
V-48	6.382E-02	1.556E-01	2.655E-01	0.000E+00 NOT IDENT.
CR-51	-5.005E-01	7.083E-01	1.064E+00	0.000E+00 NOT IDENT.
MN-54	-6.644E-03	6.018E-02	9.783E-02	0.000E+00 NOT IDENT.

CO-56	-3.686E-04	6.274E-02	1.030E-01	0.000E+00	FAIL ABUN
CO-57	-5.163E-03	3.885E-02	6.048E-02	0.000E+00	NOT IDENT.
CO-58	-6.286E-02	6.014E-02	8.573E-02	0.000E+00	NOT IDENT.
FE-59	-2.867E-02	1.654E-01	2.617E-01	0.000E+00	NOT IDENT.
CO-60	-9.159E-03	5.458E-02	8.889E-02	0.000E+00	NOT IDENT.
ZN-65	-1.031E-01	1.754E-01	2.193E-01	0.000E+00	NOT IDENT.
SE-75	-3.968E-02	7.882E-02	1.086E-01	0.000E+00	NOT IDENT.
SR-85	-2.292E-01	9.846E-02	1.312E-01	0.000E+00	NOT IDENT.
Y-88	-2.913E-02	5.784E-02	8.271E-02	0.000E+00	NOT IDENT.
Y-91	7.883E+00	3.520E+01	6.062E+01	0.000E+00	NOT IDENT.
NB-94	7.856E-03	4.737E-02	7.991E-02	0.000E+00	NOT IDENT.
NB-95	6.528E-02	7.839E-02	1.381E-01	0.000E+00	NOT IDENT.
NB-95M	2.787E-02	2.124E-01	3.113E-01	0.000E+00	NOT IDENT.
ZR-95	-1.965E-02	1.127E-01	1.828E-01	0.000E+00	NOT IDENT.
MO-99	0.000E+00	1.352E+02	0.000E+00	0.000E+00	SHORT HLIF
TC-99M	0.000E+00	1.923E+26	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.366E-02	7.239E-02	1.189E-01	0.000E+00	FAIL ABUN
RH-106	-1.630E-01	4.884E-01	7.906E-01	0.000E+00	NOT IDENT.
RU-106	-1.630E-01	4.881E-01	7.906E-01	0.000E+00	NOT IDENT.
AG-108M	8.811E-04	5.051E-02	8.134E-02	0.000E+00	NOT IDENT.
AG-110M	3.013E-02	5.343E-02	8.371E-02	0.000E+00	NOT IDENT.
SN-113	5.458E-03	7.448E-02	1.210E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	2.110E+02	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	5.942E-02	1.196E-01	2.043E-01	0.000E+00	NOT IDENT.
TE-123M	2.357E-02	4.317E-02	7.387E-02	0.000E+00	NOT IDENT.
SB-124	-1.043E-01	1.377E-01	1.860E-01	0.000E+00	NOT IDENT.
SB-125	-1.854E-01	1.574E-01	2.285E-01	0.000E+00	NOT IDENT.
TE-125M	3.100E+00	1.662E+01	2.639E+01	0.000E+00	NOT IDENT.
I-126	3.986E-01	5.137E-01	8.238E-01	0.000E+00	NOT IDENT.
SB-126	1.317E-01	3.529E-01	5.752E-01	0.000E+00	NOT IDENT.
SB-127	1.733E+00	8.209E+00	1.391E+01	0.000E+00	NOT IDENT.
I-131	4.215E-02	3.711E-01	6.065E-01	0.000E+00	NOT IDENT.
TE-132	-1.799E+00	6.085E+00	9.885E+00	0.000E+00	NOT IDENT.
BA-133	-3.347E-02	8.010E-02	1.091E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.158E+06	0.000E+00	0.000E+00	SHORT HLIF
CS-134	9.217E-02	6.925E-02	1.307E-01	0.000E+00	FAIL ABUN
CS-135	2.473E-01	2.701E-01	4.159E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.071E+24	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-8.856E-02	2.352E-01	3.614E-01	0.000E+00	NOT IDENT.
CE-139	-1.939E-02	4.568E-02	7.478E-02	0.000E+00	NOT IDENT.
BA-140	6.248E-01	6.695E-01	1.151E+00	0.000E+00	NOT IDENT.
LA-140	-4.477E-02	1.996E-01	3.157E-01	0.000E+00	NOT IDENT.
CE-141	2.590E-03	1.071E-01	1.757E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.374E+04	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.215E-01	3.084E-01	4.915E-01	0.000E+00	NOT IDENT.
PM-144	-2.423E-03	5.359E-02	8.863E-02	0.000E+00	NOT IDENT.
PR-144	-2.061E-01	4.025E+00	6.653E+00	0.000E+00	NOT IDENT.
PM-146	-7.517E-03	6.643E-02	1.055E-01	0.000E+00	NOT IDENT.
ND-147	-3.136E-01	1.422E+00	2.351E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	1.671E+03	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-3.194E-02	1.653E-01	2.444E-01	0.000E+00	NOT IDENT.
GD-153	-6.008E-02	1.484E-01	2.027E-01	0.000E+00	NOT IDENT.
EU-154	1.485E-02	1.645E-01	2.801E-01	0.000E+00	NOT IDENT.
EU-155	1.691E-01	1.632E-01	2.691E-01	0.000E+00	FAIL ABUN
TB-160	2.361E-01	2.255E-01	4.115E-01	0.000E+00	FAIL ABUN
HO-166M	-7.969E-04	9.511E-02	1.576E-01	0.000E+00	NOT IDENT.
TA-182	-1.368E-01	2.999E-01	4.788E-01	0.000E+00	FAIL ABUN
IR-192	6.771E-03	5.891E-02	9.683E-02	0.000E+00	FAIL ABUN
HG-203	6.949E-02	6.721E-02	1.162E-01	0.000E+00	NOT IDENT.
BI-207	6.488E-03	7.492E-02	1.228E-01	0.000E+00	FAIL ABUN
PB-210	7.238E+00	6.067E+00	1.001E+01	0.000E+00	NOT IDENT.
PB-211	-3.465E-01	1.183E+00	1.848E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.045E+00	1.616E+00	0.000E+00	FAIL ABUN
RN-219	5.526E-01	6.527E-01	1.112E+00	0.000E+00	FAIL ABUN
RA-223	-2.526E-01	1.039E+00	1.665E+00	0.000E+00	FAIL ABUN
AC-227	1.492E-01	3.956E-01	6.638E-01	0.000E+00	NOT IDENT.
TH-227	1.492E-01	3.957E-01	6.638E-01	0.000E+00	NOT IDENT.
TH-229	-3.333E-01	7.791E-01	1.267E+00	0.000E+00	FAIL ABUN
PA-231	9.687E-01	2.184E+00	3.669E+00	0.000E+00	NOT IDENT.
TH-231	-2.526E-01	1.039E+00	1.665E+00	0.000E+00	FAIL ABUN
PA-233	5.728E-02	1.031E-01	1.740E-01	0.000E+00	NOT IDENT.
PA-234	-1.526E-01	4.071E-01	6.281E-01	0.000E+00	NOT IDENT.
PA-234M	5.088E+00	8.310E+00	1.432E+01	0.000E+00	NOT IDENT.
NP-239	-7.580E-02	5.889E-01	9.181E-01	0.000E+00	NOT IDENT.
AM-241	5.287E-02	2.660E-01	3.839E-01	0.000E+00	NOT IDENT.
CM-247	2.313E-02	6.030E-02	1.000E-01	0.000E+00	NOT IDENT.
CF-249	5.246E-02	6.016E-02	1.035E-01	0.000E+00	NOT IDENT.
CF-251	4.756E-02	1.954E-01	3.292E-01	0.000E+00	NOT IDENT.

ANH-511

2.299E-02

7.750E-02

1.409E-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]G248250001.CNF;1
Sample date        : 24-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 13:10:01
Sample ID          : G248250001 Sample quantity : 8.09600E+01 GRAM
Detector name      : GAM01 Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00 Elapsed real time: 0 02:00:00.91 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity : 5.00000
Batch ID           : 959281 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	1460.82	525	10.66*	9.454E-01	2.416E+01	2.416E+01	12.65
CD-109	88.03	166	3.70*	5.196E+00	3.998E+00	4.139E+00	39.86
SN-126	64.28	174	9.60	2.761E+00	3.052E+00	3.052E+00	51.17
	86.94	166	8.90	5.196E+00	1.662E+00	1.662E+00	56.79
	87.57	166	37.00*	5.196E+00	3.998E-01	3.998E-01	39.86
BA-137M	661.66	236	89.90*	1.923E+00	6.322E-01	6.331E-01	21.66
CS-137	661.66	236	85.10*	1.923E+00	6.678E-01	6.688E-01	21.66
TL-208	277.37	-----	6.60	3.885E+00	-----	Line Not Found	-----
	583.19	190	85.00*	2.142E+00	4.852E-01	4.852E-01	26.80
	860.56	44	12.50	1.521E+00	1.074E+00	1.074E+00	59.75
BI-211	72.87	-----	1.23	3.944E+00	-----	Line Not Found	-----
	351.06	396	12.92*	3.225E+00	4.406E+00	4.406E+00	18.42
PB-212	74.82	242	10.28	4.160E+00	2.623E+00	2.623E+00	30.18
	77.11	436	17.10	4.385E+00	2.696E+00	2.696E+00	18.42
	238.63	788	43.60*	4.345E+00	1.929E+00	1.929E+00	13.43
	300.09	-----	3.30	3.656E+00	-----	Line Not Found	-----
BI-214	609.32	254	45.49*	2.064E+00	1.256E+00	1.256E+00	21.65
	1120.29	40	14.92	1.193E+00	1.031E+00	1.031E+00	54.29
	1764.49	28	15.30	8.253E-01	1.031E+00	1.031E+00	68.56
PB-214	74.82	242	5.80	4.160E+00	4.648E+00	4.648E+00	29.65
	77.11	436	9.70	4.385E+00	4.752E+00	4.752E+00	20.18
	242.00	146	7.25	4.307E+00	2.166E+00	2.166E+00	50.66
	295.22	195	18.42	3.698E+00	1.328E+00	1.328E+00	30.95
	351.93	396	35.60*	3.225E+00	1.599E+00	1.599E+00	19.23
RA-224	240.99	146	4.10*	4.307E+00	3.830E+00	3.830E+00	50.33
RA-226	609.32	254	45.49*	2.064E+00	1.256E+00	1.256E+00	21.65
	1120.29	40	14.92	1.193E+00	1.031E+00	1.031E+00	54.29
	1764.49	28	15.30	8.253E-01	1.031E+00	1.031E+00	68.56
AC-228	338.32	123	11.27	3.326E+00	1.519E+00	1.519E+00	60.45
	911.20	140	25.80*	1.444E+00	1.743E+00	1.743E+00	28.44
	968.97	126	15.80	1.365E+00	2.713E+00	2.713E+00	38.87
RA-228	338.32	123	11.27	3.326E+00	1.519E+00	1.519E+00	60.45

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	911.20	140	25.80*	1.444E+00	1.743E+00	1.743E+00	28.44
	968.97	126	15.80	1.365E+00	2.713E+00	2.713E+00	38.87
	74.82	242	10.28	4.160E+00	2.623E+00	2.623E+00	28.59
	77.11	436	17.10	4.385E+00	2.696E+00	2.696E+00	18.42
	238.63	788	43.60*	4.345E+00	1.929E+00	1.929E+00	13.43
TH-232	300.09	-----	3.30	3.656E+00	-----	Line Not Found	-----
	338.32	123	11.27	3.326E+00	1.519E+00	1.519E+00	44.59
	911.20	140	25.80*	1.444E+00	1.743E+00	1.743E+00	28.44
TH-234	968.97	126	15.80	1.365E+00	2.713E+00	2.713E+00	38.87
	63.29	174	3.70*	2.761E+00	7.918E+00	7.918E+00	52.20
U-235	92.59	487	4.23	5.495E+00	9.711E+00	9.711E+00	28.80
	89.96	134	3.47	5.358E+00	3.345E+00	3.345E+00	49.48
	93.35	487	5.60	5.495E+00	7.335E+00	7.335E+00	29.59
	143.76	-----	10.96*	5.865E+00	-----	Line Not Found	-----
	163.33	-----	5.08	5.555E+00	-----	Line Not Found	-----
	185.72	295	57.20	5.160E+00	4.629E-01	4.629E-01	26.58
	205.31	-----	5.01	4.840E+00	-----	Line Not Found	-----
NP-237	86.48	166	12.40*	5.196E+00	1.193E+00	1.193E+00	45.03
	95.86	-----	2.68	5.636E+00	-----	Line Not Found	-----
U-238	63.29	174	3.70*	2.761E+00	7.918E+00	7.918E+00	52.20
	92.59	487	4.23	5.495E+00	9.711E+00	9.711E+00	20.40

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	1.25E+09Y	1.00	2.416E+01	2.416E+01	0.306E+01	12.65	
CD-109	461.40D	1.04	3.998E+00	4.139E+00	1.649E+00	39.86	
SN-126	2.30E+05Y	1.00	3.998E-01	3.998E-01	1.593E-01	39.86	
BA-137M	30.08Y	1.00	6.322E-01	6.331E-01	1.371E-01	21.66	
CS-137	30.08Y	1.00	6.678E-01	6.688E-01	1.449E-01	21.66	
TL-208	1.41E+10Y	1.00	4.852E-01	4.852E-01	1.300E-01	26.80	
BI-211	7.04E+08Y	1.00	4.406E+00	4.406E+00	0.812E+00	18.42	
PB-212	1.41E+10Y	1.00	1.929E+00	1.929E+00	0.259E+00	13.43	
BI-214	1600.00Y	1.00	1.256E+00	1.256E+00	0.272E+00	21.65	
PB-214	1600.00Y	1.00	1.599E+00	1.599E+00	0.307E+00	19.23	
RA-224	1.41E+10Y	1.00	3.830E+00	3.830E+00	1.928E+00	50.33	
RA-226	1600.00Y	1.00	1.256E+00	1.256E+00	0.272E+00	21.65	
AC-228	1.41E+10Y	1.00	1.743E+00	1.743E+00	0.496E+00	28.44	
RA-228	1.41E+10Y	1.00	1.743E+00	1.743E+00	0.496E+00	28.44	
TH-228	1.41E+10Y	1.00	1.929E+00	1.929E+00	0.259E+00	13.43	
TH-232	1.41E+10Y	1.00	1.743E+00	1.743E+00	0.496E+00	28.44	
TH-234	4.47E+09Y	1.00	7.918E+00	7.918E+00	4.134E+00	52.20	
U-235	7.04E+08Y	1.00	4.629E-01	4.629E-01	1.230E-01	26.58	K
NP-237	2.14E+06Y	1.00	1.193E+00	1.193E+00	0.537E+00	45.03	
U-238	4.47E+09Y	1.00	7.918E+00	7.918E+00	4.134E+00	52.20	

Total Activity : 6.927E+01 6.941E+01

Grand Total Activity : 6.927E+01 6.941E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G248250001

Page : 4
Acquisition date : 19-MAR-2010 13:10:01

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.79	77	180	1.63	420.15	416	9	1.06E-02	67.2	4.77E+00	T
0	270.38	75	147	1.78	541.27	536	10	1.05E-02	64.5	3.96E+00	T
0	727.61	50	34	1.00	1455.15	1450	11	7.00E-03	52.5	1.77E+00	T
0	795.44	24	23	1.41	1590.73	1587	7	3.40E-03	76.2	1.63E+00	T
0	1238.79	43	27	2.13	2476.81	2471	12	5.94E-03	57.5	1.09E+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]G248250001.CNF;1  *
* Acquisition date   : 19-MAR-2010 13:10:01  Detector SN#      :              *
* Detector ID        : GAM01                      Sensitivity    : 5.00000      *
* Geometry           : CAN                      Energy tolerance: 1.50000      *
* Elapsed live time  : 0 02:00:00.00             Abundance limit : 75.00000      *
* Elapsed real time  : 0 02:00:00.91             Half life ratio: 8.00000      *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date        : 24-FEB-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID          : G248250001             Analyst initials: MXR1          *
* Batch Number       : 959281                 Sample Quantity : 8.09600E+01 GRAM  *
*****
*
*                                     QC DATA                               *
*
* CALIB. DATE/TIME   : 12-JAN-2010 15:15:52.7MS 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	2.416E+01	3.056E+00	5.979E-01	5.316E-02	40.411
CD-109	4.139E+00	1.649E+00	1.839E+00	1.740E-01	2.250
SN-126	3.998E-01	1.593E-01	1.786E-01	1.682E-02	2.239
BA-137M	6.331E-01	1.371E-01	7.791E-02	6.382E-03	8.126
CS-137	6.688E-01	1.449E-01	8.231E-02	6.756E-03	8.126
TL-208	4.852E-01	1.300E-01	9.508E-02	8.624E-03	5.103
BI-211	4.406E+00	8.115E-01	4.828E-01	4.392E-02	9.125
PB-212	1.929E+00	2.590E-01	1.313E-01	1.335E-02	14.694
BI-214	1.256E+00	2.719E-01	1.786E-01	1.770E-02	7.030
PB-214	1.599E+00	3.074E-01	1.916E-01	2.037E-02	8.343
RA-224	3.830E+00	1.928E+00	1.407E+00	1.279E-01	2.722
RA-226	1.256E+00	2.719E-01	1.786E-01	1.770E-02	7.030
AC-228	1.743E+00	4.956E-01	3.523E-01	4.197E-02	4.947
RA-228	1.743E+00	4.956E-01	3.523E-01	4.197E-02	4.947
TH-228	1.929E+00	2.590E-01	1.313E-01	1.335E-02	14.694
TH-232	1.743E+00	4.956E-01	3.523E-01	4.197E-02	4.947
TH-234	7.918E+00	4.134E+00	3.350E+00	6.017E-01	2.364
U-235	4.629E-01	1.230E-01	5.030E-01	8.509E-02	0.920

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	1.193E+00	5.372E-01	5.396E-01	1.238E-01	2.210
U-238	7.918E+00	4.134E+00	3.350E+00	6.017E-01	2.364

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.017E-01		5.895E-01	9.003E-01	8.189E-02	-0.335
NA-22	-2.580E-03		6.071E-02	1.011E-01	8.488E-03	-0.026
NA-24	-4.045E+03		3.633E+03	Half-Life too short		
SC-46	2.093E-02		5.959E-02	1.017E-01	9.196E-03	0.206
V-48	6.382E-02		1.588E-01	2.702E-01	2.412E-02	0.236
CR-51	-5.005E-01		7.227E-01	1.090E+00	1.025E-01	-0.459
MN-54	-6.644E-03		6.141E-02	9.966E-02	8.871E-03	-0.067
CO-56	-3.686E-04		6.402E-02	1.049E-01	9.374E-03	-0.004
CO-57	-5.163E-03		3.964E-02	6.242E-02	5.494E-03	-0.083
CO-58	-6.286E-02		6.137E-02	8.735E-02	7.727E-03	-0.720
FE-59	-2.867E-02		1.688E-01	2.661E-01	2.453E-02	-0.108
CO-60	-9.159E-03		5.569E-02	9.027E-02	7.694E-03	-0.101
ZN-65	-1.031E-01		1.790E-01	2.229E-01	1.881E-02	-0.462
SE-75	-3.968E-02		8.043E-02	1.115E-01	1.025E-02	-0.356
SR-85	-2.292E-01		1.005E-01	1.341E-01	1.137E-02	-1.709
Y-88	-2.913E-02		5.902E-02	8.381E-02	6.893E-03	-0.348
Y-91	7.883E+00		3.592E+01	6.160E+01	5.047E+00	0.128
NB-94	7.856E-03		4.834E-02	8.149E-02	6.841E-03	0.096
NB-95	6.528E-02		7.999E-02	1.407E-01	1.220E-02	0.464
NB-95M	2.787E-02		2.168E-01	3.199E-01	3.286E-02	0.087
ZR-95	-1.965E-02		1.150E-01	1.863E-01	1.776E-02	-0.105
MO-99	6.463E-05		6.896E-05	Half-Life too short		
TC-99M	-1.206E+20		9.810E+19	Half-Life too short		
RU-103	2.366E-02		7.386E-02	1.216E-01	1.686E-02	0.195
RH-106	-1.630E-01		4.984E-01	8.069E-01	1.056E-01	-0.202
RU-106	-1.630E-01		4.981E-01	8.069E-01	6.740E-02	-0.202
AG-108M	8.811E-04		5.154E-02	8.322E-02	7.122E-03	0.011
AG-110M	3.013E-02		5.453E-02	8.540E-02	7.242E-03	0.353
SN-113	5.458E-03		7.600E-02	1.239E-01	1.032E-02	0.044
CD-115	6.621E-05		1.076E-04	Half-Life too short		
SN-117M	5.942E-02		1.221E-01	2.104E-01	1.791E-02	0.282
TE-123M	2.357E-02		4.405E-02	7.609E-02	6.519E-03	0.310
SB-124	-1.043E-01		1.405E-01	1.886E-01	1.675E-02	-0.553
SB-125	-1.854E-01		1.607E-01	2.339E-01	1.967E-02	-0.793
TE-125M	3.100E+00		1.696E+01	2.725E+01	2.873E+00	0.114
I-126	3.986E-01		5.241E-01	8.404E-01	6.904E-02	0.474
SB-126	1.317E-01		3.601E-01	5.865E-01	4.972E-02	0.224
SB-127	1.733E+00		8.377E+00	1.419E+01	1.959E+00	0.122
I-131	4.215E-02		3.787E-01	6.213E-01	5.608E-02	0.068
TE-132	-1.799E+00		6.209E+00	1.016E+01	1.815E+00	-0.177
BA-133	-3.347E-02		8.173E-02	1.118E-01	1.446E-02	-0.299

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	1.497E+00		2.632E+00	Half-Life too short		
CS-134	9.217E-02	+	7.066E-02	1.332E-01	1.177E-02	0.692
CS-135	2.473E-01		2.757E-01	4.269E-01	4.452E-02	0.579
I-135	-5.209E+17		2.587E+18	Half-Life too short		
CS-136	-8.856E-02		2.400E-01	3.675E-01	3.344E-02	-0.241
CE-139	-1.939E-02		4.661E-02	7.701E-02	6.558E-03	-0.252
BA-140	6.248E-01		6.832E-01	1.176E+00	3.986E-01	0.531
LA-140	-4.477E-02		2.037E-01	3.202E-01	2.763E-02	-0.140
CE-141	2.590E-03		1.093E-01	1.811E-01	1.575E-02	0.014
CE-143	2.163E-02		7.010E-03	Half-Life too short		
CE-144	1.215E-01		3.147E-01	5.069E-01	7.748E-02	0.240
PM-144	-2.423E-03		5.468E-02	9.039E-02	7.568E-03	-0.027
PR-144	-2.061E-01		4.107E+00	6.785E+00	5.676E-01	-0.030
PM-146	-7.517E-03		6.779E-02	1.080E-01	1.119E-02	-0.070
ND-147	-3.136E-01		1.451E+00	2.402E+00	3.573E-01	-0.131
PM-149	-2.507E-04		8.526E-04	Half-Life too short		
EU-152	-3.194E-02		1.687E-01	2.505E-01	2.315E-02	-0.128
GD-153	-6.008E-02		1.514E-01	2.095E-01	1.861E-02	-0.287
EU-154	1.485E-02		1.678E-01	2.846E-01	3.188E-02	0.052
EU-155	1.691E-01		1.666E-01	2.780E-01	2.444E-02	0.608
TB-160	2.361E-01		2.301E-01	4.190E-01	3.779E-02	0.563
HO-166M	-7.969E-04		9.705E-02	1.608E-01	1.356E-02	-0.005
TA-182	-1.368E-01		3.060E-01	4.865E-01	4.010E-02	-0.281
IR-192	6.771E-03		6.011E-02	9.928E-02	8.945E-03	0.068
HG-203	6.949E-02		6.858E-02	1.193E-01	1.116E-02	0.583
BI-207	6.488E-03		7.645E-02	1.249E-01	1.083E-02	0.052
PB-210	7.238E+00		6.191E+00	1.040E+01	9.741E-01	0.696
PB-211	-3.465E-01		1.207E+00	1.892E+00	9.138E-01	-0.183
BI-212	1.979E+00	+	1.067E+00	1.647E+00	2.039E-01	1.202
RN-219	5.526E-01		6.660E-01	1.138E+00	1.659E-01	0.486
RA-223	-2.526E-01		1.060E+00	1.707E+00	2.986E-01	-0.148
AC-227	1.492E-01		4.036E-01	6.816E-01	8.468E-02	0.219
TH-227	1.492E-01		4.038E-01	6.816E-01	9.499E-02	0.219
TH-229	-3.333E-01		7.950E-01	1.304E+00	1.142E-01	-0.256
PA-231	9.687E-01		2.228E+00	3.764E+00	5.608E-01	0.257
TH-231	-2.526E-01		1.060E+00	1.707E+00	2.986E-01	-0.148
PA-233	5.728E-02		1.052E-01	1.784E-01	1.652E-02	0.321
PA-234	-1.526E-01		4.155E-01	6.393E-01	1.211E-01	-0.239
PA-234M	5.088E+00		8.479E+00	1.457E+01	1.485E+00	0.349
NP-239	-7.580E-02		6.009E-01	9.477E-01	8.257E-02	-0.080
AM-241	5.287E-02		2.714E-01	3.982E-01	3.281E-02	0.133
CM-247	2.313E-02		6.153E-02	1.024E-01	8.305E-03	0.226
CF-249	5.246E-02		6.139E-02	1.060E-01	8.596E-03	0.495
CF-251	4.756E-02		1.994E-01	3.389E-01	2.919E-02	0.140
ANH-511	2.299E-02		7.909E-02	1.440E-01	1.220E-02	0.160

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]G248250001          *
* Acquisition date   : 19-MAR-2010 13:10:01 Detector SN#      :             *
* Detector ID        : GAM01                      Sensitivity    : 5.000      *
* Geometry           : CAN                        Energy tolerance: 1.500      *
* Elapsed live time  : 0 02:00:00.00              Abundance limit : 75.000     *
* Elapsed real time  : 0 02:00:00.91              Half life ratio : 8.000     *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 24-FEB-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID          : G248250001              Analyst initials: MXR1         *
* Batch Number       : 959281                  Sample Quantity : 8.0960E+01 GRAM *
* Recovery           : 1.00000                  Carrier Weight  : 0.00000      *
*****
*                                     QC DATA                                *
*
* CALIB. DATE/TIME   : 12-JAN-2010 15:15:52 MS Isotope       :             *
* MSD DPM             : 0.000                    MSD Isotope   :             *
* LCS DPM             : 0.000                    LCS Isotope   :             *
* LCSD DPM            : 0.000                    LCSD Isotope  :             *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.416E+01	2.995E+00	2.948E-01	1.528E+00
CD-109	4.139E+00	1.616E+00	8.895E-01	8.247E-01
SN-126	3.998E-01	1.561E-01	8.636E-02	7.966E-02
BA-137M	6.331E-01	1.344E-01	3.821E-02	6.856E-02
CS-137	6.688E-01	1.420E-01	4.036E-02	7.245E-02
TL-208	4.852E-01	1.274E-01	4.659E-02	6.502E-02
BI-211	4.406E+00	7.953E-01	2.357E-01	4.058E-01
PB-212	1.929E+00	2.538E-01	6.393E-02	1.295E-01
BI-214	1.256E+00	2.664E-01	8.753E-02	1.359E-01
PB-214	1.599E+00	3.013E-01	9.358E-02	1.537E-01
RA-224	3.830E+00	1.889E+00	6.854E-01	9.640E-01
RA-226	1.256E+00	2.664E-01	8.753E-02	1.359E-01
AC-228	1.743E+00	4.857E-01	1.731E-01	2.478E-01
RA-228	1.743E+00	4.857E-01	1.731E-01	2.478E-01
TH-228	1.929E+00	2.538E-01	6.393E-02	1.295E-01
TH-232	1.743E+00	4.857E-01	1.731E-01	2.478E-01
TH-234	7.918E+00	4.051E+00	1.617E+00	2.067E+00
U-235	1.383E-01	2.925E-01	2.441E-01	1.492E-01
NP-237	1.193E+00	5.264E-01	2.610E-01	2.686E-01
U-238	7.918E+00	4.051E+00	1.617E+00	2.067E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-3.017E-01	5.777E-01	4.405E-01	2.947E-01 NOT IDENT.
NA-22	-2.580E-03	5.950E-02	4.978E-02	3.036E-02 NOT IDENT.
NA-24	-4.045E+09	7.121E+09	0.000E+00	3.633E+09 SHORT HLIF
SC-46	2.093E-02	5.840E-02	4.998E-02	2.979E-02 FAIL ABUN
V-48	6.382E-02	1.556E-01	1.328E-01	7.938E-02 NOT IDENT.
CR-51	-5.005E-01	7.083E-01	5.321E-01	3.614E-01 NOT IDENT.
MN-54	-6.644E-03	6.018E-02	4.895E-02	3.070E-02 NOT IDENT.

CO-56	-3.686E-04	6.274E-02	5.153E-02	3.201E-02	FAIL ABUN
CO-57	-5.163E-03	3.885E-02	3.026E-02	1.982E-02	NOT IDENT.
CO-58	-6.286E-02	6.014E-02	4.289E-02	3.068E-02	NOT IDENT.
FE-59	-2.867E-02	1.654E-01	1.309E-01	8.440E-02	NOT IDENT.
CO-60	-9.159E-03	5.458E-02	4.447E-02	2.785E-02	NOT IDENT.
ZN-65	-1.031E-01	1.754E-01	1.097E-01	8.948E-02	NOT IDENT.
SE-75	-3.968E-02	7.882E-02	5.436E-02	4.022E-02	NOT IDENT.
SR-85	-2.292E-01	9.846E-02	6.565E-02	5.024E-02	NOT IDENT.
Y-88	-2.913E-02	5.784E-02	4.138E-02	2.951E-02	NOT IDENT.
Y-91	7.883E+00	3.520E+01	3.033E+01	1.796E+01	NOT IDENT.
NB-94	7.856E-03	4.737E-02	3.998E-02	2.417E-02	NOT IDENT.
NB-95	6.528E-02	7.839E-02	6.908E-02	3.999E-02	NOT IDENT.
NB-95M	2.787E-02	2.124E-01	1.558E-01	1.084E-01	NOT IDENT.
ZR-95	-1.965E-02	1.127E-01	9.145E-02	5.750E-02	NOT IDENT.
MO-99	6.463E+01	1.352E+02	0.000E+00	6.896E+01	SHORT HLIF
TC-99M	-1.206E+26	1.923E+26	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.366E-02	7.239E-02	5.951E-02	3.693E-02	FAIL ABUN
RH-106	-1.630E-01	4.884E-01	3.955E-01	2.492E-01	NOT IDENT.
RU-106	-1.630E-01	4.881E-01	3.955E-01	2.490E-01	NOT IDENT.
AG-108M	8.811E-04	5.051E-02	4.069E-02	2.577E-02	NOT IDENT.
AG-110M	3.013E-02	5.343E-02	4.188E-02	2.726E-02	NOT IDENT.
SN-113	5.458E-03	7.448E-02	6.055E-02	3.800E-02	NOT IDENT.
CD-115	6.621E+01	2.110E+02	0.000E+00	1.076E+02	SHORT HLIF
SN-117M	5.942E-02	1.196E-01	1.022E-01	6.103E-02	NOT IDENT.
TE-123M	2.357E-02	4.317E-02	3.696E-02	2.203E-02	NOT IDENT.
SB-124	-1.043E-01	1.377E-01	9.304E-02	7.027E-02	NOT IDENT.
SB-125	-1.854E-01	1.574E-01	1.143E-01	8.033E-02	NOT IDENT.
TE-125M	3.100E+00	1.662E+01	1.320E+01	8.479E+00	NOT IDENT.
I-126	3.986E-01	5.137E-01	4.121E-01	2.621E-01	NOT IDENT.
SB-126	1.317E-01	3.529E-01	2.878E-01	1.800E-01	NOT IDENT.
SB-127	1.733E+00	8.209E+00	6.962E+00	4.188E+00	NOT IDENT.
I-131	4.215E-02	3.711E-01	3.034E-01	1.893E-01	NOT IDENT.
TE-132	-1.799E+00	6.085E+00	4.945E+00	3.105E+00	NOT IDENT.
BA-133	-3.347E-02	8.010E-02	5.459E-02	4.086E-02	NOT IDENT.
I-133	1.497E+06	5.158E+06	0.000E+00	2.632E+06	SHORT HLIF
CS-134	9.217E-02	6.925E-02	6.540E-02	3.533E-02	FAIL ABUN
CS-135	2.473E-01	2.701E-01	2.081E-01	1.378E-01	NOT IDENT.
I-135	-5.209E+23	5.071E+24	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-8.856E-02	2.352E-01	1.808E-01	1.200E-01	NOT IDENT.
CE-139	-1.939E-02	4.568E-02	3.741E-02	2.330E-02	NOT IDENT.
BA-140	6.248E-01	6.695E-01	5.760E-01	3.416E-01	NOT IDENT.
LA-140	-4.477E-02	1.996E-01	1.580E-01	1.018E-01	NOT IDENT.
CE-141	2.590E-03	1.071E-01	8.789E-02	5.466E-02	NOT IDENT.
CE-143	2.163E+04	1.374E+04	0.000E+00	7.010E+03	SHORT HLIF
CE-144	1.215E-01	3.084E-01	2.459E-01	1.573E-01	NOT IDENT.
PM-144	-2.423E-03	5.359E-02	4.434E-02	2.734E-02	NOT IDENT.
PR-144	-2.061E-01	4.025E+00	3.329E+00	2.054E+00	NOT IDENT.
PM-146	-7.517E-03	6.643E-02	5.281E-02	3.389E-02	NOT IDENT.
ND-147	-3.136E-01	1.422E+00	1.176E+00	7.257E-01	FAIL ABUN
PM-149	-2.507E+02	1.671E+03	0.000E+00	8.526E+02	SHORT HLIF
EU-152	-3.194E-02	1.653E-01	1.223E-01	8.435E-02	NOT IDENT.
GD-153	-6.008E-02	1.484E-01	1.014E-01	7.571E-02	NOT IDENT.
EU-154	1.485E-02	1.645E-01	1.401E-01	8.392E-02	NOT IDENT.
EU-155	1.691E-01	1.632E-01	1.346E-01	8.329E-02	FAIL ABUN
TB-160	2.361E-01	2.255E-01	2.059E-01	1.151E-01	FAIL ABUN
HO-166M	-7.969E-04	9.511E-02	7.887E-02	4.853E-02	NOT IDENT.
TA-182	-1.368E-01	2.999E-01	2.395E-01	1.530E-01	FAIL ABUN
IR-192	6.771E-03	5.891E-02	4.844E-02	3.006E-02	FAIL ABUN
HG-203	6.949E-02	6.721E-02	5.815E-02	3.429E-02	NOT IDENT.
BI-207	6.488E-03	7.492E-02	6.145E-02	3.822E-02	FAIL ABUN
PB-210	7.238E+00	6.067E+00	5.008E+00	3.096E+00	NOT IDENT.
PB-211	-3.465E-01	1.183E+00	9.245E-01	6.034E-01	NOT IDENT.
BI-212	1.979E+00	1.045E+00	8.083E-01	5.333E-01	FAIL ABUN
RN-219	5.526E-01	6.527E-01	5.561E-01	3.330E-01	FAIL ABUN
RA-223	-2.526E-01	1.039E+00	8.332E-01	5.300E-01	FAIL ABUN
AC-227	1.492E-01	3.956E-01	3.321E-01	2.018E-01	NOT IDENT.
TH-227	1.492E-01	3.957E-01	3.321E-01	2.019E-01	NOT IDENT.
TH-229	-3.333E-01	7.791E-01	6.340E-01	3.975E-01	FAIL ABUN
PA-231	9.687E-01	2.184E+00	1.835E+00	1.114E+00	NOT IDENT.
TH-231	-2.526E-01	1.039E+00	8.332E-01	5.300E-01	FAIL ABUN
PA-233	5.728E-02	1.031E-01	8.706E-02	5.262E-02	NOT IDENT.
PA-234	-1.526E-01	4.071E-01	3.142E-01	2.077E-01	NOT IDENT.
PA-234M	5.088E+00	8.310E+00	7.165E+00	4.240E+00	NOT IDENT.
NP-239	-7.580E-02	5.889E-01	4.593E-01	3.004E-01	NOT IDENT.
AM-241	5.287E-02	2.660E-01	1.921E-01	1.357E-01	NOT IDENT.
CM-247	2.313E-02	6.030E-02	5.005E-02	3.077E-02	NOT IDENT.
CF-249	5.246E-02	6.016E-02	5.180E-02	3.070E-02	NOT IDENT.
CF-251	4.756E-02	1.954E-01	1.647E-01	9.970E-02	NOT IDENT.

ANH-511

2.299E-02

7.750E-02

7.049E-02

3.954E-02 NOT IDENT.

 * GEL Laboratories LLC *
 * 2040 SAVAGE ROAD *
 * CHARLESTON ,SC 29417 *
 * GAMMA SPECTROSCOPY BACKGROUND REPORT *

ENERGY	MDA COUNTS
46.54	164.8181
49.72	212.2840
57.36	0.0000
59.54	218.9681
63.29	254.8079
63.29	254.8079
64.28	255.2507
67.75	286.0747
69.67	270.9645
70.83	257.0251
72.81	301.3697
72.87	301.3983
72.87	301.3983
74.82	286.7122
74.82	286.7122
74.82	286.7122
74.97	286.7799
77.11	287.7473
77.11	287.7473
77.11	287.7473
79.69	256.3137
79.80	244.4080
80.12	244.5271
80.19	244.5534
80.57	267.5323
81.00	244.8532
81.07	251.4097
81.07	251.4097
83.79	322.9191
83.79	322.9191
85.43	254.1406
86.48	254.5300
86.55	254.5548
86.79	254.6433
86.94	254.6987
87.57	254.9312
88.03	255.0999
88.47	255.2604
89.96	255.8032
91.11	256.2186
92.59	256.7484
92.59	256.7484
93.35	257.0198
94.67	257.4871
94.87	206.4904
94.87	206.4904
95.86	241.7869
97.43	245.6434
98.44	224.2245
99.53	207.7931
100.11	211.3071
103.18	268.2854
103.37	257.1242
105.31	209.3664
106.12	230.9931
109.28	230.7856
111.00	215.4093
111.76	236.0376
116.30	206.5387
117.23	201.0571
121.12	201.9863
121.78	205.5881
122.06	205.6550
123.07	234.6537
131.20	235.6728
133.52	201.3599
136.00	217.9548

136.47	218.0669
140.51	0.0000
140.51	0.0000
143.76	184.4664
144.24	191.6233
144.24	191.6233
145.44	187.4425
152.43	205.7115
153.25	209.4475
154.21	217.6792
154.21	217.6792
156.02	223.4344
158.56	195.3255
159.00	191.8248
162.66	194.3097
163.33	189.0356
165.86	212.9567
176.60	195.0559
177.52	198.8698
181.07	0.0000
184.41	190.9312
185.72	191.1533
193.51	196.1621
197.04	175.4096
205.31	210.8408
210.85	156.2234
215.65	145.4127
222.11	151.5747
227.38	175.9809
228.16	167.5204
228.18	167.5231
235.69	153.1702
235.96	165.4581
235.96	165.4581
238.63	133.3614
238.63	133.3614
240.99	133.5968
242.00	133.6976
244.70	120.2792
252.40	143.4416
252.80	152.2087
256.23	140.9207
256.23	140.9207
260.90	0.0000
264.66	132.9640
268.22	125.4531
269.46	145.9641
269.46	145.9641
271.23	122.5701
273.65	162.1244
276.40	127.2826
277.37	119.3365
277.60	120.3413
278.00	118.3997
279.20	119.4842
279.54	128.4012
280.46	152.2000
283.69	114.8920
284.31	114.9380
285.41	126.9219
285.90	0.0000
287.50	129.0836
293.27	0.0000
295.22	158.6773
295.96	158.7525
298.57	124.8171
299.98	104.1079
299.98	104.1079
300.09	108.9212
300.09	108.9212
300.13	108.9229
301.36	110.6123
302.85	122.3500
304.50	150.5882
304.50	150.5882
304.85	134.5562
308.46	104.6697
311.90	110.9467

316.51	112.2771
319.41	120.5834
320.08	112.5227
323.87	125.9924
323.87	125.9924
328.76	137.5749
333.37	130.8027
334.37	119.4270
334.37	119.4270
338.28	112.7359
338.28	112.7359
338.32	112.7376
338.32	112.7376
338.32	112.7376
340.48	106.7247
340.55	110.0118
344.28	108.3325
351.06	87.5574
351.93	104.3366
356.01	119.2816
364.49	97.7981
366.42	0.0000
383.85	93.5861
388.16	71.6689
388.63	80.1215
391.69	90.8107
400.66	94.4253
401.81	79.6188
402.40	88.1394
404.85	99.9482
410.95	84.2630
414.70	89.7691
423.72	61.1939
427.09	96.7854
427.87	109.7322
433.94	90.6407
453.88	75.1803
463.37	85.3708
468.07	99.8187
473.00	63.7676
476.78	84.8050
477.60	79.3279
487.02	70.8193
492.35	0.0000
497.08	62.2489
511.00	87.2412
514.00	211.6690
527.90	0.0000
529.87	0.0000
531.02	66.7897
537.26	54.2988
546.56	0.0000
563.25	65.8670
569.33	65.1134
569.50	61.4499
569.70	61.4548
583.19	64.5552
600.60	59.4297
602.73	62.7308
604.72	66.6556
609.32	60.5630
609.32	60.5630
610.33	60.5868
614.28	63.7906
618.01	48.8206
621.93	58.9841
621.93	58.9841
633.25	50.7740
635.95	45.1781
636.99	49.9036
645.85	49.1245
657.76	34.7913
661.66	38.9580
661.66	38.9580
664.57	0.0000
666.33	34.8996
666.50	33.3149
677.62	52.5615

685.70	46.0043
695.00	50.0018
696.49	54.8374
696.51	54.8388
697.00	50.9983
702.65	44.3502
706.68	53.1013
711.68	53.1940
720.70	43.6564
721.93	0.0000
722.78	50.1606
722.91	50.1618
723.31	55.0245
724.19	50.1845
727.33	34.0319
733.00	38.9688
735.93	47.7834
739.50	0.0000
747.24	45.0274
752.31	40.2012
753.82	45.1263
756.73	42.2231
763.94	62.9922
765.81	55.1523
766.42	44.3276
777.92	0.0000
778.90	51.4300
783.70	34.6702
785.37	48.5646
795.86	48.7261
801.95	48.8206
810.29	42.9549
810.76	43.9603
815.77	36.0237
818.51	32.0484
832.01	50.2844
834.85	49.3206
836.80	0.0000
846.77	37.3776
856.80	47.2853
860.56	45.6482
871.09	35.6152
873.19	35.6375
875.33	0.0000
879.36	26.5218
880.51	31.6327
883.24	45.9558
884.68	43.9312
889.28	27.6216
898.04	36.9229
911.20	37.0626
911.20	37.0626
911.20	37.0626
926.50	39.2923
937.49	42.5255
944.13	25.9784
946.00	30.1505
949.00	23.9327
962.29	41.7744
964.08	33.0876
966.15	54.0154
968.97	38.7118
968.97	38.7118
968.97	38.7118
983.53	31.5125
996.26	52.7002
1001.03	34.8264
1004.73	47.5378
1037.84	40.4919
1038.76	0.0000
1048.07	32.0522
1050.41	38.4855
1050.41	38.4855
1063.66	27.8891
1085.87	34.5187
1099.45	37.8831
1112.07	27.1436
1115.54	47.0890

1120.29	27.1973
1120.29	27.1973
1120.55	29.3757
1121.30	38.0864
1131.51	0.0000
1173.23	31.2179
1177.93	30.3333
1189.05	34.0988
1204.77	36.0721
1221.41	41.7810
1231.02	39.7014
1235.36	39.9187
1238.28	31.9559
1260.41	0.0000
1271.85	24.4152
1274.44	20.6716
1274.54	22.5508
1291.59	26.4084
1298.22	0.0000
1312.11	24.6310
1332.49	19.9814
1365.19	12.4552
1368.63	0.0000
1384.29	22.1240
1408.01	17.3994
1457.56	0.0000
1460.82	7.8158
1489.16	16.7012
1505.03	15.7676
1596.21	15.0391
1620.50	15.1062
1678.03	0.0000
1690.97	14.2786
1764.49	11.3630
1764.49	11.3630
1770.23	10.6356
1771.35	46.5399
1791.20	0.0000
1836.06	11.5004

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248250001

Total Uranium Activity	2.3621E+01	ug/g
Total Uranium Counting Unc.	1.2052E+01	ug/g
Total Uranium Tpu	6.1491E-06	ug/g
Total Uranium Mda	4.8113E+00	ug/g

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*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON ,SC 29417               *
*               GROSS GAMMA REPORT                 *
*
*****
*
*  BATCH ID      : 959281          SAMPLE ID   : G248250001
*  ANALYST       : MXR1            DETECTOR    : GAM01
*  SAMPLE DATE   : 24-FEB-2010 12:00:00.00  COUNT TIME : 0 02:00:00.00
*  ANALYSIS DATE: 19-MAR-2010 13:10:01.03  SAMPLE ALQT: 80.960 GRAM
*
*****

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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 9.944E+00
GROSS GAMMA ERROR (pCi/GRAM )   : 1.433E+00
GROSS GAMMA MDA (pCi/GRAM )     : 4.311E+00
GROSS GAMMA DLC (pCi/GRAM )     : 2.080E+00

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VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 15:11:26.69

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*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                    *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248250002.CNF;1
Sample date        : 24-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 13:10:57
Sample ID          : G248250002 Sample quantity : 1.27870E+02 GRAM
Detector name      : GAM15 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           : 959281 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	3	74.98*	260	590	1.76	148.88	142	19	3.61E-02	20.8	1.58E+00
2	3	77.32*	464	460	1.49	153.57	142	19	6.45E-02	10.2	
3	2	87.53	150	446	1.37	173.97	170	21	2.08E-02	24.9	1.52E+00
4	2	90.18	133	352	1.10	179.28	170	21	1.84E-02	24.9	
5	2	92.86*	314	358	1.41	184.64	170	21	4.36E-02	13.1	
6	0	186.05*	267	400	1.36	371.01	366	12	3.70E-02	16.8	
7	0	209.33*	119	302	1.44	417.57	413	10	1.65E-02	29.2	
8	3	238.71*	1124	185	1.37	476.32	468	21	1.56E-01	3.8	1.23E+00
9	3	241.68	315	251	2.04	482.26	468	21	4.37E-02	15.3	
10	0	270.75	100	288	1.33	540.41	534	13	1.39E-02	36.5	
11	0	278.00	86	220	1.48	554.90	548	13	1.20E-02	37.2	
12	0	295.22*	387	228	1.11	589.35	583	12	5.38E-02	9.5	
13	0	300.73*	70	178	1.52	600.37	596	11	9.78E-03	39.7	
14	0	328.75	56	197	1.19	656.39	649	12	7.74E-03	52.2	
15	0	338.41	210	175	1.60	675.72	671	9	2.91E-02	13.3	
16	0	351.78*	638	182	1.59	702.45	695	16	8.86E-02	6.3	
17	0	462.92	127	86	1.17	924.75	918	13	1.76E-02	17.6	
18	0	583.25*	311	90	1.46	1165.42	1160	13	4.32E-02	8.7	
19	0	609.33*	440	99	1.84	1217.57	1210	14	6.12E-02	6.9	
20	0	661.69	82	81	1.94	1322.30	1315	13	1.14E-02	25.2	
21	0	727.39*	103	62	1.73	1453.71	1447	15	1.43E-02	20.2	
22	0	769.33	90	90	1.87	1537.61	1529	19	1.25E-02	27.4	
23	0	836.23	25	53	1.59	1671.43	1665	9	3.48E-03	56.4	
24	0	860.64	50	63	1.67	1720.25	1712	15	6.89E-03	37.8	
25	0	911.27*	260	48	1.69	1821.53	1813	18	3.61E-02	9.0	
26	0	969.27*	149	77	1.92	1937.55	1932	17	2.07E-02	16.0	
27	0	1120.71*	76	67	1.87	2240.48	2232	13	1.05E-02	26.0	
28	0	1376.64	35	12	3.54	2752.49	2746	13	4.81E-03	27.3	
29	0	1460.48*	971	29	1.72	2920.22	2911	19	1.35E-01	3.5	
30	0	1764.10*	81	9	1.34	3527.69	3518	16	1.12E-02	14.4	

Flag: "*" = Peak area was modified by background subtraction

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248250002.CNF;1
 Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
 Sample title : MXR1
 Sample date : 24-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 13:10:57
 Sample ID : G248250002 Sample quantity : 127.87 GRAM
 Sample type : SOLID Sample geometry :
 Detector name : GAMMA15 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

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	+	1460.82	*	2.768E+01	3.338E+00	6.459E-01	6.347E-02	42.856
MN-54	+	834.85	*	4.783E-02	5.414E-02	8.091E-02	7.342E-03	0.591
CD-109	+	88.03	*	2.754E+00	1.413E+00	1.762E+00	2.187E-01	1.563
SN-126		64.28		9.380E-01	9.667E-01	1.589E+00	2.690E-01	0.590
	+	86.94		1.106E+00	7.227E-01	7.614E-01	3.219E-01	1.452
	+	87.57	*	2.660E-01	1.365E-01	1.715E-01	2.122E-02	1.551
BA-137M	+	661.66	*	1.354E-01	6.911E-02	7.145E-02	5.874E-03	1.896
CS-137	+	661.66	*	1.431E-01	7.301E-02	7.548E-02	6.218E-03	1.896
HG-203		70.83		9.260E-01	2.699E+00	3.963E+00	7.024E-01	0.234
		72.87		2.884E+00	1.651E+00	2.456E+00	4.242E-01	1.174
	+	279.20	*	1.185E-01	8.922E-02	8.663E-02	9.520E-03	1.368
TL-208	+	277.37		1.039E+00	7.874E-01	7.554E-01	1.068E-01	1.375
	+	583.19	*	4.902E-01	9.667E-02	7.090E-02	6.484E-03	6.914
	+	860.56		7.390E-01	5.640E-01	5.599E-01	5.474E-02	1.320
BI-211		72.87		1.029E+01	5.740E+00	8.767E+00	1.004E+00	1.174
	+	351.06	*	4.611E+00	7.395E-01	3.969E-01	3.953E-02	11.619
PB-212	+	74.82		2.285E+00	1.013E+00	8.398E-01	1.265E-01	2.721
	+	77.11		2.273E+00	5.341E-01	4.684E-01	5.430E-02	4.852
	+	238.63	*	1.840E+00	2.608E-01	1.202E-01	1.436E-02	15.313
	+	300.09		1.789E+00	1.438E+00	1.745E+00	2.124E-01	1.025
BI-214	+	609.32	*	1.342E+00	2.288E-01	1.377E-01	1.372E-02	9.750
	+	1120.29		1.214E+00	6.440E-01	6.368E-01	6.896E-02	1.906
	+	1764.49		1.815E+00	5.473E-01	4.361E-01	3.824E-02	4.161
PB-214	+	74.82		4.050E+00	1.781E+00	1.489E+00	2.080E-01	2.721
	+	77.11		4.007E+00	9.980E-01	8.258E-01	1.175E-01	4.852
	+	242.00		3.126E+00	1.033E+00	7.305E-01	9.100E-02	4.279
	+	295.22		1.740E+00	3.949E-01	2.780E-01	3.465E-02	6.257
	+	351.93	*	1.674E+00	2.838E-01	1.443E-01	1.640E-02	11.596
RA-224	+	240.99	*	5.527E+00	1.798E+00	1.288E+00	1.420E-01	4.293
RA-226	+	609.32	*	1.342E+00	2.288E-01	1.377E-01	1.372E-02	9.750
	+	1120.29		1.214E+00	6.440E-01	6.368E-01	6.896E-02	1.906
	+	1764.49		1.815E+00	5.473E-01	4.361E-01	3.824E-02	4.161
AC-228	+	338.32		1.694E+00	8.420E-01	4.974E-01	2.089E-01	3.405
	+	911.20	*	1.980E+00	4.308E-01	2.412E-01	2.921E-02	8.209

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	+	968.97		1.963E+00	7.904E-01	6.718E-01	1.650E-01	2.922
	+	338.32		1.694E+00	8.420E-01	4.974E-01	2.089E-01	3.405
	+	911.20	*	1.980E+00	4.308E-01	2.412E-01	2.921E-02	8.209
TH-228	+	968.97		1.963E+00	7.904E-01	6.718E-01	1.650E-01	2.922
	+	74.82		2.285E+00	9.885E-01	8.398E-01	9.711E-02	2.721
	+	77.11		2.273E+00	5.341E-01	4.684E-01	5.430E-02	4.852
	+	238.63	*	1.840E+00	2.608E-01	1.202E-01	1.436E-02	15.313
TH-232	+	300.09		1.789E+00	1.217E+00	1.745E+00	1.073E+00	1.025
	+	338.32		1.694E+00	4.808E-01	4.974E-01	4.904E-02	3.405
	+	911.20	*	1.980E+00	4.308E-01	2.412E-01	2.921E-02	8.209
	+	968.97		1.963E+00	7.904E-01	6.718E-01	1.650E-01	2.922
U-235	+	89.96		2.410E+00	1.355E+00	1.761E+00	4.582E-01	1.368
	+	93.35		3.403E+00	1.217E+00	1.044E+00	2.540E-01	3.260
		143.76	*	1.501E-01	2.712E-01	4.406E-01	7.839E-02	0.341
		163.33		-1.080E-01	5.807E-01	9.270E-01	1.760E-01	-0.116
NP-237	+	185.72		2.818E-01	9.962E-02	8.728E-02	9.447E-03	3.229
		205.31		3.230E-01	7.638E-01	1.086E+00	2.102E-01	0.298
	+	86.48	*	7.938E-01	4.401E-01	5.225E-01	1.269E-01	1.519
		95.86		-5.914E-01	1.425E+00	1.990E+00	4.981E-01	-0.297

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.536E-01	4.465E-01	7.447E-01	6.922E-02	0.206
NA-22		1274.54	*	1.687E-02	5.600E-02	9.328E-02	8.474E-03	0.181
NA-24		1368.63	*	-5.765E+03	5.600E-02	Half-Life too short		
SC-46		889.28	*	1.580E-02	5.463E-02	8.627E-02	8.017E-03	0.183
V-48	+	1120.55		2.193E-01	1.154E-01	1.698E-01	1.444E-02	1.292
		944.13		3.179E-01	1.420E+00	2.387E+00	2.207E-01	0.133
		983.53	*	6.522E-02	1.093E-01	1.902E-01	1.739E-02	0.343
CR-51		1312.11		-1.932E-02	1.399E-01	2.219E-01	2.092E-02	-0.087
		320.08	*	4.377E-01	6.004E-01	1.007E+00	1.068E-01	0.435
		846.77	*	-2.799E-02	5.179E-02	8.166E-02	7.451E-03	-0.343
CO-56		1037.84		1.256E-01	3.882E-01	6.556E-01	6.148E-02	0.192
		1238.28		2.347E-01	1.308E-01	2.373E-01	2.132E-02	0.989
		1771.35		-1.268E+00	4.883E-01	4.861E-01	4.247E-02	-2.609
		122.06	*	3.299E-02	3.349E-02	5.629E-02	5.670E-03	0.586
CO-57		136.47		-3.354E-01	2.827E-01	4.322E-01	4.592E-02	-0.776
		810.76	*	-4.317E-02	4.931E-02	7.244E-02	6.513E-03	-0.596
FE-59		1099.45	*	-9.672E-03	1.283E-01	2.078E-01	1.938E-02	-0.047
CO-60		1291.59		-6.658E-02	1.750E-01	2.700E-01	2.790E-02	-0.247
		1173.23		-1.995E-02	5.800E-02	9.117E-02	7.421E-03	-0.219
		1332.49	*	1.281E-02	4.819E-02	8.021E-02	7.711E-03	0.160
ZN-65		1115.54	*	1.157E-02	1.233E-01	1.744E-01	1.490E-02	0.066
SE-75		121.12		5.881E-02	1.809E-01	2.975E-01	3.644E-02	0.198
		136.00		-6.800E-02	5.600E-02	8.556E-02	8.662E-03	-0.795
		264.66	*	-3.051E-02	6.825E-02	9.626E-02	1.056E-02	-0.317
		279.54		3.779E-02	1.677E-01	2.470E-01	2.735E-02	0.153

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	400.66			-7.859E-02	3.387E-01	5.488E-01	6.013E-02	-0.143
SR-85	514.00	*		-1.731E-01	7.132E-02	9.861E-02	8.519E-03	-1.755
Y-88	898.04			7.188E-03	5.049E-02	8.445E-02	7.908E-03	0.085
	1836.06	*		3.212E-02	4.929E-02	8.911E-02	7.505E-03	0.360
Y-91	1204.77	*		5.386E+00	3.006E+01	4.953E+01	4.175E+00	0.109
NB-94	702.65	*		3.582E-02	3.888E-02	6.919E-02	5.841E-03	0.518
	871.09			-1.781E-02	4.134E-02	6.563E-02	6.053E-03	-0.271
NB-95	765.81	*		9.080E-02	6.348E-02	1.038E-01	9.099E-03	0.874
NB-95M	235.69	*		4.594E-01	2.163E-01	3.399E-01	4.095E-02	1.351
ZR-95	724.19			2.031E-01	1.374E-01	2.257E-01	2.096E-02	0.900
	756.73	*		1.768E-02	9.233E-02	1.539E-01	1.479E-02	0.115
MO-99	140.51			5.876E-06	9.233E-02	Half-Life	too short	
	181.07			9.867E-05	9.233E-02	Half-Life	too short	
	366.42			4.534E-04	9.233E-02	Half-Life	too short	
	739.50	*		-1.267E-04	9.233E-02	Half-Life	too short	
	777.92			-6.984E-05	9.233E-02	Half-Life	too short	
TC-99M	140.51	*		4.524E+18	9.233E-02	Half-Life	too short	
RU-103	497.08	*		-1.771E-03	5.690E-02	9.239E-02	1.292E-02	-0.019
+	610.33			1.594E+01	3.402E+00	3.880E+00	6.308E-01	4.107
RH-106	621.93	*		1.849E-02	3.647E-01	5.892E-01	7.728E-02	0.031
	1050.41			8.926E-01	3.347E+00	5.606E+00	4.981E-01	0.159
RU-106	621.93	*		1.849E-02	3.647E-01	5.892E-01	4.951E-02	0.031
	1050.41			8.926E-01	3.347E+00	5.606E+00	4.981E-01	0.159
AG-108M	433.94	*		1.619E-02	3.594E-02	6.059E-02	5.354E-03	0.267
	614.28			-2.589E-02	4.799E-02	6.212E-02	5.418E-03	-0.417
	722.91			1.964E-02	4.916E-02	7.392E-02	6.525E-03	0.266
AG-110M	657.76	*		5.693E-03	4.786E-02	7.024E-02	5.978E-03	0.081
	677.62			5.478E-02	3.751E-01	6.356E-01	5.444E-02	0.086
	706.68			-1.684E-01	2.501E-01	3.955E-01	3.447E-02	-0.426
	763.94			1.381E-01	2.144E-01	3.299E-01	2.965E-02	0.419
	884.68			-6.903E-03	6.037E-02	9.869E-02	9.408E-03	-0.070
	937.49			8.402E-02	1.325E-01	2.304E-01	2.201E-02	0.365
	1384.29			1.635E-01	1.987E-01	3.352E-01	3.299E-02	0.488
	1505.03			-3.581E-02	3.669E-01	6.021E-01	5.754E-02	-0.059
SN-113	391.69	*		1.079E-02	6.313E-02	1.049E-01	9.108E-03	0.103
CD-115	260.90			-1.929E-04	6.313E-02	Half-Life	too short	
	492.35			7.646E-05	6.313E-02	Half-Life	too short	
	527.90	*		1.098E-04	6.313E-02	Half-Life	too short	
SN-117M	156.02			-1.136E+00	4.633E+00	7.395E+00	7.707E-01	-0.154
	158.56	*		3.515E-02	1.120E-01	1.827E-01	1.915E-02	0.192
TE-123M	159.00	*		1.513E-02	4.053E-02	6.622E-02	6.979E-03	0.228
SB-124	602.73			3.842E-02	5.791E-02	8.617E-02	7.303E-03	0.446
	645.85			2.467E-01	6.725E-01	1.111E+00	9.796E-02	0.222
	722.78			2.010E-01	5.399E-01	8.097E-01	7.082E-02	0.248
	1690.97	*		-5.732E-02	8.510E-02	1.181E-01	1.112E-02	-0.485
SB-125	427.87	*		2.739E-02	1.115E-01	1.857E-01	1.616E-02	0.148
+	463.37			1.382E+00	5.022E-01	6.843E-01	6.340E-02	2.020
	600.60			3.303E-02	2.328E-01	3.574E-01	3.262E-02	0.092
	635.95			1.142E-01	3.338E-01	5.513E-01	4.999E-02	0.207

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-125M		109.28	*	6.474E+00	1.403E+01	2.325E+01	2.767E+00	0.278
I-126		388.63		6.205E-02	3.402E-01	5.658E-01	4.815E-02	0.110
		666.33	*	6.766E-02	4.547E-01	6.689E-01	5.516E-02	0.101
		753.82		-4.124E-01	3.216E+00	5.303E+00	4.616E-01	-0.078
SB-126		414.70		5.833E-02	1.513E-01	2.540E-01	2.159E-02	0.230
		666.50		2.185E-02	1.591E-01	2.338E-01	1.928E-02	0.093
		695.00		1.988E-02	1.414E-01	2.391E-01	2.009E-02	0.083
		697.00		-3.705E-01	4.947E-01	7.795E-01	6.558E-02	-0.475
		720.70	*	2.164E-01	2.795E-01	4.388E-01	3.745E-02	0.493
		856.80		2.296E-01	1.033E+00	1.510E+00	1.384E-01	0.152
SB-127		252.40		-5.539E+00	2.281E+01	3.760E+01	1.612E+01	-0.147
		473.00		-3.141E+00	8.714E+00	1.384E+01	2.097E+00	-0.227
		685.70	*	-2.247E-01	6.430E+00	1.074E+01	1.485E+00	-0.021
		783.70		1.029E+01	1.727E+01	2.995E+01	4.471E+00	0.344
I-131		80.19		6.743E+00	1.445E+01	2.127E+01	2.521E+00	0.317
		284.31		4.863E+00	3.956E+00	6.418E+00	7.170E-01	0.758
		364.49	*	-1.131E-01	2.698E-01	4.331E-01	4.208E-02	-0.261
		636.99		3.841E+00	3.783E+00	6.559E+00	5.851E-01	0.586
TE-132		49.72		1.357E+02	3.110E+02	5.244E+02	8.983E+01	0.259
		111.76		-1.205E+02	2.480E+02	3.956E+02	5.767E+01	-0.305
		116.30		1.130E+02	2.111E+02	3.496E+02	5.075E+01	0.323
		228.16	*	2.161E-01	5.313E+00	8.951E+00	1.697E+00	0.024
BA-133		81.00		-1.895E-01	1.563E-01	2.072E-01	3.624E-02	-0.915
		276.40		7.483E-01	7.388E-01	8.082E-01	1.258E-01	0.926
		302.85		3.547E-02	2.049E-01	2.997E-01	4.313E-02	0.118
		356.01	*	4.116E-02	5.794E-02	8.760E-02	1.184E-02	0.470
		383.85		-3.645E-01	3.794E-01	5.842E-01	7.274E-02	-0.624
I-133		529.87	*	3.099E+00	3.794E-01	Half-Life	too short	
		875.33		8.358E+01	3.794E-01	Half-Life	too short	
		1298.22		-7.978E+01	3.794E-01	Half-Life	too short	
CS-134		563.25		6.134E-01	4.496E-01	7.940E-01	6.878E-02	0.773
		569.33		-1.986E-01	2.516E-01	3.729E-01	3.239E-02	-0.532
		604.72		1.115E-02	4.880E-02	6.937E-02	5.889E-03	0.161
		795.86	*	9.335E-02	5.897E-02	1.081E-01	9.689E-03	0.864
		801.95		-3.287E-01	5.020E-01	7.694E-01	6.908E-02	-0.427
		1365.19		-7.552E-01	1.471E+00	2.296E+00	2.294E-01	-0.329
CS-135		268.22	*	3.295E-01	2.366E-01	3.689E-01	4.426E-02	0.893
I-135		546.56		-3.493E+18	2.366E-01	Half-Life	too short	
	+	836.80		1.530E+19	2.366E-01	Half-Life	too short	
		1038.76		1.121E+18	2.366E-01	Half-Life	too short	
		1131.51		-6.209E+18	2.366E-01	Half-Life	too short	
		1260.41	*	-2.675E+18	2.366E-01	Half-Life	too short	
		1457.56		5.109E+20	2.366E-01	Half-Life	too short	
		1678.03		-1.564E+18	2.366E-01	Half-Life	too short	
		1791.20		1.416E+18	2.366E-01	Half-Life	too short	
CS-136		153.25		1.068E+00	1.702E+00	2.808E+00	3.305E-01	0.380
		176.60		-2.850E-01	9.548E-01	1.511E+00	1.735E-01	-0.189
		273.65		-3.077E-01	1.698E+00	1.616E+00	1.851E-01	-0.190
		340.55		1.319E+00	3.737E-01	6.167E-01	6.233E-02	2.139

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		818.51		4.209E-02	1.192E-01	2.043E-01	1.843E-02	0.206
		1048.07	*	2.350E-01	2.152E-01	3.834E-01	3.550E-02	0.613
		1235.36		4.933E-01	1.211E+00	2.019E+00	2.391E-01	0.244
CE-139		165.86	*	1.186E-02	4.089E-02	6.656E-02	7.105E-03	0.178
BA-140		162.66		-1.805E-01	1.675E+00	2.685E+00	2.971E-01	-0.067
		304.85		1.913E+00	2.997E+00	4.452E+00	1.330E+00	0.430
		423.72		-4.898E-01	3.668E+00	5.956E+00	1.958E+00	-0.082
		537.26	*	1.101E-02	4.729E-01	7.680E-01	2.605E-01	0.014
LA-140	+	328.76		8.591E-01	9.017E-01	1.069E+00	1.121E-01	0.803
		487.02		1.949E-01	2.702E-01	4.607E-01	4.224E-02	0.423
		815.77		2.834E-01	5.339E-01	9.291E-01	9.259E-02	0.305
		1596.21	*	-9.481E-02	1.582E-01	2.373E-01	2.224E-02	-0.400
CE-141		145.44	*	3.360E-02	9.981E-02	1.614E-01	1.668E-02	0.208
CE-143		57.36		-1.589E-01	9.981E-02	Half-Life	too short	
		293.27	*	6.747E-02	9.981E-02	Half-Life	too short	
		664.57		8.515E-02	9.981E-02	Half-Life	too short	
		721.93		2.205E-02	9.981E-02	Half-Life	too short	
CE-144		80.12		2.387E+00	4.039E+00	5.973E+00	7.020E-01	0.400
		133.52	*	1.062E-01	2.650E-01	4.354E-01	7.026E-02	0.244
PM-144		476.78		4.644E-03	8.329E-02	1.363E-01	1.278E-02	0.034
		618.01		6.757E-04	3.830E-02	6.171E-02	5.350E-03	0.011
		696.49	*	-2.064E-02	4.082E-02	6.565E-02	5.526E-03	-0.314
PR-144		696.51	*	-2.368E+00	3.127E+00	4.927E+00	4.144E-01	-0.481
		1489.16		5.235E+00	1.508E+01	2.632E+01	2.521E+00	0.199
PM-146		453.88	*	3.829E-02	5.083E-02	8.708E-02	9.209E-03	0.440
		633.25		-1.698E-01	1.744E+00	2.778E+00	1.060E+00	-0.061
		735.93		1.532E-01	1.899E-01	3.090E-01	8.658E-02	0.496
		747.24		-4.063E-03	1.168E-01	1.943E-01	2.840E-02	-0.021
ND-147	+	91.11		1.288E+00	6.618E-01	1.249E+00	1.547E-01	1.030
		319.41		5.745E+00	7.135E+00	1.229E+01	1.259E+00	0.467
		531.02	*	-1.774E-01	1.118E+00	1.791E+00	2.679E-01	-0.099
PM-149		285.90	*	7.313E-04	1.118E+00	Half-Life	too short	
EU-152		121.78		7.955E-02	9.490E-02	1.587E-01	1.775E-02	0.501
		244.70		6.411E-01	4.741E-01	7.409E-01	8.167E-02	0.865
		344.28	*	-1.813E-02	1.507E-01	2.019E-01	2.055E-02	-0.090
		778.90		8.811E-02	3.079E-01	4.896E-01	4.320E-02	0.180
		964.08		3.365E-01	4.169E-01	6.398E-01	5.885E-02	0.526
		1085.87		-2.245E-01	4.758E-01	7.391E-01	6.436E-02	-0.304
		1112.07		-7.736E-02	4.433E-01	6.313E-01	5.402E-02	-0.123
		1408.01		-9.770E-03	2.358E-01	3.917E-01	3.774E-02	-0.025
GD-153		69.67		2.132E+00	3.208E+00	4.782E+00	5.458E-01	0.446
		97.43	*	9.788E-02	1.280E-01	1.894E-01	2.091E-02	0.517
		103.18		-1.025E-01	1.488E-01	2.357E-01	2.492E-02	-0.435
EU-154		123.07		4.850E-02	6.811E-02	1.133E-01	1.414E-02	0.428
		723.31		1.630E-01	2.241E-01	3.478E-01	3.280E-02	0.469
		873.19		1.116E-01	3.289E-01	5.601E-01	6.914E-02	0.199
		996.26		-1.740E-03	4.459E-01	7.314E-01	1.295E-01	-0.002
		1004.73		-1.863E-01	2.529E-01	3.824E-01	4.579E-02	-0.487
		1274.44	*	9.814E-02	1.531E-01	2.635E-01	3.090E-02	0.373

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	+	86.55		3.236E-01	1.661E-01	2.527E-01	3.117E-02	1.281
		105.31	*	2.319E-02	1.355E-01	2.225E-01	2.344E-02	0.104
TB-160	+	86.79		9.235E-01	4.739E-01	7.142E-01	8.781E-02	1.293
		197.04		-3.504E-01	7.784E-01	1.217E+00	1.327E-01	-0.288
		215.65		3.345E-02	1.056E+00	1.685E+00	1.854E-01	0.020
		298.57		1.739E-01	2.779E-01	2.901E-01	3.069E-02	0.600
		879.36	*	-4.049E-02	1.741E-01	2.814E-01	2.604E-02	-0.144
		962.29		9.751E-01	8.327E-01	1.305E+00	1.201E-01	0.747
		966.15		1.238E+00	3.836E-01	6.695E-01	6.154E-02	1.849
		1177.93		-9.966E-02	4.684E-01	7.447E-01	6.094E-02	-0.134
		1271.85		8.420E-02	9.467E-01	1.545E+00	1.398E-01	0.055
HO-166M		80.57		-2.867E-01	4.368E-01	6.082E-01	7.167E-02	-0.471
		184.41		1.823E-01	6.009E-02	9.394E-02	1.016E-02	1.941
		280.46		-4.576E-02	1.211E-01	1.708E-01	1.844E-02	-0.268
		410.95		2.296E-01	3.259E-01	5.554E-01	4.714E-02	0.413
		711.68	*	5.141E-02	6.867E-02	1.212E-01	1.029E-02	0.424
		752.31		-1.748E-01	3.231E-01	5.141E-01	4.471E-02	-0.340
		810.29		-5.465E-02	6.917E-02	1.028E-01	9.217E-03	-0.532
TA-182		67.75		-3.004E-01	2.159E-01	3.194E-01	3.645E-02	-0.941
		100.11		-4.340E-02	2.506E-01	4.035E-01	4.355E-02	-0.108
		152.43		-8.437E-02	4.864E-01	7.791E-01	8.057E-02	-0.108
		222.11		-1.345E-01	4.835E-01	8.047E-01	8.868E-02	-0.167
	+	1121.30		5.969E-01	3.141E-01	4.669E-01	3.968E-02	1.278
		1189.05		5.816E-02	4.244E-01	6.972E-01	5.776E-02	0.083
		1221.41	*	1.563E-01	2.503E-01	4.280E-01	3.674E-02	0.365
		1231.02		-2.385E-01	6.824E-01	1.073E+00	9.302E-02	-0.222
IR-192	+	295.96		1.386E+00	3.017E-01	4.042E-01	4.312E-02	3.429
		308.46		-5.222E-02	1.416E-01	2.245E-01	2.350E-02	-0.233
		316.51	*	-4.360E-02	5.045E-02	7.976E-02	8.224E-03	-0.547
		468.07		1.540E-02	9.992E-02	1.432E-01	1.324E-02	0.108
BI-207		72.81		5.430E-01	3.285E-01	5.007E-01	5.735E-02	1.084
	+	74.97		6.588E-01	2.849E-01	3.478E-01	4.003E-02	1.894
		569.70		-2.704E-02	3.841E-02	5.732E-02	4.910E-03	-0.472
		1063.66	*	-2.223E-02	6.846E-02	1.085E-01	9.570E-03	-0.205
		1770.23		-2.404E-01	6.954E-01	8.855E-01	7.740E-02	-0.271
PB-210		46.54	*	-2.766E-01	1.277E+01	2.107E+01	2.594E+00	-0.013
PB-211		404.85	*	-1.940E-01	9.756E-01	1.578E+00	7.630E-01	-0.123
		427.09		4.544E-01	1.859E+00	3.077E+00	1.423E+00	0.148
		832.01		-1.308E-01	1.546E+00	2.182E+00	1.133E+00	-0.060
BI-212	+	727.33	*	2.473E+00	1.043E+00	1.390E+00	1.727E-01	1.779
		785.37		3.630E+00	3.762E+00	6.696E+00	5.928E-01	0.542
		1620.50		-1.705E+00	2.974E+00	4.480E+00	4.170E-01	-0.381
RN-219	+	271.23		7.232E-01	5.352E-01	5.959E-01	7.282E-02	1.214
		401.81	*	-1.694E-01	5.230E-01	8.419E-01	1.244E-01	-0.201
RA-223		81.07		-4.395E-01	3.489E-01	4.669E-01	5.516E-02	-0.941
		83.79		8.293E-02	2.679E-01	2.852E-01	3.429E-02	0.291
		94.87		1.829E+00	7.481E-01	1.148E+00	1.300E-01	1.593
		144.24		4.283E-01	9.057E-01	1.472E+00	1.625E-01	0.291
		154.21		2.368E-01	5.155E-01	8.456E-01	9.366E-02	0.280

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227	+	269.46		5.619E-01	4.148E-01	4.608E-01	5.084E-02	1.220
		323.87	*	-5.471E-01	9.460E-01	1.294E+00	2.348E-01	-0.423
	+	338.28		6.720E+00	1.991E+00	2.975E+00	3.863E-01	2.259
		79.69		3.783E+00	2.148E+00	3.165E+00	6.008E-01	1.195
		235.96		9.623E-01	2.739E-01	4.252E-01	5.283E-02	2.263
		256.23	*	1.834E-01	3.244E-01	5.554E-01	7.686E-02	0.330
TH-227	+	299.98		1.968E+00	1.588E+00	1.989E+00	2.804E-01	0.989
		304.50		1.038E+00	2.289E+00	3.408E+00	5.991E-01	0.305
		334.37		-8.901E-01	3.182E+00	3.472E+00	5.679E-01	-0.256
		79.80		3.064E+00	2.750E+00	4.033E+00	9.353E-01	0.760
		235.96		9.623E-01	2.719E-01	4.252E-01	5.078E-02	2.263
		256.23	*	1.834E-01	3.246E-01	5.554E-01	8.448E-02	0.330
TH-229	+	299.98		1.968E+00	1.588E+00	1.989E+00	2.804E-01	0.989
		304.50		1.038E+00	2.289E+00	3.408E+00	5.991E-01	0.305
		334.37		-8.901E-01	3.182E+00	3.472E+00	5.679E-01	-0.256
		85.43		7.861E-01	3.349E-01	5.120E-01	6.229E-02	1.535
	+	88.47		4.101E-01	2.105E-01	3.259E-01	4.017E-02	1.258
		193.51	*	-8.901E-02	7.108E-01	1.090E+00	1.186E-01	-0.082
PA-231		210.85		2.148E+00	1.344E+00	2.094E+00	2.299E-01	1.026
		283.69	*	3.006E+00	2.024E+00	3.163E+00	5.045E-01	0.950
TH-231	+	301.36		1.264E+00	1.019E+00	1.285E+00	1.745E-01	0.984
		81.07		-4.395E-01	3.489E-01	4.669E-01	5.516E-02	-0.941
PA-233		83.79		8.293E-02	2.679E-01	2.852E-01	3.429E-02	0.291
		94.87		1.829E+00	7.481E-01	1.148E+00	1.300E-01	1.593
		144.24		4.283E-01	9.057E-01	1.472E+00	1.625E-01	0.291
		154.21		2.368E-01	5.155E-01	8.456E-01	9.366E-02	0.280
	+	269.46		5.619E-01	4.148E-01	4.608E-01	5.084E-02	1.220
		323.87	*	-5.471E-01	9.460E-01	1.294E+00	2.348E-01	-0.423
PA-234	+	338.28		6.720E+00	1.991E+00	2.975E+00	3.863E-01	2.259
	+	300.13		8.904E-01	7.217E-01	9.005E-01	1.444E-01	0.989
		311.90	*	2.572E-02	8.458E-02	1.426E-01	1.509E-02	0.180
PA-234M		340.48		3.890E+00	1.374E+00	1.756E+00	4.306E-01	2.215
		94.67		8.927E-01	2.941E-01	4.348E-01	6.275E-02	2.053
		98.44		1.928E-01	1.727E-01	2.064E-01	1.160E-01	0.934
		111.00		-2.759E-02	2.458E-01	3.988E-01	5.294E-02	-0.069
		131.20		5.711E-02	1.413E-01	2.325E-01	2.334E-02	0.246
		569.50		-2.936E-01	3.429E-01	5.047E-01	4.323E-02	-0.582
TH-234		733.00		4.936E-01	4.790E-01	7.556E-01	1.677E-01	0.653
		880.51		-6.725E-02	3.204E-01	5.187E-01	4.803E-02	-0.130
		883.24		-3.764E-02	3.348E-01	5.458E-01	3.673E-01	-0.069
		926.50		6.709E-02	2.022E-01	3.365E-01	8.585E-02	0.199
		946.00	*	-1.021E-01	3.486E-01	5.563E-01	1.060E-01	-0.184
		949.00		-6.392E-02	5.026E-01	8.165E-01	7.540E-02	-0.078
U-238		766.42		3.016E+01	2.182E+01	2.664E+01	1.352E+01	1.132
		1001.03	*	-1.589E+00	5.751E+00	9.058E+00	9.393E-01	-0.175
U-238	+	63.29	*	2.685E+00	2.669E+00	4.366E+00	8.657E-01	0.615
	+	92.59	*	4.505E+00	1.582E+00	1.902E+00	4.455E-01	2.368
U-238	+	63.29	*	2.685E+00	2.669E+00	4.366E+00	8.657E-01	0.615
	+	92.59	*	4.505E+00	1.290E+00	1.902E+00	2.211E-01	2.368

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.53		-1.275E-02	2.292E-01	3.584E-01	3.886E-02	-0.036
		103.37		-2.701E-02	1.305E-01	2.114E-01	2.232E-02	-0.128
		106.12		-7.974E-02	1.110E-01	1.756E-01	1.828E-02	-0.454
		117.23	*	-4.681E-01	5.255E-01	8.209E-01	8.285E-02	-0.570
		228.18		1.000E-02	2.823E-01	4.754E-01	5.245E-02	0.021
	+	277.60		4.749E-01	3.573E-01	3.973E-01	4.302E-02	1.195
AM-241		59.54	*	-1.353E-01	3.198E-01	5.206E-01	6.111E-02	-0.260
CM-247	+	278.00		2.017E+00	1.517E+00	1.666E+00	1.803E-01	1.211
		287.50		-1.832E+00	1.648E+00	2.401E+00	2.574E-01	-0.763
		402.40	*	-3.735E-03	4.814E-02	7.875E-02	6.660E-03	-0.047
CF-249		252.80		2.758E-01	1.204E+00	2.037E+00	2.240E-01	0.135
		333.37		-1.091E-01	3.957E-01	3.644E-01	3.631E-02	-0.299
		388.16	*	1.097E-02	5.204E-02	8.670E-02	7.391E-03	0.127
CF-251		177.52	*	-3.886E-02	1.655E-01	2.627E-01	2.826E-02	-0.148
		227.38		1.123E-01	4.625E-01	7.851E-01	8.660E-02	0.143
		285.41		3.633E+00	2.742E+00	4.725E+00	5.077E-01	0.769
ANH-511		511.00	*	9.807E-02	5.691E-02	1.065E-01	9.202E-03	0.921

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]G248250002      *
* Acquisition date   : 19-MAR-2010 13:10:57 Detector SN#      :              *
* Detector ID        : GAM15                      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        : 24-FEB-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID          : G248250002           Analyst initials: MXR1          *
* Batch Number       : 959281              Sample Quantity : 1.2787E+02 GRAM  *
* Recovery           : 1.00000             Carrier Weight  : 0.00000        *
*****
*                                     QC DATA                               *
*
* Standard Weight    : 0.00000              *
* CALIB. DATE/TIME   : 3-FEB-2010 11:04:32 MS Isotope      :              *
* MSD DPM             : 0.000              MSD Isotope      :              *
* LCS DPM             : 0.000              LCS Isotope       :              *
* LCSD DPM            : 0.000              LCSD Isotope      :              *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.768E+01	3.271E+00	6.459E-01	0.000E+00
MN-54	4.783E-02	5.306E-02	8.162E-02	0.000E+00
CD-109	2.754E+00	1.385E+00	1.838E+00	0.000E+00
SN-126	2.660E-01	1.338E-01	1.789E-01	0.000E+00
BA-137M	1.354E-01	6.773E-02	7.233E-02	0.000E+00
CS-137	1.431E-01	7.155E-02	7.641E-02	0.000E+00
HG-203	1.185E-01	8.744E-02	8.886E-02	0.000E+00
TL-208	4.902E-01	9.473E-02	7.191E-02	0.000E+00
BI-211	4.611E+00	7.247E-01	4.057E-01	0.000E+00
PB-212	1.840E+00	2.556E-01	1.235E-01	0.000E+00
BI-214	1.342E+00	2.242E-01	1.396E-01	0.000E+00
PB-214	1.674E+00	2.781E-01	1.475E-01	0.000E+00
RA-224	5.527E+00	1.762E+00	1.324E+00	0.000E+00
RA-226	1.342E+00	2.242E-01	1.396E-01	0.000E+00
AC-228	1.980E+00	4.221E-01	2.430E-01	0.000E+00
RA-228	1.980E+00	4.221E-01	2.430E-01	0.000E+00
TH-228	1.840E+00	2.556E-01	1.235E-01	0.000E+00
TH-232	1.980E+00	4.221E-01	2.430E-01	0.000E+00
U-235	1.501E-01	2.658E-01	4.564E-01	0.000E+00
NP-237	7.938E-01	4.313E-01	5.453E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	1.536E-01	4.375E-01	7.577E-01	0.000E+00 NOT IDENT.
NA-22	1.687E-02	5.488E-02	9.348E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	6.334E+09	0.000E+00	0.000E+00 SHORT HLIF
SC-46	1.580E-02	5.354E-02	8.694E-02	0.000E+00 FAIL ABUN
V-48	6.522E-02	1.071E-01	1.914E-01	0.000E+00 NOT IDENT.
CR-51	4.377E-01	5.884E-01	1.030E+00	0.000E+00 NOT IDENT.
CO-56	-2.799E-02	5.076E-02	8.235E-02	0.000E+00 NOT IDENT.

CO-57	3.299E-02	3.282E-02	5.844E-02	0.000E+00	NOT IDENT.
CO-58	-4.317E-02	4.832E-02	7.311E-02	0.000E+00	NOT IDENT.
FE-59	-9.672E-03	1.257E-01	2.087E-01	0.000E+00	NOT IDENT.
CO-60	1.281E-02	4.723E-02	8.033E-02	0.000E+00	NOT IDENT.
ZN-65	1.157E-02	1.208E-01	1.751E-01	0.000E+00	NOT IDENT.
SE-75	-3.051E-02	6.688E-02	9.882E-02	0.000E+00	NOT IDENT.
SR-85	-1.731E-01	6.990E-02	1.002E-01	0.000E+00	NOT IDENT.
Y-88	3.212E-02	4.831E-02	8.879E-02	0.000E+00	NOT IDENT.
Y-91	5.386E+00	2.946E+01	4.968E+01	0.000E+00	NOT IDENT.
NB-94	3.582E-02	3.810E-02	6.998E-02	0.000E+00	NOT IDENT.
NB-95	9.080E-02	6.221E-02	1.049E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.120E-01	3.495E-01	0.000E+00	NOT IDENT.
ZR-95	1.768E-02	9.048E-02	1.555E-01	0.000E+00	NOT IDENT.
MO-99	0.000E+00	1.113E+02	0.000E+00	0.000E+00	SHORT HLIF
TC-99M	0.000E+00	1.630E+26	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.771E-03	5.576E-02	9.394E-02	0.000E+00	FAIL ABUN
RH-106	1.849E-02	3.574E-01	5.971E-01	0.000E+00	NOT IDENT.
RU-106	1.849E-02	3.574E-01	5.971E-01	0.000E+00	NOT IDENT.
AG-108M	1.619E-02	3.522E-02	6.173E-02	0.000E+00	NOT IDENT.
AG-110M	5.693E-03	4.690E-02	7.112E-02	0.000E+00	NOT IDENT.
SN-113	1.079E-02	6.187E-02	1.070E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	1.612E+02	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	3.515E-02	1.098E-01	1.890E-01	0.000E+00	NOT IDENT.
TE-123M	1.513E-02	3.972E-02	6.850E-02	0.000E+00	NOT IDENT.
SB-124	-5.732E-02	8.340E-02	1.178E-01	0.000E+00	NOT IDENT.
SB-125	2.739E-02	1.093E-01	1.892E-01	0.000E+00	FAIL ABUN
TE-125M	6.474E+00	1.375E+01	2.418E+01	0.000E+00	NOT IDENT.
I-126	6.766E-02	4.456E-01	6.771E-01	0.000E+00	NOT IDENT.
SB-126	2.164E-01	2.739E-01	4.436E-01	0.000E+00	NOT IDENT.
SB-127	-2.247E-01	6.302E+00	1.087E+01	0.000E+00	NOT IDENT.
I-131	-1.131E-01	2.644E-01	4.424E-01	0.000E+00	NOT IDENT.
TE-132	2.161E-01	5.207E+00	9.209E+00	0.000E+00	NOT IDENT.
BA-133	4.116E-02	5.678E-02	8.952E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.981E+06	0.000E+00	0.000E+00	SHORT HLIF
CS-134	9.335E-02	5.779E-02	1.091E-01	0.000E+00	NOT IDENT.
CS-135	3.295E-01	2.319E-01	3.786E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.405E+24	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.350E-01	2.109E-01	3.854E-01	0.000E+00	NOT IDENT.
CE-139	1.186E-02	4.008E-02	6.881E-02	0.000E+00	NOT IDENT.
BA-140	1.101E-02	4.635E-01	7.800E-01	0.000E+00	NOT IDENT.
LA-140	-9.481E-02	1.550E-01	2.369E-01	0.000E+00	FAIL ABUN
CE-141	3.360E-02	9.782E-02	1.672E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.052E+04	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.062E-01	2.597E-01	4.515E-01	0.000E+00	NOT IDENT.
PM-144	-2.064E-02	4.000E-02	6.641E-02	0.000E+00	NOT IDENT.
PR-144	-2.368E+00	3.065E+00	4.985E+00	0.000E+00	NOT IDENT.
PM-146	3.829E-02	4.982E-02	8.867E-02	0.000E+00	NOT IDENT.
ND-147	-1.774E-01	1.096E+00	1.820E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	1.329E+03	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-1.813E-02	1.477E-01	2.064E-01	0.000E+00	NOT IDENT.
GD-153	9.788E-02	1.254E-01	1.973E-01	0.000E+00	NOT IDENT.
EU-154	9.814E-02	1.501E-01	2.640E-01	0.000E+00	NOT IDENT.
EU-155	2.319E-02	1.327E-01	2.316E-01	0.000E+00	FAIL ABUN
TB-160	-4.049E-02	1.706E-01	2.836E-01	0.000E+00	FAIL ABUN
HO-166M	5.141E-02	6.730E-02	1.226E-01	0.000E+00	NOT IDENT.
TA-182	1.563E-01	2.453E-01	4.292E-01	0.000E+00	FAIL ABUN
IR-192	-4.360E-02	4.944E-02	8.166E-02	0.000E+00	FAIL ABUN
BI-207	-2.223E-02	6.709E-02	1.090E-01	0.000E+00	FAIL ABUN
PB-210	-2.766E-01	1.252E+01	2.218E+01	0.000E+00	NOT IDENT.
PB-211	-1.940E-01	9.561E-01	1.609E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.023E+00	1.405E+00	0.000E+00	FAIL ABUN
RN-219	-1.694E-01	5.125E-01	8.589E-01	0.000E+00	FAIL ABUN
RA-223	-5.471E-01	9.271E-01	1.324E+00	0.000E+00	FAIL ABUN
AC-227	1.834E-01	3.179E-01	5.704E-01	0.000E+00	FAIL ABUN
TH-227	1.834E-01	3.181E-01	5.704E-01	0.000E+00	FAIL ABUN
TH-229	-8.901E-02	6.966E-01	1.124E+00	0.000E+00	FAIL ABUN
PA-231	3.006E+00	1.983E+00	3.244E+00	0.000E+00	FAIL ABUN
TH-231	-5.471E-01	9.271E-01	1.324E+00	0.000E+00	FAIL ABUN
PA-233	2.572E-02	8.289E-02	1.461E-01	0.000E+00	FAIL ABUN
PA-234	-1.021E-01	3.416E-01	5.601E-01	0.000E+00	NOT IDENT.
PA-234M	-1.589E+00	5.636E+00	9.112E+00	0.000E+00	NOT IDENT.
TH-234	2.685E+00	2.616E+00	4.576E+00	0.000E+00	FAIL ABUN
U-238	2.685E+00	2.616E+00	4.576E+00	0.000E+00	FAIL ABUN
NP-239	-4.681E-01	5.150E-01	8.529E-01	0.000E+00	FAIL ABUN
AM-241	-1.353E-01	3.134E-01	5.462E-01	0.000E+00	NOT IDENT.
CM-247	-3.735E-03	4.717E-02	8.034E-02	0.000E+00	FAIL ABUN
CF-249	1.097E-02	5.100E-02	8.849E-02	0.000E+00	NOT IDENT.
CF-251	-3.886E-02	1.622E-01	2.713E-01	0.000E+00	NOT IDENT.

ANH-511

9.807E-02

5.577E-02

1.082E-01

0.000E+00 NOT IDENT.

```

*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248250002.CNF;1
Sample date        : 24-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 13:10:57
Sample ID          : G248250002 Sample quantity : 1.27870E+02 GRAM
Detector name      : GAM15 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           : 959281 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	1460.82	971	10.66*	9.663E-01	2.768E+01	2.768E+01	12.06
MN-54	834.85	25	99.98*	1.618E+00	4.544E-02	4.783E-02	113.19
CD-109	88.03	150	3.70*	4.462E+00	2.660E+00	2.754E+00	51.32
SN-126	64.28	-----	9.60	1.941E+00	-----	Line Not Found	-----
	86.94	150	8.90	4.462E+00	1.106E+00	1.106E+00	65.34
	87.57	150	37.00*	4.462E+00	2.660E-01	2.660E-01	51.32
BA-137M	661.66	82	89.90*	1.982E+00	1.352E-01	1.354E-01	51.02
CS-137	661.66	82	85.10*	1.982E+00	1.429E-01	1.431E-01	51.03
HG-203	70.83	-----	3.69	2.755E+00	-----	Line Not Found	-----
	72.87	-----	6.19	3.001E+00	-----	Line Not Found	-----
	279.20	86	81.56*	3.699E+00	8.407E-02	1.185E-01	75.27
TL-208	277.37	86	6.60	3.699E+00	1.039E+00	1.039E+00	75.79
	583.19	311	85.00*	2.190E+00	4.902E-01	4.902E-01	19.72
	860.56	50	12.50	1.576E+00	7.390E-01	7.390E-01	76.31
BI-211	72.87	-----	1.23	3.001E+00	-----	Line Not Found	-----
	351.06	638	12.92*	3.142E+00	4.611E+00	4.611E+00	16.04
PB-212	74.82	260	10.28	3.246E+00	2.285E+00	2.285E+00	44.33
	77.11	464	17.10	3.508E+00	2.273E+00	2.273E+00	23.50
	238.63	1124	43.60*	4.115E+00	1.840E+00	1.840E+00	14.17
	300.09	70	3.30	3.502E+00	1.789E+00	1.789E+00	80.38
BI-214	609.32	440	45.49*	2.117E+00	1.342E+00	1.342E+00	17.05
	1120.29	76	14.92	1.226E+00	1.214E+00	1.214E+00	53.05
	1764.49	81	15.30	8.554E-01	1.815E+00	1.815E+00	30.16
PB-214	74.82	260	5.80	3.246E+00	4.050E+00	4.050E+00	43.97
	77.11	464	9.70	3.508E+00	4.007E+00	4.007E+00	24.91
	242.00	315	7.25	4.079E+00	3.126E+00	3.126E+00	33.05
	295.22	387	18.42	3.547E+00	1.740E+00	1.740E+00	22.70
	351.93	638	35.60*	3.142E+00	1.674E+00	1.674E+00	16.96
RA-224	240.99	315	4.10*	4.079E+00	5.527E+00	5.527E+00	32.54
RA-226	609.32	440	45.49*	2.117E+00	1.342E+00	1.342E+00	17.05
	1120.29	76	14.92	1.226E+00	1.214E+00	1.214E+00	53.05
	1764.49	81	15.30	8.554E-01	1.815E+00	1.815E+00	30.16

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
AC-228	338.32	210	11.27	3.227E+00	1.694E+00	1.694E+00	49.72
	911.20	260	25.80*	1.494E+00	1.980E+00	1.980E+00	21.76
	968.97	149	15.80	1.409E+00	1.963E+00	1.963E+00	40.27
RA-228	338.32	210	11.27	3.227E+00	1.694E+00	1.694E+00	49.72
	911.20	260	25.80*	1.494E+00	1.980E+00	1.980E+00	21.76
	968.97	149	15.80	1.409E+00	1.963E+00	1.963E+00	40.27
TH-228	74.82	260	10.28	3.246E+00	2.285E+00	2.285E+00	43.26
	77.11	464	17.10	3.508E+00	2.273E+00	2.273E+00	23.50
	238.63	1124	43.60*	4.115E+00	1.840E+00	1.840E+00	14.17
TH-232	300.09	70	3.30	3.502E+00	1.789E+00	1.789E+00	100.49
	338.32	210	11.27	3.227E+00	1.694E+00	1.694E+00	28.39
	911.20	260	25.80*	1.494E+00	1.980E+00	1.980E+00	21.76
U-235	968.97	149	15.80	1.409E+00	1.963E+00	1.963E+00	40.27
	89.96	133	3.47	4.657E+00	2.410E+00	2.410E+00	56.22
	93.35	314	5.60	4.832E+00	3.403E+00	3.403E+00	35.77
	143.76	-----	10.96*	5.506E+00	-----	Line Not Found	-----
	163.33	-----	5.08	5.224E+00	-----	Line Not Found	-----
	185.72	267	57.20	4.856E+00	2.818E-01	2.818E-01	35.35
	205.31	-----	5.01	4.560E+00	-----	Line Not Found	-----
NP-237	86.48	150	12.40*	4.462E+00	7.938E-01	7.938E-01	55.44
	95.86	-----	2.68	5.004E+00	-----	Line Not Found	-----

Flag: "*" = Keyline

Total number of lines in spectrum 30
Number of unidentified lines 3
Number of lines tentatively identified by NID 27 90.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	2.768E+01	2.768E+01	0.334E+01	12.06	
MN-54	312.05D	1.05	4.544E-02	4.783E-02	5.414E-02	113.19	
CD-109	461.40D	1.04	2.660E+00	2.754E+00	1.413E+00	51.32	
SN-126	2.30E+05Y	1.00	2.660E-01	2.660E-01	1.365E-01	51.32	
BA-137M	30.08Y	1.00	1.352E-01	1.354E-01	0.691E-01	51.02	
CS-137	30.08Y	1.00	1.429E-01	1.431E-01	0.730E-01	51.03	
HG-203	46.59D	1.41	8.407E-02	1.185E-01	0.892E-01	75.27	
TL-208	1.41E+10Y	1.00	4.902E-01	4.902E-01	0.967E-01	19.72	
BI-211	7.04E+08Y	1.00	4.611E+00	4.611E+00	0.740E+00	16.04	
PB-212	1.41E+10Y	1.00	1.840E+00	1.840E+00	0.261E+00	14.17	
BI-214	1600.00Y	1.00	1.342E+00	1.342E+00	0.229E+00	17.05	
PB-214	1600.00Y	1.00	1.674E+00	1.674E+00	0.284E+00	16.96	
RA-224	1.41E+10Y	1.00	5.527E+00	5.527E+00	1.798E+00	32.54	
RA-226	1600.00Y	1.00	1.342E+00	1.342E+00	0.229E+00	17.05	
AC-228	1.41E+10Y	1.00	1.980E+00	1.980E+00	0.431E+00	21.76	
RA-228	1.41E+10Y	1.00	1.980E+00	1.980E+00	0.431E+00	21.76	
TH-228	1.41E+10Y	1.00	1.840E+00	1.840E+00	0.261E+00	14.17	
TH-232	1.41E+10Y	1.00	1.980E+00	1.980E+00	0.431E+00	21.76	
U-235	7.04E+08Y	1.00	2.818E-01	2.818E-01	0.996E-01	35.35	K
NP-237	2.14E+06Y	1.00	7.938E-01	7.938E-01	4.401E-01	55.44	

Total Activity : 5.670E+01 5.683E+01

Grand Total Activity : 5.670E+01 5.683E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G248250002

Page : 4
Acquisition date : 19-MAR-2010 13:10:57

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.33	119	302	1.44	417.57	413	10	1.65E-02	58.4	4.50E+00	
0	270.75	100	288	1.33	540.41	534	13	1.39E-02	73.0	3.77E+00	T
0	328.75	56	197	1.19	656.39	649	12	7.74E-03	****	3.29E+00	T
0	462.92	127	86	1.17	924.75	918	13	1.76E-02	35.1	2.60E+00	T
0	727.39	103	62	1.73	1453.71	1447	15	1.43E-02	40.3	1.83E+00	T
0	769.33	90	90	1.87	1537.61	1529	19	1.25E-02	54.7	1.74E+00	
0	1376.64	35	12	3.54	2752.49	2746	13	4.81E-03	54.6	1.01E+00	

Flags: "T" = Tentatively associated

```

*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
*                               DETECTOR DATA                               *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248250002.CNF;1
* Acquisition date   : 19-MAR-2010 13:10:57   Detector SN#      :
* Detector ID        : GAM15                   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        : 24-FEB-2010 12:00:00   Nuclide Library : SOLID
* Sample ID          : G248250002             Analyst initials: MXR1
* Batch Number       : 959281                 Sample Quantity : 1.27870E+02 GRAM
*****
*                               QC DATA                               *
*
* CALIB. DATE/TIME   : 3-FEB-2010 11:04:32.11MS 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	2.768E+01	3.338E+00	6.459E-01	6.347E-02	42.856
MN-54	4.783E-02	5.414E-02	8.091E-02	7.342E-03	0.591
CD-109	2.754E+00	1.413E+00	1.762E+00	2.187E-01	1.563
SN-126	2.660E-01	1.365E-01	1.715E-01	2.122E-02	1.551
BA-137M	1.354E-01	6.911E-02	7.145E-02	5.874E-03	1.896
CS-137	1.431E-01	7.301E-02	7.548E-02	6.218E-03	1.896
HG-203	1.185E-01	8.922E-02	8.663E-02	9.520E-03	1.368
TL-208	4.902E-01	9.667E-02	7.090E-02	6.484E-03	6.914
BI-211	4.611E+00	7.395E-01	3.969E-01	3.953E-02	11.619
PB-212	1.840E+00	2.608E-01	1.202E-01	1.436E-02	15.313
BI-214	1.342E+00	2.288E-01	1.377E-01	1.372E-02	9.750
PB-214	1.674E+00	2.838E-01	1.443E-01	1.640E-02	11.596
RA-224	5.527E+00	1.798E+00	1.288E+00	1.420E-01	4.293
RA-226	1.342E+00	2.288E-01	1.377E-01	1.372E-02	9.750
AC-228	1.980E+00	4.308E-01	2.412E-01	2.921E-02	8.209
RA-228	1.980E+00	4.308E-01	2.412E-01	2.921E-02	8.209
TH-228	1.840E+00	2.608E-01	1.202E-01	1.436E-02	15.313
TH-232	1.980E+00	4.308E-01	2.412E-01	2.921E-02	8.209

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	2.818E-01	9.962E-02	4.406E-01	7.839E-02	0.640
NP-237	7.938E-01	4.401E-01	5.225E-01	1.269E-01	1.519

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.536E-01		4.465E-01	7.447E-01	6.922E-02	0.206
NA-22	1.687E-02		5.600E-02	9.328E-02	8.474E-03	0.181
NA-24	-5.765E+03		3.232E+03	Half-Life	too short	
SC-46	1.580E-02		5.463E-02	8.627E-02	8.017E-03	0.183
V-48	6.522E-02		1.093E-01	1.902E-01	1.739E-02	0.343
CR-51	4.377E-01		6.004E-01	1.007E+00	1.068E-01	0.435
CO-56	-2.799E-02		5.179E-02	8.166E-02	7.451E-03	-0.343
CO-57	3.299E-02		3.349E-02	5.629E-02	5.670E-03	0.586
CO-58	-4.317E-02		4.931E-02	7.244E-02	6.513E-03	-0.596
FE-59	-9.672E-03		1.283E-01	2.078E-01	1.938E-02	-0.047
CO-60	1.281E-02		4.819E-02	8.021E-02	7.711E-03	0.160
ZN-65	1.157E-02		1.233E-01	1.744E-01	1.490E-02	0.066
SE-75	-3.051E-02		6.825E-02	9.626E-02	1.056E-02	-0.317
SR-85	-1.731E-01		7.132E-02	9.861E-02	8.519E-03	-1.755
Y-88	3.212E-02		4.929E-02	8.911E-02	7.505E-03	0.360
Y-91	5.386E+00		3.006E+01	4.953E+01	4.175E+00	0.109
NB-94	3.582E-02		3.888E-02	6.919E-02	5.841E-03	0.518
NB-95	9.080E-02		6.348E-02	1.038E-01	9.099E-03	0.874
NB-95M	4.594E-01		2.163E-01	3.399E-01	4.095E-02	1.351
ZR-95	1.768E-02		9.233E-02	1.539E-01	1.479E-02	0.115
MO-99	-1.267E-04		5.678E-05	Half-Life	too short	
TC-99M	4.524E+18		8.318E+19	Half-Life	too short	
RU-103	-1.771E-03		5.690E-02	9.239E-02	1.292E-02	-0.019
RH-106	1.849E-02		3.647E-01	5.892E-01	7.728E-02	0.031
RU-106	1.849E-02		3.647E-01	5.892E-01	4.951E-02	0.031
AG-108M	1.619E-02		3.594E-02	6.059E-02	5.354E-03	0.267
AG-110M	5.693E-03		4.786E-02	7.024E-02	5.978E-03	0.081
SN-113	1.079E-02		6.313E-02	1.049E-01	9.108E-03	0.103
CD-115	1.098E-04		8.224E-05	Half-Life	too short	
SN-117M	3.515E-02		1.120E-01	1.827E-01	1.915E-02	0.192
TE-123M	1.513E-02		4.053E-02	6.622E-02	6.979E-03	0.228
SB-124	-5.732E-02		8.510E-02	1.181E-01	1.112E-02	-0.485
SB-125	2.739E-02		1.115E-01	1.857E-01	1.616E-02	0.148
TE-125M	6.474E+00		1.403E+01	2.325E+01	2.767E+00	0.278
I-126	6.766E-02		4.547E-01	6.689E-01	5.516E-02	0.101
SB-126	2.164E-01		2.795E-01	4.388E-01	3.745E-02	0.493
SB-127	-2.247E-01		6.430E+00	1.074E+01	1.485E+00	-0.021
I-131	-1.131E-01		2.698E-01	4.331E-01	4.208E-02	-0.261
TE-132	2.161E-01		5.313E+00	8.951E+00	1.697E+00	0.024
BA-133	4.116E-02		5.794E-02	8.760E-02	1.184E-02	0.470
I-133	3.099E+00		2.031E+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
CS-134	9.335E-02		5.897E-02	1.081E-01	9.689E-03	0.864
CS-135	3.295E-01		2.366E-01	3.689E-01	4.426E-02	0.893
I-135	-2.675E+18		2.248E+18	Half-Life	too short	
CS-136	2.350E-01		2.152E-01	3.834E-01	3.550E-02	0.613
CE-139	1.186E-02		4.089E-02	6.656E-02	7.105E-03	0.178
BA-140	1.101E-02		4.729E-01	7.680E-01	2.605E-01	0.014
LA-140	-9.481E-02		1.582E-01	2.373E-01	2.224E-02	-0.400
CE-141	3.360E-02		9.981E-02	1.614E-01	1.668E-02	0.208
CE-143	6.747E-02		1.047E-02	Half-Life	too short	
CE-144	1.062E-01		2.650E-01	4.354E-01	7.026E-02	0.244
PM-144	-2.064E-02		4.082E-02	6.565E-02	5.526E-03	-0.314
PR-144	-2.368E+00		3.127E+00	4.927E+00	4.144E-01	-0.481
PM-146	3.829E-02		5.083E-02	8.708E-02	9.209E-03	0.440
ND-147	-1.774E-01		1.118E+00	1.791E+00	2.679E-01	-0.099
PM-149	7.313E-04		6.783E-04	Half-Life	too short	
EU-152	-1.813E-02		1.507E-01	2.019E-01	2.055E-02	-0.090
GD-153	9.788E-02		1.280E-01	1.894E-01	2.091E-02	0.517
EU-154	9.814E-02		1.531E-01	2.635E-01	3.090E-02	0.373
EU-155	2.319E-02		1.355E-01	2.225E-01	2.344E-02	0.104
TB-160	-4.049E-02		1.741E-01	2.814E-01	2.604E-02	-0.144
HO-166M	5.141E-02		6.867E-02	1.212E-01	1.029E-02	0.424
TA-182	1.563E-01		2.503E-01	4.280E-01	3.674E-02	0.365
IR-192	-4.360E-02		5.045E-02	7.976E-02	8.224E-03	-0.547
BI-207	-2.223E-02		6.846E-02	1.085E-01	9.570E-03	-0.205
PB-210	-2.766E-01		1.277E+01	2.107E+01	2.594E+00	-0.013
PB-211	-1.940E-01		9.756E-01	1.578E+00	7.630E-01	-0.123
BI-212	2.473E+00	+	1.043E+00	1.390E+00	1.727E-01	1.779
RN-219	-1.694E-01		5.230E-01	8.419E-01	1.244E-01	-0.201
RA-223	-5.471E-01		9.460E-01	1.294E+00	2.348E-01	-0.423
AC-227	1.834E-01		3.244E-01	5.554E-01	7.686E-02	0.330
TH-227	1.834E-01		3.246E-01	5.554E-01	8.448E-02	0.330
TH-229	-8.901E-02		7.108E-01	1.090E+00	1.186E-01	-0.082
PA-231	3.006E+00		2.024E+00	3.163E+00	5.045E-01	0.950
TH-231	-5.471E-01		9.460E-01	1.294E+00	2.348E-01	-0.423
PA-233	2.572E-02		8.458E-02	1.426E-01	1.509E-02	0.180
PA-234	-1.021E-01		3.486E-01	5.563E-01	1.060E-01	-0.184
PA-234M	-1.589E+00		5.751E+00	9.058E+00	9.393E-01	-0.175
TH-234	2.685E+00		2.669E+00	4.366E+00	8.657E-01	0.615
U-238	2.685E+00		2.669E+00	4.366E+00	8.657E-01	0.615
NP-239	-4.681E-01		5.255E-01	8.209E-01	8.285E-02	-0.570
AM-241	-1.353E-01		3.198E-01	5.206E-01	6.111E-02	-0.260
CM-247	-3.735E-03		4.814E-02	7.875E-02	6.660E-03	-0.047
CF-249	1.097E-02		5.204E-02	8.670E-02	7.391E-03	0.127
CF-251	-3.886E-02		1.655E-01	2.627E-01	2.826E-02	-0.148
ANH-511	9.807E-02		5.691E-02	1.065E-01	9.202E-03	0.921

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]G248250002          *
* Acquisition date   : 19-MAR-2010 13:10:57 Detector SN# :                  *
* Detector ID        : GAM15 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        : 24-FEB-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID          : G248250002 Analyst initials: MXR1                  *
* Batch Number       : 959281 Sample Quantity : 1.2787E+02 GRAM          *
* Recovery           : 1.00000 Carrier Weight : 0.00000                  *
*****
*                                     QC DATA                               *
*
* CALIB. DATE/TIME   : 3-FEB-2010 11:04:32 MS Isotope :                  *
* MSD DPM             : 0.000 MSD Isotope :                  *
* LCS DPM             : 0.000 LCS Isotope :                  *
* LCSD DPM            : 0.000 LCSD Isotope :                  *
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.768E+01	3.271E+00	3.232E-01	1.669E+00
MN-54	4.783E-02	5.306E-02	4.083E-02	2.707E-02
CD-109	2.754E+00	1.385E+00	9.196E-01	7.067E-01
SN-126	2.660E-01	1.338E-01	8.951E-02	6.826E-02
BA-137M	1.354E-01	6.773E-02	3.619E-02	3.455E-02
CS-137	1.431E-01	7.155E-02	3.823E-02	3.651E-02
HG-203	1.185E-01	8.744E-02	4.446E-02	4.461E-02
TL-208	4.902E-01	9.473E-02	3.598E-02	4.833E-02
BI-211	4.611E+00	7.247E-01	2.030E-01	3.698E-01
PB-212	1.840E+00	2.556E-01	6.181E-02	1.304E-01
BI-214	1.342E+00	2.242E-01	6.983E-02	1.144E-01
PB-214	1.674E+00	2.781E-01	7.380E-02	1.419E-01
RA-224	5.527E+00	1.762E+00	6.622E-01	8.992E-01
RA-226	1.342E+00	2.242E-01	6.983E-02	1.144E-01
AC-228	1.980E+00	4.221E-01	1.216E-01	2.154E-01
RA-228	1.980E+00	4.221E-01	1.216E-01	2.154E-01
TH-228	1.840E+00	2.556E-01	6.181E-02	1.304E-01
TH-232	1.980E+00	4.221E-01	1.216E-01	2.154E-01
U-235	1.501E-01	2.658E-01	2.283E-01	1.356E-01
NP-237	7.938E-01	4.313E-01	2.728E-01	2.200E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.536E-01	4.375E-01	3.791E-01	2.232E-01	NOT IDENT.
NA-22	1.687E-02	5.488E-02	4.677E-02	2.800E-02	NOT IDENT.
NA-24	-5.765E+09	6.334E+09	0.000E+00	3.232E+09	SHORT HLIF
SC-46	1.580E-02	5.354E-02	4.350E-02	2.732E-02	FAIL ABUN
V-48	6.522E-02	1.071E-01	9.576E-02	5.465E-02	NOT IDENT.
CR-51	4.377E-01	5.884E-01	5.155E-01	3.002E-01	NOT IDENT.
CO-56	-2.799E-02	5.076E-02	4.120E-02	2.590E-02	NOT IDENT.

CO-57	3.299E-02	3.282E-02	2.924E-02	1.674E-02	NOT IDENT.
CO-58	-4.317E-02	4.832E-02	3.658E-02	2.465E-02	NOT IDENT.
FE-59	-9.672E-03	1.257E-01	1.044E-01	6.415E-02	NOT IDENT.
CO-60	1.281E-02	4.723E-02	4.019E-02	2.410E-02	NOT IDENT.
ZN-65	1.157E-02	1.208E-01	8.760E-02	6.163E-02	NOT IDENT.
SE-75	-3.051E-02	6.688E-02	4.944E-02	3.412E-02	NOT IDENT.
SR-85	-1.731E-01	6.990E-02	5.014E-02	3.566E-02	NOT IDENT.
Y-88	3.212E-02	4.831E-02	4.442E-02	2.465E-02	NOT IDENT.
Y-91	5.386E+00	2.946E+01	2.486E+01	1.503E+01	NOT IDENT.
NB-94	3.582E-02	3.810E-02	3.501E-02	1.944E-02	NOT IDENT.
NB-95	9.080E-02	6.221E-02	5.248E-02	3.174E-02	NOT IDENT.
NB-95M	4.594E-01	2.120E-01	1.749E-01	1.081E-01	NOT IDENT.
ZR-95	1.768E-02	9.048E-02	7.779E-02	4.616E-02	NOT IDENT.
MO-99	-1.267E+02	1.113E+02	0.000E+00	5.678E+01	SHORT HLIF
TC-99M	4.524E+24	1.630E+26	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.771E-03	5.576E-02	4.700E-02	2.845E-02	FAIL ABUN
RH-106	1.849E-02	3.574E-01	2.987E-01	1.823E-01	NOT IDENT.
RU-106	1.849E-02	3.574E-01	2.987E-01	1.823E-01	NOT IDENT.
AG-108M	1.619E-02	3.522E-02	3.088E-02	1.797E-02	NOT IDENT.
AG-110M	5.693E-03	4.690E-02	3.558E-02	2.393E-02	NOT IDENT.
SN-113	1.079E-02	6.187E-02	5.355E-02	3.157E-02	NOT IDENT.
CD-115	1.098E+02	1.612E+02	0.000E+00	8.224E+01	SHORT HLIF
SN-117M	3.515E-02	1.098E-01	9.453E-02	5.601E-02	NOT IDENT.
TE-123M	1.513E-02	3.972E-02	3.427E-02	2.026E-02	NOT IDENT.
SB-124	-5.732E-02	8.340E-02	5.894E-02	4.255E-02	NOT IDENT.
SB-125	2.739E-02	1.093E-01	9.467E-02	5.576E-02	FAIL ABUN
TE-125M	6.474E+00	1.375E+01	1.210E+01	7.017E+00	NOT IDENT.
I-126	6.766E-02	4.456E-01	3.387E-01	2.274E-01	NOT IDENT.
SB-126	2.164E-01	2.739E-01	2.219E-01	1.397E-01	NOT IDENT.
SB-127	-2.247E-01	6.302E+00	5.438E+00	3.215E+00	NOT IDENT.
I-131	-1.131E-01	2.644E-01	2.214E-01	1.349E-01	NOT IDENT.
TE-132	2.161E-01	5.207E+00	4.607E+00	2.657E+00	NOT IDENT.
BA-133	4.116E-02	5.678E-02	4.479E-02	2.897E-02	NOT IDENT.
I-133	3.099E+06	3.981E+06	0.000E+00	2.031E+06	SHORT HLIF
CS-134	9.335E-02	5.779E-02	5.460E-02	2.948E-02	NOT IDENT.
CS-135	3.295E-01	2.319E-01	1.894E-01	1.183E-01	NOT IDENT.
I-135	-2.675E+24	4.405E+24	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.350E-01	2.109E-01	1.928E-01	1.076E-01	NOT IDENT.
CE-139	1.186E-02	4.008E-02	3.442E-02	2.045E-02	NOT IDENT.
BA-140	1.101E-02	4.635E-01	3.902E-01	2.365E-01	NOT IDENT.
LA-140	-9.481E-02	1.550E-01	1.185E-01	7.908E-02	FAIL ABUN
CE-141	3.360E-02	9.782E-02	8.363E-02	4.991E-02	NOT IDENT.
CE-143	6.747E+04	2.052E+04	0.000E+00	1.047E+04	SHORT HLIF
CE-144	1.062E-01	2.597E-01	2.259E-01	1.325E-01	NOT IDENT.
PM-144	-2.064E-02	4.000E-02	3.322E-02	2.041E-02	NOT IDENT.
PR-144	-2.368E+00	3.065E+00	2.494E+00	1.564E+00	NOT IDENT.
PM-146	3.829E-02	4.982E-02	4.436E-02	2.542E-02	NOT IDENT.
ND-147	-1.774E-01	1.096E+00	9.103E-01	5.592E-01	FAIL ABUN
PM-149	7.313E+02	1.329E+03	0.000E+00	6.783E+02	SHORT HLIF
EU-152	-1.813E-02	1.477E-01	1.033E-01	7.536E-02	NOT IDENT.
GD-153	9.788E-02	1.254E-01	9.872E-02	6.398E-02	NOT IDENT.
EU-154	9.814E-02	1.501E-01	1.321E-01	7.657E-02	NOT IDENT.
EU-155	2.319E-02	1.327E-01	1.159E-01	6.773E-02	FAIL ABUN
TB-160	-4.049E-02	1.706E-01	1.419E-01	8.707E-02	FAIL ABUN
HO-166M	5.141E-02	6.730E-02	6.132E-02	3.434E-02	NOT IDENT.
TA-182	1.563E-01	2.453E-01	2.147E-01	1.251E-01	FAIL ABUN
IR-192	-4.360E-02	4.944E-02	4.085E-02	2.522E-02	FAIL ABUN
BI-207	-2.223E-02	6.709E-02	5.454E-02	3.423E-02	FAIL ABUN
PB-210	-2.766E-01	1.252E+01	1.110E+01	6.387E+00	NOT IDENT.
PB-211	-1.940E-01	9.561E-01	8.051E-01	4.878E-01	NOT IDENT.
BI-212	2.473E+00	1.023E+00	7.029E-01	5.217E-01	FAIL ABUN
RN-219	-1.694E-01	5.125E-01	4.297E-01	2.615E-01	FAIL ABUN
RA-223	-5.471E-01	9.271E-01	6.626E-01	4.730E-01	FAIL ABUN
AC-227	1.834E-01	3.179E-01	2.854E-01	1.622E-01	FAIL ABUN
TH-227	1.834E-01	3.181E-01	2.854E-01	1.623E-01	FAIL ABUN
TH-229	-8.901E-02	6.966E-01	5.623E-01	3.554E-01	FAIL ABUN
PA-231	3.006E+00	1.983E+00	1.623E+00	1.012E+00	FAIL ABUN
TH-231	-5.471E-01	9.271E-01	6.626E-01	4.730E-01	FAIL ABUN
PA-233	2.572E-02	8.289E-02	7.307E-02	4.229E-02	FAIL ABUN
PA-234	-1.021E-01	3.416E-01	2.802E-01	1.743E-01	NOT IDENT.
PA-234M	-1.589E+00	5.636E+00	4.559E+00	2.875E+00	NOT IDENT.
TH-234	2.685E+00	2.616E+00	2.290E+00	1.335E+00	FAIL ABUN
U-238	2.685E+00	2.616E+00	2.290E+00	1.335E+00	FAIL ABUN
NP-239	-4.681E-01	5.150E-01	4.267E-01	2.628E-01	FAIL ABUN
AM-241	-1.353E-01	3.134E-01	2.733E-01	1.599E-01	NOT IDENT.
CM-247	-3.735E-03	4.717E-02	4.019E-02	2.407E-02	FAIL ABUN
CF-249	1.097E-02	5.100E-02	4.427E-02	2.602E-02	NOT IDENT.
CF-251	-3.886E-02	1.622E-01	1.357E-01	8.274E-02	NOT IDENT.

ANH-511

9.807E-02

5.577E-02

5.416E-02

2.845E-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
46.54	281.5667
49.72	281.1906
57.36	0.0000
59.54	374.9955
63.29	378.0644
63.29	378.0644
64.28	387.4125
67.75	470.7886
69.67	386.4253
70.83	415.4738
72.81	432.4277
72.87	432.4619
72.87	432.4619
74.82	416.9078
74.82	416.9078
74.82	416.9078
74.97	416.9911
77.11	418.1575
77.11	418.1575
77.11	418.1575
79.69	401.1634
79.80	417.2049
80.12	417.3738
80.19	417.4104
80.57	465.6124
81.00	486.6765
81.07	486.7191
81.07	486.7191
83.79	429.7339
83.79	429.7339
85.43	391.1597
86.48	431.9521
86.55	431.9897
86.79	432.1124
86.94	480.5723
87.57	430.7041
88.03	430.9419
88.47	431.1683
89.96	431.9306
91.11	432.5154
92.59	433.2614
92.59	433.2614
93.35	433.6425
94.67	374.2933
94.87	385.7731
94.87	385.7731
95.86	409.0225
97.43	313.4332
98.44	295.8108
99.53	358.8167
100.11	358.1697
103.18	365.5375
103.37	346.1004
105.31	328.3007
106.12	373.9069
109.28	340.0205
111.00	368.5849
111.76	379.2372
116.30	328.9501
117.23	361.5594
121.12	324.2569
121.78	306.6740
122.06	300.4772
123.07	319.6366
131.20	359.0944
133.52	330.2336
136.00	385.0921

136.47	381.0130
140.51	0.0000
140.51	0.0000
143.76	333.3067
144.24	334.5159
144.24	334.5159
145.44	332.7296
152.43	353.0469
153.25	322.0560
154.21	334.1762
154.21	334.1762
156.02	367.0761
158.56	339.7267
159.00	335.5196
162.66	338.7054
163.33	334.5463
165.86	309.1104
176.60	284.3088
177.52	287.8058
181.07	0.0000
184.41	288.0018
185.72	316.1422
193.51	284.6191
197.04	290.9248
205.31	304.9832
210.85	270.1465
215.65	260.8760
222.11	288.5602
227.38	265.8975
228.16	269.6790
228.18	269.6827
235.69	273.1414
235.96	273.1888
235.96	273.1888
238.63	249.5016
238.63	249.5016
240.99	249.8768
242.00	250.0378
244.70	210.2551
252.40	220.2095
252.80	208.2321
256.23	205.8886
256.23	205.8886
260.90	0.0000
264.66	200.4130
268.22	200.8381
269.46	199.4271
269.46	199.4271
271.23	208.9933
273.65	224.9092
276.40	178.3384
277.37	183.1339
277.60	183.1600
278.00	183.2005
279.20	183.3290
279.54	202.1714
280.46	199.1429
283.69	142.9558
284.31	153.5593
285.41	150.9590
285.90	0.0000
287.50	206.6349
293.27	0.0000
295.22	177.0918
295.96	218.2922
298.57	218.6095
299.98	218.7780
299.98	218.7780
300.09	218.7920
300.09	218.7920
300.13	218.7976
301.36	184.0396
302.85	187.3663
304.50	163.6952
304.50	163.6952
304.85	163.7267
308.46	197.4938
311.90	177.1163

316.51	206.3444
319.41	158.6010
320.08	161.3264
323.87	183.0582
323.87	183.0582
328.76	162.5962
333.37	179.1194
334.37	177.5975
334.37	177.5975
338.28	175.6862
338.28	175.6862
338.32	175.6906
338.32	175.6906
338.32	175.6906
340.48	148.9984
340.55	149.0031
344.28	161.6149
351.06	139.6938
351.93	139.7532
356.01	125.6717
364.49	129.7973
366.42	0.0000
383.85	159.7736
388.16	144.1840
388.63	151.1762
391.69	154.3775
400.66	142.0104
401.81	147.0861
402.40	144.1230
404.85	162.3184
410.95	140.6580
414.70	128.8156
423.72	121.2437
427.09	111.3025
427.87	112.3523
433.94	105.5425
453.88	95.1774
463.37	107.8801
468.07	102.9395
473.00	120.6805
476.78	111.5675
477.60	104.3695
487.02	98.5393
492.35	0.0000
497.08	103.0944
511.00	108.8858
514.00	276.7182
527.90	0.0000
529.87	0.0000
531.02	92.8340
537.26	82.4751
546.56	0.0000
563.25	75.7859
569.33	102.6938
569.50	102.7008
569.70	99.4982
583.19	93.5208
600.60	91.9229
602.73	81.1670
604.72	99.2712
609.32	94.3640
609.32	94.3640
610.33	81.3776
614.28	90.5396
618.01	78.3246
621.93	71.8910
621.93	71.8910
633.25	82.0020
635.95	75.5075
636.99	65.6821
645.85	77.9492
657.76	78.7214
661.66	86.7010
661.66	86.7010
664.57	0.0000
666.33	80.5146
666.50	80.5200
677.62	76.7098

685.70	76.9040
695.00	78.9837
696.49	88.3164
696.51	94.8240
697.00	92.9789
702.65	67.9919
706.68	85.7952
711.68	62.5753
720.70	56.1914
721.93	0.0000
722.78	70.6836
722.91	70.6867
723.31	67.4824
724.19	65.8929
727.33	76.0084
733.00	51.5636
735.93	62.7184
739.50	0.0000
747.24	74.5688
752.31	78.4609
753.82	71.8747
756.73	60.5781
763.94	63.4144
765.81	65.0753
766.42	61.8322
777.92	0.0000
778.90	57.1533
783.70	64.8623
785.37	62.0298
795.86	61.2565
801.95	73.8246
810.29	66.3075
810.76	66.3159
815.77	45.2339
818.51	46.2314
832.01	86.1740
834.85	83.1988
836.80	0.0000
846.77	72.7905
856.80	65.0617
860.56	65.2648
871.09	65.4460
873.19	52.7761
875.33	0.0000
879.36	57.7564
880.51	55.8148
883.24	56.8341
884.68	59.7962
889.28	55.9424
898.04	54.1003
911.20	46.3871
911.20	46.3871
911.20	46.3871
926.50	45.5751
937.49	48.6810
944.13	48.7607
946.00	55.7516
949.00	51.8085
962.29	59.9731
964.08	70.2857
966.15	65.1747
968.97	120.1416
968.97	120.1416
968.97	120.1416
983.53	39.1833
996.26	59.4573
1001.03	58.5157
1004.73	61.5957
1037.84	46.8086
1038.76	0.0000
1048.07	50.9989
1050.41	58.1713
1050.41	58.1713
1063.66	65.5104
1085.87	58.6375
1099.45	57.7819
1112.07	65.1866
1115.54	53.2533

1120.29	72.8539
1120.29	72.8539
1120.55	72.8597
1121.30	78.2031
1131.51	0.0000
1173.23	68.1421
1177.93	58.7663
1189.05	66.2659
1204.77	63.3154
1221.41	55.0617
1231.02	85.9373
1235.36	84.9512
1238.28	62.6875
1260.41	0.0000
1271.85	45.9954
1274.44	40.6672
1274.54	47.0902
1291.59	48.3215
1298.22	0.0000
1312.11	40.9688
1332.49	32.4707
1365.19	33.6056
1368.63	0.0000
1384.29	20.4015
1408.01	36.6958
1457.56	0.0000
1460.82	23.7488
1489.16	19.0946
1505.03	29.6788
1596.21	26.2542
1620.50	26.3597
1678.03	0.0000
1690.97	13.8247
1764.49	17.4817
1764.49	17.4817
1770.23	19.2466
1771.35	61.0000
1791.20	0.0000
1836.06	14.1382

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248250002

Total Uranium Activity	8.0580E+00	ug/g
Total Uranium Counting Unc.	7.7838E+00	ug/g
Total Uranium Tpu	3.9713E-06	ug/g
Total Uranium Mda	6.8121E+00	ug/g

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*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON ,SC 29417               *
*               GROSS GAMMA REPORT                 *
*
*****
*
*  BATCH ID      : 959281                          SAMPLE ID   : G248250002
*  ANALYST       : MXR1                             DETECTOR    : GAM15
*  SAMPLE DATE   : 24-FEB-2010 12:00:00.00          COUNT TIME   : 0 02:00:00.00
*  ANALYSIS DATE: 19-MAR-2010 13:10:57.83          SAMPLE ALQT: 127.870 GRAM
*
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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 9.704E+00
GROSS GAMMA ERROR  (pCi/GRAM ) : 1.517E+00
GROSS GAMMA MDA    (pCi/GRAM ) : 3.924E+00
GROSS GAMMA DLC    (pCi/GRAM ) : 1.908E+00

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VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 15:12:11.85

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*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248250003.CNF;1
Sample date        : 24-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 13:11:18
Sample ID          : G248250003 Sample quantity : 1.18610E+02 GRAM
Detector name      : GAM16 Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00 Elapsed real time: 0 02:00:01.92 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity : 5.00000
Batch ID           : 959281 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	46.44*	68	329	0.64	93.07	89	8	9.46E-03	49.0	
2	0	63.40*	138	320	0.86	126.98	124	6	1.91E-02	23.2	
3	4	74.90*	422	334	0.87	150.00	145	13	5.86E-02	8.1	1.44E+00
4	4	77.13*	736	277	0.89	154.44	145	13	1.02E-01	5.2	
5	0	84.16*	101	354	1.33	168.50	166	6	1.41E-02	31.7	
6	0	87.17	197	442	1.05	174.53	172	7	2.74E-02	19.0	
7	3	90.01	184	283	0.88	180.21	178	14	2.56E-02	15.2	3.11E+00
8	3	92.70*	483	373	1.17	185.58	178	14	6.71E-02	8.5	
9	0	185.56*	327	411	1.07	371.31	365	12	4.55E-02	14.0	
10	0	209.17	125	274	1.06	418.54	415	9	1.74E-02	25.4	
11	2	238.55*	1343	166	0.97	477.29	473	17	1.87E-01	3.2	2.41E+00
12	2	240.63	109	177	1.30	481.45	473	17	1.51E-02	34.9	
13	2	241.80	215	151	1.20	483.80	473	17	2.98E-02	13.0	
14	0	269.97	157	211	1.11	540.13	534	13	2.18E-02	20.7	
15	0	295.18*	375	173	1.13	590.55	586	8	5.21E-02	8.1	
16	0	300.20	64	147	1.34	600.59	597	7	8.87E-03	34.1	
17	0	327.91	81	194	1.00	656.00	650	11	1.12E-02	35.4	
18	0	338.22*	218	192	1.09	676.62	673	9	3.03E-02	13.5	
19	0	351.74*	632	255	1.12	703.66	699	12	8.77E-02	6.5	
20	0	463.21	72	116	1.03	926.59	922	9	1.00E-02	29.4	
21	0	511.02*	133	139	1.95	1022.21	1016	17	1.85E-02	25.2	
22	0	583.00*	376	141	1.24	1166.13	1160	13	5.23E-02	8.5	
23	0	609.11*	512	69	1.33	1218.36	1212	13	7.11E-02	5.7	
24	0	661.56*	216	84	1.42	1323.23	1317	12	3.01E-02	11.0	
25	0	726.94*	82	56	1.21	1453.97	1449	9	1.14E-02	20.4	
26	0	767.99	53	55	1.41	1536.04	1530	11	7.39E-03	30.2	
27	0	794.88	54	38	1.22	1589.83	1585	9	7.48E-03	24.8	
28	0	860.36*	71	36	1.84	1720.75	1716	11	9.92E-03	20.9	
29	0	910.92*	274	42	1.51	1821.85	1816	12	3.80E-02	7.8	
30	2	964.77	48	55	1.94	1929.51	1925	19	6.71E-03	31.5	1.67E+00
31	2	968.78	153	55	1.65	1937.53	1925	19	2.12E-02	12.2	
32	0	1000.73*	61	51	2.38	2001.42	1992	17	8.49E-03	30.1	
33	0	1120.09	100	44	1.02	2240.06	2236	10	1.39E-02	15.8	
34	0	1460.47*	1122	9	1.93	2920.53	2913	18	1.56E-01	3.1	
35	0	1630.72	16	8	2.47	3260.86	3254	11	2.18E-03	43.5	
36	0	1637.45	15	0	1.00	3274.33	3269	9	2.08E-03	25.8	
37	0	1710.19	14	0	1.56	3419.71	3415	9	1.94E-03	26.7	
38	0	1764.03*	84	7	2.05	3527.34	3521	14	1.16E-02	13.5	

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
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Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 19-MAR-2010 15:12:14

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248250003.CNF;1
 Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
 Sample title : MXR1
 Sample date : 24-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 13:11:18
 Sample ID : G248250003 Sample quantity : 118.61 GRAM
 Sample type : SOLID Sample geometry :
 Detector name : GAMMA16 Detector geometry: CAN
 Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.92 0.0%
 Peak Width (FWHM): 3.00 Confidence level : 5.00 %
 Energy tolerance : 1.50 keV Half life ratio : 8.00
 Errors propagated: Yes Systematic Error : 0.00 %
 Efficiency type : Empirical Efficiencies at : Peak Energy
 Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	2.757E+01	2.958E+00	4.107E-01	3.611E-02	67.127
CD-109	+	88.03	*	2.790E+00	1.095E+00	1.054E+00	1.016E-01	2.647
SN-126	+	64.28		1.280E+00	6.225E-01	7.272E-01	1.059E-01	1.760
	+	86.94		1.120E+00	6.315E-01	4.707E-01	1.956E-01	2.380
	+	87.57	*	2.695E-01	1.058E-01	1.257E-01	1.205E-02	2.144
BA-137M	+	661.66	*	3.171E-01	7.549E-02	6.375E-02	5.658E-03	4.974
CS-137	+	661.66	*	3.350E-01	7.977E-02	6.735E-02	5.988E-03	4.974
TL-208		277.37		1.407E-01	3.918E-01	6.353E-01	9.546E-02	0.221
	+	583.19	*	5.251E-01	1.031E-01	5.095E-02	5.045E-03	10.307
	+	860.56		9.421E-01	4.055E-01	4.006E-01	4.009E-02	2.352
PB-210	+	46.54	*	5.012E+00	4.932E+00	4.623E+00	4.274E-01	1.084
BI-211		72.87		3.551E+00	2.999E+00	4.853E+00	3.945E-01	0.732
	+	351.06	*	3.925E+00	6.662E-01	3.312E-01	3.622E-02	11.851
PB-212	+	74.82		2.537E+00	5.246E-01	5.078E-01	6.491E-02	4.996
	+	77.11		2.538E+00	3.392E-01	2.914E-01	2.475E-02	8.707
	+	238.63	*	1.866E+00	2.514E-01	8.394E-02	9.972E-03	22.230
	+	300.09		1.381E+00	9.602E-01	1.297E+00	1.711E-01	1.065
BI-214	+	609.32	*	1.384E+00	2.146E-01	9.594E-02	1.019E-02	14.424
	+	1120.29		1.402E+00	4.677E-01	4.531E-01	4.887E-02	3.094
	+	1764.49		1.636E+00	4.635E-01	2.714E-01	2.246E-02	6.029
PB-214	+	74.82		4.497E+00	8.948E-01	9.001E-01	1.033E-01	4.996
	+	77.11		4.474E+00	7.026E-01	5.138E-01	6.083E-02	8.707
	+	242.00		1.810E+00	5.208E-01	5.107E-01	6.370E-02	3.543
	+	295.22		1.436E+00	3.018E-01	2.307E-01	3.109E-02	6.225
	+	351.93	*	1.425E+00	2.542E-01	1.205E-01	1.473E-02	11.826
RA-224	+	240.99	*	1.619E+00	1.143E+00	8.999E-01	9.917E-02	1.799
RA-226	+	609.32	*	1.384E+00	2.146E-01	9.594E-02	1.019E-02	14.424
	+	1120.29		1.402E+00	4.677E-01	4.531E-01	4.887E-02	3.094
	+	1764.49		1.636E+00	4.635E-01	2.714E-01	2.246E-02	6.029
AC-228	+	338.32		1.510E+00	7.565E-01	3.963E-01	1.674E-01	3.811
	+	911.20	*	1.840E+00	3.645E-01	2.038E-01	2.488E-02	9.031
	+	968.97		1.770E+00	6.139E-01	3.390E-01	8.337E-02	5.220
RA-228	+	338.32		1.510E+00	7.565E-01	3.963E-01	1.674E-01	3.811
	+	911.20	*	1.840E+00	3.645E-01	2.038E-01	2.488E-02	9.031

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	968.97		1.770E+00	6.139E-01	3.390E-01	8.337E-02	5.220
	+	74.82		2.537E+00	4.639E-01	5.078E-01	4.252E-02	4.996
	+	77.11		2.538E+00	3.392E-01	2.914E-01	2.475E-02	8.707
	+	238.63	*	1.866E+00	2.514E-01	8.394E-02	9.972E-03	22.230
	+	300.09		1.381E+00	1.271E+00	1.297E+00	8.007E-01	1.065
TH-229	+	85.43		3.621E-01	2.323E-01	2.897E-01	2.706E-02	1.250
	+	88.47		4.154E-01	1.631E-01	1.563E-01	1.499E-02	2.658
		193.51	*	3.546E-01	4.837E-01	8.174E-01	7.974E-02	0.434
		210.85		1.333E+00	9.691E-01	1.513E+00	1.546E-01	0.881
TH-232	+	338.32		1.510E+00	4.386E-01	3.963E-01	4.325E-02	3.811
	+	911.20	*	1.840E+00	3.645E-01	2.038E-01	2.488E-02	9.031
	+	968.97		1.770E+00	6.139E-01	3.390E-01	8.337E-02	5.220
TH-234	+	63.29	*	3.321E+00	1.651E+00	1.966E+00	3.506E-01	1.689
	+	92.59		5.486E+00	1.541E+00	8.892E-01	1.985E-01	6.170
U-235	+	89.96		2.607E+00	1.025E+00	1.067E+00	2.658E-01	2.444
	+	93.35		4.144E+00	1.197E+00	6.682E-01	1.557E-01	6.202
		143.76	*	5.845E-02	1.985E-01	3.289E-01	5.566E-02	0.178
		163.33		6.366E-01	4.326E-01	7.334E-01	1.330E-01	0.868
	+	185.72		2.946E-01	8.688E-02	6.278E-02	5.997E-03	4.692
		205.31		3.447E-01	4.819E-01	7.292E-01	1.376E-01	0.473
NP-237	+	86.48	*	8.040E-01	3.579E-01	3.395E-01	7.809E-02	2.369
		95.86		-2.679E-01	9.025E-01	1.351E+00	3.259E-01	-0.198
U-238	+	63.29	*	3.321E+00	1.651E+00	1.966E+00	3.506E-01	1.689
	+	92.59		5.486E+00	1.063E+00	8.892E-01	8.190E-02	6.170
ANH-511	+	511.00	*	1.420E-01	7.293E-02	4.274E-02	4.065E-03	3.323

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-2.724E-01	3.448E-01	5.351E-01	5.412E-02	-0.509
NA-22		1274.54	*	-2.060E-02	4.439E-02	6.804E-02	5.661E-03	-0.303
NA-24		1368.63	*	-3.524E+03	4.439E-02	Half-Life too short		
SC-46		889.28	*	4.761E-03	3.767E-02	6.373E-02	6.025E-03	0.075
	+	1120.55		2.532E-01	8.275E-02	1.415E-01	1.195E-02	1.790
V-48		944.13		-9.428E-03	1.148E+00	1.907E+00	1.782E-01	-0.005
		983.53	*	-5.872E-03	8.193E-02	1.346E-01	1.239E-02	-0.044
		1312.11		-6.004E-02	1.081E-01	1.614E-01	1.355E-02	-0.372
CR-51		320.08	*	2.501E-01	4.276E-01	7.035E-01	8.221E-02	0.355
MN-54		834.85	*	4.418E-02	3.798E-02	6.922E-02	6.501E-03	0.638
CO-56		846.77	*	-2.202E-02	4.194E-02	6.691E-02	6.297E-03	-0.329
		1037.84		-2.841E-03	3.208E-01	5.288E-01	4.966E-02	-0.005
		1238.28		1.732E-01	1.095E-01	1.979E-01	1.679E-02	0.875
		1771.35		-2.123E-01	2.372E-01	3.124E-01	2.581E-02	-0.679
CO-57		122.06	*	2.631E-02	2.297E-02	4.021E-02	3.341E-03	0.654
		136.47		-1.620E-01	1.833E-01	2.916E-01	2.648E-02	-0.556
CO-58		810.76	*	-1.149E-02	3.701E-02	6.034E-02	5.653E-03	-0.190
FE-59		1099.45	*	-3.521E-02	9.875E-02	1.558E-01	1.448E-02	-0.226
		1291.59		8.670E-02	1.396E-01	2.418E-01	2.309E-02	0.359

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-60	1173.23			-4.287E-02	4.151E-02	5.943E-02	4.778E-03	-0.721
	1332.49	*		4.168E-03	3.918E-02	6.417E-02	5.413E-03	0.065
ZN-65	1115.54	*		-3.092E-02	9.406E-02	1.264E-01	1.073E-02	-0.245
SE-75	121.12			5.576E-02	1.223E-01	2.088E-01	2.264E-02	0.267
	136.00			-2.566E-02	3.527E-02	5.660E-02	4.804E-03	-0.453
	264.66	*		3.627E-02	4.949E-02	7.463E-02	8.710E-03	0.486
	279.54			-4.943E-02	1.181E-01	1.828E-01	2.238E-02	-0.270
	400.66			8.009E-02	2.512E-01	4.296E-01	4.990E-02	0.186
SR-85	514.00	*		3.069E-02	3.732E-02	6.506E-02	6.186E-03	0.472
Y-88	898.04			1.938E-02	4.307E-02	7.204E-02	6.841E-03	0.269
	1836.06	*		1.570E-02	3.693E-02	6.551E-02	5.318E-03	0.240
Y-91	1204.77	*		-3.940E+00	2.410E+01	3.865E+01	3.143E+00	-0.102
NB-94	702.65	*		-1.448E-02	3.405E-02	5.266E-02	4.761E-03	-0.275
	871.09			5.638E-03	3.374E-02	5.731E-02	5.410E-03	0.098
NB-95	765.81	*		1.775E-03	5.283E-02	7.390E-02	6.831E-03	0.024
NB-95M	235.69	*		-1.167E-01	1.437E-01	1.937E-01	2.307E-02	-0.602
ZR-95	724.19			1.830E-02	1.130E-01	1.615E-01	1.584E-02	0.113
	756.73	*		3.139E-02	7.540E-02	1.256E-01	1.264E-02	0.250
MO-99	140.51			1.906E-05	7.540E-02	Half-Life	too short	
	181.07			9.821E-05	7.540E-02	Half-Life	too short	
	366.42			-3.608E-04	7.540E-02	Half-Life	too short	
	739.50	*		3.505E-05	7.540E-02	Half-Life	too short	
	777.92			1.590E-04	7.540E-02	Half-Life	too short	
TC-99M	140.51	*		1.469E+19	7.540E-02	Half-Life	too short	
RU-103	497.08	*		-4.273E-03	4.375E-02	7.174E-02	1.043E-02	-0.060
	610.33			1.643E+01	3.309E+00	3.445E+00	5.741E-01	4.769
RH-106	621.93	*		1.732E-01	3.067E-01	5.217E-01	7.097E-02	0.332
	1050.41			7.523E-01	2.424E+00	4.126E+00	3.668E-01	0.182
RU-106	621.93	*		1.732E-01	3.062E-01	5.217E-01	4.771E-02	0.332
	1050.41			7.523E-01	2.424E+00	4.126E+00	3.668E-01	0.182
AG-108M	433.94	*		9.018E-03	2.756E-02	4.700E-02	4.548E-03	0.192
	614.28			1.479E-02	3.416E-02	5.133E-02	4.853E-03	0.288
	722.91			-1.211E-02	4.255E-02	5.736E-02	5.378E-03	-0.211
AG-110M	657.76	*		1.247E-02	4.013E-02	5.889E-02	5.390E-03	0.212
	677.62			-9.995E-02	3.128E-01	4.895E-01	4.494E-02	-0.204
	706.68			4.437E-02	2.244E-01	3.672E-01	3.412E-02	0.121
	763.94			-3.582E-02	1.794E-01	2.428E-01	2.297E-02	-0.148
	884.68			-2.517E-02	4.596E-02	7.234E-02	7.019E-03	-0.348
	937.49			-4.270E-02	1.069E-01	1.706E-01	1.647E-02	-0.250
	1384.29			-8.065E-03	1.606E-01	2.566E-01	2.240E-02	-0.031
	1505.03			-5.432E-01	3.109E-01	3.810E-01	3.258E-02	-1.426
SN-113	391.69	*		-3.904E-02	4.462E-02	7.039E-02	6.682E-03	-0.555
CD-115	260.90			-2.110E-03	4.462E-02	Half-Life	too short	
	492.35			-1.998E-04	4.462E-02	Half-Life	too short	
	527.90	*		-2.083E-05	4.462E-02	Half-Life	too short	
SN-117M	156.02			-3.284E+00	3.228E+00	5.075E+00	4.476E-01	-0.647
	158.56	*		1.092E-02	7.529E-02	1.253E-01	1.113E-02	0.087
TE-123M	159.00	*		8.290E-03	2.762E-02	4.625E-02	4.136E-03	0.179
SB-124	602.73			5.767E-03	4.469E-02	6.469E-02	5.984E-03	0.089

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-125		645.85		9.494E-02	5.141E-01	8.472E-01	8.020E-02	0.112
		722.78		-5.759E-02	4.553E-01	6.270E-01	5.830E-02	-0.092
	1690.97		*	4.420E-03	7.103E-02	1.192E-01	1.046E-02	0.037
	427.87		*	-7.263E-02	8.656E-02	1.354E-01	1.293E-02	-0.536
	463.37			6.871E-01	4.103E-01	5.770E-01	5.818E-02	1.191
TE-125M	600.60			2.253E-02	1.766E-01	2.906E-01	2.865E-02	0.078
	635.95			-9.634E-02	2.460E-01	3.830E-01	3.725E-02	-0.252
I-126	109.28		*	-3.194E+00	9.853E+00	1.636E+01	1.695E+00	-0.195
	388.63			4.041E-02	2.428E-01	4.122E-01	3.857E-02	0.098
SB-126	666.33		*	-1.494E-01	4.128E-01	5.578E-01	4.961E-02	-0.268
	753.82			3.097E-01	2.673E+00	4.327E+00	3.985E-01	0.072
	414.70			1.328E-02	1.111E-01	1.873E-01	1.752E-02	0.071
	666.50			-1.389E-02	1.378E-01	1.922E-01	1.710E-02	-0.072
	695.00			5.136E-02	1.243E-01	2.072E-01	1.867E-02	0.248
SB-127	697.00			1.217E-02	4.335E-01	6.999E-01	6.312E-02	0.017
	720.70		*	3.829E-02	2.391E-01	3.610E-01	3.287E-02	0.106
	856.80			1.594E-01	7.175E-01	1.080E+00	1.017E-01	0.148
	252.40			1.465E+01	1.831E+01	2.903E+01	1.247E+01	0.505
	473.00			-1.261E-01	6.466E+00	1.071E+01	1.677E+00	-0.012
I-131	685.70		*	-2.161E+00	5.775E+00	8.987E+00	1.277E+00	-0.240
	783.70			9.718E+00	1.459E+01	2.465E+01	3.746E+00	0.394
	80.19			9.275E+00	8.731E+00	1.305E+01	1.163E+00	0.711
	284.31			5.726E-01	2.865E+00	4.628E+00	5.702E-01	0.124
	364.49		*	7.798E-02	2.129E-01	3.670E-01	3.902E-02	0.212
TE-132	636.99			-7.948E-01	2.807E+00	4.423E+00	4.241E-01	-0.180
	49.72			-4.494E+01	1.069E+02	1.501E+02	1.980E+01	-0.299
	111.76			1.286E+02	1.729E+02	2.979E+02	3.986E+01	0.432
	116.30			6.763E+01	1.414E+02	2.418E+02	3.227E+01	0.280
	228.16		*	-1.361E+00	3.928E+00	6.225E+00	1.167E+00	-0.219
BA-133	81.00			-1.916E-02	9.371E-02	1.305E-01	2.044E-02	-0.147
	276.40			3.601E-01	3.540E-01	5.917E-01	9.675E-02	0.609
	302.85			1.290E-01	1.444E-01	2.184E-01	3.332E-02	0.590
	356.01		*	3.105E-02	4.442E-02	6.975E-02	9.922E-03	0.445
	383.85			8.691E-02	2.707E-01	4.642E-01	6.068E-02	0.187
I-133	529.87		*	3.498E-01	2.707E-01	Half-Life	too short	
	875.33			-7.393E+01	2.707E-01	Half-Life	too short	
CS-134	1298.22			-7.551E+01	2.707E-01	Half-Life	too short	
	563.25			9.074E-02	3.508E-01	5.862E-01	5.560E-02	0.155
	569.33			2.155E-01	1.923E-01	3.276E-01	3.112E-02	0.658
	604.72			-2.321E-02	3.444E-02	4.472E-02	4.141E-03	-0.519
	795.86		*	1.101E-01	5.549E-02	9.159E-02	8.587E-03	1.202
CS-135	801.95			-2.294E-01	3.918E-01	6.253E-01	5.863E-02	-0.367
	1365.19			1.246E-01	1.027E+00	1.690E+00	1.501E-01	0.074
	268.22		*	1.689E-01	1.666E-01	2.546E-01	3.246E-02	0.663
	546.56			-8.039E+18	1.666E-01	Half-Life	too short	
	836.80			1.585E+19	1.666E-01	Half-Life	too short	
I-135	1038.76			3.162E+18	1.666E-01	Half-Life	too short	
	1131.51			1.991E+18	1.666E-01	Half-Life	too short	
	1260.41		*	-2.619E+17	1.666E-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			3.319E+20	1.666E-01	Half-Life	too short	
	1678.03			-3.174E+18	1.666E-01	Half-Life	too short	
	1791.20			-1.240E+19	1.666E-01	Half-Life	too short	
	153.25			1.059E+00	1.235E+00	2.112E+00	2.194E-01	0.501
	176.60			4.037E-01	7.404E-01	1.245E+00	1.265E-01	0.324
	273.65			-4.271E-01	8.245E-01	1.120E+00	1.391E-01	-0.381
	340.55			3.348E-01	2.329E-01	3.808E-01	4.237E-02	0.879
	818.51			-2.829E-02	1.046E-01	1.714E-01	1.607E-02	-0.165
CE-139	1048.07	*		9.621E-03	1.500E-01	2.490E-01	2.307E-02	0.039
	1235.36			1.084E+00	9.878E-01	1.732E+00	1.988E-01	0.626
	165.86	*		-3.577E-02	3.008E-02	4.658E-02	4.225E-03	-0.768
	162.66			9.290E-01	1.202E+00	2.046E+00	1.953E-01	0.454
BA-140	304.85			-1.507E+00	2.150E+00	2.991E+00	9.062E-01	-0.504
	423.72			1.594E+00	2.950E+00	5.022E+00	1.663E+00	0.317
	537.26	*		6.023E-02	3.792E-01	6.304E-01	2.152E-01	0.096
	328.76			1.061E+00	7.608E-01	8.618E-01	9.938E-02	1.231
LA-140	487.02			-1.792E-02	2.015E-01	3.311E-01	3.310E-02	-0.054
	815.77			7.967E-02	4.424E-01	7.568E-01	7.793E-02	0.105
	1596.21	*		-1.084E-01	1.140E-01	1.548E-01	1.318E-02	-0.701
	145.44	*		1.437E-02	7.135E-02	1.194E-01	1.045E-02	0.120
CE-141	57.36			-1.765E-02	7.135E-02	Half-Life	too short	
	293.27	*		3.028E-02	7.135E-02	Half-Life	too short	
	664.57			7.071E-02	7.135E-02	Half-Life	too short	
	721.93			1.526E-03	7.135E-02	Half-Life	too short	
CE-144	80.12			2.475E+00	2.422E+00	3.615E+00	3.174E-01	0.685
	133.52	*		1.454E-01	1.826E-01	3.128E-01	4.742E-02	0.465
PM-144	476.78			-1.774E-02	6.296E-02	1.021E-01	1.040E-02	-0.174
	618.01			-4.105E-03	3.140E-02	5.045E-02	4.741E-03	-0.081
PR-144	696.49	*		1.420E-02	3.535E-02	5.889E-02	5.314E-03	0.241
	696.51	*		1.049E+00	2.655E+00	4.421E+00	3.986E-01	0.237
PM-146	1489.16			-1.245E+01	1.117E+01	1.470E+01	1.257E+00	-0.847
	453.88	*		1.234E-02	4.178E-02	7.084E-02	8.002E-03	0.174
	633.25			-1.694E-01	1.353E+00	2.167E+00	8.299E-01	-0.078
	735.93			-1.800E-02	1.441E-01	2.281E-01	6.430E-02	-0.079
ND-147	747.24			7.607E-03	9.506E-02	1.534E-01	2.291E-02	0.050
	91.11			1.393E+00	4.467E-01	8.419E-01	8.421E-02	1.655
	319.41			-1.773E+00	5.278E+00	8.143E+00	9.247E-01	-0.218
	531.02	*		1.196E-01	8.395E-01	1.397E+00	2.161E-01	0.086
PM-149	285.90	*		1.228E-03	8.395E-01	Half-Life	too short	
EU-152	121.78			7.785E-02	6.489E-02	1.136E-01	1.094E-02	0.685
	244.70			-5.592E-02	3.293E-01	4.662E-01	5.183E-02	-0.120
	344.28	*		-3.997E-02	9.226E-02	1.467E-01	1.639E-02	-0.272
	778.90			2.545E-01	2.438E-01	4.289E-01	3.979E-02	0.593
GD-153	964.08			6.038E-01	3.845E-01	5.658E-01	5.249E-02	1.067
	1085.87			-1.648E-01	3.729E-01	5.829E-01	5.060E-02	-0.283
	1112.07			-9.492E-03	2.826E-01	4.619E-01	3.930E-02	-0.021
	1408.01			2.043E-01	1.817E-01	3.353E-01	2.855E-02	0.609
GD-153	69.67			-1.191E+00	1.637E+00	2.608E+00	2.055E-01	-0.457
	97.43	*		-4.259E-02	8.876E-02	1.317E-01	1.170E-02	-0.323

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-154		103.18		-1.083E-01	1.020E-01	1.638E-01	1.412E-02	-0.661
		123.07		1.757E-02	4.571E-02	7.777E-02	8.644E-03	0.226
		723.31		-5.915E-02	1.929E-01	2.592E-01	2.578E-02	-0.228
		873.19		-1.324E-01	2.734E-01	4.352E-01	5.441E-02	-0.304
		996.26		1.241E-01	3.891E-01	5.840E-01	1.036E-01	0.213
EU-155		1004.73		1.665E-01	2.232E-01	3.542E-01	4.254E-02	0.470
		1274.44	*	-3.405E-02	1.231E-01	1.931E-01	2.152E-02	-0.176
	+	86.55		3.278E-01	1.288E-01	1.788E-01	1.708E-02	1.833
		105.31	*	1.157E-01	9.798E-02	1.720E-01	1.487E-02	0.673
	+	86.79		9.354E-01	3.673E-01	5.131E-01	4.873E-02	1.823
TB-160		197.04		-6.789E-01	5.965E-01	8.991E-01	8.854E-02	-0.755
		215.65		-3.634E-01	7.475E-01	1.180E+00	1.221E-01	-0.308
		298.57		1.240E-01	1.830E-01	2.181E-01	2.560E-02	0.569
		879.36	*	6.524E-02	1.297E-01	2.278E-01	2.152E-02	0.286
		962.29		3.051E-01	6.353E-01	9.693E-01	8.998E-02	0.315
HO-166M	+	966.15		4.546E-01	2.895E-01	5.462E-01	5.063E-02	0.832
		1177.93		3.146E-01	4.094E-01	7.143E-01	5.753E-02	0.440
		1271.85		7.496E-01	7.205E-01	1.304E+00	1.083E-01	0.575
		80.57		1.020E-01	3.052E-01	3.851E-01	3.398E-02	0.265
	+	184.41		2.340E-01	6.902E-02	6.940E-02	6.607E-03	3.372
TA-182		280.46		-3.422E-02	8.379E-02	1.302E-01	1.562E-02	-0.263
		410.95		9.002E-03	2.447E-01	4.106E-01	3.833E-02	0.022
		711.68	*	1.353E-02	5.704E-02	9.382E-02	8.512E-03	0.144
		752.31		-4.112E-01	2.864E-01	3.870E-01	3.562E-02	-1.063
		810.29		-2.688E-02	5.248E-02	8.379E-02	7.832E-03	-0.321
IR-192		67.75		3.392E-02	1.161E-01	1.812E-01	1.402E-02	0.187
		100.11		6.505E-02	1.706E-01	2.926E-01	2.559E-02	0.222
		152.43		6.871E-02	3.486E-01	5.821E-01	5.086E-02	0.118
		222.11		-2.839E-01	3.614E-01	5.595E-01	5.884E-02	-0.507
	+	1121.30		6.893E-01	2.253E-01	3.876E-01	3.272E-02	1.779
HG-203		1189.05		2.480E-01	3.254E-01	5.686E-01	4.598E-02	0.436
		1221.41	*	2.196E-02	2.019E-01	3.321E-01	2.716E-02	0.066
		1231.02		-2.364E-01	5.127E-01	7.967E-01	6.536E-02	-0.297
	+	295.96		1.144E+00	2.289E-01	3.219E-01	3.808E-02	3.554
		308.46		1.298E-01	9.979E-02	1.705E-01	1.978E-02	0.761
BI-207		316.51	*	-1.458E-02	3.655E-02	5.618E-02	6.420E-03	-0.259
		468.07		4.160E-02	7.415E-02	1.143E-01	1.151E-02	0.364
		70.83		-4.002E-01	1.451E+00	2.216E+00	3.484E-01	-0.181
		72.87		9.947E-01	8.500E-01	1.360E+00	2.076E-01	0.732
		279.20	*	1.417E-02	4.337E-02	7.022E-02	8.546E-03	0.202
PB-211		72.81		2.024E-01	1.727E-01	2.794E-01	2.270E-02	0.724
	+	74.97		7.315E-01	1.335E-01	2.237E-01	1.858E-02	3.271
		569.70		3.691E-02	2.999E-02	5.146E-02	4.831E-03	0.717
		1063.66	*	1.864E-02	4.911E-02	8.409E-02	7.412E-03	0.222
		1770.23		-4.370E-02	4.495E-01	6.160E-01	5.091E-02	-0.071
BI-212		404.85	*	-7.737E-01	7.973E-01	1.095E+00	5.314E-01	-0.706
		427.09		-8.150E-01	1.499E+00	2.326E+00	1.080E+00	-0.350
		832.01		-1.104E+00	1.091E+00	1.381E+00	7.181E-01	-0.800
	+	727.33	*	1.747E+00	7.458E-01	1.186E+00	1.520E-01	1.473

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		785.37		4.511E+00	2.950E+00	5.536E+00	5.145E-01	0.815
		1620.50		1.375E+00	2.207E+00	4.056E+00	3.446E-01	0.339
RN-219	+	271.23		9.610E-01	4.168E-01	4.232E-01	5.523E-02	2.271
		401.81	*	2.919E-02	3.846E-01	6.480E-01	9.898E-02	0.045
RA-223		81.07		-3.821E-02	2.120E-01	2.959E-01	2.626E-02	-0.129
	+	83.79		2.155E-01	1.383E-01	2.014E-01	1.845E-02	1.070
		94.87		7.616E-01	4.334E-01	7.098E-01	6.419E-02	1.073
		144.24		3.882E-01	6.769E-01	1.134E+00	1.086E-01	0.342
		154.21		5.061E-01	3.674E-01	6.385E-01	6.122E-02	0.793
	+	269.46		7.467E-01	3.214E-01	3.408E-01	4.052E-02	2.191
		323.87	*	-6.610E-02	7.227E-01	1.006E+00	1.890E-01	-0.066
	+	338.28		5.992E+00	1.813E+00	2.500E+00	3.451E-01	2.397
AC-227		79.69		2.213E-01	1.119E+00	1.738E+00	3.006E-01	0.127
		235.96		-9.088E-02	1.575E-01	2.168E-01	2.666E-02	-0.419
		256.23	*	-3.036E-01	2.492E-01	3.640E-01	5.166E-02	-0.834
	+	299.98		1.520E+00	1.062E+00	1.596E+00	2.391E-01	0.952
		304.50		-8.887E-01	1.669E+00	2.403E+00	4.395E-01	-0.370
		334.37		3.779E-01	1.784E+00	2.717E+00	4.627E-01	0.139
TH-227		79.80		3.406E-01	1.478E+00	2.297E+00	5.014E-01	0.148
		235.96		-9.088E-02	1.575E-01	2.168E-01	2.560E-02	-0.419
		256.23	*	-3.036E-01	2.499E-01	3.640E-01	5.654E-02	-0.834
	+	299.98		1.520E+00	1.062E+00	1.596E+00	2.391E-01	0.952
		304.50		-8.887E-01	1.669E+00	2.403E+00	4.395E-01	-0.370
		334.37		3.779E-01	1.784E+00	2.717E+00	4.627E-01	0.139
PA-231		283.69	*	-7.547E-01	1.431E+00	2.196E+00	3.684E-01	-0.344
	+	301.36		9.762E-01	6.811E-01	1.010E+00	1.464E-01	0.967
TH-231		81.07		-3.821E-02	2.120E-01	2.959E-01	2.626E-02	-0.129
	+	83.79		2.155E-01	1.383E-01	2.014E-01	1.845E-02	1.070
		94.87		7.616E-01	4.334E-01	7.098E-01	6.419E-02	1.073
		144.24		3.882E-01	6.769E-01	1.134E+00	1.086E-01	0.342
		154.21		5.061E-01	3.674E-01	6.385E-01	6.122E-02	0.793
	+	269.46		7.467E-01	3.214E-01	3.408E-01	4.052E-02	2.191
		323.87	*	-6.610E-02	7.227E-01	1.006E+00	1.890E-01	-0.066
	+	338.28		5.992E+00	1.813E+00	2.500E+00	3.451E-01	2.397
PA-233	+	300.13		6.876E-01	4.833E-01	7.242E-01	1.218E-01	0.950
		311.90	*	-7.182E-02	6.199E-02	8.888E-02	1.039E-02	-0.808
		340.48		1.027E+00	6.992E-01	1.085E+00	2.708E-01	0.946
PA-234		94.67		3.346E-01	1.672E-01	2.707E-01	3.440E-02	1.236
		98.44		5.480E-02	9.229E-02	1.447E-01	8.080E-02	0.379
		111.00		-1.374E-04	1.722E-01	2.897E-01	3.458E-02	0.000
		131.20		-9.716E-02	1.027E-01	1.642E-01	1.374E-02	-0.592
		569.50		3.128E-01	2.648E-01	4.529E-01	4.252E-02	0.691
		733.00		-3.026E-01	3.777E-01	5.479E-01	1.228E-01	-0.552
		880.51		-4.406E-02	2.430E-01	3.983E-01	3.763E-02	-0.111
		883.24		-4.586E-02	2.533E-01	4.122E-01	2.775E-01	-0.111
		926.50		-3.438E-02	1.822E-01	2.977E-01	7.608E-02	-0.115
		946.00	*	-1.856E-02	2.752E-01	4.543E-01	8.679E-02	-0.041
		949.00		7.206E-02	4.340E-01	7.328E-01	6.835E-02	0.098
PA-234M		766.42		1.218E+01	1.457E+01	2.040E+01	1.037E+01	0.597

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	1001.03	*	1.373E+01	8.389E+00	9.607E+00	1.000E+00	1.429
		99.53		2.333E-01	1.524E-01	2.703E-01	2.371E-02	0.863
		103.37		-9.247E-02	9.061E-02	1.459E-01	1.256E-02	-0.634
		106.12		7.994E-02	7.831E-02	1.367E-01	1.165E-02	0.585
		117.23	*	-8.155E-02	3.470E-01	5.761E-01	4.796E-02	-0.142
		228.18		-7.570E-02	2.083E-01	3.302E-01	3.526E-02	-0.229
AM-241		277.60		9.336E-02	1.785E-01	2.920E-01	3.495E-02	0.320
		59.54	*	1.400E-01	1.623E-01	2.441E-01	1.915E-02	0.574
CM-247		278.00		6.840E-01	7.600E-01	1.264E+00	1.514E-01	0.541
		287.50		-1.969E-02	1.196E+00	1.905E+00	2.268E-01	-0.010
		402.40	*	1.637E-02	3.476E-02	5.999E-02	5.577E-03	0.273
CF-249		252.80		3.203E-01	9.170E-01	1.504E+00	1.704E-01	0.213
		333.37		-2.352E-03	2.039E-01	2.853E-01	3.149E-02	-0.008
		388.16	*	2.048E-02	3.754E-02	6.516E-02	6.108E-03	0.314
CF-251		177.52	*	-1.860E-02	1.252E-01	2.042E-01	1.909E-02	-0.091
		227.38		-1.049E-01	3.505E-01	5.582E-01	5.949E-02	-0.188
		285.41		1.461E+00	2.138E+00	3.545E+00	4.231E-01	0.412

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]G248250003      *
* Acquisition date   : 19-MAR-2010 13:11:18 Detector SN#                   *
* Detector ID        : GAM16 Sensitivity      : 5.000                      *
* Geometry           : CAN Energy tolerance: 1.500                      *
* Elapsed live time: 0 02:00:00.00 Abundance limit : 75.000              *
* Elapsed real time: 0 02:00:01.92 Half life ratio : 8.000              *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 24-FEB-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G248250003 Analyst initials: MXR1                 *
* Batch Number       : 959281 Sample Quantity : 1.1861E+02 GRAM          *
* Recovery           : 1.00000 Carrier Weight : 0.00000                 *
*****
*                                     QC DATA                                *
*
* Standard Weight    : 0.00000                                             *
* CALIB. DATE/TIME   : 16-NOV-2009 11:22:16 MS Isotope                   : *
* MSD DPM             : 0.000 MSD Isotope                                : *
* LCS DPM             : 0.000 LCS Isotope                                : *
* LCSD DPM            : 0.000 LCSD Isotope                               : *
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.757E+01	2.899E+00	4.096E-01	0.000E+00
CD-109	2.790E+00	1.074E+00	1.084E+00	0.000E+00
SN-126	2.695E-01	1.037E-01	1.293E-01	0.000E+00
BA-137M	3.171E-01	7.398E-02	6.414E-02	0.000E+00
CS-137	3.350E-01	7.817E-02	6.776E-02	0.000E+00
TL-208	5.251E-01	1.011E-01	5.133E-02	0.000E+00
PB-210	5.012E+00	4.833E+00	4.788E+00	0.000E+00
BI-211	3.925E+00	6.529E-01	3.356E-01	0.000E+00
PB-212	1.866E+00	2.464E-01	8.542E-02	0.000E+00
BI-214	1.384E+00	2.104E-01	9.661E-02	0.000E+00
PB-214	1.425E+00	2.492E-01	1.221E-01	0.000E+00
RA-224	1.619E+00	1.121E+00	9.156E-01	0.000E+00
RA-226	1.384E+00	2.104E-01	9.661E-02	0.000E+00
AC-228	1.840E+00	3.572E-01	2.043E-01	0.000E+00
RA-228	1.840E+00	3.572E-01	2.043E-01	0.000E+00
TH-228	1.866E+00	2.464E-01	8.542E-02	0.000E+00
TH-229	3.546E-01	4.740E-01	8.337E-01	0.000E+00
TH-232	1.840E+00	3.572E-01	2.043E-01	0.000E+00
TH-234	3.321E+00	1.618E+00	2.030E+00	0.000E+00
U-235	5.845E-02	1.946E-01	3.366E-01	0.000E+00
NP-237	8.040E-01	3.508E-01	3.493E-01	0.000E+00
U-238	3.321E+00	1.618E+00	2.030E+00	0.000E+00
ANH-511	1.420E-01	7.147E-02	4.313E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	-2.724E-01	3.379E-01	5.404E-01	0.000E+00 NOT IDENT.
NA-22	-2.060E-02	4.350E-02	6.795E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	4.596E+09	0.000E+00	0.000E+00 SHORT HLIF
SC-46	4.761E-03	3.691E-02	6.391E-02	0.000E+00 FAIL ABUN

V-48	-5.872E-03	8.029E-02	1.348E-01	0.000E+00	NOT IDENT.
CR-51	2.501E-01	4.190E-01	7.135E-01	0.000E+00	NOT IDENT.
MN-54	4.418E-02	3.722E-02	6.946E-02	0.000E+00	NOT IDENT.
CO-56	-2.202E-02	4.110E-02	6.714E-02	0.000E+00	NOT IDENT.
CO-57	2.631E-02	2.251E-02	4.122E-02	0.000E+00	NOT IDENT.
CO-58	-1.149E-02	3.627E-02	6.057E-02	0.000E+00	NOT IDENT.
FE-59	-3.521E-02	9.677E-02	1.559E-01	0.000E+00	NOT IDENT.
CO-60	4.168E-03	3.839E-02	6.405E-02	0.000E+00	NOT IDENT.
ZN-65	-3.092E-02	9.217E-02	1.264E-01	0.000E+00	NOT IDENT.
SE-75	3.627E-02	4.851E-02	7.586E-02	0.000E+00	NOT IDENT.
SR-85	3.069E-02	3.657E-02	6.564E-02	0.000E+00	NOT IDENT.
Y-88	1.570E-02	3.620E-02	6.515E-02	0.000E+00	NOT IDENT.
Y-91	-3.940E+00	2.362E+01	3.862E+01	0.000E+00	NOT IDENT.
NB-94	-1.448E-02	3.337E-02	5.295E-02	0.000E+00	NOT IDENT.
NB-95	1.775E-03	5.177E-02	7.423E-02	0.000E+00	NOT IDENT.
NB-95M	-1.167E-01	1.408E-01	1.972E-01	0.000E+00	NOT IDENT.
ZR-95	3.139E-02	7.389E-02	1.261E-01	0.000E+00	NOT IDENT.
MO-99	0.000E+00	8.941E+01	0.000E+00	0.000E+00	SHORT HLIF
TC-99M	0.000E+00	1.174E+26	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.273E-03	4.288E-02	7.241E-02	0.000E+00	FAIL ABUN
RH-106	1.732E-01	3.006E-01	5.253E-01	0.000E+00	NOT IDENT.
RU-106	1.732E-01	3.001E-01	5.253E-01	0.000E+00	NOT IDENT.
AG-108M	9.018E-03	2.701E-02	4.751E-02	0.000E+00	NOT IDENT.
AG-110M	1.247E-02	3.932E-02	5.925E-02	0.000E+00	NOT IDENT.
SN-113	-3.904E-02	4.373E-02	7.124E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	1.209E+02	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	1.092E-02	7.379E-02	1.280E-01	0.000E+00	NOT IDENT.
TE-123M	8.290E-03	2.707E-02	4.727E-02	0.000E+00	NOT IDENT.
SB-124	4.420E-03	6.961E-02	1.187E-01	0.000E+00	NOT IDENT.
SB-125	-7.263E-02	8.483E-02	1.369E-01	0.000E+00	FAIL ABUN
TE-125M	-3.194E+00	9.656E+00	1.679E+01	0.000E+00	NOT IDENT.
I-126	-1.494E-01	4.045E-01	5.611E-01	0.000E+00	NOT IDENT.
SB-126	3.829E-02	2.344E-01	3.629E-01	0.000E+00	NOT IDENT.
SB-127	-2.161E+00	5.659E+00	9.038E+00	0.000E+00	NOT IDENT.
I-131	7.798E-02	2.086E-01	3.718E-01	0.000E+00	NOT IDENT.
TE-132	-1.361E+00	3.850E+00	6.337E+00	0.000E+00	NOT IDENT.
BA-133	3.105E-02	4.353E-02	7.067E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.031E+06	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.438E-02	9.196E-02	0.000E+00	FAIL ABUN
CS-135	1.689E-01	1.632E-01	2.587E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.201E+24	0.000E+00	0.000E+00	SHORT HLIF
CS-136	9.621E-03	1.470E-01	2.492E-01	0.000E+00	NOT IDENT.
CE-139	-3.577E-02	2.948E-02	4.759E-02	0.000E+00	NOT IDENT.
BA-140	6.023E-02	3.716E-01	6.357E-01	0.000E+00	NOT IDENT.
LA-140	-1.084E-01	1.117E-01	1.542E-01	0.000E+00	FAIL ABUN
CE-141	1.437E-02	6.993E-02	1.222E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.145E+04	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.454E-01	1.789E-01	3.203E-01	0.000E+00	NOT IDENT.
PM-144	1.420E-02	3.465E-02	5.922E-02	0.000E+00	NOT IDENT.
PR-144	1.049E+00	2.602E+00	4.446E+00	0.000E+00	NOT IDENT.
PM-146	1.234E-02	4.095E-02	7.158E-02	0.000E+00	NOT IDENT.
ND-147	1.196E-01	8.227E-01	1.409E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	1.062E+03	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-3.997E-02	9.042E-02	1.487E-01	0.000E+00	FAIL ABUN
GD-153	-4.259E-02	8.699E-02	1.353E-01	0.000E+00	NOT IDENT.
EU-154	-3.405E-02	1.206E-01	1.928E-01	0.000E+00	NOT IDENT.
EU-155	1.157E-01	9.602E-02	1.766E-01	0.000E+00	FAIL ABUN
TB-160	6.524E-02	1.271E-01	2.285E-01	0.000E+00	FAIL ABUN
HO-166M	1.353E-02	5.590E-02	9.432E-02	0.000E+00	FAIL ABUN
TA-182	2.196E-02	1.979E-01	3.318E-01	0.000E+00	FAIL ABUN
IR-192	-1.458E-02	3.582E-02	5.699E-02	0.000E+00	FAIL ABUN
HG-203	1.417E-02	4.250E-02	7.133E-02	0.000E+00	NOT IDENT.
BI-207	1.864E-02	4.813E-02	8.415E-02	0.000E+00	FAIL ABUN
PB-211	-7.737E-01	7.814E-01	1.108E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.309E-01	1.192E+00	0.000E+00	FAIL ABUN
RN-219	2.919E-02	3.769E-01	6.556E-01	0.000E+00	FAIL ABUN
RA-223	-6.610E-02	7.083E-01	1.020E+00	0.000E+00	FAIL ABUN
AC-227	-3.036E-01	2.442E-01	3.701E-01	0.000E+00	FAIL ABUN
TH-227	-3.036E-01	2.449E-01	3.701E-01	0.000E+00	FAIL ABUN
PA-231	-7.547E-01	1.402E+00	2.231E+00	0.000E+00	FAIL ABUN
TH-231	-6.610E-02	7.083E-01	1.020E+00	0.000E+00	FAIL ABUN
PA-233	-7.182E-02	6.075E-02	9.018E-02	0.000E+00	FAIL ABUN
PA-234	-1.856E-02	2.697E-01	4.553E-01	0.000E+00	NOT IDENT.
PA-234M	0.000E+00	8.221E+00	9.621E+00	0.000E+00	FAIL ABUN
NP-239	-8.155E-02	3.401E-01	5.908E-01	0.000E+00	NOT IDENT.
AM-241	1.400E-01	1.591E-01	2.521E-01	0.000E+00	NOT IDENT.
CM-247	1.637E-02	3.406E-02	6.069E-02	0.000E+00	NOT IDENT.
CF-249	2.048E-02	3.679E-02	6.595E-02	0.000E+00	NOT IDENT.

CF-251

-1.860E-02

1.227E-01

2.085E-01

0.000E+00 NOT IDENT.

```

*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248250003.CNF;1
Sample date        : 24-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 13:11:18
Sample ID          : G248250003          Sample quantity  : 1.18610E+02 GRAM
Detector name      : GAM16              Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00      Elapsed real time: 0 02:00:01.92  0.0%
Energy tolerance   : 1.50000 keV        Analyst Initials  : MXR1
Abundance limit    : 75.00000           Sensitivity       : 5.00000
Batch ID           : 959281             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	1460.82	1122	10.66*	1.208E+00	2.757E+01	2.757E+01	10.73
CD-109	88.03	197	3.70*	6.253E+00	2.695E+00	2.790E+00	39.27
SN-126	64.28	138	9.60	3.547E+00	1.280E+00	1.280E+00	48.63
	86.94	197	8.90	6.253E+00	1.120E+00	1.120E+00	56.37
	87.57	197	37.00*	6.253E+00	2.695E-01	2.695E-01	39.27
BA-137M	661.66	216	89.90*	2.406E+00	3.167E-01	3.171E-01	23.81
CS-137	661.66	216	85.10*	2.406E+00	3.345E-01	3.350E-01	23.81
TL-208	277.37	-----	6.60	4.694E+00	-----	Line Not Found	-----
	583.19	376	85.00*	2.668E+00	5.251E-01	5.251E-01	19.64
	860.56	71	12.50	1.920E+00	9.421E-01	9.421E-01	43.04
PB-210	46.54	68	4.25*	1.014E+00	5.002E+00	5.012E+00	98.40
BI-211	72.87	-----	1.23	4.872E+00	-----	Line Not Found	-----
	351.06	632	12.92*	3.941E+00	3.925E+00	3.925E+00	16.97
PB-212	74.82	422	10.28	5.116E+00	2.537E+00	2.537E+00	20.68
	77.11	736	17.10	5.364E+00	2.538E+00	2.538E+00	13.37
	238.63	1343	43.60*	5.226E+00	1.866E+00	1.866E+00	13.47
	300.09	64	3.30	4.431E+00	1.381E+00	1.381E+00	69.50
BI-214	609.32	512	45.49*	2.575E+00	1.384E+00	1.384E+00	15.51
	1120.29	100	14.92	1.516E+00	1.402E+00	1.402E+00	33.36
	1764.49	84	15.30	1.056E+00	1.636E+00	1.636E+00	28.33
PB-214	74.82	422	5.80	5.116E+00	4.497E+00	4.497E+00	19.90
	77.11	736	9.70	5.364E+00	4.474E+00	4.474E+00	15.71
	242.00	215	7.25	5.177E+00	1.809E+00	1.810E+00	28.78
	295.22	375	18.42	4.486E+00	1.436E+00	1.436E+00	21.01
	351.93	632	35.60*	3.941E+00	1.425E+00	1.425E+00	17.85
RA-224	240.99	109	4.10*	5.194E+00	1.619E+00	1.619E+00	70.61
RA-226	609.32	512	45.49*	2.575E+00	1.384E+00	1.384E+00	15.51
	1120.29	100	14.92	1.516E+00	1.402E+00	1.402E+00	33.36
	1764.49	84	15.30	1.056E+00	1.636E+00	1.636E+00	28.33
AC-228	338.32	218	11.27	4.058E+00	1.510E+00	1.510E+00	50.10
	911.20	274	25.80*	1.825E+00	1.840E+00	1.840E+00	19.80
	968.97	153	15.80	1.727E+00	1.770E+00	1.770E+00	34.69

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	218	11.27	4.058E+00	1.510E+00	1.510E+00	50.10
	911.20	274	25.80*	1.825E+00	1.840E+00	1.840E+00	19.80
	968.97	153	15.80	1.727E+00	1.770E+00	1.770E+00	34.69
TH-228	74.82	422	10.28	5.116E+00	2.537E+00	2.537E+00	18.29
	77.11	736	17.10	5.364E+00	2.538E+00	2.538E+00	13.37
	238.63	1343	43.60*	5.226E+00	1.866E+00	1.866E+00	13.47
	300.09	64	3.30	4.431E+00	1.381E+00	1.381E+00	92.02
TH-229	85.43	101	14.70	6.026E+00	3.621E-01	3.621E-01	64.16
	88.47	197	24.00	6.253E+00	4.154E-01	4.154E-01	39.27
	193.51	-----	4.41*	5.998E+00	-----	Line Not Found	-----
	210.85	-----	2.80	5.681E+00	-----	Line Not Found	-----
TH-232	338.32	218	11.27	4.058E+00	1.510E+00	1.510E+00	29.05
	911.20	274	25.80*	1.825E+00	1.840E+00	1.840E+00	19.80
	968.97	153	15.80	1.727E+00	1.770E+00	1.770E+00	34.69
TH-234	63.29	138	3.70*	3.547E+00	3.321E+00	3.321E+00	49.72
	92.59	483	4.23	6.591E+00	5.486E+00	5.486E+00	28.09
U-235	89.96	184	3.47	6.439E+00	2.607E+00	2.607E+00	39.33
	93.35	483	5.60	6.591E+00	4.144E+00	4.144E+00	28.89
	143.76	-----	10.96*	6.943E+00	-----	Line Not Found	-----
	163.33	-----	5.08	6.588E+00	-----	Line Not Found	-----
NP-237	185.72	327	57.20	6.151E+00	2.946E-01	2.946E-01	29.49
	205.31	-----	5.01	5.780E+00	-----	Line Not Found	-----
	86.48	197	12.40*	6.253E+00	8.040E-01	8.040E-01	44.51
	95.86	-----	2.68	6.742E+00	-----	Line Not Found	-----
U-238	63.29	138	3.70*	3.547E+00	3.321E+00	3.321E+00	49.72
	92.59	483	4.23	6.591E+00	5.486E+00	5.486E+00	19.38
ANH-511	511.00	133	100.00*	2.963E+00	1.420E-01	1.420E-01	51.34

Flag: "*" = Keyline

Total number of lines in spectrum 38
Number of unidentified lines 5
Number of lines tentatively identified by NID 33 86.84%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	2.757E+01	2.757E+01	0.296E+01	10.73	
CD-109	461.40D	1.04	2.695E+00	2.790E+00	1.095E+00	39.27	
SN-126	2.30E+05Y	1.00	2.695E-01	2.695E-01	1.058E-01	39.27	
BA-137M	30.08Y	1.00	3.167E-01	3.171E-01	0.755E-01	23.81	
CS-137	30.08Y	1.00	3.345E-01	3.350E-01	0.798E-01	23.81	
TL-208	1.41E+10Y	1.00	5.251E-01	5.251E-01	1.031E-01	19.64	
PB-210	22.20Y	1.00	5.002E+00	5.012E+00	4.932E+00	98.40	
BI-211	7.04E+08Y	1.00	3.925E+00	3.925E+00	0.666E+00	16.97	
PB-212	1.41E+10Y	1.00	1.866E+00	1.866E+00	0.251E+00	13.47	
BI-214	1600.00Y	1.00	1.384E+00	1.384E+00	0.215E+00	15.51	
PB-214	1600.00Y	1.00	1.425E+00	1.425E+00	0.254E+00	17.85	
RA-224	1.41E+10Y	1.00	1.619E+00	1.619E+00	1.143E+00	70.61	
RA-226	1600.00Y	1.00	1.384E+00	1.384E+00	0.215E+00	15.51	
AC-228	1.41E+10Y	1.00	1.840E+00	1.840E+00	0.364E+00	19.80	
RA-228	1.41E+10Y	1.00	1.840E+00	1.840E+00	0.364E+00	19.80	
TH-228	1.41E+10Y	1.00	1.866E+00	1.866E+00	0.251E+00	13.47	
TH-229	7340.00Y	1.00	4.154E-01	4.154E-01	1.631E-01	39.27	K
TH-232	1.41E+10Y	1.00	1.840E+00	1.840E+00	0.364E+00	19.80	
TH-234	4.47E+09Y	1.00	3.321E+00	3.321E+00	1.651E+00	49.72	
U-235	7.04E+08Y	1.00	2.946E-01	2.946E-01	0.869E-01	29.49	K
NP-237	2.14E+06Y	1.00	8.040E-01	8.040E-01	3.579E-01	44.51	
U-238	4.47E+09Y	1.00	3.321E+00	3.321E+00	1.651E+00	49.72	
ANH-511	1.00E+09Y	1.00	1.420E-01	1.420E-01	0.729E-01	51.34	

Total Activity : 6.400E+01 6.411E+01

Grand Total Activity : 6.400E+01 6.411E+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	209.17	125	274	1.06	418.54	415	9	1.74E-02	50.8	5.71E+00	
0	269.97	157	211	1.11	540.13	534	13	2.18E-02	41.4	4.79E+00	T
0	327.91	81	194	1.00	656.00	650	11	1.12E-02	70.8	4.15E+00	T
0	463.21	72	116	1.03	926.59	922	9	1.00E-02	58.9	3.20E+00	T
0	726.94	82	56	1.21	1453.97	1449	9	1.14E-02	40.7	2.22E+00	T
0	767.99	53	55	1.41	1536.04	1530	11	7.39E-03	60.5	2.12E+00	
0	794.88	54	38	1.22	1589.83	1585	9	7.48E-03	49.5	2.06E+00	T
2	964.77	48	55	1.94	1929.51	1925	19	6.71E-03	63.0	1.73E+00	T
0	1000.73	61	51	2.38	2001.42	1992	17	8.49E-03	60.2	1.68E+00	T
0	1630.72	16	8	2.47	3260.86	3254	11	2.18E-03	87.0	1.11E+00	
0	1637.45	15	0	1.00	3274.33	3269	9	2.08E-03	51.6	1.11E+00	
0	1710.19	14	0	1.56	3419.71	3415	9	1.94E-03	53.5	1.08E+00	

Flags: "T" = Tentatively associated


```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248250003.CNF;1
* Acquisition date   : 19-MAR-2010 13:11:18   Detector SN#      :
* Detector ID        : GAM16                   Sensitivity       : 5.00000
* Geometry           : CAN                     Energy tolerance: 1.50000
* Elapsed live time  : 0 02:00:00.00           Abundance limit  : 75.00000
* Elapsed real time  : 0 02:00:01.92           Half life ratio  : 8.00000
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 24-FEB-2010 12:00:00   Nuclide Library  : SOLID
* Sample ID          : G248250003             Analyst initials: MXR1
* Batch Number       : 959281                 Sample Quantity  : 1.18610E+02 GRAM
*****
*                                     QC DATA                               *
*
* CALIB. DATE/TIME   : 16-NOV-2009 11:22:16.1MS 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
K-40	2.757E+01	2.958E+00	4.107E-01	3.611E-02	67.127
CD-109	2.790E+00	1.095E+00	1.054E+00	1.016E-01	2.647
SN-126	2.695E-01	1.058E-01	1.257E-01	1.205E-02	2.144
BA-137M	3.171E-01	7.549E-02	6.375E-02	5.658E-03	4.974
CS-137	3.350E-01	7.977E-02	6.735E-02	5.988E-03	4.974
TL-208	5.251E-01	1.031E-01	5.095E-02	5.045E-03	10.307
PB-210	5.012E+00	4.932E+00	4.623E+00	4.274E-01	1.084
BI-211	3.925E+00	6.662E-01	3.312E-01	3.622E-02	11.851
PB-212	1.866E+00	2.514E-01	8.394E-02	9.972E-03	22.230
BI-214	1.384E+00	2.146E-01	9.594E-02	1.019E-02	14.424
PB-214	1.425E+00	2.542E-01	1.205E-01	1.473E-02	11.826
RA-224	1.619E+00	1.143E+00	8.999E-01	9.917E-02	1.799
RA-226	1.384E+00	2.146E-01	9.594E-02	1.019E-02	14.424
AC-228	1.840E+00	3.645E-01	2.038E-01	2.488E-02	9.031
RA-228	1.840E+00	3.645E-01	2.038E-01	2.488E-02	9.031
TH-228	1.866E+00	2.514E-01	8.394E-02	9.972E-03	22.230
TH-229	4.154E-01	1.631E-01	8.174E-01	7.974E-02	0.508
TH-232	1.840E+00	3.645E-01	2.038E-01	2.488E-02	9.031

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234	3.321E+00	1.651E+00	1.966E+00	3.506E-01	1.689
U-235	2.946E-01	8.688E-02	3.289E-01	5.566E-02	0.895
NP-237	8.040E-01	3.579E-01	3.395E-01	7.809E-02	2.369
U-238	3.321E+00	1.651E+00	1.966E+00	3.506E-01	1.689
ANH-511	1.420E-01	7.293E-02	4.274E-02	4.065E-03	3.323

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.724E-01		3.448E-01	5.351E-01	5.412E-02	-0.509
NA-22	-2.060E-02		4.439E-02	6.804E-02	5.661E-03	-0.303
NA-24	-3.524E+03		2.345E+03	Half-Life	too short	
SC-46	4.761E-03		3.767E-02	6.373E-02	6.025E-03	0.075
V-48	-5.872E-03		8.193E-02	1.346E-01	1.239E-02	-0.044
CR-51	2.501E-01		4.276E-01	7.035E-01	8.221E-02	0.355
MN-54	4.418E-02		3.798E-02	6.922E-02	6.501E-03	0.638
CO-56	-2.202E-02		4.194E-02	6.691E-02	6.297E-03	-0.329
CO-57	2.631E-02		2.297E-02	4.021E-02	3.341E-03	0.654
CO-58	-1.149E-02		3.701E-02	6.034E-02	5.653E-03	-0.190
FE-59	-3.521E-02		9.875E-02	1.558E-01	1.448E-02	-0.226
CO-60	4.168E-03		3.918E-02	6.417E-02	5.413E-03	0.065
ZN-65	-3.092E-02		9.406E-02	1.264E-01	1.073E-02	-0.245
SE-75	3.627E-02		4.949E-02	7.463E-02	8.710E-03	0.486
SR-85	3.069E-02		3.732E-02	6.506E-02	6.186E-03	0.472
Y-88	1.570E-02		3.693E-02	6.551E-02	5.318E-03	0.240
Y-91	-3.940E+00		2.410E+01	3.865E+01	3.143E+00	-0.102
NB-94	-1.448E-02		3.405E-02	5.266E-02	4.761E-03	-0.275
NB-95	1.775E-03		5.283E-02	7.390E-02	6.831E-03	0.024
NB-95M	-1.167E-01		1.437E-01	1.937E-01	2.307E-02	-0.602
ZR-95	3.139E-02		7.540E-02	1.256E-01	1.264E-02	0.250
MO-99	3.505E-05		4.562E-05	Half-Life	too short	
TC-99M	1.469E+19		5.991E+19	Half-Life	too short	
RU-103	-4.273E-03		4.375E-02	7.174E-02	1.043E-02	-0.060
RH-106	1.732E-01		3.067E-01	5.217E-01	7.097E-02	0.332
RU-106	1.732E-01		3.062E-01	5.217E-01	4.771E-02	0.332
AG-108M	9.018E-03		2.756E-02	4.700E-02	4.548E-03	0.192
AG-110M	1.247E-02		4.013E-02	5.889E-02	5.390E-03	0.212
SN-113	-3.904E-02		4.462E-02	7.039E-02	6.682E-03	-0.555
CD-115	-2.083E-05		6.167E-05	Half-Life	too short	
SN-117M	1.092E-02		7.529E-02	1.253E-01	1.113E-02	0.087
TE-123M	8.290E-03		2.762E-02	4.625E-02	4.136E-03	0.179
SB-124	4.420E-03		7.103E-02	1.192E-01	1.046E-02	0.037
SB-125	-7.263E-02		8.656E-02	1.354E-01	1.293E-02	-0.536
TE-125M	-3.194E+00		9.853E+00	1.636E+01	1.695E+00	-0.195
I-126	-1.494E-01		4.128E-01	5.578E-01	4.961E-02	-0.268
SB-126	3.829E-02		2.391E-01	3.610E-01	3.287E-02	0.106
SB-127	-2.161E+00		5.775E+00	8.987E+00	1.277E+00	-0.240

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-131	7.798E-02		2.129E-01	3.670E-01	3.902E-02	0.212
TE-132	-1.361E+00		3.928E+00	6.225E+00	1.167E+00	-0.219
BA-133	3.105E-02		4.442E-02	6.975E-02	9.922E-03	0.445
I-133	3.498E-01		1.546E+00	Half-Life	too short	
CS-134	1.101E-01	+	5.549E-02	9.159E-02	8.587E-03	1.202
CS-135	1.689E-01		1.666E-01	2.546E-01	3.246E-02	0.663
I-135	-2.619E+17		1.633E+18	Half-Life	too short	
CS-136	9.621E-03		1.500E-01	2.490E-01	2.307E-02	0.039
CE-139	-3.577E-02		3.008E-02	4.658E-02	4.225E-03	-0.768
BA-140	6.023E-02		3.792E-01	6.304E-01	2.152E-01	0.096
LA-140	-1.084E-01		1.140E-01	1.548E-01	1.318E-02	-0.701
CE-141	1.437E-02		7.135E-02	1.194E-01	1.045E-02	0.120
CE-143	3.028E-02		5.844E-03	Half-Life	too short	
CE-144	1.454E-01		1.826E-01	3.128E-01	4.742E-02	0.465
PM-144	1.420E-02		3.535E-02	5.889E-02	5.314E-03	0.241
PR-144	1.049E+00		2.655E+00	4.421E+00	3.986E-01	0.237
PM-146	1.234E-02		4.178E-02	7.084E-02	8.002E-03	0.174
ND-147	1.196E-01		8.395E-01	1.397E+00	2.161E-01	0.086
PM-149	1.228E-03		5.420E-04	Half-Life	too short	
EU-152	-3.997E-02		9.226E-02	1.467E-01	1.639E-02	-0.272
GD-153	-4.259E-02		8.876E-02	1.317E-01	1.170E-02	-0.323
EU-154	-3.405E-02		1.231E-01	1.931E-01	2.152E-02	-0.176
EU-155	1.157E-01		9.798E-02	1.720E-01	1.487E-02	0.673
TB-160	6.524E-02		1.297E-01	2.278E-01	2.152E-02	0.286
HO-166M	1.353E-02		5.704E-02	9.382E-02	8.512E-03	0.144
TA-182	2.196E-02		2.019E-01	3.321E-01	2.716E-02	0.066
IR-192	-1.458E-02		3.655E-02	5.618E-02	6.420E-03	-0.259
HG-203	1.417E-02		4.337E-02	7.022E-02	8.546E-03	0.202
BI-207	1.864E-02		4.911E-02	8.409E-02	7.412E-03	0.222
PB-211	-7.737E-01		7.973E-01	1.095E+00	5.314E-01	-0.706
BI-212	1.747E+00	+	7.458E-01	1.186E+00	1.520E-01	1.473
RN-219	2.919E-02		3.846E-01	6.480E-01	9.898E-02	0.045
RA-223	-6.610E-02		7.227E-01	1.006E+00	1.890E-01	-0.066
AC-227	-3.036E-01		2.492E-01	3.640E-01	5.166E-02	-0.834
TH-227	-3.036E-01		2.499E-01	3.640E-01	5.654E-02	-0.834
PA-231	-7.547E-01		1.431E+00	2.196E+00	3.684E-01	-0.344
TH-231	-6.610E-02		7.227E-01	1.006E+00	1.890E-01	-0.066
PA-233	-7.182E-02		6.199E-02	8.888E-02	1.039E-02	-0.808
PA-234	-1.856E-02		2.752E-01	4.543E-01	8.679E-02	-0.041
PA-234M	1.373E+01	+	8.389E+00	9.607E+00	1.000E+00	1.429
NP-239	-8.155E-02		3.470E-01	5.761E-01	4.796E-02	-0.142
AM-241	1.400E-01		1.623E-01	2.441E-01	1.915E-02	0.574
CM-247	1.637E-02		3.476E-02	5.999E-02	5.577E-03	0.273
CF-249	2.048E-02		3.754E-02	6.516E-02	6.108E-03	0.314
CF-251	-1.860E-02		1.252E-01	2.042E-01	1.909E-02	-0.091

VAX/VMS Nuclide Identification Report Generated

```

*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                          *
*****
*                               DETECTOR DATA                               *
*
* Configuration      : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248250003
* Acquisition date   : 19-MAR-2010 13:11:18 Detector SN#      :
* Detector ID        : GAM16 Sensitivity      : 5.000
* Geometry           : CAN Energy tolerance: 1.500
* Elapsed live time  : 0 02:00:00.00 Abundance limit : 75.000
* Elapsed real time  : 0 02:00:01.92 Half life ratio : 8.000
*****
*                               SAMPLE DATA                               *
*
* Sample date        : 24-FEB-2010 12:00:00 Nuclide Library : SOLID
* Sample ID          : G248250003 Analyst initials: MXR1
* Batch Number       : 959281 Sample Quantity : 1.1861E+02 GRAM
* Recovery           : 1.00000 Carrier Weight : 0.00000
*****
*                               QC DATA                               *
*
* CALIB. DATE/TIME   : 16-NOV-2009 11:22:16 MS Isotope      :
* MSD DPM             : 0.000 MSD Isotope                  :
* LCS DPM             : 0.000 LCS Isotope                   :
* LCSD DPM            : 0.000 LCSD Isotope                  :
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.757E+01	2.899E+00	2.049E-01	1.479E+00
CD-109	2.790E+00	1.074E+00	5.425E-01	5.477E-01
SN-126	2.695E-01	1.037E-01	6.468E-02	5.291E-02
BA-137M	3.171E-01	7.398E-02	3.209E-02	3.775E-02
CS-137	3.350E-01	7.817E-02	3.390E-02	3.988E-02
TL-208	5.251E-01	1.011E-01	2.568E-02	5.157E-02
PB-210	5.012E+00	4.833E+00	2.395E+00	2.466E+00
BI-211	3.925E+00	6.529E-01	1.679E-01	3.331E-01
PB-212	1.866E+00	2.464E-01	4.274E-02	1.257E-01
BI-214	1.384E+00	2.104E-01	4.833E-02	1.073E-01
PB-214	1.425E+00	2.492E-01	6.106E-02	1.271E-01
RA-224	1.619E+00	1.121E+00	4.581E-01	5.717E-01
RA-226	1.384E+00	2.104E-01	4.833E-02	1.073E-01
AC-228	1.840E+00	3.572E-01	1.022E-01	1.822E-01
RA-228	1.840E+00	3.572E-01	1.022E-01	1.822E-01
TH-228	1.866E+00	2.464E-01	4.274E-02	1.257E-01
TH-229	3.546E-01	4.740E-01	4.171E-01	2.418E-01
TH-232	1.840E+00	3.572E-01	1.022E-01	1.822E-01
TH-234	3.321E+00	1.618E+00	1.015E+00	8.256E-01
U-235	5.845E-02	1.946E-01	1.684E-01	9.927E-02
NP-237	8.040E-01	3.508E-01	1.747E-01	1.790E-01
U-238	3.321E+00	1.618E+00	1.015E+00	8.256E-01
ANH-511	1.420E-01	7.147E-02	2.158E-02	3.646E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-2.724E-01	3.379E-01	2.703E-01	1.724E-01 NOT IDENT.
NA-22	-2.060E-02	4.350E-02	3.399E-02	2.220E-02 NOT IDENT.
NA-24	-3.524E+09	4.596E+09	0.000E+00	2.345E+09 SHORT HLIF
SC-46	4.761E-03	3.691E-02	3.197E-02	1.883E-02 FAIL ABUN

V-48	-5.872E-03	8.029E-02	6.746E-02	4.097E-02	NOT IDENT.
CR-51	2.501E-01	4.190E-01	3.570E-01	2.138E-01	NOT IDENT.
MN-54	4.418E-02	3.722E-02	3.475E-02	1.899E-02	NOT IDENT.
CO-56	-2.202E-02	4.110E-02	3.359E-02	2.097E-02	NOT IDENT.
CO-57	2.631E-02	2.251E-02	2.062E-02	1.149E-02	NOT IDENT.
CO-58	-1.149E-02	3.627E-02	3.030E-02	1.850E-02	NOT IDENT.
FE-59	-3.521E-02	9.677E-02	7.799E-02	4.937E-02	NOT IDENT.
CO-60	4.168E-03	3.839E-02	3.204E-02	1.959E-02	NOT IDENT.
ZN-65	-3.092E-02	9.217E-02	6.325E-02	4.703E-02	NOT IDENT.
SE-75	3.627E-02	4.851E-02	3.795E-02	2.475E-02	NOT IDENT.
SR-85	3.069E-02	3.657E-02	3.284E-02	1.866E-02	NOT IDENT.
Y-88	1.570E-02	3.620E-02	3.259E-02	1.847E-02	NOT IDENT.
Y-91	-3.940E+00	2.362E+01	1.932E+01	1.205E+01	NOT IDENT.
NB-94	-1.448E-02	3.337E-02	2.649E-02	1.703E-02	NOT IDENT.
NB-95	1.775E-03	5.177E-02	3.714E-02	2.641E-02	NOT IDENT.
NB-95M	-1.167E-01	1.408E-01	9.865E-02	7.183E-02	NOT IDENT.
ZR-95	3.139E-02	7.389E-02	6.311E-02	3.770E-02	NOT IDENT.
MO-99	3.505E+01	8.941E+01	0.000E+00	4.562E+01	SHORT HLIF
TC-99M	1.469E+25	1.174E+26	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.273E-03	4.288E-02	3.623E-02	2.188E-02	FAIL ABUN
RH-106	1.732E-01	3.006E-01	2.628E-01	1.534E-01	NOT IDENT.
RU-106	1.732E-01	3.001E-01	2.628E-01	1.531E-01	NOT IDENT.
AG-108M	9.018E-03	2.701E-02	2.377E-02	1.378E-02	NOT IDENT.
AG-110M	1.247E-02	3.932E-02	2.964E-02	2.006E-02	NOT IDENT.
SN-113	-3.904E-02	4.373E-02	3.564E-02	2.231E-02	NOT IDENT.
CD-115	-2.083E+01	1.209E+02	0.000E+00	6.167E+01	SHORT HLIF
SN-117M	1.092E-02	7.379E-02	6.406E-02	3.765E-02	NOT IDENT.
TE-123M	8.290E-03	2.707E-02	2.365E-02	1.381E-02	NOT IDENT.
SB-124	4.420E-03	6.961E-02	5.937E-02	3.552E-02	NOT IDENT.
SB-125	-7.263E-02	8.483E-02	6.849E-02	4.328E-02	FAIL ABUN
TE-125M	-3.194E+00	9.656E+00	8.402E+00	4.926E+00	NOT IDENT.
I-126	-1.494E-01	4.045E-01	2.807E-01	2.064E-01	NOT IDENT.
SB-126	3.829E-02	2.344E-01	1.815E-01	1.196E-01	NOT IDENT.
SB-127	-2.161E+00	5.659E+00	4.522E+00	2.887E+00	NOT IDENT.
I-131	7.798E-02	2.086E-01	1.860E-01	1.064E-01	NOT IDENT.
TE-132	-1.361E+00	3.850E+00	3.171E+00	1.964E+00	NOT IDENT.
BA-133	3.105E-02	4.353E-02	3.536E-02	2.221E-02	NOT IDENT.
I-133	3.498E+05	3.031E+06	0.000E+00	1.546E+06	SHORT HLIF
CS-134	1.101E-01	5.438E-02	4.601E-02	2.774E-02	FAIL ABUN
CS-135	1.689E-01	1.632E-01	1.294E-01	8.328E-02	NOT IDENT.
I-135	-2.619E+23	3.201E+24	0.000E+00	0.000E+00	SHORT HLIF
CS-136	9.621E-03	1.470E-01	1.247E-01	7.499E-02	NOT IDENT.
CE-139	-3.577E-02	2.948E-02	2.381E-02	1.504E-02	NOT IDENT.
BA-140	6.023E-02	3.716E-01	3.181E-01	1.896E-01	NOT IDENT.
LA-140	-1.084E-01	1.117E-01	7.713E-02	5.699E-02	FAIL ABUN
CE-141	1.437E-02	6.993E-02	6.114E-02	3.568E-02	NOT IDENT.
CE-143	3.028E+04	1.145E+04	0.000E+00	5.844E+03	SHORT HLIF
CE-144	1.454E-01	1.789E-01	1.602E-01	9.128E-02	NOT IDENT.
PM-144	1.420E-02	3.465E-02	2.963E-02	1.768E-02	NOT IDENT.
PR-144	1.049E+00	2.602E+00	2.224E+00	1.328E+00	NOT IDENT.
PM-146	1.234E-02	4.095E-02	3.581E-02	2.089E-02	NOT IDENT.
ND-147	1.196E-01	8.227E-01	7.049E-01	4.197E-01	FAIL ABUN
PM-149	1.228E+03	1.062E+03	0.000E+00	5.420E+02	SHORT HLIF
EU-152	-3.997E-02	9.042E-02	7.439E-02	4.613E-02	FAIL ABUN
GD-153	-4.259E-02	8.699E-02	6.770E-02	4.438E-02	NOT IDENT.
EU-154	-3.405E-02	1.206E-01	9.646E-02	6.155E-02	NOT IDENT.
EU-155	1.157E-01	9.602E-02	8.833E-02	4.899E-02	FAIL ABUN
TB-160	6.524E-02	1.271E-01	1.143E-01	6.483E-02	FAIL ABUN
HO-166M	1.353E-02	5.590E-02	4.719E-02	2.852E-02	FAIL ABUN
TA-182	2.196E-02	1.979E-01	1.660E-01	1.010E-01	FAIL ABUN
IR-192	-1.458E-02	3.582E-02	2.851E-02	1.827E-02	FAIL ABUN
HG-203	1.417E-02	4.250E-02	3.569E-02	2.168E-02	NOT IDENT.
BI-207	1.864E-02	4.813E-02	4.210E-02	2.456E-02	FAIL ABUN
PB-211	-7.737E-01	7.814E-01	5.543E-01	3.987E-01	NOT IDENT.
BI-212	1.747E+00	7.309E-01	5.964E-01	3.729E-01	FAIL ABUN
RN-219	2.919E-02	3.769E-01	3.280E-01	1.923E-01	FAIL ABUN
RA-223	-6.610E-02	7.083E-01	5.105E-01	3.614E-01	FAIL ABUN
AC-227	-3.036E-01	2.442E-01	1.852E-01	1.246E-01	FAIL ABUN
TH-227	-3.036E-01	2.449E-01	1.852E-01	1.250E-01	FAIL ABUN
PA-231	-7.547E-01	1.402E+00	1.116E+00	7.153E-01	FAIL ABUN
TH-231	-6.610E-02	7.083E-01	5.105E-01	3.614E-01	FAIL ABUN
PA-233	-7.182E-02	6.075E-02	4.512E-02	3.100E-02	FAIL ABUN
PA-234	-1.856E-02	2.697E-01	2.278E-01	1.376E-01	NOT IDENT.
PA-234M	1.373E+01	8.221E+00	4.813E+00	4.194E+00	FAIL ABUN
NP-239	-8.155E-02	3.401E-01	2.956E-01	1.735E-01	NOT IDENT.
AM-241	1.400E-01	1.591E-01	1.261E-01	8.116E-02	NOT IDENT.
CM-247	1.637E-02	3.406E-02	3.036E-02	1.738E-02	NOT IDENT.
CF-249	2.048E-02	3.679E-02	3.299E-02	1.877E-02	NOT IDENT.

CF-251	-1.860E-02	1.227E-01	1.043E-01	6.261E-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
46.54	186.9243
49.72	240.6156
57.36	0.0000
59.54	260.4728
63.29	304.5754
63.29	304.5754
64.28	304.9388
67.75	316.7539
69.67	357.8411
70.83	345.5229
72.81	323.1680
72.87	323.2129
72.87	323.2129
74.82	328.0677
74.82	328.0677
74.82	328.0677
74.97	328.1821
77.11	329.7905
77.11	329.7905
77.11	329.7905
79.69	297.5067
79.80	297.5792
80.12	263.5596
80.19	263.6003
80.57	298.0837
81.00	312.0831
81.07	312.1312
81.07	312.1312
83.79	300.1741
83.79	300.1741
85.43	314.2056
86.48	314.8998
86.55	314.9460
86.79	315.1029
86.94	315.2045
87.57	393.8705
88.03	261.0901
88.47	261.3281
89.96	262.1277
91.11	282.4450
92.59	283.2865
92.59	283.2865
93.35	283.7163
94.67	261.9672
94.87	246.1869
94.87	246.1869
95.86	290.4283
97.43	297.9666
98.44	262.2939
99.53	242.1836
100.11	265.6260
103.18	283.2955
103.37	282.4999
105.31	242.1093
106.12	250.5801
109.28	275.5804
111.00	274.6030
111.76	252.2077
116.30	221.1618
117.23	227.9464
121.12	215.5624
121.78	200.0533
122.06	201.9999
123.07	218.1144
131.20	306.5502
133.52	215.1741
136.00	220.7342

136.47	234.1631
140.51	0.0000
140.51	0.0000
143.76	253.9880
144.24	256.0841
144.24	256.0841
145.44	265.1823
152.43	253.2978
153.25	236.1009
154.21	217.9320
154.21	217.9320
156.02	273.1042
158.56	223.1665
159.00	224.2781
162.66	230.3176
163.33	210.8217
165.86	269.8563
176.60	227.5357
177.52	235.8295
181.07	0.0000
184.41	224.7054
185.72	225.0668
193.51	186.2545
197.04	236.3569
205.31	174.2993
210.85	200.4453
215.65	197.3136
222.11	216.6697
227.38	206.1960
228.16	195.7283
228.18	195.7321
235.69	217.0988
235.96	210.7262
235.96	210.7262
238.63	168.8264
238.63	168.8264
240.99	169.2305
242.00	169.4030
244.70	159.0421
252.40	142.8135
252.80	151.5943
256.23	181.6436
256.23	181.6436
260.90	0.0000
264.66	132.3682
268.22	136.1303
269.46	134.0719
269.46	134.0719
271.23	134.2910
273.65	161.8433
276.40	143.8521
277.37	159.6036
277.60	155.1731
278.00	147.4124
279.20	148.6888
279.54	171.1009
280.46	161.1709
283.69	156.0272
284.31	139.2654
285.41	132.6564
285.90	0.0000
287.50	140.7878
293.27	0.0000
295.22	167.8249
295.96	122.5459
298.57	167.1724
299.98	166.2372
299.98	166.2372
300.09	166.2520
300.09	166.2520
300.13	166.2580
301.36	135.0845
302.85	109.5742
304.50	144.0187
304.50	144.0187
304.85	144.0623
308.46	102.0679
311.90	138.0151

316.51	130.4608
319.41	123.8276
320.08	107.6845
323.87	134.1508
323.87	134.1508
328.76	129.4323
333.37	135.1730
334.37	127.9021
334.37	127.9021
338.28	151.5577
338.28	151.5577
338.32	151.5629
338.32	151.5629
338.32	151.5629
340.48	117.2172
340.55	117.2233
344.28	125.4553
351.06	131.7018
351.93	131.7877
356.01	107.1854
364.49	102.4723
366.42	0.0000
383.85	98.4485
388.16	98.7484
388.63	107.0132
391.69	121.9092
400.66	100.5326
401.81	105.2277
402.40	96.0353
404.85	132.2711
410.95	118.8867
414.70	98.7005
423.72	94.6089
427.09	105.1453
427.87	107.0768
433.94	85.8110
453.88	93.5872
463.37	67.6253
468.07	73.9852
473.00	85.9947
476.78	90.0639
477.60	97.8592
487.02	82.8197
492.35	0.0000
497.08	82.3286
511.00	74.0971
514.00	74.2218
527.90	0.0000
529.87	0.0000
531.02	65.9396
537.26	68.1702
546.56	0.0000
563.25	73.1909
569.33	54.0481
569.50	54.0529
569.70	54.0594
583.19	61.6260
600.60	77.7122
602.73	69.7040
604.72	74.7576
609.32	58.2781
609.32	58.2781
610.33	54.9737
614.28	53.4125
618.01	70.0220
621.93	59.6858
621.93	59.6858
633.25	64.2224
635.95	60.0894
636.99	59.0642
645.85	60.3712
657.76	64.7559
661.66	87.4929
661.66	87.4929
664.57	0.0000
666.33	85.5420
666.50	75.2834
677.62	67.7123

685.70	76.5902
695.00	68.2430
696.49	67.2032
696.51	67.2051
697.00	74.8076
702.65	77.1687
706.68	70.7724
711.68	55.6505
720.70	61.3457
721.93	0.0000
722.78	64.9090
722.91	70.1758
723.31	70.1875
724.19	66.7041
727.33	61.5200
733.00	66.0754
735.93	60.6447
739.50	0.0000
747.24	56.5019
752.31	81.0468
753.82	55.5466
756.73	51.1646
763.94	60.6870
765.81	67.8786
766.42	62.5369
777.92	0.0000
778.90	40.4066
783.70	52.8549
785.37	41.4124
795.86	55.7499
801.95	67.0625
810.29	52.7353
810.76	49.1076
815.77	43.7367
818.51	52.9038
832.01	66.9351
834.85	51.4021
836.80	0.0000
846.77	62.7008
856.80	41.6503
860.56	42.6353
871.09	51.1771
873.19	55.8721
875.33	0.0000
879.36	35.4664
880.51	42.0172
883.24	42.9936
884.68	49.5620
889.28	42.1523
898.04	42.2853
911.20	42.4852
911.20	42.4852
911.20	42.4852
926.50	57.9038
937.49	51.4556
944.13	43.9336
946.00	43.9617
949.00	47.8345
962.29	56.0604
964.08	48.0811
966.15	39.4545
968.97	39.4925
968.97	39.4925
968.97	39.4925
983.53	33.8781
996.26	42.1220
1001.03	50.6264
1004.73	35.7419
1037.84	45.3217
1038.76	0.0000
1048.07	40.5275
1050.41	39.5684
1050.41	39.5684
1063.66	38.7410
1085.87	48.0117
1099.45	48.2109
1112.07	43.3548
1115.54	45.4175

1120.29	48.5156
1120.29	48.5156
1120.55	45.4856
1121.30	33.7012
1131.51	0.0000
1173.23	53.3838
1177.93	49.3430
1189.05	45.3750
1204.77	58.0098
1221.41	53.0769
1231.02	66.7844
1235.36	65.8178
1238.28	61.6907
1260.41	0.0000
1271.85	27.4346
1274.44	43.2942
1274.54	46.4621
1291.59	32.8845
1298.22	0.0000
1312.11	36.2628
1332.49	30.0221
1365.19	17.3000
1368.63	0.0000
1384.29	27.1619
1408.01	18.5796
1457.56	0.0000
1460.82	12.9159
1489.16	22.2910
1505.03	41.0190
1596.21	20.9401
1620.50	9.5695
1678.03	0.0000
1690.97	9.7160
1764.49	8.8788
1764.49	8.8788
1770.23	10.1589
1771.35	16.7946
1791.20	0.0000
1836.06	11.0085

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248250003

Total Uranium Activity	9.9079E+00	ug/g
Total Uranium Counting Unc.	4.8151E+00	ug/g
Total Uranium Tpu	2.4567E-06	ug/g
Total Uranium Mda	3.0220E+00	ug/g

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*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON ,SC 29417                *
*               GROSS GAMMA REPORT                  *
*
*****
*
*  BATCH ID      : 959281          SAMPLE ID   : G248250003
*  ANALYST       : MXR1            DETECTOR    : GAM16
*  SAMPLE DATE   : 24-FEB-2010 12:00:00.00  COUNT TIME : 0 02:00:00.00
*  ANALYSIS DATE: 19-MAR-2010 13:11:18.79  SAMPLE ALQT: 118.610 GRAM
*
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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 1.036E+01
GROSS GAMMA ERROR (pCi/GRAM ) : 1.433E+00
GROSS GAMMA MDA (pCi/GRAM ) : 4.107E+00
GROSS GAMMA DLC (pCi/GRAM ) : 1.987E+00

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VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 15:12:57.07

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*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                    *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248250004.CNF;1
Sample date        : 24-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 13:11:38
Sample ID          : G248250004 Sample quantity : 1.13550E+02 GRAM
Detector name      : GAM17 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:10.14 0.1%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity : 5.00000
Batch ID           : 959281 Detector SN# :
Matrix Spike ID    : LCS ID : 1032-A
*****
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.51*	70	360	0.79	92.64	89	7	9.75E-03	49.6	
2	0	63.41*	216	685	0.96	126.46	122	10	2.99E-02	24.2	
3	4	74.96*	550	426	0.92	149.56	143	15	7.64E-02	7.4	8.50E-01
4	4	77.21*	902	395	0.95	154.06	143	15	1.25E-01	5.0	
5	0	86.26*	523	637	1.17	172.18	165	13	7.27E-02	10.9	
6	6	90.00*	207	137	1.12	179.66	178	15	2.88E-02	9.9	2.64E+00
7	6	92.92*	625	381	1.64	185.50	178	15	8.68E-02	7.5	
8	0	128.76	101	335	2.36	257.21	253	10	1.40E-02	35.2	
9	0	185.84*	257	235	1.12	371.41	367	10	3.57E-02	13.2	
10	0	209.72*	60	237	1.06	419.18	414	9	8.35E-03	49.3	
11	6	238.67*	1014	121	1.08	477.11	472	19	1.41E-01	3.7	7.21E-01
12	6	241.61	290	215	1.99	483.00	472	19	4.02E-02	15.5	
13	0	270.38	75	158	1.14	540.56	536	10	1.05E-02	33.6	
14	0	277.39*	52	106	1.12	554.58	552	7	7.21E-03	37.0	
15	1	295.21*	316	100	1.31	590.24	586	21	4.39E-02	8.0	2.45E+00
16	1	300.13	72	100	1.31	600.09	586	21	9.99E-03	26.9	
17	0	327.74	79	153	1.41	655.34	651	12	1.09E-02	33.3	
18	0	338.27*	192	171	1.00	676.39	672	10	2.67E-02	14.8	
19	0	351.89*	500	105	1.14	703.65	698	10	6.94E-02	6.0	
20	0	462.57	37	106	0.90	925.11	922	11	5.11E-03	56.4	
21	0	510.59*	77	139	1.75	1021.20	1014	14	1.07E-02	38.7	
22	0	583.27*	304	80	1.59	1166.64	1161	11	4.22E-02	8.3	
23	0	609.24*	339	78	1.28	1218.61	1212	13	4.70E-02	7.7	
24	0	662.12	134	81	1.32	1324.43	1318	14	1.86E-02	17.0	
25	0	727.35	95	53	1.89	1454.97	1449	14	1.32E-02	19.2	
26	0	768.28	38	43	0.97	1536.88	1532	10	5.30E-03	36.4	
27	0	861.01	40	70	0.85	1722.46	1714	15	5.52E-03	48.9	
28	0	910.98*	190	33	1.57	1822.46	1817	13	2.63E-02	9.8	
29	1	964.61	55	24	1.83	1929.80	1920	37	7.63E-03	24.0	1.27E+00
30	1	968.54*	93	28	1.83	1937.67	1920	37	1.30E-02	16.3	
31	0	1120.13	91	26	2.15	2241.06	2235	13	1.26E-02	15.7	
32	0	1190.01	15	12	0.85	2380.93	2378	6	2.08E-03	44.7	
33	0	1460.40*	759	10	1.88	2922.16	2912	20	1.05E-01	3.8	
34	0	1494.63	16	0	1.00	2990.69	2984	11	2.22E-03	25.0	
35	0	1763.94	70	7	1.61	3529.82	3522	15	9.71E-03	14.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 19-MAR-2010 15:13:00

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Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248250004.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 24-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 13:11:38
Sample ID         : G248250004 Sample quantity : 113.55 GRAM
Sample type       : SOLID Sample geometry :
Detector name     : GAMMA17 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:10.14 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type   : Empirical Efficiencies at : Peak Energy
Abundance limit   : 75.00 WTM error limit : 3.00

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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	+	1460.82	*	3.024E+01	3.529E+00	6.010E-01	5.336E-02	50.310
SN-126	+	64.28		1.095E+00	5.573E-01	4.455E-01	7.111E-02	2.458
	+	86.94		2.906E+00	1.366E+00	4.491E-01	1.869E-01	6.470
	+	87.57	*	6.989E-01	1.672E-01	1.008E-01	9.838E-03	6.933
BA-137M	+	661.66	*	3.083E-01	1.081E-01	8.196E-02	6.904E-03	3.761
CS-137	+	661.66	*	3.257E-01	1.142E-01	8.658E-02	7.308E-03	3.761
TL-208	+	277.37		7.284E-01	5.468E-01	7.287E-01	9.414E-02	1.000
	+	583.19	*	6.531E-01	1.250E-01	8.394E-02	7.930E-03	7.781
	+	860.56		8.434E-01	8.284E-01	6.496E-01	6.109E-02	1.298
PB-210	+	46.54	*	8.670E-01	8.649E-01	9.205E-01	9.924E-02	0.942
BI-211	+	72.87		2.555E+00	2.208E+00	3.845E+00	3.760E-01	0.664
	+	351.06	*	4.399E+00	6.666E-01	3.861E-01	3.603E-02	11.394
PB-212	+	74.82		2.604E+00	5.264E-01	4.262E-01	5.873E-02	6.110
	+	77.11		2.570E+00	3.577E-01	2.574E-01	2.509E-02	9.988
	+	238.63	*	1.913E+00	2.394E-01	1.037E-01	1.050E-02	18.444
	+	300.09		2.157E+00	1.186E+00	1.510E+00	1.660E-01	1.429
BI-214	+	609.32	*	1.417E+00	2.628E-01	1.609E-01	1.644E-02	8.811
	+	1120.29		2.056E+00	6.807E-01	7.244E-01	7.781E-02	2.837
	+	1764.49		2.248E+00	6.866E-01	4.848E-01	4.099E-02	4.638
PB-214	+	74.82		4.615E+00	8.961E-01	7.553E-01	9.500E-02	6.110
	+	77.11		4.531E+00	7.330E-01	4.537E-01	5.793E-02	9.988
	+	242.00		3.315E+00	1.086E+00	6.315E-01	6.785E-02	5.250
	+	295.22		1.675E+00	3.269E-01	2.662E-01	2.997E-02	6.290
	+	351.93	*	1.596E+00	2.575E-01	1.405E-01	1.522E-02	11.365
RA-224	+	240.99	*	5.863E+00	1.891E+00	1.112E+00	1.006E-01	5.270
RA-226	+	609.32	*	1.417E+00	2.628E-01	1.609E-01	1.644E-02	8.811
	+	1120.29		2.056E+00	6.807E-01	7.244E-01	7.781E-02	2.837
	+	1764.49		2.248E+00	6.866E-01	4.848E-01	4.099E-02	4.638
AC-228	+	338.32		1.870E+00	9.577E-01	5.036E-01	2.105E-01	3.714
	+	911.20	*	2.056E+00	4.685E-01	2.956E-01	3.455E-02	6.957
	+	968.97		1.751E+00	7.129E-01	5.087E-01	1.241E-01	3.441
RA-228	+	338.32		1.870E+00	9.577E-01	5.036E-01	2.105E-01	3.714
	+	911.20	*	2.056E+00	4.685E-01	2.956E-01	3.455E-02	6.957
	+	968.97		1.751E+00	7.129E-01	5.087E-01	1.241E-01	3.441

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	74.82		2.604E+00	4.625E-01	4.262E-01	4.189E-02	6.110
	+	77.11		2.570E+00	3.577E-01	2.574E-01	2.509E-02	9.988
	+	238.63	*	1.913E+00	2.394E-01	1.037E-01	1.050E-02	18.444
	+	300.09		2.157E+00	1.760E+00	1.510E+00	9.254E-01	1.429
TH-232	+	338.32		1.870E+00	5.783E-01	5.036E-01	4.538E-02	3.714
	+	911.20	*	2.056E+00	4.685E-01	2.956E-01	3.455E-02	6.957
	+	968.97		1.751E+00	7.129E-01	5.087E-01	1.241E-01	3.441
TH-234	+	63.29	*	2.841E+00	1.475E+00	1.156E+00	2.199E-01	2.458
	+	92.59		7.413E+00	2.011E+00	8.402E-01	1.903E-01	8.823
U-235	+	89.96		2.973E+00	9.499E-01	1.083E+00	2.715E-01	2.745
	+	93.35		5.599E+00	1.566E+00	6.363E-01	1.505E-01	8.800
		143.76	*	7.862E-02	2.502E-01	4.026E-01	7.169E-02	0.195
		163.33		3.089E-01	4.938E-01	8.255E-01	1.480E-01	0.374
	+	185.72		3.087E-01	8.588E-02	7.433E-02	6.365E-03	4.154
		205.31		2.326E-01	6.985E-01	1.012E+00	1.844E-01	0.230
NP-237	+	86.48	*	2.085E+00	6.635E-01	3.219E-01	7.444E-02	6.478
		95.86		-2.165E-01	9.023E-01	1.332E+00	3.274E-01	-0.163
U-238	+	63.29	*	2.841E+00	1.475E+00	1.156E+00	2.199E-01	2.458
	+	92.59		7.413E+00	1.332E+00	8.402E-01	8.382E-02	8.823
ANH-511	+	511.00	*	1.234E-01	9.616E-02	6.485E-02	5.792E-03	1.902

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.143E-01	4.661E-01	7.478E-01	7.114E-02	-0.153
NA-22		1274.54	*	1.521E-02	6.579E-02	1.088E-01	9.163E-03	0.140
NA-24		1368.63	*	-1.122E+02	6.579E-02	Half-Life too short		
SC-46		889.28	*	-2.870E-03	5.773E-02	9.502E-02	8.318E-03	-0.030
	+	1120.55		3.713E-01	1.204E-01	2.000E-01	1.678E-02	1.857
V-48		944.13		5.757E-01	1.664E+00	2.852E+00	2.495E-01	0.202
		983.53	*	-1.477E-02	1.491E-01	2.421E-01	2.111E-02	-0.061
		1312.11		-1.170E-01	1.622E-01	2.464E-01	2.091E-02	-0.475
CR-51		320.08	*	3.816E-01	5.390E-01	9.448E-01	9.016E-02	0.404
MN-54		834.85	*	-3.050E-02	5.550E-02	8.733E-02	7.679E-03	-0.349
CO-56		846.77	*	-1.205E-03	5.627E-02	9.328E-02	8.200E-03	-0.013
		1037.84		2.306E-01	4.933E-01	8.476E-01	7.700E-02	0.272
		1238.28		1.204E-01	1.544E-01	2.661E-01	2.286E-02	0.453
		1771.35		-4.738E-01	3.619E-01	3.778E-01	3.191E-02	-1.254
CO-57		122.06	*	-1.261E-02	2.799E-02	4.520E-02	5.296E-03	-0.279
		136.47		-6.568E-02	2.300E-01	3.727E-01	4.192E-02	-0.176
CO-58		810.76	*	-7.155E-02	5.434E-02	7.563E-02	6.661E-03	-0.946
FE-59		1099.45	*	-9.726E-02	1.646E-01	2.499E-01	2.294E-02	-0.389
		1291.59		-5.592E-02	2.012E-01	3.113E-01	3.000E-02	-0.180
CO-60		1173.23		3.584E-02	6.976E-02	1.189E-01	9.714E-03	0.301
		1332.49	*	2.895E-02	5.922E-02	1.029E-01	8.768E-03	0.281
ZN-65		1115.54	*	-4.335E-02	1.610E-01	2.163E-01	1.821E-02	-0.200
SE-75		121.12		4.190E-02	1.454E-01	2.437E-01	3.308E-02	0.172
		136.00		-2.444E-02	4.624E-02	7.394E-02	7.996E-03	-0.330

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	264.66	*		-5.649E-03	5.742E-02	8.567E-02	7.872E-03	-0.066
	279.54			6.417E-02	1.461E-01	2.265E-01	2.149E-02	0.283
	400.66			-6.290E-02	3.409E-01	5.578E-01	6.125E-02	-0.113
SR-85	514.00	*		4.890E-02	6.407E-02	9.874E-02	8.821E-03	0.495
Y-88	898.04			1.094E-02	5.838E-02	9.858E-02	8.659E-03	0.111
	1836.06	*		3.525E-03	6.038E-02	9.958E-02	8.304E-03	0.035
Y-91	1204.77	*		9.990E+00	3.290E+01	5.499E+01	4.539E+00	0.182
NB-94	702.65	*		-7.234E-03	4.813E-02	8.006E-02	6.867E-03	-0.090
	871.09			2.739E-02	4.828E-02	8.468E-02	7.431E-03	0.323
NB-95	765.81	*		5.781E-02	7.375E-02	1.175E-01	1.026E-02	0.492
NB-95M	235.69	*		1.355E-01	1.719E-01	2.585E-01	2.644E-02	0.524
ZR-95	724.19			2.383E-02	1.596E-01	2.379E-01	2.228E-02	0.100
	756.73	*		1.391E-01	1.154E-01	2.119E-01	2.037E-02	0.656
MO-99	140.51			2.482E-05	1.154E-01	Half-Life	too short	
	181.07			4.155E-05	1.154E-01	Half-Life	too short	
	366.42			-1.371E-04	1.154E-01	Half-Life	too short	
	739.50	*		-8.148E-06	1.154E-01	Half-Life	too short	
	777.92			-9.137E-05	1.154E-01	Half-Life	too short	
TC-99M	140.51	*		1.914E+19	1.154E-01	Half-Life	too short	
RU-103	497.08	*		-1.698E-02	5.206E-02	8.214E-02	1.162E-02	-0.207
	610.33			1.683E+01	3.796E+00	4.535E+00	7.444E-01	3.711
RH-106	621.93	*		1.310E-01	4.268E-01	7.074E-01	9.408E-02	0.185
	1050.41			6.564E-01	3.050E+00	5.132E+00	4.417E-01	0.128
RU-106	621.93	*		1.310E-01	4.266E-01	7.074E-01	6.145E-02	0.185
	1050.41			6.564E-01	3.050E+00	5.132E+00	4.417E-01	0.128
AG-108M	433.94	*		-4.173E-02	3.729E-02	5.539E-02	4.964E-03	-0.753
	614.28			1.959E-02	5.191E-02	7.672E-02	6.911E-03	0.255
	722.91			-1.936E-02	5.971E-02	8.375E-02	7.466E-03	-0.231
CD-109	88.03	*		4.126E+00	1.086E+00	1.553E+00	1.517E-01	2.656
AG-110M	657.76	*		-2.806E-02	6.137E-02	8.017E-02	6.987E-03	-0.350
	677.62			1.760E-01	4.664E-01	7.727E-01	6.754E-02	0.228
	706.68			1.606E-01	3.344E-01	5.833E-01	5.156E-02	0.275
	763.94			8.587E-03	2.435E-01	3.565E-01	3.196E-02	0.024
	884.68			-2.676E-02	7.124E-02	1.130E-01	1.020E-02	-0.237
	937.49			-8.950E-02	1.725E-01	2.684E-01	2.431E-02	-0.333
	1384.29			8.717E-02	2.191E-01	3.868E-01	3.409E-02	0.225
	1505.03			-2.246E-01	3.589E-01	5.215E-01	4.509E-02	-0.431
SN-113	391.69	*		5.545E-03	5.868E-02	9.816E-02	8.528E-03	0.056
CD-115	260.90			8.179E-04	5.868E-02	Half-Life	too short	
	492.35			6.571E-05	5.868E-02	Half-Life	too short	
	527.90	*		9.844E-05	5.868E-02	Half-Life	too short	
SN-117M	156.02			-2.651E+00	3.957E+00	6.233E+00	5.738E-01	-0.425
	158.56	*		-1.243E-02	9.050E-02	1.466E-01	1.317E-02	-0.085
TE-123M	159.00	*		-5.294E-03	3.294E-02	5.326E-02	4.794E-03	-0.099
SB-124	602.73			2.339E-02	6.081E-02	9.012E-02	7.915E-03	0.260
	645.85			1.280E-01	7.202E-01	1.177E+00	1.064E-01	0.109
	722.78			4.451E-02	6.256E-01	9.246E-01	8.170E-02	0.048
	1690.97	*		-3.990E-02	1.082E-01	1.609E-01	1.435E-02	-0.248
SB-125	427.87	*		4.663E-02	1.255E-01	2.127E-01	1.875E-02	0.219

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	463.37		5.177E-01	5.859E-01	7.093E-01	6.706E-02	0.730
		600.60		-7.819E-02	2.338E-01	3.641E-01	3.428E-02	-0.215
		635.95		-2.763E-01	3.853E-01	5.700E-01	5.305E-02	-0.485
TE-125M		109.28	*	7.311E+00	1.143E+01	1.945E+01	2.420E+00	0.376
I-126		388.63		-6.326E-02	3.299E-01	5.410E-01	4.578E-02	-0.117
		666.33	*	4.691E-01	4.596E-01	7.409E-01	6.255E-02	0.633
		753.82		-1.178E+00	4.035E+00	6.582E+00	5.735E-01	-0.179
SB-126		414.70		1.084E-01	1.489E-01	2.593E-01	2.224E-02	0.418
		666.50		1.421E-01	1.623E-01	2.567E-01	2.168E-02	0.554
		695.00		-1.445E-02	1.750E-01	2.931E-01	2.506E-02	-0.049
		697.00		-1.342E-01	6.042E-01	9.995E-01	8.555E-02	-0.134
		720.70	*	1.780E-01	3.454E-01	5.592E-01	4.827E-02	0.318
		856.80		8.994E-01	1.144E+00	1.833E+00	1.611E-01	0.491
SB-127		252.40		2.024E+01	2.321E+01	3.638E+01	1.543E+01	0.556
		473.00		3.554E+00	8.876E+00	1.502E+01	2.294E+00	0.237
		685.70	*	6.907E-01	7.658E+00	1.234E+01	1.718E+00	0.056
		783.70		3.504E+00	2.322E+01	3.915E+01	5.826E+00	0.089
I-131		80.19		3.955E+00	9.384E+00	1.168E+01	1.151E+00	0.339
		284.31		1.521E+00	3.389E+00	5.888E+00	5.691E-01	0.258
		364.49	*	-9.599E-03	2.890E-01	4.813E-01	4.476E-02	-0.020
		636.99		-2.108E+00	4.132E+00	6.247E+00	5.724E-01	-0.337
TE-132		49.72		-1.105E+01	2.417E+01	3.638E+01	5.261E+00	-0.304
		111.76		-1.425E+02	2.011E+02	3.169E+02	4.812E+01	-0.450
		116.30		-5.855E+01	1.673E+02	2.722E+02	4.190E+01	-0.215
		228.16	*	-2.430E+00	5.012E+00	7.743E+00	1.381E+00	-0.314
BA-133		81.00		-5.649E-02	1.019E-01	1.169E-01	1.890E-02	-0.483
	+	276.40		6.742E-01	5.081E-01	7.795E-01	1.127E-01	0.865
		302.85		-1.029E-01	1.850E-01	2.616E-01	3.515E-02	-0.393
		356.01	*	5.360E-02	5.595E-02	8.925E-02	1.171E-02	0.601
		383.85		-2.794E-02	3.730E-01	6.172E-01	7.631E-02	-0.045
I-133		529.87	*	-1.868E+00	3.730E-01	Half-Life	too short	
		875.33		-1.191E+02	3.730E-01	Half-Life	too short	
		1298.22		3.415E+01	3.730E-01	Half-Life	too short	
CS-134		563.25		1.003E-01	4.871E-01	8.041E-01	7.226E-02	0.125
		569.33		-7.197E-02	2.770E-01	4.375E-01	3.941E-02	-0.164
		604.72		1.709E-03	4.954E-02	7.003E-02	6.159E-03	0.024
		795.86	*	8.862E-02	7.414E-02	1.344E-01	1.188E-02	0.659
		801.95		-3.064E-01	5.941E-01	9.418E-01	8.314E-02	-0.325
		1365.19		3.159E-01	1.724E+00	2.959E+00	2.653E-01	0.107
CS-135		268.22	*	8.817E-02	2.155E-01	3.146E-01	3.283E-02	0.280
I-135		546.56		7.492E+18	2.155E-01	Half-Life	too short	
		836.80		2.351E+19	2.155E-01	Half-Life	too short	
		1038.76		1.111E+19	2.155E-01	Half-Life	too short	
		1131.51		2.613E+18	2.155E-01	Half-Life	too short	
		1260.41	*	-1.142E+18	2.155E-01	Half-Life	too short	
		1457.56		4.109E+20	2.155E-01	Half-Life	too short	
		1678.03		7.086E+18	2.155E-01	Half-Life	too short	
		1791.20		5.734E+18	2.155E-01	Half-Life	too short	
CS-136		153.25		1.889E+00	1.551E+00	2.656E+00	2.914E-01	0.711

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		176.60		-1.540E-01	8.640E-01	1.388E+00	1.301E-01	-0.111
		273.65		3.676E-01	1.208E+00	1.387E+00	1.369E-01	0.265
		340.55		2.896E-01	3.322E-01	5.217E-01	4.861E-02	0.555
		818.51		-5.082E-02	1.505E-01	2.413E-01	2.125E-02	-0.211
		1048.07	*	-3.191E-01	1.942E-01	2.269E-01	2.039E-02	-1.406
		1235.36		7.065E-02	1.380E+00	2.235E+00	2.584E-01	0.032
CE-139		165.86	*	1.260E-02	3.618E-02	5.991E-02	4.996E-03	0.210
BA-140		162.66		6.536E-01	1.376E+00	2.296E+00	2.114E-01	0.285
		304.85		1.071E+00	2.691E+00	4.118E+00	1.212E+00	0.260
		423.72		-1.315E+00	3.974E+00	6.367E+00	2.094E+00	-0.207
		537.26	*	1.012E-01	5.818E-01	9.584E-01	3.258E-01	0.106
LA-140	+	328.76		1.449E+00	9.739E-01	1.107E+00	1.056E-01	1.309
		487.02		4.044E-02	2.951E-01	4.885E-01	4.596E-02	0.083
		815.77		1.441E-01	6.200E-01	1.060E+00	1.037E-01	0.136
		1596.21	*	-1.029E-01	1.871E-01	2.768E-01	2.389E-02	-0.372
CE-141		145.44	*	2.322E-02	8.662E-02	1.437E-01	1.466E-02	0.162
CE-143		57.36		1.750E-03	8.662E-02	Half-Life	too short	
		293.27	*	2.836E-02	8.662E-02	Half-Life	too short	
		664.57		1.564E-01	8.662E-02	Half-Life	too short	
		721.93		3.190E-02	8.662E-02	Half-Life	too short	
CE-144		80.12		1.120E+00	2.606E+00	3.245E+00	3.161E-01	0.345
		133.52	*	1.229E-02	2.504E-01	3.699E-01	6.180E-02	0.033
PM-144		476.78		-6.859E-02	8.870E-02	1.355E-01	1.300E-02	-0.506
		618.01		2.352E-02	4.352E-02	7.373E-02	6.600E-03	0.319
		696.49	*	1.426E-03	5.003E-02	8.453E-02	7.239E-03	0.017
PR-144		696.51	*	9.353E-02	3.759E+00	6.348E+00	5.433E-01	0.015
		1489.16		-4.201E+00	1.856E+01	2.470E+01	2.136E+00	-0.170
PM-146		453.88	*	1.792E-02	5.768E-02	9.709E-02	1.041E-02	0.185
		633.25		1.139E+00	2.021E+00	3.352E+00	1.280E+00	0.340
		735.93		6.877E-02	2.074E-01	3.570E-01	1.001E-01	0.193
		747.24		2.464E-02	1.307E-01	2.232E-01	3.265E-02	0.110
ND-147	+	91.11		1.589E+00	3.560E-01	8.545E-01	9.004E-02	1.859
		319.41		8.254E-01	6.529E+00	1.107E+01	1.010E+00	0.075
		531.02	*	-1.673E+00	1.217E+00	1.655E+00	2.506E-01	-1.011
PM-149		285.90	*	6.146E-06	1.217E+00	Half-Life	too short	
EU-152		121.78		-2.995E-02	7.936E-02	1.287E-01	1.631E-02	-0.233
		244.70		-6.047E-02	4.046E-01	5.641E-01	5.113E-02	-0.107
		344.28	*	2.118E-02	1.238E-01	2.030E-01	1.919E-02	0.104
		778.90		2.712E-01	3.864E-01	6.845E-01	5.993E-02	0.396
	+	964.08		1.111E+00	5.415E-01	8.842E-01	7.728E-02	1.256
		1085.87		8.852E-02	5.649E-01	9.369E-01	7.973E-02	0.094
		1112.07		2.274E-01	4.669E-01	7.805E-01	6.574E-02	0.291
		1408.01		2.014E-01	2.477E-01	4.597E-01	3.955E-02	0.438
GD-153		69.67		1.992E-01	1.293E+00	1.983E+00	1.947E-01	0.100
		97.43	*	-6.169E-02	9.202E-02	1.322E-01	1.352E-02	-0.467
		103.18		-8.950E-02	1.126E-01	1.803E-01	1.900E-02	-0.496
EU-154		123.07		-3.251E-02	5.528E-02	8.843E-02	1.220E-02	-0.368
		723.31		-8.790E-02	2.712E-01	3.803E-01	3.617E-02	-0.231
		873.19		1.515E-01	3.802E-01	6.572E-01	7.891E-02	0.230

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	+	996.26		1.545E-01	5.341E-01	9.023E-01	1.580E-01	0.171
		1004.73		-1.873E-01	3.099E-01	4.708E-01	5.505E-02	-0.398
		1274.44	*	5.607E-02	1.843E-01	3.074E-01	3.450E-02	0.182
		86.55		8.501E-01	2.037E-01	1.878E-01	1.846E-02	4.527
		105.31	*	3.376E-02	1.097E-01	1.850E-01	1.987E-02	0.183
		86.79		2.426E+00	5.805E-01	5.383E-01	5.251E-02	4.507
		197.04		-1.029E-01	7.425E-01	1.165E+00	1.012E-01	-0.088
		215.65		8.468E-01	9.564E-01	1.607E+00	1.424E-01	0.527
		298.57		1.059E-01	1.424E-01	2.500E-01	2.294E-02	0.423
		879.36	*	1.258E-01	2.089E-01	3.679E-01	3.225E-02	0.342
TB-160	+	962.29		1.558E+00	8.516E-01	1.612E+00	1.409E-01	0.967
		966.15		1.511E+00	4.156E-01	8.178E-01	7.146E-02	1.848
		1177.93		-4.841E-01	6.564E-01	9.786E-01	8.006E-02	-0.495
		1271.85		4.301E-01	1.133E+00	1.908E+00	1.604E-01	0.225
		80.57		8.359E-02	2.779E-01	3.428E-01	3.339E-02	0.244
		184.41		2.453E-01	6.823E-02	8.012E-02	6.849E-03	3.061
		280.46		-4.607E-03	1.085E-01	1.620E-01	1.487E-02	-0.028
		410.95		-2.861E-02	3.131E-01	5.151E-01	4.404E-02	-0.056
		711.68	*	-5.160E-02	8.937E-02	1.428E-01	1.229E-02	-0.361
		752.31		-2.085E-01	3.884E-01	6.173E-01	5.376E-02	-0.338
HO-166M	+	810.29		-7.315E-02	7.669E-02	1.133E-01	9.957E-03	-0.645
		67.75		-4.906E-02	8.162E-02	1.210E-01	1.192E-02	-0.405
		100.11		8.217E-02	1.847E-01	3.136E-01	3.251E-02	0.262
		152.43		2.018E-01	4.268E-01	7.130E-01	6.778E-02	0.283
		222.11		-1.952E-01	4.319E-01	6.712E-01	5.983E-02	-0.291
		1121.30		1.011E+00	3.277E-01	5.506E-01	4.619E-02	1.835
		1189.05		3.802E-01	3.415E-01	8.026E-01	6.591E-02	0.474
		1221.41	*	-5.393E-02	3.001E-01	4.741E-01	3.932E-02	-0.114
		1231.02		2.712E-01	7.045E-01	1.183E+00	9.843E-02	0.229
		295.96		1.334E+00	2.459E-01	3.908E-01	3.612E-02	3.413
TA-182	+	308.46		-8.009E-02	1.233E-01	1.989E-01	1.830E-02	-0.403
		316.51	*	-3.733E-02	4.570E-02	7.274E-02	6.655E-03	-0.513
		468.07		-5.215E-02	1.019E-01	1.371E-01	1.295E-02	-0.380
		70.83		9.439E-01	1.121E+00	1.753E+00	2.932E-01	0.538
		72.87		7.157E-01	6.255E-01	1.077E+00	1.746E-01	0.664
		279.20	*	4.719E-02	5.659E-02	9.006E-02	8.454E-03	0.524
		72.81		1.385E-01	1.267E-01	2.203E-01	2.154E-02	0.629
		74.97		7.508E-01	1.331E-01	1.957E-01	1.910E-02	3.836
		569.70		-1.084E-02	4.309E-02	6.813E-02	6.058E-03	-0.159
		1063.66	*	3.241E-02	7.486E-02	1.282E-01	1.099E-02	0.253
IR-192	+	1770.23		7.166E-02	6.477E-01	9.461E-01	7.992E-02	0.076
		404.85	*	2.721E-01	9.475E-01	1.587E+00	7.677E-01	0.171
		427.09		1.992E+00	2.261E+00	3.645E+00	1.686E+00	0.547
		832.01		-9.782E-01	1.520E+00	2.221E+00	1.152E+00	-0.440
		727.33	*	3.221E+00	1.297E+00	1.752E+00	2.186E-01	1.839
		785.37		-1.170E+00	4.900E+00	7.991E+00	7.002E-01	-0.146
		1620.50		3.573E-01	3.366E+00	5.655E+00	4.873E-01	0.063
		271.23		6.327E-01	4.302E-01	5.191E-01	5.564E-02	1.219
		401.81	*	2.090E-01	5.297E-01	9.014E-01	1.334E-01	0.232

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-223	81.07			-2.324E-02	2.203E-01	2.632E-01	2.564E-02	-0.088
	83.79			2.508E-01	1.208E-01	1.945E-01	1.895E-02	1.290
	94.87			1.089E+00	4.759E-01	7.777E-01	7.847E-02	1.400
	144.24			1.582E-01	8.426E-01	1.350E+00	1.488E-01	0.117
	154.21			4.231E-01	4.578E-01	7.776E-01	7.872E-02	0.544
	269.46			4.916E-01	3.333E-01	4.119E-01	3.841E-02	1.193
AC-227	323.87	*		-5.050E-01	8.440E-01	1.139E+00	2.003E-01	-0.443
	338.28	+		7.422E+00	2.379E+00	3.253E+00	4.019E-01	2.281
	79.69			5.906E-01	1.095E+00	1.561E+00	2.782E-01	0.378
	235.96			1.875E-01	1.923E-01	2.922E-01	3.118E-02	0.642
	256.23	*		-2.863E-01	3.091E-01	4.551E-01	5.649E-02	-0.629
	299.98	+		2.373E+00	1.315E+00	1.944E+00	2.544E-01	1.221
TH-227	304.50			6.111E-01	2.108E+00	3.215E+00	5.407E-01	0.190
	334.37			-4.460E-01	2.882E+00	3.538E+00	5.598E-01	-0.126
	79.80			7.380E-01	1.447E+00	2.056E+00	4.573E-01	0.359
	235.96			1.875E-01	1.922E-01	2.922E-01	2.953E-02	0.642
	256.23	*		-2.863E-01	3.097E-01	4.551E-01	6.338E-02	-0.629
	299.98	+		2.373E+00	1.315E+00	1.944E+00	2.544E-01	1.221
TH-229	304.50			6.111E-01	2.108E+00	3.215E+00	5.407E-01	0.190
	334.37			-4.460E-01	2.882E+00	3.538E+00	5.598E-01	-0.126
	85.43	+		1.759E+00	4.209E-01	3.332E-01	3.248E-02	5.280
	88.47			5.838E-01	1.601E-01	2.286E-01	2.236E-02	2.554
	193.51	*		-4.538E-01	6.149E-01	9.482E-01	8.200E-02	-0.479
	210.85	+		1.604E+00	1.587E+00	1.786E+00	1.574E-01	0.898
PA-231	283.69	*		3.905E-01	1.672E+00	2.870E+00	4.283E-01	0.136
	301.36	+		1.524E+00	8.429E-01	1.249E+00	1.567E-01	1.221
TH-231	81.07			-2.324E-02	2.203E-01	2.632E-01	2.564E-02	-0.088
	83.79			2.508E-01	1.208E-01	1.945E-01	1.895E-02	1.290
	94.87			1.089E+00	4.759E-01	7.777E-01	7.847E-02	1.400
	144.24			1.582E-01	8.426E-01	1.350E+00	1.488E-01	0.117
	154.21			4.231E-01	4.578E-01	7.776E-01	7.872E-02	0.544
	269.46	+		4.916E-01	3.333E-01	4.119E-01	3.841E-02	1.193
PA-233	323.87	*		-5.050E-01	8.440E-01	1.139E+00	2.003E-01	-0.443
	338.28	+		7.422E+00	2.379E+00	3.253E+00	4.019E-01	2.281
	300.13	+		1.074E+00	6.007E-01	8.746E-01	1.326E-01	1.227
	311.90	*		-8.399E-03	7.733E-02	1.294E-01	1.214E-02	-0.065
	340.48			1.071E+00	9.788E-01	1.512E+00	3.660E-01	0.708
	94.67			6.149E-01	1.944E-01	3.076E-01	4.140E-02	1.999
PA-234	98.44			1.194E-01	1.176E-01	1.549E-01	8.682E-02	0.771
	111.00			-8.249E-02	1.964E-01	3.196E-01	4.437E-02	-0.258
	131.20			-1.253E-02	1.339E-01	1.962E-01	2.179E-02	-0.064
	569.50			-1.330E-01	3.823E-01	5.987E-01	5.324E-02	-0.222
	733.00			-2.581E-02	5.991E-01	8.711E-01	1.935E-01	-0.030
	880.51			2.536E-01	3.878E-01	6.864E-01	6.016E-02	0.369
	883.24			-1.773E-01	4.229E-01	6.394E-01	4.299E-01	-0.277
	926.50			-4.306E-02	2.413E-01	3.893E-01	9.859E-02	-0.111
	946.00	*		-9.338E-02	4.083E-01	6.535E-01	1.230E-01	-0.143
	949.00			-3.155E-01	5.900E-01	9.058E-01	7.924E-02	-0.348
PA-234M	766.42			2.034E+01	2.110E+01	3.028E+01	1.537E+01	0.672

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	1001.03	*		1.332E+00	6.624E+00	1.110E+01	1.114E+00	0.120
	99.53			1.903E-01	1.623E-01	2.821E-01	2.915E-02	0.675
	103.37			-7.879E-02	1.007E-01	1.613E-01	1.701E-02	-0.489
	106.12			4.894E-02	8.911E-02	1.514E-01	1.621E-02	0.323
	117.23	*		-1.095E-01	4.119E-01	6.732E-01	7.668E-02	-0.163
	228.18			-1.328E-01	2.654E-01	4.107E-01	3.680E-02	-0.323
AM-241	+	277.60		3.329E-01	2.481E-01	3.874E-01	3.556E-02	0.859
CM-247	59.54	*		5.829E-02	7.633E-02	1.197E-01	1.271E-02	0.487
	+	278.00		1.414E+00	1.054E+00	1.651E+00	1.516E-01	0.856
CF-249	287.50			-2.057E-01	1.381E+00	2.317E+00	2.128E-01	-0.089
	402.40	*		-7.122E-03	4.935E-02	8.102E-02	6.881E-03	-0.088
	252.80			1.236E+00	1.134E+00	1.923E+00	1.751E-01	0.643
CF-251	333.37			-6.136E-02	3.617E-01	3.788E-01	3.425E-02	-0.162
	388.16	*		-1.601E-03	5.239E-02	8.692E-02	7.361E-03	-0.018
	177.52	*		3.554E-02	1.479E-01	2.430E-01	2.058E-02	0.146
	227.38			3.094E-01	4.295E-01	7.145E-01	6.397E-02	0.433
	285.41			5.271E-02	2.483E+00	4.212E+00	3.869E-01	0.013

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                    *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248250004      *
* Acquisition date   : 19-MAR-2010 13:11:38 Detector SN#      :              *
* Detector ID        : GAM17                      Sensitivity    : 5.000      *
* Geometry           : CAN                      Energy tolerance: 1.500      *
* Elapsed live time  : 0 02:00:00.00             Abundance limit : 75.000      *
* Elapsed real time  : 0 02:00:10.14             Half life ratio : 8.000      *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 24-FEB-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID          : G248250004             Analyst initials: MXR1         *
* Batch Number       : 959281                 Sample Quantity : 1.1355E+02 GRAM *
* Recovery           : 1.00000                Carrier Weight  : 0.00000      *
*****
*                                     QC DATA                               *
*
* Standard Weight    : 0.00000
* CALIB. DATE/TIME   : 6-JAN-2010 11:41:36 MS Isotope         :
* MSD DPM            : 0.000                  MSD Isotope      :
* LCS DPM            : 0.000                  LCS Isotope       :
* LCSD DPM           : 0.000                  LCSD Isotope      :
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.024E+01	3.458E+00	5.983E-01	0.000E+00
SN-126	6.989E-01	1.639E-01	1.029E-01	0.000E+00
BA-137M	3.083E-01	1.060E-01	8.217E-02	0.000E+00
CS-137	3.257E-01	1.119E-01	8.681E-02	0.000E+00
TL-208	6.531E-01	1.225E-01	8.425E-02	0.000E+00
PB-210	8.670E-01	8.476E-01	9.446E-01	0.000E+00
BI-211	4.399E+00	6.533E-01	3.893E-01	0.000E+00
PB-212	1.913E+00	2.346E-01	1.049E-01	0.000E+00
BI-214	1.417E+00	2.575E-01	1.614E-01	0.000E+00
PB-214	1.596E+00	2.523E-01	1.416E-01	0.000E+00
RA-224	5.863E+00	1.853E+00	1.125E+00	0.000E+00
RA-226	1.417E+00	2.575E-01	1.614E-01	0.000E+00
AC-228	2.056E+00	4.591E-01	2.955E-01	0.000E+00
RA-228	2.056E+00	4.591E-01	2.955E-01	0.000E+00
TH-228	1.913E+00	2.346E-01	1.049E-01	0.000E+00
TH-232	2.056E+00	4.591E-01	2.955E-01	0.000E+00
TH-234	2.841E+00	1.446E+00	1.183E+00	0.000E+00
U-235	7.862E-02	2.452E-01	4.092E-01	0.000E+00
NP-237	2.085E+00	6.502E-01	3.286E-01	0.000E+00
U-238	2.841E+00	1.446E+00	1.183E+00	0.000E+00
ANH-511	1.234E-01	9.423E-02	6.517E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	-1.143E-01	4.568E-01	7.520E-01	0.000E+00 NOT IDENT.
NA-22	1.521E-02	6.448E-02	1.084E-01	0.000E+00 NOT IDENT.
NA-24	0.000E+00	6.864E+09	0.000E+00	0.000E+00 SHORT HLIF
SC-46	-2.870E-03	5.658E-02	9.502E-02	0.000E+00 FAIL ABUN
V-48	-1.477E-02	1.461E-01	2.419E-01	0.000E+00 NOT IDENT.
CR-51	3.816E-01	5.282E-01	9.534E-01	0.000E+00 NOT IDENT.

MN-54	-3.050E-02	5.439E-02	8.738E-02	0.000E+00	NOT IDENT.
CO-56	-1.205E-03	5.515E-02	9.332E-02	0.000E+00	NOT IDENT.
CO-57	-1.261E-02	2.743E-02	4.600E-02	0.000E+00	NOT IDENT.
CO-58	-7.155E-02	5.326E-02	7.570E-02	0.000E+00	NOT IDENT.
FE-59	-9.726E-02	1.613E-01	2.495E-01	0.000E+00	NOT IDENT.
CO-60	2.895E-02	5.804E-02	1.025E-01	0.000E+00	NOT IDENT.
ZN-65	-4.335E-02	1.578E-01	2.159E-01	0.000E+00	NOT IDENT.
SE-75	-5.649E-03	5.627E-02	8.660E-02	0.000E+00	NOT IDENT.
SR-85	4.890E-02	6.279E-02	9.922E-02	0.000E+00	NOT IDENT.
Y-88	3.525E-03	5.917E-02	9.893E-02	0.000E+00	NOT IDENT.
Y-91	9.990E+00	3.224E+01	5.484E+01	0.000E+00	NOT IDENT.
NB-94	-7.234E-03	4.717E-02	8.023E-02	0.000E+00	NOT IDENT.
NB-95	5.781E-02	7.228E-02	1.176E-01	0.000E+00	NOT IDENT.
NB-95M	1.355E-01	1.685E-01	2.616E-01	0.000E+00	NOT IDENT.
ZR-95	1.391E-01	1.131E-01	2.123E-01	0.000E+00	NOT IDENT.
MO-99	0.000E+00	1.241E+02	0.000E+00	0.000E+00	SHORT HLIF
TC-99M	0.000E+00	1.389E+26	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.698E-02	5.102E-02	8.256E-02	0.000E+00	FAIL ABUN
RH-106	1.310E-01	4.183E-01	7.096E-01	0.000E+00	NOT IDENT.
RU-106	1.310E-01	4.181E-01	7.096E-01	0.000E+00	NOT IDENT.
AG-108M	-4.173E-02	3.655E-02	5.574E-02	0.000E+00	NOT IDENT.
CD-109	0.000E+00	1.064E+00	1.585E+00	0.000E+00	NOT IDENT.
AG-110M	-2.806E-02	6.014E-02	8.039E-02	0.000E+00	NOT IDENT.
SN-113	5.545E-03	5.751E-02	9.888E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	1.655E+02	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-1.243E-02	8.869E-02	1.488E-01	0.000E+00	NOT IDENT.
TE-123M	-5.294E-03	3.228E-02	5.408E-02	0.000E+00	NOT IDENT.
SB-124	-3.990E-02	1.061E-01	1.600E-01	0.000E+00	NOT IDENT.
SB-125	4.663E-02	1.230E-01	2.141E-01	0.000E+00	FAIL ABUN
TE-125M	7.311E+00	1.120E+01	1.981E+01	0.000E+00	NOT IDENT.
I-126	4.691E-01	4.505E-01	7.428E-01	0.000E+00	NOT IDENT.
SB-126	1.780E-01	3.385E-01	5.602E-01	0.000E+00	NOT IDENT.
SB-127	6.907E-01	7.505E+00	1.237E+01	0.000E+00	NOT IDENT.
I-131	-9.599E-03	2.832E-01	4.851E-01	0.000E+00	NOT IDENT.
TE-132	-2.430E+00	4.912E+00	7.837E+00	0.000E+00	NOT IDENT.
BA-133	5.360E-02	5.483E-02	8.999E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	4.291E+06	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.862E-02	7.266E-02	1.346E-01	0.000E+00	NOT IDENT.
CS-135	8.817E-02	2.111E-01	3.180E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.731E+24	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.191E-01	1.903E-01	2.266E-01	0.000E+00	NOT IDENT.
CE-139	1.260E-02	3.546E-02	6.081E-02	0.000E+00	NOT IDENT.
BA-140	1.012E-01	5.702E-01	9.628E-01	0.000E+00	NOT IDENT.
LA-140	-1.029E-01	1.834E-01	2.753E-01	0.000E+00	FAIL ABUN
CE-141	2.322E-02	8.489E-02	1.460E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.157E+04	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.229E-02	2.454E-01	3.762E-01	0.000E+00	NOT IDENT.
PM-144	1.426E-03	4.903E-02	8.471E-02	0.000E+00	NOT IDENT.
PR-144	9.353E-02	3.684E+00	6.363E+00	0.000E+00	NOT IDENT.
PM-146	1.792E-02	5.653E-02	9.767E-02	0.000E+00	NOT IDENT.
ND-147	-1.673E+00	1.193E+00	1.663E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	1.219E+03	0.000E+00	0.000E+00	SHORT HLIF
EU-152	2.118E-02	1.213E-01	2.047E-01	0.000E+00	FAIL ABUN
GD-153	-6.169E-02	9.018E-02	1.348E-01	0.000E+00	NOT IDENT.
EU-154	5.607E-02	1.807E-01	3.064E-01	0.000E+00	NOT IDENT.
EU-155	3.376E-02	1.075E-01	1.885E-01	0.000E+00	FAIL ABUN
TB-160	1.258E-01	2.047E-01	3.679E-01	0.000E+00	FAIL ABUN
HO-166M	-5.160E-02	8.758E-02	1.431E-01	0.000E+00	FAIL ABUN
TA-182	-5.393E-02	2.941E-01	4.727E-01	0.000E+00	FAIL ABUN
IR-192	-3.733E-02	4.479E-02	7.342E-02	0.000E+00	FAIL ABUN
HG-203	4.719E-02	5.546E-02	9.099E-02	0.000E+00	NOT IDENT.
BI-207	3.241E-02	7.336E-02	1.280E-01	0.000E+00	FAIL ABUN
PB-211	2.721E-01	9.286E-01	1.598E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.272E+00	1.755E+00	0.000E+00	FAIL ABUN
RN-219	2.090E-01	5.191E-01	9.078E-01	0.000E+00	FAIL ABUN
RA-223	-5.050E-01	8.271E-01	1.150E+00	0.000E+00	FAIL ABUN
AC-227	-2.863E-01	3.030E-01	4.601E-01	0.000E+00	FAIL ABUN
TH-227	-2.863E-01	3.035E-01	4.601E-01	0.000E+00	FAIL ABUN
TH-229	-4.538E-01	6.026E-01	9.611E-01	0.000E+00	FAIL ABUN
PA-231	3.905E-01	1.638E+00	2.899E+00	0.000E+00	FAIL ABUN
TH-231	-5.050E-01	8.271E-01	1.150E+00	0.000E+00	FAIL ABUN
PA-233	-8.399E-03	7.578E-02	1.306E-01	0.000E+00	FAIL ABUN
PA-234	-9.338E-02	4.001E-01	6.532E-01	0.000E+00	NOT IDENT.
PA-234M	1.332E+00	6.492E+00	1.109E+01	0.000E+00	NOT IDENT.
NP-239	-1.095E-01	4.037E-01	6.854E-01	0.000E+00	FAIL ABUN
AM-241	5.829E-02	7.480E-02	1.226E-01	0.000E+00	NOT IDENT.
CM-247	-7.122E-03	4.837E-02	8.159E-02	0.000E+00	FAIL ABUN
CF-249	-1.601E-03	5.134E-02	8.756E-02	0.000E+00	NOT IDENT.

CF-251

3.554E-02

1.450E-01

2.465E-01

0.000E+00 NOT IDENT.

```

*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248250004.CNF;1
Sample date        : 24-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 13:11:38
Sample ID          : G248250004          Sample quantity  : 1.13550E+02 GRAM
Detector name      : GAM17              Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00      Elapsed real time: 0 02:00:10.14  0.1%
Energy tolerance   : 1.50000 keV        Analyst Initials : MXR1
Abundance limit    : 75.00000           Sensitivity       : 5.00000
Batch ID           : 959281             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	1460.82	759	10.66*	7.780E-01	3.024E+01	3.024E+01	11.67
SN-126	64.28	216	9.60	6.778E+00	1.095E+00	1.095E+00	50.90
	86.94	523	8.90	6.688E+00	2.906E+00	2.906E+00	47.00
	87.57	523	37.00*	6.688E+00	6.989E-01	6.989E-01	23.93
BA-137M	661.66	134	89.90*	1.602E+00	3.078E-01	3.083E-01	35.07
CS-137	661.66	134	85.10*	1.602E+00	3.252E-01	3.257E-01	35.08
TL-208	277.37	52	6.60	3.568E+00	7.284E-01	7.284E-01	75.08
	583.19	304	85.00*	1.811E+00	6.531E-01	6.531E-01	19.15
	860.56	40	12.50	1.246E+00	8.434E-01	8.434E-01	98.21
PB-210	46.54	70	4.25*	6.312E+00	8.653E-01	8.670E-01	99.76
BI-211	72.87	-----	1.23	6.803E+00	-----	Line Not Found	-----
	351.06	500	12.92*	2.908E+00	4.399E+00	4.399E+00	15.15
PB-212	74.82	550	10.28	6.795E+00	2.604E+00	2.604E+00	20.22
	77.11	902	17.10	6.781E+00	2.570E+00	2.570E+00	13.92
	238.63	1014	43.60*	4.021E+00	1.913E+00	1.913E+00	12.52
	300.09	72	3.30	3.340E+00	2.157E+00	2.157E+00	54.97
BI-214	609.32	339	45.49*	1.736E+00	1.417E+00	1.417E+00	18.54
	1120.29	91	14.92	9.770E-01	2.055E+00	2.056E+00	33.11
	1764.49	70	15.30	6.716E-01	2.248E+00	2.248E+00	30.54
PB-214	74.82	550	5.80	6.795E+00	4.615E+00	4.615E+00	19.42
	77.11	902	9.70	6.781E+00	4.531E+00	4.531E+00	16.18
	242.00	290	7.25	3.983E+00	3.315E+00	3.315E+00	32.77
	295.22	316	18.42	3.387E+00	1.675E+00	1.675E+00	19.52
	351.93	500	35.60*	2.908E+00	1.596E+00	1.596E+00	16.13
RA-224	240.99	290	4.10*	3.983E+00	5.863E+00	5.863E+00	32.25
RA-226	609.32	339	45.49*	1.736E+00	1.417E+00	1.417E+00	18.54
	1120.29	91	14.92	9.770E-01	2.055E+00	2.056E+00	33.11
	1764.49	70	15.30	6.716E-01	2.248E+00	2.248E+00	30.54
AC-228	338.32	192	11.27	3.011E+00	1.870E+00	1.870E+00	51.21
	911.20	190	25.80*	1.181E+00	2.056E+00	2.056E+00	22.79
	968.97	93	15.80	1.116E+00	1.751E+00	1.751E+00	40.73
RA-228	338.32	192	11.27	3.011E+00	1.870E+00	1.870E+00	51.21

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	911.20	190	25.80*	1.181E+00	2.056E+00	2.056E+00	22.79
	968.97	93	15.80	1.116E+00	1.751E+00	1.751E+00	40.73
	74.82	550	10.28	6.795E+00	2.604E+00	2.604E+00	17.76
	77.11	902	17.10	6.781E+00	2.570E+00	2.570E+00	13.92
	238.63	1014	43.60*	4.021E+00	1.913E+00	1.913E+00	12.52
TH-232	300.09	72	3.30	3.340E+00	2.157E+00	2.157E+00	81.60
	338.32	192	11.27	3.011E+00	1.870E+00	1.870E+00	30.92
	911.20	190	25.80*	1.181E+00	2.056E+00	2.056E+00	22.79
TH-234	968.97	93	15.80	1.116E+00	1.751E+00	1.751E+00	40.73
	63.29	216	3.70*	6.778E+00	2.841E+00	2.841E+00	51.93
	92.59	625	4.23	6.591E+00	7.413E+00	7.413E+00	27.13
U-235	89.96	207	3.47	6.636E+00	2.973E+00	2.973E+00	31.95
	93.35	625	5.60	6.591E+00	5.599E+00	5.599E+00	27.97
	143.76	-----	10.96*	5.592E+00	-----	Line Not Found	-----
	163.33	-----	5.08	5.211E+00	-----	Line Not Found	-----
	185.72	257	57.20	4.808E+00	3.087E-01	3.087E-01	27.82
	205.31	-----	5.01	4.493E+00	-----	Line Not Found	-----
NP-237	86.48	523	12.40*	6.688E+00	2.085E+00	2.085E+00	31.81
	95.86	-----	2.68	6.543E+00	-----	Line Not Found	-----
U-238	63.29	216	3.70*	6.778E+00	2.841E+00	2.841E+00	51.93
	92.59	625	4.23	6.591E+00	7.413E+00	7.413E+00	17.97
ANH-511	511.00	77	100.00*	2.058E+00	1.234E-01	1.234E-01	77.94

Flag: "*" = Keyline

Total number of lines in spectrum 35
Number of unidentified lines 3
Number of lines tentatively identified by NID 32 91.43%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.024E+01	3.024E+01	0.353E+01	11.67	
SN-126	2.30E+05Y	1.00	6.989E-01	6.989E-01	1.672E-01	23.93	
BA-137M	30.08Y	1.00	3.078E-01	3.083E-01	1.081E-01	35.07	
CS-137	30.08Y	1.00	3.252E-01	3.257E-01	1.142E-01	35.08	
TL-208	1.41E+10Y	1.00	6.531E-01	6.531E-01	1.250E-01	19.15	
PB-210	22.20Y	1.00	8.653E-01	8.670E-01	8.649E-01	99.76	
BI-211	7.04E+08Y	1.00	4.399E+00	4.399E+00	0.667E+00	15.15	
PB-212	1.41E+10Y	1.00	1.913E+00	1.913E+00	0.239E+00	12.52	
BI-214	1600.00Y	1.00	1.417E+00	1.417E+00	0.263E+00	18.54	
PB-214	1600.00Y	1.00	1.596E+00	1.596E+00	0.257E+00	16.13	
RA-224	1.41E+10Y	1.00	5.863E+00	5.863E+00	1.891E+00	32.25	
RA-226	1600.00Y	1.00	1.417E+00	1.417E+00	0.263E+00	18.54	
AC-228	1.41E+10Y	1.00	2.056E+00	2.056E+00	0.469E+00	22.79	
RA-228	1.41E+10Y	1.00	2.056E+00	2.056E+00	0.469E+00	22.79	
TH-228	1.41E+10Y	1.00	1.913E+00	1.913E+00	0.239E+00	12.52	
TH-232	1.41E+10Y	1.00	2.056E+00	2.056E+00	0.469E+00	22.79	
TH-234	4.47E+09Y	1.00	2.841E+00	2.841E+00	1.475E+00	51.93	
U-235	7.04E+08Y	1.00	3.087E-01	3.087E-01	0.859E-01	27.82	K
NP-237	2.14E+06Y	1.00	2.085E+00	2.085E+00	0.663E+00	31.81	
U-238	4.47E+09Y	1.00	2.841E+00	2.841E+00	1.475E+00	51.93	
ANH-511	1.00E+09Y	1.00	1.234E-01	1.234E-01	0.962E-01	77.94	
Total Activity :			6.597E+01	6.598E+01			

Grand Total Activity : 6.597E+01 6.598E+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	128.76	101	335	2.36	257.21	253	10	1.40E-02	70.5	5.90E+00	
0	209.72	60	237	1.06	419.18	414	9	8.35E-03	98.5	4.43E+00	T
0	270.38	75	158	1.14	540.56	536	10	1.05E-02	67.2	3.64E+00	T
0	327.74	79	153	1.41	655.34	651	12	1.09E-02	66.5	3.10E+00	T
0	462.57	37	106	0.90	925.11	922	11	5.11E-03	****	2.26E+00	T
0	727.35	95	53	1.89	1454.97	1449	14	1.32E-02	38.3	1.46E+00	T
0	768.28	38	43	0.97	1536.88	1532	10	5.30E-03	72.9	1.39E+00	
1	964.61	55	24	1.83	1929.80	1920	37	7.63E-03	47.9	1.12E+00	T
0	1190.01	15	12	0.85	2380.93	2378	6	2.08E-03	89.4	9.26E-01	T
0	1494.63	16	0	1.00	2990.69	2984	11	2.22E-03	50.0	7.63E-01	

Flags: "T" = Tentatively associated

```

*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
*                               DETECTOR DATA                               *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248250004.CNF;1
* Acquisition date   : 19-MAR-2010 13:11:38   Detector SN#      :
* Detector ID        : GAM17                  Sensitivity       : 5.00000
* Geometry           : CAN                    Energy tolerance: 1.50000
* Elapsed live time  : 0 02:00:00.00          Abundance limit  : 75.00000
* Elapsed real time  : 0 02:00:10.14          Half life ratio  : 8.00000
*****
*                               SAMPLE DATA                               *
*
* Sample date        : 24-FEB-2010 12:00:00   Nuclide Library : SOLID
* Sample ID          : G248250004             Analyst initials: MXR1
* Batch Number       : 959281                 Sample Quantity : 1.13550E+02 GRAM
*****
*                               QC DATA                               *
*
* CALIB. DATE/TIME   : 6-JAN-2010 11:41:36.18MS 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	3.024E+01	3.529E+00	6.010E-01	5.336E-02	50.310
SN-126	6.989E-01	1.672E-01	1.008E-01	9.838E-03	6.933
BA-137M	3.083E-01	1.081E-01	8.196E-02	6.904E-03	3.761
CS-137	3.257E-01	1.142E-01	8.658E-02	7.308E-03	3.761
TL-208	6.531E-01	1.250E-01	8.394E-02	7.930E-03	7.781
PB-210	8.670E-01	8.649E-01	9.205E-01	9.924E-02	0.942
BI-211	4.399E+00	6.666E-01	3.861E-01	3.603E-02	11.394
PB-212	1.913E+00	2.394E-01	1.037E-01	1.050E-02	18.444
BI-214	1.417E+00	2.628E-01	1.609E-01	1.644E-02	8.811
PB-214	1.596E+00	2.575E-01	1.405E-01	1.522E-02	11.365
RA-224	5.863E+00	1.891E+00	1.112E+00	1.006E-01	5.270
RA-226	1.417E+00	2.628E-01	1.609E-01	1.644E-02	8.811
AC-228	2.056E+00	4.685E-01	2.956E-01	3.455E-02	6.957
RA-228	2.056E+00	4.685E-01	2.956E-01	3.455E-02	6.957
TH-228	1.913E+00	2.394E-01	1.037E-01	1.050E-02	18.444
TH-232	2.056E+00	4.685E-01	2.956E-01	3.455E-02	6.957
TH-234	2.841E+00	1.475E+00	1.156E+00	2.199E-01	2.458
U-235	3.087E-01	8.588E-02	4.026E-01	7.169E-02	0.767

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	2.085E+00	6.635E-01	3.219E-01	7.444E-02	6.478
U-238	2.841E+00	1.475E+00	1.156E+00	2.199E-01	2.458
ANH-511	1.234E-01	9.616E-02	6.485E-02	5.792E-03	1.902

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.143E-01		4.661E-01	7.478E-01	7.114E-02	-0.153
NA-22	1.521E-02		6.579E-02	1.088E-01	9.163E-03	0.140
NA-24	-1.122E+02		3.502E+03	Half-Life	too short	
SC-46	-2.870E-03		5.773E-02	9.502E-02	8.318E-03	-0.030
V-48	-1.477E-02		1.491E-01	2.421E-01	2.111E-02	-0.061
CR-51	3.816E-01		5.390E-01	9.448E-01	9.016E-02	0.404
MN-54	-3.050E-02		5.550E-02	8.733E-02	7.679E-03	-0.349
CO-56	-1.205E-03		5.627E-02	9.328E-02	8.200E-03	-0.013
CO-57	-1.261E-02		2.799E-02	4.520E-02	5.296E-03	-0.279
CO-58	-7.155E-02		5.434E-02	7.563E-02	6.661E-03	-0.946
FE-59	-9.726E-02		1.646E-01	2.499E-01	2.294E-02	-0.389
CO-60	2.895E-02		5.922E-02	1.029E-01	8.768E-03	0.281
ZN-65	-4.335E-02		1.610E-01	2.163E-01	1.821E-02	-0.200
SE-75	-5.649E-03		5.742E-02	8.567E-02	7.872E-03	-0.066
SR-85	4.890E-02		6.407E-02	9.874E-02	8.821E-03	0.495
Y-88	3.525E-03		6.038E-02	9.958E-02	8.304E-03	0.035
Y-91	9.990E+00		3.290E+01	5.499E+01	4.539E+00	0.182
NB-94	-7.234E-03		4.813E-02	8.006E-02	6.867E-03	-0.090
NB-95	5.781E-02		7.375E-02	1.175E-01	1.026E-02	0.492
NB-95M	1.355E-01		1.719E-01	2.585E-01	2.644E-02	0.524
ZR-95	1.391E-01		1.154E-01	2.119E-01	2.037E-02	0.656
MO-99	-8.148E-06		6.331E-05	Half-Life	too short	
TC-99M	1.914E+19		7.087E+19	Half-Life	too short	
RU-103	-1.698E-02		5.206E-02	8.214E-02	1.162E-02	-0.207
RH-106	1.310E-01		4.268E-01	7.074E-01	9.408E-02	0.185
RU-106	1.310E-01		4.266E-01	7.074E-01	6.145E-02	0.185
AG-108M	-4.173E-02		3.729E-02	5.539E-02	4.964E-03	-0.753
CD-109	4.126E+00		1.086E+00	1.553E+00	1.517E-01	2.656
AG-110M	-2.806E-02		6.137E-02	8.017E-02	6.987E-03	-0.350
SN-113	5.545E-03		5.868E-02	9.816E-02	8.528E-03	0.056
CD-115	9.844E-05		8.443E-05	Half-Life	too short	
SN-117M	-1.243E-02		9.050E-02	1.466E-01	1.317E-02	-0.085
TE-123M	-5.294E-03		3.294E-02	5.326E-02	4.794E-03	-0.099
SB-124	-3.990E-02		1.082E-01	1.609E-01	1.435E-02	-0.248
SB-125	4.663E-02		1.255E-01	2.127E-01	1.875E-02	0.219
TE-125M	7.311E+00		1.143E+01	1.945E+01	2.420E+00	0.376
I-126	4.691E-01		4.596E-01	7.409E-01	6.255E-02	0.633
SB-126	1.780E-01		3.454E-01	5.592E-01	4.827E-02	0.318
SB-127	6.907E-01		7.658E+00	1.234E+01	1.718E+00	0.056
I-131	-9.599E-03		2.890E-01	4.813E-01	4.476E-02	-0.020

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-132	-2.430E+00		5.012E+00	7.743E+00	1.381E+00	-0.314
BA-133	5.360E-02		5.595E-02	8.925E-02	1.171E-02	0.601
I-133	-1.868E+00		2.189E+00	Half-Life too short		
CS-134	8.862E-02		7.414E-02	1.344E-01	1.188E-02	0.659
CS-135	8.817E-02		2.155E-01	3.146E-01	3.283E-02	0.280
I-135	-1.142E+18		2.414E+18	Half-Life too short		
CS-136	-3.191E-01		1.942E-01	2.269E-01	2.039E-02	-1.406
CE-139	1.260E-02		3.618E-02	5.991E-02	4.996E-03	0.210
BA-140	1.012E-01		5.818E-01	9.584E-01	3.258E-01	0.106
LA-140	-1.029E-01		1.871E-01	2.768E-01	2.389E-02	-0.372
CE-141	2.322E-02		8.662E-02	1.437E-01	1.466E-02	0.162
CE-143	2.836E-02		5.901E-03	Half-Life too short		
CE-144	1.229E-02		2.504E-01	3.699E-01	6.180E-02	0.033
PM-144	1.426E-03		5.003E-02	8.453E-02	7.239E-03	0.017
PR-144	9.353E-02		3.759E+00	6.348E+00	5.433E-01	0.015
PM-146	1.792E-02		5.768E-02	9.709E-02	1.041E-02	0.185
ND-147	-1.673E+00		1.217E+00	1.655E+00	2.506E-01	-1.011
PM-149	6.146E-06		6.222E-04	Half-Life too short		
EU-152	2.118E-02		1.238E-01	2.030E-01	1.919E-02	0.104
GD-153	-6.169E-02		9.202E-02	1.322E-01	1.352E-02	-0.467
EU-154	5.607E-02		1.843E-01	3.074E-01	3.450E-02	0.182
EU-155	3.376E-02		1.097E-01	1.850E-01	1.987E-02	0.183
TB-160	1.258E-01		2.089E-01	3.679E-01	3.225E-02	0.342
HO-166M	-5.160E-02		8.937E-02	1.428E-01	1.229E-02	-0.361
TA-182	-5.393E-02		3.001E-01	4.741E-01	3.932E-02	-0.114
IR-192	-3.733E-02		4.570E-02	7.274E-02	6.655E-03	-0.513
HG-203	4.719E-02		5.659E-02	9.006E-02	8.454E-03	0.524
BI-207	3.241E-02		7.486E-02	1.282E-01	1.099E-02	0.253
PB-211	2.721E-01		9.475E-01	1.587E+00	7.677E-01	0.171
BI-212	3.221E+00	+	1.297E+00	1.752E+00	2.186E-01	1.839
RN-219	2.090E-01		5.297E-01	9.014E-01	1.334E-01	0.232
RA-223	-5.050E-01		8.440E-01	1.139E+00	2.003E-01	-0.443
AC-227	-2.863E-01		3.091E-01	4.551E-01	5.649E-02	-0.629
TH-227	-2.863E-01		3.097E-01	4.551E-01	6.338E-02	-0.629
TH-229	-4.538E-01		6.149E-01	9.482E-01	8.200E-02	-0.479
PA-231	3.905E-01		1.672E+00	2.870E+00	4.283E-01	0.136
TH-231	-5.050E-01		8.440E-01	1.139E+00	2.003E-01	-0.443
PA-233	-8.399E-03		7.733E-02	1.294E-01	1.214E-02	-0.065
PA-234	-9.338E-02		4.083E-01	6.535E-01	1.230E-01	-0.143
PA-234M	1.332E+00		6.624E+00	1.110E+01	1.114E+00	0.120
NP-239	-1.095E-01		4.119E-01	6.732E-01	7.668E-02	-0.163
AM-241	5.829E-02		7.633E-02	1.197E-01	1.271E-02	0.487
CM-247	-7.122E-03		4.935E-02	8.102E-02	6.881E-03	-0.088
CF-249	-1.601E-03		5.239E-02	8.692E-02	7.361E-03	-0.018
CF-251	3.554E-02		1.479E-01	2.430E-01	2.058E-02	0.146

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248250004          *
* Acquisition date   : 19-MAR-2010 13:11:38 Detector SN#      :              *
* Detector ID        : GAM17 Sensitivity      : 5.000             *
* Geometry           : CAN Energy tolerance: 1.500             *
* Elapsed live time  : 0 02:00:00.00 Abundance limit : 75.000    *
* Elapsed real time  : 0 02:00:10.14 Half life ratio : 8.000    *
*****
*                                     SAMPLE DATA                          *
*
* Sample date        : 24-FEB-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID          : G248250004 Analyst initials: MXR1         *
* Batch Number       : 959281 Sample Quantity : 1.1355E+02 GRAM *
* Recovery           : 1.00000 Carrier Weight : 0.00000         *
*****
*                                     QC DATA                              *
*
* CALIB. DATE/TIME   : 6-JAN-2010 11:41:36 MS Isotope          :              *
* MSD DPM             : 0.000 MSD Isotope                      :              *
* LCS DPM             : 0.000 LCS Isotope                      :              *
* LCSD DPM           : 0.000 LCSD Isotope                     :              *
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.024E+01	3.458E+00	2.993E-01	1.764E+00
SN-126	6.989E-01	1.639E-01	5.148E-02	8.361E-02
BA-137M	3.083E-01	1.060E-01	4.111E-02	5.406E-02
CS-137	3.257E-01	1.119E-01	4.343E-02	5.711E-02
TL-208	6.531E-01	1.225E-01	4.215E-02	6.252E-02
PB-210	8.670E-01	8.476E-01	4.726E-01	4.324E-01
BI-211	4.399E+00	6.533E-01	1.948E-01	3.333E-01
PB-212	1.913E+00	2.346E-01	5.249E-02	1.197E-01
BI-214	1.417E+00	2.575E-01	8.076E-02	1.314E-01
PB-214	1.596E+00	2.523E-01	7.086E-02	1.287E-01
RA-224	5.863E+00	1.853E+00	5.631E-01	9.454E-01
RA-226	1.417E+00	2.575E-01	8.076E-02	1.314E-01
AC-228	2.056E+00	4.591E-01	1.478E-01	2.343E-01
RA-228	2.056E+00	4.591E-01	1.478E-01	2.343E-01
TH-228	1.913E+00	2.346E-01	5.249E-02	1.197E-01
TH-232	2.056E+00	4.591E-01	1.478E-01	2.343E-01
TH-234	2.841E+00	1.446E+00	5.919E-01	7.377E-01
U-235	7.862E-02	2.452E-01	2.047E-01	1.251E-01
NP-237	2.085E+00	6.502E-01	1.644E-01	3.317E-01
U-238	2.841E+00	1.446E+00	5.919E-01	7.377E-01
ANH-511	1.234E-01	9.423E-02	3.261E-02	4.808E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-1.143E-01	4.568E-01	3.762E-01	2.330E-01 NOT IDENT.
NA-22	1.521E-02	6.448E-02	5.424E-02	3.290E-02 NOT IDENT.
NA-24	-1.122E+08	6.864E+09	0.000E+00	3.502E+09 SHORT HLIF
SC-46	-2.870E-03	5.658E-02	4.754E-02	2.887E-02 FAIL ABUN
V-48	-1.477E-02	1.461E-01	1.210E-01	7.453E-02 NOT IDENT.
CR-51	3.816E-01	5.282E-01	4.770E-01	2.695E-01 NOT IDENT.

MN-54	-3.050E-02	5.439E-02	4.372E-02	2.775E-02	NOT IDENT.
CO-56	-1.205E-03	5.515E-02	4.669E-02	2.814E-02	NOT IDENT.
CO-57	-1.261E-02	2.743E-02	2.302E-02	1.399E-02	NOT IDENT.
CO-58	-7.155E-02	5.326E-02	3.787E-02	2.717E-02	NOT IDENT.
FE-59	-9.726E-02	1.613E-01	1.248E-01	8.231E-02	NOT IDENT.
CO-60	2.895E-02	5.804E-02	5.128E-02	2.961E-02	NOT IDENT.
ZN-65	-4.335E-02	1.578E-01	1.080E-01	8.051E-02	NOT IDENT.
SE-75	-5.649E-03	5.627E-02	4.332E-02	2.871E-02	NOT IDENT.
SR-85	4.890E-02	6.279E-02	4.964E-02	3.204E-02	NOT IDENT.
Y-88	3.525E-03	5.917E-02	4.949E-02	3.019E-02	NOT IDENT.
Y-91	9.990E+00	3.224E+01	2.744E+01	1.645E+01	NOT IDENT.
NB-94	-7.234E-03	4.717E-02	4.014E-02	2.406E-02	NOT IDENT.
NB-95	5.781E-02	7.228E-02	5.886E-02	3.688E-02	NOT IDENT.
NB-95M	1.355E-01	1.685E-01	1.309E-01	8.597E-02	NOT IDENT.
ZR-95	1.391E-01	1.131E-01	1.062E-01	5.772E-02	NOT IDENT.
MO-99	-8.148E+00	1.241E+02	0.000E+00	6.331E+01	SHORT HLIF
TC-99M	1.914E+25	1.389E+26	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.698E-02	5.102E-02	4.131E-02	2.603E-02	FAIL ABUN
RH-106	1.310E-01	4.183E-01	3.550E-01	2.134E-01	NOT IDENT.
RU-106	1.310E-01	4.181E-01	3.550E-01	2.133E-01	NOT IDENT.
AG-108M	-4.173E-02	3.655E-02	2.789E-02	1.865E-02	NOT IDENT.
CD-109	4.126E+00	1.064E+00	7.932E-01	5.430E-01	NOT IDENT.
AG-110M	-2.806E-02	6.014E-02	4.022E-02	3.069E-02	NOT IDENT.
SN-113	5.545E-03	5.751E-02	4.947E-02	2.934E-02	NOT IDENT.
CD-115	9.844E+01	1.655E+02	0.000E+00	8.443E+01	SHORT HLIF
SN-117M	-1.243E-02	8.869E-02	7.445E-02	4.525E-02	NOT IDENT.
TE-123M	-5.294E-03	3.228E-02	2.706E-02	1.647E-02	NOT IDENT.
SB-124	-3.990E-02	1.061E-01	8.004E-02	5.412E-02	NOT IDENT.
SB-125	4.663E-02	1.230E-01	1.071E-01	6.275E-02	FAIL ABUN
TE-125M	7.311E+00	1.120E+01	9.913E+00	5.714E+00	NOT IDENT.
I-126	4.691E-01	4.505E-01	3.716E-01	2.298E-01	NOT IDENT.
SB-126	1.780E-01	3.385E-01	2.803E-01	1.727E-01	NOT IDENT.
SB-127	6.907E-01	7.505E+00	6.187E+00	3.829E+00	NOT IDENT.
I-131	-9.599E-03	2.832E-01	2.427E-01	1.445E-01	NOT IDENT.
TE-132	-2.430E+00	4.912E+00	3.921E+00	2.506E+00	NOT IDENT.
BA-133	5.360E-02	5.483E-02	4.502E-02	2.798E-02	FAIL ABUN
I-133	-1.868E+06	4.291E+06	0.000E+00	2.189E+06	SHORT HLIF
CS-134	8.862E-02	7.266E-02	6.732E-02	3.707E-02	NOT IDENT.
CS-135	8.817E-02	2.111E-01	1.591E-01	1.077E-01	NOT IDENT.
I-135	-1.142E+24	4.731E+24	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.191E-01	1.903E-01	1.134E-01	9.711E-02	NOT IDENT.
CE-139	1.260E-02	3.546E-02	3.042E-02	1.809E-02	NOT IDENT.
BA-140	1.012E-01	5.702E-01	4.817E-01	2.909E-01	NOT IDENT.
LA-140	-1.029E-01	1.834E-01	1.377E-01	9.356E-02	FAIL ABUN
CE-141	2.322E-02	8.489E-02	7.305E-02	4.331E-02	NOT IDENT.
CE-143	2.836E+04	1.157E+04	0.000E+00	5.901E+03	SHORT HLIF
CE-144	1.229E-02	2.454E-01	1.882E-01	1.252E-01	NOT IDENT.
PM-144	1.426E-03	4.903E-02	4.238E-02	2.502E-02	NOT IDENT.
PR-144	9.353E-02	3.684E+00	3.183E+00	1.879E+00	NOT IDENT.
PM-146	1.792E-02	5.653E-02	4.886E-02	2.884E-02	NOT IDENT.
ND-147	-1.673E+00	1.193E+00	8.321E-01	6.085E-01	FAIL ABUN
PM-149	6.146E+00	1.219E+03	0.000E+00	6.222E+02	SHORT HLIF
EU-152	2.118E-02	1.213E-01	1.024E-01	6.188E-02	FAIL ABUN
GD-153	-6.169E-02	9.018E-02	6.745E-02	4.601E-02	NOT IDENT.
EU-154	5.607E-02	1.807E-01	1.533E-01	9.217E-02	NOT IDENT.
EU-155	3.376E-02	1.075E-01	9.429E-02	5.486E-02	FAIL ABUN
TB-160	1.258E-01	2.047E-01	1.841E-01	1.045E-01	FAIL ABUN
HO-166M	-5.160E-02	8.758E-02	7.159E-02	4.469E-02	FAIL ABUN
TA-182	-5.393E-02	2.941E-01	2.365E-01	1.501E-01	FAIL ABUN
IR-192	-3.733E-02	4.479E-02	3.673E-02	2.285E-02	FAIL ABUN
HG-203	4.719E-02	5.546E-02	4.552E-02	2.829E-02	NOT IDENT.
BI-207	3.241E-02	7.336E-02	6.404E-02	3.743E-02	FAIL ABUN
PB-211	2.721E-01	9.286E-01	7.996E-01	4.738E-01	NOT IDENT.
BI-212	3.221E+00	1.272E+00	8.779E-01	6.487E-01	FAIL ABUN
RN-219	2.090E-01	5.191E-01	4.542E-01	2.649E-01	FAIL ABUN
RA-223	-5.050E-01	8.271E-01	5.752E-01	4.220E-01	FAIL ABUN
AC-227	-2.863E-01	3.030E-01	2.302E-01	1.546E-01	FAIL ABUN
TH-227	-2.863E-01	3.035E-01	2.302E-01	1.548E-01	FAIL ABUN
TH-229	-4.538E-01	6.026E-01	4.808E-01	3.074E-01	FAIL ABUN
PA-231	3.905E-01	1.638E+00	1.450E+00	8.358E-01	FAIL ABUN
TH-231	-5.050E-01	8.271E-01	5.752E-01	4.220E-01	FAIL ABUN
PA-233	-8.399E-03	7.578E-02	6.536E-02	3.866E-02	FAIL ABUN
PA-234	-9.338E-02	4.001E-01	3.268E-01	2.041E-01	NOT IDENT.
PA-234M	1.332E+00	6.492E+00	5.547E+00	3.312E+00	NOT IDENT.
NP-239	-1.095E-01	4.037E-01	3.429E-01	2.060E-01	FAIL ABUN
AM-241	5.829E-02	7.480E-02	6.134E-02	3.817E-02	NOT IDENT.
CM-247	-7.122E-03	4.837E-02	4.082E-02	2.468E-02	FAIL ABUN
CF-249	-1.601E-03	5.134E-02	4.381E-02	2.620E-02	NOT IDENT.

CF-251

3.554E-02

1.450E-01

1.233E-01

7.397E-02 NOT IDENT.

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 SAVAGE ROAD                        *
*                                     CHARLESTON ,SC 29417                     *
*                                     GAMMA SPECTROSCOPY BACKGROUND REPORT      *
*****

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ENERGY	MDA COUNTS
46.54	257.1959
49.72	259.6280
57.36	0.0000
59.54	305.5215
63.29	355.4784
63.29	355.4784
64.28	356.3463
67.75	404.2538
69.67	386.1780
70.83	361.9307
72.81	373.3680
72.87	373.4191
72.87	373.4191
74.82	375.0515
74.82	375.0515
74.82	375.0515
74.97	375.1773
77.11	376.9419
77.11	376.9419
77.11	376.9419
79.69	296.7178
79.80	296.7862
80.12	306.9481
80.19	306.9929
80.57	304.5205
81.00	342.8970
81.07	307.5636
81.07	307.5636
83.79	301.0960
83.79	301.0960
85.43	300.7324
86.48	301.3723
86.55	301.4141
86.79	301.5577
86.94	301.6497
87.57	262.0357
88.03	262.2763
88.47	262.5053
89.96	263.2765
91.11	231.9260
92.59	232.5911
92.59	232.5911
93.35	232.9300
94.67	233.5149
94.87	233.6028
94.87	233.6028
95.86	242.4484
97.43	264.2430
98.44	216.8586
99.53	224.8186
100.11	242.0068
103.18	254.7132
103.37	256.6938
105.31	243.3203
106.12	246.5221
109.28	236.3918
111.00	254.3640
111.76	247.0028
116.30	220.7950
117.23	210.4638
121.12	197.1516
121.78	224.7158
122.06	223.8378
123.07	219.3014
131.20	236.4499
133.52	211.9080
136.00	220.6763

136.47	207.8392
140.51	0.0000
140.51	0.0000
143.76	219.1280
144.24	224.3283
144.24	224.3283
145.44	223.6955
152.43	209.5169
153.25	200.5419
154.21	201.8276
154.21	201.8276
156.02	226.9665
158.56	186.5163
159.00	187.6560
162.66	173.0172
163.33	177.3144
165.86	191.4177
176.60	183.4678
177.52	174.1728
181.07	0.0000
184.41	172.4315
185.72	176.9626
193.51	190.4086
197.04	186.8553
205.31	196.2186
210.85	172.7303
215.65	148.8153
222.11	162.0356
227.38	147.2955
228.16	171.9811
228.18	171.9842
235.69	141.7808
235.96	141.8192
235.96	141.8192
238.63	139.9377
238.63	139.9377
240.99	140.2619
242.00	140.4006
244.70	126.0109
252.40	115.5052
252.80	108.6841
256.23	145.7631
256.23	145.7631
260.90	0.0000
264.66	116.5951
268.22	120.1078
269.46	127.2109
269.46	127.2109
271.23	120.4320
273.65	101.4522
276.40	98.1931
277.37	124.6010
277.60	126.3823
278.00	122.9144
279.20	115.3105
279.54	115.3445
280.46	121.0677
283.69	116.4668
284.31	111.2334
285.41	115.7574
285.90	0.0000
287.50	113.3105
293.27	0.0000
295.22	116.7278
295.96	116.8018
298.57	117.0577
299.98	117.1936
299.98	117.1936
300.09	117.2056
300.09	117.2056
300.13	117.2096
301.36	117.3275
302.85	124.8267
304.50	106.3190
304.50	106.3190
304.85	103.4754
308.46	120.7157
311.90	112.9227

316.51	125.1299
319.41	103.6065
320.08	96.3860
323.87	100.6885
323.87	100.6885
328.76	102.5374
333.37	128.6288
334.37	122.5972
334.37	122.5972
338.28	123.5783
338.28	123.5783
338.32	123.5824
338.32	123.5824
338.32	123.5824
340.48	128.5884
340.55	128.5947
344.28	102.6988
351.06	89.3848
351.93	89.4419
356.01	77.7486
364.49	96.8438
366.42	0.0000
383.85	94.3594
388.16	99.4186
388.63	98.4941
391.69	88.1592
400.66	93.5129
401.81	88.7614
402.40	99.4135
404.85	91.8399
410.95	92.2095
414.70	73.9485
423.72	91.9962
427.09	77.4823
427.87	87.3337
433.94	88.6528
453.88	79.7778
463.37	68.1992
468.07	72.4131
473.00	66.5720
476.78	84.9152
477.60	73.8310
487.02	75.2511
492.35	0.0000
497.08	53.1823
511.00	75.2428
514.00	74.3351
527.90	0.0000
529.87	0.0000
531.02	72.9416
537.26	67.9576
546.56	0.0000
563.25	59.3462
569.33	69.0982
569.50	71.2304
569.70	70.1754
583.19	70.6527
600.60	60.4639
602.73	50.1496
604.72	57.1216
609.32	68.3083
609.32	68.3083
610.33	60.7476
614.28	50.4300
618.01	47.9061
621.93	49.0869
621.93	49.0869
633.25	48.2512
635.95	62.5873
636.99	53.8285
645.85	47.4315
657.76	67.4296
661.66	58.8826
661.66	58.8826
664.57	0.0000
666.33	32.0643
666.50	33.8484
677.62	52.5910

685.70	49.4087
695.00	64.9441
696.49	63.1794
696.51	63.1812
697.00	66.8060
702.65	65.1586
706.68	65.2711
711.68	69.0438
720.70	50.8080
721.93	0.0000
722.78	51.7222
722.91	60.8529
723.31	60.8626
724.19	57.8411
727.33	51.2107
733.00	53.4713
735.93	49.5584
739.50	0.0000
747.24	45.1802
752.31	58.2089
753.82	59.1688
756.73	42.5781
763.94	46.4148
765.81	49.5456
766.42	49.5586
777.92	0.0000
778.90	47.6257
783.70	59.8797
785.37	61.7912
795.86	43.2429
801.95	48.9988
810.29	47.2656
810.76	49.1651
815.77	32.2079
818.51	42.6731
832.01	56.2344
834.85	59.1558
836.80	0.0000
846.77	39.2933
856.80	35.2702
860.56	43.3455
871.09	35.7760
873.19	33.8678
875.33	0.0000
879.36	33.9430
880.51	32.9865
883.24	44.6726
884.68	43.7234
889.28	38.9297
898.04	35.1448
911.20	34.3267
911.20	34.3267
911.20	34.3267
926.50	38.4525
937.49	51.4630
944.13	31.7406
946.00	37.7161
949.00	38.7477
962.29	33.9303
964.08	33.9510
966.15	33.9743
968.97	34.0058
968.97	34.0058
968.97	34.0058
983.53	42.2092
996.26	39.3561
1001.03	39.4170
1004.73	45.5350
1037.84	35.7896
1038.76	0.0000
1048.07	36.9299
1050.41	23.6109
1050.41	23.6109
1063.66	32.9844
1085.87	36.3210
1099.45	52.0996
1112.07	37.1875
1115.54	48.8587

1120.29	47.1797
1120.29	47.1797
1120.55	47.1819
1121.30	41.9492
1131.51	0.0000
1173.23	41.5175
1177.93	62.8920
1189.05	50.2565
1204.77	36.5151
1221.41	46.3909
1231.02	40.0225
1235.36	58.4798
1238.28	53.1081
1260.41	0.0000
1271.85	30.6209
1274.44	31.7357
1274.54	32.8315
1291.59	29.6802
1298.22	0.0000
1312.11	34.9957
1332.49	20.3663
1365.19	19.6012
1368.63	0.0000
1384.29	17.8187
1408.01	15.0924
1457.56	0.0000
1460.82	10.5077
1489.16	13.1875
1505.03	17.3716
1596.21	18.7147
1620.50	13.8621
1678.03	0.0000
1690.97	10.0505
1764.49	10.4937
1764.49	10.4937
1770.23	7.0039
1771.35	16.3457
1791.20	0.0000
1836.06	12.4165

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248250004

Total Uranium Activity	8.4884E+00	ug/g
Total Uranium Counting Unc.	4.3032E+00	ug/g
Total Uranium Tpu	2.1955E-06	ug/g
Total Uranium Mda	1.7634E+00	ug/g

```

*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON ,SC 29417                *
*               GROSS GAMMA REPORT                  *
*
*****
*
*  BATCH ID      : 959281          SAMPLE ID   : G248250004
*  ANALYST       : MXR1            DETECTOR    : GAM17
*  SAMPLE DATE   : 24-FEB-2010 12:00:00.00  COUNT TIME : 0 02:00:00.00
*  ANALYSIS DATE: 19-MAR-2010 13:11:38.57  SAMPLE ALQT: 113.550 GRAM
*
*****

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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 1.127E+01
GROSS GAMMA ERROR (pCi/GRAM ) : 1.688E+00
GROSS GAMMA MDA (pCi/GRAM ) : 5.069E+00
GROSS GAMMA DLC (pCi/GRAM ) : 2.455E+00

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VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 15:13:41.62

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*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                    *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248258001.CNF;1
Sample date        : 25-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 13:11:58
Sample ID          : G248258001 Sample quantity : 1.32710E+02 GRAM
Detector name      : GAM18 Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00 Elapsed real time: 0 02:00:01.84 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity : 5.00000
Batch ID           : 959281 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	76.19	1227	1084	3.16	151.49	143	16	1.70E-01	6.6	
2	0	87.10	187	550	1.25	173.30	171	7	2.59E-02	22.0	
3	5	90.08	182	268	1.08	179.26	177	15	2.52E-02	14.1	2.96E+00
4	5	93.14*	316	571	1.66	185.38	177	15	4.39E-02	16.3	
5	0	185.95*	339	529	1.46	370.94	365	13	4.71E-02	15.4	
6	0	209.43	171	427	0.97	417.87	413	10	2.38E-02	23.9	
7	3	238.64*	1915	226	1.20	476.29	469	19	2.66E-01	2.7	1.91E+00
8	3	241.62*	422	305	1.71	482.23	469	19	5.86E-02	11.6	
9	2	270.20*	147	231	1.57	539.39	535	30	2.04E-02	20.5	2.18E+00
10	2	277.30	117	234	1.67	553.58	535	30	1.62E-02	27.1	
11	3	295.23*	572	194	1.45	589.42	584	21	7.95E-02	6.1	2.84E+00
12	3	300.00	181	202	1.89	598.97	584	21	2.51E-02	18.0	
13	0	327.87	106	184	1.22	654.69	650	8	1.47E-02	24.2	
14	0	338.35*	392	304	1.22	675.64	669	14	5.44E-02	10.8	
15	0	351.77*	1059	172	1.37	702.47	696	11	1.47E-01	4.0	
16	0	462.87	117	158	1.23	924.59	919	12	1.63E-02	23.3	
17	0	510.52*	178	245	2.02	1019.88	1013	17	2.47E-02	23.8	
18	0	582.87*	626	202	1.58	1164.53	1156	18	8.70E-02	6.7	
19	0	608.95*	788	130	1.68	1216.68	1210	13	1.09E-01	4.8	
20	0	726.89	183	90	2.15	1452.50	1447	11	2.54E-02	12.5	
21	0	795.52	59	126	1.17	1589.72	1581	13	8.25E-03	41.1	
22	0	860.63*	72	102	1.78	1719.92	1715	11	1.01E-02	30.7	
23	0	910.55*	447	97	1.71	1819.75	1811	16	6.21E-02	7.0	
24	3	964.12	93	108	2.81	1926.87	1915	32	1.29E-02	30.1	2.00E+00
25	3	968.54*	277	69	1.75	1935.69	1915	32	3.85E-02	8.7	
26	0	1119.67	219	111	1.61	2237.92	2229	18	3.04E-02	13.2	
27	0	1377.04	56	45	2.47	2752.59	2746	13	7.72E-03	28.4	
28	0	1398.42	38	36	5.92	2795.34	2787	18	5.25E-03	40.6	
29	0	1407.46*	31	24	2.13	2813.42	2807	12	4.36E-03	38.0	
30	0	1459.76*	2355	101	2.33	2918.01	2908	21	3.27E-01	2.3	
31	0	1587.10	46	34	3.82	3172.67	3163	17	6.44E-03	32.3	
32	0	1763.39*	143	28	2.69	3525.23	3518	14	1.99E-02	11.9	
33	0	1846.56	39	17	2.15	3691.56	3684	17	5.42E-03	29.0	

Flag: "*" = Peak area was modified by background subtraction

```

Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248258001.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 25-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 13:11:58
Sample ID         : G248258001 Sample quantity : 132.71 GRAM
Sample type       : SOLID Sample geometry :
Detector name     : GAMMA18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.84 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	+	1460.82	*	3.300E+01	2.942E+00	4.025E-01	3.055E-02	81.981
CD-109	+	88.03	*	2.296E+00	1.032E+00	1.069E+00	9.879E-02	2.149
SN-126	+	64.28		4.888E-01	5.423E-01	9.126E-01	1.349E-01	0.536
	+	86.94		9.234E-01	5.583E-01	5.277E-01	2.189E-01	1.750
	+	87.57	*	2.221E-01	9.980E-02	1.304E-01	1.202E-02	1.703
TL-208	+	277.37		7.981E-01	4.417E-01	4.896E-01	5.253E-02	1.630
	+	583.19	*	5.296E-01	8.251E-02	4.681E-02	3.664E-03	11.313
	+	860.56		5.619E-01	3.510E-01	3.539E-01	3.959E-02	1.588
BI-211	+	72.87		1.010E+00	3.439E+00	5.160E+00	4.261E-01	0.196
	+	351.06	*	4.251E+00	4.336E-01	2.665E-01	1.711E-02	15.954
PB-212	+	74.82		6.613E+00	1.223E+00	5.369E-01	6.884E-02	12.315
	+	77.11		3.975E+00	6.255E-01	3.039E-01	2.576E-02	13.082
	+	238.63	*	1.829E+00	1.643E-01	7.385E-02	5.324E-03	24.763
	+	300.09		2.590E+00	9.547E-01	1.011E+00	8.445E-02	2.561
BI-214	+	609.32	*	1.284E+00	1.685E-01	8.901E-02	7.999E-03	14.428
	+	1120.29		1.776E+00	4.998E-01	3.944E-01	3.798E-02	4.502
	+	1764.49		1.565E+00	3.838E-01	2.437E-01	1.482E-02	6.420
PB-214	+	74.82		1.172E+01	2.065E+00	9.517E-01	1.096E-01	12.315
	+	77.11		7.008E+00	1.245E+00	5.357E-01	6.335E-02	13.082
	+	242.00		2.440E+00	5.995E-01	4.483E-01	3.605E-02	5.442
	+	295.22		1.454E+00	2.180E-01	1.790E-01	1.554E-02	8.124
	+	351.93	*	1.543E+00	1.789E-01	8.831E-02	7.475E-03	17.473
RA-224	+	240.99	*	4.315E+00	1.030E+00	7.905E-01	4.404E-02	5.458
RA-226	+	609.32	*	1.284E+00	1.685E-01	8.901E-02	7.999E-03	14.428
	+	1120.29		1.776E+00	4.998E-01	3.944E-01	3.798E-02	4.502
	+	1764.49		1.565E+00	3.838E-01	2.437E-01	1.482E-02	6.420
AC-228	+	338.32		1.761E+00	8.202E-01	2.947E-01	1.215E-01	5.977
	+	911.20	*	1.762E+00	3.422E-01	1.656E-01	2.243E-02	10.640
	+	968.97		1.880E+00	5.715E-01	3.059E-01	7.632E-02	6.144
RA-228	+	338.32		1.761E+00	8.202E-01	2.947E-01	1.215E-01	5.977
	+	911.20	*	1.762E+00	3.422E-01	1.656E-01	2.243E-02	10.640
	+	968.97		1.880E+00	5.715E-01	3.059E-01	7.632E-02	6.144
TH-228	+	74.82		6.613E+00	1.043E+00	5.369E-01	4.528E-02	12.315
	+	77.11		3.975E+00	6.255E-01	3.039E-01	2.576E-02	13.082

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	+	238.63	*	1.829E+00	1.643E-01	7.385E-02	5.324E-03	24.763
	+	300.09		2.590E+00	1.830E+00	1.011E+00	6.156E-01	2.561
	+	338.32		1.761E+00	3.949E-01	2.947E-01	1.705E-02	5.977
	+	911.20	*	1.762E+00	3.422E-01	1.656E-01	2.243E-02	10.640
U-235	+	968.97		1.880E+00	5.715E-01	3.059E-01	7.632E-02	6.144
	+	89.96		2.205E+00	8.283E-01	1.075E+00	2.657E-01	2.051
	+	93.35		2.288E+00	9.120E-01	6.549E-01	1.506E-01	3.494
		143.76	*	-2.799E-02	1.809E-01	2.831E-01	4.415E-02	-0.099
NP-237		163.33		2.244E-01	3.731E-01	6.403E-01	1.063E-01	0.350
	+	185.72		2.193E-01	6.848E-02	5.282E-02	2.810E-03	4.151
		205.31		1.774E-01	4.451E-01	6.643E-01	1.120E-01	0.267
	+	86.48	*	6.628E-01	3.286E-01	3.824E-01	8.745E-02	1.733
ANH-511		95.86		1.420E-01	9.127E-01	1.337E+00	3.180E-01	0.106
	+	511.00	*	1.166E-01	5.608E-02	3.538E-02	2.336E-03	3.297

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-8.079E-02	2.831E-01	4.593E-01	3.327E-02	-0.176
NA-22		1274.54	*	-4.237E-02	4.028E-02	6.102E-02	4.152E-03	-0.694
NA-24		1368.63	*	-6.180E+02	4.028E-02	Half-Life too short		
SC-46		889.28	*	5.703E-03	3.384E-02	5.596E-02	6.242E-03	0.102
V-48	+	1120.55		3.181E-01	8.696E-02	1.144E-01	7.899E-03	2.781
		944.13		-9.427E-02	9.585E-01	1.546E+00	1.636E-01	-0.061
		983.53	*	6.291E-02	7.392E-02	1.273E-01	1.259E-02	0.494
CR-51		1312.11		-4.199E-02	8.868E-02	1.392E-01	1.014E-02	-0.302
		320.08	*	6.121E-03	3.724E-01	6.003E-01	3.859E-02	0.010
		834.85	*	1.579E-02	3.344E-02	5.643E-02	5.780E-03	0.280
CO-56		846.77	*	5.708E-03	3.440E-02	5.710E-02	5.962E-03	0.100
CO-57		1037.84		-4.482E-02	2.752E-01	4.555E-01	4.216E-02	-0.098
		1238.28		8.964E-02	8.770E-02	1.517E-01	1.011E-02	0.591
		1771.35		3.620E-02	1.992E-01	2.894E-01	1.749E-02	0.125
	*	122.06		-2.753E-03	2.366E-02	3.778E-02	2.238E-03	-0.073
		136.47		3.995E-02	1.883E-01	3.024E-01	1.975E-02	0.132
CO-58		810.76	*	-6.593E-03	3.207E-02	5.208E-02	5.141E-03	-0.127
FE-59		1099.45	*	-5.657E-02	8.993E-02	1.435E-01	1.180E-02	-0.394
CO-60		1291.59		5.879E-02	1.095E-01	1.872E-01	1.573E-02	0.314
		1173.23		7.400E-03	3.910E-02	6.548E-02	3.619E-03	0.113
	*	1332.49		2.256E-02	3.185E-02	5.523E-02	4.173E-03	0.408
ZN-65		1115.54	*	-3.177E-02	1.053E-01	1.461E-01	1.029E-02	-0.217
SE-75		121.12		-3.940E-02	1.252E-01	1.984E-01	1.821E-02	-0.199
SR-85		136.00		-1.464E-03	3.720E-02	5.916E-02	3.371E-03	-0.025
	*	264.66		1.859E-02	3.928E-02	6.102E-02	3.491E-03	0.305
		279.54		8.098E-02	9.451E-02	1.595E-01	9.869E-03	0.508
		400.66		7.223E-02	2.026E-01	3.449E-01	3.131E-02	0.209
	*	514.00		1.070E-01	3.931E-02	6.535E-02	4.330E-03	1.637
Y-88		898.04		-5.213E-03	3.612E-02	5.836E-02	6.616E-03	-0.089
	*	1836.06		6.266E-03	2.817E-02	4.447E-02	2.533E-03	0.141

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	1204.77	*		1.260E+01	2.058E+01	3.522E+01	2.082E+00	0.358
NB-94	702.65	*		-6.554E-03	2.715E-02	4.467E-02	3.665E-03	-0.147
	871.09			9.132E-03	2.704E-02	4.534E-02	4.918E-03	0.201
NB-95	765.81	*		2.080E-02	3.929E-02	6.689E-02	6.119E-03	0.311
NB-95M	235.69	*		4.323E-02	1.306E-01	1.922E-01	1.415E-02	0.225
ZR-95	724.19			2.166E-01	1.003E-01	1.639E-01	1.517E-02	1.321
	756.73	*		6.994E-03	6.160E-02	1.029E-01	1.016E-02	0.068
MO-99	140.51			-2.219E-04	6.160E-02	Half-Life	too short	
	181.07			-2.311E-05	6.160E-02	Half-Life	too short	
	366.42			-1.332E-04	6.160E-02	Half-Life	too short	
	739.50	*		-1.440E-05	6.160E-02	Half-Life	too short	
	777.92			-2.277E-04	6.160E-02	Half-Life	too short	
TC-99M	140.51	*		-1.389E+19	6.160E-02	Half-Life	too short	
RU-103	497.08	*		-1.038E-03	3.420E-02	5.611E-02	7.166E-03	-0.019
+	610.33			1.498E+01	2.751E+00	2.630E+00	4.124E-01	5.697
RH-106	621.93	*		2.291E-02	2.685E-01	4.351E-01	5.427E-02	0.053
	1050.41			1.219E+00	2.132E+00	3.694E+00	3.157E-01	0.330
RU-106	621.93	*		2.291E-02	2.685E-01	4.351E-01	3.202E-02	0.053
	1050.41			1.219E+00	2.132E+00	3.694E+00	3.157E-01	0.330
AG-108M	433.94	*		-6.264E-04	2.396E-02	3.978E-02	2.565E-03	-0.016
	614.28			-1.998E-03	3.276E-02	4.532E-02	3.463E-03	-0.044
	722.91			1.477E-02	3.435E-02	5.106E-02	4.484E-03	0.289
AG-110M	657.76	*		-3.489E-02	2.935E-02	4.567E-02	3.602E-03	-0.764
	677.62			7.536E-02	2.449E-01	4.177E-01	3.391E-02	0.180
	706.68			-7.154E-03	1.704E-01	2.837E-01	2.417E-02	-0.025
	763.94			-6.824E-02	1.376E-01	2.210E-01	2.065E-02	-0.309
	884.68			-3.124E-02	4.202E-02	6.474E-02	7.311E-03	-0.482
	937.49			-7.161E-02	9.577E-02	1.467E-01	1.606E-02	-0.488
	1384.29			4.551E-03	1.472E-01	2.049E-01	1.586E-02	0.022
	1505.03			-4.893E-02	2.222E-01	3.627E-01	2.603E-02	-0.135
SN-113	391.69	*		-4.206E-02	3.635E-02	5.716E-02	3.506E-03	-0.736
CD-115	260.90			-4.519E-04	3.635E-02	Half-Life	too short	
	492.35			-1.846E-04	3.635E-02	Half-Life	too short	
	527.90	*		1.012E-05	3.635E-02	Half-Life	too short	
SN-117M	156.02			-9.461E-01	2.707E+00	4.537E+00	2.423E-01	-0.209
	158.56	*		-4.070E-02	6.567E-02	1.067E-01	5.669E-03	-0.382
TE-123M	159.00	*		-1.095E-02	2.511E-02	4.107E-02	2.216E-03	-0.267
SB-124	602.73			1.886E-03	4.183E-02	5.815E-02	4.206E-03	0.032
	645.85			-9.585E-02	4.371E-01	6.916E-01	5.589E-02	-0.139
	722.78			1.265E-01	3.717E-01	5.488E-01	4.774E-02	0.230
	1690.97	*		-6.687E-03	6.335E-02	1.031E-01	7.140E-03	-0.065
SB-125	427.87	*		-3.001E-02	7.083E-02	1.151E-01	7.185E-03	-0.261
+	463.37			6.946E-01	3.281E-01	4.302E-01	3.070E-02	1.615
	600.60			-9.168E-02	1.645E-01	2.438E-01	1.943E-02	-0.376
	635.95			-6.133E-03	2.124E-01	3.410E-01	2.814E-02	-0.018
TE-125M	109.28	*		-2.440E+00	9.616E+00	1.538E+01	1.384E+00	-0.159
I-126	388.63			2.544E-01	1.936E-01	3.437E-01	1.976E-02	0.740
	666.33	*		-3.045E-01	2.573E-01	3.996E-01	3.072E-02	-0.762
	753.82			1.946E+00	2.051E+00	3.594E+00	3.221E-01	0.542

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-126	414.70			5.535E-03	8.593E-02	1.438E-01	8.507E-03	0.038
	666.50			-1.055E-01	8.992E-02	1.398E-01	1.075E-02	-0.754
	695.00			1.419E-02	9.073E-02	1.530E-01	1.238E-02	0.093
	697.00			-7.439E-02	3.159E-01	5.204E-01	4.227E-02	-0.143
	720.70	*		1.693E-01	1.825E-01	2.836E-01	2.401E-02	0.597
	856.80			5.334E-01	6.829E-01	1.027E+00	1.090E-01	0.519
SB-127	252.40			-2.553E+00	1.258E+01	2.038E+01	8.497E+00	-0.125
	473.00			-4.830E-01	4.476E+00	7.343E+00	9.996E-01	-0.066
	685.70	*		2.685E-01	3.557E+00	5.978E+00	7.904E-01	0.045
	783.70			1.631E+01	1.062E+01	1.856E+01	2.775E+00	0.879
I-131	80.19			2.975E+00	8.183E+00	1.225E+01	1.076E+00	0.243
	284.31			-1.417E+00	2.556E+00	3.498E+00	2.254E-01	-0.405
	364.49	*		-3.214E-02	1.602E-01	2.673E-01	1.747E-02	-0.120
	636.99			-1.354E-01	2.199E+00	3.521E+00	2.849E-01	-0.038
TE-132	49.72			-8.567E+01	1.076E+02	1.753E+02	2.217E+01	-0.489
	111.76			2.762E+01	1.333E+02	2.168E+02	2.583E+01	0.127
	116.30			1.679E+01	1.140E+02	1.845E+02	2.169E+01	0.091
	228.16	*		-9.554E-01	2.819E+00	4.591E+00	7.388E-01	-0.208
BA-133	81.00			-2.480E-02	9.519E-02	1.383E-01	2.154E-02	-0.179
	276.40	+		7.387E-01	4.116E-01	5.359E-01	6.720E-02	1.378
	302.85			-5.445E-03	1.311E-01	1.848E-01	2.103E-02	-0.029
	356.01	*		2.302E-02	3.667E-02	5.348E-02	6.025E-03	0.430
I-133	383.85			4.391E-02	2.408E-01	4.076E-01	4.337E-02	0.108
	529.87	*		-4.488E-01	2.408E-01	Half-Life	too short	
	875.33			-6.552E+00	2.408E-01	Half-Life	too short	
	1298.22			-1.256E+01	2.408E-01	Half-Life	too short	
CS-134	563.25			1.066E-01	2.999E-01	4.978E-01	3.518E-02	0.214
	569.33			-8.587E-03	1.630E-01	2.603E-01	1.861E-02	-0.033
	604.72			1.404E-03	3.357E-02	4.694E-02	3.413E-03	0.030
	795.86	+	*	7.173E-02	5.942E-02	7.452E-02	7.208E-03	0.963
CS-135	801.95			-2.108E-01	3.508E-01	5.142E-01	5.017E-02	-0.410
	1365.19			1.111E-01	9.346E-01	1.543E+00	1.229E-01	0.072
	268.22	*		2.324E-01	1.450E-01	2.260E-01	1.708E-02	1.029
	546.56			-2.031E+17	1.450E-01	Half-Life	too short	
I-135	836.80			1.112E+18	1.450E-01	Half-Life	too short	
	1038.76			3.335E+15	1.450E-01	Half-Life	too short	
	1131.51			-8.389E+16	1.450E-01	Half-Life	too short	
	1260.41	*		-1.116E+17	1.450E-01	Half-Life	too short	
CS-136	1457.56			6.927E+19	1.450E-01	Half-Life	too short	
	1678.03			1.495E+16	1.450E-01	Half-Life	too short	
	1791.20			-2.077E+17	1.450E-01	Half-Life	too short	
	153.25			6.968E-01	1.056E+00	1.828E+00	1.417E-01	0.381
BA-137M	176.60			-2.205E-01	5.693E-01	9.437E-01	6.272E-02	-0.234
	273.65			4.518E-02	5.682E-01	9.299E-01	6.279E-02	0.049
	340.55			7.170E-01	2.153E-01	3.533E-01	2.217E-02	2.030
	818.51			8.238E-02	7.979E-02	1.405E-01	1.404E-02	0.586
BA-137M	1048.07	*		-1.528E-02	1.310E-01	2.173E-01	1.949E-02	-0.070
	1235.36			7.150E-01	7.732E-01	1.330E+00	1.356E-01	0.538
	661.66	*		3.865E-02	2.921E-02	5.225E-02	3.983E-03	0.740

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-137		661.66	*	4.083E-02	3.086E-02	5.519E-02	4.218E-03	0.740
CE-139		165.86	*	8.532E-03	2.576E-02	4.400E-02	2.310E-03	0.194
BA-140		162.66		1.604E-01	1.004E+00	1.708E+00	1.055E-01	0.094
		304.85		1.469E+00	1.774E+00	2.582E+00	7.375E-01	0.569
		423.72		-1.149E+00	2.154E+00	3.428E+00	1.107E+00	-0.335
		537.26	*	-4.788E-02	3.009E-01	4.856E-01	1.627E-01	-0.099
LA-140	+	328.76		8.635E-01	4.217E-01	6.697E-01	4.348E-02	1.289
		487.02		2.261E-03	1.629E-01	2.684E-01	1.915E-02	0.008
		815.77		-1.550E-01	3.844E-01	6.148E-01	6.654E-02	-0.252
		1596.21	*	1.966E-02	1.010E-01	1.562E-01	1.072E-02	0.126
CE-141		145.44	*	2.220E-02	6.595E-02	1.052E-01	6.007E-03	0.211
CE-143		57.36		-1.472E-03	6.595E-02	Half-Life	too short	
		293.27	*	2.322E-02	6.595E-02	Half-Life	too short	
		664.57		-1.591E-02	6.595E-02	Half-Life	too short	
		721.93		2.918E-02	6.595E-02	Half-Life	too short	
CE-144		80.12		8.214E-01	2.472E+00	3.696E+00	3.201E-01	0.222
		133.52	*	1.072E-02	1.784E-01	2.853E-01	3.945E-02	0.038
PM-144		476.78		-7.955E-04	5.267E-02	8.681E-02	6.376E-03	-0.009
		618.01		7.094E-03	2.755E-02	4.514E-02	3.439E-03	0.157
		696.49	*	2.431E-03	2.746E-02	4.611E-02	3.745E-03	0.053
PR-144		696.51	*	1.801E-01	2.062E+00	3.463E+00	2.810E-01	0.052
		1489.16		-9.616E+00	1.025E+01	1.456E+01	1.052E+00	-0.660
PM-146		453.88	*	1.242E-02	3.093E-02	5.239E-02	4.577E-03	0.237
		633.25		2.717E-01	1.147E+00	1.868E+00	7.088E-01	0.145
		735.93		-9.529E-02	1.249E-01	1.932E-01	5.418E-02	-0.493
		747.24		-1.228E-03	7.774E-02	1.289E-01	1.899E-02	-0.010
ND-147	+	91.11		1.106E+00	3.304E-01	7.058E-01	6.643E-02	1.568
		319.41		5.752E-02	4.287E+00	6.911E+00	3.994E-01	0.008
		531.02	*	3.716E-01	6.869E-01	1.157E+00	1.614E-01	0.321
PM-149		285.90	*	4.509E-04	6.869E-01	Half-Life	too short	
EU-152		121.78		-2.335E-02	6.744E-02	1.067E-01	8.191E-03	-0.219
		244.70		-3.969E-02	2.923E-01	4.181E-01	2.335E-02	-0.095
		344.28	*	-1.997E-02	9.657E-02	1.228E-01	8.009E-03	-0.163
		778.90		-2.695E-01	2.189E-01	3.308E-01	3.093E-02	-0.815
	+	964.08		6.781E-01	4.137E-01	4.956E-01	5.076E-02	1.368
		1085.87		-2.491E-01	3.193E-01	5.020E-01	3.889E-02	-0.496
		1112.07		8.332E-02	3.272E-01	4.762E-01	3.389E-02	0.175
	+	1408.01		2.173E-01	1.657E-01	2.673E-01	1.985E-02	0.813
GD-153		69.67		8.058E-01	1.973E+00	2.935E+00	2.382E-01	0.275
		97.43	*	1.159E-03	8.744E-02	1.271E-01	9.941E-03	0.009
		103.18		-1.491E-01	1.033E-01	1.570E-01	1.132E-02	-0.950
EU-154		123.07		4.569E-02	4.841E-02	8.014E-02	7.567E-03	0.570
		723.31		1.664E-01	1.590E-01	2.468E-01	2.317E-02	0.674
		873.19		-1.666E-01	2.328E-01	3.594E-01	4.897E-02	-0.464
		996.26		-5.805E-01	3.222E-01	4.182E-01	7.528E-02	-1.388
		1004.73		-3.932E-02	1.904E-01	3.030E-01	3.725E-02	-0.130
		1274.44	*	-1.406E-01	1.155E-01	1.719E-01	1.730E-02	-0.818
EU-155	+	86.55		2.701E-01	1.214E-01	1.739E-01	1.603E-02	1.553
		105.31	*	6.500E-03	9.663E-02	1.569E-01	1.121E-02	0.041

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TB-160	+	86.79		7.637E-01	3.431E-01	4.954E-01	4.533E-02	1.541
		197.04		-4.021E-02	5.157E-01	8.473E-01	4.550E-02	-0.047
		215.65		-1.879E-01	6.650E-01	1.054E+00	5.752E-02	-0.178
	+	298.57		3.897E-01	1.417E-01	1.830E-01	1.051E-02	2.129
		879.36	*	7.034E-02	1.220E-01	2.072E-01	2.276E-02	0.339
		962.29		1.259E+00	5.054E-01	9.125E-01	9.374E-02	1.379
		966.15		1.793E+00	3.178E-01	5.274E-01	5.382E-02	3.400
		1177.93		9.328E-02	3.291E-01	5.542E-01	3.094E-02	0.168
HO-166M		1271.85		-3.556E-01	6.763E-01	1.068E+00	7.217E-02	-0.333
		80.57		-1.612E-03	2.691E-01	3.961E-01	3.442E-02	-0.004
		184.41		1.046E-01	3.399E-02	5.700E-02	3.028E-03	1.835
		280.46		1.264E-02	6.874E-02	1.128E-01	6.436E-03	0.112
		410.95		1.620E-01	1.996E-01	3.457E-01	2.035E-02	0.469
		711.68	*	-1.768E-02	4.610E-02	7.494E-02	6.246E-03	-0.236
		752.31		4.913E-02	2.183E-01	3.672E-01	3.284E-02	0.134
		810.29		-5.460E-03	4.518E-02	7.382E-02	7.268E-03	-0.074
TA-182		67.75		-1.262E-01	1.205E-01	1.891E-01	1.520E-02	-0.667
		100.11		1.132E-01	1.711E-01	2.846E-01	2.139E-02	0.398
		152.43		2.601E-01	3.289E-01	5.357E-01	2.882E-02	0.486
		222.11		-1.314E-01	3.105E-01	5.057E-01	2.776E-02	-0.260
		1121.30		6.071E-01	1.758E-01	3.026E-01	2.085E-02	2.006
		1189.05		2.161E-01	2.815E-01	4.867E-01	2.783E-02	0.444
		1221.41	*	-2.631E-02	1.683E-01	2.747E-01	1.681E-02	-0.096
		1231.02		-1.405E-01	4.635E-01	7.505E-01	4.681E-02	-0.187
IR-192	+	295.96		1.148E+00	1.554E-01	2.561E-01	1.494E-02	4.482
		308.46		-3.776E-02	8.484E-02	1.339E-01	7.803E-03	-0.282
		316.51	*	1.328E-02	2.967E-02	4.893E-02	2.838E-03	0.271
		468.07		-3.918E-03	6.291E-02	8.966E-02	6.398E-03	-0.044
HG-203		70.83		2.051E+00	1.626E+00	2.461E+00	3.893E-01	0.833
		72.87		2.787E-01	9.499E-01	1.424E+00	2.184E-01	0.196
		279.20	*	5.275E-02	3.642E-02	6.276E-02	3.784E-03	0.841
BI-207		72.81		1.264E-02	1.969E-01	2.927E-01	2.416E-02	0.043
	+	74.97		1.907E+00	3.000E-01	2.260E-01	1.889E-02	8.437
		569.70		-7.868E-03	2.523E-02	3.964E-02	2.778E-03	-0.198
		1063.66	*	5.410E-02	4.584E-02	8.178E-02	6.750E-03	0.661
		1770.23		-7.466E-02	3.961E-01	5.292E-01	3.202E-02	-0.141
PB-210		46.54	*	2.243E+00	5.098E+00	8.478E+00	6.500E-01	0.265
PB-211		404.85	*	-5.908E-01	6.518E-01	9.329E-01	4.476E-01	-0.633
		427.09		-1.632E-01	1.155E+00	1.903E+00	8.726E-01	-0.086
		832.01		-1.883E-01	8.813E-01	1.421E+00	7.410E-01	-0.133
BI-212	+	727.33	*	2.325E+00	6.486E-01	9.809E-01	1.218E-01	2.370
		785.37		4.126E+00	2.769E+00	4.826E+00	4.561E-01	0.855
		1620.50		1.923E+00	1.882E+00	3.452E+00	2.335E-01	0.557
RN-219	+	271.23		6.054E-01	2.527E-01	3.626E-01	2.880E-02	1.670
		401.81	*	2.109E-02	3.148E-01	5.283E-01	7.103E-02	0.040
RA-223		81.07		-5.652E-02	2.151E-01	3.128E-01	2.728E-02	-0.181
		83.79		6.683E-02	1.319E-01	1.963E-01	1.750E-02	0.340
		94.87		1.099E+00	4.605E-01	7.305E-01	5.948E-02	1.505
		144.24		6.789E-02	6.089E-01	9.632E-01	6.697E-02	0.070

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227		154.21		8.220E-02	3.303E-01	5.650E-01	3.732E-02	0.145
	+	269.46		4.704E-01	1.948E-01	2.825E-01	1.675E-02	1.665
		323.87	*	2.590E-01	6.094E-01	8.793E-01	1.417E-01	0.294
	+	338.28		6.989E+00	1.675E+00	2.006E+00	2.054E-01	3.485
		79.69		-3.078E-01	1.234E+00	1.795E+00	3.095E-01	-0.171
		235.96		4.304E-01	1.557E-01	2.486E-01	1.980E-02	1.732
TH-227		256.23	*	8.323E-02	2.157E-01	3.591E-01	3.637E-02	0.232
	+	299.98		2.848E+00	1.069E+00	1.403E+00	1.538E-01	2.030
		304.50		2.060E-01	1.460E+00	2.083E+00	3.173E-01	0.099
		334.37		-7.176E-01	1.660E+00	2.249E+00	3.197E-01	-0.319
		79.80		3.053E-01	1.597E+00	2.372E+00	5.168E-01	0.129
		235.96		4.304E-01	1.550E-01	2.486E-01	1.787E-02	1.732
TH-229		256.23	*	8.323E-02	2.158E-01	3.591E-01	4.286E-02	0.232
	+	299.98		2.848E+00	1.069E+00	1.403E+00	1.538E-01	2.030
		304.50		2.060E-01	1.460E+00	2.083E+00	3.173E-01	0.099
		334.37		-7.176E-01	1.660E+00	2.249E+00	3.197E-01	-0.319
		85.43		3.141E-01	2.158E-01	3.332E-01	3.012E-02	0.943
	+	88.47		3.424E-01	1.539E-01	2.203E-01	2.018E-02	1.555
PA-231		193.51	*	2.633E-01	4.427E-01	7.556E-01	4.045E-02	0.349
	+	210.85		2.383E+00	1.144E+00	1.401E+00	7.615E-02	1.701
		283.69	*	-7.949E-01	1.357E+00	1.848E+00	2.416E-01	-0.430
TH-231	+	301.36		1.830E+00	6.837E-01	8.749E-01	9.025E-02	2.092
		81.07		-5.652E-02	2.151E-01	3.128E-01	2.728E-02	-0.181
		83.79		6.683E-02	1.319E-01	1.963E-01	1.750E-02	0.340
PA-233		94.87		1.099E+00	4.605E-01	7.305E-01	5.948E-02	1.505
		144.24		6.789E-02	6.089E-01	9.632E-01	6.697E-02	0.070
		154.21		8.220E-02	3.303E-01	5.650E-01	3.732E-02	0.145
	+	269.46		4.704E-01	1.948E-01	2.825E-01	1.675E-02	1.665
		323.87	*	2.590E-01	6.094E-01	8.793E-01	1.417E-01	0.294
	+	338.28		6.989E+00	1.675E+00	2.006E+00	2.054E-01	3.485
	+	300.13		1.289E+00	4.939E-01	6.323E-01	8.451E-02	2.038
		311.90	*	1.046E-02	5.097E-02	8.315E-02	5.095E-03	0.126
		340.48		2.347E+00	8.341E-01	1.072E+00	2.488E-01	2.188
		94.67		5.142E-01	1.787E-01	2.769E-01	3.349E-02	1.857
PA-234		98.44		8.097E-02	1.034E-01	1.410E-01	7.845E-02	0.574
		111.00		-9.360E-03	1.653E-01	2.663E-01	2.856E-02	-0.035
		131.20		-7.151E-02	9.723E-02	1.506E-01	8.574E-03	-0.475
		569.50		-5.953E-02	2.244E-01	3.538E-01	2.479E-02	-0.168
		733.00		1.804E-01	3.516E-01	5.232E-01	1.162E-01	0.345
		880.51		1.354E-01	2.268E-01	3.860E-01	4.247E-02	0.351
		883.24		-2.201E-01	2.803E-01	3.621E-01	2.447E-01	-0.608
		926.50		-1.057E-01	1.448E-01	2.181E-01	5.700E-02	-0.485
		946.00	*	-8.323E-02	2.485E-01	3.928E-01	7.749E-02	-0.212
		949.00		2.818E-02	3.688E-01	6.024E-01	6.327E-02	0.047
PA-234M		766.42		4.747E+00	1.007E+01	1.662E+01	8.446E+00	0.286
		1001.03	*	3.805E+00	4.030E+00	6.890E+00	7.433E-01	0.552
TH-234		63.29	*	1.786E+00	1.476E+00	2.474E+00	4.456E-01	0.722
	+	92.59		3.029E+00	1.190E+00	1.212E+00	2.670E-01	2.499
U-238		63.29	*	1.786E+00	1.476E+00	2.474E+00	4.456E-01	0.722

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	92.59		3.029E+00	1.018E+00	1.212E+00	1.027E-01	2.499
		99.53		1.426E-01	1.514E-01	2.540E-01	1.925E-02	0.561
		103.37		-1.239E-01	9.186E-02	1.403E-01	1.009E-02	-0.883
		106.12		6.021E-02	7.651E-02	1.274E-01	8.857E-03	0.473
		117.23	*	9.816E-02	3.440E-01	5.600E-01	3.459E-02	0.175
		228.18		-6.435E-02	1.857E-01	3.028E-01	1.670E-02	-0.213
AM-241	+	277.60		3.648E-01	1.991E-01	2.682E-01	1.528E-02	1.360
CM-247		59.54	*	-6.144E-02	1.660E-01	2.739E-01	2.272E-02	-0.224
	+	278.00		1.549E+00	8.458E-01	1.153E+00	6.566E-02	1.344
CF-249		287.50		2.566E-01	1.032E+00	1.696E+00	9.703E-02	0.151
		402.40	*	-5.158E-03	2.912E-02	4.826E-02	2.810E-03	-0.107
		252.80		-6.985E-02	7.989E-01	1.306E+00	7.334E-02	-0.053
		333.37		-6.935E-03	1.857E-01	2.408E-01	1.393E-02	-0.029
CF-251		388.16	*	4.385E-02	3.241E-02	5.759E-02	3.310E-03	0.761
		177.52	*	2.238E-02	1.034E-01	1.753E-01	9.261E-03	0.128
		227.38		-1.453E-02	3.042E-01	5.021E-01	2.768E-02	-0.029
		285.41		-3.306E-01	2.072E+00	2.915E+00	1.666E-01	-0.113

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]G248258001      *
* Acquisition date   : 19-MAR-2010 13:11:58 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 02:00:01.84 Half life ratio : 8.000   *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 25-FEB-2010 12:00:00 Nuclide Library : SOLID      *
* Sample ID          : G248258001 Analyst initials: MXR1          *
* Batch Number       : 959281 Sample Quantity : 1.3271E+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	3.300E+01	2.883E+00	4.032E-01	0.000E+00
CD-109	2.296E+00	1.011E+00	1.123E+00	0.000E+00
SN-126	2.221E-01	9.780E-02	1.371E-01	0.000E+00
TL-208	5.296E-01	8.086E-02	4.765E-02	0.000E+00
BI-211	4.251E+00	4.249E-01	2.736E-01	0.000E+00
PB-212	1.829E+00	1.611E-01	7.633E-02	0.000E+00
BI-214	1.284E+00	1.651E-01	9.054E-02	0.000E+00
PB-214	1.543E+00	1.753E-01	9.068E-02	0.000E+00
RA-224	4.315E+00	1.010E+00	8.170E-01	0.000E+00
RA-226	1.284E+00	1.651E-01	9.054E-02	0.000E+00
AC-228	1.762E+00	3.353E-01	1.672E-01	0.000E+00
RA-228	1.762E+00	3.353E-01	1.672E-01	0.000E+00
TH-228	1.829E+00	1.611E-01	7.633E-02	0.000E+00
TH-232	1.762E+00	3.353E-01	1.672E-01	0.000E+00
U-235	-2.799E-02	1.773E-01	2.951E-01	0.000E+00
NP-237	6.628E-01	3.220E-01	4.020E-01	0.000E+00
ANH-511	1.166E-01	5.496E-02	3.609E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	-8.079E-02	2.774E-01	4.692E-01	0.000E+00 NOT IDENT.
NA-22	-4.237E-02	3.948E-02	6.126E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	1.450E+09	0.000E+00	0.000E+00 SHORT HLIF
SC-46	5.703E-03	3.316E-02	5.654E-02	0.000E+00 FAIL ABUN
V-48	6.291E-02	7.244E-02	1.284E-01	0.000E+00 NOT IDENT.
CR-51	6.121E-03	3.650E-01	6.174E-01	0.000E+00 NOT IDENT.
MN-54	1.579E-02	3.277E-02	5.708E-02	0.000E+00 NOT IDENT.
CO-56	5.708E-03	3.371E-02	5.775E-02	0.000E+00 NOT IDENT.
CO-57	-2.753E-03	2.318E-02	3.949E-02	0.000E+00 NOT IDENT.
CO-58	-6.593E-03	3.143E-02	5.271E-02	0.000E+00 NOT IDENT.

FE-59	-5.657E-02	8.813E-02	1.444E-01	0.000E+00	NOT IDENT.
CO-60	2.256E-02	3.121E-02	5.540E-02	0.000E+00	NOT IDENT.
ZN-65	-3.177E-02	1.032E-01	1.471E-01	0.000E+00	NOT IDENT.
SE-75	1.859E-02	3.849E-02	6.296E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.852E-02	6.667E-02	0.000E+00	NOT IDENT.
Y-88	6.266E-03	2.761E-02	4.435E-02	0.000E+00	NOT IDENT.
Y-91	1.260E+01	2.017E+01	3.539E+01	0.000E+00	NOT IDENT.
NB-94	-6.554E-03	2.660E-02	4.532E-02	0.000E+00	NOT IDENT.
NB-95	2.080E-02	3.850E-02	6.777E-02	0.000E+00	NOT IDENT.
NB-95M	4.323E-02	1.280E-01	1.987E-01	0.000E+00	NOT IDENT.
ZR-95	6.994E-03	6.037E-02	1.043E-01	0.000E+00	NOT IDENT.
MO-99	0.000E+00	5.770E+01	0.000E+00	0.000E+00	SHORT HLIF
TC-99M	0.000E+00	9.117E+24	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.038E-03	3.351E-02	5.727E-02	0.000E+00	FAIL ABUN
RH-106	2.291E-02	2.631E-01	4.424E-01	0.000E+00	NOT IDENT.
RU-106	2.291E-02	2.631E-01	4.424E-01	0.000E+00	NOT IDENT.
AG-108M	-6.264E-04	2.349E-02	4.070E-02	0.000E+00	NOT IDENT.
AG-110M	-3.489E-02	2.876E-02	4.639E-02	0.000E+00	NOT IDENT.
SN-113	-4.206E-02	3.562E-02	5.858E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	7.893E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-4.070E-02	6.436E-02	1.110E-01	0.000E+00	NOT IDENT.
TE-123M	-1.095E-02	2.461E-02	4.274E-02	0.000E+00	NOT IDENT.
SB-124	-6.687E-03	6.208E-02	1.030E-01	0.000E+00	NOT IDENT.
SB-125	-3.001E-02	6.941E-02	1.178E-01	0.000E+00	FAIL ABUN
TE-125M	-2.440E+00	9.424E+00	1.611E+01	0.000E+00	NOT IDENT.
I-126	-3.045E-01	2.521E-01	4.058E-01	0.000E+00	NOT IDENT.
SB-126	1.693E-01	1.789E-01	2.876E-01	0.000E+00	NOT IDENT.
SB-127	2.685E-01	3.486E+00	6.068E+00	0.000E+00	NOT IDENT.
I-131	-3.214E-02	1.570E-01	2.743E-01	0.000E+00	NOT IDENT.
TE-132	-9.554E-01	2.762E+00	4.749E+00	0.000E+00	NOT IDENT.
BA-133	2.302E-02	3.594E-02	5.490E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.231E+06	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.173E-02	5.823E-02	7.544E-02	0.000E+00	FAIL ABUN
CS-135	2.324E-01	1.421E-01	2.331E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.302E+23	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.528E-02	1.283E-01	2.189E-01	0.000E+00	NOT IDENT.
BA-137M	3.865E-02	2.863E-02	5.306E-02	0.000E+00	NOT IDENT.
CS-137	4.083E-02	3.024E-02	5.606E-02	0.000E+00	NOT IDENT.
CE-139	8.532E-03	2.524E-02	4.576E-02	0.000E+00	NOT IDENT.
BA-140	-4.788E-02	2.948E-01	4.950E-01	0.000E+00	NOT IDENT.
LA-140	1.966E-02	9.901E-02	1.562E-01	0.000E+00	FAIL ABUN
CE-141	2.220E-02	6.463E-02	1.096E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.011E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.072E-02	1.749E-01	2.977E-01	0.000E+00	NOT IDENT.
PM-144	2.431E-03	2.691E-02	4.679E-02	0.000E+00	NOT IDENT.
PR-144	1.801E-01	2.021E+00	3.514E+00	0.000E+00	NOT IDENT.
PM-146	1.242E-02	3.031E-02	5.356E-02	0.000E+00	NOT IDENT.
ND-147	3.716E-01	6.731E-01	1.179E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	6.900E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-1.997E-02	9.464E-02	1.262E-01	0.000E+00	FAIL ABUN
GD-153	1.159E-03	8.569E-02	1.334E-01	0.000E+00	NOT IDENT.
EU-154	-1.406E-01	1.132E-01	1.726E-01	0.000E+00	NOT IDENT.
EU-155	6.500E-03	9.470E-02	1.644E-01	0.000E+00	FAIL ABUN
TB-160	7.034E-02	1.195E-01	2.094E-01	0.000E+00	FAIL ABUN
HO-166M	-1.768E-02	4.518E-02	7.602E-02	0.000E+00	NOT IDENT.
TA-182	-2.631E-02	1.650E-01	2.760E-01	0.000E+00	NOT IDENT.
IR-192	1.328E-02	2.908E-02	5.033E-02	0.000E+00	FAIL ABUN
HG-203	5.275E-02	3.570E-02	6.470E-02	0.000E+00	NOT IDENT.
BI-207	5.410E-02	4.493E-02	8.237E-02	0.000E+00	FAIL ABUN
PB-210	2.243E+00	4.996E+00	9.001E+00	0.000E+00	NOT IDENT.
PB-211	-5.908E-01	6.387E-01	9.556E-01	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.356E-01	9.946E-01	0.000E+00	FAIL ABUN
RN-219	2.109E-02	3.085E-01	5.412E-01	0.000E+00	FAIL ABUN
RA-223	2.590E-01	5.973E-01	9.042E-01	0.000E+00	FAIL ABUN
AC-227	8.323E-02	2.114E-01	3.707E-01	0.000E+00	FAIL ABUN
TH-227	8.323E-02	2.115E-01	3.707E-01	0.000E+00	FAIL ABUN
TH-229	2.633E-01	4.338E-01	7.837E-01	0.000E+00	FAIL ABUN
PA-231	-7.949E-01	1.329E+00	1.904E+00	0.000E+00	FAIL ABUN
TH-231	2.590E-01	5.973E-01	9.042E-01	0.000E+00	FAIL ABUN
PA-233	1.046E-02	4.995E-02	8.556E-02	0.000E+00	FAIL ABUN
PA-234	-8.323E-02	2.436E-01	3.965E-01	0.000E+00	NOT IDENT.
PA-234M	3.805E+00	3.949E+00	6.947E+00	0.000E+00	NOT IDENT.
TH-234	1.786E+00	1.447E+00	2.614E+00	0.000E+00	FAIL ABUN
U-238	1.786E+00	1.447E+00	2.614E+00	0.000E+00	FAIL ABUN
NP-239	9.816E-02	3.371E-01	5.857E-01	0.000E+00	FAIL ABUN
AM-241	-6.144E-02	1.627E-01	2.897E-01	0.000E+00	NOT IDENT.
CM-247	-5.158E-03	2.854E-02	4.944E-02	0.000E+00	FAIL ABUN
CF-249	4.385E-02	3.176E-02	5.903E-02	0.000E+00	NOT IDENT.

CF-251	2.238E-02	1.013E-01	1.820E-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]G248258001.CNF;1
Sample date        : 25-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 13:11:58
Sample ID          : G248258001 Sample quantity : 1.32710E+02 GRAM
Detector name      : GAM18 Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00 Elapsed real time: 0 02:00:01.84 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity : 5.00000
Batch ID           : 959281 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	1460.82	2355	10.66*	1.894E+00	3.300E+01	3.300E+01	8.91
CD-109	88.03	187	3.70*	6.427E+00	2.221E+00	2.296E+00	44.93
SN-126	64.28	-----	9.60	3.245E+00	-----	Line Not Found	-----
	86.94	187	8.90	6.427E+00	9.234E-01	9.234E-01	60.46
	87.57	187	37.00*	6.427E+00	2.221E-01	2.221E-01	44.93
TL-208	277.37	117	6.60	6.259E+00	7.981E-01	7.981E-01	55.34
	583.19	626	85.00*	3.935E+00	5.296E-01	5.296E-01	15.58
	860.56	72	12.50	2.914E+00	5.619E-01	5.619E-01	62.47
BI-211	72.87	-----	1.23	4.622E+00	-----	Line Not Found	-----
	351.06	1059	12.92*	5.452E+00	4.251E+00	4.251E+00	10.20
PB-212	74.82	1227	10.28	5.106E+00	6.613E+00	6.613E+00	18.50
	77.11	1227	17.10	5.106E+00	3.975E+00	3.975E+00	15.73
	238.63	1915	43.60*	6.793E+00	1.829E+00	1.829E+00	8.99
	300.09	181	3.30	5.985E+00	2.590E+00	2.590E+00	36.87
BI-214	609.32	788	45.49*	3.813E+00	1.284E+00	1.284E+00	13.12
	1120.29	219	14.92	2.335E+00	1.776E+00	1.776E+00	28.15
	1764.49	143	15.30	1.695E+00	1.565E+00	1.565E+00	24.53
PB-214	74.82	1227	5.80	5.106E+00	1.172E+01	1.172E+01	17.62
	77.11	1227	9.70	5.106E+00	7.008E+00	7.008E+00	17.76
	242.00	422	7.25	6.749E+00	2.440E+00	2.440E+00	24.57
	295.22	572	18.42	6.041E+00	1.454E+00	1.454E+00	14.99
	351.93	1059	35.60*	5.452E+00	1.543E+00	1.543E+00	11.59
RA-224	240.99	422	4.10*	6.749E+00	4.315E+00	4.315E+00	23.88
RA-226	609.32	788	45.49*	3.813E+00	1.284E+00	1.284E+00	13.12
	1120.29	219	14.92	2.335E+00	1.776E+00	1.776E+00	28.15
	1764.49	143	15.30	1.695E+00	1.565E+00	1.565E+00	24.53
AC-228	338.32	392	11.27	5.580E+00	1.761E+00	1.761E+00	46.57
	911.20	447	25.80*	2.781E+00	1.762E+00	1.762E+00	19.42
	968.97	277	15.80	2.640E+00	1.880E+00	1.880E+00	30.41
RA-228	338.32	392	11.27	5.580E+00	1.761E+00	1.761E+00	46.57
	911.20	447	25.80*	2.781E+00	1.762E+00	1.762E+00	19.42
	968.97	277	15.80	2.640E+00	1.880E+00	1.880E+00	30.41

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	1227	10.28	5.106E+00	6.613E+00	6.613E+00	15.78
	77.11	1227	17.10	5.106E+00	3.975E+00	3.975E+00	15.73
	238.63	1915	43.60*	6.793E+00	1.829E+00	1.829E+00	8.99
	300.09	181	3.30	5.985E+00	2.590E+00	2.590E+00	70.68
TH-232	338.32	392	11.27	5.580E+00	1.761E+00	1.761E+00	22.42
	911.20	447	25.80*	2.781E+00	1.762E+00	1.762E+00	19.42
	968.97	277	15.80	2.640E+00	1.880E+00	1.880E+00	30.41
U-235	89.96	182	3.47	6.712E+00	2.205E+00	2.205E+00	37.56
	93.35	316	5.60	6.974E+00	2.288E+00	2.288E+00	39.86
	143.76	-----	10.96*	8.222E+00	-----	Line Not Found	-----
	163.33	-----	5.08	8.005E+00	-----	Line Not Found	-----
	185.72	339	57.20	7.648E+00	2.193E-01	2.193E-01	31.23
NP-237	205.31	-----	5.01	7.323E+00	-----	Line Not Found	-----
	86.48	187	12.40*	6.427E+00	6.628E-01	6.628E-01	49.58
	95.86	-----	2.68	7.180E+00	-----	Line Not Found	-----
ANH-511	511.00	178	100.00*	4.312E+00	1.166E-01	1.166E-01	48.08

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	1.25E+09Y	1.00	3.300E+01	3.300E+01	0.294E+01	8.91	
CD-109	461.40D	1.03	2.221E+00	2.296E+00	1.032E+00	44.93	
SN-126	2.30E+05Y	1.00	2.221E-01	2.221E-01	0.998E-01	44.93	
TL-208	1.41E+10Y	1.00	5.296E-01	5.296E-01	0.825E-01	15.58	
BI-211	7.04E+08Y	1.00	4.251E+00	4.251E+00	0.434E+00	10.20	
PB-212	1.41E+10Y	1.00	1.829E+00	1.829E+00	0.164E+00	8.99	
BI-214	1600.00Y	1.00	1.284E+00	1.284E+00	0.168E+00	13.12	
PB-214	1600.00Y	1.00	1.543E+00	1.543E+00	0.179E+00	11.59	
RA-224	1.41E+10Y	1.00	4.315E+00	4.315E+00	1.030E+00	23.88	
RA-226	1600.00Y	1.00	1.284E+00	1.284E+00	0.168E+00	13.12	
AC-228	1.41E+10Y	1.00	1.762E+00	1.762E+00	0.342E+00	19.42	
RA-228	1.41E+10Y	1.00	1.762E+00	1.762E+00	0.342E+00	19.42	
TH-228	1.41E+10Y	1.00	1.829E+00	1.829E+00	0.164E+00	8.99	
TH-232	1.41E+10Y	1.00	1.762E+00	1.762E+00	0.342E+00	19.42	
U-235	7.04E+08Y	1.00	2.193E-01	2.193E-01	0.685E-01	31.23	K
NP-237	2.14E+06Y	1.00	6.628E-01	6.628E-01	3.286E-01	49.58	
ANH-511	1.00E+09Y	1.00	1.166E-01	1.166E-01	0.561E-01	48.08	

Total Activity : 5.859E+01 5.867E+01

Grand Total Activity : 5.859E+01 5.867E+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	209.43	171	427	0.97	417.87	413	10	2.38E-02	47.7	7.26E+00	T
2	270.20	147	231	1.57	539.39	535	30	2.04E-02	41.0	6.35E+00	T
0	327.87	106	184	1.22	654.69	650	8	1.47E-02	48.4	5.68E+00	T
0	462.87	117	158	1.23	924.59	919	12	1.63E-02	46.7	4.60E+00	T
0	726.89	183	90	2.15	1452.50	1447	11	2.54E-02	25.0	3.34E+00	T
0	795.52	59	126	1.17	1589.72	1581	13	8.25E-03	82.3	3.11E+00	T
3	964.12	93	108	2.81	1926.87	1915	32	1.29E-02	60.2	2.65E+00	T
0	1377.04	56	45	2.47	2752.59	2746	13	7.72E-03	56.8	1.98E+00	
0	1398.42	38	36	5.92	2795.34	2787	18	5.25E-03	81.3	1.95E+00	
0	1407.46	31	24	2.13	2813.42	2807	12	4.36E-03	75.9	1.94E+00	T
0	1587.10	46	34	3.82	3172.67	3163	17	6.44E-03	64.6	1.79E+00	
0	1846.56	39	17	2.15	3691.56	3684	17	5.42E-03	58.1	1.66E+00	

Flags: "T" = Tentatively associated

```

*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                    *
*****
*                               DETECTOR DATA                          *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248258001.CNF;1
* Acquisition date   : 19-MAR-2010 13:11:58   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 02:00:01.84          Half life ratio  : 8.00000
*****
*                               SAMPLE DATA                            *
*
* Sample date        : 25-FEB-2010 12:00:00   Nuclide Library  : SOLID
* Sample ID          : G248258001             Analyst initials: MXR1
* Batch Number       : 959281                 Sample Quantity  : 1.32710E+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	3.300E+01	2.942E+00	4.025E-01	3.055E-02	81.981
CD-109	2.296E+00	1.032E+00	1.069E+00	9.879E-02	2.149
SN-126	2.221E-01	9.980E-02	1.304E-01	1.202E-02	1.703
TL-208	5.296E-01	8.251E-02	4.681E-02	3.664E-03	11.313
BI-211	4.251E+00	4.336E-01	2.665E-01	1.711E-02	15.954
PB-212	1.829E+00	1.643E-01	7.385E-02	5.324E-03	24.763
BI-214	1.284E+00	1.685E-01	8.901E-02	7.999E-03	14.428
PB-214	1.543E+00	1.789E-01	8.831E-02	7.475E-03	17.473
RA-224	4.315E+00	1.030E+00	7.905E-01	4.404E-02	5.458
RA-226	1.284E+00	1.685E-01	8.901E-02	7.999E-03	14.428
AC-228	1.762E+00	3.422E-01	1.656E-01	2.243E-02	10.640
RA-228	1.762E+00	3.422E-01	1.656E-01	2.243E-02	10.640
TH-228	1.829E+00	1.643E-01	7.385E-02	5.324E-03	24.763
TH-232	1.762E+00	3.422E-01	1.656E-01	2.243E-02	10.640
U-235	2.193E-01	6.848E-02	2.831E-01	4.415E-02	0.775
NP-237	6.628E-01	3.286E-01	3.824E-01	8.745E-02	1.733
ANH-511	1.166E-01	5.608E-02	3.538E-02	2.336E-03	3.297

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-8.079E-02		2.831E-01	4.593E-01	3.327E-02	-0.176

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	-4.237E-02		4.028E-02	6.102E-02	4.152E-03	-0.694
NA-24	-6.180E+02		7.400E+02	Half-Life too short		
SC-46	5.703E-03		3.384E-02	5.596E-02	6.242E-03	0.102
V-48	6.291E-02		7.392E-02	1.273E-01	1.259E-02	0.494
CR-51	6.121E-03		3.724E-01	6.003E-01	3.859E-02	0.010
MN-54	1.579E-02		3.344E-02	5.643E-02	5.780E-03	0.280
CO-56	5.708E-03		3.440E-02	5.710E-02	5.962E-03	0.100
CO-57	-2.753E-03		2.366E-02	3.778E-02	2.238E-03	-0.073
CO-58	-6.593E-03		3.207E-02	5.208E-02	5.141E-03	-0.127
FE-59	-5.657E-02		8.993E-02	1.435E-01	1.180E-02	-0.394
CO-60	2.256E-02		3.185E-02	5.523E-02	4.173E-03	0.408
ZN-65	-3.177E-02		1.053E-01	1.461E-01	1.029E-02	-0.217
SE-75	1.859E-02		3.928E-02	6.102E-02	3.491E-03	0.305
SR-85	1.070E-01		3.931E-02	6.535E-02	4.330E-03	1.637
Y-88	6.266E-03		2.817E-02	4.447E-02	2.533E-03	0.141
Y-91	1.260E+01		2.058E+01	3.522E+01	2.082E+00	0.358
NB-94	-6.554E-03		2.715E-02	4.467E-02	3.665E-03	-0.147
NB-95	2.080E-02		3.929E-02	6.689E-02	6.119E-03	0.311
NB-95M	4.323E-02		1.306E-01	1.922E-01	1.415E-02	0.225
ZR-95	6.994E-03		6.160E-02	1.029E-01	1.016E-02	0.068
MO-99	-1.440E-05		2.944E-05	Half-Life too short		
TC-99M	-1.389E+19		4.651E+18	Half-Life too short		
RU-103	-1.038E-03		3.420E-02	5.611E-02	7.166E-03	-0.019
RH-106	2.291E-02		2.685E-01	4.351E-01	5.427E-02	0.053
RU-106	2.291E-02		2.685E-01	4.351E-01	3.202E-02	0.053
AG-108M	-6.264E-04		2.396E-02	3.978E-02	2.565E-03	-0.016
AG-110M	-3.489E-02		2.935E-02	4.567E-02	3.602E-03	-0.764
SN-113	-4.206E-02		3.635E-02	5.716E-02	3.506E-03	-0.736
CD-115	1.012E-05		4.027E-05	Half-Life too short		
SN-117M	-4.070E-02		6.567E-02	1.067E-01	5.669E-03	-0.382
TE-123M	-1.095E-02		2.511E-02	4.107E-02	2.216E-03	-0.267
SB-124	-6.687E-03		6.335E-02	1.031E-01	7.140E-03	-0.065
SB-125	-3.001E-02		7.083E-02	1.151E-01	7.185E-03	-0.261
TE-125M	-2.440E+00		9.616E+00	1.538E+01	1.384E+00	-0.159
I-126	-3.045E-01		2.573E-01	3.996E-01	3.072E-02	-0.762
SB-126	1.693E-01		1.825E-01	2.836E-01	2.401E-02	0.597
SB-127	2.685E-01		3.557E+00	5.978E+00	7.904E-01	0.045
I-131	-3.214E-02		1.602E-01	2.673E-01	1.747E-02	-0.120
TE-132	-9.554E-01		2.819E+00	4.591E+00	7.388E-01	-0.208
BA-133	2.302E-02		3.667E-02	5.348E-02	6.025E-03	0.430
I-133	-4.488E-01		6.281E-01	Half-Life too short		
CS-134	7.173E-02	+	5.942E-02	7.452E-02	7.208E-03	0.963
CS-135	2.324E-01		1.450E-01	2.260E-01	1.708E-02	1.029
I-135	-1.116E+17		1.174E+17	Half-Life too short		
CS-136	-1.528E-02		1.310E-01	2.173E-01	1.949E-02	-0.070
BA-137M	3.865E-02		2.921E-02	5.225E-02	3.983E-03	0.740
CS-137	4.083E-02		3.086E-02	5.519E-02	4.218E-03	0.740
CE-139	8.532E-03		2.576E-02	4.400E-02	2.310E-03	0.194

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-140	-4.788E-02		3.009E-01	4.856E-01	1.627E-01	-0.099
LA-140	1.966E-02		1.010E-01	1.562E-01	1.072E-02	0.126
CE-141	2.220E-02		6.595E-02	1.052E-01	6.007E-03	0.211
CE-143	2.322E-02		3.577E-03	Half-Life	too short	
CE-144	1.072E-02		1.784E-01	2.853E-01	3.945E-02	0.038
PM-144	2.431E-03		2.746E-02	4.611E-02	3.745E-03	0.053
PR-144	1.801E-01		2.062E+00	3.463E+00	2.810E-01	0.052
PM-146	1.242E-02		3.093E-02	5.239E-02	4.577E-03	0.237
ND-147	3.716E-01		6.869E-01	1.157E+00	1.614E-01	0.321
PM-149	4.509E-04		3.521E-04	Half-Life	too short	
EU-152	-1.997E-02		9.657E-02	1.228E-01	8.009E-03	-0.163
GD-153	1.159E-03		8.744E-02	1.271E-01	9.941E-03	0.009
EU-154	-1.406E-01		1.155E-01	1.719E-01	1.730E-02	-0.818
EU-155	6.500E-03		9.663E-02	1.569E-01	1.121E-02	0.041
TB-160	7.034E-02		1.220E-01	2.072E-01	2.276E-02	0.339
HO-166M	-1.768E-02		4.610E-02	7.494E-02	6.246E-03	-0.236
TA-182	-2.631E-02		1.683E-01	2.747E-01	1.681E-02	-0.096
IR-192	1.328E-02		2.967E-02	4.893E-02	2.838E-03	0.271
HG-203	5.275E-02		3.642E-02	6.276E-02	3.784E-03	0.841
BI-207	5.410E-02		4.584E-02	8.178E-02	6.750E-03	0.661
PB-210	2.243E+00		5.098E+00	8.478E+00	6.500E-01	0.265
PB-211	-5.908E-01		6.518E-01	9.329E-01	4.476E-01	-0.633
BI-212	2.325E+00	+	6.486E-01	9.809E-01	1.218E-01	2.370
RN-219	2.109E-02		3.148E-01	5.283E-01	7.103E-02	0.040
RA-223	2.590E-01		6.094E-01	8.793E-01	1.417E-01	0.294
AC-227	8.323E-02		2.157E-01	3.591E-01	3.637E-02	0.232
TH-227	8.323E-02		2.158E-01	3.591E-01	4.286E-02	0.232
TH-229	2.633E-01		4.427E-01	7.556E-01	4.045E-02	0.349
PA-231	-7.949E-01		1.357E+00	1.848E+00	2.416E-01	-0.430
TH-231	2.590E-01		6.094E-01	8.793E-01	1.417E-01	0.294
PA-233	1.046E-02		5.097E-02	8.315E-02	5.095E-03	0.126
PA-234	-8.323E-02		2.485E-01	3.928E-01	7.749E-02	-0.212
PA-234M	3.805E+00		4.030E+00	6.890E+00	7.433E-01	0.552
TH-234	1.786E+00		1.476E+00	2.474E+00	4.456E-01	0.722
U-238	1.786E+00		1.476E+00	2.474E+00	4.456E-01	0.722
NP-239	9.816E-02		3.440E-01	5.600E-01	3.459E-02	0.175
AM-241	-6.144E-02		1.660E-01	2.739E-01	2.272E-02	-0.224
CM-247	-5.158E-03		2.912E-02	4.826E-02	2.810E-03	-0.107
CF-249	4.385E-02		3.241E-02	5.759E-02	3.310E-03	0.761
CF-251	2.238E-02		1.034E-01	1.753E-01	9.261E-03	0.128

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]G248258001            *
* Acquisition date   : 19-MAR-2010 13:11:58 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 02:00:01.84 Half life ratio : 8.000             *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 25-FEB-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID          : G248258001 Analyst initials: MXR1                 *
* Batch Number       : 959281 Sample Quantity : 1.3271E+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	3.300E+01	2.883E+00	2.017E-01	1.471E+00
CD-109	2.296E+00	1.011E+00	5.618E-01	5.158E-01
SN-126	2.221E-01	9.780E-02	6.859E-02	4.990E-02
TL-208	5.296E-01	8.086E-02	2.384E-02	4.126E-02
BI-211	4.251E+00	4.249E-01	1.369E-01	2.168E-01
PB-212	1.829E+00	1.611E-01	3.819E-02	8.217E-02
BI-214	1.284E+00	1.651E-01	4.529E-02	8.424E-02
PB-214	1.543E+00	1.753E-01	4.537E-02	8.945E-02
RA-224	4.315E+00	1.010E+00	4.087E-01	5.151E-01
RA-226	1.284E+00	1.651E-01	4.529E-02	8.424E-02
AC-228	1.762E+00	3.353E-01	8.366E-02	1.711E-01
RA-228	1.762E+00	3.353E-01	8.366E-02	1.711E-01
TH-228	1.829E+00	1.611E-01	3.819E-02	8.217E-02
TH-232	1.762E+00	3.353E-01	8.366E-02	1.711E-01
U-235	-2.799E-02	1.773E-01	1.476E-01	9.046E-02
NP-237	6.628E-01	3.220E-01	2.011E-01	1.643E-01
ANH-511	1.166E-01	5.496E-02	1.806E-02	2.804E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-8.079E-02	2.774E-01	2.347E-01	1.415E-01 NOT IDENT.
NA-22	-4.237E-02	3.948E-02	3.065E-02	2.014E-02 NOT IDENT.
NA-24	-6.180E+08	1.450E+09	0.000E+00	7.400E+08 SHORT HLIF
SC-46	5.703E-03	3.316E-02	2.829E-02	1.692E-02 FAIL ABUN
V-48	6.291E-02	7.244E-02	6.423E-02	3.696E-02 NOT IDENT.
CR-51	6.121E-03	3.650E-01	3.089E-01	1.862E-01 NOT IDENT.
MN-54	1.579E-02	3.277E-02	2.856E-02	1.672E-02 NOT IDENT.
CO-56	5.708E-03	3.371E-02	2.889E-02	1.720E-02 NOT IDENT.
CO-57	-2.753E-03	2.318E-02	1.976E-02	1.183E-02 NOT IDENT.
CO-58	-6.593E-03	3.143E-02	2.637E-02	1.604E-02 NOT IDENT.

FE-59	-5.657E-02	8.813E-02	7.226E-02	4.496E-02	NOT IDENT.
CO-60	2.256E-02	3.121E-02	2.772E-02	1.592E-02	NOT IDENT.
ZN-65	-3.177E-02	1.032E-01	7.357E-02	5.267E-02	NOT IDENT.
SE-75	1.859E-02	3.849E-02	3.150E-02	1.964E-02	NOT IDENT.
SR-85	1.070E-01	3.852E-02	3.335E-02	1.966E-02	NOT IDENT.
Y-88	6.266E-03	2.761E-02	2.219E-02	1.409E-02	NOT IDENT.
Y-91	1.260E+01	2.017E+01	1.771E+01	1.029E+01	NOT IDENT.
NB-94	-6.554E-03	2.660E-02	2.268E-02	1.357E-02	NOT IDENT.
NB-95	2.080E-02	3.850E-02	3.390E-02	1.964E-02	NOT IDENT.
NB-95M	4.323E-02	1.280E-01	9.942E-02	6.532E-02	NOT IDENT.
ZR-95	6.994E-03	6.037E-02	5.216E-02	3.080E-02	NOT IDENT.
MO-99	-1.440E+01	5.770E+01	0.000E+00	2.944E+01	SHORT HLIF
TC-99M	-1.389E+25	9.117E+24	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.038E-03	3.351E-02	2.865E-02	1.710E-02	FAIL ABUN
RH-106	2.291E-02	2.631E-01	2.213E-01	1.342E-01	NOT IDENT.
RU-106	2.291E-02	2.631E-01	2.213E-01	1.342E-01	NOT IDENT.
AG-108M	-6.264E-04	2.349E-02	2.036E-02	1.198E-02	NOT IDENT.
AG-110M	-3.489E-02	2.876E-02	2.321E-02	1.467E-02	NOT IDENT.
SN-113	-4.206E-02	3.562E-02	2.931E-02	1.818E-02	NOT IDENT.
CD-115	1.012E+01	7.893E+01	0.000E+00	4.027E+01	SHORT HLIF
SN-117M	-4.070E-02	6.436E-02	5.554E-02	3.284E-02	NOT IDENT.
TE-123M	-1.095E-02	2.461E-02	2.138E-02	1.255E-02	NOT IDENT.
SB-124	-6.687E-03	6.208E-02	5.152E-02	3.167E-02	NOT IDENT.
SB-125	-3.001E-02	6.941E-02	5.894E-02	3.541E-02	FAIL ABUN
TE-125M	-2.440E+00	9.424E+00	8.060E+00	4.808E+00	NOT IDENT.
I-126	-3.045E-01	2.521E-01	2.030E-01	1.286E-01	NOT IDENT.
SB-126	1.693E-01	1.789E-01	1.439E-01	9.127E-02	NOT IDENT.
SB-127	2.685E-01	3.486E+00	3.036E+00	1.779E+00	NOT IDENT.
I-131	-3.214E-02	1.570E-01	1.372E-01	8.012E-02	NOT IDENT.
TE-132	-9.554E-01	2.762E+00	2.376E+00	1.409E+00	NOT IDENT.
BA-133	2.302E-02	3.594E-02	2.747E-02	1.834E-02	FAIL ABUN
I-133	-4.488E+05	1.231E+06	0.000E+00	6.281E+05	SHORT HLIF
CS-134	7.173E-02	5.823E-02	3.774E-02	2.971E-02	FAIL ABUN
CS-135	2.324E-01	1.421E-01	1.166E-01	7.251E-02	NOT IDENT.
I-135	-1.116E+23	2.302E+23	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.528E-02	1.283E-01	1.095E-01	6.548E-02	NOT IDENT.
BA-137M	3.865E-02	2.863E-02	2.655E-02	1.461E-02	NOT IDENT.
CS-137	4.083E-02	3.024E-02	2.805E-02	1.543E-02	NOT IDENT.
CE-139	8.532E-03	2.524E-02	2.289E-02	1.288E-02	NOT IDENT.
BA-140	-4.788E-02	2.948E-01	2.476E-01	1.504E-01	NOT IDENT.
LA-140	1.966E-02	9.901E-02	7.813E-02	5.052E-02	FAIL ABUN
CE-141	2.220E-02	6.463E-02	5.485E-02	3.297E-02	NOT IDENT.
CE-143	2.322E+04	7.011E+03	0.000E+00	3.577E+03	SHORT HLIF
CE-144	1.072E-02	1.749E-01	1.490E-01	8.922E-02	NOT IDENT.
PM-144	2.431E-03	2.691E-02	2.341E-02	1.373E-02	NOT IDENT.
PR-144	1.801E-01	2.021E+00	1.758E+00	1.031E+00	NOT IDENT.
PM-146	1.242E-02	3.031E-02	2.680E-02	1.546E-02	NOT IDENT.
ND-147	3.716E-01	6.731E-01	5.900E-01	3.434E-01	FAIL ABUN
PM-149	4.509E+02	6.900E+02	0.000E+00	3.521E+02	SHORT HLIF
EU-152	-1.997E-02	9.464E-02	6.312E-02	4.828E-02	FAIL ABUN
GD-153	1.159E-03	8.569E-02	6.673E-02	4.372E-02	NOT IDENT.
EU-154	-1.406E-01	1.132E-01	8.634E-02	5.776E-02	NOT IDENT.
EU-155	6.500E-03	9.470E-02	8.227E-02	4.832E-02	FAIL ABUN
TB-160	7.034E-02	1.195E-01	1.048E-01	6.098E-02	FAIL ABUN
HO-166M	-1.768E-02	4.518E-02	3.803E-02	2.305E-02	NOT IDENT.
TA-182	-2.631E-02	1.650E-01	1.381E-01	8.417E-02	NOT IDENT.
IR-192	1.328E-02	2.908E-02	2.518E-02	1.483E-02	FAIL ABUN
HG-203	5.275E-02	3.570E-02	3.237E-02	1.821E-02	NOT IDENT.
BI-207	5.410E-02	4.493E-02	4.121E-02	2.292E-02	FAIL ABUN
PB-210	2.243E+00	4.996E+00	4.503E+00	2.549E+00	NOT IDENT.
PB-211	-5.908E-01	6.387E-01	4.781E-01	3.259E-01	NOT IDENT.
BI-212	2.325E+00	6.356E-01	4.976E-01	3.243E-01	FAIL ABUN
RN-219	2.109E-02	3.085E-01	2.708E-01	1.574E-01	FAIL ABUN
RA-223	2.590E-01	5.973E-01	4.524E-01	3.047E-01	FAIL ABUN
AC-227	8.323E-02	2.114E-01	1.855E-01	1.079E-01	FAIL ABUN
TH-227	8.323E-02	2.115E-01	1.855E-01	1.079E-01	FAIL ABUN
TH-229	2.633E-01	4.338E-01	3.921E-01	2.213E-01	FAIL ABUN
PA-231	-7.949E-01	1.329E+00	9.526E-01	6.783E-01	FAIL ABUN
TH-231	2.590E-01	5.973E-01	4.524E-01	3.047E-01	FAIL ABUN
PA-233	1.046E-02	4.995E-02	4.281E-02	2.549E-02	FAIL ABUN
PA-234	-8.323E-02	2.436E-01	1.984E-01	1.243E-01	NOT IDENT.
PA-234M	3.805E+00	3.949E+00	3.476E+00	2.015E+00	NOT IDENT.
TH-234	1.786E+00	1.447E+00	1.308E+00	7.382E-01	FAIL ABUN
U-238	1.786E+00	1.447E+00	1.308E+00	7.382E-01	FAIL ABUN
NP-239	9.816E-02	3.371E-01	2.930E-01	1.720E-01	FAIL ABUN
AM-241	-6.144E-02	1.627E-01	1.449E-01	8.302E-02	NOT IDENT.
CM-247	-5.158E-03	2.854E-02	2.474E-02	1.456E-02	FAIL ABUN
CF-249	4.385E-02	3.176E-02	2.953E-02	1.621E-02	NOT IDENT.

CF-251	2.238E-02	1.013E-01	9.108E-02	5.169E-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
46.54	303.9640
49.72	333.9690
57.36	0.0000
59.54	357.6357
63.29	368.8794
63.29	368.8794
64.28	394.7139
67.75	438.4601
69.67	394.4287
70.83	359.6049
72.81	477.0505
72.87	477.1378
72.87	477.1378
74.82	424.6625
74.82	424.6625
74.82	424.6625
74.97	424.8524
77.11	427.5410
77.11	427.5410
77.11	427.5410
79.69	419.8180
79.80	394.6331
80.12	394.9930
80.19	395.0698
80.57	420.8679
81.00	437.8145
81.07	437.9017
81.07	437.9017
83.79	447.2493
83.79	447.2493
85.43	440.1788
86.48	526.3746
86.55	526.4752
86.79	523.7724
86.94	523.9856
87.57	564.4226
88.03	359.4790
88.47	359.8968
89.96	361.3066
91.11	377.7423
92.59	379.1818
92.59	379.1818
93.35	379.9156
94.67	347.0947
94.87	347.2690
94.87	347.2690
95.86	372.9950
97.43	366.6461
98.44	347.2205
99.53	350.2328
100.11	359.0991
103.18	403.9219
103.37	400.9378
105.31	367.7838
106.12	347.2363
109.28	377.5582
111.00	362.9140
111.76	352.7725
116.30	336.7408
117.23	314.5577
121.12	365.4450
121.78	379.1354
122.06	368.3606
123.07	353.7061
131.20	414.4359
133.52	351.0571
136.00	365.1756

136.47	355.3198
140.51	0.0000
140.51	0.0000
143.76	362.4980
144.24	358.2236
144.24	358.2236
145.44	349.8054
152.43	358.8602
153.25	376.2959
154.21	382.1852
154.21	382.1852
156.02	384.2654
158.56	355.9149
159.00	356.1793
162.66	370.8307
163.33	359.6738
165.86	346.8768
176.60	324.7106
177.52	311.5161
181.07	0.0000
184.41	297.5259
185.72	308.9994
193.51	332.1828
197.04	350.7677
205.31	320.3558
210.85	263.1461
215.65	310.1734
222.11	336.8287
227.38	329.3664
228.16	335.5654
228.18	335.5733
235.69	360.3079
235.96	328.8137
235.96	328.8137
238.63	276.5734
238.63	276.5734
240.99	277.3780
242.00	277.7207
244.70	268.4493
252.40	274.1603
252.80	271.2657
256.23	269.3222
256.23	269.3222
260.90	0.0000
264.66	216.7455
268.22	223.3707
269.46	258.2182
269.46	258.2182
271.23	234.8362
273.65	235.4694
276.40	236.1861
277.37	236.4366
277.60	236.4957
278.00	236.6001
279.20	236.9097
279.54	236.9967
280.46	237.2368
283.69	247.2532
284.31	250.7629
285.41	246.0384
285.90	0.0000
287.50	239.0389
293.27	0.0000
295.22	229.3639
295.96	229.5427
298.57	230.1652
299.98	230.4996
299.98	230.4996
300.09	230.5261
300.09	230.5261
300.13	230.5327
301.36	207.6353
302.85	235.2267
304.50	208.3025
304.50	208.3025
304.85	186.1729
308.46	228.2106
311.90	194.5938

316.51	192.2458
319.41	214.4567
320.08	224.3500
323.87	212.3443
323.87	212.3443
328.76	243.0735
333.37	228.3315
334.37	240.8538
334.37	240.8538
338.28	198.5065
338.28	198.5065
338.32	198.5147
338.32	198.5147
338.32	198.5147
340.48	201.5679
340.55	201.5790
344.28	197.3954
351.06	204.2024
351.93	169.7429
356.01	157.8135
364.49	179.7850
366.42	0.0000
383.85	196.5811
388.16	167.7901
388.63	163.2453
391.69	202.4948
400.66	164.8680
401.81	175.2781
402.40	182.8241
404.85	219.6355
410.95	181.2650
414.70	166.7326
423.72	163.1711
427.09	156.9393
427.87	169.4042
433.94	173.0614
453.88	130.0448
463.37	150.4884
468.07	148.7081
473.00	153.4939
476.78	156.8631
477.60	161.8899
487.02	154.0123
492.35	0.0000
497.08	134.0671
511.00	134.3159
514.00	138.2924
527.90	0.0000
529.87	0.0000
531.02	125.8498
537.26	132.5179
546.56	0.0000
563.25	143.0339
569.33	133.0864
569.50	138.3390
569.70	138.3583
583.19	141.5931
600.60	162.4980
602.73	147.8539
604.72	169.4236
609.32	137.6857
609.32	137.6857
610.33	159.2374
614.28	139.8706
618.01	139.0876
621.93	137.2350
621.93	137.2350
633.25	118.5295
635.95	114.3490
636.99	112.2363
645.85	129.2065
657.76	162.5525
661.66	119.6375
661.66	119.6375
664.57	0.0000
666.33	157.7589
666.50	157.7728
677.62	114.1514

685.70	117.4277
695.00	129.2290
696.49	130.2644
696.51	130.2672
697.00	138.7349
702.65	142.8958
706.68	129.0563
711.68	120.8802
720.70	95.9470
721.93	0.0000
722.78	123.7226
722.91	123.7306
723.31	118.8694
724.19	122.1784
727.33	138.6823
733.00	116.1649
735.93	142.4097
739.50	0.0000
747.24	117.2418
752.31	113.6739
753.82	98.3311
756.73	113.9140
763.94	148.2063
765.81	145.4285
766.42	150.3202
777.92	0.0000
778.90	144.3717
783.70	100.6970
785.37	104.5992
795.86	89.3229
801.95	98.5819
810.29	98.9522
810.76	99.9644
815.77	111.0999
818.51	74.4873
832.01	136.8774
834.85	133.0460
836.80	0.0000
846.77	105.5811
856.80	107.3345
860.56	96.0920
871.09	89.4090
873.19	111.8597
875.33	0.0000
879.36	91.7578
880.51	88.7417
883.24	115.3933
884.68	113.4186
889.28	96.2318
898.04	106.8543
911.20	81.4578
911.20	81.4578
911.20	81.4578
926.50	104.9741
937.49	116.9150
944.13	94.1949
946.00	102.6436
949.00	98.5707
962.29	93.8092
964.08	93.8744
966.15	93.9505
968.97	94.0519
968.97	94.0519
968.97	94.0519
983.53	71.1970
996.26	129.1976
1001.03	88.7819
1004.73	116.7528
1037.84	105.0113
1038.76	0.0000
1048.07	107.2670
1050.41	91.4854
1050.41	91.4854
1063.66	92.8574
1085.87	108.7069
1099.45	126.3110
1112.07	125.1892
1115.54	165.4431

1120.29	109.0379
1120.29	109.0379
1120.55	109.0499
1121.30	115.5363
1131.51	0.0000
1173.23	116.8066
1177.93	112.1122
1189.05	111.5349
1204.77	118.9786
1221.41	119.6031
1231.02	162.5929
1235.36	150.9026
1238.28	142.0973
1260.41	0.0000
1271.85	108.4256
1274.44	127.5980
1274.54	122.5787
1291.59	68.6736
1298.22	0.0000
1312.11	78.2354
1332.49	55.1941
1365.19	45.3965
1368.63	0.0000
1384.29	50.8286
1408.01	55.2260
1457.56	0.0000
1460.82	38.1332
1489.16	46.9587
1505.03	46.8872
1596.21	33.5007
1620.50	28.9618
1678.03	0.0000
1690.97	26.5081
1764.49	23.0773
1764.49	23.0773
1770.23	24.8843
1771.35	19.5573
1791.20	0.0000
1836.06	20.2899

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248258001

Total Uranium Activity	5.2991E+00	ug/g
Total Uranium Counting Unc.	4.3053E+00	ug/g
Total Uranium Tpu	2.1966E-06	ug/g
Total Uranium Mda	3.8905E+00	ug/g

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*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON ,SC 29417                *
*               GROSS GAMMA REPORT                  *
*
*****
*
*  BATCH ID      : 959281                          SAMPLE ID   : G248258001
*  ANALYST       : MXR1                             DETECTOR    : GAM18
*  SAMPLE DATE   : 25-FEB-2010 12:00:00.00          COUNT TIME   : 0 02:00:00.00
*  ANALYSIS DATE : 19-MAR-2010 13:11:58.48          SAMPLE ALQT  : 132.710 GRAM
*
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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 1.010E+01
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.152E+00
GROSS GAMMA MDA      (pCi/GRAM ) : 2.681E+00
GROSS GAMMA DLC      (pCi/GRAM ) : 1.304E+00

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VAX/VMS Nuclide Identification Report Generated 22-MAR-2010 12:35:11.97

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*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057358.CNF;2
Sample date        : 4-MAR-2010 00:00:00. Acquisition date : 22-MAR-2010 10:34:48
Sample ID          : G1202057358      Sample quantity   : 1.32710E+02 GRAM
Detector name      : GAM23            Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00    Elapsed real time: 0 02:00:00.84  0.0%
Energy tolerance   : 1.50000 keV      Analyst Initials : MXR1
Abundance limit    : 75.00000         Sensitivity       : 5.00000
Batch ID           : 959281            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	776.06	20	17	3.52	1552.11	1545	14	2.75E-03	50.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 22-MAR-2010 12:35:14

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Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057358.CNF;2
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 4-MAR-2010 00:00:00   Acquisition date : 22-MAR-2010 10:34:48
Sample ID         : G1202057358          Sample quantity  : 132.71 GRAM
Sample type       : SOLID                 Sample geometry   :
Detector name     : GAMMA23              Detector geometry: CAN
Elapsed live time : 0 02:00:00.00        Elapsed real time: 0 02:00:00.84    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

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	477.60	*		9.826E-02	2.100E-01	3.648E-01	2.478E-02	0.269
NA-22	1274.54	*		2.407E-02	2.525E-02	4.863E-02	3.266E-03	0.495
NA-24	1368.63	*		1.321E+00	2.525E-02	Half-Life too short		
K-40	1460.82	*		-5.972E-02	3.020E-01	4.795E-01	3.587E-02	-0.125
SC-46	889.28	*		1.669E-02	2.524E-02	4.619E-02	4.127E-03	0.361
	1120.55			1.055E-02	2.877E-02	5.033E-02	3.279E-03	0.210
V-48	944.13			-2.373E-01	5.520E-01	8.380E-01	7.301E-02	-0.283
	983.53	*		-4.167E-02	4.942E-02	6.852E-02	5.700E-03	-0.608
	1312.11			2.180E-02	4.788E-02	8.646E-02	6.151E-03	0.252
CR-51	320.08	*		1.661E-01	2.344E-01	4.187E-01	2.741E-02	0.397
MN-54	834.85	*		1.556E-02	2.240E-02	4.109E-02	3.254E-03	0.379
CO-56	846.77	*		-4.942E-03	2.568E-02	3.989E-02	3.245E-03	-0.124
	1037.84			-1.373E-01	1.617E-01	2.128E-01	1.742E-02	-0.645
	1238.28			1.763E-02	4.341E-02	7.655E-02	5.093E-03	0.230
	1771.35			-1.185E-01	1.452E-01	1.628E-01	1.007E-02	-0.728
CO-57	122.06	*		7.576E-03	1.399E-02	2.396E-02	1.412E-03	0.316
	136.47			-2.680E-02	1.117E-01	1.795E-01	1.165E-02	-0.149
CO-58	810.76	*		-8.357E-04	2.383E-02	3.969E-02	2.982E-03	-0.021
FE-59	1099.45	*		1.579E-02	4.999E-02	8.746E-02	6.734E-03	0.181
	1291.59			-1.006E-02	5.817E-02	8.996E-02	7.468E-03	-0.112
CO-60	1173.23			-6.839E-03	2.301E-02	3.529E-02	1.991E-03	-0.194
	1332.49	*		1.008E-02	1.865E-02	3.481E-02	2.556E-03	0.290
ZN-65	1115.54	*		1.909E-03	5.477E-02	9.056E-02	5.981E-03	0.021
SE-75	121.12			3.457E-02	7.575E-02	1.288E-01	1.180E-02	0.268
	136.00			-1.962E-02	2.211E-02	3.356E-02	1.896E-03	-0.585
	264.66	*		1.866E-02	2.876E-02	4.874E-02	2.838E-03	0.383
	279.54			1.984E-02	6.299E-02	1.091E-01	6.870E-03	0.182
	400.66			4.125E-02	1.406E-01	2.415E-01	2.189E-02	0.171
SR-85	514.00	*		-7.357E-02	3.818E-02	5.237E-02	3.039E-03	-1.405
Y-88	898.04			9.010E-03	2.627E-02	4.605E-02	4.210E-03	0.196
	1836.06	*		1.166E-02	2.690E-02	4.943E-02	2.910E-03	0.236
Y-91	1204.77	*		-1.483E+00	1.209E+01	1.930E+01	1.151E+00	-0.077
NB-94	702.65	*		8.540E-04	2.114E-02	3.430E-02	1.960E-03	0.025
	871.09			4.524E-03	2.009E-02	3.475E-02	2.984E-03	0.130

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95	765.81	*		2.202E-02	2.935E-02	5.192E-02	3.489E-03	0.424
NB-95M	235.69	*		2.567E-02	7.703E-02	1.271E-01	9.410E-03	0.202
ZR-95	724.19			5.841E-03	5.232E-02	8.585E-02	6.049E-03	0.068
	756.73	*		-3.677E-02	4.816E-02	6.711E-02	5.178E-03	-0.548
MO-99	140.51			4.687E-01	3.042E+01	4.880E+01	1.112E+01	0.010
	181.07			-3.613E+00	2.304E+01	3.688E+01	6.450E+00	-0.098
	366.42			-4.998E+01	1.516E+02	2.324E+02	1.362E+01	-0.215
	739.50	*		-8.372E-01	1.650E+01	2.629E+01	3.843E+00	-0.032
	777.92			3.993E+01	5.441E+01	9.113E+01	6.310E+00	0.438
TC-99M	140.51	*		3.401E+12	5.441E+01	Half-Life	too short	
RU-103	497.08	*		-1.216E-02	2.317E-02	3.501E-02	4.356E-03	-0.347
	610.33			1.083E-01	5.357E-01	8.945E-01	1.334E-01	0.121
RH-106	621.93	*		-7.223E-02	2.031E-01	3.125E-01	3.567E-02	-0.231
	1050.41			3.046E-01	1.120E+00	1.968E+00	1.481E-01	0.155
RU-106	621.93	*		-7.223E-02	2.029E-01	3.125E-01	1.679E-02	-0.231
	1050.41			3.046E-01	1.120E+00	1.968E+00	1.481E-01	0.155
AG-108M	433.94	*		5.610E-03	1.680E-02	2.893E-02	1.808E-03	0.194
	614.28			-4.522E-03	2.223E-02	3.511E-02	2.056E-03	-0.129
	722.91			5.245E-03	2.072E-02	3.479E-02	2.233E-03	0.151
CD-109	88.03	*		-4.791E-01	4.402E-01	6.728E-01	6.568E-02	-0.712
AG-110M	657.76	*		4.491E-03	2.201E-02	3.669E-02	2.039E-03	0.122
	677.62			4.236E-03	1.974E-01	3.202E-01	1.835E-02	0.013
	706.68			4.083E-02	1.388E-01	2.332E-01	1.432E-02	0.175
	763.94			2.525E-02	1.102E-01	1.827E-01	1.277E-02	0.138
	884.68			-1.938E-02	2.655E-02	3.765E-02	3.432E-03	-0.515
	937.49			1.219E-02	6.037E-02	1.040E-01	9.440E-03	0.117
	1384.29			3.736E-02	7.189E-02	1.354E-01	1.025E-02	0.276
	1505.03			-1.099E-01	1.890E-01	2.546E-01	1.808E-02	-0.432
SN-113	391.69	*		1.972E-02	2.950E-02	5.217E-02	3.214E-03	0.378
CD-115	260.90			8.254E-05	2.950E-02	Half-Life	too short	
	492.35			-3.375E-05	2.950E-02	Half-Life	too short	
	527.90	*		6.820E-06	2.950E-02	Half-Life	too short	
SN-117M	156.02			-3.348E-01	1.436E+00	2.298E+00	1.202E-01	-0.146
	158.56	*		1.000E-03	3.679E-02	6.012E-02	3.124E-03	0.017
TE-123M	159.00	*		4.824E-03	1.659E-02	2.765E-02	1.459E-03	0.174
SB-124	602.73			-2.062E-02	2.587E-02	3.742E-02	2.051E-03	-0.551
	645.85			-1.254E-01	2.709E-01	4.014E-01	2.410E-02	-0.313
	722.78			5.473E-02	2.162E-01	3.631E-01	2.290E-02	0.151
	1690.97	*		-3.071E-02	4.498E-02	5.395E-02	3.776E-03	-0.569
SB-125	427.87	*		3.730E-02	5.507E-02	9.797E-02	5.952E-03	0.381
	463.37			-1.355E-01	1.537E-01	2.230E-01	1.511E-02	-0.608
	600.60			7.619E-02	1.160E-01	2.041E-01	1.316E-02	0.373
	635.95			-1.673E-03	1.366E-01	2.211E-01	1.407E-02	-0.008
TE-125M	109.28	*		-3.026E-01	5.354E+00	8.796E+00	8.011E-01	-0.034
I-126	388.63			-2.081E-02	1.253E-01	2.047E-01	1.184E-02	-0.102
	666.33	*		-9.838E-02	1.441E-01	2.043E-01	1.057E-02	-0.481
	753.82			1.731E+00	1.320E+00	2.538E+00	1.655E-01	0.682
SB-126	414.70			-2.318E-02	5.341E-02	8.399E-02	4.888E-03	-0.276
	666.50			-3.820E-02	5.060E-02	7.077E-02	3.664E-03	-0.540

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	695.00			1.182E-02	6.281E-02	1.040E-01	5.824E-03	0.114
	697.00			7.737E-02	2.087E-01	3.545E-01	1.995E-02	0.218
	720.70	*		-5.372E-02	1.080E-01	1.596E-01	9.565E-03	-0.337
	856.80			-5.786E-02	3.543E-01	5.770E-01	4.801E-02	-0.100
SN-126	64.28			-1.137E-01	3.101E-01	4.810E-01	7.322E-02	-0.236
	86.94			-1.953E-02	1.696E-01	2.791E-01	1.161E-01	-0.070
	87.57	*		-1.059E-02	4.039E-02	6.581E-02	6.404E-03	-0.161
SB-127	252.40			2.191E+00	4.575E+00	7.535E+00	3.113E+00	0.291
	473.00			-5.588E-01	1.807E+00	2.858E+00	3.471E-01	-0.195
	685.70	*		3.591E-01	1.565E+00	2.612E+00	2.730E-01	0.137
	783.70			3.524E+00	3.342E+00	6.257E+00	7.715E-01	0.563
I-131	80.19			2.174E-02	3.107E+00	5.174E+00	4.785E-01	0.004
	284.31			-6.583E-01	1.180E+00	1.889E+00	1.229E-01	-0.349
	364.49	*		6.802E-02	1.006E-01	1.704E-01	1.118E-02	0.399
	636.99			9.477E-01	1.009E+00	1.908E+00	1.162E-01	0.497
TE-132	49.72			-2.177E+01	3.028E+01	4.813E+01	5.695E+00	-0.452
	111.76			-3.064E+00	3.681E+01	6.031E+01	6.436E+00	-0.051
	116.30			2.018E+00	3.287E+01	5.439E+01	5.684E+00	0.037
	228.16	*		7.239E-02	8.734E-01	1.415E+00	2.144E-01	0.051
BA-133	81.00			-2.323E-02	4.913E-02	7.881E-02	1.250E-02	-0.295
	276.40			4.106E-02	1.998E-01	3.256E-01	4.100E-02	0.126
	302.85			4.986E-03	8.178E-02	1.382E-01	1.582E-02	0.036
	356.01	*		-1.127E-02	2.678E-02	3.927E-02	4.445E-03	-0.287
	383.85			-1.360E-01	1.683E-01	2.522E-01	2.690E-02	-0.539
I-133	529.87	*		1.112E-02	1.683E-01	Half-Life	too short	
	875.33			-5.719E-01	1.683E-01	Half-Life	too short	
	1298.22			5.809E-01	1.683E-01	Half-Life	too short	
CS-134	563.25			6.086E-02	2.402E-01	4.045E-01	2.340E-02	0.150
	569.33			1.900E-01	1.388E-01	2.604E-01	1.514E-02	0.730
	604.72			-2.705E-02	2.261E-02	3.079E-02	1.695E-03	-0.879
	795.86	*		-5.282E-03	2.803E-02	4.571E-02	3.338E-03	-0.116
	801.95			5.183E-02	2.660E-01	4.497E-01	3.324E-02	0.115
	1365.19			-6.093E-01	7.487E-01	9.263E-01	7.209E-02	-0.658
CS-135	268.22	*		2.078E-02	9.429E-02	1.538E-01	1.175E-02	0.135
I-135	546.56			3.085E+13	9.429E-02	Half-Life	too short	
	836.80			8.039E+13	9.429E-02	Half-Life	too short	
	1038.76			-3.639E+13	9.429E-02	Half-Life	too short	
	1131.51			8.986E+12	9.429E-02	Half-Life	too short	
	1260.41	*		-1.869E+12	9.429E-02	Half-Life	too short	
	1457.56			4.337E+13	9.429E-02	Half-Life	too short	
	1678.03			-1.082E+13	9.429E-02	Half-Life	too short	
	1791.20			-2.375E+13	9.429E-02	Half-Life	too short	
CS-136	153.25			-2.661E-01	5.243E-01	8.178E-01	6.280E-02	-0.325
	176.60			-1.628E-01	3.349E-01	5.213E-01	3.415E-02	-0.312
	273.65			-1.335E-01	3.433E-01	5.248E-01	3.590E-02	-0.254
	340.55			4.805E-02	9.673E-02	1.693E-01	1.080E-02	0.284
	818.51			7.050E-03	5.454E-02	9.307E-02	7.109E-03	0.076
	1048.07	*		-1.389E-02	6.775E-02	1.070E-01	8.528E-03	-0.130
	1235.36			-1.751E-01	3.179E-01	4.540E-01	4.623E-02	-0.386

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-137M	661.66	*		1.551E-02	2.025E-02	3.660E-02	1.870E-03	0.424
CS-137	661.66	*		1.638E-02	2.139E-02	3.867E-02	1.986E-03	0.424
CE-139	165.86	*		1.072E-03	1.810E-02	2.799E-02	1.427E-03	0.038
BA-140	162.66			1.455E-01	5.653E-01	9.389E-01	5.693E-02	0.155
	304.85			1.150E-01	9.787E-01	1.661E+00	4.747E-01	0.069
	423.72			-1.827E-01	1.371E+00	2.233E+00	7.209E-01	-0.082
	537.26	*		1.292E-01	1.867E-01	3.267E-01	1.088E-01	0.396
LA-140	328.76			6.827E-02	2.147E-01	3.698E-01	2.443E-02	0.185
	487.02			5.391E-02	9.454E-02	1.670E-01	1.103E-02	0.323
	815.77			3.224E-02	2.345E-01	4.009E-01	3.492E-02	0.080
	1596.21	*		2.509E-03	5.338E-02	9.034E-02	6.198E-03	0.028
CE-141	145.44	*		-1.289E-02	3.473E-02	5.500E-02	3.103E-03	-0.234
CE-143	57.36			-3.117E-03	3.473E-02	Half-Life	too short	
	293.27	*		2.869E-04	3.473E-02	Half-Life	too short	
	664.57			-1.931E-03	3.473E-02	Half-Life	too short	
	721.93			-9.428E-04	3.473E-02	Half-Life	too short	
CE-144	80.12			8.009E-02	1.271E+00	2.124E+00	1.947E-01	0.038
	133.52	*		-3.339E-02	1.041E-01	1.659E-01	2.291E-02	-0.201
PM-144	476.78			1.976E-02	4.138E-02	7.189E-02	4.964E-03	0.275
	618.01			7.734E-04	2.033E-02	3.321E-02	1.918E-03	0.023
	696.49	*		6.503E-03	2.298E-02	3.854E-02	2.169E-03	0.169
PR-144	696.51	*		4.921E-01	1.723E+00	2.891E+00	1.625E-01	0.170
	1489.16			4.822E-01	8.651E+00	1.416E+01	1.010E+00	0.034
PM-146	453.88	*		-1.251E-03	2.491E-02	4.086E-02	3.472E-03	-0.031
	633.25			-3.449E-01	6.857E-01	9.772E-01	3.673E-01	-0.353
	735.93			-5.864E-02	8.430E-02	1.150E-01	3.149E-02	-0.510
	747.24			4.152E-03	6.395E-02	1.038E-01	1.391E-02	0.040
ND-147	91.11			-1.150E-01	1.964E-01	3.285E-01	3.231E-02	-0.350
	319.41			1.675E+00	2.470E+00	4.394E+00	2.597E-01	0.381
	531.02	*		-1.930E-01	4.241E-01	6.493E-01	8.770E-02	-0.297
PM-149	285.90	*		-3.303E-05	4.241E-01	Half-Life	too short	
EU-152	121.78			2.599E-02	4.033E-02	6.948E-02	5.321E-03	0.374
	244.70			-7.141E-02	2.075E-01	3.226E-01	1.825E-02	-0.221
	344.28	*		4.339E-03	5.780E-02	9.735E-02	6.447E-03	0.045
	778.90			2.449E-02	1.766E-01	2.636E-01	1.830E-02	0.093
	964.08			-8.371E-03	1.593E-01	2.619E-01	2.231E-02	-0.032
	1085.87			-6.295E-02	1.758E-01	2.631E-01	1.851E-02	-0.239
	1112.07			1.427E-01	1.816E-01	3.378E-01	2.245E-02	0.422
	1408.01			-9.039E-02	1.090E-01	1.334E-01	9.704E-03	-0.677
GD-153	69.67			-1.434E-01	1.000E+00	1.654E+00	1.445E-01	-0.087
	97.43	*		-1.570E-02	4.382E-02	7.045E-02	5.755E-03	-0.223
	103.18			3.020E-02	6.299E-02	1.076E-01	8.041E-03	0.281
EU-154	123.07			8.382E-03	2.876E-02	4.832E-02	4.554E-03	0.173
	723.31			2.433E-02	8.851E-02	1.495E-01	1.081E-02	0.163
	873.19			-5.761E-02	1.680E-01	2.636E-01	3.137E-02	-0.219
	996.26			-7.216E-02	2.001E-01	3.073E-01	5.303E-02	-0.235
	1004.73			2.184E-02	1.183E-01	2.024E-01	2.276E-02	0.108
	1274.44	*		6.952E-02	7.191E-02	1.384E-01	1.385E-02	0.502
EU-155	86.55			2.338E-02	4.897E-02	8.393E-02	8.159E-03	0.279

----- Non-Identified Nuclides -----

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TB-160	105.31	*		1.385E-02	5.754E-02	9.674E-02	7.129E-03	0.143
	86.79			1.930E-02	1.342E-01	2.250E-01	2.174E-02	0.086
	197.04			2.169E-01	3.565E-01	5.854E-01	3.116E-02	0.371
	215.65			-2.047E-01	4.619E-01	7.155E-01	3.910E-02	-0.286
	298.57			-4.234E-02	6.906E-02	1.099E-01	6.458E-03	-0.385
	879.36	*		2.849E-03	8.450E-02	1.417E-01	1.239E-02	0.020
	962.29			1.213E-01	2.982E-01	5.269E-01	4.499E-02	0.230
	966.15			7.423E-03	1.111E-01	1.863E-01	1.584E-02	0.040
	1177.93			2.613E-02	1.545E-01	2.638E-01	1.501E-02	0.099
	1271.85			1.336E-01	4.044E-01	7.054E-01	4.708E-02	0.189
HO-166M	80.57			-4.567E-02	1.377E-01	2.237E-01	2.057E-02	-0.204
	184.41			-6.691E-03	2.237E-02	3.497E-02	1.827E-03	-0.191
	280.46			2.374E-03	4.824E-02	8.168E-02	4.757E-03	0.029
	410.95			-6.987E-04	1.334E-01	2.211E-01	1.285E-02	-0.003
	711.68	*		-2.286E-02	4.040E-02	5.946E-02	3.480E-03	-0.384
	752.31			1.569E-01	1.713E-01	3.134E-01	2.037E-02	0.501
	810.29			4.566E-03	3.395E-02	5.807E-02	4.343E-03	0.079
	67.75			6.687E-03	6.437E-02	1.084E-01	9.434E-03	0.062
	100.11			1.167E-01	9.708E-02	1.740E-01	1.361E-02	0.671
	152.43			-1.537E-01	1.823E-01	2.751E-01	1.454E-02	-0.559
TA-182	222.11			-1.807E-02	2.257E-01	3.609E-01	1.989E-02	-0.050
	1121.30			6.983E-03	7.777E-02	1.299E-01	8.447E-03	0.054
	1189.05			6.305E-02	1.550E-01	2.750E-01	1.595E-02	0.229
	1221.41	*		5.703E-02	9.063E-02	1.679E-01	1.031E-02	0.340
	1231.02			4.439E-03	1.966E-01	3.229E-01	2.014E-02	0.014
	295.96			5.239E-03	6.854E-02	1.104E-01	6.586E-03	0.047
	308.46			-1.711E-02	5.986E-02	9.788E-02	5.833E-03	-0.175
	316.51	*		9.143E-03	2.219E-02	3.858E-02	2.289E-03	0.237
	468.07			3.221E-02	3.919E-02	7.108E-02	4.795E-03	0.453
	70.83			5.522E-01	7.764E-01	1.349E+00	2.178E-01	0.409
HG-203	72.87			6.698E-02	4.445E-01	7.488E-01	1.172E-01	0.089
	279.20	*		7.225E-03	2.263E-02	3.921E-02	2.408E-03	0.184
	72.81			1.874E-02	9.776E-02	1.652E-01	1.457E-02	0.113
	74.97			-6.155E-03	5.909E-02	9.055E-02	8.058E-03	-0.068
	569.70			2.849E-02	2.138E-02	4.000E-02	2.253E-03	0.712
	1063.66	*		2.897E-02	2.817E-02	5.513E-02	4.050E-03	0.526
	1770.23			-1.331E-01	2.779E-01	3.805E-01	2.356E-02	-0.350
	277.37			-4.783E-02	2.288E-01	3.570E-01	3.852E-02	-0.134
	583.19	*		-6.885E-03	2.756E-02	4.220E-02	2.733E-03	-0.163
	860.56			8.997E-03	1.836E-01	3.086E-01	2.789E-02	0.029
PB-210	46.54	*		2.437E-01	3.357E+00	5.492E+00	4.243E-01	0.044
BI-211	72.87			2.560E-01	1.699E+00	2.862E+00	2.525E-01	0.089
PB-211	351.06	*		1.399E-02	1.331E-01	2.168E-01	1.413E-02	0.065
	404.85	*		-1.567E-01	3.774E-01	5.800E-01	2.782E-01	-0.270
	427.09			8.743E-01	9.952E-01	1.668E+00	7.645E-01	0.524
BI-212	832.01			-4.329E-01	6.370E-01	8.809E-01	4.557E-01	-0.491
	727.33	*		5.681E-02	2.645E-01	4.424E-01	4.807E-02	0.128
	785.37			1.187E+00	1.640E+00	3.059E+00	2.156E-01	0.388
	1620.50			2.905E-01	1.359E+00	2.400E+00	1.628E-01	0.121

---- Non-Identified Nuclides ----

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PB-212	74.82			-1.023E-01	2.107E-01	3.145E-01	4.145E-02	-0.325
	77.11			-3.506E-02	1.054E-01	1.714E-01	1.542E-02	-0.204
	238.63	*		-2.235E-02	4.363E-02	6.482E-02	4.702E-03	-0.345
	300.09			2.410E-02	4.411E-01	7.453E-01	6.293E-02	0.032
BI-214	609.32	*		2.735E-02	4.809E-02	8.369E-02	6.345E-03	0.327
	1120.29			6.064E-02	1.655E-01	2.894E-01	2.706E-02	0.210
	1764.49			3.316E-03	1.317E-01	2.199E-01	1.367E-02	0.015
	74.82			-1.813E-01	3.733E-01	5.574E-01	6.642E-02	-0.325
PB-214	77.11			-6.180E-02	1.859E-01	3.022E-01	3.689E-02	-0.205
	242.00			-1.480E-01	2.365E-01	3.597E-01	2.909E-02	-0.411
	295.22			4.515E-02	8.895E-02	1.484E-01	1.301E-02	0.304
	351.93	*		2.963E-02	4.596E-02	7.838E-02	6.692E-03	0.378
RN-219	271.23			-3.337E-02	1.325E-01	2.059E-01	1.652E-02	-0.162
	401.81	*		-1.131E-01	2.212E-01	3.429E-01	4.607E-02	-0.330
RA-223	81.07			-5.091E-02	1.111E-01	1.787E-01	1.649E-02	-0.285
	83.79			-1.452E-03	6.408E-02	1.064E-01	1.002E-02	-0.014
	94.87			-5.855E-01	2.571E-01	3.468E-01	2.961E-02	-1.688
	144.24			-6.776E-01	4.175E-01	5.428E-01	3.745E-02	-1.248
	154.21			2.480E-02	1.994E-01	3.289E-01	2.145E-02	0.075
	269.46			-3.841E-02	1.075E-01	1.654E-01	9.979E-03	-0.232
	323.87	*		-4.908E-01	3.952E-01	5.233E-01	8.455E-02	-0.938
	338.28			3.279E-01	5.466E-01	9.639E-01	9.938E-02	0.340
RA-224	240.99	*		-1.731E-02	4.163E-01	6.659E-01	3.752E-02	-0.026
RA-226	609.32	*		2.735E-02	4.809E-02	8.369E-02	6.345E-03	0.327
	1120.29			6.064E-02	1.655E-01	2.894E-01	2.706E-02	0.210
	1764.49			3.316E-03	1.317E-01	2.199E-01	1.367E-02	0.015
AC-227	79.69			2.688E-01	6.274E-01	1.073E+00	1.878E-01	0.251
	235.96			4.150E-02	9.099E-02	1.515E-01	1.212E-02	0.274
	256.23	*		-2.328E-02	1.474E-01	2.321E-01	2.362E-02	-0.100
	299.98			-1.189E-01	4.958E-01	8.154E-01	8.995E-02	-0.146
	304.50			-7.652E-02	1.005E+00	1.677E+00	2.563E-01	-0.046
	334.37			-1.089E+00	1.041E+00	1.546E+00	2.205E-01	-0.704
TH-227	79.80			3.336E-01	8.258E-01	1.408E+00	3.097E-01	0.237
	235.96			4.150E-02	9.098E-02	1.515E-01	1.096E-02	0.274
	256.23	*		-2.328E-02	1.474E-01	2.321E-01	2.780E-02	-0.100
	299.98			-1.189E-01	4.958E-01	8.154E-01	8.995E-02	-0.146
	304.50			-7.652E-02	1.005E+00	1.677E+00	2.563E-01	-0.046
	334.37			-1.089E+00	1.041E+00	1.546E+00	2.205E-01	-0.704
AC-228	338.32			8.548E-02	1.422E-01	2.438E-01	1.006E-01	0.351
	911.20	*		-1.313E-02	9.460E-02	1.504E-01	1.786E-02	-0.087
	968.97			5.421E-02	1.303E-01	2.309E-01	5.614E-02	0.235
RA-228	338.32			8.548E-02	1.422E-01	2.438E-01	1.006E-01	0.351
	911.20	*		-1.313E-02	9.460E-02	1.504E-01	1.786E-02	-0.087
	968.97			5.421E-02	1.303E-01	2.309E-01	5.614E-02	0.235
TH-228	74.82			-1.023E-01	2.105E-01	3.145E-01	2.821E-02	-0.325
	77.11			-3.506E-02	1.054E-01	1.714E-01	1.542E-02	-0.204
	238.63	*		-2.235E-02	4.363E-02	6.482E-02	4.702E-03	-0.345
TH-229	300.09			2.410E-02	4.413E-01	7.453E-01	4.538E-01	0.032
	85.43			6.709E-02	1.051E-01	1.818E-01	1.736E-02	0.369

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	88.47			-1.197E-01	6.808E-02	9.793E-02	9.470E-03	-1.222
	193.51	*		-1.085E-01	3.009E-01	4.719E-01	2.499E-02	-0.230
	210.85			1.658E-02	4.829E-01	7.814E-01	4.242E-02	0.021
PA-231	283.69	*		-2.294E-01	8.431E-01	1.386E+00	1.820E-01	-0.166
	301.36			1.080E-01	3.246E-01	5.611E-01	5.830E-02	0.192
TH-231	81.07			-5.091E-02	1.111E-01	1.787E-01	1.649E-02	-0.285
	83.79			-1.452E-03	6.408E-02	1.064E-01	1.002E-02	-0.014
	94.87			-5.855E-01	2.571E-01	3.468E-01	2.961E-02	-1.688
	144.24			-6.776E-01	4.175E-01	5.428E-01	3.745E-02	-1.248
	154.21			2.480E-02	1.994E-01	3.289E-01	2.145E-02	0.075
	269.46			-3.841E-02	1.075E-01	1.654E-01	9.979E-03	-0.232
	323.87	*		-4.908E-01	3.952E-01	5.233E-01	8.455E-02	-0.938
	338.28			3.279E-01	5.466E-01	9.639E-01	9.938E-02	0.340
TH-232	338.32			8.548E-02	1.379E-01	2.438E-01	1.440E-02	0.351
	911.20	*		-1.313E-02	9.460E-02	1.504E-01	1.786E-02	-0.087
	968.97			5.421E-02	1.303E-01	2.309E-01	5.614E-02	0.235
PA-233	300.13			1.375E-02	2.197E-01	3.716E-01	4.988E-02	0.037
	311.90	*		-1.222E-02	3.875E-02	6.312E-02	3.947E-03	-0.194
	340.48			1.796E-01	3.496E-01	6.089E-01	1.415E-01	0.295
PA-234	94.67			-9.381E-02	8.703E-02	1.314E-01	1.625E-02	-0.714
	98.44			1.144E-02	4.889E-02	8.166E-02	4.549E-02	0.140
	111.00			-2.237E-02	9.813E-02	1.589E-01	1.719E-02	-0.141
	131.20			6.000E-03	5.601E-02	9.269E-02	5.239E-03	0.065
	569.50			2.573E-01	1.903E-01	3.565E-01	2.009E-02	0.722
	733.00			1.546E-01	1.900E-01	3.474E-01	7.424E-02	0.445
	880.51			9.970E-02	1.528E-01	2.829E-01	2.480E-02	0.352
	883.24			-2.252E-01	2.218E-01	1.936E-01	1.302E-01	-1.163
	926.50			-2.371E-02	1.011E-01	1.606E-01	4.073E-02	-0.148
	946.00	*		1.249E-01	1.486E-01	2.837E-01	5.333E-02	0.440
	949.00			-9.816E-02	2.322E-01	3.518E-01	3.049E-02	-0.279
PA-234M	766.42			8.303E+00	8.497E+00	1.368E+01	6.903E+00	0.607
	1001.03	*		-6.516E-01	2.734E+00	4.580E+00	4.370E-01	-0.142
TH-234	63.29	*		-8.986E-01	8.636E-01	1.247E+00	2.294E-01	-0.720
	92.59			1.166E-01	3.852E-01	6.779E-01	1.504E-01	0.172
U-235	89.96			-4.162E-01	4.564E-01	6.911E-01	1.720E-01	-0.602
	93.35			-8.788E-02	2.865E-01	4.875E-01	1.129E-01	-0.180
	143.76	*		-1.767E-01	1.266E-01	1.652E-01	2.572E-02	-1.070
	163.33			3.823E-02	2.505E-01	4.128E-01	6.837E-02	0.093
	185.72			-1.570E-02	2.846E-02	4.366E-02	2.286E-03	-0.360
	205.31			4.370E-02	2.672E-01	4.376E-01	7.374E-02	0.100
NP-237	86.48	*		6.246E-02	1.215E-01	2.076E-01	4.791E-02	0.301
	95.86			-1.632E+00	6.466E-01	6.411E-01	1.533E-01	-2.545
U-238	63.29	*		-8.986E-01	8.636E-01	1.247E+00	2.294E-01	-0.720
	92.59			1.166E-01	3.845E-01	6.779E-01	6.033E-02	0.172
NP-239	99.53			9.383E-02	8.826E-02	1.568E-01	1.238E-02	0.598
	103.37			1.878E-02	5.698E-02	9.636E-02	7.181E-03	0.195
	106.12			-9.187E-03	4.597E-02	7.477E-02	5.360E-03	-0.123
	117.23	*		-4.064E-02	2.258E-01	3.667E-01	2.282E-02	-0.111
	228.18			8.531E-03	1.258E-01	2.035E-01	1.130E-02	0.042

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	277.60			-6.863E-03	1.029E-01	1.630E-01	9.476E-03	-0.042
AM-241	59.54	*		-6.979E-02	9.311E-02	1.466E-01	1.364E-02	-0.476
CM-247	278.00			1.229E-05	4.079E-01	6.880E-01	4.001E-02	0.000
	287.50			6.055E-01	7.272E-01	1.310E+00	7.658E-02	0.462
	402.40	*		-9.570E-03	2.006E-02	3.130E-02	1.814E-03	-0.306
CF-249	252.80			4.449E-02	5.602E-01	9.043E-01	5.156E-02	0.049
	333.37			-5.374E-02	1.169E-01	1.766E-01	1.043E-02	-0.304
	388.16	*		-1.044E-03	2.486E-02	4.116E-02	2.381E-03	-0.025
CF-251	177.52	*		-3.451E-02	7.445E-02	1.162E-01	6.012E-03	-0.297
	227.38			-2.740E-02	2.151E-01	3.420E-01	1.897E-02	-0.080
	285.41			-6.574E-01	1.327E+00	2.139E+00	1.249E-01	-0.307
ANH-511	511.00	*		-1.086E-02	3.452E-02	6.526E-02	3.791E-03	-0.166

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]G1202057358      *
* Acquisition date   : 22-MAR-2010 10:34:48 Detector SN#                   *
* Detector ID        : GAM23 Sensitivity : 5.000                          *
* Geometry           : CAN Energy tolerance: 1.500                        *
* Elapsed live time  : 0 02:00:00.00 Abundance limit : 75.000             *
* Elapsed real time  : 0 02:00:00.84 Half life ratio : 8.000              *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 4-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID          : G1202057358 Analyst initials: MXR1                 *
* Batch Number       : 959281 Sample Quantity : 1.3271E+02 GRAM          *
* Recovery           : 1.00000 Carrier Weight : 0.00000                  *
*****
*                                     QC DATA                                *
*
* Standard Weight    : 0.00000                                              *
* CALIB. DATE/TIME   : 2-JUN-2009 11:17:00 MS Isotope :                   *
* MSD DPM             : 0.000 MSD Isotope :                               *
* LCS DPM             : 0.000 LCS Isotope :                               *
* LCSD DPM           : 0.000 LCSD Isotope :                               *
*****

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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)
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---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)	
BE-7	9.826E-02	2.058E-01	3.726E-01	0.000E+00 NOT IDENT.
NA-22	2.407E-02	2.475E-02	4.883E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	1.671E+07	0.000E+00	0.000E+00 SHORT HLIF
K-40	-5.972E-02	2.960E-01	4.802E-01	0.000E+00 NOT IDENT.
SC-46	1.669E-02	2.474E-02	4.667E-02	0.000E+00 NOT IDENT.
V-48	-4.167E-02	4.843E-02	6.911E-02	0.000E+00 NOT IDENT.
CR-51	1.661E-01	2.297E-01	4.306E-01	0.000E+00 NOT IDENT.
MN-54	1.556E-02	2.196E-02	4.156E-02	0.000E+00 NOT IDENT.
CO-56	-4.942E-03	2.517E-02	4.034E-02	0.000E+00 NOT IDENT.
CO-57	7.576E-03	1.371E-02	2.504E-02	0.000E+00 NOT IDENT.
CO-58	-8.357E-04	2.335E-02	4.017E-02	0.000E+00 NOT IDENT.
FE-59	1.579E-02	4.899E-02	8.804E-02	0.000E+00 NOT IDENT.
CO-60	1.008E-02	1.828E-02	3.492E-02	0.000E+00 NOT IDENT.
ZN-65	1.909E-03	5.368E-02	9.114E-02	0.000E+00 NOT IDENT.
SE-75	1.866E-02	2.819E-02	5.029E-02	0.000E+00 NOT IDENT.
SR-85	-7.357E-02	3.742E-02	5.342E-02	0.000E+00 NOT IDENT.
Y-88	1.166E-02	2.636E-02	4.930E-02	0.000E+00 NOT IDENT.
Y-91	-1.483E+00	1.185E+01	1.939E+01	0.000E+00 NOT IDENT.
NB-94	8.540E-04	2.071E-02	3.480E-02	0.000E+00 NOT IDENT.
NB-95	2.202E-02	2.876E-02	5.260E-02	0.000E+00 NOT IDENT.
NB-95M	2.567E-02	7.549E-02	1.314E-01	0.000E+00 NOT IDENT.
ZR-95	-3.677E-02	4.719E-02	6.800E-02	0.000E+00 NOT IDENT.
MO-99	-8.372E-01	1.617E+01	2.665E+01	0.000E+00 NOT IDENT.
TC-99M	0.000E+00	2.163E+20	0.000E+00	0.000E+00 SHORT HLIF
RU-103	-1.216E-02	2.270E-02	3.574E-02	0.000E+00 NOT IDENT.
RH-106	-7.223E-02	1.990E-01	3.177E-01	0.000E+00 NOT IDENT.

RU-106	-7.223E-02	1.989E-01	3.177E-01	0.000E+00	NOT IDENT.
AG-108M	5.610E-03	1.647E-02	2.960E-02	0.000E+00	NOT IDENT.
CD-109	-4.791E-01	4.314E-01	7.070E-01	0.000E+00	NOT IDENT.
AG-110M	4.491E-03	2.157E-02	3.727E-02	0.000E+00	NOT IDENT.
SN-113	1.972E-02	2.891E-02	5.347E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	1.887E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	1.000E-03	3.606E-02	6.257E-02	0.000E+00	NOT IDENT.
TE-123M	4.824E-03	1.625E-02	2.877E-02	0.000E+00	NOT IDENT.
SB-124	-3.071E-02	4.408E-02	5.389E-02	0.000E+00	NOT IDENT.
SB-125	3.730E-02	5.397E-02	1.003E-01	0.000E+00	NOT IDENT.
TE-125M	-3.026E-01	5.247E+00	9.211E+00	0.000E+00	NOT IDENT.
I-126	-9.838E-02	1.412E-01	2.075E-01	0.000E+00	NOT IDENT.
SB-126	-5.372E-02	1.058E-01	1.619E-01	0.000E+00	NOT IDENT.
SN-126	-1.059E-02	3.958E-02	6.917E-02	0.000E+00	NOT IDENT.
SB-127	3.591E-01	1.534E+00	2.652E+00	0.000E+00	NOT IDENT.
I-131	6.802E-02	9.855E-02	1.748E-01	0.000E+00	NOT IDENT.
TE-132	7.239E-02	8.560E-01	1.464E+00	0.000E+00	NOT IDENT.
BA-133	-1.127E-02	2.624E-02	4.032E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.188E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-5.282E-03	2.747E-02	4.627E-02	0.000E+00	NOT IDENT.
CS-135	2.078E-02	9.240E-02	1.587E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.573E+19	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.389E-02	6.640E-02	1.078E-01	0.000E+00	NOT IDENT.
BA-137M	1.551E-02	1.985E-02	3.717E-02	0.000E+00	NOT IDENT.
CS-137	1.638E-02	2.096E-02	3.927E-02	0.000E+00	NOT IDENT.
CE-139	1.072E-03	1.774E-02	2.911E-02	0.000E+00	NOT IDENT.
BA-140	1.292E-01	1.830E-01	3.330E-01	0.000E+00	NOT IDENT.
LA-140	2.509E-03	5.232E-02	9.033E-02	0.000E+00	NOT IDENT.
CE-141	-1.289E-02	3.403E-02	5.732E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.896E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.339E-02	1.020E-01	1.732E-01	0.000E+00	NOT IDENT.
PM-144	6.503E-03	2.252E-02	3.911E-02	0.000E+00	NOT IDENT.
PR-144	4.921E-01	1.689E+00	2.934E+00	0.000E+00	NOT IDENT.
PM-146	-1.251E-03	2.441E-02	4.178E-02	0.000E+00	NOT IDENT.
ND-147	-1.930E-01	4.156E-01	6.620E-01	0.000E+00	NOT IDENT.
PM-149	0.000E+00	1.527E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	4.339E-03	5.665E-02	9.999E-02	0.000E+00	NOT IDENT.
GD-153	-1.570E-02	4.294E-02	7.391E-02	0.000E+00	NOT IDENT.
EU-154	6.952E-02	7.047E-02	1.389E-01	0.000E+00	NOT IDENT.
EU-155	1.385E-02	5.638E-02	1.014E-01	0.000E+00	NOT IDENT.
TB-160	2.849E-03	8.281E-02	1.432E-01	0.000E+00	NOT IDENT.
HO-166M	-2.286E-02	3.960E-02	6.032E-02	0.000E+00	NOT IDENT.
TA-182	5.703E-02	8.882E-02	1.687E-01	0.000E+00	NOT IDENT.
IR-192	9.143E-03	2.174E-02	3.968E-02	0.000E+00	NOT IDENT.
HG-203	7.225E-03	2.217E-02	4.042E-02	0.000E+00	NOT IDENT.
BI-207	2.897E-02	2.760E-02	5.553E-02	0.000E+00	NOT IDENT.
TL-208	-6.885E-03	2.701E-02	4.296E-02	0.000E+00	NOT IDENT.
PB-210	2.437E-01	3.290E+00	5.831E+00	0.000E+00	NOT IDENT.
BI-211	1.399E-02	1.305E-01	2.226E-01	0.000E+00	NOT IDENT.
PB-211	-1.567E-01	3.699E-01	5.941E-01	0.000E+00	NOT IDENT.
BI-212	5.681E-02	2.592E-01	4.486E-01	0.000E+00	NOT IDENT.
PB-212	-2.235E-02	4.276E-02	6.700E-02	0.000E+00	NOT IDENT.
BI-214	2.735E-02	4.713E-02	8.512E-02	0.000E+00	NOT IDENT.
PB-214	2.963E-02	4.504E-02	8.048E-02	0.000E+00	NOT IDENT.
RN-219	-1.131E-01	2.167E-01	3.513E-01	0.000E+00	NOT IDENT.
RA-223	-4.908E-01	3.873E-01	5.381E-01	0.000E+00	NOT IDENT.
RA-224	-1.731E-02	4.080E-01	6.881E-01	0.000E+00	NOT IDENT.
RA-226	2.735E-02	4.713E-02	8.512E-02	0.000E+00	NOT IDENT.
AC-227	-2.328E-02	1.445E-01	2.396E-01	0.000E+00	NOT IDENT.
TH-227	-2.328E-02	1.445E-01	2.396E-01	0.000E+00	NOT IDENT.
AC-228	-1.313E-02	9.271E-02	1.519E-01	0.000E+00	NOT IDENT.
RA-228	-1.313E-02	9.271E-02	1.519E-01	0.000E+00	NOT IDENT.
TH-228	-2.235E-02	4.276E-02	6.700E-02	0.000E+00	NOT IDENT.
TH-229	-1.085E-01	2.949E-01	4.895E-01	0.000E+00	NOT IDENT.
PA-231	-2.294E-01	8.263E-01	1.428E+00	0.000E+00	NOT IDENT.
TH-231	-4.908E-01	3.873E-01	5.381E-01	0.000E+00	NOT IDENT.
TH-232	-1.313E-02	9.271E-02	1.519E-01	0.000E+00	NOT IDENT.
PA-233	-1.222E-02	3.797E-02	6.495E-02	0.000E+00	NOT IDENT.
PA-234	1.249E-01	1.456E-01	2.863E-01	0.000E+00	NOT IDENT.
PA-234M	-6.516E-01	2.680E+00	4.618E+00	0.000E+00	NOT IDENT.
TH-234	-8.986E-01	8.463E-01	1.318E+00	0.000E+00	NOT IDENT.
U-235	-1.767E-01	1.241E-01	1.722E-01	0.000E+00	NOT IDENT.
NP-237	6.246E-02	1.191E-01	2.182E-01	0.000E+00	NOT IDENT.
U-238	-8.986E-01	8.463E-01	1.318E+00	0.000E+00	NOT IDENT.
NP-239	-4.064E-02	2.212E-01	3.835E-01	0.000E+00	NOT IDENT.
AM-241	-6.979E-02	9.125E-02	1.551E-01	0.000E+00	NOT IDENT.
CM-247	-9.570E-03	1.966E-02	3.206E-02	0.000E+00	NOT IDENT.
CF-249	-1.044E-03	2.436E-02	4.219E-02	0.000E+00	NOT IDENT.

CF-251	-3.451E-02	7.296E-02	1.207E-01	0.000E+00	NOT IDENT.
ANH-511	-1.086E-02	3.383E-02	6.658E-02	0.000E+00	NOT IDENT.

```

*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                     *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057358.CNF;2
Sample date        : 4-MAR-2010 00:00:00. Acquisition date : 22-MAR-2010 10:34:48
Sample ID          : G1202057358          Sample quantity  : 1.32710E+02 GRAM
Detector name      : GAM23                Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00        Elapsed real time: 0 02:00:00.84  0.0%
Energy tolerance   : 1.50000 keV          Analyst Initials : MXR1
Abundance limit    : 75.00000             Sensitivity       : 5.00000
Batch ID           : 959281               Detector SN#      :
Matrix Spike ID    :                     LCS ID           : 1032-A
*****

```

Nuclide Line Activity Report

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G1202057358

Page : 2
Acquisition date : 22-MAR-2010 10:34:48

Total number of lines in spectrum	1	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	0	0.00%

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G1202057358

Page : 3
Acquisition date : 22-MAR-2010 10:34:48

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	776.06	20	17	3.52	1552.11	1545	14	2.75E-03	****	1.77E+00	

Flags: "T" = Tentatively associated

```

*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                   *
*****
*                               DETECTOR DATA                          *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057358.CNF;2
* Acquisition date   : 22-MAR-2010 10:34:48  Detector SN#      :
* Detector ID        : GAM23                  Sensitivity       : 5.00000
* Geometry           : CAN                    Energy tolerance: 1.50000
* Elapsed live time  : 0 02:00:00.00          Abundance limit  : 75.00000
* Elapsed real time  : 0 02:00:00.84          Half life ratio  : 8.00000
*****
*                               SAMPLE DATA                             *
*
* Sample date        : 4-MAR-2010 00:00:00.  Nuclide Library : SOLID
* Sample ID          : G1202057358           Analyst initials: MXR1
* Batch Number       : 959281                Sample Quantity : 1.32710E+02 GRAM
*****
*                               QC DATA                                *
*
* CALIB. DATE/TIME   : 2-JUN-2009 11:17:00.62MS Isotope      :
* MSD ID              :                      MSD Isotope      :
* LCS ID              : 1032-A                LCS Isotope      :
*****

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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	9.826E-02		2.100E-01	3.648E-01	2.478E-02	0.269
NA-22	2.407E-02		2.525E-02	4.863E-02	3.266E-03	0.495
NA-24	1.321E+00		8.528E+00	Half-Life too short		
K-40	-5.972E-02		3.020E-01	4.795E-01	3.587E-02	-0.125
SC-46	1.669E-02		2.524E-02	4.619E-02	4.127E-03	0.361
V-48	-4.167E-02		4.942E-02	6.852E-02	5.700E-03	-0.608
CR-51	1.661E-01		2.344E-01	4.187E-01	2.741E-02	0.397
MN-54	1.556E-02		2.240E-02	4.109E-02	3.254E-03	0.379
CO-56	-4.942E-03		2.568E-02	3.989E-02	3.245E-03	-0.124
CO-57	7.576E-03		1.399E-02	2.396E-02	1.412E-03	0.316
CO-58	-8.357E-04		2.383E-02	3.969E-02	2.982E-03	-0.021
FE-59	1.579E-02		4.999E-02	8.746E-02	6.734E-03	0.181
CO-60	1.008E-02		1.865E-02	3.481E-02	2.556E-03	0.290
ZN-65	1.909E-03		5.477E-02	9.056E-02	5.981E-03	0.021
SE-75	1.866E-02		2.876E-02	4.874E-02	2.838E-03	0.383
SR-85	-7.357E-02		3.818E-02	5.237E-02	3.039E-03	-1.405
Y-88	1.166E-02		2.690E-02	4.943E-02	2.910E-03	0.236

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	-1.483E+00		1.209E+01	1.930E+01	1.151E+00	-0.077
NB-94	8.540E-04		2.114E-02	3.430E-02	1.960E-03	0.025
NB-95	2.202E-02		2.935E-02	5.192E-02	3.489E-03	0.424
NB-95M	2.567E-02		7.703E-02	1.271E-01	9.410E-03	0.202
ZR-95	-3.677E-02		4.816E-02	6.711E-02	5.178E-03	-0.548
MO-99	-8.372E-01		1.650E+01	2.629E+01	3.843E+00	-0.032
TC-99M	3.401E+12		1.104E+14	Half-Life	too short	
RU-103	-1.216E-02		2.317E-02	3.501E-02	4.356E-03	-0.347
RH-106	-7.223E-02		2.031E-01	3.125E-01	3.567E-02	-0.231
RU-106	-7.223E-02		2.029E-01	3.125E-01	1.679E-02	-0.231
AG-108M	5.610E-03		1.680E-02	2.893E-02	1.808E-03	0.194
CD-109	-4.791E-01		4.402E-01	6.728E-01	6.568E-02	-0.712
AG-110M	4.491E-03		2.201E-02	3.669E-02	2.039E-03	0.122
SN-113	1.972E-02		2.950E-02	5.217E-02	3.214E-03	0.378
CD-115	6.820E-06		9.625E-06	Half-Life	too short	
SN-117M	1.000E-03		3.679E-02	6.012E-02	3.124E-03	0.017
TE-123M	4.824E-03		1.659E-02	2.765E-02	1.459E-03	0.174
SB-124	-3.071E-02		4.498E-02	5.395E-02	3.776E-03	-0.569
SB-125	3.730E-02		5.507E-02	9.797E-02	5.952E-03	0.381
TE-125M	-3.026E-01		5.354E+00	8.796E+00	8.011E-01	-0.034
I-126	-9.838E-02		1.441E-01	2.043E-01	1.057E-02	-0.481
SB-126	-5.372E-02		1.080E-01	1.596E-01	9.565E-03	-0.337
SN-126	-1.059E-02		4.039E-02	6.581E-02	6.404E-03	-0.161
SB-127	3.591E-01		1.565E+00	2.612E+00	2.730E-01	0.137
I-131	6.802E-02		1.006E-01	1.704E-01	1.118E-02	0.399
TE-132	7.239E-02		8.734E-01	1.415E+00	2.144E-01	0.051
BA-133	-1.127E-02		2.678E-02	3.927E-02	4.445E-03	-0.287
I-133	1.112E-02		2.647E-02	Half-Life	too short	
CS-134	-5.282E-03		2.803E-02	4.571E-02	3.338E-03	-0.116
CS-135	2.078E-02		9.429E-02	1.538E-01	1.175E-02	0.135
I-135	-1.869E+12		8.027E+12	Half-Life	too short	
CS-136	-1.389E-02		6.775E-02	1.070E-01	8.528E-03	-0.130
BA-137M	1.551E-02		2.025E-02	3.660E-02	1.870E-03	0.424
CS-137	1.638E-02		2.139E-02	3.867E-02	1.986E-03	0.424
CE-139	1.072E-03		1.810E-02	2.799E-02	1.427E-03	0.038
BA-140	1.292E-01		1.867E-01	3.267E-01	1.088E-01	0.396
LA-140	2.509E-03		5.338E-02	9.034E-02	6.198E-03	0.028
CE-141	-1.289E-02		3.473E-02	5.500E-02	3.103E-03	-0.234
CE-143	2.869E-04		1.988E-04	Half-Life	too short	
CE-144	-3.339E-02		1.041E-01	1.659E-01	2.291E-02	-0.201
PM-144	6.503E-03		2.298E-02	3.854E-02	2.169E-03	0.169
PR-144	4.921E-01		1.723E+00	2.891E+00	1.625E-01	0.170
PM-146	-1.251E-03		2.491E-02	4.086E-02	3.472E-03	-0.031
ND-147	-1.930E-01		4.241E-01	6.493E-01	8.770E-02	-0.297
PM-149	-3.303E-05		7.793E-05	Half-Life	too short	
EU-152	4.339E-03		5.780E-02	9.735E-02	6.447E-03	0.045
GD-153	-1.570E-02		4.382E-02	7.045E-02	5.755E-03	-0.223
EU-154	6.952E-02		7.191E-02	1.384E-01	1.385E-02	0.502

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	1.385E-02		5.754E-02	9.674E-02	7.129E-03	0.143
TB-160	2.849E-03		8.450E-02	1.417E-01	1.239E-02	0.020
HO-166M	-2.286E-02		4.040E-02	5.946E-02	3.480E-03	-0.384
TA-182	5.703E-02		9.063E-02	1.679E-01	1.031E-02	0.340
IR-192	9.143E-03		2.219E-02	3.858E-02	2.289E-03	0.237
HG-203	7.225E-03		2.263E-02	3.921E-02	2.408E-03	0.184
BI-207	2.897E-02		2.817E-02	5.513E-02	4.050E-03	0.526
TL-208	-6.885E-03		2.756E-02	4.220E-02	2.733E-03	-0.163
PB-210	2.437E-01		3.357E+00	5.492E+00	4.243E-01	0.044
BI-211	1.399E-02		1.331E-01	2.168E-01	1.413E-02	0.065
PB-211	-1.567E-01		3.774E-01	5.800E-01	2.782E-01	-0.270
BI-212	5.681E-02		2.645E-01	4.424E-01	4.807E-02	0.128
PB-212	-2.235E-02		4.363E-02	6.482E-02	4.702E-03	-0.345
BI-214	2.735E-02		4.809E-02	8.369E-02	6.345E-03	0.327
PB-214	2.963E-02		4.596E-02	7.838E-02	6.692E-03	0.378
RN-219	-1.131E-01		2.212E-01	3.429E-01	4.607E-02	-0.330
RA-223	-4.908E-01		3.952E-01	5.233E-01	8.455E-02	-0.938
RA-224	-1.731E-02		4.163E-01	6.659E-01	3.752E-02	-0.026
RA-226	2.735E-02		4.809E-02	8.369E-02	6.345E-03	0.327
AC-227	-2.328E-02		1.474E-01	2.321E-01	2.362E-02	-0.100
TH-227	-2.328E-02		1.474E-01	2.321E-01	2.780E-02	-0.100
AC-228	-1.313E-02		9.460E-02	1.504E-01	1.786E-02	-0.087
RA-228	-1.313E-02		9.460E-02	1.504E-01	1.786E-02	-0.087
TH-228	-2.235E-02		4.363E-02	6.482E-02	4.702E-03	-0.345
TH-229	-1.085E-01		3.009E-01	4.719E-01	2.499E-02	-0.230
PA-231	-2.294E-01		8.431E-01	1.386E+00	1.820E-01	-0.166
TH-231	-4.908E-01		3.952E-01	5.233E-01	8.455E-02	-0.938
TH-232	-1.313E-02		9.460E-02	1.504E-01	1.786E-02	-0.087
PA-233	-1.222E-02		3.875E-02	6.312E-02	3.947E-03	-0.194
PA-234	1.249E-01		1.486E-01	2.837E-01	5.333E-02	0.440
PA-234M	-6.516E-01		2.734E+00	4.580E+00	4.370E-01	-0.142
TH-234	-8.986E-01		8.636E-01	1.247E+00	2.294E-01	-0.720
U-235	-1.767E-01		1.266E-01	1.652E-01	2.572E-02	-1.070
NP-237	6.246E-02		1.215E-01	2.076E-01	4.791E-02	0.301
U-238	-8.986E-01		8.636E-01	1.247E+00	2.294E-01	-0.720
NP-239	-4.064E-02		2.258E-01	3.667E-01	2.282E-02	-0.111
AM-241	-6.979E-02		9.311E-02	1.466E-01	1.364E-02	-0.476
CM-247	-9.570E-03		2.006E-02	3.130E-02	1.814E-03	-0.306
CF-249	-1.044E-03		2.486E-02	4.116E-02	2.381E-03	-0.025
CF-251	-3.451E-02		7.445E-02	1.162E-01	6.012E-03	-0.297
ANH-511	-1.086E-02		3.452E-02	6.526E-02	3.791E-03	-0.166

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]G1202057358          *
* Acquisition date   : 22-MAR-2010 10:34:48 Detector SN#      :              *
* Detector ID        : GAM23 Sensitivity      : 5.000              *
* Geometry           : CAN Energy tolerance: 1.500              *
* Elapsed live time  : 0 02:00:00.00 Abundance limit : 75.000      *
* Elapsed real time  : 0 02:00:00.84 Half life ratio : 8.000      *
*****
*                                     SAMPLE DATA                          *
*
* Sample date        : 4-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID          : G1202057358 Analyst initials: MXR1          *
* Batch Number       : 959281 Sample Quantity : 1.3271E+02 GRAM      *
* Recovery           : 1.00000 Carrier Weight : 0.00000            *
*****
*                                     QC DATA                             *
*
* CALIB. DATE/TIME  : 2-JUN-2009 11:17:00 MS Isotope           :          *
* MSD DPM            : 0.000 MSD Isotope                       :          *
* LCS DPM            : 0.000 LCS Isotope                       :          *
* LCSD DPM          : 0.000 LCSD Isotope                      :          *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act Error	DLC (pCi/GRAM)	TPU
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---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	9.826E-02	2.058E-01	1.864E-01	1.050E-01 NOT IDENT.
NA-22	2.407E-02	2.475E-02	2.443E-02	1.263E-02 NOT IDENT.
NA-24	1.321E+06	1.671E+07	0.000E+00	8.528E+06 SHORT HLIF
K-40	-5.972E-02	2.960E-01	2.402E-01	1.510E-01 NOT IDENT.
SC-46	1.669E-02	2.474E-02	2.335E-02	1.262E-02 NOT IDENT.
V-48	-4.167E-02	4.843E-02	3.457E-02	2.471E-02 NOT IDENT.
CR-51	1.661E-01	2.297E-01	2.154E-01	1.172E-01 NOT IDENT.
MN-54	1.556E-02	2.196E-02	2.079E-02	1.120E-02 NOT IDENT.
CO-56	-4.942E-03	2.517E-02	2.018E-02	1.284E-02 NOT IDENT.
CO-57	7.576E-03	1.371E-02	1.253E-02	6.997E-03 NOT IDENT.
CO-58	-8.357E-04	2.335E-02	2.010E-02	1.192E-02 NOT IDENT.
FE-59	1.579E-02	4.899E-02	4.404E-02	2.500E-02 NOT IDENT.
CO-60	1.008E-02	1.828E-02	1.747E-02	9.324E-03 NOT IDENT.
ZN-65	1.909E-03	5.368E-02	4.560E-02	2.739E-02 NOT IDENT.
SE-75	1.866E-02	2.819E-02	2.516E-02	1.438E-02 NOT IDENT.
SR-85	-7.357E-02	3.742E-02	2.673E-02	1.909E-02 NOT IDENT.
Y-88	1.166E-02	2.636E-02	2.466E-02	1.345E-02 NOT IDENT.
Y-91	-1.483E+00	1.185E+01	9.702E+00	6.045E+00 NOT IDENT.
NB-94	8.540E-04	2.071E-02	1.741E-02	1.057E-02 NOT IDENT.
NB-95	2.202E-02	2.876E-02	2.631E-02	1.468E-02 NOT IDENT.
NB-95M	2.567E-02	7.549E-02	6.575E-02	3.851E-02 NOT IDENT.
ZR-95	-3.677E-02	4.719E-02	3.402E-02	2.408E-02 NOT IDENT.
MO-99	-8.372E-01	1.617E+01	1.333E+01	8.248E+00 NOT IDENT.
TC-99M	3.401E+18	2.163E+20	0.000E+00	0.000E+00 SHORT HLIF
RU-103	-1.216E-02	2.270E-02	1.788E-02	1.158E-02 NOT IDENT.
RH-106	-7.223E-02	1.990E-01	1.590E-01	1.015E-01 NOT IDENT.

RU-106	-7.223E-02	1.989E-01	1.590E-01	1.015E-01	NOT IDENT.
AG-108M	5.610E-03	1.647E-02	1.481E-02	8.401E-03	NOT IDENT.
CD-109	-4.791E-01	4.314E-01	3.537E-01	2.201E-01	NOT IDENT.
AG-110M	4.491E-03	2.157E-02	1.865E-02	1.100E-02	NOT IDENT.
SN-113	1.972E-02	2.891E-02	2.675E-02	1.475E-02	NOT IDENT.
CD-115	6.820E+00	1.887E+01	0.000E+00	9.625E+00	SHORT HLIF
SN-117M	1.000E-03	3.606E-02	3.130E-02	1.840E-02	NOT IDENT.
TE-123M	4.824E-03	1.625E-02	1.440E-02	8.293E-03	NOT IDENT.
SB-124	-3.071E-02	4.408E-02	2.696E-02	2.249E-02	NOT IDENT.
SB-125	3.730E-02	5.397E-02	5.016E-02	2.754E-02	NOT IDENT.
TE-125M	-3.026E-01	5.247E+00	4.608E+00	2.677E+00	NOT IDENT.
I-126	-9.838E-02	1.412E-01	1.038E-01	7.204E-02	NOT IDENT.
SB-126	-5.372E-02	1.058E-01	8.098E-02	5.398E-02	NOT IDENT.
SN-126	-1.059E-02	3.958E-02	3.460E-02	2.019E-02	NOT IDENT.
SB-127	3.591E-01	1.534E+00	1.327E+00	7.826E-01	NOT IDENT.
I-131	6.802E-02	9.855E-02	8.747E-02	5.028E-02	NOT IDENT.
TE-132	7.239E-02	8.560E-01	7.324E-01	4.367E-01	NOT IDENT.
BA-133	-1.127E-02	2.624E-02	2.017E-02	1.339E-02	NOT IDENT.
I-133	1.112E+04	5.188E+04	0.000E+00	2.647E+04	SHORT HLIF
CS-134	-5.282E-03	2.747E-02	2.315E-02	1.401E-02	NOT IDENT.
CS-135	2.078E-02	9.240E-02	7.939E-02	4.714E-02	NOT IDENT.
I-135	-1.869E+18	1.573E+19	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.389E-02	6.640E-02	5.394E-02	3.388E-02	NOT IDENT.
BA-137M	1.551E-02	1.985E-02	1.860E-02	1.013E-02	NOT IDENT.
CS-137	1.638E-02	2.096E-02	1.965E-02	1.070E-02	NOT IDENT.
CE-139	1.072E-03	1.774E-02	1.456E-02	9.052E-03	NOT IDENT.
BA-140	1.292E-01	1.830E-01	1.666E-01	9.335E-02	NOT IDENT.
LA-140	2.509E-03	5.232E-02	4.519E-02	2.669E-02	NOT IDENT.
CE-141	-1.289E-02	3.403E-02	2.868E-02	1.736E-02	NOT IDENT.
CE-143	2.869E+02	3.896E+02	0.000E+00	1.988E+02	SHORT HLIF
CE-144	-3.339E-02	1.020E-01	8.663E-02	5.203E-02	NOT IDENT.
PM-144	6.503E-03	2.252E-02	1.957E-02	1.149E-02	NOT IDENT.
PR-144	4.921E-01	1.689E+00	1.468E+00	8.617E-01	NOT IDENT.
PM-146	-1.251E-03	2.441E-02	2.090E-02	1.245E-02	NOT IDENT.
ND-147	-1.930E-01	4.156E-01	3.312E-01	2.120E-01	NOT IDENT.
PM-149	-3.303E+01	1.527E+02	0.000E+00	7.793E+01	SHORT HLIF
EU-152	4.339E-03	5.665E-02	5.003E-02	2.890E-02	NOT IDENT.
GD-153	-1.570E-02	4.294E-02	3.698E-02	2.191E-02	NOT IDENT.
EU-154	6.952E-02	7.047E-02	6.951E-02	3.595E-02	NOT IDENT.
EU-155	1.385E-02	5.638E-02	5.071E-02	2.877E-02	NOT IDENT.
TB-160	2.849E-03	8.281E-02	7.163E-02	4.225E-02	NOT IDENT.
HO-166M	-2.286E-02	3.960E-02	3.018E-02	2.020E-02	NOT IDENT.
TA-182	5.703E-02	8.882E-02	8.440E-02	4.532E-02	NOT IDENT.
IR-192	9.143E-03	2.174E-02	1.985E-02	1.109E-02	NOT IDENT.
HG-203	7.225E-03	2.217E-02	2.022E-02	1.131E-02	NOT IDENT.
BI-207	2.897E-02	2.760E-02	2.778E-02	1.408E-02	NOT IDENT.
TL-208	-6.885E-03	2.701E-02	2.149E-02	1.378E-02	NOT IDENT.
PB-210	2.437E-01	3.290E+00	2.917E+00	1.678E+00	NOT IDENT.
BI-211	1.399E-02	1.305E-01	1.114E-01	6.657E-02	NOT IDENT.
PB-211	-1.567E-01	3.699E-01	2.972E-01	1.887E-01	NOT IDENT.
BI-212	5.681E-02	2.592E-01	2.244E-01	1.323E-01	NOT IDENT.
PB-212	-2.235E-02	4.276E-02	3.352E-02	2.182E-02	NOT IDENT.
BI-214	2.735E-02	4.713E-02	4.259E-02	2.405E-02	NOT IDENT.
PB-214	2.963E-02	4.504E-02	4.026E-02	2.298E-02	NOT IDENT.
RN-219	-1.131E-01	2.167E-01	1.758E-01	1.106E-01	NOT IDENT.
RA-223	-4.908E-01	3.873E-01	2.692E-01	1.976E-01	NOT IDENT.
RA-224	-1.731E-02	4.080E-01	3.443E-01	2.082E-01	NOT IDENT.
RA-226	2.735E-02	4.713E-02	4.259E-02	2.405E-02	NOT IDENT.
AC-227	-2.328E-02	1.445E-01	1.199E-01	7.371E-02	NOT IDENT.
TH-227	-2.328E-02	1.445E-01	1.199E-01	7.371E-02	NOT IDENT.
AC-228	-1.313E-02	9.271E-02	7.599E-02	4.730E-02	NOT IDENT.
RA-228	-1.313E-02	9.271E-02	7.599E-02	4.730E-02	NOT IDENT.
TH-228	-2.235E-02	4.276E-02	3.352E-02	2.182E-02	NOT IDENT.
TH-229	-1.085E-01	2.949E-01	2.449E-01	1.505E-01	NOT IDENT.
PA-231	-2.294E-01	8.263E-01	7.145E-01	4.216E-01	NOT IDENT.
TH-231	-4.908E-01	3.873E-01	2.692E-01	1.976E-01	NOT IDENT.
TH-232	-1.313E-02	9.271E-02	7.599E-02	4.730E-02	NOT IDENT.
PA-233	-1.222E-02	3.797E-02	3.249E-02	1.937E-02	NOT IDENT.
PA-234	1.249E-01	1.456E-01	1.433E-01	7.428E-02	NOT IDENT.
PA-234M	-6.516E-01	2.680E+00	2.310E+00	1.367E+00	NOT IDENT.
TH-234	-8.986E-01	8.463E-01	6.593E-01	4.318E-01	NOT IDENT.
U-235	-1.767E-01	1.241E-01	8.615E-02	6.331E-02	NOT IDENT.
NP-237	6.246E-02	1.191E-01	1.092E-01	6.077E-02	NOT IDENT.
U-238	-8.986E-01	8.463E-01	6.593E-01	4.318E-01	NOT IDENT.
NP-239	-4.064E-02	2.212E-01	1.919E-01	1.129E-01	NOT IDENT.
AM-241	-6.979E-02	9.125E-02	7.758E-02	4.655E-02	NOT IDENT.
CM-247	-9.570E-03	1.966E-02	1.604E-02	1.003E-02	NOT IDENT.
CF-249	-1.044E-03	2.436E-02	2.111E-02	1.243E-02	NOT IDENT.

CF-251	-3.451E-02	7.296E-02	6.038E-02	3.722E-02	NOT IDENT.
ANH-511	-1.086E-02	3.383E-02	3.331E-02	1.726E-02	NOT IDENT.

```

*****
*                                     *
*               GEL Laboratories LLC   *
*               2040 SAVAGE ROAD      *
*               CHARLESTON ,SC 29417  *
*               GAMMA SPECTROSCOPY BACKGROUN *
*               REPORT                 *
*****

```

ENERGY	MDA COUNTS
46.54	95.7706
49.72	97.2259
57.36	0.0000
59.54	87.7434
63.29	95.6868
63.29	95.6868
64.28	84.6658
67.75	90.7140
69.67	102.2212
70.83	86.4213
72.81	99.8509
72.87	100.8015
72.87	100.8015
74.82	104.8531
74.82	104.8531
74.82	104.8531
74.97	93.5368
77.11	101.3909
77.11	101.3909
77.11	101.3909
79.69	85.5770
79.80	85.5893
80.12	92.2855
80.19	93.2455
80.57	99.0040
81.00	104.7749
81.07	104.7846
81.07	104.7846
83.79	98.4638
83.79	98.4638
85.43	89.0905
86.48	88.2497
86.55	88.2578
86.79	94.0418
86.94	99.8185
87.57	101.8185
88.03	126.8659
88.47	144.2448
89.96	125.2427
91.11	85.8643
92.59	62.8227
92.59	62.8227
93.35	70.6196
94.67	109.4882
94.87	140.5274
94.87	140.5274
95.86	145.5443
97.43	82.6278
98.44	79.8057
99.53	70.1620
100.11	67.2836
103.18	85.1339
103.37	88.0884
105.31	82.3953
106.12	89.3421
109.28	81.7721
111.00	84.8866
111.76	84.9561
116.30	85.3675
117.23	90.4189
121.12	79.8099
121.78	74.8721
122.06	74.8936
123.07	80.9682
131.20	79.6100
133.52	78.7790
136.00	93.1399

136.47	82.0407
140.51	82.3534
140.51	0.0000
143.76	88.7205
144.24	91.8203
144.24	91.8203
145.44	79.6651
152.43	82.2235
153.25	79.1971
154.21	71.0289
154.21	71.0289
156.02	80.4214
158.56	83.6993
159.00	81.6634
162.66	85.0311
163.33	84.0417
165.86	73.8238
176.60	83.9203
177.52	86.0821
181.07	82.1157
184.41	71.7769
185.72	77.1337
193.51	80.7877
197.04	68.2134
205.31	69.7057
210.85	69.9864
215.65	82.1115
222.11	82.4849
227.38	75.1603
228.16	66.4814
228.18	66.4823
235.69	75.5840
235.96	76.6933
235.96	76.6933
238.63	92.1961
238.63	92.1961
240.99	92.3403
242.00	100.1019
244.70	80.4436
252.40	49.8357
252.80	56.4949
256.23	57.7286
256.23	57.7286
260.90	0.0000
264.66	55.8022
268.22	58.1616
269.46	62.6830
269.46	62.6830
271.23	56.0280
273.65	57.2326
276.40	49.4590
277.37	59.6104
277.60	56.2439
278.00	54.0073
279.20	51.3438
279.54	52.2552
280.46	54.9879
283.69	58.7063
284.31	64.1487
285.41	65.9985
285.90	0.0000
287.50	47.0704
293.27	0.0000
295.22	50.0103
295.96	56.3994
298.57	68.3267
299.98	57.4406
299.98	57.4406
300.09	51.9735
300.09	51.9735
300.13	51.9749
301.36	52.9236
302.85	53.8814
304.50	60.3305
304.50	60.3305
304.85	55.7712
308.46	55.8844
311.90	55.0737

316.51	49.6923
319.41	43.3195
320.08	40.5695
323.87	55.4363
323.87	55.4363
328.76	50.9502
333.37	53.8617
334.37	63.1814
334.37	63.1814
338.28	42.8291
338.28	42.8291
338.32	42.8296
338.32	42.8296
338.32	42.8296
340.48	42.8785
340.55	42.8802
344.28	45.7652
351.06	44.9883
351.93	33.7562
356.01	44.1623
364.49	34.9151
366.42	47.2278
383.85	43.8224
388.16	43.9128
388.63	45.8326
391.69	40.1620
400.66	29.7694
401.81	36.5110
402.40	35.5601
404.85	32.7138
410.95	32.8063
414.70	39.6287
423.72	35.9092
427.09	27.2156
427.87	30.1421
433.94	28.2739
453.88	32.4550
463.37	37.5236
468.07	22.7569
473.00	34.7018
476.78	30.7839
477.60	29.8011
487.02	22.9363
492.35	0.0000
497.08	28.0369
511.00	40.2756
514.00	114.9219
527.90	0.0000
529.87	0.0000
531.02	31.4586
537.26	19.3270
546.56	0.0000
563.25	30.8159
569.33	24.7078
569.50	24.7096
569.70	24.7113
583.19	35.1795
600.60	26.0284
602.73	37.5091
604.72	44.8330
609.32	25.0635
609.32	25.0635
610.33	29.2510
614.28	30.3374
618.01	26.1871
621.93	29.3692
621.93	29.3692
633.25	16.8473
635.95	15.8090
636.99	9.4887
645.85	20.0915
657.76	23.3562
661.66	15.9452
661.66	15.9452
664.57	0.0000
666.33	23.4223
666.50	24.4880
677.62	23.5082

685.70	23.5694
695.00	26.8634
696.49	25.8012
696.51	25.8012
697.00	23.6548
702.65	24.7739
706.68	23.7268
711.68	30.2456
720.70	25.9975
721.93	0.0000
722.78	17.3426
722.91	17.3434
723.31	15.1775
724.19	18.4348
727.33	15.1963
733.00	9.7860
735.93	21.7661
739.50	18.5211
747.24	22.9329
752.31	15.3118
753.82	12.0364
756.73	27.3792
763.94	25.2427
765.81	21.9624
766.42	18.6714
777.92	14.1692
778.90	18.8977
783.70	8.5859
785.37	11.9648
795.86	23.0789
801.95	18.4957
810.29	16.6857
810.76	18.5421
815.77	17.6401
818.51	18.5828
832.01	24.2496
834.85	15.8680
836.80	0.0000
846.77	13.1108
856.80	21.5985
860.56	21.6205
871.09	15.0833
873.19	18.8647
875.33	0.0000
879.36	16.0617
880.51	10.3962
883.24	22.6987
884.68	17.0306
889.28	14.2096
898.04	16.1416
911.20	16.1976
911.20	16.1976
911.20	16.1976
926.50	16.2619
937.49	12.4705
944.13	15.3743
946.00	6.7296
949.00	14.4315
962.29	14.4797
964.08	18.3490
966.15	16.4262
968.97	11.6030
968.97	11.6030
968.97	11.6030
983.53	20.3788
996.26	15.5752
1001.03	12.6697
1004.73	12.6810
1037.84	14.7485
1038.76	0.0000
1048.07	12.8127
1050.41	6.9032
1050.41	6.9032
1063.66	6.9245
1085.87	9.9430
1099.45	9.9736
1112.07	11.0022
1115.54	17.0166

1120.29	13.0270
1120.29	13.0270
1120.55	13.0275
1121.30	14.0319
1131.51	0.0000
1173.23	13.1793
1177.93	7.1037
1189.05	9.1553
1204.77	14.2888
1221.41	7.1695
1231.02	8.2103
1235.36	14.3811
1238.28	10.2783
1260.41	0.0000
1271.85	9.3146
1274.44	7.2484
1274.54	7.2487
1291.59	7.2734
1298.22	0.0000
1312.11	6.2600
1332.49	4.1903
1365.19	11.5966
1368.63	0.0000
1384.29	3.1743
1408.01	11.6915
1457.56	0.0000
1460.82	10.7332
1489.16	7.5520
1505.03	10.8191
1596.21	4.7112
1620.50	4.7307
1678.03	0.0000
1690.97	5.7437
1764.49	4.8432
1764.49	4.8432
1770.23	5.8171
1771.35	6.7878
1791.20	0.0000
1836.06	4.8975

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202057358

Total Uranium Activity	-2.7550E+00	ug/g
Total Uranium Counting Unc.	2.5184E+00	ug/g
Total Uranium Tpu	1.2849E-06	ug/g
Total Uranium Mda	1.9617E+00	ug/g

```

*****
*
*                               GEL Laboratories LLC                               *
*                               2040 SAVAGE ROAD                                   *
*                               CHARLESTON ,SC 29417                             *
*                               GROSS GAMMA REPORT                               *
*
*****
*
*  BATCH ID      : 959281                SAMPLE ID   : G1202057358                *
*  ANALYST       : MXR1                  DETECTOR    : GAM23                    *
*  SAMPLE DATE   : 4-MAR-2010 00:00:00.00  COUNT TIME : 0 02:00:00.00            *
*  ANALYSIS DATE: 22-MAR-2010 10:34:48.93  SAMPLE ALQT: 132.710 GRAM            *
*
*****

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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 3.170E-02
GROSS GAMMA ERROR (pCi/GRAM ) : 1.585E-02
GROSS GAMMA MDA (pCi/GRAM ) : 7.710E-02
GROSS GAMMA DLC (pCi/GRAM ) : 3.640E-02

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VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 17:34:09.87

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*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                    *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057359.CNF;1
Sample date        : 25-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 15:33:45
Sample ID          : G1202057359 Sample quantity : 1.32710E+02 GRAM
Detector name      : GAM01 Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00 Elapsed real time: 0 02:00:01.24 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity : 5.00000
Batch ID           : 959281 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	63.42*	114	534	0.99	127.57	123	10	1.58E-02	40.1	
2	4	74.90*	442	568	1.58	150.51	145	14	6.14E-02	11.2	1.81E+00
3	4	77.21*	543	354	1.04	155.13	145	14	7.54E-02	7.3	
4	0	87.25*	199	420	1.32	175.21	172	7	2.77E-02	18.7	
5	4	90.14	145	220	0.98	180.97	179	16	2.01E-02	16.2	4.70E-01
6	4	92.93*	229	449	1.49	186.55	179	16	3.18E-02	19.4	
7	0	129.30	121	270	1.94	259.26	256	7	1.69E-02	24.2	
8	0	186.41*	220	406	1.63	373.41	368	12	3.06E-02	20.4	
9	0	210.07	101	329	1.54	420.72	416	10	1.40E-02	35.3	
10	4	239.00*	1279	186	1.33	478.54	472	19	1.78E-01	3.4	1.34E+00
11	4	242.05	305	234	1.88	484.63	472	19	4.24E-02	14.3	
12	0	270.74	104	211	1.29	541.97	537	10	1.45E-02	28.0	
13	0	278.23	108	256	1.65	556.95	552	14	1.50E-02	32.8	
14	0	295.60	368	210	1.41	591.67	587	10	5.12E-02	9.0	
15	0	328.44	44	160	1.03	657.31	654	8	6.13E-03	51.7	
16	0	338.84	241	176	1.32	678.09	673	11	3.35E-02	12.5	
17	0	352.31*	518	226	1.24	705.03	700	12	7.20E-02	7.4	
18	0	463.95*	101	155	3.89	928.16	920	16	1.40E-02	29.7	
19	0	511.36*	86	164	1.86	1022.93	1016	17	1.19E-02	39.9	
20	0	583.52*	340	89	1.51	1167.15	1162	11	4.73E-02	7.8	
21	0	609.89*	453	101	1.32	1219.87	1214	14	6.30E-02	6.9	
22	0	727.67	127	59	1.67	1455.27	1450	13	1.76E-02	15.3	
23	0	768.65	50	77	1.15	1537.18	1530	11	6.94E-03	36.8	
24	0	861.60	63	53	2.41	1722.96	1717	14	8.75E-03	27.5	
25	0	911.78*	230	72	1.32	1823.25	1817	11	3.19E-02	9.9	
26	0	969.67*	125	109	1.78	1938.95	1930	15	1.74E-02	20.7	
27	0	1121.37*	69	95	0.99	2242.14	2235	14	9.53E-03	33.3	
28	0	1377.88	34	18	0.82	2754.77	2749	12	4.69E-03	30.5	
29	0	1461.40*	1206	8	2.11	2921.68	2915	15	1.67E-01	2.9	
30	0	1765.35*	56	3	2.00	3529.09	3523	12	7.74E-03	16.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 19-MAR-2010 17:34:12

```

Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057359.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 25-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 15:33:45
Sample ID        : G1202057359 Sample quantity : 132.71 GRAM
Sample type      : SOLID Sample geometry :
Detector name    : GAMMA1 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.24 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type  : Empirical Efficiencies at : Peak Energy
Abundance limit  : 75.00 WTM error limit : 3.00

```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line	Energy	Activity	Act error	MDA	MDA error	Act/MDA
	Idded	(keV) Key	(pCi/GRAM)		(pCi/GRAM)		
K-40	+	1460.82 *	3.385E+01	3.607E+00	6.185E-01	5.498E-02	54.726
CD-109	+	88.03 *	3.037E+00	1.174E+00	1.360E+00	1.287E-01	2.233
SN-126	+	64.28	1.202E+00	9.792E-01	9.065E-01	1.334E-01	1.326
	+	86.94	1.221E+00	6.832E-01	6.289E-01	2.611E-01	1.942
	+	87.57 *	2.938E-01	1.135E-01	1.323E-01	1.246E-02	2.221
HG-203		70.83	3.791E-01	1.936E+00	2.812E+00	4.437E-01	0.135
		72.87	1.357E+00	1.187E+00	1.766E+00	2.702E-01	0.769
	+	279.20 *	1.345E-01	8.921E-02	7.652E-02	7.156E-03	1.758
TL-208	+	277.37	1.195E+00	7.995E-01	6.789E-01	8.755E-02	1.760
	+	583.19 *	5.288E-01	9.508E-02	6.722E-02	6.097E-03	7.868
	+	860.56	9.372E-01	5.232E-01	5.394E-01	5.167E-02	1.738
BI-211		72.87	4.909E+00	4.246E+00	6.387E+00	5.238E-01	0.769
	+	351.06 *	3.518E+00	6.083E-01	4.025E-01	3.662E-02	8.739
PB-212	+	74.82	2.923E+00	7.552E-01	6.399E-01	8.194E-02	4.568
	+	77.11	2.045E+00	3.466E-01	3.653E-01	3.100E-02	5.598
	+	238.63 *	1.910E+00	2.341E-01	1.043E-01	1.061E-02	18.304
		300.09	1.849E+00	1.050E+00	1.668E+00	1.822E-01	1.108
BI-214	+	609.32 *	1.366E+00	2.318E-01	1.224E-01	1.213E-02	11.165
	+	1120.29	1.092E+00	7.356E-01	4.934E-01	5.303E-02	2.213
	+	1764.49	1.249E+00	4.126E-01	2.800E-01	2.348E-02	4.460
PB-214	+	74.82	5.181E+00	1.306E+00	1.134E+00	1.304E-01	4.568
	+	77.11	3.605E+00	6.795E-01	6.439E-01	7.620E-02	5.598
	+	242.00	2.766E+00	8.468E-01	6.348E-01	6.844E-02	4.357
	+	295.22	1.530E+00	3.239E-01	2.549E-01	2.853E-02	6.002
	+	351.93 *	1.277E+00	2.317E-01	1.367E-01	1.453E-02	9.342
RA-224	+	240.99 *	4.891E+00	1.470E+00	1.119E+00	1.017E-01	4.372
RA-226	+	609.32 *	1.366E+00	2.318E-01	1.224E-01	1.213E-02	11.165
	+	1120.29	1.092E+00	7.356E-01	4.934E-01	5.303E-02	2.213
	+	1764.49	1.249E+00	4.126E-01	2.800E-01	2.348E-02	4.460
AC-228	+	338.32	1.819E+00	8.843E-01	4.214E-01	1.759E-01	4.317
	+	911.20 *	1.745E+00	4.032E-01	2.558E-01	3.047E-02	6.821
	+	968.97	1.646E+00	7.913E-01	5.146E-01	1.260E-01	3.198
RA-228	+	338.32	1.819E+00	8.843E-01	4.214E-01	1.759E-01	4.317
	+	911.20 *	1.745E+00	4.032E-01	2.558E-01	3.047E-02	6.821

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	968.97		1.646E+00	7.913E-01	5.146E-01	1.260E-01	3.198
	+	74.82		2.923E+00	7.004E-01	6.399E-01	5.380E-02	4.568
	+	77.11		2.045E+00	3.466E-01	3.653E-01	3.100E-02	5.598
	+	238.63	*	1.910E+00	2.341E-01	1.043E-01	1.061E-02	18.304
TH-232		300.09		1.849E+00	1.532E+00	1.668E+00	1.022E+00	1.108
	+	338.32		1.819E+00	4.805E-01	4.214E-01	3.709E-02	4.317
	+	911.20	*	1.745E+00	4.032E-01	2.558E-01	3.047E-02	6.821
	+	968.97		1.646E+00	7.913E-01	5.146E-01	1.260E-01	3.198
TH-234	+	63.29	*	3.118E+00	2.561E+00	2.459E+00	4.417E-01	1.268
	+	92.59		2.781E+00	1.242E+00	1.034E+00	2.305E-01	2.688
U-235	+	89.96		2.204E+00	9.011E-01	1.375E+00	3.418E-01	1.603
	+	93.35		2.101E+00	9.491E-01	7.767E-01	1.807E-01	2.705
NP-237		143.76	*	-3.453E-02	2.240E-01	3.719E-01	6.290E-02	-0.093
		163.33		1.209E-02	4.688E-01	7.915E-01	1.417E-01	0.015
	+	185.72		2.113E-01	8.809E-02	7.153E-02	6.215E-03	2.954
		205.31		4.818E-01	6.077E-01	9.253E-01	1.690E-01	0.521
	+	86.48	*	8.765E-01	3.854E-01	4.600E-01	1.055E-01	1.905
U-238		95.86		-3.899E-01	1.099E+00	1.527E+00	3.682E-01	-0.255
	+	63.29	*	3.118E+00	2.561E+00	2.459E+00	4.417E-01	1.268
ANH-511	+	92.59		2.781E+00	1.106E+00	1.034E+00	9.433E-02	2.688
	+	511.00	*	1.016E-01	8.150E-02	4.758E-02	4.033E-03	2.135

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.644E-01	4.110E-01	6.382E-01	5.805E-02	-0.258
NA-22		1274.54	*	3.533E-02	5.184E-02	9.215E-02	7.739E-03	0.383
NA-24		1368.63	*	-2.312E+02	5.184E-02	Half-Life too short		
SC-46		889.28	*	5.298E-05	5.087E-02	8.316E-02	7.517E-03	0.001
	+	1120.55		1.957E-01	1.312E-01	1.630E-01	1.370E-02	1.201
V-48		944.13		1.489E-01	1.257E+00	2.073E+00	1.867E-01	0.072
		983.53	*	6.294E-03	1.042E-01	1.703E-01	1.520E-02	0.037
		1312.11		-3.754E-02	1.361E-01	2.202E-01	1.867E-02	-0.170
CR-51		320.08	*	-4.288E-01	5.270E-01	8.045E-01	7.562E-02	-0.533
MN-54		834.85	*	7.268E-03	4.214E-02	7.023E-02	6.251E-03	0.104
CO-56		846.77	*	-2.830E-03	4.700E-02	7.662E-02	6.846E-03	-0.037
		1037.84		9.169E-02	3.667E-01	6.093E-01	5.612E-02	0.150
		1238.28		1.814E-01	1.237E-01	2.261E-01	1.933E-02	0.802
CO-57		1771.35		-1.018E+00	4.255E-01	3.983E-01	3.335E-02	-2.555
		122.06	*	1.859E-02	2.885E-02	4.703E-02	4.140E-03	0.395
		136.47		-2.135E-01	2.214E-01	3.606E-01	3.328E-02	-0.592
CO-58		810.76	*	-2.265E-02	4.971E-02	7.831E-02	6.928E-03	-0.289
FE-59		1099.45	*	2.145E-02	1.169E-01	1.920E-01	1.769E-02	0.112
		1291.59		-4.113E-02	1.609E-01	2.612E-01	2.512E-02	-0.157
CO-60		1173.23		-3.372E-02	5.562E-02	8.847E-02	7.161E-03	-0.381
		1332.49	*	2.648E-02	4.764E-02	8.397E-02	7.158E-03	0.315
ZN-65		1115.54	*	-8.488E-02	1.359E-01	1.719E-01	1.451E-02	-0.494
SE-75		121.12		8.368E-02	1.554E-01	2.520E-01	2.825E-02	0.332

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		136.00		-4.175E-02	4.338E-02	7.069E-02	6.120E-03	-0.591
		264.66	*	1.895E-02	5.656E-02	8.839E-02	8.121E-03	0.214
	+	279.54		3.587E-01	2.380E-01	2.254E-01	2.131E-02	1.591
		400.66		-6.311E-02	3.114E-01	4.898E-01	5.234E-02	-0.129
SR-85		514.00	*	1.407E-01	5.196E-02	8.952E-02	7.590E-03	1.572
Y-88		898.04		3.982E-02	4.872E-02	8.566E-02	7.794E-03	0.465
		1836.06	*	5.979E-03	3.903E-02	6.553E-02	5.390E-03	0.091
Y-91		1204.77	*	-1.542E+01	2.815E+01	4.492E+01	3.680E+00	-0.343
NB-94		702.65	*	6.784E-03	3.781E-02	6.360E-02	5.339E-03	0.107
		871.09		1.083E-02	3.650E-02	6.156E-02	5.539E-03	0.176
NB-95		765.81	*	6.151E-02	5.886E-02	9.377E-02	8.126E-03	0.656
NB-95M		235.69	*	1.985E-02	1.607E-01	2.366E-01	2.431E-02	0.084
ZR-95		724.19		-1.928E-02	1.234E-01	1.740E-01	1.606E-02	-0.111
		756.73	*	2.222E-02	9.030E-02	1.522E-01	1.450E-02	0.146
MO-99		140.51		-2.993E-05	9.030E-02	Half-Life	too short	
		181.07		5.642E-05	9.030E-02	Half-Life	too short	
		366.42		-1.021E-04	9.030E-02	Half-Life	too short	
		739.50	*	1.368E-05	9.030E-02	Half-Life	too short	
		777.92		-1.039E-04	9.030E-02	Half-Life	too short	
TC-99M		140.51	*	-2.400E+18	9.030E-02	Half-Life	too short	
RU-103		497.08	*	-4.281E-02	5.129E-02	7.568E-02	1.049E-02	-0.566
	+	610.33		1.597E+01	3.398E+00	3.815E+00	6.190E-01	4.185
RH-106		621.93	*	5.392E-02	3.655E-01	6.172E-01	8.076E-02	0.087
		1050.41		-2.919E+00	2.927E+00	4.165E+00	3.632E-01	-0.701
RU-106		621.93	*	5.392E-02	3.654E-01	6.172E-01	5.156E-02	0.087
		1050.41		-2.919E+00	2.927E+00	4.165E+00	3.632E-01	-0.701
AG-108M		433.94	*	-3.308E-02	3.118E-02	4.563E-02	3.905E-03	-0.725
		614.28		-1.895E-02	4.458E-02	6.176E-02	5.354E-03	-0.307
		722.91		-4.281E-02	4.584E-02	5.752E-02	5.043E-03	-0.744
AG-110M		657.76	*	3.471E-04	4.015E-02	6.692E-02	5.674E-03	0.005
		677.62		-1.655E-01	3.489E-01	5.563E-01	4.746E-02	-0.297
		706.68		-9.888E-02	2.560E-01	4.116E-01	3.567E-02	-0.240
		763.94		6.305E-03	2.121E-01	3.046E-01	2.709E-02	0.021
		884.68		2.055E-02	5.924E-02	9.999E-02	9.293E-03	0.206
		937.49		-6.384E-02	1.314E-01	2.033E-01	1.894E-02	-0.314
		1384.29		4.258E-02	1.965E-01	2.929E-01	2.584E-02	0.145
		1505.03		3.703E-02	3.056E-01	5.135E-01	4.446E-02	0.072
SN-113		391.69	*	-1.867E-02	5.373E-02	8.506E-02	7.085E-03	-0.220
CD-115		260.90		5.752E-04	5.373E-02	Half-Life	too short	
		492.35		3.769E-05	5.373E-02	Half-Life	too short	
		527.90	*	-5.413E-05	5.373E-02	Half-Life	too short	
SN-117M		156.02		1.081E+00	3.657E+00	6.241E+00	5.314E-01	0.173
		158.56	*	-2.464E-02	8.717E-02	1.456E-01	1.240E-02	-0.169
TE-123M		159.00	*	-1.022E-02	3.289E-02	5.487E-02	4.701E-03	-0.186
SB-124		602.73		-5.557E-03	4.942E-02	7.741E-02	6.510E-03	-0.072
		645.85		2.419E-01	6.087E-01	1.045E+00	9.176E-02	0.231
		722.78		-4.420E-01	5.009E-01	6.344E-01	5.512E-02	-0.697
		1690.97	*	-1.684E-02	9.036E-02	1.421E-01	1.262E-02	-0.119
SB-125		427.87	*	-1.762E-03	1.112E-01	1.792E-01	1.507E-02	-0.010

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	463.37		1.057E+00	6.348E-01	6.303E-01	5.700E-02	1.677
		600.60		-1.017E-01	2.057E-01	3.320E-01	3.010E-02	-0.306
		635.95		8.022E-02	3.001E-01	5.112E-01	4.615E-02	0.157
TE-125M		109.28	*	3.526E+00	1.182E+01	1.906E+01	2.008E+00	0.185
I-126		388.63		2.307E-01	2.887E-01	4.906E-01	3.974E-02	0.470
		666.33	*	-1.614E-01	3.846E-01	6.197E-01	5.091E-02	-0.260
		753.82		3.800E+00	3.019E+00	5.467E+00	4.711E-01	0.695
SB-126		414.70		-9.707E-02	1.218E-01	1.847E-01	1.510E-02	-0.526
		666.50		-6.546E-02	1.344E-01	2.154E-01	1.770E-02	-0.304
		695.00		1.348E-02	1.293E-01	2.164E-01	1.809E-02	0.062
		697.00		-2.677E-01	4.573E-01	7.227E-01	6.048E-02	-0.370
		720.70	*	4.414E-02	2.361E-01	3.762E-01	3.189E-02	0.117
		856.80		1.622E-02	8.684E-01	1.235E+00	1.106E-01	0.013
SB-127		252.40		3.181E+00	1.668E+01	2.781E+01	1.177E+01	0.114
		473.00		1.191E-01	6.593E+00	1.059E+01	1.560E+00	0.011
		685.70	*	-2.679E+00	5.688E+00	9.088E+00	1.224E+00	-0.295
		783.70		-1.619E+00	1.450E+01	2.367E+01	3.447E+00	-0.068
I-131		80.19		-4.272E+00	1.034E+01	1.451E+01	1.283E+00	-0.294
		284.31		2.971E-01	3.264E+00	4.754E+00	4.569E-01	0.062
		364.49	*	-2.097E-01	2.461E-01	3.770E-01	3.399E-02	-0.556
		636.99		-2.880E-01	3.114E+00	5.156E+00	4.574E-01	-0.056
TE-132		49.72		1.373E+01	1.052E+02	1.726E+02	2.265E+01	0.080
		111.76		-2.680E+01	1.736E+02	2.743E+02	3.633E+01	-0.098
		116.30		-5.148E+01	1.527E+02	2.388E+02	3.168E+01	-0.216
		228.16	*	1.210E+00	3.779E+00	6.367E+00	1.123E+00	0.190
BA-133		81.00		-8.122E-02	1.202E-01	1.656E-01	2.586E-02	-0.490
		276.40		8.065E-01	5.099E-01	7.041E-01	1.017E-01	1.145
		302.85		-6.857E-02	1.639E-01	2.629E-01	3.514E-02	-0.261
		356.01	*	1.051E-02	5.120E-02	7.438E-02	9.624E-03	0.141
		383.85		-4.727E-02	3.391E-01	5.453E-01	6.613E-02	-0.087
I-133		529.87	*	-1.324E-01	3.391E-01	Half-Life	too short	
		875.33		1.328E+01	3.391E-01	Half-Life	too short	
		1298.22		-5.136E+00	3.391E-01	Half-Life	too short	
CS-134		563.25		5.004E-01	3.743E-01	6.865E-01	5.879E-02	0.729
		569.33		7.078E-02	2.133E-01	3.667E-01	3.151E-02	0.193
		604.72		1.261E-02	4.206E-02	6.311E-02	5.318E-03	0.200
		795.86	*	6.004E-02	5.709E-02	1.012E-01	8.944E-03	0.593
		801.95		-1.916E-01	4.830E-01	7.720E-01	6.828E-02	-0.248
		1365.19		-9.746E-01	1.219E+00	1.759E+00	1.577E-01	-0.554
CS-135		268.22	*	3.043E-02	1.988E-01	2.915E-01	3.039E-02	0.104
I-135		546.56		4.957E+17	1.988E-01	Half-Life	too short	
		836.80		-3.743E+17	1.988E-01	Half-Life	too short	
		1038.76		-1.249E+18	1.988E-01	Half-Life	too short	
		1131.51		5.680E+16	1.988E-01	Half-Life	too short	
		1260.41	*	-2.543E+17	1.988E-01	Half-Life	too short	
		1457.56		1.482E+19	1.988E-01	Half-Life	too short	
		1678.03		1.512E+17	1.988E-01	Half-Life	too short	
		1791.20		6.010E+17	1.988E-01	Half-Life	too short	
CS-136		153.25		-2.525E-01	1.400E+00	2.351E+00	2.395E-01	-0.107

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		176.60		4.275E-01	7.648E-01	1.313E+00	1.248E-01	0.325
		273.65		1.227E+00	1.081E+00	1.306E+00	1.286E-01	0.940
		340.55		9.035E-01	3.177E-01	5.213E-01	4.749E-02	1.733
		818.51		-6.890E-02	1.248E-01	1.942E-01	1.722E-02	-0.355
		1048.07	*	-5.938E-02	1.728E-01	2.684E-01	2.442E-02	-0.221
		1235.36		6.858E-01	1.053E+00	1.839E+00	2.120E-01	0.373
BA-137M		661.66	*	1.829E-02	4.303E-02	7.376E-02	6.042E-03	0.248
CS-137		661.66	*	1.932E-02	4.545E-02	7.792E-02	6.396E-03	0.248
CE-139		165.86	*	-1.166E-02	3.287E-02	5.461E-02	4.651E-03	-0.214
BA-140		162.66		1.205E-01	1.286E+00	2.177E+00	1.981E-01	0.055
		304.85		-1.733E+00	2.280E+00	3.489E+00	1.026E+00	-0.497
		423.72		2.648E+00	3.555E+00	5.846E+00	1.917E+00	0.453
		537.26	*	1.225E-01	4.184E-01	7.162E-01	2.427E-01	0.171
LA-140	+	328.76		6.031E-01	6.256E-01	9.237E-01	8.657E-02	0.653
		487.02		-1.630E-02	2.366E-01	3.769E-01	3.385E-02	-0.043
		815.77		5.457E-02	5.287E-01	8.776E-01	8.628E-02	0.062
		1596.21	*	2.148E-02	1.309E-01	2.210E-01	1.907E-02	0.097
CE-141		145.44	*	-2.021E-02	8.216E-02	1.359E-01	1.182E-02	-0.149
CE-143		57.36		1.327E-02	8.216E-02	Half-Life	too short	
		293.27	*	1.089E-02	8.216E-02	Half-Life	too short	
		664.57		6.315E-02	8.216E-02	Half-Life	too short	
		721.93		-4.725E-03	8.216E-02	Half-Life	too short	
CE-144		80.12		-1.353E+00	3.098E+00	4.341E+00	3.785E-01	-0.312
		133.52	*	1.903E-01	2.521E-01	3.678E-01	5.621E-02	0.517
PM-144		476.78		-2.759E-02	7.748E-02	1.208E-01	1.109E-02	-0.228
		618.01		4.195E-03	3.878E-02	6.181E-02	5.326E-03	0.068
		696.49	*	4.580E-04	3.840E-02	6.380E-02	5.341E-03	0.007
PR-144		696.51	*	5.765E-04	2.882E+00	4.784E+00	4.002E-01	0.000
		1489.16		-6.280E+00	1.117E+01	1.619E+01	1.402E+00	-0.388
PM-146		453.88	*	1.289E-02	4.982E-02	8.160E-02	8.461E-03	0.158
		633.25		-2.837E-01	1.643E+00	2.700E+00	1.029E+00	-0.105
		735.93		-9.176E-03	1.757E-01	2.817E-01	7.888E-02	-0.033
		747.24		7.792E-02	1.145E-01	1.988E-01	2.896E-02	0.392
ND-147	+	91.11		1.112E+00	3.778E-01	8.849E-01	8.753E-02	1.257
		319.41		-3.545E+00	6.168E+00	9.568E+00	8.586E-01	-0.371
		531.02	*	-3.928E-02	9.677E-01	1.626E+00	2.420E-01	-0.024
PM-149		285.90	*	-8.350E-04	9.677E-01	Half-Life	too short	
EU-152		121.78		6.176E-02	8.210E-02	1.343E-01	1.350E-02	0.460
		244.70		5.136E-01	3.970E-01	6.239E-01	5.679E-02	0.823
		344.28	*	-1.870E-03	1.334E-01	1.905E-01	1.760E-02	-0.010
		778.90		-6.333E-02	2.723E-01	4.388E-01	3.824E-02	-0.144
		964.08		1.227E-01	4.321E-01	6.304E-01	5.655E-02	0.195
		1085.87		1.972E-01	4.728E-01	7.940E-01	6.807E-02	0.248
		1112.07		-5.158E-03	3.810E-01	6.126E-01	5.174E-02	-0.008
		1408.01		5.690E-03	2.196E-01	3.652E-01	3.145E-02	0.016
GD-153		69.67		6.328E-01	2.336E+00	3.408E+00	2.734E-01	0.186
		97.43	*	-7.796E-02	1.089E-01	1.482E-01	1.316E-02	-0.526
		103.18		-1.612E-01	1.312E-01	1.971E-01	1.719E-02	-0.818
EU-154		123.07		-9.290E-03	5.829E-02	9.173E-02	1.052E-02	-0.101

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EU-155		723.31		-2.259E-01	2.061E-01	2.505E-01	2.348E-02	-0.902
		873.19		-1.785E-01	3.038E-01	4.644E-01	5.654E-02	-0.384
		996.26		-1.914E-01	4.136E-01	6.358E-01	1.119E-01	-0.301
		1004.73		-1.357E-01	2.746E-01	4.237E-01	5.010E-02	-0.320
		1274.44	*	3.013E-02	1.469E-01	2.594E-01	2.906E-02	0.347
	+	86.55		3.572E-01	1.381E-01	2.086E-01	1.960E-02	1.713
		105.31	*	1.269E-01	1.211E-01	2.008E-01	1.766E-02	0.632
	+	86.79		1.011E+00	3.907E-01	5.883E-01	5.493E-02	1.719
		197.04		3.768E-01	6.442E-01	1.103E+00	9.697E-02	0.342
		215.65		5.555E-01	9.462E-01	1.508E+00	1.348E-01	0.368
TB-160		298.57		1.379E-01	1.644E-01	2.496E-01	2.269E-02	0.552
		879.36	*	-6.764E-03	1.630E-01	2.655E-01	2.394E-02	-0.025
		962.29		2.049E-01	7.887E-01	1.153E+00	1.034E-01	0.178
		966.15		5.834E-01	3.514E-01	5.680E-01	5.093E-02	1.027
		1177.93		-2.032E-01	4.411E-01	7.088E-01	5.748E-02	-0.287
		1271.85		2.664E-01	8.978E-01	1.542E+00	1.292E-01	0.173
	HO-166M	80.57		-3.272E-03	3.291E-01	4.714E-01	4.129E-02	-0.007
		184.41		1.159E-01	4.489E-02	7.294E-02	6.330E-03	1.589
		280.46		1.140E-02	9.364E-02	1.554E-01	1.421E-02	0.073
		410.95		2.897E-01	2.813E-01	4.839E-01	3.947E-02	0.599
TA-182		711.68	*	3.724E-02	7.187E-02	1.237E-01	1.044E-02	0.301
		752.31		-1.067E-01	3.240E-01	5.203E-01	4.481E-02	-0.205
		810.29		-3.842E-02	6.988E-02	1.090E-01	9.622E-03	-0.352
		67.75		-6.768E-02	1.576E-01	2.225E-01	1.763E-02	-0.304
		100.11		1.194E-01	2.094E-01	3.368E-01	2.962E-02	0.355
		152.43		-4.010E-02	4.069E-01	6.856E-01	5.842E-02	-0.058
		222.11		-1.142E-01	4.070E-01	6.694E-01	6.015E-02	-0.171
	+	1121.30		5.338E-01	3.579E-01	4.460E-01	3.746E-02	1.197
		1189.05		-9.848E-02	3.903E-01	6.406E-01	5.217E-02	-0.154
		1221.41	*	-1.327E-01	2.472E-01	3.949E-01	3.255E-02	-0.336
IR-192		1231.02		-7.228E-01	6.079E-01	9.113E-01	7.536E-02	-0.793
	+	295.96		1.208E+00	2.438E-01	3.544E-01	3.247E-02	3.409
		308.46		1.232E-02	1.182E-01	1.952E-01	1.773E-02	0.063
		316.51	*	2.049E-02	4.048E-02	6.829E-02	6.152E-03	0.300
		468.07		8.176E-02	9.102E-02	1.391E-01	1.256E-02	0.588
BI-207		72.81		2.272E-01	2.428E-01	3.626E-01	2.973E-02	0.627
	+	74.97		8.427E-01	2.017E-01	2.682E-01	2.235E-02	3.142
		569.70		7.108E-03	3.354E-02	5.717E-02	4.843E-03	0.124
		1063.66	*	1.399E-02	7.011E-02	1.153E-01	9.994E-03	0.121
		1770.23		-1.724E-01	5.569E-01	6.964E-01	5.831E-02	-0.248
PB-210		46.54	*	-9.782E-01	4.557E+00	7.256E+00	6.796E-01	-0.135
PB-211		404.85	*	-4.878E-01	8.259E-01	1.225E+00	5.918E-01	-0.398
		427.09		1.274E+00	1.935E+00	3.110E+00	1.437E+00	0.410
		832.01		-1.119E+00	1.218E+00	1.571E+00	8.152E-01	-0.712
BI-212	+	727.33	*	3.033E+00	1.002E+00	1.425E+00	1.764E-01	2.128
		785.37		6.235E+00	3.652E+00	6.770E+00	5.917E-01	0.921
		1620.50		1.806E+00	2.268E+00	4.255E+00	3.662E-01	0.424
RN-219	+	271.23		6.887E-01	3.920E-01	4.947E-01	5.296E-02	1.392
		401.81	*	2.247E-01	4.396E-01	7.354E-01	1.072E-01	0.306

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-223	81.07			-2.419E-01	2.740E-01	3.746E-01	3.297E-02	-0.646
	83.79			1.179E-01	1.598E-01	2.354E-01	2.129E-02	0.501
	94.87			7.421E-01	5.590E-01	8.449E-01	7.598E-02	0.878
	144.24			-5.629E-01	7.583E-01	1.229E+00	1.175E-01	-0.458
	154.21			1.207E-01	4.349E-01	7.420E-01	6.939E-02	0.163
	269.46			5.351E-01	3.033E-01	3.805E-01	3.544E-02	1.406
AC-227	323.87	*		1.558E-01	8.707E-01	1.266E+00	2.214E-01	0.123
	338.28	+		7.218E+00	2.002E+00	2.656E+00	3.241E-01	2.717
	79.69			-5.570E-01	1.520E+00	2.134E+00	3.686E-01	-0.261
	235.96			-1.506E-02	1.841E-01	2.677E-01	2.869E-02	-0.056
	256.23	*		-2.701E-01	2.863E-01	4.481E-01	5.568E-02	-0.603
	299.98			1.615E+00	1.186E+00	1.840E+00	2.397E-01	0.877
TH-227	304.50			-2.911E+00	1.966E+00	2.864E+00	4.801E-01	-1.017
	334.37			-1.040E+00	2.444E+00	3.120E+00	4.902E-01	-0.333
	79.80			-9.269E-01	2.014E+00	2.807E+00	6.121E-01	-0.330
	235.96			-1.506E-02	1.841E-01	2.677E-01	2.718E-02	-0.056
	256.23	*		-2.701E-01	2.868E-01	4.481E-01	6.246E-02	-0.603
	299.98			1.615E+00	1.186E+00	1.840E+00	2.397E-01	0.877
TH-229	304.50			-2.911E+00	1.966E+00	2.864E+00	4.801E-01	-1.017
	334.37			-1.040E+00	2.444E+00	3.120E+00	4.902E-01	-0.333
	85.43			3.533E-01	2.765E-01	4.139E-01	3.809E-02	0.853
	88.47	+		4.529E-01	1.750E-01	2.569E-01	2.420E-02	1.763
	193.51	*		2.156E-01	5.689E-01	9.677E-01	8.477E-02	0.223
	210.85	+		2.133E+00	1.518E+00	1.829E+00	1.629E-01	1.166
PA-231	283.69	*		5.475E-01	1.713E+00	2.537E+00	3.779E-01	0.216
	301.36			1.236E+00	7.161E-01	1.177E+00	1.469E-01	1.050
TH-231	81.07			-2.419E-01	2.740E-01	3.746E-01	3.297E-02	-0.646
	83.79			1.179E-01	1.598E-01	2.354E-01	2.129E-02	0.501
	94.87			7.421E-01	5.590E-01	8.449E-01	7.598E-02	0.878
	144.24			-5.629E-01	7.583E-01	1.229E+00	1.175E-01	-0.458
	154.21			1.207E-01	4.349E-01	7.420E-01	6.939E-02	0.163
	269.46	+		5.351E-01	3.033E-01	3.805E-01	3.544E-02	1.406
PA-233	323.87	*		1.558E-01	8.707E-01	1.266E+00	2.214E-01	0.123
	338.28	+		7.218E+00	2.002E+00	2.656E+00	3.241E-01	2.717
	300.13			9.138E-01	5.310E-01	8.295E-01	1.253E-01	1.102
	311.90	*		-1.351E-02	7.263E-02	1.178E-01	1.091E-02	-0.115
	340.48			2.751E+00	1.130E+00	1.556E+00	3.755E-01	1.768
	94.67			4.174E-01	2.128E-01	3.231E-01	4.094E-02	1.292
PA-234	98.44			3.181E-02	1.160E-01	1.641E-01	9.159E-02	0.194
	111.00			-1.919E-01	2.137E-01	3.249E-01	3.938E-02	-0.591
	131.20			1.003E-01	1.345E-01	1.967E-01	1.700E-02	0.510
	569.50			4.897E-02	2.965E-01	5.038E-01	4.268E-02	0.097
	733.00			-1.684E-01	4.952E-01	6.791E-01	1.505E-01	-0.248
	880.51			-1.096E-01	3.168E-01	4.997E-01	4.507E-02	-0.219
PA-234M	883.24			2.235E-01	3.666E-01	5.811E-01	3.910E-01	0.385
	926.50			4.836E-02	2.109E-01	3.507E-01	8.915E-02	0.138
	946.00	*		-8.799E-02	3.251E-01	5.129E-01	9.715E-02	-0.172
	949.00			-1.924E-01	4.948E-01	7.713E-01	6.940E-02	-0.249
	766.42			2.228E+01	1.921E+01	2.549E+01	1.294E+01	0.874

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	1001.03	*		6.027E-01	5.801E+00	9.506E+00	9.690E-01	0.063
	99.53			2.011E-01	2.046E-01	3.030E-01	2.670E-02	0.664
	103.37			-9.368E-02	1.151E-01	1.767E-01	1.541E-02	-0.530
	106.12			8.743E-02	9.717E-02	1.602E-01	1.391E-02	0.546
	117.23	*		-2.173E-01	4.580E-01	7.114E-01	6.198E-02	-0.305
	228.18			7.542E-02	2.437E-01	4.109E-01	3.707E-02	0.184
AM-241	+	277.60		5.460E-01	3.620E-01	3.560E-01	3.256E-02	1.534
CM-247	+	59.54	*	-5.039E-02	2.044E-01	2.922E-01	2.408E-02	-0.172
		278.00		2.319E+00	1.538E+00	1.539E+00	1.408E-01	1.507
		287.50		2.174E-01	1.306E+00	2.172E+00	1.982E-01	0.100
CF-249		402.40	*	1.168E-02	4.065E-02	6.712E-02	5.443E-03	0.174
		252.80		3.510E-02	1.044E+00	1.733E+00	1.582E-01	0.020
		333.37		-1.812E-01	3.423E-01	3.258E-01	2.884E-02	-0.556
CF-251		388.16	*	4.072E-02	4.639E-02	7.927E-02	6.427E-03	0.514
		177.52	*	-6.444E-02	1.392E-01	2.294E-01	1.976E-02	-0.281
		227.38		2.791E-01	4.011E-01	6.864E-01	6.190E-02	0.407
		285.41		-2.034E+00	2.721E+00	3.691E+00	3.371E-01	-0.551

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]G1202057359      *
* Acquisition date   : 19-MAR-2010 15:33:45 Detector SN# :                   *
* Detector ID        : GAM01 Sensitivity      : 5.000                       *
* Geometry           : CAN Energy tolerance: 1.500                         *
* Elapsed live time  : 0 02:00:00.00 Abundance limit : 75.000              *
* Elapsed real time  : 0 02:00:01.24 Half life ratio : 8.000              *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 25-FEB-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID          : G1202057359 Analyst initials: MXR1                 *
* Batch Number       : 959281 Sample Quantity : 1.3271E+02 GRAM           *
* Recovery           : 1.00000 Carrier Weight : 0.00000                  *
*****
*                                     QC DATA                                *
*
* Standard Weight    : 0.00000                                              *
* CALIB. DATE/TIME   : 12-JAN-2010 15:15:52 MS Isotope :                   *
* MSD DPM            : 0.000 MSD Isotope :                               *
* LCS DPM            : 0.000 LCS Isotope :                               *
* LCSD DPM           : 0.000 LCSD Isotope :                               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.385E+01	3.535E+00	6.194E-01	0.000E+00
CD-109	3.037E+00	1.150E+00	1.430E+00	0.000E+00
SN-126	2.938E-01	1.112E-01	1.390E-01	0.000E+00
HG-203	1.345E-01	8.742E-02	7.888E-02	0.000E+00
TL-208	5.288E-01	9.318E-02	6.842E-02	0.000E+00
BI-211	3.518E+00	5.961E-01	4.134E-01	0.000E+00
PB-212	1.910E+00	2.294E-01	1.079E-01	0.000E+00
BI-214	1.366E+00	2.272E-01	1.245E-01	0.000E+00
PB-214	1.277E+00	2.271E-01	1.403E-01	0.000E+00
RA-224	4.891E+00	1.441E+00	1.156E+00	0.000E+00
RA-226	1.366E+00	2.272E-01	1.245E-01	0.000E+00
AC-228	1.745E+00	3.951E-01	2.583E-01	0.000E+00
RA-228	1.745E+00	3.951E-01	2.583E-01	0.000E+00
TH-228	1.910E+00	2.294E-01	1.079E-01	0.000E+00
TH-232	1.745E+00	3.951E-01	2.583E-01	0.000E+00
TH-234	3.118E+00	2.510E+00	2.598E+00	0.000E+00
U-235	-3.453E-02	2.196E-01	3.876E-01	0.000E+00
NP-237	8.765E-01	3.777E-01	4.836E-01	0.000E+00
U-238	3.118E+00	2.510E+00	2.598E+00	0.000E+00
ANH-511	1.016E-01	7.987E-02	4.855E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	-1.644E-01	4.028E-01	6.519E-01	0.000E+00 NOT IDENT.
NA-22	3.533E-02	5.081E-02	9.252E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	1.578E+09	0.000E+00	0.000E+00 SHORT HLIF
SC-46	5.298E-05	4.985E-02	8.403E-02	0.000E+00 FAIL ABUN
V-48	6.294E-03	1.021E-01	1.717E-01	0.000E+00 NOT IDENT.
CR-51	-4.288E-01	5.165E-01	8.274E-01	0.000E+00 NOT IDENT.
MN-54	7.268E-03	4.129E-02	7.104E-02	0.000E+00 NOT IDENT.

CO-56	-2.830E-03	4.606E-02	7.748E-02	0.000E+00	NOT IDENT.
CO-57	1.859E-02	2.828E-02	4.915E-02	0.000E+00	NOT IDENT.
CO-58	-2.265E-02	4.871E-02	7.925E-02	0.000E+00	NOT IDENT.
FE-59	2.145E-02	1.145E-01	1.933E-01	0.000E+00	NOT IDENT.
CO-60	2.648E-02	4.668E-02	8.424E-02	0.000E+00	NOT IDENT.
ZN-65	-8.488E-02	1.332E-01	1.730E-01	0.000E+00	NOT IDENT.
SE-75	1.895E-02	5.542E-02	9.120E-02	0.000E+00	FAIL ABUN
SR-85	0.000E+00	5.092E-02	9.133E-02	0.000E+00	NOT IDENT.
Y-88	5.979E-03	3.825E-02	6.536E-02	0.000E+00	NOT IDENT.
Y-91	-1.542E+01	2.758E+01	4.514E+01	0.000E+00	NOT IDENT.
NB-94	6.784E-03	3.705E-02	6.453E-02	0.000E+00	NOT IDENT.
NB-95	6.151E-02	5.769E-02	9.500E-02	0.000E+00	NOT IDENT.
NB-95M	1.985E-02	1.575E-01	2.446E-01	0.000E+00	NOT IDENT.
ZR-95	2.222E-02	8.850E-02	1.542E-01	0.000E+00	NOT IDENT.
MO-99	0.000E+00	8.562E+01	0.000E+00	0.000E+00	SHORT HLIF
TC-99M	0.000E+00	1.106E+25	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.281E-02	5.026E-02	7.725E-02	0.000E+00	FAIL ABUN
RH-106	5.392E-02	3.581E-01	6.276E-01	0.000E+00	NOT IDENT.
RU-106	5.392E-02	3.581E-01	6.276E-01	0.000E+00	NOT IDENT.
AG-108M	-3.308E-02	3.055E-02	4.668E-02	0.000E+00	NOT IDENT.
AG-110M	3.471E-04	3.935E-02	6.798E-02	0.000E+00	NOT IDENT.
SN-113	-1.867E-02	5.265E-02	8.718E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	1.130E+02	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-2.464E-02	8.543E-02	1.515E-01	0.000E+00	NOT IDENT.
TE-123M	-1.022E-02	3.223E-02	5.710E-02	0.000E+00	NOT IDENT.
SB-124	-1.684E-02	8.856E-02	1.419E-01	0.000E+00	NOT IDENT.
SB-125	-1.762E-03	1.089E-01	1.834E-01	0.000E+00	FAIL ABUN
TE-125M	3.526E+00	1.158E+01	1.995E+01	0.000E+00	NOT IDENT.
I-126	-1.614E-01	3.769E-01	6.293E-01	0.000E+00	NOT IDENT.
SB-126	4.414E-02	2.314E-01	3.815E-01	0.000E+00	NOT IDENT.
SB-127	-2.679E+00	5.574E+00	9.225E+00	0.000E+00	NOT IDENT.
I-131	-2.097E-01	2.411E-01	3.868E-01	0.000E+00	NOT IDENT.
TE-132	1.210E+00	3.703E+00	6.586E+00	0.000E+00	NOT IDENT.
BA-133	1.051E-02	5.017E-02	7.636E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.767E+06	0.000E+00	0.000E+00	SHORT HLIF
CS-134	6.004E-02	5.595E-02	1.025E-01	0.000E+00	NOT IDENT.
CS-135	3.043E-02	1.949E-01	3.007E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.084E+23	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.938E-02	1.694E-01	2.704E-01	0.000E+00	NOT IDENT.
BA-137M	1.829E-02	4.217E-02	7.492E-02	0.000E+00	NOT IDENT.
CS-137	1.932E-02	4.455E-02	7.914E-02	0.000E+00	NOT IDENT.
CE-139	-1.166E-02	3.222E-02	5.679E-02	0.000E+00	NOT IDENT.
BA-140	1.225E-01	4.100E-01	7.301E-01	0.000E+00	NOT IDENT.
LA-140	2.148E-02	1.283E-01	2.210E-01	0.000E+00	FAIL ABUN
CE-141	-2.021E-02	8.051E-02	1.416E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	6.054E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.903E-01	2.471E-01	3.838E-01	0.000E+00	NOT IDENT.
PM-144	4.580E-04	3.764E-02	6.475E-02	0.000E+00	NOT IDENT.
PR-144	5.765E-04	2.824E+00	4.854E+00	0.000E+00	NOT IDENT.
PM-146	1.289E-02	4.883E-02	8.343E-02	0.000E+00	NOT IDENT.
ND-147	-3.928E-02	9.484E-01	1.658E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	9.730E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-1.870E-03	1.307E-01	1.956E-01	0.000E+00	NOT IDENT.
GD-153	-7.796E-02	1.067E-01	1.555E-01	0.000E+00	NOT IDENT.
EU-154	9.013E-02	1.440E-01	2.604E-01	0.000E+00	NOT IDENT.
EU-155	1.269E-01	1.187E-01	2.104E-01	0.000E+00	FAIL ABUN
TB-160	-6.764E-03	1.597E-01	2.683E-01	0.000E+00	FAIL ABUN
HO-166M	3.724E-02	7.043E-02	1.255E-01	0.000E+00	NOT IDENT.
TA-182	-1.327E-01	2.423E-01	3.968E-01	0.000E+00	FAIL ABUN
IR-192	2.049E-02	3.967E-02	7.024E-02	0.000E+00	FAIL ABUN
BI-207	1.399E-02	6.871E-02	1.161E-01	0.000E+00	FAIL ABUN
PB-210	-9.782E-01	4.466E+00	7.704E+00	0.000E+00	NOT IDENT.
PB-211	-4.878E-01	8.094E-01	1.255E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	9.822E-01	1.445E+00	0.000E+00	FAIL ABUN
RN-219	2.247E-01	4.308E-01	7.535E-01	0.000E+00	FAIL ABUN
RA-223	1.558E-01	8.533E-01	1.302E+00	0.000E+00	FAIL ABUN
AC-227	-2.701E-01	2.805E-01	4.626E-01	0.000E+00	NOT IDENT.
TH-227	-2.701E-01	2.810E-01	4.626E-01	0.000E+00	NOT IDENT.
TH-229	2.156E-01	5.576E-01	1.004E+00	0.000E+00	FAIL ABUN
PA-231	5.475E-01	1.678E+00	2.615E+00	0.000E+00	NOT IDENT.
TH-231	1.558E-01	8.533E-01	1.302E+00	0.000E+00	FAIL ABUN
PA-233	-1.351E-02	7.118E-02	1.213E-01	0.000E+00	NOT IDENT.
PA-234	-8.799E-02	3.186E-01	5.176E-01	0.000E+00	NOT IDENT.
PA-234M	6.027E-01	5.685E+00	9.585E+00	0.000E+00	NOT IDENT.
NP-239	-2.173E-01	4.489E-01	7.441E-01	0.000E+00	FAIL ABUN
AM-241	-5.039E-02	2.004E-01	3.090E-01	0.000E+00	NOT IDENT.
CM-247	1.168E-02	3.984E-02	6.876E-02	0.000E+00	FAIL ABUN
CF-249	4.072E-02	4.546E-02	8.126E-02	0.000E+00	NOT IDENT.

CF-251	-6.444E-02	1.364E-01	2.382E-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]G1202057359.CNF;1
Sample date        : 25-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 15:33:45
Sample ID          : G1202057359 Sample quantity   : 1.32710E+02 GRAM
Detector name      : GAM01 Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00 Elapsed real time: 0 02:00:01.24 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity         : 5.00000
Batch ID           : 959281 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	1460.82	1206	10.66*	9.453E-01	3.385E+01	3.385E+01	10.66
CD-109	88.03	199	3.70*	5.191E+00	2.938E+00	3.037E+00	38.64
SN-126	64.28	114	9.60	2.793E+00	1.202E+00	1.202E+00	81.47
	86.94	199	8.90	5.191E+00	1.221E+00	1.221E+00	55.94
	87.57	199	37.00*	5.191E+00	2.938E-01	2.938E-01	38.64
HG-203	70.83	-----	3.69	3.714E+00	-----	Line Not Found	-----
	72.87	-----	6.19	3.944E+00	-----	Line Not Found	-----
	279.20	108	81.56*	3.876E+00	9.667E-02	1.345E-01	66.33
TL-208	277.37	108	6.60	3.876E+00	1.195E+00	1.195E+00	66.92
	583.19	340	85.00*	2.142E+00	5.288E-01	5.288E-01	17.98
	860.56	63	12.50	1.520E+00	9.372E-01	9.372E-01	55.82
BI-211	72.87	-----	1.23	3.944E+00	-----	Line Not Found	-----
	351.06	518	12.92*	3.225E+00	3.518E+00	3.518E+00	17.29
PB-212	74.82	442	10.28	4.160E+00	2.923E+00	2.923E+00	25.84
	77.11	543	17.10	4.390E+00	2.045E+00	2.045E+00	16.95
	238.63	1279	43.60*	4.345E+00	1.910E+00	1.910E+00	12.25
	300.09	-----	3.30	3.656E+00	-----	Line Not Found	-----
BI-214	609.32	453	45.49*	2.064E+00	1.366E+00	1.366E+00	16.97
	1120.29	69	14.92	1.192E+00	1.092E+00	1.092E+00	67.39
	1764.49	56	15.30	8.254E-01	1.249E+00	1.249E+00	33.04
PB-214	74.82	442	5.80	4.160E+00	5.181E+00	5.181E+00	25.21
	77.11	543	9.70	4.390E+00	3.605E+00	3.605E+00	18.85
	242.00	305	7.25	4.305E+00	2.766E+00	2.766E+00	30.61
	295.22	368	18.42	3.699E+00	1.530E+00	1.530E+00	21.18
	351.93	518	35.60*	3.225E+00	1.277E+00	1.277E+00	18.15
RA-224	240.99	305	4.10*	4.305E+00	4.891E+00	4.891E+00	30.06
RA-226	609.32	453	45.49*	2.064E+00	1.366E+00	1.366E+00	16.97
	1120.29	69	14.92	1.192E+00	1.092E+00	1.092E+00	67.39
	1764.49	56	15.30	8.254E-01	1.249E+00	1.249E+00	33.04
AC-228	338.32	241	11.27	3.326E+00	1.819E+00	1.819E+00	48.62
	911.20	230	25.80*	1.443E+00	1.745E+00	1.745E+00	23.11
	968.97	125	15.80	1.364E+00	1.646E+00	1.646E+00	48.09

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	241	11.27	3.326E+00	1.819E+00	1.819E+00	48.62
	911.20	230	25.80*	1.443E+00	1.745E+00	1.745E+00	23.11
	968.97	125	15.80	1.364E+00	1.646E+00	1.646E+00	48.09
TH-228	74.82	442	10.28	4.160E+00	2.923E+00	2.923E+00	23.96
	77.11	543	17.10	4.390E+00	2.045E+00	2.045E+00	16.95
	238.63	1279	43.60*	4.345E+00	1.910E+00	1.910E+00	12.25
TH-232	300.09	-----	3.30	3.656E+00	-----	Line Not Found	-----
	338.32	241	11.27	3.326E+00	1.819E+00	1.819E+00	26.42
	911.20	230	25.80*	1.443E+00	1.745E+00	1.745E+00	23.11
TH-234	968.97	125	15.80	1.364E+00	1.646E+00	1.646E+00	48.09
	63.29	114	3.70*	2.793E+00	3.118E+00	3.118E+00	82.12
	92.59	229	4.23	5.507E+00	2.781E+00	2.781E+00	44.67
U-235	89.96	145	3.47	5.363E+00	2.204E+00	2.204E+00	40.89
	93.35	229	5.60	5.507E+00	2.101E+00	2.101E+00	45.18
	143.76	-----	10.96*	5.865E+00	-----	Line Not Found	-----
NP-237	163.33	-----	5.08	5.555E+00	-----	Line Not Found	-----
	185.72	220	57.20	5.154E+00	2.113E-01	2.113E-01	41.70
	205.31	-----	5.01	4.840E+00	-----	Line Not Found	-----
U-238	86.48	199	12.40*	5.191E+00	8.765E-01	8.765E-01	43.97
	95.86	-----	2.68	5.636E+00	-----	Line Not Found	-----
	63.29	114	3.70*	2.793E+00	3.118E+00	3.118E+00	82.12
ANH-511	92.59	229	4.23	5.507E+00	2.781E+00	2.781E+00	39.78
	511.00	86	100.00*	2.391E+00	1.016E-01	1.016E-01	80.23

Flag: "*" = Keyline

Total number of lines in spectrum 30
Number of unidentified lines 3
Number of lines tentatively identified by NID 27 90.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.385E+01	3.385E+01	0.361E+01	10.66	
CD-109	461.40D	1.03	2.938E+00	3.037E+00	1.174E+00	38.64	
SN-126	2.30E+05Y	1.00	2.938E-01	2.938E-01	1.135E-01	38.64	
HG-203	46.59D	1.39	9.667E-02	1.345E-01	0.892E-01	66.33	
TL-208	1.41E+10Y	1.00	5.288E-01	5.288E-01	0.951E-01	17.98	
BI-211	7.04E+08Y	1.00	3.518E+00	3.518E+00	0.608E+00	17.29	
PB-212	1.41E+10Y	1.00	1.910E+00	1.910E+00	0.234E+00	12.25	
BI-214	1600.00Y	1.00	1.366E+00	1.366E+00	0.232E+00	16.97	
PB-214	1600.00Y	1.00	1.277E+00	1.277E+00	0.232E+00	18.15	
RA-224	1.41E+10Y	1.00	4.891E+00	4.891E+00	1.470E+00	30.06	
RA-226	1600.00Y	1.00	1.366E+00	1.366E+00	0.232E+00	16.97	
AC-228	1.41E+10Y	1.00	1.745E+00	1.745E+00	0.403E+00	23.11	
RA-228	1.41E+10Y	1.00	1.745E+00	1.745E+00	0.403E+00	23.11	
TH-228	1.41E+10Y	1.00	1.910E+00	1.910E+00	0.234E+00	12.25	
TH-232	1.41E+10Y	1.00	1.745E+00	1.745E+00	0.403E+00	23.11	
TH-234	4.47E+09Y	1.00	3.118E+00	3.118E+00	2.561E+00	82.12	
U-235	7.04E+08Y	1.00	2.113E-01	2.113E-01	0.881E-01	41.70	K
NP-237	2.14E+06Y	1.00	8.765E-01	8.765E-01	3.854E-01	43.97	
U-238	4.47E+09Y	1.00	3.118E+00	3.118E+00	2.561E+00	82.12	
ANH-511	1.00E+09Y	1.00	1.016E-01	1.016E-01	0.815E-01	80.23	

Total Activity : 6.660E+01 6.674E+01

Grand Total Activity : 6.660E+01 6.674E+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	129.30	121	270	1.94	259.26	256	7	1.69E-02	48.5	6.02E+00	
0	210.07	101	329	1.54	420.72	416	10	1.40E-02	70.6	4.77E+00	T
0	270.74	104	211	1.29	541.97	537	10	1.45E-02	55.9	3.96E+00	T
0	328.44	44	160	1.03	657.31	654	8	6.13E-03	****	3.41E+00	T
0	463.95	101	155	3.89	928.16	920	16	1.40E-02	59.4	2.59E+00	T
0	727.67	127	59	1.67	1455.27	1450	13	1.76E-02	30.6	1.77E+00	T
0	768.65	50	77	1.15	1537.18	1530	11	6.94E-03	73.7	1.69E+00	
0	1377.88	34	18	0.82	2754.77	2749	12	4.69E-03	61.0	9.93E-01	

Flags: "T" = Tentatively associated

```

*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
*                               DETECTOR DATA                               *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057359.CNF;1
* Acquisition date   : 19-MAR-2010 15:33:45   Detector SN#      :
* Detector ID        : GAM01                  Sensitivity       : 5.00000
* Geometry           : CAN                    Energy tolerance: 1.50000
* Elapsed live time  : 0 02:00:00.00          Abundance limit  : 75.00000
* Elapsed real time  : 0 02:00:01.24          Half life ratio  : 8.00000
*****
*                               SAMPLE DATA                               *
*
* Sample date        : 25-FEB-2010 12:00:00   Nuclide Library : SOLID
* Sample ID          : G1202057359           Analyst initials: MXR1
* Batch Number       : 959281                Sample Quantity : 1.32710E+02 GRAM
*****
*                               QC DATA                               *
*
* CALIB. DATE/TIME   : 12-JAN-2010 15:15:52.7MS 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	3.385E+01	3.607E+00	6.185E-01	5.498E-02	54.726
CD-109	3.037E+00	1.174E+00	1.360E+00	1.287E-01	2.233
SN-126	2.938E-01	1.135E-01	1.323E-01	1.246E-02	2.221
HG-203	1.345E-01	8.921E-02	7.652E-02	7.156E-03	1.758
TL-208	5.288E-01	9.508E-02	6.722E-02	6.097E-03	7.868
BI-211	3.518E+00	6.083E-01	4.025E-01	3.662E-02	8.739
PB-212	1.910E+00	2.341E-01	1.043E-01	1.061E-02	18.304
BI-214	1.366E+00	2.318E-01	1.224E-01	1.213E-02	11.165
PB-214	1.277E+00	2.317E-01	1.367E-01	1.453E-02	9.342
RA-224	4.891E+00	1.470E+00	1.119E+00	1.017E-01	4.372
RA-226	1.366E+00	2.318E-01	1.224E-01	1.213E-02	11.165
AC-228	1.745E+00	4.032E-01	2.558E-01	3.047E-02	6.821
RA-228	1.745E+00	4.032E-01	2.558E-01	3.047E-02	6.821
TH-228	1.910E+00	2.341E-01	1.043E-01	1.061E-02	18.304
TH-232	1.745E+00	4.032E-01	2.558E-01	3.047E-02	6.821
TH-234	3.118E+00	2.561E+00	2.459E+00	4.417E-01	1.268
U-235	2.113E-01	8.809E-02	3.719E-01	6.290E-02	0.568
NP-237	8.765E-01	3.854E-01	4.600E-01	1.055E-01	1.905

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-238	3.118E+00	2.561E+00	2.459E+00	4.417E-01	1.268
ANH-511	1.016E-01	8.150E-02	4.758E-02	4.033E-03	2.135

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.644E-01		4.110E-01	6.382E-01	5.805E-02	-0.258
NA-22	3.533E-02		5.184E-02	9.215E-02	7.739E-03	0.383
NA-24	-2.312E+02		8.052E+02	Half-Life	too short	
SC-46	5.298E-05		5.087E-02	8.316E-02	7.517E-03	0.001
V-48	6.294E-03		1.042E-01	1.703E-01	1.520E-02	0.037
CR-51	-4.288E-01		5.270E-01	8.045E-01	7.562E-02	-0.533
MN-54	7.268E-03		4.214E-02	7.023E-02	6.251E-03	0.104
CO-56	-2.830E-03		4.700E-02	7.662E-02	6.846E-03	-0.037
CO-57	1.859E-02		2.885E-02	4.703E-02	4.140E-03	0.395
CO-58	-2.265E-02		4.971E-02	7.831E-02	6.928E-03	-0.289
FE-59	2.145E-02		1.169E-01	1.920E-01	1.769E-02	0.112
CO-60	2.648E-02		4.764E-02	8.397E-02	7.158E-03	0.315
ZN-65	-8.488E-02		1.359E-01	1.719E-01	1.451E-02	-0.494
SE-75	1.895E-02		5.656E-02	8.839E-02	8.121E-03	0.214
SR-85	1.407E-01		5.196E-02	8.952E-02	7.590E-03	1.572
Y-88	5.979E-03		3.903E-02	6.553E-02	5.390E-03	0.091
Y-91	-1.542E+01		2.815E+01	4.492E+01	3.680E+00	-0.343
NB-94	6.784E-03		3.781E-02	6.360E-02	5.339E-03	0.107
NB-95	6.151E-02		5.886E-02	9.377E-02	8.126E-03	0.656
NB-95M	1.985E-02		1.607E-01	2.366E-01	2.431E-02	0.084
ZR-95	2.222E-02		9.030E-02	1.522E-01	1.450E-02	0.146
MO-99	1.368E-05		4.368E-05	Half-Life	too short	
TC-99M	-2.400E+18		5.641E+18	Half-Life	too short	
RU-103	-4.281E-02		5.129E-02	7.568E-02	1.049E-02	-0.566
RH-106	5.392E-02		3.655E-01	6.172E-01	8.076E-02	0.087
RU-106	5.392E-02		3.654E-01	6.172E-01	5.156E-02	0.087
AG-108M	-3.308E-02		3.118E-02	4.563E-02	3.905E-03	-0.725
AG-110M	3.471E-04		4.015E-02	6.692E-02	5.674E-03	0.005
SN-113	-1.867E-02		5.373E-02	8.506E-02	7.085E-03	-0.220
CD-115	-5.413E-05		5.764E-05	Half-Life	too short	
SN-117M	-2.464E-02		8.717E-02	1.456E-01	1.240E-02	-0.169
TE-123M	-1.022E-02		3.289E-02	5.487E-02	4.701E-03	-0.186
SB-124	-1.684E-02		9.036E-02	1.421E-01	1.262E-02	-0.119
SB-125	-1.762E-03		1.112E-01	1.792E-01	1.507E-02	-0.010
TE-125M	3.526E+00		1.182E+01	1.906E+01	2.008E+00	0.185
I-126	-1.614E-01		3.846E-01	6.197E-01	5.091E-02	-0.260
SB-126	4.414E-02		2.361E-01	3.762E-01	3.189E-02	0.117
SB-127	-2.679E+00		5.688E+00	9.088E+00	1.224E+00	-0.295
I-131	-2.097E-01		2.461E-01	3.770E-01	3.399E-02	-0.556
TE-132	1.210E+00		3.779E+00	6.367E+00	1.123E+00	0.190
BA-133	1.051E-02		5.120E-02	7.438E-02	9.624E-03	0.141

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	-1.324E-01		9.015E-01	Half-Life too short		
CS-134	6.004E-02		5.709E-02	1.012E-01	8.944E-03	0.593
CS-135	3.043E-02		1.988E-01	2.915E-01	3.039E-02	0.104
I-135	-2.543E+17		2.083E+17	Half-Life too short		
CS-136	-5.938E-02		1.728E-01	2.684E-01	2.442E-02	-0.221
BA-137M	1.829E-02		4.303E-02	7.376E-02	6.042E-03	0.248
CS-137	1.932E-02		4.545E-02	7.792E-02	6.396E-03	0.248
CE-139	-1.166E-02		3.287E-02	5.461E-02	4.651E-03	-0.214
BA-140	1.225E-01		4.184E-01	7.162E-01	2.427E-01	0.171
LA-140	2.148E-02		1.309E-01	2.210E-01	1.907E-02	0.097
CE-141	-2.021E-02		8.216E-02	1.359E-01	1.182E-02	-0.149
CE-143	1.089E-02		3.089E-03	Half-Life too short		
CE-144	1.903E-01		2.521E-01	3.678E-01	5.621E-02	0.517
PM-144	4.580E-04		3.840E-02	6.380E-02	5.341E-03	0.007
PR-144	5.765E-04		2.882E+00	4.784E+00	4.002E-01	0.000
PM-146	1.289E-02		4.982E-02	8.160E-02	8.461E-03	0.158
ND-147	-3.928E-02		9.677E-01	1.626E+00	2.420E-01	-0.024
PM-149	-8.350E-04		4.964E-04	Half-Life too short		
EU-152	-1.870E-03		1.334E-01	1.905E-01	1.760E-02	-0.010
GD-153	-7.796E-02		1.089E-01	1.482E-01	1.316E-02	-0.526
EU-154	9.013E-02		1.469E-01	2.594E-01	2.906E-02	0.347
EU-155	1.269E-01		1.211E-01	2.008E-01	1.766E-02	0.632
TB-160	-6.764E-03		1.630E-01	2.655E-01	2.394E-02	-0.025
HO-166M	3.724E-02		7.187E-02	1.237E-01	1.044E-02	0.301
TA-182	-1.327E-01		2.472E-01	3.949E-01	3.255E-02	-0.336
IR-192	2.049E-02		4.048E-02	6.829E-02	6.152E-03	0.300
BI-207	1.399E-02		7.011E-02	1.153E-01	9.994E-03	0.121
PB-210	-9.782E-01		4.557E+00	7.256E+00	6.796E-01	-0.135
PB-211	-4.878E-01		8.259E-01	1.225E+00	5.918E-01	-0.398
BI-212	3.033E+00	+	1.002E+00	1.425E+00	1.764E-01	2.128
RN-219	2.247E-01		4.396E-01	7.354E-01	1.072E-01	0.306
RA-223	1.558E-01		8.707E-01	1.266E+00	2.214E-01	0.123
AC-227	-2.701E-01		2.863E-01	4.481E-01	5.568E-02	-0.603
TH-227	-2.701E-01		2.868E-01	4.481E-01	6.246E-02	-0.603
TH-229	2.156E-01		5.689E-01	9.677E-01	8.477E-02	0.223
PA-231	5.475E-01		1.713E+00	2.537E+00	3.779E-01	0.216
TH-231	1.558E-01		8.707E-01	1.266E+00	2.214E-01	0.123
PA-233	-1.351E-02		7.263E-02	1.178E-01	1.091E-02	-0.115
PA-234	-8.799E-02		3.251E-01	5.129E-01	9.715E-02	-0.172
PA-234M	6.027E-01		5.801E+00	9.506E+00	9.690E-01	0.063
NP-239	-2.173E-01		4.580E-01	7.114E-01	6.198E-02	-0.305
AM-241	-5.039E-02		2.044E-01	2.922E-01	2.408E-02	-0.172
CM-247	1.168E-02		4.065E-02	6.712E-02	5.443E-03	0.174
CF-249	4.072E-02		4.639E-02	7.927E-02	6.427E-03	0.514
CF-251	-6.444E-02		1.392E-01	2.294E-01	1.976E-02	-0.281

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]G1202057359
* Acquisition date   : 19-MAR-2010 15:33:45 Detector SN#      :
* Detector ID        : GAM01 Sensitivity      : 5.000
* Geometry           : CAN Energy tolerance: 1.500
* Elapsed live time  : 0 02:00:00.00 Abundance limit : 75.000
* Elapsed real time  : 0 02:00:01.24 Half life ratio : 8.000
*****
*                               SAMPLE DATA                             *
*
* Sample date        : 25-FEB-2010 12:00:00 Nuclide Library : SOLID
* Sample ID          : G1202057359 Analyst initials: MXR1
* Batch Number       : 959281 Sample Quantity : 1.3271E+02 GRAM
* Recovery           : 1.00000 Carrier Weight : 0.00000
*****
*                               QC DATA                                *
*
* CALIB. DATE/TIME  : 12-JAN-2010 15:15:52 MS Isotope      :
* MSD DPM           : 0.000 MSD Isotope      :
* LCS DPM           : 0.000 LCS Isotope      :
* LCSD DPM          : 0.000 LCSD Isotope     :
*****

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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.385E+01	3.535E+00	3.099E-01	1.804E+00
CD-109	3.037E+00	1.150E+00	7.152E-01	5.868E-01
SN-126	2.938E-01	1.112E-01	6.954E-02	5.676E-02
HG-203	1.345E-01	8.742E-02	3.946E-02	4.460E-02
TL-208	5.288E-01	9.318E-02	3.423E-02	4.754E-02
BI-211	3.518E+00	5.961E-01	2.068E-01	3.041E-01
PB-212	1.910E+00	2.294E-01	5.396E-02	1.170E-01
BI-214	1.366E+00	2.272E-01	6.227E-02	1.159E-01
PB-214	1.277E+00	2.271E-01	7.021E-02	1.159E-01
RA-224	4.891E+00	1.441E+00	5.784E-01	7.351E-01
RA-226	1.366E+00	2.272E-01	6.227E-02	1.159E-01
AC-228	1.745E+00	3.951E-01	1.292E-01	2.016E-01
RA-228	1.745E+00	3.951E-01	1.292E-01	2.016E-01
TH-228	1.910E+00	2.294E-01	5.396E-02	1.170E-01
TH-232	1.745E+00	3.951E-01	1.292E-01	2.016E-01
TH-234	3.118E+00	2.510E+00	1.300E+00	1.280E+00
U-235	-3.453E-02	2.196E-01	1.939E-01	1.120E-01
NP-237	8.765E-01	3.777E-01	2.419E-01	1.927E-01
U-238	3.118E+00	2.510E+00	1.300E+00	1.280E+00
ANH-511	1.016E-01	7.987E-02	2.429E-02	4.075E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-1.644E-01	4.028E-01	3.261E-01	2.055E-01 NOT IDENT.
NA-22	3.533E-02	5.081E-02	4.629E-02	2.592E-02 NOT IDENT.
NA-24	-2.312E+08	1.578E+09	0.000E+00	8.052E+08 SHORT HLIF
SC-46	5.298E-05	4.985E-02	4.204E-02	2.543E-02 FAIL ABUN
V-48	6.294E-03	1.021E-01	8.592E-02	5.209E-02 NOT IDENT.
CR-51	-4.288E-01	5.165E-01	4.140E-01	2.635E-01 NOT IDENT.
MN-54	7.268E-03	4.129E-02	3.554E-02	2.107E-02 NOT IDENT.

CO-56	-2.830E-03	4.606E-02	3.877E-02	2.350E-02	NOT IDENT.
CO-57	1.859E-02	2.828E-02	2.459E-02	1.443E-02	NOT IDENT.
CO-58	-2.265E-02	4.871E-02	3.965E-02	2.485E-02	NOT IDENT.
FE-59	2.145E-02	1.145E-01	9.668E-02	5.844E-02	NOT IDENT.
CO-60	2.648E-02	4.668E-02	4.214E-02	2.382E-02	NOT IDENT.
ZN-65	-8.488E-02	1.332E-01	8.657E-02	6.797E-02	NOT IDENT.
SE-75	1.895E-02	5.542E-02	4.563E-02	2.828E-02	FAIL ABUN
SR-85	1.407E-01	5.092E-02	4.569E-02	2.598E-02	NOT IDENT.
Y-88	5.979E-03	3.825E-02	3.270E-02	1.951E-02	NOT IDENT.
Y-91	-1.542E+01	2.758E+01	2.258E+01	1.407E+01	NOT IDENT.
NB-94	6.784E-03	3.705E-02	3.229E-02	1.891E-02	NOT IDENT.
NB-95	6.151E-02	5.769E-02	4.753E-02	2.943E-02	NOT IDENT.
NB-95M	1.985E-02	1.575E-01	1.224E-01	8.035E-02	NOT IDENT.
ZR-95	2.222E-02	8.850E-02	7.713E-02	4.515E-02	NOT IDENT.
MO-99	1.368E+01	8.562E+01	0.000E+00	4.368E+01	SHORT HLIF
TC-99M	-2.400E+24	1.106E+25	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.281E-02	5.026E-02	3.865E-02	2.564E-02	FAIL ABUN
RH-106	5.392E-02	3.581E-01	3.140E-01	1.827E-01	NOT IDENT.
RU-106	5.392E-02	3.581E-01	3.140E-01	1.827E-01	NOT IDENT.
AG-108M	-3.308E-02	3.055E-02	2.336E-02	1.559E-02	NOT IDENT.
AG-110M	3.471E-04	3.935E-02	3.401E-02	2.008E-02	NOT IDENT.
SN-113	-1.867E-02	5.265E-02	4.362E-02	2.686E-02	NOT IDENT.
CD-115	-5.413E+01	1.130E+02	0.000E+00	5.764E+01	SHORT HLIF
SN-117M	-2.464E-02	8.543E-02	7.581E-02	4.359E-02	NOT IDENT.
TE-123M	-1.022E-02	3.223E-02	2.857E-02	1.645E-02	NOT IDENT.
SB-124	-1.684E-02	8.856E-02	7.100E-02	4.518E-02	NOT IDENT.
SB-125	-1.762E-03	1.089E-01	9.175E-02	5.558E-02	FAIL ABUN
TE-125M	3.526E+00	1.158E+01	9.983E+00	5.909E+00	NOT IDENT.
I-126	-1.614E-01	3.769E-01	3.149E-01	1.923E-01	NOT IDENT.
SB-126	4.414E-02	2.314E-01	1.909E-01	1.181E-01	NOT IDENT.
SB-127	-2.679E+00	5.574E+00	4.615E+00	2.844E+00	NOT IDENT.
I-131	-2.097E-01	2.411E-01	1.935E-01	1.230E-01	NOT IDENT.
TE-132	1.210E+00	3.703E+00	3.295E+00	1.890E+00	NOT IDENT.
BA-133	1.051E-02	5.017E-02	3.820E-02	2.560E-02	NOT IDENT.
I-133	-1.324E+05	1.767E+06	0.000E+00	9.015E+05	SHORT HLIF
CS-134	6.004E-02	5.595E-02	5.126E-02	2.854E-02	NOT IDENT.
CS-135	3.043E-02	1.949E-01	1.504E-01	9.941E-02	NOT IDENT.
I-135	-2.543E+23	4.084E+23	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.938E-02	1.694E-01	1.353E-01	8.642E-02	NOT IDENT.
BA-137M	1.829E-02	4.217E-02	3.748E-02	2.151E-02	NOT IDENT.
CS-137	1.932E-02	4.455E-02	3.960E-02	2.273E-02	NOT IDENT.
CE-139	-1.166E-02	3.222E-02	2.841E-02	1.644E-02	NOT IDENT.
BA-140	1.225E-01	4.100E-01	3.653E-01	2.092E-01	NOT IDENT.
LA-140	2.148E-02	1.283E-01	1.106E-01	6.545E-02	FAIL ABUN
CE-141	-2.021E-02	8.051E-02	7.085E-02	4.108E-02	NOT IDENT.
CE-143	1.089E+04	6.054E+03	0.000E+00	3.089E+03	SHORT HLIF
CE-144	1.903E-01	2.471E-01	1.920E-01	1.261E-01	NOT IDENT.
PM-144	4.580E-04	3.764E-02	3.239E-02	1.920E-02	NOT IDENT.
PR-144	5.765E-04	2.824E+00	2.428E+00	1.441E+00	NOT IDENT.
PM-146	1.289E-02	4.883E-02	4.174E-02	2.491E-02	NOT IDENT.
ND-147	-3.928E-02	9.484E-01	8.296E-01	4.839E-01	FAIL ABUN
PM-149	-8.350E+02	9.730E+02	0.000E+00	4.964E+02	SHORT HLIF
EU-152	-1.870E-03	1.307E-01	9.788E-02	6.670E-02	NOT IDENT.
GD-153	-7.796E-02	1.067E-01	7.779E-02	5.443E-02	NOT IDENT.
EU-154	9.013E-02	1.440E-01	1.303E-01	7.346E-02	NOT IDENT.
EU-155	1.269E-01	1.187E-01	1.053E-01	6.057E-02	FAIL ABUN
TB-160	-6.764E-03	1.597E-01	1.342E-01	8.149E-02	FAIL ABUN
HO-166M	3.724E-02	7.043E-02	6.280E-02	3.594E-02	NOT IDENT.
TA-182	-1.327E-01	2.423E-01	1.985E-01	1.236E-01	FAIL ABUN
IR-192	2.049E-02	3.967E-02	3.514E-02	2.024E-02	FAIL ABUN
BI-207	1.399E-02	6.871E-02	5.809E-02	3.505E-02	FAIL ABUN
PB-210	-9.782E-01	4.466E+00	3.854E+00	2.279E+00	NOT IDENT.
PB-211	-4.878E-01	8.094E-01	6.278E-01	4.130E-01	NOT IDENT.
BI-212	3.033E+00	9.822E-01	7.230E-01	5.011E-01	FAIL ABUN
RN-219	2.247E-01	4.308E-01	3.770E-01	2.198E-01	FAIL ABUN
RA-223	1.558E-01	8.533E-01	6.512E-01	4.353E-01	FAIL ABUN
AC-227	-2.701E-01	2.805E-01	2.314E-01	1.431E-01	NOT IDENT.
TH-227	-2.701E-01	2.810E-01	2.314E-01	1.434E-01	NOT IDENT.
TH-229	2.156E-01	5.576E-01	5.022E-01	2.845E-01	FAIL ABUN
PA-231	5.475E-01	1.678E+00	1.308E+00	8.563E-01	NOT IDENT.
TH-231	1.558E-01	8.533E-01	6.512E-01	4.353E-01	FAIL ABUN
PA-233	-1.351E-02	7.118E-02	6.067E-02	3.631E-02	NOT IDENT.
PA-234	-8.799E-02	3.186E-01	2.590E-01	1.626E-01	NOT IDENT.
PA-234M	6.027E-01	5.685E+00	4.795E+00	2.901E+00	NOT IDENT.
NP-239	-2.173E-01	4.489E-01	3.723E-01	2.290E-01	FAIL ABUN
AM-241	-5.039E-02	2.004E-01	1.546E-01	1.022E-01	NOT IDENT.
CM-247	1.168E-02	3.984E-02	3.440E-02	2.032E-02	FAIL ABUN
CF-249	4.072E-02	4.546E-02	4.065E-02	2.320E-02	NOT IDENT.

CF-251 -6.444E-02 1.364E-01 1.192E-01 6.958E-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
46.54	291.7587
49.72	279.2668
57.36	0.0000
59.54	344.9928
63.29	368.9957
63.29	368.9957
64.28	369.6369
67.75	444.2948
69.67	424.8851
70.83	430.5171
72.81	470.5880
72.87	470.6326
72.87	470.6326
74.82	431.1462
74.82	431.1462
74.82	431.1462
74.97	431.2480
77.11	432.7026
77.11	432.7026
77.11	432.7026
79.69	415.4236
79.80	420.3818
80.12	420.5865
80.19	420.6318
80.57	406.1923
81.00	455.4270
81.07	470.1687
81.07	470.1687
83.79	417.9917
83.79	417.9917
85.43	446.9369
86.48	496.9918
86.55	516.7901
86.79	484.0417
86.94	484.1472
87.57	375.8037
88.03	376.0525
88.47	376.2891
89.96	377.0892
91.11	332.9737
92.59	333.6623
92.59	333.6623
93.35	334.0150
94.67	334.6223
94.87	334.7143
94.87	334.7143
95.86	328.4967
97.43	347.5770
98.44	302.8704
99.53	278.1746
100.11	292.9230
103.18	369.3134
103.37	350.3176
105.31	301.6677
106.12	313.2491
109.28	305.4515
111.00	354.8585
111.76	326.8213
116.30	327.4951
117.23	321.0059
121.12	281.1740
121.78	274.5002
122.06	274.5896
123.07	299.0685
131.20	292.5593
133.52	267.1220
136.00	315.1154

136.47	317.0290
140.51	0.0000
140.51	0.0000
143.76	316.8585
144.24	337.3276
144.24	337.3276
145.44	320.9511
152.43	333.0567
153.25	343.1374
154.21	322.9503
154.21	322.9503
156.02	321.7456
158.56	316.2839
159.00	315.5249
162.66	289.6654
163.33	287.1540
165.86	284.2431
176.60	247.9215
177.52	277.3230
181.07	0.0000
184.41	276.1158
185.72	258.2408
193.51	249.8291
197.04	246.8727
205.31	249.7192
210.85	255.3652
215.65	231.2241
222.11	245.3616
227.38	225.4458
228.16	231.2924
228.18	231.2961
235.69	231.2870
235.96	248.1871
235.96	248.1871
238.63	226.4265
238.63	226.4265
240.99	226.8263
242.00	226.9973
244.70	177.3347
252.40	183.1788
252.80	187.1101
256.23	215.7544
256.23	215.7544
260.90	0.0000
264.66	182.4996
268.22	192.8842
269.46	186.7713
269.46	186.7713
271.23	174.4266
273.65	121.9868
276.40	141.9258
277.37	175.1583
277.60	173.6072
278.00	173.6528
279.20	173.7952
279.54	173.8354
280.46	173.9429
283.69	144.2092
284.31	150.6084
285.41	176.1041
285.90	0.0000
287.50	149.9355
293.27	0.0000
295.22	174.6449
295.96	174.7276
298.57	193.6266
299.98	172.9793
299.98	172.9793
300.09	155.3729
300.09	155.3729
300.13	155.3752
301.36	157.6358
302.85	191.5479
304.50	208.8157
304.50	208.8157
304.85	179.7429
308.46	160.0238
311.90	156.3339

316.51	132.5072
319.41	165.1688
320.08	172.3320
323.87	167.4479
323.87	167.4479
328.76	146.7466
333.37	179.8538
334.37	169.7336
334.37	169.7336
338.28	144.5069
338.28	144.5069
338.32	144.5091
338.32	144.5091
338.32	144.5091
340.48	160.9081
340.55	157.6289
344.28	159.6190
351.06	163.5506
351.93	142.5589
356.01	117.6249
364.49	144.6163
366.42	0.0000
383.85	128.2865
388.16	112.7732
388.63	119.1280
391.69	129.8805
400.66	118.8274
401.81	99.7889
402.40	105.1301
404.85	122.2770
410.95	105.5954
414.70	114.3487
423.72	111.6521
427.09	110.7655
427.87	122.6418
433.94	102.5103
453.88	103.5091
463.37	106.1663
468.07	82.4875
473.00	94.5520
476.78	105.7310
477.60	103.5670
487.02	96.2700
492.35	0.0000
497.08	97.8197
511.00	74.9380
514.00	60.9248
527.90	0.0000
529.87	0.0000
531.02	86.6461
537.26	76.0184
546.56	0.0000
563.25	56.7188
569.33	76.1185
569.50	80.7104
569.70	80.7168
583.19	86.6884
600.60	98.4304
602.73	89.4495
604.72	82.1569
609.32	76.4025
609.32	76.4025
610.33	76.4326
614.28	87.1286
618.01	78.2948
621.93	78.6454
621.93	78.6454
633.25	80.8623
635.95	67.7672
636.99	69.6767
645.85	70.8527
657.76	75.9082
661.66	82.6670
661.66	82.6670
664.57	0.0000
666.33	92.3252
666.50	93.2818
677.62	73.5861

685.70	88.1749
695.00	73.0795
696.49	72.1545
696.51	72.1564
697.00	85.6386
702.65	73.2743
706.68	85.9276
711.68	71.5701
720.70	58.2085
721.93	0.0000
722.78	74.4318
722.91	74.4337
723.31	74.4449
724.19	71.2297
727.33	59.3127
733.00	73.0664
735.93	71.5125
739.50	0.0000
747.24	61.6680
752.31	75.4999
753.82	51.9933
756.73	65.7896
763.94	68.8977
765.81	60.7332
766.42	67.3123
777.92	0.0000
778.90	56.3752
783.70	71.3215
785.37	47.5734
795.86	63.6422
801.95	65.7583
810.29	69.9265
810.76	68.9377
815.77	53.0349
818.51	65.0984
832.01	65.3698
834.85	59.3860
836.80	0.0000
846.77	55.5613
856.80	52.3516
860.56	60.8643
871.09	43.7559
873.19	52.9471
875.33	0.0000
879.36	48.9633
880.51	55.1021
883.24	47.9983
884.68	52.1044
889.28	60.3583
898.04	43.0767
911.20	52.5053
911.20	52.5053
911.20	52.5053
926.50	53.7685
937.49	59.1208
944.13	41.5654
946.00	47.8250
949.00	52.0276
962.29	62.6616
964.08	76.6240
966.15	78.4094
968.97	71.1460
968.97	71.1460
968.97	71.1460
983.53	43.0670
996.26	54.8082
1001.03	52.7673
1004.73	68.6658
1037.84	42.6230
1038.76	0.0000
1048.07	48.0784
1050.41	55.5902
1050.41	55.5902
1063.66	62.2141
1085.87	48.5420
1099.45	46.5420
1112.07	58.6301
1115.54	72.4447

1120.29	44.6035
1120.29	44.6035
1120.55	44.6075
1121.30	44.6155
1131.51	0.0000
1173.23	71.6174
1177.93	60.6665
1189.05	66.3545
1204.77	70.2944
1221.41	73.3489
1231.02	85.6061
1235.36	73.5835
1238.28	67.1074
1260.41	0.0000
1271.85	44.1352
1274.44	39.4639
1274.54	38.5243
1291.59	45.2715
1298.22	0.0000
1312.11	47.3673
1332.49	32.3509
1365.19	25.8684
1368.63	0.0000
1384.29	23.0859
1408.01	31.8989
1457.56	0.0000
1460.82	22.4703
1489.16	14.7363
1505.03	19.7095
1596.21	16.0417
1620.50	9.0637
1678.03	0.0000
1690.97	13.2587
1764.49	7.2310
1764.49	7.2310
1770.23	12.4082
1771.35	47.5741
1791.20	0.0000
1836.06	10.4549

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202057359

Total Uranium Activity	9.2613E+00	ug/g
Total Uranium Counting Unc.	7.4669E+00	ug/g
Total Uranium Tpu	3.8097E-06	ug/g
Total Uranium Mda	3.8685E+00	ug/g

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*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON ,SC 29417                *
*               GROSS GAMMA REPORT                  *
*
*****
*
*  BATCH ID      : 959281          SAMPLE ID   : G1202057359
*  ANALYST       : MXR1            DETECTOR    : GAM01
*  SAMPLE DATE   : 25-FEB-2010 12:00:00.00  COUNT TIME : 0 02:00:00.00
*  ANALYSIS DATE : 19-MAR-2010 15:33:45.54  SAMPLE ALQT: 132.710 GRAM
*
*****

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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 9.924E+00
GROSS GAMMA ERROR (pCi/GRAM ) : 1.511E+00
GROSS GAMMA MDA (pCi/GRAM ) : 3.617E+00
GROSS GAMMA DLC (pCi/GRAM ) : 1.759E+00

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VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 14:22:46.19

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*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057360.CNF;1
Sample date        : 4-MAR-2010 00:00:00. Acquisition date : 19-MAR-2010 13:22:14
Sample ID          : G1202057360          Sample quantity  : 1.55440E+02 GRAM
Detector name      : GAM02                Detector geometry: CAN
Elapsed live time  : 0 01:00:00.00        Elapsed real time: 0 01:00:02.71  0.1%
Energy tolerance   : 1.50000 keV          Analyst Initials : MXR1
Abundance limit    : 75.00000             Sensitivity       : 5.00000
Batch ID           : 959281               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	59.21	2010	580	1.05	117.61	113	9	5.58E-01	3.1	
2	2	74.48	174	304	1.08	148.16	141	17	4.84E-02	18.3	1.14E+00
3	2	76.82	257	236	0.97	152.85	141	17	7.15E-02	11.6	
4	0	87.67	1095	525	1.06	174.56	170	10	3.04E-01	5.0	
5	0	121.36	135	406	0.98	241.97	237	11	3.75E-02	30.1	
6	0	184.94*	122	388	1.20	369.20	363	13	3.38E-02	35.4	
7	0	238.23*	358	284	1.01	475.83	472	8	9.95E-02	9.8	
8	0	294.65	116	244	1.45	588.74	585	12	3.21E-02	28.4	
9	0	300.30	93	158	1.47	600.03	596	10	2.59E-02	27.3	
10	0	337.69	124	184	2.30	674.86	670	10	3.44E-02	22.4	
11	0	351.51*	231	145	1.15	702.51	698	10	6.41E-02	11.9	
12	0	510.00*	50	126	1.98	1019.68	1014	12	1.38E-02	51.2	
13	0	582.30*	193	98	1.40	1164.37	1156	15	5.36E-02	13.4	
14	0	608.79*	131	126	0.95	1217.37	1211	12	3.63E-02	19.4	
15	0	661.07*	2102	98	1.53	1322.00	1315	14	5.84E-01	2.4	
16	0	910.53*	93	111	1.62	1821.24	1817	12	2.57E-02	25.1	
17	0	1172.41	1574	80	1.75	2345.38	2335	20	4.37E-01	2.9	
18	0	1331.65	1435	42	2.09	2664.10	2654	21	3.98E-01	2.9	
19	0	1459.87*	27	7	2.37	2920.75	2913	13	7.53E-03	29.3	
20	0	1763.62*	27	3	0.99	3528.76	3522	13	7.53E-03	25.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 19-MAR-2010 14:22:49

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057360.CNF;1
 Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
 Sample title : MXR1
 Sample date : 4-MAR-2010 00:00:00 Acquisition date : 19-MAR-2010 13:22:14
 Sample ID : G1202057360 Sample quantity : 155.44 GRAM
 Sample type : SOLID Sample geometry :
 Detector name : GAMMA2 Detector geometry: CAN
 Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:02.71 0.1%
 Peak Width (FWHM): 3.00 Confidence level : 5.00 %
 Energy tolerance : 1.50 keV Half life ratio : 8.00 %
 Errors propagated: Yes Systematic Error : 0.00 %
 Efficiency type : Empirical Efficiencies at : Peak Energy
 Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	1.195E+00	7.099E-01	8.248E-01	7.842E-02	1.448
CO-57	+	122.06	*	1.270E-01	7.727E-02	6.174E-02	5.161E-03	2.057
		136.47		-2.187E-01	3.351E-01	5.300E-01	5.000E-02	-0.413
CO-60	+	1173.23		6.152E+00	6.095E-01	1.174E-01	9.451E-03	52.424
	+	1332.49	*	6.274E+00	6.864E-01	9.829E-02	9.158E-03	63.833
CD-109	+	88.03	*	2.771E+01	3.902E+00	2.014E+00	2.023E-01	13.759
SN-126		64.28		-1.168E+00	8.477E-01	1.364E+00	2.023E-01	-0.856
	+	86.94		1.126E+01	4.821E+00	8.292E-01	3.454E-01	13.573
	+	87.57	*	2.707E+00	3.812E-01	1.979E-01	1.978E-02	13.682
BA-137M	+	661.66	*	5.457E+00	5.387E-01	1.015E-01	8.749E-03	53.738
CS-137	+	661.66	*	5.765E+00	5.699E-01	1.073E-01	9.260E-03	53.738
TL-208		277.37		7.247E-01	6.766E-01	1.181E+00	1.813E-01	0.614
	+	583.19	*	4.782E-01	1.364E-01	1.047E-01	1.048E-02	4.566
		860.56		9.728E-01	6.867E-01	1.212E+00	1.277E-01	0.803
BI-211		72.87		6.307E+00	4.772E+00	8.413E+00	7.241E-01	0.750
	+	351.06	*	2.574E+00	6.816E-01	6.528E-01	7.532E-02	3.943
PB-212	+	74.82		2.028E+00	7.870E-01	8.533E-01	1.117E-01	2.376
	+	77.11		1.689E+00	4.192E-01	4.842E-01	4.330E-02	3.488
	+	238.63	*	8.900E-01	2.072E-01	2.049E-01	2.586E-02	4.343
	+	300.09		3.629E+00	2.045E+00	2.289E+00	3.113E-01	1.585
BI-214	+	609.32	*	6.265E-01	2.524E-01	2.186E-01	2.321E-02	2.866
		1120.29		7.288E-01	6.097E-01	1.104E+00	1.208E-01	0.660
	+	1764.49		9.496E-01	4.943E-01	3.671E-01	3.111E-02	2.587
PB-214	+	74.82		3.594E+00	1.380E+00	1.512E+00	1.787E-01	2.376
	+	77.11		2.977E+00	7.788E-01	8.536E-01	1.038E-01	3.488
		242.00		9.004E-01	7.233E-01	1.146E+00	1.508E-01	0.786
	+	295.22		7.942E-01	4.647E-01	3.868E-01	5.363E-02	2.053
	+	351.93	*	9.341E-01	2.527E-01	2.374E-01	3.032E-02	3.934
RA-226	+	609.32	*	6.265E-01	2.524E-01	2.186E-01	2.321E-02	2.866
		1120.29		7.288E-01	6.097E-01	1.104E+00	1.208E-01	0.660
	+	1764.49		9.496E-01	4.943E-01	3.671E-01	3.111E-02	2.587
TH-228	+	74.82		2.028E+00	7.623E-01	8.533E-01	7.538E-02	2.376
	+	77.11		1.689E+00	4.192E-01	4.842E-01	4.330E-02	3.488
	+	238.63	*	8.900E-01	2.072E-01	2.049E-01	2.586E-02	4.343

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	300.09		3.629E+00	2.995E+00	2.289E+00	1.415E+00	1.585
NP-237	+	86.48	*	8.078E+00	2.040E+00	6.453E-01	1.495E-01	12.519
		95.86		-1.643E+00	1.376E+00	2.071E+00	5.013E-01	-0.793
AM-241	+	59.54	*	1.346E+01	1.387E+00	5.725E-01	4.690E-02	23.503
ANH-511	+	511.00	*	9.459E-02	9.727E-02	9.671E-02	9.586E-03	0.978

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	3.291E-01	7.342E-01	1.216E+00	1.290E-01	0.271
NA-22		1274.54	*	2.034E-02	5.789E-02	9.994E-02	8.861E-03	0.204
NA-24		1368.63	*	3.100E-01	5.789E-02	Half-Life too short		
SC-46		889.28	*	2.447E-02	9.429E-02	1.559E-01	1.585E-02	0.157
		1120.55		9.033E-02	1.034E-01	1.843E-01	1.592E-02	0.490
V-48		944.13		-5.113E-01	2.471E+00	3.928E+00	3.932E-01	-0.130
		983.53	*	1.225E-01	1.929E-01	3.237E-01	3.166E-02	0.378
		1312.11		-5.618E-02	1.033E-01	1.530E-01	1.400E-02	-0.367
CR-51		320.08	*	-3.904E-01	6.643E-01	1.064E+00	1.297E-01	-0.367
MN-54		834.85	*	-1.320E-03	7.528E-02	1.226E-01	1.205E-02	-0.011
CO-56		846.77	*	6.593E-02	8.987E-02	1.540E-01	1.525E-02	0.428
		1037.84		3.016E-01	7.381E-01	1.270E+00	1.246E-01	0.237
		1238.28		7.223E-02	1.008E-01	1.816E-01	1.602E-02	0.398
		1771.35		-1.609E-01	3.446E-01	5.270E-01	4.451E-02	-0.305
CO-58		810.76	*	-2.155E-02	8.751E-02	1.404E-01	1.359E-02	-0.154
FE-59		1099.45	*	-5.900E-04	2.065E-01	3.440E-01	3.280E-02	-0.002
		1291.59		5.518E-02	1.592E-01	2.753E-01	2.785E-02	0.200
ZN-65		1115.54	*	-2.032E-01	1.973E-01	3.010E-01	2.619E-02	-0.675
SE-75	+	121.12		6.646E-01	4.071E-01	4.269E-01	4.646E-02	1.557
		136.00		-1.205E-02	6.404E-02	1.038E-01	9.191E-03	-0.116
		264.66	*	4.580E-02	7.805E-02	1.350E-01	1.650E-02	0.339
		279.54		-5.267E-02	1.876E-01	3.100E-01	3.915E-02	-0.170
		400.66		4.737E-01	5.192E-01	8.894E-01	1.086E-01	0.533
SR-85		514.00	*	1.317E-02	8.433E-02	1.198E-01	1.186E-02	0.110
Y-88		898.04		1.138E-01	1.058E-01	1.832E-01	1.879E-02	0.621
		1836.06	*	-2.778E-02	5.564E-02	8.137E-02	6.637E-03	-0.341
Y-91		1204.77	*	-1.163E+01	3.228E+01	5.114E+01	4.246E+00	-0.227
NB-94		702.65	*	-3.586E-02	5.965E-02	9.369E-02	8.353E-03	-0.383
		871.09		2.290E-02	8.069E-02	1.339E-01	1.346E-02	0.171
NB-95		765.81	*	1.682E-02	8.795E-02	1.461E-01	1.368E-02	0.115
NB-95M		235.69	*	2.393E-01	2.295E-01	3.632E-01	4.600E-02	0.659
ZR-95		724.19		7.424E-02	1.860E-01	3.163E-01	3.088E-02	0.235
		756.73	*	1.283E-01	1.400E-01	2.459E-01	2.493E-02	0.522
MO-99		140.51		-3.657E+01	3.843E+01	5.794E+01	1.383E+01	-0.631
		181.07		-1.628E+00	3.340E+01	4.763E+01	9.412E+00	-0.034
		366.42		-4.828E+01	2.161E+02	3.512E+02	3.789E+01	-0.137
		739.50	*	2.551E+00	2.653E+01	4.405E+01	7.079E+00	0.058
		777.92		-2.061E+00	8.708E+01	1.426E+02	1.347E+01	-0.014
TC-99M		140.51	*	-1.807E+11	8.708E+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
RU-103		497.08	*	7.251E-02	8.194E-02	1.389E-01	2.060E-02	0.522
		610.33		6.446E+00	2.233E+00	3.527E+00	5.875E-01	1.828
RH-106		621.93	*	4.236E-02	6.098E-01	1.024E+00	1.389E-01	0.041
		1050.41		3.730E+00	5.766E+00	1.009E+01	9.372E-01	0.370
RU-106		621.93	*	4.236E-02	6.098E-01	1.024E+00	9.299E-02	0.041
		1050.41		3.730E+00	5.766E+00	1.009E+01	9.372E-01	0.370
AG-108M		433.94	*	1.412E-03	6.391E-02	1.041E-01	1.073E-02	0.014
		614.28		2.685E-02	7.536E-02	1.135E-01	1.070E-02	0.237
		722.91		-3.968E-02	7.727E-02	1.231E-01	1.148E-02	-0.322
AG-110M		657.76	*	4.374E-01	1.115E-01	1.942E-01	1.733E-02	2.252
		677.62		-2.171E-01	5.934E-01	9.565E-01	8.588E-02	-0.227
		706.68		2.906E-01	3.763E-01	6.591E-01	6.053E-02	0.441
		763.94		-1.853E-02	3.458E-01	5.646E-01	5.402E-02	-0.033
		884.68		-5.774E-02	1.201E-01	1.874E-01	1.945E-02	-0.308
		937.49		-1.400E-01	2.961E-01	4.613E-01	4.757E-02	-0.303
		1384.29		4.616E-02	1.901E-01	3.252E-01	3.102E-02	0.142
		1505.03		-1.465E-01	4.118E-01	6.196E-01	5.716E-02	-0.236
SN-113		391.69	*	-4.712E-02	9.306E-02	1.478E-01	1.513E-02	-0.319
CD-115		260.90		-5.291E+01	2.800E+02	4.677E+02	5.676E+01	-0.113
		492.35		-1.622E+01	8.680E+01	1.378E+02	1.376E+01	-0.118
		527.90	*	-7.075E-01	2.646E+01	4.226E+01	4.154E+00	-0.017
SN-117M		156.02		-2.687E+00	3.519E+00	5.462E+00	5.308E-01	-0.492
		158.56	*	-2.786E-04	8.576E-02	1.390E-01	1.369E-02	-0.002
TE-123M		159.00	*	8.625E-03	4.371E-02	7.156E-02	7.100E-03	0.121
SB-124		602.73		-2.848E-02	8.733E-02	1.233E-01	1.144E-02	-0.231
		645.85		1.437E-01	9.975E-01	1.679E+00	1.561E-01	0.086
		722.78		-4.198E-01	7.786E-01	1.238E+00	1.145E-01	-0.339
		1690.97	*	-2.104E-02	9.564E-02	1.498E-01	1.365E-02	-0.140
SB-125		427.87	*	-1.185E-03	2.047E-01	3.332E-01	3.402E-02	-0.004
		463.37		4.324E-01	6.114E-01	1.027E+00	1.090E-01	0.421
		600.60		3.201E-01	3.477E-01	6.023E-01	5.956E-02	0.531
		635.95		-5.691E-01	5.093E-01	7.701E-01	7.396E-02	-0.739
TE-125M		109.28	*	-1.755E+01	1.475E+01	2.286E+01	2.379E+00	-0.767
I-126		388.63		1.464E-01	3.463E-01	5.814E-01	5.875E-02	0.252
		666.33	*	-7.154E-02	4.122E-01	5.816E-01	5.030E-02	-0.123
		753.82		-3.918E+00	3.654E+00	5.448E+00	5.055E-01	-0.719
SB-126		414.70		-1.387E-01	1.669E-01	2.579E-01	2.594E-02	-0.538
		666.50		-1.131E-02	1.408E-01	2.011E-01	1.740E-02	-0.056
		695.00		6.077E-02	1.479E-01	2.524E-01	2.236E-02	0.241
		697.00		1.673E-01	5.143E-01	8.619E-01	7.649E-02	0.194
		720.70	*	-1.490E-01	2.985E-01	4.768E-01	4.314E-02	-0.312
		856.80		-8.354E-01	1.160E+00	1.784E+00	1.777E-01	-0.468
SB-127		252.40		4.644E-01	8.021E+00	1.359E+01	5.760E+00	0.034
		473.00		-6.349E-01	4.133E+00	6.613E+00	9.169E-01	-0.096
		685.70	*	1.465E+00	2.797E+00	4.808E+00	5.588E-01	0.305
		783.70		-1.652E+00	7.709E+00	1.243E+01	1.625E+00	-0.133
I-131		80.19		-7.309E-01	7.421E+00	1.116E+01	1.035E+00	-0.065
		284.31		-2.200E+00	2.667E+00	4.244E+00	5.377E-01	-0.518
		364.49	*	1.098E-01	2.335E-01	3.948E-01	4.429E-02	0.278

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-132	636.99			-1.658E+00	3.003E+00	4.787E+00	4.498E-01	-0.346
	49.72			-3.311E+01	5.974E+01	9.002E+01	1.012E+01	-0.368
	111.76			2.960E+01	5.543E+01	9.337E+01	1.028E+01	0.317
	116.30			2.834E+00	5.423E+01	8.040E+01	8.802E+00	0.035
BA-133	228.16	*		-6.876E-01	1.472E+00	2.261E+00	3.995E-01	-0.304
	81.00			-2.090E-02	1.543E-01	2.315E-01	3.681E-02	-0.090
	276.40			4.242E-01	6.251E-01	1.078E+00	1.797E-01	0.393
	302.85			2.355E-01	2.595E-01	4.051E-01	6.324E-02	0.581
I-133	356.01	*		3.180E-02	8.549E-02	1.276E-01	1.876E-02	0.249
	383.85			-2.617E-01	5.879E-01	9.376E-01	1.276E-01	-0.279
	529.87	*		1.236E-02	5.879E-01	Half-Life	too short	
	875.33			2.836E-01	5.879E-01	Half-Life	too short	
CS-134	1298.22			-4.318E-01	5.879E-01	Half-Life	too short	
	563.25			5.472E-01	6.919E-01	1.221E+00	1.182E-01	0.448
	569.33			-2.718E-01	3.704E-01	5.903E-01	5.706E-02	-0.460
	604.72			-2.531E-02	7.220E-02	1.015E-01	9.418E-03	-0.249
CS-135	795.86	*		5.729E-02	9.329E-02	1.597E-01	1.537E-02	0.359
	801.95			3.702E-01	8.744E-01	1.478E+00	1.426E-01	0.250
	1365.19			6.227E-02	1.618E+00	2.664E+00	2.583E-01	0.023
	268.22	*		2.482E-01	2.757E-01	4.807E-01	6.359E-02	0.516
I-135	546.56			-6.651E+10	2.757E-01	Half-Life	too short	
	836.80			-5.385E+10	2.757E-01	Half-Life	too short	
	1038.76			7.980E+10	2.757E-01	Half-Life	too short	
	1131.51			7.261E+09	2.757E-01	Half-Life	too short	
CS-136	1260.41	*		-2.558E+10	2.757E-01	Half-Life	too short	
	1457.56			1.390E+11	2.757E-01	Half-Life	too short	
	1678.03			4.075E+10	2.757E-01	Half-Life	too short	
	1791.20			2.951E+10	2.757E-01	Half-Life	too short	
CE-139	153.25			1.516E-02	1.295E+00	2.105E+00	2.333E-01	0.007
	176.60			5.313E-01	7.907E-01	1.316E+00	1.477E-01	0.404
	273.65			-7.120E-01	9.132E-01	1.467E+00	1.885E-01	-0.485
	340.55			5.776E-02	2.912E-01	4.302E-01	5.031E-02	0.134
BA-140	818.51			-1.344E-02	1.642E-01	2.666E-01	2.593E-02	-0.050
	1048.07	*		-1.531E-01	2.481E-01	3.949E-01	3.810E-02	-0.388
	1235.36			-2.178E-01	7.280E-01	1.154E+00	1.352E-01	-0.189
	165.86	*		4.920E-02	4.729E-02	8.008E-02	8.215E-03	0.614
LA-140	162.66			-2.727E-01	1.283E+00	2.043E+00	2.161E-01	-0.133
	304.85			-1.588E-01	2.621E+00	3.829E+00	1.167E+00	-0.041
	423.72			-1.405E+00	4.332E+00	6.880E+00	2.291E+00	-0.204
	537.26	*		5.912E-01	5.850E-01	9.472E-01	3.242E-01	0.624
CE-141	328.76			8.560E-01	5.619E-01	9.918E-01	1.197E-01	0.863
	487.02			-1.819E-01	2.904E-01	4.459E-01	4.666E-02	-0.408
	815.77			-2.667E-01	7.218E-01	1.144E+00	1.213E-01	-0.233
	1596.21	*		-8.891E-02	1.318E-01	1.927E-01	1.743E-02	-0.461
CE-143	145.44	*		-9.113E-02	9.486E-02	1.462E-01	1.366E-02	-0.623
	57.36			9.751E-03	9.486E-02	Half-Life	too short	
	293.27	*		8.712E-04	9.486E-02	Half-Life	too short	
	664.57			9.359E-03	9.486E-02	Half-Life	too short	
+	721.93			-5.269E-04	9.486E-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	80.12			-4.704E-01	3.871E+00	5.814E+00	5.355E-01	-0.081
	133.52	*		-3.474E-02	3.168E-01	5.162E-01	7.913E-02	-0.067
PM-144	476.78			1.989E-01	1.489E-01	2.570E-01	2.743E-02	0.774
	618.01			-1.775E-02	6.262E-02	1.026E-01	9.592E-03	-0.173
	696.49	*		3.812E-02	6.244E-02	1.081E-01	9.594E-03	0.353
PR-144	696.51	*		2.839E+00	4.673E+00	8.089E+00	7.176E-01	0.351
	1489.16			-1.347E+01	2.059E+01	2.907E+01	2.688E+00	-0.463
PM-146	453.88	*		8.907E-02	9.631E-02	1.635E-01	1.929E-02	0.545
	633.25			3.906E-01	2.613E+00	4.403E+00	1.685E+00	0.089
	735.93			-8.839E-02	2.781E-01	4.446E-01	1.254E-01	-0.199
	747.24			3.692E-02	1.978E-01	3.302E-01	4.938E-02	0.112
ND-147	91.11			-8.424E-01	4.790E-01	7.018E-01	7.230E-02	-1.200
	319.41			8.614E-01	6.001E+00	1.006E+01	1.195E+00	0.086
	531.02	*		6.613E-01	1.108E+00	1.848E+00	2.896E-01	0.358
PM-149	285.90	*		2.080E+01	1.865E+02	3.144E+02	5.620E+01	0.066
EU-152	121.78	+		3.651E-01	2.229E-01	2.361E-01	2.283E-02	1.547
	244.70			-7.715E-01	5.814E-01	9.115E-01	1.082E-01	-0.846
	344.28	*		-9.039E-02	1.880E-01	3.022E-01	3.552E-02	-0.299
	778.90			-4.670E-02	5.525E-01	9.007E-01	8.513E-02	-0.052
	964.08			-7.380E-01	7.528E-01	1.128E+00	1.116E-01	-0.654
	1085.87			-9.338E-02	8.702E-01	1.440E+00	1.293E-01	-0.065
	1112.07			4.128E-02	6.416E-01	1.074E+00	9.369E-02	0.038
	1408.01			1.369E-01	2.521E-01	4.484E-01	4.178E-02	0.305
GD-153	69.67			-7.567E-01	2.996E+00	4.504E+00	3.773E-01	-0.168
	97.43	*		-3.397E-02	1.186E-01	1.938E-01	1.761E-02	-0.175
	103.18			-5.936E-02	1.605E-01	2.618E-01	2.292E-02	-0.227
EU-154	123.07			2.147E-01	9.572E-02	1.547E-01	1.728E-02	1.388
	723.31			-1.680E-01	3.546E-01	5.668E-01	5.611E-02	-0.296
	873.19			-3.287E-02	6.862E-01	1.111E+00	1.442E-01	-0.030
	996.26			-3.666E-01	8.607E-01	1.329E+00	2.396E-01	-0.276
	1004.73			3.301E-01	4.916E-01	8.609E-01	1.068E-01	0.383
	1274.44	*		6.722E-02	1.655E-01	2.875E-01	3.323E-02	0.234
EU-155	86.55	+		3.283E+00	4.640E-01	4.611E-01	4.590E-02	7.120
	105.31	*		1.636E-01	1.582E-01	2.738E-01	2.400E-02	0.597
TB-160	86.79	+		8.745E+00	1.231E+00	1.338E+00	1.325E-01	6.535
	197.04			-6.783E-01	9.552E-01	1.456E+00	1.589E-01	-0.466
	215.65			2.808E-01	1.328E+00	2.133E+00	2.413E-01	0.132
	298.57			4.167E-01	2.899E-01	3.630E-01	4.427E-02	1.148
	879.36	*		1.153E-01	3.521E-01	5.848E-01	5.910E-02	0.197
	962.29			2.353E-02	1.311E+00	2.115E+00	2.096E-01	0.011
	966.15			9.878E-01	5.228E-01	9.258E-01	9.152E-02	1.067
	1177.93			-3.672E-01	6.924E-01	9.031E-01	7.306E-02	-0.407
	1271.85			6.163E-02	9.468E-01	1.572E+00	1.389E-01	0.039
HO-166M	80.57	+		-3.204E-02	4.286E-01	6.453E-01	5.971E-02	-0.050
	184.41			1.539E-01	1.103E-01	1.102E-01	1.173E-02	1.397
	280.46			-8.331E-02	1.442E-01	2.338E-01	2.897E-02	-0.356
	410.95			4.112E-01	5.163E-01	8.782E-01	8.825E-02	0.468
	711.68	*		-5.302E-02	1.141E-01	1.815E-01	1.630E-02	-0.292
	752.31			-1.242E-01	5.217E-01	8.413E-01	7.798E-02	-0.148

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TA-182		810.29		-2.029E-02	1.321E-01	2.135E-01	2.063E-02	-0.095
		67.75		1.431E-03	1.778E-01	3.016E-01	2.486E-02	0.005
		100.11		-5.879E-04	2.412E-01	4.013E-01	3.577E-02	-0.001
		152.43		-4.187E-02	5.241E-01	8.481E-01	8.085E-02	-0.049
		222.11		5.091E-01	6.366E-01	1.048E+00	1.199E-01	0.486
		1121.30		8.240E-02	2.877E-01	4.891E-01	4.222E-02	0.168
		1189.05		2.328E-01	4.767E-01	8.293E-01	6.783E-02	0.281
IR-192		1221.41	*	-3.231E-02	2.548E-01	4.139E-01	3.491E-02	-0.078
		1231.02		-1.275E-02	5.541E-01	9.112E-01	7.756E-02	-0.014
	+	295.96		5.896E-01	3.429E-01	3.865E-01	4.743E-02	1.526
		308.46		-6.067E-02	1.738E-01	2.838E-01	3.431E-02	-0.214
		316.51	*	-1.736E-02	6.170E-02	1.010E-01	1.205E-02	-0.172
		468.07		8.632E-02	1.503E-01	2.510E-01	2.658E-02	0.344
		70.83		-4.222E-01	2.289E+00	3.449E+00	5.510E-01	-0.122
HG-203		72.87		1.580E+00	1.213E+00	2.108E+00	3.273E-01	0.750
		279.20	*	1.712E-02	6.646E-02	1.130E-01	1.419E-02	0.151
BI-207		72.81		3.089E-01	2.722E-01	4.777E-01	4.109E-02	0.647
	+	74.97		5.844E-01	2.196E-01	3.216E-01	2.820E-02	1.817
		569.70		-5.017E-02	5.806E-02	9.156E-02	8.751E-03	-0.548
		1063.66	*	1.432E-02	1.151E-01	1.941E-01	1.782E-02	0.074
PB-210		1770.23		-2.059E+00	1.006E+00	1.030E+00	8.702E-02	-1.999
		46.54	*	3.419E+00	1.067E+01	1.685E+01	1.603E+00	0.203
PB-211		404.85	*	-1.007E+00	1.575E+00	2.350E+00	1.144E+00	-0.428
		427.09		1.849E-01	3.324E+00	5.428E+00	2.527E+00	0.034
BI-212		832.01		3.388E-01	2.094E+00	3.448E+00	1.796E+00	0.098
		727.33	*	6.646E-01	1.076E+00	1.839E+00	2.352E-01	0.361
		785.37		2.014E+00	6.259E+00	1.052E+01	9.986E-01	0.192
		1620.50		-6.591E-01	3.077E+00	4.906E+00	4.405E-01	-0.134
RN-219		271.23		1.068E-01	4.050E-01	6.895E-01	9.301E-02	0.155
		401.81	*	1.300E-01	8.461E-01	1.396E+00	2.196E-01	0.093
RA-223		81.07		-1.063E-02	3.473E-01	5.241E-01	4.874E-02	-0.020
		83.79		1.026E-01	2.128E-01	3.277E-01	3.138E-02	0.313
		94.87		-1.789E+00	7.058E-01	1.016E+00	9.433E-02	-1.762
		144.24		-1.722E-01	9.992E-01	1.624E+00	1.639E-01	-0.106
		154.21		-1.607E-01	5.755E-01	9.203E-01	9.542E-02	-0.175
		269.46		2.830E-01	3.221E-01	5.613E-01	6.952E-02	0.504
		323.87	*	-9.478E-02	1.131E+00	1.870E+00	3.573E-01	-0.051
RA-224	+	338.28		6.100E+00	2.870E+00	3.659E+00	5.221E-01	1.667
		240.99	*	2.849E+00	1.312E+00	2.137E+00	2.521E-01	1.334
		79.69		1.640E-01	1.932E+00	2.935E+00	5.142E-01	0.056
		235.96		4.476E-01	2.894E-01	4.641E-01	6.047E-02	0.964
AC-227		256.23	*	-1.087E-01	4.441E-01	7.362E-01	1.083E-01	-0.148
	+	299.98		3.992E+00	2.267E+00	2.811E+00	4.312E-01	1.420
		304.50		-2.507E-01	3.066E+00	4.473E+00	8.315E-01	-0.056
		334.37		-1.491E+00	3.810E+00	5.376E+00	9.355E-01	-0.277
TH-227		79.80		-1.670E-01	2.556E+00	3.852E+00	8.477E-01	-0.043
		235.96		4.476E-01	2.890E-01	4.641E-01	5.834E-02	0.964
		256.23	*	-1.087E-01	4.441E-01	7.362E-01	1.179E-01	-0.148
	+	299.98		3.992E+00	2.267E+00	2.811E+00	4.312E-01	1.420

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-228		304.50		-2.507E-01	3.066E+00	4.473E+00	8.315E-01	-0.056
		334.37		-1.491E+00	3.810E+00	5.376E+00	9.355E-01	-0.277
	+	338.32		1.537E+00	9.485E-01	9.189E-01	3.896E-01	1.673
	+	911.20	*	1.104E+00	5.716E-01	7.842E-01	1.003E-01	1.408
RA-228		968.97		8.154E-01	7.175E-01	1.196E+00	2.970E-01	0.682
	+	338.32		1.537E+00	9.485E-01	9.189E-01	3.896E-01	1.673
	+	911.20	*	1.104E+00	5.716E-01	7.842E-01	1.003E-01	1.408
		968.97		8.154E-01	7.175E-01	1.196E+00	2.970E-01	0.682
TH-229		85.43		5.265E-01	3.664E-01	5.841E-01	5.696E-02	0.901
	+	88.47		4.174E+00	5.876E-01	6.253E-01	6.241E-02	6.675
		193.51	*	6.700E-01	8.896E-01	1.475E+00	1.599E-01	0.454
		210.85		-6.908E-01	1.599E+00	2.485E+00	2.786E-01	-0.278
PA-231		283.69	*	-1.152E+00	2.462E+00	4.008E+00	6.840E-01	-0.287
	+	301.36		2.564E+00	1.453E+00	1.734E+00	2.579E-01	1.479
		81.07		-1.063E-02	3.473E-01	5.241E-01	4.874E-02	-0.020
		83.79		1.026E-01	2.128E-01	3.277E-01	3.138E-02	0.313
TH-231		94.87		-1.789E+00	7.058E-01	1.016E+00	9.433E-02	-1.762
		144.24		-1.722E-01	9.992E-01	1.624E+00	1.639E-01	-0.106
		154.21		-1.607E-01	5.755E-01	9.203E-01	9.542E-02	-0.175
		269.46		2.830E-01	3.221E-01	5.613E-01	6.952E-02	0.504
TH-232		323.87	*	-9.478E-02	1.131E+00	1.870E+00	3.573E-01	-0.051
	+	338.28		6.100E+00	2.870E+00	3.659E+00	5.221E-01	1.667
	+	338.32		1.537E+00	7.114E-01	9.189E-01	1.056E-01	1.673
	+	911.20	*	1.104E+00	5.716E-01	7.842E-01	1.003E-01	1.408
PA-233		968.97		8.154E-01	7.175E-01	1.196E+00	2.970E-01	0.682
	+	300.13		1.806E+00	1.035E+00	1.276E+00	2.187E-01	1.415
		311.90	*	1.081E-01	1.207E-01	2.094E-01	2.551E-02	0.516
		340.48		2.543E-01	1.217E+00	1.798E+00	4.535E-01	0.141
PA-234		94.67		-6.114E-01	2.627E-01	3.746E-01	4.827E-02	-1.632
		98.44		-5.257E-02	1.304E-01	2.061E-01	1.151E-01	-0.255
		111.00		8.090E-02	2.740E-01	4.573E-01	5.485E-02	0.177
		131.20		-1.088E-01	1.651E-01	2.617E-01	2.255E-02	-0.416
PA-234M		569.50		-3.809E-01	5.100E-01	8.117E-01	7.759E-02	-0.469
		733.00		-1.730E-01	7.157E-01	1.156E+00	2.589E-01	-0.150
		880.51		1.089E-01	7.020E-01	1.152E+00	1.165E-01	0.095
		883.24		1.719E-01	7.058E-01	1.151E+00	7.760E-01	0.149
TH-234		926.50		2.996E-01	4.950E-01	8.246E-01	2.129E-01	0.363
		946.00	*	-3.624E-01	8.394E-01	1.309E+00	2.544E-01	-0.277
		949.00		1.144E+00	1.218E+00	2.081E+00	2.077E-01	0.550
		766.42		-8.916E+00	2.397E+01	3.752E+01	1.909E+01	-0.238
U-235		1001.03	*	4.675E+00	1.083E+01	1.819E+01	1.980E+00	0.257
		63.29	*	-7.410E-01	2.570E+00	4.005E+00	7.224E-01	-0.185
		92.59		1.035E+00	1.067E+00	1.849E+00	4.149E-01	0.560
		89.96		-3.835E+00	1.801E+00	2.000E+00	5.009E-01	-1.918
		93.35		3.062E-01	7.384E-01	1.326E+00	3.105E-01	0.231
		143.76	*	6.269E-02	2.966E-01	4.911E-01	8.454E-02	0.128
		163.33		-7.839E-01	7.234E-01	1.075E+00	2.013E-01	-0.729
	+	185.72		1.937E-01	1.388E-01	1.414E-01	1.509E-02	1.370
		205.31		-1.939E-01	8.361E-01	1.313E+00	2.552E-01	-0.148

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-238	63.29	*		-7.410E-01	2.570E+00	4.005E+00	7.224E-01	-0.185
	92.59			1.035E+00	1.046E+00	1.849E+00	1.756E-01	0.560
NP-239	99.53			-1.084E-01	2.287E-01	3.694E-01	3.306E-02	-0.293
	103.37			-6.814E-02	1.475E-01	2.394E-01	2.094E-02	-0.285
	106.12			1.111E-01	1.260E-01	2.167E-01	1.871E-02	0.513
	117.23	*		-3.352E-01	6.910E-01	9.879E-01	8.281E-02	-0.339
	228.18			-1.905E-01	3.974E-01	6.109E-01	7.063E-02	-0.312
	277.60			3.088E-01	3.056E-01	5.349E-01	6.621E-02	0.577
CM-247	278.00			1.094E+00	1.291E+00	2.248E+00	2.784E-01	0.487
	287.50			2.352E+00	2.228E+00	3.901E+00	4.807E-01	0.603
	402.40	*		-1.048E-02	7.742E-02	1.256E-01	1.260E-02	-0.083
CF-249	252.80			2.829E-01	1.668E+00	2.840E+00	3.410E-01	0.100
	333.37			-1.730E-01	3.851E-01	5.409E-01	6.276E-02	-0.320
	388.16	*		3.975E-02	8.130E-02	1.369E-01	1.386E-02	0.290
CF-251	177.52	*		1.122E-03	2.058E-01	3.314E-01	3.478E-02	0.003
	227.38			5.344E-01	6.341E-01	1.046E+00	1.207E-01	0.511
	285.41			5.426E-01	3.879E+00	6.548E+00	8.083E-01	0.083

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]G1202057360      *
* Acquisition date   : 19-MAR-2010 13:22:14 Detector SN# :                  *
* Detector ID        : GAM02 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 01:00:02.71 Half life ratio : 8.000                *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 4-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID          : G1202057360 Analyst initials: MXR1                  *
* Batch Number       : 959281 Sample Quantity : 1.5544E+02 GRAM            *
* Recovery           : 1.00000 Carrier Weight : 0.00000                    *
*****
*                                     QC DATA                                *
*
* Standard Weight    : 0.00000                                              *
* CALIB. DATE/TIME   : 29-OCT-2009 10:28:07 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	1.195E+00	6.957E-01	8.319E-01	0.000E+00
CO-57	1.270E-01	7.573E-02	6.649E-02	0.000E+00
CO-60	6.274E+00	6.726E-01	9.938E-02	0.000E+00
CD-109	2.771E+01	3.824E+00	2.187E+00	0.000E+00
SN-126	2.707E+00	3.735E-01	2.149E-01	0.000E+00
BA-137M	5.457E+00	5.279E-01	1.047E-01	0.000E+00
CS-137	5.765E+00	5.585E-01	1.106E-01	0.000E+00
TL-208	4.782E-01	1.336E-01	1.083E-01	0.000E+00
BI-211	2.574E+00	6.679E-01	6.844E-01	0.000E+00
PB-212	8.900E-01	2.031E-01	2.170E-01	0.000E+00
BI-214	6.265E-01	2.474E-01	2.259E-01	0.000E+00
PA-214	9.341E-01	2.476E-01	2.489E-01	0.000E+00
RA-226	6.265E-01	2.474E-01	2.259E-01	0.000E+00
TH-228	8.900E-01	2.031E-01	2.170E-01	0.000E+00
NP-237	8.078E+00	1.999E+00	7.009E-01	0.000E+00
AM-241	1.346E+01	1.359E+00	6.275E-01	0.000E+00
ANH-511	9.459E-02	9.532E-02	1.004E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)	
BE-7	3.291E-01	7.196E-01	1.265E+00	0.000E+00 NOT IDENT.
NA-22	2.034E-02	5.673E-02	1.012E-01	0.000E+00 NOT IDENT.
NA-24	0.000E+00	1.553E+06	0.000E+00	0.000E+00 SHORT HLIF
SC-46	2.447E-02	9.240E-02	1.594E-01	0.000E+00 NOT IDENT.
V-48	1.225E-01	1.891E-01	3.301E-01	0.000E+00 NOT IDENT.
CR-51	-3.904E-01	6.510E-01	1.118E+00	0.000E+00 NOT IDENT.
MN-54	-1.320E-03	7.378E-02	1.256E-01	0.000E+00 NOT IDENT.
CO-56	6.593E-02	8.807E-02	1.577E-01	0.000E+00 NOT IDENT.
CO-58	-2.155E-02	8.576E-02	1.439E-01	0.000E+00 NOT IDENT.
FE-59	-5.900E-04	2.024E-01	3.497E-01	0.000E+00 NOT IDENT.

ZN-65	-2.032E-01	1.934E-01	3.059E-01	0.000E+00	NOT IDENT.
SE-75	4.580E-02	7.649E-02	1.426E-01	0.000E+00	FAIL ABUN
SR-85	1.317E-02	8.264E-02	1.243E-01	0.000E+00	NOT IDENT.
Y-88	-2.778E-02	5.453E-02	8.154E-02	0.000E+00	NOT IDENT.
Y-91	-1.163E+01	3.163E+01	5.186E+01	0.000E+00	NOT IDENT.
NB-94	-3.586E-02	5.846E-02	9.642E-02	0.000E+00	NOT IDENT.
NB-95	1.682E-02	8.620E-02	1.500E-01	0.000E+00	NOT IDENT.
NB-95M	2.393E-01	2.249E-01	3.848E-01	0.000E+00	NOT IDENT.
ZR-95	1.283E-01	1.372E-01	2.525E-01	0.000E+00	NOT IDENT.
MO-99	2.551E+00	2.600E+01	4.527E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.888E+17	0.000E+00	0.000E+00	SHORT HLIF
RU-103	7.251E-02	8.030E-02	1.442E-01	0.000E+00	NOT IDENT.
RH-106	4.236E-02	5.976E-01	1.057E+00	0.000E+00	NOT IDENT.
RU-106	4.236E-02	5.976E-01	1.057E+00	0.000E+00	NOT IDENT.
AG-108M	1.412E-03	6.263E-02	1.085E-01	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	1.093E-01	2.002E-01	0.000E+00	NOT IDENT.
SN-113	-4.712E-02	9.120E-02	1.545E-01	0.000E+00	NOT IDENT.
CD-115	-7.075E-01	2.593E+01	4.383E+01	0.000E+00	NOT IDENT.
SN-117M	-2.786E-04	8.404E-02	1.487E-01	0.000E+00	NOT IDENT.
TE-123M	8.625E-03	4.284E-02	7.657E-02	0.000E+00	NOT IDENT.
SB-124	-2.104E-02	9.373E-02	1.504E-01	0.000E+00	NOT IDENT.
SB-125	-1.185E-03	2.006E-01	3.475E-01	0.000E+00	NOT IDENT.
TE-125M	-1.755E+01	1.446E+01	2.469E+01	0.000E+00	NOT IDENT.
I-126	-7.154E-02	4.039E-01	5.994E-01	0.000E+00	NOT IDENT.
SB-126	-1.490E-01	2.925E-01	4.904E-01	0.000E+00	NOT IDENT.
SB-127	1.465E+00	2.741E+00	4.951E+00	0.000E+00	NOT IDENT.
I-131	1.098E-01	2.288E-01	4.135E-01	0.000E+00	NOT IDENT.
TE-132	-6.876E-01	1.443E+00	2.397E+00	0.000E+00	NOT IDENT.
BA-133	3.180E-02	8.378E-02	1.337E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.642E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.729E-02	9.142E-02	1.638E-01	0.000E+00	NOT IDENT.
CS-135	2.482E-01	2.702E-01	5.075E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.402E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.531E-01	2.432E-01	4.020E-01	0.000E+00	NOT IDENT.
CE-139	4.920E-02	4.635E-02	8.559E-02	0.000E+00	NOT IDENT.
BA-140	5.912E-01	5.733E-01	9.820E-01	0.000E+00	NOT IDENT.
LA-140	-8.891E-02	1.292E-01	1.938E-01	0.000E+00	NOT IDENT.
CE-141	-9.113E-02	9.296E-02	1.568E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.278E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.474E-02	3.105E-01	5.547E-01	0.000E+00	NOT IDENT.
PM-144	3.812E-02	6.120E-02	1.113E-01	0.000E+00	NOT IDENT.
PR-144	2.839E+00	4.580E+00	8.327E+00	0.000E+00	NOT IDENT.
PM-146	8.907E-02	9.439E-02	1.703E-01	0.000E+00	NOT IDENT.
ND-147	6.613E-01	1.086E+00	1.917E+00	0.000E+00	NOT IDENT.
PM-149	2.080E+01	1.828E+02	3.314E+02	0.000E+00	NOT IDENT.
EU-152	-9.039E-02	1.843E-01	3.170E-01	0.000E+00	FAIL ABUN
GD-153	-3.397E-02	1.162E-01	2.099E-01	0.000E+00	NOT IDENT.
EU-154	6.722E-02	1.622E-01	2.910E-01	0.000E+00	NOT IDENT.
EU-155	1.636E-01	1.551E-01	2.960E-01	0.000E+00	FAIL ABUN
TB-160	1.153E-01	3.450E-01	5.982E-01	0.000E+00	FAIL ABUN
HO-166M	-5.302E-02	1.119E-01	1.867E-01	0.000E+00	FAIL ABUN
TA-182	-3.231E-02	2.497E-01	4.195E-01	0.000E+00	NOT IDENT.
IR-192	-1.736E-02	6.046E-02	1.061E-01	0.000E+00	FAIL ABUN
HG-203	1.712E-02	6.513E-02	1.192E-01	0.000E+00	NOT IDENT.
BI-207	1.432E-02	1.128E-01	1.975E-01	0.000E+00	FAIL ABUN
PB-210	3.419E+00	1.046E+01	1.857E+01	0.000E+00	NOT IDENT.
PB-211	-1.007E+00	1.544E+00	2.455E+00	0.000E+00	NOT IDENT.
BI-212	6.646E-01	1.054E+00	1.891E+00	0.000E+00	NOT IDENT.
RN-219	1.300E-01	8.292E-01	1.458E+00	0.000E+00	NOT IDENT.
RA-223	-9.478E-02	1.108E+00	1.964E+00	0.000E+00	FAIL ABUN
RA-224	0.000E+00	1.286E+00	2.262E+00	0.000E+00	NOT IDENT.
AC-227	-1.087E-01	4.352E-01	7.782E-01	0.000E+00	FAIL ABUN
TH-227	-1.087E-01	4.352E-01	7.782E-01	0.000E+00	FAIL ABUN
AC-228	0.000E+00	5.602E-01	8.014E-01	0.000E+00	FAIL ABUN
RA-228	0.000E+00	5.602E-01	8.014E-01	0.000E+00	FAIL ABUN
TH-229	6.700E-01	8.718E-01	1.570E+00	0.000E+00	FAIL ABUN
PA-231	-1.152E+00	2.412E+00	4.226E+00	0.000E+00	FAIL ABUN
TH-231	-9.478E-02	1.108E+00	1.964E+00	0.000E+00	FAIL ABUN
TH-232	0.000E+00	5.602E-01	8.014E-01	0.000E+00	FAIL ABUN
PA-233	1.081E-01	1.183E-01	2.202E-01	0.000E+00	FAIL ABUN
PA-234	-3.624E-01	8.226E-01	1.336E+00	0.000E+00	NOT IDENT.
PA-234M	4.675E+00	1.061E+01	1.854E+01	0.000E+00	NOT IDENT.
TH-234	-7.410E-01	2.519E+00	4.383E+00	0.000E+00	NOT IDENT.
U-235	6.269E-02	2.906E-01	5.268E-01	0.000E+00	FAIL ABUN
U-238	-7.410E-01	2.519E+00	4.383E+00	0.000E+00	NOT IDENT.
NP-239	-3.352E-01	6.771E-01	1.065E+00	0.000E+00	NOT IDENT.
CM-247	-1.048E-02	7.587E-02	1.312E-01	0.000E+00	NOT IDENT.
CF-249	3.975E-02	7.968E-02	1.432E-01	0.000E+00	NOT IDENT.

CF-251	1.122E-03	2.017E-01	3.536E-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]G1202057360.CNF;1
Sample date        : 4-MAR-2010 00:00:00. Acquisition date : 19-MAR-2010 13:22:14
Sample ID          : G1202057360      Sample quantity   : 1.55440E+02 GRAM
Detector name      : GAM02            Detector geometry: CAN
Elapsed live time  : 0 01:00:00.00    Elapsed real time: 0 01:00:02.71  0.1%
Energy tolerance   : 1.50000 keV      Analyst Initials  : MXR1
Abundance limit    : 75.00000         Sensitivity       : 5.00000
Batch ID           : 959281           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	1460.82	27	10.66*	1.028E+00	1.195E+00	1.195E+00	59.42
CO-57	122.06	135	85.60*	6.237E+00	1.220E-01	1.270E-01	60.86
	136.47	-----	10.68	6.129E+00	-----	Line Not Found	-----
CO-60	1173.23	1574	99.85	1.245E+00	6.118E+00	6.152E+00	9.91
	1332.49	1435	99.98*	1.111E+00	6.239E+00	6.274E+00	10.94
CD-109	88.03	1095	3.70*	5.278E+00	2.707E+01	2.771E+01	14.08
SN-126	64.28	-----	9.60	2.716E+00	-----	Line Not Found	-----
	86.94	1095	8.90	5.278E+00	1.126E+01	1.126E+01	42.83
	87.57	1095	37.00*	5.278E+00	2.707E+00	2.707E+00	14.08
BA-137M	661.66	2102	89.90*	2.071E+00	5.452E+00	5.457E+00	9.87
CS-137	661.66	2102	85.10*	2.071E+00	5.759E+00	5.765E+00	9.89
TL-208	277.37	-----	6.60	3.991E+00	-----	Line Not Found	-----
	583.19	193	85.00*	2.294E+00	4.782E-01	4.782E-01	28.52
	860.56	-----	12.50	1.651E+00	-----	Line Not Found	-----
BI-211	72.87	-----	1.23	3.848E+00	-----	Line Not Found	-----
	351.06	231	12.92*	3.352E+00	2.574E+00	2.574E+00	26.48
PB-212	74.82	174	10.28	4.039E+00	2.028E+00	2.028E+00	38.81
	77.11	257	17.10	4.303E+00	1.689E+00	1.689E+00	24.82
	238.63	358	43.60*	4.459E+00	8.900E-01	8.900E-01	23.28
	300.09	93	3.30	3.764E+00	3.629E+00	3.629E+00	56.34
BI-214	609.32	131	45.49*	2.214E+00	6.265E-01	6.265E-01	40.29
	1120.29	-----	14.92	1.298E+00	-----	Line Not Found	-----
	1764.49	27	15.30	9.006E-01	9.496E-01	9.496E-01	52.05
PB-214	74.82	174	5.80	4.039E+00	3.594E+00	3.594E+00	38.40
	77.11	257	9.70	4.303E+00	2.977E+00	2.977E+00	26.16
	242.00	-----	7.25	4.409E+00	-----	Line Not Found	-----
	295.22	116	18.42	3.817E+00	7.942E-01	7.942E-01	58.52
	351.93	231	35.60*	3.352E+00	9.340E-01	9.341E-01	27.05
RA-226	609.32	131	45.49*	2.214E+00	6.265E-01	6.265E-01	40.29
	1120.29	-----	14.92	1.298E+00	-----	Line Not Found	-----
	1764.49	27	15.30	9.006E-01	9.496E-01	9.496E-01	52.05
TH-228	74.82	174	10.28	4.039E+00	2.028E+00	2.028E+00	37.59

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	257	17.10	4.303E+00	1.689E+00	1.689E+00	24.82
	238.63	358	43.60*	4.459E+00	8.900E-01	8.900E-01	23.28
	300.09	93	3.30	3.764E+00	3.629E+00	3.629E+00	82.53
NP-237	86.48	1095	12.40*	5.278E+00	8.078E+00	8.078E+00	25.26
	95.86	-----	2.68	5.755E+00	-----	Line Not Found	-----
AM-241	59.54	2010	35.90*	2.010E+00	1.346E+01	1.346E+01	10.31
ANH-511	511.00	50	100.00*	2.542E+00	9.459E-02	9.459E-02	102.83

Flag: "*" = Keyline

Total number of lines in spectrum 20
Number of unidentified lines 0
Number of lines tentatively identified by NID 20 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	1.195E+00	1.195E+00	0.710E+00	59.42	
CO-57	271.74D	1.04	1.220E-01	1.270E-01	0.773E-01	60.86	
CO-60	5.27Y	1.01	6.239E+00	6.274E+00	0.686E+00	10.94	
CD-109	461.40D	1.02	2.707E+01	2.771E+01	0.390E+01	14.08	
SN-126	2.30E+05Y	1.00	2.707E+00	2.707E+00	0.381E+00	14.08	
BA-137M	30.08Y	1.00	5.452E+00	5.457E+00	0.539E+00	9.87	
CS-137	30.08Y	1.00	5.759E+00	5.765E+00	0.570E+00	9.89	
TL-208	1.41E+10Y	1.00	4.782E-01	4.782E-01	1.364E-01	28.52	
BI-211	7.04E+08Y	1.00	2.574E+00	2.574E+00	0.682E+00	26.48	
PB-212	1.41E+10Y	1.00	8.900E-01	8.900E-01	2.072E-01	23.28	
BI-214	1600.00Y	1.00	6.265E-01	6.265E-01	2.524E-01	40.29	
PB-214	1600.00Y	1.00	9.340E-01	9.341E-01	2.527E-01	27.05	
RA-226	1600.00Y	1.00	6.265E-01	6.265E-01	2.524E-01	40.29	
TH-228	1.41E+10Y	1.00	8.900E-01	8.900E-01	2.072E-01	23.28	
NP-237	2.14E+06Y	1.00	8.078E+00	8.078E+00	2.040E+00	25.26	
AM-241	432.60Y	1.00	1.346E+01	1.346E+01	0.139E+01	10.31	
ANH-511	1.00E+09Y	1.00	9.459E-02	9.459E-02	9.727E-02	102.83	

Total Activity : 7.719E+01 7.789E+01

Grand Total Activity : 7.719E+01 7.789E+01

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G1202057360

Page : 4
Acquisition date : 19-MAR-2010 13:22:14

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	184.94	122	388	1.20	369.20	363	13	3.38E-02	70.9	5.30E+00	T
0	337.69	124	184	2.30	674.86	670	10	3.44E-02	44.8	3.45E+00	T
0	910.53	93	111	1.62	1821.24	1817	12	2.57E-02	50.2	1.57E+00	T

Flags: "T" = Tentatively associated


```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057360.CNF;1
* Acquisition date   : 19-MAR-2010 13:22:14  Detector SN#      :
* Detector ID        : GAM02                  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 01:00:02.71          Half life ratio : 8.00000
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 4-MAR-2010 00:00:00.  Nuclide Library : SOLID
* Sample ID          : G1202057360          Analyst initials: MXR1
* Batch Number       : 959281               Sample Quantity : 1.55440E+02 GRAM
*****
*                                     QC DATA                               *
*
* CALIB. DATE/TIME   : 29-OCT-2009 10:28:07.3MS 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	1.195E+00	7.099E-01	8.248E-01	7.842E-02	1.448
CO-57	1.270E-01	7.727E-02	6.174E-02	5.161E-03	2.057
CO-60	6.274E+00	6.864E-01	9.829E-02	9.158E-03	63.833
CD-109	2.771E+01	3.902E+00	2.014E+00	2.023E-01	13.759
SN-126	2.707E+00	3.812E-01	1.979E-01	1.978E-02	13.682
BA-137M	5.457E+00	5.387E-01	1.015E-01	8.749E-03	53.738
CS-137	5.765E+00	5.699E-01	1.073E-01	9.260E-03	53.738
TL-208	4.782E-01	1.364E-01	1.047E-01	1.048E-02	4.566
BI-211	2.574E+00	6.816E-01	6.528E-01	7.532E-02	3.943
PB-212	8.900E-01	2.072E-01	2.049E-01	2.586E-02	4.343
BI-214	6.265E-01	2.524E-01	2.186E-01	2.321E-02	2.866
PB-214	9.341E-01	2.527E-01	2.374E-01	3.032E-02	3.934
RA-226	6.265E-01	2.524E-01	2.186E-01	2.321E-02	2.866
TH-228	8.900E-01	2.072E-01	2.049E-01	2.586E-02	4.343
NP-237	8.078E+00	2.040E+00	6.453E-01	1.495E-01	12.519
AM-241	1.346E+01	1.387E+00	5.725E-01	4.690E-02	23.503
ANH-511	9.459E-02	9.727E-02	9.671E-02	9.586E-03	0.978

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	3.291E-01		7.342E-01	1.216E+00	1.290E-01	0.271

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	2.034E-02		5.789E-02	9.994E-02	8.861E-03	0.204
NA-24	3.100E-01		7.925E-01	Half-Life too short		
SC-46	2.447E-02		9.429E-02	1.559E-01	1.585E-02	0.157
V-48	1.225E-01		1.929E-01	3.237E-01	3.166E-02	0.378
CR-51	-3.904E-01		6.643E-01	1.064E+00	1.297E-01	-0.367
MN-54	-1.320E-03		7.528E-02	1.226E-01	1.205E-02	-0.011
CO-56	6.593E-02		8.987E-02	1.540E-01	1.525E-02	0.428
CO-58	-2.155E-02		8.751E-02	1.404E-01	1.359E-02	-0.154
FE-59	-5.900E-04		2.065E-01	3.440E-01	3.280E-02	-0.002
ZN-65	-2.032E-01		1.973E-01	3.010E-01	2.619E-02	-0.675
SE-75	4.580E-02		7.805E-02	1.350E-01	1.650E-02	0.339
SR-85	1.317E-02		8.433E-02	1.198E-01	1.186E-02	0.110
Y-88	-2.778E-02		5.564E-02	8.137E-02	6.637E-03	-0.341
Y-91	-1.163E+01		3.228E+01	5.114E+01	4.246E+00	-0.227
NB-94	-3.586E-02		5.965E-02	9.369E-02	8.353E-03	-0.383
NB-95	1.682E-02		8.795E-02	1.461E-01	1.368E-02	0.115
NB-95M	2.393E-01		2.295E-01	3.632E-01	4.600E-02	0.659
ZR-95	1.283E-01		1.400E-01	2.459E-01	2.493E-02	0.522
MO-99	2.551E+00		2.653E+01	4.405E+01	7.079E+00	0.058
TC-99M	-1.807E+11		9.635E+10	Half-Life too short		
RU-103	7.251E-02		8.194E-02	1.389E-01	2.060E-02	0.522
RH-106	4.236E-02		6.098E-01	1.024E+00	1.389E-01	0.041
RU-106	4.236E-02		6.098E-01	1.024E+00	9.299E-02	0.041
AG-108M	1.412E-03		6.391E-02	1.041E-01	1.073E-02	0.014
AG-110M	4.374E-01		1.115E-01	1.942E-01	1.733E-02	2.252
SN-113	-4.712E-02		9.306E-02	1.478E-01	1.513E-02	-0.319
CD-115	-7.075E-01		2.646E+01	4.226E+01	4.154E+00	-0.017
SN-117M	-2.786E-04		8.576E-02	1.390E-01	1.369E-02	-0.002
TE-123M	8.625E-03		4.371E-02	7.156E-02	7.100E-03	0.121
SB-124	-2.104E-02		9.564E-02	1.498E-01	1.365E-02	-0.140
SB-125	-1.185E-03		2.047E-01	3.332E-01	3.402E-02	-0.004
TE-125M	-1.755E+01		1.475E+01	2.286E+01	2.379E+00	-0.767
I-126	-7.154E-02		4.122E-01	5.816E-01	5.030E-02	-0.123
SB-126	-1.490E-01		2.985E-01	4.768E-01	4.314E-02	-0.312
SB-127	1.465E+00		2.797E+00	4.808E+00	5.588E-01	0.305
I-131	1.098E-01		2.335E-01	3.948E-01	4.429E-02	0.278
TE-132	-6.876E-01		1.472E+00	2.261E+00	3.995E-01	-0.304
BA-133	3.180E-02		8.549E-02	1.276E-01	1.876E-02	0.249
I-133	1.236E-02		8.379E-03	Half-Life too short		
CS-134	5.729E-02		9.329E-02	1.597E-01	1.537E-02	0.359
CS-135	2.482E-01		2.757E-01	4.807E-01	6.359E-02	0.516
I-135	-2.558E+10		1.226E+10	Half-Life too short		
CS-136	-1.531E-01		2.481E-01	3.949E-01	3.810E-02	-0.388
CE-139	4.920E-02		4.729E-02	8.008E-02	8.215E-03	0.614
BA-140	5.912E-01		5.850E-01	9.472E-01	3.242E-01	0.624
LA-140	-8.891E-02		1.318E-01	1.927E-01	1.743E-02	-0.461
CE-141	-9.113E-02		9.486E-02	1.462E-01	1.366E-02	-0.623
CE-143	8.712E-04	+	2.693E-04	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
CE-144	-3.474E-02		3.168E-01	5.162E-01	7.913E-02	-0.067
PM-144	3.812E-02		6.244E-02	1.081E-01	9.594E-03	0.353
PR-144	2.839E+00		4.673E+00	8.089E+00	7.176E-01	0.351
PM-146	8.907E-02		9.631E-02	1.635E-01	1.929E-02	0.545
ND-147	6.613E-01		1.108E+00	1.848E+00	2.896E-01	0.358
PM-149	2.080E+01		1.865E+02	3.144E+02	5.620E+01	0.066
EU-152	-9.039E-02		1.880E-01	3.022E-01	3.552E-02	-0.299
GD-153	-3.397E-02		1.186E-01	1.938E-01	1.761E-02	-0.175
EU-154	6.722E-02		1.655E-01	2.875E-01	3.323E-02	0.234
EU-155	1.636E-01		1.582E-01	2.738E-01	2.400E-02	0.597
TB-160	1.153E-01		3.521E-01	5.848E-01	5.910E-02	0.197
HO-166M	-5.302E-02		1.141E-01	1.815E-01	1.630E-02	-0.292
TA-182	-3.231E-02		2.548E-01	4.139E-01	3.491E-02	-0.078
IR-192	-1.736E-02		6.170E-02	1.010E-01	1.205E-02	-0.172
HG-203	1.712E-02		6.646E-02	1.130E-01	1.419E-02	0.151
BI-207	1.432E-02		1.151E-01	1.941E-01	1.782E-02	0.074
PB-210	3.419E+00		1.067E+01	1.685E+01	1.603E+00	0.203
PB-211	-1.007E+00		1.575E+00	2.350E+00	1.144E+00	-0.428
BI-212	6.646E-01		1.076E+00	1.839E+00	2.352E-01	0.361
RN-219	1.300E-01		8.461E-01	1.396E+00	2.196E-01	0.093
RA-223	-9.478E-02		1.131E+00	1.870E+00	3.573E-01	-0.051
RA-224	2.849E+00		1.312E+00	2.137E+00	2.521E-01	1.334
AC-227	-1.087E-01		4.441E-01	7.362E-01	1.083E-01	-0.148
TH-227	-1.087E-01		4.441E-01	7.362E-01	1.179E-01	-0.148
AC-228	1.104E+00	+	5.716E-01	7.842E-01	1.003E-01	1.408
RA-228	1.104E+00	+	5.716E-01	7.842E-01	1.003E-01	1.408
TH-229	6.700E-01		8.896E-01	1.475E+00	1.599E-01	0.454
PA-231	-1.152E+00		2.462E+00	4.008E+00	6.840E-01	-0.287
TH-231	-9.478E-02		1.131E+00	1.870E+00	3.573E-01	-0.051
TH-232	1.104E+00	+	5.716E-01	7.842E-01	1.003E-01	1.408
PA-233	1.081E-01		1.207E-01	2.094E-01	2.551E-02	0.516
PA-234	-3.624E-01		8.394E-01	1.309E+00	2.544E-01	-0.277
PA-234M	4.675E+00		1.083E+01	1.819E+01	1.980E+00	0.257
TH-234	-7.410E-01		2.570E+00	4.005E+00	7.224E-01	-0.185
U-235	6.269E-02		2.966E-01	4.911E-01	8.454E-02	0.128
U-238	-7.410E-01		2.570E+00	4.005E+00	7.224E-01	-0.185
NP-239	-3.352E-01		6.910E-01	9.879E-01	8.281E-02	-0.339
CM-247	-1.048E-02		7.742E-02	1.256E-01	1.260E-02	-0.083
CF-249	3.975E-02		8.130E-02	1.369E-01	1.386E-02	0.290
CF-251	1.122E-03		2.058E-01	3.314E-01	3.478E-02	0.003

VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                    *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202057360          *
* Acquisition date   : 19-MAR-2010 13:22:14 Detector SN#      :              *
* Detector ID        : GAM02                      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 01:00:02.71                Half life ratio : 8.000     *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 4-MAR-2010 00:00:00 Nuclide Library : SOLID            *
* Sample ID          : G1202057360                Analyst initials: MXR1       *
* Batch Number       : 959281                      Sample Quantity : 1.5544E+02 GRAM *
* Recovery           : 1.00000                     Carrier Weight  : 0.00000     *
*****
*                                     QC DATA                               *
*
* CALIB. DATE/TIME   : 29-OCT-2009 10:28:07 MS Isotope      :              *
* MSD DPM             : 0.000                      MSD Isotope   :              *
* LCS DPM             : 0.000                      LCS Isotope   :              *
* LCSD DPM            : 0.000                      LCSD Isotope  :              *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.195E+00	6.957E-01	4.162E-01	3.550E-01
CO-57	1.270E-01	7.573E-02	3.327E-02	3.864E-02
CO-60	6.274E+00	6.726E-01	4.972E-02	3.432E-01
CD-109	2.771E+01	3.824E+00	1.094E+00	1.951E+00
SN-126	2.707E+00	3.735E-01	1.075E-01	1.906E-01
BA-137M	5.457E+00	5.279E-01	5.237E-02	2.693E-01
CS-137	5.765E+00	5.585E-01	5.533E-02	2.849E-01
TL-208	4.782E-01	1.336E-01	5.419E-02	6.818E-02
BI-211	2.574E+00	6.679E-01	3.424E-01	3.408E-01
PB-212	8.900E-01	2.031E-01	1.086E-01	1.036E-01
BI-214	6.265E-01	2.474E-01	1.130E-01	1.262E-01
PB-214	9.341E-01	2.476E-01	1.245E-01	1.263E-01
RA-226	6.265E-01	2.474E-01	1.130E-01	1.262E-01
TH-228	8.900E-01	2.031E-01	1.086E-01	1.036E-01
NP-237	8.078E+00	1.999E+00	3.507E-01	1.020E+00
AM-241	1.346E+01	1.359E+00	3.139E-01	6.934E-01
ANH-511	9.459E-02	9.532E-02	5.023E-02	4.863E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	3.291E-01	7.196E-01	6.328E-01	3.671E-01 NOT IDENT.
NA-22	2.034E-02	5.673E-02	5.062E-02	2.895E-02 NOT IDENT.
NA-24	3.100E+05	1.553E+06	0.000E+00	7.925E+05 SHORT HLIF
SC-46	2.447E-02	9.240E-02	7.976E-02	4.714E-02 NOT IDENT.
V-48	1.225E-01	1.891E-01	1.651E-01	9.646E-02 NOT IDENT.
CR-51	-3.904E-01	6.510E-01	5.594E-01	3.322E-01 NOT IDENT.
MN-54	-1.320E-03	7.378E-02	6.284E-02	3.764E-02 NOT IDENT.
CO-56	6.593E-02	8.807E-02	7.891E-02	4.493E-02 NOT IDENT.
CO-58	-2.155E-02	8.576E-02	7.199E-02	4.375E-02 NOT IDENT.
FE-59	-5.900E-04	2.024E-01	1.750E-01	1.032E-01 NOT IDENT.

ZN-65	-2.032E-01	1.934E-01	1.530E-01	9.867E-02	NOT IDENT.
SE-75	4.580E-02	7.649E-02	7.132E-02	3.902E-02	FAIL ABUN
SR-85	1.317E-02	8.264E-02	6.221E-02	4.217E-02	NOT IDENT.
Y-88	-2.778E-02	5.453E-02	4.079E-02	2.782E-02	NOT IDENT.
Y-91	-1.163E+01	3.163E+01	2.595E+01	1.614E+01	NOT IDENT.
NB-94	-3.586E-02	5.846E-02	4.824E-02	2.982E-02	NOT IDENT.
NB-95	1.682E-02	8.620E-02	7.504E-02	4.398E-02	NOT IDENT.
NB-95M	2.393E-01	2.249E-01	1.925E-01	1.148E-01	NOT IDENT.
ZR-95	1.283E-01	1.372E-01	1.263E-01	7.000E-02	NOT IDENT.
MO-99	2.551E+00	2.600E+01	2.265E+01	1.326E+01	NOT IDENT.
TC-99M	-1.807E+17	1.888E+17	0.000E+00	0.000E+00	SHORT HLIF
RU-103	7.251E-02	8.030E-02	7.216E-02	4.097E-02	NOT IDENT.
RH-106	4.236E-02	5.976E-01	5.290E-01	3.049E-01	NOT IDENT.
RU-106	4.236E-02	5.976E-01	5.290E-01	3.049E-01	NOT IDENT.
AG-108M	1.412E-03	6.263E-02	5.428E-02	3.195E-02	NOT IDENT.
AG-110M	4.374E-01	1.093E-01	1.002E-01	5.576E-02	NOT IDENT.
SN-113	-4.712E-02	9.120E-02	7.731E-02	4.653E-02	NOT IDENT.
CD-115	-7.075E-01	2.593E+01	2.193E+01	1.323E+01	NOT IDENT.
SN-117M	-2.786E-04	8.404E-02	7.441E-02	4.288E-02	NOT IDENT.
TE-123M	8.625E-03	4.284E-02	3.831E-02	2.185E-02	NOT IDENT.
SB-124	-2.104E-02	9.373E-02	7.526E-02	4.782E-02	NOT IDENT.
SB-125	-1.185E-03	2.006E-01	1.739E-01	1.024E-01	NOT IDENT.
TE-125M	-1.755E+01	1.446E+01	1.235E+01	7.377E+00	NOT IDENT.
I-126	-7.154E-02	4.039E-01	2.999E-01	2.061E-01	NOT IDENT.
SB-126	-1.490E-01	2.925E-01	2.454E-01	1.492E-01	NOT IDENT.
SB-127	1.465E+00	2.741E+00	2.477E+00	1.399E+00	NOT IDENT.
I-131	1.098E-01	2.288E-01	2.069E-01	1.168E-01	NOT IDENT.
TE-132	-6.876E-01	1.443E+00	1.199E+00	7.362E-01	NOT IDENT.
BA-133	3.180E-02	8.378E-02	6.691E-02	4.274E-02	NOT IDENT.
I-133	1.236E+04	1.642E+04	0.000E+00	8.379E+03	SHORT HLIF
CS-134	5.729E-02	9.142E-02	8.196E-02	4.664E-02	NOT IDENT.
CS-135	2.482E-01	2.702E-01	2.539E-01	1.378E-01	NOT IDENT.
I-135	-2.558E+16	2.402E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.531E-01	2.432E-01	2.011E-01	1.241E-01	NOT IDENT.
CE-139	4.920E-02	4.635E-02	4.282E-02	2.365E-02	NOT IDENT.
BA-140	5.912E-01	5.733E-01	4.913E-01	2.925E-01	NOT IDENT.
LA-140	-8.891E-02	1.292E-01	9.697E-02	6.592E-02	NOT IDENT.
CE-141	-9.113E-02	9.296E-02	7.844E-02	4.743E-02	NOT IDENT.
CE-143	8.712E+02	5.278E+02	0.000E+00	2.693E+02	SHORT HLIF
CE-144	-3.474E-02	3.105E-01	2.775E-01	1.584E-01	NOT IDENT.
PM-144	3.812E-02	6.120E-02	5.568E-02	3.122E-02	NOT IDENT.
PR-144	2.839E+00	4.580E+00	4.166E+00	2.337E+00	NOT IDENT.
PM-146	8.907E-02	9.439E-02	8.519E-02	4.816E-02	NOT IDENT.
ND-147	6.613E-01	1.086E+00	9.590E-01	5.540E-01	NOT IDENT.
PM-149	2.080E+01	1.828E+02	1.658E+02	9.326E+01	NOT IDENT.
EU-152	-9.039E-02	1.843E-01	1.586E-01	9.402E-02	FAIL ABUN
GD-153	-3.397E-02	1.162E-01	1.050E-01	5.930E-02	NOT IDENT.
EU-154	6.722E-02	1.622E-01	1.456E-01	8.274E-02	NOT IDENT.
EU-155	1.636E-01	1.551E-01	1.481E-01	7.912E-02	FAIL ABUN
TB-160	1.153E-01	3.450E-01	2.993E-01	1.760E-01	FAIL ABUN
HO-166M	-5.302E-02	1.119E-01	9.343E-02	5.707E-02	FAIL ABUN
TA-182	-3.231E-02	2.497E-01	2.099E-01	1.274E-01	NOT IDENT.
IR-192	-1.736E-02	6.046E-02	5.310E-02	3.085E-02	FAIL ABUN
HG-203	1.712E-02	6.513E-02	5.962E-02	3.323E-02	NOT IDENT.
BI-207	1.432E-02	1.128E-01	9.882E-02	5.753E-02	FAIL ABUN
PB-210	3.419E+00	1.046E+01	9.293E+00	5.336E+00	NOT IDENT.
PB-211	-1.007E+00	1.544E+00	1.228E+00	7.875E-01	NOT IDENT.
BI-212	6.646E-01	1.054E+00	9.459E-01	5.380E-01	NOT IDENT.
RN-219	1.300E-01	8.292E-01	7.296E-01	4.231E-01	NOT IDENT.
RA-223	-9.478E-02	1.108E+00	9.828E-01	5.654E-01	FAIL ABUN
RA-224	2.849E+00	1.286E+00	1.132E+00	6.559E-01	NOT IDENT.
AC-227	-1.087E-01	4.352E-01	3.894E-01	2.220E-01	FAIL ABUN
TH-227	-1.087E-01	4.352E-01	3.894E-01	2.221E-01	FAIL ABUN
AC-228	1.104E+00	5.602E-01	4.009E-01	2.858E-01	FAIL ABUN
RA-228	1.104E+00	5.602E-01	4.009E-01	2.858E-01	FAIL ABUN
TH-229	6.700E-01	8.718E-01	7.856E-01	4.448E-01	FAIL ABUN
PA-231	-1.152E+00	2.412E+00	2.114E+00	1.231E+00	FAIL ABUN
TH-231	-9.478E-02	1.108E+00	9.828E-01	5.654E-01	FAIL ABUN
TH-232	1.104E+00	5.602E-01	4.009E-01	2.858E-01	FAIL ABUN
PA-233	1.081E-01	1.183E-01	1.102E-01	6.035E-02	FAIL ABUN
PA-234	-3.624E-01	8.226E-01	6.684E-01	4.197E-01	NOT IDENT.
PA-234M	4.675E+00	1.061E+01	9.278E+00	5.414E+00	NOT IDENT.
TH-234	-7.410E-01	2.519E+00	2.193E+00	1.285E+00	NOT IDENT.
U-235	6.269E-02	2.906E-01	2.636E-01	1.483E-01	FAIL ABUN
U-238	-7.410E-01	2.519E+00	2.193E+00	1.285E+00	NOT IDENT.
NP-239	-3.352E-01	6.771E-01	5.329E-01	3.455E-01	NOT IDENT.
CM-247	-1.048E-02	7.587E-02	6.565E-02	3.871E-02	NOT IDENT.
CF-249	3.975E-02	7.968E-02	7.164E-02	4.065E-02	NOT IDENT.

CF-251

1.122E-03

2.017E-01

1.769E-01

1.029E-01 NOT IDENT.

 * GEL Laboratories LLC *
 * 2040 SAVAGE ROAD *
 * CHARLESTON ,SC 29417 *
 * GAMMA SPECTROSCOPY BACKGROUND REPORT *

ENERGY	MDA COUNTS
46.54	287.4956
49.72	328.1872
57.36	0.0000
59.54	353.8812
63.29	256.6887
63.29	256.6887
64.28	266.5807
67.75	257.7982
69.67	268.0254
70.83	270.2072
72.81	252.4715
72.87	252.5118
72.87	252.5118
74.82	253.8174
74.82	253.8174
74.82	253.8174
74.97	253.9167
77.11	255.3287
77.11	255.3287
77.11	255.3287
79.69	247.9228
79.80	253.4412
80.12	253.6441
80.19	253.6895
80.57	263.4858
81.00	281.5338
81.07	276.1149
81.07	276.1149
83.79	288.9679
83.79	288.9679
85.43	299.7806
86.48	342.0767
86.55	294.5762
86.79	294.7417
86.94	294.8472
87.57	295.2853
88.03	295.6033
88.47	295.9067
89.96	431.4323
91.11	312.1782
92.59	217.9954
92.59	217.9954
93.35	216.6800
94.67	335.8569
94.87	336.0058
94.87	336.0058
95.86	254.6782
97.43	194.9790
98.44	192.5603
99.53	193.0125
100.11	184.6842
103.18	215.5872
103.37	222.3829
105.31	198.2559
106.12	202.4420
109.28	246.4307
111.00	204.4405
111.76	208.6480
116.30	221.3173
117.23	230.5794
121.12	198.5250
121.78	198.7681
122.06	198.8708
123.07	189.7782
131.20	244.6291
133.52	233.4417
136.00	236.4793

136.47	248.9096
140.51	230.0703
140.51	0.0000
143.76	182.7779
144.24	192.2212
144.24	192.2212
145.44	222.6286
152.43	199.9998
153.25	193.9673
154.21	198.4573
154.21	198.4573
156.02	213.7588
158.56	195.5651
159.00	191.4655
162.66	192.5261
163.33	231.0504
165.86	179.5510
176.60	171.4994
177.52	192.3712
181.07	181.8570
184.41	200.7985
185.72	201.1559
193.51	191.0417
197.04	217.5897
205.31	215.3899
210.85	246.4031
215.65	202.1661
222.11	188.7725
227.38	178.3617
228.16	214.4595
228.18	214.4652
235.69	185.2157
235.96	190.8864
235.96	190.8864
238.63	313.9422
238.63	313.9422
240.99	190.5557
242.00	206.3141
244.70	234.7459
252.40	175.0814
252.80	176.0513
256.23	180.2838
256.23	180.2838
260.90	182.0762
264.66	157.4512
268.22	162.5711
269.46	167.3256
269.46	167.3256
271.23	171.2700
273.65	194.5231
276.40	163.0073
277.37	152.1675
277.60	151.2836
278.00	153.1785
279.20	157.9536
279.54	166.2766
280.46	166.4258
283.69	157.7346
284.31	167.9812
285.41	160.7700
285.90	160.8470
287.50	144.4338
293.27	0.0000
295.22	146.2559
295.96	146.3588
298.57	127.2572
299.98	160.4060
299.98	160.4060
300.09	160.4242
300.09	160.4242
300.13	160.4295
301.36	138.0988
302.85	118.7488
304.50	136.9977
304.50	136.9977
304.85	138.5480
308.46	154.8761
311.90	141.1539

316.51	144.5990
319.41	133.5294
320.08	149.8323
323.87	142.6795
323.87	142.6795
328.76	128.8679
333.37	168.3938
334.37	180.9101
334.37	180.9101
338.28	142.7325
338.28	142.7325
338.32	142.7370
338.32	142.7370
338.32	142.7370
340.48	141.4455
340.55	141.4543
344.28	164.7064
351.06	158.7816
351.93	158.8977
356.01	122.8214
364.49	132.7896
366.42	148.8739
383.85	151.9378
388.16	140.3298
388.63	140.3797
391.69	162.9776
400.66	128.4129
401.81	149.9451
402.40	154.0921
404.85	166.6412
410.95	142.7446
414.70	169.9095
423.72	157.5432
427.09	150.6486
427.87	161.1280
433.94	144.0708
453.88	137.5934
463.37	144.8632
468.07	136.7656
473.00	158.6490
476.78	122.5044
477.60	136.5459
487.02	123.3150
492.35	107.4519
497.08	95.7988
511.00	119.4698
514.00	114.4094
527.90	97.6250
529.87	0.0000
531.02	82.2473
537.26	84.7810
546.56	0.0000
563.25	88.7838
569.33	106.3597
569.50	106.3712
569.70	110.0196
583.19	82.4502
600.60	85.2898
602.73	111.1084
604.72	105.0464
609.32	96.0122
609.32	96.0122
610.33	96.0652
614.28	88.5012
618.01	98.0107
621.93	89.7938
621.93	89.7938
633.25	77.1513
635.95	95.1585
636.99	85.7835
645.85	91.8540
657.76	93.6759
661.66	70.6306
661.66	70.6306
664.57	0.0000
666.33	62.1848
666.50	60.5950
677.62	85.6190

685.70	78.2275
695.00	75.6672
696.49	69.8959
696.51	69.8959
697.00	74.7686
702.65	81.7831
706.68	62.4297
711.68	84.0873
720.70	92.2949
721.93	0.0000
722.78	104.1781
722.91	104.1833
723.31	106.1701
724.19	89.4937
727.33	88.6377
733.00	79.9816
735.93	78.1109
739.50	75.2671
747.24	81.4935
752.31	76.6973
753.82	92.6980
756.73	63.8734
763.94	98.1196
765.81	92.1887
766.42	103.2389
777.92	92.6783
778.90	89.6931
783.70	87.8602
785.37	76.8071
795.86	75.1219
801.95	82.4416
810.29	92.9440
810.76	92.9617
815.77	87.0150
818.51	83.0151
832.01	80.3880
834.85	80.4813
836.80	0.0000
846.77	79.8349
856.80	114.5117
860.56	81.3211
871.09	86.8967
873.19	97.4457
875.33	0.0000
879.36	97.6818
880.51	98.7780
883.24	91.5199
884.68	101.0438
889.28	88.5712
898.04	88.8706
911.20	111.6497
911.20	111.6497
911.20	111.6497
926.50	109.0872
937.49	120.2742
944.13	119.4930
946.00	126.0378
949.00	101.3736
962.29	118.1224
964.08	152.8969
966.15	99.8389
968.97	111.8893
968.97	111.8893
968.97	111.8893
983.53	96.0953
996.26	92.1416
1001.03	78.0116
1004.73	78.8456
1037.84	83.4595
1038.76	0.0000
1048.07	88.4053
1050.41	71.7113
1050.41	71.7113
1063.66	73.8986
1085.87	79.1567
1099.45	80.4519
1112.07	71.2769
1115.54	97.9958

1120.29	57.1704
1120.29	57.1704
1120.55	61.9399
1121.30	73.3938
1131.51	0.0000
1173.23	41.6563
1177.93	49.8926
1189.05	36.0169
1204.77	42.0552
1221.41	31.4531
1231.02	25.6276
1235.36	33.5559
1238.28	20.7437
1260.41	0.0000
1271.85	22.9401
1274.44	20.9607
1274.54	20.9615
1291.59	18.0542
1298.22	0.0000
1312.11	21.1846
1332.49	23.3332
1365.19	14.3293
1368.63	0.0000
1384.29	11.3164
1408.01	13.4576
1457.56	0.0000
1460.82	16.1907
1489.16	20.0808
1505.03	16.9766
1596.21	18.5931
1620.50	11.2190
1678.03	0.0000
1690.97	7.5999
1764.49	5.0684
1764.49	5.0684
1770.23	32.8640
1771.35	10.6351
1791.20	0.0000
1836.06	12.7411

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202057360

Total Uranium Activity	-2.1756E+00	ug/g
Total Uranium Counting Unc.	7.4948E+00	ug/g
Total Uranium Tpu	3.8239E-06	ug/g
Total Uranium Mda	6.5251E+00	ug/g

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*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON ,SC 29417                *
*               GROSS GAMMA REPORT                  *
*
*****
*
*  BATCH ID      : 959281                          SAMPLE ID   : G1202057360
*  ANALYST       : MXR1                             DETECTOR    : GAM02
*  SAMPLE DATE   : 4-MAR-2010 00:00:00.00          COUNT TIME   : 0 01:00:00.00
*  ANALYSIS DATE : 19-MAR-2010 13:22:14.03          SAMPLE ALQT  : 155.440 GRAM
*
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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 2.630E+01
GROSS GAMMA ERROR   (pCi/GRAM ) : 2.658E+00
GROSS GAMMA MDA     (pCi/GRAM ) : 3.318E+00
GROSS GAMMA DLC     (pCi/GRAM ) : 1.601E+00

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Radiochemistry Batch Checklist, Rev10

Batch# 964058 Product: H3 Date: 3-24-10

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.	✓		
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 Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) 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

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: SM

Secondary Review Performed By: Lynda Y

3/24/10

LANL 3-27-10

Tritium Que Sheet

Batch #: 964058 Analyst: KXK2 First Client Due Date 27-MAR-10 Internal Due Date: 16-MAR-10

Spike Isotope: Hydrogen-3
LCS Isotope: Hydrogen-3

Spike Code: 0134-K Expiration Date: 3/11/11 Vol: 0.1
LCS Code: 0134-K Expiration Date: 3/11/11 Vol: 0.1

Prep Date: 3/18/10 Initials: YHJ Pipet ID: 29109168 Witness: AWJ 3/24/10

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rtg #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Dist Vol (mL)
248250001-1	RE36-10-8285	SAMPLE		.25 pCi/mL SOIL		LANL010	24-FEB-10		17					
248250002-1	RE36-10-8286	SAMPLE		.25 pCi/mL SOIL		LANL010	24-FEB-10		18					
248250003-1	RE36-10-8283	SAMPLE		.25 pCi/mL SOIL		LANL010	24-FEB-10		19					
248250004-1	RE36-10-8284	SAMPLE		.25 pCi/mL SOIL		LANL010	24-FEB-10		20					
248376001-1	RE36-10-7494	SAMPLE		.25 pCi/mL SOIL		LANL010	24-FEB-10		21					
248376002-1	RE36-10-7493	SAMPLE		.25 pCi/mL SOIL		LANL010	24-FEB-10		22					
248376003-1	RE36-10-7492	SAMPLE		.25 pCi/mL SOIL		LANL010	24-FEB-10		23					
248376004-1	RE36-10-7491	SAMPLE		.25 pCi/mL SOIL		LANL010	24-FEB-10		24					
248376005-1	RE36-10-7496	SAMPLE		.25 pCi/mL SOIL		LANL010	24-FEB-10		25					
248376006-1	RE36-10-7499	SAMPLE		.25 pCi/mL SOIL		LANL010	24-FEB-10		26					
248376007-1	RE36-10-7497	SAMPLE		.25 pCi/mL SOIL		LANL010	24-FEB-10		27					
248376008-1	RE36-10-7495	SAMPLE		.25 pCi/mL SOIL		LANL010	24-FEB-10		28					
248376009-1	RE36-10-7498	SAMPLE		.25 pCi/mL SOIL		LANL010	24-FEB-10		29					
248376010-1	RE36-10-7500	SAMPLE		.25 pCi/mL SOIL		LANL010	24-FEB-10		30					
248376011-1	RE36-10-7523	SAMPLE		.25 pCi/mL SOIL		LANL010	24-FEB-10		31					
248376012-1	RE36-10-7522	SAMPLE		.25 pCi/mL SOIL		LANL010	24-FEB-10		32					
248376013-1	RE36-10-7521	SAMPLE		.25 pCi/mL SOIL		LANL010	24-FEB-10		33					
1202068219-1	MB for batch 964058	MB		.25 pCi/mL SOIL		QC ACCOUNT								
1202068220-1	RE36-10-7496(248376005DUP)	DUP		.25 pCi/mL SOIL		QC ACCOUNT	24-FEB-10		34					
1202068221-1	LCS for batch 964058	LCS		.25 pCi/mL SOIL		QC ACCOUNT			35					

Bkg Rack #: 16

Comments:

Bkg prepared with dead water? Yes/No

Instrument Used (circle as appropriate): LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac 7069123, Silver 7060656, Orange DG06095168
Calibration Used: Ecosciint Ultra (10 mL sample/13 mL Ecosciint Ultra)
Data Reviewed By: AWJ 3/24/10

GEL Laboratories LLC, Radiochemistry Division

3/27/10

Prep Logbook

The Determination of Tritium

Batch ID: 964058
 Analyst: Kelly Gainey
 Method: GL-RAD-A-002
 Verified by:
 Lab SOP: GL-RAD-A-002 REV# 18
 Instrument: No instrument-manual method

Sample ID	Run Date	Vacuum Flask Rig # (g)	Aliquot in scintillation vial (mL)	Prepped Aliquot in scintillation vial (mL)
248250001	19-MAR-2010 08:08:38	1	283.28	10
248250002	19-MAR-2010 08:08:38	2	470.39	10
248250003	19-MAR-2010 08:08:38	3	357.53	10
248250004	19-MAR-2010 08:08:38	4	449.83	10
248376001	19-MAR-2010 08:08:38	5	509.23	10
248376002	19-MAR-2010 08:08:38	6	378.03	10
248376003	19-MAR-2010 08:08:38	7	305.09	10
248376004	19-MAR-2010 08:08:38	8	269.22	10
248376005	19-MAR-2010 08:08:38	9	439.38	10
248376006	19-MAR-2010 08:08:38	10	413.26	10
248376007	19-MAR-2010 08:08:38	11	328.69	10
248376008	19-MAR-2010 08:08:38	12	360.94	10
248376009	19-MAR-2010 08:08:38	13	381.83	10
248376010	19-MAR-2010 08:08:38	14	413.13	10
248376011	19-MAR-2010 08:08:38	15	300.46	10
248376012	19-MAR-2010 08:08:38	16	529.92	10
248376013	19-MAR-2010 08:08:38	17	402.47	10
1202068219 MB	19-MAR-2010 08:08:38	18	20	10
1202068220 DUP (248376005)	19-MAR-2010 08:08:38	9	439.38	10
1202068221 LCS	19-MAR-2010 08:08:38	19	20	10

Comments:

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202068221	4 Bottles: stock, LSC, Rad II, and Bioassay	0134-K	.1	mL	
REGNT Ali		Brown Colorant for Calibrations	1158135	10	uL	
REGNT Ali		ecouant ultra scintillation solution	1265065.2	13	mL	

Tritium Solid

Filename : H3VAC.XLS
File type : Excel
Version # : 1.2.6

Spike SN :
Spike Exp Date :
Spike Activity (dpm/ml):
Spike Volume Added:

LCS SN : 0134-K
LCS Exp Date : 3/11/2011
LCS Activity (dpm/ml): 2454.83
LCS Volume Added: 0.10

Batch : 964058
Analyst : KKK2
Prep Date : 3/18/2010

H-3 Abundance : 1
Method Uncertainty : 0.0691
Geometry: 10mL DW/13mL
Eosclint Ultra

Procedure Code : LSC_VH3S
Paramname : Tritium
Required MDC : 250
Half-life of Tritium : 12.32
pCi/L
years

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	248250001.1	283.28	0.0791	0.0100	2.5729E-05	204.21	27.91%	1	2/24/2010 12:00
2	248250002.1	470.39	0.0353	0.0100	2.5729E-05	435.06	7.51%	2	2/24/2010 12:00
3	248250003.1	357.53	0.0226	0.0100	2.5729E-05	334.88	6.33%	3	2/24/2010 12:00
4	248250004.1	449.83	0.0249	0.0100	2.5729E-05	424.88	5.52%	4	2/24/2010 12:00
5	248376001.1	509.23	0.0628	0.0100	2.5729E-05	446.40	12.34%	5	2/24/2010 12:00
6	248376002.1	378.03	0.0964	0.0100	2.5729E-05	281.64	25.50%	6	2/24/2010 12:00
7	248376003.1	305.09	0.0845	0.0100	2.5729E-05	240.80	21.14%	7	2/24/2010 12:00
8	248376004.1	268.22	0.0948	0.0100	2.5729E-05	174.38	35.23%	8	2/24/2010 12:00
9	248376005.1	438.38	0.0503	0.0100	2.5729E-05	389.08	11.45%	9	2/24/2010 12:00
10	248376006.1	413.26	0.1116	0.0100	2.5729E-05	301.89	27.00%	10	2/24/2010 12:00
11	248376007.1	328.69	0.1068	0.0100	2.5729E-05	221.92	32.48%	11	2/24/2010 12:00
12	248376008.1	360.94	0.0985	0.0100	2.5729E-05	262.48	27.28%	12	2/24/2010 12:00
13	248376009.1	381.83	0.0886	0.0100	2.5729E-05	296.19	22.89%	13	2/24/2010 12:00
14	248376010.1	413.13	0.0902	0.0100	2.5729E-05	322.90	21.84%	14	2/24/2010 12:00
15	248376011.1	300.46	0.0476	0.0100	2.5729E-05	252.86	15.94%	15	2/24/2010 12:00
16	248376012.1	529.92	0.0596	0.0100	2.5729E-05	470.28	11.25%	16	2/24/2010 12:00
17	248376013.1	402.47	0.0922	0.0100	2.5729E-05	310.25	22.91%	17	2/24/2010 12:00
18	1202068219.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	18	3/18/2010 0:00
19	1202068220.1	438.38	0.0503	0.0100	2.5729E-05	389.08	11.45%	9	2/24/2010 12:00
20	1202068221.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	19	3/18/2010 0:00

Count raw Data										Calibration Data				Detector Efficiency		Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	Background cpm	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Error (cpm/dpm)	Rack Position #	Count Start Date/Time			
1	17	45.0297	762.36	2.56	1.29	45	3/23/2010 7:24	LSCORANGE	7/23/2009	7/31/2010	0.2749	0.00792	16	3/23/2010 6:36			
2	18	45.0296	761.01	1.72	1.29	45	3/23/2010 8:11	LSCORANGE	7/23/2009	7/31/2010	0.2727	0.00792	16	3/23/2010 6:36			
3	19	45.0296	752.06	3.34	1.29	45	3/23/2010 8:59	LSCORANGE	7/23/2009	7/31/2010	0.2580	0.00792	16	3/23/2010 6:36			
4	20	45.0296	752.48	4.02	1.29	45	3/23/2010 9:46	LSCORANGE	7/23/2009	7/31/2010	0.2587	0.00792	16	3/23/2010 6:36			
5	21	45.0297	753.43	1.45	1.29	45	3/23/2010 10:34	LSCORANGE	7/23/2009	7/31/2010	0.2603	0.00792	16	3/23/2010 6:36			
6	22	45.0296	763.88	1.5	1.29	45	3/23/2010 11:22	LSCORANGE	7/23/2009	7/31/2010	0.2774	0.00792	16	3/23/2010 6:36			
7	23	45.0296	762.49	1.77	1.29	45	3/23/2010 12:09	LSCORANGE	7/23/2009	7/31/2010	0.2751	0.00792	16	3/23/2010 6:36			
8	24	45.0297	758.6	1.63	1.29	45	3/23/2010 12:57	LSCORANGE	7/23/2009	7/31/2010	0.2688	0.00792	16	3/23/2010 6:36			
9	25	45.0297	760.38	1.34	1.29	45	3/23/2010 13:44	LSCORANGE	7/23/2009	7/31/2010	0.2717	0.00792	16	3/23/2010 6:36			
10	26	45.0296	759.54	1.77	1.29	45	3/23/2010 14:32	LSCORANGE	7/23/2009	7/31/2010	0.2703	0.00792	16	3/23/2010 6:36			
11	27	45.0295	762.25	1.65	1.29	45	3/23/2010 15:20	LSCORANGE	7/23/2009	7/31/2010	0.2747	0.00792	16	3/23/2010 6:36			
12	28	45.0297	761.19	1.9	1.29	45	3/23/2010 16:07	LSCORANGE	7/23/2009	7/31/2010	0.2730	0.00792	16	3/23/2010 6:36			
13	29	45.0296	762.98	1.47	1.29	45	3/23/2010 16:55	LSCORANGE	7/23/2009	7/31/2010	0.2759	0.00792	16	3/23/2010 6:36			
14	30	45.0296	756.9	1.56	1.29	45	3/23/2010 17:42	LSCORANGE	7/23/2009	7/31/2010	0.2660	0.00792	16	3/23/2010 6:36			
15	31	45.0295	756.06	1.77	1.29	45	3/23/2010 18:30	LSCORANGE	7/23/2009	7/31/2010	0.2646	0.00792	16	3/23/2010 6:36			
16	32	45.0296	758.94	1.27	1.29	45	3/23/2010 19:17	LSCORANGE	7/23/2009	7/31/2010	0.2694	0.00792	16	3/23/2010 6:36			
17	33	45.0296	763.5	1.75	1.29	45	3/23/2010 20:05	LSCORANGE	7/23/2009	7/31/2010	0.2767	0.00792	16	3/23/2010 6:36			
18	34	45.0296	759.28	1.09	1.29	45	3/23/2010 20:52	LSCORANGE	7/23/2009	7/31/2010	0.2699	0.00792	16	3/23/2010 6:36			
19	35	45.0296	758.37	1.27	1.29	45	3/23/2010 21:40	LSCORANGE	7/23/2009	7/31/2010	0.2701	0.00792	16	3/23/2010 6:36			
20	36	15.0296	760.93	35.2	1.29	45	3/23/2010 22:27	LSCORANGE	7/23/2009	7/31/2010	0.2726	0.00792	16	3/23/2010 6:36			

DATE	3/15/2010	INITIALS	KXK2	BATCH NUMBER	964058		
Sample #		Flask & Sample Wt.	Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Flask & Sample Dry Wt.	Sample Dry (g)
248250001	200	483.28	283.28	0.27913	79.07	404.21	204.21
248250002	200	670.39	470.39	0.075101	35.33	635.06	435.06
248250003	200	557.53	357.53	0.06333	22.64	534.89	334.89
248250004	200	649.83	449.83	0.055252	24.85	624.98	424.98
248376001	200	709.23	509.23	0.12338	62.83	646.40	446.40
248376002	200	578.03	378.03	0.25499	96.39	481.64	281.64
248376003	200	505.09	305.09	0.21139	64.49	440.60	240.60
248376004	200	469.22	269.22	0.35227	94.84	374.38	174.38
248376005	200	639.38	439.38	0.11447	50.30	589.08	389.08
248376006	200	613.26	413.26	0.26997	111.57	501.69	301.69
248376007	200	528.69	328.69	0.32483	106.77	421.92	221.92
248376008	200	560.94	360.94	0.27279	98.46	462.48	262.48
248376009	200	581.83	381.83	0.22692	86.64	495.19	295.19
248376010	200	613.13	413.13	0.21841	90.23	522.90	322.90
248376011	200	500.46	300.46	0.15842	47.60	452.86	252.86
248376012	200	729.92	529.92	0.11254	59.64	670.28	470.28
248376013	200	602.47	402.47	0.22914	92.22	510.25	310.25
MB	200	220.00	20.00	1.000	20.00	200.00	0.00
DUP	200	639.38	439.38	0.11447	50.30	589.08	389.08
LCS	200	220.00	20.00	1.000	20.00	200.00	0.00

Notes:

- 1 - Results are decay corrected to Sample Date/Time
 2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
 3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1202080220.1

Pos.	Decision Level	Critical Level	Required MDC	MDC	pCi/L	Sample Act. Conc.	Sample Act. Error	Sample Act. pCi/L	Net Count Rate	Net Count Rate Error	Net Count Rate Error CPM	1 SIGMA		Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
												Counting Uncertainty	Total Prop. Uncertainty						
	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	CPM	CPM	CPM	pCi/L	pCi/L						
1	91.7624	64.7850	250	140.5315	208.9546	0.230	0.230	0.230	1.270	0.282	0.282	48.1093	50.2623		SAMPLE				
2	92.4877	65.3042	250	141.6578	71.3153	0.601	0.601	0.601	0.430	0.259	0.259	42.8794	43.1661		SAMPLE				
3	97.7808	69.0341	250	149.7486	359.4104	0.157	0.157	0.157	2.050	0.321	0.321	56.2184	61.5395		SAMPLE				
4	97.5165	68.8475	250	149.3439	477.3959	0.128	0.128	0.128	2.730	0.343	0.343	60.0428	68.6321		SAMPLE				
5	96.9245	68.4295	250	148.4372	27.8059	1.542	1.542	1.542	0.160	0.247	0.247	42.8690	42.9127		SAMPLE				
6	90.9556	64.2154	250	139.2960	34.2477	1.185	1.185	1.185	0.210	0.249	0.249	40.5944	40.8644		SAMPLE				
7	91.6953	64.7377	250	140.4288	78.9172	0.543	0.543	0.543	0.480	0.261	0.261	42.8590	43.2100		SAMPLE				
8	93.8513	66.2598	250	143.7307	57.2141	0.748	0.748	0.748	0.340	0.255	0.255	42.8515	43.0364		SAMPLE				
9	92.8492	65.5524	250	142.1961	8.3240	4.833	4.833	4.833	0.050	0.242	0.242	40.2337	40.2379		SAMPLE				
10	93.3194	65.8543	250	142.9182	80.3150	0.543	0.543	0.543	0.480	0.261	0.261	43.6181	43.9753		SAMPLE				
11	91.8264	64.8302	250	140.6297	59.2725	0.710	0.710	0.710	0.360	0.256	0.256	42.0703	42.2723		SAMPLE				
12	92.4035	65.2377	250	141.5135	101.0653	0.436	0.436	0.436	0.610	0.268	0.268	44.0979	44.6562		SAMPLE				
13	91.4356	64.5543	250	140.0311	29.5101	1.375	1.375	1.375	0.180	0.248	0.248	40.5966	40.6406		SAMPLE				
14	94.8980	66.9564	250	145.2418	45.9124	0.932	0.932	0.932	0.270	0.252	0.252	42.7798	42.8992		SAMPLE				
15	95.3344	67.3069	250	146.0020	82.0491	0.543	0.543	0.543	0.480	0.261	0.261	44.5598	44.9249		SAMPLE				
16	93.6615	66.1258	250	143.4400	-3.3587	11.922	11.922	11.922	-0.020	0.238	0.238	40.0420	40.0428		SAMPLE				
17	91.1611	64.3606	250	139.8108	75.1884	0.565	0.565	0.565	0.460	0.260	0.260	42.4699	42.7915		SAMPLE				
18	93.1608	65.7723	250	142.6732	-33.4077	1.150	1.150	1.150	-0.200	0.230	0.230	38.4022	38.4030		SAMPLE				
19	93.4195	65.9549	250	143.0694	-3.3500	11.922	11.922	11.922	-0.020	0.238	0.238	39.9385	39.9383		SAMPLE				
20	130.3885	92.0554	250	217.1246	5606.5378	0.046	0.046	0.046	33.910	1.540	1.540	254.5591	468.3001	248376005.1	MB	0.0%	0.0728	5529.1226	101.4%
															DUP				
															LCS				

REGISTRY

TUE 23 MAR 2010 6:34

*** DIRECTORY PATH :S:\LSC\O\DA\964058A0 ***

PARAMETER GROUP: 8
ID: H-3 (2)

00A PROGRAM MODE 6 ->

ORDER	POS	ID	CTIME	COUNTS	CUCNTS	MCW	REP	STD	STMS	STIME
1	16	BKG	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
2	17	248250001	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
3	18	248250002	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
4	19	248250003	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
5	20	248250004	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
6	21	248376001	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
7	22	248376002	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
8	23	248376003	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
9	24	248376004	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
10	25	248376005	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
11	26	248376006	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
12	27	248376007	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
13	28	248376008	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
14	29	248376009	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
15	30	248376010	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
16	31	248376011	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
17	32	248376012	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
18	33	248376013	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
19	34	1202068219	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
20	35	1202068220	45:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
21	36	1202068221	15:00	1.0E04	NO LIM	1	1	Y	1/10	1:00

NUMBER OF CYCLES 1
COINCIDENCE BIAS (L/H) L

MCA INPUT	TRIGG.	INHIBIT	MEMORY SPLIT
1 LRSUM	DCOS	G	L*R
2 GSUM	G		L*R

WINDOW	CHANNELS	MCA	HALF
1	50- 175	1	2
2	5- 320	1	2
3	1- 1024	1	2
4	50- 320	1	1
5	50- 270	1	1
6	60- 220	1	1
7	1- 1024	2	1
8	1- 1024	2	2

SELECTED PRINTOUT FOR TERMINAL 1 (A)

SELECTED PRINTOUT FOR TERMINAL 2 (B)

1.	2.	3.	4.	5.	6.	7.
POS	ID	CTIME	SQP	CPM1	CPM2	CPM3
SEND SPECTRA 12						
RESOLUTION OF SPECTRA 1024						
LISTING Y						
INSTRUMENT NUMBER 1						

Page 1

REGISTRY

POS	ID	CTIME	SQP	CPM1	CPM2	CPM3
Q011601N.001	23 MAR 2010	7:22				
16	BKG	45:01.780	761.28	1.29	2.43	6.75
Q021701N.001	23 MAR 2010	8:10				
17	248250001	45:01.780	762.36	2.56	4.04	8.16
Q031801N.001	23 MAR 2010	8:57				
18	248250002	45:01.773	761.01	1.72	3.31	7.63
Q041901N.001	23 MAR 2010	9:45				
19	248250003	45:01.773	752.06	3.34	4.90	8.50
Q052001N.001	23 MAR 2010	10:32				
20	248250004	45:01.773	752.48	4.02	5.38	9.00
Q062101N.001	23 MAR 2010	11:20				
21	248376001	45:01.780	753.43	1.45	2.72	6.79
Q072201N.001	23 MAR 2010	12:08				
22	248376002	45:01.773	763.88	1.50	2.75	7.16
Q082301N.001	23 MAR 2010	12:55				
23	248376003	45:01.772	762.49	1.77	2.93	7.38
Q092401N.001	23 MAR 2010	13:43				
24	248376004	45:01.779	758.60	1.63	3.34	7.27
Q102501N.001	23 MAR 2010	14:30				
25	248376005	45:01.779	760.38	1.34	2.22	6.31
Q112601N.001	23 MAR 2010	15:18				
26	248376006	45:01.773	759.54	1.77	3.04	7.72
Q122701N.001	23 MAR 2010	16:06				
27	248376007	45:01.772	762.25	1.65	3.36	8.04
Q132801N.001	23 MAR 2010	16:53				
28	248376008	45:01.779	761.19	1.90	3.56	7.97
Q142901N.001	23 MAR 2010	17:41				
29	248376009	45:01.778	762.98	1.47	2.59	6.65
Q153001N.001	23 MAR 2010	18:28				
30	248376010	45:01.778	756.90	1.56	2.81	7.09
Q163101N.001	23 MAR 2010	19:16				
31	248376011	45:01.771	756.06	1.77	3.11	7.97
Q173201N.001	23 MAR 2010	20:03				
32	248376012	45:01.778	758.94	1.27	2.52	6.63
Q183301N.001	23 MAR 2010	20:51				
33	248376013	45:01.777	763.50	1.75	3.38	7.93
Q193401N.001	23 MAR 2010	21:38				
34	1202068219	45:01.777	759.28	1.09	2.65	6.75
Q203501N.001	23 MAR 2010	22:26				
35	1202068220	45:01.777	759.37	1.27	2.79	6.91
Q213601N.001	23 MAR 2010	22:43				
36	1202068221	15:01.777	760.93	35.20	40.72	44.40

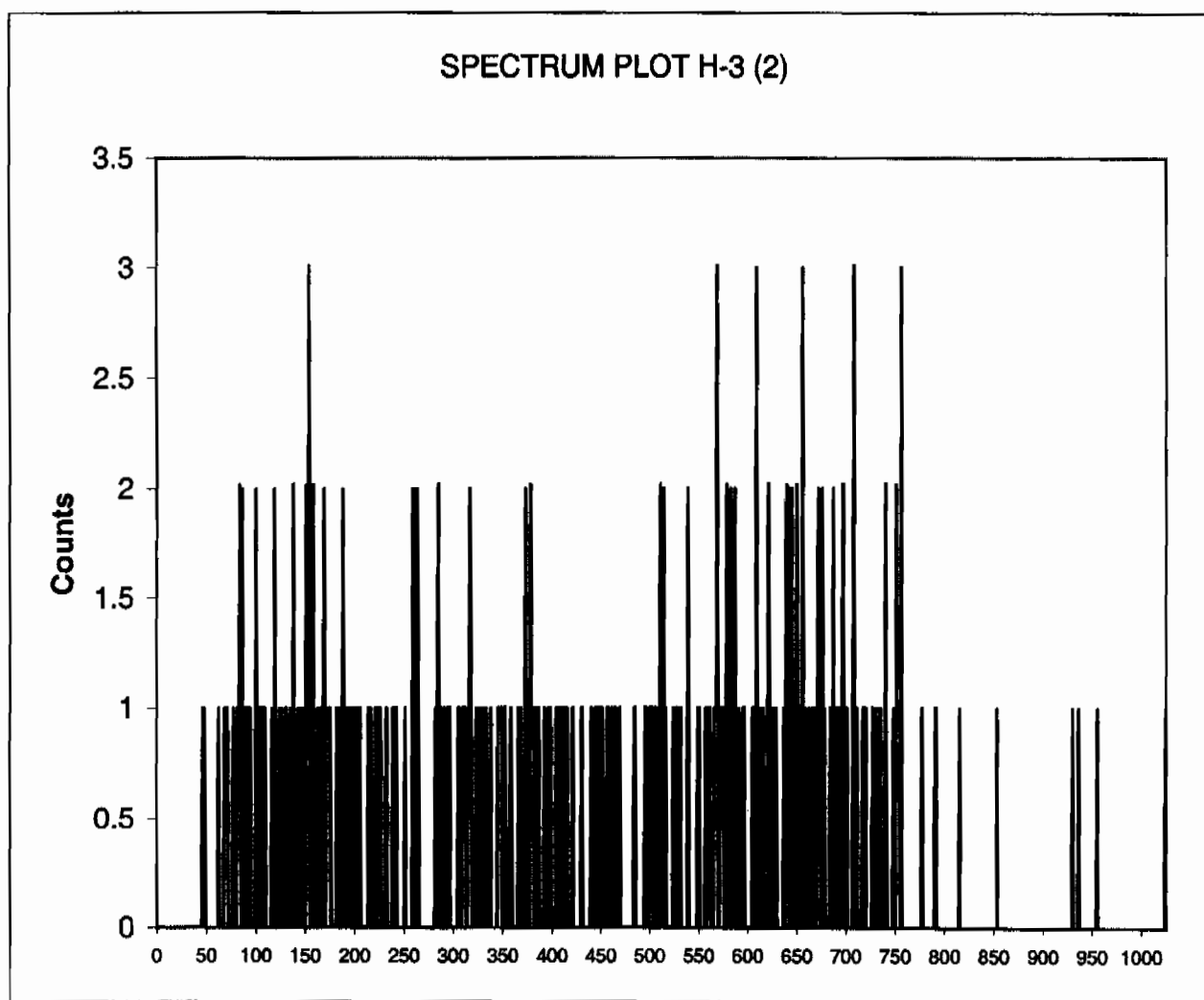
Instrument Type:
Data Capture Date:
FileName:
File Info:

Quantulus
TUE 23 MAR 2010 6:34
s:\sc\files\orange\964058A0\SQ011601N.001.xls
s:\sc\files\orange\964058A0\U964058A0.xls

ID: H-3 (2)
Comments: ORANGE

Sample, Rack-Pos, Time: 1, BKG, 45.02967:
Quench: 761.28
Start, End, X-Axis 50-175

Channel Counts



31	0
32	0
33	0
34	0
35	0

Instrument Type:
Data Capture Date:
FileName:
File Info:

Quantulus
TUE 23 MAR 2010 6:34
s:\sc\files\orange\964058A0\SQ021701N.001.xls
s:\sc\files\orange\964058A0\U964058A0.xls

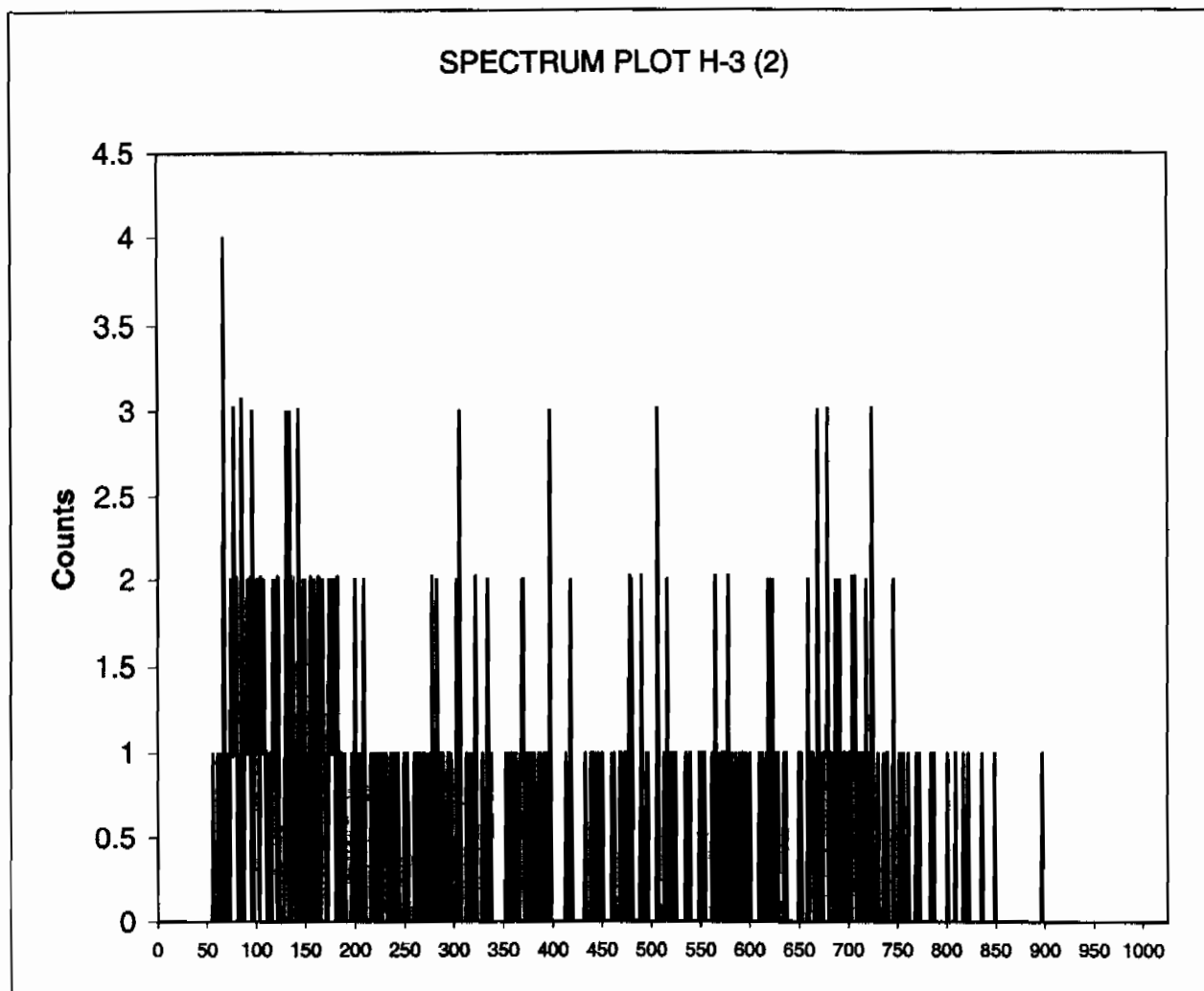
ID:
Comments:

H-3 (2)
ORANGE

Sample, Rack-Pos, Time:
Quench:
Start, End, X-Axis

2, 248250001, 45.02967:
762.36
50-175

Channel Counts



31	0
32	0
33	0
34	0
35	0

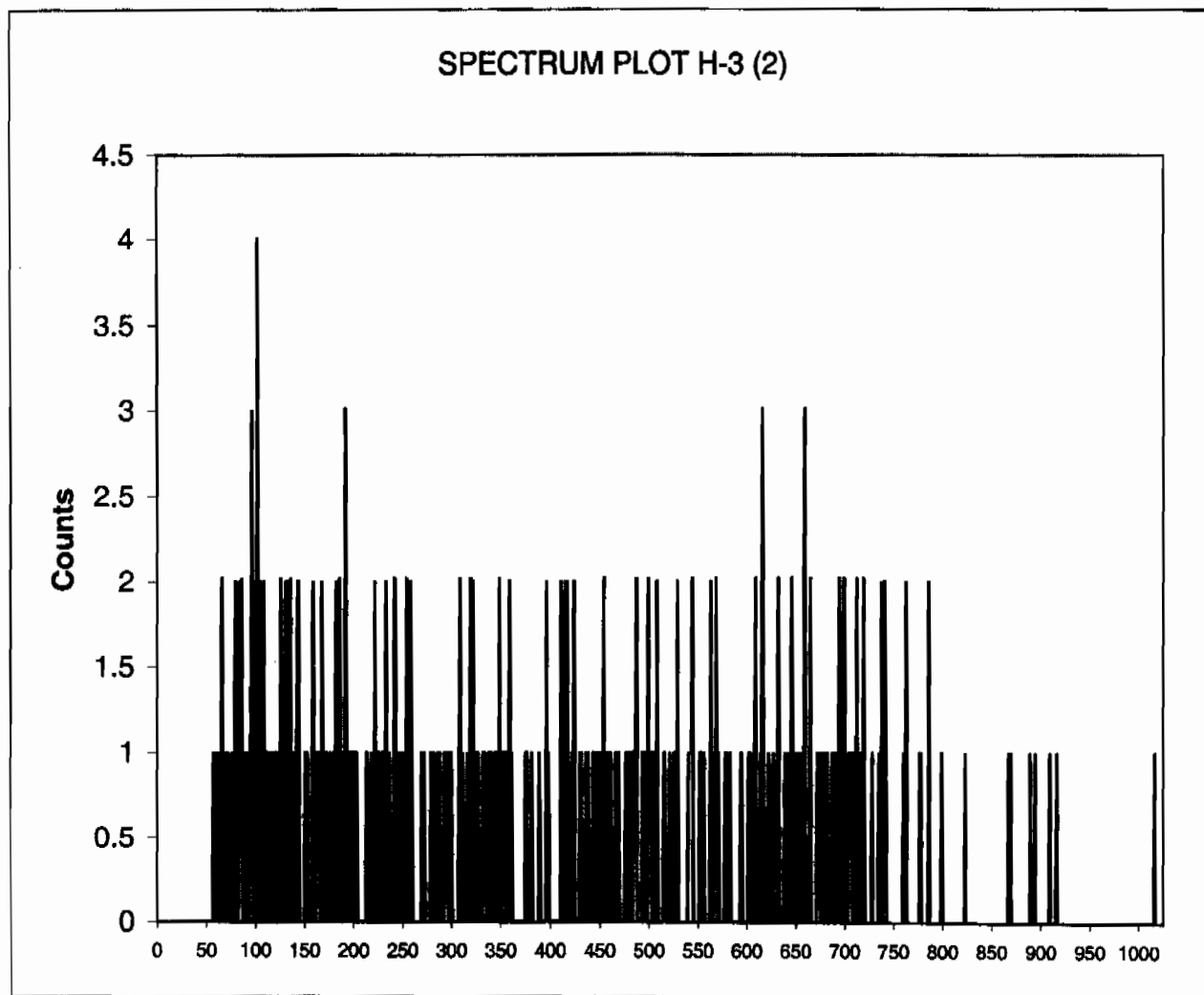
Instrument Type:
Data Capture Date:
FileName:
File Info:

Quantulus
TUE 23 MAR 2010 6:34
s:\sc\files\orange\964058A0\SQ031801N.001.xls
s:\sc\files\orange\964058A0\U964058A0.xls

ID: H-3 (2)
Comments: ORANGE

Sample, Rack-Pos, Time: 3, 248250002, 45.02955:
Quench: 761.01
Start, End, X-Axis 50-175

Channel Counts



31	0
32	0
33	0
34	0
35	0

Instrument Type:
Data Capture Date:
FileName:
File Info:

Quantulus
TUE 23 MAR 2010 6:34
s:\sc\files\orange\964058A0\SQ041901N.001.xls
s:\sc\files\orange\964058A0\U964058A0.xls

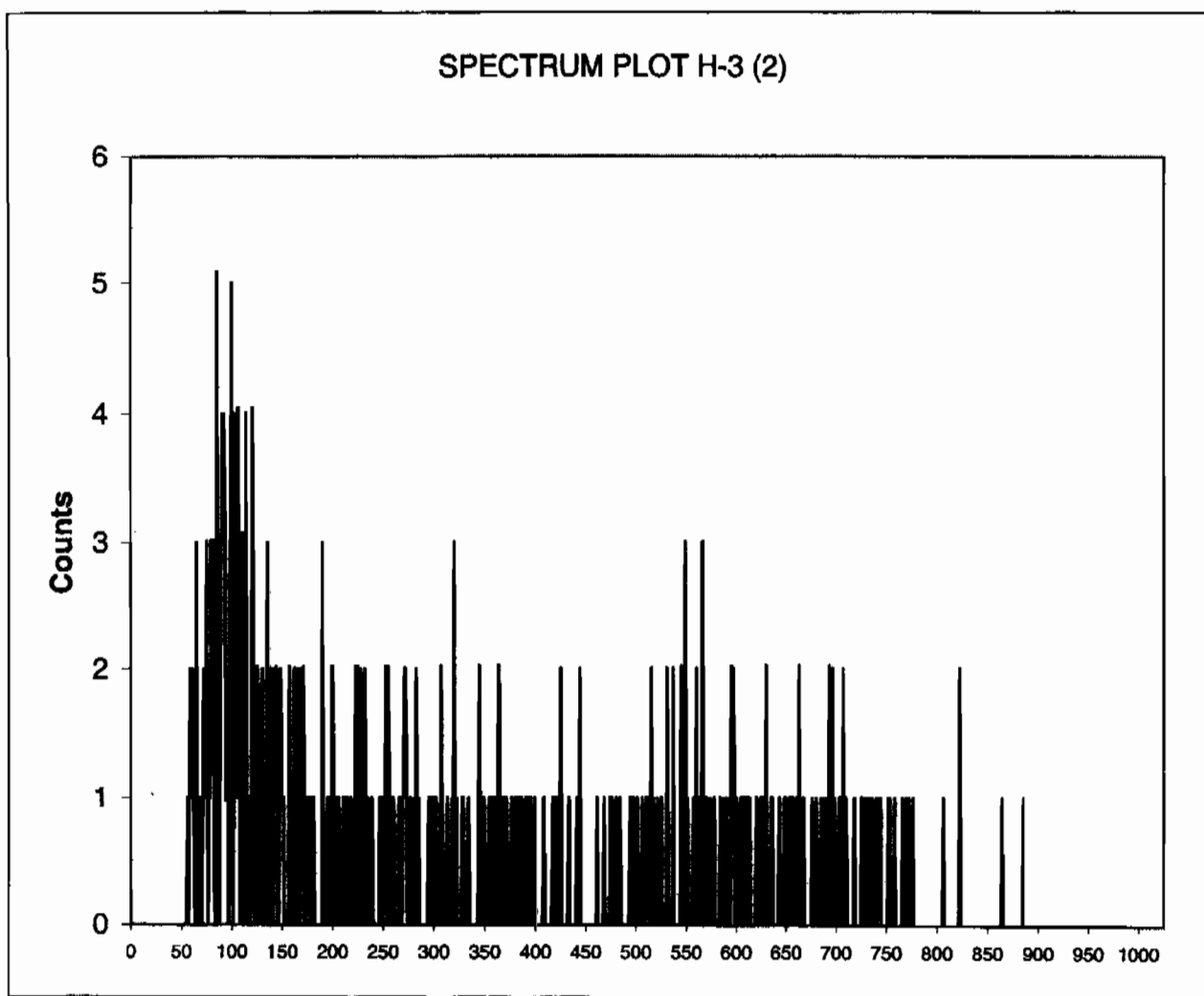
ID:
Comments:

H-3 (2)
ORANGE

Sample, Rack-Pos, Time:
Quench:
Start, End, X-Axis

4, 248250003, 45.02955:
752.06
50-175

Channel Counts



31	0
32	0
33	0
34	0
35	0

Instrument Type:
Data Capture Date:
FileName:
File Info:

Quantulus
TUE 23 MAR 2010 6:34
s:\sc\files\orange\964058A0\SQ052001N.001.xls
s:\sc\files\orange\964058A0\U964058A0.xls

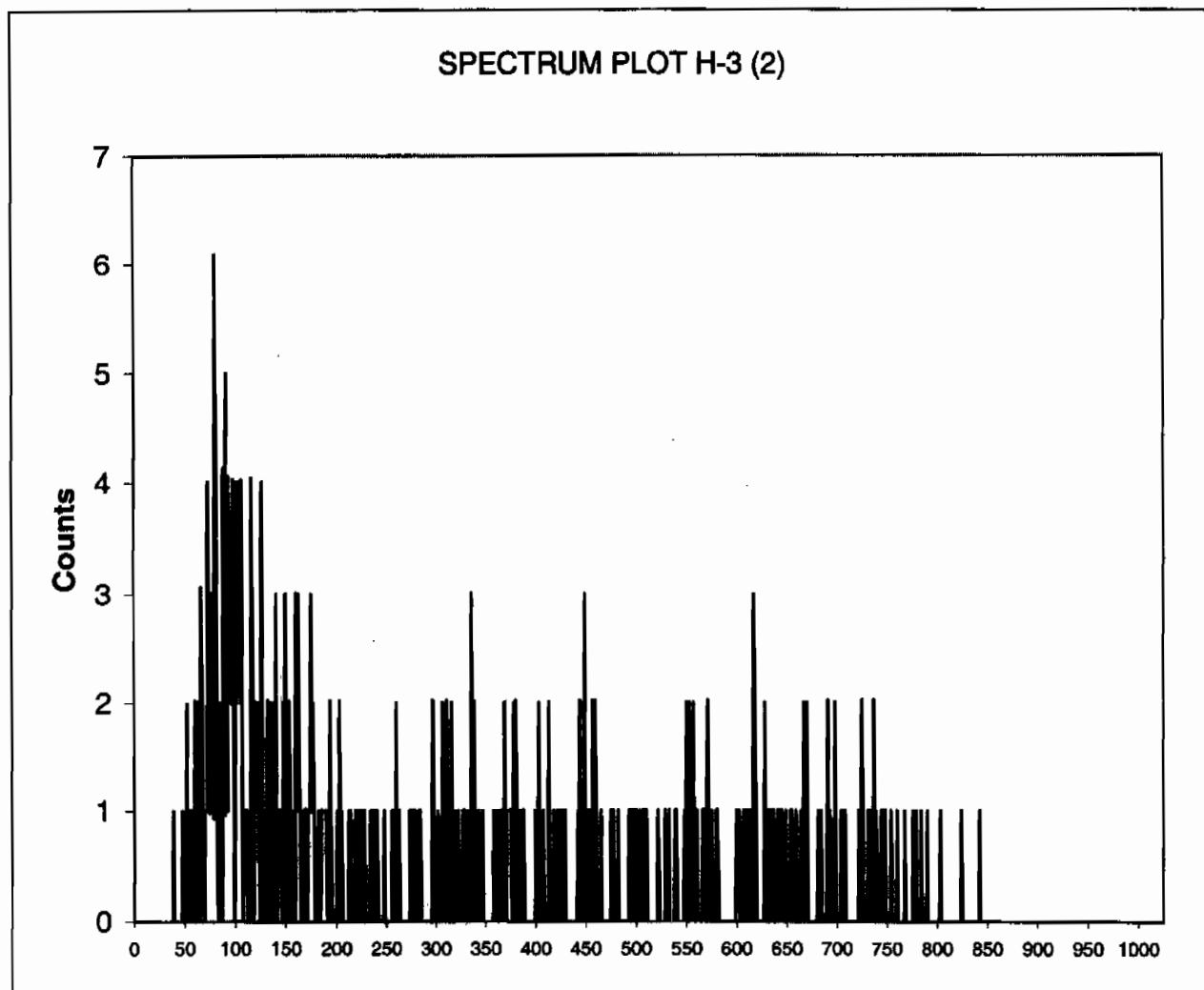
ID:
Comments:

H-3 (2)
ORANGE

Sample, Rack-Pos, Time:
Quench:
Start, End, X-Axis

5, 248250004, 45.02955:
752.48
50-175

Channel Counts



31	0
32	0
33	0
34	0
35	0

Instrument Type:
Data Capture Date:
FileName:
File Info:

Quantulus
TUE 23 MAR 2010 6:34
s:\lsc\files\orange\964058A0\SQ062101N.001.xls
s:\lsc\files\orange\964058A0\U964058A0.xls

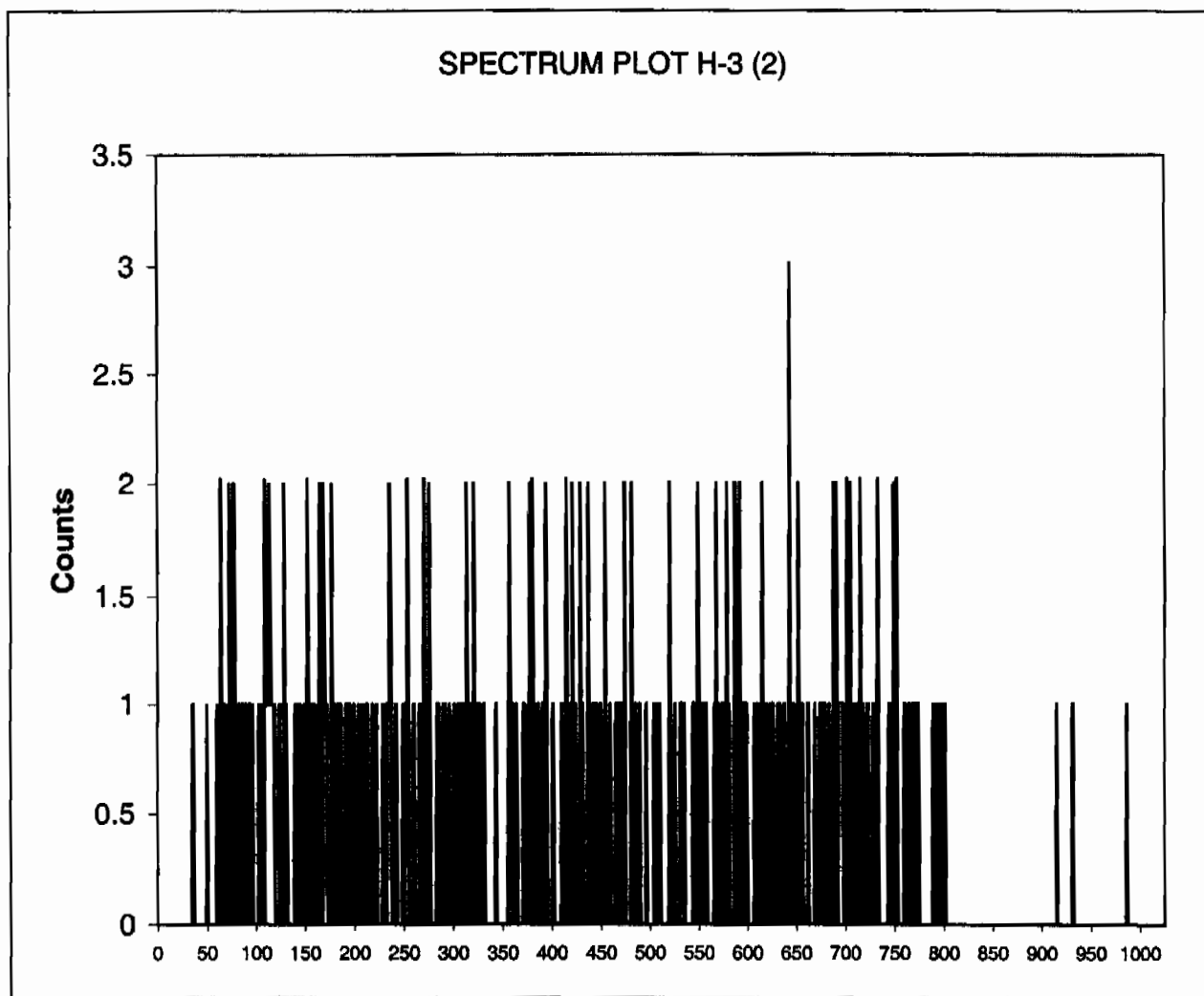
ID:
Comments:

H-3 (2)
ORANGE

Sample, Rack-Pos, Time:
Quench:
Start, End, X-Axis

6, 248376001, 45.02967:
753.43
50-175

Channel Counts



31	0
32	0
33	0
34	0
35	1

Instrument Type:
Data Capture Date:
FileName:
File Info:

Quantulus
TUE 23 MAR 2010 6:34
s:\sc\files\orange\964058A0\SQ072201N.001.xls
s:\sc\files\orange\964058A0\U964058A0.xls

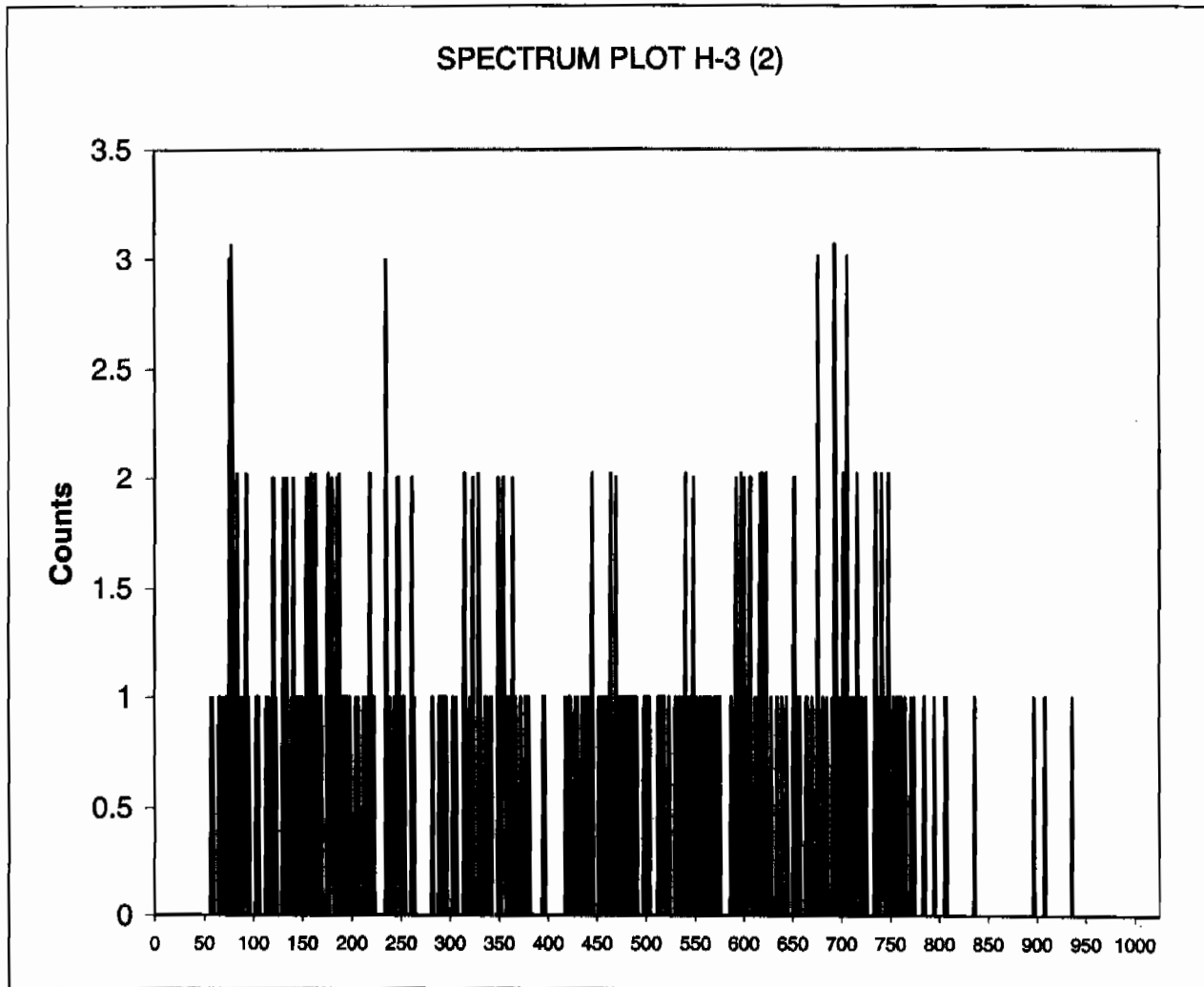
ID:
Comments:

H-3 (2)
ORANGE

Sample, Rack-Pos, Time:
Quench:
Start, End, X-Axis

7, 248376002, 45.02955:
763.88
50-175

Channel Counts



31	0
32	0
33	0
34	0
35	0

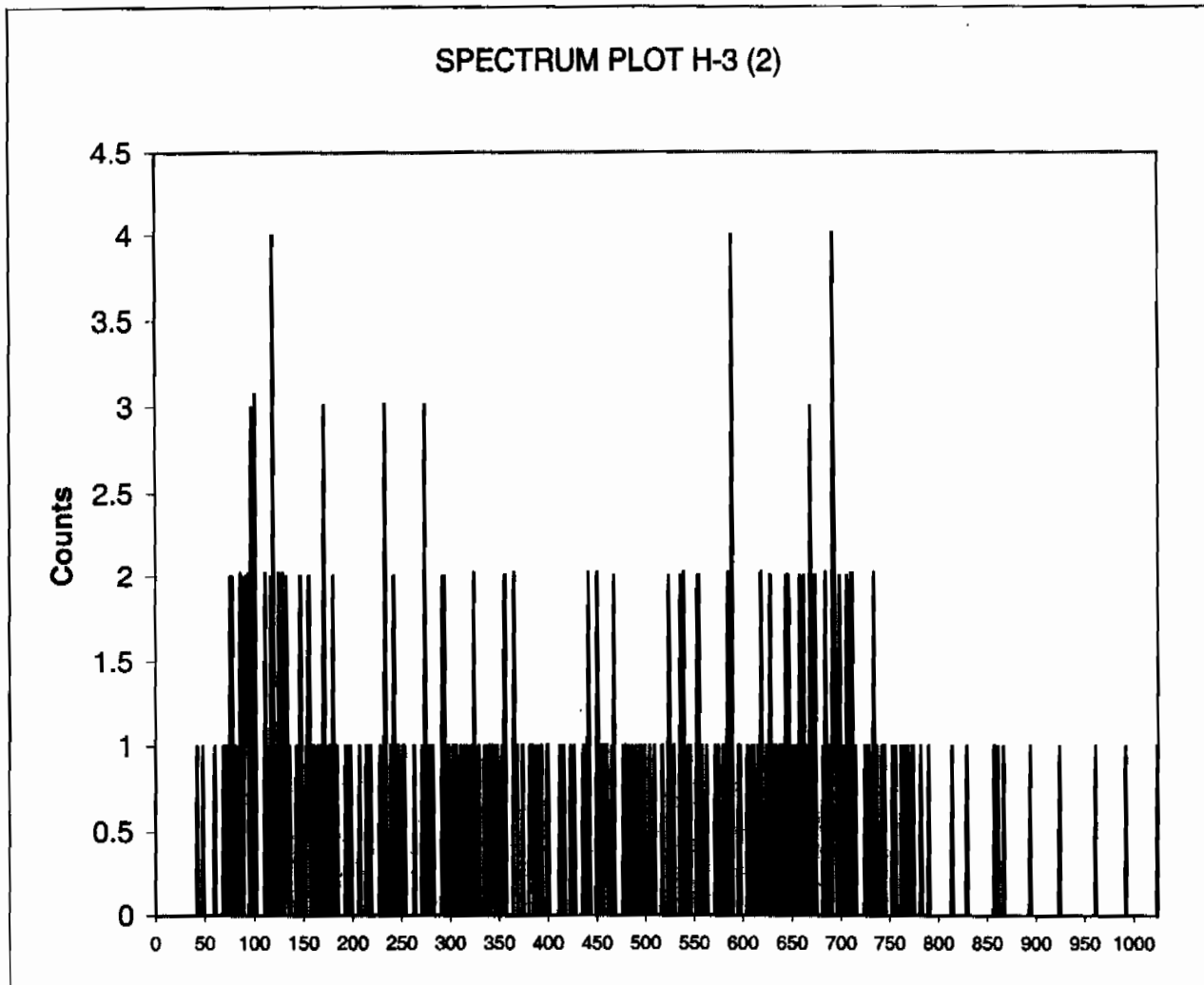
Instrument Type:
Data Capture Date:
FileName:
File Info:

Quantulus
TUE 23 MAR 2010 6:34
s:\scfiles\orange\964058A0\SQ082301N.001.xls
s:\scfiles\orange\964058A0\U964058A0.xls

ID: H-3 (2)
Comments: ORANGE

Sample, Rack-Pos, Time: 8, 248376003, 45.02953:
Quench: 762.49
Start, End, X-Axis 50-175

Channel Counts



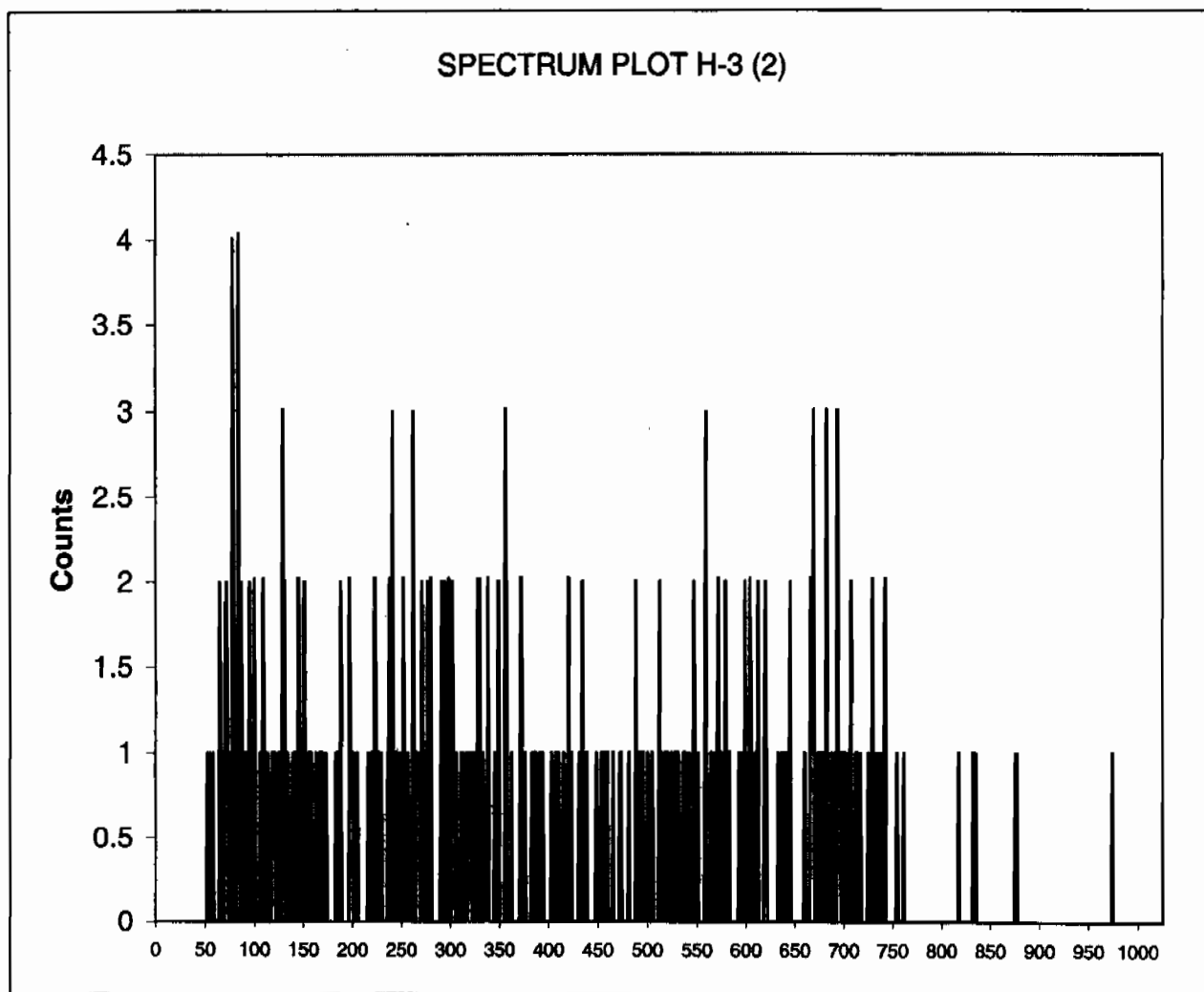
31	0
32	0
33	0
34	0
35	0

Instrument Type: Quantulus
Data Capture Date: TUE 23 MAR 2010 6:34
FileName: s:\sc\files\orange\964058A0\SQ092401N.001.xls
File Info: s:\sc\files\orange\964058A0\U964058A0.xls

ID: H-3 (2)
Comments: ORANGE

Sample, Rack-Pos, Time: 9, 248376004, 45.02965:
Quench: 758.6
Start, End, X-Axis: 50-175

Channel Counts



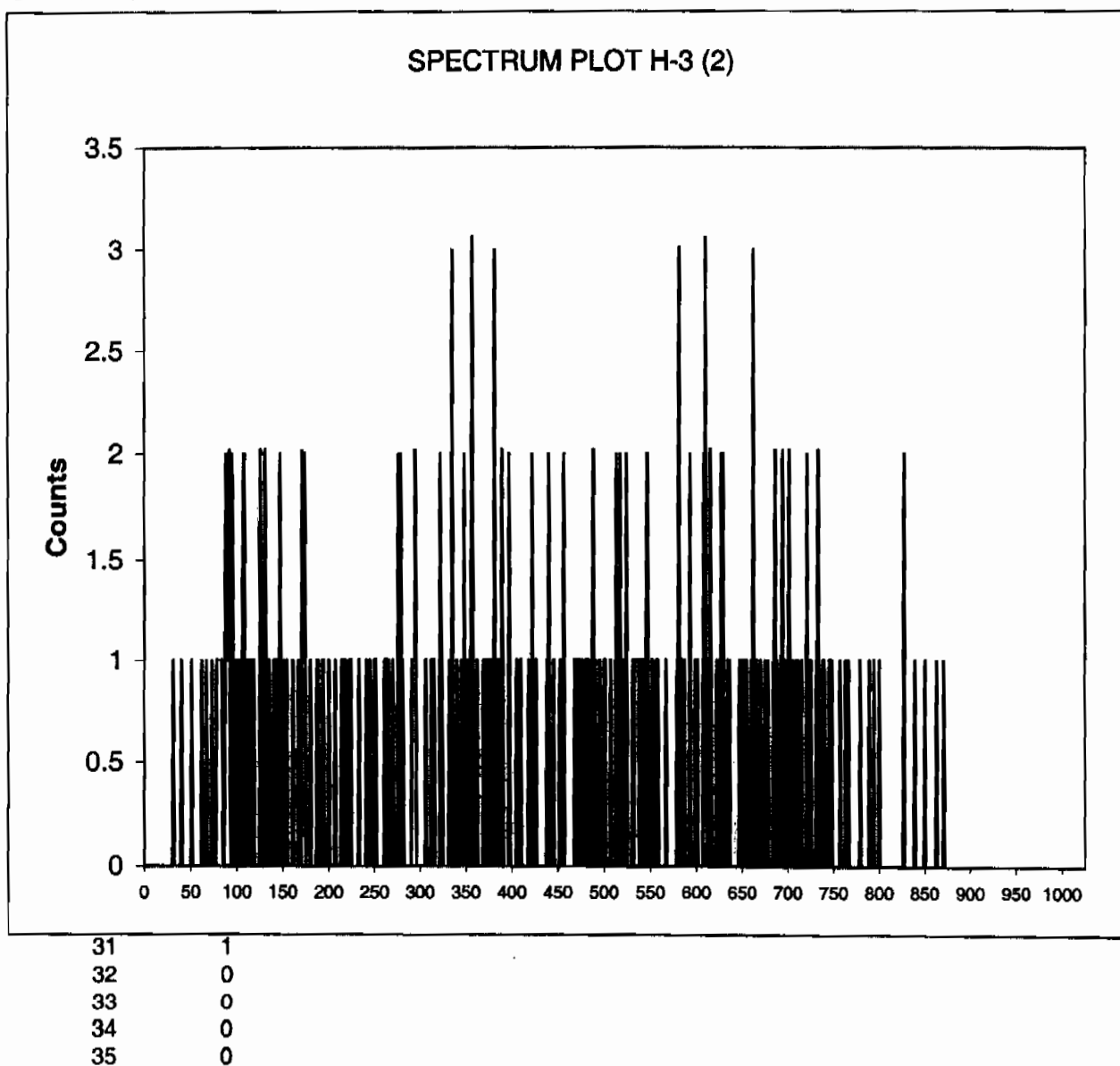
31	0
32	0
33	0
34	0
35	0

Instrument Type: Quantulus
Data Capture Date: TUE 23 MAR 2010 6:34
FileName: s:\sc\files\orange\964058A0\SQ102501N.001.xls
File Info: s:\sc\files\orange\964058A0\U964058A0.xls

ID: H-3 (2)
Comments: ORANGE

Sample, Rack-Pos, Time: 10, 248376005, 45.02965:
Quench: 760.38
Start, End, X-Axis 50-175

Channel Counts

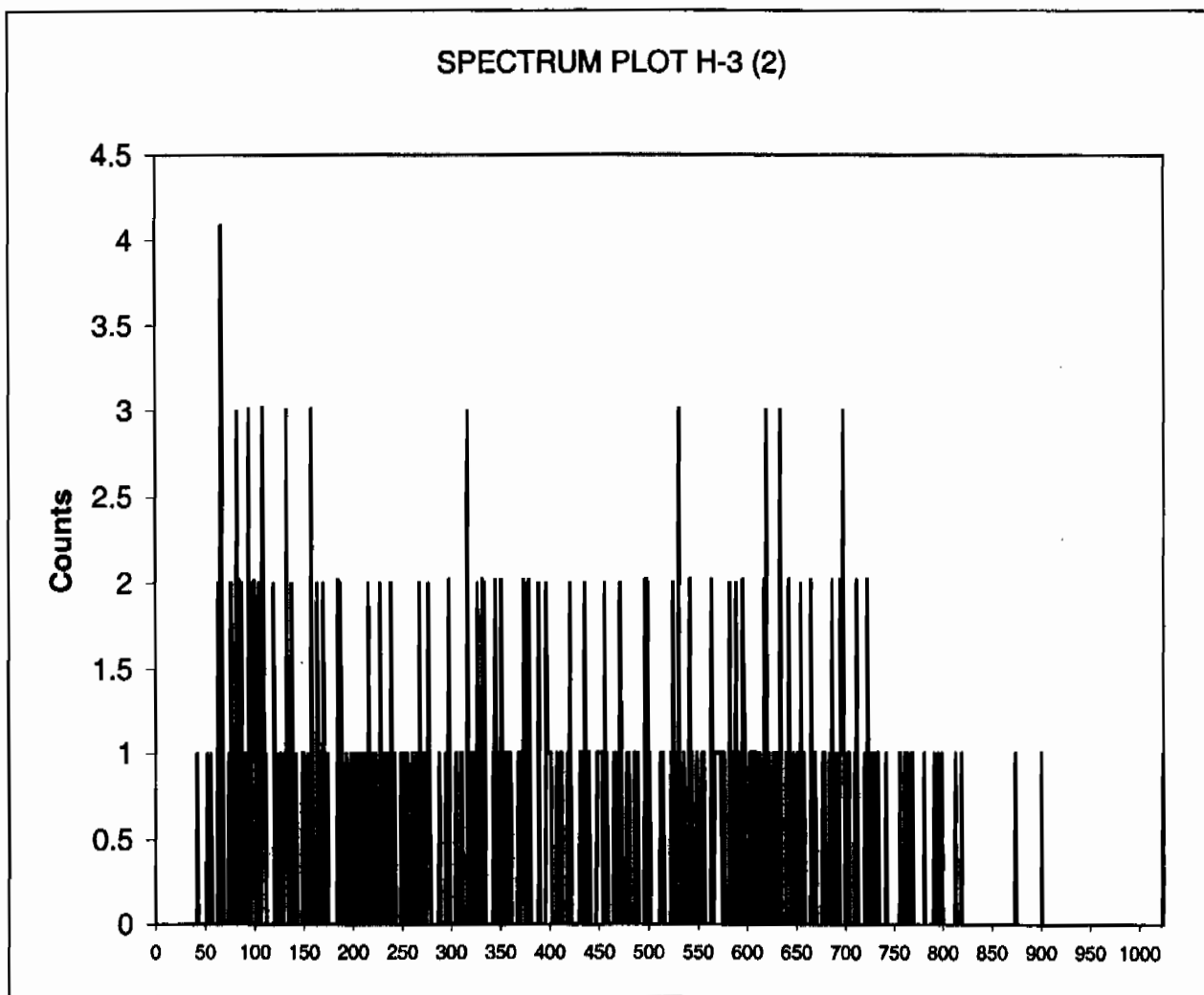


Instrument Type: Quantulus
Data Capture Date: TUE 23 MAR 2010 6:34
FileName: s:\sc\files\orange\964058A0\SQ112601N.001.xls
File Info: s:\sc\files\orange\964058A0\U964058A0.xls

ID: H-3 (2)
Comments: ORANGE

Sample, Rack-Pos, Time: 11, 248376006, 45.02955:
Quench: 759.54
Start, End, X-Axis: 50-175

Channel Counts



31	0
32	0
33	0
34	0
35	0

Instrument Type:
Data Capture Date:
FileName:
File Info:

Quantulus
TUE 23 MAR 2010 6:34
s:\sc\files\orange\964058A0\SQ122701N.001.xls
s:\sc\files\orange\964058A0\U964058A0.xls

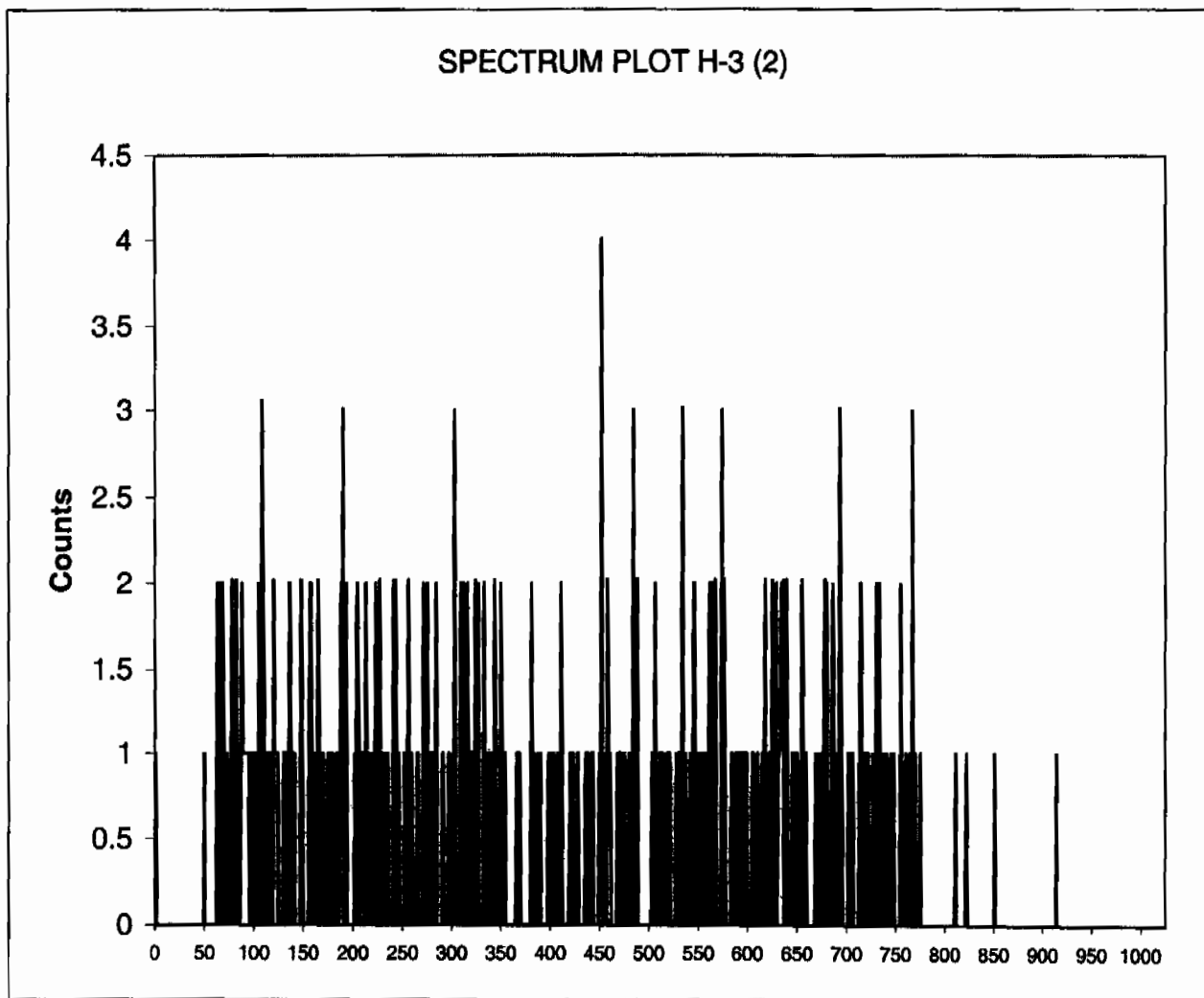
ID:
Comments:

H-3 (2)
ORANGE

Sample, Rack-Pos, Time:
Quench:
Start, End, X-Axis

12, 248376007, 45.02953:
762.25
50-175

Channel Counts



31	0
32	0
33	0
34	0
35	0

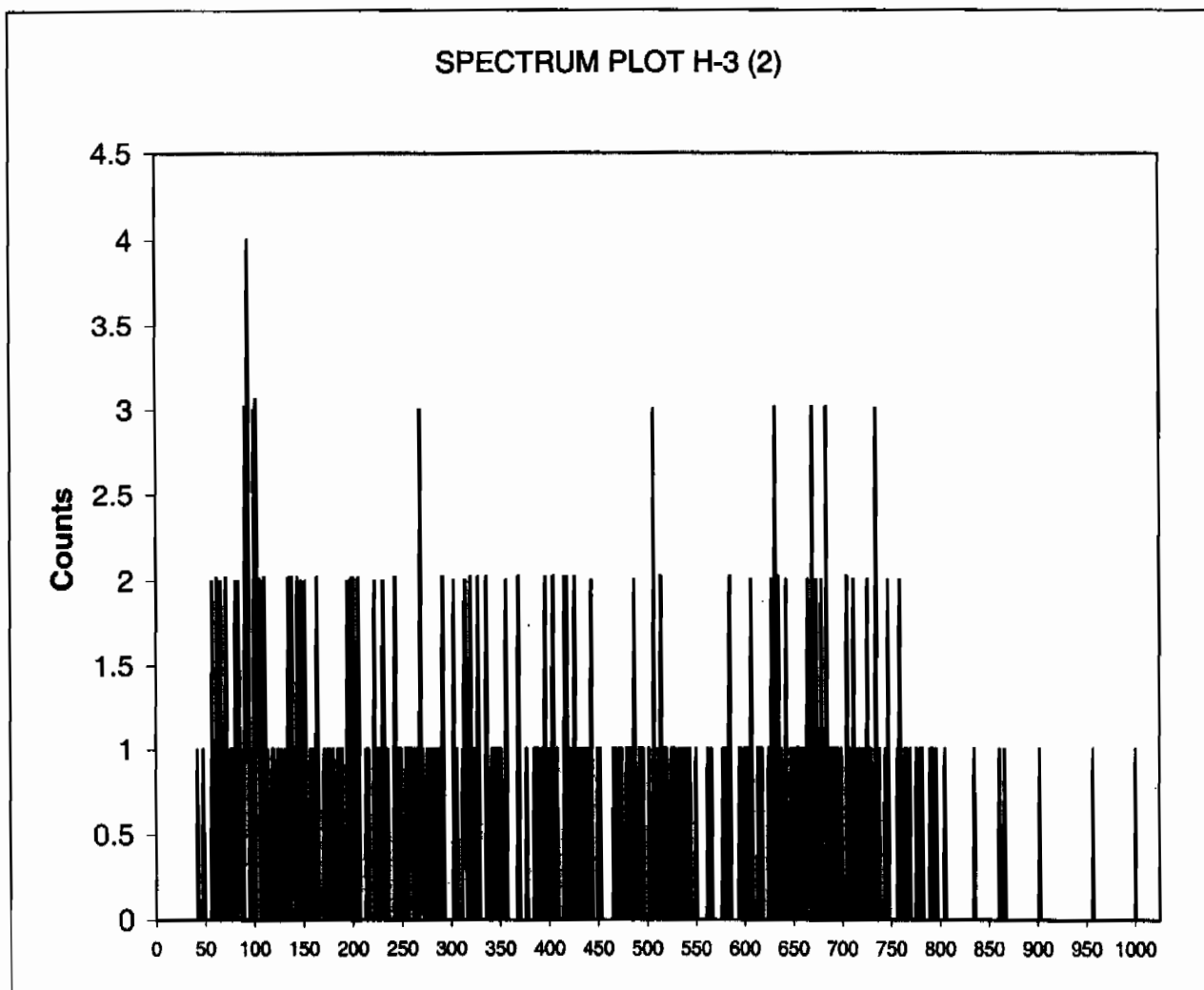
Instrument Type:
Data Capture Date:
FileName:
File Info:

Quantulus
TUE 23 MAR 2010 6:34
s:\sc\files\orange\964058A0\SQ132801N.001.xls
s:\sc\files\orange\964058A0\U964058A0.xls

ID: H-3 (2)
Comments: ORANGE

Sample, Rack-Pos, Time: 13, 248376008, 45.02965:
Quench: 761.19
Start, End, X-Axis 50-175

Channel Counts



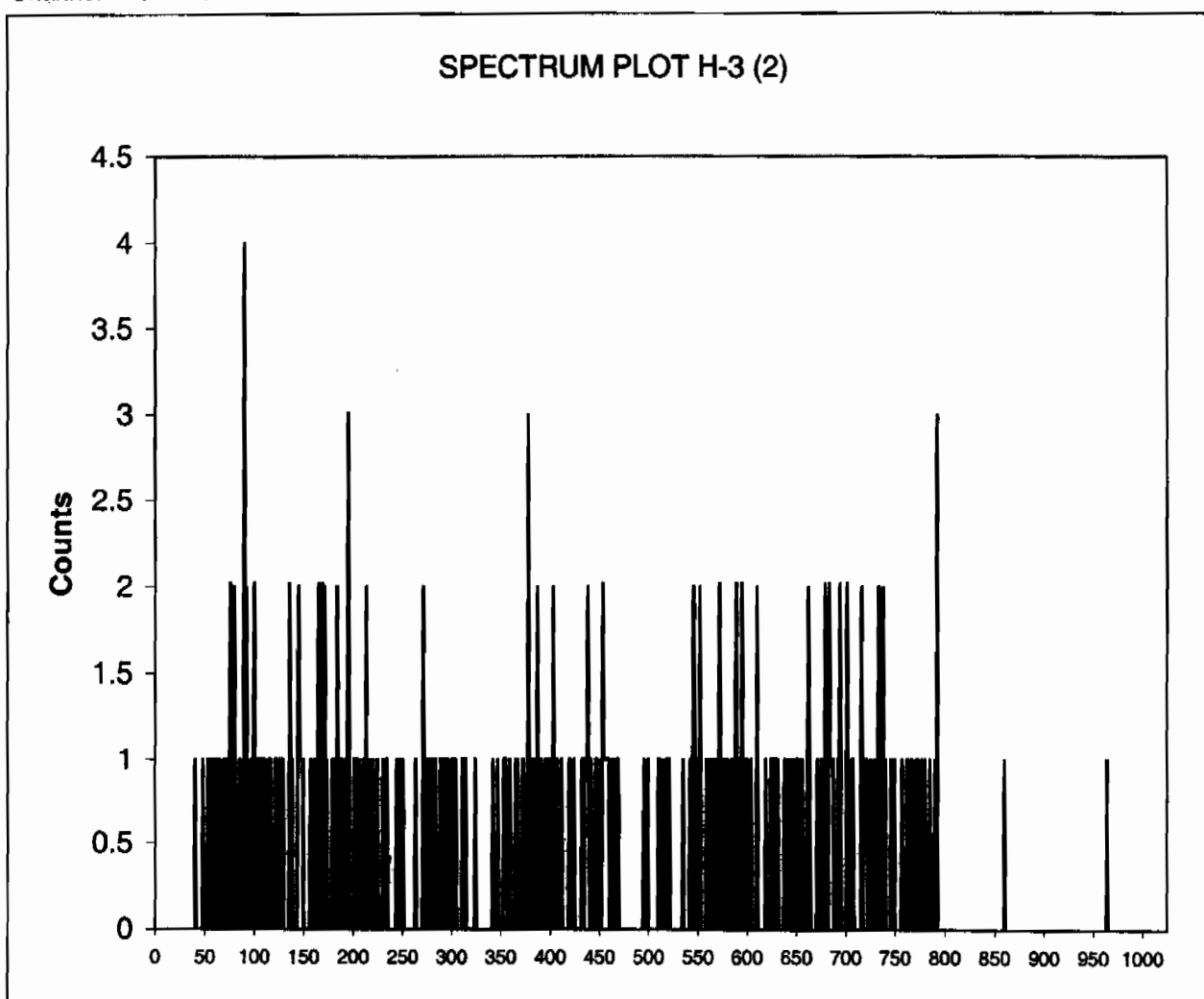
31	0
32	0
33	0
34	0
35	0

Instrument Type: Quantulus
Data Capture Date: TUE 23 MAR 2010 6:34
FileName: s:\sc\files\orange\964058A0\SQ142901N.001.xls
File Info: s:\sc\files\orange\964058A0\U964058A0.xls

ID: H-3 (2)
Comments: ORANGE

Sample, Rack-Pos, Time: 14, 248376009, 45.02963:
Quench: 762.98
Start, End, X-Axis 50-175

Channel Counts



31	0
32	0
33	0
34	0
35	0

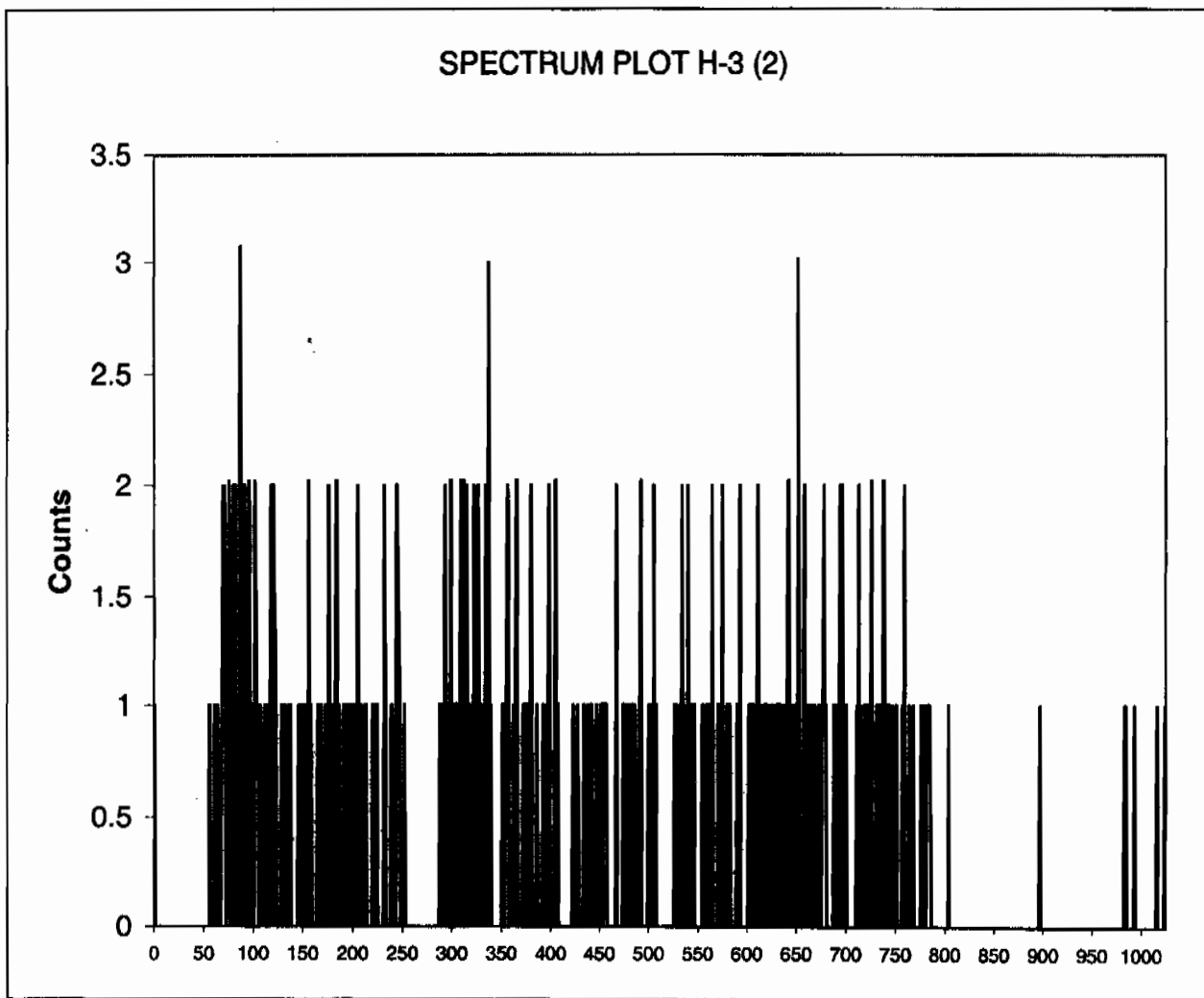
Instrument Type:
Data Capture Date:
FileName:
File Info:

Quantulus
TUE 23 MAR 2010 6:34
s:\sc\files\orange\964058A0\SQ153001N.001.xls
s:\sc\files\orange\964058A0\U964058A0.xls

ID: H-3 (2)
Comments: ORANGE

Sample, Rack-Pos, Time: 15, 248376010, 45.02963:
Quench: 756.9
Start, End, X-Axis 50-175

Channel Counts



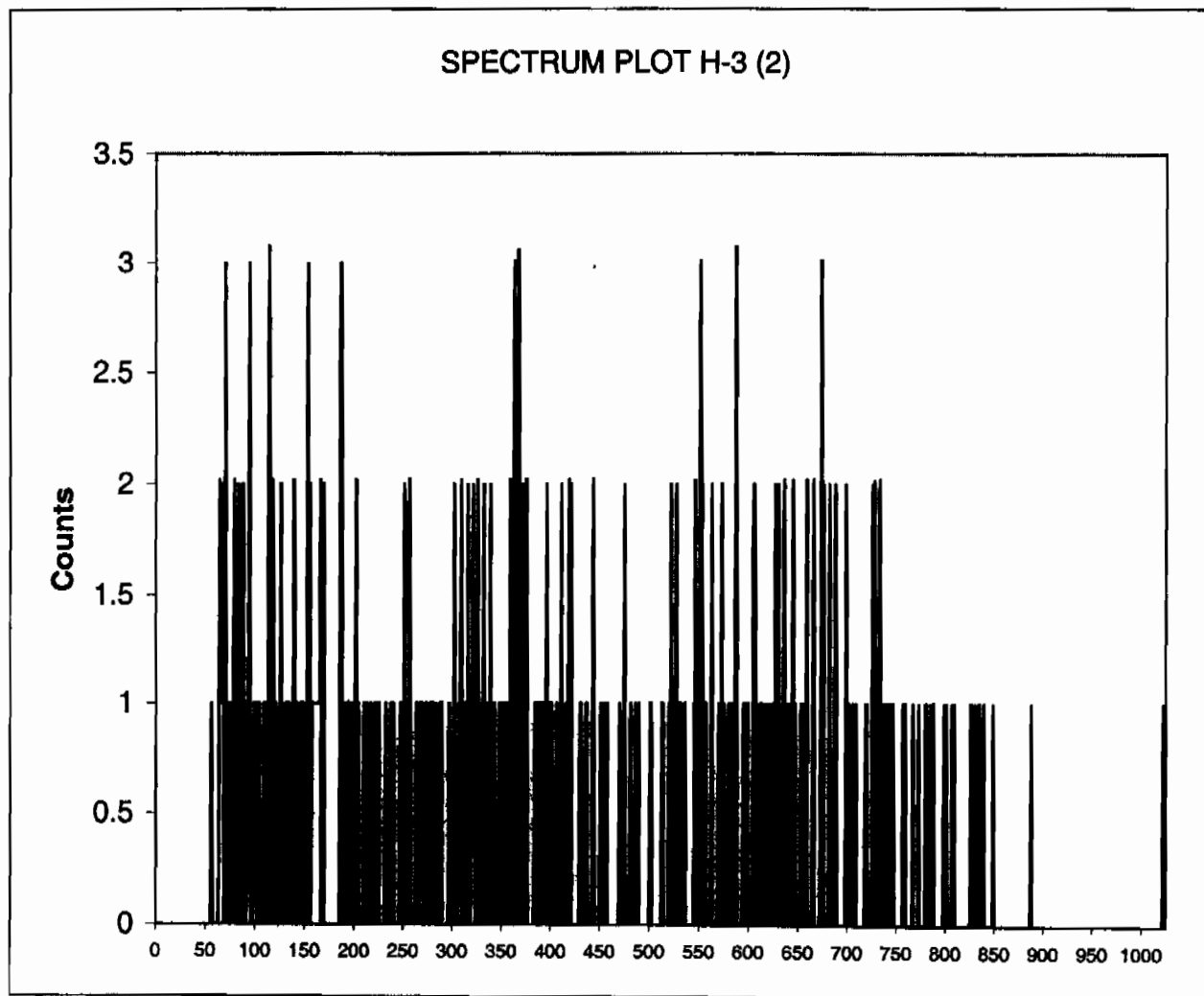
31	0
32	0
33	0
34	0
35	0

Instrument Type: Quantulus
Data Capture Date: TUE 23 MAR 2010 6:34
FileName: s:\sc\files\orange\964058A0\SQ163101N.001.xls
File Info: s:\sc\files\orange\964058A0\U964058A0.xls

ID: H-3 (2)
Comments: ORANGE

Sample, Rack-Pos, Time: 16, 248376011, 45.02952:
Quench: 756.06
Start, End, X-Axis 50-175

Channel Counts



31	0
32	0
33	0
34	0
35	0

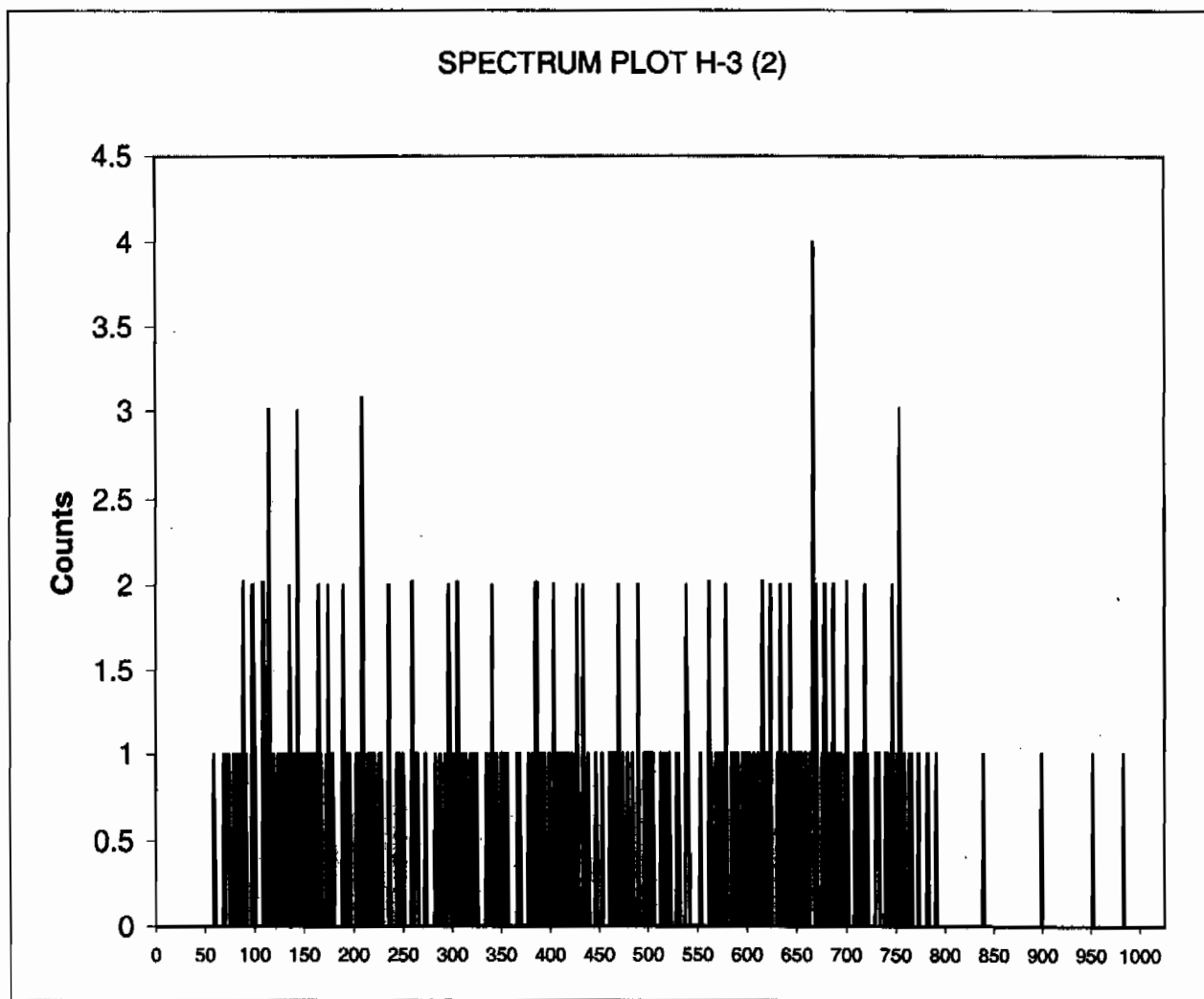
Instrument Type:
Data Capture Date:
FileName:
File Info:

Quantulus
TUE 23 MAR 2010 6:34
s:\sc\files\orange\964058A0\SQ173201N.001.xls
s:\sc\files\orange\964058A0\U964058A0.xls

ID: H-3 (2)
Comments: ORANGE

Sample, Rack-Pos, Time: 17, 248376012, 45.02963:
Quench: 758.94
Start, End, X-Axis 50-175

Channel Counts



31	0
32	0
33	0
34	0
35	0

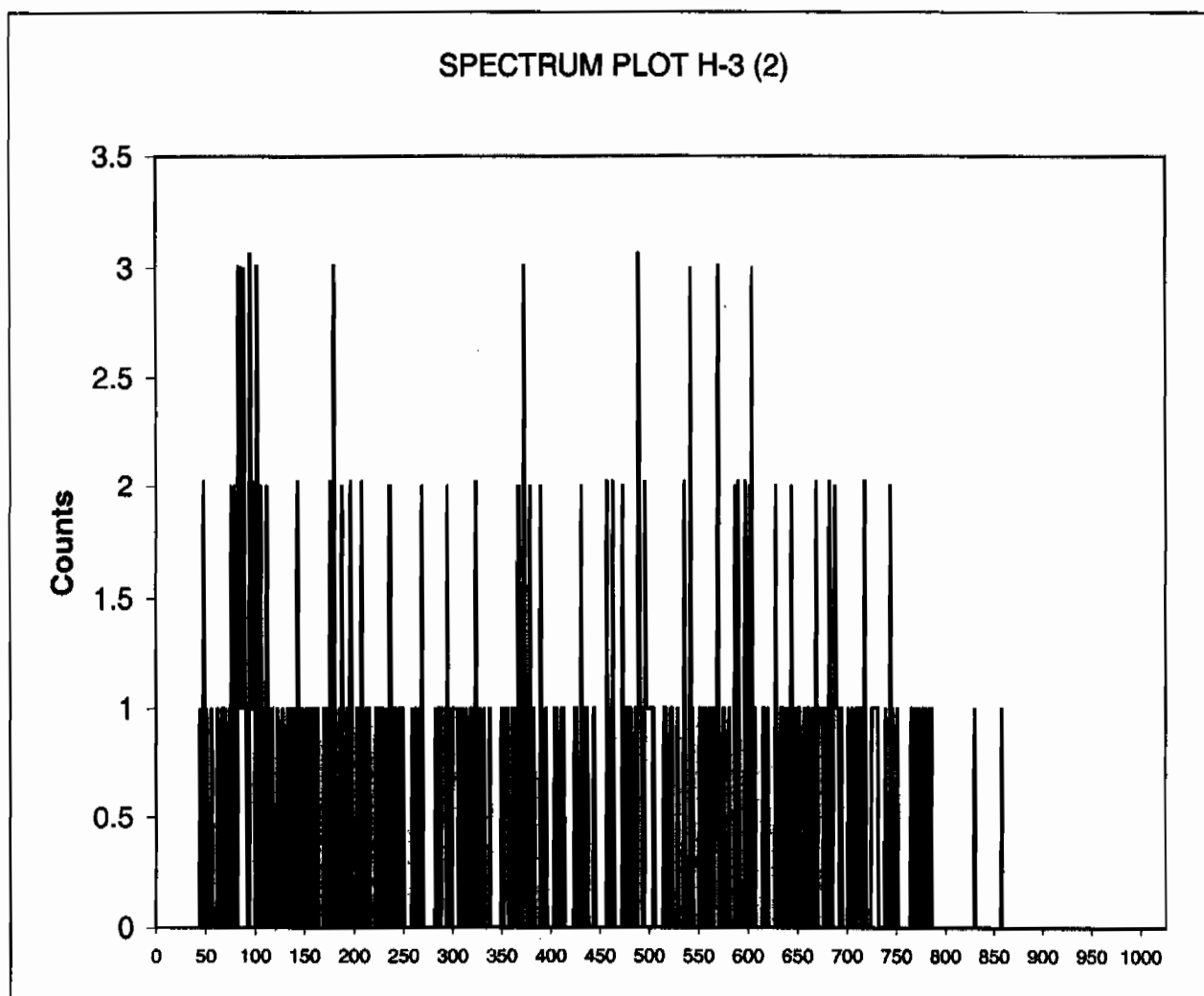
Instrument Type:
Data Capture Date:
FileName:
File Info:

Quantulus
TUE 23 MAR 2010 6:34
s:\lsc\files\orange\964058A0\SQ183301N.001.xls
s:\lsc\files\orange\964058A0\U964058A0.xls

ID: H-3 (2)
Comments: ORANGE

Sample, Rack-Pos, Time: 18, 248376013, 45.02962:
Quench: 763.5
Start, End, X-Axis 50-175

Channel Counts



31	0
32	0
33	0
34	0
35	0

Instrument Type:
Data Capture Date:
FileName:
File Info:

Quantulus
TUE 23 MAR 2010 6:34
s:\sc\files\orange\964058A0\SQ193401N.001.xls
s:\sc\files\orange\964058A0\U964058A0.xls

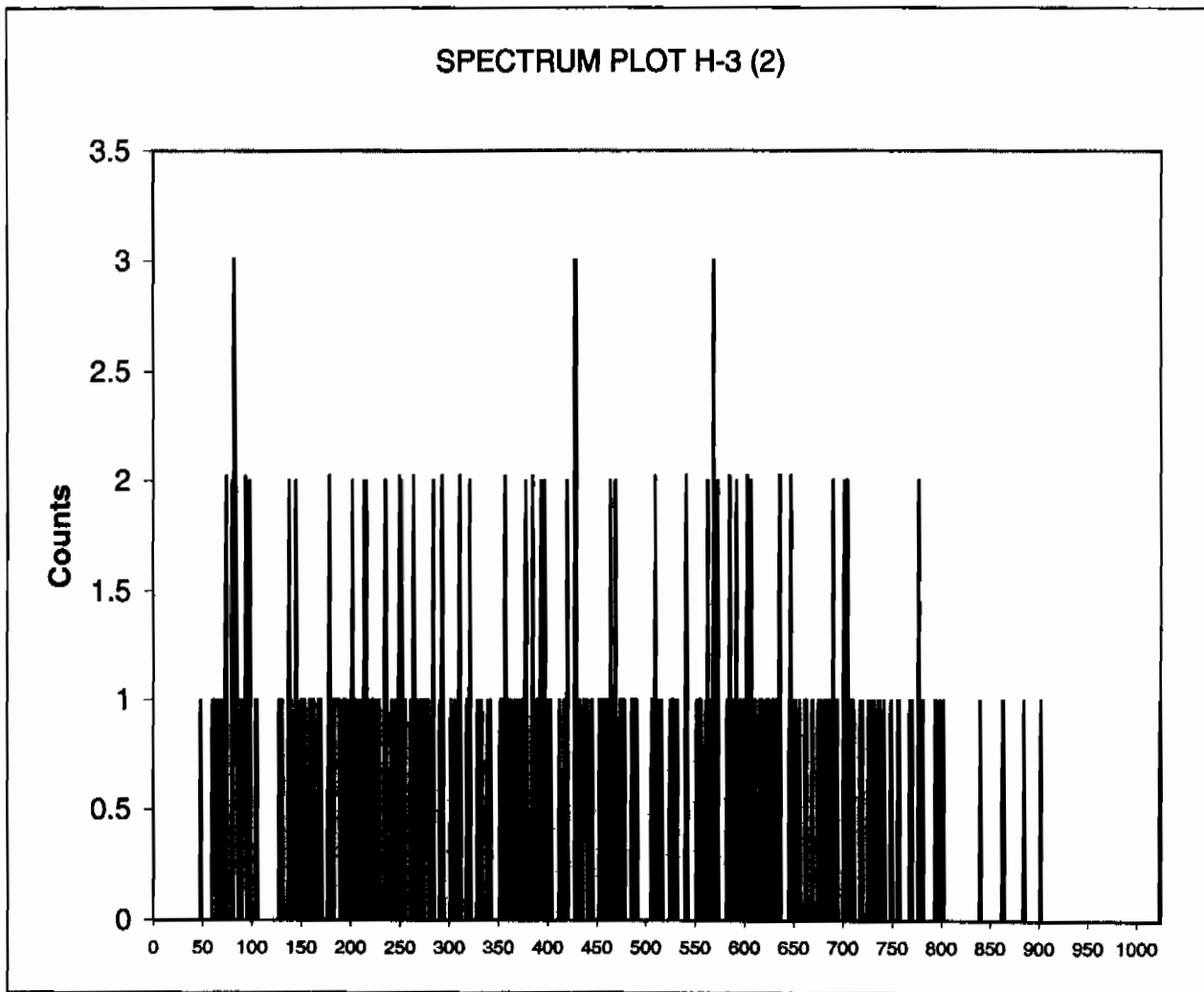
ID:
Comments:

H-3 (2)
ORANGE

Sample, Rack-Pos, Time:
Quench:
Start, End, X-Axis

19, 1202068219, 45.02962:
759.28
50-175

Channel Counts



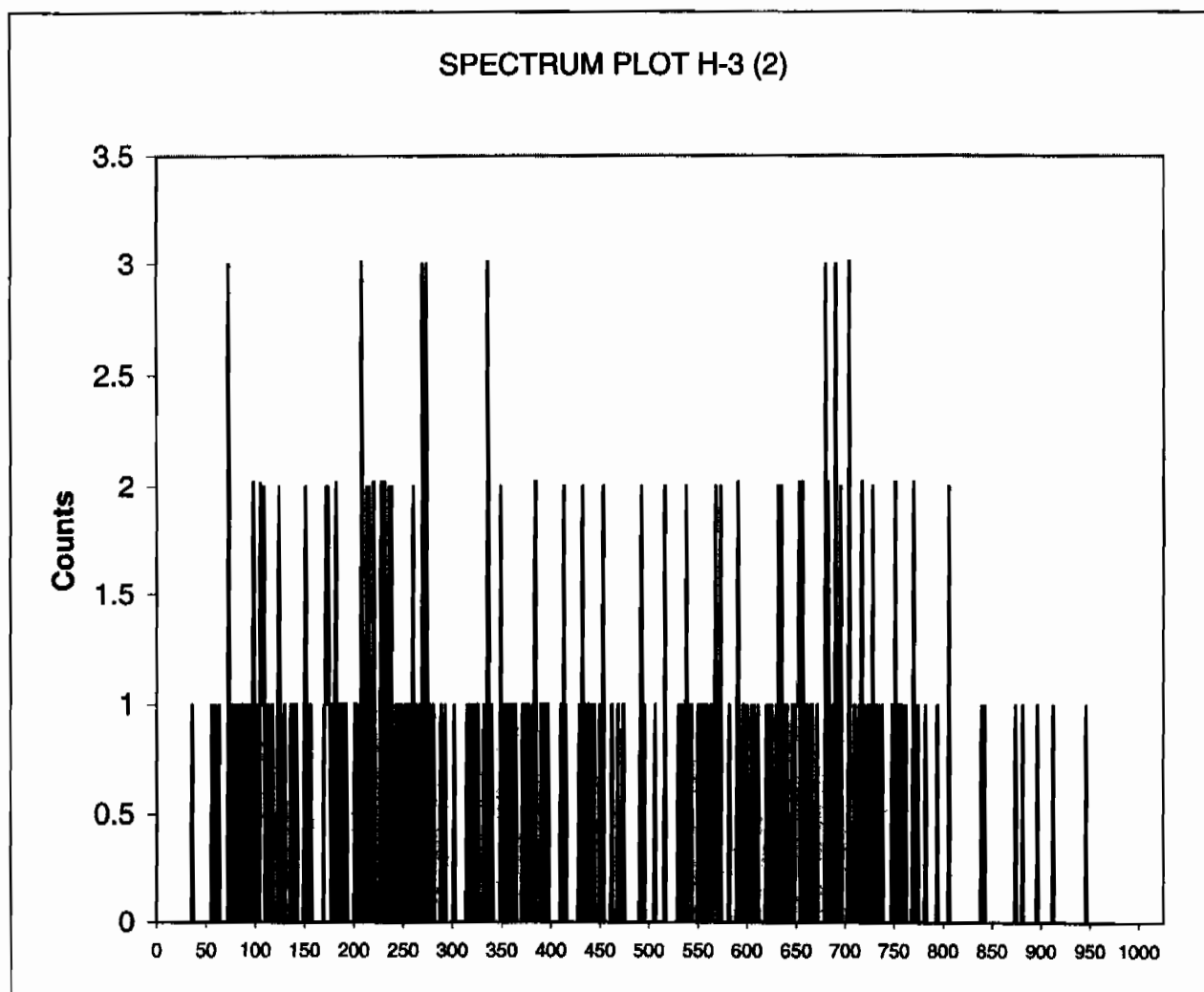
31	0
32	0
33	0
34	0
35	0

Instrument Type: Quantulus
Data Capture Date: TUE 23 MAR 2010 6:34
FileName: s:\sc\files\orange\964058A0\SQ203501N.001.xls
File Info: s:\sc\files\orange\964058A0\U964058A0.xls

ID: H-3 (2)
Comments: ORANGE

Sample, Rack-Pos, Time: 20, 1202068220, 45.02962:
Quench: 759.37
Start, End, X-Axis 50-175

Channel Counts



31	0
32	0
33	0
34	0
35	0

Instrument Type:
Data Capture Date:
FileName:
File Info:

Quantulus
TUE 23 MAR 2010 6:34
s:\sc\files\orange\964058A0\SQ213601N.001.xls
s:\sc\files\orange\964058A0\U964058A0.xls

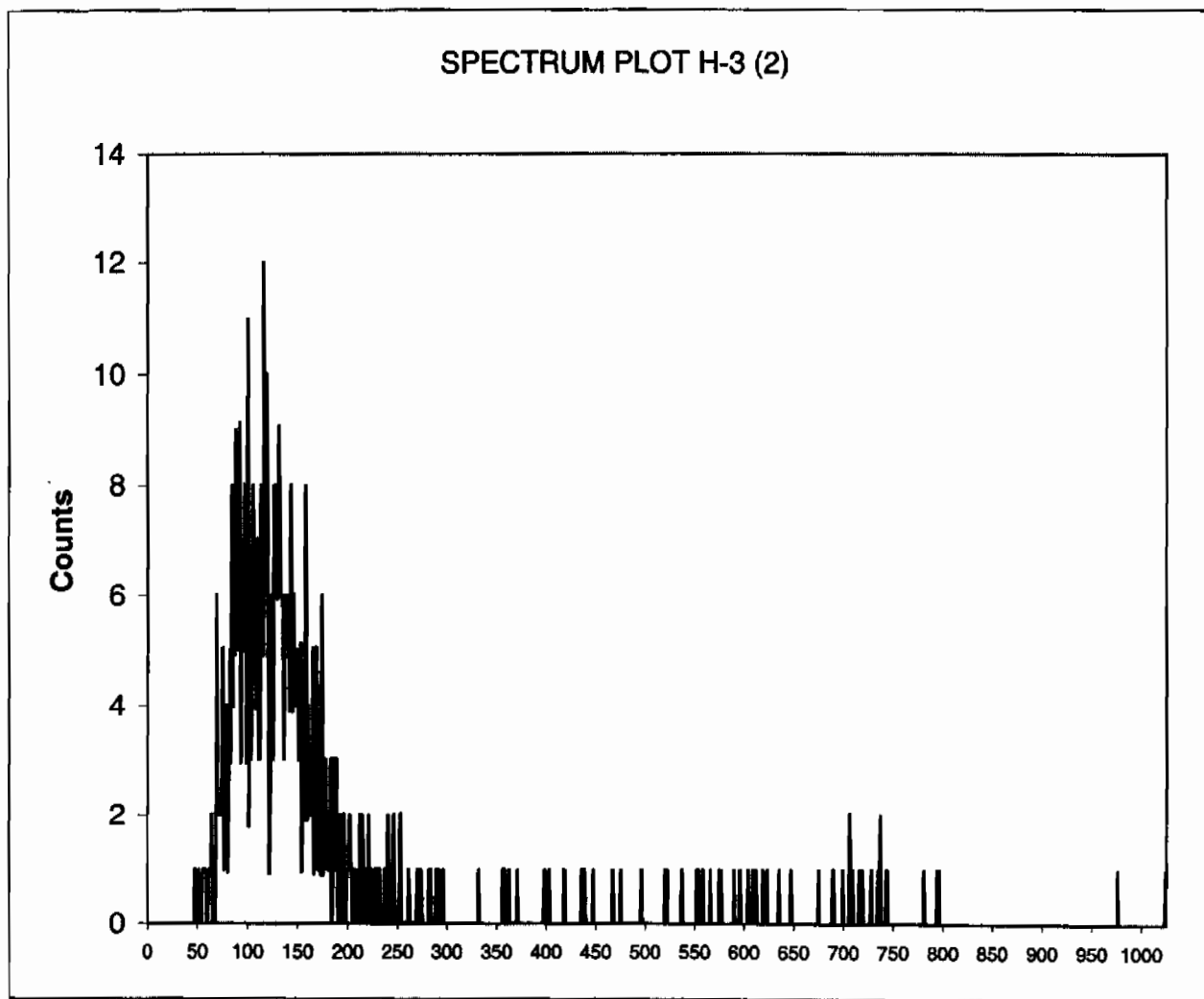
ID:
Comments:

H-3 (2)
ORANGE

Sample, Rack-Pos, Time:
Quench:
Start, End, X-Axis

21, 1202068221, 15.02962:
760.93
50-175

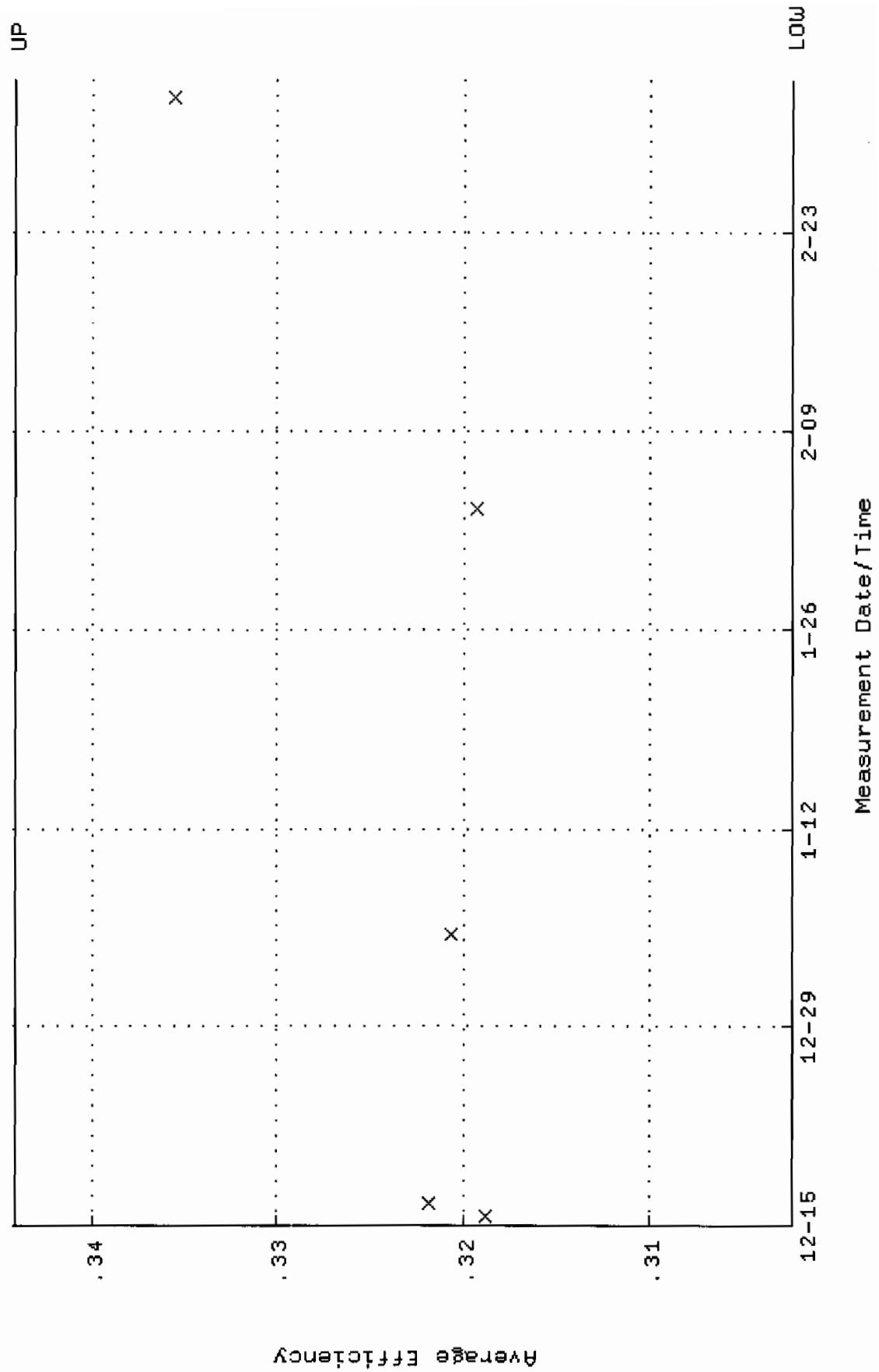
Channel Counts



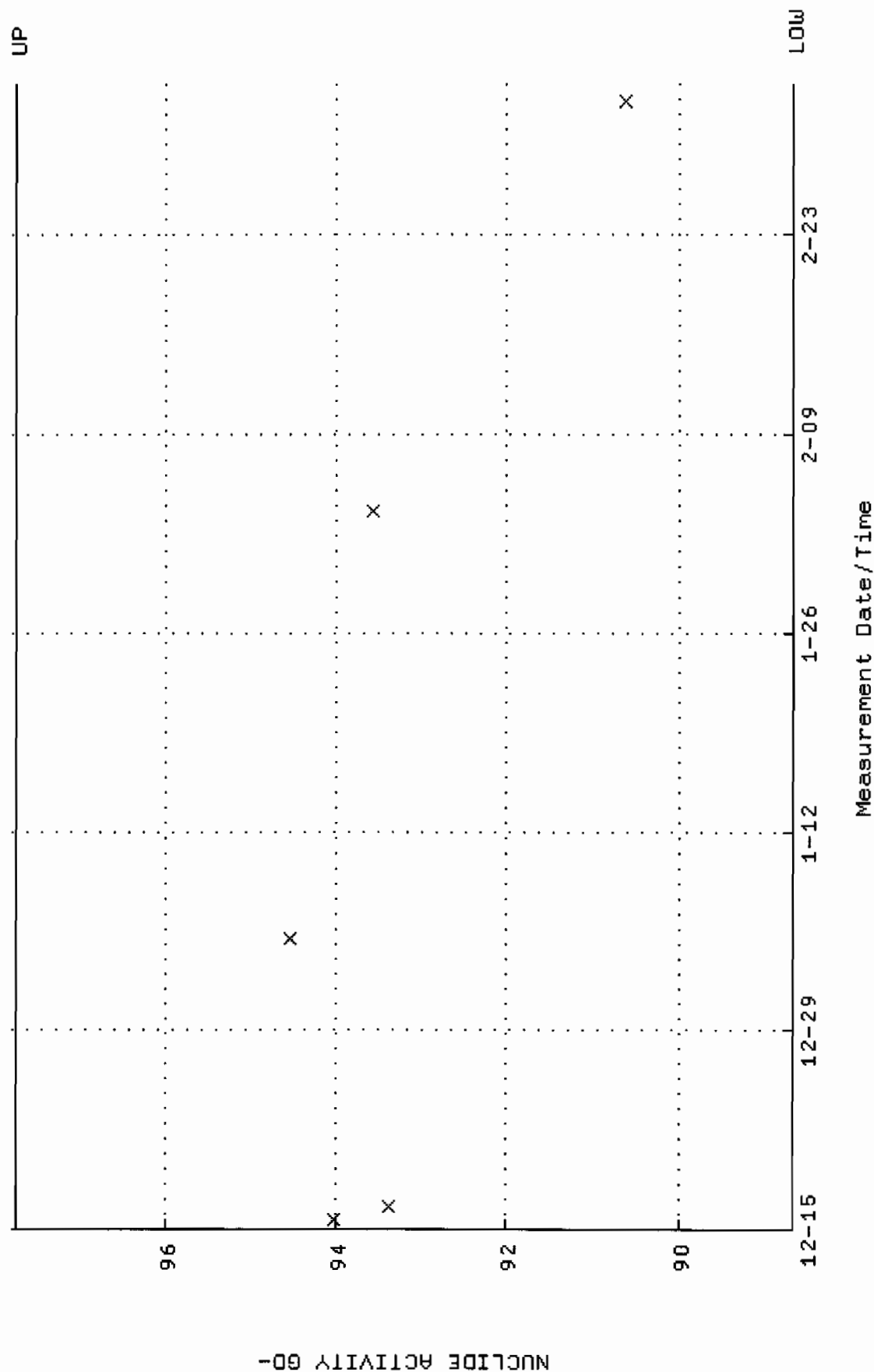
31	0
32	0
33	0
34	0
35	0

BACKGROUND AND EFFICIENCY DATA

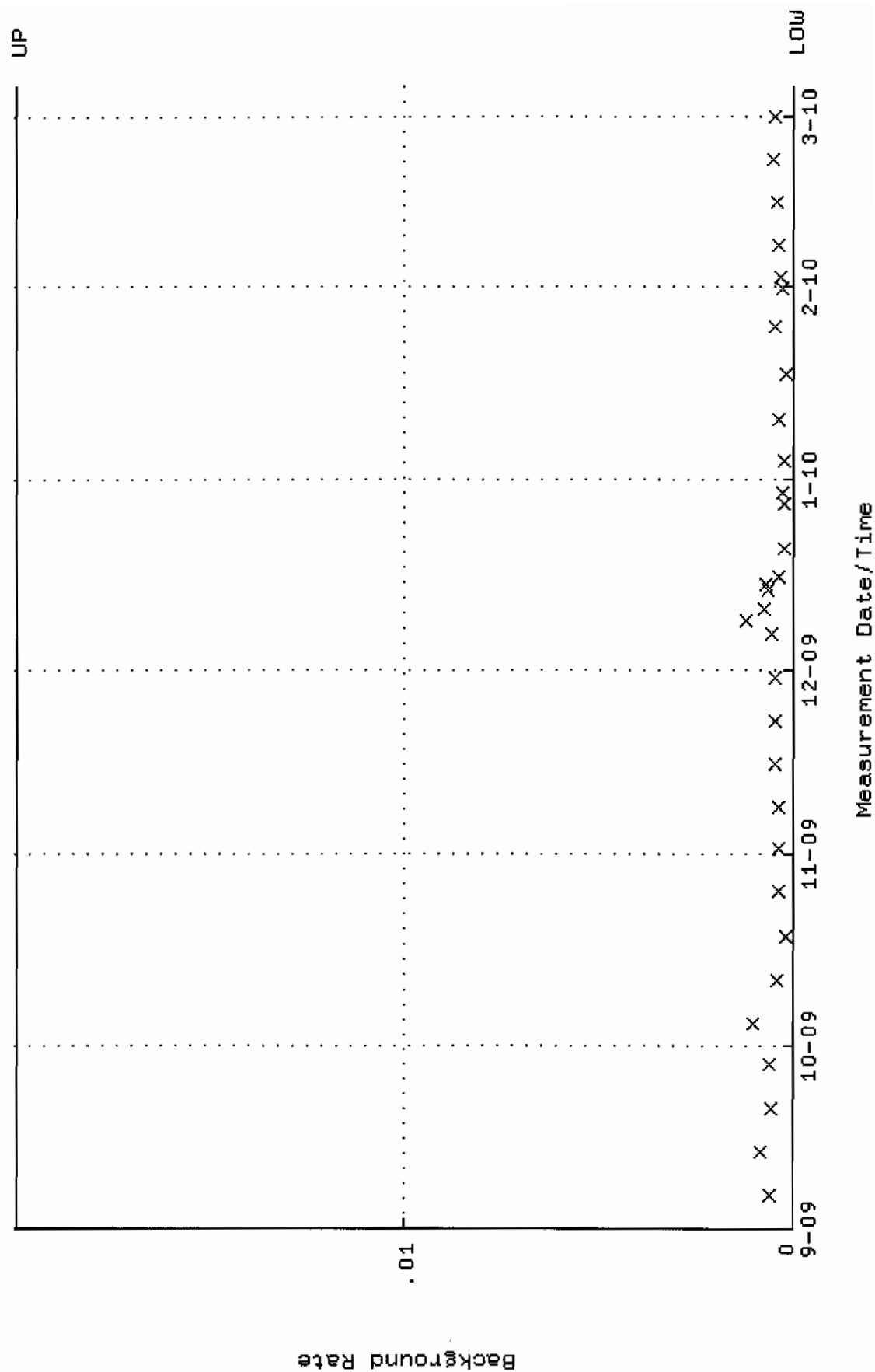
QA filename : DKA100:[ENV_ALPHA.QA.W]W005.QAF;6
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.302314 through 0.344088



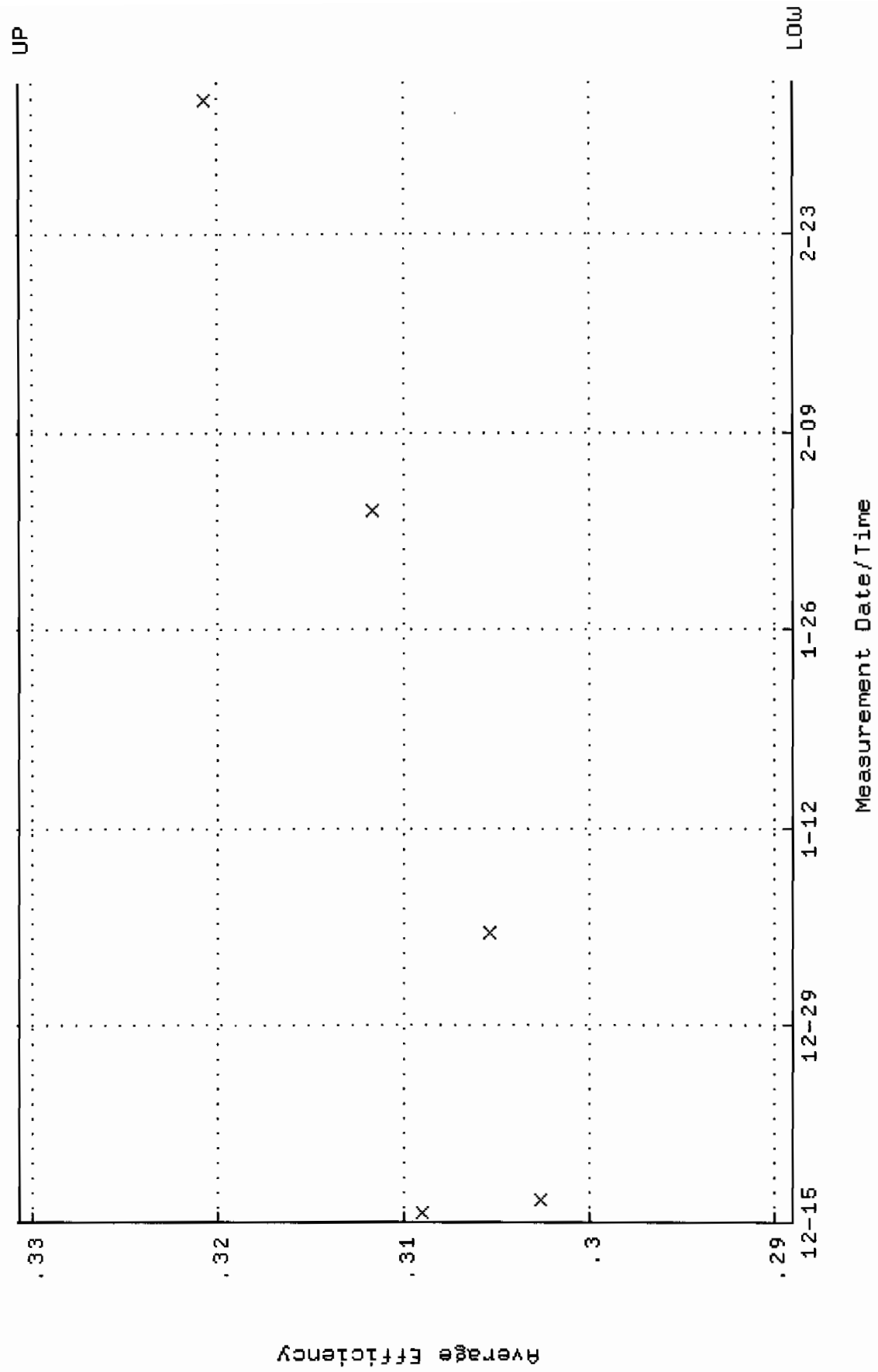
QA filename : DKA100:[ENV_ALPHA.QA.w]W005.QAF;6
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
 Lower/Upper Lmts: 88.6685 through 97.7693



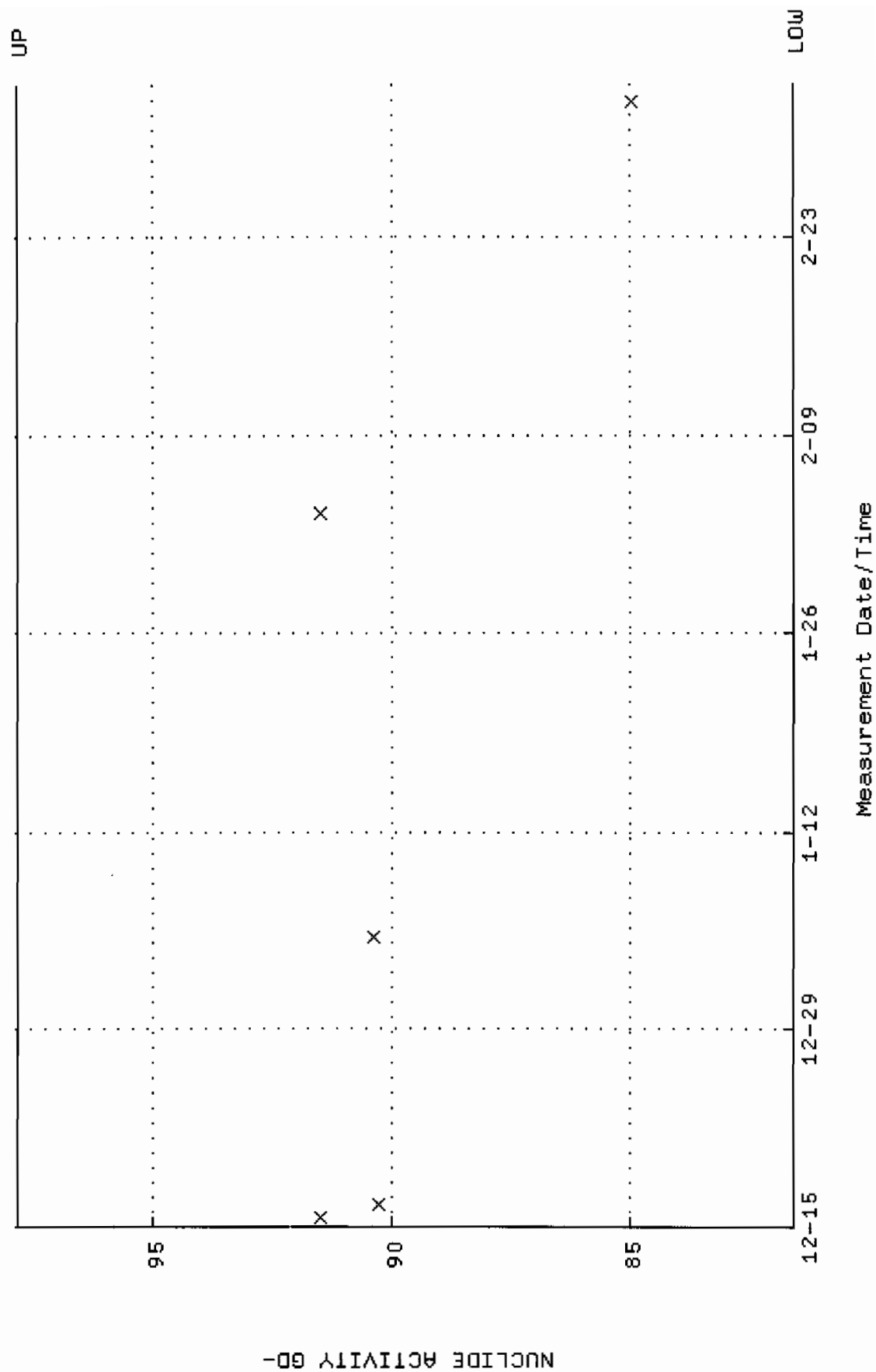
QA filename : DKA100:[ENV_ALPHA.QA.B]8005.QAF;2
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



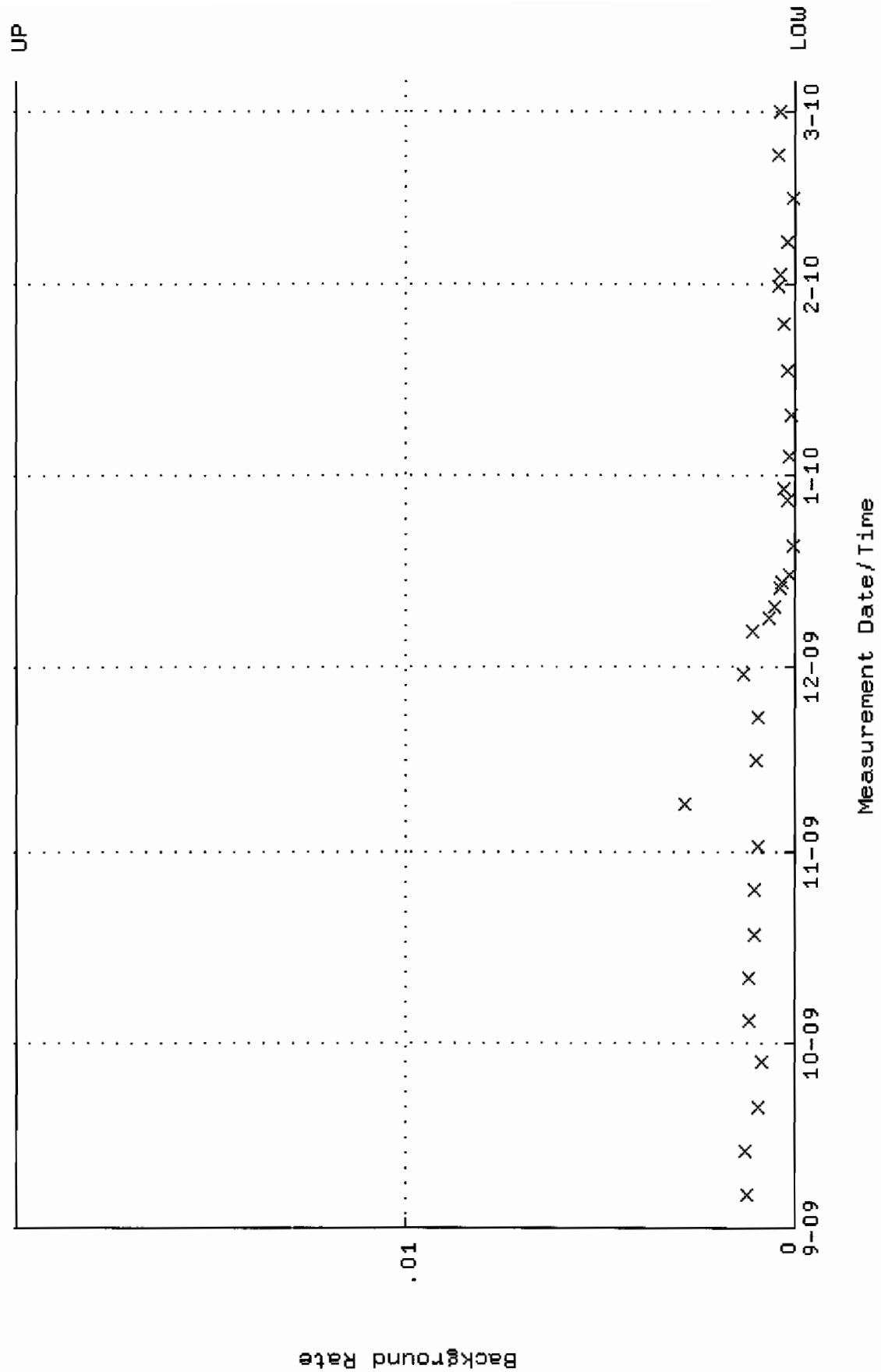
QA filename : DKA100:[ENV_ALPHA.QA.W]W006.QAF;6
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.288996 through 0.330714



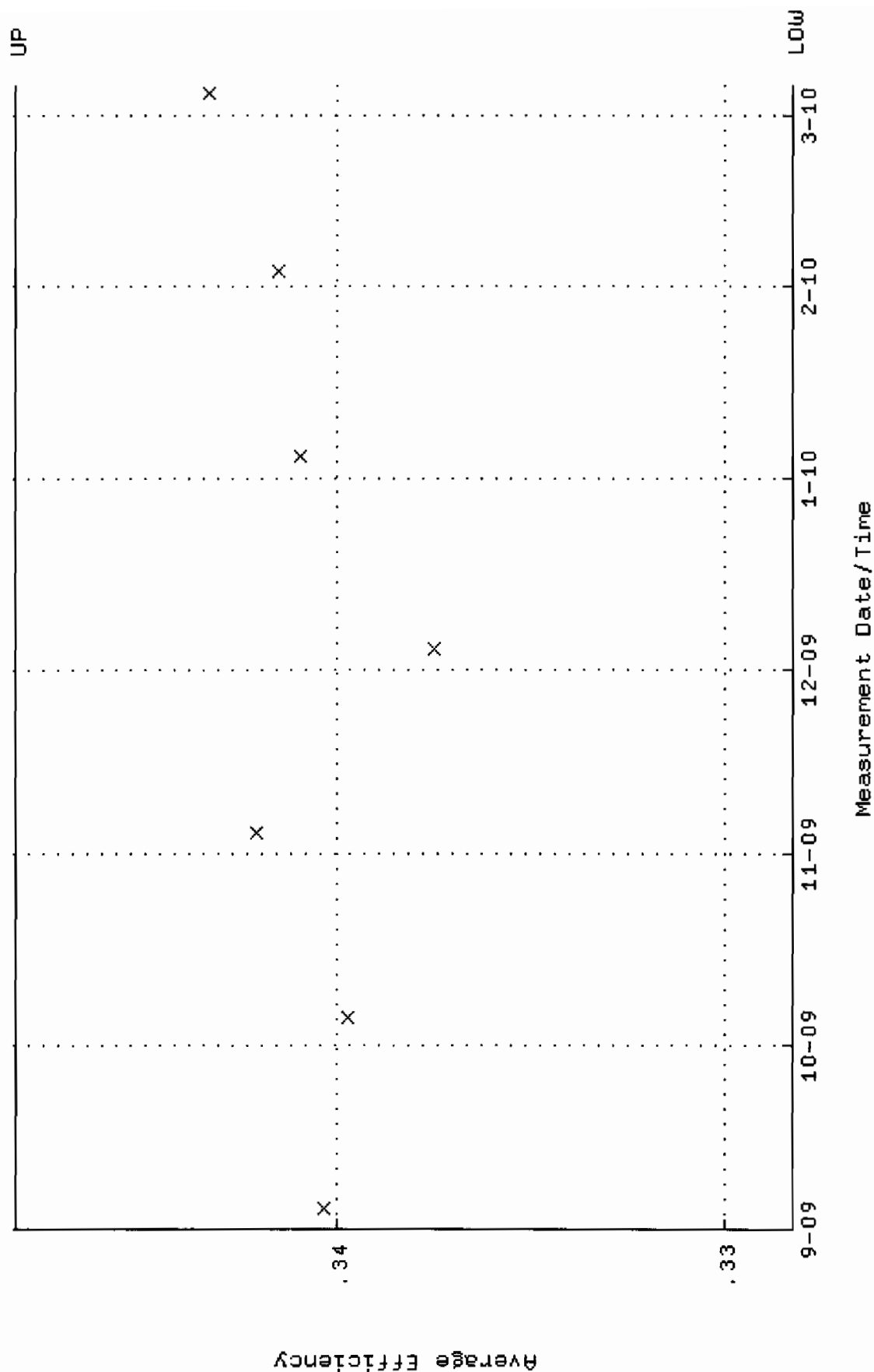
QA filename : DKA100:[ENV_ALPHA.QA.W]W006.QAF;6
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
 Lower/Upper Lmts: 81.5567 through 97.8515



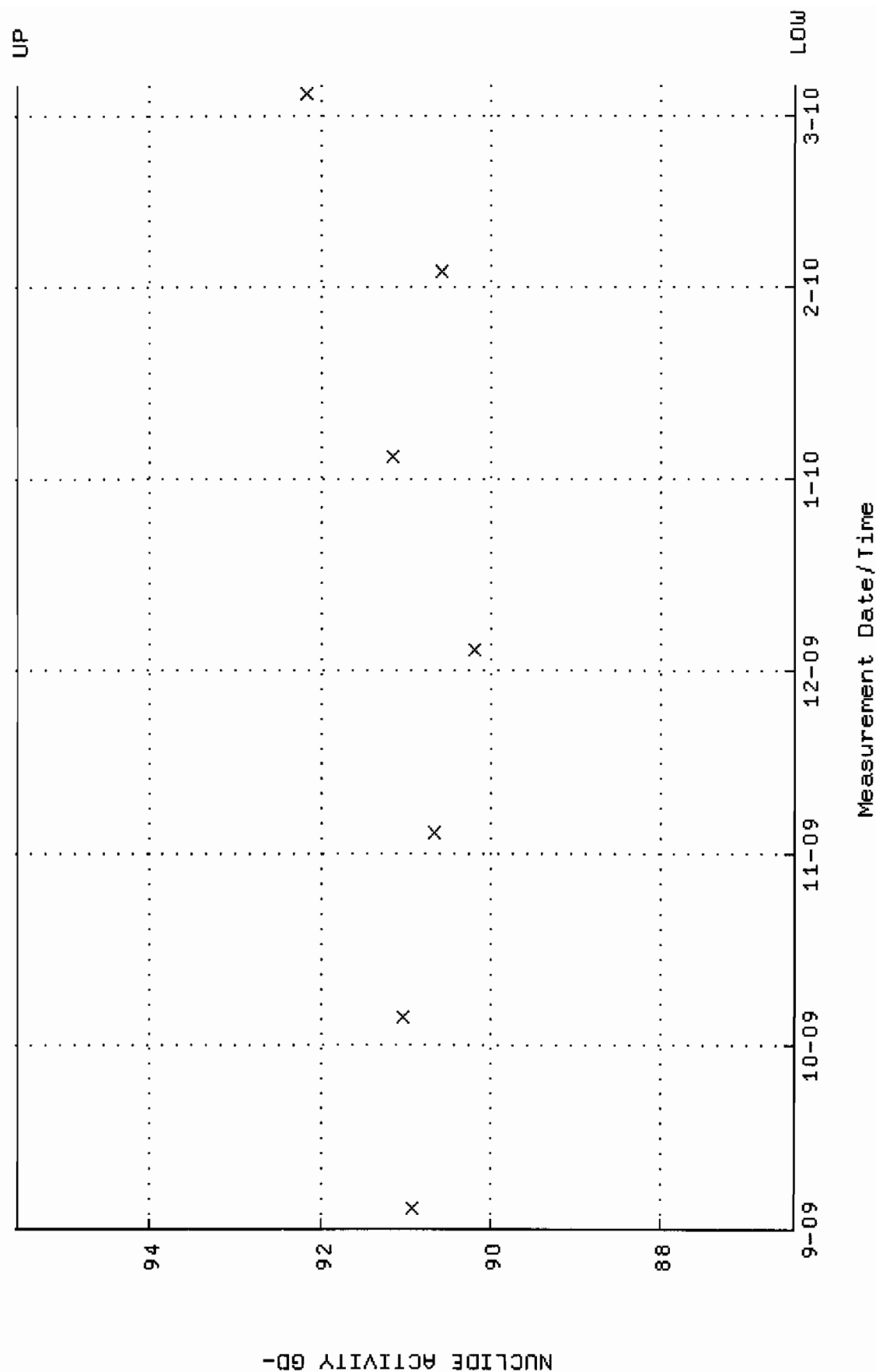
QA filename : DKA100:[ENV_ALPHA.QA.B]B006.QAF;2
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



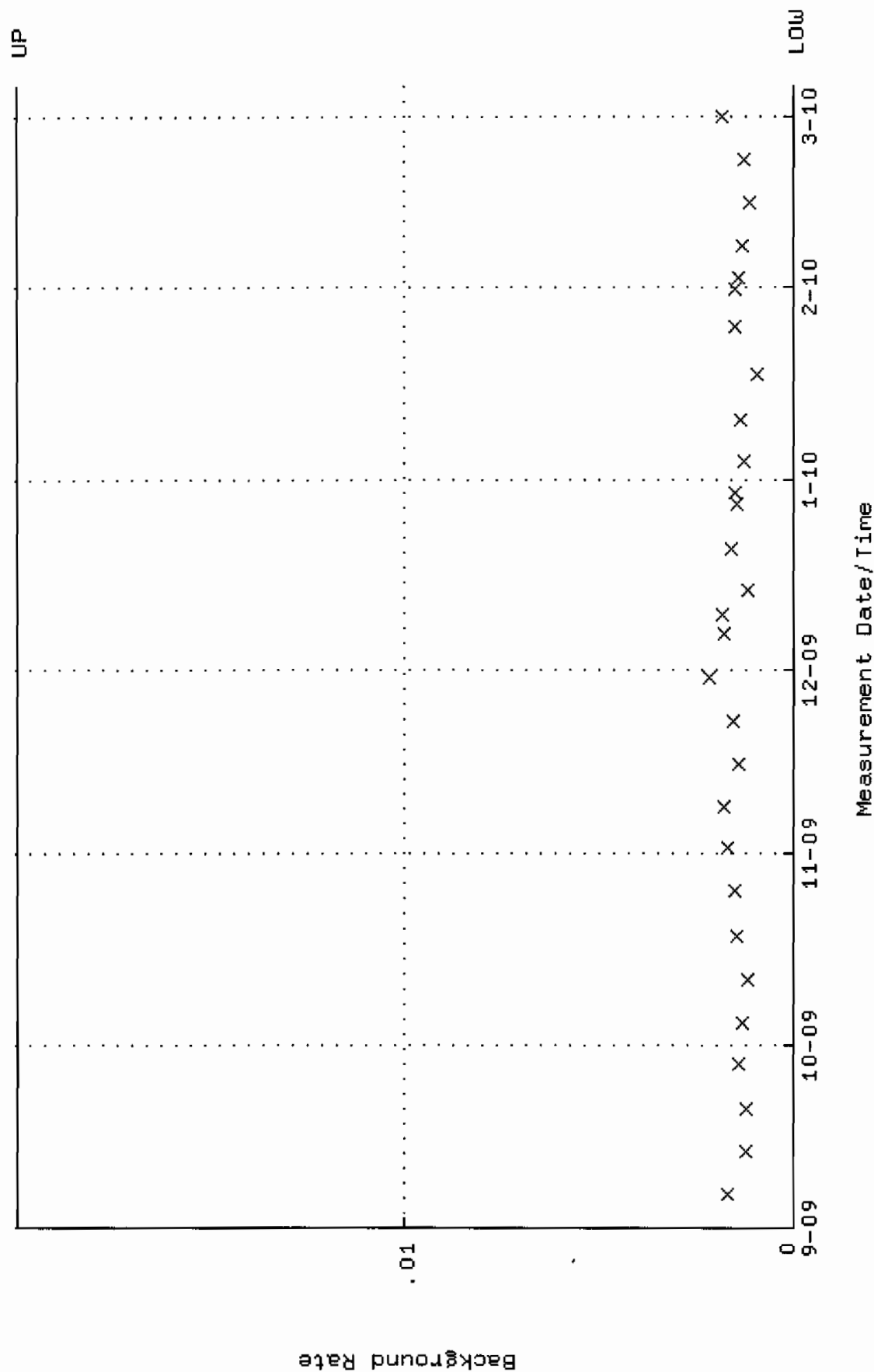
QA filename : DKA100:[ENV_ALPHA.QA.W]W009.QAF;3
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 4-SEP-2009 07:36:40 through 5-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.328261 through 0.348261



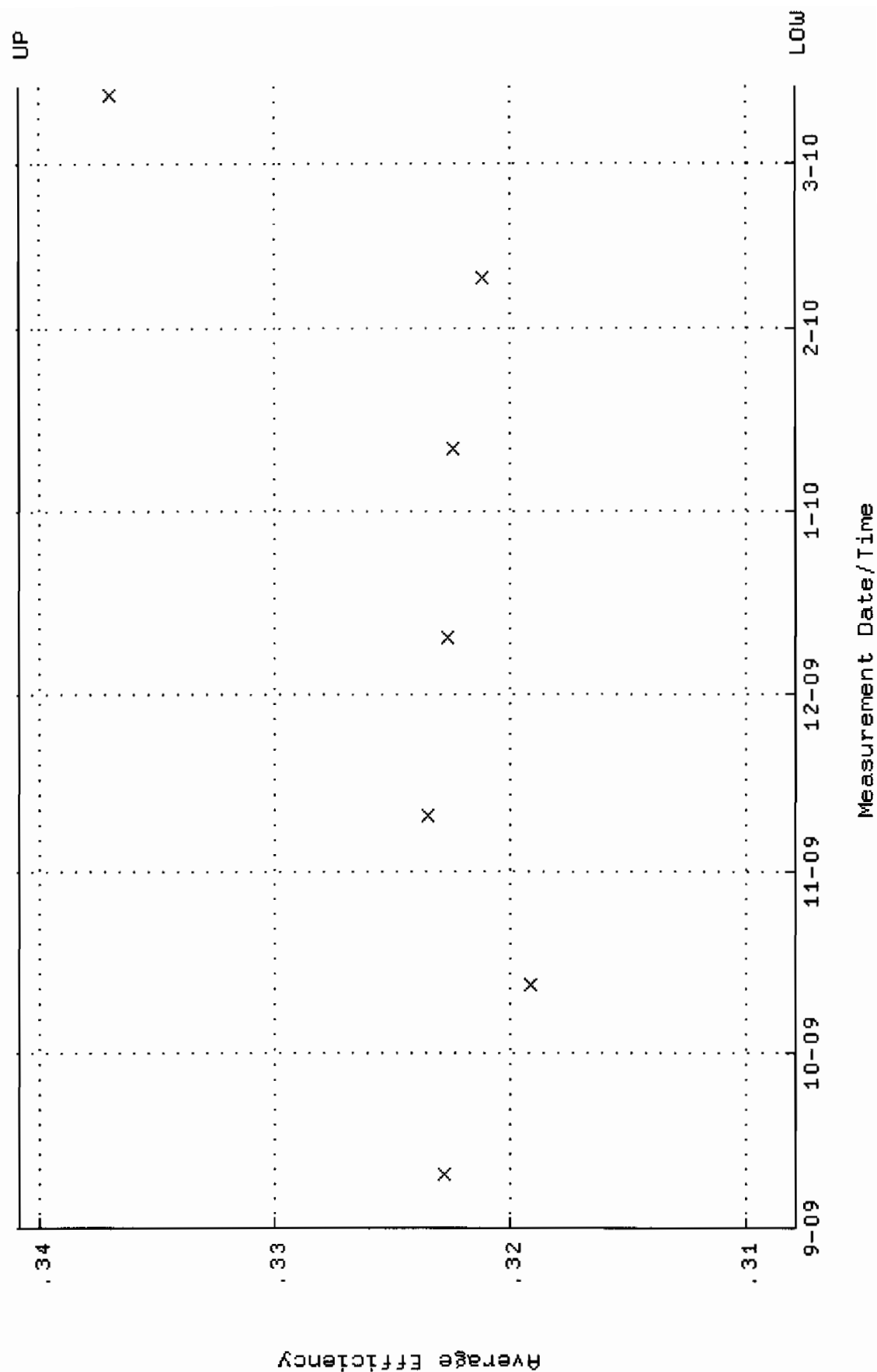
QA filename : DKA100:[ENV_ALPHA.QA.W]W009.QAF;3
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 4-SEP-2009 07:36:40 through 5-MAR-2010 12:00:00
 Lower/Upper Lmts: 86.4475 through 95.5473



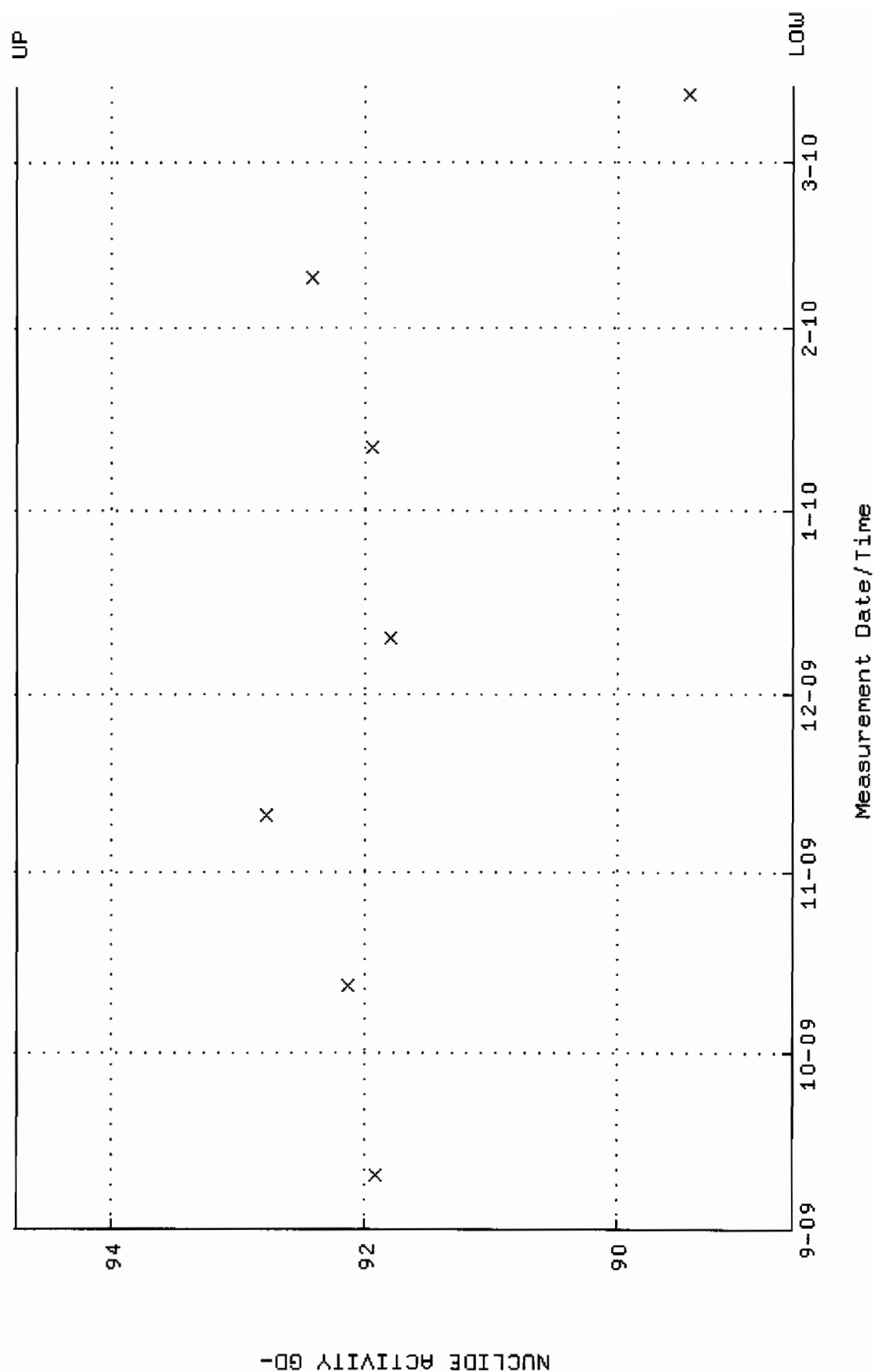
QA filename : DKA100:[ENV_ALPHA.QA.B]B009.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 6-SEP-2009 14:27:01 through 5-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



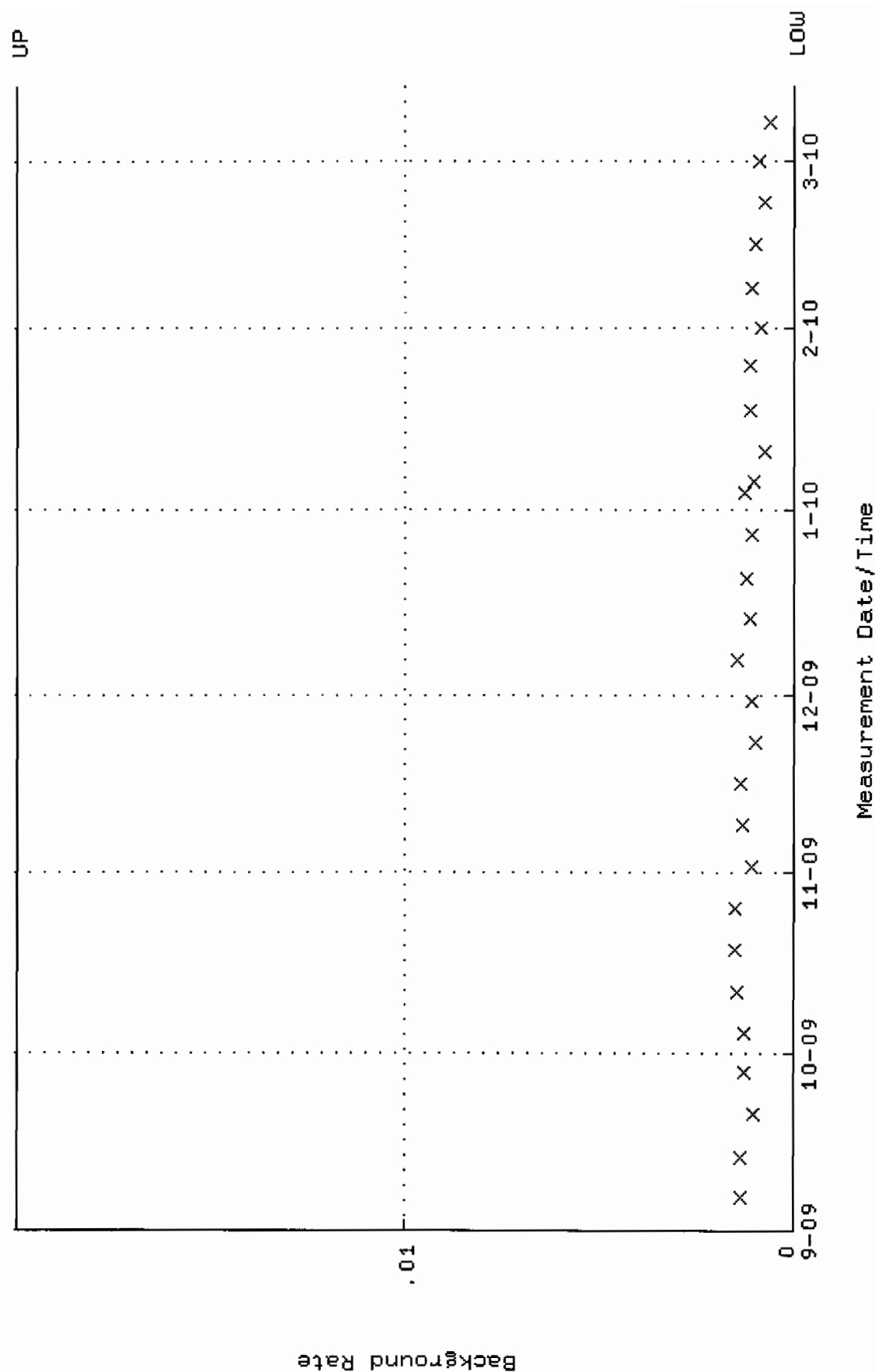
QA filename : DKA100:[ENV_ALPHA.QA.W]w072.QAF;2
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.307889 through 0.340829



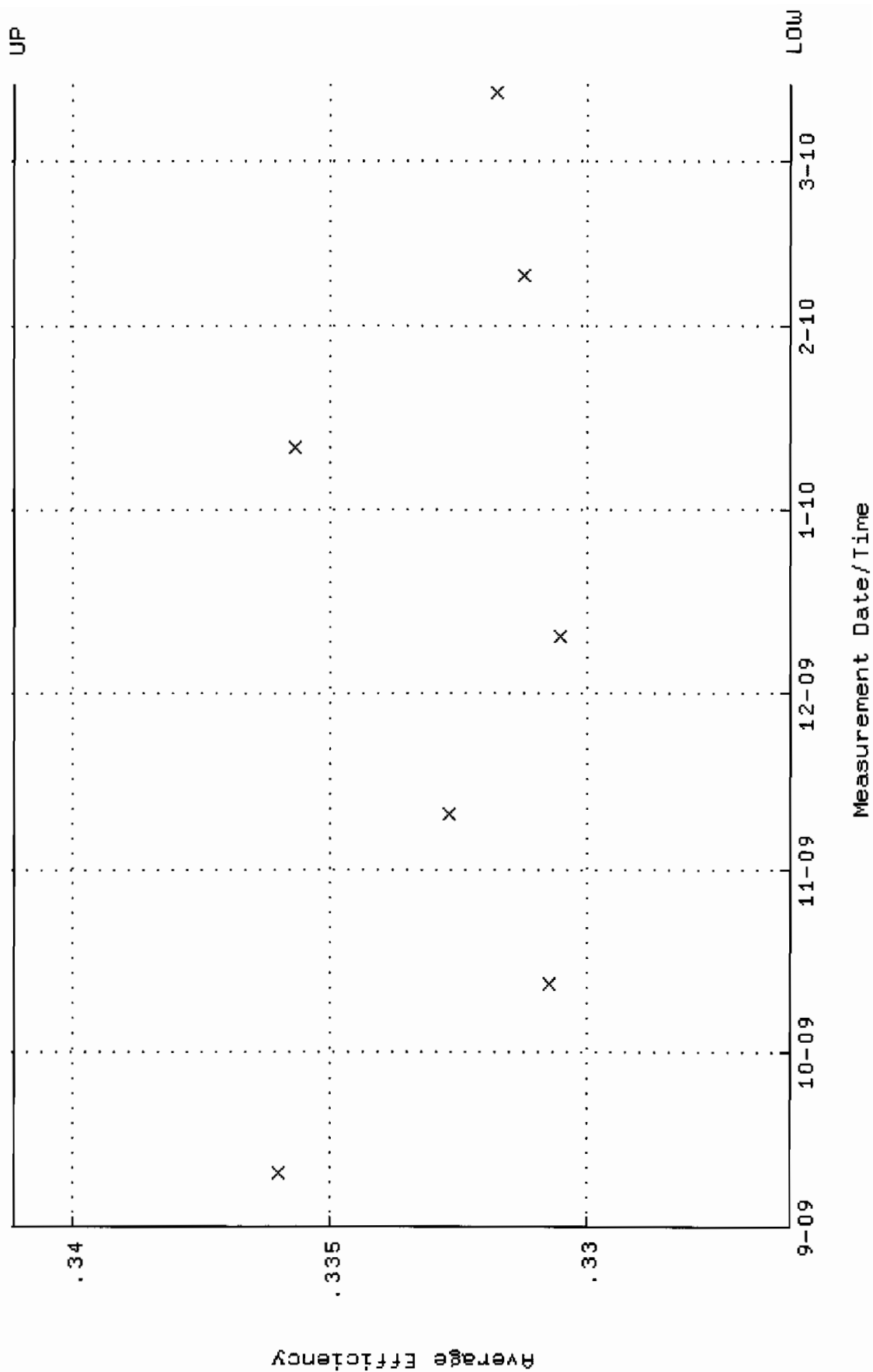
QA filename : DKA100:[ENV_ALPHA.QA.W]W072.QAF;2
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 88.6219 through 94.7527



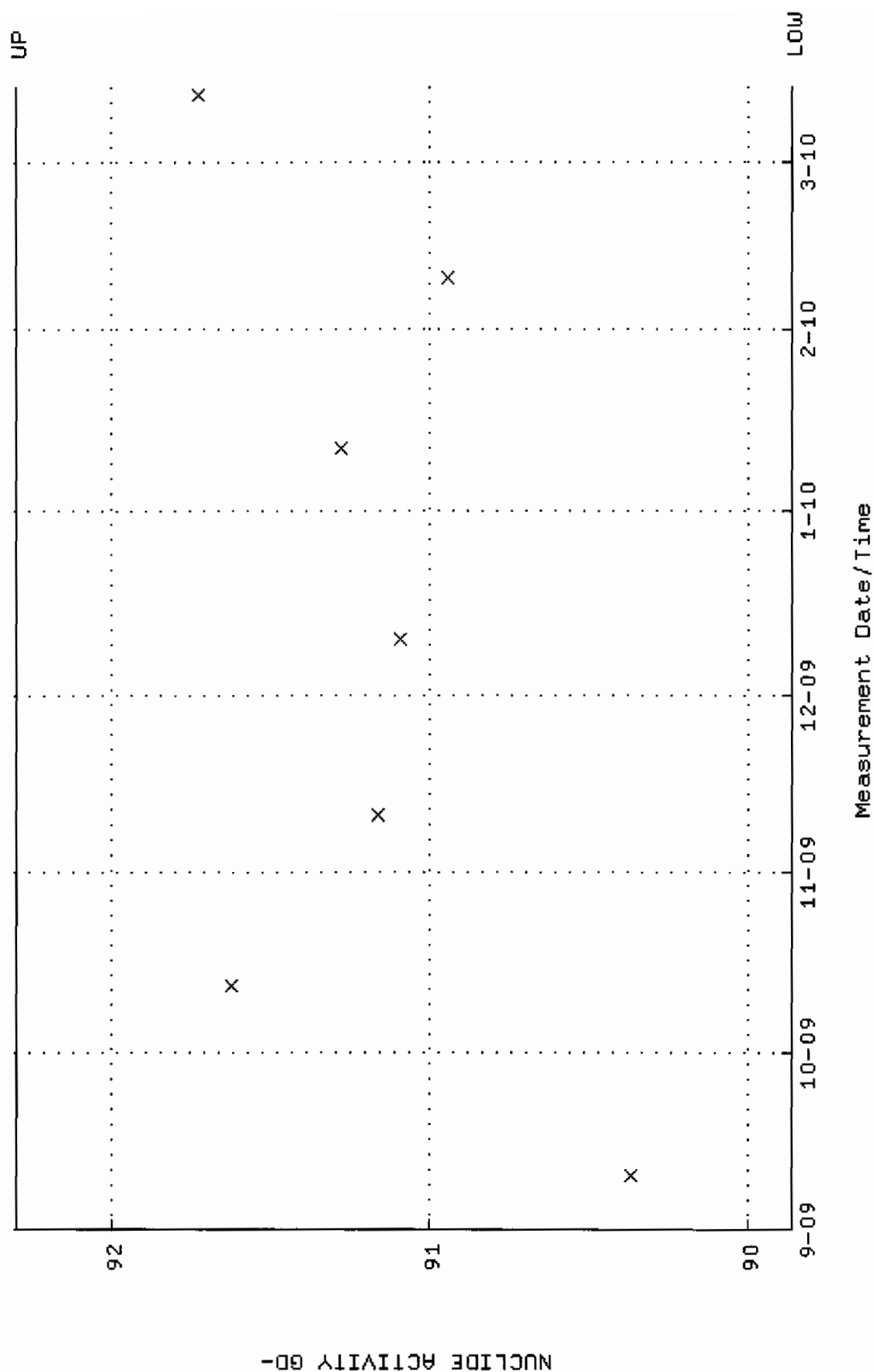
QA filename : DKA100:[ENV_ALPHA.QA.B]B072.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 6-SEP-2009 14:27:07 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



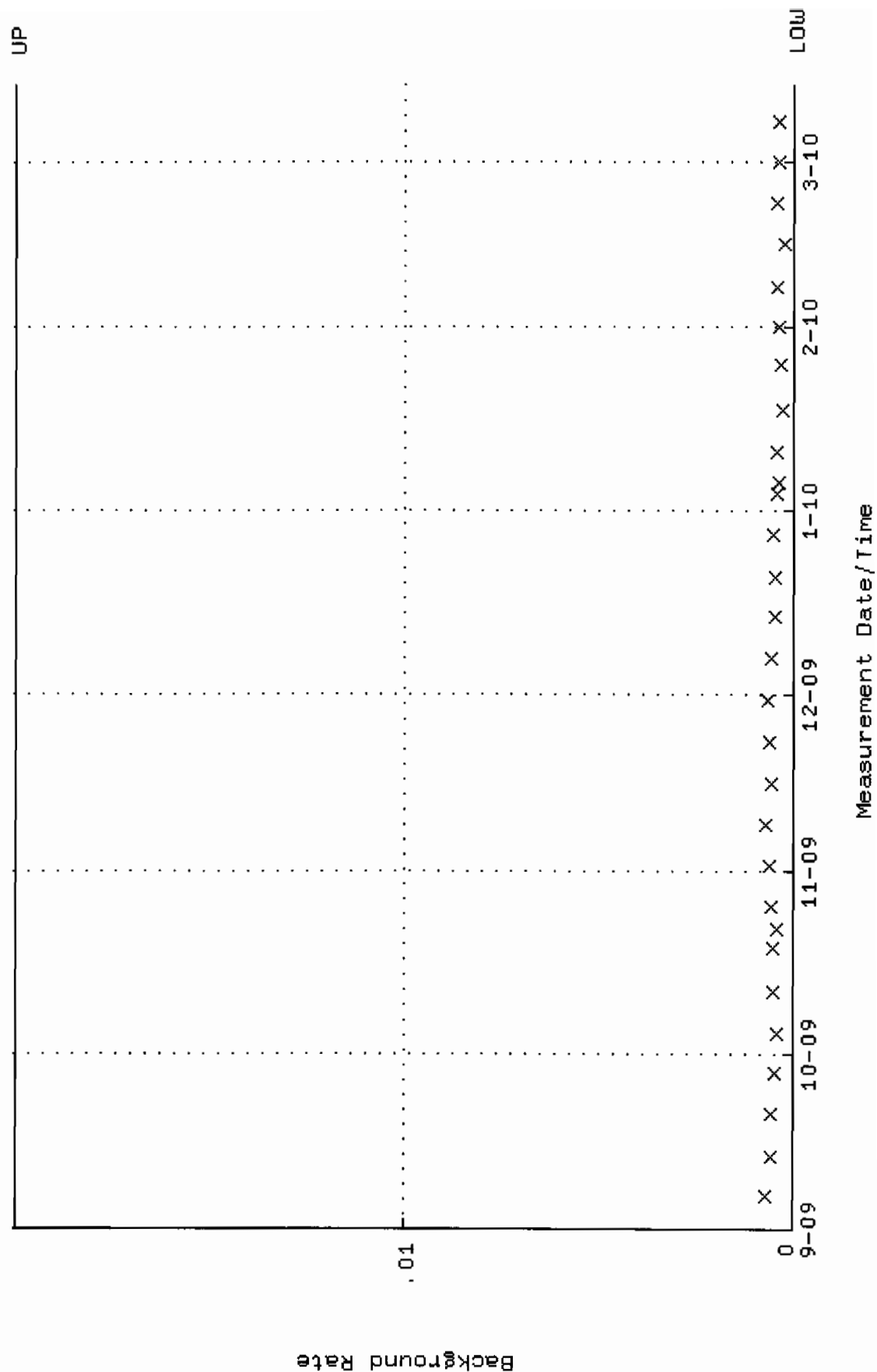
QA filename : DKA100:[ENV_ALPHA.QA.W]U073.QAF;3
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.326078 through 0.341146



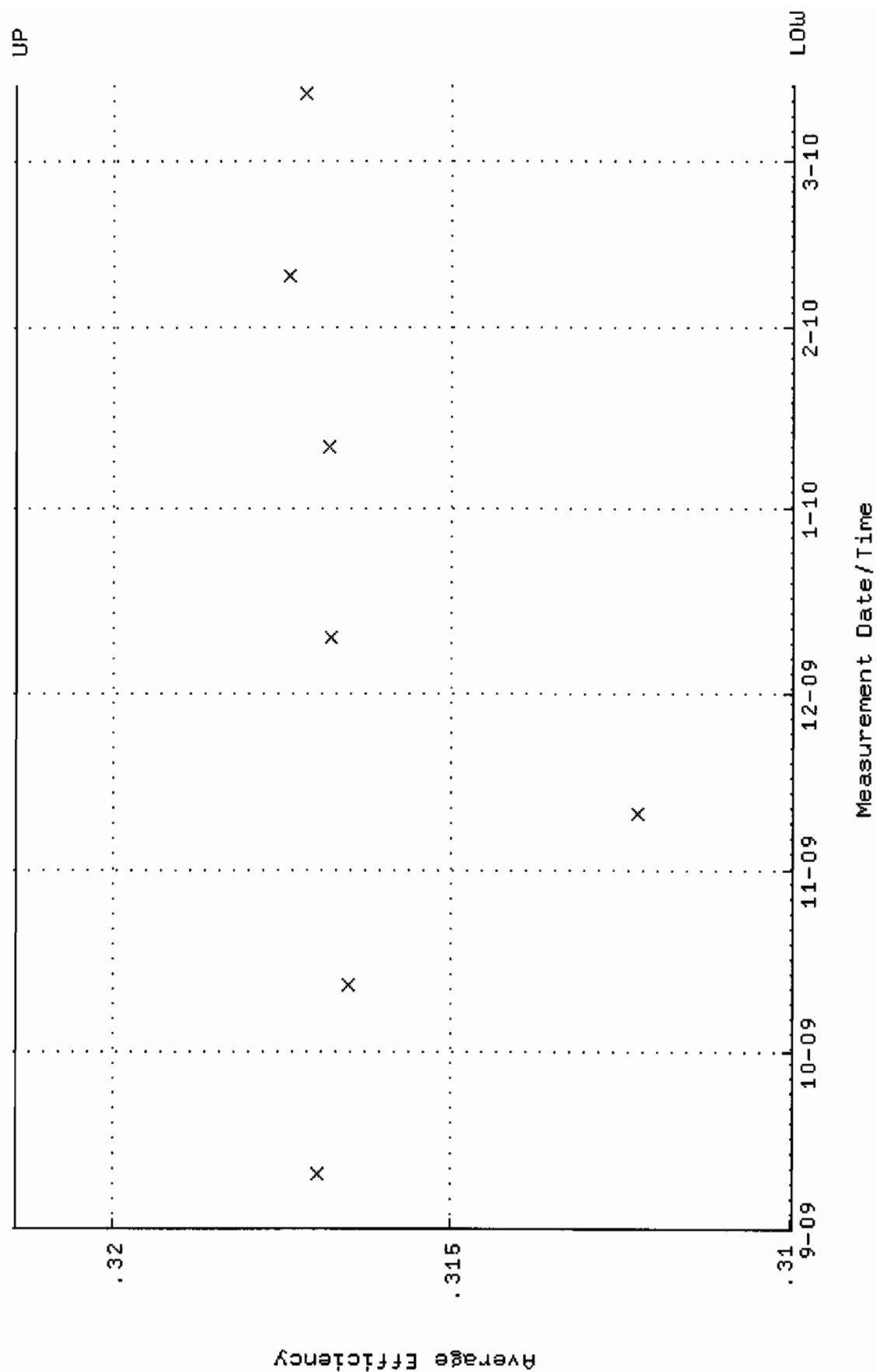
QA filename : DKA100:[ENV_ALPHA.QA.W]W073.QAF;3
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 89.8600 through 92.3006



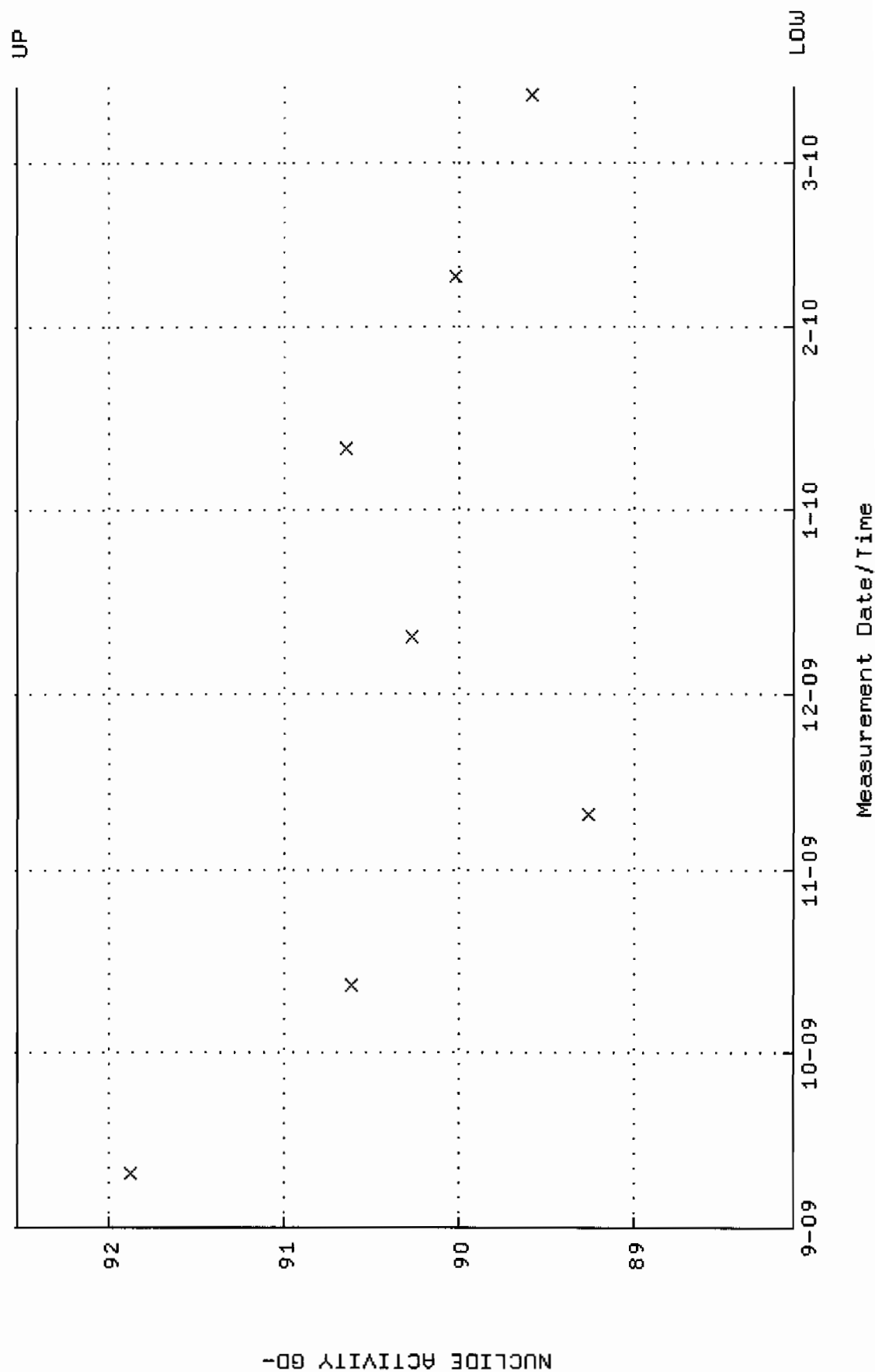
QA filename : DKA100:[ENV_ALPHA.QA.B]B073.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 6-SEP-2009 14:27:07 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



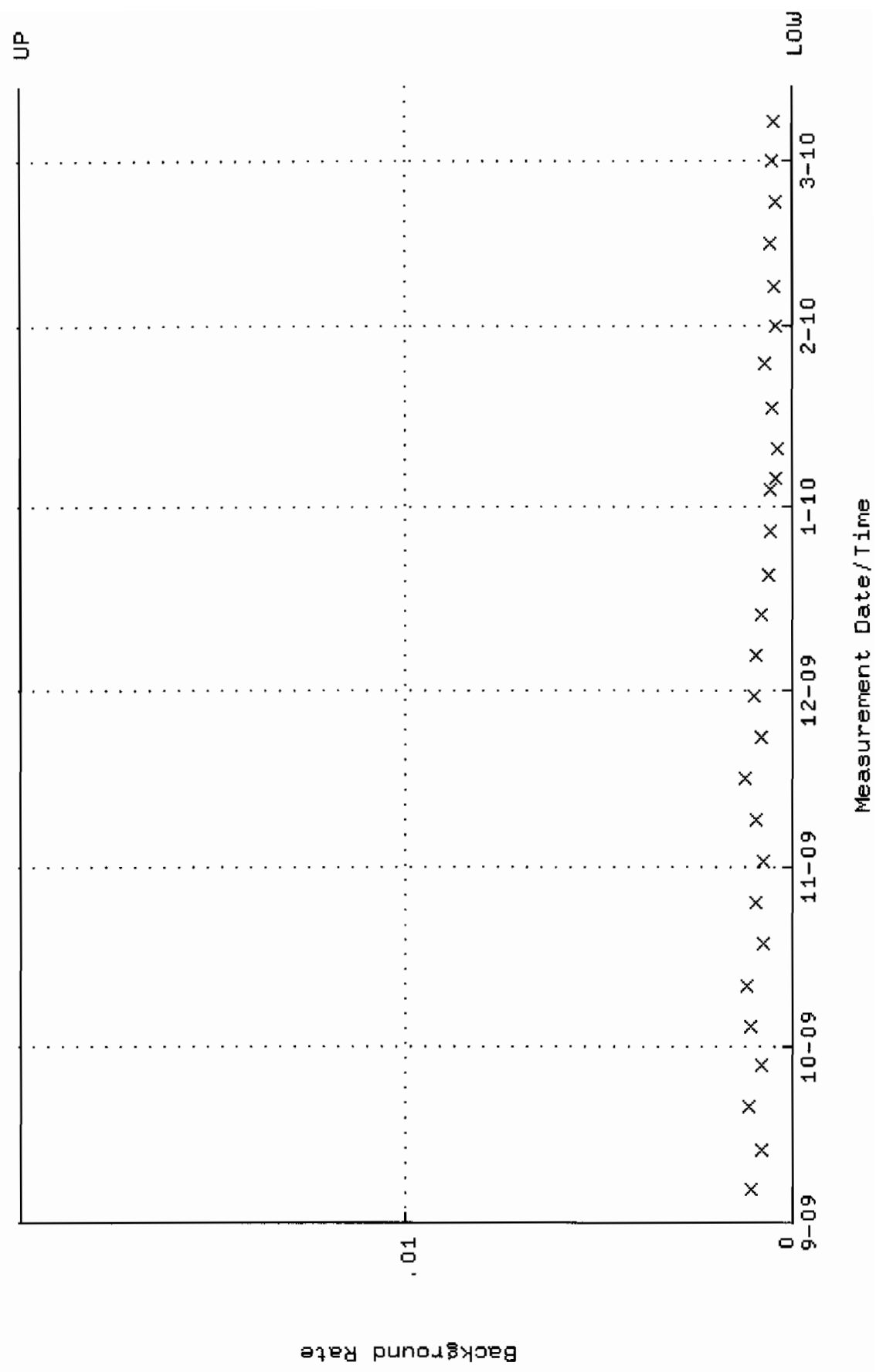
QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF; 4
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.309960 through 0.321424



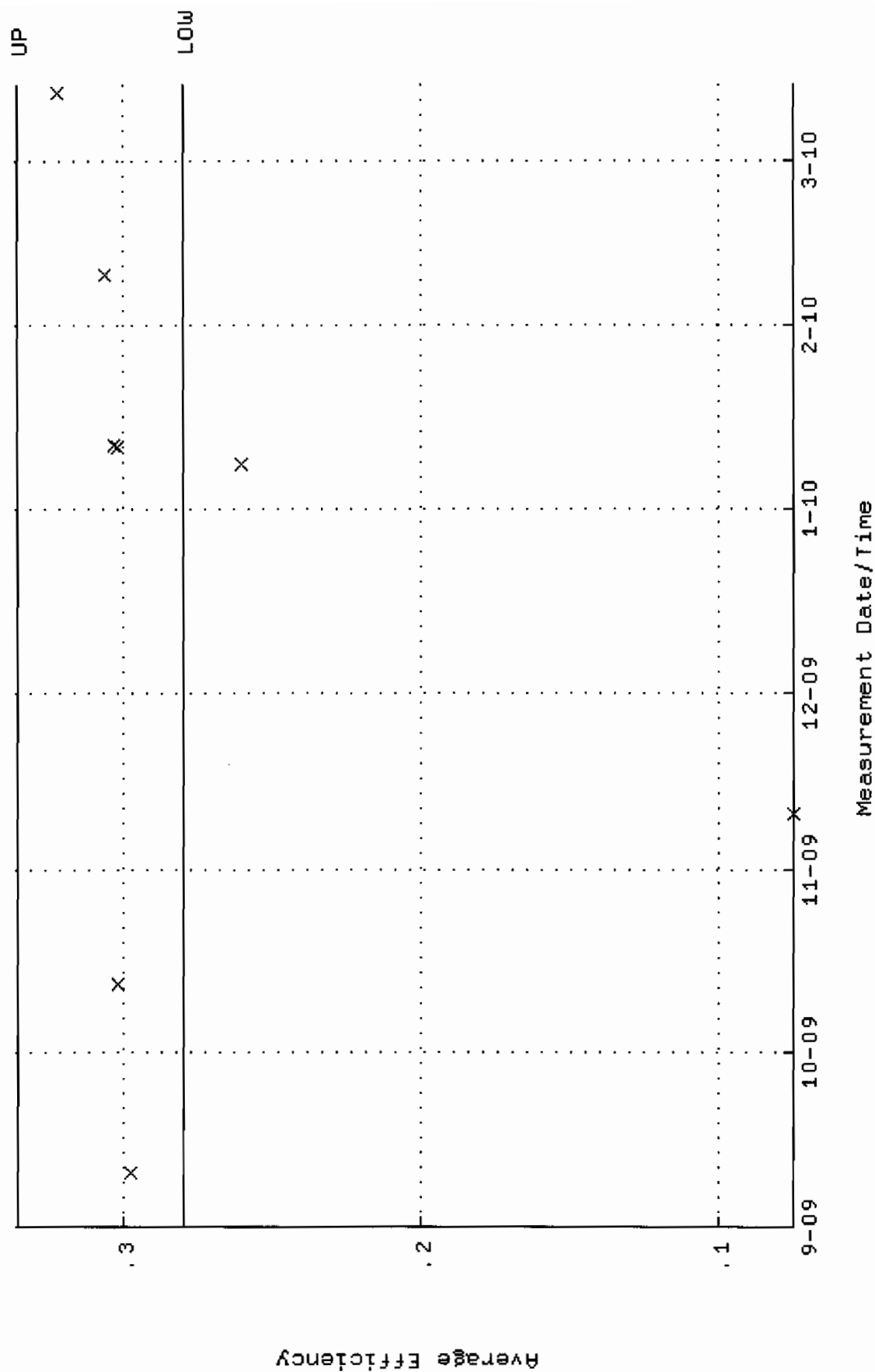
QA filename : DKA100:[ENV_ALPHA.QA.W]w074.QAF;4
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 88.0938 through 92.5190



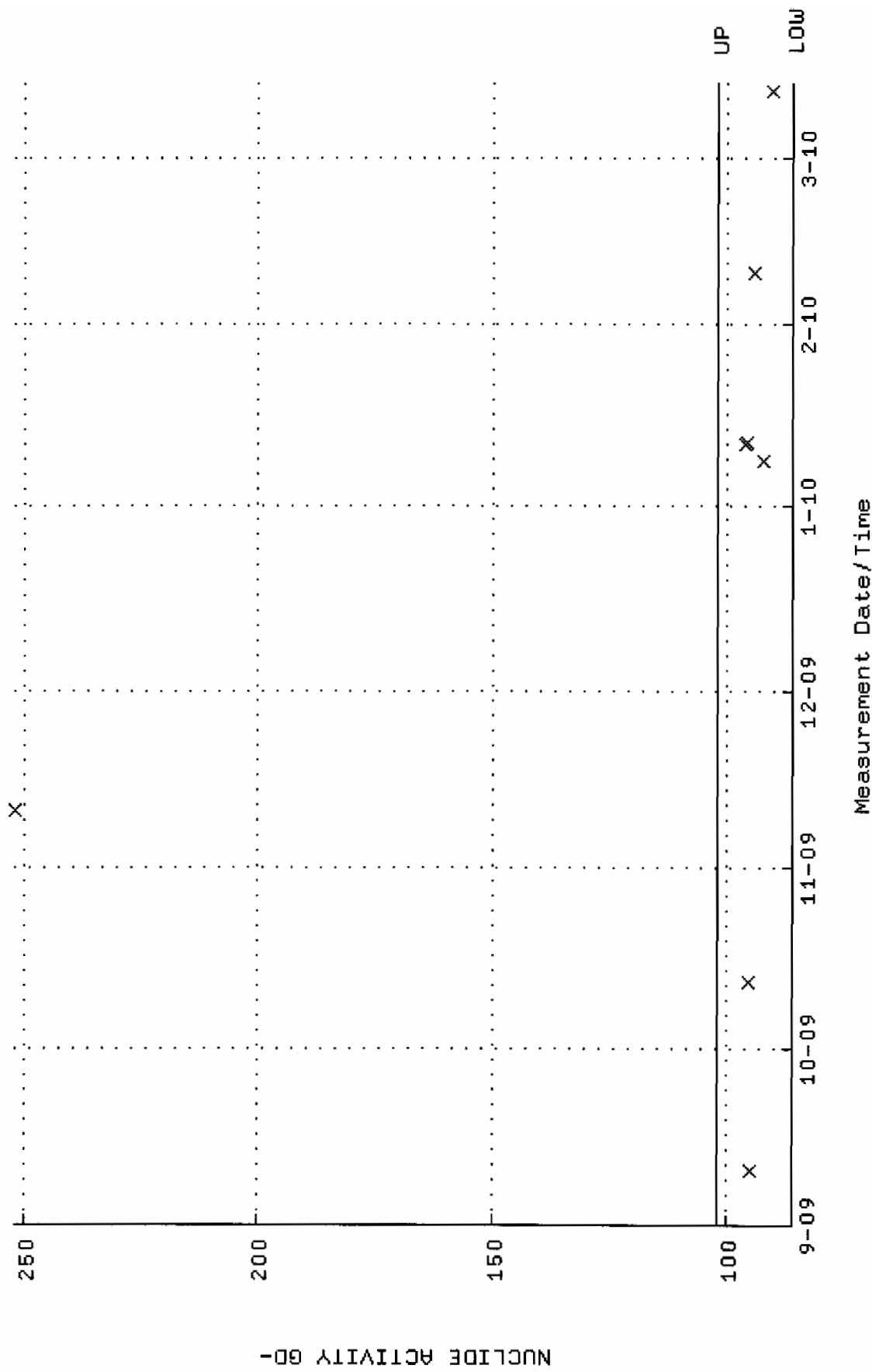
QA filename : DKA100:[ENV_ALPHA.QA.B]B074.QAF;2
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 6-SEP-2009 14:27:07 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



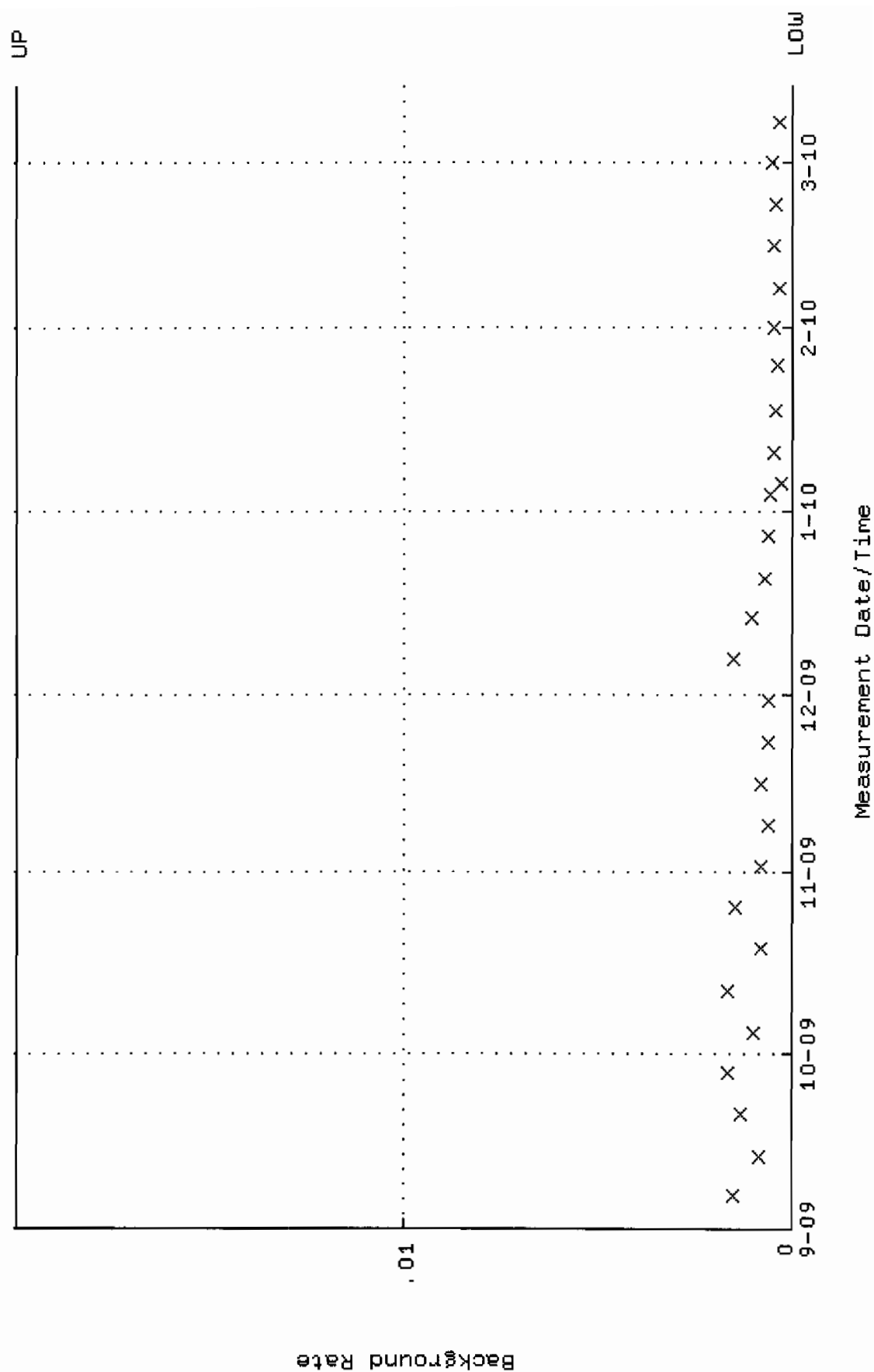
QA filename : DKA100:[ENV_ALPHA.QA.W]W075.QAF;3
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.279983 through 0.335803



QA filename : DKA100:[ENV_ALPHA.QA.W]w075.QAF;3
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 86.1031 through 102.173



QA filename : DKA100:[ENV_ALPHA.QA.B]B075.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 6-SEP-2009 14:27:07 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

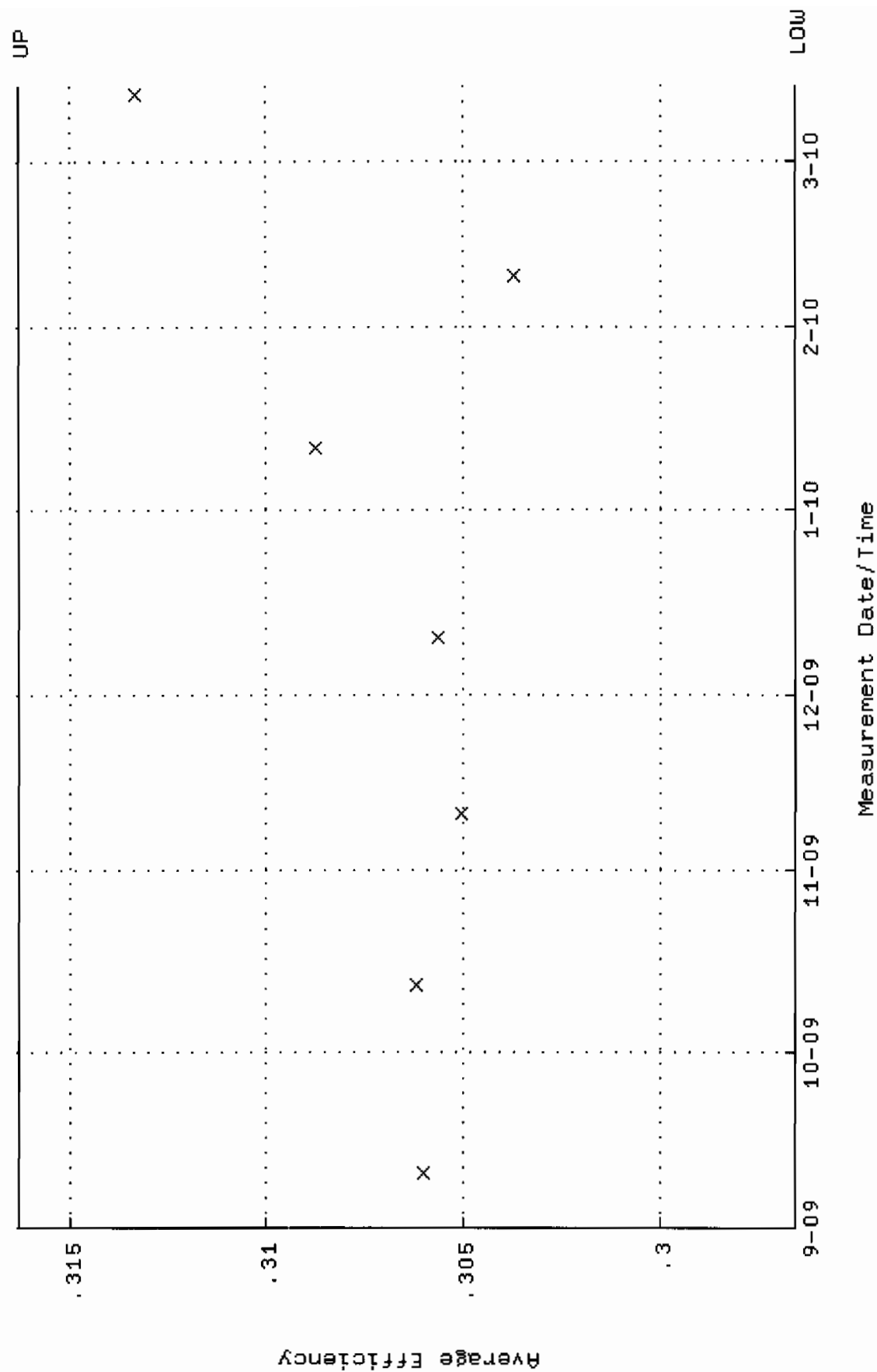


QA filename : DKA100:[ENV_ALPHA.QA.W]W076.QAF;2

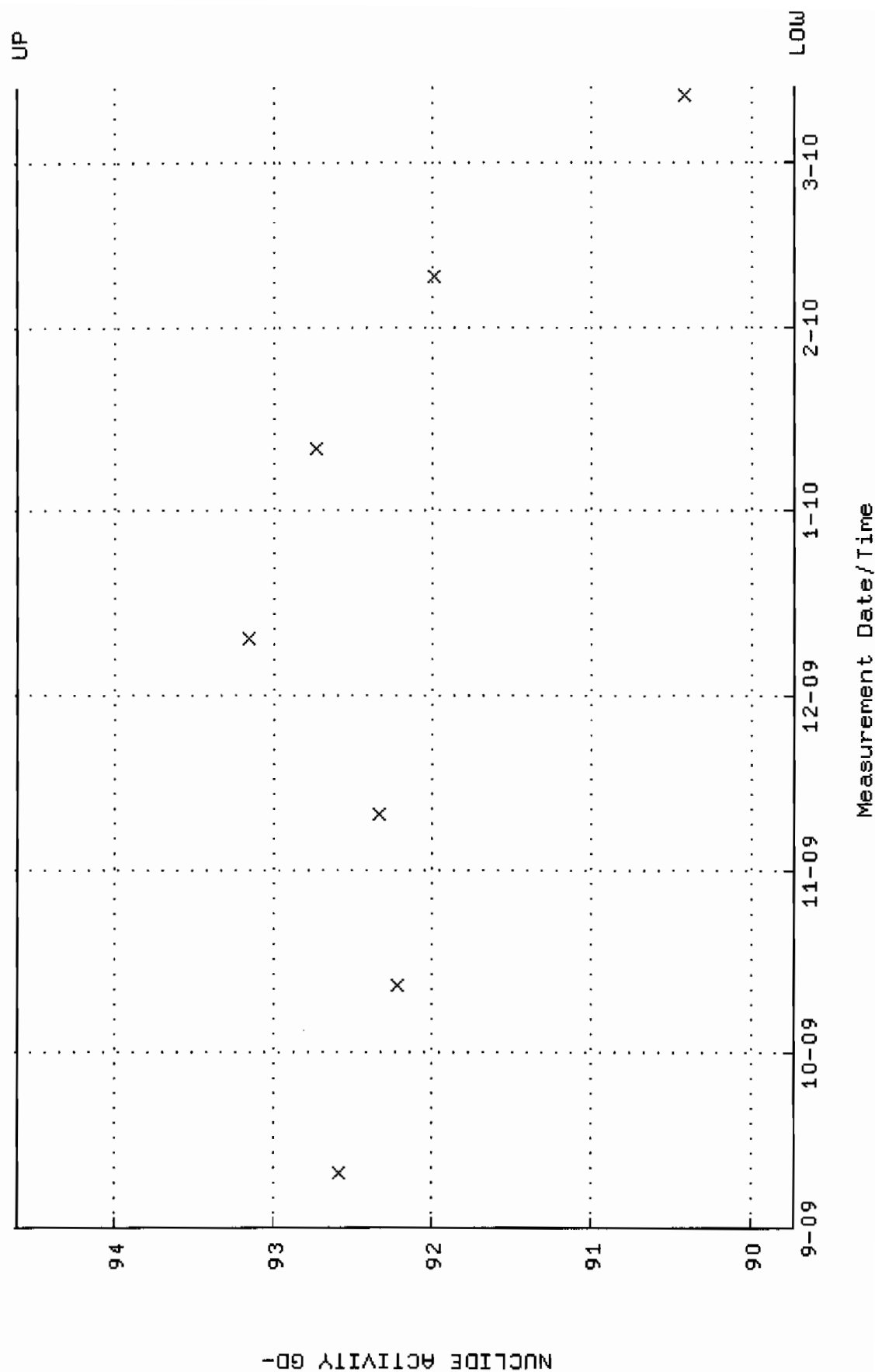
Parameter Name : AVRGEFF (Average Efficiency)

Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00

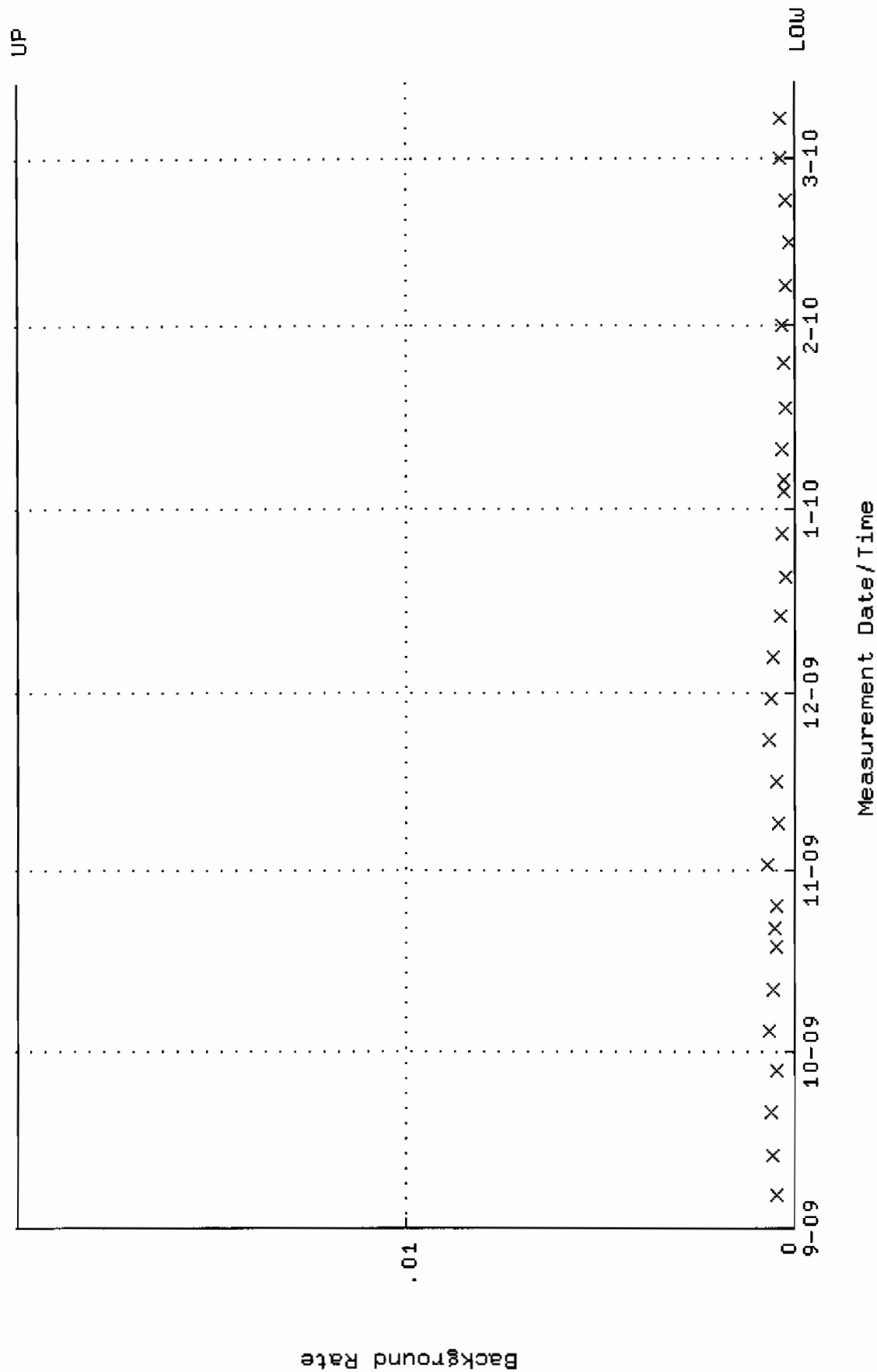
Lower/Upper Lmts: 0.296554 through 0.316286



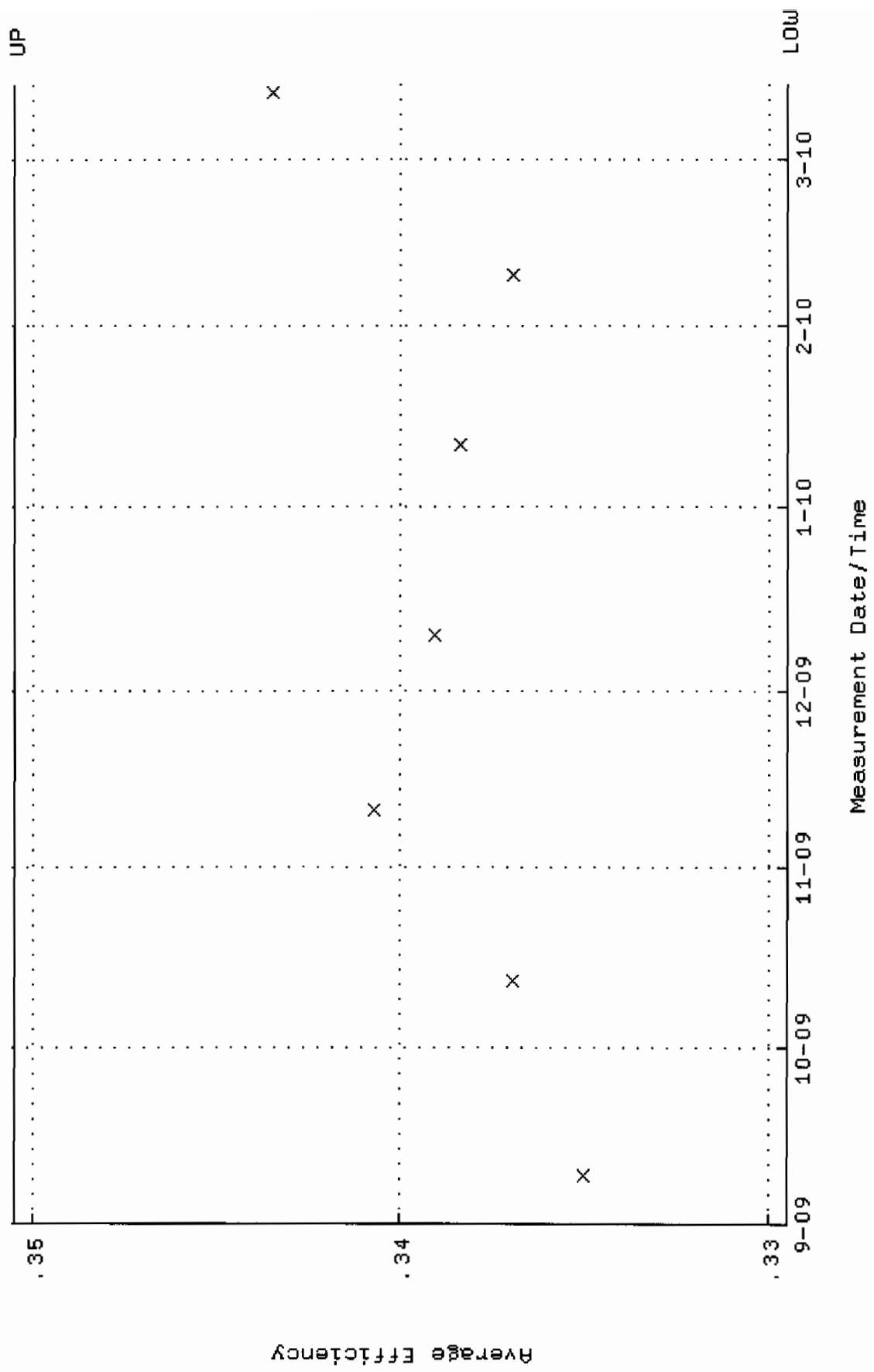
QA filename : DKA100:[ENV_ALPHA.QA.W]W076.QAF;2
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 89.7306 through 94.6123



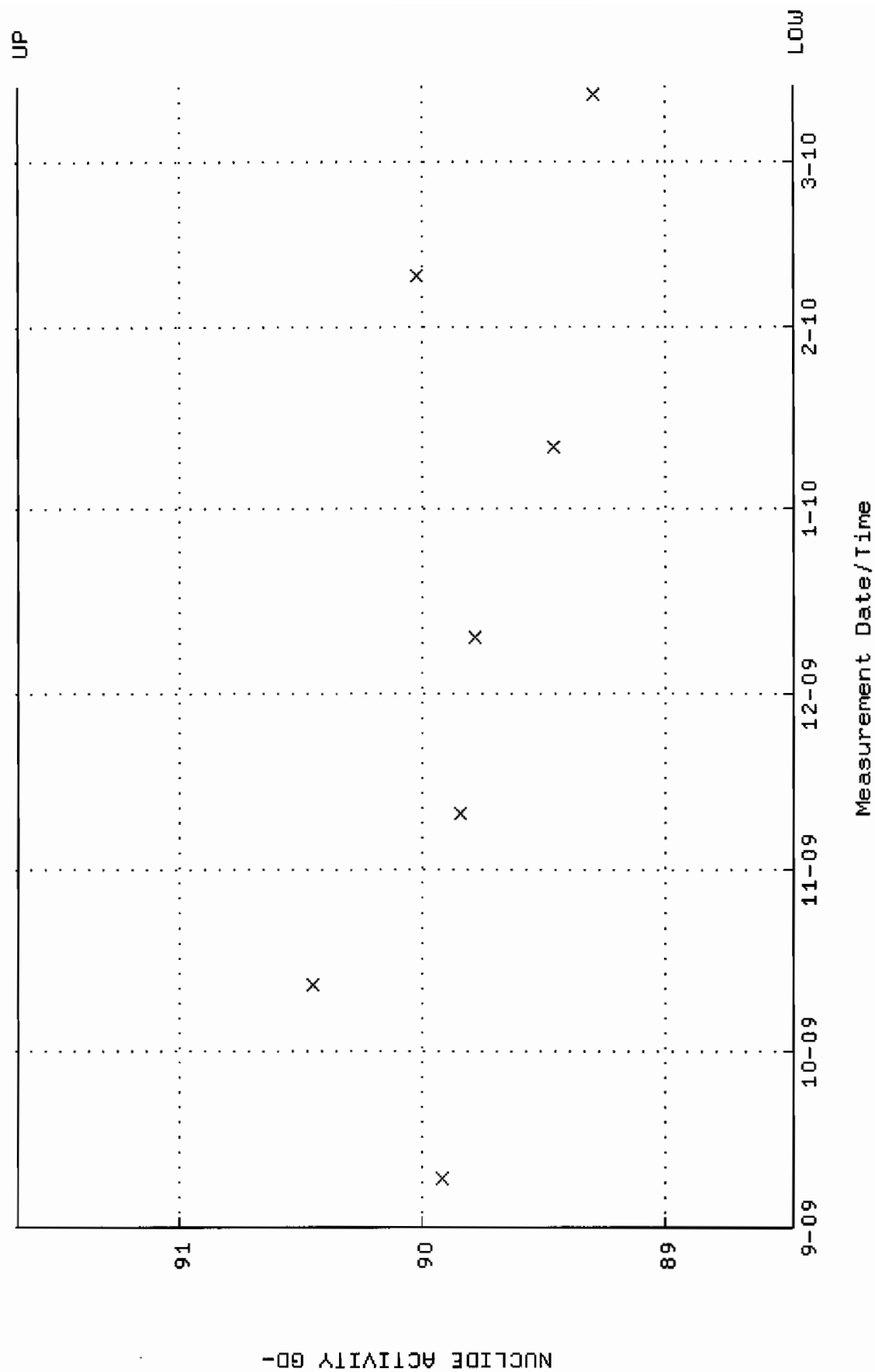
QA filename : DKA100:[ENV_ALPHA.QA.B]B076.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 6-SEP-2009 14:27:07 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



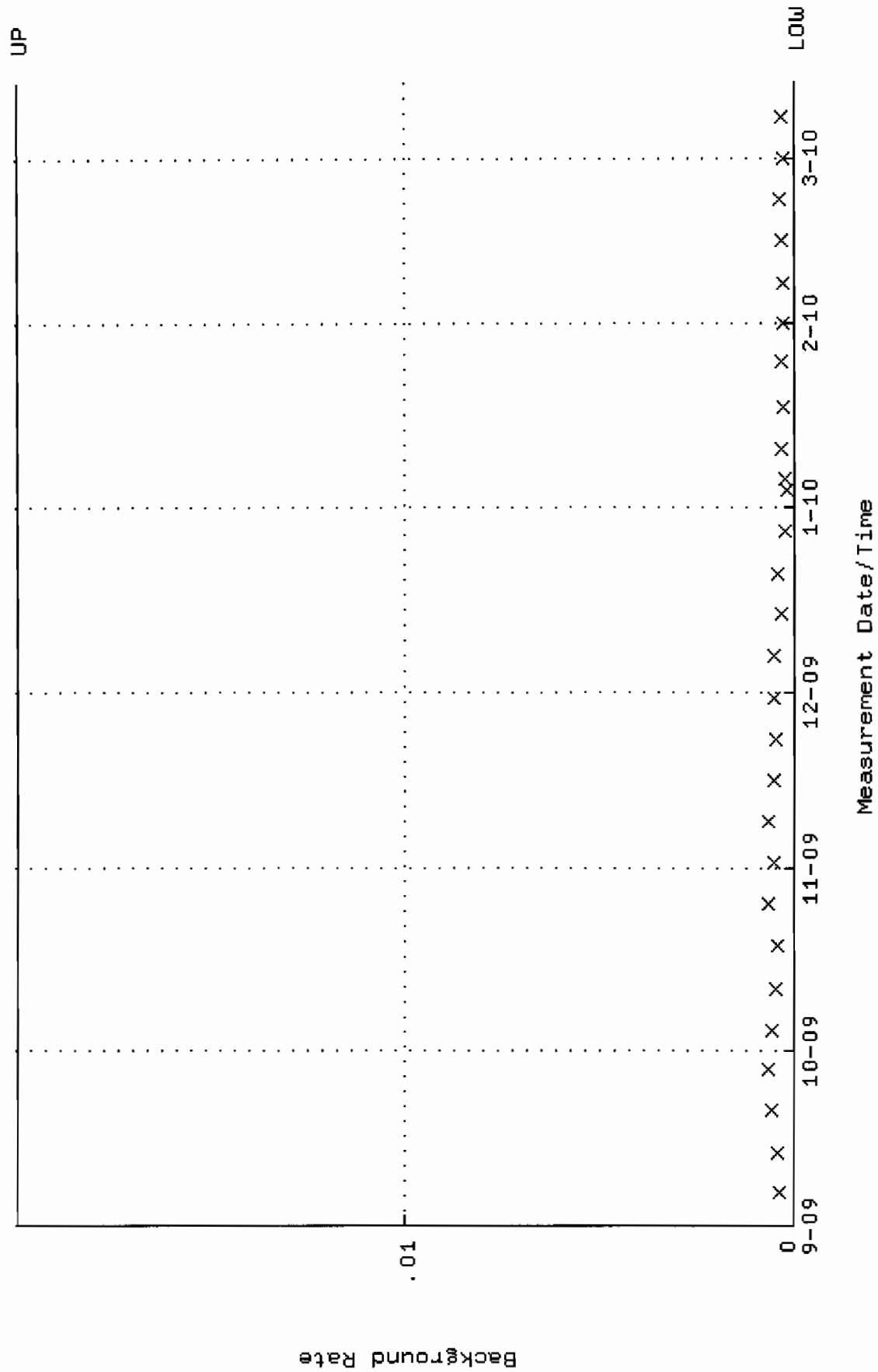
QA filename : DKA100:[ENV_ALPHA.QA.W]W084.QAF;5
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.329490 through 0.350492



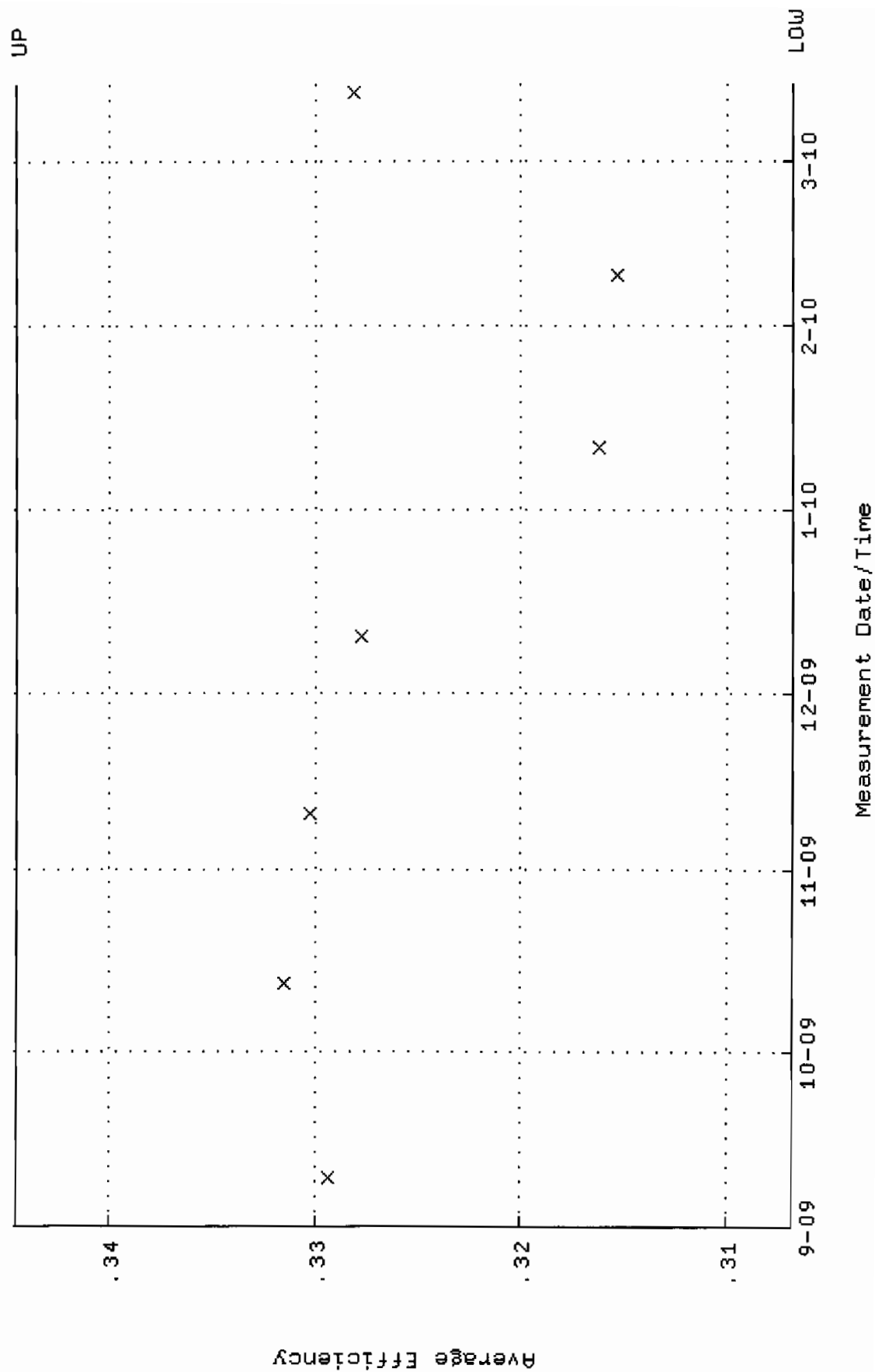
QA filename : DKA100:[ENV_ALPHA.QA.W]W084.QAF;5
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 88.4771 through 91.6651



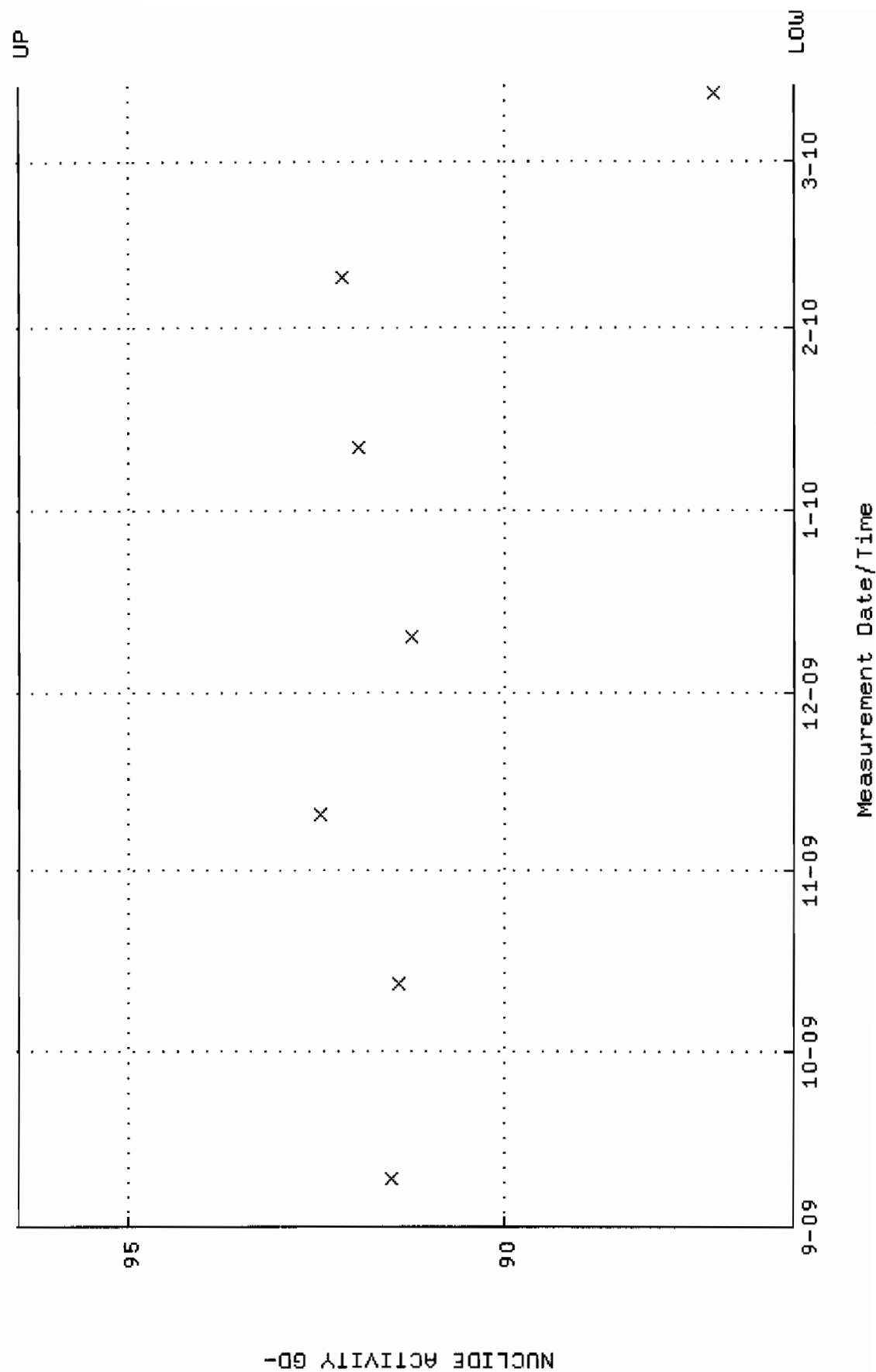
QA filename : DKA100:[ENV_ALPHA.QA.B]B084.QAF;2
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 6-SEP-2009 14:27:09 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



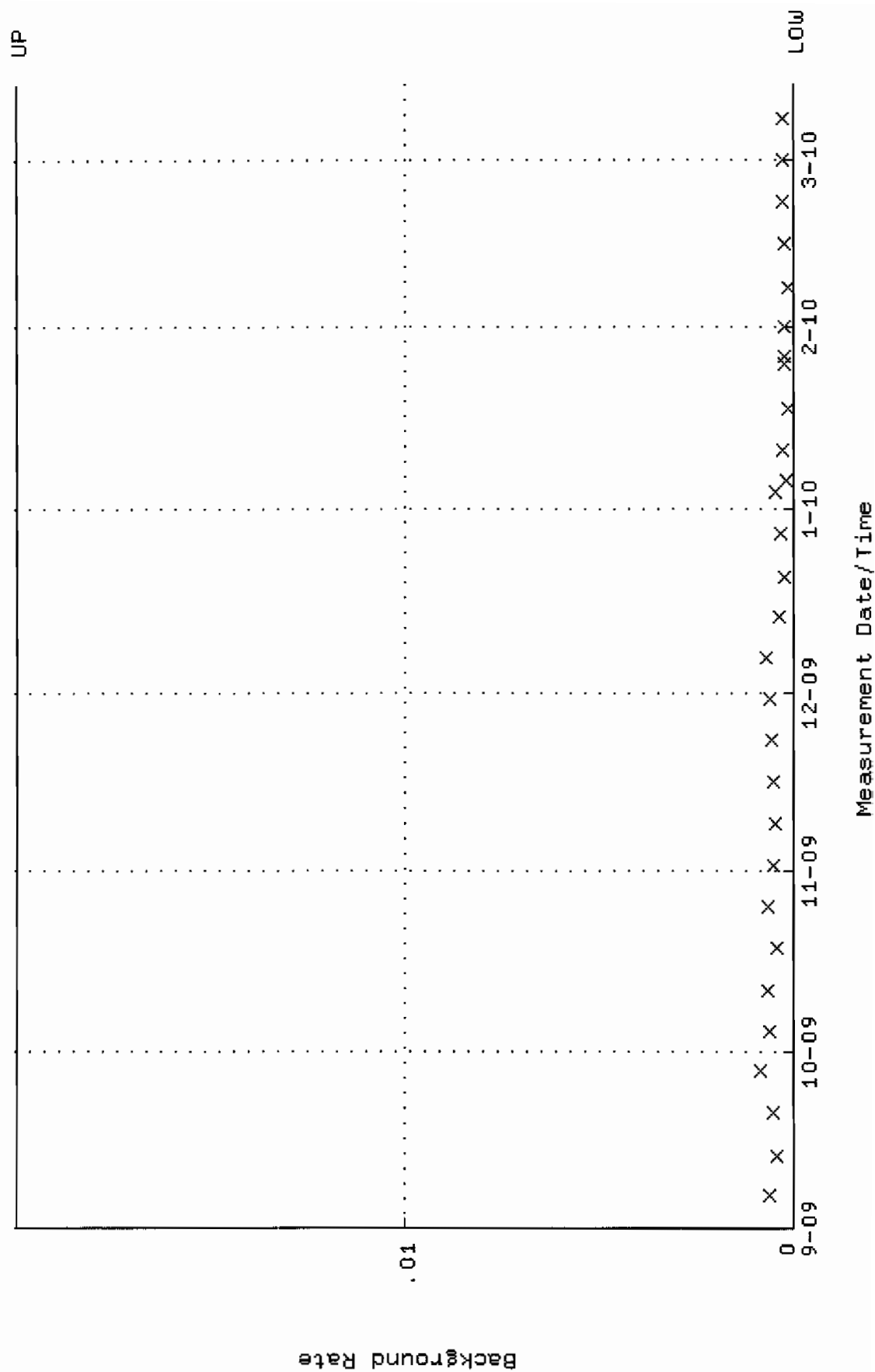
QA filename : DKA100:[ENV_ALPHA.QA.W]W085.QAF;6
 Parameter Name : AVRGEFF {Average Efficiency}
 Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.306815 through 0.344543



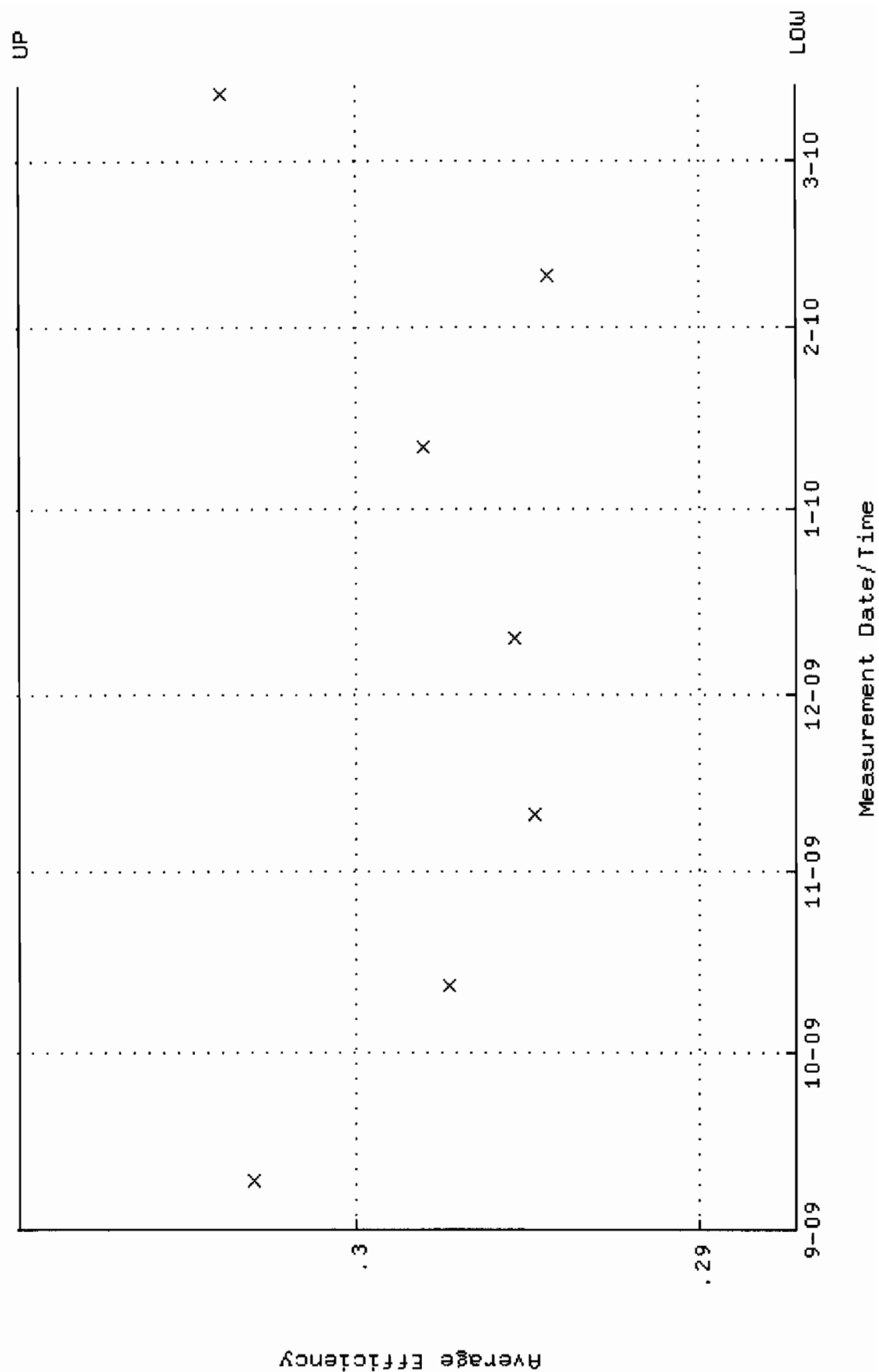
QA filename : DKA100:[ENV_ALPHA.QA.W]W085.QAF;6
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 86.1313 through 96.4525



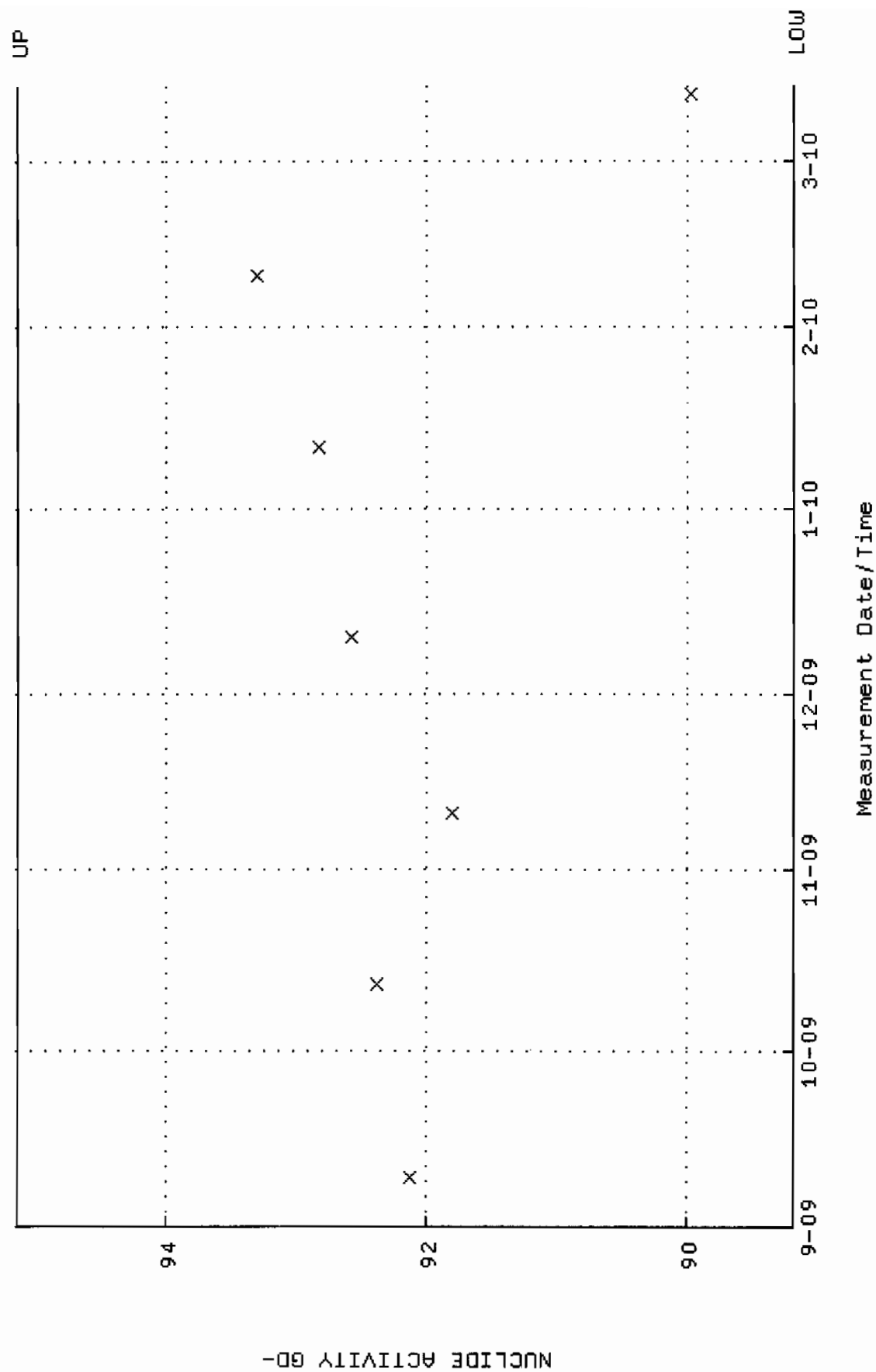
QA filename : DKA100:[ENV_ALPHA.QA.B]B085.QAF;2
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 6-SEP-2009 14:27:09 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF; 4
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.287158 through 0.309794



QA filename : DKA100:[ENV_ALPHA.QA.W]w086.QAF;4
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 89.1886 through 95.1274

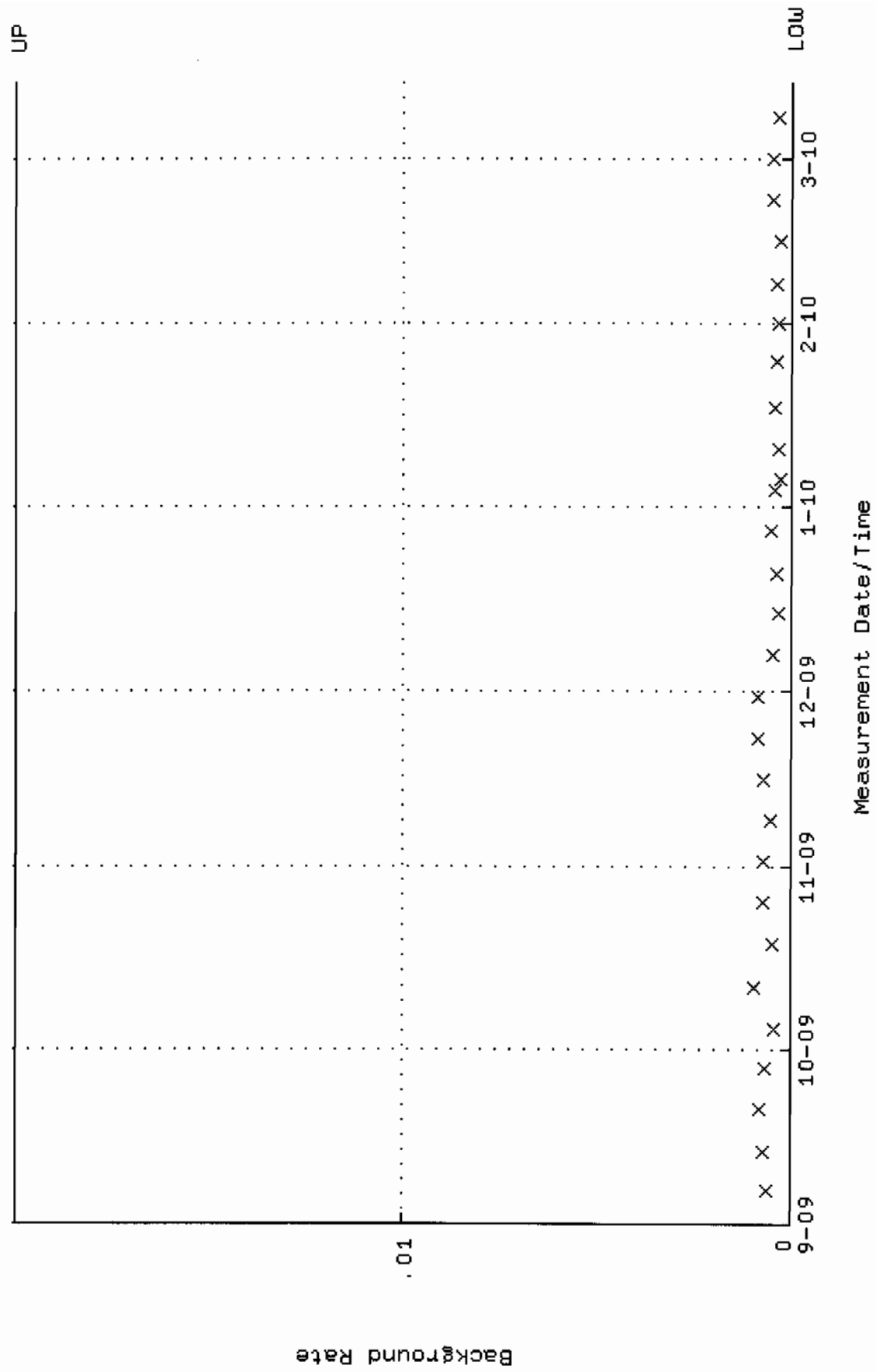


QA filename : DKA100:[ENV_ALPHA.QA.B]B086.QAF;1

Parameter Name : BACKRATE (Background Rate)

Start/End Dates : 6-SEP-2009 14:27:09 through 13-MAR-2010 12:00:00

Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

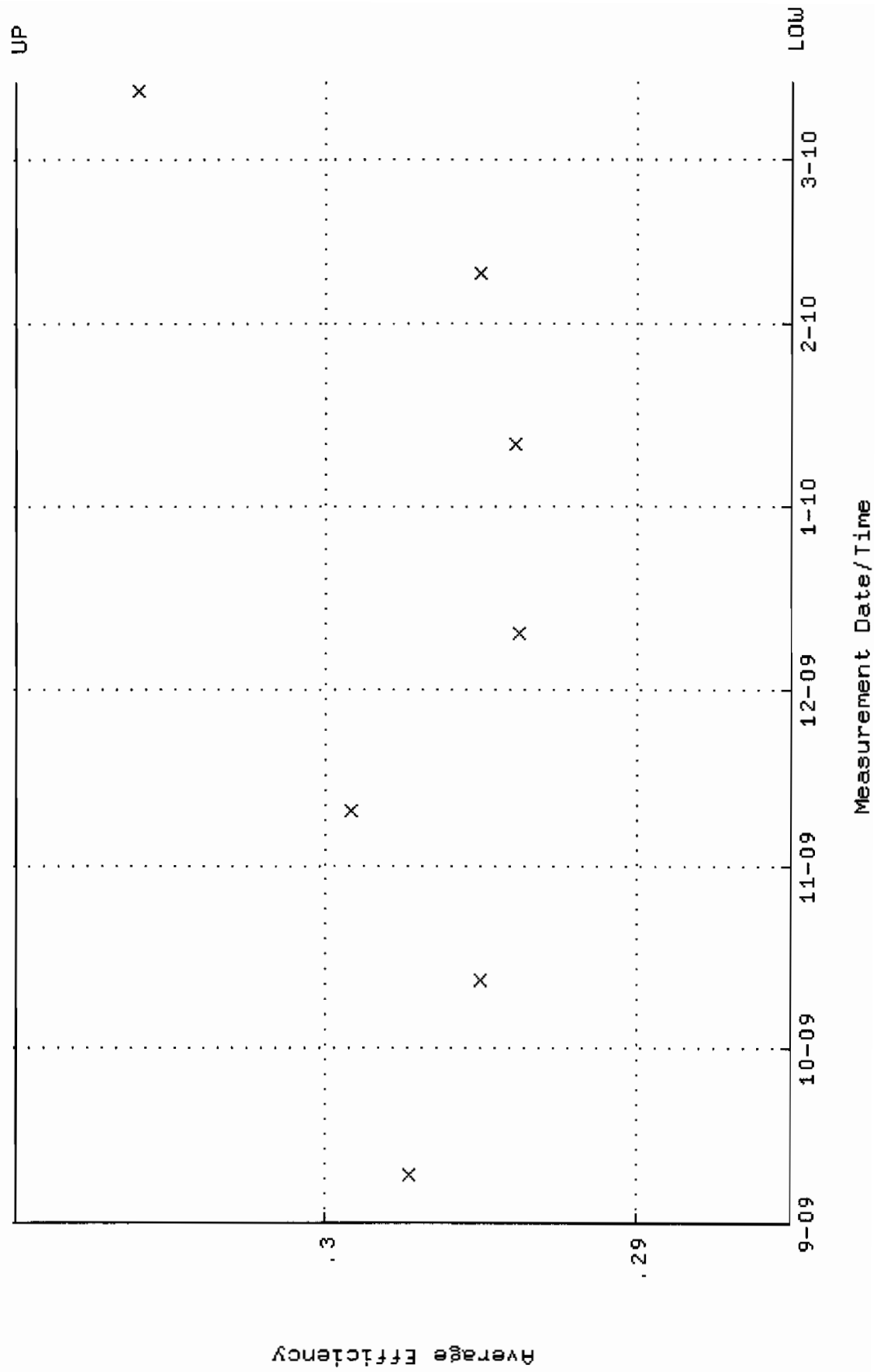


QA filename : DKA100:[ENV_ALPHA.QA.W]W089.QAF;1

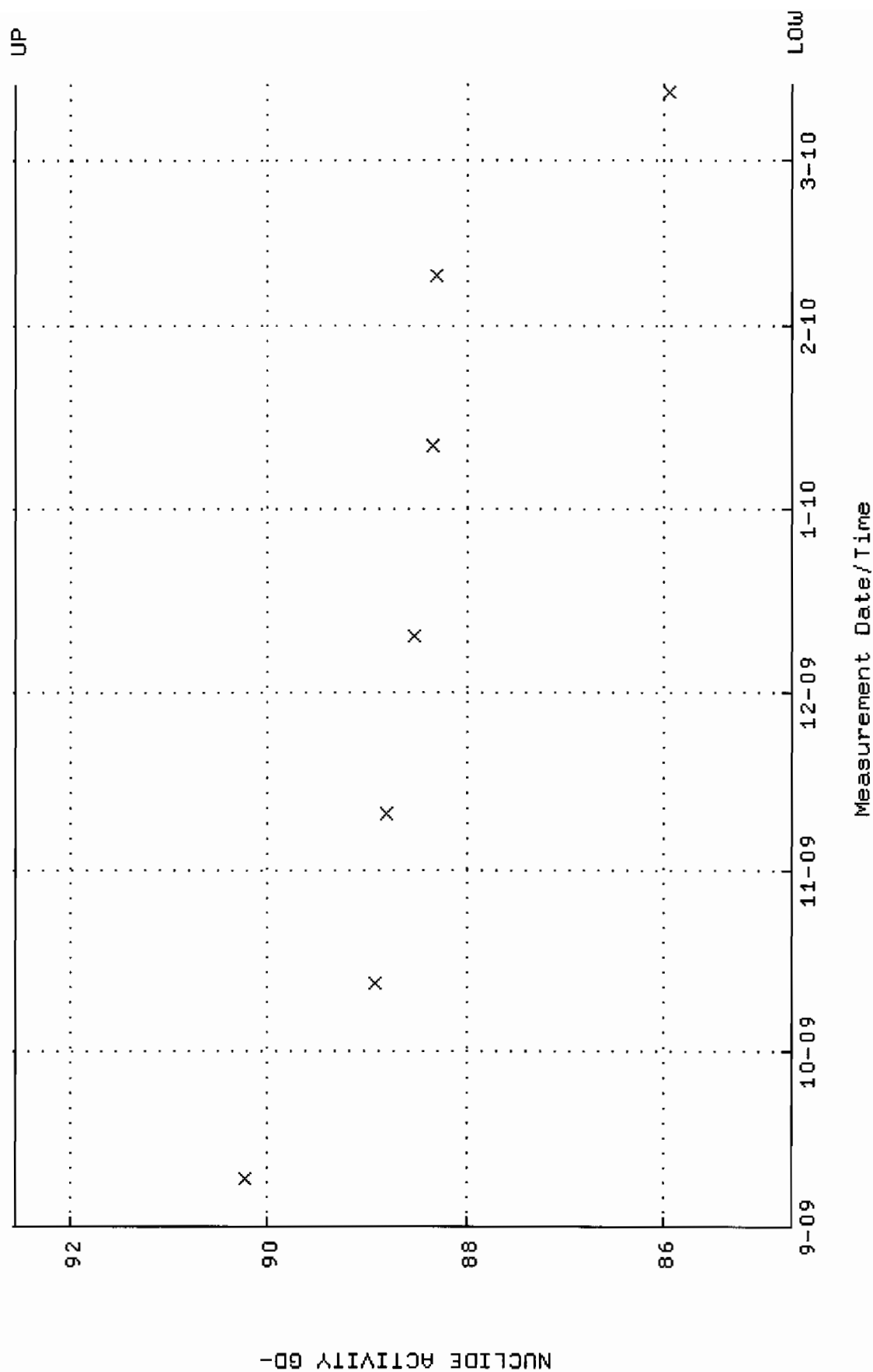
Parameter Name : AVRGEFF (Average Efficiency)

Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00

Lower/Upper Lmts: 0.285061 through 0.309915



QA filename : DKA100:[ENV_ALPHA.QA.W]W089.QAF;1
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
 Lower/Upper Lmts: 84.7074 through 92.5526

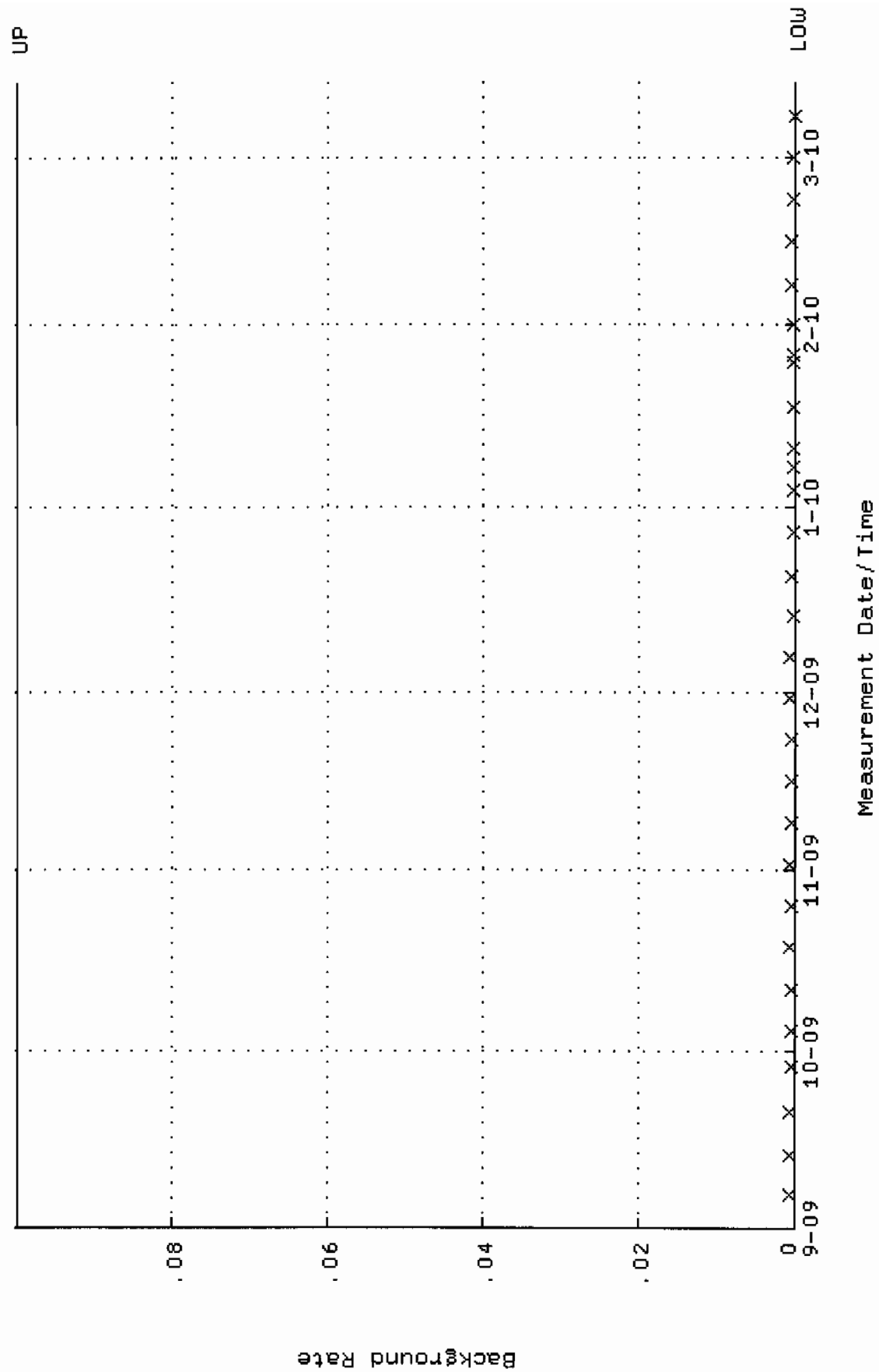


QA filename : DKA100:[ENV_ALPHA.QA.B]B089.QAF;1

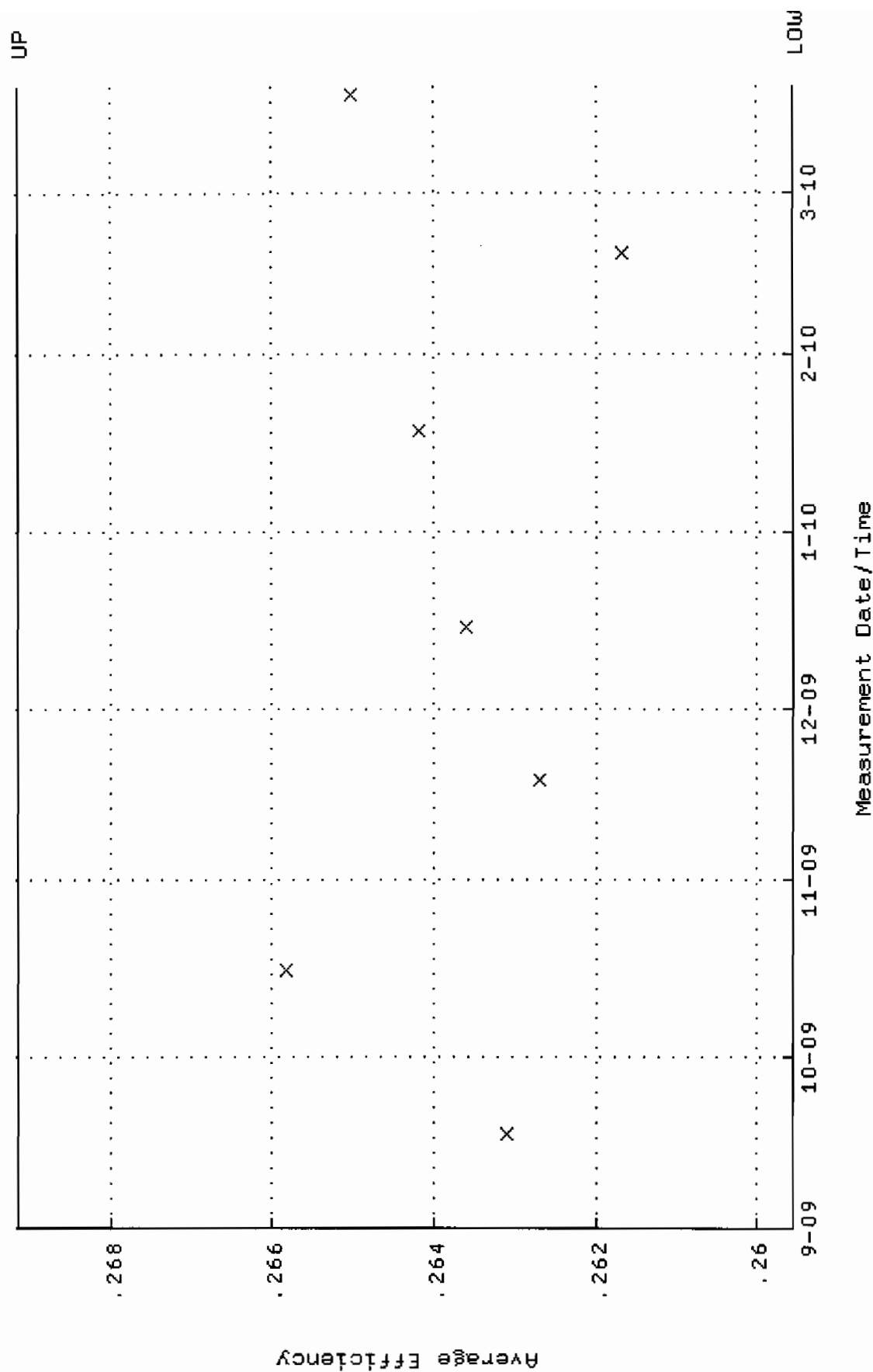
Parameter Name : BACKRATE (Background Rate)

Start/End Dates : 6-SEP-2009 14:27:10 through 13-MAR-2010 12:00:00

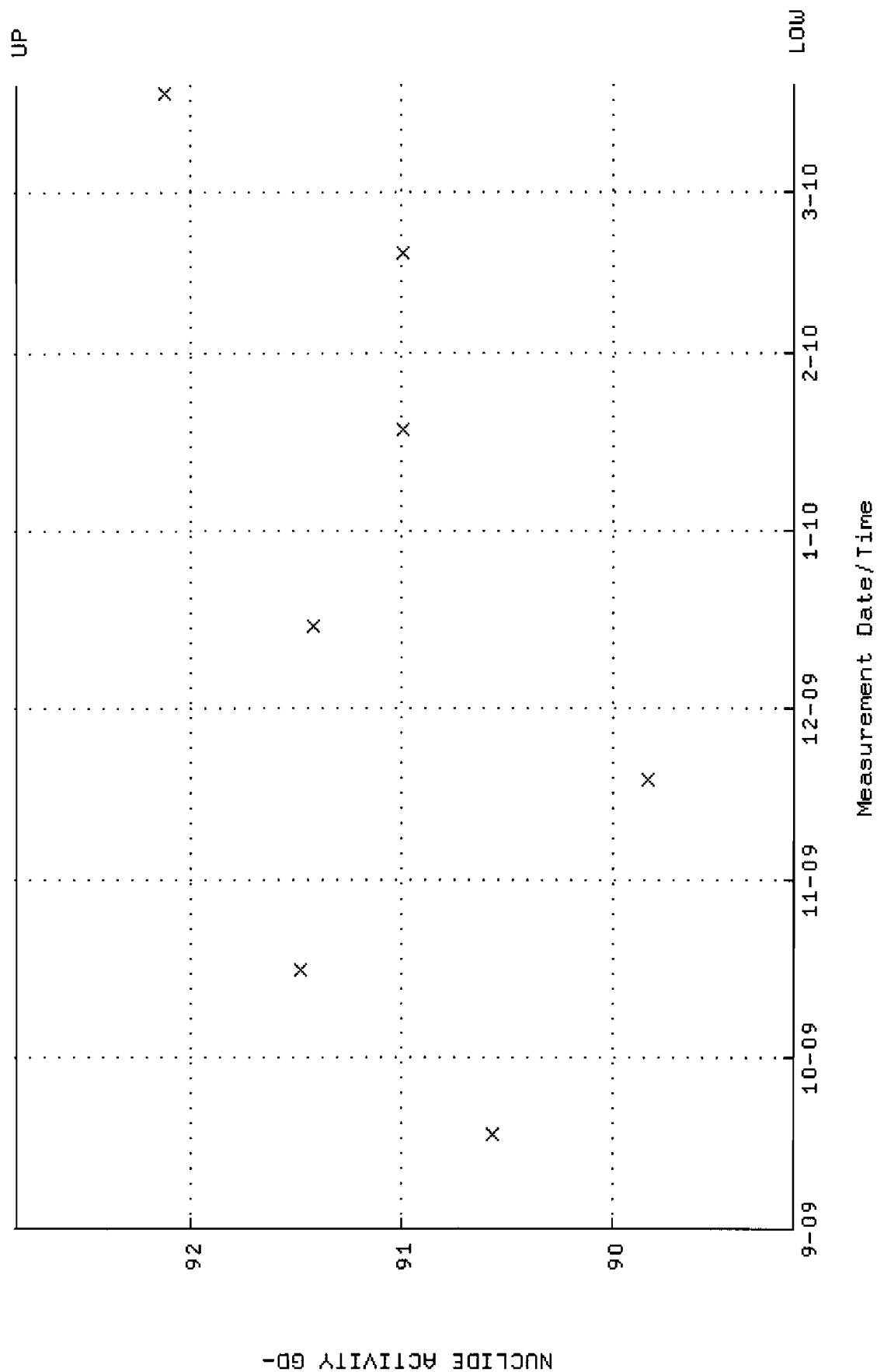
Lower/Upper Lmts: 0.000000E+00 through 0.100000



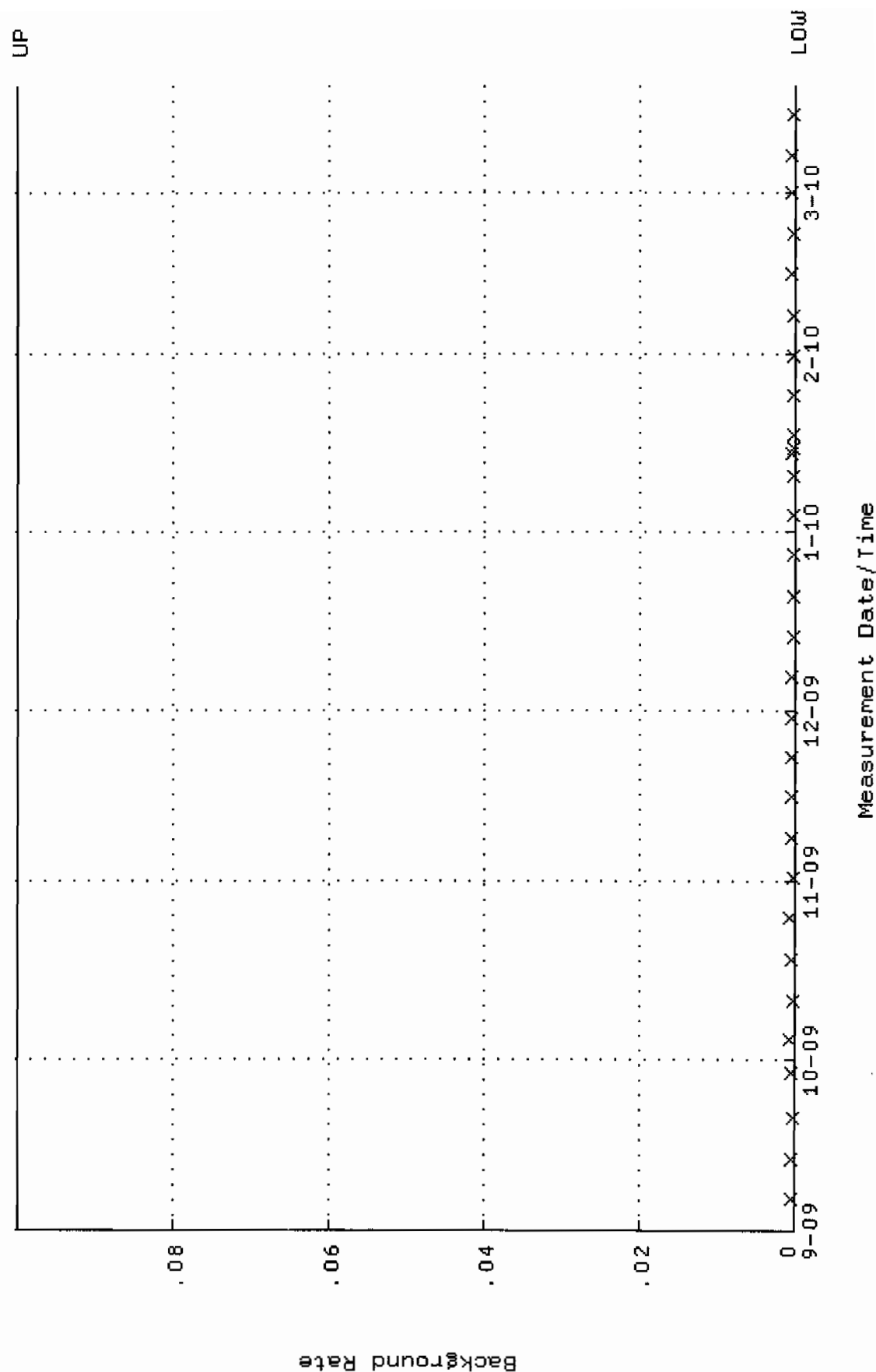
QA filename : DKA100:[ENV_ALPHA.QA.W]w129.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 17-SEP-2009 07:24:21 through 19-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.259560 through 0.269146



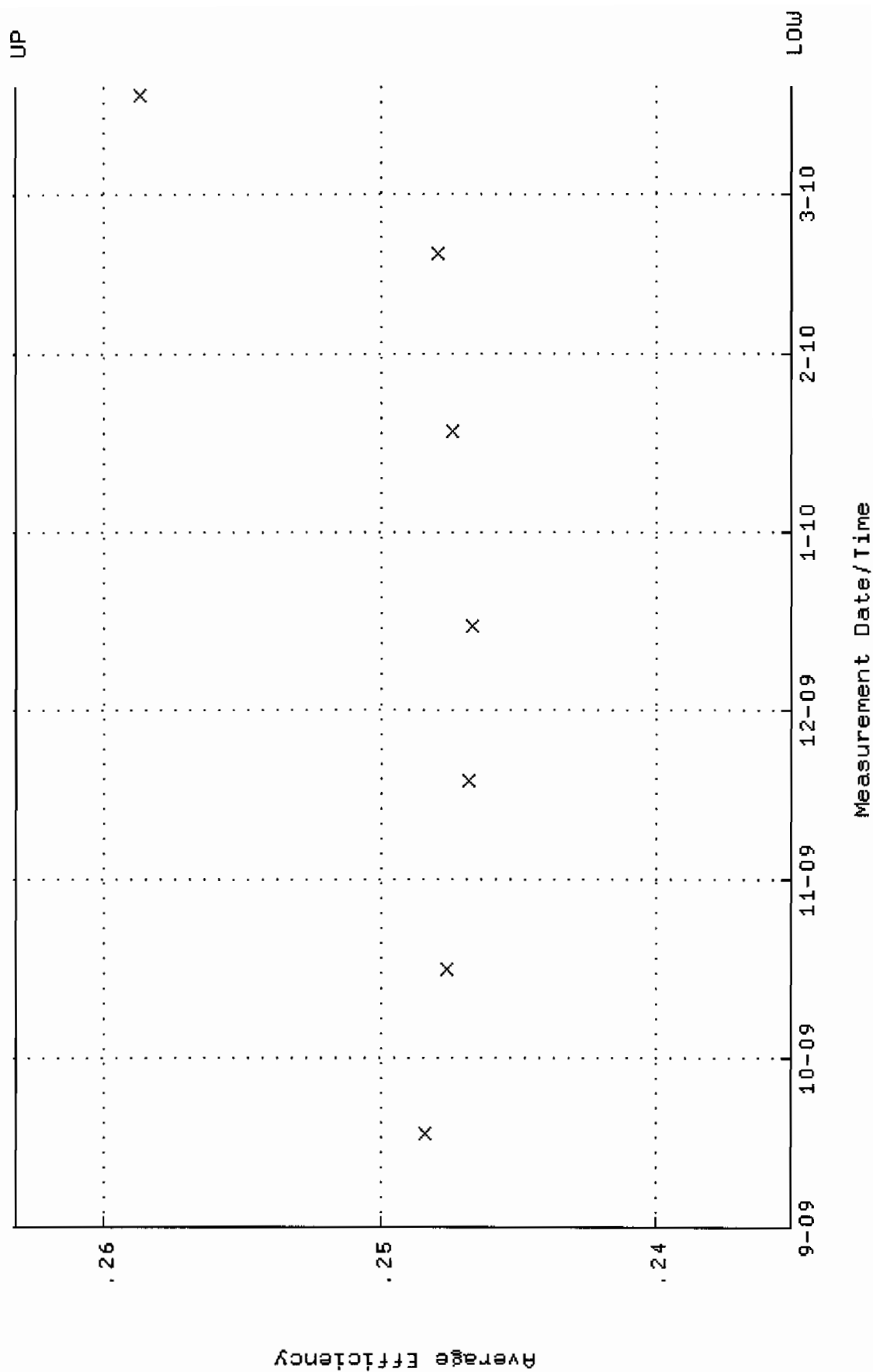
QA filename : DKA100:[ENV_ALPHA.QA.W]w129.QAF;1
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 17-SEP-2009 07:24:21 through 19-MAR-2010 12:00:00
 Lower/Upper Lmts: 89.1401 through 92.8201



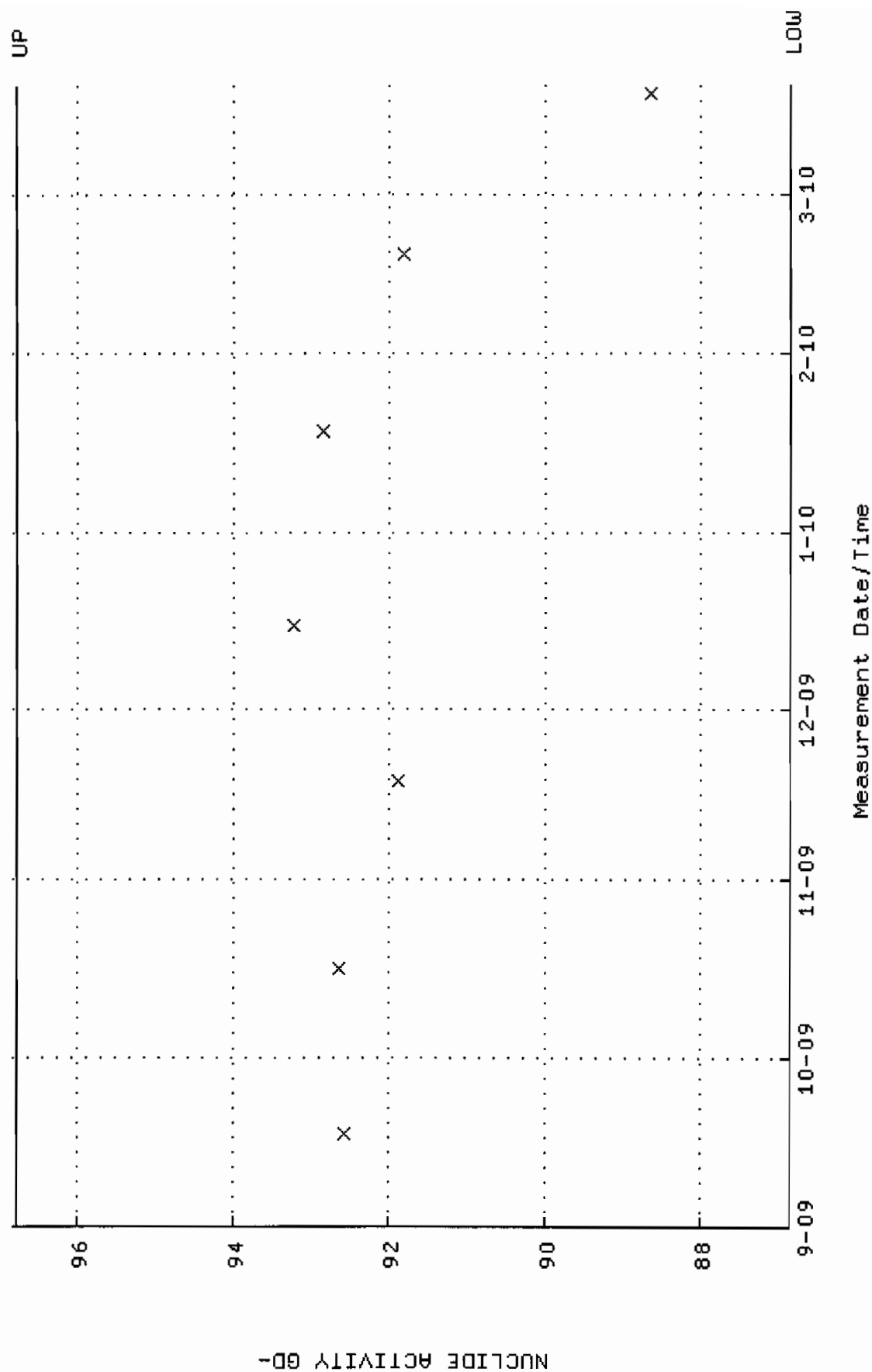
QA filename : DKA100:[ENV_ALPHA.QA.B]B129.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 6-SEP-2009 15:41:19 through 19-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



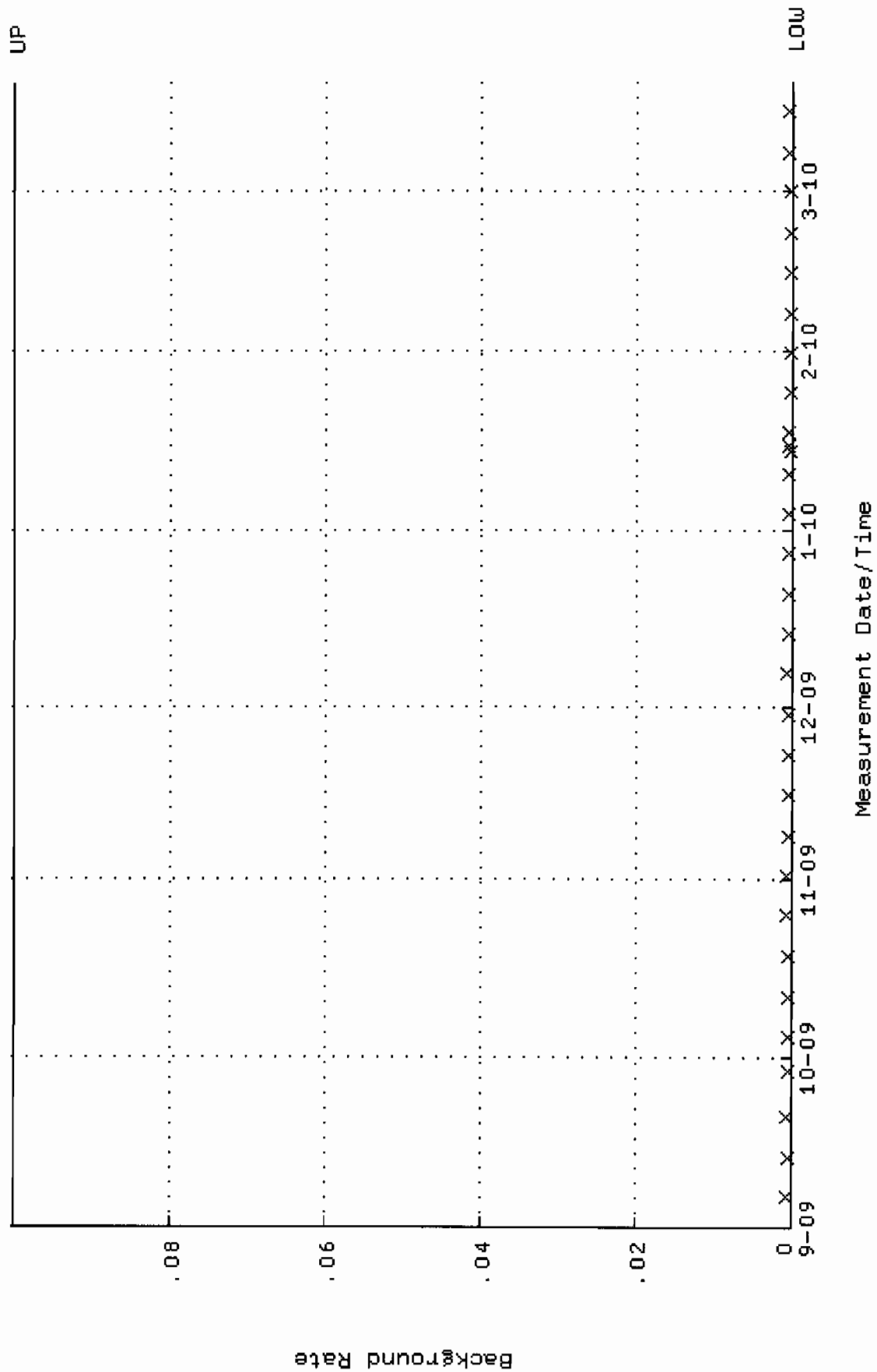
QA filename : DKA100:[ENV_ALPHA.QA.W]w130.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 17-SEP-2009 07:24:25 through 19-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.235120 through 0.263192



QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 17-SEP-2009 07:24:25 through 19-MAR-2010 12:00:00
 Lower/Upper Lmts: 86.8592 through 96.7952



QA filename : DKA100:[ENV_ALPHA.QA.B]B130.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 6-SEP-2009 15:41:24 through 19-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000

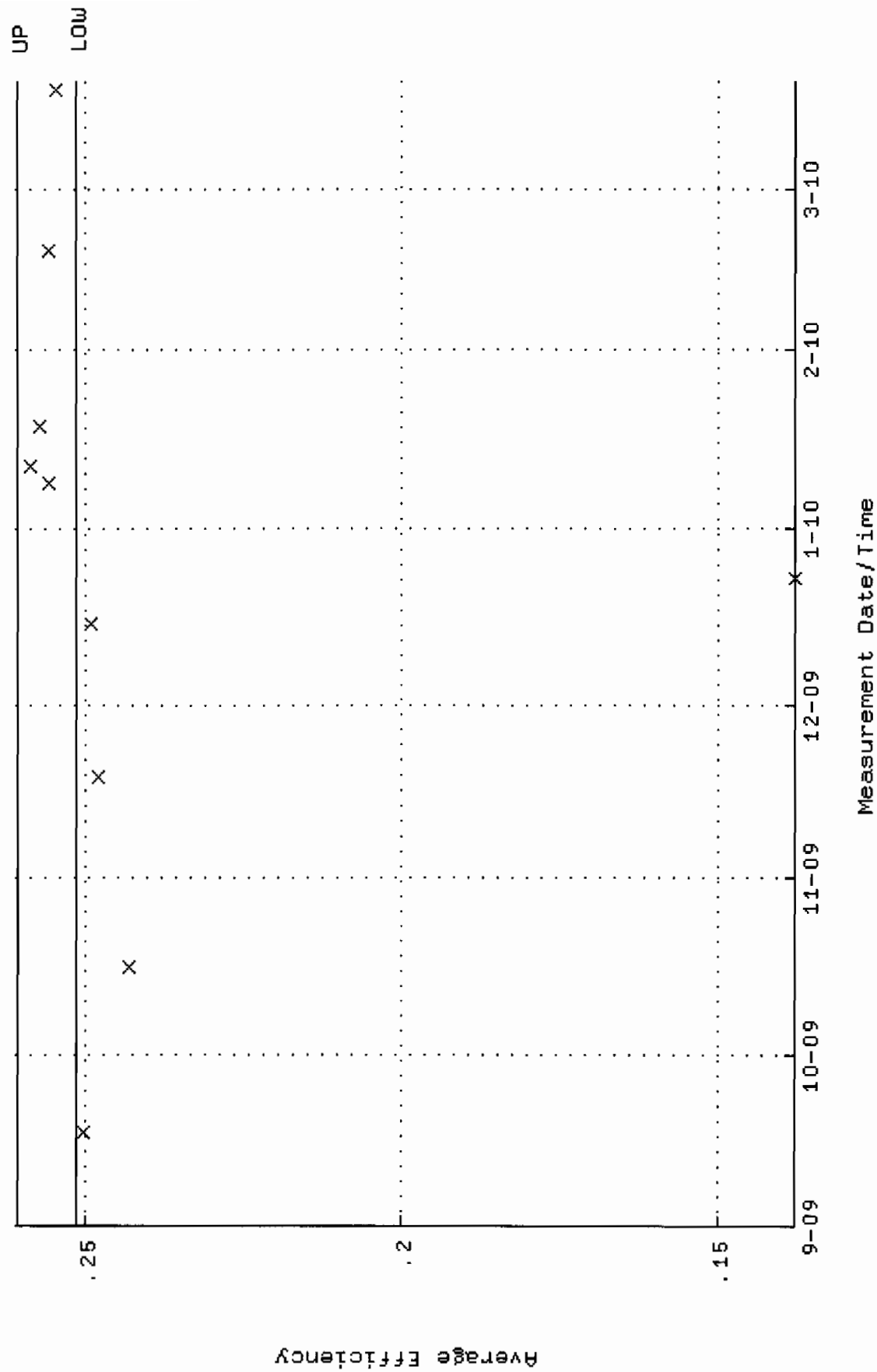


QA filename : DKA100:[ENV_ALPHA.QA.W]w131.QAF;1

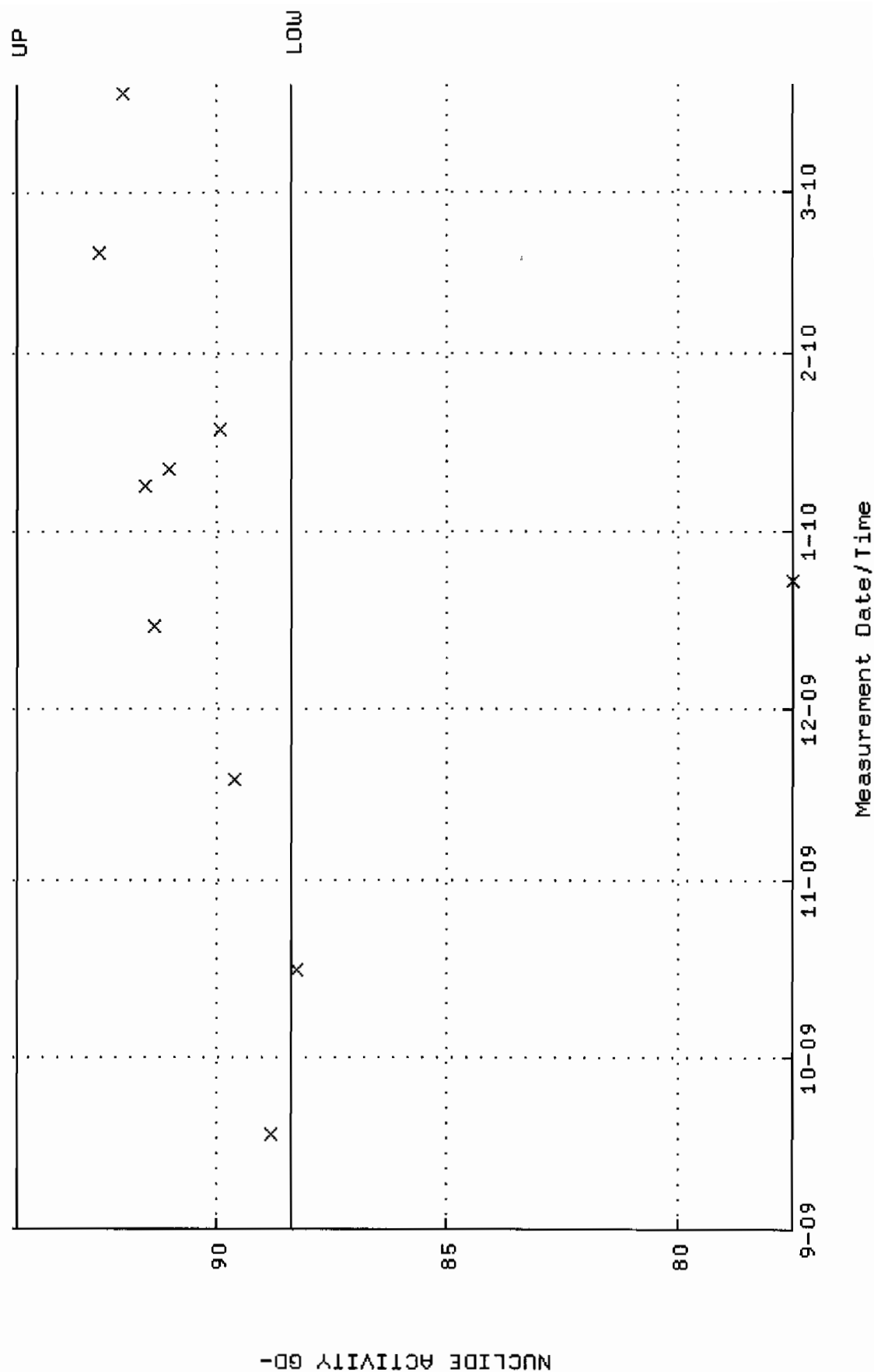
Parameter Name : AVRGEFF (Average Efficiency)

Start/End Dates : 17-SEP-2009 07:24:30 through 19-MAR-2010 12:00:00

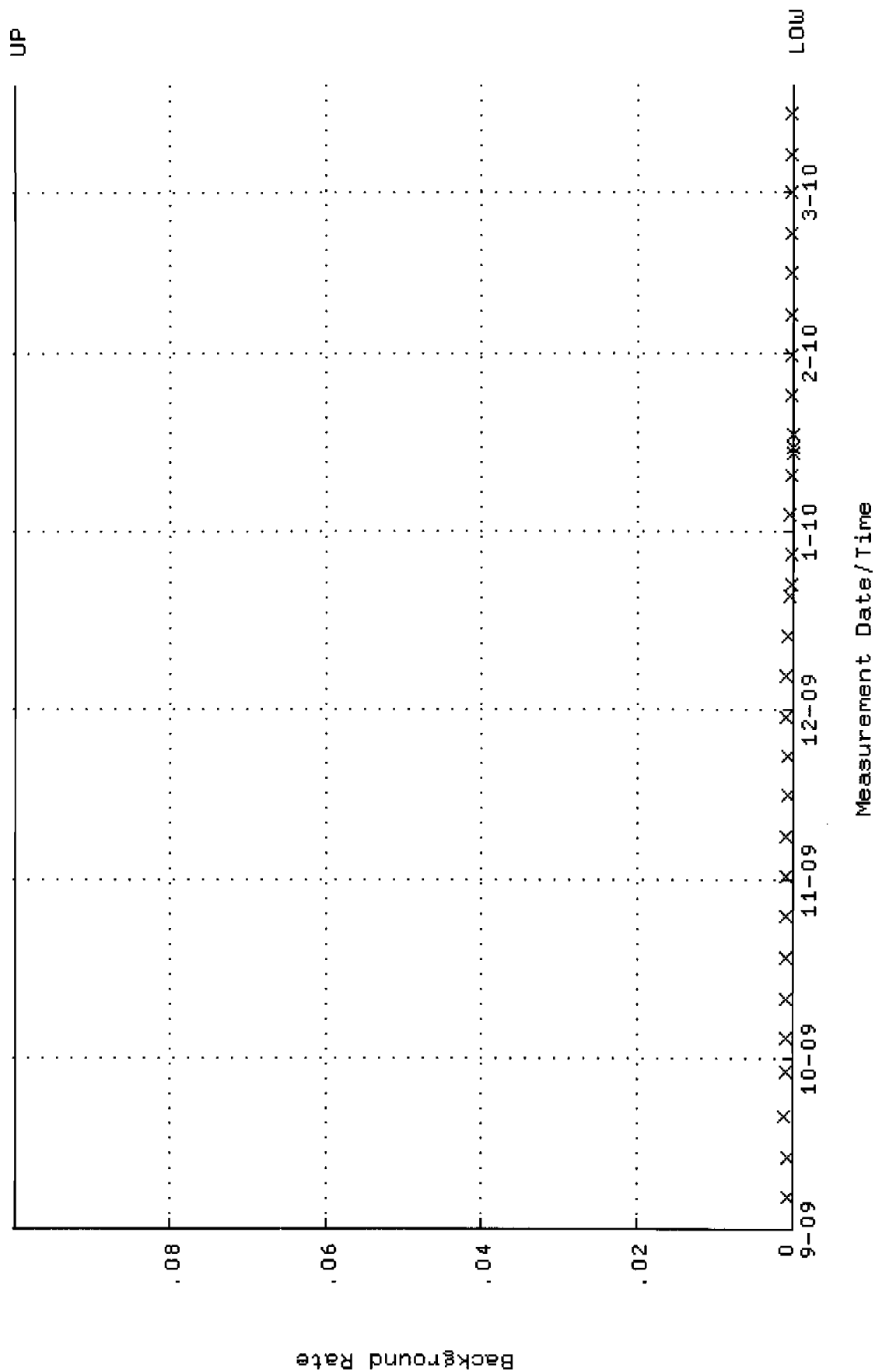
Lower/Upper Lmts: 0.251694 through 0.260714



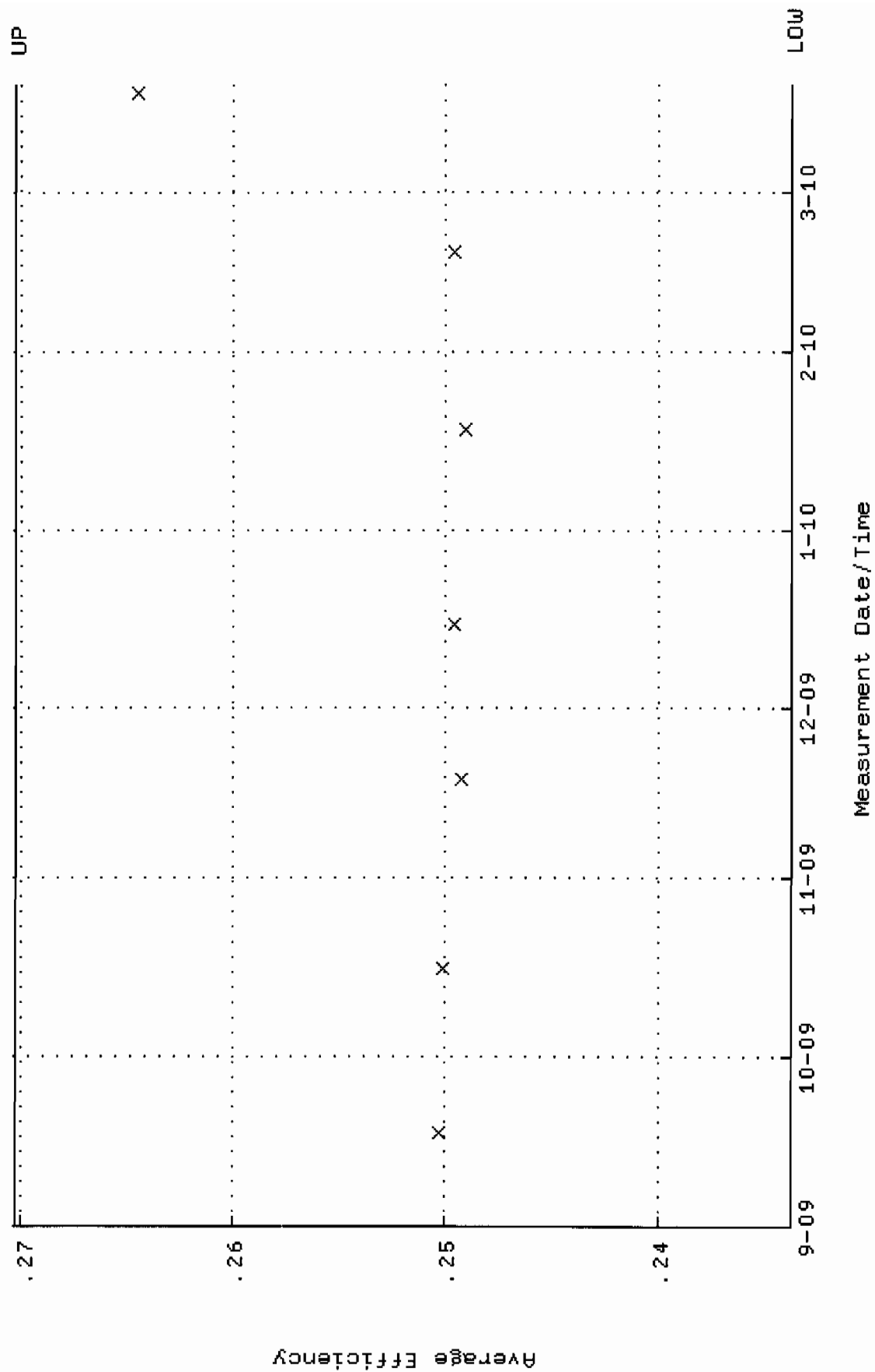
QA filename : DKA100:[ENV_ALPHA.QA.w]w131.QAF;1
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 17-SEP-2009 07:24:30 through 19-MAR-2010 12:00:00
 Lower/Upper Lmts: 88.4061 through 94.3891



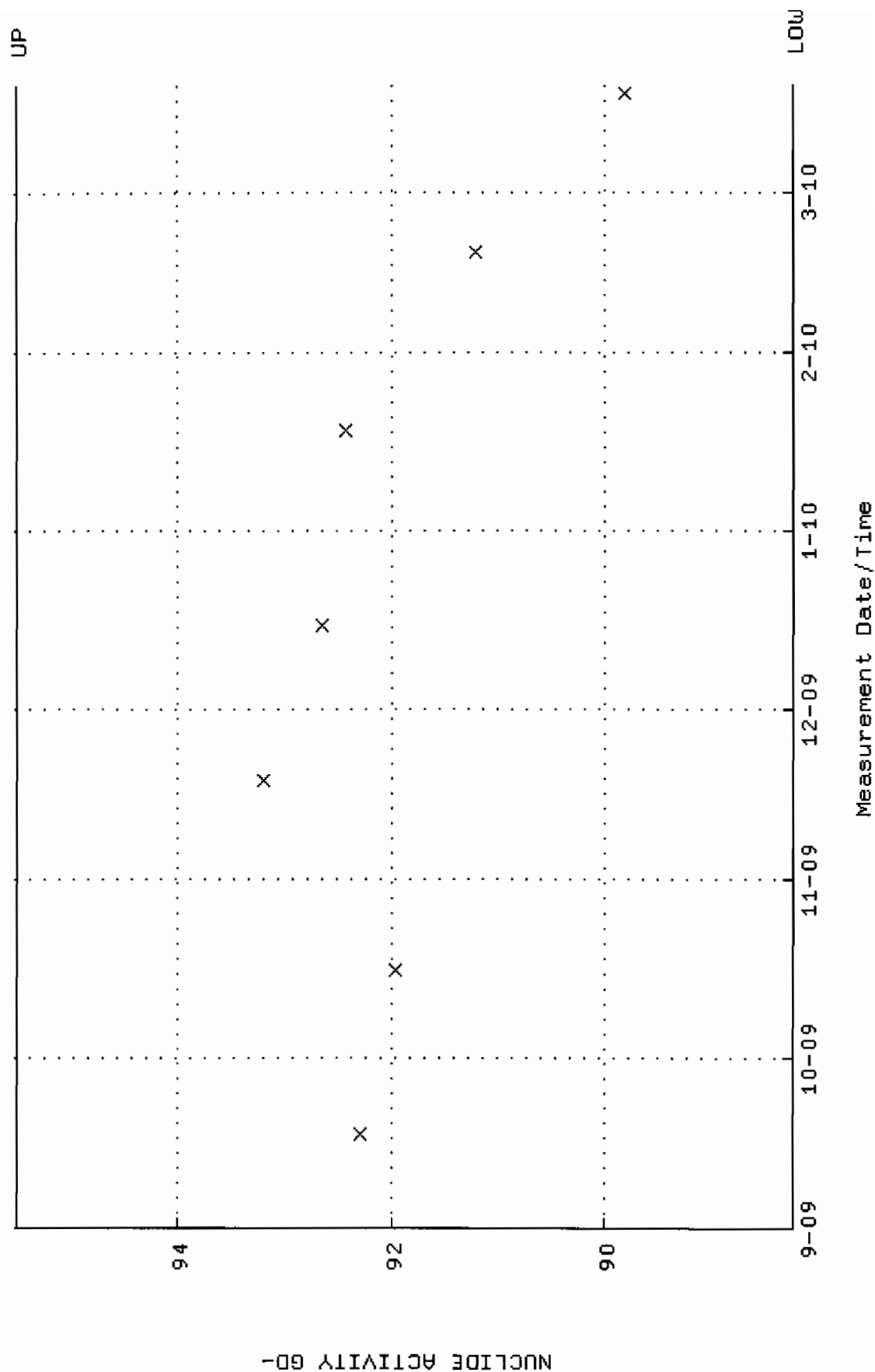
QA filename : DKA100:[ENV_ALPHA.QA.B]B131.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 6-SEP-2009 15:41:28 through 19-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



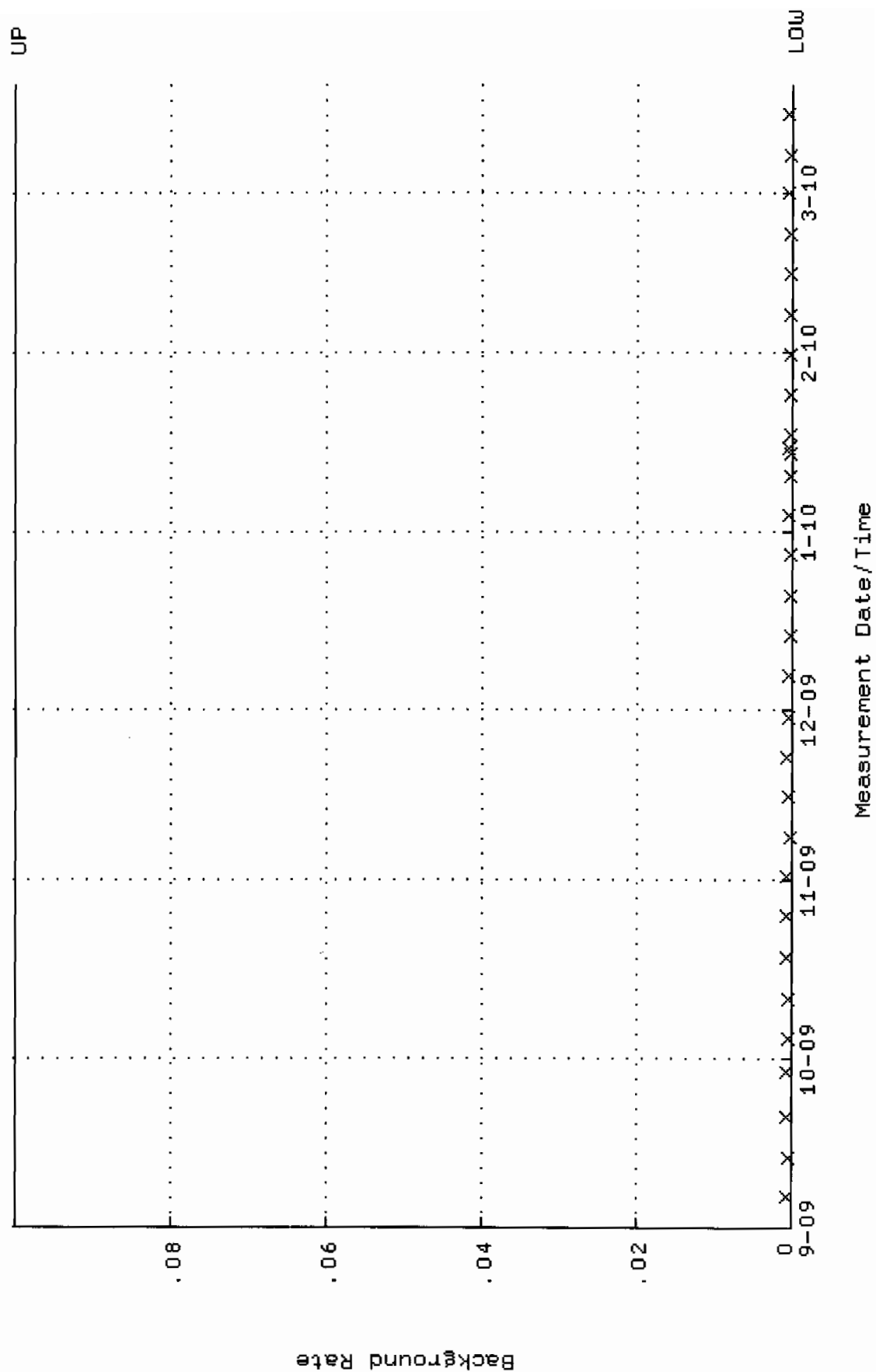
QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 17-SEP-2009 07:24:36 through 19-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.233719 through 0.270221



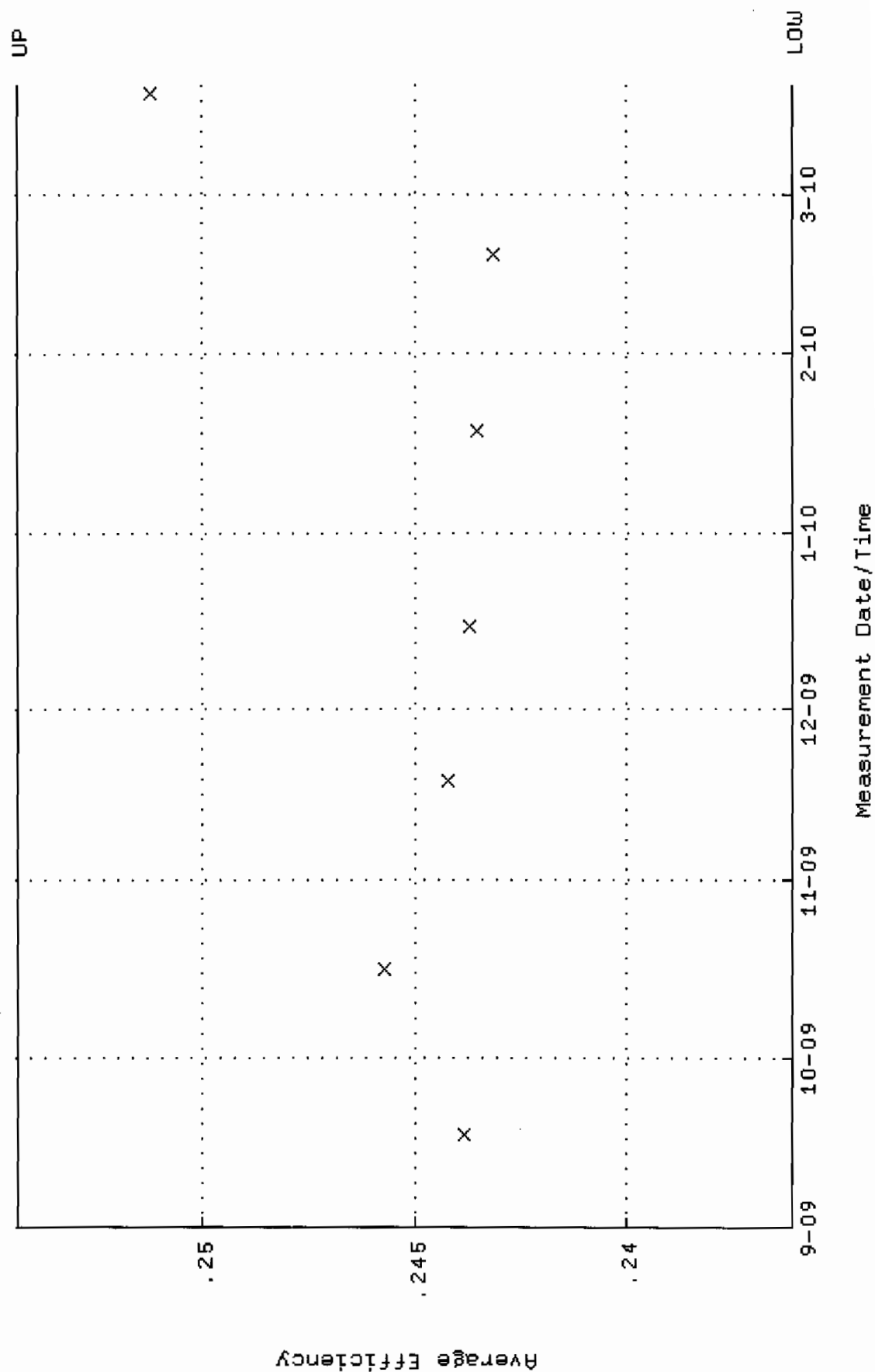
QA filename : DKA100:[ENV_ALPHA.QA.W]w132.QAF;1
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 17-SEP-2009 07:24:36 through 19-MAR-2010 12:00:00
 Lower/Upper Lmts: 88.2311 through 95.5107



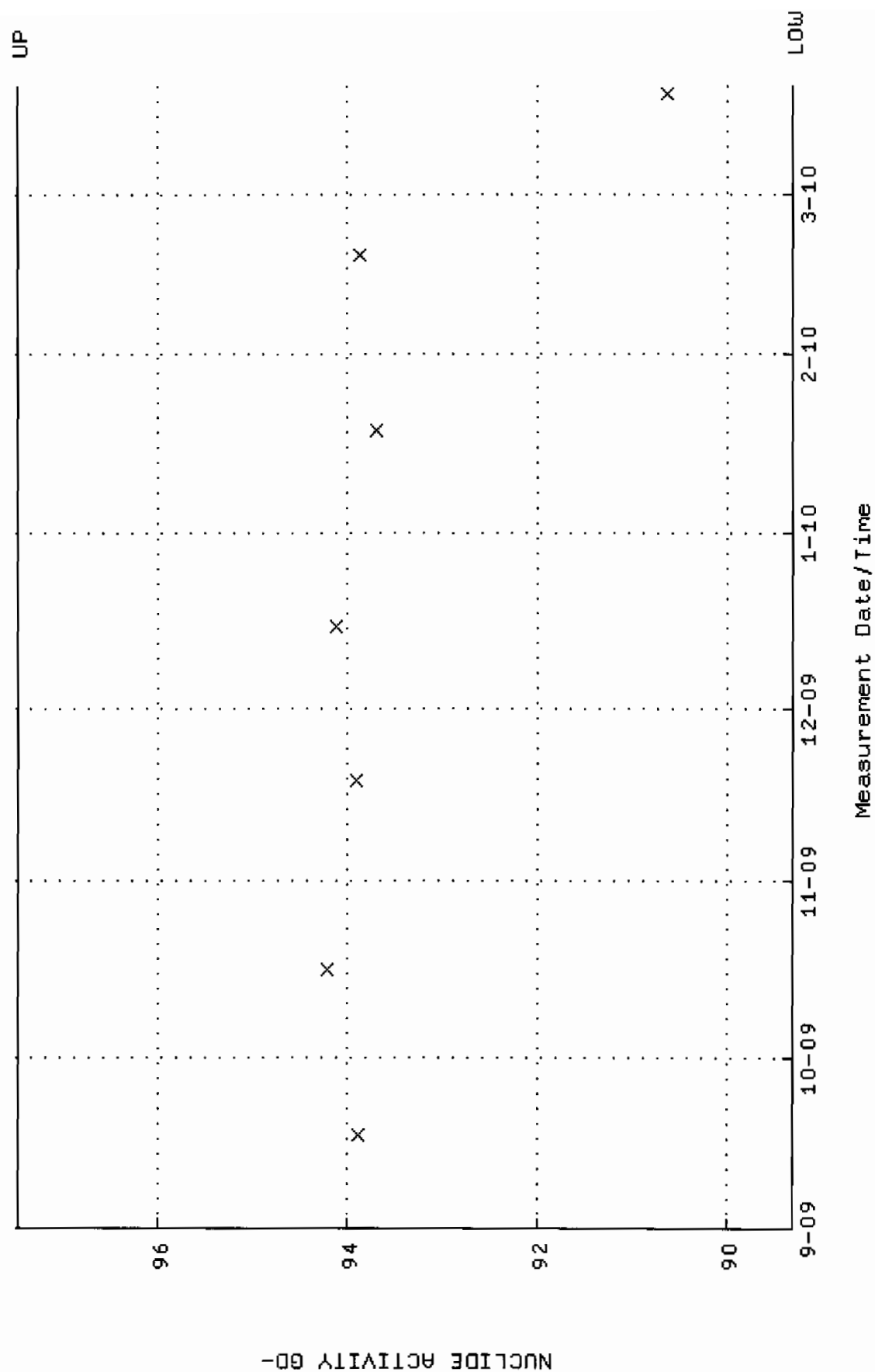
QA filename : DKA100:[ENV_ALPHA.QA.B]B132.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 6-SEP-2009 15:41:32 through 19-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



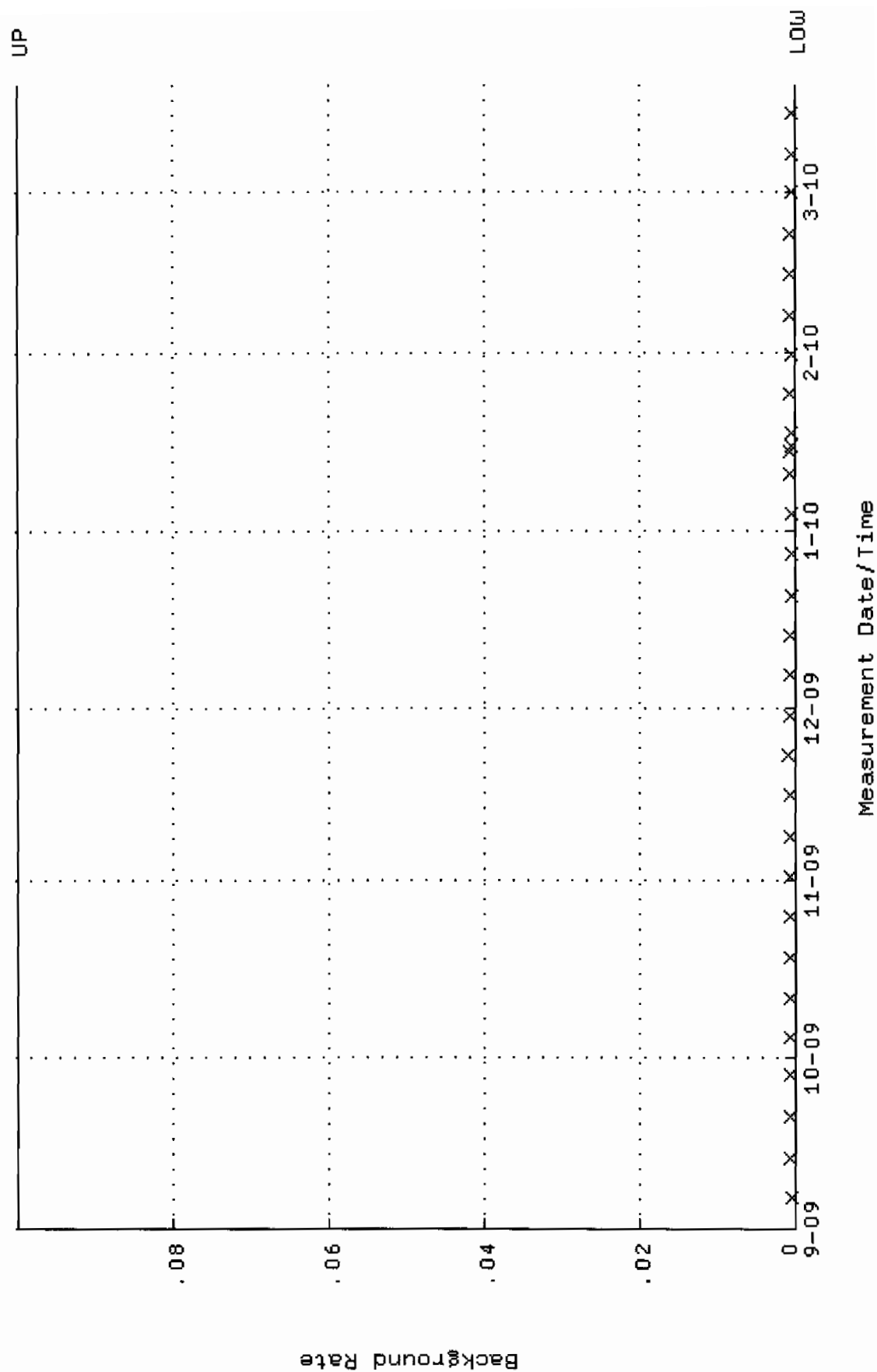
QA filename : DKA100:[ENV_ALPHA.QA.W]W133.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 17-SEP-2009 07:24:41 through 19-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.236089 through 0.254355



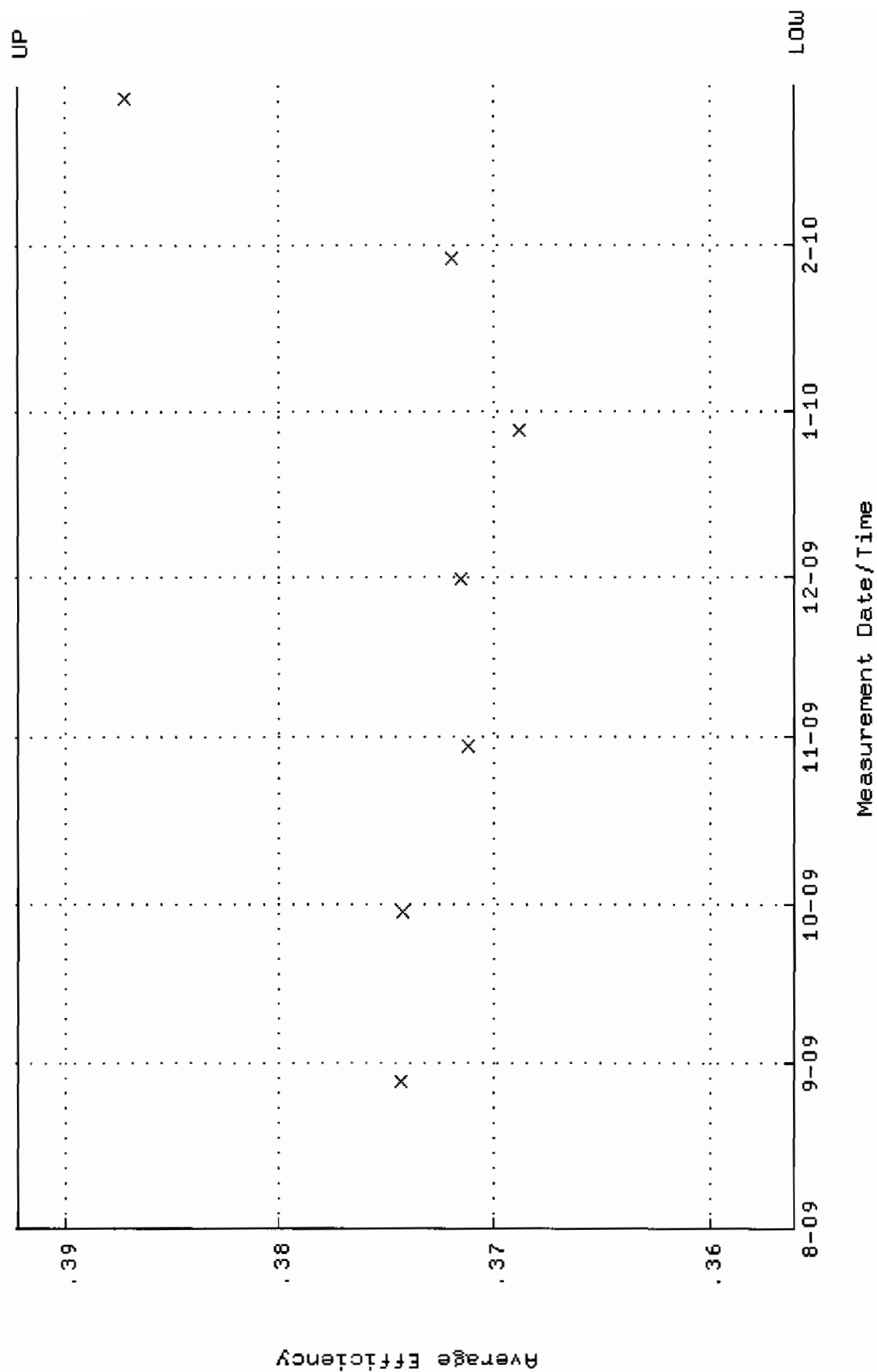
QA filename : DKA100:[ENV_ALPHA.QA.W]W133.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 17-SEP-2009 07:24:41 through 19-MAR-2010 12:00:00
 Lower/Upper Lmts: 89.3104 through 97.4810



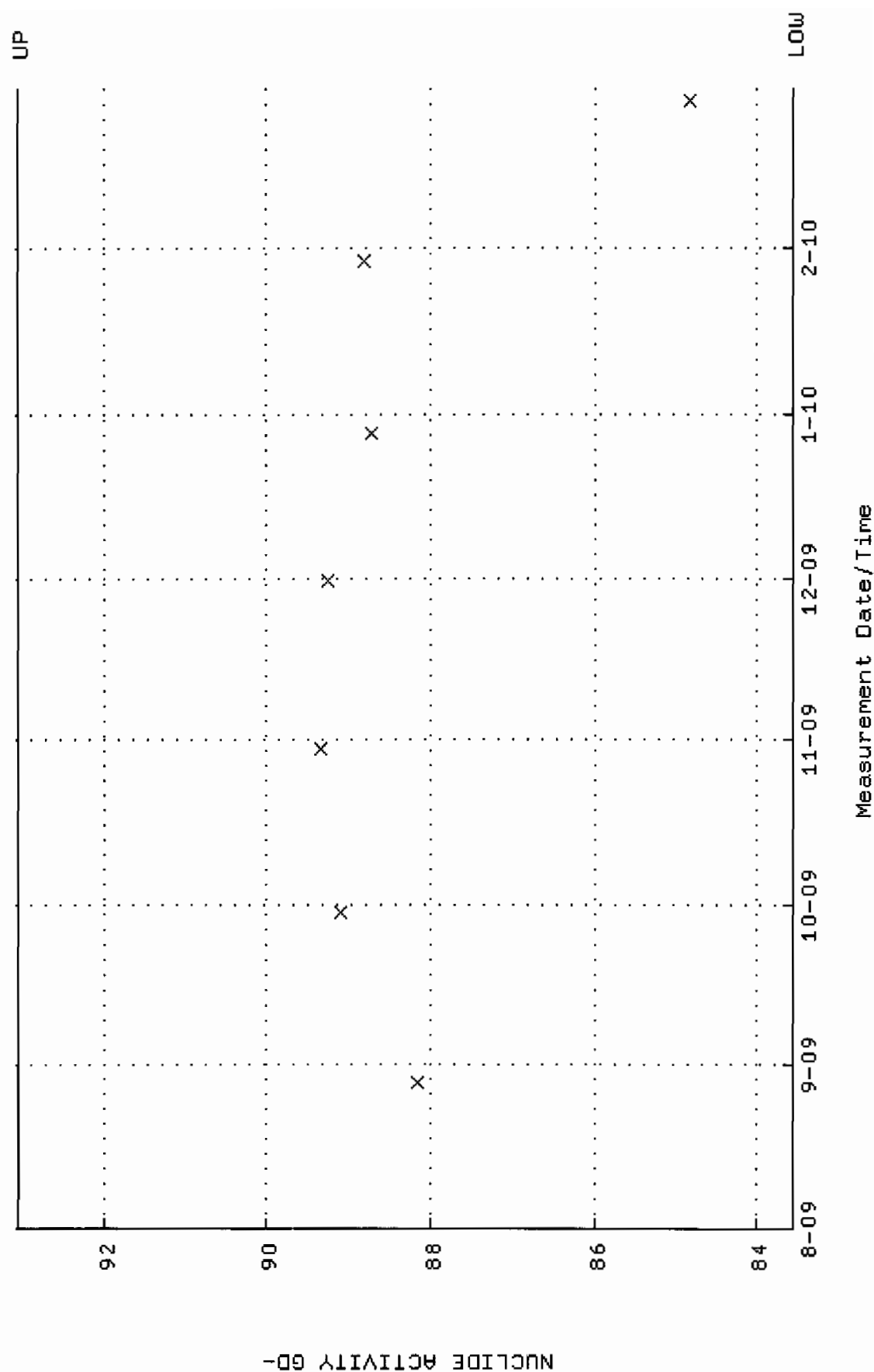
QA filename : DKA100:[ENV_ALPHA.QA.B]B133.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 6-SEP-2009 15:41:37 through 19-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



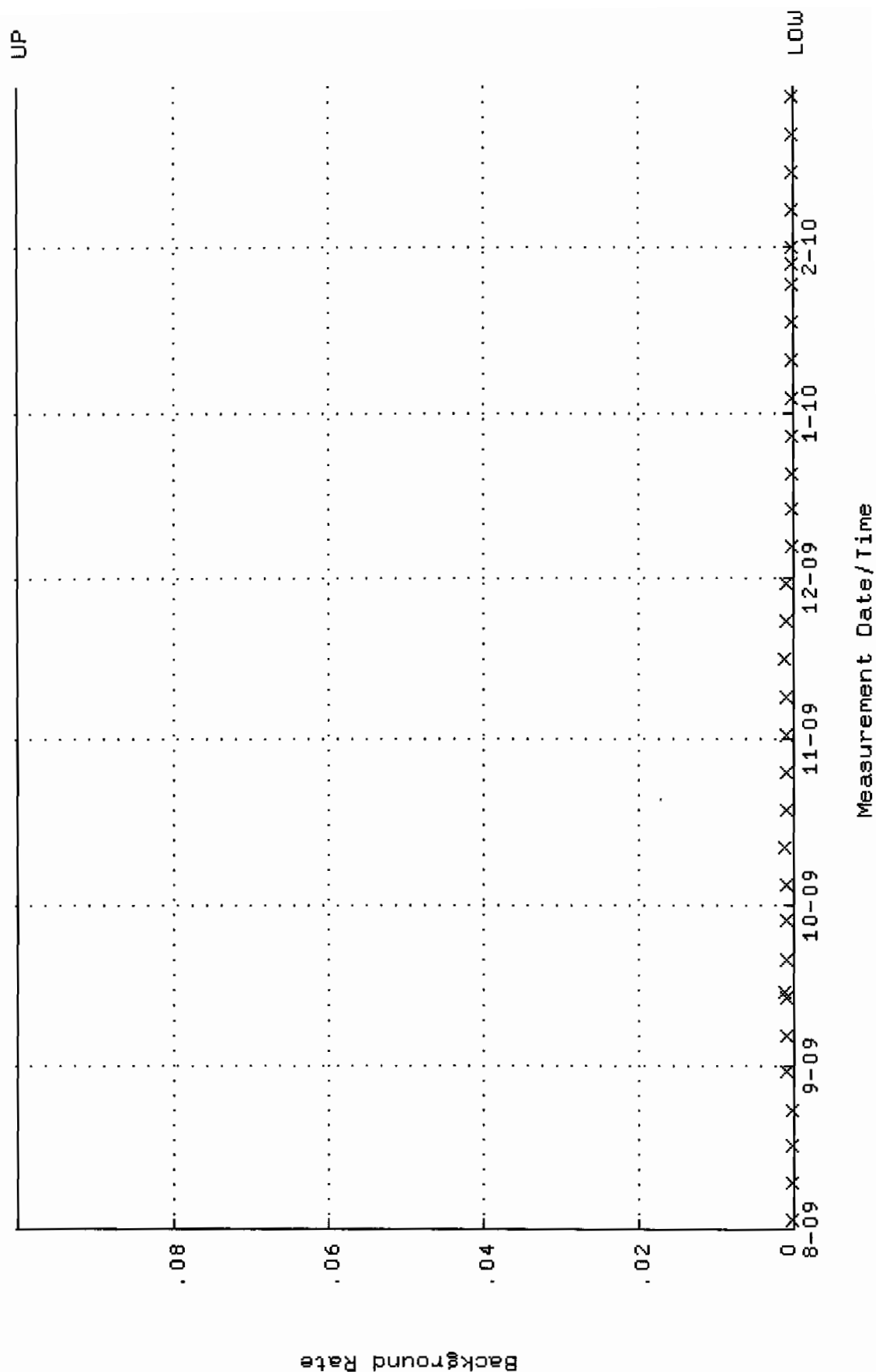
QA filename : DKA100:[ENV_ALPHA.QA.W]W232.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 28-AUG-2009 07:08:30 through 2-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.356063 through 0.392181



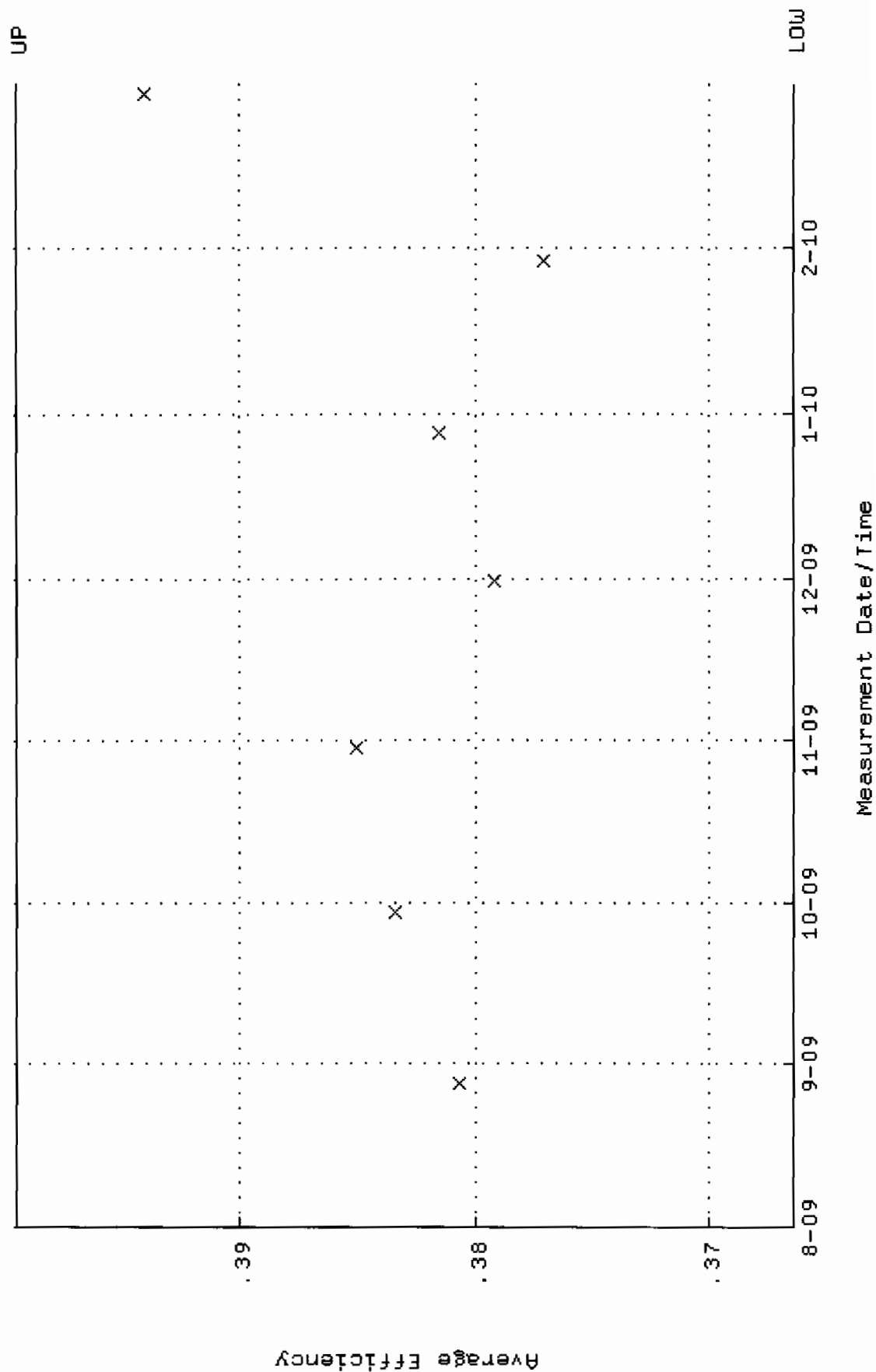
QA filename : DKA100:[ENV_ALPHA.QA.W]w232.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 28-AUG-2009 07:08:30 through 2-MAR-2010 12:00:00
 Lower/Upper Lmts: 83.5615 through 93.0435



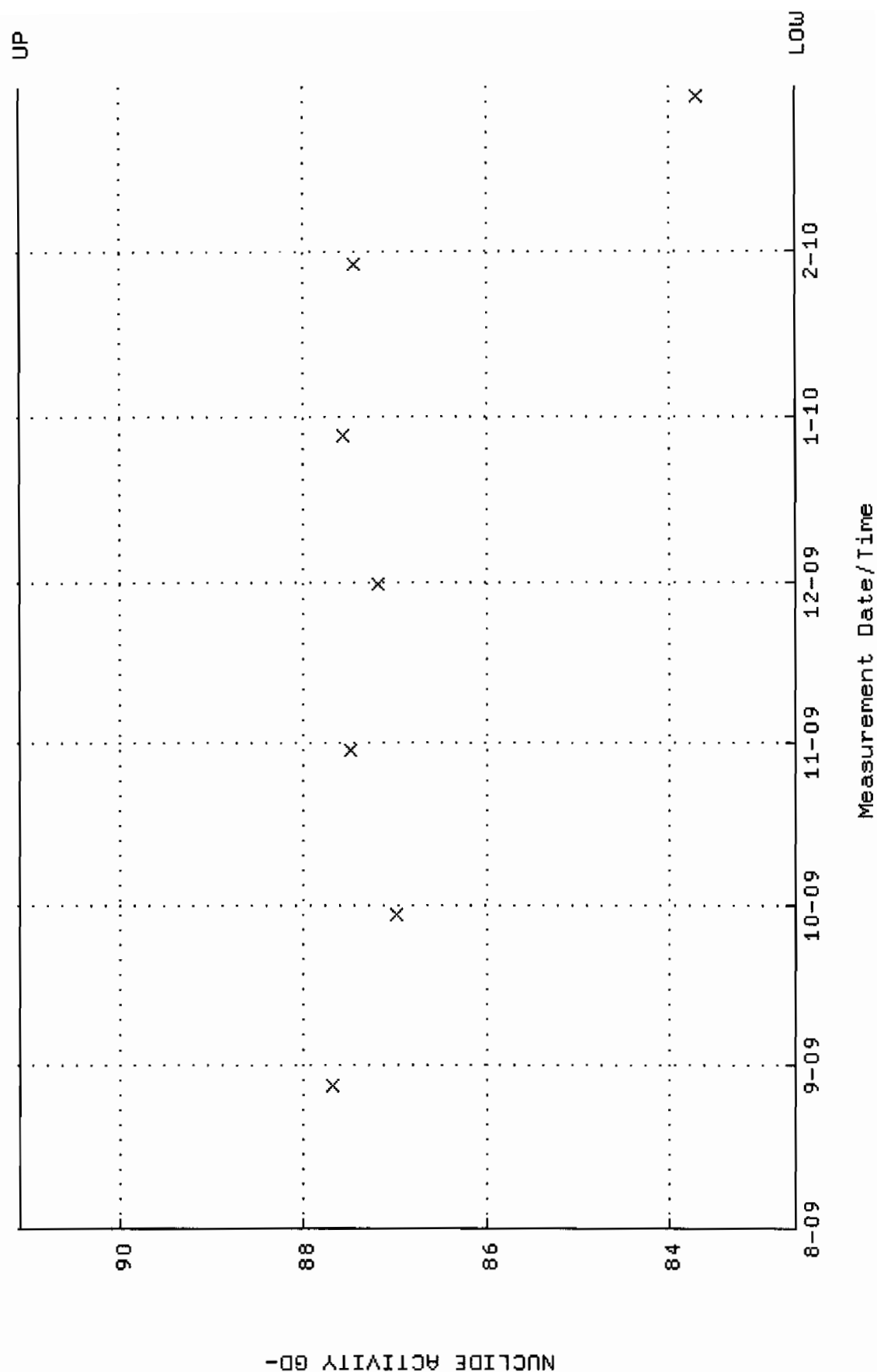
QA filename : DKA100:[ENV_ALPHA.QA.B]B232.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:26:47 through 2-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



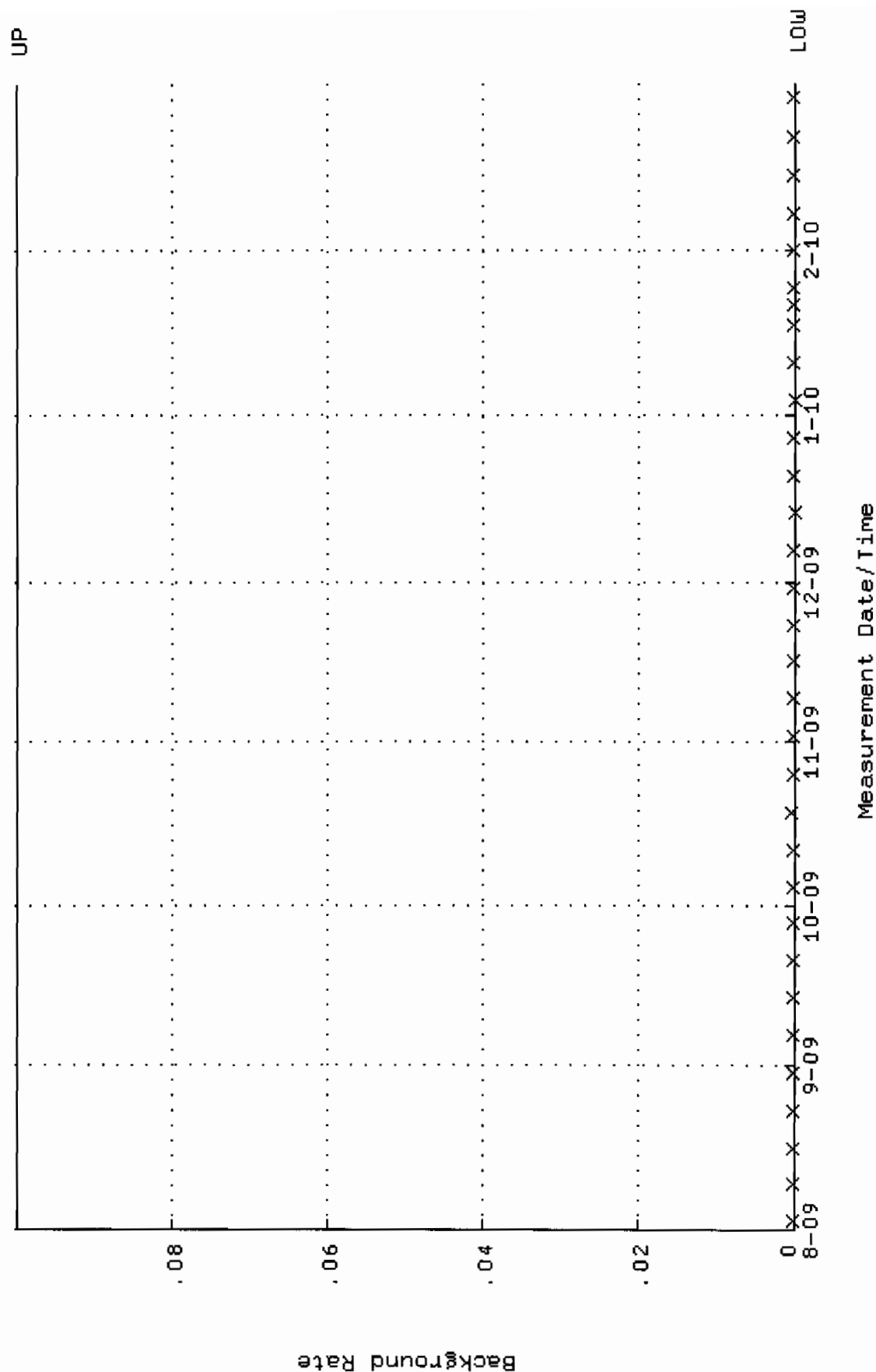
QA filename : DKA100:[ENV_ALPHA.QA.W]W233.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 28-AUG-2009 07:08:35 through 3-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.366381 through 0.399563



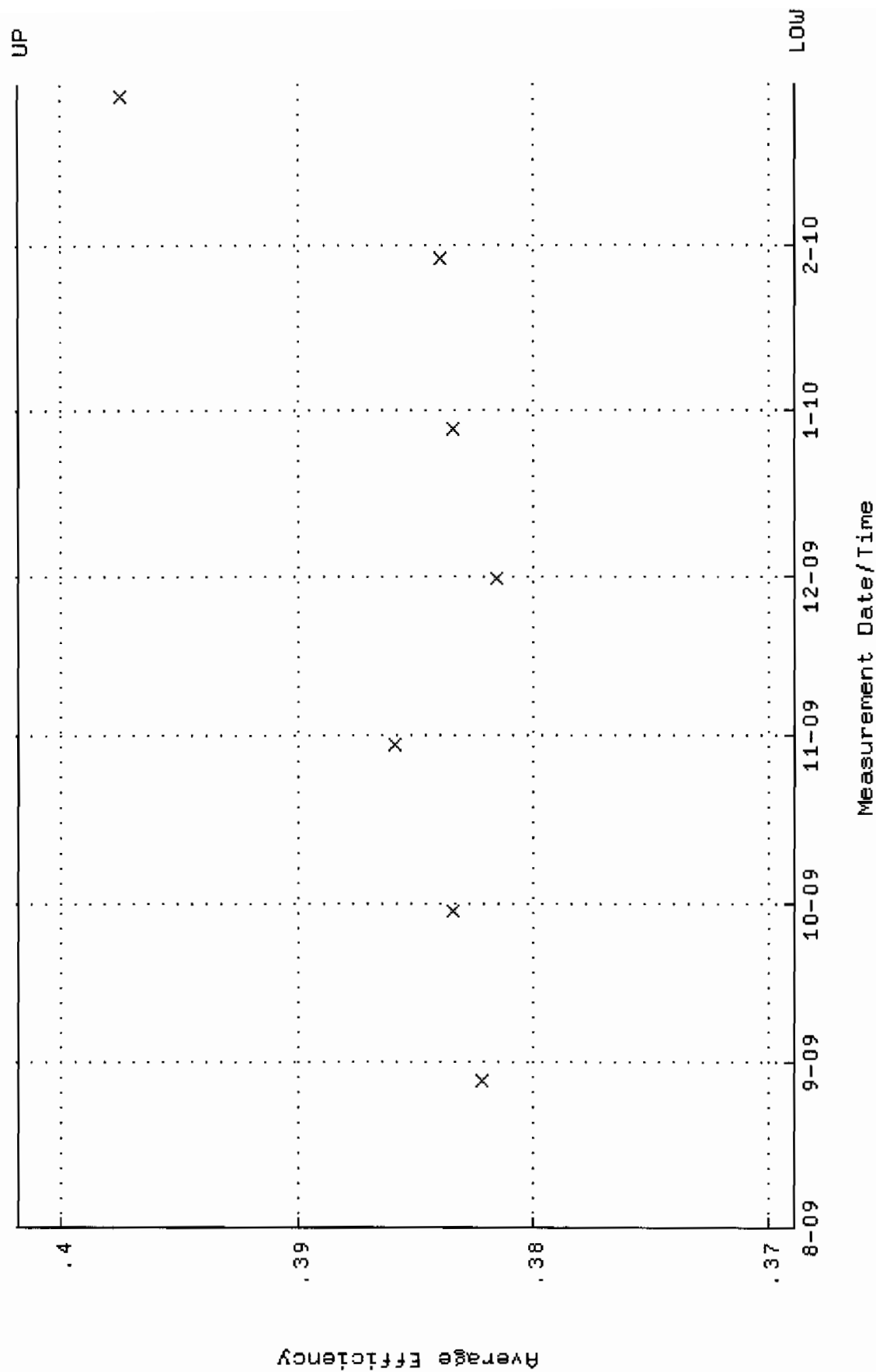
QA filename : DKA100:[ENV-ALPHA.QA.W]W233.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 28-AUG-2009 07:08:35 through 3-MAR-2010 12:00:00
 Lower/Upper Lmts: 82.6177 through 91.1049



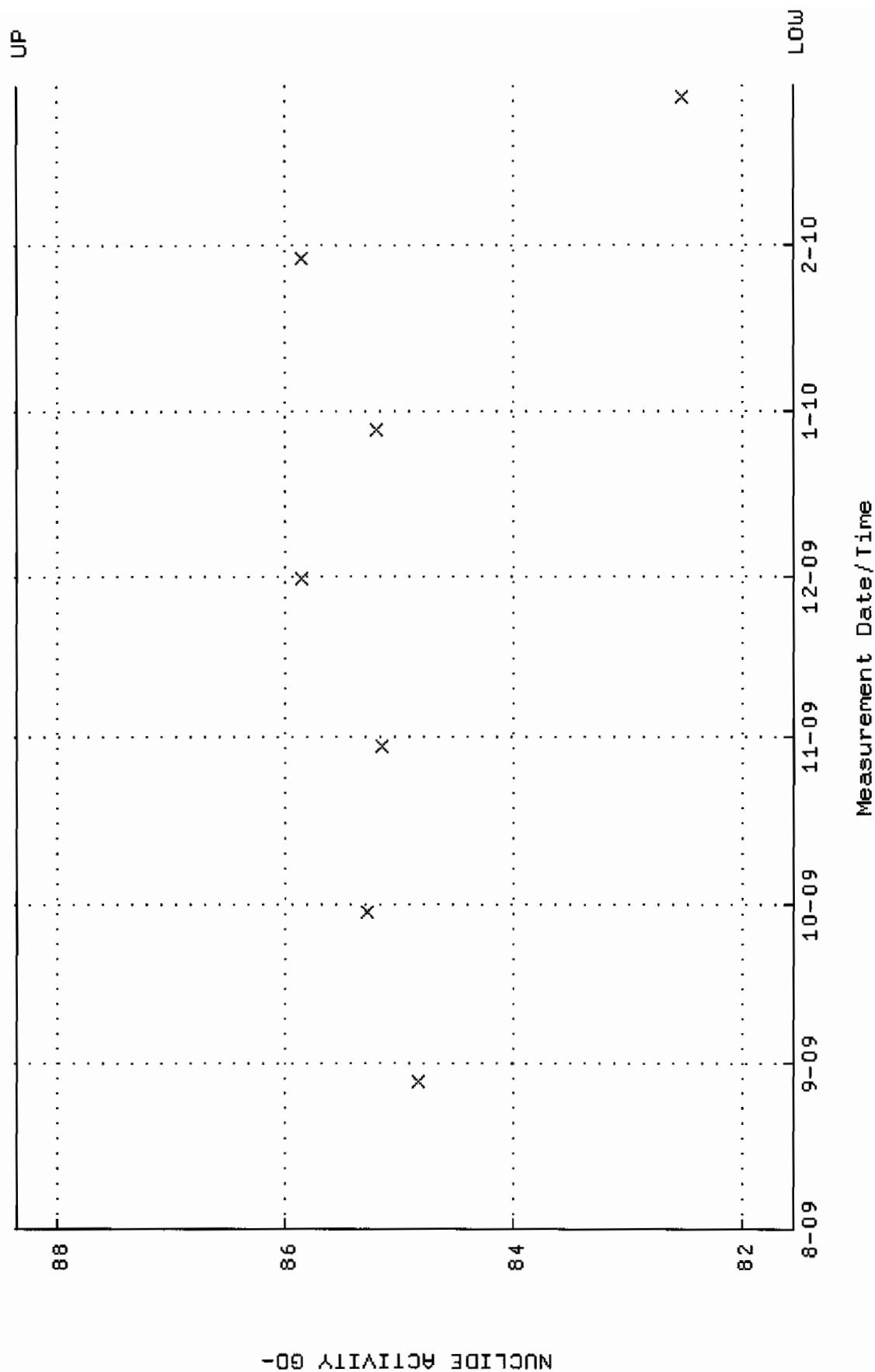
QA filename : DKA100:[ENV_ALPHA.QA.B]B233.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:26:52 through 3-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



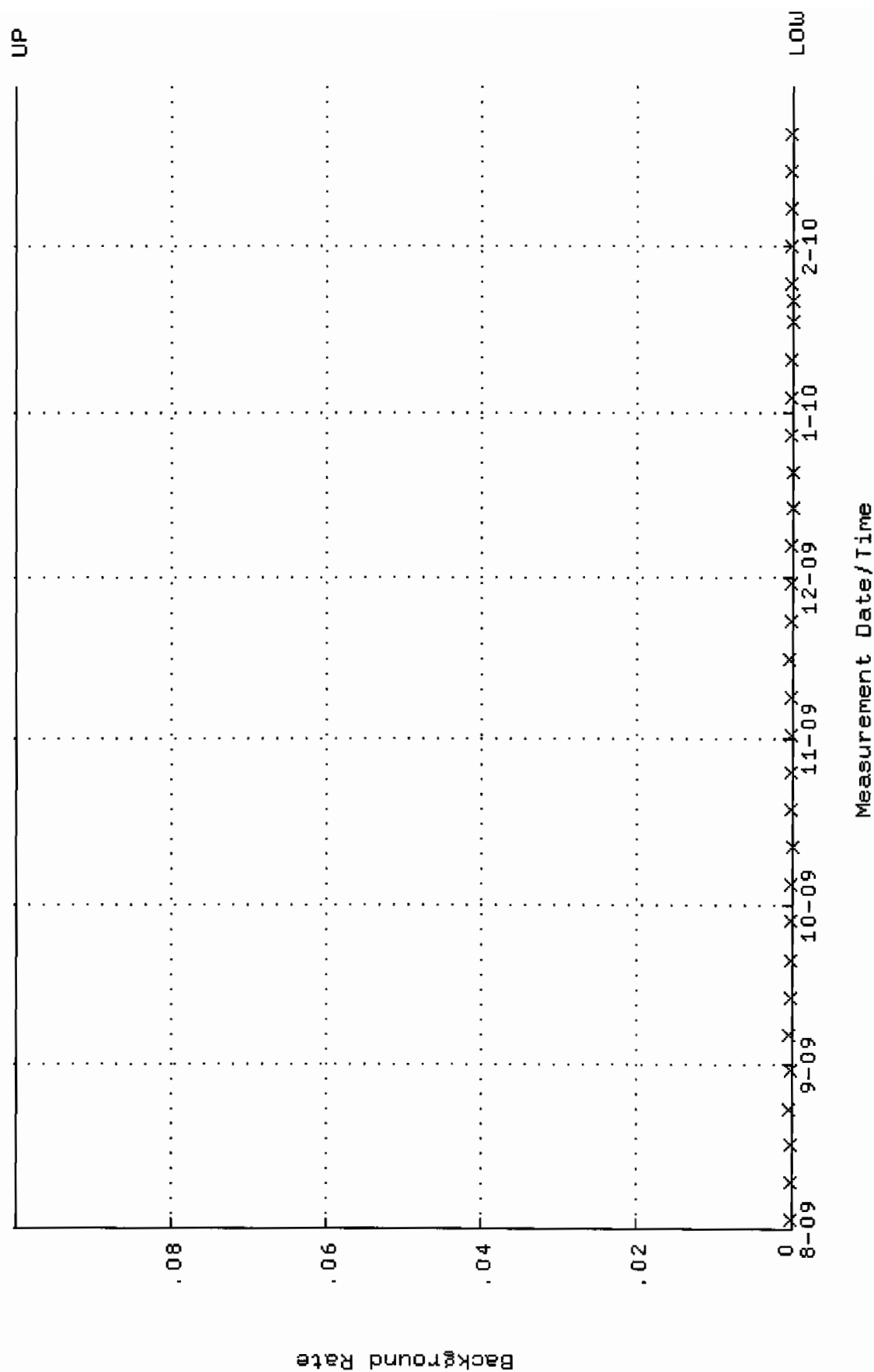
QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 28-AUG-2009 07:08:41 through 2-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.368938 through 0.401788



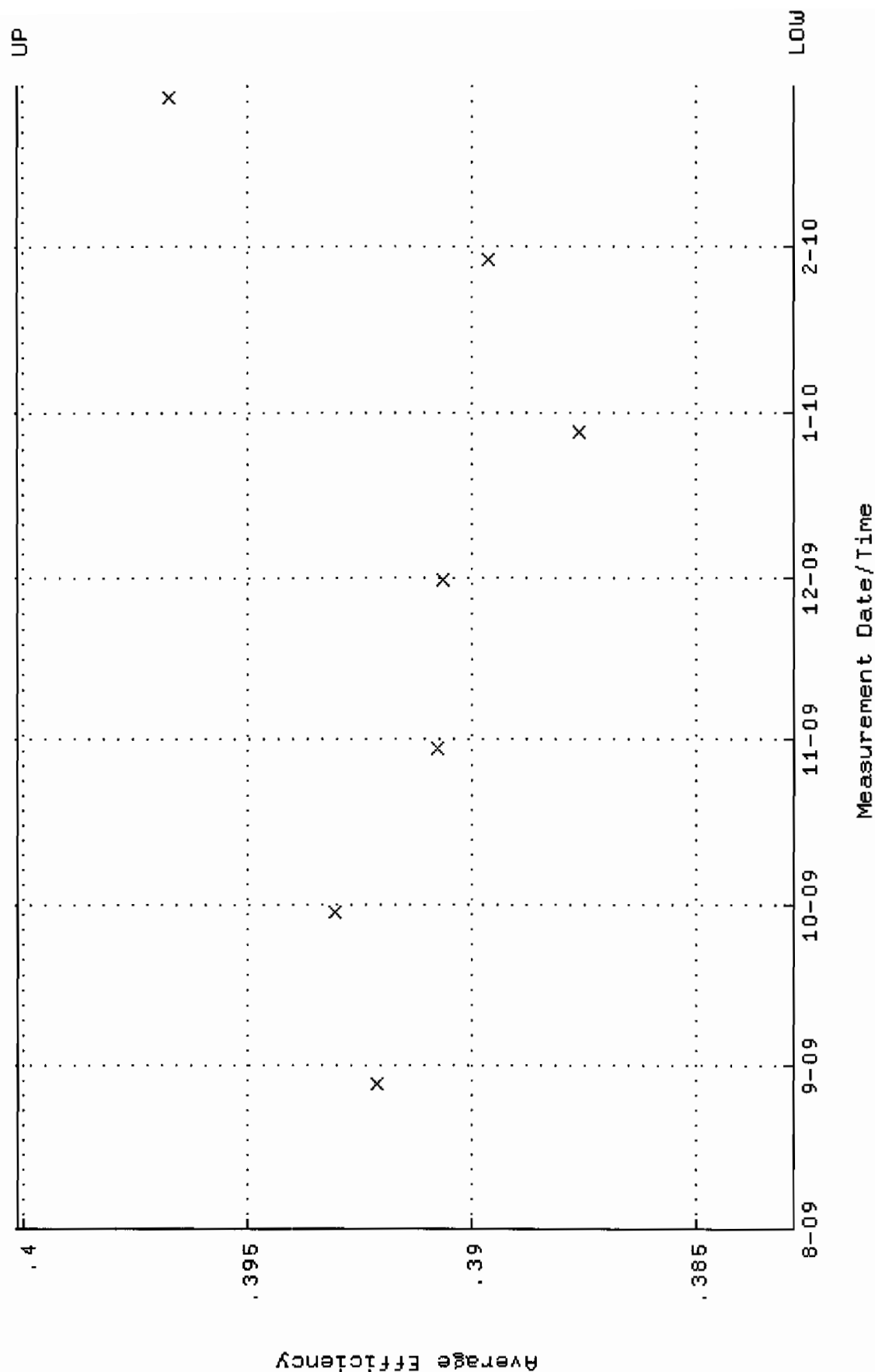
QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 28-AUG-2009 07:08:41 through 2-MAR-2010 12:00:00
 Lower/Upper Lmts: 81.5490 through 88.3592



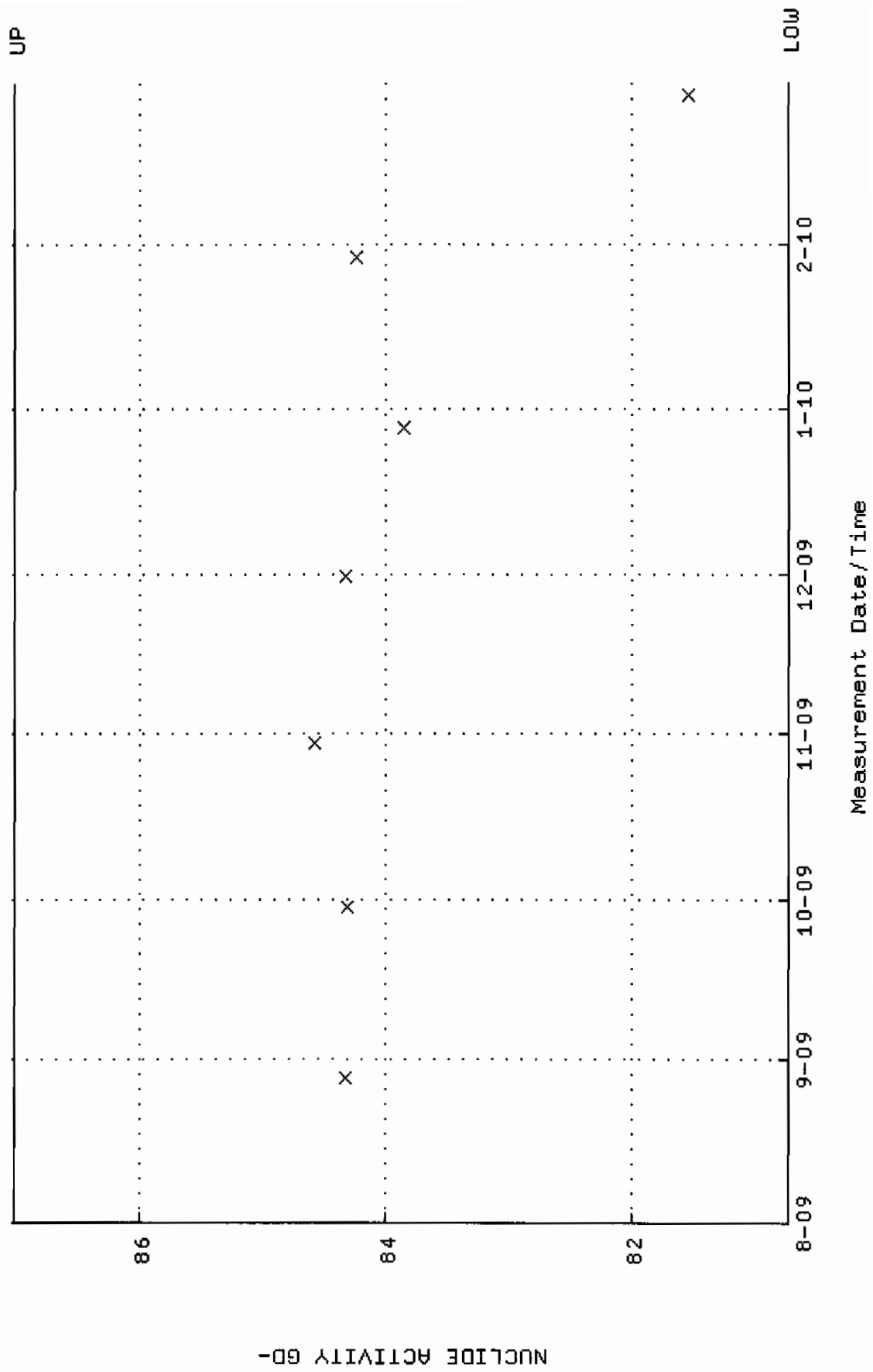
QA filename : DKA100:[ENV_ALPHA.QA.B]B234.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:26:56 through 2-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



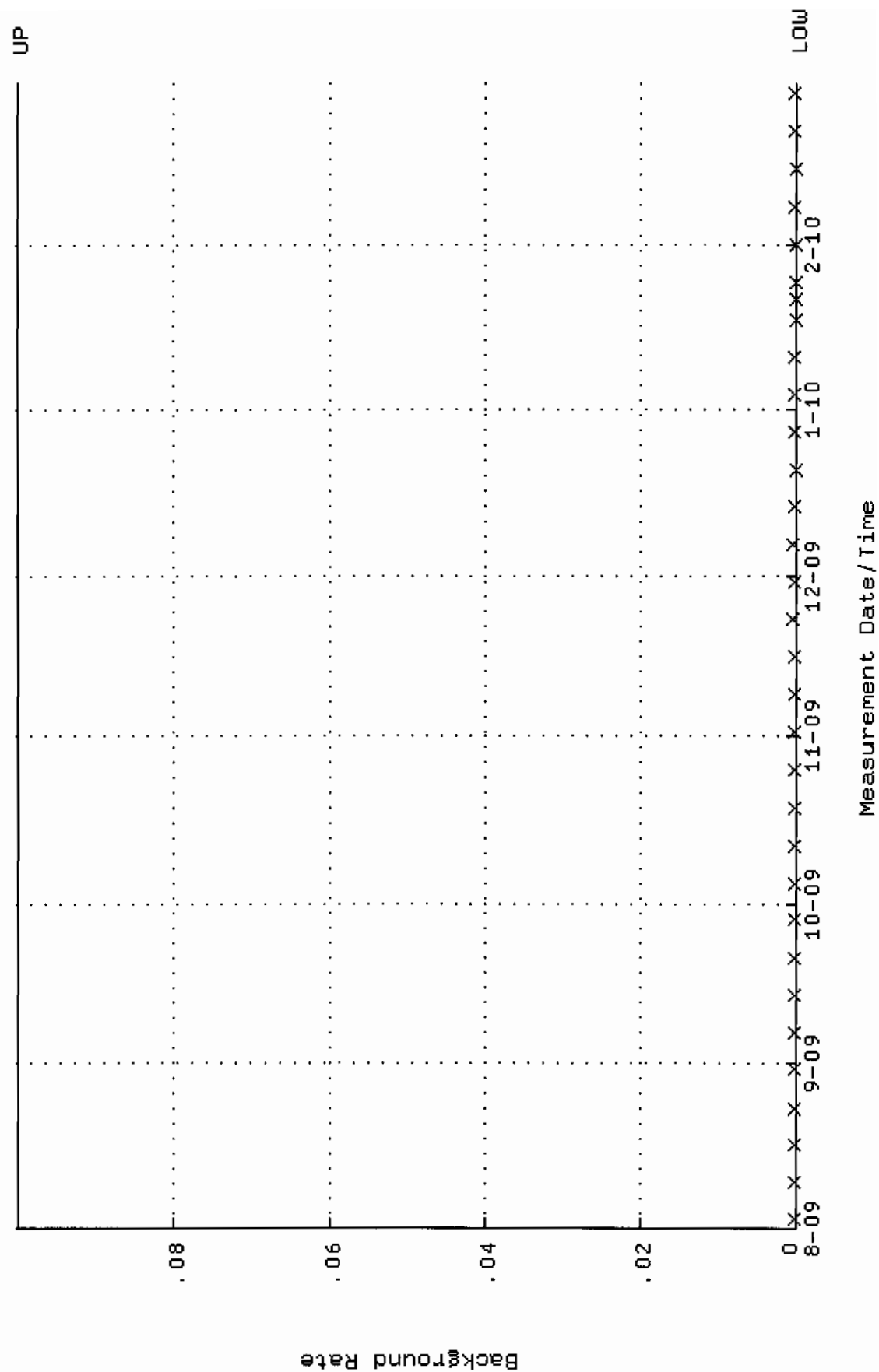
QA filename : DKA100:[ENV_ALPHA.QA.W]W249.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 28-AUG-2009 07:10:01 through 2-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.382845 through 0.400115



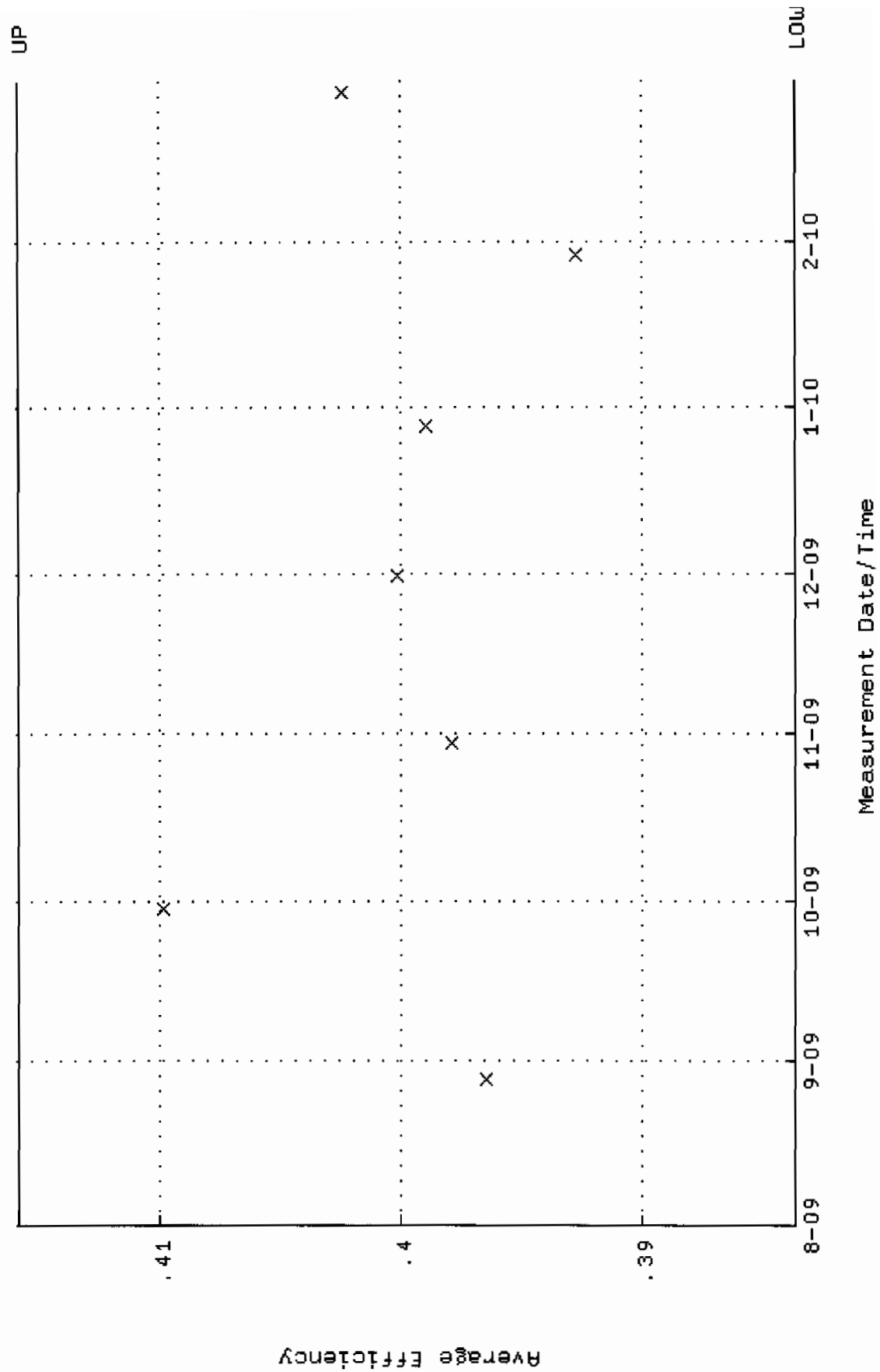
QA filename : DKA100:[ENV_ALPHA.QA.W]U249.QAF;1
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 28-AUG-2009 07:10:01 through 2-MAR-2010 12:00:00
 Lower/Upper Lmts: 80.7258 through 87.0246



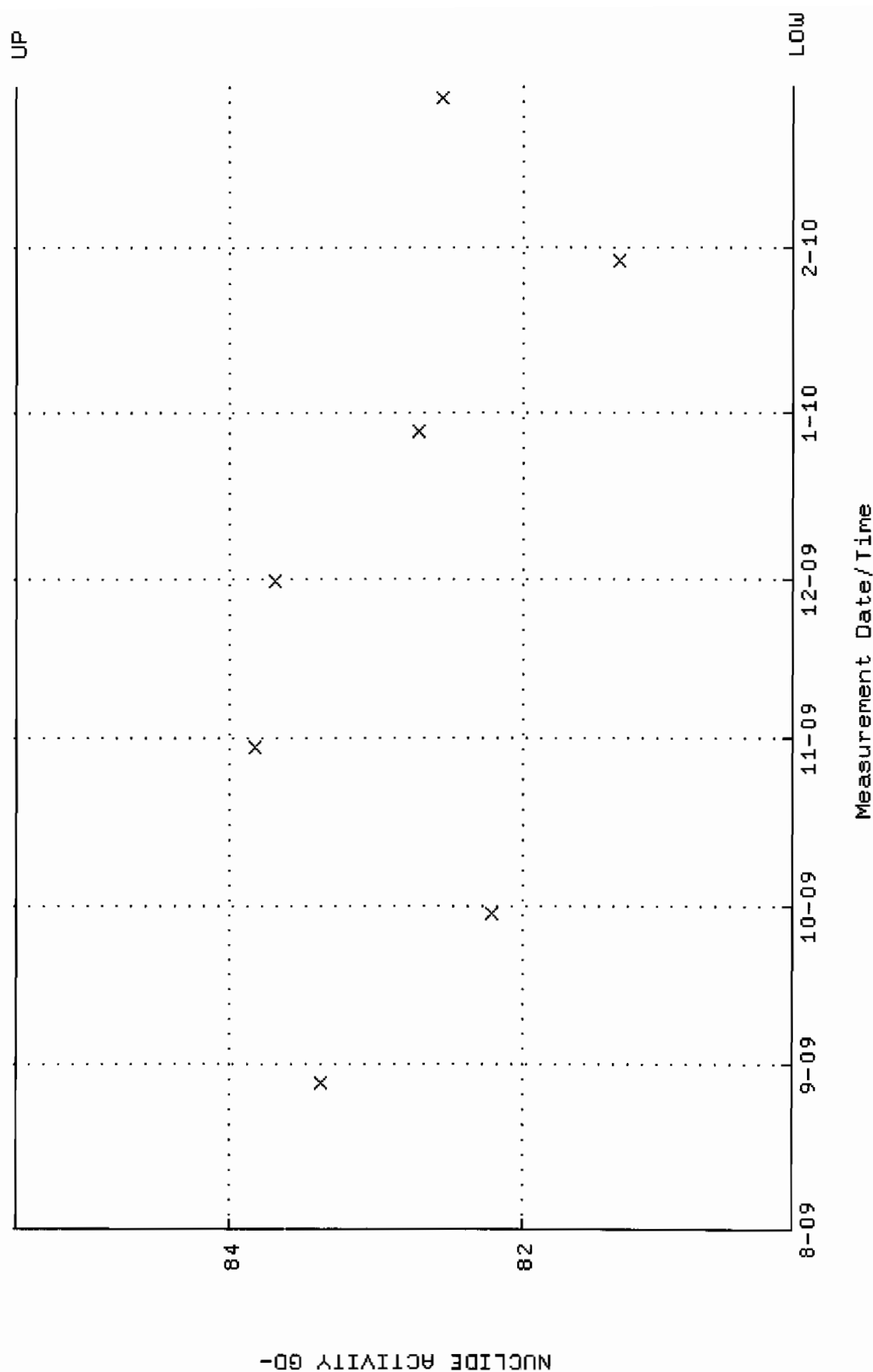
QA filename : DKA100:[ENV_ALPHA.QA.B]B249.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:28:04 through 2-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



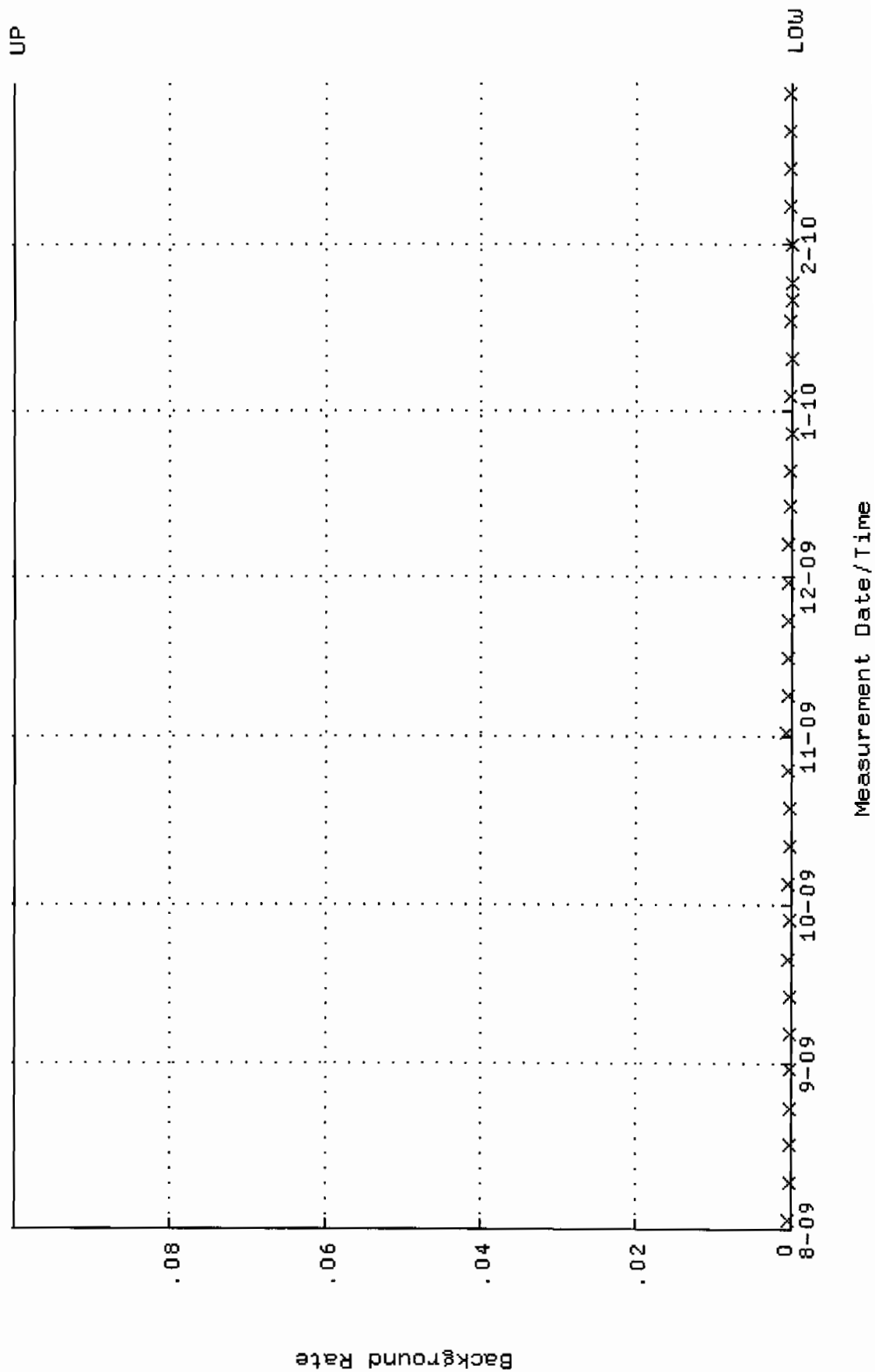
QA filename : DKA100:[ENV_ALPHA.QA.W]W250.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 28-AUG-2009 07:10:06 through 2-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.383673 through 0.415835



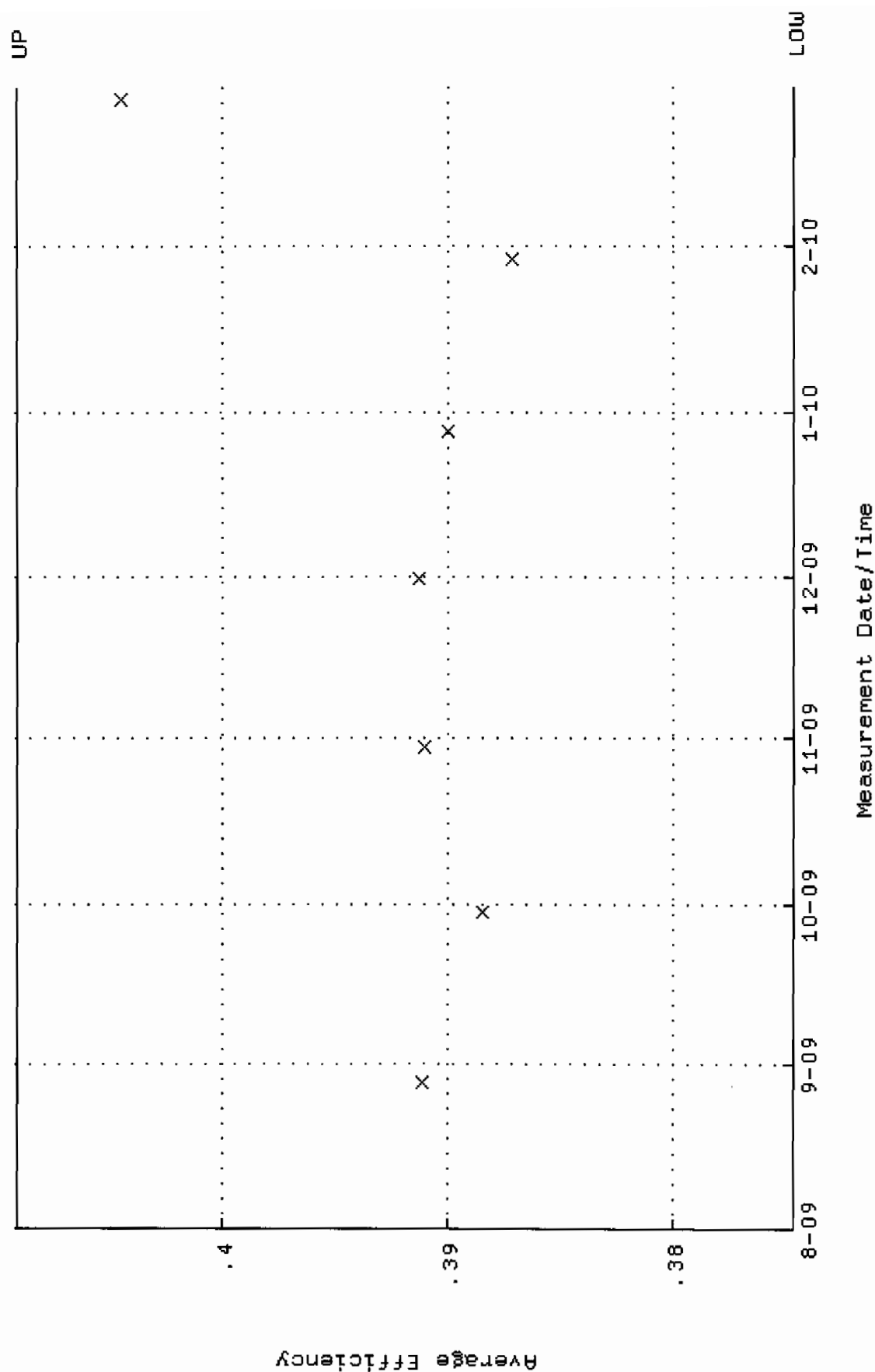
QA filename : DKA100:[ENV_ALPHA.QA.W]W250.QAF;1
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 28-AUG-2009 07:10:06 through 2-MAR-2010 12:00:00
 Lower/Upper Lmts: 80.1497 through 85.4585



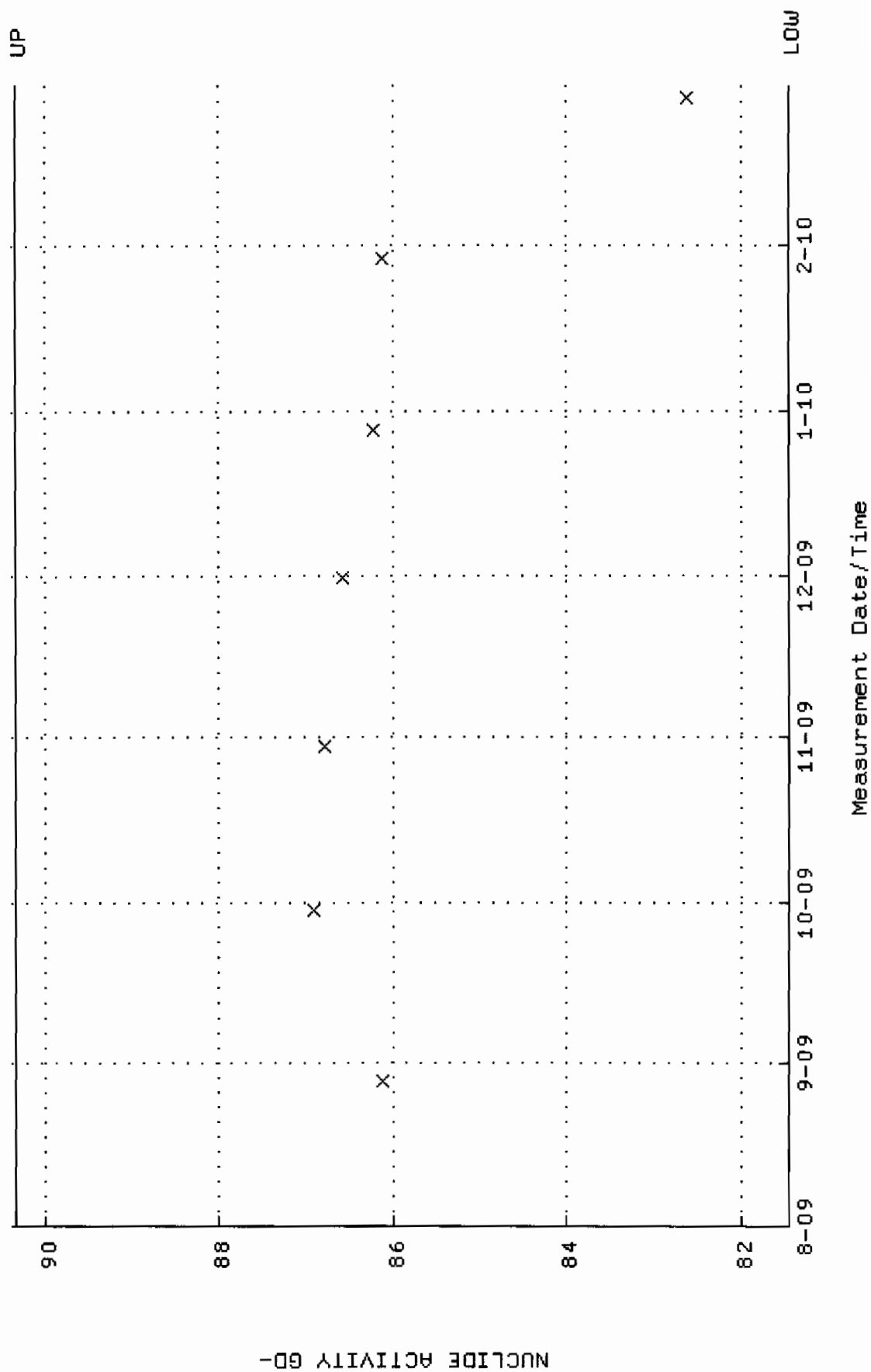
QA filename : DKA100:[ENV_ALPHA.QA.B]B250.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:28:08 through 2-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



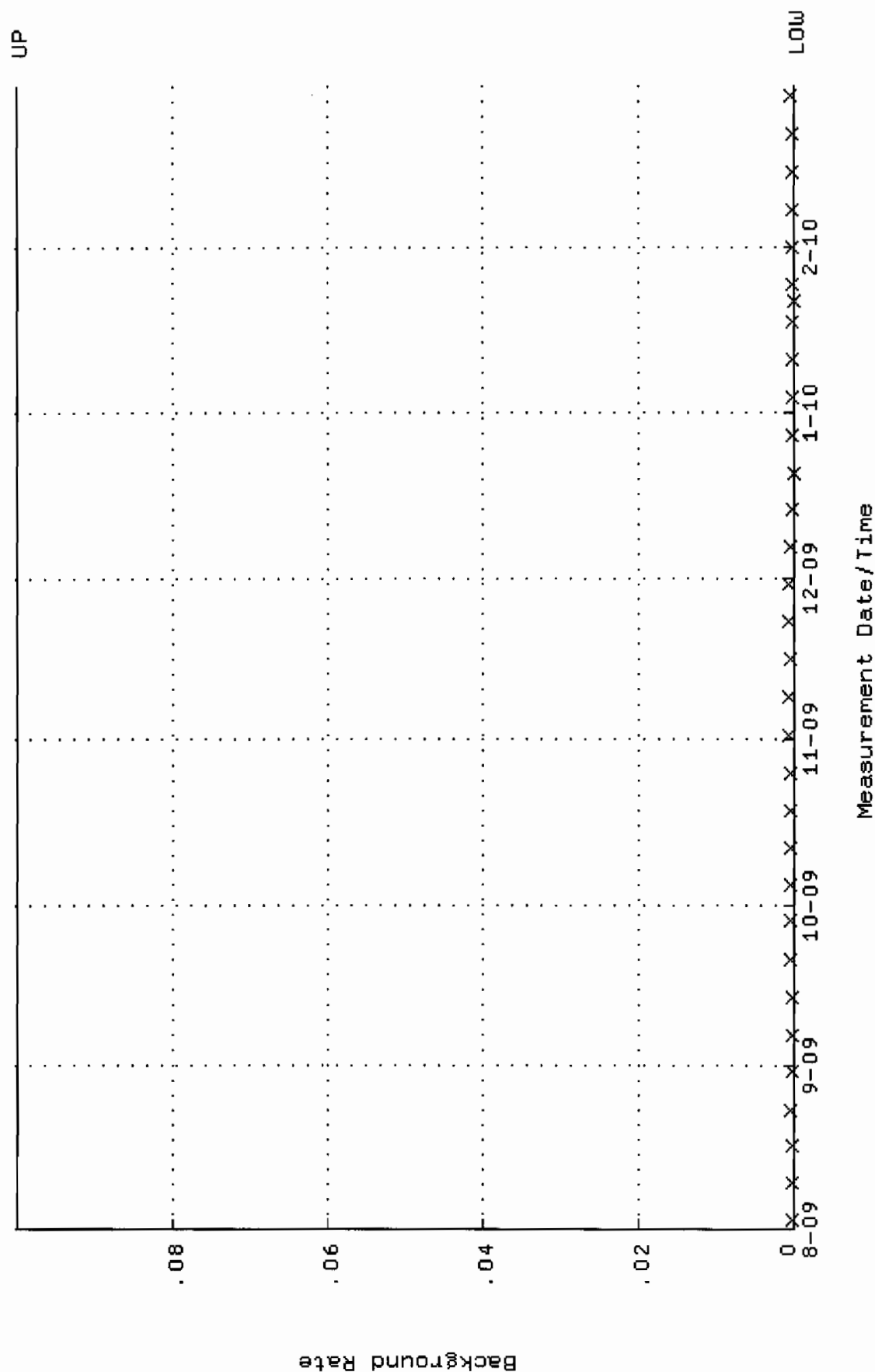
QA filename : DKA100:[ENV_ALPHA.QA.W]W251.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 28-AUG-2009 07:10:12 through 2-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.374659 through 0.409089



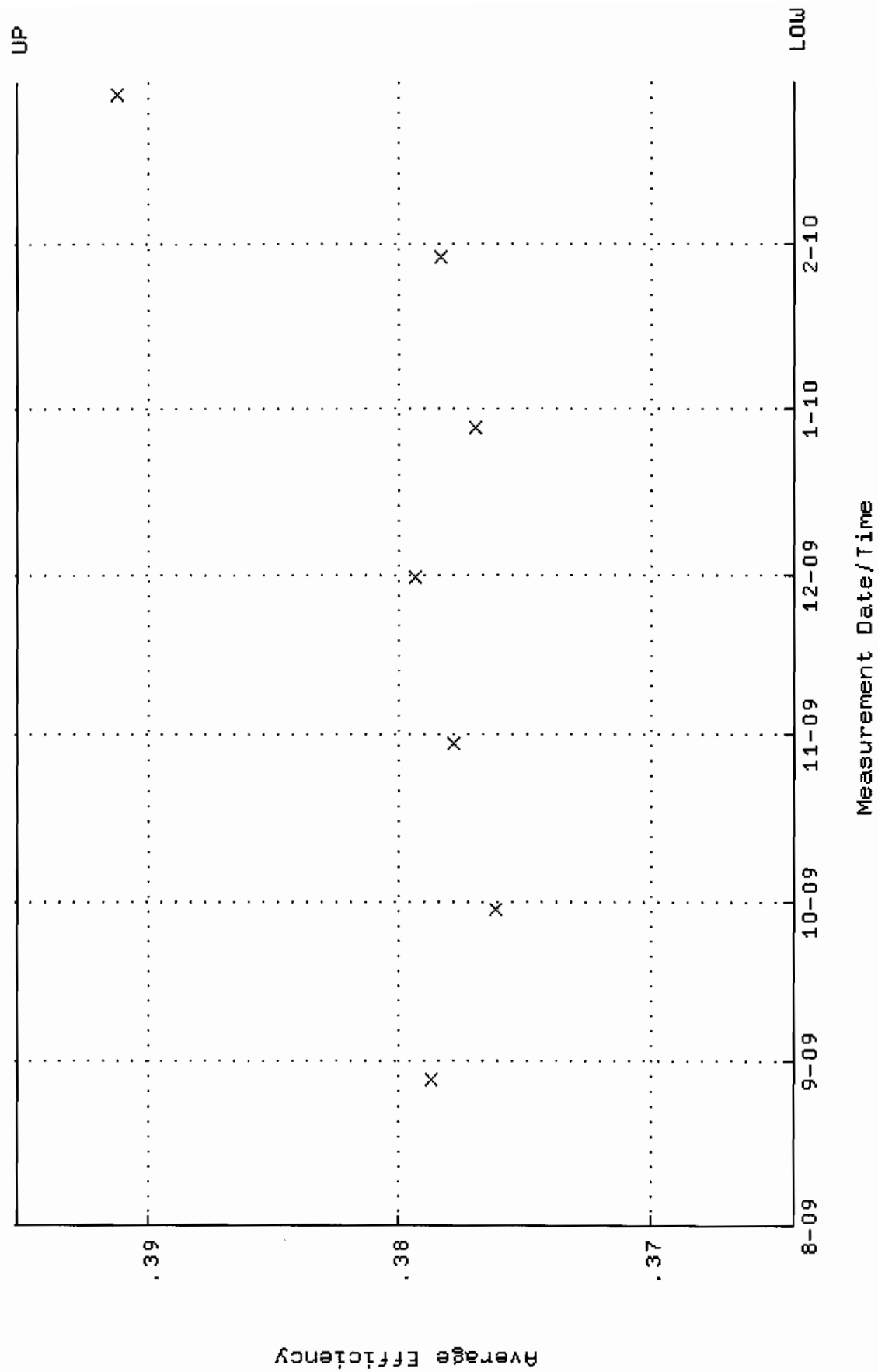
QA filename : DKA100:[ENV_ALPHA.QA.W]W251.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 28-AUG-2009 07:10:12 through 2-MAR-2010 12:00:00
 Lower/Upper Lmts: 81.4582 through 90.3490



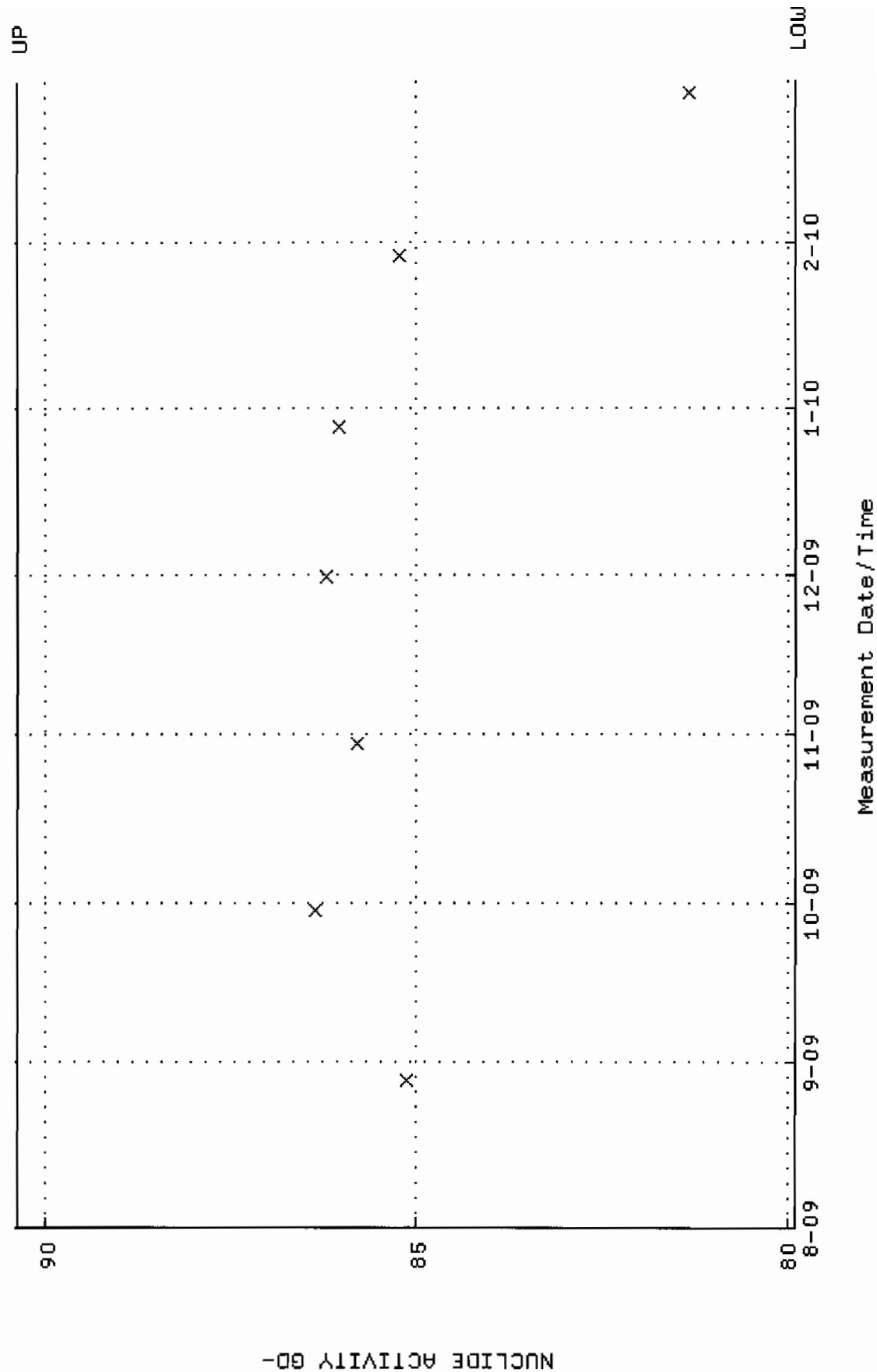
QA filename : DKA100:[ENV_ALPHA.QA.B]B251.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:28:13 through 2-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



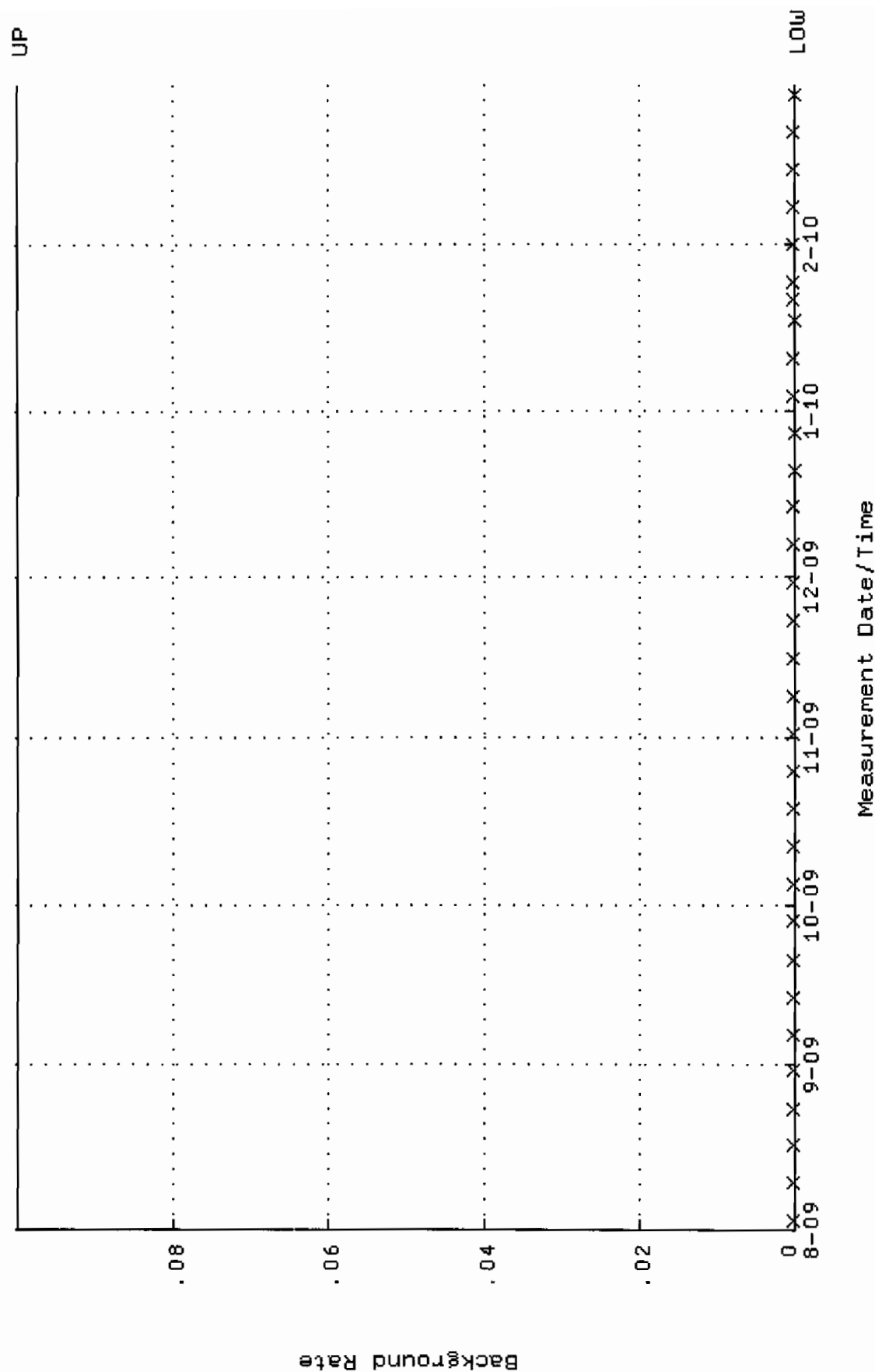
QA filename : DKA100:[ENV_ALPHA.QA.W]U252.QAF;1
 Parameter Name : AVRGEFF (Average Efficiency)
 Start/End Dates : 28-AUG-2009 07:10:17 through 2-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.364281 through 0.395267



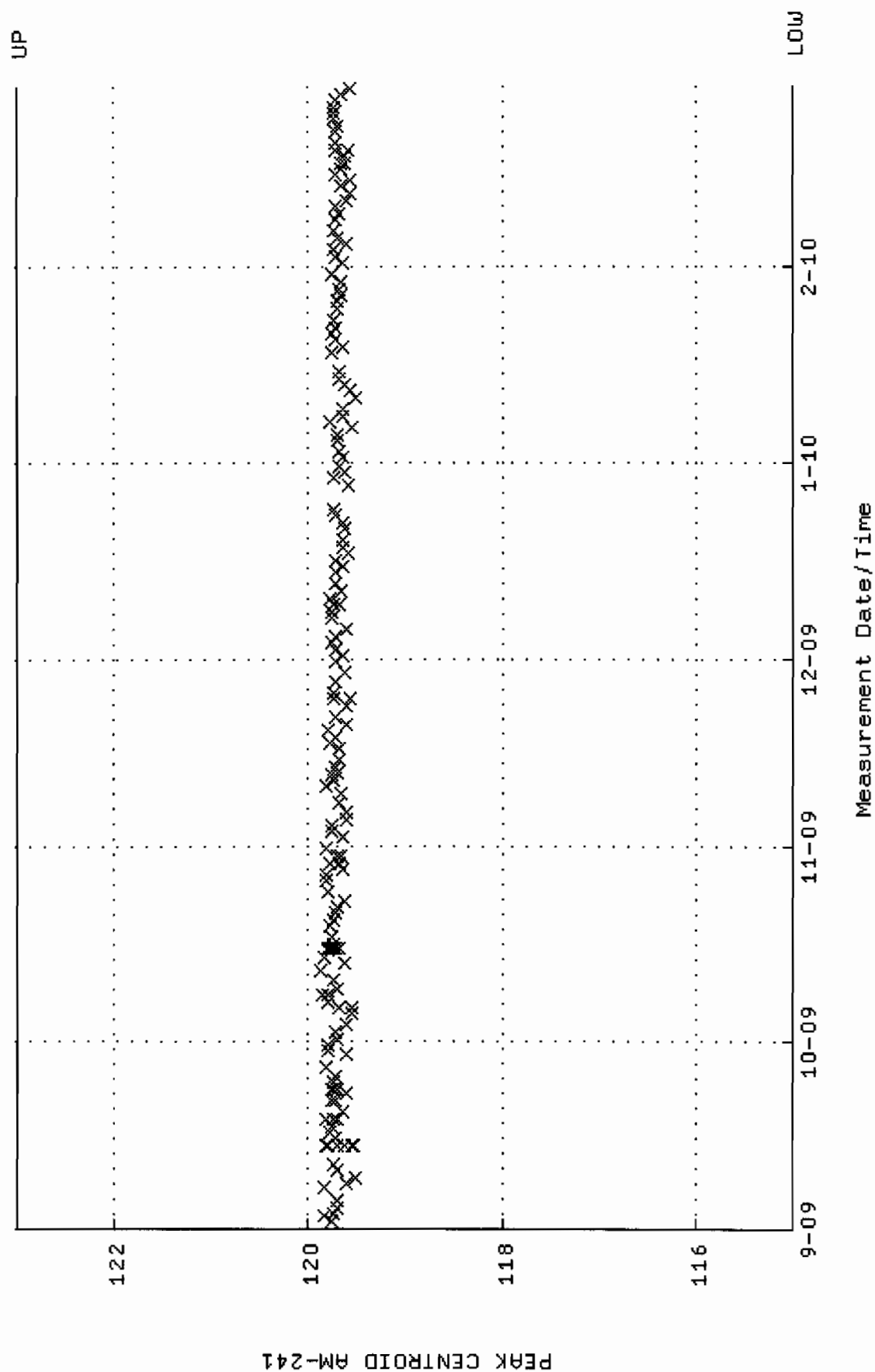
QA filename : DKA100:[ENV_ALPHA.QA.W]W252.QAF;1
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)
 Start/End Dates : 28-AUG-2009 07:10:17 through 2-MAR-2010 12:00:00
 Lower/Upper Lmts: 79.9099 through 90.3785



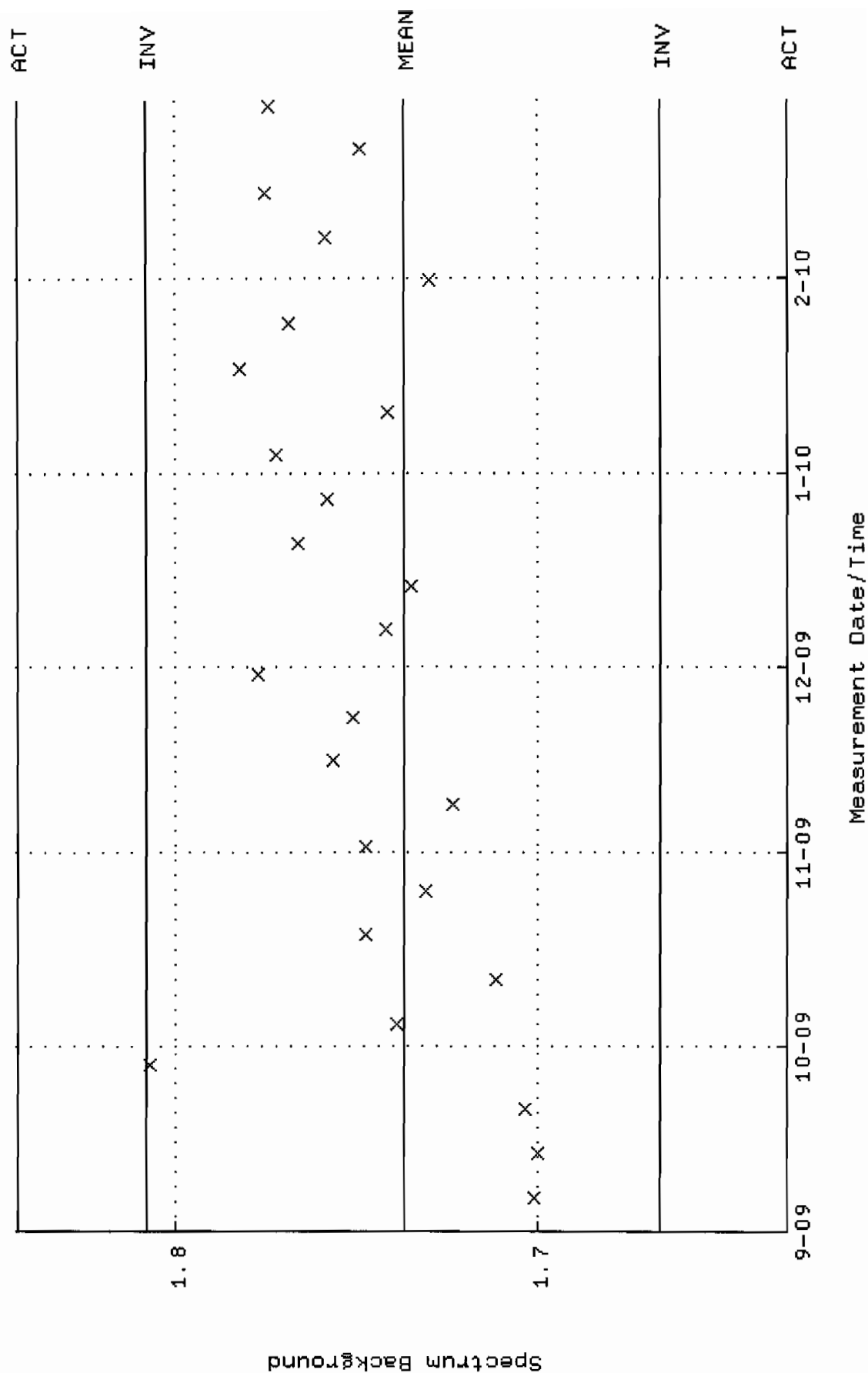
QA filename : DKA100:[ENV_ALPHA.QA.B]B252.QAF;1
 Parameter Name : BACKRATE (Background Rate)
 Start/End Dates : 2-AUG-2009 17:28:18 through 2-MAR-2010 12:00:00
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



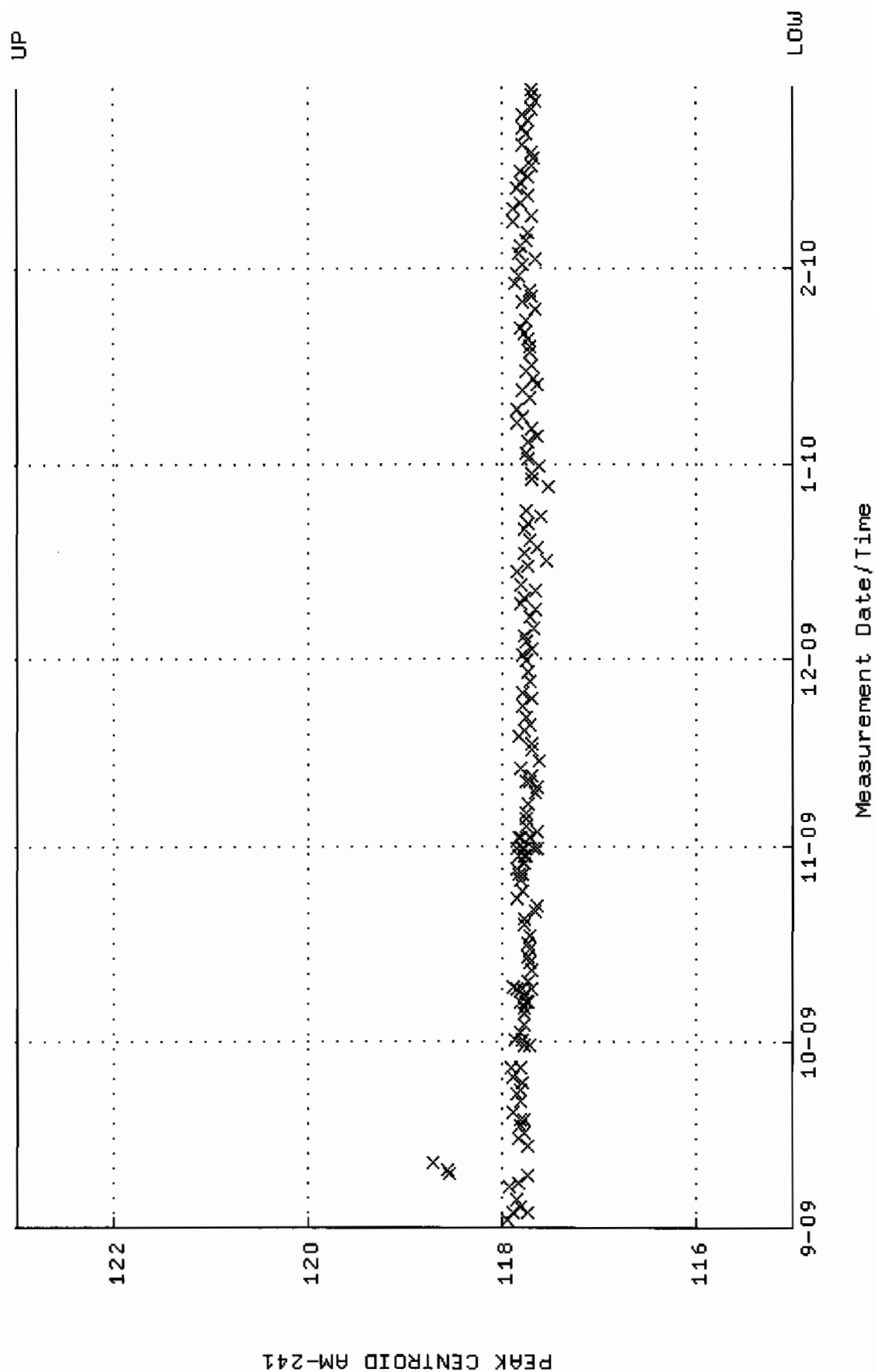
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_500MLMB.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 2-SEP-2009 04:39:53 through 1-MAR-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



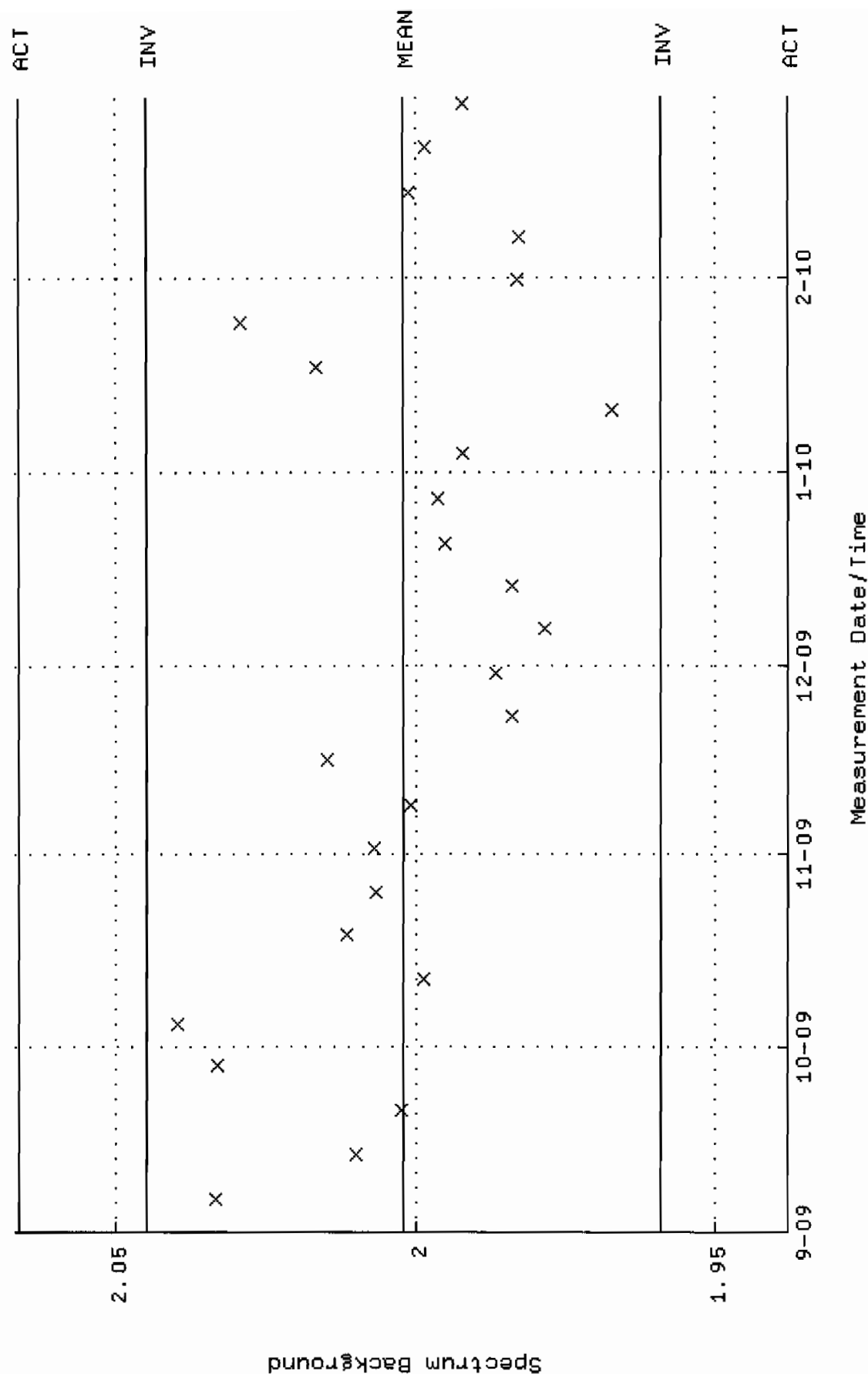
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC-GAM01.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 6-SEP-2009 11:36:28 through 1-MAR-2010 12:00:00
 Mean +- Std Dev : 1.73723 +- 3.552524E-02 (2.04 %)



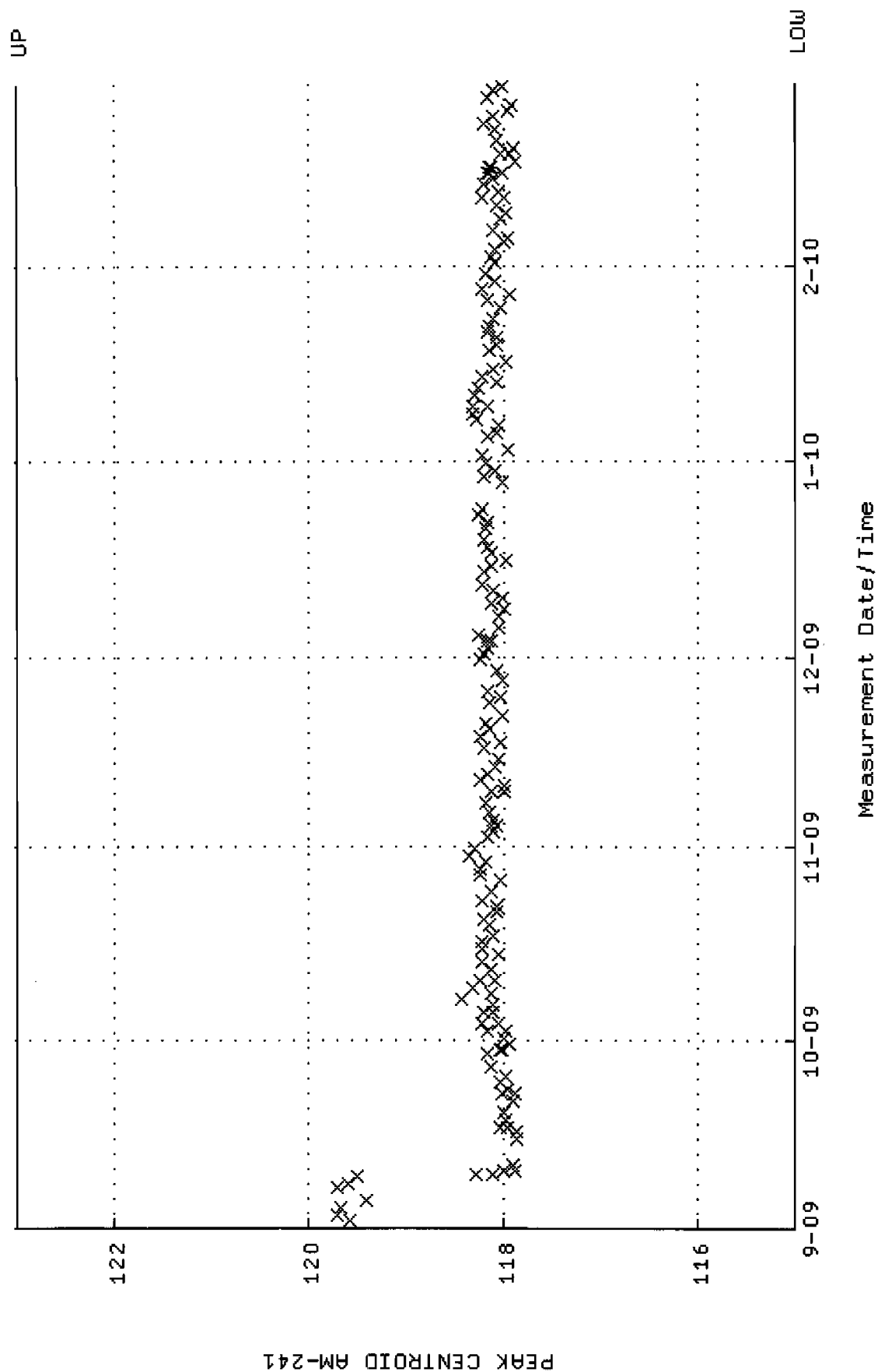
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM02_CAN.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 2-SEP-2009 04:40:02 through 1-MAR-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



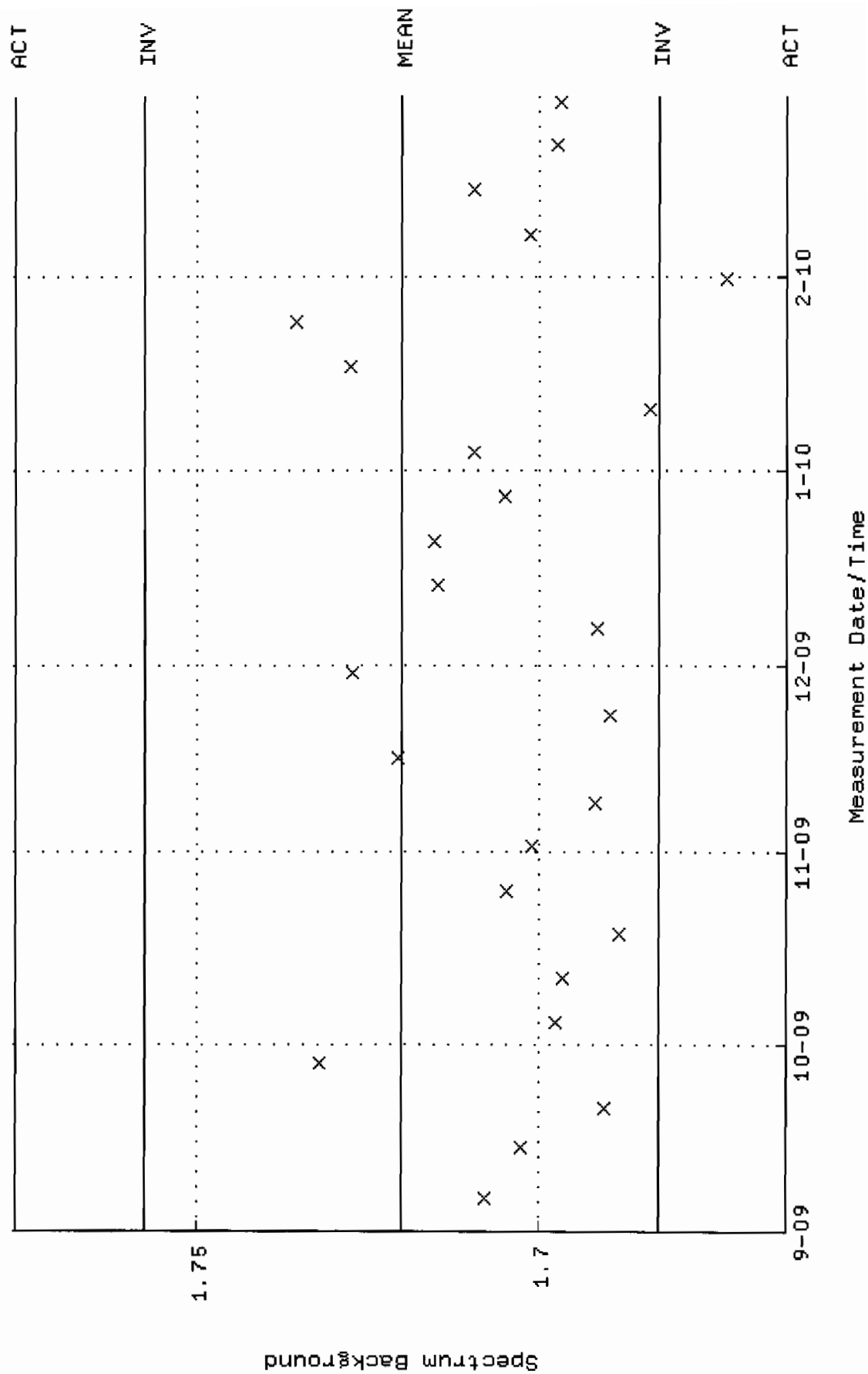
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM02.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 6-SEP-2009 11:37:17 through 1-MAR-2010 12:00:00
 Mean +- Std Dev : 2.00226 +- 2.139827E-02 (1.07 %)



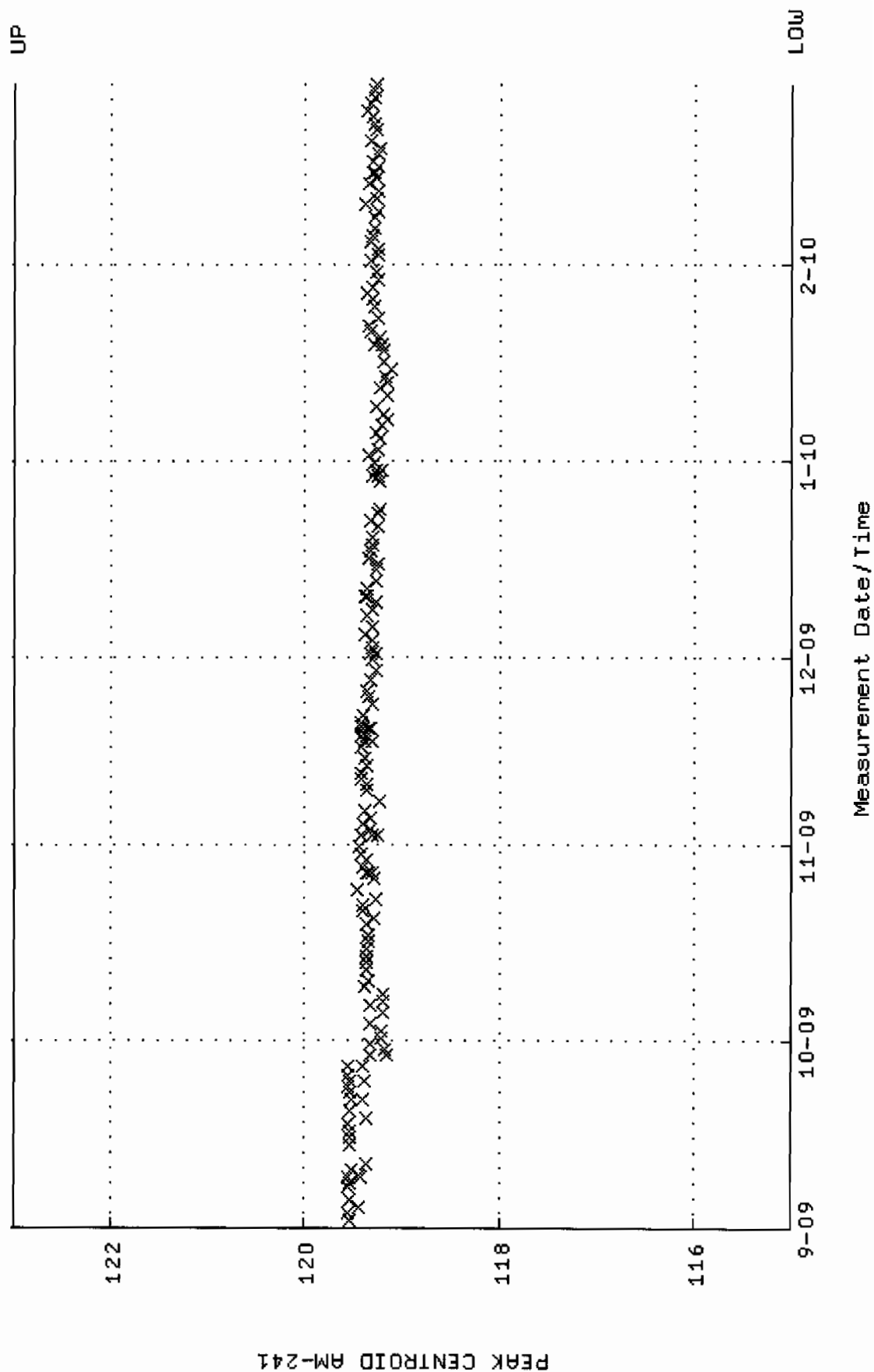
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 2-SEP-2009 06:32:23 through 1-MAR-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



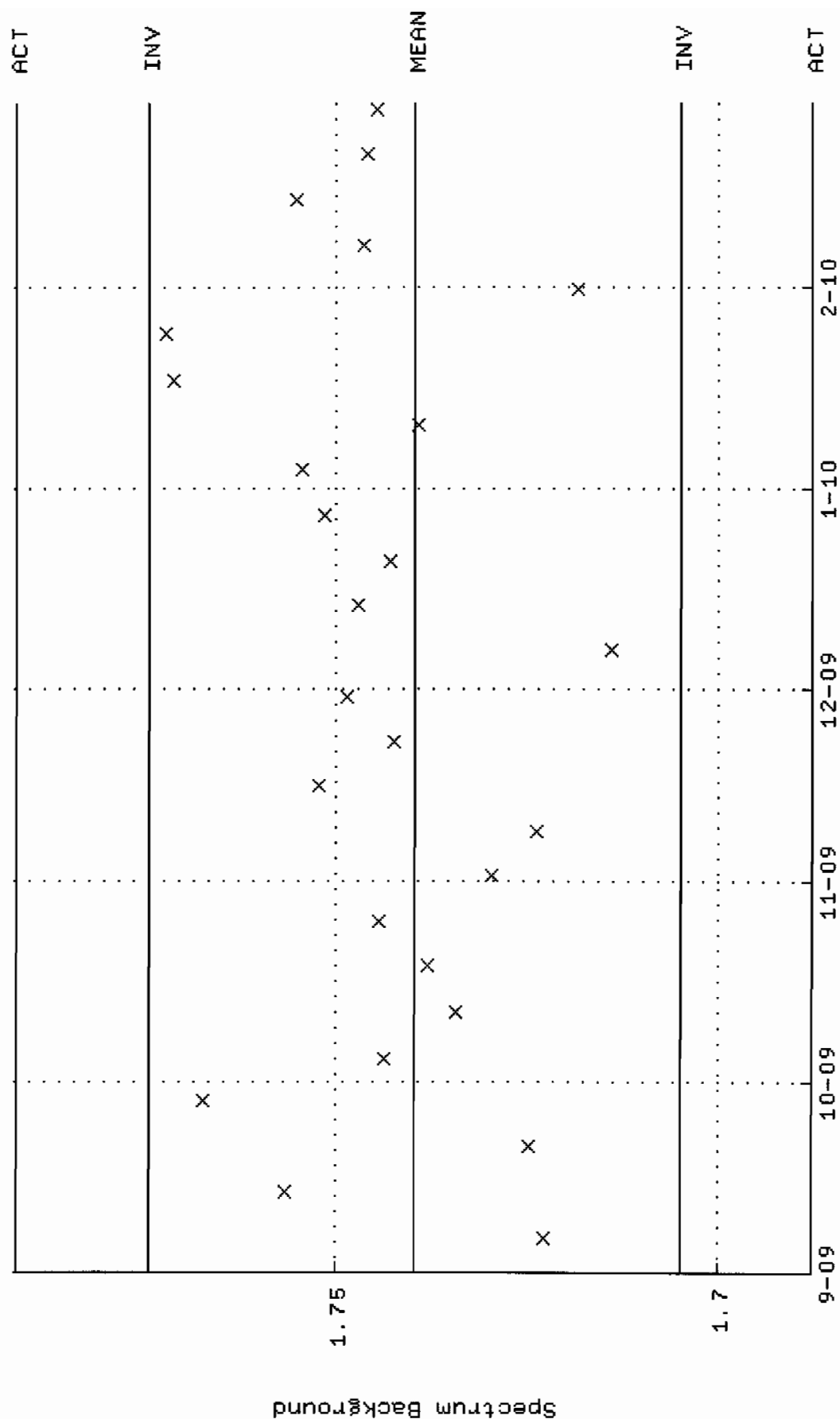
QA filename : DKA100: [CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 6-SEP-2009 11:43:44 through 1-MAR-2010 12:00:00
 Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)



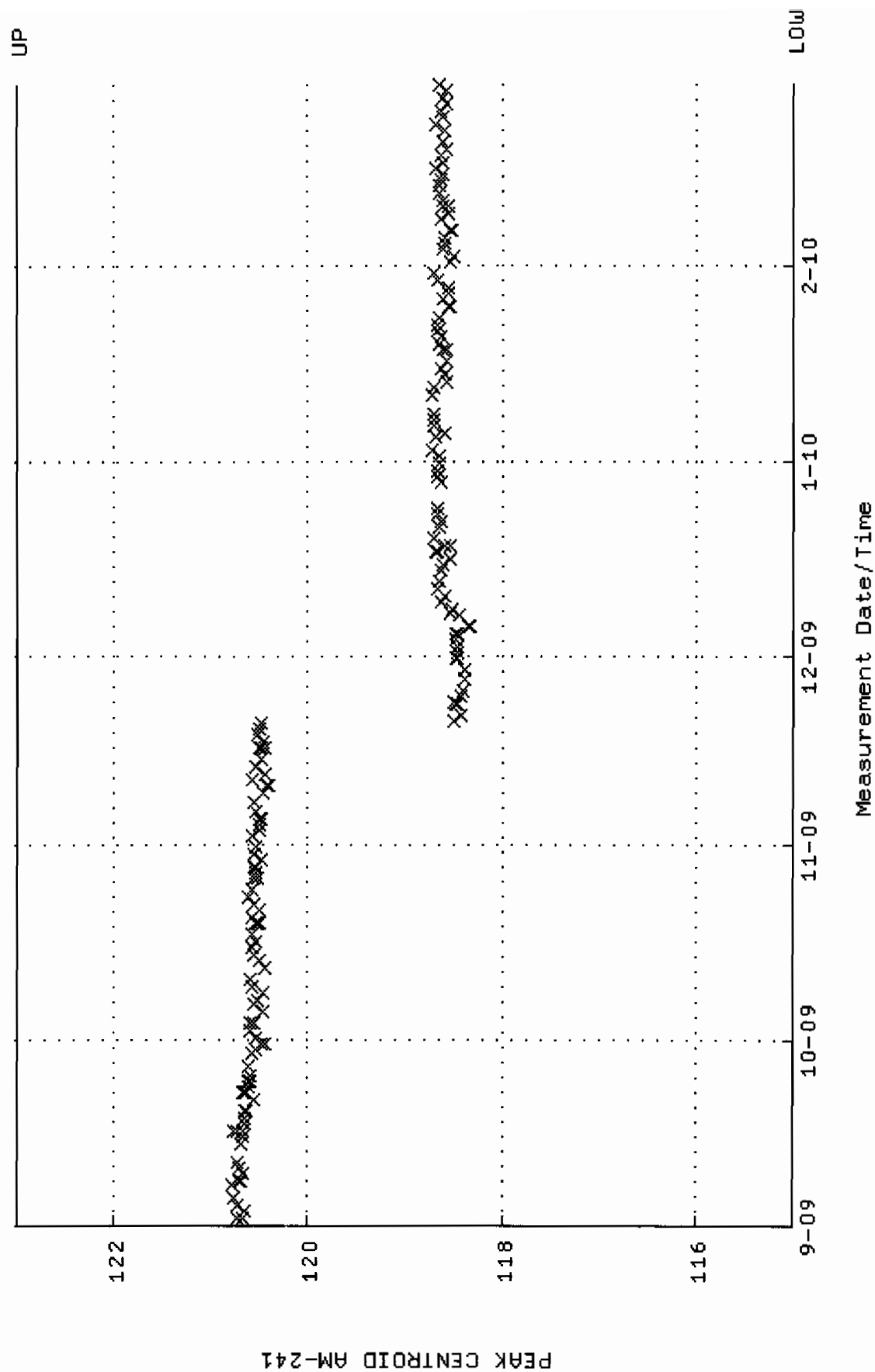
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC-GAM16-CAN.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 2-SEP-2009 04:53:02 through 1-MAR-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



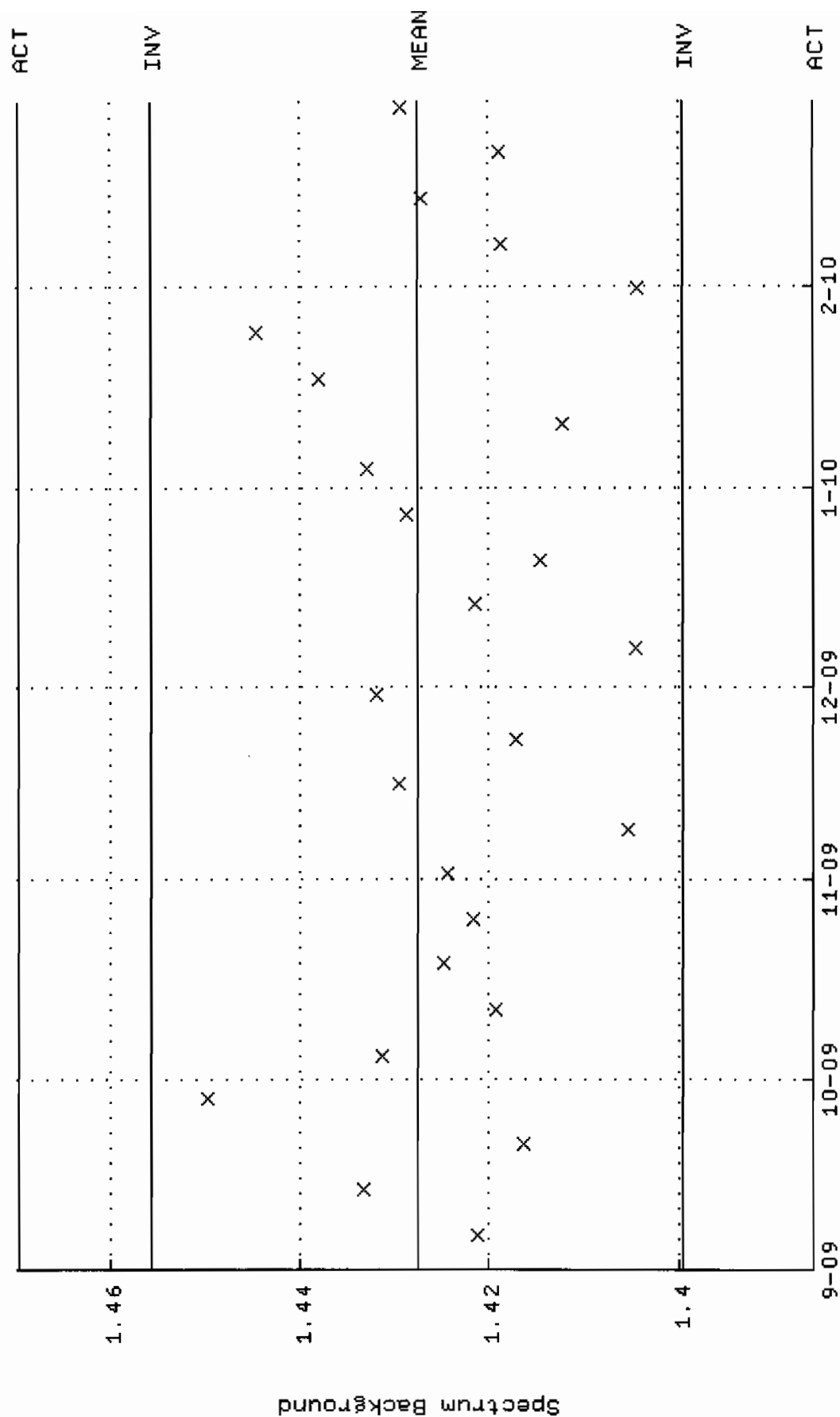
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM16.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 6-SEP-2009 11:44:09 through 1-MAR-2010 12:00:00
 Mean +- Std Dev : 1.73980 +- 1.729897E-02 (0.99 %)



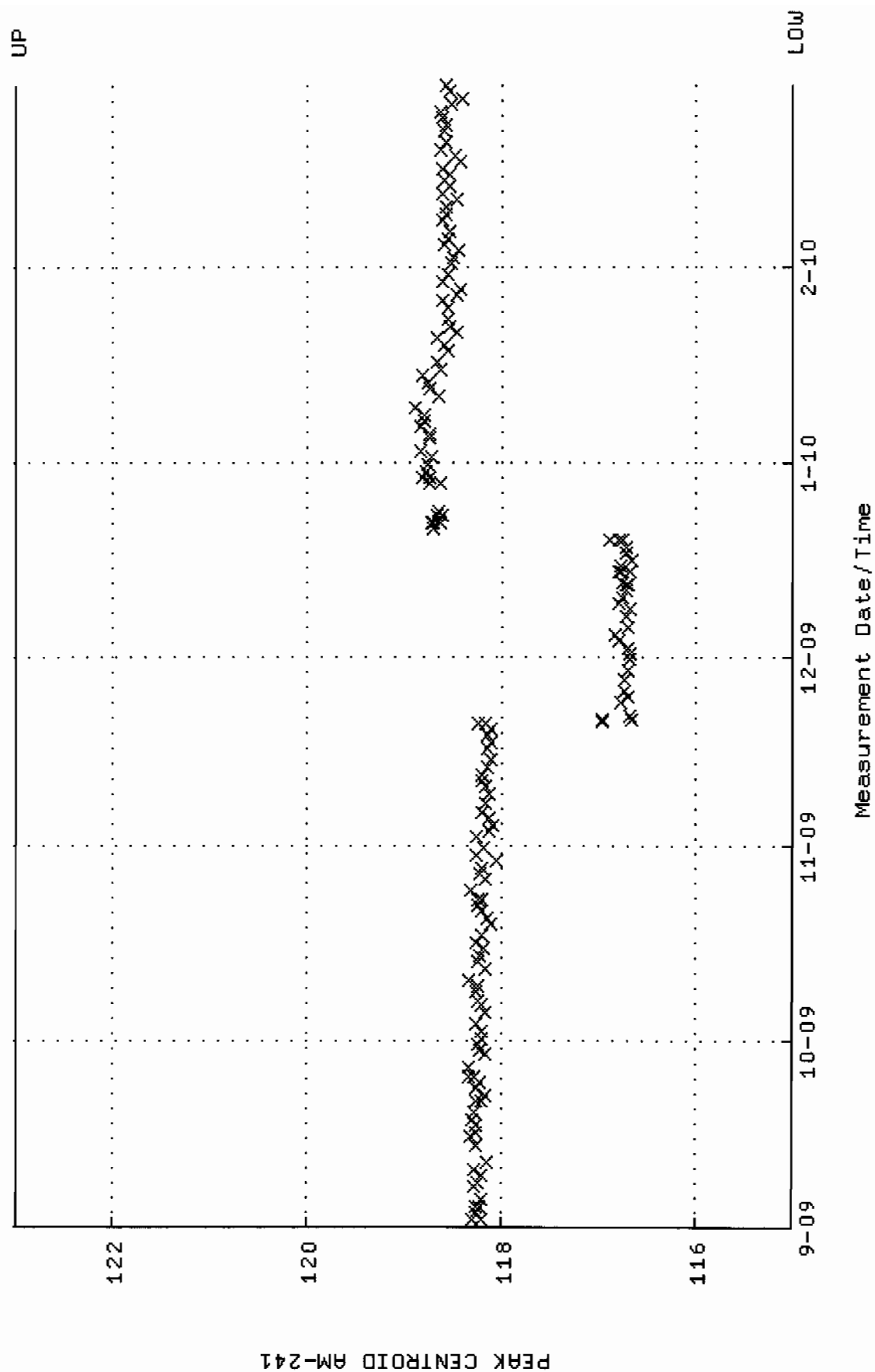
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM17_CAN.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 2-SEP-2009 05:06:49 through 1-MAR-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000



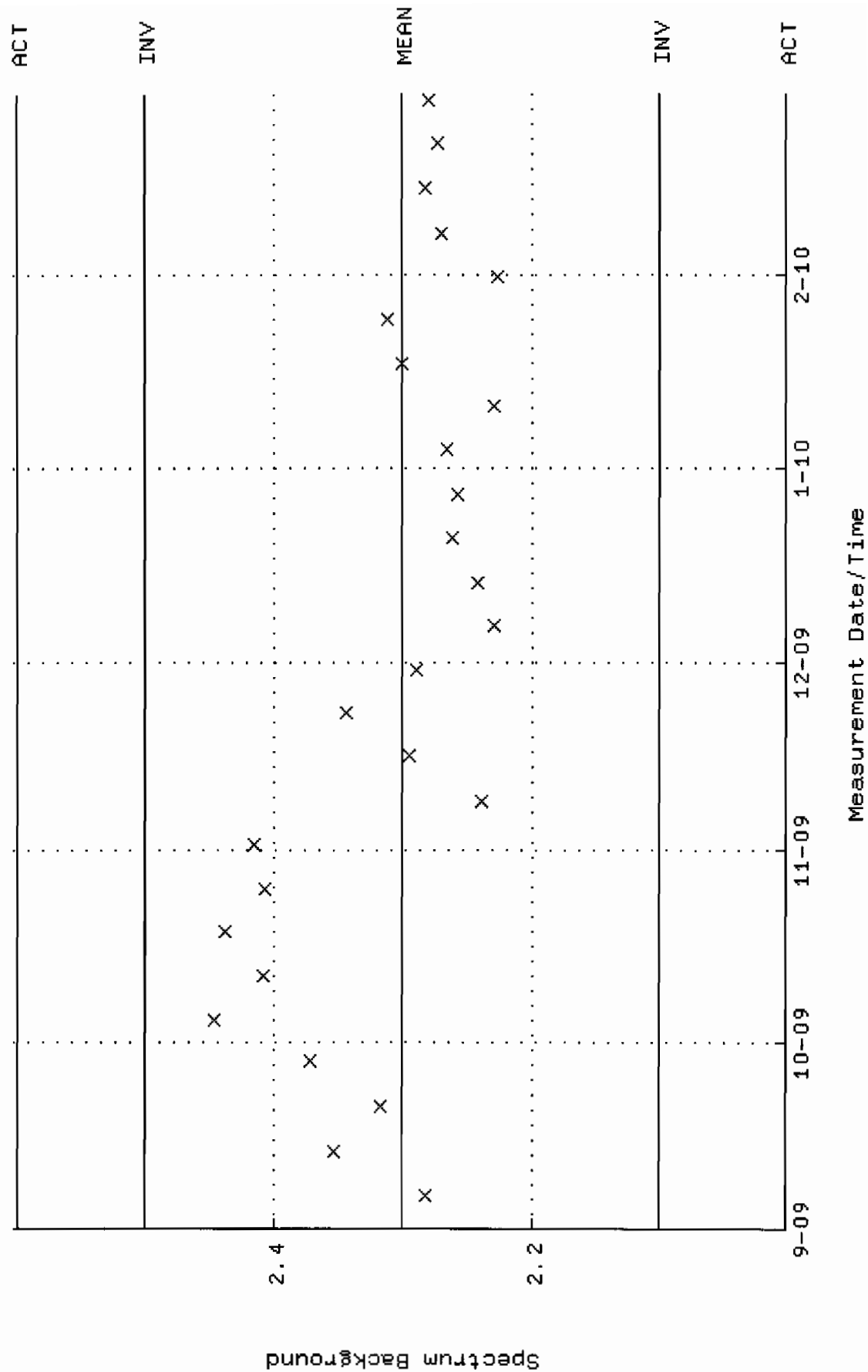
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM17.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 6-SEP-2009 11:44:33 through 1-MAR-2010 12:00:00
 Mean +- Std Dev : 1.42766 +- 1.396974E-02 (0.98 %)



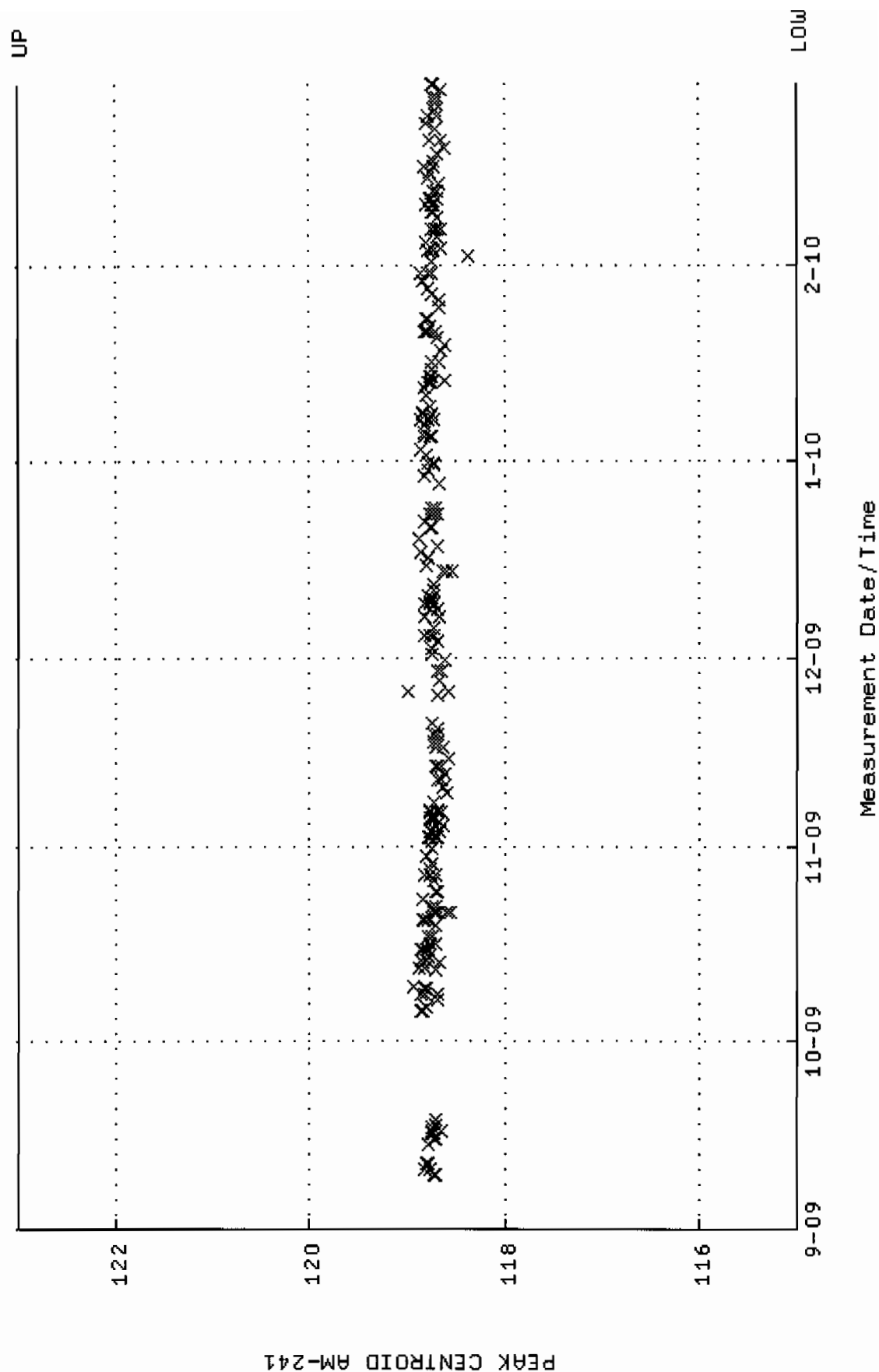
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:13:07 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



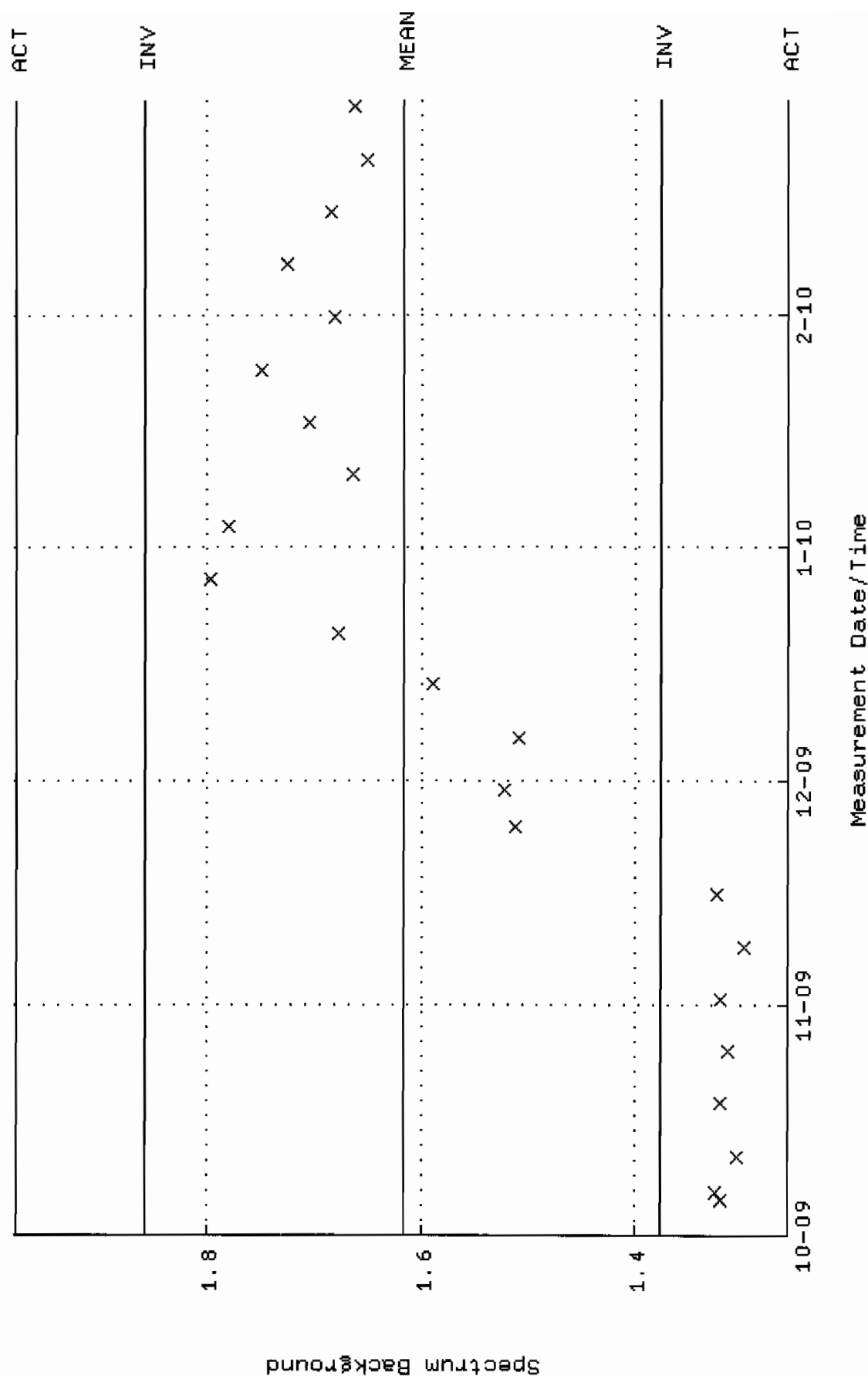
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM18.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 6-SEP-2009 11:45:03 through 1-MAR-2010 12:00:00
 Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)



QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
 Start/End Dates : 9-SEP-2009 16:19:12 through 1-MAR-2010 12:00:00
 Lower/Upper Lmts: 115.000 through 123.000

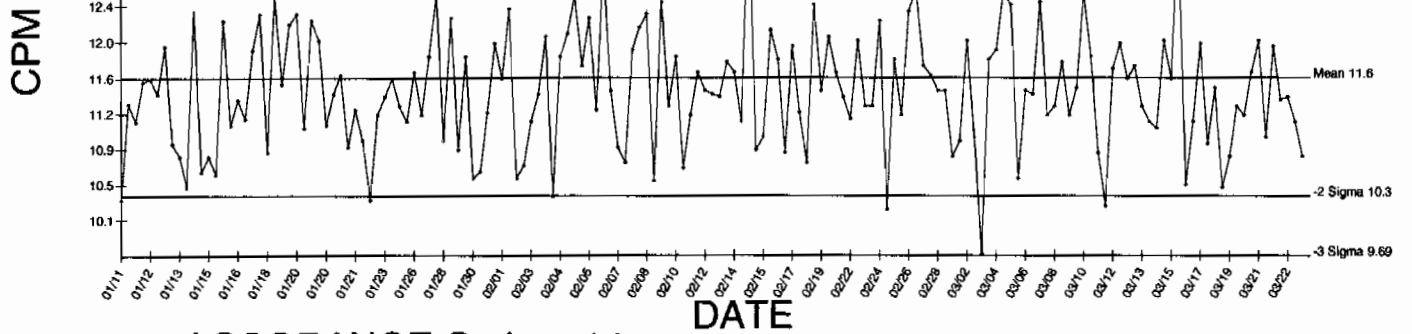


QA filename : DKA100:[CANSBERRA.GAMMA.SCUSR.QA]LBC_GAM23.QAF;1
 Parameter Name : BACKRATE (Spectrum Background Rate)
 Start/End Dates : 5-OCT-2009 15:13:53 through 1-MAR-2010 12:00:00
 Mean +- Std Dev : 1.61827 +- 0.119991 (7.41 %)

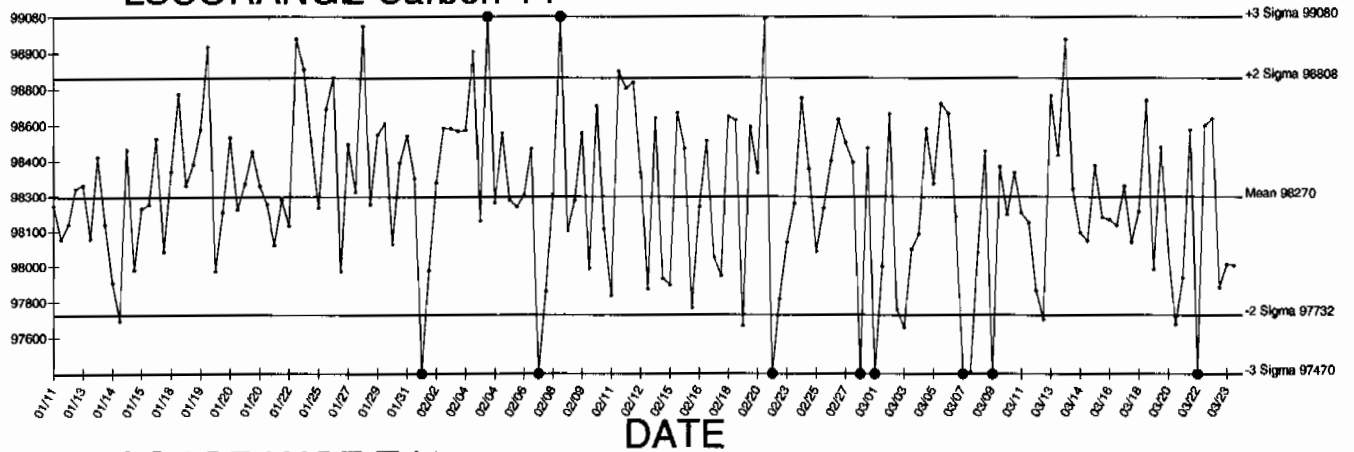


LSCORANGE BKG

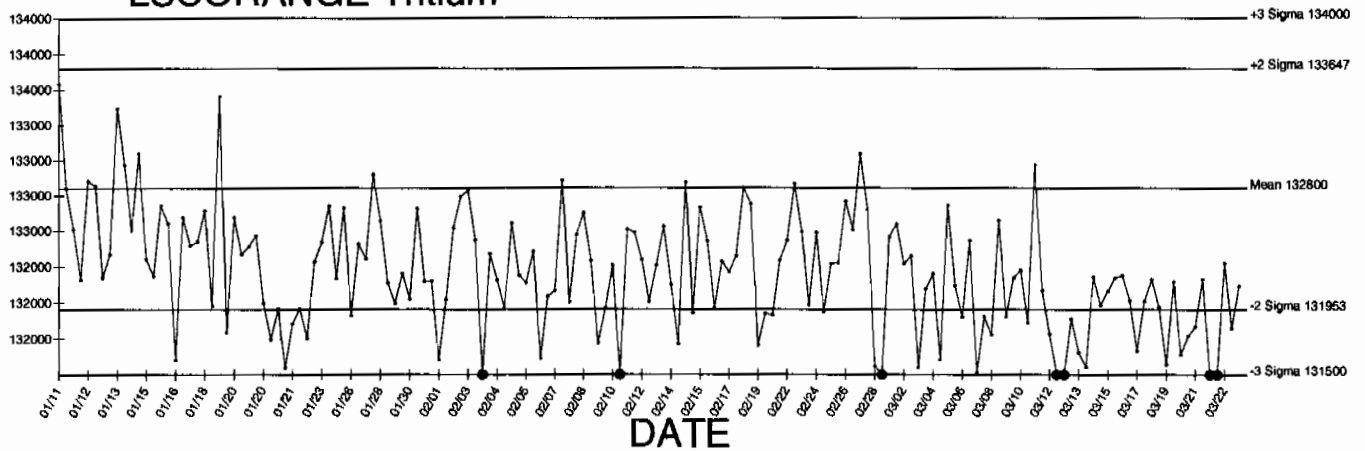
Generated 03/23/2010



LSCORANGE Carbon-14



LSCORANGE Tritium



● Denotes Outlier

STANDARDS DATA

0134



CALIBRATION
No. 0146

Description Radionuclide: TRITIUM (HYDROGEN-3)

Product code: TRY-64

Chemical form: water

Batch: 111

Measurement Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute
per gram of water

Method of Measurement

This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than $\pm 2.5\%$

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99.7% confidence level, and the estimated systematic uncertainties.

Purity No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data Half-life of tritium: 12.43 ± 0.11 years

Maximum beta energy of tritium: 18.6 keV

Remarks: The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = 3.7×10^{10} becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = 3.7×10^4 Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27.027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

**Approved
signatory**

Standard Traceability Log Rad

Source Material Info		A Solution Material Info	
Parent Code:	0134	Isotope:	Tritium
Prepared By:	Angela Johnson	Prepared By:	Angela Johnson
Carrier Conc:	DI WATER	Prep Date:	02/21/2001
Reference Date:	03/01/1996	Verification Date:	09/10/2008
Ampoule Mass (g):	5 g	Expiration Date:	03/27/2010
Uncertainty:	+/- 2.5 %	Primary Code:	0134-A
LogBook No:	RC S 023 061	Dilution(mL):	100 mL
		Mass of Parent(g):	3.3659 g
		Density(g/mL):	1.0004
		Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

$(\text{Mass of parent(g)}) * (\text{Parm Activity (kBq/g)}) * (\text{conversion dpm to kBq}) / (\text{Dilution Vol}) = \text{Parent Activity (dpm/mL)}$
$(\text{Mass of parent(g)}) * (\text{Parm Activity (kBq/g)}) * (\text{conversion dpm to kBq}) / \text{Density (g/mL)} / (\text{Dilution Vol}) = \text{Parent Activity (dpm/g)}$
$(3.3659 \text{ g}) * (488 \text{ kBq/g}) * (60000 \text{ dpm/kBq}) / (100 \text{ mL}) = 985535.5200 \text{ dpm/mL}$
$(3.3659 \text{ g}) * (488 \text{ kBq/g}) * (60000 \text{ dpm/kBq}) / (1.0004 \text{ g/mL}) / (100 \text{ mL}) = 985180.3116 \text{ dpm/g}$

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders 4/9/2009	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff Mass. Used (mL)	Source DPM/mL
	0134-K N1	1097.2000	54.0000	1043.2000	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	1.0000	2678.242965
	0134-K N3	1085.2000	54.0000	1031.2000	1.0000	2709.776428
Mean Value (Counting) =	2709.776428					
Stdev =	31.53347278					

104.954429
0.01163693 Rule 3 (Pass/Fail)

Certificate Value = 2581.86 dpm/mL
 Lower Limit = 2646.709482 dpm/mL
 Upper Limit = 2772.843373 dpm/mL
 Rule 1 Pass/Fail Fail *exception taken due to full recovery of standard
 Two sigma = 63.06694556 dpm/mL
 10 % of Mean = 270.9776428 dpm/mL
 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 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

$$\text{Source dpm/g} = (A - B)/(C)(D)$$

where:

- A = Ver. source cpm,
- B = BKG cpm,
- C = System efficiency, (cpm/dpm), and
- D = mass used for standard verification.

Reference RAD SOP M-001

Henry Griffiths 4/12/09
Amanda L. Lehn 4/9/09

1032

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytix 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:

J.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	2.8
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		A Solution Material Info	
Parent Code:	1032	Isotope:	Mixed Gamma
Prepared By:	Daniel Roy	Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL	Prep Date:	11/30/2006
Reference Date:	10/01/2006	Verification Date:	12/02/2009
Ampoule Mass (g):	5.31725 g	Expiration Date:	12/02/2010
Uncertainty:	+/- 2.81 %	Primary Code:	1032-A
LogBook No:	RC-S-045-073	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
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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
Stdev = 64.065
Pass
Rule 3 (Pass/Fail)

Certificate Value = 2485.68018
Lower Limit = 2357.536524
Upper Limit = 2613.796809
Rule 1 (Pass/Fail) Pass
Two sigma = 128.1301422
10 % of Mean = 248.5666667
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.

M. Stamps
12/2/09
independent
12/2/09

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Ce-137

Isotope	Result	pCi/L - Ver. Tab. 1
Mixed Gamma N1	854.2	pCi/L
Mixed Gamma N2	907.6	pCi/L - Ver. Tab. 3
Mixed Gamma N3	898.9	pCi/L - Ver. Tab. 2

Mean Value (Counting) =
Stdev =

886.90
28.651

95.01

Pass

Rule 3 (Pass/Fail)

Certificate Value =
Lower Limit =
Upper Limit =
Rule 1 (Pass/Fail)
Two sigma =
10 % of Mean =
Rule 2 (Pass/Fail)

933.44144
829.597644
944.202356
Pass
57.30235597
88.69000000
Pass

pCi/L
pCi/L
pCi/L

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:
12/2/09
12/2/09
12/2/09

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)

Isotope	Result	pCi/L - Ver-Int-5
Mixed Gamma N1	1572	pCi/L - Ver-Int-2
Mixed Gamma N2	1495	pCi/L - Ver-Int-3
Mixed Gamma N3	1501	

Mean Value (Counting) =
Stdev =

1522.67
42.829
98.50
Rule 3 (Pass/Fail)

Certificate Value =
Lower Limit =
Upper Limit =
Rule 1 (Pass/Fail)
Two sigma =
10 % of Mean =
Rule 2 (Pass/Fail)

1545.8378
1437.008431
1608.324902
Pass
85.65823564
152.26666667
Pass

pCi/L
pCi/L
pCi/L

M. Stamps 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 4/11/2000 *lett c held 12/1/04*

angela d. johnson 12/3/04

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-225	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb-210	425 ± 18	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

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. Feby 4/30/04
 Pitt & Shale 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
Half Life: 7380 \pm 40 years
Catalog No.: 7243
Source No.: 445-96-2

Customer: GENERAL ENGINEERING LABS
P.O.No.: 9290-RAD
Reference Date: January 1 1994 12:00 PST.
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(NO₃)₃ in 2N HNO₃
c. Carrier content: None added
d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities

None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μ Ci/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.
Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: $\pm 3.0\%$
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:	03/09/2010
Ampoule Mass (g):	5.3739 g	Expiration Date:	03/09/2011
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	Tara Sides	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/14/2009	09/14/2010
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
03/09/2010	Ashley Drochter	.011	1000	445-96-2-VV	22.7878 dpm/mL	03/09/2010	03/09/2011
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
03/23/2010	Ashley Drochter	.0163	1000	445-96-2-WW	33.7674 dpm/mL	03/23/2010	03/23/2011
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 =	0.043588989		Rule 3 (Pass/Fail)
Target =	1.314		
Lower Limit =	1.252822021		
Upper Limit =	1.427177979		
Rule 1 Pass/Fail	Pass		
Two sigma =	0.087177979		
10 % of Mean =	0.134		
Rule 2 (Pass/Fail)	Pass		

The analyst prepared three standard verification sources for standard **445-96-2-SS** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **Cm-244** standard **0533-O** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd (and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-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.

M. Aders 5/15/09
Taheri 05/15/09



NATIONAL PHYSICAL LABORATORY

Teddington Middlesex UK TW11 0LW Telephone +44 20 8977 3222

Certificate of Calibration



0478

PLUTONIUM-236 SOLUTION

R37-02

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

FOR: GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29407
USA

FOR THE ATTENTION OF: Mr Tim Winters

NPL PRODUCT CODE: R37-02

IDENTIFICATION: A09881

DESCRIPTION: An aqueous solution of ^{236}Pu also containing 2 mol dm^{-3} of nitric acid. The solution is contained in a flame sealed ampoule of type Q and nominal volume 5 ml (squat) as defined in BS 795:1983.

DATE(S) OF CALIBRATION: 26 June 2009 to 1 July 2009

INTENDED USE: Calibration of instruments for response to ^{236}Pu

STORAGE: The material may be stored at room temperature in a suitably sealed container. Flame-sealed glass ampoules are recommended for long-term storage. Regulatory conditions may apply to the manner in which this material is stored.

MEASUREMENTS

The samples were prepared by gravimetric dilution of a ^{236}Pu solution, which had been previously standardised using liquid scintillation counting. The accuracy of the dilution factor was checked using liquid scintillation counting.

Reference: 2009100356

Date of Issue: 4 November 2009

Checked by: *Ch Ali*
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Signed: *[Signature]*
Name: Dr Arvic Harms

(Authorised Signatory)
for Managing Director

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RESULTS

Principal radionuclide:	^{236}Pu
Reference time:	2009-07-01 12:00 UTC
Activity concentration of principal radionuclide:	170.8 Bq g^{-1}
Expanded uncertainty:	$\pm 0.6 \text{ Bq g}^{-1} (\pm 0.36 \%)$
Contaminants present:	$^{226}\text{Ra}, ^{232}\text{U}, ^{228}\text{Th}, ^{237}\text{Np}$
Activity concentration of ^{226}Ra :	11.0 mBq g^{-1}
Expanded uncertainty:	$\pm 4.0 \text{ mBq g}^{-1} (\pm 36 \%)$
Activity concentration of ^{232}U :	0.67 Bq g^{-1}
Expanded uncertainty:	$\pm 0.12 \text{ Bq g}^{-1} (\pm 18 \%)$
Activity concentration of ^{228}Th :	11.38 mBq g^{-1}
Expanded uncertainty:	$\pm 0.46 \text{ mBq g}^{-1} (\pm 4 \%)$
Activity concentration of ^{237}Np :	5.00 mBq g^{-1}
Expanded uncertainty:	$\pm 0.34 \text{ mBq g}^{-1} (\pm 8 \%)$
Sample Mass:	$4.97 \text{ g} \pm 0.02 \text{ g}$

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor $k=2$, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

NOTES

- [1]. The reported reference time is stated consistent with the format given in ISO 8601:2004. UTC is the abbreviation for Universal Time, Coordinated. The date is stated in the format YYYY-MM-DD such that 2008-09-01 represents 1 September 2008.
- [2]. The recommended half life of ^{236}Pu is 1044 (6) days and is taken from the evaluations published in *Nuclear Data Sheets*.
- [3]. The recommended half life of ^{226}Ra is $5.844 (50) \times 10^5$ days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.
- [4]. The recommended half life of ^{232}U is 25800 (800) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.
- [5]. The recommended half life of ^{237}Np is $7.83 (6) \times 10^8$ days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.
- [6]. The recommended half life of ^{228}Th is 698.60 (46) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor $k=2$, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Standard Traceability Log Rad

Source Material Info		A Solution Material Info	
Parent Code:	1430	Isotope:	Plutonium-236
Prepared By:	Ashley Drochter	Prepared By:	Ashley Drochter
Carrier Conc:	2 M HNO3	Prep Date:	01/27/2010
Reference Date:	07/01/2009	Verification Date:	01/27/2010
Ampoule Mass (g):	4.97 g	Expiration Date:	01/27/2011
Uncertainty:	+/- .36 %	Primary Code:	1430-A
LogBook No:	RC-S-051-149	Dilution(mL):	100 mL
		Mass of Parent(g):	4.8051 g
		Density(g/mL):	1.0610
		Balance ID:	38080204

Calculations Converting parent activity to dpm/mL/dpm/g

$(\text{Mass of parent(g)}) * (\text{Parm Activity (Bq/g)}) * (\text{conversion dpm to Bq}) / (\text{Dilution Vol}) = \text{Parent Activity (dpm/mL)}$
$(\text{Mass of parent(g)}) * (\text{Parm Activity (Bq/g)}) * (\text{conversion dpm to Bq}) / \text{Density (g/mL)} / (\text{Dilution Vol}) = \text{Parent Activity (dpm/g)}$
$(4.8051 \text{ g}) * (170.8 \text{ Bq/g}) * (60 \text{ dpm/Bq}) / (100 \text{ mL}) = 492.4266 \text{ dpm/mL}$
$(4.8051 \text{ g}) * (170.8 \text{ Bq/g}) * (60 \text{ dpm/Bq}) / (1.0610 \text{ g/mL}) / (100 \text{ mL}) = 464.1156 \text{ dpm/g}$

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/27/2010	Bethany Fiem	33.0429	200	1430-B	76.6786262 dpm/mL	01/27/2010	01/27/2011
03/01/2010	Ashley Drochter	15.2331	200	1430-C	35.3496 dpm/mL	03/01/2010	03/01/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-236 Standard 1430-C

	Isotope	Value	Uncertainty
A. Drochter 3/4/2010	1430-C	2.760	0.4480
	1430-C	2.770	0.4520
	1430-C	2.950	0.4850
Mean Value (Counting) =	2.827	104.54659 % of Known Value	
Stdev =	0.106926766		
Target =	2.70		
Lower Limit =	2.612813134		
Upper Limit =	3.040520199		
Rule 1 Pass/Fail	Pass	Pass	Pass
Two sigma =	0.213853532		
10 % of Mean =	0.282686667		
Rule 2 (Pass/Fail)	Pass		

The analyst prepared three standard verification sources for standard 1430-B using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. After approximately ten minutes, 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-236 were calculated by comparison to Pu-239 certified values.

file 3/5/10
file 3/5/10



Eckert & Ziegler
Analytics

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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: W. Mao

W. Mao, Radiochemist

QA Approved: D. M. 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	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard 1283-H

Analyst: A. Drochta
Date: 12/10/09

Serial #	Value	Uncertainty
1283-H N1	2.020	pCi/L 0.238
1283-H N2	2.000	pCi/L 0.234
1283-H N3	2.060	pCi/L 0.242

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. Drochta
12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER

Batch ID: 959281

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248250001	SAMPLE	MXR1	GAM01	19-MAR-10 13:10	DONE CAN		12-JAN-10 00:00
248250002	SAMPLE	MXR1	GAM15	19-MAR-10 13:10	DONE CAN		03-FEB-10 00:00
248250003	SAMPLE	MXR1	GAM16	19-MAR-10 13:11	DONE CAN		16-NOV-09 00:00
248250004	SAMPLE	MXR1	GAM17	19-MAR-10 13:11	DONE CAN		06-JAN-10 00:00
248258001	SAMPLE	MXR1	GAM18	19-MAR-10 13:11	DONE CAN		23-APR-09 00:00
248258002	SAMPLE	MXR1	GAM19	19-MAR-10 13:12	DONE CAN		12-MAR-09 00:00
248258003	SAMPLE	MXR1	GAM20	19-MAR-10 13:12	DONE CAN		26-AUG-09 00:00
248258004	SAMPLE	MXR1	GAM21	19-MAR-10 13:13	DONE CAN		28-JUL-09 00:00
248258005	SAMPLE	MXR1	GAM22	19-MAR-10 13:13	DONE CAN		02-DEC-09 00:00
248258006	SAMPLE	MXR1	GAM23	19-MAR-10 13:14	DONE CAN		02-JUN-09 00:00
248258007	SAMPLE	MXR1	GAM25	19-MAR-10 13:14	DONE CAN		07-OCT-09 00:00
1202057358	MB	MXR1	GAM29	19-MAR-10 13:14	DUSE CAN		23-FEB-10 00:00
1202057360	LCS	MXR1	GAM02	19-MAR-10 13:22	DONE CAN		29-OCT-09 00:00
1202057359	DUP	MXR1	GAM01	19-MAR-10 15:33	DONE CAN		12-JAN-10 00:00
1202057358	MB	MXR1	GAM23	22-MAR-10 10:34	DONE CAN		02-JUN-09 00:00

Instrument Run Log

Instrument Type: LSC

Batch ID: 964058

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248250001	SAMPLE	KXK2	LSCORANGE	23-MAR-10 07:24	DONE		
248250002	SAMPLE	KXK2	LSCORANGE	23-MAR-10 08:11	DONE		
248250003	SAMPLE	KXK2	LSCORANGE	23-MAR-10 08:59	DONE		
248250004	SAMPLE	KXK2	LSCORANGE	23-MAR-10 09:46	DONE		
248376001	SAMPLE	KXK2	LSCORANGE	23-MAR-10 10:34	DONE		
248376002	SAMPLE	KXK2	LSCORANGE	23-MAR-10 11:22	DONE		
248376003	SAMPLE	KXK2	LSCORANGE	23-MAR-10 12:09	DONE		
248376004	SAMPLE	KXK2	LSCORANGE	23-MAR-10 12:57	DONE		
248376005	SAMPLE	KXK2	LSCORANGE	23-MAR-10 13:44	DONE		
248376006	SAMPLE	KXK2	LSCORANGE	23-MAR-10 14:32	DONE		
248376007	SAMPLE	KXK2	LSCORANGE	23-MAR-10 15:20	DONE		
248376008	SAMPLE	KXK2	LSCORANGE	23-MAR-10 16:07	DONE		
248376009	SAMPLE	KXK2	LSCORANGE	23-MAR-10 16:55	DONE		
248376010	SAMPLE	KXK2	LSCORANGE	23-MAR-10 17:42	DONE		
248376011	SAMPLE	KXK2	LSCORANGE	23-MAR-10 18:30	DONE		
248376012	SAMPLE	KXK2	LSCORANGE	23-MAR-10 19:17	DONE		
248376013	SAMPLE	KXK2	LSCORANGE	23-MAR-10 20:05	DONE		
1202068219	MB	KXK2	LSCORANGE	23-MAR-10 20:52	DONE		
1202068220	DUP	KXK2	LSCORANGE	23-MAR-10 21:40	DONE		
1202068221	LCS	KXK2	LSCORANGE	23-MAR-10 22:27	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER

Batch ID: 964871

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248248001	SAMPLE	JXD2	1241	24-MAR-10 20:56	DONE		
248248002	SAMPLE	JXD2	1242	24-MAR-10 20:56	DONE		
248248003	SAMPLE	JXD2	1243	24-MAR-10 20:56	DUSE		
248248004	SAMPLE	JXD2	1244	24-MAR-10 20:56	DONE		
248248005	SAMPLE	JXD2	1245	24-MAR-10 20:56	DONE		
248248006	SAMPLE	JXD2	1246	24-MAR-10 20:56	DONE		
248248007	SAMPLE	JXD2	1247	24-MAR-10 20:56	DONE		
248248008	SAMPLE	JXD2	1248	24-MAR-10 20:56	DONE		
248250001	SAMPLE	JXD2	1249	24-MAR-10 20:56	DONE		
248250002	SAMPLE	JXD2	1250	24-MAR-10 20:56	DONE		
248250003	SAMPLE	JXD2	1251	24-MAR-10 20:56	DONE		
248250004	SAMPLE	JXD2	1252	24-MAR-10 20:56	DONE		
248258001	SAMPLE	JXD2	1253	24-MAR-10 20:56	DUSE		
248258002	SAMPLE	JXD2	1254	24-MAR-10 20:56	DONE		
248258003	SAMPLE	JXD2	1089	24-MAR-10 21:59	DONE		
248258004	SAMPLE	JXD2	1090	24-MAR-10 21:59	DONE		
248258005	SAMPLE	JXD2	1091	24-MAR-10 21:59	DONE		
248258006	SAMPLE	JXD2	1093	24-MAR-10 21:59	DONE		
248258007	SAMPLE	JXD2	1094	24-MAR-10 21:59	DONE		
1202070038	MB	JXD2	1232	25-MAR-10 07:54	DONE		
1202070039	DUP	JXD2	1233	25-MAR-10 07:54	DONE		
1202070040	LCS	JXD2	1234	25-MAR-10 07:54	DONE		
248258001	SAMPLE	JXD2	1089	25-MAR-10 23:38	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER

Batch ID: 964872

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248248001	SAMPLE	JXD2	1045	24-MAR-10 21:09	DONE		
248248002	SAMPLE	JXD2	1046	24-MAR-10 21:09	DONE		
248248003	SAMPLE	JXD2	1048	24-MAR-10 21:09	DONE		
248248004	SAMPLE	JXD2	1065	24-MAR-10 21:09	DONE		
248248005	SAMPLE	JXD2	1066	24-MAR-10 21:09	DONE		
248248006	SAMPLE	JXD2	1067	24-MAR-10 21:09	DONE		
248248007	SAMPLE	JXD2	1068	24-MAR-10 21:09	DONE		
248248008	SAMPLE	JXD2	1069	24-MAR-10 21:09	DONE		
248250001	SAMPLE	JXD2	1072	24-MAR-10 21:09	DONE		
248250002	SAMPLE	JXD2	1073	24-MAR-10 21:09	DONE		
248250003	SAMPLE	JXD2	1074	24-MAR-10 21:09	DONE		
248250004	SAMPLE	JXD2	1075	24-MAR-10 21:09	DONE		
248258001	SAMPLE	JXD2	1076	24-MAR-10 21:09	DONE		
248258002	SAMPLE	JXD2	1077	24-MAR-10 21:09	DONE		
248258003	SAMPLE	JXD2	1079	24-MAR-10 21:09	DONE		
248258004	SAMPLE	JXD2	1080	24-MAR-10 21:09	DONE		
248258005	SAMPLE	JXD2	1081	24-MAR-10 21:09	DONE		
248258006	SAMPLE	JXD2	1082	24-MAR-10 21:09	DONE		
248258007	SAMPLE	JXD2	1083	24-MAR-10 21:09	DONE		
1202070043	MB	JXD2	1084	24-MAR-10 21:09	DONE		
1202070044	DUP	JXD2	1085	24-MAR-10 21:09	DONE		
1202070045	LCS	JXD2	1086	24-MAR-10 21:09	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER

Batch ID: 964874

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248258007	SAMPLE	JXD2	1004	25-MAR-10 12:59	DONE		
1202070047	MB	JXD2	1005	25-MAR-10 12:59	DONE		
1202070048	DUP	JXD2	1006	25-MAR-10 12:59	DONE		
1202070049	LCS	JXD2	1009	25-MAR-10 12:59	DONE		
248248001	SAMPLE	JXD2	1121	25-MAR-10 14:16	DONE		
248248002	SAMPLE	JXD2	1122	25-MAR-10 14:16	DONE		
248248003	SAMPLE	JXD2	1123	25-MAR-10 14:16	DONE		
248248004	SAMPLE	JXD2	1124	25-MAR-10 14:16	DONE		
248248005	SAMPLE	JXD2	1125	25-MAR-10 14:16	DONE		
248248006	SAMPLE	JXD2	1126	25-MAR-10 14:16	DONE		
248248007	SAMPLE	JXD2	1127	25-MAR-10 14:16	DONE		
248248008	SAMPLE	JXD2	1128	25-MAR-10 14:16	DONE		
248250001	SAMPLE	JXD2	1129	25-MAR-10 14:16	DONE		
248250002	SAMPLE	JXD2	1130	25-MAR-10 14:16	DONE		
248250003	SAMPLE	JXD2	1131	25-MAR-10 14:16	DONE		
248250004	SAMPLE	JXD2	1132	25-MAR-10 14:16	DONE		
248258001	SAMPLE	JXD2	1133	25-MAR-10 14:16	DONE		
248258002	SAMPLE	JXD2	1134	25-MAR-10 14:16	DONE		
248258003	SAMPLE	JXD2	1135	25-MAR-10 14:16	DONE		
248258004	SAMPLE	JXD2	1136	25-MAR-10 14:17	DONE		
248258005	SAMPLE	JXD2	1139	25-MAR-10 14:17	DONE		
248258006	SAMPLE	JXD2	1140	25-MAR-10 14:17	DONE		