



Thursday, February 25, 2010

REQUEST NUMBER: 10-2124

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOPU	1	RE36-10-8282	R	2/23/2010	
	HASL-300:ISOU	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:8010B	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:8020	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:8850	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:7471A	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:8082	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:8280B	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:8270C	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:8321A_MOD	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:9012A	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:9045C	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	

Final Page of REQUEST NUMBER 10-2124

Thursday, February 25, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2124

LOS ALAMOS

REQUEST NUMBER: 10-2124

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/27/2010

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
RE36-10-8282	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8282	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8282	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE36-10-8282	1	POLY	H3	Ice	R
RE36-10-8282	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8282	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-8281	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8281	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8281	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE36-10-8281	1	POLY	H3	Ice	R
RE36-10-8281	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8281	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



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00071

Request or PO Number:

Client Sample ID: RE36-10-8281

ARS Sample ID: ARS2-10-00071-013

Sample Collection Date: 02/23/10 15:00

Date Received: 02/24/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/25/10 12:54

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	237.23	68.80	37.46	74.68		pCi/g	EPA 900.0M	2/24/2010	ME	N/A
GROSS BETA	147.68	28.40	18.42	32.00		pCi/g	EPA 900.0M	2/24/2010	ME	N/A
NA-22	-0.03	34.52	0.11	34.52		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
K-40	0.40	5.21	1.19	5.22		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
CO-60	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
CS-134	0.21	0.18	0.15	0.18		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
CS-137	0.05	0.20	0.09	0.20		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
SU-152	-0.47	133.61	0.30	133.61		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
PB-212	0.70	0.39	0.19	0.40		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
RA-228	0.00	128.88	0.29	128.88		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
U-235	1.83	0.85	0.54	0.86		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
U-238	5.79	3.28	1.18	3.54		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
AM-241	0.01	0.15	0.09	0.15		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
NOTES: % Moisture: 3.08										

*Matthew A. Edm*  
Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # E87558



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2505

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

SAMPLE ID: RE36-10-8281

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/23/2010		MEDIA:	QBT3		Ally
TIME COLLECTED (HH:MM)		1500		SUB-MEDIA:	TUFF 1		NA
PRS ID:	C-36-003		ok	SAMPLE TECH CODE:	HA		ok
LOCATION ID:	36-610825		↓	FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC		↓	FIELD PREP:	NA		↓
TOP DEPTH:	0		0.0	SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0		1.0	SCREEN/PORT DESC:			NA
FIELD MATRIX:	R		S	EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
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 and black foamy soil, organics (roots)

SAMPLE COMMENTS:

NA

LOCATION DESC:

B-6

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  35 dpm  
Beta/Gamma  $\leq$  1644 dpm

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

73m 2/23/10

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT) Jon Roberson

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) TLMcFarland	2/23/10	(Printed Name) Sheri Sherwood	2/23/10
(Signature) TLMcFarland	1645	(Signature) Sheri Sherwood	1645
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: RE36-10-8282

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/23/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		1515		SUB-MEDIA:		TUFF 1	
PRS ID:	C-36-003	ok		SAMPLE TECH CODE:		HA	
LOCATION ID:	36-610825	↓		FIELD QC TYPE:		NA	
LOCATION TYPE:	GENERIC	↓		FIELD PREP:		NA	
TOP DEPTH:	0	2.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH:	0	2.5		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	R		EXCAVATED: YES/NO/NA		NA	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NO/NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA		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:

Gray tuff

SAMPLE COMMENTS:

Tuff at 2.0 ft

LOCATION DESC:

8-6

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 82 dpm  
Beta/Gamma = 2140 dpm

PID Ambient Reading = ppm

73m 2/23/10

COLLECTED BY (PRINT)

TLMcFarlane

REVIEWED BY (PRINT)

Jon Roberson

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) TLMcFarlane	2/23/10	(Printed Name) Sherin Sherwood	2/23/10
(Signature) [Signature]	1645	(Signature) [Signature]	1645
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00071  
 Client Sample ID: RE36-10-8282  
 Sample Collection Date: 02/23/10 15:15  
 Sample Matrix: Soil/Solid

Request or PO Number:  
 ARS Sample ID: ARS2-10-00071-014  
 Date Received: 02/24/10 00:00  
 Report Date: 02/25/10 12:54

Analyte Description	Analyte Results	Analyte Error +/- 2 s	MDC	TPU	Qual	Analyte Units	Analyte Test Method	Analyte Date/Time	Analyte Technician	Tracer/Chem Recovery
GROSS ALPHA	148.16	52.86	34.06	55.89		pCi/g	EPA 900.0M	2/24/2010	ME	N/A
GROSS BETA	78.77	20.65	17.92	22.79		pCi/g	EPA 900.0M	2/24/2010	ME	N/A
NA-22	-0.04	41.69	0.13	41.69		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
K-40	0.44	2.35	3.05	2.35		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
CO-60	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
CS-134	0.17	0.20	0.12	0.20		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
CS-137	0.10	0.14	0.08	0.14		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
EU-182	-0.56	161.37	0.36	161.37		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
PB-212	1.52	0.60	0.21	0.60		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
RA-228	1.06	0.43	0.35	0.43		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
U-235	0.37	0.69	0.81	0.69		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
U-238	4.01	3.78	1.55	3.89		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
AM-241	0.32	0.24	0.08	0.24		pCi/g	EPA 901.1M	2/24/2010	ME	N/A
NOTES: % Moisture: 0.78										

Quality Assurance Review

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LELAP Certificate # 30658

NELAP Certificate # E87558

**DATA VALIDATION COVER SHEET**

5114-1

**Data Validation Cover Sheet**

Records Use only

**Section I.**REQUEST NUMBER: 10-2124 VALIDATION DATE: 04/27/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Susan Ball 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 type="checkbox"/> RADIOCHEMISTRY  | <input type="checkbox"/> LCMSMS HIGH EXPLOSIVES | <input type="checkbox"/> PESTICIDES/POLYCHLORINATED BIPHENYLS |


☒ OTHER (DESCRIBE): GC/MS VOCs**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 checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. TICS FORMS            |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. STANDARD CHROMATOGRAMS   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10. TICS MASS SPECTRA    |


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

1. The CCV %D for 2-butanone was >20%. The associated sample results were NDs and, thus, were qualified UJ,V7c.
2. The toluene-d8 and bromofluorobenzene surrogate %Rs were > the laboratory UALs for sample RE36-10-8281. The sample results for methylene chloride, chloroform, bromodichloromethane, toluene, dibromochloromethane, and 4-isopropyltoluene were detects and, thus, were qualified J+,V3b. The remaining associated sample results were NDs and, thus, were not qualified.
3. It should be noted that trichlorotrifluoroethane was not represented in the spiking solution. No sample results were qualified.


Reviewed by: Mary Donovan Level: I Date: 04/29/10VALIDATOR'S SIGNATURE: Susan Ball DATE: 04/27/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5114-2</b>  <b>Volatile Organic Compound (VOC) Analytical Data Validation Checklist</b>	Records Use only  


Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. The Instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. The required Instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. 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, V7a	J, V7a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
<input checked="" type="checkbox"/>	<input 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, V7c	J, V7c
<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, V7d	J, V7d
<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, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5114-2</b>  <b>Volatile Organic Compound (VOC) Analytical Data Validation Checklist</b>	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"/>	12. The sample result is $\leq 5X$ (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was $>5X$ (10X for common laboratory contaminants).	N/A	J, V4a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14. The sample result is $\leq 5X$ the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	19. The quantitating IS are count is $<10\%$ of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	20. The IS area count for the quantitating IS is $<50\%$ but $>10\%$ for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5114-2</b>  <b>Volatile Organic Compound (VOC) Analytical Data Validation Checklist</b>	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"/>	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	22. Required IS Information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
<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, V12	J-, V12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5114-2</b>  <b>Volatile Organic Compound (VOC) Analytical Data Validation Checklist</b>	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"/>	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	36. 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"/>	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124  
 Lab Sample ID: 248202002

Date Collected: 02/23/2010 12:00  
 Date Received: 02/26/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOALI  
 Analyst: GRB2  
 Aliquot: 5 g  
 Column: RTX-Volatiles

Matrix: R  
 %Moisture: 26.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

Client ID: RE36-10-8281  
 Batch ID: 961979  
 Run Date: 03/06/2010 13:07  
 Prep Date: 03/06/2010 10:36  
 Data File: 1a617.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.37	ug/kg	0.465	1.37
74-87-3	Chloromethane	U	1.37	ug/kg	0.410	1.37
75-01-4	Vinyl chloride	U	1.37	ug/kg	0.410	1.37
74-83-9	Bromomethane	U	1.37	ug/kg	0.410	1.37
75-00-3	Chloroethane	U	1.37	ug/kg	0.410	1.37
75-69-4	Trichlorofluoromethane	U	1.37	ug/kg	0.410	1.37
67-64-1	Acetone	U	6.84	ug/kg	2.27	6.84
75-35-4	1,1-Dichloroethylene	U	1.37	ug/kg	0.410	1.37
74-88-4	Iodomethane	U	6.84	ug/kg	2.19	6.84
75-09-2	Methylene chloride	J	3.78	ug/kg	2.74	6.84 J+,V3b
75-15-0	Carbon disulfide	U	6.84	ug/kg	1.71	6.84
156-60-5	trans-1,2-Dichloroethylene	U	1.37	ug/kg	0.410	1.37
75-34-3	1,1-Dichloroethane	U	1.37	ug/kg	0.410	1.37
78-93-3	2-Butanone	U	6.84	ug/kg	2.05	6.84 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.37	ug/kg	0.410	1.37
594-20-7	2,2-Dichloropropane	U	1.37	ug/kg	0.410	1.37
67-66-3	Chloroform		9.82	ug/kg	0.410	1.37 J+,V3b
74-97-5	Bromochloromethane	U	1.37	ug/kg	0.451	1.37
71-55-6	1,1,1-Trichloroethane	U	1.37	ug/kg	0.410	1.37
563-58-6	1,1-Dichloropropene	U	1.37	ug/kg	0.410	1.37
56-23-5	Carbon tetrachloride	U	1.37	ug/kg	0.410	1.37
107-06-2	1,2-Dichloroethane	U	1.37	ug/kg	0.410	1.37
71-43-2	Benzene	U	1.37	ug/kg	0.410	1.37
79-01-6	Trichloroethylene	U	1.37	ug/kg	0.451	1.37
78-87-5	1,2-Dichloropropane	U	1.37	ug/kg	0.410	1.37
75-27-4	Bromodichloromethane	J	1.17	ug/kg	0.410	1.37 J+,V3b
74-95-3	Dibromomethane	U	1.37	ug/kg	0.410	1.37
108-10-1	4-Methyl-2-pentanone	U	6.84	ug/kg	1.71	6.84
10061-01-5	cis-1,3-Dichloropropylene	U	1.37	ug/kg	0.410	1.37
108-88-3	Toluene	J	0.524	ug/kg	0.410	1.37 J+,V3b
10061-02-6	trans-1,3-Dichloropropylene	U	1.37	ug/kg	0.410	1.37
79-00-5	1,1,2-Trichloroethane	U	1.37	ug/kg	0.410	1.37
591-78-6	2-Hexanone	U	6.84	ug/kg	2.05	6.84
142-28-9	1,3-Dichloropropane	U	1.37	ug/kg	0.410	1.37
127-18-4	Tetrachloroethylene	U	1.37	ug/kg	0.410	1.37
124-48-1	Dibromochloromethane	J	0.635	ug/kg	0.410	1.37 J+,V3b
106-93-4	1,2-Dibromoethane	U	1.37	ug/kg	0.410	1.37
108-90-7	Chlorobenzene	U	1.37	ug/kg	0.410	1.37

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124  
 Lab Sample ID: 24820202

Date Collected: 02/23/2010 12:00  
 Date Received: 02/26/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA1.I  
 Analyst: GRB2  
 Aliquot: 5 g  
 Column: RTX-Volatiles

Matrix: R  
 %Moisture: 26.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.37	ug/kg	0.410	1.37
179601-23-1	m,p-Xylenes	U	2.74	ug/kg	0.410	2.74
95-47-6	o-Xylene	U	1.37	ug/kg	0.410	1.37
100-42-5	Styrene	U	1.37	ug/kg	0.410	1.37
75-25-2	Bromoform	U	1.37	ug/kg	0.410	1.37
79-34-5	1,1,2,2-Tetrachloroethane	U	1.37	ug/kg	0.410	1.37
96-18-4	1,2,3-Trichloropropane	U	1.37	ug/kg	0.410	1.37
108-86-1	Bromobenzene	U	1.37	ug/kg	0.410	1.37
103-65-1	n-Propylbenzene	U	1.37	ug/kg	0.410	1.37
95-49-8	2-Chlorotoluene	U	1.37	ug/kg	0.410	1.37
98-82-8	Isopropylbenzene	U	1.37	ug/kg	0.410	1.37
108-67-8	1,3,5-Trimethylbenzene	U	1.37	ug/kg	0.410	1.37
106-43-4	4-Chlorotoluene	U	1.37	ug/kg	0.410	1.37
98-06-6	tert-Butylbenzene	U	1.37	ug/kg	0.410	1.37
95-63-6	1,2,4-Trimethylbenzene	U	1.37	ug/kg	0.410	1.37
135-98-8	sec-Butylbenzene	U	1.37	ug/kg	0.410	1.37
99-87-6	4-Isopropyltoluene	J	0.453	ug/kg	0.410	1.37 J+,V3b
541-73-1	1,3-Dichlorobenzene	U	1.37	ug/kg	0.410	1.37
106-46-7	1,4-Dichlorobenzene	U	1.37	ug/kg	0.410	1.37
104-51-8	n-Butylbenzene	U	1.37	ug/kg	0.410	1.37
96-12-8	1,2-Dibromo-3-chloropropane	U	1.37	ug/kg	0.410	1.37
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.84	ug/kg	2.19	6.84
630-20-6	1,1,1,2-Tetrachloroethane	U	1.37	ug/kg	0.410	1.37
95-50-1	1,2-Dichlorobenzene	U	1.37	ug/kg	0.410	1.37

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124  
 Lab Sample ID: 248202001

Date Collected: 02/23/2010 12:00  
 Date Received: 02/26/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA1.I  
 Analyst: GRB2  
 Aliquot: 5 g  
 Column: RTX-Volatiles

Matrix: R  
 %Moisture: 8.7  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

Client ID: RE36-10-8282  
 Batch ID: 961979  
 Run Date: 03/06/2010 12:37  
 Prep Date: 03/06/2010 10:30  
 Data File: 1a616.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.372	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.329	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.329	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.329	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.329	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.329	1.10
67-64-1	Acetone	U	5.48	ug/kg	1.82	5.48
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
74-88-4	Iodomethane	U	5.48	ug/kg	1.75	5.48
75-09-2	Methylene chloride	U	5.48	ug/kg	2.19	5.48
75-15-0	Carbon disulfide	U	5.48	ug/kg	1.37	5.48
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.329	1.10
78-93-3	2-Butanone	U	5.48	ug/kg	1.64	5.48 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.329	1.10
67-66-3	Chloroform	J	0.520	ug/kg	0.329	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.361	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.329	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.329	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.329	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.329	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.329	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.361	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.329	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.329	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.329	1.10
108-10-1	4-Methyl-2-pentanone	U	5.48	ug/kg	1.37	5.48
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.329	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.329	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.329	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.329	1.10
591-78-6	2-Hexanone	U	5.48	ug/kg	1.64	5.48
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.329	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.329	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.329	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.329	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.329	1.10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124

Lab Sample ID: 248202001

Date Collected: 02/23/2010 12:00

Date Received: 02/26/2010 08:45

Matrix: R

%Moisture: 8.7

Client: LANL010

Project: LANL01004

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Client ID: RE36-10-8282

Batch ID: 961979

Inst: VOAL1

Dilution: 1

Run Date: 03/06/2010 12:37

Analyst: GRB2

Purge Vol: 5 mL

Prep Date: 03/06/2010 10:30

Aliquot: 5 g

Final Volume: 5 mL

Data File: 1a616.d

Column: RTX-Volatiles

Level: LOW

CAS No.	Parmaame	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.329	1.10
179601-23-1	m,p-Xylenes	U	2.19	ug/kg	0.329	2.19
95-47-6	o-Xylene	U	1.10	ug/kg	0.329	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.329	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.329	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.329	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.329	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.329	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.329	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.329	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.329	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.329	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.329	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.329	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.329	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.329	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.329	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.329	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.329	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.329	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.329	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.48	ug/kg	1.75	5.48
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.329	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.329	1.10

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.05	7.65	ug/kg		J

**DATA VALIDATION COVER SHEET****5115-1****Data Validation Cover Sheet**

Records Use only

**Section I.**REQUEST NUMBER: 10-2124 VALIDATION DATE: 04/27/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Susan Ball 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 type="checkbox"/> RADIOCHEMISTRY  | <input type="checkbox"/> LCMSMS HIGH EXPLOSIVES | <input type="checkbox"/> PESTICIDES/POLYCHLORINATED BIPHENYLS |
- ☒ OTHER (DESCRIBE): GC/MS SVOCs


**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 checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. TICS FORMS            |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. STANDARD CHROMATOGRAMS   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10. TICS MASS SPECTRA    |


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

1. The ICV and/or CCV %Ds were >20% for pyridine, hexachlorocyclopentadiene, benzoic acid, and 3-nitroaniline. The associated sample results were ?NDs and, thus, were qualified UJ,SV7c.
2. The surrogate %Rs were > the laboratory UAL for sample RE36-10-8281. The sample was diluted and, thus, no sample results were qualified.
3. The MS %R for di-n-octylphthalate was > the laboratory UAL. In addition, the parent QC sample was from another LANL RN, and the raw data for the parent sample were not included in the data package. Since the analysis of an MS/MSD pair was not a client requirement, no sample results were qualified.


Reviewed by: Mary DonovanLevel: 1Date: 04/29/10VALIDATOR'S SIGNATURE: *Susan Ball*DATE: 04/27/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5115-2</b>  <b>Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist</b>	Records Use only  

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. The Instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
<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, SV16c	R, SV16c
<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, SV7	J, SV7
<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, SV7a	J, SV7a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5115-2</b>  <b>Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist</b>	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"/>	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13. The sample result is $\leq 5X$ (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminants).	N/A	J, SV4a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15. The sample result is $\leq 5X$ the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	20. The quantitating IS area count is $<10\%$ of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5115-2</b>  <b>Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist</b>	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"/>	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	23. Required IS Information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. The surrogate Is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. The surrogate Is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. At least one surrogate Is > the Upper Acceptance Limit (UAL) and one surrogate Is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	28. Required surrogate Information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12



# **SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST**

5115-2

## **Semivolatile Organic Compound (SVOC) 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"/>	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	37. 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"/>	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2124  
Lab Sample ID: 248202002

Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.I  
Analyst: JLD1  
Aliquot: 30.15 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 26.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 40  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8281  
Batch ID: 960459  
Run Date: 03/13/2010 20:09  
Prep Date: 03/03/2010 23:09  
Data File: s3c1329.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	18100	ug/kg	3630	18100	
108-95-2	Phenol	U	18100	ug/kg	3630	18100	
95-57-8	2-Chlorophenol	U	18100	ug/kg	3630	18100	
106-46-7	1,4-Dichlorobenzene	U	18100	ug/kg	3630	18100	
621-64-7	N-Nitrosodipropylamine	U	18100	ug/kg	3630	18100	
59-50-7	4-Chloro-3-methylphenol	U	18100	ug/kg	3630	18100	
83-32-9	Acenaphthene	U	1810	ug/kg	599	1810	
121-14-2	2,4-Dinitrotoluene	U	18100	ug/kg	1810	18100	
100-02-7	4-Nitrophenol	U	18100	ug/kg	5990	18100	
87-86-5	Pentachlorophenol	U	18100	ug/kg	4540	18100	
129-00-0	Pyrene	J	1440	ug/kg	544	1810	
110-86-1	Pyridine	U	18100	ug/kg	3630	18100	UJ,SV7c
62-53-3	Aniline	U	18100	ug/kg	5440	18100	
111-44-4	bis(2-Chloroethyl) ether	U	18100	ug/kg	3630	18100	
541-73-1	1,3-Dichlorobenzene	U	18100	ug/kg	3630	18100	
100-51-6	Benzyl alcohol	U	18100	ug/kg	5440	18100	
95-50-1	1,2-Dichlorobenzene	U	18100	ug/kg	3630	18100	
108-60-1	bis(2-Chloroisopropyl)ether	U	18100	ug/kg	3630	18100	
95-48-7	o-Cresol	U	18100	ug/kg	3630	18100	
65794-96-9	m,p-Cresols	U	18100	ug/kg	5440	18100	
67-72-1	Hexachloroethane	U	18100	ug/kg	3630	18100	
98-95-3	Nitrobenzene	U	18100	ug/kg	3630	18100	
78-59-1	Isophorone	U	18100	ug/kg	3630	18100	
88-75-5	2-Nitrophenol	U	18100	ug/kg	3630	18100	
105-67-9	2,4-Dimethylphenol	U	18100	ug/kg	6350	18100	
111-91-1	bis(2-Chloroethoxy)methane	U	18100	ug/kg	3630	18100	
120-83-2	2,4-Dichlorophenol	U	18100	ug/kg	3630	18100	
65-85-0	Benzoic acid	U	36300	ug/kg	9070	36300	UJ,SV7c
91-20-3	Naphthalene	U	1810	ug/kg	544	1810	
106-47-8	4-Chloroaniline	U	18100	ug/kg	3630	18100	
87-68-3	Hexachlorobutadiene	U	18100	ug/kg	3630	18100	
91-57-6	2-Methylnaphthalene	U	1810	ug/kg	363	1810	
77-47-4	Hexachlorocyclopentadiene	U	18100	ug/kg	3630	18100	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	18100	ug/kg	3630	18100	
95-95-4	2,4,5-Trichlorophenol	U	18100	ug/kg	3630	18100	
91-58-7	2-Chloronaphthalene	U	1810	ug/kg	599	1810	
88-74-4	2-Nitroaniline	U	18100	ug/kg	3630	18100	
	<i>o</i> -Nitroaniline						
99-09-2	3-Nitroaniline	U	18100	ug/kg	3630	18100	UJ,SV7c

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2124  
Lab Sample ID: 248202002

Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.I  
Analyst: JLD1  
Aliquot: 30.15 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 26.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 40  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8281  
Batch ID: 960459  
Run Date: 03/13/2010 20:09  
Prep Date: 03/03/2010 23:09  
Data File: s3c1329.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	18100	ug/kg	3630	18100
606-20-2	2,6-Dinitrotoluene	U	18100	ug/kg	1810	18100
208-96-8	Acenaphthylene	U	1810	ug/kg	544	1810
51-28-5	2,4-Dinitrophenol	U	36300	ug/kg	6890	36300
132-64-9	Dibenzofuran	U	18100	ug/kg	3630	18100
84-66-2	Diethylphthalate	U	18100	ug/kg	3630	18100
86-73-7	Fluorene	U	1810	ug/kg	544	1810
7005-72-3	4-Chlorophenylphenylether	U	18100	ug/kg	3630	18100
534-52-1	2-Methyl-4,6-dinitrophenol	U	18100	ug/kg	3630	18100
100-01-6	4-Nitroaniline	U	18100	ug/kg	5440	18100
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	18100	ug/kg	3630	18100
122-66-7	Azobenzene	U	18100	ug/kg	3630	18100
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	18100	ug/kg	3630	18100
118-74-1	Hexachlorobenzene	U	18100	ug/kg	3630	18100
85-01-8	Phenanthrene	J	879	ug/kg	544	1810
120-12-7	Anthracene	U	1810	ug/kg	363	1810
84-74-2	Di-n-butylphthalate	J	8070	ug/kg	3630	18100
206-44-0	Fluoranthene	J	1200	ug/kg	544	1810
85-68-7	Butylbenzylphthalate	U	18100	ug/kg	3630	18100
56-55-3	Benzo(a)anthracene	U	1810	ug/kg	544	1810
91-94-1	3,3'-Dichlorobenzidine	U	18100	ug/kg	5440	18100
218-01-9	Chrysene	J	888	ug/kg	544	1810
117-81-7	bis(2-Ethylhexyl)phthalate	U	18100	ug/kg	3630	18100
117-84-0	Di-n-octylphthalate	U	18100	ug/kg	3630	18100
205-99-2	Benzo(b)fluoranthene	J	1700	ug/kg	544	1810
207-08-9	Benzo(k)fluoranthene	U	1810	ug/kg	544	1810
50-32-8	Benzo(a)pyrene	J	792	ug/kg	544	1810
193-39-5	Indeno(1,2,3-cd)pyrene	U	1810	ug/kg	544	1810
53-70-3	Dibenzo(a,h)anthracene	U	1810	ug/kg	544	1810
191-24-2	Benzo(ghi)perylene	U	1810	ug/kg	544	1810
120-82-1	1,2,4-Trichlorobenzene	U	18100	ug/kg	3630	18100

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.75	15100	ug/kg		J
	Unknown	11.26	10500	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2124  
Lab Sample ID: 248202001

Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.I  
Analyst: JLD1  
Allquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 2  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8282  
Batch ID: 960459  
Run Date: 03/13/2010 18:52  
Prep Date: 03/03/2010 23:09  
Data File: s3c1325.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	727	ug/kg	145	727
108-95-2	Phenol	U	727	ug/kg	145	727
95-57-8	2-Chlorophenol	U	727	ug/kg	145	727
106-46-7	1,4-Dichlorobenzene	U	727	ug/kg	145	727
621-64-7	N-Nitrosodipropylamine	U	727	ug/kg	145	727
59-50-7	4-Chloro-3-methylphenol	U	727	ug/kg	145	727
83-32-9	Acenaphthene	U	72.7	ug/kg	24.0	72.7
121-14-2	2,4-Dinitrotoluene	U	727	ug/kg	72.7	727
100-02-7	4-Nitrophenol	U	727	ug/kg	240	727
87-86-5	Pentachlorophenol	U	727	ug/kg	182	727
129-00-0	Pyrene	U	72.7	ug/kg	21.8	72.7
110-86-1	Pyridine	U	727	ug/kg	145	727 UJ,SV7c
62-53-3	Aniline	U	727	ug/kg	218	727
111-44-4	bis(2-Chloroethyl) ether	U	727	ug/kg	145	727
541-73-1	1,3-Dichlorobenzene	U	727	ug/kg	145	727
100-51-6	Benzyl alcohol	U	727	ug/kg	218	727
95-50-1	1,2-Dichlorobenzene	U	727	ug/kg	145	727
108-60-1	bis(2-Chloroisopropyl)ether	U	727	ug/kg	145	727
95-48-7	o-Cresol	U	727	ug/kg	145	727
65794-96-9	m,p-Cresols	U	727	ug/kg	218	727
67-72-1	Hexachloroethane	U	727	ug/kg	145	727
98-95-3	Nitrobenzene	U	727	ug/kg	145	727
78-59-1	Isophorone	U	727	ug/kg	145	727
88-75-5	2-Nitrophenol	U	727	ug/kg	145	727
105-67-9	2,4-Dimethylphenol	U	727	ug/kg	254	727
111-91-1	bis(2-Chloroethoxy)methane	U	727	ug/kg	145	727
120-83-2	2,4-Dichlorophenol	U	727	ug/kg	145	727
65-85-0	Benzoic acid	U	1450	ug/kg	364	1450 UJ,SV7c
91-20-3	Naphthalene	U	72.7	ug/kg	21.8	72.7
106-47-8	4-Chloroaniline	U	727	ug/kg	145	727
87-68-3	Hexachlorobutadiene	U	727	ug/kg	145	727
91-57-6	2-Methylnaphthalene	U	72.7	ug/kg	14.5	72.7
77-47-4	Hexachlorocyclopentadiene	U	727	ug/kg	145	727 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	727	ug/kg	145	727
95-95-4	2,4,5-Trichlorophenol	U	727	ug/kg	145	727
91-58-7	2-Chloronaphthalene	U	72.7	ug/kg	24.0	72.7
88-74-4	2-Nitroaniline	U	727	ug/kg	145	727
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	727	ug/kg	145	727 UJ,SV7c

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 2 of 3

SDG Number: 10-2124  
Lab Sample ID: 248202001

Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.I  
Analyst: JLD1  
Aliquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 2  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	727	ug/kg	145	727
606-20-2	2,6-Dinitrotoluene	U	727	ug/kg	72.7	727
208-96-8	Acenaphthylene	U	72.7	ug/kg	21.8	72.7
51-28-5	2,4-Dinitrophenol	U	1450	ug/kg	276	1450
132-64-9	Dibenzofuran	U	727	ug/kg	145	727
84-66-2	Diethylphthalate	U	727	ug/kg	145	727
86-73-7	Fluorene	U	72.7	ug/kg	21.8	72.7
7005-72-3	4-Chlorophenylphenylether	U	727	ug/kg	145	727
534-52-1	2-Methyl-4,6-dinitrophenol	U	727	ug/kg	145	727
100-01-6	4-Nitroaniline	U	727	ug/kg	218	727
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	727	ug/kg	145	727
122-66-7	Azobenzene	U	727	ug/kg	145	727
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	727	ug/kg	145	727
118-74-1	Hexachlorobenzene	U	727	ug/kg	145	727
85-01-8	Phenanthrene	U	72.7	ug/kg	21.8	72.7
120-12-7	Anthracene	U	72.7	ug/kg	14.5	72.7
84-74-2	Di-n-butylphthalate	U	727	ug/kg	145	727
206-44-0	Fluoranthene	U	72.7	ug/kg	21.8	72.7
85-68-7	Butylbenzylphthalate	U	727	ug/kg	145	727
56-55-3	Benzo(a)anthracene	U	72.7	ug/kg	21.8	72.7
91-94-1	3,3'-Dichlorobenzidine	U	727	ug/kg	218	727
218-01-9	Chrysene	U	72.7	ug/kg	21.8	72.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	727	ug/kg	145	727
117-84-0	Di-n-octylphthalate	U	727	ug/kg	145	727
205-99-2	Benzo(b)fluoranthene	U	72.7	ug/kg	21.8	72.7
207-08-9	Benzo(k)fluoranthene	U	72.7	ug/kg	21.8	72.7
50-32-8	Benzo(a)pyrene	U	72.7	ug/kg	21.8	72.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	72.7	ug/kg	21.8	72.7
53-70-3	Dibenzo(a,h)anthracene	U	72.7	ug/kg	21.8	72.7
191-24-2	Benzo(ghi)perylene	U	72.7	ug/kg	21.8	72.7
120-82-1	1,2,4-Trichlorobenzene	U	727	ug/kg	145	727

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
559-74-0	Friedelan-3-one	7.06	1320	ug/kg	87	NJ
	Unknown	7.08	608	ug/kg		J

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2124  
Lab Sample ID: 248202001

Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.I  
Analyst: JLD1  
Allquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 2  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit Qual
	Unknown		8.93	322	ug/kg	J
	Unknown		8.99	697	ug/kg	J

## DATA VALIDATION COVER SHEET

5121-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2124 VALIDATION DATE: 04/28/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball 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/MSD %R calculations were performed incorrectly. The parent sample result was < the MDL and, thus, a result of 0 µg/kg should have been used to calculate the %Rs. The laboratory subtracted the parent sample concentration. The %Rs were within the acceptance limits when calculated correctly. In addition, the parent QC sample was from another LANL RN and raw data for the parent QC sample was not included in the data package. No sample results were qualified.


Reviewed by: Mary Donovan

Level: I

Date: 04/29/10


VALIDATOR'S SIGNATURE: \_\_\_\_\_

DATE: 04/28/10


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

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

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5121-2</b>  <b>LC/MS/MS Perchlorate Analytical Data Validation Checklist</b>	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: 959025  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-8282  
 Date Received: 26-FEB-10  
 GEL Job No (SDG): 10-2124  
 GEL Sample ID: 248202001  
 Date Filtered: 10-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 91.3

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.548	2.19	8.01	ug/kg		1	18-MAR-10 02:10	per0317107a
	Perchlorate Isotope Ratio			3.03			1	18-MAR-10 02:10	per0317107a
14797-73-0	Perchlorate-101	.548	2.19	7.97	ug/kg		1	18-MAR-10 02:10	per0317107a
	Perchlorate-O(18)			5.15	ug/kg		1	18-MAR-10 02:10	per0317107a

<sup>^</sup> 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: 959025

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-8281

Date Received: 26-FEB-10

GEL Job No (SDG): 10-2124

GEL Sample ID: 248202002

Date Filtered: 10-MAR-10

Injection Volume (uL): 20

%Solids: 73

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	2.74	10.9	30.4	ug/kg		4	18-MAR-10 20:10	per0318039a
	Perchlorate Isotope Ratio			3.12			4	18-MAR-10 20:10	per0318039a
14797-73-0	Perchlorate-101	2.74	10.9	30.5	ug/kg		4	18-MAR-10 20:10	per0318039a
	Perchlorate-O(18)			27.9	ug/kg		4	18-MAR-10 20:10	per0318039a

<sup>^</sup> 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  $\frac{1}{\% \text{Solids}}$

**DATA VALIDATION COVER SHEET**

5122-1

**Data Validation Cover Sheet**

Records Use only

**Section I.**REQUEST NUMBER: 10-2124 VALIDATION DATE: 04/28/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Susan Ball 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 type="checkbox"/> RADIOCHEMISTRY  | <input checked="" 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. The ICAL RRF was  $<0.05$  but  $\geq 0.01$  for p-nitrotoluene. The associated sample results were NDs and, thus, were qualified UJ,HE7b.
2. The CCV %Ds for RDX were  $>20\%$  with positive bias. The associated sample results were NDs and, thus, were not qualified.
3. The LCS %R for 2,6-diamino-4-nitrotoluene was  $>$  the laboratory UAL. The associated sample results were NDs and, thus, were not qualified.
4. The MSD %R for tetryl was  $<$  the laboratory LAL but  $\geq 10\%$ . The associated sample results were NDs and, thus, were qualified UJ,HE12e. The MS %R for TATB was  $>$  the laboratory UAL. The associated sample results were NDs and, thus, were not qualified. The MS/MSD RPDs for tetryl and 2,4-diamino-6-nitrotoluene were  $>$  the laboratory UAL. The associated sample results were NDs and, thus, were qualified UJ,HE12g.
5. It should be noted that the raw ICAL data from the instrument used for the secondary HE analysis were not reported in the data package. Thus, the surrogate RT criteria could not be evaluated. No sample data were qualified as a result.

Reviewed by: Mary DonovanLevel: 1Date: 04/29/10

DATA VALIDATION COVER SHEET	
5122-1	Records Use only
<b>Data Validation Cover Sheet</b>	 Los Alamos NATIONAL LABORATORY EST. 1942
VALIDATOR'S SIGNATURE: <u><i>[Signature]</i></u> DATE: <u>04/28/10</u>	
Form 5122-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5122-2</b>  <b>LC/MS/MS High Explosive Analytical Data Validation Checklist</b>	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 IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. The quantitating IS area count is <25% of the expected value, which indicates Increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

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

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



**LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST**


5122-2

**LC/MS/MS High Explosive Analytical Data Validation Checklist**

Records Use only



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

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5122-2</b>  <b>LC/MS/MS High Explosive Analytical Data Validation Checklist</b>	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"/>	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8282

Lab Code: GEL

GEL Job No (SDG) 10-2124

Matrix: SOIL

GEL Sample ID: 248202001

Sample Amount 2

Moisture: 8.7

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959332

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0323084a

Date Analyzed: 25-MAR-10 01:57

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene UJ,HE7b	500	U

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8282

Lab Code: GEL

GEL Job No (SDG) 10-2124

Matrix: SOIL

GEL Sample ID: 248202001

Sample Amount 2

Moisture: 8.7

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959332

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03160080.wiff

Date Analyzed: 17-MAR-10 04:58

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE12g	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument	X	Concentrated Extract Volume	X	Dilution
Value		Sample Amount		Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8281

Lab Code: GEL

GEL Job No (SDG) 10-2124

Matrix: SOIL

GEL Sample ID: 248202002

Sample Amount 2

Moisture: 26.9

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959332

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0323085a

Date Analyzed: 25-MAR-10 02:27

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	106	J
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12e	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene UJ,HE7b	500	U

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8281

Lab Code: GEL

GEL Job No (SDG) 10-2124

Matrix: SOIL

GEL Sample ID: 248202002

Sample Amount 2

Moisture: 26.9

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959332

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03160081.wiff

Date Analyzed: 17-MAR-10 05:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE12g	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value	X	Concentrated Extract Volume	X	Dilution Factor
		Sample Amount		

**DATA VALIDATION COVER SHEET****5116-1****Data Validation Cover Sheet**

Records Use only

**Section I.**REQUEST NUMBER: 10-2124 VALIDATION DATE: 04/28/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

**Section II. Completeness Check**

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

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

None.

Reviewed by: Mary Donovan Level: I Date: 04/29/10VALIDATOR'S SIGNATURE: DATE: 04/28/10

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

5116-2

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

Records Use only



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



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

5116-2

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

Records Use only



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

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

5116-2

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

Records Use only



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

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

5116-2

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

Records Use only



Yes   No   N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

## PCB

Page 1 of 1

Certificate of Analysis  
Sample SummarySDG Number: 10-2124  
Lab Sample ID: 248202002Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.13 g  
Column: 1 CLP1  
2 CLP2Matrix: R  
%Moisture: 26.9  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 10  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	45.4	ug/kg	15.1	45.4	1
11104-28-2	Aroclor-1221	U	45.4	ug/kg	15.1	45.4	1
11141-16-5	Aroclor-1232	U	45.4	ug/kg	15.1	45.4	1
53469-21-9	Aroclor-1242	U	45.4	ug/kg	15.1	45.4	1
12672-29-6	Aroclor-1248	U	45.4	ug/kg	15.1	45.4	1
11097-69-1	Aroclor-1254		1030	ug/kg	15.1	45.4	1
11096-82-5	Aroclor-1260		617	ug/kg	15.1	45.4	1

**PCB**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124  
Lab Sample ID: 248202001

Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECDIA.I  
Analyst: YS1  
Aliquot: 30.12 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
% Moisture: 8.7  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.64	ug/kg	1.21	3.64	1
11104-28-2	Aroclor-1221	U	3.64	ug/kg	1.21	3.64	1
11141-16-5	Aroclor-1232	U	3.64	ug/kg	1.21	3.64	1
53469-21-9	Aroclor-1242	U	3.64	ug/kg	1.21	3.64	1
12672-29-6	Aroclor-1248	U	3.64	ug/kg	1.21	3.64	1
11097-69-1	Aroclor-1254	U	3.64	ug/kg	1.21	3.64	1
11096-82-5	Aroclor-1260	U	3.64	ug/kg	1.21	3.64	1

**DATA VALIDATION COVER SHEET****5118-1****Data Validation Cover Sheet**

Records Use only

**Section I.**REQUEST NUMBER: 10-2124 VALIDATION DATE: 04/28/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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


**Section II. Completeness Check**

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


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

- The MS %R for Se was < the laboratory LAL but  $\geq 10\%$ . The Se result for sample RE36-10-8282 was a detect and, thus, was qualified J-,I6a. The other Se sample result was an ND and, thus, was qualified UJ,I6a. The MS %Rs for Mg and K were > the laboratory UAL. The associated sample results were detects and, thus, were qualified J+,I6b. The MS %Rs for Al and Fe were also > the laboratory UAL. However, the parent sample concentrations were >4X the spike concentrations and, thus, the Al and Fe sample results were not qualified, based on professional judgment.
- It should be noted that the matrix parent QC samples were from other LANL RNs. No sample results were qualified.

Reviewed by: Mary DonovanLevel: IDate: 04/29/10VALIDATOR'S SIGNATURE: DATE: 04/28/10


METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2	Records Use only
<div style="display: flex; justify-content: space-between; align-items: center;"> <div>Metals Analytical Data Validation Checklist</div> <div>  </div> </div>	

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   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"/>	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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was $> 5X$ .	N/A	J, I4a
<input 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 $<$ the LAL but $> 10\%$ . Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24. The associated matrix spike recovery was $>$ the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b



METALS ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5118-2</b>  <b>Metals Analytical Data Validation Checklist</b>	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"/>	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS Information.	R, I6c	R, I6c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. The sample and the duplicate sample results were $\geq 5X$ the RL and the duplicate RPD was $>20\%$ for water samples and $>35\%$ for soil samples.	UJ, I10a	J, I10a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	28. The LCS percent recovery was $<10\%$ . Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	29. The LCS percent recover was $<$ the LAL but $>10\%$ . Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	30. The LCS percent recovery was $>$ the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	32. The quantitating IS area count is $<10\%$ for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

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

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

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2124

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248202001

BASIS: Dry Weight

DATE COLLECTED 23-FEB-10

CLIENT ID: RE36-10-8282

LEVEL: Low

DATE RECEIVED 26-FEB-10

MATRIX: SOIL

%SOLIDS: 91.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4860000	ug/Kg		7120	20900	20900	1	P	HSC	03/29/10 21:56	032910C-1	959123
7440-36-0	Antimony	1060	ug/Kg	U	350	1060	1060	1	P	LS	04/13/10 20:07	041310A-3	974190
7440-38-2	Arsenic	1.14	mg/kg		0.213	1.07	1.07	2	MS	SKJ	04/13/10 21:11	100413-5	959125
7440-39-3	Barium	28400	ug/Kg		105	524	524	1	P	HSC	03/29/10 21:56	032910C-1	959123
7440-41-7	Beryllium	0.466	mg/kg		0.0213	0.107	0.107	2	MS	SKJ	04/17/10 05:45	100416-8	959125
7440-43-9	Cadmium	1390	ug/Kg		105	524	524	1	P	HSC	03/29/10 21:56	032910C-1	959123
7440-70-2	Calcium	2060000	ug/Kg		8380	26200	26200	1	P	HSC	03/29/10 21:56	032910C-1	959123
7440-47-3	Chromium	30400	ug/Kg		157	524	524	1	P	HSC	03/29/10 21:56	032910C-1	959123
7440-48-4	Cobalt	1480	ug/Kg		157	524	524	1	P	HSC	03/29/10 21:56	032910C-1	959123
7440-50-8	Copper	309000	ug/Kg		314	1050	1050	1	P	HSC	03/29/10 21:56	032910C-1	959123
7439-89-6	Iron	7600000	ug/Kg		8380	26200	26200	1	P	HSC	03/29/10 21:56	032910C-1	959123
7439-92-1	Lead	35700	ug/Kg		265	1060	1060	1	P	LS	04/13/10 20:07	041310A-3	974190
7439-95-4	Magnesium J+,16b	824000	ug/Kg		8900	31400	31400	1	P	HSC	03/29/10 21:56	032910C-1	959123
7439-96-5	Manganese	126000	ug/Kg		209	1050	1050	1	P	HSC	03/29/10 21:56	032910C-1	959123
7439-97-6	Mercury	131	ug/kg		3.94	11.6	11.6	1	AV	JXL1	03/12/10 11:13	031210S1-11	958770
7440-02-0	Nickel	4.05	mg/kg		0.107	0.426	0.426	2	MS	SKJ	04/17/10 05:45	100416-8	959125
7440-09-7	Potassium J+,16b	721000	ug/Kg		6700	26200	26200	1	P	HSC	03/29/10 21:56	032910C-1	959123
7782-49-2	Selenium J-,16a	0.635	mg/kg	J	0.533	1.07	1.07	2	MS	SKJ	04/13/10 21:11	100413-5	959125
7440-22-4	Silver	85900	ug/Kg		105	524	524	1	P	HSC	03/29/10 21:56	032910C-1	959123
7440-23-5	Sodium	269000	ug/Kg		7330	26200	26200	1	P	HSC	03/29/10 21:56	032910C-1	959123
7440-28-0	Thallium	0.213	mg/kg	U	0.0639	0.213	0.213	2	MS	SKJ	04/13/10 21:11	100413-5	959125
7440-61-1	Uranium	1.36	mg/kg		0.0141	0.0426	0.0426	2	MS	SKJ	04/14/10 03:35	100413-6	959125
7440-62-2	Vanadium	10900	ug/Kg		105	524	524	1	P	HSC	03/29/10 21:56	032910C-1	959123
7440-66-6	Zinc	235000	ug/Kg		346	1050	1050	1	P	HSC	03/29/10 21:56	032910C-1	959123

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958770	958769	SW846 7471A Prep	0.567	g	30	mL	03/11/10	TXB3
959123	959122	SW846 3050B	0.523	g	50	mL	03/04/10	FGA
959125	959124	SW846 3050B	0.514	g	50	mL	03/04/10	FGA
974190	974189	SW846 3050B	0.516	g	50	mL	04/13/10	LYH1

SEB  
4/28/10

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2124

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248202002

BASIS: Dry Weight

DATE COLLECTED 23-FEB-10

CLIENT ID: RE36-10-8281

LEVEL: Low

DATE RECEIVED 26-FEB-10

MATRIX: SOIL

%SOLIDS: 73

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	14100000	ug/Kg		8940	26300	26300	1	P	HSC	03/29/10 21:58	032910C-1	959123
7440-36-0	Antimony	1350	ug/Kg	U	444	1350	1350	1	P	LS	04/13/10 20:09	041310A-3	974190
7440-38-2	Arsenic	2.59	mg/kg		0.271	1.35	1.35	2	MS	SKJ	04/13/10 21:15	100413-5	959125
7440-39-3	Barium	109000	ug/Kg		131	657	657	1	P	HSC	03/29/10 21:58	032910C-1	959123
7440-41-7	Beryllium	0.673	mg/kg		0.0271	0.135	0.135	2	MS	SKJ	04/17/10 05:47	100416-8	959125
7440-43-9	Cadmium	1360	ug/Kg		131	657	657	1	P	HSC	03/29/10 21:58	032910C-1	959123
7440-70-2	Calcium	11700000	ug/Kg		10500	32900	32900	1	P	HSC	03/29/10 21:58	032910C-1	959123
7440-47-3	Chromium	28500	ug/Kg		197	657	657	1	P	HSC	03/29/10 21:58	032910C-1	959123
7440-48-4	Cobalt	4180	ug/Kg		197	657	657	1	P	HSC	03/29/10 21:58	032910C-1	959123
7440-50-8	Copper	2720000	ug/Kg		1970	6570	6570	5	P	HSC	03/30/10 15:43	033010B-2	959123
7439-89-6	Iron	13000000	ug/Kg		10500	32900	32900	1	P	HSC	03/29/10 21:58	032910C-1	959123
7439-92-1	Lead	144000	ug/Kg		1680	6730	6730	5	P	HSC	04/14/10 13:06	041410-4	974190
7439-95-4	Magnesium	2040000	ug/Kg	J+, I6b	11200	39400	39400	1	P	HSC	03/29/10 21:58	032910C-1	959123
7439-96-5	Manganese	587000	ug/Kg		263	1310	1310	1	P	HSC	03/29/10 21:58	032910C-1	959123
7439-97-6	Mercury	297	ug/kg		5.2	15.3	15.3	1	AV	JXL1	03/12/10 11:15	031210S1-11	958770
7440-02-0	Nickel	53	mg/kg		0.271	1.08	1.08	4	MS	SKJ	04/19/10 18:09	100419-9	959125
7440-09-7	Potassium	2590000	ug/Kg	J+, I6b	8420	32900	32900	1	P	HSC	03/29/10 21:58	032910C-1	959123
7782-49-2	Selenium	1.35	mg/kg	U	0.677	1.35	1.35	2	MS	SKJ	04/13/10 21:15	100413-5	959125
7440-22-4	Silver	32400	ug/Kg		131	657	657	1	P	HSC	03/29/10 21:58	032910C-1	959123
7440-23-5	Sodium	503000	ug/Kg		9200	32900	32900	1	P	HSC	03/29/10 21:58	032910C-1	959123
7440-28-0	Thallium	0.271	mg/kg	U	0.0812	0.271	0.271	2	MS	SKJ	04/13/10 21:15	100413-5	959125
7440-61-1	Uranium	2.23	mg/kg		0.0179	0.0542	0.0542	2	MS	SKJ	04/14/10 03:37	100413-6	959125
7440-62-2	Vanadium	14600	ug/Kg		131	657	657	1	P	HSC	03/29/10 21:58	032910C-1	959123
7440-66-6	Zinc	1320000	ug/Kg		2170	6570	6570	5	P	HSC	03/30/10 15:43	033010B-2	959123

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958770	958769	SW846 7471A Prep	0.536	g	30	mL	03/11/10	TXB3
959123	959122	SW846 3050B	0.52	g	50	mL	03/04/10	FGA
959125	959124	SW846 3050B	0.505	g	50	mL	03/04/10	FGA
974190	974189	SW846 3050B	0.508	g	50	mL	04/13/10	LYH1

SEB  
4/28/10

**DATA VALIDATION COVER SHEET****5120-1****Data Validation Cover Sheet**

Records Use only

**Section I.**REQUEST NUMBER: 10-2124 VALIDATION DATE: 04/28/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Susan Ball 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 type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 8. QUANTITATION REPORTS  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 4. SAMPLE CHROMATOGRAMS     | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 9. TICS FORMS            |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. STANDARD CHROMATOGRAMS   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 10. TICS MASS SPECTRA    |


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

1. It should be noted that the matrix QC samples for total cyanide and nitrate-N were from other LANL RNs. No sample results were qualified.


Reviewed by: Mary Donovan Level: I Date: 04/29/10VALIDATOR'S SIGNATURE:  DATE: 04/28/10

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	
<b>5120-2</b>  <b>General Chemistry Analytical Data Validation Checklist</b>	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"/>	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  General Chemistry Analytical Data Validation Checklist	Records Use only  

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



**GEL LABORATORIES LLC**

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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 24, 2010

Client SDG: 10-2124

Client Sample ID: RE36-10-8282  
Sample ID: 248202001  
Matrix: R  
Collect Date: 23-FEB-10 12:00  
Receive Date: 26-FEB-10  
Collector: Client  
Moisture: 8.7%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 21.1C	H	6.74	0.010	0.100	SU	1	TXT1	03/03/10	1328	960262	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	J	192	74.5	274	ug/kg	1	AXC2	03/09/10	1511	959210	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		4.07	0.329	1.10	mg/kg	1	MAR1	03/22/10	2259	962080	3

**The following Prep Methods were performed**

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	0900	962079
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/09/10	1121	959209

**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 24, 2010

Client SDG: 10-2124

Client Sample ID: RE36-10-8281  
Sample ID: 248202002  
Matrix: R  
Collect Date: 23-FEB-10 12:00  
Receive Date: 26-FEB-10  
Collector: Client  
Moisture: 26.9%

Project: LANL01004  
Client ID: LANL010


Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 21.0C	H	7.41	0.010	0.100	SU	1	TXT1	03/03/10	1332	960262	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		1650	81.6	300	ug/kg	1	AXC2	03/09/10	1512	959210	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		19.9	0.410	1.37	mg/kg	1	MAR1	03/22/10	2325	962080	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	0900	962079
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/09/10	1121	959209

### 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	
<b>5119-1</b>  <div style="text-align: center;"><b>Data Validation Cover Sheet</b></div>	Records Use only  


Section I.		
REQUEST NUMBER: <u>10-2124</u>	VALIDATION DATE: <u>04/28/10</u>	LAB CODE: <u>GEL</u>
CONTRACT LABORATORY NAME: <u>GEL Laboratories LLC</u>		
VALIDATOR: <u>Susan Ball</u> ORGANIZATION: <u>Analytical Quality Associates, Inc.</u>		
ANALYTICAL SUITE (CHECK ALL THAT APPLY):		
<input type="checkbox"/> TPH-GRO	<input type="checkbox"/> HIGH EXPLOSIVES	<input type="checkbox"/> DIOXIN FURANS
<input type="checkbox"/> TPH-DRO	<input type="checkbox"/> METALS	<input type="checkbox"/> PCB CONGENERS
<input type="checkbox"/> GENERAL CHEMISTRY	<input checked="" type="checkbox"/> RADIOCHEMISTRY	<input type="checkbox"/> LCMSMS HIGH EXPLOSIVES
		<input type="checkbox"/> LCMSMS PERCHLORATES
		<input type="checkbox"/> ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
<input type="checkbox"/> OTHER (DESCRIBE): _____		


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

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


1. The gamma spec sample results that were rejected by the laboratory due to interference and low abundance were qualified R,R5a. In the QC samples, several results were also rejected by the laboratory. No sample data were qualified as a result.
2. The alpha spec Pu-236 tracer %Rs were < the laboratory LAL for sample RE36-10-8281 and the duplicate. The Pu-239/240 sample result was a detect and, thus, was qualified J+,R3b. The Pu-238 result was an ND and, thus, was not qualified. Because the duplicate is a QC sample, no field sample data were qualified as a result.
3. An MS was not analyzed for tritium. However, an LCS was analyzed and met acceptance criteria, thus, no sample results were qualified.
4. The gamma spec Pb-212 RER was >1.0. The associated sample results were detects and, thus, were qualified J,R10.
5. It should be noted that the parent QC sample for tritium was from another LANL RN. No sample results were qualified.

Reviewed by: Mary DonovanLevel: 1Date: 04/29/10


DATA VALIDATION COVER SHEET	
5119-1  Data Validation Cover Sheet	Records Use only   Los Alamos NATIONAL LABORATORY EST. 1945
VALIDATOR'S SIGNATURE: <u>[Signature]</u> DATE: <u>04/28/10</u>	
Form 5119-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

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

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

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

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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	
<b>5119-2</b>  <b>Rad Analytical Data Validation Checklist</b>	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"/>	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

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 23, 2010

Client Sample ID: RE36-10-8282  
Sample ID: 248202001  
Matrix: R  
Collect Date: 23-FEB-10  
Receive Date: 26-FEB-10  
Collector: Client  
Moisture: 8.7%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
<b>Gravimetric Solids</b>												
<i>"As Received"</i>												
<b>Rad Alpha Spec Analysis</b>												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.00588	0.0226	+/-0.00303	0.050	pCi/g		JXH2	03/16/10	0735	961175	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.0042	0.0296	+/-0.00298	0.050	pCi/g		JXH2	03/16/10	1910	961176	3
Plutonium-239/240	U	-0.0021	0.0249	+/-0.00363	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		1.83	0.103	+/-0.153	0.100	pCi/g		JXH2	03/13/10	1415	961183	5
Uranium-235/236		0.122	0.0632	+/-0.0251	0.100	pCi/g						
Uranium-238		1.80	0.0727	+/-0.151	0.100	pCi/g						
<b>Rad Gamma Spec Analysis</b>												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.154	0.250	+/-0.0805	0.200	pCi/g		MXR1	03/18/10	1310	959279	6
Bismuth-211	UI	5.10	R,R5a	0.348	+/-0.295	pCi/g						
Bismuth-214		1.50		0.125	+/-0.108	pCi/g						
Cadmium-109	UI	2.57	R,R5a	1.44	+/-0.616	pCi/g						
Cerium-139	U	-0.0205		0.0559	+/-0.0174	pCi/g						
Cesium-134	U	0.0837		0.0979	+/-0.0274	pCi/g						
Cesium-137	U	0.0377		0.0789	+/-0.0229	pCi/g						
Cobalt-60	U	-0.0161		0.0725	+/-0.0229	pCi/g						
Europium-152	U	-0.0766		0.173	+/-0.071	pCi/g						
Lanthanum-140	U	0.0512		0.251	+/-0.0738	pCi/g						
Lead-212		2.24	J,R10	0.102	+/-0.107	pCi/g						
Lead-214		1.85		0.127	+/-0.119	pCi/g						
Mercury-203	U	0.0365		0.083	+/-0.0269	pCi/g						
Potassium-40		32.4		0.552	+/-1.50	pCi/g						
Radium-223	U	0.0727		1.18	+/-0.398	pCi/g						
Radium-224	UI	5.03	R,R5a	1.10	+/-0.669	pCi/g						
Radium-226		1.50		0.125	+/-0.108	pCi/g						
Radium-228		2.57		0.254	+/-0.247	pCi/g						
Ruthenium-106	U	0.273		0.572	+/-0.164	pCi/g						



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Report Date: March 23, 2010

Client Sample ID: RE36-10-8282  
Sample ID: 248202001

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"*

Sodium-22	U	-0.0399		0.0717	+/-0.0237	0.080	pCi/g					
Strontium-85	UI	0.133	R,R5a	0.0904	+/-0.0241		pCi/g					
Thallium-208		0.621		0.0606	+/-0.0498	0.080	pCi/g					
Thorium-227	U	-0.0776		0.460	+/-0.136		pCi/g					
Thorium-231	U	0.0727		1.18	+/-0.398		pCi/g					
Thorium-234		2.68		2.16	+/-0.869	2.00	pCi/g					
Tin-113	U	-0.026		0.0848	+/-0.0259	0.100	pCi/g					
Uranium-235	U	0.190		0.398	+/-0.119	0.500	pCi/g					
Yttrium-88	U	-0.018		0.0485	+/-0.0171	0.100	pCi/g					

### Rad Liquid Scintillation Analysis

*H3 "As Received"*

Tritium		1620		175	+/-137	250	pCi/L	KXK2	03/14/10	1115	961542	7
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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, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.7	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	54.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	96.3	(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

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Report Date: March 23, 2010

Client Sample ID: RE36-10-8281  
Sample ID: 248202002  
Matrix: R  
Collect Date: 23-FEB-10  
Receive Date: 26-FEB-10  
Collector: Client  
Moisture: 26.9%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
<b>Gravimetric Solids</b>												
<i>"As Received"</i>												
<b>Rad Alpha Spec Analysis</b>												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.0163	0.0217	+/-0.00529	0.050	pCi/g		JXH2	03/16/10	0735	961175	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	-0.00697	0.0328	+/-0.0107	0.050	pCi/g		JXH2	03/16/10	1941	961176	3
Plutonium-239/240		0.0302	J+,R3b	0.0276	+/-0.00977	0.050	pCi/g					
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		1.57		0.113	+/-0.137	0.100	pCi/g	JXH2	03/16/10	0859	961183	5
Uranium-235/236		0.134		0.0691	+/-0.0284	0.100	pCi/g					
Uranium-238		2.01		0.0796	+/-0.169	0.100	pCi/g					
<b>Rad Gamma Spec Analysis</b>												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0305		0.119	+/-0.0385	0.200	pCi/g	MXR1	03/18/10	1311	959279	7
Bismuth-211	UI	4.27	R,R5a	0.419	+/-0.355		pCi/g					
Bismuth-214		1.26		0.170	+/-0.138	0.200	pCi/g					
Cadmium-109	UI	4.19	R,R5a	1.09	+/-0.544		pCi/g					
Cerium-139	U	-0.00868		0.0594	+/-0.0185	0.050	pCi/g					
Cesium-134	U	0.129		0.153	+/-0.0417	0.100	pCi/g					
Cesium-137		0.766		0.090	+/-0.0659	0.100	pCi/g					
Cobalt-60	U	0.0177		0.100	+/-0.0298	0.100	pCi/g					
Europium-152	U	-0.0481		0.192	+/-0.0614	0.200	pCi/g					
Lanthanum-140	U	-0.0965		0.306	+/-0.103		pCi/g					
Lead-212		1.70	J,R10	0.101	+/-0.113	0.100	pCi/g					
Lead-214		1.55		0.151	+/-0.136	0.100	pCi/g					
Mercury-203	U	-0.0261		0.084	+/-0.0257	0.100	pCi/g					
Potassium-40		26.3		0.743	+/-1.62	1.00	pCi/g					
Radium-223	U	-0.348		1.34	+/-0.429		pCi/g					
Radium-224	UI	5.71	R,R5a	1.09	+/-0.823		pCi/g					
Radium-226		1.26		0.170	+/-0.138		pCi/g					
Radium-228		1.60		0.314	+/-0.289	0.500	pCi/g					
Ruthenium-106	U	-0.345		0.764	+/-0.257	0.800	pCi/g					
Sodium-22	U	0.0174		0.115	+/-0.035	0.080	pCi/g					

SEB  
4/28/10

# 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 23, 2010

Client Sample ID:  
Sample ID:

RE36-10-8281  
248202002

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gamma Spec Analysis</b>												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Strontium-85	U	0.0362	0.104	+/-0.0347		pCi/g						
Thallium-208		0.543	0.082	+/-0.0613	0.080	pCi/g						
Thorium-227	U	-0.0626	0.509	+/-0.163		pCi/g						
Thorium-231	U	-0.348	1.34	+/-0.429		pCi/g						
Thorium-234		3.05	1.21	+/-0.636	2.00	pCi/g						
Tin-113	U	-0.0187	0.108	+/-0.0332	0.100	pCi/g						
Uranium-235	U	0.0119	0.401	+/-0.127	0.500	pCi/g						
Yttrium-88	U	0.0323	0.0917	+/-0.0242	0.100	pCi/g						
<b>Rad Liquid Scintillation Analysis</b>												
<i>H3 "As Received"</i>												
Tritium		247	176	+/-58.7	250	pCi/L		KXK2	03/14/10	1253	961542	8

### The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.8	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	46.3 *	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	61.4	(50%-105%)

### Notes:

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

The Qualifiers in this report are defined as follows :

- \*\* Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

Thursday, February 25, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2124

LOS ALAMOS

REQUEST NUMBER: 10-2124

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/27/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

248207

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8282	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8282	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8282	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE36-10-8282	1	POLY	H3	Ice	R
RE36-10-8282	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8282	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-8281	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8281	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8281	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE36-10-8281	1	POLY	H3	Ice	R
RE36-10-8281	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8281	1	POLY	Perchlorate+CN+N03+pH	Ice	R

Relinquished By:

Date

Time

Received By:

Date

Time

*[Signature]*  
Printed Name      Signature

2/25/10 1500

Patricia Dover-Dent

P. N. Dent

2/26/10 08:45

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

Thursday, February 25, 2010  
**LOS ALAMOS**  
NATIONAL LABORATORY

These Samples are on:  
LANL Request Number: 10-2124  
Per Agreement Number: 126310011  
Project Cost Code: MR3A05S29E00

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: 2/25/2010  
TURNAROUND/REPORT DUE: 3/27/2010  
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background  
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:  
Signature: 

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA-300.0	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	EPA-901.1	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	EPA-906.0	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	HASL-300:AM-241	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	HASL-300:ISOPU	1	RE36-10-8281	R	2/23/2010	

Thursday, February 25, 2010

Page 2 of 2

REQUEST NUMBER: 10-2124

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOPU	1	RE36-10-8282	R	2/23/2010	
	HASL-300:ISOU	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:6010B	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:6020	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:6850	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:7471A	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:8082	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:8260B	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:8270C	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:8321A_MOD	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:9012A	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:9045C	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	

Final Page of REQUEST NUMBER 10-2124



Laboratories LLC

a member of **The GEL Group** INC



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

P 843.556.8171 F 843.766.1178

March 05, 2010

[www.gel.com](http://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: 248202  
SDG: 10-2124

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 26, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, 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: 10-2124  
Enclosures

**Los Alamos National Laboratory (72733-001-09)**  
**LANL ER Project**  
**Work Order #: 248202**  
**SDG: 10-2124**



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# **Case Narrative**

**Case Narrative for  
Los Alamos National Laboratory (72733-001-09)  
LANL ER Project  
Workorder #: 248202  
SDG # : 10-2124**

**March 05, 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 26, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 11-14,17C temperatures. Shipping container temperature was within specification (0 - 6C).

**Sample Identification** The laboratory received the following samples:

<b><u>Laboratory ID</u></b>	<b><u>Client ID</u></b>
248202001	RE36-10-8282
248202002	RE36-10-8281

**Case Narrative**

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

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

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

*Valerie Davis*

Valerie Davis

Project Manager

**List of current GEL Certifications as of 05 March 2010**

<b>State</b>	<b>Certification</b>
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**

Thursday, February 25, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2124

LOS ALAMOS

REQUEST NUMBER: 10-2124

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/27/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

248207

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8282	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8282	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8282	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE36-10-8282	1	POLY	H3	Ice	R
RE36-10-8282	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8282	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-8281	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8281	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8281	1	POLY	AM241+GS+ISOPU+ISO U	None	R
RE36-10-8281	1	POLY	H3	Ice	R
RE36-10-8281	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8281	1	POLY	Perchlorate+CN+N03+pH	Ice	R

Relinquished By:

Date

Time

Received By:

Date

Time

*[Signature]*  
Printed Name      Signature

2/25/10

1500

Patricia Dover-Dent

P. N. Dent

2/26/10 08:45

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



REQUEST NUMBER: 10-2124

Thursday, February 25, 2010

**LOS ALAMOS**  
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number: 10-2124

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples  
according to the schedule indicated:

**SHIP DATE: 2/25/2010**

**TURNAROUND/REPORT DUE: 3/27/2010**

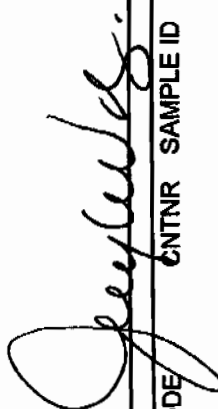
**TURNAROUND REQ'D: 30 Days**

**RAD SCREENING: Yes, Below Background**

**LAB REQUEST COMMENTS:**

LANL ER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	CNTR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	EPA:901.1	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	EPA:906.0	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	HASL-300:AM-241	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	HASL-300:ISOPU	1	RE36-10-8281	R	2/23/2010	

Thursday, February 25, 2010

REQUEST NUMBER: 10-2124

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOPU	1	RE36-10-8282	R	2/23/2010	
	HASL-300:ISOU	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:6010B	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:6020	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:6850	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:7471A	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:8082	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:8260B	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:8270C	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:8321A_MOD	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:9012A	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	
	SW-846:9045C	1	RE36-10-8281	R	2/23/2010	
		1	RE36-10-8282	R	2/23/2010	

Final Page of REQUEST NUMBER 10-2124

**SAMPLE RECEIPT & REVIEW FORM**

Client: LANL		SDG/ARCOC/Work Order: 10-2124	
Received By: Patricia Dover-Dent		Date Received: 2/26/10	
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 1-3,6C    11-14,17
3 Chain of custody documents included with shipment?	X			
4 Sample containers intact and sealed?	X			Circle Applicable: seals broken    damaged container    leaking container    other (describe)
5 Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH:
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: <b>No time on Chain of Custody.</b>
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 2341 1C    7209 7850 2319 2C    7209 7850 2352 12C  
 7209 7850 2320 1C    7209 7850 2422 3C    7209 7850 2271 13C  
 7209 7850 2396 2C    7209 7850 2385 3C    7209 7850 2466 13C  
 7209 7850 2374 2C    7209 7850 2444 6C    7209 7850 2282 14C  
 7209 7850 2330 2C    7209 7850 2400 6C    7209 7850 2293 17C  
 7209 7850 2455 2C    7209 7850 2477 6C  
 7209 7850 2308 2C    7209 7850 2433 6C  
 7209 7850 2411 2C    7209 7850 2260 11C

PM (or PMA) review: Initials ms

Date 3/1/10

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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 25FEB10  
ACTWGT: 57.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 25FEB10  
ACTWGT: 48.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

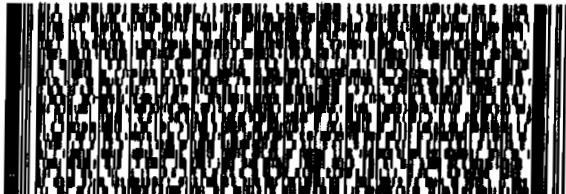
REF: 6B010AMR3A022DXL00

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR1A015AGWMO



FedEx  
Express



FedEx  
Express

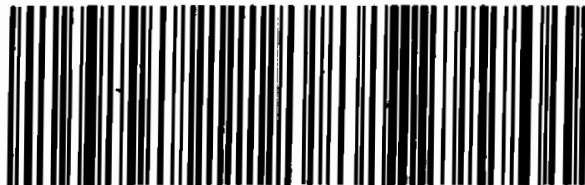


1 of 2  
TRKH 7209 7850 2341  
0201  
NM MASTER NM

FRI - 26FEB A  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA

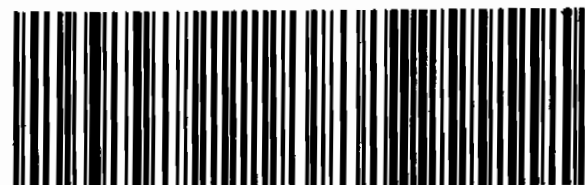


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NM MASTER NM

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PRIORITY OVERNIGHT

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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 25FEB10  
ACTWGT: 58.0 LB MAN  
CAD: 0014176/CAFE2450

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TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AARDN01EA1S00

JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 25FEB10  
ACTWGT: 48.0 LB MAN  
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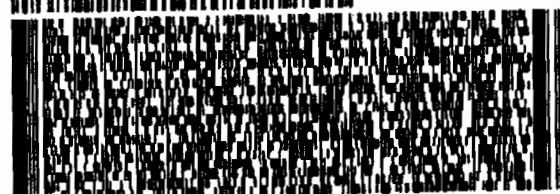
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XX CHSA

ORIGIN ID: SAFA (705) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

SHIP DATE: 25FEB10  
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LOS ALAMOS, NM 87545  
UNITED STATES US

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Emp# 133990 25FEB10 SAFA

TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

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TRK# 7209 7850 2308  
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Page 10 of 2144

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JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

SHIP DATE: 25FEB10  
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LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

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REF: 6B010AMR3A05529E00



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SC-US  
CHS



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

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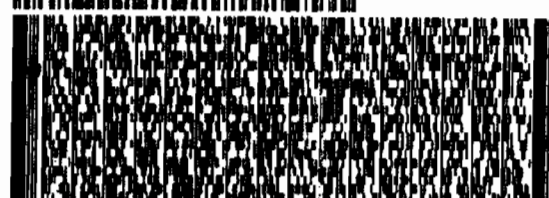
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UNITED STATES US

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
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CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR3A05529E00



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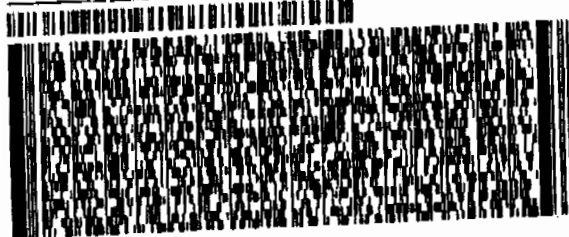
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JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 25FEB10  
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VALERIE DAVIS  
GENERAL ENGINEERING LAB  
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CHARLESTON SC 29407  
(843) 556-8171  
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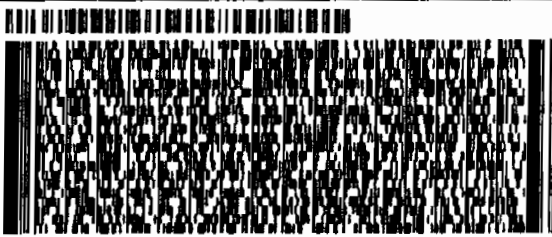
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JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 25FEB10  
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TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
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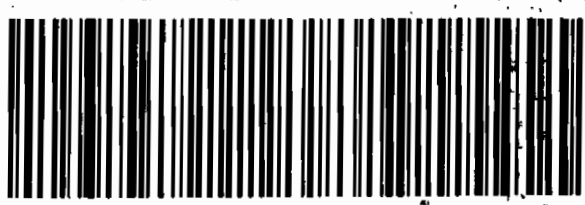
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ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 25FEB10  
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TO VALERIE DAVIS  
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CHARLESTON SC 29407  
(843) 556-8171  
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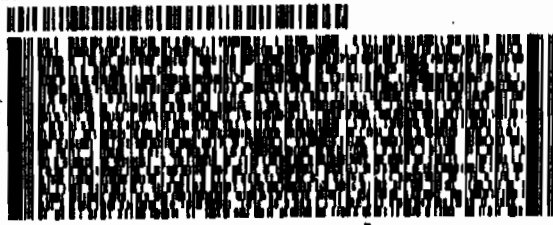
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LOS ALAMOS NATL LAB  
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LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 25FEB10  
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ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 25FEB10  
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LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

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UNITED STATES US

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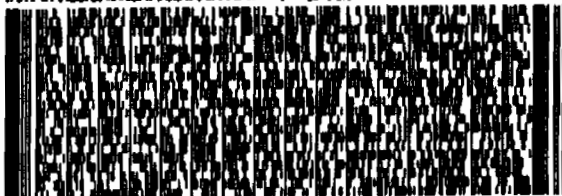
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ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 25FEB10  
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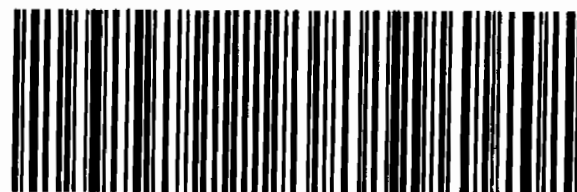
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SC-US  
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ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

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PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 25FEB10  
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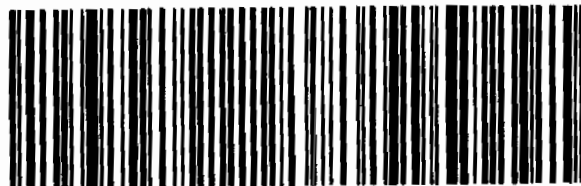
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FRI - 26FEB A1  
PRIORITY OVERNIGHT

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# **Data Review Qualifier Flag Definition Sheet**

## Data Review Qualifier Definitions

Qualifier      Explanation

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

# **GC/MS Volatile Analysis**

**ChemStation Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2124**

**Method/Analysis Information**

Procedure: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer  
Analytical Method: SW846 8260B  
Prep Method: SW846 5030  
Analytical Batch Number: 961979  
Prep Batch Number: 961978

**Sample Analysis**

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

<b>Sample ID</b>	<b>Client ID</b>
248202001	RE36-10-8282
248202002	RE36-10-8281
1202063385	Method Blank (MB)
1202063388	Laboratory Control Sample (LCS)
1202063389	Laboratory Control Sample (LCS)
1202063386	248202001 (RE36-10-8282) Post Spike (PS)
1202063387	248202001 (RE36-10-8282) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.

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-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

**Calibration Information**

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

#### **Initial Calibration**

All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

#### **Continuing Calibration Verification Requirements**

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

#### **Quality Control (QC) Information**

##### **Method Blank (MB) Statement**

The MB analyzed with this SDG met the acceptance criteria.

##### **Surrogate Recoveries**

The surrogate recovery, in the following sample, was above the acceptance limits. Sample re-analysis confirmed matrix interference: 248202002 (RE36-10-8281). See DER# 800524.

##### **Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

##### **QC Sample Designation**

Sample 248202001 (RE36-10-8282) was designated for spike analysis in this SDG.

##### **Matrix Spike (PS) Recovery Statement**

The spike recoveries for this SDG were within the required acceptance limits.

##### **Matrix Spike Duplicate (PSD) Recovery Statement**

The spike duplicate recoveries for this SDG were within the required acceptance limits.

##### **Relative Percent Difference (RPD) Statement**

The RPD(s) between the matrix spike pair met the acceptance limits.

##### **Internal Standard (ISTD) Acceptance**

In the following sample, internal standard response was outside the required acceptance criteria. Sample reanalysis confirmed matrix interference: 248202002 (RE36-10-8281). See DER# 800524.

#### **Technical Information**

##### **Holding Time Specifications**

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. All samples in this SDG met the specified holding time.

##### **Sample Preservation and Integrity**

All samples met the sample preservation and integrity requirements.

**Sample Dilutions**

The samples in this SDG did not require dilutions.

**Sample Re-extraction/Re-analysis**

The sample in this SDG was re-analyzed due to unacceptable recoveries in the initial analysis: 248202002 (RE36-10-8281).

**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. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

**Data Exception (DER) Documentation**

The following DER was generated for this SDG: 800524

**Manual Integrations**

Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

**TIC Comment**

The tentatively identified compounds included some silanols. These compounds were due to column or septum bleed and were not native to the affected samples.

**Additional Comments**

Additional comments were not required for this SDG.

**Residual Chlorine**

Residual Chlorine was not detected in any of the samples in this SDG.

**System Configuration**

The Volatile-GC/MS analysis was performed on the following instrument configuration:

<b>Instrument ID</b>	<b>Instrument</b>	<b>System Configuration</b>	<b>Column ID</b>	<b>Column Description</b>	<b>P &amp; T Trap</b>
VOA1.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	RTX-624	Restek, 60m x 0.25mm x 1.4um	Trap 10

**Certification Statement**

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

## **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: 10-2124 GEL Work Order: 248202

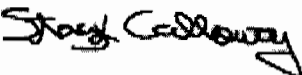
**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a surrogate compound
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

**Review/Validation**

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

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

Signature: 

Name: Stacy Calloway

Date: 24 MAR 2010

Title: Data Validator



## Roadmap for LANL 10-2124 VOA

This roadmap was analyzed by gel00735 on 03-07-2010, 22:31.

This roadmap was reviewed by sar00518 on 03-15-2010, 15:37.

This roadmap was packaged by lys00434 on 03-20-2010, 09:14.

Sample

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<input type="checkbox"/>	N	/chem/VOA1.i/030610v1/1a617.d	248202002	RE36-10-8281	06-MAR-2010	13:07	10-2124.sub	1	961979	<input type="text"/>
<input checked="" type="checkbox"/>	N	/chem/VOA1.i/030610v1/1a644.d	248202002	RE36-10-8281	07-MAR-2010	02:51	10-2124.sub	1	961979	<input type="text"/>

QC Sample

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# **Sample Data Summary**

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

Page 1 of 2

SDG Number: 10-2124  
 Lab Sample ID: 248202002

Date Collected: 02/23/2010 12:00  
 Date Received: 02/26/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA1.1  
 Analyst: GRB2  
 Aliquot: 5 g  
 Column: RTX-Volatiles

Matrix: R  
 %Moisture: 26.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.37	ug/kg	0.465	1.37
74-87-3	Chloromethane	U	1.37	ug/kg	0.410	1.37
75-01-4	Vinyl chloride	U	1.37	ug/kg	0.410	1.37
74-83-9	Bromomethane	U	1.37	ug/kg	0.410	1.37
75-00-3	Chloroethane	U	1.37	ug/kg	0.410	1.37
75-69-4	Trichlorofluoromethane	U	1.37	ug/kg	0.410	1.37
67-64-1	Acetone	U	6.84	ug/kg	2.27	6.84
75-35-4	1,1-Dichloroethylene	U	1.37	ug/kg	0.410	1.37
74-88-4	Iodomethane	U	6.84	ug/kg	2.19	6.84
75-09-2	Methylene chloride	J	3.78	ug/kg	2.74	6.84
75-15-0	Carbon disulfide	U	6.84	ug/kg	1.71	6.84
156-60-5	trans-1,2-Dichloroethylene	U	1.37	ug/kg	0.410	1.37
75-34-3	1,1-Dichloroethane	U	1.37	ug/kg	0.410	1.37
78-93-3	2-Butanone	U	6.84	ug/kg	2.05	6.84
156-59-2	cis-1,2-Dichloroethylene	U	1.37	ug/kg	0.410	1.37
594-20-7	2,2-Dichloropropane	U	1.37	ug/kg	0.410	1.37
67-66-3	Chloroform		9.82	ug/kg	0.410	1.37
74-97-5	Bromochloromethane	U	1.37	ug/kg	0.451	1.37
71-55-6	1,1,1-Trichloroethane	U	1.37	ug/kg	0.410	1.37
563-58-6	1,1-Dichloropropene	U	1.37	ug/kg	0.410	1.37
56-23-5	Carbon tetrachloride	U	1.37	ug/kg	0.410	1.37
107-06-2	1,2-Dichloroethane	U	1.37	ug/kg	0.410	1.37
71-43-2	Benzene	U	1.37	ug/kg	0.410	1.37
79-01-6	Trichloroethylene	U	1.37	ug/kg	0.451	1.37
78-87-5	1,2-Dichloropropane	U	1.37	ug/kg	0.410	1.37
75-27-4	Bromodichloromethane	J	1.17	ug/kg	0.410	1.37
74-95-3	Dibromomethane	U	1.37	ug/kg	0.410	1.37
108-10-1	4-Methyl-2-pentanone	U	6.84	ug/kg	1.71	6.84
10061-01-5	cis-1,3-Dichloropropylene	U	1.37	ug/kg	0.410	1.37
108-88-3	Toluene	J	0.524	ug/kg	0.410	1.37
10061-02-6	trans-1,3-Dichloropropylene	U	1.37	ug/kg	0.410	1.37
79-00-5	1,1,2-Trichloroethane	U	1.37	ug/kg	0.410	1.37
591-78-6	2-Hexanone	U	6.84	ug/kg	2.05	6.84
142-28-9	1,3-Dichloropropane	U	1.37	ug/kg	0.410	1.37
127-18-4	Tetrachloroethylene	U	1.37	ug/kg	0.410	1.37
124-48-1	Dibromochloromethane	J	0.635	ug/kg	0.410	1.37
106-93-4	1,2-Dibromoethane	U	1.37	ug/kg	0.410	1.37
108-90-7	Chlorobenzene	U	1.37	ug/kg	0.410	1.37

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124  
 Lab Sample ID: 248202002

Date Collected: 02/23/2010 12:00  
 Date Received: 02/26/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA1.I  
 Analyst: GRB2  
 Aliquot: 5 g  
 Column: RTX-Volatiles

Matrix: R  
 %Moisture: 26.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.37	ug/kg	0.410	1.37
179601-23-1	m,p-Xylenes	U	2.74	ug/kg	0.410	2.74
95-47-6	o-Xylene	U	1.37	ug/kg	0.410	1.37
100-42-5	Styrene	U	1.37	ug/kg	0.410	1.37
75-25-2	Bromoform	U	1.37	ug/kg	0.410	1.37
79-34-5	1,1,2,2-Tetrachloroethane	U	1.37	ug/kg	0.410	1.37
96-18-4	1,2,3-Trichloropropane	U	1.37	ug/kg	0.410	1.37
108-86-1	Bromobenzene	U	1.37	ug/kg	0.410	1.37
103-65-1	n-Propylbenzene	U	1.37	ug/kg	0.410	1.37
95-49-8	2-Chlorotoluene	U	1.37	ug/kg	0.410	1.37
98-82-8	Isopropylbenzene	U	1.37	ug/kg	0.410	1.37
108-67-8	1,3,5-Trimethylbenzene	U	1.37	ug/kg	0.410	1.37
106-43-4	4-Chlorotoluene	U	1.37	ug/kg	0.410	1.37
98-06-6	tert-Butylbenzene	U	1.37	ug/kg	0.410	1.37
95-63-6	1,2,4-Trimethylbenzene	U	1.37	ug/kg	0.410	1.37
135-98-8	sec-Butylbenzene	U	1.37	ug/kg	0.410	1.37
99-87-6	4-Isopropyltoluene	J	0.453	ug/kg	0.410	1.37
541-73-1	1,3-Dichlorobenzene	U	1.37	ug/kg	0.410	1.37
106-46-7	1,4-Dichlorobenzene	U	1.37	ug/kg	0.410	1.37
104-51-8	n-Butylbenzene	U	1.37	ug/kg	0.410	1.37
96-12-8	1,2-Dibromo-3-chloropropane	U	1.37	ug/kg	0.410	1.37
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.84	ug/kg	2.19	6.84
630-20-6	1,1,1,2-Tetrachloroethane	U	1.37	ug/kg	0.410	1.37
95-50-1	1,2-Dichlorobenzene	U	1.37	ug/kg	0.410	1.37

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124  
 Lab Sample ID: 248202001

Client ID: RE36-10-8282  
 Batch ID: 961979  
 Run Date: 03/06/2010 12:37  
 Prep Date: 03/06/2010 10:30  
 Data File: 1a616.d

Date Collected: 02/23/2010 12:00  
 Date Received: 02/26/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA1J  
 Analyst: GRB2  
 Aliquot: 5 g  
 Column: RTX-Volatiles

Matrix: R  
 %Moisture: 8.7  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.372	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.329	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.329	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.329	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.329	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.329	1.10
67-64-1	Acetone	U	5.48	ug/kg	1.82	5.48
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
74-88-4	Iodomethane	U	5.48	ug/kg	1.75	5.48
75-09-2	Methylene chloride	U	5.48	ug/kg	2.19	5.48
75-15-0	Carbon disulfide	U	5.48	ug/kg	1.37	5.48
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.329	1.10
78-93-3	2-Butanone	U	5.48	ug/kg	1.64	5.48
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.329	1.10
67-66-3	Chloroform	J	0.520	ug/kg	0.329	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.361	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.329	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.329	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.329	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.329	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.329	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.361	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.329	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.329	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.329	1.10
108-10-1	4-Methyl-2-pentanone	U	5.48	ug/kg	1.37	5.48
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.329	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.329	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.329	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.329	1.10
591-78-6	2-Hexanone	U	5.48	ug/kg	1.64	5.48
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.329	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.329	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.329	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.329	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.329	1.10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124  
 Lab Sample ID: 248202001

Client ID: RE36-10-8282  
 Batch ID: 961979  
 Run Date: 03/06/2010 12:37  
 Prep Date: 03/06/2010 10:30  
 Data File: 1a616.d

Date Collected: 02/23/2010 12:00  
 Date Received: 02/26/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA1J  
 Analyst: GRB2  
 Aliquot: 5 g  
 Column: RTX-Volatiles

Matrix: R  
 %Moisture: 8.7  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.329	1.10
179601-23-1	m,p-Xylenes	U	2.19	ug/kg	0.329	2.19
95-47-6	o-Xylene	U	1.10	ug/kg	0.329	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.329	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.329	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.329	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.329	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.329	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.329	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.329	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.329	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.329	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.329	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.329	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.329	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.329	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.329	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.329	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.329	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.329	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.329	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.48	ug/kg	1.75	5.48
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.329	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.329	1.10

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.05	7.65	ug/kg		J

# QC Summary

Volatile  
Surrogate Recovery Report

Page 1 of 1

SDG Number: 10-2124

Matrix Type: SOLID

CAP Column (1) : RTX-Volatiles

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202063388	LCS for batch 961978	114	101	105
1202063389	LCS for batch 961978	98	99	103
1202063385	MB for batch 961978	98	101	106
248202001	RE36-10-8282	115	102	114
248202002	RE36-10-8281	115	131 *	138 *
1202063386	RE36-10-8282PS	126	103	107
1202063387	RE36-10-8282PSD	122	103	113

## Surrogate

## Acceptance Limits

DCED4 = 1,2-Dichloroethane-d4

(66%-134%)

TOL = Toluene-d8

(71%-128%)

BFB = Bromofluorobenzene

(65%-130%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted



Volatile  
Quality Control Summary  
Spike Recovery Report

Page 1 of 6

SDG Number: 10-2124

Sample Type: Post Spike

Client ID: RE36-10-8282PS

Matrix: R

Lab Sample ID: 1202063386

%Moisture: 8.7

Instrument: VOA1.J

Analysis Date: 03/06/2010 13:38

Dilution: 1

Analyst: GRB2

Pren Batch II 961978

Purge Vol: 5 mL

Batch ID: 961979

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS Dichlorodifluoromethane	50.0	0.00 U	47.5	95	39-148
74-87-3	PS Chloromethane	50.0	0.00 U	46.7	93	42-131
75-01-4	PS Vinyl chloride	50.0	0.00 U	49.2	98	50-127
74-83-9	PS Bromomethane	50.0	0.00 U	46.7	93	26-135
75-00-3	PS Chloroethane	50.0	0.00 U	46.6	93	54-128
75-69-4	PS Trichlorofluoromethane	50.0	0.00 U	56.8	114	55-138
67-64-1	PS Acetone	250	0.00 U	178	71	20-144
75-35-4	PS 1,1-Dichloroethylene	50.0	0.00 U	52.7	105	55-128
74-88-4	PS Iodomethane	250	0.00 U	230	92	47-132
75-09-2	PS Methylene chloride	50.0	0.00 U	47.0	94	56-123
75-15-0	PS Carbon disulfide	250	0.00 U	247	99	53-133
156-60-5	PS trans-1,2-Dichloroethylene	50.0	0.00 U	46.9	94	57-119
75-34-3	PS 1,1-Dichloroethane	50.0	0.00 U	49.6	99	62-125
78-93-3	PS 2-Butanone	250	0.00 U	185	74	30-150
156-59-2	PS cis-1,2-Dichloroethylene	50.0	0.00 U	46.2	92	60-124
594-20-7	PS 2,2-Dichloropropane	50.0	0.00 U	55.9	112	56-129
67-66-3	PS Chloroform	50.0	0.475 J	51.0	101	62-120
74-97-5	PS Bromochloromethane	50.0	0.00 U	46.8	94	51-135
71-55-6	PS 1,1,1-Trichloroethane	50.0	0.00 U	54.0	108	58-129
563-58-6	PS 1,1-Dichloropropene	50.0	0.00 U	51.2	102	59-126
56-23-5	PS Carbon tetrachloride	50.0	0.00 U	57.3	115	55-132
107-06-2	PS 1,2-Dichloroethane	50.0	0.00 U	53.6	107	54-121

## Volatile

Page 2 of 6

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2124

Sample Type: Post Spike

Client ID: RE36-10-8282PS

Matrix: R

Lab Sample ID: 1202063386

%Moisture: 8.7

Instrument: VOA1.I

Analysis Date: 03/06/2010 13:38

Dilution: 1

Analyst: GRB2

Prep Batch ID: 961978

Purge Vol: 5 mL

Batch ID: 961979

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS Benzene	50.0	0.00 U	45.3	91	58-120
79-01-6	PS Trichloroethylene	50.0	0.00 U	47.6	95	54-130
78-87-5	PS 1,2-Dichloropropane	50.0	0.00 U	46.6	93	59-121
75-27-4	PS Bromodichloromethane	50.0	0.00 U	52.2	104	57-130
74-95-3	PS Dibromomethane	50.0	0.00 U	48.0	96	57-124
108-10-1	PS 4-Methyl-2-pentanone	250	0.00 U	233	93	40-137
10061-01-5	PS cis-1,3-Dichloropropylene	50.0	0.00 U	48.6	97	50-131
108-88-3	PS Toluene	50.0	0.00 U	46.5	93	54-119
10061-02-6	PS trans-1,3-Dichloropropylene	50.0	0.00 U	50.9	102	47-133
79-00-5	PS 1,1,2-Trichloroethane	50.0	0.00 U	46.2	92	60-130
591-78-6	PS 2-Hexanone	250	0.00 U	200	80	30-139
142-28-9	PS 1,3-Dichloropropane	50.0	0.00 U	46.7	93	59-125
127-18-4	PS Tetrachloroethylene	50.0	0.00 U	46.0	92	50-126
124-48-1	PS Dibromochloromethane	50.0	0.00 U	51.7	103	54-131
106-93-4	PS 1,2-Dibromoethane	50.0	0.00 U	46.9	94	55-127
108-90-7	PS Chlorobenzene	50.0	0.00 U	45.5	91	50-130
100-41-4	PS Ethylbenzene	50.0	0.00 U	47.5	95	50-121
179601-23-1	PS m,p-Xylenes	100	0.00 U	91.7	92	47-125
95-47-6	PS o-Xylene	50.0	0.00 U	46.0	92	51-127
100-42-5	PS Styrene	50.0	0.00 U	46.2	92	41-136
75-25-2	PS Bromoform	50.0	0.00 U	52.5	105	48-143
79-34-5	PS 1,1,2,2-Tetrachloroethane	50.0	0.00 U	48.0	96	52-129

## Volatile

Page 3 of 6

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2124

Sample Type: Post Spike

Client ID: RE36-10-8282PS

Matrix: R

Lab Sample ID: 1202063386

%Moisture: 8.7

Instrument: VOA1.I

Analysis Date: 03/06/2010 13:38

Dilution: 1

Analyst: GRB2

Prep Batch ID: 961978

Purge Vol: 5 mL

Batch ID: 961979

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS 1,2,3-Trichloropropane	50.0	0.00 U	49.9	100	56-139
108-86-1	PS Bromobenzene	50.0	0.00 U	45.7	91	54-125
103-65-1	PS n-Propylbenzene	50.0	0.00 U	47.7	95	46-127
95-49-8	PS 2-Chlorotoluene	50.0	0.00 U	47.8	96	47-130
98-82-8	PS Isopropylbenzene	50.0	0.00 U	48.5	97	42-126
108-67-8	PS 1,3,5-Trimethylbenzene	50.0	0.00 U	47.9	96	44-132
106-43-4	PS 4-Chlorotoluene	50.0	0.00 U	46.8	94	46-127
98-06-6	PS tert-Butylbenzene	50.0	0.00 U	46.7	93	48-136
95-63-6	PS 1,2,4-Trimethylbenzene	50.0	0.00 U	47.0	94	42-132
135-98-8	PS sec-Butylbenzene	50.0	0.00 U	44.8	90	47-130
99-87-6	PS 4-Isopropyltoluene	50.0	0.00 U	45.1	90	36-142
541-73-1	PS 1,3-Dichlorobenzene	50.0	0.00 U	42.4	85	41-130
106-46-7	PS 1,4-Dichlorobenzene	50.0	0.00 U	42.4	85	41-126
104-51-8	PS n-Butylbenzene	50.0	0.00 U	42.5	85	37-136
96-12-8	PS 1,2-Dibromo-3-chloropropane	50.0	0.00 U	47.5	95	42-143
630-20-6	PS 1,1,1,2-Tetrachloroethane	50.0	0.00 U	50.4	101	58-127
95-50-1	PS 1,2-Dichlorobenzene	50.0	0.00 U	41.0	82	42-128

### Quality Control Summary Spike Recovery Report

SDG Number: 10-2124

Sample Type: Post Spike Duplicate

Client ID: RE36-10-8282PSD

Matrix: R

Lab Sample ID: 1202063387

%Moisture: 8.7

Instrument: VOA1.I

Analysis Date: 03/06/2010 14:09

Dilution: 1

Analyst: GRB2

Prep Batch ID: 961978

Purge Vol: 5 mL

Batch ID: 961979

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD Dichlorodifluoromethane	50.0	0.00	U 43.9	88	39-148	8	0-19
74-87-3	PSD Chloromethane	50.0	0.00	U 44.7	89	42-131	4	0-23
75-01-4	PSD Vinyl chloride	50.0	0.00	U 44.4	89	50-127	10	0-23
74-83-9	PSD Bromomethane	50.0	0.00	U 44.9	90	26-135	4	0-22
75-00-3	PSD Chloroethane	50.0	0.00	U 45.2	90	54-128	3	0-25
75-69-4	PSD Trichlorofluoromethane	50.0	0.00	U 52.9	106	55-138	7	0-21
67-64-1	PSD Acetone	250	0.00	U 173	69	20-144	3	0-22
75-35-4	PSD 1,1-Dichloroethylene	50.0	0.00	U 50.7	101	55-128	4	0-20
74-88-4	PSD Iodomethane	250	0.00	U 225	90	47-132	2	0-20
75-09-2	PSD Methylene chloride	50.0	0.00	U 48.8	98	56-123	4	0-20
75-15-0	PSD Carbon disulfide	250	0.00	U 241	96	53-133	2	0-22
156-60-5	PSD trans-1,2-Dichloroethylene	50.0	0.00	U 45.6	91	57-119	3	0-20
75-34-3	PSD 1,1-Dichloroethane	50.0	0.00	U 48.5	97	62-125	2	0-20
78-93-3	PSD 2-Butanone	250	0.00	U 187	75	30-150	1	0-21
156-59-2	PSD cis-1,2-Dichloroethylene	50.0	0.00	U 45.9	92	60-124	1	0-20
594-20-7	PSD 2,2-Dichloropropane	50.0	0.00	U 52.3	105	56-129	7	0-20
67-66-3	PSD Chloroform	50.0	0.475	J 50.1	99	62-120	2	0-25
74-97-5	PSD Bromochloromethane	50.0	0.00	U 48.0	96	51-135	2	0-20
71-55-6	PSD 1,1,1-Trichloroethane	50.0	0.00	U 51.2	102	58-129	5	0-20
563-58-6	PSD 1,1-Dichloropropene	50.0	0.00	U 48.7	97	59-126	5	0-20
56-23-5	PSD Carbon tetrachloride	50.0	0.00	U 54.6	109	55-132	5	0-20
107-06-2	PSD 1,2-Dichloroethane	50.0	0.00	U 53.2	106	54-121	1	0-20

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 5 of 6

SDG Number: 10-2124

Sample Type: Post Spike Duplicate

Client ID: RE36-10-8282PSD

Matrix: R

Lab Sample ID: 1202063387

%Moisture: 8.7

Instrument: VOA1.I

Analysis Date: 03/06/2010 14:09

Dilution: 1

Analyst: GRB2

Pre Batch II 961978

Purge Vol: 5 mL

Batch ID: 961979

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	U	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD Benzene	50.0	0.00	U	44.3	89	58-120	2	0-20
79-01-6	PSD Trichloroethylene	50.0	0.00	U	46.2	92	54-130	3	0-23
78-87-5	PSD 1,2-Dichloropropane	50.0	0.00	U	46.5	93	59-121	0	0-20
75-27-4	PSD Bromodichloromethane	50.0	0.00	U	52.5	105	57-130	1	0-20
74-95-3	PSD Dibromomethane	50.0	0.00	U	48.6	97	57-124	1	0-20
108-10-1	PSD 4-Methyl-2-pentanone	250	0.00	U	248	99	40-137	6	0-25
10061-01-5	PSD cis-1,3-Dichloropropylene	50.0	0.00	U	48.0	96	50-131	1	0-20
108-88-3	PSD Toluene	50.0	0.00	U	46.1	92	54-119	1	0-23
10061-02-6	PSD trans-1,3-Dichloropropylene	50.0	0.00	U	51.2	102	47-133	1	0-24
79-00-5	PSD 1,1,2-Trichloroethane	50.0	0.00	U	48.0	96	60-130	4	0-20
591-78-6	PSD 2-Hexanone	250	0.00	U	199	80	30-139	0	0-21
142-28-9	PSD 1,3-Dichloropropane	50.0	0.00	U	48.6	97	59-125	4	0-20
127-18-4	PSD Tetrachloroethylene	50.0	0.00	U	45.9	92	50-126	0	0-20
124-48-1	PSD Dibromochloromethane	50.0	0.00	U	52.2	104	54-131	1	0-23
106-93-4	PSD 1,2-Dibromoethane	50.0	0.00	U	47.8	96	55-127	2	0-23
108-90-7	PSD Chlorobenzene	50.0	0.00	U	45.7	91	50-130	0	0-24
100-41-4	PSD Ethylbenzene	50.0	0.00	U	47.7	95	50-121	0	0-24
179601-23-1	PSD m,p-Xylenes	100	0.00	U	93.0	93	47-125	1	0-25
95-47-6	PSD o-Xylene	50.0	0.00	U	46.4	93	51-127	1	0-24
100-42-5	PSD Styrene	50.0	0.00	U	46.4	93	41-136	1	0-24
75-25-2	PSD Bromoform	50.0	0.00	U	59.5	119	48-143	13	0-20
79-34-5	PSD 1,1,2,2-Tetrachloroethane	50.0	0.00	U	54.5	109	52-129	13	0-20

### Quality Control Summary Spike Recovery Report

SDG Number: 10-2124

Sample Type: Post Spike Duplicate

Client ID: RE36-10-8282PSD

Matrix: R

Lab Sample ID: 1202063387

%Moisture: 8.7

Instrument: VOA1.I

Analysis Date: 03/06/2010 14:09

Dilution: 1

Analyst: GRB2

Prep Batch II 961978

Purge Vol: 5 mL

Batch ID: 961979

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD 1,2,3-Trichloropropane	50.0	0.00	U	57.6	115	56-139	14	0-34
108-86-1	PSD Bromobenzene	50.0	0.00	U	49.6	99	54-125	8	0-22
103-65-1	PSD n-Propylbenzene	50.0	0.00	U	53.5	107	46-127	11	0-25
95-49-8	PSD 2-Chlorotoluene	50.0	0.00	U	52.9	106	47-130	10	0-24
98-82-8	PSD Isopropylbenzene	50.0	0.00	U	54.9	110	42-126	12	0-22
108-67-8	PSD 1,3,5-Trimethylbenzene	50.0	0.00	U	53.9	108	44-132	12	0-25
106-43-4	PSD 4-Chlorotoluene	50.0	0.00	U	51.4	103	46-127	9	0-26
98-06-6	PSD tert-Butylbenzene	50.0	0.00	U	53.2	106	48-136	13	0-24
95-63-6	PSD 1,2,4-Trimethylbenzene	50.0	0.00	U	52.4	105	42-132	11	0-26
135-98-8	PSD sec-Butylbenzene	50.0	0.00	U	51.5	103	47-130	14	0-27
99-87-6	PSD 4-Isopropyltoluene	50.0	0.00	U	51.4	103	36-142	13	0-27
541-73-1	PSD 1,3-Dichlorobenzene	50.0	0.00	U	45.4	91	41-130	7	0-25
106-46-7	PSD 1,4-Dichlorobenzene	50.0	0.00	U	45.2	90	41-126	6	0-25
104-51-8	PSD n-Butylbenzene	50.0	0.00	U	48.8	98	37-136	14	0-29
96-12-8	PSD 1,2-Dibromo-3-chloropropane	50.0	0.00	U	52.7	105	42-143	10	0-21
630-20-6	PSD 1,1,1,2-Tetrachloroethane	50.0	0.00	U	51.0	102	58-127	1	0-20
95-50-1	PSD 1,2-Dichlorobenzene	50.0	0.00	U	44.3	89	42-128	8	0-24

## Volatile

Page 1 of 3

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2124

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961978

Matrix: SOIL

Lab Sample ID: 1202063388

Instrument: VOA1.I

Analysis Date: 03/06/2010 06:00

Dilution: 1

Analyst: GRB2

Pre Batch ID: 961978

Purge Vol: 5 mL

Batch ID: 961979

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS Dichlorodifluoromethane	50.0	0.0	46.3	93	52-151
74-87-3	LCS Chloromethane	50.0	0.0	46.9	94	56-130
75-01-4	LCS Vinyl chloride	50.0	0.0	46.2	92	66-130
74-83-9	LCS Bromomethane	50.0	0.0	46.6	93	70-126
75-00-3	LCS Chloroethane	50.0	0.0	47.8	96	67-129
75-69-4	LCS Trichlorofluoromethane	50.0	0.0	51.0	102	73-143
67-64-1	LCS Acetone	250	0.0	218	87	30-140
75-35-4	LCS 1,1-Dichloroethylene	50.0	0.0	49.6	99	71-129
74-88-4	LCS Iodomethane	250	0.0	235	94	72-125
75-09-2	LCS Methylene chloride	50.0	0.0	49.6	99	64-121
75-15-0	LCS Carbon disulfide	250	0.0	253	101	70-133
156-60-5	LCS trans-1,2-Dichloroethylene	50.0	0.0	49.3	99	73-120
75-34-3	LCS 1,1-Dichloroethane	50.0	0.0	48.9	98	73-120
78-93-3	LCS 2-Butanone	250	0.0	214	86	32-145
156-59-2	LCS cis-1,2-Dichloroethylene	50.0	0.0	49.1	98	74-124
594-20-7	LCS 2,2-Dichloropropane	50.0	0.0	52.6	105	73-134
67-66-3	LCS Chloroform	50.0	0.0	50.3	101	74-120
74-97-5	LCS Bromochloromethane	50.0	0.0	49.3	99	73-122
71-55-6	LCS 1,1,1-Trichloroethane	50.0	0.0	50.8	102	74-132
563-58-6	LCS 1,1-Dichloropropene	50.0	0.0	51.1	102	79-128
56-23-5	LCS Carbon tetrachloride	50.0	0.0	53.1	106	75-135
107-06-2	LCS 1,2-Dichloroethane	50.0	0.0	51.5	103	65-120

## Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2124

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961978

Matrix: SOIL

Lab Sample ID: 1202063388

Instrument: VOA1.1

Analysis Date: 03/06/2010 06:00

Dilution: 1

Analyst: GRB2

Pren Batch II 961978

Purge Vol: 5 mL

Batch ID: 961979

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS Benzene	50.0	0.0	47.9	96	74-120
79-01-6	LCS Trichloroethylene	50.0	0.0	48.9	98	77-124
78-87-5	LCS 1,2-Dichloropropane	50.0	0.0	49.3	99	73-120
75-27-4	LCS Bromodichloromethane	50.0	0.0	53.5	107	75-128
74-95-3	LCS Dibromomethane	50.0	0.0	50.0	100	75-120
108-10-1	LCS 4-Methyl-2-pentanone	250	0.0	244	98	63-133
10061-01-5	LCS cis-1,3-Dichloropropylene	50.0	0.0	52.5	105	78-127
108-88-3	LCS Toluene	50.0	0.0	48.0	96	74-120
10061-02-6	LCS trans-1,3-Dichloropropylene	50.0	0.0	53.1	106	70-125
79-00-5	LCS 1,1,2-Trichloroethane	50.0	0.0	48.5	97	75-120
591-78-6	LCS 2-Hexanone	250	0.0	223	89	40-153
142-28-9	LCS 1,3-Dichloropropane	50.0	0.0	48.2	96	73-120
127-18-4	LCS Tetrachloroethylene	50.0	0.0	47.2	94	72-126
124-48-1	LCS Dibromochloromethane	50.0	0.0	52.4	105	74-126
106-93-4	LCS 1,2-Dibromoethane	50.0	0.0	49.0	98	79-120
108-90-7	LCS Chlorobenzene	50.0	0.0	48.3	97	76-120
100-41-4	LCS Ethylbenzene	50.0	0.0	49.4	99	74-120
179601-23-1	LCS m,p-Xylenes	100	0.0	96.9	97	76-120
95-47-6	LCS o-Xylene	50.0	0.0	49.4	99	76-122
100-42-5	LCS Styrene	50.0	0.0	51.0	102	75-125
75-25-2	LCS Bromoform	50.0	0.0	54.6	109	68-135
79-34-5	LCS 1,1,2,2-Tetrachloroethane	50.0	0.0	49.9	100	72-122



## Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2124

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961978

Matrix: SOIL

Lab Sample ID: 1202063388

Instrument: VOA1.I

Analysis Date: 03/06/2010 06:00

Dilution: 1

Analyst: GRB2

Pren Batch II 961978

Purge Vol: 5 mL

Batch ID: 961979

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS 1,2,3-Trichloropropane	50.0	0.0	49.6	99	72-129
108-86-1	LCS Bromobenzene	50.0	0.0	48.6	97	74-120
103-65-1	LCS n-Propylbenzene	50.0	0.0	50.2	100	70-120
95-49-8	LCS 2-Chlorotoluene	50.0	0.0	50.2	100	70-120
98-82-8	LCS Isopropylbenzene	50.0	0.0	49.9	100	60-121
108-67-8	LCS 1,3,5-Trimethylbenzene	50.0	0.0	50.8	102	71-121
106-43-4	LCS 4-Chlorotoluene	50.0	0.0	50.3	101	71-120
98-06-6	LCS tert-Butylbenzene	50.0	0.0	49.8	100	75-123
95-63-6	LCS 1,2,4-Trimethylbenzene	50.0	0.0	50.0	100	73-120
135-98-8	LCS sec-Butylbenzene	50.0	0.0	50.0	100	74-123
99-87-6	LCS 4-Isopropyltoluene	50.0	0.0	50.4	101	76-127
541-73-1	LCS 1,3-Dichlorobenzene	50.0	0.0	47.8	96	75-120
106-46-7	LCS 1,4-Dichlorobenzene	50.0	0.0	48.3	97	73-120
104-51-8	LCS n-Butylbenzene	50.0	0.0	50.4	101	73-128
96-12-8	LCS 1,2-Dibromo-3-chloropropane	50.0	0.0	51.1	102	69-136
630-20-6	LCS 1,1,1,2-Tetrachloroethane	50.0	0.0	50.8	102	75-124
95-50-1	LCS 1,2-Dichlorobenzene	50.0	0.0	48.7	97	75-120

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 1 of 1

SDG Number: 10-2124

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961978

Matrix: SOIL

Lab Sample ID: 1202063389

Instrument: VOA1.J

Analysis Date: 03/06/2010 07:01

Dilution: 1

Analyst: GRB2

Prep Batch II 961978

Purge Vol: 5 mL

Batch ID: 961979

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS 1,1,2-Trichloro-1,2,2-Trifluor Trichlorotrifluoroethane	250	0.0	267	107	67-140

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2124	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 961978	Instrument ID:	VOA1J	Data File:	1a606SBLA.d
Lab Sample ID:	1202063385	Prep Date:	03/06/2010 04:15	Analyzed:	03/06/10 07:31
Column:	RTX-Volatiles	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 961978	1202063388	1a603SLLA.d	03/06/10	0600
02 LCS for batch 961978	1202063389	1a605SSLA.d	03/06/10	0701
03 RE36-10-8282	248202001	1a616.d	03/06/10	1237
04 RE36-10-8281	248202002	1a617.d	03/06/10	1307
05 RE36-10-8282PS	1202063386	1a618.d	03/06/10	1338
06 RE36-10-8282PSD	1202063387	1a619.d	03/06/10	1409

## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2124

Instrument ID: VOA1.I

Injection Date/Time: 04-MAR-10 16:41

Column Description: RTX-Volatiles

Lab File ID /030410v1/1a411.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	22.2
75	30.0 - 60.0% of mass 95	56.5
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.9
174	50.0 - 100.0% of mass 95	71.7
175	5.0 - 9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	95.2
177	5.0 - 9.0% of mass 176	6.8

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD, BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD001	W1VM100304-06	1a412.d	04-MAR-10 17:28
VSTD002	W1VM100304-07	1a413.d	04-MAR-10 17:59
VSTD005	W1VM100304-08	1a414.d	04-MAR-10 18:29
VSTD010	W1VM100304-09	1a415.d	04-MAR-10 19:00
VSTD020	W1VM100304-10	1a416.d	04-MAR-10 19:31
VSTD050	W1VM100304-11	1a417.d	04-MAR-10 20:02
VSTD100	W1VM100304-12	1a418.d	04-MAR-10 20:32
VSTD0005	W1VM100304-13	1a420.d	04-MAR-10 21:35
VSTD005S	W1VM100304-16	1a423.d	04-MAR-10 23:06
VSTD010S	W1VM100304-17	1a424.d	04-MAR-10 23:37
VSTD025S	W1VM100304-18	1a425.d	05-MAR-10 00:08
VSTD050S	W1VM100304-19	1a426.d	05-MAR-10 00:39
VSTD100S	W1VM100304-20	1a427.d	05-MAR-10 01:10
VSTD250S	W1VM100304-21	1a428.d	05-MAR-10 01:41
VSTD500S	W1VM100304-22	1a429.d	05-MAR-10 02:12
SICV	W1VM100304-23	1a431.d	05-MAR-10 03:14

## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2124

Instrument ID: VOA1.1

Injection Date/Time: 05-MAR-10 10:31

Column Description: RTX-Volatiles

Lab File ID /030410v1/1a502BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	22.9
75	30.0 - 60.0% of mass 95	57.9
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	72.8
175	5.0 - 9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	97
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD, BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
LICV	W1VM100305-01	1a502.d	05-MAR-10 10:31

## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2124

Instrument ID: VOA1.I

Injection Date/Time: 06-MAR-10 04:59

Column Description: RTX-Volatiles

Lab File ID /030610v1/1a601.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	23.5
75	30.0 - 60.0% of mass 95	58.6
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	69.9
175	5.0 - 9.0% of mass 174	7.3
176	95.0 - 101.0% of mass 174	97.6
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD, BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W1VM100306-01	1a602.d	06-MAR-10 05:30
LCS	1202063388	1a603SLLA.d	06-MAR-10 06:00
VSTD250S	W1VM100306-03	1a604.d	06-MAR-10 06:30
LCS	1202063389	1a605SSLA.d	06-MAR-10 07:01
BLANK	1202063385	1a606SBLA.d	06-MAR-10 07:31
RE36-10-8282	248202001	1a616.d	06-MAR-10 12:37
RE36-10-8281	248202002	1a617.d	06-MAR-10 13:07
RE36-10-8282MS	1202063386	1a618.d	06-MAR-10 13:38
RE36-10-8282MSD	1202063387	1a619.d	06-MAR-10 14:09

### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2124

Instrument: VOA1.I

STD Analysis Time: 06-MAR-10 05:30

GC Column: RTX-Volatiles

Data File: 1a602.d

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	983830		13.7	727729		17.2	400286		19.6
Upper Limit	1967660		14.2	1455458		17.7	800572		20.1
Lower Limit	491915		13.2	363865		16.7	200143		19.1
Sample ID									
BLK01LCS	1009653		13.7	755441		17.2	412337		19.6
BLK01SLCS	1038984		13.7	767061		17.2	421573		19.6
BLK01	1069624		13.7	769404		17.2	415081		19.6
RE36-10-8282	836926		13.7	590254		17.2	281267		19.6
RE36-10-8281	685158		13.7	361740	*	17.2	114374	*	19.6
RE36-10-8282MS	820851		13.7	595759		17.2	313979		19.6
RE36-10-8282MSD	848892		13.7	612206		17.2	293356		19.6

Area Upper Limit = +100% of internal standard area

Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT

RT Lower Limit = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk

\* Value outside of QC Limits

# Sample Data



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124  
 Lab Sample ID: 248202002

Date Collected: 02/23/2010 12:00  
 Date Received: 02/26/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA11  
 Analyst: GRB2  
 Aliquot: 5 g  
 Column: RTX-Volatiles

Matrix: R  
 %Moisture: 26.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.37	ug/kg	0.465	1.37
74-87-3	Chloromethane	U	1.37	ug/kg	0.410	1.37
75-01-4	Vinyl chloride	U	1.37	ug/kg	0.410	1.37
74-83-9	Bromomethane	U	1.37	ug/kg	0.410	1.37
75-00-3	Chloroethane	U	1.37	ug/kg	0.410	1.37
75-69-4	Trichlorofluoromethane	U	1.37	ug/kg	0.410	1.37
67-64-1	Acetone	U	6.84	ug/kg	2.27	6.84
75-35-4	1,1-Dichloroethylene	U	1.37	ug/kg	0.410	1.37
74-88-4	Iodomethane	U	6.84	ug/kg	2.19	6.84
75-09-2	Methylene chloride	J	3.78	ug/kg	2.74	6.84
75-15-0	Carbon disulfide	U	6.84	ug/kg	1.71	6.84
156-60-5	trans-1,2-Dichloroethylene	U	1.37	ug/kg	0.410	1.37
75-34-3	1,1-Dichloroethane	U	1.37	ug/kg	0.410	1.37
78-93-3	2-Butanone	U	6.84	ug/kg	2.05	6.84
156-59-2	cis-1,2-Dichloroethylene	U	1.37	ug/kg	0.410	1.37
594-20-7	2,2-Dichloropropane	U	1.37	ug/kg	0.410	1.37
67-66-3	Chloroform		9.82	ug/kg	0.410	1.37
74-97-5	Bromochloromethane	U	1.37	ug/kg	0.451	1.37
71-55-6	1,1,1-Trichloroethane	U	1.37	ug/kg	0.410	1.37
563-58-6	1,1-Dichloropropene	U	1.37	ug/kg	0.410	1.37
56-23-5	Carbon tetrachloride	U	1.37	ug/kg	0.410	1.37
107-06-2	1,2-Dichloroethane	U	1.37	ug/kg	0.410	1.37
71-43-2	Benzene	U	1.37	ug/kg	0.410	1.37
79-01-6	Trichloroethylene	U	1.37	ug/kg	0.451	1.37
78-87-5	1,2-Dichloropropane	U	1.37	ug/kg	0.410	1.37
75-27-4	Bromodichloromethane	J	1.17	ug/kg	0.410	1.37
74-95-3	Dibromomethane	U	1.37	ug/kg	0.410	1.37
108-10-1	4-Methyl-2-pentanone	U	6.84	ug/kg	1.71	6.84
10061-01-5	cis-1,3-Dichloropropylene	U	1.37	ug/kg	0.410	1.37
108-88-3	Toluene	J	0.524	ug/kg	0.410	1.37
10061-02-6	trans-1,3-Dichloropropylene	U	1.37	ug/kg	0.410	1.37
79-00-5	1,1,2-Trichloroethane	U	1.37	ug/kg	0.410	1.37
591-78-6	2-Hexanone	U	6.84	ug/kg	2.05	6.84
142-28-9	1,3-Dichloropropane	U	1.37	ug/kg	0.410	1.37
127-18-4	Tetrachloroethylene	U	1.37	ug/kg	0.410	1.37
124-48-1	Dibromochloromethane	J	0.635	ug/kg	0.410	1.37
106-93-4	1,2-Dibromoethane	U	1.37	ug/kg	0.410	1.37
108-90-7	Chlorobenzene	U	1.37	ug/kg	0.410	1.37

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124	Date Collected: 02/23/2010 12:00	Matrix: R
Lab Sample ID: 248202002	Date Received: 02/26/2010 08:45	%Moisture: 26.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8281	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961979	Inst: VOA1.1	Dilution: 1
Run Date: 03/06/2010 13:07	Analyst: GRB2	Purge Vol: 5 mL
Prep Date: 03/06/2010 10:36	Aliquot: 5 g	Final Volume: 5 mL
Data File: 1a617.d	Column: RTX-Volatiles	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.37	ug/kg	0.410	1.37
179601-23-1	m,p-Xylenes	U	2.74	ug/kg	0.410	2.74
95-47-6	o-Xylene	U	1.37	ug/kg	0.410	1.37
100-42-5	Styrene	U	1.37	ug/kg	0.410	1.37
75-25-2	Bromoform	U	1.37	ug/kg	0.410	1.37
79-34-5	1,1,2,2-Tetrachloroethane	U	1.37	ug/kg	0.410	1.37
96-18-4	1,2,3-Trichloropropane	U	1.37	ug/kg	0.410	1.37
108-86-1	Bromobenzene	U	1.37	ug/kg	0.410	1.37
103-65-1	n-Propylbenzene	U	1.37	ug/kg	0.410	1.37
95-49-8	2-Chlorotoluene	U	1.37	ug/kg	0.410	1.37
98-82-8	Isopropylbenzene	U	1.37	ug/kg	0.410	1.37
108-67-8	1,3,5-Trimethylbenzene	U	1.37	ug/kg	0.410	1.37
106-43-4	4-Chlorotoluene	U	1.37	ug/kg	0.410	1.37
98-06-6	tert-Butylbenzene	U	1.37	ug/kg	0.410	1.37
95-63-6	1,2,4-Trimethylbenzene	U	1.37	ug/kg	0.410	1.37
135-98-8	sec-Butylbenzene	U	1.37	ug/kg	0.410	1.37
99-87-6	4-Isopropyltoluene	J	0.453	ug/kg	0.410	1.37
541-73-1	1,3-Dichlorobenzene	U	1.37	ug/kg	0.410	1.37
106-46-7	1,4-Dichlorobenzene	U	1.37	ug/kg	0.410	1.37
104-51-8	n-Butylbenzene	U	1.37	ug/kg	0.410	1.37
96-12-8	1,2-Dibromo-3-chloropropane	U	1.37	ug/kg	0.410	1.37
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.84	ug/kg	2.19	6.84
630-20-6	1,1,1,2-Tetrachloroethane	U	1.37	ug/kg	0.410	1.37
95-50-1	1,2-Dichlorobenzene	U	1.37	ug/kg	0.410	1.37

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/030610v1/1a617.d

Lab Smp Id: 248202002

Client Smp ID: RE36-10-8281

Inj Date : 06-MAR-2010 13:07

Operator : GRB2

Inst ID: VOA1.i

Smp Info : |248202002|961979|1|VOAF|1|

Misc Info : LANL 5g N/A

Comment :

Method : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m

Meth Date : 06-Mar-2010 06:58 gel00735 Quant Type: ISTD

Cal Date : 05-MAR-2010 01:41

Cal File: 1a428.d

Als bottle: 17

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: 10-2124.sub

Target Version: 3.50

Processing Host: prdsvr07

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	26.87770	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG			RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT REL RT		ON-COLUMN ( ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672 (1.000)	685158	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148 (1.000)	361740	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.601 (1.000)	114374	50.0000	
\$ 48 1,2-Dichloroethane-d4	65	13.327	13.327 (0.975)	384364	57.4540	78.6
\$ 65 Toluene-d8	98	15.504	15.504 (0.904)	794738	65.3217	89.3 (R)
\$ 87 Bromofluorobenzene	95	18.377	18.377 (0.938)	197782	68.9737	94.3 (R)
23 Methylene chloride	84	10.114	10.128 (0.740)	14986	2.76729	3.8 (a)
41 Chloroform	83	12.595	12.600 (0.921)	56844	7.17961	9.8
60 Bromodichloromethane	83	14.745	14.740 (1.078)	5025	0.85387	1.2 (a)
66 Toluene	92	15.587	15.583 (0.909)	2674	0.38325	0.52 (a)
73 Dibromochloromethane	129	16.531	16.535 (0.964)	1325	0.46414	0.63 (aQ)
100 4-Isopropyltoluene	119	19.403	19.408 (0.990)	2229	0.33119	0.45 (a)

QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.
- R - Spike/Surrogate failed recovery limits.

## ION RATIO REPORT

## VOA REPORT

Data file: 1a617.d

Report Date: 03/06/2010 17:40

Lab. ID: 248202002

SampleType: SAMPLE

Injection Date: 06-MAR-2010 13:07

Operator: GRB2

Instrument: VOA1.i

Sample Info: |248202002|961979|1|VOAF|1|

Miscellaneous Info: LANL 5g N/A

Comment:

Method used: /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2124

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
23 Methylene chloride			CAS#: 75-09-2			
84	14986	10.11	10.13	80-120	100	( )
86	10015	10.13	10.13	35- 95	67	( )
49	26039	10.11	10.12	136-196	174	( )
-----						
41 Chloroform			CAS#: 67-66-3			
83	56844	12.60	12.60	80-120	100	( )
85	36651	12.60	12.60	35- 95	64	( )
-----						
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	14452	13.67	13.43	80-120	100	(T)
64	2494	13.66	13.43	2- 62	17	(T)
-----						
60 Bromodichloromethane			CAS#: 75-27-4			
83	5025	14.74	14.74	80-120	100	( )
85	3065	14.74	14.74	35- 95	61	( )
-----						
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	8905	15.51	15.35	80-120	100	(T)
43	6539	15.50	15.35	235-295	73	(QT)
100	502604	15.50	15.35	0- 58	5644	(QT)
-----						
66 Toluene			CAS#: 108-88-3			
92	2674	15.59	15.58	80-120	100	( )
91	4330	15.58	15.58	139-199	162	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
73 Dibromochloromethane				CAS#: 124-48-1		
129	1325	16.53	16.54	80-120	100	( )
127	452	16.53	16.54	46-106	34	(Q)
-----						
96 tert-Butylbenzene				CAS#: 98-06-6		
119	2605	18.74	19.06	80-120	100	(T)
91	1600	18.75	19.06	54-114	61	(T)
134	215	18.74	19.06	0- 52	8	(T)
-----						
100 4-Isopropyltoluene				CAS#: 99-87-6		
119	2229	19.40	19.41	80-120	100	( )
134	443	19.41	19.41	0- 54	20	( )
91	650	19.41	19.41	0- 60	29	( )
-----						
Q qualifier indicates ion failed ratio requirement						

Data File: /chem/VOA1.i/030610v1/1a617.d  
Report Date: 07-Mar-2010 13:30

Page 1

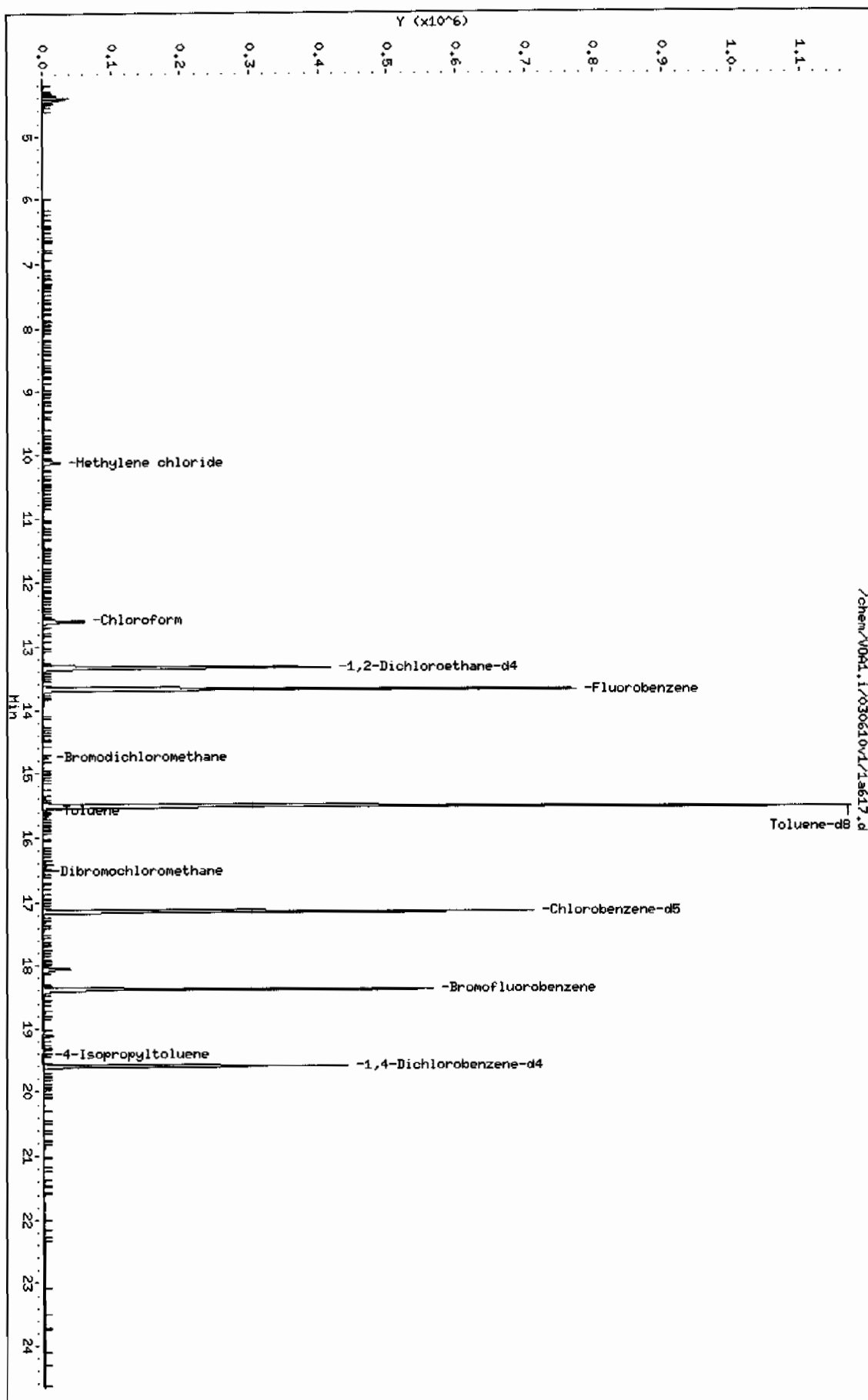
GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026  
Data file : /chem/VOA1.i/030610v1/1a617.d  
Lab Smp Id: 248202002 Client Smp ID: RE36-10-8281  
Inj Date : 06-MAR-2010 13:07  
Operator : GRB2 Inst ID: VOA1.i  
Smp Info : |248202002|961979|1|VOAF|1|  
Misc Info : LANL 5g N/A  
Comment :  
Method : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m  
Meth Date : 06-Mar-2010 06:58 gel00735 Quant Type: ISTD  
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d  
Als bottle: 17  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2124.sub  
Target Version: 3.50  
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/V001.i/030610v1/1a617.d  
Date : 06-Mar-2010 13:07  
Client ID: RE36-10-8281  
Sample Info: 12482020021961979141V00F11.i  
Column phase: RTX-Volatiles

Instrument: W001.i  
Operator: GRB2  
Column diameter: 0.25





Date : 06-MAR-2010 13:07

Client ID: RE36-10-8281

Instrument: VOA1.i

Sample Info: 12482020021961979111VOAF111

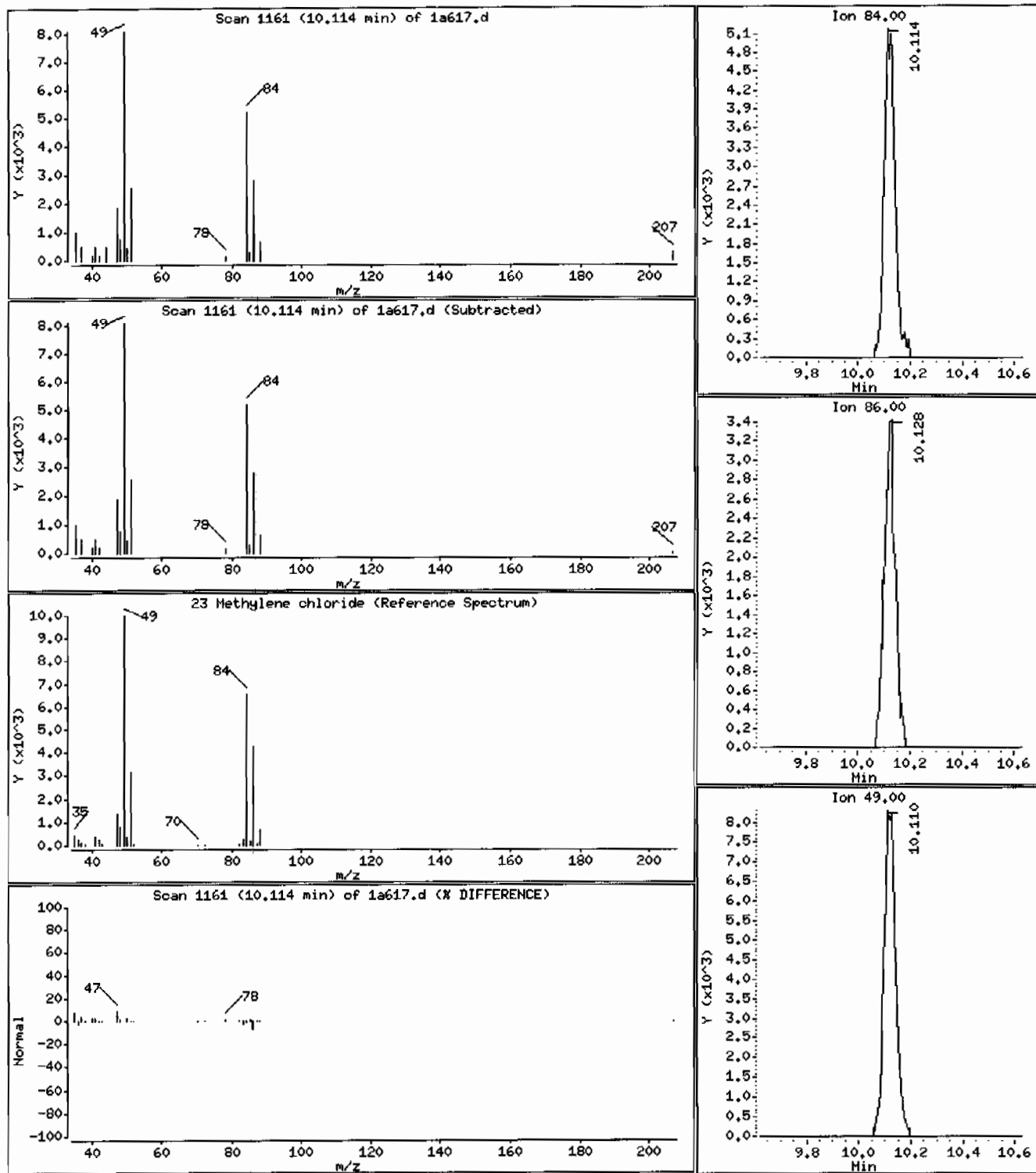
Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

23 Methylene chloride

Concentration: 3.8 ug/Kg



Date : 06-MAR-2010 13:07

Client ID: RE36-10-8281

Instrument: VOA1.1

Sample Info: 12482020021961979111VOAF111

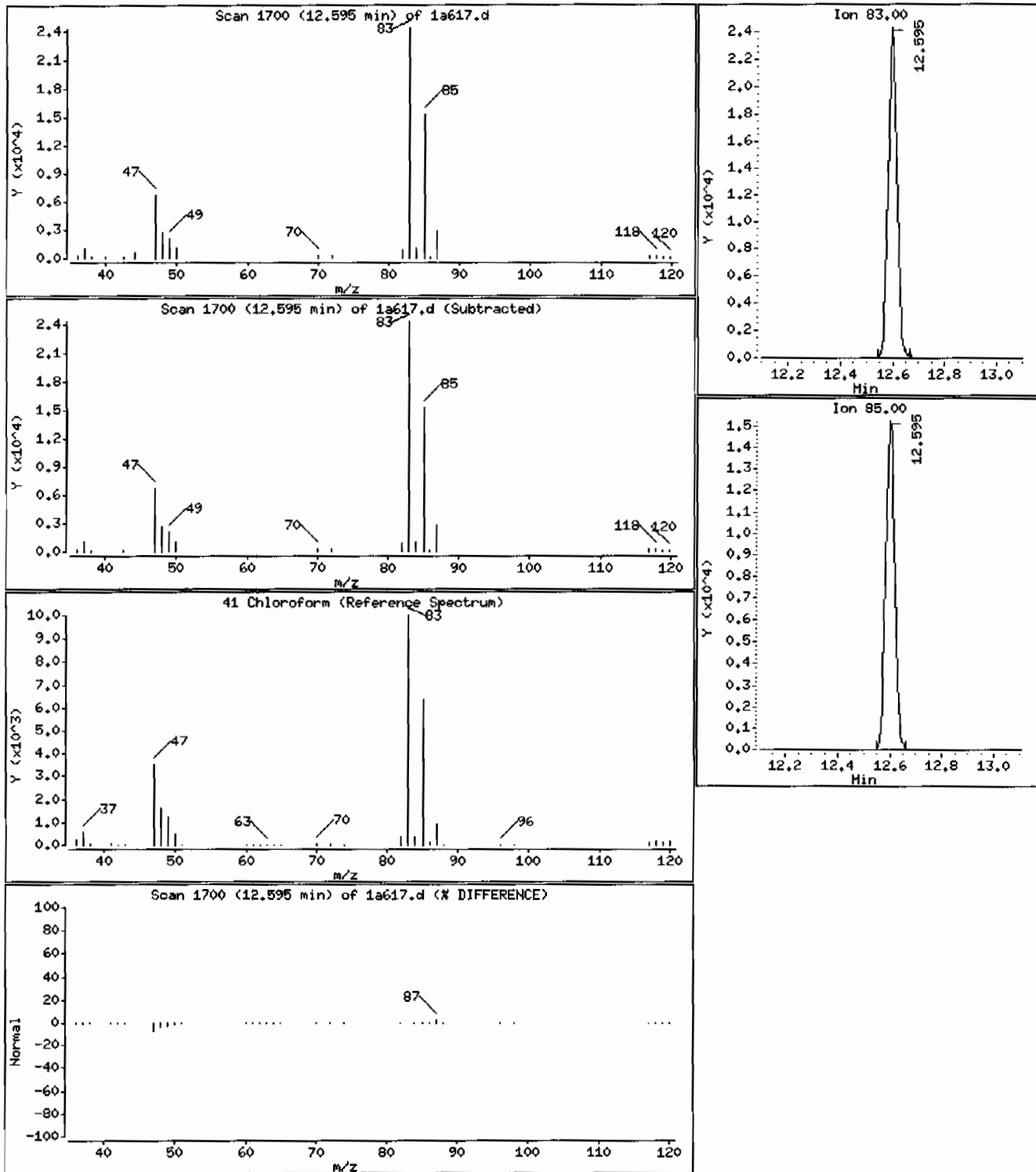
Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

41 Chloroform

Concentration: 9.8 ug/Kg



Data File: /chem/VOR1.i/030610v1/1a617.d

Page 4

Date : 06-MAR-2010 13:07

Client ID: RE36-10-8281

Instrument: VOR1.i

Sample Info: 1248202002196197911VORAF11

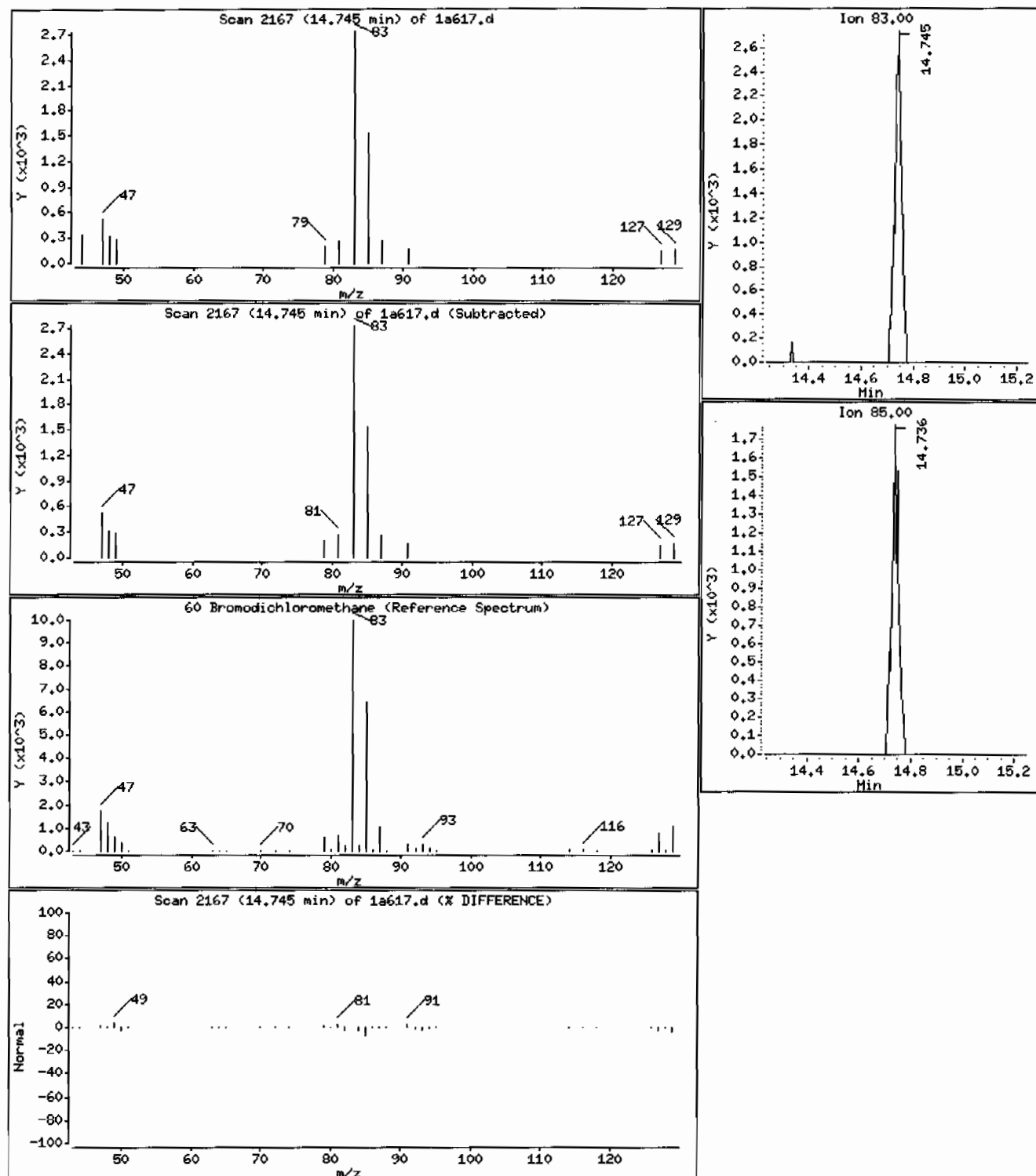
Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

60 Bromodichloromethane

Concentration: 1.2 ug/Kg



Date : 06-MAR-2010 13:07

Client ID: RE36-10-8281

Instrument: VOA1.i

Sample Info: 12482020021961979111VOAF111

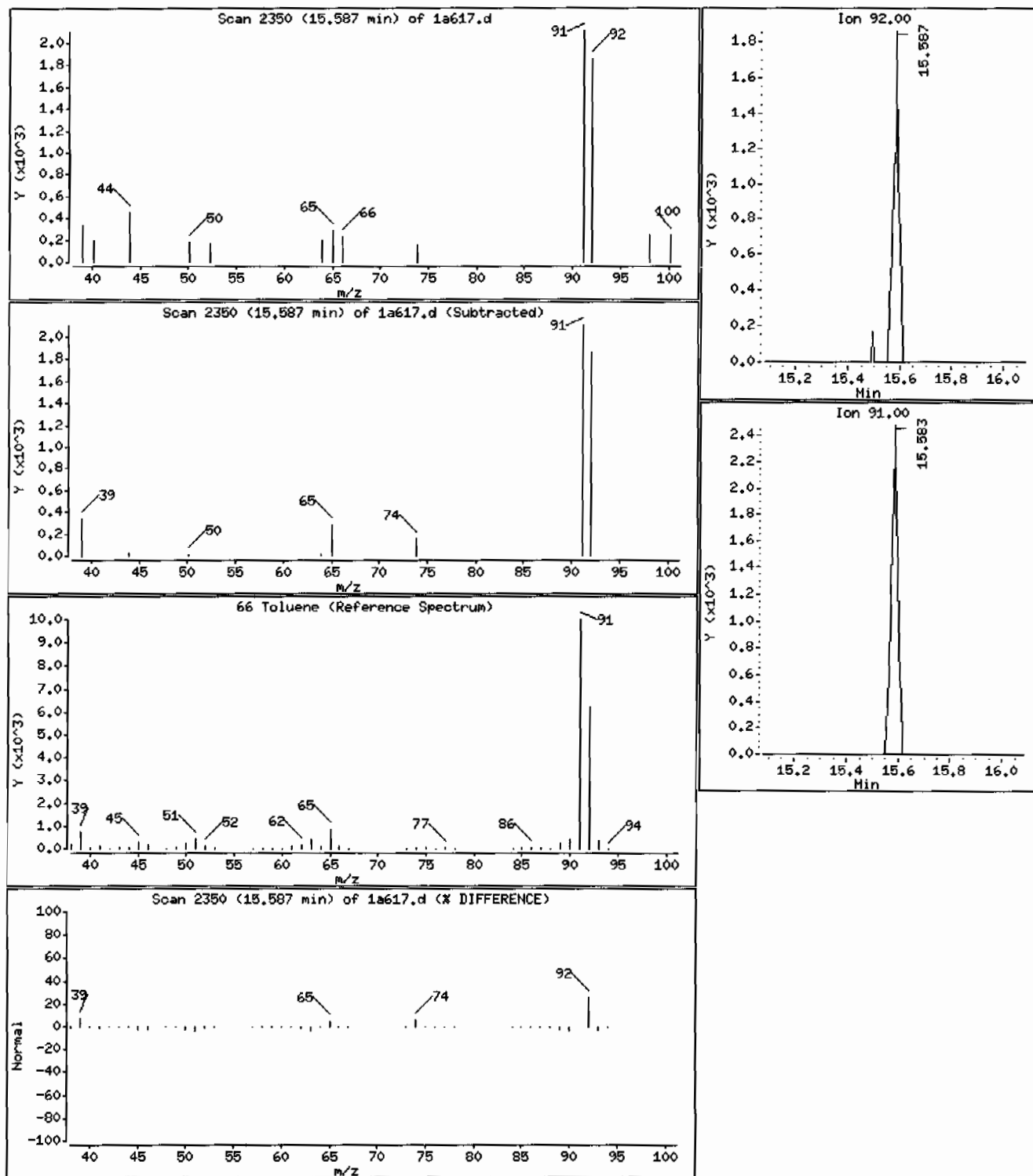
Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

66 Toluene

Concentration: 0.52 ug/Kg



Date : 06-MAR-2010 13:07

Client ID: RE36-10-8281

Instrument: VOA1.i

Sample Info: 12482020021961979111VOAF111

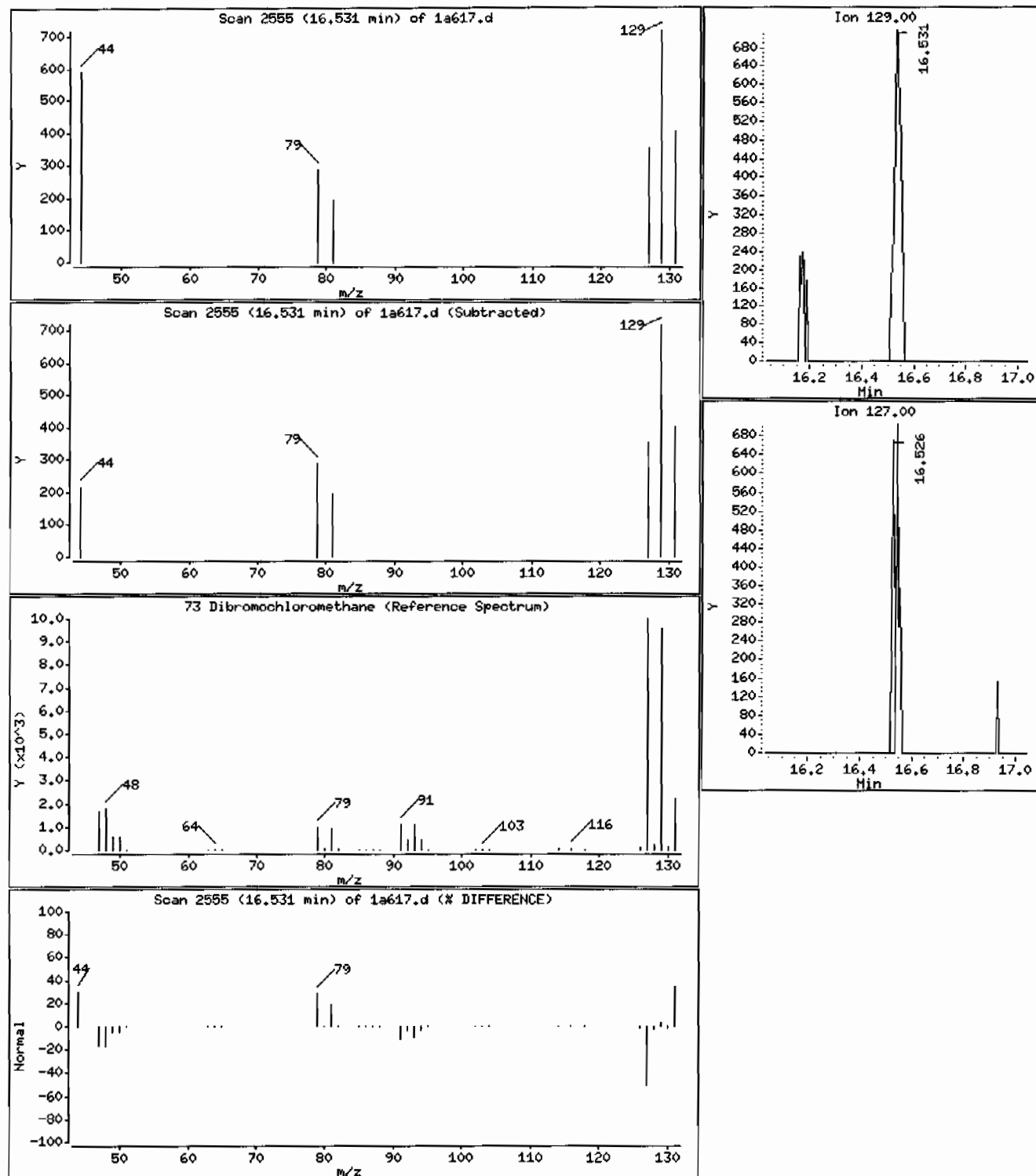
Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

73 Dibromochloromethane

Concentration: 0.63 ug/Kg



Date : 06-MAR-2010 13:07

Client ID: RE36-10-8281

Instrument: V0A1.i

Sample Info: 1248202002196197911/V0AF111

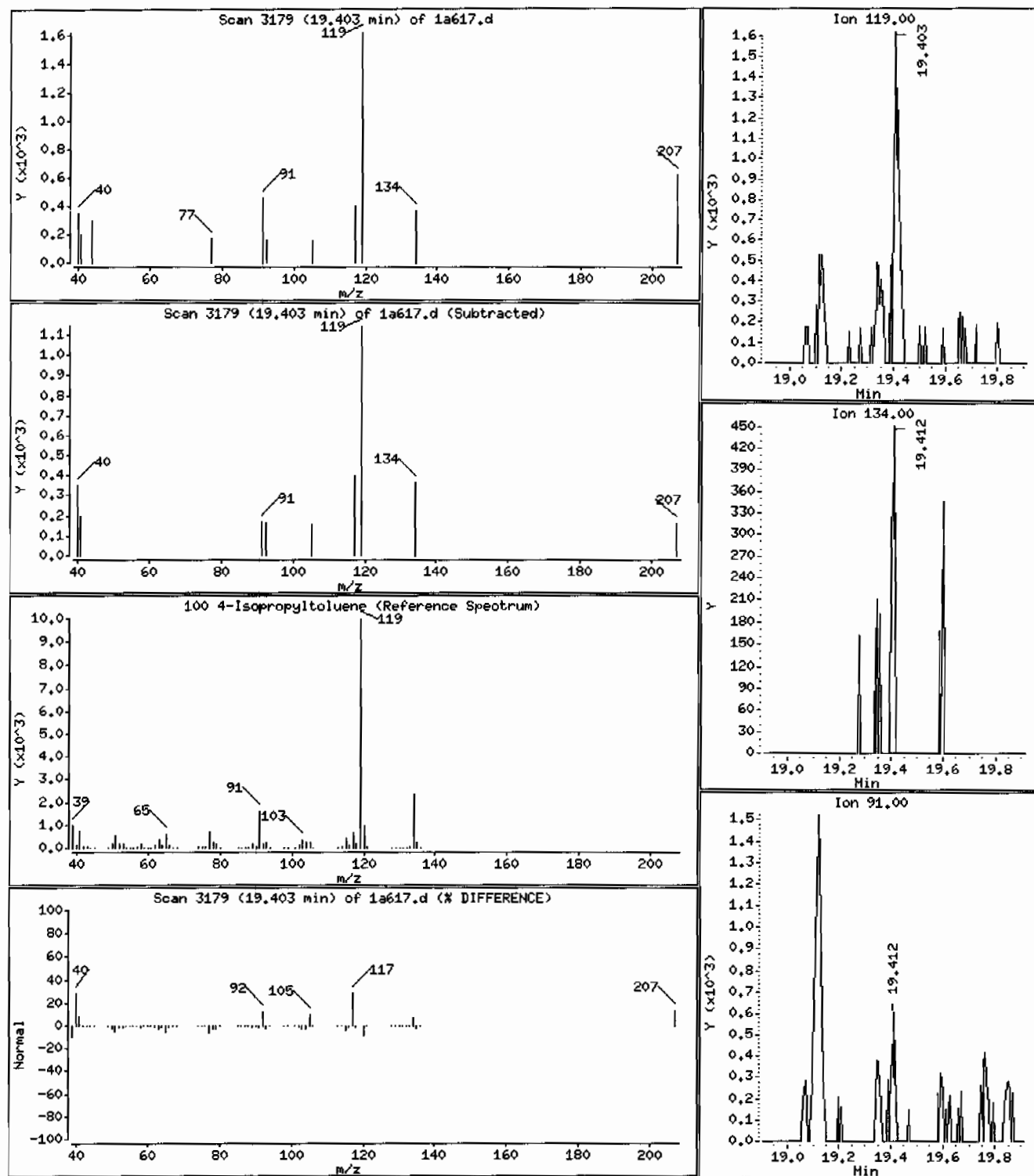
Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

100 4-Isopropyltoluene

Concentration: 0.45 ug/Kg



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124  
 Lab Sample ID: 248202001

Client ID: RE36-10-8282  
 Batch ID: 961979  
 Run Date: 03/06/2010 12:37  
 Prep Date: 03/06/2010 10:30  
 Data File: 1a616.d

Date Collected: 02/23/2010 12:00  
 Date Received: 02/26/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA1J  
 Analyst: GRB2  
 Aliquot: 5 g  
 Column: RTX-Volatiles

Matrix: R  
 %Moisture: 8.7  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.372	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.329	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.329	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.329	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.329	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.329	1.10
67-64-1	Acetone	U	5.48	ug/kg	1.82	5.48
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
74-88-4	Iodomethane	U	5.48	ug/kg	1.75	5.48
75-09-2	Methylene chloride	U	5.48	ug/kg	2.19	5.48
75-15-0	Carbon disulfide	U	5.48	ug/kg	1.37	5.48
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.329	1.10
78-93-3	2-Butanone	U	5.48	ug/kg	1.64	5.48
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.329	1.10
67-66-3	Chloroform	J	0.520	ug/kg	0.329	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.361	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.329	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.329	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.329	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.329	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.329	1.10
79-01-6	Trichloroethylen	U	1.10	ug/kg	0.361	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.329	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.329	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.329	1.10
108-10-1	4-Methyl-2-pentanone	U	5.48	ug/kg	1.37	5.48
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.329	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.329	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.329	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.329	1.10
591-78-6	2-Hexanone	U	5.48	ug/kg	1.64	5.48
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.329	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.329	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.329	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.329	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.329	1.10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124  
 Lab Sample ID: 248202001

Client ID: RE36-10-8282  
 Batch ID: 961979  
 Run Date: 03/06/2010 12:37  
 Prep Date: 03/06/2010 10:30  
 Data File: 1a616.d

Date Collected: 02/23/2010 12:00  
 Date Received: 02/26/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA1.1  
 Analyst: GRB2  
 Aliquot: 5 g  
 Column: RTX-Volatiles

Matrix: R  
 %Moisture: 8.7  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.329	1.10
179601-23-1	m,p-Xylenes	U	2.19	ug/kg	0.329	2.19
95-47-6	o-Xylene	U	1.10	ug/kg	0.329	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.329	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.329	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.329	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.329	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.329	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.329	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.329	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.329	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.329	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.329	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.329	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.329	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.329	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.329	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.329	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.329	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.329	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.329	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.48	ug/kg	1.75	5.48
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.329	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.329	1.10

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	18.05	7.65	ug/kg		J



GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/030610v1/1a616.d

Lab Smp Id: 248202001

Client Smp ID: RE36-10-8282

Inj Date : 06-MAR-2010 12:37

Operator : GRB2

Inst ID: VOA1.i

Smp Info : |248202001|961979|1|VOAF|1|

Misc Info : LANL 5g N/A

Comment :

Method : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m

Meth Date : 06-Mar-2010 06:58 gel00735 Quant Type: ISTD

Cal Date : 05-MAR-2010 01:41

Cal File: 1a428.d

Als bottle: 16

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: 10-2124.sub

Target Version: 3.50

Processing Host: prdsvr07

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.69570	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	ON-COLUMN ( ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.668	13.672	(1.000)	836926	50.0000
* 76 Chlorobenzene-d5	117	17.147	17.148	(1.000)	590254	50.0000
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.601	(1.000)	281267	50.0000
\$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	471557	57.7052
\$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1014179	51.0864
\$ 87 Bromofluorobenzene	95	18.376	18.377	(0.938)	400269	56.7620
41 Chloroform	83	12.595	12.600	(0.922)	4593	0.47492

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

## ION RATIO REPORT

## VOA REPORT

Data file: 1a616.d

Report Date: 03/06/2010 17:40

Lab. ID: 248202001

SampleType: SAMPLE

Injection Date: 06-MAR-2010 12:37

Operator: GRB2

Instrument: VOA1.i

Sample Info: |248202001|961979|1|VOAF|1|

Miscellaneous Info: LANL 5g N/A

Comment:

Method used: /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2124

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
41 Chloroform			CAS#: 67-66-3			
83	4593	12.60	12.60	80-120	100	( )
85	2911	12.60	12.60	35- 95	63	( )
-----						
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	17055	13.67	13.43	80-120	100	(T)
64	2661	13.67	13.43	2- 62	16	(T)
-----						
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	11614	15.50	15.35	80-120	100	(T)
43	6955	15.50	15.35	235-295	60	(QT)
100	639243	15.50	15.35	0- 58	5504	(QT)

-----  
Q qualifier indicates ion failed ratio requirement

Data File: /chem/VOA1.i/030610v1/1a616.d  
Report Date: 07-Mar-2010 13:27

Page 1

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026  
Data file : /chem/VOA1.i/030610v1/1a616.d  
Lab Smp Id: 248202001 Client Smp ID: RE36-10-8282  
Inj Date : 06-MAR-2010 12:37  
Operator : GRB2 Inst ID: VOA1.i  
Smp Info : |248202001|961979|1|VOAF|1|  
Misc Info : LANL 5g N/A  
Comment :  
Method : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m  
Meth Date : 06-Mar-2010 06:58 gel00735 Quant Type: ISTD  
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d  
Als bottle: 16  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2124.sub  
Target Version: 3.50  
Processing Host: prdsvr07

Concentration Formula: Amt \* DF \* (100/(100-M)) \* (Vt/Ws) \* (Uf) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.69570	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

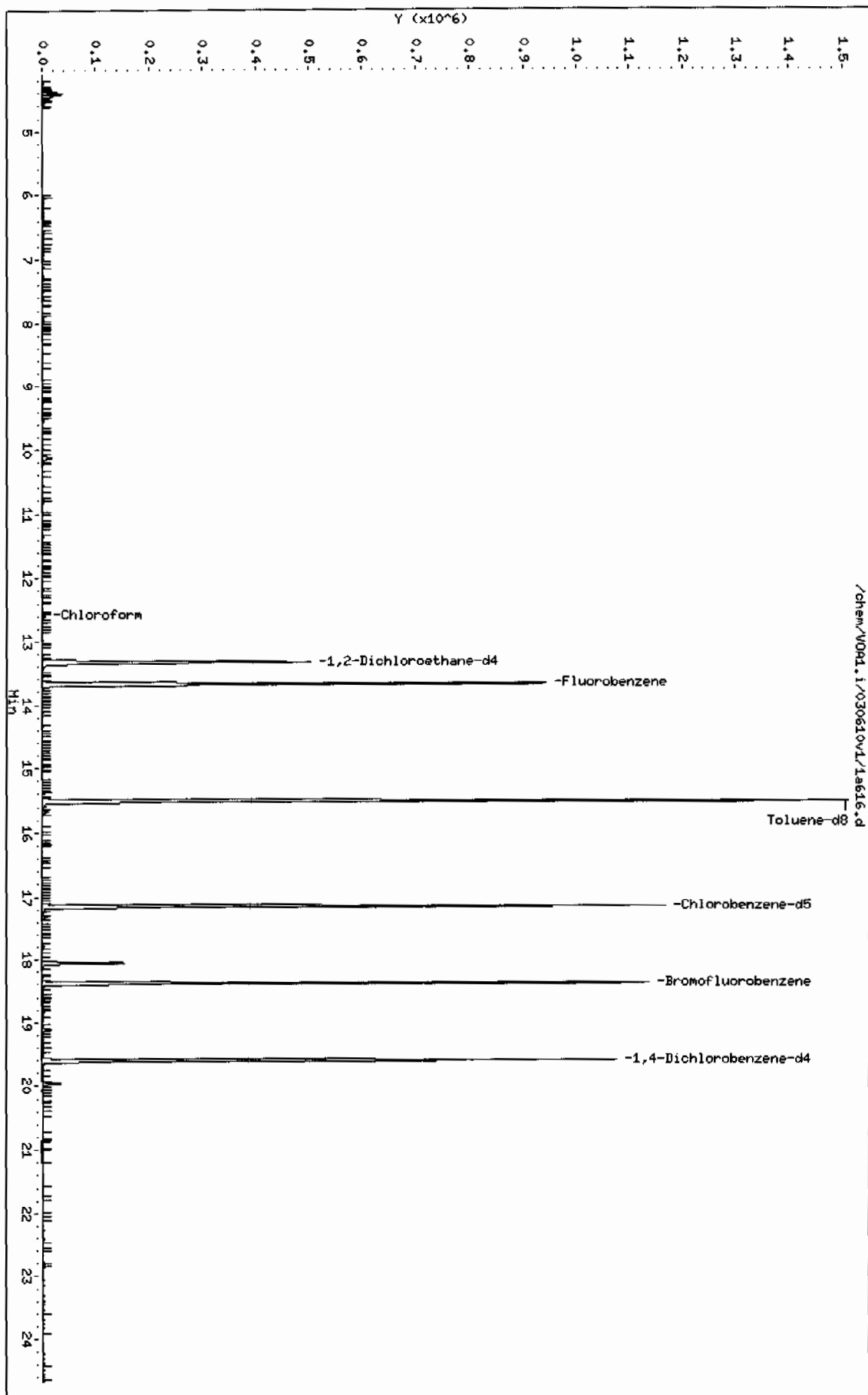
Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 76 Chlorobenzene-d5	17.147	2165886	50.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL( ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Siloxane							
18.054	302666	6.98712188	7.6	0		0	76

Data File: /chem/V001.1/030610v1/1a616.d  
 Date : 06-MAR-2010 12:37  
 Client ID: RE36-10-8282  
 Sample Info: 124820200196197911/V001.1  
 Column phases: RTX-Volatiles

Instrument: V001.1  
 Operator: GRB2  
 Column diameter: 0.25



Date : 06-MAR-2010 12:37

Client ID: RE36-10-8282

Instrument: VOA1.i

Sample Info: 1248202001196197911VVOAF11

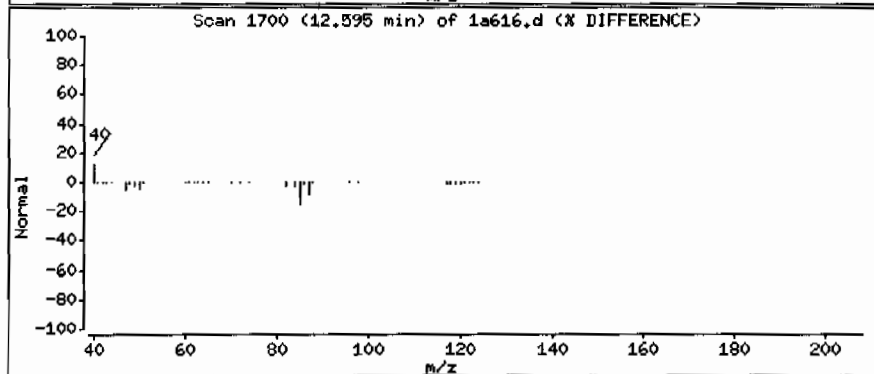
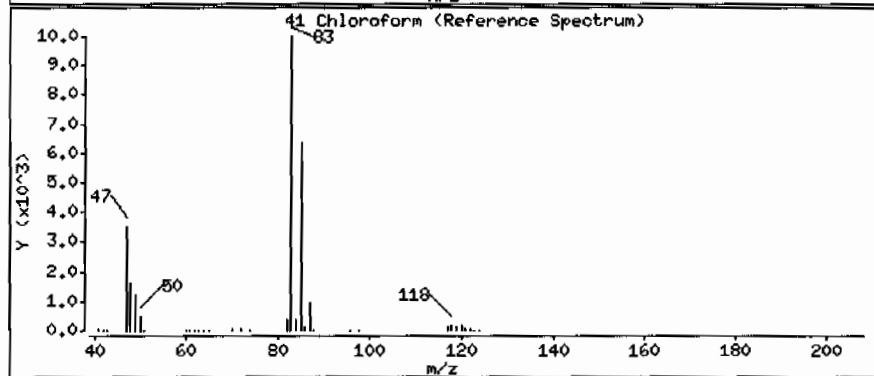
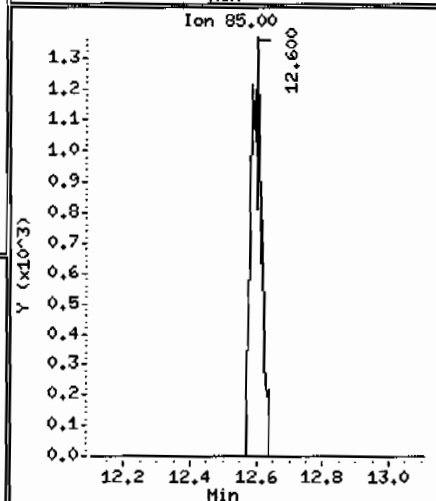
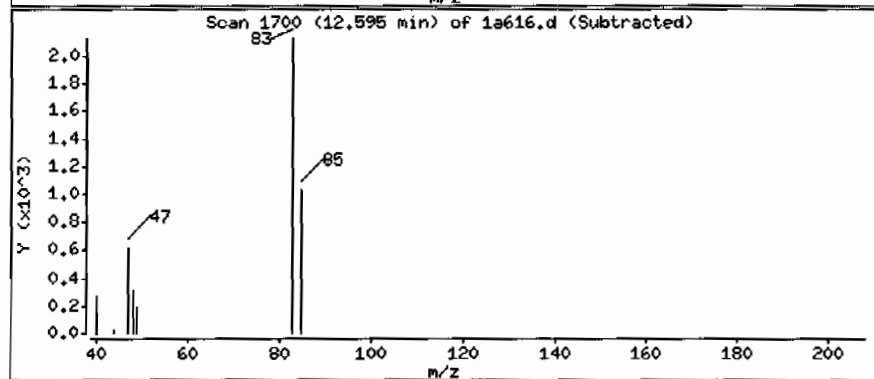
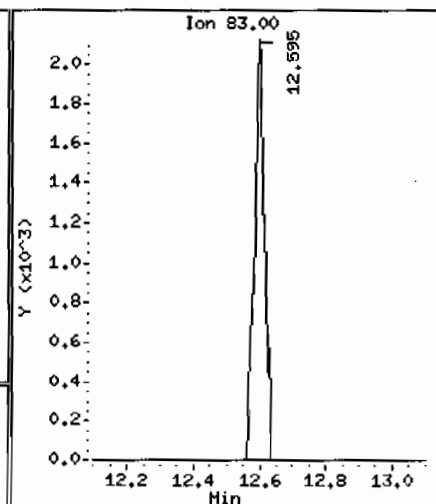
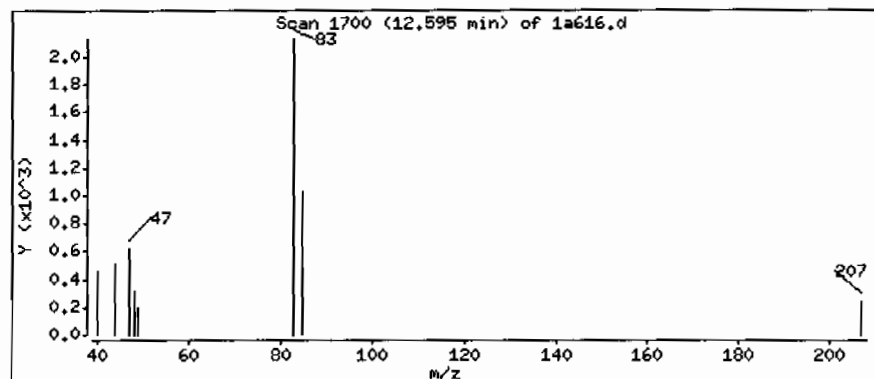
Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

41 Chloroform

Concentration: 0.52 ug/Kg



Date : 06-MAR-2010 12:37

Client ID: RE36-10-8282

Instrument: VOA1.i

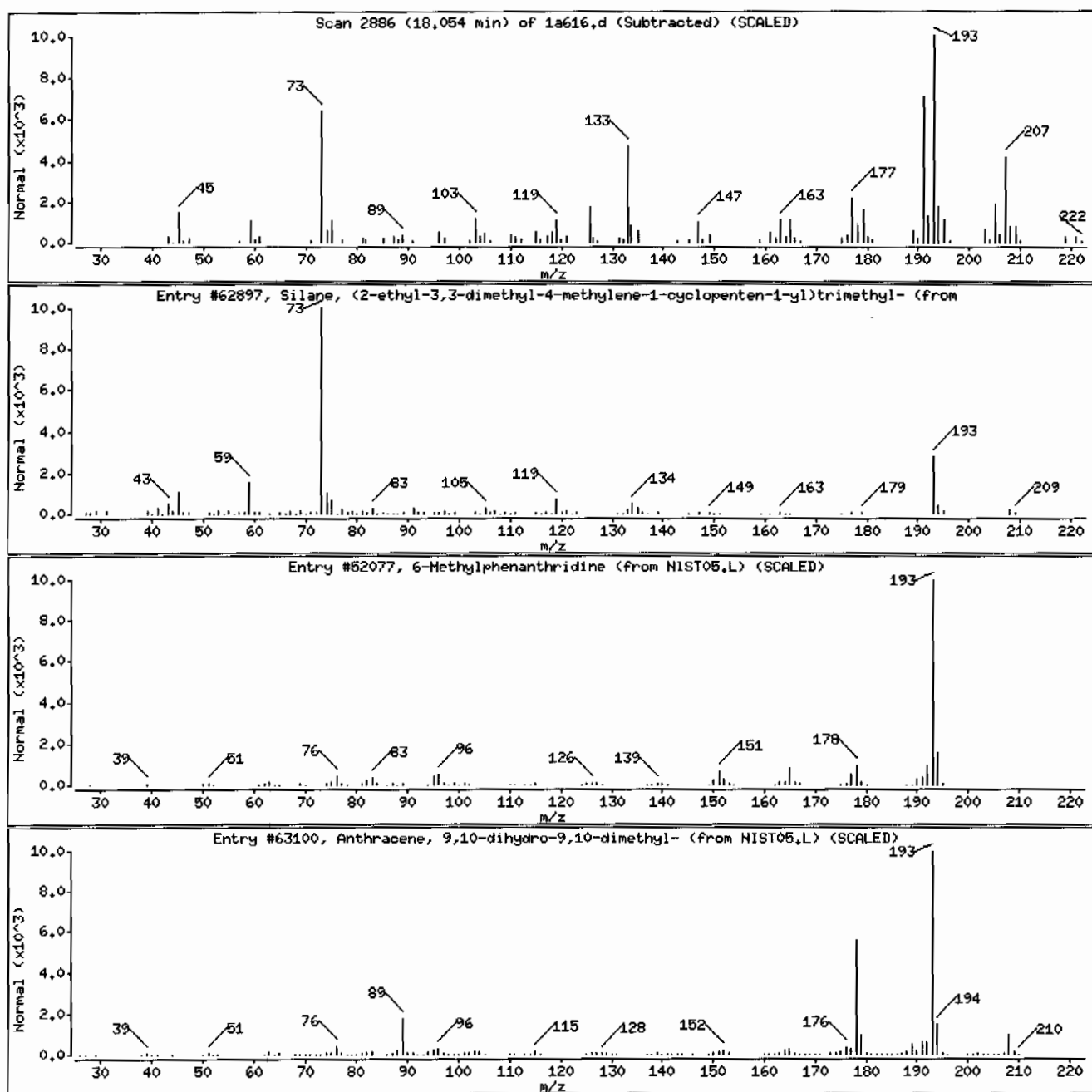
Sample Info: I2482020011961979111VOAF111

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0,25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Silane, (2-ethyl-3,3-dimethyl-4-methylen	95798-13-3	NIST05.L	62897	38	C13H24Si	208
6-Methylphenanthridine	3955-65-5	NIST05.L	52077	30	C14H11N	193
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	30	C16H16	208



# Standard Data

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624  
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500



tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Report Date: 06-Mar-2010 08:30

### Calibration History

Method : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m  
Start Cal Date: 04-MAR-2010 17:28  
End Cal Date : 05-MAR-2010 02:12

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
04-MAR-2010 23:06	ICALsubS	/chem/VOA1.i/030410v1/1a423.d
04-MAR-2010 17:28	ICALsubL+	/chem/VOA1.i/030410v1/1a412.d
Cal Level: 2 , Cal Amount: 2.00000		
04-MAR-2010 23:37	ICALsubS	/chem/VOA1.i/030410v1/1a424.d
04-MAR-2010 17:59	ICALsubL+	/chem/VOA1.i/030410v1/1a413.d
Cal Level: 3 , Cal Amount: 5.00000		
05-MAR-2010 00:08	ICALsubS	/chem/VOA1.i/030410v1/1a425.d
04-MAR-2010 18:29	ICALsubL+	/chem/VOA1.i/030410v1/1a414.d
Cal Level: 4 , Cal Amount: 10.00000		
05-MAR-2010 00:39	ICALsubS	/chem/VOA1.i/030410v1/1a426.d
04-MAR-2010 19:00	ICALsubL+	/chem/VOA1.i/030410v1/1a415.d
Cal Level: 5 , Cal Amount: 20.00000		
05-MAR-2010 01:10	ICALsubS	/chem/VOA1.i/030410v1/1a427.d
04-MAR-2010 19:31	ICALsubL+	/chem/VOA1.i/030410v1/1a416.d
Cal Level: 6 , Cal Amount: 50.00000		
05-MAR-2010 01:41	ICALsubS	/chem/VOA1.i/030410v1/1a428.d
04-MAR-2010 20:02	ICALsubL+	/chem/VOA1.i/030410v1/1a417.d
Cal Level: 7 , Cal Amount: 100.00000		
05-MAR-2010 02:12	ICALsubS	/chem/VOA1.i/030410v1/1a429.d
04-MAR-2010 20:32	ICALsubL+	/chem/VOA1.i/030410v1/1a418.d
Cal Level: 8 , Cal Amount: 200.00000		
04-MAR-2010 21:35	BENZENE+	/chem/VOA1.i/030410v1/1a420.d

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 6

Ccal Level: 6 , Ccal Amount: 50.0		
+=====+		
06-MAR-2010 05:30   CALsubL+	/chem/VOA1.i/030610v1/1a602.d	
+-----+		
Ccal Level: 6 , Ccal Amount: 50.0		
+=====+		
06-MAR-2010 06:30   CALsubS+SS	/chem/VOA1.i/030610v1/1a604.d	
+-----+		

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28  
 End Cal Date : 05-MAR-2010 02:12  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m  
 Cal Date : 06-Mar-2010 06:58 gel00735

## Calibration File Names:

Level 1: /chem/VOA1.i/030410v1/1a423.d  
 Level 2: /chem/VOA1.i/030410v1/1a424.d  
 Level 3: /chem/VOA1.i/030410v1/1a425.d  
 Level 4: /chem/VOA1.i/030410v1/1a426.d  
 Level 5: /chem/VOA1.i/030410v1/1a427.d  
 Level 6: /chem/VOA1.i/030410v1/1a428.d  
 Level 7: /chem/VOA1.i/030410v1/1a429.d  
 Level 8: /chem/VOA1.i/030410v1/1a420.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	m	m2	%RSD or R^2
	100	200									
	Level 7	Level 8									
M 1 Xylenes (total)	0.75321	0.70295	0.67437	0.64934	0.66109	0.66867	AVRG		0.67887		5.62262
	0.64249	++++									
M 2 1,2-Dichloroethylene (total)	0.30334	0.30025	0.27886	0.26621	0.26744	0.26937	AVRG		0.27972		5.59995
	0.27255	++++									
M 3 1,3-Dichloropropylene	0.69166	0.64436	0.64939	0.67195	0.68534	0.69765	AVRG		0.67739		3.47866
	0.70488	++++									
M 4 Chlorotrifluoroethylene	7805	16787	47024	110497	268873	338249	AVRG		0.11129		0.99026
	476883	++++					LINR	0.06240			
M 5 Dichlorodifluoromethane	0.27135	0.25757	0.29080	0.24806	0.24053	0.21915	AVRG		0.25158		9.56487
	0.23360	++++									

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Start Cal Date : 04-MAR-2010 17:28  
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 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/VOAL.i/030610v1/VOAL-8260ox-030410.m  
 Cal Date : 06-Mar-2010 06:58 gel00735

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
6 Chloromethane	0.49489 0.41388	0.44914 ++++	0.44193	0.42489	0.42420	0.40637	AVRG		0.43647		6.81194
7 Vinyl chloride	0.40692 0.29544	0.36796 ++++	0.35614	0.33153	0.31791	0.29484	AVRG		0.33868		12.11013
8 2-Chloro-1,1,1-trifluoroethane	0.28441 0.30499	0.28440 ++++	0.28998	0.28904	0.30052	0.29948	AVRG		0.29326		2.83331
9 Bromomethane	0.21507 0.18747	0.20535 ++++	0.20088	0.20376	0.19743	0.19252	AVRG		0.20035		4.50690
10 Chloroethane	0.22216 0.20610	0.22108 ++++	0.22663	0.21982	0.21544	0.21349	AVRG		0.21782		3.09561
11 Trichlorofluoromethane	0.42098 0.40666	0.47006 ++++	0.43077	0.42906	0.40992	0.41083	AVRG		0.42547		5.13087
12 Ethyl Ether	0.29749 0.27342	0.27429 ++++	0.26617	0.28422	0.28683	0.27691	AVRG		0.27990		3.71030
13 Acrolein	0.05197 0.06025	0.05349 ++++	0.05589	0.05663	0.06145	0.06074	AVRG		0.05720		6.50407
14 Trichlorotrifluoroethane	0.24812 0.22530	0.24556 ++++	0.24345	0.23944	0.24235	0.23563	AVRG		0.23998		3.18126

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Start Cal Date : 04-MAR-2010 17:28  
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 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m  
 Cal Date : 06-Mar-2010 06:58 gel00735

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	Coefficients	m2	or R^2	SRSD
	100	200										
	Level 7	Level 8										
15 1,1-Dichloroethylene	0.59051	0.56817	0.56621	0.52232	0.52017	0.53882	AVRG		0.55098		4.69138	
	0.55068	++++										
16 Acetone	0.34831	0.29514	0.29382	0.28949	0.28780	0.27337	AVRG		0.29620		8.12358	
	0.28547	++++										
17 Isopropyl Alcohol	0.02135	0.02088	0.02356	0.02326	0.01925	0.02447	AVRG		0.02272		10.43485	
	0.02624	++++										
18 Iodomethane	0.44533	0.41971	0.42192	0.40151	0.38432	0.38700	AVRG		0.40759		5.46868	
	0.39337	++++										
19 Carbon disulfide	0.97397	0.89862	0.85934	0.80937	0.79728	0.77734	AVRG		0.83577		10.28708	
	0.82445	++++										
20 Al-yl chloride	85071	17929	43809	99452	210254	591520	LINR	0.15508	0.11299		0.99920	
	1225666	++++										
21 Methyl acetate	0.28095	0.26688	0.26567	0.27049	0.24559	0.24490	AVRG		0.26149		5.09450	
	0.25595	++++										
22 Acetonitrile	0.05311	0.04242	0.04264	0.04213	0.04352	0.03875	AVRG		0.04350		10.33047	
	0.04193	++++										
23 Methylene chloride	++++	24115	41759	72196	139372	335541	LINR	-0.01880	0.29499		0.99971	
	709352	++++										

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 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m  
 Cal Date : 06-Mar-2010 06:58 gel00735

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	b	Coefficients m1	m2	RSD or R^2
	100 Level 7	200 Level 8									
24 tert-Butyl Alcohol	0.03450 0.04208	0.03286 ++++	0.03700 ++++	0.03753 ++++	0.03121 ++++	0.03968 ++++	AVRG		0.03642		10.50706
25 tert-Butyl methyl ether	0.93371 0.91476	1.08746 ++++	0.88131 ++++	0.89456 ++++	0.91498 ++++	0.87293 ++++	AVRG		0.92853		7.88164
26 trans-1,2-Dichloroethylene	0.29478 0.26549	0.29262 ++++	0.26391 ++++	0.25636 ++++	0.25335 ++++	0.25891 ++++	AVRG		0.26935		6.37027
27 Acrylonitrile	0.10797 0.11285	0.10596 ++++	0.11041 ++++	0.11289 ++++	0.11528 ++++	0.11298 ++++	AVRG		0.11119		2.93632
28 Isopropyl ether	1.09877 1.18051	1.11233 ++++	1.10276 ++++	1.11762 ++++	1.16730 ++++	1.12032 ++++	AVRG		1.12852		2.84927
29 Vinyl acetate	0.63725 0.55312	0.60486 ++++	0.62394 ++++	0.59395 ++++	0.60658 ++++	0.58731 ++++	AVRG		0.60100		4.51404
30 1,1-Dichloroethane	0.62513 0.55078	0.63230 ++++	0.58982 ++++	0.55421 ++++	0.54772 ++++	0.55281 ++++	AVRG		0.57897		6.36993
31 2-Chloro-1,3-butadiene	0.41810 0.49600	0.41746 ++++	0.43019 ++++	0.45620 ++++	0.47274 ++++	0.48150 ++++	AVRG		0.45317		7.01467
32 Ethyl tert-butyl ether	0.86453 1.02989	0.86266 ++++	0.87110 ++++	0.90491 ++++	0.97011 ++++	0.95654 ++++	AVRG		0.92282		6.97391

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 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/VOA1.i/030610v1/VOA1-82600x-030410.m  
 Cal Date : 06-Mar-2010 06:58 gel00735

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	b	Coefficients m1	m2	%RSD σ = R <sup>2</sup>
	100	200									
	Level 7	Level 8									
33 2,2-Dichloropropane	0.39694 0.35457	0.39205 ++++	0.36929	0.34932	0.35176	0.36430	AVRG		0.36832		5.22710
34 Ethyl acetate	0.32902 0.30120	0.29952 ++++	0.30825	0.30260	0.31733	0.30959	AVRG		0.30964		3.38693
35 2-Butanone	0.34555 0.32163	0.30939 ++++	0.30921	0.30431	0.30884	0.29894	AVRG		0.31398		4.94376
36 cis-1,2-Dichloroethylene	0.31190 0.27961	0.30788 ++++	0.29381	0.27606	0.28153	0.27992	AVRG		0.29009		5.05776
37 Propionitrile	0.04709 0.04636	0.04309 ++++	0.04679	0.04442	0.04601	0.04646	AVRG		0.04574		3.17363
38 Tetrahydrofuran	0.26663 0.24814	0.24683 ++++	0.26381	0.26054	0.25545	0.25212	AVRG		0.25622		3.00396
39 Bromochloromethane	0.13836 0.12976	0.13142 ++++	0.12971	0.13156	0.13371	0.12617	AVRG		0.13153		2.88879
40 Methacrylonitrile	0.23771 0.23800	0.23024 ++++	0.24233	0.24295	0.25151	0.24475	AVRG		0.24107		2.76048
41 Chloroform	0.64658 0.55798	0.60478 ++++	0.56892	0.55129	0.55756	0.55736	AVRG		0.57778		6.10312



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 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m  
 Cal Date : 06-Mar-2010 06:58 gel00735

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	b	ml	coefficients	m2	%RSD or R^2
42 Cyclohexane	0.60530  0.52530	0.60739  ++++	0.56143	0.52600	0.49687	0.53693	AVRG		0.55132			7.64201
43 1,1,1-Trichloroethane	0.45718  0.41223	0.45635  ++++	0.43251	0.40823	0.41251	0.42806	AVRG		0.42958			4.78840
44 Carbon tetrachloride	0.42399  0.40835	0.42089  ++++	0.40940	0.39794	0.39811	0.41779	AVRG		0.41092			2.54998
45 1,1-Dichloropropene	0.44544  0.40530	0.45160  ++++	0.42126	0.39213	0.39119	0.40990	AVRG		0.41669			5.79289
46 Isobutyl alcohol	0.01181  0.01267	0.01064  ++++	0.01226	0.01201	0.01008	0.01304	AVRG		0.01179			9.05259
47 Benzene	1.28998  1.08491	1.15477  1.25413	1.12632	1.08296	1.06740	1.09512	AVRG		1.14445			7.33590
49 Methyl tert-amyl ether	0.63334  0.82305	0.62456  ++++	0.66931	0.68471	0.75377	0.75941	AVRG		0.70688			10.41836
50 Cyclohexene	0.46264  0.41399	0.44813  ++++	0.43312	0.40701	0.39320	0.42308	AVRG		0.42588			5.64859
51 1,2-Dichloroethane	0.55999  0.49879	0.52493  ++++	0.51731	0.50725	0.50443	0.49881	AVRG		0.51593			4.20091

## GEL Laboratories LLC

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 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m  
 Cal Date : 06-Mar-2010 06:58 gel00735

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
	Level 7	Level 8									
	100	200									
53 n-Butyl alcohol	0.01024	0.00907	0.01003	0.01050	0.00888	0.01107	AVRG		0.01014		8.92075
	0.0122	++++									
54 Trichloroethylene	0.33004	0.30974	0.28603	0.28383	0.28464	0.28975	AVRG		0.29541		6.03769
	0.28384	++++									
55 Methylcyclohexane	0.49476	0.48703	0.47480	0.43861	0.43922	0.47464	AVRG		0.46690		4.73137
	0.45928	++++									
56 Methyl methacrylate	0.17389	0.17599	0.18085	0.18308	0.19483	0.19527	AVRG				
	0.18940	++++							0.18476		4.66850
57 1,2-Dichloropropane	0.33825	0.33087	0.31503	0.30131	0.30696	0.30490	AVRG				
	0.30672	++++							0.31486		4.51981
58 1,4-Dioxane	0.00268	0.00257	0.00273	0.00275	0.00275	0.00281	AVRG				
	0.00281	++++							0.00273		3.01538
59 Dibromomethane	0.19447	0.19393	0.18299	0.18510	0.18747	0.18297	AVRG				
	0.18551	++++							0.18749		2.58103
60 Bromodichloromethane	0.40950	0.42240	0.42513	0.42497	0.43872	0.44091	AVRG		0.42946		2.90391
	0.44459	++++									
61 2-Chloroethylvinyl ether	1534	4339	11215	24575	56621	++++	LNVR	0.08394	0.02560		0.99683
	++++	++++									

GEL Laboratories LLC  
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 Target Version : 3.50  
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 Method file : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m  
 Cal Date : 06-Mar-2010 06:58 gel00735

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	Coefficients	m1	m2	%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	Coefficients	m1	m2	%RSD or R <sup>2</sup>
	Level 7	Level 8										
62 2-Nitropropane	83551 1201622	6281 ++++	47508	98345	220270	600056	LINR	0.11599	0.11103			0.99976
63 cis-1,3-Dichloropropylene	0.50349 0.51996	0.47474 ++++	0.48488	0.49293	0.50736	0.51026	AVRG		0.49909			3.14746
64 4-Methyl-2-pentanone	0.19874 0.20758	0.19036 ++++	0.19606	0.19827	0.19870	0.19602	AVRG		0.19796			2.60039
66 Toluene	1.08029 0.90883	1.03835 ++++	0.96419	0.91516	0.91512	0.92876	AVRG		0.96439			7.09762
67 Ethyl methacrylate	0.44077 0.49563	0.44538 ++++	0.48183	0.48992	0.51785	0.51126	AVRG		0.48324			6.21958
68 trans-1,3-Dichloropropylene	0.68217 0.70410	0.63777 ++++	0.62991	0.66476	0.68131	0.70164	AVRG		0.67167			4.33804
69 1,1,2-Trichloroethane	0.32465 0.28928	0.30578 ++++	0.29078	0.29279	0.29162	0.29080	AVRG		0.29796			4.37271
70 Tetrachloroethylene	0.37602 0.27926	0.33298 ++++	0.30537	0.28451	0.28138	0.29671	AVRG		0.30803			11.45604
71 2-Hexanone	0.57174 0.57858	0.52453 ++++	0.54122	0.54512	0.55785	0.54679	AVRG		0.55226			3.36783

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 Cal Date : 06-Mar-2010 06:58 gel00735

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	Coefficients m1	m2	SRSD or R <sup>2</sup>
	100	200									
	Level 7	Level 8									
72 1,3-Dichloropropane	0.71966  0.61756	0.64917  ++++	0.62966	0.63963	0.62910	0.61431	AVRG		0.64273		5.59769
73 Dibromochloromethane	0.39057  0.41437	0.38477  ++++	0.37507	0.38697	0.40149	0.40885	AVRG		0.39459		3.57493
74 1,2-Dibromoethane	0.38525  0.34972	0.33966  ++++	0.34493	0.34795	0.35126	0.34244	AVRG		0.35160		4.37512
75 1-Chlorohexane	0.30784  0.36021	0.32105  ++++	0.32102	0.32615	0.34149	0.33470	AVRG		0.33035		5.14370
77 Chlorobenzene	1.14795  0.94770	1.07647  ++++	1.01136	0.98151	0.98002	0.98572	AVRG		1.01868		6.83721
78 Ethylbenzene	2.14544  1.82809	2.02011  ++++	1.89606	1.84090	1.85339	1.90287	AVRG		1.92669		6.01325
79 1,1,1,2-Tetrachloroethane	0.37405  0.36962	0.37314  ++++	0.35996	0.36122	0.36918	0.37374	AVRG		0.36870		1.59367
80 m,p-Xylenes	0.76855  0.63949	0.70366  ++++	0.68029	0.65351	0.66267	0.67323	AVRG		0.68306		6.27525
81 o-Xylene	0.72253  0.64848	0.70153  ++++	0.66252	0.64099	0.65795	0.65954	AVRG		0.67051		4.46036

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 Target Version : 3.50  
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 Method file : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m  
 Cal Date : 06-Mar-2010 06:58 gel00735

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
82 Styrene	1.09275 1.15197	1.08435 ++++	1.09948	1.10852	1.13194	1.16948	AVRG		1.11978		2.86591
83 Bromoform	0.41943 0.51981	0.40765 ++++	0.45884	0.45833	0.49134	0.51077	AVRG		0.46660		9.26892
84 Isopropylbenzene	3.65457 3.26911	3.53232 ++++	3.40485	3.23822	3.27088	3.42401	AVRG		3.39914		4.53997
85 cis-1,4-Dichloro-2-butene	0.27086 0.32415	0.26576 ++++	0.29675	0.30266	0.32236	0.32519	AVRG		0.30111		8.30063
86 Cyclohexanone	0.02452 0.02720	0.02257 ++++	0.02302	0.02274	0.02518	0.02556	AVRG		0.02440		7.06404
88 1,1,2,2-Tetrachloroethane	0.88305 0.85147	0.84554 ++++	0.81587	0.83545	0.83718	0.85101	AVRG		0.84565		2.42526
89 n-Propylbenzene	4.52756 3.98618	4.31461 ++++	4.08942	3.96800	4.00981	4.21309	AVRG		4.15838		4.97130
90 trans-1,4-Dichloro-2-butene	0.26047 0.30069	0.24350 ++++	0.27777	0.28729	0.29324	0.30483	AVRG		0.28111		7.92934
91 Bromobenzene	0.87561 0.77364	0.84315 ++++	0.83031	0.80039	0.79985	0.78449	AVRG		0.81535		4.41751

## GEL Laboratories LLC

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 Integrator : HP RTE  
 Method file : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m  
 Cal Date : 06-Mar-2010 06:58 gel00735

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	b	ml	m2	%RSD or R <sup>2</sup>
92 1,2,3-Trichloropropane	0.25374 0.23399	0.25157 ++++	0.23407	0.24149	0.24048	0.23469	AVRG		0.24143		3.42436
93 1,3,5-Trimethylbenzene	3.15016 2.88725	3.03866 ++++	2.92163	2.83430	2.90902	3.03029	AVRG		2.96733		3.69365
94 2-Chlorotoluene	3.40116 2.86121	3.10077 ++++	2.99009	2.85022	2.90368	2.95741	AVRG		3.00922		6.41193
95 4-Chlorotoluene	2.96916 2.64207	2.82351 ++++	2.72455	2.60839	2.62990	2.69119	AVRG		2.72697		4.73307
96 tert-Butylbenzene	2.56799 2.28987	2.45028 ++++	2.36355	2.27069	2.29279	2.43004	AVRG		2.38074		4.56046
97 1,2,4-Trimethylbenzene	3.38891 2.97368	3.11898 ++++	3.06635	2.94444	2.98604	3.11129	AVRG		3.08424		4.89034
98 Pentachloroethane	12149 1078303	15882 ++++	38181	66725	133523	507783	LINR	0.27833	0.24667		0.99429
99 sec-Butylbenzene	4.10342 3.61775	3.88387 ++++	3.73084	3.55024	3.66314	3.89266	AVRG		3.77742		5.10627
100 4-Isopropyltoluene	3.12249 2.85667	3.00522 ++++	2.91403	2.83082	2.81896	3.04721	AVRG		2.94220		4.00251

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 Method file : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m  
 Cal Date : 06-Mar-2010 06:58 gel00735

Compound	1	2	5	10	20	50	Coefficients		RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	b	m1 m2	
	100	200							
	Level 7	Level 8							
101 1,3-Dichlorobenzene	1.84867	1.68002	1.57918	1.49323	1.50639	1.51963		1.58600	8.52066
	1.47490	++++					AVRG		
103 1,4-Dichlorobenzene	1.84911	1.65010	1.60437	1.53722	1.53074	1.53576			
	1.47931	++++					AVRG	1.59809	7.74803
104 Benzyl chloride	1.12801	1.11484	1.29183	1.31709	1.38449	1.40406			
	1.37657	++++					AVRG	1.28813	9.35175
105 n-Butylbenzene	3.44185	3.23539	3.12630	2.97997	3.06171	3.30417			
	3.08924	++++					AVRG	3.17694	5.01186
106 1,2-Dichlorobenzene	1.69129	1.57033	1.50223	1.45431	1.47131	1.47889			
	1.43580	++++					AVRG	1.51488	5.87152
107 bis(2-Chloroisopropyl)ether	0.42927	0.40771	0.45797	0.44748	0.46047	0.46175			
	0.45692	++++					AVRG	0.44594	4.54779
108 1,2-Dibromo-3-chloropropane	0.14634	0.16047	0.16196	0.16379	0.17248	0.17743			
	0.18378	++++					AVRG	0.16661	7.45078
109 1,2,4-Trichlorobenzene	1.41272	1.18723	1.16596	1.09928	1.12657	1.12407			
	1.09072	++++					AVRG	1.17236	9.50296
110 Hexachlorobutadiene	0.81557	0.75828	0.69142	0.67610	0.68594	0.71859			
	0.67069	++++					AVRG	0.71666	7.39638

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28  
 End Cal Date : 05-MAR-2010 02:12  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/VOA1.i/030610v1/VOA1-82600x-030410.m  
 Cal Date : 06-Mar-2010 06:58 gel00735

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
	100	200									
	Level 7	Level 8									
111 Naphthalene	3.32209	2.52371	2.47904	2.48696	2.57602	2.54628	AVRG		2.63897		1.48579
	2.53867	++++									
112 1,2,3-Trichlorobenzene	1.34666	1.04210	1.03215	1.03675	1.03134	1.00392					
	0.97889	++++					AVRG		1.06740		1.72478
48 1,2-Dichloroethane-d4	0.45047	0.46081	0.45790	0.48374	0.48927	0.51337					
	0.56187	++++					AVRG		0.48820		8.00985
65 Toluene-d8	1.70210	1.65586	1.65755	1.73908	1.67205	1.67342					
	1.67162	++++					AVRG		1.68167		1.75445
87 Bromofluorobenzene	1.23838	1.23601	1.23055	1.28837	1.26074	1.26956					
	1.25131	++++					AVRG		1.25356		1.65830



GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28  
End Cal Date : 05-MAR-2010 02:12  
Quant Method : ISTD  
Target Version : 3.50  
Integrator : HP RTE  
Method file : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m  
Cal Date : 06-Mar-2010 06:58 gel00735

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 05-MAR-2010 03:14  
Lab File ID: 1a431.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010  
Analysis Type: WATER Init. Cal. Times: 17:28 02:12  
Lab Sample ID: W1VM100304-23 Quant Type: ISTD  
Method: /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m

COMPOUND	RRF / AMOUNT	RF50	CCAL	MIN	MAX	CURVE TYPE
4 Chlorotrifluoroethylene	176	150	0.12854	0.010	17.57577	Linear
8 2-Chloro-1,1,1-trifluoroeth	0.29326	0.29918	0.29918	0.010	2.01988	Averaged
13 Acrolein	0.05720	0.05786	0.05786	0.001	1.15202	Averaged
14 Trichlorotrifluoroethane	0.23998	0.22387	0.22387	0.030	-6.71094	Averaged
17 Isopropyl Alcohol	0.02272	0.02425	0.02425	0.000	6.77030	Averaged
20 Allyl chloride	261	250	0.11450	0.010	4.44100	Linear
24 tert-Butyl Alcohol	0.03642	0.03861	0.03861	0.010	6.01112	Averaged
27 Acrylonitrile	0.11119	0.11685	0.11685	0.010	5.09258	Averaged
28 Isopropyl ether	1.12852	1.11236	1.11236	0.010	-1.43125	Averaged
31 2-Chloro-1,3-butadiene	0.45317	0.53602	0.53602	0.010	18.28132	Averaged
32 Ethyl tert-butyl ether	0.92282	0.94254	0.94254	0.010	2.13673	Averaged
37 Propionitrile	0.04574	0.04595	0.04595	0.010	0.44555	Averaged
34 Ethyl acetate	0.30964	0.29007	0.29007	0.010	-6.32210	Averaged
40 Methacrylonitrile	0.24107	0.24743	0.24743	0.010	2.63790	Averaged
38 Tetrahydrofuran	0.25622	0.25409	0.25409	0.010	-0.83235	Averaged
46 Isobutyl alcohol	0.01179	0.01194	0.01194	0.001	1.26309	Averaged
49 Methyl tert-amyl ether	0.70688	0.74158	0.74158	0.010	4.90840	Averaged
56 Methyl methacrylate	0.18476	0.19653	0.19653	0.010	6.37074	Averaged
67 Ethyl methacrylate	0.48324	0.52431	0.52431	0.010	8.49938	Averaged
75 1-Chlorohexane	0.33035	0.32814	0.32814	0.000	-0.66768	Averaged
58 1,4-Dioxane	0.00273	0.00267	0.00267	0.001	-2.06096	Averaged
62 2-Nitropropane	248	250	0.10744	0.000	-0.91469	Linear
85 cis-1,4-Dichloro-2-butene	0.30111	0.34413	0.34413	0.010	14.29028	Averaged
86 Cyclohexanone	0.02440	0.01830	0.01830	0.010	-24.97856	Averaged
90 trans-1,4-Dichloro-2-butene	0.28111	0.32198	0.32198	0.010	14.53904	Averaged
98 Pentachloroethane	254	250	0.23651	0.010	1.45004	Linear
104 Benzyl chloride	1.28813	1.28543	1.28543	0.010	-0.20940	Averaged
107 bis(2-Chloroisopropyl)ether	0.44594	0.46332	0.46332	0.010	3.89777	Averaged
48 1,2-Dichloroethane-d4	0.48820	0.45554	0.45554	0.010	-6.69163	Averaged
65 Toluene-d8	1.68167	1.70100	1.70100	0.010	1.14955	Averaged
87 Bromofluorobenzene	1.25356	1.23878	1.23878	0.010	-1.17885	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i                      Injection Date: 05-MAR-2010 03:14  
Lab File ID: 1a431.d                      Init. Cal. Date(s): 04-MAR-2010    05-MAR-2010  
Analysis Type: WATER                      Init. Cal. Times:    17:28                      02:12  
Lab Sample ID: W1VM100304-23 Quant Type: ISTD  
Method: /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m

Average %D / Drift Results.	
-----	
Calculated Average %D/Drift =	5.83118
Maximun Average %D/Drift    ^	20.00000
* Passed Average %D/Drift Test.	

Data File: /chem/VOA1.i/030410v1/1a431.d  
 Report Date: 05-Mar-2010 11:12

Page 1

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/030410v1/1a431.d

Lab Smp Id: W1VM100304-23

Client Smp ID: VSTD250S

Inj Date : 05-MAR-2010 03:14

Operator : GRB2

Inst ID: VOA1.i

Smp Info : |W1VM100304-23|S-ICV|1|VOAF|1|

Misc Info : GEL 5mL N/A UVM100304-08A/UVM100125-08E

Comment :

Method : /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m

Meth Date : 05-Mar-2010 11:12 dav01267 Quant Type: ISTD

Cal Date : 05-MAR-2010 01:41

Cal File: 1a428.d

Als bottle: 31

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: CALsubS+SS.sub

Target Version: 3.50

Concentration Formula: Amt \* DF \* (Uf/Vo) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	AMOUNTS						
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL
							( ug/l)	( ug/l)
=====	=====	==	=====	=====	=====	=====	=====	
4 Chlorotrifluoroethylene	116	4.875	4.875 (0.357)	422849	150.000	176		
8 2-Chloro-1,1,1-trifluoroethane	118	6.275	6.275 (0.459)	984214	150.000	153		
13 Acrolein	56	8.940	8.940 (0.654)	317253	250.000	253		
14 Trichlorotrifluoroethane	101	8.963	8.963 (0.656)	1227444	250.000	233		
17 Isopropyl Alcohol	45	9.437	9.437 (0.690)	1329758	2500.00	2670		
20 Allyl chloride	76	9.838	9.838 (0.720)	627804	250.000	261		
24 tert-Butyl Alcohol	59	10.183	10.183 (0.745)	2117018	2500.00	2650		
27 Acrylonitrile	53	10.662	10.662 (0.780)	640684	250.000	263		
28 Isopropyl ether	45	11.182	11.182 (0.818)	1219773	50.0000	49.3		
31 2-Chloro-1,3-butadiene	53	11.385	11.385 (0.833)	587773	50.0000	59.1		
32 Ethyl tert-butyl ether	59	11.744	11.744 (0.859)	1033549	50.0000	51.1		
37 Propionitrile	54	12.393	12.393 (0.906)	251923	250.000	251		
34 Ethyl acetate	43	12.153	12.153 (0.889)	1590381	250.000	234		
40 Methacrylonitrile	41	12.549	12.549 (0.918)	1356599	250.000	256		
38 Tetrahydrofuran	42	12.531	12.531 (0.639)	564841	250.000	248		
46 Isobutyl alcohol	41	13.097	13.097 (0.958)	654432	2500.00	2530		

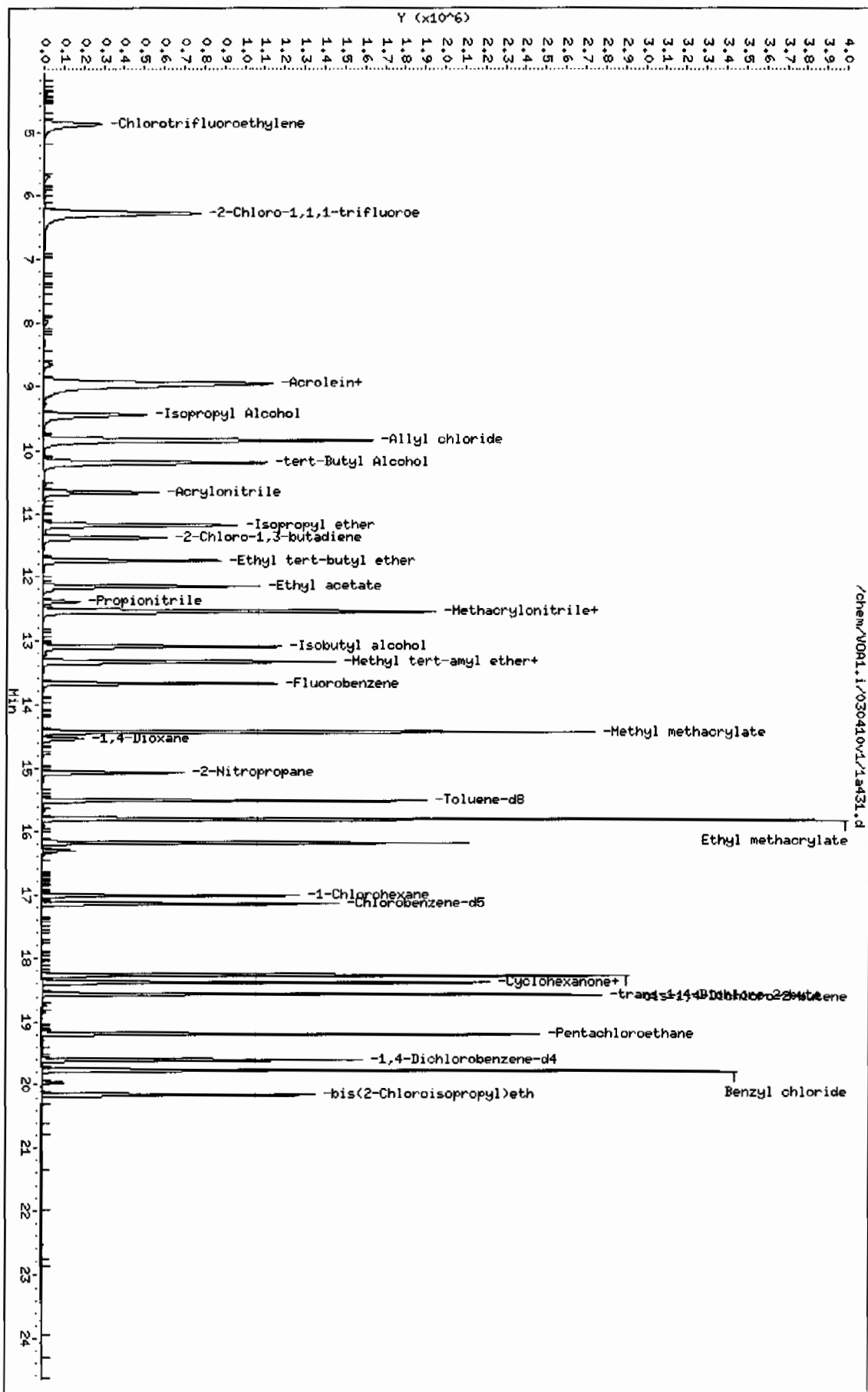
Compounds	QUANT SIG	AMOUNTS					
		CAL-AMT	ON-COL				
	MASS	RT	EXP RT	REL RT	RESPONSE	( ug/l)	( ug/l)
=====	=====	==	=====	=====	=====	=====	=====
49 Methyl tert-amyl ether	73	13.336	13.336	(0.975)	813183	50.0000	52.4
56 Methyl methacrylate	69	14.427	14.427	(1.055)	1077534	250.000	266
67 Ethyl methacrylate	69	15.799	15.799	(0.921)	2089094	250.000	271
75 1-Chlorohexane	55	17.019	17.019	(1.245)	359829	50.0000	49.7
58 1,4-Dioxane	88	14.538	14.538	(1.063)	146478	2500.00	2450
62 2-Nitropropane	43	15.067	15.067	(1.102)	589084	250.000	248
85 cis-1,4-Dichloro-2-butene	53	18.266	18.266	(0.932)	765022	250.000	286
86 Cyclohexanone	55	18.377	18.377	(1.072)	364656	1250.00	938
90 trans-1,4-Dichloro-2-butene	53	18.556	18.556	(0.947)	715772	250.000	286
98 Pentachloroethane	167	19.187	19.187	(0.979)	525774	250.000	254 (A)
104 Benzyl chloride	91	19.762	19.762	(1.008)	2857558	250.000	249
107 bis(2-Chloroisopropyl)ether	45	20.153	20.153	(1.028)	1029978	250.000	260
* 52 Fluorobenzene	96	13.672	13.668	(1.000)	1096559	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	796894	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.601	(1.000)	444607	50.0000	
\$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	499522	50.0000	46.6
\$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1355516	50.0000	50.6
\$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	550772	50.0000	49.4

#### QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/V001.1/030410v1/1a431.d  
 Date: 05-MAR-2010 03:14  
 Client ID: VSTD2505  
 Sample Info: 1M4VH100304-2315-1CV111V00F111  
 Purge Volume: 5.0  
 Column phase: RTX-Volatiles

Instrument: V001.1  
 Operator: GR82  
 Column diameter: 0.25



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 05-MAR-2010 10:31  
Lab File ID: 1a502.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010  
Analysis Type: WATER Init. Cal. Times: 17:28 02:12  
Lab Sample ID: W1VM100305-01 Quant Type: ISTD  
Method: /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m

COMPOUND	RRF / AMOUNT	RF50	CCAL	MIN	MAX	CURVE TYPE
RRF	%D	%DRIFT	%D	%DRIFT		
1 Xylenes (total)	0.67887	0.70270	0.70270	0.050	3.50958	Averaged
2 1,2-Dichloroethylene (total)	0.27972	0.29253	0.29253	0.050	4.58161	Averaged
3 1,3-Dichloropropylene	0.67789	0.73948	0.73948	0.050	9.08598	Averaged
5 Dichlorodifluoromethane	0.25158	0.28147	0.28147	0.050	11.88053	Averaged
6 Chloromethane	0.43647	0.44111	0.44111	0.100	1.06208	Averaged spcc
7 Vinyl chloride	0.33868	0.35060	0.35060	0.050	3.51988	Averaged ccc
9 Bromomethane	0.20035	0.21019	0.21019	0.050	4.91190	Averaged
10 Chloroethane	0.21782	0.22685	0.22685	0.050	4.14710	Averaged
11 Trichlorofluoromethane	0.42547	0.47389	0.47389	0.050	11.38080	Averaged
12 Ethyl Ether	0.27990	0.29643	0.29643	0.010	5.90323	Averaged
16 Acetone	0.29620	0.26818	0.26818	0.000	-9.46030	Averaged
22 Acetonitrile	0.04350	0.04236	0.04236	0.010	-2.62705	Averaged
15 1,1-Dichloroethylene	0.55098	0.58968	0.58968	0.050	7.02346	Averaged ccc
21 Methyl acetate	0.26149	0.25709	0.25709	0.010	-1.68238	Averaged
18 Iodomethane	0.40759	0.41313	0.41313	0.050	1.35752	Averaged
23 Methylene chloride	52.61887	50.00000	0.31598	0.000	5.23774	Linear
19 Carbon disulfide	0.83577	0.92684	0.92684	0.050	10.89737	Averaged
25 tert-Butyl methyl ether	0.92853	0.95444	0.95444	0.050	2.79026	Averaged
26 trans-1,2-Dichloroethylene	0.26935	0.28551	0.28551	0.050	6.00229	Averaged
29 Vinyl acetate	0.60100	0.73912	0.73912	0.010	22.98050	Averaged
30 1,1-Dichloroethane	0.57897	0.60129	0.60129	0.100	3.85597	Averaged spcc
35 2-Butanone	0.31398	0.28165	0.28165	0.030	-10.29650	Averaged
36 cis-1,2-Dichloroethylene	0.29009	0.29955	0.29955	0.050	3.26249	Averaged
33 2,2-Dichloropropane	0.36832	0.40745	0.40745	0.050	10.62596	Averaged
41 Chloroform	0.57778	0.60477	0.60477	0.010	4.67163	Averaged ccc
39 Bromochloromethane	0.13153	0.13791	0.13791	0.010	4.85169	Averaged
43 1,1,1-Trichloroethane	0.42958	0.46035	0.46035	0.010	7.16254	Averaged
42 Cyclohexane	0.55132	0.59714	0.59714	0.010	8.31206	Averaged
45 1,1-Dichloropropene	0.41669	0.45350	0.45350	0.010	8.83380	Averaged
53 n-Butyl alcohol	0.01014	0.01140	0.01140	0.001	12.38769	Averaged
44 Carbon tetrachloride	0.41092	0.45961	0.45961	0.010	11.84942	Averaged
48 1,2-Dichloroethane-d4	0.48820	0.54295	0.54295	0.010	11.21406	Averaged
51 1,2-Dichloroethane	0.51593	0.55085	0.55085	0.010	6.76938	Averaged
47 Benzene	1.14445	1.16427	1.16427	0.010	1.73166	Averaged
50 Cyclohexene	0.42588	0.45113	0.45113	0.010	5.92886	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 05-MAR-2010 10:31  
Lab File ID: 1a502.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010  
Analysis Type: WATER Init. Cal. Times: 17:28 02:12  
Lab Sample ID: W1VM100305-01 Quant Type: ISTD  
Method: /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
54 Trichloroethylene	0.29541	0.30343	0.30343	0.010	2.71395	30.00000	Averaged
57 1,2-Dichloropropane	0.31486	0.32789	0.32789	0.010	4.13811	20.00000	Averaged ccc
55 Methylcyclohexane	0.46690	0.50670	0.50670	0.010	8.52348	30.00000	Averaged
60 Bromodichloromethane	0.42946	0.47700	0.47700	0.010	11.07011	30.00000	Averaged
59 Dibromomethane	0.18749	0.19313	0.19313	0.010	3.00557	30.00000	Averaged
61 2-Chloroethylvinyl ether	303	250	0.03059	0.000	21.20753	30.00000	Linear
64 4-Methyl-2-pentanone	0.19796	0.20254	0.20254	0.010	2.31048	40.00000	Averaged
63 cis-1,3-Dichloropropylene	0.49909	0.55038	0.55038	0.010	10.27752	30.00000	Averaged
65 Toluene-d8	1.68167	1.69864	1.69864	0.010	1.00920	30.00000	Averaged
66 Toluene	0.96439	0.98216	0.98216	0.010	1.84342	20.00000	Averaged ccc
68 trans-1,3-Dichloropropylene	0.67167	0.74386	0.74386	0.010	10.74782	30.00000	Averaged
69 1,1,2-Trichloroethane	0.29796	0.30083	0.30083	0.010	0.96395	30.00000	Averaged
71 2-Hexanone	0.55226	0.51037	0.51037	0.010	-7.58551	40.00000	Averaged
72 1,3-Dichloropropane	0.64273	0.65261	0.65261	0.010	1.53845	30.00000	Averaged
70 Tetrachloroethylene	0.30803	0.31428	0.31428	0.010	2.02844	30.00000	Averaged
73 Dibromochloromethane	0.39459	0.42408	0.42408	0.010	7.47363	30.00000	Averaged
74 1,2-Dibromoethane	0.35160	0.36245	0.36245	0.010	3.08438	30.00000	Averaged
77 Chlorobenzene	1.01868	1.05248	1.05248	0.300	3.31789	30.00000	Averaged spcc
79 1,1,1,2-Tetrachloroethane	0.36870	0.39424	0.39424	0.010	6.92719	30.00000	Averaged
78 Ethylbenzene	1.92669	1.99643	1.99643	0.010	3.61924	20.00000	Averaged ccc
80 m,p-Xylenes	0.68306	0.70413	0.70413	0.010	3.08515	30.00000	Averaged
81 o-Xylene	0.67051	0.69984	0.69984	0.010	4.37431	30.00000	Averaged
82 Styrene	1.11978	1.22440	1.22440	0.010	9.34244	30.00000	Averaged
83 Bromoform	0.46660	0.52379	0.52379	0.100	12.25768	30.00000	Averaged spcc
84 Isopropylbenzene	3.39914	3.56476	3.56476	0.010	4.87255	30.00000	Averaged
88 1,1,2,2-Tetrachloroethane	0.84565	0.87401	0.87401	0.300	3.35316	30.00000	Averaged spcc
87 Bromofluorobenzene	1.25356	1.28252	1.28252	0.010	2.31038	30.00000	Averaged
92 1,2,3-Trichloropropane	0.24143	0.24442	0.24442	0.010	1.23888	30.00000	Averaged
91 Bromobenzene	0.81535	0.83587	0.83587	0.010	2.51718	30.00000	Averaged
89 n-Propylbenzene	4.15838	4.37662	4.37662	0.010	5.24800	30.00000	Averaged
94 2-Chlorotoluene	3.00922	3.13432	3.13432	0.010	4.15715	30.00000	Averaged
93 1,3,5-Trimethylbenzene	2.96733	3.15153	3.15153	0.010	6.20738	30.00000	Averaged
95 4-Chlorotoluene	2.72697	2.87524	2.87524	0.010	5.43717	30.00000	Averaged
96 tert-Butylbenzene	2.38074	2.48278	2.48278	0.010	4.28576	30.00000	Averaged
97 1,2,4-Trimethylbenzene	3.08424	3.23504	3.23504	0.010	4.88953	30.00000	Averaged
99 sec-Butylbenzene	3.77742	3.96034	3.96034	0.010	4.84263	30.00000	Averaged



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 05-MAR-2010 10:31  
 Lab File ID: 1a502.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010  
 Analysis Type: WATER Init. Cal. Times: 17:28 02:12  
 Lab Sample ID: W1VM100305-01 Quant Type: ISTD  
 Method: /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m

COMPOUND	RRF / AMOUNT	RF50	CCAL	MIN	MAX	CURVE TYPE
			RRF50	RRF %D / %DRIFT	%D / %DRIFT	
100 4-Isopropyltoluene	2.94220	3.12737	3.12737	0.010	6.29344	Averaged
101 1,3-Dichlorobenzene	1.58600	1.61043	1.61043	0.010	1.54014	Averaged
103 1,4-Dichlorobenzene	1.59809	1.62423	1.62423	0.010	1.63593	Averaged
105 n-Butylbenzene	3.17694	3.41120	3.41120	0.010	7.37353	Averaged
106 1,2-Dichlorobenzene	1.51488	1.54066	1.54066	0.010	1.70191	Averaged
108 1,2-Dibromo-3-chloropropane	0.16661	0.18123	0.18123	0.010	8.77975	Averaged
109 1,2,4-Trichlorobenzene	1.17236	1.22250	1.22250	0.010	4.27675	Averaged
110 Hexachlorobutadiene	0.71666	0.74291	0.74291	0.010	3.66327	Averaged
111 Naphthalene	2.63897	2.62914	2.62914	0.010	-0.37230	Averaged
112 1,2,3-Trichlorobenzene	1.06740	1.10036	1.10036	0.010	3.08807	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 5.83118

Maximum Average %D/Drift = 20.00000

\* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026  
Data file : /chem/VOA1.i/030410v1/1a502.d  
Lab Smp Id: W1VM100305-01 Client Smp ID: VSTD050  
Inj Date : 05-MAR-2010 10:31  
Operator : GRB2 Inst ID: VOA1.i  
Smp Info : |W1VM100305-01|ICV/CCV/LCS|1|VOAF|1|  
Misc Info : GEL 5mL N/A UVM100220-01D/IVM100304-01  
Comment :  
Method : /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m  
Meth Date : 05-Mar-2010 11:12 dav01267 Quant Type: ISTD  
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d  
Als bottle: 2 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: CALsubL+.sub  
Target Version: 3.50

Concentration Formula: Amt \* DF \* (Uf/Vo) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

						AMOUNTS	
QUANT SIG						CAL-AMT	ON-COL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ug/l)	( ug/l)
=====	=====	==	=====	=====	=====	=====	=====
M 1 Xylenes (total)	106				1696711	150.000	155
M 2 1,2-Dichloroethylene (total)	96				628940	100.000	105
M 3 1,3-Dichloropropylene	75				1190353	100.000	110
5 Dichlorodifluoromethane	85	4.976	4.976	(0.364)	302577	50.0000	55.9
6 Chloromethane	50	5.528	5.528	(0.404)	474188	50.0000	50.5
7 Vinyl chloride	62	5.901	5.901	(0.432)	376890	50.0000	51.8
9 Bromomethane	96	6.929	6.929	(0.507)	225958	50.0000	52.4
10 Chloroethane	64	7.201	7.201	(0.527)	243865	50.0000	52.1
11 Trichlorofluoromethane	101	7.813	7.813	(0.572)	509427	50.0000	55.7
12 Ethyl Ether	59	8.457	8.457	(0.619)	318658	50.0000	53.0
16 Acetone	43	9.240	9.240	(0.676)	1441449	250.000	226
22 Acetonitrile	41	9.962	9.962	(0.729)	1138311	1250.00	1220
15 1,1-Dichloroethylene	61	9.065	9.065	(0.663)	633902	50.0000	53.5
21 Methyl acetate	43	9.820	9.820	(0.718)	1381847	250.000	246
18 Iodomethane	142	9.451	9.451	(0.692)	2220549	250.000	253
23 Methylene chloride	84	10.123	10.123	(0.741)	339679	50.0000	52.6

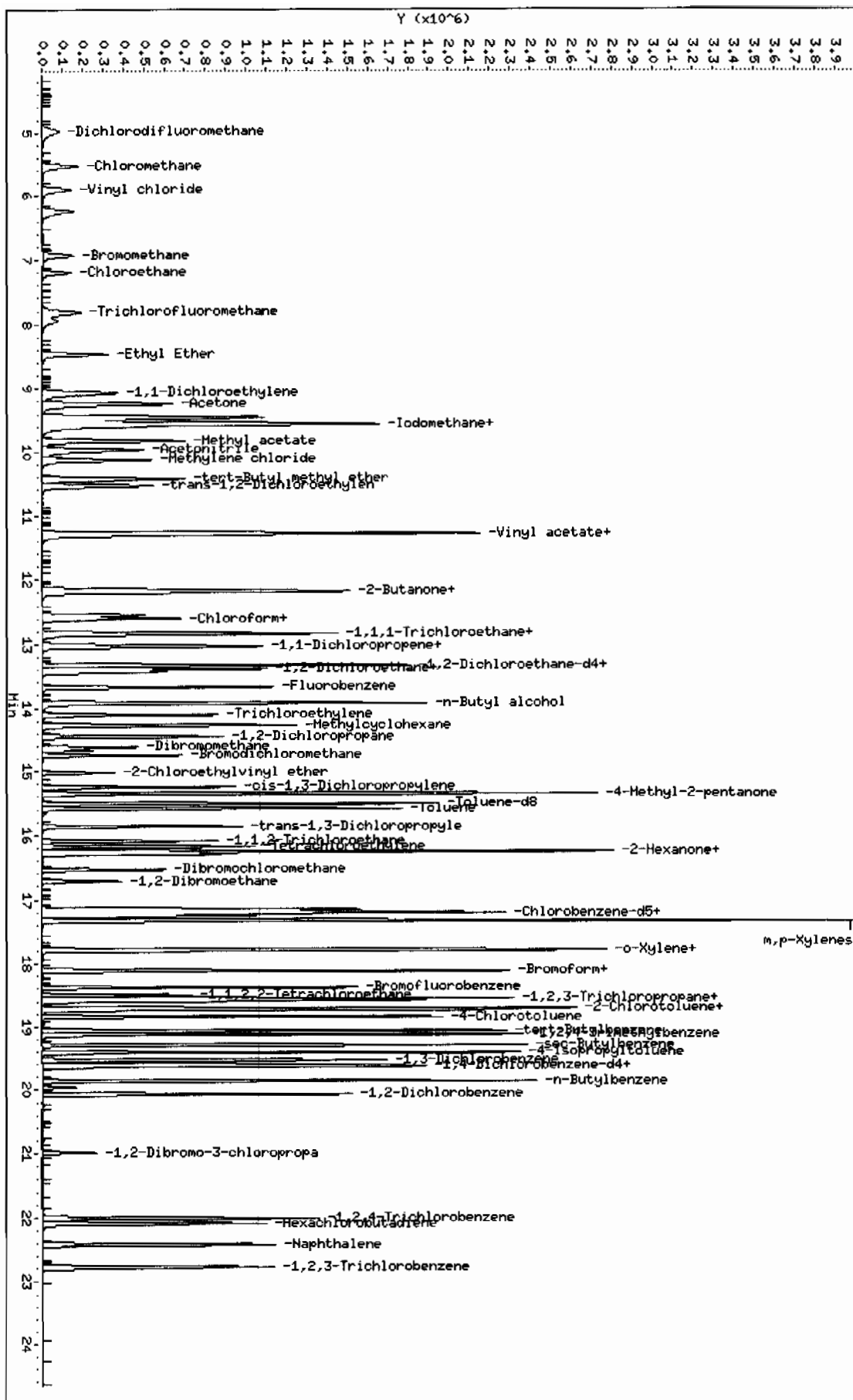
Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT ( ug/l)	ON-COL ( ug/l)
=====	=====	==	=====	=====	=====	=====	=====
19 Carbon disulfide	76	9.553	9.553	(0.699)	4981747	250.000	277
25 tert-Butyl methyl ether	73	10.423	10.423	(0.763)	1026015	50.0000	51.4
26 trans-1,2-Dichloroethylene	96	10.533	10.533	(0.771)	306926	50.0000	53.0
29 Vinyl acetate	43	11.279	11.279	(0.825)	3972726	250.000	307
30 1,1-Dichloroethane	63	11.306	11.306	(0.827)	646385	50.0000	51.9
35 2-Butanone	43	12.172	12.172	(0.891)	1513863	250.000	224
36 cis-1,2-Dichloroethylene	96	12.190	12.190	(0.892)	322014	50.0000	51.6
33 2,2-Dichloropropane	77	12.149	12.149	(0.889)	438011	50.0000	55.3
41 Chloroform	83	12.600	12.600	(0.922)	650126	50.0000	52.3
39 Bromochloromethane	128	12.545	12.545	(0.918)	148250	50.0000	52.4
43 1,1,1-Trichloroethane	97	12.835	12.835	(0.939)	494870	50.0000	53.6
42 Cyclohexane	56	12.825	12.825	(0.938)	641925	50.0000	54.2
45 1,1-Dichloropropene	75	13.037	13.037	(0.954)	487506	50.0000	54.4
53 n-Butyl alcohol	56	13.916	13.916	(1.018)	1225614	5000.00	5620
44 Carbon tetrachloride	117	13.010	13.010	(0.952)	494082	50.0000	55.9
\$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	583670	50.0000	55.6
51 1,2-Dichloroethane	62	13.428	13.428	(0.982)	592164	50.0000	53.4
47 Benzene	78	13.318	13.318	(0.974)	1251578	50.0000	50.9
50 Cyclohexene	54	13.382	13.382	(0.979)	484963	50.0000	53.0
* 52 Fluorobenzene	96	13.668	13.668	(1.000)	1074993	50.0000	
54 Trichloroethylene	95	14.105	14.105	(1.032)	326181	50.0000	51.4
57 1,2-Dichloropropane	63	14.446	14.446	(1.057)	352482	50.0000	52.1
55 Methylcyclohexane	83	14.266	14.266	(1.044)	544700	50.0000	54.3
60 Bromodichloromethane	83	14.740	14.740	(1.078)	512774	50.0000	55.5
59 Dibromomethane	93	14.611	14.611	(1.069)	207611	50.0000	51.5
61 2-Chloroethylvinyl ether	63	15.017	15.017	(1.099)	164440	250.000	303
64 4-Methyl-2-pentanone	58	15.343	15.343	(0.895)	815059	250.000	256
63 cis-1,3-Dichloropropylene	75	15.242	15.242	(1.115)	591657	50.0000	55.1
\$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1367158	50.0000	50.5
66 Toluene	92	15.583	15.583	(0.909)	790500	50.0000	50.9
68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	598696	50.0000	55.4
69 1,1,2-Trichloroethane	83	16.094	16.094	(0.939)	242124	50.0000	50.5
71 2-Hexanone	43	16.255	16.255	(0.948)	2053864	250.000	231
72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	525260	50.0000	50.8
70 Tetrachloroethylene	164	16.176	16.176	(0.943)	252952	50.0000	51.0
73 Dibromochloromethane	129	16.535	16.535	(0.964)	341319	50.0000	53.7
74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	291718	50.0000	51.5
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	804855	50.0000	
77 Chlorobenzene	112	17.180	17.180	(1.002)	847090	50.0000	51.6
79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	317308	50.0000	53.5
78 Ethylbenzene	91	17.208	17.208	(1.003)	1606834	50.0000	51.8
80 m,p-Xylenes	106	17.323	17.323	(1.010)	1133444	100.000	103
81 o-Xylene	106	17.769	17.769	(1.036)	563267	50.0000	52.2
82 Styrene	104	17.792	17.792	(1.038)	985464	50.0000	54.7
83 Bromoform	173	18.096	18.096	(0.923)	232402	50.0000	56.1
84 Isopropylbenzene	105	18.114	18.114	(0.924)	1581663	50.0000	52.4
88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	387792	50.0000	51.7

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT ( ug/l)	ON-COL ( ug/l)
=====	=====	==	=====	=====	=====	=====	=====
\$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	569048	50.0000	51.2
92 1,2,3-Trichloropropane	110	18.593	18.593	(0.949)	108449	50.0000	50.6
91 Bromobenzene	156	18.579	18.579	(0.948)	370872	50.0000	51.2
89 n-Propylbenzene	91	18.547	18.547	(0.946)	1941878	50.0000	52.6
94 2-Chlorotoluene	91	18.731	18.731	(0.956)	1390679	50.0000	52.1
93 1,3,5-Trimethylbenzene	105	18.704	18.704	(0.954)	1398313	50.0000	53.1
95 4-Chlorotoluene	91	18.842	18.842	(0.961)	1275725	50.0000	52.7
96 tert-Butylbenzene	119	19.063	19.063	(0.973)	1101593	50.0000	52.1
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	1435370	50.0000	52.4
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1757181	50.0000	52.4
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	1387594	50.0000	53.1
101 1,3-Dichlorobenzene	146	19.532	19.532	(0.996)	714537	50.0000	50.8
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.601	(1.000)	443694	50.0000	
103 1,4-Dichlorobenzene	146	19.624	19.624	(1.001)	720661	50.0000	50.8
105 n-Butylbenzene	91	19.854	19.854	(1.013)	1513528	50.0000	53.7
106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	683582	50.0000	50.8
108 1,2-Dibromo-3-chloropropane	157	20.987	20.987	(1.071)	80412	50.0000	54.4
109 1,2,4-Trichlorobenzene	180	22.009	22.009	(1.123)	542417	50.0000	52.1
110 Hexachlorobutadiene	225	22.091	22.091	(1.127)	329624	50.0000	51.8
111 Naphthalene	128	22.418	22.418	(1.144)	1166534	50.0000	49.8
112 1,2,3-Trichlorobenzene	180	22.773	22.773	(1.162)	488224	50.0000	51.5

Data File: /chem/V001.i/030410v1/1a502.d  
 Date: 05-MAR-2010 10:31  
 Client ID: VSTD050  
 Sample Info: IMLVH100305-01.ICV/CCV/LCS/11V00F11  
 Purge Volume: 5.0  
 Column phase: RTX-Volatiles

Instrument: V001.i  
 Operator: GBB2  
 Column diameter: 0.25

/chem/V001.i/030410v1/1a502.d



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 06-MAR-2010 05:30  
 Lab File ID: 1a602.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010  
 Analysis Type: WATER Init. Cal. Times: 17:28 02:12  
 Lab Sample ID: W1VM100306-01 Quant Type: ISTD  
 Method: /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Xylenes (total)	0.67887	0.66740	0.66740	0.050	-1.68985	30.00000	Averaged
2 1,2-Dichloroethylene (total)	0.27972	0.27278	0.27278	0.050	-2.47865	30.00000	Averaged
3 1,3-Dichloropropylene	0.67789	0.70374	0.70374	0.050	3.81372	30.00000	Averaged
5 Dichlorodifluoromethane	0.25158	0.24416	0.24416	0.050	-2.95046	30.00000	Averaged
6 Chloromethane	0.43647	0.41935	0.41935	0.100	-3.92337	30.00000	Averaged spcc
7 Vinyl chloride	0.33868	0.32424	0.32424	0.050	-4.26206	20.00000	Averaged ccc
9 Bromomethane	0.20035	0.19286	0.19286	0.050	-3.74046	30.00000	Averaged
10 Chloroethane	0.21782	0.19989	0.19989	0.050	-8.23170	30.00000	Averaged
11 Trichlorofluoromethane	0.42547	0.44791	0.44791	0.050	5.27457	30.00000	Averaged
12 Ethyl Ether	0.27990	0.26793	0.26793	0.010	-4.27793	30.00000	Averaged
16 Acetone	0.29620	0.24005	0.24005	0.000	-18.95601	40.00000	Averaged
22 Acetonitrile	0.04350	0.03959	0.03959	0.010	-8.98553	30.00000	Averaged
15 1,1-Dichloroethylene	0.55098	0.55501	0.55501	0.050	0.73113	20.00000	Averaged ccc
21 Methyl acetate	0.26149	0.23497	0.23497	0.010	-10.14212	40.00000	Averaged
18 Iodomethane	0.40759	0.38519	0.38519	0.050	-5.49638	30.00000	Averaged
23 Methylene chloride	49.64727	50.00000	0.29845	0.000	-0.70545	30.00000	Linear
19 Carbon disulfide	0.83577	0.84985	0.84985	0.050	1.68491	30.00000	Averaged
25 tert-Butyl methyl ether	0.92853	0.86613	0.86613	0.050	-6.72084	30.00000	Averaged
26 trans-1,2-Dichloroethylene	0.26935	0.26257	0.26257	0.050	-2.51481	30.00000	Averaged
29 Vinyl acetate	0.60100	0.69252	0.69252	0.010	15.22692	40.00000	Averaged
30 1,1-Dichloroethane	0.57897	0.56299	0.56299	0.100	-2.75991	30.00000	Averaged spcc
35 2-Butanone	0.31398	0.24955	0.24955	0.030	-20.52149	40.00000	Averaged
36 cis-1,2-Dichloroethylene	0.29009	0.28299	0.28299	0.050	-2.44508	30.00000	Averaged
33 2,2-Dichloropropane	0.36832	0.37881	0.37881	0.050	2.84860	30.00000	Averaged
41 Chloroform	0.57778	0.58645	0.58645	0.010	1.49975	20.00000	Averaged ccc
39 Bromochloromethane	0.13153	0.12981	0.12981	0.010	-1.30203	30.00000	Averaged
43 1,1,1-Trichloroethane	0.42958	0.43725	0.43725	0.010	1.78520	30.00000	Averaged
42 Cyclohexane	0.55132	0.54531	0.54531	0.010	-1.09048	30.00000	Averaged
45 1,1-Dichloropropene	0.41669	0.42058	0.42058	0.010	0.93311	30.00000	Averaged
53 n-Butyl alcohol	0.01014	0.00931	0.00931	0.001	-8.22091	40.00000	Averaged
44 Carbon tetrachloride	0.41092	0.44279	0.44279	0.010	7.75639	30.00000	Averaged
48 1,2-Dichloroethane-d4	0.48820	0.55466	0.55466	0.010	13.61151	30.00000	Averaged
51 1,2-Dichloroethane	0.51593	0.52858	0.52858	0.010	2.45277	30.00000	Averaged
47 Benzene	1.14445	1.09150	1.09150	0.010	-4.62693	30.00000	Averaged
50 Cyclohexene	0.42588	0.42790	0.42790	0.010	0.47282	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 06-MAR-2010 05:30  
Lab File ID: 1a602.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010  
Analysis Type: WATER Init. Cal. Times: 17:28 02:12  
Lab Sample ID: W1VM100306-01 Quant Type: ISTD  
Method: /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
54 Trichloroethylene	0.29541	0.28840	0.28840	0.010	-2.37316	30.00000	Averaged
57 1,2-Dichloropropane	0.31486	0.30833	0.30833	0.010	-2.07399	20.00000	Averaged ccc
55 Methylcyclohexane	0.46690	0.46062	0.46062	0.010	-1.34659	30.00000	Averaged
60 Bromodichloromethane	0.42946	0.45874	0.45874	0.010	6.81700	30.00000	Averaged
59 Dibromomethane	0.18749	0.18301	0.18301	0.010	-2.39335	30.00000	Averaged
61 2-Chloroethylvinyl ether	138	250	0.01370	0.000	-44.81418	30.00000	Linear <-
64 4-Methyl-2-pentanone	0.19796	0.18154	0.18154	0.010	-8.29383	40.00000	Averaged
63 cis-1,3-Dichloropropylene	0.49909	0.51670	0.51670	0.010	3.52960	30.00000	Averaged
65 Toluene-d8	1.68167	1.71319	1.71319	0.010	1.87472	30.00000	Averaged
66 Toluene	0.96439	0.93252	0.93252	0.010	-3.30462	20.00000	Averaged ccc
68 trans-1,3-Dichloropropylene	0.67167	0.70894	0.70894	0.010	5.55002	30.00000	Averaged
69 1,1,2-Trichloroethane	0.29796	0.28308	0.28308	0.010	-4.99146	30.00000	Averaged
71 2-Hexanone	0.55226	0.46393	0.46393	0.010	-15.99462	40.00000	Averaged
72 1,3-Dichloropropane	0.64273	0.61418	0.61418	0.010	-4.44180	30.00000	Averaged
70 Tetrachloroethylene	0.30803	0.29351	0.29351	0.010	-4.71507	30.00000	Averaged
73 Dibromochloromethane	0.39459	0.40907	0.40907	0.010	3.67049	30.00000	Averaged
74 1,2-Dibromoethane	0.35160	0.34074	0.34074	0.010	-3.09013	30.00000	Averaged
77 Chlorobenzene	1.01868	0.99710	0.99710	0.300	-2.11779	30.00000	Averaged spcc
79 1,1,1,2-Tetrachloroethane	0.36870	0.37992	0.37992	0.010	3.04196	30.00000	Averaged
78 Ethylbenzene	1.92669	1.90583	1.90583	0.010	-1.08313	20.00000	Averaged ccc
80 m,p-Xylenes	0.68306	0.66759	0.66759	0.010	-2.26426	30.00000	Averaged
81 o-Xylene	0.67051	0.66702	0.66702	0.010	-0.51954	30.00000	Averaged
82 Styrene	1.11978	1.15058	1.15058	0.010	2.74973	30.00000	Averaged
83 Bromoform	0.46660	0.48948	0.48948	0.100	4.90519	30.00000	Averaged spcc
84 Isopropylbenzene	3.39914	3.40282	3.40282	0.010	0.10828	30.00000	Averaged
88 1,1,2,2-Tetrachloroethane	0.84565	0.80503	0.80503	0.300	-4.80396	30.00000	Averaged spcc
87 Bromofluorobenzene	1.25356	1.29599	1.29599	0.010	3.38490	30.00000	Averaged
92 1,2,3-Trichloropropane	0.24143	0.22668	0.22668	0.010	-6.10896	30.00000	Averaged
91 Bromobenzene	0.81535	0.79862	0.79862	0.010	-2.05226	30.00000	Averaged
89 n-Propylbenzene	4.15838	4.20069	4.20069	0.010	1.01729	30.00000	Averaged
94 2-Chlorotoluene	3.00922	3.02851	3.02851	0.010	0.64103	30.00000	Averaged
93 1,3,5-Trimethylbenzene	2.96733	3.04081	3.04081	0.010	2.47626	30.00000	Averaged
95 4-Chlorotoluene	2.72697	2.75689	2.75689	0.010	1.09747	30.00000	Averaged
96 tert-Butylbenzene	2.38074	2.36953	2.36953	0.010	-0.47119	30.00000	Averaged
97 1,2,4-Trimethylbenzene	3.08424	3.08656	3.08656	0.010	0.07532	30.00000	Averaged
99 sec-Butylbenzene	3.77742	3.75512	3.75512	0.010	-0.59042	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 06-MAR-2010 05:30  
Lab File ID: 1a602.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010  
Analysis Type: WATER Init. Cal. Times: 17:28 02:12  
Lab Sample ID: W1VM100306-01 Quant Type: ISTD  
Method: /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m

COMPOUND	RRF / AMOUNT	RF50	CCAL	MIN	MAX	CURVE TYPE
			RRF50	RRF %D / %DRIFT	%D / %DRIFT	
100 4-Isopropyltoluene	2.94220	2.96841	2.96841	0.010	0.89070	Averaged
101 1,3-Dichlorobenzene	1.58600	1.54219	1.54219	0.010	-2.76220	Averaged
103 1,4-Dichlorobenzene	1.59809	1.54473	1.54473	0.010	-3.33872	Averaged
105 n-Butylbenzene	3.17694	3.21123	3.21123	0.010	1.07931	Averaged
106 1,2-Dichlorobenzene	1.51488	1.46676	1.46676	0.010	-3.17651	Averaged
108 1,2-Dibromo-3-chloropropane	0.16661	0.15366	0.15366	0.010	-7.76855	Averaged
109 1,2,4-Trichlorobenzene	1.17236	1.12084	1.12084	0.010	-4.39453	Averaged
110 Hexachlorobutadiene	0.71666	0.69324	0.69324	0.010	-3.26671	Averaged
111 Naphthalene	2.63897	2.30472	2.30472	0.010	-12.66570	Averaged
112 1,2,3-Trichlorobenzene	1.06740	0.99853	0.99853	0.010	-6.45249	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 4.79892  
Maximum Average %D/Drift = 20.00000  
\* Passed Average %D/Drift Test.



GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/030610v1/1a602.d

Lab Smp Id: W1VM100306-01

Client Smp ID: VSTD050

Inj Date : 06-MAR-2010 05:30

Operator : GRB2

Inst ID: VOA1.i

Smp Info : |W1VM100306-01|CCV/LCS|1|VOAF|1|

Misc Info : GEL 5mL N/A UVM100220-01D/IVM100304-01

Comment :

Method : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m

Meth Date : 06-Mar-2010 06:58 gel00735 Quant Type: ISTD

Cal Date : 05-MAR-2010 01:41

Cal File: 1a428.d

Als bottle: 2

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: CALsubL+.sub

Target Version: 3.50

Processing Host: prdsvr07

Concentration Formula: Amt \* DF \* (Uf/Vo) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable

Local Compound Variable

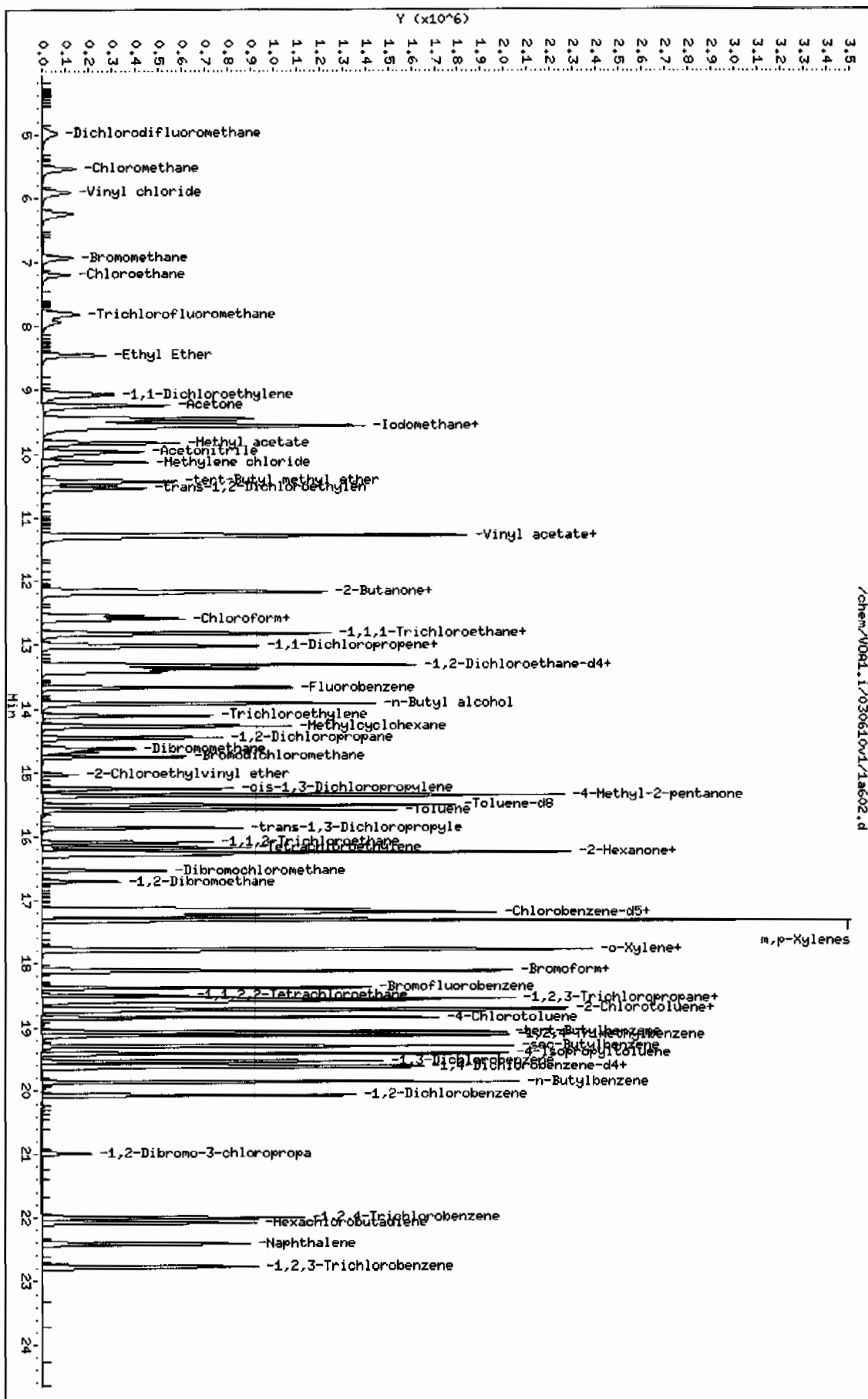
		QUANT SIG			AMOUNTS		
Compounds		MASS	RT	EXP RT REL RT	RESPONSE	CAL-AMT ( ug/l)	ON-COL ( ug/l)
M 1 Xylenes (total)		106			1457061	150.000	147
M 2 1,2-Dichloroethylene (total)		96			536745	100.000	97.5
M 3 1,3-Dichloropropylene		75			1024268	100.000	104
5 Dichlorodifluoromethane		85	4.983	4.983 (0.364)	240209	50.0000	48.5
6 Chloromethane		50	5.535	5.535 (0.405)	412567	50.0000	48.0
7 Vinyl chloride		62	5.908	5.908 (0.432)	318999	50.0000	47.9
9 Bromomethane		96	6.929	6.929 (0.507)	189741	50.0000	48.1
10 Chloroethane		64	7.205	7.205 (0.527)	196657	50.0000	45.9
11 Trichlorofluoromethane		101	7.822	7.822 (0.572)	440666	50.0000	52.6
12 Ethyl Ether		59	8.466	8.466 (0.619)	263598	50.0000	47.9
16 Acetone		43	9.240	9.240 (0.676)	1180852	250.000	203
22 Acetonitrile		41	9.962	9.962 (0.729)	973750	1250.00	1140
15 1,1-Dichloroethylene		61	9.069	9.069 (0.663)	546036	50.0000	50.4
21 Methyl acetate		43	9.824	9.824 (0.719)	1155844	250.000	225
18 Iodomethane		142	9.451	9.451 (0.691)	1894817	250.000	236

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT ( ug/l)	ON-COL ( ug/l)
23 Methylene chloride	84	10.128	10.128	(0.741)	293625	50.0000	49.6
19 Carbon disulfide	76	9.557	9.557	(0.699)	4180530	250.000	254
25 tert-Butyl methyl ether	73	10.427	10.427	(0.763)	852120	50.0000	46.6
26 trans-1,2-Dichloroethylene	96	10.533	10.533	(0.770)	258328	50.0000	48.7
29 Vinyl acetate	43	11.283	11.283	(0.825)	3406597	250.000	288
30 1,1-Dichloroethane	63	11.311	11.311	(0.827)	553885	50.0000	48.6
35 2-Butanone	43	12.172	12.172	(0.890)	1227556	250.000	199
36 cis-1,2-Dichloroethylene	96	12.190	12.190	(0.892)	278417	50.0000	48.8
33 2,2-Dichloropropane	77	12.149	12.149	(0.889)	372684	50.0000	51.4
41 Chloroform	83	12.600	12.600	(0.922)	576963	50.0000	50.7
39 Bromochloromethane	128	12.549	12.549	(0.918)	127715	50.0000	49.3
43 1,1,1-Trichloroethane	97	12.835	12.835	(0.939)	430177	50.0000	50.9
42 Cyclohexane	56	12.830	12.830	(0.938)	536488	50.0000	49.4
45 1,1-Dichloropropene	75	13.037	13.037	(0.954)	413775	50.0000	50.5
53 n-Butyl alcohol	56	13.916	13.916	(1.018)	915995	5000.00	4590
44 Carbon tetrachloride	117	13.014	13.014	(0.952)	435635	50.0000	53.9
\$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	545688	50.0000	56.8
51 1,2-Dichloroethane	62	13.428	13.428	(0.982)	520036	50.0000	51.2
47 Benzene	78	13.322	13.322	(0.974)	1073846	50.0000	47.7
50 Cyclohexene	54	13.382	13.382	(0.979)	420976	50.0000	50.2
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	983830	50.0000	
54 Trichloroethylene	95	14.110	14.110	(1.032)	283735	50.0000	48.8
57 1,2-Dichloropropane	63	14.446	14.446	(1.057)	303347	50.0000	49.0
55 Methylcyclohexane	83	14.271	14.271	(1.044)	453169	50.0000	49.3
60 Bromodichloromethane	83	14.740	14.740	(1.078)	451319	50.0000	53.4
59 Dibromomethane	93	14.616	14.616	(1.069)	180046	50.0000	48.8
61 2-Chloroethylvinyl ether	63	15.016	15.016	(1.098)	67369	250.000	138
64 4-Methyl-2-pentanone	58	15.348	15.348	(0.895)	660571	250.000	229
63 cis-1,3-Dichloropropylene	75	15.247	15.247	(1.115)	508349	50.0000	51.8
\$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1246741	50.0000	50.9
66 Toluene	92	15.583	15.583	(0.909)	678620	50.0000	48.3
68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	515919	50.0000	52.8
69 1,1,2-Trichloroethane	83	16.094	16.094	(0.939)	206009	50.0000	47.5
71 2-Hexanone	43	16.255	16.255	(0.948)	1688071	250.000	210
72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	446955	50.0000	47.8
70 Tetrachloroethylene	164	16.176	16.176	(0.943)	213596	50.0000	47.6
73 Dibromochloromethane	129	16.535	16.535	(0.964)	297691	50.0000	51.8
74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	247965	50.0000	48.4
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	727729	50.0000	
77 Chlorobenzene	112	17.180	17.180	(1.002)	725621	50.0000	48.9
79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	276477	50.0000	51.5
78 Ethylbenzene	91	17.207	17.207	(1.003)	1386925	50.0000	49.4
80 m,p-Xylenes	106	17.323	17.323	(1.010)	971649	100.000	97.7
81 o-Xylene	106	17.769	17.769	(1.036)	485412	50.0000	49.7
82 Styrene	104	17.792	17.792	(1.038)	837307	50.0000	51.4
83 Bromoform	173	18.096	18.096	(0.923)	195933	50.0000	52.4
84 Isopropylbenzene	105	18.114	18.114	(0.924)	1362100	50.0000	50.0

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT ( ug/l)	ON-COL ( ug/l)
=====	=====	==	=====	=====	=====	=====	=====
88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	322241	50.0000	47.6
\$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	518768	50.0000	51.7
92 1,2,3-Trichloropropane	110	18.593	18.593	(0.949)	90738	50.0000	46.9
91 Bromobenzene	156	18.579	18.579	(0.948)	319675	50.0000	49.0
89 n-Propylbenzene	91	18.547	18.547	(0.946)	1681476	50.0000	50.5
94 2-Chlorotoluene	91	18.731	18.731	(0.956)	1212271	50.0000	50.3
93 1,3,5-Trimethylbenzene	105	18.708	18.708	(0.954)	1217194	50.0000	51.2
95 4-Chlorotoluene	91	18.842	18.842	(0.961)	1103546	50.0000	50.5
96 tert-Butylbenzene	119	19.062	19.062	(0.973)	948488	50.0000	49.8
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	1235508	50.0000	50.0
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1503120	50.0000	49.7
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	1188212	50.0000	50.4
101 1,3-Dichlorobenzene	146	19.532	19.532	(0.996)	617318	50.0000	48.6
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.601	(1.000)	400286	50.0000	
103 1,4-Dichlorobenzene	146	19.629	19.629	(1.001)	618334	50.0000	48.3
105 n-Butylbenzene	91	19.854	19.854	(1.013)	1285412	50.0000	50.5
106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	587123	50.0000	48.4
108 1,2-Dibromo-3-chloropropane	157	20.987	20.987	(1.071)	61509	50.0000	46.1
109 1,2,4-Trichlorobenzene	180	22.008	22.008	(1.123)	448658	50.0000	47.8
110 Hexachlorobutadiene	225	22.091	22.091	(1.127)	277496	50.0000	48.4
111 Naphthalene	128	22.418	22.418	(1.144)	922548	50.0000	43.7
112 1,2,3-Trichlorobenzene	180	22.773	22.773	(1.162)	399696	50.0000	46.8

Data File: /chem/V001.i/030610v1/1a602.d  
 Date : 06-MAR-2010 05:30  
 Client ID: VSTD030  
 Sample Info: 1141VH00306-01ICCV/LCS/11V0AF111  
 Purge Volume: 5.0  
 Column phase: RTX-Volatiles

Instrument: V001.i  
 Operator: GRB2  
 Column diameter: 0.25



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 06-MAR-2010 06:30  
Lab File ID: 1a604.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010  
Analysis Type: WATER Init. Cal. Times: 17:28 02:12  
Lab Sample ID: W1VM100306-03 Quant Type: ISTD  
Method: /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m

COMPOUND	RRF / AMOUNT	RF50	CCAL	MIN	MAX	CURVE TYPE
RRF	%D / %DRIFT	%D / %DRIFT	RRF	%D / %DRIFT	%D / %DRIFT	
4 Chlorotrifluoroethylene	155	150	0.11290	0.010	3.52688	30.00000 Linear
8 2-Chloro-1,1,1-trifluoroeth	0.29326	0.26620	0.26620	0.010	-9.22756	30.00000 Averaged
13 Acrolein	0.05720	0.06384	0.06384	0.001	11.60418	30.00000 Averaged
14 Trichlorotrifluoroethane	0.23998	0.24875	0.24875	0.030	3.65745	30.00000 Averaged
17 Isopropyl Alcohol	0.02272	0.02226	0.02226	0.000	-1.99086	40.00000 Averaged
20 Allyl chloride	274	250	0.12055	0.010	9.79426	30.00000 Linear
24 tert-Butyl Alcohol	0.03642	0.03532	0.03532	0.010	-3.02915	40.00000 Averaged
27 Acrylonitrile	0.11119	0.11309	0.11309	0.010	1.70537	30.00000 Averaged
28 Isopropyl ether	1.12852	1.07715	1.07715	0.010	-4.55139	30.00000 Averaged
31 2-Chloro-1,3-butadiene	0.45317	0.60669	0.60669	0.010	33.87702	30.00000 Averaged
32 Ethyl tert-butyl ether	0.92282	0.91218	0.91218	0.010	-1.15266	30.00000 Averaged
37 Propionitrile	0.04574	0.04433	0.04433	0.010	-3.08358	30.00000 Averaged
34 Ethyl acetate	0.30964	0.28899	0.28899	0.010	-6.66866	40.00000 Averaged
40 Methacrylonitrile	0.24107	0.24663	0.24663	0.010	2.30694	30.00000 Averaged
38 Tetrahydrofuran	0.25622	0.23945	0.23945	0.010	-6.54363	30.00000 Averaged
46 Isobutyl alcohol	0.01179	0.01106	0.01106	0.001	-6.14942	40.00000 Averaged
49 Methyl tert-amyl ether	0.70688	0.71366	0.71366	0.010	0.95911	30.00000 Averaged
56 Methyl methacrylate	0.18476	0.19461	0.19461	0.010	5.32968	30.00000 Averaged
67 Ethyl methacrylate	0.48324	0.51919	0.51919	0.010	7.43946	30.00000 Averaged
75 1-Chlorohexane	0.33035	0.31112	0.31112	0.000	-5.82069	30.00000 Averaged
58 1,4-Dioxane	0.00273	0.00248	0.00248	0.001	-9.26306	40.00000 Averaged
62 2-Nitropropane	253	250	0.10961	0.000	1.03588	30.00000 Linear
85 cis-1,4-Dichloro-2-butene	0.30111	0.37191	0.37191	0.010	23.51512	30.00000 Averaged
86 Cyclohexanone	0.02440	0.01637	0.01637	0.010	-32.89356	40.00000 Averaged
90 trans-1,4-Dichloro-2-butene	0.28111	0.34596	0.34596	0.010	23.06976	30.00000 Averaged
98 Pentachloroethane	501	250	0.48013	0.010	100	30.00000 Linear
104 Benzyl chloride	1.28813	1.82348	1.82348	0.010	41.56041	30.00000 Averaged
107 bis(2-Chloroisopropyl)ether	0.44594	0.43077	0.43077	0.010	-3.40202	30.00000 Averaged
48 1,2-Dichloroethane-d4	0.48820	0.48495	0.48495	0.010	-0.66767	30.00000 Averaged
65 Toluene-d8	1.68167	1.71865	1.71865	0.010	2.19894	30.00000 Averaged
87 Bromofluorobenzene	1.25356	1.29334	1.29334	0.010	3.17298	30.00000 Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i                      Injection Date: 06-MAR-2010 06:30  
Lab File ID: 1a604.d                      Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010  
Analysis Type: WATER                      Init. Cal. Times: 17:28 02:12  
Lab Sample ID: W1VM100306-03 Quant Type: ISTD  
Method: /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m

Average %D / Drift Results.	
=====	
Calculated Average %D/Drift =	11.91649
Maximum Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/030610v1/1a604.d

Lab Smp Id: W1VM100306-03

Client Smp ID: VSTD250S

Inj Date : 06-MAR-2010 06:30

Operator : GRB2

Inst ID: VOA1.i

Smp Info : |W1VM100306-03|SHORT/SLCS|1|VOAF|1|

Misc Info : GEL 5mL N/A UVM100304-08A/UVM100125-08E

Comment :

Method : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m

Meth Date : 06-Mar-2010 06:57 gel00735 Quant Type: ISTD

Cal Date : 05-MAR-2010 01:41

Cal File: 1a428.d

Als bottle: 4

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: CALsubS+SS.sub

Target Version: 3.50

Concentration Formula: Amt \* DF \* (Uf/Vo) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT ( ug/l)	ON-COL ( ug/l)
4 Chlorotrifluoroethylene	116	4.883	4.883	(0.357)	348361	150.000	155
8 2-Chloro-1,1,1-trifluoroethane	118	6.280	6.280	(0.459)	821355	150.000	136
13 Acrolein	56	8.940	8.940	(0.654)	328309	250.000	279
14 Trichlorotrifluoroethane	101	8.968	8.968	(0.656)	1279215	250.000	259
17 Isopropyl Alcohol	45	9.438	9.438	(0.690)	1144882	2500.00	2450
20 Allyl chloride	76	9.838	9.838	(0.720)	619944	250.000	274
24 tert-Butyl Alcohol	59	10.188	10.188	(0.745)	1816295	2500.00	2420
27 Acrylonitrile	53	10.657	10.657	(0.779)	581551	250.000	254
28 Isopropyl ether	45	11.182	11.182	(0.818)	1107851	50.0000	47.7
31 2-Chloro-1,3-butadiene	53	11.380	11.380	(0.832)	623981	50.0000	66.9
32 Ethyl tert-butyl ether	59	11.744	11.744	(0.859)	938180	50.0000	49.4
37 Propionitrile	54	12.393	12.393	(0.906)	227985	250.000	242
34 Ethyl acetate	43	12.153	12.153	(0.889)	1486153	250.000	233
40 Methacrylonitrile	41	12.549	12.549	(0.918)	1268297	250.000	256
38 Tetrahydrofuran	42	12.531	12.531	(0.639)	507241	250.000	234
46 Isobutyl alcohol	41	13.097	13.097	(0.958)	568882	2500.00	2350

Compounds	QUANT SIG			REL RT	RESPONSE	AMOUNTS	
	MASS	RT	EXP RT			CAL-AMT ( ug/l)	ON-COL ( ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
49 Methyl tert-amyl ether	73	13.336	13.336	(0.975)	733999	50.0000	50.5
56 Methyl methacrylate	69	14.427	14.427	(1.055)	1000764	250.000	263
67 Ethyl methacrylate	69	15.799	15.799	(0.921)	1993727	250.000	268
75 1-Chlorohexane	55	17.019	17.019	(1.245)	319987	50.0000	47.1
58 1,4-Dioxane	88	14.533	14.533	(1.063)	127283	2500.00	2270
62 2-Nitropropane	43	15.067	15.067	(1.102)	563659	250.000	252
85 cis-1,4-Dichloro-2-butene	53	18.262	18.262	(0.932)	787833	250.000	309
86 Cyclohexanone	55	18.372	18.372	(1.071)	314364	1250.00	839
90 trans-1,4-Dichloro-2-butene	53	18.556	18.556	(0.947)	732861	250.000	308
98 Pentachloroethane	167	19.187	19.187	(0.979)	1017075	250.000	500 (A)
104 Benzyl chloride	91	19.762	19.762	(1.008)	3862750	250.000	354
107 bis(2-Chloroisopropyl)ether	45	20.153	20.153	(1.028)	912513	250.000	241
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	1028499	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	768018	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.601	(1.000)	423668	50.0000	
\$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	498766	50.0000	49.7
\$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1319952	50.0000	51.1
\$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	547945	50.0000	51.6

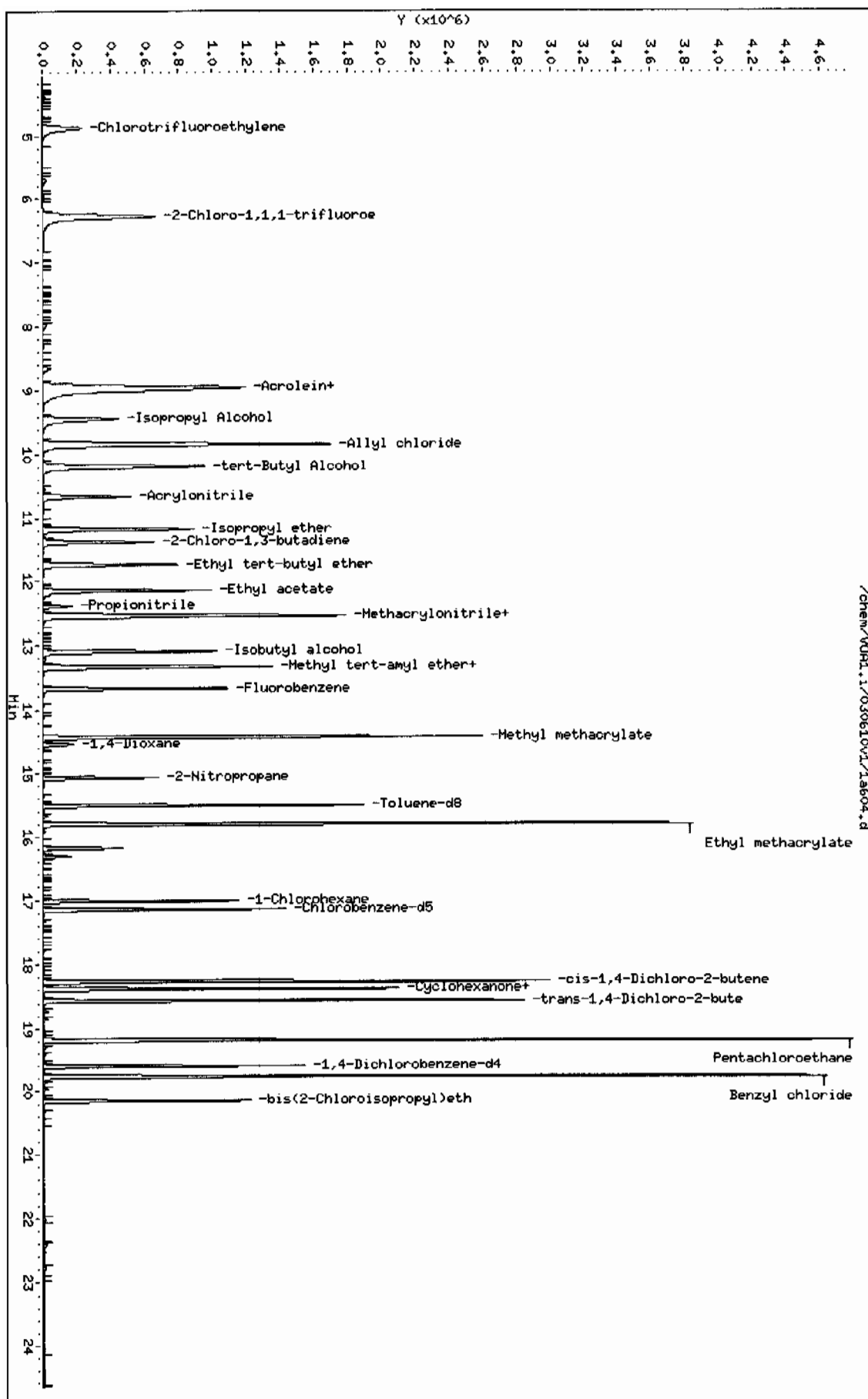
#### QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.



Data File: /chem/V001.i/030610v1/1a604.d  
 Date: 06-MAR-2010 06:30  
 Client ID: VSTD2805  
 Sample Info: 1M1VH100306-031SHORT/SLCS11V0AF11  
 Purge Volume: 5.0  
 Column phase: RTX-Volatiles

Instrument: V001.i  
 Operator: GRB2  
 Column diameter: 0.25



# QC Data

Data File: /chem/VOA1.i/030410v1/1a411.d

Page 1

Date : 04-MAR-2010 16:41

Client ID: BFB01

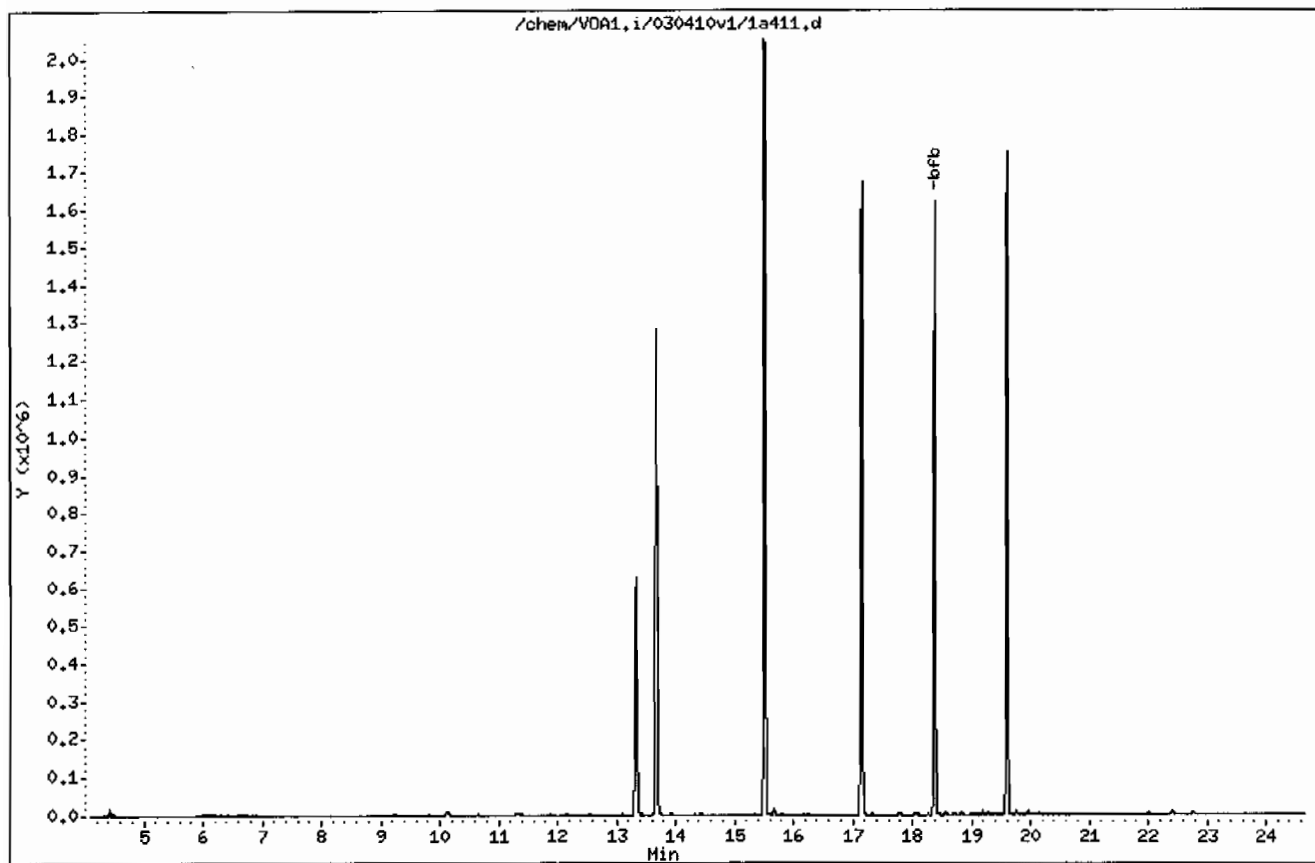
Instrument: VOA1.i

Sample Info: IUVN100203-02|BFB01|1|VOAF11|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25



Date : 04-MAR-2010 16:41

Client ID: BFB01

Instrument: VOA1.i

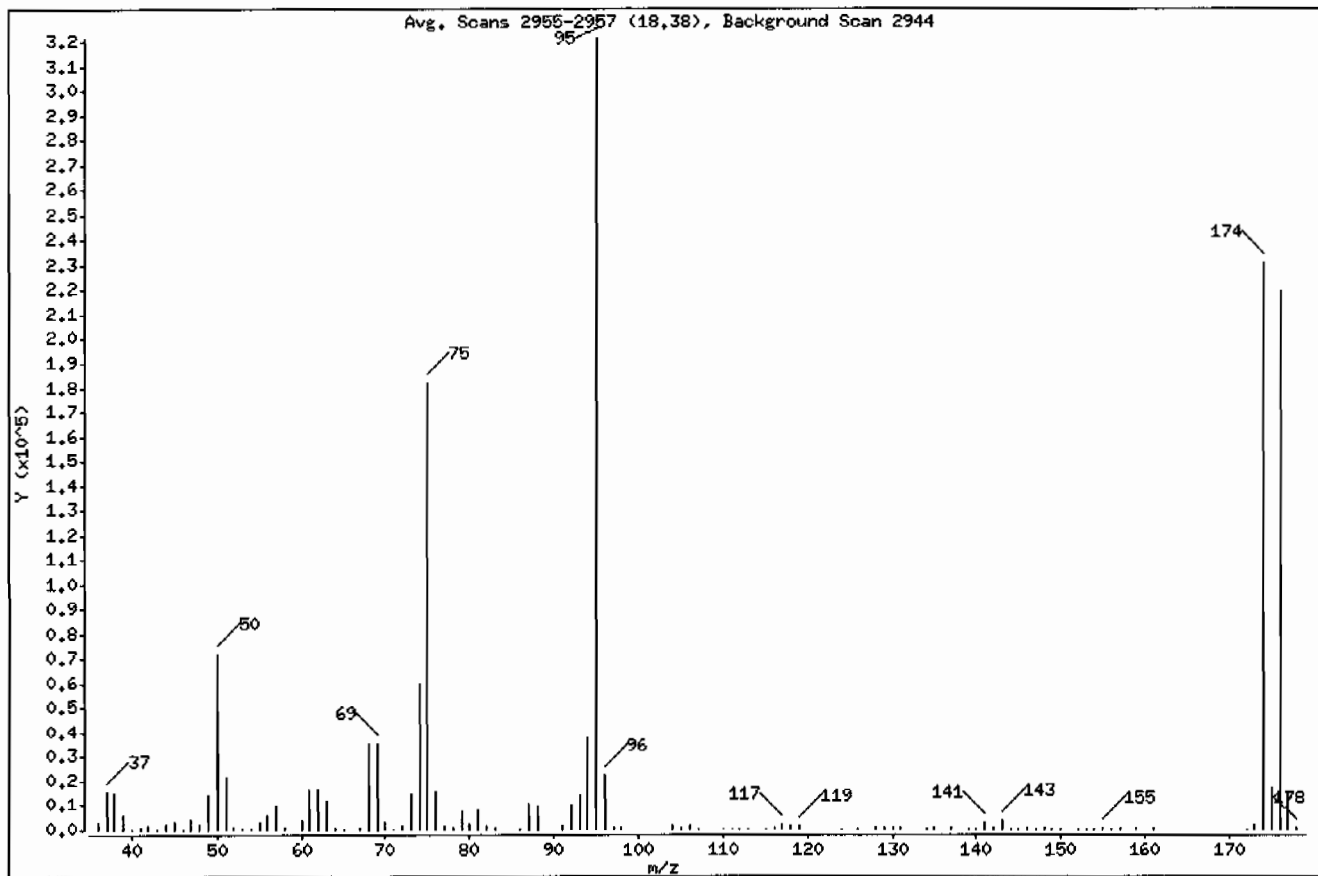
Sample Info: IUVH100203-02|BFB01|1|VOAF11|

Operator: RMH4

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.19
75	30.00 - 60.00% of mass 95	56.54
96	5.00 - 9.00% of mass 95	6.82
173	Less than 2.00% of mass 174	0.62 ( 0.86)
174	50.00 - 100.00% of mass 95	71.68
175	5.00 - 9.00% of mass 174	5.29 ( 7.37)
176	95.00 - 101.00% of mass 174	68.26 ( 95.22)
177	5.00 - 9.00% of mass 176	4.67 ( 6.84)

Date : 04-MAR-2010 16:41

Client ID: BFB01

Instrument: VOA1.i

Sample Info: IUVH100203-02IBFB0111VOAF11

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

Data File: 1a411.d

Spectrum: Avg. Scans 2955-2957 (18.38), Background Scan 2944

Location of Maximum: 95.00

Number of points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3252	64.00	1002	96.00	21928	141.00	3275
37.00	15572	65.00	151	97.00	684	142.00	452
38.00	14638	67.00	722	98.00	764	143.00	3350
39.00	6262	68.00	35600	104.00	1360	144.00	197
40.00	321	69.00	35720	105.00	511	145.00	327
41.00	477	70.00	2977	106.00	1216	146.00	439
42.00	1424	71.00	60	107.00	263	147.00	330
43.00	352	72.00	1701	110.00	109	148.00	888
44.00	1931	73.00	15015	111.00	277	149.00	183
45.00	2969	74.00	60064	112.00	125	150.00	338
46.00	158	75.00	181824	113.00	185	152.00	207
47.00	4691	76.00	15418	115.00	327	153.00	238
48.00	1850	77.00	1617	116.00	1071	154.00	133
49.00	13884	78.00	1067	117.00	1864	155.00	781
50.00	71368	79.00	7566	118.00	1148	156.00	51
51.00	21760	80.00	2438	119.00	1609	157.00	626
52.00	955	81.00	8436	124.00	161	159.00	370
53.00	76	82.00	1645	126.00	67	161.00	414
54.00	259	83.00	381	128.00	1053	172.00	188
55.00	2630	86.00	361	129.00	495	173.00	1978
56.00	5595	87.00	9988	130.00	1095	174.00	230528
57.00	9504	88.00	9653	131.00	434	175.00	17000
58.00	429	91.00	1151	134.00	69	176.00	219520
60.00	3442	92.00	9649	135.00	445	177.00	15017
61.00	16203	93.00	13946	137.00	440	178.00	465
62.00	16166	94.00	37880	139.00	135		
63.00	11877	95.00	321600	140.00	236		

Data File: /chem/VOA1.i/030410v1/1a502BFB.d

Page 1

Date : 05-MAR-2010 10:31

Client ID: BFB01

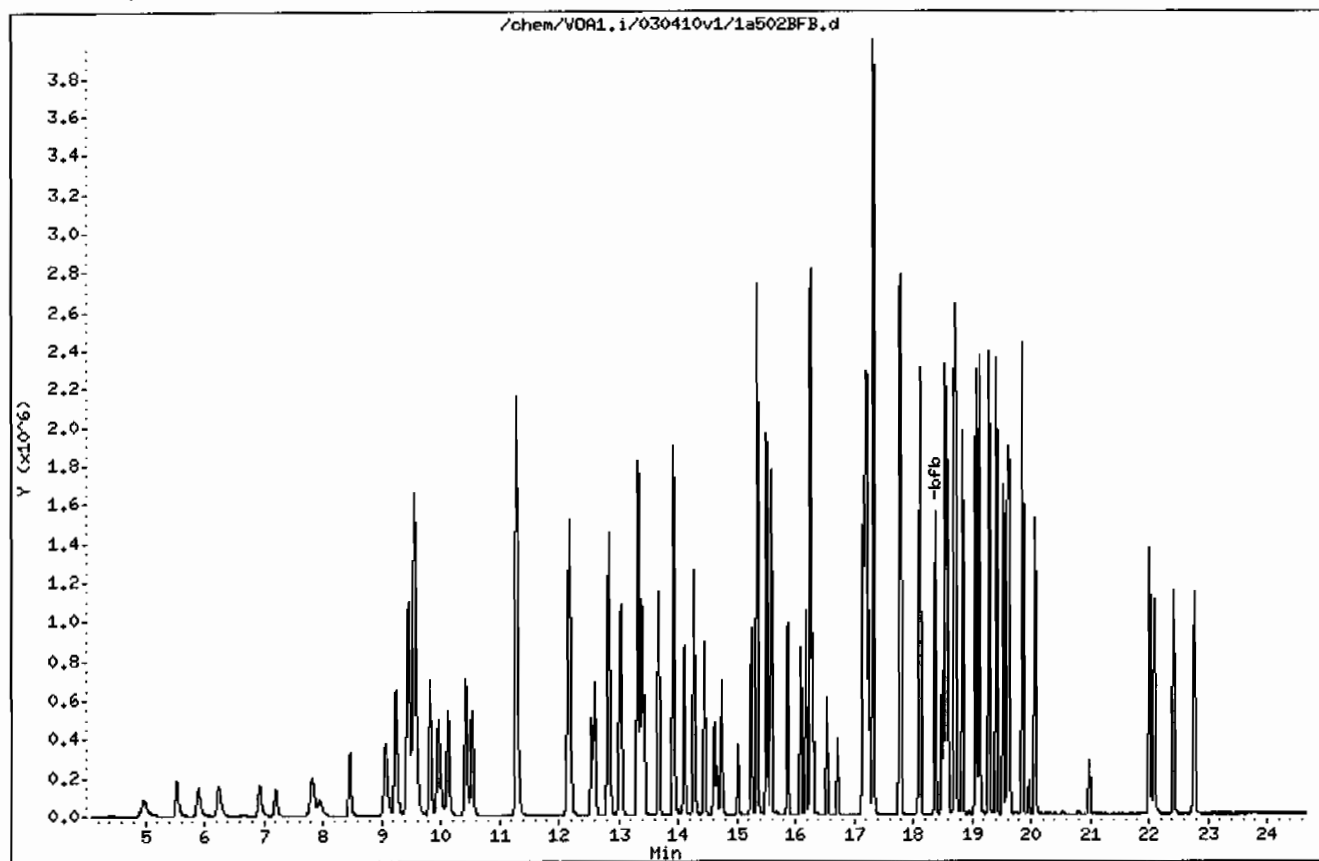
Instrument: VOA1.i

Sample Info: IW1VM100305-041BFB/ICV/CCV/LCS111VOAF111

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25



Date : 05-MAR-2010 10:31

Client ID: BFB01

Instrument: VOA1.i

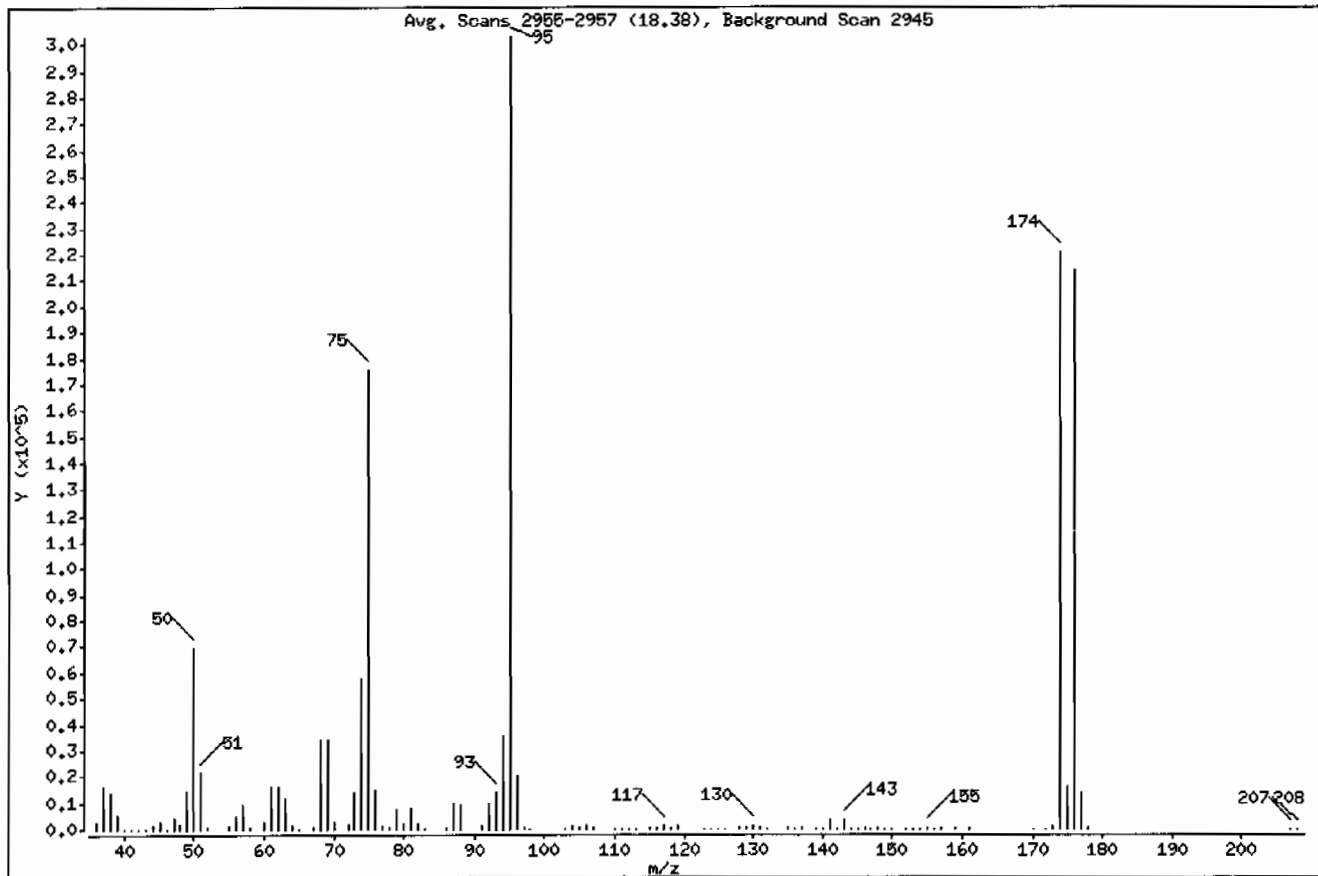
Sample Info: IW1VM100305-01BFB/ICV/CCV/LCS11V0AF111

Operator: CRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.94
75	30.00 - 60.00% of mass 95	57.86
96	5.00 - 9.00% of mass 95	6.68
173	Less than 2.00% of mass 174	0.57 ( 0.79)
174	50.00 - 100.00% of mass 95	72.77
175	5.00 - 9.00% of mass 174	5.40 ( 7.42)
176	95.00 - 101.00% of mass 174	70.57 ( 96.98)
177	5.00 - 9.00% of mass 176	4.69 ( 6.65)

Date : 05-MAR-2010 10:31

Client ID: BFB01

Instrument: VOA1.i

Sample Info: IN1VM100305-01BFB/ICV/CCV/LCS11VOAF11

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0,25

Data File: 1a502BFB.d

Spectrum: Avg, Scans 2955-2957 (18,38), Background Scan 2945

Location of Maximum: 95,00

Number of points: 110

m/z	Y	m/z	Y	m/z	Y	m/z	Y
-----							
36,00	2700	68,00	34160	105,00	576	143,00	3184
37,00	15903	69,00	34136	106,00	1250	144,00	226
38,00	13600	70,00	2594	107,00	391	145,00	331
39,00	5678	72,00	1760	110,00	184	146,00	429
40,00	18	73,00	14242	111,00	283	147,00	194
-----							
41,00	234	74,00	57680	112,00	86	148,00	598
42,00	316	75,00	175296	113,00	241	149,00	175
43,00	234	76,00	14596	115,00	370	150,00	288
44,00	1370	77,00	1460	116,00	973	152,00	186
45,00	2758	78,00	926	117,00	1708	153,00	151
-----							
46,00	201	79,00	7638	118,00	1043	154,00	115
47,00	3992	80,00	2309	119,00	1382	155,00	816
48,00	1892	81,00	7551	123,00	67	156,00	53
49,00	14691	82,00	1743	124,00	227	157,00	590
50,00	69512	83,00	212	125,00	75	159,00	435
-----							
51,00	21264	86,00	435	126,00	68	161,00	403
52,00	822	87,00	9645	128,00	909	170,00	55
55,00	1295	88,00	8766	129,00	455	172,00	217
56,00	5028	91,00	1143	130,00	1098	173,00	1733
57,00	8837	92,00	9719	131,00	473	174,00	220480
-----							
58,00	414	93,00	14084	132,00	53	175,00	16349
60,00	3066	94,00	35688	135,00	616	176,00	213824
61,00	16228	95,00	302976	136,00	73	177,00	14224
62,00	16261	96,00	20248	137,00	501	178,00	490
63,00	11722	97,00	594	139,00	112	207,00	66
-----							
64,00	1188	98,00	122	140,00	119	208,00	70
65,00	151	103,00	115	141,00	3164		
67,00	865	104,00	1261	142,00	316		
-----							



Data File: /chem/VDA1.i/030610v1/1a601.d

Page 1

Date : 06-MAR-2010 04:59

Client ID: BFB01

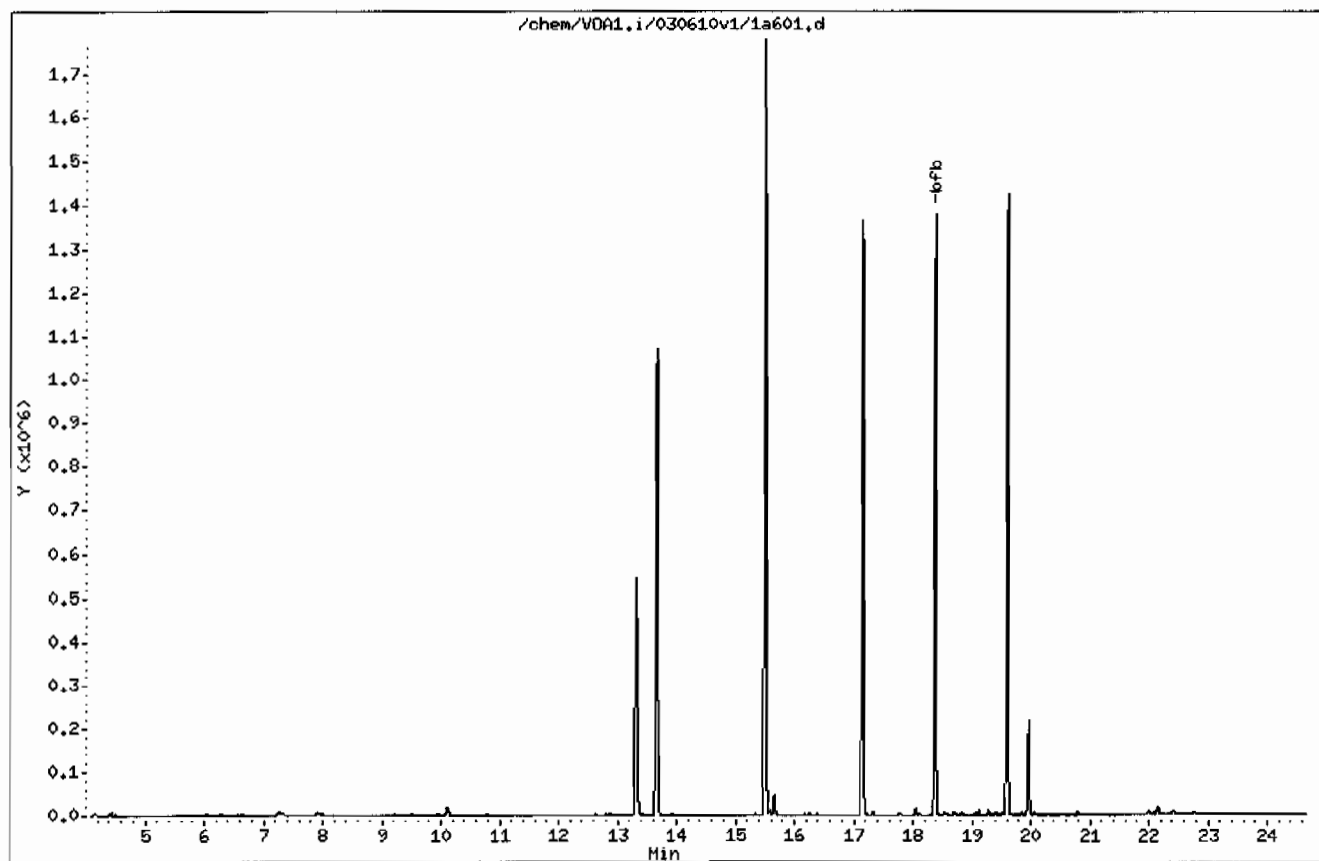
Instrument: VDA1.i

Sample Info: IUVH100114-02IBFB01111VDAF111

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25



Date : 06-MAR-2010 04:59

Client ID: BFB01

Instrument: VOA1.i

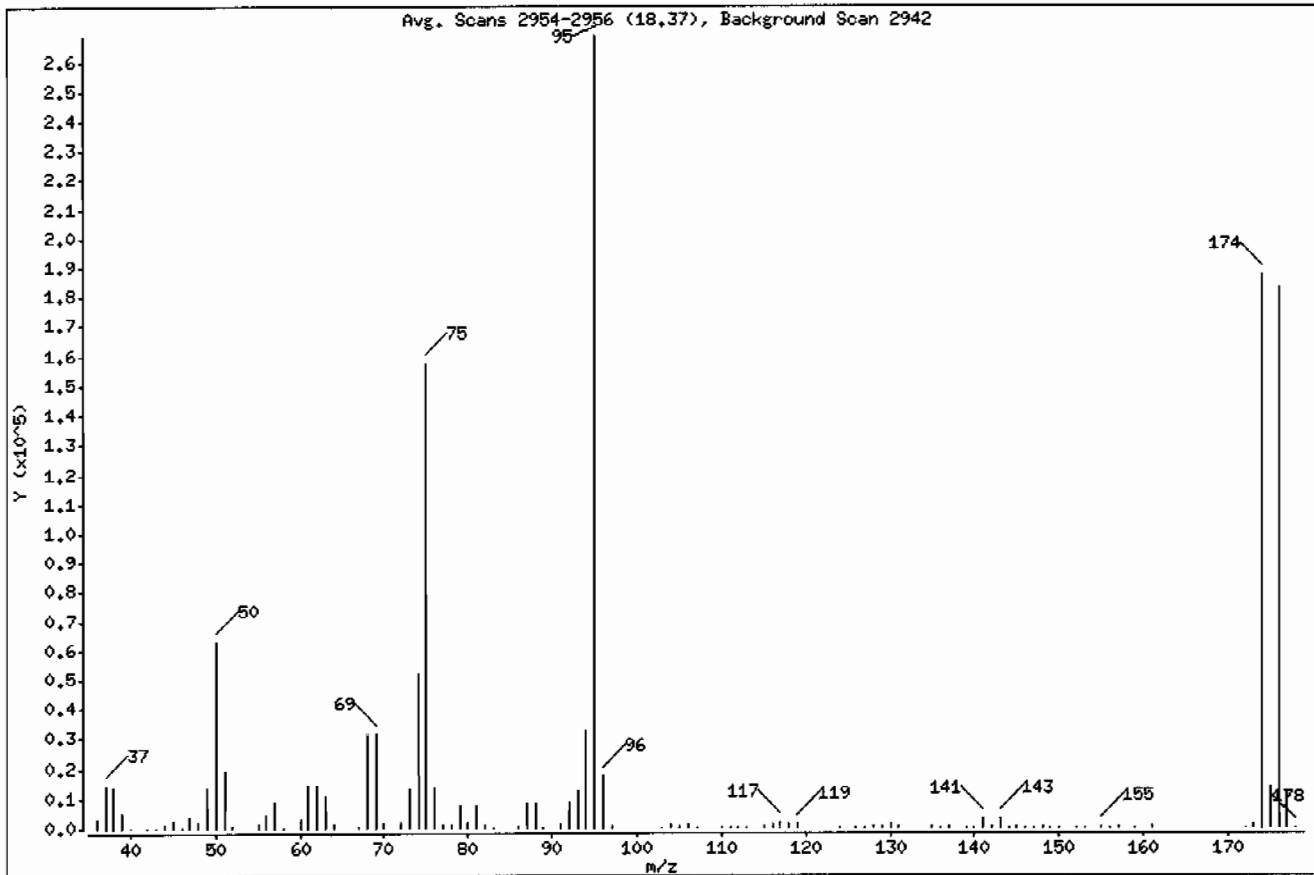
Sample Info: IUVH100114-021BFB01111VOAF111

Operator: RXH4

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.51
75	30.00 - 60.00% of mass 95	58.63
96	5.00 - 9.00% of mass 95	6.55
173	Less than 2.00% of mass 174	0.54 ( 0.77)
174	50.00 - 100.00% of mass 95	69.89
175	5.00 - 9.00% of mass 174	5.11 ( 7.32)
176	95.00 - 101.00% of mass 174	68.22 ( 97.61)
177	5.00 - 9.00% of mass 176	4.57 ( 6.69)

Date : 06-MAR-2010 04:59

Client ID: BFB01

Instrument: VOA1.i

Sample Info: IUVH100114-02|BFB01|1|VOAF11|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

Data File: 1a601.d

Spectrum: Avg. Scans 2954-2956 (18.37), Background Scan 2942

Location of Maximum: 95.00

Number of points: 102

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2816	68.00	31000	103.00	55	141.00	3032
37.00	14492	69.00	31336	104.00	1317	142.00	375
38.00	13442	70.00	2094	105.00	358	143.00	3026
39.00	5115	72.00	1771	106.00	1092	144.00	249
40.00	123	73.00	12699	107.00	295	145.00	330
42.00	95	74.00	51816	110.00	122	146.00	304
43.00	146	76.00	157376	111.00	221	147.00	208
44.00	1395	76.00	13437	112.00	103	148.00	623
45.00	2587	77.00	1458	113.00	166	149.00	61
46.00	147	78.00	967	115.00	379	150.00	293
47.00	3785	79.00	7431	116.00	966	152.00	91
48.00	1663	80.00	1918	117.00	1744	153.00	254
49.00	13346	81.00	7466	118.00	1011	155.00	613
50.00	63104	82.00	1478	119.00	1321	156.00	60
51.00	19224	83.00	84	124.00	53	157.00	531
52.00	789	86.00	312	126.00	65	159.00	298
55.00	989	87.00	7976	127.00	84	161.00	410
56.00	4317	88.00	8214	128.00	922	172.00	126
57.00	8621	89.00	84	129.00	393	173.00	1451
58.00	300	91.00	929	130.00	1021	174.00	187584
60.00	2954	92.00	8513	131.00	382	175.00	13726
61.00	14483	93.00	12157	135.00	474	176.00	183104
62.00	14110	94.00	32448	136.00	127	177.00	12255
63.00	10763	95.00	268416	137.00	481	178.00	292
64.00	1012	96.00	17568	139.00	54		
67.00	716	97.00	580	140.00	144		

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124		Matrix: SOIL
Lab Sample ID: 1202063385		
Client Sample: QC for batch 961978	Client: LANL010	Project: QC
Client ID: MB for batch 961978	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961979	Inst: VOA1.I	Dilution: 1
Run Date: 03/06/2010 07:31	Analyst: GRB2	Purge Vol: 5 mL
Prep Date: 03/06/2010 04:15	Aliquot: 5 g	Final Volume: 5 mL
Data File: 1a606SBLA.d	Column: RTX-Volatiles	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124

Matrix: SOIL

Lab Sample ID: 1202063385

Client Sample: QC for batch 961978

Client: LANL010

Project: QC

Client ID: MB for batch 961978

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 961979

Inst: VOA1.I

Dilution: 1

Run Date: 03/06/2010 07:31

Analyst: GRB2

Purge Vol: 5 mL

Prep Date: 03/06/2010 04:15

Aliquot: 5 g

Final Volume: 5 mL

Data File: 1a606SBLA.d

Column: RTX-Volatiles

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.00	ug/kg	1.60	5.00
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	22.15	8.83	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026  
Data file : /chem/VOA1.i/030610v1/1a606SBLA.d  
Lab Smp Id: 1202063385 Client Smp ID: BLANK  
Inj Date : 06-MAR-2010 07:31  
Operator : GRB2 Inst ID: VOA1.i  
Smp Info : |1202063385|961979|1|VOAF|1|  
Misc Info : GEL 5mL N/A RINSE  
Comment :  
Method : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m  
Meth Date : 15-Mar-2010 17:42 gel00735 Quant Type: ISTD  
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d  
Als bottle: 6 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2124.sub  
Target Version: 3.50  
Processing Host: prdsvr07

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN ( ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	1069624	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	769404	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.601	(1.000)	415081	50.0000	
\$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	509423	48.7770	48.8
\$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1312742	50.7288	50.7
\$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	548976	52.7527	52.8

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/030610v1/1a606SBLA.d

Lab Smp Id: 1202063385 Client Smp ID: BLANK

Inj Date : 06-MAR-2010 07:31

Operator : GRB2 Inst ID: VOA1.i

Smp Info : |1202063385|961979|1|VOAF|1|

Misc Info : GEL 5mL N/A RINSE

Comment :

Method : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m

Meth Date : 15-Mar-2010 17:42 gel00735 Quant Type: ISTD

Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d

Als bottle: 6 QC Sample: BLANK

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: 10-2124.sub

Target Version: 3.50

Processing Host: prdsvr07

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

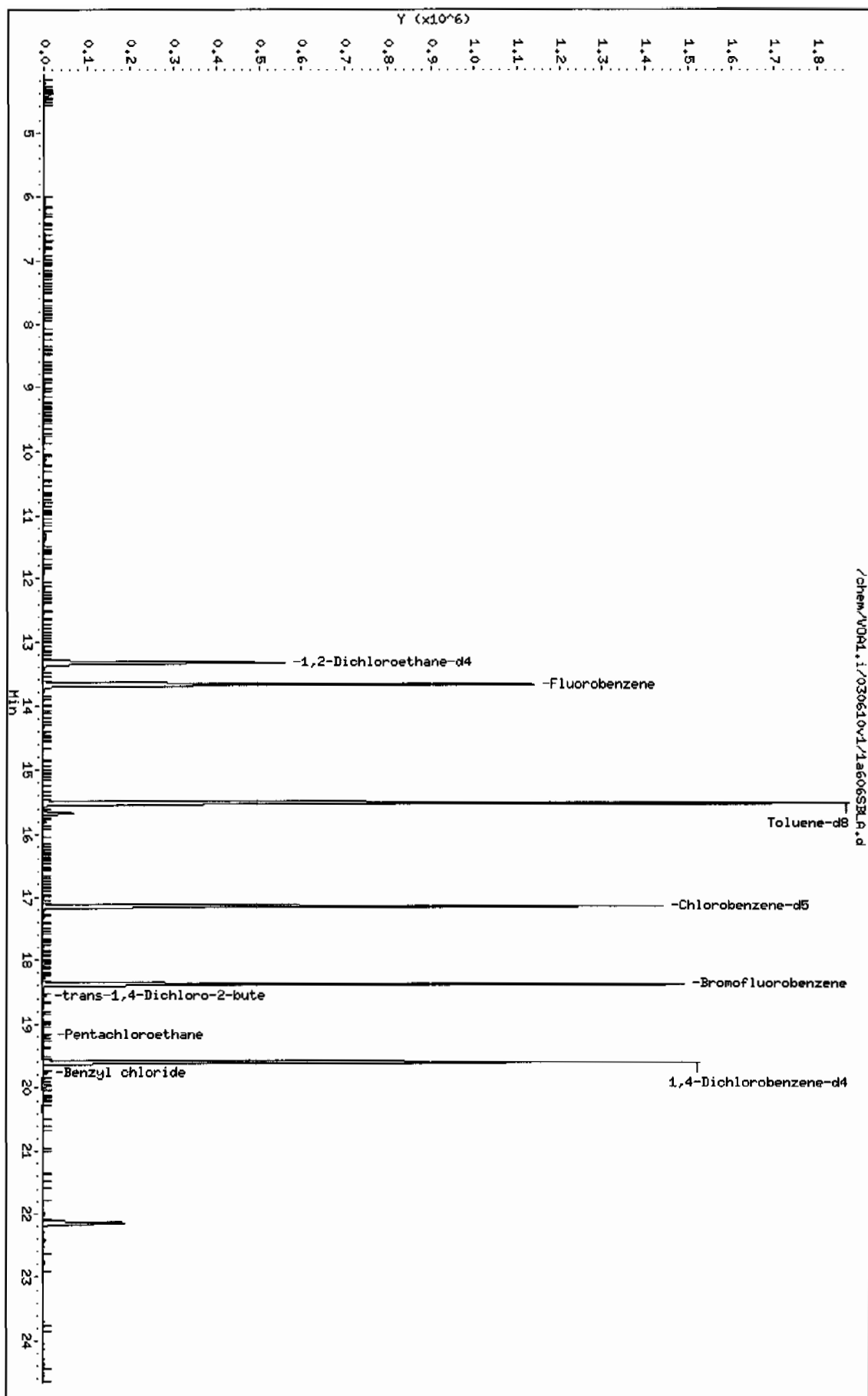
Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 102 1,4-Dichlorobenzene-d4	19.596	2787794	50.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL ( ug/l)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	=====	=====	=====	=====	=====	=====
Unknown Siloxane					CAS #:		
22.151	492603	8.83499341	8.8	0		0	102

Data File: /chem/V001.i/030610v1/1a606SRLA.d  
Date : 06-MAR-2010 07:31  
Client ID: BLANK  
Sample Info: 11202063385196197911V00AF111  
Column phase: RTX-Volatiles

Instrument: V001.i  
Operator: CR82  
Column diameter: 0.25





Date : 06-MAR-2010 07:31

Client ID: BLANK

Instrument: V0A1.i

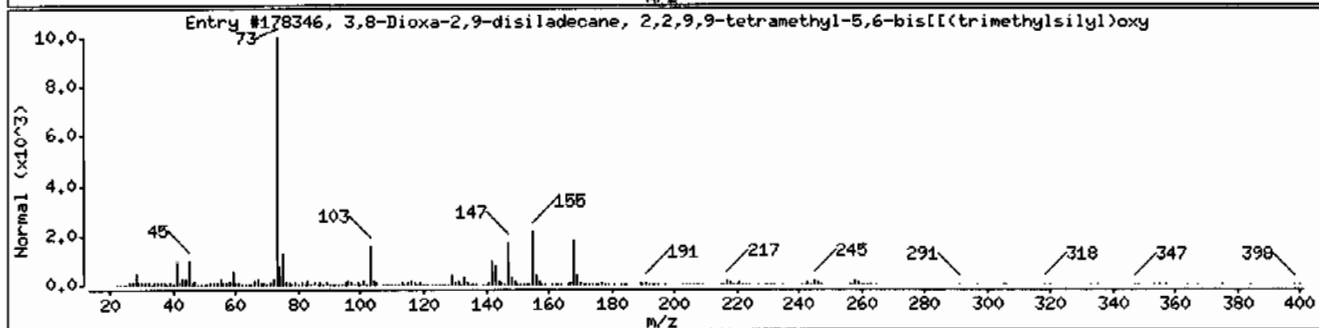
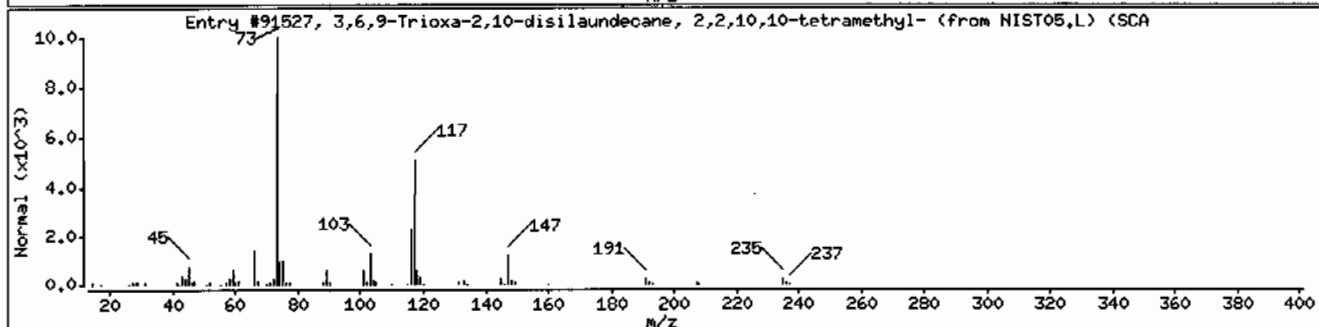
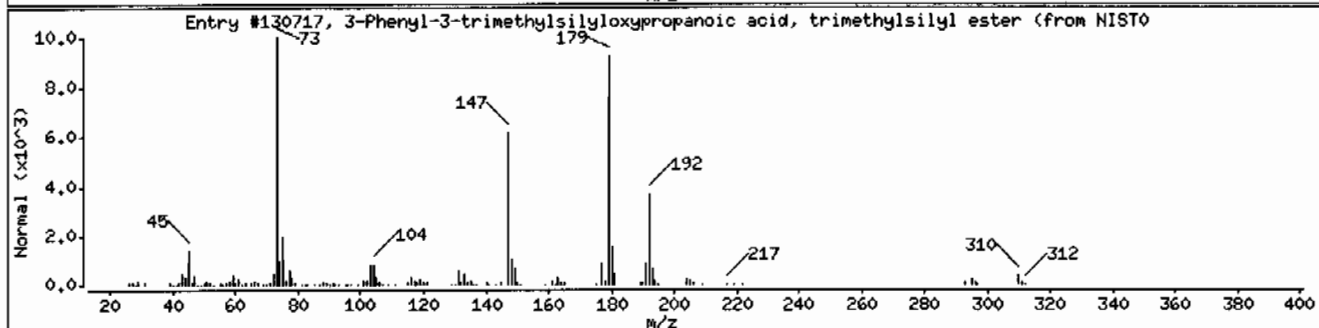
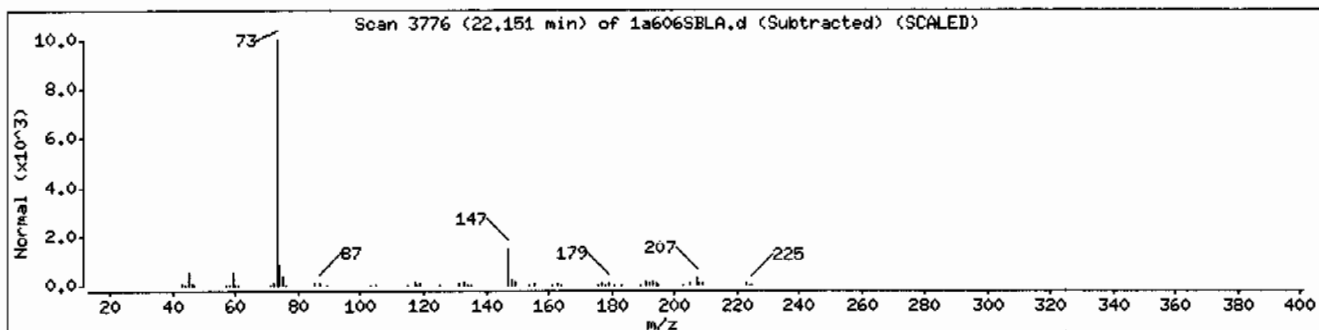
Sample Info: I1202063385196197911|V0AF11|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0,25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
3-Phenyl-3-trimethylsilyloxypropanoic ac	1000079-40-7	NIST05.L	130717	40	C15H26O3Si2	310
3,6,9-Trioxa-2,10-disilaundecane, 2,2,10	16654-74-3	NIST05.L	91527	36	C10H26O3Si2	280
3,8-Dioxa-2,9-disilaundecane, 2,2,9,9-tetr	74779-61-6	NIST05.L	178346	36	C18H46O4Si4	438



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124

Matrix: SOIL

Lab Sample ID: 1202063388

Client Sample: QC for batch 961978

Client: LANL010

Project: QC

Client ID: LCS for batch 961978

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 961979

Inst: VOA1.I

Dilution: 1

Run Date: 03/06/2010 06:00

Analyst: GRB2

Purge Vol: 5 mL

Prep Date: 03/06/2010 04:17

Aliquot: 5 g

Final Volume: 5 mL

Data File: 1a603SLLA.d

Column: RTX-Volatiles

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		46.3	ug/kg	0.340	1.00
74-87-3	Chloromethane		46.9	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		46.2	ug/kg	0.300	1.00
74-83-9	Bromomethane		46.6	ug/kg	0.300	1.00
75-00-3	Chloroethane		47.8	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		51.0	ug/kg	0.300	1.00
67-64-1	Acetone		218	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		49.6	ug/kg	0.300	1.00
74-88-4	Iodomethane		235	ug/kg	1.60	5.00
75-09-2	Methylene chloride		49.6	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		253	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		49.3	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		48.9	ug/kg	0.300	1.00
78-93-3	2-Butanone		214	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		49.1	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		52.6	ug/kg	0.300	1.00
67-66-3	Chloroform		50.3	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		49.3	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		50.8	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		51.1	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		53.1	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		51.5	ug/kg	0.300	1.00
71-43-2	Benzene		47.9	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		48.9	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		49.3	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		53.5	ug/kg	0.300	1.00
74-95-3	Dibromomethane		50.0	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		244	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		52.5	ug/kg	0.300	1.00
108-88-3	Toluene		48.0	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		53.1	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		48.5	ug/kg	0.300	1.00
591-78-6	2-Hexanone		223	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		48.2	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		47.2	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		52.4	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		49.0	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		48.3	ug/kg	0.300	1.00

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124

Matrix: SOIL

Lab Sample ID: 1202063388

Client Sample: QC for batch 961978

Client: LANL010

Project: QC

Client ID: LCS for batch 961978

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 961979

Inst: VOA1J

Dilution: 1

Run Date: 03/06/2010 06:00

Analyst: GRB2

Purge Vol: 5 mL

Prep Date: 03/06/2010 04:17

Aliquot: 5 g

Final Volume: 5 mL

Data File: 1a603SLLA.d

Column: RTX-Volatiles

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		49.4	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		96.9	ug/kg	0.300	2.00
95-47-6	o-Xylene		49.4	ug/kg	0.300	1.00
100-42-5	Styrene		51.0	ug/kg	0.300	1.00
75-25-2	Bromoform		54.6	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		49.9	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		49.6	ug/kg	0.300	1.00
108-86-1	Bromobenzene		48.6	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		50.2	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		50.2	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		49.9	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		50.8	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		50.3	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		49.8	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		50.0	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		50.0	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		50.4	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		47.8	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		48.3	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		50.4	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		51.1	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.00	ug/kg	1.60	5.00
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane		50.8	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		48.7	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/030610v1/1a603SLLA.d

Lab Smp Id: 1202063388

Client Smp ID: LCS

Inj Date : 06-MAR-2010 06:00

Operator : GRB2

Inst ID: VOA1.i

Smp Info : |1202063388|961979|1|VOAF|1|

Misc Info : GEL 5g N/A UVM100220-01D/IVM100304-01

Comment :

Method : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m

Meth Date : 06-Mar-2010 06:58 gel00735 Quant Type: ISTD

Cal Date : 05-MAR-2010 01:41

Cal File: 1a428.d

Als bottle: 3

QC Sample: LCS

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: 10-2124.sub

Target Version: 3.50

Processing Host: kilroy

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG				RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT		ON-COLUMN ( ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	1009653	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	755441	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.601	(1.000)	412337	50.0000	
\$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	562810	57.0897	57.1
\$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1277568	50.2821	50.3
\$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	542092	52.4379	52.4
5 Dichlorodifluoromethane	85	4.990	4.983	(0.365)	235385	46.3341	46.3
6 Chloromethane	50	5.535	5.535	(0.405)	413357	46.8993	46.9
7 Vinyl chloride	62	5.908	5.908	(0.432)	315960	46.2003	46.2
9 Bromomethane	96	6.929	6.929	(0.507)	188470	46.5846	46.6
10 Chloroethane	64	7.200	7.205	(0.527)	210168	47.7824	47.8
11 Trichlorofluoromethane	101	7.822	7.822	(0.572)	437964	50.9765	51.0

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN ( ug/l)
16 Acetone	43	9.240	9.240	(0.676)	1304438	218.090	218
15 1,1-Dichloroethylene	61	9.069	9.069	(0.663)	552265	49.6373	49.6
103 1,4-Dichlorobenzene	146	19.629	19.629	(1.001)	636647	48.3077	48.3
18 Iodomethane	142	9.456	9.451	(0.692)	1935055	235.105	235
23 Methylene chloride	84	10.128	10.128	(0.741)	300919	49.5780	49.6
19 Carbon disulfide	76	9.557	9.557	(0.699)	4272759	253.175	253
26 trans-1,2-Dichloroethylene	96	10.538	10.533	(0.771)	268248	49.3198	49.3
30 1,1-Dichloroethane	63	11.311	11.311	(0.827)	571567	48.8890	48.9
35 2-Butanone	43	12.172	12.172	(0.890)	1357923	214.176	214
36 cis-1,2-Dichloroethylene	96	12.195	12.190	(0.892)	287818	49.1348	49.1
101 1,3-Dichlorobenzene	146	19.532	19.532	(0.996)	625207	47.8011	47.8
33 2,2-Dichloropropane	77	12.144	12.149	(0.888)	391199	52.5985	52.6
41 Chloroform	83	12.604	12.600	(0.922)	586326	50.2544	50.2
106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	608327	48.6942	48.7
39 Bromochloromethane	128	12.549	12.549	(0.918)	130940	49.3011	49.3
43 1,1,1-Trichloroethane	97	12.835	12.835	(0.939)	440947	50.8325	50.8
45 1,1-Dichloropropene	75	13.042	13.037	(0.954)	429905	51.0928	51.1
44 Carbon tetrachloride	117	13.009	13.014	(0.952)	440473	53.0833	53.1
51 1,2-Dichloroethane	62	13.428	13.428	(0.982)	536279	51.4753	51.5
47 Benzene	78	13.322	13.322	(0.974)	1107217	47.9109	47.9
54 Trichloroethylene	95	14.105	14.110	(1.032)	291853	48.9259	48.9
57 1,2-Dichloropropane	63	14.446	14.446	(1.057)	313385	49.2895	49.3
60 Bromodichloromethane	83	14.740	14.740	(1.078)	463890	53.4921	53.5
59 Dibromomethane	93	14.611	14.616	(1.069)	189170	49.9650	50.0
64 4-Methyl-2-pentanone	58	15.348	15.348	(0.895)	729864	244.023	244
63 cis-1,3-Dichloropropylene	75	15.246	15.247	(1.115)	529058	52.4957	52.5
66 Toluene	92	15.583	15.583	(0.909)	699236	47.9890	48.0
68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	538896	53.1032	53.1
69 1,1,2-Trichloroethane	83	16.093	16.094	(0.939)	218145	48.4575	48.4
71 2-Hexanone	43	16.255	16.255	(0.948)	1857277	222.588	222
72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	467628	48.1553	48.2
70 Tetrachloroethylene	164	16.181	16.176	(0.944)	219562	47.1767	47.2
73 Dibromochloromethane	129	16.540	16.535	(0.965)	312488	52.4158	52.4
74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	260185	48.9778	49.0
77 Chlorobenzene	112	17.180	17.180	(1.002)	742872	48.2666	48.3
79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	283070	50.8145	50.8
78 Ethylbenzene	91	17.207	17.207	(1.003)	1437464	49.3803	49.4
80 m,p-Xylenes	106	17.322	17.323	(1.010)	999929	96.8907	96.9
81 o-Xylene	106	17.774	17.769	(1.036)	500377	49.3928	49.4
82 Styrene	104	17.792	17.792	(1.038)	863315	51.0275	51.0
83 Bromoform	173	18.096	18.096	(0.923)	210270	54.6455	54.6
88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	347855	49.8798	49.9
92 1,2,3-Trichloropropane	110	18.593	18.593	(0.949)	98749	49.5970	49.6 (Q)
91 Bromobenzene	156	18.579	18.579	(0.948)	327109	48.6482	48.6
89 n-Propylbenzene	91	18.547	18.547	(0.946)	1720498	50.1704	50.2
94 2-Chlorotoluene	91	18.731	18.731	(0.956)	1244793	50.1604	50.2
84 Isopropylbenzene	105	18.119	18.114	(0.924)	1398994	49.9074	49.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN ( ug/l)	FINAL (ug/Kg)
=====	----	==	=====	=====	=====	=====	=====
93 1,3,5-Trimethylbenzene	105	18.708	18.708	(0.954)	1244151	50.8422	50.8
95 4-Chlorotoluene	91	18.841	18.842	(0.961)	1131725	50.3244	50.3
96 tert-Butylbenzene	119	19.062	19.062	(0.973)	978583	49.8428	49.8
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	1272561	50.0320	50.0
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1556883	49.9780	50.0
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	1223551	50.4275	50.4
105 n-Butylbenzene	91	19.854	19.854	(1.013)	1320553	50.4039	50.4
108 1,2-Dibromo-3-chloropropane	157	20.991	20.987	(1.071)	70266	51.1415	51.1

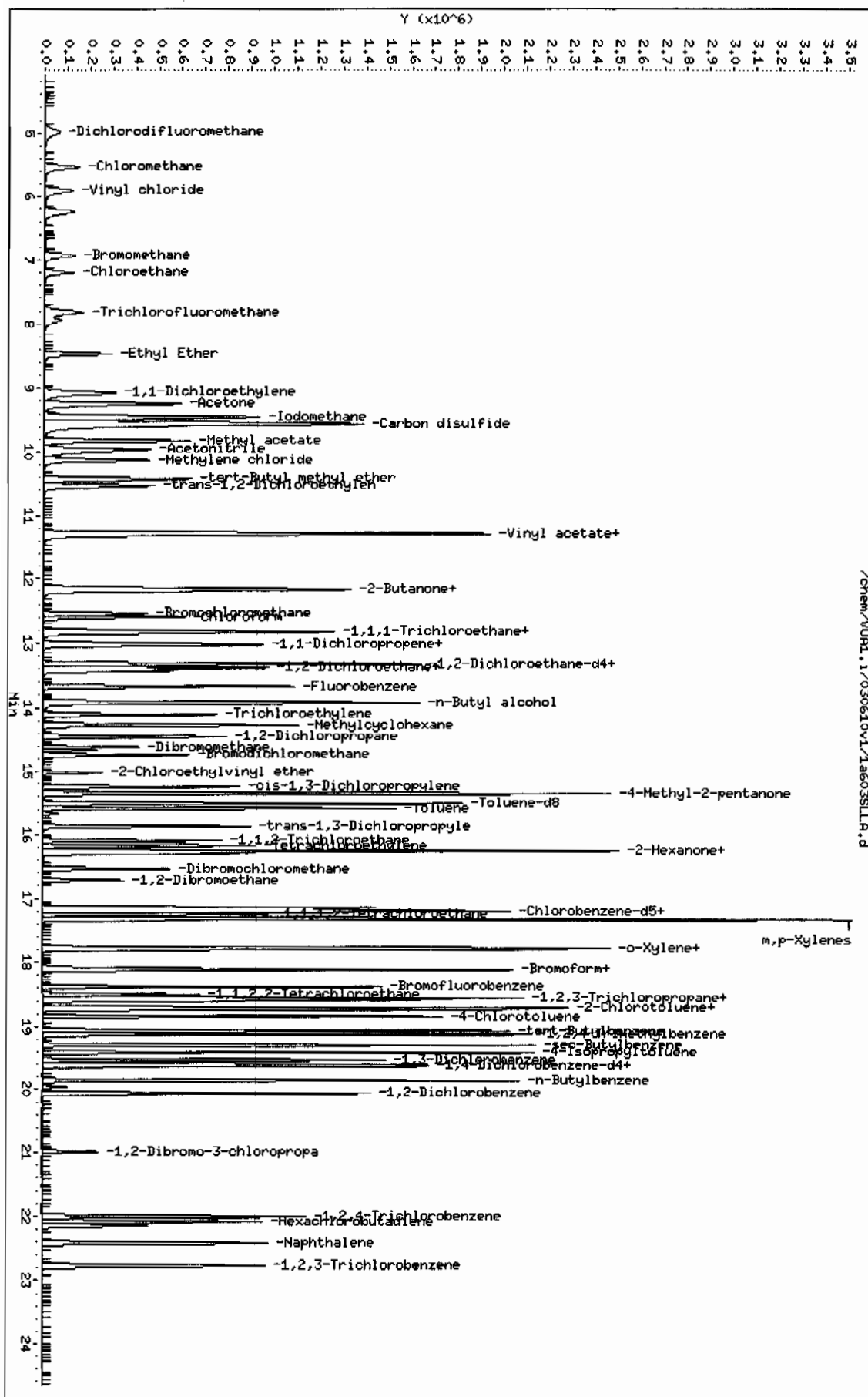
#### QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/V004.i/030610v1/1a603SLA.d  
 Date: 06-MAR-2010 06:00  
 Client ID: LCS  
 Sample Info: 112020633881961979111V004F111

Instrument: V004.i  
 Operator: GR32  
 Column diameter: 0.25

Column phase: RTX-Volatiles



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124

Matrix: SOIL

Lab Sample ID: 1202063389

Client Sample: QC for batch 961978

Client: LANL010

Project: QC

Client ID: LCS for batch 961978

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 961979

Inst: VOA1J

Dilution: 1

Run Date: 03/06/2010 07:01

Analyst: GRB2

Purge Vol: 5 mL

Prep Date: 03/06/2010 04:19

Aliquot: 5 g

Final Volume: 5 mL

Data File: 1a605SSLA.d

Column: RTX-Volatiles

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124

Matrix: SOIL

Lab Sample ID: 1202063389

Client Sample: QC for batch 961978

Client: LANL010

Project: QC

Client ID: LCS for batch 961978

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 961979

Inst: VOA1.I

Dilution: 1

Run Date: 03/06/2010 07:01

Analyst: GRB2

Purge Vol: 5 mL

Prep Date: 03/06/2010 04:19

Aliquot: 5 g

Final Volume: 5 mL

Data File: 1a605SSLA.d

Column: RTX-Volatiles

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane		267	ug/kg	1.60	5.00
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/030610v1/1a605SSLA.d  
Lab Smp Id: 1202063389 Client Smp ID: LCS  
Inj Date : 06-MAR-2010 07:01  
Operator : GRB2 Inst ID: VOA1.i  
Smp Info : |1202063389|961979|1|VOAF|1|  
Misc Info : GEL 5g N/A UVM100304-08A/UVM100125-08E  
Comment :  
Method : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m  
Meth Date : 06-Mar-2010 06:58 gel00735 Quant Type: ISTD  
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d  
Als bottle: 5 QC Sample: LCS  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2124.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

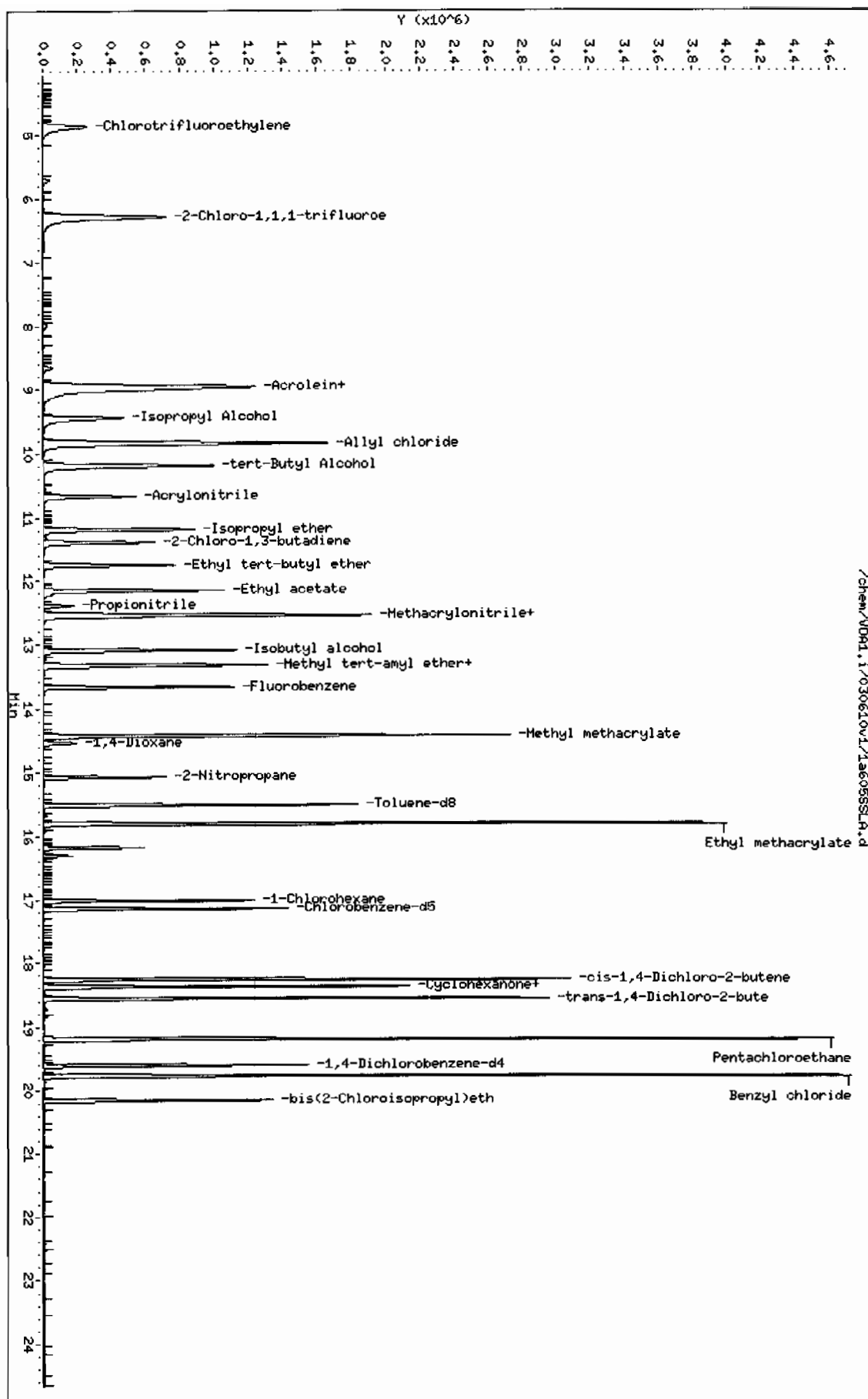
Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG			RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT REL RT		ON-COLUMN ( ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672 (1.000)	1038984	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148 (1.000)	767061	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.601 (1.000)	421573	50.0000	
\$ 48 1,2-Dichloroethane-d4	65	13.327	13.327 (0.975)	495398	48.8330	48.8
\$ 65 Toluene-d8	98	15.504	15.504 (0.904)	1281584	49.6761	49.7
\$ 87 Bromofluorobenzene	95	18.377	18.377 (0.938)	542389	51.3171	51.3
14 Trichlorotrifluoroethane	101	8.963	8.968 (0.656)	1330236	266.760	267

Data File: /chem/V001.i/030610v1/1a605SLA.d  
 Date: 06-MAR-2010 07:01  
 Client ID: LCS  
 Sample Info: 112020633891961979111V00F111  
 Column phase: RTX-Volatiles

Instrument: V001.i  
 Operator: GRB2  
 Column diameter: 0.25



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124	Date Collected: 02/23/2010 12:00	Matrix: R
Lab Sample ID: 1202063386	Date Received: 02/26/2010 08:45	%Moisture: 8.7
Client Sample: QC for batch 961978	Client: LANL010	Project: QC
Client ID: RE36-10-8282PS	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961979	Inst: VOA1.1	Dilution: 1
Run Date: 03/06/2010 13:38	Analyst: GRB2	Purge Vol: 5 mL
Prep Date: 03/06/2010 10:32	Aliquot: 5 g	Final Volume: 5 mL
Data File: 1a618.d	Column: RTX-Volatiles	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		52.0	ug/kg	0.372	1.10
74-87-3	Chloromethane		51.1	ug/kg	0.329	1.10
75-01-4	Vinyl chloride		53.9	ug/kg	0.329	1.10
74-83-9	Bromomethane		51.1	ug/kg	0.329	1.10
75-00-3	Chloroethane		51.1	ug/kg	0.329	1.10
75-69-4	Trichlorofluoromethane		62.2	ug/kg	0.329	1.10
67-64-1	Acetone		195	ug/kg	1.82	5.48
75-35-4	1,1-Dichloroethylene		57.8	ug/kg	0.329	1.10
74-88-4	Iodomethane		252	ug/kg	1.75	5.48
75-09-2	Methylene chloride		51.5	ug/kg	2.19	5.48
75-15-0	Carbon disulfide		270	ug/kg	1.37	5.48
156-60-5	trans-1,2-Dichloroethylene		51.4	ug/kg	0.329	1.10
75-34-3	1,1-Dichloroethane		54.3	ug/kg	0.329	1.10
78-93-3	2-Butanone		202	ug/kg	1.64	5.48
156-59-2	cis-1,2-Dichloroethylene		50.6	ug/kg	0.329	1.10
594-20-7	2,2-Dichloropropane		61.3	ug/kg	0.329	1.10
67-66-3	Chloroform		55.9	ug/kg	0.329	1.10
74-97-5	Bromochloromethane		51.3	ug/kg	0.361	1.10
71-55-6	1,1,1-Trichloroethane		59.2	ug/kg	0.329	1.10
563-58-6	1,1-Dichloropropene		56.1	ug/kg	0.329	1.10
56-23-5	Carbon tetrachloride		62.8	ug/kg	0.329	1.10
107-06-2	1,2-Dichloroethane		58.7	ug/kg	0.329	1.10
71-43-2	Benzene		49.6	ug/kg	0.329	1.10
79-01-6	Trichloroethylene		52.2	ug/kg	0.361	1.10
78-87-5	1,2-Dichloropropane		51.1	ug/kg	0.329	1.10
75-27-4	Bromodichloromethane		57.2	ug/kg	0.329	1.10
74-95-3	Dibromomethane		52.6	ug/kg	0.329	1.10
108-10-1	4-Methyl-2-pentanone		255	ug/kg	1.37	5.48
10061-01-5	cis-1,3-Dichloropropylene		53.2	ug/kg	0.329	1.10
108-88-3	Toluene		51.0	ug/kg	0.329	1.10
10061-02-6	trans-1,3-Dichloropropylene		55.7	ug/kg	0.329	1.10
79-00-5	1,1,2-Trichloroethane		50.6	ug/kg	0.329	1.10
591-78-6	2-Hexanone		219	ug/kg	1.64	5.48
142-28-9	1,3-Dichloropropane		51.2	ug/kg	0.329	1.10
127-18-4	Tetrachloroethylene		50.4	ug/kg	0.329	1.10
124-48-1	Dibromochloromethane		56.6	ug/kg	0.329	1.10
106-93-4	1,2-Dibromoethane		51.3	ug/kg	0.329	1.10
108-90-7	Chlorobenzene		49.8	ug/kg	0.329	1.10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124	Date Collected: 02/23/2010 12:00	Matrix: R
Lab Sample ID: 1202063386	Date Received: 02/26/2010 08:45	%Moisture: 8.7
Client Sample: QC for batch 961978	Client: LANL010	Project: QC
Client ID: RE36-10-8282PS	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961979	Inst: VOA1J	Dilution: 1
Run Date: 03/06/2010 13:38	Analyst: GRB2	Purge Vol: 5 mL
Prep Date: 03/06/2010 10:32	Aliquot: 5 g	Final Volume: 5 mL
Data File: 1a618.d	Column: RTX-Volatiles	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		52.0	ug/kg	0.329	1.10
179601-23-1	m,p-Xylenes		100	ug/kg	0.329	2.19
95-47-6	o-Xylene		50.4	ug/kg	0.329	1.10
100-42-5	Styrene		50.6	ug/kg	0.329	1.10
75-25-2	Bromoform		57.5	ug/kg	0.329	1.10
79-34-5	1,1,2,2-Tetrachloroethane		52.6	ug/kg	0.329	1.10
96-18-4	1,2,3-Trichloropropane		54.6	ug/kg	0.329	1.10
108-86-1	Bromobenzene		50.0	ug/kg	0.329	1.10
103-65-1	n-Propylbenzene		52.2	ug/kg	0.329	1.10
95-49-8	2-Chlorotoluene		52.3	ug/kg	0.329	1.10
98-82-8	Isopropylbenzene		53.1	ug/kg	0.329	1.10
108-67-8	1,3,5-Trimethylbenzene		52.4	ug/kg	0.329	1.10
106-43-4	4-Chlorotoluene		51.3	ug/kg	0.329	1.10
98-06-6	tert-Butylbenzene		51.2	ug/kg	0.329	1.10
95-63-6	1,2,4-Trimethylbenzene		51.5	ug/kg	0.329	1.10
135-98-8	sec-Butylbenzene		49.0	ug/kg	0.329	1.10
99-87-6	4-Isopropyltoluene		49.4	ug/kg	0.329	1.10
541-73-1	1,3-Dichlorobenzene		46.5	ug/kg	0.329	1.10
106-46-7	1,4-Dichlorobenzene		46.4	ug/kg	0.329	1.10
104-51-8	n-Butylbenzene		46.6	ug/kg	0.329	1.10
96-12-8	1,2-Dibromo-3-chloropropane		52.0	ug/kg	0.329	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.48	ug/kg	1.75	5.48
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane		55.2	ug/kg	0.329	1.10
95-50-1	1,2-Dichlorobenzene		44.9	ug/kg	0.329	1.10

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/030610v1/1a618.d

Lab Smp Id: 1202063386

Client Smp ID: RE36-10-8282MS

Inj Date : 06-MAR-2010 13:38

Operator : GRB2

Inst ID: VOA1.i

Smp Info : |1202063386|961979|1|VOAF|1|

Misc Info : LANL 5g N/A MS 248202001

Comment :

Method : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m

Meth Date : 06-Mar-2010 06:58 gel00735 Quant Type: ISTD

Cal Date : 05-MAR-2010 01:41

Cal File: 1a428.d

Als bottle: 18

QC Sample: MS

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: 10-2124.sub

Target Version: 3.50

Processing Host: prdsvr07

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.69570	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG						CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	( ug/l)	FINAL
=====								
* 52 Fluorobenzene	96	13.668	13.672	(1.000)	820851	50.0000		
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	595759	50.0000		
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.601	(1.000)	313979	50.0000		
\$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	506868	63.2410		69.3
\$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1034672	51.6371		56.6
\$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	420336	53.3974		58.5
5 Dichlorodifluoromethane	85	4.976	4.983	(0.364)	196187	47.5007		52.0
6 Chloromethane	50	5.528	5.535	(0.404)	334396	46.6670		51.1
7 Vinyl chloride	62	5.901	5.908	(0.432)	273752	49.2354		53.9
9 Bromomethane	96	6.933	6.929	(0.507)	153507	46.6699		51.1
10 Chloroethane	64	7.200	7.205	(0.527)	166782	46.6400		51.1
11 Trichlorofluoromethane	101	7.813	7.822	(0.572)	396524	56.7687		62.2

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN ( ug/l) FINAL (ug/Kg)
16 Acetone	43	9.235	9.240	(0.676)	867125	178.321	195
15 1,1-Dichloroethylene	61	9.065	9.069	(0.663)	477111	52.7458	57.8
103 1,4-Dichlorobenzene	146	19.624	19.629	(1.001)	425531	42.4034	46.4
18 Iodomethane	142	9.447	9.451	(0.691)	1540711	230.249	252
23 Methylene chloride	84	10.123	10.128	(0.741)	232127	46.9924	51.5
19 Carbon disulfide	76	9.548	9.557	(0.699)	3385158	246.717	270
26 trans-1,2-Dichloroethylene	96	10.528	10.533	(0.770)	207343	46.8902	51.4
30 1,1-Dichloroethane	63	11.306	11.311	(0.827)	471119	49.5658	54.3
35 2-Butanone	43	12.172	12.172	(0.891)	951722	184.635	202
36 cis-1,2-Dichloroethylene	96	12.190	12.190	(0.892)	220077	46.2119	50.6
101 1,3-Dichlorobenzene	146	19.527	19.532	(0.996)	422388	42.4109	46.4
33 2,2-Dichloropropane	77	12.144	12.149	(0.889)	338308	55.9494	61.3
41 Chloroform	83	12.600	12.600	(0.922)	484153	51.0417	55.9
106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	390350	41.0342	44.9
39 Bromochloromethane	128	12.549	12.549	(0.918)	101087	46.8152	51.3
43 1,1,1-Trichloroethane	97	12.830	12.835	(0.939)	381056	54.0321	59.2
45 1,1-Dichloropropene	75	13.037	13.037	(0.954)	350240	51.1989	56.1
44 Carbon tetrachloride	117	13.009	13.014	(0.952)	386527	57.2962	62.8
51 1,2-Dichloroethane	62	13.428	13.428	(0.982)	453887	53.5875	58.7
47 Benzene	78	13.318	13.322	(0.974)	851333	45.3116	49.6
54 Trichloroethylene	95	14.100	14.110	(1.032)	231088	47.6496	52.2
57 1,2-Dichloropropane	63	14.446	14.446	(1.057)	241009	46.6248	51.1
60 Bromodichloromethane	83	14.740	14.740	(1.078)	367970	52.1909	57.2
59 Dibromomethane	93	14.611	14.616	(1.069)	147773	48.0083	52.6
64 4-Methyl-2-pentanone	58	15.348	15.348	(0.895)	548611	232.585	255
63 cis-1,3-Dichloropropylene	75	15.242	15.247	(1.115)	397985	48.5730	53.2
66 Toluene	92	15.583	15.583	(0.909)	534782	46.5398	51.0
68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	407143	50.8736	55.7
69 1,1,2-Trichloroethane	83	16.093	16.094	(0.939)	163948	46.1798	50.6
71 2-Hexanone	43	16.255	16.255	(0.948)	1316143	200.013	219
72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	357959	46.7419	51.2
70 Tetrachloroethylene	164	16.176	16.176	(0.943)	168929	46.0261	50.4
73 Dibromochloromethane	129	16.535	16.535	(0.964)	242856	51.6544	56.6
74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	196355	46.8693	51.3
77 Chlorobenzene	112	17.180	17.180	(1.002)	552422	45.5128	49.8
79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	221245	50.3614	55.2
78 Ethylbenzene	91	17.207	17.207	(1.003)	1090261	47.4916	52.0
80 m,p-Xylenes	106	17.322	17.323	(1.010)	746021	91.6630	100
81 o-Xylene	106	17.769	17.769	(1.036)	367385	45.9852	50.4
82 Styrene	104	17.792	17.792	(1.038)	616380	46.1970	50.6
83 Bromoform	173	18.091	18.096	(0.923)	153701	52.4573	57.4
88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	254965	48.0130	52.6
92 1,2,3-Trichloropropane	110	18.593	18.593	(0.949)	75639	49.8908	54.6(Q)
91 Bromobenzene	156	18.579	18.579	(0.948)	233818	45.6671	50.0
89 n-Propylbenzene	91	18.547	18.547	(0.946)	1244906	47.6740	52.2
94 2-Chlorotoluene	91	18.726	18.731	(0.956)	902475	47.7585	52.3
84 Isopropylbenzene	105	18.114	18.114	(0.924)	1034940	48.4860	53.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN ( ug/l)	FINAL (ug/Kg)
93 1,3,5-Trimethylbenzene	105	18.703	18.708	(0.954)	892228	47.8828	52.4
95 4-Chlorotoluene	91	18.841	18.842	(0.961)	801656	46.8142	51.3
96 tert-Butylbenzene	119	19.062	19.062	(0.973)	698691	46.7350	51.2
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	910406	47.0063	51.5
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1062049	44.7733	49.0
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	833664	45.1220	49.4
105 n-Butylbenzene	91	19.854	19.854	(1.013)	848201	42.5166	46.6
108 1,2-Dibromo-3-chloropropane	157	20.986	20.987	(1.071)	49706	47.5104	52.0

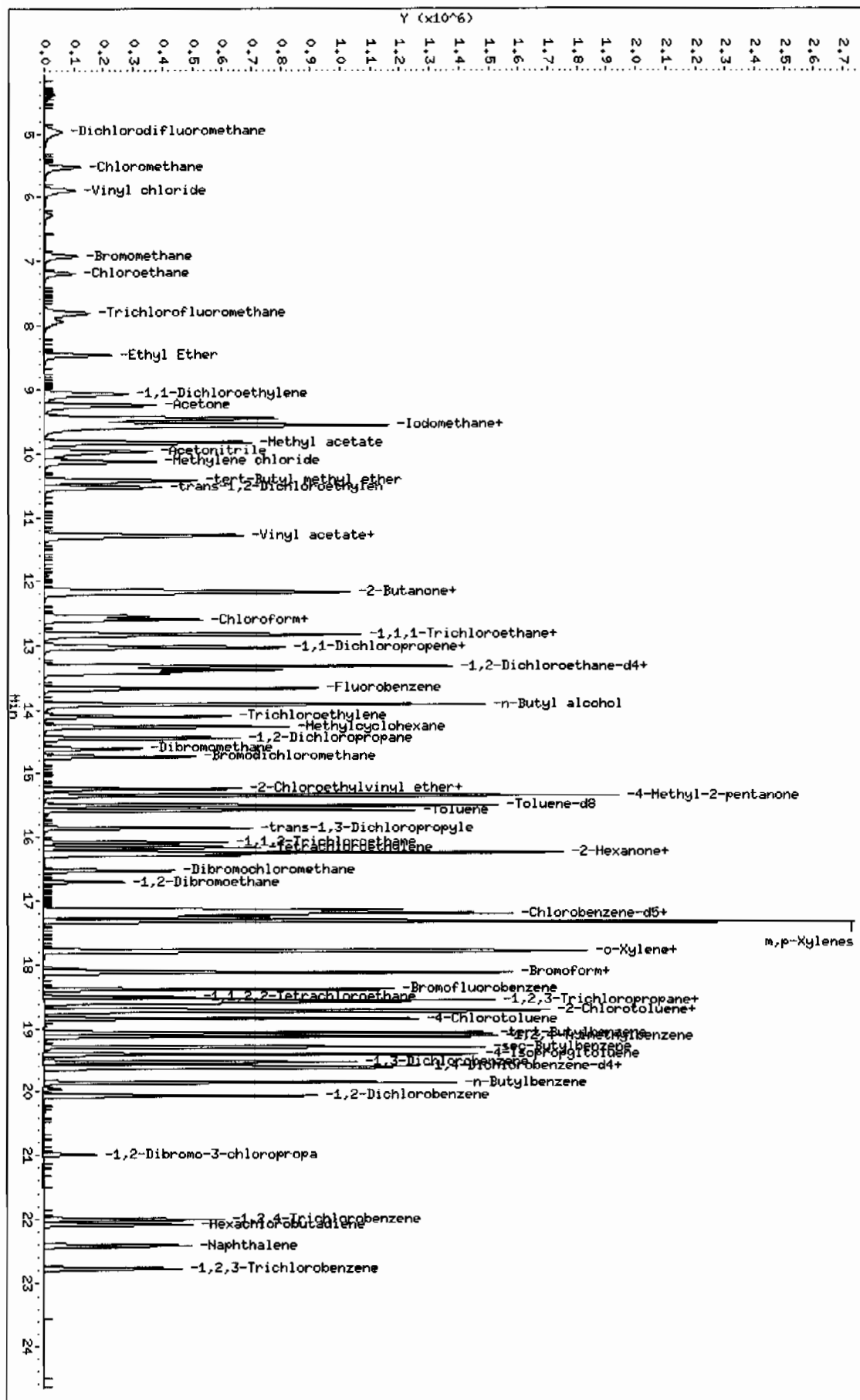
#### QC Flag Legend

Q - Qualifier signal failed the ratio test.



Data File: /chem/V001.i/030610v1/1a618.d  
 Date: 06-MAR-2010 13:38  
 Client ID: RE36-10-8282MS  
 Sample Info: 11202063386196197911.V00F111

Instrument: V001.i  
 Operator: GRB2  
 Column diameter: 0.25



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124	Date Collected: 02/23/2010 12:00	Matrix: R
Lab Sample ID: 1202063387	Date Received: 02/26/2010 08:45	%Moisture: 8.7
Client Sample: QC for batch 961978	Client: LANL010	Project: QC
Client ID: RE36-10-8282PSD	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961979	Inst: VOA1.I	Dilution: 1
Run Date: 03/06/2010 14:09	Analyst: GRB2	Purge Vol: 5 mL
Prep Date: 03/06/2010 10:34	Aliquot: 5 g	Final Volume: 5 mL
Data File: 1a619.d	Column: RTX-Volatiles	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		48.1	ug/kg	0.372	1.10
74-87-3	Chloromethane		48.9	ug/kg	0.329	1.10
75-01-4	Vinyl chloride		48.6	ug/kg	0.329	1.10
74-83-9	Bromomethane		49.1	ug/kg	0.329	1.10
75-00-3	Chloroethane		49.5	ug/kg	0.329	1.10
75-69-4	Trichlorofluoromethane		58.0	ug/kg	0.329	1.10
67-64-1	Acetone		190	ug/kg	1.82	5.48
75-35-4	1,1-Dichloroethylene		55.5	ug/kg	0.329	1.10
74-88-4	Iodomethane		246	ug/kg	1.75	5.48
75-09-2	Methylene chloride		53.5	ug/kg	2.19	5.48
75-15-0	Carbon disulfide		264	ug/kg	1.37	5.48
156-60-5	trans-1,2-Dichloroethylene		50.0	ug/kg	0.329	1.10
75-34-3	1,1-Dichloroethane		53.1	ug/kg	0.329	1.10
78-93-3	2-Butanone		204	ug/kg	1.64	5.48
156-59-2	cis-1,2-Dichloroethylene		50.3	ug/kg	0.329	1.10
594-20-7	2,2-Dichloropropane		57.3	ug/kg	0.329	1.10
67-66-3	Chloroform		54.9	ug/kg	0.329	1.10
74-97-5	Bromochloromethane		52.5	ug/kg	0.361	1.10
71-55-6	1,1,1-Trichloroethane		56.1	ug/kg	0.329	1.10
563-58-6	1,1-Dichloropropene		53.4	ug/kg	0.329	1.10
56-23-5	Carbon tetrachloride		59.8	ug/kg	0.329	1.10
107-06-2	1,2-Dichloroethane		58.2	ug/kg	0.329	1.10
71-43-2	Benzene		48.5	ug/kg	0.329	1.10
79-01-6	Trichloroethylene		50.6	ug/kg	0.361	1.10
78-87-5	1,2-Dichloropropane		50.9	ug/kg	0.329	1.10
75-27-4	Bromodichloromethane		57.5	ug/kg	0.329	1.10
74-95-3	Dibromomethane		53.3	ug/kg	0.329	1.10
108-10-1	4-Methyl-2-pentanone		271	ug/kg	1.37	5.48
10061-01-5	cis-1,3-Dichloropropylene		52.5	ug/kg	0.329	1.10
108-88-3	Toluene		50.5	ug/kg	0.329	1.10
10061-02-6	trans-1,3-Dichloropropylene		56.1	ug/kg	0.329	1.10
79-00-5	1,1,2-Trichloroethane		52.5	ug/kg	0.329	1.10
591-78-6	2-Hexanone		218	ug/kg	1.64	5.48
142-28-9	1,3-Dichloropropane		53.2	ug/kg	0.329	1.10
127-18-4	Tetrachloroethylene		50.3	ug/kg	0.329	1.10
124-48-1	Dibromochloromethane		57.1	ug/kg	0.329	1.10
106-93-4	1,2-Dibromoethane		52.3	ug/kg	0.329	1.10
108-90-7	Chlorobenzene		50.1	ug/kg	0.329	1.10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124	Date Collected: 02/23/2010 12:00	Matrix: R
Lab Sample ID: 1202063387	Date Received: 02/26/2010 08:45	%Moisture: 8.7
Client Sample: QC for batch 961978	Client: LANL010	Project: QC
Client ID: RE36-10-8282PSD	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961979	Inst: VOA1.1	Dilution: 1
Run Date: 03/06/2010 14:09	Analyst: GRB2	Purge Vol: 5 mL
Prep Date: 03/06/2010 10:34	Aliquot: 5 g	Final Volume: 5 mL
Data File: 1a619.d	Column: RTX-Volatiles	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		52.2	ug/kg	0.329	1.10
179601-23-1	m,p-Xylenes		102	ug/kg	0.329	2.19
95-47-6	o-Xylene		50.9	ug/kg	0.329	1.10
100-42-5	Styrene		50.9	ug/kg	0.329	1.10
75-25-2	Bromoform		65.2	ug/kg	0.329	1.10
79-34-5	1,1,2,2-Tetrachloroethane		59.7	ug/kg	0.329	1.10
96-18-4	1,2,3-Trichloropropane		63.1	ug/kg	0.329	1.10
108-86-1	Bromobenzene		54.4	ug/kg	0.329	1.10
103-65-1	n-Propylbenzene		58.6	ug/kg	0.329	1.10
95-49-8	2-Chlorotoluene		58.0	ug/kg	0.329	1.10
98-82-8	Isopropylbenzene		60.1	ug/kg	0.329	1.10
108-67-8	1,3,5-Trimethylbenzene		59.0	ug/kg	0.329	1.10
106-43-4	4-Chlorotoluene		56.3	ug/kg	0.329	1.10
98-06-6	tert-Butylbenzene		58.3	ug/kg	0.329	1.10
95-63-6	1,2,4-Trimethylbenzene		57.4	ug/kg	0.329	1.10
135-98-8	sec-Butylbenzene		56.4	ug/kg	0.329	1.10
99-87-6	4-Isopropyltoluene		56.3	ug/kg	0.329	1.10
541-73-1	1,3-Dichlorobenzene		49.7	ug/kg	0.329	1.10
106-46-7	1,4-Dichlorobenzene		49.5	ug/kg	0.329	1.10
104-51-8	n-Butylbenzene		53.4	ug/kg	0.329	1.10
96-12-8	1,2-Dibromo-3-chloropropane		57.7	ug/kg	0.329	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.48	ug/kg	1.75	5.48
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane		55.8	ug/kg	0.329	1.10
95-50-1	1,2-Dichlorobenzene		48.5	ug/kg	0.329	1.10

GEL Laboratories LLC

VOLATILE GC/MS.: SOP# GL-OA-E-038,-039,-026  
Data file : /chem/VOA1.i/030610v1/1a619.d  
Lab Smp Id: 1202063387 Client Smp ID: RE36-10-8282MSD  
Inj Date : 06-MAR-2010 14:09  
Operator : GRB2 Inst ID: VOA1.i  
Smp Info : |1202063387|961979|1|VOAF|1|  
Misc Info : LANL 5g N/A MSD 248202001  
Comment :  
Method : /chem/VOA1.i/030610v1/VOA1-8260ox-030410.m  
Meth Date : 06-Mar-2010 06:58 gel00735 Quant Type: ISTD  
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d  
Als bottle: 19 QC Sample: MSD  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2124.sub  
Target Version: 3.50  
Processing Host: prdsvr07

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	8.69570	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN ( ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	848892	50.0000		
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	612206	50.0000		
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.601	(1.000)	293356	50.0000		
\$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	506904	61.1563		67.0
\$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1061750	51.5649		56.5
\$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	414139	56.3087		61.7
5 Dichlorodifluoromethane	85	4.983	4.983	(0.364)	187476	43.8922		48.1
6 Chloromethane	50	5.535	5.535	(0.405)	330936	44.6586		48.9
7 Vinyl chloride	62	5.908	5.908	(0.432)	255322	44.4038		48.6
9 Bromomethane	96	6.929	6.929	(0.507)	152601	44.8619		49.1
10 Chloroethane	64	7.200	7.205	(0.527)	167195	45.2110		49.5
11 Trichlorofluoromethane	101	7.822	7.822	(0.572)	382434	52.9429		58.0

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
							( ug/l)	(ug/Kg)
=====	=====	=====	=====	=====	=====	=====	=====	
16 Acetone	43	9.240	9.240	(0.676)	871906	173.381	190	
15 1,1-Dichloroethylene	61	9.065	9.069	(0.663)	474138	50.6856	55.5	
103 1,4-Dichlorobenzene	146	19.629	19.629	(1.002)	424165	45.2387	49.5	
18 Iodomethane	142	9.447	9.451	(0.691)	1557353	225.048	246	
23 Methylene chloride	84	10.123	10.128	(0.740)	249285	48.8351	53.5	
19 Carbon disulfide	76	9.553	9.557	(0.699)	3417862	240.873	264	
26 trans-1,2-Dichloroethylene	96	10.533	10.533	(0.770)	208688	45.6354	50.0	
30 1,1-Dichloroethane	63	11.311	11.311	(0.827)	476274	48.4530	53.1	
35 2-Butanone	43	12.172	12.172	(0.890)	994630	186.585	204	
36 cis-1,2-Dichloroethylene	96	12.190	12.190	(0.892)	226252	45.9392	50.3	
101 1,3-Dichlorobenzene	146	19.527	19.532	(0.996)	422492	45.4036	49.7	
33 2,2-Dichloropropane	77	12.149	12.149	(0.889)	327191	52.3235	57.3	
41 Chloroform	83	12.600	12.600	(0.922)	491802	50.1355	54.9	
106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	393371	44.2588	48.5	
39 Bromochloromethane	128	12.549	12.549	(0.918)	107141	47.9799	52.5	
43 1,1,1-Trichloroethane	97	12.834	12.835	(0.939)	373618	51.2275	56.1	
45 1,1-Dichloropropene	75	13.037	13.037	(0.954)	344867	48.7482	53.4	
44 Carbon tetrachloride	117	13.014	13.014	(0.952)	380621	54.5570	59.8	
51 1,2-Dichloroethane	62	13.428	13.428	(0.982)	465636	53.1587	58.2	
47 Benzene	78	13.322	13.322	(0.974)	860964	44.3105	48.5	
54 Trichloroethylene	95	14.105	14.110	(1.032)	231764	46.2104	50.6	
57 1,2-Dichloropropane	63	14.446	14.446	(1.057)	248370	46.4617	50.9	
60 Bromodichloromethane	83	14.740	14.740	(1.078)	382956	52.5222	57.5	
59 Dibromomethane	93	14.611	14.616	(1.069)	154832	48.6401	53.3	
64 4-Methyl-2-pentanone	58	15.348	15.348	(0.895)	600299	247.662	271	
63 cis-1,3-Dichloropropylene	75	15.242	15.247	(1.115)	406377	47.9589	52.5	
66 Toluene	92	15.582	15.583	(0.909)	544496	46.1122	50.5	
68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	421056	51.1987	56.1	
69 1,1,2-Trichloroethane	83	16.093	16.094	(0.939)	175008	47.9707	52.5	
71 2-Hexanone	43	16.255	16.255	(0.948)	1346986	199.201	218	
72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	382449	48.5982	53.2	
70 Tetrachloroethylene	164	16.176	16.176	(0.943)	173207	45.9239	50.3	
73 Dibromochloromethane	129	16.535	16.535	(0.964)	251979	52.1550	57.1	
74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	205756	47.7939	52.3	
77 Chlorobenzene	112	17.180	17.180	(1.002)	570501	45.7396	50.1	
79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	230163	50.9839	55.8	
78 Ethylbenzene	91	17.207	17.207	(1.003)	1124368	47.6615	52.2	
80 m,p-Xylenes	106	17.322	17.323	(1.010)	777851	93.0063	102	
81 o-Xylene	106	17.769	17.769	(1.036)	381230	46.4362	50.8	
82 Styrene	104	17.792	17.792	(1.038)	636739	46.4408	50.9	
83 Bromoform	173	18.096	18.096	(0.923)	162961	59.5276	65.2	
88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	270575	54.5345	59.7	
92 1,2,3-Trichloropropane	110	18.593	18.593	(0.949)	81567	57.5831	63.1 (Q)	
91 Bromobenzene	156	18.579	18.579	(0.948)	237401	49.6265	54.4	
89 n-Propylbenzene	91	18.547	18.547	(0.946)	1304310	53.4603	58.6	
94 2-Chlorotoluene	91	18.731	18.731	(0.956)	934469	52.9280	58.0	
84 Isopropylbenzene	105	18.114	18.114	(0.924)	1095098	54.9110	60.1	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					( ug/l)	(ug/Kg)
=====	=====	=====	=====	=====	=====	=====	=====
93 1,3,5-Trimethylbenzene	105	18.703	18.708	(0.954)	938619	53.9136	59.0
95 4-Chlorotoluene	91	18.841	18.842	(0.961)	822076	51.3816	56.3
96 tert-Butylbenzene	119	19.062	19.062	(0.973)	743647	53.2389	58.3
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	948332	52.4068	57.4
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1141464	51.5041	56.4
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	887446	51.4096	56.3
105 n-Butylbenzene	91	19.854	19.854	(1.013)	908996	48.7671	53.4
108 1,2-Dibromo-3-chloropropane	157	20.982	20.987	(1.071)	51513	52.6990	57.7

# QC Flag Legend

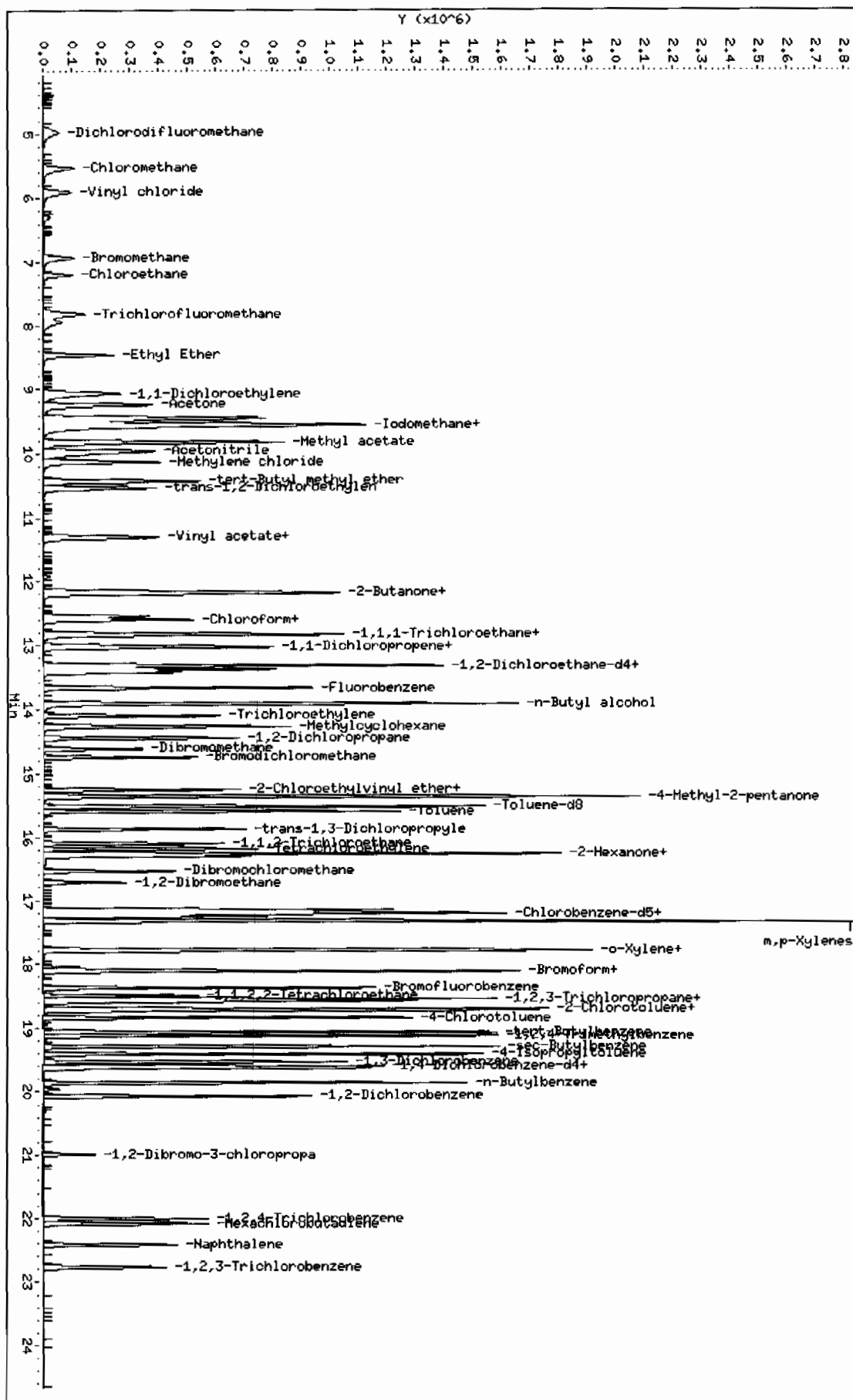
Q - Qualifier signal failed the ratio test.

Data File: /chem/V001.i/030610v1/1a619.d  
 Date: 06-MAR-2010 14:09  
 Client ID: REC6-10-8282MSD  
 Sample Info: 11202063387196197911.V001.F11

Column phase: RTX-Volatiles

/chem/V001.i/030610v1/1a619.d

Instrument: V001.i  
 Operator: GRB2  
 Column diameter: 0.25



# Miscellaneous Data



# Prep Logbook

## Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

**Batch ID:** 961978      Verified by: \_\_\_\_\_      Type: \_\_\_\_\_      Sample Id: \_\_\_\_\_      Description: \_\_\_\_\_      Serial Number: \_\_\_\_\_      Spike Amount: Spike Units  
**Analyst:** Gelester Basket  
**Method:** SW846 5030  
**Lab SOP:** GL-OA-E-038 REV# 14  
**Instrument:** Sartorius Balance B-001

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202063385 MB	06-MAR-2010 04:15:00	Soil	5	5	1	
1202063388 LCS	06-MAR-2010 04:17:00	Soil	5	5	1	
1202063389 LCS	06-MAR-2010 04:19:00	Soil	5	5	1	
248202001	06-MAR-2010 10:30:00	Soil	5	5	1	
1202063386 PS (248202001)	06-MAR-2010 10:32:00	Soil	5	5	1	
1202063387 PSD (248202001)	06-MAR-2010 10:34:00	Soil	5	5	1	
248202002	06-MAR-2010 10:36:00	Soil	5	5	1	
Reagent/Solvent Lot ID	Description	Amount	Comments:			

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/4/2010

(See pg. 30, 31, 32 for ICAL Std. Sol. Ids)

Daily Standard Volume Added for Purge (ul)

Purge Amount

5	Water Purge Vol:ML
N/A	Soli Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Simpl	CCV	LCS	BFB
1	1	1	1
1	1	1	1
1	1	1	1
1	1	1	1

NaHSO4 lot #	N/A
Cl test lot #	84515

Sequence Number: 030410V1

Analysis Date	Data File	Lab Sample ID	Client	Batch #	Wt (g) or Vol (mL)	Dil Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
4 Mar 2010 08:55	1A401.D	UVM100114-02	GEL	RINSE	5mL	1	N/A	1	w	RXD1	N/A	X	
4 Mar 2010 09:26	1A402.D	W1VM100304-01	GEL	CCV	5mL	1	N/A	2	w	RXD1	N/A	X	UVM100220-01C/IVM100301-01 1,2DCE-d4 S.S. high
4 Mar 2010 10:53	1A403.D	W1VM100304-02	GEL	CCV	5mL	1	N/A	2	w	RXD1	N/A	X	UVM100220-01C/IVM100304-01 Surr Still high
4 Mar 2010 12:09	1A404.D	12020---	GEL	BLANK	5mL	1	N/A	4	w	RXD1	N/A	X	RINSE
4 Mar 2010 12:40	1A405.D	12020---	GEL	BLANK	5mL	1	N/A	5	w	RXD1	N/A	X	RINSE
4 Mar 2010 13:55	1A406.D	12020---	GEL	BLANK	5mL	1	N/A	6	w	RXD1	N/A	X	RINSE Adjusting EM voltage
4 Mar 2010 14:26	1A407.D	12020---	GEL	BLANK	5mL	1	N/A	7	w	RXD1	N/A	X	RINSE
4 Mar 2010 15:08	1A408.D	W1VM100304-03	GEL	CCV	5mL	1	N/A	8	w	RXD1	N/A	X	UVM100106-07D/IVM100222-07A
4 Mar 2010 15:39	1A409.D	W1VM100304-04	GEL	LCS	5mL	1	N/A	9	s	RXD1	N/A	X	UVM100220-01C/IVM100304-01
4 Mar 2010 16:10	1A410.D	W1VM100304-05	GEL	SHORT	5g	1	N/A	10	w	RXD1	N/A	X	UVM100215-08A
4 Mar 2010 16:41	1A411.D	UVM100203-02	GEL	BFB01	5mL	1	N/A	11	w	RXD1	N/A	O	
4 Mar 2010 17:28	1A412.D	W1VM100304-06	GEL	VSTD001	5mL	1	N/A	12	w	RXD1	N/A	O	UVM100106-02D/IVM100222-02A
4 Mar 2010 17:59	1A413.D	W1VM100304-07	GEL	VSTD002	5mL	1	N/A	13	w	RXD1	N/A	O	UVM100106-03D/IVM100222-03A
4 Mar 2010 18:29	1A414.D	W1VM100304-08	GEL	VSTD005	5mL	1	N/A	14	w	RXD1	N/A	O	UVM100106-04D/IVM100222-04A
4 Mar 2010 19:00	1A415.D	W1VM100304-09	GEL	VSTD010	5mL	1	N/A	15	w	RXD1	N/A	O	UVM100106-05D/IVM100222-05A
4 Mar 2010 19:31	1A416.D	W1VM100304-10	GEL	VSTD020	5mL	1	N/A	16	w	RXD1	N/A	O	UVM100106-06D/IVM100222-06A
4 Mar 2010 20:02	1A417.D	W1VM100304-11	GEL	VSTD050	5mL	1	N/A	17	w	RXD1	N/A	O	UVM100106-07D/IVM100222-07A
4 Mar 2010 20:32	1A418.D	W1VM100304-12	GEL	VSTD100	5mL	1	N/A	18	w	RXD1	N/A	O	UVM100106-08D/IVM100222-08A
4 Mar 2010 21:04	1A419.D	12020---	GEL	BLANK	5mL	1	N/A	19	w	RXD1	N/A	X	RINSE
4 Mar 2010 21:35	1A420.D	W1VM100304-13	GEL	VSTD005	5mL	1	N/A	20	w	RXD1	N/A	O	UVM100106-01D/IVM100222-01A
4 Mar 2010 22:05	1A421.D	W1VM100304-14	GEL	ICV	5mL	1	N/A	21	w	RXD1	N/A	X	UVM100220-01C/IVM100304-01 See 7A502
4 Mar 2010 22:36	1A422.D	W1VM100304-15	GEL	ICV	5mL	1	N/A	22	w	RXD1	N/A	X	UVM100126-02E/IVM100304-01 See 7A502
4 Mar 2010 23:06	1A423.D	W1VM100304-16	GEL	VSTD005S	5mL	1	N/A	23	w	RXD1	N/A	O	UVM100304-01/IVM100227-01A
4 Mar 2010 23:37	1A424.D	W1VM100304-17	GEL	VSTD010S	5mL	1	N/A	24	w	RXD1	N/A	O	UVM100304-02/IVM100227-02A
5 Mar 2010 00:08	1A425.D	W1VM100304-18	GEL	VSTD025S	5mL	1	N/A	25	w	RXD1	N/A	O	UVM100304-03/IVM100227-03A
5 Mar 2010 00:39	1A426.D	W1VM100304-19	GEL	VSTD050S	5mL	1	N/A	26	w	RXD1	N/A	O	UVM100304-04/IVM100227-04A

Date: 3/4/2010

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Method 8260B/624 Operator: RXD1

REVIEWED BY:

DATE:

Daily Instrument Readings:

Multiplier Voltage: 1471

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/4/2010

(See pg. 30, 31, 32 for ICAI Std. Sol. Ids)

Daily Standard

Purge Amount

5 Water Purge Vol: ML  
N/A Soil Purge Wt: G  
N/A Mid level ext. MeOH Vol:  
N/A ul  
N/A Methanol Lot #  
X Heated Purge

Solution ID# W1VM100305-01  
IS UVM1000214-01  
SS UVM1000203-02  
SHORT ICV W1VM100304-23  
BFB UVM1000203-02

NaHSO4 lot # N/A  
Cl test lot # 84515  
Sequence Number: 030410V1

Volume Added for Purge (ul)

Smpl CCV LCS BFB  
1 1 1 5+5  
1 1 1 1  
5+5  
1

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt (g) or Vol (ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
5 Mar 2010	01:10	1A427.D	W1VM100304-20	GEL	VSTD100S	5mL	1	N/A	27	w	RXD1	N/A	O	UVM100304-05/UVM100227-05A
5 Mar 2010	01:41	1A428.D	W1VM100304-21	GEL	VSTD250S	5mL	1	N/A	28	w	RXD1	N/A	O	UVM100304-06/UVM100227-06A
5 Mar 2010	02:12	1A429.D	W1VM100304-22	GEL	VSTD500S	5mL	1	N/A	29	w	RXD1	N/A	O	UVM100304-07/UVM100227-07A
5 Mar 2010	02:43	1A430.D	12020---	GEL	BLANK	5mL	1	N/A	30	w	RXD1	N/A	X	RINSE
5 Mar 2010	03:14	1A431.D	W1VM100304-23	GEL	SICV	5mL	1	N/A	31	w	RXD1	N/A	O	UVM100304-08A/UVM100125-08E
5 Mar 2010	03:44	1A432.D	W1VM100304-24	GEL	SICV	5mL	1	N/A	32	w	RXD1	N/A	X	UVM100215-08A/UVM100125-08E Not needed
5 Mar 2010	04:15	1A433.D	12020---	GEL	BLANK	5mL	1	N/A	33	w	RXD1	N/A	X	RINSE

Date: 3/5/2010

Method 8260B/624

Operator: AX01

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

REVIEWED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Daily Instrument Readings:

Multiplier Voltage: 1471

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/4/2010

(See pg. 14,15 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

CI test lot # 84515

Sequence Number: 030510v1

Daily Standard	Solution ID#	Volume Added for Purge (ul)	MS/
	CCV	W1VM100305-01	5+5
	IS	UVM100217-01	1 1 1
	SS	UVM100203-02	1 1 1
	LCS/MS	W1VM100305-01/02	5+5
	BFB	UVM100203-02	1
	SHORT	W1VM100305-03/04	5+5 5+5

Purge Amount

5	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol.(ml/ul)	Dil.	pH	AS	Matrix w or s	Analyst	CI test (Y/N)	Acceptable O/X	Comments
5 Mar 2010 10:00	1A501.D	UVM100203-02	GEL	RINSE	5mL	1	N/A	1	W	AXO1	N/A	X	BFB ok but see 1A502
5 Mar 2010 10:31	1A502.D	W1VM100305-01	GEL	BFB/CCV/LCS	5mL	1	N/A	2	W	AXO1	N/A	O	UVM100220-01D/IVM100304-01
5 Mar 2010 11:02	1A503.D	W1VM100305-02	GEL	LCS	5g	1	N/A	3	S	AXO1	N/A	O	UVM100220-01D/IVM100304-01
5 Mar 2010 11:32	1A504.D	W1VM100305-03	GEL	SHORT/SLCS	5mL	1	N/A	4	W	AXO1	N/A	O	UVM100304-08A/IVM100125-08E
5 Mar 2010 12:03	1A505.D	W1VM100305-04	GEL	SLCS	5g	1	N/A	5	S	AXO1	N/A	O	UVM100304-08A/IVM100125-08E
5 Mar 2010 12:35	1A506.D	12020---	GEL	BLANK	5g	1	N/A	6	S	AXO1	N/A	O	RINSE
5 Mar 2010 13:06	1A507.D	12020---	GEL	BLANK	5mL	1	N/A	7	W	AXO1	N/A	O	RINSE
5 Mar 2010 13:38	1A508.D	247920001	LANL	961771	5g	1	N/A	8	S	AXO1	N/A	O	
5 Mar 2010 14:10	1A509.D	247866001	WASP	961764	5mL	1	pH2	9	W	AXO1	N	O	
5 Mar 2010 14:43	1A510.D	247920002	LANL	961771	5g	1	N/A	10	S	AXO1	N/A	O	
5 Mar 2010 15:15	1A511.D	247973001	LANL	961771	5g	1	N/A	11	S	AXO1	N/A	O	
5 Mar 2010 15:46	1A512.D	247973002	LANL	961771	5g	1	N/A	12	S	AXO1	N/A	O	
5 Mar 2010 16:17	1A513.D	247973003	LANL	961771	5g	1	N/A	13	S	AXO1	N/A	O	
5 Mar 2010 16:48	1A514.D	247973004	LANL	961771	5g	1	N/A	14	S	AXO1	N/A	O	
5 Mar 2010 17:19	1A515.D	247973005	LANL	961771	5g	1	N/A	15	S	AXO1	N/A	O	
5 Mar 2010 17:50	1A516.D	247973006	LANL	961771	5g	1	N/A	16	S	AXO1	N/A	O	
5 Mar 2010 18:20	1A517.D	247973007	LANL	961771	5g	1	N/A	17	S	AXO1	N/A	O	
5 Mar 2010 18:51	1A518.D	247973008	LANL	961771	5g	1	N/A	18	S	AXO1	N/A	O	
5 Mar 2010 19:21	1A519.D	248130001	LANL	961771	5g	1	N/A	19	S	AXO1	N/A	O	
5 Mar 2010 19:52	1A520.D	248130002	LANL	961771	5g	1	N/A	20	S	AXO1	N/A	O	
5 Mar 2010 20:22	1A521.D	248130003	LANL	961771	5g	1	N/A	21	S	AXO1	N/A	O	
5 Mar 2010 20:53	1A522.D	248130004	LANL	961771	5g	1	N/A	22	S	AXO1	N/A	O	
5 Mar 2010 21:23	1A523.D	248130005	LANL	961771	5g	1	N/A	23	S	AXO1	N/A	O	
5 Mar 2010 21:54	1A524.D	1202062920	LANL	961771	5g	1	N/A	24	S	AXO1	N/A	O	MS 248130005
5 Mar 2010 22:24	1A525.D	1202062921	LANL	961771	5g	1	N/A	25	S	AXO1	N/A	O	MSD 248130005

## CALIBRATION &amp; QC INFORMATION:

Initial Calibration Date: 3/4/2010(See pg. 14 for ICAL Std. Sol. Ids)NaHSO<sub>4</sub> lot #

Cl test lot #

Sequence Number: 030610V1

Daily Standard Volume Added for Purge (ul)

Solution ID#	CCV	W1VM100306-01	Smpl	CCV	LCS	BFB
IS	1	1	1	1	1	1
SS	1	1	1	1	1	1
LCS/MS	1	1	1	1	1	1
BFB J	1	1	1	1	1	1
SHORT J	1	1	1	1	1	1

Purge Amount

5	Water Purge Vol:ML
5	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol.(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
6 Mar 2010 04:59		1A601.D	UVM100114-02	GEL	BFB01	5ml	1	N/A	1	w/s	GRB	N/A	O	BFB
6 Mar 2010 05:30		1A602.D	W1VM100306-01	GEL	CCV/LCS	5ml	1	N/A	2	w	GRB	N/A	O	UVM100220-01D/VM100304-01
6 Mar 2010 06:00		1A603.D	W1VM100306-02	GEL	LCS	5g	1	N/A	3	s	GRB	N/A	O	UVM100220-01D/VM100304-01
6 Mar 2010 06:30		1A604.D	W1VM100306-03	GEL	SHORT	5ml	1	N/A	4	w	GRB	N/A	O	UVM100304-08A/VM100125-08E
6 Mar 2010 07:01		1A605.D	W1VM100306-04	GEL	SHORT	5g	1	N/A	5	s	GRB	N/A	O	UVM100304-08A/VM100125-08E
6 Mar 2010 07:31		1A606.D	12020---	GEL	BLANK	5g	1	N/A	6	s	GRB	N/A	O	
6 Mar 2010 08:02		1A607.D	12020---	GEL	BLANK	5ml	1	N/A	7	w	GRB	N/A	O	
6 Mar 2010 08:33		1A608.D	248071001	WSRB	961963	5ml	1	ph2	8	w	GRB	N	O	
6 Mar 2010 09:03		1A609.D	248072001	WSRB	961963	5ml	1	ph2	9	w	GRB	N	O	
6 Mar 2010 09:34		1A610.D	248072002	WSRB	961963	5ml	1	ph2	10	w	GRB	N	O	
6 Mar 2010 10:04		1A611.D	248072003	WSRB	961963	5ml	1	ph2	11	w	GRB	N	O	
6 Mar 2010 10:34		1A612.D	248072004	WSRB	961963	5ml	1	ph2	12	w	GRB	N	O	
6 Mar 2010 11:05		1A613.D	247966001	BUJO	961971	5ml	1	ph2	13	w	GRB	N	O	
6 Mar 2010 11:35		1A614.D	247966009	BUJO	961971	5ml	1	ph2	14	w	GRB	N	O	
6 Mar 2010 12:06		1A615.D	247966008	BUJO	961971	5ml	1	ph2	15	w	GRB	N	O	
6 Mar 2010 12:37		1A616.D	248202001	LANL	961979	5g	1	N/A	16	s	GRB	N/A	O	
6 Mar 2010 13:07		1A617.D	248202002	LANL	961979	5g	1	N/A	17	s	GRB	N/A	O	IS LOW AND SURR HIGH; SEE 1A644
6 Mar 2010 13:38		1A618.D	1202063386	LANL	961979	5g	1	N/A	18	s	GRB	N/A	O	MS 248202001
6 Mar 2010 14:09		1A619.D	1202063387	LANL	961979	5g	1	N/A	19	s	GRB	N/A	O	MSD 248202001
6 Mar 2010 14:39		1A620.D	1202063360	BUJO	961971	5ml	1	ph2	20	w	GRB	N	O	MS 247966001; SPIKES LOW; SEE 1A645
6 Mar 2010 15:10		1A621.D	1202063361	BUJO	961971	5ml	1	ph2	21	w	GRB	N	O	MSD 247966001; SPIKES LOW; SEE 1A646
6 Mar 2010 15:41		1A622.D	1202063351	WSRB	961963	5ml	1	ph2	22	w	GRB	N	O	MS 248071001
6 Mar 2010 16:11		1A623.D	1202063352	WSRB	961963	5ml	1	ph2	23	w	GRB	N	O	MSD 248071001
6 Mar 2010 16:42		1A624.D	12020---	GEL	BLANK	5ml	1	N/A	24	w	GRB	N/A	X	RINSE

**DATA EXCEPTION REPORT**

<b>Mo. Day Yr.</b> 07-MAR-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> VOA GC/MS	<b>Test / Method:</b> SW846 8260B	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 961979	<b>Sample Numbers:</b> See Below		

**Potentially affected work order(s)(SDG):** 248202(10-2124)

**Application Issues:**

Other

Failed Yield for Surrogates

**Specification and Requirements  
Exception Description:**

**DER Disposition:**

1. Sample 248202002 did not meet acceptance criteria for Bromofluorobenzene and Toluene. Bromofluorobenzene recovered at 138%. Toluene recovered at 130.6%.

1/2. The sample was re-analyzed with similar results therefore, it is possible that matrix interference was demonstrated.

2. The following internal standard recoveries did not meet acceptance criteria (-50% to +100%) for sample 248202002:

Chlorobenzene: -50.29%  
1,4-Dichlorobenzene -71.43

**Originator's Name:**

Gelester Baskett 07-MAR-10

**Data Validator/Group Leader:**

Sarah Kozlik 15-MAR-10

# **GC/MS Semivolatile Analysis**

**Semi-Volatile Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2124**

**Method/Analysis Information**

<b>Procedure:</b>	<b>Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry</b>
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	960459
Prep Batch Number:	960457

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

<b>Sample ID</b>	<b>Client ID</b>
248202001	RE36-10-8282
248202002	RE36-10-8281
1202060169	Method Blank (MB)
1202060170	Laboratory Control Sample (LCS)
1202060171	248203002(WST36-10-8928) Matrix Spike (MS)
1202060172	248203002(WST36-10-8928) 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-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

**Calibration Information**

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.



Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inverted in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

#### **Initial Calibration**

All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

#### **CCV Requirements**

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

#### **Quality Control (QC) Information**

##### **Method Blank (MB) Statement**

The MB analyzed with this SDG met the acceptance criteria.

##### **Surrogate Recoveries**

Sample 248202002 (RE36-10-8281) was analyzed at a dilution. As a result, the surrogates were diluted out of the acceptance limits.

##### **Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

##### **QC Sample Designation**

The non-SDG sample 248203002 (WST36-10-8928) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

##### **Matrix Spike (MS) Recovery Statement**

The MS(1202060171) spike recovery for Di-n-octylphthalate was 172% (limits: 31%-143%). The

MSD(1202060172) displayed a similarly high (but passing) recovery for Di-n-octylphthalate. Therefore, the high recoveries were attributed to sample matrix interference and the data were reported.

**Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD recoveries were within the established acceptance limits.

**MS/MSD Relative Percent Difference (RPD) Statement**

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

**Internal Standard (ISTD) Acceptance**

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

**Technical Information**

**Holding Time Specifications**

All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that 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**

Sample 248202002 (RE36-10-8281) was diluted because the extract was very dark and viscous.

Samples 1202060171 (WST36-10-8928), 1202060172 (WST36-10-8928) and 248202001 (RE36-10-8282) were diluted due to the presence of non-target analytes.

**Sample Re-extraction/Re-analysis**

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

**Miscellaneous Information**

**Data Exception (DER) Documentation**

The following DER was generated for this SDG: 804954. It is located in the Miscellaneous Section of the data report.

**Manual Integrations**

Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

**Additional Comments**

Additional comments were not required for this SDG.

**Electronic Package Comment**

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

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the

analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

**System Configuration**

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

<b>Instrument ID</b>	<b>Instrument</b>	<b>System Configuration</b>	<b>Column ID</b>	<b>Column Description</b>
MSD3.I	HP Mass Spectrometer	HP7890A/HP5975C	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

**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.

Reviewer: Don Ruchman Date: 3-25-10

## Roadmap for LANL 10-2124 SVOA

This roadmap was analyzed by rmb on 03-15-2010, 08:15.

This roadmap was analyzed by dan01134 on 03-25-2010, 08:43.

This roadmap was packaged by CHA01131 on 03-25-2010, 10:01.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
<input type="checkbox"/>	N	/chem/MSD3.i/s031310.b/s3c1325.d	248202001	13-MAR-2010	18:52	10-2124.sub	RE36-10-8282	2	960459	USE
<input type="checkbox"/>	N	/chem/MSD3.i/s031310.b/s3c1329.d	248202002	13-MAR-2010	20:09	10-2124.sub	RE36-10-8281	40	960459	USE

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
<input checked="" type="checkbox"/>	N	/chem/MSD6.i/s030910.b/s6c0911-2.d	1202060169	mb	09-MAR-2010	15:21	10-2124.sub	SBLK01	1	960459	DUSE
<input checked="" type="checkbox"/>	N	/chem/MSD6.i/s030910.b/s6c0912-2.d	1202060170	lcs	09-MAR-2010	15:44	10-2124.sub	SBLK011.CS	1	960459	DUSE
<input type="checkbox"/>	N	/chem/MSD3.i/s031310.b/s3c1307-2.d	1202060169	mb	13-MAR-2010	12:59	10-2124.sub	SBLK01	1	960459	USE
<input type="checkbox"/>	N	/chem/MSD3.i/s031310.b/s3c1308-2.d	1202060170	lcs	13-MAR-2010	13:19	10-2124.sub	SBLK011.CS	1	960459	USE

# **Sample Data Summary**

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2124  
Lab Sample ID: 248202002

Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.I  
Analyst: JLD1  
Aliquot: 30.15 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 26.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 40  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	18100	ug/kg	3630	18100
108-95-2	Phenol	U	18100	ug/kg	3630	18100
95-57-8	2-Chlorophenol	U	18100	ug/kg	3630	18100
106-46-7	1,4-Dichlorobenzene	U	18100	ug/kg	3630	18100
621-64-7	N-Nitrosodipropylamine	U	18100	ug/kg	3630	18100
59-50-7	4-Chloro-3-methylphenol	U	18100	ug/kg	3630	18100
83-32-9	Acenaphthene	U	1810	ug/kg	599	1810
121-14-2	2,4-Dinitrotoluene	U	18100	ug/kg	1810	18100
100-02-7	4-Nitrophenol	U	18100	ug/kg	5990	18100
87-86-5	Pentachlorophenol	U	18100	ug/kg	4540	18100
129-00-0	Pyrene	J	1440	ug/kg	544	1810
110-86-1	Pyridine	U	18100	ug/kg	3630	18100
62-53-3	Aniline	U	18100	ug/kg	5440	18100
111-44-4	bis(2-Chloroethyl) ether	U	18100	ug/kg	3630	18100
541-73-1	1,3-Dichlorobenzene	U	18100	ug/kg	3630	18100
100-51-6	Benzyl alcohol	U	18100	ug/kg	5440	18100
95-50-1	1,2-Dichlorobenzene	U	18100	ug/kg	3630	18100
108-60-1	bis(2-Chloroisopropyl)ether	U	18100	ug/kg	3630	18100
95-48-7	o-Cresol	U	18100	ug/kg	3630	18100
65794-96-9	m,p-Cresols	U	18100	ug/kg	5440	18100
67-72-1	Hexachloroethane	U	18100	ug/kg	3630	18100
98-95-3	Nitrobenzene	U	18100	ug/kg	3630	18100
78-59-1	Isophorone	U	18100	ug/kg	3630	18100
88-75-5	2-Nitrophenol	U	18100	ug/kg	3630	18100
105-67-9	2,4-Dimethylphenol	U	18100	ug/kg	6350	18100
111-91-1	bis(2-Chloroethoxy)methane	U	18100	ug/kg	3630	18100
120-83-2	2,4-Dichlorophenol	U	18100	ug/kg	3630	18100
65-85-0	Benzoic acid	U	36300	ug/kg	9070	36300
91-20-3	Naphthalene	U	1810	ug/kg	544	1810
106-47-8	4-Chloroaniline	U	18100	ug/kg	3630	18100
87-68-3	Hexachlorobutadiene	U	18100	ug/kg	3630	18100
91-57-6	2-Methylnaphthalene	U	1810	ug/kg	363	1810
77-47-4	Hexachlorocyclopentadiene	U	18100	ug/kg	3630	18100
88-06-2	2,4,6-Trichlorophenol	U	18100	ug/kg	3630	18100
95-95-4	2,4,5-Trichlorophenol	U	18100	ug/kg	3630	18100
91-58-7	2-Chloronaphthalene	U	1810	ug/kg	599	1810
88-74-4	2-Nitroaniline	U	18100	ug/kg	3630	18100
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	18100	ug/kg	3630	18100

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2124	Date Collected: 02/23/2010 12:00	Matrix: R
Lab Sample ID: 248202002	Date Received: 02/26/2010 08:45	%Moisture: 26.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8281	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960459	Inst: MSD3.1	Dilution: 40
Run Date: 03/13/2010 20:09	Analyst: JLD1	Inj. Vol: .5 uL
Prep Date: 03/03/2010 23:09	Aliquot: 30.15 g	Final Volume: 1 mL
Data File: s3c1329.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	18100	ug/kg	3630	18100
606-20-2	2,6-Dinitrotoluene	U	18100	ug/kg	1810	18100
208-96-8	Acenaphthylene	U	1810	ug/kg	544	1810
51-28-5	2,4-Dinitrophenol	U	36300	ug/kg	6890	36300
132-64-9	Dibenzofuran	U	18100	ug/kg	3630	18100
84-66-2	Diethylphthalate	U	18100	ug/kg	3630	18100
86-73-7	Fluorene	U	1810	ug/kg	544	1810
7005-72-3	4-Chlorophenylphenylether	U	18100	ug/kg	3630	18100
534-52-1	2-Methyl-4,6-dinitrophenol	U	18100	ug/kg	3630	18100
100-01-6	4-Nitroaniline	U	18100	ug/kg	5440	18100
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	18100	ug/kg	3630	18100
122-66-7	Azobenzene	U	18100	ug/kg	3630	18100
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	18100	ug/kg	3630	18100
118-74-1	Hexachlorobenzene	U	18100	ug/kg	3630	18100
85-01-8	Phenanthrene	J	879	ug/kg	544	1810
120-12-7	Anthracene	U	1810	ug/kg	363	1810
84-74-2	Di-n-butylphthalate	J	8070	ug/kg	3630	18100
206-44-0	Fluoranthene	J	1200	ug/kg	544	1810
85-68-7	Butylbenzylphthalate	U	18100	ug/kg	3630	18100
56-55-3	Benzo(a)anthracene	U	1810	ug/kg	544	1810
91-94-1	3,3'-Dichlorobenzidine	U	18100	ug/kg	5440	18100
218-01-9	Chrysene	J	888	ug/kg	544	1810
117-81-7	bis(2-Ethylhexyl)phthalate	U	18100	ug/kg	3630	18100
117-84-0	Di-n-octylphthalate	U	18100	ug/kg	3630	18100
205-99-2	Benzo(b)fluoranthene	J	1700	ug/kg	544	1810
207-08-9	Benzo(k)fluoranthene	U	1810	ug/kg	544	1810
50-32-8	Benzo(a)pyrene	J	792	ug/kg	544	1810
193-39-5	Indeno(1,2,3-cd)pyrene	U	1810	ug/kg	544	1810
53-70-3	Dibenzo(a,h)anthracene	U	1810	ug/kg	544	1810
191-24-2	Benzo(ghi)perylene	U	1810	ug/kg	544	1810
120-82-1	1,2,4-Trichlorobenzene	U	18100	ug/kg	3630	18100

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.75	15100	ug/kg		J
	Unknown	11.26	10500	ug/kg		J



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2124  
Lab Sample ID: 248202001

Client ID: RE36-10-8282  
Batch ID: 960459  
Run Date: 03/13/2010 18:52  
Prep Date: 03/03/2010 23:09  
Data File: s3c1325.d

Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.1  
Analyst: JLD1  
Aliquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 2  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	727	ug/kg	145	727
108-95-2	Phenol	U	727	ug/kg	145	727
95-57-8	2-Chlorophenol	U	727	ug/kg	145	727
106-46-7	1,4-Dichlorobenzene	U	727	ug/kg	145	727
621-64-7	N-Nitrosodipropylamine	U	727	ug/kg	145	727
59-50-7	4-Chloro-3-methylphenol	U	727	ug/kg	145	727
83-32-9	Acenaphthene	U	72.7	ug/kg	24.0	72.7
121-14-2	2,4-Dinitrotoluene	U	727	ug/kg	72.7	727
100-02-7	4-Nitrophenol	U	727	ug/kg	240	727
87-86-5	Pentachlorophenol	U	727	ug/kg	182	727
129-00-0	Pyrene	U	72.7	ug/kg	21.8	72.7
110-86-1	Pyridine	U	727	ug/kg	145	727
62-53-3	Aniline	U	727	ug/kg	218	727
111-44-4	bis(2-Chloroethyl) ether	U	727	ug/kg	145	727
541-73-1	1,3-Dichlorobenzene	U	727	ug/kg	145	727
100-51-6	Benzyl alcohol	U	727	ug/kg	218	727
95-50-1	1,2-Dichlorobenzene	U	727	ug/kg	145	727
108-60-1	bis(2-Chloroisopropyl) ether	U	727	ug/kg	145	727
95-48-7	o-Cresol	U	727	ug/kg	145	727
65794-96-9	m,p-Cresols	U	727	ug/kg	218	727
67-72-1	Hexachloroethane	U	727	ug/kg	145	727
98-95-3	Nitrobenzene	U	727	ug/kg	145	727
78-59-1	Isophorone	U	727	ug/kg	145	727
88-75-5	2-Nitrophenol	U	727	ug/kg	145	727
105-67-9	2,4-Dimethylphenol	U	727	ug/kg	254	727
111-91-1	bis(2-Chloroethoxy)methane	U	727	ug/kg	145	727
120-83-2	2,4-Dichlorophenol	U	727	ug/kg	145	727
65-85-0	Benzoic acid	U	1450	ug/kg	364	1450
91-20-3	Naphthalene	U	72.7	ug/kg	21.8	72.7
106-47-8	4-Chloroaniline	U	727	ug/kg	145	727
87-68-3	Hexachlorobutadiene	U	727	ug/kg	145	727
91-57-6	2-Methylnaphthalene	U	72.7	ug/kg	14.5	72.7
77-47-4	Hexachlorocyclopentadiene	U	727	ug/kg	145	727
88-06-2	2,4,6-Trichlorophenol	U	727	ug/kg	145	727
95-95-4	2,4,5-Trichlorophenol	U	727	ug/kg	145	727
91-58-7	2-Chloronaphthalene	U	72.7	ug/kg	24.0	72.7
88-74-4	2-Nitroaniline	U	727	ug/kg	145	727
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	727	ug/kg	145	727

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2124  
Lab Sample ID: 248202001

Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.1  
Analyst: JLD1  
Aliquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 2  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	727	ug/kg	145	727
606-20-2	2,6-Dinitrotoluene	U	727	ug/kg	72.7	727
208-96-8	Acenaphthylene	U	72.7	ug/kg	21.8	72.7
51-28-5	2,4-Dinitrophenol	U	1450	ug/kg	276	1450
132-64-9	Dibenzofuran	U	727	ug/kg	145	727
84-66-2	Diethylphthalate	U	727	ug/kg	145	727
86-73-7	Fluorene	U	72.7	ug/kg	21.8	72.7
7005-72-3	4-Chlorophenylphenylether	U	727	ug/kg	145	727
534-52-1	2-Methyl-4,6-dinitrophenol	U	727	ug/kg	145	727
100-01-6	4-Nitroaniline	U	727	ug/kg	218	727
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	727	ug/kg	145	727
122-66-7	Azobenzene	U	727	ug/kg	145	727
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	727	ug/kg	145	727
118-74-1	Hexachlorobenzene	U	727	ug/kg	145	727
85-01-8	Phenanthrene	U	72.7	ug/kg	21.8	72.7
120-12-7	Anthracene	U	72.7	ug/kg	14.5	72.7
84-74-2	Di-n-butylphthalate	U	727	ug/kg	145	727
206-44-0	Fluoranthene	U	72.7	ug/kg	21.8	72.7
85-68-7	Butylbenzylphthalate	U	727	ug/kg	145	727
56-55-3	Benzo(a)anthracene	U	72.7	ug/kg	21.8	72.7
91-94-1	3,3'-Dichlorobenzidine	U	727	ug/kg	218	727
218-01-9	Chrysene	U	72.7	ug/kg	21.8	72.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	727	ug/kg	145	727
117-84-0	Di-n-octylphthalate	U	727	ug/kg	145	727
205-99-2	Benzo(b)fluoranthene	U	72.7	ug/kg	21.8	72.7
207-08-9	Benzo(k)fluoranthene	U	72.7	ug/kg	21.8	72.7
50-32-8	Benzo(a)pyrene	U	72.7	ug/kg	21.8	72.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	72.7	ug/kg	21.8	72.7
53-70-3	Dibenzo(a,h)anthracene	U	72.7	ug/kg	21.8	72.7
191-24-2	Benzo(ghi)perylene	U	72.7	ug/kg	21.8	72.7
120-82-1	1,2,4-Trichlorobenzene	U	727	ug/kg	145	727

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
559-74-0	Friedelan-3-one	7.06	1320	ug/kg	87	NJ
	Unknown	7.08	608	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2124  
Lab Sample ID: 248202001

Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.I  
Analyst: JLD1  
Aliquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 2  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Paramname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.93	322	ug/kg		J
	Unknown	8.99	697	ug/kg		J

# QC Summary

Semi-Volatile  
Surrogate Recovery Report

Page 1 of 1

SDG Number: 10-2124

Matrix Type: SOLID

CAP Column (1) : J&amp;W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202060169	MB for batch 960457	82	80	87	80	89	97
1202060170	LCS for batch 960457	78	76	78	73	90	85
248202001	RE36-10-8282	81 D	78 D	84 D	81 D	78 D	110 D
248202002	RE36-10-8281	185 * D	176 * D	198 * D	192 * D	142 * D	270 * D

**Surrogate****Acceptance Limits**

2FP	= 2-Fluorophenol	(29%-99%)
PHL	= Phenol-d5	(33%-98%)
NBZ	= Nitrobenzenc-d5	(31%-105%)
FBP	= 2-Fluorobiphenyl	(25%-109%)
TBP	= 2,4,6-Tribromophenol	(37%-106%)
TPH	= p-Terphenyl-d14	(13%-150%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2124

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 960457

Matrix: SOIL

Lab Sample ID: 1202060170

Instrument: MSD3.I

Analysis Date: 03/13/2010 13:19

Dilution: 1

Analyst: JLD1

Prep Batch ID: 960457

Inj. Vol: .5 uL

Batch ID: 960459

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS N-Methyl-N-nitrosomethylam	1670	0.0	1200	72	22-114
108-95-2	LCS Phenol	1670	0.0	1330	80	39-104
95-57-8	LCS 2-Chlorophenol	1670	0.0	1350	81	40-107
106-46-7	LCS 1,4-Dichlorobenzene	1670	0.0	1210	73	33-108
621-64-7	LCS N-Nitrosodipropylamine	1670	0.0	1430	86	34-113
59-50-7	LCS 4-Chloro-3-methylphenol	1670	0.0	1390	84	42-114
83-32-9	LCS Acenaphthene	1670	0.0	1260	76	40-105
121-14-2	LCS 2,4-Dinitrotoluene	1670	0.0	1360	82	49-112
100-02-7	LCS 4-Nitrophenol	1670	0.0	1340	80	24-113
87-86-5	LCS Pentachlorophenol	1670	0.0	1440	86	27-116
129-00-0	LCS Pyrene	1670	0.0	1200	72	42-113
110-86-1	LCS Pyridine	1670	0.0	1280	77	8-125
62-53-3	LCS Aniline	1670	0.0	865	52	18-126
111-44-4	LCS bis(2-Chloroethyl) ether	1670	0.0	1240	74	32-103
541-73-1	LCS 1,3-Dichlorobenzene	1670	0.0	1230	74	32-108
100-51-6	LCS Benzyl alcohol	1670	0.0	1250	75	27-108
95-50-1	LCS 1,2-Dichlorobenzene	1670	0.0	1240	74	35-111
108-60-1	LCS bis(2-Chloroisopropyl)ether	1670	0.0	1360	82	28-117
95-48-7	LCS o-Cresol	1670	0.0	1350	81	39-111
65794-96-9	LCS m,p-Cresols	1670	0.0	1520	91	45-121
67-72-1	LCS Hexachloroethane	1670	0.0	1250	75	30-109
98-95-3	LCS Nitrobenzene	1670	0.0	1390	83	33-116

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2124

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 960457

Matrix: SOIL

Lab Sample ID: 1202060170

Instrument: MSD3.I

Analysis Date: 03/13/2010 13:19

Dilution: 1

Analyst: JLD1

Pre Batch II 960457

Inj. Vol: .5 uL

Batch ID: 960459

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS Isophorone	1670	0.0	1340	80	35-113
88-75-5	LCS 2-Nitrophenol	1670	0.0	1350	81	31-117
105-67-9	LCS 2,4-Dimethylphenol	1670	0.0	1350	81	32-112
111-91-1	LCS bis(2-Chloroethoxy)methane	1670	0.0	1300	78	34-110
120-83-2	LCS 2,4-Dichlorophenol	1670	0.0	1330	80	34-116
65-85-0	LCS Benzoic acid	3330	0.0	3160	95	22-138
91-20-3	LCS Naphthalene	1670	0.0	1240	74	35-103
106-47-8	LCS 4-Chloroaniline	1670	0.0	893	54	20-118
87-68-3	LCS Hexachlorobutadiene	1670	0.0	1310	79	31-117
91-57-6	LCS 2-Methylnaphthalene	1670	0.0	1330	80	38-115
77-47-4	LCS Hexachlorocyclopentadiene	1670	0.0	1560	94	22-140
88-06-2	LCS 2,4,6-Trichlorophenol	1670	0.0	1290	78	40-110
95-95-4	LCS 2,4,5-Trichlorophenol	1670	0.0	1340	81	43-113
91-58-7	LCS 2-Chloronaphthalene	1670	0.0	1250	75	37-111
88-74-4	LCS 2-Nitroaniline <i>o</i> -Nitroaniline	1670	0.0	1380	83	41-113
99-09-2	LCS 3-Nitroaniline <i>m</i> -Nitroaniline	1670	0.0	1220	73	34-125
131-11-3	LCS Dimethylphthalate	1670	0.0	1360	81	48-122
606-20-2	LCS 2,6-Dinitrotoluene	1670	0.0	1300	78	47-107
208-96-8	LCS Acenaphthylene	1670	0.0	1320	79	44-110
51-28-5	LCS 2,4-Dinitrophenol	1670	0.0	1480	89	18-127
132-64-9	LCS Dibenzofuran	1670	0.0	1310	79	49-115
84-66-2	LCS Diethylphthalate	1670	0.0	1420	85	51-126

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

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SDG Number: 10-2124

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 960457

Matrix: SOIL

Lab Sample ID: 1202060170

Instrument: MSD3.I

Analysis Date: 03/13/2010 13:19

Dilution: 1

Analyst: JLD1

Prep Batch ID: 960457

Inj. Vol: .5 uL

Batch ID: 960459

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS Fluorene	1670	0.0	1280	77	43-109
7005-72-3	LCS 4-Chlorophenylphenylether	1670	0.0	1310	78	45-115
534-52-1	LCS 2-Methyl-4,6-dinitrophenol	1670	0.0	1400	84	32-117
100-01-6	LCS 4-Nitroaniline <i>p-Nitroaniline</i>	1670	0.0	1590	95	33-148
122-39-4	LCS Diphenylamine	1670	0.0	1440	86	46-114
122-66-7	LCS Azobenzene <i>1,2-Diphenylhydrazine</i>	1670	0.0	1520	91	38-123
101-55-3	LCS 4-Bromophenylphenylether	1670	0.0	1310	79	40-119
118-74-1	LCS Hexachlorobenzene	1670	0.0	1290	77	43-111
85-01-8	LCS Phenanthrene	1670	0.0	1310	78	46-107
120-12-7	LCS Anthracene	1670	0.0	1280	77	46-110
84-74-2	LCS Di-n-butylphthalate	1670	0.0	1500	90	52-132
206-44-0	LCS Fluoranthene	1670	0.0	1380	83	51-115
85-68-7	LCS Butylbenzylphthalate	1670	0.0	1450	87	47-137
56-55-3	LCS Benzo(a)anthracene	1670	0.0	1290	78	50-108
91-94-1	LCS 3,3'-Dichlorobenzidine	1670	0.0	1120	67	36-103
218-01-9	LCS Chrysene	1670	0.0	1260	75	48-111
117-81-7	LCS bis(2-Ethylhexyl)phthalate	1670	0.0	1510	91	48-139
117-84-0	LCS Di-n-octylphthalate	1670	0.0	1510	91	42-141
205-99-2	LCS Benzo(b)fluoranthene	1670	0.0	1390	83	49-114
207-08-9	LCS Benzo(k)fluoranthene	1670	0.0	1210	72	50-116
50-32-8	LCS Benzo(a)pyrene	1670	0.0	1300	78	54-114
193-39-5	LCS Indeno(1,2,3-cd)pyrene	1670	0.0	1420	85	53-120



Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2124

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 960457

Matrix: SOIL

Lab Sample ID: 1202060170

Instrument: MSD3.I

Analysis Date: 03/13/2010 13:19

Dilution: 1

Analyst: JLD1

Pre Batch II 960457

Inj. Vol: .5 uL

Batch ID: 960459

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS Dibenzo(a,h)anthracene	1670	0.0	1460	88	53-121
191-24-2	LCS Benzo(ghi)perylene	1670	0.0	1340	81	50-121
120-82-1	LCS 1,2,4-Trichlorobenzene	1670	0.0	1270	76	32-114

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2124

Sample Type: Matrix Spike

Client ID: WST36-10-8928MS

Matrix: R

Lab Sample ID: 1202060171

%Moisture: 2.1

Instrument: MSD3.I

Analysis Date: 03/13/2010 19:30

Dilution: 2

Analyst: JLD1

Pren Batch II 960457

Inj. Vol: .5 uL

Batch ID: 960459

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS N-Methyl-N-nitrosomethylam	1690	0.00 U	911	54	27-98
108-95-2	MS Phenol	1690	0.00 U	1110	66	33-94
95-57-8	MS 2-Chlorophenol	1690	0.00 U	1130	67	29-96
106-46-7	MS 1,4-Dichlorobenzene	1690	0.00 U	1000	59	27-96
621-64-7	MS N-Nitrosodipropylamine	1690	0.00 U	1250	74	29-102
59-50-7	MS 4-Chloro-3-methylphenol	1690	0.00 U	1430	84	29-110
83-32-9	MS Acenaphthene	1690	0.00 U	1200	71	17-109
121-14-2	MS 2,4-Dinitrotoluene	1690	0.00 U	1330	79	33-107
100-02-7	MS 4-Nitrophenol	1690	0.00 U	1360	80	15-110
87-86-5	MS Pentachlorophenol	1690	0.00 U	1360	80	23-110
129-00-0	MS Pyrene	1690	0.00 U	1600	94	24-118
110-86-1	MS Pyridine	1690	0.00 U	719	42	25-102
62-53-3	MS Aniline	1690	0.00 U	938	55	18-109
111-44-4	MS bis(2-Chloroethyl) ether	1690	0.00 U	1020	60	29-96
541-73-1	MS 1,3-Dichlorobenzene	1690	0.00 U	981	58	26-97
100-51-6	MS Benzyl alcohol	1690	0.00 U	907	54	19-112
95-50-1	MS 1,2-Dichlorobenzene	1690	0.00 U	1010	60	30-97
108-60-1	MS bis(2-Chloroisopropyl)ether	1690	0.00 U	1210	71	28-103
95-48-7	MS o-Cresol	1690	0.00 U	1250	74	32-107
65794-96-9	MS m,p-Cresols	1690	0.00 U	1370	81	33-115
67-72-1	MS Hexachloroethane	1690	0.00 U	893	53	25-100
98-95-3	MS Nitrobenzene	1690	0.00 U	1210	71	27-106

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 2 of 8

SDG Number: 10-2124

Sample Type: Matrix Spike

Client ID: WST36-10-8928MS

Matrix: R

Lab Sample ID: 1202060171

%Moisture: 2.1

Instrument: MSD3.I

Analysis Date: 03/13/2010 19:30

Dilution: 2

Analyst: JLD1

Prep Batch ID: 960457

Inj. Vol: .5 uL

Batch ID: 960459

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS Isophorone	1690	0.00 U	1280	76	29-104
88-75-5	MS 2-Nitrophenol	1690	0.00 U	1120	66	26-102
105-67-9	MS 2,4-Dimethylphenol	1690	0.00 U	1270	75	22-104
111-91-1	MS bis(2-Chloroethoxy)methane	1690	0.00 U	1200	71	27-101
120-83-2	MS 2,4-Dichlorophenol	1690	0.00 U	1270	75	26-103
65-85-0	MS Benzoic acid	3380	0.00 U	1640	48	13-131
91-20-3	MS Naphthalene	1690	0.00 U	1120	66	23-103
106-47-8	MS 4-Chloroaniline	1690	0.00 U	1050	62	26-103
87-68-3	MS Hexachlorobutadiene	1690	0.00 U	1100	65	28-101
91-57-6	MS 2-Methylnaphthalene	1690	0.00 U	1280	76	27-106
77-47-4	MS Hexachlorocyclopentadiene	1690	0.00 U	701	41	24-117
88-06-2	MS 2,4,6-Trichlorophenol	1690	0.00 U	1290	76	26-105
95-95-4	MS 2,4,5-Trichlorophenol	1690	0.00 U	1290	76	30-110
91-58-7	MS 2-Chloronaphthalene	1690	0.00 U	1240	73	28-102
88-74-4	MS 2-Nitroaniline <i>o</i> -Nitroaniline	1690	0.00 U	1400	83	33-106
99-09-2	MS 3-Nitroaniline <i>m</i> -Nitroaniline	1690	0.00 U	1400	83	33-116
131-11-3	MS Dimethylphthalate	1690	0.00 U	1440	85	38-113
606-20-2	MS 2,6-Dinitrotoluene	1690	0.00 U	1270	75	29-107
208-96-8	MS Acenaphthylene	1690	0.00 U	1340	79	25-108
51-28-5	MS 2,4-Dinitrophenol	1690	0.00 U	1060	63	14-102
132-64-9	MS Dibenzofuran	1690	0.00 U	1350	80	35-112
84-66-2	MS Diethylphthalate	1690	0.00 U	1530	91	36-122

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2124

Sample Type: Matrix Spike

Client ID: WST36-10-8928MS

Matrix: R

Lab Sample ID: 1202060171

%Moisture: 2.1

Instrument: MSD3.I

Analysis Date: 03/13/2010 19:30

Dilution: 2

Analyst: JLD1

Prep Batch ID: 960457

Inj. Vol: .5 uL

Batch ID: 960459

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS Fluorene	1690	0.00 U	1330	79	33-105
7005-72-3	MS 4-Chlorophenylphenylether	1690	0.00 U	1330	78	30-110
534-52-1	MS 2-Methyl-4,6-dinitrophenol	1690	0.00 U	878	52	26-97
100-01-6	MS 4-Nitroaniline <i>p</i> -Nitroaniline	1690	0.00 U	1870	110	28-135
122-39-4	MS Diphenylamine	1690	0.00 U	1590	94	33-109
122-66-7	MS Azobenzene <i>1,2</i> -Diphenylhydrazine	1690	0.00 U	1690	100	31-113
101-55-3	MS 4-Bromophenylphenylether	1690	0.00 U	1380	82	31-109
118-74-1	MS Hexachlorobenzene	1690	0.00 U	1380	81	37-99
85-01-8	MS Phenanthrene	1690	0.00 U	1410	84	29-109
120-12-7	MS Anthracene	1690	0.00 U	1430	84	19-118
84-74-2	MS Di-n-butylphthalate	1690	0.00 U	1710	101	39-123
206-44-0	MS Fluoranthene	1690	0.00 U	1340	79	33-114
85-68-7	MS Butylbenzylphthalate	1690	0.00 U	2010	119	35-131
56-55-3	MS Benzo(a)anthracene	1690	0.00 U	1540	91	30-111
91-94-1	MS 3,3'-Dichlorobenzidine	1690	0.00 U	1410	83	30-124
218-01-9	MS Chrysene	1690	0.00 U	1290	76	32-108
117-81-7	MS bis(2-Ethylhexyl)phthalate	1690	0.00 U	2090	124	37-129
117-84-0	MS Di-n-octylphthalate	1690	0.00 U	2910	172 *	31-143
205-99-2	MS Benzo(b)fluoranthene	1690	0.00 U	1700	100	29-118
207-08-9	MS Benzo(k)fluoranthene	1690	0.00 U	1510	89	32-118
50-32-8	MS Benzo(a)pyrene	1690	0.00 U	1440	85	33-115
193-39-5	MS Indeno(1,2,3-cd)pyrene	1690	0.00 U	1060	63	29-114

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

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SDG Number: 10-2124

Client ID: WST36-10-8928MS

Lab Sample ID: 1202060171

Instrument: MSD3.I

Analyst: JLD1

Inj. Vol: .5 uL

Sample Type: Matrix Spike

Matrix: R

%Moisture: 2.1

Analysis Date: 03/13/2010 19:30

Dilution: 2

Pre Batch II 960457

Batch ID: 960459

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS Dibenzo(a,h)anthracene	1690	0.00 U	1100	65	27-119
191-24-2	MS Benzo(ghi)perylene	1690	0.00 U	937	55	28-112
120-82-1	MS 1,2,4-Trichlorobenzene	1690	0.00 U	1130	67	28-99

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2124

Sample Type: Matrix Spike Duplicate

Client ID: WST36-10-8928MSD

Matrix: R

Lab Sample ID: 1202060172

%Moisture: 2.1

Instrument: MSD3.I

Analysis Date: 03/13/2010 19:49

Dilution: 2

Analyst: JLD1

Pren Batch II 960457

Inj. Vol: .5 uL

Batch ID: 960459

CAS No	Parname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1700	0.00 U	1010	59	27-98	10	0-30
108-95-2	MSD Phenol	1700	0.00 U	1170	69	33-94	5	0-30
95-57-8	MSD 2-Chlorophenol	1700	0.00 U	1200	71	29-96	6	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1700	0.00 U	1090	64	27-96	9	0-30
621-64-7	MSD N-Nitrosodipropylamine	1700	0.00 U	1280	75	29-102	2	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1700	0.00 U	1290	76	29-110	10	0-30
83-32-9	MSD Acenaphthene	1700	0.00 U	1130	66	17-109	6	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1700	0.00 U	1170	69	33-107	13	0-30
100-02-7	MSD 4-Nitrophenol	1700	0.00 U	1180	70	15-110	14	0-30
87-86-5	MSD Pentachlorophenol	1700	0.00 U	1200	71	23-110	12	0-30
129-00-0	MSD Pyrene	1700	0.00 U	1410	83	24-118	13	0-30
110-86-1	MSD Pyridine	1700	0.00 U	863	51	25-102	18	0-30
62-53-3	MSD Aniline	1700	0.00 U	991	58	18-109	5	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1700	0.00 U	1110	65	29-96	9	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1700	0.00 U	1090	64	26-97	11	0-30
100-51-6	MSD Benzyl alcohol	1700	0.00 U	671	39	19-112	30	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1700	0.00 U	1100	65	30-97	8	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1700	0.00 U	1280	75	28-103	6	0-30
95-48-7	MSD o-Cresol	1700	0.00 U	1290	76	32-107	3	0-30
65794-96-9	MSD m,p-Cresols	1700	0.00 U	1400	82	33-115	2	0-30
67-72-1	MSD Hexachloroethane	1700	0.00 U	998	59	25-100	11	0-30
98-95-3	MSD Nitrobenzene	1700	0.00 U	1280	75	27-106	6	0-30

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2124

Sample Type: Matrix Spike Duplicate

Client ID: WST36-10-8928MSD

Matrix: R

Lab Sample ID: 1202060172

%Moisture: 2.1

Instrument: MSD3.I

Analysis Date: 03/13/2010 19:49

Dilution: 2

Analyst: JLD1

Pre Batch II 960457

Inj. Vol: .5 uL

Batch ID: 960459

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1700	0.00	U	1250	73	29-104	3	0-30
88-75-5	MSD 2-Nitrophenol	1700	0.00	U	1170	69	26-102	4	0-30
105-67-9	MSD 2,4-Dimethylphenol	1700	0.00	U	1230	72	22-104	4	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1700	0.00	U	1220	72	27-101	2	0-30
120-83-2	MSD 2,4-Dichlorophenol	1700	0.00	U	1230	73	26-103	3	0-30
65-85-0	MSD Benzoic acid	3400	0.00	U	1560	46	13-131	5	0-30
91-20-3	MSD Naphthalene	1700	0.00	U	1170	69	23-103	4	0-30
106-47-8	MSD 4-Chloroaniline	1700	0.00	U	992	58	26-103	6	0-30
87-68-3	MSD Hexachlorobutadiene	1700	0.00	U	1200	71	28-101	9	0-30
91-57-6	MSD 2-Methylnaphthalene	1700	0.00	U	1260	74	27-106	1	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1700	0.00	U	846	50	24-117	19	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1700	0.00	U	1140	67	26-105	13	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1700	0.00	U	1220	72	30-110	6	0-30
91-58-7	MSD 2-Chloronaphthalene	1700	0.00	U	1170	69	28-102	6	0-30
88-74-4	MSD 2-Nitroaniline o-Nitroaniline	1700	0.00	U	1270	75	33-106	10	0-30
99-09-2	MSD 3-Nitroaniline m-Nitroaniline	1700	0.00	U	1240	73	33-116	12	0-30
131-11-3	MSD Dimethylphthalate	1700	0.00	U	1270	75	38-113	12	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1700	0.00	U	1140	67	29-107	11	0-30
208-96-8	MSD Acenaphthylene	1700	0.00	U	1240	73	25-108	8	0-30
51-28-5	MSD 2,4-Dinitrophenol	1700	0.00	U	1060	62	14-102	0	0-30
132-64-9	MSD Dibenzofuran	1700	0.00	U	1220	72	35-112	10	0-30
84-66-2	MSD Diethylphthalate	1700	0.00	U	1320	78	36-122	15	0-30

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2124

Sample Type: Matrix Spike Duplicate

Client ID: WST36-10-8928MSD

Matrix: R

Lab Sample ID: 1202060172

%Moisture: 2.1

Instrument: MSD3.I

Analysis Date: 03/13/2010 19:49

Dilution: 2

Analyst: JLD1

Prep Batch ID: 960457

Inj. Vol: .5 uL

Batch ID: 960459

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	U	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD Fluorene	1700	0.00	U	1190	70	33-105	12	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	1700	0.00	U	1200	71	30-110	10	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	1700	0.00	U	814	48	26-97	8	0-30
100-01-6	MSD 4-Nitroaniline <i>p</i> -Nitroaniline	1700	0.00	U	1720	101	28-135	8	0-30
122-39-4	MSD Diphenylamine	1700	0.00	U	1390	82	33-109	14	0-30
122-66-7	MSD Azobenzene <i>1,2</i> -Diphenylhydrazine	1700	0.00	U	1470	87	31-113	14	0-30
101-55-3	MSD 4-Bromophenylphenylether	1700	0.00	U	1200	70	31-109	14	0-30
118-74-1	MSD Hexachlorobenzene	1700	0.00	U	1170	69	37-99	16	0-30
85-01-8	MSD Phenanthrene	1700	0.00	U	1230	72	29-109	14	0-30
120-12-7	MSD Anthracene	1700	0.00	U	1210	71	19-118	16	0-30
84-74-2	MSD Di-n-butylphthalate	1700	0.00	U	1430	84	39-123	18	0-30
206-44-0	MSD Fluoranthene	1700	0.00	U	1140	67	33-114	17	0-30
85-68-7	MSD Butylbenzylphthalate	1700	0.00	U	1710	101	35-131	16	0-30
56-55-3	MSD Benzo(a)anthracene	1700	0.00	U	1310	77	30-111	17	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	1700	0.00	U	1190	70	30-124	17	0-30
218-01-9	MSD Chrysene	1700	0.00	U	1120	66	32-108	15	0-30
117-81-7	MSD bis(2-Ethylhexyl)phthalate	1700	0.00	U	1810	107	37-129	14	0-30
117-84-0	MSD Di-n-octylphthalate	1700	0.00	U	2430	143	31-143	18	0-30
205-99-2	MSD Benzo(b)fluoranthene	1700	0.00	U	1370	81	29-118	21	0-30
207-08-9	MSD Benzo(k)fluoranthene	1700	0.00	U	1350	79	32-118	12	0-30
50-32-8	MSD Benzo(a)pyrene	1700	0.00	U	1240	73	33-115	15	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	1700	0.00	U	941	55	29-114	12	0-30



Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

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SDG Number: 10-2124

Sample Type: Matrix Spike Duplicate

Client ID: WST36-10-8928MSD

Matrix: R

Lab Sample ID:1202060172

%Moisture: 2.1

Instrument: MSD3.I

Analysis Date: 03/13/2010 19:49

Dilution: 2

Analyst: JLD1

Prep Batch II 960457

Inj. Vol: .5 uL

Batch ID: 960459

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1700	0.00 U	948	56	27-119	15	0-30
191-24-2	MSD Benzo(ghi)perylene	1700	0.00 U	815	48	28-112	14	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1700	0.00 U	1180	70	28-99	5	0-30

## Method Blank Summary

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SDG Number:	10-2124	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 960457	Instrument ID:	MSD3.1	Data File:	s3c1307-1.d
Lab Sample ID:	1202060169	Prep Date:	03/03/2010 23:09	Analyzed:	03/13/10 12:59
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 960457	1202060170	s3c1308-1.d	03/13/10	1319
02 RE36-10-8282	248202001	s3c1325.d	03/13/10	1852
05 RE36-10-8281	248202002	s3c1329.d	03/13/10	2009

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2124

Instrument ID: MSD3.I

Injection Date/Time: 09-MAR-10 15:53

Column Description: J&amp;W DB-5MS

Lab File ID /chem/MSD3.i/s030910a.b/s3c0917.d

m/e	Ion Abundance Criteria	% Relative Abundance
51	30 - 60% of mass 198	43.3
68	Less than 2% of mass 69	1.8
198	Base Peak, 100% Relative Abundance	100
69	Mass 69 Relative Abundance	38
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	54.2
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	22.3
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	77
442	Greater than 40% of mass 198	65
443	17 - 23% of mass 442	19.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD, BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICAL01	WBN100309-08	s3c0919.d	09-MAR-10 16:24
MEGAICAL010	WBN100309-07	s3c0920.d	09-MAR-10 16:47
MEGAICAL020	WBN100309-06	s3c0921.d	09-MAR-10 17:11
MEGAICAL	WBN100309-05.1	s3c0922.d	09-MAR-10 17:34
MEGAICAL	WBN100309-04	s3c0923.d	09-MAR-10 17:58
MEGAICAL	WBN100309-03	s3c0924.d	09-MAR-10 18:22
MEGAICAL	WBN100309-02	s3c0925.d	09-MAR-10 18:46
MEGAICAL	WBN100309-01	s3c0926.d	09-MAR-10 19:10
MEGAICV	WBN100225-09.1	s3c0927.d	09-MAR-10 19:33

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2124

Instrument ID: MSD3.1

Injection Date/Time: 09-MAR-10 20:38

Column Description: J&amp;W DB-5MS

Lab File ID /chem/MSD3.i/s030910a.b/s3c0928.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	48.9
68	Less than 2% of mass 69	1.7
69	Mass 69 Relative Abundance	40.8
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	57.3
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	21
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	77.9
442	Greater than 40% of mass 198	54.8
443	17 - 23% of mass 442	19.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD, BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN100218-01	s3c0930.d	09-MAR-10 21:10
AP020	WBN100218-02	s3c0931.d	09-MAR-10 21:29
AP040	WBN100218-03.1	s3c0932.d	09-MAR-10 21:49
AP050	WBN100218-04	s3c0933.d	09-MAR-10 22:08
AP080	WBN100218-05	s3c0934.d	09-MAR-10 22:27
AP100	WBN100218-06	s3c0935.d	09-MAR-10 22:47
AP120	WBN100218-07	s3c0936.d	09-MAR-10 23:06
APICV	WBN100218-08.1	s3c0950.d	10-MAR-10 03:36

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2124

Instrument ID: MSD3.I

Injection Date/Time: 13-MAR-10 10:37

Column Description: J&amp;W DB-5MS

Lab File ID /chem/MSD3.i/s031310.b/s3c1301.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.8
68	Less than 2% of mass 69	1.7
69	Mass 69 Relative Abundance	40.1
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	56.6
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	22.1
365	Greater than 1% of mass 198	2.3
441	Present, but less than mass 443	76.3
442	Greater than 40% of mass 198	63.1
443	17 - 23% of mass 442	19.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-09.2	s3c1303.d	13-MAR-10 11:13
APCVS	WBN100218-08.3	s3c1304.d	13-MAR-10 11:36
SBLK01	1202060169	s3c1307-1.d	13-MAR-10 12:59
SBLK01LCS	1202060170	s3c1308-1.d	13-MAR-10 13:19
RE36-10-8282	248202001	s3c1325.d	13-MAR-10 18:52
RE36-10-8281	248202002	s3c1329.d	13-MAR-10 20:09

### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2124

Instrument: MSD3.I

STD Analysis Time: 13-MAR-10 10:49

GC Column: J&amp;W DB-5MS

Data File: s3c1302.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT	Area	#	RT	Area	#	RT	Area	#	RT	Area	#	RT	Area	#	RT
12 Hour STD	587472		3.47	2386161		4.33	1177869		5.57	2036327		6.59	1611308		8.17	1240156		9.34
Upper Limit	1174944		3.97	4772322		4.83	2355738		6.07	4072654		7.09	3222616		8.67	2480312		9.84
Lower Limit	293736		2.97	1193081		3.83	588935		5.07	1018164		6.09	805654		7.67	620078		8.84
Sample ID																		
BLK01	524010		3.47	1985095		4.33	1063348		5.57	1822171		6.59	1403639		8.17	1038135		9.34
BLK01LCS	583675		3.48	2402078		4.33	1222935		5.57	2098530		6.59	1724575		8.17	1326318		9.34
RE36-10-8282	639333		3.48	2419190		4.33	1272168		5.57	2064771		6.59	1252783		8.17	724741		9.34
RE36-10-8281	571112		3.48	2203201		4.33	1170080		5.57	1931534		6.59	977299		8.17	492508	*	9.33

Area Upper Limit = +100% of internal standard area

Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT

RT Lower Limit = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk

\* Value outside of QC Limits

### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2124

Instrument: MSD3.I

STD Analysis Time: 13-MAR-10 11:13

GC Column: J&amp;W DB-5MS

Data File: s3c1303.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12							
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#			
12 Hour STD	420090		3.47		1737890		4.33		865868		5.57		1487152		6.59		1106909		8.17		840849		9.33
Upper Limit	840180		3.97		3475780		4.83		1731736		6.07		2974304		7.09		2213818		8.67		1681698		9.83
Lower Limit	210045		2.97		868945		3.83		432934		5.07		743576		6.09		553455		7.67		420425		8.83
Sample ID																							
BLK01	524010		3.47		1985095		4.33		1063348		5.57		1822171		6.59		1403639		8.17		1038135		9.34
BLK01LCS	583675		3.48		2402078		4.33		1222935		5.57		2098530		6.59		1724575		8.17		1326318		9.34
RE36-10-8282	639333		3.48		2419190		4.33		1272168		5.57		2064771		6.59		1252783		8.17		724741		9.34
RE36-10-8281	571112		3.48		2203201		4.33		1170080		5.57		1931534		6.59		977299		8.17		492508		9.33

Area Upper Limit = +100% of internal standard area

Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT

RT Lower Limit = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk

\* Value outside of QC Limits

# Sample Data



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2124  
Lab Sample ID: 248202002

Client ID: RE36-10-8281  
Batch ID: 960459  
Run Date: 03/13/2010 20:09  
Prep Date: 03/03/2010 23:09  
Data File: s3c1329.d

Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.I  
Analyst: JLD1  
Aliquot: 30.15 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 26.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 40  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	18100	ug/kg	3630	18100
108-95-2	Phenol	U	18100	ug/kg	3630	18100
95-57-8	2-Chlorophenol	U	18100	ug/kg	3630	18100
106-46-7	1,4-Dichlorobenzene	U	18100	ug/kg	3630	18100
621-64-7	N-Nitrosodipropylamine	U	18100	ug/kg	3630	18100
59-50-7	4-Chloro-3-methylphenol	U	18100	ug/kg	3630	18100
83-32-9	Acenaphthene	U	1810	ug/kg	599	1810
121-14-2	2,4-Dinitrotoluene	U	18100	ug/kg	1810	18100
100-02-7	4-Nitrophenol	U	18100	ug/kg	5990	18100
87-86-5	Pentachlorophenol	U	18100	ug/kg	4540	18100
129-00-0	Pyrene	J	1440	ug/kg	544	1810
110-86-1	Pyridine	U	18100	ug/kg	3630	18100
62-53-3	Aniline	U	18100	ug/kg	5440	18100
111-44-4	bis(2-Chloroethyl) ether	U	18100	ug/kg	3630	18100
541-73-1	1,3-Dichlorobenzene	U	18100	ug/kg	3630	18100
100-51-6	Benzyl alcohol	U	18100	ug/kg	5440	18100
95-50-1	1,2-Dichlorobenzene	U	18100	ug/kg	3630	18100
108-60-1	bis(2-Chloroisopropyl)ether	U	18100	ug/kg	3630	18100
95-48-7	o-Cresol	U	18100	ug/kg	3630	18100
65794-96-9	m,p-Cresols	U	18100	ug/kg	5440	18100
67-72-1	Hexachloroethane	U	18100	ug/kg	3630	18100
98-95-3	Nitrobenzene	U	18100	ug/kg	3630	18100
78-59-1	Isophorone	U	18100	ug/kg	3630	18100
88-75-5	2-Nitrophenol	U	18100	ug/kg	3630	18100
105-67-9	2,4-Dimethylphenol	U	18100	ug/kg	6350	18100
111-91-1	bis(2-Chloroethoxy)methane	U	18100	ug/kg	3630	18100
120-83-2	2,4-Dichlorophenol	U	18100	ug/kg	3630	18100
65-85-0	Benzoic acid	U	36300	ug/kg	9070	36300
91-20-3	Naphthalene	U	1810	ug/kg	544	1810
106-47-8	4-Chloroaniline	U	18100	ug/kg	3630	18100
87-68-3	Hexachlorobutadiene	U	18100	ug/kg	3630	18100
91-57-6	2-Methylnaphthalene	U	1810	ug/kg	363	1810
77-47-4	Hexachlorocyclopentadiene	U	18100	ug/kg	3630	18100
88-06-2	2,4,6-Trichlorophenol	U	18100	ug/kg	3630	18100
95-95-4	2,4,5-Trichlorophenol	U	18100	ug/kg	3630	18100
91-58-7	2-Chloronaphthalene	U	1810	ug/kg	599	1810
88-74-4	2-Nitroaniline	U	18100	ug/kg	3630	18100
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	18100	ug/kg	3630	18100

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 2 of 2

SDG Number: 10-2124  
Lab Sample ID: 248202002

Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.I  
Analyst: JLD1  
Aliquot: 30.15 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 26.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 40  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	18100	ug/kg	3630	18100
606-20-2	2,6-Dinitrotoluene	U	18100	ug/kg	1810	18100
208-96-8	Acenaphthylene	U	1810	ug/kg	544	1810
51-28-5	2,4-Dinitrophenol	U	36300	ug/kg	6890	36300
132-64-9	Dibenzofuran	U	18100	ug/kg	3630	18100
84-66-2	Diethylphthalate	U	18100	ug/kg	3630	18100
86-73-7	Fluorene	U	1810	ug/kg	544	1810
7005-72-3	4-Chlorophenylphenylether	U	18100	ug/kg	3630	18100
534-52-1	2-Methyl-4,6-dinitrophenol	U	18100	ug/kg	3630	18100
100-01-6	4-Nitroaniline	U	18100	ug/kg	5440	18100
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	18100	ug/kg	3630	18100
122-66-7	Azobenzene	U	18100	ug/kg	3630	18100
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	18100	ug/kg	3630	18100
118-74-1	Hexachlorobenzene	U	18100	ug/kg	3630	18100
85-01-8	Phenanthrene	J	879	ug/kg	544	1810
120-12-7	Anthracene	U	1810	ug/kg	363	1810
84-74-2	Di-n-butylphthalate	J	8070	ug/kg	3630	18100
206-44-0	Fluoranthene	J	1200	ug/kg	544	1810
85-68-7	Butylbenzylphthalate	U	18100	ug/kg	3630	18100
56-55-3	Benzo(a)anthracene	U	1810	ug/kg	544	1810
91-94-1	3,3'-Dichlorobenzidine	U	18100	ug/kg	5440	18100
218-01-9	Chrysene	J	888	ug/kg	544	1810
117-81-7	bis(2-Ethylhexyl)phthalate	U	18100	ug/kg	3630	18100
117-84-0	Di-n-octylphthalate	U	18100	ug/kg	3630	18100
205-99-2	Benzo(b)fluoranthene	J	1700	ug/kg	544	1810
207-08-9	Benzo(k)fluoranthene	U	1810	ug/kg	544	1810
50-32-8	Benzo(a)pyrene	J	792	ug/kg	544	1810
193-39-5	Indeno(1,2,3-cd)pyrene	U	1810	ug/kg	544	1810
53-70-3	Dibenzo(a,h)anthracene	U	1810	ug/kg	544	1810
191-24-2	Benzo(ghi)perylene	U	1810	ug/kg	544	1810
120-82-1	1,2,4-Trichlorobenzene	U	18100	ug/kg	3630	18100

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.75	15100	ug/kg		J
	Unknown	11.26	10500	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD3.i/s031310.b/s3c1329.d  
Lab Smp Id: 248202002 Client Smp ID: RE36-10-8281  
Inj Date : 13-MAR-2010 20:09  
Operator : JLD1 Inst ID: MSD3.i  
Smp Info : |248202002|960459|40|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
Meth Date : 14-Mar-2010 14:28 jen00986 Quant Type: ISTD  
Cal Date : 10-MAR-2010 05:53 Cal File: s3c0957.d  
Als bottle: 29  
Dil Factor: 40.00000  
Integrator: HP RTE Compound Sublist: 10-2124.sub  
Target Version: 3.50  
Processing Host: hpc1p1

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	40.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.15000	weight of sample
M	26.87770	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG						CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE		ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.475	3.473	(1.000)	571112		40.0000	
* 29 Naphthalene-d8	136	4.326	4.329	(1.000)	2203201		40.0000	
* 46 Acenaphthene-d10	164	5.567	5.570	(1.000)	1170080		40.0000	
* 67 Phenanthrene-d10	188	6.594	6.592	(1.000)	1931534		40.0000	
* 91 Chrysene-d12	240	8.166	8.169	(1.000)	977299		40.0000	
* 98 Perylene-d12	264	9.327	9.330	(1.000)	492508		40.0000	
\$ 3 2-Fluorophenol	112	2.684	2.682	(0.772)	59404		4.62842	8400 (R)
\$ 5 Phenol-d5	99	3.213	3.206	(0.925)	66440		4.40625	7990 (R)
\$ 20 Nitrobenzene-d5	82	3.834	3.837	(0.886)	31023		2.47345	4490 (R)
\$ 39 2-Fluorobiphenyl	172	5.069	5.073	(0.911)	71465		2.40062	4360 (R)
\$ 60 2,4,6-Tribromophenol	329	6.128	6.126	(1.101)	9553		3.56080	6460 (R)
\$ 81 p-Terphenyl-d14	244	7.524	7.522	(0.921)	51220		3.38118	6130 (R)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng/ul)	(ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
79 Pyrene	202	7.465	7.463	(0.914)	22495	0.79492	1440 (a)
68 Phenanthrene	178	6.604	6.608	(1.002)	21186	0.48421	878 (a)
72 Di-n-butylphthalate	149	6.909	6.912	(1.048)	220208	4.44939	8070 (a)
76 Fluoranthene	202	7.326	7.324	(1.111)	26143	0.65965	1200 (a)
92 Chrysene	228	8.182	8.185	(1.002)	11364	0.48969	888 (a)
95 Benzo(b)fluoranthene	252	8.963	8.966	(0.961)	11711	0.93680	1700 (a)
97 Benzo(a)pyrene	252	9.273	9.277	(0.994)	4685	0.43626	792 (a)

#### QC Flag Legend

- a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.

## ION RATIO REPORT

## SV REPORT

Data file: s3c1329.d

Report Date: 03/14/2010 14:35

Lab. ID: 248202002

SampleType: SAMPLE

Injection Date: 13-MAR-2010 20:09

Operator: JLD1

Instrument: MSD3.i

Sample Info: |248202002|960459|40|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m

Dilution Factor= 40.0

Integrator: HP RTE

Compound Sublist: 10-2124

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
14 bis(2-Chloroisopropyl)ether				CAS#: 108-60-1		
45	68879	3.37	3.62	80-120	100	(T)
121	2201	3.43	3.62	0- 48	3	(T)
77	4206	3.43	3.62	0- 38	6	(T)
-----						
27 Benzoic acid				CAS#: 65-85-0		
105	347	4.15	4.12	80-120	100	( )
122	218	4.15	4.12	55-115	63	( )
77	885	4.18	4.12	29- 89	255	(QT)
-----						
43 Dimethylphthalate				CAS#: 131-11-3		
163	212272	5.57	5.35	80-120	100	(T)
164	1179387	5.57	5.35	0- 40	556	(QT)
-----						
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	153714	5.57	5.40	80-120	100	(T)
63	2401	5.57	5.40	49-109	2	(QT)
-----						
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	153714	5.57	5.69	80-120	100	(T)
89	2062	5.57	5.69	48-108	1	(QT)
63	2401	5.57	5.69	21- 81	2	(QT)
-----						
52 4-Nitrophenol				CAS#: 100-02-7		
139	801	5.71	5.63	80-120	100	(T)
109	122	5.73	5.63	39- 99	15	(QT)
65	149	5.63	5.63	60-120	19	(Q)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
56 p-Nitroaniline		CAS#: 100-01-6				
138	388	5.98	5.97	80-120	100	( )
108	446	5.98	5.97	35- 95	115	(Q)
92	418	5.84	5.97	5- 65	108	(QT)
-----						
68 Phenanthrene		CAS#: 85-01-8				
178	21186	6.60	6.61	80-120	100	( )
179	4869	6.60	6.61	0- 46	23	( )
176	3929	6.60	6.61	0- 49	19	( )
-----						
69 Anthracene		CAS#: 120-12-7				
178	21186	6.60	6.64	80-120	100	( )
179	4869	6.60	6.64	0- 46	23	( )
176	3929	6.60	6.64	0- 49	19	( )
-----						
72 Di-n-butylphthalate		CAS#: 84-74-2				
149	220208	6.91	6.91	80-120	100	( )
150	19810	6.91	6.91	0- 39	9	( )
104	11523	6.91	6.91	0- 35	5	( )
-----						
76 Fluoranthene		CAS#: 206-44-0				
202	26143	7.33	7.32	80-120	100	( )
203	4234	7.33	7.32	0- 47	16	( )
101	3375	7.33	7.32	0- 43	13	( )
-----						
79 Pyrene		CAS#: 129-00-0				
202	22495	7.47	7.46	80-120	100	( )
200	4594	7.47	7.46	0- 51	20	( )
101	3790	7.46	7.46	0- 46	17	( )
-----						
89 Benzo(a)anthracene		CAS#: 56-55-3				
228	13191	8.16	8.16	80-120	100	( )
226	3204	8.16	8.16	0- 57	24	( )
229	3708	8.16	8.16	0- 50	28	( )
-----						
92 Chrysene		CAS#: 218-01-9				
228	11364	8.18	8.19	80-120	100	( )
229	2576	8.18	8.19	0- 50	23	( )
226	3193	8.18	8.19	0- 59	28	( )
-----						
95 Benzo(b)fluoranthene		CAS#: 205-99-2				
252	11711	8.96	8.97	80-120	100	( )
253	2946	8.96	8.97	0- 52	25	( )
125	1983	8.97	8.96	0- 44	17	( )
-----						
96 Benzo(k)fluoranthene		CAS#: 207-08-9				
252	11711	8.96	8.99	80-120	100	( )
253	2946	8.96	8.99	0- 52	25	( )
125	1983	8.97	8.99	0- 48	17	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	4685	9.27	9.28	80-120	100	( )
253	1039	9.27	9.28	0- 52	22	( )
125	916	9.27	9.28	0- 48	20	( )

-----

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD3.i/s031310.b/s3c1329.d  
 Lab Smp Id: 248202002 Client Smp ID: RE36-10-8281  
 Inj Date : 13-MAR-2010 20:09  
 Operator : JLD1 Inst ID: MSD3.i  
 Smp Info : |248202002|960459|40|SVMF|1|LANL  
 Misc Info : |MSD8270\_S|WBN100227-01|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
 Meth Date : 14-Mar-2010 14:28 jen00986 Quant Type: ISTD  
 Cal Date : 10-MAR-2010 05:53 Cal File: s3c0957.d  
 Als bottle: 29  
 Dil Factor: 40.00000  
 Integrator: HP RTE Compound Sublist: 10-2124.sub  
 Target Version: 3.50  
 Processing Host: hpclp1

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	40.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.15000	weight of sample
M	26.87770	% moisture

Cpnd Variable Local Compound Variable

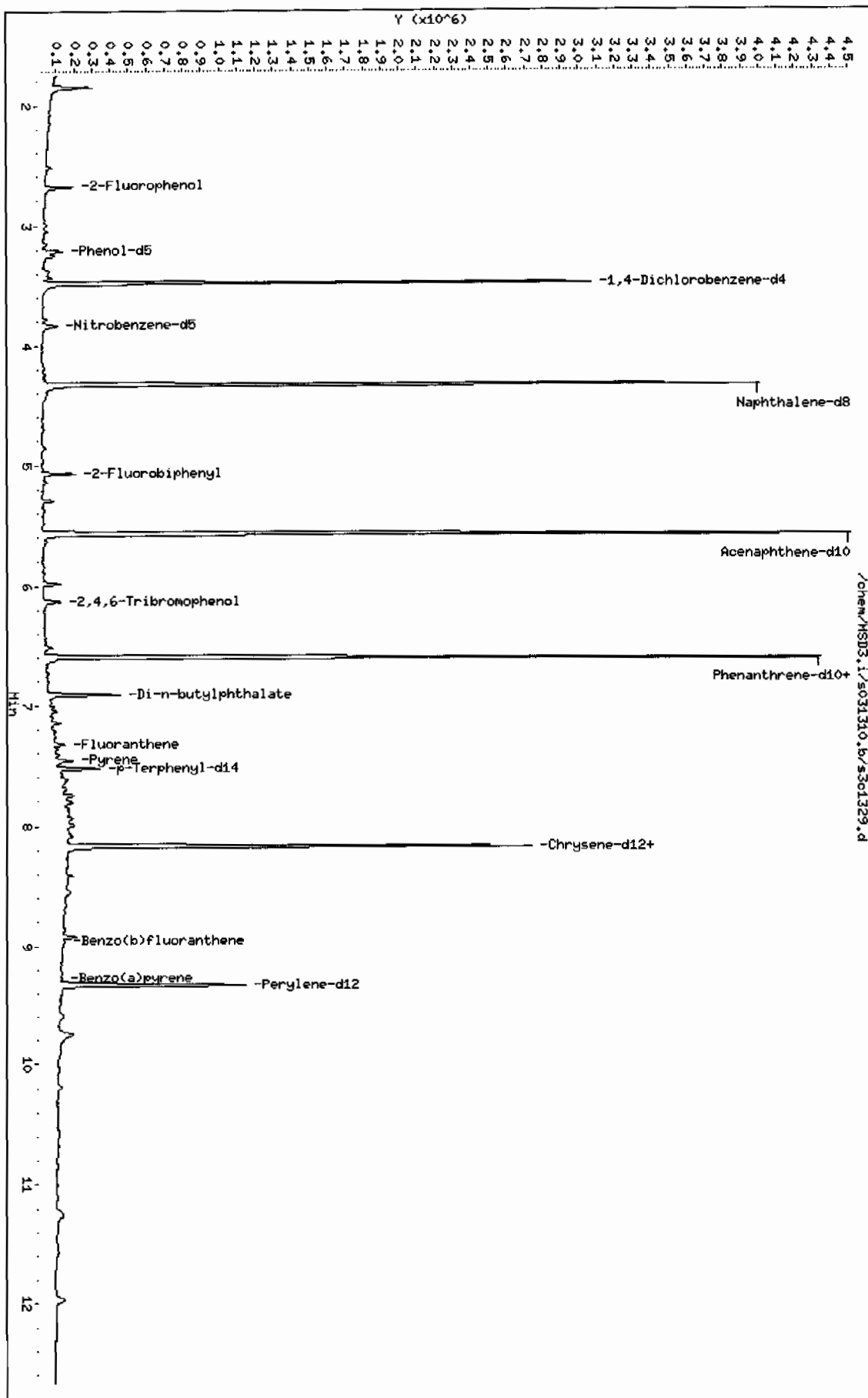
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 98 Perylene-d12	9.327	1508649	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown				CAS #:			
9.749	313724	8.31801033	15100	0		0	98
Unknown				CAS #:			
11.258	218739	5.79959042	10500	0		0	98



Data File: /chem/HSD3.i/s031310.b/s3c1329.d  
 Date: 13-MAR-2010 20:09  
 Client ID: RE36-10-8281  
 Sample Info: 124820200219604591401SVNF111LNL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-SMS

Instrument: HSD3.i  
 Operator: JLD1  
 Column diameter: 0.20



Date : 13-MAR-2010 20:09

Client ID: RE36-10-8281

Instrument: MSD3.i

Sample Info: 124820200219604591401SVHF111LANL

Volume Injected (uL): 0.5

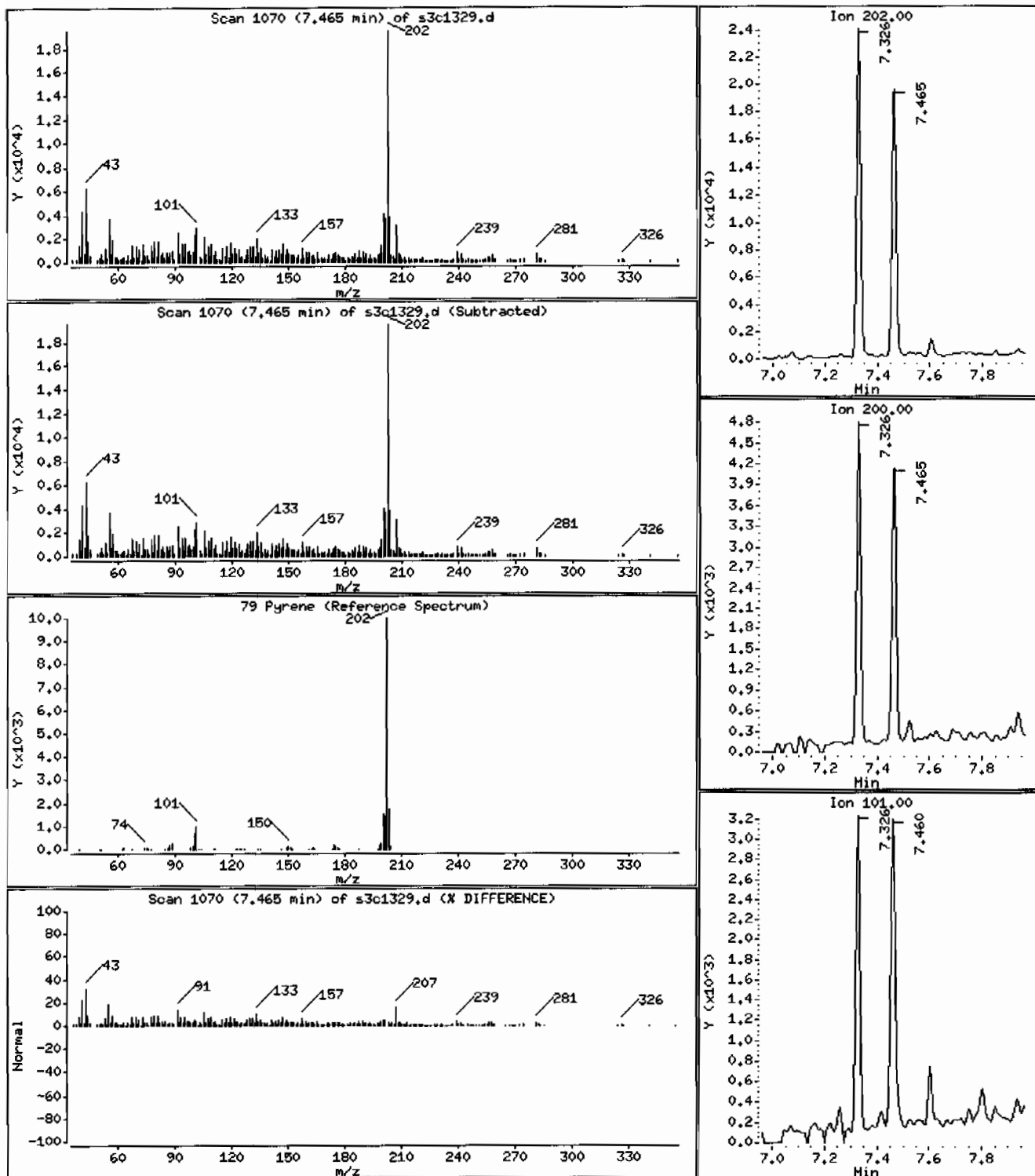
Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 1440 ug/Kg



Date : 13-MAR-2010 20:09

Client ID: RE36-10-8281

Instrument: MSD3.i

Sample Info: 124820200219604591401SVMF11ILANL

Volume Injected (uL): 0.5

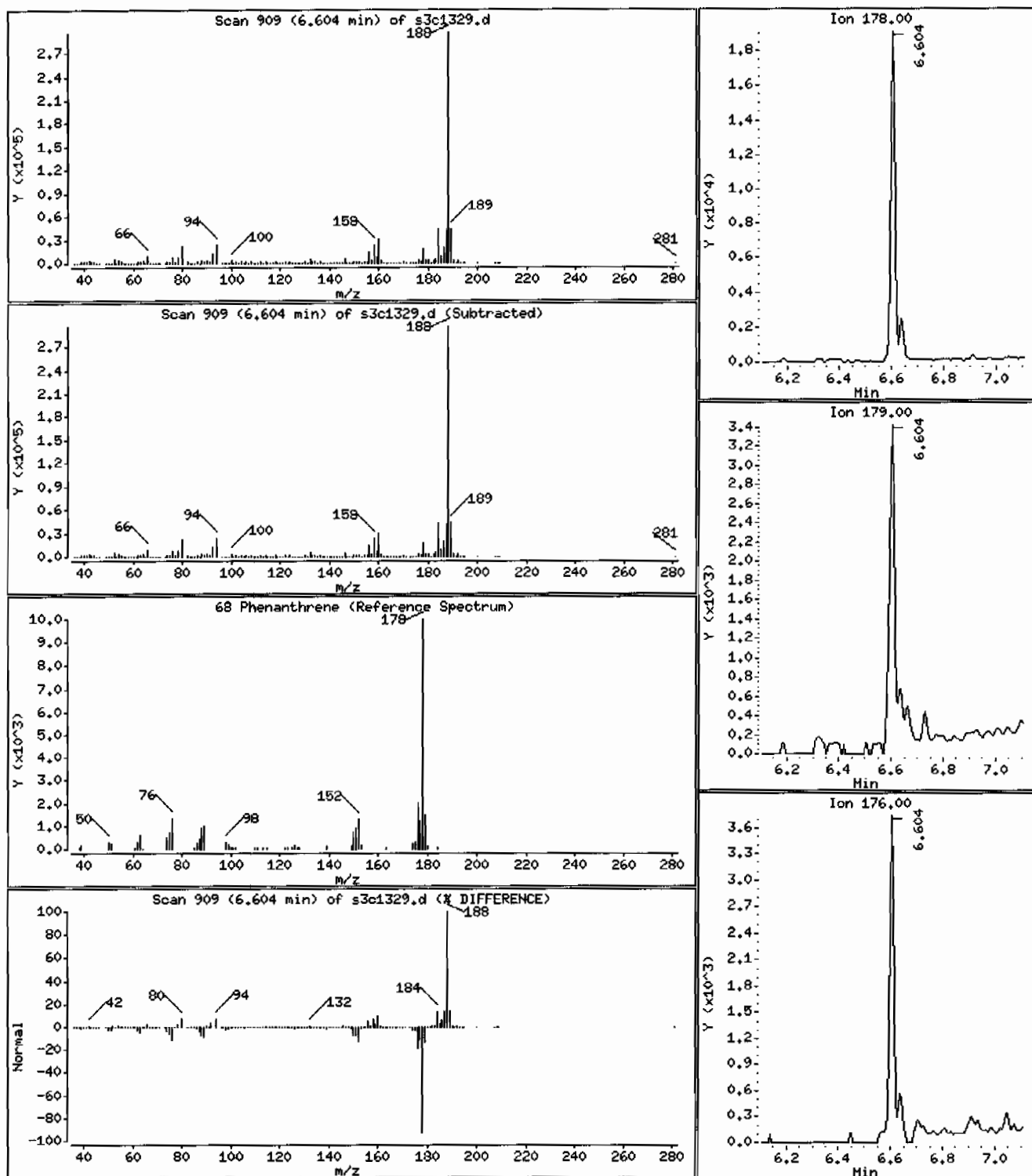
Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 878 ug/Kg



Date : 13-MAR-2010 20:09

Client ID: RE36-10-8281

Instrument: MSD3.1

Sample Info: 124820200219604591401SVHF11ILANL

Volume Injected (uL): 0.5

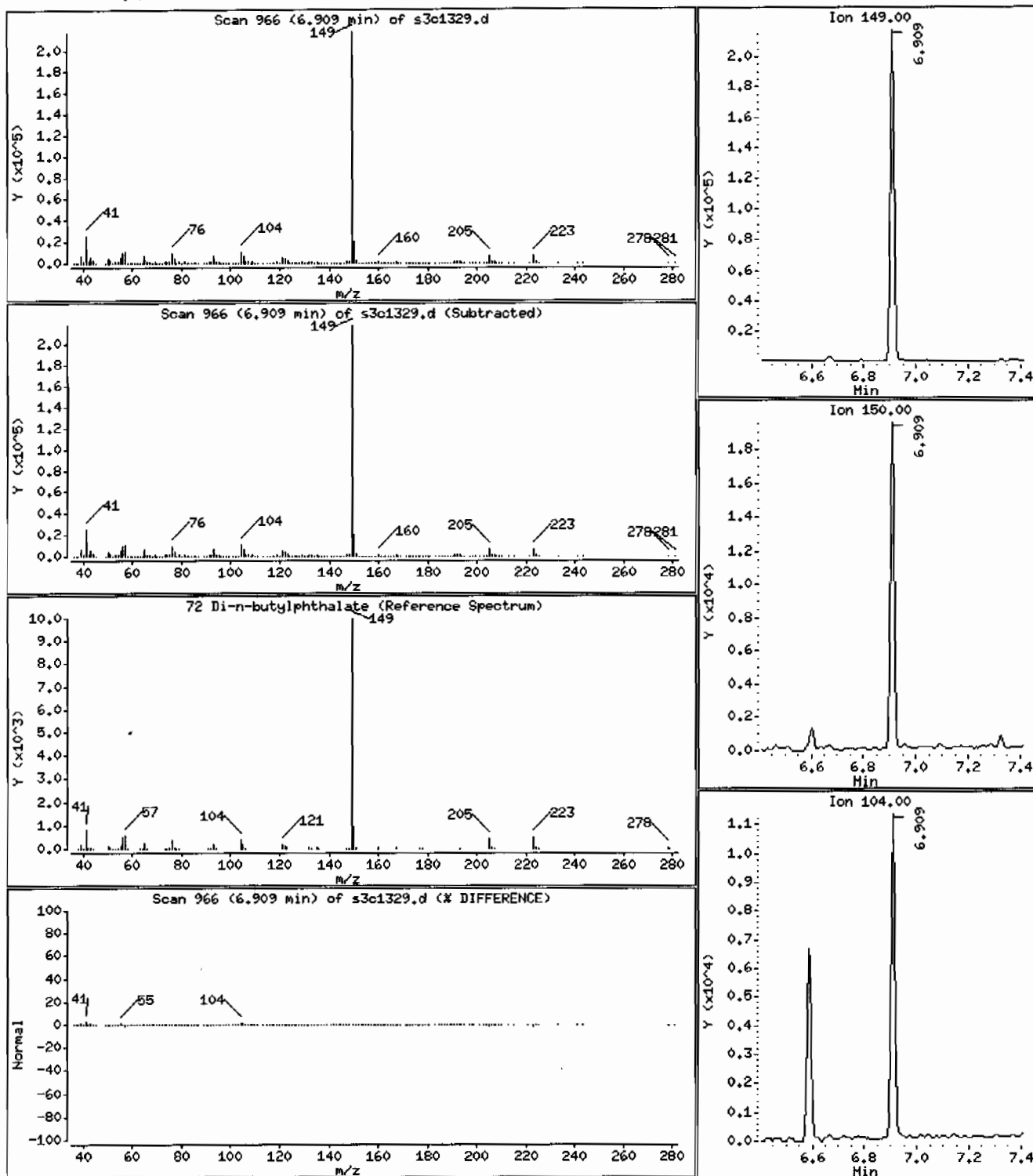
Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

72 Di-n-butylphthalate

Concentration: 8070 ug/Kg



Date : 13-MAR-2010 20:09

Client ID: RE36-10-8281

Instrument: MSD3.i

Sample Info: 124820200219604591401SVHF11ILANL

Volume Injected (uL): 0.5

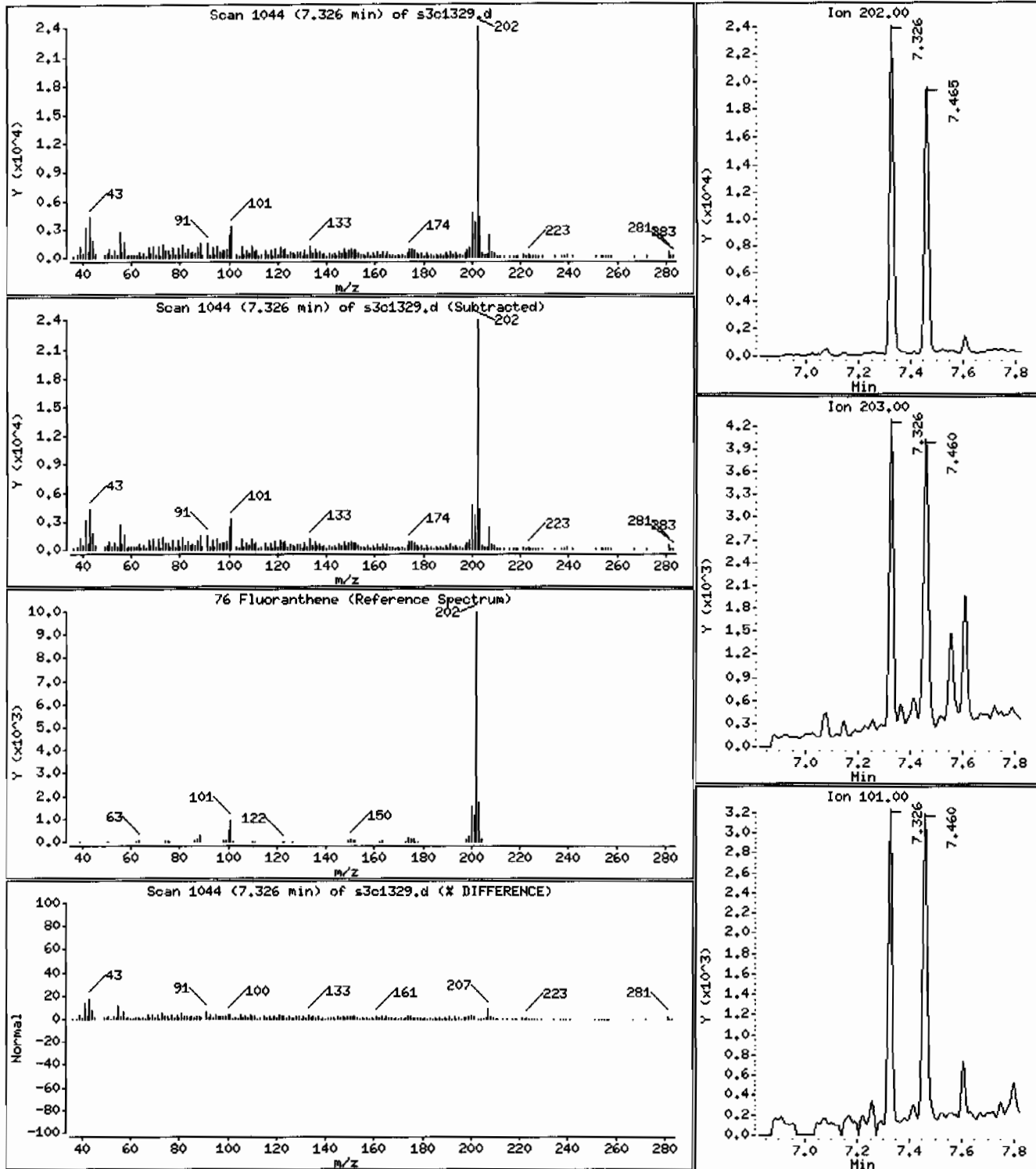
Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 1200 ug/Kg



Date: 13-MAR-2010 20:09

Client ID: RE36-10-8281

Instrument: MSD3.1

Sample Info: 124820200219604591401SVMF111LANL

Volume Injected (uL): 0.5

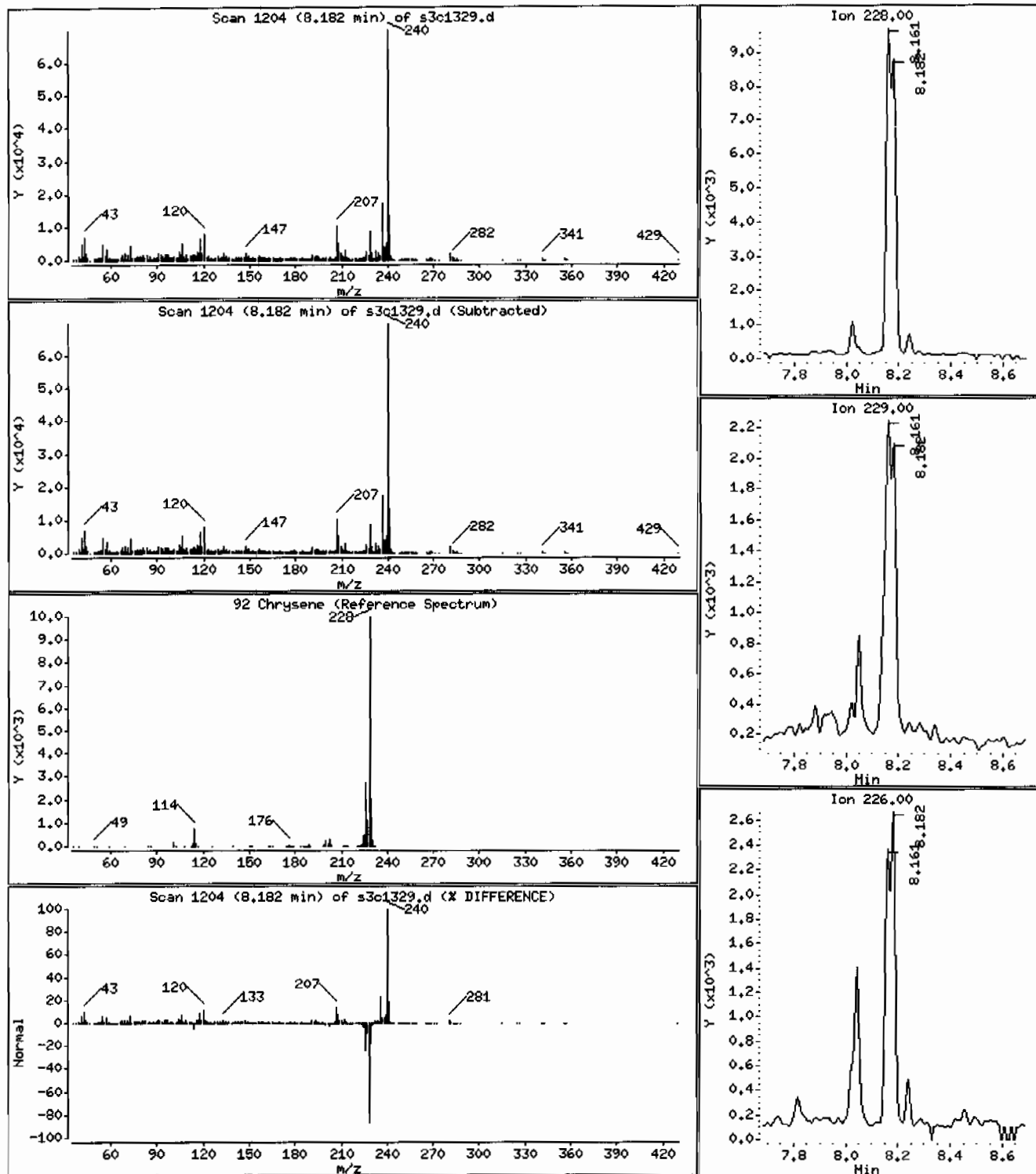
Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 888 ug/Kg



Date: 13-MAR-2010 20:09

Client ID: RE36-10-8281

Instrument: MSD3.i

Sample Info: 124820200219604591401SVHF111LANL

Volume Injected (uL): 0.5

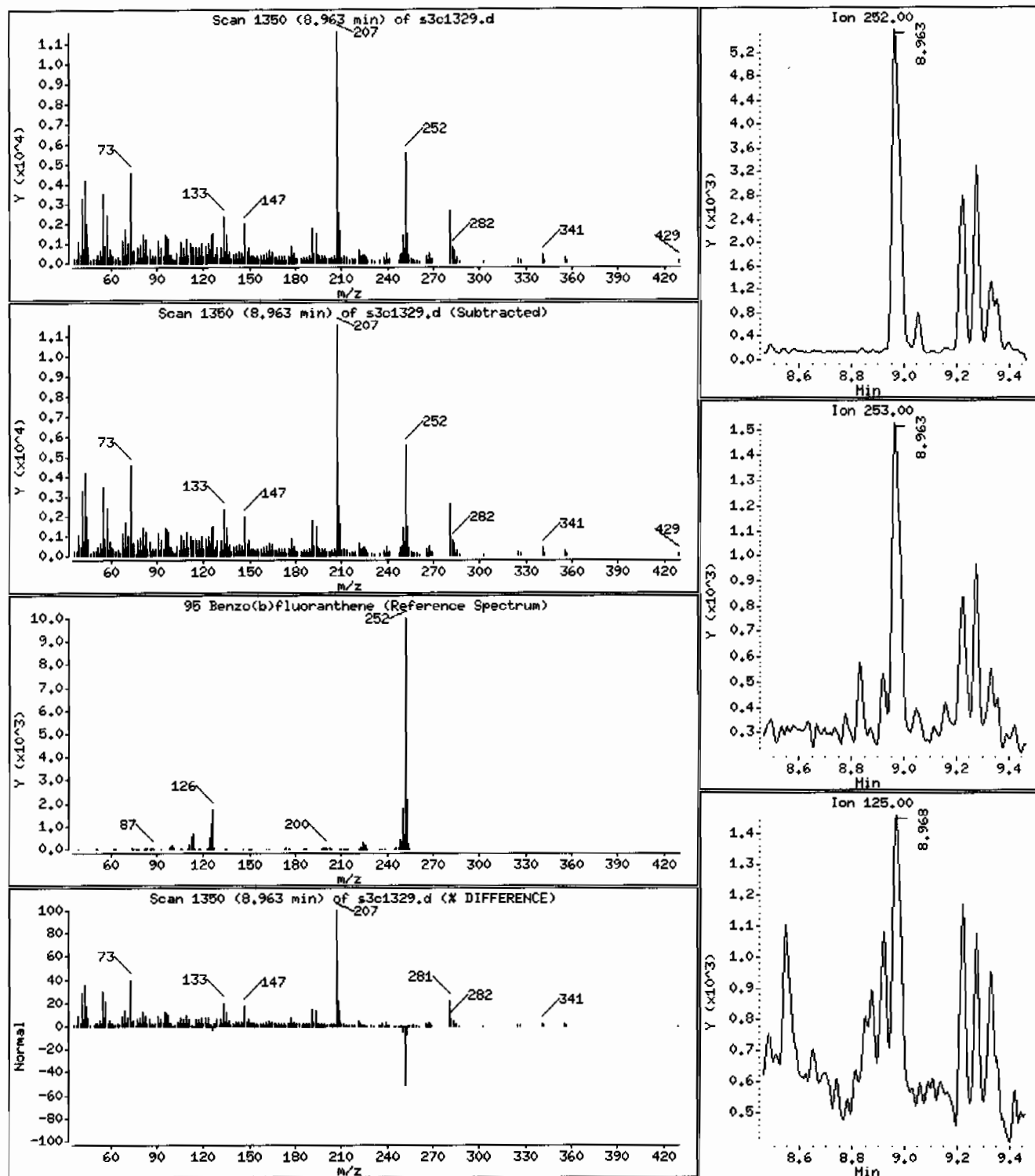
Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 1700 ug/Kg



Date : 13-MAR-2010 20:09

Client ID: RE36-10-8281

Instrument: MSD3.1

Sample Info: 12482020021960489140ISVHF111LANL

Volume Injected (uL): 0.5

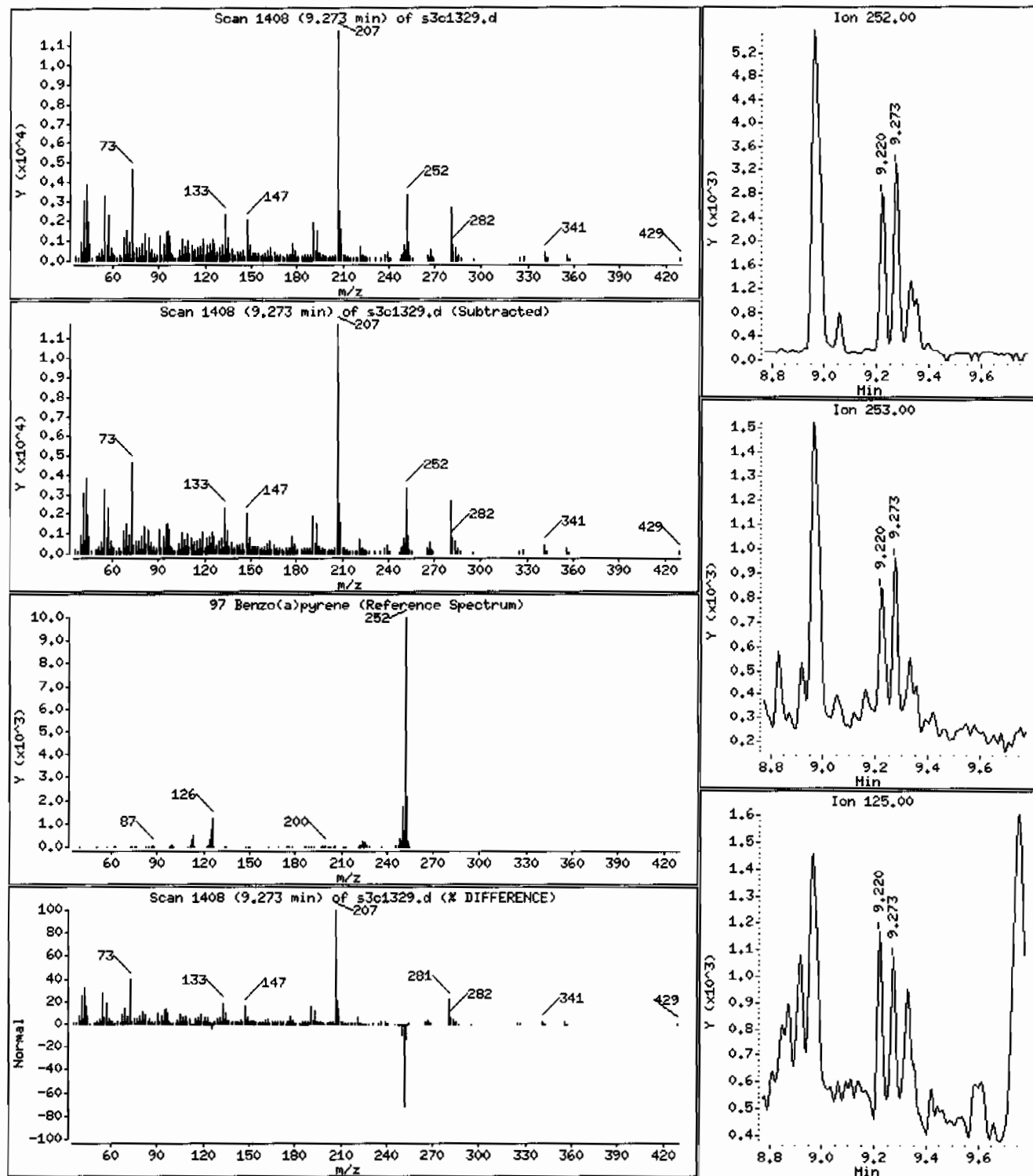
Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 792 ug/Kg





Date: 13-MAR-2010 20:09

Client ID: RE36-10-8281

Instrument: MSD3.i

Sample Info: 124820200219604591401SVMF111LANL

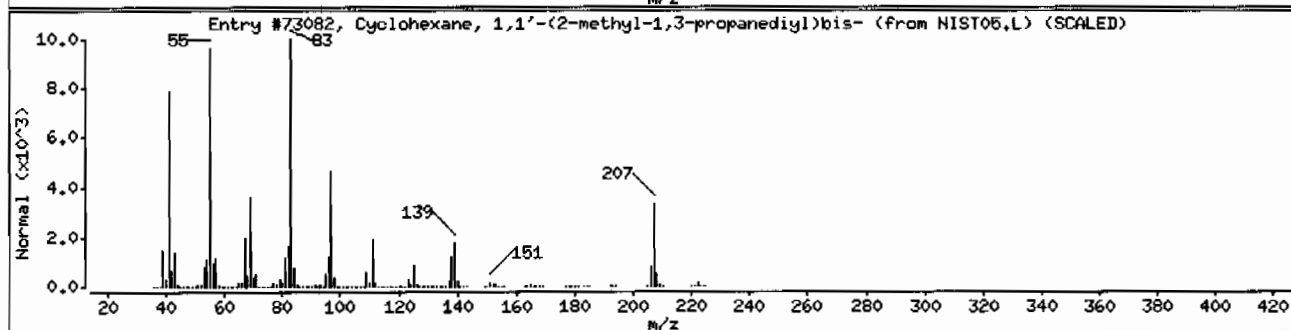
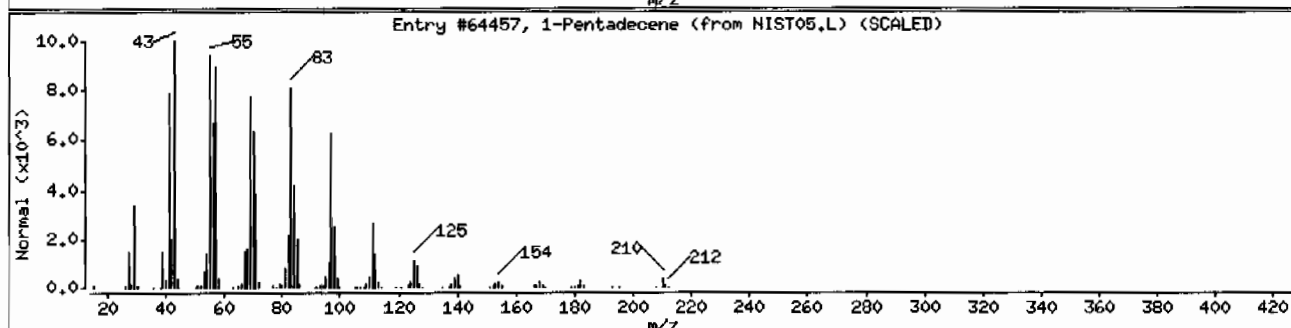
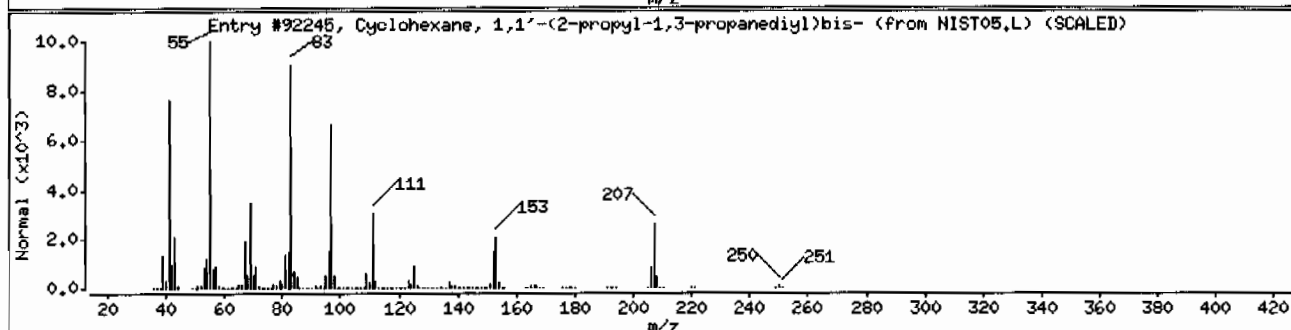
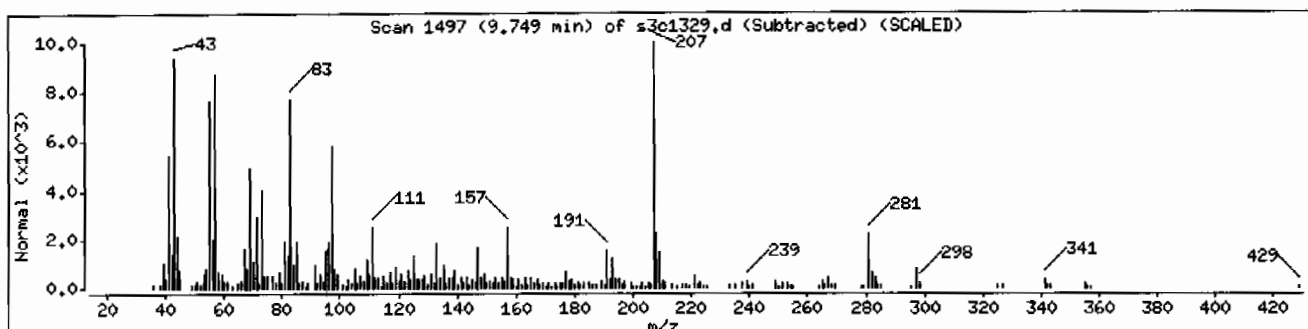
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexane, 1,1'-(2-propyl-1,3-propanediol)bis-	56030-21-2	NIST05.L	92245	46	C18H34	250
1-Pentadecene	13360-61-7	NIST05.L	64457	38	C15H30	210
Cyclohexane, 1,1'-(2-methyl-1,3-propanediol)bis-	2883-08-1	NIST05.L	73082	38	C16H30	222



Date: 13-MAR-2010 20:09

Client ID: RE36-10-8281

Instrument: MSD3.i

Sample Info: 124820200219604591401SVMF111LANL

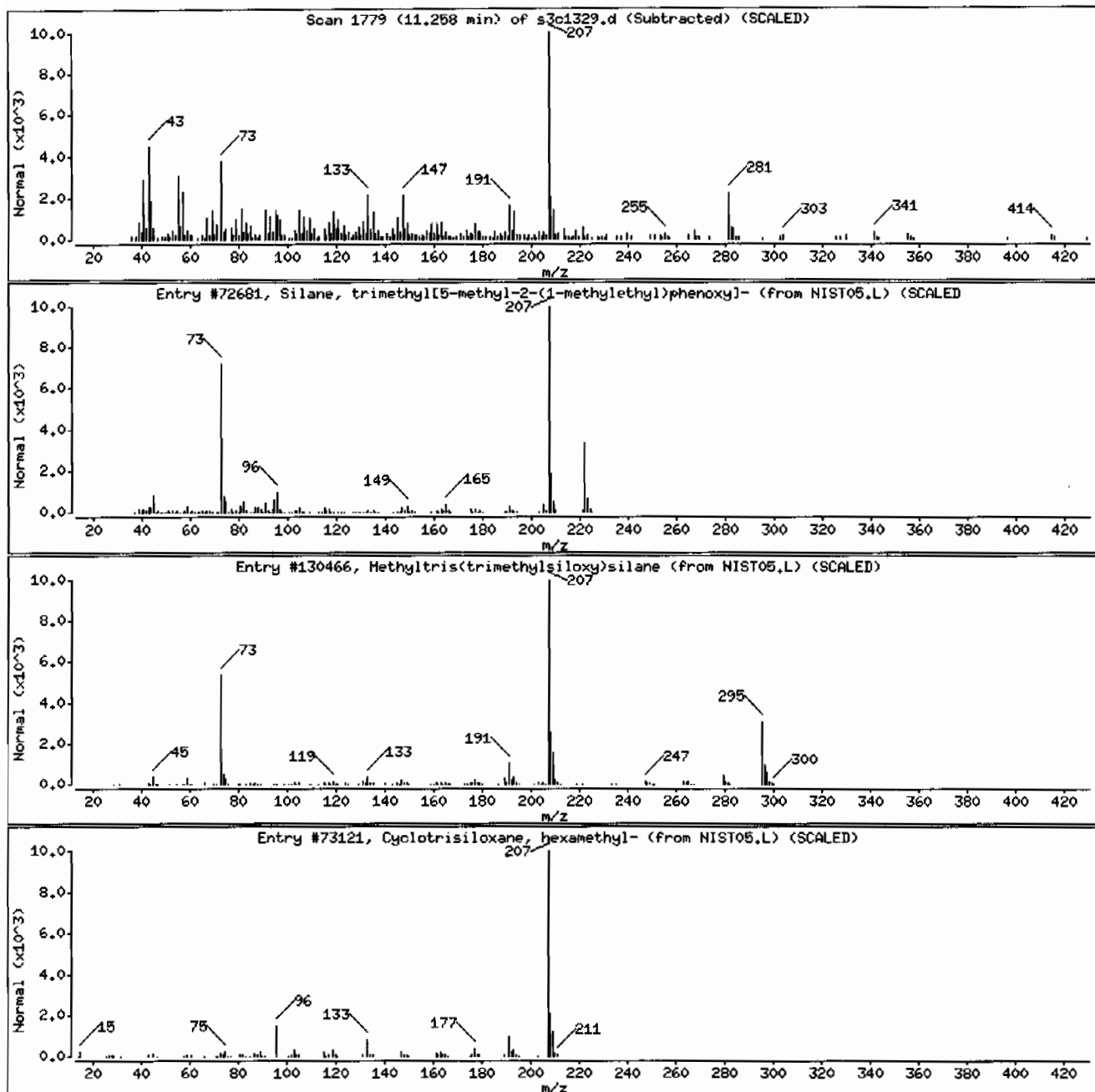
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Silane, trimethyl[5-methyl-2-(1-methylet	55012-80-1	NIST05.L	72681	58	C13H22OSi	222
Methyltris(trimethylsiloxy)silane	17928-28-8	NIST05.L	130466	50	C10H30O3Si4	310
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73121	50	C6H18O3Si3	222



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2124  
Lab Sample ID: 248202001

Client ID: RE36-10-8282  
Batch ID: 960459  
Run Date: 03/13/2010 18:52  
Prep Date: 03/03/2010 23:09  
Data File: s3c1325.d

Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.1  
Analyst: JLD1  
Aliquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 2  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	727	ug/kg	145	727
108-95-2	Phenol	U	727	ug/kg	145	727
95-57-8	2-Chlorophenol	U	727	ug/kg	145	727
106-46-7	1,4-Dichlorobenzene	U	727	ug/kg	145	727
621-64-7	N-Nitrosodipropylamine	U	727	ug/kg	145	727
59-50-7	4-Chloro-3-methylphenol	U	727	ug/kg	145	727
83-32-9	Acenaphthene	U	72.7	ug/kg	24.0	72.7
121-14-2	2,4-Dinitrotoluene	U	727	ug/kg	72.7	727
100-02-7	4-Nitrophenol	U	727	ug/kg	240	727
87-86-5	Pentachlorophenol	U	727	ug/kg	182	727
129-00-0	Pyrene	U	72.7	ug/kg	21.8	72.7
110-86-1	Pyridine	U	727	ug/kg	145	727
62-53-3	Aniline	U	727	ug/kg	218	727
111-44-4	bis(2-Chloroethyl) ether	U	727	ug/kg	145	727
541-73-1	1,3-Dichlorobenzene	U	727	ug/kg	145	727
100-51-6	Benzyl alcohol	U	727	ug/kg	218	727
95-50-1	1,2-Dichlorobenzene	U	727	ug/kg	145	727
108-60-1	bis(2-Chloroisopropyl)ether	U	727	ug/kg	145	727
95-48-7	o-Cresol	U	727	ug/kg	145	727
65794-96-9	m,p-Cresols	U	727	ug/kg	218	727
67-72-1	Hexachloroethane	U	727	ug/kg	145	727
98-95-3	Nitrobenzene	U	727	ug/kg	145	727
78-59-1	Isophorone	U	727	ug/kg	145	727
88-75-5	2-Nitrophenol	U	727	ug/kg	145	727
105-67-9	2,4-Dimethylphenol	U	727	ug/kg	254	727
111-91-1	bis(2-Chloroethoxy)methane	U	727	ug/kg	145	727
120-83-2	2,4-Dichlorophenol	U	727	ug/kg	145	727
65-85-0	Benzoic acid	U	1450	ug/kg	364	1450
91-20-3	Naphthalene	U	72.7	ug/kg	21.8	72.7
106-47-8	4-Chloroaniline	U	727	ug/kg	145	727
87-68-3	Hexachlorobutadiene	U	727	ug/kg	145	727
91-57-6	2-Methylnaphthalene	U	72.7	ug/kg	14.5	72.7
77-47-4	Hexachlorocyclopentadiene	U	727	ug/kg	145	727
88-06-2	2,4,6-Trichlorophenol	U	727	ug/kg	145	727
95-95-4	2,4,5-Trichlorophenol	U	727	ug/kg	145	727
91-58-7	2-Chloronaphthalene	U	72.7	ug/kg	24.0	72.7
88-74-4	2-Nitroaniline	U	727	ug/kg	145	727
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	727	ug/kg	145	727

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2124  
Lab Sample ID: 248202001

Client ID: RE36-10-8282  
Batch ID: 960459  
Run Date: 03/13/2010 18:52  
Prep Date: 03/03/2010 23:09  
Data File: s3c1325.d

Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: J.ANL010  
Method: SW846 8270C  
Inst: MSD3.I  
Analyst: JLD1  
Aliquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 2  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	727	ug/kg	145	727
606-20-2	2,6-Dinitrotoluene	U	727	ug/kg	72.7	727
208-96-8	Acenaphthylene	U	72.7	ug/kg	21.8	72.7
51-28-5	2,4-Dinitrophenol	U	1450	ug/kg	276	1450
132-64-9	Dibenzofuran	U	727	ug/kg	145	727
84-66-2	Diethylphthalate	U	727	ug/kg	145	727
86-73-7	Fluorene	U	72.7	ug/kg	21.8	72.7
7005-72-3	4-Chlorophenylphenylether	U	727	ug/kg	145	727
534-52-1	2-Methyl-4,6-dinitrophenol	U	727	ug/kg	145	727
100-01-6	4-Nitroaniline	U	727	ug/kg	218	727
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	727	ug/kg	145	727
122-66-7	Azobenzene	U	727	ug/kg	145	727
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	727	ug/kg	145	727
118-74-1	Hexachlorobenzene	U	727	ug/kg	145	727
85-01-8	Phenanthrene	U	72.7	ug/kg	21.8	72.7
120-12-7	Anthracene	U	72.7	ug/kg	14.5	72.7
84-74-2	Di-n-butylphthalate	U	727	ug/kg	145	727
206-44-0	Fluoranthene	U	72.7	ug/kg	21.8	72.7
85-68-7	Butylbenzylphthalate	U	727	ug/kg	145	727
56-55-3	Benzo(a)anthracene	U	72.7	ug/kg	21.8	72.7
91-94-1	3,3'-Dichlorobenzidine	U	727	ug/kg	218	727
218-01-9	Chrysene	U	72.7	ug/kg	21.8	72.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	727	ug/kg	145	727
117-84-0	Di-n-octylphthalate	U	727	ug/kg	145	727
205-99-2	Benzo(b)fluoranthene	U	72.7	ug/kg	21.8	72.7
207-08-9	Benzo(k)fluoranthene	U	72.7	ug/kg	21.8	72.7
50-32-8	Benzo(a)pyrene	U	72.7	ug/kg	21.8	72.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	72.7	ug/kg	21.8	72.7
53-70-3	Dibenzo(a,h)anthracene	U	72.7	ug/kg	21.8	72.7
191-24-2	Benzo(ghi)perylene	U	72.7	ug/kg	21.8	72.7
120-82-1	1,2,4-Trichlorobenzene	U	727	ug/kg	145	727

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
559-74-0	Friedelan-3-one	7.06	1320	ug/kg	87	NJ
	Unknown	7.08	608	ug/kg		J

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2124  
Lab Sample ID: 248202001

Client ID: RE36-10-8282  
Batch ID: 960459  
Run Date: 03/13/2010 18:52  
Prep Date: 03/03/2010 23:09  
Data File: s3c1325.d

Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.I  
Analyst: JLD1  
Aliquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 2  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit
	Unknown		8.93	322	ug/kg	J
	Unknown		8.99	697	ug/kg	J

GEL Laboratories LLC

Data file : /chem/MSD3.i/s031310.b/s3c1325.d  
 Lab Smp Id: 248202001 Client Smp ID: RE36-10-8282  
 Inj Date : 13-MAR-2010 18:52  
 Operator : JLD1 Inst ID: MSD3.i  
 Smp Info : |248202001|960459|2|SVMF|1|LANL  
 Misc Info : |MSD8270\_S|WBN100227-01|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
 Meth Date : 14-Mar-2010 14:28 jen00986 Quant Type: ISTD  
 Cal Date : 10-MAR-2010 05:53 Cal File: s3c0957.d  
 Als bottle: 25  
 Dil Factor: 2.00000  
 Integrator: HP RTE Compound Sublist: 10-2124.sub  
 Target Version: 3.50  
 Processing Host: hpc1p1

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	2.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.13000	weight of sample
M	8.69570	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.475	3.473	(1.000)	639333	40.0000
* 29 Naphthalene-d8	136	4.326	4.329	(1.000)	2419190	40.0000
* 46 Acenaphthene-d10	164	5.567	5.570	(1.000)	1272168	40.0000
* 67 Phenanthrene-d10	188	6.594	6.592	(1.000)	2064771	40.0000
* 91 Chrysene-d12	240	8.171	8.169	(1.000)	1252783	40.0000
* 98 Perylene-d12	264	9.337	9.330	(1.000)	724741	40.0000
\$ 3 2-Fluorophenol	112	2.689	2.682	(0.774)	581569	2940
\$ 5 Phenol-d5	99	3.208	3.206	(0.923)	656119	2820
\$ 20 Nitrobenzene-d5	82	3.834	3.837	(0.886)	288944	1520
\$ 39 2-Fluorobiphenyl	172	5.069	5.073	(0.911)	654630	1470
\$ 60 2,4,6-Tribromophenol	329	6.123	6.126	(1.100)	113248	2820
\$ 81 p-Terphenyl-d14	244	7.524	7.522	(0.921)	532542	1990

## ION RATIO REPORT

## SV REPORT

Data file: s3c1325.d

Report Date: 03/14/2010 14:34

Lab. ID: 248202001

SampleType: SAMPLE

Injection Date: 13-MAR-2010 18:52

Operator: JLD1

Instrument: MSD3.i

Sample Info: |248202001|960459|2|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m

Dilution Factor= 2.0

Integrator: HP RTE

Compound Sublist: 10-2124

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	36584	3.21	3.26	80-120	100	( )
93	134	3.21	3.26	200-260	0	(Q)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	42451	3.83	3.72	80-120	100	(T)
42	35464	3.83	3.72	76-136	84	(T)
-----						
22 Isophorone		CAS#: 78-59-1				
82	302190	3.83	4.00	80-120	100	(T)
138	176	3.76	4.00	0- 55	0	(T)
-----						
27 Benzoic acid		CAS#: 65-85-0				
105	168	4.11	4.12	80-120	100	( )
122	666	4.33	4.12	55-115	395	(QT)
77	589	4.24	4.12	29- 89	350	(QT)
-----						
43 Dimethylphthalate		CAS#: 131-11-3				
163	233517	5.57	5.35	80-120	100	(T)
164	1281876	5.57	5.35	0- 40	549	(QT)
-----						
44 2,6-Dinitrotoluene		CAS#: 606-20-2				
165	166328	5.57	5.40	80-120	100	(T)
63	2004	5.57	5.40	49-109	1	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	166328	5.57	5.69	80-120	100	(T)
89	2065	5.57	5.69	48-108	1	(QT)
63	2004	5.57	5.69	21- 81	1	(QT)
-----						
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	514	6.12	5.98	80-120	100	(T)
105	1381	6.12	5.98	14- 74	268	(QT)
51	1109	6.12	5.98	40-100	216	(QT)
-----						
56 p-Nitroaniline				CAS#: 100-01-6		
138	209	5.98	5.97	80-120	100	( )
108	335	5.96	5.97	35- 95	160	(Q)
92	266	5.96	5.97	5- 65	127	(Q)

-----  
 Q qualifier indicates ion failed ratio requirement



Data File: /chem/MSD3.i/s031310.b/s3c1325.d  
Report Date: 14-Mar-2010 16:41

Page 1

GEL Laboratories LLC

Data file : /chem/MSD3.i/s031310.b/s3c1325.d  
Lab Smp Id: 248202001 Client Smp ID: RE36-10-8282  
Inj Date : 13-MAR-2010 18:52  
Operator : JLD1 Inst ID: MSD3.i  
Smp Info : |248202001|960459|2|SVMF|1|LANL  
Misc Info : |MSD8270 S|WBN100227-01|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
Meth Date : 14-Mar-2010 14:28 jen00986 Quant Type: ISTD  
Cal Date : 10-MAR-2010 05:53 Cal File: s3c0957.d  
Als bottle: 25  
Dil Factor: 2.00000  
Integrator: HP RTE Compound Sublist: 10-2124.sub  
Target Version: 3.50  
Processing Host: hpclpl

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	2.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.13000	weight of sample
M	8.69570	% moisture

Cpnd Variable

Local Compound Variable

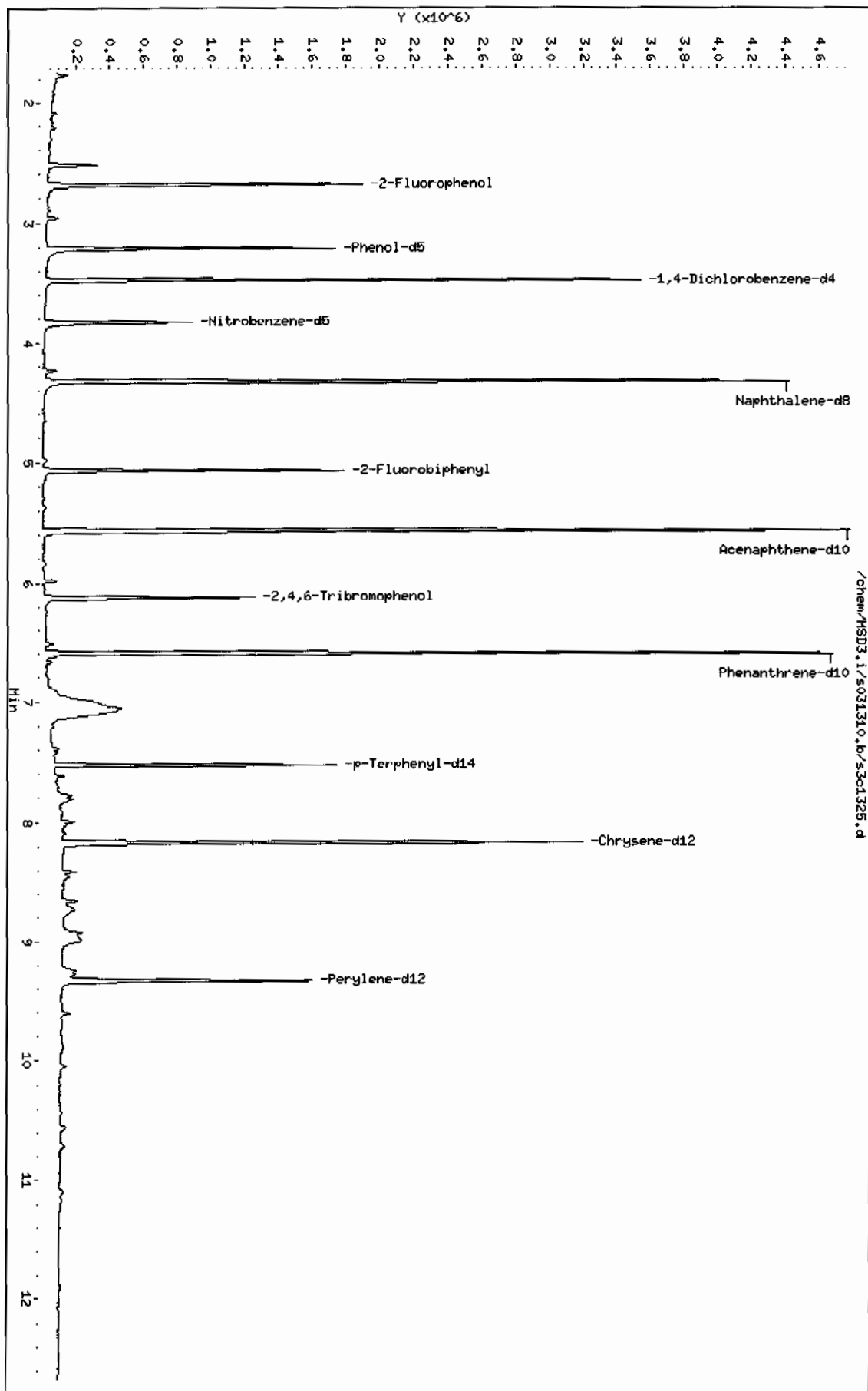
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 67 Phenanthrene-d10	6.594	5295522	40.000
* 98 Perylene-d12	9.337	2288895	40.000

CONCENTRATIONS				QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY
=====	=====	=====	=====	=====	=====	=====
Friedelan-3-one					CAS #: 559-74-0	
7.059	2406720	18.1792858	1320	87	NIST05.L	176566

RT	CONCENTRATIONS			QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	
Unknown				CAS #:		
7.080	1106785	8.36016026	608	0		67
Unknown				CAS #:		
8.926	253243	4.42559440	322	0		98
Unknown				CAS #:		
8.990	548906	9.59250748	697	0		98

Data File: /chem/MSD3.i/s031310.k/s3c1325.d  
Date: 13-MAR-2010 18:52  
Client ID: RE36-10-8282  
Sample Info: 1248202001960459121SMF111L1L1L  
Volume Injected (uL): 0.5  
Column phase: J&W DB-5MS

Instrument: MSD3.i  
Operator: JLD1  
Column diameter: 0.20



Date : 13-MAR-2010 18:52

Client ID: RE36-10-8282

Instrument: MSD3.i

Sample Info: 12482020011960459121SVMF111LANL

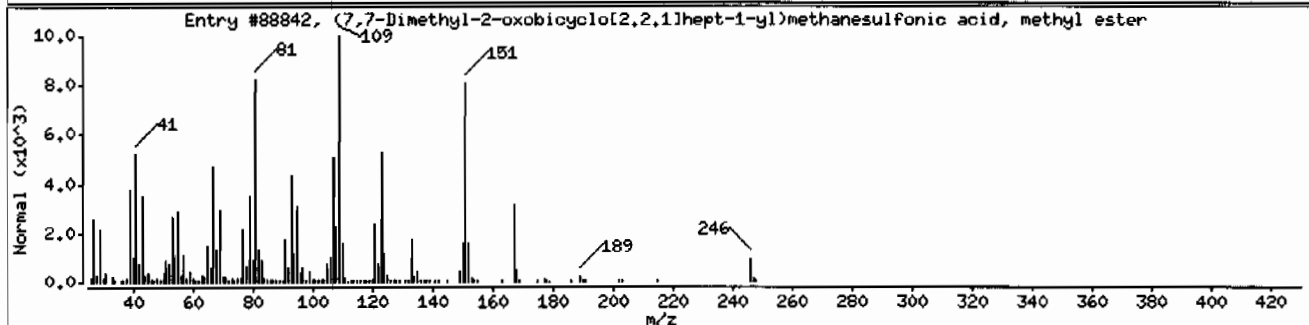
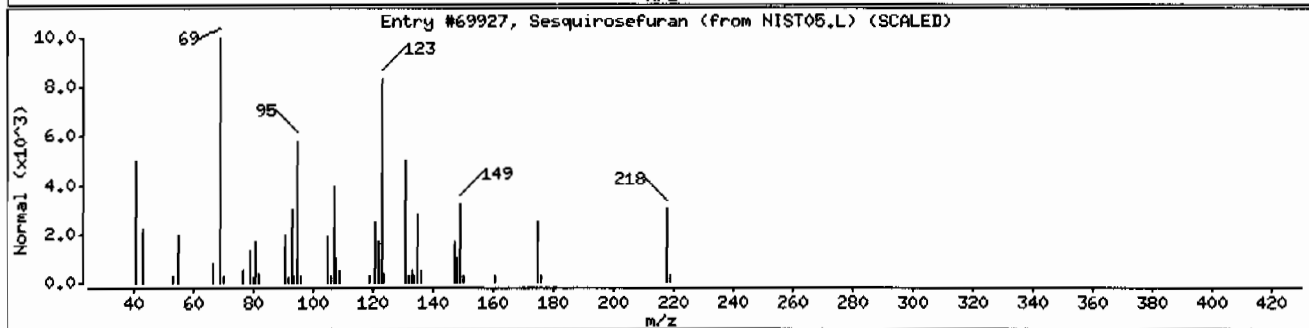
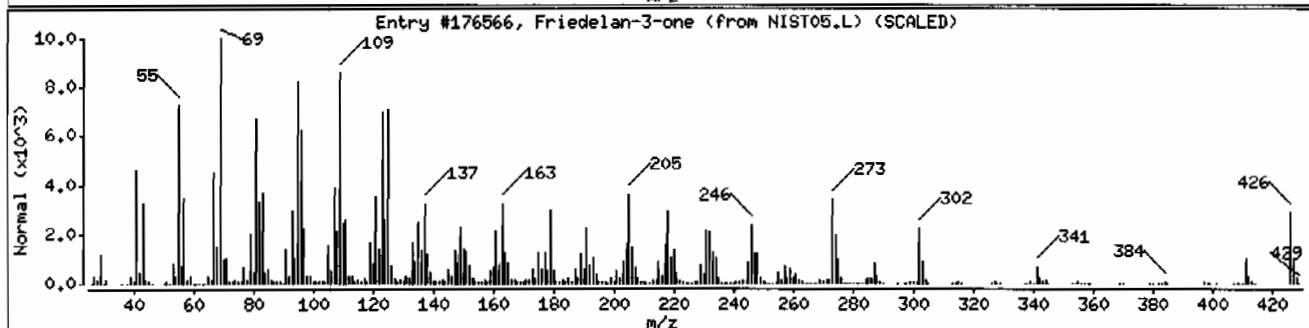
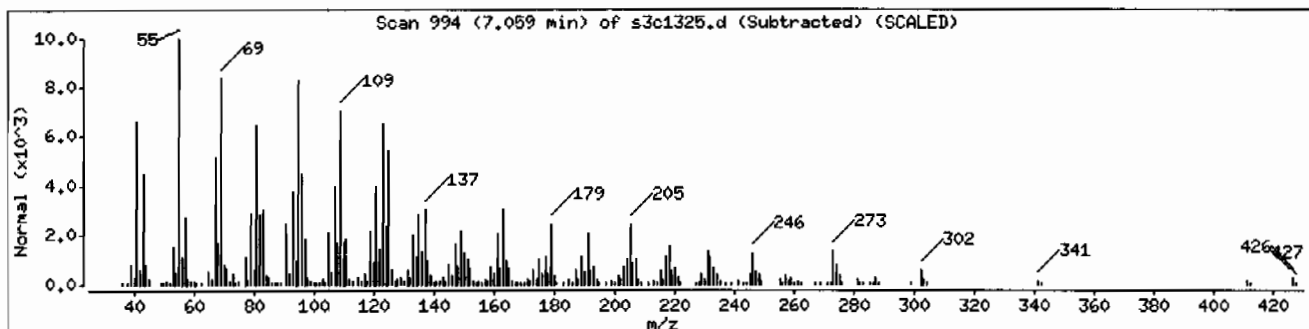
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Friedelan-3-one	559-74-0	NIST05.L	176566	87	C30H50O	426
Sesquirosefuran	39007-93-7	NIST05.L	69927	50	C15H22O	218
(7,7-Dimethyl-2-oxobicyclo[2.2.1]hept-1-	1000197-55-6	NIST05.L	88842	48	C11H18O4S	246



Date : 13-MAR-2010 18:52

Client ID: RE36-10-8282

Instrument: MSD3.i

Sample Info: 1248202001196045912ISVMF111LANL

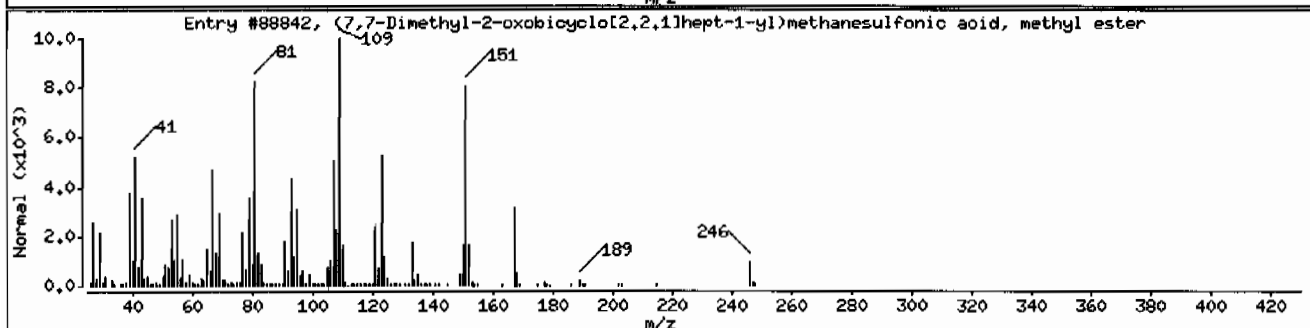
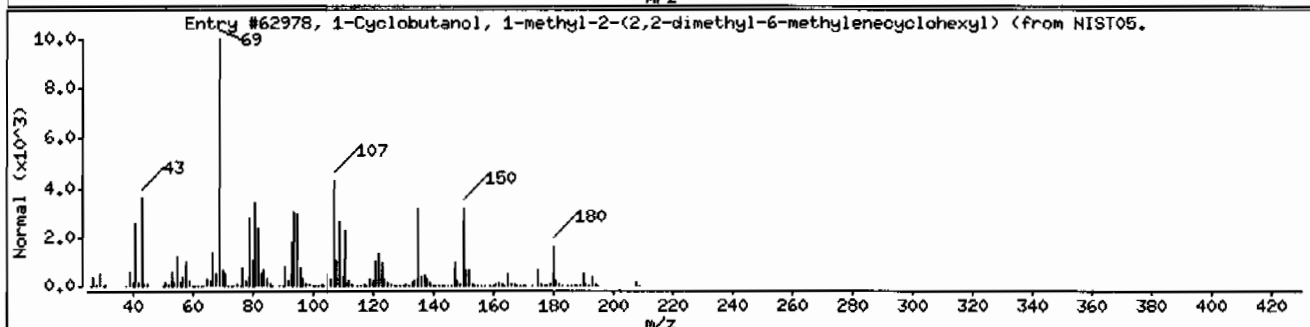
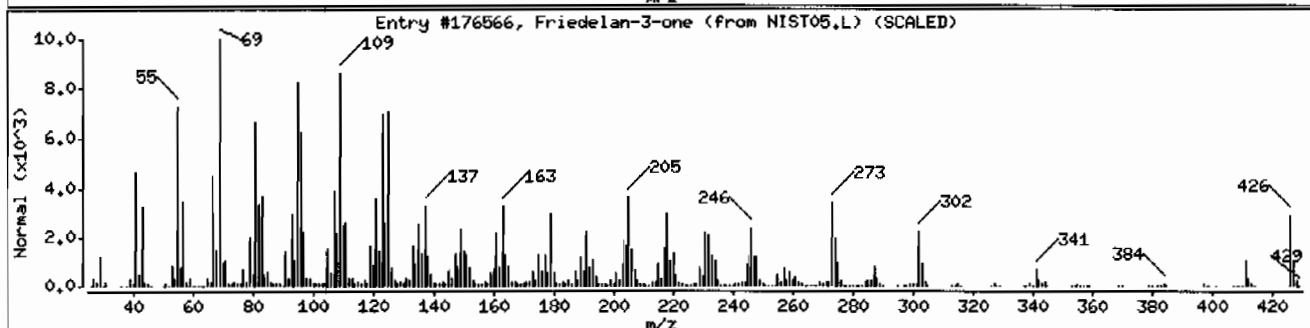
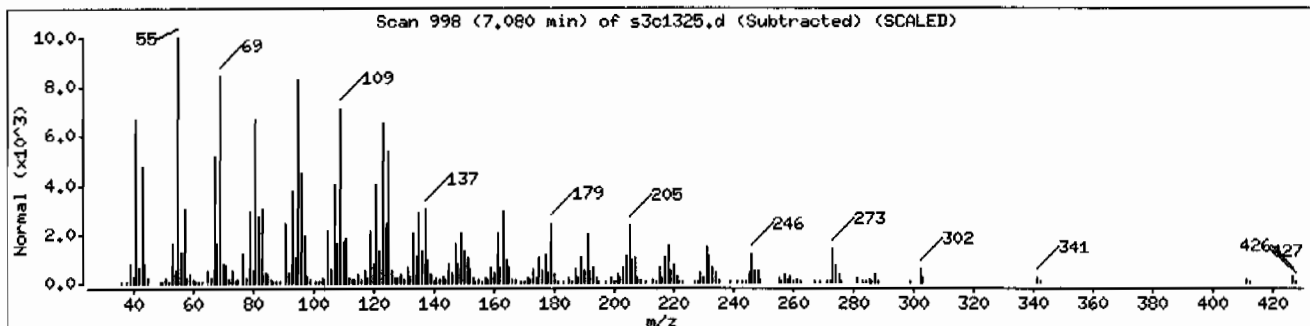
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Friedelan-3-one	559-74-0	NIST05.L	176566	87	C30H50O	426
1-Cyclobutanol, 1-methyl-2-(2,2-dimethyl	1000197-21-8	NIST05.L	62978	55	C14H24O	208
(7,7-Dimethyl-2-oxobicyclo[2.2.1]hept-1-	1000197-55-6	NIST05.L	88842	48	C11H18O4S	246



Date : 13-MAR-2010 18:52

Client ID: RE36-10-8282

Instrument: HSD3.i

Sample Info: 12482020011960459121SVHF11ILANL

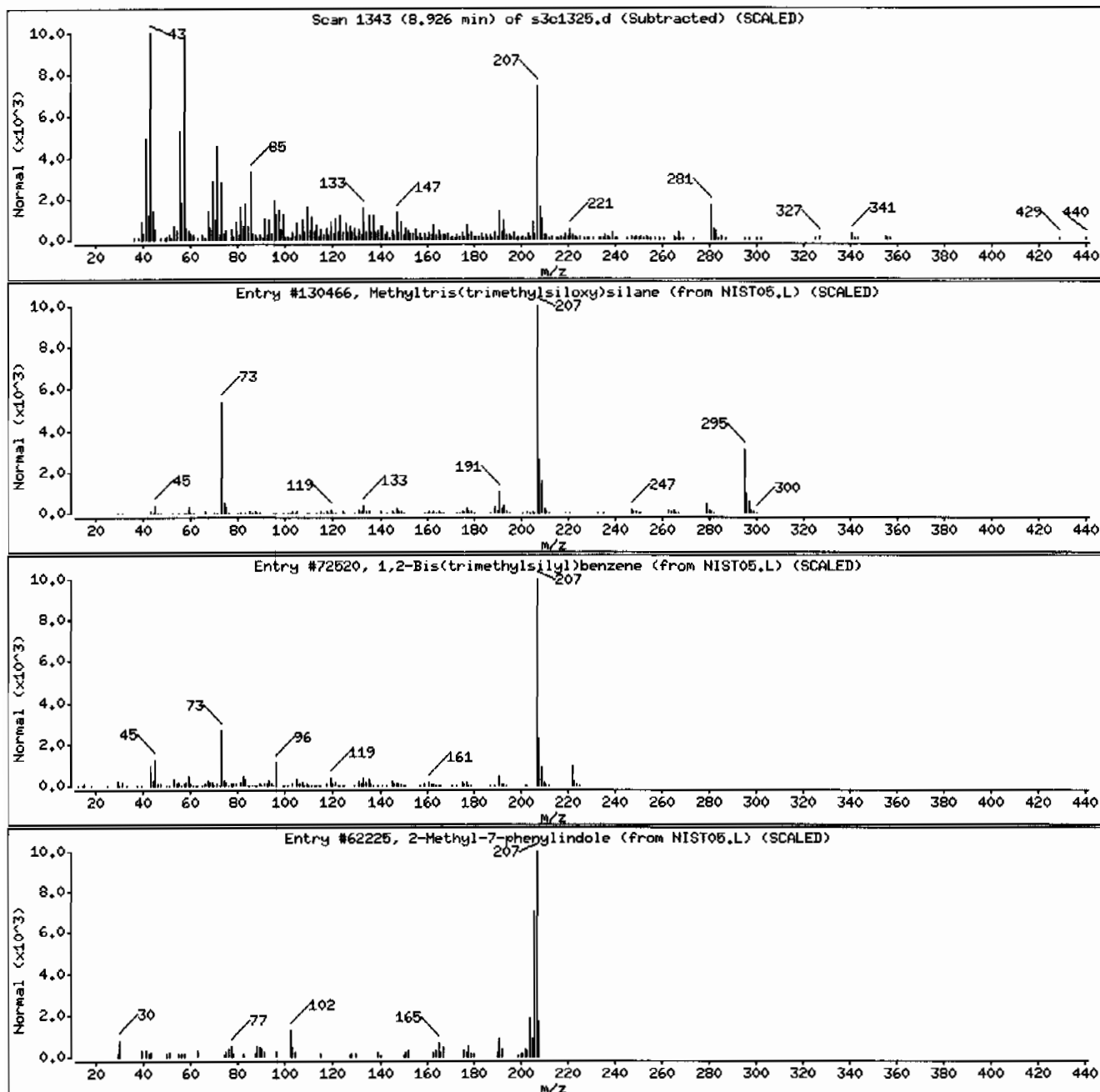
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Methyltris(trimethylsiloxy)silane	17928-28-8	NIST05.L	130466	43	C10H30O3Si4	310
1,2-Bis(trimethylsilyl)benzene	17151-09-6	NIST05.L	72520	43	C12H22Si2	222
2-Methyl-7-phenylindole	1140-08-5	NIST05.L	62225	42	C15H13N	207



Date : 13-MAR-2010 18:52

Client ID: RE36-10-8282

Instrument: MSD3.i

Sample Info: 1248202001960459121SVHF111LANL

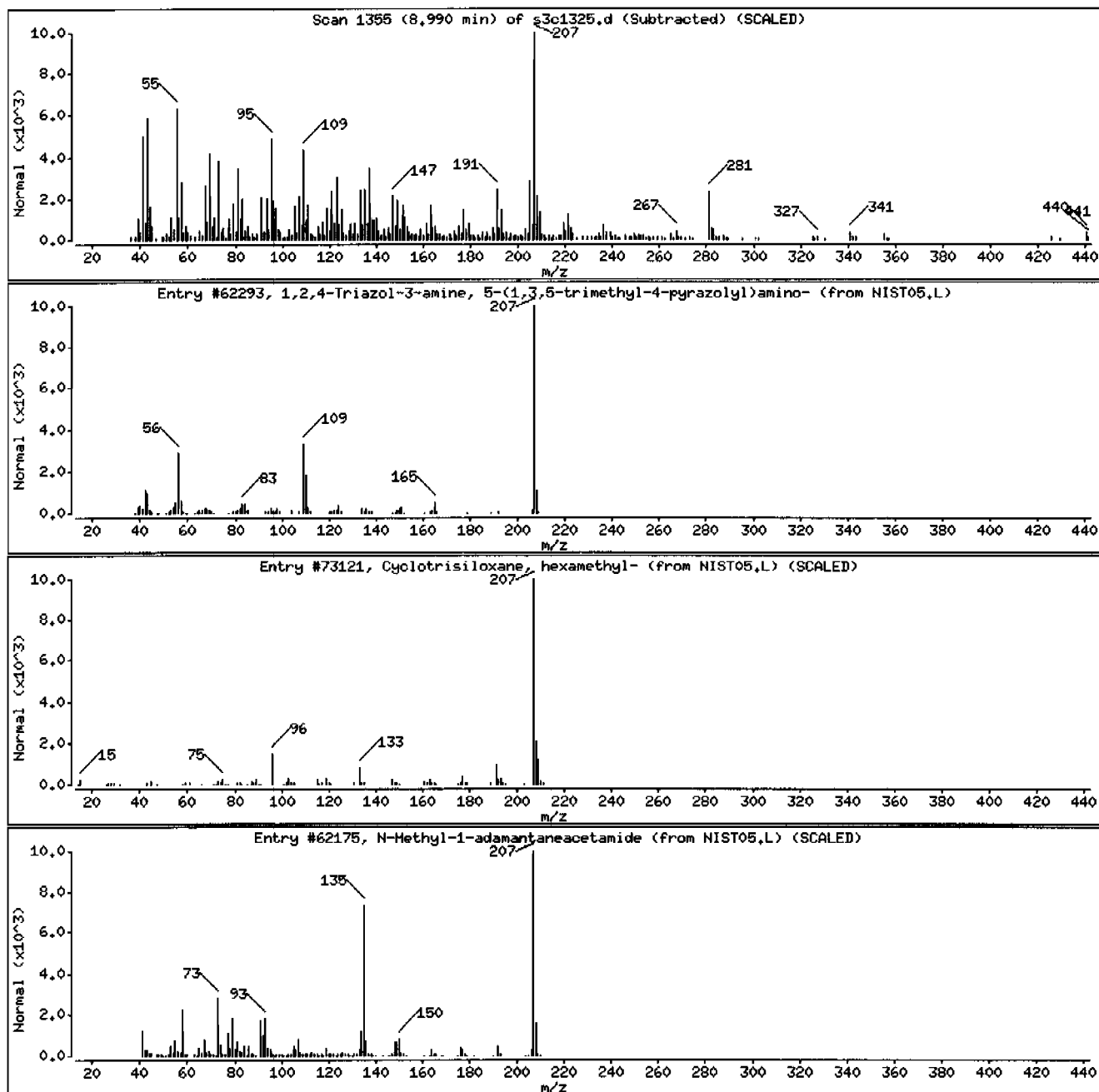
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,2,4-Triazol-3-amine, 5-(1,3,5-trimethyl-4-pyrazolyl)amino-	1000264-16-7	NIST05.L	62293	35	C8H13N7	207
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73121	30	C6H18O3Si3	222
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	30	C13H21NO	207



# Standard Data



SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenylether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde	10	20	40	50	80	100	120	
Acetophenone	10	20	40	50	80	100	120	
Caprolactam	10	20	40	50	80	100	120	
1,1'-Biphenyl	10	20	40	50	80	100	120	
Atrazine	10	20	40	50	80	100	120	
Benzidine	10	20	40	50	80	100	120	
3,3'-Dichlorobenzidine	10	20	40	50	80	100	120	
1,4-Dioxane	10	20	40	50	80	100	120	
Methyl methacrylate	10	20	40	50	80	100	120	
Ethyl methacrylate	10	20	40	50	80	100	120	
2-Picoline	10	20	40	50	80	100	120	
N-Nitrosomethylethylamine	10	20	40	50	80	100	120	
Methyl methanesulfonate	10	20	40	50	80	100	120	
N-Nitrosodiethylamine	10	20	40	50	80	100	120	
Ethyl methanesulfonate	10	20	40	50	80	100	120	
Pentachloroethane	10	20	40	50	80	100	120	
N-Nitrosopyrrolidine	10	20	40	50	80	100	120	
N-Nitrosomorpholine	10	20	40	50	80	100	120	
o-Toluidine	10	20	40	50	80	100	120	
N-Nitrosopiperidine	10	20	40	50	80	100	120	
a,a-Dimethylphenethylamine	10	20	40	50	80	100	120	
2,6-Dichlorophenol	10	20	40	50	80	100	120	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene	10	20	40	50	80	100	120	
p-Phenylenediamine	10	20	40	50	80	100	120	
N-Nitrosodi-n-butylamine	10	20	40	50	80	100	120	
Safole	10	20	40	50	80	100	120	
1,2,4,5-Tetrachlorobenzene	10	20	40	50	80	100	120	
Isosafrole	10	20	40	50	80	100	120	
1,4-Naphthoquinone	10	20	40	50	80	100	120	
Pentachlorobenzene	10	20	40	50	80	100	120	
1-Naphthylamine	10	20	40	50	80	100	120	
2-Naphthylamine	10	20	40	50	80	100	120	
5-Nitro-o-toluidine	10	20	40	50	80	100	120	
1,3,5-Trinitrobenzene	10	20	40	50	80	100	120	
Phenacetin	10	20	40	50	80	100	120	
Diallate	10	20	40	50	80	100	120	
cis-Diallate	1.5	3	6	7.5	12	15	18	
trans-Diallate	8.5	17	34	42	68	85	102	
4-Aminobiphenyl	10	20	40	50	80	100	120	

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothiobenzene		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120
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SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.

# Indicates the calibration verification concentration level used

\* Usual calibration levels using SCAN methodology

\*\* This analyte included in this level at special client request.

(0210/Full list)

Report Date: 13-Mar-2010 14:18

### Calibration History

Method : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
Start Cal Date: 09-MAR-2010 16:24  
End Cal Date : 10-MAR-2010 07:50

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
09-MAR-2010 16:24	MEGAI	/chem/MSD3.i/s030910a.b/s3c0919.d
Cal Level: 2 , Cal Amount: 10.00000		
10-MAR-2010 05:06	BJCO	/chem/MSD3.i/s030910a.b/s3c0955.d
10-MAR-2010 01:41	HEX	/chem/MSD3.i/s030910a.b/s3c0944.d
09-MAR-2010 23:25	PEST	/chem/MSD3.i/s030910a.b/s3c0937.d
09-MAR-2010 21:10	AP12	/chem/MSD3.i/s030910a.b/s3c0930.d
09-MAR-2010 16:47	MEGAI	/chem/MSD3.i/s030910a.b/s3c0920.d
Cal Level: 3 , Cal Amount: 20.00000		
10-MAR-2010 05:30	BJCO	/chem/MSD3.i/s030910a.b/s3c0956.d
10-MAR-2010 02:00	HEX	/chem/MSD3.i/s030910a.b/s3c0945.d
09-MAR-2010 23:45	PEST	/chem/MSD3.i/s030910a.b/s3c0938.d
09-MAR-2010 21:29	AP12	/chem/MSD3.i/s030910a.b/s3c0931.d
09-MAR-2010 17:11	MEGAI	/chem/MSD3.i/s030910a.b/s3c0921.d
Cal Level: 4 , Cal Amount: 40.00000		
10-MAR-2010 05:53	BJCO	/chem/MSD3.i/s030910a.b/s3c0957.d
10-MAR-2010 02:19	HEX	/chem/MSD3.i/s030910a.b/s3c0946.d
10-MAR-2010 00:04	PEST	/chem/MSD3.i/s030910a.b/s3c0939.d
09-MAR-2010 21:49	AP12	/chem/MSD3.i/s030910a.b/s3c0932.d
09-MAR-2010 17:34	MEGAI	/chem/MSD3.i/s030910a.b/s3c0922.d
Cal Level: 5 , Cal Amount: 50.00000		
10-MAR-2010 06:16	BJCO	/chem/MSD3.i/s030910a.b/s3c0958.d
10-MAR-2010 02:38	HEX	/chem/MSD3.i/s030910a.b/s3c0947.d
10-MAR-2010 00:24	PEST	/chem/MSD3.i/s030910a.b/s3c0940.d
09-MAR-2010 22:08	AP12	/chem/MSD3.i/s030910a.b/s3c0933.d
09-MAR-2010 17:58	MEGAI	/chem/MSD3.i/s030910a.b/s3c0923.d
Cal Level: 6 , Cal Amount: 80.00000		
10-MAR-2010 06:40	BJCO	/chem/MSD3.i/s030910a.b/s3c0959.d
10-MAR-2010 02:57	HEX	/chem/MSD3.i/s030910a.b/s3c0948.d
10-MAR-2010 00:43	PEST	/chem/MSD3.i/s030910a.b/s3c0941.d
09-MAR-2010 22:27	AP12	/chem/MSD3.i/s030910a.b/s3c0934.d
09-MAR-2010 18:22	MEGAI	/chem/MSD3.i/s030910a.b/s3c0924.d
Cal Level: 7 , Cal Amount: 100.00000		

10-MAR-2010	07:03	BJCO	/chem/MSD3.i/s030910a.b/s3c0960.d
10-MAR-2010	03:16	HEX	/chem/MSD3.i/s030910a.b/s3c0949.d
10-MAR-2010	01:02	PEST	/chem/MSD3.i/s030910a.b/s3c0942.d
09-MAR-2010	22:47	AP12	/chem/MSD3.i/s030910a.b/s3c0935.d
09-MAR-2010	18:46	MEGAI	/chem/MSD3.i/s030910a.b/s3c0925.d
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Cal Level: 8 , Cal Amount: 120.00000			
=====			
10-MAR-2010	07:27	BJCO	/chem/MSD3.i/s030910a.b/s3c0961.d
10-MAR-2010	01:21	PEST	/chem/MSD3.i/s030910a.b/s3c0943.d
09-MAR-2010	23:06	AP12	/chem/MSD3.i/s030910a.b/s3c0936.d
09-MAR-2010	19:10	MEGAI	/chem/MSD3.i/s030910a.b/s3c0926.d
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# Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0			
=====			
13-MAR-2010	12:34	BJCO	/chem/MSD3.i/s031310.b/s3c1306.d
Ccal Level: 4 , Ccal Amount: 40.0			
=====			
13-MAR-2010	11:56	PEST	/chem/MSD3.i/s031310.b/s3c1305.d
Ccal Level: 4 , Ccal Amount: 40.0			
=====			
13-MAR-2010	11:36	AP12	/chem/MSD3.i/s031310.b/s3c1304.d
Ccal Level: 4 , Ccal Amount: 40.0			
=====			
13-MAR-2010	11:13	MEGAI	/chem/MSD3.i/s031310.b/s3c1303.d
Ccal Level: 4 , Ccal Amount: 40.0			
=====			
13-MAR-2010	10:49	MEGAI	/chem/MSD3.i/s031310.b/s3c1302.d
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## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 09-MAR-2010 16:24  
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 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
 Cal Date : 13-Mar-2010 12:50 jen00986

## Calibration File Names:

Level 1: /chem/MSD3.i/s030910a.b/s3c0919.d  
 Level 2: /chem/MSD3.i/s030910a.b/s3c0955.d  
 Level 3: /chem/MSD3.i/s030910a.b/s3c0956.d  
 Level 4: /chem/MSD3.i/s030910a.b/s3c0957.d  
 Level 5: /chem/MSD3.i/s030910a.b/s3c0958.d  
 Level 6: /chem/MSD3.i/s030910a.b/s3c0959.d  
 Level 7: /chem/MSD3.i/s030910a.b/s3c0960.d  
 Level 8: /chem/MSD3.i/s030910a.b/s3c0961.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m:	m2	%RSD or R^2
1 N-Methyl-N-nitrosomethylamine	++++ 0.49057	0.45322 0.46343	0.47547	0.46018	0.45564	0.46263	AVRG		0.46588		2.79251
2 Pyridine	++++ 0.74659	0.69567 0.72020	0.71252	0.68440	0.68606	0.71393	AVRG		0.70848		3.09337
4 Aniline	++++ 0.47052	0.44823 0.45434	0.46468	0.45903	0.44957	0.45951	AVRG		0.45798		1.74823
209 Benzaldehyde	++++ 0.66748	0.67992 0.62933	0.73747	0.69042	0.70492	0.66005	AVRG		0.68137		5.06326
6 Phenol	++++ 1.09748	1.05573 1.08167	1.12106	1.08738	1.06941	1.09696	AVRG		1.08710		1.94584



## GEL Laboratories LLC

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 Cal Date : 13-Mar-2010 12:50 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
7 bis(2-Chloroethyl) ether	0.85993 0.75785	0.78520 0.74762	0.81587 0.77932	0.77932 0.76250	0.76250 0.76891	0.76891 AVRG	AVRG		0.78465		4.69459
8 2-Chlorophenol	++++ 1.06727	1.06949 1.05808	1.10238 1.07244	1.07244 1.06068	1.06068 1.07083	1.07083 AVRG	AVRG		1.07160		1.35951
203 n-Decane	++++ ++++	1.57431 ++++	1.58477 1.31846	1.31846 1.29461	1.29461 1.19098	1.19098 AVRG	AVRG		1.39262		12.72923
9 1,3-Dichlorobenzene	++++ 1.18769	1.20883 1.18331	1.25922 1.19224	1.19224 1.17576	1.17576 1.18309	1.18309 AVRG	AVRG		1.19859		2.39285
11 1,4-Dichlorobenzene	++++ 1.21919	1.28448 1.22246	1.33237 0.62603	1.23399 0.63169	1.22119 0.62750	1.23284 0.63970	AVRG		1.24950		3.43614
12 Benzyl alcohol	++++ 0.64562	0.57809 0.64517	0.62603 1.21021	0.63169 1.12935	0.62750 1.13166	0.63970 1.12828	AVRG		0.62769		3.70801
13 1,2-Dichlorobenzene	++++ 1.13446	1.18110 1.13468	1.21021 2.18457	1.12935 1.98830	1.13166 1.97106	1.12828 1.89351	AVRG		1.14996		2.81861
14 bis(2-Chloroisopropyl)ether	++++ 1.81532	2.21176 1.79501	2.18457 0.80760	1.98830 0.73238	1.97106 0.73240	1.89351 0.74416	AVRG		1.97993		8.36372
15 o-Cresol	++++ 0.75216	0.76411 0.74785	0.80760 0.73238	0.73238 0.73240	0.73240 0.74416	0.74416 AVRG	AVRG		0.75438		3.44234

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 Cal Date : 13-Mar-2010 12:50 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
16 Acetophenone	++++ 1.08387	1.07890 1.06643	1.15507	1.08900	1.12239	1.06986	AVRG		1.09508		2.94147
17 N-Nitrosodipropylamine	0.57298 0.60551	0.60584 0.60152	0.62289	0.61444	0.59974	0.60693	AVRG		0.60373		2.39682
18 m,p-Cresols	++++ 0.97922	0.91979 0.98553	0.97261	0.95335	0.94025	0.96699	AVRG		0.95968		2.43638
19 Hexachloroethane	++++ 0.47192	0.47682 0.47033	0.49388	0.47089	0.47107	0.47451	AVRG		0.47563		1.76027
21 Nitrobenzene	++++ 0.20942	0.24964 0.19832	0.24788	0.23468	0.22807	0.21104	AVRG		0.22558		8.83164
22 Isophorone	++++ 0.39022	0.44643 0.36943	0.44990	0.42477	0.41068	0.39733	AVRG		0.41268		7.19185
23 2-Nitrophenol	++++ 0.12551	0.14657 0.11989	0.15932	0.14117	0.13748	0.12858	AVRG		0.13693		9.90083
24 2,4-Dimethylphenol	++++ 0.21230	0.25510 0.20112	0.24993	0.23540	0.22714	0.21737	AVRG		0.22834		8.67064
25 bis(2-Chloroethoxy)methane	++++ 0.24385	0.28947 0.23134	0.29171	0.27137	0.26024	0.25051	AVRG		0.26264		8.69174

## GEL Laboratories LLC

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 Integrator : HP RTE  
 Method file : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
 Cal Date : 13-Mar-2010 12:50 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
26 2,4-Dichlorophenol	++++ 0.19069	0.20262 0.18158	0.21058 0.19953	0.20417 0.19385	AVRG	0.19757	4.88569				
27 Benzoic acid	++++ 841353	++++ 826433	27136 236874	283168	558017	0.40354	0.16390	0.99491			
28 1,2,4-Trichlorobenzene	++++ 0.20788	0.24939 0.20001	0.25110	0.23226	0.22282	0.21431	AVRG	0.22540	8.80613		
30 Naphthalene	0.99602 0.67686	0.87161 0.64824	0.88003	0.79143	0.76736	0.72754	AVRG	0.79364	14.73777		
204 alpha-Terpineol	++++ 0.18328	0.23844 0.17693	0.24077	0.21308	0.20824	0.19614	AVRG	0.20813	12.00096		
31 4-Chloroaniline	++++ 0.29919	0.31218 0.28376	0.29527	0.33445	0.32371	0.29765	AVRG	0.30660	5.78068		
189 Caprolactam	++++ 0.08387	0.06918 0.08178	0.08166	0.08278	0.08635	0.08461	AVRG	0.08146	6.94810		
32 Hexachlorobutadiene	++++ 0.10913	0.12567 0.10260	0.12397	0.11830	0.11642	0.10919	AVRG	0.11504	7.35289		
33 4-Chloro-3-methylphenol	++++ 0.19263	0.20553 0.18314	0.21294	0.20834	0.20283	0.19453	AVRG	0.19999	5.17985		

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 Integrator : HP RTE  
 Method file : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
 Cal Date : 13-Mar-2010 12:50 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.61920 0.45072	0.55910 0.43100	0.56644	0.51958	0.50422	0.47314	AVRG	0.51543			12.38475
35 1-Methylnaphthalene	0.61606 0.44141	0.55407 0.41906	0.55528	0.50332	0.49530	0.46142	AVRG	0.50574			13.09314
36 Hexachlorocyclopentadiene	++++ 391596	17209 366756	43533	166610	161802	268363	LINR	0.15025	0.14622		0.99192
208 1,1'-Biphenyl	++++ 1.13168	1.26694 1.12672	1.22309	1.20709	1.18079	1.14102	AVRG		1.18248		4.47490
205 2,3-Dichloroaniline	++++ 0.52557	0.53161 0.50627	0.55084	0.52801	0.52600	0.51602	AVRG		0.52633		2.61971
37 2,4,6-Trichlorophenol	++++ 0.28413	0.25594 0.27693	0.28274	0.26798	0.26687	0.29072	AVRG		0.27504		4.38474
38 2,4,5-Trichlorophenol	++++ 0.32611	0.27976 0.31843	0.30172	0.32322	0.32436	0.30475	AVRG		0.31120		5.42837
40 2-Chloronaphthalene	1.03089 0.88145	0.93965 0.86189	0.96995	0.91126	0.89625	0.87698	AVRG		0.92104		6.15836
42 o-Nitroaniline	++++ 0.27311	0.24450 0.26319	0.26094	0.27339	0.26328	0.26626	AVRG		0.26352		3.68401

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Start Cal Date : 09-MAR-2010 16:24  
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 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
 Cal Date : 13-Mar-2010 12:50 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
41 m-Nitroaniline	++++ 0.25693	0.20927 0.26033	0.19528	0.25241	0.24301	0.24448	AVRG		0.23739		10.57261
43 Dimethylphthalate	++++ 1.04289	1.09698 1.03705	1.14877	1.06391	1.04881	1.03677	AVRG		1.06788		3.88225
44 2,6-Dinitrotoluene	++++ 0.25401	0.25611 0.25449	0.26815	0.25421	0.25664	0.24968	AVRG		0.25618		2.23861
45 Acenaphthylene	1.61802 1.42287	1.52462 1.40229	1.59175	1.49048	1.47152	1.44707	AVRG		1.49608		5.17941
47 Acenaphthene	1.20189 0.93130	0.97935 0.90539	1.02715	0.94860	0.94776	0.93746	AVRG		0.98486		9.63605
48 2,4-Dinitrophenol	320054 324135	28584 324135	24225	117874	123535	220463	AVRG		0.13309		0.99658
49 Dibenzofuran	1.21124 1.17064	1.28584 1.17064	1.34886	1.26058	1.23915	1.21010	AVRG		1.24663		4.70028
50 2,4-Dinitrotoluene	0.32849 0.32849	0.30800 0.33062	0.33593	0.33284	0.32348	0.32923	AVRG		0.32694		2.81365
51 Diethylphthalate	1.06149	1.15617	1.21339	1.12208	1.10678	1.08430	AVRG		1.11196		5.31128

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 Integrator : HP RTE  
 Method file : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
 Cal Date : 13-Mar-2010 12:50 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
52 4-Nitrophenol	++++ 505576	28845 525303	65355	219223	230488	366986	LINEAR	0.13312	0.19859		0.99868
53 Fluorene	1.17614 1.02606	1.11407 1.01340	1.15144	1.06550	1.05306	1.04810	AVRG		1.08097		5.50626
54 4-Chlorophenylphenylether	++++ 0.47904	0.49206 0.47680	0.50920	0.48370	0.47473	0.47953	AVRG		0.48501		2.48996
55 2-Methyl-4,6-dinitrophenol	++++ 451449	22547 463741	52675	185816	198385	329926	LINEAR	0.14307	0.09929		0.99909
56 p-Nitroaniline	++++ 648681	44862 659983	65682	263194	276003	436953	LINEAR	0.17779	0.25312		0.99378
133 Diphenylamine	++++ 0.48095	0.53093 0.47512	0.52867	0.50141	0.49223	0.46813	AVRG		0.49678		5.04299
58 1,2-Diphenylhydrazine	++++ 0.50837	0.55703 0.49631	0.57929	0.55021	0.53843	0.51721	AVRG		0.53526		5.50624
59 Tributylphosphate	++++ 0.98192	0.91856 0.91939	1.01516	1.08508	1.08116	1.01171	AVRG		1.00185		6.77284
61 4-Bromophenylphenylether	++++ 0.15039	0.14149 0.14663	0.15021	0.14374	0.14485	0.14265	AVRG		0.14571		2.42323

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 Method file : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
 Cal Date : 13-Mar-2010 12:50 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	mi	m2	RSD or R <sup>2</sup>
63 Hexachlorobenzene	++++ 0.15090	0.14004 0.14891	0.14506	0.13994	0.14232	0.14352	AVRG		0.14439		2.92435
207 Atrazine	++++ 0.04399	0.04346 0.04402	0.04621	0.04559	0.04637	0.04447	AVRG		0.04487		2.60142
65 Pentachlorophenol	++++ 417585	21162 418524	47444	156394	175222	295589	LINE	0.16575	0.09081		0.99871
206 n-Octadecane	++++ ++++	0.48395 ++++	0.49965	0.42590	0.42047	0.36434	AVRG		0.43886		2.36972
68 Phenanthrene	1.09582 0.79735	0.95753 0.80665	0.99270	0.87099	0.86474	0.86295	AVRG		0.90609		11.24429
69 Anthracene	0.99610 0.80380	0.92954 0.79467	0.96482	0.89673	0.88853	0.82295	AVRG		0.88714		8.45845
72 Di-n-butylphthalate	++++ 0.89532	1.10546 0.90124	1.16428	1.06192	1.06552	0.98073	AVRG		1.02492		9.99547
76 Fluoranthene	0.89337 0.72127	0.85250 0.76857	0.86462	0.83343	0.81455	0.81752	AVRG		0.82073		6.67901
77 Benzidine	++++ 0.43980	0.42425 0.47622	0.31984	0.42643	0.40633	0.45615	AVRG		0.42129		11.91851

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 Cal Date : 13-Mar-2010 12:50 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
79 Pyrene	1.25320 1.12142	1.20003 1.04780	1.28759 1.11977	1.12785 1.10822	1.12785 1.10822	1.12785 1.10822	AVRG	1.15824	1.15824	6.99544	
85 Butylbenzylphthalate	++++ 0.56103	0.57719 0.55393	0.64974 0.57708	0.61247 0.57740	0.61247 0.57740	0.61247 0.57740	AVRG	0.58698	0.58698	5.66709	
89 Benzo(a)anthracene	1.09784 0.91131	0.90327 0.88170	0.91170 0.88042	0.95545 0.88987	0.95545 0.88987	0.95545 0.88987	AVRG	0.92895	0.92895	7.78484	
90 3,3'-Dichlorobenzidine	++++ 0.28530	0.21619 0.29516	0.21980 0.27517	0.26443 0.27970	0.26443 0.27970	0.26443 0.27970	AVRG	0.26225	0.26225	12.07217	
92 Chrysene	1.08051 0.86688	0.98281 0.90714	1.02885 0.91442	0.95346 0.79021	0.87511 0.84522	0.90382 0.79542	AVRG	0.94982	0.94982	8.04035	
93 bis(2-Ethylhexyl)phthalate	0.63010 0.75439	0.81442 0.73890	0.91684 0.77017	0.79021 1.63362	0.84522 1.72770	0.79542 1.67571	AVRG	0.78569	0.78569	10.65558	
94 Di-n-octylphthalate	++++ 1.59246	1.55877 1.56111	1.77017 1.77017	1.63362 1.63362	1.72770 1.72770	1.67571 1.67571	AVRG	1.64565	1.64565	5.01145	
95 Benzo(b)fluoranthene	1.15201 1.04092	0.94133 0.97279	0.97661 0.97661	1.04710 1.04710	0.99359 0.99359	0.99804 0.99804	AVRG	1.01530	1.01530	6.43729	
96 Benzo(k)fluoranthene	1.21184 1.06434	1.10394 1.10604	1.14675 1.03328	1.06743 1.06743	1.06743 1.06743	1.03989 1.03989	AVRG	1.09669	1.09669	5.45534	



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## INITIAL CALIBRATION DATA

Start Cal Date : 09-MAR-2010 16:24  
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 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
 Cal Date : 13-Mar-2010 12:50 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients mi	m2	%RSD or R <sup>2</sup>
97 Benzo(a)pyrene	0.93973  0.88383	0.81030  0.87520	0.85511  0.87520	0.86499  0.87520	0.87557  0.87520	0.87286  0.87520	AVRG		0.87220		4.08660
99 Indeno(1,2,3-cd)pyrene	0.85767  0.69367	0.66403  0.75622	0.74483  0.75622	0.74136  0.75622	0.75735  0.75622	0.80127  0.75205	AVRG		0.75205		7.93767
100 Dibenzo(a,h)anthracene	0.69578  0.56998	0.53281  0.61502	0.60369  0.61502	0.60217  0.61502	0.61653  0.61502	0.66042  0.61205	AVRG		0.61205		8.19145
101 Benzo(ghi)perylene	0.77818  0.54041	0.56852  0.59341	0.61206  0.59341	0.59122  0.59341	0.60923  0.59341	0.64951  0.59341	AVRG		0.61782		11.69624
102 1,4-Dioxane	++++  0.28891	0.27032  0.28299	0.29580  0.28299	0.28830  0.28299	0.30040  0.28299	0.26615  0.28299	AVRG		0.28469		4.42983
103 Methyl methacrylate	++++  0.18897	0.18346  0.18315	0.20136  0.18315	0.18427  0.18315	0.18978  0.18315	0.18413  0.18315	AVRG		0.18787		3.47304
104 Ethyl methacrylate	++++  0.58811	0.57448  0.57340	0.61797  0.57340	0.58100  0.57340	0.60289  0.57340	0.57749  0.57340	AVRG		0.58791		2.84218
105 2-Picoline	++++  1.01756	0.99628  0.98877	1.06063  0.98877	1.00894  0.98877	1.03484  0.98877	1.00021  0.98877	AVRG		1.01532		2.47070
106 N-Nitrosomethylethylamine	++++  0.39700	0.36247  0.37750	0.39898  0.37750	0.37992  0.37750	0.39487  0.37750	0.38612  0.37750	AVRG		0.38527		3.39611

## GEL Laboratories LLC

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 Integrator : HP RTE  
 Method file : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
 Cal Date : 13-Mar-2010 12:50 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
107 Methyl methanesulfonate	++++ 0.42141	0.43177 0.40320	0.45705	0.42777	0.43303	0.41232	AVRG		0.42665		4.03166
108 N-Nitrosodiethylamine	++++ 0.45570	0.43317 0.43066	0.46421	0.44829	0.45407	0.44541	AVRG		0.44736		2.71251
109 Ethyl Methanesulfonate	++++ 0.51223	0.51710 0.50353	0.53567	0.50781	0.52268	0.51243	AVRG		0.51592		2.06687
110 Pentachloroethane	++++ 0.31414	0.29968 0.30059	0.31764	0.30197	0.30585	0.30438	AVRG		0.30632		2.26581
111 N-Nitrosopyrrolidine	++++ 0.47502	0.41689 0.46053	0.48019	0.45412	0.47362	0.46950	AVRG		0.46141		4.67230
113 N-Nitrosomorpholine	++++ 0.65037	0.68553 0.62853	0.71599	0.67479	0.68326	0.64462	AVRG		0.66901		4.44129
114 o-Toluidine	++++ 1.55355	1.59163 1.53032	1.64667	1.54515	1.61756	1.54672	AVRG		1.57594		2.76181
115 N-Nitrosopiperidine	++++ 0.12950	0.12309 0.12600	0.13060	0.12320	0.12799	0.12678	AVRG		0.12674		2.28963
116 a,a-Dimethylphenethylamine	++++ 0.77849	0.61991 0.77252	0.71680	0.72898	0.76459	0.76517	AVRG		0.73521		7.59288

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 Cal Date : 13-Mar-2010 12:50 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
117 Triethylphosphorothioate	++++ 0.11394	0.11009 0.11249	0.11055 0.11655	0.11757 0.11064	AVRG	0.11312	2.66532				
118 2,6-Dichlorophenol	++++ 0.21208	0.18169 0.20527	0.19411 0.20266	0.20581 0.21161	AVRG	0.20189	5.32710				
119 Hexachloropropene	++++ 0.09613	0.06951 0.09155	0.08208 0.08704	0.08819 0.09235	AVRG	0.08669	10.13812				
120 p-Phenylenediamine	++++ 0.20047	0.18229 0.19107	0.21644 0.22381	0.21862 0.20433	AVRG	0.20529	7.44141				
121 N-Nitrosodi-n-butylamine	++++ 0.15475	0.17818 0.15122	0.18670 0.16788	0.16743 0.15321	AVRG	0.16562	8.13736				
122 Safole	++++ 0.18197	0.18125 0.17452	0.18870 0.18884	0.18863 0.18449	AVRG	0.18406	2.88115				
123 1,2,4,5-Tetrachlorobenzene	++++ 0.37906	0.38618 0.37202	0.37978 0.37822	0.37694 0.37820	AVRG	0.37863	1.10648				
124 Isosafrole	++++ 0.33459	0.32038 0.32840	0.33025 0.33025	0.33092 0.33339	AVRG	0.32993	1.41627				
125 1,4-Naphthoquinone	++++ 0.27972	0.29859 0.27175	0.35449 0.34295	0.32231 0.28835	AVRG	0.30831	10.40523				

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 Cal Date : 13-Mar-2010 12:50 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	ml	ml	%RSD or R^2
126 m-Dinitrobenzene	++++ 0.18991	0.16884 0.19158	0.18595	0.18535	0.18256	0.18600	AVRG		0.18431		4.04342
127 Pentachlorobenzene	++++ 0.32257	0.30262 0.32462	0.31682	0.30847	0.31299	0.31956	AVRG		0.31531		2.48707
128 1-Naphthylamine	++++ 0.92095	0.86106 0.93006	0.86984	0.91664	0.93257	0.92194	AVRG		0.90758		3.23921
129 2-Naphthylamine	++++ 0.98000	1.01455 1.02311	1.05059	1.03138	1.02805	0.99375	AVRG		1.01735		2.34304
130 2,3,4,6-Tetrachlorophenol	++++ 0.24638	0.19467 0.24434	0.22436	0.23334	0.23405	0.22990	AVRG		0.22958		7.50251
131 5-Nitro-o-toluidine	++++ 0.30199	0.23757 0.30773	0.27339	0.29077	0.28903	0.29680	AVRG		0.28533		8.31578
132 Thionazin	++++ 0.14998	0.13434 0.14234	0.14025	0.14781	0.15453	0.14177	AVRG		0.14443		4.68753
134 Sulfotepp	++++ 0.08382	0.06512 0.07981	0.06623	0.07195	0.07302	0.07380	AVRG		0.07339		9.17659
135 Phorate	++++ 0.30953	0.30446 0.28817	0.29997	0.31238	0.31802	0.30628	AVRG		0.30554		3.14262

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
136 1,3,5-Trinitrobenzene	++++ 451420	22035 483304	82125	191059	226834	391656	LINE	0.12030	0.11150		0.99836
137 Phenacetin	++++ 0.29519	0.23413 0.29924	0.27012	0.28058	0.27514	0.28021	AVRG		0.27637		7.72452
138 Diallate	++++ 0.21560	0.21596 0.21580	0.22752	0.22512	0.22473	0.21921	AVRG		0.22056		2.31756
139 Dimethoate	++++ 0.21005	0.16218 0.20619	0.17601	0.19447	0.20259	0.19675	AVRG		0.19261		9.01853
140 4-Aminobiphenyl	++++ 0.58646	0.53455 0.58238	0.54023	0.53065	0.55506	0.58611	AVRG		0.55935		4.50170
141 Pentachloronitrobenzene	++++ 0.05741	0.06147 0.05882	0.06533	0.06194	0.06189	0.05831	AVRG		0.06074		4.52421
142 Pronamide	++++ 0.26248	0.26862 0.26610	0.28595	0.27503	0.27559	0.26200	AVRG				
143 Dinoseb	++++ 669385	28705 665450	72094	254048	281923	487085	LINE	0.16945	0.27083		3.17524
144 Disulfoton	++++ 0.25374	0.24246 0.23832	0.24707	0.25813	0.26118	0.25277	AVRG		0.14604		0.99946
									0.25052		3.31100

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 Cal Date : 13-Mar-2010 12:50 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
145 Methyl parathion	++++ 0.19841	0.13101 0.19884	0.15466 0.18133	0.19406 0.19406	0.19172 0.19172	AVRG		0.17715			14.09087
146 4-Nitroquinoline-1-oxide	++++ 69297	3838 71832	17695 35258	35070 35070	60747 60747	LINEAR		0.01614			0.99170
147 Methapyrilene	++++ 0.34279	0.35093 0.34215	0.39454 0.39454	0.38437 0.38437	0.37201 0.37201	AVRG		0.36149			6.06117
148 Isodrin	++++ 0.09471	0.09280 0.09389	0.09559 0.09681	0.09528 0.09528	0.09267 0.09267	AVRG		0.09454			1.60257
149 Aramite	++++ 0.04757	0.03846 0.04799	0.04494 0.04494	0.04838 0.04838	0.04535 0.04535	AVRG		0.04557			7.45125
150 Kepone	++++ 0.06328	0.05202 0.06388	0.06033 0.06033	0.06567 0.06567	0.06295 0.06295	AVRG		0.06146			7.27323
151 p- (Dimethylamino)azobenzene	++++ 0.37364	0.37467 0.37707	0.39871 0.39871	0.39411 0.39411	0.38231 0.38231	AVRG		0.38197			2.72468
152 Chlorobenzilate	++++ 0.30862	0.27404 0.31322	0.29878 0.29878	0.28824 0.28824	0.31530 0.31530	AVRG		0.30142			5.10390
153 3,3'-Dimethylbenzidine	++++ 0.52322	0.50305 0.54439	0.49400 0.49400	0.53036 0.53036	0.51604 0.51604	AVRG		0.51971			3.27517

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
154 Famphur	++++ 0.38989	0.34451 0.37390	0.34846 0.37390	0.38858 0.37390	0.38734 0.37390	0.38512 0.37390	AVRG		0.37397		5.22288
155 2-Acetylaminofluorene	++++ 1162547	52996 1248381	171677 1248381	503872 1248381	511276 1248381	957240 1248381	LINR	0.15829	0.42384		0.99796
157 7,12Dimethylbenz(a)anthracene	++++ 0.51810	0.45027 0.51256	0.51369 0.51256	0.48265 0.51256	0.49702 0.51256	0.50866 0.51256	AVRG		0.49756		4.84655
158 3-Methylcholanthrene	++++ 0.38910	0.28302 0.38536	0.32517 0.38536	0.37064 0.38536	0.36493 0.38536	0.36762 0.38536	AVRG		0.35512		10.69654
26 Phthalic anhydride	++++ 536020	21836 ++++	44618 ++++	192413 ++++	234508 ++++	385956 ++++	LINR	0.18352	0.10004		0.99801
173 Carbazole	0.83849	0.66113	0.53689	0.59082	0.60008	0.63297	AVRG		0.64109		13.77887
174 Hexachlorophene	++++ 4377169	258205 ++++	1051736 ++++	1992205 ++++	3839469 ++++	3089788 ++++	LINR	9.82290	0.07635		0.99304
179 Dibenzo(a,e)pyrene	++++ 0.24062	0.18653 0.26651	0.24907 0.26651	0.24135 0.26651	0.25551 0.26651	0.30372 0.26651	AVRG		0.24904		14.07759
185 (2,3-Dibromopropyl)phosphate	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+00		0.000e+00

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
184 p-Benzquinone	++++ 0.13881	0.05748 0.17108	0.07922	0.08696	0.11587	0.15228	AVRG		0.11453		36.48548
191 Parathion	++++ 327432	14561 363437	31071	93948	111883	166110	LINEAR	0.17162	0.06294		0.99427
192 Methoxychlor	++++ 0.51784	0.48709 0.54361	0.56026	0.54973	0.56293	0.55387	AVRG		0.53933		5.09080
210 m-Toluidine	++++ 1.58696	1.15272 1.49597	1.14604	1.37809	1.40347	1.39792	AVRG		1.36588		12.03579
211 p-Toluidine	++++ 0.95759	1.07166 1.01569	1.04371	0.98937	0.96336	1.08719	AVRG		1.01837		5.03680
212 Cis Diallate	++++ 0.22151	0.22030 0.22620	0.22950	0.22266	0.22098	0.21766	AVRG		0.22269		1.77723
213 Trans Diallate	++++ 0.25365	0.25407 0.25388	0.26767	0.26485	0.26439	0.25790	AVRG		0.25949		2.31756
214 1,4-Dinitrobenzene	++++ 0.18883	0.15386 0.18087	0.17029	0.17985	0.17737	0.18022	AVRG		0.17590		6.33667
215 2-Ethoxyethanol	++++ 0.61969	0.56040 0.61720	0.58369	0.57332	0.58077	0.59550	AVRG		0.59008		3.74582



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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	++++ 0.13878	0.11241 0.14327	0.10237	0.11445	0.11813	0.13393	AVRG	0.12333			12.44210
229 2,2'-Dichlorobenzil	++++ ++++	++++ ++++	++++	++++	++++	++++	AVRG	0.000e+00			0.000e+00
230 4-Chlorothiobisole	++++ ++++	++++ ++++	++++	++++	++++	++++	AVRG	0.000e+00			0.000e+00
231 4-Chlorothiophenol	++++ ++++	++++ ++++	++++	++++	++++	++++	LLNR	0.000e+00			0.000e+00
232 bis(p-Chlorophenyl)sulfone	++++ ++++	++++ ++++	++++	++++	++++	++++	AVRG	0.000e+00			0.000e+00
233 bis(p-Chlorophenyl)disulfide	++++ ++++	++++ ++++	++++	++++	++++	++++	AVRG	0.000e+00			0.000e+00
234 Diphenyl disulfide	++++ ++++	++++ ++++	++++	++++	++++	++++	AVRG	0.000e+00			0.000e+00
235 Diphenyl sulfide	++++ ++++	++++ ++++	++++	++++	++++	++++	AVRG	0.000e+00			0.000e+00
236 Phenyl sulfone	++++ ++++	++++ ++++	++++	++++	++++	++++	AVRG	0.000e+00			0.000e+00

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
237 Hydroxymethyl phthalimide	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	LINR	0.000e+00	0.000e+00		0.000e+00
238 Phthalic acid	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	LINR	0.000e+00	0.000e+00		0.000e+00
239 Thiophenol	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	LINR	0.000e+00	0.000e+00		0.000e+00
240 bis(Chloromethyl)ether	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+00		0.000e+00
241 Octachlorostyrene	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+00		0.000e+00
243 Dibenzo(a,b)pyrene	++++ 0.25062	0.21469 0.25995	0.21122 0.84045	0.22940 0.87769	0.24732 0.89038	0.22409 0.89077	AVRG		0.23390		8.07059
244 Benzo(j)fluoranthene	++++ 0.90785	0.76664 0.89917	0.84045 0.44008	0.87769 0.48364	0.89038 0.49404	0.89077 0.48407	AVRG		0.86756		5.70623
245 Dibenzo(a,j)acridine	++++ 0.51131	0.43773 0.52214	0.44008 0.45774	0.48364 0.50184	0.49404 0.51123	0.48407 0.48776	AVRG		0.48186		6.74548
246 Dibenzo(a,h)acridine	++++ 0.50512	0.46611 0.51684	0.45774 0.51123	0.50184 0.51123	0.51123 0.51123	0.48776 0.48776	AVRG		0.49238		4.62911

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
	100 Level 7	120 Level 8									
247 Quinoline	++++ 0.50152	0.48030 0.49794	0.50614 0.53538	0.52861 0.50393			AVRG		0.50769		3.68880<-
248 2,4-Toluene Diisocyanate	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG AVRG		0.000e+00		0.000e+00<-
249 Dibenzo(a,i)pyrene	++++ 0.16519	0.13069 0.17493	0.13316 0.14920	0.14920 0.15145	0.16710	0.15145	AVRG		0.15310		11.1191<-
250 1-Nitropyrene	++++ 794620	23701 755681	65239	181011	216632	401051	LINEAR	0.27185	0.21513		0.99578<-
251 5-Methylchrysene	++++ 0.50432	0.45754 0.51182	0.48120 0.23026	0.50217 0.23516	0.51002	0.50748	AVRG		0.49636		4.01505<-
252 Dibenzo(a,l)pyrene	++++ 0.24374	0.23026 0.25055	0.27601 0.30333	0.29516 0.34103	0.24822	0.22930	AVRG		0.23640		4.99583<-
253 7H-Dibenzo(c,g)carbazole	++++ 0.35702	0.31771 0.36408	0.30333 0.70678	0.34103 0.70178	0.34957	0.32953	AVRG		0.33747		6.47877<-
254 1-Hexanol	++++ 0.56479	0.56933 0.58000	0.70678 0.29223	0.70178 0.29560	0.70663	0.62228	AVRG		0.65023		9.39949<-
M 225 Trichlorophenols	++++ 0.30512	0.26785 0.29768	0.29223	0.29560	0.29562	0.29773	AVRG		0.29312		4.03158<-

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 09-MAR-2010 16:24  
 End Cal Date : 10-MAR-2010 07:50  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
 Cal Date : 13-Mar-2010 12:50 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
	100	120									
	Level 7	Level 8									
IM 226 Tetrachlorophenols	++++	0.19467	0.22436	0.23334	0.23405	0.22990					
	0.24638	0.24434				AVRG		0.22958			7.5025
IM 227 Benzo(b,k)fluoranthene	1.18193	1.02264	1.06168	1.04019	1.03051	1.01897					
	1.05263	1.03941				AVRG		1.05599			5.00588
IM 228 TIO Sum Semivolatiles	++++	++++	++++	++++	++++	++++			0.000e+00		0.000e+00
	0.93256	0.87088	0.92603	0.88525	0.88155	0.89935	AVRG		0.89892		2.54660
\$ 3 2-Fluorophenol	++++	1.02753	1.08603	1.06096	1.03227	1.06527					
	1.07349	1.04707	++++	++++	++++	AVRG		1.05609			2.03515
\$ 187 2-Chlorophenol-d4	++++	++++	++++	++++	++++	++++			0.000e+00		0.000e+00
\$ 188 1,2-Dichlorobenzene-d4	++++	++++	++++	++++	++++	++++			0.000e+00		0.000e+00
\$ 20 Nitrobenzene-d5	++++	0.25267	0.25596	0.24419	0.23543	0.20648					
	0.20595	0.19332				AVRG		0.22771			11.13760
\$ 39 2-Fluorobiphenyl	++++	1.05547	1.09635	1.01714	1.00964	0.99388					
	0.98809	0.96324				AVRG		1.01769			4.4103

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 09-MAR-2010 16:24  
End Cal Date : 10-MAR-2010 07:50  
Quant Method : ISTD  
Target Version : 3.50  
Integrator : HP RTE  
Method file : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
Cal Date : 13-Mar-2010 12:50 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Coefficients m1 b	m2	%RSD or R^2
	100 Level 7	120 Level 8							
\$ 60 2,4,6-Tribromophenol	++++ 0.10538	0.07695 0.10281	0.08351	0.08924	0.08918	0.09494 AVRG	0.09171		11.06603
\$ 81 p-Terphenyl-d14	++++ 0.63264	0.61113 0.62322	0.65065	0.60150	0.61117	0.60982 AVRG	0.62002		2.72484

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 09-MAR-2010 19:33  
Lab File ID: s3c0927.d Init. Cal. Date(s): 09-MAR-2010 10-MAR-2010  
Analysis Type: Init. Cal. Times: 16:24 07:50  
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD  
Method: /chem/MSD3.i/s030910a.b/MSD3-8270R-AQA-030910.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
3 2-Fluorophenol	0.89892	0.85330	0.85330	0.000	-5.07534	60.00000	Averaged
5 Phenol-d5	1.05609	0.97367	0.97367	0.000	-7.80383	60.00000	Averaged
20 Nitrobenzene-d5	0.22771	0.23705	0.23705	0.000	4.09866	60.00000	Averaged
39 2-Fluorobiphenyl	1.01769	1.02717	1.02717	0.000	0.93140	60.00000	Averaged
60 2,4,6-Tribromophenol	0.09171	0.08603	0.08603	0.000	-6.19813	60.00000	Averaged
81 p-Terphenyl-d14	0.62002	0.67239	0.67239	0.000	8.44769	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.46588	0.43165	0.43165	0.000	-7.34684	60.00000	Averaged
2 Pyridine	0.70848	0.54095	0.54095	0.000	-23.64692	60.00000	Averaged
4 Aniline	0.45798	0.39905	0.39905	0.000	-12.86718	60.00000	Averaged
6 Phenol	1.08710	1.03525	1.03525	0.001	-4.76936	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.78465	0.66940	0.66940	0.000	-14.68803	60.00000	Averaged
8 2-Chlorophenol	1.07160	1.03619	1.03619	0.000	-3.30420	60.00000	Averaged
203 n-Decane	1.39262	1.26135	1.26135	0.000	-9.42634	60.00000	Averaged
9 1,3-Dichlorobenzene	1.19859	1.15377	1.15377	0.000	-3.73967	60.00000	Averaged
11 1,4-Dichlorobenzene	1.24950	1.18664	1.18664	0.001	-5.03061	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.14996	1.10255	1.10255	0.000	-4.12356	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.97993	1.90868	1.90868	0.000	-3.59844	60.00000	Averaged
12 Benzyl alcohol	0.62769	0.60154	0.60154	0.000	-4.16480	60.00000	Averaged
15 o-Cresol	0.75438	0.70553	0.70553	0.000	-6.47552	60.00000	Averaged
18 m,p-Cresols	0.95968	0.93782	0.93782	0.000	-2.27735	60.00000	Averaged
17 N-Nitrosodipropylamine	0.60373	0.56105	0.56105	0.050	-7.07000	60.00000	Averaged spcc
19 Hexachloroethane	0.47563	0.45806	0.45806	0.000	-3.69514	60.00000	Averaged
21 Nitrobenzene	0.22558	0.21760	0.21760	0.000	-3.53845	60.00000	Averaged
22 Isophorone	0.41268	0.38662	0.38662	0.000	-6.31523	60.00000	Averaged
23 2-Nitrophenol	0.13693	0.13924	0.13924	0.001	1.68483	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.22834	0.23185	0.23185	0.000	1.53946	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.26264	0.23942	0.23942	0.000	-8.84100	60.00000	Averaged
26 2,4-Dichlorophenol	0.19757	0.20603	0.20603	0.001	4.27983	20.00000	Averaged ccc
27 Benzoic acid	41.61611	40.00000	0.10438	0.000	4.04028	60.00000	Linear
28 1,2,4-Trichlorobenzene	0.22540	0.22029	0.22029	0.000	-2.26664	60.00000	Averaged
30 Naphthalene	0.79364	0.73721	0.73721	0.000	-7.10953	60.00000	Averaged
204 alpha-Terpineol	0.20813	0.18822	0.18822	0.000	-9.56416	60.00000	Averaged
31 4-Chloroaniline	0.30660	0.28481	0.28481	0.000	-7.10917	60.00000	Averaged
32 Hexachlorobutadiene	0.11504	0.11559	0.11559	0.001	0.48018	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.19999	0.19865	0.19865	0.001	-0.67170	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.51543	0.51148	0.51148	0.000	-0.76666	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 09-MAR-2010 19:33  
Lab File ID: s3c0927.d Init. Cal. Date(s): 09-MAR-2010 10-MAR-2010  
Analysis Type: Init. Cal. Times: 16:24 07:50  
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD  
Method: /chem/MSD3.i/s030910a.b/MSD3-8270R-AQA-030910.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.50574	0.48147	0.48147	0.000	-4.79920	60.00000	Averaged
36 Hexachlorocyclopentadiene	31.13394	40.00000	0.09184	0.050	-22.16515	60.00000	Linear spcc
205 2,3-Dichloroaniline	0.52633	0.49359	0.49359	0.000	-6.22043	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.27504	0.27072	0.27072	0.001	-1.57072	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.31120	0.32056	0.32056	0.000	3.00799	60.00000	Averaged
40 2-Chloronaphthalene	0.92104	0.87020	0.87020	0.000	-5.52032	60.00000	Averaged
42 o-Nitroaniline	0.26352	0.24317	0.24317	0.000	-7.72268	60.00000	Averaged
41 m-Nitroaniline	0.23739	0.23302	0.23302	0.000	-1.83785	60.00000	Averaged
43 Dimethylphthalate	1.06788	1.00411	1.00411	0.000	-5.97172	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25618	0.24287	0.24287	0.000	-5.19649	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32694	0.31326	0.31326	0.000	-4.18525	60.00000	Averaged
45 Acenaphthylene	1.49608	1.46110	1.46110	0.000	-2.33793	60.00000	Averaged
47 Acenaphthene	0.98486	0.88812	0.88812	0.001	-9.82283	20.00000	Averaged ccc
48 2,4-Dinitrophenol	38.28035	40.00000	0.08469	0.050	-4.29914	60.00000	Linear spcc
49 Dibenzofuran	1.24663	1.23502	1.23502	0.000	-0.93144	60.00000	Averaged
51 Diethylphthalate	1.11196	1.07824	1.07824	0.000	-3.03315	60.00000	Averaged
52 4-Nitrophenol	39.63854	40.00000	0.17035	0.050	-0.90366	60.00000	Linear spcc
53 Fluorene	1.08097	1.00987	1.00987	0.000	-6.57727	60.00000	Averaged
54 4-Chlorophenylphenylether	0.48501	0.44793	0.44793	0.000	-7.64497	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	46.68867	40.00000	0.10169	0.000	16.72167	60.00000	Linear
56 p-Nitroaniline	41.02133	40.00000	0.21458	0.000	2.55333	60.00000	Linear
133 Diphenylamine	0.49678	0.48129	0.48129	0.001	-3.11742	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.53526	0.51337	0.51337	0.000	-4.08975	60.00000	Averaged
61 4-Bromophenylphenylether	0.14571	0.13415	0.13415	0.000	-7.93220	60.00000	Averaged
63 Hexachlorobenzene	0.14439	0.13450	0.13450	0.000	-6.84368	60.00000	Averaged
65 Pentachlorophenol	38.43924	40.00000	0.07221	0.001	-3.90190	20.00000	Linear ccc
206 n-Octadecane	0.43886	0.42432	0.42432	0.000	-3.31318	60.00000	Averaged
68 Phenanthrene	0.90609	0.83046	0.83046	0.000	-8.34742	60.00000	Averaged
69 Anthracene	0.88714	0.81780	0.81780	0.000	-7.81671	60.00000	Averaged
72 Di-n-butylphthalate	1.02492	1.02145	1.02145	0.000	-0.33872	60.00000	Averaged
76 Fluoranthene	0.82073	0.78822	0.78822	0.001	-3.96099	20.00000	Averaged ccc
79 Pyrene	1.15824	1.06952	1.06952	0.000	-7.65989	60.00000	Averaged
85 Butylbenzylphthalate	0.58698	0.59601	0.59601	0.000	1.53827	60.00000	Averaged
89 Benzo(a)anthracene	0.92895	0.86255	0.86255	0.000	-7.14699	60.00000	Averaged
92 Chrysene	0.94982	0.90546	0.90546	0.000	-4.67057	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.78569	0.80662	0.80662	0.000	2.66413	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 09-MAR-2010 19:33  
Lab File ID: s3c0927.d Init. Cal. Date(s): 09-MAR-2010 10-MAR-2010  
Analysis Type: Init. Cal. Times: 16:24 07:50  
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD  
Method: /chem/MSD3.i/s030910a.b/MSD3-8270R-AQA-030910.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
94 Di-n-octylphthalate	1.64565	1.60662	1.60662	0.001	-2.37179	20.00000	Averaged ccc
95 Benzo(b)fluoranthene	1.01530	0.87703	0.87703	0.000	-13.61843	60.00000	Averaged
96 Benzo(k)fluoranthene	1.09669	1.04126	1.04126	0.000	-5.05458	60.00000	Averaged
97 Benzo(a)pyrene	0.87220	0.80075	0.80075	0.001	-8.19228	20.00000	Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.75205	0.67370	0.67370	0.000	-10.41839	60.00000	Averaged
100 Dibenzo(a,h)anthracene	0.61205	0.53662	0.53662	0.000	-12.32436	60.00000	Averaged
101 Benzo(ghi)perylene	0.61782	0.53801	0.53801	0.000	-12.91791	60.00000	Averaged
126 m-Dinitrobenzene	0.18431	0.18088	0.18088	0.000	-1.86227	60.00000	Averaged
130 2,3,4,6-Tetrachlorophenol	0.22958	0.20734	0.20734	0.000	-9.68689	60.00000	Averaged
143 Dinoseb	36.69242	40.00000	0.10922	0.000	-8.26896	60.00000	Linear
173 Carbazole	0.64109	0.62982	0.62982	0.000	-1.75675	60.00000	Averaged
184 p-Benzoquinone	0.11453	0.06546	0.06546	0.000	-42.84460	60.00000	Averaged
192 Methoxychlor	0.53933	0.53524	0.53524	0.000	-0.75862	60.00000	Averaged
211 p-Toluidine	1.01837	0.82424	0.82424	0.000	-19.06241	60.00000	Averaged
210 m-Toluidine	1.36588	1.21674	1.21674	0.000	-10.91880	60.00000	Averaged
26 Phthalic anhydride	54.70960	40.00000	0.11847	0.000	36.77399	60.00000	Linear
179 Dibenzo(a,e)pyrene	0.24904	0.17726	0.17726	0.000	-28.82574	60.00000	Averaged
214 1,4-Dinitrobenzene	0.17590	0.16941	0.16941	0.000	-3.69064	60.00000	Averaged
215 2-Ethoxyethanol	0.59008	0.59231	0.59231	0.000	0.37792	60.00000	Averaged
216 Methylenebis(2-chloroanilin	0.12333	0.12839	0.12839	0.000	4.09757	60.00000	Averaged
M 225 Trichlorophenols	0.29312	0.29564	0.29564	0.000	0.85980	60.00000	Averaged
M 226 Tetrachlorophenols	0.22958	0.20734	0.20734	0.000	-9.68689	60.00000	Averaged
M 227 Benzo(b,k)fluoranthene	1.05599	0.95914	0.95914	0.000	-9.17149	60.00000	Averaged



GEL Laboratories LLC

Data file : /chem/MSD3.i/s030910a.b/s3c0927.d  
Lab Smp Id: WBN100225-09.1 Client Smp ID: MEGAICV  
Inj Date : 09-MAR-2010 19:33  
Operator : JLD1 Inst ID: MSD3.i  
Smp Info : |WBN100225-09.1|40PPM|1|SVMF|1|MEGAICV  
Misc Info : |MSD8270|WBN100227-01|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD3.i/s030910a.b/MSD3-8270R-AQA-030910.m  
Meth Date : 10-Mar-2010 12:22 jen00986 Quant Type: ISTD  
Cal Date : 10-MAR-2010 05:53 Cal File: s3c0957.d  
Als bottle: 11 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: MEGAI1.sub  
Target Version: 3.50  
Processing Host: hpc1p1

						AMOUNTS	
QUANT SIG						CAL-AMT	ON-COL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng/ul)	(ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.570	3.570	(1.000)	496463	40.0000	
* 29 Naphthalene-d8	136	4.425	4.425	(1.000)	2037960	40.0000	
* 46 Acenaphthene-d10	164	5.666	5.666	(1.000)	1040699	40.0000	
* 67 Phenanthrene-d10	188	6.683	6.683	(1.000)	1818609	40.0000	
* 91 Chrysene-d12	240	8.271	8.271	(1.000)	1380811	40.0000	
* 98 Perylene-d12	264	9.496	9.496	(1.000)	1063042	40.0000	
\$ 3 2-Fluorophcnol	112	2.767	2.767	(0.775)	423631	40.0000	38.0
\$ 5 Phenol-d5	99	3.297	3.297	(0.924)	483392	40.0000	36.9
\$ 20 Nitrobenzene-d5	82	3.933	3.933	(0.889)	483090	40.0000	41.6
\$ 39 2-Fluorobiphenyl	172	5.169	5.169	(0.912)	1068971	40.0000	40.4
\$ 60 2,4,6-Tribromophenol	329	6.223	6.223	(1.098)	89531	40.0000	37.5
\$ 81 p-Terphenyl-d14	244	7.613	7.613	(0.920)	928450	40.0000	43.4
1 N-Methyl-N-nitrosomethylamine	74	2.093	2.093	(0.586)	214298	40.0000	37.1
2 Pyridine	79	2.120	2.120	(0.594)	268560	40.0000	30.5
4 Aniline	66	3.361	3.361	(0.942)	198115	40.0000	34.8
6 Phenol	94	3.302	3.302	(0.925)	513963	40.0000	38.1 (Q)
7 bis(2-Chloroethyl) ether	63	3.382	3.382	(0.948)	332332	40.0000	34.1
8 2-Chlorophenol	128	3.436	3.436	(0.963)	514429	40.0000	38.7
203 n-Decane	43	3.425	3.425	(0.960)	626214	40.0000	36.2
9 1,3-Dichlorobenzene	146	3.538	3.538	(0.991)	572803	40.0000	38.5
11 1,4-Dichlorobenzene	146	3.580	3.580	(1.003)	589124	40.0000	38.0
13 1,2-Dichlorobenzene	146	3.682	3.682	(1.031)	547373	40.0000	38.4
14 bis(2-Chloroisopropyl)ether	45	3.719	3.719	(1.042)	947591	40.0000	38.6
12 Benzyl alcohol	108	3.639	3.639	(1.019)	298644	40.0000	38.3
15 o-Cresol	107	3.693	3.693	(1.034)	350269	40.0000	37.4
18 m,p-Cresols	107	3.794	3.794	(1.063)	465594	40.0000	39.1

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	3.810	3.810	(1.067)	278539	40.0000	37.2
19 Hexachloroethane	117	3.907	3.907	(1.094)	227408	40.0000	38.5
21 Nitrobenzene	77	3.944	3.944	(0.891)	443451	40.0000	38.6
22 Isophorone	82	4.094	4.094	(0.925)	787912	40.0000	37.5
23 2-Nitrophenol	139	4.153	4.153	(0.938)	283763	40.0000	40.7
24 2,4-Dimethylphenol	122	4.153	4.153	(0.938)	472509	40.0000	40.6
25 bis(2-Chloroethoxy)methane	93	4.222	4.222	(0.954)	487932	40.0000	36.5
26 2,4-Dichlorophenol	162	4.313	4.313	(0.975)	419882	40.0000	41.7
27 Benzoic acid	105	4.211	4.211	(0.952)	212730	40.0000	41.6
28 1,2,4-Trichlorobenzene	180	4.377	4.377	(0.989)	448935	40.0000	39.1
30 Naphthalene	128	4.441	4.441	(1.004)	1502409	40.0000	37.2
204 alpha-Terpineol	59	4.420	4.420	(0.999)	383586	40.0000	36.2
31 4-Chloroaniline	127	4.463	4.463	(1.008)	580424	40.0000	37.2
32 Hexachlorobutadiene	225	4.506	4.506	(1.018)	235571	40.0000	40.2
33 4-Chloro-3-methylphenol	107	4.778	4.778	(1.080)	404839	40.0000	39.7
34 2-Methylnaphthalene	142	4.917	4.917	(1.111)	1042366	40.0000	39.7
35 1-Methylnaphthalene	142	4.992	4.992	(1.128)	981213	40.0000	38.1
36 Hexachlorocyclopentadiene	237	5.019	5.019	(0.886)	95580	40.0000	31.1
205 2,3-Dichloroaniline	161	5.115	5.115	(0.903)	513680	40.0000	37.5
37 2,4,6-Trichlorophenol	196	5.110	5.110	(0.902)	281743	40.0000	39.4
38 2,4,5-Trichlorophenol	196	5.137	5.137	(0.907)	333602	40.0000	41.2
40 2-Chloronaphthalene	162	5.270	5.270	(0.930)	905612	40.0000	37.8
42 o-Nitroaniline	65	5.329	5.329	(0.941)	253070	40.0000	36.9
41 m-Nitroaniline	138	5.623	5.623	(0.992)	242508	40.0000	39.3
43 Dimethylphthalate	163	5.447	5.447	(0.961)	1044978	40.0000	37.6
44 2,6-Dinitrotoluene	165	5.500	5.500	(0.971)	252757	40.0000	37.9
50 2,4-Dinitrotoluene	165	5.789	5.789	(1.022)	326010	40.0000	38.3
45 Acenaphthylene	152	5.570	5.570	(0.983)	1520566	40.0000	39.1
47 Acenaphthene	154	5.693	5.693	(1.005)	924268	40.0000	36.1
48 2,4-Dinitrophenol	184	5.698	5.698	(1.006)	88142	40.0000	38.3
49 Dibenzofuran	168	5.811	5.811	(1.025)	1285280	40.0000	39.6
51 Diethylphthalate	149	5.944	5.944	(1.049)	1122120	40.0000	38.8
52 4-Nitrophenol	139	5.720	5.720	(1.009)	177288	40.0000	39.6
53 Fluorene	166	6.057	6.057	(1.069)	1050973	40.0000	37.4
54 4-Chlorophenylphenylether	204	6.041	6.041	(1.066)	466161	40.0000	36.9
55 2-Methyl-4,6-dinitrophenol	198	6.078	6.078	(0.910)	184935	40.0000	46.7
56 p-Nitroaniline	138	6.062	6.062	(1.070)	223309	40.0000	41.0
133 Diphenylamine	169	6.121	6.121	(0.916)	875280	40.0000	38.8
58 1,2-Diphenylhydrazine	77	6.153	6.153	(0.921)	933625	40.0000	38.4
61 4-Bromophenylphenylether	248	6.378	6.378	(0.954)	243966	40.0000	36.8
63 Hexachlorobenzene	284	6.426	6.426	(0.962)	244610	40.0000	37.3
65 Pentachlorophenol	266	6.549	6.549	(0.980)	131325	40.0000	38.4
206 n-Octadecane	57	6.554	6.554	(0.981)	771673	40.0000	38.7
68 Phenanthrene	178	6.699	6.699	(1.002)	1510275	40.0000	36.7
69 Anthracene	178	6.731	6.731	(1.007)	1487253	40.0000	36.9
72 Di-n-butylphthalate	149	6.993	6.993	(1.046)	1857618	40.0000	39.9
76 Fluoranthene	202	7.415	7.415	(1.110)	1433465	40.0000	38.4

Compounds	QUANT SIG			REL RT	RESPONSE	AMOUNTS	
	MASS	RT	EXP RT			CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
79 Pyrene	202	7.554	7.554	(0.913)	1476800	40.0000	36.9
85 Butylbenzylphthalate	149	7.865	7.865	(0.951)	822973	40.0000	40.6
89 Benzo(a)anthracene	228	8.266	8.266	(0.999)	1191024	40.0000	37.1
92 Chrysene	228	8.292	8.292	(1.003)	1250270	40.0000	38.1
93 bis(2-Ethylhexyl)phthalate	149	8.185	8.185	(0.990)	1113787	40.0000	41.1
94 Di-n-octylphthalate	149	8.645	8.645	(0.910)	1707901	40.0000	39.0
95 Benzo(b)fluoranthene	252	9.111	9.111	(0.959)	932321	40.0000	34.6
96 Benzo(k)fluoranthene	252	9.138	9.138	(0.962)	1106899	40.0000	38.0
97 Benzo(a)pyrene	252	9.442	9.442	(0.994)	851226	40.0000	36.7
99 Indeno(1,2,3-cd)pyrene	276	10.838	10.838	(1.141)	716170	40.0000	35.6
100 Dibenzo(a,h)anthracene	278	10.849	10.849	(1.143)	570448	40.0000	35.1 (Q)
101 Benzo(ghi)perylene	276	11.256	11.256	(1.185)	571924	40.0000	34.8 (Q)
126 m-Dinitrobenzene	168	5.484	5.484	(0.968)	188241	40.0000	39.2
130 2,3,4,6-Tetrachlorophenol	232	5.891	5.891	(1.040)	215777	40.0000	36.1
143 Dinoseb	211	6.650	6.650	(0.995)	198620	40.0000	36.7
173 Carbazole	167	6.822	6.822	(1.021)	1145404	40.0000	39.3
184 p-Benzoquinone	54	3.072	3.072	(0.861)	32498	40.0000	22.9
192 Methoxychlor	227	8.164	8.164	(0.987)	739069	40.0000	39.7
211 p-Toluidine	106	3.848	3.848	(1.078)	409206	40.0000	32.4
210 m-Toluidine	106	3.869	3.869	(1.084)	604068	40.0000	35.6
26 Phthalic anhydride	104	4.960	4.960	(1.121)	241445	40.0000	54.7
179 Dibenzo(a,e)pyrene	302	14.454	14.454	(1.522)	188430	40.0000	28.5
214 1,4-Dinitrobenzene	75	5.431	5.431	(0.958)	176301	40.0000	38.5
215 2-Ethoxyethanol	59	1.938	1.938	(0.543)	294060	40.0000	40.2
216 Methylenebis(2-chloroaniline)	231	8.218	8.218	(0.994)	177279	40.0000	41.6 (Q)
M 225 Trichlorophenols	196				615345	80.0000	80.7
M 226 Tetrachlorophenols	232				215777	40.0000	36.1
M 227 Benzo(b,k)fluoranthene	252				2039220	80.0000	72.7

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.

Instrument: MSD3.1

Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 10-MAR-2010 03:36  
Lab File ID: s3c0950.d Init. Cal. Date(s): 09-MAR-2010 10-MAR-2010  
Analysis Type: Init. Cal. Times: 16:24 07:50  
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD  
Method: /chem/MSD3.i/s030910a.b/MSD3-8270R-AQA-030910.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.68137	0.54704	0.54704	0.000	-19.71522	60.00000	Averaged
16 Acetophenone	1.09508	1.05273	1.05273	0.000	-3.86660	60.00000	Averaged
189 Caprolactam	0.08146	0.08461	0.08461	0.000	3.86984	60.00000	Averaged
208 1,1'-Biphenyl	1.18248	1.20572	1.20572	0.000	1.96564	60.00000	Averaged
207 Atrazine	0.04487	0.04846	0.04846	0.000	7.98706	60.00000	Averaged
77 Benzidine	0.42129	0.40691	0.40691	0.000	-3.41292	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.26225	0.27868	0.27868	0.000	6.26650	60.00000	Averaged
102 1,4-Dioxane	0.28469	0.33689	0.33689	0.000	18.33335	60.00000	Averaged
103 Methyl methacrylate	0.18787	0.21124	0.21124	0.000	12.43764	60.00000	Averaged
104 Ethyl methacrylate	0.58791	0.65118	0.65118	0.000	10.76347	60.00000	Averaged
105 2-Picoline	1.01532	0.98578	0.98578	0.000	-2.90942	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.38527	0.39294	0.39294	0.000	1.99249	60.00000	Averaged
107 Methyl methanesulfonate	0.42665	0.44498	0.44498	0.000	4.29575	60.00000	Averaged
108 N-Nitrosodiethylamine	0.44736	0.45318	0.45318	0.000	1.30189	60.00000	Averaged
109 Ethyl Methanesulfonate	0.51592	0.61074	0.61074	0.000	18.37772	60.00000	Averaged
110 Pentachloroethane	0.30632	0.41921	0.41921	0.000	36.85276	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.46141	0.44792	0.44792	0.000	-2.92305	60.00000	Averaged
113 N-Nitrosomorpholine	0.66901	0.69190	0.69190	0.000	3.42093	60.00000	Averaged
114 o-Toluidine	1.57594	1.61435	1.61435	0.000	2.43725	60.00000	Averaged
115 N-Nitrosopiperidine	0.12674	0.13121	0.13121	0.000	3.53356	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.73521	0.76611	0.76611	0.000	4.20244	60.00000	Averaged
118 2,6-Dichlorophenol	0.20189	0.20969	0.20969	0.000	3.86423	60.00000	Averaged
119 Hexachloropropene	0.08669	0.14058	0.14058	0.000	62.16108	60.00000	Averaged<-
120 p-Phenylenediamine	0.20529	0.21237	0.21237	0.000	3.44788	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.16562	0.17483	0.17483	0.000	5.55723	60.00000	Averaged
122 Safrole	0.18406	0.21446	0.21446	0.000	16.51746	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.37863	0.39122	0.39122	0.000	3.32472	60.00000	Averaged
124 Isosafrole	0.32993	0.43289	0.43289	0.000	31.20784	60.00000	Averaged
125 1,4-Naphthoquinone	0.30831	0.31890	0.31890	0.000	3.43525	60.00000	Averaged
127 Pentachlorobenzene	0.31531	0.30994	0.30994	0.000	-1.70285	60.00000	Averaged
128 1-Naphthylamine	0.90758	0.97981	0.97981	0.000	7.95857	60.00000	Averaged
129 2-Naphthylamine	1.01735	1.07893	1.07893	0.000	6.05348	60.00000	Averaged
131 5-Nitro-o-toluidine	0.28533	0.29032	0.29032	0.000	1.75089	60.00000	Averaged
136 1,3,5-Trinitrobenzene	52.62575	40.00000	0.13328	0.000	31.56438	60.00000	Linear
137 Phenacetin	0.27637	0.28492	0.28492	0.000	3.09441	60.00000	Averaged
138 Diallate	0.22056	0.21246	0.21246	0.000	-3.67281	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 10-MAR-2010 03:36  
Lab File ID: s3c0950.d Init. Cal. Date(s): 09-MAR-2010 10-MAR-2010  
Analysis Type: Init. Cal. Times: 16:24 07:50  
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD  
Method: /chem/MSD3.i/s030910a.b/MSD3-8270R-AQA-030910.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
			RRF40	RRF %D / %DRIFT	%D / %DRIFT	
140 4-Aminobiphenyl	0.55935	0.57096	0.57096	0.000	2.07596	60.00000 Averaged
141 Pentachloronitrobenzene	0.06074	0.06539	0.06539	0.000	7.65324	60.00000 Averaged
142 Pronamide	0.27083	0.29106	0.29106	0.000	7.47295	60.00000 Averaged
146 4-Nitroquinoline-1-oxide	40.39307	40.00000	0.01642	0.000	0.98267	60.00000 Linear
147 Methapyrilene	0.36149	0.44497	0.44497	0.000	23.09363	60.00000 Averaged
148 Isodrin	0.09454	0.08982	0.08982	0.000	-4.98725	60.00000 Averaged
149 Aramite	0.04557	0.04732	0.04732	0.000	3.85981	60.00000 Averaged
150 Kepone	0.06146	0.06494	0.06494	0.000	5.65704	60.00000 Averaged
151 p-(Dimethylamino)azobenzene	0.38197	0.39623	0.39623	0.000	3.73442	60.00000 Averaged
152 Chlorobenzilate	0.30142	0.30178	0.30178	0.000	0.11904	60.00000 Averaged
153 3,3'-Dimethylbenzidine	0.51971	0.52283	0.52283	0.000	0.60097	60.00000 Averaged
155 2-Acetylaminofluorene	41.50870	40.00000	0.37274	0.000	3.77176	60.00000 Linear
157 7,12Dimethylbenz(a)anthracene	0.49756	0.45708	0.45708	0.000	-8.13613	60.00000 Averaged
158 3-Methylcholanthrene	0.35512	0.39644	0.39644	0.000	11.63573	60.00000 Averaged
212 Cis Diallate	0.22269	0.28270	0.28270	0.000	26.95190	60.00000 Averaged
213 Trans Diallate	0.25949	0.24996	0.24996	0.000	-3.67281	60.00000 Averaged

Data File: /chem/MSD3.i/s030910a.b/s3c0950.d  
Report Date: 10-Mar-2010 12:19

Page 1

GEL Laboratories LLC

Data file : /chem/MSD3.i/s030910a.b/s3c0950.d  
Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV  
Inj Date : 10-MAR-2010 03:36  
Operator : JLD1 Inst ID: MSD3.i  
Smp Info : |WBN100218-08.1|40PPM|1|SVMF|1|APICV  
Misc Info : |MSD8270|WBN100227-01|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD3.i/s030910a.b/MSD3-8270R-AQA-030910.m  
Meth Date : 10-Mar-2010 12:19 jen00986 Quant Type: ISTD  
Cal Date : 10-MAR-2010 05:53 Cal File: s3c0957.d  
Als bottle: 23 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AP12.sub  
Target Version: 3.50  
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	152	3.566	3.566	(1.000)	538525	40.0000	
* 29 Naphthalene-d8	136	4.422	4.422	(1.000)	2021125	40.0000	
* 46 Acenaphthene-d10	164	5.668	5.668	(1.000)	1109965	40.0000	
* 67 Phenanthrene-d10	188	6.685	6.685	(1.000)	1865890	40.0000	
* 91 Chrysene-d12	240	8.268	8.268	(1.000)	1298986	40.0000	
* 98 Perylene-d12	264	9.493	9.493	(1.000)	925149	40.0000	
209 Benzaldehyde	77	3.299	3.299	(0.925)	294593	40.0000	32.1
16 Acetophenone	105	3.823	3.823	(1.072)	566923	40.0000	38.4
189 Caprolactam	113	4.706	4.706	(1.064)	171015	40.0000	41.5
208 1,1'-Biphenyl	154	5.246	5.246	(0.925)	1338306	40.0000	40.8
207 Atrazine	173	6.460	6.460	(0.966)	90413	40.0000	43.2
77 Benzdine	184	7.476	7.476	(0.904)	528572	40.0000	38.6
90 3,3'-Dichlorobenzidine	252	8.220	8.220	(0.994)	362005	40.0000	42.5
102 1,4-Dioxane	88	1.935	1.935	(0.543)	181423	40.0000	47.3
103 Methyl methacrylate	100	1.930	1.930	(0.541)	113759	40.0000	45.0
104 Ethyl methacrylate	69	2.299	2.299	(0.645)	350679	40.0000	44.3
105 2-Picoline	93	2.486	2.486	(0.697)	530867	40.0000	38.8
106 N-Nitrosomethylethylamine	88	2.534	2.534	(0.711)	211609	40.0000	40.8
107 Methyl methanesulfonate	80	2.689	2.689	(0.754)	239632	40.0000	41.7
108 N-Nitrosodiethylamine	102	2.914	2.914	(0.817)	244050	40.0000	40.5
109 Ethyl Methanesulfonate	79	3.074	3.074	(0.862)	328897	40.0000	47.4
110 Pentachloroethane	167	3.395	3.395	(0.952)	225754	40.0000	54.7
111 N-Nitrosopyrrolidine	100	3.812	3.812	(1.069)	241218	40.0000	38.8 (Q)
113 N-Nitrosomorpholine	56	3.834	3.834	(1.075)	372605	40.0000	41.4
114 o-Toluidine	106	3.844	3.844	(1.078)	869369	40.0000	41.0
115 N-Nitrosopiperidine	114	4.042	4.042	(0.914)	265201	40.0000	41.4

Compounds	QUANT SIG			REL RT	RESPONSE	AMOUNTS	
	MASS	RT	EXP RT			CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
116 a,a-Dimethylphenethylamine	58	4.299	4.299	(0.972)	1548394	40.0000	41.7
118 2,6-Dichlorophenol	162	4.470	4.470	(1.011)	423809	40.0000	41.5
119 Hexachloropropene	213	4.492	4.492	(1.016)	284138	40.0000	64.9
120 p-Phenylenediamine	108	4.711	4.711	(1.065)	429223	40.0000	41.4
121 N-Nitrosodi-n-butylamine	84	4.679	4.679	(1.058)	353350	40.0000	42.2 (Q)
122 Safrole	162	4.839	4.839	(1.094)	433449	40.0000	46.6
123 1,2,4,5-Tetrachlorobenzene	216	5.032	5.032	(0.888)	434238	40.0000	41.3
124 Isosafrole	162	5.208	5.208	(0.919)	480498	40.0000	52.5
125 1,4-Naphthoquinone	158	5.390	5.390	(0.951)	353967	40.0000	41.4
127 Pentachlorobenzene	250	5.781	5.781	(1.020)	344021	40.0000	39.3
128 1-Naphthylamine	143	5.866	5.866	(1.035)	1087555	40.0000	43.2
129 2-Naphthylamine	143	5.925	5.925	(1.045)	1197578	40.0000	42.4
131 5-Nitro-o-toluidine	152	6.053	6.053	(1.068)	322246	40.0000	40.7
136 1,3,5-Trinitrobenzene	75	6.289	6.289	(0.941)	248680	40.0000	52.6
137 Phenacetin	108	6.315	6.315	(0.945)	531637	40.0000	41.2 (Q)
138 Diallate	86	6.299	6.299	(0.942)	396433	40.0000	38.5
140 4-Aminobiphenyl	169	6.545	6.545	(0.979)	1065351	40.0000	40.8
141 Pentachloronitrobenzene	237	6.556	6.556	(0.981)	122003	40.0000	43.1 (Q)
142 Pronamide	173	6.561	6.561	(0.982)	543095	40.0000	43.0
146 4-Nitroquinoline-1-oxide	101	7.166	7.166	(1.072)	30637	40.0000	40.4
147 Methapyrilene	58	7.182	7.182	(1.074)	830269	40.0000	49.2
148 Isodrin	193	7.326	7.326	(1.096)	167596	40.0000	38.0
149 Aramite	185	7.572	7.572	(1.133)	88303	40.0000	41.5
150 Kepone	272	7.941	7.941	(1.188)	121164	40.0000	42.3
151 p-(Dimethylamino)azobenzene	120	7.685	7.685	(0.929)	514701	40.0000	41.5
152 Chlorobenzilate	251	7.706	7.706	(0.932)	392004	40.0000	40.0
153 3,3'-Dimethylbenzidine	212	7.877	7.877	(0.953)	679147	40.0000	40.2
155 2-Acetylaminofluorene	181	8.038	8.038	(0.972)	484185	40.0000	41.5
157 7,12Dimethylbenz(a)anthracene	256	9.086	9.086	(0.957)	422867	40.0000	36.7
158 3-Methylcholanthrene	268	9.792	9.792	(1.032)	366766	40.0000	44.6 (Q)
212 Cis Diallate	86	6.364	6.364	(0.952)	79124	6.00000	7.6
213 Trans Diallate	86	6.299	6.299	(0.942)	396433	34.0000	32.8

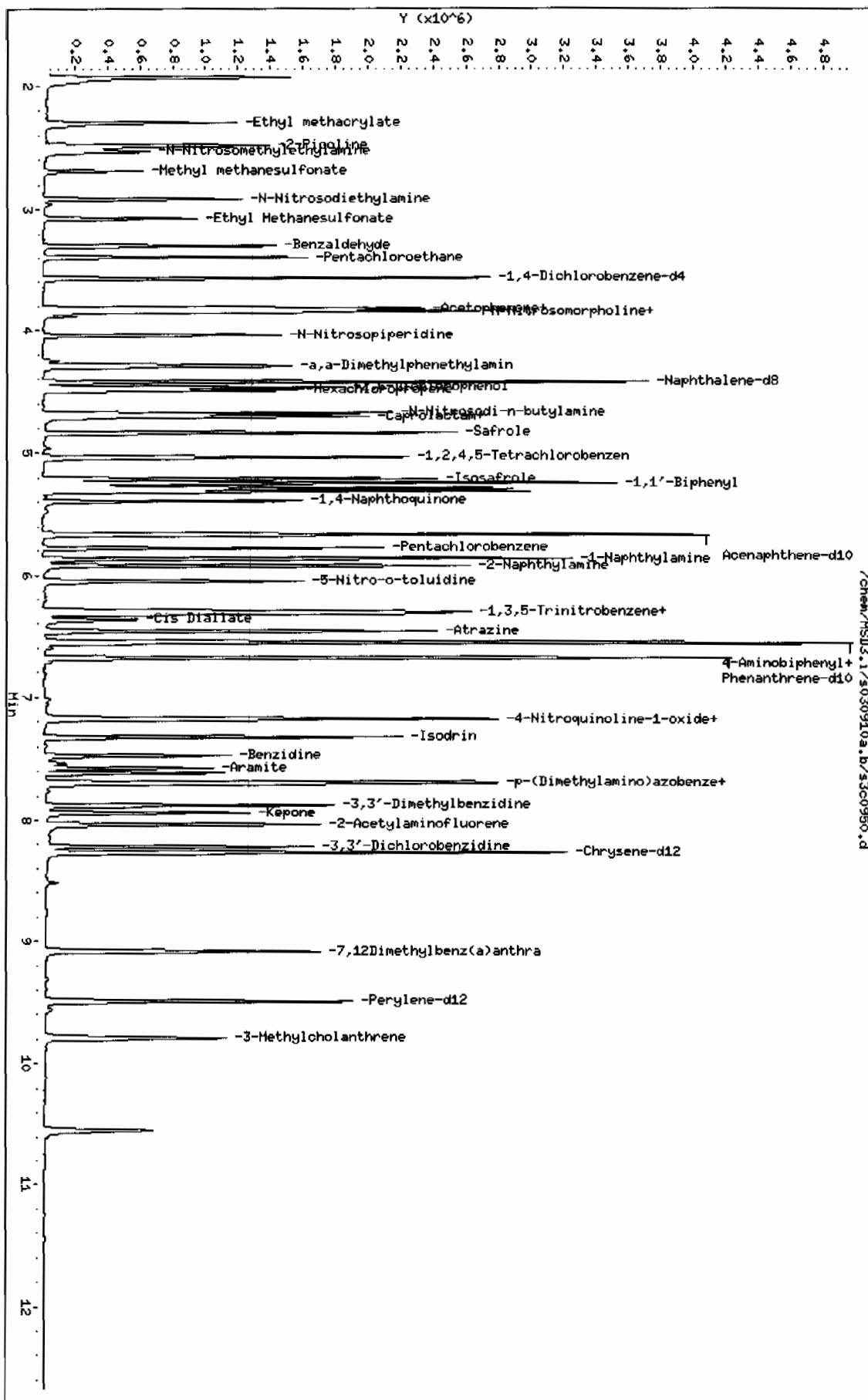
## QC Flag Legend

Q - Qualifier signal failed the ratio test.



Data File: /chem/HSD3.i/s030910a.b/s3c0950.d  
 Date: 10-MAR-2010 03:36  
 Client ID: APICV  
 Sample Info: IUBN100218-08.1140PPH11SVHF11APICV  
 Column phase: J&W DB-5MS

Instrument: HSD3.i  
 Operator: JLD  
 Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 13-MAR-2010 11:13  
Lab File ID: s3c1303.d Init. Cal. Date(s): 09-MAR-2010 10-MAR-2010  
Analysis Type: Init. Cal. Times: 16:24 07:50  
Lab Sample ID: WBN100309-09.2 Quant Type: ISTD  
Method: /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
3 2-Fluorophenol	0.89892	0.90923	0.90923	0.000	1.14665	60.00000	Averaged
5 Phenol-d5	1.05609	1.04497	1.04497	0.000	-1.05298	60.00000	Averaged
20 Nitrobenzene-d5	0.22771	0.24107	0.24107	0.000	5.86506	60.00000	Averaged
39 2-Fluorobiphenyl	1.01769	1.07888	1.07888	0.000	6.01281	60.00000	Averaged
60 2,4,6-Tribromophenol	0.09171	0.09283	0.09283	0.000	1.21463	60.00000	Averaged
81 p-Terphenyl-d14	0.62002	0.70915	0.70915	0.000	14.37615	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.46588	0.45232	0.45232	0.000	-2.90896	60.00000	Averaged
2 Pyridine	0.70848	0.54243	0.54243	0.000	-23.43769	60.00000	Averaged
4 Aniline	0.45798	0.41214	0.41214	0.000	-10.00905	60.00000	Averaged
6 Phenol	1.08710	1.10093	1.10093	0.001	1.27255	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.78465	0.73228	0.73228	0.000	-6.67432	60.00000	Averaged
8 2-Chlorophenol	1.07160	1.11404	1.11404	0.000	3.96040	60.00000	Averaged
203 n-Decane	1.39262	1.37913	1.37913	0.000	-0.96911	60.00000	Averaged
9 1,3-Dichlorobenzene	1.19859	1.21296	1.21296	0.000	1.19854	60.00000	Averaged
11 1,4-Dichlorobenzene	1.24950	1.24859	1.24859	0.001	-0.07304	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.14996	1.15489	1.15489	0.000	0.42792	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.97993	2.06594	2.06594	0.000	4.34397	60.00000	Averaged
12 Benzyl alcohol	0.62769	0.65510	0.65510	0.000	4.36725	60.00000	Averaged
15 o-Cresol	0.75438	0.75623	0.75623	0.000	0.24518	60.00000	Averaged
18 m,p-Cresols	0.95968	0.99559	0.99559	0.000	3.74256	60.00000	Averaged
17 N-Nitrosodipropylamine	0.60373	0.62547	0.62547	0.050	3.60057	60.00000	Averaged spcc
19 Hexachloroethane	0.47563	0.48387	0.48387	0.000	1.73314	60.00000	Averaged
21 Nitrobenzene	0.22558	0.23779	0.23779	0.000	5.41520	60.00000	Averaged
22 Isophorone	0.41268	0.41215	0.41215	0.000	-0.12923	60.00000	Averaged
23 2-Nitrophenol	0.13693	0.14258	0.14258	0.001	4.12309	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.22834	0.24007	0.24007	0.000	5.13558	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.26264	0.25460	0.25460	0.000	-3.06212	60.00000	Averaged
26 2,4-Dichlorophenol	0.19757	0.20685	0.20685	0.001	4.69589	20.00000	Averaged ccc
27 Benzoic acid	31.77480	40.00000	0.06406	0.000	-20.56301	60.00000	Linear
28 1,2,4-Trichlorobenzene	0.22540	0.22340	0.22340	0.000	-0.88645	60.00000	Averaged
30 Naphthalene	0.79364	0.75904	0.75904	0.000	-4.35896	60.00000	Averaged
204 alpha-Terpineol	0.20813	0.20755	0.20755	0.000	-0.27819	60.00000	Averaged
31 4-Chloroaniline	0.30660	0.26810	0.26810	0.000	-12.55902	60.00000	Averaged
32 Hexachlorobutadiene	0.11504	0.11977	0.11977	0.001	4.11132	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.19999	0.21421	0.21421	0.001	7.10775	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.51543	0.52348	0.52348	0.000	1.56304	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 13-MAR-2010 11:13  
Lab File ID: s3c1303.d Init. Cal. Date(s): 09-MAR-2010 10-MAR-2010  
Analysis Type: Init. Cal. Times: 16:24 07:50  
Lab Sample ID: WBN100309-09.2 Quant Type: ISTD  
Method: /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.50574	0.49346	0.49346	0.000	-2.42843	60.00000	Averaged
36 Hexachlorocyclopentadiene	34.52259	40.00000	0.10423	0.050	-13.69352	60.00000	Linear spcc
205 2,3-Dichloroaniline	0.52633	0.51116	0.51116	0.000	-2.88272	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.27504	0.28421	0.28421	0.001	3.33373	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.31120	0.32997	0.32997	0.000	6.03451	60.00000	Averaged
40 2-Chloronaphthalene	0.92104	0.92651	0.92651	0.000	0.59370	60.00000	Averaged
42 o-Nitroaniline	0.26352	0.27228	0.27228	0.000	3.32320	60.00000	Averaged
41 m-Nitroaniline	0.23739	0.18425	0.18425	0.000	-22.38420	60.00000	Averaged
43 Dimethylphthalate	1.06788	1.08309	1.08309	0.000	1.42450	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25618	0.25069	0.25069	0.000	-2.14558	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32694	0.32413	0.32413	0.000	-0.85958	60.00000	Averaged
45 Acenaphthylene	1.49608	1.53091	1.53091	0.000	2.32853	60.00000	Averaged
47 Acenaphthene	0.98486	0.94232	0.94232	0.001	-4.32021	20.00000	Averaged ccc
48 2,4-Dinitrophenol	38.32662	40.00000	0.08485	0.050	-4.18346	60.00000	Linear spcc
49 Dibenzofuran	1.24663	1.26978	1.26978	0.000	1.85712	60.00000	Averaged
51 Diethylphthalate	1.11196	1.17422	1.17422	0.000	5.59886	60.00000	Averaged
52 4-Nitrophenol	40.42977	40.00000	0.17428	0.050	1.07442	60.00000	Linear spcc
53 Fluorene	1.08097	1.06265	1.06265	0.000	-1.69510	60.00000	Averaged
54 4-Chlorophenylphenylether	0.48501	0.47084	0.47084	0.000	-2.92156	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	44.85829	40.00000	0.09715	0.000	12.14573	60.00000	Linear
56 p-Nitroaniline	33.04368	40.00000	0.16409	0.000	-17.39081	60.00000	Linear
133 Diphenylamine	0.49678	0.46447	0.46447	0.001	-6.50268	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.53526	0.57204	0.57204	0.000	6.87017	60.00000	Averaged
61 4-Bromophenylphenylether	0.14571	0.14007	0.14007	0.000	-3.86606	60.00000	Averaged
63 Hexachlorobenzene	0.14439	0.14653	0.14653	0.000	1.48811	60.00000	Averaged
65 Pentachlorophenol	36.77313	40.00000	0.06843	0.001	-8.06718	20.00000	Linear ccc
206 n-Octadecane	0.43886	0.48594	0.48594	0.000	10.72874	60.00000	Averaged
68 Phenanthrene	0.90609	0.87581	0.87581	0.000	-3.34180	60.00000	Averaged
69 Anthracene	0.88714	0.86229	0.86229	0.000	-2.80164	60.00000	Averaged
72 Di-n-butylphthalate	1.02492	1.13378	1.13378	0.000	10.62094	60.00000	Averaged
76 Fluoranthene	0.82073	0.82320	0.82320	0.001	0.30120	20.00000	Averaged ccc
79 Pyrene	1.15824	1.12969	1.12969	0.000	-2.46446	60.00000	Averaged
85 Butylbenzylphthalate	0.58698	0.65836	0.65836	0.000	12.16075	60.00000	Averaged
89 Benzo(a)anthracene	0.92895	0.86744	0.86744	0.000	-6.62112	60.00000	Averaged
92 Chrysene	0.94982	0.92731	0.92731	0.000	-2.37000	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.78569	0.93934	0.93934	0.000	19.55663	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 13-MAR-2010 11:13  
Lab File ID: s3c1303.d Init. Cal. Date(s): 09-MAR-2010 10-MAR-2010  
Analysis Type: Init. Cal. Times: 16:24 07:50  
Lab Sample ID: WBN100309-09.2 Quant Type: ISTD  
Method: /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
94 Di-n-octylphthalate	1.64565	1.92157	1.92157	0.001	16.76675	20.00000	Averaged ccc
95 Benzo(b)fluoranthene	1.01530	1.03546	1.03546	0.000	1.98590	60.00000	Averaged
96 Benzo(k)fluoranthene	1.09669	0.99474	0.99474	0.000	-9.29632	60.00000	Averaged
97 Benzo(a)pyrene	0.87220	0.84669	0.84669	0.001	-2.92426	20.00000	Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.75205	0.79178	0.79178	0.000	5.28296	60.00000	Averaged
100 Dibenzo(a,h)anthracene	0.61205	0.64972	0.64972	0.000	6.15509	60.00000	Averaged
101 Benzo(ghi)perylene	0.61782	0.63495	0.63495	0.000	2.77352	60.00000	Averaged
126 m-Dinitrobenzene	0.18431	0.17804	0.17804	0.000	-3.40352	60.00000	Averaged
130 2,3,4,6-Tetrachlorophenol	0.22958	0.21123	0.21123	0.000	-7.99248	60.00000	Averaged
143 Dinoseb	37.23302	40.00000	0.11119	0.000	-6.91746	60.00000	Linear
173 Carbazole	0.64109	0.52898	0.52898	0.000	-17.48681	60.00000	Averaged
184 p-Benzoquinone	0.11453	0.06971	0.06971	0.000	-39.13596	60.00000	Averaged
192 Methoxychlor	0.53933	0.56454	0.56454	0.000	4.67393	60.00000	Averaged
211 p-Toluidine	1.01837	0.63384	0.63384	0.000	-37.75945	60.00000	Averaged
210 m-Toluidine	1.36588	1.23847	1.23847	0.000	-9.32810	60.00000	Averaged
26 Phthalic anhydride	55.15372	40.00000	0.11958	0.000	37.88431	60.00000	Linear
179 Dibenzo(a,e)pyrene	0.24904	0.25881	0.25881	0.000	3.92023	60.00000	Averaged
214 1,4-Dinitrobenzene	0.17590	0.18879	0.18879	0.000	7.33102	60.00000	Averaged
215 2-Ethoxyethanol	0.59008	0.62919	0.62919	0.000	6.62855	60.00000	Averaged
216 Methylenebis(2-chloroanilin	0.12333	0.08545	0.08545	0.000	-30.71461	60.00000	Averaged
M 225 Trichlorophenols	0.29312	0.30709	0.30709	0.000	4.76739	60.00000	Averaged
M 226 Tetrachlorophenols	0.22958	0.21123	0.21123	0.000	-7.99248	60.00000	Averaged
M 227 Benzo(b,k)fluoranthene	1.05599	1.01510	1.01510	0.000	-3.87260	60.00000	Averaged

Data File: /chem/MSD3.i/s031310.b/s3c1303.d  
 Report Date: 14-Mar-2010 14:28

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Data file : /chem/MSD3.i/s031310.b/s3c1303.d  
 Lab Smp Id: WBN100309-09.2 Client Smp ID: MEGACVS  
 Inj Date : 13-MAR-2010 11:13  
 Operator : JLD1 Inst ID: MSD3.i  
 Smp Info : |WBN100309-09.2|40PPM|1|SVMF|1|MEGACVS  
 Misc Info : |MSD8270|WBN100227-01|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
 Meth Date : 14-Mar-2010 14:28 jen00986 Quant Type: ISTD  
 Cal Date : 10-MAR-2010 05:53 Cal File: s3c0957.d  
 Als bottle: 3 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: MEGAILI.sub  
 Target Version: 3.50  
 Processing Host: hpclp1

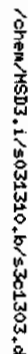
Compounds	QUANT SIG				AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COL
					(ng/ul)	(ng/ul)
=====	=====	=====	=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	152	3.473	3.473	(1.000)	420090	40.0000
* 29 Naphthalene-d8	136	4.329	4.329	(1.000)	1737890	40.0000
* 46 Acenaphthene-d10	164	5.570	5.570	(1.000)	865868	40.0000
* 67 Phenanthrene-d10	188	6.592	6.592	(1.000)	1487152	40.0000
* 91 Chrysene-d12	240	8.169	8.169	(1.000)	1106909	40.0000
* 98 Perylene-d12	264	9.330	9.330	(1.000)	840849	40.0000
\$ 3 2-Fluorophenol	112	2.682	2.682	(0.772)	381958	40.0000 40.4
\$ 5 Phenol-d5	99	3.206	3.206	(0.923)	438980	40.0000 39.6
\$ 20 Nitrobenzene-d5	82	3.837	3.837	(0.886)	418950	40.0000 42.3
\$ 39 2-Fluorobiphenyl	172	5.073	5.073	(0.911)	934167	40.0000 42.4
\$ 60 2,4,6-Tribromophenol	329	6.126	6.126	(1.100)	80377	40.0000 40.5
\$ 81 p-Terphenyl-d14	244	7.522	7.522	(0.921)	784967	40.0000 45.8
1 N-Methyl-N-nitrosomethylamine	74	2.002	2.002	(0.577)	190017	40.0000 38.8
2 Pyridine	79	2.029	2.029	(0.584)	227869	40.0000 30.6
4 Aniline	66	3.265	3.265	(0.940)	173137	40.0000 36.0
6 Phenol	94	3.217	3.217	(0.926)	462490	40.0000 40.5
7 bis(2-Chloroethyl) ether	63	3.286	3.286	(0.946)	307623	40.0000 37.3
8 2-Chlorophenol	128	3.340	3.340	(0.962)	467995	40.0000 41.6
203 n-Decane	43	3.334	3.334	(0.960)	579358	40.0000 39.6
9 1,3-Dichlorobenzene	146	3.441	3.441	(0.991)	509551	40.0000 40.5
11 1,4-Dichlorobenzene	146	3.484	3.484	(1.003)	524519	40.0000 40.0
13 1,2-Dichlorobenzene	146	3.586	3.586	(1.032)	485156	40.0000 40.2
14 bis(2-Chloroisopropyl) ether	45	3.623	3.623	(1.043)	867880	40.0000 41.7
12 Benzyl alcohol	108	3.548	3.548	(1.022)	275200	40.0000 41.7
15 o-Cresol	107	3.602	3.602	(1.037)	317684	40.0000 40.1
18 m,p-Cresols	107	3.703	3.703	(1.066)	418239	40.0000 41.5

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
							(ng/ul)	(ng/ul)
17 N-Nitrosodipropylamine		70	3.719	3.719	(1.071)	262753	40.0000	41.4
19 Hexachloroethane		117	3.805	3.805	(1.095)	203271	40.0000	40.7
21 Nitrobenzene		77	3.848	3.848	(0.889)	413258	40.0000	42.2
22 Isophorone		82	4.003	4.003	(0.925)	716265	40.0000	39.9
23 2-Nitrophenol		139	4.056	4.056	(0.937)	247784	40.0000	41.6
24 2,4-Dimethylphenol		122	4.062	4.062	(0.938)	417207	40.0000	42.0
25 bis(2-Chloroethoxy)methane		93	4.131	4.131	(0.954)	442466	40.0000	38.8
26 2,4-Dichlorophenol		162	4.217	4.217	(0.974)	359487	40.0000	41.9
27 Benzoic acid		105	4.120	4.120	(0.952)	111326	40.0000	31.8
28 1,2,4-Trichlorobenzene		180	4.281	4.281	(0.989)	388240	40.0000	39.6
30 Naphthalene		128	4.340	4.340	(1.002)	1319131	40.0000	38.2
204 alpha-Terpineol		59	4.324	4.324	(0.999)	360694	40.0000	39.9
31 4-Chloroaniline		127	4.367	4.367	(1.009)	465923	40.0000	35.0
32 Hexachlorobutadiene		225	4.409	4.409	(1.019)	208145	40.0000	41.6
33 4-Chloro-3-methylphenol		107	4.682	4.682	(1.082)	372269	40.0000	42.8
34 2-Methylnaphthalene		142	4.821	4.821	(1.114)	909756	40.0000	40.6
35 1-Methylnaphthalene		142	4.891	4.891	(1.130)	857576	40.0000	39.0
36 Hexachlorocyclopentadiene		237	4.923	4.923	(0.884)	90249	40.0000	34.5
205 2,3-Dichloroaniline		161	5.019	5.019	(0.901)	442596	40.0000	38.8
37 2,4,6-Trichlorophenol		196	5.014	5.014	(0.900)	246092	40.0000	41.3
38 2,4,5-Trichlorophenol		196	5.040	5.040	(0.905)	285714	40.0000	42.4
40 2-Chloronaphthalene		162	5.169	5.169	(0.928)	802234	40.0000	40.2
42 o-Nitroaniline		65	5.238	5.238	(0.940)	235760	40.0000	41.3
41 m-Nitroaniline		138	5.533	5.533	(0.993)	159536	40.0000	31.0
43 Dimethylphthalate		163	5.351	5.351	(0.961)	937817	40.0000	40.6
44 2,6-Dinitrotoluene		165	5.404	5.404	(0.970)	217063	40.0000	39.1
50 2,4-Dinitrotoluene		165	5.693	5.693	(1.022)	280657	40.0000	39.6
45 Acenaphthylene		152	5.468	5.468	(0.982)	1325570	40.0000	40.9
47 Acenaphthene		154	5.591	5.591	(1.004)	815921	40.0000	38.3
48 2,4-Dinitrophenol		184	5.607	5.607	(1.007)	73468	40.0000	38.3
49 Dibenzofuran		168	5.714	5.714	(1.026)	1099461	40.0000	40.7
51 Diethylphthalate		149	5.848	5.848	(1.050)	1016721	40.0000	42.2
52 4-Nitrophenol		139	5.629	5.629	(1.011)	150906	40.0000	40.4
53 Fluorene		166	5.960	5.960	(1.070)	920112	40.0000	39.3
54 4-Chlorophenylphenylether		204	5.944	5.944	(1.067)	407685	40.0000	38.8
55 2-Methyl-4,6-dinitrophenol		198	5.982	5.982	(0.907)	144472	40.0000	44.8
56 p-Nitroaniline		138	5.966	5.966	(1.071)	142084	40.0000	33.0
133 Diphenylamine		169	6.025	6.025	(0.914)	690743	40.0000	37.4
58 1,2-Diphenylhydrazine		77	6.057	6.057	(0.919)	850707	40.0000	42.7
61 4-Bromophenylphenylether		248	6.281	6.281	(0.953)	208312	40.0000	38.4
63 Hexachlorobenzene		284	6.329	6.329	(0.960)	217918	40.0000	40.6
65 Pentachlorophenol		266	6.458	6.458	(0.980)	101765	40.0000	36.8
206 n-Octadecane		57	6.463	6.463	(0.981)	722674	40.0000	44.3
68 Phenanthrene		178	6.608	6.608	(1.002)	1302465	40.0000	38.7
69 Anthracene		178	6.640	6.640	(1.007)	1282353	40.0000	38.9
72 Di-n-butylphthalate		149	6.912	6.912	(1.049)	1686100	40.0000	44.2
76 Fluoranthene		202	7.324	7.324	(1.111)	1224226	40.0000	40.1

Compounds	QUANT SIG			RESPONSE	AMOUNTS	
	MASS	RT	EXP RT REL RT		CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====
79 Pyrene	202	7.463	7.463 (0.914)	1250466	40.0000	39.0
85 Butylbenzylphthalate	149	7.779	7.779 (0.952)	728743	40.0000	44.9
89 Benzo(a)anthracene	228	8.159	8.159 (0.999)	960176	40.0000	37.4
92 Chrysene	228	8.185	8.185 (1.002)	1026450	40.0000	39.0
93 bis(2-Ethylhexyl)phthalate	149	8.089	8.089 (0.990)	1039764	40.0000	47.8
94 Di-n-octylphthalate	149	8.528	8.528 (0.914)	1615750	40.0000	46.7
95 Benzo(b)fluoranthene	252	8.966	8.966 (0.961)	870667	40.0000	40.8
96 Benzo(k)fluoranthene	252	8.988	8.988 (0.963)	836424	40.0000	36.3
97 Benzo(a)pyrene	252	9.277	9.277 (0.994)	711941	40.0000	38.8
99 Indeno(1,2,3-cd)pyrene	276	10.603	10.603 (1.136)	665768	40.0000	42.1
100 Dibenzo(a,h)anthracene	278	10.608	10.608 (1.137)	546318	40.0000	42.5
101 Benzo(ghi)perylene	276	10.993	10.993 (1.178)	533898	40.0000	41.1
126 m-Dinitrobenzene	168	5.388	5.388 (0.967)	154158	40.0000	38.6
130 2,3,4,6-Tetrachlorophenol	232	5.795	5.795 (1.040)	182896	40.0000	36.8
143 Dinoseb	211	6.559	6.559 (0.995)	165355	40.0000	37.2
173 Carbazole	167	6.736	6.736 (1.022)	786675	40.0000	33.0
184 p-Benzquinone	54	2.981	2.981 (0.858)	29283	40.0000	24.3
192 Methoxychlor	227	8.068	8.068 (0.988)	624897	40.0000	41.9
211 p-Toluidine	106	3.757	3.757 (1.082)	266269	40.0000	24.9
210 m-Toluidine	106	3.778	3.778 (1.088)	520269	40.0000	36.3
26 Phthalic anhydride	104	4.869	4.869 (1.125)	207825	40.0000	55.2
179 Dibenzo(a,e)pyrene	302	13.999	13.999 (1.500)	217618	40.0000	41.6
214 1,4-Dinitrobenzene	75	5.335	5.335 (0.958)	163470	40.0000	42.9
215 2-Ethoxyethanol	59	1.842	1.842 (0.530)	264318	40.0000	42.6
216 Methylenebis(2-chloroaniline)	231	8.116	8.116 (0.993)	94588	40.0000	27.7
M 225 Trichlorophenols	196			531806	80.0000	83.8
M 226 Tetrachlorophenols	232			182896	40.0000	36.8
M 227 Benzo(b,k)fluoranthene	252			1707091	80.0000	76.9

Page 1

Operator: JLD1  
Column diameter: 0.20





GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 13-MAR-2010 11:36  
Lab File ID: s3c1304.d Init. Cal. Date(s): 09-MAR-2010 10-MAR-2010  
Analysis Type: Init. Cal. Times: 16:24 07:50  
Lab Sample ID: WBN100218-08.3 Quant Type: ISTD  
Method: /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
RRF	%D	%DRIFT	%D	%DRIFT		
209 Benzaldehyde	0.68137	0.60956	0.60956	0.000	-10.53964	60.00000 Averaged
16 Acetophenone	1.09508	1.09271	1.09271	0.000	-0.21580	60.00000 Averaged
189 Caprolactam	0.08146	0.08916	0.08916	0.000	9.45190	60.00000 Averaged
208 1,1'-Biphenyl	1.18248	1.27359	1.27359	0.000	7.70562	60.00000 Averaged
207 Atrazine	0.04487	0.04839	0.04839	0.000	7.84618	60.00000 Averaged
77 Benzidine	0.42129	0.24248	0.24248	0.000	-42.44404	60.00000 Averaged
90 3,3'-Dichlorobenzidine	0.26225	0.27172	0.27172	0.000	3.61125	60.00000 Averaged
102 1,4-Dioxane	0.28469	0.34891	0.34891	0.000	22.55466	60.00000 Averaged
103 Methyl methacrylate	0.18787	0.22733	0.22733	0.000	20.99954	60.00000 Averaged
104 Ethyl methacrylate	0.58791	0.72380	0.72380	0.000	23.11436	60.00000 Averaged
105 2-Picoline	1.01532	0.95225	0.95225	0.000	-6.21172	60.00000 Averaged
106 N-Nitrosomethylethylamine	0.38527	0.38616	0.38616	0.000	0.23289	60.00000 Averaged
107 Methyl methanesulfonate	0.42665	0.49352	0.49352	0.000	15.67197	60.00000 Averaged
108 N-Nitrosodiethylamine	0.44736	0.44109	0.44109	0.000	-1.40006	60.00000 Averaged
109 Ethyl Methanesulfonate	0.51592	0.64381	0.64381	0.000	24.78794	60.00000 Averaged
110 Pentachloroethane	0.30632	0.42057	0.42057	0.000	37.29662	60.00000 Averaged
111 N-Nitrosopyrrolidine	0.46141	0.46429	0.46429	0.000	0.62296	60.00000 Averaged
113 N-Nitrosomorpholine	0.66901	0.71282	0.71282	0.000	6.54780	60.00000 Averaged
114 o-Toluidine	1.57594	1.57309	1.57309	0.000	-0.18084	60.00000 Averaged
115 N-Nitrosopiperidine	0.12674	0.12485	0.12485	0.000	-1.48743	60.00000 Averaged
116 a,a-Dimethylphenethylamine	0.73521	0.70481	0.70481	0.000	-4.13457	60.00000 Averaged
118 2,6-Dichlorophenol	0.20189	0.21454	0.21454	0.000	6.26754	60.00000 Averaged
119 Hexachloropropene	0.08669	0.15153	0.15153	0.000	74.78790	60.00000 Averaged
120 p-Phenylenediamine	0.20529	0.23410	0.23410	0.000	14.03251	60.00000 Averaged
121 N-Nitrosodi-n-butylamine	0.16562	0.17139	0.17139	0.000	3.48249	60.00000 Averaged
122 Safrole	0.18406	0.21744	0.21744	0.000	18.13779	60.00000 Averaged
123 1,2,4,5-Tetrachlorobenzene	0.37863	0.41387	0.41387	0.000	9.30629	60.00000 Averaged
124 Isosafrole	0.32993	0.45199	0.45199	0.000	36.99488	60.00000 Averaged
125 1,4-Naphthoquinone	0.30831	0.35035	0.35035	0.000	13.63484	60.00000 Averaged
127 Pentachlorobenzene	0.31531	0.33342	0.33342	0.000	5.74421	60.00000 Averaged
128 1-Naphthylamine	0.90758	0.95957	0.95957	0.000	5.72794	60.00000 Averaged
129 2-Naphthylamine	1.01735	1.04728	1.04728	0.000	2.94262	60.00000 Averaged
131 5-Nitro-o-toluidine	0.28533	0.29284	0.29284	0.000	2.63265	60.00000 Averaged
136 1,3,5-Trinitrobenzene	59.58791	40.00000	0.15268	0.000	48.96979	60.00000 Linear
137 Phenacetin	0.27637	0.31559	0.31559	0.000	14.19205	60.00000 Averaged
138 Diallate	0.22056	0.22146	0.22146	0.000	0.40641	60.00000 Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 13-MAR-2010 11:36  
Lab File ID: s3c1304.d Init. Cal. Date(s): 09-MAR-2010 10-MAR-2010  
Analysis Type: Init. Cal. Times: 16:24 07:50  
Lab Sample ID: WBN100218-08.3 Quant Type: ISTD  
Method: /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
			RRF40	RRF	%D / %DRIFT	
140 4-Aminobiphenyl	0.55935	0.51294	0.51294	0.000	-8.29774	Averaged
141 Pentachloronitrobenzene	0.06074	0.07264	0.07264	0.000	19.60153	Averaged
142 Pronamide	0.27083	0.30438	0.30438	0.000	12.38840	Averaged
146 4-Nitroquinoline-1-oxide	49.08212	40.00000	0.01993	0.000	22.70531	Linear
147 Methapyrilene	0.36149	0.45174	0.45174	0.000	24.96490	Averaged
148 Isodrin	0.09454	0.09722	0.09722	0.000	2.83434	Averaged
149 Aramite	0.04557	0.04939	0.04939	0.000	8.39275	Averaged
150 Kepone	0.06146	0.06479	0.06479	0.000	5.41668	Averaged
151 p-(Dimethylamino)azobenzene	0.38197	0.35708	0.35708	0.000	-6.51509	Averaged
152 Chlorobenzilate	0.30142	0.29591	0.29591	0.000	-1.82586	Averaged
153 3,3'-Dimethylbenzidine	0.51971	0.45227	0.45227	0.000	-12.97537	Averaged
155 2-Acetylaminofluorene	43.39060	40.00000	0.39268	0.000	8.47649	Linear
157 7,12Dimethylbenz(a)anthrace	0.49756	0.46429	0.46429	0.000	-6.68662	Averaged
158 3-Methylcholanthrene	0.35512	0.43056	0.43056	0.000	21.24277	Averaged
212 Cis Diallylate	0.22269	0.29567	0.29567	0.000	32.77344	Averaged
213 Trans Diallylate	0.25949	0.26054	0.26054	0.000	0.40641	Averaged

GEL Laboratories LLC

Data file : /chem/MSD3.i/s031310.b/s3c1304.d  
Lab Smp Id: WBN100218-08.3 Client Smp ID: APCVS  
Inj Date : 13-MAR-2010 11:36  
Operator : JLD1 Inst ID: MSD3.i  
Smp Info : |WBN100218-08.3|40PPM|1|SVMF|1|APCVS  
Misc Info : |MSD8270|WBN100227-01|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
Meth Date : 13-Mar-2010 14:45 jen00986 Quant Type: ISTD  
Cal Date : 10-MAR-2010 05:53 Cal File: s3c0957.d  
Als bottle: 4 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AP12.sub  
Target Version: 3.50  
Processing Host: hpc1pl

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	152	3.475	3.475	(1.000)	509956	40.0000	
* 29 Naphthalene-d8	136	4.326	4.326	(1.000)	1918653	40.0000	
* 46 Acenaphthene-d10	164	5.566	5.566	(1.000)	1037479	40.0000	
* 67 Phenanthrene-d10	188	6.593	6.593	(1.000)	1766762	40.0000	
* 91 Chrysene-d12	240	8.166	8.166	(1.000)	1420653	40.0000	
* 98 Perylene-d12	264	9.332	9.332	(1.000)	1101087	40.0000	
209 Benzaldehyde	77	3.208	3.208	(0.923)	310847	40.0000	35.8
16 Acetophenone	105	3.727	3.727	(1.072)	557235	40.0000	39.9
189 Caprolactam	113	4.614	4.614	(1.067)	171069	40.0000	43.8
208 1,1'-Biphenyl	154	5.149	5.149	(0.925)	1321326	40.0000	43.1
207 Atrazine	173	6.374	6.374	(0.967)	85498	40.0000	43.1
77 Benzidine	184	7.390	7.390	(0.905)	344476	40.0000	23.0
90 3,3'-Dichlorobenzidine	252	8.123	8.123	(0.995)	386019	40.0000	41.4
102 1,4-Dioxane	88	1.854	1.854	(0.534)	177927	40.0000	49.0
103 Methyl methacrylate	100	1.849	1.849	(0.532)	115927	40.0000	48.4
104 Ethyl methacrylate	69	2.213	2.213	(0.637)	369104	40.0000	49.2
105 2-Picoline	93	2.395	2.395	(0.689)	485606	40.0000	37.5
106 N-Nitrosomethylethylamine	88	2.443	2.443	(0.703)	196926	40.0000	40.1
107 Methyl methanesulfonate	80	2.603	2.603	(0.749)	251671	40.0000	46.3
108 N-Nitrosodiethylamine	102	2.823	2.823	(0.812)	224939	40.0000	39.4
109 Ethyl Methanesulfonate	79	2.983	2.983	(0.858)	328314	40.0000	49.9
110 Pentachloroethane	167	3.299	3.299	(0.949)	214471	40.0000	54.9
111 N-Nitrosopyrrolidine	100	3.716	3.716	(1.069)	236765	40.0000	40.2(Q)
113 N-Nitrosomorpholine	56	3.737	3.737	(1.075)	363506	40.0000	42.6
114 o-Toluidine	106	3.753	3.753	(1.080)	802208	40.0000	39.9
115 N-Nitrosopiperidine	114	3.946	3.946	(0.912)	239546	40.0000	39.4

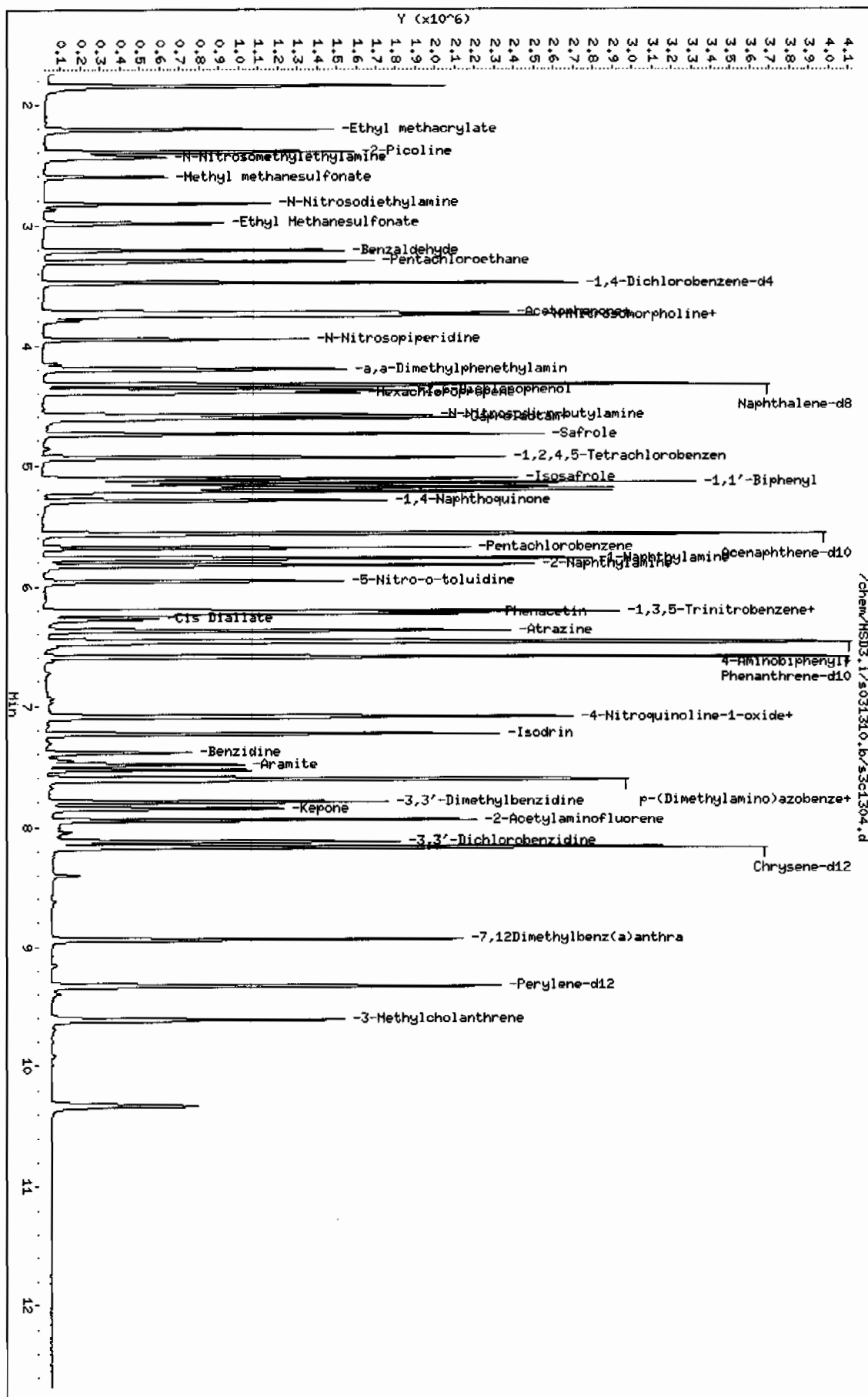
Compounds	QUANT SIG			REL RT	RESPONSE	AMOUNTS	
	MASS	RT	EXP RT			CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
116 a,a-Dimethylphenethylamine	58	4.197	4.197	(0.970)	1352287	40.0000	38.3
118 2,6-Dichlorophenol	162	4.374	4.374	(1.011)	411631	40.0000	42.5
119 Hexachloropropene	213	4.395	4.395	(1.016)	290735	40.0000	69.9
120 p-Phenylenediamine	108	4.614	4.614	(1.067)	449152	40.0000	45.6
121 N-Nitrosodi-n-butylamine	84	4.582	4.582	(1.059)	328842	40.0000	41.4 (QH)
122 Safrole	162	4.743	4.743	(1.096)	417195	40.0000	47.2
123 1,2,4,5-Tetrachlorobenzene	216	4.935	4.935	(0.887)	429377	40.0000	43.7
124 Isosafrole	162	5.112	5.112	(0.918)	468928	40.0000	54.8
125 1,4-Naphthoquinone	158	5.294	5.294	(0.951)	363476	40.0000	45.4
127 Pentachlorobenzene	250	5.679	5.679	(1.020)	345916	40.0000	42.3
128 1-Naphthylamine	143	5.770	5.770	(1.036)	995529	40.0000	42.3
129 2-Naphthylamine	143	5.823	5.823	(1.046)	1086536	40.0000	41.2
131 5-Nitro-o-toluidine	152	5.957	5.957	(1.070)	303812	40.0000	41.0
136 1,3,5-Trinitrobenzene	75	6.203	6.203	(0.941)	269755	40.0000	59.6
137 Phenacetin	108	6.230	6.230	(0.945)	557581	40.0000	45.7 (Q)
138 Diallate	86	6.208	6.208	(0.942)	391268	40.0000	40.2
140 4-Aminobiphenyl	169	6.460	6.460	(0.980)	906236	40.0000	36.7
141 Pentachloronitrobenzene	237	6.465	6.465	(0.981)	128343	40.0000	47.8 (Q)
142 Pronamide	173	6.476	6.476	(0.982)	537762	40.0000	45.0
146 4-Nitroquinoline-1-oxide	101	7.080	7.080	(1.074)	35204	40.0000	49.1
147 Methapyrilene	58	7.096	7.096	(1.076)	798111	40.0000	50.0
148 Isodrin	193	7.235	7.235	(1.097)	171756	40.0000	41.1
149 Aramite	185	7.492	7.492	(1.136)	87261	40.0000	43.4
150 Kepone	272	7.850	7.850	(1.191)	114466	40.0000	42.2
151 p-(Dimethylamino)azobenzene	120	7.604	7.604	(0.931)	507291	40.0000	37.4
152 Chlorobenzilate	251	7.620	7.620	(0.933)	420392	40.0000	39.3
153 3,3'-Dimethylbenzidine	212	7.791	7.791	(0.954)	642521	40.0000	34.8
155 2-Acetylaminofluorene	181	7.947	7.947	(0.973)	557864	40.0000	43.4
157 7,12Dimethylbenz(a)anthracene	256	8.941	8.941	(0.958)	511226	40.0000	37.3
158 3-Methylcholanthrene	268	9.615	9.615	(1.030)	474080	40.0000	48.5 (Q)
212 Cis Diallate	86	6.272	6.272	(0.951)	78356	6.00000	8.0
213 Trans Diallate	86	6.208	6.208	(0.942)	391268	34.0000	34.1

## QC Flag Legend

Q - Qualifier signal failed the ratio test.  
H - Operator selected an alternate compound hit.

Data File: /chem/HSD3.1/s031310.b/s3c1304.d  
 Date: 13-MAR-2010 11:36  
 Client ID: APCVS  
 Sample Info: IUBN400218-08.3140PM11.SWHT11.APCVS  
 Column phase: 3M DB-SHS

Instrument: HSD3.1  
 Operator: JLD1  
 Column diameter: 0.20



# QC Data

Data File: /chem/MSD3.i/s030910a,b/s3c0917,d

Page 1

Date : 09-MAR-2010 15:53

Client ID: DFTPP

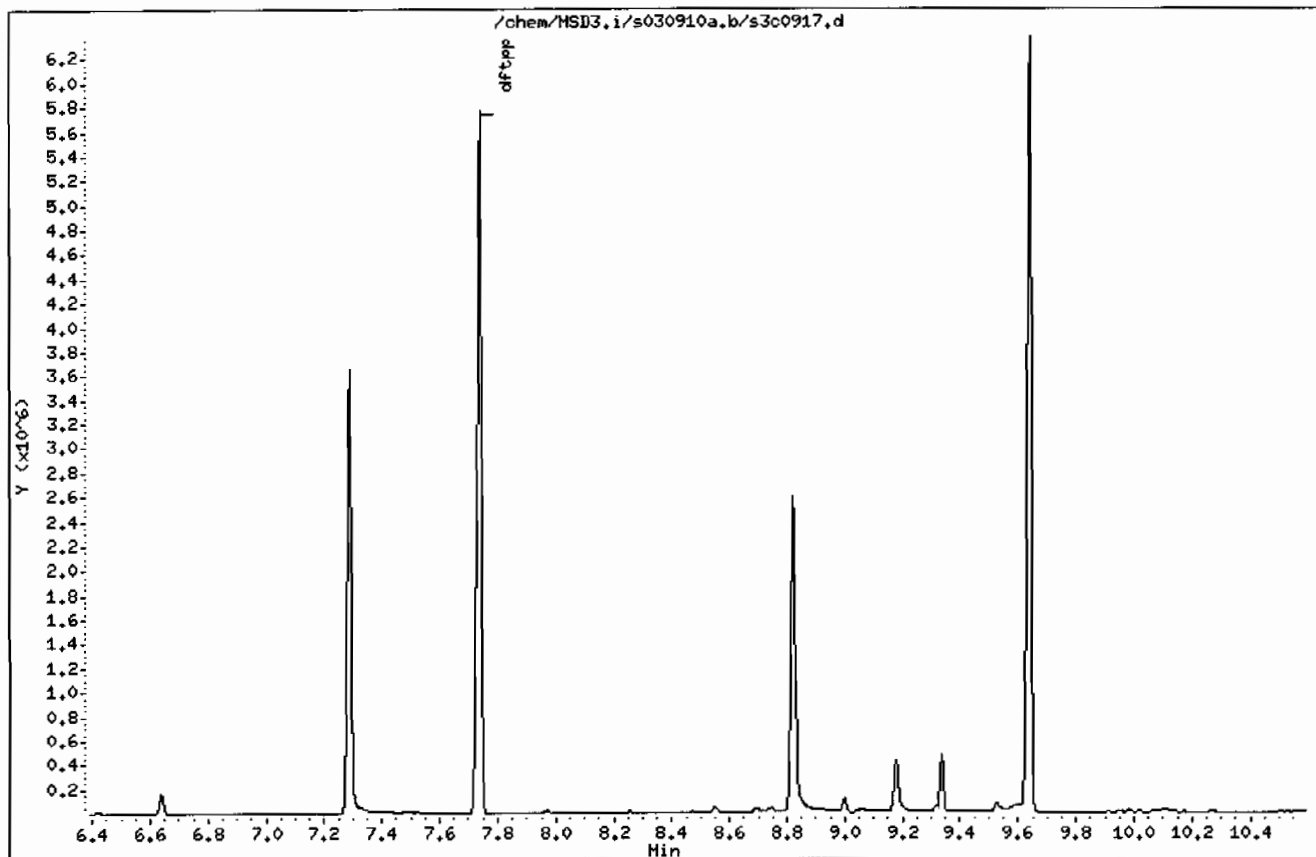
Instrument: MSD3.i

Sample Info: INBN100306-01.2\DFTPP\1\SVH\1\DFTPP\

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20



Date : 09-MAR-2010 15:53

Client ID: DFTPP

Instrument: MSD3.i

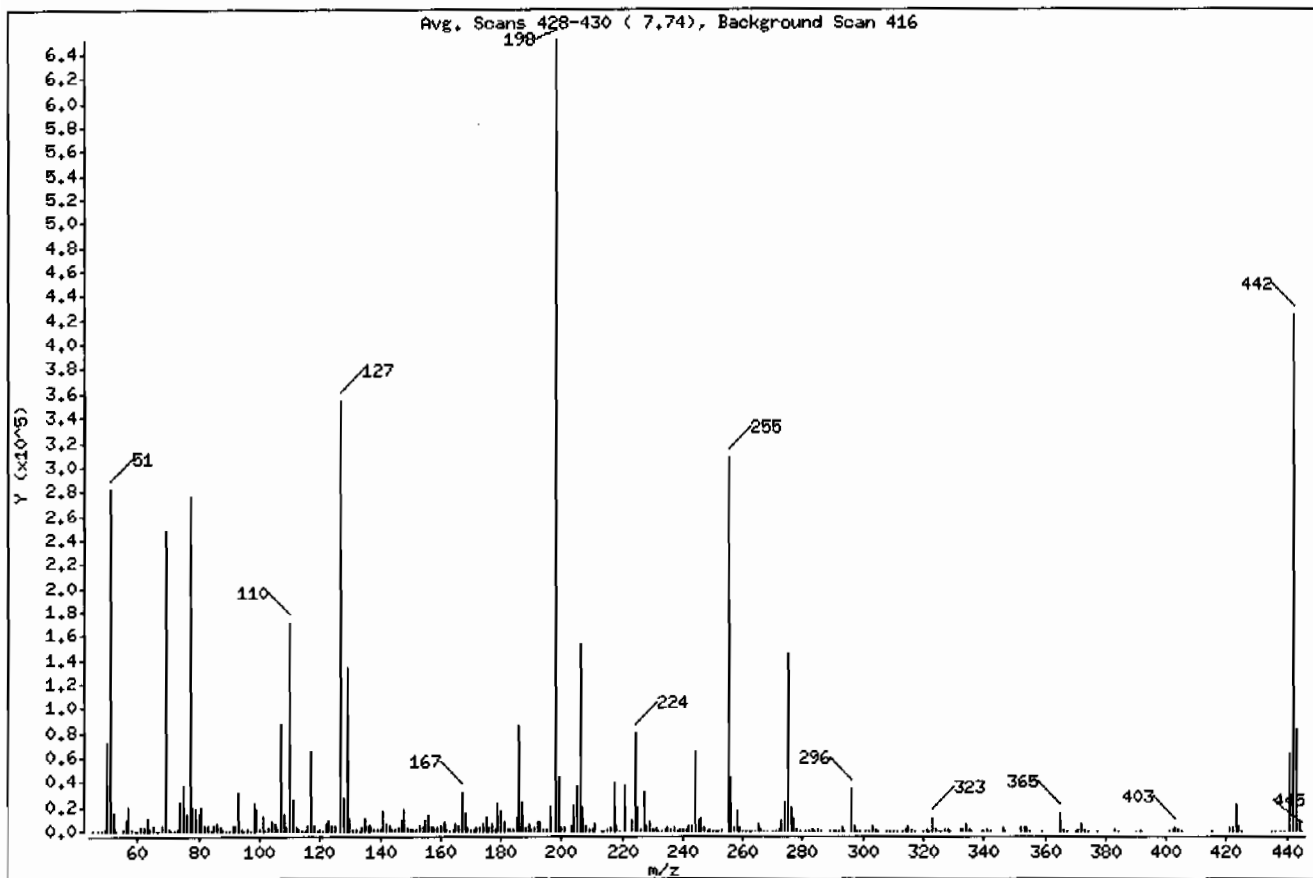
Sample Info: IWBH100306-01,2IDFTPP11SVH11IDFTPP1

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0,20

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	43.32
68	Less than 2.00% of mass 69	0.67 ( 1.75)
69	Mass 69 relative abundance	37.97
70	Less than 2.00% of mass 69	0.19 ( 0.51)
127	40.00 - 60.00% of mass 198	54.22
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.70
275	10.00 - 30.00% of mass 198	22.28
365	Greater than 1.00% of mass 198	2.22
441	Present, but less than mass 443	9.72
442	Greater than 40.00% of mass 198	65.03
443	17.00 - 23.00% of mass 442	12.63 ( 19.42)



Date : 09-MAR-2010 15:53

Client ID: DFTPP

Instrument: HSD3.i

Sample Info: IWBNI00306-01.2IDFTPP11SVH11IDFTPP1

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s3c0917.d

Spectrum: Avg. Scans 428-430 ( 7.74), Background Scan 416

Location of Maximum: 198.00

Number of points: 315

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	359	127.00	353472	208.00	4793	296.00	34424
47.00	96	128.00	26928	209.00	1524	297.00	4753
48.00	183	129.00	133376	210.00	861	298.00	350
49.00	1886	130.00	11096	211.00	5966	299.00	33
50.00	71616	131.00	2198	213.00	415	301.00	421
51.00	282432	132.00	1308	214.00	143	302.00	748
52.00	14433	133.00	475	215.00	1606	303.00	4121
53.00	541	134.00	3622	216.00	3232	304.00	1089
55.00	1264	135.00	10921	217.00	38912	305.00	78
56.00	8408	136.00	4267	218.00	5015	308.00	511
57.00	19416	137.00	4899	219.00	489	309.00	368
58.00	800	138.00	1238	221.00	37880	310.00	417
59.00	256	139.00	765	223.00	8800	311.00	68
60.00	216	140.00	1751	224.00	79904	313.00	327
61.00	3353	141.00	16345	225.00	20160	314.00	1619
62.00	3458	142.00	5403	226.00	2227	315.00	3803
63.00	10114	143.00	3903	227.00	31344	316.00	2187
64.00	1287	144.00	1082	228.00	4467	317.00	324
65.00	5015	145.00	898	229.00	7126	320.00	138
66.00	449	146.00	2832	230.00	1052	321.00	1110
67.00	207	147.00	8323	231.00	3029	322.00	364
68.00	4339	148.00	18184	232.00	493	323.00	10698
69.00	247552	149.00	3742	233.00	553	324.00	1959
70.00	1255	150.00	1176	234.00	1880	325.00	230
71.00	182	151.00	2136	235.00	2343	326.00	218
72.00	111	152.00	1318	236.00	1485	327.00	1970
73.00	1737	153.00	5219	237.00	2485	328.00	974
74.00	23352	154.00	3644	238.00	305	329.00	223
75.00	36976	155.00	8855	239.00	1147	332.00	808
76.00	13158	156.00	13622	240.00	1046	333.00	1102
77.00	275200	157.00	3007	241.00	1885	334.00	6588
78.00	18912	158.00	2869	242.00	4065	335.00	1838
79.00	17328	159.00	2284	243.00	4691	336.00	205
80.00	13364	160.00	4864	244.00	64104	339.00	153
81.00	19032	161.00	7471	245.00	8717	340.00	174

Date : 09-MAR-2010 15:53

Client ID: DFTPP

Instrument: HSD3.i

Sample Info: IWBNI00306-01.2IDFTPP11SVMI11DFTPP1

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s3c0917.d

Spectrum: Avg. Scans 428-430 ( 7.74), Background Scan 416

Location of Maximum: 198.00

Number of points: 315

m/z	Y	m/z	Y	m/z	Y	m/z	Y
82.00	4868	162.00	2127	246.00	11101	341.00	1174
83.00	4520	163.00	644	247.00	2350	342.00	363
84.00	318	164.00	1049	248.00	521	346.00	2346
85.00	4817	165.00	5634	249.00	2148	347.00	496
86.00	5544	166.00	4655	250.00	493	352.00	3214
87.00	2652	167.00	31072	251.00	481	353.00	2300
88.00	808	168.00	14416	252.00	621	354.00	3253
89.00	441	169.00	2690	253.00	1408	355.00	622
90.00	48	170.00	966	255.00	307584	359.00	222
91.00	4340	171.00	1231	256.00	44152	365.00	14479
92.00	4802	172.00	2682	257.00	3466	366.00	2191
93.00	30832	173.00	3666	258.00	16233	367.00	121
94.00	2184	174.00	6489	259.00	2697	370.00	283
95.00	389	175.00	12013	260.00	471	371.00	821
96.00	1448	176.00	3658	261.00	529	372.00	5913
97.00	403	177.00	5607	262.00	35	373.00	1464
98.00	22984	178.00	2104	263.00	157	374.00	176
99.00	18280	179.00	22496	264.00	407	377.00	120
100.00	1668	180.00	16070	265.00	6503	383.00	1436
101.00	11813	181.00	7726	266.00	909	384.00	451
102.00	602	182.00	1214	267.00	119	390.00	698
103.00	3738	183.00	843	268.00	251	391.00	551
104.00	7347	184.00	1860	270.00	320	392.00	406
105.00	6579	185.00	10740	271.00	537	401.00	292
106.00	2181	186.00	85576	272.00	991	402.00	2210
107.00	86952	187.00	24128	273.00	9726	403.00	3375
108.00	14230	188.00	2522	274.00	24280	404.00	1138
109.00	2864	189.00	5401	275.00	145216	405.00	127
110.00	171136	190.00	828	276.00	19048	415.00	123
111.00	25344	191.00	2414	277.00	10791	421.00	2928
112.00	3236	192.00	7120	278.00	1748	422.00	2841
113.00	996	193.00	7559	279.00	395	423.00	21936
114.00	273	194.00	1573	281.00	106	424.00	4481
115.00	393	195.00	1136	282.00	274	425.00	411
116.00	4989	196.00	21376	283.00	1203	435.00	76

Date : 09-MAR-2010 15:53

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: IWBNI00306-01.2IDFTPP11SVH11IDFTPP1

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s3c0917.d

Spectrum: Avg. Scans 428-430 ( 7.74), Background Scan 416

Location of Maximum: 198.00

Number of points: 315

m/z	Y	m/z	Y	m/z	Y	m/z	Y
117.00	64656	198.00	652032	284.00	743	436.00	211
118.00	5179	199.00	43664	285.00	1880	438.00	488
119.00	690	200.00	3483	286.00	366	439.00	444
120.00	1188	201.00	3339	289.00	429	441.00	63368
121.00	326	203.00	4229	290.00	409	442.00	424000
122.00	5960	204.00	21040	291.00	222	443.00	82344
123.00	9367	205.00	35880	292.00	561	444.00	7331
124.00	4286	206.00	152640	293.00	2578	445.00	363
125.00	4023	207.00	20000	294.00	625		

Data File: /chem/MSD3.i/s030910a,b/s3o0928.d

Page 1

Date : 09-MAR-2010 20:38

Client ID: DFTPP

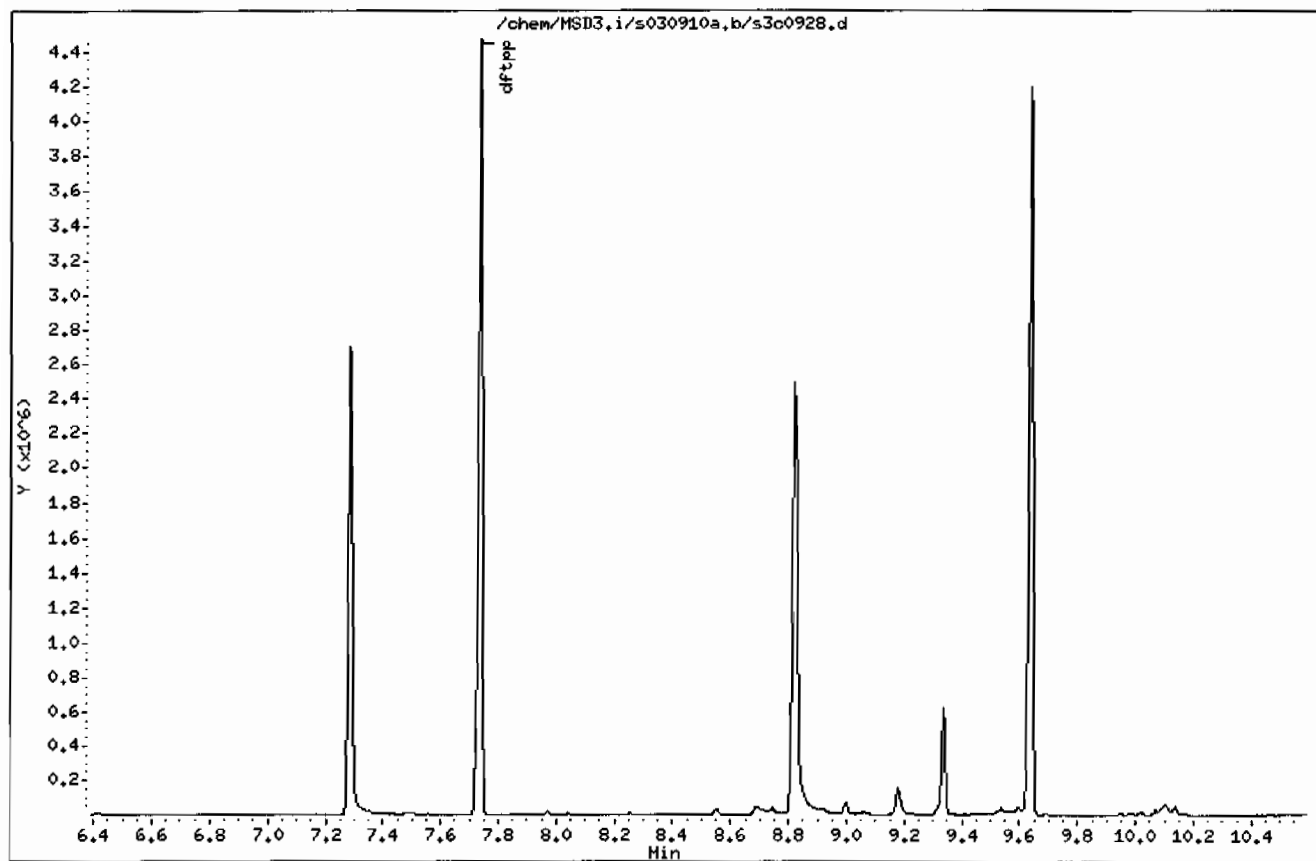
Instrument: MSD3.i

Sample Info: IWBNI00306-01,2IDFTPP11ISVNI11IDFTPP1

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20



Date : 09-MAR-2010 20:38

Client ID: DFTPP

Instrument: MSD3.i

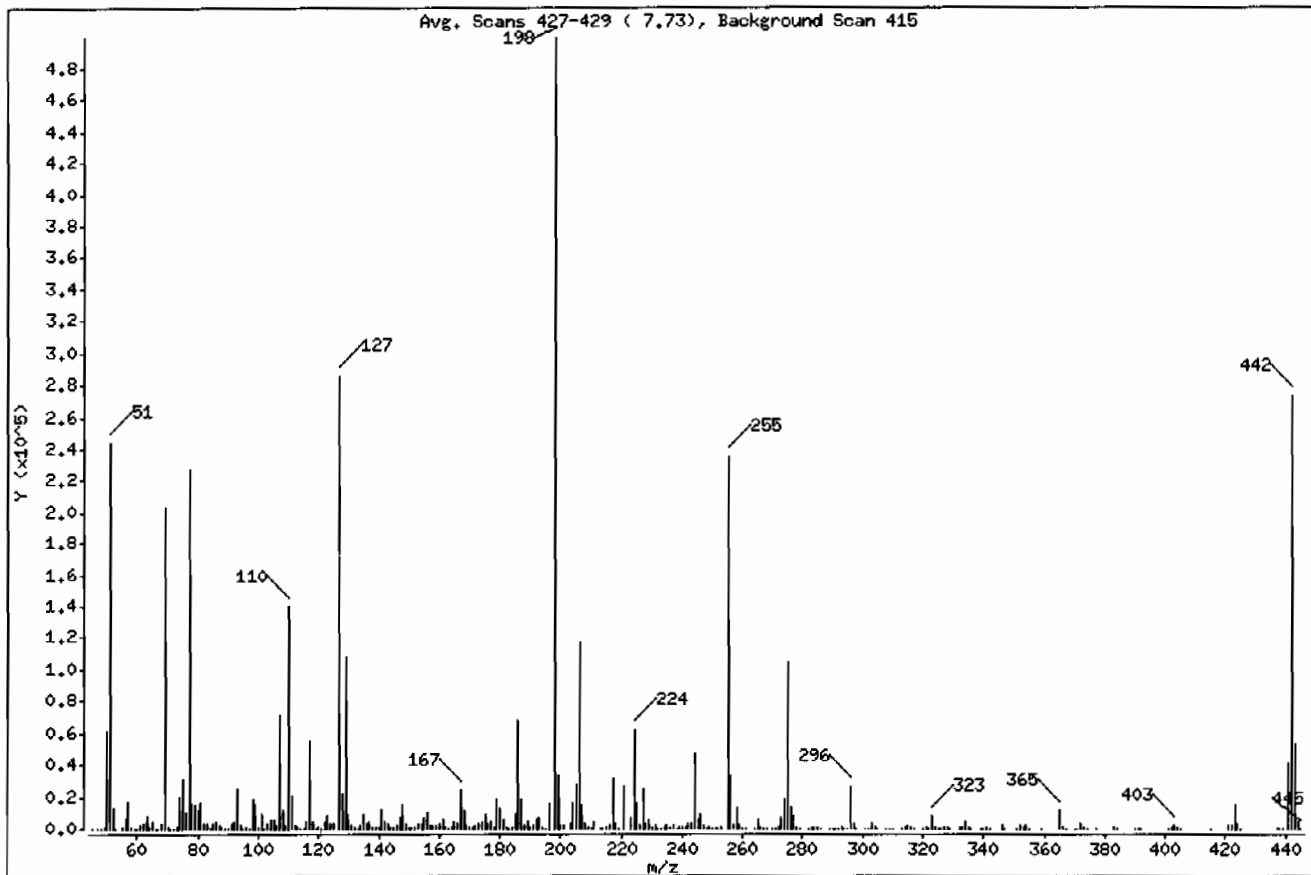
Sample Info: INBN100306-01.2\DFTPP\1\SVH\1\DFTPP\

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	48.92
68	Less than 2.00% of mass 69	0.69 ( 1.69)
69	Mass 69 relative abundance	40.77
70	Less than 2.00% of mass 69	0.22 ( 0.53)
127	40.00 - 60.00% of mass 198	57.34
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.78
275	10.00 - 30.00% of mass 198	21.00
365	Greater than 1.00% of mass 198	2.19
441	Present, but less than mass 443	8.27
442	Greater than 40.00% of mass 198	54.81
443	17.00 - 23.00% of mass 442	10.62 ( 19.39)

Date : 09-MAR-2010 20:38

Client ID: DFTPP

Instrument: HSD3,i

Sample Info: IWBNI00306-01,2IDFTPP11SVMI1IDFTPP1

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s3c0928.d

Spectrum: Avg. Scans 427-429 ( 7.73), Background Scan 415

Location of Maximum: 198.00

Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	155	125.00	3401	206.00	117584	295.00	213
47.00	48	127.00	286400	207.00	15191	296.00	25920
48.00	152	128.00	21416	208.00	3874	297.00	3668
49.00	1480	129.00	108032	209.00	1169	298.00	240
50.00	61400	130.00	9039	210.00	533	301.00	343
51.00	244352	131.00	1785	211.00	4691	302.00	528
52.00	12388	132.00	944	213.00	344	303.00	3136
53.00	465	133.00	415	214.00	134	304.00	806
55.00	1156	134.00	2724	215.00	1247	305.00	125
56.00	7022	135.00	8698	216.00	2451	308.00	395
57.00	16664	136.00	3540	217.00	30560	309.00	215
58.00	742	137.00	4335	218.00	3813	310.00	399
59.00	199	138.00	1023	219.00	387	313.00	259
60.00	172	139.00	600	221.00	26504	314.00	1370
61.00	2856	140.00	1368	223.00	6911	315.00	2844
62.00	3272	141.00	12670	224.00	61816	316.00	1525
63.00	8458	142.00	4463	225.00	16099	317.00	284
64.00	1129	143.00	2946	226.00	1806	320.00	34
65.00	4338	144.00	791	227.00	24888	321.00	705
66.00	307	145.00	809	228.00	3415	322.00	377
67.00	248	146.00	2448	229.00	5643	323.00	7858
68.00	3435	147.00	6711	230.00	822	324.00	1455
69.00	203648	148.00	14672	231.00	2474	325.00	140
70.00	1078	149.00	3054	232.00	380	326.00	59
71.00	134	150.00	932	233.00	517	327.00	1484
72.00	70	151.00	1531	234.00	1537	328.00	752
73.00	1473	152.00	1181	235.00	1772	329.00	95
74.00	19288	153.00	3901	236.00	1283	332.00	663
75.00	31272	154.00	3111	237.00	1984	333.00	746
76.00	10654	155.00	7051	238.00	261	334.00	5043
77.00	227712	156.00	10430	239.00	923	335.00	1203
78.00	15576	157.00	2236	240.00	779	336.00	170
79.00	14892	158.00	2379	241.00	1353	339.00	72
80.00	11116	159.00	1817	242.00	3105	340.00	100
81.00	16187	160.00	4004	243.00	3544	341.00	836

Date : 09-MAR-2010 20:38

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: IWBNI00306-01.2\|DFTPP\|1\|SVMI\|1\|DFTPP\|

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s3c0928.d

Spectrum: Avg. Scans 427-429 ( 7.73), Background Scan 415

Location of Maximum: 198.00

Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
82.00	3846	161.00	5916	244.00	47184	342.00	216
83.00	3700	162.00	1672	245.00	6065	346.00	1815
84.00	340	163.00	451	246.00	9058	347.00	266
85.00	3932	164.00	707	247.00	1835	351.00	86
86.00	4491	165.00	4748	248.00	384	352.00	2339
87.00	2097	166.00	3636	249.00	1684	353.00	1627
88.00	941	167.00	24320	250.00	356	354.00	2254
89.00	400	168.00	11518	251.00	443	355.00	382
90.00	36	169.00	2076	252.00	415	359.00	143
91.00	3586	170.00	750	253.00	1049	365.00	10951
92.00	4231	171.00	976	255.00	235072	366.00	1583
93.00	25136	172.00	2246	256.00	33368	367.00	74
94.00	1891	173.00	2934	257.00	2575	370.00	243
95.00	464	174.00	5018	258.00	12655	371.00	573
96.00	1224	175.00	9393	259.00	2057	372.00	3901
97.00	330	176.00	3022	260.00	392	373.00	1097
98.00	18904	177.00	4221	261.00	480	374.00	78
99.00	15383	178.00	1294	264.00	487	377.00	71
100.00	1291	179.00	18696	265.00	5288	383.00	1024
101.00	9376	180.00	12495	266.00	777	384.00	246
102.00	540	181.00	6123	267.00	34	390.00	525
103.00	3232	182.00	851	268.00	25	391.00	377
104.00	5979	183.00	573	270.00	357	392.00	233
105.00	5694	184.00	1378	271.00	463	401.00	215
106.00	1888	185.00	8622	272.00	696	402.00	1641
107.00	71256	186.00	67872	273.00	7114	403.00	2238
108.00	11853	187.00	18648	274.00	18408	404.00	835
109.00	2215	188.00	2099	275.00	104896	405.00	37
110.00	139840	189.00	4279	276.00	14012	415.00	74
111.00	20520	190.00	710	277.00	8318	421.00	1960
112.00	2626	191.00	1846	278.00	1367	422.00	2030
113.00	932	192.00	5567	279.00	319	423.00	14562
114.00	151	193.00	6317	282.00	185	424.00	3080
115.00	257	194.00	1303	283.00	951	425.00	324
116.00	4114	195.00	462	284.00	648	437.00	313

Date : 09-MAR-2010 20:38

Client ID: DFTPP

Instrument: HSD3.i

Sample Info: IWBH100306-01.2\DFTPP\1\SVMI1\1\DFTPP\1

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s3c0928.d

Spectrum: Avg. Scans 427-429 ( 7.73), Background Scan 415

Location of Maximum: 198.00

Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
117.00	54976	196.00	16050	285.00	1406	438.00	54
118.00	4164	198.00	499520	286.00	221	439.00	307
119.00	493	199.00	33848	289.00	345	441.00	41328
120.00	984	200.00	2448	290.00	253	442.00	273728
121.00	303	201.00	2418	291.00	133	443.00	53072
122.00	4922	203.00	3125	292.00	396	444.00	4803
123.00	8144	204.00	16584	293.00	1709	445.00	220
124.00	3453	205.00	27664	294.00	461		



Data File: /chem/HSD3.i/s031310,b/s3c1301.d

Page 1

Date : 13-MAR-2010 10:37

Client ID: DFTPP

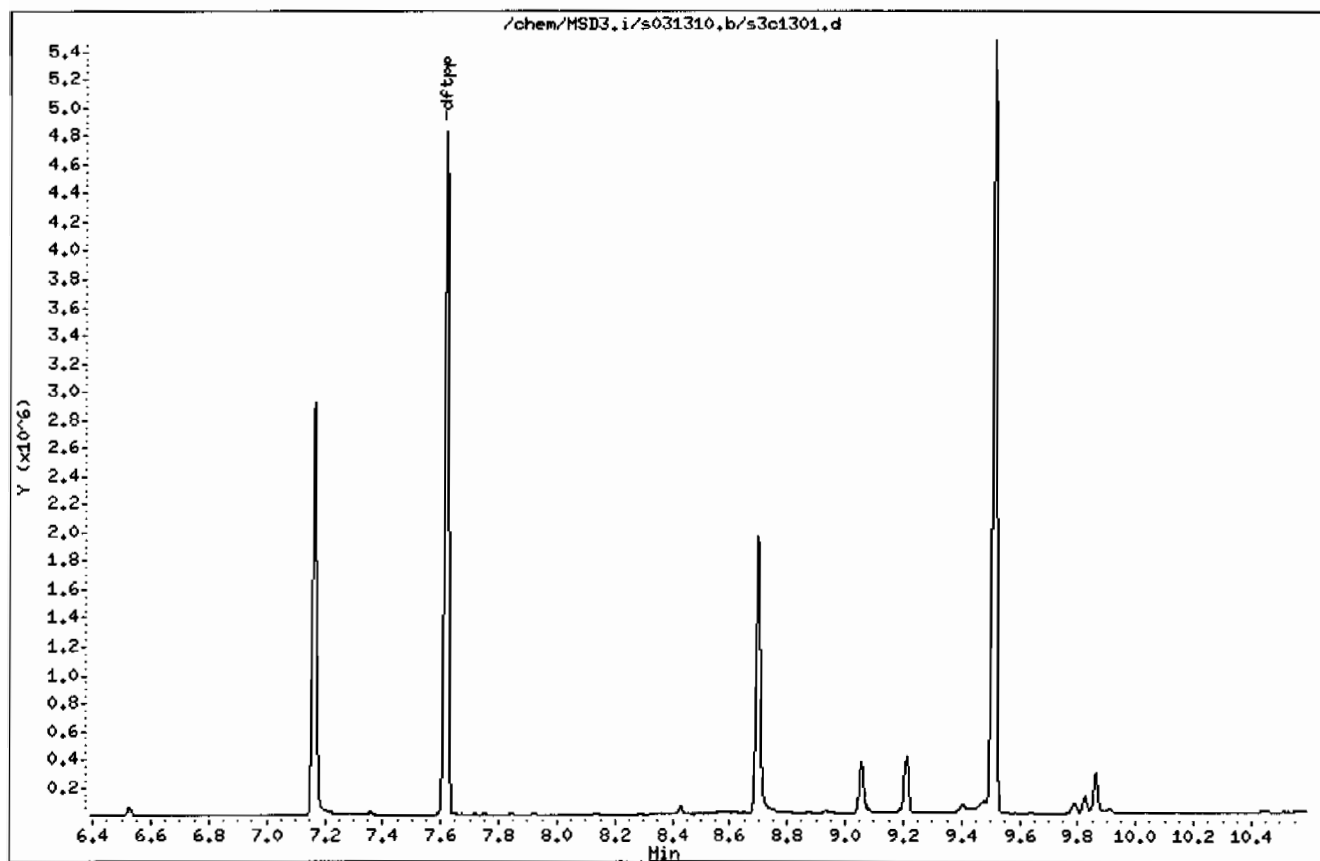
Instrument: HSD3.i

Sample Info: INBN100306-01.2IDFTPP11SVH11IDFTPP1

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20



Date : 13-MAR-2010 10:37

Client ID: DFTPP

Instrument: MSD3,i

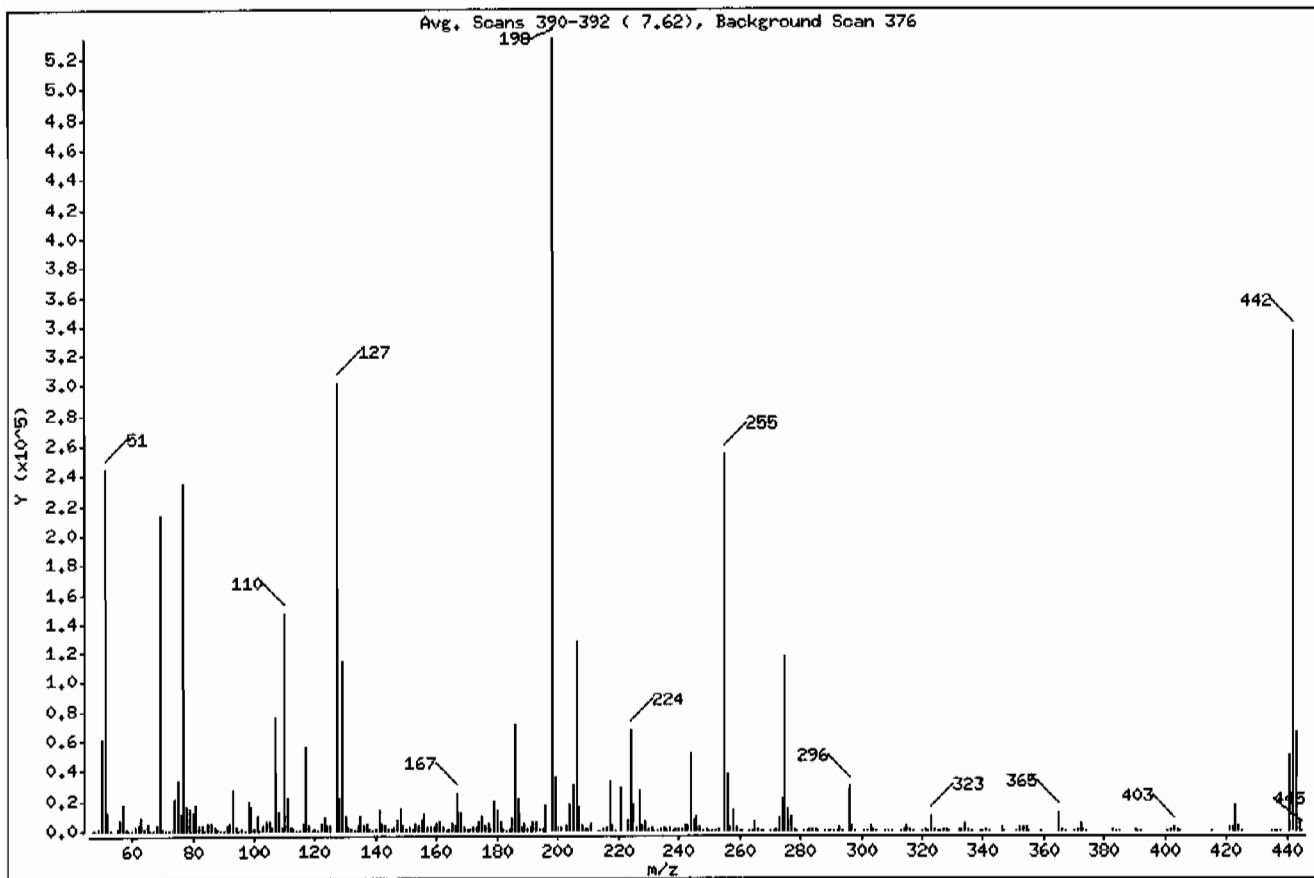
Sample Info: IWBH100306-01.2\DFTPP\1\SVH\1\1DFTPP\

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.77
68	Less than 2.00% of mass 69	0.67 ( 1.68)
69	Mass 69 relative abundance	40.05
70	Less than 2.00% of mass 69	0.22 ( 0.54)
127	40.00 - 60.00% of mass 198	56.57
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.71
275	10.00 - 30.00% of mass 198	22.12
365	Greater than 1.00% of mass 198	2.26
441	Present, but less than mass 443	9.47
442	Greater than 40.00% of mass 198	63.05
443	17.00 - 23.00% of mass 442	12.41 ( 19.67)

Date : 13-MAR-2010 10:37

Client ID: DFTPP

Instrument: HSD3.i

Sample Info: IWBNI00306-01.2IDFTPP11SVHI1IDFTPP1

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s3c1301.d

Spectrum: Avg. Scans 390-392 ( 7.62), Background Scan 376

Location of Maximum: 198.00

Number of points: 313

m/z	Y	m/z	Y	m/z	Y	m/z	Y
47.00	31	128.00	22512	209.00	1316	297.00	3952
48.00	171	129.00	114280	210.00	720	298.00	239
49.00	1431	130.00	9426	211.00	5049	301.00	385
50.00	61720	131.00	1880	213.00	390	302.00	581
51.00	244224	132.00	977	214.00	132	303.00	3296
52.00	12313	133.00	442	215.00	1271	304.00	928
53.00	502	134.00	3272	216.00	2761	305.00	68
55.00	1060	135.00	9348	217.00	32888	308.00	441
56.00	7478	136.00	3853	218.00	4224	309.00	293
57.00	16856	137.00	4324	219.00	393	310.00	358
58.00	699	138.00	992	221.00	28560	313.00	229
59.00	261	139.00	597	223.00	7491	314.00	1439
60.00	128	140.00	1415	224.00	67208	315.00	3296
61.00	2953	141.00	13761	225.00	16952	316.00	1732
62.00	3397	142.00	4695	226.00	1869	317.00	212
63.00	8915	143.00	3276	227.00	26688	320.00	75
64.00	1276	144.00	792	228.00	3693	321.00	953
65.00	4400	145.00	782	229.00	5735	322.00	560
66.00	293	146.00	2549	230.00	791	323.00	9205
67.00	316	147.00	7221	231.00	2625	324.00	1525
68.00	3583	148.00	14524	232.00	470	325.00	171
69.00	213696	149.00	3174	233.00	569	326.00	197
70.00	1155	150.00	929	234.00	1719	327.00	1729
71.00	267	151.00	1929	235.00	2030	328.00	893
72.00	72	152.00	1225	236.00	1239	329.00	178
73.00	1499	153.00	4562	237.00	2100	332.00	655
74.00	20768	154.00	3222	238.00	278	333.00	1045
75.00	32632	155.00	7745	239.00	1177	334.00	5427
76.00	10818	156.00	11376	240.00	736	335.00	1506
77.00	234560	157.00	2294	241.00	1631	336.00	172
78.00	15986	158.00	2386	242.00	3458	339.00	122
79.00	15120	159.00	2134	243.00	3731	340.00	115
80.00	11793	160.00	4299	244.00	51648	341.00	1141
81.00	17080	161.00	6434	245.00	6908	342.00	342
82.00	4265	162.00	1880	246.00	9513	346.00	2076

Date : 13-MAR-2010 10:37

Client ID: DFTPP

Instrument: HSD3.i

Sample Info: IWBH100306-01,2IDFTPP11SVH11IDFTPP1

Operator: JLD1

Column phase: J&amp;W DB-5HS

Column diameter: 0.20

Data File: s3c1301.d

Spectrum: Avg. Scans 390-392 ( 7.62), Background Scan 376

Location of Maximum: 198.00

Number of points: 313

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	4009	163.00	538	247.00	2021	347.00	312
84.00	404	164.00	748	248.00	455	351.00	180
85.00	4366	165.00	4832	249.00	1783	352.00	2628
86.00	4936	166.00	4036	250.00	343	353.00	1907
87.00	2257	167.00	25088	251.00	450	354.00	3006
88.00	834	168.00	12125	252.00	531	355.00	524
89.00	425	169.00	2208	253.00	1186	359.00	211
90.00	97	170.00	896	255.00	253440	365.00	12087
91.00	3848	171.00	1177	256.00	37512	366.00	1657
92.00	4307	172.00	2382	257.00	2962	367.00	76
93.00	27136	173.00	2994	258.00	14020	370.00	201
94.00	1872	174.00	5584	259.00	2267	371.00	688
95.00	393	175.00	10157	260.00	426	372.00	4599
96.00	1327	176.00	3200	261.00	407	373.00	1194
97.00	435	177.00	4775	263.00	82	374.00	155
98.00	19928	178.00	1668	264.00	436	383.00	1291
99.00	15831	179.00	19784	265.00	5529	384.00	298
100.00	1536	180.00	13330	266.00	931	385.00	67
101.00	10180	181.00	6112	267.00	148	390.00	769
102.00	532	182.00	996	268.00	126	391.00	508
103.00	3378	183.00	573	270.00	360	392.00	328
104.00	6334	184.00	1457	271.00	467	401.00	268
105.00	6016	185.00	8875	272.00	788	402.00	1759
106.00	2172	186.00	71600	273.00	8123	403.00	2650
107.00	75992	187.00	20400	274.00	20472	404.00	925
108.00	12251	188.00	1994	275.00	118048	405.00	36
109.00	2264	189.00	4334	276.00	15275	415.00	118
110.00	146624	190.00	710	277.00	9604	421.00	2247
111.00	22088	191.00	1956	278.00	1485	422.00	2217
112.00	2544	192.00	6031	279.00	340	423.00	17280
113.00	819	193.00	6676	281.00	123	424.00	3421
114.00	229	194.00	1466	282.00	255	425.00	236
115.00	418	195.00	805	283.00	1038	435.00	71
116.00	4349	196.00	17392	284.00	725	436.00	215
117.00	56728	198.00	533632	285.00	1609	437.00	272

Date : 13-MAR-2010 10:37

Client ID: DFTPP

Instrument: HSD3.i

Sample Info: IWBNI00306-01.2IDFTPP11SVMI11DFTPP1

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s3c1301.d

Spectrum: Avg. Scans 390-392 ( 7.62), Background Scan 376

Location of Maximum: 198.00

Number of points: 313

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	4283	199.00	35832	286.00	259	438.00	352
119.00	583	200.00	2848	288.00	39	441.00	50528
120.00	1019	201.00	2696	289.00	325	442.00	336448
121.00	329	203.00	3411	290.00	344	443.00	66200
122.00	5308	204.00	17664	291.00	170	444.00	5874
123.00	8205	205.00	30616	292.00	391	445.00	324
124.00	3712	206.00	128040	293.00	1952		
125.00	3650	207.00	16512	294.00	511		
127.00	301888	208.00	3892	296.00	29208		

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 1 of 2

SDG Number: 10-2124

Matrix: SOIL

Lab Sample ID: 1202060169

Client Sample: QC for batch 960457

Client: LANL010

Project: QC

Client ID: MB for batch 960457

Method: SW846 8270C

SOP Ref: GL-OA-E-009

Batch ID: 960459

Inst: MSD3.I

Dilution: 1

Run Date: 03/13/2010 12:59

Analyst: JLD1

Inj. Vol: .5 uL

Prep Date: 03/03/2010 23:09

Aliquot: 30 g

Final Volume: 1 mL

Data File: s3c1307-1.d

Column: J&amp;W DB-5MS

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Accenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
99-09-2	o-Nitroaniline	U	333	ug/kg	66.7	333
	3-Nitroaniline					

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2124  
Lab Sample ID: 1202060169  
Client Sample: QC for batch 960457  
Client ID: MB for batch 960457  
Batch ID: 960459  
Run Date: 03/13/2010 12:59  
Prep Date: 03/03/2010 23:09  
Data File: s3c1307-1.d

Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.I  
Analyst: JLD1  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: SOIL  
Project: QC  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.53	395	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD3.i/s031310.b/s3c1307-2.d  
Lab Smp Id: 1202060169 Client Smp ID: SBLK01  
Inj Date : 13-MAR-2010 12:59  
Operator : JLD1 Inst ID: MSD3.i  
Smp Info : |1202060169|960459|1|SVMF|1|SBLK01  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
Meth Date : 13-Mar-2010 14:47 jen00986 Quant Type: ISTD  
Cal Date : 10-MAR-2010 05:53 Cal File: s3c0957.d  
Als bottle: 7 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2124.sub  
Target Version: 3.50  
Processing Host: hpc1p1

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT		ON-COLUMN	FINAL
						(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.470	3.473	(1.000)	524010	40.0000	
* 29 Naphthalene-d8	136	4.326	4.329	(1.000)	1985095	40.0000	
* 46 Acenaphthene-d10	164	5.566	5.570	(1.000)	1063348	40.0000	
* 67 Phenanthrene-d10	188	6.588	6.592	(1.000)	1822171	40.0000	
* 91 Chrysene-d12	240	8.171	8.169	(1.000)	1403639	40.0000	
* 98 Perylene-d12	264	9.337	9.330	(1.000)	1038135	40.0000	
\$ 3 2-Fluorophenol	112	2.689	2.682	(0.775)	971043	82.4588	2750
\$ 5 Phenol-d5	99	3.208	3.206	(0.924)	1105608	79.9138	2660
\$ 20 Nitrobenzene-d5	82	3.828	3.837	(0.885)	493119	43.6358	1450
\$ 39 2-Fluorobiphenyl	172	5.069	5.073	(0.911)	1076619	39.7953	1330
\$ 60 2,4,6-Tribromophenol	329	6.123	6.126	(1.100)	216872	88.9511	2960
\$ 81 p-Terphenyl-d14	244	7.529	7.522	(0.921)	1060559	48.7456	1620



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Data file : /chem/MSD3.i/s031310.b/s3c1307-2.d  
Lab Smp Id: 1202060169 Client Smp ID: SBLK01  
Inj Date : 13-MAR-2010 12:59  
Operator : JLD1 Inst ID: MSD3.i  
Smp Info : |1202060169|960459|1|SVMF|1|SBLK01  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
Meth Date : 13-Mar-2010 14:47 jen00986 Quant Type: ISTD  
Cal Date : 10-MAR-2010 05:53 Cal File: s3c0957.d  
Als bottle: 7 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2124.sub  
Target Version: 3.50  
Processing Host: hpc1p1

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

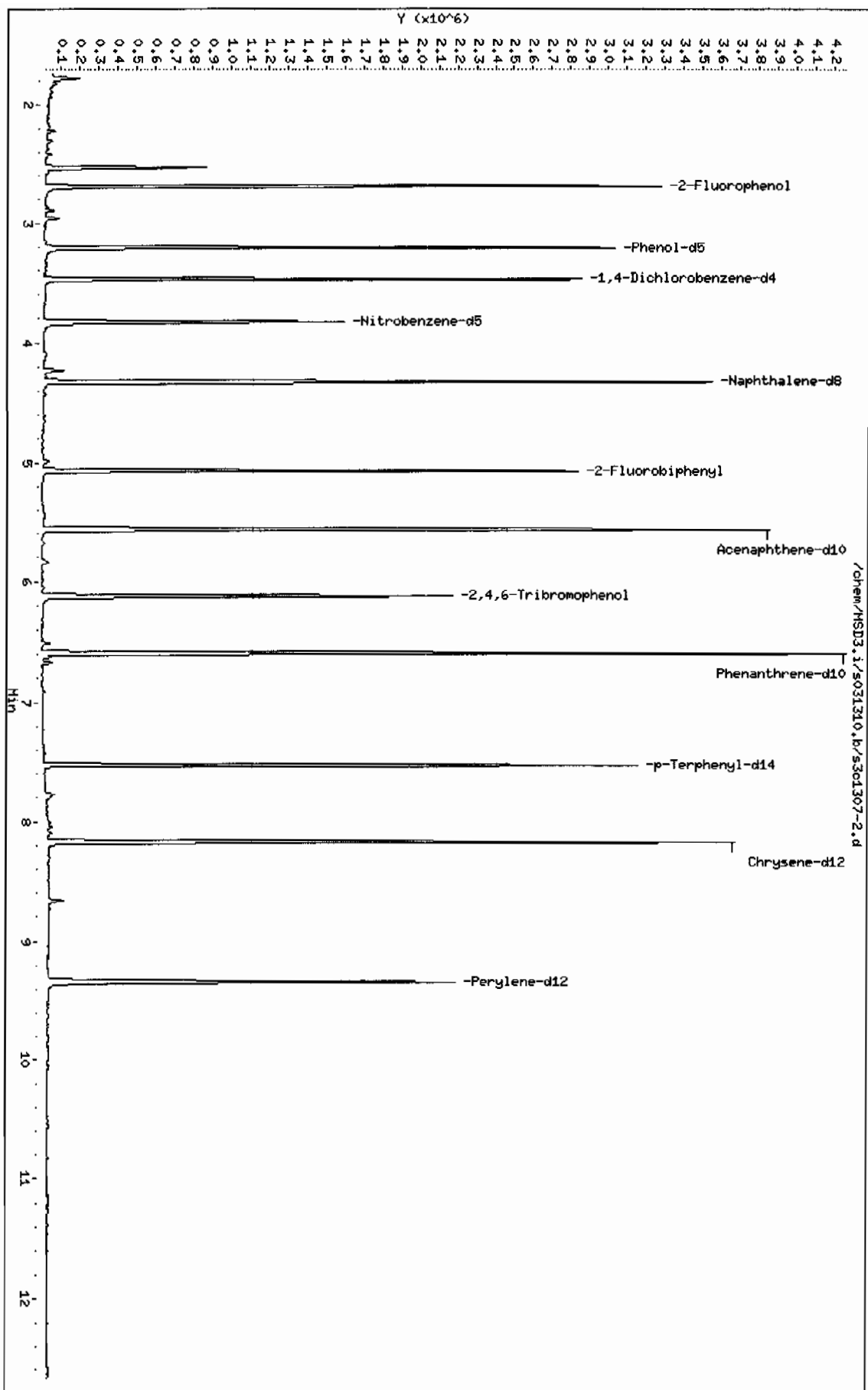
ISTD	RT	AREA	AMOUNT
=====	====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.470	3190173	40.000

CONCENTRATIONS				QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY
=====	=====	=====	=====	=====	=====	=====

Unknown Aldol Condensate				CAS #:		
2.528	944464	11.8421724	395	0	0	10

Data File: /chem/MSD3.i/s031310.b/s3c1307-2.d  
 Date: 13-MAR-2010 12:59  
 Client ID: SBLK01  
 Sample Info: 11202060169196045911SVHF111SBLK01  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: MSD3.i  
 Operator: JLD1  
 Column diameter: 0.20



Date : 13-MAR-2010 12:59

Client ID: SBLK01

Instrument: MSD3.i

Sample Info: I12020601691960459111SVHF111SBLK01

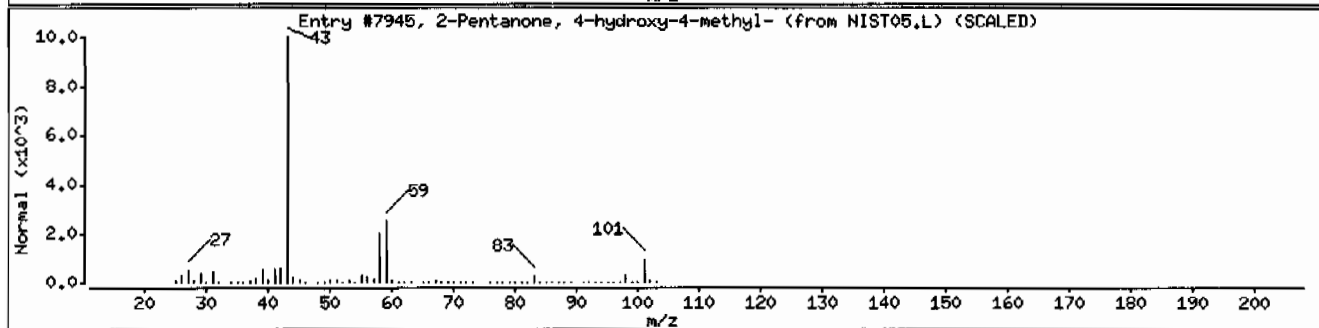
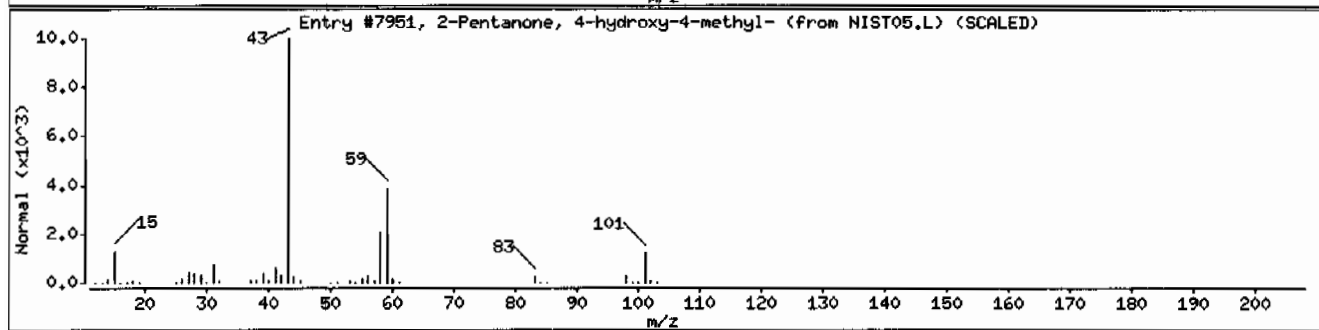
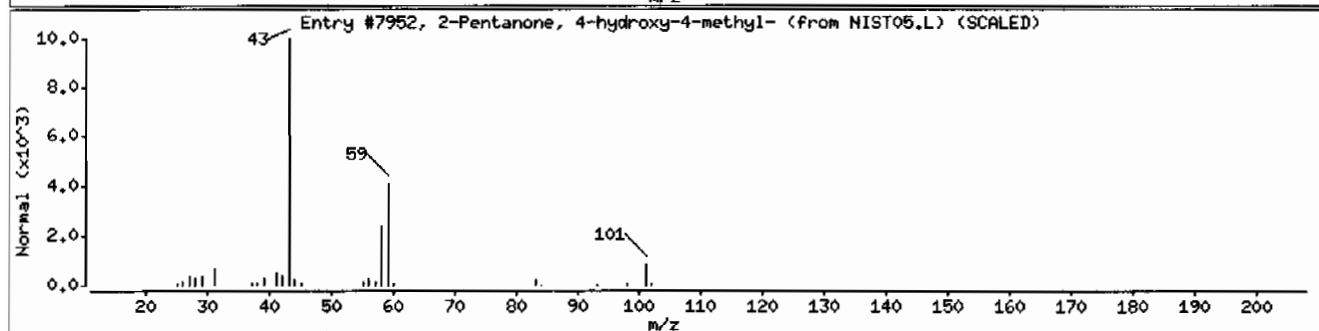
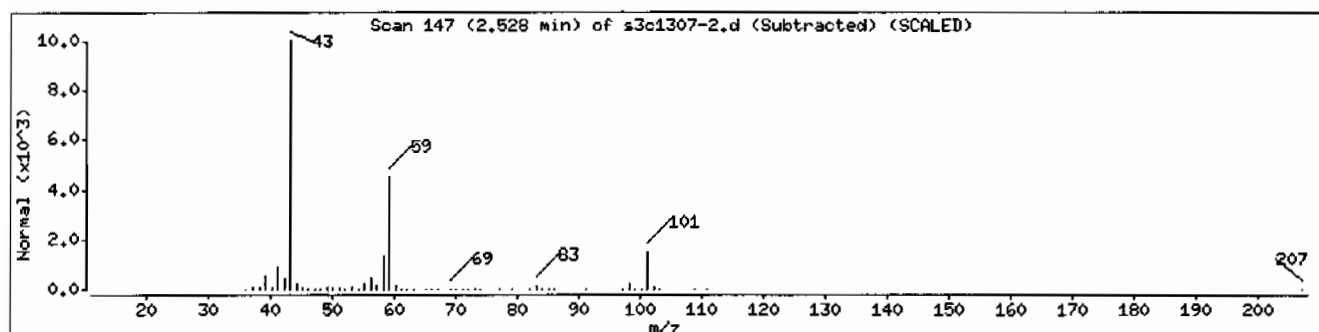
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	45	C6H12O2	116



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2124

Matrix: SOIL

Lab Sample ID: 1202060170

Client Sample: QC for batch 960457

Client: LANL010

Project: QC

Client ID: LCS for batch 960457

Method: SW846 8270C

SOP Ref: GL-OA-E-009

Batch ID: 960459

Inst: MSD3.I

Dilution: 1

Run Date: 03/13/2010 13:19

Analyst: JLD1

Inj. Vol: .5 uL

Prep Date: 03/03/2010 23:09

Aliquot: 30 g

Final Volume: 1 mL

Data File: s3c1308-1.d

Column: J&amp;W DB-5MS

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1200	ug/kg	66.7	333
108-95-2	Phenol		1330	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1350	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1210	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1430	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1390	ug/kg	66.7	333
83-32-9	Acenaphthene		1260	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1360	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1340	ug/kg	110	333
87-86-5	Pentachlorophenol		1440	ug/kg	83.3	333
129-00-0	Pyrene		1200	ug/kg	10.0	33.3
110-86-1	Pyridine		1280	ug/kg	66.7	333
62-53-3	Aniline		865	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1240	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1230	ug/kg	66.7	333
100-51-6	Benzyl alcohol		1250	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1240	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1360	ug/kg	66.7	333
95-48-7	o-Cresol		1350	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1520	ug/kg	100	333
67-72-1	Hexachloroethane		1250	ug/kg	66.7	333
98-95-3	Nitrobenzene		1390	ug/kg	66.7	333
78-59-1	Isophorone		1340	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1350	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1350	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1300	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1330	ug/kg	66.7	333
65-85-0	Benzoic acid		3160	ug/kg	167	667
91-20-3	Naphthalene		1240	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		893	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1310	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1330	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1560	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1290	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1340	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1250	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1380	ug/kg	66.7	333
	o-Nitroaniline					
99-09-2	3-Nitroaniline		1220	ug/kg	66.7	333

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2124  
Lab Sample ID: 1202060170  
Client Sample: QC for batch 960457  
Client ID: LCS for batch 960457  
Batch ID: 960459  
Run Date: 03/13/2010 13:19  
Prep Date: 03/03/2010 23:09  
Data File: s3c1308-1.d

Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.1  
Analyst: JLD1  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: SOIL  
Project: QC  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate		1360	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1300	ug/kg	33.3	333
208-96-8	Acenaphthylene		1320	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1480	ug/kg	127	667
132-64-9	Dibenzofuran		1310	ug/kg	66.7	333
84-66-2	Diethylphthalate		1420	ug/kg	66.7	333
86-73-7	Fluorene		1280	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1310	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1400	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1590	ug/kg	100	333
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine		1440	ug/kg	66.7	333
122-66-7	Azobenzene		1520	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1310	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1290	ug/kg	66.7	333
85-01-8	Phenanthrene		1310	ug/kg	10.0	33.3
120-12-7	Anthracene		1280	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1500	ug/kg	66.7	333
206-44-0	Fluoranthene		1380	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1450	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1290	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1120	ug/kg	100	333
218-01-9	Chrysene		1260	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1510	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1510	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1390	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1210	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1300	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1420	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1460	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1340	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1270	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD3.i/s031310.b/s3c1308-2.d  
Lab Smp Id: 1202060170 Client Smp ID: SBLK01LCS  
Inj Date : 13-MAR-2010 13:19  
Operator : JLD1 Inst ID: MSD3.i  
Smp Info : |1202060170|960459|1|SVMF|1|SBLK01LCS  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD3.i/s031310.b/MSD3-8270R-AQA-030910.m  
Meth Date : 13-Mar-2010 14:47 jen00986 Quant Type: ISTD  
Cal Date : 10-MAR-2010 05:53 Cal File: s3c0957.d  
Als bottle: 8 QC Sample: LCS  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2124.sub  
Target Version: 3.50  
Processing Host: hpclp1

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT		ON-COLUMN	FINAL
						(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.475	3.473	(1.000)	583675	40.0000	
* 29 Naphthalene-d8	136	4.326	4.329	(1.000)	2402078	40.0000	
* 46 Acenaphthene-d10	164	5.566	5.570	(1.000)	1222935	40.0000	
* 67 Phenanthrene-d10	188	6.593	6.592	(1.000)	2098530	40.0000	
* 91 Chrysene-d12	240	8.171	8.169	(1.000)	1724575	40.0000	
* 98 Perylene-d12	264	9.337	9.330	(1.000)	1326318	40.0000	
\$ 3 2-Fluorophenol	112	2.689	2.682	(0.774)	1026867	78.2855	2610
\$ 5 Phenol-d5	99	3.213	3.206	(0.925)	1171347	76.0107	2530
\$ 20 Nitrobenzene-d5	82	3.833	3.837	(0.886)	532667	38.9530	1300
\$ 39 2-Fluorobiphenyl	172	5.069	5.073	(0.911)	1138023	36.5757	1220
\$ 60 2,4,6-Tribromophenol	329	6.128	6.126	(1.101)	253694	90.4753	3020
\$ 81 p-Terphenyl-d14	244	7.524	7.522	(0.921)	1131235	42.3182	1410

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
6 Phenol	94	3.218	3.217	(0.926)	634681	40.0107	1330
8 2-Chlorophenol	128	3.341	3.340	(0.962)	631324	40.3748	1340
11 1,4-Dichlorobenzene	146	3.486	3.484	(1.003)	662500	36.3361	1210
17 N-Nitrosodipropylamine	70	3.721	3.719	(1.071)	378670	42.9840	1430 (Q)
28 1,2,4-Trichlorobenzene	180	4.277	4.281	(0.989)	516595	38.1661	1270
33 4-Chloro-3-methylphenol	107	4.695	4.682	(1.085)	502139	41.8103	1390
47 Acenaphthene	154	5.593	5.591	(1.005)	1141283	37.9030	1260
50 2,4-Dinitrotoluene	165	5.695	5.693	(1.023)	408280	40.8452	1360
52 4-Nitrophenol	139	5.641	5.629	(1.013)	211401	40.1439	1340
65 Pentachlorophenol	266	6.460	6.458	(0.980)	173938	43.1411	1440
79 Pyrene	202	7.465	7.463	(0.914)	1795416	35.9539	1200
2 Pyridine	79	2.058	2.029	(0.592)	396742	38.3768	1280
4 Aniline	66	3.267	3.265	(0.940)	173371	25.9428	865 (Q)
7 bis(2-Chloroethyl) ether	63	3.288	3.286	(0.946)	425196	37.1367	1240
9 1,3-Dichlorobenzene	146	3.438	3.441	(0.989)	643102	36.7703	1220
12 Benzyl alcohol	108	3.550	3.548	(1.022)	344499	37.6127	1250
13 1,2-Dichlorobenzene	146	3.582	3.586	(1.031)	622766	37.1133	1240
14 bis(2-Chloroisopropyl) ether	45	3.625	3.623	(1.043)	1178045	40.7756	1360
15 o-Cresol	107	3.603	3.602	(1.037)	444203	40.3535	1340
18 m,p-Cresols	107	3.705	3.703	(1.066)	640430	45.7336	1520
19 Hexachloroethane	117	3.807	3.805	(1.095)	259649	37.4115	1250
21 Nitrobenzene	77	3.850	3.848	(0.890)	563100	41.5683	1380
22 Isophorone	82	3.999	4.003	(0.925)	992695	40.0567	1340
23 2-Nitrophenol	139	4.058	4.056	(0.938)	332303	40.4113	1350
24 2,4-Dimethylphenol	122	4.063	4.062	(0.939)	554825	40.4622	1350
25 bis(2-Chloroethoxy)methane	93	4.128	4.131	(0.954)	613252	38.8819	1300
26 2,4-Dichlorophenol	162	4.219	4.217	(0.975)	472832	39.8518	1330
27 Benzoic acid	105	4.154	4.120	(0.960)	773502	94.7278	3160
30 Naphthalene	128	4.342	4.340	(1.004)	1765963	37.0538	1240
31 4-Chloroaniline	127	4.368	4.367	(1.010)	493218	26.7877	893
32 Hexachlorobutadiene	225	4.406	4.409	(1.019)	272127	39.3912	1310
34 2-Methylnaphthalene	142	4.818	4.821	(1.114)	1232927	39.8330	1330
36 Hexachlorocyclopentadiene	237	4.919	4.923	(0.884)	182306	46.7897	1560
37 2,4,6-Trichlorophenol	196	5.016	5.014	(0.901)	326249	38.7974	1290
38 2,4,5-Trichlorophenol	196	5.042	5.040	(0.906)	383589	40.3172	1340
40 2-Chloronaphthalene	162	5.171	5.169	(0.929)	1052067	37.3613	1240
42 o-Nitroaniline	65	5.235	5.238	(0.940)	333833	41.4348	1380
41 m-Nitroaniline	138	5.529	5.533	(0.993)	264688	36.4699	1220
43 Dimethylphthalate	163	5.347	5.351	(0.961)	1330279	40.7451	1360
44 2,6-Dinitrotoluene	165	5.401	5.404	(0.970)	305051	38.9471	1300
45 Acenaphthylene	152	5.470	5.468	(0.983)	1813460	39.6470	1320
48 2,4-Dinitrophenol	184	5.604	5.607	(1.007)	128229	44.3388	1480 (Q)
49 Dibenzofuran	168	5.711	5.714	(1.026)	1501668	39.3998	1310
51 Diethylphthalate	149	5.850	5.848	(1.051)	1452700	42.7309	1420
53 Fluorene	166	5.957	5.960	(1.070)	1270589	38.4457	1280
54 4-Chlorophenylphenylether	204	5.946	5.944	(1.068)	581802	39.2357	1310
55 2-Methyl-4,6-dinitrophenol	198	5.989	5.982	(0.908)	188817	41.9695	1400

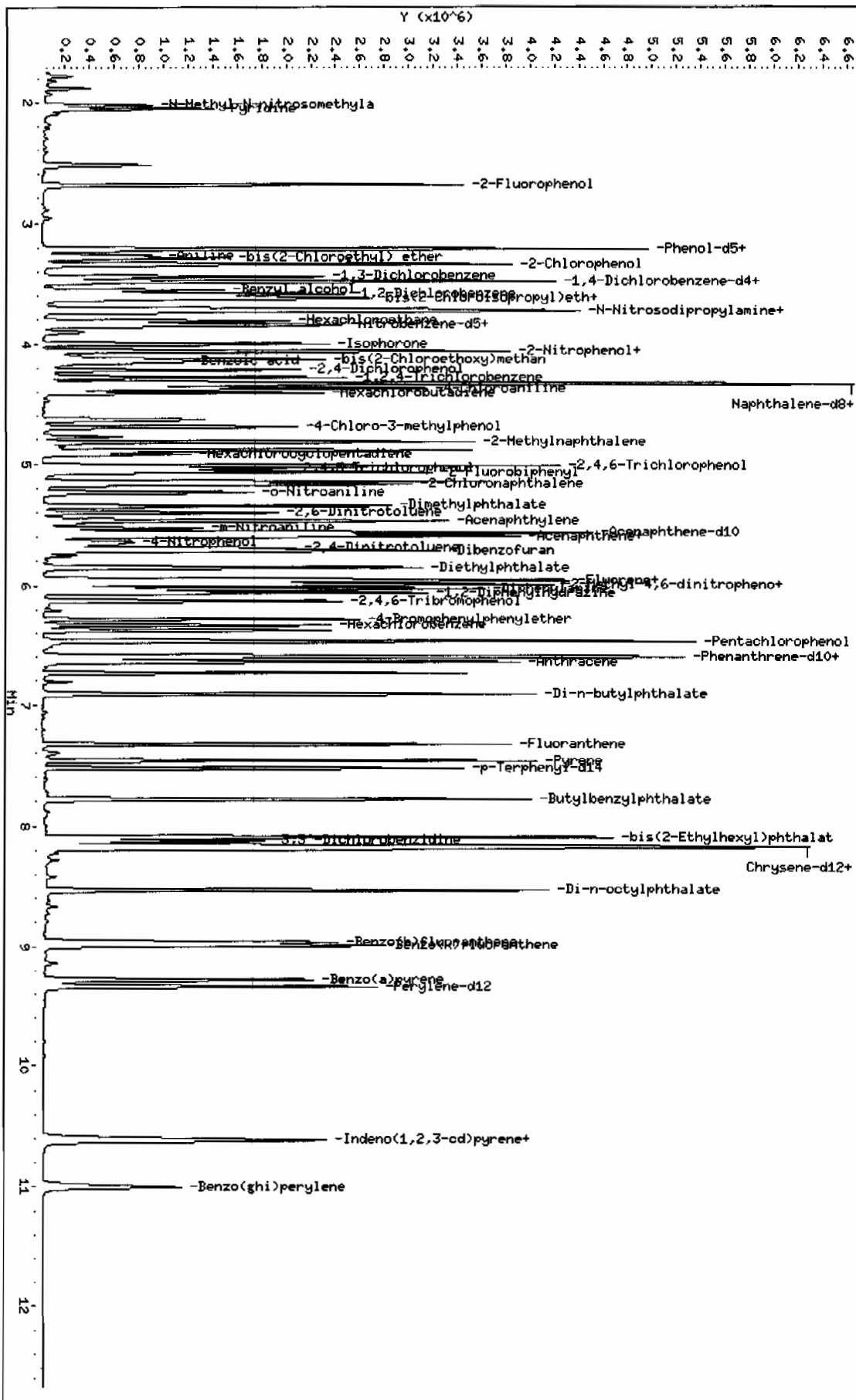
Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
56 p-Nitroaniline	138	5.973	5.966	(1.073)	314397	47.7389	1590
133 Diphenylamine	169	6.026	6.025	(0.914)	1122933	43.0860	1440
58 1,2-Diphenylhydrazine	77	6.059	6.057	(0.919)	1278711	45.5354	1520
61 4-Bromophenylphenylether	248	6.283	6.281	(0.953)	301565	39.4497	1310
63 Hexachlorobenzene	284	6.331	6.329	(0.960)	292081	38.5590	1280
68 Phenanthrene	178	6.609	6.608	(1.002)	1865153	39.2362	1310
69 Anthracene	178	6.642	6.640	(1.007)	1794149	38.5487	1280
72 Di-n-butylphthalate	149	6.909	6.912	(1.048)	2411882	44.8549	1500
76 Fluoranthene	202	7.326	7.324	(1.111)	1782289	41.3926	1380
85 Butylbenzylphthalate	149	7.781	7.779	(0.952)	1102194	43.5526	1450
89 Benzo(a)anthracene	228	8.166	8.159	(0.999)	1554584	38.8152	1290
90 3,3'-Dichlorobenzidine	252	8.123	8.123	(0.994)	381411	33.7332	1120
92 Chrysene	228	8.193	8.185	(1.003)	1544851	37.7244	1260
93 bis(2-Ethylhexyl)phthalate	149	8.096	8.089	(0.991)	1535421	45.3269	1510
94 Di-n-octylphthalate	149	8.530	8.528	(0.914)	2476581	45.3866	1510
95 Benzo(b)fluoranthene	252	8.968	8.966	(0.960)	1401748	41.6379	1390
96 Benzo(k)fluoranthene	252	8.995	8.988	(0.963)	1317335	36.2264	1210
97 Benzo(a)pyrene	252	9.284	9.277	(0.994)	1130115	39.0769	1300
99 Indeno(1,2,3-cd)pyrene	276	10.610	10.603	(1.136)	1063961	42.6669	1420
100 Dibenzo(a,h)anthracene	278	10.621	10.608	(1.137)	889923	43.8509	1460
101 Benzo(ghi)perylene	276	11.001	10.993	(1.178)	826265	40.3341	1340
1 N-Methyl-N-nitrosomethylamine	74	2.026	2.002	(0.583)	244490	35.9649	1200

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.



Instrument: MSD3.i  
Operator: JLD1  
Column diameter: 0.20



# Miscellaneous Data

# Prep Logbook

## Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 960457      Verified by: \_\_\_\_\_  
 Analyst: Alberto Velasco  
 Method: SW846 3550B  
 Lab SOP: GL-OA-E-010 REV# 18  
 Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202060169 MB	03-MAR-2010 23:09:00	30	1	0.03333
1202060170 LCS	03-MAR-2010 23:09:00	30	1	0.03333
248184002	03-MAR-2010 23:09:00	30.14	1	0.03318
248184003	03-MAR-2010 23:09:00	30.02	1	0.03331
248197001	03-MAR-2010 23:09:00	30.12	1	0.0332
248197002	03-MAR-2010 23:09:00	30.13	1	0.03319
248197003	03-MAR-2010 23:09:00	30.08	1	0.03324
248197004	03-MAR-2010 23:09:00	30.17	1	0.03315
248197005	03-MAR-2010 23:09:00	30.19	1	0.03312
248197007	03-MAR-2010 23:09:00	30.11	1	0.03321
248197008	03-MAR-2010 23:09:00	30.16	1	0.03316
248197009	03-MAR-2010 23:09:00	30.08	1	0.03324
248197010	03-MAR-2010 23:09:00	30.17	1	0.03315
248197011	03-MAR-2010 23:09:00	30.12	1	0.0332
248197012	03-MAR-2010 23:09:00	30.18	1	0.03313
248197013	03-MAR-2010 23:09:00	30.2	1	0.03311
248202001	03-MAR-2010 23:09:00	30.13	1	0.03319
248202002	03-MAR-2010 23:09:00	30.15	1	0.03317
248203002	03-MAR-2010 23:09:00	30.19	1	0.03312
1202060171 MS (248203002)	03-MAR-2010 23:09:00	30.19	1	0.03312
1202060172 MSD (248203002)	03-MAR-2010 23:09:00	30.05	1	0.03328

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202060170	BNA LCS w/o Benzidine 50ppm	UE100222-14	1	mL	Verified By: AAW
LCS	1202060170	BENZIDINE LCS	UE100302-22	1	mL	Final Solvent: CH2Cl2
MS	1202060171	BNA LCS w/o Benzidine 50ppm	UE100222-14	1	mL	
MS	1202060171	BENZIDINE LCS	UE100302-22	1	mL	
MSD	1202060172	BNA LCS w/o Benzidine 50ppm	UE100222-14	1	mL	
MSD	1202060172	BENZIDINE LCS	UE100302-22	1	mL	
SURR	All	BNA for all Surrogate	UE100301-10	1	mL	
REGNT	All	Methylene Chloride	100301-D	150	mL	
REGNT	All	Acetone	1273823-B1	150	mL	
SOURC	All	SODIUM SULFATE	1274910	30	g	

## GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD6

DATE: 03/01/2010

METHOD: See raw data

OPERATOR: nag1

REVIEWED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

## HARDWARE CONFIGURATION &amp; METHOD SUMMARY: No. 1 on pg. 1

Multiplier Voltage: 1553 Emv

Extr. Injection Volume: 0.5, 1.0 ul

DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100217-01

## CALIBRATION &amp; QC INFORMATION:

Initial Calibration Dates: See Calibration History and Standard Logbook.

Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD6.i/s030110b.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
Is6c0121-D.d	WBN100207-01	nag1	01-MAR-2010 21:34	DFTPP	s030110b	1.0	DFTPP	
Is6c0121.d	WBN100207-01	nag1	01-MAR-2010 21:34	DFTPP	s030110b	1.0	DFTPP	
Is6c0122.d	WBN100225-05.2	nag1	01-MAR-2010 21:47	140 PPM	s030110b	1.0	MEGACVS	DUSE
Is6c0123.d	WBN100218-08.2	nag1	01-MAR-2010 22:11	140 PPM	s030110b	1.0	APCVS	DUSE
Is6c0124.d	WBN100225-08	nag1	01-MAR-2010 22:35	11 PPM	s030110b	1.0	MEGA001	
Is6c0125-RQ.d	WBN100225-07	nag1	01-MAR-2010 23:04	110 PPM	s030110b	1.0	MEGA002	
Is6c0125.d	WBN100225-07	nag1	01-MAR-2010 23:04	110 PPM	s030110b	1.0	MEGA002	
Is6c0126.d	WBN100225-06	nag1	01-MAR-2010 23:33	120 PPM	s030110b	1.0	MEGA020	
Is6c0127.d	WBN100225-05.1	nag1	02-MAR-2010 00:02	140 PPM	s030110b	1.0	MEGAC40	
Is6c0128.d	WBN100225-04	nag1	02-MAR-2010 00:31	150 PPM	s030110b	1.0	MEGA050	
Is6c0129.d	WBN100225-03	nag1	02-MAR-2010 01:00	180 PPM	s030110b	1.0	MEGA080	
Is6c0130.d	WBN100225-02	nag1	02-MAR-2010 01:29	1100 PPM	s030110b	1.0	MEGA100	
Is6c0131.d	WBN100225-01	nag1	02-MAR-2010 01:58	1120 PPM	s030110b	1.0	MEGA120	
Is6c0132-BOE.d	WBN100225-09.1	nag1	02-MAR-2010 02:27	140 PPM	s030110b	1.0	MEGA1CV	
Is6c0132-D.d	WBN100225-09.1	nag1	02-MAR-2010 02:27	140 PPM	s030110b	1.0	MEGA1CV	
Is6c0132.d	WBN100225-09.1	nag1	02-MAR-2010 02:27	140 PPM	s030110b	1.0	MEGA1CV	PASS ICV 260538

Instrument Batch: /chem/MSD6.i/s030110b.b

Page: 1

## GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD3

DATE: 03/09/2010

METHOD: See raw data

OPERATOR: JLD1

REVIEWED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

HARDWARE CONFIGURATION &amp; METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT: 1262945-D

Multiplier Voltage: 1141 Emv Extr. Injection Volume: 0.5, 1.0 ul

DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100227-01

CALIBRATION &amp; QC INFORMATION:

Initial Calibration Dates: See Calibration History and Standard Logbook.

Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD3.i/s030910a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
Is030917-D.d	WBN100306-01.2	JLD1	09-MAR-2010 15:53	150NG	Is030910a	1.0	DFTPP	USE; 8270D MEGA
Is030917.d	WBN100306-01.2	JLD1	09-MAR-2010 15:53	50NG	Is030910a	1.0	DFTPP	USE; 8270C MEGA
Is030918.d	INSTBLK	JLD1	09-MAR-2010 16:05		Is030910a	1.0	IB	
Is030919.d	WBN100309-08	JLD1	09-MAR-2010 16:24	101PPM	Is030910a	1.0	MEGAICAL	USE; LEV 1
Is030920-MQC.	WBN100309-07	JLD1	09-MAR-2010 16:47	110PPM	Is030910a	1.0	MEGAICAL	USE; FOR 8270D MQC
Is030920.d	WBN100309-07	JLD1	09-MAR-2010 16:47	110PPM	Is030910a	1.0	MEGAICAL	USE; LEV 2
Is030921-MQC.	WBN100309-06	JLD1	09-MAR-2010 17:11	120PPM	Is030910a	1.0	MEGAICAL	USE; FOR 8270D MQC
Is030921.d	WBN100309-06	JLD1	09-MAR-2010 17:11	120PPM	Is030910a	1.0	MEGAICAL	USE; LEV 3
Is030922.d	WBN100309-05.1	JLD1	09-MAR-2010 17:34	140PPM	Is030910a	1.0	MEGAICAL	USE; LEV 4
Is030923.d	WBN100309-04	JLD1	09-MAR-2010 17:58	150PPM	Is030910a	1.0	MEGAICAL	USE; LEV 5
Is030924.d	WBN100309-03	JLD1	09-MAR-2010 18:22	180PPM	Is030910a	1.0	MEGAICAL	USE; LEV 6
Is030925.d	WBN100309-02	JLD1	09-MAR-2010 18:46	1100PPM	Is030910a	1.0	MEGAICAL	USE; LEV 7
Is030926.d	WBN100309-01	JLD1	09-MAR-2010 19:10	1120PPM	Is030910a	1.0	MEGAICAL	USE; LEV 8
Is030927-BOE.	WBN100225-09.1	JLD1	09-MAR-2010 19:33	140PPM	Is030910a	1.0	MEGAICAL	USE; BOE
Is030927-D.d	WBN100225-09.1	JLD1	09-MAR-2010 19:33	140PPM	Is030910a	1.0	MEGAICAL	USE; 8270D
Is030927.d	WBN100225-09.1	JLD1	09-MAR-2010 19:33	140PPM	Is030910a	1.0	MEGAICAL	USE; 8270C
Is030928-0.d	WBN100306-01.2	JLD1	09-MAR-2010 20:38	150NG	Is030910a	1.0	DFTPP	USE; 8270D AP/PEST/HEX
Is030928.d	WBN100306-01.2	JLD1	09-MAR-2010 20:38	150NG	Is030910a	1.0	DFTPP	USE; 8270C AP/PEST/HEX
Is030929.d	INSTBLK	JLD1	09-MAR-2010 20:50		Is030910a	1.0	IB	

s3c0930.d	WBN100218-01	JLD1	09-MAR-2010 21:10	10PPM	s030910a		1.0 AP010	USE; LEV 2	
s3c0931.d	WBN100218-02	JLD1	09-MAR-2010 21:29	20PPM	s030910a		1.0 AP020	USE; LEV 3	
s3c0932.d	WBN100218-03.1	JLD1	09-MAR-2010 21:49	40PPM	s030910a		1.0 AP040	USE; LEV 4	
s3c0933.d	WBN100218-04	JLD1	09-MAR-2010 22:08	50PPM	s030910a		1.0 AP050	USE; LEV 5	
s3c0934.d	WBN100218-05	JLD1	09-MAR-2010 22:27	80PPM	s030910a		1.0 AP080	USE; LEV 6	
s3c0935.d	WBN100218-06	JLD1	09-MAR-2010 22:47	100PPM	s030910a		1.0 AP100	USE; LEV 7	
s3c0936.d	WBN100218-07	JLD1	09-MAR-2010 23:06	120PPM	s030910a		1.0 AP120	USE; LEV 8	
s3c0937.d	WBN100304-25	JLD1	09-MAR-2010 23:25	10PPM	s030910a		1.0 PEST010	USE; LEV 2	
s3c0938.d	WBN100304-24	JLD1	09-MAR-2010 23:45	20PPM	s030910a		1.0 PEST020	USE; LEV 3	
s3c0939.d	WBN100304-23.1	JLD1	10-MAR-2010 00:04	40PPM	s030910a		1.0 PEST040	USE; LEV 4	
s3c0940.d	WBN100304-22	JLD1	10-MAR-2010 00:24	50PPM	s030910a		1.0 PEST050	USE; LEV 5	
s3c0941.d	WBN100304-21	JLD1	10-MAR-2010 00:43	80PPM	s030910a		1.0 PEST080	USE; LEV 6	
s3c0942.d	WBN100304-20	JLD1	10-MAR-2010 01:02	100PPM	s030910a		1.0 PEST100	USE; LEV 7	
s3c0943.d	WBN100304-19	JLD1	10-MAR-2010 01:21	120PPM	s030910a		1.0 PEST120	USE; LEV 8	
s3c0944.d	WBN100304-16	JLD1	10-MAR-2010 01:41	500PPM	s030910a		1.0 HEX500	USE; LEV 2	
s3c0945.d	WBN100304-15	JLD1	10-MAR-2010 02:00	1000PPM	s030910a		1.0 HEX1000	USE; LEV 3	
s3c0946.d	WBN100304-14	JLD1	10-MAR-2010 02:19	1250PPM	s030910a		1.0 HEX1250	USE; LEV 4	
s3c0947.d	WBN100304-13	JLD1	10-MAR-2010 02:38	1500PPM	s030910a		1.0 HEX1500	USE; LEV 5	
s3c0948.d	WBN100304-12	JLD1	10-MAR-2010 02:57	1750PPM	s030910a		1.0 HEX1750	USE; LEV 6	
s3c0949.d	WBN100126-02.3	JLD1	10-MAR-2010 03:16	2000PPM	s030910a		1.0 HEX2000	USE; LEV 7	
s3c0950-D.d	WBN100218-08.1	JLD1	10-MAR-2010 03:36	40PPM	s030910a		1.0 APICV	USE; 8270D	
s3c0950.d	WBN100218-08.1	JLD1	10-MAR-2010 03:36	40PPM	s030910a		1.0 APICV	USE; 8270C	

Instrument Batch: /chem/MSD3.i/s030910a.b

Page: 1

Data File		GEL Lab Sample ID		Analyst		Injection Date/Time		Batch		SDG		Dilution		Client		Comments
s3c0951-D.d		WBN100304-26.1		JLD1		10-MAR-2010 03:55		40PPM		s030910a		1.0 PESTICV		USE; 8270D		
s3c0951.d		WBN100304-26.1		JLD1		10-MAR-2010 03:55		40PPM		s030910a		1.0 PESTICV		USE; 8270C		
s3c0952-D.d		WBN100304-10.1		JLD1		10-MAR-2010 04:14		1250PPM		s030910a		1.0 HEXICV		USE; 8270D		

s3c0952.d	WBN100304-10.1	JLD1	10-MAR-2010 04:14	1250PPM	s030910a		1.0 HEXICV	USE; 8270C	
s3c0953-D.d	WBN100306-01.2	JLD1	10-MAR-2010 04:35	50NG	s030910a		1.0 DFTPP	DUSE; 8270D	
s3c0953.d	WBN100306-01.2	JLD1	10-MAR-2010 04:35	50NG	s030910a		1.0 DFTPP	USE; 8270C BJCO	
s3c0954.d	INSTBLK	JLD1	10-MAR-2010 04:48		s030910a		1.0	LB	
s3c0955.d	WBN100301-07	JLD1	10-MAR-2010 05:06	10PPM	s030910a		1.0 BJ010	USE; LEV 2	
s3c0956.d	WBN100301-06	JLD1	10-MAR-2010 05:30	20PPM	s030910a		1.0 BJ020	USE; LEV 3	
s3c0957.d	WBN100301-05.1	JLD1	10-MAR-2010 05:53	40PPM	s030910a		1.0 BJ040	USE; LEV 4	
s3c0958.d	WBN100301-04	JLD1	10-MAR-2010 06:16	50PPM	s030910a		1.0 BJ050	USE; LEV 5	
s3c0959.d	WBN100301-03	JLD1	10-MAR-2010 06:40	80PPM	s030910a		1.0 BJ080	USE; LEV 6	
s3c0960.d	WBN100301-02	JLD1	10-MAR-2010 07:03	100PPM	s030910a		1.0 BJ100	USE; LEV 7	
s3c0961.d	WBN100301-01	JLD1	10-MAR-2010 07:27	120PPM	s030910a		1.0 BJ120	USE; LEV	
s3c0962.d	WBN100301-05.2	JLD1	10-MAR-2010 07:50	40PPM	s030910a		1.0 BJCVS	USE	

## GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD3

DATE: 03/13/2010 METHOD: See raw data OPERATOR: JLD1 REVIEWED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

HARDWARE CONFIGURATION &amp; METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT: 1262945-D

Multiplier Voltage: 1129 Emv Extr. Injection Volume: 0.5, 1.0 ul

DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100227-01

CALIBRATION &amp; QC INFORMATION:

Initial Calibration Dates: See Calibration History and Standard Logbook.

Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD3.i/s031310.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s3c1301.d	WBN100306-01.2	JLD1	13-MAR-2010 10:37	150NG	s031310	1	1.0 DFTPP	USE
s3c1302.d	WBN100309-05.3	JLD1	13-MAR-2010 10:49	140PPM	s031310	1	1.0 MEGACVS	DOSE c94
s3c1303.d	WBN100309-09.2	JLD1	13-MAR-2010 11:13	140PPM	s031310	1	1.0 MEGACVS	pass 420090
s3c1304.d	WBN100218-08.3	JLD1	13-MAR-2010 11:36	140PPM	s031310	1	1.0 APCVS	USE
s3c1305.d	WBN100304-26.3	JLD1	13-MAR-2010 11:56	140PPM	s031310	1	1.0 PESTCVS	USE
s3c1306.d	WBN100301-05.4	JLD1	13-MAR-2010 12:34	140PPM	s031310	1	1.0 BJCOCVS	USE
s3c1307-1.d	1202060169	JLD1	13-MAR-2010 12:59	1960459	10-2121	1	1.0 SBLK01	USE
s3c1307-2.d	1202060169	JLD1	13-MAR-2010 12:59	1960459	10-2124	1	1.0 SBLK01	USE
s3c1307-3.d	1202060169	JLD1	13-MAR-2010 12:59	1960459	10-2125	1	1.0 SBLK01	USE
s3c1307.d	1202060169	JLD1	13-MAR-2010 12:59	1960459	10-2119	1	1.0 SBLK01	USE
s3c1308-1.d	1202060170	JLD1	13-MAR-2010 13:19	1960459	10-2121	1	1.0 SBLK01LCS	USE
s3c1308-2.d	1202060170	JLD1	13-MAR-2010 13:19	1960459	10-2124	1	1.0 SBLK01LCS	USE
s3c1308-3.d	1202060170	JLD1	13-MAR-2010 13:19	1960459	10-2125	1	1.0 SBLK01LCS	USE
s3c1308.d	1202060170	JLD1	13-MAR-2010 13:19	1960459	10-2119	1	1.0 SBLK01LCS	USE
s3c1309.d	1248165019	JLD1	13-MAR-2010 13:38	1960455	10-2116	1	40.0 LANL	USE
s3c1310.d	1248420008	JLD1	13-MAR-2010 14:02	1962761	10-2190	1	1.0 LANL	USE
s3c1311.d	1248420009	JLD1	13-MAR-2010 14:21	1962761	10-2190	1	1.0 LANL	USE
s3c1312.d	1248695015	JLD1	13-MAR-2010 14:40	1963790	1248695	1	2.0 BY12	rr s3c1225
s3c1313.d	1248184002	JLD1	13-MAR-2010 14:59	1960459	10-2119	1	40.0 LANL	USE



s3c1314.d	248184003	JLD1	13-MAR-2010 15:19	960459	10-2119	2.0 LANL	USE
s3c1315.d	248197001	JLD1	13-MAR-2010 15:38	960459	10-2121	2.0 LANL	USE
s3c1316.d	248197002	JLD1	13-MAR-2010 15:58	960459	10-2121	4.0 LANL	USE
s3c1317.d	248197003	JLD1	13-MAR-2010 16:17	960459	10-2121	2.0 LANL	USE
s3c1318.d	248197004	JLD1	13-MAR-2010 16:36	960459	10-2121	2.0 LANL	USE
s3c1319.d	248197005	JLD1	13-MAR-2010 16:56	960459	10-2121	2.0 LANL	USE
s3c1320.d	248197007	JLD1	13-MAR-2010 17:15	960459	10-2121	4.0 LANL	USE
s3c1321.d	248197008	JLD1	13-MAR-2010 17:34	960459	10-2121	2.0 LANL	USE
s3c1322.d	248197010	JLD1	13-MAR-2010 17:54	960459	10-2121	2.0 LANL	DUSE; fail 1std; SEE S3C1317
s3c1323.d	248197012	JLD1	13-MAR-2010 18:13	960459	10-2121	2.0 LANL	USE
s3c1324.d	248197013	JLD1	13-MAR-2010 18:32	960459	10-2121	2.0 LANL	USE
s3c1325.d	248202001	JLD1	13-MAR-2010 18:52	960459	10-2124	2.0 LANL	USE
s3c1326.d	248203002	JLD1	13-MAR-2010 19:11	960459	10-2125	2.0 LANL	USE
s3c1327.d	1202060171	JLD1	13-MAR-2010 19:30	960459	10-2125	2.0 MS	USE
s3c1328.d	1202060172	JLD1	13-MAR-2010 19:49	960459	10-2125	2.0 MSD	USE
s3c1329.d	248202002	JLD1	13-MAR-2010 20:09	960459	10-2124	40.0 LANL	USE
s3c1330.d	INSTBLNK	JLD1	13-MAR-2010 20:28		s031310	1.0	IB
s3c1331.d	248197009	JLD1	13-MAR-2010 20:47	960459	10-2121	40.0 LANL	USE
s3c1332.d	248197009	JLD1	13-MAR-2010 21:07	960459	10-2121	4.0 LANL	USE
s3c1333.d	INSTBLNK	JLD1	13-MAR-2010 21:26		s031310	1.0	IB
s3c1334.d	248197011	JLD1	13-MAR-2010 21:45	960459	10-2121	20.0 LANL	USE
s3c1335.d	248197011	JLD1	13-MAR-2010 22:04	960459	10-2121	2.0 LANL	USE

Instrument Batch: /chem/MSD3.i/s031310.b

## GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD6

DATE: 02/27/2010 METHOD: See raw data OPERATOR: nagl REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT: 1239699-D  
Multiplier Voltage: 1553 Env Extr. Injection Volume: 0.5, 1.0 ul  
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100217-01  
CALIBRATION & QC INFORMATION:  
Initial Calibration Dates: See Calibration History and Standard Logbook.  
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s022710.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
1s6b2701.d	WBN100207-01	nagl	127-FEB-2010 10:53	DFTPP	1s022710	1	1.0/DFTPP	USE; 8270D AP/PEST/HEX
1s6b2701.d	WBN100207-01	nagl	127-FEB-2010 10:53	DFTPP	1s022710	1	1.0/DFTPP	USE; 8270C AP/PEST/HEX
1s6b2702.d	INST BLK	nagl	127-FEB-2010 11:05	1----	1s022710	1	1.0/INST BLK	11B
1s6b2703.d	WBN100218-01	nagl	127-FEB-2010 11:28	110 PPM	1s123009	1	1.0/AP12	USE; LEV 2
1s6b2704.d	WBN100218-02	nagl	127-FEB-2010 11:52	120 PPM	1s123009	1	1.0/AP20	USE; LEV 3
1s6b2705.d	WBN100218-03.1	nagl	127-FEB-2010 12:16	140 PPM	1s022710	1	1.0 AP40	USE; LEV 4
1s6b2706.d	WBN100218-04	nagl	127-FEB-2010 12:41	150 PPM	1s123009	1	1.0/AP50	USE; LEV 5
1s6b2707.d	WBN100218-05	nagl	127-FEB-2010 13:05	180 PPM	1s123009	1	1.0/AP80	USE; LEV 6
1s6b2708.d	WBN100218-06	nagl	127-FEB-2010 13:30	1100 PPM	1s123009	1	1.0/AP100	USE; LEV 7
1s6b2709.d	WBN100218-07	nagl	127-FEB-2010 13:54	1120 PPM	1s123009	1	1.0/AP120	USE; LEV 8
1s6b2710.d	WBN100205-25	nagl	127-FEB-2010 14:18	110 PPM	1s123009	1	1.0/PEST10	USE; LEV 2
1s6b2711.d	WBN100205-24	nagl	127-FEB-2010 14:43	120 PPM	1s123009	1	1.0/PEST20	USE; LEV 3
1s6b2712.d	WBN100205-23.1	nagl	127-FEB-2010 15:06	140 PPM	1s022710	1	1.0/PEST40	USE; LEV 4
1s6b2713.d	WBN100205-22	nagl	127-FEB-2010 15:30	150 PPM	1s123009	1	1.0/PEST50	USE; LEV 5
1s6b2714.d	WBN100205-21	nagl	127-FEB-2010 15:55	180 PPM	1s123009	1	1.0/PEST80	USE; LEV 6
1s6b2715.d	WBN100205-20	nagl	127-FEB-2010 16:18	1100 PPM	1s123009	1	1.0/PEST100	USE; LEV 7
1s6b2716.d	WBN100205-19	nagl	127-FEB-2010 16:42	1120 PPM	1s123009	1	1.0/PEST120	USE; LEV 8
1s6b2717.d	WBN100120-16	nagl	127-FEB-2010 17:06	500 PPM	1s123009	1	1.0/HEX500	USE; LEV 2
1s6b2718.d	WBN100120-15	nagl	127-FEB-2010 17:30	11000 PPM	1s123009	1	1.0/HEX1000	USE; LEV 3

1s6b2719.d	WBN100120-14	1nag1	127-FEB-2010 17:54	11250 PPM	s022710	1	1.0 HEX1250	USE; LEV 4
1s6b2720.d	WBN100120-13	1nag1	127-FEB-2010 18:18	11500 PPM	s123009	1	1.0 HEX1500	USE; LEV 5
1s6b2721.d	WBN100120-12	1nag1	127-FEB-2010 18:42	11750 PPM	s123009	1	1.0 HEX1750	USE; LEV 6
1s6b2722.d	UBN090828-02.10	1nag1	127-FEB-2010 19:05	12000 PPM	s123009	1	1.0 HEX2000	USE; LEV 7
1s6b2723-D.d	WBN100218-08.1	1nag1	127-FEB-2010 19:29	140 PPM	s022710	1	1.0 APICV	USE; 8270D
1s6b2723.d	WBN100218-08.1	1nag1	127-FEB-2010 19:29	140 PPM	s022710	1	1.0 APICV	USE; 8270C
1s6b2724-D.d	WBN100205-26.1	1nag1	127-FEB-2010 19:53	140 PPM	s022710	1	1.0 PESTICV	USE; 8270D
1s6b2724.d	WBN100205-26.1	1nag1	127-FEB-2010 19:53	140 PPM	s022710	1	1.0 PESTICV	USE; 8270C
1s6b2725-D.d	WBN100103-10.3	1nag1	127-FEB-2010 20:17	11250 PPM	s022710	1	1.0 HEXICV	USE; 8270D
1s6b2725.d	WBN100103-10.3	1nag1	127-FEB-2010 20:17	11250 PPM	s022710	1	1.0 HEXICV	USE; 8270C
1s6b2726.d	WBN100207-01	1nag1	127-FEB-2010 20:42	10FTPP	s022710	1	1.0 DFTPP	DUSE
1s6b2727.d	INST BLK	1nag1	127-FEB-2010 20:56	1----	s022710	1	1.0 INST BLK	DUSE
1s6b2728.d	UBN100127-01	1nag1	127-FEB-2010 21:20	110 PPM	s022710	1	1.0 NEV010	DUSE
1s6b2729.d	UBN100127-02	1nag1	127-FEB-2010 21:44	120 PPM	s022710	1	1.0 NEV020	DUSE
1s6b2730.d	UBN100127-03	1nag1	127-FEB-2010 22:07	140 PPM	s022710	1	1.0 NEV040	DUSE
1s6b2731.d	UBN100127-04	1nag1	127-FEB-2010 22:31	150 PPM	s022710	1	1.0 NEV050	DUSE
1s6b2732.d	UBN100127-05	1nag1	127-FEB-2010 22:54	180 PPM	s022710	1	1.0 NEV080	DUSE
1s6b2733.d	UBN100127-06	1nag1	127-FEB-2010 23:17	1100 PPM	s022710	1	1.0 NEV100	DUSE
1s6b2734.d	UBN100127-07	1nag1	127-FEB-2010 23:41	1120 PPM	s022710	1	1.0 NEV120	DUSE
1s6b2735.d	WBN100121-07	1nag1	128-FEB-2010 00:04	110 PPM	s022710	1	1.0 BJC0010	DUSE
1s6b2736.d	WBN100121-06	1nag1	128-FEB-2010 00:33	120 PPM	s022710	1	1.0 BJC0020	DUSE
1s6b2737.d	WBN100121-05	1nag1	128-FEB-2010 01:02	140 PPM	s022710	1	1.0 BJC0040	DUSE
1s6b2738.d	WBN100121-04	1nag1	128-FEB-2010 01:31	150 PPM	s022710	1	1.0 BJC0052	DUSE
1s6b2739.d	WBN100121-03	1nag1	128-FEB-2010 01:59	180 PPM	s022710	1	1.0 BJC0080	DUSE
1s6b2740.d	WBN100121-02	1nag1	128-FEB-2010 02:28	1100 PPM	s022710	1	1.0 BJC0100	DUSE
1s6b2741.d	WBN100121-01	1nag1	128-FEB-2010 02:57	1120 PPM	s022710	1	1.0 BJC0120	DUSE

### DATA EXCEPTION REPORT

**Mo.Day Yr.**  
16-MAR-10

**Division:**  
Industrial

**Quality Criteria:**  
Specifications

**Type:**  
Process

**Instrument Type:**  
SEMIVOA GC/MS

**Test / Method:**  
SW846 8270C

**Matrix Type:**  
Solid

**Client Code:**  
LANL

**Batch ID:**  
960459

**Sample Numbers:**  
See Below

**Potentially affected work order(s)(SDG):** 248184(10-2119),248197(10-2121),248202(10-2124),248203(10-2125)

**Application Issues:**

Failed Recovery for MS/PS

Failed Yield for Surrogates

**Specification and Requirements**  
**Exception Description:**

**DER Disposition:**

1. Sample 248202002 displayed multiple surrogate recoveries that were not within the acceptance limits. Please see the QC Summary for specific values.

2. The MS(1202060171) spike recovery for Di-n-octylphthalate was 172% and the limits are 31%-143%.

1. Sample 248202002 was analyzed at a dilution. As a result, the surrogates were diluted out of the acceptance limits. The data were reported.

2. The MSD(1202060172) displayed a similarly high (but passing) recovery for Di-n-octylphthalate. Therefore, the failure was attributed to matrix interference and the data were reported.

**Originator's Name:**

Jennifer Dunagan Jones17-MAR-10

**Data Validator/Group Leader:**

Daniel Beacham

18-MAR-10

GEL Laboratories LLC

Data file : /chem/MSD5.i/s031010.b/s5c1026.d  
Lab Smp Id: 1202060537 Client Smp ID: RE11-10-1857MS  
Inj Date : 10-MAR-2010 19:16  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |1202060537|960659|1|SVM|1|LANL34004MS  
Misc Info : |MSD8270\_S|WBN100227-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD5.i/s031010.b/MSD5-M8270C-030210.m  
Meth Date : 10-Mar-2010 15:06 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 26 QC Sample: MS  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2131.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	23.47830	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.784	3.791	(1.000)	222510	40.0000	
* 29 Naphthalene-d8	136	4.649	4.653	(1.000)	860976	40.0000	
* 46 Acenaphthene-d10	164	5.896	5.905	(1.000)	493392	40.0000	
* 67 Phenanthrene-d10	188	7.054	7.060	(1.000)	854160	40.0000	
* 91 Chrysene-d12	240	9.454	9.458	(1.000)	705099	40.0000	
* 98 Perylene-d12	264	11.025	11.033	(1.000)	522352	40.0000	
\$ 3 2-Fluorophenol	112	2.984	2.977	(0.789)	345626	62.2055	2700
\$ 5 Phenol-d5	99	3.507	3.507	(0.927)	409987	61.3935	2670
\$ 20 Nitrobenzene-d5	82	4.143	4.152	(0.891)	184839	28.8918	1260
\$ 39 2-Fluorobiphenyl	172	5.390	5.394	(0.914)	321336	26.0755	1130
\$ 60 2,4,6-Tribromophenol	329	6.490	6.492	(1.101)	112433	60.6711	2640
\$ 81 p-Terphenyl-d14	244	8.425	8.428	(0.891)	359330	30.6367	1330

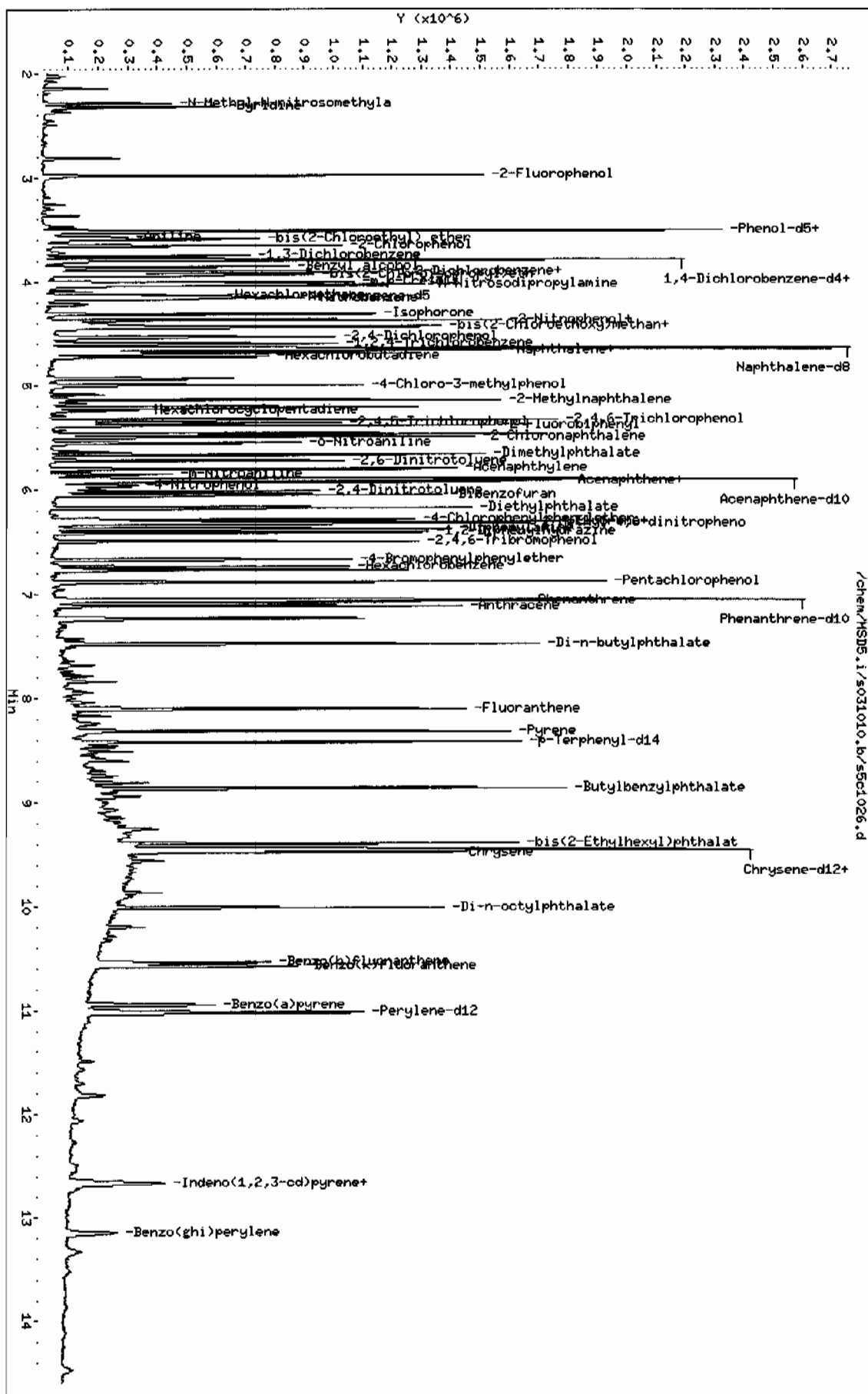
Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	=====	=====	=====	=====	=====	=====
6 Phenol	94	3.513	3.516	(0.928)	213874	32.0418	1390 (Q)
8 2-Chlorophenol	128	3.649	3.656	(0.964)	187525	32.0609	1390
11 1,4-Dichlorobenzene	146	3.796	3.800	(1.003)	118411	18.5117	804
17 N-Nitrosodipropylamine	70	4.019	4.031	(1.062)	112913	31.7271	1380 (Q)
28 1,2,4-Trichlorobenzene	180	4.596	4.604	(0.989)	133186	23.1094	1000
33 4-Chloro-3-methylphenol	107	5.001	4.994	(1.076)	174258	36.6516	1590
47 Acenaphthene	154	5.919	5.929	(1.004)	289805	26.5684	1150
50 2,4-Dinitrotoluene	165	6.013	6.020	(1.020)	112615	28.2052	1220
52 4-Nitrophenol	139	5.948	5.943	(1.009)	59945	33.9128	1470
65 Pentachlorophenol	266	6.884	6.887	(0.976)	76473	38.7690	1680
79 Pyrene	202	8.319	8.322	(0.880)	507020	26.0234	1130
2 Pyridine	79	2.325	2.322	(0.614)	133863	24.5691	1070
4 Aniline	66	3.566	3.574	(0.942)	39558	13.4615	585 (Q)
7 bis(2-Chloroethyl) ether	63	3.584	3.593	(0.947)	138670	28.2733	1230
9 1,3-Dichlorobenzene	146	3.749	3.757	(0.991)	113205	17.3624	754
12 Benzyl alcohol	108	3.854	3.858	(1.019)	122744	33.1864	1440
13 1,2-Dichlorobenzene	146	3.896	3.901	(1.030)	124501	21.8291	948
14 bis(2-Chloroisopropyl) ether	45	3.931	3.935	(1.039)	317541	31.4451	1370
15 o-Cresol	107	3.907	3.911	(1.033)	138601	33.5178	1460
18 m,p-Cresols	107	4.002	4.007	(1.058)	194891	32.4766	1410
19 Hexachloroethane	117	4.125	4.133	(1.090)	54305	20.3176	883
21 Nitrobenzene	77	4.160	4.166	(0.895)	188110	31.5996	1370
22 Isophorone	82	4.313	4.320	(0.928)	375960	32.5377	1410
23 2-Nitrophenol	139	4.372	4.378	(0.941)	87340	29.3061	1270
24 2,4-Dimethylphenol	122	4.366	4.373	(0.939)	140788	26.3497	1140
25 bis(2-Chloroethoxy)methane	93	4.431	4.441	(0.953)	202723	29.6862	1290
26 2,4-Dichlorophenol	162	4.531	4.537	(0.975)	150751	31.7541	1380
27 Benzoic acid	105	4.443	4.426	(0.956)	325421	102.584	4460
30 Naphthalene	128	4.660	4.667	(1.003)	433432	22.6309	983
31 4-Chloroaniline	127	4.660	4.681	(1.003)	141592	17.4966	760
32 Hexachlorobutadiene	225	4.731	4.734	(1.018)	63003	18.4434	801
34 2-Methylnaphthalene	142	5.143	5.149	(1.106)	299615	25.8020	1120
36 Hexachlorocyclopentadiene	237	5.248	5.250	(0.890)	33945	11.8049	513 (R)
37 2,4,6-Trichlorophenol	196	5.331	5.336	(0.904)	109427	33.3864	1450
38 2,4,5-Trichlorophenol	196	5.366	5.365	(0.910)	118845	31.2349	1360
40 2-Chloronaphthalene	162	5.496	5.500	(0.932)	289700	25.4929	1110
42 o-Nitroaniline	65	5.554	5.558	(0.942)	111807	31.7167	1380
41 m-Nitroaniline	138	5.848	5.852	(0.992)	58771	21.4995	934
43 Dimethylphthalate	163	5.660	5.673	(0.960)	423459	32.6559	1420
44 2,6-Dinitrotoluene	165	5.719	5.726	(0.970)	93842	29.9575	1300
45 Acenaphthylene	152	5.795	5.803	(0.983)	477198	28.4399	1240
48 2,4-Dinitrophenol	184	5.919	5.924	(1.004)	20934	34.8116	1510 (Q)
49 Dibenzofuran	168	6.043	6.049	(1.025)	412805	27.7724	1210
51 Diethylphthalate	149	6.172	6.174	(1.047)	438044	34.9505	1520
53 Fluorene	166	6.301	6.309	(1.069)	337259	26.3203	1140
54 4-Chlorophenylphenylether	204	6.284	6.285	(1.066)	172214	26.1365	1140
55 2-Methyl-4,6-dinitrophenol	198	6.319	6.323	(0.896)	35385	27.9347	1210

Compounds	QUANT SIG						CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE		ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
56 p-Nitroaniline	138	6.301	6.304	(1.069)	60318		32.2747	1400
133 Diphenylamine	169	6.366	6.372	(0.902)	277075		27.2928	1180
58 1,2-Diphenylhydrazine	77	6.401	6.410	(0.907)	410003		33.3737	1450
61 4-Bromophenylphenylether	248	6.666	6.670	(0.945)	103399		25.3726	1100
63 Hexachlorobenzene	284	6.731	6.738	(0.954)	104205		24.4216	1060
68 Phenanthrene	178	7.072	7.079	(1.002)	477350		26.3995	1150
69 Anthracene	178	7.113	7.123	(1.008)	473292		25.8743	1120
72 Di-n-butylphthalate	149	7.478	7.484	(1.060)	656365		33.2287	1440
76 Fluoranthene	202	8.107	8.110	(1.149)	494292		26.2055	1140
85 Butylbenzylphthalate	149	8.860	8.861	(0.937)	270208		33.7362	1460
89 Benzo(a)anthracene	228	9.436	9.444	(0.998)	377942		23.9683	1040
92 Chrysene	228	9.472	9.482	(1.002)	364345		24.7961	1080
93 bis(2-Ethylhexyl)phthalate	149	9.389	9.391	(0.993)	349343		36.4670	1580
94 Di-n-octylphthalate	149	10.013	10.017	(0.908)	506833		35.6059	1550
95 Benzo(b)fluoranthene	252	10.542	10.551	(0.956)	306248		24.5454	1070
96 Benzo(k)fluoranthene	252	10.578	10.580	(0.959)	307790		25.3391	1100
97 Benzo(a)pyrene	252	10.954	10.961	(0.994)	248509		23.7091	1030
99 Indeno(1,2,3-cd)pyrene	276	12.654	12.675	(1.148)	187860		21.7343	944
100 Dibenzo(a,h)anthracene	278	12.672	12.694	(1.149)	166806		24.3593	1060
101 Benzo(ghi)perylene	276	13.154	13.176	(1.193)	142908		19.7872	860
1 N-Methyl-N-nitrosomethylamine	74	2.290	2.293	(0.605)	98546		29.8881	1300

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.  
R - Spike/Surrogate failed recovery limits.

Instrument: MSD5.i  
Operator: RMB  
Column diameter: 0.20





GEL Laboratories LLC

Data file : /chem/MSD5.i/s031010.b/s5c1027.d  
Lab Smp Id: 1202060538 Client Smp ID: RE11-10-1857MSD  
Inj Date : 10-MAR-2010 19:39  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |1202060538|960659|1|SVM|1|LANL34004MSD  
Misc Info : |MSD8270\_S|WBN100227-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD5.i/s031010.b/MSD5-M8270C-030210.m  
Meth Date : 10-Mar-2010 15:06 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 27 QC Sample: MSD  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2131.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	23.47830	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.784	3.791	(1.000)	213355	40.0000	
* 29 Naphthalene-d8	136	4.649	4.653	(1.000)	843583	40.0000	
* 46 Acenaphthene-d10	164	5.895	5.905	(1.000)	482316	40.0000	
* 67 Phenanthrene-d10	188	7.054	7.060	(1.000)	865273	40.0000	
* 91 Chrysene-d12	240	9.454	9.458	(1.000)	783460	40.0000	
* 98 Perylene-d12	264	11.030	11.033	(1.000)	658624	40.0000	
\$ 3 2-Fluorophenol	112	2.984	2.977	(0.789)	339213	63.6707	2770
\$ 5 Phenol-d5	99	3.507	3.507	(0.927)	401910	62.7663	2730
\$ 20 Nitrobenzene-d5	82	4.143	4.152	(0.891)	179696	28.6670	1250
\$ 39 2-Fluorobiphenyl	172	5.390	5.394	(0.914)	293860	24.3936	1060
\$ 60 2,4,6-Tribromophenol	329	6.490	6.492	(1.101)	107312	59.2375	2580
\$ 81 p-Terphenyl-d14	244	8.425	8.428	(0.891)	343134	26.3297	1150

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
6 Phenol	94	3.513	3.516	(0.928)	214887	33.5749	1460 (Q)
8 2-Chlorophenol	128	3.649	3.656	(0.964)	185979	33.1609	1440
11 1,4-Dichlorobenzene	146	3.796	3.800	(1.003)	119645	19.5071	850
17 N-Nitrosodipropylamine	70	4.019	4.031	(1.062)	113046	33.1275	1440 (Q)
28 1,2,4-Trichlorobenzene	180	4.596	4.604	(0.989)	134217	23.7685	1040
33 4-Chloro-3-methylphenol	107	5.001	4.994	(1.076)	168129	36.0915	1570
47 Acenaphthene	154	5.919	5.929	(1.004)	280094	26.2679	1140
50 2,4-Dinitrotoluene	165	6.013	6.020	(1.020)	110846	28.3997	1240
52 4-Nitrophenol	139	5.954	5.943	(1.010)	62155	35.7250	1560
65 Pentachlorophenol	266	6.884	6.887	(0.976)	70530	35.6840	1550
79 Pyrene	202	8.319	8.322	(0.880)	486039	22.4514	978
2 Pyridine	79	2.325	2.322	(0.614)	134917	25.8249	1120
4 Aniline	66	3.566	3.574	(0.942)	33895	12.0292	524 (Q)
7 bis(2-Chloroethyl) ether	63	3.584	3.593	(0.947)	128385	27.2994	1190 (Q)
9 1,3-Dichlorobenzene	146	3.749	3.757	(0.991)	115477	18.4707	804
12 Benzyl alcohol	108	3.854	3.858	(1.019)	122179	34.4512	1500
13 1,2-Dichlorobenzene	146	3.896	3.901	(1.030)	125361	22.9229	998
14 bis(2-Chloroisopropyl) ether	45	3.931	3.935	(1.039)	310757	32.0937	1400
15 o-Cresol	107	3.907	3.911	(1.033)	145824	36.7776	1600
18 m,p-Cresols	107	4.001	4.007	(1.058)	187400	32.5682	1420
19 Hexachloroethane	117	4.125	4.133	(1.090)	56364	21.9930	958
21 Nitrobenzene	77	4.160	4.166	(0.895)	186782	32.0234	1390
22 Isophorone	82	4.313	4.320	(0.928)	372510	32.9038	1430
23 2-Nitrophenol	139	4.372	4.378	(0.941)	85816	29.3885	1280
24 2,4-Dimethylphenol	122	4.366	4.373	(0.939)	128985	24.6383	1070
25 bis(2-Chloroethoxy) methane	93	4.431	4.441	(0.953)	205917	30.7757	1340
26 2,4-Dichlorophenol	162	4.531	4.537	(0.975)	146659	31.5291	1370
27 Benzoic acid	105	4.449	4.426	(0.957)	313895	101.130	4400
30 Naphthalene	128	4.660	4.667	(1.003)	427152	22.7629	992
31 4-Chloroaniline	127	4.660	4.681	(1.003)	134444	16.9558	739
32 Hexachlorobutadiene	225	4.731	4.734	(1.018)	62238	18.5952	810
34 2-Methylnaphthalene	142	5.143	5.149	(1.106)	293763	25.8196	1120
36 Hexachlorocyclopentadiene	237	5.248	5.250	(0.890)	34172	12.1565	530
37 2,4,6-Trichlorophenol	196	5.331	5.336	(0.904)	102137	31.8780	1390
38 2,4,5-Trichlorophenol	196	5.366	5.365	(0.910)	112437	30.2293	1320
40 2-Chloronaphthalene	162	5.496	5.500	(0.932)	284135	25.5774	1110
42 o-Nitroaniline	65	5.554	5.558	(0.942)	109276	31.7103	1380
41 m-Nitroaniline	138	5.848	5.852	(0.992)	56416	21.1120	920
43 Dimethylphthalate	163	5.660	5.673	(0.960)	425227	33.5452	1460
44 2,6-Dinitrotoluene	165	5.719	5.726	(0.970)	89665	29.2815	1280
45 Acenaphthylene	152	5.795	5.803	(0.983)	460198	28.0566	1220
48 2,4-Dinitrophenol	184	5.925	5.924	(1.005)	22569	36.7399	1600 (Q)
49 Dibenzofuran	168	6.043	6.049	(1.025)	395563	27.2236	1180
51 Diethylphthalate	149	6.166	6.174	(1.046)	417547	34.0802	1480
53 Fluorene	166	6.301	6.309	(1.069)	320722	25.6044	1120
54 4-Chlorophenylphenylether	204	6.284	6.285	(1.066)	164563	25.5488	1110
55 2-Methyl-4,6-dinitrophenol	198	6.319	6.323	(0.896)	38534	29.2874	1280

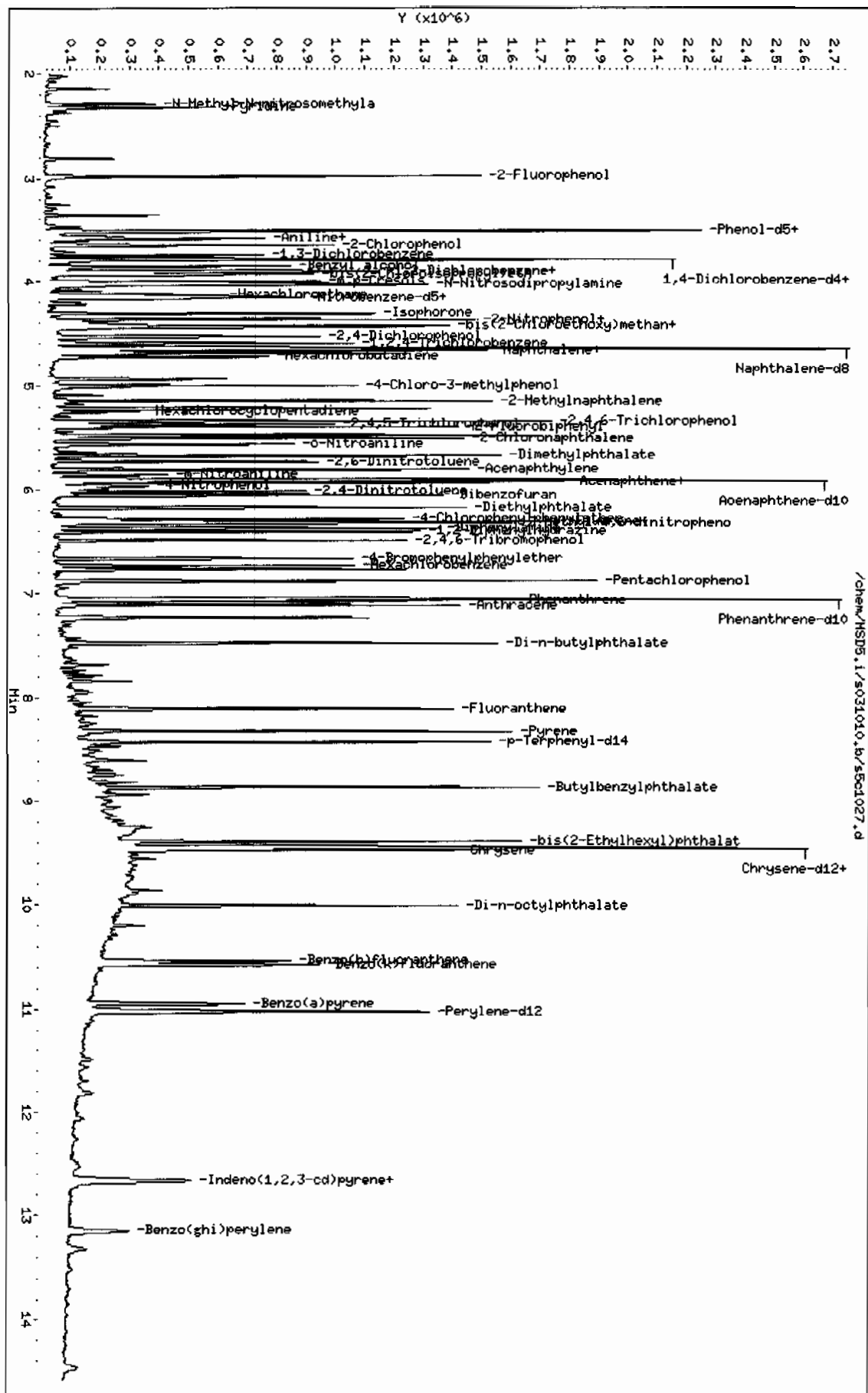
Compounds	QUANT SIG	CONCENTRATIONS					
		ON-COLUMN	FINAL				
	MASS	RT	EXP RT	REL RT	RESPONSE	(ng/ul)	(ug/Kg)
=====	=====	=====	=====	=====	=====	=====	=====
56 p-Nitroaniline	138	6.301	6.304	(1.069)	51213	28.0322	1220
133 Diphenylamine	169	6.366	6.372	(0.902)	264035	25.6743	1120
58 1,2-Diphenylhydrazine	77	6.401	6.410	(0.907)	401256	32.2421	1400
61 4-Bromophenylphenylether	248	6.666	6.670	(0.945)	96921	23.4775	1020
63 Hexachlorobenzene	284	6.731	6.738	(0.954)	102342	23.6770	1030
68 Phenanthrene	178	7.072	7.079	(1.002)	459314	25.0758	1090
69 Anthracene	178	7.113	7.123	(1.008)	455873	24.6019	1070
72 Di-n-butylphthalate	149	7.478	7.484	(1.060)	608531	30.4114	1320
76 Fluoranthene	202	8.107	8.110	(1.149)	480467	25.1454	1100
85 Butylbenzylphthalate	149	8.860	8.861	(0.937)	260824	29.3074	1280
89 Benzo(a)anthracene	228	9.436	9.444	(0.998)	397241	22.6724	988
92 Chrysene	228	9.478	9.482	(1.002)	399556	24.4727	1070
93 bis(2-Ethylhexyl)phthalate	149	9.389	9.391	(0.993)	340553	31.9938	1390
94 Di-n-octylphthalate	149	10.013	10.017	(0.908)	539124	30.0380	1310
95 Benzo(b)fluoranthene	252	10.542	10.551	(0.956)	342982	21.8019	950
96 Benzo(k)fluoranthene	252	10.578	10.580	(0.959)	351637	22.9592	1000
97 Benzo(a)pyrene	252	10.954	10.961	(0.993)	290939	22.0141	959
99 Indeno(1,2,3-cd)pyrene	276	12.660	12.675	(1.148)	234818	21.5461	938
100 Dibenzo(a,h)anthracene	278	12.677	12.694	(1.149)	211669	24.5152	1070
101 Benzo(ghi)perylene	276	13.154	13.176	(1.192)	178887	19.6440	856
1 N-Methyl-N-nitrosomethylamine	74	2.290	2.293	(0.605)	96525	30.5314	1330

# QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSDS.i/s031010.b/s031027.d  
 Date: 10-MAR-2010 19:39  
 Client ID: RE11-10-1857MSD  
 Sample Info: 112020605381960659.11SVH11LNL34004MSD  
 Volume Injected (uL): 0.5  
 Column Phase: 3M DB-SMS

Instrument: MSD5.i  
 Operator: RMB  
 Column diameter: 0.20



# LC/MS/MS PERCHLORATE ANALYSIS

**Perchlorate by LC/MSMS  
Los Alamos National Laboratory (LANL)  
SDG 10-2124**

**Method/Analysis Information**

<b>Procedure:</b>	<b>Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)</b>
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	959029
Prep Batch Number:	959025

**Sample Analysis**

<b>Sample ID</b>	<b>Client ID</b>
248202001	RE36-10-8282
248202002	RE36-10-8281
1202056696	Interference Check Sample (ICS)
1202056692	Method Blank (MB)
1202056693	Laboratory Control Sample (LCS)
1202056694	248247001(RE36-10-8464) Matrix Spike (MS)
1202056695	248247001(RE36-10-8464) 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**

Client sample 248247001 (RE36-10-8464) from SDG 10-2138-1 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

##### **Matrix Spike (MS) Recovery Statement**

The MS recoveries were within the established acceptance limits.

##### **Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD recoveries were within the established acceptance limits.

##### **MS/MSD Relative Percent Difference (RPD) Statement**

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

##### **Retention Time Standard Area Acceptance**

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

##### **Retention Time**

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

#### **Technical Information**

##### **Holding Time Specifications**

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

##### **Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

##### **Sample Dilutions**

Sample 248202002 (RE36-10-8281) was diluted to bring the over range concentration within the calibration range. The diluted analysis is reported.

#### **Sample Re-extraction/Re-analysis**

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

#### **Miscellaneous Information**

##### **Data Exception (DER) Documentation**

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

##### **Manual Integrations**

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

##### **Method Comments**

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

##### **Additional Comments**

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

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

##### **Perchlorate Isotope Ratio**

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

##### **System Configuration**

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

##### **Chromatographic Columns**

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

Dionex: IonPac AG-16 2 x 50 mm.



**Certification Statement**

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

**Review Validation:**

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

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

Reviewer: Herbert Mauer Date: 03/22/10

# SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 959025  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-8282  
 Date Received: 26-FEB-10  
 GEL Job No (SDG): 10-2124  
 GEL Sample ID: 248202001  
 Date Filtered: 10-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 21.3

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.548	2.19	8.01	ug/kg		1	18-MAR-10 02:10	per0317107a
	Perchlorate Isotope Ratio			3.03			1	18-MAR-10 02:10	per0317107a
14797-73-0	Perchlorate-101	.548	2.19	7.97	ug/kg		1	18-MAR-10 02:10	per0317107a
	Perchlorate-O(18)			5.15	ug/kg		1	18-MAR-10 02:10	per0317107a

<sup>^</sup> 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: 959025

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-8281

Date Received: 26-FEB-10

GEL Job No (SDG): 10-2124

GEL Sample ID: 248202002

Date Filtered: 10-MAR-10

Injection Volume (uL): 20

%Solids: 73

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	2.74	10.9	30.4	ug/kg		4	18-MAR-10 20:10	per0318039a
	Perchlorate Isotope Ratio			3.12			4	18-MAR-10 20:10	per0318039a
14797-73-0	Perchlorate-101	2.74	10.9	30.5	ug/kg		4	18-MAR-10 20:10	per0318039a
	Perchlorate-O(18)			27.9	ug/kg		4	18-MAR-10 20:10	per0318039a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids  
Aliquot

# QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-2124

Extract Batch Code: 959025

Date Filtered: 10-MAR-10

Matrix: SOIL

Sample ID: 1202056693

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.95	ug/kg	97.3		70 - 130
Perchlorate Isotope Ratio		2.99				-
Perchlorate-101	2.00	1.97	ug/kg	98.3		70 - 130
Perchlorate-O(18)		4.47	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):** 10-2124

**Extract Batch Code:** 959025

**Date Filtered:** 10-MAR-10

**Matrix:** SOIL

**Sample ID:** 1202056696

Analyte <sup>^</sup>	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.03	ug/kg	101		70 - 130
Perchlorate Isotope Ratio		3.22				
Perchlorate-101	2.00	1.9	ug/kg	95		70 - 130
Perchlorate-O(18)		4.82	ug/kg			

<sup>^</sup> 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\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317104a

Date: 18-Mar-2010

Time: 01:47:40

ID: 1202056696

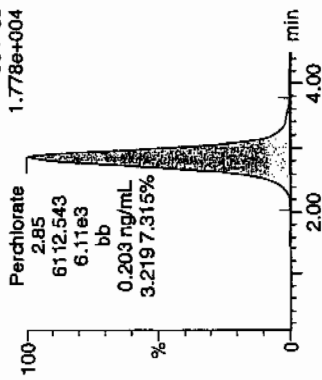
Vial: 3:1,C

03-18-10

1202056696 | 954029 | 5070 | 163 | 11  
1202056696 | 954029 | 5070 | 163 | 11

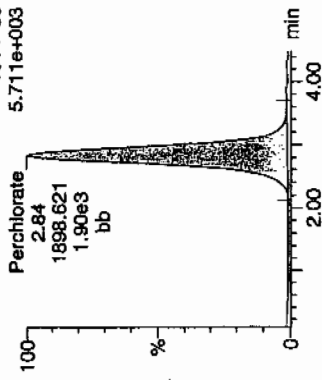
Perchlorate

MRM of 3 channels, ES-  
99 > 83



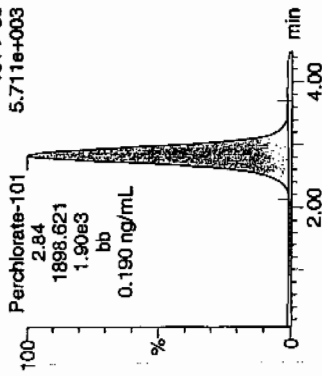
Perchlorate

MRM of 3 channels, ES-  
101 > 85



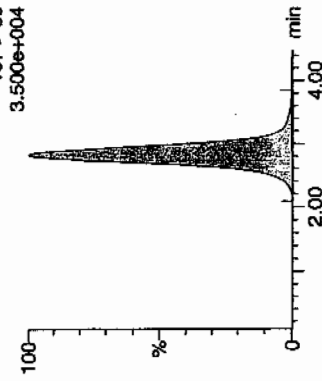
Perchlorate-101

MRM of 3 channels, ES-  
101 > 85



Perchlorate-O(18)

MRM of 3 channels, ES-  
107 > 89



ID	Name	Area	Response	Flags	Mod	Date	Time	mg/mL	File	Det	SN	Ratio
1202056696	Perchlorate	2.85	6112.543	bb			0.2026	101.31	1.31	874.514	3.22	
1202056696	Perchlorate-101	2.84	1898.621	bb			0.1899	94.95	-5.05	792.803		
1202056696	Perchlorate-O(18)	2.84	11788.583	bb			0.4818	96.37	-3.63	2543.7...		

6112.543  
1898.621

3.2195

107  
3/18/10



Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

Extract Batch Code: 959025

GEL MS/PS ID: 1202056694

GEL MSD/PSD ID: 1202056695

GEL Job No (SDG): 10-2124

Date Extracted: 10-MAR-10

Client ID: RE36-10-8464

QC Type: MS

Compound <sup>^</sup>	Spike Added	Sample Conc	Units	MS Conc	MS Rec	#	MSD Conc	MSD Rec	#	RPD	#	RPD Limit	Recovery Limit
Perchlorate	2.21	0.477	ug/kg	2.64	97.7		2.59	95.7		1.7		30	75 - 125
Perchlorate Isotope Ratio	0	0.00		2.99			2.87			0			-
Perchlorate-101	2.21	0.547	ug/kg	2.66	95.7		2.73	98.5		2.36		30	75 - 125
Perchlorate-O(18)	0	5.15	ug/kg	5.05			5.22			3.16			-

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

Comments:

Perchlorate Initial Calibration Blank

GEL Job No.(SDG): 10-2124

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	17-MAR-10	per0317001a	IPB001
Perchlorate-101	0.00	0	NA	17-MAR-10	per0317001a	IPB001
Perchlorate	0.00	0	NA	17-MAR-10	per0317002a	IPB001
Perchlorate-101	0.00	0	NA	17-MAR-10	per0317002a	IPB001
Perchlorate	0.00	0	NA	18-MAR-10	per0318001a	IPB001
Perchlorate-101	0.00	0	NA	18-MAR-10	per0318001a	IPB001
Perchlorate	0.00	0	NA	18-MAR-10	per0318002a	IPB001
Perchlorate-101	0.00	0	NA	18-MAR-10	per0318002a	IPB001

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

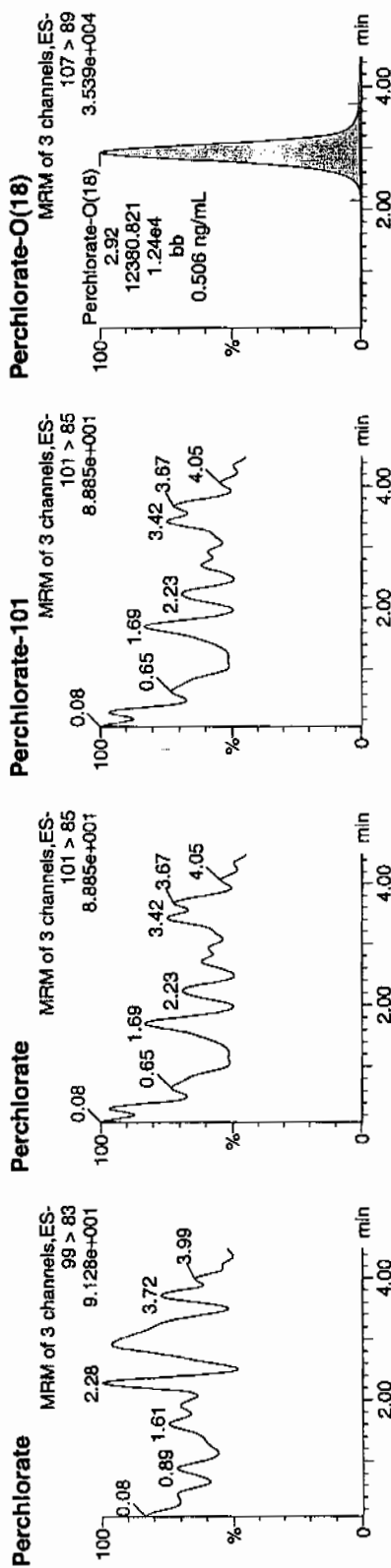
Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per031710a.mdb 18 Mar 2010 06:41:55  
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031710a.cdb 18 Mar 2010 06:42:10

Name: per0317001a  
Date: 17-Mar-2010  
Time: 12:46:43  
ID: IPB001  
Vial: 1:1,A

03-13-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85	2.92	12380.821	12380.821	bb			0.5060	101.21	1.21	574.489	
IPB001	Perchlorate-O(18)	107 > 89											

3/19/10

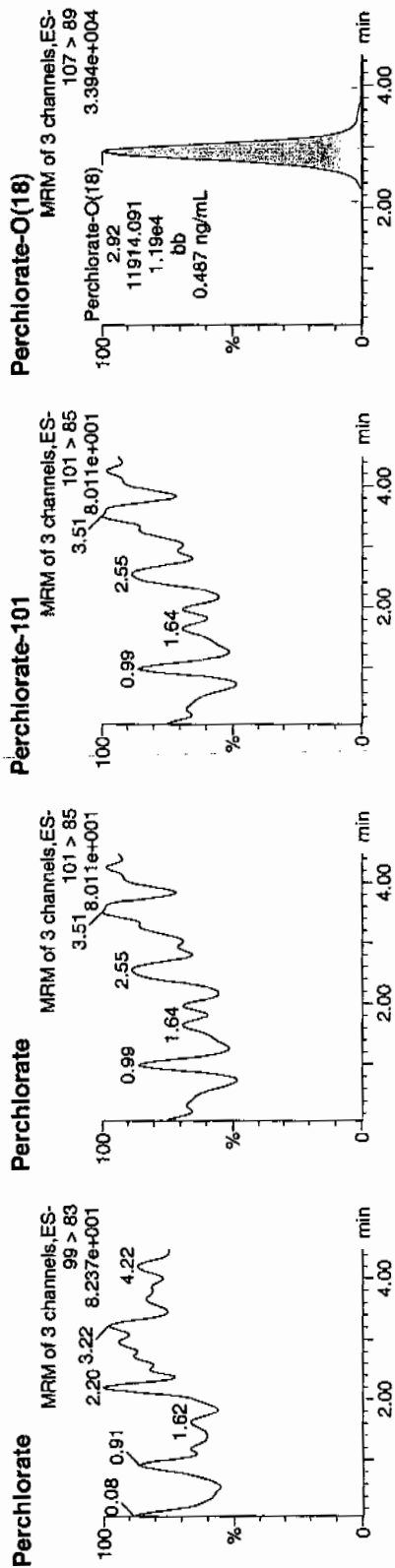
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qid

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317002a  
Date: 17-Mar-2010  
Time: 12:54:15  
ID: IPB001  
Vial: 1:1,A

03-18-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.92	11914.091	11914.091	bb			0.4870	97.39	-2.61	1335.3...	

4/7/10  
3/19/10

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

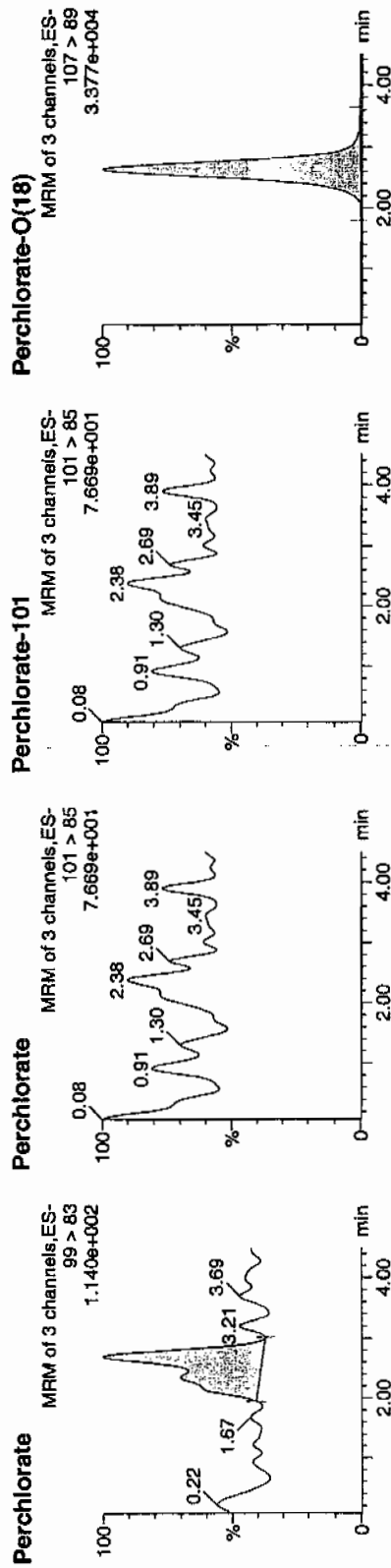
Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

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Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031810a.cdb 19 Mar 2010 06:42:20

Name: per0318001a  
Date: 18-Mar-2010  
Time: 15:22:32  
ID: IPB001  
Vial: 1:1,A

03-19-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	2.69	33.044	33.044	bb			0.0012			40.429	0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.64	11193.372	11193.372	bb			0.5277	105.54	5.54	1312.0...	

107  
3/20/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

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Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318002a

Date: 18-Mar-2010

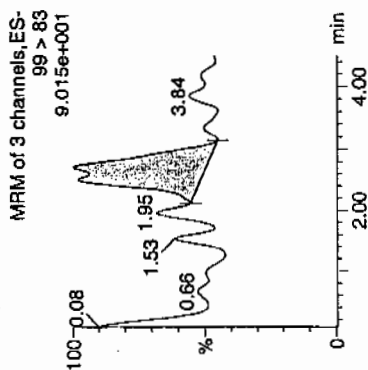
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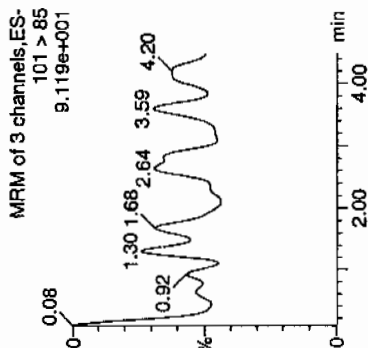
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03-14-10

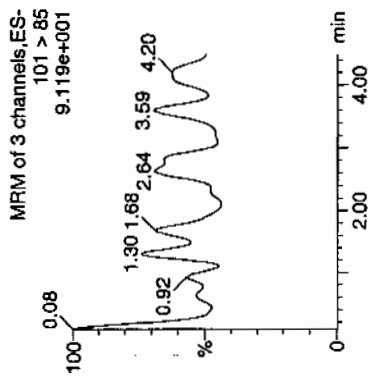
**Perchlorate**



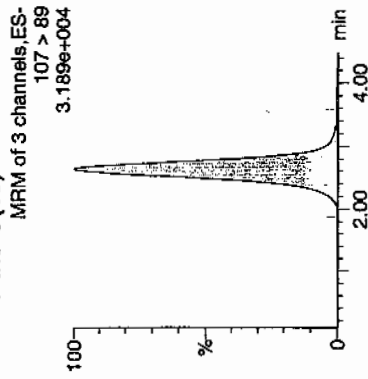
**Perchlorate**



**Perchlorate-101**



**Perchlorate-O(18)**



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	2.71	23.658	23.658	bb			0.0008			18.801	0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.64	10588.210	10588.210	bb			0.4992	99.83	-0.17	1167.5...	

1077  
3/23/10

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2124

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	17-MAR-10	per0317008a	IPB002
Perchlorate-101	0.00	0	NA	17-MAR-10	per0317008a	IPB002
Perchlorate	0.00	0	NA	17-MAR-10	per0317010a	IPB003
Perchlorate-101	0.00	0	NA	17-MAR-10	per0317010a	IPB003
Perchlorate	0.00	0	NA	17-MAR-10	per0317023a	IPB004
Perchlorate-101	0.00	0	NA	17-MAR-10	per0317023a	IPB004
Perchlorate	0.00	0	NA	17-MAR-10	per0317036a	IPB005
Perchlorate-101	0.00	0	NA	17-MAR-10	per0317036a	IPB005
Perchlorate	0.00	0	NA	17-MAR-10	per0317042a	IPB006
Perchlorate-101	0.00	0	NA	17-MAR-10	per0317042a	IPB006
Perchlorate	0.00	0	NA	17-MAR-10	per0317049a	IPB007
Perchlorate-101	0.00	0	NA	17-MAR-10	per0317049a	IPB007
Perchlorate	0.00	0	NA	17-MAR-10	per0317061a	IPB008

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2124

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	17-MAR-10	per0317061a	IPB008
Perchlorate	0.00	0	NA	17-MAR-10	per0317072a	IPB009
Perchlorate-101	0.00	0	NA	17-MAR-10	per0317072a	IPB009
Perchlorate	0.00	0	NA	18-MAR-10	per0317098a	IPB011
Perchlorate-101	0.00	0	NA	18-MAR-10	per0317098a	IPB011
Perchlorate	0.00	0	NA	18-MAR-10	per0317101a	IPB012
Perchlorate-101	0.00	0	NA	18-MAR-10	per0317101a	IPB012
Perchlorate	0.00	0	NA	18-MAR-10	per0317111a	IPB013
Perchlorate-101	0.00	0	NA	18-MAR-10	per0317111a	IPB013
Perchlorate	0.00	0	NA	18-MAR-10	per0318008a	IPB002
Perchlorate-101	0.00	0	NA	18-MAR-10	per0318008a	IPB002
Perchlorate	0.00	0	NA	18-MAR-10	per0318010a	IPB003
Perchlorate-101	0.00	0	NA	18-MAR-10	per0318010a	IPB003



Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2124

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	18-MAR-10	per0318023a	IPB004
Perchlorate-101	0.00	0	NA	18-MAR-10	per0318023a	IPB004
Perchlorate	0.00	0	NA	18-MAR-10	per0318036a	IPB005
Perchlorate-101	0.00	0	NA	18-MAR-10	per0318036a	IPB005
Perchlorate	0.00	0	NA	18-MAR-10	per0318049a	IPB006
Perchlorate-101	0.00	0	NA	18-MAR-10	per0318049a	IPB006

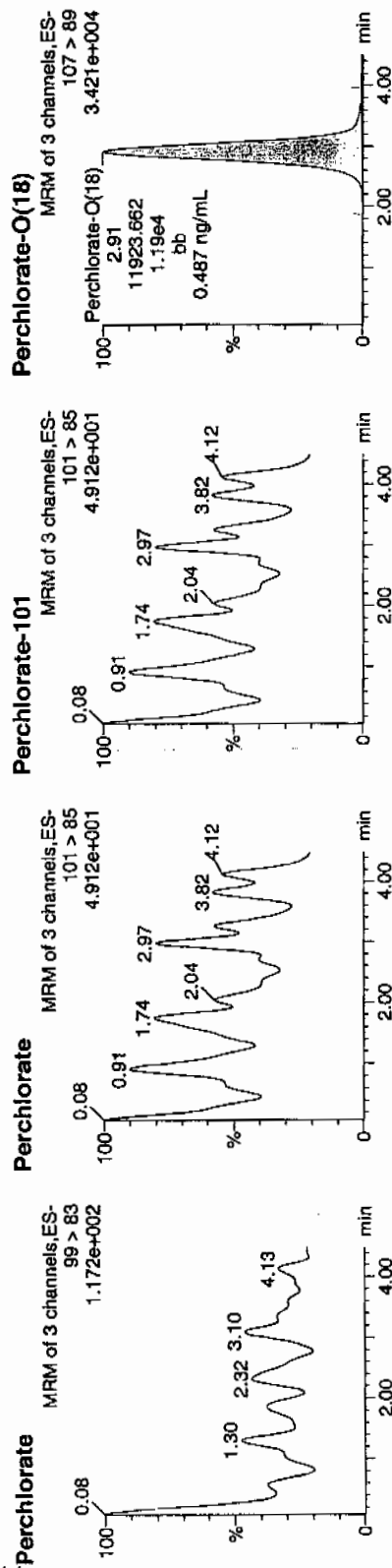
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Page 343 of 2144  
Name: per0317008a  
Date: 17-Mar-2010  
Time: 13:39:23  
ID: IPB002  
Vial: 1:1,A

03-18-10



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											
IPB002	Perchlorate-O(18)	107 > 89	2.91	11923.662	11923.662	bb			0.4874	97.47	-2.53	652.528	

1447  
3/19/10

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

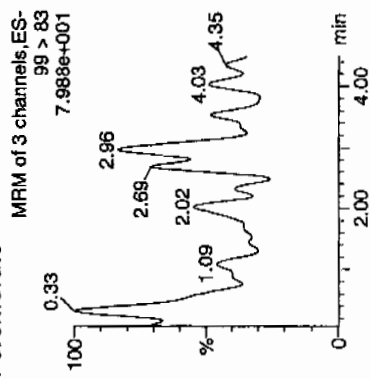
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Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

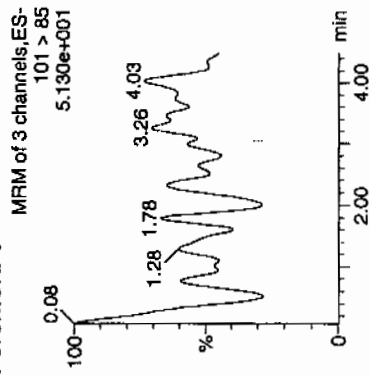
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ID: IPB003  
Vial: 1:1,A

03-18-10

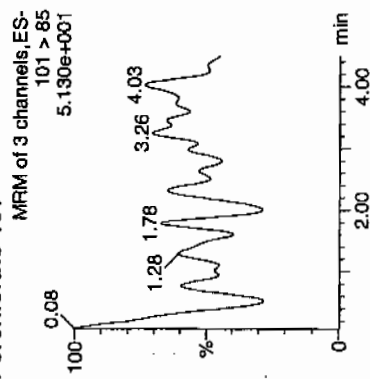
**Perchlorate**



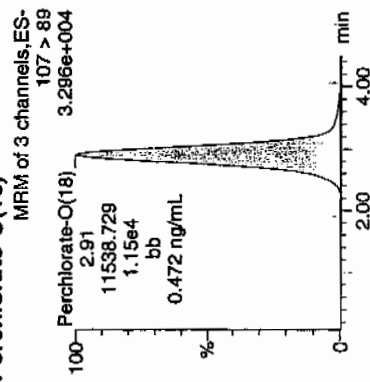
**Perchlorate**



**Perchlorate-101**



**Perchlorate-O(18)**



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	2.91	11538.729	11538.729	bb			0.4716	94.33	-5.67	2239.1...	

3/18/10

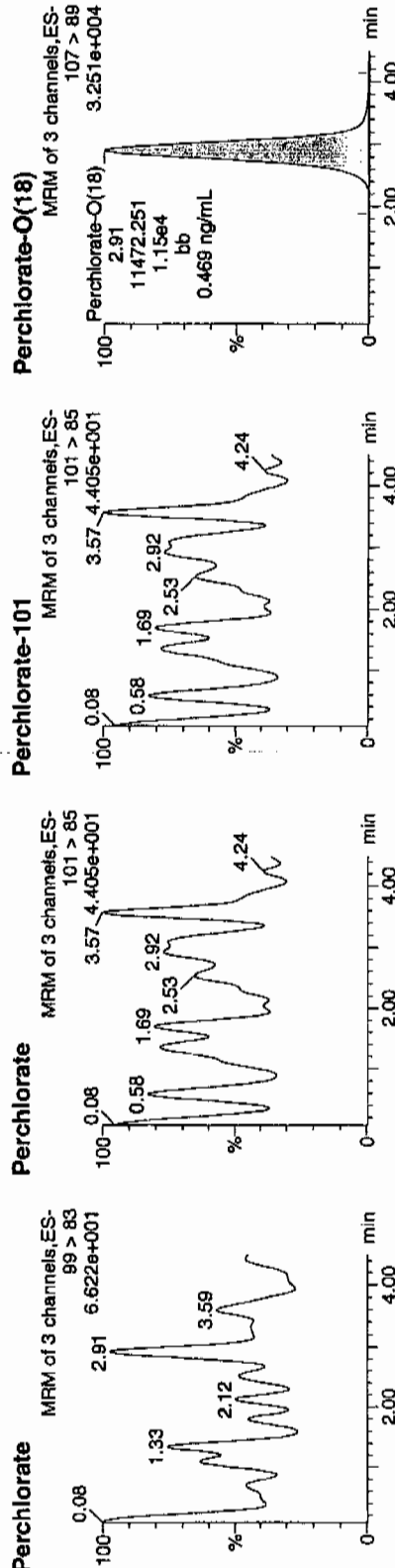
# Quantify Sample Report MassLynx 4.0 SP4 The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

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Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Page Name: per0317023a  
Date: 17-Mar-2010  
Time: 15:32:31  
ID: IPB004  
Vial: 1:1,A

03-18-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	2.91	11472.251	11472.251	bb			0.4689	93.78	-6.22	11773...	

11473  
3/19/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Sample Name: per0317036a

Date: 17-Mar-2010

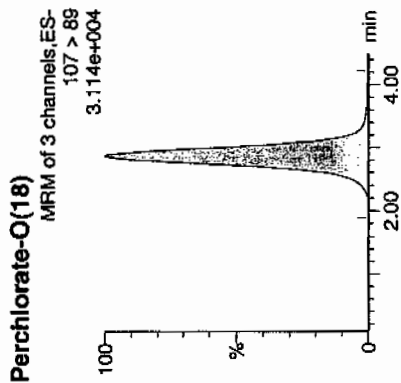
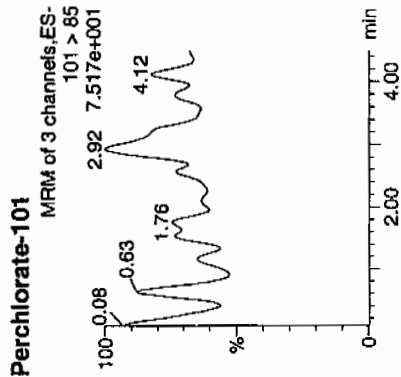
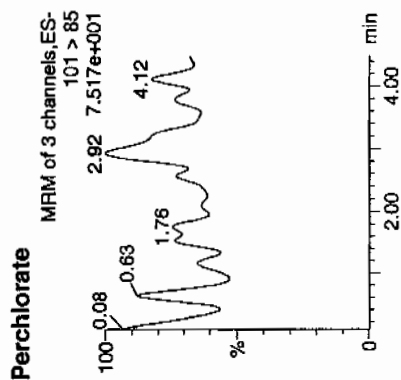
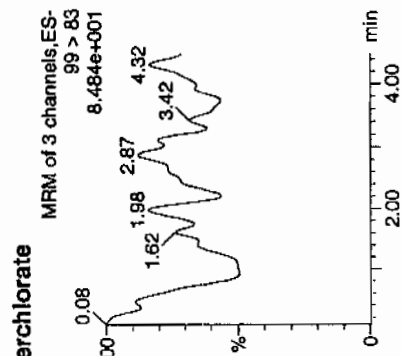
Time: 17:10:52

ID: IPB005

Vial: 1:1,A

14 Perchlorate

62-18-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	2.87	10827.487	10827.487	bb			0.4426	88.51	-11.49	1532.6...	

3/19/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Page Name: per0317042a

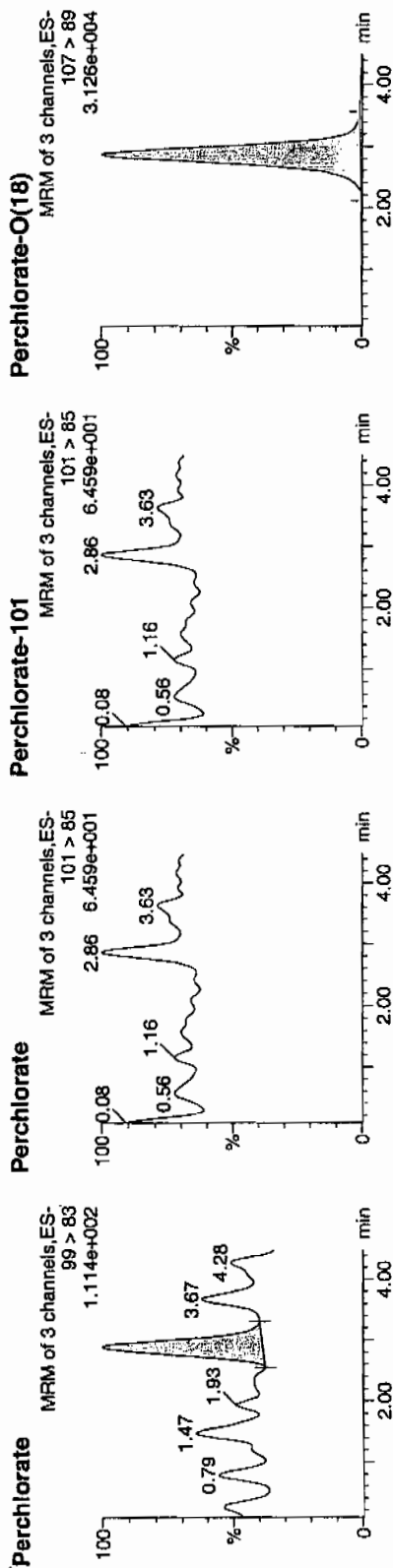
Date: 17-Mar-2010

Time: 17:56:10

ID: IPB006

Vial: 1:1.A

03-18-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83	2.89	20.294	20.294	bb			0.0007			27.262	0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	2.86	10574.932	10574.932	bb			0.4322	86.45	-13.55	1538.2...	

4477  
3/18/10

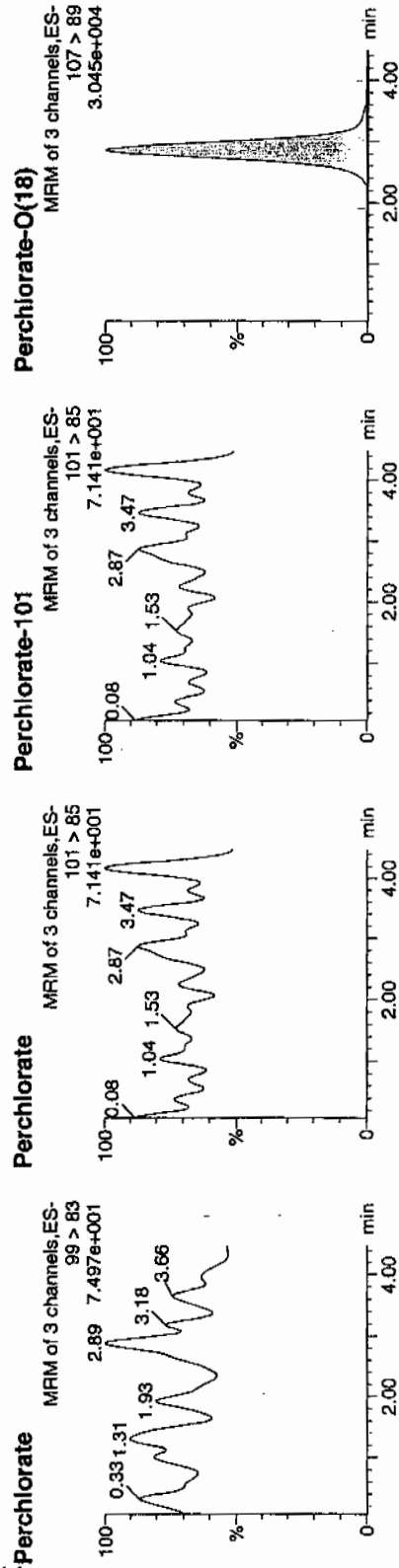
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317049a  
Date: 17-Mar-2010  
Time: 18:49:18  
ID: IPB007  
Vial: 1:1,A

03-18-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83											0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	2.86	10392.783	10392.783	bb			0.4248	84.96	-15.04	5888.9...	

1007  
3/18/10

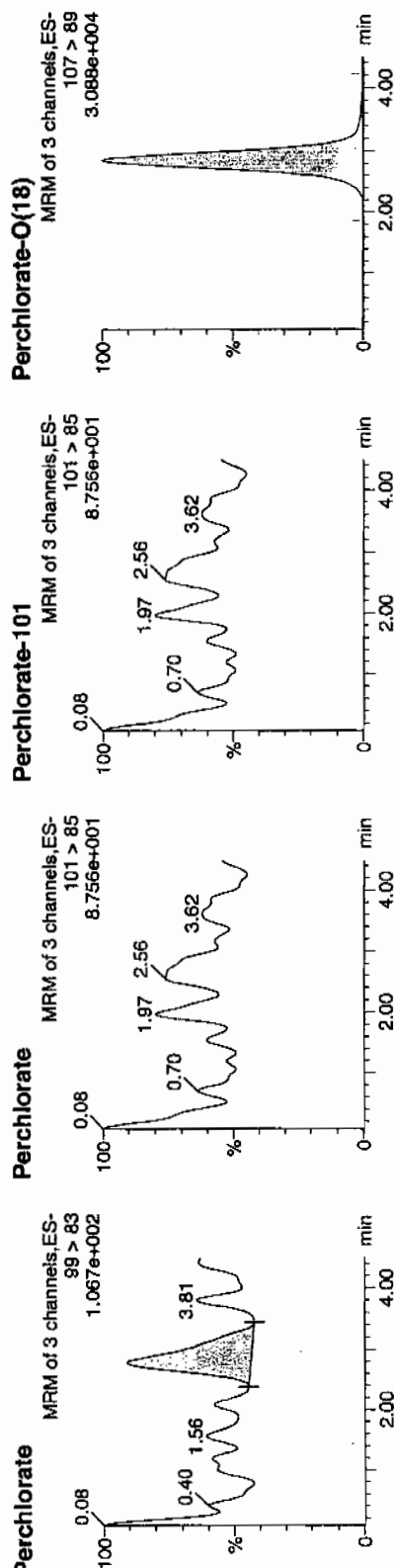
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Sample Name: per0317061a  
Date: 17-Mar-2010  
Time: 20:20:09  
QID: IPB008  
Vial: 1:1,A

03-18-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83	2.79	22.842	22.842	bb			0.0008	6.118	0.00		
IPB008	Perchlorate-101	101 > 85	2.84	10598.528	10598.528	bb			0.4332	86.64	-13.36	1818.9...	
IPB008	Perchlorate-O(18)	107 > 89											

not  
3/18/10



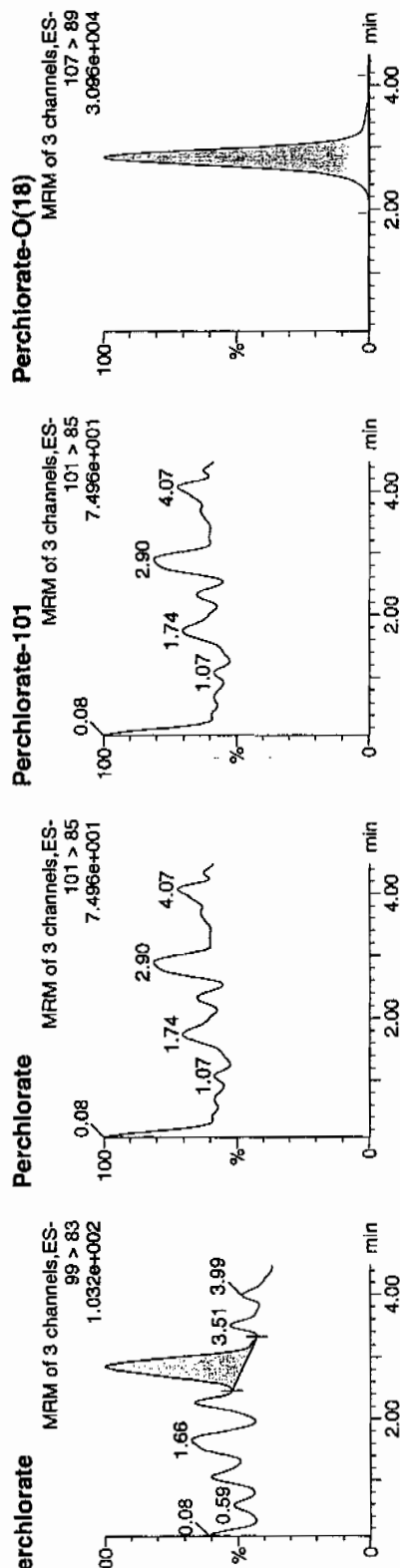
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Page 214  
Sample Name: per0317072a  
Date: 17-Mar-2010  
Time: 21:43:30  
ID: IPB009  
Vial: 1:1,A

03-18-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
IPB009	Perchlorate	99 > 83	2.86	17.957	17.957	bb			0.0006			26.519	0.00
IPB009	Perchlorate-101	101 > 85											
IPB009	Perchlorate-O(18)	107 > 89	2.84	10683.649	10683.649	bb			0.4367	87.34	-12.66	2296.4...	

1.07  
3/19/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

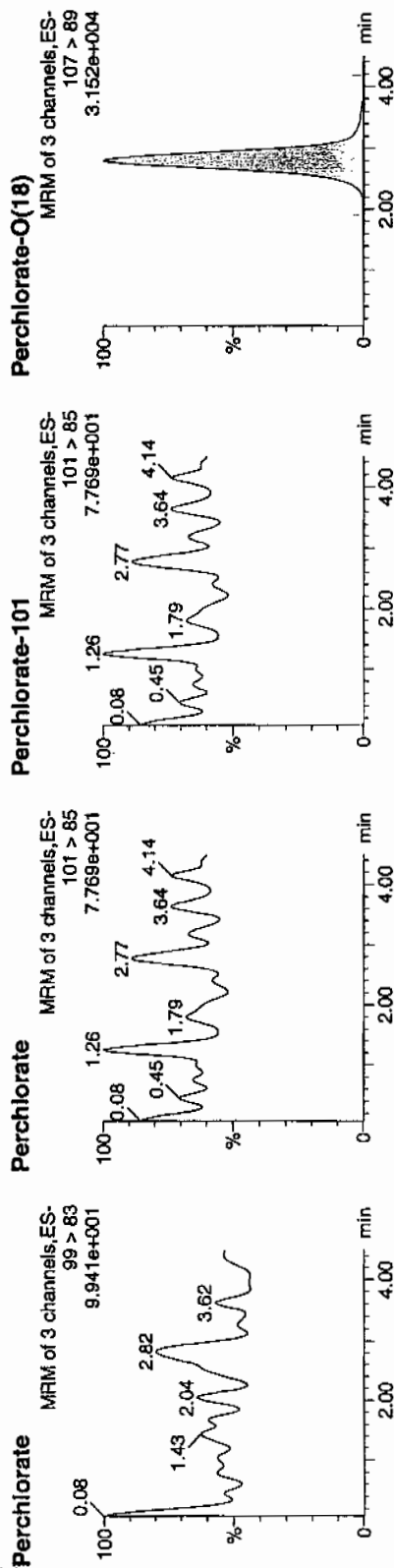
Name: per0317098a

Date: 18-Mar-2010

Time: 01:01:08

ID: IPB011

Vial: 1:1,A



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
IPB011	Perchlorate	99 > 83											0.00
IPB011	Perchlorate-101	101 > 85											
IPB011	Perchlorate-O(18)	107 > 89	2.80	11088.447	11088.447	bb			0.4532	90.64	-9.36	1393.4...	

1407  
3/19/10

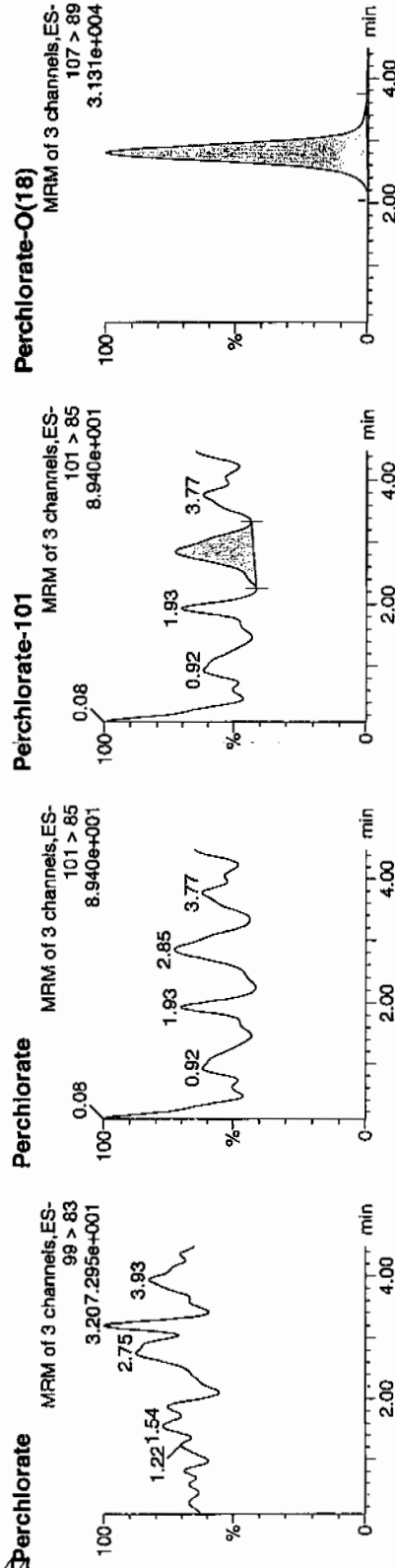
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Sample Name: per0317101a  
Date: 18-Mar-2010  
Time: 01:24:05  
ID: IPB012  
Vial: 1:1,A

03-18-10



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
IPB012	Perchlorate	99 > 83											0.00
IPB012	Perchlorate-101	101 > 85	2.85	11.874	11.874	bb			0.0012			11.731	
IPB012	Perchlorate-O(18)	107 > 89	2.80	10710.457	10710.457	bb			0.4378	87.55	-12.45	685.264	

107 > 89  
3/18/10

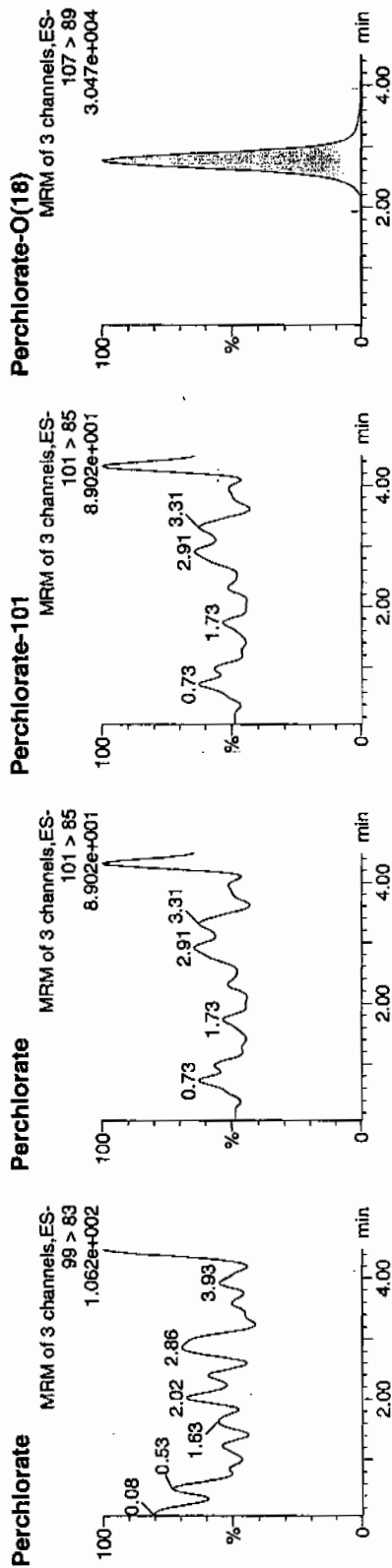
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317111a  
Date: 18-Mar-2010  
Time: 02:41:13  
ID: IPB013  
Vial: 1:1,A

03-18-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB013	Perchlorate	99 > 83											0.00
IPB013	Perchlorate-101	101 > 85											
IPB013	Perchlorate-O(18)	107 > 89	2.77	10451.049	10451.049	bb			0.4272	85.43	-14.57	1110.7...	

107  
3/18/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Page Name: per0318008a

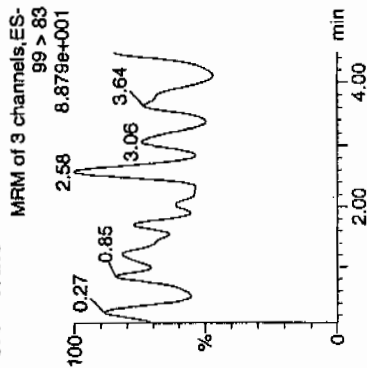
Date: 18-Mar-2010

Time: 16:15:20

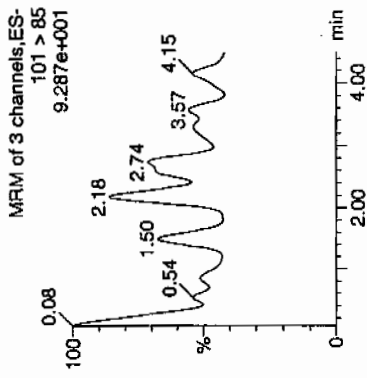
ID: IPB002

Vial: 1:1,A

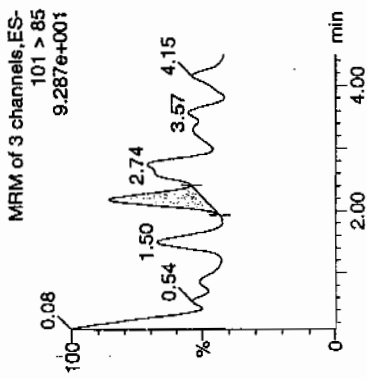
**Perchlorate**



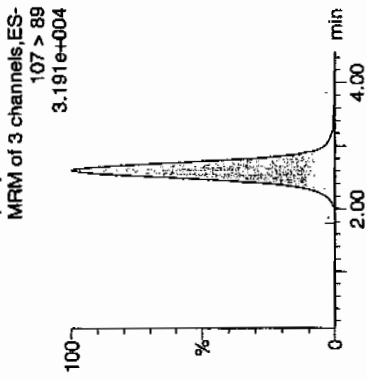
**Perchlorate**



**Perchlorate-101**



**Perchlorate-O(18)**



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85	2.18	7.701	7.701	bb			0.0008			7.796	
IPB002	Perchlorate-O(18)	107 > 89	2.61	10521.018	10521.018	bb			0.4960	99.20	-0.80	2297.4...	

Lot 3/20/10

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

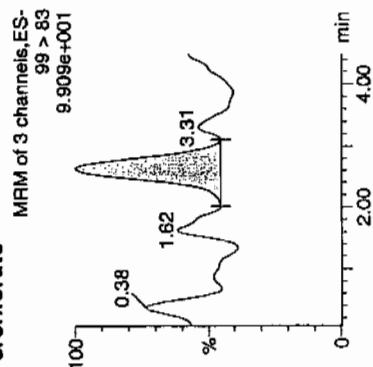
Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

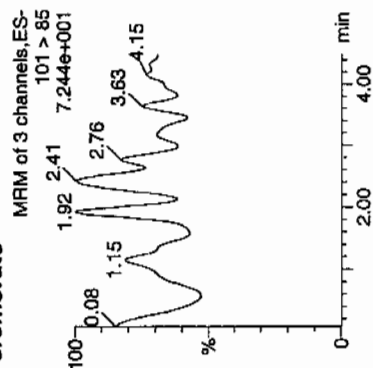
Name: per0318010a  
Date: 18-Mar-2010  
Time: 16:30:25  
ID: IPB003  
Vial: 1:1,A

03-19-10

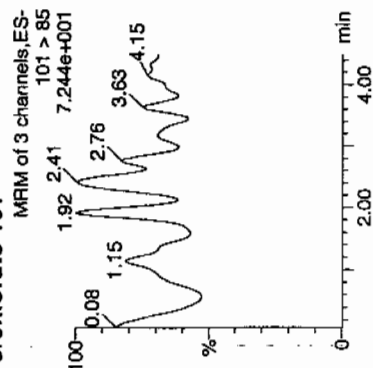
**Perchlorate**



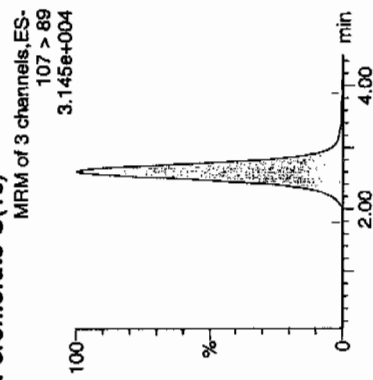
**Perchlorate**



**Perchlorate-101**



**Perchlorate-O(18)**



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83	2.64	23.061	23.061	bb			0.0008			3.530	0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	2.61	10502.757	10502.757	bb			0.4951	99.02	-0.98	2502.8...	

4.07  
3/19/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample Name: per0318023a

Date: 18-Mar-2010

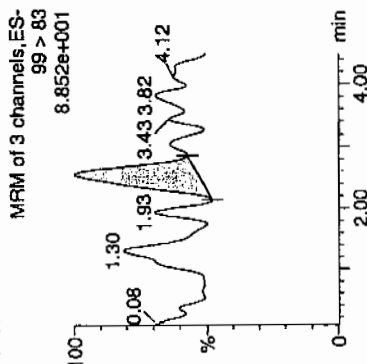
Time: 18:09:12

QID: IPB004

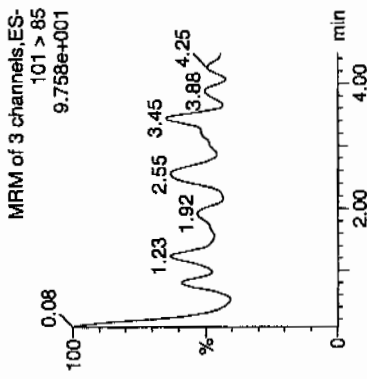
Vial: 1:1,A

03-11-10

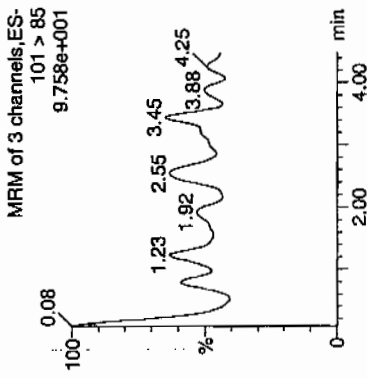
**Perchlorate**



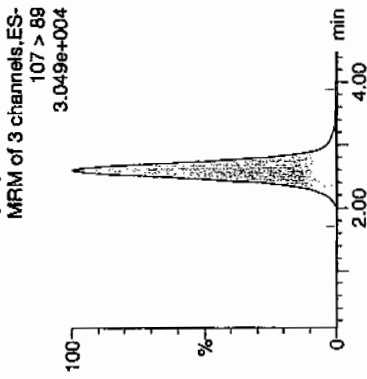
**Perchlorate**



**Perchlorate-101**



**Perchlorate-O(18)**



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83	2.55	14.728	14.728	bb			0.0005			15.782	0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	2.60	10125.706	10125.706	bb			0.4773	95.47	-4.53	2985.1...	

107  
3/20/10

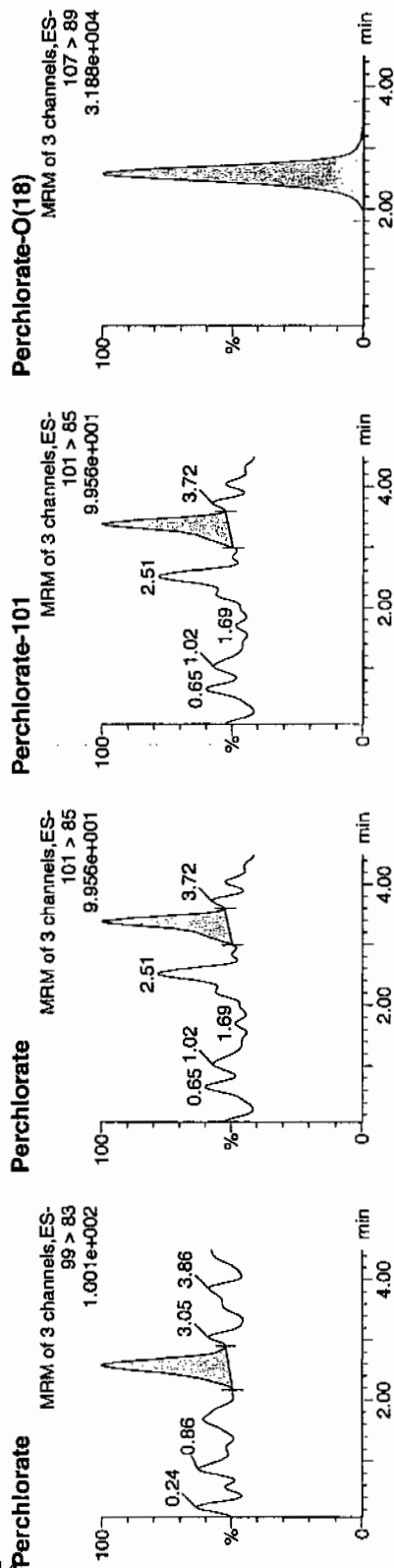
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample Name: per0318036a  
Date: 18-Mar-2010  
Time: 19:47:48  
ID: IPB005  
Vial: 1:1,A

03-14-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83	2.58	13.906	13.906	bb			0.0005	99.12	-0.88	1661.3...	1.20
IPB005	Perchlorate-101	101 > 85	3.38	11.565	11.565	bb			0.0013	99.12	-0.88	1661.3...	1.20
IPB005	Perchlorate-O(18)	107 > 89	2.58	10513.121	10513.121	bb			0.4956	99.12	-0.88	1661.3...	1.20

1477  
3/15/10



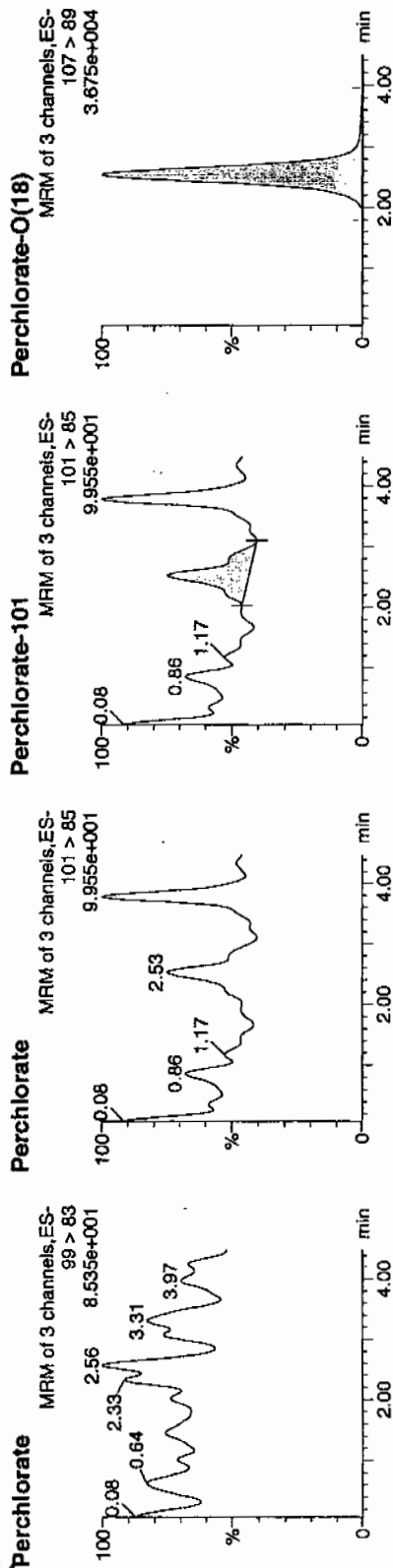
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318049a  
Date: 18-Mar-2010  
Time: 21:26:30  
ID: IPB006  
Vial: 1:1,A

03-14-10



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	2.53	11.712	11.712	bb			0.0013			24.286	
IPB006	Perchlorate-O(18)	107 > 89	2.54	12402.828	12402.828	bb			0.5947	116.94	16.94	941.441	

1477  
3/20/10

Nairb.ref

; Positive ion monoisotopic and average masses from solution  
 ; of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H<sub>2</sub>O.  
 ; 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

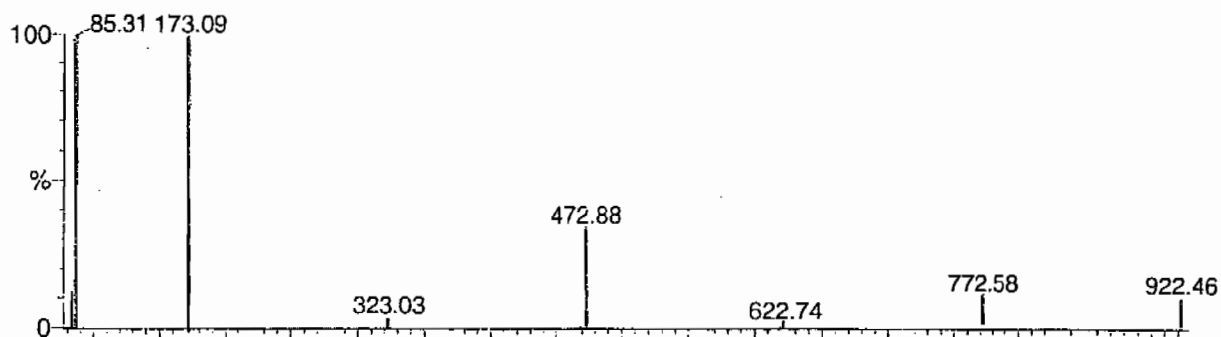
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

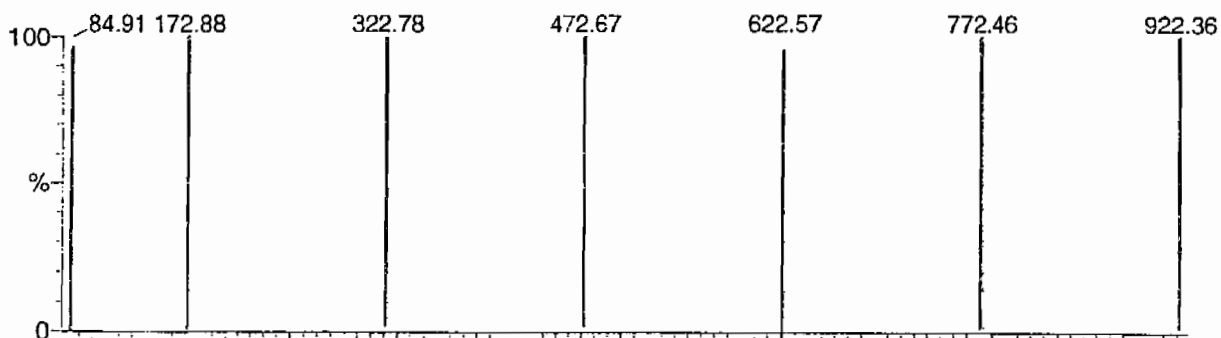
DATA HIGHLIGHTED BY CURV 01.07.03

Data file: STATMS1 - Uncalibrated

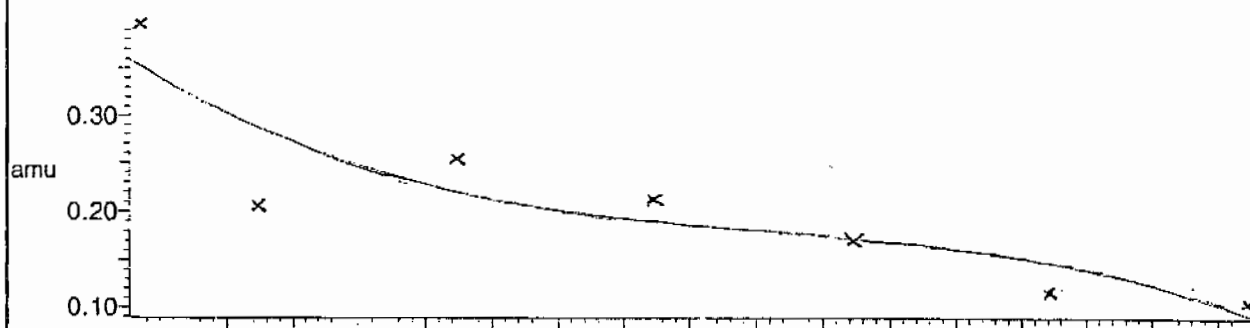
7 matches of 7 tested references



Reference file: Nairb

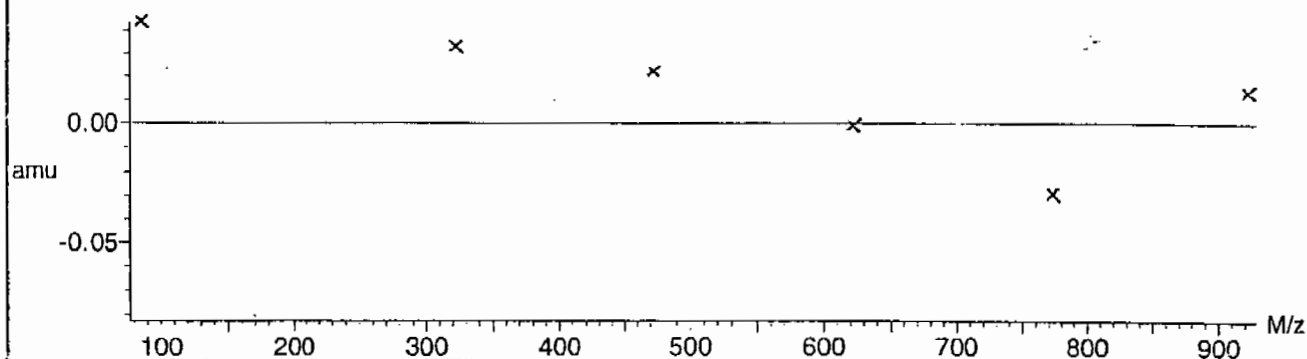


Mass difference (Raw - Ref.mass)



Residuals

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



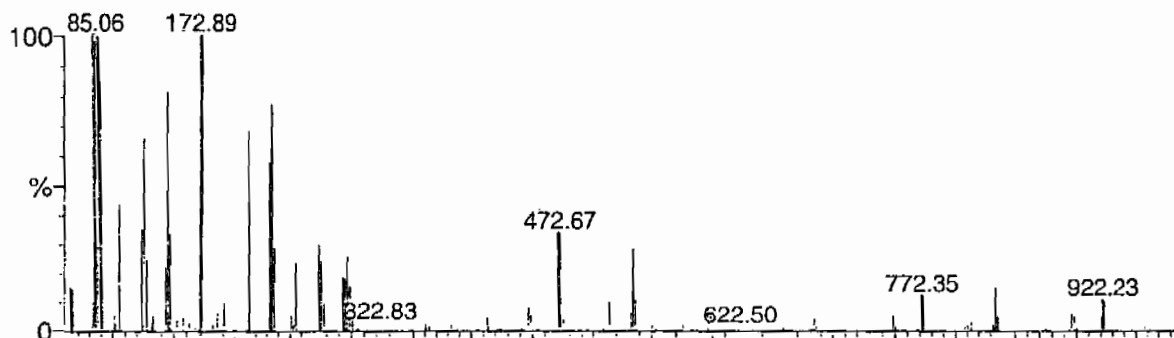
Calibration Report - MS1 Scanning

Page 1 of 1

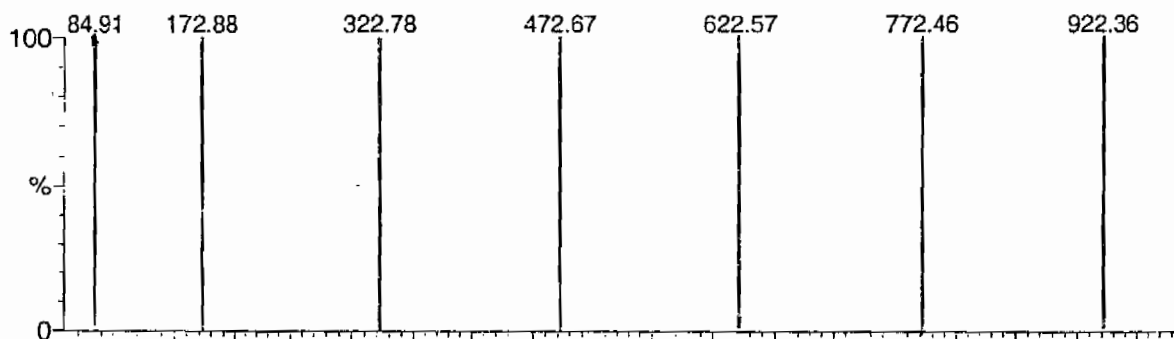
Printed: Tue Jan 08 12:20:09 2008

Data file: SCNMS1 - Uncalibrated

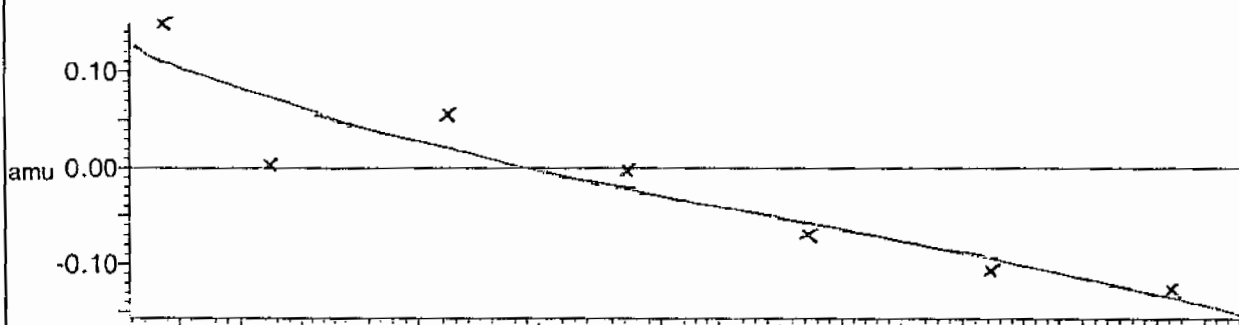
7 matches of 7 tested references



Reference file: Nairb

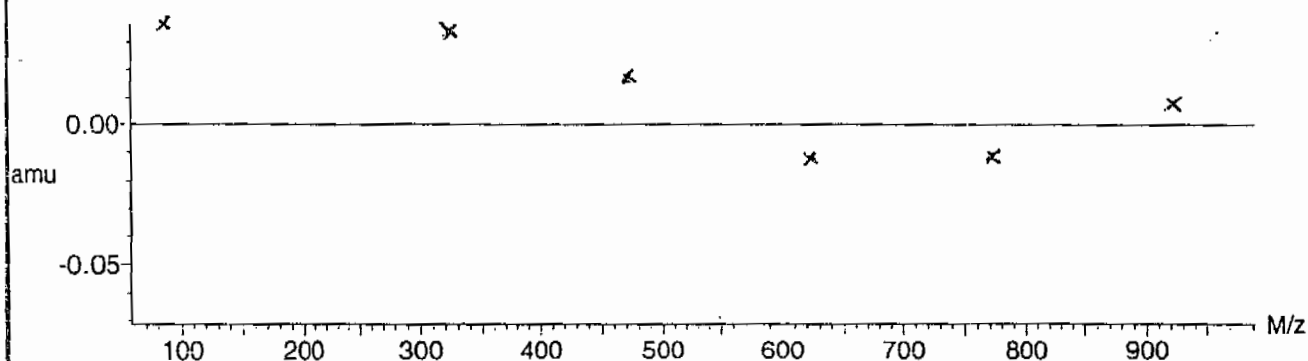


Mass difference (Raw - Ref mass)



Residuals

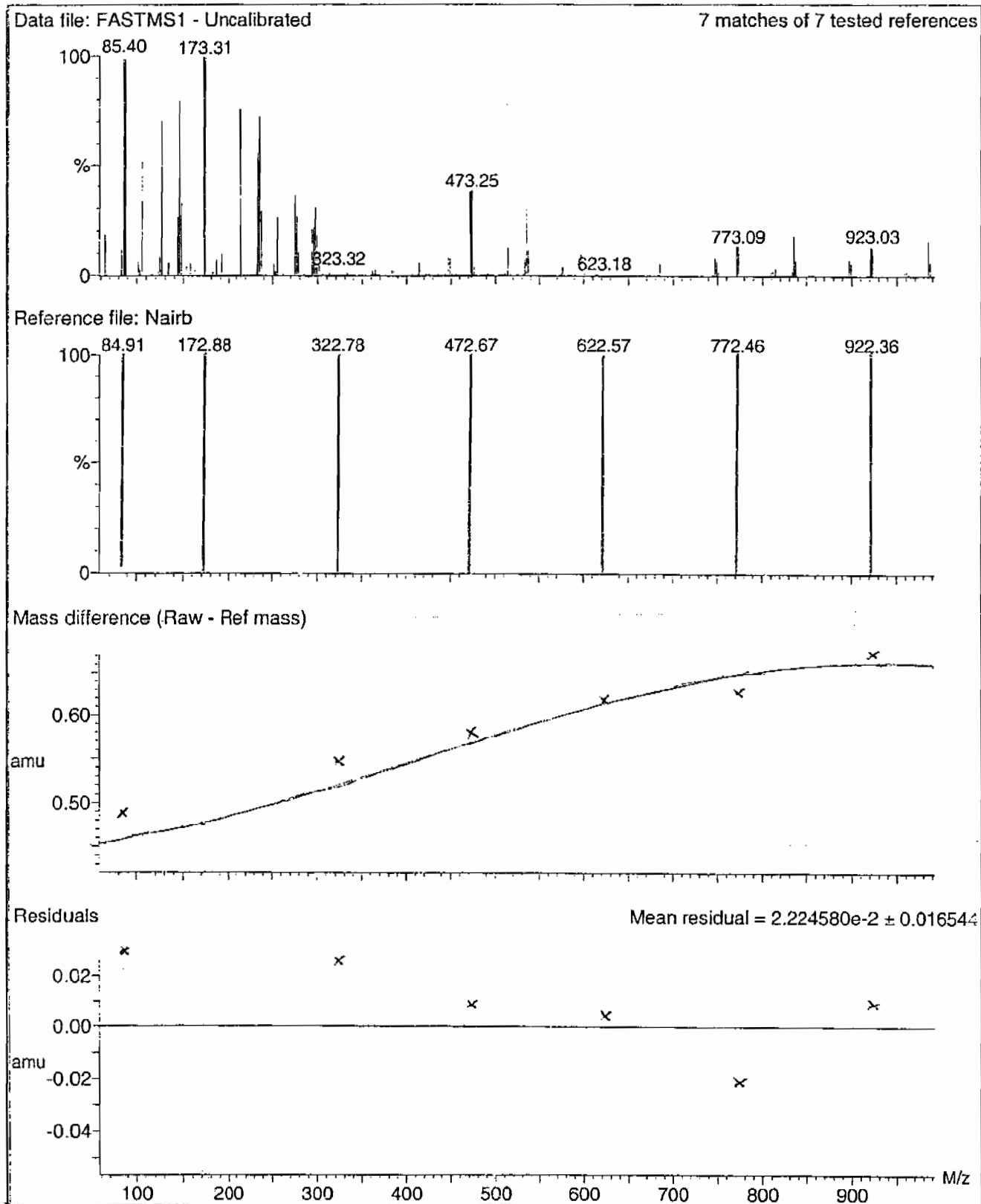
Mean residual =  $2.732691 \times 10^{-2} \pm 0.020653$



Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

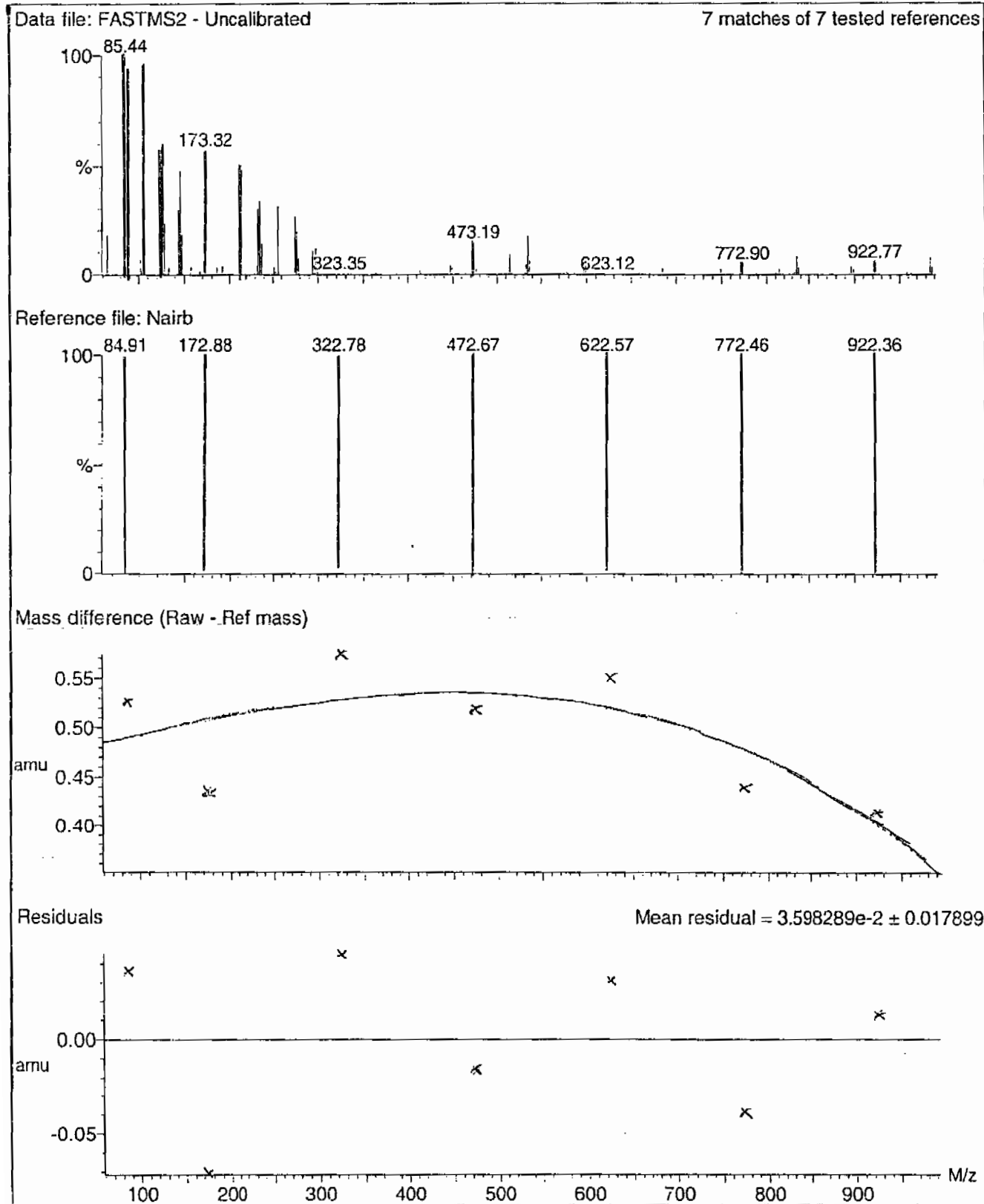
Printed: Tue Jan 08 12:21:04 2008



Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

Printed: Tue Jan 08 12:23:51 2008



Calibration Report - MS2 Scanning

Page 1 of 1

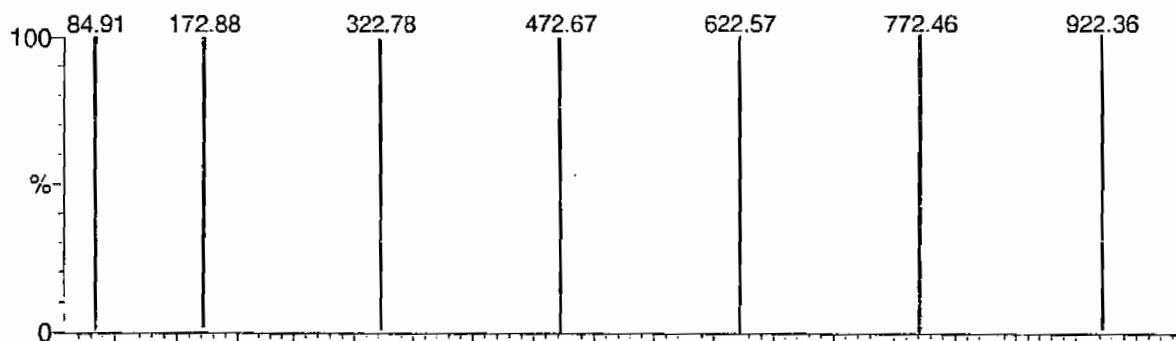
Printed: Tue Jan 08 12:22:56 2008

Data file: SCNMS2 - Uncalibrated

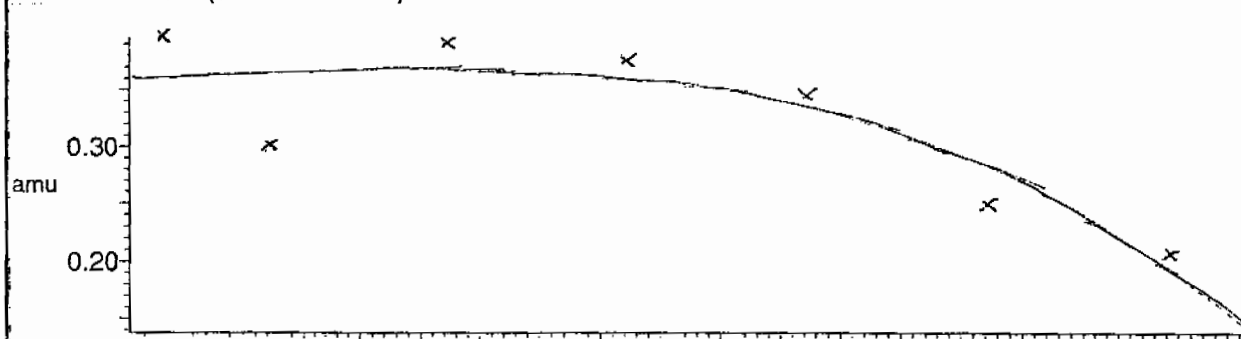
7 matches of 7 tested references



Reference file: Nairb

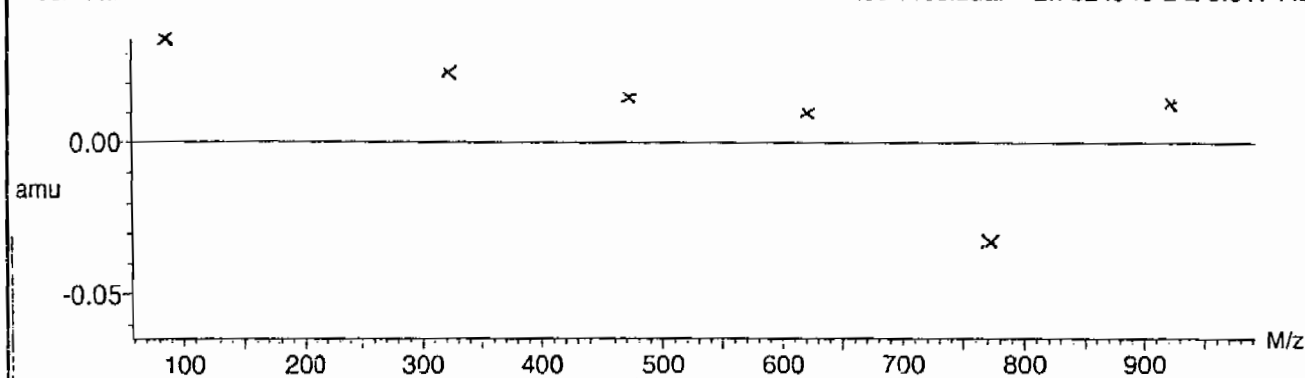


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $2.782494e-2 \pm 0.017442$



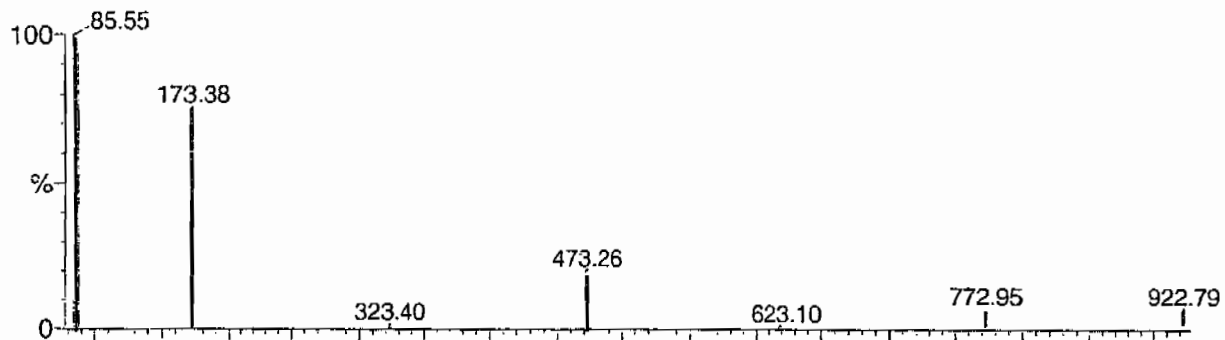
Calibration Report - MS2 Static

Page 1 of 2

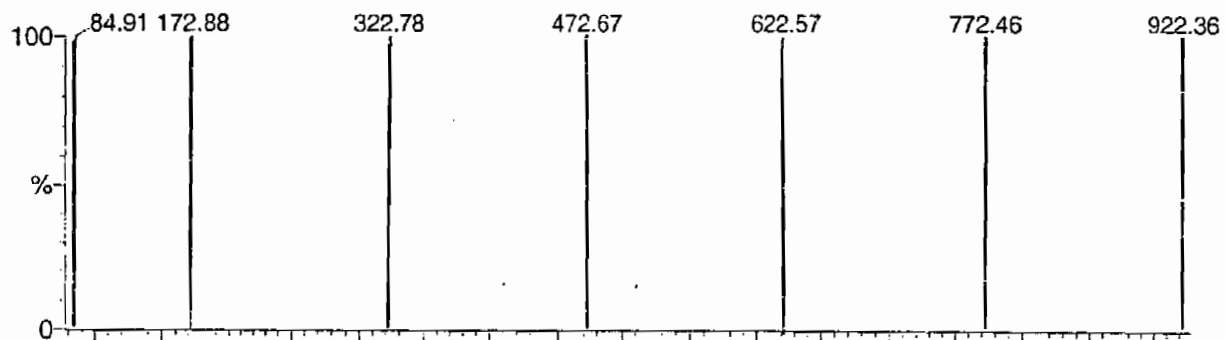
Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

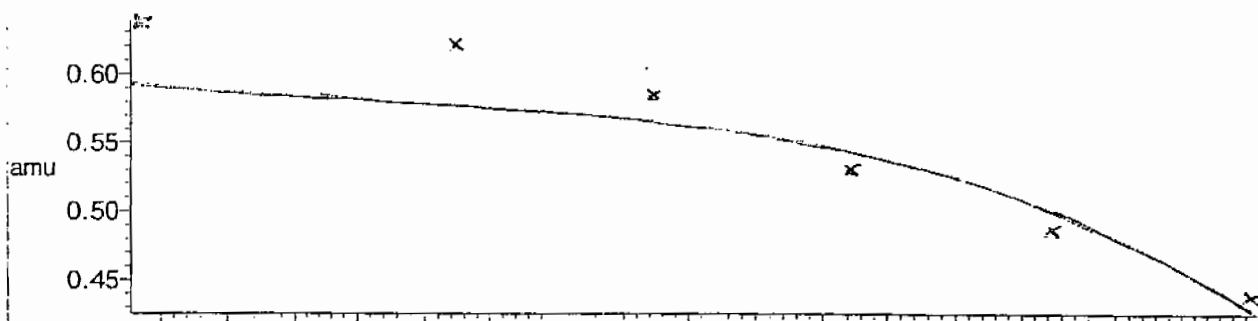
7 matches of 7 tested references



Reference file: Nairb

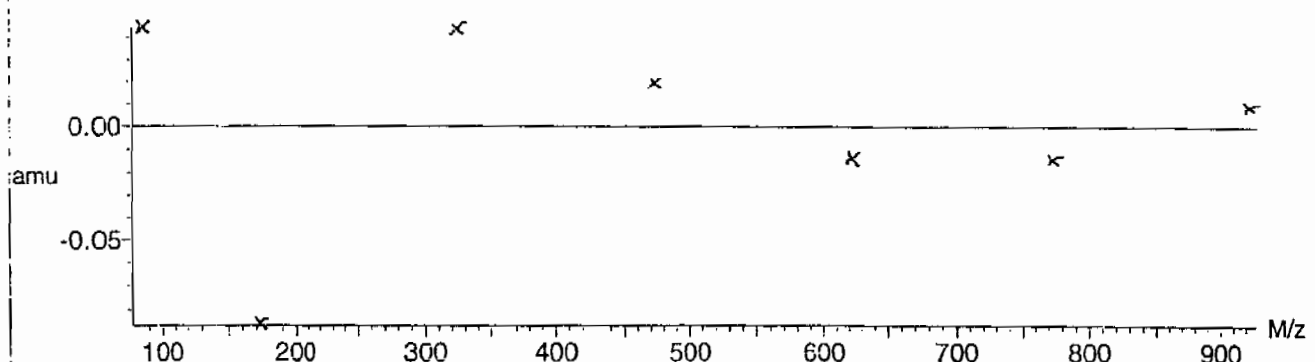


Mass difference (Raw - Ref mass)



Residuals

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





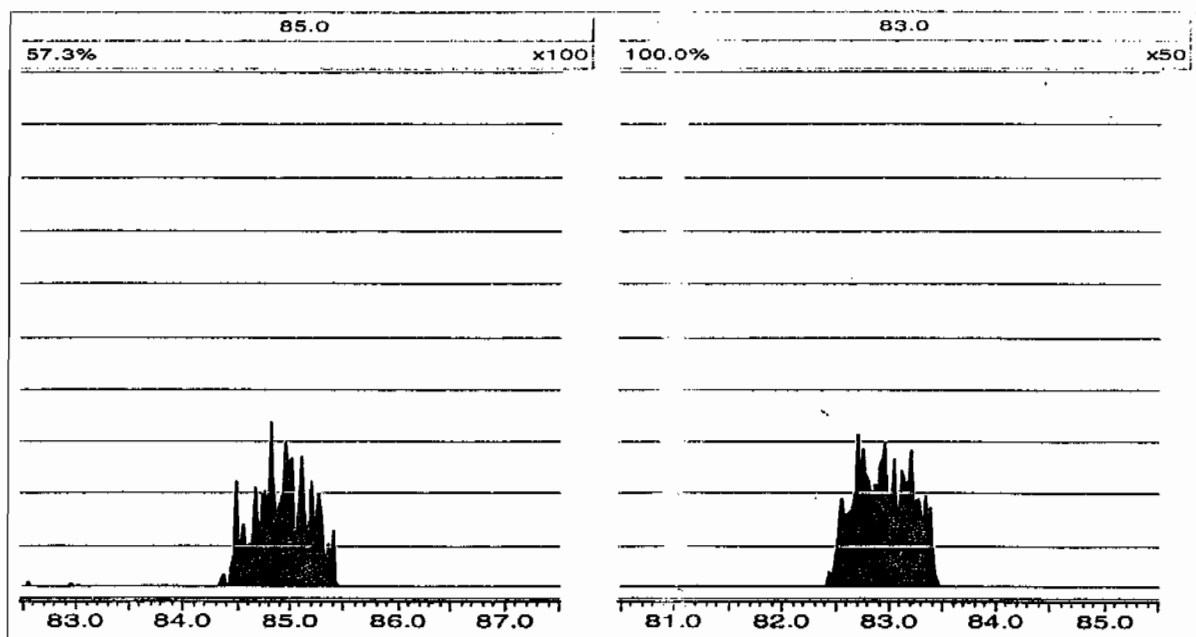
**Tune Parameters**

**MassLynx 4.0 SP4**

Page 1 of 1

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

Printed: Wednesday, March 17, 2010 09:48:37 Eastern Standard Time



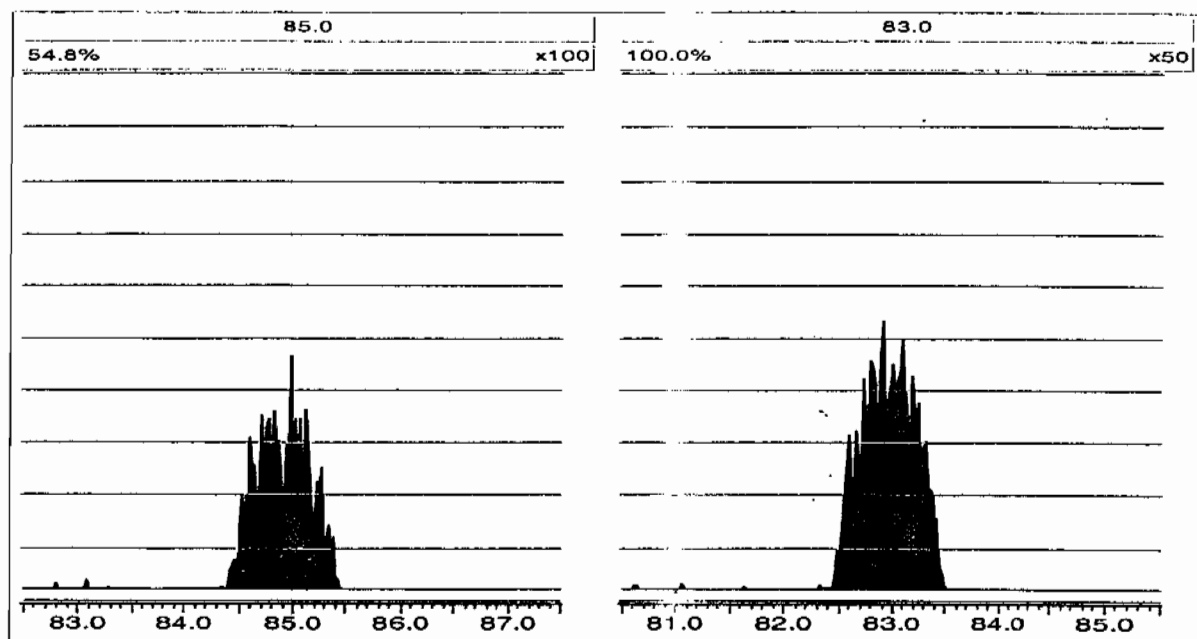
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

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

Printed: Thursday, March 18, 2010 08:59:42 Eastern Standard Time



Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2124

Lab Code: GEL

Instrument ID: LCMSMS

HP/LC 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	per0317006a	17-MAR-10	11903				
Lower Area Limit			5951.5				
Upper Area Limit			23806				
1202056692	per0317102a	18-MAR-10 01:32	11641.3	2.81	2.812	1.001	
1202056693	per0317103a	18-MAR-10 01:39	10940.3	2.8	2.82457	1.009	
1202056696	per0317104a	18-MAR-10 01:47	11788.6	2.84	2.84923	1.003	
248202001	per0317107a	18-MAR-10 02:10	11499.7	2.8	2.81202	1.004	

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-2124

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	per0318006a	18-MAR-10	10946.9				
Lower Area Limit			5473.45				
Upper Area Limit			21893.8				
248202002	per0318039a	18-MAR-10 20:10	10833.1	2.56	2.576	1.006	

# SAMPLE DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 959025  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-8282  
 Date Received: 26-FEB-10  
 GEL Job No (SDG): 10-2124  
 GEL Sample ID: 248202001  
 Date Filtered: 10-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 91.3

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.548	2.19	8.01	ug/kg		1	18-MAR-10 02:10	per0317107a
	Perchlorate Isotope Ratio			3.03			1	18-MAR-10 02:10	per0317107a
14797-73-0	Perchlorate-101	.548	2.19	7.97	ug/kg		1	18-MAR-10 02:10	per0317107a
	Perchlorate-O(18)			5.15	ug/kg		1	18-MAR-10 02:10	per0317107a

<sup>^</sup> 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\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Page Name: per0317107a

Date: 18-Mar-2010

Time: 02:10:36

ID: 248202001

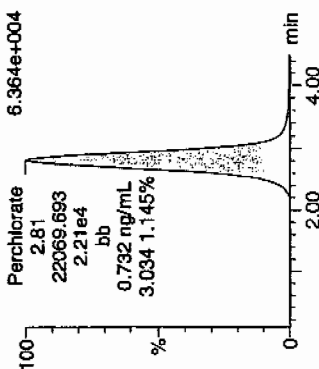
Vial: 3:1,F

03-18-10

1022 | 959029 | 5020 | 11

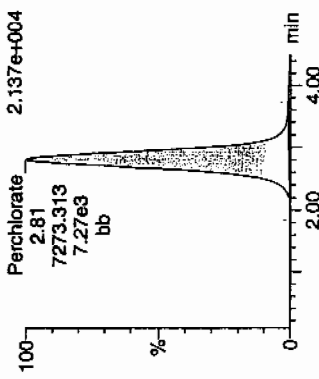
Perchlorate

MRM of 3 channels, ES-  
99 > 83  
6.364e+004



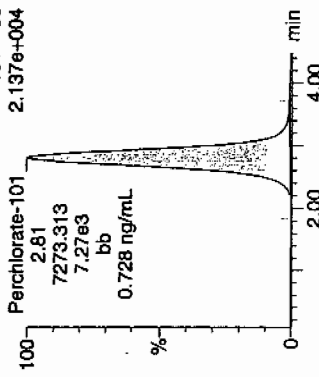
Perchlorate

MRM of 3 channels, ES-  
101 > 85  
2.137e+004



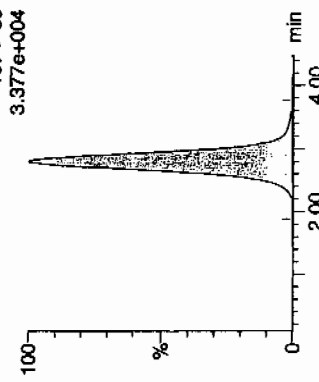
Perchlorate-101

MRM of 3 channels, ES-  
101 > 85  
2.137e+004



Perchlorate-O(18)

MRM of 3 channels, ES-  
107 > 89  
3.377e+004



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	pp/mL	%Rec	%Dev	IS/N	Ion Ratio
248202001	Perchlorate	99 > 83	2.81	22069.693	22069.693	bb			0.7316	94.01	-5.99	4568.3...	3.03
248202001	Perchlorate-101	101 > 85	2.81	7273.313	7273.313	bb			0.7275			4641.2...	
248202001	Perchlorate-O(18)	107 > 89	2.80	11499.679	11499.679	bb			0.4700			606.889	

22069.693 | 10 | 100  
30166.6 | 91.3 | 8.61

107  
3/12/10

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: 959025  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-8281  
 Date Received: 26-FEB-10  
 GEL Job No (SDG): 10-2124  
 GEL Sample ID: 248202002  
 Date Filtered: 10-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 73

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	2.74	10.9	30.4	ug/kg		4	18-MAR-10 20:10	per0318039a
	Perchlorate Isotope Ratio			3.12			4	18-MAR-10 20:10	per0318039a
14797-73-0	Perchlorate-101	2.74	10.9	30.5	ug/kg		4	18-MAR-10 20:10	per0318039a
	Perchlorate-O(18)			27.9	ug/kg		4	18-MAR-10 20:10	per0318039a

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

\*Concentration =

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



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

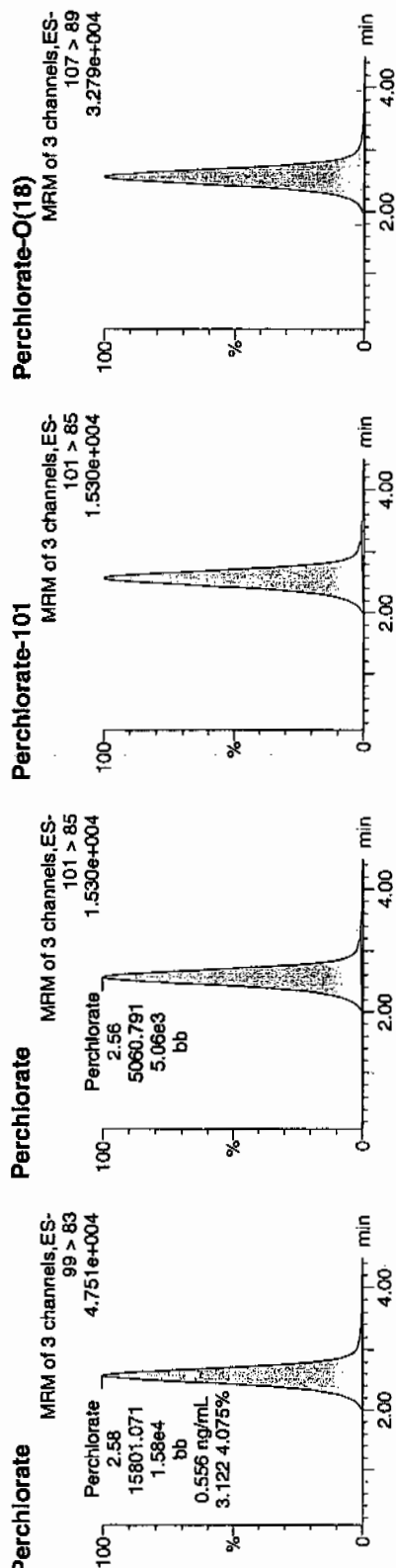
Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Page 374 of 214  
Sample Name: per0318039a  
Date: 18-Mar-2010  
Time: 20:10:33  
ID: 248202002  
Vial: 1:6,D

322  
03-14-10

15801.071 | 5060.791 | 10833.076 | 4 | 100



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248202002	Perchlorate	99 > 83	2.58	15801.071	15801.071	bb			0.5561	-		9292.3...	3.12
248202002	Perchlorate-101	101 > 85	2.56	5060.791	5060.791	bb			0.5574			584.233	
248202002	Perchlorate-O(18)	107 > 89	2.56	10833.076	10833.076	bb			0.5107	102.14	2.14	705.762	

= 2.22  
X4  
= 2.23  
MFT  
3/22/10

15801.071 | 10 | 4 | 100  
23413.1 | 73.1  
= 30.4

# STANDARDS DATA

Perchlorate Initial Calibration

GEL Job No.(SDG): 10-2124

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 17-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: 30166.58

Response Type: External Standard

Curve Type: RF

Perchlorate Initial Calibration

GEL Job No.(SDG): 10-2124

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 17-MAR-10

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

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

Parname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 9997.566

Response Type: External Standard

Curve Type: RF

# Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

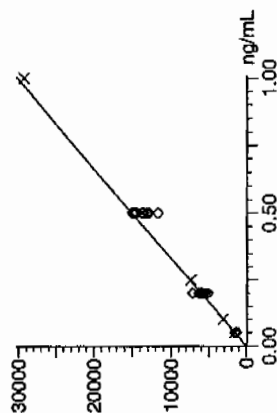
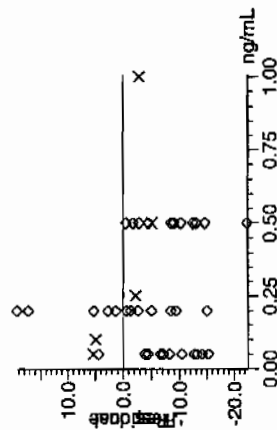
Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time

Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

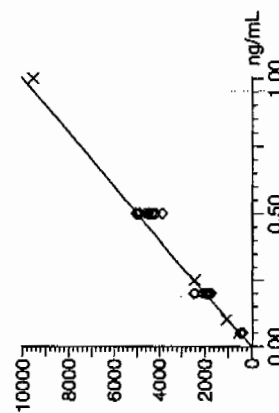
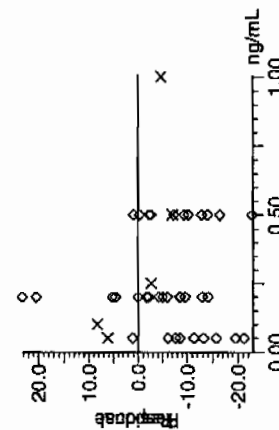
Method: C:\MassLynx\Perchlorate.PRO\MethDB\per031710a.mdb 18 Mar 2010 06:41:55  
 Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031710a.cdb 18 Mar 2010 06:42:10

Compound name: Perchlorate ✓  
 Response Factor: 30166.6 ✓  
 RRF SD: 1452.67, % Relative SD: 4.81549 ✓  
 Response type: External Std, Area  
 Curve type: RF ✓



03-18-10

Compound name: Perchlorate-101 ✓  
 Response Factor: 9997.56 ✓  
 RRF SD: 682.129, % Relative SD: 6.82295 ✓  
 Response type: External Std, Area  
 Curve type: RF ✓



03-18-10

# Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time

Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

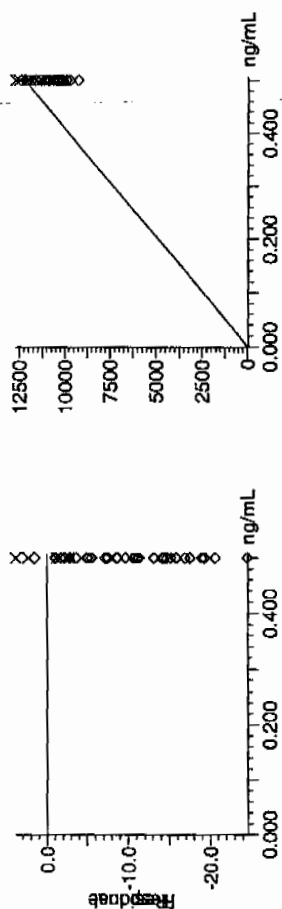
Compound name: Perchlorate-O(18)

Response Factor: 24465.9

RRF SD: 711.792, % Relative SD: 2.90933

Response type: External Std, Area

Curve type: RF



Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-2124

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 18-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: 28413.12  
 Response Type: External Standard  
 Curve Type: RF

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-2124

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 18-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: 9079.7

Response Type: External Standard

Curve Type: RF



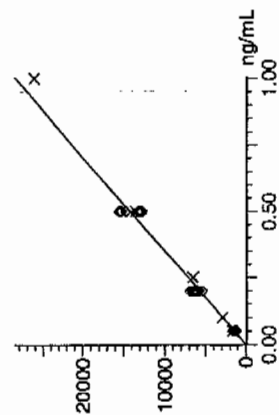
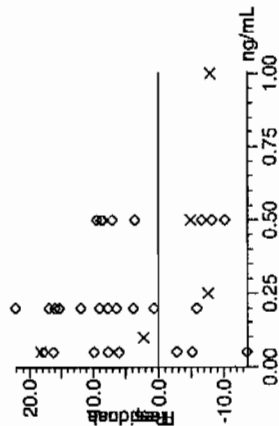
**Quantify Calibration Report MassLynx 4.0 SP4**  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

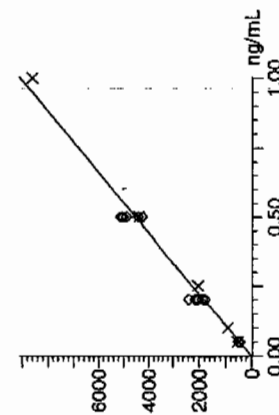
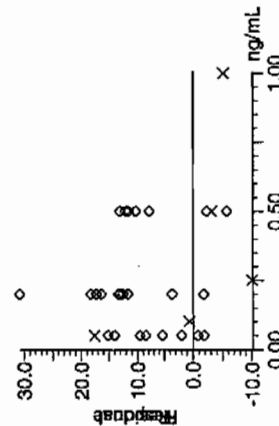
Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per031810a.mdb 19 Mar 2010 06:40:51  
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031810a.cdb 19 Mar 2010 06:42:20

Compound name: Perchlorate  
Response Factor: 28413.1  
RPF SD: 3130.27, % Relative SD: 11.017  
Response type: External Std, Area  
Curve type: RF



Compound name: Perchlorate-101  
Response Factor: 9079.7  
RPF SD: 961.652, % Relative SD: 10.5912  
Response type: External Std, Area  
Curve type: RF



03-19-10

3/23/10

# Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time

Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

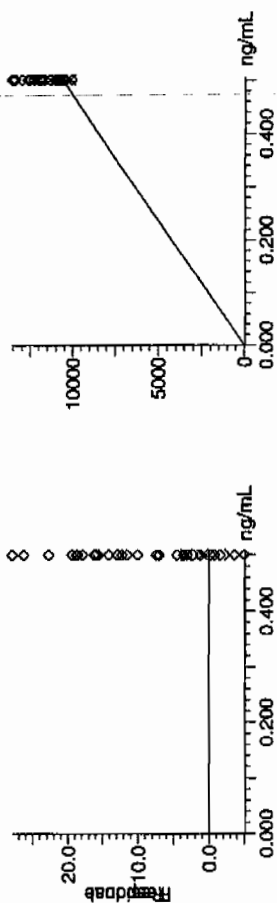
Compound name: Perchlorate-O(18) ✓

Response Factor: 21212.5

RRF SD: 738.389, % Relative SD: 3.48092

Response type: External Std, Area

Curve type: RF



Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2124

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	98.16	17-MAR-10 13:46	per0317009a
Perchlorate Isotope Ratio		3.03		17-MAR-10 13:46	per0317009a
Perchlorate-101	.5	.49	97.84	17-MAR-10 13:46	per0317009a
Perchlorate	.5	.46	91.79	18-MAR-10 16:22	per0318009a
Perchlorate Isotope Ratio		3.05		18-MAR-10 16:22	per0318009a
Perchlorate-101	.5	.47	94.29	18-MAR-10 16:22	per0318009a

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317009a

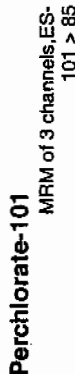
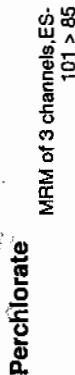
Date: 17-Mar-2010

Time: 13:46:56

ID: WCL100309-06ICV

Vial: 1:2,A

*Perchlorate  
03-18-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06ICV	Perchlorate	99 > 83	2.94	14806.320	14806.320	bb			0.4908	98.16	-1.84	874.258	3.03
WCL100309-06ICV	Perchlorate-101	101 > 85	2.92	4890.624	4890.624	bb			0.4892	97.84	-2.16	367.271	
WCL100309-06ICV	Perchlorate-O(18)	107 > 89	2.91	11599.337	11599.337	bb			0.4741	94.82	-5.18	1729.0...	

$$\frac{14806.320}{30166.6} = 0.4908$$

*14806.320  
3/18/10*

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample Name: per0318009a

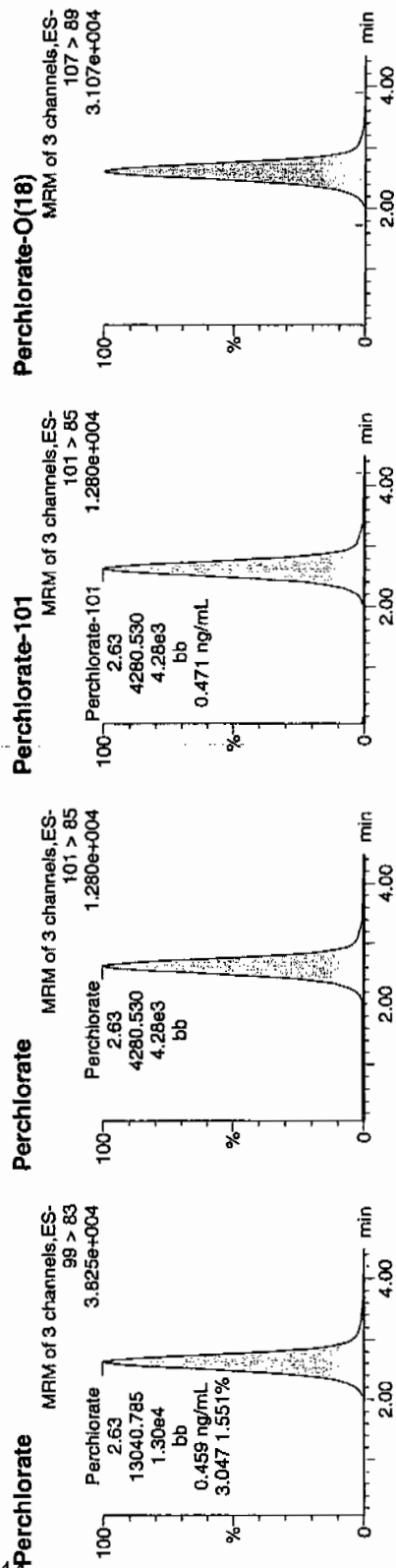
Date: 18-Mar-2010

Time: 16:22:53

ID: WCL100318-06ICV

Vial: 1:2,A

*Per*  
*03-15-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	pg/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06ICV	Perchlorate	99 > 83	2.63	13040.785	13040.785	bb			0.4590	91.79	-8.21	1141.4...	3.06
WCL100318-06ICV	Perchlorate-101	101 > 85	2.63	4280.530	4280.530	bb			0.4714	94.29	-5.71	797.830	
WCL100318-06ICV	Perchlorate-O(18)	107 > 89	2.61	10520.682	10520.682	bb			0.4960	99.19	-0.81	757.902	

$\frac{13040.785}{28413.1} = 0.4590$

*107*  
*3/15/10*

Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2124

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.48	17-MAR-10 15:24	per0317022a
Perchlorate Isotope Ratio		2.98		17-MAR-10 15:24	per0317022a
Perchlorate-101	.5	.5	100.88	17-MAR-10 15:24	per0317022a
Perchlorate	.5	.49	97.11	17-MAR-10 17:03	per0317035a
Perchlorate Isotope Ratio		2.94		17-MAR-10 17:03	per0317035a
Perchlorate-101	.5	.5	99.67	17-MAR-10 17:03	per0317035a
Perchlorate	.5	.43	85.3	17-MAR-10 18:41	per0317048a
Perchlorate Isotope Ratio		2.99		17-MAR-10 18:41	per0317048a
Perchlorate-101	.5	.43	86	17-MAR-10 18:41	per0317048a
Perchlorate	.5	.45	90.94	17-MAR-10 20:12	per0317060a
Perchlorate Isotope Ratio		3.15		17-MAR-10 20:12	per0317060a
Perchlorate-101	.5	.44	87.13	17-MAR-10 20:12	per0317060a
Perchlorate	.5	.45	89.72	17-MAR-10 21:35	per0317071a

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2124

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.02		17-MAR-10 21:35	per0317071a
Perchlorate-101	.5	.45	89.75	17-MAR-10 21:35	per0317071a
Perchlorate	.5	.48	95.44	18-MAR-10 00:53	per0317097a
Perchlorate Isotope Ratio		2.96		18-MAR-10 00:53	per0317097a
Perchlorate-101	.5	.49	97.35	18-MAR-10 00:53	per0317097a
Perchlorate	.5	.44	87.51	18-MAR-10 02:33	per0317110a
Perchlorate Isotope Ratio		2.91		18-MAR-10 02:33	per0317110a
Perchlorate-101	.5	.45	90.62	18-MAR-10 02:33	per0317110a
Perchlorate	.5	.45	89.82	18-MAR-10 18:01	per0318022a
Perchlorate Isotope Ratio		2.88		18-MAR-10 18:01	per0318022a
Perchlorate-101	.5	.49	97.72	18-MAR-10 18:01	per0318022a
Perchlorate	.5	.47	93.41	18-MAR-10 19:40	per0318035a
Perchlorate Isotope Ratio		3.1		18-MAR-10 19:40	per0318035a

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2124

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate-101	.5	.47	94.42	18-MAR-10 19:40	per0318035a
Perchlorate	.5	.52	103.6	18-MAR-10 21:18	per0318048a
Perchlorate Isotope Ratio		2.94		18-MAR-10 21:18	per0318048a
Perchlorate-101	.5	.55	110.37	18-MAR-10 21:18	per0318048a



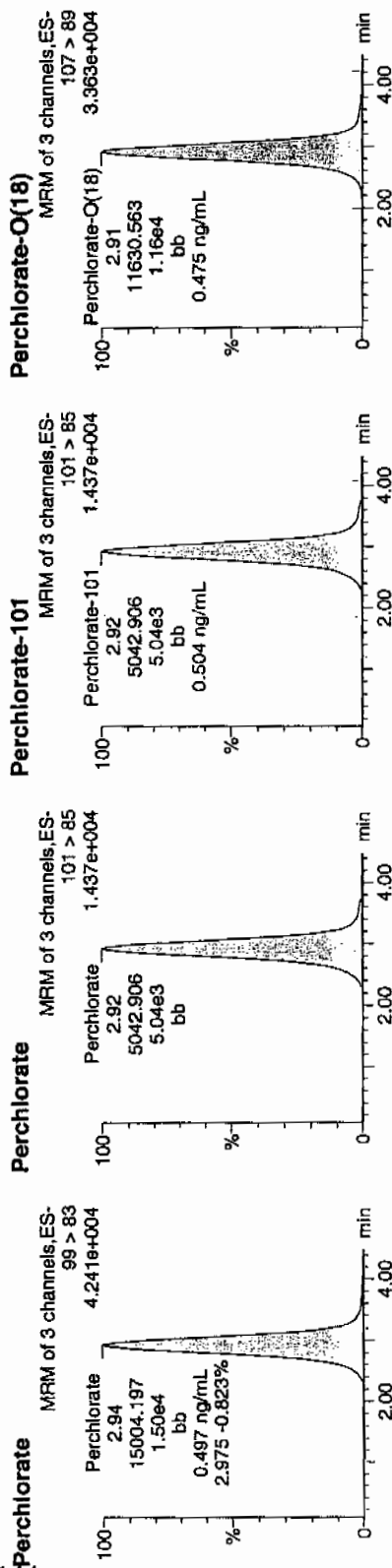
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317022a  
Date: 17-Mar-2010  
Time: 15:24:59  
ID: WCL100309-06CCV  
Vial: 1:2,A

*Run and 03-18-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	2.94	15004.197	15004.197	bb			0.4974	99.48	-0.52	18691...	2.98
WCL100309-06CCV	Perchlorate-101	101 > 85	2.92	5042.906	5042.906	bb			0.5044	100.88	0.88	3910.1...	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	2.91	11630.563	11630.563	bb			0.4754	95.08	-4.92	2192.8...	

*3/19/10*

# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
 Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317035a

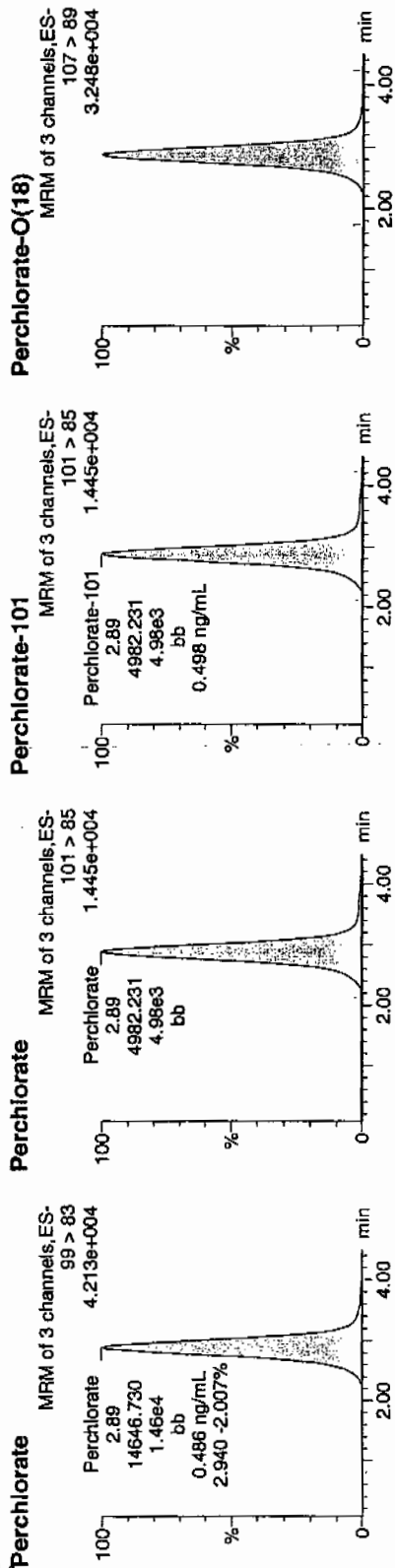
Date: 17-Mar-2010

Time: 17:03:19

File: WCL100309-06CCV

Vial: 1:2,A

*Per  
 and  
 03-18-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	2.89	14646.730	14646.730	bb			0.4855	97.11	-2.89	1013.0...	2.94
WCL100309-06CCV	Perchlorate-101	101 > 85	2.89	4982.231	4982.231	bb			0.4983	99.67	-0.33	691.588	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	2.87	11312.128	11312.128	bb			0.4624	92.47	-7.53	2298.4...	

*μAT  
 3/18/10*

# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
 Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Sample Name: per0317048a

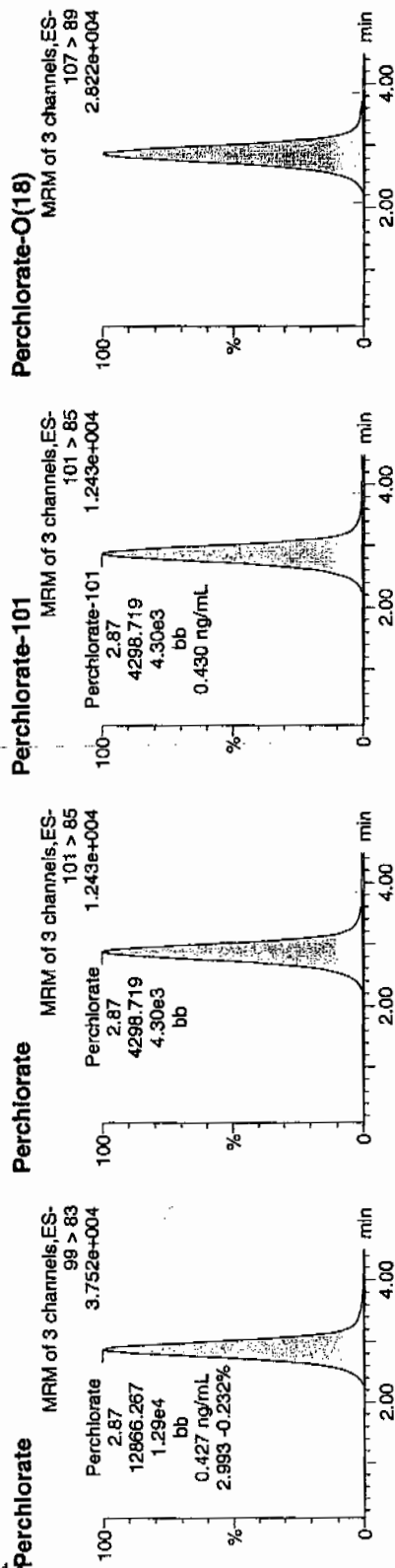
Date: 17-Mar-2010

Time: 18:41:31

ID: WCL100309-06CCV

Vial: 1:2,A

*Perchlorate*  
*03-18-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	2.87	12866.267	12866.267	bb			0.4265	85.30	-14.70	1582.9...	2.99
WCL100309-06CCV	Perchlorate-101	101 > 85	2.87	4298.719	4298.719	bb			0.4300	86.00	-14.00	2119.9...	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	2.86	9874.795	9874.795	bb			0.4036	80.72	-19.28	3979.0...	

*3/19/10*

# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qid

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317060a

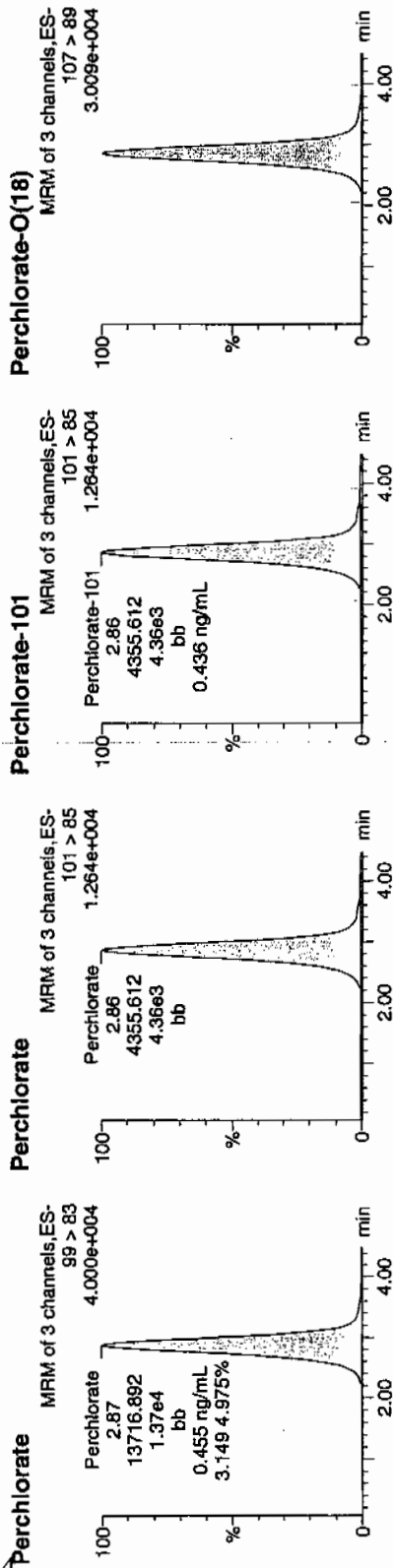
Date: 17-Mar-2010

Time: 20:12:22

QID: WCL100309-06CCV

Vial: 1:2,A

Pure  
623  
03-18-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	2.87	13716.892	13716.892	bb			0.4547	90.94	-9.06	1028.1...	3.15
WCL100309-06CCV	Perchlorate-101	101 > 85	2.86	4355.612	4355.612	bb			0.4357	87.13	-12.87	1252.0...	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	2.85	10377.737	10377.737	bb			0.4242	84.83	-15.17	6302.5...	

447  
3/18/10

# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
 Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317071a

Date: 17-Mar-2010

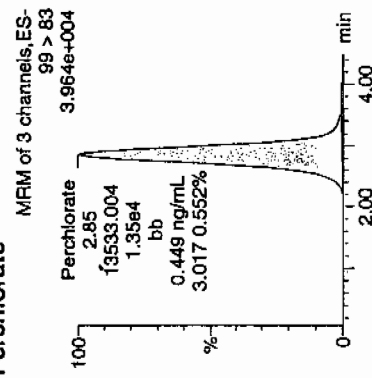
Time: 21:35:43

ID: WCL100309-06CCV

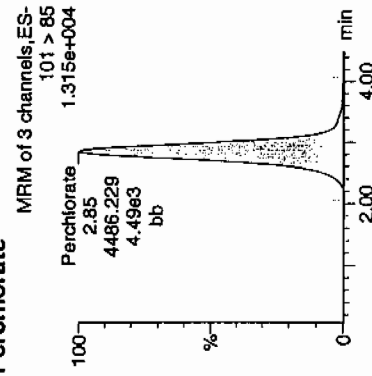
Vial: 1:2,A

*Per*  
*03-18-10*

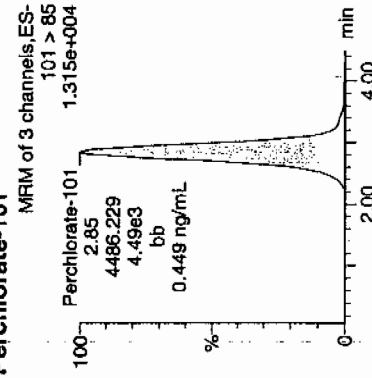
## Perchlorate



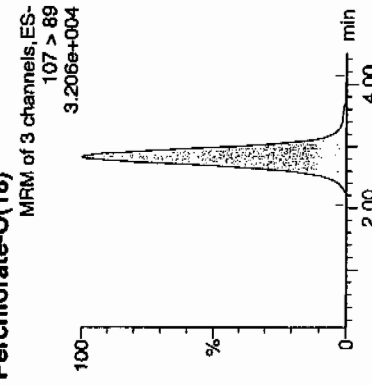
## Perchlorate



## 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	2.85	13533.004	13533.004	bb			0.4486	89.72	-10.28	903.937	3.02
WCL100309-06CCV	Perchlorate-101	101 > 85	2.85	4486.229	4486.229	bb			0.4487	89.75	-10.25	4052.6...	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	2.84	10904.428	10904.428	bb			0.4457	89.14	-10.86	1708.8...	

*WCL*  
*3/19/10*

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Sample Name: per0317097a

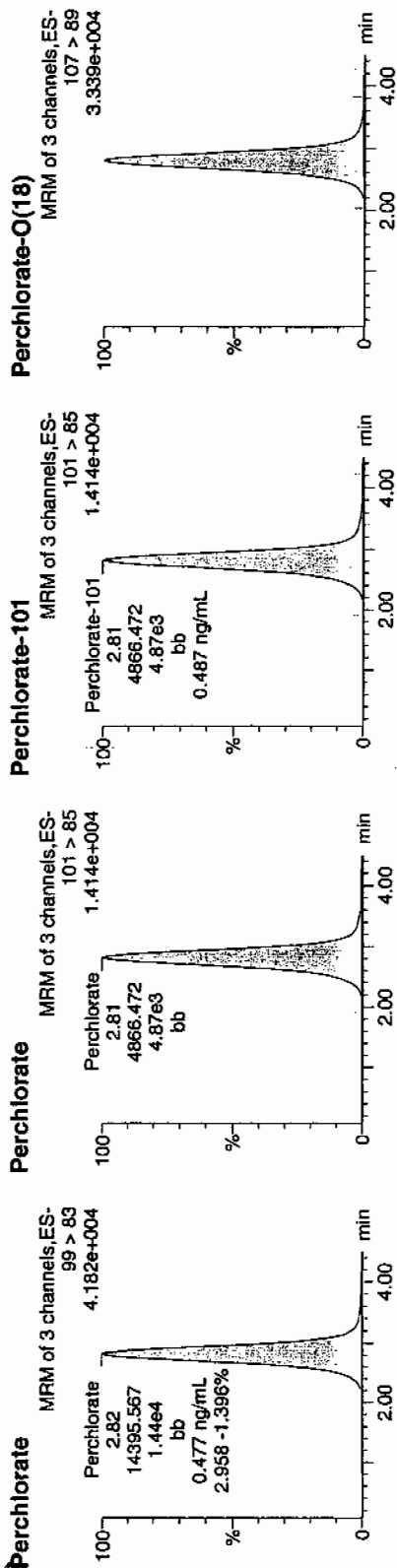
Date: 18-Mar-2010

Time: 00:53:21

ID: WCL100309-06CCV

Vial: 1:2,A

*Perchlorate*  
*03-18-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	2.82	14395.567	14395.567	bb			0.4772	95.44	-4.56	5996.4...	2.96
WCL100309-06CCV	Perchlorate-101	101 > 85	2.81	4866.472	4866.472	bb			0.4868	97.35	-2.65	452.046	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	2.80	11349.774	11349.774	bb			0.4639	92.78	-7.22	7101.6...	

*3/19/10*

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Sample Name: per0317110a

Date: 18-Mar-2010

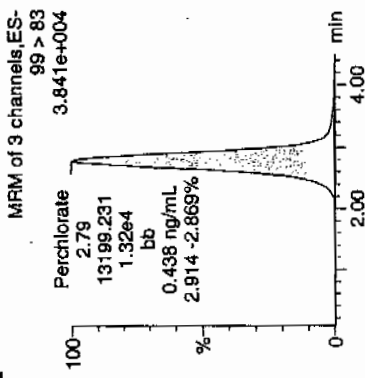
Time: 02:33:28

ID: WCL100309-06CCV

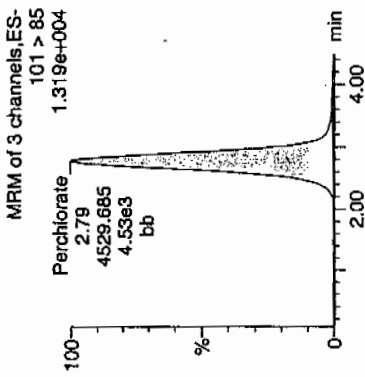
Vial: 1:2,A

*Run and 03-18-10*

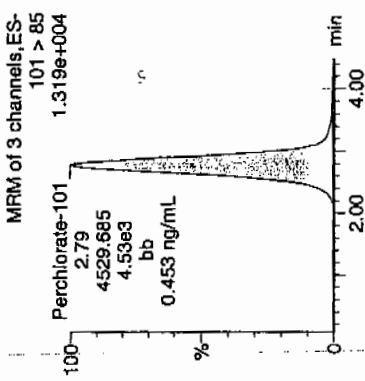
Perchlorate



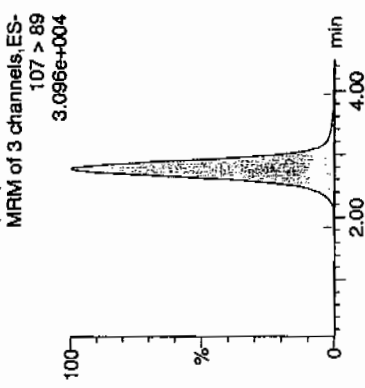
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	2.79	13199.231	13199.231	bb			0.4375	87.51	-12.49	2241.7...	2.91
WCL100309-06CCV	Perchlorate-101	101 > 85	2.79	4529.685	4529.685	bb			0.4531	90.62	-9.38	2518.5...	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	2.77	10472.685	10472.685	bb			0.4281	85.61	-14.39	2693.5...	

*3/18/10*

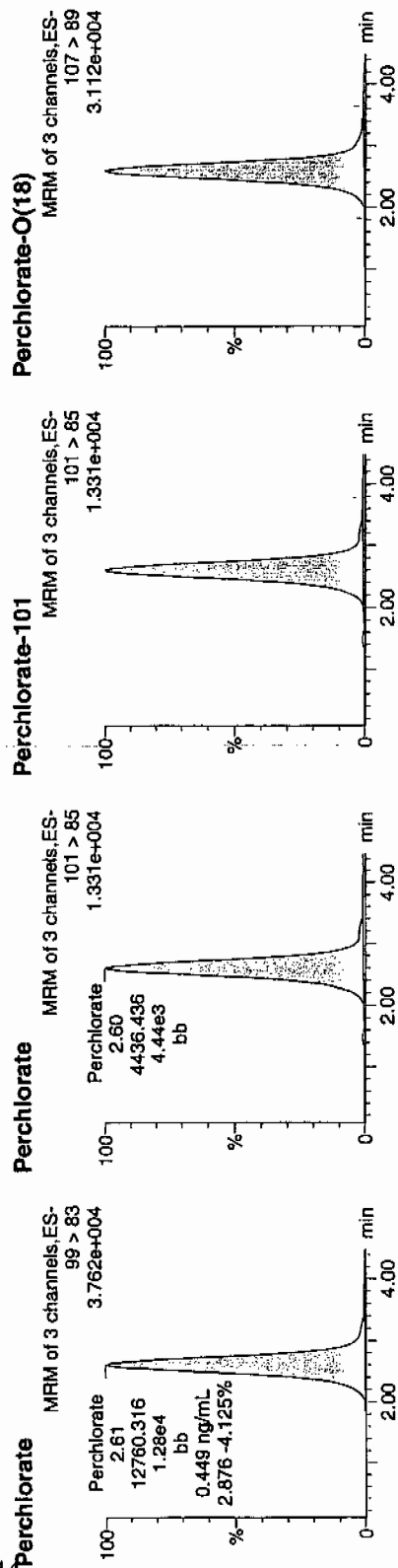
# Quantify Sample Report MassLynx 4.0 SP4 The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Name: per0318022a  
Date: 18-Mar-2010  
Time: 18:01:32  
ID: WCL100318-06CCV  
Vial: 1:2,A

Pure  
0.449  
03-14-10



ID	Name	Trace	RT	Area	Response	Flags	Mod. Date	Mod. Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	2.61	12760.316	12760.316	bb			0.4491	89.82	-10.18	4991.8...	2.88
WCL100318-06CCV	Perchlorate-101	101 > 85	2.60	4436.436	4436.436	bb			0.4886	97.72	-2.28	1099.8...	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	2.59	10436.040	10436.040	bb			0.4920	98.40	-1.60	1243.0...	

$$\frac{12760.316}{4436.436} = 2.8763$$

107  
3/12/10



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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Page Name: per0318035a

Date: 18-Mar-2010

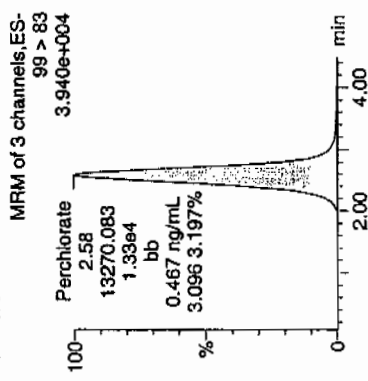
Time: 19:40:15

QID: WCL100318-06CCV

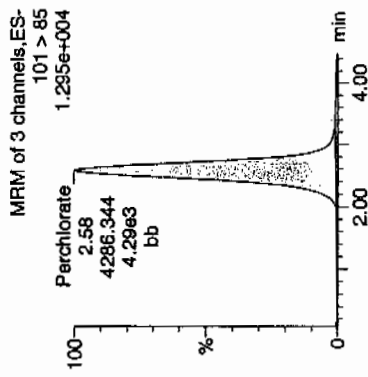
Vial: 1:2,A

*Rep  
03-19-10*

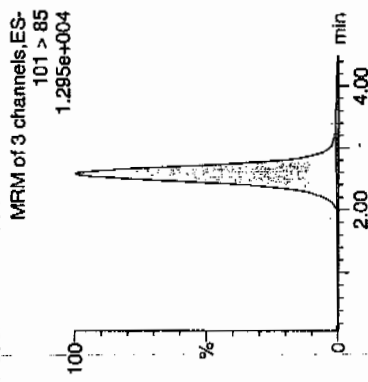
**Perchlorate**



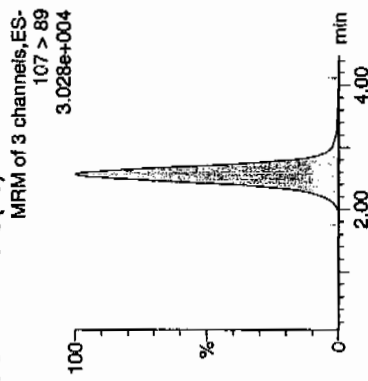
**Perchlorate**



**Perchlorate-101**



**Perchlorate-O(18)**



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	2.58	13270.083	13270.083	bb			0.4670	93.41	-6.59	1092.7...	3.10
WCL100318-06CCV	Perchlorate-101	101 > 85	2.58	4286.344	4286.344	bb			0.4721	94.42	-5.58	594.417	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	2.56	10071.807	10071.807	bb			0.4748	94.96	-5.04	5666.7...	

*WCL  
3/20/10*

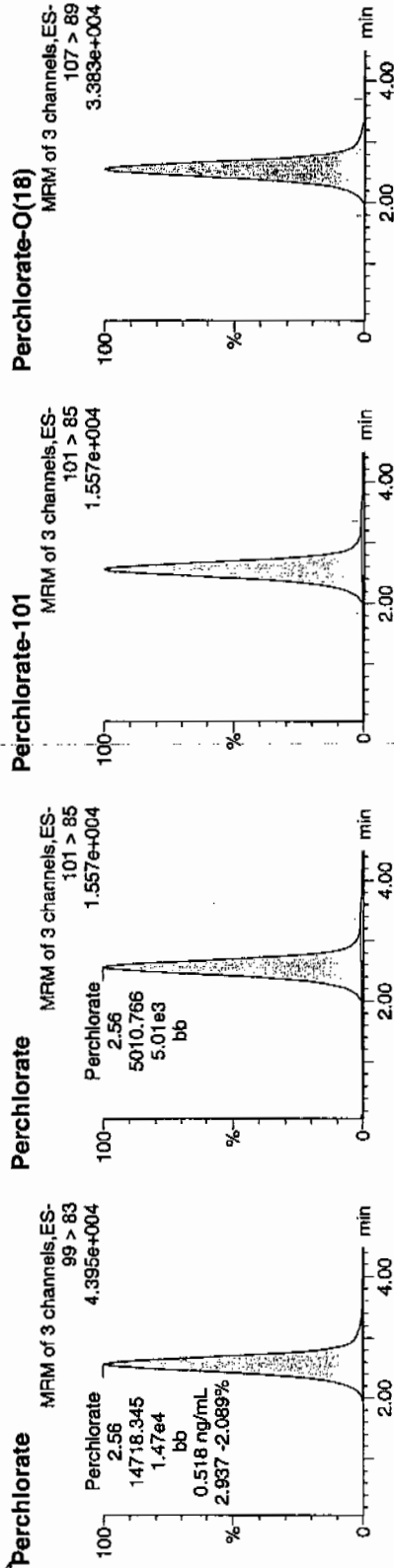
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample Name: per0318048a  
Date: 18-Mar-2010  
Time: 21:18:57  
ID: WCL100318-06CCV  
Vial: 1:2,A

*Per*  
*ans*  
*03-14-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod. Date	Mod. Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	2.56	14718.345	14718.345	bb			0.5180	103.60	3.60	1990.5...	2.94
WCL100318-06CCV	Perchlorate-101	101 > 85	2.56	5010.766	5010.766	bb			0.5519	110.37	10.37	542.237	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	2.55	11348.905	11348.905	bb			0.5350	107.00	7.00	292.517	

*not*  
*3/20/10*

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2124

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	104.44	17-MAR-10 14:02	per0317011a
Perchlorate Isotope Ratio		3.11		17-MAR-10 14:02	per0317011a
Perchlorate-101	.05	.05	101.19	17-MAR-10 14:02	per0317011a
Perchlorate	.05	.05	95.63	17-MAR-10 15:40	per0317024a
Perchlorate Isotope Ratio		3.07		17-MAR-10 15:40	per0317024a
Perchlorate-101	.05	.05	93.85	17-MAR-10 15:40	per0317024a
Perchlorate	.05	.05	91.8	17-MAR-10 17:18	per0317037a
Perchlorate Isotope Ratio		3.19		17-MAR-10 17:18	per0317037a
Perchlorate-101	.05	.04	86.81	17-MAR-10 17:18	per0317037a
Perchlorate	.05	.04	84.73	17-MAR-10 18:56	per0317050a
Perchlorate Isotope Ratio		3.18		17-MAR-10 18:56	per0317050a

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2124

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate-101	.05	.04	80.5	17-MAR-10 18:56	per0317050a
Perchlorate	.05	.04	89.56	17-MAR-10 20:27	per0317062a
Perchlorate Isotope Ratio		3.04		17-MAR-10 20:27	per0317062a
Perchlorate-101	.05	.04	88.78	17-MAR-10 20:27	per0317062a
Perchlorate	.05	.04	87.3	17-MAR-10 21:51	per0317073a
Perchlorate Isotope Ratio		3.03		17-MAR-10 21:51	per0317073a
Perchlorate-101	.05	.04	86.93	17-MAR-10 21:51	per0317073a
Perchlorate	.05	.05	96.16	18-MAR-10 01:08	per0317099a
Perchlorate Isotope Ratio		3.14		18-MAR-10 01:08	per0317099a
Perchlorate-101	.05	.05	92.31	18-MAR-10 01:08	per0317099a
Perchlorate	.05	.04	85.91	18-MAR-10 02:48	per0317112a

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2124

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.29			18-MAR-10 02:48	per0317112a
Perchlorate-101	.05	.04		78.9	18-MAR-10 02:48	per0317112a
Perchlorate	.05	.05		94.91	18-MAR-10 16:38	per0318011a
Perchlorate Isotope Ratio		2.91			18-MAR-10 16:38	per0318011a
Perchlorate-101	.05	.05		101.99	18-MAR-10 16:38	per0318011a
Perchlorate	.05	.04		86.41	18-MAR-10 18:16	per0318024a
Perchlorate Isotope Ratio		2.75			18-MAR-10 18:16	per0318024a
Perchlorate-101	.05	.05		98.17	18-MAR-10 18:16	per0318024a
Perchlorate	.05	.05		97.21	18-MAR-10 19:55	per0318037a
Perchlorate Isotope Ratio		2.89			18-MAR-10 19:55	per0318037a
Perchlorate-101	.05	.05		105.34	18-MAR-10 19:55	per0318037a

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

GEL Job No.(SDG): 10-2124

Perchlorate	.05	.06	117.92	18-MAR-10 21:34	per0318050a
Perchlorate Isotope Ratio		3.4		18-MAR-10 21:34	per0318050a
Perchlorate-101	.05	.05	108.54	18-MAR-10 21:34	per0318050a

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

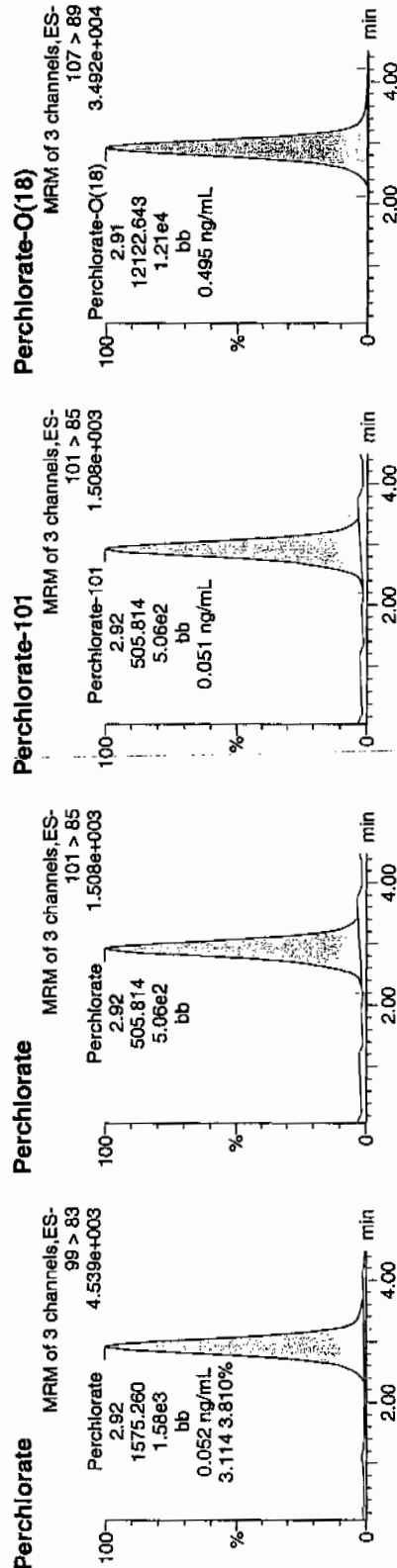
Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317011a  
Date: 17-Mar-2010  
Time: 14:02:01  
ID: WCL100309-07CRI  
Vial: 1:2,B

Page 404 of 2144

*Perchlorate  
and  
03-13-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	2.92	1575.260	1575.260	bb			0.0522	104.44	4.44	674.497	3.11
WCL100309-07CRI	Perchlorate-101	101 > 85	2.92	505.814	505.814	bb			0.0506	101.19	1.19	125.982	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	2.91	12122.643	12122.643	bb			0.4955	99.10	-0.90	2232.7...	

$\frac{1575.260}{30166.6} = 0.0522$

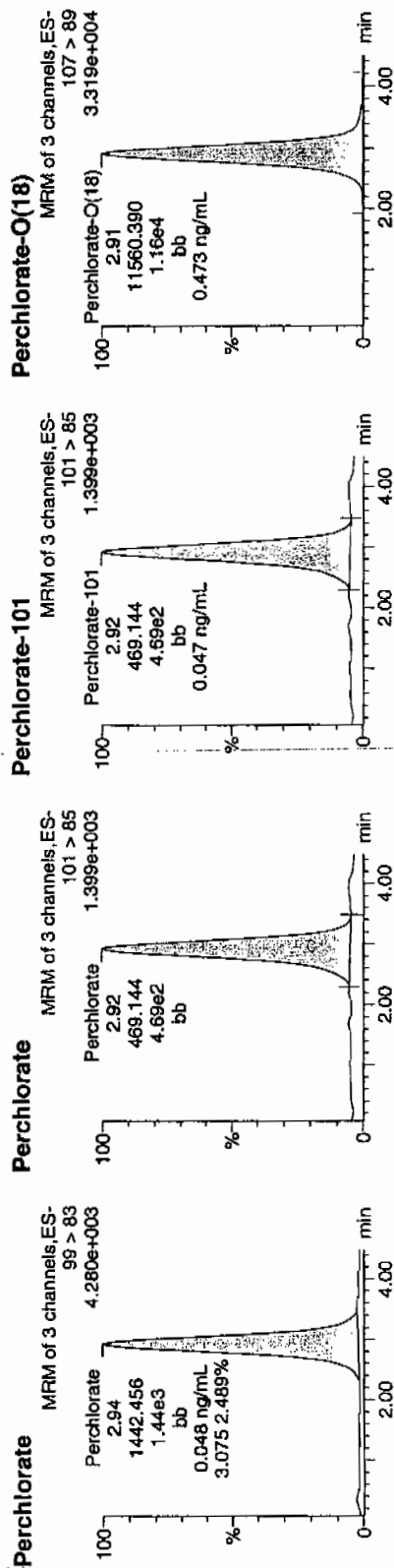
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317024a  
Date: 17-Mar-2010  
Time: 15:40:03  
ID: WCL100309-07CRI  
Vial: 1:2,B

Pure  
and  
03-12-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	2.94	1442.456	1442.456	bb			0.0478	95.63	-4.37	418.773	3.07
WCL100309-07CRI	Perchlorate-101	101 > 85	2.92	469.144	469.144	bb			0.0469	93.85	-6.15	48.974	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	2.91	11560.390	11560.390	bb			0.4725	94.50	-5.50	2604.3...	

MA  
3/12/10



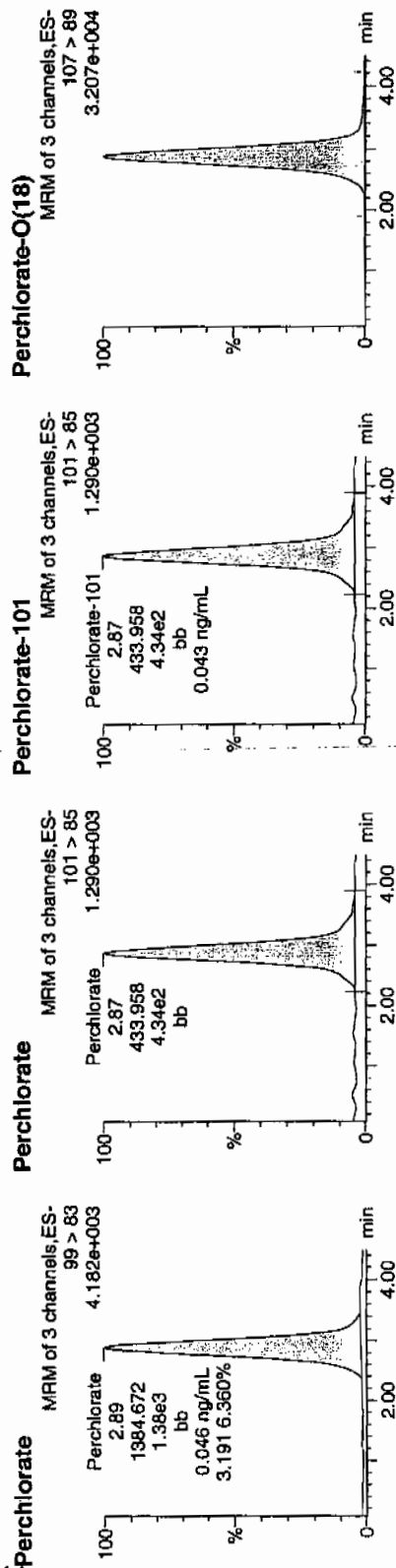
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Page Name: per0317037a  
Date: 17-Mar-2010  
Time: 17:18:24  
ID: WCL100309-07CRI  
Vial: 1:2,B

*Per  
WCL  
03-18-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	2.89	1384.672	1384.672	bb			0.0459	91.80	-8.20	471.637	3.19
WCL100309-07CRI	Perchlorate-101	101 > 85	2.87	433.958	433.958	bb			0.0434	88.81	-13.19	58.874	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	2.87	11047.777	11047.777	bb			0.4516	90.31	-9.69	2941.1...	

*WCL  
3/19/10*

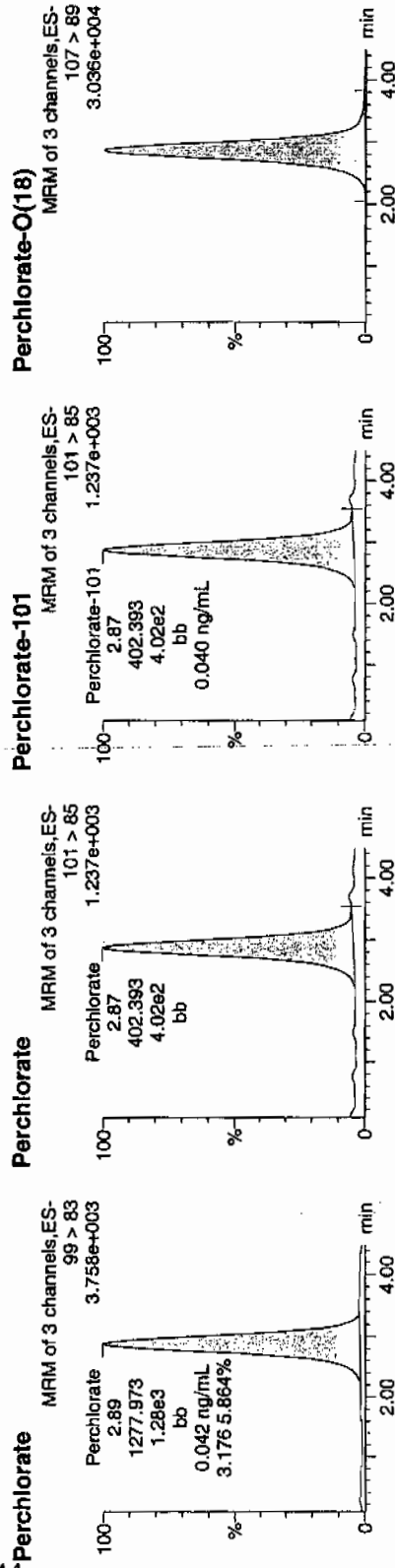
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317050a  
Date: 17-Mar-2010  
Time: 18:56:50  
ID: WCL100309-07CRI  
Vial: 1:2,B

Pure  
03-18-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	2.89	1277.973	1277.973	bb			0.0424	84.73	-15.27	450.404	3.18
WCL100309-07CRI	Perchlorate-101	101 > 85	2.87	402.393	402.393	bb			0.0402	80.50	-19.50	103.552	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	2.86	10435.741	10435.741	bb			0.4265	85.31	-14.69	2828.1...	

MAJ  
3/19/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317062a

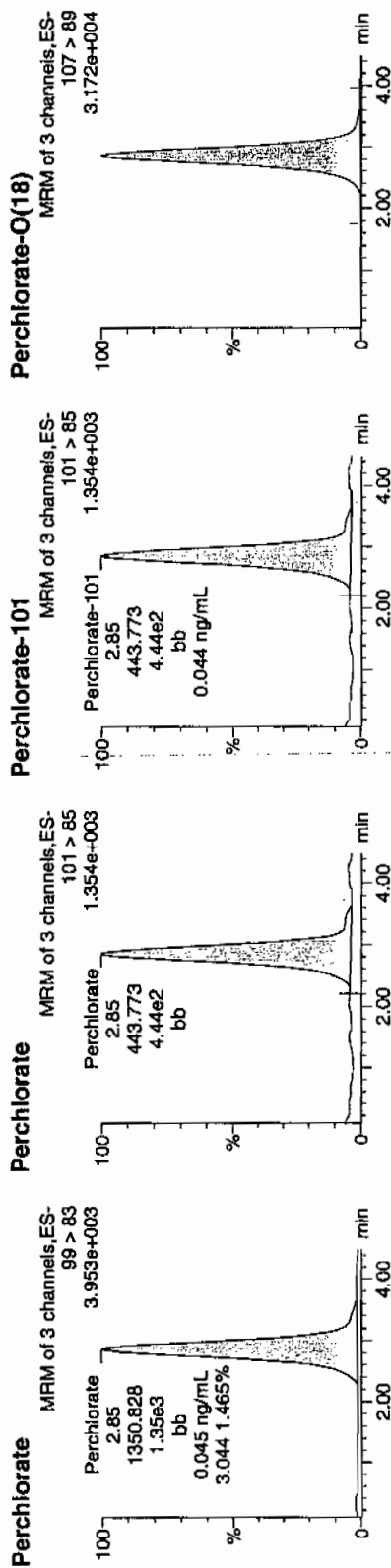
Date: 17-Mar-2010

Time: 20:27:41

ID: WCL100309-07CRI

Vial: 1:2,B

*Per*  
*and*  
*03-18-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	2.85	1350.828	1350.828	bb			0.0448	89.56	-10.44	210.610	3.04
WCL100309-07CRI	Perchlorate-101	101 > 85	2.85	443.773	443.773	bb			0.0444	88.76	-11.22	265.448	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	2.85	10841.560	10841.560	bb			0.4431	88.63	-11.37	2115.4...	

*μmP*  
*3/19/10*

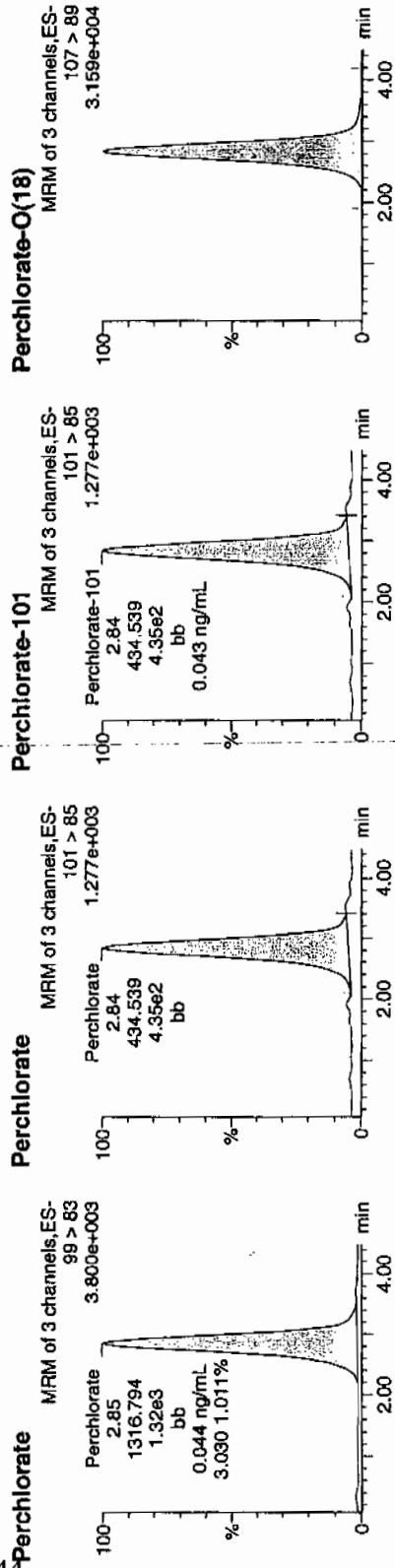
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317073a  
Date: 17-Mar-2010  
Time: 21:51:02  
ID: WCL100309-07CRI  
Vial: 1:2,B

*Per  
and 18.10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	2.85	1316.794	1316.794	bb			0.0437	87.30	-12.70	331.087	3.03
WCL100309-07CRI	Perchlorate-101	101 > 85	2.84	434.539	434.539	bb			0.0435	86.93	-13.07	487.901	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	2.84	10850.195	10850.195	bb			0.4435	88.70	-11.30	5066.6...	

*MW  
3/18/10*

# Quantify Sample Report MassLynx 4.0 SP4

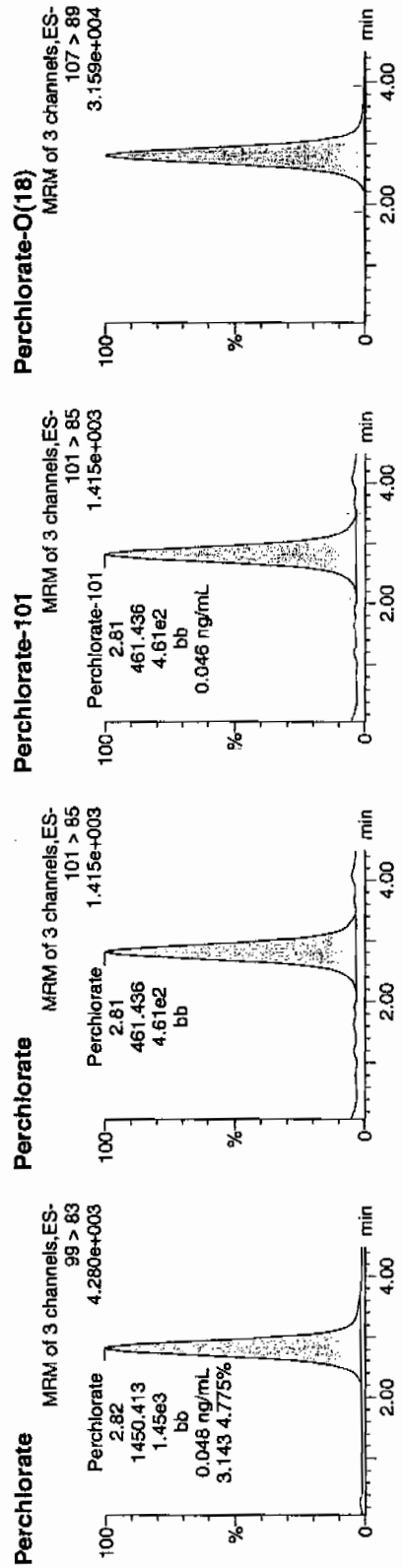
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
 Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317099a  
 Date: 18-Mar-2010  
 Time: 01:08:40  
 ID: WCL100309-07CRI  
 Vial: 1:2,B

*Pass*  
*03-18-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	2.82	1450.413	1450.413	bb			0.0481	96.16	-3.84	1275.8...	3.14
WCL100309-07CRI	Perchlorate-101	101 > 85	2.81	461.436	461.436	bb			0.0462	92.31	-7.69	140.989	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	2.80	10874.311	10874.311	bb			0.4445	88.89	-11.11	337.408	

*3/19/10*

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317112a

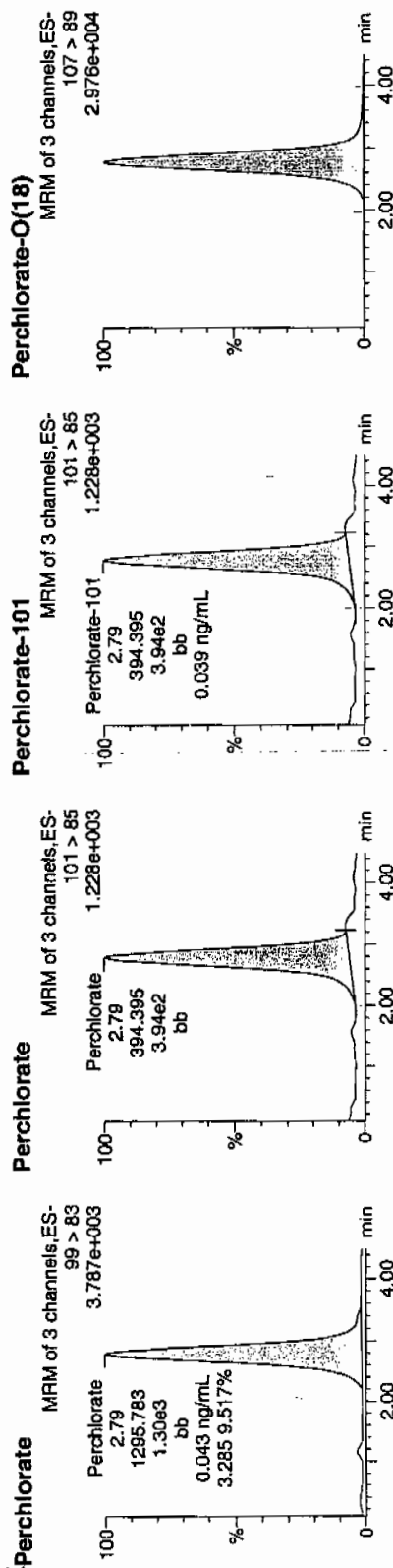
Date: 18-Mar-2010

Time: 02:48:45

ID: WCL100309-07CRI

Vial: 1:2,B

Per  
03-18-10



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	2.79	1295.783	1295.783	bb			0.0430	85.91	-14.09	116.822	3.29
WCL100309-07CRI	Perchlorate-101	101 > 85	2.79	394.395	394.395	bb			0.0394	78.90	-21.10	124.980	
WCL100309-07CRI	Perchlorate-Q(18)	107 > 89	2.77	10304.230	10304.230	bb			0.4212	84.23	-15.77	3068.9...	

3/19/10

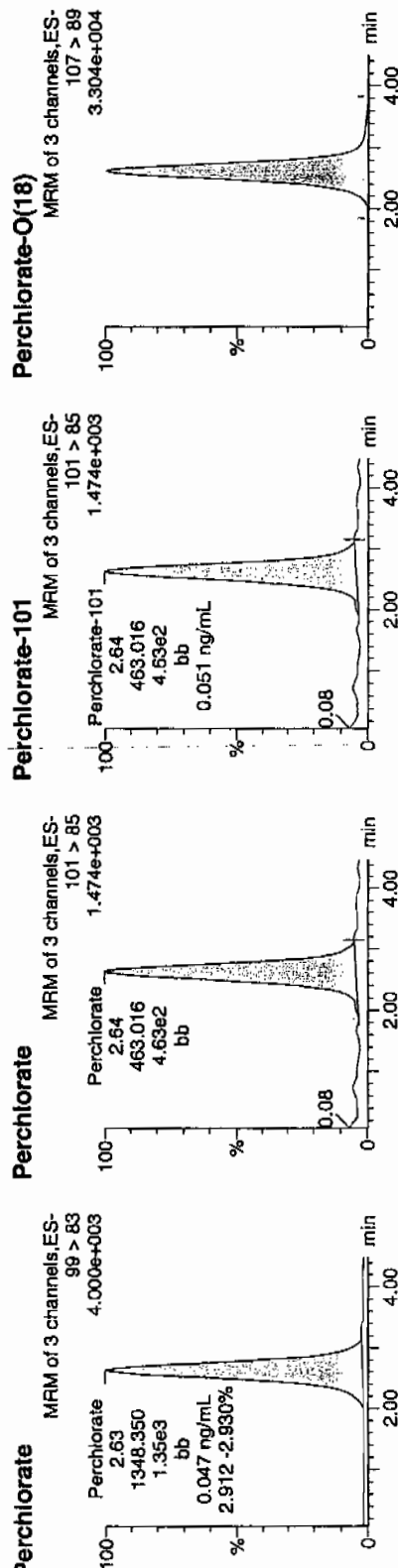
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample Name: per0318011a  
Date: 18-Mar-2010  
Time: 16:38:06  
ID: WCL100318-07CRI  
Vial: 1:2,B

*Qup*  
*03-14-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	2.63	1348.350	1348.350	bb			0.0475	94.91	-5.09	381.122	2.91
WCL100318-07CRI	Perchlorate-101	101 > 85	2.64	463.016	463.016	bb			0.0510	101.99	1.99	170.309	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	2.61	10929.031	10929.031	bb			0.5152	103.04	3.04	2415.4...	

$$\frac{1348.350}{28413.1} = 0.0475$$

*WCL*  
*3/20/10*

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample Name: per0318024a

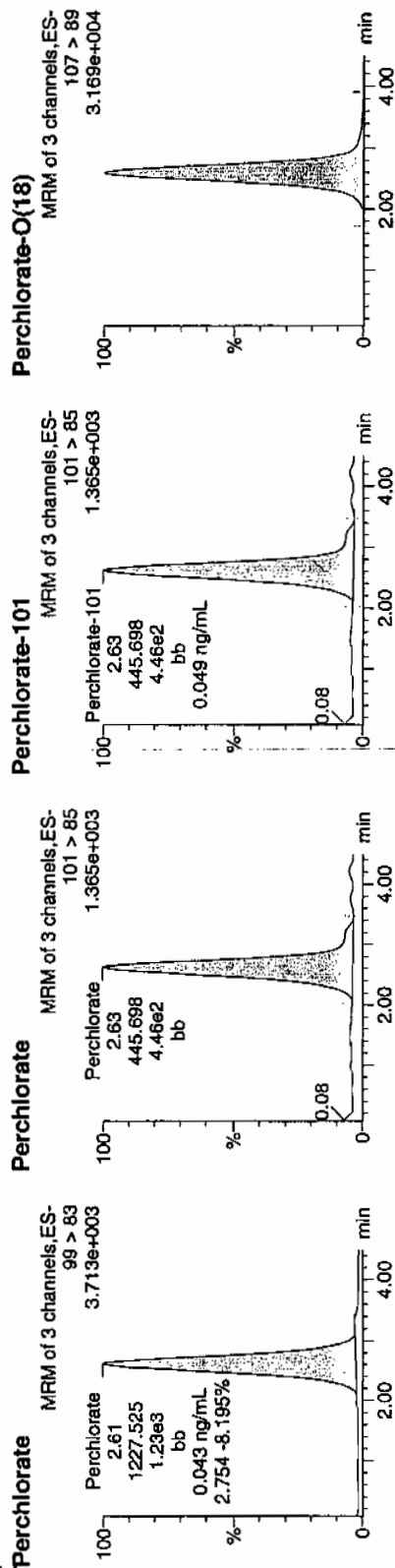
Date: 18-Mar-2010

Time: 18:16:52

ID: WCL100318-07CRI

Vial: 1:2,B

*Perchlorate*  
*03-M-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	2.61	1227.525	1227.525	bb			0.0432	86.41	-13.59	601.923	2.75
WCL100318-07CRI	Perchlorate-101	101 > 85	2.63	445.698	445.698	bb			0.0491	98.17	-1.83	114.270	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	2.59	10582.445	10582.445	bb			0.4989	99.78	-0.22	539.373	

*not*  
*3/20/10*



Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample Name: per0318037a

Date: 18-Mar-2010

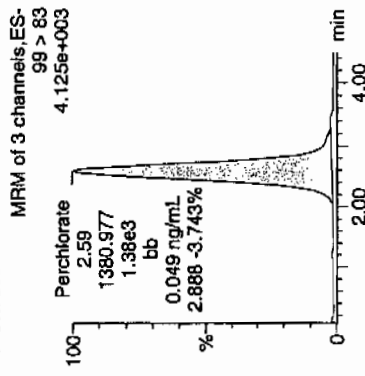
Time: 19:55:20

ID: WCL100318-07CRI

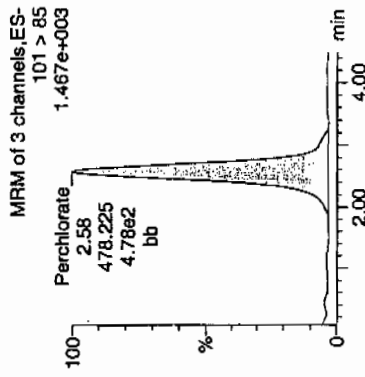
Vial: 1:2,B

Pure  
03-17-10

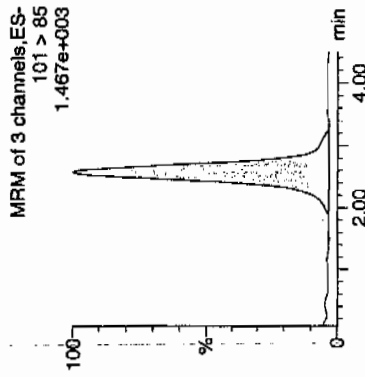
Perchlorate



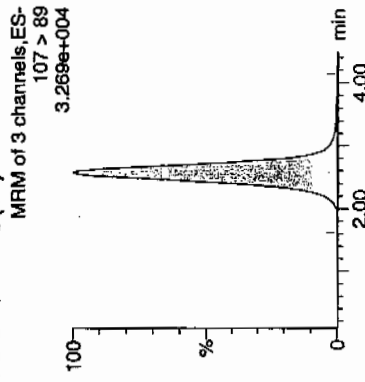
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	2.59	1380.977	1380.977	bb			0.0486	97.21	-2.79	984.230	2.89
WCL100318-07CRI	Perchlorate-101	101 > 85	2.58	478.225	478.225	bb			0.0527	105.34	5.34	83.584	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	2.58	10977.331	10977.331	bb			0.5175	103.50	3.50	3142.5...	

1407  
3/20/10

# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031810a.qld

Last Altered: Friday, March 19, 2010 6:42:22 AM Eastern Standard Time  
 Printed: Friday, March 19, 2010 7:00:05 AM Eastern Standard Time

Sample Name: per0318050a

Date: 18-Mar-2010

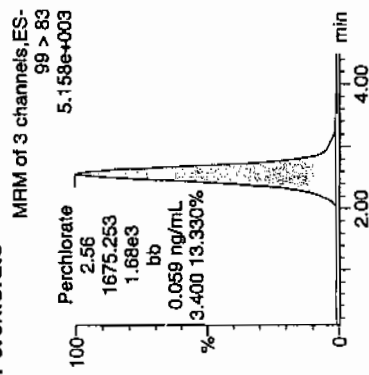
Time: 21:34:02

ID: WCL100318-07CRI

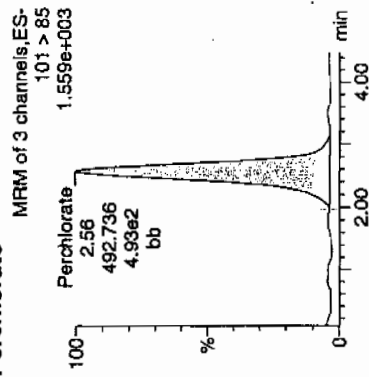
Vial: 1:2,B

*Run 622  
03-14-10*

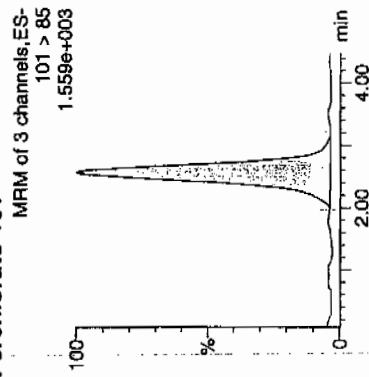
## Perchlorate



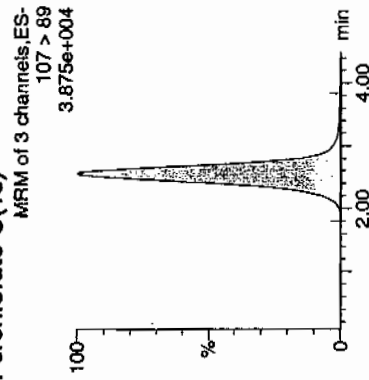
## Perchlorate



## Perchlorate-101



## Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	2.56	1675.253	1675.253	bb			0.0590	117.92	17.92	2014.1...	3.40
WCL100318-07CRI	Perchlorate-101	101 > 85	2.56	492.736	492.736	bb			0.0543	108.54	8.54	153.068	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	2.55	13014.146	13014.146	bb			0.6135	122.70	22.70	560.337	

*Run  
3/10/10*

# QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 259025

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

MB

Date Received: 10-MAR-10

GEL Job No (SDG): 10-2124

GEL Sample ID: 1202056692

Date Filtered: 10-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	18-MAR-10 01:32	per0317102a
	Perchlorate Isotope Ratio						1	18-MAR-10 01:32	per0317102a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	18-MAR-10 01:32	per0317102a
	Perchlorate-O(18)			4.76	ug/kg		1	18-MAR-10 01:32	per0317102a

<sup>^</sup> 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: Charfers W. Wilson

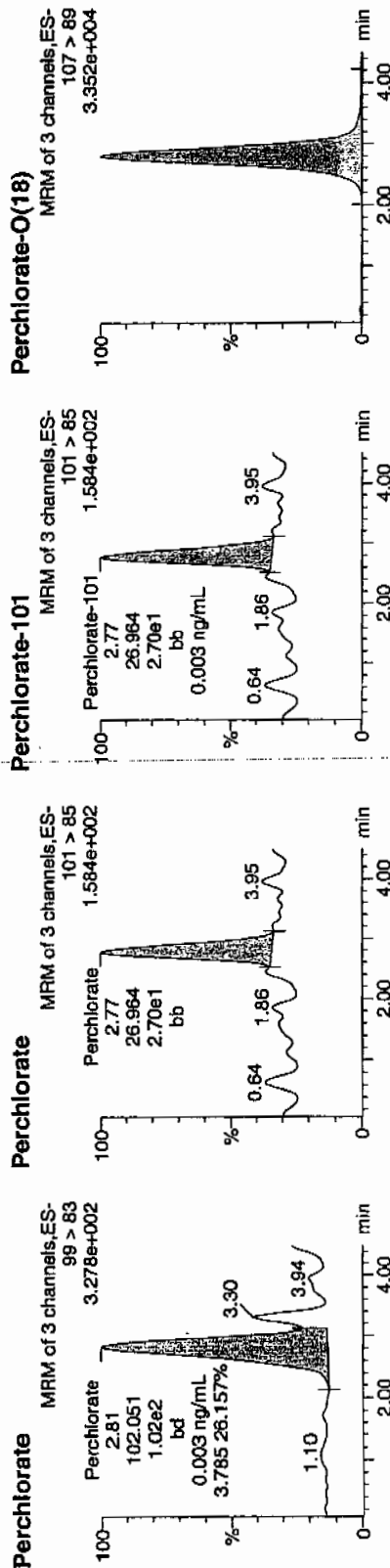
Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
 Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317102a  
 Date: 18-Mar-2010  
 Time: 01:32:00  
 ID: 1202056692  
 Vial: 3:1A

03-18-10

1202056692 | 3000 | MS | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod	Date	Time	ng/mL	%	Dev	S/N	Ratio
1202056692	Perchlorate	99 > 83	2.81	102.051	102.051	bd				0.0034	0.0027		63.628	3.78
1202056692	Perchlorate-101	101 > 85	2.77	26.964	26.964	bb				0.0027	0.0027		20.097	
1202056692	Perchlorate-O(18)	107 > 89	2.81	11641.276	11641.276	bb				0.4758	95.16		-4.84	3489.0...

3/20/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 959025

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

LCS

Date Received: 10-MAR-10

GEL Job No (SDG): 10-2124

GEL Sample ID: 1202056693

Date Filtered: 10-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	1.95	ug/kg	J	1	18-MAR-10 01:39	per0317103a
	Perchlorate Isotope Ratio			2.99			1	18-MAR-10 01:39	per0317103a
14797-73-0	Perchlorate-101	.5	2	1.97	ug/kg	J	1	18-MAR-10 01:39	per0317103a
	Perchlorate-O(18)			4.47	ug/kg		1	18-MAR-10 01:39	per0317103a

<sup>^</sup> 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: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

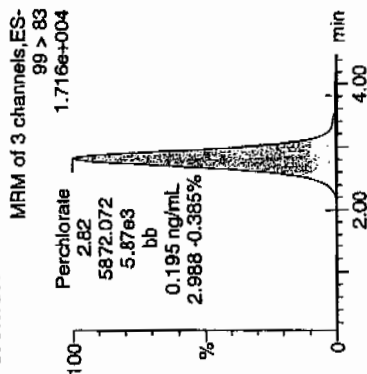
Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317103a  
Date: 18-Mar-2010  
Time: 01:39:45  
ID: 1202056693  
Vial: 3:1,B

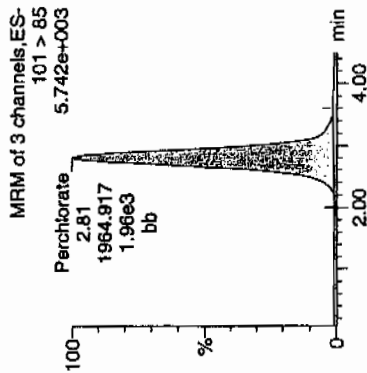
33-18-10

1202056693 | 5872.072 | LC5 | 11

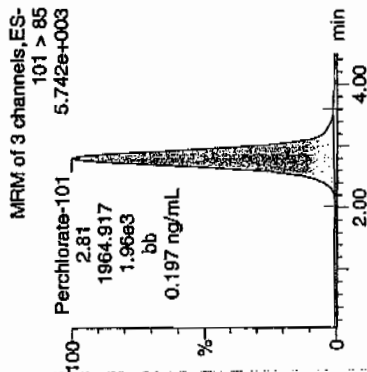
**Perchlorate**



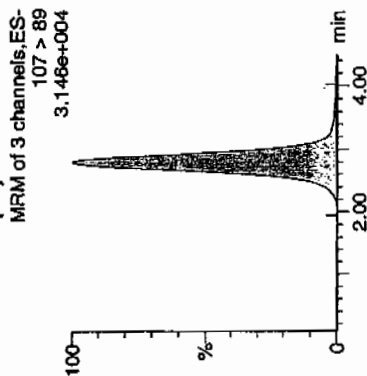
**Perchlorate**



**Perchlorate-101**



**Perchlorate-O(18)**



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ppm	Dev	S/N	Ion Ratio
1202056693	Perchlorate	99 > 83	2.82	5872.072	5872.072	bb			0.1947	97.33	-2.67	3879.4...
1202056693	Perchlorate-101	101 > 85	2.81	1964.917	1964.917	bb			0.1965	98.27	-1.73	81.231
1202056693	Perchlorate-O(18)	107 > 89	2.80	10940.251	10940.251	bb			0.4472	89.43	-10.57	2817.9...

5872.072  
30166.6

4/17  
3/10/10

# MISCELLANEOUS DATA



# Prep Logbook

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

Batch ID: 959025 Verified by:  
 Analyst: Jareth Shirley  
 Method: SW846 6850 Modified  
 Lab SOP: GL-OA-E-067 REV# 6  
 Instrument: MicroMass Quattro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202056692 MB	10-MAR-2010 13:37:00	2	20	10
1202056693 LCS	10-MAR-2010 13:37:00	2	20	10
248189001	10-MAR-2010 13:37:00	2	20	10
248189002	10-MAR-2010 13:37:00	2	20	10
248202001	10-MAR-2010 13:37:00	2	20	10
248202002	10-MAR-2010 13:37:00	2	20	10
248203002	10-MAR-2010 13:37:00	2	20	10
248237001	10-MAR-2010 13:37:00	2	20	10
248237002	10-MAR-2010 13:37:00	2	20	10
248237003	10-MAR-2010 13:37:00	2	20	10
248237004	10-MAR-2010 13:37:00	2	20	10
248237005	10-MAR-2010 13:37:00	2	20	10
248237006	10-MAR-2010 13:37:00	2	20	10
248237007	10-MAR-2010 13:37:00	2	20	10
248247001	10-MAR-2010 13:37:00	2	20	10
1202056694 MS (248247001)	10-MAR-2010 13:37:00	2	20	10
1202056695 MSD (248247001)	10-MAR-2010 13:37:00	2	20	10
248247002	10-MAR-2010 13:37:00	2	20	10
248247003	10-MAR-2010 13:37:00	2	20	10
248247004	10-MAR-2010 13:37:00	2	20	10
248247005	10-MAR-2010 13:37:00	2	20	10
248247006	10-MAR-2010 13:37:00	2	20	10
248247007	10-MAR-2010 13:37:00	2	20	10
248247008	10-MAR-2010 13:37:00	2	20	10
1202056696 ICS	10-MAR-2010 13:37:00	2	20	10

Comments:

Type	Sample ID	Description	Serial Number	Spike Amt	Units	Comments
ICS	1202056696	10 ug/L ICV/CCV Second Source	UCL100226-01.2	.4	mL	Desalting cartridges used: 100216-1-H & 100223-1-Ba
LCS	1202056693	10 ug/L ICV/CCV Second Source	UCL100226-01.2	.4	mL	
MS	1202056694	10 ug/L ICV/CCV Second Source	UCL100226-01.2	.4	mL	
MSD	1202056695	10 ug/L ICV/CCV Second Source	UCL100226-01.2	.4	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/17/10  
 Extr. Injection Volume: 20uL  
 Sequence Number: per031710a  
 Initial Calibration Date: 03/17/10

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

Reviewed BY: mtf  
 Date: 3/23/10  
 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
per0317001a	IPB001	CWW	3/17/2010 12:46			1		USE	B
per0317002a	IPB001	CWW	3/17/2010 12:54			1		USE	B
per0317003a	WCLICAL-01	CWW	3/17/2010 13:01			1		USE	I
per0317004a	WCLICAL-02	CWW	3/17/2010 13:09			1		USE	I
per0317005a	WCLICAL-03	CWW	3/17/2010 13:16			1		USE	I
per0317006a	WCLICAL-04	CWW	3/17/2010 13:24			1		USE	I
per0317007a	WCLICAL-05	CWW	3/17/2010 13:31			1		USE	I
per0317008a	IPB002	CWW	3/17/2010 13:39			1		USE	B
per0317009a	WCLICV	CWW	3/17/2010 13:46			1		USE	C
per0317010a	IPB003	CWW	3/17/2010 13:54			1		USE	B
per0317011a	WCLCRI	CWW	3/17/2010 14:02			1		USE	C
per0317012a	1202056471	CWW	3/17/2010 14:09	958897	VARIOUS	1	LANL	USE	S
per0317013a	1202056472	CWW	3/17/2010 14:17	958897	VARIOUS	1	LANL	USE	S
per0317014a	1202056475	CWW	3/17/2010 14:24	958897	VARIOUS	1	LANL	USE	S
per0317015a	247806001	CWW	3/17/2010 14:32	958897	10-1991	1	LANL	USE	S
per0317016a	247806002	CWW	3/17/2010 14:39	958897	10-1991	1	LANL	USE	S
per0317017a	1202056473	CWW	3/17/2010 14:47	958897	10-1991	1	LANL	USE	S
per0317018a	1202056474	CWW	3/17/2010 14:54	958897	10-1991	1	LANL	USE	S
per0317019a	247806003	CWW	3/17/2010 15:02	958897	10-1991	1	LANL	USE	S
per0317020a	247806004	CWW	3/17/2010 15:09	958897	10-1991	1	LANL	USE	S
per0317021a	247806005	CWW	3/17/2010 15:17	958897	10-1991	1	LANL	USE	S
per0317022a	WCLCCV	CWW	3/17/2010 15:24			1		USE	C
per0317023a	IPB004	CWW	3/17/2010 15:32			1		USE	B
per0317024a	WCLCRI	CWW	3/17/2010 15:40			1		USE	C
per0317025a	247806006	CWW	3/17/2010 15:47	958897	10-1991	1	LANL	USE	S
per0317026a	247806007	CWW	3/17/2010 15:55	958897	10-1991	1	LANL	USE	S
per0317027a	247806008	CWW	3/17/2010 16:02	958897	10-1991	1	LANL	USE	S
per0317028a	247806009	CWW	3/17/2010 16:10	958897	10-1991	1	LANL	USE	S
per0317029a	247806010	CWW	3/17/2010 16:17	958897	10-1991	1	LANL	USE	S

per0317030a	247806011	CWW	3/17/2010 16:25	958897	10-1991	1	LANL	USE	S
per0317031a	247806012	CWW	3/17/2010 16:32	958897	10-1991	1	LANL	USE	S
per0317032a	247918001	CWW	3/17/2010 16:40	958897	10-2016	1	LANL	USE	S
per0317033a	247918002	CWW	3/17/2010 16:47	958897	10-2016	1	LANL	USE	S
per0317034a	247918003	CWW	3/17/2010 16:55	958897	10-2016	1	LANL	USE	S
per0317035a	WCLCCV	CWW	3/17/2010 17:03			1		USE	C
per0317036a	IPB005	CWW	3/17/2010 17:10			1		USE	B
per0317037a	WCLCRI	CWW	3/17/2010 17:18			1		USE	C
per0317038a	247918004	CWW	3/17/2010 17:25	958897	10-2016	1	LANL	USE	S
per0317039a	247918005	CWW	3/17/2010 17:33	958897	10-2016	1	LANL	USE	S
per0317040a	247918006	CWW	3/17/2010 17:41	958897	10-2016	1	LANL	USE	S
per0317041a	247918007	CWW	3/17/2010 17:48	958897	10-2016	1	LANL	USE	S
per0317042a	IPB006	CWW	3/17/2010 17:56			1		USE	B
per0317043a	1202056513	CWW	3/17/2010 18:03	958918	VARIOUS	1	LANL	USE	S
per0317044a	1202056514	CWW	3/17/2010 18:11	958918	VARIOUS	1	LANL	USE	S
per0317045a	1202056517	CWW	3/17/2010 18:18	958918	VARIOUS	1	LANL	USE	S
per0317046a	248000001	CWW	3/17/2010 18:26	958918	10-2025-1	1	LANL	USE	S
per0317047a	248000002	CWW	3/17/2010 18:34	958918	10-2025-1	1	LANL	USE	S
per0317048a	WCLCCV	CWW	3/17/2010 18:41			1		USE	C
per0317049a	IPB007	CWW	3/17/2010 18:49			1		USE	B
per0317050a	WCLCRI	CWW	3/17/2010 18:56			1		USE	C
per0317051a	248000003	CWW	3/17/2010 19:04	958918	10-2025-1	1	LANL	USE	S
per0317052a	248000004	CWW	3/17/2010 19:12	958918	10-2025-1	1	LANL	USE	S
per0317053a	248000005	CWW	3/17/2010 19:19	958918	10-2025-1	1	LANL	USE	S
per0317054a	248002001	CWW	3/17/2010 19:27	958918	10-2028-1	1	LANL	USE	S
per0317055a	1202056515	CWW	3/17/2010 19:34	958918	10-2028-1	1	LANL	USE	S
per0317056a	1202056516	CWW	3/17/2010 19:42	958918	10-2028-1	1	LANL	USE	S
per0317057a	248002002	CWW	3/17/2010 19:49	958918	10-2028-1	1	LANL	USE	S
per0317058a	248002003	CWW	3/17/2010 19:57	958918	10-2028-1	1	LANL	USE	S
per0317059a	248002004	CWW	3/17/2010 20:04	958918	10-2028-1	1	LANL	USE	S
per0317060a	WCLCCV	CWW	3/17/2010 20:12			1		USE	C
per0317061a	IPB008	CWW	3/17/2010 20:20			1		USE	B
per0317062a	WCLCRI	CWW	3/17/2010 20:27			1		USE	C
per0317063a	248002005	CWW	3/17/2010 20:35	958918	10-2028-1	1	LANL	USE	S
per0317064a	248002006	CWW	3/17/2010 20:42	958918	10-2028-1	1	LANL	USE	S
per0317065a	248002007	CWW	3/17/2010 20:50	958918	10-2028-1	1	LANL	USE	S
per0317066a	248002008	CWW	3/17/2010 20:58	958918	10-2028-1	1	LANL	USE	S

per0317067a	248016001	CWW	3/17/2010 21:05	958918	10-2035	1	LANL	USE	S
per0317068a	248016002	CWW	3/17/2010 21:13	958918	10-2035	1	LANL	USE	S
per0317069a	248016003	CWW	3/17/2010 21:20	958918	10-2035	1	LANL	USE	S
per0317070a	248016004	CWW	3/17/2010 21:28	958918	10-2035	1	LANL	USE	S
per0317071a	WCLCCV	CWW	3/17/2010 21:35			1		USE	C
per0317072a	IPB009	CWW	3/17/2010 21:43			1		USE	B
per0317073a	WCLCRI	CWW	3/17/2010 21:51			1		USE	C
per0317074a	1202056547	CWW	3/17/2010 21:58	958937	VARIOUS	1	LANL	DUSE-RA	S
per0317075a	1202056548	CWW	3/17/2010 22:06	958937	VARIOUS	1	LANL	DUSE-RA	S
per0317076a	1202056551	CWW	3/17/2010 22:13	958937	VARIOUS	1	LANL	DUSE-RA	S
per0317077a	248025001	CWW	3/17/2010 22:21	958937	10-2048	1	LANL	DUSE-RA	S
per0317078a	248025002	CWW	3/17/2010 22:29	958937	10-2048	1	LANL	DUSE-RA	S
per0317079a	248025003	CWW	3/17/2010 22:36	958937	10-2048	1	LANL	DUSE-RA	S
per0317080a	248025004	CWW	3/17/2010 22:44	958937	10-2048	1	LANL	DUSE-RA	S
per0317081a	248025005	CWW	3/17/2010 22:51	958937	10-2048	1	LANL	DUSE-RA	S
per0317082a	248025006	CWW	3/17/2010 22:59	958937	10-2048	1	LANL	DUSE-RA	S
per0317083a	248025007	CWW	3/17/2010 23:06	958937	10-2048	1	LANL	DUSE-RA	S
per0317084a	WCLCCV	CWW	3/17/2010 23:14			1		DUSE	C
per0317085a	IPB010	CWW	3/17/2010 23:22			1		DUSE	B
per0317086a	WCLCRI	CWW	3/17/2010 23:29			1		DUSE	C
per0317087a	248033001	CWW	3/17/2010 23:37	958937	10-2072	1	LANL	DUSE-RA	S
per0317088a	1202056549	CWW	3/17/2010 23:45	958937	10-2072	1	LANL	DUSE-RA	S
per0317089a	1202056550	CWW	3/17/2010 23:52	958937	10-2072	1	LANL	DUSE-RA	S
per0317090a	248033002	CWW	3/18/2010 0:00	958937	10-2072	1	LANL	DUSE-RA	S
per0317091a	248033003	CWW	3/18/2010 0:07	958937	10-2072	1	LANL	DUSE-RA	S
per0317092a	248033004	CWW	3/18/2010 0:15	958937	10-2072	1	LANL	DUSE-RA	S
per0317093a	248033005	CWW	3/18/2010 0:22	958937	10-2072	1	LANL	DUSE-RA	S
per0317094a	248033006	CWW	3/18/2010 0:30	958937	10-2072	1	LANL	DUSE-RA	S
per0317095a	248033007	CWW	3/18/2010 0:38	958937	10-2072	1	LANL	DUSE-RA	S
per0317096a	248033008	CWW	3/18/2010 0:45	958937	10-2072	1	LANL	DUSE-RA	S
per0317097a	WCLCCV	CWW	3/18/2010 0:53			1		USE	C
per0317098a	IPB011	CWW	3/18/2010 1:01			1		USE	B
per0317099a	WCLCRI	CWW	3/18/2010 1:08			1		USE	C
per0317100a	248033009	CWW	3/18/2010 1:16	958937	10-2072	1	LANL	DUSE-RA	S
per0317101a	IPB012	CWW	3/18/2010 1:24			1		USE	B
per0317102a	1202056692	CWW	3/18/2010 1:32	959029	VARIOUS	1	LANL	USE	S
per0317103a	1202056693	CWW	3/18/2010 1:39	959029	VARIOUS	1	LANL	USE	S

per0317104a	1202056696	CWW	3/18/2010 1:47	959029	VARIOUS	1	LANL	USE	S
per0317105a	248189001	CWW	3/18/2010 1:55	959029	10-2120-1	1	LANL	USE	S
per0317106a	248189002	CWW	3/18/2010 2:02	959029	10-2120-1	1	LANL	USE	S
per0317107a	248202001	CWW	3/18/2010 2:10	959029	10-2124	1	LANL	USE	S
per0317108a	248202002	CWW	3/18/2010 2:18	959029	10-2124	1	LANL	DUSE-DL	S
per0317109a	248203002	CWW	3/18/2010 2:25	959029	10-2125	1	LANL	DUSE-RA	S
per0317110a	WCLCCV	CWW	3/18/2010 2:33			1		USE	C
per0317111a	IPB013	CWW	3/18/2010 2:41			1		USE	B
per0317112a	WCLCRI	CWW	3/18/2010 2:48			1		USE	C
per0317113a	248237001	CWW	3/18/2010 2:56	959029	10-2132	1	LANL	USE	S
per0317114a	248237002	CWW	3/18/2010 3:04	959029	10-2132	1	LANL	USE	S
per0317115a	248237003	CWW	3/18/2010 3:11	959029	10-2132	1	LANL	USE	S
per0317116a	248237004	CWW	3/18/2010 3:19	959029	10-2132	1	LANL	USE	S
per0317117a	248237005	CWW	3/18/2010 3:26	959029	10-2132	1	LANL	USE	S
per0317118a	248237006	CWW	3/18/2010 3:34	959029	10-2132	1	LANL	USE	S
per0317119a	248237007	CWW	3/18/2010 3:41	959029	10-2132	1	LANL	USE	S
per0317120a	248247001	CWW	3/18/2010 3:49	959029	10-2138-1	1	LANL	USE	S
per0317121a	1202056694	CWW	3/18/2010 3:56	959029	10-2138-1	1	LANL	USE	S
per0317122a	1202056695	CWW	3/18/2010 4:04	959029	10-2138-1	1	LANL	USE	S
per0317123a	WCLCCV	CWW	3/18/2010 4:11			1		USE	C
per0317124a	IPB014	CWW	3/18/2010 4:19			1		USE	B
per0317125a	WCLCRI	CWW	3/18/2010 4:27			1		USE	C
per0317126a	248247002	CWW	3/18/2010 4:34	959029	10-2138-1	1	LANL	DUSE-RA	S
per0317127a	248247003	CWW	3/18/2010 4:42	959029	10-2138-1	1	LANL	DUSE-RA	S
per0317128a	248247004	CWW	3/18/2010 4:49	959029	10-2138-1	1	LANL	DUSE-RA	S
per0317129a	248247005	CWW	3/18/2010 4:57	959029	10-2138-1	1	LANL	DUSE-RA	S
per0317130a	248247006	CWW	3/18/2010 5:05	959029	10-2138-1	1	LANL	DUSE-RA	S
per0317131a	248247007	CWW	3/18/2010 5:12	959029	10-2138-1	1	LANL	DUSE-RA	S
per0317132a	248247008	CWW	3/18/2010 5:20	959029	10-2138-1	1	LANL	DUSE-RA	S
per0317133a	WCLCCV	CWW	3/18/2010 5:27			1		USE	C
per0317134a	IPB015	CWW	3/18/2010 5:35			1		USE	B
per0317135a	WCLCRI	CWW	3/18/2010 5:42			1		USE	C

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/18/10

Extr. Injection Volume: 20uL

Sequence Number: per031810a

Initial Calibration Date: 03/18/10

Method: EPA 6850-Modified

Int. Std.: UCL100210-01

Mobile Phase Lot#: 1278668, 1271949

Standard-Samp Reagent Lot#: 1271949

Reviewed BY: MLH  
Date: 3/23/10  
SOP: GL-OA-E-067 Rev.6  
Alt Check Std. ID: WCL100318-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0318001a	IPB001	CWW	3/18/2010 15:22			1		USE	B
per0318002a	IPB001	CWW	3/18/2010 15:30			1		USE	B
per0318003a	WCLICAL-01	CWW	3/18/2010 15:37			1		USE	I
per0318004a	WCLICAL-02	CWW	3/18/2010 15:45			1		USE	I
per0318005a	WCLICAL-03	CWW	3/18/2010 15:52			1		USE	I
per0318006a	WCLICAL-04	CWW	3/18/2010 16:00			1		USE	I
per0318007a	WCLICAL-05	CWW	3/18/2010 16:07			1		USE	I
per0318008a	IPB002	CWW	3/18/2010 16:15			1		USE	B
per0318009a	WCLICV	CWW	3/18/2010 16:22			1		USE	C
per0318010a	IPB003	CWW	3/18/2010 16:30			1		USE	B
per0318011a	WCLCRI	CWW	3/18/2010 16:38			1		USE	C
per0318012a	1202055547	CWW	3/18/2010 16:45	958937	VARIOUS	1	LANL	USE	S
per0318013a	1202055548	CWW	3/18/2010 16:53	958937	VARIOUS	1	LANL	USE	S
per0318014a	1202055551	CWW	3/18/2010 17:00	958937	VARIOUS	1	LANL	USE	S
per0318015a	248025001	CWW	3/18/2010 17:08	958937	10-2048	1	LANL	USE	S
per0318016a	248025002	CWW	3/18/2010 17:15	958937	10-2048	1	LANL	USE	S
per0318017a	248025003	CWW	3/18/2010 17:23	958937	10-2048	1	LANL	USE	S
per0318018a	248025004	CWW	3/18/2010 17:30	958937	10-2048	1	LANL	USE	S
per0318019a	248025005	CWW	3/18/2010 17:38	958937	10-2048	1	LANL	USE	S
per0318020a	248025006	CWW	3/18/2010 17:46	958937	10-2048	1	LANL	USE	S
per0318021a	248025007	CWW	3/18/2010 17:53	958937	10-2048	1	LANL	USE	S
per0318022a	WCLCCV	CWW	3/18/2010 18:01			1		USE	C
per0318023a	IPB004	CWW	3/18/2010 18:09			1		USE	B
per0318024a	WCLCRI	CWW	3/18/2010 18:16			1		USE	C
per0318025a	248033001	CWW	3/18/2010 18:24	958937	10-2072	1	LANL	USE	S
per0318026a	1202055549	CWW	3/18/2010 18:31	958937	10-2072	1	LANL	USE	S
per0318027a	1202055550	CWW	3/18/2010 18:39	958937	10-2072	1	LANL	USE	S
per0318028a	248033002	CWW	3/18/2010 18:47	958937	10-2072	1	LANL	USE	S
per0318029a	248033003	CWW	3/18/2010 18:54	958937	10-2072	1	LANL	USE	S

per0318030a	248033004	CWW	3/18/2010 19:02	958937	10-2072	1	LANL	USE	S
per0318031a	248033005	CWW	3/18/2010 19:10	958937	10-2072	1	LANL	USE	S
per0318032a	248033006	CWW	3/18/2010 19:17	958937	10-2072	1	LANL	USE	S
per0318033a	248033007	CWW	3/18/2010 19:25	958937	10-2072	1	LANL	USE	S
per0318034a	248033008	CWW	3/18/2010 19:32	958937	10-2072	1	LANL	USE	S
per0318035a	WCLCCV	CWW	3/18/2010 19:40			1		USE	C
per0318036a	IPB005	CWW	3/18/2010 19:47			1		USE	B
per0318037a	WCLCRI	CWW	3/18/2010 19:55			1		USE	C
per0318038a	248033009	CWW	3/18/2010 20:03	958937	10-2072	1	LANL	USE	S
per0318039a	248202002	CWW	3/18/2010 20:10	959029	10-2124	4	LANL	USE	S
per0318040a	248203002	CWW	3/18/2010 20:18	959029	10-2125	1	LANL	USE	S
per0318041a	248247002	CWW	3/18/2010 20:25	959029	10-2138-1	1	LANL	USE	S
per0318042a	248247003	CWW	3/18/2010 20:33	959029	10-2138-1	1	LANL	USE	S
per0318043a	248247004	CWW	3/18/2010 20:40	959029	10-2138-1	1	LANL	USE	S
per0318044a	248247005	CWW	3/18/2010 20:48	959029	10-2138-1	1	LANL	USE	S
per0318045a	248247006	CWW	3/18/2010 20:56	959029	10-2138-1	1	LANL	USE	S
per0318046a	248247007	CWW	3/18/2010 21:03	959029	10-2138-1	1	LANL	USE	S
per0318047a	248247008	CWW	3/18/2010 21:11	959029	10-2138-1	1	LANL	USE	S
per0318048a	WCLCCV	CWW	3/18/2010 21:18			1		USE	C
per0318049a	IPB006	CWW	3/18/2010 21:26			1		USE	B
per0318050a	WCLCRI	CWW	3/18/2010 21:34			1		USE	C
per0318051a	1202056563	CWW	3/18/2010 21:41	958946	10-2075	1	LANL	USE	S
per0318052a	1202056564	CWW	3/18/2010 21:49	958946	10-2075	1	LANL	USE	S
per0318053a	1202056572	CWW	3/18/2010 21:57	958946	10-2075	1	LANL	USE	S
per0318054a	248045001	CWW	3/18/2010 22:05	958946	10-2075	1	LANL	USE	S
per0318055a	1202056565	CWW	3/18/2010 22:12	958946	10-2075	1	LANL	USE	S
per0318056a	1202056566	CWW	3/18/2010 22:20	958946	10-2075	1	LANL	USE	S
per0318057a	248045002	CWW	3/18/2010 22:27	958946	10-2075	1	LANL	USE	S
per0318058a	248045003	CWW	3/18/2010 22:35	958946	10-2075	1	LANL	USE	S
per0318059a	248045004	CWW	3/18/2010 22:42	958946	10-2075	1	LANL	USE	S
per0318060a	248045005	CWW	3/18/2010 22:50	958946	10-2075	1	LANL	USE	S
per0318061a	WCLCCV	CWW	3/18/2010 22:57			1		USE	C
per0318062a	IPB007	CWW	3/18/2010 23:05			1		USE	B
per0318063a	WCLCRI	CWW	3/18/2010 23:13			1		USE	C
per0318064a	248045006	CWW	3/18/2010 23:21	958946	10-2075	1	LANL	USE	S
per0318065a	248045007	CWW	3/18/2010 23:28	958946	10-2075	1	LANL	USE	S
per0318066a	248045008	CWW	3/18/2010 23:36	958946	10-2075	1	LANL	USE	S

per0318067a	248045009	CWW	3/18/2010 23:44	958946	10-2075	1	LANL	USE	S
per0318068a	248045010	CWW	3/18/2010 23:51	958946	10-2075	1	LANL	USE	S
per0318069a	248045011	CWW	3/18/2010 23:59	958946	10-2075	1	LANL	USE	S
per0318070a	248045012	CWW	3/19/2010 0:06	958946	10-2075	1	LANL	USE	S
per0318071a	248045013	CWW	3/19/2010 0:14	958946	10-2075	1	LANL	USE	S
per0318072a	248045014	CWW	3/19/2010 0:21	958946	10-2075	1	LANL	USE	S
per0318073a	248045015	CWW	3/19/2010 0:29	958946	10-2075	1	LANL	USE	S
per0318074a	WCLCCV	CWW	3/19/2010 0:36			1		USE	C
per0318075a	IPB008	CWW	3/19/2010 0:44			1		USE	B
per0318076a	WCLCRI	CWW	3/19/2010 0:52			1		USE	C
per0318077a	248045016	CWW	3/19/2010 0:59	958946	10-2075	1	LANL	USE	S
per0318078a	248045017	CWW	3/19/2010 1:07	958946	10-2075	1	LANL	USE	S
per0318079a	248045018	CWW	3/19/2010 1:15	958946	10-2075	1	LANL	USE	S
per0318080a	IPB009	CWW	3/19/2010 1:22			1		USE	B
per0318081a	1202056668	CWW	3/19/2010 1:30	959004	10-2117	1	LANL	USE	S
per0318082a	1202056669	CWW	3/19/2010 1:38	959004	10-2117	1	LANL	USE	S
per0318083a	1202056672	CWW	3/19/2010 1:45	959004	10-2117	1	LANL	USE	S
per0318084a	248183001	CWW	3/19/2010 1:53	959004	10-2117	1	LANL	USE	S
per0318085a	1202056670	CWW	3/19/2010 2:00	959004	10-2117	1	LANL	USE	S
per0318086a	1202056671	CWW	3/19/2010 2:08	959004	10-2117	1	LANL	USE	S
per0318087a	WCLCCV	CWW	3/19/2010 2:15			1		USE	C
per0318088a	IPB010	CWW	3/19/2010 2:23			1		USE	B
per0318089a	WCLCRI	CWW	3/19/2010 2:31			1		USE	C
per0318090a	248183002	CWW	3/19/2010 2:39	959004	10-2117	1	LANL	USE	S
per0318091a	248183003	CWW	3/19/2010 2:46	959004	10-2117	1	LANL	USE	S
per0318092a	248183004	CWW	3/19/2010 2:54	959004	10-2117	1	LANL	USE	S
per0318093a	248183005	CWW	3/19/2010 3:01	959004	10-2117	1	LANL	USE	S
per0318094a	248183006	CWW	3/19/2010 3:09	959004	10-2117	1	LANL	USE	S
per0318095a	248183007	CWW	3/19/2010 3:17	959004	10-2117	1	LANL	USE	S
per0318096a	248183008	CWW	3/19/2010 3:24	959004	10-2117	1	LANL	USE	S
per0318097a	248183009	CWW	3/19/2010 3:32	959004	10-2117	1	LANL	USE	S
per0318098a	248183010	CWW	3/19/2010 3:39	959004	10-2117	1	LANL	USE	S
per0318099a	248183011	CWW	3/19/2010 3:47	959004	10-2117	1	LANL	USE	S
per0318100a	WCLCCV	CWW	3/19/2010 3:54			1		USE	C
per0318101a	IPB011	CWW	3/19/2010 4:02			1		USE	B
per0318102a	WCLCRI	CWW	3/19/2010 4:10			1		USE	C
per0318103a	248183012	CWW	3/19/2010 4:17	959004	10-2117	1	LANL	USE	S



per0318104a	248183013	CWW	3/19/2010 4:25	959004	10-2117	1	LANL	USE	S
per0318105a	248183014	CWW	3/19/2010 4:33	959004	10-2117	1	LANL	USE	S
per0318106a	248183015	CWW	3/19/2010 4:40	959004	10-2117	1	LANL	USE	S
per0318107a	248183016	CWW	3/19/2010 4:48	959004	10-2117	1	LANL	USE	S
per0318108a	248183017	CWW	3/19/2010 4:55	959004	10-2117	1	LANL	USE	S
per0318109a	248183018	CWW	3/19/2010 5:03	959004	10-2117	1	LANL	USE	S
per0318110a	248183019	CWW	3/19/2010 5:11	959004	10-2117	1	LANL	USE	S
per0318111a	248183020	CWW	3/19/2010 5:18	959004	10-2117	1	LANL	USE	S
per0318112a	WCLCCV	CWW	3/19/2010 5:26			1		USE	C
per0318113a	IPB012	CWW	3/19/2010 5:34			1		USE	B
per0318114a	WCLCRI	CWW	3/19/2010 5:41			1		USE	C

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

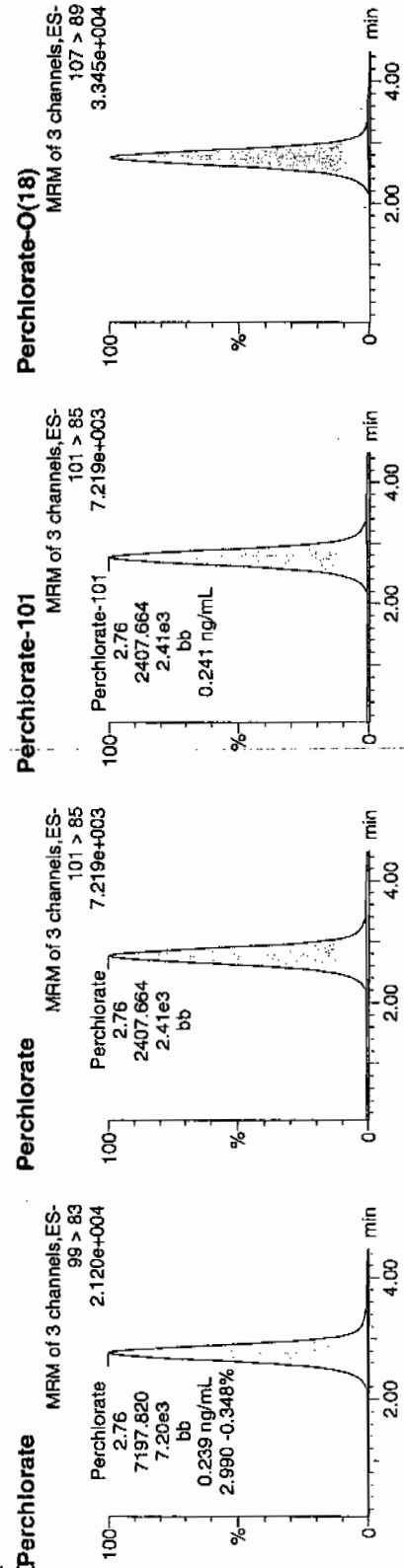
Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317121a  
Date: 18-Mar-2010  
Time: 03:56:44  
ID: 1202056694  
Vial: 3:3,E

03-18-10

1922-959027 | 5000 | MS | 1



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	pg/mL	%Rec	%Dev	S/N	Ion Ratio
1202056694	Perchlorate	99 > 83	2.76	7197.820	7197.820	bb			0.2386	119.30	19.30	3279.4...	2.99
1202056694	Perchlorate-101	101 > 85	2.76	2407.664	2407.664	bb			0.2408	120.41	20.41	957.356	
1202056694	Perchlorate-O(18)	107 > 89	2.75	11187.445	11187.445	bb			0.4573	91.45	-8.55	3096.5...	

7197.820  
30166.6

0.2386

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031710a.qld

Last Altered: Thursday, March 18, 2010 6:42:12 AM Eastern Standard Time  
Printed: Thursday, March 18, 2010 7:54:18 AM Eastern Standard Time

Name: per0317122a

Date: 18-Mar-2010

Time: 04:04:16

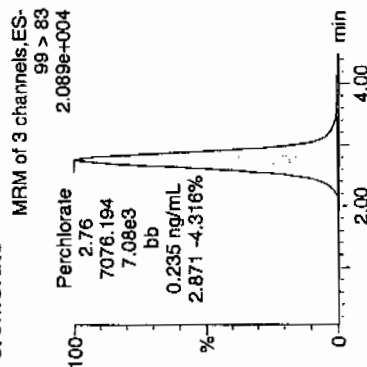
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Vial: 3:3,F

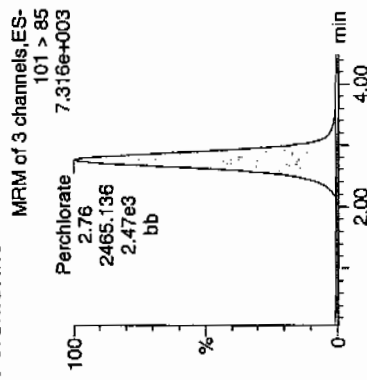
1222 | 959029 | 5070 | MSO | 11

03-18-10

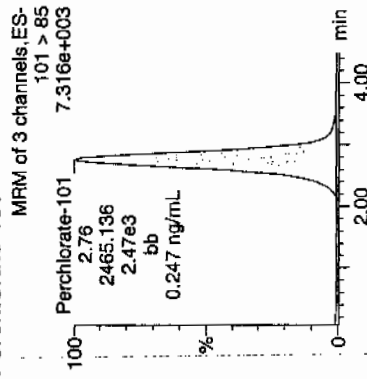
Perchlorate



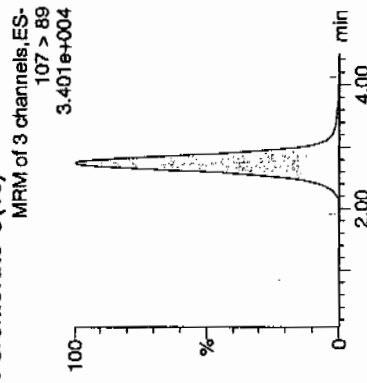
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202056695	Perchlorate	99 > 83	2.76	7076.194	7076.194	bb			0.2346	117.29	17.29	757.416	2.87
1202056695	Perchlorate-101	101 > 85	2.76	2465.136	2465.136	bb			0.2466	123.29	23.29	697.333	
1202056695	Perchlorate-O(18)	107 > 89	2.74	11547.184	11547.184	bb			0.4720	94.39	-5.61	1156.9...	

not  
3/22/10

## Isotope Ratio Criteria

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

2.31-3.85

## Tune Criteria

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

# LC/MS/MS EXPLOSIVES ANALYSIS

**LC/MS/MS Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2124**

**Method/Analysis Information**

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

Analytical Method: SW846 8321A Modified

Prep Method: SW846 8330 PREP

Analytical Batch Number: 959334

Prep Batch Number: 959332

**Sample Analysis**

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

<b>Sample ID</b>	<b>Client ID</b>
248202001	RE36-10-8282
248202002	RE36-10-8281
1202057490	Method Blank (MB)
1202057491	Laboratory Control Sample (LCS)
1202057492	248240001(RE36-10-7458) Matrix Spike (MS)
1202057493	248240001(RE36-10-7458) Matrix Spike Duplicate (MSD)

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

**Primary Analyte Analysis**

**Calibration Information**

**Initial Calibration**

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

**Calibration Verification Standard Requirements**

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

**Calibration Blank Requirements**

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

10-2124-PERLCMS

**CRI Requirements**

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

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

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

**Surrogate Recoveries**

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

**Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries were within the established acceptance limits.

**QC Sample Designation**

Client sample 248240001 (RE36-10-7458) from SDG 10-2134 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

**Matrix Spike (MS) Recovery Statement**

The MS spike recoveries were within the established acceptance limits.

**Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD recovered Tetryl at 31.2%. The limits are 36-124%. Please see data exception report 810723.

**MS/MSD Relative Percent Difference (RPD) Statement**

The MS/MSD RPD for Tetryl was 57.5%. The acceptance limits are 0-30%. Since all other Primary RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The data are reported. Please see data exception report 810723.

**Internal Standard (ISTD) Acceptance**

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

**Technical Information****Holding Time Specifications**

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

**Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

**Sample Dilutions**

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

**Sample Re-extraction/Re-analysis**

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

## **Secondary Analyte Analysis**

### **Calibration Information**

#### **Initial Calibration**

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

#### **Calibration Verification Standard Requirements**

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

#### **Calibration Blank Requirements**

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

#### **CRI Requirements**

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

### **Quality Control (QC) Information**

#### **Method Blank (MB) Statement**

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

#### **Surrogate Recoveries**

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

#### **Laboratory Control Sample (LCS) Recovery**

The LCS recovered 2,6-Diamino-4-nitrotoluene at 124%. The recovery limits are 64-122%. While the LCS exhibited a high bias in the, both the MS and MSD met acceptance limits for 2,6-Diamino-4-nitrotoluene. Since 2,6-Diamino-4-nitrotoluene was not detected in the associated samples, The data are reported. Please see data exception report 810723.

#### **QC Sample Designation**

Client sample 248240001 (RE36-10-7458) from SDG 10-2134 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

#### **Matrix Spike (MS) Recovery Statement**

The MS recovered TATB at 187%. The recovery limits are 29-155%. Since the LCS met acceptance limits for TATB, the noted exception is attributed to vagaries in the extraction process. The data are reported. Please see data exception report 810723.

#### **Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD spike recoveries were within the established acceptance limits.

#### **MS/MSD Relative Percent Difference (RPD) Statement**

The MS/MSD RPD for 2,4-Diamino-6-nitrotoluene was 47.7%. The acceptance limits are 0-26%. Since all other Secondary RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The data are reported. Please see data exception report 810723.

#### **Internal Standard (ISTD) Acceptance**

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



## **Technical Information**

### **Holding Time Specifications**

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

### **Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

### **Sample Dilutions**

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

### **Sample Re-extraction/Re-analysis**

The following samples and QC were reanalyzed due to bracketing CCV recoveries that did not meet Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

## **Miscellaneous Information**

### **Data Exception (DER) Documentation**

Data exception report 810723 was generated for this SDG.

The LCS recovered 2,6-Diamino-4-nitrotoluene at 124%. The recovery limits are 64-122%. While the LCS exhibited a high bias in the, both the MS and MSD met acceptance limits for 2,6-Diamino-4-nitrotoluene. Since 2,6-Diamino-4-nitrotoluene was not detected in the associated samples, The data are reported.

The MS recovered TATB at 187%. The recovery limits are 29-155%. Since the LCS met acceptance limits for TATB, the noted exception is attributed to vagaries in the extraction process. The data are reported.

The MSD recovered Tetryl at 31.2%. The limits are 36-124%. Please see data exception report 810723.

The MS/MSD RPD for Tetryl was 57.5%. The acceptance limits are 0-30%. Since all other Primary RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The MS/MSD RPD for 2,4-Diamino-6-nitrotoluene was 47.7%. The acceptance limits are 0-26%. Since all other Secondary RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The data are reported.

### **Manual Integrations**

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

### **Flagging Convention**

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

**Additional Comments**

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

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

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

**System Configuration**

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

**Chromatographic Columns**

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

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

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

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

**Certification Statement**

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

**Review Validation:**

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

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

Reviewer: Heather M. Mace Date: 04/02/10

# SAMPLE DATA SUMMARY

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8282

Lab Code: GEL

GEL Job No (SDG) 10-2124

Matrix: SOIL

GEL Sample ID: 248202001

Sample Amount 2

Moisture: 8.7

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959332

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0323084a

Date Analyzed: 25-MAR-10 01:57

Units: ug/kg

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

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8282

Lab Code: GEL

GEL Job No (SDG) 10-2124

Matrix: SOIL

GEL Sample ID: 248202001

Sample Amount 2

Moisture: 8.7

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959332

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03160080.wiff

Date Analyzed: 17-MAR-10 04:58

Units: ug/kg

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

\*Concentration =

Instrument	X	<u>Concentrated Extract Volume</u>	X	Dilution
Value		<u>Sample Amount</u>		Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8281

Lab Code: GEL

GEL Job No (SDG) 10-2124

Matrix: SOIL

GEL Sample ID: 248202002

Sample Amount 2

Moisture: 26.9

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959332

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0323085a

Date Analyzed: 25-MAR-10 02:27

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	106	J
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8281

Lab Code: GEL

GEL Job No (SDG) 10-2124

Matrix: SOIL

GEL Sample ID: 248202002

Sample Amount 2

Moisture: 26.9

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959332

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03160081.wiff

Date Analyzed: 17-MAR-10 05:14

Units: ug/kg

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

\*Concentration =

Instrument	X	<u>Concentrated Extract Volume</u>	X	Dilution
Value		<u>Sample Amount</u>		Factor

# QUALITY CONTROL SUMMARY



## High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLCGEL Job No (SDG): 10-2124Lab Code: GELHPLC Column: Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
248202001	RE36-10-8282	114	70 - 144	
248202001	RE36-10-8282	102	70 - 144	
248202002	RE36-10-8281	107	70 - 144	
248202002	RE36-10-8281	96.4	70 - 144	
1202057490	MB for batch 959332	108	70 - 144	
1202057490	MB for batch 959332	99.2	70 - 144	
1202057491	LCS for batch 959332	110	70 - 144	
1202057491	LCS for batch 959332	100	70 - 144	

DNT = 3,4-Dinitrotoluene

**3B**  
**High Explosives LCS/LCS Duplicate Summary**

**Lab Name:** GEL Laboratories LLC

**Client ID:** LCS

**Lab Code:** GEL

**GEL Job No (SDG)** 10-2124

**Extract Batch Code:** 959332

**Date Extracted:** 08-MAR-10

**GEL LCS ID:** 1202057491

**GEL LCSDUP ID:**

**Analysis Date/Time:** 25-MAR-10 01:28

**DUP Analysis Date/Time:**

**Reporting Units:** ug/kg

**QC Type:** LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
1,3,5-Trinitrobenzene	5000	4340	86.7					69 – 126
2,4,6-Trinitrotoluene	5000	4560	91.1					73 – 149
2,4-Dinitrotoluene	5000	4990	99.8					87 – 137
2,6-Dinitrotoluene	5000	4940	98.8					89 – 120
2-Amino-4,6-dinitrotoluene	5000	5530	111					90 – 130
4-Amino-2,6-dinitrotoluene	5000	5160	103					84 – 130
HMX	5000	5020	100					58 – 138
Nitrobenzene	5000	4470	89.4					71 – 122
PETN	5000	5330	107					64 – 137
RDX	5000	5330	107					81 – 137
Tetryl	5000	3100	61.9					51 – 112
m-Dinitrobenzene	5000	4850	97.1					83 – 122
m-Nitrotoluene	5000	4590	91.8					73 – 118
o-Nitrotoluene	5000	4660	93.2					72 – 119
p-Nitrotoluene	5000	4880	97.7					67 – 131

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

\* Values outside of QC limits

**3B**  
**High Explosives LCS/LCS Duplicate Summary**

**Lab Name:** GEL Laboratories LLC

**Client ID:** LCS

**Lab Code:** GEL

**GEL Job No (SDG)** 10-2124

**Extract Batch Code:** 959332

**Date Extracted:** 08-MAR-10

**GEL LCS ID:** 1202057491

**GEL LCSDUP ID:**

**Analysis Date/Time:** 17-MAR-10 04:43

**DUP Analysis Date/Time:**

**Reporting Units:** ug/kg

**QC Type:** LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
2,4-Diamino-6-nitrotoluene	5000	5450	109					52 - 114
2,6-Diamino-4-nitrotoluene	5000	6220	124 *					64 - 122
3,5-Dinitroaniline	5000	4900	98					70 - 127
tris(o-cresyl) phosphate	5000	5260	105					84 - 119
TATB	5000	6530	131					28 - 162

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

\* Values outside of QC limits

3  
High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE36-10-7458

Lab Code: GEL

GEL Job No (SDG) 10-2124

Extract Batch Code: 959332

Date Extracted: 08-MAR-10

GEL Spike ID: 1202057492

GEL SpikeDup ID: 1202057493

Analysis Date/Time: 25-MAR-10 08:50

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
1,3,5-Trinitrobenzene	5000	0	4880	97.6	3990	79.9	20	30	50 – 140
2,4,6-Trinitrotoluene	5000	0	4520	90.5	5080	102	11.7	30	76 – 144
2,4-Dinitrotoluene	5000	0	4900	98	4720	94.4	3.75	30	86 – 135
2,6-Dinitrotoluene	5000	0	4950	99	4860	97.2	1.86	30	90 – 118
2-Amino-4,6-dinitrotoluene	5000	0	5420	108	5000	100	8.07	30	85 – 137
4-Amino-2,6-dinitrotoluene	5000	0	5090	102	5060	101	.548	30	72 – 143
HMX	5000	0	5370	107	3990	79.7	29.5	30	51 – 144
Nitrobenzene	5000	0	4680	93.5	4640	92.8	.854	30	70 – 122
PETN	5000	0	5570	111	4650	93	18	30	60 – 140
RDX	5000	0	5650	113	4680	93.6	18.8	30	59 – 152
Tetryl	5000	0	2820	56.5	1560	31.2 *	57.5 *	30	36 – 124
m-Dinitrobenzene	5000	0	5230	105	4810	96.1	8.46	30	85 – 118
m-Nitrotoluene	5000	0	4690	93.7	4710	94.1	.455	30	70 – 120
o-Nitrotoluene	5000	0	4590	91.7	4920	98.5	7.05	30	69 – 123
p-Nitrotoluene	5000	0	4970	99.4	5000	99.9	.566	30	65 – 133

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

## High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLCClient ID: RE36-10-7458Lab Code: GELGEL Job No (SDG) 10-2124Extract Batch Code: 959332Date Extracted: 08-MAR-10GEL Spike ID: 1202057492GEL SpikeDup ID: 1202057493Analysis Date/Time: 17-MAR-10 08:38

MSD Analysis Date/Time:

Reporting Units: ug/kgQC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
TATB	5000	0	9370	187 *	7470	149	22.6	30	29 – 155
tris(o-cresyl) phosphate	5000	0	5720	114	5650	113	1.23	30	72 – 127
2,4-Diamino-6-nitrotoluene	5000	0	3040	60.8	1870	37.4	47.7 *	26	34 – 135
3,5-Dinitroaniline	5000	0	4790	95.8	4700	94	1.9	30	73 – 129
2,6-Diamino-4-nitrotoluene	5000	0	4470	89.4	3740	74.8	17.8	30	55 – 130

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

## Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2124Lab Code: GELLab Sample ID: XIBLK01Analysis Date: 23-MAR-10 09:08GEL Data File: EXP0323001aInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	229.482
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	228.802
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

Method: C:\MASSLYNX\New\_Exp.PRO\MethDB\032310expa.mdb, Time: Tue Mar 23 14:06:48 2010

Calibration: Untitled, Time: Wed Mar 24 09:29:41 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323001a

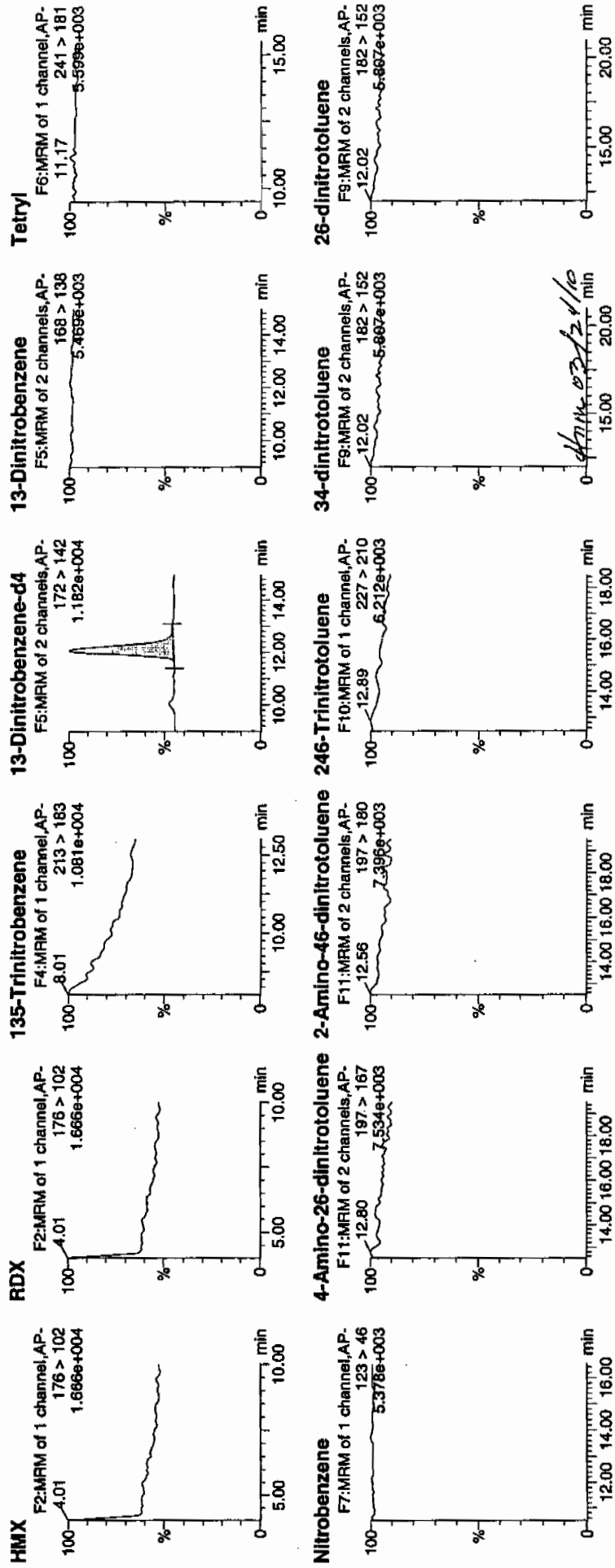
Date: 23-Mar-2010

Time: 09:08:58

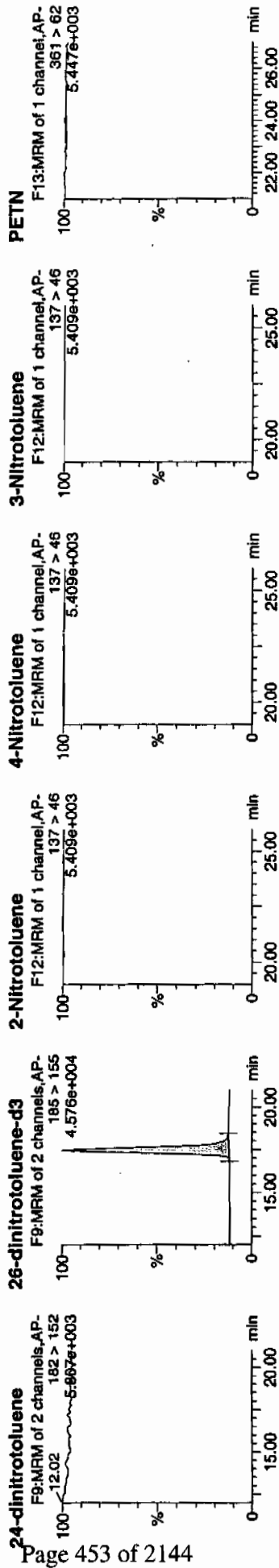
ID: XIBLK01

Vial: 1:1,A

107  
3/24/10



Dataset: C:\MASSLYNX\New\_Exp\PRO\032310expA.qid, Time: Wed Mar 24 09:29:41 2010



ID	Name	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc/mL	% Rec	% Dev	SN
XIBLK01	HMx	176 > 102	2526.262	2526.262									
XIBLK01	RDX	176 > 102	2526.262	2526.262									
XIBLK01	135-Trinitrobenzene	213 > 183	2526.262	2526.262									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.07	2526.262			bb			229.4819	45.9	-54.1	223.1
XIBLK01	13-Dinitrobenzene	168 > 138		2526.262									
XIBLK01	Tetryl	241 > 181		2526.262									
XIBLK01	Nitrobenzene	123 > 46		2526.262									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167		15755.593									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180		15755.593									
XIBLK01	246-Trinitrotoluene	227 > 210		15755.593									
XIBLK01	34-dinitrotoluene	182 > 152		15755.593									
XIBLK01	26-dinitrotoluene	182 > 152		15755.593									
XIBLK01	24-dinitrotoluene	182 > 152		15755.593									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.47	15755.593			bb			228.8024	45.8	-54.2	1652.1
XIBLK01	2-Nitrotoluene	137 > 46		15755.593									
XIBLK01	4-Nitrotoluene	137 > 46		15755.593									
XIBLK01	3-Nitrotoluene	137 > 46		15755.593									
XIBLK01	PETN	361 > 62		15755.593									



## Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2124Lab Code: GELLab Sample ID: XIBLK01Analysis Date: 23-MAR-10 09:38GEL Data File: EXP0323002aInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	249.294
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	247.4
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323002a

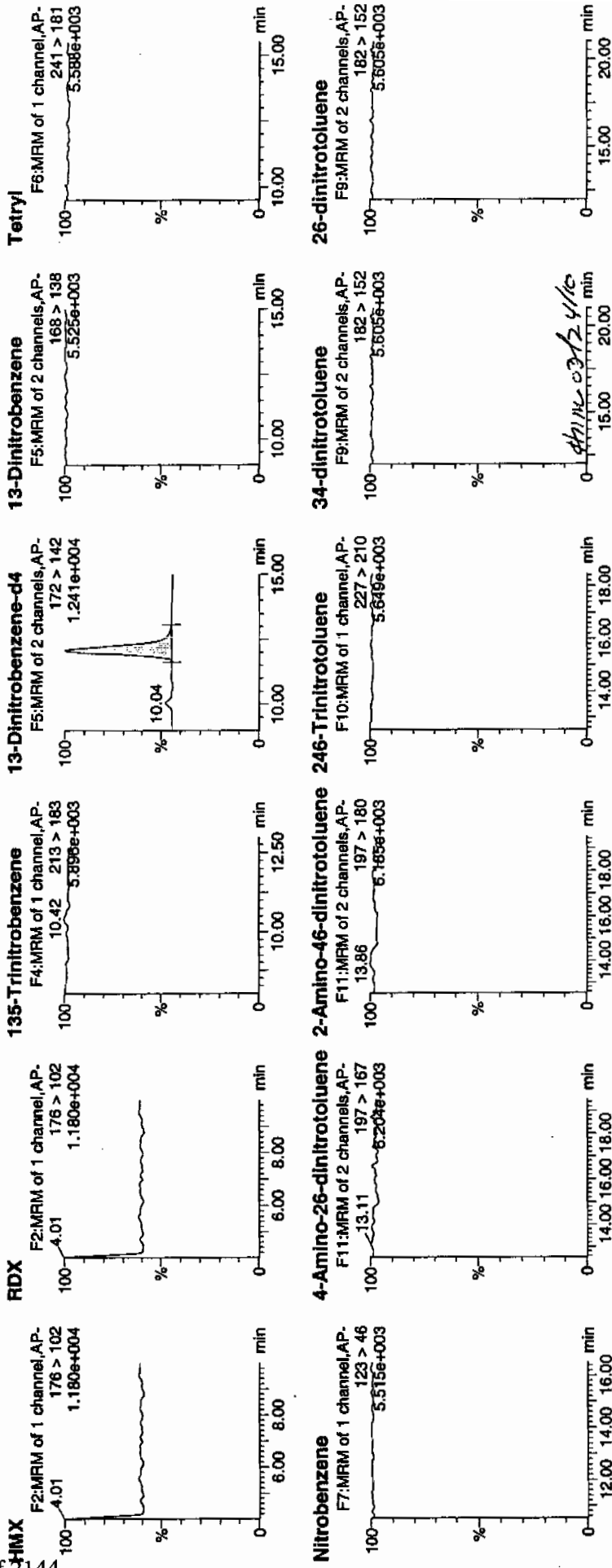
Date: 23-Mar-2010

Time: 09:38:34

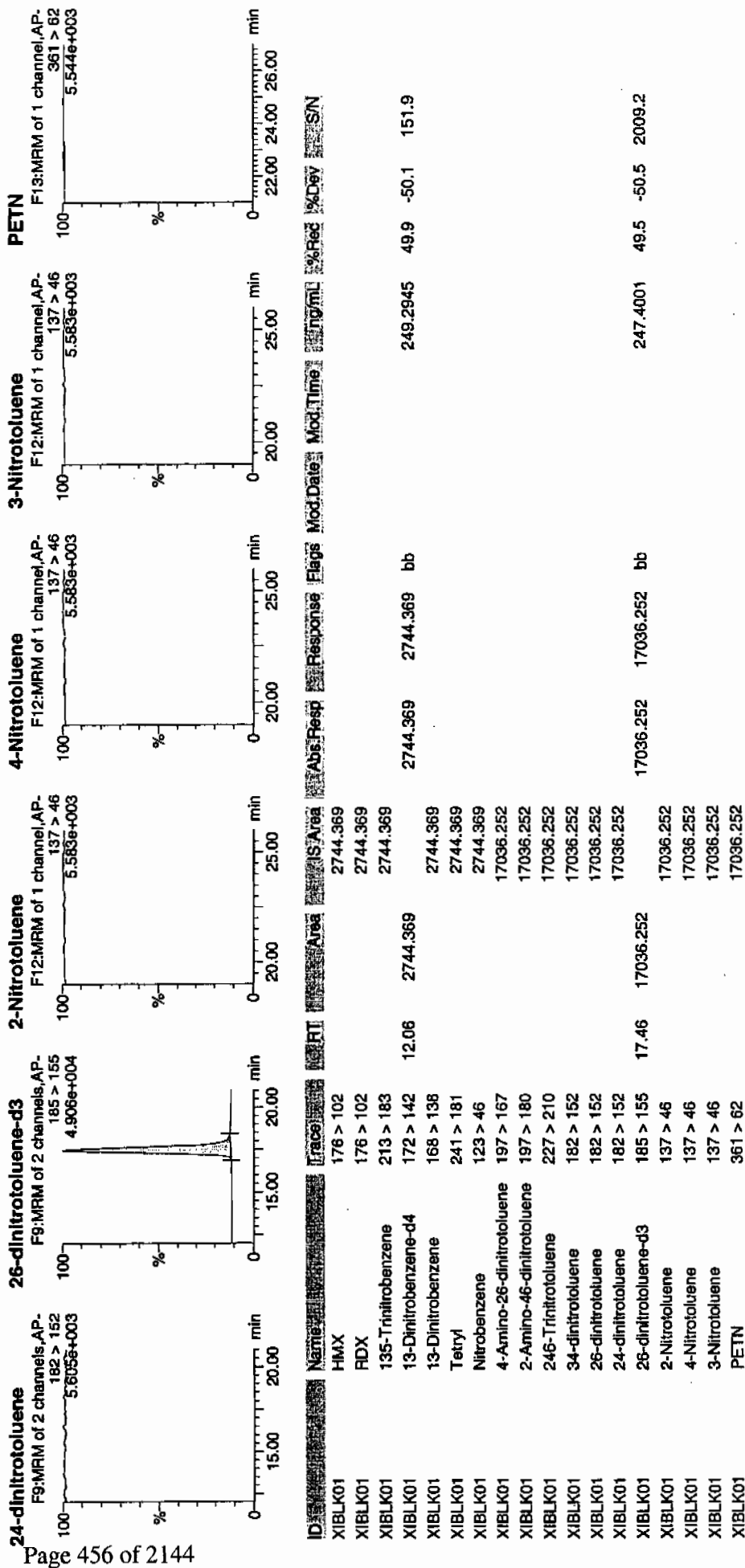
ID: XIBLK01

Vial: 1:1,A

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3/24/10



Dataset: C:\MASSLYNX\New\_Exp\_PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010



## Explosives Initial Calibration Blank

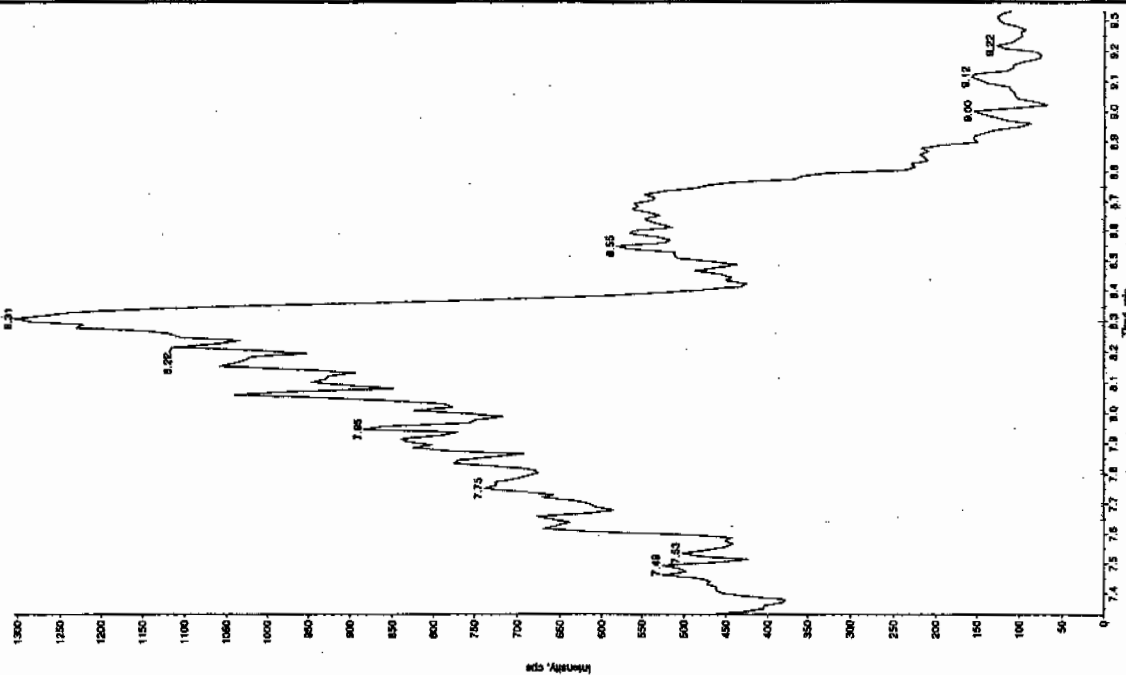
Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2124Lab Code: GELLab Sample ID: XIBLK01Analysis Date: 16-MAR-10 08:17GEL Data File: EXS03160001.wiffInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

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



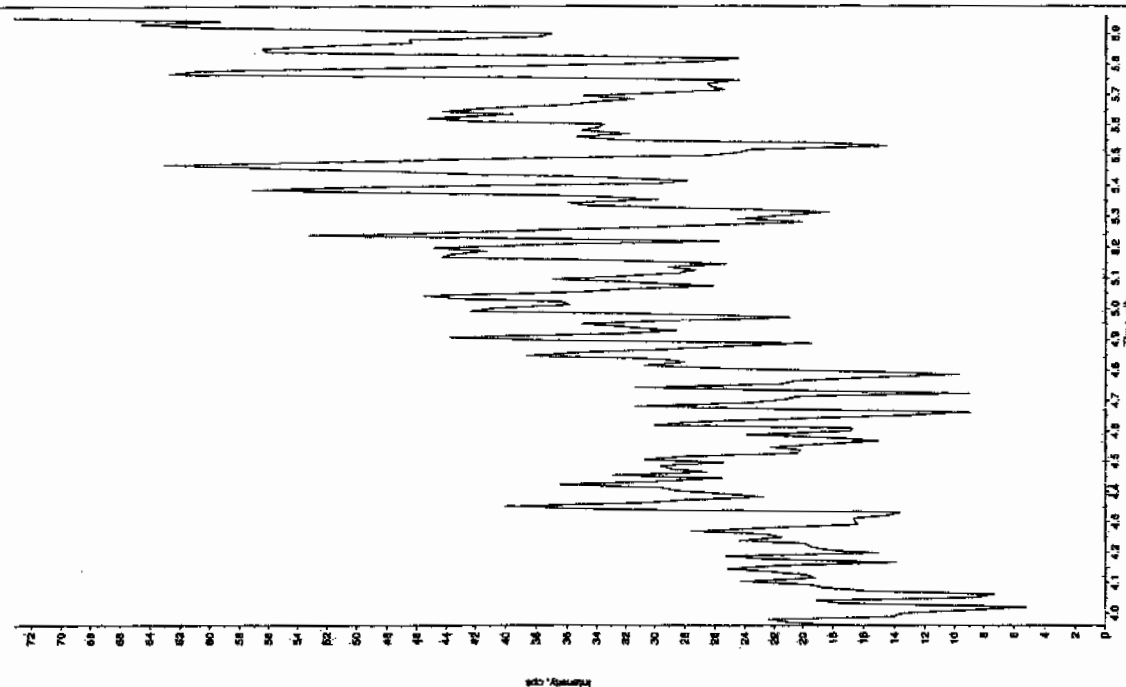
Sample Name: "X81K01" Sample ID: "T1LER" File: "EX503160001.wif"  
Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 3/16/2010  
Acq. Time: 8:17:47 AM  
Modified: No



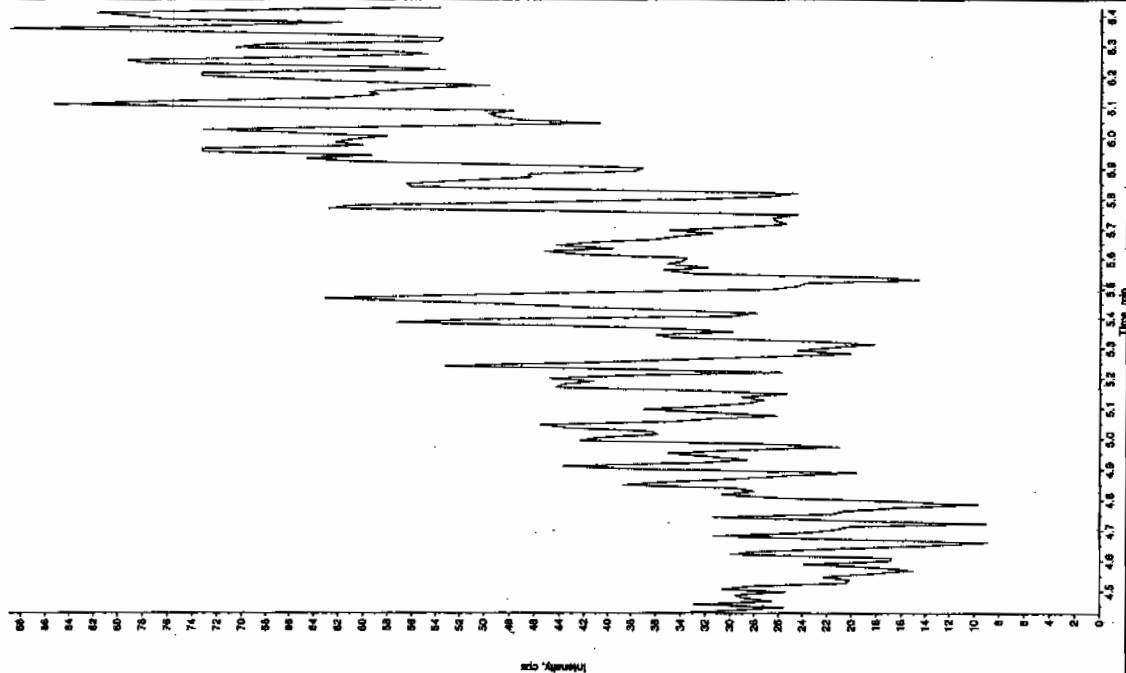
Sample Name: "X81K01" Sample ID: "T1LER" File: "EX503160001.wif"  
Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "166.0/166.0 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 3/16/2010  
Acq. Time: 8:17:47 AM  
Modified: No



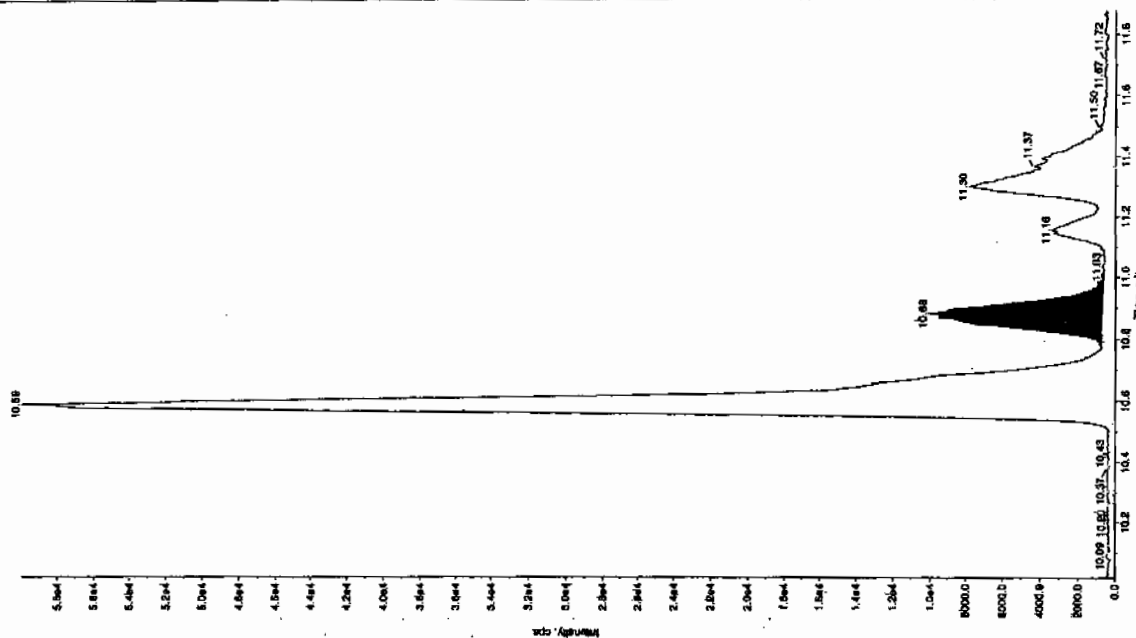
Sample Name: "XIBUK01" Sample ID: "1" File: "EXS03160001.wiff"  
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0745.0 amu"  
Comment: "LOMSEXP\_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentrated:	N/A
Diluted Conc:	0.00
Acq. Date:	3/16/2010
Acq. Time:	8:17:47 AM
Modified:	NO



Sample Name: "X(BULK)" Sample ID: "11ER" File: "EXS03180001.wiff"  
Peak Name: "1,3-bis-cresyl phosphite" Mass(es): "959.191.0 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

Sample Index:	1	Unknown
Sample Type:	N/A	
Concentration:	No Intercept	
Calculated Conc:	3/16/2010	
Acq. Date:	8/17/07 AM	
Acq. Time:		
Modified:	NO	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	CPS
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	10.0	sec
Expected RT:	10.9	min
Use Relative RT:	NO	min
Int. Type:	Valley	
Retention Time:	4.776	min
Height:	9390.677	CPS
Start Time:	10.8	min
End Time:	11.0	min



## Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2124Lab Code: GELLab Sample ID: XIBLK01Analysis Date: 16-MAR-10 08:33GEL Data File: EXS03160002.wiffInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

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



Run 3/18/10

Sample Name: "XBLX01" Sample ID: "11111" File: "EX503160002.wif"

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

Comment: "LCMSXP\_B" Annotation: "

Sample Index: 1

Sample Type: Unknown

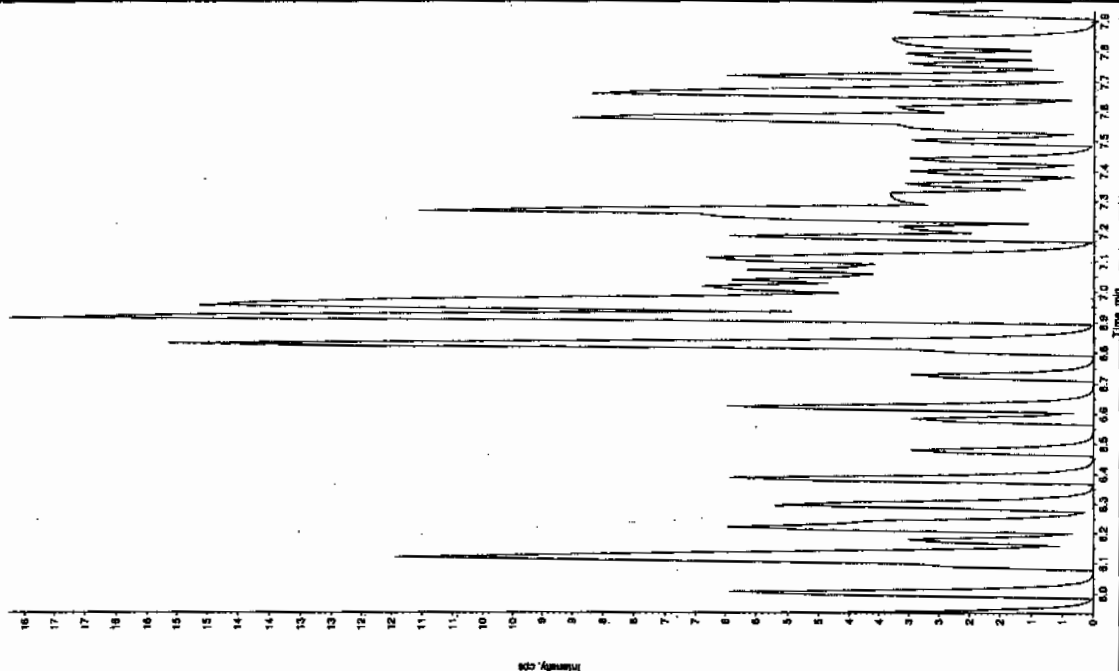
Concentration: 0.0 ng/mL

Calculated Conc: 3/16/2010

Acq. Date: 8:33:34 AM

Acq. Time: 8:33:34 AM

Modified: No



Sample Name: "XBLX01" Sample ID: "11111" File: "EX503160002.wif"

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

Comment: "LCMSXP\_B" Annotation: "

Sample Index: 1

Sample Type: Unknown

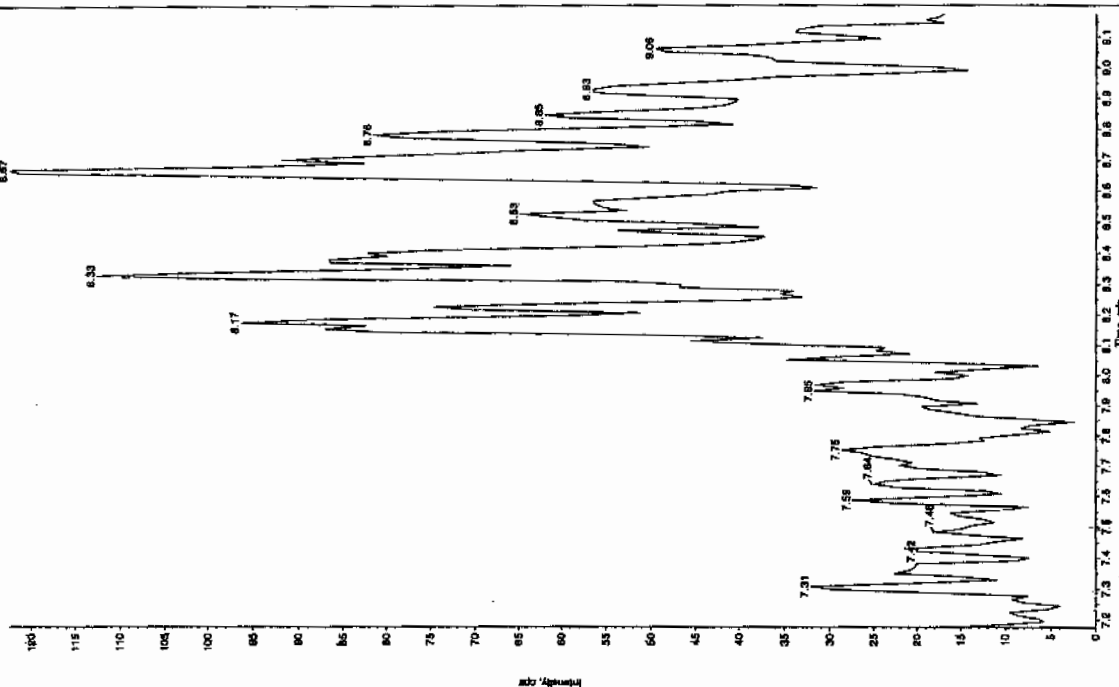
Concentration: 0.0 ng/mL

Calculated Conc: 3/16/2010

Acq. Date: 8:33:34 AM

Acq. Time: 8:33:34 AM

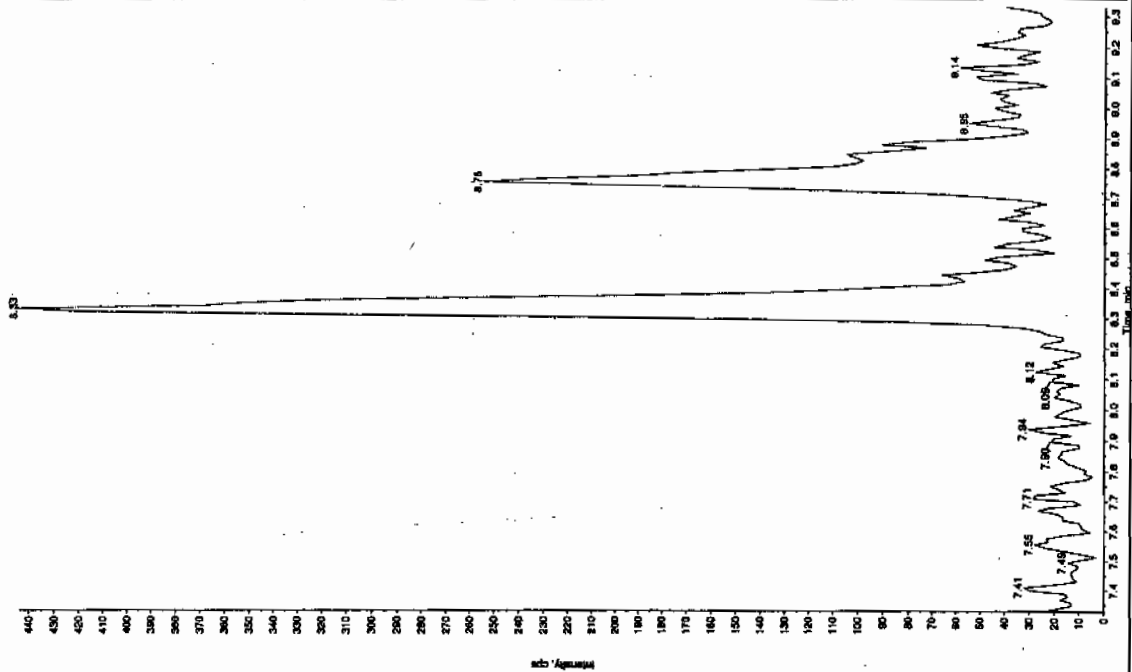
Modified: No



Run 03/18/10

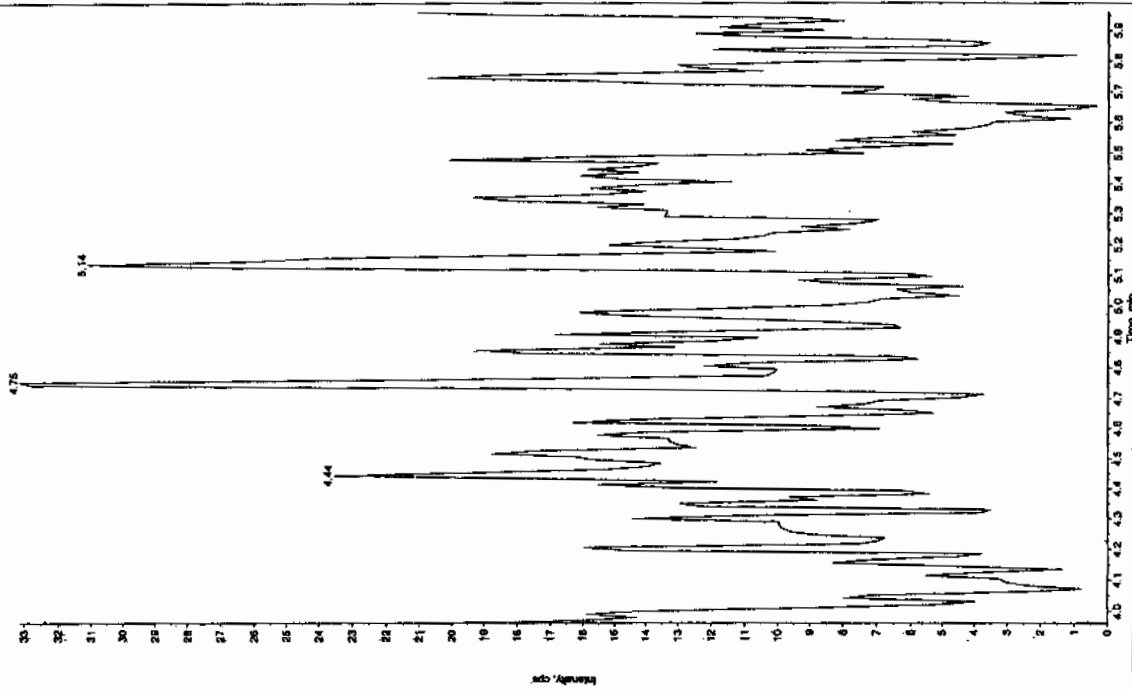
Sample Name: "XBLX01" Sample ID: "111111" File: "EX83216002.wiff"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "162.17/151.9 amu"  
 Comment: "LCMS-EXP\_B" Acquisition: "4"

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 3.10 ng/mL  
 Acq. Date: 3/15/2010  
 Acq. Time: 8:33:34 AM  
 Modified: No



Sample Name: "XBLX01" Sample ID: "111111" File: "EX83216002.wiff"  
 Peak Name: "28-Dinitro-4-nitrofluorene" Mass(es): "166.04/166.0 amu"  
 Comment: "LCMS-EXP\_B" Acquisition: "4"

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 3.10 ng/mL  
 Acq. Date: 3/15/2010  
 Acq. Time: 8:33:34 AM  
 Modified: No





4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2124

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 23-MAR-10 13:04

GEL Data File: EXP0323009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	400.005
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	359.09
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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

Dataset: C:\MASSLYNX\New\_Exp\PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

Name: C:\MASSLYNX\NEW\_EXP\PRO\Data\EXP0323009a

Date: 23-Mar-2010

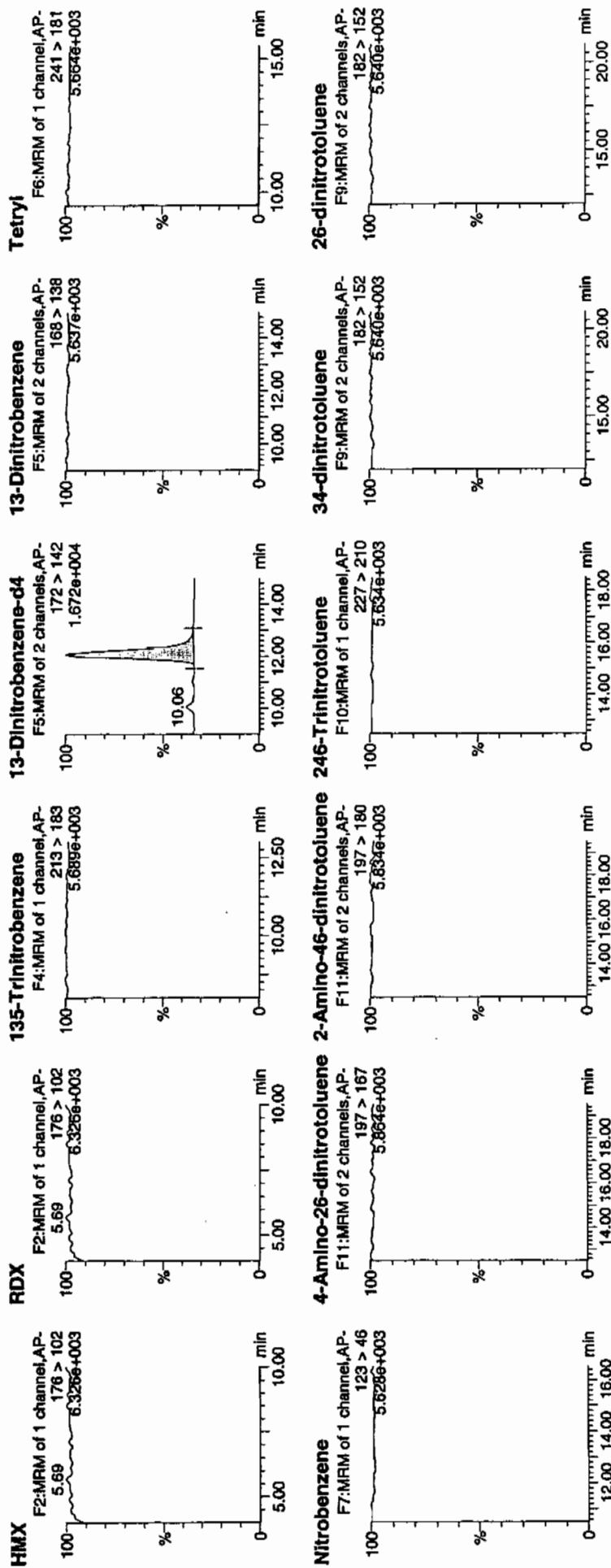
Time: 13:04:52

ID: XIBLK02

Vial: 1:1,A

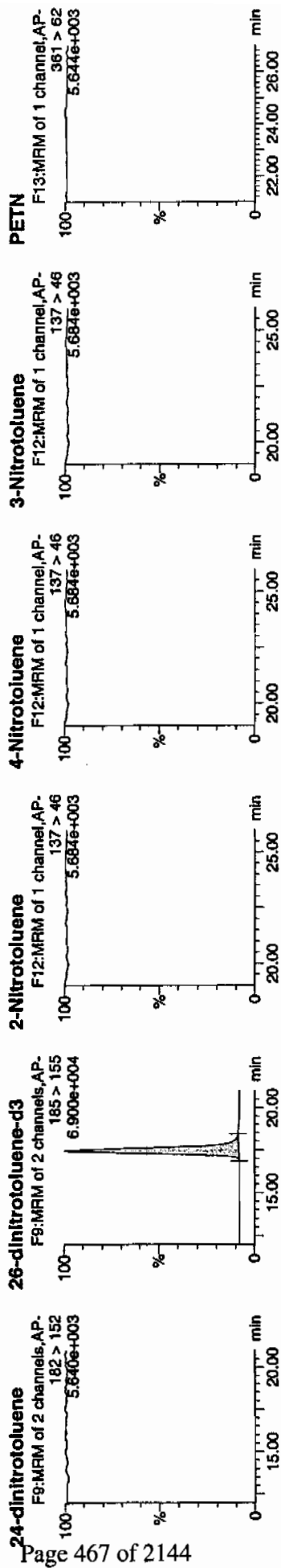
Page 466 of 2144

*WAT 3/24/10*



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Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010



ID	Name	Area	HT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK02	HMX	176 > 102			4403.474									
XIBLK02	RDX	176 > 102			4403.474									
XIBLK02	135-Trinitrobenzene	219 > 183			4403.474									
XIBLK02	13-Dinitrobenzene-d4	172 > 142	12.07	4403.474							400.0051	80.0	-20.0	434.0
XIBLK02	13-Dinitrobenzene	168 > 138			4403.474									
XIBLK02	Tetryl	241 > 181			4403.474									
XIBLK02	Nitrobenzene	123 > 46			4403.474									
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			24727.354									
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			24727.354									
XIBLK02	246-Trinitrotoluene	227 > 210			24727.354									
XIBLK02	34-dinitrotoluene	182 > 152			24727.354									
XIBLK02	26-dinitrotoluene	182 > 152			24727.354									
XIBLK02	24-dinitrotoluene	182 > 152			24727.354									
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.44	24727.354							359.0901	71.8	-28.2	3290.4
XIBLK02	2-Nitrotoluene	137 > 46			24727.354									
XIBLK02	4-Nitrotoluene	137 > 46			24727.354									
XIBLK02	3-Nitrotoluene	137 > 46			24727.354									
XIBLK02	PETN	381 > 62			24727.354									

## Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2124Lab Code: GELLab Sample ID: XIBLK03Analysis Date: 23-MAR-10 14:03GEL Data File: EXP0323011aInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	505.262
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	469.688
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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

Dataset: C:\MASSLYNX\New\_Exp\_PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

Name: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0323011a

Date: 23-Mar-2010

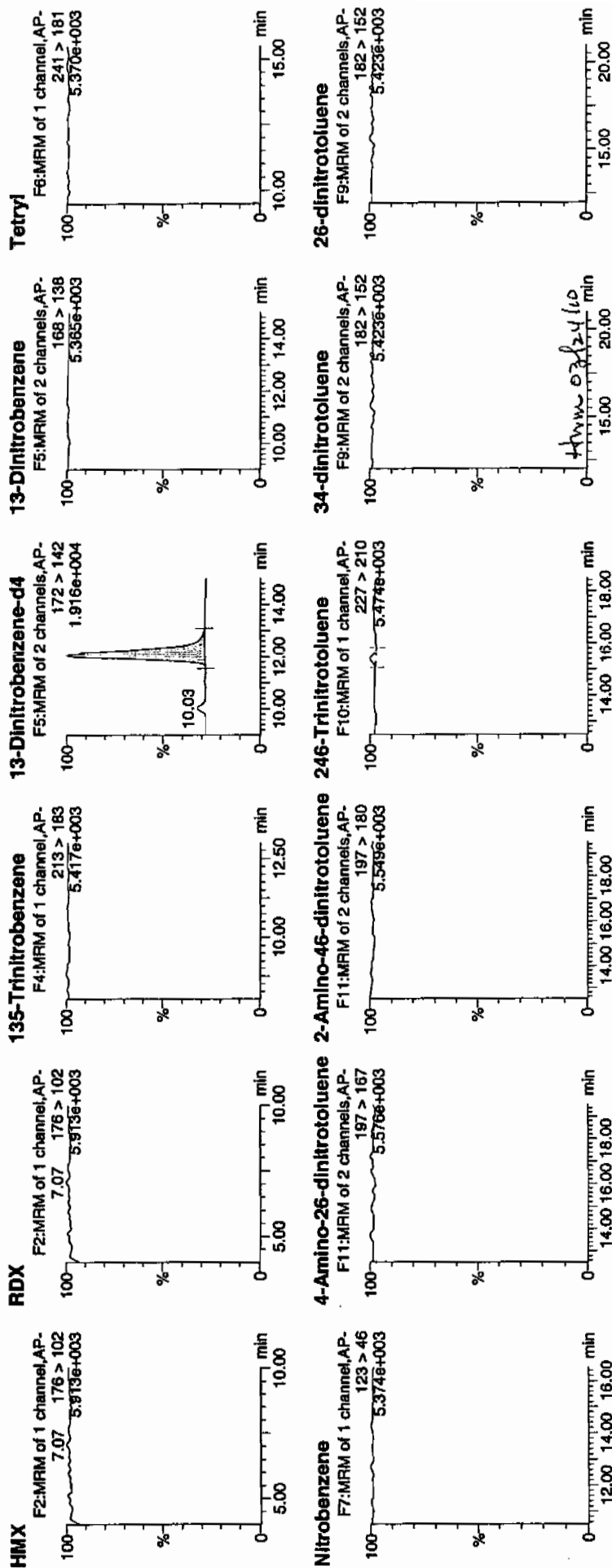
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ID: XIBLK03

Vial: 1:1,A

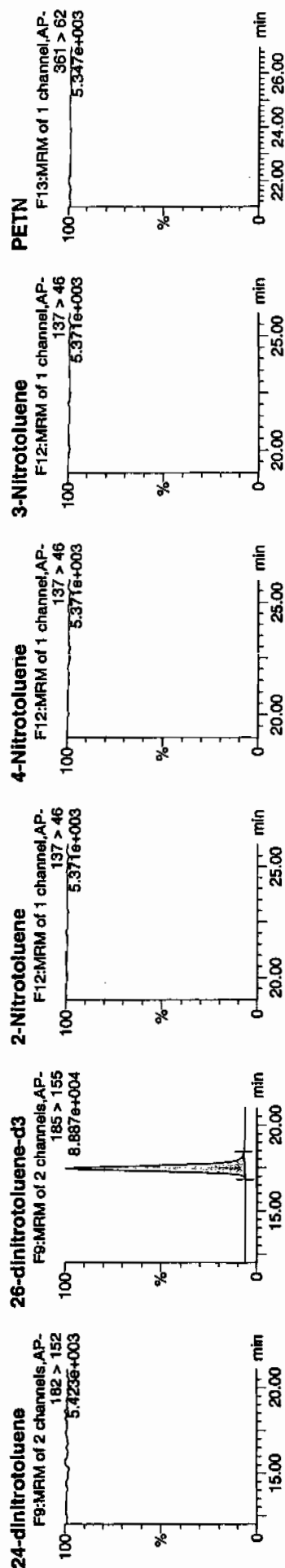
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3/14/10

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Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

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4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2124

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 23-MAR-10 20:27

GEL Data File: EXP0323024a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	562.021
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	528.426
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323024a

Date: 23-Mar-2010

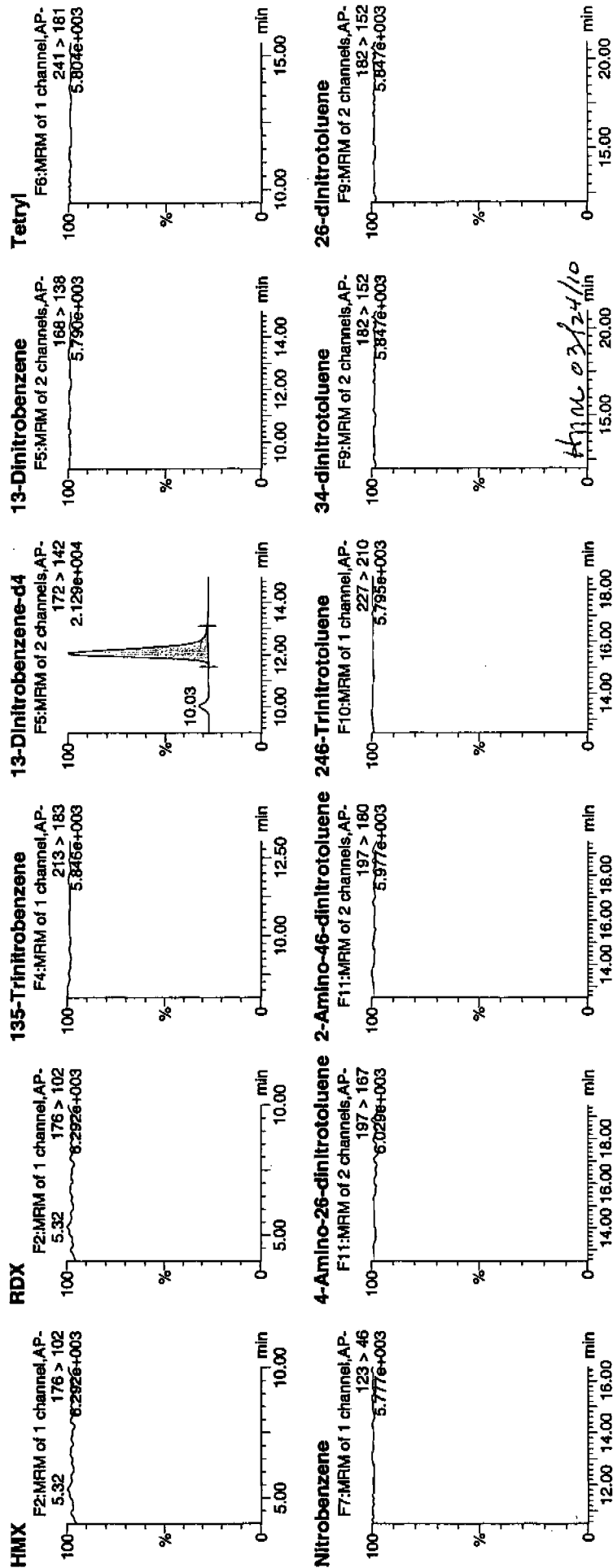
Time: 20:27:13

ID: XIBLK04

Vial: 1:1,A

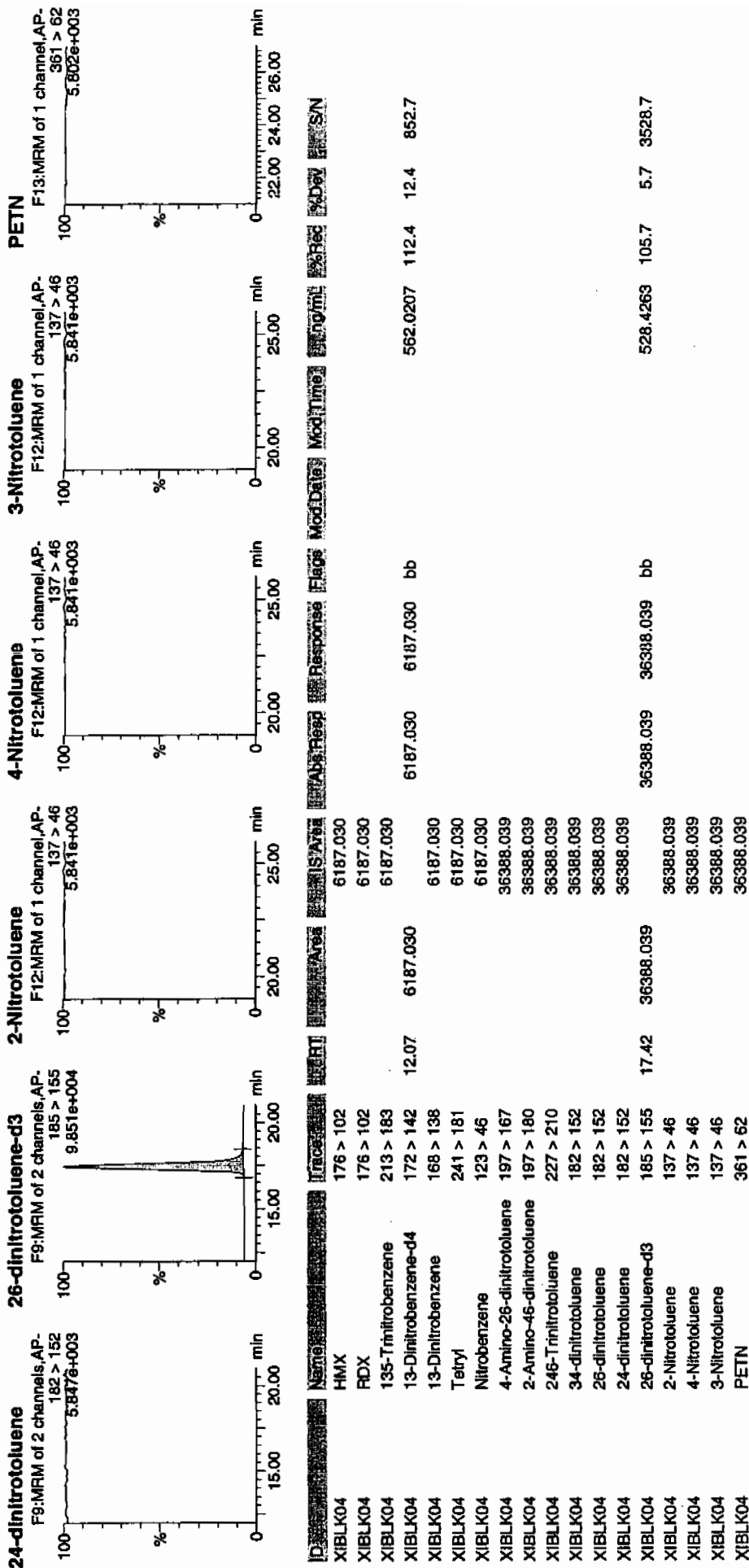
NOT  
3/24/10

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

Dataset: C:\MASSLYNX\New\_Exp\PRO032310expA.qld, Time: Wed Mar 24 09:29:41 2010



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2124

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 24-MAR-10 02:50

GEL Data File: EXP0323037a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	534.426
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	585.234
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323037a

Date: 24-Mar-2010

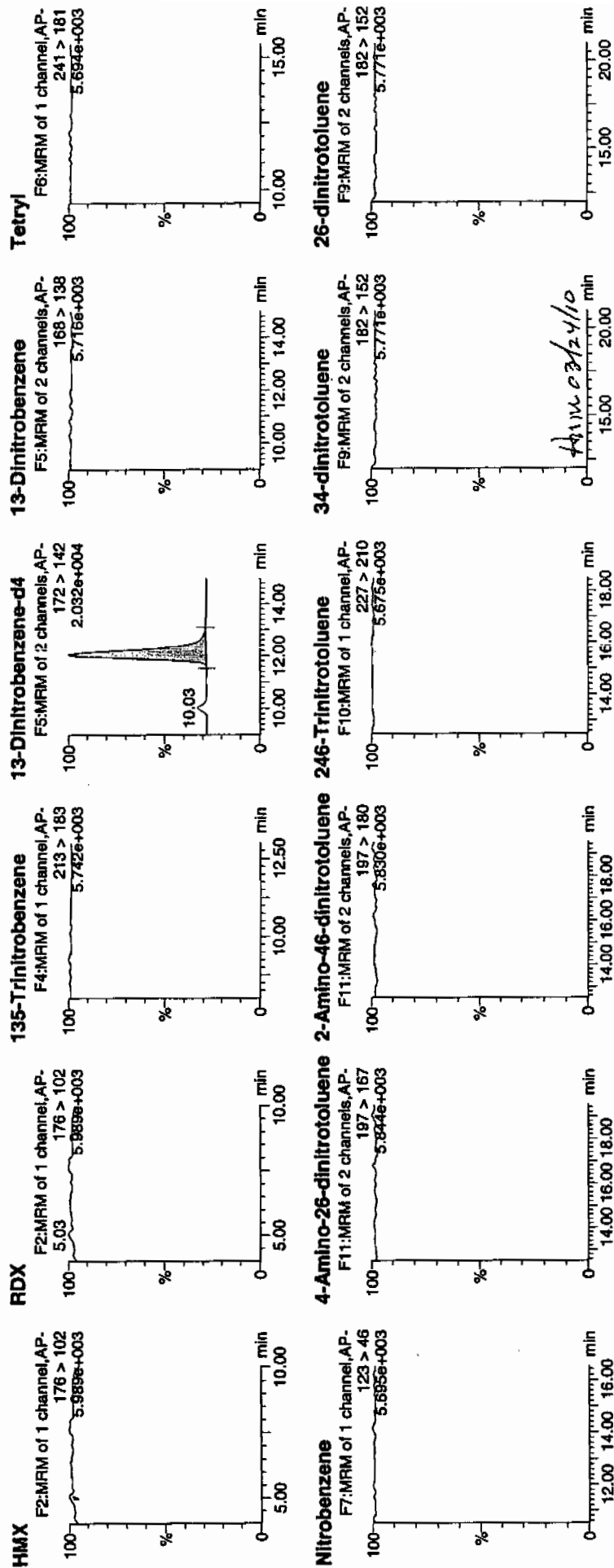
Time: 02:50:36

ID: XIBLK05

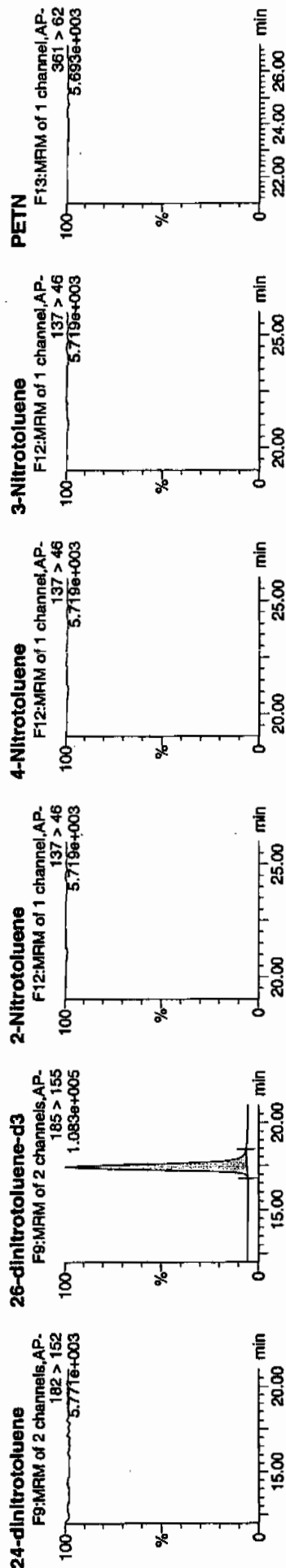
Vial: 1:1,A

10/17  
3/24/10

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Dataset: C:\MASSLYNX\New\_Exp\PRO032310expA.qld, Time: Wed Mar 24 09:29:41 2010



ID	Name	RT	Area	Area	Abs:Resp	Response	Flags	Mod:Time	%Red	%Dev	S/N
XIBLK05	HMX	176 > 102		5883.251							
XIBLK05	RDX	176 > 102		5883.251							
XIBLK05	135-Trinitrobenzene	213 > 183		5883.251							
XIBLK05	13-Dinitrobenzene-d4	172 > 142	12.03	5883.251			bb				
XIBLK05	13-Dinitrobenzene	168 > 138		5883.251							
XIBLK05	Teiry	241 > 181		5883.251							
XIBLK05	Nitrobenzene	123 > 46		5883.251							
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167		40299.871							
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180		40299.871							
XIBLK05	246-Trinitrotoluene	227 > 210		40299.871							
XIBLK05	34-dinitrotoluene	182 > 152		40299.871							
XIBLK05	26-dinitrotoluene	182 > 152		40299.871							
XIBLK05	24-dinitrotoluene	182 > 152		40299.871							
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.42	40299.871			bb				
XIBLK05	2-Nitrotoluene	137 > 46		40299.871							
XIBLK05	4-Nitrotoluene	137 > 46		40299.871							
XIBLK05	3-Nitrotoluene	137 > 46		40299.871							
XIBLK05	PETN	361 > 62		40299.871							

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2124

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 24-MAR-10 08:15

GEL Data File: EXP0323048a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	525.584
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	553.206
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0



Name: C:\MASSLYNX\NEW\_EXP\PRO\Data\EXP0323048a

Date: 24-Mar-2010

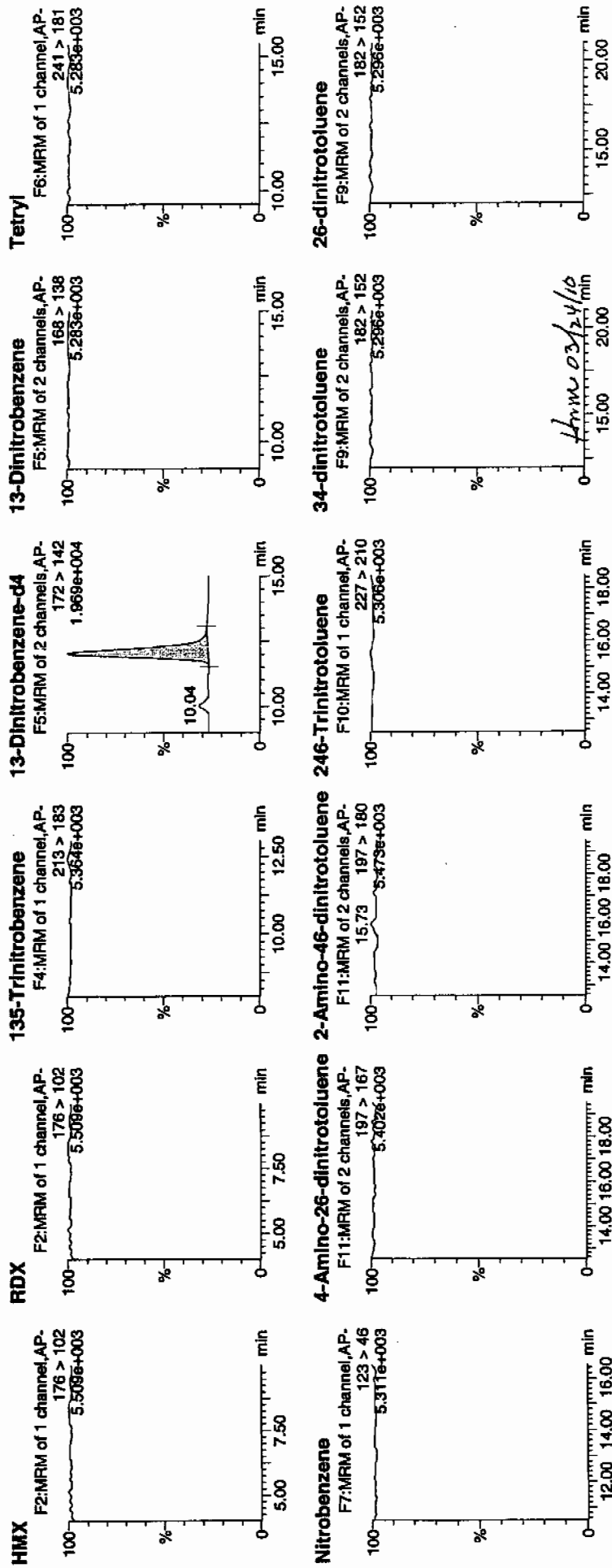
Time: 08:15:01

ID: XIBLK06

Vial: 1:1,A

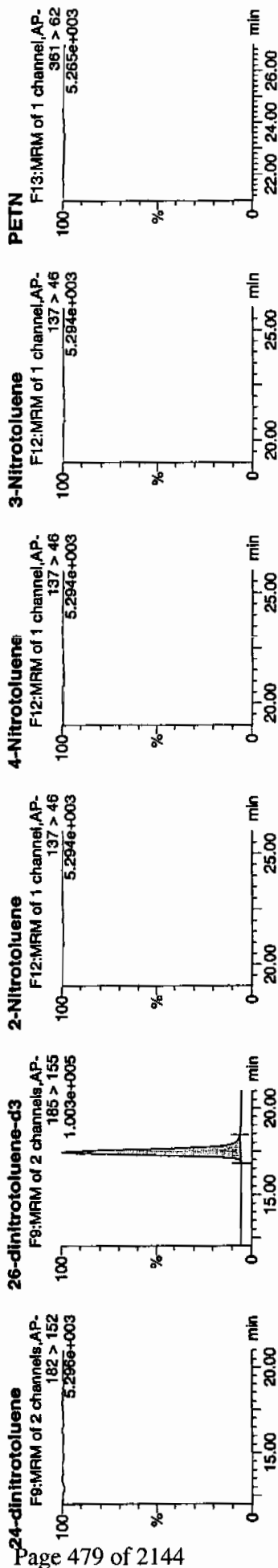
10/14/10

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

Dataset: C:\MASSLYNX\New\_Exp\PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010



ID	Name	RT	Area	IS Area	Abs Resp	Response	Flag	Mod Date	Mod Time	Int/mt	% Rec	Day	SN
XIBLK06	HMX	176 > 102		5785.916									
XIBLK06	RDX	176 > 102		5785.916									
XIBLK06	135-Trinitrobenzene	213 > 183		5785.916									
XIBLK06	13-Dinitrobenzene-d4	172 > 142	12.03	5785.916									
XIBLK06	13-Dinitrobenzene	168 > 138		5785.916									
XIBLK06	Tetryl	241 > 181		5785.916									
XIBLK06	Nitrobenzene	123 > 46		5785.916									
XIBLK06	4-Amino-26-dinitrotoluene	197 > 167		38094.418									
XIBLK06	2-Amino-46-dinitrotoluene	197 > 180		38094.418									
XIBLK06	246-Trinitrotoluene	227 > 210		38094.418									
XIBLK06	34-dinitrotoluene	182 > 152		38094.418									
XIBLK06	26-dinitrotoluene	182 > 152		38094.418									
XIBLK06	24-dinitrotoluene	182 > 152		38094.418									
XIBLK06	26-dinitrotoluene-d3	185 > 155	17.41	38094.418									
XIBLK06	2-Nitrotoluene	137 > 46		38094.418									
XIBLK06	4-Nitrotoluene	137 > 46		38094.418									
XIBLK06	3-Nitrotoluene	137 > 46		38094.418									
XIBLK06	PETN	361 > 62		38094.418									
					5785.916	5785.916	bb			525.5841	105.1	5.1	741.5
					38094.418	38094.418	bb			553.2063	110.6	10.6	4007.9

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2124

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 24-MAR-10 14:38

GEL Data File: EXP0323061a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	509.311
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	504.889
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Thu Mar 25 10:04:08 2010, Page 23 of 79

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323061a

Date: 24-Mar-2010

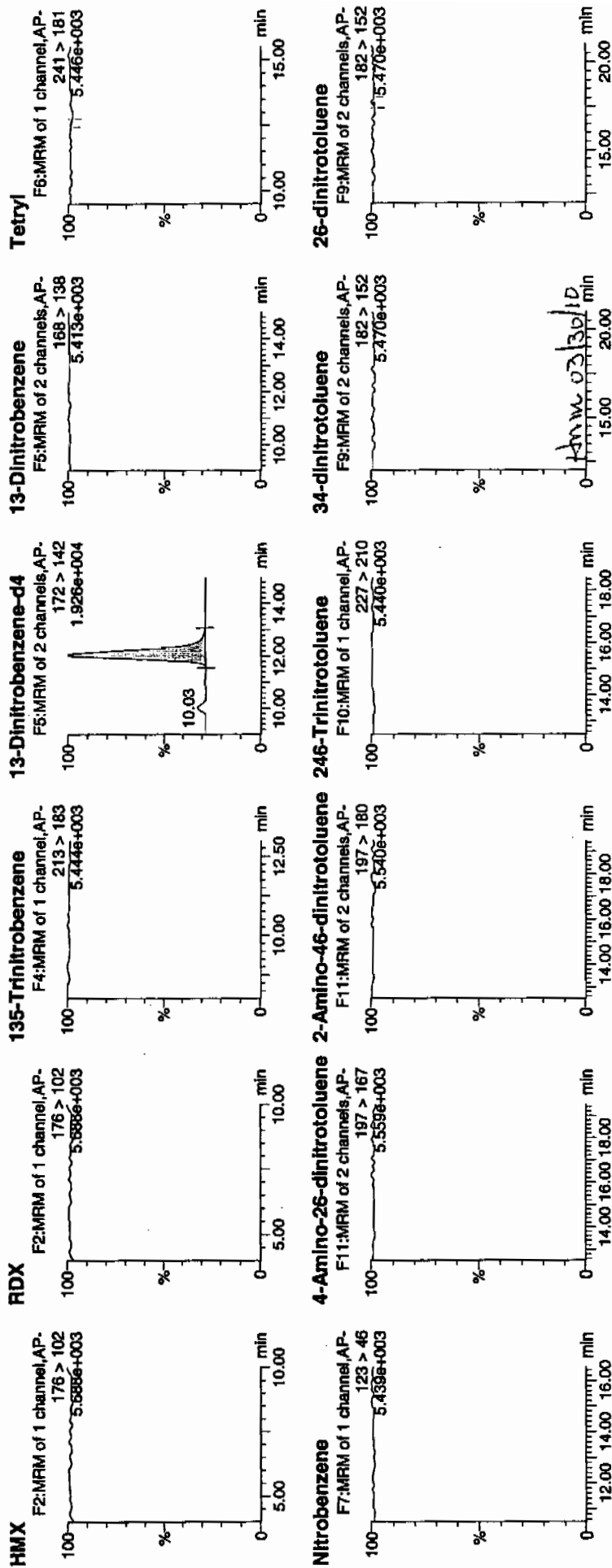
Time: 14:38:46

ID: XIBLK07

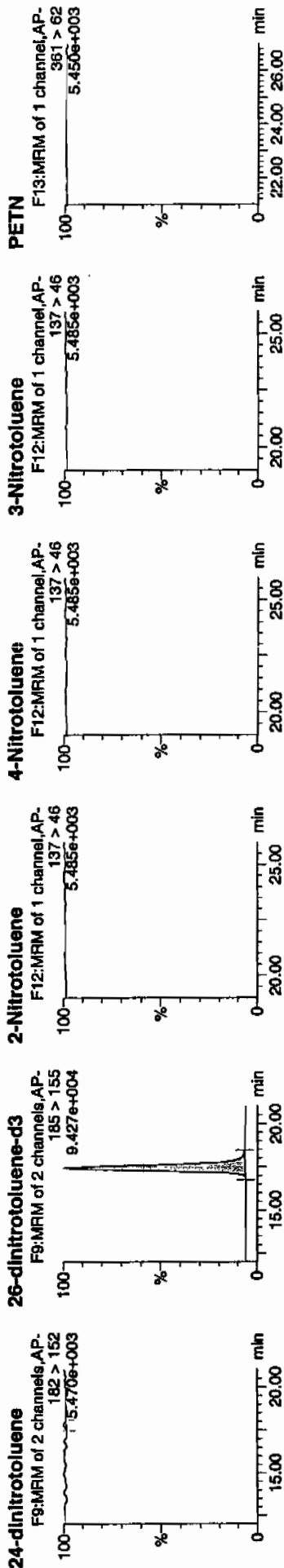
Vial: 1:1,A

1.926  
3.126

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Dataset: C:\MASSLYNX\New\_Exp\_PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010



ID	Name	Mass	RT	Area	IS:Area	Abundance	Response	File	Mod Date	Mod Time	%Rec	%Dev	SN
XIBLK07	HMX	176 > 102			5606.773								
XIBLK07	RDX	176 > 102			5606.773								
XIBLK07	135-Trinitrobenzene	213 > 183			5606.773								
XIBLK07	13-Dinitrobenzene-d4	172 > 142	12.03	5606.773			5606.773	bb	MM- 25-Mar-10	09:49:20	509.3110	101.9	385.4
XIBLK07	13-Dinitrobenzene	168 > 138			5606.773								
XIBLK07	Tetryl	241 > 181			5606.773								
XIBLK07	Nitrobenzene	123 > 46			34767.250								
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167			34767.250								
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180			34767.250								
XIBLK07	246-Trinitrotoluene	227 > 210			34767.250								
XIBLK07	34-dinitrotoluene	182 > 152			34767.250								
XIBLK07	26-dinitrotoluene	182 > 152			34767.250								
XIBLK07	24-dinitrotoluene	182 > 152			34767.250								
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.42	34767.250			34767.250	bb	MM- 25-Mar-10	09:54:01	504.8892	101.0	2699.0
XIBLK07	2-Nitrotoluene	137 > 46			34767.250								
XIBLK07	4-Nitrotoluene	137 > 46			34767.250								
XIBLK07	3-Nitrotoluene	137 > 46			34767.250								
XIBLK07	PETN	361 > 62			34767.250								

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2124

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 24-MAR-10 21:02

GEL Data File: EXP0323074a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	608.614
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	531.363
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323074a

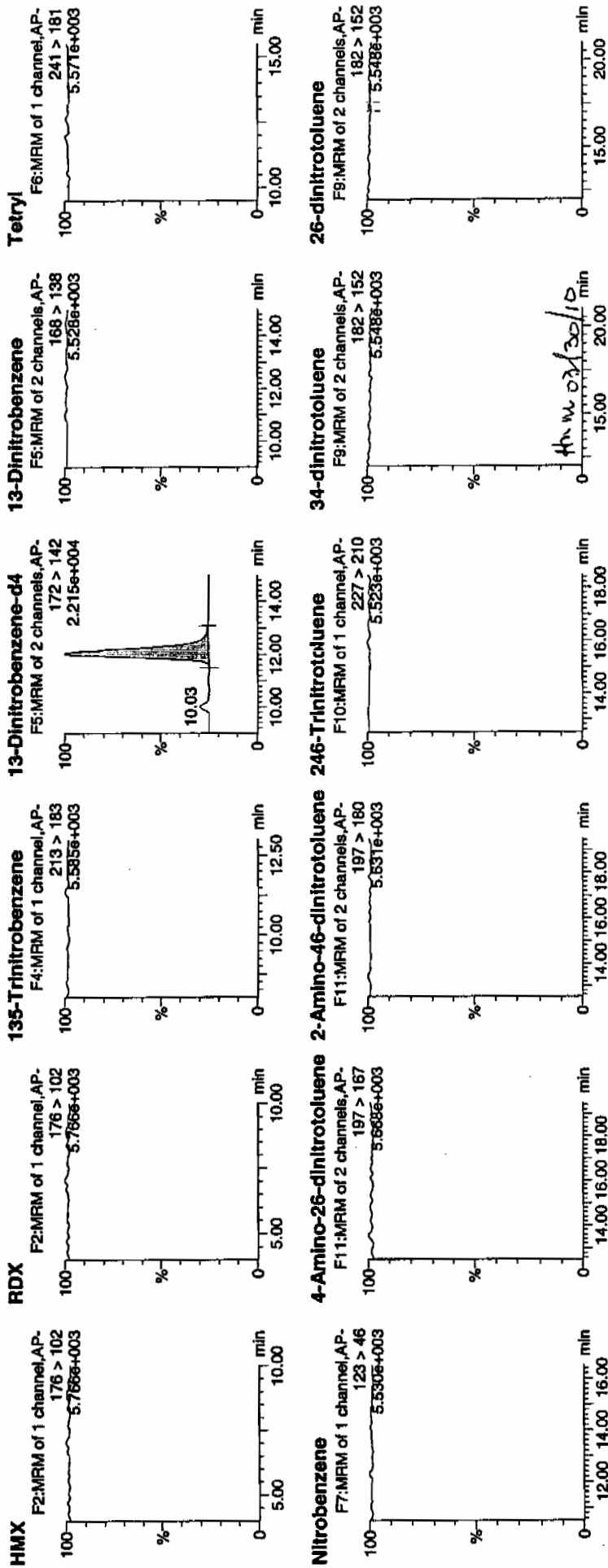
Date: 24-Mar-2010

Time: 21:02:20

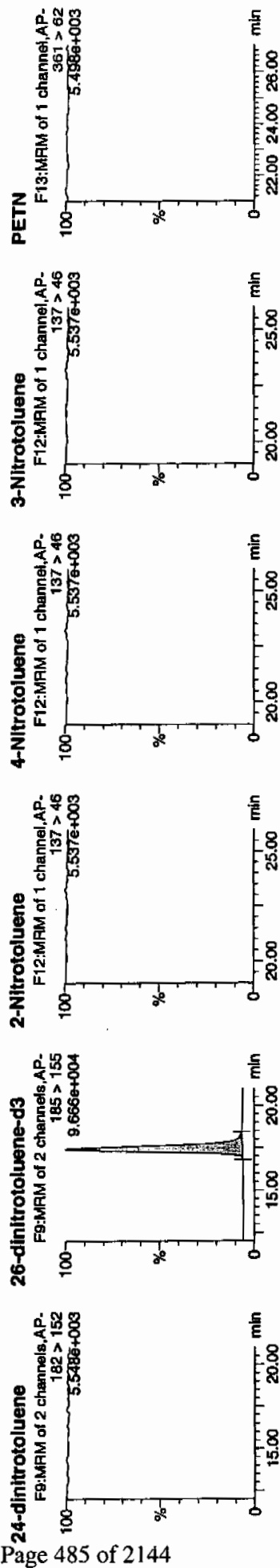
ID: XIBLK08

Vial: 1:1,A

MM 2/10/2



Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010

[illegible]



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2124

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 25-MAR-10 00:28

GEL Data File: EXP0323081a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	569.342
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	537.727
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323081a

Date: 25-Mar-2010

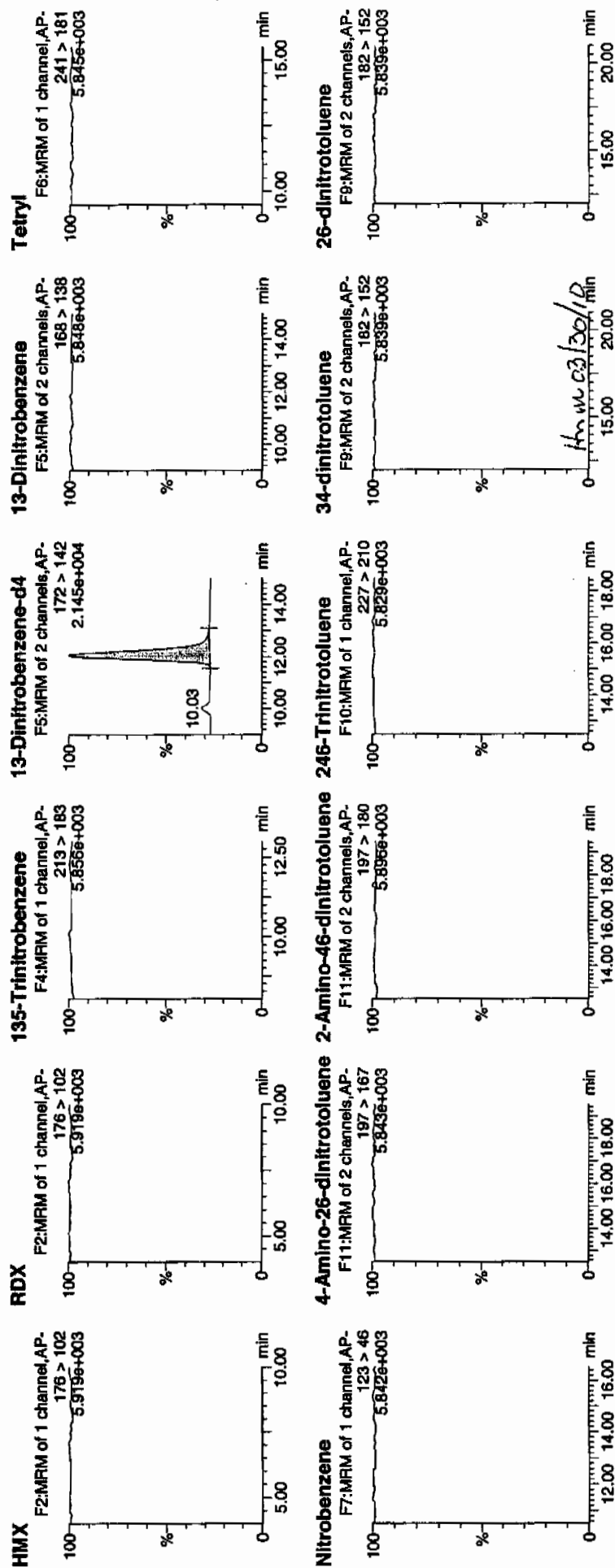
Time: 00:28:55

ID: XIBLK09

Vial: 1:1,A

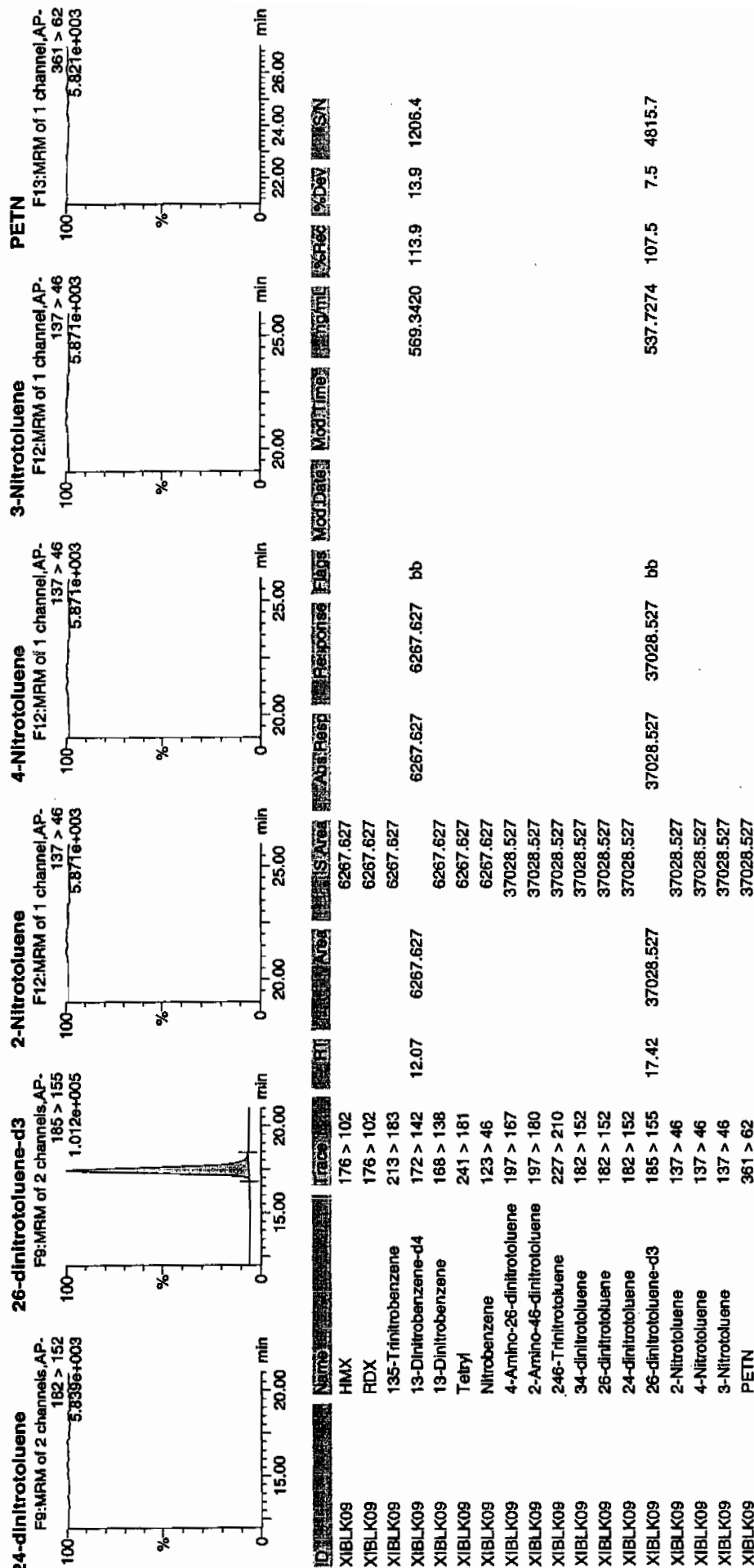
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MRM  
3/15/10



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

Dataset: C:\MASSLYNX\New\_Exp\_PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010



## Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2124Lab Code: GELLab Sample ID: XIBLK10Analysis Date: 25-MAR-10 03:26GEL Data File: EXP0323087aInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
HMX	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	533.943
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	485.827
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010

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Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323087a

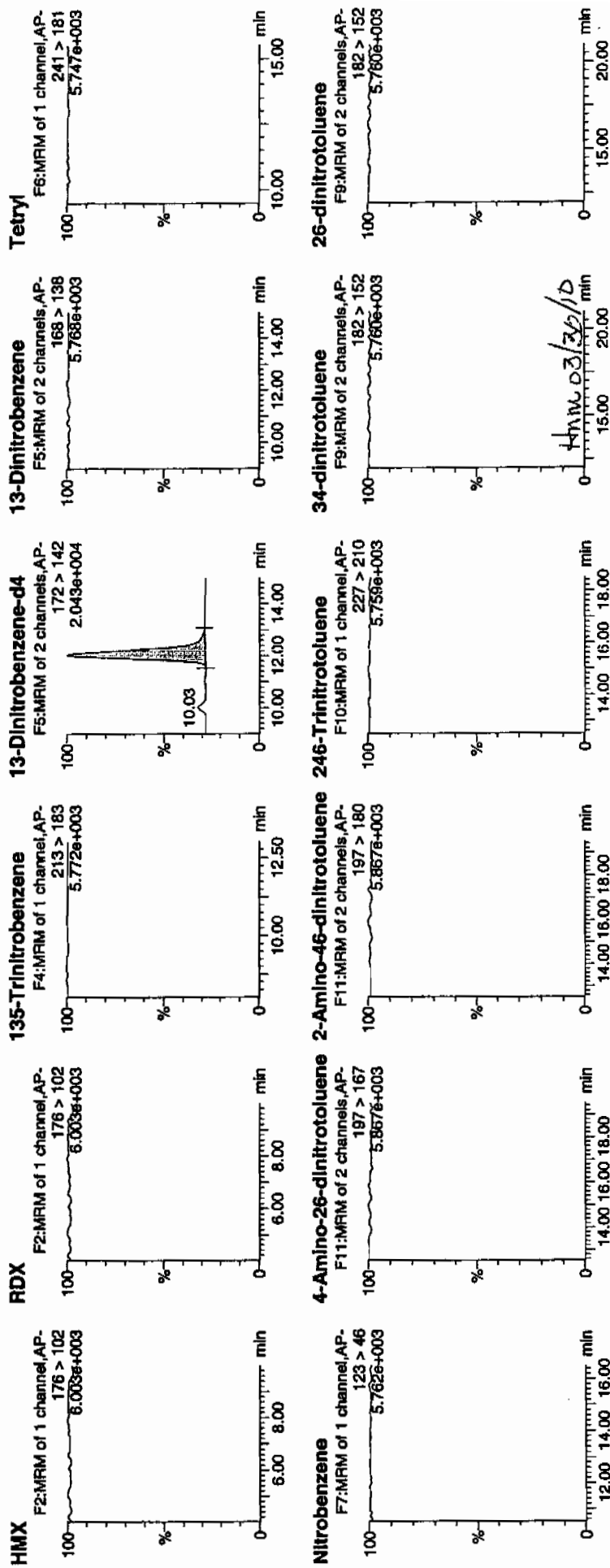
Date: 25-Mar-2010

Time: 03:26:02

ID: XIBLK10

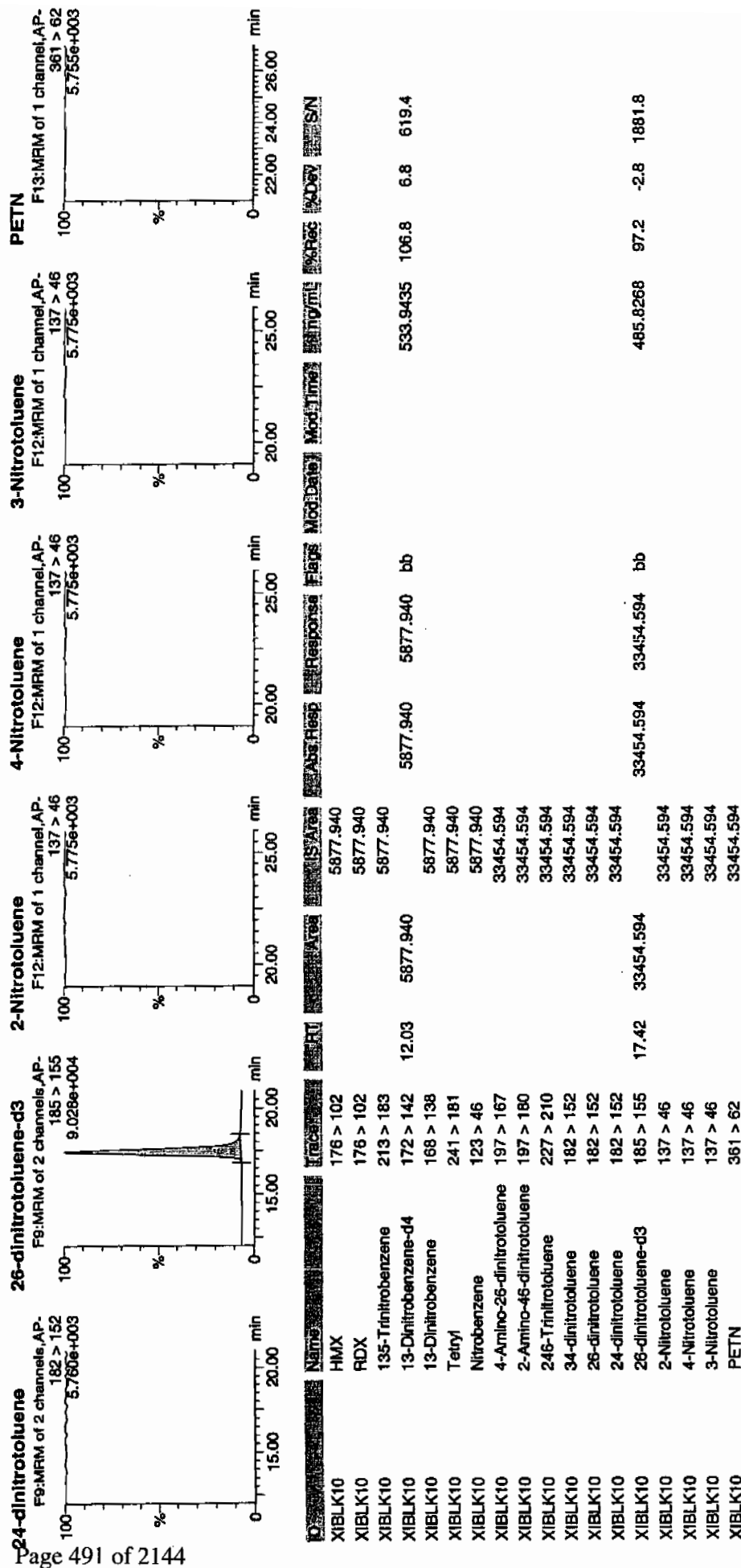
Vial: 1:1,A

WAT  
3/15/10



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

Dataset: C:\MASSLYNX\New\_Exp\_PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2124

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 16-MAR-10 10:39

GEL Data File: EXS03160010.wiff

Instrument ID: LCMSMS

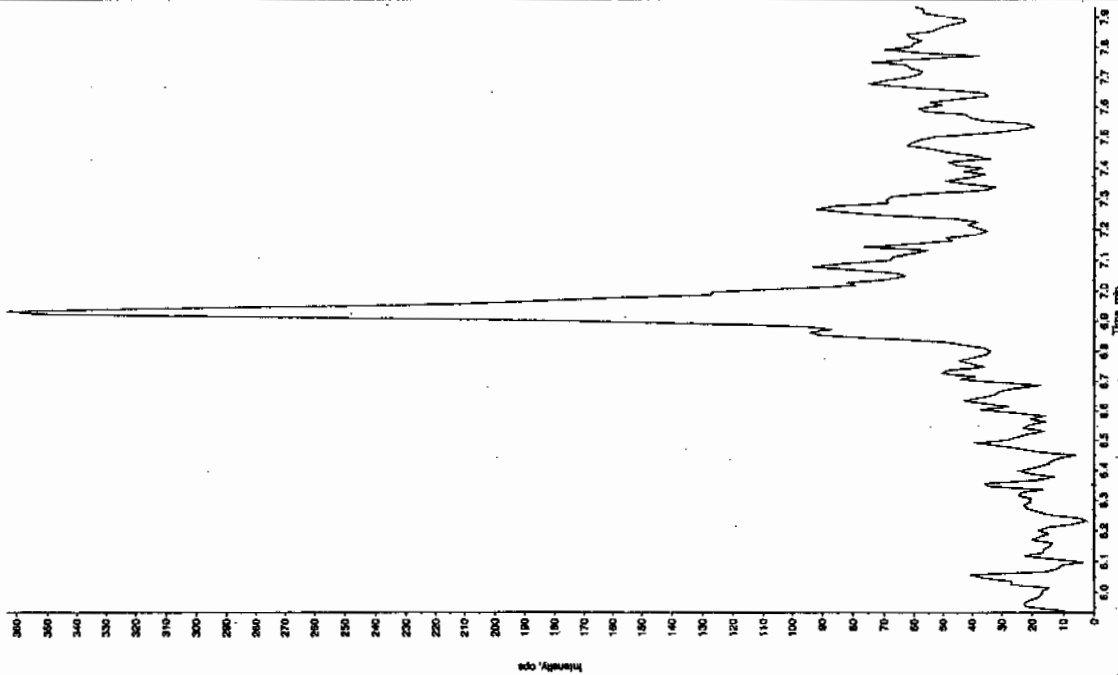
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.31
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Jan 31/8/10

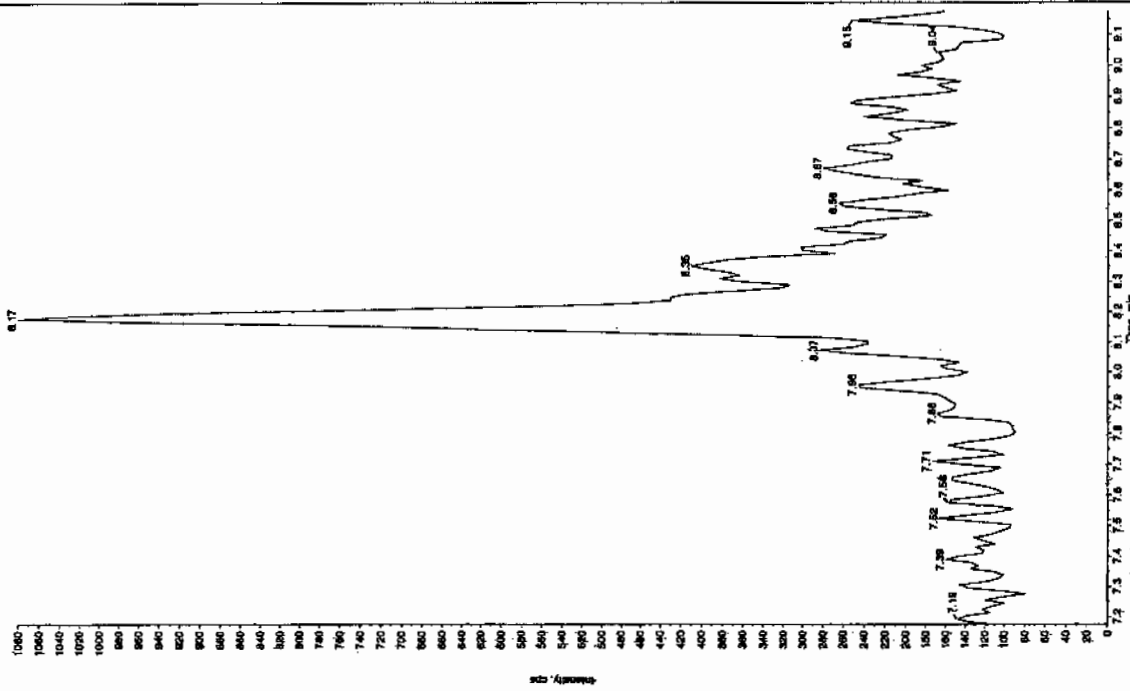
Sample Name: "XIBUX02" Sample ID: "11LER" File: "EX503150010.wif"  
Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 3/16/2010  
Acq. Time: 10:39:10 AM  
Modified: No



Sample Name: "XIBUX02" Sample ID: "11LER" File: "EX503160010.wif"  
Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"  
Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 3/16/2010  
Acq. Time: 10:39:10 AM  
Modified: No

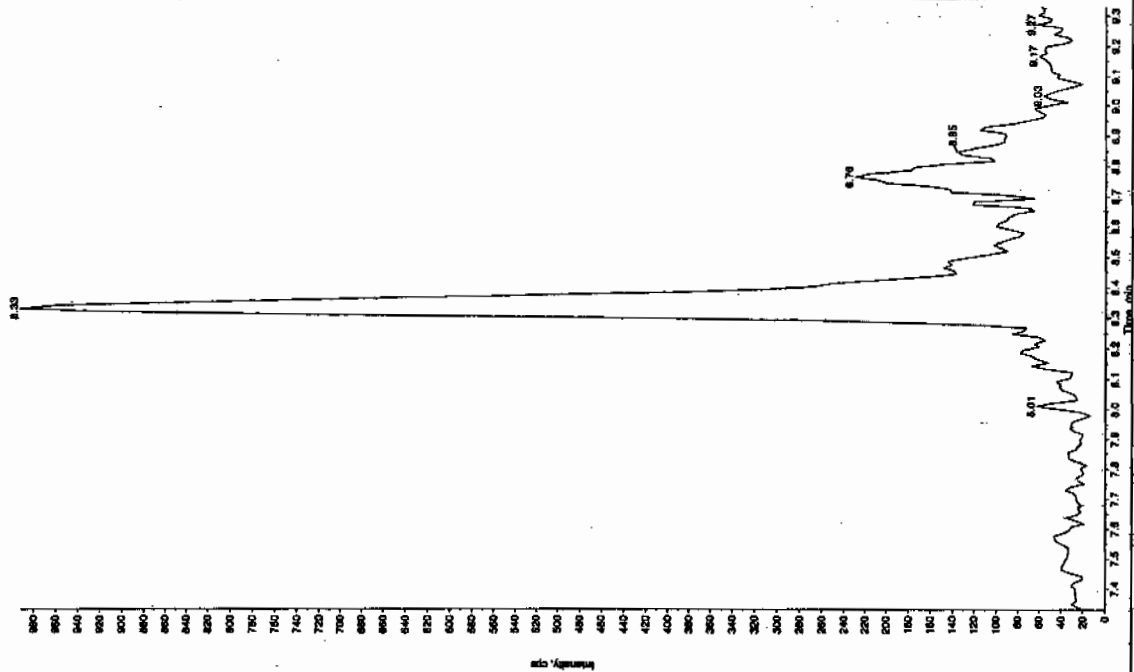


km o 2/10



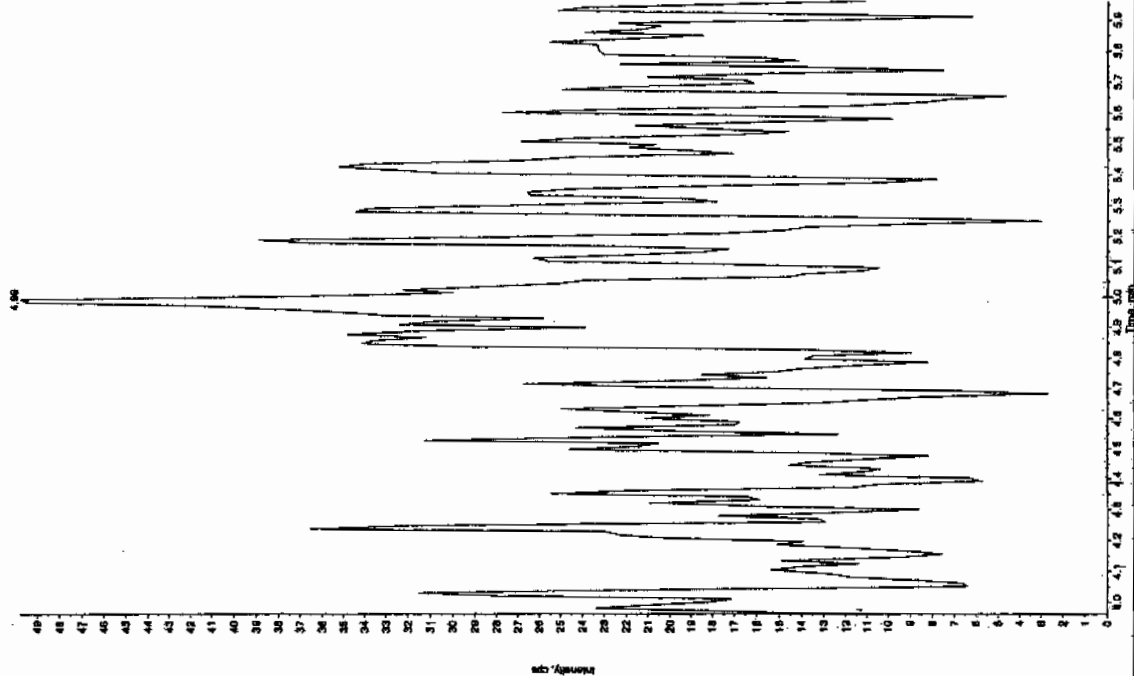
Sample Name: "XBLX02" Sample ID: "111111" File: "EX503160010.mlf"  
 Peak Name: "34-Dinitrobenzo" Mass(es): "182.1715.8 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/16/2010  
 Acq. Time: 10:39:10 AM  
 Modified: No



Sample Name: "XBLX02" Sample ID: "111111" File: "EX503160010.mlf"  
 Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "186.0461.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/16/2010  
 Acq. Time: 10:39:10 AM  
 Modified: No



Sample Name: "X(BLK02)" Sample ID: "1LER" File: "EXS03160010.will"  
Peak Name: "vita(o-cresyl) phosphate" Mass(es): "368.1/91.0 actua"  
Comment: "LCMSEXP\_5" Annotation: "4"

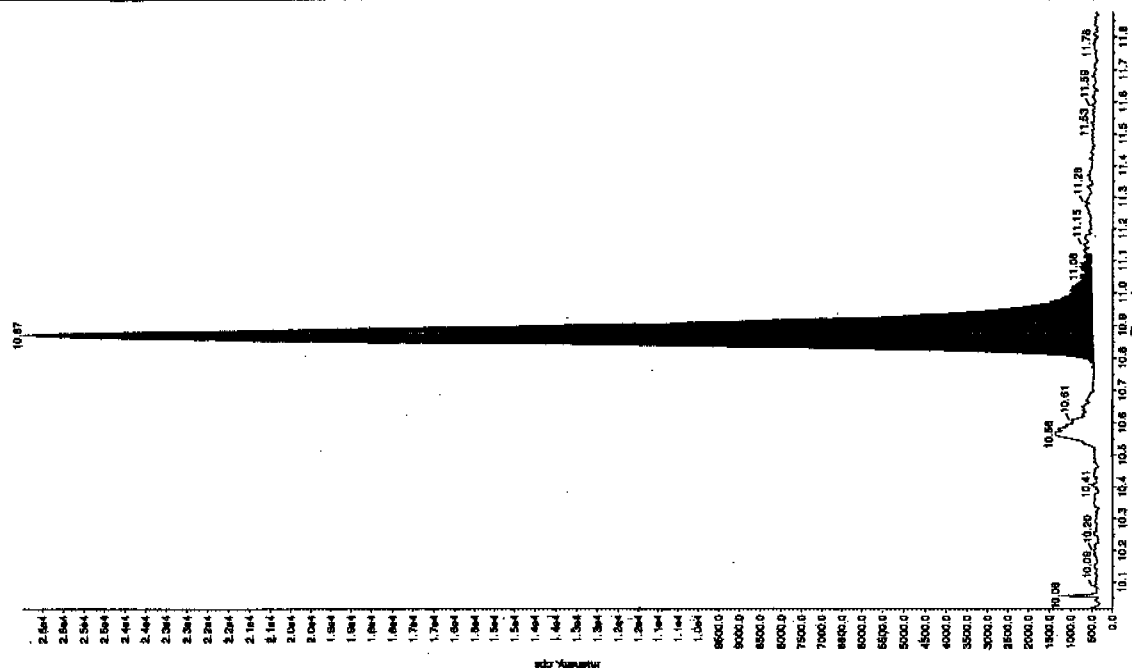
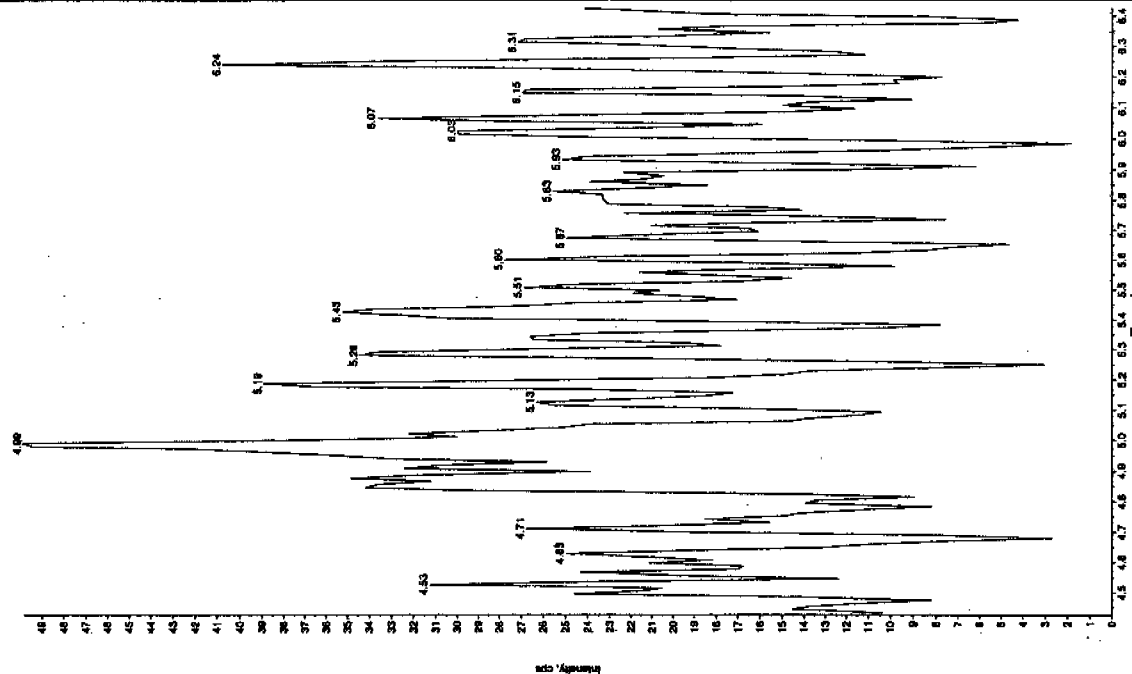
Sample Index:	1	Modified:	No
Sample Name:	Unknown	Algorithm:	Triang
Sample Type:	N/A	Quant:	100.00
Concentration:	3.31 ng/mL	Min Peak Width:	0.00
Calculated Conc:		Min Peak Width:	0.00
Acq. Date:	3/18/2010	Smoothing Width:	3
Acq. Time:	10:35:10 AM	RT Window:	10.0 sec
		Expected RT:	10.9 min
		Use Relative RT:	No

```

Modified: NO
Proc: Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: NO

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.0e+0033 counts
Start Time: 2600.00 min
End Time: 11.0 min

```



## Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2124Lab Code: GELLab Sample ID: XIBLK03Analysis Date: 16-MAR-10 11:10GEL Data File: EXS03160012.wiffInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

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

Law 3/18/10

Sample Name: "XIBLX03" Sample ID: "TITLER" File: "EX903160012.wiff"

Peak Name: "3S-Dinitroaniline" Mass(es): "182.046.0 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 3/16/2010

Acq. Time: 11:10:32 AM

Modified: No

Sample Name: "XIBLX03" Sample ID: "TITLER" File: "EX903160012.wiff"

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

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

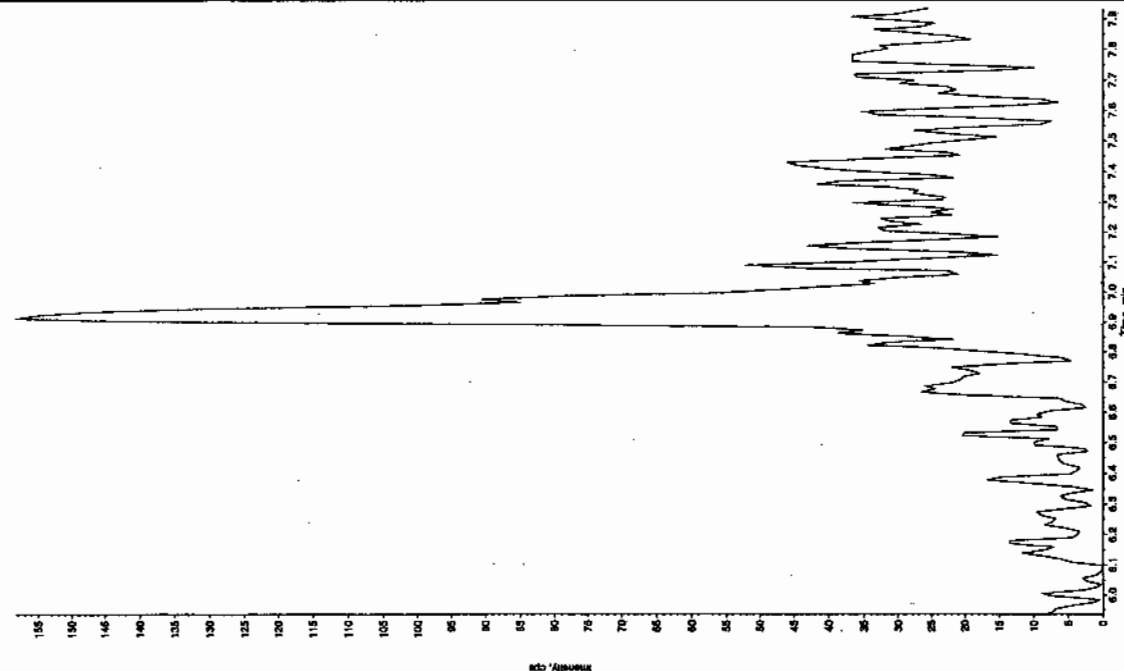
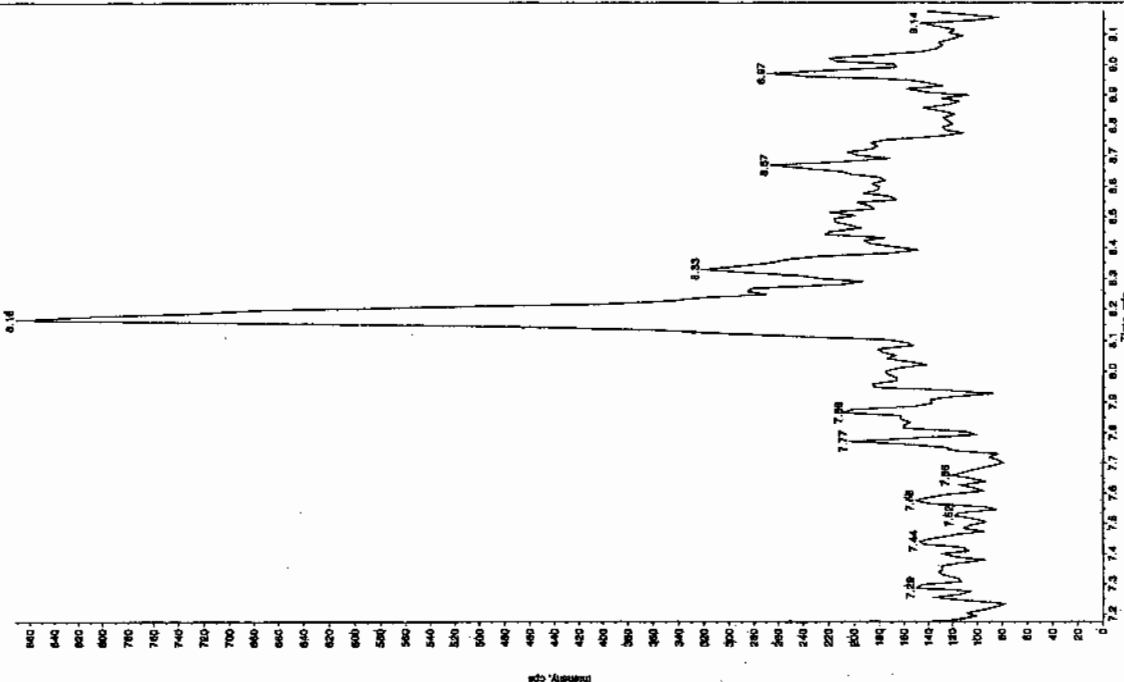
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 3/16/2010

Acq. Time: 11:10:32 AM

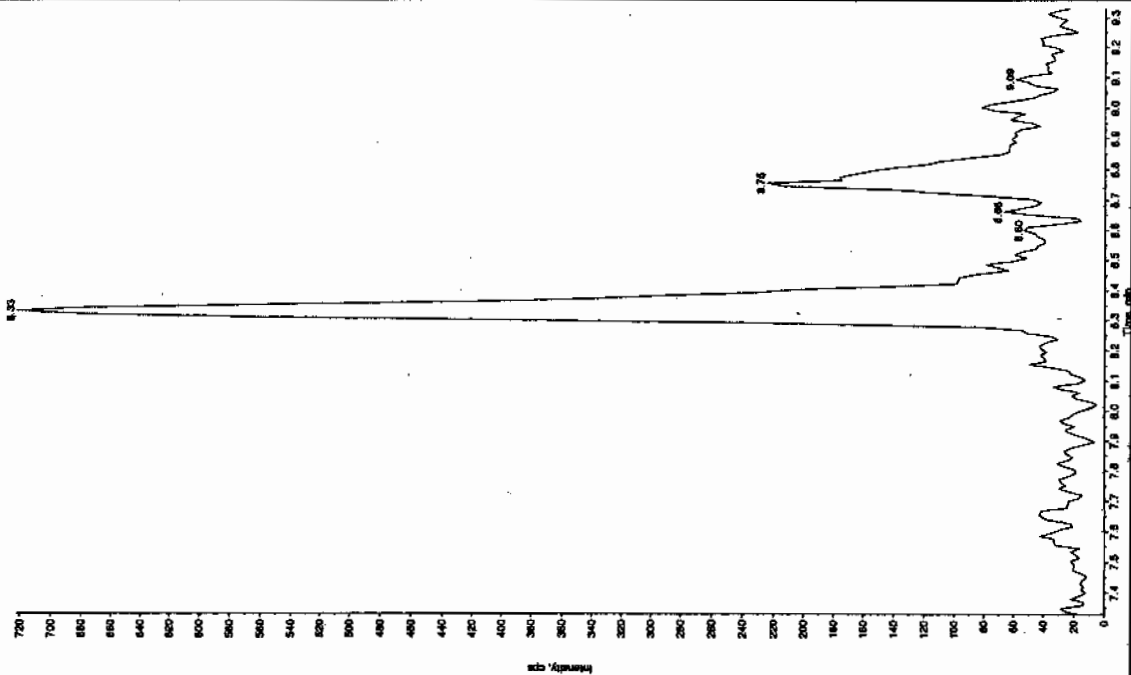
Modified: No



Law 3/18/10

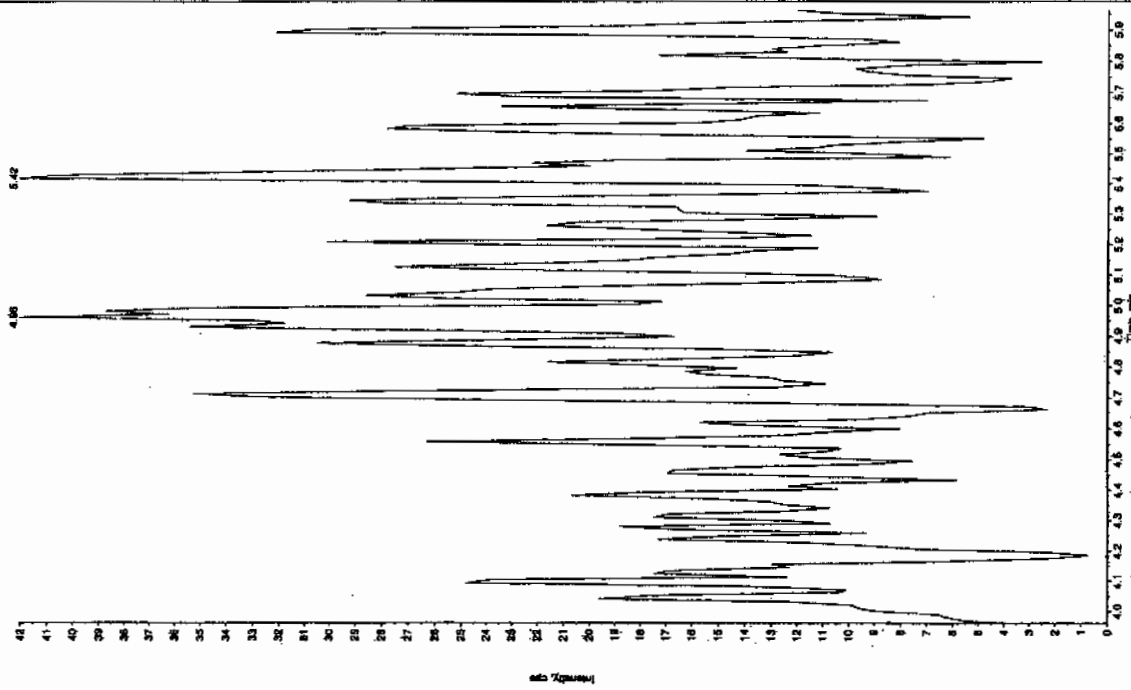
Sample Name: "XBLX03" Sample ID: "JILR" File: "EX503160012.wif"  
Peak Name: "34-Dinitrofluorene" Mass(es): "162.1715.9 amu"  
Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
Sample Type: Unknown  
Concentration: 0.00 ng/mL  
Acq. Date: 3/15/2010  
Acq. Time: 11:10:32 AM  
Modified: No



Sample Name: "XBLX03" Sample ID: "JILR" File: "EX503160012.wif"  
Peak Name: "28-Dinitro-4-nitrofluorene" Mass(es): "166.046.0 amu"  
Comment: "LCMSEXP\_B" Annotation: "

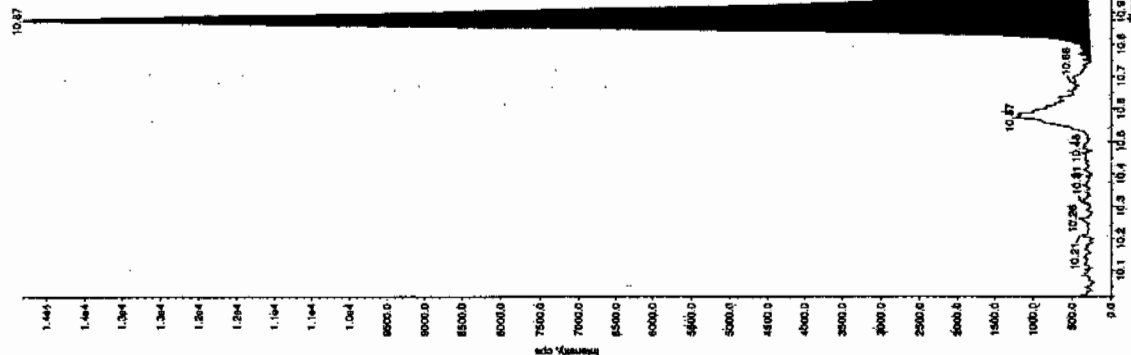
Sample Index: 1  
Sample Type: Unknown  
Concentration: 0.00 ng/mL  
Acq. Date: 3/15/2010  
Acq. Time: 11:10:32 AM  
Modified: No



Sample Name: "XBL103" Sample ID: "111EP" File: "E8303180012.wif"  
 Peak Name: "bis(o-cresyl) phosphine" Mass(es): "369.191.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0  
 Acq. Date: 3/16/2010  
 Acq. Time: 11:10:32 AM

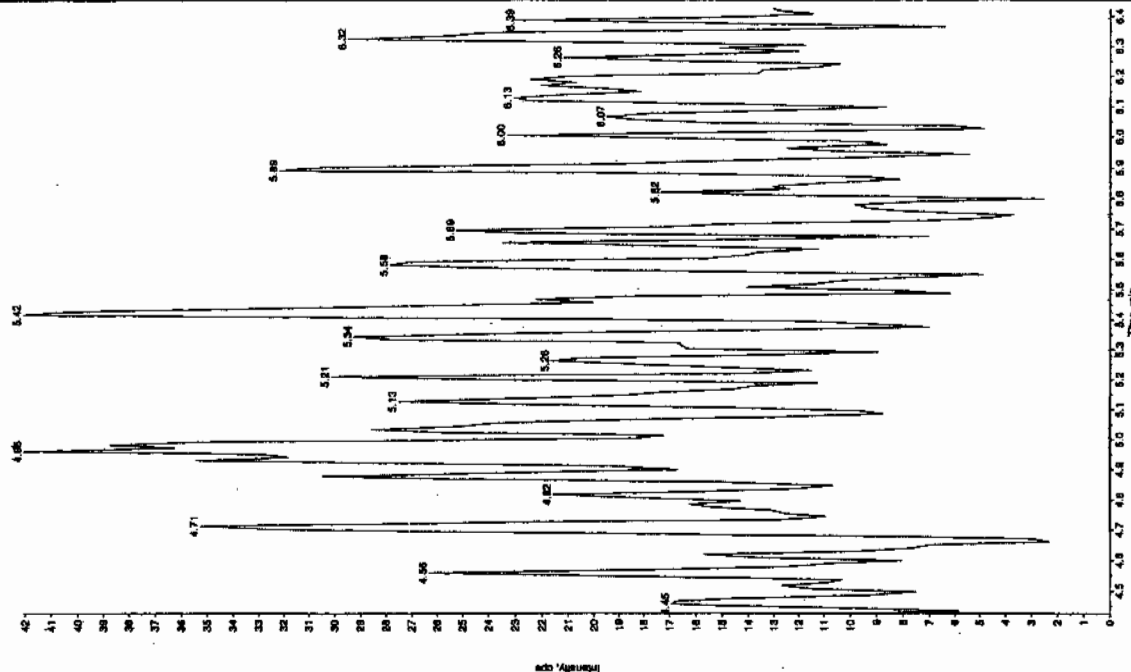
Modified: No  
 Proc. Algorithm: IntallQuan - IQA  
 Min. Peak Height: 1000.00 cps  
 Min. Peak Width: 0.00 points  
 Sampling Width: 39.0 sec  
 RT Window: 10.0 min  
 Expected RT: No  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.9 min  
 Area: 5.81e+004 counts  
 Height: 14021.447 cps  
 Start Time: 10.7 min  
 End Time: 11.1 min



Sample Name: "XBL103" Sample ID: "111EP" File: "E8303180012.wif"  
 Peak Name: "2,4-Diamino-6-nitrotoluene" Mass(es): "186.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/16/2010  
 Acq. Time: 11:10:32 AM

Modified: No



4A  
**Explosives Continuing Calibration Blank**

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-2124

**Lab Code:** GEL

**Lab Sample ID:** XIBLK04

**Analysis Date:** 16-MAR-10 14:34

**GEL Data File:** EXS03160025.wiff

**Instrument ID:** LCMSMS

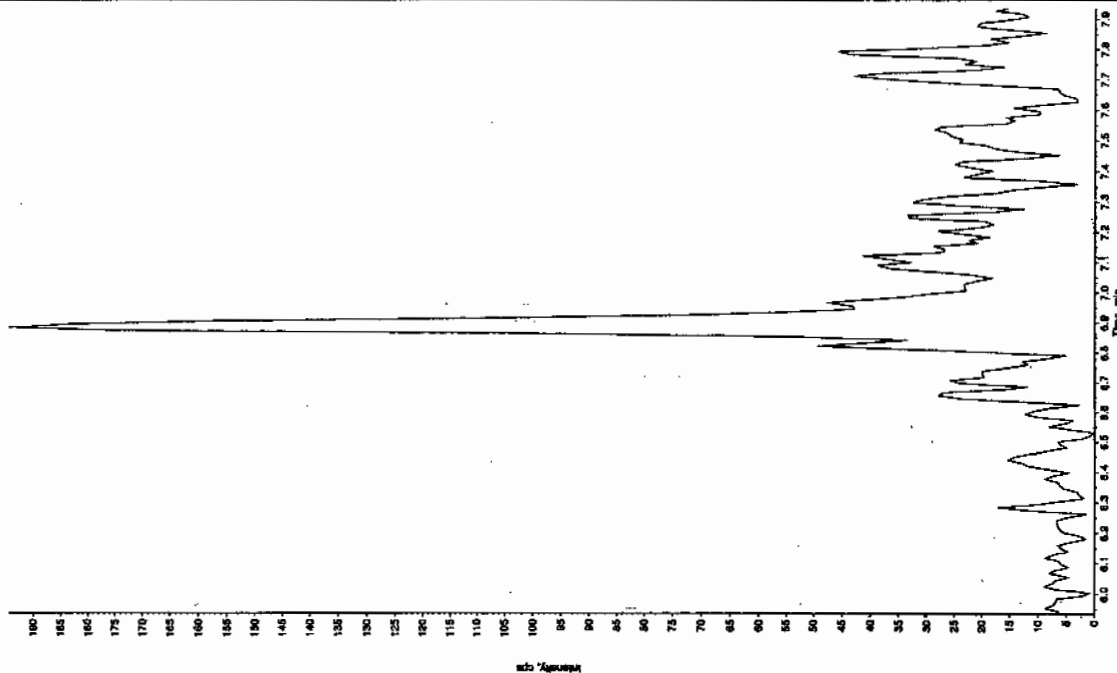
**Column:** Phenomenex Ultracarb 5u ODS(20)

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

Jan 31/01/10

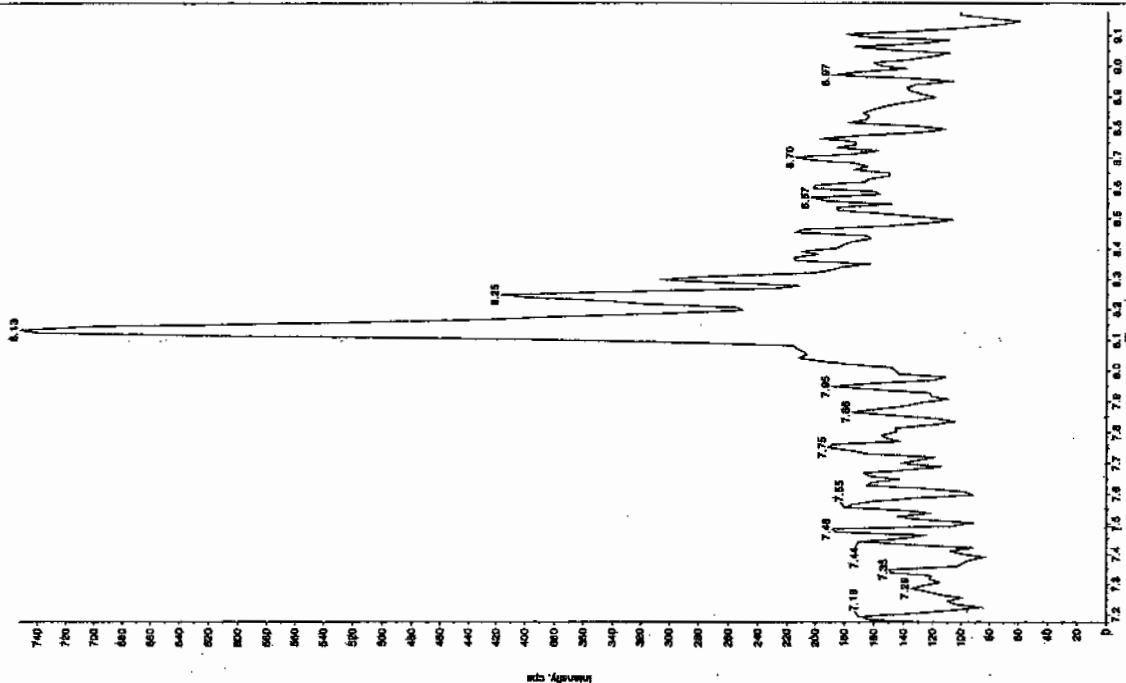
Sample Name: "XIBL004" Sample ID: "TILER" File: "EX03160025.will"  
Peak Name: "TATB" Mass(es): "287.22049 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A ng/mL  
Acq. Date: 3/16/01.0  
Acq. Time: 2:34:37 PM  
Modified: No



Sample Name: "XIBL004" Sample ID: "TILER" File: "EX03160025.will"  
Peak Name: "35-Clonitroline" Mass(es): "198.048.0 amu"  
Comment: "LCMSEXP\_J" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A ng/mL  
Acq. Date: 3/16/01.0  
Acq. Time: 2:34:37 PM  
Modified: No

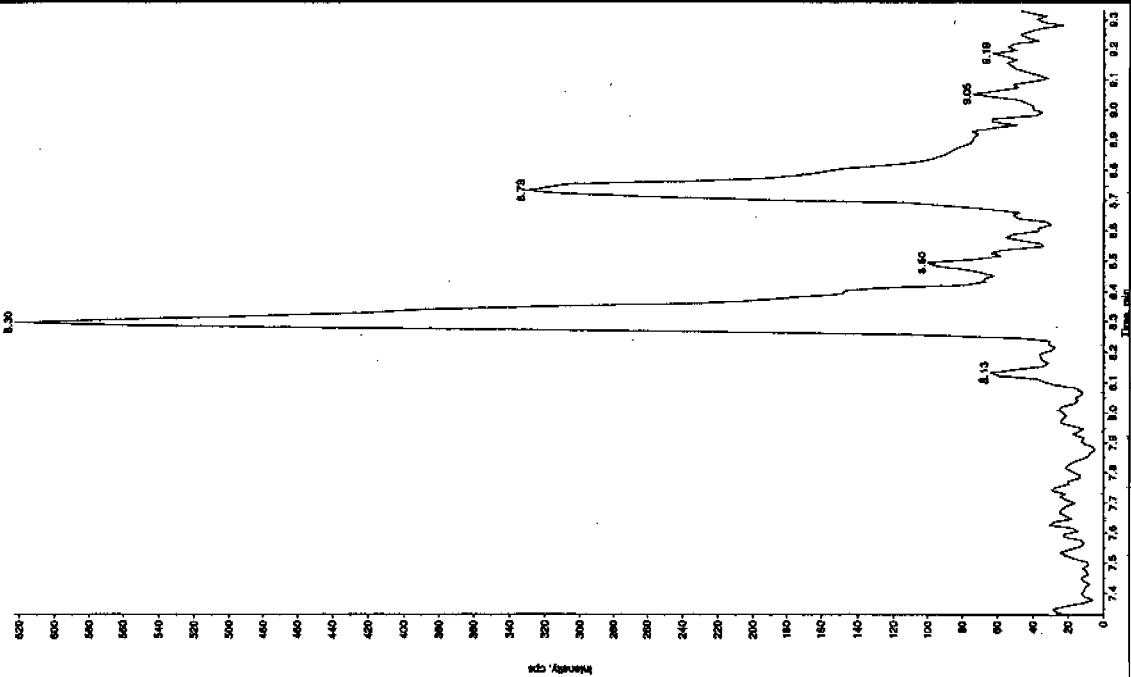


Jan 03/02/10



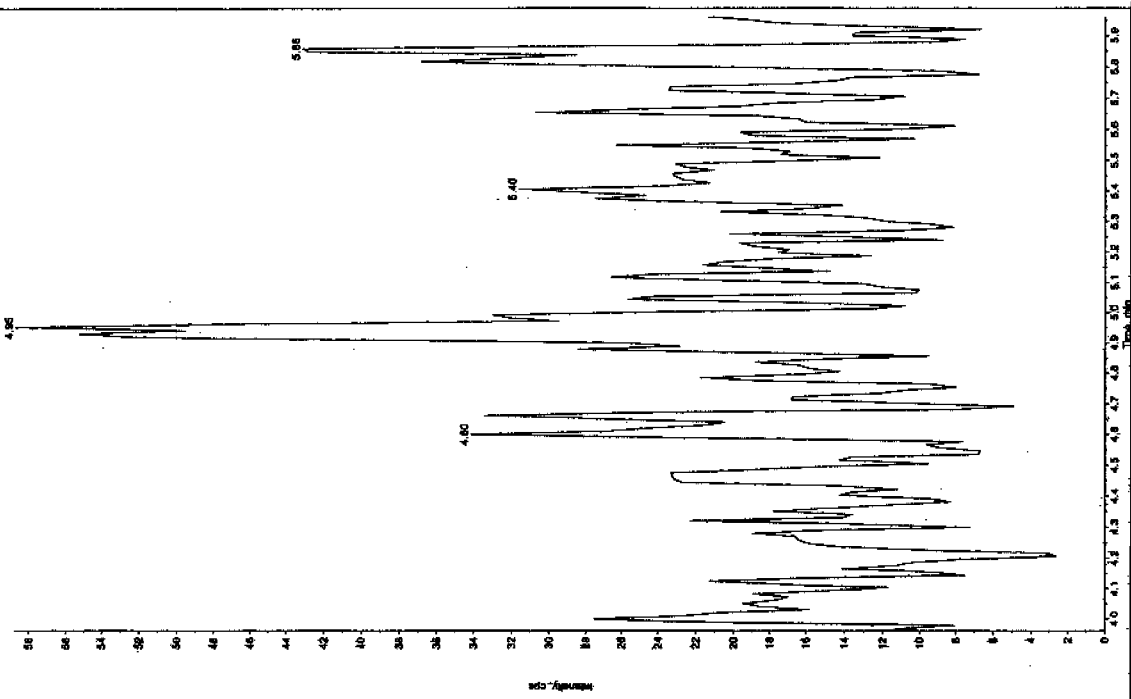
Sample Name: "XBLX04" Sample ID: "111ER" File: "EX503160025.wif"  
Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/181.9 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 3/16/2010  
Acq. Time: 2:34:37 PM  
Modified: No



Sample Name: "XBLX04" Sample ID: "111ER" File: "EX503160025.wif"  
Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "166.046.0 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 3/16/2010  
Acq. Time: 2:34:37 PM  
Modified: No



Sample Name: "HBLK04" Sample ID: "HBLER" File: "EXS03150025.wiff"  
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "186.046.0 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	3/16/2010
Acq. Time:	2:34:37 PM

Added: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 8000.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT:	10.9 min
10.9 min	10.9 min

Use Relative RT: No

Ref	Time	Value
1	0.00	0.00
2	0.05	0.05
3	0.10	0.10
4	0.15	0.15
5	0.20	0.20
6	0.25	0.25
7	0.30	0.30
8	0.35	0.35
9	0.40	0.40
10	0.45	0.45
11	0.50	0.50
12	0.55	0.55
13	0.60	0.60
14	0.65	0.65
15	0.70	0.70
16	0.75	0.75
17	0.80	0.80
18	0.85	0.85
19	0.90	0.90
20	0.95	0.95
21	1.00	1.00
22	1.05	1.05
23	1.10	1.10
24	1.15	1.15
25	1.20	1.20
26	1.25	1.25
27	1.30	1.30
28	1.35	1.35
29	1.40	1.40
30	1.45	1.45
31	1.50	1.50
32	1.55	1.55
33	1.60	1.60
34	1.65	1.65
35	1.70	1.70
36	1.75	1.75
37	1.80	1.80
38	1.85	1.85
39	1.90	1.90
40	1.95	1.95
41	2.00	2.00
42	2.05	2.05
43	2.10	2.10
44	2.15	2.15
45	2.20	2.20
46	2.25	2.25
47	2.30	2.30
48	2.35	2.35
49	2.40	2.40
50	2.45	2.45
51	2.50	2.50
52	2.55	2.55
53	2.60	2.60
54	2.65	2.65
55	2.70	2.70
56	2.75	2.75
57	2.80	2.80
58	2.85	2.85
59	2.90	2.90
60	2.95	2.95
61	3.00	3.00
62	3.05	3.05
63	3.10	3.10
64	3.15	3.15
65	3.20	3.20
66	3.25	3.25
67	3.30	3.30
68	3.35	3.35
69	3.40	3.40
70	3.45	3.45
71	3.50	3.50
72	3.55	3.55
73	3.60	3.60
74	3.65	3.65
75	3.70	3.70
76	3.75	3.75
77	3.80	3.80
78	3.85	3.85
79	3.90	3.90
80	3.95	3.95
81	4.00	4.00
82	4.05	4.05
83	4.10	4.10
84	4.15	4.15
85	4.20	4.20
86	4.25	4.25
87	4.30	4.30
88	4.35	4.35
89	4.40	4.40
90	4.45	4.45
91	4.50	4.50
92	4.55	4.55
93	4.60	4.60
94	4.65	4.65
95	4.70	4.70
96	4.75	4.75
97	4.80	4.80
98	4.85	4.85
99	4.90	4.90
100	4.95	4.95
101	5.00	5.00
102	5.05	5.05
103	5.10	5.10
104	5.15	5.15
105	5.20	5.20
106	5.25	5.25
107	5.30	5.30
108	5.35	5.35
109	5.40	5.40
110	5.45	5.45
111	5.50	5.50
112	5.55	5.55
113	5.60	5.60
114	5.65	5.65
115	5.70	5.70
116	5.75	

Int. Type:	Valley
Retention time:	10.9 min

```

COUNT      100+200
MAY 1967    1
RECEPTION TIME:

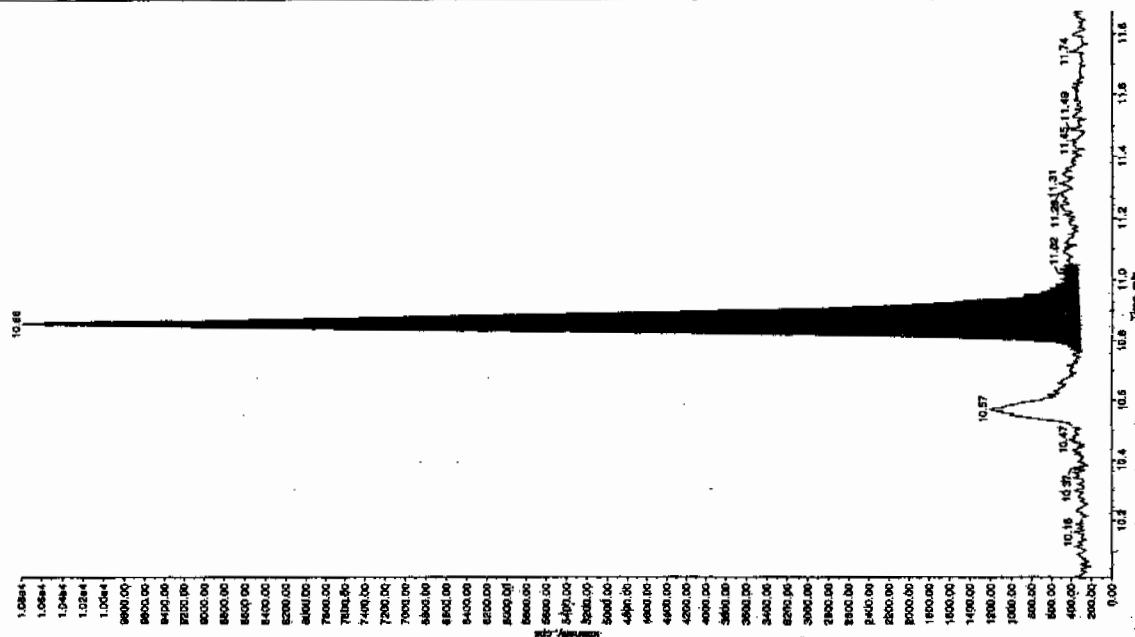
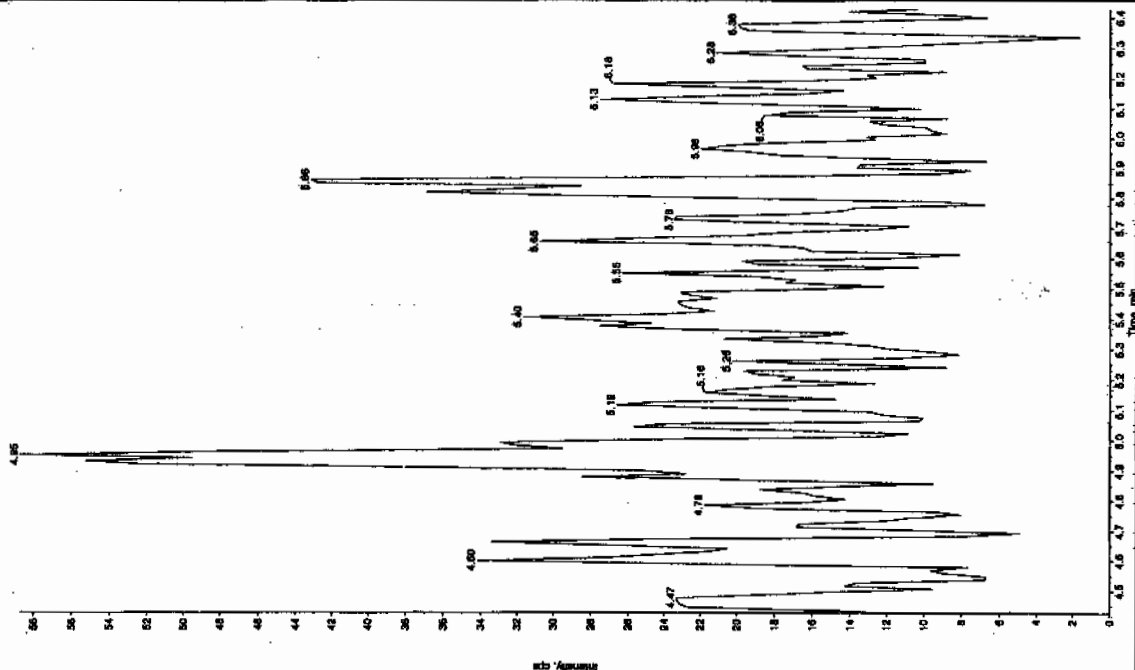
```

PREY:	0.30±0.04	count
Height:	10182.743	mm

```

Start Time: 10.0 min
End Time: 10.0 min

```



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2124

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 16-MAR-10 21:23

GEL Data File: EXS03160051.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

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

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Sample Name: "XIBLK07" Sample ID: "111LRF" File: "EX503160351.wif"

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

Comment: "LCMSEXP\_R" Annotation: ""

Sample Index: 1

Sample Type: Unknown

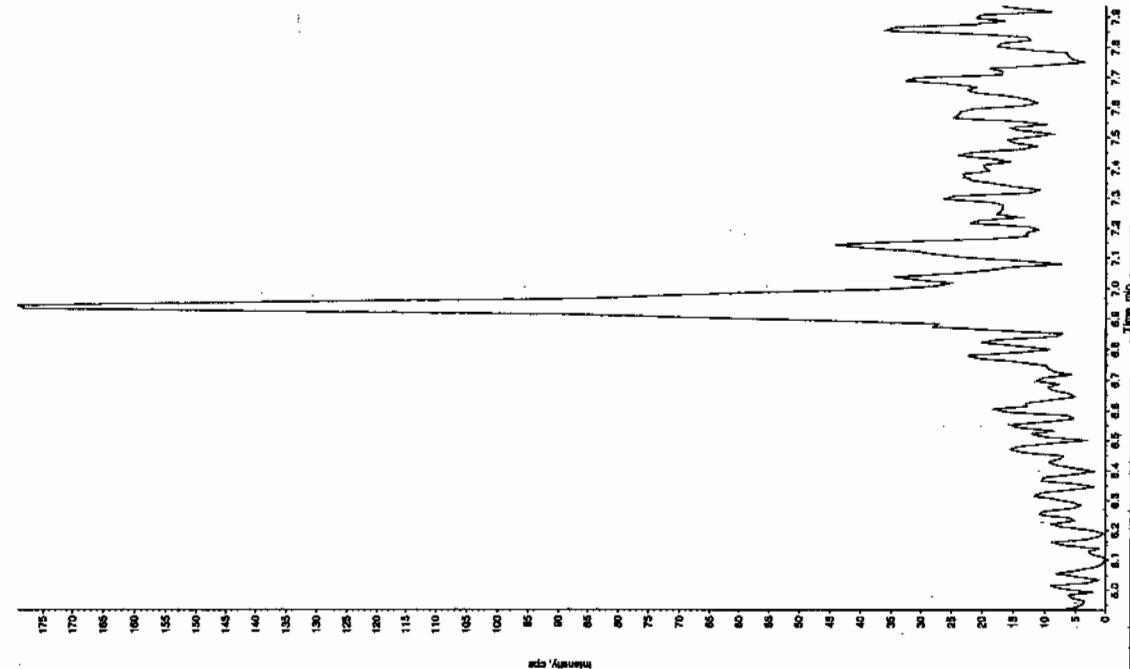
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 3/16/2010

Acq. Time: 9:23:13 PM

Modified: No



Sample Name: "XIBLK07" Sample ID: "111LRF" File: "EX503160351.wif"

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

Comment: "LCMSEXP\_R" Annotation: ""

Sample Index: 1

Sample Type: Unknown

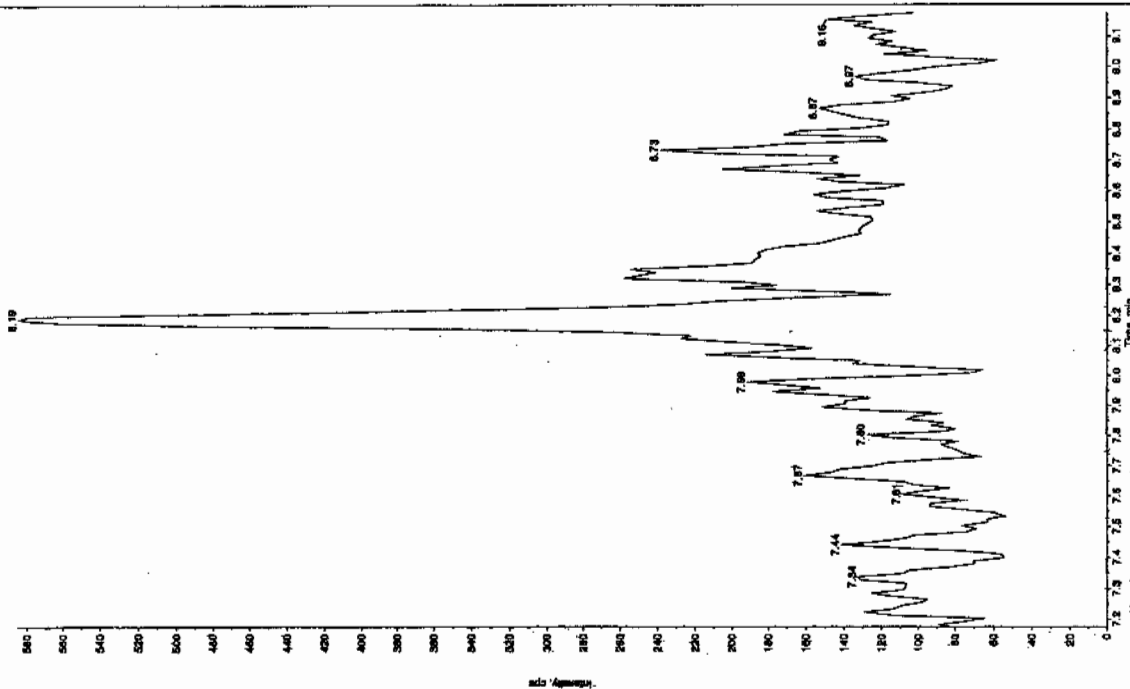
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 3/16/2010

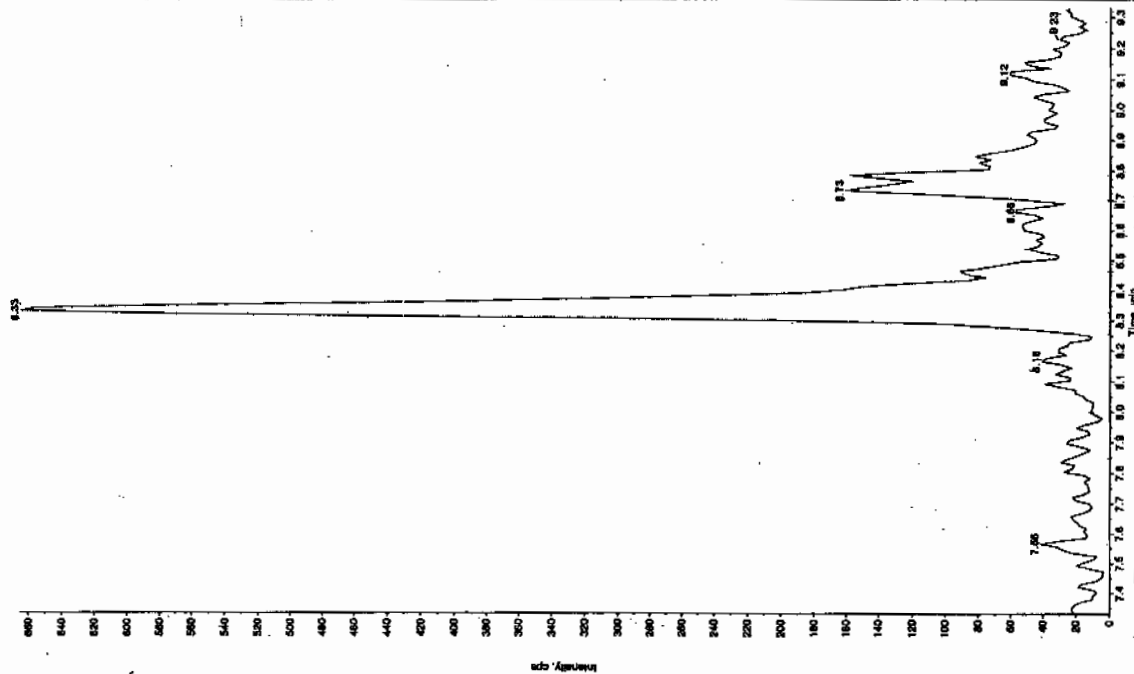
Acq. Time: 9:23:13 PM

Modified: No



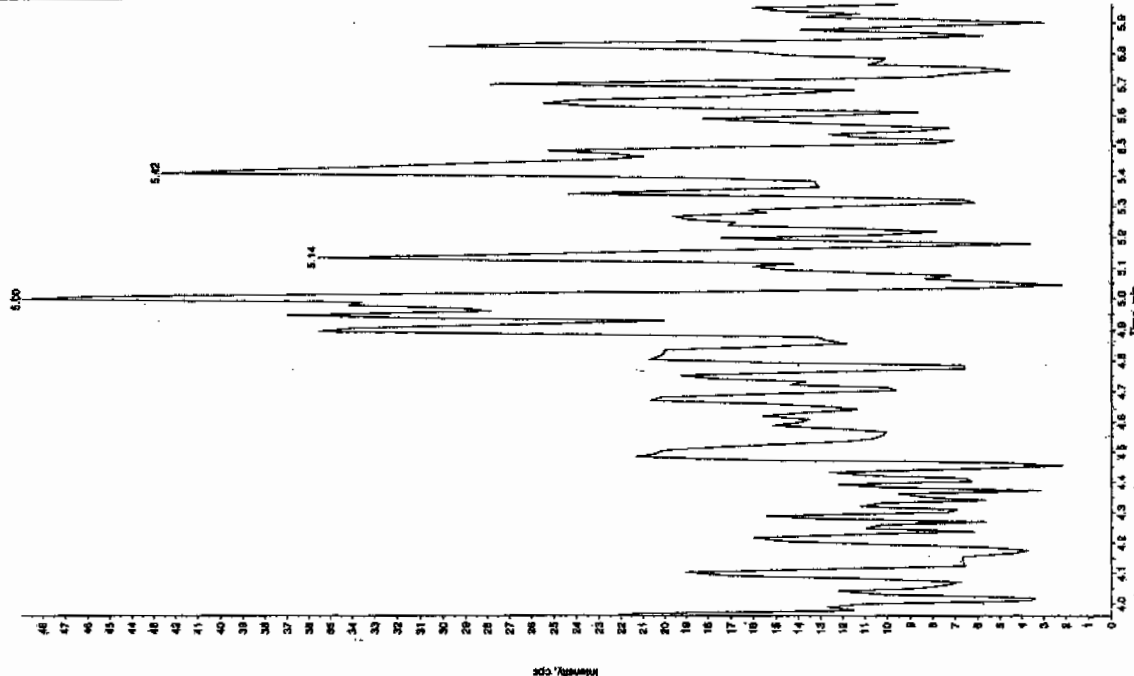
Sample Name: "781007" Sample ID: "781007" File: "781007.D" Method: "102.1751.8.m" Mass(es): "102.1751.8 and 102.1751.8"

Comment: "LCMSXP\_B" Annotation: "1"  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/16/2010  
 Acq. Time: 9:23:13 PM  
 Modified: No



Sample Name: "781007" Sample ID: "781007" File: "781007.D" Method: "102.1751.8.m" Mass(es): "102.1751.8 and 102.1751.8"

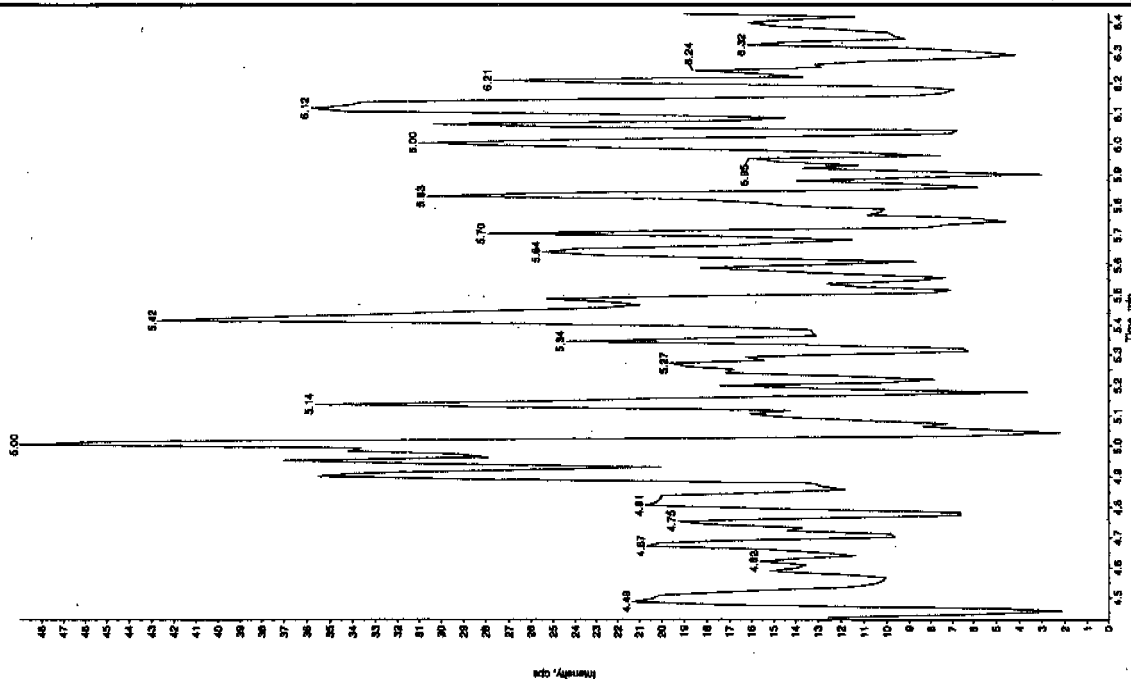
Comment: "LCMSXP\_B" Annotation: "1"  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/16/2010  
 Acq. Time: 9:23:13 PM  
 Modified: No



Sample Name: "XBL007" Sample ID: "11LEF" File: "EX503160051.wif"  
Peak Name: "24-Diethoxy-6-methylbenzene" Mass(es): "166.046.0 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

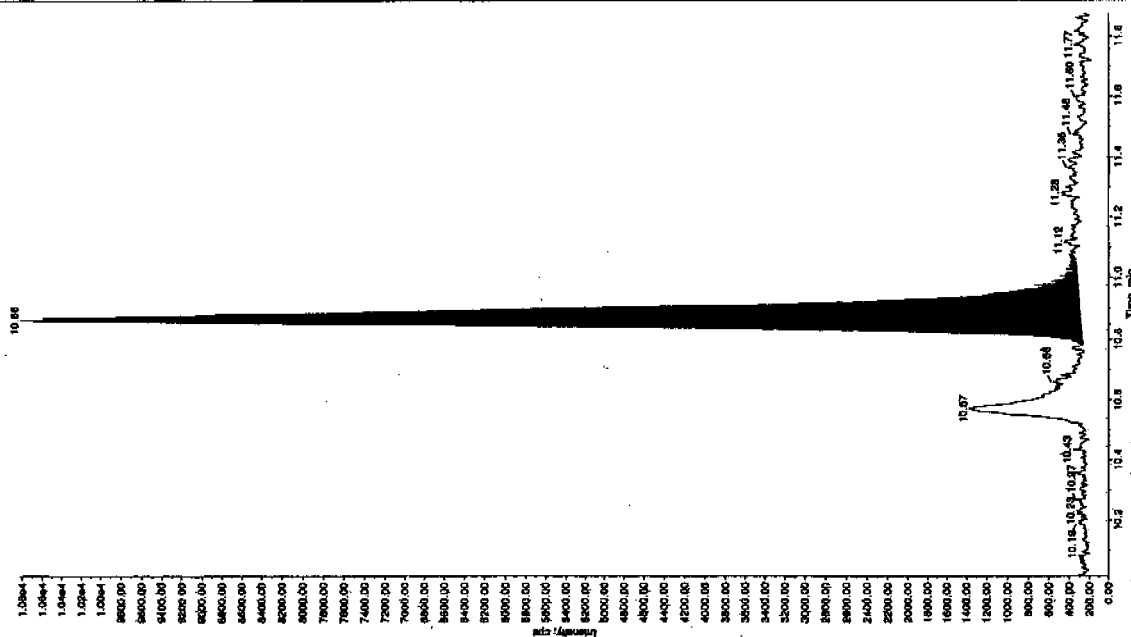
Sample Index: 1  
Sample Type: Unknown  
Concentration: 0.00 ng/mL  
Acq. Date: 3/16/2010  
Acq. Time: 9:23:13 PM  
Modified: NO

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Sample Name: "XBL007" Sample ID: "11LEF" File: "EX503160051.wif"  
Peak Name: "bis(o-cresyl) phosphate" Mass(es): "389.181.0 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: No Intercept  
Acq. Date: 3/16/2010  
Acq. Time: 9:23:13 PM  
Modified: NO  
Proc. Algorithm: IntelliQuan - ICA  
Min. Peak Height: 8000.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 10.9 min  
Use Relative RT: NO  
Int. Type: Valley  
Retention Time: 10.9 min  
Area: 4.17e+004 counts  
Height: 10536.640 cps  
Start Time: 10.8 min  
End Time: 11.1 min



## Explosives Continuing Calibration Blank

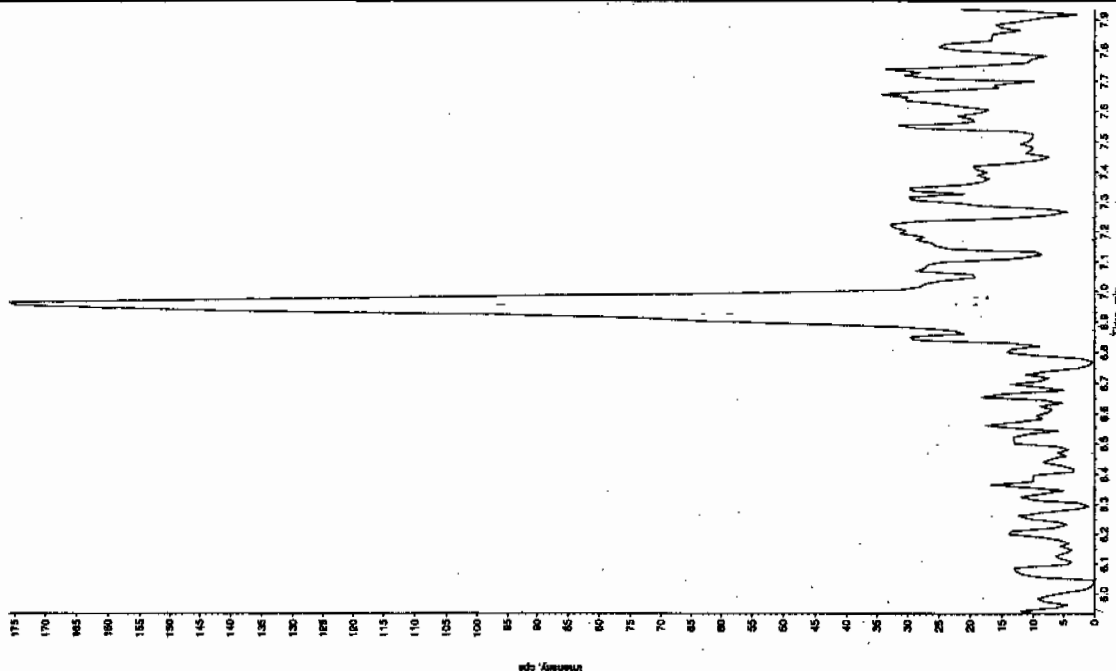
Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2124Lab Code: GELLab Sample ID: XIBLK08Analysis Date: 17-MAR-10 00:31GEL Data File: EXS03160063.wiffInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

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

03/11/10  
Jana

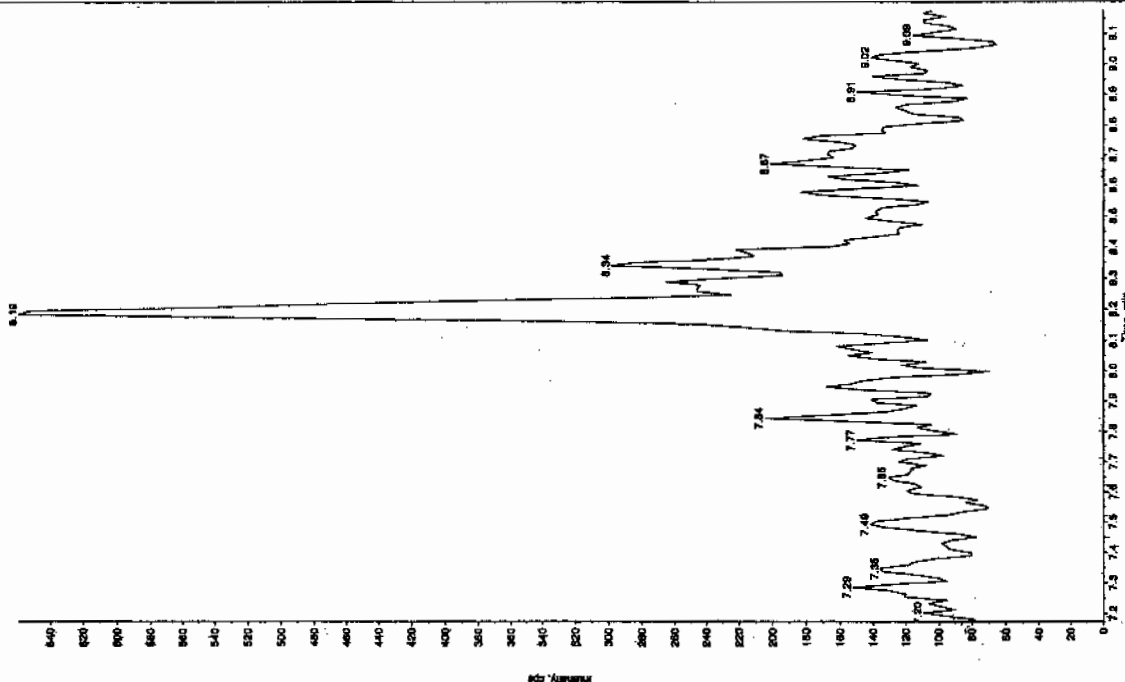
Sample Name: "XBLK03" Sample ID: "TILER" File: "EXSG0160063.wif"  
Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 12:31:46 AM  
Modified: No



Sample Name: "XBLK03" Sample ID: "TILER" File: "EXSG0160063.wif"  
Peak Name: "35-Dinitroresaline" Mass(es): "182.046.0 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 12:31:46 AM  
Modified: No

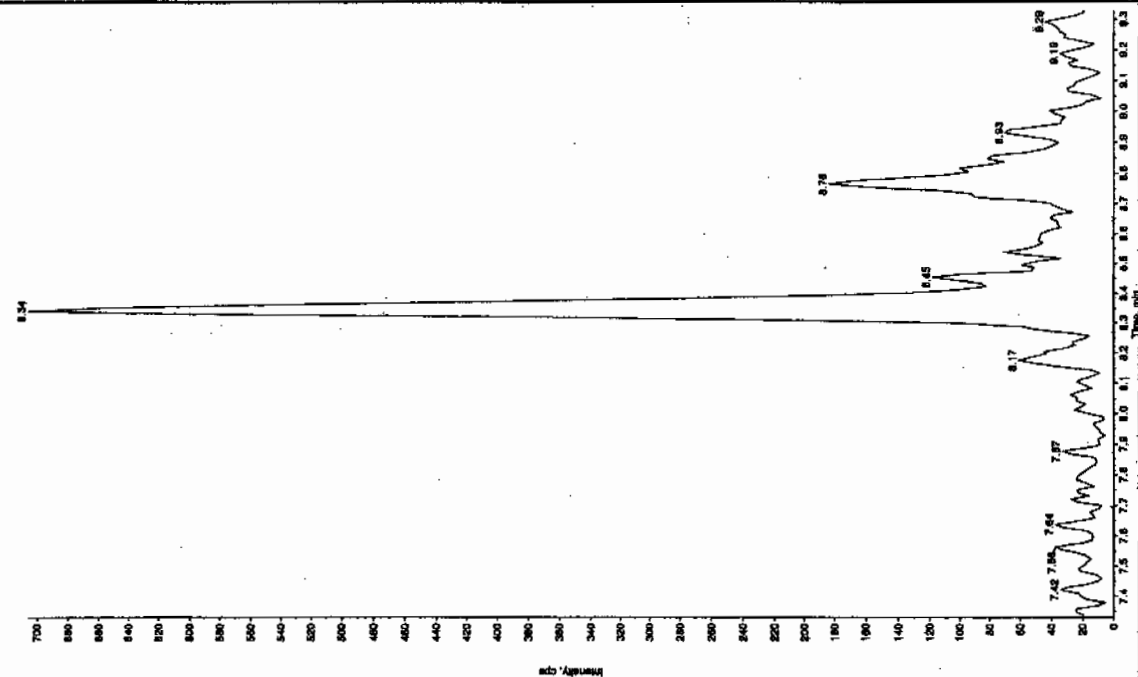


Hum 03/12/10



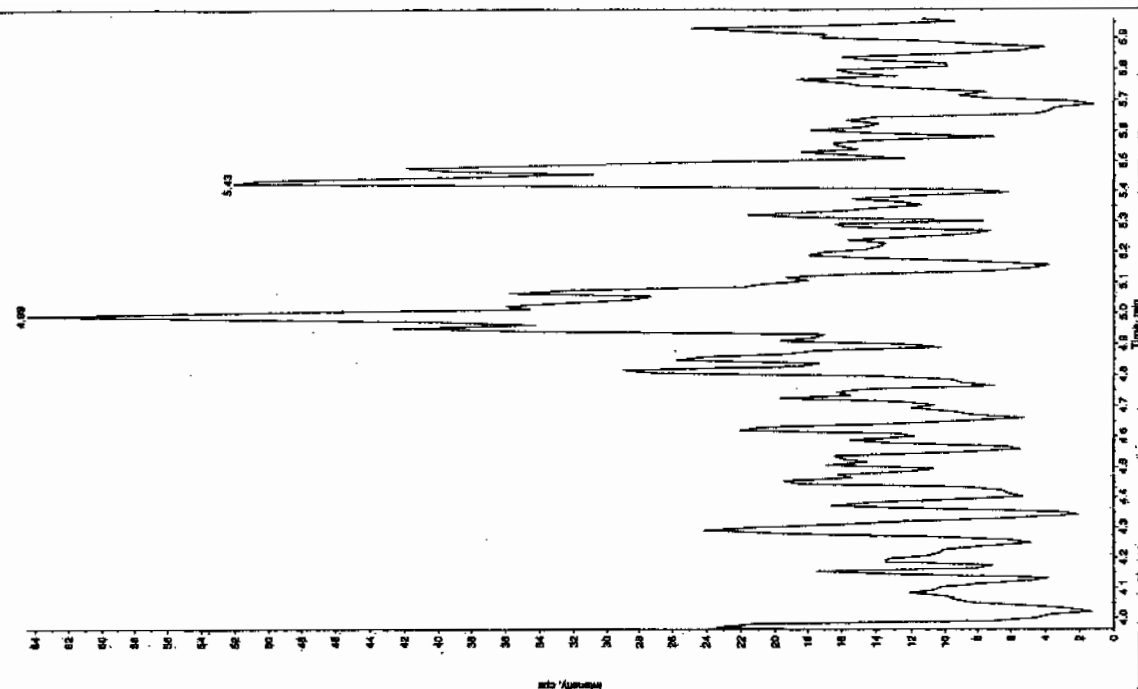
Sample Name: "XBL209" Sample ID: "111ER" File: "EX503160063.wht"  
 Peak Name: "24-Diamino-4-methylpyrrole" Mass(es): "182.1/151.2 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 12:31:46 AM  
 Modified: No



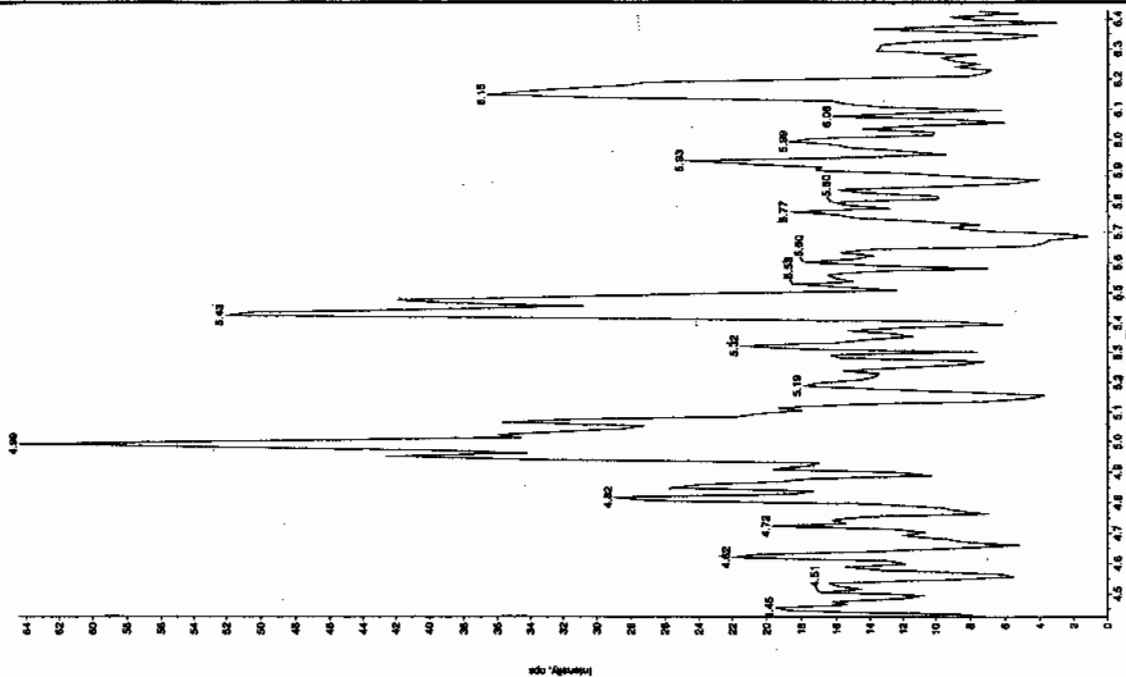
Sample Name: "XBL209" Sample ID: "111ER" File: "EX503160063.wht"  
 Peak Name: "25-Diamino-4-methylpyrrole" Mass(es): "166.0/146.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 12:31:46 AM  
 Modified: No



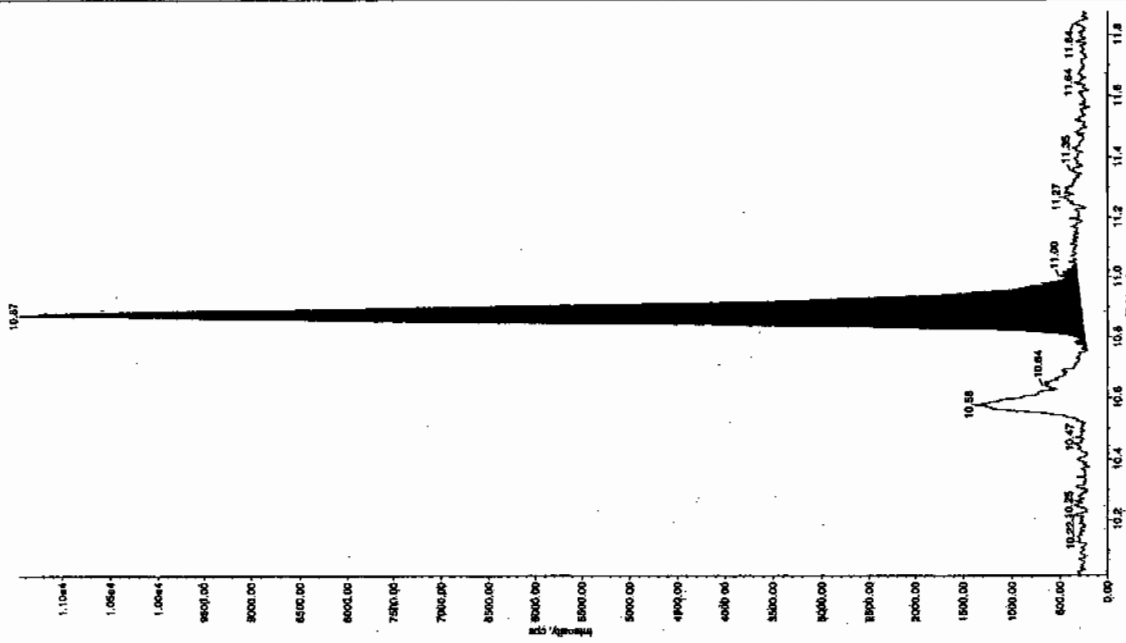
Sample Name: "XIBLK08" Sample ID: "HILLER" File: "EX503160063.wif"  
 Peak Name: "24-Dimino-6-nitrofluorene" Mass(es): "166.045.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 12:31:46 AM  
 Modified: No



Sample Name: "XIBLK08" Sample ID: "HILLER" File: "EX503160063.wif"  
 Peak Name: "bis(o-cresyl) phosphine" Mass(es): "359.191.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: No Intercept  
 Acq. Date: 3/17/2010  
 Acq. Time: 12:31:46 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.9 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.9 min  
 Area: 4.54e+004 counts  
 Height: 1131111 cps  
 Start Time: 10.8 min  
 End Time: 11.0 min



**4A**  
**Explosives Continuing Calibration Blank**

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-2124

**Lab Code:** GEL

**Lab Sample ID:** XIBLK09

**Analysis Date:** 17-MAR-10 03:55

**GEL Data File:** EXS03160076.wiff

**Instrument ID:** LCMSMS

**Column:** Phenomenex Ultracarb 5u ODS(20)

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

Jan 31/19/10

Sample Name: "XBLK09" Sample ID: "JILLER" File: "EXS03160076.wif"

Peak Name: "TATB" Mass(es): "257.2/204.9 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

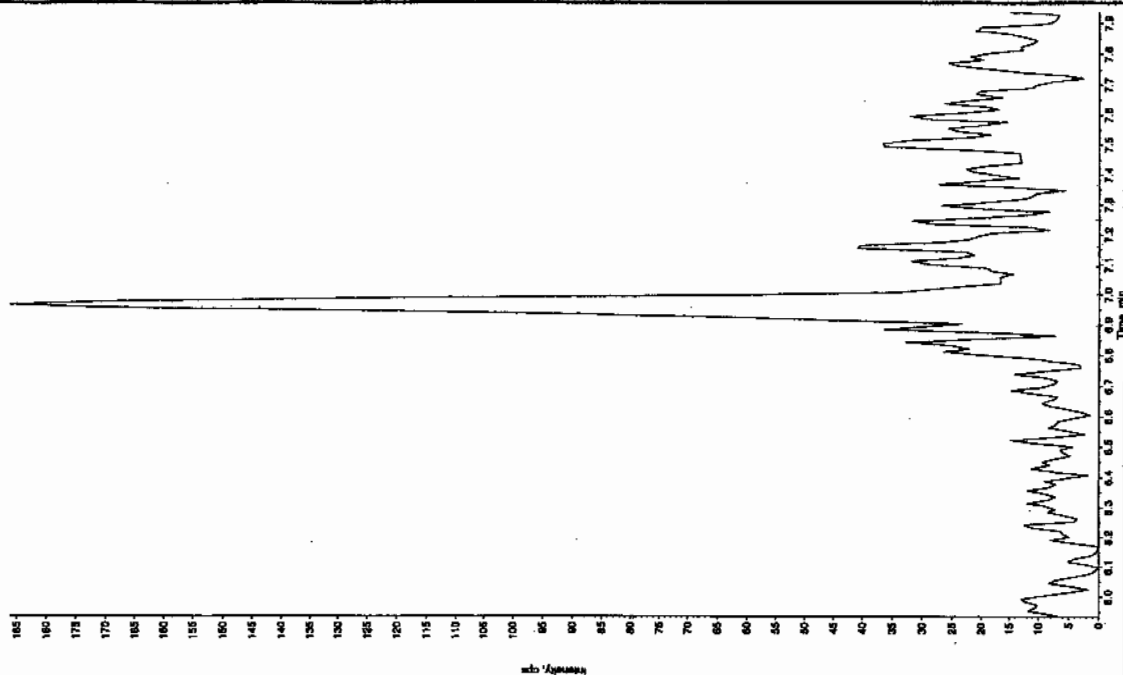
Concentration: 0.00 ng/mL

Calculated Conc: 3/17/2010

Acq. Date: 3/17/2010

Acq. Time: 3:55:59 AM

Modified: NO



Sample Name: "XBLK09" Sample ID: "JILLER" File: "EXS03160076.wif"

Peak Name: "35-Dinitrofluorene" Mass(es): "182.0/99.0 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

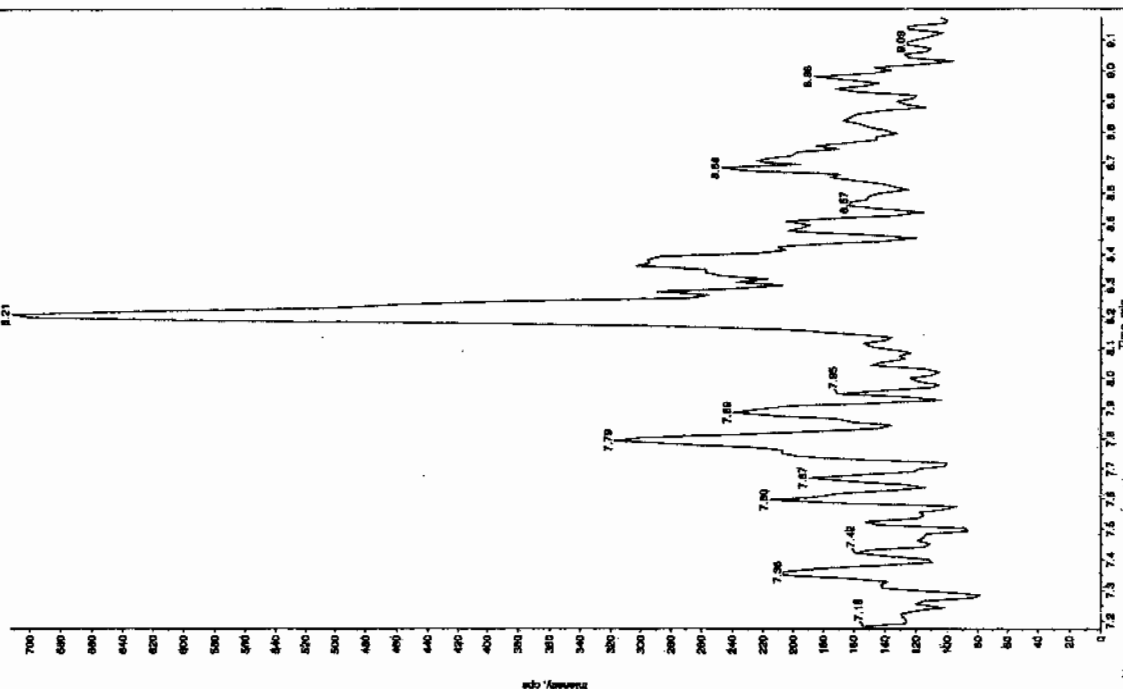
Concentration: 0.00 ng/mL

Calculated Conc: 3/17/2010

Acq. Date: 3/17/2010

Acq. Time: 3:55:59 AM

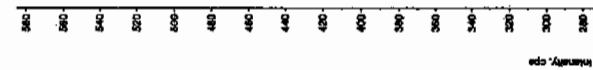
Modified: NO



Jan 31/19/10

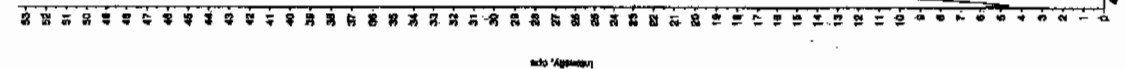
Sample Name: "XIBLK09" Sample ID: "111111" File: "EX503160078.wiff"  
Peak Name: "34-Orthobutylene" Mass(es): "182.1/151.9 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 3:55:59 AM  
Modified: No



Sample Name: "XIBLK09" Sample ID: "111111" File: "EX503160078.wiff"  
Peak Name: "25-Dimethyl-4-ethyltoluene" Mass(es): "186.0/165.0 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 3:55:59 AM  
Modified: No



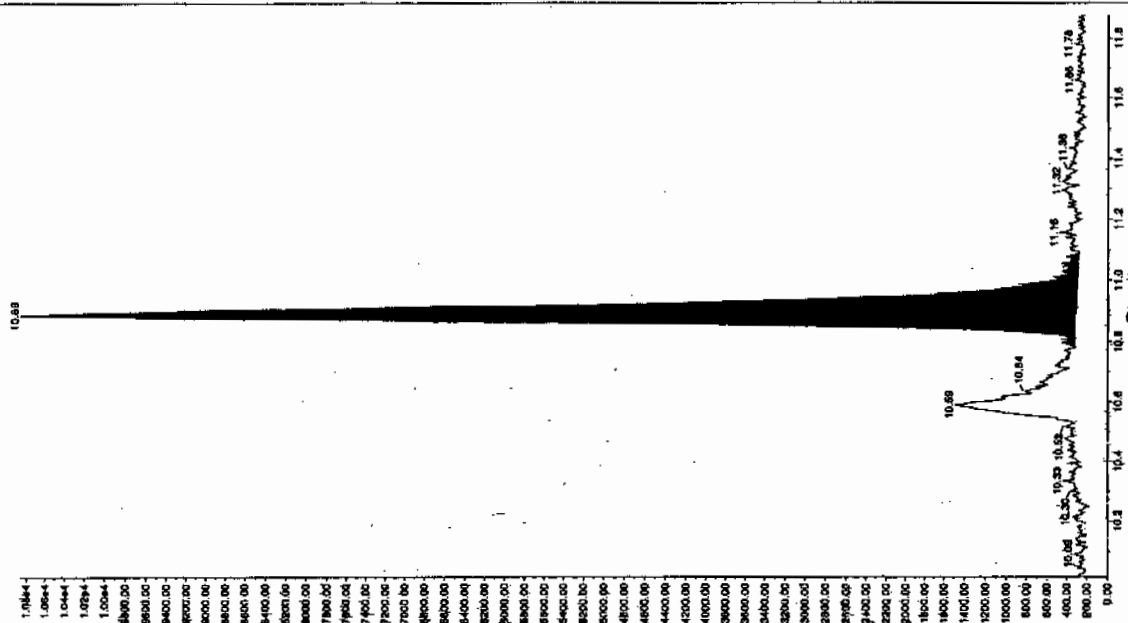
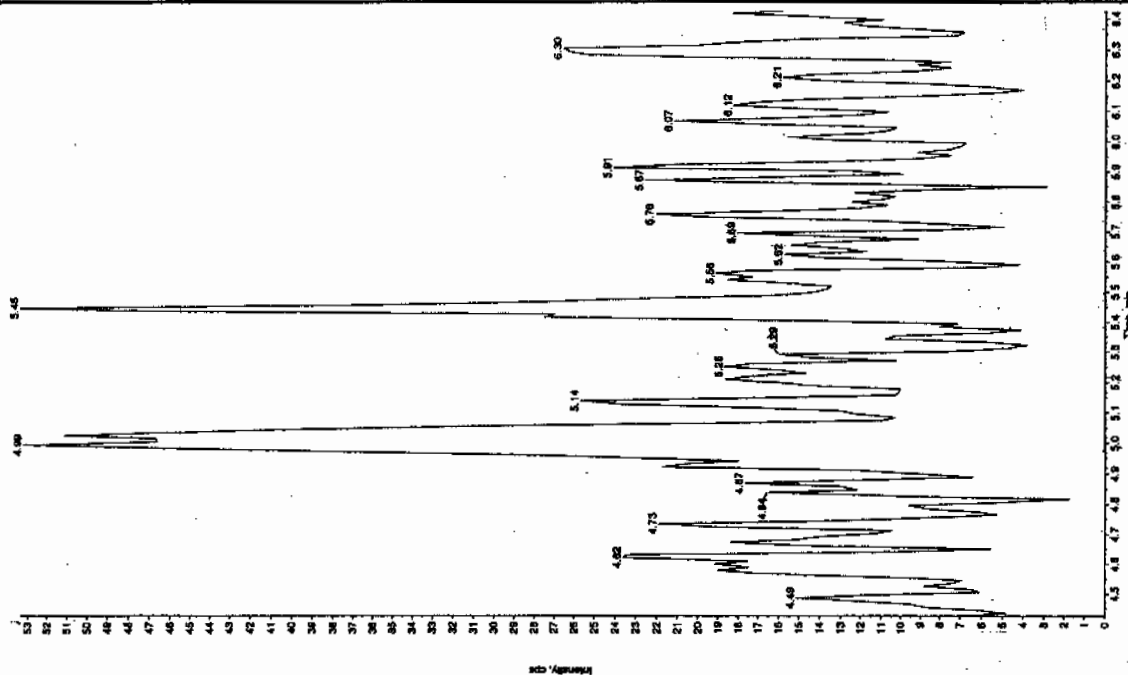
Sample Name: "XBLX05" Sample ID: "1111" File: "EX803160076.wif"  
 Peak Name: "24-Dimethoxy-6-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 3:55:59 AM

Modified: No

Proc. Algorithm: Intelligent - TQ4  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.9 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 10.9 min  
 Height: 10542.534 cps  
 Start Time: 10.8 min  
 End Time: 11.1 min

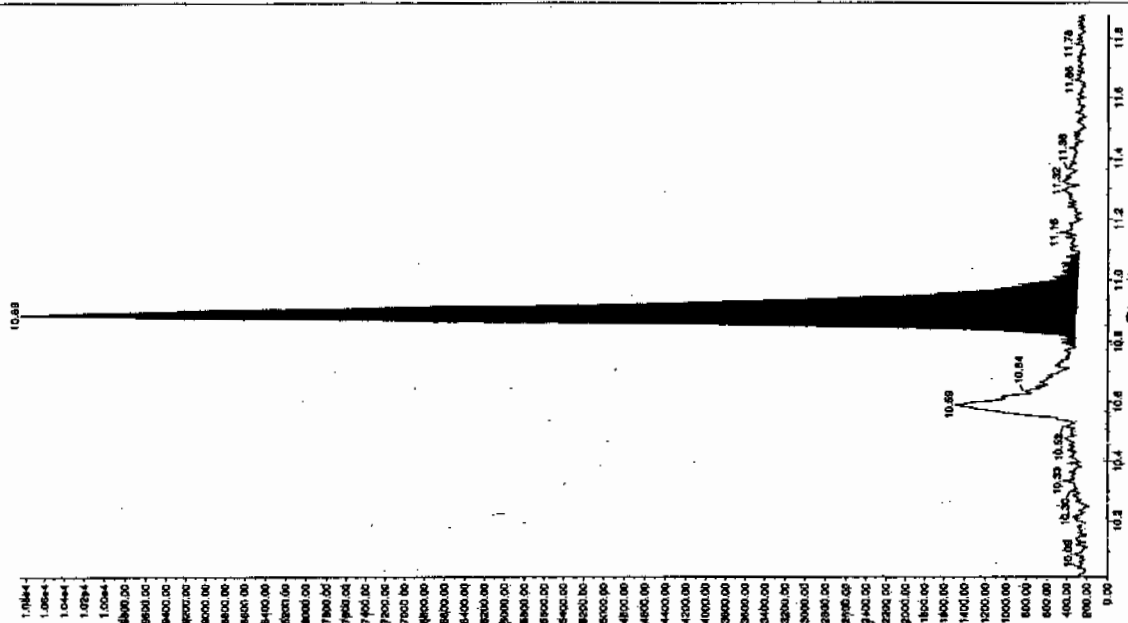
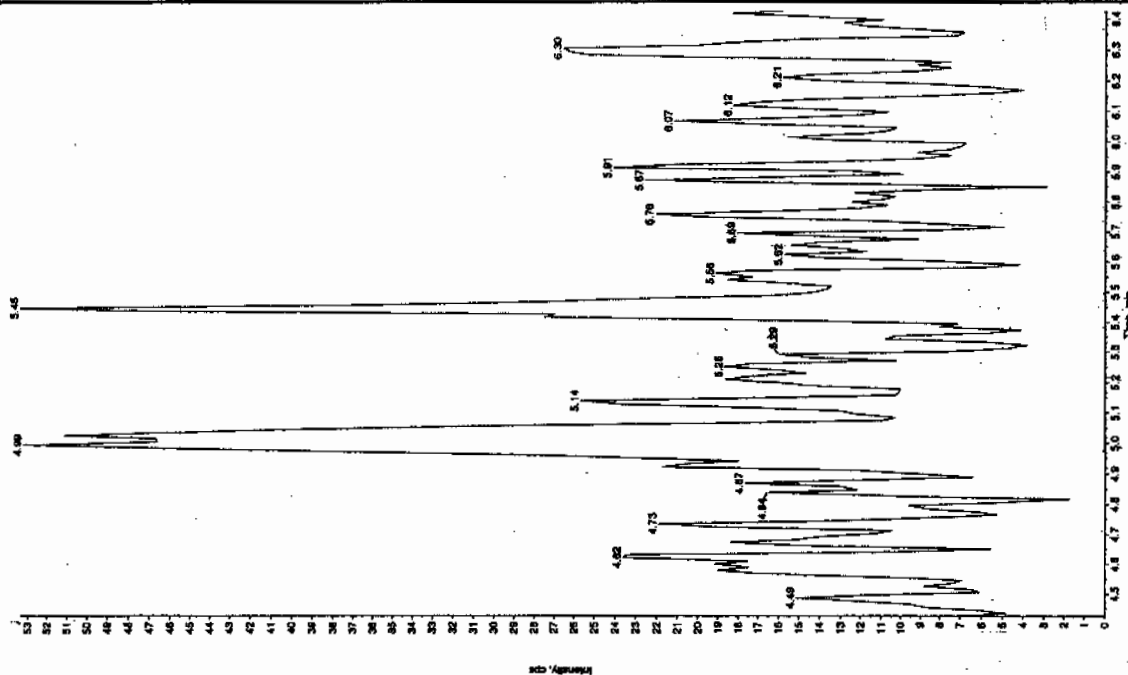


Sample Name: "XBLX09" Sample ID: "1111" File: "EX803160076.wif"  
 Peak Name: "1,4-bis(4-chlorophenyl)phthalate" Mass(es): "360.191.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 3:55:59 AM

Proc. Algorithm: Intelligent - TQ4  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.9 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 10.9 min  
 Height: 10542.534 cps  
 Start Time: 10.8 min  
 End Time: 11.1 min



**4A**  
**Explosives Continuing Calibration Blank**

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-2124

**Lab Code:** GEL

**Lab Sample ID:** XIBLK10

**Analysis Date:** 17-MAR-10 07:20

**GEL Data File:** EXS03160089.wiff

**Instrument ID:** LCMSMS

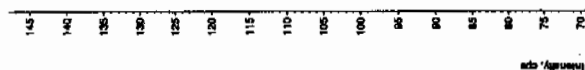
**Column:** Phenomenex Ultracarb 5u ODS(20)

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

KCU 2/19/10

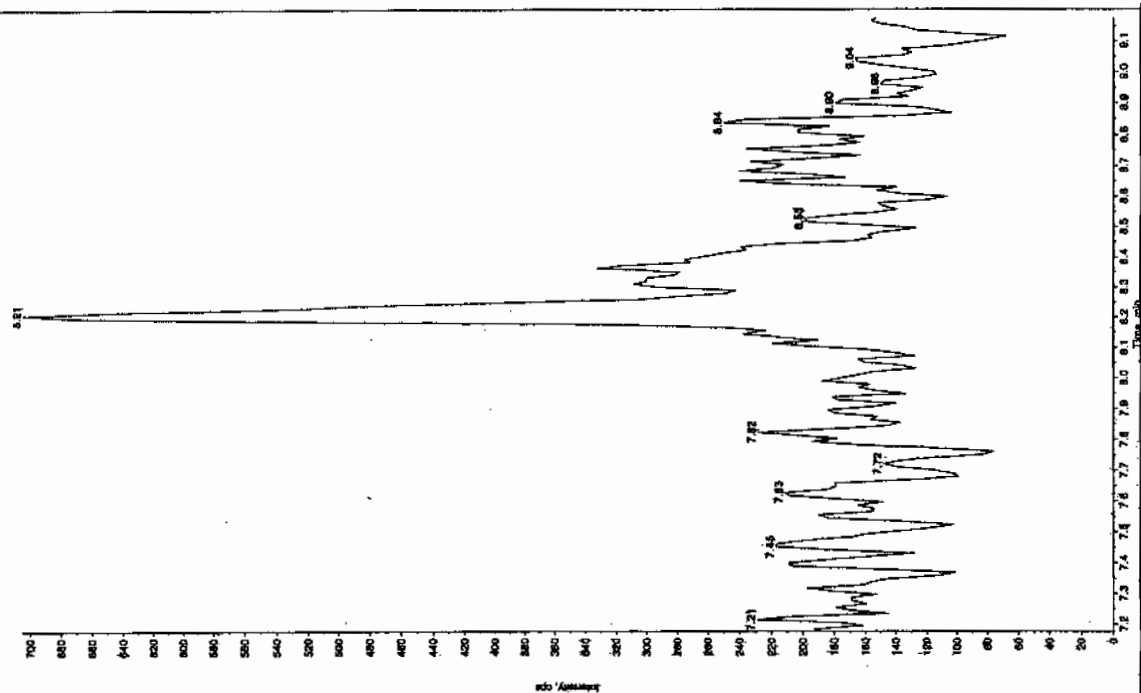
Sample Name: "XIBLK10" Sample ID: "HLEFF" File: "EX03160088.wiff"  
Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
Comment: "LCMSXP\_B" Annotation: "1"

Sample Index: 1  
Sample Type: Unknown  
Concentration: 0.00 ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 7:20:06 AM  
Modified: No



Sample Name: "XIBLK10" Sample ID: "HLEFF" File: "EX03160088.wiff"  
Peak Name: "3S-Dinitrobenzene" Mass(es): "182.0460 amu"  
Comment: "LCMSXP\_B" Annotation: "1"

Sample Index: 1  
Sample Type: Unknown  
Concentration: 0.00 ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 7:20:06 AM  
Modified: No

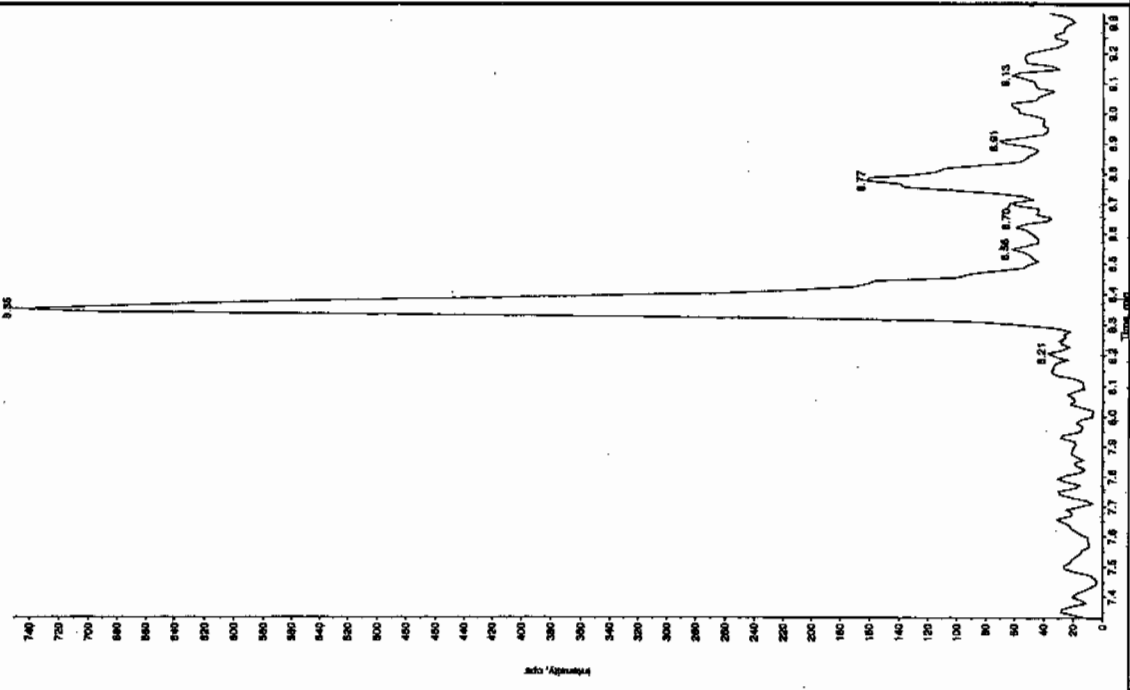


dim 02/19/10



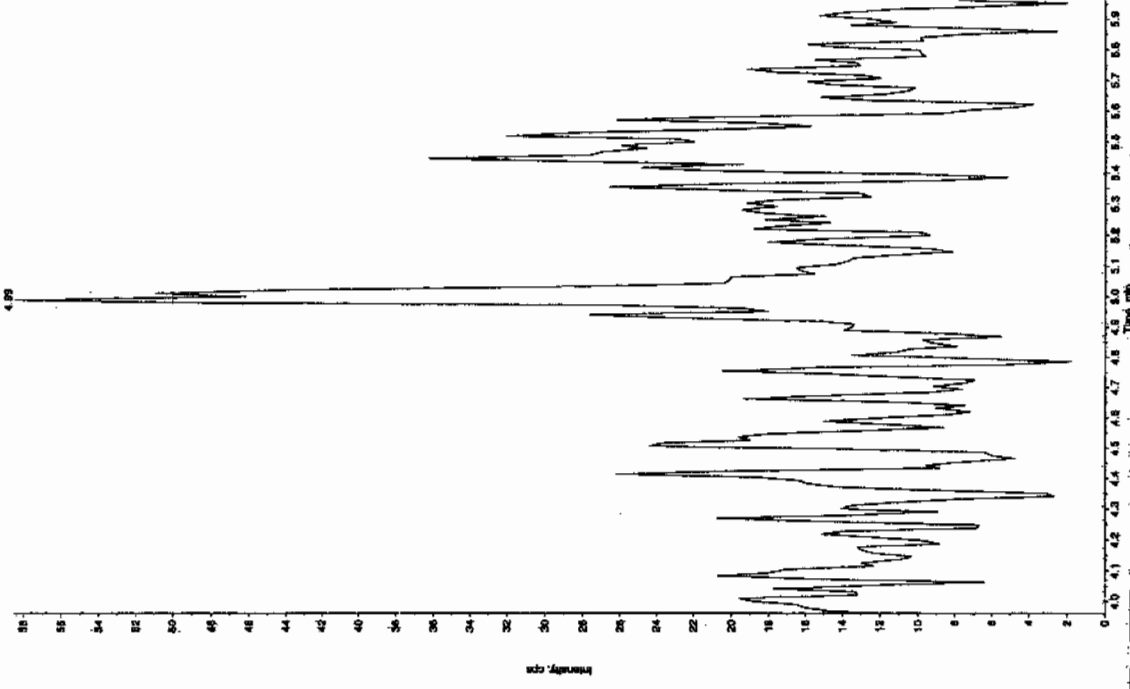
Sample Name: "XIBLKT" Sample ID: "HILF" File: "EX503160088.wif"  
Peak Name: "34-Dinitrofluorene" Mass(es): "162.1/151.9 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 7:20:08 AM  
Modified: No

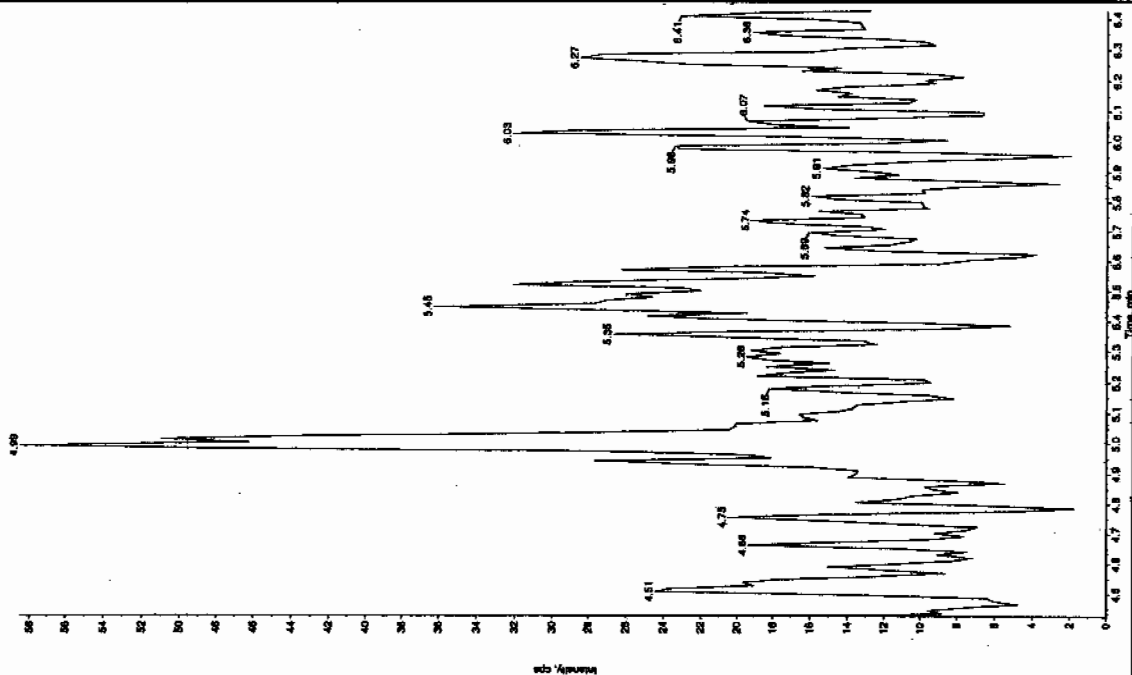


Sample Name: "XIBLKT" Sample ID: "HILF" File: "EX503160088.wif"  
Peak Name: "28-Dinitro-4-nitrofluorene" Mass(es): "166.0/166.0 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

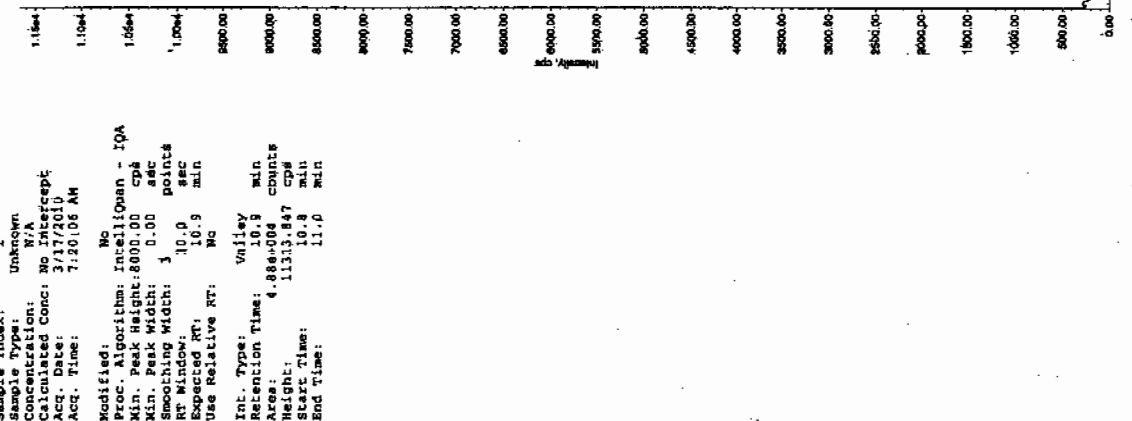
Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 7:20:08 AM  
Modified: No



Sample Name: 'XBLX10' Sample ID: '111EP' File: 'EX03160038.mfl'  
 Peak Name: '24-Dimethio-6-phosphor' Mass(es): '165.045.0 amu'  
 Comment: 'LCMSXP\_B' Annotation: ''  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 7:20:06 AM  
 Modified: No



Sample Name: 'XBLX10' Sample ID: '111EP' File: 'EX03160038.mfl'  
 Peak Name: 'tris(oxazol) phosphor' Mass(es): '188.101.0 amu'  
 Comment: 'LCMSXP\_B' Annotation: ''  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: No Intercept  
 Acq. Date: 3/17/2010  
 Acq. Time: 7:20:06 AM  
 Modified: No



Nairb.ref

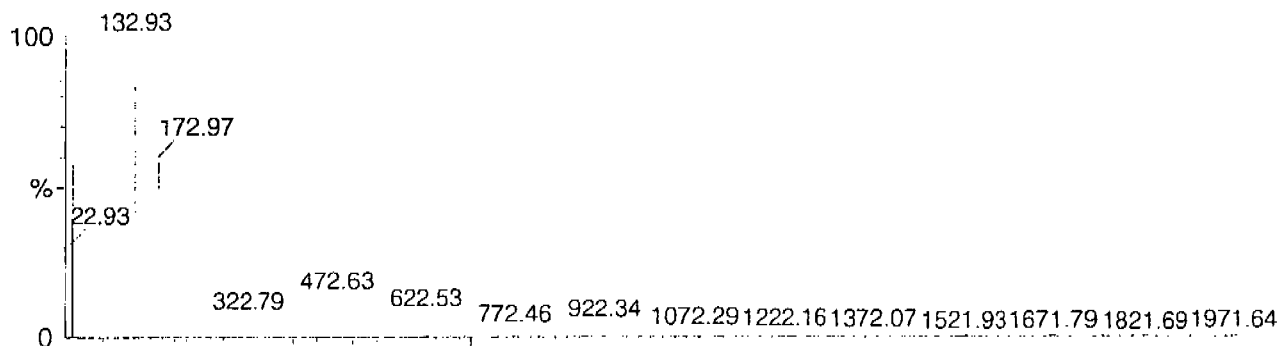
;Positive ion monoisotopic and average masses from solution  
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H<sub>2</sub>O.  
;Most useful general purpose calibrant for all low  
;MW applications, including MS/MS work.  
;At high resolution, readily covers from m/z 50-2000.  
;At reduced resolution, 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

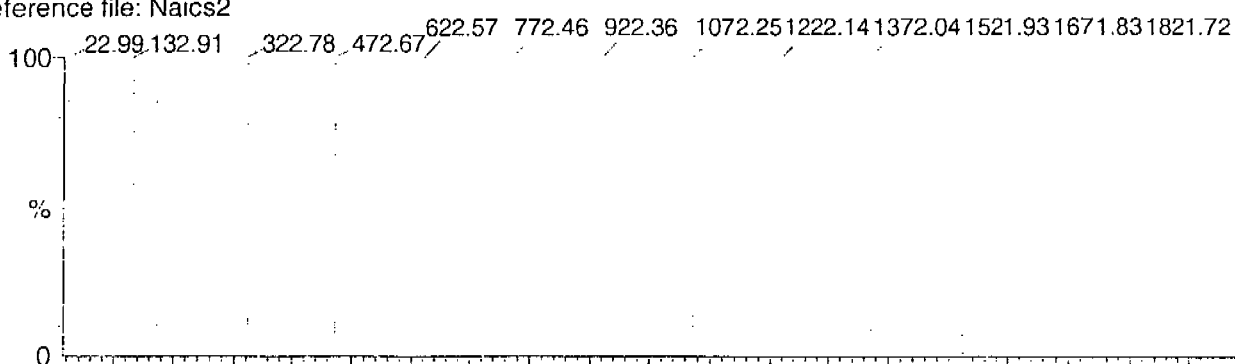
Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

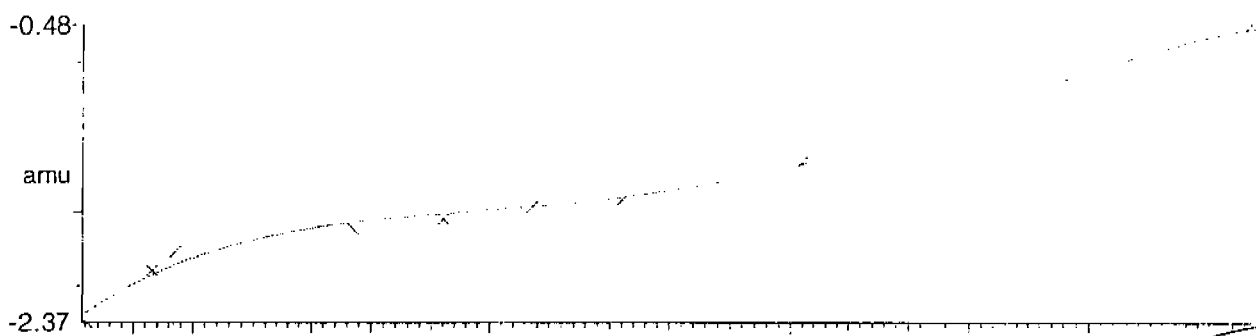
15 matches of 15 tested references



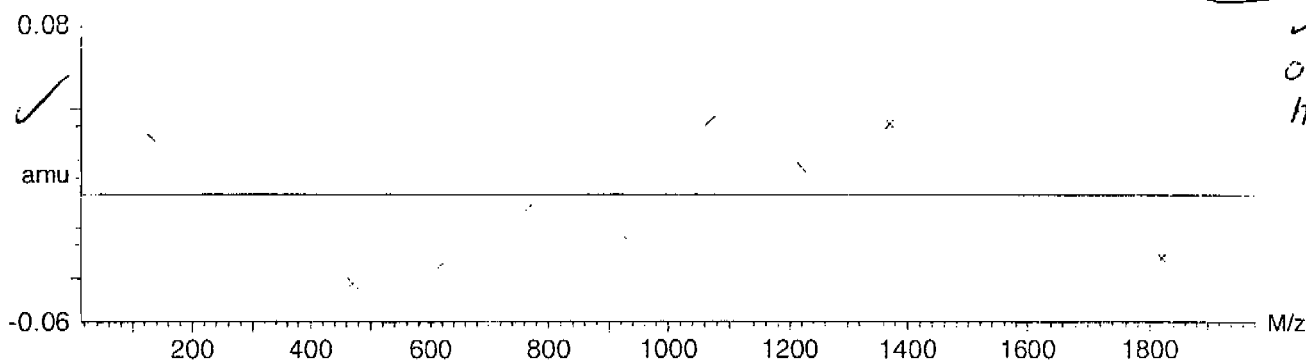
Reference file: Naics2



Mass difference (Raw - Ref mass)

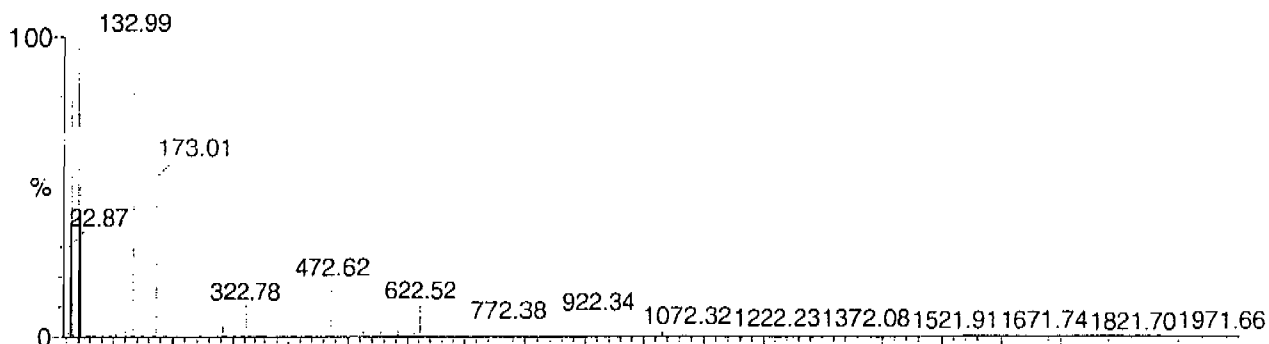


Residuals

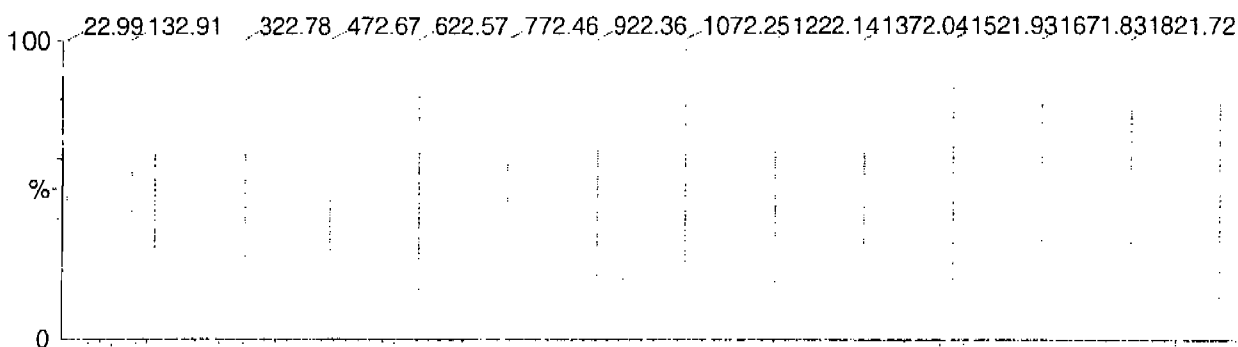
Mean residual =  $-1.673470 \times 10^{-9} \pm 0.036953$ 

Printed: Fri Aug 25 10:51:06 2006

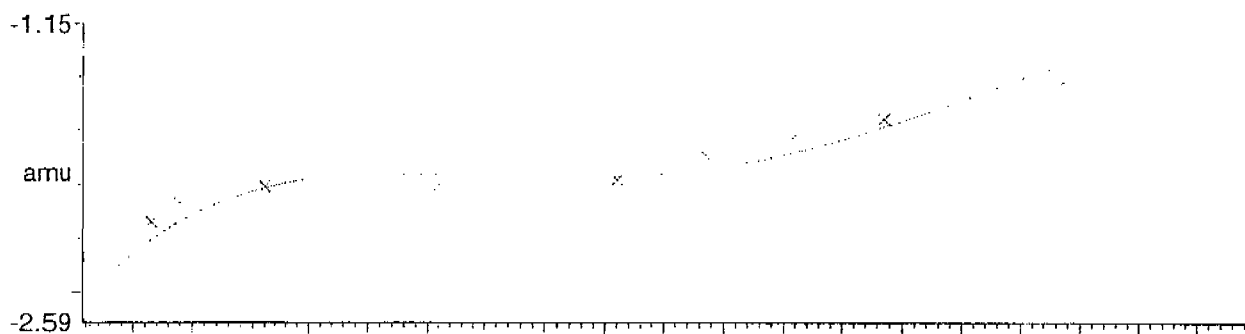
Data file: SCNMS1 - Calibrated 15 matches of 15 tested references



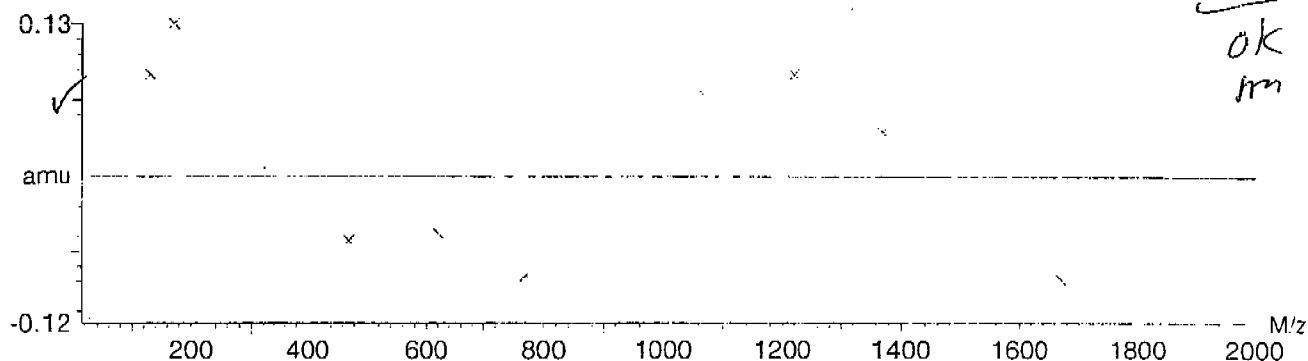
Reference file: Naics2



Mass difference (Raw - Ref mass)



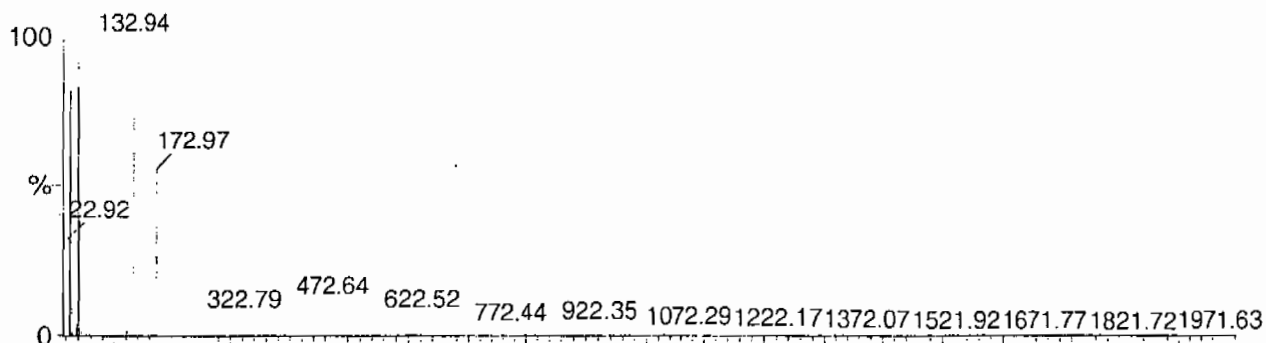
Residuals

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

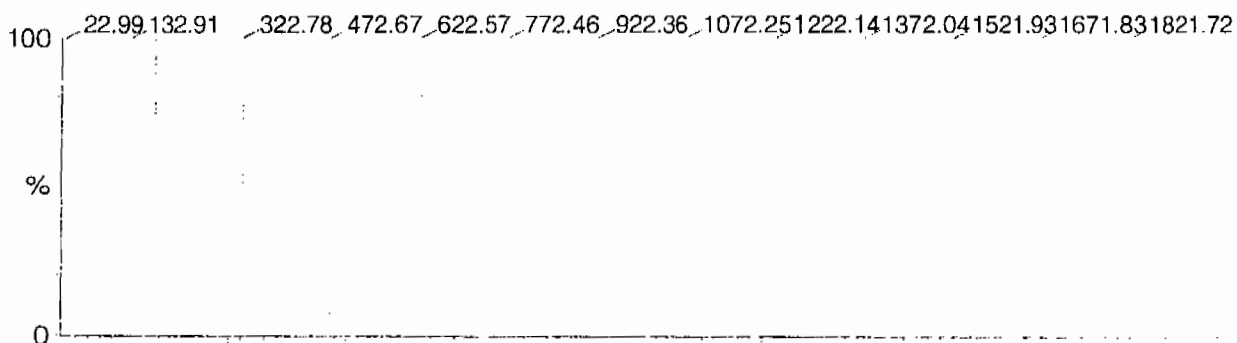
Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

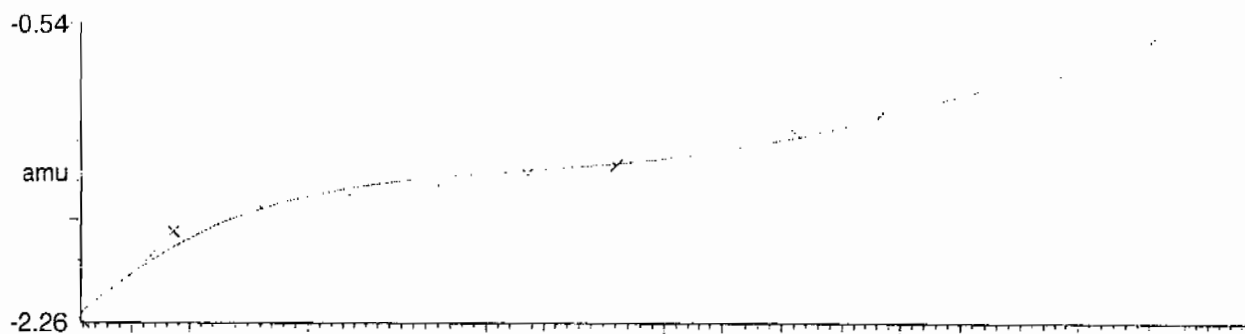
15 matches of 15 tested references



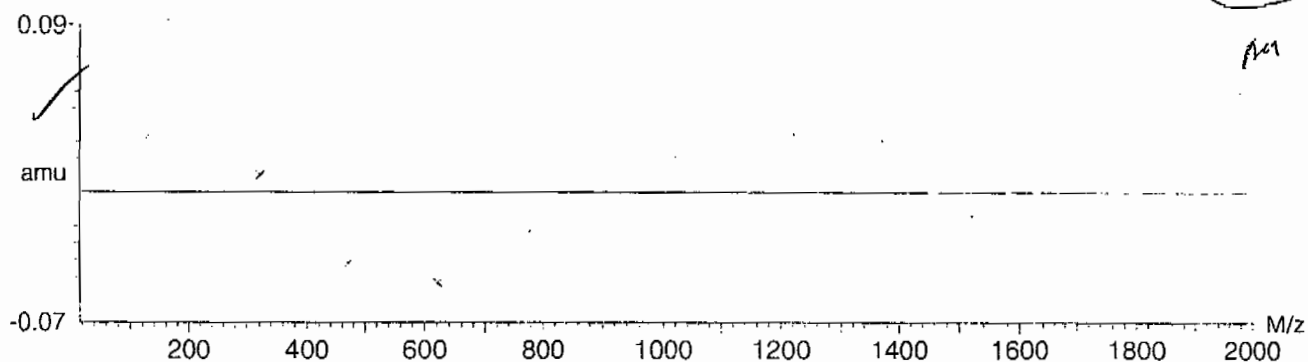
Reference file: Naics2



Mass difference (Raw - Ref mass)



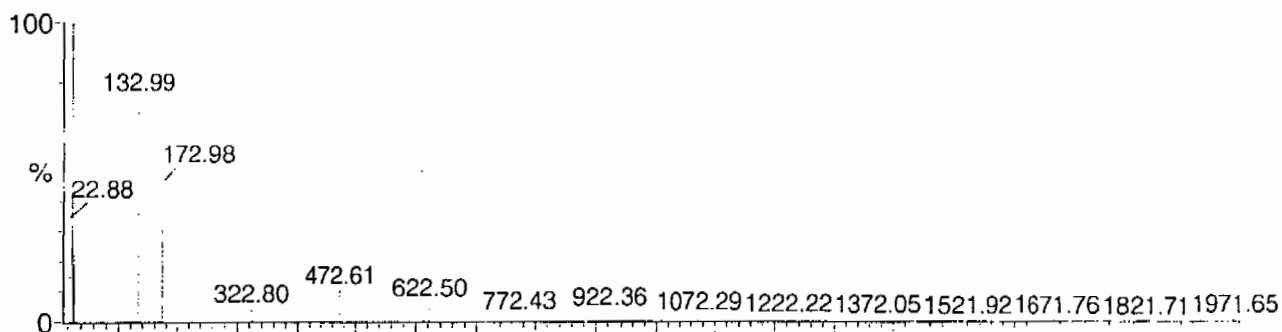
Residuals

Mean residual =  $3.486639 \times 10^{-9} \pm 0.040487$ 

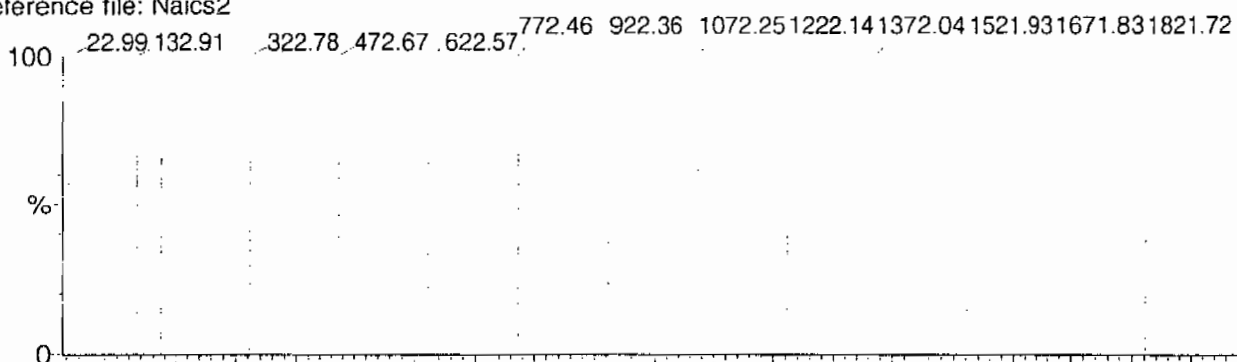
Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

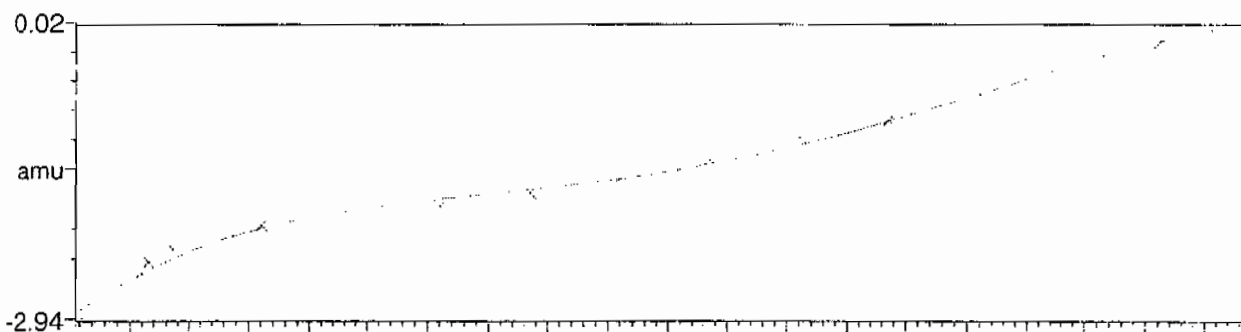
15 matches of 15 tested references



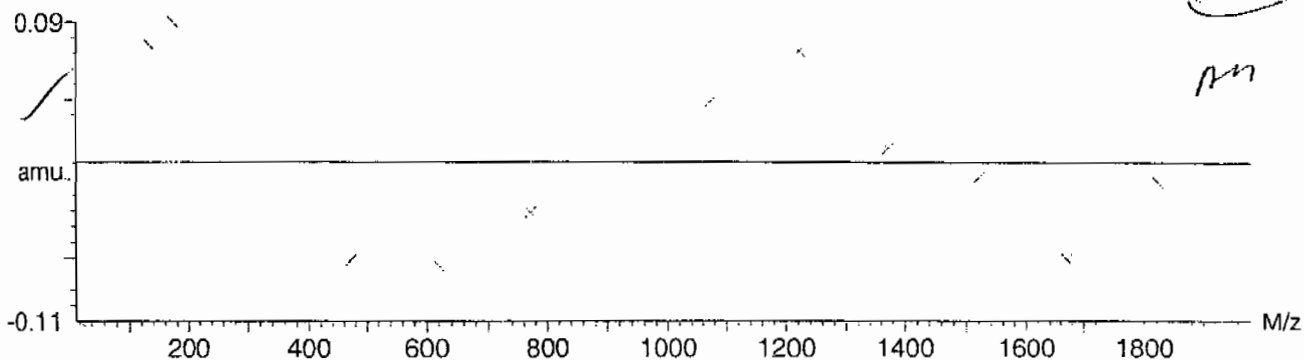
Reference file: Naics2



Mass difference (Raw - Ref mass)



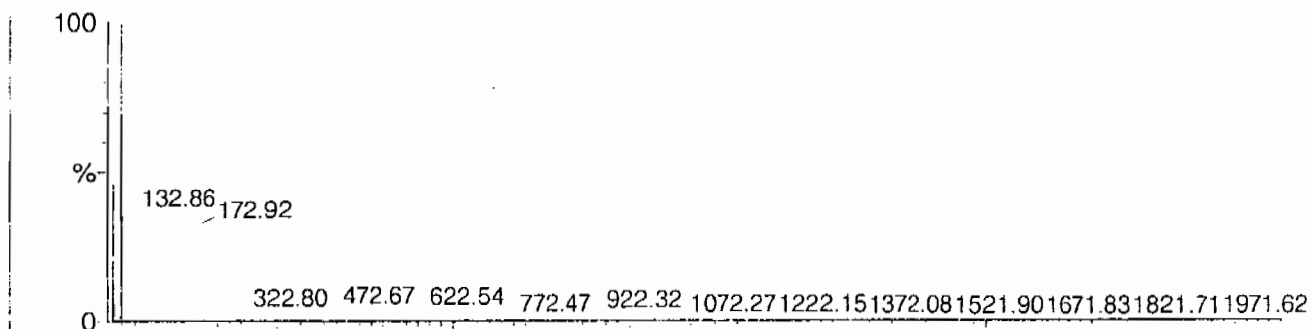
Residuals

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

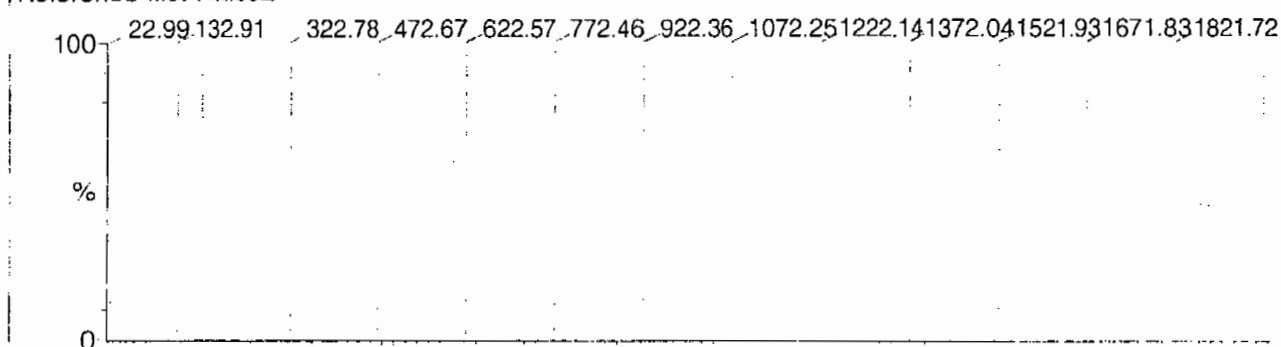
Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

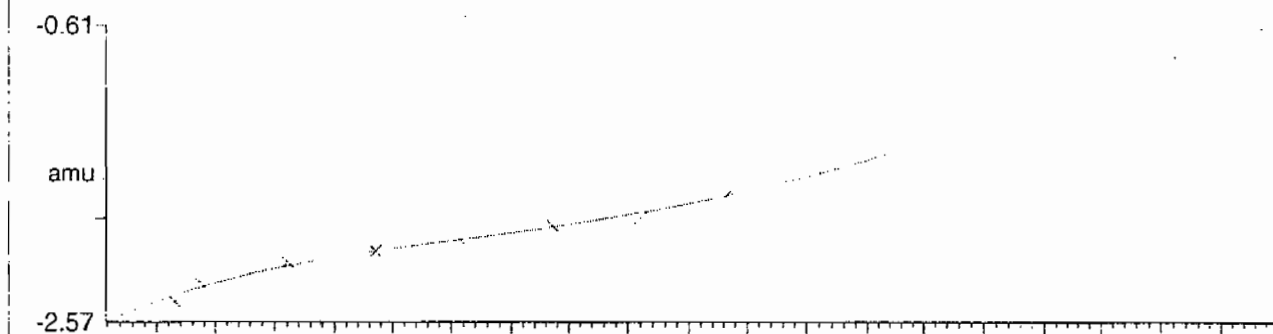
14 matches of 15 tested references



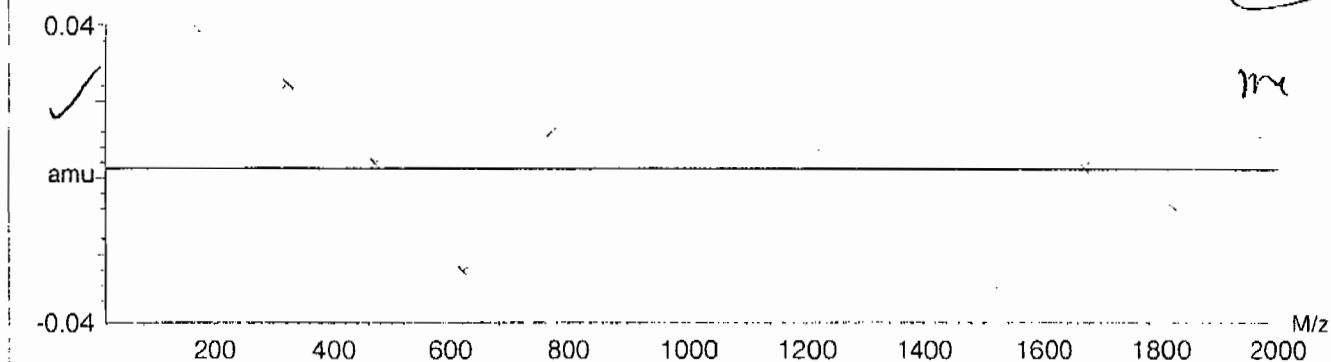
Reference file: Naics2



Mass difference (Raw - Ref mass)



Residuals

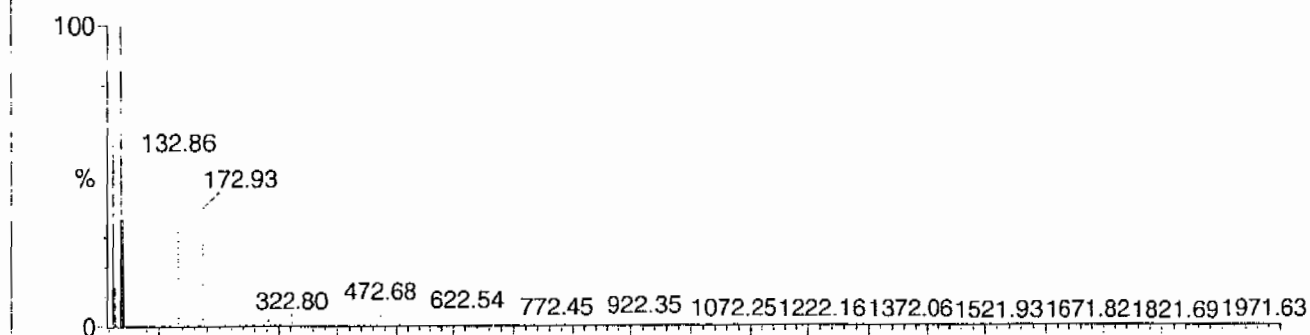
Mean residual =  $-2.623502 \times 10^{-9} \pm 0.025622$ 



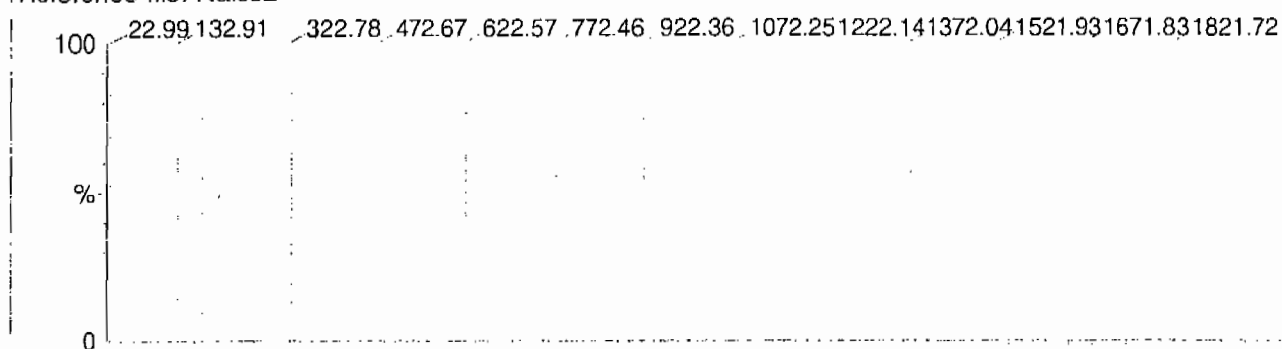
Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

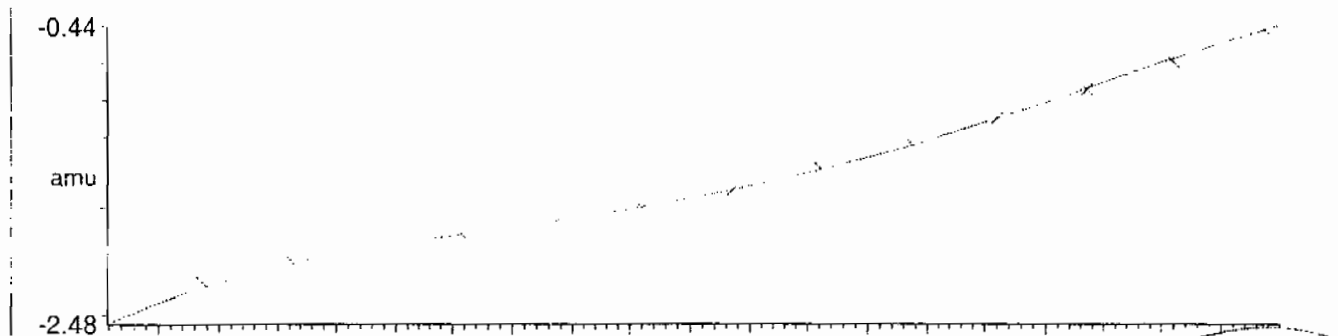
14 matches of 15 tested references



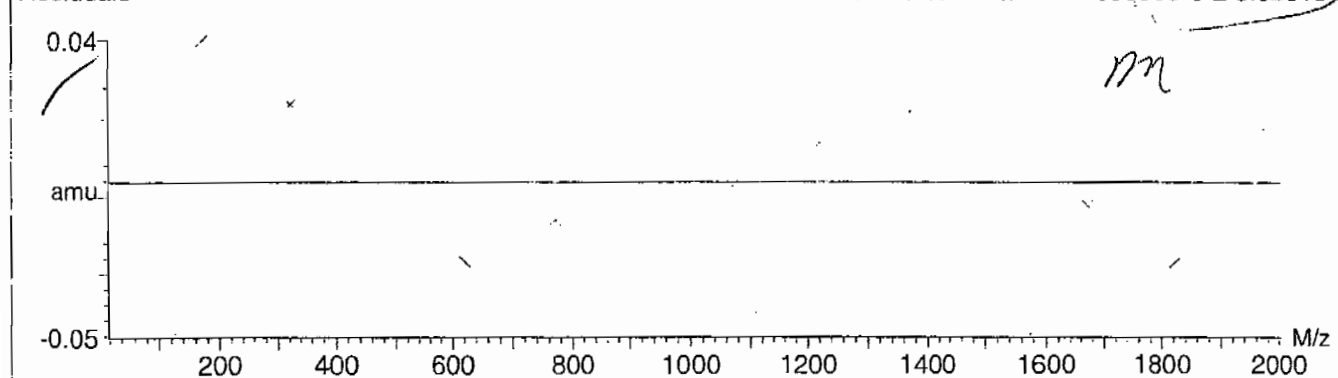
Reference file: Naics2



Mass difference (Raw - Ref mass)

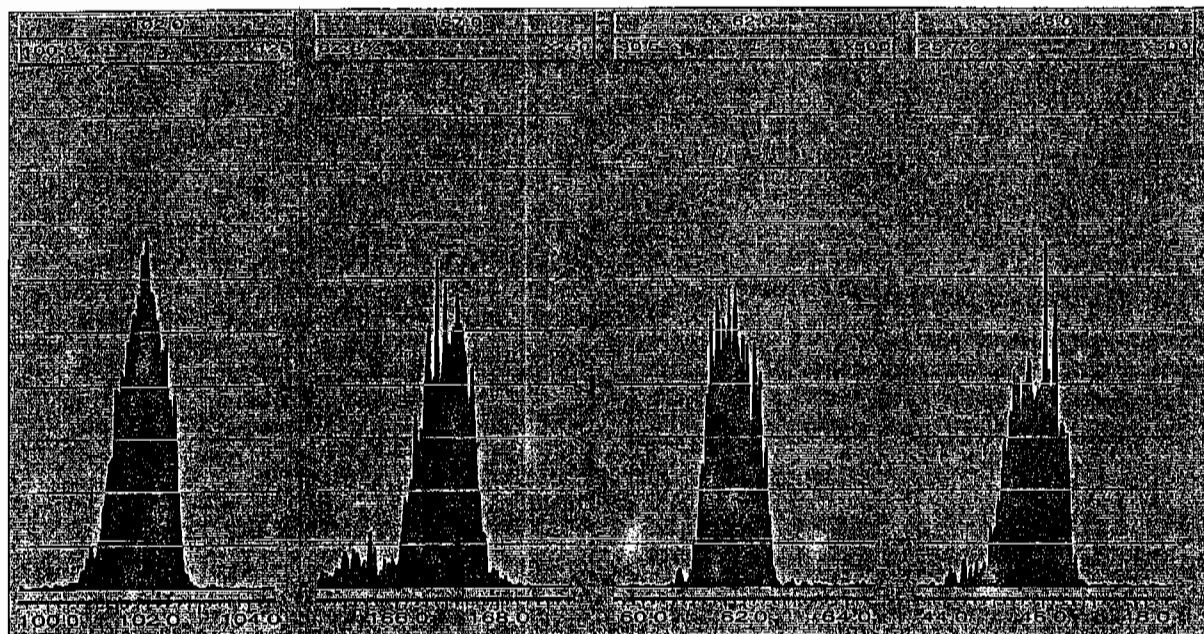


Residuals

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

Parameter File: C:\MASSLYNX\NEW\_EXP.PROVACQ\UDB\explosives04.IPR

Printed : Tue Mar 23 09:07:10 2010



## High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLCGEL Job No (SDG): 10-2124Lab Code: GELHPLC Column: Phenomenex Ultracarb 5u ODS(20)Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			5504.273	12.072	34430.583	17.449
Upper Limit			7155.5549	12.572	44759.7579	17.949
Lower Limit			3852.9911	11.572	24101.4081	16.949
MB for batch 959332	25-mar-10 00:58	EXP0323082a	6345.49	12.033	37551.3	17.42
LCS for batch 959332	25-mar-10 01:28	EXP0323083a	6274.86	12.066	37408.9	17.422
RE36-10-8282	25-mar-10 01:57	EXP0323084a	6562.81	12.065	34572.3	17.413
RE36-10-8281	25-mar-10 02:27	EXP0323085a	6018.66	12.068	37896.3	17.42

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

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

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

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

RT Upper Limit = +0.5 of average multipoint RT

RT Lower Limit = -0.5 of average multipoint RT

# Column used to flag values outside QC limits with an asterisk

\* Values outside of QC limits

# SAMPLE DATA

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8282

Lab Code: GEL

GEL Job No (SDG) 10-2124

Matrix: SOIL

GEL Sample ID: 248202001

Sample Amount 2

Moisture: 8.7

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959332

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0323084a

Date Analyzed: 25-MAR-10 01:57

Units: ug/kg

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

\*Concentration =

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323084a

Date: 25-Mar-2010

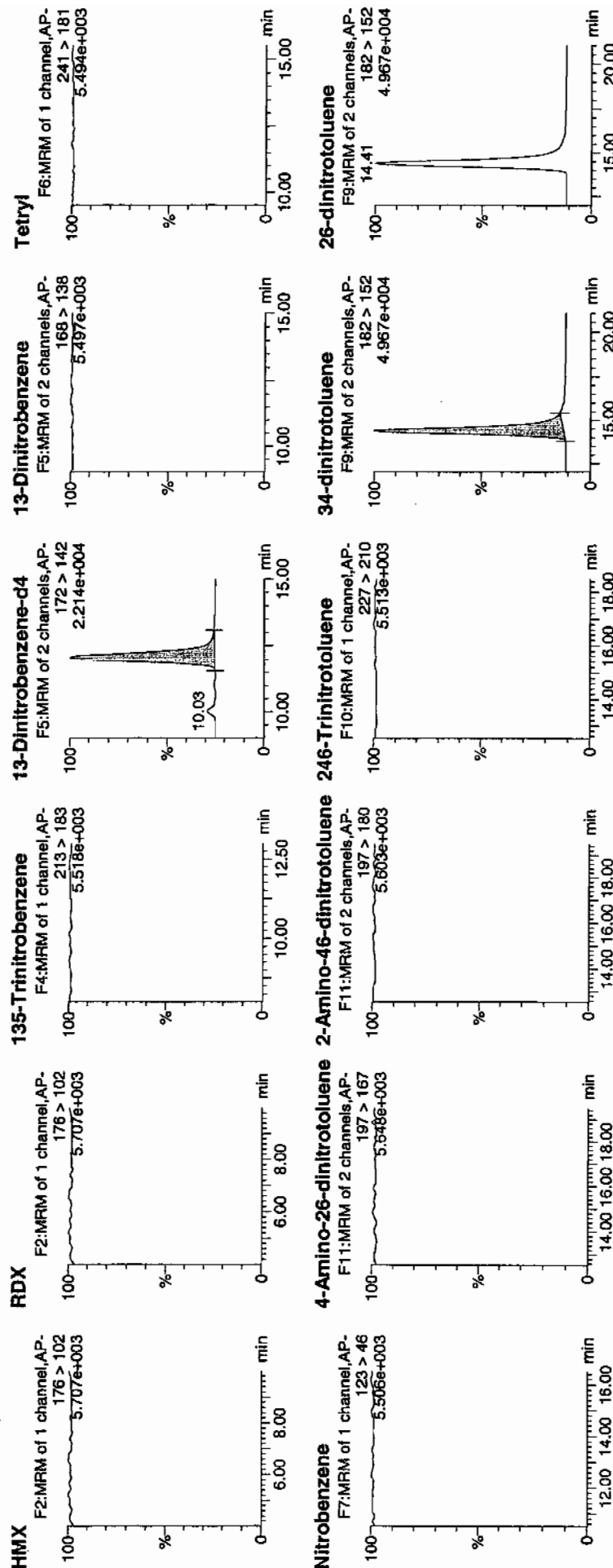
Time: 01:57:33

ID: 248202001

Vial: 3:1,C

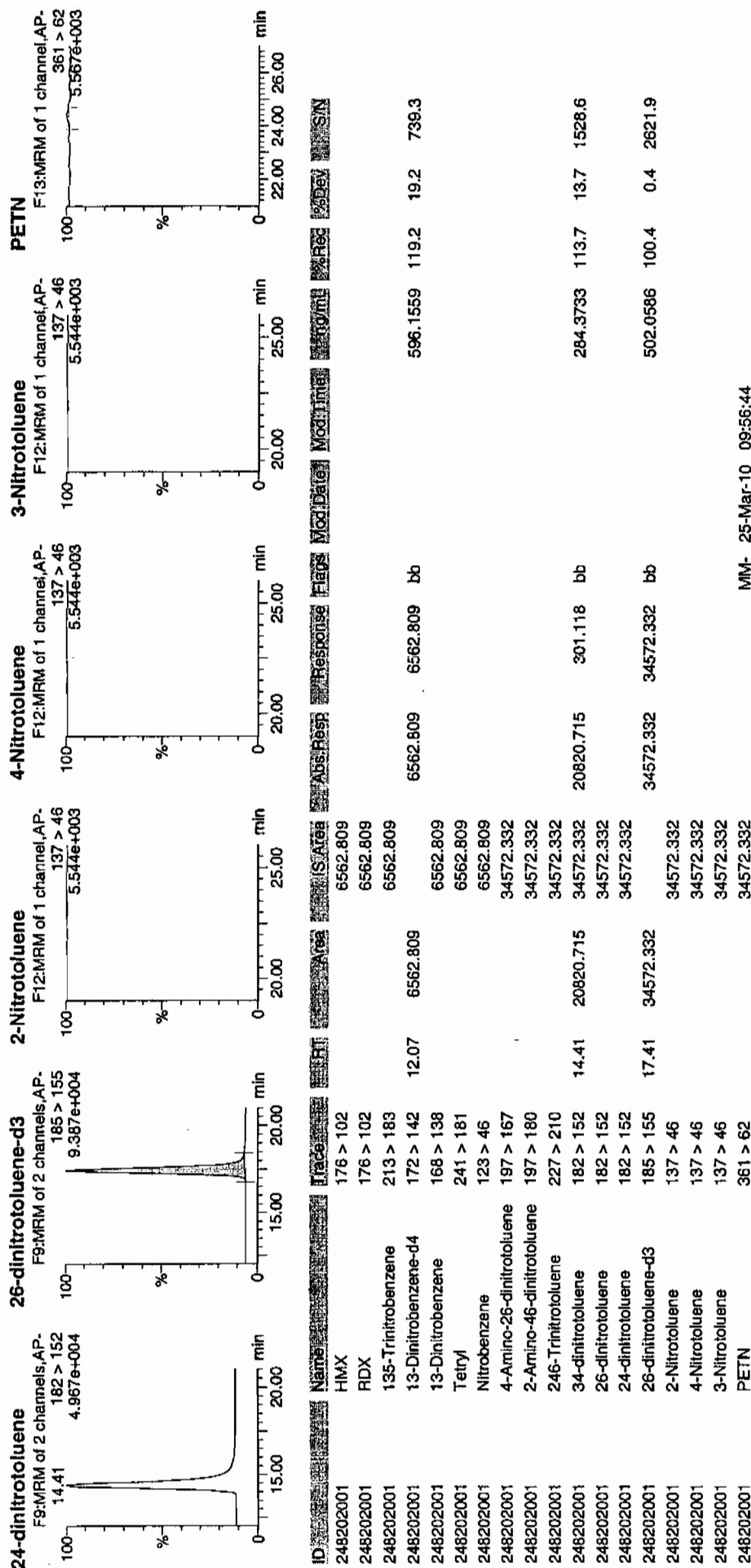
4.77  
3/25/10

LAUW 959334 / 8000 / 21



4.77  
3/25/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010



MM- 25-Mar-10 09:56:44

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8282

Lab Code: GEL

GEL Job No (SDG) 10-2124

Matrix: SOIL

GEL Sample ID: 248202001

Sample Amount 2

Moisture: 8.7

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959332

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03160080.wiff

Date Analyzed: 17-MAR-10 04:58

Units: ug/kg

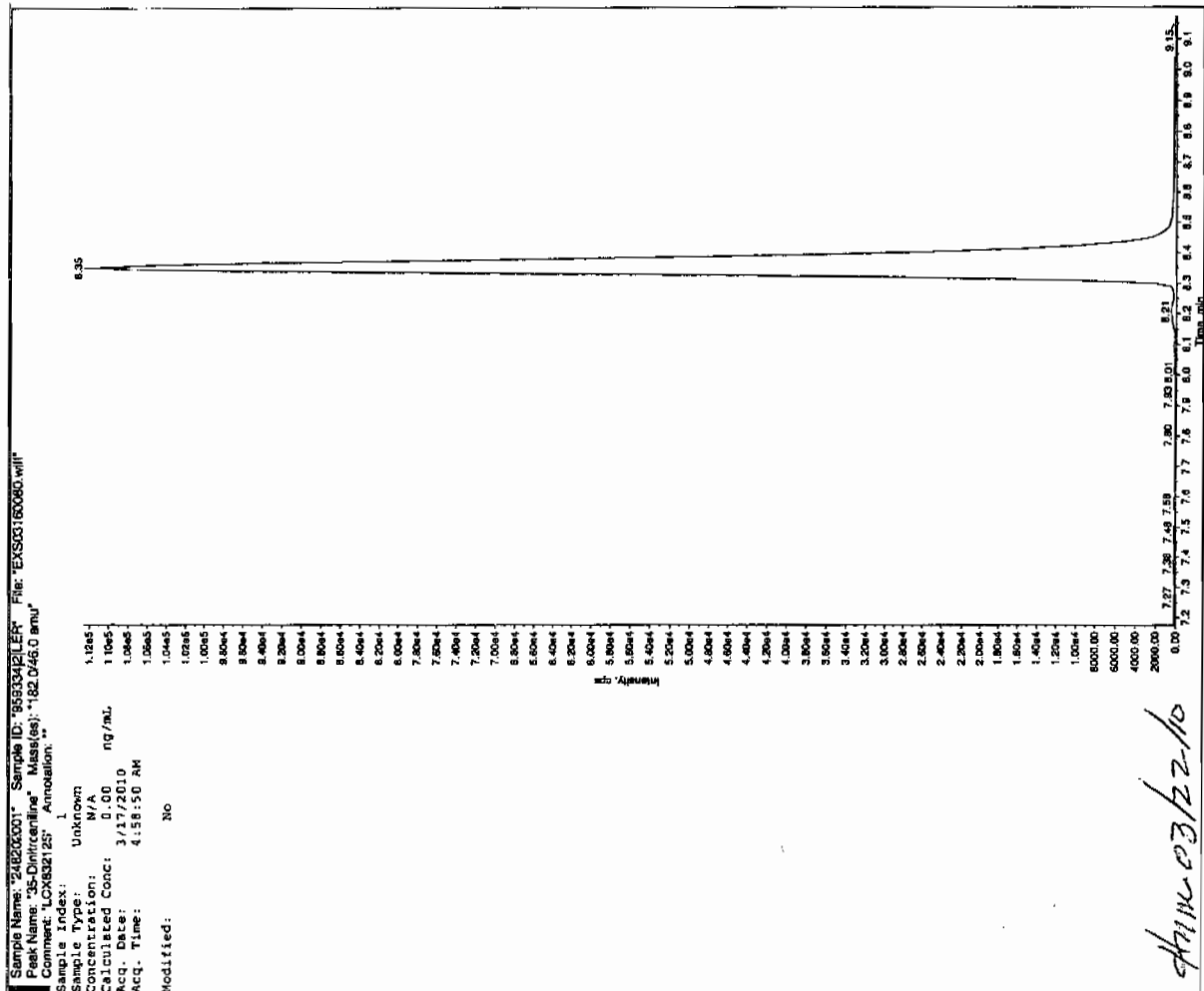
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

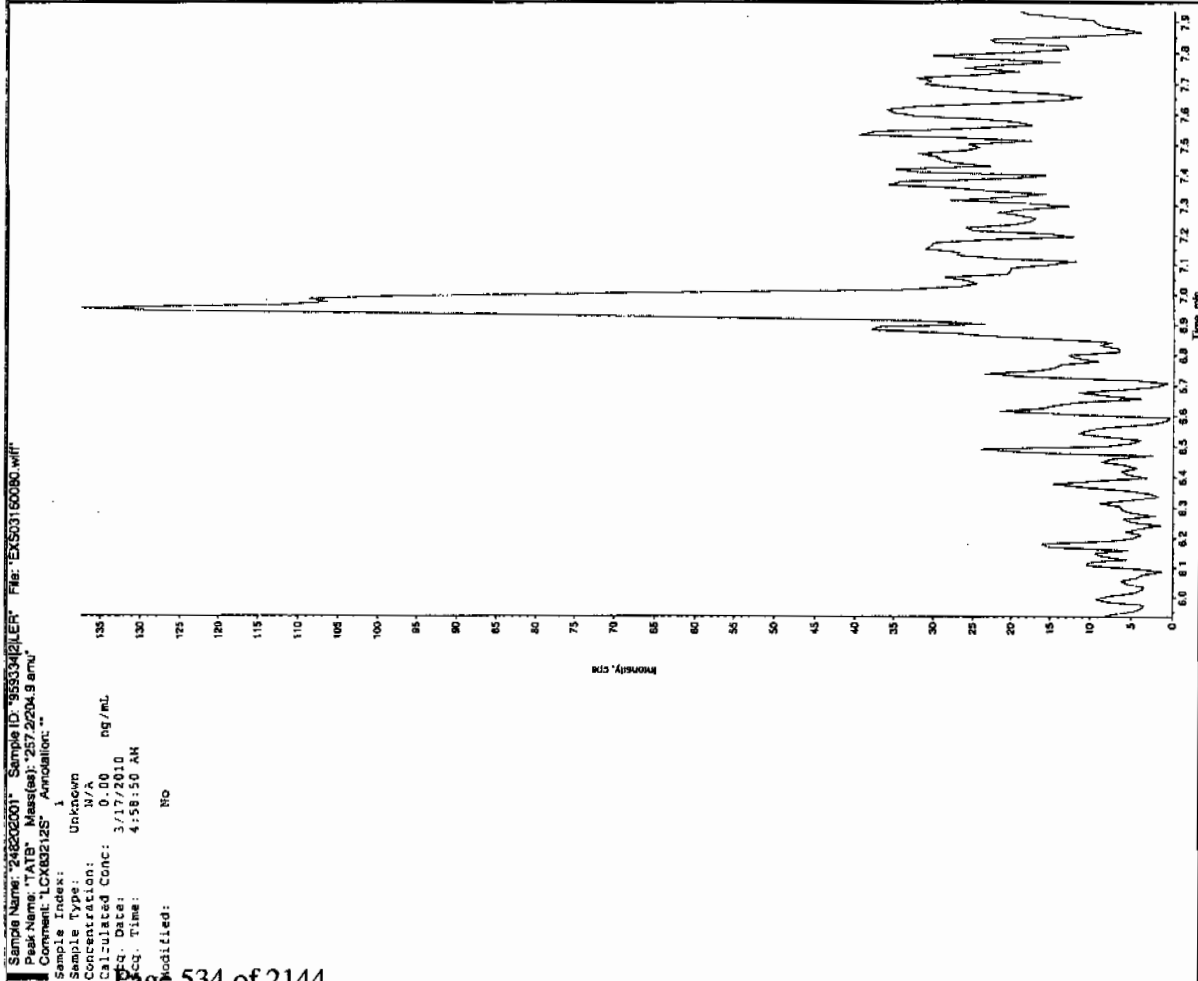
Instrument	X	<u>Concentrated Extract Volume</u>	X	Dilution
Value		<u>Sample Amoun</u>		Factor

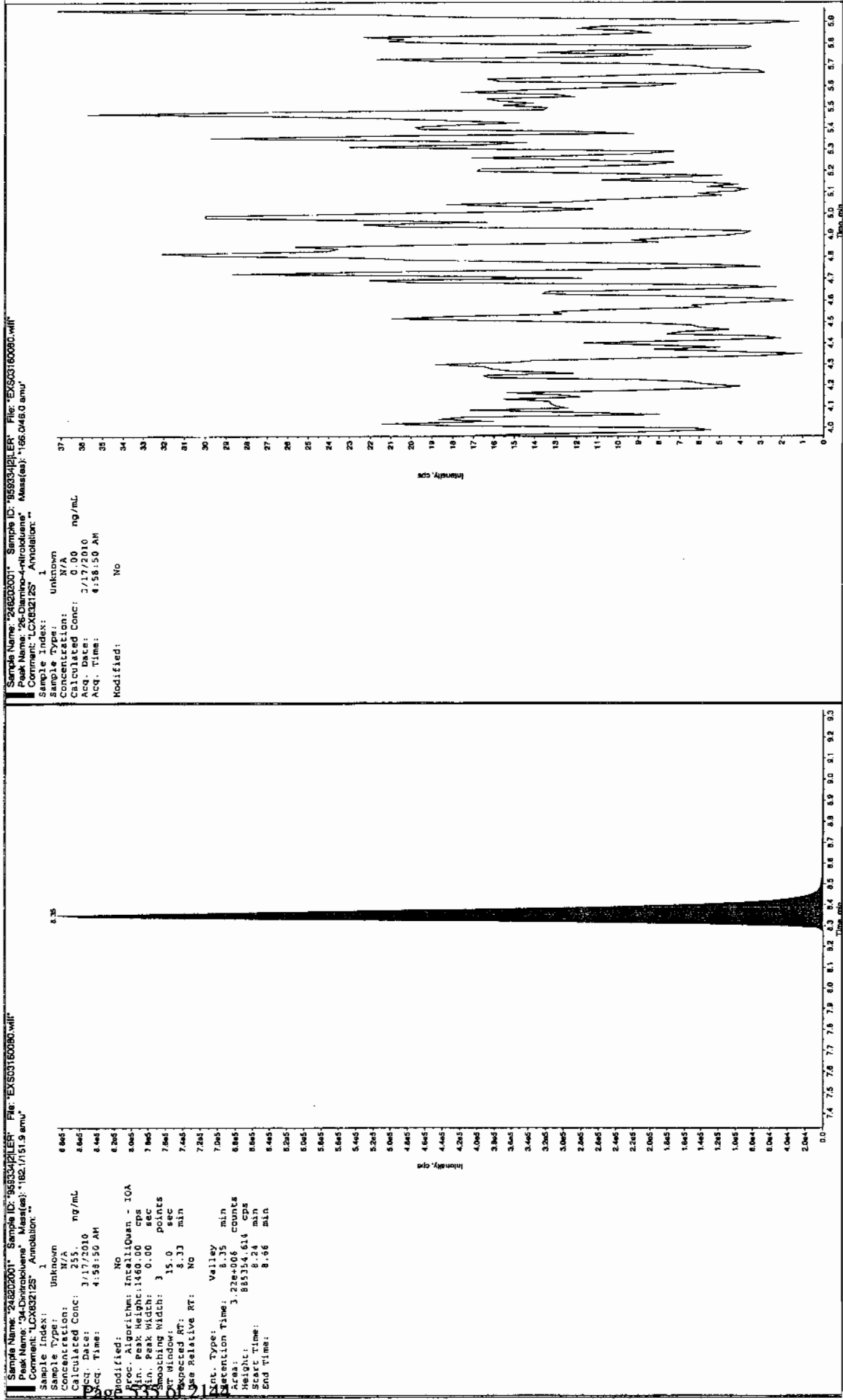


See 8/19/10



8/19/03/12-10

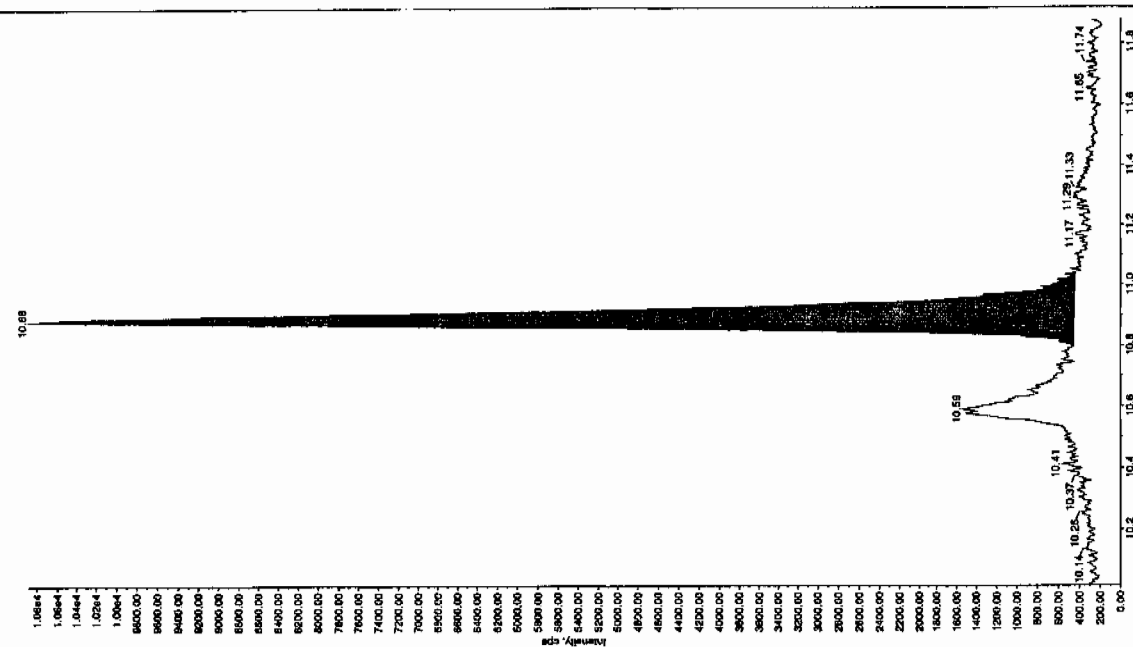
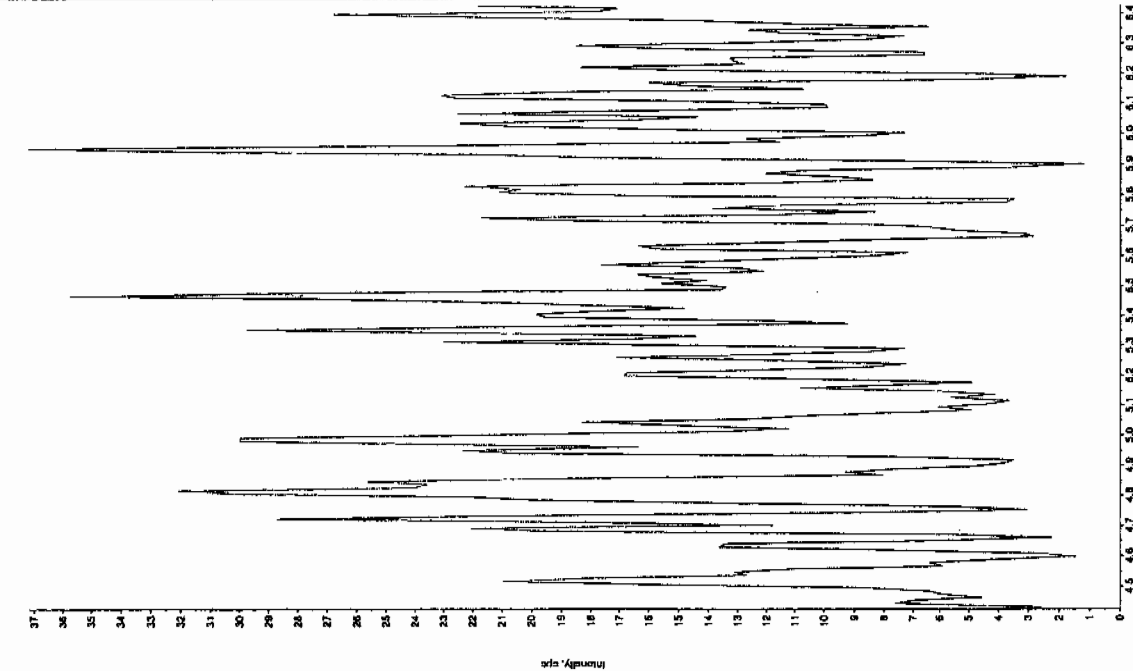




Sample Name: "248222001" Sample ID: "95933421L1ER" File: "EX503160060.wif"  
Peak Name: "24-Dimethyl-5-hydroxyphenyl phosphite" Mass(es): "165.046.0 amu"  
Comment: "LCX832125" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: M/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 4:58:50 AM  
Modified: No

Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 8000.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 10.9 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 10.9 min  
Area: 4.12e+004 counts  
Height: 10343.084 cps  
Start Time: 10.8 min  
End Time: 11.0 min



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8281

Lab Code: GEL

GEL Job No (SDG) 10-2124

Matrix: SOIL

GEL Sample ID: 248202002

Sample Amount 2

Moisture: 26.9

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959332

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0323085a

Date Analyzed: 25-MAR-10 02:27

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	106	J
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

\*Concentration =

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323085a

Date: 25-Mar-2010

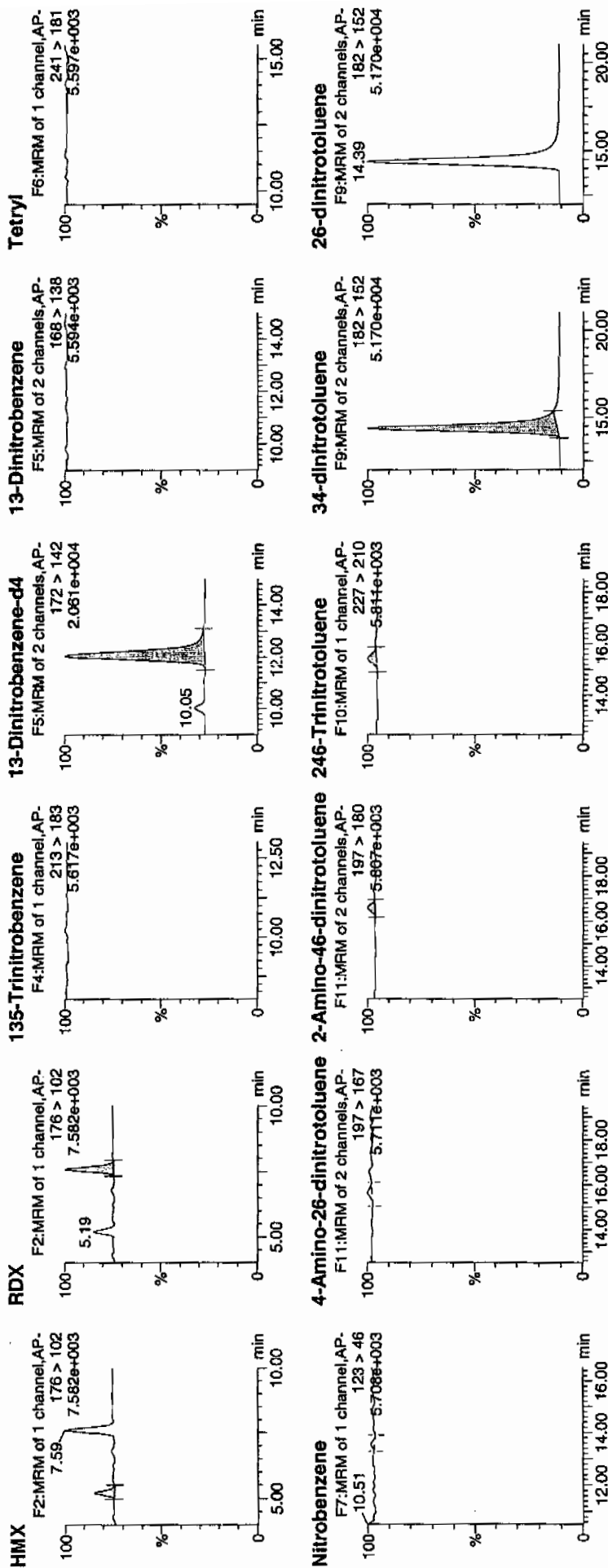
Time: 02:27:01

ID: 248202002

Vial: 3:1,D

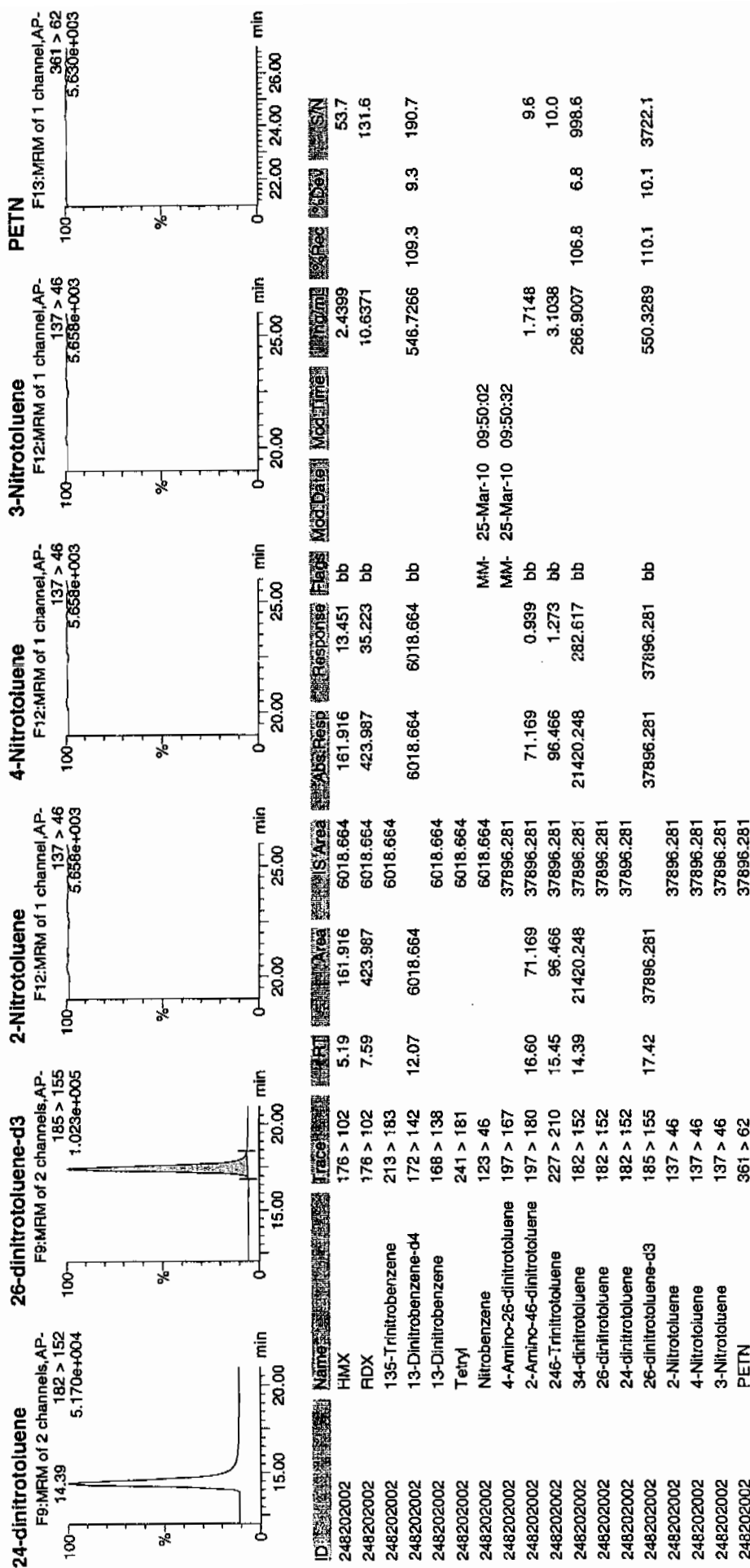
14077  
3/25/10

LANC 959334 / 8022 / 2



Am 03/30/10

Dataset: C:\MASSLYNX\New\_Exp\PRO032310expA1.qld, Time: Thu Mar 25 09:56:44 2010



## High Explosives Analysis Data Sheet

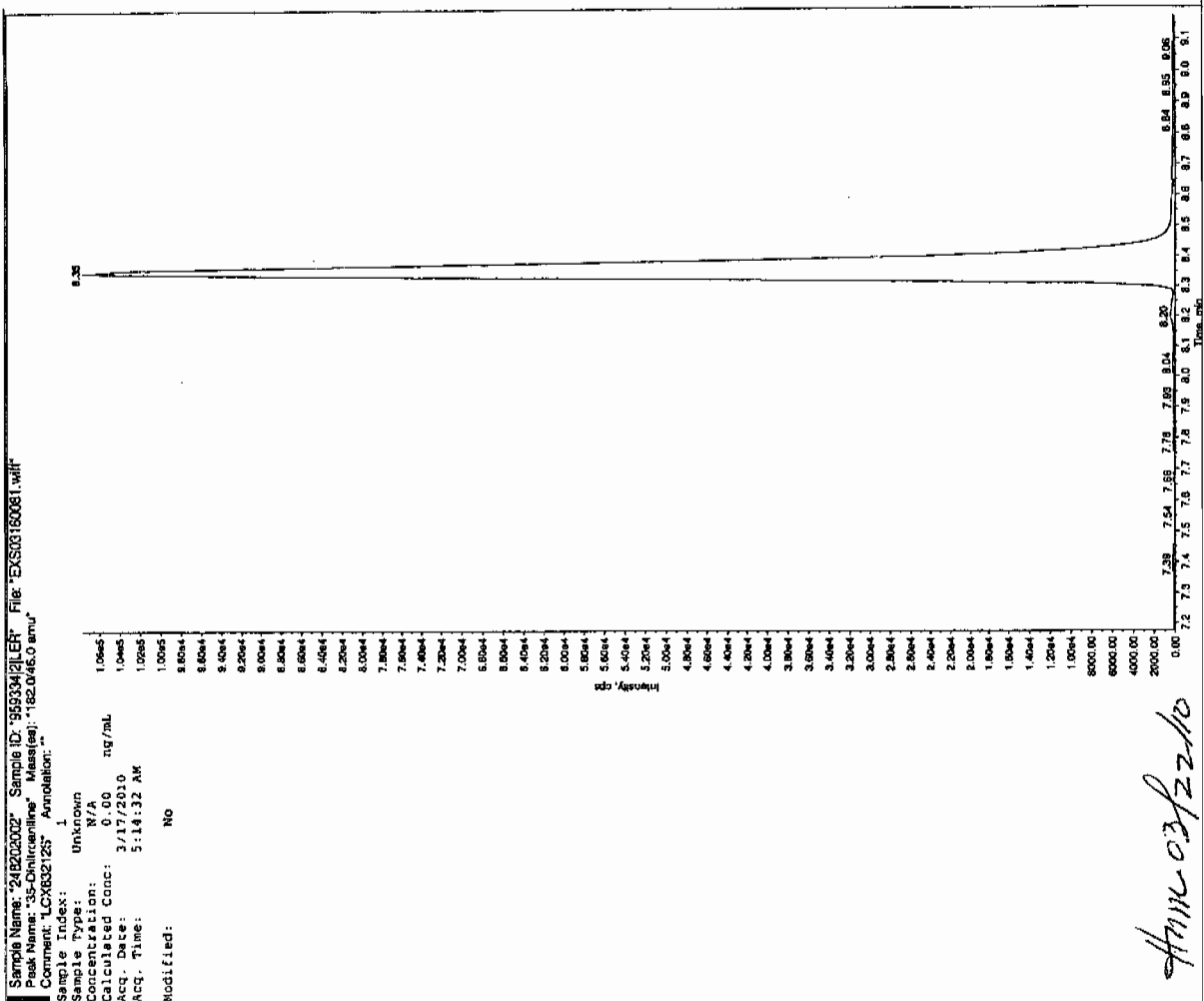
Lab Name: GEL Laboratories LLCClient Sample ID: RE36-10-8281Lab Code: GELGEL Job No (SDG) 10-2124Matrix: SOILGEL Sample ID: 248202002Sample Amount 2Moisture: 26.9Amount Units gDate Received: 26-FEB-10Extraction Type SonicationExtraction Batch ID: 959332Concentrated Extract Volume (mL) 10Date Extracted: 08-MAR-10Dilution Factor: 2Injection Volume (uL): 50GEL data file: EXS03160081.wiffDate Analyzed: 17-MAR-10 05:14Units: ug/kg

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

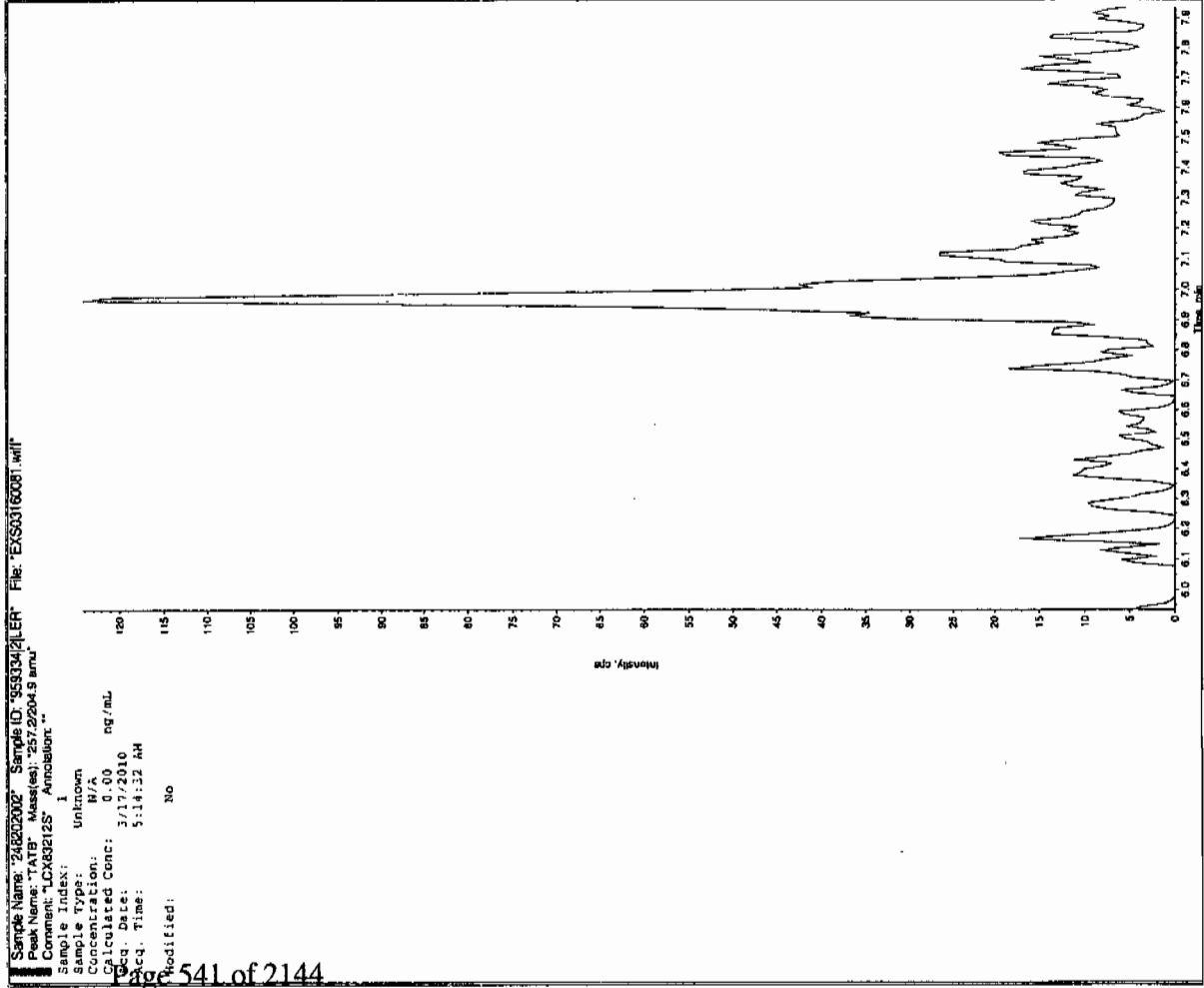
\*Concentration =

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

Ken 3/19/10



Ann 03/22/10





Sample Name: "24820002" Sample ID: "95334121" File: "EX803160081.wif"

Peak Name: "26-Diamino-4-nitrobenzene" Mass(es): "162.17151.9 amu"

Comment: "LCX83212S" Annotation: "1"

Sample Index: 1

Sample Type: Unknown

Concentration: 241. ng/mL

Calculated Conc: 3/17/2010

Acq. Date: 5:14:32 AM

Acq. Time: 5:14:32 AM

Modified: No

Proc. Algorithm: IntelliQuin - IQA

Min. Peak Height: 1460.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3.00 points

Integration Window: 15.0 sec

Expected RT: 8.33 min

Use Relative RT: No

Det. Type: Valley

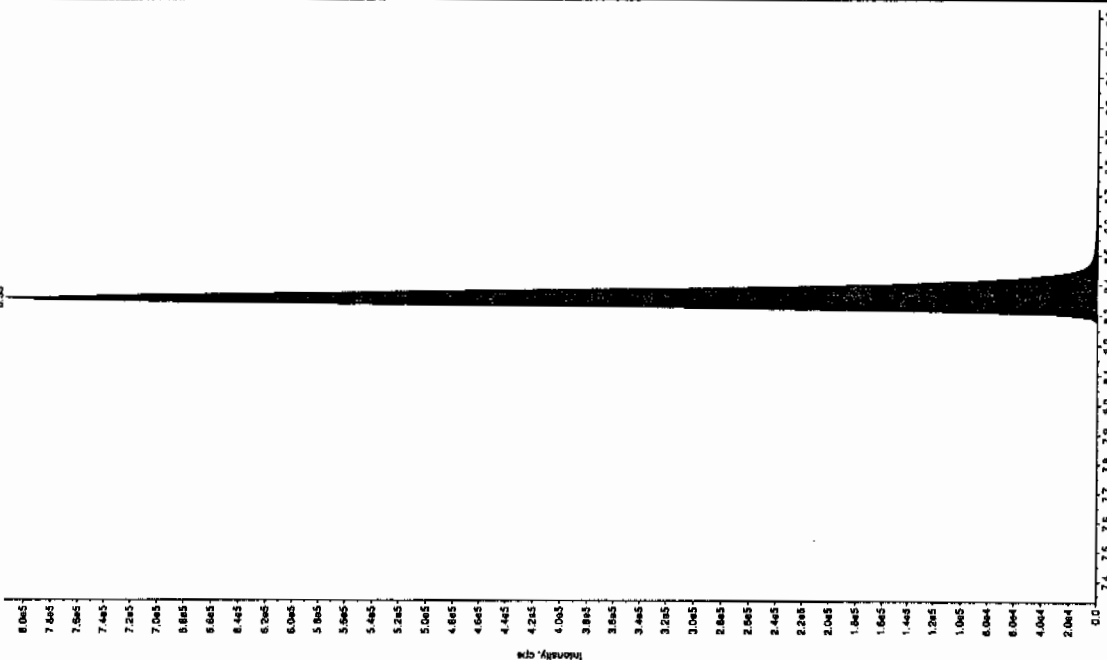
Retention Time: 8.35 min

Area: 3.05e+002 counts

Height: 214171.631 cps

Start Time: 8.23 min

End Time: 8.64 min



Sample Name: "24820002" Sample ID: "95334121" File: "EX803160081.wif"

Peak Name: "26-Diamino-4-nitrobenzene" Mass(es): "166.046.0 amu"

Comment: "LCX83212S" Annotation: "1"

Sample Index: 1

Sample Type: Unknown

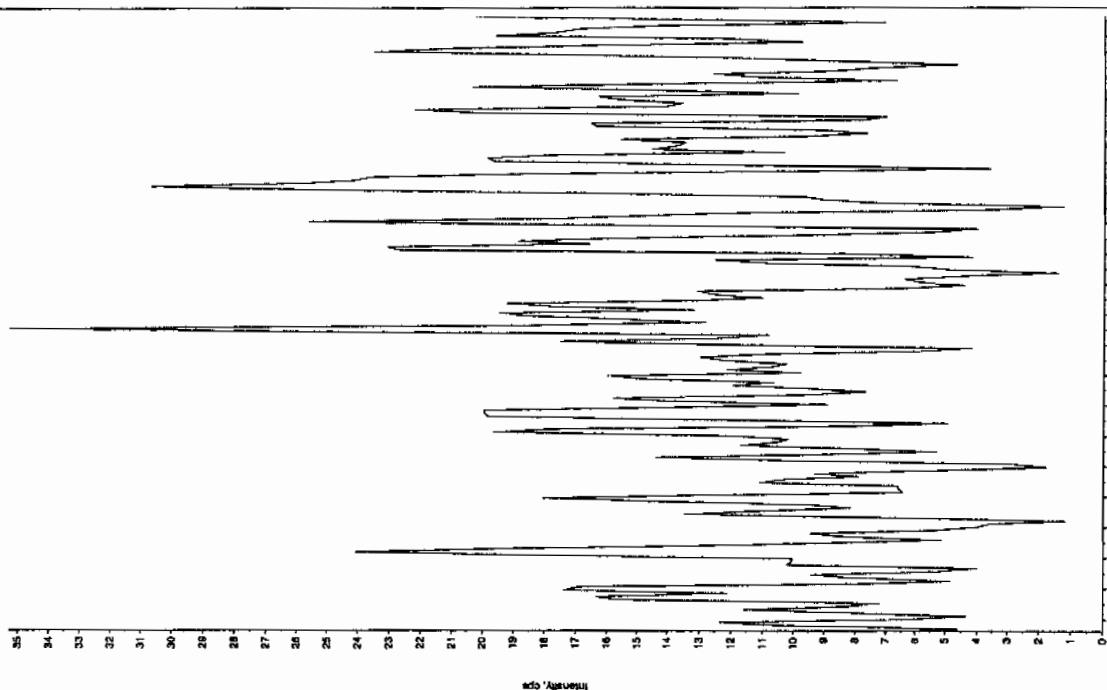
Concentration: 241. ng/mL

Calculated Conc: 3/17/2010

Acq. Date: 5:14:32 AM

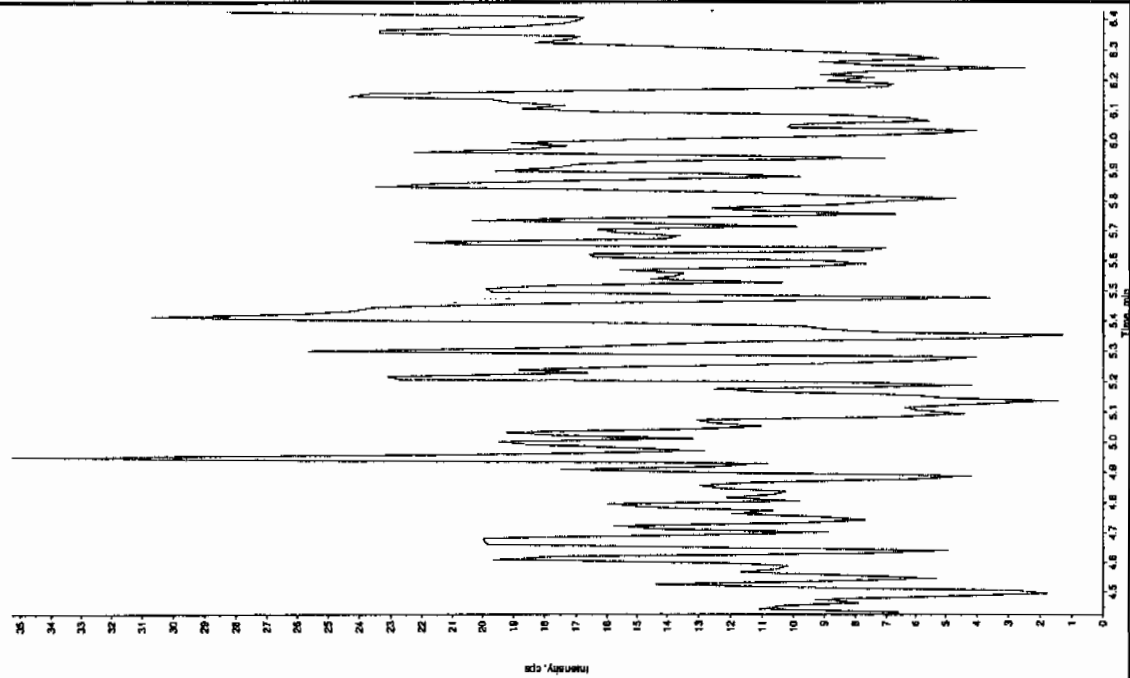
Acq. Time: 5:14:32 AM

Modified: No



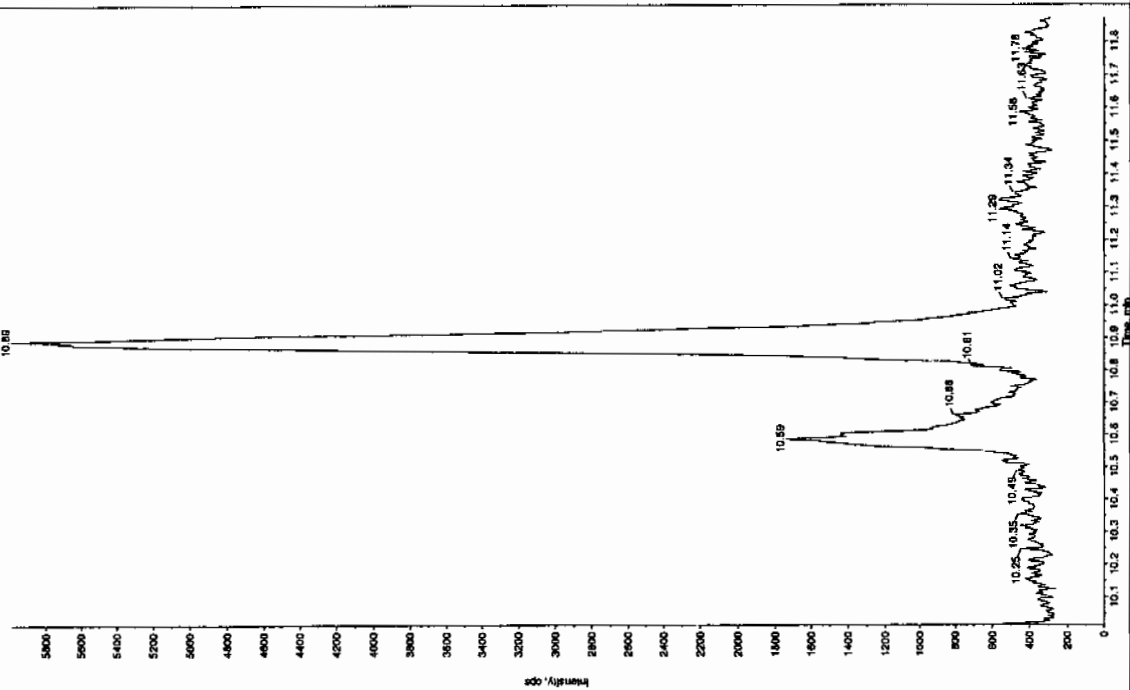
Sample Name: "24820202" Sample ID: "958334121ER" File: "EX503160061.wif"  
 Peak Name: "24-Diamino-5-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCX832125" Annotation: "-"

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 3/17/2010  
 Acq. Date: 5/14/12 AM  
 Acq. Time: 5:14:32 AM  
 Modified: No



Sample Name: "24820202" Sample ID: "958334121ER" File: "EX503160081.wif"  
 Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1791.0 amu"  
 Comment: "LCX832125" Annotation: "-"

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 3/17/2010  
 Acq. Date: 5/14/12 AM  
 Acq. Time: 5:14:32 AM  
 Modified: No



# STANDARDS DATA

SW846 8321A Modified-Explosives  
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
<b>Primary Analytes</b>								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MXN	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
<b>Secondary Analytes</b>								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

Calibration Levels 8321A-Modified-EXPL.xls

## Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2124

Lab Code: GEL

Run Date: 16-MAR-10 23-MAR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column:

Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Parname	1	2	3	4	5	6	Ave RF	RSD	Q
Calibration Level:	EXP0323003a	EXP0323004a	EXP0323005a	EXP0323006a	EXP0323007a	EXP0323008a			
Data File:									
1,3,5-Trinitrobenzene	5.032	4.994	4.537	4.6	4.618	4.575	4.726	4.748	
1,3-Dinitrobenzene-d4	11.754	12.906	11.01	10.6	10.117	9.664	11.009	10.69	
2,4,6-Trinitrotoluene	.424	.368	.38	.453	.443	.394	0.410	8.493	
2,4-Dinitrotoluene	.262	.293	.273	.265	.282	.289	0.277	4.587	
2,6-Dinitrotoluene	1.112	1.205	1.106	1.163	1.182	1.174	1.157	3.448	
2,6-Dinitrotoluene-d3	82.805	73.801	67.998	67.968	62.879	57.717	68.861	12.666	
2-Amino-4,6-dinitrotoluene	.508	.507	.537	.569	.587	.577	0.548	6.473	
3,4-Dinitrotoluene	.915	.995	1.13	1.083	1.133	1.097	1.059	8.15	
4-Amino-2,6-dinitrotoluene	.347	.327	.35	.36	.369	.368	0.354	4.504	
HMX	5.311	4.69	5.261	6.242	6.079	5.497	5.513	10.373	
Nitrobenzene	.686	.654	.672	.653	.651	.615	0.655	3.64	
RDX	3.229	2.859	3.253	3.567	3.545	3.415	3.311	7.936	
Tetryl	1.129	1.002	1.143	1.22	1.115	1.273	1.147	8.152	
m-Dinitrobenzene	1.371	1.208	1.328	1.336	1.345	1.381	1.328	4.687	
m-Nitrotoluene	.051	.048	.054	.052	.048	.049	0.050	4.981	
o-Nitrotoluene	.076	.089	.078	.08	.079	.082	0.081	5.666	
p-Nitrotoluene	.03	.046	.039	.039	.039	.04	0.039	13.369	

Q column used to flag RSD values outside of Limit (&gt;20%)

\* Values outside of QC Limit

## Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2124

Lab Code: GEL

Run Date: 16-MAR-10.23-MAR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Linear

Calibration Level:	1	2	3	4	5	6	Slope	Intercept	COD	Q
Data File:	EXP0323003a	EXP0323004a	EXP0323005a	EXP0323006a	EXP0323007a	EXP0323008a				
Parname										
PETN	2318.77	4444.01	14597.9	26021	45749.6	53868.3	.909	16.24	.9989	

Linear fit :  $Y = mx + b$   
 where b is Intercept and m is slope

COD is Coefficient of Determination

Q column used to flag COD values outside of Limit (<0.990)

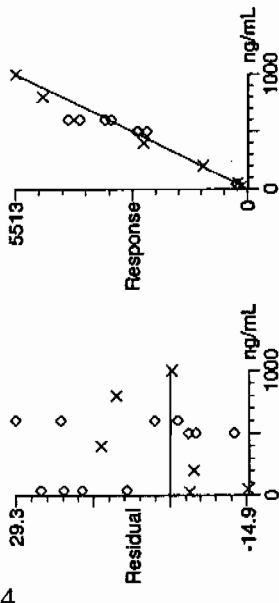
\* Values outside of QC Limit

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

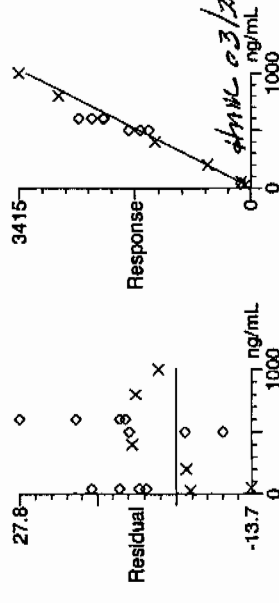
Method: C:\MASSLYNX\New\_Exp.PRO\MethDB\032310expa.mdb, Time: Tue Mar 23 14:06:48 2010  
Calibration: Untitled, Time: Wed Mar 24 09:29:41 2010

Compound name: HMX  
Response Factor: 5.51311  
RRF SD: 0.571885, % Relative SD: 10.3732  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



1000  
3/24/10

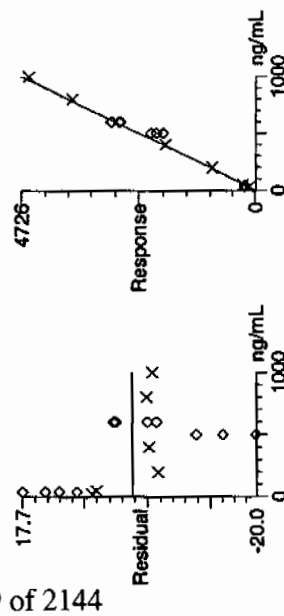
Compound name: RDX  
Response Factor: 3.31129  
RRF SD: 0.26278, % Relative SD: 7.93586  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



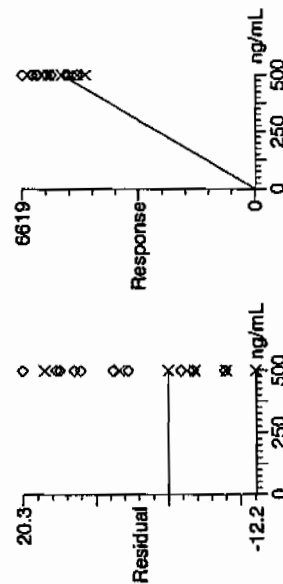
1000  
3/24/10

Dataset: C:\MASSLYNX\New\_Exp\PRO1032310expA.qld, Time: Wed Mar 24 09:29:41 2010

Compound name: 135-Trinitrobenzene  
 Response Factor: 4.7262  
 RRF SD: 0.224421, % Relative SD: 4.74845  
 Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



Compound name: 13-Dinitrobenzene-d4  
 Response Factor: 11.0085  
 RRF SD: 1.17683, % Relative SD: 10.6902  
 Response type: External Std, Area  
 Curve type: RF

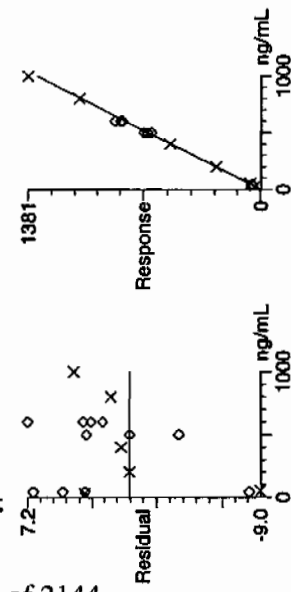




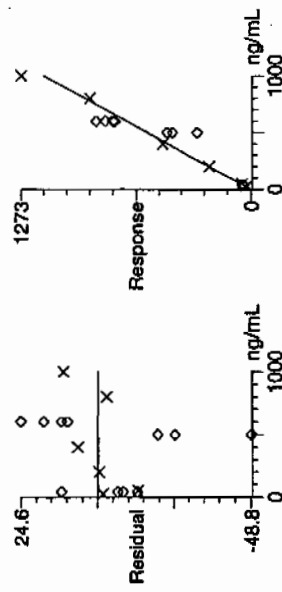
Quantify Calibration Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

Compound name: 13-Dinitrobenzene  
Response Factor: 1.32795  
RRF SD: 0.0622466, % Relative SD: 4.68744  
Response type: Internal Std (Ref 4), Area \* (IS Conc. / IS Area)  
Curve type: RF



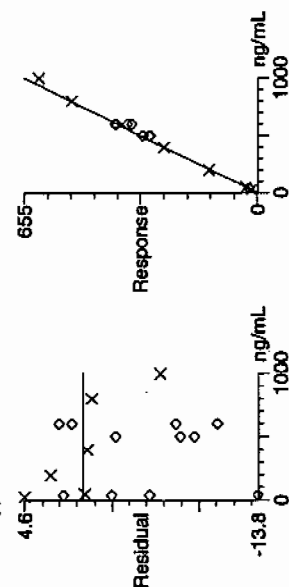
Compound name: Tetra  
Response Factor: 1.14683  
RRF SD: 0.0934919, % Relative SD: 8.15221  
Response type: Internal Std (Ref 4), Area \* (IS Conc. / IS Area)  
Curve type: RF



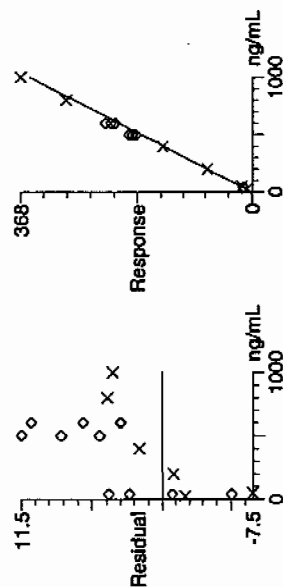
**Quantify Calibration Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO1032310expA.qld, Time: Wed Mar 24 09:29:41 2010

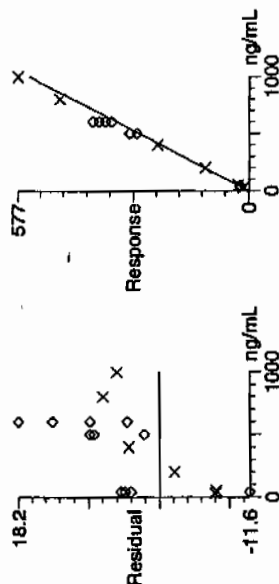
Compound name: Nitrobenzene  
 Response Factor: 0.655153  
 RRF SD: 0.0238446, % Relative SD: 3.63954  
 Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



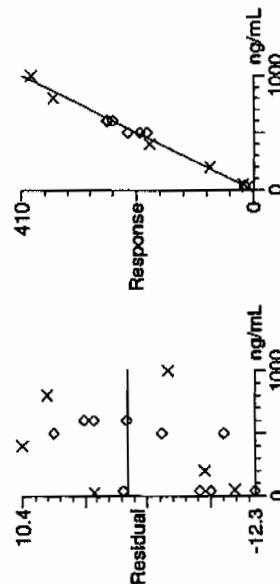
Compound name: 4-Amino-26-dinitrotoluene  
 Response Factor: 0.353375  
 RRF SD: 0.0159163, % Relative SD: 4.50407  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



Compound name: 2-Amino-46-dinitrotoluene  
 Response Factor: 0.547585  
 RRF SD: 0.0354456, % Relative SD: 6.47307  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



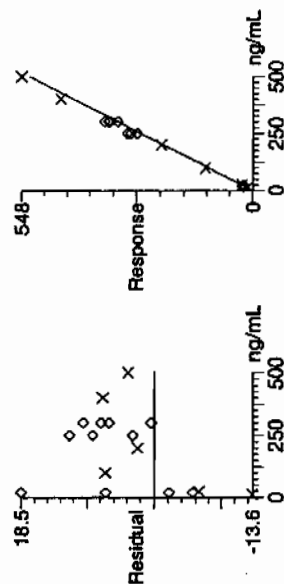
Compound name: 246-Trinitrotoluene  
 Response Factor: 0.410071  
 RRF SD: 0.0348258, % Relative SD: 8.49263  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



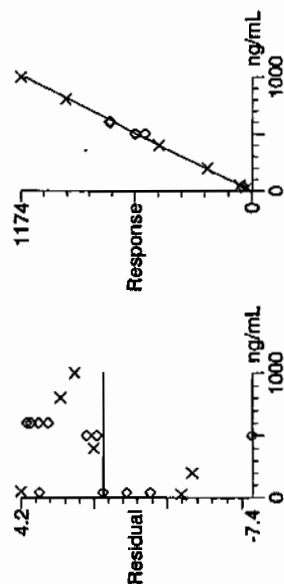
**Quantify Calibration Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSL\YNX\New\_Exp.PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

Compound name: 34-dinitrotoluene  
 Response Factor: 1.05888  
 RRF SD: 0.0862978, % Relative SD: 8.14988  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



Compound name: 26-dinitrotoluene  
 Response Factor: 1.15701  
 RRF SD: 0.0398889, % Relative SD: 3.44758  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



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

Dataset: C:\MASSLYNX\New\_Exp\PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

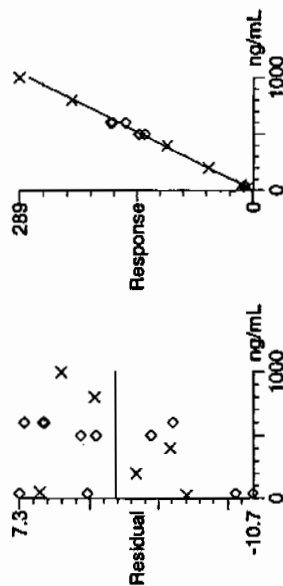
Compound name: 24-dinitrotoluene

Response Factor: 0.277495

RRF SD: 0.0127293, % Relative SD: 4.58723

Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )

Curve type: RF



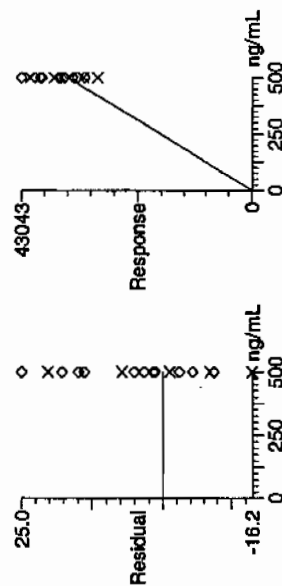
Compound name: 26-dinitrotoluene-d3

Response Factor: 68.8611

RRF SD: 8.72211, % Relative SD: 12.6662

Response type: External Std, Area

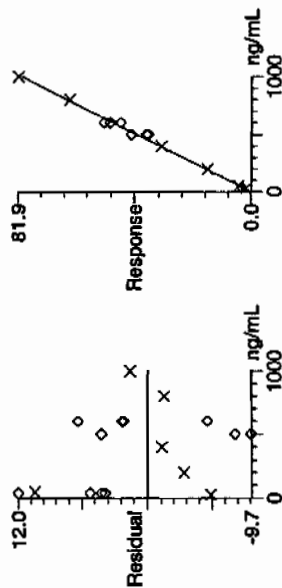
Curve type: RF



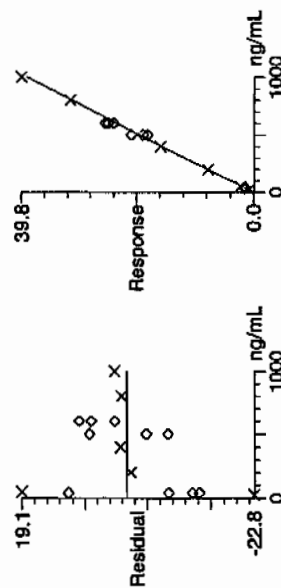
**Quantify Calibration Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

Compound name: 2-Nitrotoluene  
 Response Factor: 0.0806432  
 RRF SD: 0.00456922, % Relative SD: 5.66596  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



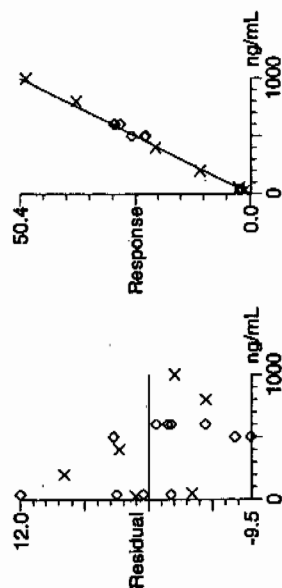
Compound name: 4-Nitrotoluene  
 Response Factor: 0.0389409  
 RRF SD: 0.00520599, % Relative SD: 13.369  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



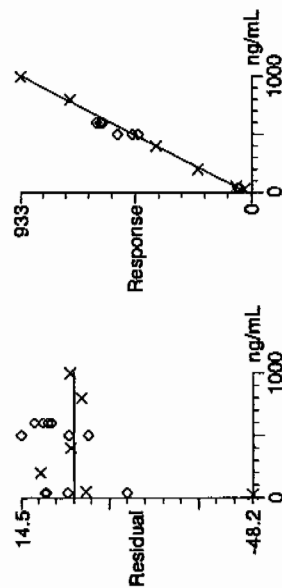
# Quantify Calibration Report GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

Compound name: 3-Nitrotoluene  
 Response Factor: 0.0504212  
 RRF SD: 0.00251151, % Relative SD: 4.98107  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



Compound name: PETN  
 Correlation coefficient:  $r = 0.999467$ ,  $r^2 = 0.998933$   
 Calibration curve:  $0.908775 * x + 16.2395$   
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: Linear, Origin: Exclude, Weighting: Null, Axis trans: None



## Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLCGEL Job No (SDG): 10-2124Lab Code: GELGEL Sample ID: WXXICVGEL Data File EXP0323010aAnalysis Date: 23-MAR-10 13:34LCMSMS ID: 903Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	585.721	98	
1,3-Dinitrobenzene-d4	500	460.269	92	
2,4,6-Trinitrotoluene	600	600.545	100	
2,4-Dinitrotoluene	600	572.778	95	
2,6-Dinitrotoluene	600	623.33	104	
2,6-Dinitrotoluene-d3	500	452.986	91	
2-Amino-4,6-dinitrotoluene	600	624.798	104	
3,4-Dinitrotoluene	300	301.181	100	
4-Amino-2,6-dinitrotoluene	600	620.044	103	
HMX	600	591.583	99	
Nitrobenzene	600	611.463	102	
PETN	600	650.548	108	
RDX	600	659.349	110	
Tetryl	600	669.49	112	
m-Dinitrobenzene	600	616.682	103	
m-Nitrotoluene	600	589.179	98	
o-Nitrotoluene	600	638.057	106	
p-Nitrotoluene	600	638.597	106	

## Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
 2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits



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

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323010a

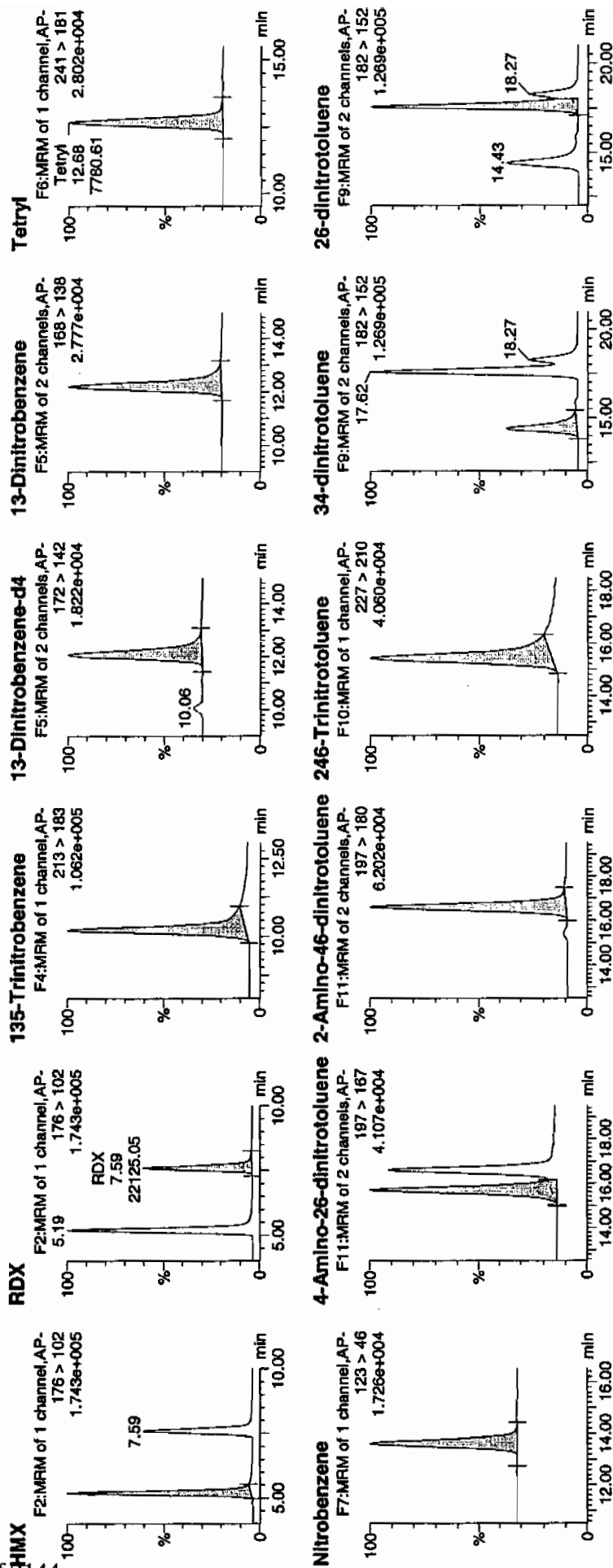
Date: 23-Mar-2010

Time: 13:34:21

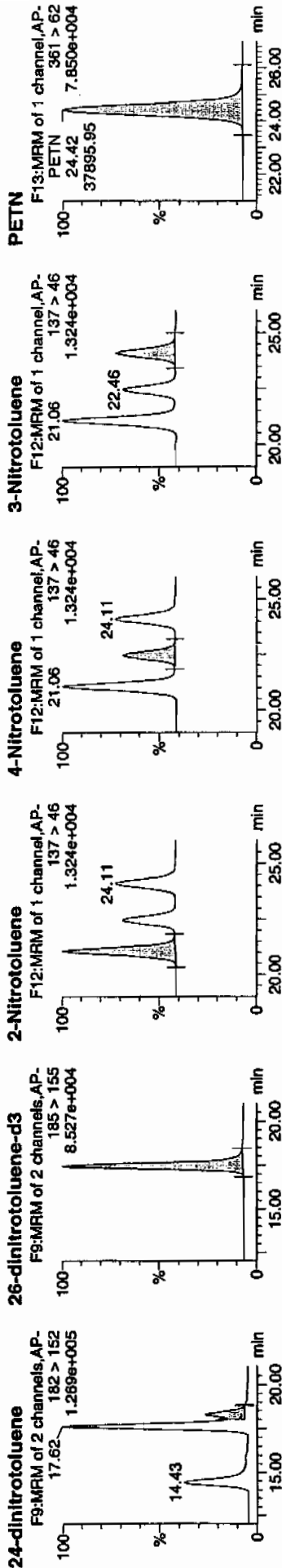
ID: WXX100323-07ICV

Val: 1:1,B

HTP  
 3/24/10



Handwritten signature: Humpo 3/24/10



ID	Name	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Integr	%Rec	%Dev	SN
WXX100323-07ICV	HMX	176 > 102	5.19	33050.891	5066.889	33050.891	3261.458	bb		591.5827	98.6	-1.4	3114.5
WXX100323-07ICV	RDX	176 > 102	7.59	22125.049	5066.889	22125.049	2183.297	bb		659.3486	109.9	9.9	1844.8
WXX100323-07ICV	135-Trinitrobenzene	213 > 183	10.20	28052.678	5066.889	28052.678	2768.235	bb		585.7207	97.6	-2.4	680.8
WXX100323-07ICV	13-Dinitrobenzene-d4	172 > 142	12.07	5066.889	5066.889	5066.889	5066.889	bb		460.2688	92.1	-7.9	654.9
WXX100323-07ICV	13-Dinitrobenzene	168 > 138	12.20	8298.761	5066.889	8298.761	818.921	bb		616.6825	102.8	2.8	626.3
WXX100323-07ICV	Tetryl	241 > 181	12.68	7780.609	5066.889	7780.609	767.790	bb		669.4895	111.6	11.6	568.8
WXX100323-07ICV	Nitrobenzene	123 > 46	13.63	4059.608	5066.889	4059.608	400.602	bb		611.4632	101.9	1.9	364.9
WXX100323-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.71	13669.333	31193.129	13669.333	219.108	MM	24-Mar-10 09:20:52	620.0440	103.3	3.3	363.1
WXX100323-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.58	21344.205	31193.129	21344.205	342.130	bb		624.7977	104.1	4.1	830.0
WXX100323-07ICV	246-Trinitrotoluene	227 > 210	15.41	15363.621	31193.129	15363.621	246.266	bb		600.5453	100.1	0.1	915.0
WXX100323-07ICV	34-dinitrotoluene	182 > 152	14.43	19895.975	31193.129	19895.975	318.916	bb		301.1814	100.4	0.4	986.3
WXX100323-07ICV	26-dinitrotoluene	182 > 152	17.62	44992.969	31193.129	44992.969	721.200	MM	24-Mar-10 09:24:13	623.3301	103.9	3.9	2899.5
WXX100323-07ICV	24-dinitrotoluene	182 > 152	18.27	9915.864	31193.129	9915.864	158.943	MM	24-Mar-10 09:27:39	572.7777	95.5	-4.5	617.5
WXX100323-07ICV	26-dinitrotoluene-d3	185 > 155	17.44	31193.129	31193.129	31193.129	31193.129	bb		452.9859	90.6	-9.4	2738.7
WXX100323-07ICV	2-Nitrotoluene	137 > 46	21.06	3210.082	31193.129	3210.082	51.455	bb		638.0566	106.3	6.3	1369.5
WXX100323-07ICV	4-Nitrotoluene	137 > 46	22.46	1551.393	31193.129	1551.393	24.868	bb		638.5974	106.4	6.4	626.4
WXX100323-07ICV	3-Nitrotoluene	137 > 46	24.11	1853.314	31193.129	1853.314	29.707	bb		589.1787	98.2	-1.8	714.8
WXX100323-07ICV	PETN	361 > 62	24.42	37895.953	31193.129	37895.953	607.441	bb		650.5475	108.4	8.4	14931.2

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 03/23/10  
 Time of Injection: 1334  
 Standard Number: WXX100323-07ICV  
 Data File: EXP0323010a

HMX	98.6
RDX	109.9
135-TNB	97.6
13-DNB	102.8
Tetryl	111.6
Nitrobenzene	101.9
4A-26-DNT	103.3
2A-46-DNT	104.1
246-TNT	100.1
34-DNT(surr)	100.4
26-DNT	103.9
24-DNT	95.5
2-NT	106.3
4-NT	106.4
3-NT	98.2
PETN	108.4

*Adt  
3/24/10*

Total 1649.0

Average 103.1

*HPMC 03/24/10*

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

## Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2124

Lab Code: GEL

Run Date: 16-MAR-10.23-MAR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8Q

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS03160003.wif	EXS03160004.wif	EXS03160005.wif	EXS03160006.wif	EXS03160007.wif	EXS03160008.wif	EXS03160009.wif					
Parname:												
2,4-Diamino-6-nitrotoluene	59900	111000	285000	537000	842000	1070000	2160000	6780	1080	-.004	.9998	
2,6-Diamino-4-nitrotoluene	85600	172000	418000	822000	1180000	1600000	3140000	11900	1600	-.02	1	
3,4-Dinitrotoluene	347000	655000	1590000	2900000	4380000	5970000	10900000	-18900	13400	-2.47	.9989	
3,5-Dinitroaniline	519000	994000	2340000	4410000	6370000	8180000	14100000	84100	9190	-1.08	1	
TATB	75500	160000	398000	824000	1270000	1770000	3610000	-19600	1700	.059	.9999	
tris(o-cresyl) phosphate	709000	1340000	3260000	6150000	8920000	11800000	20800000	66900	12900	-1.26	1	

Quadratic Fit:  $y = Ax^2 + Bx + C$ where  $X^2$  column above is coefficient A

X column above is coefficient B

intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (&lt;0.990)

\* Values outside of QC Limit

031610ICAL

Peak Name: TATB  
No Internal Standard  
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.96e+004			
a1	1.7e+003			
a2	0.0593			

Correlation coefficient 0.9999  
Use Area

Peak Name: 35-Dinitroaniline  
No Internal Standard  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	8.41e+004			
a1	9.19e+003			
a2	-1.08			

Correlation coefficient 1.0000  
Use Area

Peak Name: 34-Dinitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.89e+004			
a1	1.34e+004			
a2	-2.47			

Correlation coefficient 0.9989  
Use Area

Peak Name: 26-Diamino-4-nitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	1.19e+004			
a1	1.6e+003			
a2	-0.0198			

Correlation coefficient 1.0000  
Use Area

*San 3/18/10*

*01/22/00  
HNNH*

Peak Name: 24-Diamino-6-nitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	6.78e+003			
a1	1.08e+003			
a2	-0.00433			

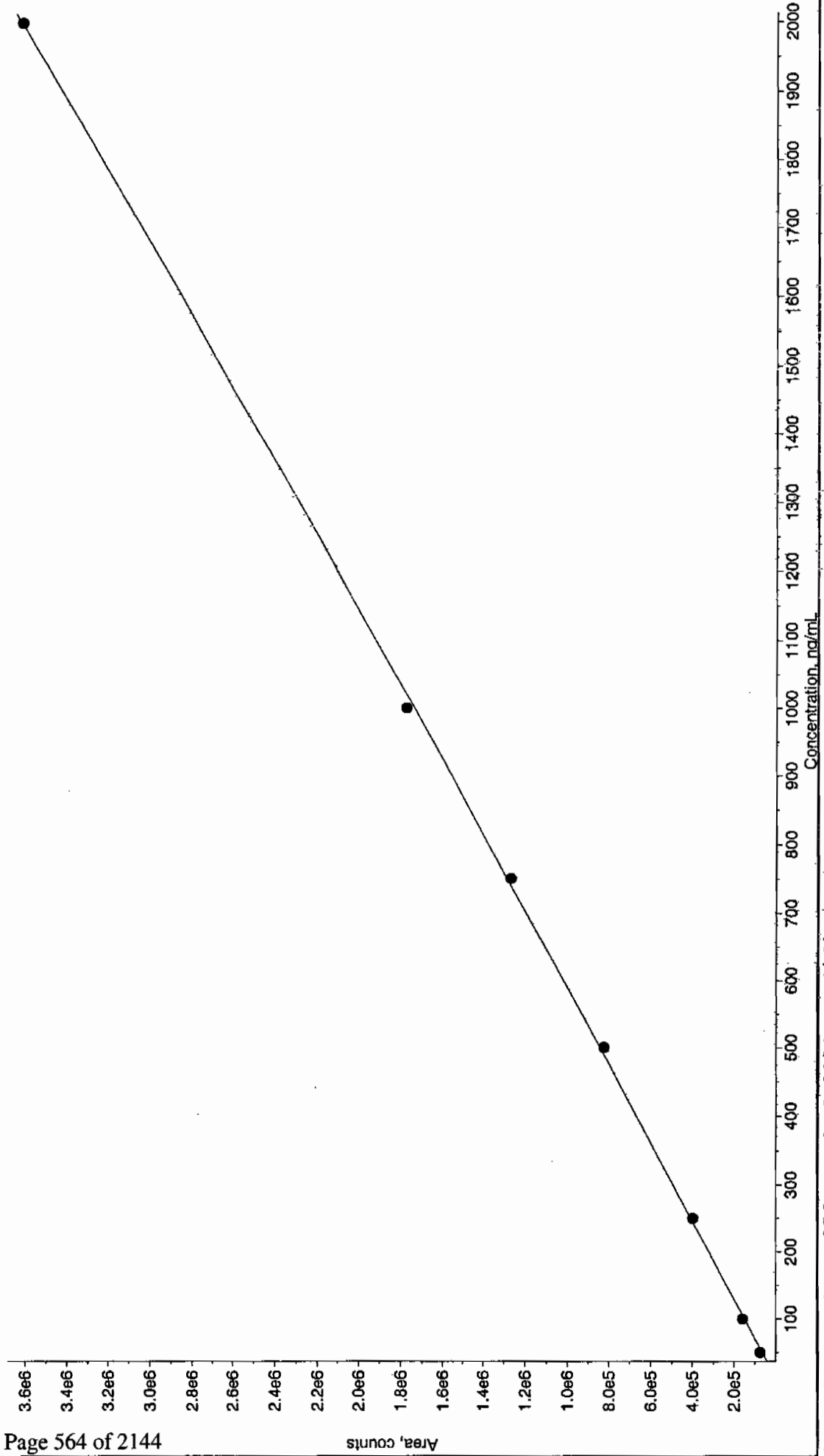
Correlation coefficient 0.9998  
Use Area

Peak Name: tris(o-cresyl) phosphate  
No Internal Standard  
Q1/Q3 Masses: 369.15/91.00 amu

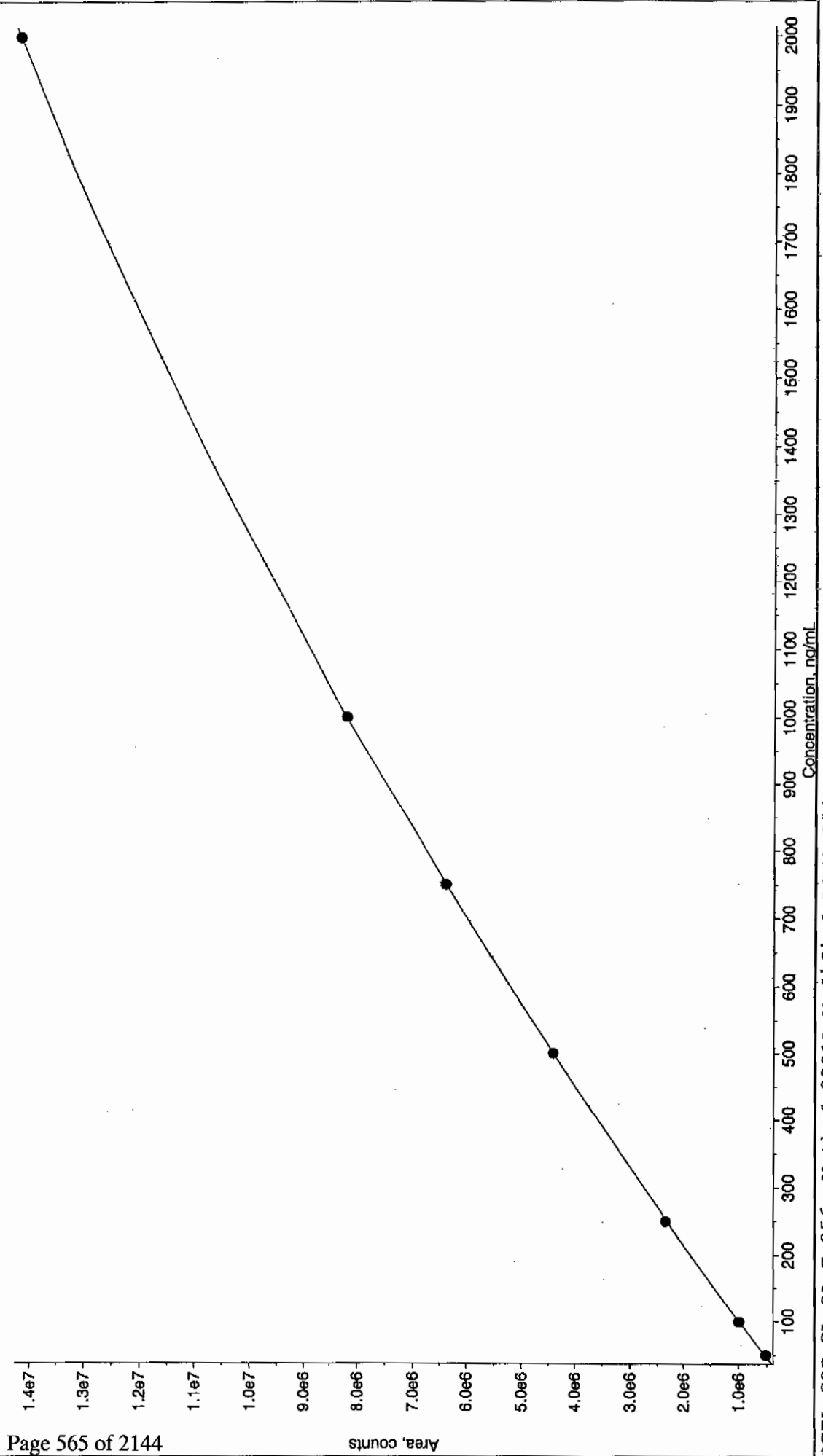
Fit	Quadratic	Weighting	None	Iterate No
a0	6.69e+004			
a1	1.29e+004			
a2	-1.26			

Correlation coefficient 1.0000  
Use Area

031610.rdb (TATB): "Quadratic" Regression ("No" weighting):  $y = 0.0593 x^2 + 1.7e+003 x + -1.96e+004$  ( $r = 0.9999$ )

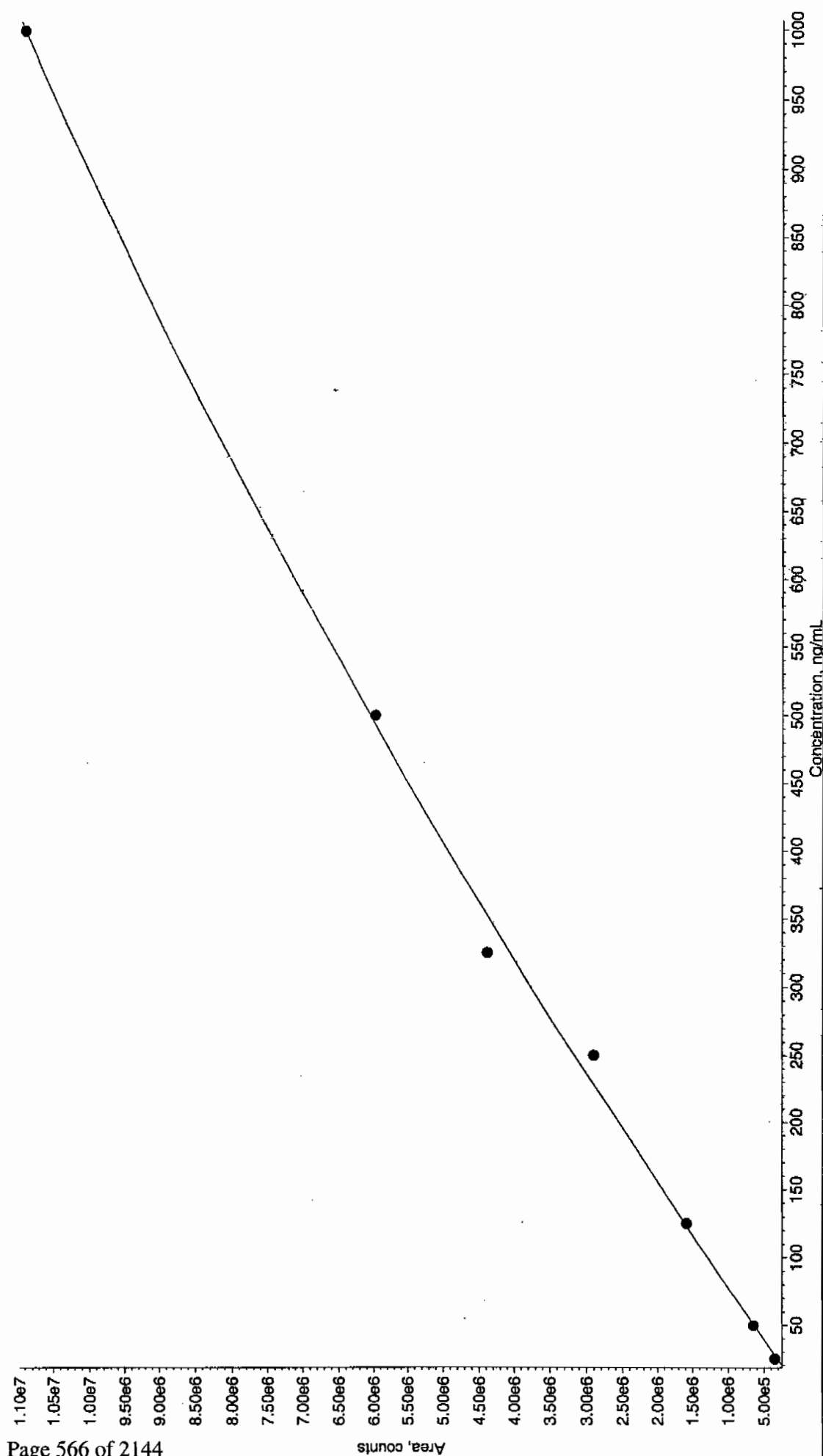


031610.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting):  $y = -1.08 x^2 + 9.19e+003 x + 8.41e+004$  ( $r = 1.0000$ )

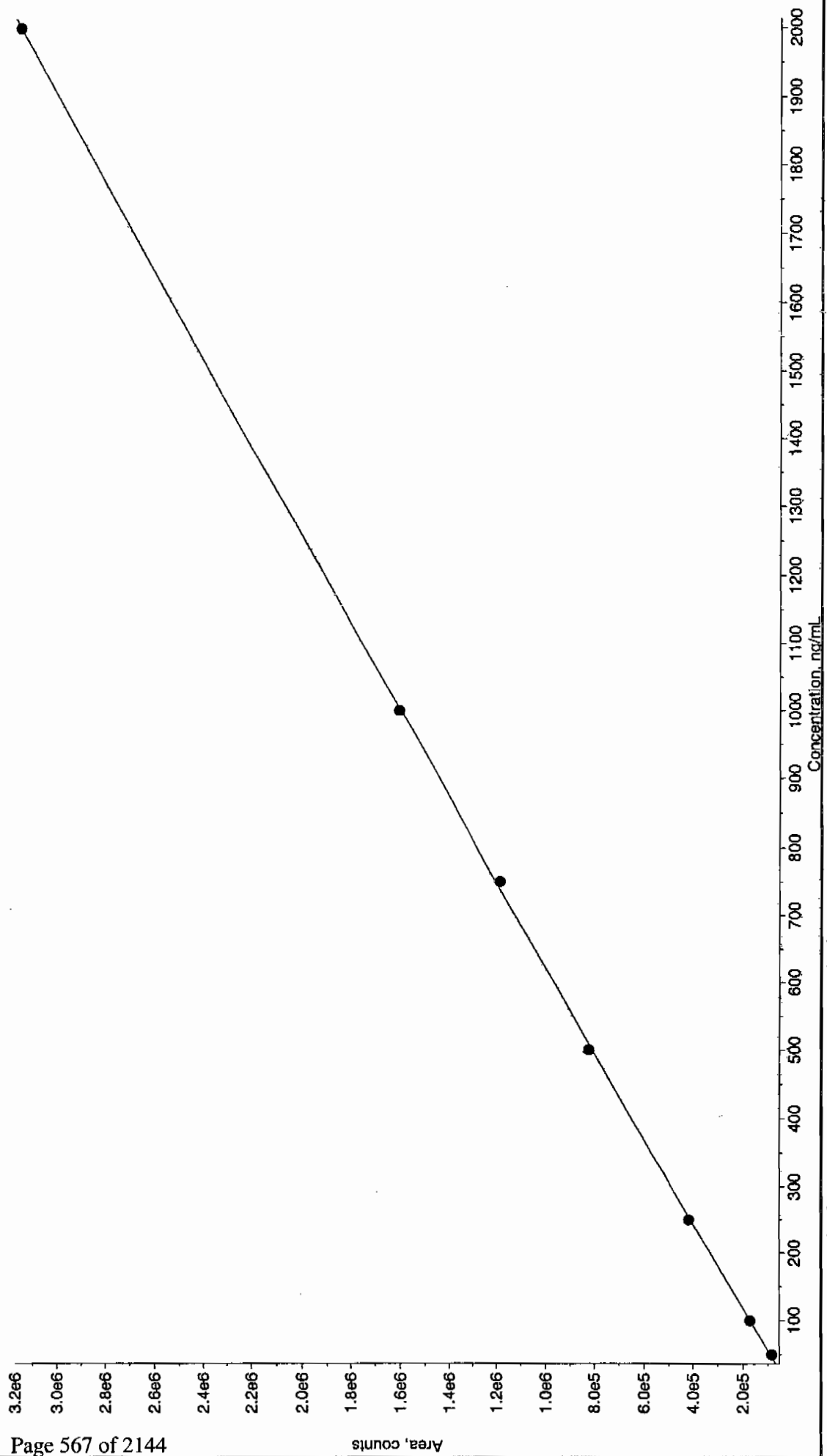




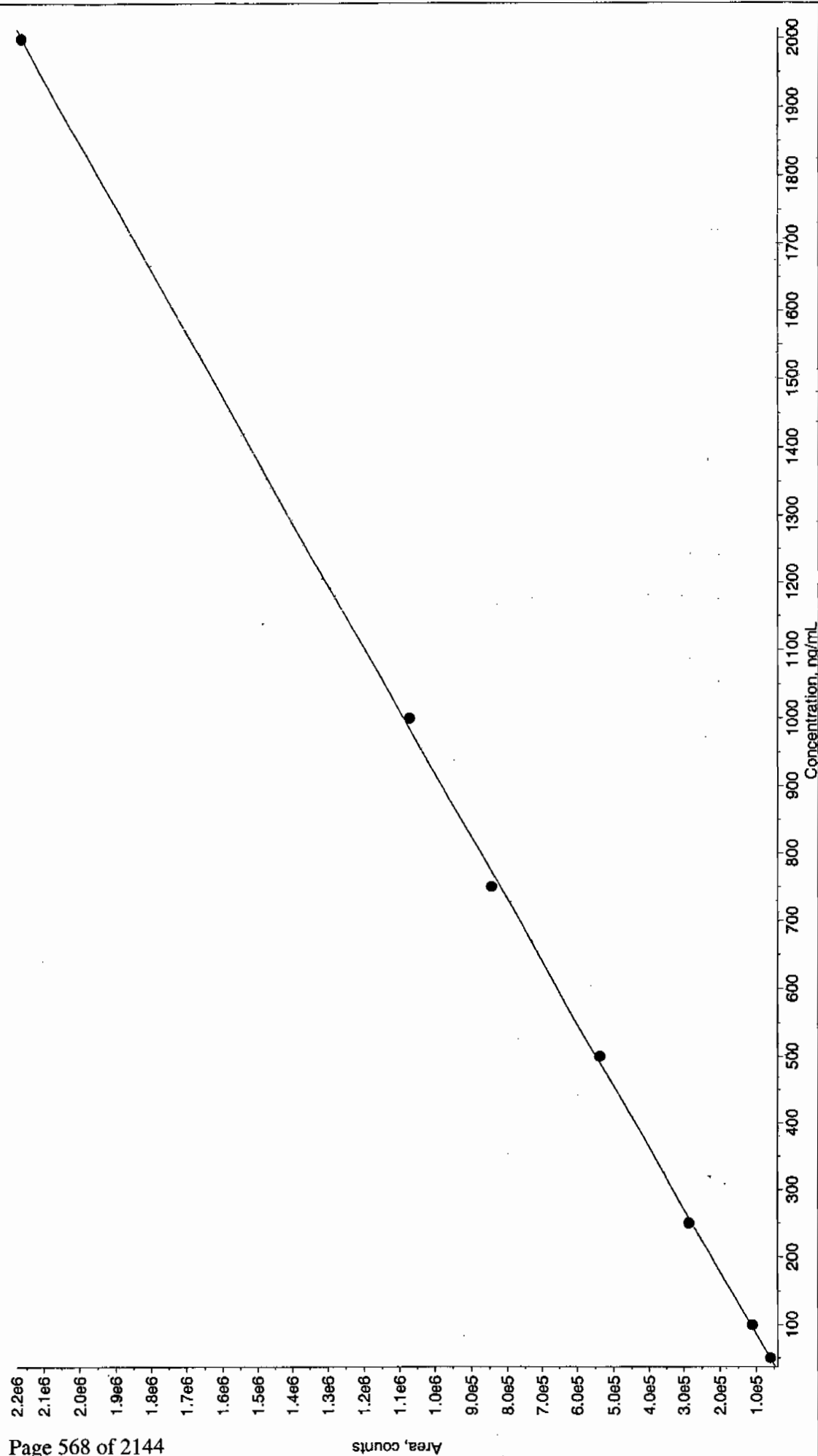
031610.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -2.47 x^2 + 1.34e+004 x + -1.89e+004$  ( $r = 0.9989$ )



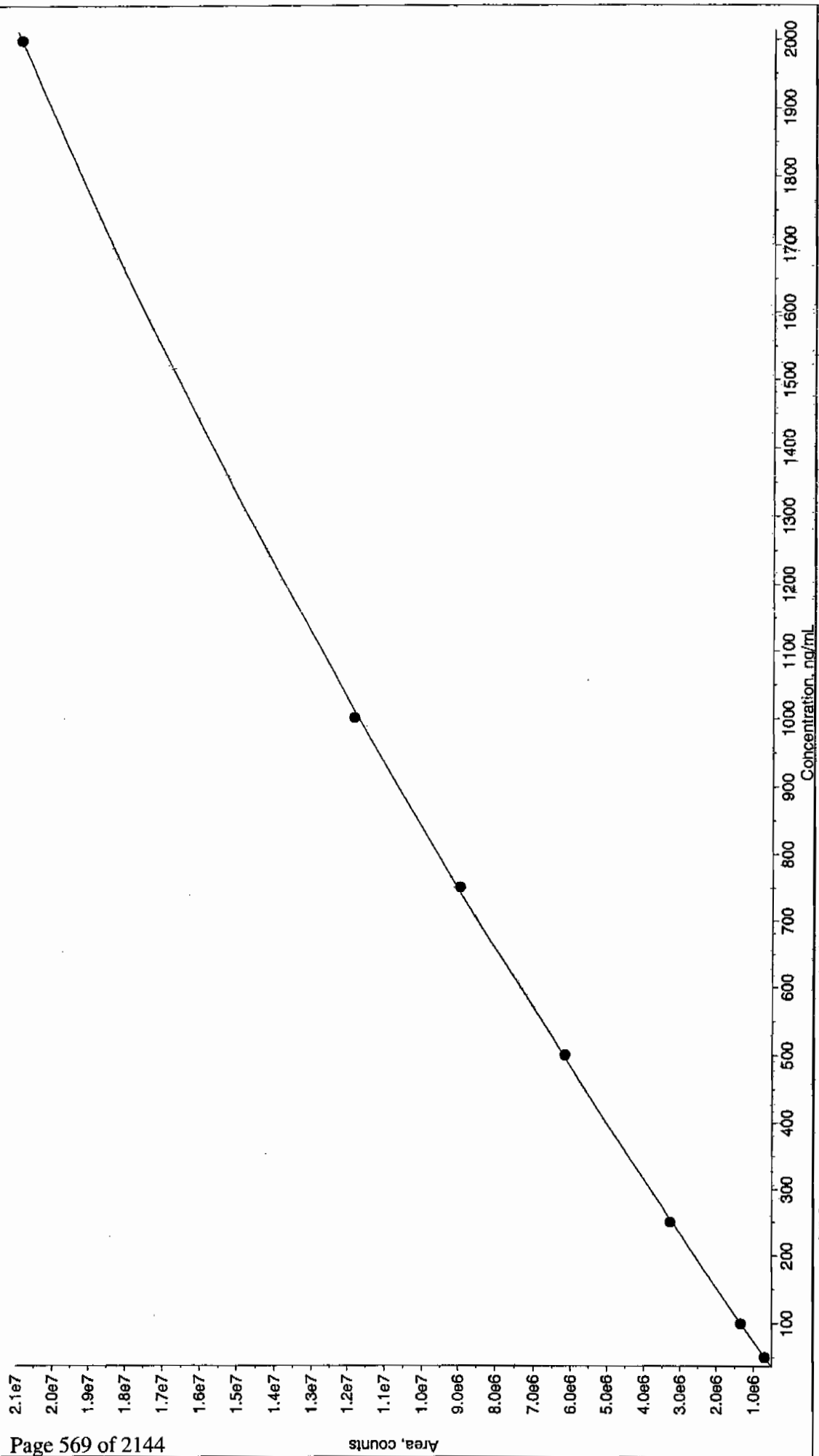
031610.rdb (26-Diamino-4-nitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -0.0198 x^2 + 1.6e+003 x + 1.19e+004$  ( $r = 1.0000$ )



031610.rdb (24-Diamino-6-nitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -0.00433 x^2 + 1.08e+003 x + 6.78e+003$  ( $r = 0.9998$ )



031610.rdb (tris(o-cresyl) phosphate): "Quadratic" Regression ("No" weighting):  $y = -1.26 x^2 + 1.29e+004 x + 6.69e+004$  ( $r = 1.0000$ )



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

## Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLCGEL Job No (SDG): 10-2124Lab Code: GELGEL Sample ID: WXXICVGEL Data File EXS03160011.wiffAnalysis Date: 16-MAR-10 10:54LCMSMS ID: 1358Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	487	97	
2,6-Diamino-4-nitrotoluene	500	468	94	
3,4-Dinitrotoluene	250	232	93	
3,5-Dinitroaniline	500	486	97	
TATB	500	494	99	
tris(o-cresyl) phosphate	500	490	98	

## Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Sample Name: "WXX10031E-26(CV" Sample ID: "J1LER" File: "EXS03160011.wiff"  
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"  
Comment: "LCMISEXP C" Annotation: "

sample Index: 1  
 sample Type: OC  
 concentration: 500. ng/mL  
 calculated Conc: 494. ng/mL  
 concq. Date: 3/16/2010  
 concq. Time: 10:54:51 AM

```

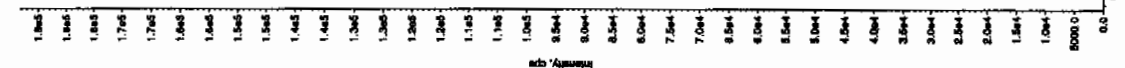
Modified: No
Proc. Algorithm: IntelliQuan - IOA
in. Peak Height: 2500.00 cps
in. Peak Width: 0.00 sec
Smoothing Width: 3 points
Window: 30.0 sec
Suggested RT: 5.93 min

```

```

Age Relative RT:  MO
Ant. Type:      Valley
Extension Time:  6.93
Area:           8.13e+005
Height:         188189.56
Start Time:     6.81
End Time:       7.99

```



Sample Name: "WXX100316-261CV" Sample ID: "11LER" File: "XS03160011.wiff"  
Peak Name: "35-Dinitroaniline" Mass(qs): "182.046.0 amu"  
Comment: "LCMSEXPC C" Annotation: "

Sample Index:	QC	ng/mL
Sample Type:	500.	ng/mL
Concentration:	498.	ng/mL
Calculated Conc:	3/16/2010	
QC Date:	10:54:51 AM	
QC Time:		

```

modified:
proc. Algorithm: IntelliQuah - IQA
In. Peak Height: 200.00 cps
In. Peak Width: 0.00 sec
smoothing Width: 3 points
r Window: 15.0 sec
expected RT: 8.17 min

```

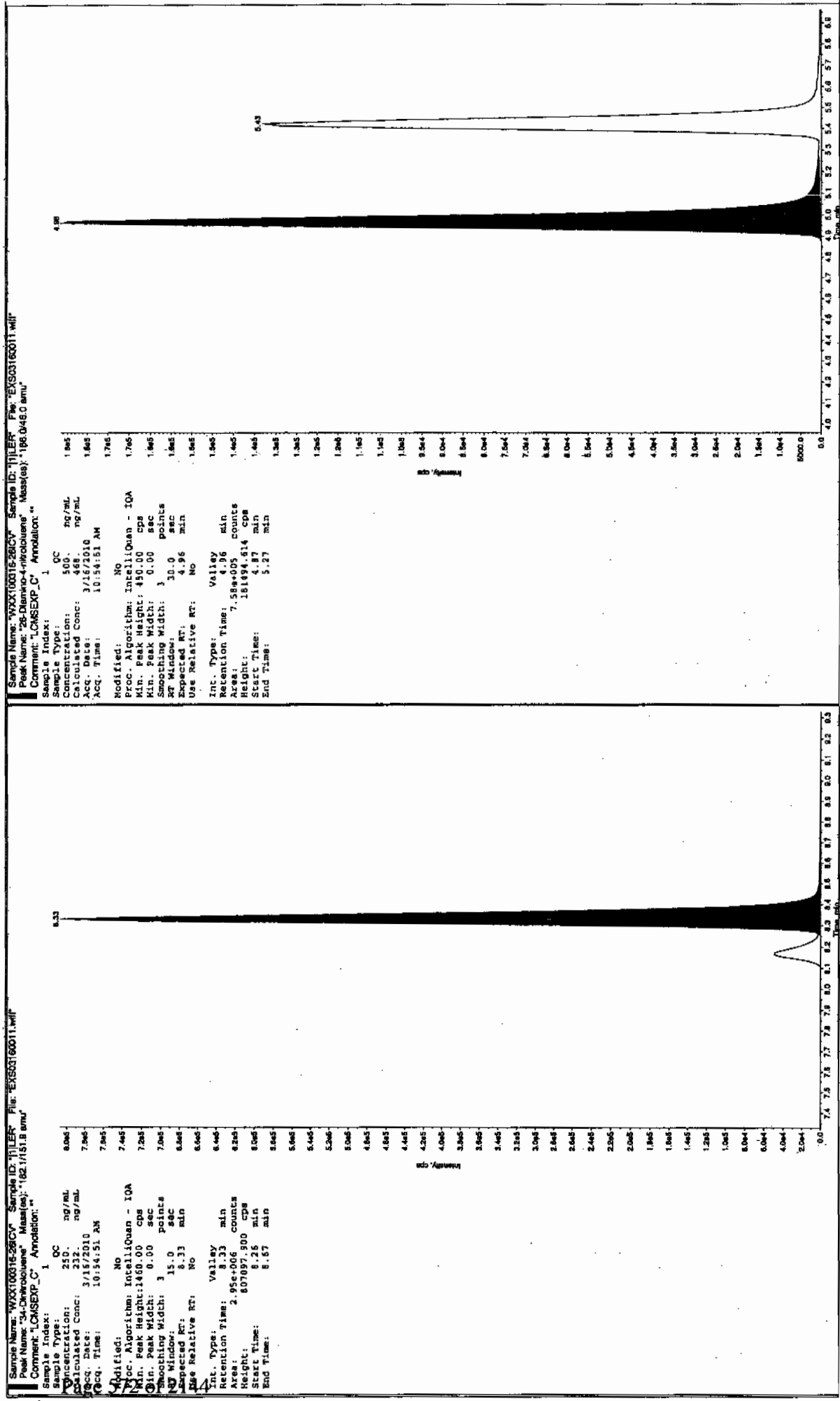
```

see Relative RT: NO
nt. Type: Valley
Retention Time: 8.17 min
ra: 4.29e+006 counts
ight: 1034942.761 cps
art Time: 8.08 min
nd Time: 8.29 min

```

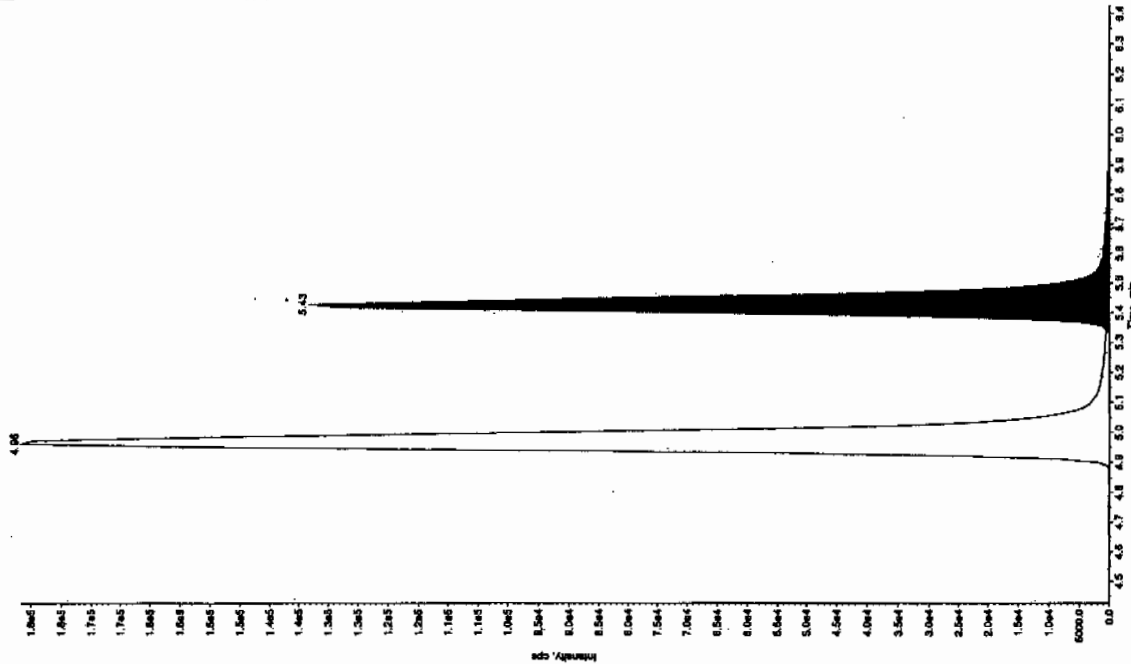


4/11/2010



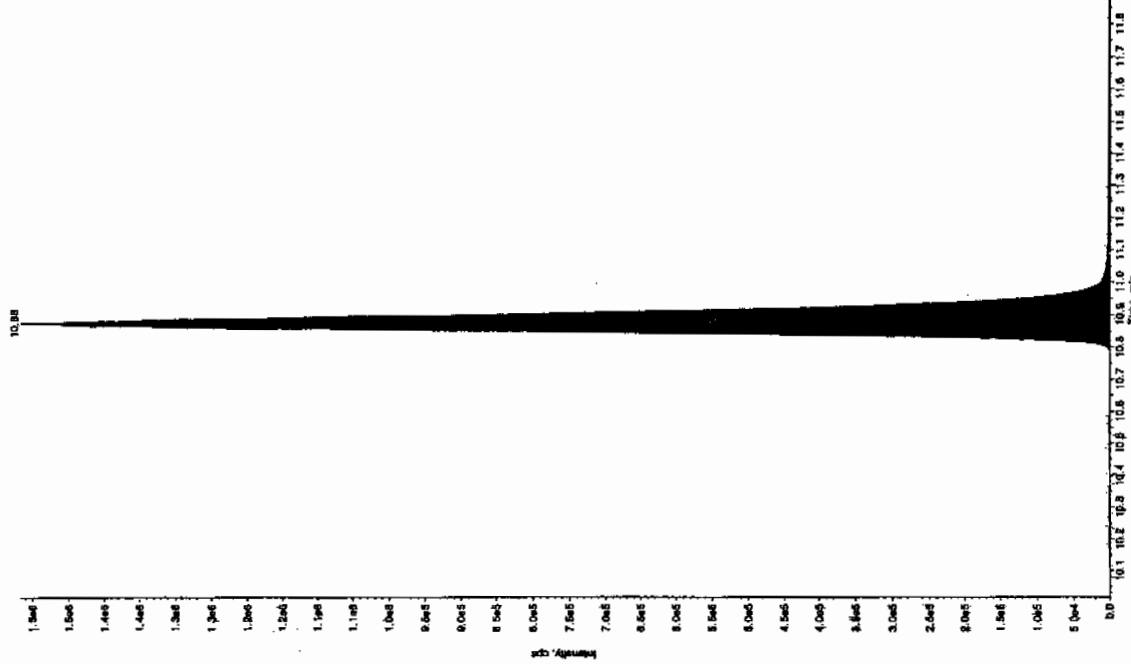
Sample Name: "WXX100316-25.C" Sample ID: "111111" File: "EX503160011.wif"  
 Peak Name: "24-Diamino-6-nitroketone" Mass(es): "166.046.0 amu"  
 Comment: "LCMSXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: OC  
 Concentration: 500. ng/mL  
 Calculated Conc: 487. ng/mL  
 Acq. Date: 3/16/2010  
 Acq. Time: 10:54:51 AM  
 Modified: NO  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.43 min  
 Use Relative RT: NO  
 Int. Type: Valley  
 Retention Time: 5.43 min  
 Acquisition Time: 5.34e+005 counts  
 Height: 133140.213 cps  
 Start Time: 5.13 min  
 End Time: 5.90 min



Sample Name: "WXX100316-25.C" Sample ID: "111111" File: "EX503160011.wif"  
 Peak Name: "tris(p-cresyl) phosphate" Mass(es): "359.1910 amu"  
 Comment: "LCMSXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: OC  
 Concentration: 500. ng/mL  
 Calculated Conc: 490. ng/mL  
 Acq. Date: 3/16/2010  
 Acq. Time: 10:54:51 AM  
 Modified: NO  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 800.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.9 min  
 Use Relative RT: NO  
 Int. Type: Valley  
 Retention Time: 10.9 min  
 Acquisition Time: 6.08e+006 counts  
 Height: 1516141.724 cps  
 Start Time: 10.8 min  
 End Time: 11.2 min





**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2124

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0323012a

Analysis Date: 23-MAR-10 14:33

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	40	43.979	110	
Tetryl	40	44.65	112	
m-Dinitrobenzene	40	42.729	107	
m-Nitrotoluene	40	44.799	112	
o-Nitrotoluene	40	42.092	105	
p-Nitrotoluene	40	44.279	111	
1,3,5-Trinitrobenzene	40	44.728	112	
1,3-Dinitrobenzene-d4	500	482.919	97	
2,4,6-Trinitrotoluene	40	35.085	88	
2,4-Dinitrotoluene	40	40.855	102	
2,6-Dinitrotoluene	40	39.526	99	
2,6-Dinitrotoluene-d3	500	484.851	97	
2-Amino-4,6-dinitrotoluene	40	41.982	105	
3,4-Dinitrotoluene	20	19.603	98	
4-Amino-2,6-dinitrotoluene	40	41.07	103	
HMX	40	46.731	117	
Nitrobenzene	40	39.137	98	
PETN	40	43.189	108	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323012a

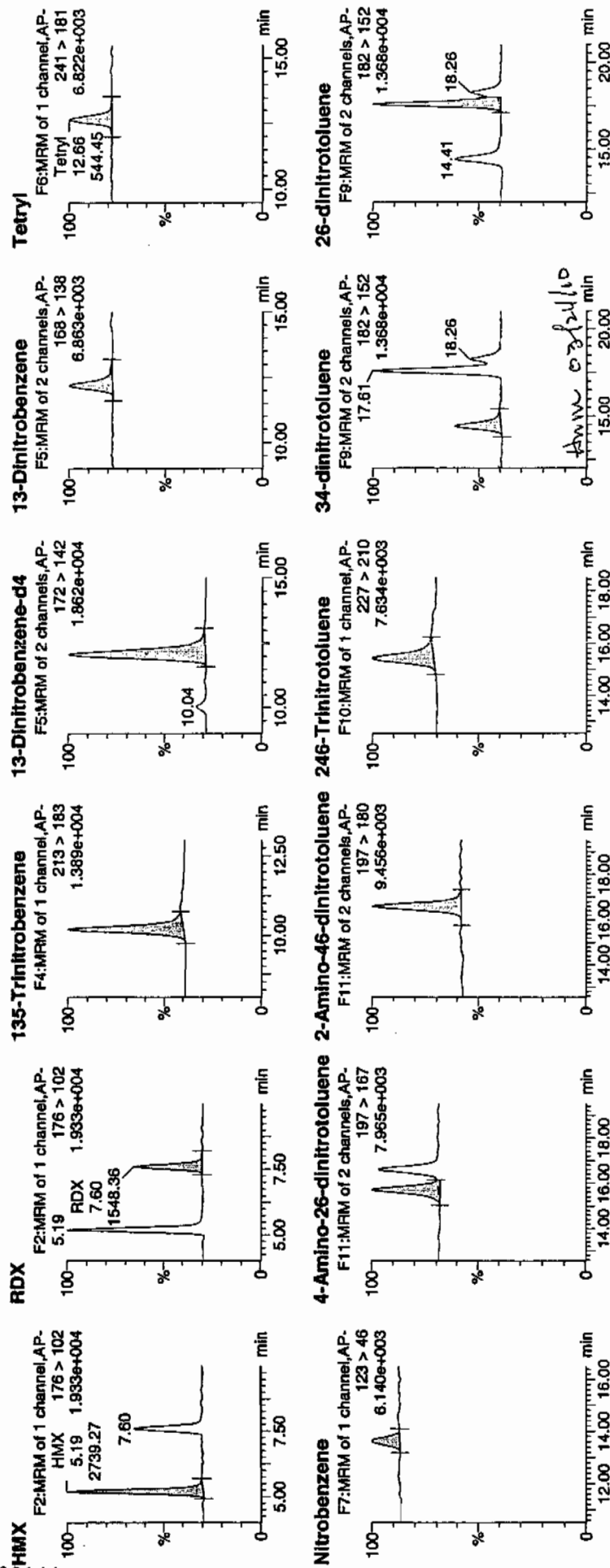
Date: 23-Mar-2010

Time: 14:33:19

ID: WXX100323-08CRI

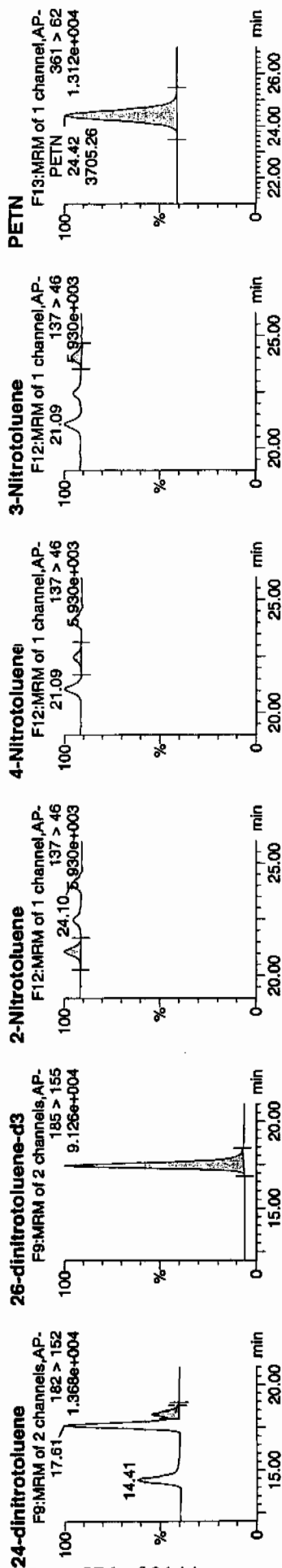
Vial: 1:1,C

WAT  
3/24/10



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

Dataset: C:\MASSLYNX\New\_Exp\PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010



ID	Name	RT	Area	IS:Area	Abs:Resp	Response	Flags	Mod:Time	Mod:Date	Mod:Time	%Rec	%Dev	SN
WXX100323-08CRI	HMX	176 > 102	5.19	2739.266	2739.266	257.632	bb				46.7309	116.8	16.8
WXX100323-08CRI	RDX	176 > 102	7.60	1548.360	1548.360	145.626	bb				43.9785	109.9	9.9
WXX100323-08CRI	135-Trinitrobenzene	213 > 183	10.18	2247.527	2247.527	211.393	bb				44.7278	111.8	11.8
WXX100323-08CRI	13-Dinitrobenzene-d4	172 > 142	12.06	5316.234	5316.234	5315.234	bb				482.9189	96.6	-3.4
WXX100323-08CRI	13-Dinitrobenzene	168 > 138	12.20	603.300	603.300	55.741	bb				42.7286	106.8	6.8
WXX100323-08CRI	Tetryl	241 > 181	12.66	544.449	544.449	51.206	bb				44.6503	111.6	11.6
WXX100323-08CRI	Nitrobenzene	123 > 46	13.61	272.627	272.627	25.641	bb				39.1374	97.8	-2.2
WXX100323-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.70	969.114	969.114	14.513	MM	24-Mar-10	09:21:01		41.0702	102.7	2.7
WXX100323-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.59	1535.075	1535.075	22.989	bb				41.9822	105.0	5.0
WXX100323-08CRI	246-Trinitrotoluene	227 > 210	15.40	960.700	960.700	14.387	bb				35.0846	87.7	-12.3
WXX100323-08CRI	34-dinitrotoluene	182 > 152	14.41	1386.049	1386.049	20.757	bb				19.6028	98.0	-2.0
WXX100323-08CRI	26-dinitrotoluene	182 > 152	17.61	3053.718	3053.718	45.732	MM	24-Mar-10	09:24:21		39.5256	98.8	-1.2
WXX100323-08CRI	24-dinitrotoluene	182 > 152	18.26	757.031	757.031	11.337	MM	24-Mar-10	09:27:48		40.8550	102.1	2.1
WXX100323-08CRI	26-dinitrotoluene-d3	185 > 155	17.43	33387.395	33387.395	33387.395	bb				484.8510	97.0	-3.0
WXX100323-08CRI	2-Nitrotoluene	137 > 46	21.09	226.665	226.665	3.394	bb				42.0924	105.2	5.2
WXX100323-08CRI	4-Nitrotoluene	137 > 46	22.46	115.137	115.137	1.724	bb				44.2789	110.7	10.7
WXX100323-08CRI	3-Nitrotoluene	137 > 46	24.10	150.832	150.832	2.259	bb				44.7990	112.0	12.0
WXX100323-08CRI	PETN	361 > 62	24.42	3705.264	3705.264	55.489	bb				43.1894	108.0	8.0

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 03/23/10  
 Time of Injection 1433  
 Standard Number WXX100323-08CRI  
 Data File EXP0323012a

HMX	116.8
RDX	109.9
135-TNB	111.8
13-DNB	106.8
Tetryl	111.6
Nitrobenzene	97.8
4A-26-DNT	102.7
2A-46-DNT	105.0
246-TNT	87.7
34-DNT(surr)	98.0
26-DNT	98.8
24-DNT	102.1
2-NT	105.2
4-NT	110.7
3-NT	112.0
PETN	108.0

*Handwritten:* HMX 3/24/10

Total 1684.9

Average 105.3

*Handwritten:* HMX 03/24/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2124

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0323023a

Analysis Date: 23-MAR-10 19:57

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	618.225	103	
1,3-Dinitrobenzene-d4	500	527.566	106	
2,4,6-Trinitrotoluene	600	626.233	104	
2,4-Dinitrotoluene	600	641.728	107	
2,6-Dinitrotoluene	600	622.086	104	
2,6-Dinitrotoluene-d3	500	516.532	103	
2-Amino-4,6-dinitrotoluene	600	682.18	114	
3,4-Dinitrotoluene	300	318.667	106	
4-Amino-2,6-dinitrotoluene	600	638.616	106	
HMX	600	775.75	129	*
Nitrobenzene	600	605.281	101	
PETN	600	636.192	106	
RDX	600	766.934	128	*
Tetryl	600	703.31	117	
m-Dinitrobenzene	600	619.864	103	
m-Nitrotoluene	600	587.224	98	
o-Nitrotoluene	600	612.723	102	
p-Nitrotoluene	600	652.819	109	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323023a

Date: 23-Mar-2010

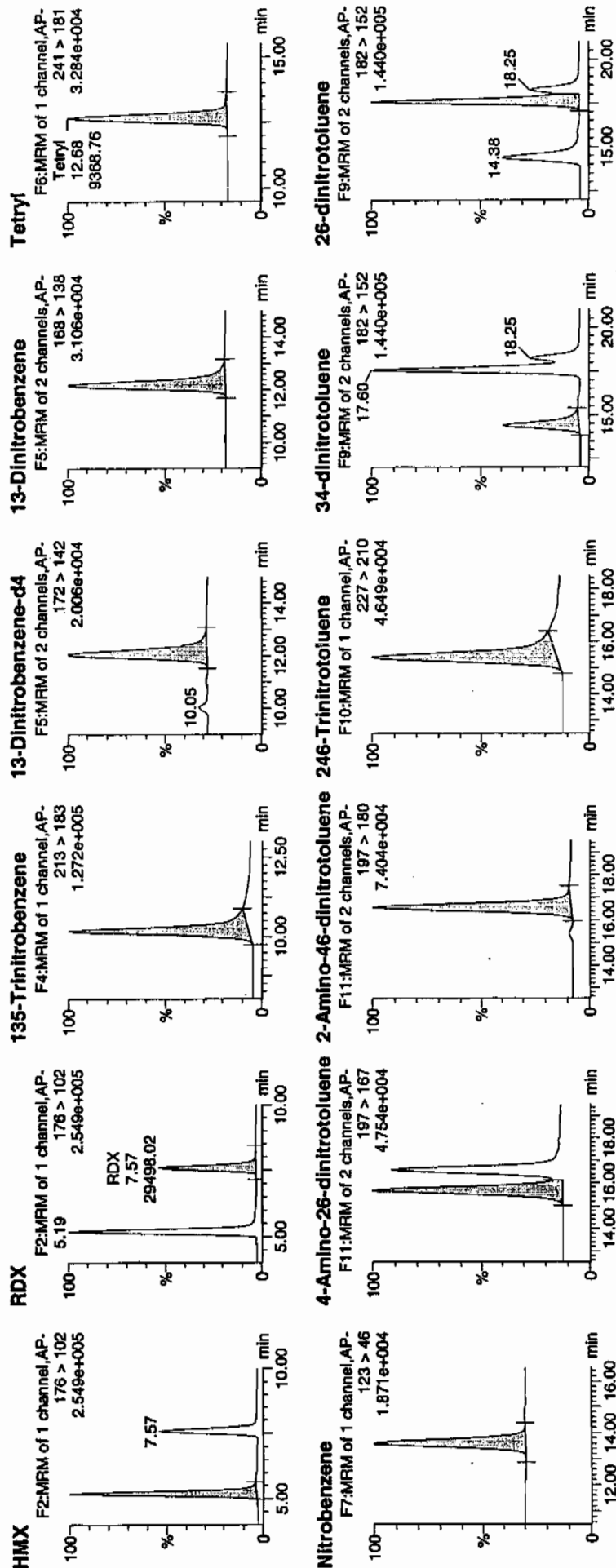
Time: 19:57:38

ID: WXX100323-07CCV

Vial: 1:1,B

100%  
3/24/10

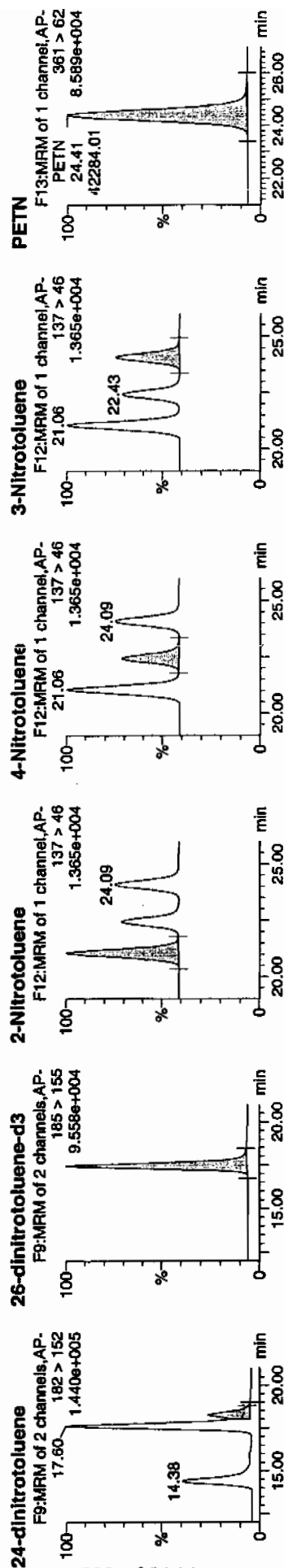
Page 579 of 2144



HNW 03/24/10

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010



ID	Name	Trace	RT	Area	IS Area	Abn Resp	Response	Flag	Mod Date	Mod Time	Area/mg	%Spec	%Dev	ISN
WXX100323-07CCV	HMx	176 > 102	5.19	49676.969	5807.738	49676.969	4276.791	bb	24-Mar-10	09:21:43	775.7499	129.3	29.3	1471.7
WXX100323-07CCV	RDX	176 > 102	7.57	29498.021	5807.738	29498.021	2539.545	bb			766.9342	127.8	27.8	773.2
WXX100323-07CCV	135-Trinitrobenzene	213 > 183	10.18	33938.762	5807.738	33938.762	2921.857	bb			618.2251	103.0	3.0	363.0
WXX100323-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	5807.738	5807.738	5807.738	5807.738	bb			527.5664	105.5	5.5	590.1
WXX100323-07CCV	13-Dinitrobenzene	168 > 138	12.20	9561.233	5807.738	9561.233	823.146	bb			619.8643	103.3	3.3	1122.1
WXX100323-07CCV	Tetryl	241 > 181	12.68	9368.761	5807.738	9368.761	806.576	bb			703.3099	117.2	17.2	808.1
WXX100323-07CCV	Nitrobenzene	123 > 46	13.58	4606.136	5807.738	4606.136	396.552	bb			605.2814	100.9	0.9	436.9
WXX100323-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	16053.771	35568.965	16053.771	225.671	MM	24-Mar-10	09:21:43	638.6162	106.4	6.4	555.1
WXX100323-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	26573.668	35568.965	26573.668	373.551	bb			682.1795	113.7	13.7	1083.3
WXX100323-07CCV	246-Trinitrotoluene	227 > 210	15.41	18268.205	35568.965	18268.205	256.800	bb			626.2328	104.4	4.4	1903.4
WXX100323-07CCV	34-dinitrotoluene	182 > 152	14.38	24004.193	35568.965	24004.193	337.432	bb			318.6675	106.2	6.2	745.6
WXX100323-07CCV	26-dinitrotoluene	182 > 152	17.60	51202.254	35568.965	51202.254	719.760	MM	24-Mar-10	09:24:58	622.0857	103.7	3.7	2050.7
WXX100323-07CCV	24-dinitrotoluene	182 > 152	18.25	12667.996	35568.965	12667.996	178.077	MM	24-Mar-10	09:28:37	641.7283	107.0	7.0	461.8
WXX100323-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	35568.965	35568.965	35568.965	35568.965	bb			516.5317	103.3	3.3	2935.3
WXX100323-07CCV	2-Nitrotoluene	137 > 46	21.06	3515.065	35568.965	3515.065	49.412	bb			612.7229	102.1	2.1	589.1
WXX100323-07CCV	4-Nitrotoluene	137 > 46	22.43	1808.423	35568.965	1808.423	25.421	bb			652.8194	108.8	8.8	299.5
WXX100323-07CCV	3-Nitrotoluene	137 > 46	24.09	2106.291	35568.965	2106.291	29.609	bb			587.2244	97.9	-2.1	335.3
WXX100323-07CCV	PETN	361 > 62	24.41	42284.008	35568.965	42284.008	594.395	bb			636.1919	106.0	6.0	11544.8

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 03/23/10  
 Time of Injection: 1957  
 Standard Number: WXX100323-07CCV  
 Data File: EXP0323023a

HMX	129.3
RDX	127.8
135-TNB	103.0
13-DNB	103.3
Tetryl	117.2
Nitrobenzene	100.9
4A-26-DNT	106.4
2A-46-DNT	113.7
246-TNT	104.4
34-DNT(surr)	106.2
26-DNT	103.7
24-DNT	107.0
2-NT	102.1
4-NT	108.8
3-NT	97.9
PETN	106.0

*Handwritten:*  
 1417  
 3/24/10

Total 1737.7

Average 108.6

*Handwritten:* HMX 03/24/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%



**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2124

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXP0323025a

**Analysis Date:** 23-MAR-10 20:56

**LCMSMS ID:** 903

**Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	43.551	109	
1,3-Dinitrobenzene-d4	500	578.273	116	
2,4,6-Trinitrotoluene	40	36.796	92	
2,4-Dinitrotoluene	40	36.274	91	
2,6-Dinitrotoluene	40	39.059	98	
2,6-Dinitrotoluene-d3	500	625.064	125	
2-Amino-4,6-dinitrotoluene	40	35.345	88	
3,4-Dinitrotoluene	20	18.965	95	
4-Amino-2,6-dinitrotoluene	40	37.682	94	
HMX	40	43.341	108	
Nitrobenzene	40	37.897	95	
PETN	40	34.251	86	
RDX	40	42.597	106	
Tetryl	40	36.872	92	
m-Dinitrobenzene	40	41.891	105	
m-Nitrotoluene	40	39.158	98	
o-Nitrotoluene	40	44.793	112	
p-Nitrotoluene	40	35.3	88	

**Recovery Limits:**

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323025a

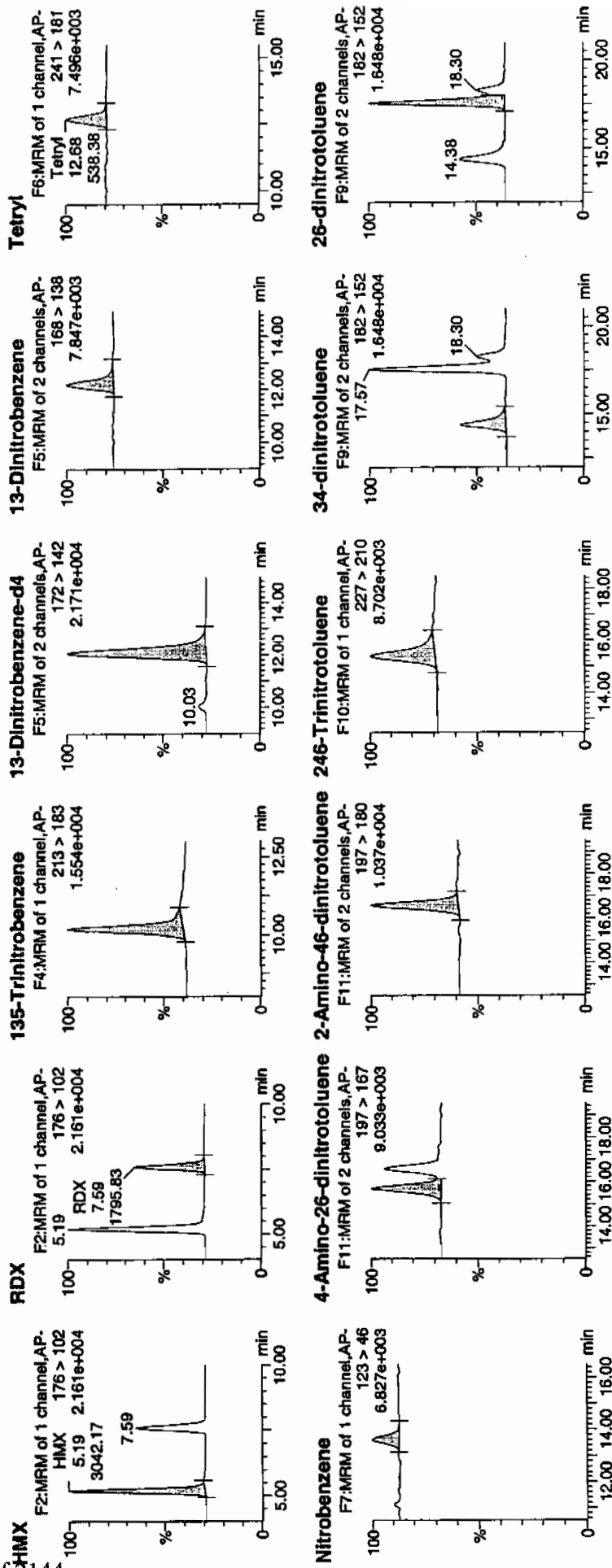
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Time: 20:56:42

ID: WXX100323-08CRI

Vial: 1:1,C

3/24/10  
 MJP



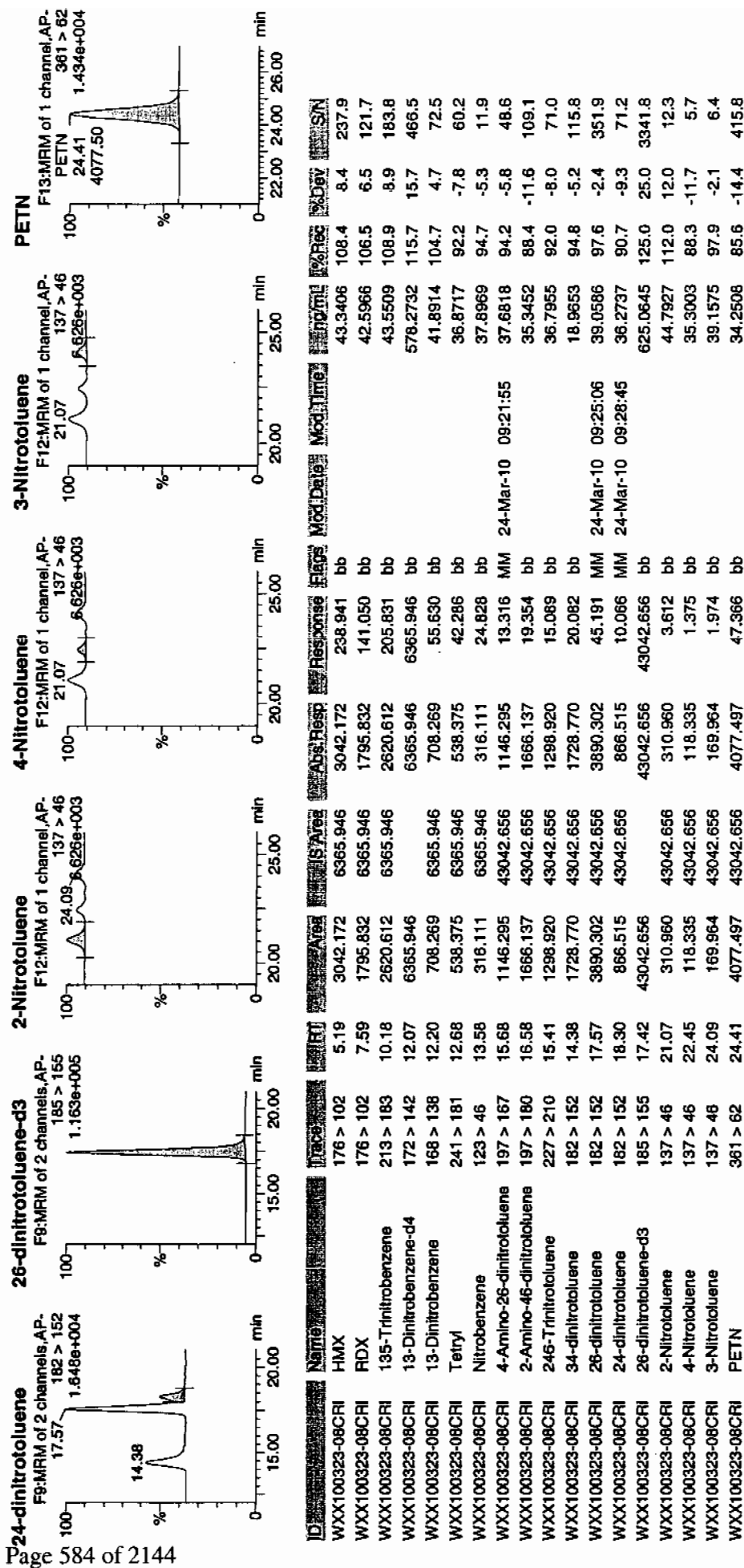
3/24/10  
 MJP

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Mar 24 09:32:17 2010, Page 50 of 99

Dataset: C:\MASSLYNX\New\_Exp\PRO032310expA.qld, Time: Wed Mar 24 09:29:41 2010



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 03/23/10  
 Time of Injection 2056  
 Standard Number WXX100323-08CRI  
 Data File EXP0323025a

HMX	108.4
RDX	106.5
135-TNB	108.9
13-DNB	104.7
Tetryl	92.2
Nitrobenzene	94.7
4A-26-DNT	94.2
2A-46-DNT	88.4
246-TNT	92.0
34-DNT(surr)	94.8
26-DNT	97.6
24-DNT	90.7
2-NT	112.0
4-NT	88.3
3-NT	97.9
PETN	85.6

*Handwritten:* 3/24/10

Total 1556.9

Average 97.3

*Handwritten:* HMM 03/24/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2124

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0323036a

Analysis Date: 24-MAR-10 02:21

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4-Dinitrotoluene	600	633.316	106	
2,6-Dinitrotoluene	600	619.655	103	
2,6-Dinitrotoluene-d3	500	508.988	102	
2-Amino-4,6-dinitrotoluene	600	653.379	109	
3,4-Dinitrotoluene	300	321.856	107	
4-Amino-2,6-dinitrotoluene	600	620.656	103	
HMX	600	618.029	103	
Nitrobenzene	600	536.553	89	
PETN	600	641.859	107	
RDX	600	653.059	109	
Tetryl	600	658.046	110	
m-Dinitrobenzene	600	611.433	102	
m-Nitrotoluene	600	567.971	95	
o-Nitrotoluene	600	566.873	94	
p-Nitrotoluene	600	613.653	102	
1,3,5-Trinitrobenzene	600	577.175	96	
1,3-Dinitrobenzene-d4	500	575.9	115	
2,4,6-Trinitrotoluene	600	619.991	103	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp\_PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

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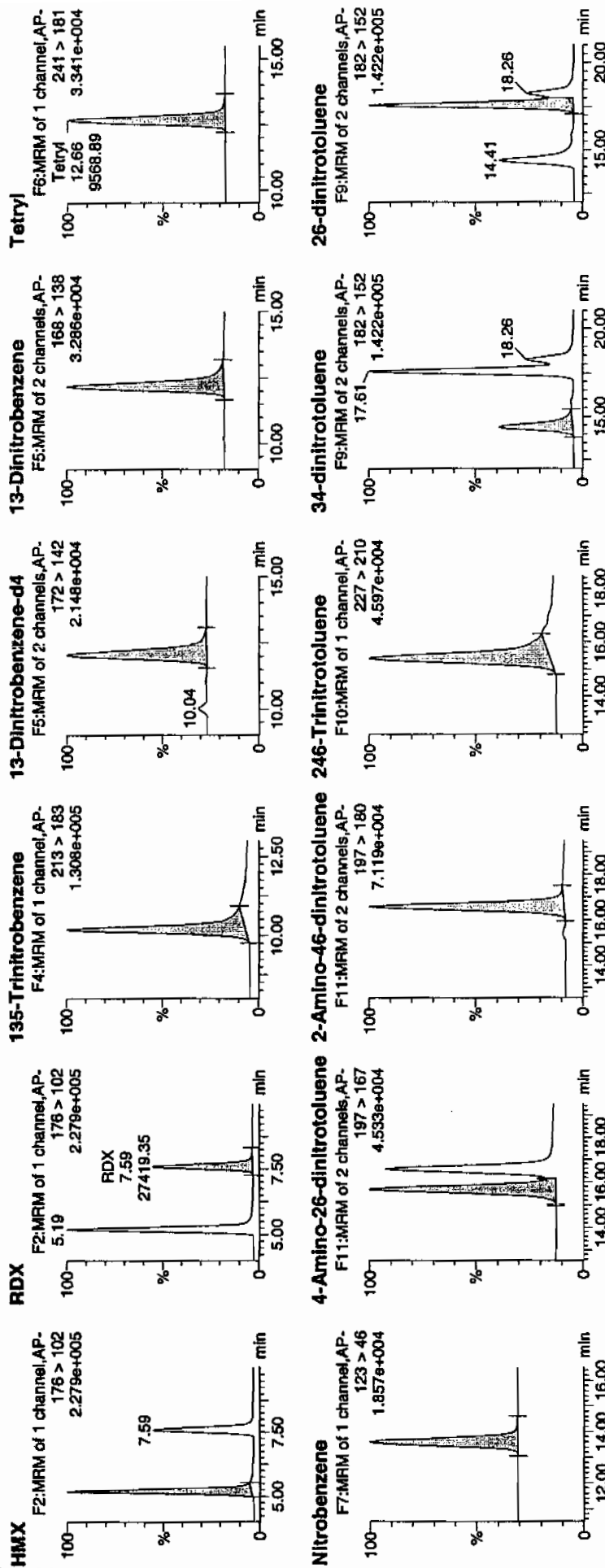
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ID: WXX100323-07CCV

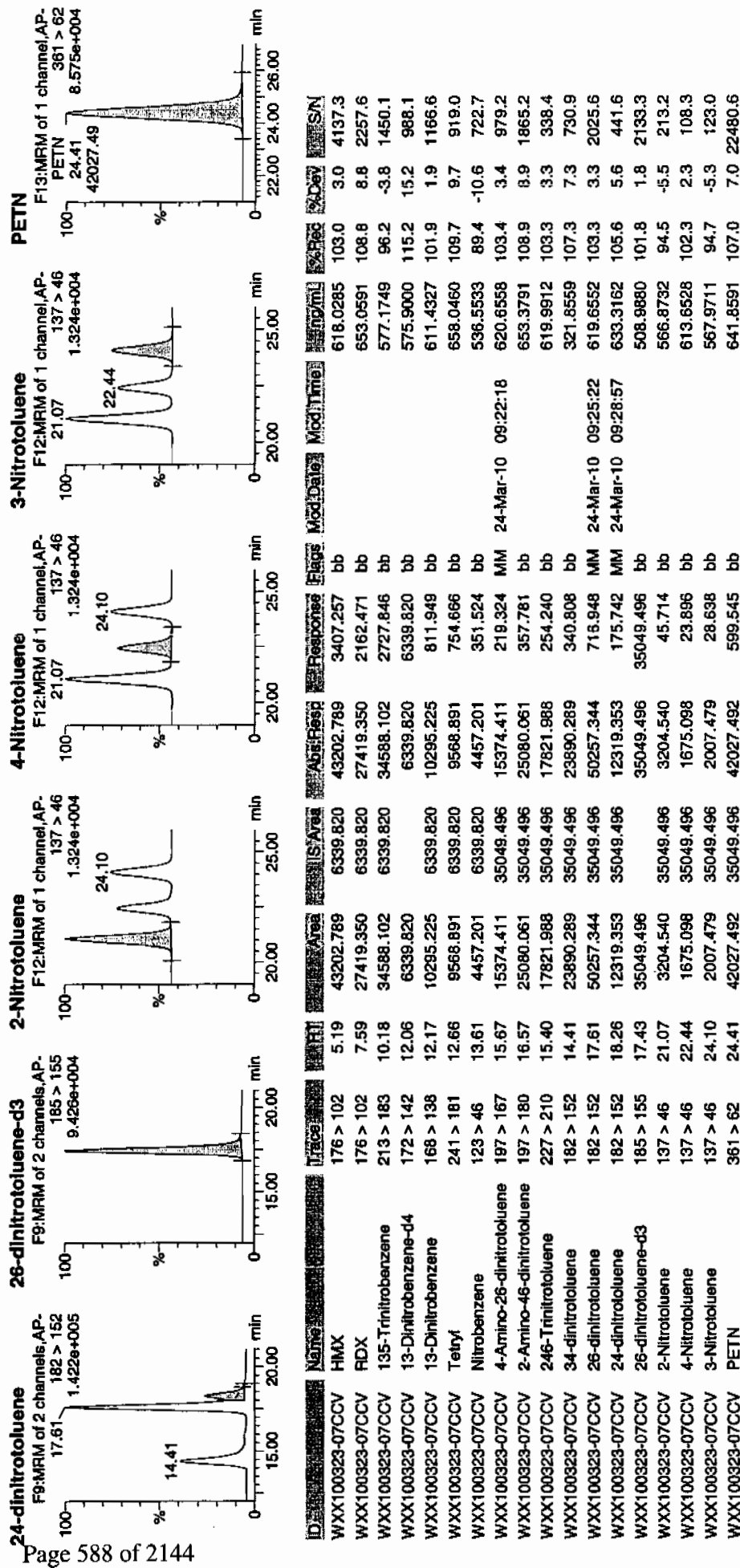
Vial: 1:1,B

12/1/10  
 3/24/10



4/24/10  
 12/1/10

Dataset: C:\MASSLYNX\New\_Exp\PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 03/24/10  
 Time of Injection: 0221  
 Standard Number: WXX100323-07CCV  
 Data File: EXP0323036a

HMX	103.0
RDX	108.8
135-TNB	96.2
13-DNB	101.9
Tetryl	109.7
Nitrobenzene	89.4
4A-26-DNT	103.4
2A-46-DNT	108.9
246-TNT	103.3
34-DNT(surr)	107.3
26-DNT	103.3
24-DNT	105.6
2-NT	94.5
4-NT	102.3
3-NT	94.7
PETN	107.0

*1007  
3/24/10*

Total 1639.3

*Hmm 03/24/10*

Average 102.5

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2124

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0323038a

Analysis Date: 24-MAR-10 03:20

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene	40	40.014	100	
2,6-Dinitrotoluene-d3	500	568.942	114	
2-Amino-4,6-dinitrotoluene	40	41.784	104	
3,4-Dinitrotoluene	20	23.698	118	
4-Amino-2,6-dinitrotoluene	40	39.666	99	
HMX	40	48.156	120	
Nitrobenzene	40	40.635	102	
PETN	40	42.98	107	
RDX	40	42.128	105	
Tetryl	40	37.542	94	
m-Dinitrobenzene	40	41.281	103	
m-Nitrotoluene	40	41.221	103	
o-Nitrotoluene	40	41.666	104	
p-Nitrotoluene	40	36.98	92	
1,3,5-Trinitrobenzene	40	45.654	114	
1,3-Dinitrobenzene-d4	500	578.299	116	
2,4,6-Trinitrotoluene	40	40.179	100	
2,4-Dinitrotoluene	40	42.924	107	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Mar 24 09:32:17 2010, Page 75 of 99

Dataset: C:\MASSLYNX\New\_Exp\PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

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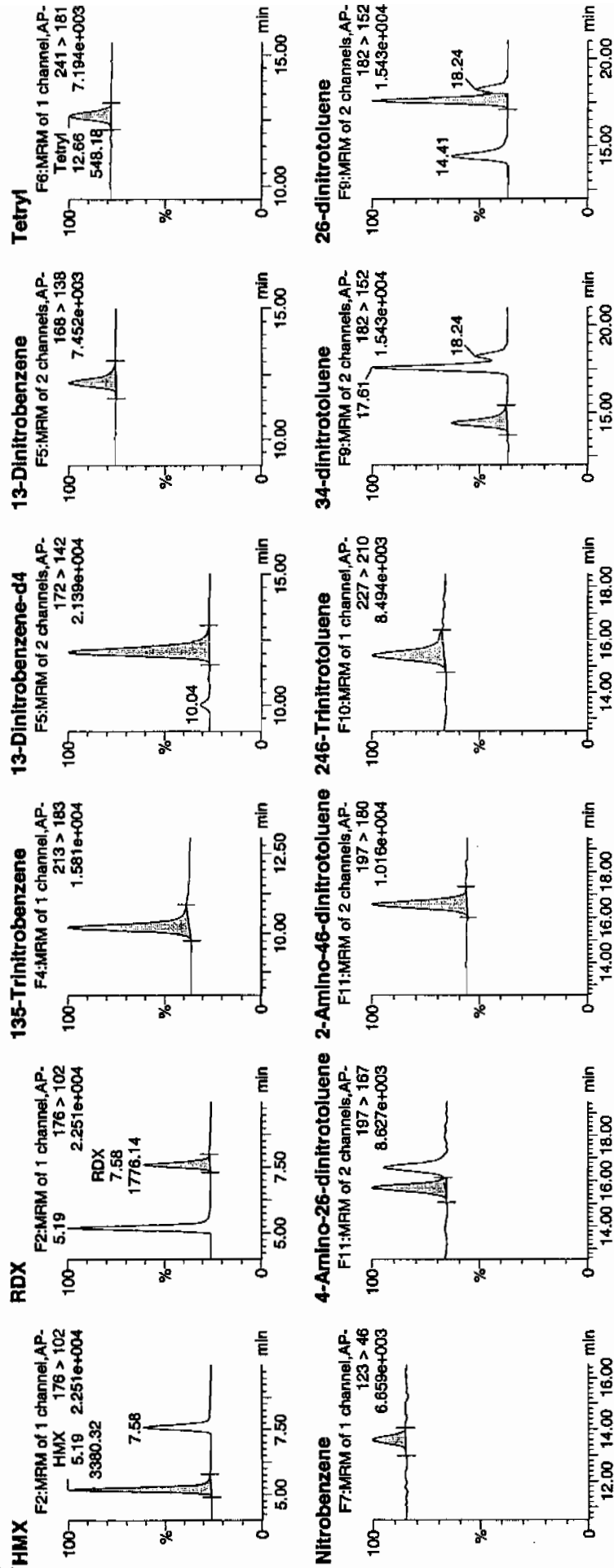
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Time: 03:20:06

ID: WXX100323-08CRI

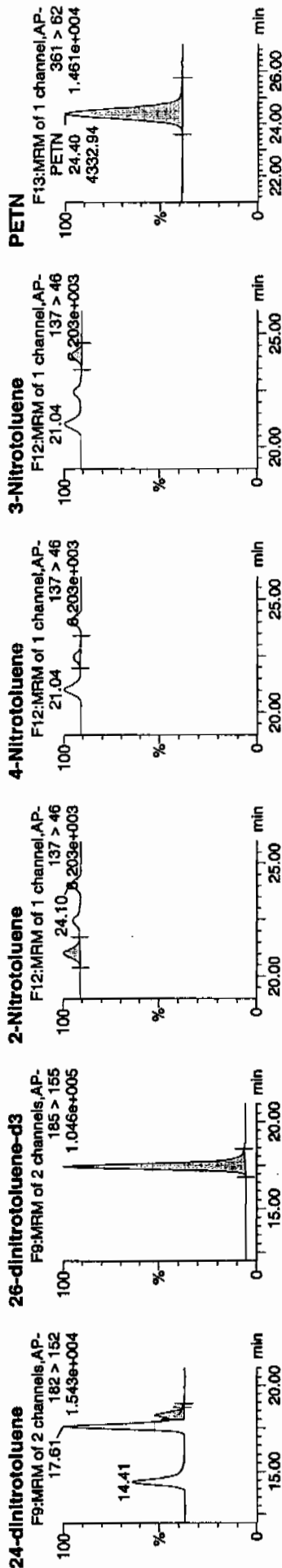
Vial: 1:1,C

Page 591 of 2144



hmv  
03/24/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010



ID	Name	Trace	RT	Area	IS/Std	Area Resp	Response	Flags	Mod Date	Mod Time	Area	%Area	Std Dev	SN
WXX100323-08CRI	HMX	176 > 102	5.19	3380.315	6366.227	3380.315	265.488	bb			48.1558	120.4	20.4	244.5
WXX100323-08CRI	RDX	176 > 102	7.58	1776.142	6366.227	1776.142	139.497	bb			42.1277	105.3	5.3	115.1
WXX100323-08CRI	135-Trinitrobenzene	213 > 183	10.18	2747.295	6366.227	2747.295	215.771	bb			45.6542	114.1	14.1	337.5
WXX100323-08CRI	13-Dinitrobenzene-d4	172 > 142	12.08	6366.227		6366.227	636.227	bb			578.2987	115.7	15.7	491.1
WXX100323-08CRI	13-Dinitrobenzene	168 > 138	12.17	697.986	6366.227	697.986	54.819	bb			41.2814	103.2	3.2	80.2
WXX100323-08CRI	Tetryl	241 > 181	12.66	548.183	6366.227	548.183	43.054	bb			37.5418	93.9	-6.1	40.7
WXX100323-08CRI	Nitrobenzene	123 > 46	13.57	338.961	6366.227	338.961	26.622	bb			40.6345	101.6	1.6	24.8
WXX100323-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.70	1096.308	39177.973	1096.308	14.017	MM	24-Mar-10	09:22:26	39.6858	99.2	-0.8	60.9
WXX100323-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.57	1792.816	39177.973	1792.816	22.880	bb			41.7842	104.5	4.5	158.5
WXX100323-08CRI	248-Trinitrotoluene	227 > 210	15.40	1291.005	39177.973	1291.005	16.476	bb			40.1788	100.4	0.4	66.9
WXX100323-08CRI	34-dinitrotoluene	182 > 152	14.41	1966.236	39177.973	1966.236	25.094	bb			23.6982	118.5	18.5	117.7
WXX100323-08CRI	26-dinitrotoluene	182 > 152	17.61	3627.584	39177.973	3627.584	46.296	MM	24-Mar-10	09:25:30	40.0136	100.0	0.0	277.8
WXX100323-08CRI	24-dinitrotoluene	182 > 152	18.24	933.307	39177.973	933.307	11.911	MM	24-Mar-10	09:29:08	42.9237	107.3	7.3	65.3
WXX100323-08CRI	26-dinitrotoluene-d3	185 > 155	17.41	39177.973		39177.973	39177.973	bb			568.9416	113.8	13.8	2237.2
WXX100323-08CRI	2-Nitrotoluene	137 > 46	21.04	263.285	39177.973	263.285	3.360	bb			41.6664	104.2	4.2	29.3
WXX100323-08CRI	4-Nitrotoluene	137 > 46	22.47	112.834	39177.973	112.834	1.440	bb			36.9796	92.4	-7.6	12.6
WXX100323-08CRI	3-Nitrotoluene	137 > 46	24.10	162.856	39177.973	162.856	2.078	bb			41.2210	103.1	3.1	18.7
WXX100323-08CRI	PETN	361 > 62	24.40	4332.945	39177.973	4332.945	55.298	bb			42.9795	107.4	7.4	2404.9

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 03/24/10  
 Time of Injection 0320  
 Standard Number WXX100323-08CRI  
 Data File EXP0323038a

HMX	120.4
RDX	105.3
135-TNB	114.1
13-DNB	103.2
Tetryl	93.9
Nitrobenzene	101.6
4A-26-DNT	99.2
2A-46-DNT	104.5
246-TNT	100.4
34-DNT(surr)	118.5
26-DNT	100.0
24-DNT	107.3
2-NT	104.2
4-NT	92.4
3-NT	103.1
PETN	107.4

1477  
3/24/10

Total 1675.5

Average 104.7

Handwritten: HMC 03/24/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2124

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0323047a

Analysis Date: 24-MAR-10 07:45

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	600	665.305	111	
RDX	600	706.667	118	
Tetryl	600	747.317	125	*
m-Dinitrobenzene	600	643.102	107	
m-Nitrotoluene	600	595.728	99	
o-Nitrotoluene	600	613.859	102	
p-Nitrotoluene	600	639.266	107	
1,3,5-Trinitrobenzene	600	615.829	103	
1,3-Dinitrobenzene-d4	500	538.76	108	
2,4,6-Trinitrotoluene	600	626.253	104	
2,4-Dinitrotoluene	600	632.264	105	
2,6-Dinitrotoluene	600	616.827	103	
2,6-Dinitrotoluene-d3	500	506.856	101	
2-Amino-4,6-dinitrotoluene	600	709.295	118	
3,4-Dinitrotoluene	300	329.347	110	
4-Amino-2,6-dinitrotoluene	600	664.121	111	
HMX	600	725.562	121	*
Nitrobenzene	600	556.166	93	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

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Date: 24-Mar-2010

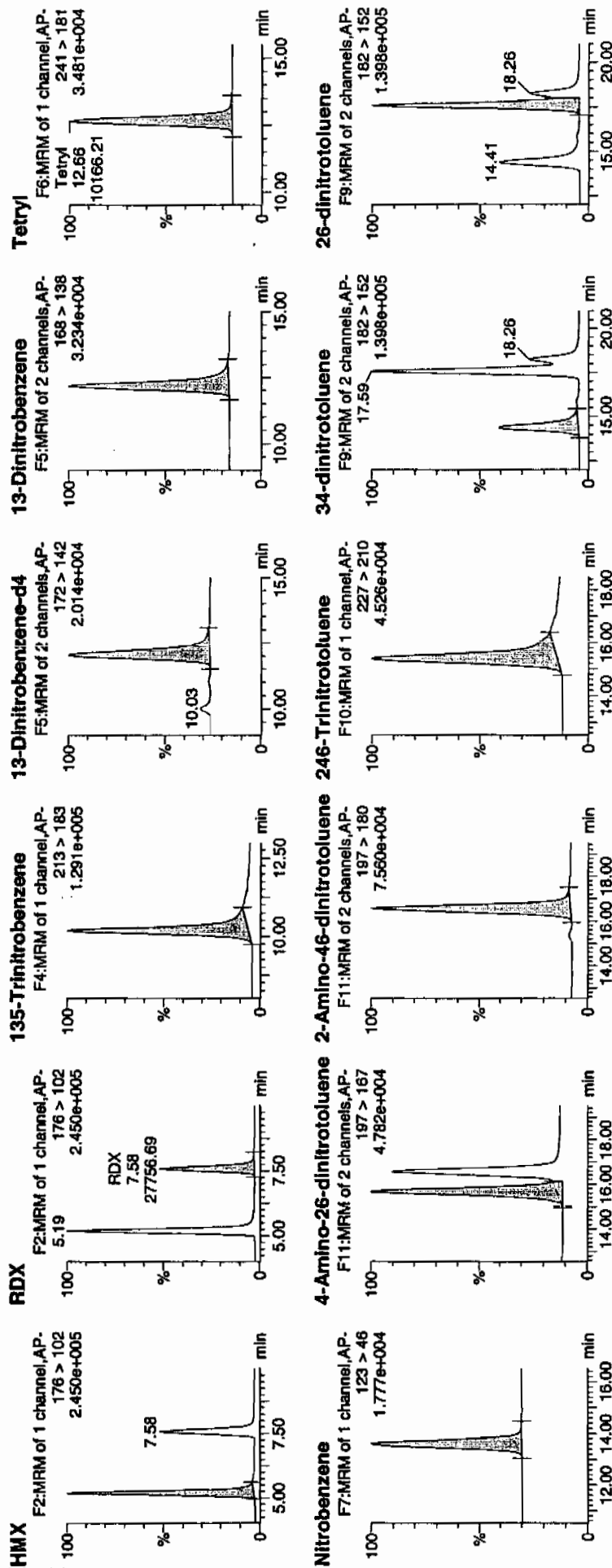
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ID: WXX100323-07CCV

Vial: 1:1,B

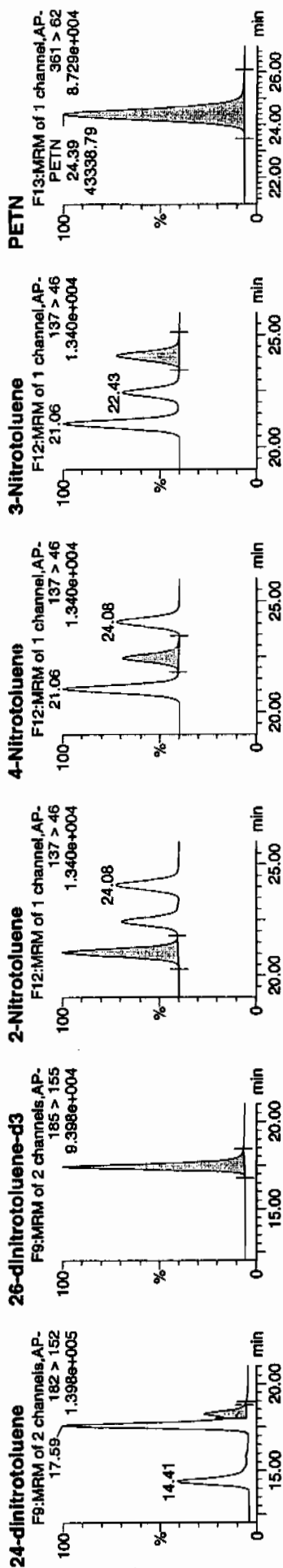
put  
7/10/10

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4/24/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010



ID	Name	Trace	PHI	Area	Status	Abs. Resp	Response	Flag	Mod.Date	Mod.Time	Int./mL	%Rec	%Dev	ISN
WX100323-07CCV	HMx	176 > 102	5.19	47448.902	5930.965	47448.902	4000.100	bb			725.5619	120.9	20.9	2012.7
WX100323-07CCV	RDX	176 > 102	7.58	27756.693	5930.965	27756.693	2339.981	bb			706.6666	117.8	17.8	1026.7
WX100323-07CCV	135-Trinitrobenzene	213 > 183	10.18	34524.527	5930.965	34524.527	2910.532	bb			615.8288	102.6	2.6	3107.5
WX100323-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	5930.965		5930.965	5930.965	bb			538.7602	107.8	7.8	1246.7
WX100323-07CCV	13-Dinitrobenzene	168 > 138	12.17	10130.145	5930.965	10130.145	854.005	bb			643.1023	107.2	7.2	838.1
WX100323-07CCV	Tetryl	241 > 181	12.66	10166.205	5930.965	10166.205	857.045	bb			747.3174	124.6	24.6	1380.8
WX100323-07CCV	Nitrobenzene	123 > 46	13.61	4322.172	5930.965	4322.172	364.373	bb			556.1658	92.7	-7.3	317.3
WX100323-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.67	16382.168	34902.664	16382.168	234.684	MM	24-Mar-10	09:22:43	664.1205	110.7	10.7	999.7
WX100323-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.57	27112.355	34902.664	27112.355	368.400	bb			709.2953	118.2	18.2	772.3
WX100323-07CCV	246-Trinitrotoluene	227 > 210	15.40	17926.559	34902.664	17926.559	256.808	bb			626.2525	104.4	4.4	874.3
WX100323-07CCV	34-dinitrotoluene	182 > 152	14.41	24343.902	34902.664	24343.902	348.740	bb			329.3468	109.8	9.8	550.2
WX100323-07CCV	26-dinitrotoluene	182 > 152	17.59	49818.395	34902.664	49818.395	713.676	MM	24-Mar-10	09:25:47	616.8272	102.8	2.8	1448.2
WX100323-07CCV	24-dinitrotoluene	182 > 152	18.26	12247.362	34902.664	12247.362	175.450	MM	24-Mar-10	09:29:23	632.2640	105.4	5.4	327.7
WX100323-07CCV	28-dinitrotoluene-d3	185 > 155	17.41	34902.664		34902.664	34902.664	bb			506.8557	101.4	1.4	2520.5
WX100323-07CCV	2-Nitrotoluene	137 > 46	21.06	3455.616	34902.664	3455.616	49.504	bb			613.8594	102.3	2.3	1006.8
WX100323-07CCV	4-Nitrotoluene	137 > 46	22.43	1737.705	34902.664	1737.705	24.894	bb			639.2662	106.5	6.5	487.0
WX100323-07CCV	3-Nitrotoluene	137 > 46	24.08	2096.766	34902.664	2096.766	30.037	bb			595.7285	99.3	-0.7	543.6
WX100323-07CCV	PETN	361 > 62	24.39	43338.785	34902.664	43338.785	620.852	bb			665.3052	110.9	10.9	4414.2

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 03/24/10  
 Time of Injection: 0745  
 Standard Number: WXX100323-07CCV  
 Data File: EXP0323047a

HMX	120.9
RDX	117.8
135-TNB	102.6
13-DNB	107.2
Tetryl	124.6
Nitrobenzene	92.7
4A-26-DNT	110.7
2A-46-DNT	118.2
246-TNT	104.4
34-DNT(surr)	109.8
26-DNT	102.8
24-DNT	105.4
2-NT	102.3
4-NT	106.5
3-NT	99.3
PETN	110.9

*1007  
3/24/10*

Total 1736.1

Average 108.5

*4mm 03/24/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%



**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2124

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXP0323049a

**Analysis Date:** 24-MAR-10 08:44

**LCMSMS ID:** 903

**Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Nitrotoluene	40	40.219	101	
o-Nitrotoluene	40	41.552	104	
p-Nitrotoluene	40	34.803	87	
1,3,5-Trinitrobenzene	40	47.063	118	
1,3-Dinitrobenzene-d4	500	561.116	112	
2,4,6-Trinitrotoluene	40	37.222	93	
2,4-Dinitrotoluene	40	35.725	89	
2,6-Dinitrotoluene	40	41.3	103	
2,6-Dinitrotoluene-d3	500	588.805	118	
2-Amino-4,6-dinitrotoluene	40	41.485	104	
3,4-Dinitrotoluene	20	21.335	107	
4-Amino-2,6-dinitrotoluene	40	41.766	104	
HMX	40	49.844	125	
Nitrobenzene	40	34.492	86	
PETN	40	40.675	102	
RDX	40	45.987	115	
Tetryl	40	35.013	88	
m-Dinitrobenzene	40	36.691	92	

**Recovery Limits:**

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp\PRO\032310expA.qld, Time: Wed Mar 24 09:29:41 2010

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Date: 24-Mar-2010

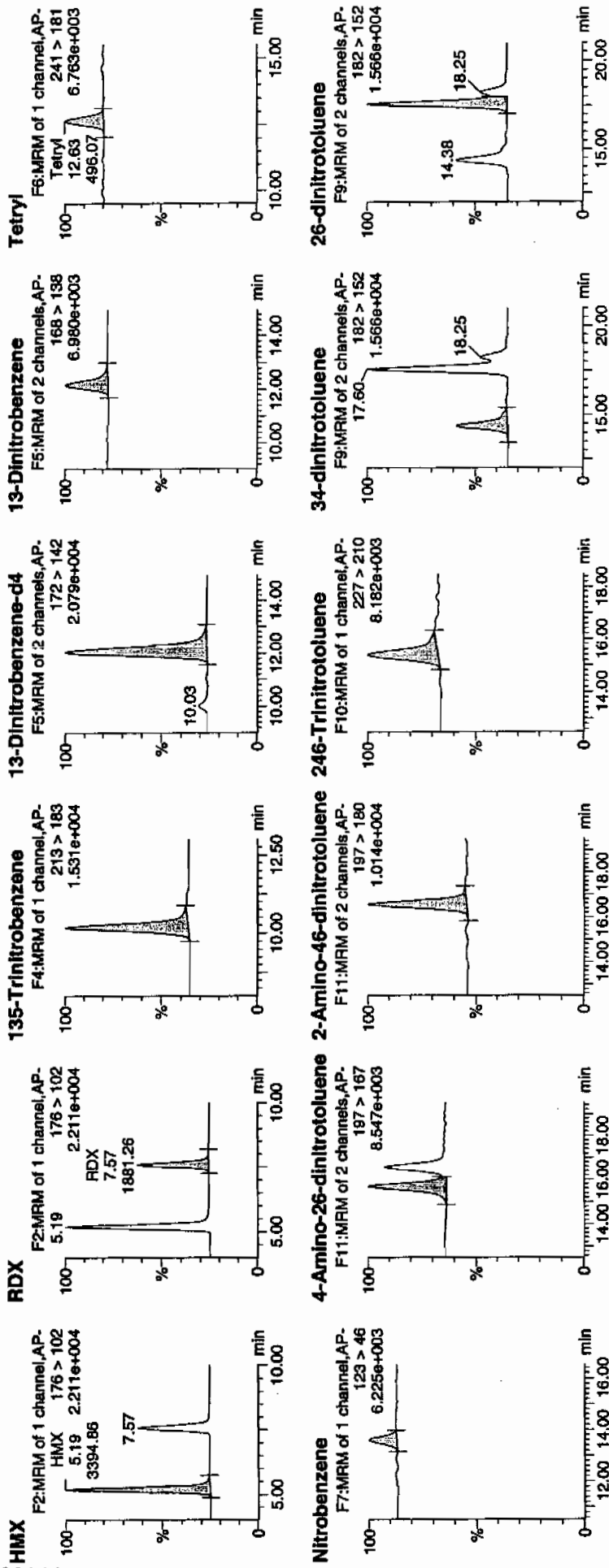
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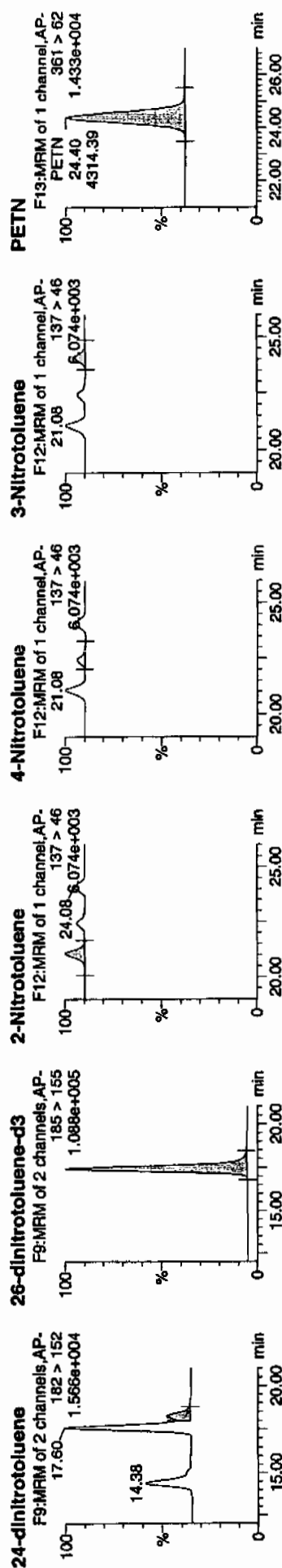
Vial: 1:1,C

10/27  
 10/24/10

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HW  
 03/24/10



Name	ID	Area	HT	Area	IS Area	Abn Resp	Response	Flag	Mod Date	Mod Time	%Rec	%Dev	SN	
HMx	WXX100323-08C1	176 > 102	5.19	3394.862	6177.075	3394.862	274.795	bb			49.8440	124.6	24.6	373.8
FDX	WXX100323-08C1	176 > 102	7.57	1881.264	6177.075	1881.264	152.278	bb			45.9874	115.0	15.0	183.8
135-Trinitrobenzene	WXX100323-08C1	213 > 183	10.18	2747.943	6177.075	2747.943	222.431	bb			47.0633	117.7	17.7	189.1
13-Dinitrobenzene-d4	WXX100323-08C1	172 > 142	12.03	6177.075		6177.075	6177.075	bb			561.1164	112.2	12.2	723.8
13-Dinitrobenzene	WXX100323-08C1	168 > 138	12.17	601.941	6177.075	601.941	48.724	bb			36.6911	91.7	-8.3	69.4
Teiry	WXX100323-08C1	241 > 181	12.63	496.068	6177.075	496.068	40.154	bb			35.0130	87.5	-12.5	65.5
Nitrobenzene	WXX100323-08C1	123 > 46	13.58	279.173	6177.075	279.173	22.598	bb			34.4920	86.2	-13.8	30.1
4-Amino-26-dinitrotoluene	WXX100323-08C1	197 > 167	15.68	1196.828	40545.816	1196.828	14.759	MM	24-Mar-10	09:22:50	41.7657	104.4	4.4	70.6
2-Amino-46-dinitrotoluene	WXX100323-08C1	197 > 180	16.58	1842.135	40545.816	1842.135	22.717	bb			41.4853	103.7	3.7	179.8
246-Trinitrotoluene	WXX100323-08C1	227 > 210	15.41	1237.761	40545.816	1237.761	15.264	bb			37.2222	93.1	-6.9	73.0
34-dinitrotoluene	WXX100323-08C1	182 > 152	14.38	1831.947	40545.816	1831.947	22.591	bb			21.3348	106.7	6.7	99.0
26-dinitrotoluene	WXX100323-08C1	182 > 152	17.60	3874.927	40545.816	3874.927	47.785	MM	24-Mar-10	09:25:56	41.3000	103.2	3.2	271.9
24-dinitrotoluene	WXX100323-08C1	182 > 152	18.25	803.896	40545.816	803.896	9.913	MM	24-Mar-10	09:29:31	35.7247	89.3	-10.7	50.9
26-dinitrotoluene-d3	WXX100323-08C1	185 > 155	17.42	40545.816		40545.816	40545.816	bb			588.8054	117.8	17.8	2316.3
2-Nitrotoluene	WXX100323-08C1	137 > 46	21.08	271.729	40545.816	271.729	3.351	bb			41.5520	103.9	3.9	69.5
4-Nitrotoluene	WXX100323-08C1	137 > 46	22.45	109.900	40545.816	109.900	1.355	bb			34.8029	87.0	-13.0	27.8
3-Nitrotoluene	WXX100323-08C1	137 > 46	24.08	164.443	40545.816	164.443	2.028	bb			40.2185	100.5	0.5	37.2
PETN	WXX100323-08C1	361 > 62	24.40	4314.385	40545.816	4314.385	53.204	bb			40.6749	101.7	1.7	1131.0

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 03/24/10  
 Time of Injection 0844  
 Standard Number WXX100323-08CRI  
 Data File EXP0323049a

HMX	124.6	✓
RDX	115.0	✓
135-TNB	117.7	✓
13-DNB	91.7	
Tetryl	87.5	
Nitrobenzene	86.2	
4A-26-DNT	104.4	
2A-46-DNT	103.7	
246-TNT	93.1	
34-DNT(surr)	106.7	
26-DNT	103.2	
24-DNT	89.3	
2-NT	103.9	
4-NT	87.0	
3-NT	100.5	
PETN	101.7	

*Left  
3/24/10*

Total 1616.2

Average 101.0

*47mm 03/24/10*

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2124

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0323060a

Analysis Date: 24-MAR-10 14:09

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Tetryl	600	664.922	111	
m-Dinitrobenzene	600	583.785	97	
m-Nitrotoluene	600	566.141	94	
o-Nitrotoluene	600	573.454	96	
p-Nitrotoluene	600	620.413	103	
1,3,5-Trinitrobenzene	600	604.385	101	
1,3-Dinitrobenzene-d4	500	548.392	110	
2,4,6-Trinitrotoluene	600	621.618	104	
2,4-Dinitrotoluene	600	608.236	101	
2,6-Dinitrotoluene	600	621.134	104	
2,6-Dinitrotoluene-d3	500	506.964	101	
2-Amino-4,6-dinitrotoluene	600	684.662	114	
3,4-Dinitrotoluene	300	322.305	107	
4-Amino-2,6-dinitrotoluene	600	630.304	105	
HMX	600	657.135	110	
Nitrobenzene	600	550.129	92	
PETN	600	695.76	116	
RDX	600	686.53	114	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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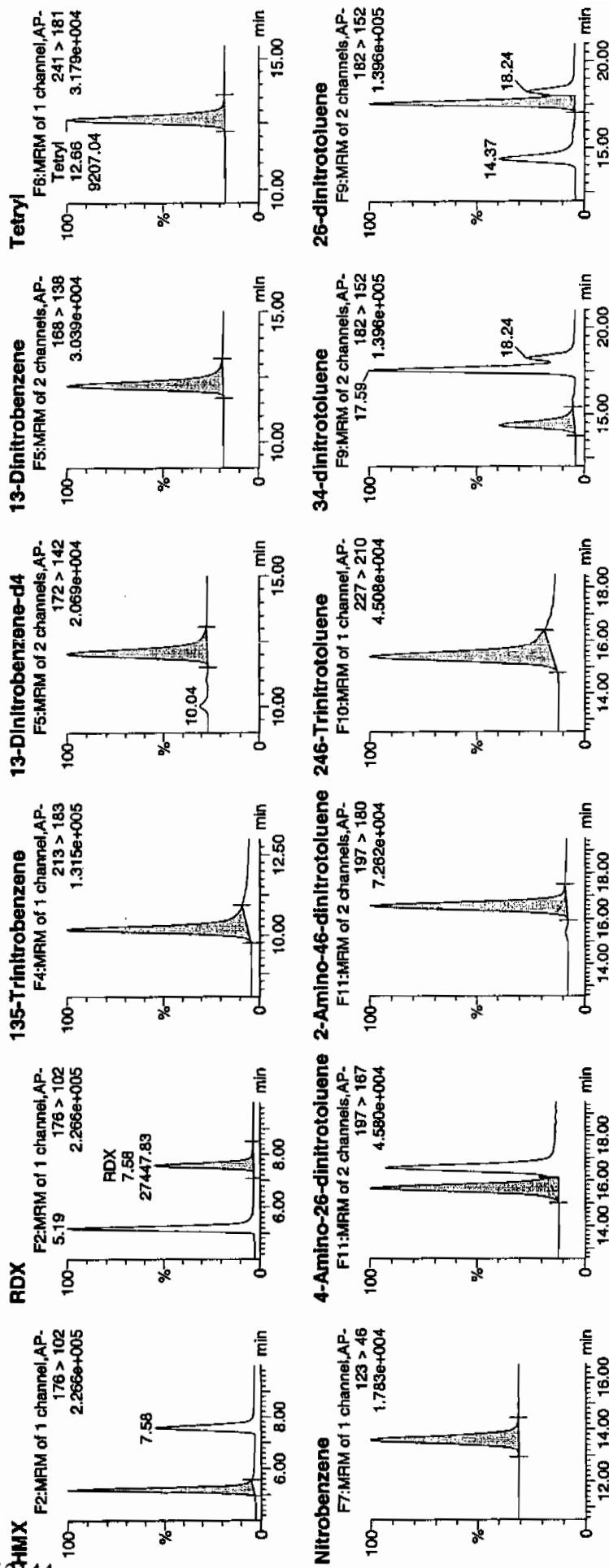
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Time: 14:09:10

ID: WXX100323-07CCV

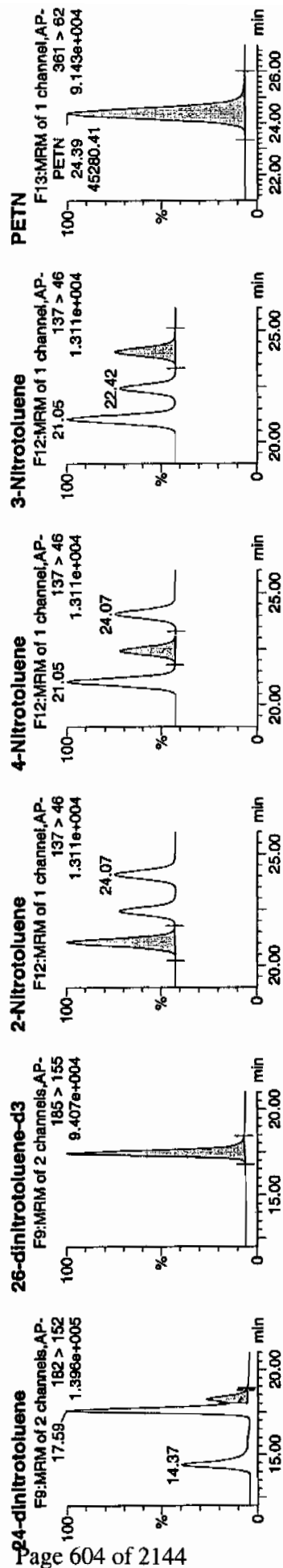
Vial: 1:1,B

MM  
3/25/10



MM 3/30/10

Dataset: C:\MASSLYNX\New\_Exp\PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010



ID	Name	RT	Area	IS Area	Abn Resp	Response	Flags	Mod Date	Mod Time	Int	% Rec	Adp	SN
WXX100323-07CCV	HMZ	176 > 102	5.19	43742.363	6036.998	3622.857	bb			657.1354	109.5	9.5	3230.7
WXX100323-07CCV	RDX	176 > 102	7.58	27447.834	6036.998	2273.302	bb			686.5296	114.4	14.4	1745.9
WXX100323-07CCV	135-Trinitrobenzene	213 > 183	10.18	34488.707	6036.998	2856.445	bb			604.3848	100.7	0.7	2131.1
WXX100323-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	6036.998	6036.998	6036.998	bb			548.3920	109.7	9.7	711.8
WXX100323-07CCV	13-Dinitrobenzene	168 > 138	12.17	9360.186	6036.998	775.235	bb			583.7853	97.3	-2.7	463.8
WXX100323-07CCV	Tetryl	241 > 181	12.66	9207.037	6036.998	762.551	bb			664.9216	110.8	10.8	1037.8
WXX100323-07CCV	Nitrobenzene	123 > 46	13.61	4351.687	6036.998	360.418	bb			550.1286	91.7	-8.3	497.7
WXX100323-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.67	15551.311	34910.121	222.734	MM	25-Mar-10	09:51:43	630.3035	105.1	5.1	685.1
WXX100323-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.57	26176.338	34910.121	374.910	bb			684.6616	114.1	14.1	1272.0
WXX100323-07CCV	246-Trinitrotoluene	227 > 210	15.40	17797.695	34910.121	254.907	bb			621.6180	103.6	3.6	1321.8
WXX100323-07CCV	34-dinitrotoluene	182 > 152	14.37	23828.494	34910.121	341.283	bb			322.3051	107.4	7.4	589.6
WXX100323-07CCV	26-dinitrotoluene	182 > 152	17.59	50176.918	34910.121	718.659	MM	25-Mar-10	09:54:08	621.1336	103.5	3.5	1563.4
WXX100323-07CCV	24-dinitrotoluene	182 > 152	18.24	11784.438	34910.121	166.783	MM	25-Mar-10	09:54:53	608.2359	101.4	1.4	345.7
WXX100323-07CCV	26-dinitrotoluene-d3	185 > 155	17.41	34910.121	34910.121	34910.121	bb			506.9640	101.4	1.4	2986.7
WXX100323-07CCV	2-Nitrotoluene	137 > 46	21.05	3228.849	34910.121	46.245	bb			573.4537	95.6	-4.4	841.0
WXX100323-07CCV	4-Nitrotoluene	137 > 46	22.42	1686.817	34910.121	24.159	bb			620.4130	103.4	3.4	439.7
WXX100323-07CCV	3-Nitrotoluene	137 > 46	24.07	1993.055	34910.121	28.546	bb			566.1414	94.4	-5.6	479.4
WXX100323-07CCV	PETN	361 > 62	24.39	45280.410	34910.121	648.528	bb			695.7597	116.0	16.0	8326.3

✓

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 03/24/10  
 Time of Injection: 1409  
 Standard Number: WXX100323-07CCV  
 Data File: EXP0323060a

HMX	109.5
RDX	114.4
135-TNB	100.7
13-DNB	97.3
Tetryl	110.8
Nitrobenzene	91.7
4A-26-DNT	105.1
2A-46-DNT	114.1
246-TNT	103.6
34-DNT(surr)	107.4
26-DNT	103.5
24-DNT	101.4
2-NT	95.6
4-NT	103.4
3-NT	94.4
PETN	116.0

*100%  
3/25/10*

Total 1668.9

Average 104.3

*100% 3/25/10*  
 ICV Limits 85-115%  
 CRI Limits 70-130%  
 CCV Limits 85-115%  
 No single analyte > +/- 60%



**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2124

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXP0323062a

**Analysis Date:** 24-MAR-10 15:08

**LCMSMS ID:** 903

**Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	46.814	117	
1,3-Dinitrobenzene-d4	500	532.654	107	
2,4,6-Trinitrotoluene	40	39.494	99	
2,4-Dinitrotoluene	40	39.566	99	
2,6-Dinitrotoluene	40	40.931	102	
2,6-Dinitrotoluene-d3	500	511.226	102	
2-Amino-4,6-dinitrotoluene	40	42.212	106	
3,4-Dinitrotoluene	20	20.154	101	
4-Amino-2,6-dinitrotoluene	40	45.676	114	
HMX	40	49.198	123	
Nitrobenzene	40	38.032	95	
PETN	40	49.873	125	
RDX	40	45.935	115	
Tetryl	40	33.148	83	
m-Dinitrobenzene	40	41.369	103	
m-Nitrotoluene	40	45.001	113	
o-Nitrotoluene	40	40.488	101	
p-Nitrotoluene	40	49.369	123	

**Recovery Limits:**

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp\PRO1032310expA1.qld, Time: Thu Mar 25 09:56:44 2010

Name: C:\MASSLYNX\NEW\_EXP\PRO1032310expA1.qld, Time: Thu Mar 25 09:56:44 2010

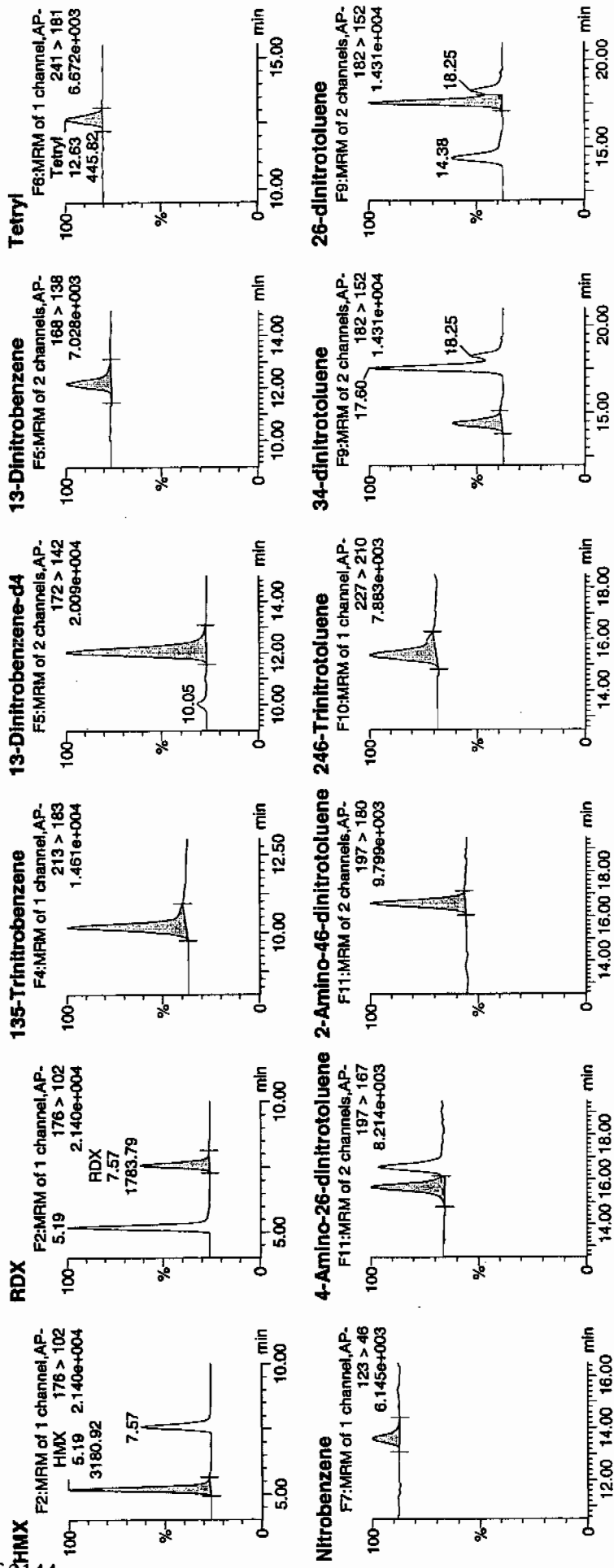
Date: 24-Mar-2010

Time: 15:08:15

ID: WXX100323-08CRI

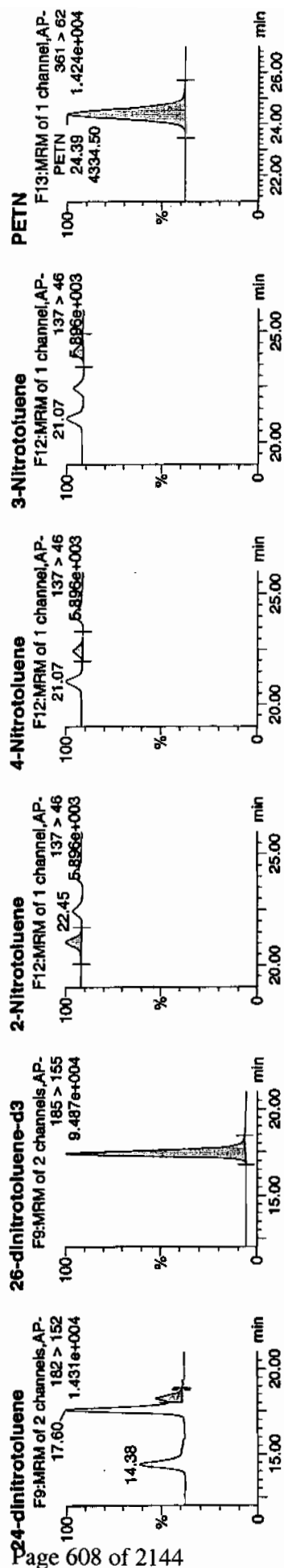
Vial: 1:1,C

MM  
3/25/10



MM  
03/25/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010



ID	Name	Trace	HT	Area	State	Abs Resp	Response	Flags	Mod Date	Mod Time	Inj Vol	% Rec	% Dev	SN
WVXX100323-08C1	HMx	176 > 102	5.19	3180.919	5863.745	3180.919	271.236	bb			49.1984	123.0	23.0	364.4
WVXX100323-08C1	RDX	176 > 102	7.57	1783.786	5863.745	1783.786	152.103	bb			45.9346	114.8	14.8	178.7
WVXX100323-08C1	135-Trinitrobenzene	213 > 183	10.18	2594.742	5863.745	2594.742	221.253	bb			46.8141	117.0	17.0	344.8
WVXX100323-08C1	13-Dinitrobenzene-d4	172 > 142	12.03	5863.745		5863.745	5863.745	bb			532.6540	106.5	6.5	291.7
WVXX100323-08C1	13-Dinitrobenzene	168 > 138	12.17	644.265	5863.745	644.265	54.936	bb			41.3694	103.4	3.4	82.9
WVXX100323-08C1	Tetryl	241 > 181	12.63	445.823	5863.745	445.823	38.015	bb			33.1481	82.9	-17.1	48.8
WVXX100323-08C1	Nitrobenzene	123 > 46	13.58	292.209	5863.745	292.209	24.917	bb			38.0317	95.1	-4.9	31.3
WVXX100323-08C1	4-Amino-26-dinitrotoluene	197 > 167	15.68	1136.421	35203.633	1136.421	16.141	MM	25-Mar-10 09:51:30		45.6758	114.2	14.2	85.2
WVXX100323-08C1	2-Amino-46-dinitrotoluene	197 > 180	16.58	1627.422	35203.633	1627.422	23.114	bb			42.2115	105.5	5.5	270.5
WVXX100323-08C1	246-Trinitrotoluene	227 > 210	15.38	1140.271	35203.633	1140.271	16.195	bb			39.4941	98.7	-1.3	204.8
WVXX100323-08C1	34-dinitrotoluene	182 > 152	14.38	1502.517	35203.633	1502.517	21.340	bb			20.1537	100.8	0.8	85.5
WVXX100323-08C1	26-dinitrotoluene	182 > 152	17.60	3334.314	35203.633	3334.314	47.358	MM	25-Mar-10 09:53:57		40.9309	102.3	2.3	230.9
WVXX100323-08C1	24-dinitrotoluene	182 > 152	18.25	773.021	35203.633	773.021	10.979	MM	25-Mar-10 09:55:05		39.5656	98.9	-1.1	51.6
WVXX100323-08C1	26-dinitrotoluene-d3	185 > 155	17.42	35203.633		35203.633	35203.633	bb			511.2263	102.2	2.2	1785.3
WVXX100323-08C1	2-Nitrotoluene	137 > 46	21.07	229.888	35203.633	229.888	3.265	bb			40.4884	101.2	1.2	13.8
WVXX100323-08C1	4-Nitrotoluene	137 > 46	22.45	135.355	35203.633	135.355	1.922	bb			49.3686	123.4	23.4	8.5
WVXX100323-08C1	3-Nitrotoluene	137 > 46	24.08	159.755	35203.633	159.755	2.269	bb			45.0012	112.5	12.5	8.2
WVXX100323-08C1	PETN	361 > 62	24.39	4334.500	35203.633	4334.500	61.563	bb			49.8734	124.7	24.7	2622.3

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 03/24/10  
 Time of Injection 1508  
 Standard Number WXX100323-08CRI  
 Data File EXP0323062a

HMX	123.0
RDX	114.8
135-TNB	117.0
13-DNB	103.4
Tetryl	82.9
Nitrobenzene	95.1
4A-26-DNT	114.2
2A-46-DNT	105.5
246-TNT	98.7
34-DNT(surr)	100.8
26-DNT	102.3
24-DNT	98.9
2-NT	101.2
4-NT	123.4
3-NT	112.5
PETN	124.7

*MT  
3/25/10*

Total 1718.4

Average ✓ 107.4

*Time 03/24/10*

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2124

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0323073a

Analysis Date: 24-MAR-10 20:32

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	614.756	102	
1,3-Dinitrobenzene-d4	500	522.463	104	
2,4,6-Trinitrotoluene	600	589.476	98	
2,4-Dinitrotoluene	600	592.8	99	
2,6-Dinitrotoluene	600	620.842	103	
2,6-Dinitrotoluene-d3	500	523.063	105	
2-Amino-4,6-dinitrotoluene	600	653.711	109	
3,4-Dinitrotoluene	300	331.414	110	
4-Amino-2,6-dinitrotoluene	600	584.736	97	
HMX	600	700.223	117	
Nitrobenzene	600	554.828	92	
PETN	600	616.441	103	
RDX	600	744.483	124	*
Tetryl	600	643.441	107	
m-Dinitrobenzene	600	609.77	102	
m-Nitrotoluene	600	564.619	94	
o-Nitrotoluene	600	556.422	93	
p-Nitrotoluene	600	604.392	101	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323073a

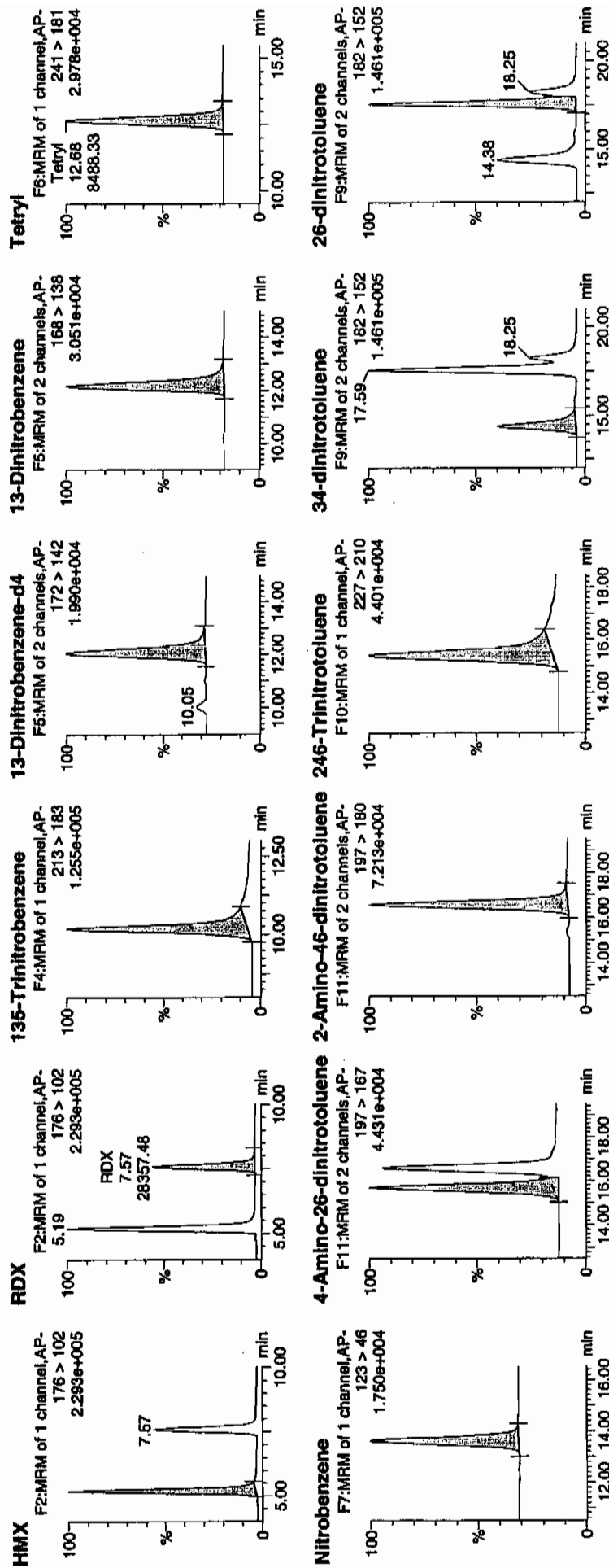
Date: 24-Mar-2010

Time: 20:32:44

ID: WXX100323-07CCV

Vial: 1:1,B

WXX  
3/25/10

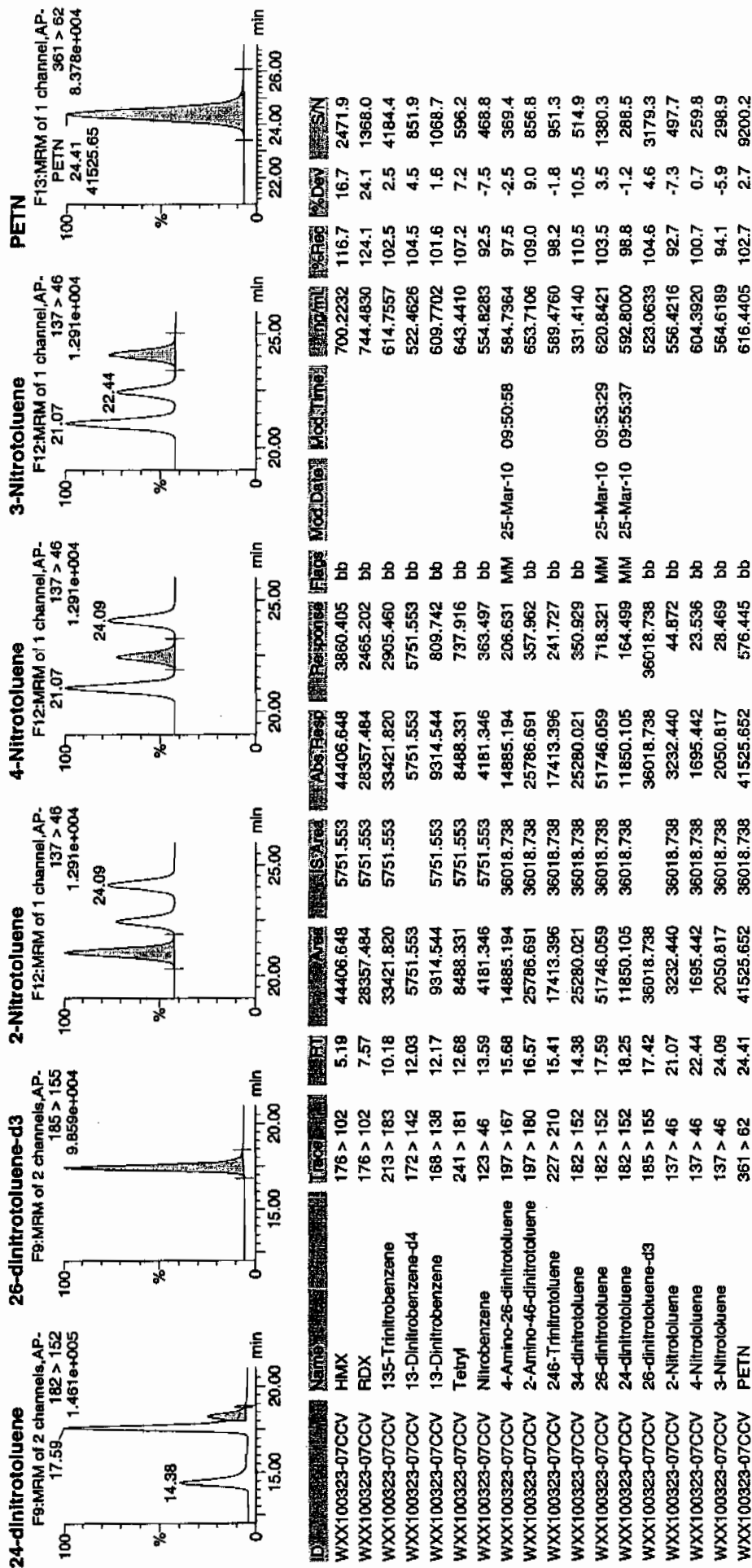


WXX  
03/30/10

# Quantify Sample Report

## GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 03/24/10  
 Time of Injection: 2032  
 Standard Number: WXX100323-07CCV  
 Data File: EXP0323073a

HMX	116.7
RDX	124.1
135-TNB	102.5
13-DNB	101.6
Tetryl	107.2
Nitrobenzene	92.5
4A-26-DNT	97.5
2A-46-DNT	109.0
246-TNT	98.2
34-DNT(surr)	110.5
26-DNT	103.5
24-DNT	98.8
2-NT	92.7
4-NT	100.7
3-NT	94.1
PETN	102.7

*MDP  
3/25/10*

Total 1652.3

*4 min 03/30/10*

Average 103.3

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%



**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2124

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXP0323075a

**Analysis Date:** 24-MAR-10 21:31

**LCMSMS ID:** 903

**Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	20	21.606	108	
4-Amino-2,6-dinitrotoluene	40	45.583	114	
HMX	40	48.458	121	
Nitrobenzene	40	40.356	101	
PETN	40	47.787	119	
RDX	40	37.909	95	
Tetryl	40	32.701	82	
m-Dinitrobenzene	40	43.028	108	
m-Nitrotoluene	40	39.31	98	
o-Nitrotoluene	40	43.28	108	
p-Nitrotoluene	40	46.096	115	
1,3,5-Trinitrobenzene	40	42.138	105	
1,3-Dinitrobenzene-d4	500	553.539	111	
2,4,6-Trinitrotoluene	40	46.316	116	
2,4-Dinitrotoluene	40	36.984	92	
2,6-Dinitrotoluene	40	39.831	100	
2,6-Dinitrotoluene-d3	500	506.439	101	
2-Amino-4,6-dinitrotoluene	40	48.191	120	

**Recovery Limits:**

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323075a

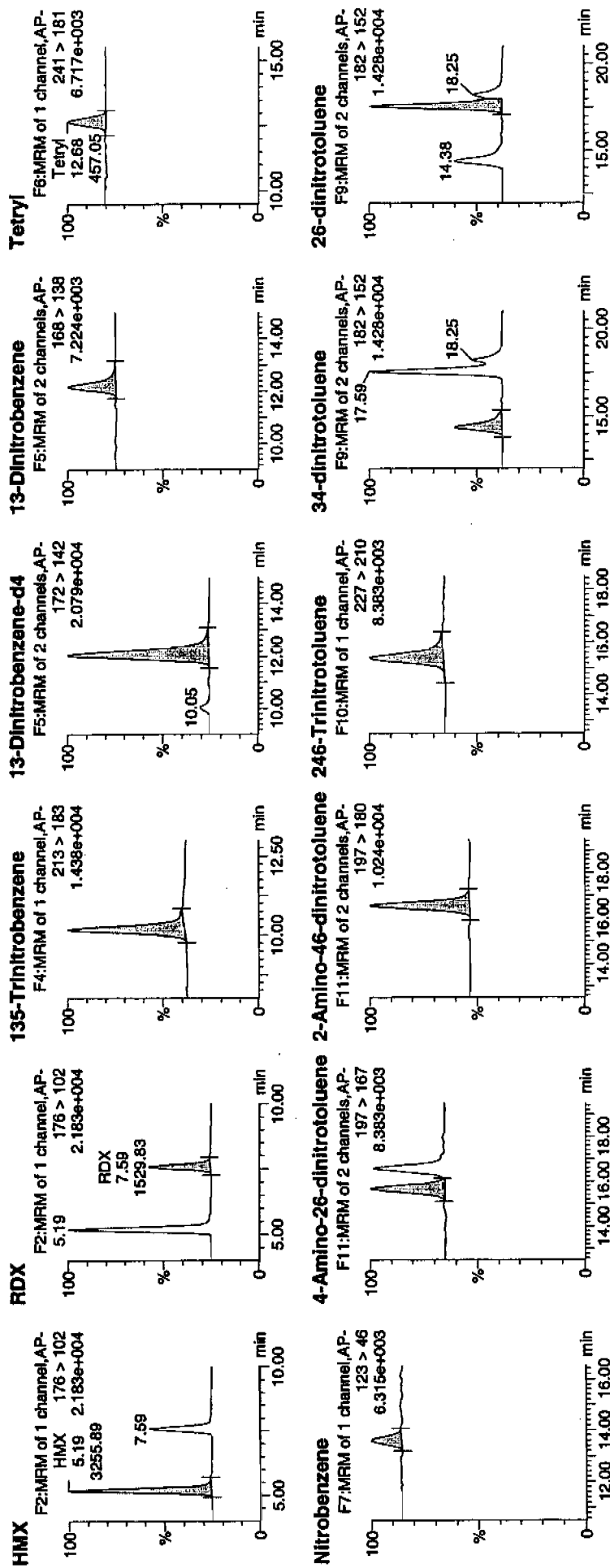
Date: 24-Mar-2010

Time: 21:31:49

ID: WXX100323-08CRI

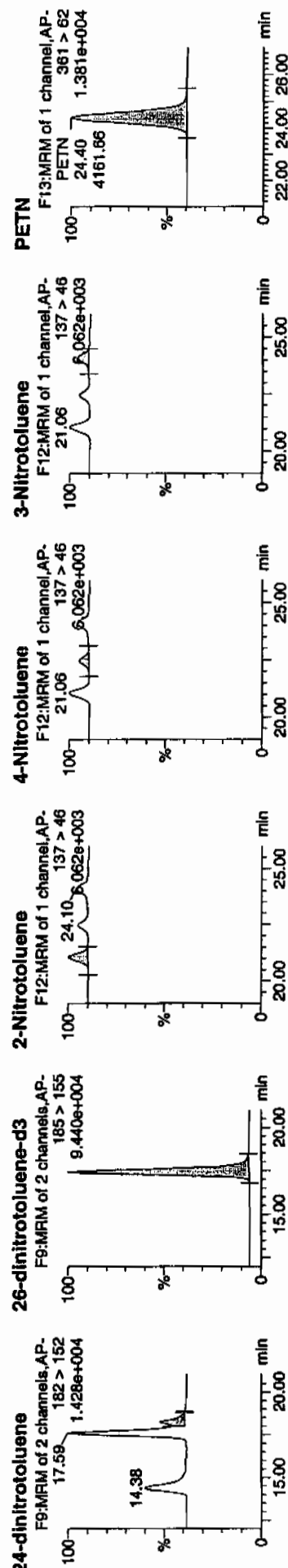
Vial: 1:1,C

MTT  
3/25/10



4/11/10 3/30/10

Dataset: C:\MASSLYN\New\_Exp.PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010



Name	Instr.	FI	Area	STW	Abs Resp	Response	Frag	Mod Date	Mod Time	Intg/MU	%Red	%Dev	S/N
HMX	176 > 102	5.19	3255.888	6093.655	3255.888	267.154	bb			48.4580	121.1	21.1	619.2
RDX	176 > 102	7.59	1529.832	6093.655	1529.832	125.527	bb			37.9086	94.8	-5.2	285.0
135-Trinitrobenzene	213 > 183	10.18	2427.149	6093.655	2427.149	199.154	bb			42.1382	105.3	5.3	186.2
13-Dinitrobenzene-d4	172 > 142	12.03	6093.655		6093.655	6093.655	bb			553.5387	110.7	10.7	238.6
13-Dinitrobenzene	168 > 138	12.17	696.367	6093.655	696.367	57.139	bb			43.0279	107.6	7.6	54.5
Tetryl	241 > 181	12.68	457.050	6093.655	457.050	37.502	bb			32.7007	81.8	-18.2	41.5
Nitrobenzene	123 > 46	13.59	322.227	6093.655	322.227	26.440	bb			40.3563	100.9	0.9	30.4
4-Amino-26-dinitrotoluene	197 > 167	15.68	1123.497	34874.004	1123.497	16.108	MM	25-Mar-10	09:50:49	45.5831	114.0	14.0	111.1
2-Amino-46-dinitrotoluene	197 > 180	16.57	1840.540	34874.004	1840.540	26.388	bb			48.1905	120.5	20.5	286.6
246-Trinitrotoluene	227 > 210	15.41	1324.708	34874.004	1324.708	18.993	bb			46.3158	115.8	15.8	106.4
34-dinitrotoluene	182 > 152	14.38	1595.741	34874.004	1595.741	22.879	bb			21.6064	108.0	8.0	62.1
26-dinitrotoluene	182 > 152	17.59	3214.292	34874.004	3214.292	46.084	MM	25-Mar-10	09:53:17	39.8305	99.6	-0.4	174.4
24-dinitrotoluene	182 > 152	18.25	715.812	34874.004	715.812	10.263	MM	25-Mar-10	09:55:44	36.9838	92.5	-7.5	36.7
26-dinitrotoluene-d3	185 > 155	17.42	34874.004		34874.004	34874.004	bb			506.4395	101.3	1.3	2587.5
2-Nitrotoluene	137 > 46	21.06	243.438	34874.004	243.438	3.490	bb			43.2801	108.2	8.2	54.2
4-Nitrotoluene	137 > 46	22.46	125.199	34874.004	125.199	1.795	bb			46.0960	115.2	15.2	27.5
3-Nitrotoluene	137 > 46	24.10	138.245	34874.004	138.245	1.982	bb			39.3101	98.3	-1.7	29.3
PETN	361 > 62	24.40	4161.663	34874.004	4161.663	59.667	bb			47.7870	119.5	19.5	787.8

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 03/24/10  
 Time of Injection 2131  
 Standard Number WXX100323-08CRI  
 Data File EXP0323075a

HMX	121.1
RDX	94.8
135-TNB	105.3
13-DNB	107.6
Tetryl	81.8
Nitrobenzene	100.9
4A-26-DNT	114.0
2A-46-DNT	120.5
246-TNT	115.8
34-DNT(surr)	108.0
26-DNT	99.6
24-DNT	92.5
2-NT	108.2
4-NT	115.2
3-NT	98.3
PETN	119.5

*not  
3/25/10*

Total 1703.1

Average 106.4

*Hmm 0.3 230/10*

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2124

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0323086a

Analysis Date: 25-MAR-10 02:56

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene-d3	500	504.256	101	
2-Amino-4,6-dinitrotoluene	600	682.194	114	
3,4-Dinitrotoluene	300	313.846	105	
4-Amino-2,6-dinitrotoluene	600	664.25	111	
HMX	600	696.785	116	
Nitrobenzene	600	570.28	95	
PETN	600	640.462	107	
RDX	600	745.79	124	*
Tetryl	600	637.648	106	
m-Dinitrobenzene	600	646.266	108	
m-Nitrotoluene	600	590.436	98	
o-Nitrotoluene	600	610.011	102	
p-Nitrotoluene	600	645.81	108	
1,3,5-Trinitrobenzene	600	627.667	105	
1,3-Dinitrobenzene-d4	500	504.526	101	
2,4,6-Trinitrotoluene	600	679.029	113	
2,4-Dinitrotoluene	600	620.586	103	
2,6-Dinitrotoluene	600	624.642	104	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323086a

Date: 25-Mar-2010

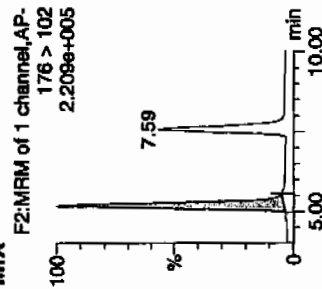
Time: 02:56:28

ID: WXX100323-07CCV

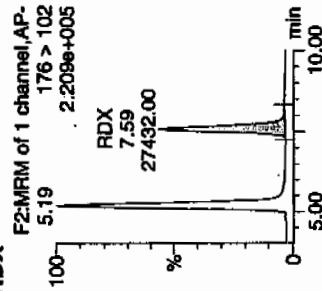
Vial: 1:1,B

MM  
3/25/10

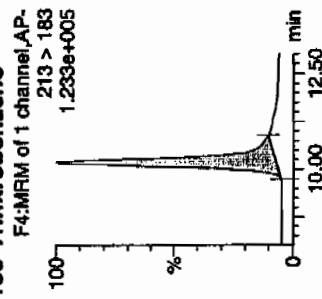
# HMX



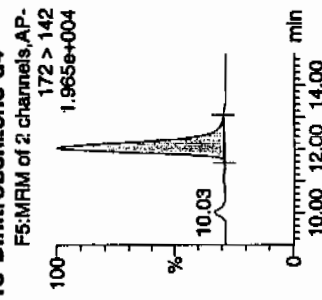
# RDX



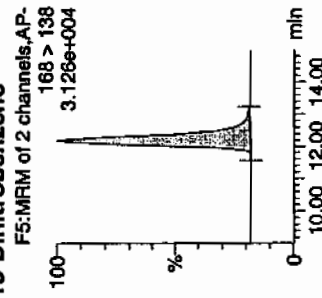
# 135-Trinitrobenzene



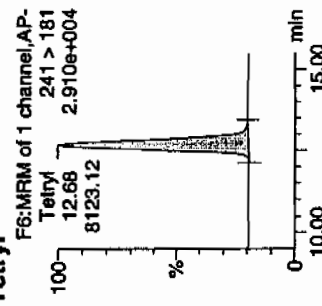
# 13-Dinitrobenzene-d4



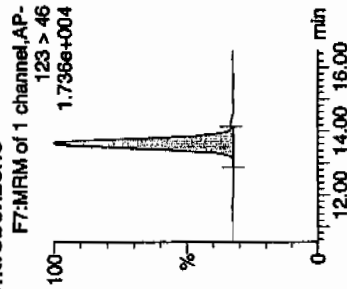
# 13-Dinitrobenzene



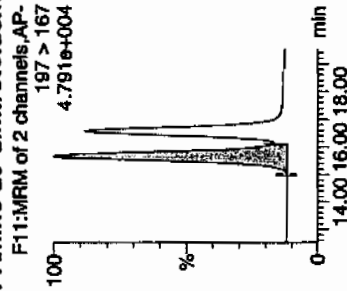
# Tetryl



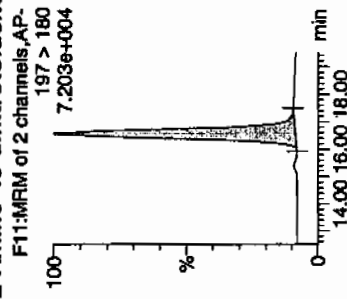
# Nitrobenzene



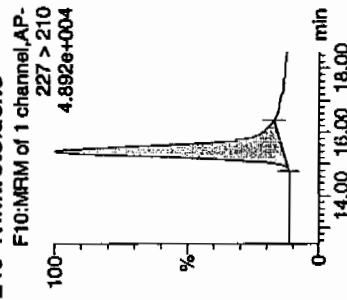
# 4-Amino-26-dinitrotoluene



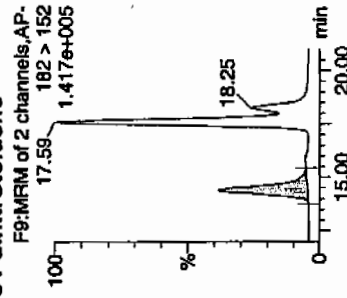
# 2-Amino-46-dinitrotoluene



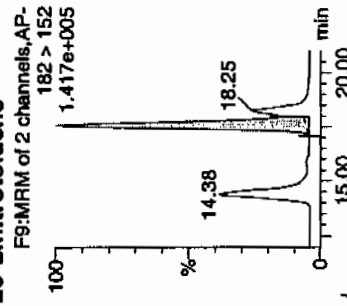
# 246-Trinitrotoluene



# 34-dinitrotoluene

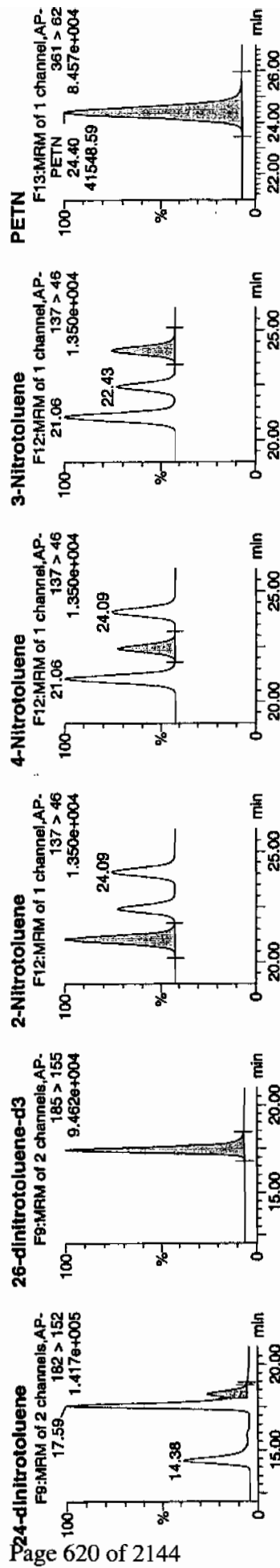


# 26-dinitrotoluene



MM 03/30/10

Dataset: C:\MASSLYNX\New\_Exp\_PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010



ID	Name	RT	Area	IS Area	Abundance	Response	Flags	Mod Date	Mod Time	Mod User	Area	%Area	SN
WXX100323-07CCV	HMX	176 > 102	5.19	42671.582	5554.096	3841.452	bb				696.7854	116.1	16.1
WXX100323-07CCV	FDX	176 > 102	7.59	27431.998	5554.096	2469.529	bb				745.7895	124.3	24.3
WXX100323-07CCV	135-Trinitrobenzene	213 > 183	10.18	32952.270	5554.096	2966.484	bb				627.6674	104.6	4.6
WXX100323-07CCV	13-Dinitrobenzene-d4	172 > 142	12.04	5554.096	5554.096	5554.096	bb				504.5259	100.9	0.9
WXX100323-07CCV	13-Dinitrobenzene	168 > 138	12.17	9533.115	5554.096	858.206	bb				646.2658	107.7	7.7
WXX100323-07CCV	Tetryl	241 > 181	12.68	8123.120	5554.096	731.273	bb				637.6461	106.3	6.3
WXX100323-07CCV	Nitrobenzene	123 > 46	13.62	4150.247	5554.096	373.620	bd				570.2800	95.0	-5.0
WXX100323-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.67	16301.315	34723.652	234.729	MM	25-Mar-10	09:50:26		664.2497	110.7	10.7
WXX100323-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.57	25942.693	34723.652	25942.693	bb				682.1943	113.7	13.7
WXX100323-07CCV	246-Trinitrotoluene	227 > 210	15.41	19337.607	34723.652	19337.607	bb				679.0292	113.2	13.2
WXX100323-07CCV	34-dinitrotoluene	182 > 152	14.38	23079.199	34723.652	23079.199	bb				313.8464	104.6	4.6
WXX100323-07CCV	26-dinitrotoluene	182 > 152	17.59	50180.801	34723.652	50180.801	MM	25-Mar-10	09:52:47		624.6419	104.1	4.1
WXX100323-07CCV	24-dinitrotoluene	182 > 152	18.25	11959.500	34723.652	172.210	MM	25-Mar-10	09:56:15		620.5862	103.4	3.4
WXX100323-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	34723.652	34723.652	34723.652	bb				504.2561	100.9	0.9
WXX100323-07CCV	2-Nitrotoluene	137 > 46	21.06	3416.337	34723.652	49.193	bb				610.0105	101.7	1.7
WXX100323-07CCV	4-Nitrotoluene	137 > 46	22.43	1746.488	34723.652	25.148	bb				645.8096	107.6	7.6
WXX100323-07CCV	3-Nitrotoluene	137 > 46	24.09	2067.481	34723.652	29.771	bb				590.4364	98.4	-1.6
WXX100323-07CCV	PETN	361 > 62	24.40	41548.586	34723.652	598.275	bb				640.4618	106.7	6.7

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 03/25/10  
 Time of Injection: 0256  
 Standard Number: WXX100323-07CCV  
 Data File: EXP0323086a

HMX	116.1	✓
RDX	124.3	✓
135-TNB	104.6	✓
13-DNB	107.7	
Tetryl	106.3	
Nitrobenzene	95.0	
4A-26-DNT	110.7	
2A-46-DNT	113.7	
246-TNT	113.2	
34-DNT(surr)	104.6	
26-DNT	104.1	
24-DNT	103.4	
2-NT	101.7	
4-NT	107.6	
3-NT	98.4	
PETN	106.7	

*MAP  
3/25/10*

Total 1718.1

Average 107.4

*Amic 03/30/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%



**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2124

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0323088a

Analysis Date: 25-MAR-10 03:55

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	46.173	115	
1,3-Dinitrobenzene-d4	500	518.214	104	
2,4,6-Trinitrotoluene	40	34.381	86	
2,4-Dinitrotoluene	40	43.369	108	
2,6-Dinitrotoluene	40	40.086	100	
2,6-Dinitrotoluene-d3	500	516.231	103	
2-Amino-4,6-dinitrotoluene	40	41.014	103	
3,4-Dinitrotoluene	20	22.502	113	
4-Amino-2,6-dinitrotoluene	40	35.545	89	
HMX	40	48.713	122	
Nitrobenzene	40	47.555	119	
PETN	40	45.248	113	
RDX	40	45.379	113	
Tetryl	40	35.304	88	
m-Dinitrobenzene	40	42.2	105	
m-Nitrotoluene	40	42.198	105	
o-Nitrotoluene	40	41.084	103	
p-Nitrotoluene	40	50.525	126	

**Recovery Limits:**

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323088a

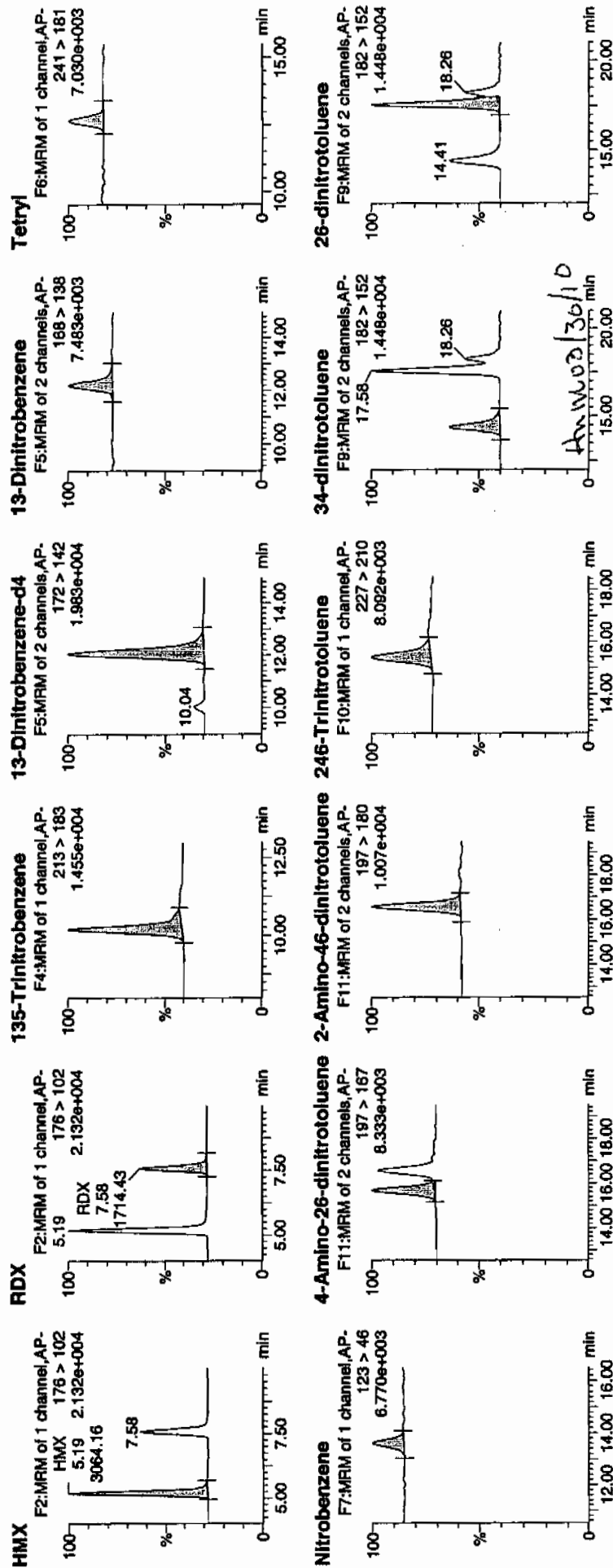
Date: 25-Mar-2010

Time: 03:55:30

ID: WXX100323-08CRI

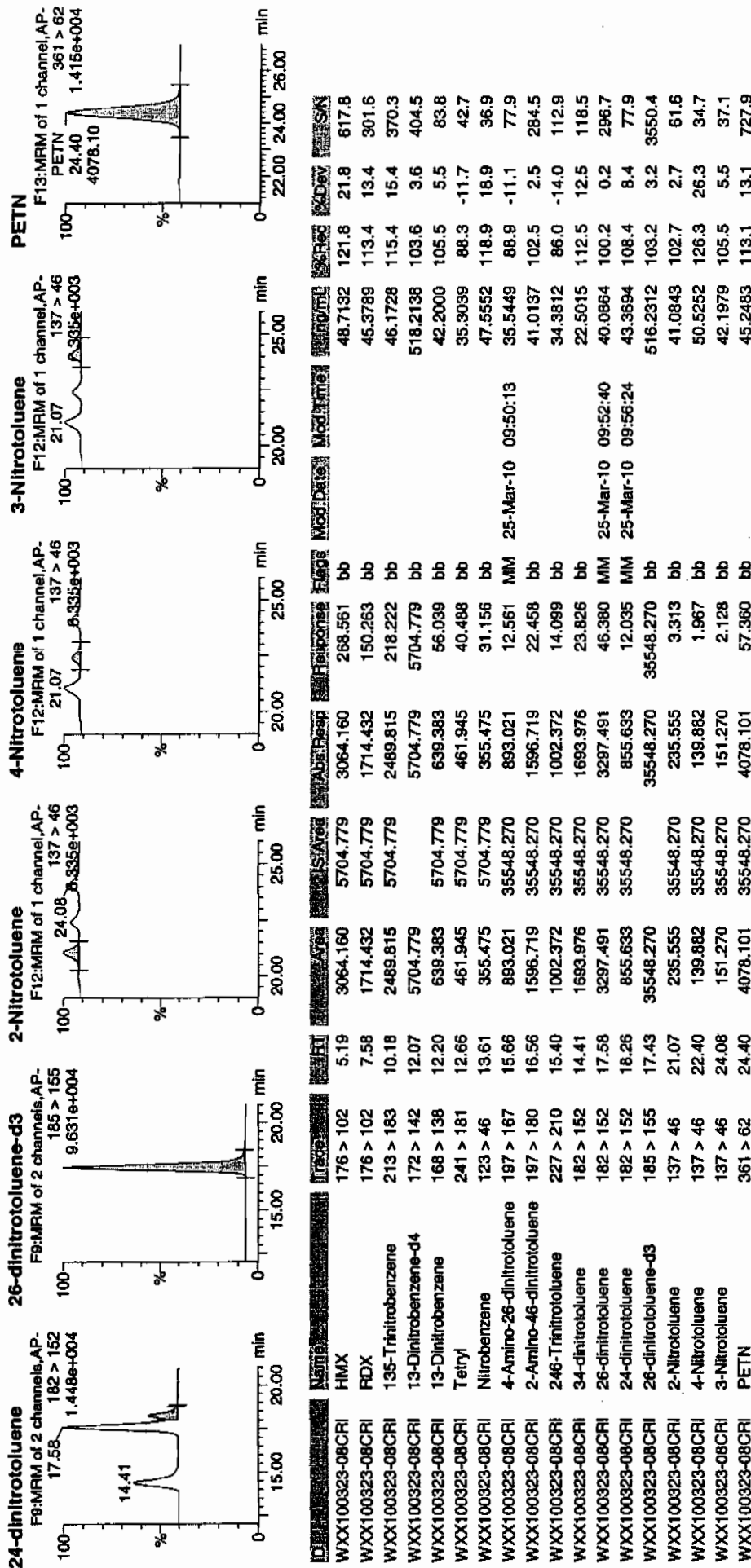
Vial: 1:1,C

3/26/10



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

Dataset: C:\MASSLYNX\New\_Exp\PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 03/25/10  
 Time of Injection 0355  
 Standard Number WXX100323-08CRI  
 Data File EXP0323088a

HMX	121.8
RDX	113.4
135-TNB	115.4
13-DNB	105.5
Tetryl	88.3
Nitrobenzene	118.9
4A-26-DNT	88.9
2A-46-DNT	102.5
246-TNT	86.0
34-DNT(surr)	112.5
26-DNT	100.2
24-DNT	108.4
2-NT	102.7
4-NT	126.3
3-NT	105.5
PETN	113.1

*WAF  
3/25/10*

Total 1709.4

*WAF 03/25/10*

Average 106.8

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2124

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03160013.wiff

Analysis Date: 16-MAR-10 11:26

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	81.8	82	
2,6-Diamino-4-nitrotoluene	100	87.6	88	
3,4-Dinitrotoluene	50	46.1	92	
3,5-Dinitroaniline	100	92.4	92	
TATB	100	98.9	99	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

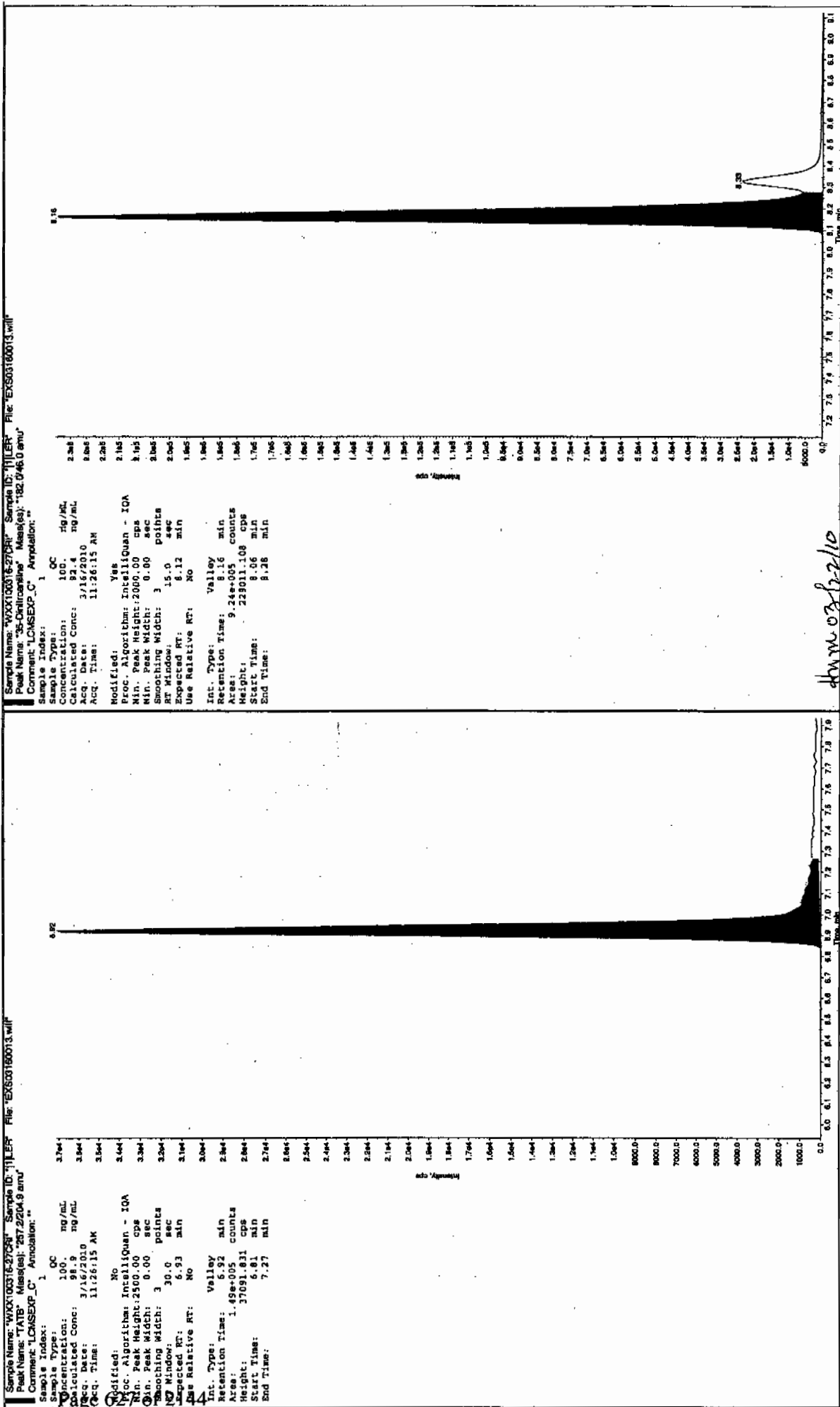
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

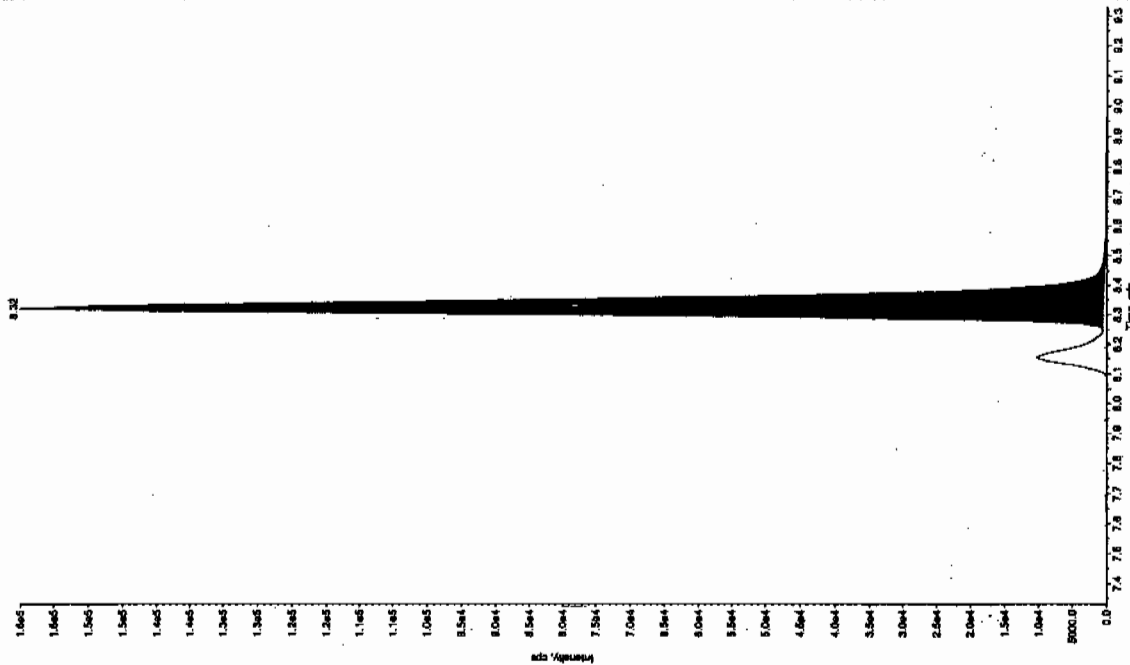
Sam 3/10/10



dmw 03-12-10

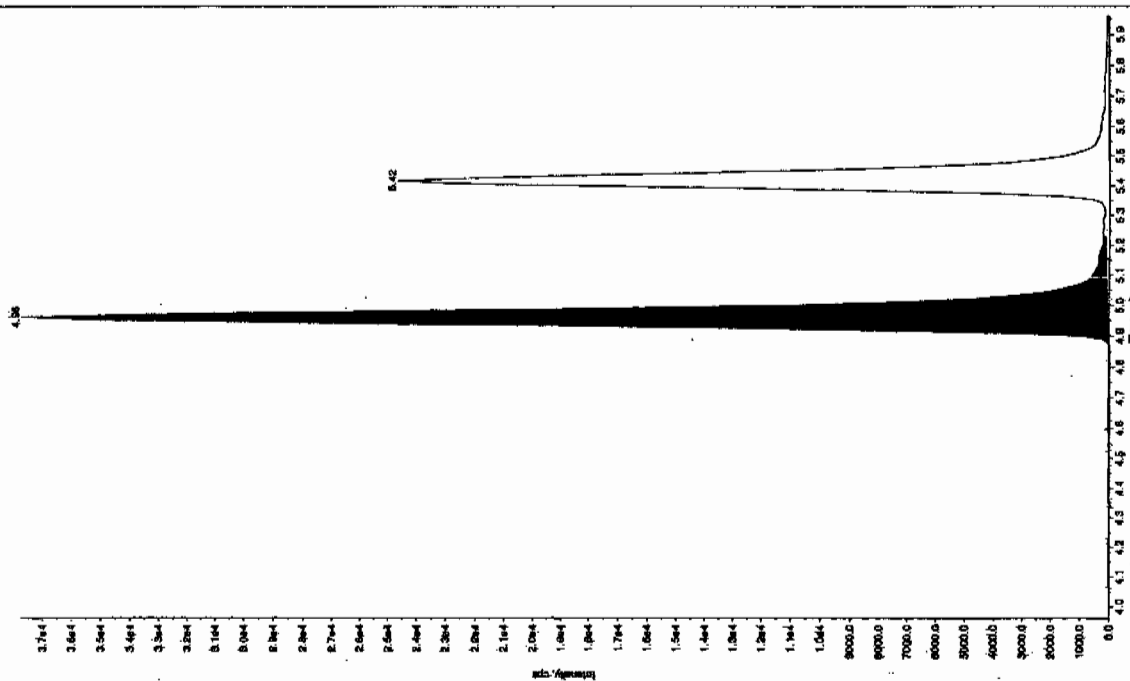
Sample Name: "WXX100316-27C1" Sample ID: "111ER" File: "EX503160013.wif"  
Peak Name: "34-Dihydro-4-iripakulene" Mass(es): "182.1715.9 amu"  
Comment: "LCMSXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: OC  
Concentration: 50.0 ng/mL  
Calculated Conc: 3.16/20.0  
Acq. Date: 3/16/2010  
Acq. Time: 11:26:15 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 1460.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 15.0 sec  
Expected RT: 8.33 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 8.32 min  
Area: 5.92e+005 counts  
Height: 159719.818 cps  
Start Time: 8.25 min  
End Time: 8.39 min



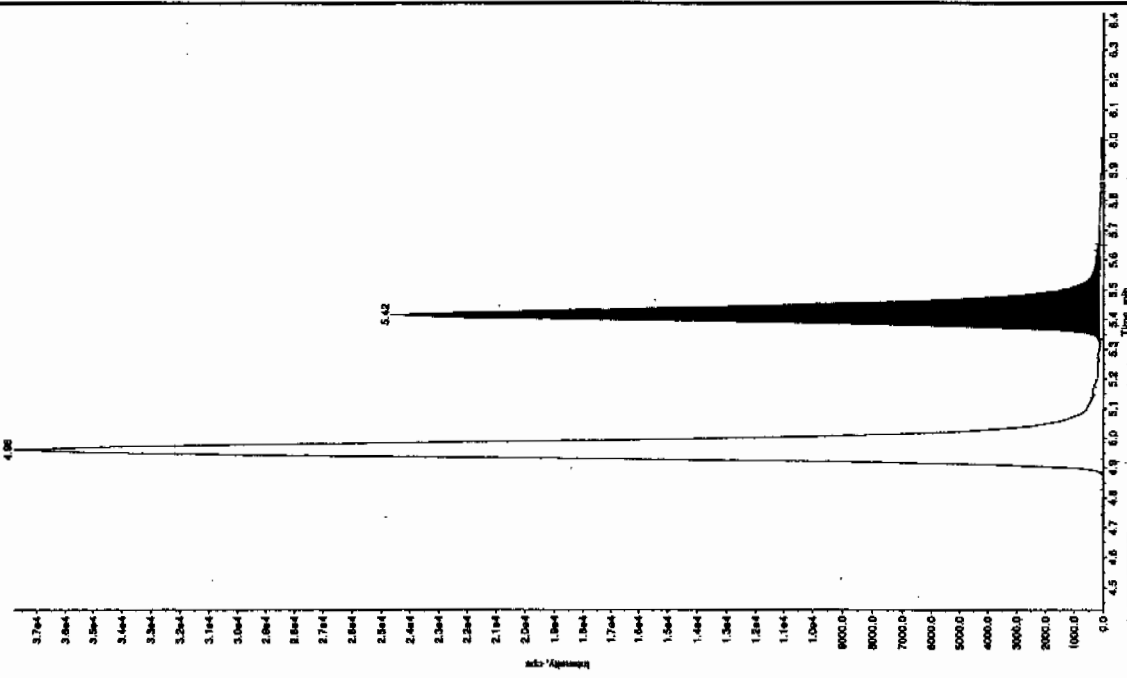
Sample Name: "WXX100316-27C1" Sample ID: "111ER" File: "EX503160013.wif"  
Peak Name: "28-Diamino-4-iripakulene" Mass(es): "186.0465.0 amu"  
Comment: "LCMSXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: OC  
Concentration: 100 ng/mL  
Calculated Conc: 3.16/20.0  
Acq. Date: 3/16/2010  
Acq. Time: 11:26:15 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 450.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 4.96 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 4.95 min  
Area: 1.52e+005 counts  
Height: 37749.512 cps  
Start Time: 4.84 min  
End Time: 5.23 min



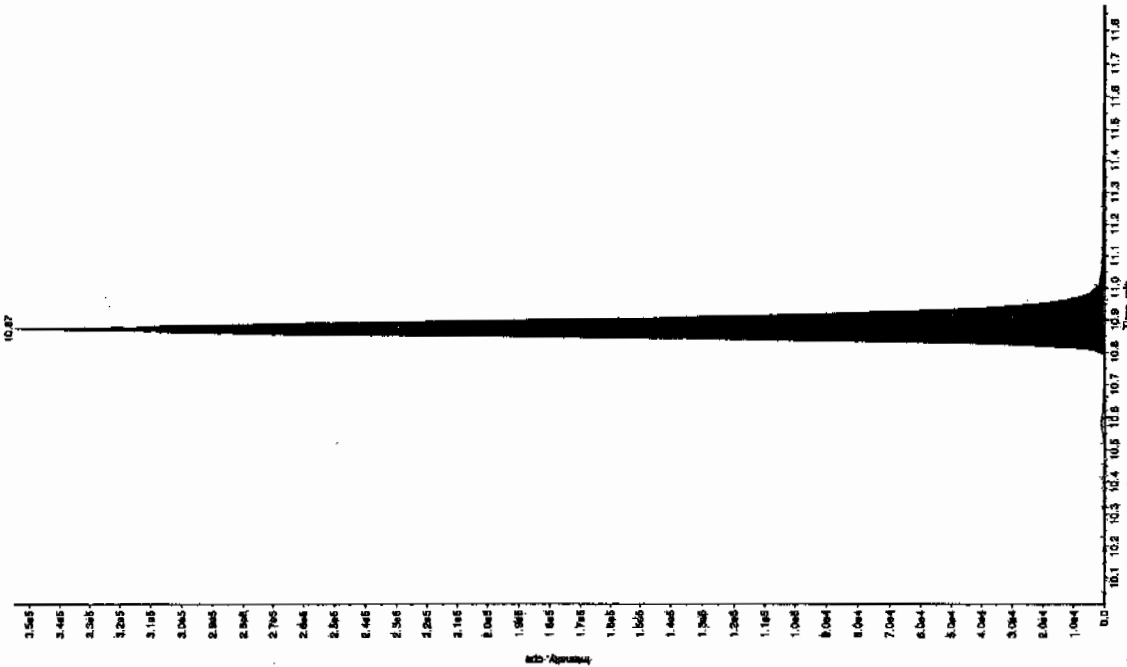
Sample Name: "WXX100318-27C4" Sample ID: "111ER" File: "EX503160013.wif"  
 Peak Name: "24-Diamino-6-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCMS-EXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 81.8 ng/mL  
 Acq. Date: 3/15/2010  
 Acq. Time: 11:26:15 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.43 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.42 min  
 Area: 9.56e+004 counts  
 Height: 24547.277 cps  
 Start Time: 5.31 min  
 End Time: 5.68 min



Sample Name: "WXX100318-27C4" Sample ID: "111ER" File: "EX503160013.wif"  
 Peak Name: "tris(2-cresyl) phosphate" Mass(es): "369.191.0 amu"  
 Comment: "LCMS-EXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 102.0 ng/mL  
 Acq. Date: 3/15/2010  
 Acq. Time: 11:26:15 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.9 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.9 min  
 Area: 1.37e+006 counts  
 Height: 356018.401 cps  
 Start Time: 10.5 min  
 End Time: 11.3 min





## Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLCGEL Job No (SDG): 10-2124Lab Code: GELGEL Sample ID: WXXCCVGEL Data File EXS03160024.wiffAnalysis Date: 16-MAR-10 14:18LCMSMS ID: 1358Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	446	89	
2,6-Diamino-4-nitrotoluene	500	441	88	
3,4-Dinitrotoluene	250	221	88	
3,5-Dinitroaniline	500	503	101	
TATB	500	499	100	
tris(o-cresyl) phosphate	500	487	97	

## Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Before Jan 21/8/10

Sample Name: "WXX100316-28CCV" Sample ID: "111ER" File: "EXS03180024.wif"

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

Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500 ng/mL  
 Calculated Conc: 3/18/2010  
 Acq. Date: 2/18/2010  
 Acq. Time: 2:18:55 PM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 2500.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

NS Window: 30.0 sec

Expected RT: 6.93 min

Use Relative RT: No

Int. Type: Valley

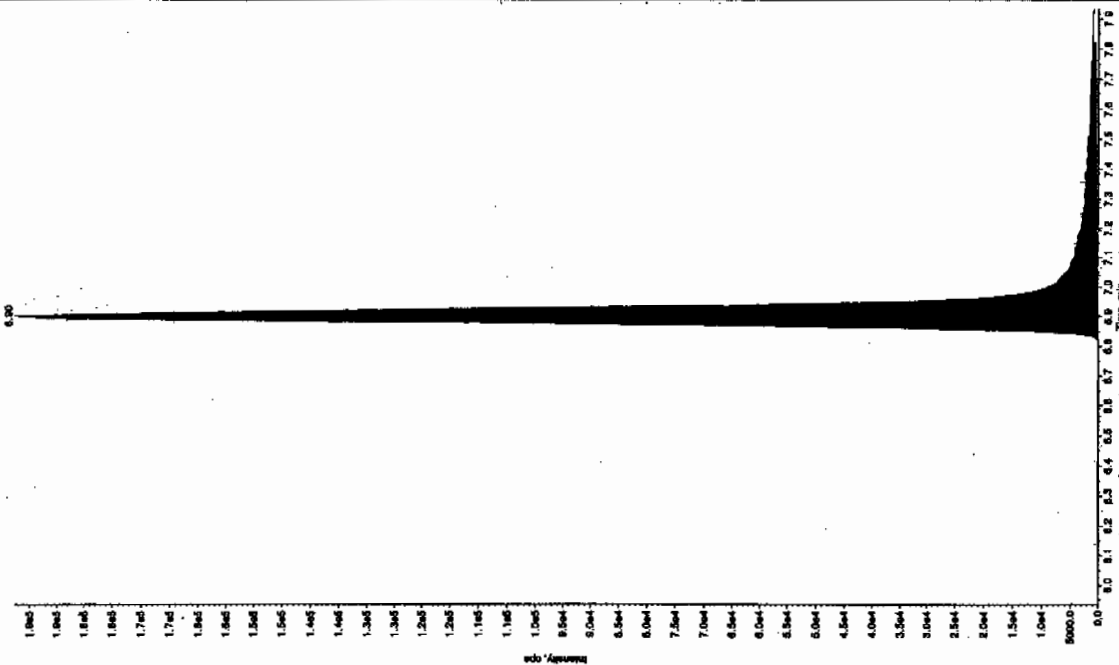
Retention Time: 6.90 min

Area: 8.42e+005 counts

Height: 192587.706 cps

Start Time: 6.80 min

End Time: 7.02 min



Sample Name: "WXX100316-28CCV" Sample ID: "111ER" File: "EXS03180024.wif"

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

Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500 ng/mL  
 Calculated Conc: 3/18/2010  
 Acq. Date: 2/18/2010  
 Acq. Time: 2:18:55 PM

Modified: Yes

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 2000.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

NS Window: 15.0 sec

Expected RT: 8.09 min

Use Relative RT: No

Int. Type: Valley

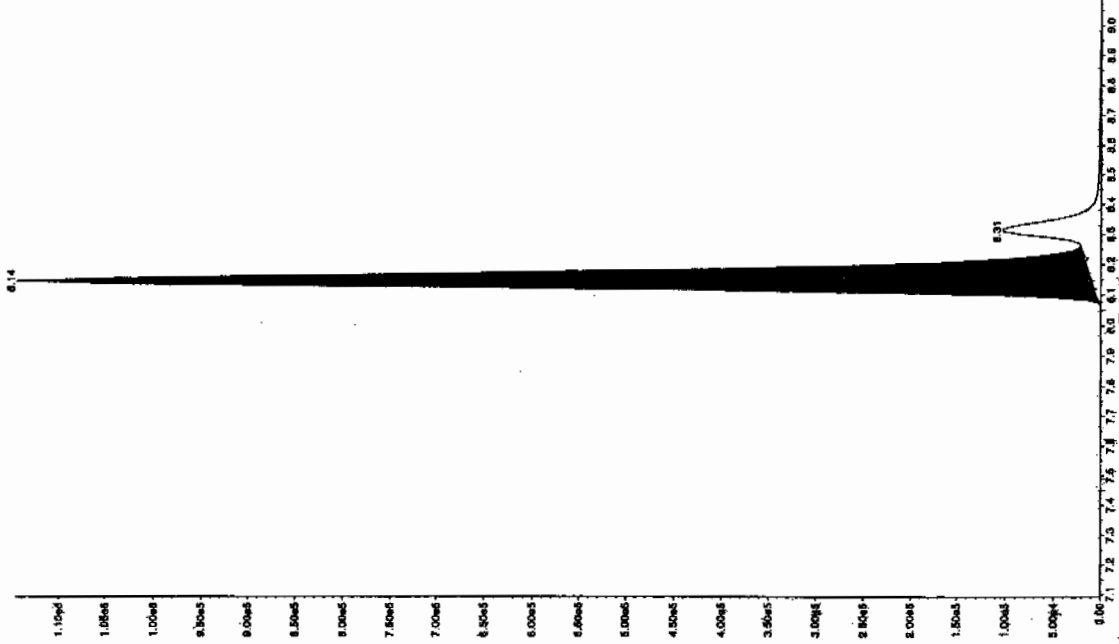
Retention Time: 8.14 min

Area: 4.32e+005 counts

Height: 1136871.021 cps

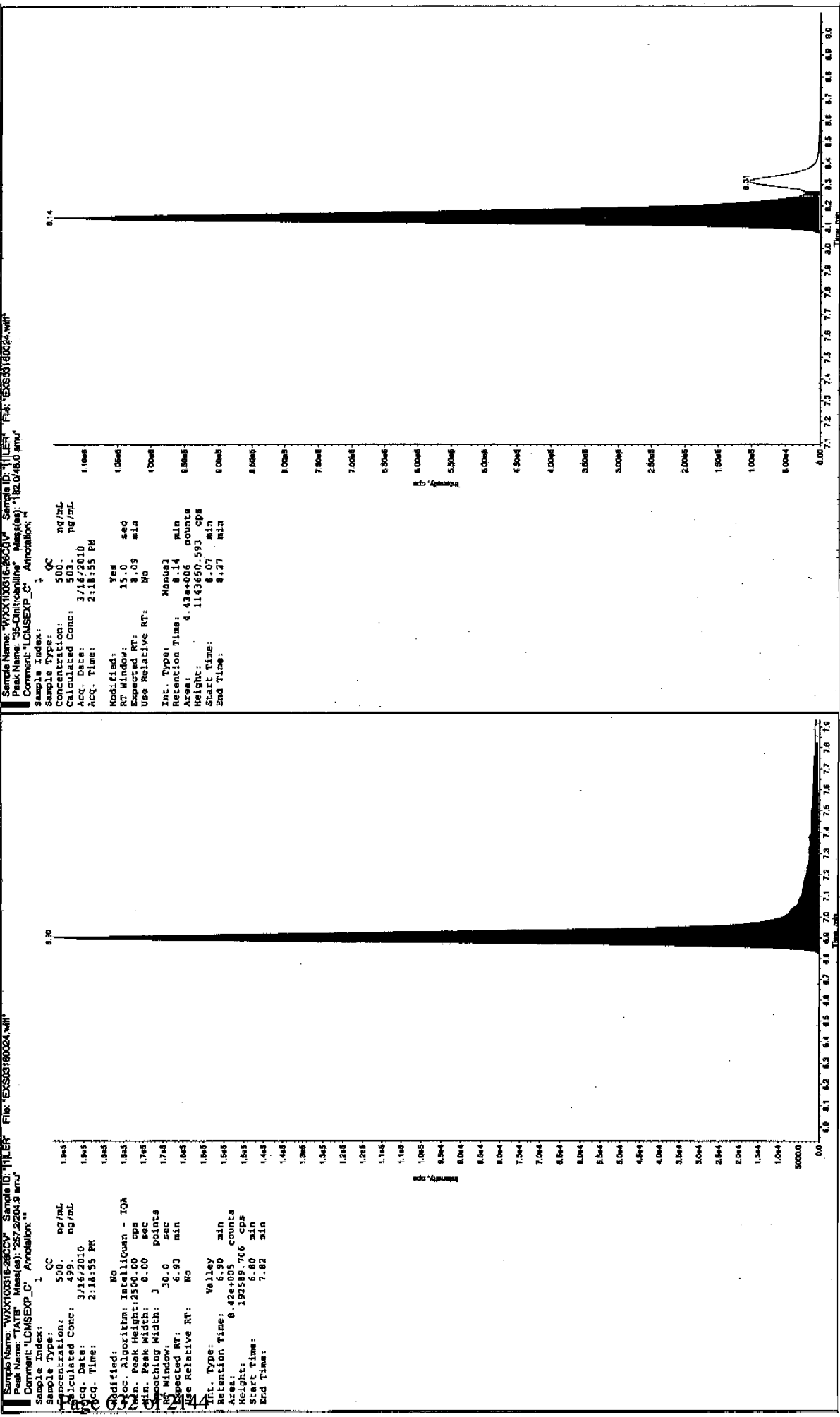
Start Time: 8.07 min

End Time: 8.27 min



Amu 03/12/10

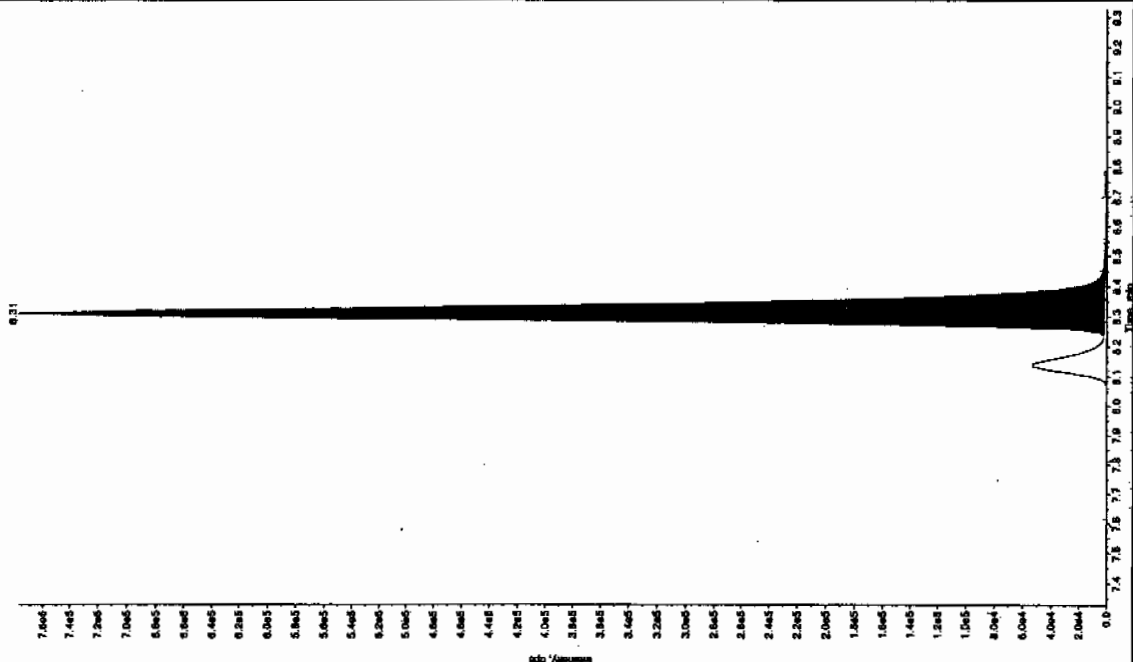
after Jan 3/18/10



Sample Name: "WXX100316-2603" Sample ID: "111.EF" File: "EXS0316024.w" Peak Name: "34-Chlorobenzene" Mass(es): "182.0181.9 amu" Comment: "LONSEP\_C" Annotation: "

Sample Index: 1 QC  
Sample Type: 230  
Concentration: 231.00 ng/mL  
Calculated Conc: 231.00 ng/mL  
Acq. Date: 3/16/2010  
Acq. Time: 2:18:55 PM

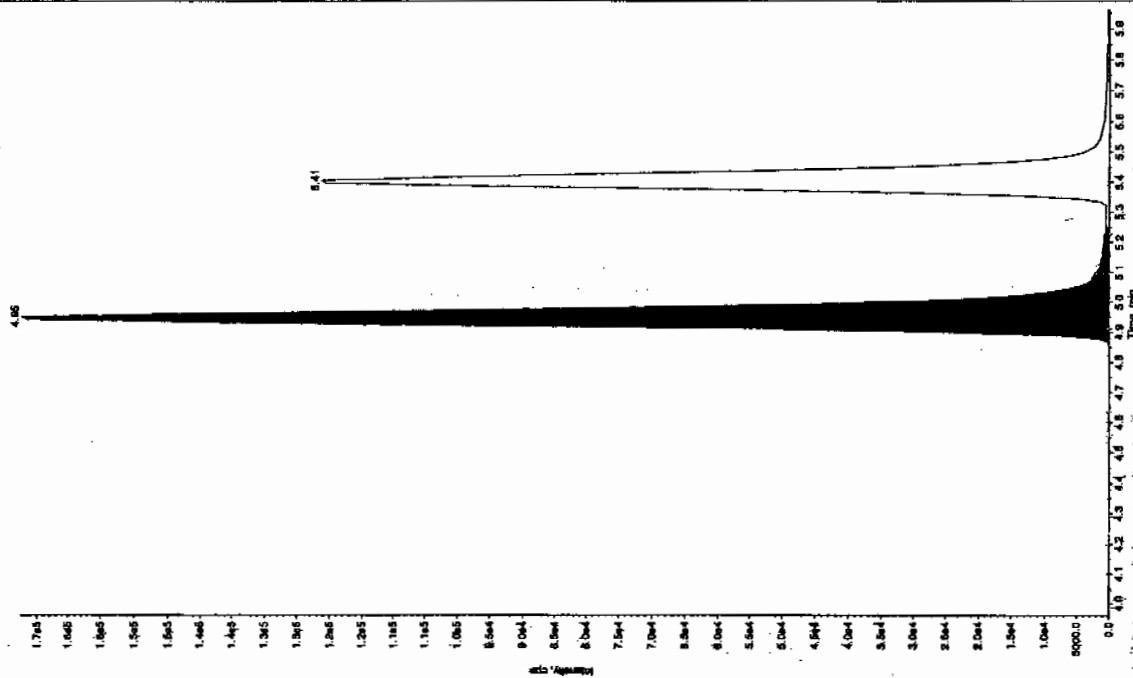
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 1460.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 15.0 sec  
Expected RT: 8.33 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 8.33 min  
Area: 2.81e+021 counts  
Height: 776187.948 cps  
Start Time: 8.24 min  
End Time: 8.60 min



Sample Name: "WXX100316-2603" Sample ID: "111.EF" File: "EXS0316024.w" Peak Name: "26-Diethyl-4-nitrobenzene" Mass(es): "168.0463.0 amu" Comment: "LONSEP\_C" Annotation: "

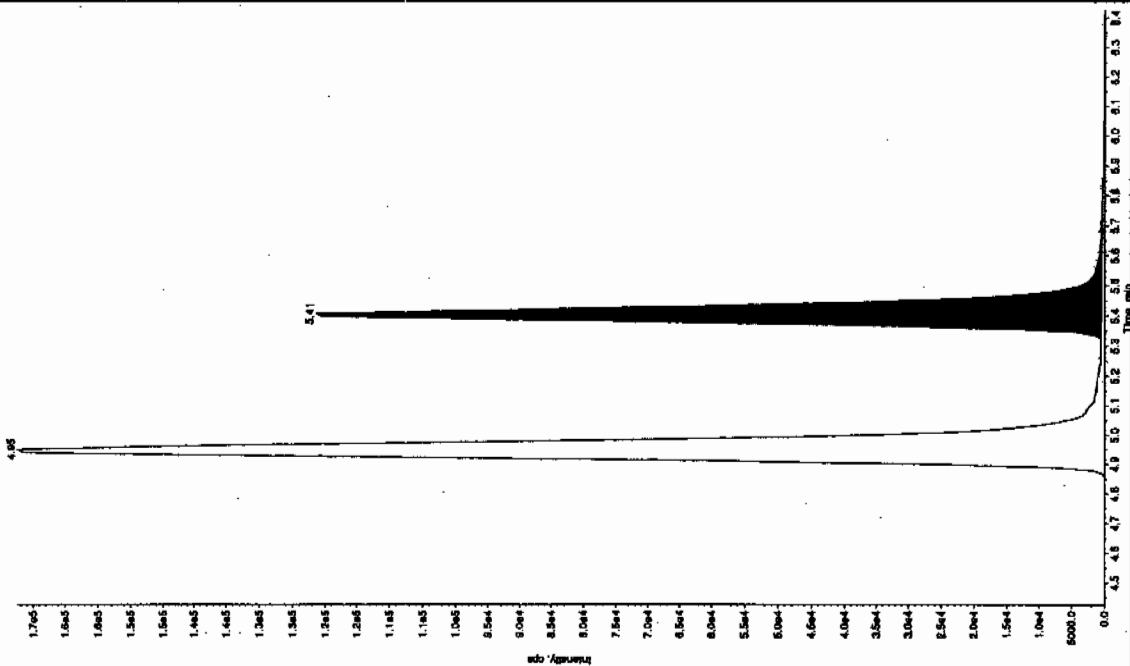
Sample Index: 1 QC  
Sample Type: 500  
Concentration: 441.00 ng/mL  
Calculated Conc: 441.00 ng/mL  
Acq. Date: 3/16/2010  
Acq. Time: 2:18:58 PM

Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 450.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 4.96 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 4.96 min  
Area: 7.16e+025 counts  
Height: 167827.060 cps  
Start Time: 4.83 min  
End Time: 5.25 min



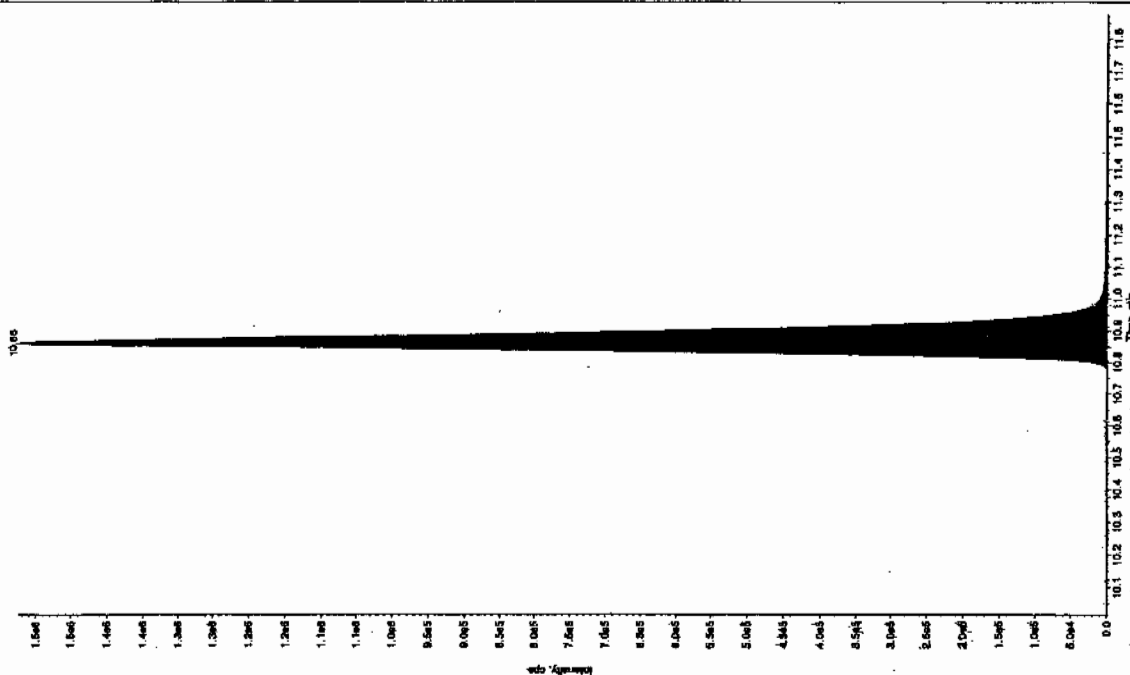
Sample Name: "WXX100316-28CCV" Sample ID: "111ER" File: "EX503160024.wit"  
Peak Name: "24-Olethio-5-nitrothiophene" Mass(es): "166.046.0 amu"  
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: QC  
Concentration: 500 ng/mL  
Calculated Conc: 446 ng/mL  
Acq. Date: 3/16/2010  
Acq. Time: 2:18:55 PM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 350.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 5.43 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 5.43 min  
Height: 4,904,005 counts  
Area: 120945.355 cps  
Start Time: 5.31 min  
End Time: 5.75 min



Sample Name: "WXX100316-28CCV" Sample ID: "111ER" File: "EX503160024.wit"  
Peak Name: "tris-(o-cresyl) phosphite" Mass(es): "389.181.0 amu"  
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: QC  
Concentration: 500 ng/mL  
Calculated Conc: 487 ng/mL  
Acq. Date: 3/16/2010  
Acq. Time: 2:18:55 PM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 8000.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 10.9 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 10.9 min  
Height: 6,044,000 counts  
Area: 1535121.569 cps  
Start Time: 10.8 min  
End Time: 11.2 min



**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2124

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXS03160026.wiff

**Analysis Date:** 16-MAR-10 14:50

**LCMSMS ID:** 1358

**Column ID:** JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	87.3	87	
2,6-Diamino-4-nitrotoluene	100	83.1	83	
3,4-Dinitrotoluene	50	46.2	92	
3,5-Dinitroaniline	100	89.4	89	
TATB	100	100	100	
tris(o-cresyl) phosphate	100	96.9	97	

**Recovery Limits:**

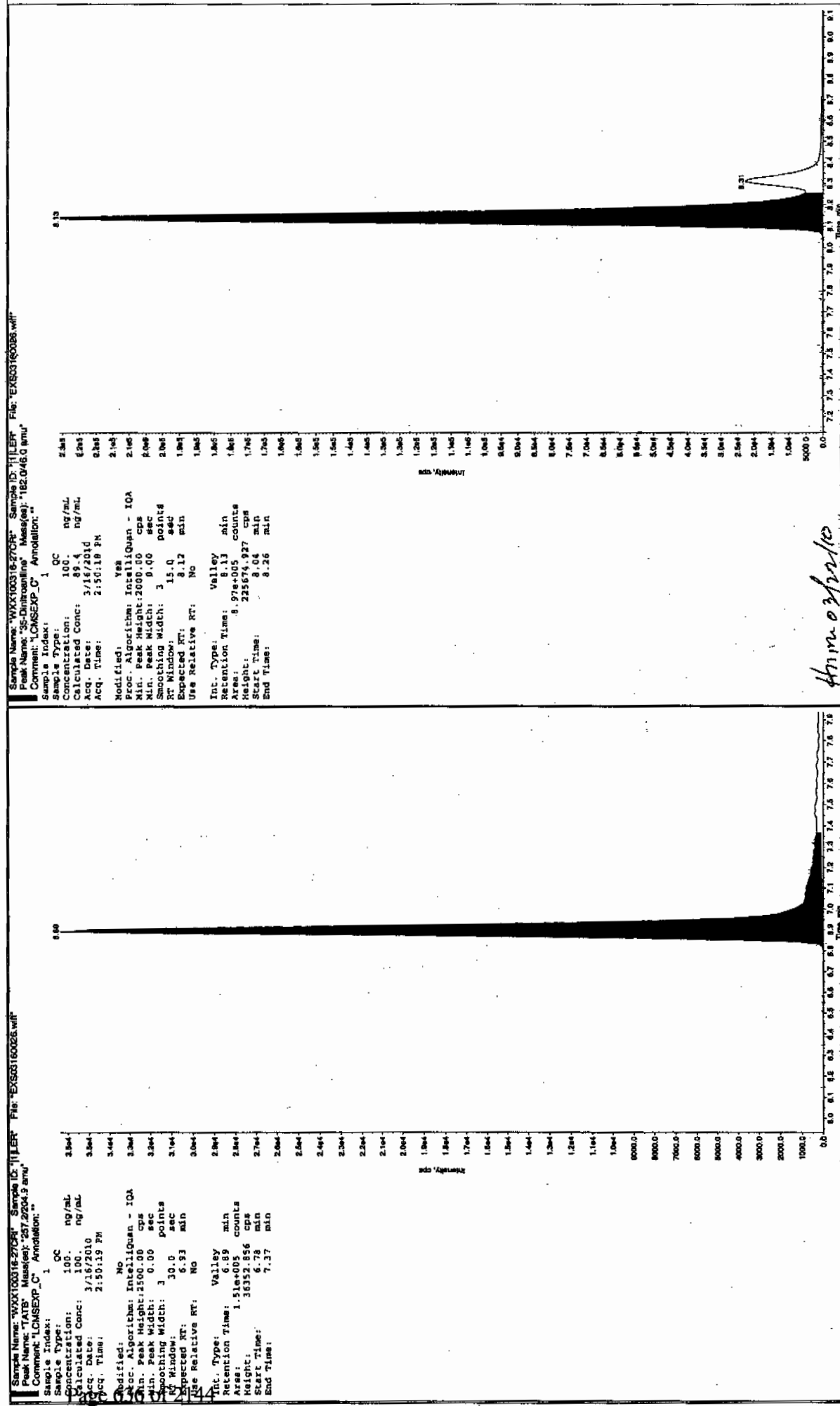
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Run 3/18/10



4/10/2010

Sample Name: "WXX100316-270R" Sample ID: "11LEF" File: "EXS03160226.wif"

Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"

Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 50.0 ng/mL

Calculated Conc: 46.2 ng/mL

Acq. Date: 3/16/2010

Acq. Time: 2:50:19 PM

Modified: NO

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 150.00 cps

Min. Peak Width: 3.00 sec

Smoothing Width: 3.00 points

Acq. Window: 15.0 sec

Expected RT: 8.33 min

Use Relative RT: NO

Int. Type: Valley

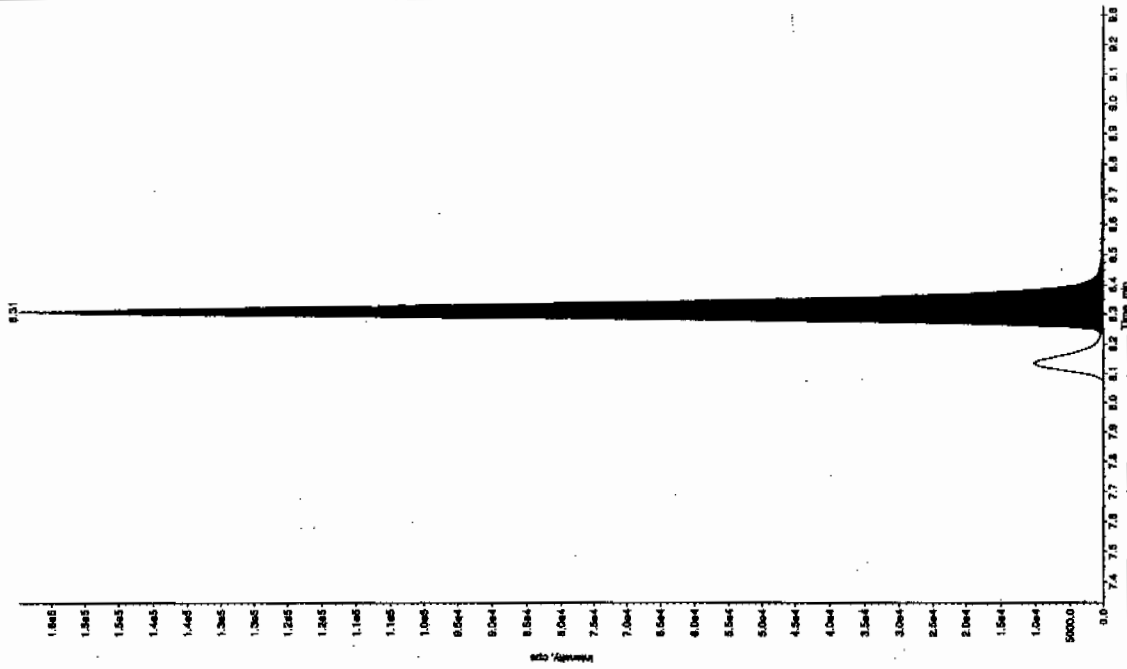
Retention Time: 8.31 min

Area: 5.93e+005 counts

Height: 159680.450 cps

Start Time: 8.24 min

End Time: 8.61 min



Sample Name: "WXX100316-270R" Sample ID: "11LEF" File: "EXS03160226.wif"

Peak Name: "25-Dinitro-4-nitrotoluene" Mass(es): "166.0/166.0 amu"

Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 100. ng/mL

Calculated Conc: 83.1 ng/mL

Acq. Date: 3/16/2010

Acq. Time: 2:50:19 PM

Modified: NO

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 450.00 cps

Min. Peak Width: 3.00 sec

Smoothing Width: 3.00 points

Acq. Window: 30.0 sec

Expected RT: 4.96 min

Use Relative RT: NO

Int. Type: Valley

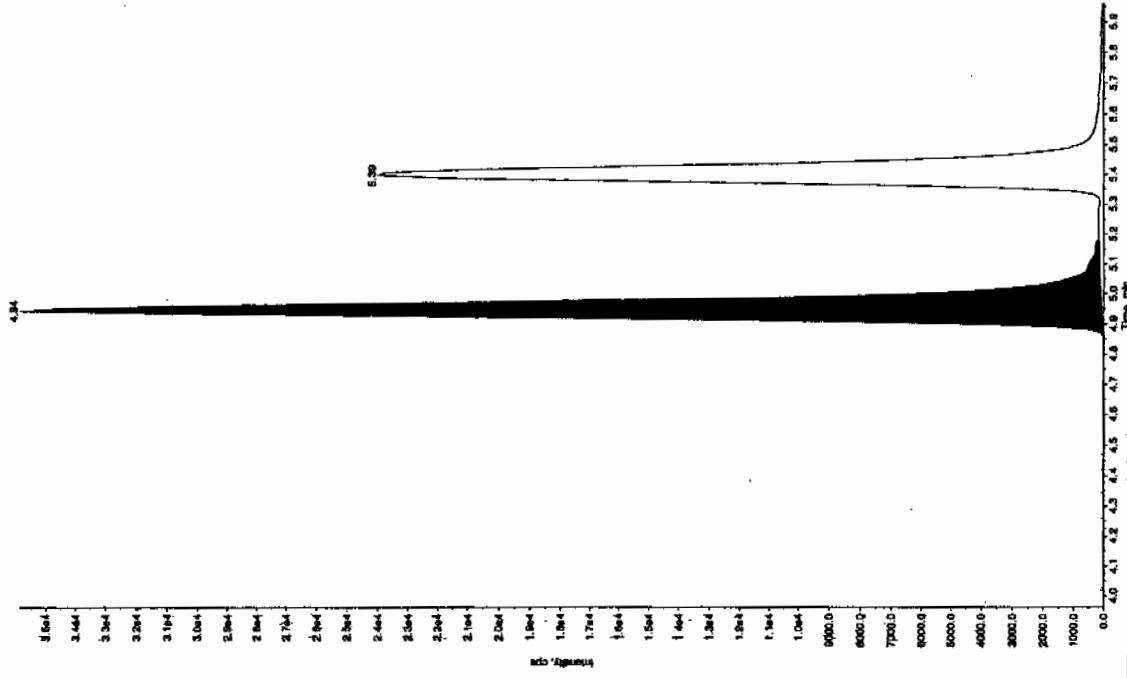
Retention Time: 4.94 min

Area: 1.45e+005 counts

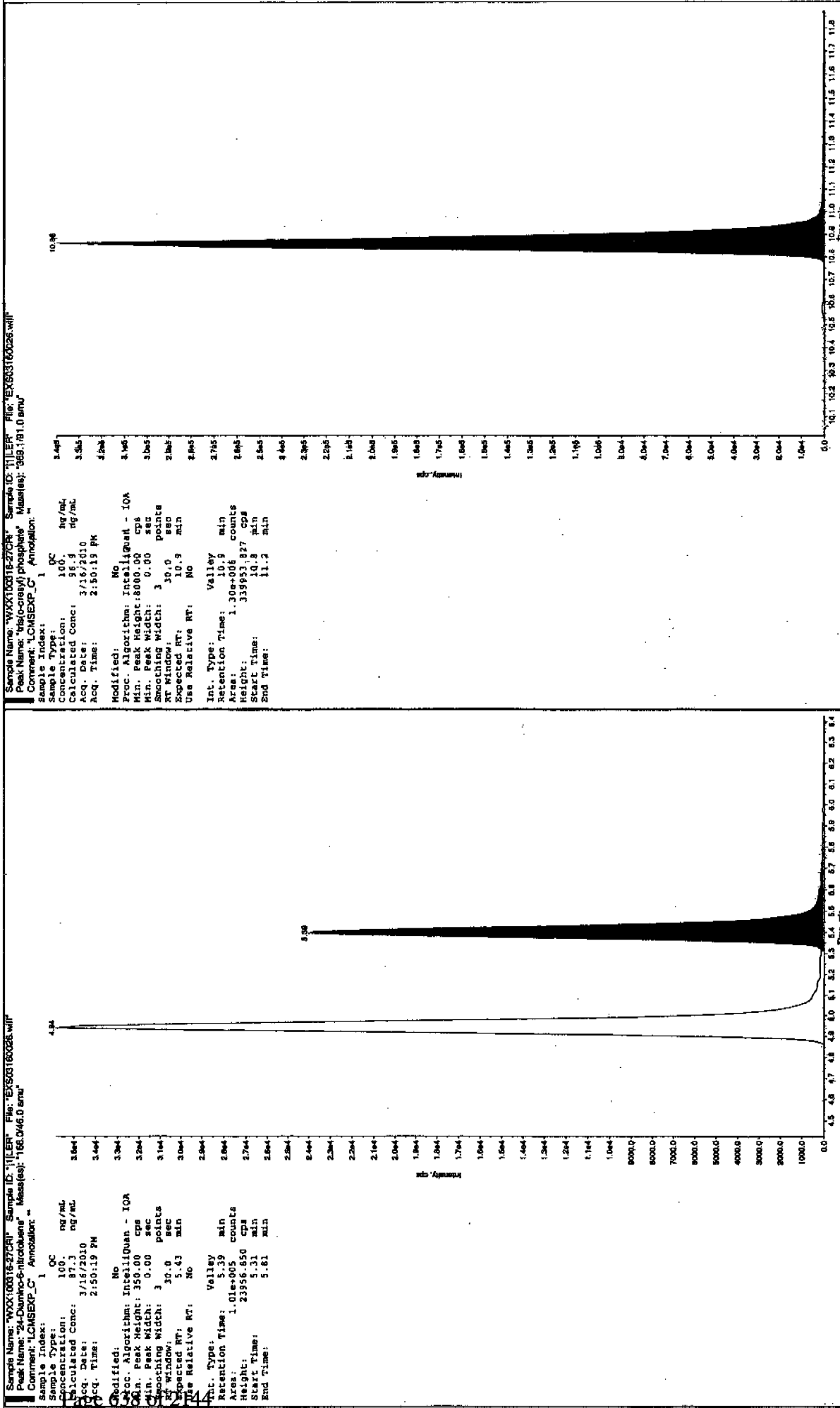
Height: 35828.499 cps

Start Time: 4.86 min

End Time: 5.19 min







7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2124

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03160050.wiff

Analysis Date: 16-MAR-10 21:07

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	513	103	
2,6-Diamino-4-nitrotoluene	500	535	107	
3,4-Dinitrotoluene	250	212	85	
3,5-Dinitroaniline	500	477	95	
TATB	500	496	99	
tris(o-cresyl) phosphate	500	505	101	

Recovery Limits:

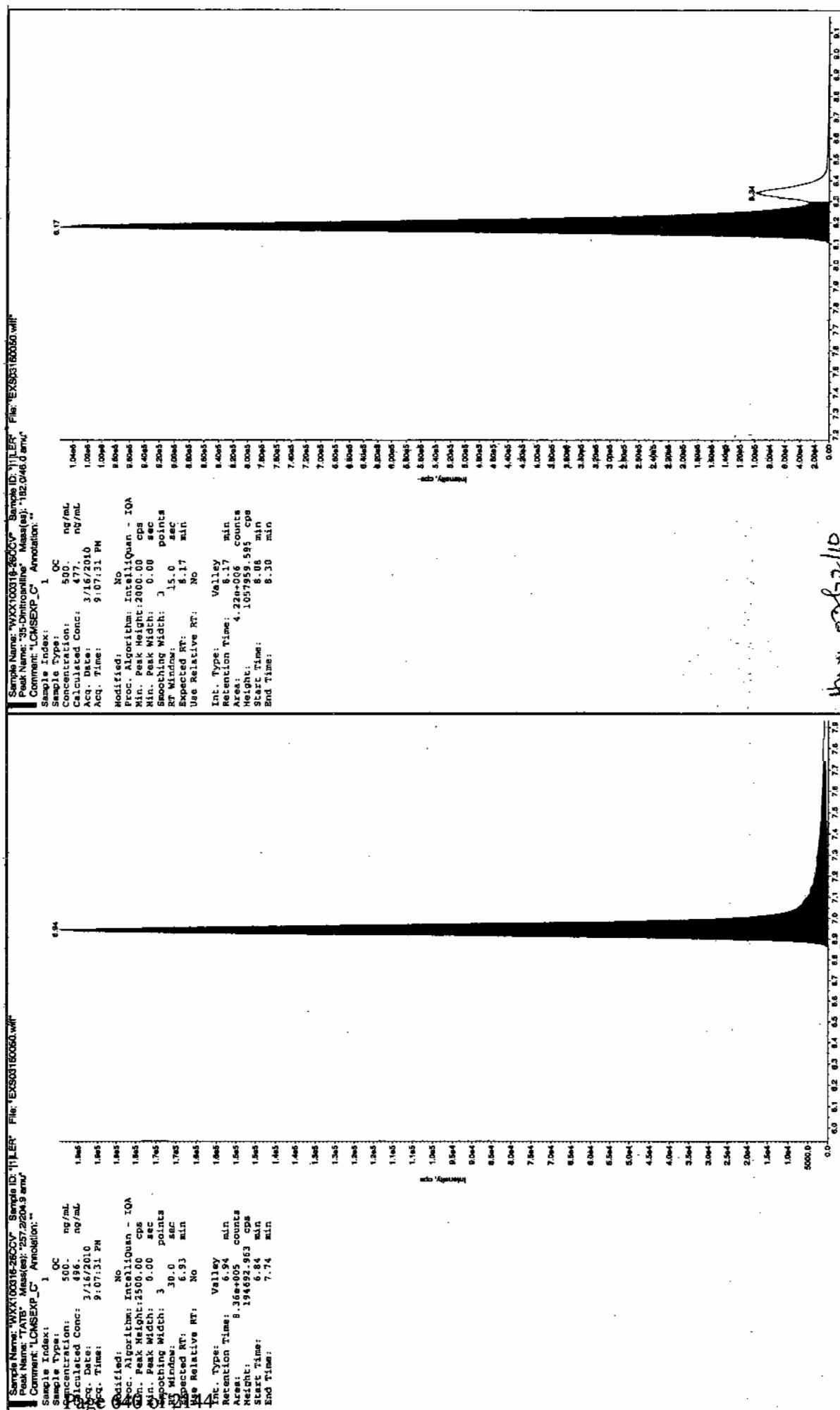
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

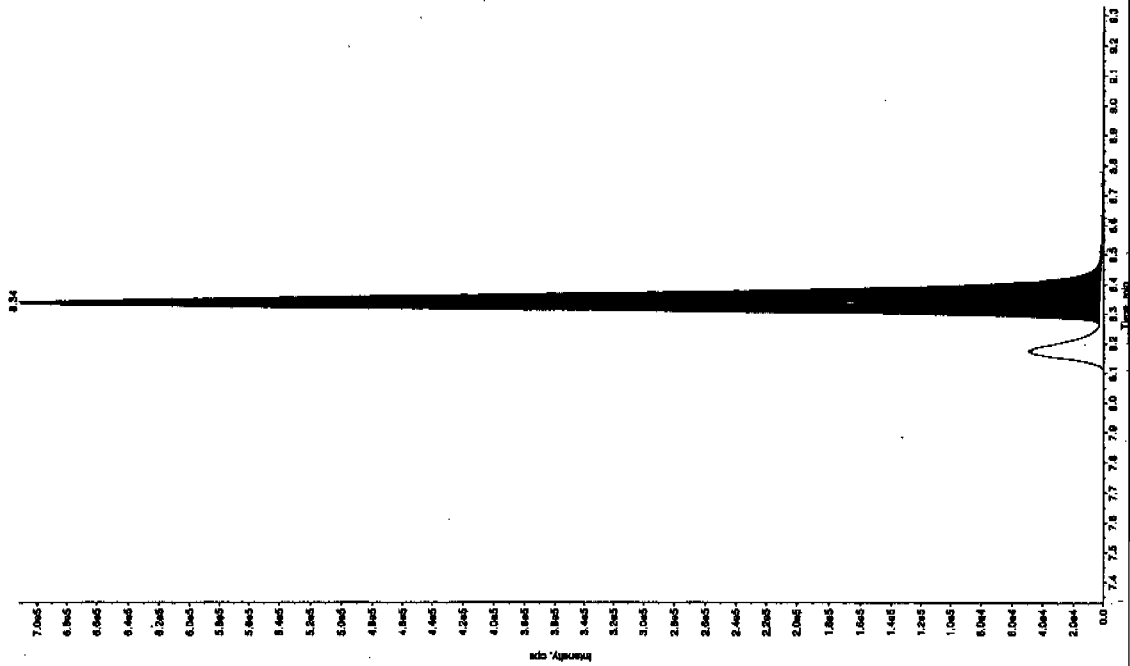
Run 3/10/10



Run 3/22/10

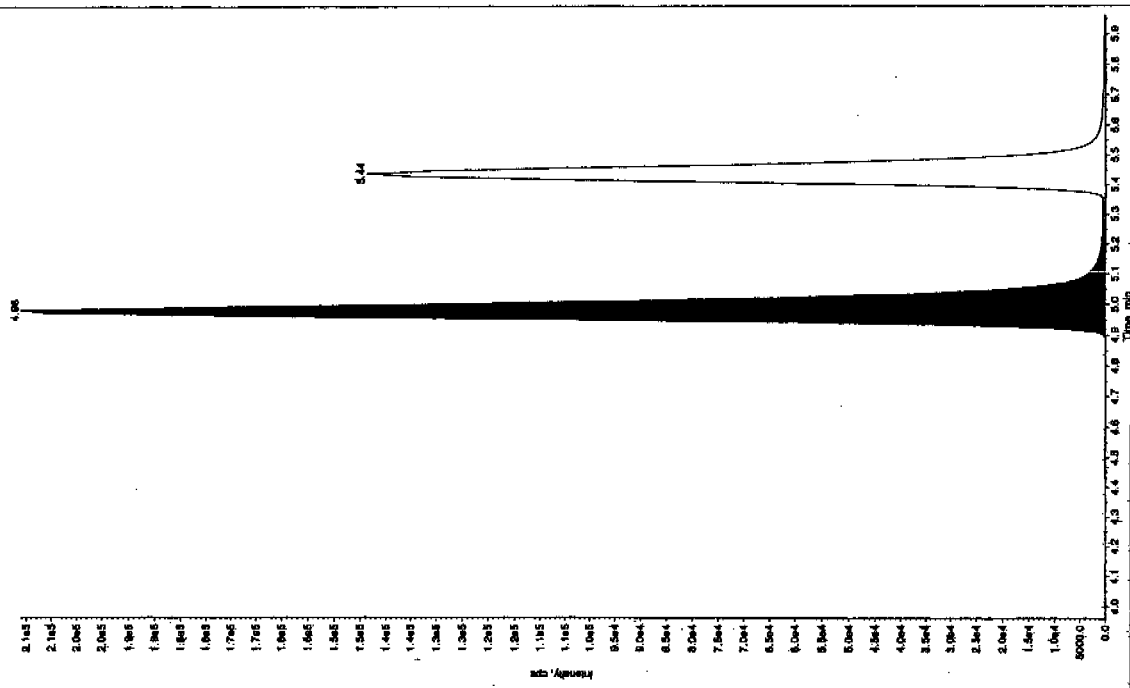
Sample Name: WXX100316-2800V Sample ID: T11ER File: EX603160050.wif  
Peak Name: "34-Dinitrofluorene" Mass(es): 182 171.9 amu  
Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
Sample Type: QC  
Concentration: 250. ng/mL  
Calculated Conc: 212. ng/mL  
Acq. Date: 3/15/2010  
Acq. Time: 9:07:31 PM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 1460.00 cps  
Min. Peak Width: 3.00 points  
Smoothing Width: 15.0 sec  
RT Window: 8.33 min  
Expected RT: No  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 8.34 min  
Area: 2.71e+006 counts  
Height: 709708.313 cps  
Start Time: 8.26 min  
End Time: 8.56 min



Sample Name: WXX100316-2800V Sample ID: T11ER File: EX603160050.wif  
Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): 186.046.0 amu  
Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 535. ng/mL  
Acq. Date: 3/15/2010  
Acq. Time: 9:07:31 PM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 450.00 cps  
Min. Peak Width: 3.00 points  
Smoothing Width: 30.0 sec  
RT Window: 4.96 min  
Expected RT: No  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 4.98 min  
Area: 8.64e+005 counts  
Height: 211119.217 cps  
Start Time: 4.88 min  
End Time: 5.28 min

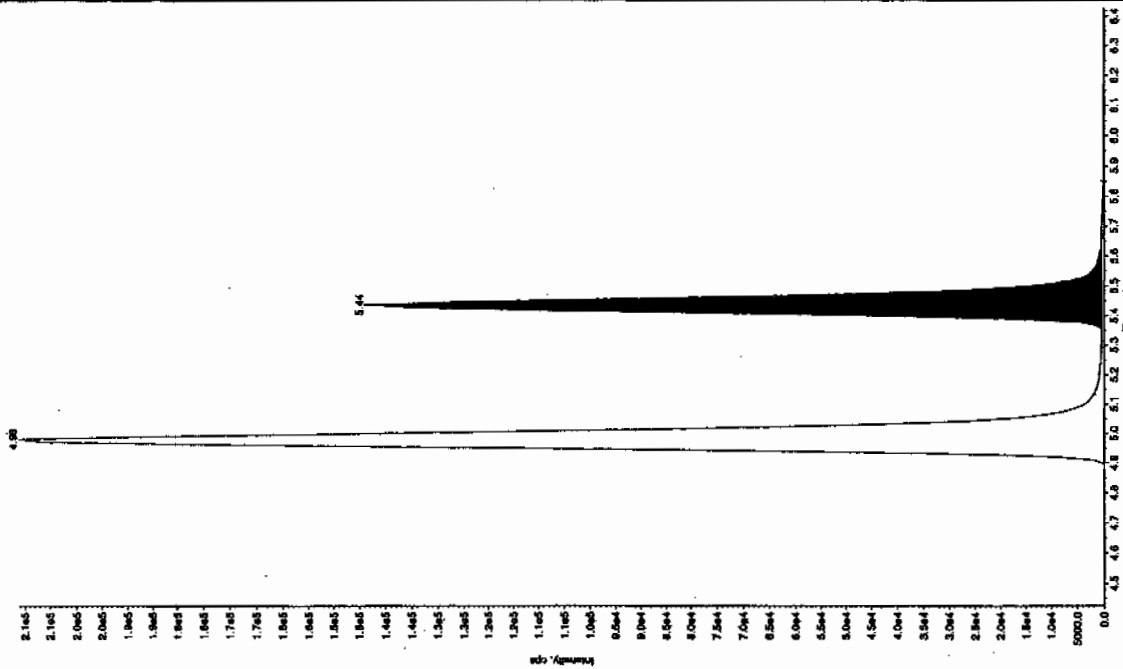


Sample Name: "WXX10016-200V" Sample ID: "111EP" File: "EY603160000.wif"  
 Peak Name: "Valley" Peak Height: 166.048.0 cps  
 Comment: "LCMSERP\_C" Annotation: "

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 513. ng/mL  
 Acq. Date: 3/15/2010  
 Acq. Time: 9:07:31 PM

Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 RT Window: 30.0 sec  
 Expected RT: 5.43 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 5.44 min  
 Area: 5.62e+005 counts  
 Height: 141355.576 cps  
 Start Time: 5.35 min  
 End Time: 5.72 min

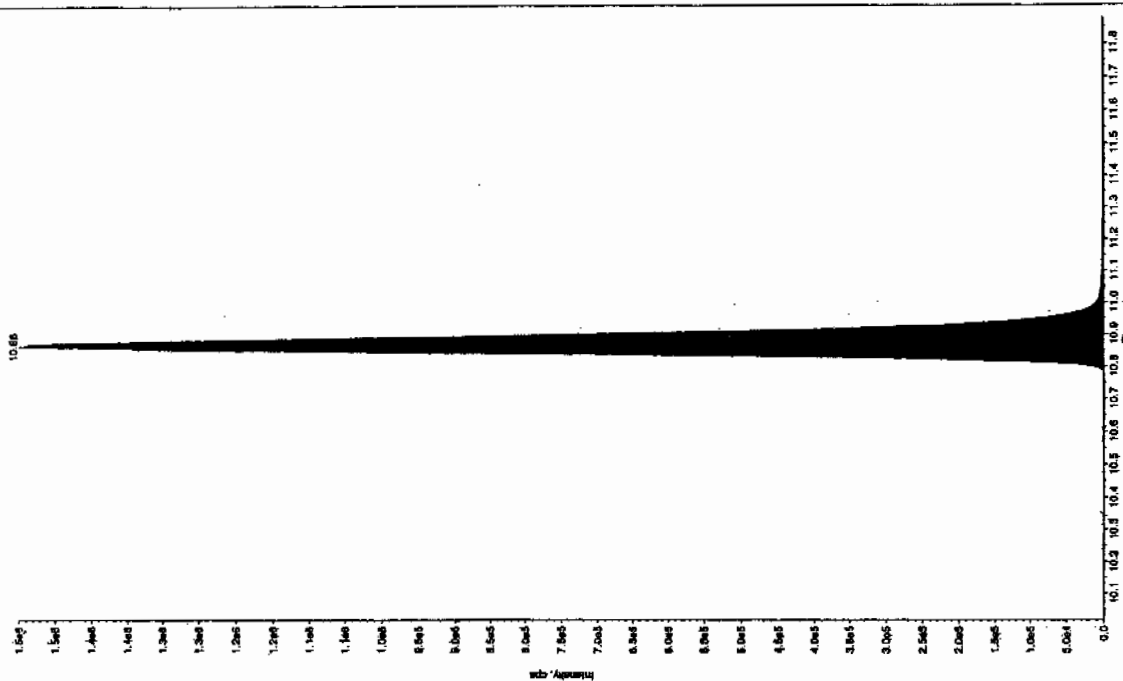


Sample Name: "WXX10016-200V" Sample ID: "111EP" File: "EY603160000.wif"  
 Peak Name: "Valley" Peak Height: 328.191.0 cps  
 Comment: "LCMSERP\_C" Annotation: "

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 595. ng/mL  
 Acq. Date: 3/15/2010  
 Acq. Time: 9:07:31 PM

Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 RT Window: 30.0 sec  
 Expected RT: 10.9 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 10.9 min  
 Area: 6.25e+006 counts  
 Height: 1499621.047 cps  
 Start Time: 10.4 min  
 End Time: 11.2 min



**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2124

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03160052.wiff

Analysis Date: 16-MAR-10 21:38

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	99.1	99	
2,6-Diamino-4-nitrotoluene	100	103	103	
3,4-Dinitrotoluene	50	43.8	88	
3,5-Dinitroaniline	100	88.7	89	
TATB	100	103	103	
tris(o-cresyl) phosphate	100	104	104	

Recovery Limits:

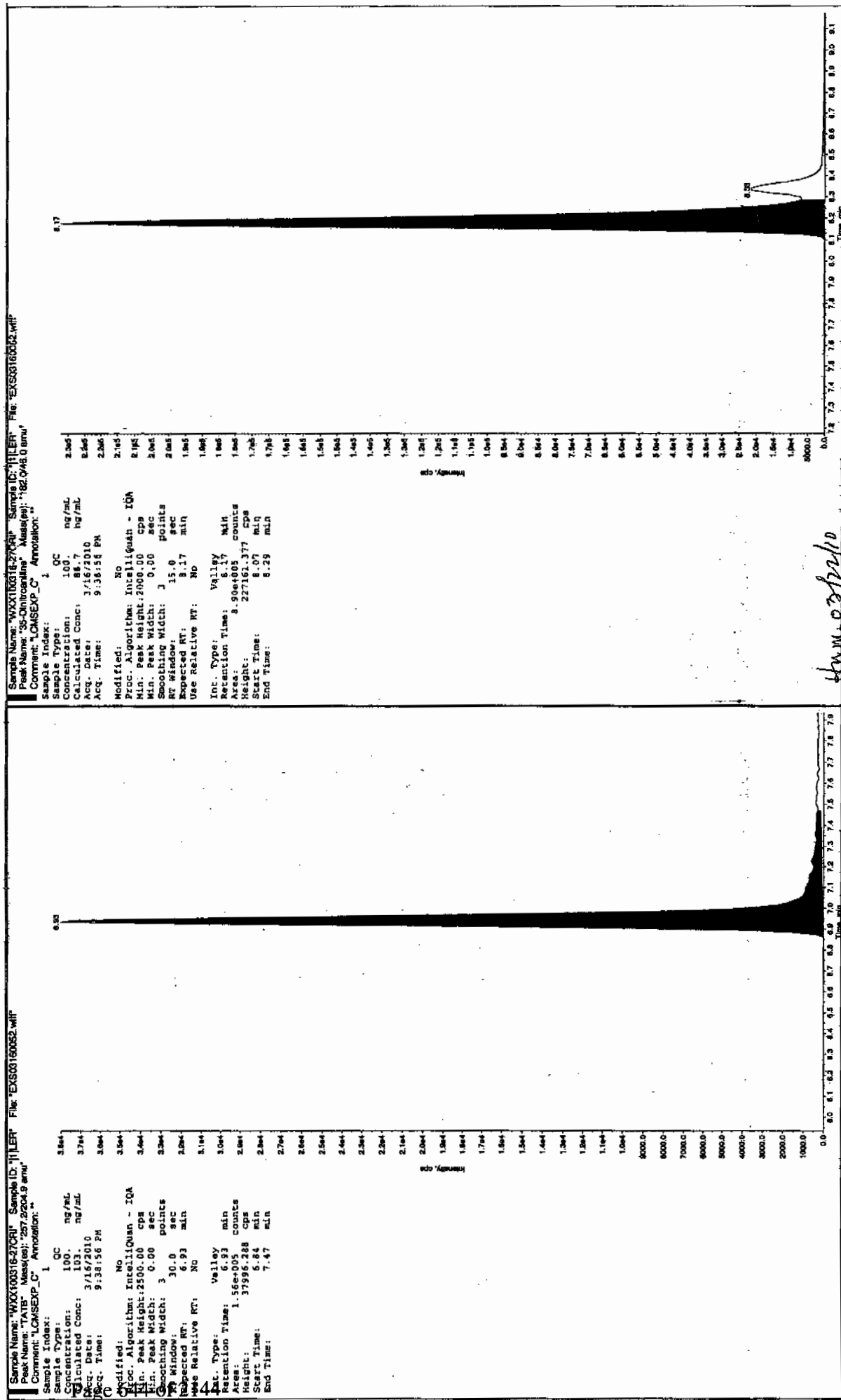
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

See 3/10/10



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

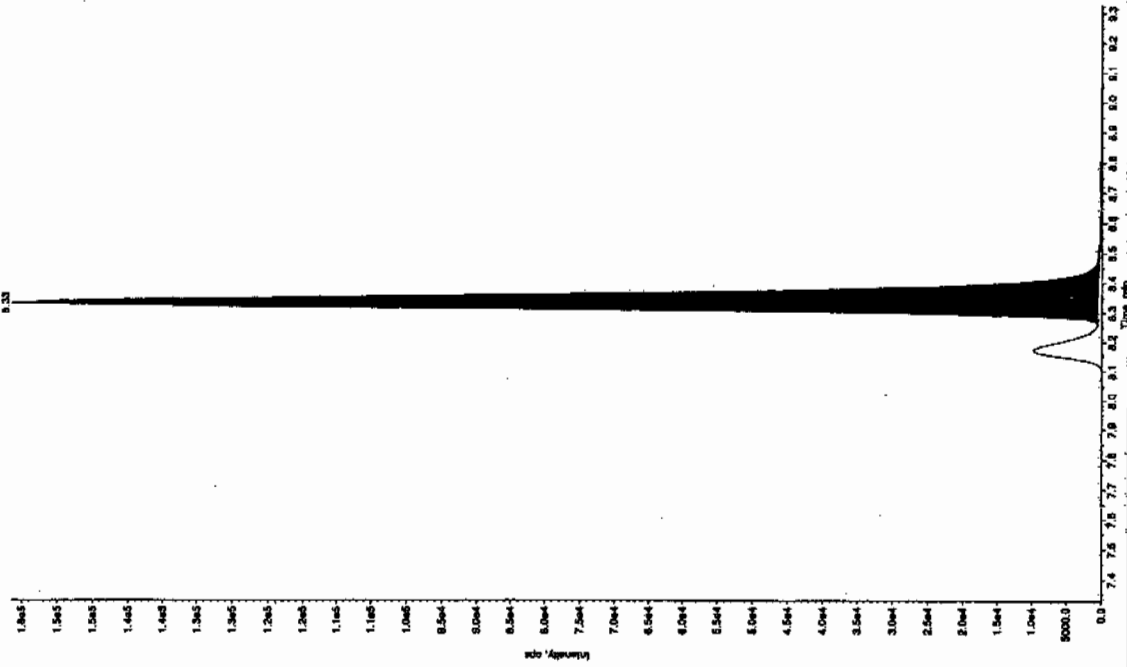
Sample Name: "WXX100315-27CR1" Sample ID: "11ER" File: "EX303160052.wif"  
Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"

Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: 50.0 ng/mL  
Concentration: 43.8 ng/mL  
Acq. Date: 3/16/2010  
Acq. Time: 9:38:56 PM

Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 1450.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 15.0 sec  
Expected RT: 8.33 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 8.33 min  
Area: 5.61e+005 counts  
Height: 15591.243 cps  
Start Time: 8.26 min  
End Time: 8.55 min



Sample Name: "WXX100315-27CR1" Sample ID: "11ER" File: "EX303160052.wif"

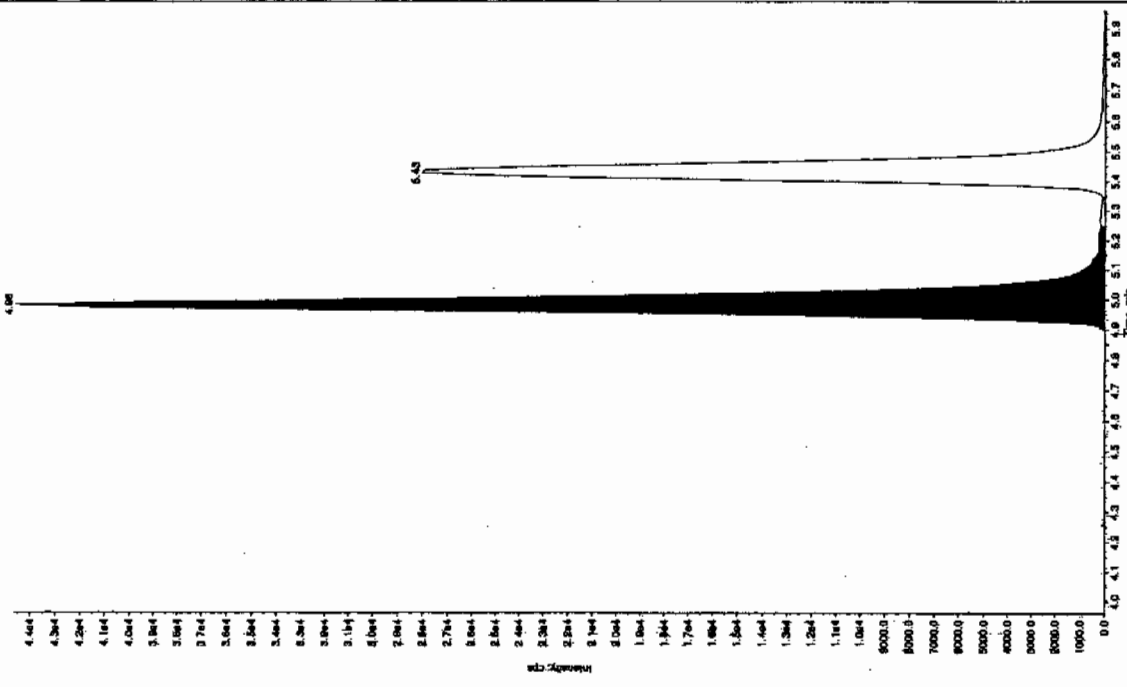
Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "168.0/46.0 amu"

Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: 100.0 ng/mL  
Concentration: 103.0 ng/mL  
Acq. Date: 3/16/2010  
Acq. Time: 9:38:56 PM

Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 450.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 4.96 min  
Use Relative RT: No

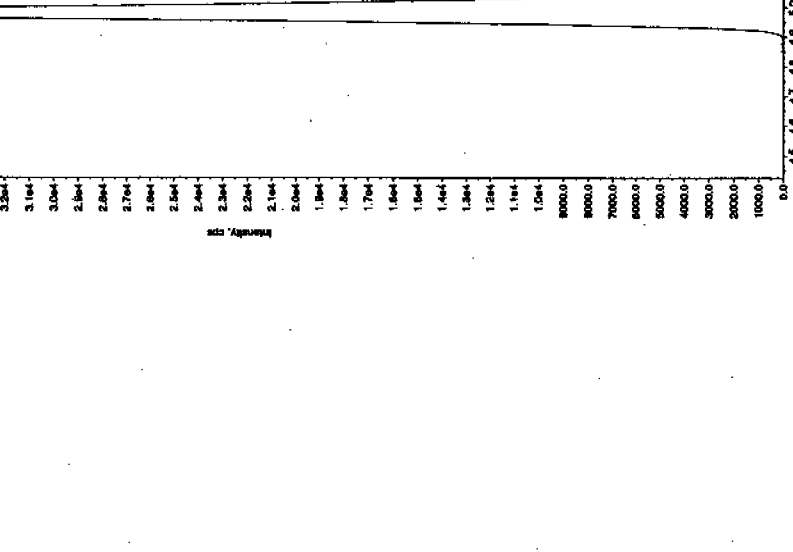
Int. Type: Valley  
Retention Time: 4.98 min  
Area: 1.77e+005 counts  
Height: 44545.008 cps  
Start Time: 4.88 min  
End Time: 5.25 min





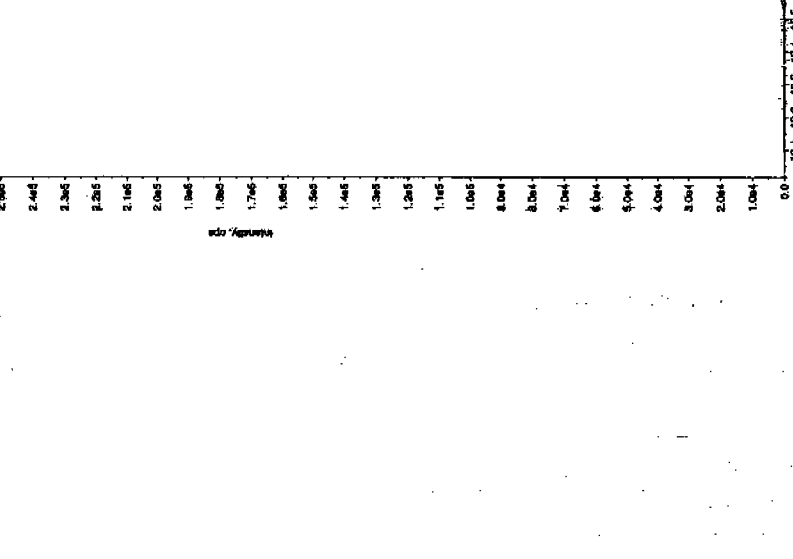
Sample Name: WXX10316-270R Sample ID: 111ER File: EXS0316052.wif  
Peak Name: 24-Diamino-5-nitrotoluene Mass(es): 166.046.0 amu  
Comment: LCMSEXP.D Annotation: "

Sample Index: 1  
Sample Type: QC  
Concentration: 100. ng/mL  
Calculated Conc: 3/16/2010  
Acq. Date: 9:38:35 PM  
Acq. Time: 9:38:35 PM  
Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 350.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 5.43 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 5.43 min  
Area: 1.14e+005 counts  
Height: 28014.862 cps  
Start Time: 5.34 min  
End Time: 5.74 min



Sample Name: WXX10316-270R Sample ID: 111ER File: EXS0316052.wif  
Peak Name: tri(o-cresyl) phosphite Mass(es): 369.191.0 amu  
Comment: LCMSEXP.C Annotation: "

Sample Index: 1  
Sample Type: QC  
Concentration: 100. ng/mL  
Calculated Conc: 3/16/2010  
Acq. Date: 9:38:35 PM  
Acq. Time: 9:38:35 PM  
Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 8000.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 10.9 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 10.9 min  
Area: 1.40e+006 counts  
Height: 346738.220 cps  
Start Time: 10.8 min  
End Time: 11.1 min



7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2124

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03160062.wiff

Analysis Date: 17-MAR-10 00:16

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
tris(o-cresyl) phosphate	500	514	103	
2,4-Diamino-6-nitrotoluene	500	571	114	
2,6-Diamino-4-nitrotoluene	500	558	112	
3,4-Dinitrotoluene	250	229	91	
3,5-Dinitroaniline	500	491	98	
TATB	500	520	104	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

825 3/10/10

Sample Name: "WXX100316-28000" Sample ID: "111ER" File: "EX650180008.wif"  
 Peak Name: "35-Oxotroline" Mass(es): "182.048.0 unit"  
 Comment: "LCMSEXP\_C" Annotation: "

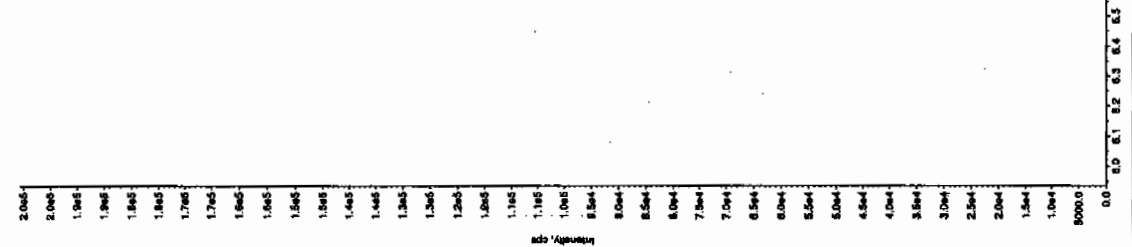
Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 491. ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 12:16:04 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 2000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.17 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.20 min  
 Area: 4.34e+005 counts  
 Height: 1093172.729 cps  
 Start Time: 8.09 min  
 End Time: 8.30 min



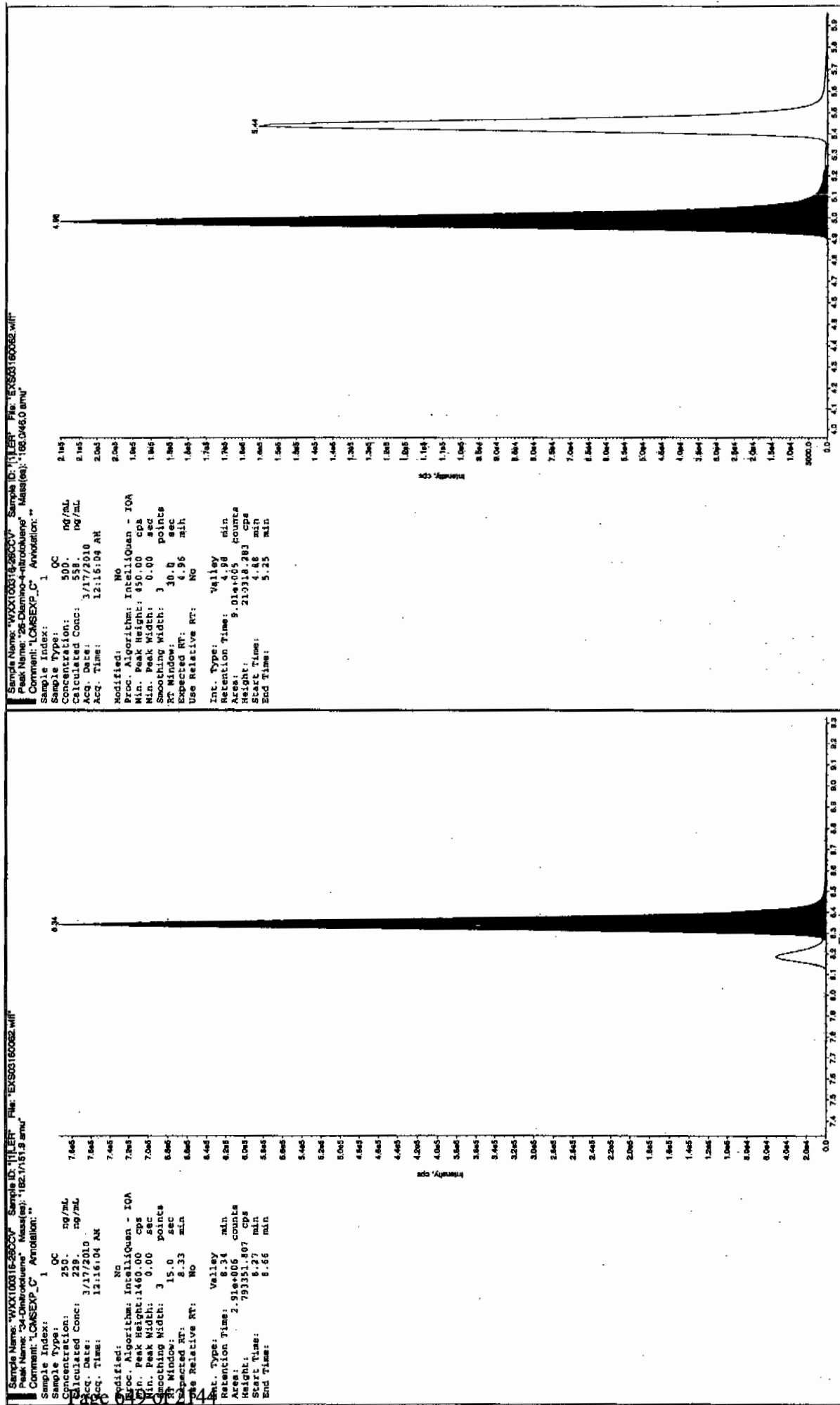
4/10/10

Sample Name: "WXX100316-28000" Sample ID: "111ER" File: "EX650180008.wif"  
 Peak Name: "TATB" Mass(es): "257.2004.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 570. ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 12:16:00 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 2500.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 6.93 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 6.96 min  
 Area: 8.79e+005 counts  
 Height: 280727.402 cps  
 Start Time: 6.85 min  
 End Time: 7.80 min

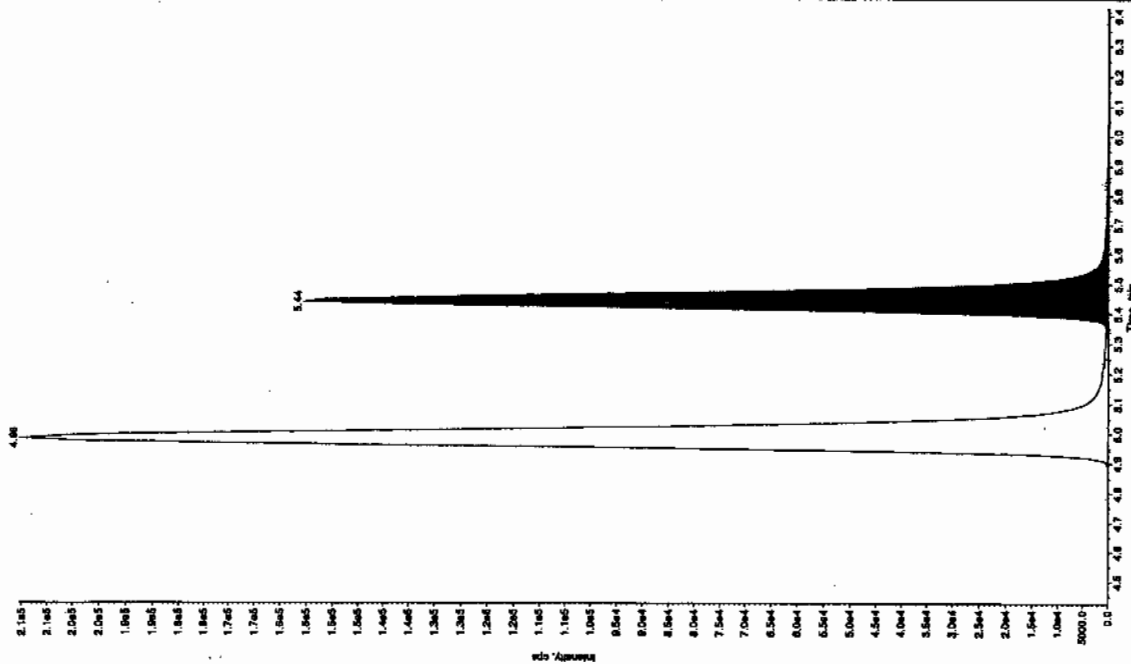


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



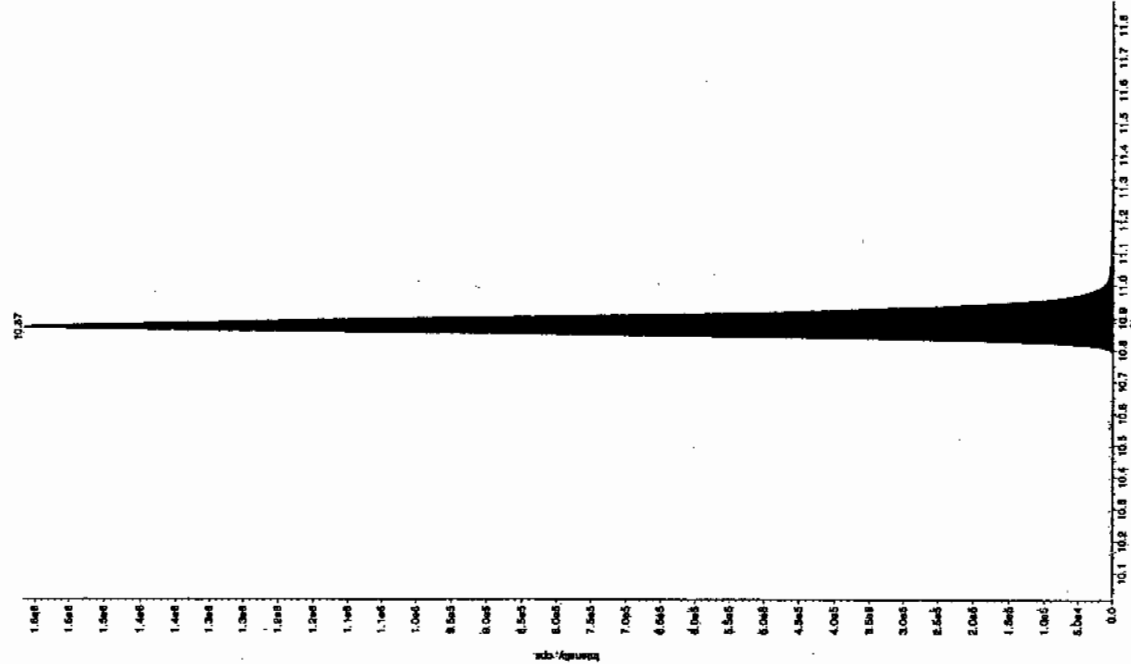
Sample Name: "WXX100316-26CCV" Sample ID: "11.1ER" File: "EX803160082.w" Peak Name: "24-Diamino-5-nitrofluorene" Mass(es): "180.046.0 amu" Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 571. ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 12:16:04 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 350.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 5.43 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 5.44 min  
Area: 6.24e+005 counts  
Height: 155423.828 cps  
Start Time: 5.34 min  
End Time: 5.56 min



Sample Name: "WXX100316-26CCV" Sample ID: "11.1ER" File: "EX803160082.w" Peak Name: "His(o-cresyl) phosphate" Mass(es): "388.191.0 amu" Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 514. ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 12:16:04 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 800.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 10.9 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 10.9 min  
Area: 6.36e+006 counts  
Height: 1567386.475 cps  
Start Time: 10.8 min  
End Time: 11.2 min



**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2124

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXS03160064.wiff

**Analysis Date:** 17-MAR-10 00:47

**LCMSMS ID:** 1358

**Column ID:** JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	106	106	
2,6-Diamino-4-nitrotoluene	100	112	112	
3,4-Dinitrotoluene	50	45.8	92	
3,5-Dinitroaniline	100	89.7	90	
TATB	100	104	104	
tris(o-cresyl) phosphate	100	105	105	

**Recovery Limits:**

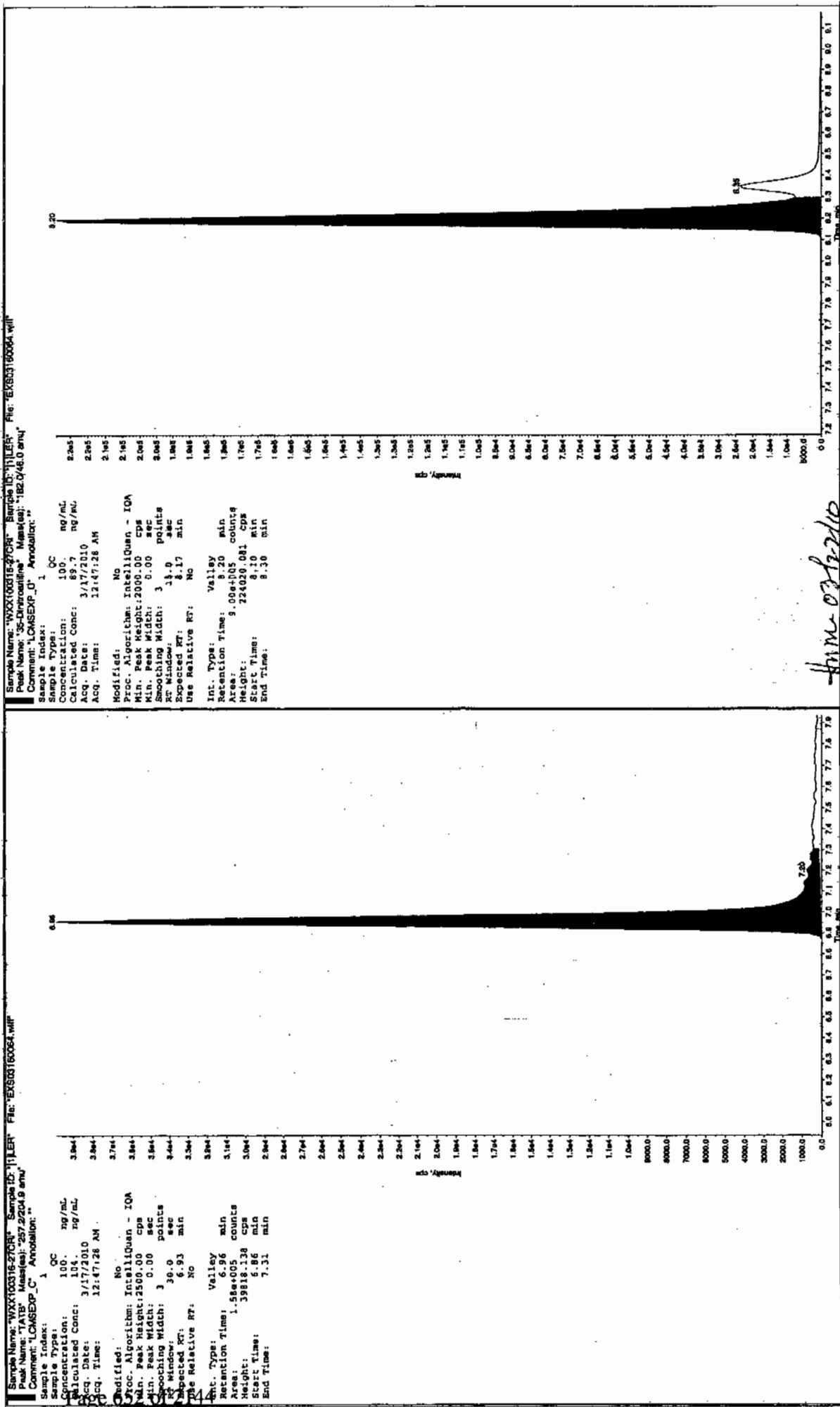
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

8/19/10

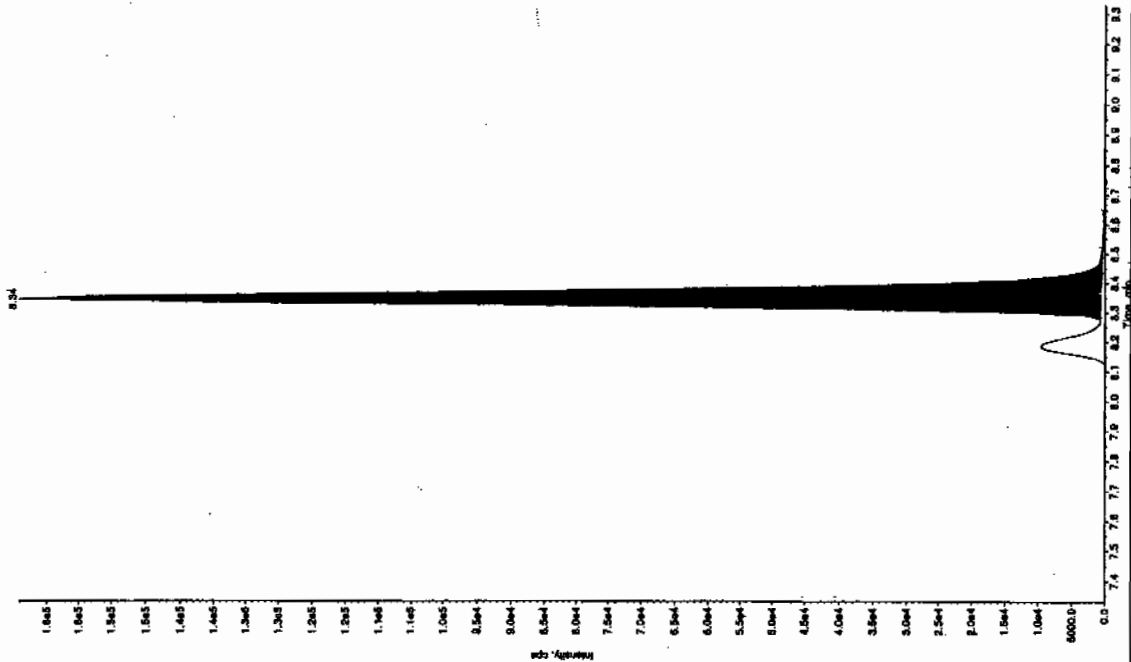


Sample Name: "WXX100316-270H" Sample ID: "1111ER" File: "EX500160084.wit"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/181.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 50.0 ng/mL  
 Calculated Conc: 45.0 ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 12:47:28 AM

Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 1450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.33 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 8.34 min  
 Area: 5.87e+005 counts  
 Height: 181681.259 cps  
 Start Time: 8.27 min  
 End Time: 8.56 min

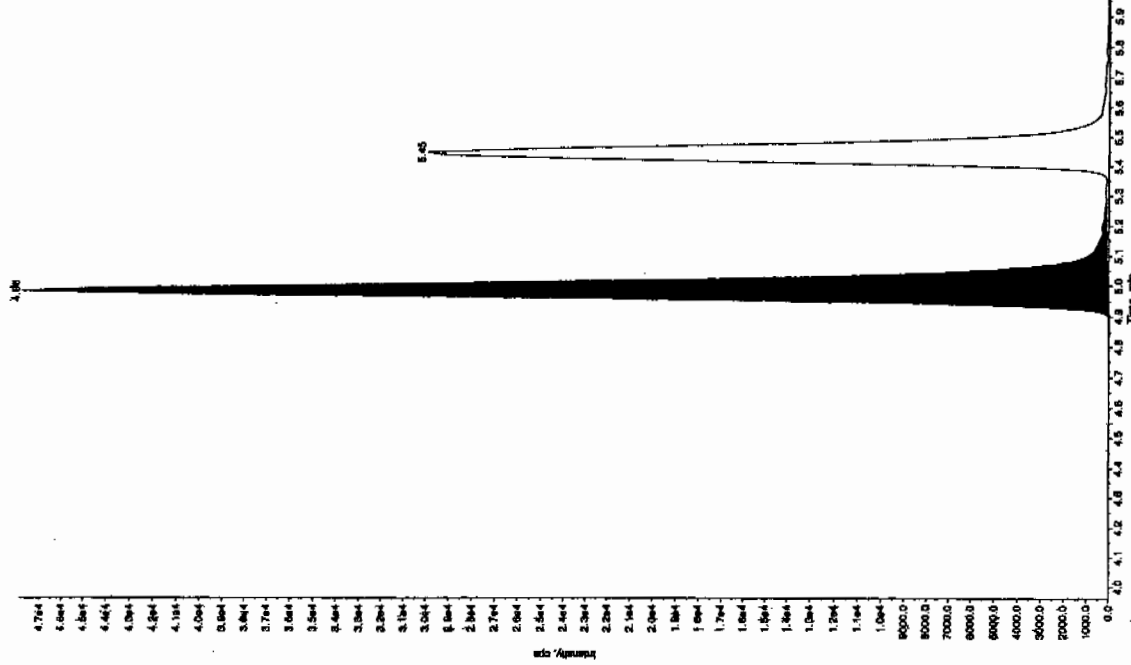


Sample Name: "WXX100316-270H" Sample ID: "1111ER" File: "EX500160084.wit"  
 Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "166.0/166.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 112. ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 12:47:28 AM

Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 10.0 sec  
 Expected RT: 4.96 min  
 Use Relative RT: No

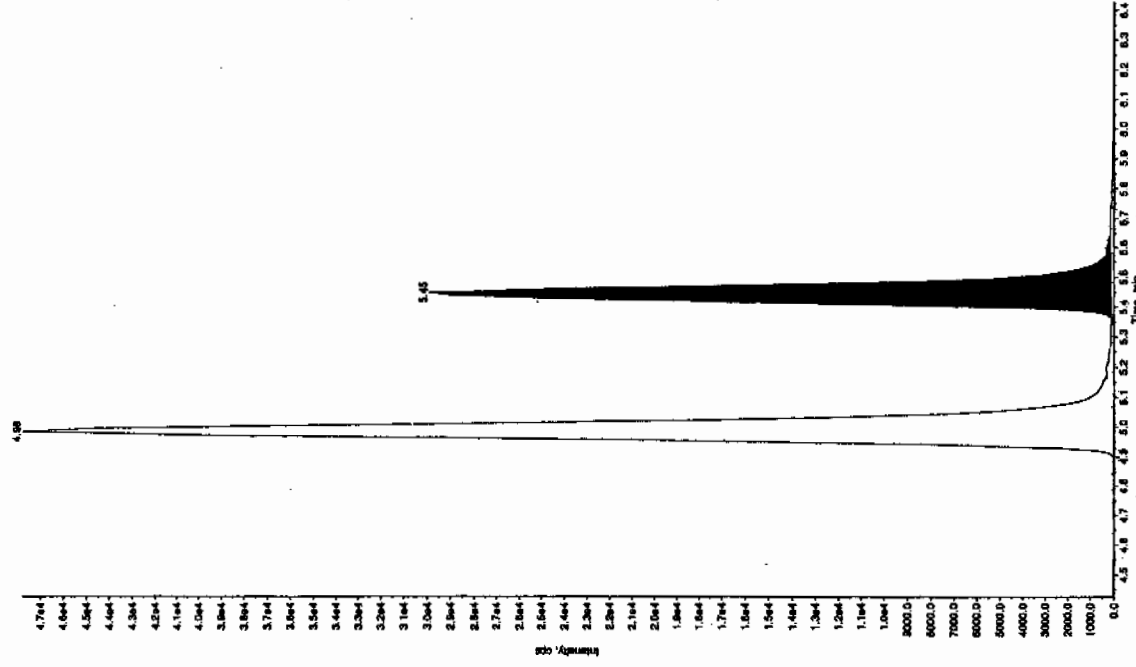
Int. Type: Valley  
 Retention Time: 4.96 min  
 Area: 1.91e+005 counts  
 Height: 47756.405 cps  
 Start Time: 4.89 min  
 End Time: 5.29 min





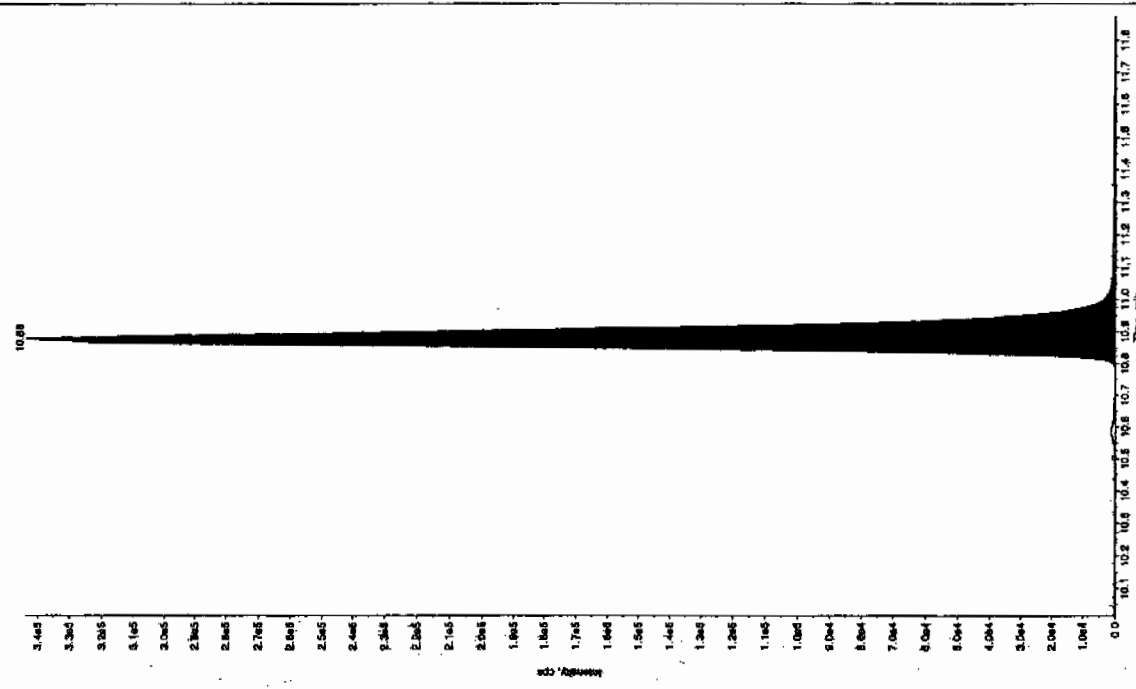
Sample Name: "WXX10018-27091" Sample ID: "111EF" File: "EX50160064.wif"  
 Peak Name: "24-Dimino-6-ethanolone" Mass(es): 156.046.0 amu  
 Comment: "LONSEXP\_C" Annotation: "

Sample Index: 1 QC  
 Sample Type: Concentration: 100 ng/mL  
 Calculated Conc: 106 ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 12:47:28 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.43 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.45 min  
 Area: 1.21e+005 counts  
 Height: 29822.838 cps  
 Start Time: 5.33 min  
 End Time: 5.65 min



Sample Name: "WXX10018-27091" Sample ID: "111EF" File: "EX50160064.wif"  
 Peak Name: "tris(cresyl) phosphate" Mass(es): 363.191.0 amu  
 Comment: "LONSEXP\_C" Annotation: "

Sample Index: 1 QC  
 Sample Type: Concentration: 100 ng/mL  
 Calculated Conc: 105 ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 12:47:28 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.9 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.9 min  
 Area: 1.41e+006 counts  
 Height: 343916.864 cps  
 Start Time: 10.8 min  
 End Time: 11.1 min



7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2124

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03160075.wiff

Analysis Date: 17-MAR-10 03:40

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	579	116	
2,6-Diamino-4-nitrotoluene	500	549	110	
3,4-Dinitrotoluene	250	221	89	
3,5-Dinitroaniline	500	487	97	
TATB	500	544	109	
tris(o-cresyl) phosphate	500	515	103	

Recovery Limits:

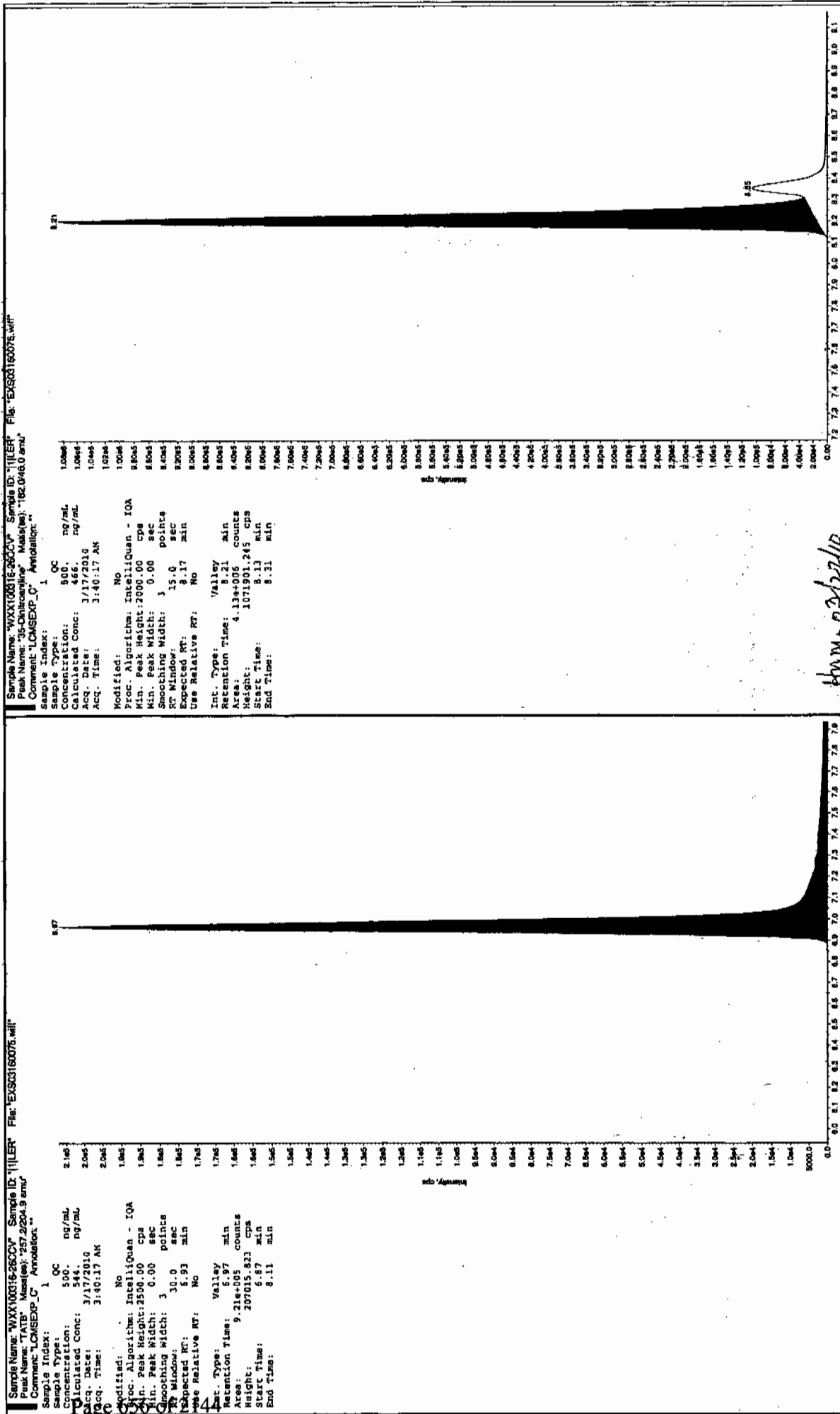
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Before Jan 31/8/10

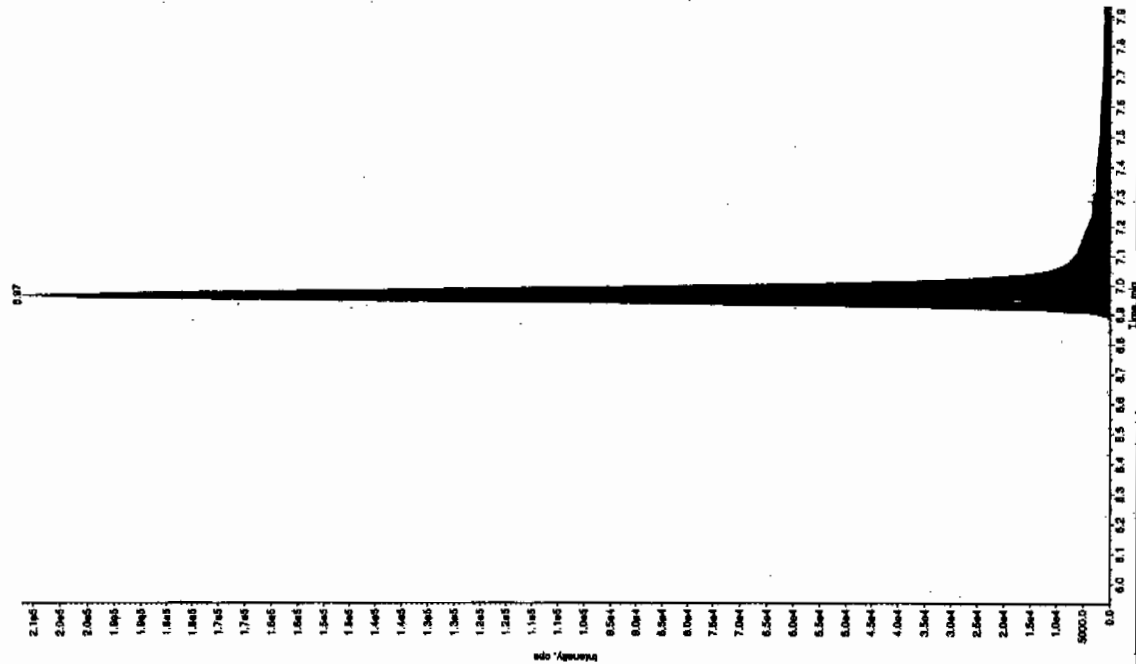


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Jan 31/1910

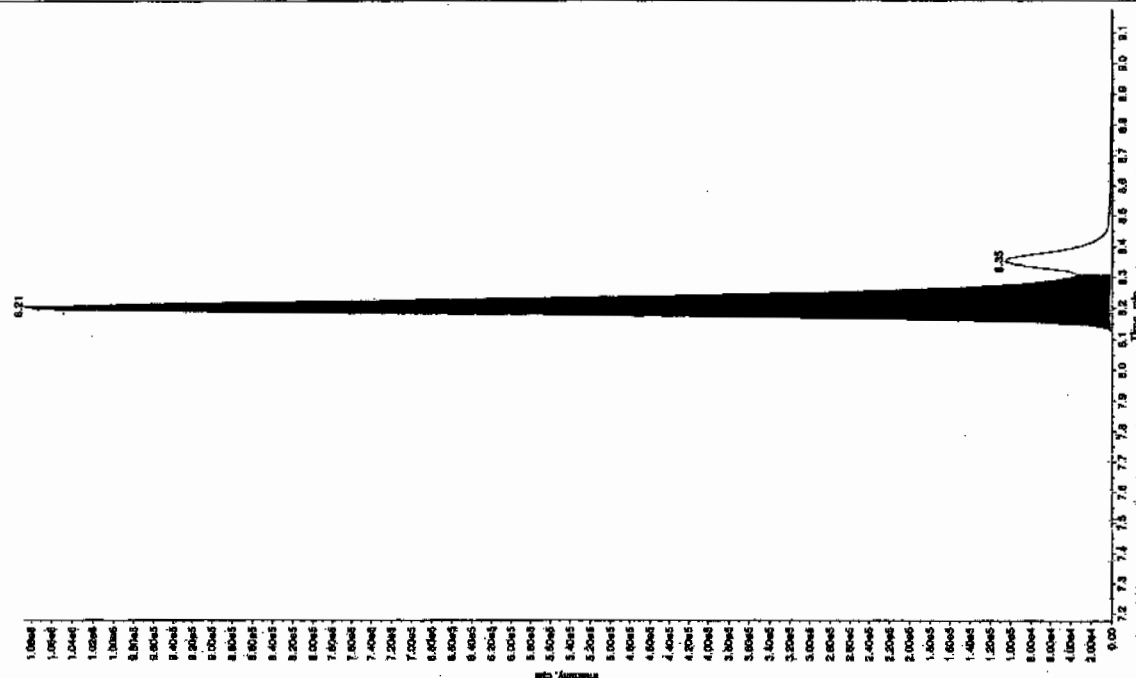
Sample Name: "WXX100316-2000V" Sample ID: "11LEF" File: "EX503160075.wif"  
 Peak Name: "TATP" Mass(es): "207.2204.9 amu"  
 Comment: "LCMSXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: GC  
 Concentration: 500. ng/mL  
 Calculated Conc: 544. ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 3:40:17 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2500.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Window: 30.0 sec  
 Expected RT: 5.93 min  
 Use Relative RT: No  
 Th. Type: Valley  
 Retention Time: 5.97 min  
 Area: 9.21e+005 counts  
 Height: 207019.833 cps  
 Start Time: 5.97 min  
 End Time: 5.11 min



Sample Name: "WXX100316-2000V" Sample ID: "11LEF" File: "EX503160075.wif"  
 Peak Name: "TATP" Mass(es): "182.0460 amu"  
 Comment: "LCMSXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: GC  
 Concentration: 500. ng/mL  
 Calculated Conc: 487. ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 3:40:17 AM  
 Modified: Yes  
 RT Window: 15.0 sec  
 Expected RT: 8.17 min  
 Use Relative RT: No  
 Int. Type: Manual  
 Retention Time: 8.20 min  
 Area: 4.30e+006 counts  
 Height: 109990.016 cps  
 Start Time: 8.13 min  
 End Time: 8.31 min



Sample Name: "WXX100318-2500V" Sample ID: "J1LER" File: "EX503160075.wiff"  
Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.1/181.9 amu"

Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC

Concentration: 250. ng/mL

Calculated Conc: 231. ng/mL

Acq. Date: 3/17/2010

Acq. Time: 3:40:17 AM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 1460.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3.00 points

RT Window: 15.0 sec

Expected RT: 8.33 min

Use Relative RT: No

Int. Type: Valley

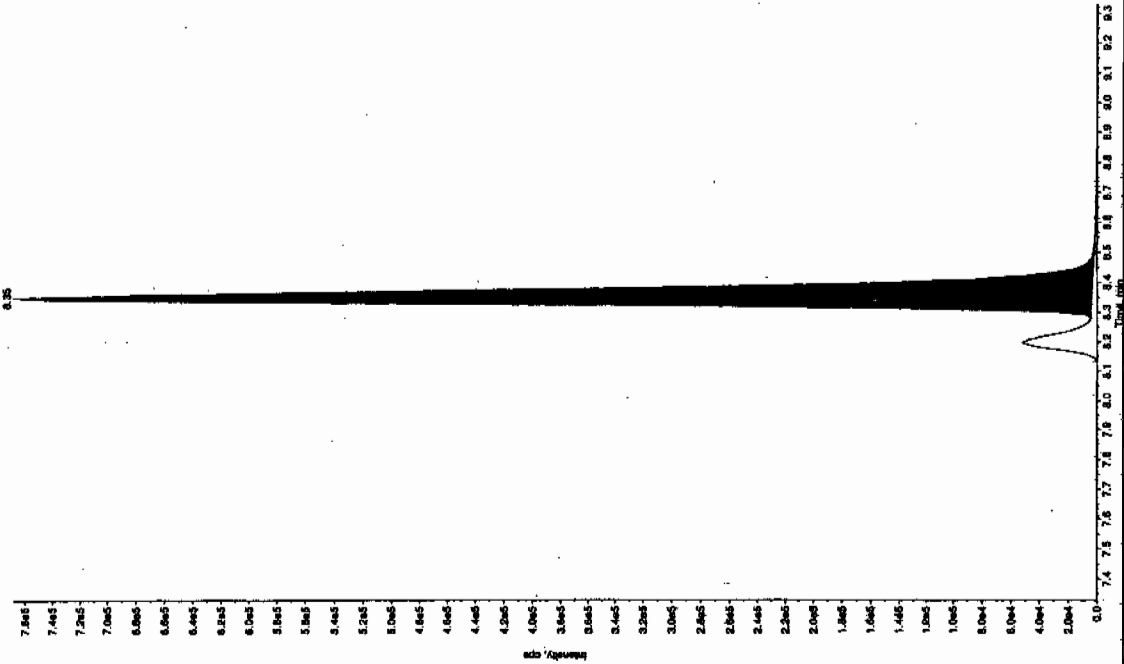
Retention Time: 8.35 min

Area: 2.82e+005 counts

Height: 76485.156 cps

Start Time: 8.28 min

End Time: 8.56 min



Sample Name: "WXX100318-2500V" Sample ID: "J1LER" File: "EX503160076.wiff"  
Peak Name: "28-Dinitro-4-nitrofluorene" Mass(es): "158.0/160.0 amu"

Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC

Concentration: 500. ng/mL

Calculated Conc: 549. ng/mL

Acq. Date: 3/17/2010

Acq. Time: 3:40:17 AM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 450.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3.00 points

RT Window: 30.0 sec

Expected RT: 4.98 min

Use Relative RT: No

Int. Type: Valley

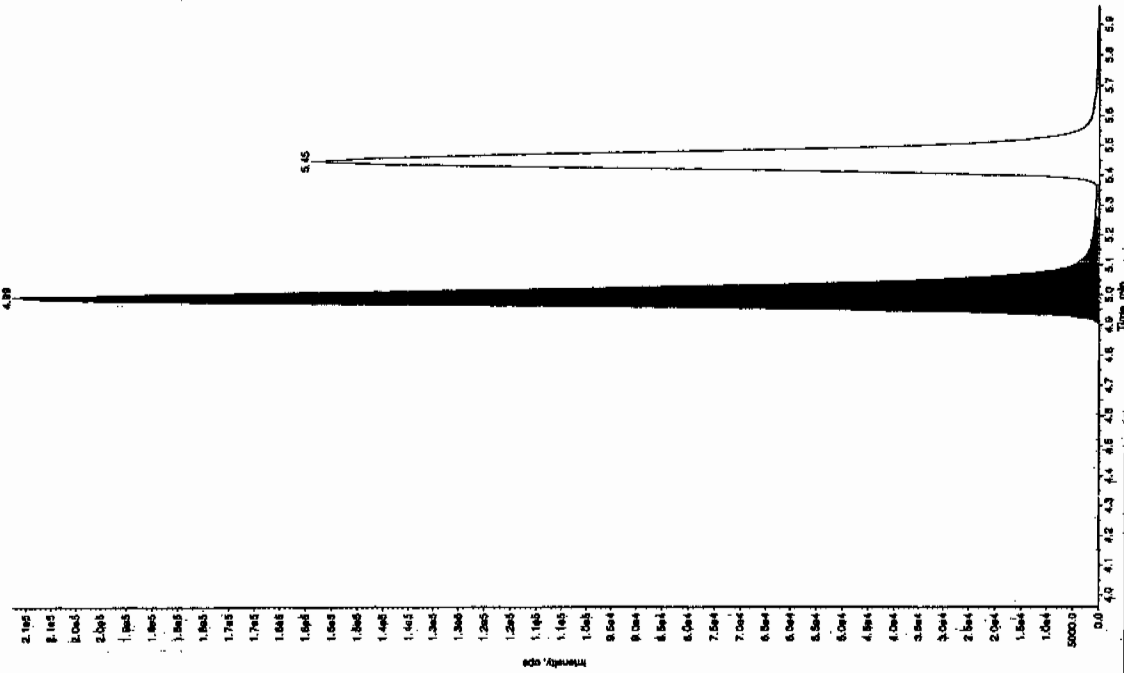
Retention Time: 4.99 min

Area: 8.86e+005 counts

Height: 212553.741 cps

Start Time: 4.89 min

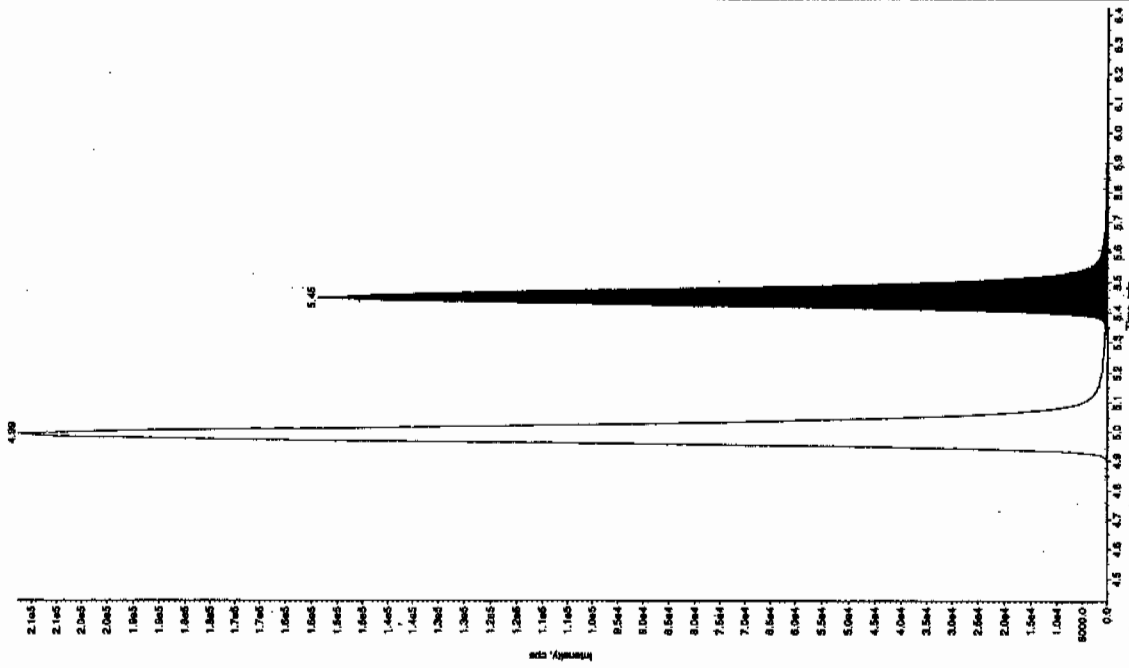
End Time: 5.26 min



Sample Name: "WXX100316-260CV" Sample ID: "11LEF" File: "EXS03160078.will"  
Peak Name: "24-Diamino-6-nitrofluorene" Mass(es): "166.046.0 amu"  
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 579. ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 3:40:17 AM

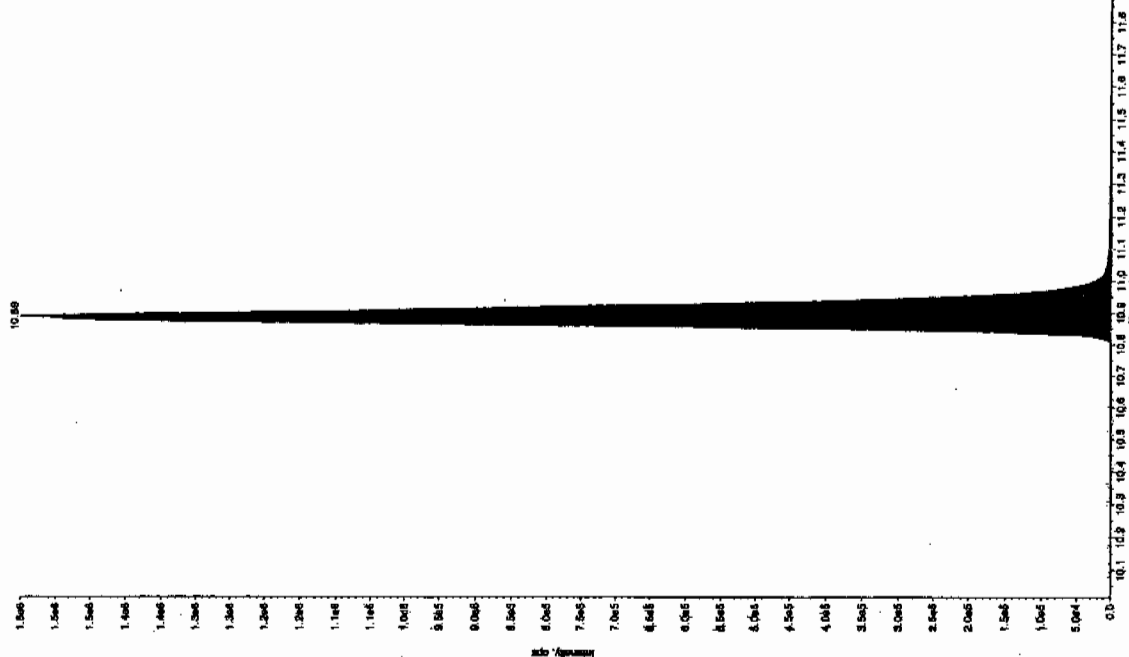
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 350.00 cps  
Min. Peak Width: 0.80 sec  
Smoothing Width: 3 points  
RT Window: 10.0 sec  
Expected RT: 5.43 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 5.45 min  
Area: 6.33e+005 counts  
Height: 15315.674 cps  
Start Time: 5.31 min  
End Time: 5.59 min



Sample Name: "WXX100316-260CV" Sample ID: "11LEF" File: "EXS03160078.will"  
Peak Name: "tris(o-cresyl) phosphine" Mass(es): "369.191.0 amu"  
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 515. ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 3:40:17 AM

Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 8000.00 cps  
Min. Peak Width: 0.80 sec  
Smoothing Width: 3 points  
RT Window: 10.0 sec  
Expected RT: 10.9 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 10.9 min  
Area: 6.37e+006 counts  
Height: 1550127.319 cps  
Start Time: 10.8 min  
End Time: 11.2 min



**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2124

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXS03160077.wiff

**Analysis Date:** 17-MAR-10 04:11

**LCMSMS ID:** 1358

**Column ID:** JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	113	113	
2,6-Diamino-4-nitrotoluene	100	115	115	
3,4-Dinitrotoluene	50	46.8	94	
3,5-Dinitroaniline	100	94.8	95	
TATB	100	112	112	
tris(o-cresyl) phosphate	100	105	105	

**Recovery Limits:**

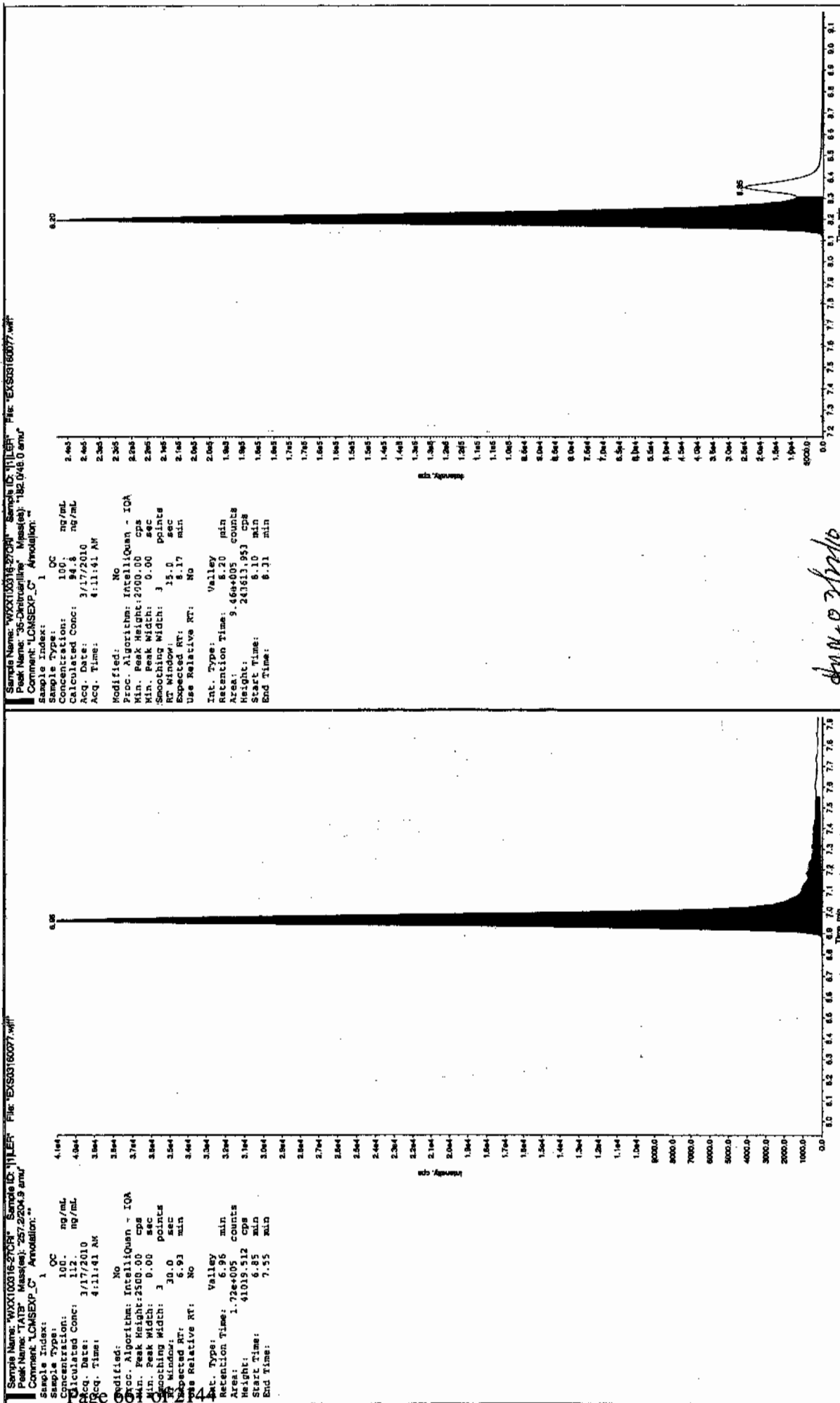
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Jan 31/2010



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



Sample Name: "WXX10018-270P" Sample ID: "115P" File: "EXS03160077.mf"  
Peak Name: "4-Chlorobenzene" Mass(es): "152.0751.9 amu"  
Comment: "LCMSXP\_C" Annotation: ""

Sample Index: 1

Sample Type: OC

Concentration: 50.0 ng/mL

Calculated Conc: 46.8 ng/mL

Acq. Date: 3/17/2010

Acq. Time: 4:11:41 AM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 1460.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 15.0 sec

Expected RT: 8.33 min

Use Relative RT: No

Int. Type: Valley

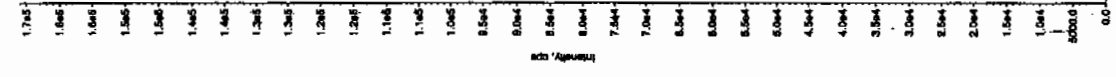
Retention Time: 8.33 min

Area: 6.01e+005 counts

Height: 183400.525 cps

Start Time: 8.28 min

End Time: 8.36 min



Sample Name: "WXX10018-270P" Sample ID: "115P" File: "EXS03160077.mf"  
Peak Name: "25-Diamino-4-nitrobenzoic acid" Mass(es): "186.0465.0 amu"  
Comment: "LCMSXP\_C" Annotation: ""

Sample Index: 1

Sample Type: OC

Concentration: 100.0 ng/mL

Calculated Conc: 115.0 ng/mL

Acq. Date: 3/17/2010

Acq. Time: 4:11:41 AM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 450.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 4.96 min

Use Relative RT: No

Int. Type: Valley

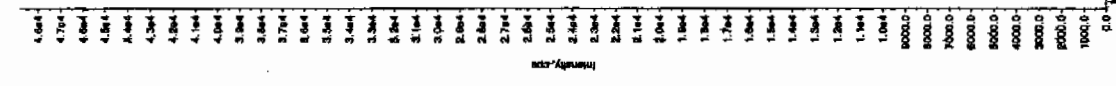
Retention Time: 4.96 min

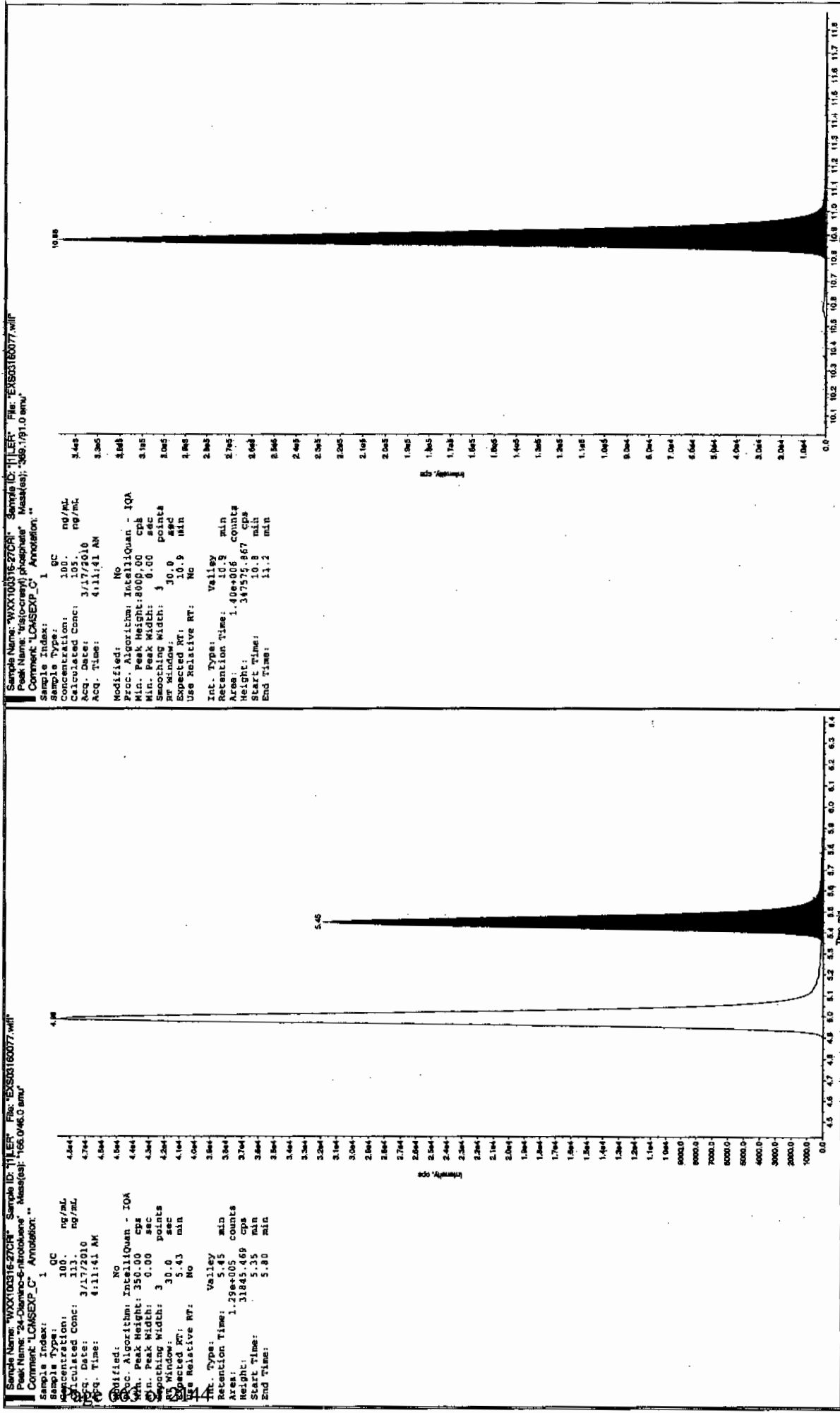
Area: 1.37e+005 counts

Height: 48802.704 cps

Start Time: 4.89 min

End Time: 5.25 min





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

7A  
**Explosives Continuing Calibration Verification**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2124

**Lab Code:** GEL

**GEL Sample ID:** WXXCCV

**GEL Data File** EXS03160088.wiff

**Analysis Date:** 17-MAR-10 07:04

**LCMSMS ID:** 1358

**Column ID:** Sphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	528	106	
2,6-Diamino-4-nitrotoluene	500	571	114	
3,4-Dinitrotoluene	250	222	89	
3,5-Dinitroaniline	500	499	100	
TATB	500	540	108	
tris(o-cresyl) phosphate	500	544	109	

**Recovery Limits:**

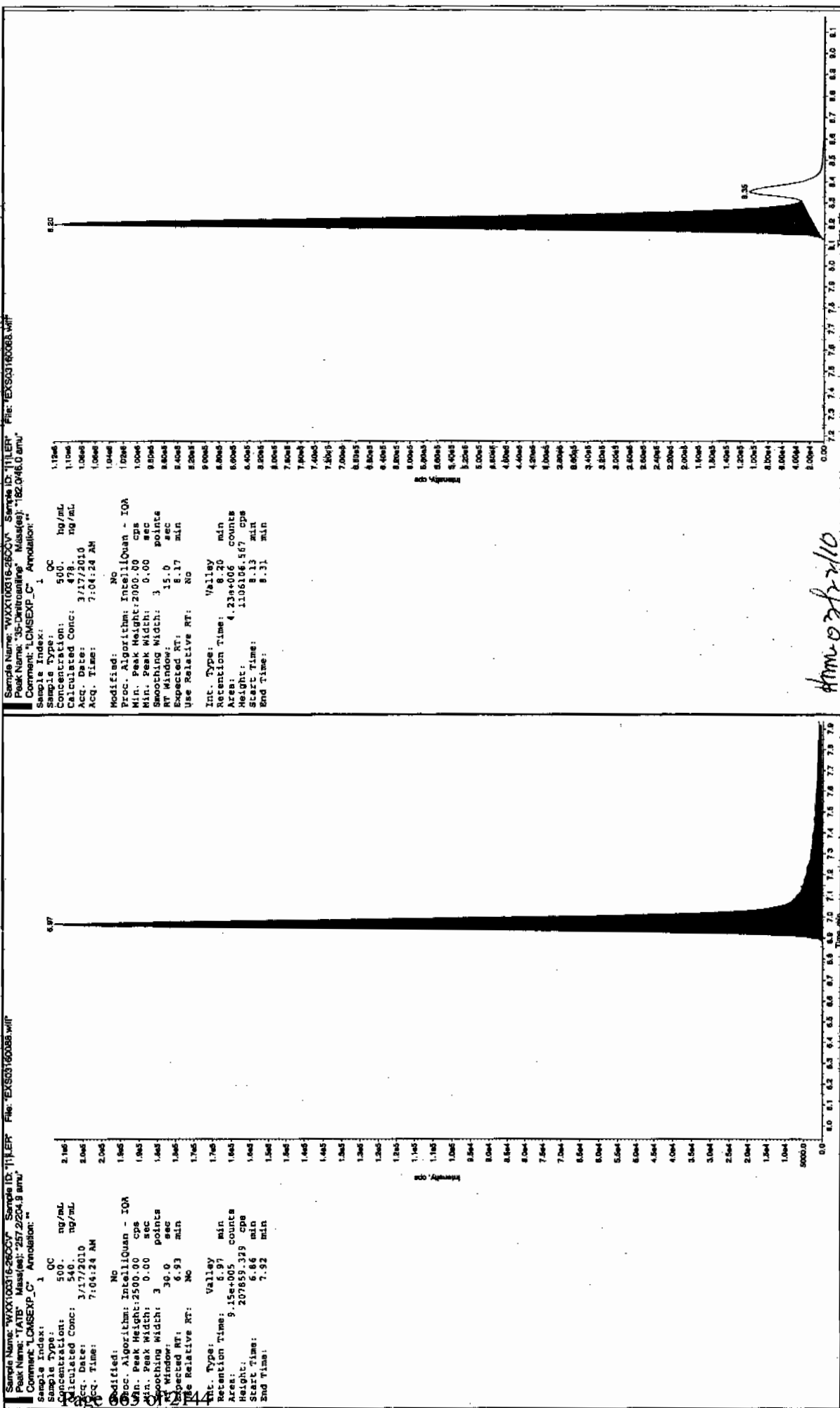
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

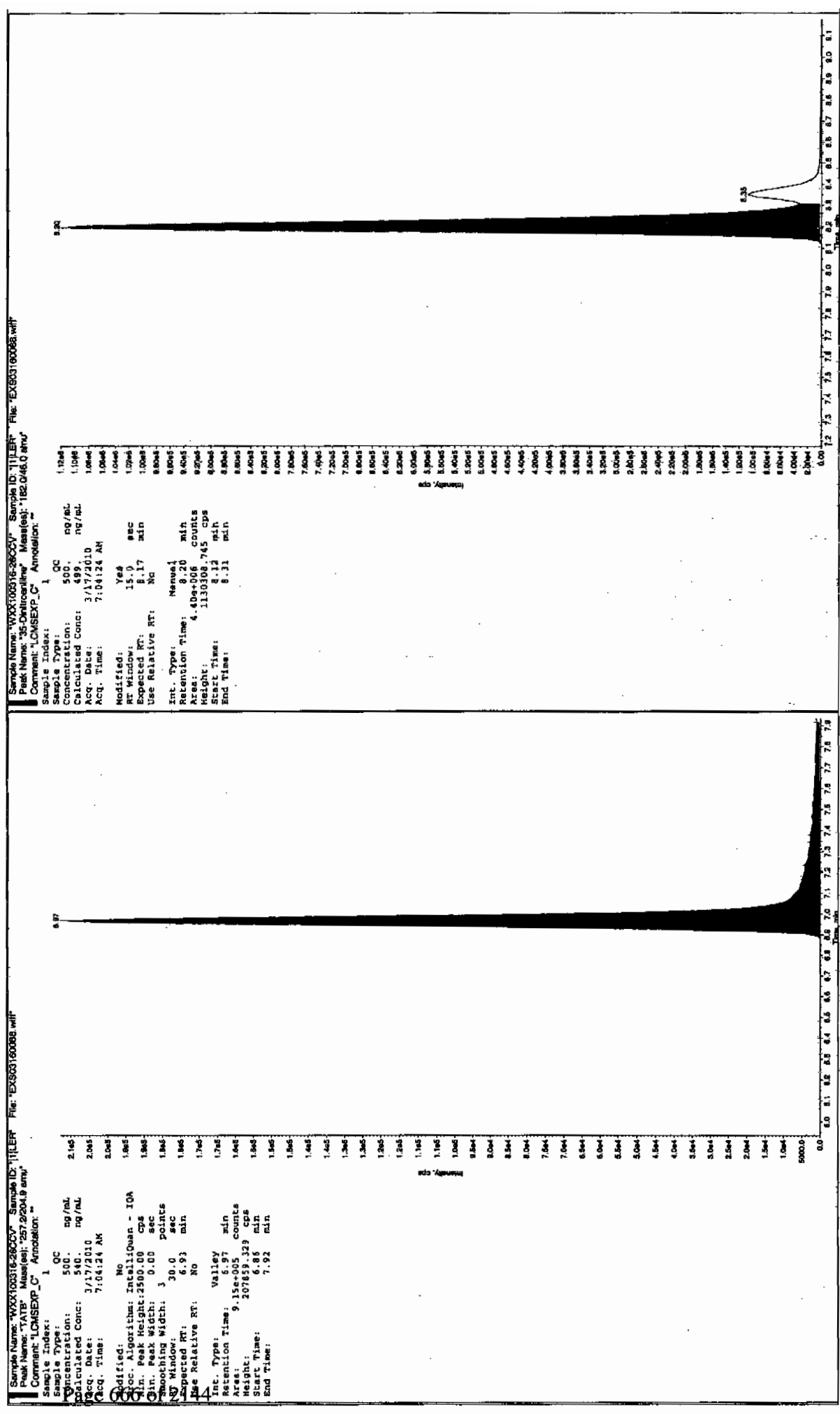
\* Value outside of Recovery Limits

Before Jan 31/8/10



Amc 03/10

after Jan 31/9/10



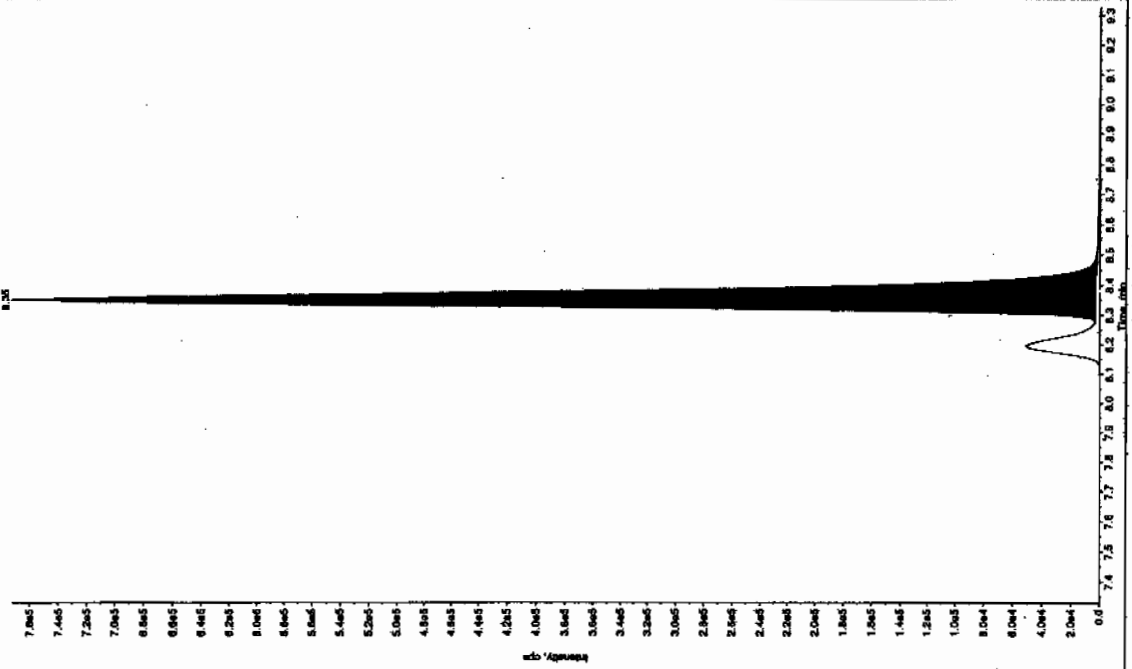
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100316-280CV" Sample ID: "111ER" File: "EX503180088.wif"  
Peak Name: "34-Dihydro-4-nitrofluorene" Mass(es): "182.1/151.9 amu"  
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: QC  
Concentration: 250. ng/mL  
Calculated Conc: 222. ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 7:04:24 AM

Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 1460.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 15.0 sec  
Expected RT: 8.33 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 8.35 min  
Area: 2.81e+006 counts  
Height: 770004.761 cps  
Start Time: 8.28 min  
End Time: 8.55 min

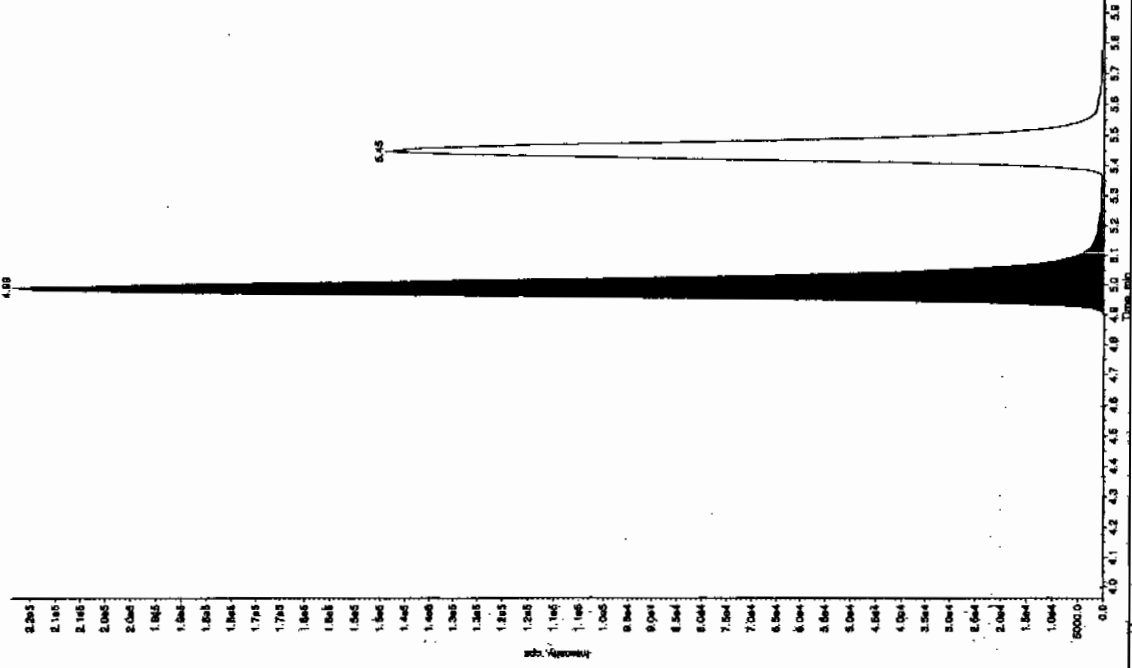


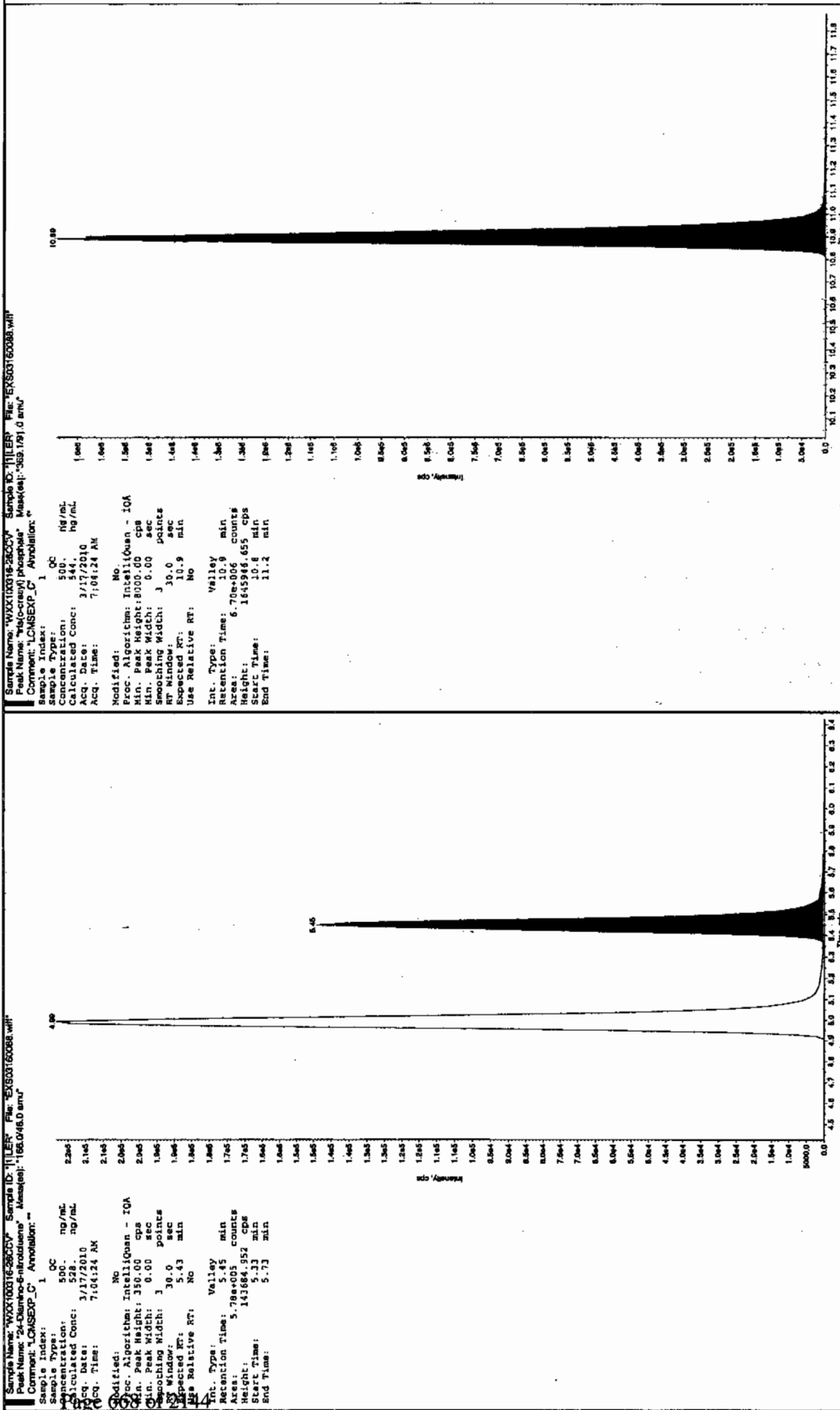
Sample Name: "WXX100316-280CV" Sample ID: "111ER" File: "EX503180088.wif"  
Peak Name: "26-Dihydro-4-nitrofluorene" Mass(es): "166.0/145.0 amu"  
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 571. ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 7:04:24 AM

Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 450.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 4.96 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 4.99 min  
Area: 9.21e+005 counts  
Height: 218436.356 cps  
Start Time: 4.89 min  
End Time: 5.29 min





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

**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2124

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXS03160090.wiff

**Analysis Date:** 17-MAR-10 07:35

**LCMSMS ID:** 1358

**Column ID:** JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	112	112	
2,6-Diamino-4-nitrotoluene	100	113	113	
3,4-Dinitrotoluene	50	46.1	92	
3,5-Dinitroaniline	100	90.4	90	
TATB	100	111	111	
tris(o-cresyl) phosphate	100	108	108	

**Recovery Limits:**

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits



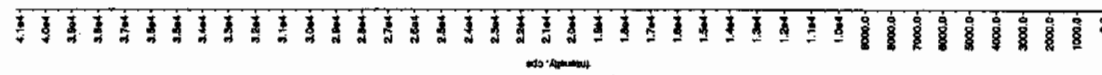
2/19/10

Sample Name: WXX10016-27091 Sample ID: 111ER File: EX503160090.wif  
 Peak Name: 111ER Mass(es): 257.20049 and  
 Comment: LCMSEXP\_C Annotation:

Sample Index: 1  
 Sample Type: 100 ng/mL  
 Concentration: 111.1 ng/mL  
 Calculated Conc: 3/17/2010  
 Acq. Date: 7:35:49 AM  
 Acq. Time:

Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2500.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 RT Window: 30.0 sec  
 Expected RT: 6.93 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 5.97 min  
 Area: 1.70e+005 counts  
 Height: 4117.401 cps  
 Start Time: 5.85 min  
 End Time: 7.65 min

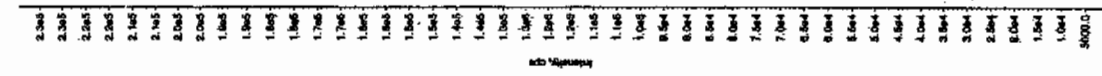


Sample Name: WXX10016-27091 Sample ID: 111ER File: EX503160090.wif  
 Peak Name: 111ER Mass(es): 102.04630 and  
 Comment: LCMSEXP\_C Annotation:

Sample Index: 1  
 Sample Type: 100 ng/mL  
 Concentration: 90.4 ng/mL  
 Calculated Conc: 3/17/2010  
 Acq. Date: 7:35:49 AM  
 Acq. Time:

Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 RT Window: 15.0 sec  
 Expected RT: 8.17 min  
 Use Relative RT: No

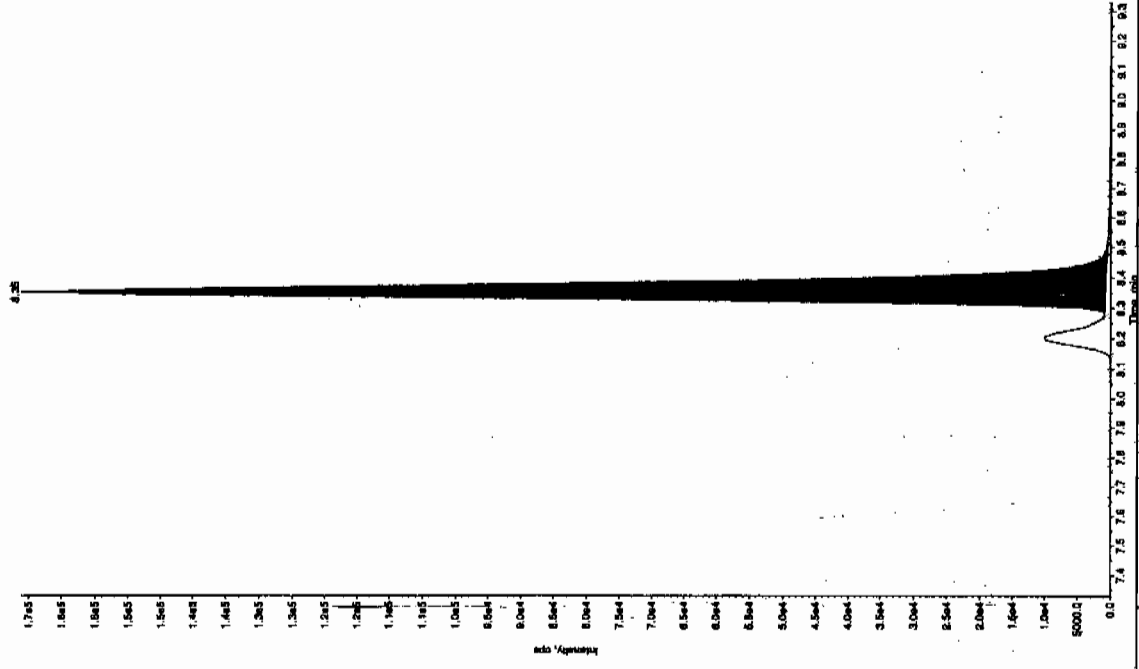
Int. Type: Valley  
 Retention Time: 8.21 min  
 Area: 9.06e+003 counts  
 Height: 234618.409 cps  
 Start Time: 8.10 min  
 End Time: 8.31 min



4mm 0.2 10

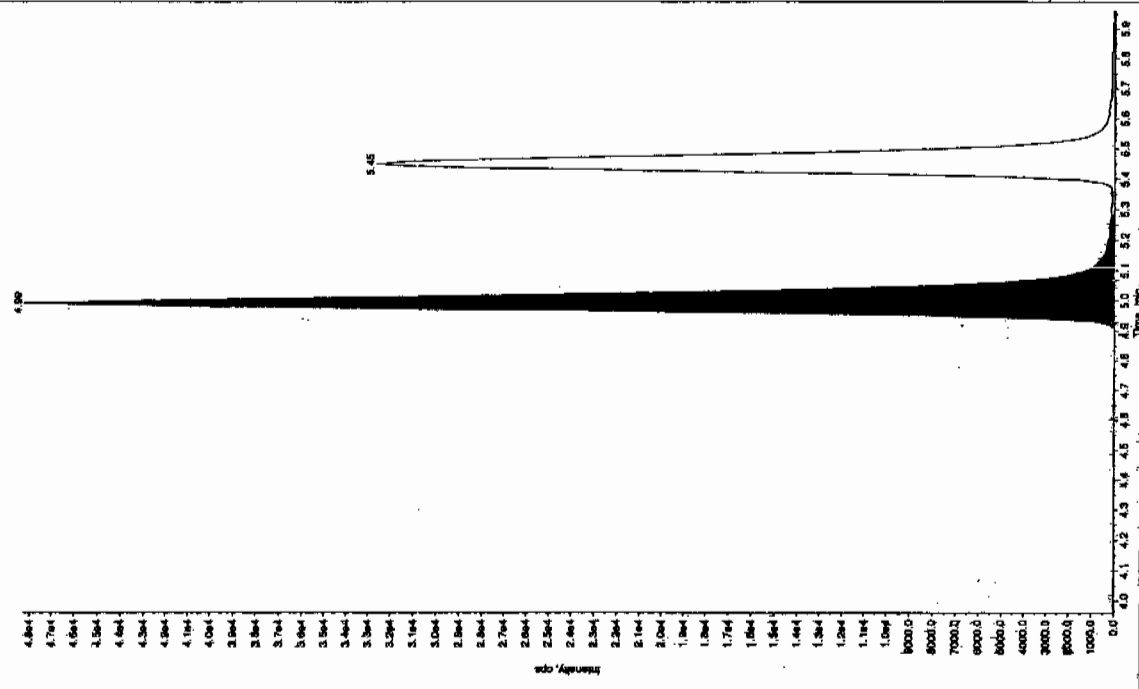
Sample Name: "WXX100316-27CR1" Sample ID: "111ER" File: "EX630160050.wif"  
Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.1715.9 amu"  
Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
Sample Type: OC  
Concentration: 50.0 ng/mL  
Calculated Conc: 3/17/2010  
Acq. Date: 7:35:49 AM  
Acq. Time: 7:35:49 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 1460.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 15.0 sec  
Expected RT: 8.33 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 8.35 min  
Area: 5.92e+005 counts  
Height: 165461.323 cps  
Start Time: 8.28 min  
End Time: 8.54 min



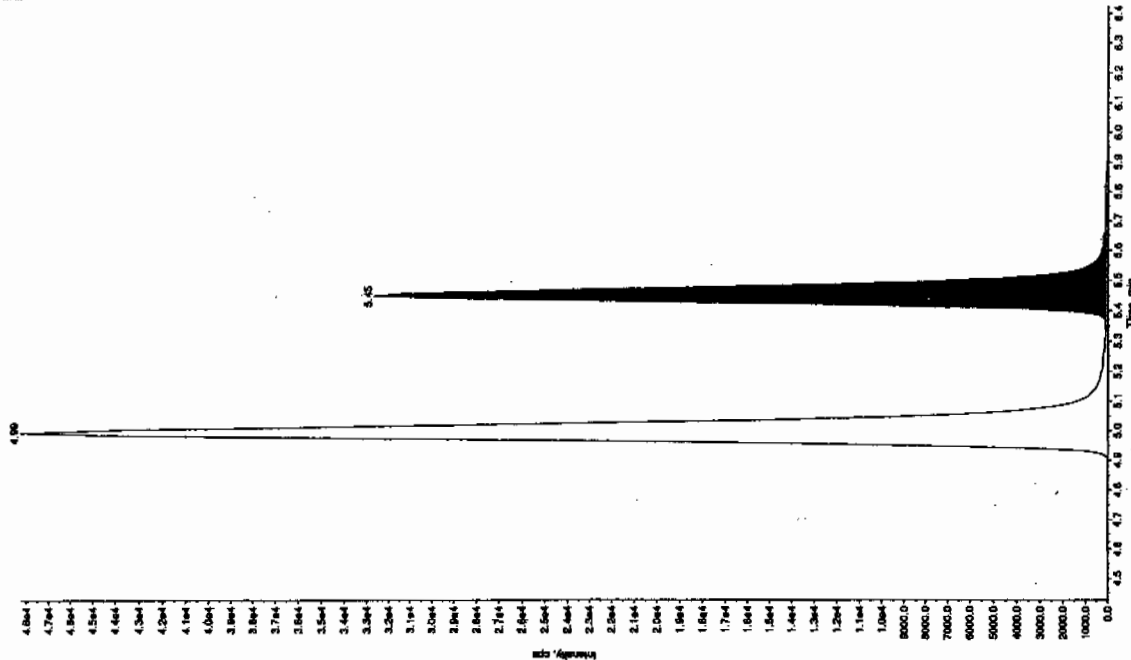
Sample Name: "WXX100316-27CR1" Sample ID: "111ER" File: "EX630160050.wif"  
Peak Name: "28-Diamino-4-nitrochlorobenzene" Mass(es): "166.048.0 amu"  
Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
Sample Type: OC  
Concentration: 100.0 ng/mL  
Calculated Conc: 3/17/2010  
Acq. Date: 7:35:49 AM  
Acq. Time: 7:35:49 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 450.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 4.96 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 4.99 min  
Area: 1.92e+005 counts  
Height: 48250.282 cps  
Start Time: 4.90 min  
End Time: 5.28 min



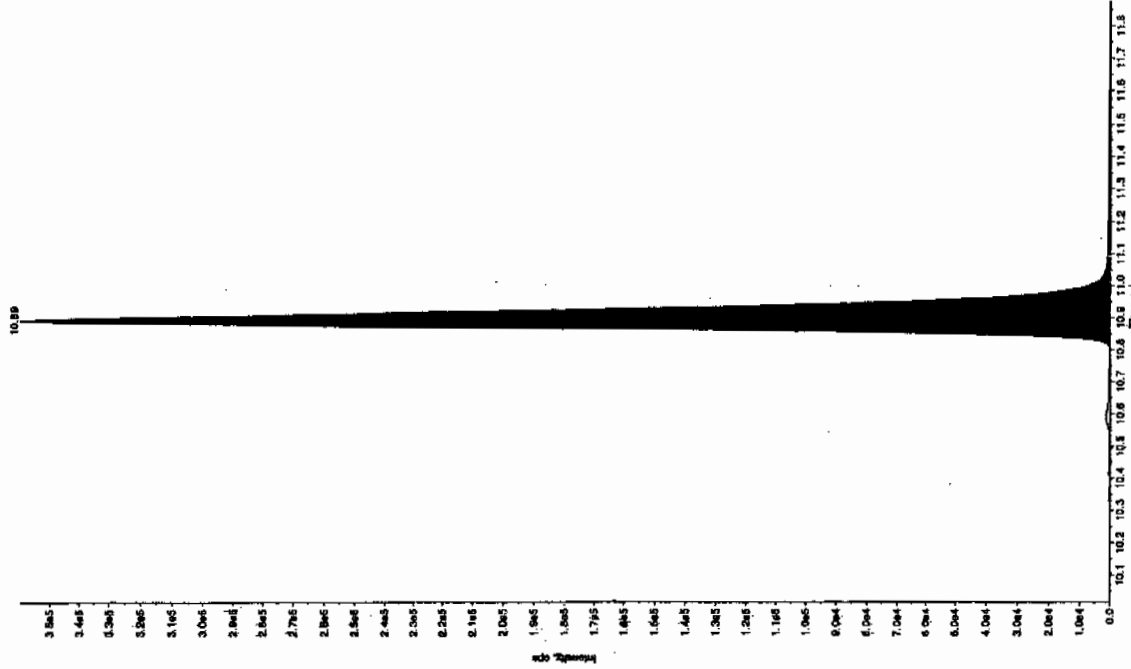
Sample Name: "WX100316-2709" Sample ID: "11LER" File: "EX503160030.w"   
 Peak Name: "24-Dienno-6-nitroclous" Mass(es): "185.046.0 amu"   
 Comment: "LCMSXP\_C" Annotation: "

Sample Index: 1   
 Sample Type: 100   
 Concentration: 100. ng/mL   
 Calculated Conc: 3/17/2010   
 Acq. Date: 7:35:49 AM   
 Acq. Time: 7:35:49 AM   
 Modified: No   
 Proc. Algorithm: IntelliQuan - IQA   
 Min. Peak Height: 350.00 cps   
 Min. Peak Width: 0.00 sec   
 Smoothing Width: 3 points   
 RT Window: 30.0 sec   
 Expected RT: 5.43 min   
 Use Relative RT: No   
 Int. Type: Valley   
 Retention Time: 5.45 min   
 Area: 1.28e+005 counts   
 Height: 32551.216 cps   
 Start Time: 5.33 min   
 End Time: 5.72 min



Sample Name: "WX100316-2709" Sample ID: "11LER" File: "EX503160030.w"   
 Peak Name: "24-Dienno-6-nitroclous" Mass(es): "185.046.0 amu"   
 Comment: "LCMSXP\_C" Annotation: "

Sample Index: 1   
 Sample Type: 100   
 Concentration: 100. ng/mL   
 Calculated Conc: 3/17/2010   
 Acq. Date: 7:35:49 AM   
 Acq. Time: 7:35:49 AM   
 Modified: No   
 Proc. Algorithm: IntelliQuan - IQA   
 Min. Peak Height: 8000.00 cps   
 Min. Peak Width: 0.00 sec   
 Smoothing Width: 3 points   
 RT Window: 30.0 sec   
 Expected RT: 10.9 min   
 Use Relative RT: No   
 Int. Type: Valley   
 Retention Time: 10.9 min   
 Area: 1.45e+006 counts   
 Height: 35928.390 cps   
 Start Time: 10.2 min   
 End Time: 11.2 min



# QUALITY CONTROL DATA

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 959332

Lab Code: GEL

GEL Job No (SDG) 10-2124

Matrix: SOIL

GEL Sample ID: 1202057490

Sample Amount 2

Moisture:

Amount Units g

Date Received: 01-MAR-10

Extraction Type Sonication

Extraction Batch ID: 959332

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0323082a

Date Analyzed: 25-MAR-10 00:58

Units: ug/kg

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

\*Concentration =

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323082a

Date: 25-Mar-2010

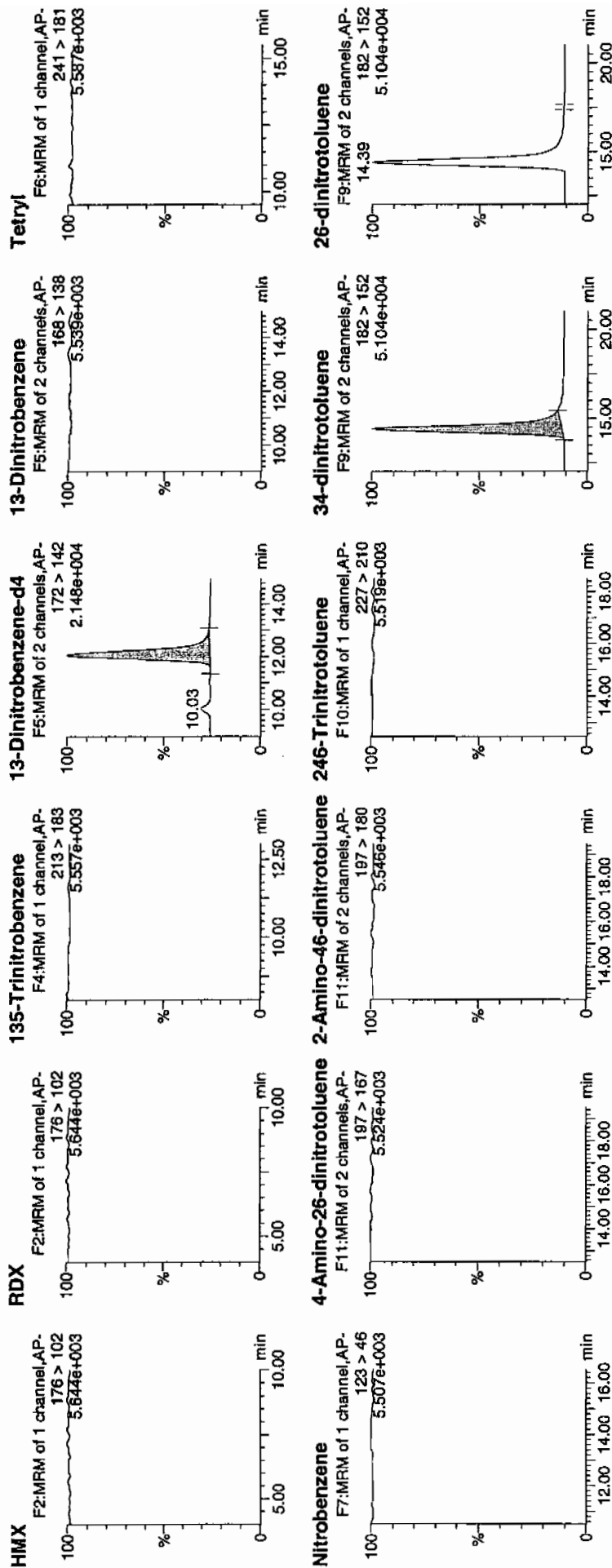
Time: 00:58:31

ID: 1202057490

Vial: 3:1,A

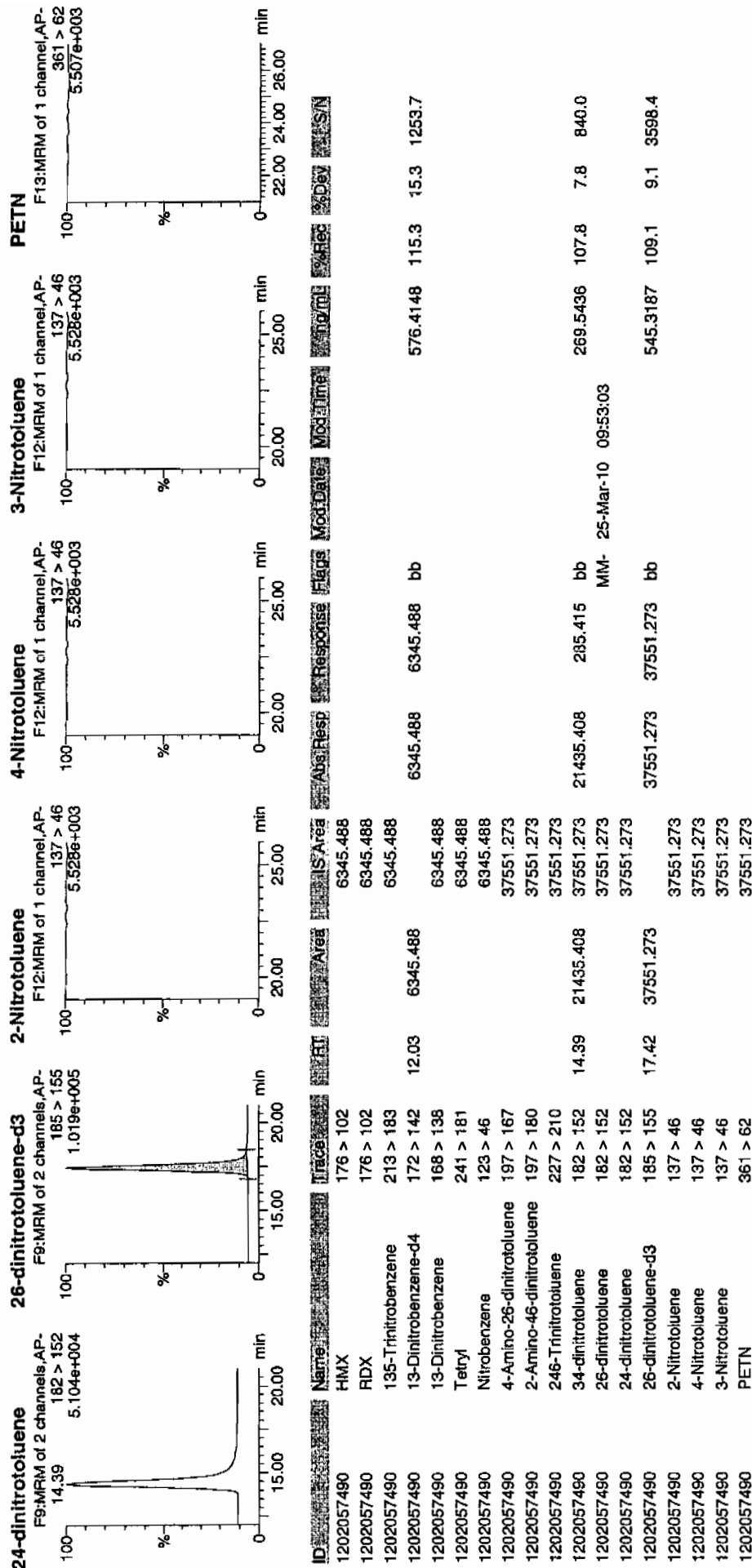
not  
3/25/10

1959334 | Soup | MB | 2



AMW  
03/30/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 959332

Lab Code: GEL

GEL Job No (SDG) 10-2124

Matrix: SOIL

GEL Sample ID: 1202057490

Sample Amount 2

Moisture:

Amount Units g

Date Received: 01-MAR-10

Extraction Type Sonication

Extraction Batch ID: 959332

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03160078.wiff

Date Analyzed: 17-MAR-10 04:27

Units: ug/kg

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

\*Concentration =

Instrument	X	Concentrated Extract Volume	X	Dilution
Value		Sample Amount		Factor



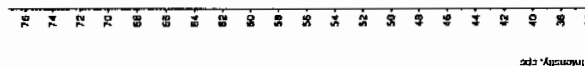
Jan 31/9/10

Sample Name: "1202057490" Sample ID: "95833421ER" File: "EX50316078.will"

Peak Name: "TATIS" Mass(es): "252.2204.9 amu"

Compound: "LCX83212S" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: 0.00 ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 4:27:22 AM  
Modified: No

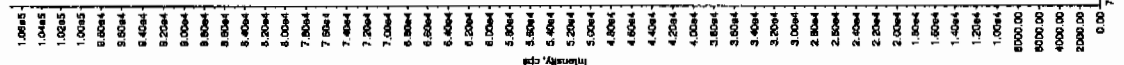


Sample Name: "1202057490" Sample ID: "95833421ER" File: "EX50316078.will"

Peak Name: "TATIS" Mass(es): "182.0450 amu"

Compound: "LCX83212S" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: 0.00 ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 4:27:22 AM  
Modified: No



Jan 03/22/10

Sample Name: "1202057430" Sample ID: "95933421ER" File: "EX503160078.wif"  
Peak Name: "34-Dinitrofluorene" Mass(es): 182.1151.9 amu

Comment: "LCX832125" Annotation: "

Sample Index: 1

Sample Type: Unknown

Concentration: 248 ng/mL

Calculated Conc: 3/17/2010

Acq. Date: 4:27:22 AM

Acq. Time: 8:33 min

Modified: No

Proc. Algorithm: IntelliQuan - IGA

Man. Peak Height: 1450.00 cps

Man. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 15.0 sec

Expected RT: 8.33 min

Use Relative RT: No

Int. Type: Valley

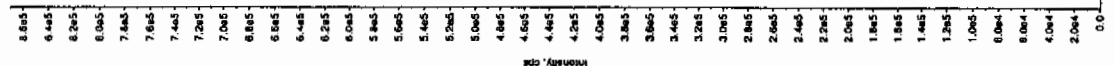
Retention Time: 8.35 min

Area: 3.15e+006 counts

Height: 270350.342 cps

Start Time: 5.23 min

End Time: 5.73 min



Sample Name: "1202057430" Sample ID: "95933421ER" File: "EX503160078.wif"  
Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): 166.046.0 amu

Comment: "LCX832125" Annotation: "

Sample Index: 1

Sample Type: Unknown

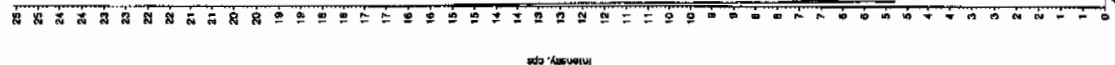
Concentration: 248 ng/mL

Calculated Conc: 3/17/2010

Acq. Date: 4:27:22 AM

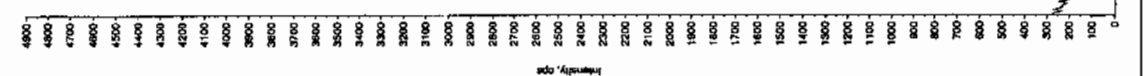
Acq. Time: 8:33 min

Modified: No



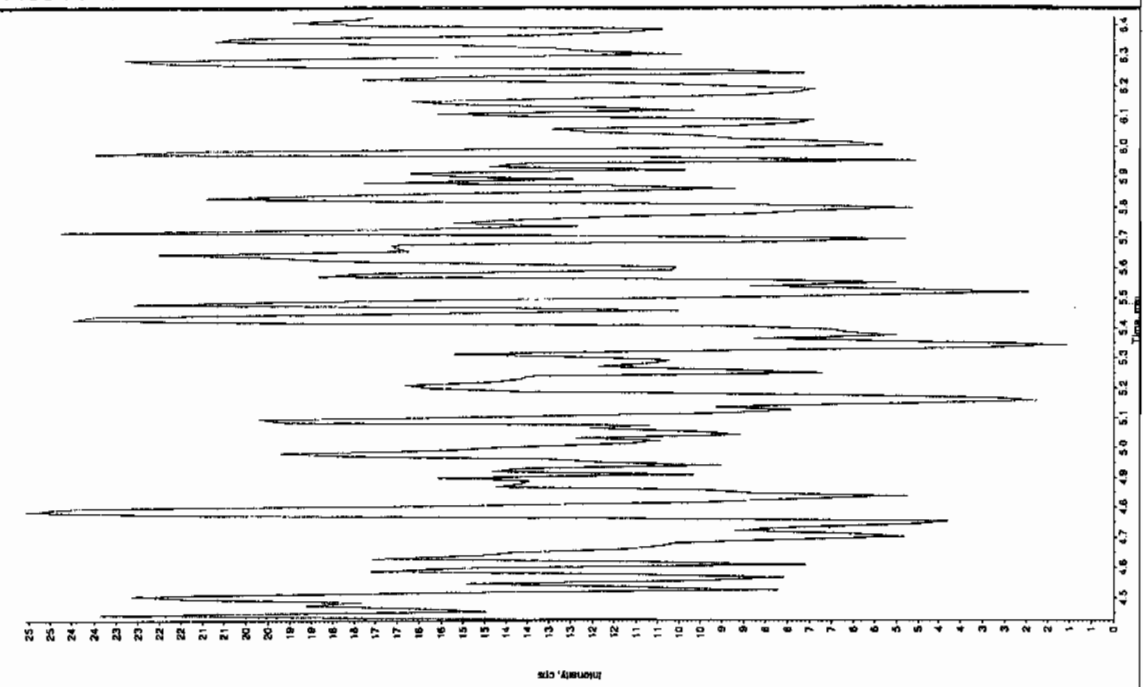
Sample Name: "1202057497" Sample ID: "95933421LRF" File: "EX503160078.wif"  
 Peak Name: "High (m/z) phosphatidyl" Mass(es): "585.191.0 amu"  
 Concentration: "LCMS032125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 4:27:22 AM  
 Modified: No



Sample Name: "1202057497" Sample ID: "95933421LRF" File: "EX503160078.wif"  
 Peak Name: "24-Oxophosphatidyl" Mass(es): "585.046.0 amu"  
 Concentration: "LCMS032125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 4:27:22 AM  
 Modified: No



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 959332

Lab Code: GEL

GEL Job No (SDG) 10-2124

Matrix: SOIL

GEL Sample ID: 1202057491

Sample Amount 2

Moisture:

Amount Units g

Date Received: 01-MAR-10

Extraction Type Sonication

Extraction Batch ID: 959332

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0323083a

Date Analyzed: 25-MAR-10 01:28

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4560	
121-14-2	2,4-Dinitrotoluene	4990	
121-82-4	RDX	5330	
19406-51-0	4-Amino-2,6-dinitrotoluene	5160	
2691-41-0	HMX	5020	
35572-78-2	2-Amino-4,6-dinitrotoluene	5530	
479-45-8	Tetryl	3100	
606-20-2	2,6-Dinitrotoluene	4940	
78-11-5	PETN	5330	
88-72-2	o-Nitrotoluene	4660	
98-95-3	Nitrobenzene	4470	
99-08-1	m-Nitrotoluene	4590	
99-35-4	1,3,5-Trinitrobenzene	4340	
99-65-0	m-Dinitrobenzene	4850	
99-99-0	p-Nitrotoluene	4880	

\*Concentration =

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA1.qtd, Time: Thu Mar 25 09:56:44 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323083a

Date: 25-Mar-2010

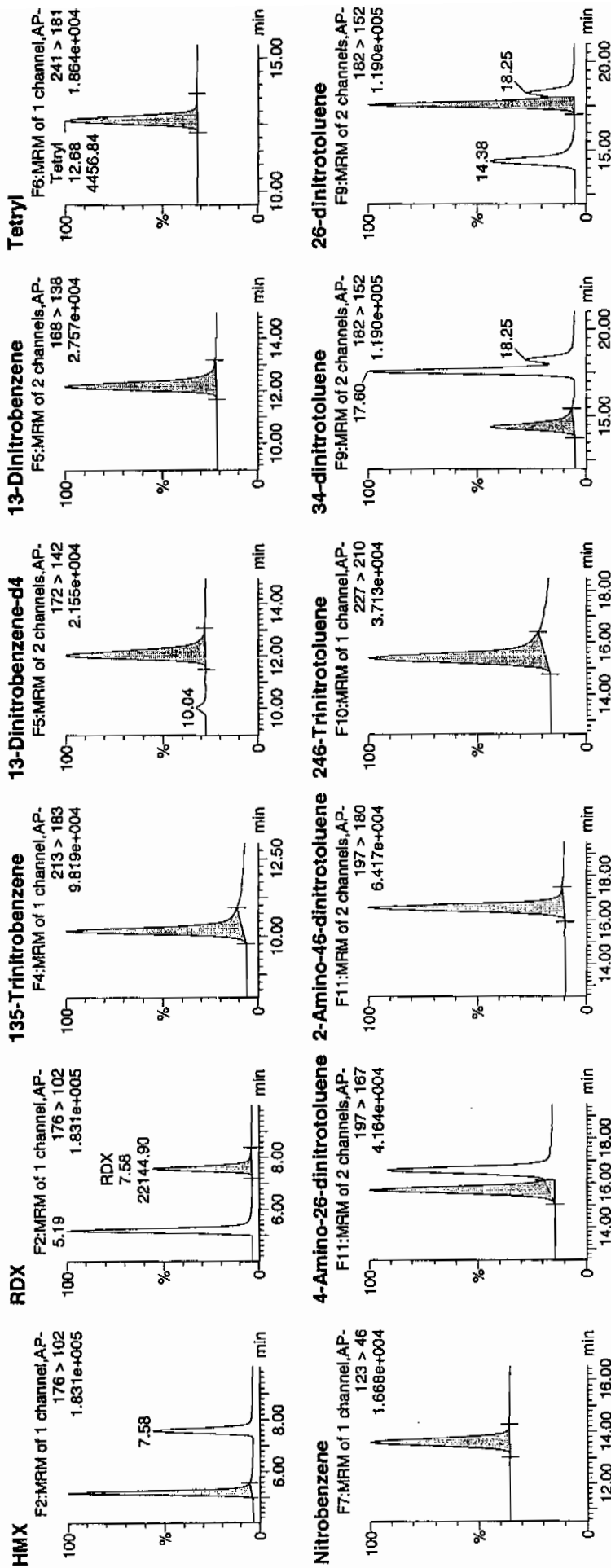
Time: 01:28:04

ID: 1202057491

Vial: 3:1,B

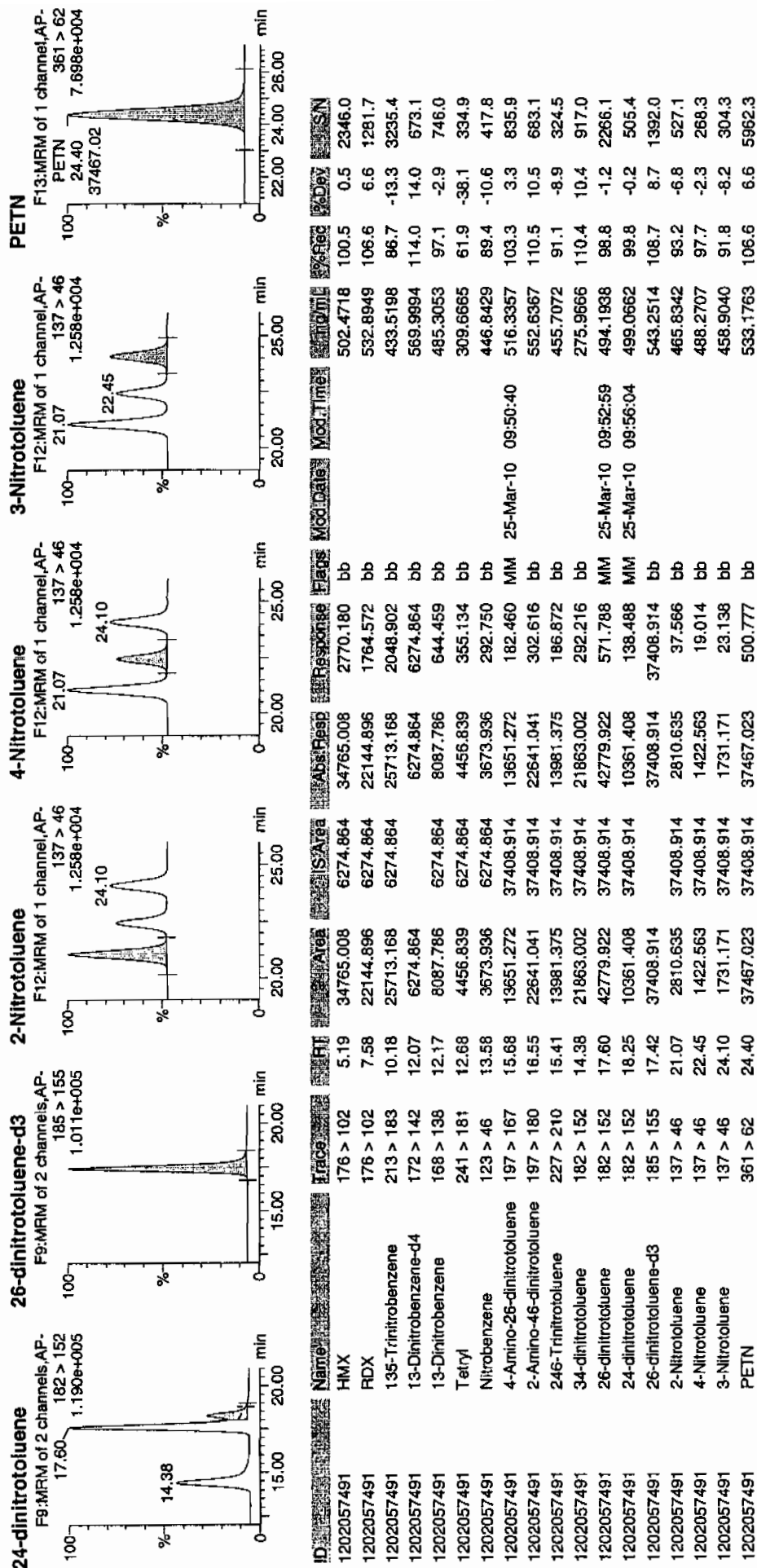
1.077  
3/25/10

CAW/959334 / Seiza / UG8 / 2 /



Am 3/30/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\032310expA1.qld, Time: Thu Mar 25 09:56:44 2010



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 959332

Lab Code: GEL

GEL Job No (SDG) 10-2124

Matrix: SOIL

GEL Sample ID: 1202057491

Sample Amount 2

Moisture:

Amount Units g

Date Received: 01-MAR-10

Extraction Type Sonication

Extraction Batch ID: 959332

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03160079.wiff

Date Analyzed: 17-MAR-10 04:43

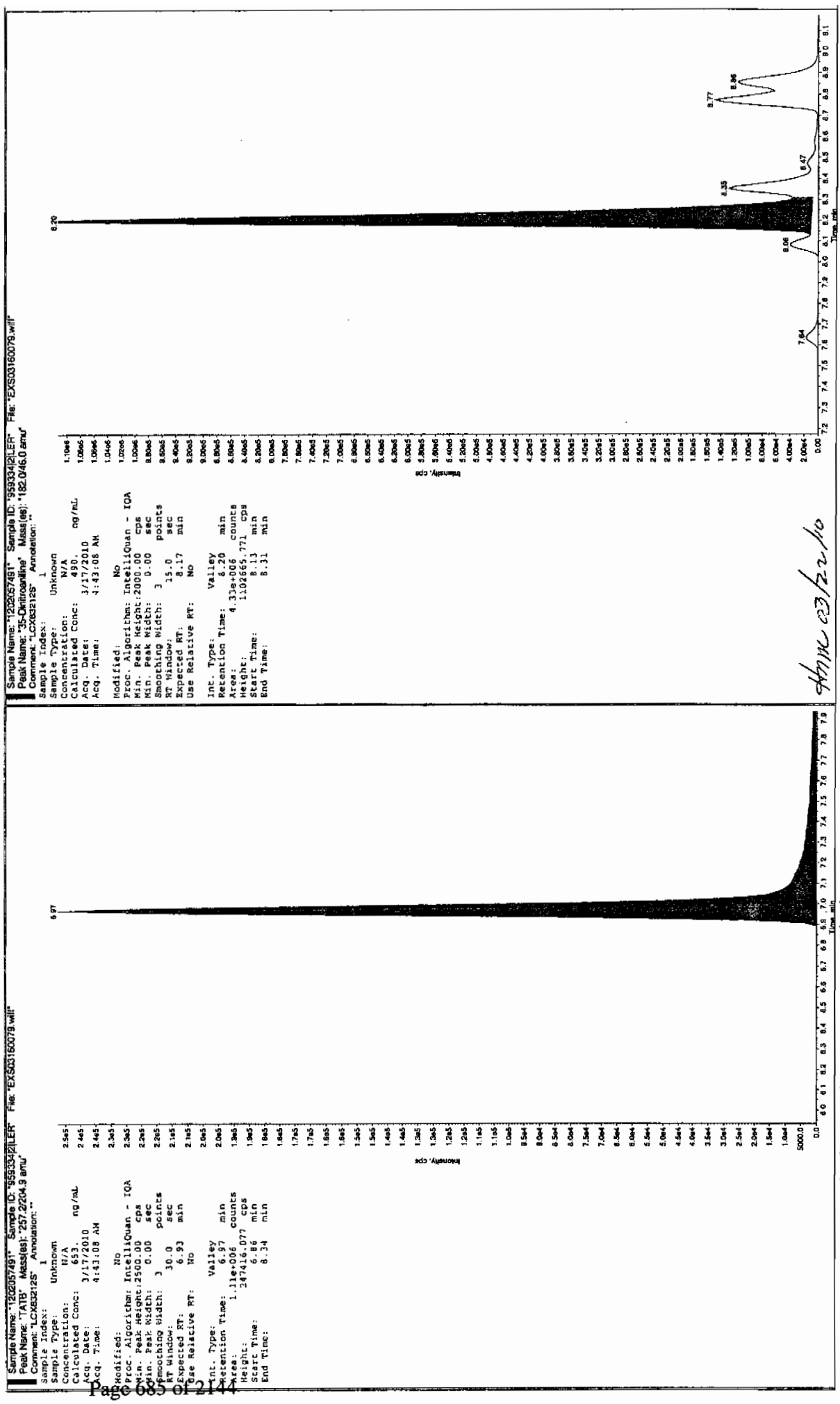
Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	6530	
59229-75-3	2,6-Diamino-4-nitrotoluene	6220	
618-87-1	3,5-Dinitroaniline	4900	
6629-29-4	2,4-Diamino-6-nitrotoluene	5450	
78-30-8	tris(o-cresyl) phosphate	5260	

\*Concentration =

Instrument Value	X	$\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$	X	Dilution Factor
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dan 3/19/10

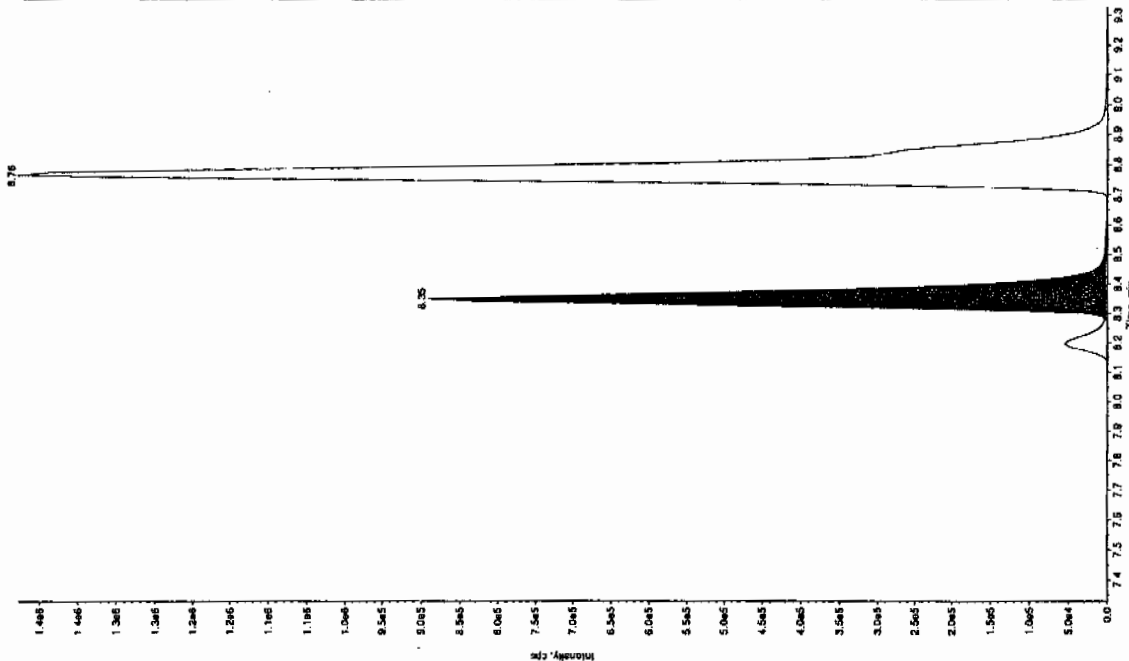


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



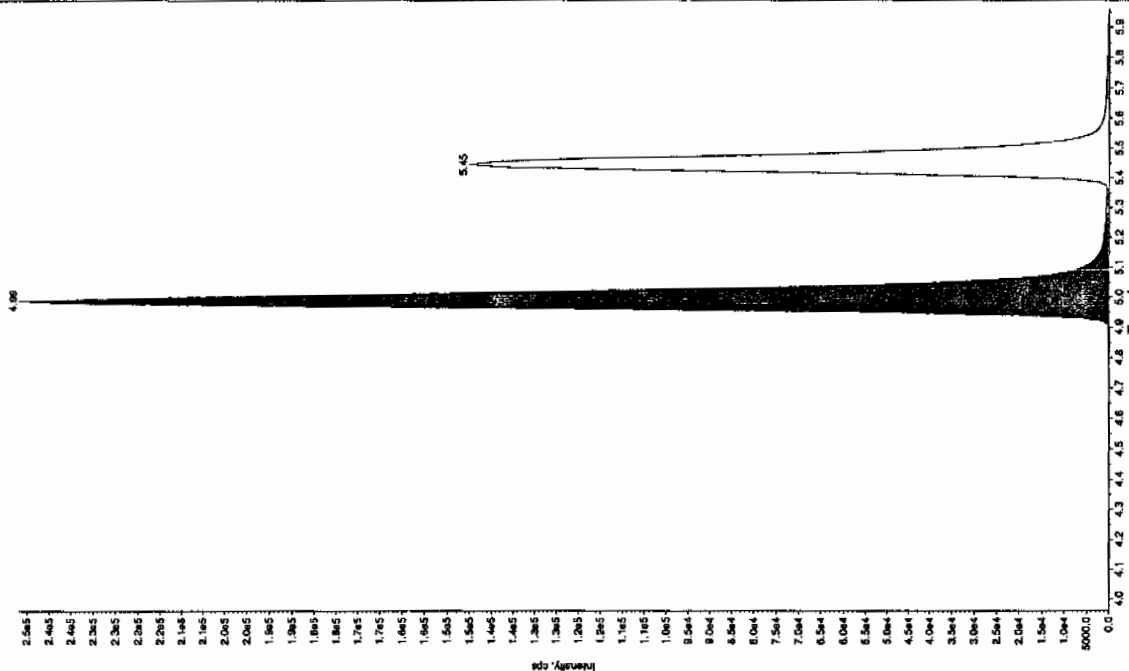
Sample Name: "1202057491" Sample ID: "955334201.ER" File: "EX503160079.wif"  
 Peak Name: "34-Chlorobenzene" Mass(es): "162.1715.9 amu"  
 Comment: "LCX632125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 251 ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 4:43:08 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.33 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.33 min  
 Area: 3.18e+006 counts  
 Height: 885921.99 cps  
 Start Time: 8.28 min  
 End Time: 8.35 min



Sample Name: "1202057491" Sample ID: "955334201.ER" File: "EX503160079.wif"  
 Peak Name: "26-Chlorobenzene" Mass(es): "166.0460 amu"  
 Comment: "LCX632125" Annotation: ""

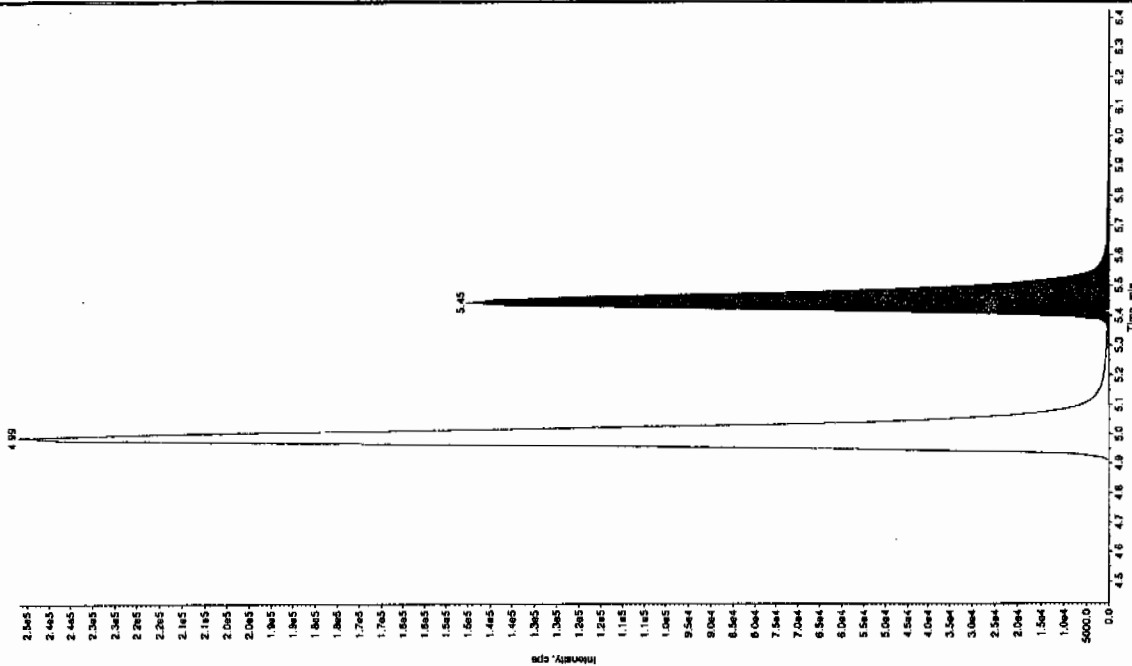
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 522 ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 4:43:08 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 4.96 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.96 min  
 Area: 1.00e+006 counts  
 Height: 249805.771 cps  
 Start Time: 4.92 min  
 End Time: 5.26 min



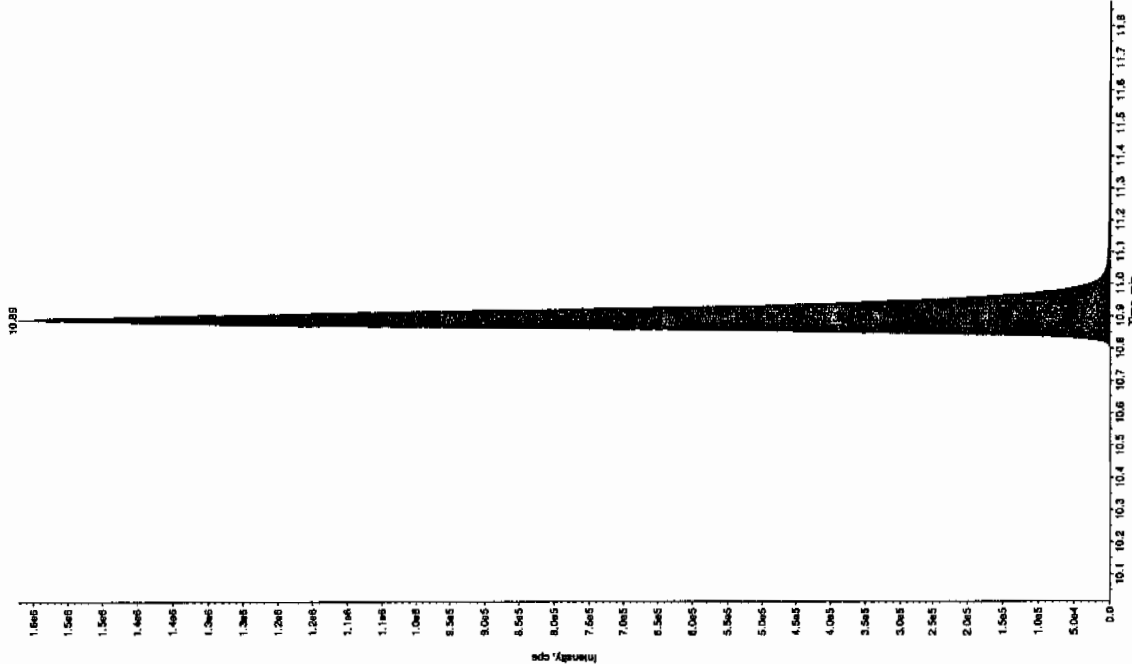
Sample Name: "1202057491" Sample ID: "95533421L1R" File: "EX50316079.wif"  
Peak Name: "24-Diamino-6-nitrofolene" Mass(es): "166.046.0 amu"

Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 545 ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 4:43:08 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 350.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 30.0 points  
RT Window: 30.0 sec  
Expected RT: 5.43 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 5.45 min  
Area: 5.97e+005 counts  
Height: 145117.874 cps  
Start Time: 5.35 min  
End Time: 5.57 min



Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 526 ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 4:43:08 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 800.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 30.0 points  
RT Window: 30.0 sec  
Expected RT: 10.9 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 10.9 min  
Area: 6.49e+006 counts  
Height: 1571397.583 cps  
Start Time: 10.8 min  
End Time: 11.2 min



# MISCELLANEOUS DATA

# Prep Logbook

## Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 959332 Verified by: \_\_\_\_\_  
 Analyst: Sirena White  
 Method: SW846 8330 PREP  
 Lab SOP: GL-OA-E-033 REV# 17  
 Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202057490 MB	08-MAR-2010 18:37:00	2	10	5
1202057491 LCS	08-MAR-2010 18:37:00	2	10	5
248202001	08-MAR-2010 18:37:00	2	10	5
248202002	08-MAR-2010 18:37:00	2	10	5
248203002	08-MAR-2010 18:37:00	2	10	5
248234001	08-MAR-2010 18:37:00	2	10	5
248234002	08-MAR-2010 18:37:00	2	10	5
248234003	08-MAR-2010 18:37:00	2	10	5
248234004	08-MAR-2010 18:37:00	2	10	5
248234005	08-MAR-2010 18:37:00	2	10	5
248234006	08-MAR-2010 18:37:00	2	10	5
248234007	08-MAR-2010 18:37:00	2	10	5
248240001	08-MAR-2010 18:37:00	2	10	5
1202057492 MS (248240001)	08-MAR-2010 18:37:00	2	10	5
1202057493 MSD (248240001)	08-MAR-2010 18:37:00	2	10	5
248240002	08-MAR-2010 18:37:00	2	10	5
248240003	08-MAR-2010 18:37:00	2	10	5
248240004	08-MAR-2010 18:37:00	2	10	5
248240005	08-MAR-2010 18:37:00	2	10	5
248240006	08-MAR-2010 18:37:00	2	10	5
248240007	08-MAR-2010 18:37:00	2	10	5
248240008	08-MAR-2010 18:37:00	2	10	5
248240009	08-MAR-2010 18:37:00	2	10	5
248240010	08-MAR-2010 18:37:00	2	10	5

Comments:

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202057491	8321 Explosives LCS	DXK100225-03	.1	mL
LCS	1202057491	8321 LANL Explosives Mix 10mg/L	UXX100223-02.02	.1	mL
MS	1202057492	8321 Explosives LCS	DXK100225-03	.1	mL
MS	1202057492	8321 LANL Explosives Mix 10mg/L	UXX100223-02.02	.1	mL
MSD	1202057493	8321 Explosives LCS	DXK100225-03	.1	mL
MSD	1202057493	8321 LANL Explosives Mix 10mg/L	UXX100223-02.02	.1	mL
SURR	All	3,4-Dinitrotoluene (8330 Sur.) 100ppm	DXP100304-02	.05	mL

Final Solvent: ACN

## GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Reviewed BY: *Jan 14*  
Date: *03/30/10*  
SOP: GL-OA-E-056 Rev.12  
Alt Check Std. ID: WXX100323-07

Method: SW846 8321A-Modified  
Int. Std.: UXX100309-01.2  
Mobile Phase Lot#: 1289327, 1281642  
Standard-Samp Reagent Lot#: 1283379, 1284736

Date: 03/23/10  
Extr. Injection Volume: 50uL  
Sequence Number: 032310expA  
Initial Calibration Date: 03/23/10

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0323001a	XIBLK01	MAP	3/23/10 9:08			1		USE	B
EXP0323002a	XIBLK01	MAP	3/23/10 9:38			1		USE	B
EXP0323003a	WXXICAL-01	MAP	3/23/10 10:08			1		USE	I
EXP0323004a	WXXICAL-02	MAP	3/23/10 10:37			1		USE	I
EXP0323005a	WXXICAL-03	MAP	3/23/10 11:07			1		USE	I
EXP0323006a	WXXICAL-04	MAP	3/23/10 11:36			1		USE	I
EXP0323007a	WXXICAL-05	MAP	3/23/10 12:05			1		USE	I
EXP0323008a	WXXICAL-06	MAP	3/23/10 12:35			1		USE	I
EXP0323009a	XIBLK02	MAP	3/23/10 13:04			1		USE	B
EXP0323010a	WXXICV	MAP	3/23/10 13:34			1		USE	C
EXP0323011a	XIBLK03	MAP	3/23/10 14:03			1		USE	B
EXP0323012a	WXXCRI	MAP	3/23/10 14:33			1		USE	C
EXP0323013a	247562004	MAP	3/23/10 15:02	956045	10-1950	2	LANL	USE	S
EXP0323014a	247565007	MAP	3/23/10 15:32	956053	10-1956	2	LANL	USE	S
EXP0323015a	247565008	MAP	3/23/10 16:01	956053	10-1956	2	LANL	USE	S
EXP0323016a	247565009	MAP	3/23/10 16:31	956053	10-1956	2	LANL	USE	S
EXP0323017a	247565010	MAP	3/23/10 17:00	956053	10-1956	2	LANL	USE	S
EXP0323018a	1202035690	MAP	3/23/10 17:30	950087	Various	2	LANL	USE	S
EXP0323019a	1202035691	MAP	3/23/10 17:59	950087	Various	2	LANL	USE	S
EXP0323020a	246434002	MAP	3/23/10 18:29	950087	10-1620	2	LANL	USE	S
EXP0323021a	1202035692	MAP	3/23/10 18:58	950087	10-1620	2	LANL	USE	S
EXP0323022a	1202035693	MAP	3/23/10 19:28	950087	10-1620	2	LANL	USE	S
EXP0323023a	WXXCCV	MAP	3/23/10 19:57			1		USE	C
EXP0323024a	XIBLK04	MAP	3/23/10 20:27			1		USE	B
EXP0323025a	WXXCRI	MAP	3/23/10 20:56			1		USE	C
EXP0323026a	246434003	MAP	3/23/10 21:26	950087	10-1620	2	LANL	USE	S
EXP0323027a	246434004	MAP	3/23/10 21:55	950087	10-1620	2	LANL	USE	S
EXP0323028a	246434005	MAP	3/23/10 22:25	950087	10-1620	2	LANL	USE	S
EXP0323029a	246434006	MAP	3/23/10 22:54	950087	10-1620	2	LANL	USE	S

EXP0323030a	246434007	MAP	3/23/10 23:24	950087	10-1620	2	LANL	USE	S
EXP0323031a	246434008	MAP	3/23/10 23:53	950087	10-1620	2	LANL	USE	S
EXP0323032a	246434009	MAP	3/24/10 0:23	950087	10-1620	2	LANL	USE	S
EXP0323033a	246434010	MAP	3/24/10 0:52	950087	10-1620	2	LANL	USE	S
EXP0323034a	246434011	MAP	3/24/10 1:22	950087	10-1620	2	LANL	USE	S
EXP0323035a	246434012	MAP	3/24/10 1:51	950087	10-1620	2	LANL	USE	S
EXP0323036a	WXXCCV	MAP	3/24/10 2:21			1		USE	C
EXP0323037a	XIBLK05	MAP	3/24/10 2:50			1		USE	B
EXP0323038a	WXXCRI	MAP	3/24/10 3:20			1		USE	C
EXP0323039a	246434013	MAP	3/24/10 3:49	950087	10-1620	2	LANL	USE	S
EXP0323040a	246434014	MAP	3/24/10 4:19	950087	10-1620	2	LANL	USE	S
EXP0323041a	246434015	MAP	3/24/10 4:48	950087	10-1620	2	LANL	USE	S
EXP0323042a	246442002	MAP	3/24/10 5:18	950087	10-1623	2	LANL	USE	S
EXP0323043a	246442003	MAP	3/24/10 5:47	950087	10-1623	2	LANL	USE	S
EXP0323044a	246442004	MAP	3/24/10 6:17	950087	10-1623	2	LANL	USE	S
EXP0323045a	246442005	MAP	3/24/10 6:46	950087	10-1623	2	LANL	USE	S
EXP0323046a	246442006	MAP	3/24/10 7:15	950087	10-1623	2	LANL	USE	S
EXP0323047a	WXXCCV	MAP	3/24/10 7:45			1		USE	C
EXP0323048a	XIBLK06	MAP	3/24/10 8:15			1		USE	B
EXP0323049a	WXXCRI	MAP	3/24/10 8:44			1		USE	C
EXP0323050a	1202055940	MAP	3/24/10 9:14	958640	Various	2	LANL	USE	S
EXP0323051a	1202055941	MAP	3/24/10 9:43	958640	Various	2	LANL	USE	S
EXP0323052a	248130002	MAP	3/24/10 10:13	958640	10-2097	2	LANL	USE	S
EXP0323053a	248130003	MAP	3/24/10 10:42	958640	10-2097	2	LANL	DUSE-RA	S
EXP0323054a	248130004	MAP	3/24/10 11:12	958640	10-2097	2	LANL	USE	S
EXP0323055a	248130005	MAP	3/24/10 11:41	958640	10-2097	2	LANL	USE	S
EXP0323056a	248184002	MAP	3/24/10 12:11	958640	10-2119	2	LANL	USE-DL	S
EXP0323057a	248184003	MAP	3/24/10 12:40	958640	10-2119	2	LANL	DUSE-RA	S
EXP0323058a	248130003	MAP	3/24/10 13:10	958640	10-2097	2	LANL	USE	S
EXP0323059a	248184003	MAP	3/24/10 13:39	958640	10-2119	2	LANL	USE	S
EXP0323060a	WXXCCV	MAP	3/24/10 14:09			1		USE	C
EXP0323061a	XIBLK07	MAP	3/24/10 14:38			1		USE	B
EXP0323062a	WXXCRI	MAP	3/24/10 15:08			1		USE	C
EXP0323063a	248197001	MAP	3/24/10 15:37	958640	10-2121	2	LANL	USE	S
EXP0323064a	1202055942	MAP	3/24/10 16:07	958640	10-2121	2	LANL	USE	S
EXP0323065a	1202055943	MAP	3/24/10 16:36	958640	10-2121	2	LANL	DUSE-RA	S
EXP0323066a	248197002	MAP	3/24/10 17:06	958640	10-2121	2	LANL	DUSE-RA	S

EXP0323067a	248197003	MAP	3/24/10 17:35	958640	10-2121	2	LANL	USE	S
EXP0323068a	248197004	MAP	3/24/10 18:05	958640	10-2121	2	LANL	USE	S
EXP0323069a	248197005	MAP	3/24/10 18:34	958640	10-2121	2	LANL	USE	S
EXP0323070a	248197007	MAP	3/24/10 19:04	958640	10-2121	2	LANL	USE	S
EXP0323071a	248197008	MAP	3/24/10 19:33	958640	10-2121	2	LANL	USE	S
EXP0323072a	248197009	MAP	3/24/10 20:03	958640	10-2121	2	LANL	USE	S
EXP0323073a	WXXCCV	MAP	3/24/10 20:32			1		USE	C
EXP0323074a	XIBLK08	MAP	3/24/10 21:02			1		USE	B
EXP0323075a	WXXCRI	MAP	3/24/10 21:31			1		USE	C
EXP0323076a	248197010	MAP	3/24/10 22:01	958640	10-2121	2	LANL	USE	S
EXP0323077a	248197011	MAP	3/24/10 22:30	958640	10-2121	2	LANL	USE	S
EXP0323078a	248197012	MAP	3/24/10 23:00	958640	10-2121	2	LANL	USE	S
EXP0323079a	248197013	MAP	3/24/10 23:29	958640	10-2121	2	LANL	USE	S
EXP0323080a	248184002	MAP	3/24/10 23:59	958640	10-2121	5	LANL	USE	S
EXP0323081a	XIBLK09	MAP	3/25/10 0:28		10-2119	1		USE	B
EXP0323082a	1202057490	MAP	3/25/10 0:58		Various	2	LANL	USE	S
EXP0323083a	1202057491	MAP	3/25/10 1:28		Various	2	LANL	USE	S
EXP0323084a	248202001	MAP	3/25/10 1:57		10-2124	2	LANL	USE	S
EXP0323085a	248202002	MAP	3/25/10 2:27		10-2124	2	LANL	USE	S
EXP0323086a	WXXCCV	MAP	3/25/10 2:56			1		USE	C
EXP0323087a	XIBLK10	MAP	3/25/10 3:26			1		USE	B
EXP0323088a	WXXCRI	MAP	3/25/10 3:55			1		USE	C
EXP0323089a	248203002	MAP	3/25/10 4:24			2	LANL	USE	S
EXP0323090a	248234001	MAP	3/25/10 4:54			2	LANL	USE	S
EXP0323091a	248234002	MAP	3/25/10 5:23			2	LANL	USE	S
EXP0323092a	248234003	MAP	3/25/10 5:53			2	LANL	USE	S
EXP0323093a	248234004	MAP	3/25/10 6:22			2	LANL	USE	S
EXP0323094a	248234005	MAP	3/25/10 6:52			2	LANL	USE	S
EXP0323095a	248234006	MAP	3/25/10 7:21			2	LANL	USE	S
EXP0323096a	248234007	MAP	3/25/10 7:51			2	LANL	USE	S
EXP0323097a	248240001	MAP	3/25/10 8:20			2	LANL	USE	S
EXP0323098a	1202057492	MAP	3/25/10 8:50			2	LANL	USE	S
EXP0323099a	WXXCCV	MAP	3/25/10 9:19			1		USE	C
EXP0323100a	XIBLK11	MAP	3/25/10 9:49			1		USE	B
EXP0323101a	WXXCRI	MAP	3/25/10 10:18			1		USE	C
EXP0323102a	1202057493	MAP	3/25/10 10:48	959334	10-2134	2	LANL	DUSE-RA	S
EXP0323103a	248240002	MAP	3/25/10 11:17	959334	10-2134	2	LANL	DUSE-RA	S

EXP0323104a	248240003	MAP	3/25/10 11:47	959334	10-2134	2	LANL	DUSE-RA	S
EXP0323105a	248240004	MAP	3/25/10 12:16	959334	10-2134	2	LANL	DUSE-RA	S
EXP0323106a	248240005	MAP	3/25/10 12:46	959334	10-2134	2	LANL	DUSE-RA	S
EXP0323107a	248240006	MAP	3/25/10 13:15	959334	10-2134	2	LANL	DUSE-RA	S
EXP0323108a	248240007	MAP	3/25/10 13:45	959334	10-2134	2	LANL	DUSE-RA	S
EXP0323109a	248240008	MAP	3/25/10 14:14	959334	10-2134	2	LANL	DUSE-RA	S
EXP0323110a	248240009	MAP	3/25/10 14:44	959334	10-2134	2	LANL	DUSE-RA	S
EXP0323111a	248240010	MAP	3/25/10 15:13	959334	10-2134	2	LANL	DUSE-RA	S
EXP0323112a	WXXCCV	MAP	3/25/10 15:43			1		DUSE	C
EXP0323113a	XIBLK12	MAP	3/25/10 16:12			1		DUSE	B



## GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 03/16/10

Extr. Injection Volume: 10uL

Sequence Number: 031610exs

Initial Calibration Date: 031610

Method: 8321A-Modified

Int. Std.: N/A

Mobile Phase Lot#: 1268566, 1268568

Standard-Samp Reagent Lot#: 1274562, 1261217

Reviewed By: *thm*Date: *03/17/10*

SOP: GL-OA-E-056 Rev.12

Alt Check Std. ID: WXX100316-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS03160001.wiff	XIBLK01	LER	3/16/2010 8:17			1		USE	B
EXS03160002.wiff	XIBLK01	LER	3/16/2010 8:33			1		USE	B
EXS03160003.wiff	WXXICAL-19	LER	3/16/2010 8:49			1		USE	I
EXS03160004.wiff	WXXICAL-20	LER	3/16/2010 9:04			1		USE	I
EXS03160005.wiff	WXXICAL-21	LER	3/16/2010 9:20			1		USE	I
EXS03160006.wiff	WXXICAL-22	LER	3/16/2010 9:36			1		USE	I
EXS03160007.wiff	WXXICAL-23	LER	3/16/2010 9:52			1		USE	I
EXS03160008.wiff	WXXICAL-24	LER	3/16/2010 10:07			1		USE	I
EXS03160009.wiff	WXXICAL-25	LER	3/16/2010 10:23			1		USE	I
EXS03160010.wiff	XIBLK02	LER	3/16/2010 10:39			1		USE	B
EXS03160011.wiff	WXXICV	LER	3/16/2010 10:54			1		USE	C
EXS03160012.wiff	XIBLK03	LER	3/16/2010 11:10			1		USE	B
EXS03160013.wiff	WXXCRI	LER	3/16/2010 11:26			1		USE	C
EXS03160014.wiff	1202049932	LER	3/16/2010 11:41	956053	VARIOUS	2	LANL	USE	S
EXS03160015.wiff	1202049933	LER	3/16/2010 11:57	956053	VARIOUS	2	LANL	USE	S
EXS03160016.wiff	247545001	LER	3/16/2010 12:13	956053	10-1964	2	LANL	USE	S
EXS03160017.wiff	247545002	LER	3/16/2010 12:29	956053	10-1964	2	LANL	USE	S
EXS03160018.wiff	247551001	LER	3/16/2010 12:44	956053	10-1969	2	LANL	USE	S
EXS03160019.wiff	247551002	LER	3/16/2010 13:00	956053	10-1969	2	LANL	USE	S
EXS03160020.wiff	247552002	LER	3/16/2010 13:16	956053	10-1970	2	LANL	USE	S
EXS03160021.wiff	247556001	LER	3/16/2010 13:31	956053	10-1953	2	LANL	USE	S
EXS03160022.wiff	1202049934	LER	3/16/2010 13:47	956053	10-1953	2	LANL	USE	S
EXS03160023.wiff	1202049935	LER	3/16/2010 14:03	956053	10-1953	2	LANL	USE	S
EXS03160024.wiff	WXXCCV	LER	3/16/2010 14:18			1		USE	C
EXS03160025.wiff	XIBLK04	LER	3/16/2010 14:34			1		USE	B
EXS03160026.wiff	WXXCRI	LER	3/16/2010 14:50			1		USE	C
EXS03160027.wiff	247556002	LER	3/16/2010 15:06	956053	10-1953	2	LANL	DUSE-RA	S
EXS03160028.wiff	247556003	LER	3/16/2010 15:21	956053	10-1953	2	LANL	DUSE-RA	S
EXS03160029.wiff	247556004	LER	3/16/2010 15:37	956053	10-1953	2	LANL	DUSE-RA	S
EXS03160030.wiff	247556005	LER	3/16/2010 15:53	956053	10-1953	2	LANL	DUSE-RA	S

EXS03160031.wiff	247565001	LER	3/16/2010 16:08	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160032.wiff	247565002	LER	3/16/2010 16:24	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160033.wiff	247565003	LER	3/16/2010 16:40	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160034.wiff	247565004	LER	3/16/2010 16:56	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160035.wiff	247565005	LER	3/16/2010 17:11	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160036.wiff	247565006	LER	3/16/2010 17:27	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160037.wiff	WXXCCV	LER	3/16/2010 17:43			1		DUSE	C
EXS03160038.wiff	XIBLK05	LER	3/16/2010 17:58			1		DUSE	B
EXS03160039.wiff	WXXCRI	LER	3/16/2010 18:14			1		DUSE	C
EXS03160040.wiff	247565007	LER	3/16/2010 18:30	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160041.wiff	247565008	LER	3/16/2010 18:45	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160042.wiff	247565009	LER	3/16/2010 19:01	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160043.wiff	247565010	LER	3/16/2010 19:17	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160044.wiff	XIBLK06	LER	3/16/2010 19:33			1		DUSE-RA	B
EXS03160045.wiff	1202055047	LER	3/16/2010 19:48	958273	VARIOUS	2	LANL	DUSE-RA	S
EXS03160046.wiff	1202055048	LER	3/16/2010 20:04	958273	VARIOUS	2	LANL	DUSE-RA	S
EXS03160047.wiff	248059002	LER	3/16/2010 20:20	958273	10-2082	2	LANL	DUSE-RA	S
EXS03160048.wiff	248059003	LER	3/16/2010 20:36	958273	10-2082	2	LANL	DUSE-RA	S
EXS03160049.wiff	248059004	LER	3/16/2010 20:51	958273	10-2082	2	LANL	DUSE-RA	S
EXS03160050.wiff	WXXCCV	LER	3/16/2010 21:07			1		USE	C
EXS03160051.wiff	XIBLK07	LER	3/16/2010 21:23			1		USE	B
EXS03160052.wiff	WXXCRI	LER	3/16/2010 21:38			1		USE	C
EXS03160053.wiff	248059005	LER	3/16/2010 21:54	958273	10-2082	2	LANL	USE	S
EXS03160054.wiff	248059006	LER	3/16/2010 22:10	958273	10-2082	2	LANL	USE	S
EXS03160055.wiff	248059007	LER	3/16/2010 22:26	958273	10-2082	2	LANL	USE	S
EXS03160056.wiff	248059008	LER	3/16/2010 22:41	958273	10-2082	2	LANL	USE	S
EXS03160057.wiff	248059009	LER	3/16/2010 22:57	958273	10-2082	2	LANL	USE	S
EXS03160058.wiff	248060003	LER	3/16/2010 23:13	958273	10-2080	2	LANL	USE	S
EXS03160059.wiff	248060004	LER	3/16/2010 23:28	958273	10-2080	2	LANL	USE	S
EXS03160060.wiff	248060005	LER	3/16/2010 23:44	958273	10-2080	2	LANL	USE	S
EXS03160061.wiff	248060006	LER	3/17/2010 0:00	958273	10-2080	2	LANL	USE	S
EXS03160062.wiff	WXXCCV	LER	3/17/2010 0:16			1		USE	C
EXS03160063.wiff	XIBLK08	LER	3/17/2010 0:31			1		USE	B
EXS03160064.wiff	WXXCRI	LER	3/17/2010 0:47			1		USE	C
EXS03160065.wiff	248064001	LER	3/17/2010 1:03	958273	10-2085	2	LANL	USE	S
EXS03160066.wiff	1202055049	LER	3/17/2010 1:18	958273	10-2085	2	LANL	USE	S
EXS03160067.wiff	1202055050	LER	3/17/2010 1:34	958273	10-2085	2	LANL	USE	S

EXS03160068.wiff	248064002	LER	3/17/2010 1:50	958273	10-2085	2	LANL	USE	S
EXS03160069.wiff	248064003	LER	3/17/2010 2:06	958273	10-2085	2	LANL	USE	S
EXS03160070.wiff	248064004	LER	3/17/2010 2:21	958273	10-2085	2	LANL	USE	S
EXS03160071.wiff	248064005	LER	3/17/2010 2:37	958273	10-2085	2	LANL	USE	S
EXS03160072.wiff	248064006	LER	3/17/2010 2:53	958273	10-2085	2	LANL	USE	S
EXS03160073.wiff	248064007	LER	3/17/2010 3:08	958273	10-2085	2	LANL	USE	S
EXS03160074.wiff	248064008	LER	3/17/2010 3:24	958273	10-2085	2	LANL	USE	S
EXS03160075.wiff	WXXCCV	LER	3/17/2010 3:40			1		USE	C
EXS03160076.wiff	XIBLK09	LER	3/17/2010 3:55			1		USE	B
EXS03160077.wiff	WXXCRI	LER	3/17/2010 4:11			1		USE	C
EXS03160078.wiff	1202057490	LER	3/17/2010 4:27	959334	VARIOUS	2	LANL	USE	S
EXS03160079.wiff	1202057491	LER	3/17/2010 4:43	959334	VARIOUS	2	LANL	USE	S
EXS03160080.wiff	248202001	LER	3/17/2010 4:58	959334	10-2124	2	LANL	USE	S
EXS03160081.wiff	248202002	LER	3/17/2010 5:14	959334	10-2124	2	LANL	USE	S
EXS03160082.wiff	248203002	LER	3/17/2010 5:30	959334	10-2125	2	LANL	USE	S
EXS03160083.wiff	248234001	LER	3/17/2010 5:45	959334	10-2131	2	LANL	USE	S
EXS03160084.wiff	248234002	LER	3/17/2010 6:01	959334	10-2131	2	LANL	USE	S
EXS03160085.wiff	248234003	LER	3/17/2010 6:17	959334	10-2131	2	LANL	USE	S
EXS03160086.wiff	248234004	LER	3/17/2010 6:32	959334	10-2131	2	LANL	USE	S
EXS03160087.wiff	248234005	LER	3/17/2010 6:48	959334	10-2131	2	LANL	USE	S
EXS03160088.wiff	WXXCCV	LER	3/17/2010 7:04			1		USE	C
EXS03160089.wiff	XIBLK10	LER	3/17/2010 7:20			1		USE	B
EXS03160090.wiff	WXXCRI	LER	3/17/2010 7:35			1		USE	C
EXS03160091.wiff	248234006	LER	3/17/2010 7:51	959334	10-2131	2	LANL	USE	S
EXS03160092.wiff	248234007	LER	3/17/2010 8:07	959334	10-2131	2	LANL	USE	S
EXS03160093.wiff	248240001	LER	3/17/2010 8:22	959334	10-2134	2	LANL	USE	S
EXS03160094.wiff	1202057492	LER	3/17/2010 8:38	959334	10-2134	2	LANL	USE	S
EXS03160095.wiff	1202057493	LER	3/17/2010 8:54	959334	10-2134	2	LANL	USE	S
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EXS03160098.wiff	248240004	LER	3/17/2010 9:41	959334	10-2134	2	LANL	USE	S
EXS03160099.wiff	248240005	LER	3/17/2010 9:57	959334	10-2134	2	LANL	USE	S
EXS03160100.wiff	248240006	LER	3/17/2010 10:12	959334	10-2134	2	LANL	USE	S
EXS03160101.wiff	WXXCCV	LER	3/17/2010 10:28			1		USE	C
EXS03160102.wiff	XIBLK11	LER	3/17/2010 10:44			1		USE	B
EXS03160103.wiff	WXXCRI	LER	3/17/2010 10:59			1		USE	C
EXS03160104.wiff	248240007	LER	3/17/2010 11:15	959334	10-2134	2	LANL	USE	S

EXS03160105.wiff	248240008	LER	3/17/2010 11:31	959334	10-2134	2	LANL	USE	S
EXS03160106.wiff	248240009	LER	3/17/2010 11:47	959334	10-2134	2	LANL	USE	S
EXS03160107.wiff	248240010	LER	3/17/2010 12:02	959334	10-2134	2	LANL	USE	S
EXS03160108.wiff	WXXCCV	LER	3/17/2010 12:18			1		USE	C
EXS03160109.wiff	XIBLK12	LER	3/17/2010 12:34			1		USE	B
EXS03160110.wiff	WXXCRI	LER	3/17/2010 12:49			1		USE	C
EXS03160111.wiff	247556002	LER	3/17/2010 13:05	956053	10-1953	2	LANL	DUSE-RA	S
EXS03160112.wiff	247556003	LER	3/17/2010 13:21	956053	10-1953	2	LANL	DUSE-RA	S
EXS03160113.wiff	247556004	LER	3/17/2010 13:37	956053	10-1953	2	LANL	DUSE-RA	S
EXS03160114.wiff	247556005	LER	3/17/2010 13:52	956053	10-1953	2	LANL	DUSE-RA	S
EXS03160115.wiff	247565001	LER	3/17/2010 14:08	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160116.wiff	247565002	LER	3/17/2010 14:24	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160117.wiff	247565003	LER	3/17/2010 14:39	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160118.wiff	247565004	LER	3/17/2010 14:55	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160119.wiff	247565005	LER	3/17/2010 15:11	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160120.wiff	247565006	LER	3/17/2010 15:27	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160121.wiff	WXXCCV	LER	3/17/2010 15:42			1		DUSE	C
EXS03160122.wiff	XIBLK13	LER	3/17/2010 15:58			1		DUSE	B
EXS03160123.wiff	WXXCRI	LER	3/17/2010 16:14			1		DUSE	C
EXS03160124.wiff	247565007	LER	3/17/2010 16:29	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160125.wiff	247565008	LER	3/17/2010 16:45	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160126.wiff	247565009	LER	3/17/2010 17:01	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160127.wiff	247565010	LER	3/17/2010 17:17	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160128.wiff	XIBLK14	LER	3/17/2010 17:32			1		DUSE-RA	B
EXS03160129.wiff	1202055047	LER	3/17/2010 17:48	958273	VARIOUS	2	LANL	DUSE-RA	S
EXS03160130.wiff	1202055048	LER	3/17/2010 18:04	958273	VARIOUS	2	LANL	DUSE-RA	S
EXS03160131.wiff	248059002	LER	3/17/2010 18:19	958273	10-2082	2	LANL	DUSE-RA	S
EXS03160132.wiff	248059003	LER	3/17/2010 18:35	958273	10-2082	2	LANL	DUSE-RA	S
EXS03160133.wiff	248059004	LER	3/17/2010 18:51	958273	10-2082	2	LANL	DUSE-RA	S
EXS03160134.wiff	WXXCCV	LER	3/17/2010 19:07			1		USE	C
EXS03160135.wiff	XIBLK15	LER	3/17/2010 19:22			1		USE	B
EXS03160136.wiff	WXXCRI	LER	3/17/2010 19:38			1		USE	C
EXS03160137.wiff	1202047270	LER	3/17/2010 19:54	954941	10-1886	2	LANL	USE	S
EXS03160138.wiff	1202047271	LER	3/17/2010 20:09	954941	10-1886	2	LANL	USE	S
EXS03160139.wiff	247261003	LER	3/17/2010 20:25	954941	10-1886	2	LANL	USE	S
EXS03160140.wiff	1202047272	LER	3/17/2010 20:41	954941	10-1886	2	LANL	USE	S
EXS03160141.wiff	1202047273	LER	3/17/2010 20:57	954941	10-1886	2	LANL	USE	S

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Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0323098a

Date: 25-Mar-2010

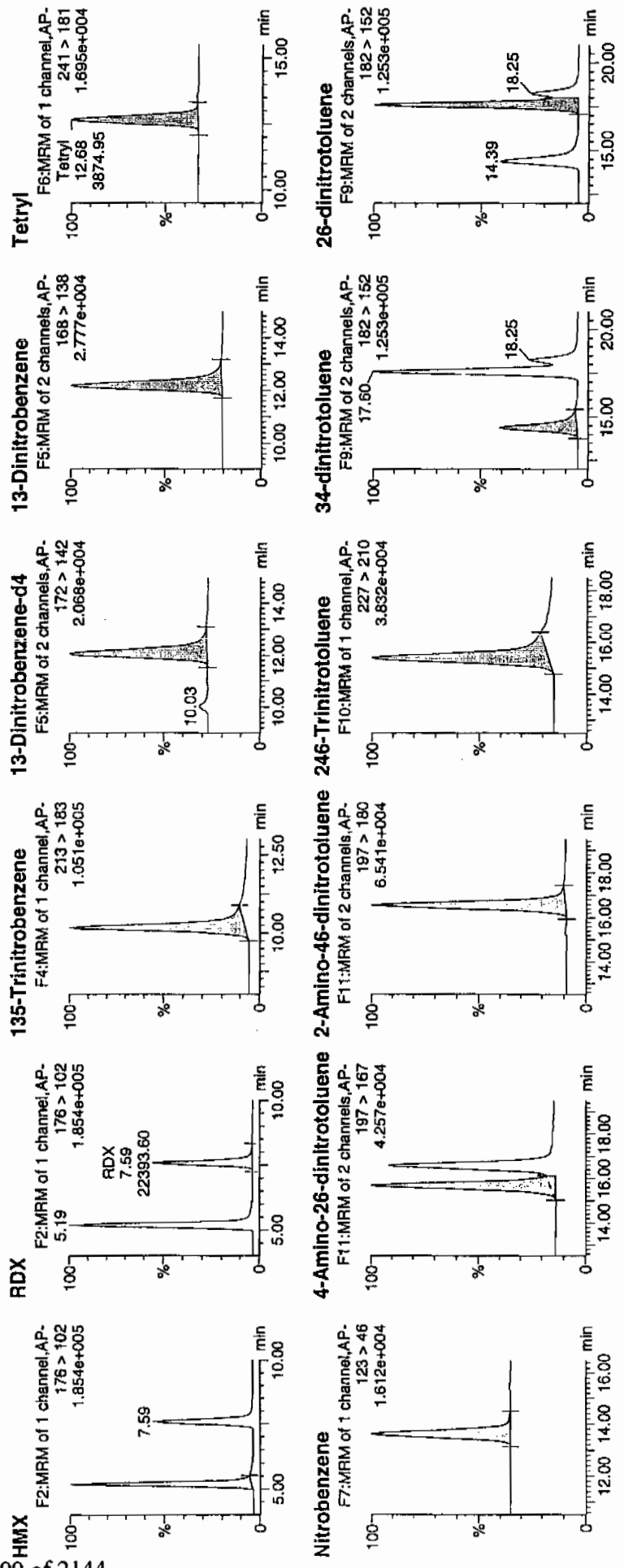
Time: 08:50:18

ID: 1202057492

Vial: 3:3,B

4477  
3/26/10

248240001ms / 21  
959334 / 5023



4477  
03/30/10

Dataset: C:\MASSLYNX\New\_Exp\PRO\032310expA2.qld, Time: Fri Mar 26 09:11:12 2010

## 24-dinitrotoluene

F9:M/RM of 2 channels,AP-

182 &gt; 152

1.253e+005

min

17.60

14.39

100

%

0

15.00

20.00

## 26-dinitrotoluene-d3

F9:M/RM of 2 channels,AP-

185 &gt; 155

1.042e+005

min

17.60

14.39

100

%

0

15.00

20.00

## 2-Nitrotoluene

F12:M/RM of 1 channel,AP-

137 &gt; 46

1.242e+004

min

21.06

24.09

100

%

0

20.00

25.00

## 4-Nitrotoluene

F12:M/RM of 1 channel,AP-

137 &gt; 46

1.242e+004

min

21.06

24.09

100

%

0

20.00

25.00

## 3-Nitrotoluene

F12:M/RM of 1 channel,AP-

137 &gt; 46

1.242e+004

min

21.06

22.44

100

%

0

20.00

25.00

## PETN

F13:M/RM of 1 channel,AP-

361 &gt; 62

8.276e+004

min

40726.54

24.39

100

%

0

22.00

24.00

26.00

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	%Norm	%Rec	%Dev	%ISN
1202057492	HMX	176 > 102	5.19	35410.934	5981.768	39410.934	2959.905	bb			536.8852	107.4	7.4	2561.7
1202057492	RDX	176 > 102	7.59	22393.598	5981.768	22393.598	1871.821	bb			565.2838	113.1	13.1	1395.9
1202057492	135-Trinitrobenzene	213 > 183	10.18	27581.943	5981.768	27581.943	2305.501	bb			487.8125	97.6	-2.4	8351.0
1202057492	13-Dinitrobenzene-d4	172 > 142	12.07	5981.768	5981.768	5981.768	5981.768	bb			543.3750	108.7	8.7	815.8
1202057492	13-Dinitrobenzene	168 > 138	12.17	8308.343	5981.768	8308.343	694.472	bb			522.9674	104.6	4.6	701.8
1202057492	Tetryl	241 > 181	12.66	3874.955	5981.768	3874.955	323.897	bb			282.4286	56.5	-43.5	471.0
1202057492	Nitrobenzene	123 > 46	13.59	3666.134	5981.768	3666.134	306.442	bb			467.7420	93.5	-6.5	320.5
1202057492	4-Amino-26-dinitrotoluene	197 > 167	15.68	14021.752	38989.074	14021.752	179.816	MM	26-Mar-10	09:06:44	508.8543	101.8	1.8	1500.3
1202057492	2-Amino-46-dinitrotoluene	197 > 180	16.55	23138.949	38989.074	23138.949	296.736	bb			541.9000	108.4	8.4	1513.2
1202057492	246-Trinitrotoluene	227 > 210	15.42	14461.933	38989.074	14461.933	185.461	bb			452.2667	90.5	-9.5	336.0
1202057492	34-dinitrotoluene	182 > 152	14.39	21690.771	38989.074	21690.771	278.165	bb			262.6963	105.1	5.1	1420.7
1202057492	26-dinitrotoluene	182 > 152	17.60	44671.898	38989.074	44671.898	572.877	MM	26-Mar-10	09:08:07	495.1353	99.0	-1.0	3753.2
1202057492	24-dinitrotoluene	185 > 155	18.25	10597.761	38989.074	10597.761	135.907	MM	26-Mar-10	09:11:12	489.7627	98.0	-2.0	821.6
1202057492	26-dinitrotoluene-d3	137 > 46	21.06	38989.074	38989.074	38989.074	38989.074	bb			566.1984	113.2	13.2	3814.4
1202057492	2-Nitrotoluene	137 > 46	22.44	2884.682	38989.074	2884.682	36.993	bb			458.7299	91.7	-8.3	809.2
1202057492	4-Nitrotoluene	137 > 46	22.44	1508.642	38989.074	1508.642	19.347	bb			496.8297	98.4	-0.6	412.7
1202057492	3-Nitrotoluene	137 > 46	24.09	1842.104	38989.074	1842.104	23.623	bb			468.5201	93.7	-6.3	487.2
1202057492	PETN	361 > 62	24.39	40726.539	38989.074	40726.539	522.281	bb			556.8397	111.4	11.4	23588.0

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Sample Name: 1202037492 Sample ID: 955342121EP File: EX50316094.will

Peak Name: 1A1B Mass(es): 237.2204 9 amu

Comment: LCX63212S Annotation: --

Sample Index: 1

Sample Type: Unknown

Concentration: 337. ng/mL

Acq. Date: 3/17/2010

Acq. Time: 8:38:38 AM

Modified: 10

Proc. Algorithm: IntelliQuan - 10A

Min. Peak Height: 2500.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 8.93 min

Use Relative RT: No

Inc. Type: Valley

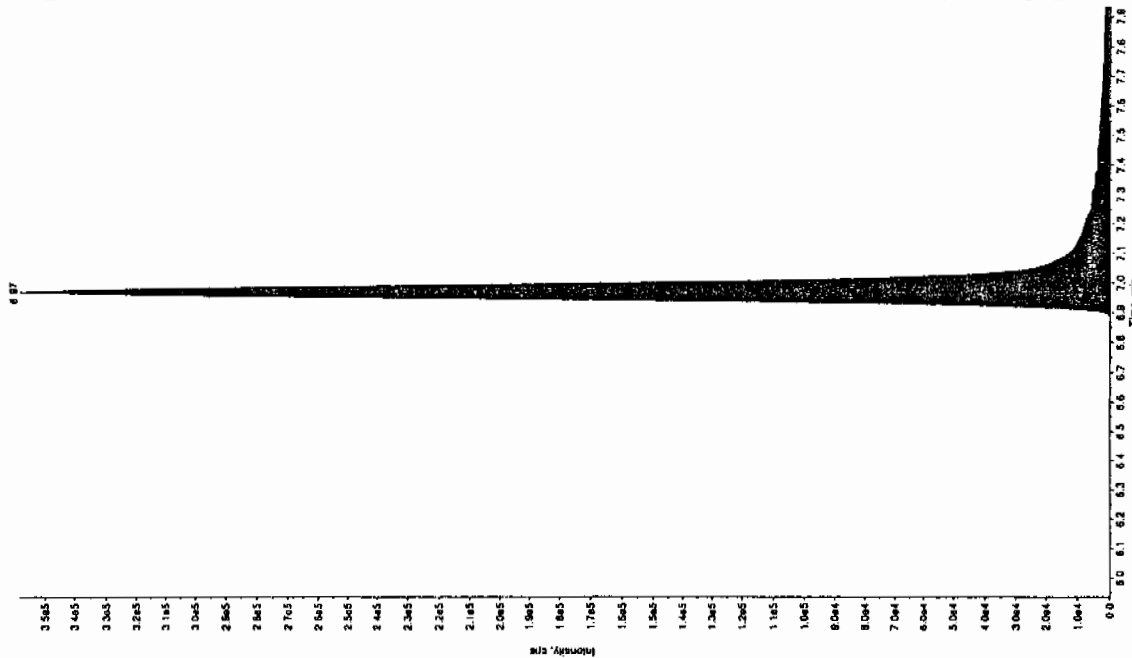
Retention Time: 8.97 min

Area: 1.62e+006 counts

Height: 35636.231 cps

Start Time: 8.86 min

End Time: 9.09 min



Sample Name: 1202037492 Sample ID: 955342121EP File: EX50316094.will

Peak Name: 35-Dinitroaniline Mass(es): 182.0460 amu

Comment: LCX63212S Annotation: --

Sample Index: 1

Sample Type: Unknown

Concentration: 479. ng/mL

Acq. Date: 3/17/2010

Acq. Time: 8:38:38 AM

Modified: NO

Proc. Algorithm: IntelliQuan - 10A

Min. Peak Height: 2000.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 15.0 sec

Expected RT: 8.17 min

Use Relative RT: No

Inc. Type: Valley

Retention Time: 8.21 min

Area: 4.24e+006 counts

Height: 1039430.176 cps

Start Time: 8.13 min

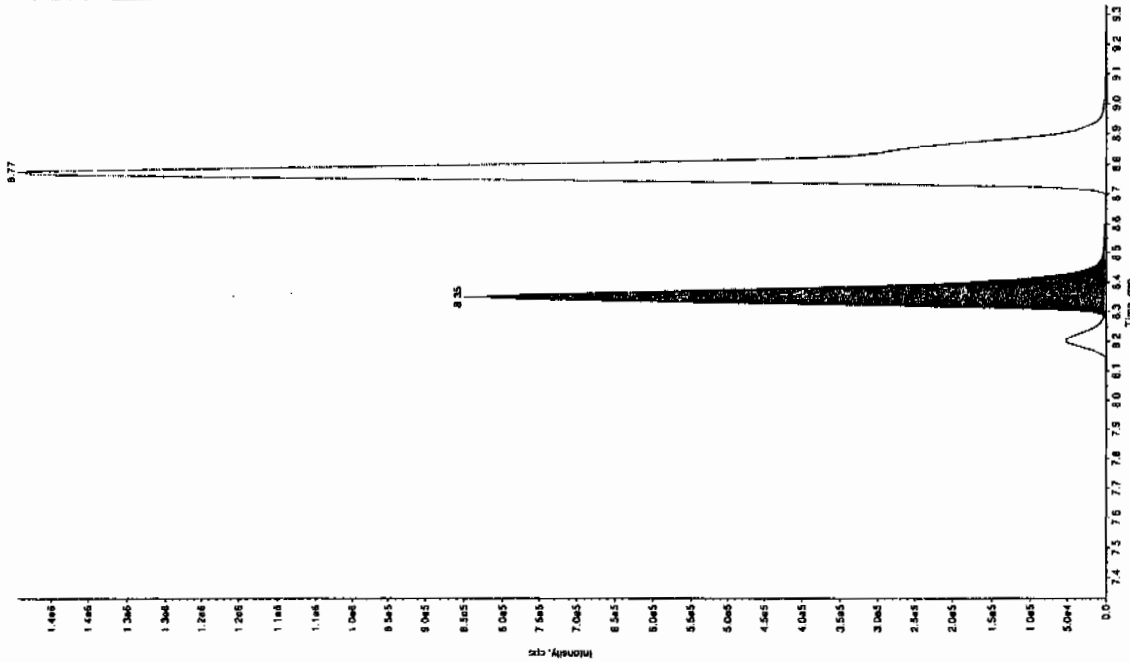
End Time: 8.31 min





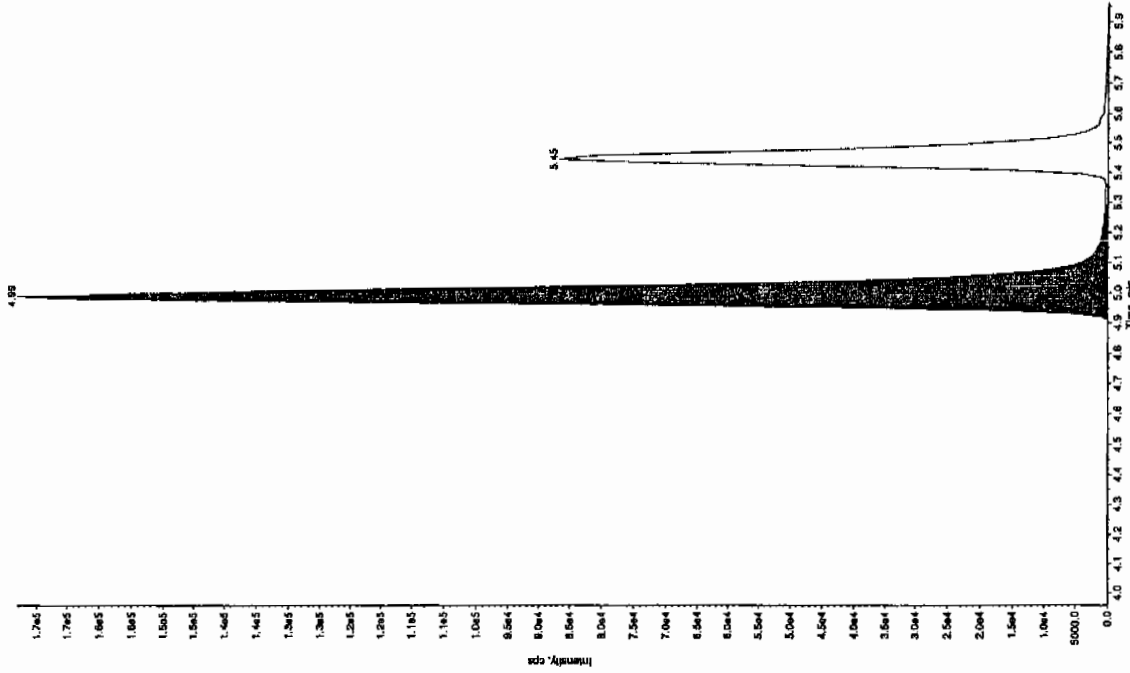
Sample Name: "1202057492" Sample ID: "95334125" File: "EX503160094.wit"  
 Peak Name: "34-Diandrolobus" Mass(es): "182.1/151.9 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 248. ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 11:35:35 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 5.31 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.35 min  
 Area: 1.14e+008 counts  
 Height: 34733.260 cps  
 Start Time: 8.33 min  
 End Time: 5.35 min



Sample Name: "1202057492" Sample ID: "95334125" File: "EX503160094.wit"  
 Peak Name: "26-Diandrolobus" Mass(es): "166.0/166.0 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 447. ng/mL  
 Acq. Date: 3/17/2010  
 Acq. Time: 8:18:38 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 4.96 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.99 min  
 Area: 7.25e+005 counts  
 Height: 17328.467 cps  
 Start Time: 4.85 min  
 End Time: 5.29 min



Sample Name: "120207482" Sample ID: "959334115" File: "EX00160094.wif"  
Peak Name: "24-Oxano-6-nitroisobutene" Mass(es): 166.046.0 amu

Comment: "LCX832125" Annotation: "

Sample Index: 1

Sample Type: Unknown

Concentration: 304 ng/mL

Acq. Date: 3/17/2010

Acq. Time: 8:28:35 AM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 350.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 5.43 min

Use Relative RT: No

Int. Type: Valley

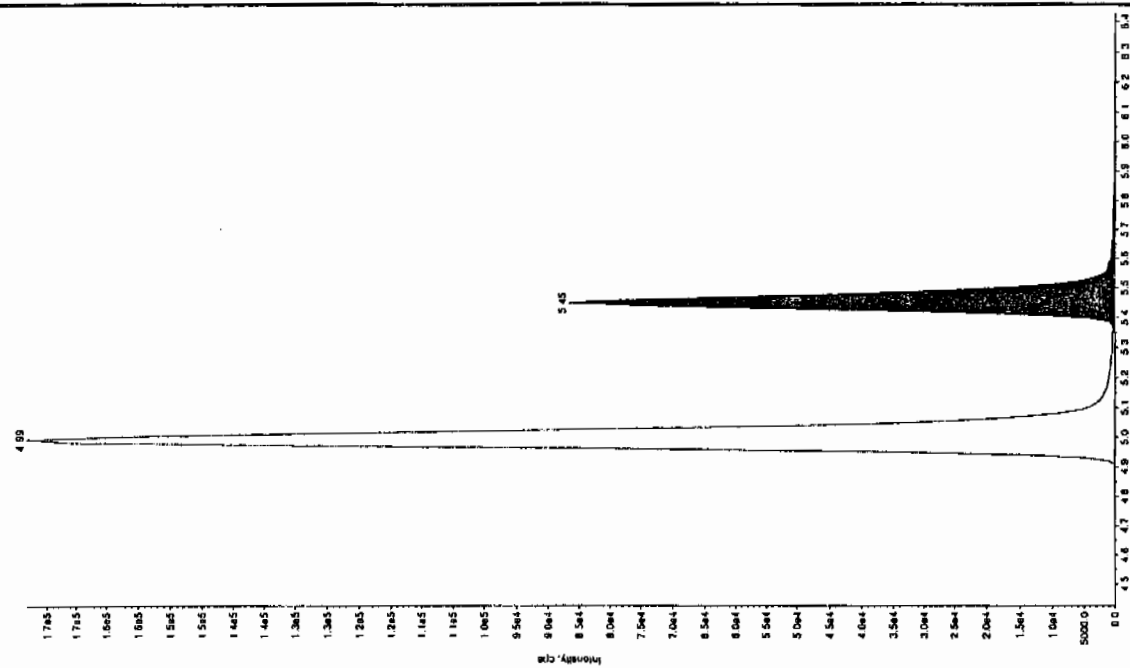
Retention Time: 5.43 min

Area: 3.36e+005 counts

Height: 3654.030 cps

Start Time: 5.35 min

End Time: 5.76 min



Sample Name: "120207482" Sample ID: "959334115" File: "EX00160094.wif"  
Peak Name: "bis(monoisopropyl) phosphite" Mass(es): 368.181.0 amu

Comment: "LCX832125" Annotation: "

Sample Index: 1

Sample Type: Unknown

Concentration: 572 ng/mL

Acq. Date: 3/17/2010

Acq. Time: 8:38:38 AM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 8000.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 10.9 min

Use Relative RT: No

Int. Type: Valley

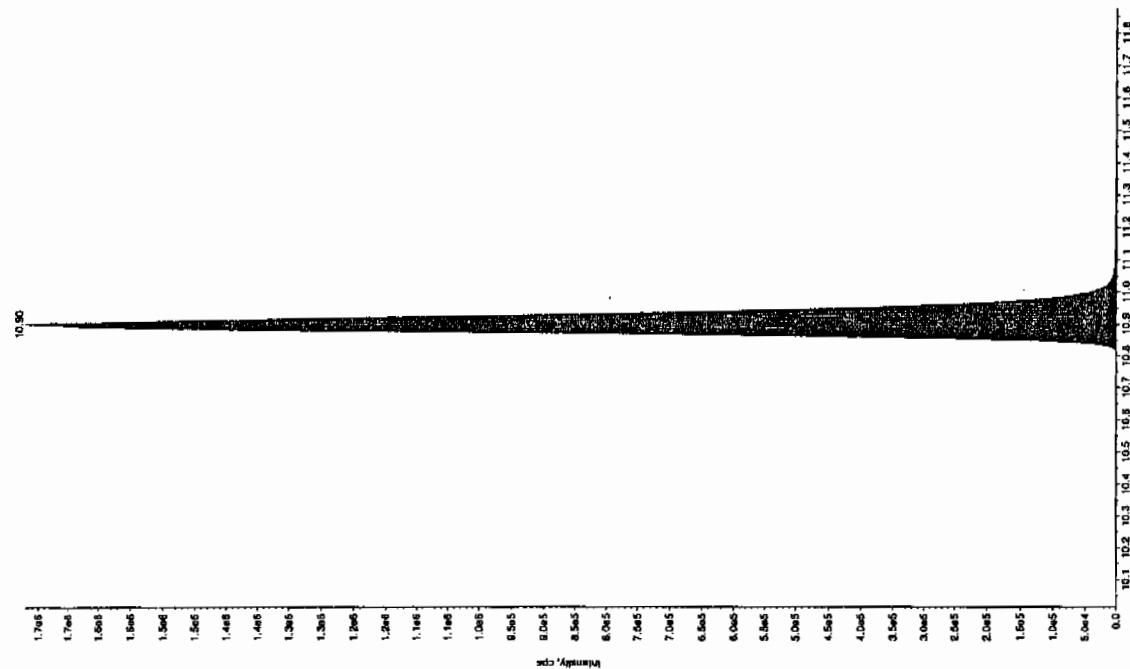
Retention Time: 10.9 min

Area: 7.02e+006 counts

Height: 1720406.006 cps

Start Time: 10.8 min

End Time: 11.2 min



Dataset: C:\MASSLYNX\New\_Exp.PRO\032510expA.qld, Time: Fri Mar 26 12:43:58 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0325013a

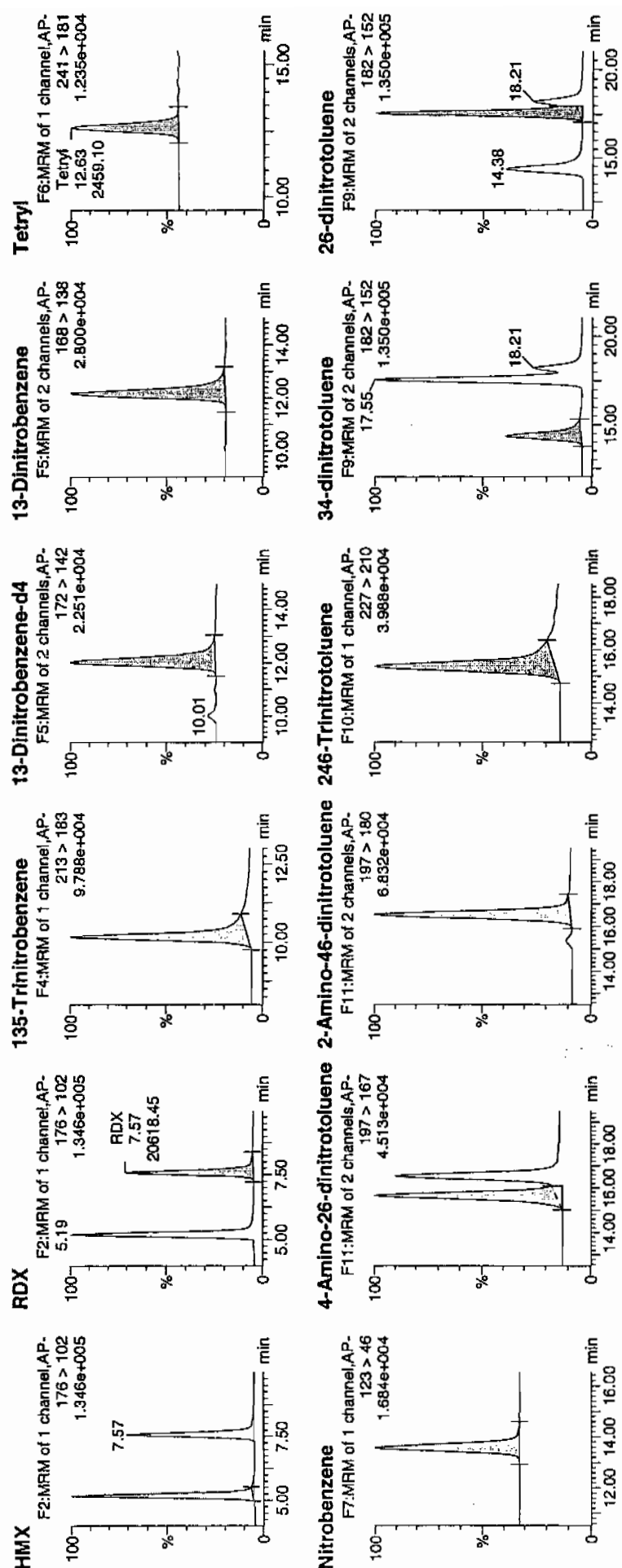
Date: 25-Mar-2010

Time: 22:40:52

ID: 1202057493

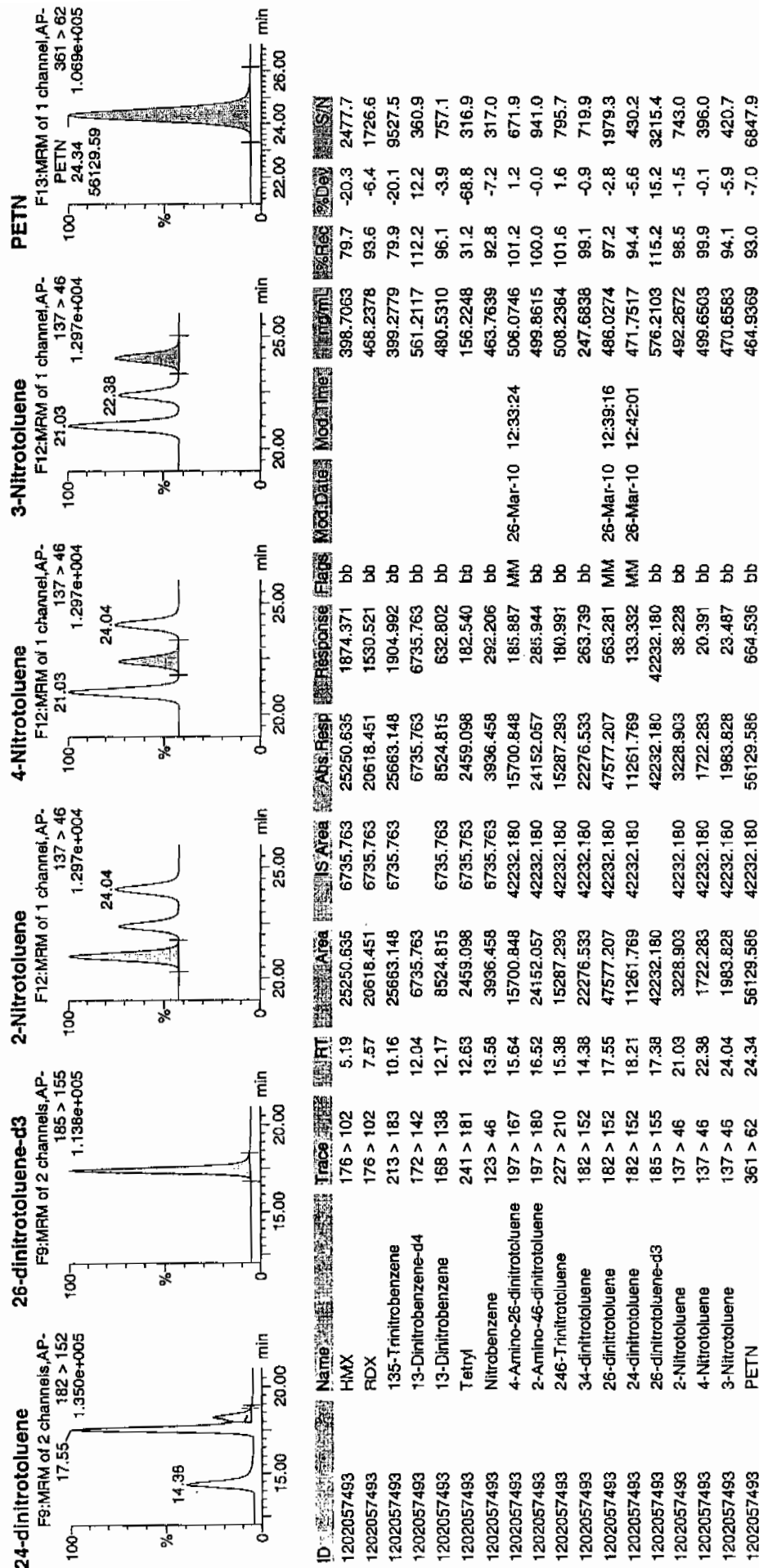
Vial: 3:3,C

Handwritten notes: *1477*, *5/26/10*, *248240001 msd*, *121*, *959334*, *5000*



Handwritten note: *4m*, *03/26/10*

Dataset: C:\MASSLYNX\New\_Exp\PRO\032510expA.qld, Time: Fri Mar 26 12:43:58 2010



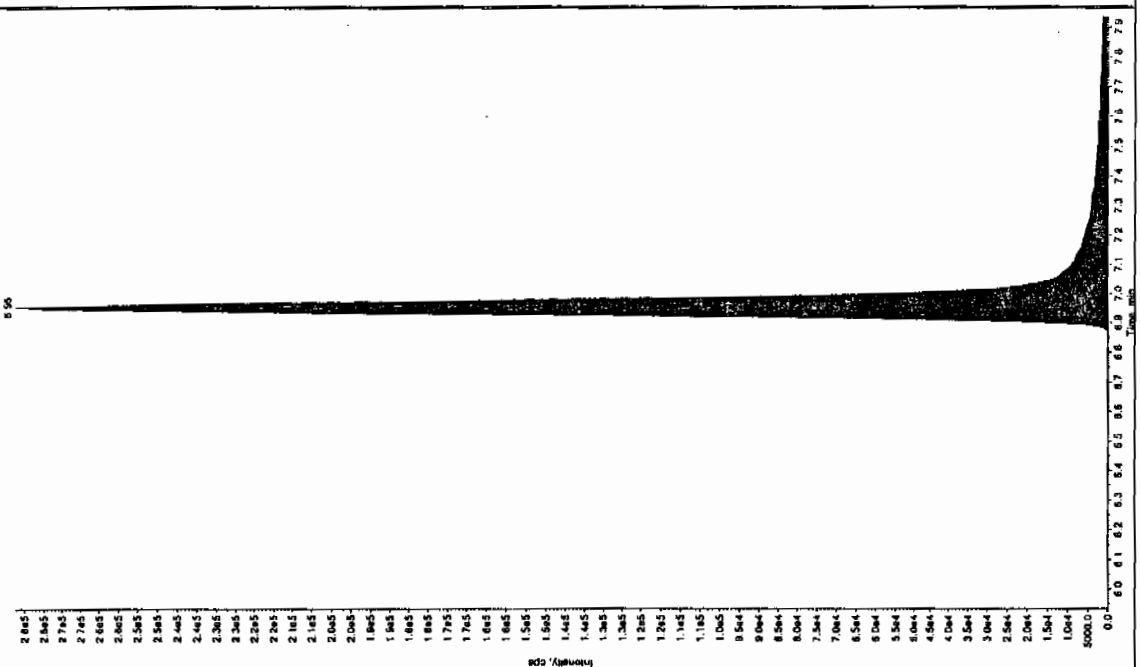
Jan 31/10

Sample Name: "1202057493" Sample ID: "95533421" File: "EX503160095.wif"

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

Comment: "LCX832125" Annotation: "

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 3/17 30.0 ng/mL  
Acq. Date: 3/17 2010  
Acq. Time: 8:54:19 AM  
Modified: NO  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 2500.00 cps  
Min. Peak Width: 3.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 6.93 min  
Use Relative RT: NO  
Int. Type: Valley  
Retention Time: 6.96 min  
Area: 1.38e+006 counts  
Height: 25316.510 cps  
Start Time: 6.78 min  
End Time: 7.23 min

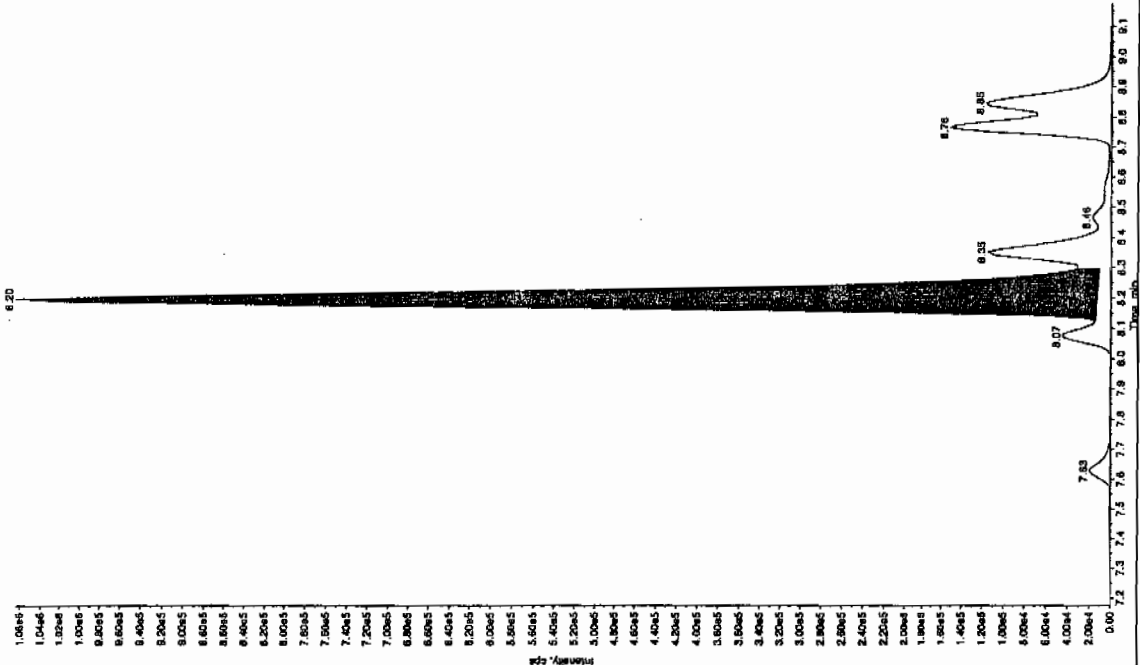


Sample Name: "1202057493" Sample ID: "95533421" File: "EX503160095.wif"

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

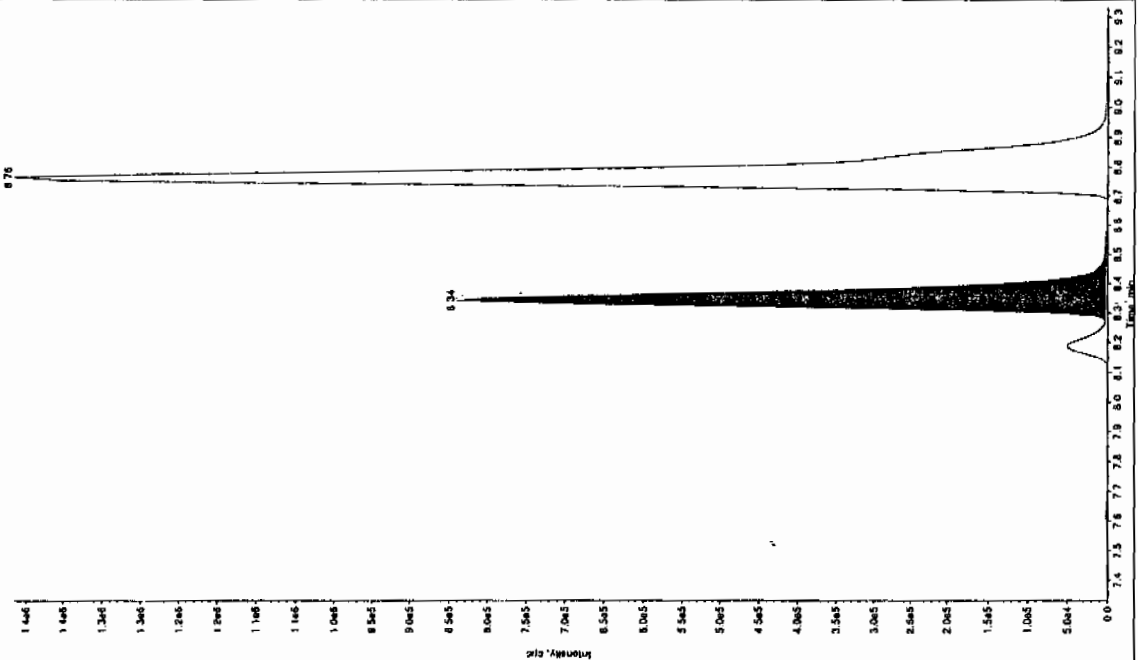
Comment: "LCX832125" Annotation: "

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 3/17 30.0 ng/mL  
Acq. Date: 3/17 2010  
Acq. Time: 8:54:19 AM  
Modified: NO  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 2000.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 15.0 sec  
Expected RT: 8.17 min  
Use Relative RT: NO  
Int. Type: Valley  
Retention Time: 8.20 min  
Area: 4.16e+006 counts  
Height: 105412.598 cps  
Start Time: 8.12 min  
End Time: 8.30 min



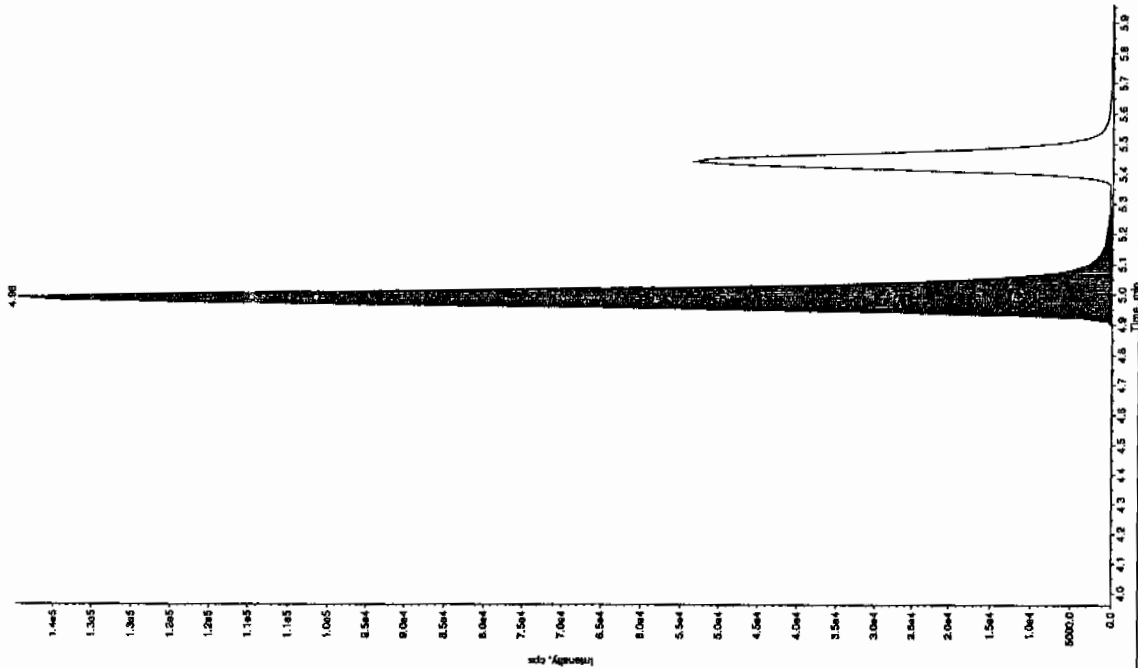
Sample Name: "1202057493" Sample ID: "958334214" File: "EX503160395.will"  
Peak Name: "34-Dinitrofluorene" Mass(es): "182.1711.9 amu"  
Comment: "LCX832125" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 245. ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 8:54:19 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IOL  
Min. Peak Height: 1490.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3.00 points  
RT Window: 15.0 min  
Expected RT: 9.33 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 2.34 min  
Area: 3.11e+006 counts  
Height: 8767.595 cps  
Start Time: 2.27 min  
End Time: 2.53 min



Sample Name: "1202057493" Sample ID: "958334214" File: "EX503160395.will"  
Peak Name: "28-Dinitro-4-nitrofluorene" Mass(es): "166.046.0 amu"  
Comment: "LCX832125" Annotation: ""

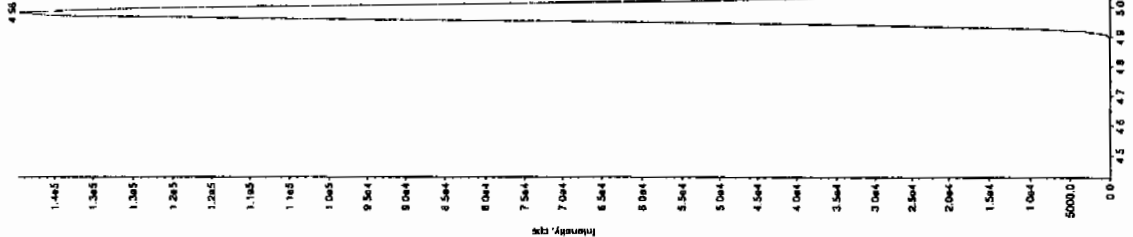
Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 374. ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 8:54:19 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IOL  
Min. Peak Height: 450.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3.00 points  
RT Window: 30.0 min  
Expected RT: 4.96 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 4.98 min  
Area: 6.09e+005 counts  
Height: 139898.529 cps  
Start Time: 4.88 min  
End Time: 5.29 min



Sample Name: "120057493" Sample ID: "9593341LER" File: "EX503160065.wif"  
Peak Name: "24-Diamino-6-nitroindane" Mass(es): "166.046.0 amu"

Comment: "LCX832125" Annotation: ""  
Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 127. ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 8:54:19 AM

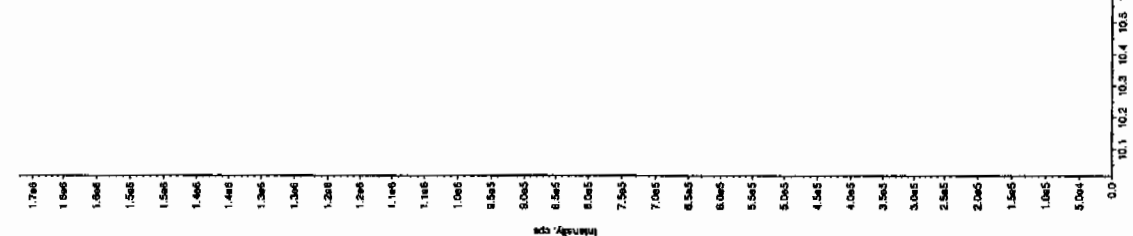
Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 350.00 cps  
Min. Peak Width: 3.00 sec  
Smoothing Width: 30.0 points  
RT Window: 5.43 min  
Expected RT: No  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 5.44 min  
Area: 2.09e+005 counts  
Height: 53460.098 cps  
Start Time: 5.35 min  
End Time: 5.75 min



Sample Name: "120057493" Sample ID: "9593341LER" File: "EX503160065.wif"  
Peak Name: "triso-cresyl phosphate" Mass(es): "369.161.0 amu"

Comment: "LCX832125" Annotation: ""  
Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 585. ng/mL  
Acq. Date: 3/17/2010  
Acq. Time: 8:54:19 AM

Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 6000.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 30.0 points  
RT Window: 10.9 min  
Expected RT: No  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 10.9 min  
Area: 6.94e+006 counts  
Height: 1671896.729 cps  
Start Time: 10.8 min  
End Time: 11.2 min



### DATA EXCEPTION REPORT

<b>Mo.Day Yr.</b> 28-MAR-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> LC-MS/MS	<b>Test / Method:</b> SW846 8321A Modified	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 959334	<b>Sample Numbers:</b> See Below		

Potentially affected work order(s)(SDG): 248202(10-2124),248203(10-2125),248234(10-2131),248240(10-2134)

**Application Issues:**

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:**

**DER Disposition:**

1. The Laboratory Control Sample (1202057491) did not meet spike recovery limits for 2,6-Diamino-4-nitrotoluene at 124%. The recovery limits are 64-122%.
2. The Matrix Spike (1202057492) did not meet spike recovery limits for TATB at 187%. The recovery limits are 29-155%.
3. The Matrix Spike Duplicate (1202057493) did not meet spike recovery limits for Tetryl at 31.2%. The recovery limits are 36-124%.
4. The MS/MSD pair (1202057492/3) did not meet RPD acceptance limits for Tetryl at 57.5%. The acceptance limits are 0-30%. The MS/MSD pair (1202057492/3) did not meet RPD acceptance limits for 2,4-Diamino-6-nitrotoluene at 47.7%. The acceptance limits are 0-26%.

1. While the Laboratory Control Sample exhibited a high bias, both the Matrix Spike and Matrix Spike Duplicate met acceptance limits for 2,6-Diamino-4-nitrotoluene. Since 2,6-Diamino-4-nitrotoluene was not detected in the associated samples, the data are reported with the appropriate DER. The discrepancy is noted in the case narrative.
2. & 3. Since the Laboratory Control Sample met acceptance limits for both TATB and Tetryl, the noted exceptions are attributed to vagaries in the extraction process. The data are reported with the appropriate DER. The discrepancies are noted in the case narrative.
4. Since all other RPD recoveries met acceptance criteria, the noted exceptions are attributed to vagaries in the extraction process. The data are reported with the appropriate DER. The discrepancies are noted in the case narrative.

**Originator's Name:**

Michael Penny 29-MAR-10

**Data Validator/Group Leader:**

Herbert Maier 02-APR-10



GC  
SEMIVOLATILE  
PCB  
ANALYSIS

**PCB Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2124**

**Method/Analysis Information**

**Procedure:** Analysis of Polychlorinated Biphenyls by ECD  
**Analytical Method:** SW846 8082  
**Prep Method:** SW846 3550B  
**Analytical Batch Number:** 965380  
**Prep Batch Number:** 965377

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 8082:

<b>Sample ID</b>	<b>Client ID</b>
248202001	RE36-10-8282
248202002	RE36-10-8281
1202071391	Method Blank (MB)
1202071392	Laboratory Control Sample (LCS)
1202071393	248202001(RE36-10-8282) Matrix Spike (MS)
1202071394	248202001(RE36-10-8282) Matrix Spike Duplicate (MSD)

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

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

**Calibration Information**

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

**Initial Calibration**

All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

**Continuing Calibration Verification (CCV) Requirements**

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

### **Quality Control (QC) Information**

#### **Method Blank (MB) Statement**

The MB analyzed with this SDG met the acceptance criteria.

#### **Surrogate Recoveries**

All surrogate recoveries were within the established acceptance criteria for this SDG.

#### **Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

#### **QC Sample Designation**

Sample 248202001 (RE36-10-8282) was selected for the matrix spike and matrix spike duplicate analysis.

#### **Matrix Spike (MS) Recovery Statement**

The MS recoveries for this SDG were within the established acceptance limits.

#### **Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD recoveries for this SDG were within the established acceptance limits.

#### **MS/MSD Relative Percent Difference (RPD) Statement**

The RPD between the MS and MSD met the acceptance limits.

### **Technical Information**

#### **Holding Time Specifications**

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

#### **Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

#### **Sample Dilutions**

Sample 248202002 (RE36-10-8281) was diluted at 1:10 due to the presence of over-range target analytes.

#### **Sample Re-extraction/Re-analysis**

Re-extractions or were not required in this SDG.

### **Miscellaneous Information**

#### **Electronic Package Comment**

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

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

#### **Data Exception (DER) Documentation**

Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

**Manual Integration**

Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

**Additional Comments**

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

**System Configuration**

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

**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: Jimmi Cao

Date: 3/25/10

## Roadmap for LANL 10-2124 PCB

This roadmap was analyzed by yip00818 on 03-17-2010, 13:32.

This roadmap was packaged by yml on 03-25-2010, 09:24.

This roadmap was validated by jim01140 on 03-25-2010, 12:16.

Front Sample Column

exclude	manual	datafile	smplid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i031610a.b027f2701.d	248202001	sample	16-MAR-2010	17:20	10-2124.sub	RE36-10-8282	1.00000	965380	UPLOAD BOTH COLUMNS, USE HIGHER
<input checked="" type="checkbox"/>	N	/chem/ecd1a.i031610a.b030f3001.d	248202002	sample	16-MAR-2010	17:58	10-2124.sub	RE36-10-8281	1.00000	965380	DUSE RR 10X
<input type="checkbox"/>	N	/chem/ecd1a.i0317107.b016f1601.d	248202002	sample	17-MAR-2010	06:41	10-2124.sub	RE36 10 8281	10.00000	965380	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smplid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i031610a.b027f2701.d	248202001	sample	16-MAR-2010	17:20	10-2124.sub	RE36-10-8282	1.00000	965380	UPLOAD BOTH COLUMNS, USE HIGHER
<input checked="" type="checkbox"/>	N	/chem/ecd1a.i031610a.b030f3001.d	248202002	sample	16-MAR-2010	17:58	10-2124.sub	RE36-10-8281	1.00000	965380	DUSE RR 10X
<input type="checkbox"/>	N	/chem/ecd1a.i0317107.b016f1601.d	248202002	sample	17-MAR-2010	06:41	10-2124.sub	RE36-10-8281	10.00000	965380	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smplid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i031610a.b012f1201-2.d	1202071391	mb	16-MAR-2010	14:16	10-2124.sub	PBLK01	1.00000	965380	
<input type="checkbox"/>	N	/chem/ecd1a.i031610a.b013f1301-2.d	1202071392	lcs	16-MAR-2010	14:26	10-2124.sub	PBLK01LCS	1.00000	965380	
<input type="checkbox"/>	N	/chem/ecd1a.i031610a.b028f2801.d	1202071393	ms	16-MAR-2010	17:33	10-2124.sub	RE36-10-8282MS	1.00000	965380	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i031610a.b029f2901.d	1202071394	msd	16-MAR-2010	17:46	10-2124.sub	RE36-10-8282MSD	1.00000	965380	UPLOAD BOTH COLUMNS, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smplid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i031610a.b012f1201-2.d	1202071391	mb	16-MAR-2010	14:16	10-2124.sub	PBLK01	1.00000	965380	
<input type="checkbox"/>	N	/chem/ecd1a.i031610a.b013f1301-2.d	1202071392	lcs	16-MAR-2010	14:26	10-2124.sub	PBLK01LCS	1.00000	965380	
<input type="checkbox"/>	N	/chem/ecd1a.i031610a.b028f2801.d	1202071393	ms	16-MAR-2010	17:33	10-2124.sub	RE36-10-8282MS	1.00000	965380	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i031610a.b029f2901.d	1202071394	msd	16-MAR-2010	17:46	10-2124.sub	RE36-10-8282MSD	1.00000	965380	UPLOAD BOTH COLUMNS, USE HIGHER

# SAMPLE DATA SUMMARY

## PCB

Page 1 of 1

Certificate of Analysis  
Sample SummarySDG Number: 10-2124  
Lab Sample ID: 248202002Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.J  
Analyst: YS1  
Aliquot: 30.13 g  
Column: 1 CLP1  
2 CLP2Matrix: R  
%Moisture: 26.9  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 10  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	45.4	ug/kg	15.1	45.4	1
11104-28-2	Aroclor-1221	U	45.4	ug/kg	15.1	45.4	1
11141-16-5	Aroclor-1232	U	45.4	ug/kg	15.1	45.4	1
53469-21-9	Aroclor-1242	U	45.4	ug/kg	15.1	45.4	1
12672-29-6	Aroclor-1248	U	45.4	ug/kg	15.1	45.4	1
11097-69-1	Aroclor-1254		1030	ug/kg	15.1	45.4	1
11096-82-5	Aroclor-1260		617	ug/kg	15.1	45.4	1



**PCB**  
**Certificate of Analysis**  
**Sample Summary**

<b>SDG Number:</b> 10-2124	<b>Date Collected:</b> 02/23/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248202001	<b>Date Received:</b> 02/26/2010 08:45	<b>%Moisture:</b> 8.7
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-8282	<b>Method:</b> SW846 8082	<b>SOP Ref:</b> GL-OA-E-040
<b>Batch ID:</b> 965380	<b>Inst:</b> ECD1A.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/16/2010 17:20	<b>Analyst:</b> YS1	<b>Inj. Vol:</b> 1 uL
<b>Prep Date:</b> 03/15/2010 21:25	<b>Aliquot:</b> 30.12 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> 027f2701.d	<b>Column:</b> 1 CLP1	<b>Level:</b> LOW
	027b2701.d	2 CLP2

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.64	ug/kg	1.21	3.64	1
11104-28-2	Aroclor-1221	U	3.64	ug/kg	1.21	3.64	1
11141-16-5	Aroclor-1232	U	3.64	ug/kg	1.21	3.64	1
53469-21-9	Aroclor-1242	U	3.64	ug/kg	1.21	3.64	1
12672-29-6	Aroclor-1248	U	3.64	ug/kg	1.21	3.64	1
11097-69-1	Aroclor-1254	U	3.64	ug/kg	1.21	3.64	1
11096-82-5	Aroclor-1260	U	3.64	ug/kg	1.21	3.64	1

# QUALITY CONTROL SUMMARY

**PCB**  
**Surrogate Recovery Report**

Page 1 of 1

SDG Number: 10-2124

Matrix Type: SOLID

CAP Column (1) : CLP1

CAP Column (2) : CLP2

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202071391	MB for batch 965377	65	64	66	68
1202071392	LCS for batch 965377	65	64	65	66
248202001	RE36-10-8282	59	58	60	65
1202071393	RE36-10-8282MS	68	66	75	73
1202071394	RE36-10-8282MSD	73	72	81	79
248202002	RE36-10-8281	70 D	72 D	74 D	90 D

**Surrogate****Acceptance Limits**

4CMX = 4cmx

(32%--120%)

DCB = Decachlorobiphenyl

(30%--116%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

PCB

Page 1 of 1

**Quality Control Summary  
Spike Recovery Report**

SDG Number: 10-2124

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 965377

Matrix: SOIL

Lab Sample ID:1202071392

Instrument: ECD1A.I

Analysis Date: 03/16/2010 14:26

Dilution: 1

Analyst: YS1

Prep Batch ID: 965377

Inj. Vol: 1 uL

Batch ID: 965380

CAS No	Paramname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS Aroclor-1016	33.3	0.0	20.0	60	39-102
11096-82-5	LCS Aroclor-1260	33.3	0.0	22.2	67	45-118

## PCB

Page 1 of 2

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2124

Sample Type: Matrix Spike

Client ID: RE36-10-8282MS

Matrix: R

Lab Sample ID:1202071393

%Moisture: 8.7

Instrument: ECD1A.I

Analysis Date: 03/16/2010 17:33

Dilution: 1

Analyst: YS1

Preo Batch ID 965377

Inj. Vol: 1 uL

Batch ID: 965380

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS Aroclor-1016	36.3	0.00 U	20.0	55	23-119
11096-82-5	MS Aroclor-1260	36.3	0.00 U	25.4	70	28-124

PCB

Page 2 of 2

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2124

Sample Type: Matrix Spike Duplicate

Client ID: RE36-10-8282MSD

Matrix: R

Lab Sample ID:1202071394

%Moisture: 8.7

Instrument: ECD1A.I

Analysis Date: 03/16/2010 17:46

Dilution: 1

Analyst: YS1

Prep Batch ID: 965377

Inj. Vol: 1 uL

Batch ID: 965380

CAS No	Paramname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	36.3	0.00 U	22.0	61	23-119	10	0-28
11096-82-5	MSD Aroclor-1260	36.3	0.00 U	27.7	76	28-124	9	0-30

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2124	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965377	Instrument ID:	ECD1A.I_2	Data File:	012b1201-1.d
Lab Sample ID:	1202071391		ECD1A.I_1		012f1201-1.d
Column:	CLP2	Prep Date:	03/15/2010 21:25	Analyzed:	03/16/10 14:16
	CLP1	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 965377	1202071392	013f1301-1.d 013b1301-1.d	03/16/10	1426
02 RE36-10-8282	248202001	027f2701.d 027b2701.d	03/16/10	1720
03 RE36-10-8282MS	1202071393	028f2801.d 028b2801.d	03/16/10	1733
04 RE36-10-8282MSD	1202071394	029f2901.d 029b2901.d	03/16/10	1746
05 RE36-10-8281	248202002	016f1601.d 016b1601.d	03/17/10	0841

# SAMPLE DATA



**PCB**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124  
Lab Sample ID: 248202002

Client ID: RE36-10-8281  
Batch ID: 965380  
Run Date: 03/17/2010 08:41  
Prep Date: 03/15/2010 21:25  
Data File: 016f1601.d  
016b1601.d

Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.13 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 26.9  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 10  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	45.4	ug/kg	15.1	45.4	1
11104-28-2	Aroclor-1221	U	45.4	ug/kg	15.1	45.4	1
11141-16-5	Aroclor-1232	U	45.4	ug/kg	15.1	45.4	1
53469-21-9	Aroclor-1242	U	45.4	ug/kg	15.1	45.4	1
12672-29-6	Aroclor-1248	U	45.4	ug/kg	15.1	45.4	1
11097-69-1	Aroclor-1254		1030	ug/kg	15.1	45.4	1
11096-82-5	Aroclor-1260		617	ug/kg	15.1	45.4	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdla.i/0317107.b/016f1601.d  
Lab Smp Id: 248202002 Client Smp ID: RE36-10-8281  
Inj Date : 17-MAR-2010 08:41  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |248202002|10|  
Misc Info : |ECD82P\_1S|965380|SVA|LANL|SOIL|RE36-10-8281|||  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 09:56 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 16  
Dil Factor: 10.00000  
Integrator: Falcon Compound Sublist: 10-2124.sub  
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.13000	Weight of sample extracted (g)
M	26.87770	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	ON-COL	FINAL	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
CAS #: 877-09-8							
1.913	1.913	0.000	5422751 13.9215	6.3	80.00-	120.00	100.00
CAS #: 2051-24-3							
5.215	5.216	-0.001	4369802 14.7166	6.7	80.00-	120.00	100.00
CAS #: 11097-69-1							
3.208	3.209	-0.001	21769112 1641.47	745	80.00-	120.00	100.00 (M)
3.362	3.364	-0.002	35767697 2005.67	910	112.36-	152.36	164.30
3.595	3.598	-0.003	47679037 2131.26	967	151.31-	191.31	219.02
3.758	3.760	-0.002	41416090 2511.58	1140	104.79-	144.79	190.25
3.866	3.869	-0.003	48927579 3064.79	1390	106.35-	146.35	224.76
Average of Peak Concentrations =				1030			

Report Date: 17-Mar-2010 10:04

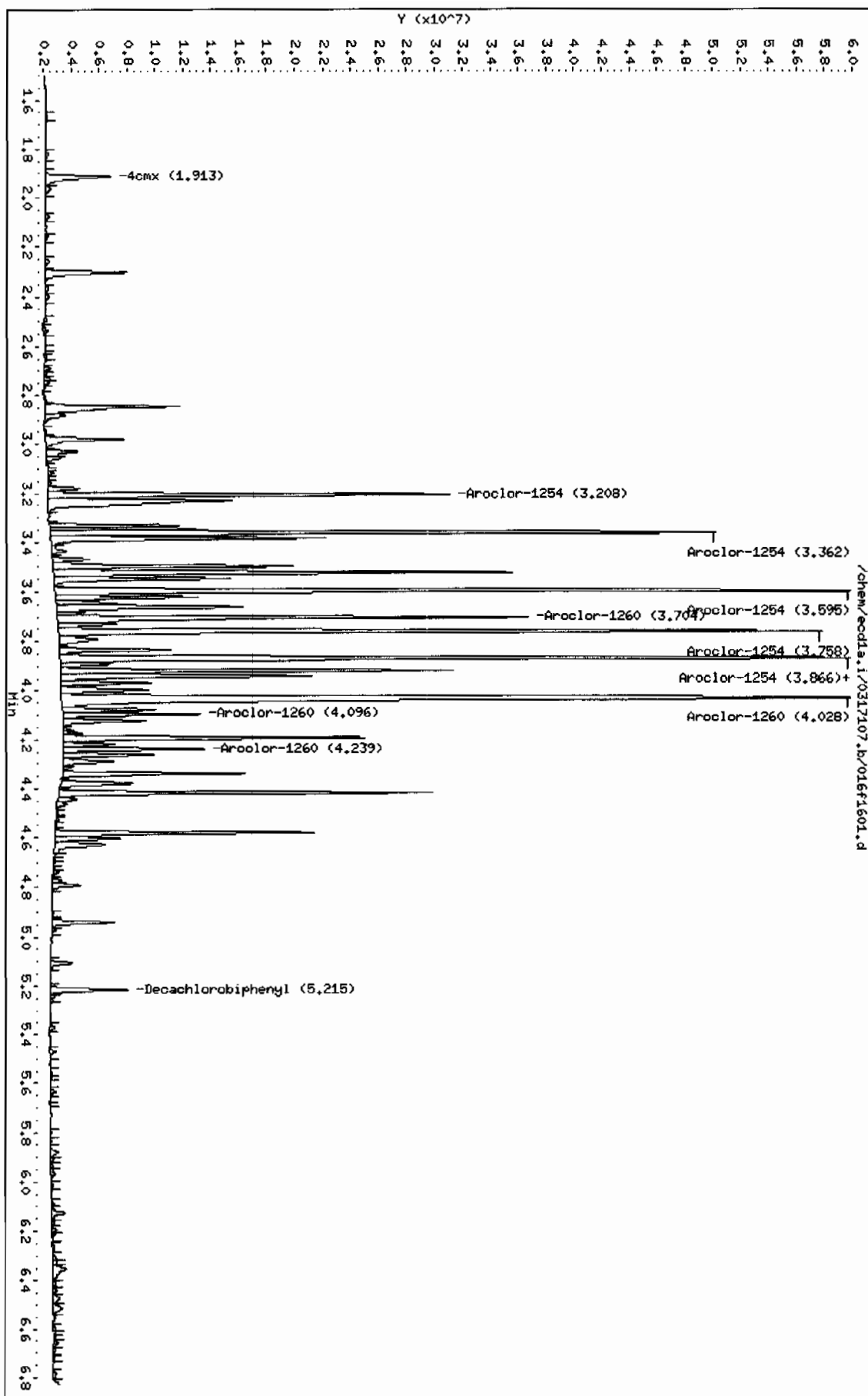
		CONCENTRATIONS							
		ON-COL		FINAL					
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	TARGET RANGE	RATIO		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
7 Aroclor-1260			CAS #: 11096-82-5						
3.704	3.703	0.001	26406658	1440.62	654	80.00- 120.00	100.00 (M)		
3.866	3.866	0.000	48927579	1819.56	826	127.09- 167.09	185.29		
4.028	4.028	0.000	74059923	2615.54	1190	137.02- 177.02	280.46		
4.096	4.096	0.000	7430280	459.855	209	68.20- 108.20	28.14		
4.239	4.238	0.001	7597823	451.911	205	71.75- 111.75	28.77		
Average of Peak Concentrations =			617						

## QC Flag Legend

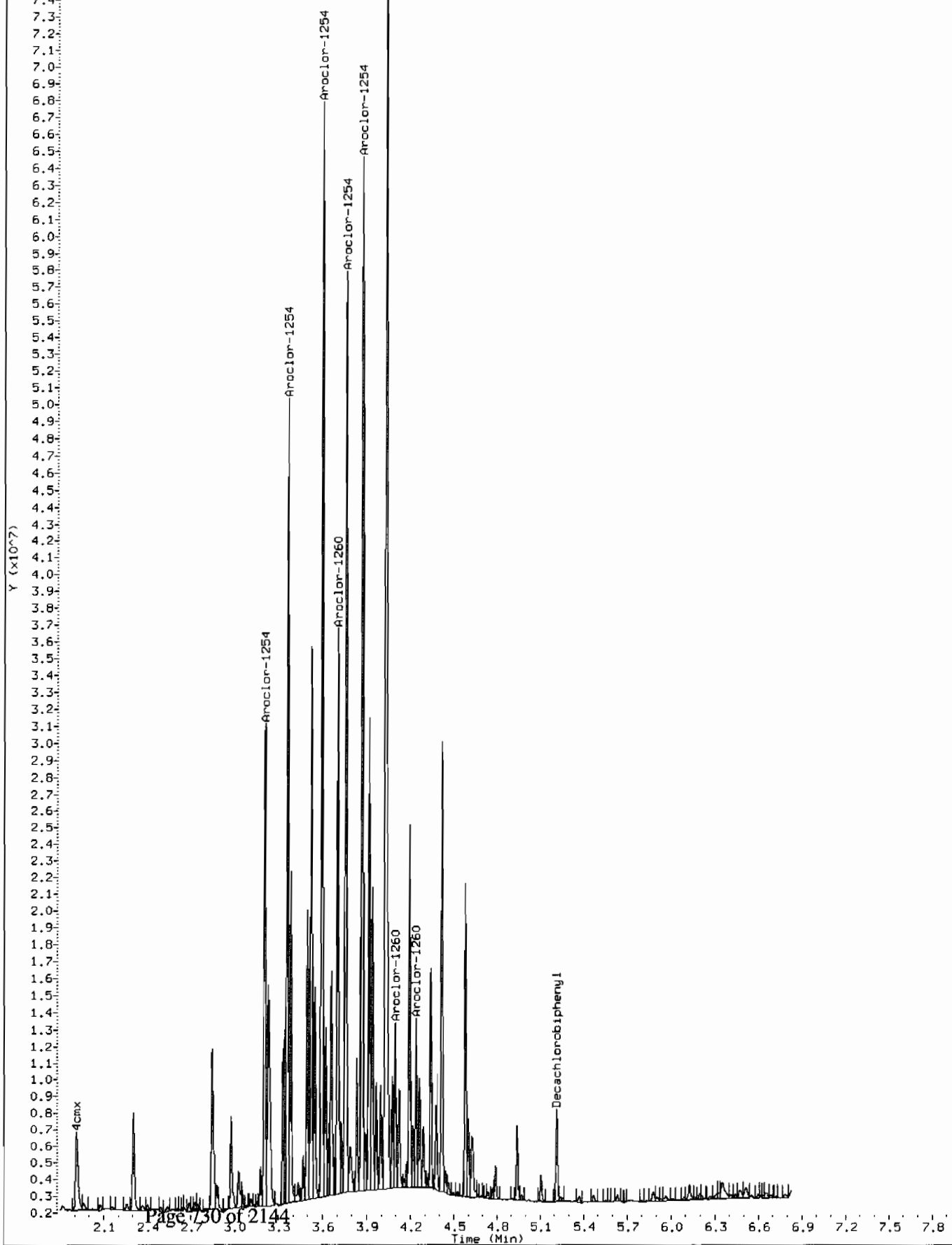
M - Compound response manually integrated.

Data File: /chem/ecdl.a.i/0317107.b/016f1601.d  
 Date: 17-MAR-2010 08:41  
 Client ID: RE36-10-8281  
 Sample Info: 1248202021101  
 Volume Injected (uL): 1.0  
 Column Phase: CLP1

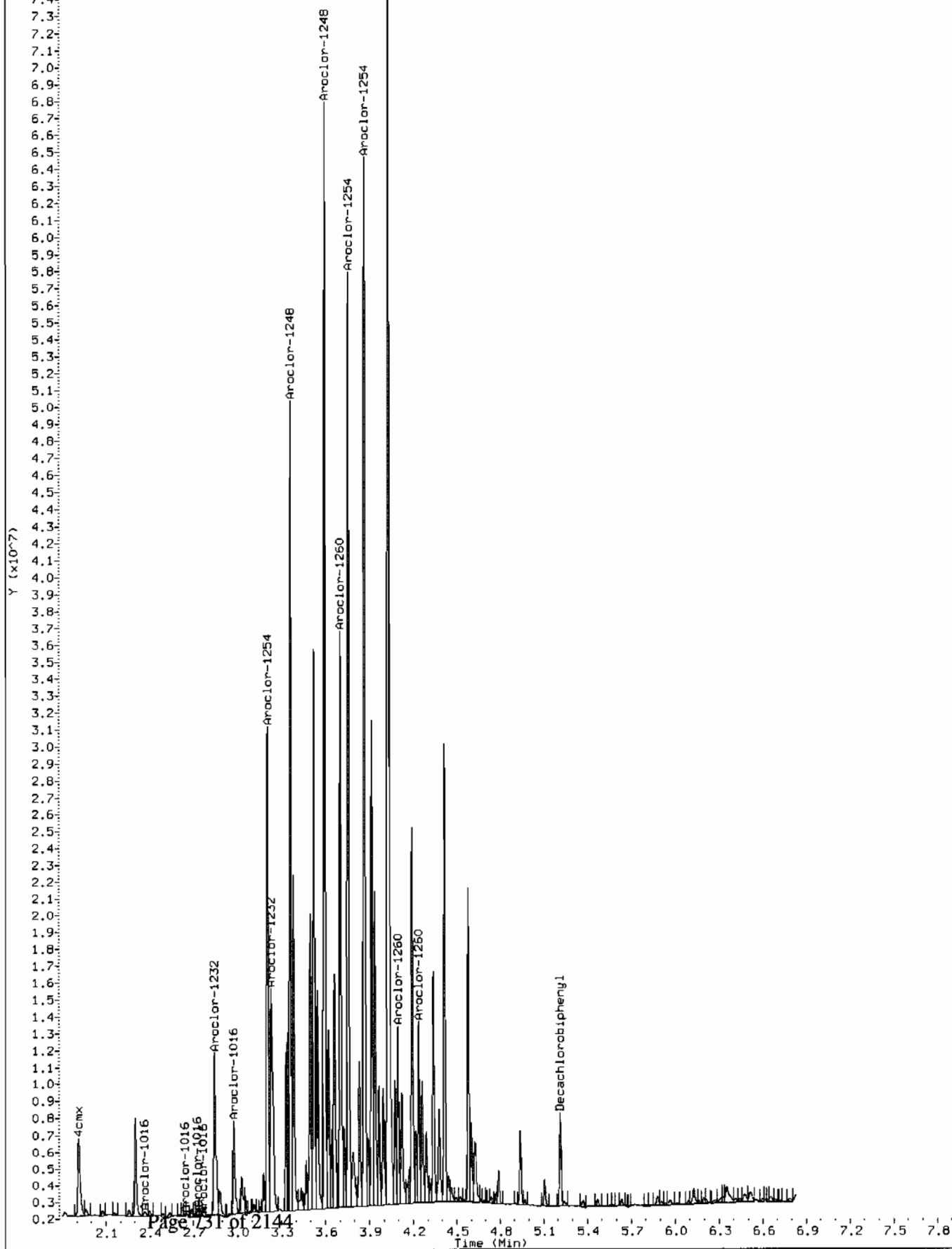
Instrument: ecdl.a.i  
 Operator: YSL  
 Column diameter: 0.25



Comment: Manually Integrated  
Data File: /chem/ecdlai/0317107.b/016f1601.d  
Operator: YS1  
Injection Date: 17-MAR-2010 08:41  
Instrument: ecdla.i  
Client Sample ID: RE36-10-8281



Comment: Before manual integration  
Data File: /chem/ecdlai/0317107.b/orig-016f1601.d  
Operator: YS1  
Injection Date: 17-MAR-2010 08:41  
Instrument: ecdla.i  
Client Sample ID: RE36-10-8281



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/016b1601.d

Lab Smp Id: 248202002

Client Smp ID: RE36-10-8281

Inj Date : 17-MAR-2010 08:41

Operator : YSl

Inst ID: ecd1a.i

Smp Info : |248202002|10|

Misc Info : |ECD82P\_1S|965380|SVA|LANL|SOIL|RE36-10-8281|||

Comment :

Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m

Meth Date : 17-Mar-2010 09:56 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 16

Dil Factor: 10.00000

Integrator: Falcon

Compound Sublist: 10-2124.sub

Target Version: 3.50

Sample Matrix: Soil

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.13000	Weight of sample extracted (g)
M	26.87770	% Moisture

Cpnd Variable Local Compound Variable

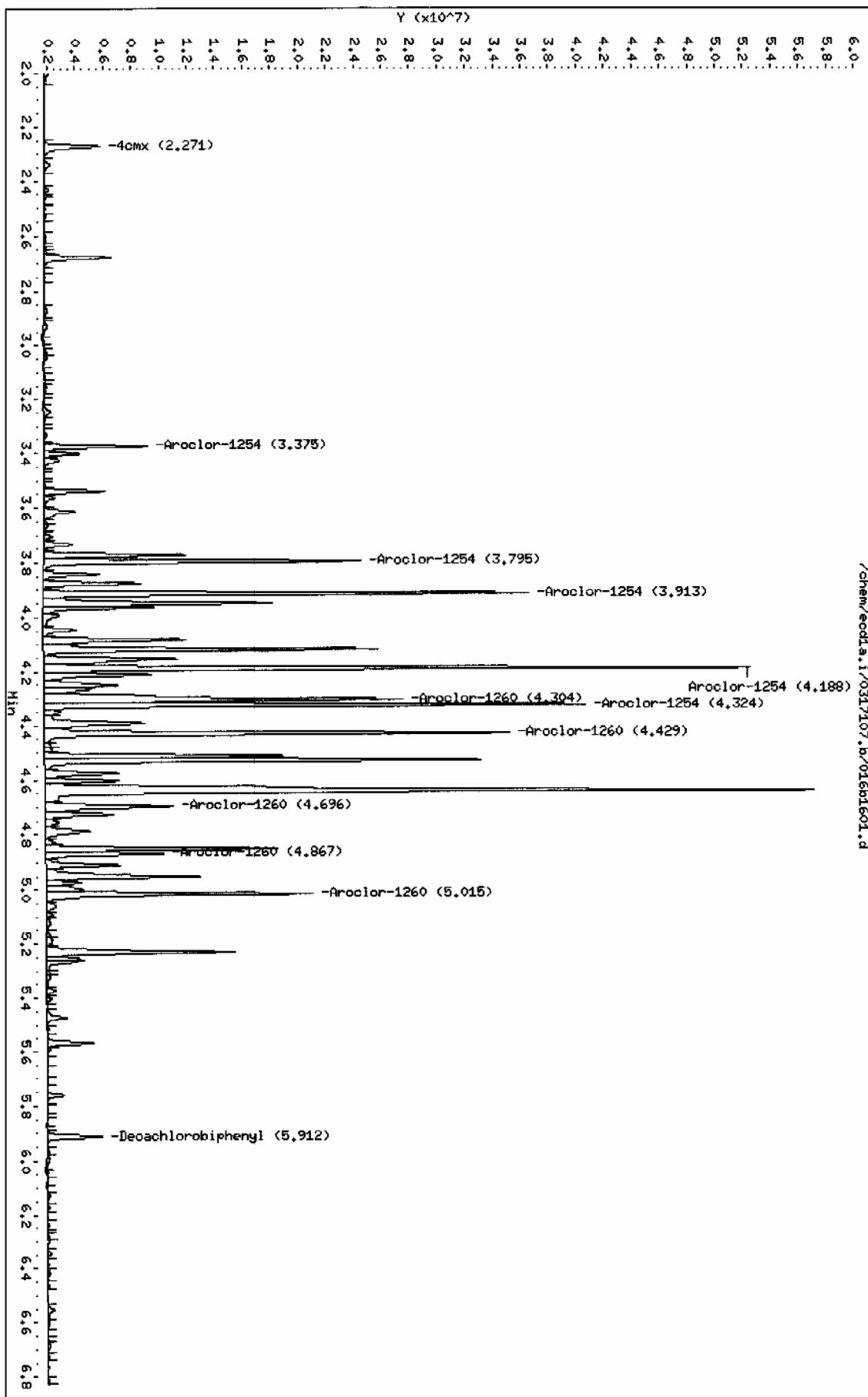
CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8		
2.271	2.271	0.000	3797392	14.4755	6.6 80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.912	5.913	-0.001	3361929	17.9616	8.2 80.00- 120.00	100.00
-----						
6 Aroclor-1254				CAS #: 11097-69-1		
3.375	3.375	0.000	5168182	858.328	390 80.00- 120.00	100.00
3.795	3.797	-0.002	17312478	1600.08	726 162.61- 202.61	334.98
3.913	3.914	-0.001	24650817	2065.66	938 178.69- 218.69	476.97
4.188	4.189	-0.001	35580058	2164.00	982 256.82- 296.82	688.44
4.324	4.325	-0.001	27609288	2278.84	1030 188.70- 228.70	534.22
Average of Peak Concentrations =				813		
-----						

CONCENTRATIONS						
			ON-COL		FINAL	
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====
7 Aroclor-1260			CAS #: 11096-82-5			
4.304	4.304	0.000	25107901	1919.53	871 80.00- 120.00	100.00
4.429	4.429	0.000	25565684	1644.20	746 100.68- 140.68	101.82
4.696	4.695	0.001	9198100	773.205	351 71.05- 111.05	36.63
4.867	4.868	-0.001	6412918	521.833	237 74.43- 114.43	25.54
5.015	5.015	0.000	15076573	571.198	259 188.69- 228.69	60.05
Average of Peak Concentrations =			493			



Data File: /chem/eod1a.i/0317107.b/016b1601.d  
Date: 17-MAR-2010 08:41  
Client ID: RE36-10-8281  
Sample Info: 12482020021101  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: eod1a.i  
Operator: YSL  
Column diameter: 0.25



**PCB**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124  
Lab Sample ID: 248202001

Client ID: RE36-10-8282  
Batch ID: 965380  
Run Date: 03/16/2010 17:20  
Prep Date: 03/15/2010 21:25  
Data File: 027f2701.d  
027b2701.d

Date Collected: 02/23/2010 12:00  
Date Received: 02/26/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.12 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 8.7  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.64	ug/kg	1.21	3.64	1
11104-28-2	Aroclor-1221	U	3.64	ug/kg	1.21	3.64	1
11141-16-5	Aroclor-1232	U	3.64	ug/kg	1.21	3.64	1
53469-21-9	Aroclor-1242	U	3.64	ug/kg	1.21	3.64	1
12672-29-6	Aroclor-1248	U	3.64	ug/kg	1.21	3.64	1
11097-69-1	Aroclor-1254	U	3.64	ug/kg	1.21	3.64	1
11096-82-5	Aroclor-1260	U	3.64	ug/kg	1.21	3.64	1

Data File: /chem/ecdla.i/031610a.b/027f2701.d  
Report Date: 17-Mar-2010 07:57

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/031610a.b/027f2701.d  
Lab Smp Id: 248202001 Client Smp ID: RE36-10-8282  
Inj Date : 16-MAR-2010 17:20  
Operator : YSl Inst ID: ecdla.i  
Smp Info : |248202001|1|  
Misc Info : |ECD82P\_1S|965380|SVA|LANL|SOIL|RE36-10-8282|||  
Comment :  
Method : /chem/ecdla.i/031610a.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 07:55 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 27  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2124.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpclp1

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weight of sample extracted (g)
M	8.69570	% Moisture

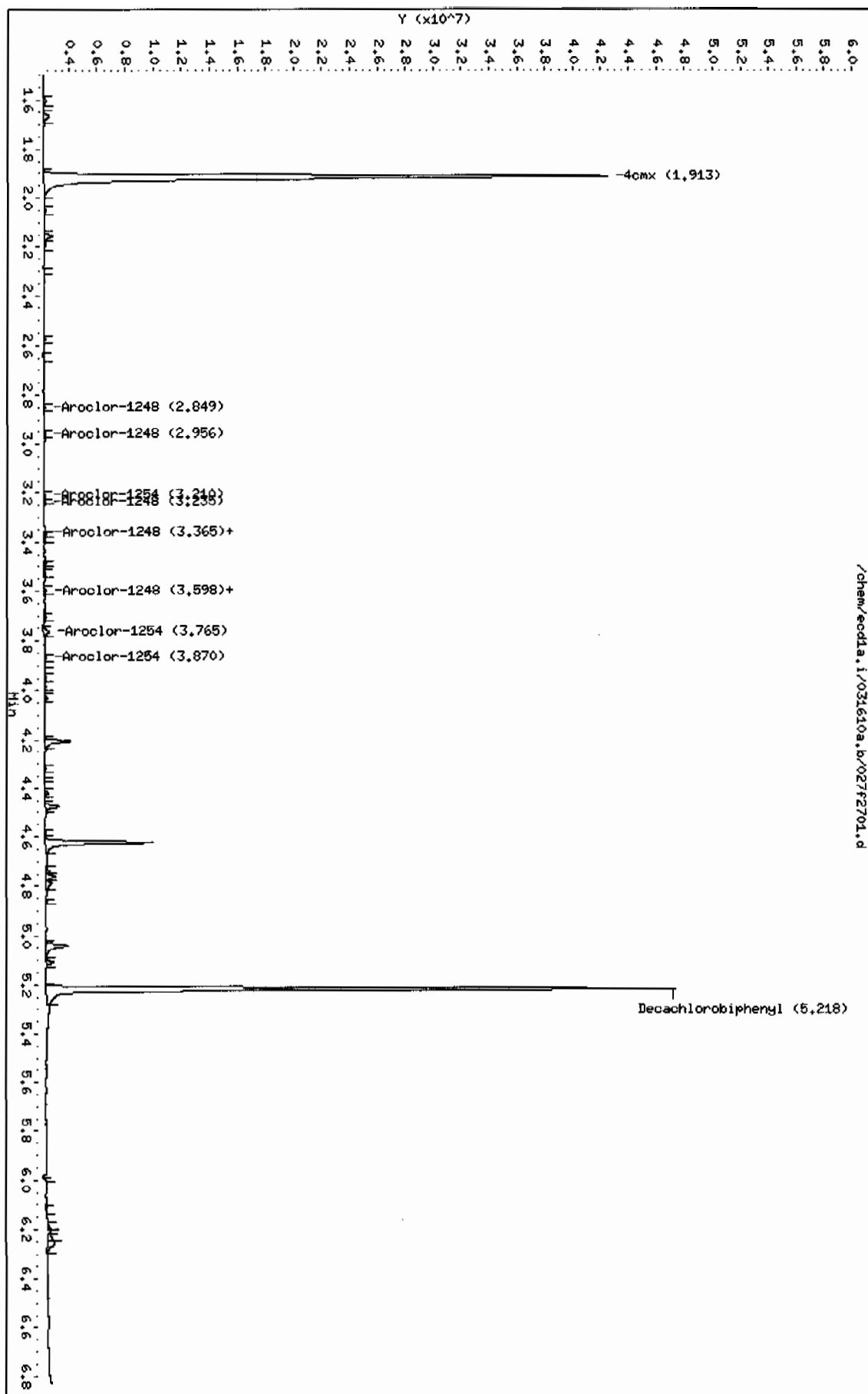
Cpnd Variable Local Compound Variable

CONCENTRATIONS						
		ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx CAS #: 877-09-8						
1.913	1.915	-0.002	45658549 117.217	4.3	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
5.218	5.220	-0.002	35778936 120.496	4.4	80.00- 120.00	100.00
-----						

Data File: /chem/ecdl.a.i/031610a.b/027f2701.d  
Date: 16-MAR-2010 17:20  
Client ID: RE36-10-8282  
Sample Info: 124820204111  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: ecdl.a.i  
Operator: YSI  
Column diameter: 0.25

Page 1



Data File: /chem/ecdl1a.i/031610a.b/027b2701.d  
Report Date: 17-Mar-2010 07:57

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031610a.b/027b2701.d

Lab Smp Id: 248202001

Client Smp ID: RE36-10-8282

Inj Date : 16-MAR-2010 17:20

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |248202001|1|

Misc Info : |ECD82P\_1S|965380|SVA|LANL|SOIL|RE36-10-8282|

Comment :

Method : /chem/ecdl1a.i/031610a.b/ECD1-B-8082-031110b.m

Meth Date : 17-Mar-2010 07:55 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 27

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2124.sub

Target Version: 3.50

Sample Matrix: Soil

Processing Host: hpclpl

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weight of sample extracted (g)
M	8.69570	% Moisture

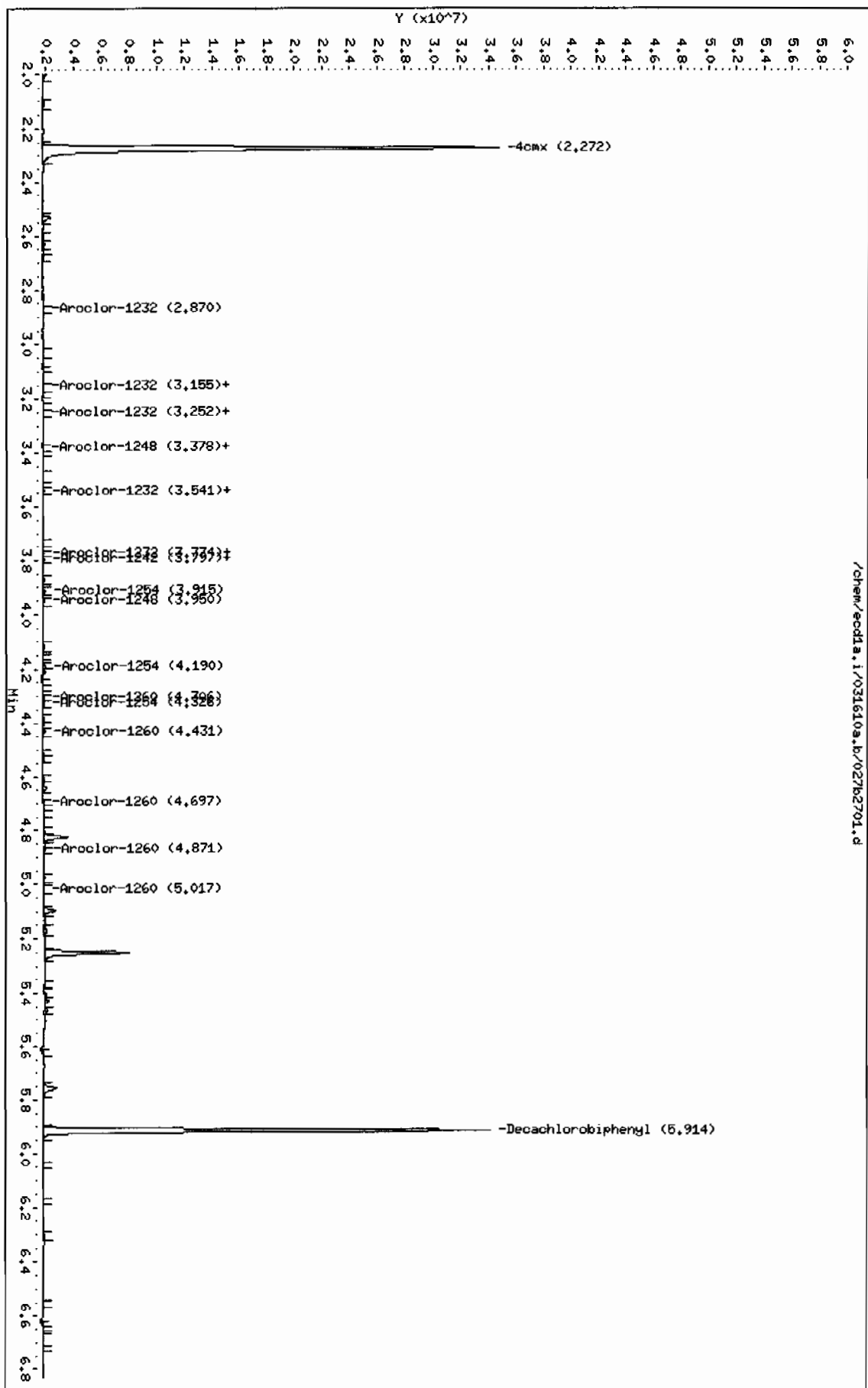
Cpnd Variable

Local Compound Variable

CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx CAS #: 877-09-8						
2.272	2.273	-0.001	30486110	116.212	4.2 80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
5.914	5.915	-0.001	24218476	129.391	4.7 80.00- 120.00	100.00
-----						

Data File: /chem/eod1a.i/031610a.b/027b2701.d  
 Date : 16-MAR-2010 17:20  
 Client ID: RE36-10-8282  
 Sample Info: 124820200111  
 Volume Injected (uL): 1.0  
 Column phase: CLP2

Instrument: eod1a.i  
 Operator: YSA  
 Column diameter: 0.25



# STANDARDS DATA

Report Date: 17-Mar-2010 08:42

### Calibration History

Method : /chem/ecdla.i/031610a.b/ECD1-F-8082-031110b.m  
Start Cal Date: 22-FEB-2010 06:31  
End Cal Date : 11-MAR-2010 20:22

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecdla.i/022210.b/032f3201.d
11-MAR-2010 19:40	AR1248	/chem/ecdla.i/031110b.b/029f2901.d
11-MAR-2010 18:37	AR1242	/chem/ecdla.i/031110b.b/023f2301.d
11-MAR-2010 17:34	AR1254	/chem/ecdla.i/031110b.b/017f1701.d
11-MAR-2010 16:31	AR1660	/chem/ecdla.i/031110b.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecdla.i/022210.b/033f3301.d
11-MAR-2010 19:51	AR1248	/chem/ecdla.i/031110b.b/030f3001.d
11-MAR-2010 18:48	AR1242	/chem/ecdla.i/031110b.b/024f2401.d
11-MAR-2010 17:45	AR1254	/chem/ecdla.i/031110b.b/018f1801.d
11-MAR-2010 16:41	AR1660	/chem/ecdla.i/031110b.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecdla.i/022210.b/034f3401.d
11-MAR-2010 20:01	AR1248	/chem/ecdla.i/031110b.b/031f3101.d
11-MAR-2010 18:58	AR1242	/chem/ecdla.i/031110b.b/025f2501.d
11-MAR-2010 17:55	AR1254	/chem/ecdla.i/031110b.b/019f1901.d
11-MAR-2010 16:52	AR1660	/chem/ecdla.i/031110b.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecdla.i/022210.b/035f3501.d
11-MAR-2010 20:12	AR1248	/chem/ecdla.i/031110b.b/032f3201.d
11-MAR-2010 19:09	AR1242	/chem/ecdla.i/031110b.b/026f2601.d
11-MAR-2010 18:06	AR1254	/chem/ecdla.i/031110b.b/020f2001.d
11-MAR-2010 17:02	AR1660	/chem/ecdla.i/031110b.b/014f1401.d
11-MAR-2010 16:10	AR1262	/chem/ecdla.i/031110b.b/009f0901.d
11-MAR-2010 15:59	AR1221	/chem/ecdla.i/031110b.b/008f0801.d
11-MAR-2010 15:49	AR1232	/chem/ecdla.i/031110b.b/007f0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecdla.i/031110b.b/010f1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecdla.i/022210.b/036f3601.d
11-MAR-2010 20:22	AR1248	/chem/ecdla.i/031110b.b/033f3301.d
11-MAR-2010 19:19	AR1242	/chem/ecdla.i/031110b.b/027f2701.d
11-MAR-2010 18:16	AR1254	/chem/ecdla.i/031110b.b/021f2101.d
11-MAR-2010 17:13	AR1660	/chem/ecdla.i/031110b.b/015f1501.d



Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 4

Report Date: 17-Mar-2010 08:42

### Calibration History

Method : /chem/ecd1a.i/031610a.b/ECD1-B-8082-031110b.m  
Start Cal Date: 22-FEB-2010 06:31  
End Cal Date : 11-MAR-2010 20:22

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029b2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023b2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017b1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011b1101.d

Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030b3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024b2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018b1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012b1201.d

Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031b3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025b2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019b1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013b1301.d

Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032b3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026b2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020b2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014b1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009b0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008b0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007b0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010b1001.d

Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033b3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027b2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021b2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015b1501.d

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
16-MAR-2010 18:11	AR1660	/chem/ecd1a.i/031610a.b/031b3101.d
Ccal Level: 4 , Ccal Amount: 1000		
16-MAR-2010 15:52	AR1660	/chem/ecd1a.i/031610a.b/020b2001.d
Ccal Level: 4 , Ccal Amount: 1000		
16-MAR-2010 13:44	AR1262	/chem/ecd1a.i/031610a.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
16-MAR-2010 13:33	AR1221	/chem/ecd1a.i/031610a.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
16-MAR-2010 13:23	AR1232	/chem/ecd1a.i/031610a.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
16-MAR-2010 13:12	AR1268	/chem/ecd1a.i/031610a.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
16-MAR-2010 13:02	AR1248	/chem/ecd1a.i/031610a.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
16-MAR-2010 12:51	AR1242	/chem/ecd1a.i/031610a.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
16-MAR-2010 12:41	AR1254	/chem/ecd1a.i/031610a.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
16-MAR-2010 12:30	AR1660	/chem/ecd1a.i/031610a.b/002b0201.d

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdl1a.i/031610a.b/ECD1-F-8082-031110b.m  
 Quant Method : ESTD Target Version : 3.50  
 Last Update : 17-Mar-2010 07:58 Number of Cpnds : 15  
 Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.366	2.336-2.396	1.518e+04
	2.654	2.624-2.684	1.894e+04
	2.734	2.704-2.764	1.244e+04
	2.771	2.741-2.801	7.348e+03
	2.982	2.952-3.012	9.518e+03
63 4,4-DDD	3.888	3.868-3.908	3.140e+05
64 4,4-DDE	3.539	3.519-3.559	3.727e+05
62 4,4-DDT	4.052	4.032-4.072	2.363e+05
2 Aroclor-1221	2.026	1.996-2.056	4.466e+03
	2.119	2.089-2.149	2.447e+03
	2.145	2.115-2.175	1.083e+04
3 Aroclor-1232	2.368	2.338-2.398	6.667e+03
	2.654	2.624-2.684	8.344e+03
	2.734	2.704-2.764	5.531e+03
	2.848	2.818-2.878	2.649e+03
	3.235	3.205-3.265	3.555e+03
4 Aroclor-1242	2.366	2.336-2.396	1.233e+04
	2.654	2.624-2.684	1.490e+04
	2.771	2.741-2.801	5.896e+03
	2.981	2.951-3.011	7.735e+03
	3.235	3.205-3.265	7.285e+03

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecd1a.i/031610a.b/ECD1-F-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.848	2.818-2.878	1.000e+04
	2.981	2.951-3.011	1.314e+04
	3.235	3.205-3.265	1.430e+04
	3.366	3.336-3.396	1.190e+04
6 Aroclor-1254	3.599	3.569-3.629	8.005e+03
	3.210	3.180-3.240	1.326e+04
	3.365	3.335-3.395	1.783e+04
	3.599	3.569-3.629	2.237e+04
7 Aroclor-1260	3.762	3.732-3.792	1.649e+04
	3.871	3.841-3.901	1.596e+04
	3.707	3.677-3.737	1.833e+04
	3.870	3.840-3.900	2.689e+04
8 Aroclor-1262	4.032	4.002-4.062	2.832e+04
	4.100	4.070-4.130	1.616e+04
	4.243	4.213-4.273	1.681e+04
	3.707	3.677-3.737	1.423e+04
9 Aroclor-1268	3.869	3.839-3.899	1.874e+04
	4.100	4.070-4.130	2.315e+04
	4.244	4.214-4.274	2.110e+04
	4.422	4.392-4.452	4.350e+04
M 10 Aroclor-Total	4.606	4.576-4.636	4.848e+04
	4.629	4.599-4.659	5.448e+04
	4.741	4.711-4.771	3.862e+04
	4.944	4.914-4.974	1.635e+04
\$ 11 4cmx	5.109	5.079-5.139	1.121e+05
\$ 12 Decachlorobiphenyl	1.000	0.980-1.020	3.895e+05
	1.915	1.885-1.945	2.969e+05
	5.220	5.190-5.250	

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdl1a.i/031610a.b/ECD1-B-8082-031110b.m  
Quant Method : ESTD Target Version : 3.50  
Last Update : 17-Mar-2010 07:58 Number of Cpnds : 15  
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events Values

-----  
Initial:Start Threshold 7222.000000  
Initial:End Threshold 3611.000000  
Initial:Area Threshold 6833.000000  
Initial:P-P Resolution 0.000000  
Initial:Bunch Factor 2.000000  
Initial:Negative Peaks OFF  
Initial:Tension 0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.168	3.138-3.198	1.258e+04
	3.251	3.221-3.281	8.634e+03
	3.315	3.285-3.345	5.287e+03
	3.541	3.511-3.571	6.893e+03
	3.617	3.587-3.647	6.423e+03
62 4,4-DDT	4.642	4.622-4.662	7.489e+04
63 4,4-DDE	4.111	4.091-4.131	2.469e+05
64 4,4-DDD	4.455	4.435-4.475	1.989e+05
2 Aroclor-1221	2.469	2.439-2.499	3.250e+03
	2.564	2.534-2.594	2.084e+03
	2.605	2.575-2.635	7.320e+03
3 Aroclor-1232	2.871	2.841-2.901	5.054e+03
	3.168	3.138-3.198	5.712e+03
	3.251	3.221-3.281	3.888e+03
	3.542	3.512-3.572	2.840e+03
	3.775	3.745-3.805	2.821e+03
4 Aroclor-1242	3.168	3.138-3.198	1.014e+04
	3.251	3.221-3.281	7.097e+03
	3.541	3.511-3.571	5.514e+03
	3.776	3.746-3.806	5.722e+03
	3.803	3.773-3.833	6.370e+03

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdla.i/031610a.b/ECD1-B-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.377	3.347-3.407	7.604e+03
	3.541	3.511-3.571	9.470e+03
	3.776	3.746-3.806	1.093e+04
	3.803	3.773-3.833	1.216e+04
	3.940	3.910-3.970	1.181e+04
6 Aroclor-1254	3.377	3.347-3.407	6.021e+03
	3.799	3.769-3.829	1.082e+04
	3.915	3.885-3.945	1.193e+04
	4.190	4.160-4.220	1.644e+04
	4.327	4.297-4.357	1.212e+04
7 Aroclor-1260	4.307	4.277-4.337	1.308e+04
	4.431	4.401-4.461	1.555e+04
	4.698	4.668-4.728	1.190e+04
	4.871	4.841-4.901	1.229e+04
	5.018	4.988-5.048	2.639e+04
8 Aroclor-1262	4.432	4.402-4.462	1.160e+04
	4.698	4.668-4.728	1.620e+04
	4.871	4.841-4.901	1.484e+04
	5.018	4.988-5.048	2.937e+04
	5.231	5.201-5.261	2.065e+04
9 Aroclor-1268	5.229	5.199-5.259	3.730e+04
	5.257	5.227-5.287	3.492e+04
	5.406	5.376-5.436	2.658e+04
	5.570	5.540-5.601	1.223e+04
	5.763	5.733-5.793	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	2.273	2.243-2.303	2.623e+05
\$ 12 Decachlorobiphenyl	5.915	5.885-5.945	1.872e+05

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 11-MAR-2010 20:22  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecd1a.i/031610a.b/ECD1-F-8082-031110b.m  
 Cal Date : 17-Mar-2010 07:58 yip00818  
 Curve Type : Average

## Calibration File Names:

Level 1: /chem/ecd1a.i/022210.b/032f3201.d  
 Level 2: /chem/ecd1a.i/022210.b/033f3301.d  
 Level 3: /chem/ecd1a.i/022210.b/034f3401.d  
 Level 4: /chem/ecd1a.i/022210.b/035f3501.d  
 Level 5: /chem/ecd1a.i/022210.b/036f3601.d

Compound	100.000	250.000	500.000	1000.000	4000.000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
1 Aroclor-1016(1)	17517	15916	14941	14342	13168	15177	10.833
(2)	20378	19291	18809	18310	17891	18936	5.082
(3)	13830	13020	12255	11836	11271	12442	8.071
(4)	7957	7573	7201	7091	6919	7348	5.665
(5)	10680	9850	9332	8998	8729	9518	8.119
63 4,4-DDD	++++	++++	++++	313980	++++	313980	0.000
64 4,4-DDE	++++	++++	++++	372684	++++	372684	0.000
62 4,4-DDT	++++	++++	++++	236265	++++	236265	0.000
2 Aroclor-1221(1)	++++	++++	++++	4466	++++	4466	0.000
(2)	++++	++++	++++	2447	++++	2447	0.000
(3)	++++	++++	++++	10828	++++	10828	0.000
3 Aroclor-1232(1)	++++	++++	++++	6667	++++	6667	0.000
(2)	++++	++++	++++	8344	++++	8344	0.000
(3)	++++	++++	++++	5531	++++	5531	0.000
(4)	++++	++++	++++	2649	++++	2649	0.000
(5)	++++	++++	++++	3555	++++	3555	0.000
4 Aroclor-1242(1)	14179	12973	12200	11692	10617	12332	10.871
(2)	16141	15119	14927	14559	13766	14903	5.801
(3)	6352	6182	5816	5703	5424	5896	6.324
(4)	8823	8005	7582	7293	6975	7735	9.260
(5)	7955	7511	7149	7022	6787	7285	6.273
5 Aroclor-1248(1)	11183	10572	9738	9526	8980	10000	8.748
(2)	14876	13683	12753	12517	11873	13140	8.885
(3)	15448	14508	14083	13911	13564	14303	5.068
(4)	13161	12385	11501	11480	10960	11898	7.335
(5)	8649	8385	7955	7608	7427	8005	6.411



GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 11-MAR-2010 20:22  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdl1a.i/031610a.b/ECD1-F-8082-031110b.m  
 Cal Date : 17-Mar-2010 07:58 yip00818  
 Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	15079	13757	12872	12576	12027	13262	8.998
(2)	20126	18408	17163	17147	16322	17833	8.313
(3)	24516	23104	21642	21571	21024	22371	6.372
(4)	18056	17097	15691	15840	15766	16490	6.365
(5)	18024	16683	15151	15091	14874	15964	8.504
7 Aroclor-1260(1)	20231	18737	18018	17739	16925	18330	6.792
(2)	29345	27114	26401	26314	25275	26890	5.656
(3)	30716	28501	27786	27176	27398	28315	5.062
(4)	17775	16311	15776	15627	15300	16158	6.034
(5)	18203	16850	16463	16434	16114	16813	4.876
8 Aroclor-1262(1)	++++	++++	++++	14232	++++	14232	0.000
(2)	++++	++++	++++	18742	++++	18742	0.000
(3)	++++	++++	++++	23151	++++	23151	0.000
(4)	++++	++++	++++	21098	++++	21098	0.000
(5)	++++	++++	++++	43500	++++	43500	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	++++	++++	++++	++++	++++	++++	++++
\$ 11 4cmx	407603	391717	384007	385362	378927	389523	2.846
\$ 12 Decachlorobiphenyl	324859	292709	291687	292552	282844	296930	5.438

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 11-MAR-2010 20:22  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdla.i/031610a.b/ECD1-B-8082-031110b.m  
 Cal Date : 17-Mar-2010 07:58 yip00818  
 Curve Type : Average

## Calibration File Names:

Level 1: /chem/ecdla.i/022210.b/032b3201.d  
 Level 2: /chem/ecdla.i/022210.b/033b3301.d  
 Level 3: /chem/ecdla.i/022210.b/034b3401.d  
 Level 4: /chem/ecdla.i/022210.b/035b3501.d  
 Level 5: /chem/ecdla.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14376	12782	12025	12307	11436	12585	8.846
(2)	10090	9074	8445	8099	7462	8634	11.594
(3)	6137	5472	5151	4973	4701	5287	10.435
(4)	7962	7103	6817	6522	6060	6893	10.318
(5)	7497	6686	6263	5965	5703	6423	10.948
62 4,4-DDT	++++	++++	++++	74891	++++	74891	0.000
63 4,4-DDE	++++	++++	++++	246875	++++	246875	0.000
64 4,4-DDD	++++	++++	++++	198885	++++	198885	0.000
2 Aroclor-1221(1)	++++	++++	++++	3250	++++	3250	0.000
(2)	++++	++++	++++	2084	++++	2084	0.000
(3)	++++	++++	++++	7320	++++	7320	0.000
3 Aroclor-1232(1)	++++	++++	++++	5054	++++	5054	0.000
(2)	++++	++++	++++	5712	++++	5712	0.000
(3)	++++	++++	++++	3888	++++	3888	0.000
(4)	++++	++++	++++	2840	++++	2840	0.000
(5)	++++	++++	++++	2821	++++	2821	0.000
4 Aroclor-1242(1)	11230	10514	10117	9526	9309	10139	7.634
(2)	8350	7546	6909	6642	6036	7097	12.487
(3)	6442	5836	5387	5177	4727	5514	11.868
(4)	6626	6011	5573	5400	4999	5722	10.877
(5)	7365	6655	6241	6005	5582	6370	10.658
5 Aroclor-1248(1)	9056	8166	7435	6980	6383	7604	13.684
(2)	11093	10088	9257	8814	8097	9470	12.242
(3)	12505	11602	10677	10284	9581	10930	10.466
(4)	13890	12873	11986	11379	10657	12157	10.405
(5)	13590	12468	11541	11009	10453	11812	10.502

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 11-MAR-2010 20:22  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdl1a.i/031610a.b/ECD1-B-8082-031110b.m  
 Cal Date : 17-Mar-2010 07:58 yip00818  
 Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7300	6493	5824	5480	5009	6021	14.886
(2)	12825	11548	10490	9974	9262	10820	12.909
(3)	14182	12643	11550	11031	10262	11934	12.788
(4)	19027	17317	15983	15442	14439	16442	10.826
(5)	14064	13049	11651	11174	10640	12116	11.634
7 Aroclor-1260(1)	15189	13569	12744	12369	11530	13080	10.610
(2)	17885	16016	15152	14853	13838	15549	9.776
(3)	13812	12250	11562	11271	10585	11896	10.311
(4)	14218	12635	11954	11625	11015	12289	9.981
(5)	29595	26825	25949	25629	23976	26395	7.824
8 Aroclor-1262(1)	++++	++++	++++	11597	++++	11597	0.000
(2)	++++	++++	++++	16200	++++	16200	0.000
(3)	++++	++++	++++	14838	++++	14838	0.000
(4)	++++	++++	++++	29366	++++	29366	0.000
(5)	++++	++++	++++	20651	++++	20651	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
10 Aroclor-Total	++++	++++	++++	++++	++++	++++	++++
11 4cmx	286554	267083	258607	255362	244057	262333	6.044
12 Decachlorobiphenyl	217815	191410	181026	177515	168101	187173	10.178

Report Date: 18-Mar-2010 09:29

### Calibration History

Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
Start Cal Date: 22-FEB-2010 06:31  
End Cal Date : 11-MAR-2010 20:22

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecdla.i/022210.b/032f3201.d
11-MAR-2010 19:40	AR1248	/chem/ecdla.i/031110b.b/029f2901.d
11-MAR-2010 18:37	AR1242	/chem/ecdla.i/031110b.b/023f2301.d
11-MAR-2010 17:34	AR1254	/chem/ecdla.i/031110b.b/017f1701.d
11-MAR-2010 16:31	AR1660	/chem/ecdla.i/031110b.b/011f1101.d

Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecdla.i/022210.b/033f3301.d
11-MAR-2010 19:51	AR1248	/chem/ecdla.i/031110b.b/030f3001.d
11-MAR-2010 18:48	AR1242	/chem/ecdla.i/031110b.b/024f2401.d
11-MAR-2010 17:45	AR1254	/chem/ecdla.i/031110b.b/018f1801.d
11-MAR-2010 16:41	AR1660	/chem/ecdla.i/031110b.b/012f1201.d

Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecdla.i/022210.b/034f3401.d
11-MAR-2010 20:01	AR1248	/chem/ecdla.i/031110b.b/031f3101.d
11-MAR-2010 18:58	AR1242	/chem/ecdla.i/031110b.b/025f2501.d
11-MAR-2010 17:55	AR1254	/chem/ecdla.i/031110b.b/019f1901.d
11-MAR-2010 16:52	AR1660	/chem/ecdla.i/031110b.b/013f1301.d

Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecdla.i/022210.b/035f3501.d
11-MAR-2010 20:12	AR1248	/chem/ecdla.i/031110b.b/032f3201.d
11-MAR-2010 19:09	AR1242	/chem/ecdla.i/031110b.b/026f2601.d
11-MAR-2010 18:06	AR1254	/chem/ecdla.i/031110b.b/020f2001.d
11-MAR-2010 17:02	AR1660	/chem/ecdla.i/031110b.b/014f1401.d
11-MAR-2010 16:10	AR1262	/chem/ecdla.i/031110b.b/009f0901.d
11-MAR-2010 15:59	AR1221	/chem/ecdla.i/031110b.b/008f0801.d
11-MAR-2010 15:49	AR1232	/chem/ecdla.i/031110b.b/007f0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecdla.i/031110b.b/010f1001.d

Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecdla.i/022210.b/036f3601.d
11-MAR-2010 20:22	AR1248	/chem/ecdla.i/031110b.b/033f3301.d
11-MAR-2010 19:19	AR1242	/chem/ecdla.i/031110b.b/027f2701.d
11-MAR-2010 18:16	AR1254	/chem/ecdla.i/031110b.b/021f2101.d
11-MAR-2010 17:13	AR1660	/chem/ecdla.i/031110b.b/015f1501.d

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 21:49	AR1660	/chem/ecd1a.i/0317107.b/080f8001.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 20:08	AR1660	/chem/ecd1a.i/0317107.b/072f7201.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 17:49	AR1660	/chem/ecd1a.i/0317107.b/061f6101.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 16:00	AR1660	/chem/ecd1a.i/0317107.b/052f5201.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 13:45	AR1660	/chem/ecd1a.i/0317107.b/041f4101.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 11:16	AR1660	/chem/ecd1a.i/0317107.b/029f2901.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 08:53	AR1660	/chem/ecd1a.i/0317107.b/017f1701.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 07:22	AR1262	/chem/ecd1a.i/0317107.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 07:11	AR1221	/chem/ecd1a.i/0317107.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 07:01	AR1232	/chem/ecd1a.i/0317107.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 06:50	AR1268	/chem/ecd1a.i/0317107.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 06:39	AR1248	/chem/ecd1a.i/0317107.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 06:29	AR1242	/chem/ecd1a.i/0317107.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 06:18	AR1254	/chem/ecd1a.i/0317107.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 06:08	AR1660	/chem/ecd1a.i/0317107.b/002f0201.d

Report Date: 18-Mar-2010 09:29

### Calibration History

Method : /chem/ecd1a.i/0317107.b/ECD1-B-8082-031110b.m  
Start Cal Date: 22-FEB-2010 06:31  
End Cal Date : 11-MAR-2010 20:22

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029b2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023b2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017b1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011b1101.d

Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030b3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024b2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018b1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012b1201.d

Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031b3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025b2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019b1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013b1301.d

Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032b3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026b2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020b2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014b1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009b0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008b0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007b0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010b1001.d

Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033b3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027b2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021b2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015b1501.d

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 21:49  AR1660	/chem/ecdla.i/0317107.b/080b8001.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 20:08  AR1660	/chem/ecdla.i/0317107.b/072b7201.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 17:49  AR1660	/chem/ecdla.i/0317107.b/061b6101.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 16:00  AR1660	/chem/ecdla.i/0317107.b/052b5201.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 13:45  AR1660	/chem/ecdla.i/0317107.b/041b4101.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 11:16  AR1660	/chem/ecdla.i/0317107.b/029b2901.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 08:53  AR1660	/chem/ecdla.i/0317107.b/017b1701.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 07:22  AR1262	/chem/ecdla.i/0317107.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 07:11  AR1221	/chem/ecdla.i/0317107.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 07:01  AR1232	/chem/ecdla.i/0317107.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 06:50  AR1268	/chem/ecdla.i/0317107.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 06:39  AR1248	/chem/ecdla.i/0317107.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 06:29  AR1242	/chem/ecdla.i/0317107.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 06:18  AR1254	/chem/ecdla.i/0317107.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 06:08  AR1660	/chem/ecdla.i/0317107.b/002b0201.d

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m  
Quant Method : ESTD Target Version : 3.50  
Last Update : 18-Mar-2010 06:43 Number of Cpnds : 15  
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events

Values

-----  
Initial:Start Threshold 12031.000000  
Initial:End Threshold 6015.500000  
Initial:Area Threshold 15489.000000  
Initial:P-P Resolution 1.000000  
Initial:Bunch Factor 2.000000  
Initial:Negative Peaks OFF  
Initial:Tension 0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.366	2.336-2.396	1.518e+04
	2.651	2.621-2.681	1.894e+04
	2.732	2.702-2.762	1.244e+04
	2.768	2.738-2.798	7.348e+03
	2.978	2.948-3.008	9.518e+03
63 4,4-DDD	3.888	3.868-3.908	3.140e+05
64 4,4-DDE	3.539	3.519-3.559	3.727e+05
62 4,4-DDT	4.052	4.032-4.072	2.363e+05
2 Aroclor-1221	2.026	1.996-2.056	4.466e+03
	2.118	2.088-2.148	2.447e+03
	2.144	2.114-2.174	1.083e+04
3 Aroclor-1232	2.365	2.335-2.395	6.667e+03
	2.652	2.622-2.682	8.344e+03
	2.732	2.702-2.762	5.531e+03
	2.847	2.817-2.877	2.649e+03
4 Aroclor-1242	3.234	3.204-3.264	3.555e+03
	2.365	2.335-2.395	1.233e+04
	2.652	2.622-2.682	1.490e+04
	2.769	2.739-2.799	5.896e+03
	2.980	2.950-3.010	7.735e+03
	3.233	3.203-3.263	7.285e+03



## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.846	2.816-2.876	1.000e+04
	2.981	2.951-3.011	1.314e+04
	3.234	3.204-3.264	1.430e+04
	3.366	3.336-3.396	1.190e+04
	3.598	3.568-3.628	8.005e+03
6 Aroclor-1254	3.209	3.179-3.239	1.326e+04
	3.364	3.334-3.394	1.783e+04
	3.598	3.568-3.628	2.237e+04
	3.760	3.730-3.790	1.649e+04
	3.869	3.839-3.899	1.596e+04
7 Aroclor-1260	3.703	3.673-3.733	1.833e+04
	3.866	3.836-3.896	2.689e+04
	4.028	3.998-4.058	2.832e+04
	4.096	4.066-4.126	1.616e+04
	4.238	4.208-4.268	1.681e+04
8 Aroclor-1262	3.706	3.676-3.736	1.423e+04
	3.868	3.838-3.898	1.874e+04
	4.099	4.069-4.129	2.315e+04
	4.241	4.211-4.271	2.110e+04
	4.421	4.391-4.451	4.350e+04
9 Aroclor-1268	4.606	4.576-4.636	4.848e+04
	4.628	4.598-4.658	5.448e+04
	4.741	4.711-4.771	3.862e+04
	4.943	4.913-4.973	1.635e+04
	5.108	5.078-5.138	1.121e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	1.913	1.883-1.943	3.895e+05
\$ 12 Decachlorobiphenyl	5.216	5.186-5.246	2.969e+05

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m  
Quant Method : ESTD Target Version : 3.50  
Last Update : 18-Mar-2010 06:43 Number of Cpnds : 15  
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events

Values

-----  
Initial:Start Threshold 7222.000000  
Initial:End Threshold 3611.000000  
Initial:Area Threshold 6833.000000  
Initial:P-P Resolution 0.000000  
Initial:Bunch Factor 2.000000  
Initial:Negative Peaks OFF  
Initial:Tension 0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.166	3.136-3.196	1.258e+04
	3.248	3.218-3.278	8.634e+03
	3.312	3.282-3.342	5.287e+03
	3.538	3.508-3.568	6.893e+03
	3.614	3.584-3.644	6.423e+03
62 4,4-DDT	4.642	4.622-4.662	7.489e+04
63 4,4-DDE	4.111	4.091-4.131	2.469e+05
64 4,4-DDD	4.455	4.435-4.475	1.989e+05
2 Aroclor-1221	2.468	2.438-2.498	3.250e+03
	2.562	2.532-2.592	2.084e+03
	2.603	2.573-2.633	7.320e+03
3 Aroclor-1232	2.869	2.839-2.899	5.054e+03
	3.166	3.136-3.196	5.712e+03
	3.250	3.220-3.280	3.888e+03
	3.540	3.510-3.570	2.840e+03
4 Aroclor-1242	3.774	3.744-3.804	2.821e+03
	3.167	3.137-3.197	1.014e+04
	3.249	3.219-3.279	7.097e+03
	3.540	3.510-3.570	5.514e+03
	3.773	3.743-3.803	5.722e+03
	3.802	3.772-3.832	6.370e+03

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.376	3.346-3.406	7.604e+03
	3.541	3.511-3.571	9.470e+03
	3.774	3.744-3.804	1.093e+04
	3.801	3.771-3.831	1.216e+04
	3.938	3.908-3.968	1.181e+04
6 Aroclor-1254	3.375	3.345-3.405	6.021e+03
	3.797	3.767-3.827	1.082e+04
	3.914	3.884-3.944	1.193e+04
	4.189	4.159-4.219	1.644e+04
	4.325	4.295-4.355	1.212e+04
7 Aroclor-1260	4.304	4.274-4.334	1.308e+04
	4.429	4.399-4.459	1.555e+04
	4.695	4.665-4.725	1.190e+04
	4.868	4.838-4.898	1.229e+04
	5.015	4.985-5.045	2.639e+04
8 Aroclor-1262	4.431	4.401-4.461	1.160e+04
	4.696	4.666-4.726	1.620e+04
	4.869	4.839-4.899	1.484e+04
	5.016	4.986-5.046	2.937e+04
	5.229	5.199-5.259	2.065e+04
9 Aroclor-1268	5.228	5.198-5.258	3.730e+04
	5.256	5.226-5.286	3.492e+04
	5.405	5.375-5.435	2.658e+04
	5.570	5.540-5.600	1.223e+04
	5.763	5.733-5.793	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	2.271	2.241-2.301	2.623e+05
\$ 12 Decachlorobiphenyl	5.913	5.883-5.943	1.872e+05

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 11-MAR-2010 20:22  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
 Cal Date : 18-Mar-2010 06:43 yip00818  
 Curve Type : Average

## Calibration File Names:

Level 1: /chem/ecdla.i/022210.b/032f3201.d  
 Level 2: /chem/ecdla.i/022210.b/033f3301.d  
 Level 3: /chem/ecdla.i/022210.b/034f3401.d  
 Level 4: /chem/ecdla.i/022210.b/035f3501.d  
 Level 5: /chem/ecdla.i/022210.b/036f3601.d

Compound	100.000	250.000	500.000	1000.000	4000.000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
1 Aroclor-1016(1)	17517	15916	14941	14342	13168	15177	10.833
(2)	20378	19291	18809	18310	17891	18936	5.082
(3)	13830	13020	12255	11836	11271	12442	8.071
(4)	7957	7573	7201	7091	6919	7348	5.665
(5)	10680	9850	9332	8998	8729	9518	8.119
63 4,4-DDD	++++	++++	++++	313980	++++	313980	0.000
64 4,4-DDE	++++	++++	++++	372684	++++	372684	0.000
62 4,4-DDT	++++	++++	++++	236265	++++	236265	0.000
2 Aroclor-1221(1)	++++	++++	++++	4466	++++	4466	0.000
(2)	++++	++++	++++	2447	++++	2447	0.000
(3)	++++	++++	++++	10828	++++	10828	0.000
3 Aroclor-1232(1)	++++	++++	++++	6667	++++	6667	0.000
(2)	++++	++++	++++	8344	++++	8344	0.000
(3)	++++	++++	++++	5531	++++	5531	0.000
(4)	++++	++++	++++	2649	++++	2649	0.000
(5)	++++	++++	++++	3555	++++	3555	0.000
4 Aroclor-1242(1)	14179	12973	12200	11692	10617	12332	10.871
(2)	16141	15119	14927	14559	13766	14903	5.801
(3)	6352	6182	5816	5703	5424	5896	6.324
(4)	8823	8005	7582	7293	6975	7735	9.260
(5)	7955	7511	7149	7022	6787	7285	6.273
5 Aroclor-1248(1)	11183	10572	9738	9526	8980	10000	8.748
(2)	14876	13683	12753	12517	11873	13140	8.885
(3)	15448	14508	14083	13911	13564	14303	5.068
(4)	13161	12385	11501	11480	10960	11898	7.335
(5)	8649	8385	7955	7608	7427	8005	6.411

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 11-MAR-2010 20:22  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m  
 Cal Date : 18-Mar-2010 06:43 yip00818  
 Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	15079	13757	12872	12576	12027	13262	8.998
(2)	20126	18408	17163	17147	16322	17833	8.313
(3)	24516	23104	21642	21571	21024	22371	6.372
(4)	18056	17097	15691	15840	15766	16490	6.365
(5)	18024	16683	15151	15091	14874	15964	8.504
7 Aroclor-1260(1)	20231	18737	18018	17739	16925	18330	6.792
(2)	29345	27114	26401	26314	25275	26890	5.656
(3)	30716	28501	27786	27176	27398	28315	5.062
(4)	17775	16311	15776	15627	15300	16158	6.034
(5)	18203	16850	16463	16434	16114	16813	4.876
8 Aroclor-1262(1)	++++	++++	++++	14232	++++	14232	0.000
(2)	++++	++++	++++	18742	++++	18742	0.000
(3)	++++	++++	++++	23151	++++	23151	0.000
(4)	++++	++++	++++	21098	++++	21098	0.000
(5)	++++	++++	++++	43500	++++	43500	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	++++	++++	++++	++++	++++	++++	++++
\$ 11 4cmx	407603	391717	384007	385362	378927	389523	2.846
\$ 12 Decachlorobiphenyl	324859	292709	291687	292552	282844	296930	5.438

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 11-MAR-2010 20:22  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m  
 Cal Date : 18-Mar-2010 06:43 yip00818  
 Curve Type : Average

## Calibration File Names:

Level 1: /chem/ecdla.i/022210.b/032b3201.d  
 Level 2: /chem/ecdla.i/022210.b/033b3301.d  
 Level 3: /chem/ecdla.i/022210.b/034b3401.d  
 Level 4: /chem/ecdla.i/022210.b/035b3501.d  
 Level 5: /chem/ecdla.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14376	12782	12025	12307	11436	12585	8.846
(2)	10090	9074	8445	8099	7462	8634	11.594
(3)	6137	5472	5151	4973	4701	5287	10.435
(4)	7962	7103	6817	6522	6060	6893	10.318
(5)	7497	6686	6263	5965	5703	6423	10.948
62 4,4-DDT	+++++	+++++	+++++	74891	+++++	74891	0.000
63 4,4-DDE	+++++	+++++	+++++	246875	+++++	246875	0.000
64 4,4-DDD	+++++	+++++	+++++	198885	+++++	198885	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3250	+++++	3250	0.000
(2)	+++++	+++++	+++++	2084	+++++	2084	0.000
(3)	+++++	+++++	+++++	7320	+++++	7320	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	5054	+++++	5054	0.000
(2)	+++++	+++++	+++++	5712	+++++	5712	0.000
(3)	+++++	+++++	+++++	3888	+++++	3888	0.000
(4)	+++++	+++++	+++++	2840	+++++	2840	0.000
(5)	+++++	+++++	+++++	2821	+++++	2821	0.000
4 Aroclor-1242(1)	11230	10514	10117	9526	9309	10139	7.634
(2)	8350	7546	6909	6642	6036	7097	12.487
(3)	6442	5836	5387	5177	4727	5514	11.868
(4)	6626	6011	5573	5400	4999	5722	10.877
(5)	7365	6655	6241	6005	5582	6370	10.658
5 Aroclor-1248(1)	9056	8166	7435	6980	6383	7604	13.684
(2)	11093	10088	9257	8814	8097	9470	12.242
(3)	12505	11602	10677	10284	9581	10930	10.466
(4)	13890	12873	11986	11379	10657	12157	10.405
(5)	13590	12468	11541	11009	10453	11812	10.502

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 11-MAR-2010 20:22  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
 Cal Date : 18-Mar-2010 06:43 yip00818  
 Curve Type : Average

Compound	100.000	250.000	500.000	1000.000	4000.000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
6 Aroclor-1254(1)	7300	6493	5824	5480	5009	6021	14.886
(2)	12825	11548	10490	9974	9262	10820	12.909
(3)	14182	12643	11550	11031	10262	11934	12.788
(4)	19027	17317	15983	15442	14439	16442	10.826
(5)	14064	13049	11651	11174	10640	12116	11.634
7 Aroclor-1260(1)	15189	13569	12744	12369	11530	13080	10.610
(2)	17885	16016	15152	14853	13838	15549	9.776
(3)	13812	12250	11562	11271	10585	11896	10.311
(4)	14218	12635	11954	11625	11015	12289	9.981
(5)	29595	26825	25949	25629	23976	26395	7.824
8 Aroclor-1262(1)	++++	++++	++++	11597	++++	11597	0.000
(2)	++++	++++	++++	16200	++++	16200	0.000
(3)	++++	++++	++++	14838	++++	14838	0.000
(4)	++++	++++	++++	29366	++++	29366	0.000
(5)	++++	++++	++++	20651	++++	20651	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
M 10 Aroclor-Total	++++	++++	++++	++++	++++	++++	++++
\$ 11 4cmx	286554	267083	258607	255362	244057	262333	6.044
\$ 12 Decachlorobiphenyl	217815	191410	181026	177515	168101	187173	10.178

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124  
 Instrument ID: ECD1A Calibration Date: 03/16/10 Time: 1230  
 Lab File ID: 002F0201 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	13368.015	0.01	-11.9	15.0
(2)	18935.774	17204.417	0.01	-9.1	15.0
(3)	12442.153	11015.754	0.01	-11.5	15.0
(4)	7348.319	6547.264	0.01	-10.9	15.0
(5)	9517.775	8435.632	0.01	-11.4	15.0
Aroclor-1260	18330.091	17496.292	0.01	-4.5	15.0
(2)	26889.831	25810.444	0.01	-4.0	15.0
(3)	28315.304	27546.316	0.01	-2.7	15.0
(4)	16157.873	15514.718	0.01	-4.0	15.0
(5)	16812.669	16280.184	0.01	-3.2	15.0
4cmx	389523.02	386971.50	0.01	-0.6	15.0
Decachlorobiphenyl	296930.38	288381.92	0.01	-2.9	15.0

FORM VII PEST



FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124  
 Instrument ID: ECD1A Calibration Date: 03/16/10 Time: 1230  
 Lab File ID: 002B0201 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11635.292	0.01	-7.5	15.0
(2)	8634.207	7633.002	0.01	-11.6	15.0
(3)	5286.637	4691.691	0.01	-11.2	15.0
(4)	6892.719	5994.298	0.01	-13.0	15.0
(5)	6422.564	5664.563	0.01	-11.8	15.0
Aroclor-1260	13080.231	12551.719	0.01	-4.0	15.0
(2)	15549.023	15126.606	0.01	-2.7	15.0
(3)	11896.069	11470.204	0.01	-3.6	15.0
(4)	12289.216	11886.007	0.01	-3.3	15.0
(5)	26394.638	26206.943	0.01	-0.7	15.0
4cmx	262332.66	255524.84	0.01	-2.6	15.0
Decachlorobiphenyl	187173.38	181034.17	0.01	-3.3	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124  
 Instrument ID: ECD1A Calibration Date: 03/16/10 Time: 1241  
 Lab File ID: 003F0301 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	13261.954	12239.461	0.01	-7.7	15.0
(2)	17833.306	16560.496	0.01	-7.1	15.0
(3)	22371.301	21451.860	0.01	-4.1	15.0
(4)	16490.050	16013.722	0.01	-2.9	15.0
(5)	15964.418	15970.713	0.01	0.0	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124  
 Instrument ID: ECD1A Calibration Date: 03/16/10 Time: 1241  
 Lab File ID: 003B0301 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6021.217	5474.205	0.01	-9.1	15.0
(2)	10819.790	9939.393	0.01	-8.1	15.0
(3)	11933.626	10997.088	0.01	-7.8	15.0
(4)	16441.788	15436.326	0.01	-6.1	15.0
(5)	12115.517	11281.322	0.01	-6.9	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124  
 Instrument ID: ECD1A Calibration Date: 03/16/10 Time: 1552  
 Lab File ID: 020F2001 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Aroclor-1016	15176.803	13206.478	0.01	-13.0	15.0
(2)	18935.774	16766.708	0.01	-11.4	15.0
(3)	12442.153	10882.251	0.01	-12.5	15.0
(4)	7348.319	6542.971	0.01	-11.0	15.0
(5)	9517.775	8384.743	0.01	-11.9	15.0
Aroclor-1260	18330.091	17668.243	0.01	-3.6	15.0
(2)	26889.831	25728.812	0.01	-4.3	15.0
(3)	28315.304	27547.194	0.01	-2.7	15.0
(4)	16157.873	15540.754	0.01	-3.8	15.0
(5)	16812.669	16214.245	0.01	-3.6	15.0
=====	=====	=====	=====	=====	=====
4cmx	389523.02	381431.66	0.01	-2.1	15.0
DecaChlorobiphenyl	296930.38	253206.98	0.01	-14.7	15.0
=====	=====	=====	=====	=====	=====

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124  
 Instrument ID: ECD1A Calibration Date: 03/16/10 Time: 1552  
 Lab File ID: 020B2001 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11098.034	0.01	-11.8	15.0
(2)	8634.207	7571.040	0.01	-12.3	15.0
(3)	5286.637	4648.222	0.01	-12.1	15.0
(4)	6892.719	6158.530	0.01	-10.6	15.0
(5)	6422.564	5612.957	0.01	-12.6	15.0
Aroclor-1260	13080.231	12328.355	0.01	-5.7	15.0
(2)	15549.023	14929.799	0.01	-4.0	15.0
(3)	11896.069	11290.496	0.01	-5.1	15.0
(4)	12289.216	11771.568	0.01	-4.2	15.0
(5)	26394.638	25805.545	0.01	-2.2	15.0
4cmx	262332.66	253070.17	0.01	-3.5	15.0
Decachlorobiphenyl	187173.38	178188.05	0.01	-4.8	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124  
 Instrument ID: ECD1A Calibration Date: 03/16/10 Time: 1811  
 Lab File ID: 031F3101 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	13394.714	0.01	-11.7	15.0
(2)	18935.774	17254.004	0.01	-8.9	15.0
(3)	12442.153	11024.306	0.01	-11.4	15.0
(4)	7348.319	6622.547	0.01	-9.9	15.0
(5)	9517.775	8486.533	0.01	-10.8	15.0
Aroclor-1260	18330.091	17964.954	0.01	-2.0	15.0
(2)	26889.831	26227.422	0.01	-2.5	15.0
(3)	28315.304	27979.481	0.01	-1.2	15.0
(4)	16157.873	15785.645	0.01	-2.3	15.0
(5)	16812.669	16448.735	0.01	-2.2	15.0
4cmx	389523.02	387536.13	0.01	-0.5	15.0
Decachlorobiphenyl	296930.38	288688.06	0.01	-2.8	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124  
 Instrument ID: ECD1A Calibration Date: 03/16/10 Time: 1811  
 Lab File ID: 031B3101 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11721.842	0.01	-6.8	15.0
(2)	8634.207	7615.119	0.01	-11.8	15.0
(3)	5286.637	4695.105	0.01	-11.2	15.0
(4)	6892.719	6176.113	0.01	-10.4	15.0
(5)	6422.564	5789.750	0.01	-9.8	15.0
Aroclor-1260	13080.231	12397.791	0.01	-5.2	15.0
(2)	15549.023	14988.919	0.01	-3.6	15.0
(3)	11896.069	11260.747	0.01	-5.3	15.0
(4)	12289.216	11806.558	0.01	-3.9	15.0
(5)	26394.638	25947.564	0.01	-1.7	15.0
4cmx	262332.66	256182.98	0.01	-2.3	15.0
Decachlorobiphenyl	187173.38	177598.23	0.01	-5.1	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 0608  
 Lab File ID: 002F0201 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	13679.245	0.01	-9.9	15.0
(2)	18935.774	17352.542	0.01	-8.4	15.0
(3)	12442.153	10865.667	0.01	-12.7	15.0
(4)	7348.319	6489.606	0.01	-11.7	15.0
(5)	9517.775	8337.119	0.01	-12.4	15.0
Aroclor-1260	18330.091	17103.795	0.01	-6.7	15.0
(2)	26889.831	24999.856	0.01	-7.0	15.0
(3)	28315.304	26757.729	0.01	-5.5	15.0
(4)	16157.873	15105.144	0.01	-6.5	15.0
(5)	16812.669	15681.925	0.01	-6.7	15.0
4cmx	389523.02	384270.94	0.01	-1.3	15.0
Decachlorobiphenyl	296930.38	280327.80	0.01	-5.6	15.0

FORM VII PEST



FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 0608  
 Lab File ID: 002B0201 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11257.869	0.01	-10.5	15.0
(2)	8634.207	7602.660	0.01	-11.9	15.0
(3)	5286.637	4622.469	0.01	-12.6	15.0
(4)	6892.719	6158.940	0.01	-10.6	15.0
(5)	6422.564	5755.354	0.01	-10.4	15.0
Aroclor-1260	13080.231	12494.202	0.01	-4.5	15.0
(2)	15549.023	15069.938	0.01	-3.1	15.0
(3)	11896.069	11423.166	0.01	-4.0	15.0
(4)	12289.216	11829.647	0.01	-3.7	15.0
(5)	26394.638	26003.137	0.01	-1.5	15.0
4cmx	262332.66	257488.80	0.01	-1.8	15.0
Decachlorobiphenyl	187173.38	178998.77	0.01	-4.4	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 0618  
 Lab File ID: 003F0301 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	13261.954	11804.928	0.01	-11.0	15.0
(2)	17833.306	15624.759	0.01	-12.4	15.0
(3)	22371.301	20223.062	0.01	-9.6	15.0
(4)	16490.050	14731.608	0.01	-10.7	15.0
(5)	15964.418	14915.377	0.01	-6.6	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 0618  
 Lab File ID: 003B0301 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6021.217	5433.555	0.01	-9.8	15.0
(2)	10819.790	9922.138	0.01	-8.3	15.0
(3)	11933.626	10795.731	0.01	-9.5	15.0
(4)	16441.788	15040.936	0.01	-8.5	15.0
(5)	12115.517	11339.611	0.01	-6.4	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 0853  
 Lab File ID: 017F1701 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	13072.214	0.01	-13.9	15.0
(2)	18935.774	16743.348	0.01	-11.6	15.0
(3)	12442.153	10753.369	0.01	-13.6	15.0
(4)	7348.319	6446.442	0.01	-12.3	15.0
(5)	9517.775	8110.441	0.01	-14.8	15.0
Aroclor-1260	18330.091	16962.461	0.01	-7.5	15.0
(2)	26889.831	24950.358	0.01	-7.2	15.0
(3)	28315.304	26635.100	0.01	-5.9	15.0
(4)	16157.873	14960.531	0.01	-7.4	15.0
(5)	16812.669	15562.577	0.01	-7.4	15.0
4cmx	389523.02	378611.37	0.01	-2.8	15.0
Decachlorobiphenyl	296930.38	274816.37	0.01	-7.4	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 0853  
 Lab File ID: 017B1701 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11589.187	0.01	-7.9	15.0
(2)	8634.207	7549.847	0.01	-12.6	15.0
(3)	5286.637	4630.370	0.01	-12.4	15.0
(4)	6892.719	6092.955	0.01	-11.6	15.0
(5)	6422.564	5704.793	0.01	-11.2	15.0
Aroclor-1260	13080.231	12259.396	0.01	-6.3	15.0
(2)	15549.023	14795.087	0.01	-4.8	15.0
(3)	11896.069	11161.788	0.01	-6.2	15.0
(4)	12289.216	11576.871	0.01	-5.8	15.0
(5)	26394.638	25583.684	0.01	-3.1	15.0
4cmx	262332.66	254467.07	0.01	-3.0	15.0
Decachlorobiphenyl	187173.38	175017.13	0.01	-6.5	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031610a.b/002f0201.d

Lab Smp Id: WAR100222-60 01

Client Smp ID: AR166001

Inj Date : 16-MAR-2010 12:30

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 01

Misc Info :

Comment :

Method : /chem/ecdl1a.i/031610a.b/ECD1-F-8082-031110b.m

Meth Date : 16-Mar-2010 13:23 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d

Als bottle: 2

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

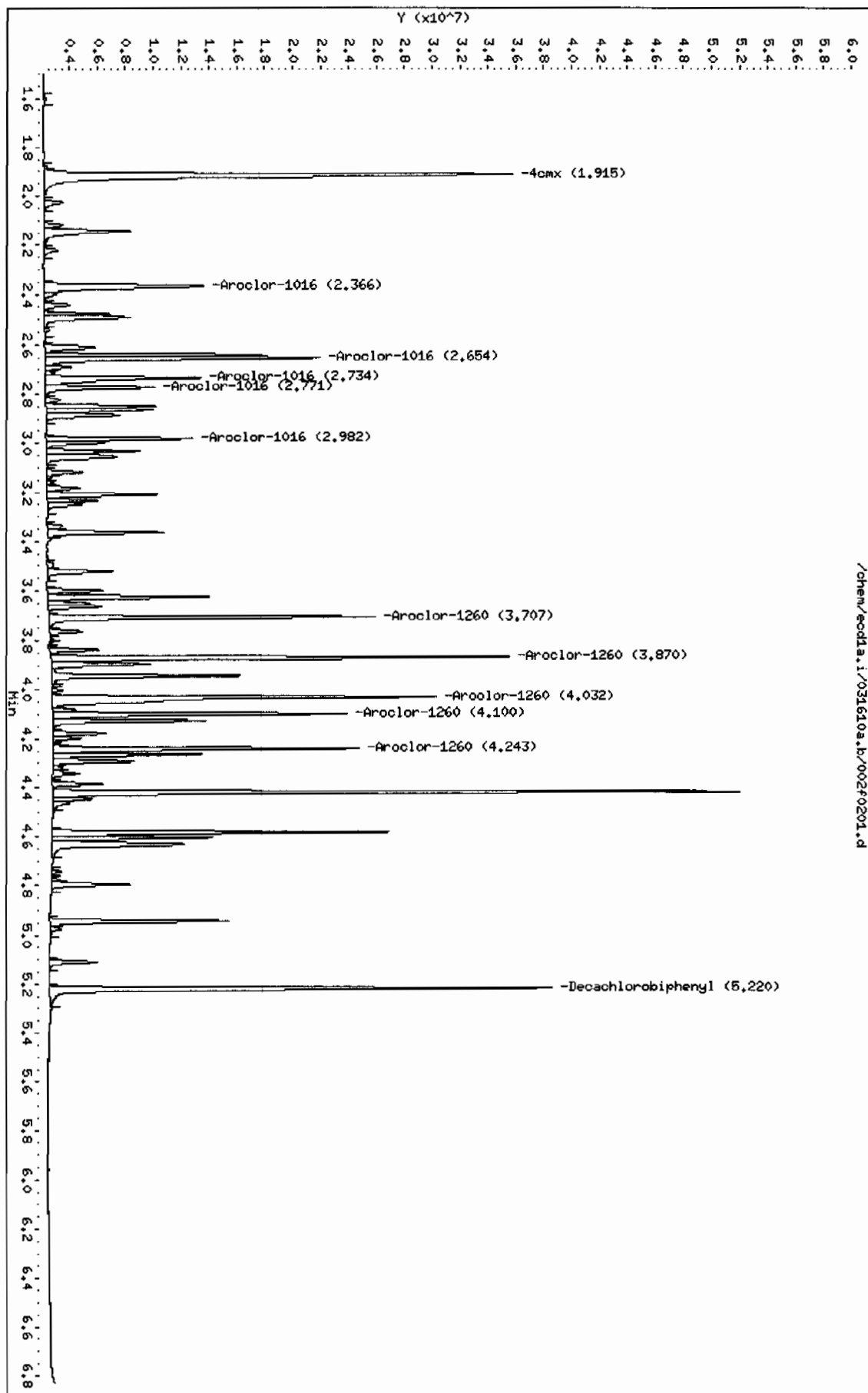
AMOUNTS

			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		( ug/L)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====
11 4cmx					CAS #: 877-09-8			
1.915	1.915	0.000	38697150	100.000	99.3	80.00- 120.00	100.00	
-----								
12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.220	5.220	0.000	28838192	100.000	97.1	80.00- 120.00	100.00	
-----								
1 Aroclor-1016					CAS #: 12674-11-2			
2.366	2.366	0.000	13368015	1000.00	881	80.00- 120.00	100.00	
2.654	2.654	0.000	17204417	1000.00	908	108.70- 148.70	128.70	
2.734	2.734	0.000	11015754	1000.00	885	62.40- 102.40	82.40	
2.771	2.771	0.000	6547264	1000.00	891	28.98- 68.98	48.98	
2.982	2.982	0.000	8435631	1000.00	886	43.10- 83.10	63.10	
Average of Peak Amounts =					890			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.707	3.707	0.000	17496291	1000.00	954	80.00- 120.00	100.00	
3.870	3.870	0.000	25810444	1000.00	960	127.52- 167.52	147.52	
4.032	4.032	0.000	27546316	1000.00	973	137.44- 177.44	157.44	
4.100	4.100	0.000	15514718	1000.00	960	68.67- 108.67	88.67	
4.243	4.243	0.000	16280184	1000.00	968	73.05- 113.05	93.05	
Average of Peak Amounts =					963			

Data File: /chem/ecdl.a.i/031610a.b/002f0201.d  
Date: 16-MAR-2010 12:30  
Client ID: AR166001  
Sample Info: 1MAR100222-60 01

Column phase: CLP1

Instrument: ecdl.a.i  
Operator: YSI  
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031610a.b/002b0201.d

Lab Smp Id: WAR100222-60 01

Client Smp ID: AR166001

Inj Date : 16-MAR-2010 12:30

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 01

Misc Info :

Comment :

Method : /chem/ecdl1a.i/031610a.b/ECD1-B-8082-031110b.m

Meth Date : 16-Mar-2010 13:22 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d

Als bottle: 2 Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
----	--------	--------	------------------	---------	--------------	-------

11 4cmx

CAS #: 877-09-8

2.273	2.273	0.000	25552484 100.000	97.4	80.00- 120.00	100.00
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12 Decachlorobiphenyl

CAS #: 2051-24-3

5.915	5.915	0.000	18103417 100.000	96.7	80.00- 120.00	100.00
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1 Aroclor-1016

CAS #: 12674-11-2

3.168	3.168	0.000	11635291 1000.00	924	80.00- 120.00	100.00
3.251	3.251	0.000	7633001 1000.00	884	45.60- 85.60	65.60
3.315	3.315	0.000	4691690 1000.00	887	20.32- 60.32	40.32
3.541	3.541	0.000	5994297 1000.00	870	31.52- 71.52	51.52
3.617	3.617	0.000	5664562 1000.00	882	28.68- 68.68	48.68

Average of Peak Amounts =

890

7 Aroclor-1260

CAS #: 11096-82-5

4.307	4.307	0.000	12551719 1000.00	960	80.00- 120.00	100.00
4.431	4.431	0.000	15126605 1000.00	973	100.51- 140.51	120.51
4.698	4.698	0.000	11470204 1000.00	964	71.38- 111.38	91.38
4.871	4.871	0.000	11886007 1000.00	967	74.70- 114.70	94.70
5.018	5.018	0.000	26206943 1000.00	993	188.79- 228.79	208.79

Average of Peak Amounts =

971



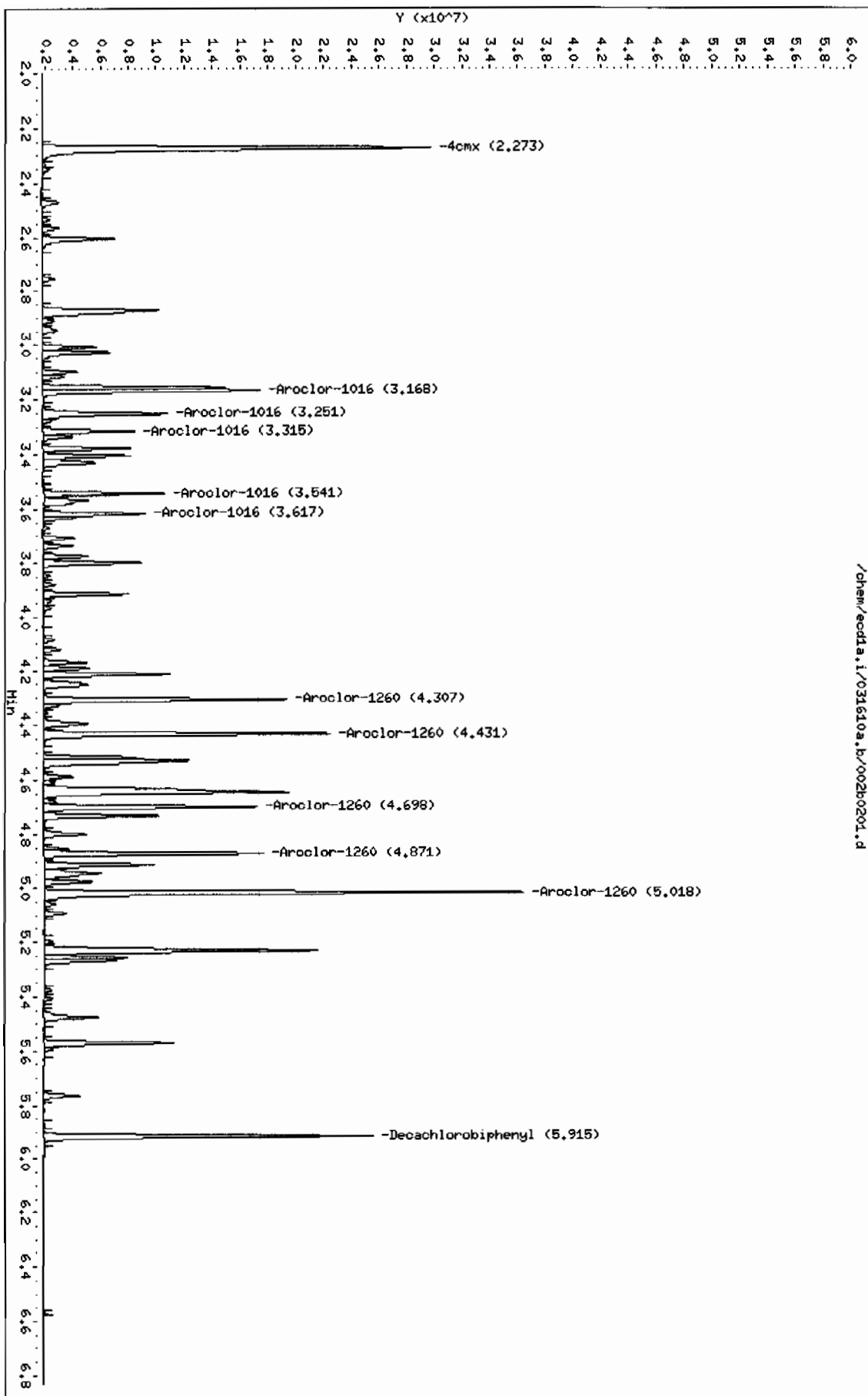
Data File: /chem/eod1a.i/031610a.b/002b0201.d  
Date: 16-MAR-2010 12:30  
Client ID: AR16001  
Sample Info: IMR100222-60 01

Instrument: eod1a.i

Page 1

Column phase: CLP2

Operator: VSI  
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/031610a.b/003f0301.d

Lab Smp Id: WAR100219-54

Client Smp ID: AR125401

Inj Date : 16-MAR-2010 12:41

Operator : YS1

Inst ID: ecdla.i

Smp Info : |WAR100219-54

Misc Info :

Comment :

Method : /chem/ecdla.i/031610a.b/ECD1-F-8082-031110b.m

Meth Date : 16-Mar-2010 13:23 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 3

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1254.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====

6 Aroclor-1254

CAS #: 11097-69-1

3.210	3.210	0.000	12239461	1000.00	923 80.00- 120.00	100.00
3.365	3.365	0.000	16560496	1000.00	929 115.30- 155.30	135.30
3.599	3.599	0.000	21451859	1000.00	959 155.27- 195.27	175.27
3.762	3.762	0.000	16013721	1000.00	971 110.84- 150.84	130.84
3.871	3.871	0.000	15970713	1000.00	1000 110.49- 150.49	130.49

Average of Peak Amounts =

956

Data File: /chem/ecdl1a.i/031610a.b/003f0301.d

Date: 16-MAR-2010 12:41

Client ID: AR125401

Sample Info: 14AR100219-54

Column phase: CLP1

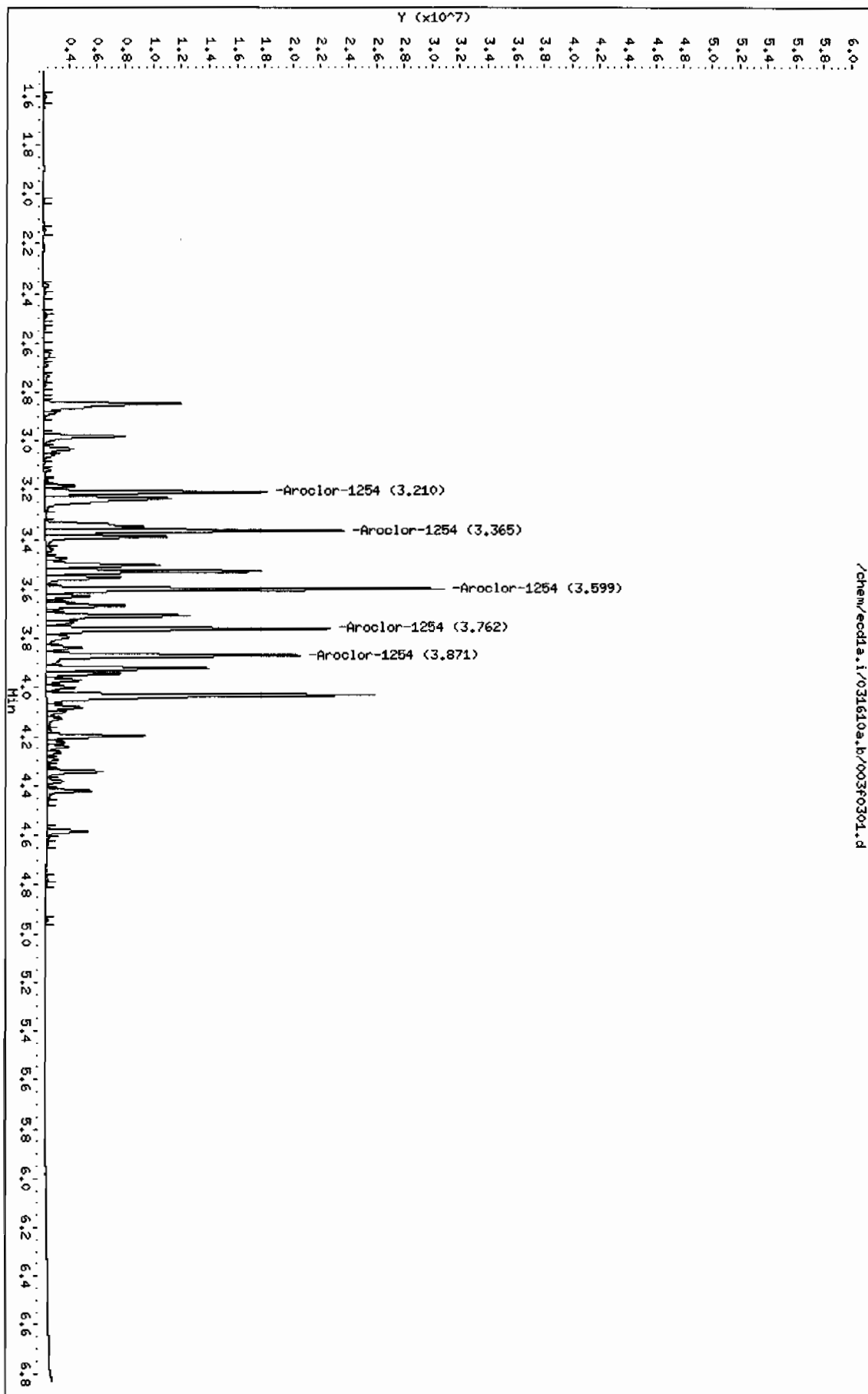
Page 1

Instrument: ecdl1a.i

Operator: YSL

Column diameter: 0.25

/chem/ecdl1a.i/031610a.b/003f0301.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/031610a.b/003b0301.d

Lab Smp Id: WAR100219-54

Client Smp ID: AR125401

Inj Date : 16-MAR-2010 12:41

Operator : YS1

Inst ID: ecdla.i

Smp Info : |WAR100219-54

Misc Info :

Comment :

Method : /chem/ecdla.i/031610a.b/ECD1-B-8082-031110b.m

Meth Date : 16-Mar-2010 13:22 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 3

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1254.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====

6 Aroclor-1254

CAS #: 11097-69-1

3.377	3.377	0.000	5474205	1000.00	909 80.00- 120.00	100.00
3.799	3.799	0.000	9939393	1000.00	919 161.57- 201.57	181.57
3.915	3.915	0.000	10997088	1000.00	922 180.89- 220.89	200.89
4.190	4.190	0.000	15436326	1000.00	939 261.98- 301.98	281.98
4.327	4.327	0.000	11281321	1000.00	931 186.08- 226.08	206.08

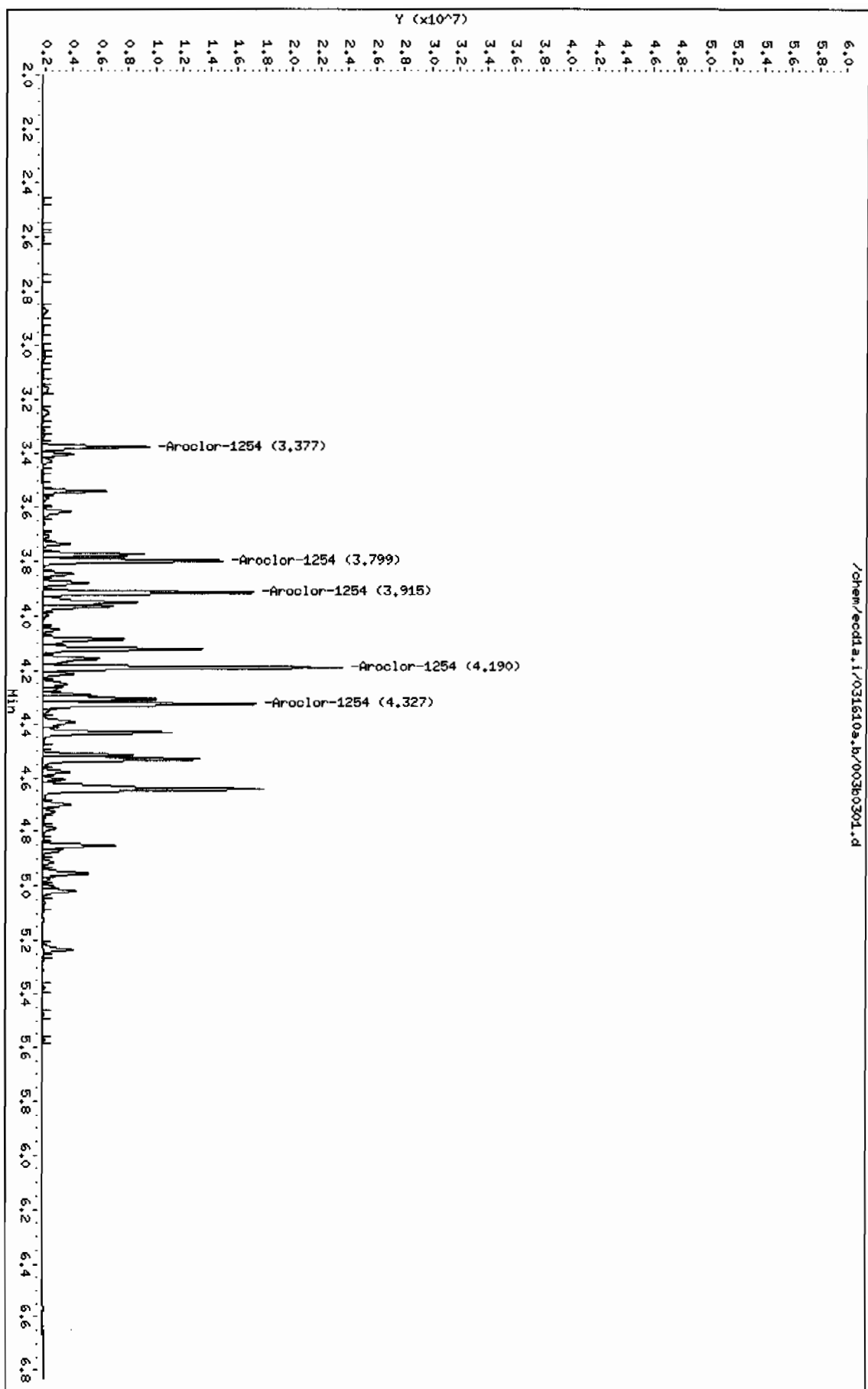
Average of Peak Amounts =

924

Data File: /chem/eod1a.i/031610a.b/003b0301.d  
Date: 16-MAR-2010 12:41  
Client ID: AR125401  
Sample Info: IWR100219-54

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Instrument: eod1a.i  
Operator: YSI  
Column diameter: 0.25  
Column phase: CLP2



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/031610a.b/004f0401.d

Lab Smp Id: WAR100219-42

Client Smp ID: AR124201

Inj Date : 16-MAR-2010 12:51

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100219-42

Misc Info :

Comment :

Method : /chem/ecd1a.i/031610a.b/ECD1-F-8082-031110b.m

Meth Date : 16-Mar-2010 13:23 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 4

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1242.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
----	--------	--------	------------------	---------	--------------	-------

4 Aroclor-1242			CAS #: 53469-21-9			
2.366	2.366	0.000	12027208 1000.00	975	80.00- 120.00	100.00
2.654	2.654	0.000	14574349 1000.00	978	101.18- 141.18	121.18
2.771	2.771	0.000	5633163 1000.00	955	26.84- 66.84	46.84
2.981	2.981	0.000	7152911 1000.00	925	39.47- 79.47	59.47
3.235	3.235	0.000	6781253 1000.00	931	36.38- 76.38	56.38

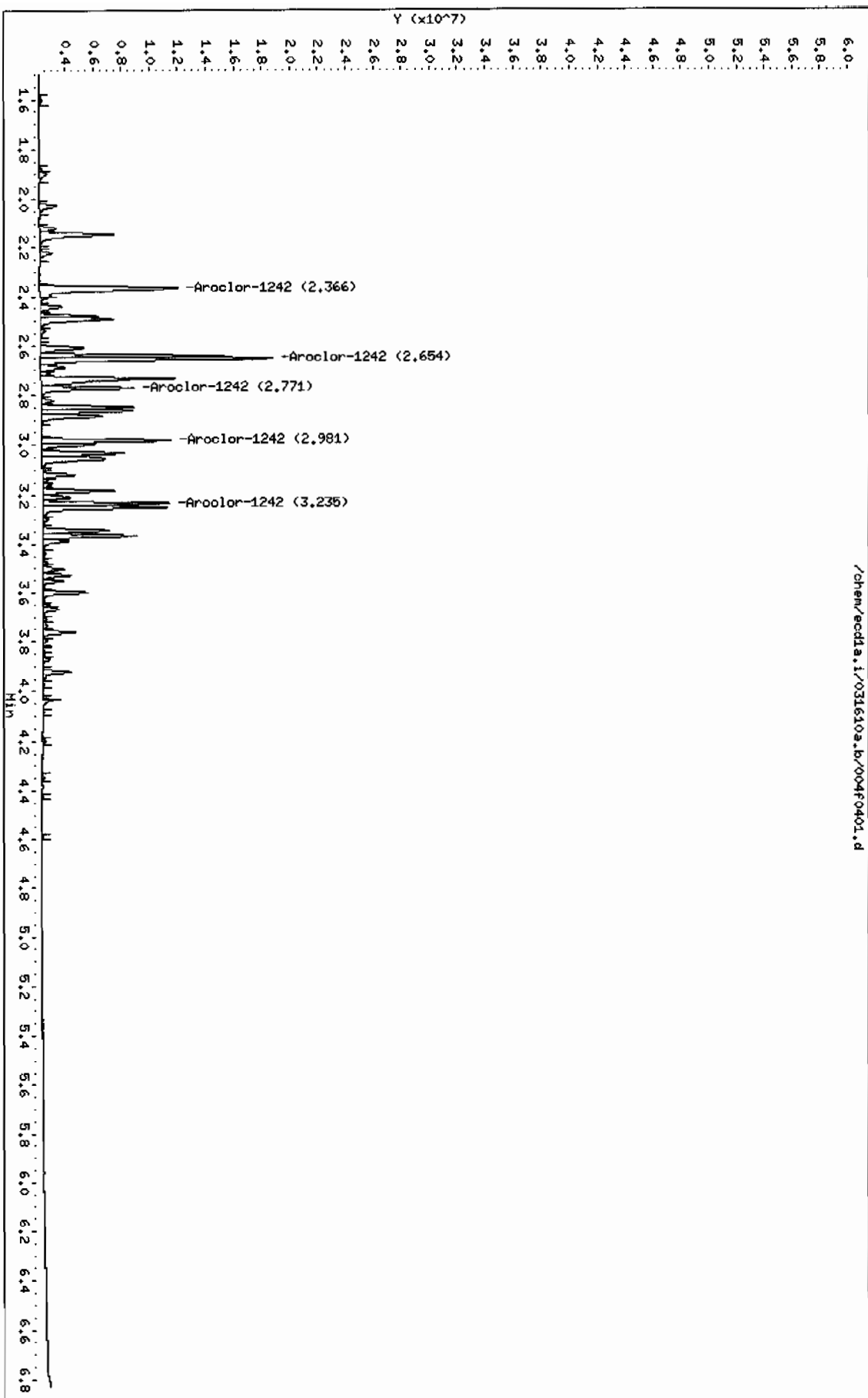
Average of Peak Amounts " 953

Data File: /chem/ecdl.a.i/031610a.b/004f0401.d  
Date: 16-MAR-2010 12:51  
Client ID: AR124201  
Sample Info: 1MAR100219-42

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Column phase: CLP1

Instrument: ecdl.a.i  
Operator: YSI  
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031610a.b/004b0401.d

Lab Smp Id: WAR100219-42

Client Smp ID: AR124201

Inj Date : 16-MAR-2010 12:51

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100219-42

Misc Info :

Comment :

Method : /chem/ecdl1a.i/031610a.b/ECD1-B-8082-031110b.m

Meth Date : 16-Mar-2010 13:22 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 4

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1242.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====
4 Aroclor-1242			CAS #: 53469-21-9				
3.168	3.168	0.000	9929515 1000.00	979	80.00- 120.00	100.00	
3.251	3.251	0.000	6630913 1000.00	934	46.78- 86.78	66.78	
3.541	3.541	0.000	5134998 1000.00	931	31.71- 71.71	51.71	
3.776	3.776	0.000	5340681 1000.00	933	33.79- 73.79	53.79	
3.803	3.803	0.000	6028707 1000.00	946	40.72- 80.72	60.72	
Average of Peak Amounts =			945				

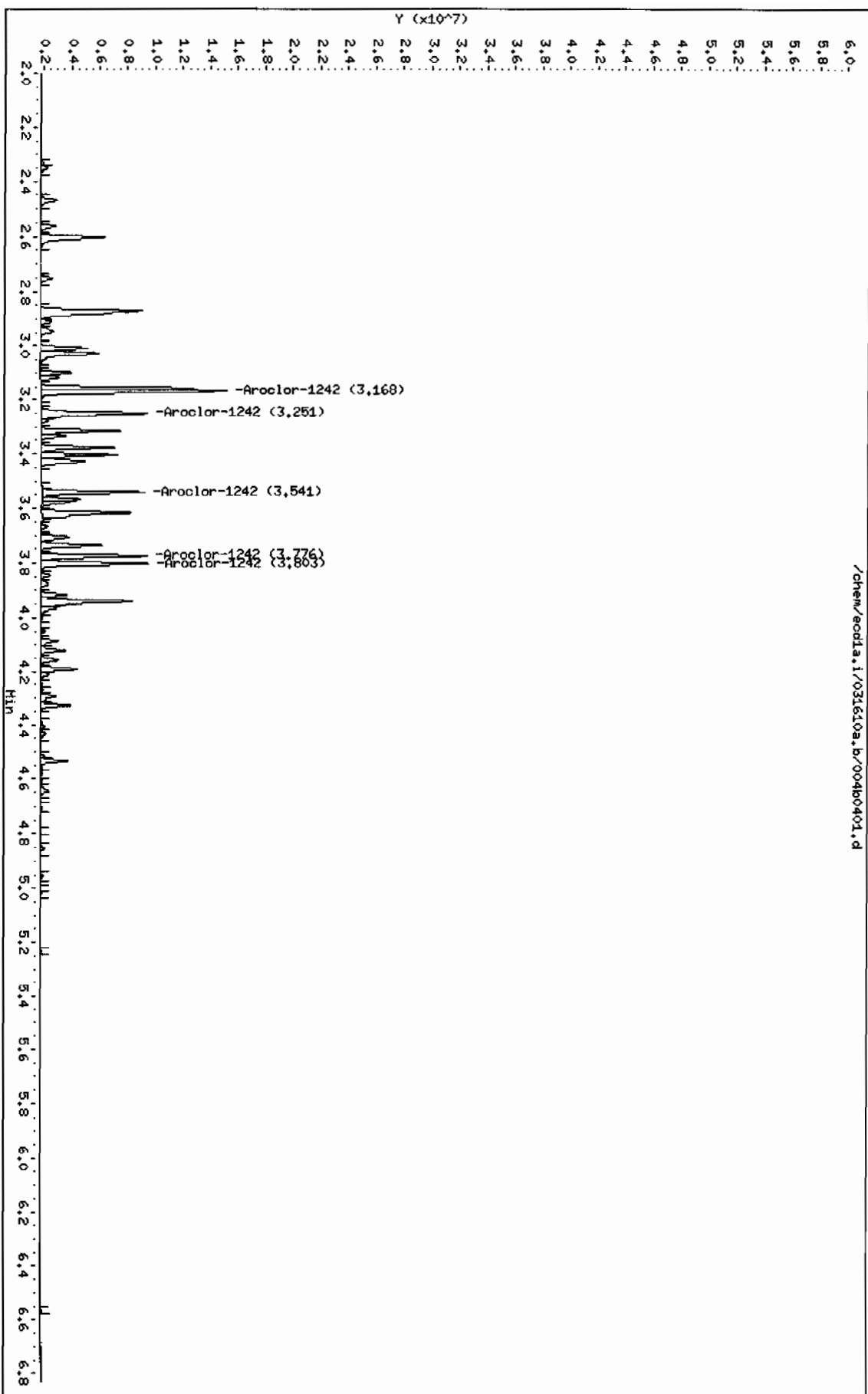


Data File: /chem/ecdl1a.i/031610a.b/004b0401.d  
Date : 16-MAR-2010 12:51  
Client ID: AR124201  
Sample Info: 1MAR100219-42

Column phase: CLP2

Instrument: ecdl1a.i  
Operator: YSL  
Column diameter: 0.25

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Data File: /chem/ecdla.i/031610a.b/005f0501.d  
Report Date: 16-Mar-2010 13:25

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/031610a.b/005f0501.d

Lab Smp Id: WAR100223-48

Client Smp ID: AR124801

Inj Date : 16-MAR-2010 13:02

Operator : YS1

Inst ID: ecdla.i

Smp Info : |WAR100223-48

Misc Info :

Comment :

Method : /chem/ecdla.i/031610a.b/ECD1-F-8082-031110b.m

Meth Date : 16-Mar-2010 13:23 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 5

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1248.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
5 Aroclor-1248			CAS #: 12672-29-6			
2.848	2.848	0.000	9710761 1000.00	971 80.00- 120.00	100.00	
2.981	2.981	0.000	12605164 1000.00	959 109.81- 149.81	129.81	
3.235	3.235	0.000	13463724 1000.00	941 118.65- 158.65	138.65	
3.366	3.366	0.000	11279259 1000.00	948 96.15- 136.15	116.15	
3.599	3.599	0.000	7571710 1000.00	946 57.97- 97.97	77.97	
Average of Peak Amounts =			953			

Data File: /chem/ecdl.a.i/031610a.b/005f0501.d

Date: 16-MAR-2010 13:02

Client ID: AR124801

Sample Info: 1MR100223-48

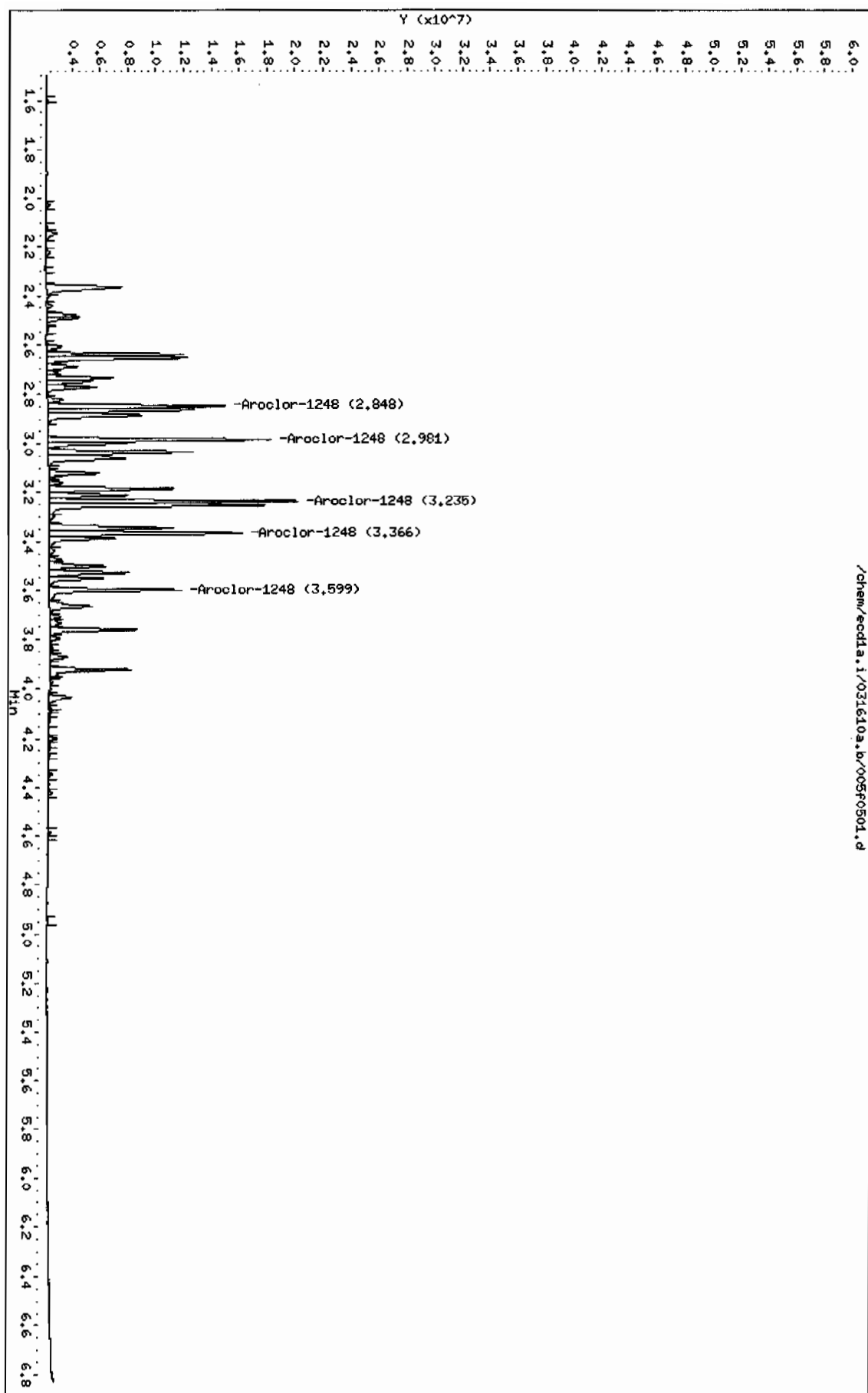
Column phase: CLP1

Instrument: ecdl.a.i

Operator: YSI

Column diameter: 0.25

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/031610a.b/005b0501.d

Lab Smp Id: WAR100223-48

Client Smp ID: AR124801

Inj Date : 16-MAR-2010 13:02

Operator : YS1

Inst ID: ecdla.i

Smp Info : |WAR100223-48

Misc Info :

Comment :

Method : /chem/ecdla.i/031610a.b/ECD1-B-8082-031110b.m

Meth Date : 16-Mar-2010 13:22 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 5

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1248.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
----	--------	--------	------------------	---------	--------------	-------

5 Aroclor-1248

CAS #: 12672-29-6

3.377	3.377	0.000	7157132 1000.00	941	80.00- 120.00	100.00
3.541	3.541	0.000	8998123 1000.00	950	105.72- 145.72	125.72
3.776	3.776	0.000	10355208 1000.00	947	124.68- 164.68	144.68
3.803	3.803	0.000	11574565 1000.00	952	141.72- 181.72	161.72
3.940	3.940	0.000	11100051 1000.00	940	135.09- 175.09	155.09

Average of Peak Amounts =

946

Data File: /chem/ecdl1a.i/031610a.b/00560501.d

Date: 16-MAR-2010 13:02

Client ID: AR124801

Sample Info: 1MAR100223-48

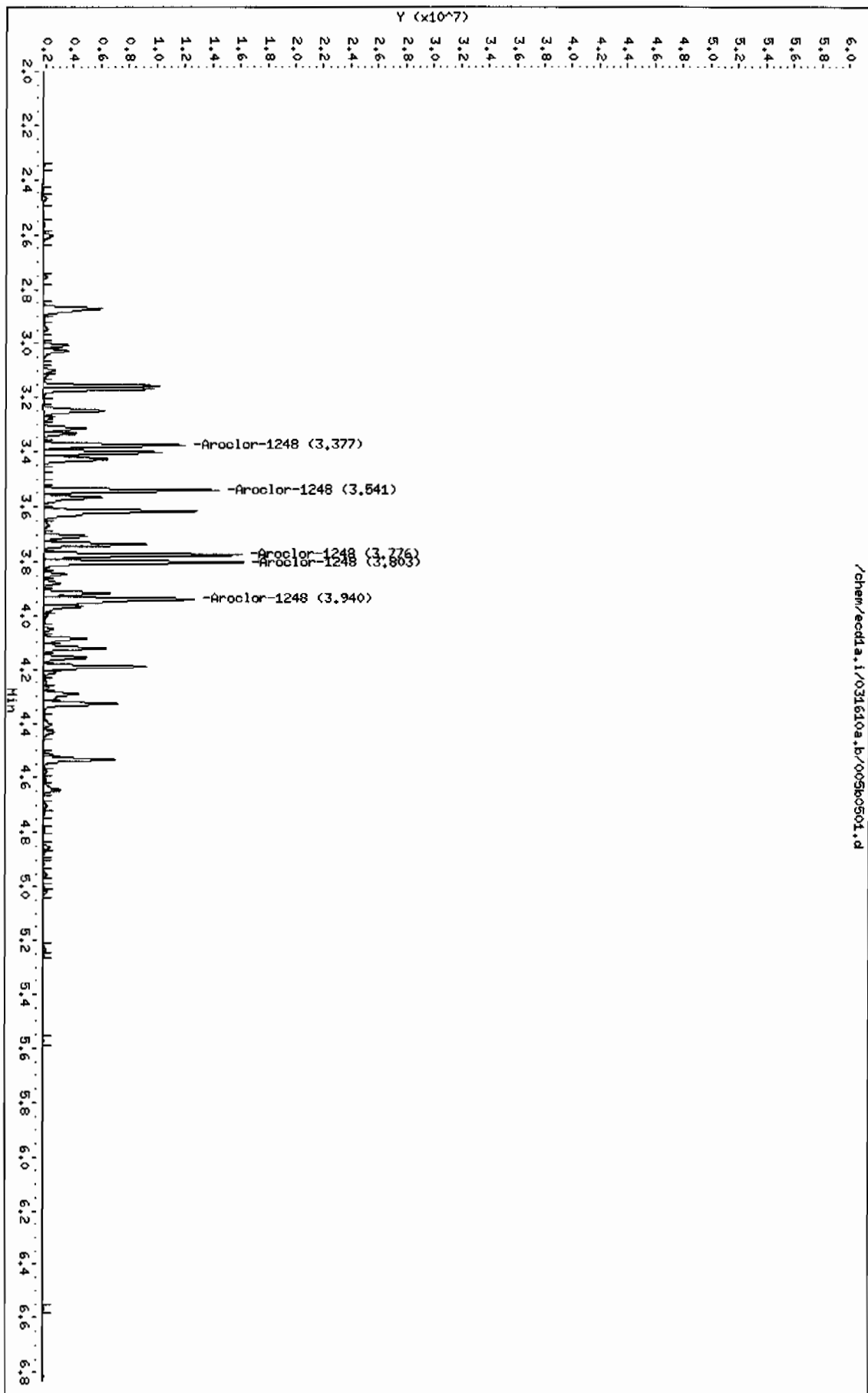
Column phase: CLP2

Instrument: ecdl1a.i

Operator: YSI

Column diameter: 0.25

/chem/ecdl1a.i/031610a.b/00560501.d



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031610a.b/007f0701.d

Lab Smp Id: WAR100104-32

Client Smp ID: AR123201

Inj Date : 16-MAR-2010 13:23

Operator : YSl

Inst ID: ecd1a.i

Smp Info : |WAR100104-32

Misc Info :

Comment :

Method : /chem/ecdl1a.i/031610a.b/ECD1-F-8082-031110b.m

Meth Date : 16-Mar-2010 13:37 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 7

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1232.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpclp1

AMOUNTS

		CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO	
=====	=====	=====	=====	=====	=====	=====	=====
3 Aroclor-1232				CAS #: 11141-16-5			
2.368	2.368	0.000	6500859 1000.00	975	80.00- 120.00	100.00	
2.654	2.654	0.000	8233372 1000.00	987	106.65- 146.65	126.65	
2.734	2.734	0.000	5376738 1000.00	972	62.71- 102.71	82.71	
2.848	2.848	0.000	2571664 1000.00	971	19.56- 59.56	39.56	
3.235	3.235	0.000	3497333 1000.00	984	33.80- 73.80	53.80	
Average of Peak Amounts .				978			

Data File: /chem/eod1a.i/031610a.b/007f0701.d

Date: 16-MAR-2010 13:23

Client ID: AR123201

Sample Info: IMR100104-32

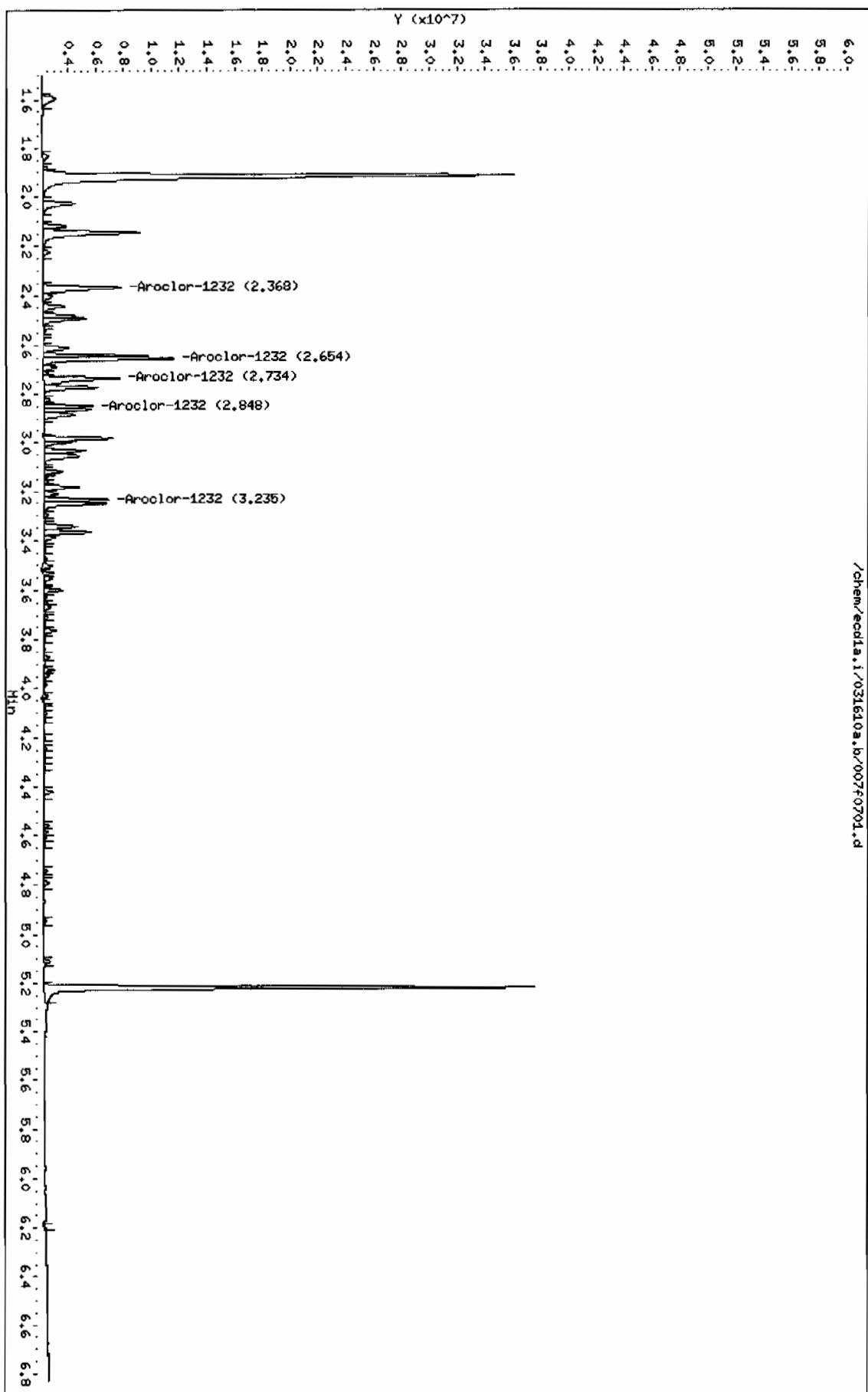
Column phase: CLP1

Instrument: eod1a.i

Operator: YSA

Column diameter: 0.25

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Data File: /chem/ecd1a.i/031610a.b/007b0701.d  
Report Date: 16-Mar-2010 13:37

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/031610a.b/007b0701.d

Lab Smp Id: WAR100104-32

Client Smp ID: AR123201

Inj Date : 16-MAR-2010 13:23

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100104-32

Misc Info :

Comment :

Method : /chem/ecd1a.i/031610a.b/ECD1-B-8082-031110b.m

Meth Date : 16-Mar-2010 13:37 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 7

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1232.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
==	=====	-----	=====	=====	=====	=====

3 Aroclor-1232

CAS #: 11141-16-5

2.871	2.871	0.000	5016146 1000.00	992	80.00- 120.00	100.00
3.168	3.168	0.000	5573142 1000.00	976	91.10- 131.10	111.10
3.251	3.251	0.000	3905339 1000.00	1000	57.86- 97.86	77.86
3.542	3.542	0.000	2856410 1000.00	1000	36.94- 76.94	56.94
3.775	3.775	0.000	2817111 1000.00	999	36.16- 76.16	56.16

Average of Peak Amounts =

995

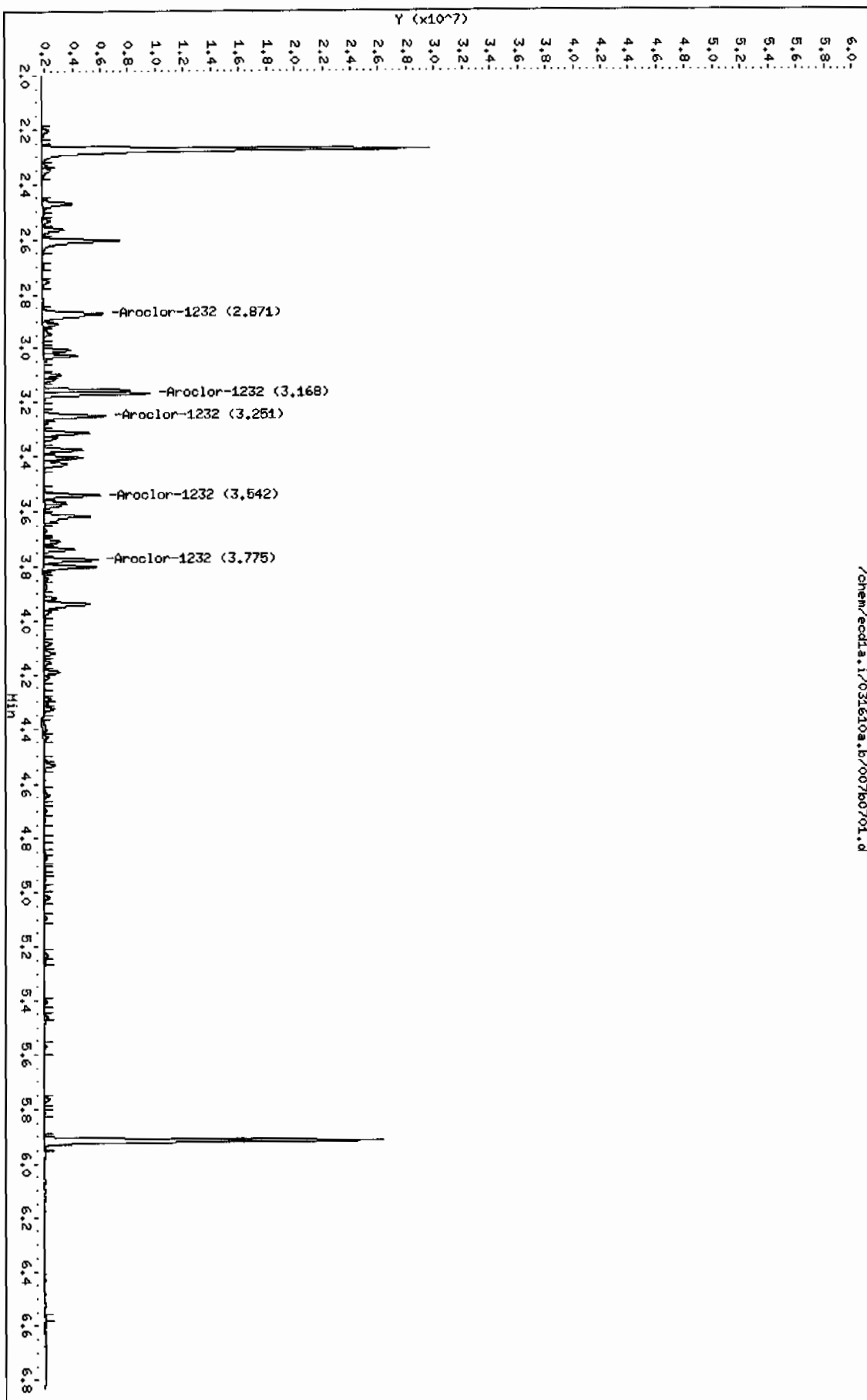


Data File: /chem/ecdl1.i/031610a.b/00760701.d  
Date : 16-MAR-2010 13:23  
Client ID: AR123201  
Sample Info: 1MR100104-32

Column Phase: CLP2

Instrument: ecdl1.i  
Operator: YSL  
Column diameter: 0.25

/chem/ecdl1.i/031610a.b/00760701.d



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/031610a.b/008f0801.d

Lab Smp Id: WAR100104-21

Client Smp ID: AR122101

Inj Date : 16-MAR-2010 13:33

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100104-21

Misc Info :

Comment :

Method : /chem/ecd1a.i/031610a.b/ECD1-F-8082-031110b.m

Meth Date : 16-Mar-2010 13:59 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 8

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1221.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
2.026	2.026	0.000	4563206 1000.00	1020	80.00- 120.00	100.00
2.119	2.119	0.000	2487535 1000.00	1020	34.51- 74.51	54.51
2.145	2.145	0.000	10947521 1000.00	1010	219.91- 259.91	239.91
Average of Peak Amounts =			1.02e+03			

Data File: /chem/eodla.i/031610a.b/008f0801.d

Date: 16-MAR-2010 13:33

Client ID: AR122101

Sample Info: IMR100104-21

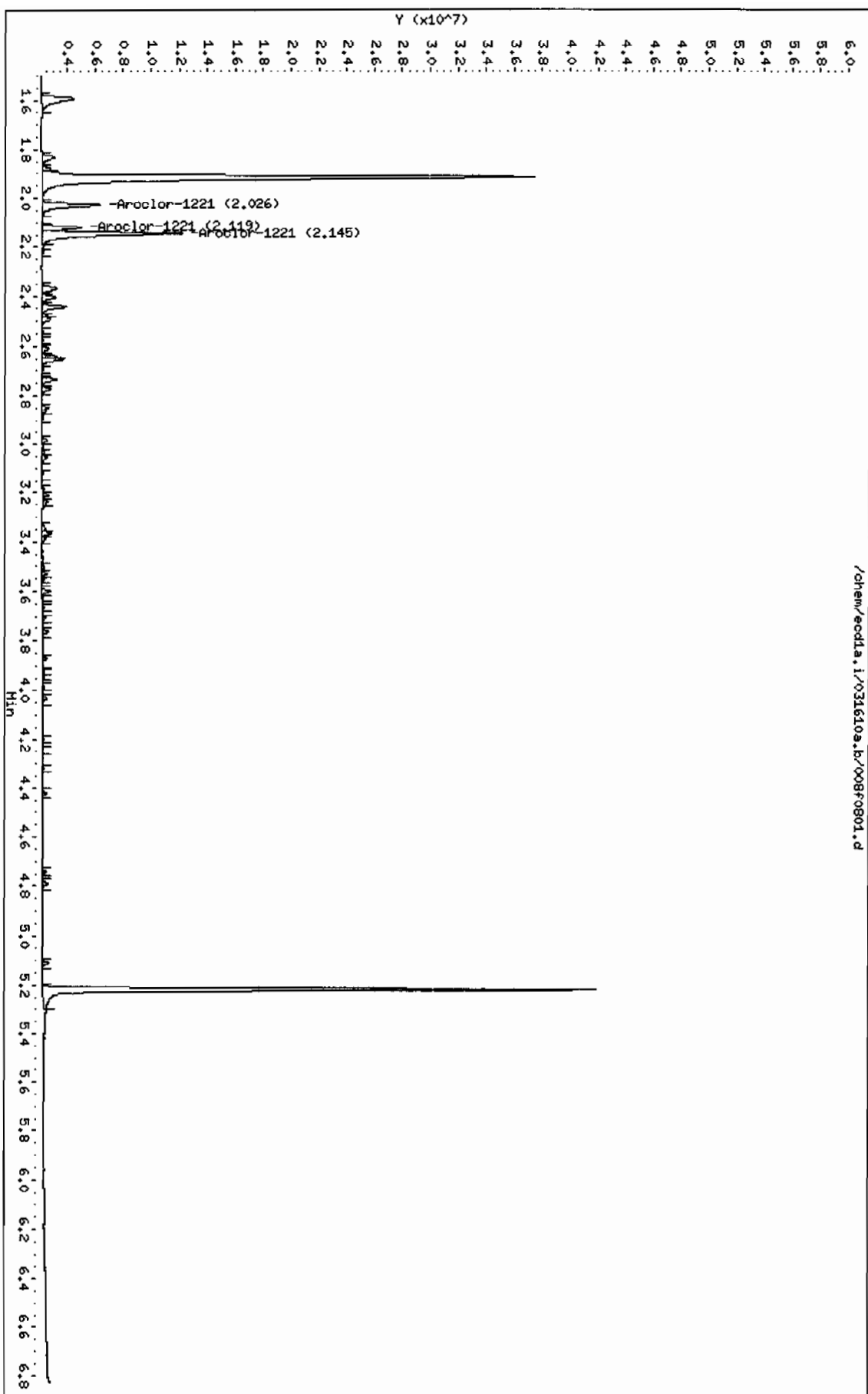
Column phase: CLP1

Instrument: eodla.i

Operator: YS1

Column diameter: 0.25

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031610a.b/008b0801.d

Lab Smp Id: WAR100104-21

Client Smp ID: AR122101

Inj Date : 16-MAR-2010 13:33

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100104-21

Misc Info :

Comment :

Method : /chem/ecdl1a.i/031610a.b/ECD1-B-8082-031110b.m

Meth Date : 16-Mar-2010 13:58 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 8

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1221.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

AMOUNTS

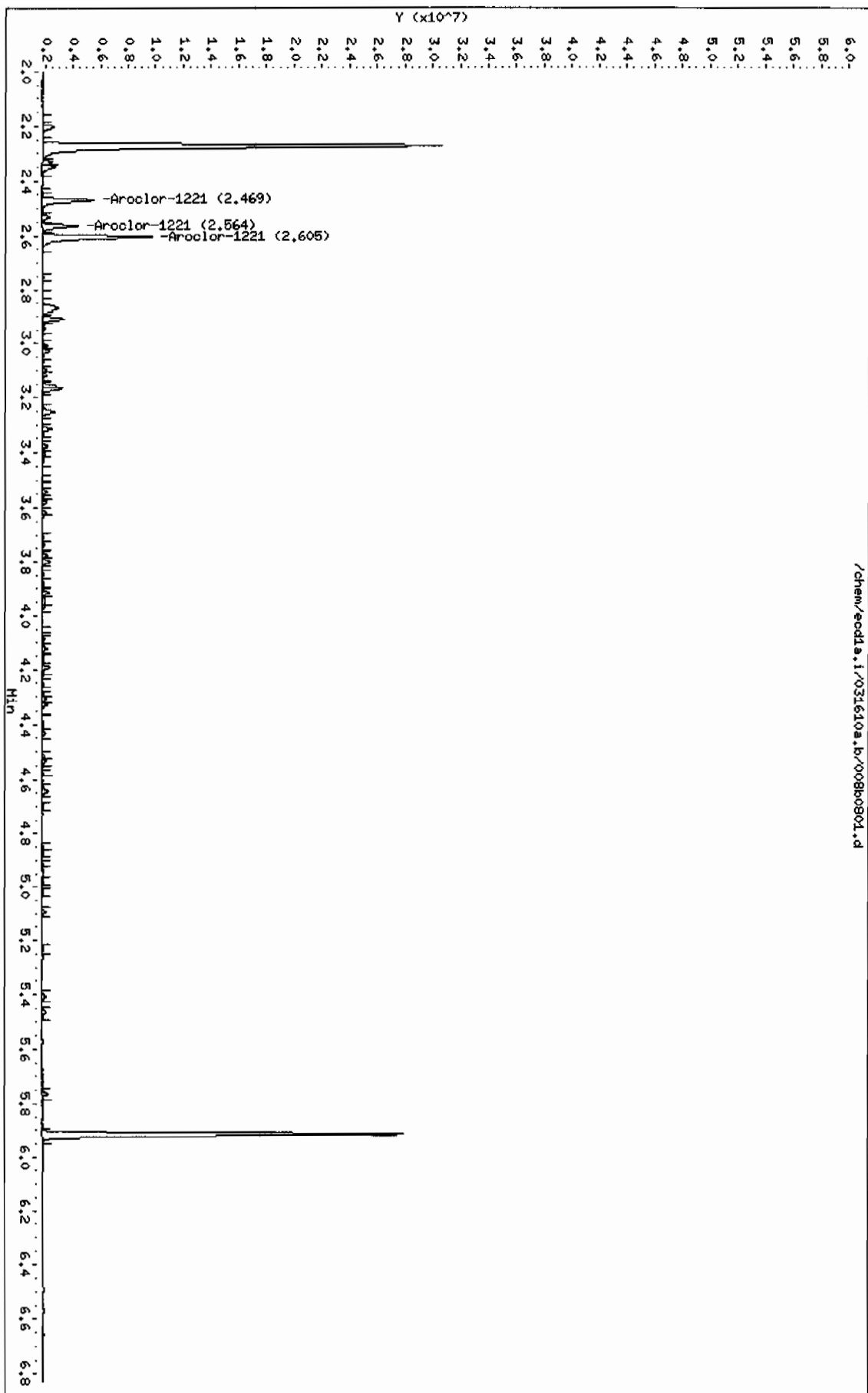
RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
2.469	2.469	0.000	3539486	1090	80.00- 120.00	100.00
2.564	2.564	0.000	2209178	1060	42.42- 82.42	62.42
2.605	2.605	0.000	7534160	1030	192.86- 232.86	212.86
Average of Peak Amounts =			1.06e+03			

Data File: /chem/eod1a.i/031610a.b/008b0801.d  
Date: 16-MAR-2010 13:33  
Client ID: AR122101  
Sample Info: 1MAR100104-21

Column phase: CLP2

Instrument: eod1a.i  
Operator: YSL  
Column diameter: 0.25

/chem/eod1a.i/031610a.b/008b0801.d



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031610a.b/020f2001.d

Lab Smp Id: WAR100222-60 02

Client Smp ID: AR166002

Inj Date : 16-MAR-2010 15:52

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 02

Misc Info :

Comment :

Method : /chem/ecdl1a.i/031610a.b/ECD1-F-8082-031110b.m

Meth Date : 17-Mar-2010 07:55 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 20

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

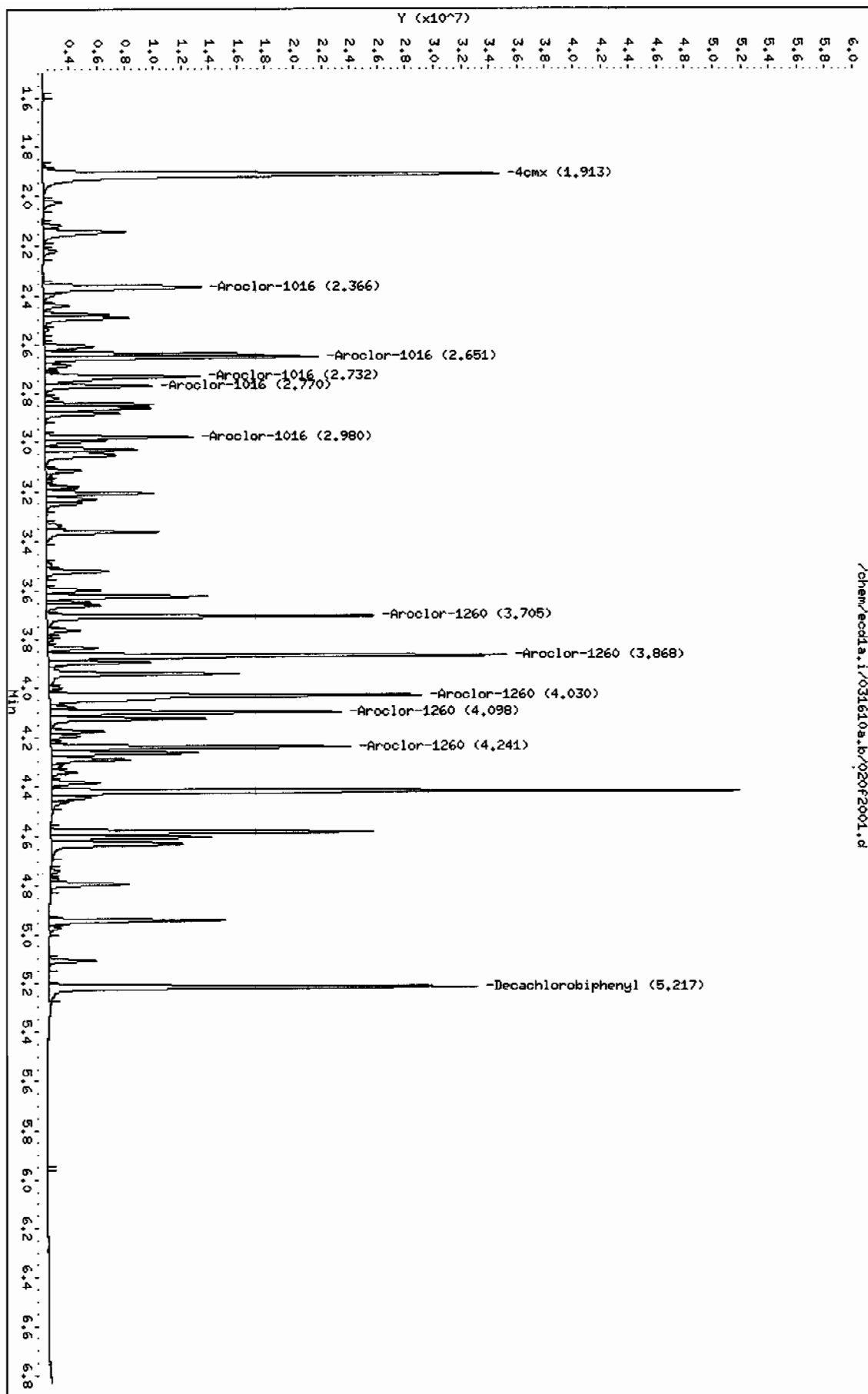
AMOUNTS

			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	TARGET RANGE	RATIO
---	-----	-----	-----	-----	-----	-----	-----
\$ 11 4cmx					CAS #: 877-09-8		
1.913	1.915	-0.002	38143166	100.000	97.9	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.217	5.220	-0.003	25320698	100.000	85.3	80.00- 120.00	100.00
-----							
1 Aroclor-1016					CAS #: 12674-11-2		
2.366	2.366	0.000	13206478	1000.00	870	80.00- 120.00	100.00
2.651	2.654	-0.003	16766708	1000.00	885	106.96- 146.96	126.96
2.732	2.734	-0.002	10882251	1000.00	875	62.40- 102.40	82.40
2.770	2.771	-0.001	6542971	1000.00	890	29.54- 69.54	49.54
2.980	2.982	-0.002	8384742	1000.00	881	43.49- 83.49	63.49
Average of Peak Amounts =					880		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
3.705	3.707	-0.002	17668243	1000.00	964	80.00- 120.00	100.00
3.868	3.870	-0.002	25728811	1000.00	957	125.62- 165.62	145.62
4.030	4.032	-0.002	27547193	1000.00	973	135.91- 175.91	155.91
4.098	4.100	-0.002	15540753	1000.00	962	67.96- 107.96	87.96
4.241	4.243	-0.002	16214245	1000.00	964	71.77- 111.77	91.77
Average of Peak Amounts =					964		

Data File: /chem/ecod1a.i/031610a.b/020f2001.d  
Date: 16-MAR-2010 15:52  
Client ID: AR166002  
Sample Info: IMAR100222-60 02

Column phase: CLP1

Instrument: ecod1a.i  
Operator: YS1  
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031610a.b/020b2001.d

Lab Smp Id: WAR100222-60 02

Client Smp ID: AR166002

Inj Date : 16-MAR-2010 15:52

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 02

Misc Info :

Comment :

Method : /chem/ecdl1a.i/031610a.b/ECD1-B-8082-031110b.m

Meth Date : 17-Mar-2010 07:58 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 20

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

AMOUNTS

			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8			
2.271	2.273	-0.002	25307017 100.000	96.5	80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.914	5.915	-0.001	17818805 100.000	95.2	80.00- 120.00	100.00	
-----							
1 Aroclor-1016				CAS #: 12674-11-2			
3.166	3.168	-0.002	11098034 1000.00	882	80.00- 120.00	100.00 (M)	
3.250	3.251	-0.001	7571040 1000.00	877	44.97- 84.97	68.22	
3.313	3.315	-0.002	4648222 1000.00	879	20.05- 60.05	41.88	
3.541	3.541	0.000	6158530 1000.00	893	30.60- 70.60	55.49	
3.616	3.617	-0.001	5612957 1000.00	874	37.10- 77.10	62.46	
Average of Peak Amounts =				881			
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
4.306	4.307	-0.001	12328355 1000.00	942	80.00- 120.00	100.00	
4.431	4.431	0.000	14929799 1000.00	960	100.90- 140.90	121.10	
4.696	4.698	-0.002	11290496 1000.00	949	70.83- 110.83	91.58	
4.870	4.871	-0.001	11771568 1000.00	958	75.23- 115.23	95.48	
5.016	5.018	-0.002	25805545 1000.00	978	189.29- 229.29	209.32	
Average of Peak Amounts =				957			



QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdl1.i/031610a.b/020b2001.d

Date: 16-MAR-2010 15:52

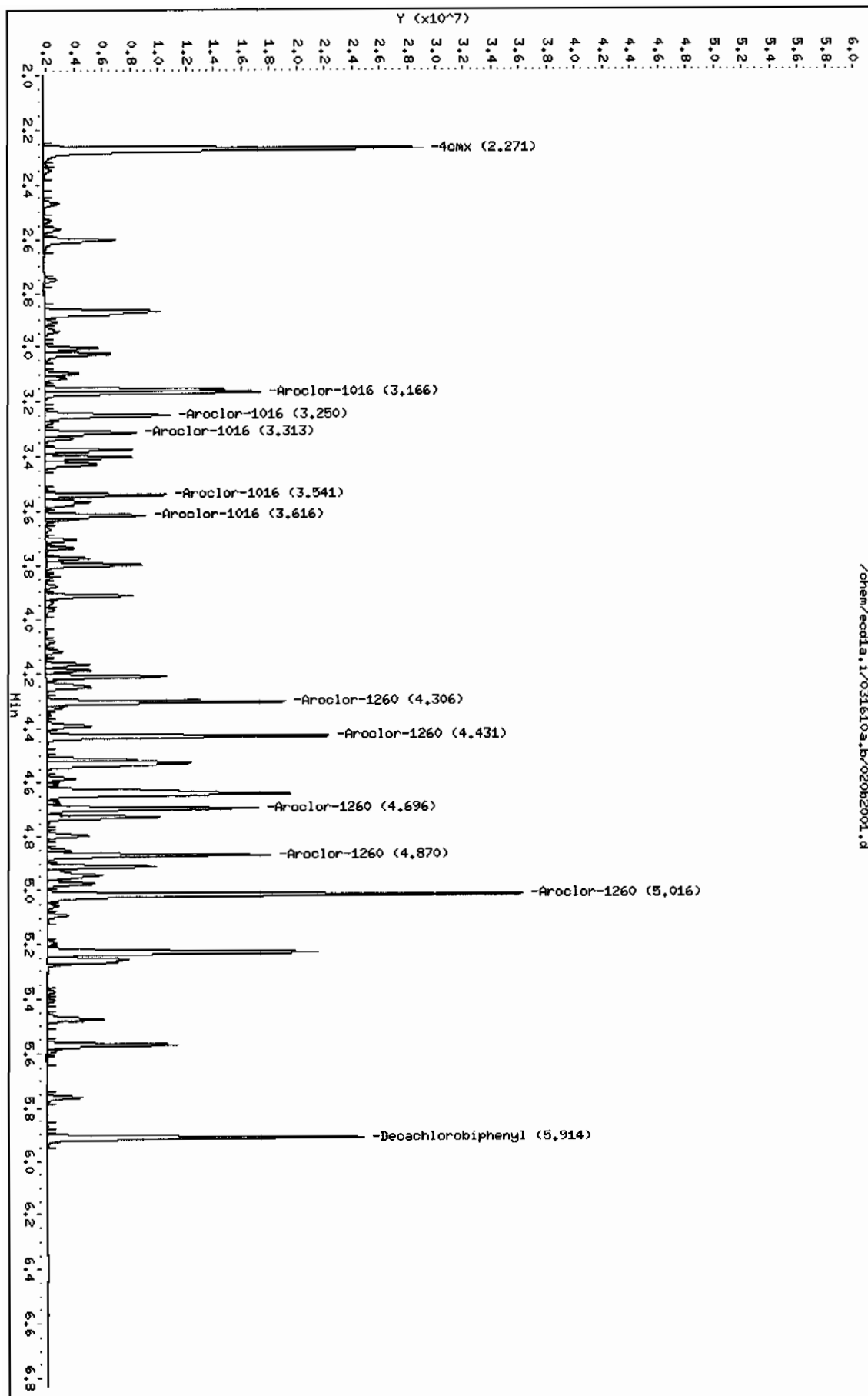
Client ID: AR166002

Sample Info: IMR100222-60 02

Page 1

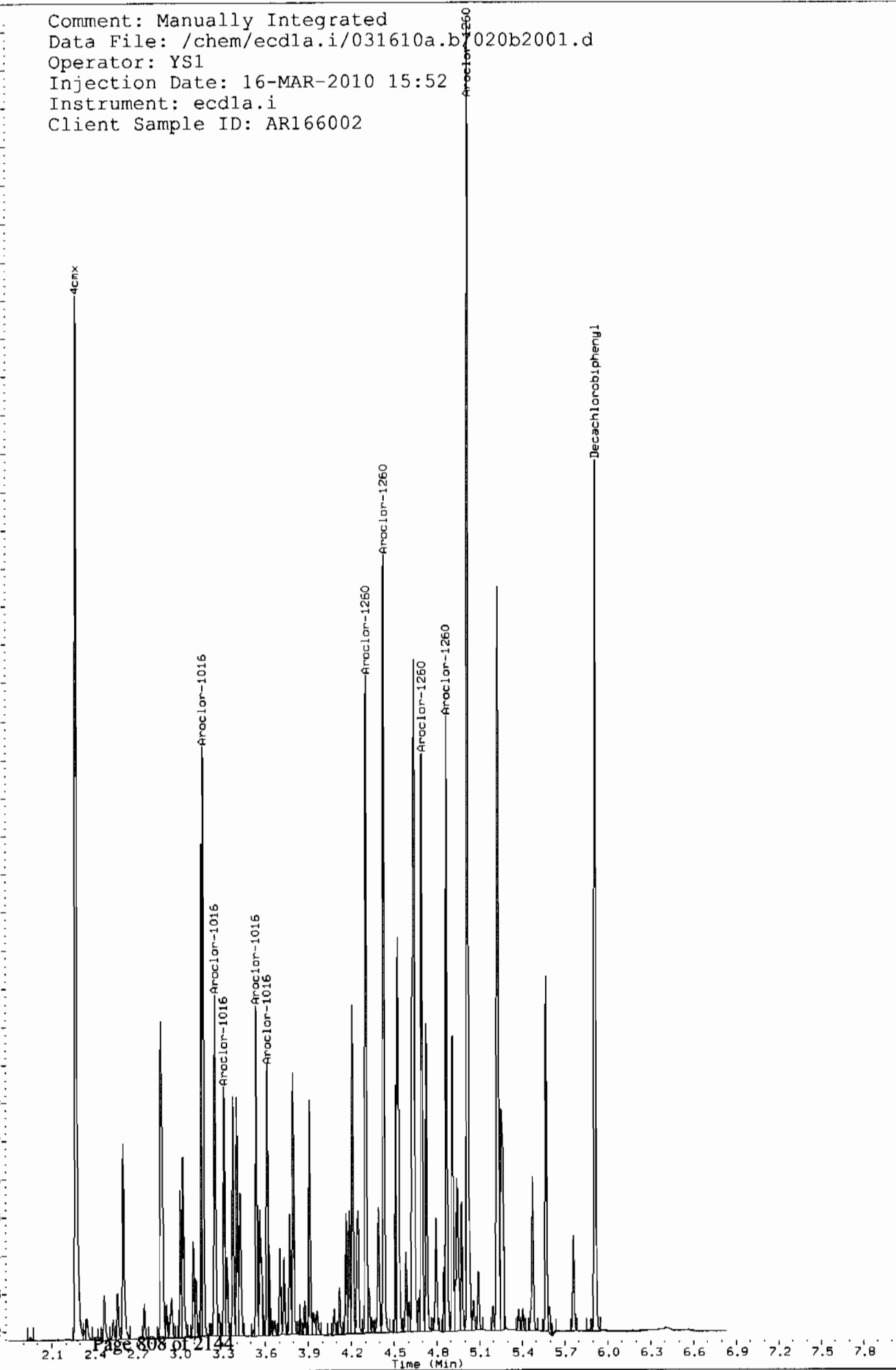
Column phase: CLP2

Instrument: ecdl1.i  
Operator: YSL  
Column diameter: 0.25

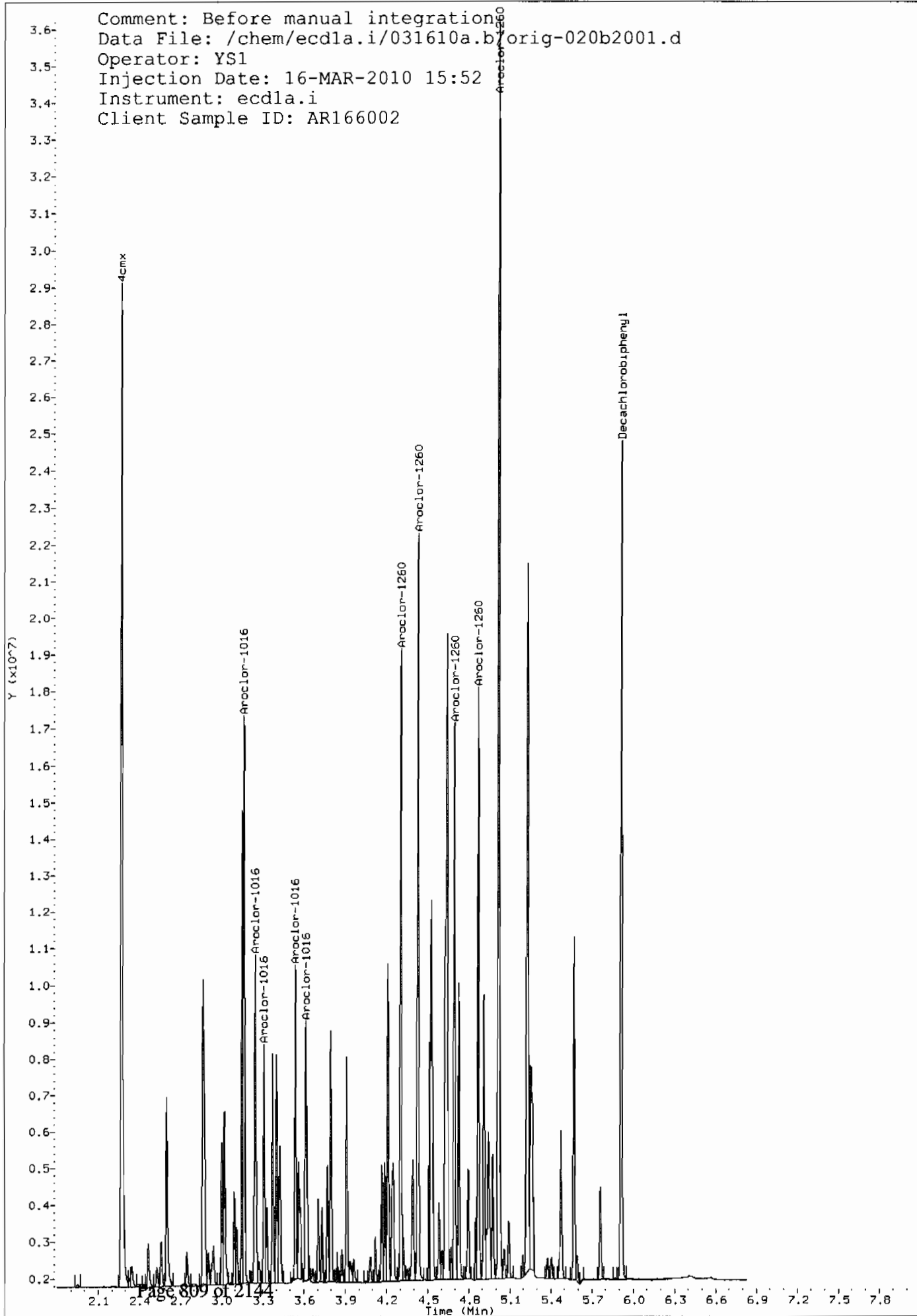


Comment: Manually Integrated  
Data File: /chem/ecdl1.i/031610a.b\020b2001.d  
Operator: YS1  
Injection Date: 16-MAR-2010 15:52  
Instrument: ecd1a.i  
Client Sample ID: AR166002

Y (x10<sup>-7</sup>)



Comment: Before manual integration  
Data File: /chem/ecdl1.i/031610a.b/orig-020b2001.d  
Operator: YS1  
Injection Date: 16-MAR-2010 15:52  
Instrument: ecd1a.i  
Client Sample ID: AR166002



Data File: /chem/ecdl1a.i/031610a.b/031f3101.d  
Report Date: 17-Mar-2010 07:58

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031610a.b/031f3101.d  
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003  
Inj Date : 16-MAR-2010 18:11  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100222-60 03  
Misc Info :  
Comment :  
Method : /chem/ecdl1a.i/031610a.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 07:58 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 31 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1660.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpc1p1

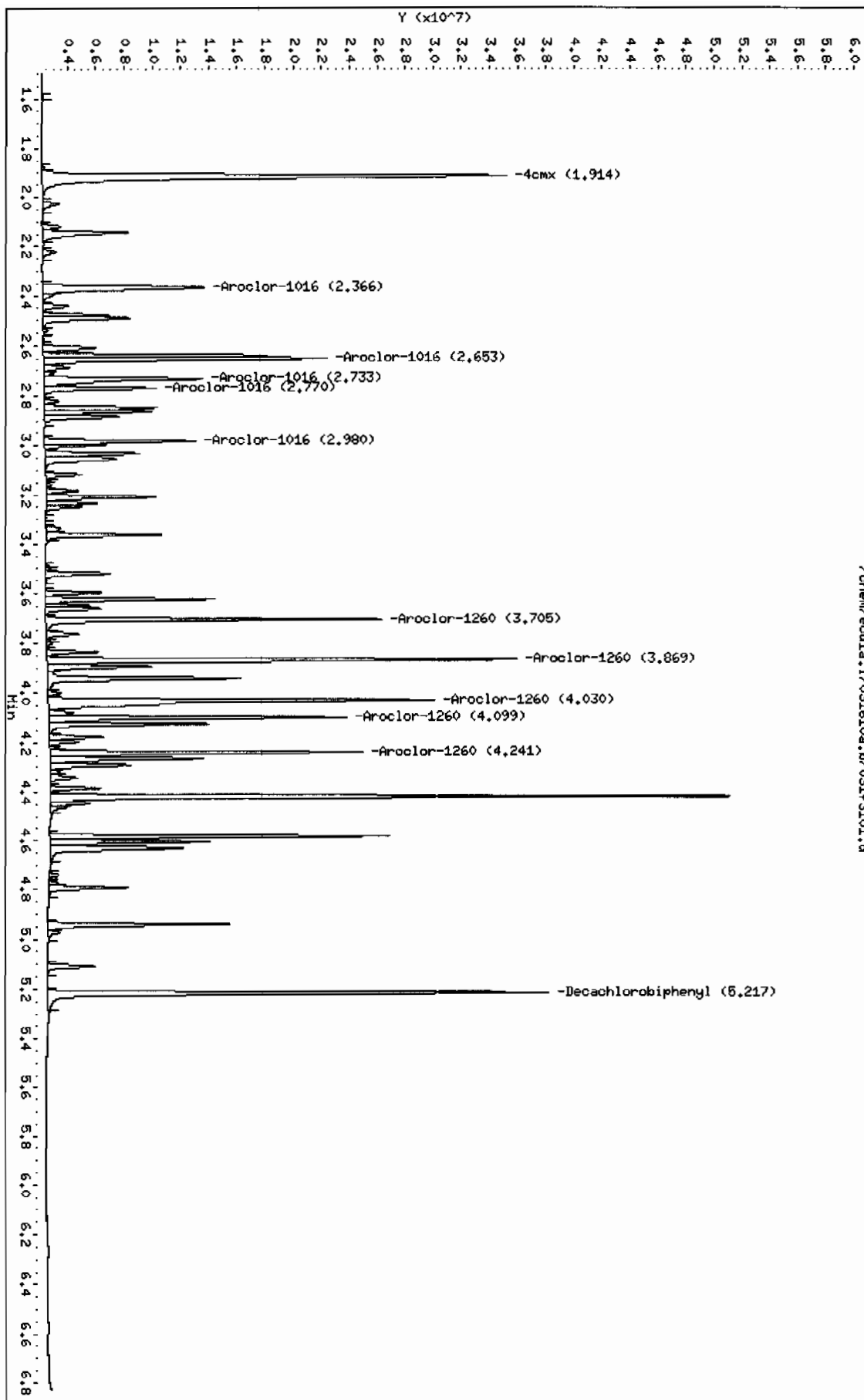
AMOUNTS						
			CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8		
1.914	1.915	-0.001	38753613 100.000	99.5	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.217	5.220	-0.003	28868806 100.000	97.2	80.00- 120.00	100.00
-----						
1 Aroclor-1016				CAS #: 12674-11-2		
2.366	2.366	0.000	13394713 1000.00	882	80.00- 120.00	100.00
2.653	2.654	-0.001	17254004 1000.00	911	108.81- 148.81	128.81
2.733	2.734	-0.001	11024306 1000.00	886	62.30- 102.30	82.30
2.770	2.771	-0.001	6622546 1000.00	901	29.44- 69.44	49.44
2.980	2.982	-0.002	8486533 1000.00	892	43.36- 83.36	63.36
Average of Peak Amounts =				895		
-----						
7 Aroclor-1260				CAS #: 11096-82-5		
3.705	3.707	-0.002	17964954 1000.00	980	80.00- 120.00	100.00
3.869	3.870	-0.001	26227421 1000.00	975	125.99- 165.99	145.99
4.030	4.032	-0.002	27979480 1000.00	988	135.74- 175.74	155.74
4.099	4.100	-0.001	15785645 1000.00	977	67.87- 107.87	87.87
4.241	4.243	-0.002	16448735 1000.00	978	71.56- 111.56	91.56
Average of Peak Amounts =				980		

Data File: /chem/eodla.i/031610a.b/031f3101.d  
Date : 16-MAR-2010 18:11  
Client ID: PR166003  
Sample Info: HART00022-60 03

Column phase: CLP1

Instrument: eodla.i  
Operator: YSI  
Column diameter: 0.25

/chem/eodla.i/031610a.b/031f3101.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031610a.b/031b3101.d  
 Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003  
 Inj Date : 16-MAR-2010 18:11  
 Operator : YS1 Inst ID: ecd1a.i  
 Smp Info : |WAR100222-60 03  
 Misc Info :  
 Comment :  
 Method : /chem/ecdl1a.i/031610a.b/ECD1-B-8082-031110b.m  
 Meth Date : 17-Mar-2010 07:58 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
 Als bottle: 31 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: AR1660.sub  
 Target Version: 3.50 Sample Matrix: None  
 Processing Host: hpc1p1

AMOUNTS

			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO	
xx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
\$ 11 4cmx				CAS #: 877-09-8			
2.272	2.273	-0.001	25618298 100.000	97.6	80.00~ 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.914	5.915	-0.001	17759823 100.000	94.9	80.00~ 120.00	100.00	
-----							
1 Aroclor-1016				CAS #: 12674-11-2			
3.167	3.168	-0.001	11721842 1000.00	931	80.00~ 120.00	100.00(M)	
3.250	3.251	-0.001	7615119 1000.00	882	48.22~ 88.22	64.97	
3.314	3.315	-0.001	4695105 1000.00	888	21.88~ 61.88	40.05	
3.540	3.541	-0.001	6176113 1000.00	896	35.49~ 75.49	52.69	
3.616	3.617	-0.001	5789750 1000.00	901	30.58~ 70.58	58.87	
Average of Peak Amounts =				900			
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
4.306	4.307	-0.001	12397791 1000.00	948	80.00~ 120.00	100.00	
4.431	4.431	0.000	14988919 1000.00	964	101.10~ 141.10	120.90	
4.696	4.698	-0.002	11260747 1000.00	946	71.58~ 111.58	90.83	
4.870	4.871	-0.001	11806558 1000.00	961	75.48~ 115.48	95.23	
5.017	5.018	-0.001	25947564 1000.00	983	189.32~ 229.32	209.29	
Average of Peak Amounts =				960			

#### QC Flag Legend

M - Compound response manually integrated.



Data File: /chem/ecdl.a.i/031610a.b/0316101.d

Date : 16-MAR-2010 18:11

Client ID: AR16603

Sample Info: IMPR100222-60 03

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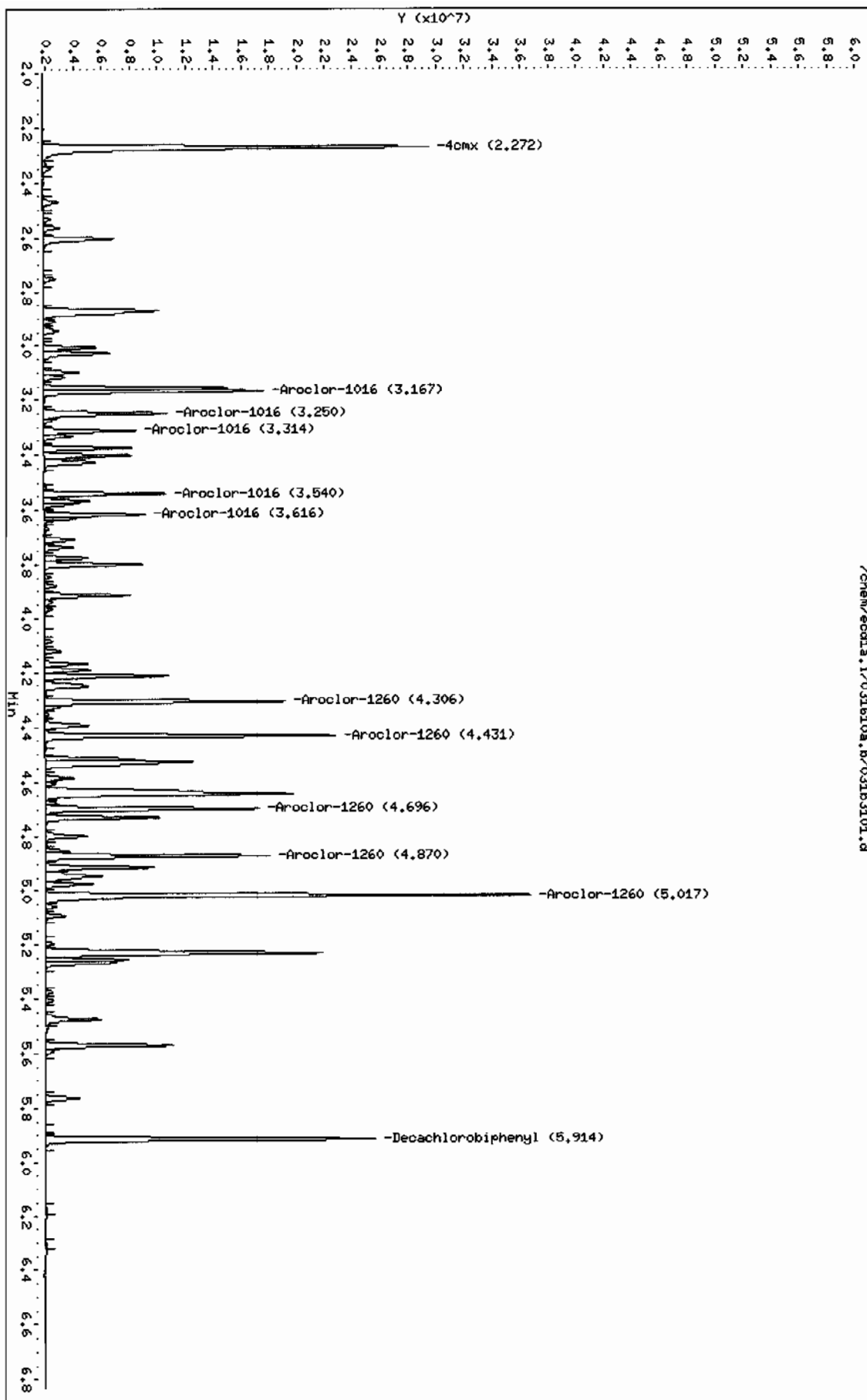
Instrument: ecdl.a.i

Operator: YSI

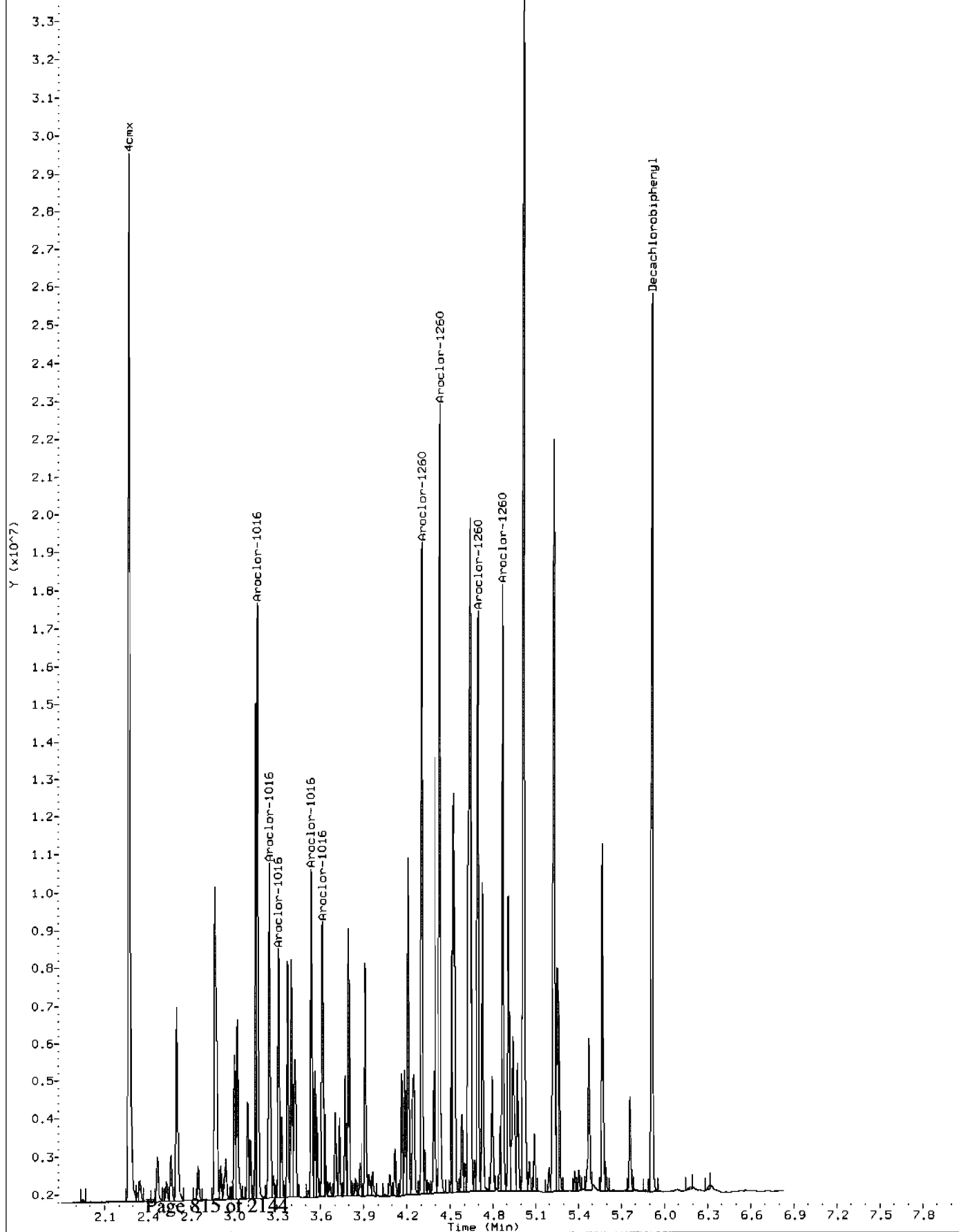
Column diameter: 0.25

Column phase: CLP2

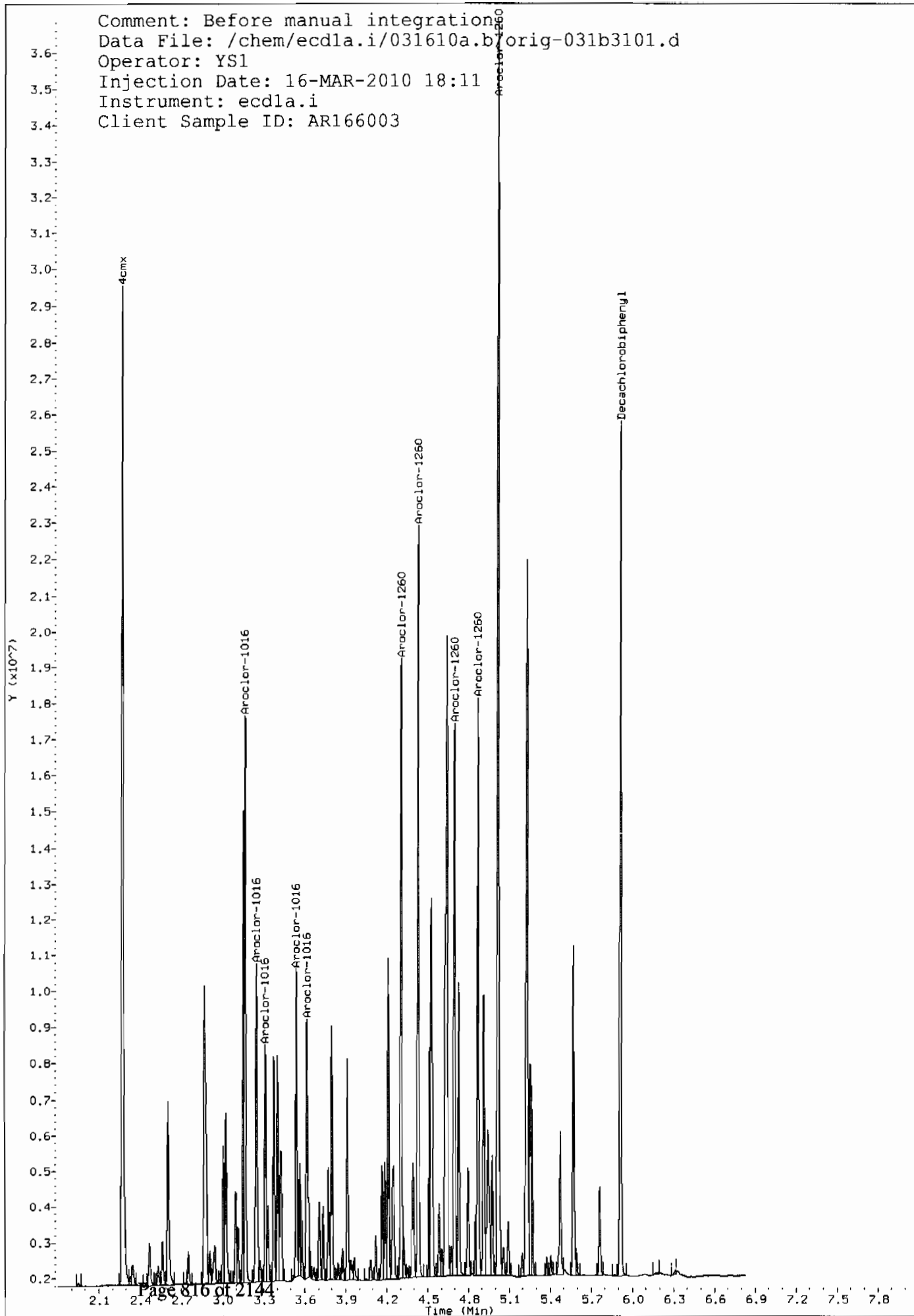
/chem/ecdl.a.i/031610a.b/0316101.d



Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/031610a.b 031b3101.d  
Operator: YS1  
Injection Date: 16-MAR-2010 18:11  
Instrument: ecd1a.i  
Client Sample ID: AR166003



Comment: Before manual integration  
Data File: /chem/ecdl1a.i/031610a.b orig-031b3101.d  
Operator: YS1  
Injection Date: 16-MAR-2010 18:11  
Instrument: ecd1a.i  
Client Sample ID: AR166003



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/002f0201.d

Lab Smp Id: WAR100222-60 01

Client Smp ID: AR166001

Inj Date : 17-MAR-2010 06:08

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 01

Misc Info :

Comment :

Method : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m

Meth Date : 17-Mar-2010 08:52 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 2

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

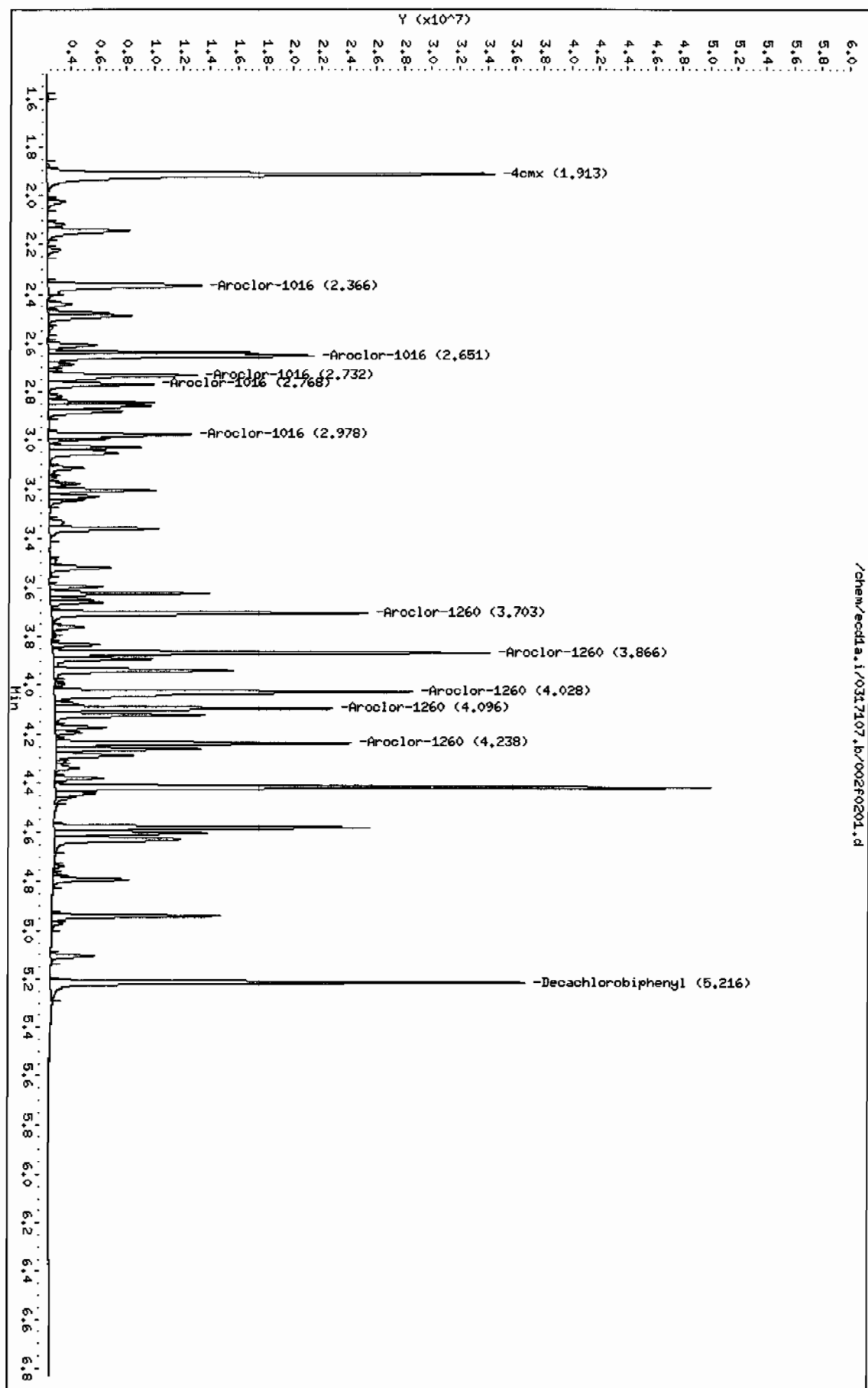
AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
11	4cmx				CAS #: 877-09-8	
1.913	1.913	0.000	38427094 100.000	98.6	80.00- 120.00	100.00
12	Decachlorobiphenyl				CAS #: 2051-24-3	
5.216	5.216	0.000	28032780 100.000	94.4	80.00- 120.00	100.00
1	Aroclor-1016				CAS #: 12674-11-2	
2.366	2.366	0.000	13679245 1000.00	901	80.00- 120.00	100.00
2.651	2.651	0.000	17352542 1000.00	916	106.85- 146.85	126.85
2.732	2.732	0.000	10865667 1000.00	873	59.43- 99.43	79.43
2.768	2.768	0.000	6489606 1000.00	883	27.44- 67.44	47.44
2.978	2.978	0.000	8337119 1000.00	876	40.95- 80.95	60.95
Average of Peak Amounts =				890		
7	Aroclor-1260				CAS #: 11096-82-5	
3.703	3.703	0.000	17103795 1000.00	933	80.00- 120.00	100.00
3.866	3.866	0.000	24999856 1000.00	930	126.17- 166.17	146.17
4.028	4.028	0.000	26757729 1000.00	945	136.44- 176.44	156.44
4.096	4.096	0.000	15105144 1000.00	935	68.31- 108.31	88.31
4.238	4.238	0.000	15681925 1000.00	933	71.69- 111.69	91.69
Average of Peak Amounts =				935		

Data File: /chem/ecda.i/0317107.b/002f0201.d  
Date: 17-MAR-2010 06:08  
Client ID: AR16001  
Sample Info: IWR100222-60 01

Column phase: CLP1

Instrument: ecda.i  
Operator: YSL  
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/002b0201.d

Lab Smp Id: WAR100222-60 01

Client Smp ID: AR166001

Inj Date : 17-MAR-2010 06:08

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 01

Misc Info :

Comment :

Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m

Meth Date : 17-Mar-2010 08:52 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 2

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
<hr/>						
11 4cmx					CAS #: 877-09-8	
2.271	2.271	0.000	25748880	100.000	98.2 80.00- 120.00	100.00
<hr/>						
12 Decachlorobiphenyl					CAS #: 2051-24-3	
5.913	5.913	0.000	17899877	100.000	95.6 80.00- 120.00	100.00
<hr/>						
1 Aroclor-1016					CAS #: 12674-11-2	
3.166	3.166	0.000	11257869	1000.00	894 80.00- 120.00	100.00 (M)
3.248	3.248	0.000	7602660	1000.00	880 47.53- 87.53	67.53
3.312	3.312	0.000	4622469	1000.00	874 21.06- 61.06	41.06
3.538	3.538	0.000	6158940	1000.00	894 34.71- 74.71	54.71
3.614	3.614	0.000	5755354	1000.00	896 31.12- 71.12	51.12
Average of Peak Amounts =					888	
<hr/>						
7 Aroclor-1260					CAS #: 11096-82-5	
4.304	4.304	0.000	12494202	1000.00	955 80.00- 120.00	100.00
4.429	4.429	0.000	15069938	1000.00	969 100.62- 140.62	120.62
4.695	4.695	0.000	11423166	1000.00	960 71.43- 111.43	91.43
4.868	4.868	0.000	11829647	1000.00	963 74.68- 114.68	94.68
5.015	5.015	0.000	26003137	1000.00	985 188.12- 228.12	208.12
Average of Peak Amounts =					966	

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdl.a.i/0317107.b/002b0201.d

Date: 17-MAR-2010 06:08

Client ID: AR166001

Sample Info: 1MAR100222-60 01

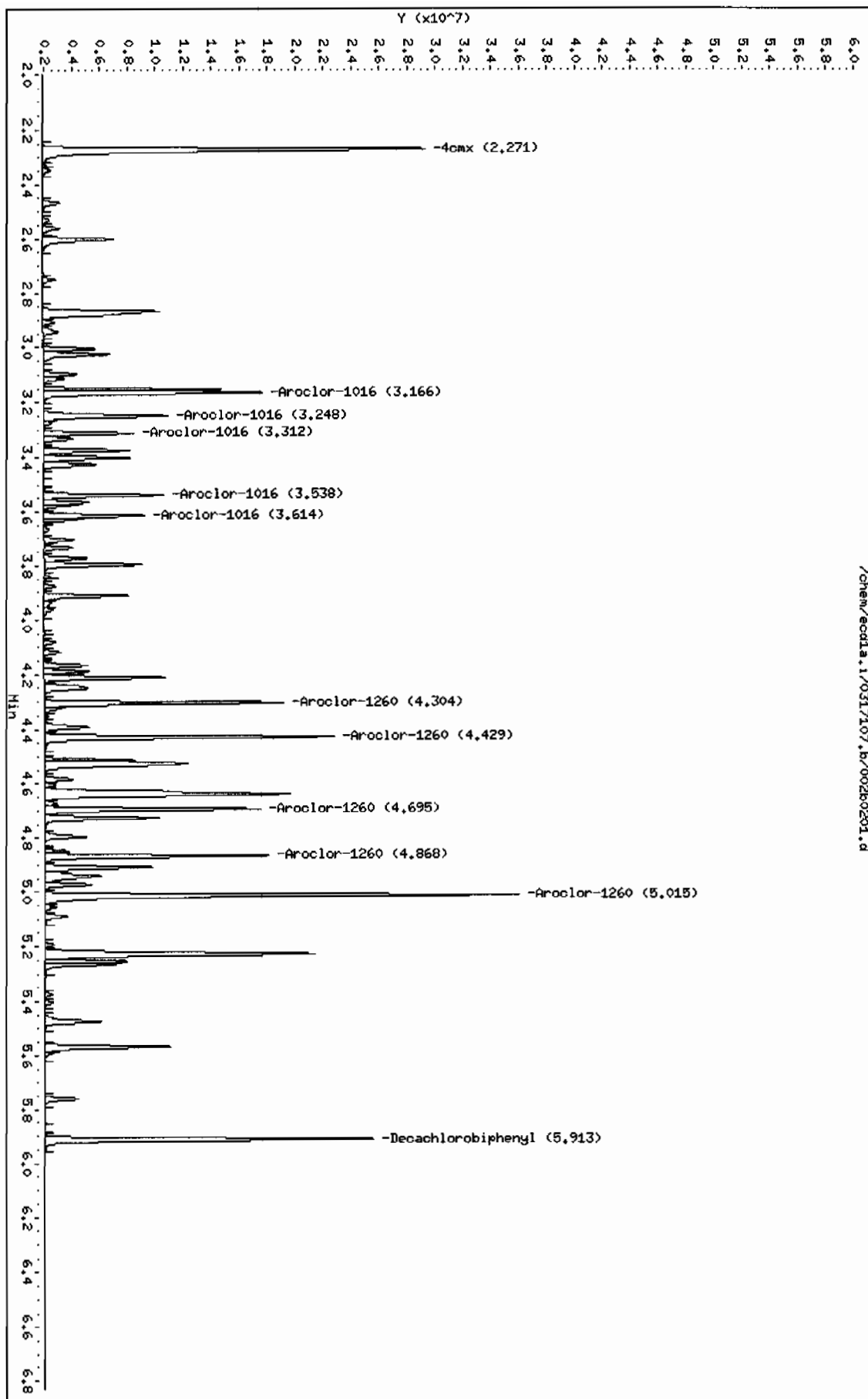
Column phase: CLP2

Instrument: ecdl.a.i

Operator: YSI

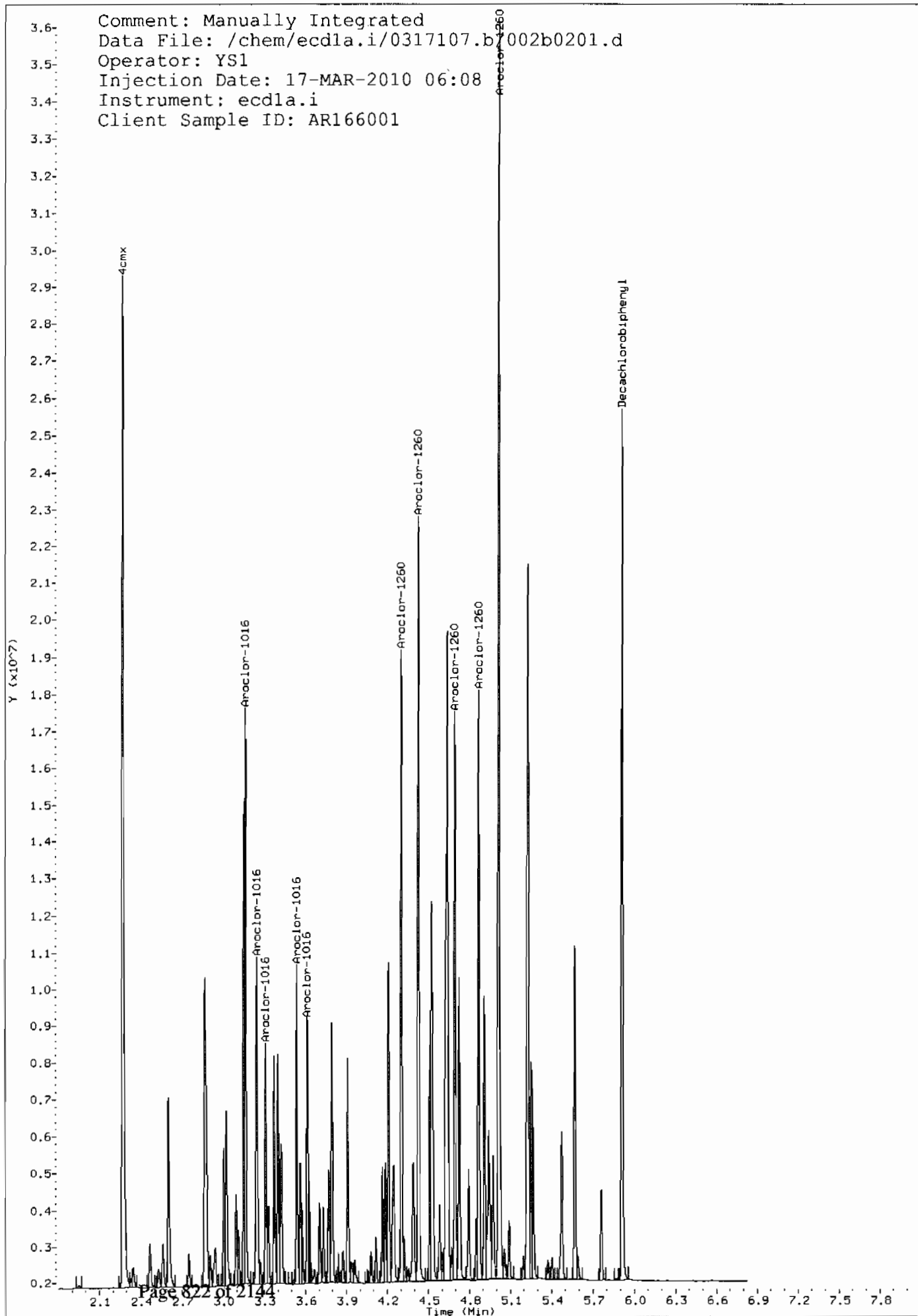
Column diameter: 0.25

/chem/ecdl.a.i/0317107.b/002b0201.d

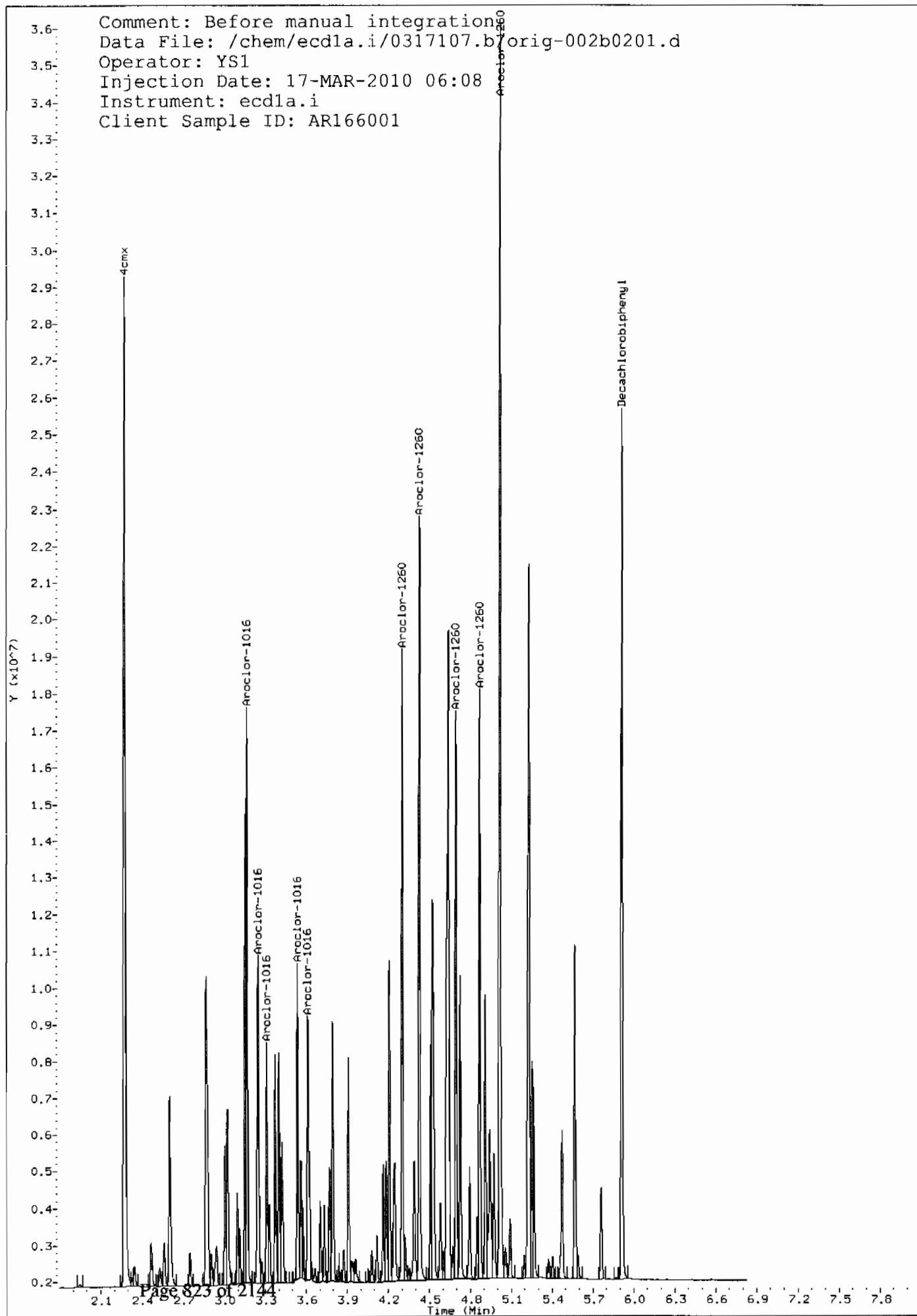




Comment: Manually Integrated  
Data File: /chem/ecdla.i/0317107.b 002b0201.d  
Operator: YS1  
Injection Date: 17-MAR-2010 06:08  
Instrument: ecdla.i  
Client Sample ID: AR166001



Comment: Before manual integration  
Data File: /chem/ecdl1.i/0317107.b orig-002b0201.d  
Operator: YS1  
Injection Date: 17-MAR-2010 06:08  
Instrument: ecd1a.i  
Client Sample ID: AR166001



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/003f0301.d

Lab Smp Id: WAR100219-54

Client Smp ID: AR125401

Inj Date : 17-MAR-2010 06:18

Operator : YS1

Inst ID: ecdla.i

Smp Info : |WAR100219-54

Misc Info :

Comment :

Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m

Meth Date : 17-Mar-2010 08:52 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 3

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1254.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

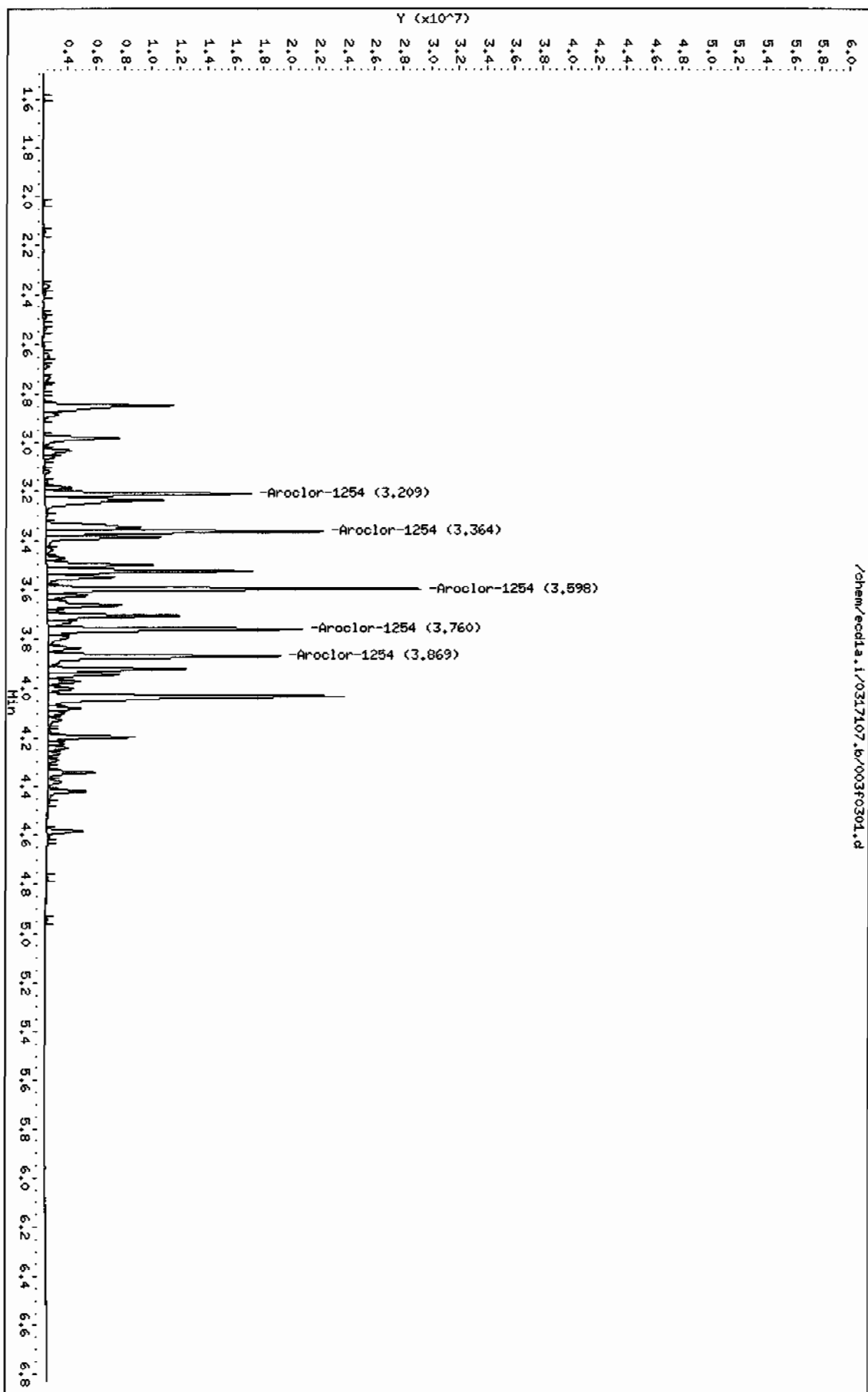
AMOUNTS

			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Aroclor-1254					CAS #: 11097-69-1			
3.209	3.209	0.000	11804928	1000.00	890	80.00-	120.00	100.00
3.364	3.364	0.000	15624759	1000.00	876	112.36-	152.36	132.36
3.598	3.598	0.000	20223062	1000.00	904	151.31-	191.31	171.31
3.760	3.760	0.000	14731608	1000.00	893	104.79-	144.79	124.79
3.869	3.869	0.000	14915377	1000.00	934	106.35-	146.35	126.35
Average of Peak Amounts =					900			

Data File: /chem/ecdl1.i/0317107.b/003f0301.d  
Date: 17-MAR-2010 06:18  
Client ID: AR425401  
Sample Info: 11MAR100219-54

Column phase: CLP1

Instrument: ecdl1.i  
Operator: YSL  
Column diameter: 0.25



Data File: /chem/ecdl1a.i/0317107.b/003b0301.d  
Report Date: 17-Mar-2010 08:52

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/003b0301.d

Lab Smp Id: WAR100219-54

Client Smp ID: AR125401

Inj Date : 17-MAR-2010 06:18

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100219-54

Misc Info :

Comment :

Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m

Meth Date : 17-Mar-2010 08:52 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 3

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1254.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
6 Aroclor-1254			CAS #: 11097-69-1			
3.375	3.375	0.000	5433555 1000.00	902	80.00- 120.00	100.00
3.797	3.797	0.000	9922138 1000.00	917	162.61- 202.61	182.61
3.914	3.914	0.000	10795731 1000.00	905	178.69- 218.69	198.69
4.189	4.189	0.000	15040936 1000.00	915	256.82- 296.82	276.82
4.325	4.325	0.000	11339611 1000.00	936	188.70- 228.70	208.70
Average of Peak Amounts =				915		

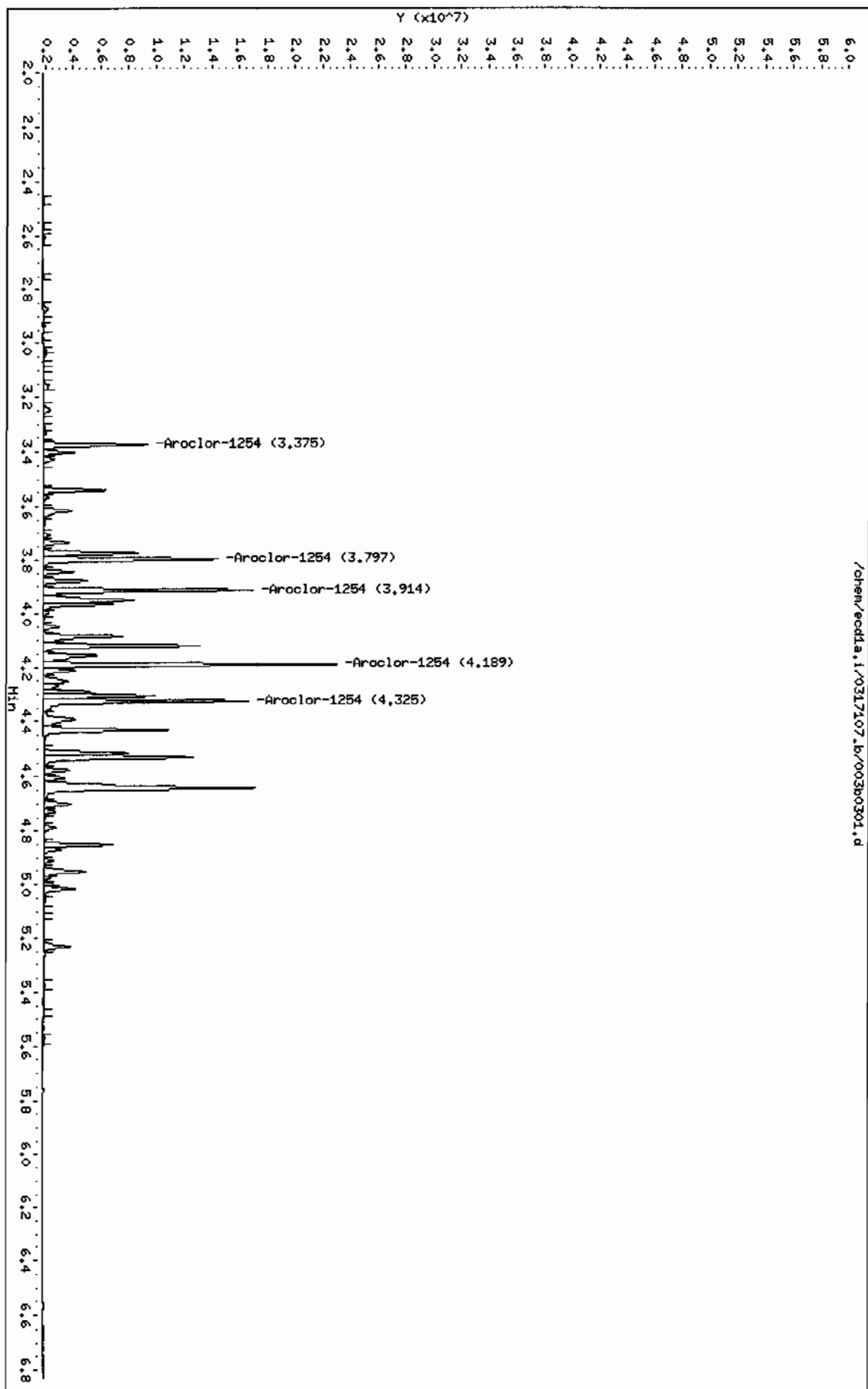
Data File: /chem/ecdda.i/0317107.b/003b0301.d  
Date: 17-MAR-2010 06:18  
Client ID: AR125401  
Sample Info: 1MAR100219-54

Instrument: ecdda.i

Page 1

Column phase: CLP2

Operator: YSI  
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/004f0401.d

Lab Smp Id: WAR100219-42

Client Smp ID: AR124201

Inj Date : 17-MAR-2010 06:29

Operator : YS1

Inst ID: ecdla.i

Smp Info : |WAR100219-42

Misc Info :

Comment :

Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m

Meth Date : 17-Mar-2010 08:53 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 4

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1242.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

AMOUNTS

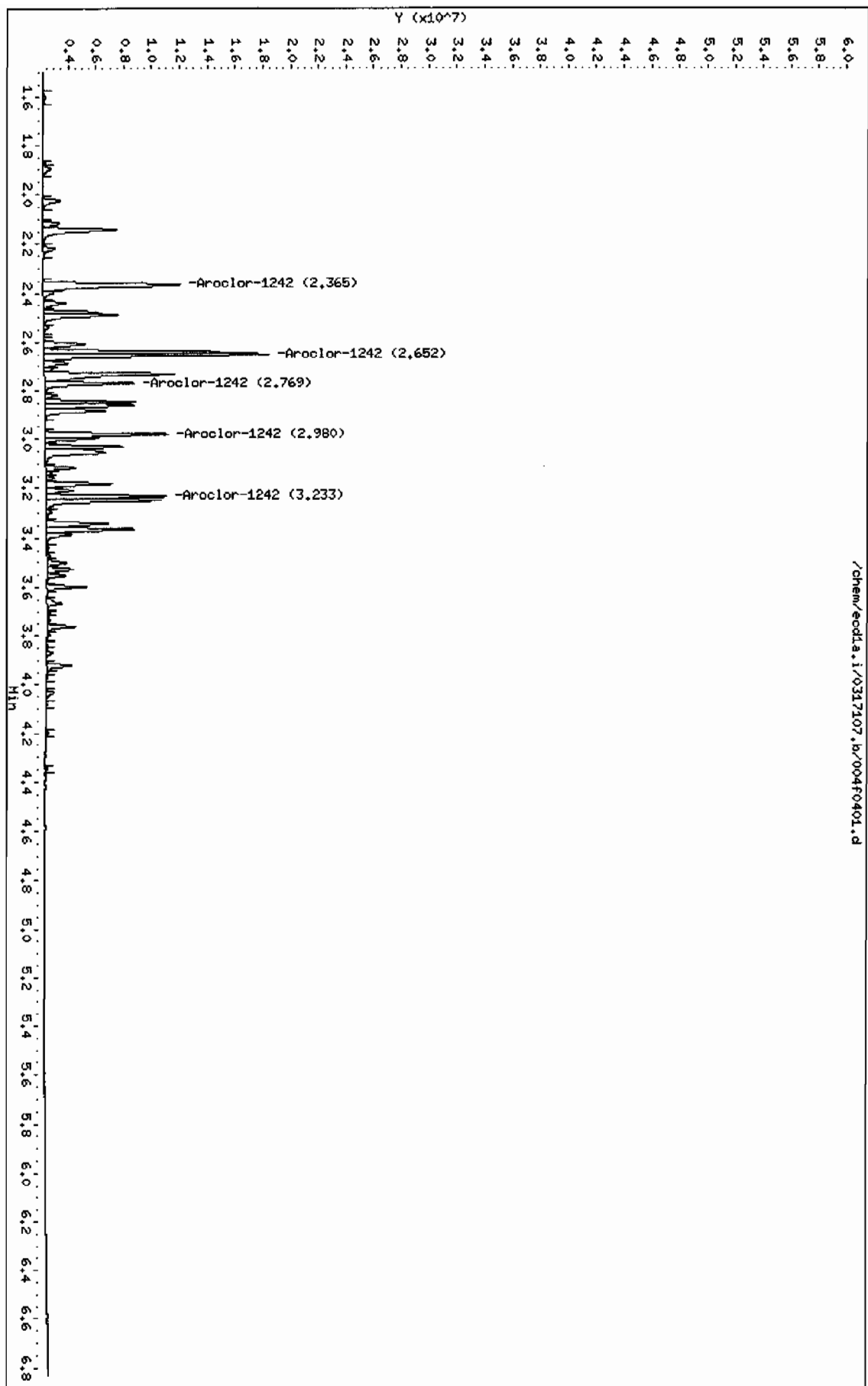
RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
4	Aroclor-1242			CAS #: 53469-21-9		
2.365	2.365	0.000	11593290 1000.00	940	80.00- 120.00	100.00
2.652	2.652	0.000	14537144 1000.00	975	105.39- 145.39	125.39
2.769	2.769	0.000	5553924 1000.00	942	27.91- 67.91	47.91
2.980	2.980	0.000	7095279 1000.00	917	41.20- 81.20	61.20
3.233	3.233	0.000	6386220 1000.00	877	35.09- 75.09	55.09
Average of Peak Amounts =				930		

Data File: /chem/ecdl1a.i/0317107.b/004f0401.d  
Date: 17-MAR-2010 06:29  
Client ID: 06124201  
Sample Info: 146R100219-42

Page 1

Column phase: CLP1

Instrument: ecdl1a.i  
Operator: YSI  
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/004b0401.d

Lab Smp Id: WAR100219-42

Client Smp ID: AR124201

Inj Date : 17-MAR-2010 06:29

Operator : YSl

Inst ID: ecdla.i

Smp Info : |WAR100219-42

Misc Info :

Comment :

Method : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m

Meth Date : 17-Mar-2010 08:52 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 4

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1242.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpclp1

AMOUNTS

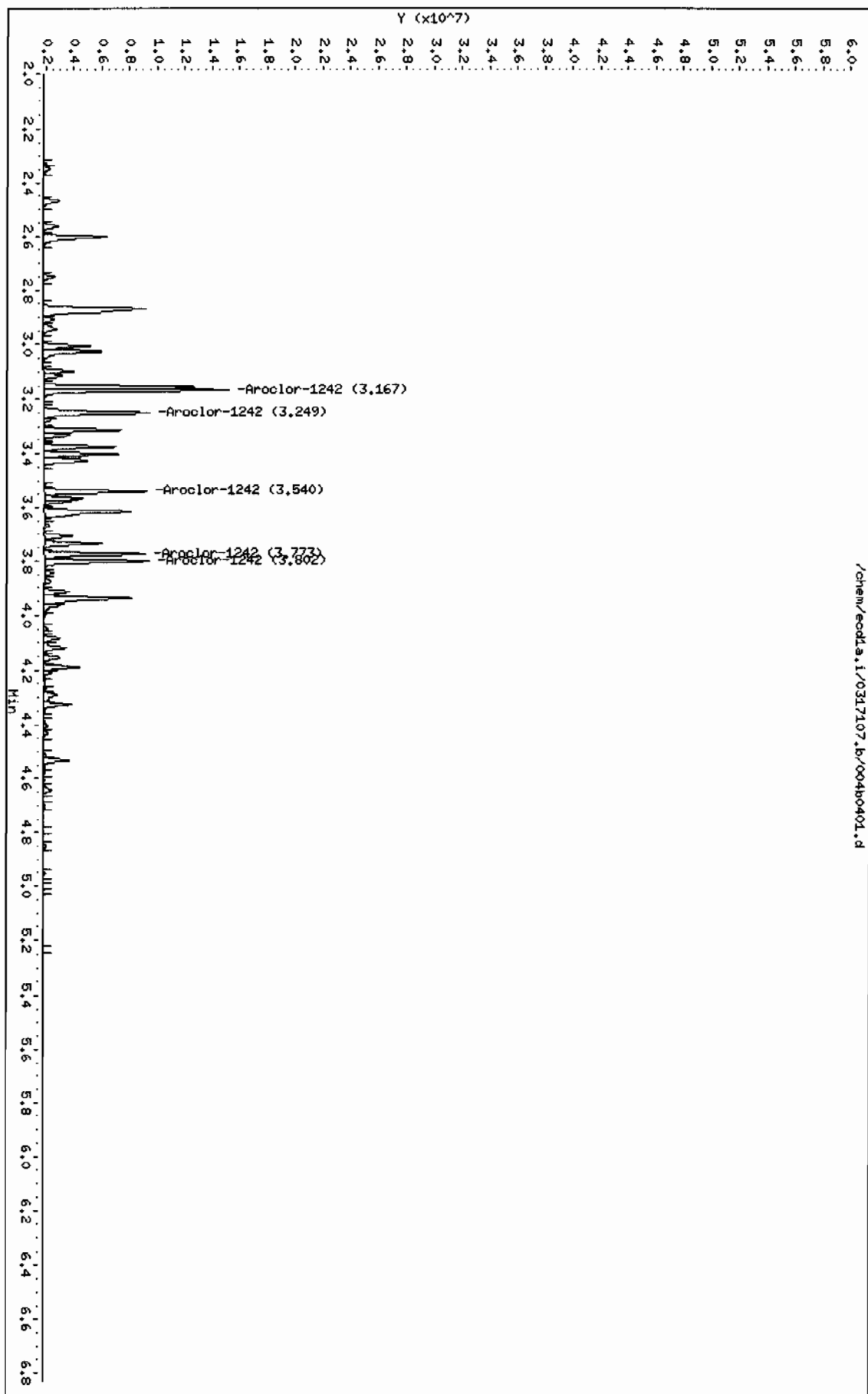
			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====
4 Aroclor-1242				CAS #: 53469-21-9			
3.167	3.167	0.000	9708362	1000.00	958 80.00-	120.00	100.00
3.249	3.249	0.000	6621849	1000.00	933 48.21-	88.21	68.21
3.540	3.540	0.000	5140297	1000.00	932 32.95-	72.95	52.95
3.773	3.773	0.000	5254316	1000.00	918 34.12-	74.12	54.12
3.802	3.802	0.000	5963672	1000.00	936 41.43-	81.43	61.43
Average of Peak Amounts =				935			

Data File: /chem/ecdl1a.i/0317107.b/004b0401.d  
Date : 17-MAR-2010 06:29  
Client ID: AR124201  
Sample Info: 1MAR100219-42

Column phase: CLP2

Instrument: ecdl1a.i  
Operator: YSI  
Column diameter: 0.25

/chem/ecdl1a.i/0317107.b/004b0401.d



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/005f0501.d

Lab Smp Id: WAR100223-48

Client Smp ID: AR124801

Inj Date : 17-MAR-2010 06:39

Operator : YSl

Inst ID: ecd1a.i

Smp Info : |WAR100223-48

Misc Info :

Comment :

Method : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m

Meth Date : 17-Mar-2010 08:53 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 5

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1248.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
==	=====	-----	=====	=====	=====	=====

5 Aroclor-1248

CAS #: 12672-29-6

2.846	2.846	0.000	9510059	1000.00	951 80.00- 120.00	100.00 (M)
2.981	2.981	0.000	12717454	1000.00	968 113.73- 153.73	133.73
3.234	3.234	0.000	13366114	1000.00	934 120.55- 160.55	140.55
3.366	3.366	0.000	10901124	1000.00	916 94.63- 134.63	114.63
3.598	3.598	0.000	7582151	1000.00	947 59.73- 99.73	79.73

Average of Peak Amounts =

943

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdl1.i/0317107.b/005f0501.d

Date : 17-Mar-2010 06:39

Client ID: PR124801

Sample Info: IMR100223-48

Column phase: CLP1

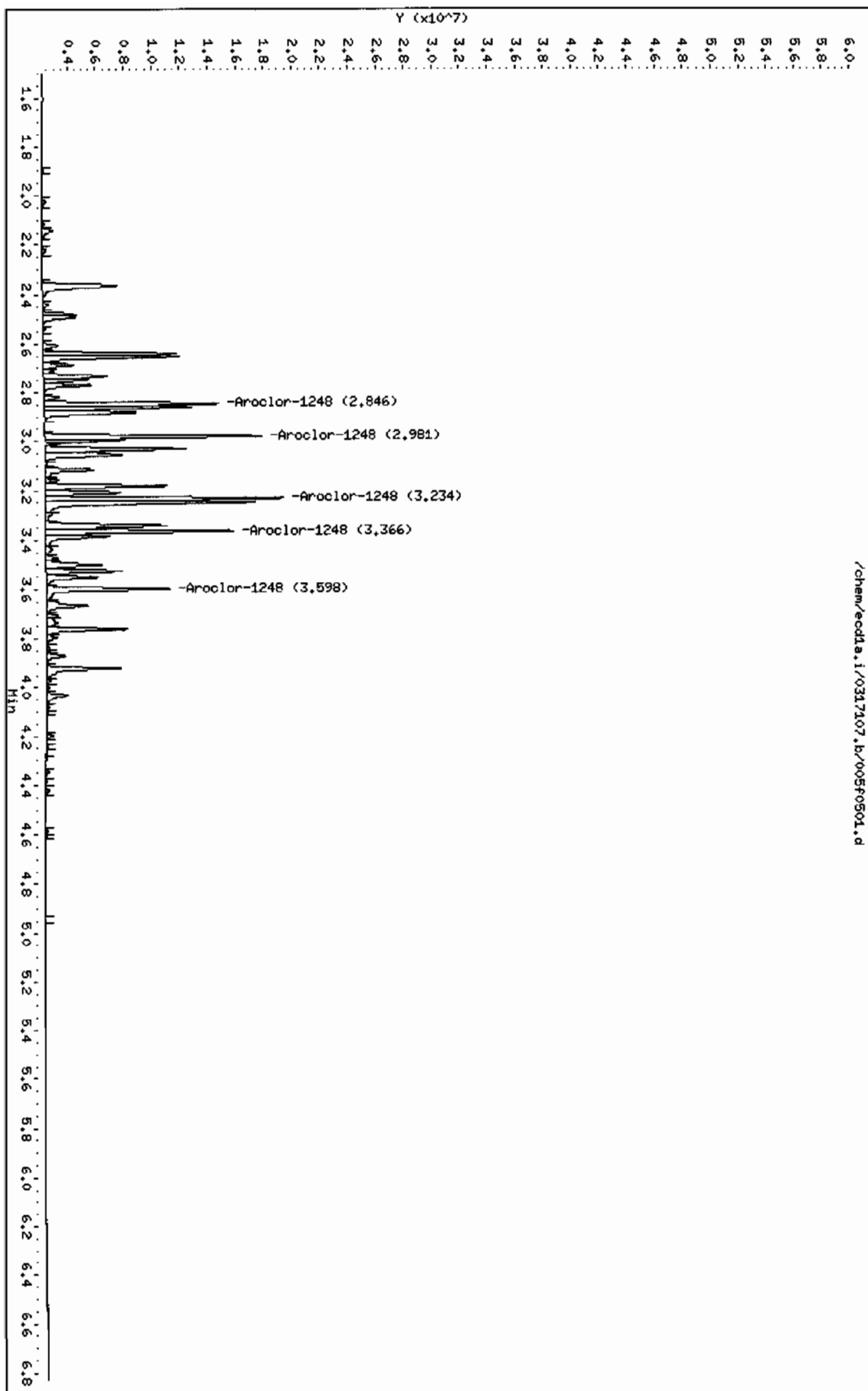
Page 1

Instrument: ecdl1.i

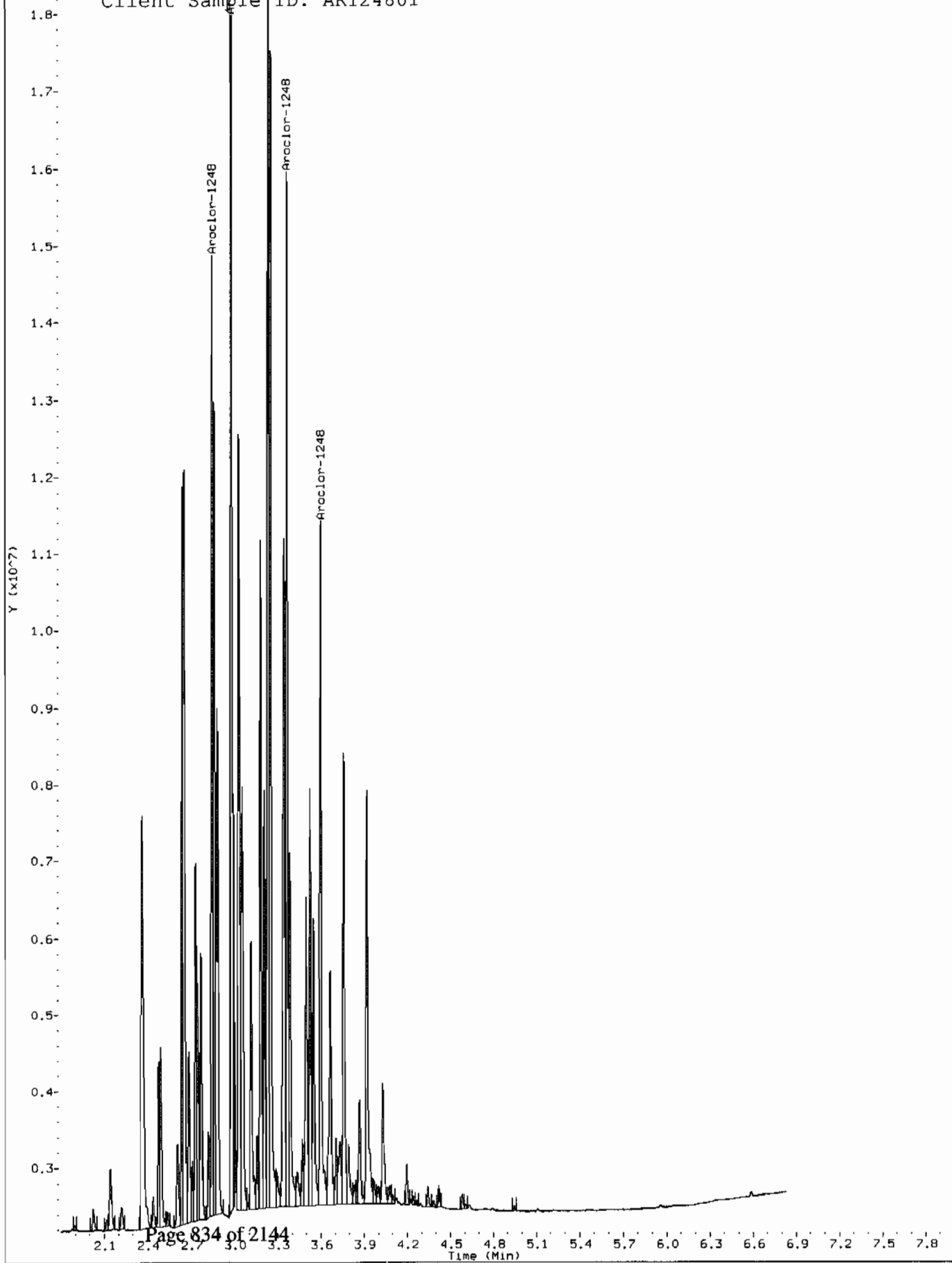
Operator: YS1

Column diameter: 0.25

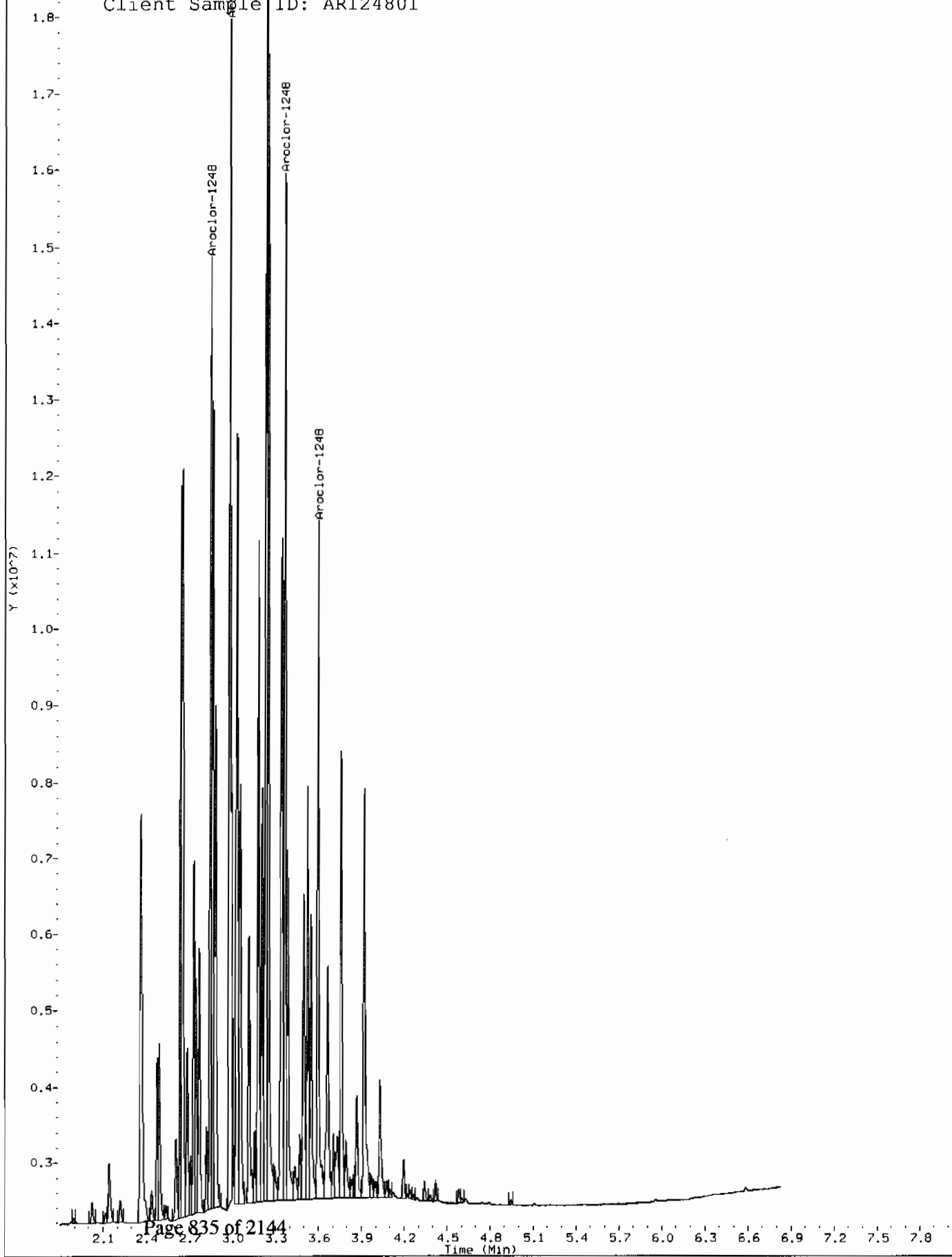
/chem/ecdl1.i/0317107.b/005f0501.d



Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/0317107.b/005f0501.d  
Operator: S1  
Injection Date: 17-MAR-2010 06:39  
Instrument: ecdl1a.i  
Client Sample ID: AR124801



Comment: Before manual integration  
Data File: /chem/ecdl1.i/0317107.b/orig-005f0501.d  
Operator: JSL  
Injection Date: 17-MAR-2010 06:39  
Instrument: ecdl1.i  
Client Sample ID: AR124801



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/005b0501.d

Lab Smp Id: WAR100223-48

Client Smp ID: AR124801

Inj Date : 17-MAR-2010 06:39

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100223-48

Misc Info :

Comment :

Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m

Meth Date : 17-Mar-2010 08:53 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 5

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1248.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
----	--------	--------	------------------	---------	--------------	-------

5 Aroclor-1248

CAS #: 12672-29-6

3.376	3.376	0.000	7236477	1000.00	952 80.00- 120.00	100.00
3.541	3.541	0.000	9076536	1000.00	958 105.43- 145.43	125.43
3.774	3.774	0.000	10292916	1000.00	942 122.24- 162.24	142.24
3.801	3.801	0.000	11574901	1000.00	952 139.95- 179.95	159.95
3.938	3.938	0.000	11003666	1000.00	932 132.06- 172.06	152.06

Average of Peak Amounts =

947

Data File: /chem/ecdl1a.i/0317107.b/005b0501.d  
Date: 17-MAR-2010 06:39  
Client ID: AR124801  
Sample Info: 11MR100223-48

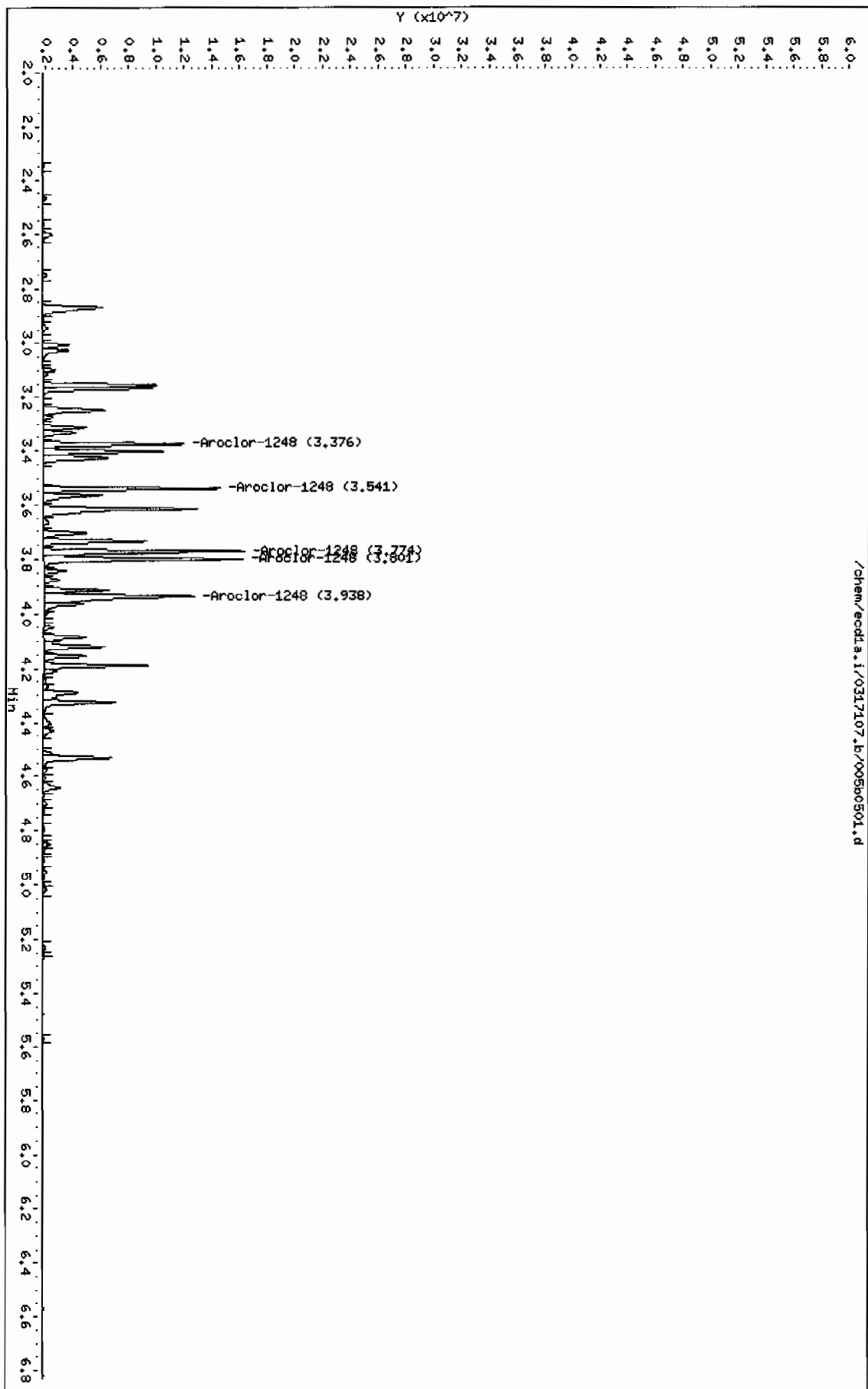
Instrument: ecdl1a.i

Page 1

Column phase: CLP2

Operator: YSL  
Column diameter: 0.25

/chem/ecdl1a.i/0317107.b/005b0501.d





Data File: /chem/ecdla.i/0317107.b/007f0701.d  
Report Date: 17-Mar-2010 08:54

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/007f0701.d  
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201  
Inj Date : 17-MAR-2010 07:01  
Operator : YSl Inst ID: ecdla.i  
Smp Info : |WAR100104-32  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 08:54 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 7 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1232.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpclpl

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5	
2.365	2.365	0.000	6445549 1000.00	967	80.00- 120.00	100.00
2.652	2.652	0.000	8203940 1000.00	983	107.28- 147.28	127.28
2.732	2.732	0.000	5266309 1000.00	952	61.70- 101.70	81.70
2.847	2.847	0.000	2540896 1000.00	959	19.42- 59.42	39.42
3.234	3.234	0.000	3243941 1000.00	912	30.33- 70.33	50.33
Average of Peak Amounts =				955		

Data File: /chem/ecdl.a.i/0317107.b/007F0701.d

Date : 17-MAR-2010 07:01

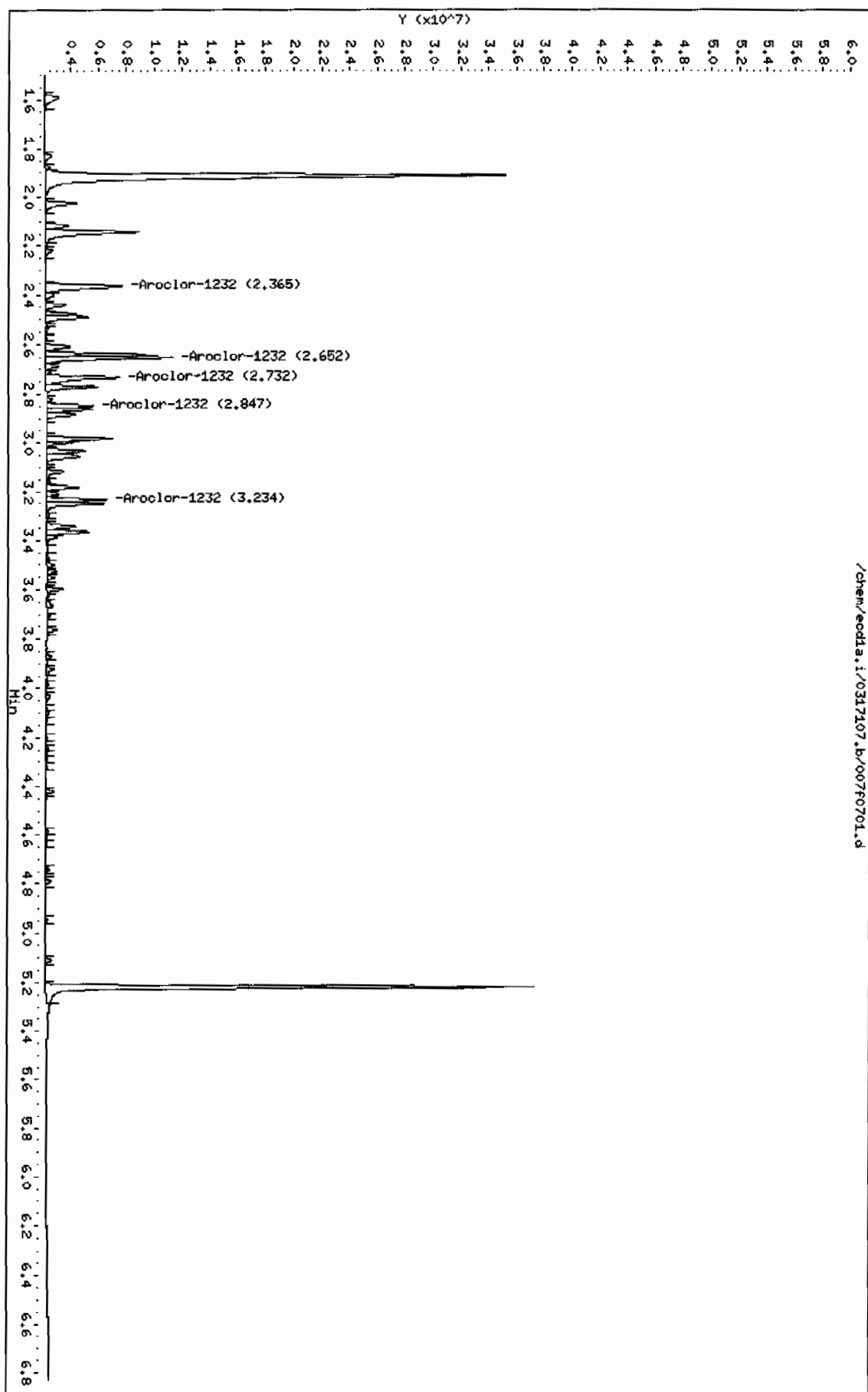
Client ID: AR123201

Sample Info: 1MAR100104-32

Page 1

Column phase: CLP1

Instrument: ecdl.a.i  
Operator: YSL  
Column diameter: 0.25



Data File: /chem/ecd1a.i/0317107.b/007b0701.d  
Report Date: 17-Mar-2010 08:54

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/0317107.b/007b0701.d  
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201  
Inj Date : 17-MAR-2010 07:01  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100104-32  
Misc Info :  
Comment :  
Method : /chem/ecd1a.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 08:54 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 7 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1232.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpclpl

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
3 Aroclor-1232			CAS #: 11141-16-5			
2.869	2.869	0.000	5036995 1000.00	997	80.00- 120.00	100.00
3.166	3.166	0.000	5500554 1000.00	963	89.20- 129.20	109.20
3.250	3.250	0.000	3863614 1000.00	994	56.70- 96.70	76.70
3.540	3.540	0.000	2837390 1000.00	999	36.33- 76.33	56.33
3.774	3.774	0.000	2755344 1000.00	977	34.70- 74.70	54.70
Average of Peak Amounts =			986			

Data File: /chem/eodla.i/0317107.b/007b0701.d

Date: 17-MAR-2010 07:01

Client ID: AR123201

Sample Info: 14AR100104-32

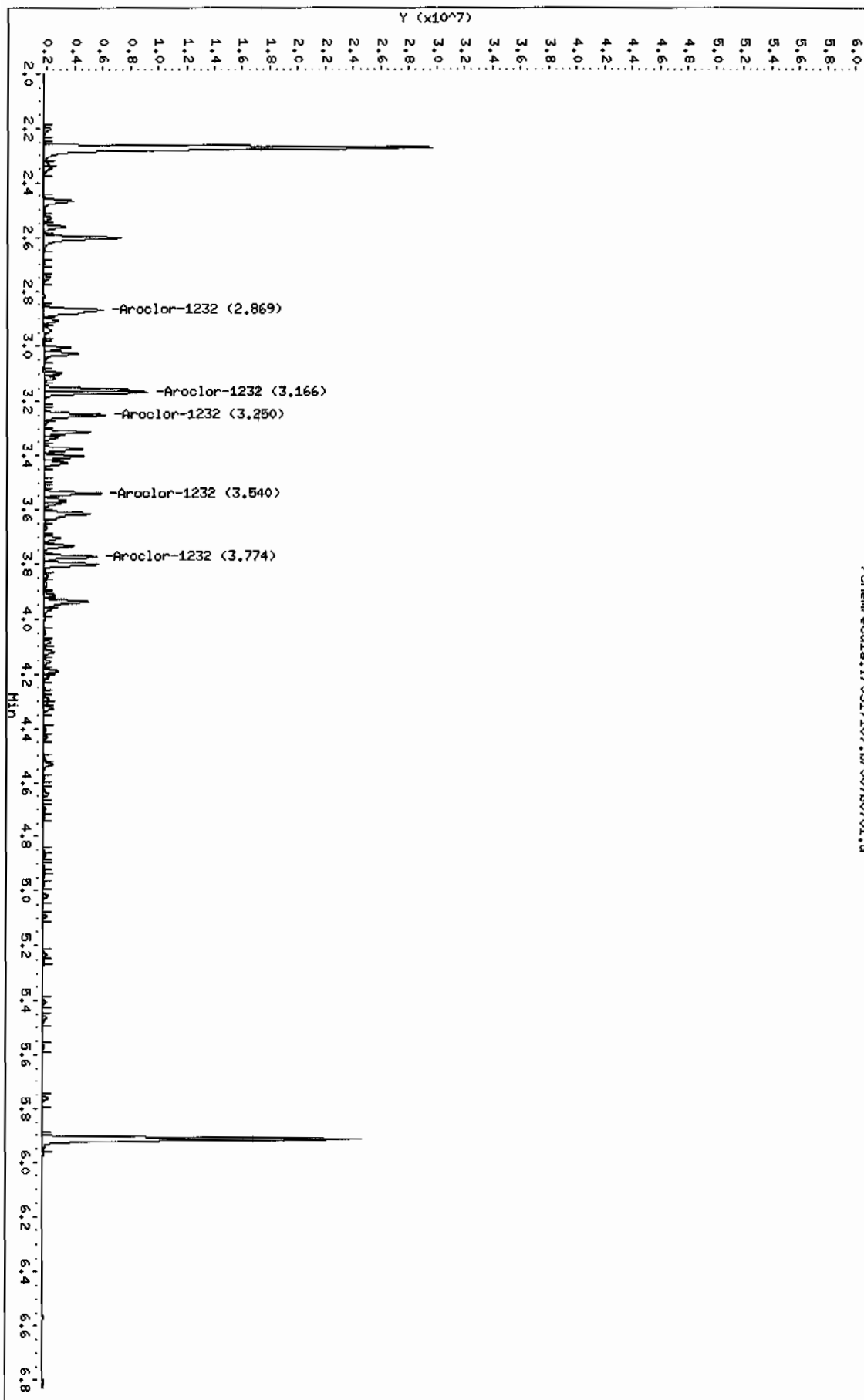
Column phase: CLP2

Instrument: eodla.i

Operator: YSA

Column diameter: 0.25

/chem/eodla.i/0317107.b/007b0701.d



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/008f0801.d

Lab Smp Id: WAR100104-21

Client Smp ID: AR122101

Inj Date : 17-MAR-2010 07:11

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100104-21

Misc Info :

Comment :

Method : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m

Meth Date : 17-Mar-2010 08:54 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 8

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1221.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
2 Aroclor-1221			CAS #: 11104-28-2			
2.026	2.026	0.000	4337779 1000.00	971	80.00- 120.00	100.00
2.118	2.118	0.000	2415598 1000.00	987	35.69- 75.69	55.69
2.144	2.144	0.000	10371015 1000.00	958	219.09- 259.09	239.09
Average of Peak Amounts =				972		

Data File: /chem/ecd1a.i/0317107.b/008f0801.d

Date: 17-MAR-2010 07:11

Client ID: PR122101

Sample Info: IMPR100104-21

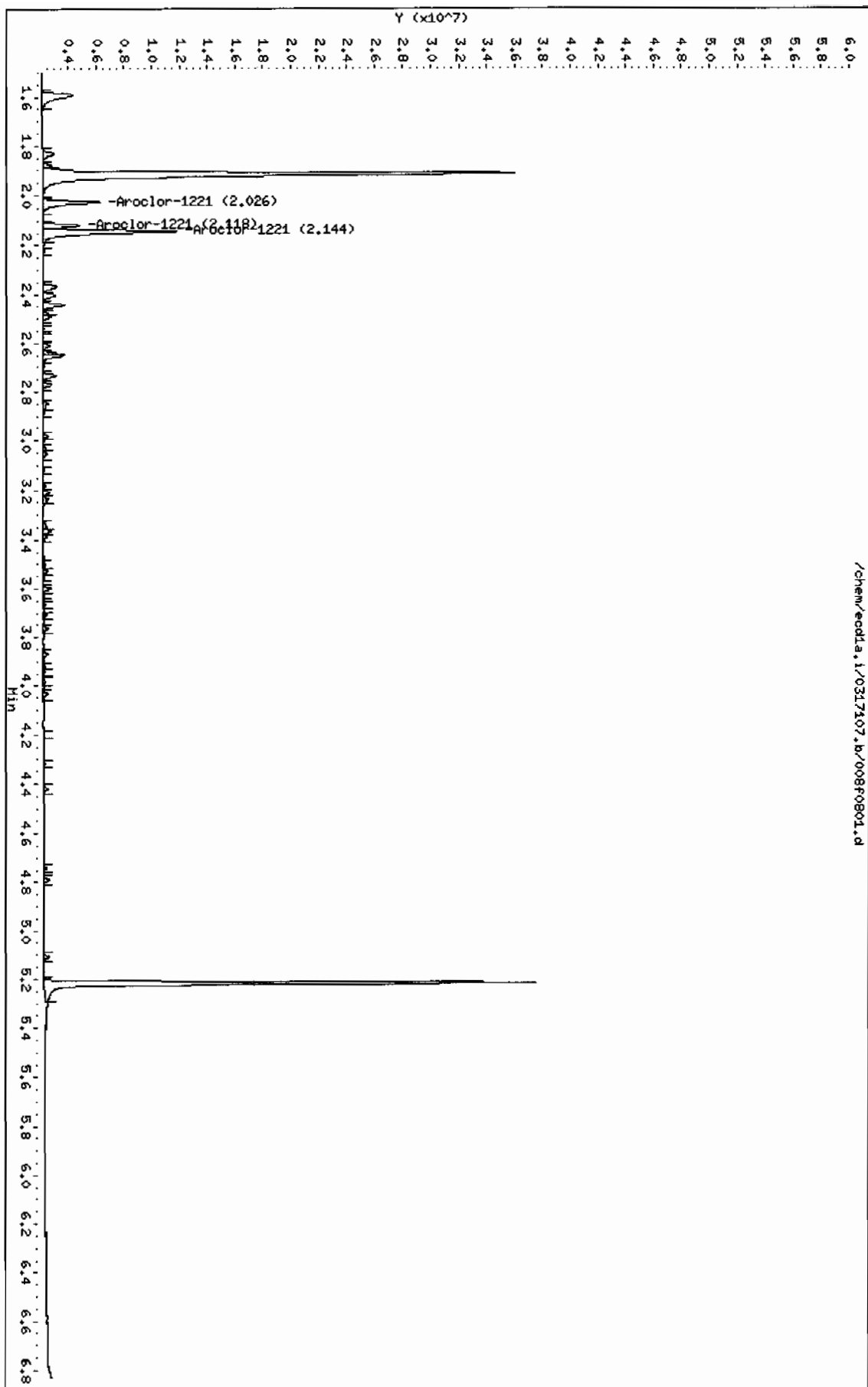
Column phase: CLP1

Instrument: ecd1a.i

Operator: YSL

Column diameter: 0.25

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Data File: /chem/ecdla.i/0317107.b/008b0801.d  
Report Date: 17-Mar-2010 08:54

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/008b0801.d  
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101  
Inj Date : 17-MAR-2010 07:11  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |WAR100104-21  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 08:54 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 8 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1221.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
2 Aroclor-1221			CAS #: 11104-28-2			
2.468	2.468	0.000	3218980 1000.00	990	80.00- 120.00	100.00
2.562	2.562	0.000	2068793 1000.00	993	44.27- 84.27	64.27
2.603	2.603	0.000	7132830 1000.00	974	201.59- 241.59	221.59
Average of Peak Amounts =			986			

Data File: /chem/ecdda.i/0317107.b/008b0801.d

Date : 17-MAR-2010 07:11

Client ID: BR122101

Sample Info: IMR100104-21

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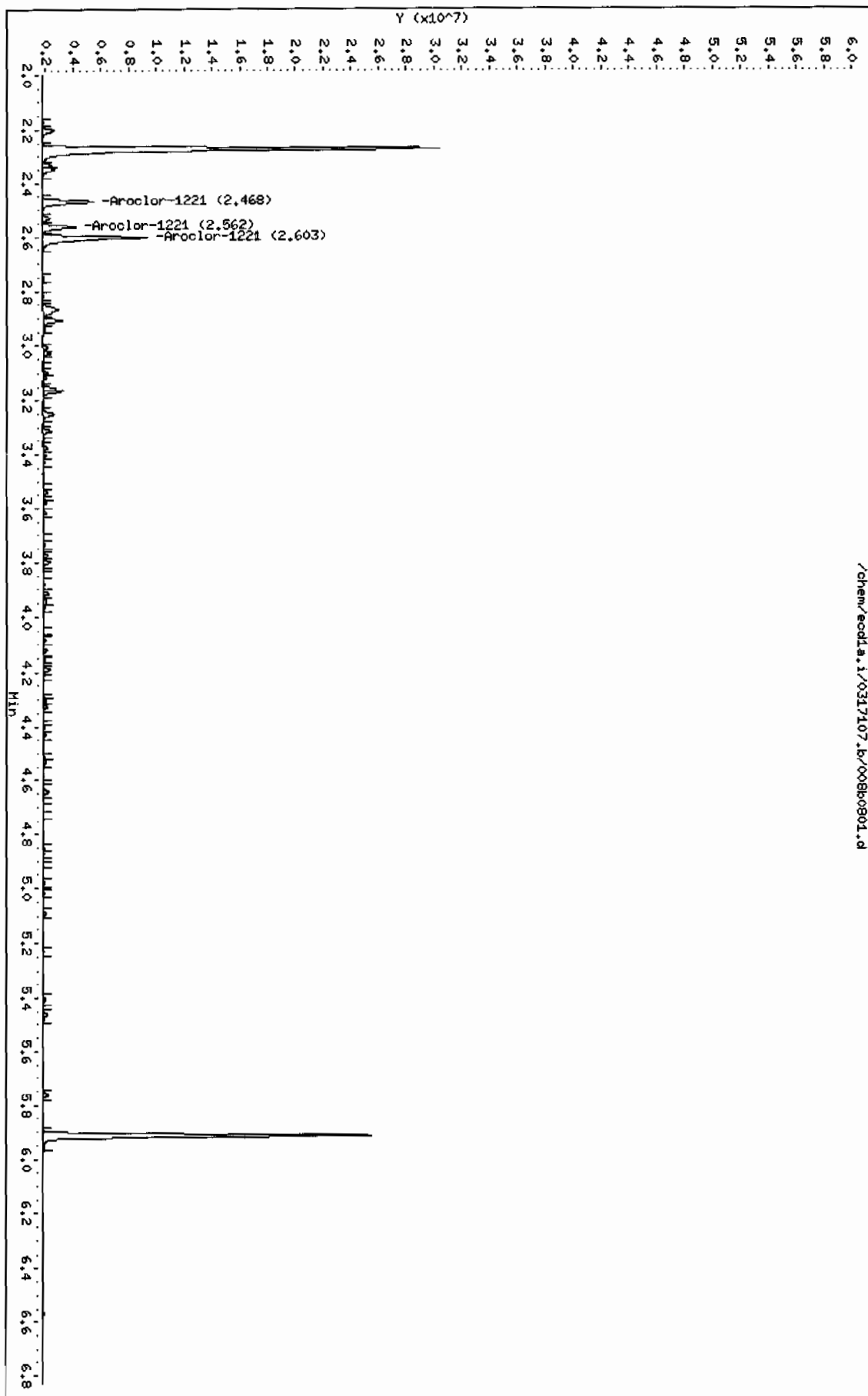
Column phase: CLP2

/chem/ecdda.i/0317107.b/008b0801.d

Instrument: ecdda.i

Operator: YSL

Column diameter: 0.25





Data File: /chem/ecdl1a.i/0317107.b/017f1701.d  
Report Date: 17-Mar-2010 10:10

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/017f1701.d

Lab Smp Id: WAR100222-60 02

Client Smp ID: AR166002

Inj Date : 17-MAR-2010 08:53

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 02

Misc Info :

Comment :

Method : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m

Meth Date : 17-Mar-2010 09:56 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 17

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx					CAS #: 877-09-8	
1.912	1.913	-0.001	37861137 100.000	97.2	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3	
5.217	5.216	0.001	27481637 100.000	92.6	80.00- 120.00	100.00
-----						
1 Aroclor-1016					CAS #: 12674-11-2	
2.365	2.366	-0.001	13072214 1000.00	861	80.00- 120.00	100.00
2.652	2.651	0.001	16743348 1000.00	884	108.08- 148.08	128.08
2.732	2.732	0.000	10753369 1000.00	864	62.26- 102.26	82.26
2.769	2.768	0.001	6446442 1000.00	877	29.31- 69.31	49.31
2.979	2.978	0.001	8110441 1000.00	852	42.04- 82.04	62.04
Average of Peak Amounts =				868		
-----						
7 Aroclor-1260					CAS #: 11096-82-5	
3.705	3.703	0.002	16962461 1000.00	925	80.00- 120.00	100.00
3.867	3.866	0.001	24950358 1000.00	928	127.09- 167.09	147.09
4.029	4.028	0.001	26635100 1000.00	941	137.02- 177.02	157.02
4.097	4.096	0.001	14960531 1000.00	926	68.20- 108.20	88.20
4.241	4.238	0.003	15562577 1000.00	926	71.75- 111.75	91.75
Average of Peak Amounts =				929		
-----						

Data File: /chem/eodla.i/0317107.b/017f1701.d

Date: 17-MAR-2010 08:53

Client ID: AR16002

Sample Info: IARR100222-60 02

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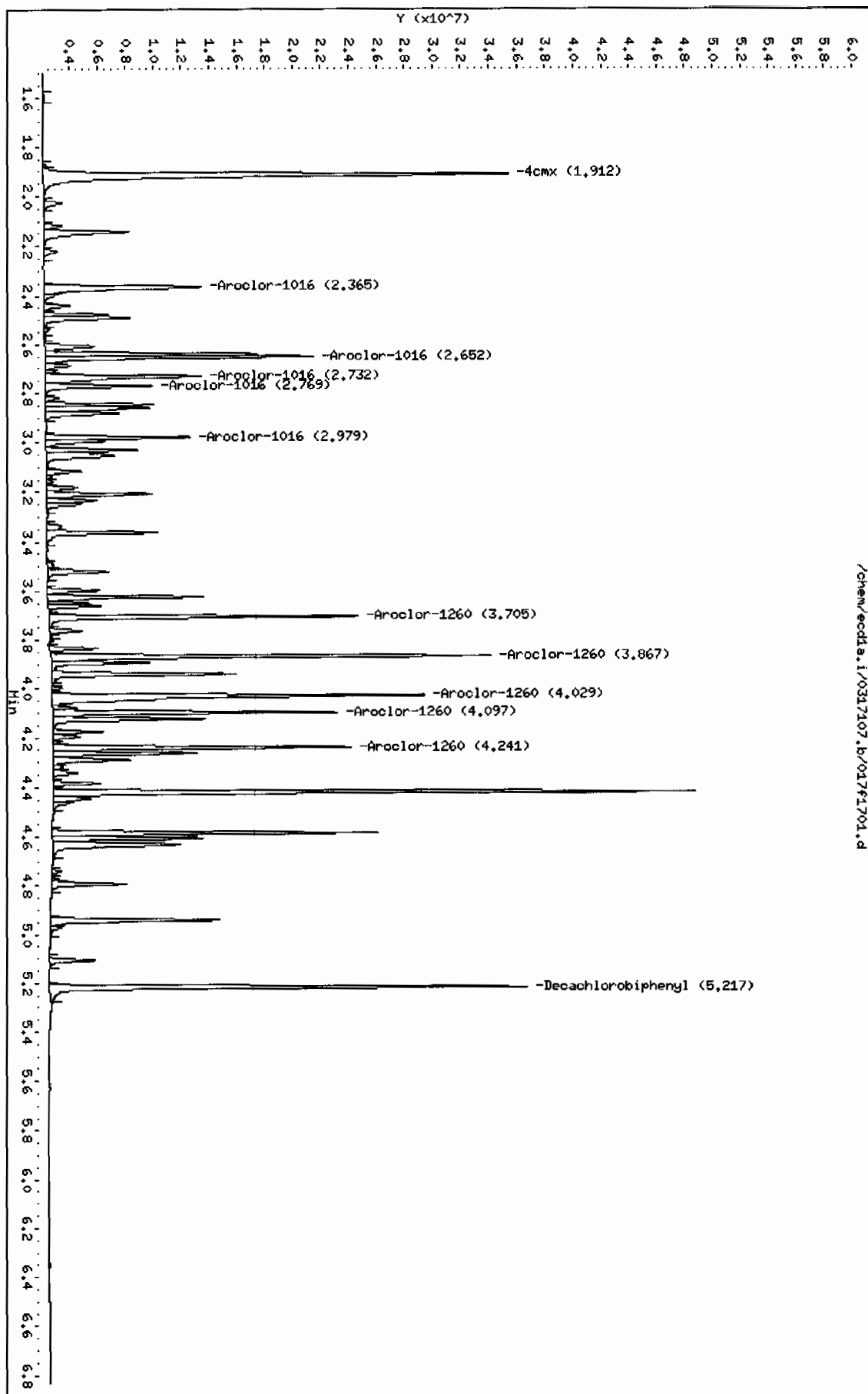
Instrument: eodla.i

Operator: YSL

Column diameter: 0.25

Column phase: CLP1

/chem/eodla.i/0317107.b/017f1701.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/017b1701.d  
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002  
Inj Date : 17-MAR-2010 08:53  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100222-60 02  
Misc Info :  
Comment :  
Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 09:56 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 17 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1660.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpc1p1

AMOUNTS

			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		( ug/L)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	
\$ 11 4cmx					CAS #: 877-09-8			
2.271	2.271	0.000	25446707	100.000	97.0	80.00- 120.00	100.00	
-----								
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.913	5.913	0.000	17501713	100.000	93.5	80.00- 120.00	100.00	
-----								
1 Aroclor-1016					CAS #: 12674-11-2			
3.166	3.166	0.000	11589187	1000.00	921	80.00- 120.00	100.00 (M)	
3.249	3.248	0.001	7549847	1000.00	874	45.15- 85.15	65.15	
3.312	3.312	0.000	4630370	1000.00	876	19.95- 59.95	39.95	
3.539	3.538	0.001	6092955	1000.00	884	32.57- 72.57	52.57	
3.615	3.614	0.001	5704793	1000.00	888	29.23- 69.23	49.23	
Average of Peak Amounts =					889			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
4.305	4.304	0.001	12259396	1000.00	937	80.00- 120.00	100.00	
4.430	4.429	0.001	14795087	1000.00	952	100.68- 140.68	120.68	
4.696	4.695	0.001	11161788	1000.00	938	71.05- 111.05	91.05	
4.869	4.868	0.001	11576871	1000.00	942	74.43- 114.43	94.43	
5.016	5.015	0.001	25583684	1000.00	969	188.69- 228.69	208.69	
Average of Peak Amounts =					948			

Data File: /chem/ecdl1a.i/0317107.b/017b1701.d  
Report Date: 17-Mar-2010 09:56

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#### QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/eodla.i/0317107.b/017b1701.d

Date: 17-MAR-2010 08:53

Client ID: AR16002

Sample Info: IARR100222-60 02

Page 1

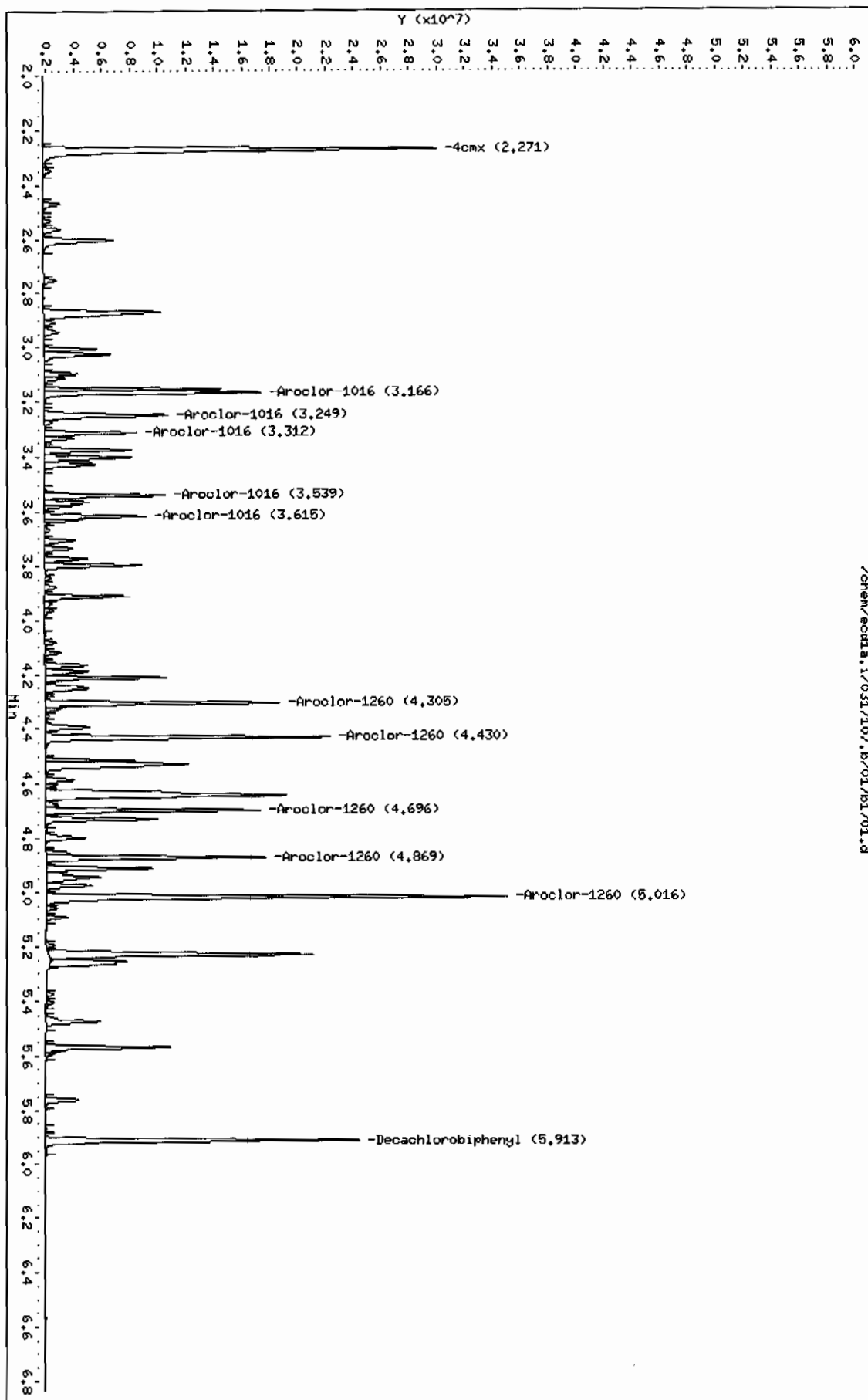
Column phase: CLP2

Instrument: eodla.i

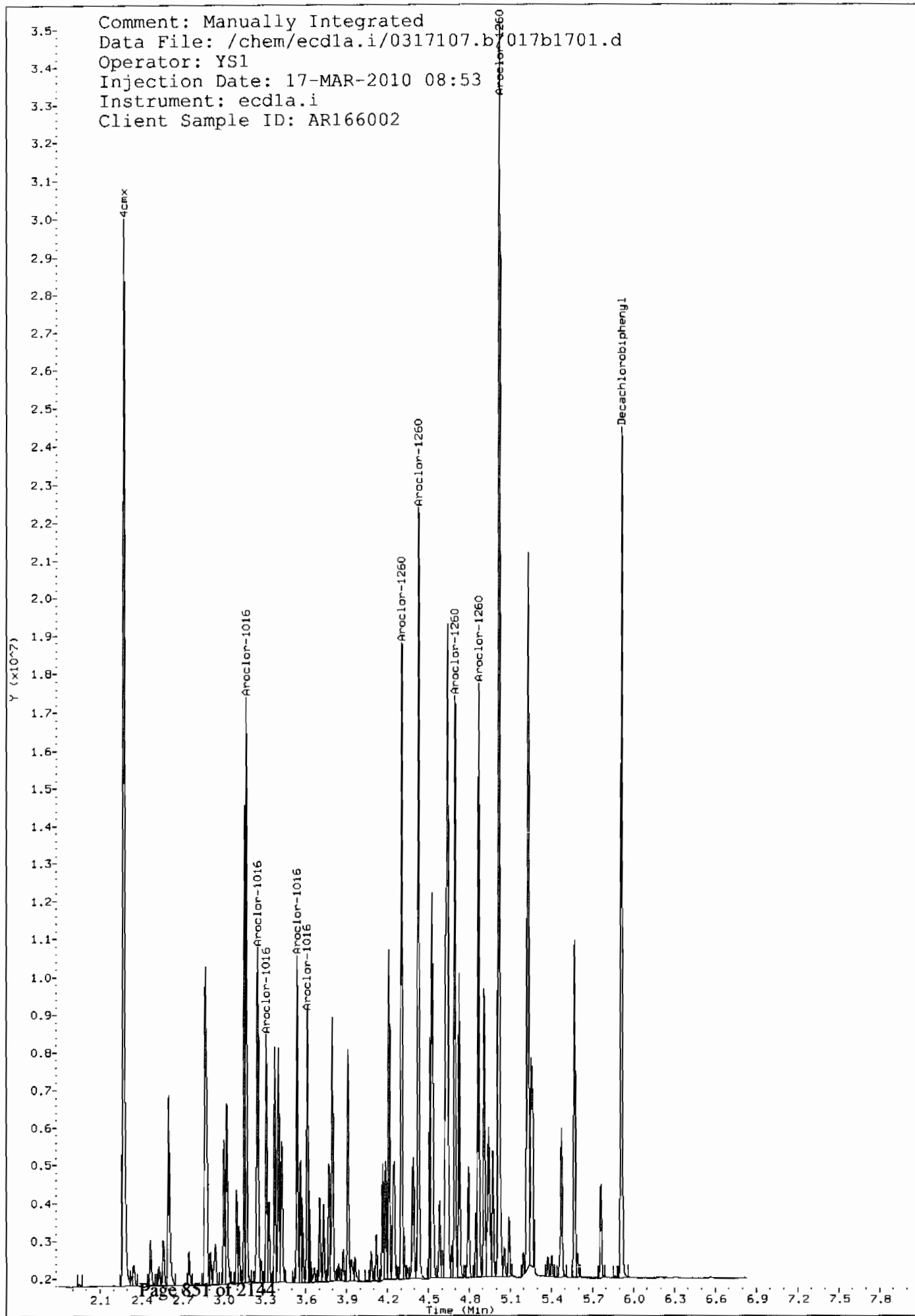
Operator: YSL

Column diameter: 0.25

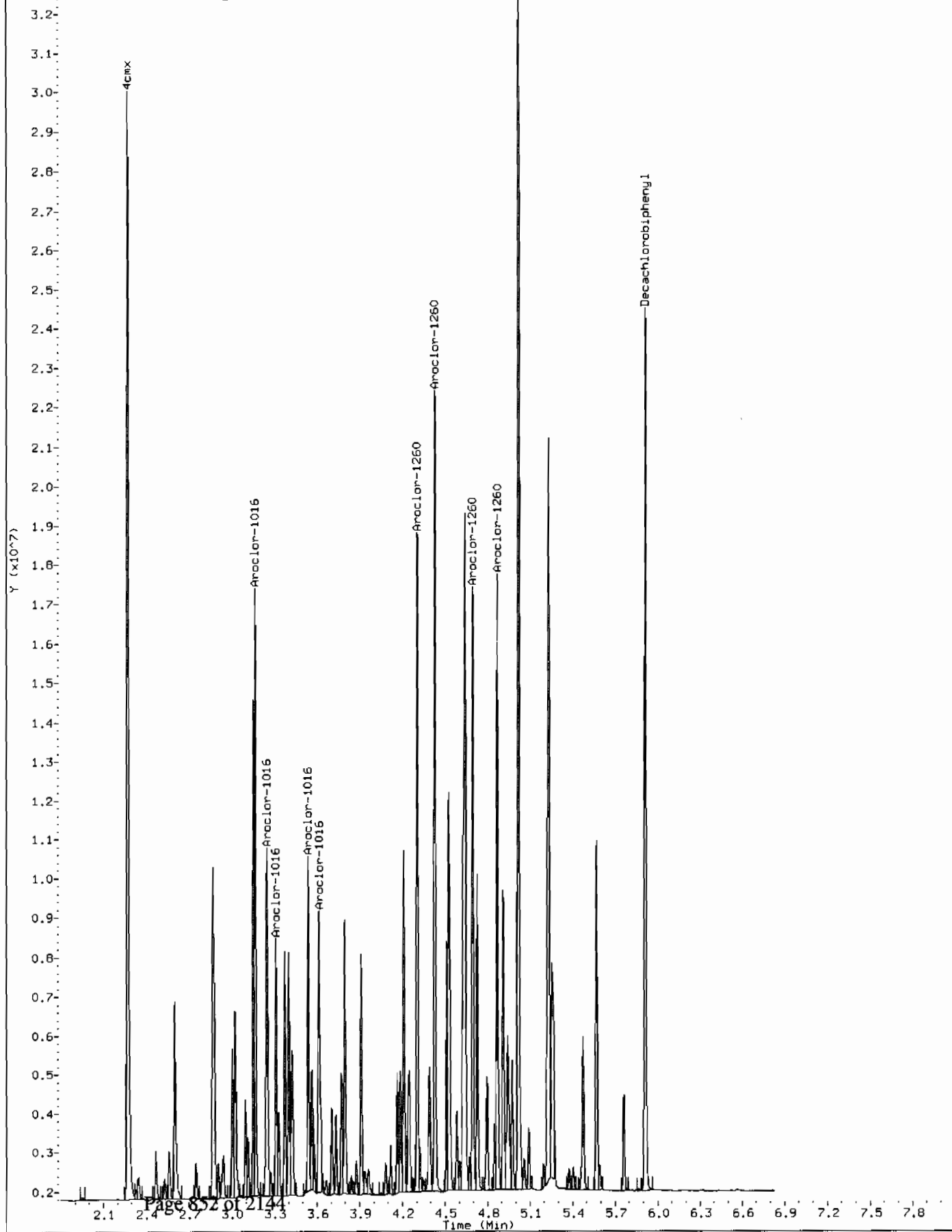
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Comment: Manually Integrated  
Data File: /chem/ecdla.i/0317107.b 017b1701.d  
Operator: YS1  
Injection Date: 17-MAR-2010 08:53  
Instrument: ecdla.i  
Client Sample ID: AR166002



Comment: Before manual integration  
Data File: /chem/ecdl1.i/0317107.b orig-017b1701.d  
Operator: YS1  
Injection Date: 17-MAR-2010 08:53  
Instrument: ecd1a.i  
Client Sample ID: AR166002



8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 1.91			DCB: 5.22		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10 1446	1.91	5.23
02	ZZZZZ	ZZZZZ	03/11/10 1456	1.92	5.22
03	ZZZZZ	ZZZZZ	03/11/10 1507		
04	ZZZZZ	ZZZZZ	03/11/10 1517		
05	ZZZZZ	ZZZZZ	03/11/10 1528		
06	AR126801	WAR100107-68	03/11/10 1538		
07	AR123201	WAR100104-32	03/11/10 1549		
08	AR122101	WAR100104-21	03/11/10 1559		
09	AR126201	WAR100104-62	03/11/10 1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10 1621		
11	AR166001	WAR100311-01	03/11/10 1631	1.92	5.22
12	AR166002	WAR100311-02	03/11/10 1641	1.92	5.22
13	AR166003	WAR100311-03	03/11/10 1652	1.92	5.22
14	AR166004	WAR100311-04	03/11/10 1702	1.91	5.22
15	AR166005	IAR100311-01	03/11/10 1713	1.92	5.22
16	AR166001	WAR100222-60	03/11/10 1724	1.91	5.22
17	AR125401	WAR100311-05	03/11/10 1734		
18	AR125402	WAR100311-06	03/11/10 1745		
19	AR125403	WAR100311-07	03/11/10 1755		
20	AR125404	WAR100311-08	03/11/10 1806		
21	AR125405	IAR100219-02	03/11/10 1816		
22	AR125401	WAR100219-54	03/11/10 1827		
23	AR124201	WAR100311-09	03/11/10 1837		
24	AR124202	WAR100311-10	03/11/10 1848		
25	AR124203	WAR100311-11	03/11/10 1858		
26	AR124204	WAR100311-12	03/11/10 1909		
27	AR124205	IAR100219-01	03/11/10 1919		
28	AR124201	WAR100219-42	03/11/10 1930		
29	AR124801	WAR100311-13	03/11/10 1940		
30	AR124802	WAR100311-14	03/11/10 1951		
31	AR124803	WAR100311-15	03/11/10 2001		
32	AR124804	WAR100311-16	03/11/10 2012		

S1 = 4cmx  
DCB = Decachlorobiphenyl

QC LIMITS  
(+/- 0.03 MINUTES)  
(+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.



8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 1.91		DCB: 5.22			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022	
02	AR124801	WAR100223-48	03/11/10	2033	
03	PIBLK02	WAR100219-99	03/11/10	2044	1.91 5.22
04	ZZZZZ	ZZZZZ	03/11/10	2054	1.92 5.22
05	ZZZZZ	ZZZZZ	03/11/10	2105	1.92 5.22
06	ZZZZZ	ZZZZZ	03/11/10	2115	1.92 5.22
07	ZZZZZ	ZZZZZ	03/11/10	2126	1.92 5.22
08	ZZZZZ	ZZZZZ	03/11/10	2136	1.92 5.22
09	ZZZZZ	ZZZZZ	03/11/10	2147	1.92 5.22
10	ZZZZZ	ZZZZZ	03/11/10	2157	1.92 5.22
11	ZZZZZ	ZZZZZ	03/11/10	2208	1.92 5.22
12	ZZZZZ	ZZZZZ	03/11/10	2218	1.92 5.22
13	ZZZZZ	ZZZZZ	03/11/10	2229	1.92 5.22
14	AR166002	WAR100222-60	03/11/10	2239	1.91 5.22
15	PIBLK03	WAR100219-99	03/11/10	2250	1.91 5.22
16	ZZZZZ	ZZZZZ	03/11/10	2300	1.90 5.23
17	ZZZZZ	ZZZZZ	03/11/10	2311	1.92 5.22
18	ZZZZZ	ZZZZZ	03/11/10	2321	1.91 5.22
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 2.27			DCB: 5.92		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10 1446	2.27	5.92
02	ZZZZZ	ZZZZZ	03/11/10 1456	2.27	5.92
03	ZZZZZ	ZZZZZ	03/11/10 1507		
04	ZZZZZ	ZZZZZ	03/11/10 1517		
05	ZZZZZ	ZZZZZ	03/11/10 1528		
06	AR126801	WAR100107-68	03/11/10 1538		
07	AR123201	WAR100104-32	03/11/10 1549		
08	AR122101	WAR100104-21	03/11/10 1559		
09	AR126201	WAR100104-62	03/11/10 1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10 1621		
11	AR166001	WAR100311-01	03/11/10 1631	2.27	5.92
12	AR166002	WAR100311-02	03/11/10 1641	2.27	5.92
13	AR166003	WAR100311-03	03/11/10 1652	2.27	5.92
14	AR166004	WAR100311-04	03/11/10 1702	2.27	5.92
15	AR166005	IAR100311-01	03/11/10 1713	2.27	5.92
16	AR166001	WAR100222-60	03/11/10 1724	2.27	5.92
17	AR125401	WAR100311-05	03/11/10 1734		
18	AR125402	WAR100311-06	03/11/10 1745		
19	AR125403	WAR100311-07	03/11/10 1755		
20	AR125404	WAR100311-08	03/11/10 1806		
21	AR125405	IAR100219-02	03/11/10 1816		
22	AR125401	WAR100219-54	03/11/10 1827		
23	AR124201	WAR100311-09	03/11/10 1837		
24	AR124202	WAR100311-10	03/11/10 1848		
25	AR124203	WAR100311-11	03/11/10 1858		
26	AR124204	WAR100311-12	03/11/10 1909		
27	AR124205	IAR100219-01	03/11/10 1919		
28	AR124201	WAR100219-42	03/11/10 1930		
29	AR124801	WAR100311-13	03/11/10 1940		
30	AR124802	WAR100311-14	03/11/10 1951		
31	AR124803	WAR100311-15	03/11/10 2001		
32	AR124804	WAR100311-16	03/11/10 2012		

QC LIMITS  
S1 = 4cmx (+/- 0.03 MINUTES)  
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124  
 GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10  
 Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
 SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION							
S1 : 2.27				DCB: 5.92			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #	
01	AR124805	IAR100211-01	03/11/10	2022			
02	AR124801	WAR100223-48	03/11/10	2033			
03	PIBLK02	WAR100219-99	03/11/10	2044	2.27	5.92	
04	ZZZZZ	ZZZZZ	03/11/10	2054	2.28	5.92	
05	ZZZZZ	ZZZZZ	03/11/10	2105	2.28	5.92	
06	ZZZZZ	ZZZZZ	03/11/10	2115	2.28	5.92	
07	ZZZZZ	ZZZZZ	03/11/10	2126	2.28	5.92	
08	ZZZZZ	ZZZZZ	03/11/10	2136	2.28	5.92	
09	ZZZZZ	ZZZZZ	03/11/10	2147	2.28	5.92	
10	ZZZZZ	ZZZZZ	03/11/10	2157	2.28	5.92	
11	ZZZZZ	ZZZZZ	03/11/10	2208	2.28	5.92	
12	ZZZZZ	ZZZZZ	03/11/10	2218	2.28	5.92	
13	ZZZZZ	ZZZZZ	03/11/10	2229	2.28	5.92	
14	AR166002	WAR100222-60	03/11/10	2239	2.27	5.92	
15	PIBLK03	WAR100219-99	03/11/10	2250	2.27	5.92	
16	ZZZZZ	ZZZZZ	03/11/10	2300		5.92	
17	ZZZZZ	ZZZZZ	03/11/10	2311		5.23*	
18	ZZZZZ	ZZZZZ	03/11/10	2321			
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							

QC LIMITS  
 S1 = 4cmx (+/- 0.03 MINUTES)  
 DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
 \* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION							
S1 : 1.92				DCB: 5.22			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#	DCB RT	#
01	PIBLK01	WAR100219-99	03/16/10	1220	1.91	5.22	
02	AR166001	WAR100222-60	03/16/10	1230	1.91	5.22	
03	AR125401	WAR100219-54	03/16/10	1241			
04	AR124201	WAR100219-42	03/16/10	1251			
05	AR124801	WAR100223-48	03/16/10	1302			
06	AR126801	WAR100107-68	03/16/10	1312			
07	AR123201	WAR100104-32	03/16/10	1323			
08	AR122101	WAR100104-21	03/16/10	1333			
09	AR126201	WAR100104-62	03/16/10	1344			
10	DDTANALOGSTD	WAR091219-DD	03/16/10	1354			
11	PIBLK02	WAR100219-99	03/16/10	1405	1.91	5.22	
12	PBLK01	1202071391	03/16/10	1416	1.91	5.22	
13	PBLK01LCS	1202071392	03/16/10	1426	1.91	5.22	
14	ZZZZZ	ZZZZZ	03/16/10	1437	1.91	5.22	
15	ZZZZZ	ZZZZZ	03/16/10	1449	1.91	5.22	
16	ZZZZZ	ZZZZZ	03/16/10	1502	1.91	5.22	
17	ZZZZZ	ZZZZZ	03/16/10	1515	1.91	5.22	
18	ZZZZZ	ZZZZZ	03/16/10	1527	1.91	5.22	
19	ZZZZZ	ZZZZZ	03/16/10	1540	1.91	5.22	
20	AR166002	WAR100222-60	03/16/10	1552	1.91	5.22	
21	PIBLK03	WAR100219-99	03/16/10	1605	1.91	5.22	
22	ZZZZZ	ZZZZZ	03/16/10	1617	1.91	5.22	
23	ZZZZZ	ZZZZZ	03/16/10	1630	1.91	5.22	
24	ZZZZZ	ZZZZZ	03/16/10	1643	1.91	5.22	
25	ZZZZZ	ZZZZZ	03/16/10	1655	1.91	5.21	
26	ZZZZZ	ZZZZZ	03/16/10	1708	1.91	5.22	
27	RE36-10-8282	248202001	03/16/10	1720	1.91	5.22	
28	RE36-10-8282MS	1202071393	03/16/10	1733	1.91	5.22	
29	RE36-10-8282MSD	1202071394	03/16/10	1746	1.91	5.22	
30	ZZZZZ	ZZZZZ	03/16/10	1758	1.91	5.22	
31	AR166003	WAR100222-60	03/16/10	1811	1.91	5.22	
32	PIBLK04	WAR100219-99	03/16/10	1823	1.91	5.22	

S1 = 4cmx  
DCB = Decachlorobiphenyl

QC LIMITS  
(+/- 0.03 MINUTES)  
(+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION							
S1 : 2.27				DCB: 5.92			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	SI RT	#	DCB RT	#
01	PIBLK01	WAR100219-99	03/16/10	1220	2.27	5.91	
02	AR166001	WAR100222-60	03/16/10	1230	2.27	5.92	
03	AR125401	WAR100219-54	03/16/10	1241			
04	AR124201	WAR100219-42	03/16/10	1251			
05	AR124801	WAR100223-48	03/16/10	1302			
06	AR126801	WAR100107-68	03/16/10	1312			
07	AR123201	WAR100104-32	03/16/10	1323			
08	AR122101	WAR100104-21	03/16/10	1333			
09	AR126201	WAR100104-62	03/16/10	1344			
10	DDTANALOGSTD	WAR091219-DD	03/16/10	1354			
11	PIBLK02	WAR100219-99	03/16/10	1405	2.27	5.91	
12	PBLK01	1202071391	03/16/10	1416	2.27	5.92	
13	PBLK01LCS	1202071392	03/16/10	1426	2.27	5.92	
14	ZZZZZ	ZZZZZ	03/16/10	1437	2.27	5.92	
15	ZZZZZ	ZZZZZ	03/16/10	1449	2.27	5.91	
16	ZZZZZ	ZZZZZ	03/16/10	1502	2.27	5.91	
17	ZZZZZ	ZZZZZ	03/16/10	1515	2.27	5.91	
18	ZZZZZ	ZZZZZ	03/16/10	1527	2.27	5.91	
19	ZZZZZ	ZZZZZ	03/16/10	1540	2.27	5.91	
20	AR166002	WAR100222-60	03/16/10	1552	2.27	5.91	
21	PIBLK03	WAR100219-99	03/16/10	1605	2.27	5.91	
22	ZZZZZ	ZZZZZ	03/16/10	1617	2.27	5.91	
23	ZZZZZ	ZZZZZ	03/16/10	1630	2.27	5.91	
24	ZZZZZ	ZZZZZ	03/16/10	1643	2.27	5.91	
25	ZZZZZ	ZZZZZ	03/16/10	1655	2.27	5.91	
26	ZZZZZ	ZZZZZ	03/16/10	1708	2.27	5.91	
27	RE36-10-8282	248202001	03/16/10	1720	2.27	5.91	
28	RE36-10-8282MS	1202071393	03/16/10	1733	2.27	5.91	
29	RE36-10-8282MSD	1202071394	03/16/10	1746	2.27	5.91	
30	ZZZZZ	ZZZZZ	03/16/10	1758	2.27	5.91	
31	AR166003	WAR100222-60	03/16/10	1811	2.27	5.91	
32	PIBLK04	WAR100219-99	03/16/10	1823	2.27	5.91	

S1 = 4cmx (+/- 0.03 MINUTES)  
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 1.91			DCB: 5.22		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/17/10	0557	1.91 5.21
02	AR166001	WAR100222-60	03/17/10	0608	1.91 5.22
03	AR125401	WAR100219-54	03/17/10	0618	
04	AR124201	WAR100219-42	03/17/10	0629	
05	AR124801	WAR100223-48	03/17/10	0639	
06	AR126801	WAR100107-68	03/17/10	0650	
07	AR123201	WAR100104-32	03/17/10	0701	
08	AR122101	WAR100104-21	03/17/10	0711	
09	AR126201	WAR100104-62	03/17/10	0722	
10	DDTANALOGSTD	WAR091219-DD	03/17/10	0736	
11	PIBLK02	WAR100219-99	03/17/10	0746	1.91 5.22
12	ZZZZZ	ZZZZZ	03/17/10	0757	1.91 5.22
13	ZZZZZ	ZZZZZ	03/17/10	0807	1.91 5.22
14	ZZZZZ	ZZZZZ	03/17/10	0818	1.91 5.22
15	ZZZZZ	ZZZZZ	03/17/10	0828	1.91 5.22
16	RE36-10-8281	248202002	03/17/10	0841	1.91 5.22
17	AR166002	WAR100222-60	03/17/10	0853	1.91 5.22
18	PIBLK03	WAR100219-99	03/17/10	0904	1.91 5.22
19	ZZZZZ	ZZZZZ	03/17/10	0914	1.91 5.22
20	ZZZZZ	ZZZZZ	03/17/10	0925	1.91 5.22
21	ZZZZZ	ZZZZZ	03/17/10	0935	1.91 5.22
22	ZZZZZ	ZZZZZ	03/17/10	0948	1.91 5.22
23	ZZZZZ	ZZZZZ	03/17/10	1001	1.91 5.22
24	ZZZZZ	ZZZZZ	03/17/10	1013	1.91 5.22
25	ZZZZZ	ZZZZZ	03/17/10	1026	1.91 5.21
26	ZZZZZ	ZZZZZ	03/17/10	1038	1.91 5.21
27	ZZZZZ	ZZZZZ	03/17/10	1051	1.91 5.21
28	ZZZZZ	ZZZZZ	03/17/10	1104	1.91 5.21
29	AR166003	WAR100222-60	03/17/10	1116	1.91 5.22
30	PIBLK04	WAR100219-99	03/17/10	1129	1.91 5.22
31	ZZZZZ	ZZZZZ	03/17/10	1141	1.91 5.21
32	ZZZZZ	ZZZZZ	03/17/10	1152	1.91 5.22

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2124

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION							
S1 : 2.27				DCB: 5.91			
EPA	LAB	DATE	TIME	S1	DCB		
SAMPLE NO.	SAMPLE ID	ANALYZED	ANALYZED	RT	RT	#	#
01	PIBLK01	WAR100219-99	03/17/10	0557	2.27	5.91	
02	AR166001	WAR100222-60	03/17/10	0608	2.27	5.91	
03	AR125401	WAR100219-54	03/17/10	0618			
04	AR124201	WAR100219-42	03/17/10	0629			
05	AR124801	WAR100223-48	03/17/10	0639			
06	AR126801	WAR100107-68	03/17/10	0650			
07	AR123201	WAR100104-32	03/17/10	0701			
08	AR122101	WAR100104-21	03/17/10	0711			
09	AR126201	WAR100104-62	03/17/10	0722			
10	DDTANALOGSTD	WAR091219-DD	03/17/10	0736			
11	PIBLK02	WAR100219-99	03/17/10	0746	2.27	5.91	
12	ZZZZZ	ZZZZZ	03/17/10	0757	2.27	5.91	
13	ZZZZZ	ZZZZZ	03/17/10	0807	2.27	5.91	
14	ZZZZZ	ZZZZZ	03/17/10	0818	2.27	5.91	
15	ZZZZZ	ZZZZZ	03/17/10	0828	2.27	5.91	
16	RE36-10-8281	248202002	03/17/10	0841	2.27	5.91	
17	AR166002	WAR100222-60	03/17/10	0853	2.27	5.91	
18	PIBLK03	WAR100219-99	03/17/10	0904	2.27	5.91	
19	ZZZZZ	ZZZZZ	03/17/10	0914	2.27	5.91	
20	ZZZZZ	ZZZZZ	03/17/10	0925	2.27	5.91	
21	ZZZZZ	ZZZZZ	03/17/10	0935	2.27	5.91	
22	ZZZZZ	ZZZZZ	03/17/10	0948	2.27	5.91	
23	ZZZZZ	ZZZZZ	03/17/10	1001	2.27	5.91	
24	ZZZZZ	ZZZZZ	03/17/10	1013	2.27	5.91	
25	ZZZZZ	ZZZZZ	03/17/10	1026	2.27	5.91	
26	ZZZZZ	ZZZZZ	03/17/10	1038	2.27	5.91	
27	ZZZZZ	ZZZZZ	03/17/10	1051	2.27	5.91	
28	ZZZZZ	ZZZZZ	03/17/10	1104	2.27	5.91	
29	AR166003	WAR100222-60	03/17/10	1116	2.27	5.91	
30	PIBLK04	WAR100219-99	03/17/10	1129	2.27	5.91	
31	ZZZZZ	ZZZZZ	03/17/10	1141	2.27	5.91	
32	ZZZZZ	ZZZZZ	03/17/10	1152	2.27	5.91	

QC LIMITS  
S1 = 4cmx (+/- 0.03 MINUTES)  
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

## Identification Summary

Page 1 of 1

SDG Number: 10-2124

Client ID: LCS for batch 965377

Lab Sample ID: 1202071392

Data File: 013f1301.d

Data File: 013b1301.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 16-MAR-10 14:26

Analyzed: 16-MAR-10 14:26

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
<b>Aroclor-1016</b>							1.91
<i>Column 1</i>	1	2.37	2.34 - 2.4	20.2		ug/kg	
	2	2.65	2.62 - 2.68	19.5		ug/kg	
	3	2.73	2.7 - 2.76	19.2		ug/kg	
	4	2.77	2.74 - 2.8	19.4		ug/kg	
	5	2.98	2.95 - 3.01	19.7		ug/kg	
					19.6		
<i>Column 2</i>	1	3.17	3.14 - 3.2	20.6		ug/kg	
	2	3.25	3.22 - 3.28	20		ug/kg	
	3	3.32	3.28 - 3.34	19.6		ug/kg	
	4	3.54	3.51 - 3.57	19.8		ug/kg	
	5	3.62	3.59 - 3.65	19.8		ug/kg	
					20		
<b>Aroclor-1260</b>							.653
<i>Column 1</i>	1	3.71	3.68 - 3.74	21.5		ug/kg	
	2	3.87	3.84 - 3.9	22		ug/kg	
	3	4.03	4 - 4.06	22.4		ug/kg	
	4	4.1	4.07 - 4.13	22		ug/kg	
	5	4.24	4.21 - 4.27	22.2		ug/kg	
					22		
<i>Column 2</i>	1	4.31	4.28 - 4.34	21.5		ug/kg	
	2	4.43	4.4 - 4.46	22		ug/kg	
	3	4.7	4.67 - 4.73	22		ug/kg	
	4	4.87	4.84 - 4.9	22.2		ug/kg	
	5	5.02	4.99 - 5.05	23.1		ug/kg	
					22.2		



## Identification Summary

Page 1 of 1

SDG Number: 10-2124

Client ID: RE36-10-8281

Lab Sample ID: 248202002

Data File: 016f1601.d

Data File: 016b1601.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 17-MAR-10 08:41

Analyzed: 17-MAR-10 08:41

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							23.5
Column 1	1	3.21	3.18 - 3.24	745		ug/kg	
	2	3.36	3.33 - 3.39	910		ug/kg	
	3	3.6	3.57 - 3.63	967		ug/kg	
	4	3.76	3.73 - 3.79	1140		ug/kg	
	5	3.87	3.84 - 3.9	1390		ug/kg	
					1030		
Column 2	1	3.37	3.35 - 3.41	390		ug/kg	
	2	3.8	3.77 - 3.83	726		ug/kg	
	3	3.91	3.88 - 3.94	938		ug/kg	
	4	4.19	4.16 - 4.22	982		ug/kg	
	5	4.32	4.3 - 4.36	1030		ug/kg	
					814		
Aroclor-1260							22.2
Column 1	1	3.7	3.67 - 3.73	654		ug/kg	
	2	3.87	3.84 - 3.9	826		ug/kg	
	3	4.03	4 - 4.06	1190		ug/kg	
	4	4.1	4.07 - 4.13	209		ug/kg	
	5	4.24	4.21 - 4.27	205		ug/kg	
					616		
Column 2	1	4.3	4.27 - 4.33	871		ug/kg	
	2	4.43	4.4 - 4.46	746		ug/kg	
	3	4.7	4.67 - 4.73	351		ug/kg	
	4	4.87	4.84 - 4.9	237		ug/kg	
	5	5.01	4.99 - 5.05	259		ug/kg	
					493		

## Identification Summary

Page 1 of 1

SDG Number: 10-2124

Client ID: RE36-10-8282MS

Lab Sample ID: 1202071393

Data File: 028f2801.d

Data File: 028b2801.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 16-MAR-10 17:33

Analyzed: 16-MAR-10 17:33

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
<b>Aroclor-1016</b>							1.96
Column 1	1	2.36	2.34 - 2.4	19.9		ug/kg	
	2	2.65	2.62 - 2.68	20.7		ug/kg	
	3	2.73	2.7 - 2.76	19.8		ug/kg	
	4	2.77	2.74 - 2.8	19.4		ug/kg	
	5	2.98	2.95 - 3.01	20.2		ug/kg	
					20		
Column 2	1	3.17	3.14 - 3.2	20.6		ug/kg	
	2	3.25	3.22 - 3.28	20		ug/kg	
	3	3.31	3.28 - 3.34	19.6		ug/kg	
	4	3.54	3.51 - 3.57	20.9		ug/kg	
	5	3.62	3.59 - 3.65	20.9		ug/kg	
					20.4		
<b>Aroclor-1260</b>							.269
Column 1	1	3.71	3.68 - 3.74	24.5		ug/kg	
	2	3.87	3.84 - 3.9	25.7		ug/kg	
	3	4.03	4 - 4.06	25.7		ug/kg	
	4	4.1	4.07 - 4.13	26.2		ug/kg	
	5	4.24	4.21 - 4.27	25.1		ug/kg	
					25.5		
Column 2	1	4.31	4.28 - 4.34	24.4		ug/kg	
	2	4.43	4.4 - 4.46	26.1		ug/kg	
	3	4.7	4.67 - 4.73	25.8		ug/kg	
	4	4.87	4.84 - 4.9	24.7		ug/kg	
	5	5.02	4.99 - 5.05	26.6		ug/kg	
					25.5		

## Identification Summary

Page 1 of 1

SDG Number: 10-2124

Client ID: RE36-10-8282MSD

Lab Sample ID: 1202071394

Data File: 029f2901.d

Data File: 029b2901.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 16-MAR-10 17:46

Analyzed: 16-MAR-10 17:46

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							1.64
Column 1	1	2.37	2.34 – 2.4	22	22	ug/kg	
	2	2.65	2.62 – 2.68	23.2		ug/kg	
	3	2.73	2.7 – 2.76	21.6		ug/kg	
	4	2.77	2.74 – 2.8	21.2		ug/kg	
	5	2.98	2.95 – 3.01	22.2		ug/kg	
Column 2	1	3.17	3.14 – 3.2	23.2	22.4	ug/kg	
	2	3.25	3.22 – 3.28	22		ug/kg	
	3	3.31	3.28 – 3.34	21.5		ug/kg	
	4	3.54	3.51 – 3.57	22.7		ug/kg	
	5	3.62	3.59 – 3.65	22.6		ug/kg	
Aroclor-1260							.876
Column 1	1	3.7	3.68 – 3.74	27	27.7	ug/kg	
	2	3.87	3.84 – 3.9	27.9		ug/kg	
	3	4.03	4 – 4.06	28		ug/kg	
	4	4.1	4.07 – 4.13	28.4		ug/kg	
	5	4.24	4.21 – 4.27	27.4		ug/kg	
Column 2	1	4.31	4.28 – 4.34	26.3	27.5	ug/kg	
	2	4.43	4.4 – 4.46	28		ug/kg	
	3	4.7	4.67 – 4.73	27.6		ug/kg	
	4	4.87	4.84 – 4.9	26.7		ug/kg	
	5	5.02	4.99 – 5.05	28.9		ug/kg	

# QUALITY CONTROL DATA

**PCB**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124

Lab Sample ID: 1202071391

Client Sample: QC for batch 965377

Client ID: MB for batch 965377

Batch ID: 965380

Run Date: 03/16/2010 14:16

Prep Date: 03/15/2010 21:25

Data File: 012f1201-1.d

012b1201-1.d

Client: LANL010

Method: SW846 8082

Inst: ECD1A.I

Analyst: YS1

Aliquot: 30 g

Column: 1 CLP1

2 CLP2

Matrix: SOIL

Project: QC

SOP Ref: GL-OA-E-040

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

Data File: /chem/ecdl1a.i/031610a.b/012f1201-2.d  
Report Date: 16-Mar-2010 14:33

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031610a.b/012f1201-2.d  
Lab Smp Id: 1202071391 Client Smp ID: PBLK01  
Inj Date : 16-MAR-2010 14:16  
Operator : YSl Inst ID: ecd1a.i  
Smp Info : |1202071391|1|  
Misc Info : |ECD82P\_1S|965380|SVA|QC A|SOIL|MB|||  
Comment :  
Method : /chem/ecdl1a.i/031610a.b/ECD1-F-8082-031110b.m  
Meth Date : 16-Mar-2010 14:01 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 12 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2124.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpclp1

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

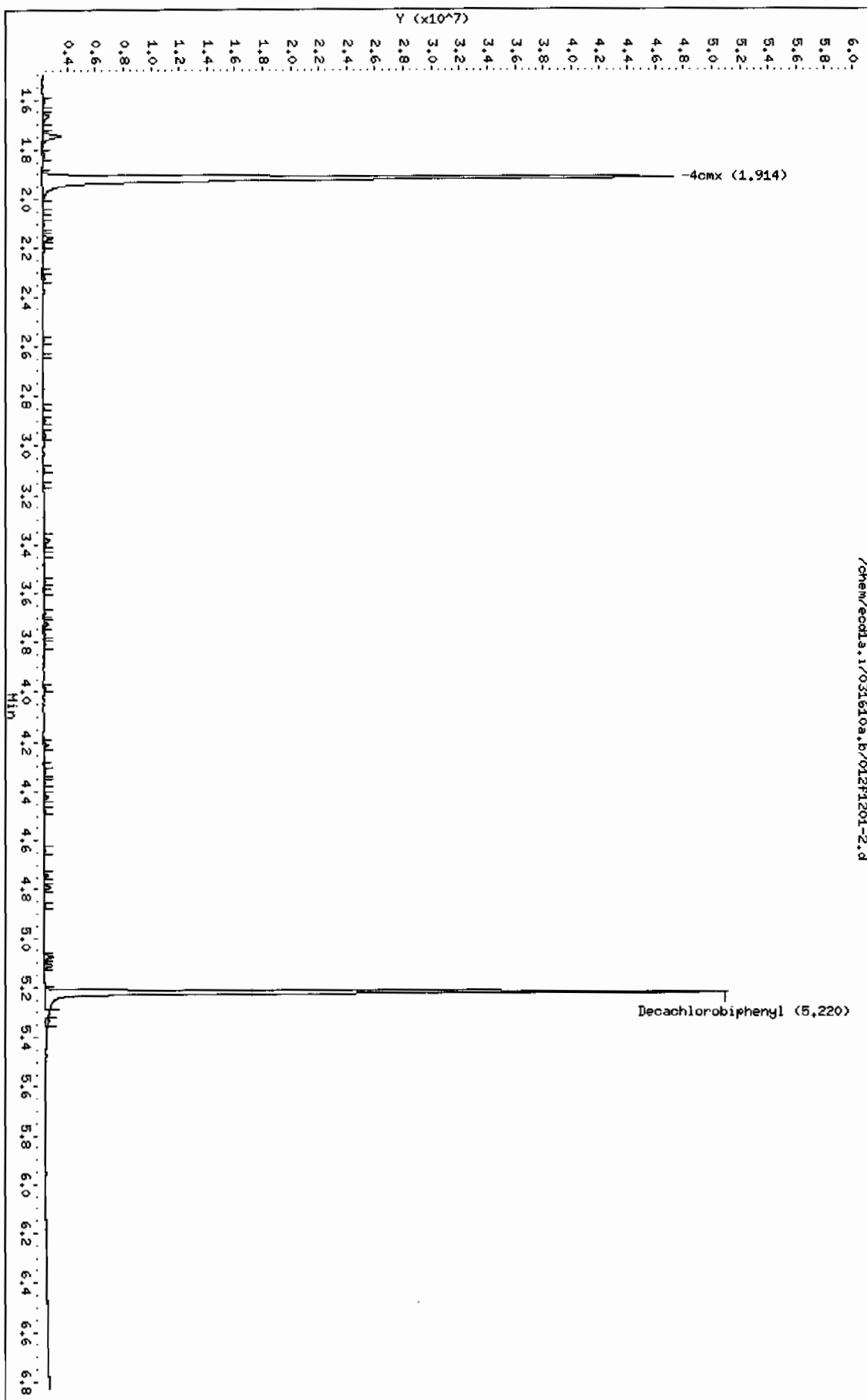
CONCENTRATIONS

ON-COL FINAL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
\$ 11 4cmx					CAS #: 877-09-8	
1.914	1.915	-0.001	50639361	130.004	4.3 80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3	
5.220	5.220	0.000	39242756	132.161	4.4 80.00- 120.00	100.00

Data File: /chem/eodls.i/031610a.b/012f1201-2.d  
Date: 16-MAR-2010 14:16  
Client ID: PBLK01  
Sample Info: 1120207139111  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: eodls.i  
Operator: VSI  
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
 Data file : /chem/ecdla.i/031610a.b/012b1201-2.d  
 Lab Smp Id: 1202071391 Client Smp ID: PBLK01  
 Inj Date : 16-MAR-2010 14:16  
 Operator : YS1 Inst ID: ecdla.i  
 Smp Info : |1202071391|1|  
 Misc Info : |ECD82P\_1S|965380|SVA|QC A|SOIL|MB|||  
 Comment :  
 Method : /chem/ecdla.i/031610a.b/ECD1-B-8082-031110b.m  
 Meth Date : 16-Mar-2010 14:01 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
 Als bottle: 12 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-2124.sub  
 Target Version: 3.50 Sample Matrix: Soil  
 Processing Host: hpc1p1

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

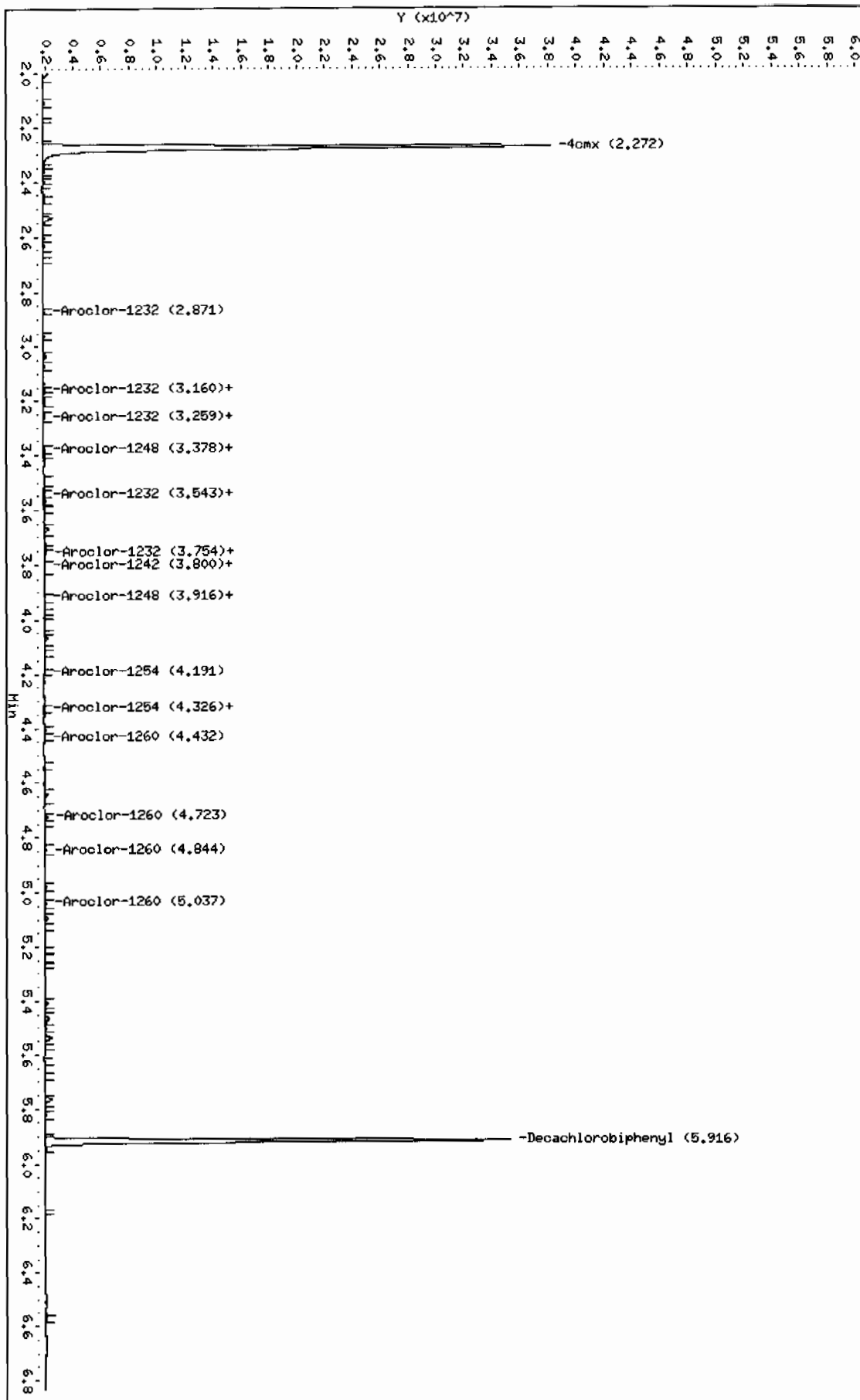
CONCENTRATIONS								
			ON-COL	FINAL				
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO		
-----	-----	-----	-----	-----	-----	-----		
\$ 11 4cmx					CAS #: 877-09-8			
2.272	2.273	-0.001	33649433	128.270	4.3	80.00-	120.00	100.00
-----								
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.916	5.915	0.001	25307070	135.207	4.5	80.00-	120.00	100.00
-----								



Data File: /chem/ecdl1a.i/031610a.b/01261201-2.d  
Date: 16-MAR-2010 14:16  
Client ID: PBLK01  
Sample Info: 1120207139111  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: ecdl1a.i  
Operator: YSL  
Column diameter: 0.25

/chem/ecdl1a.i/031610a.b/01261201-2.d



**PCB**  
**Certificate of Analysis**  
**Sample Summary**

Page 1 of 1

SDG Number: 10-2124

Lab Sample ID: 1202071392

Client Sample: QC for batch 965377

Client ID: LCS for batch 965377

Batch ID: 965380

Run Date: 03/16/2010 14:26

Prep Date: 03/15/2010 21:25

Data File: 013f1301-1.d

013b1301-1.d

Client: LANL010

Method: SW846 8082

Inst: ECD1A.1

Analyst: YS1

Aliquot: 30 g

Column: 1 CLP1

2 CLP2

Matrix: SOIL

Project: QC

SOP Ref: GL-OA-E-040

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		20.0	ug/kg	1.11	3.33	2
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		22.2	ug/kg	1.11	3.33	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/031610a.b/013f1301-2.d  
Lab Smp Id: 1202071392 Client Smp ID: PBLK01LCS  
Inj Date : 16-MAR-2010 14:26  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |1202071392|1|  
Misc Info : |ECD82P\_1S|965380|SVA|QC A|SOIL|LCS|||  
Comment :  
Method : /chem/ecdla.i/031610a.b/ECD1-F-8082-031110b.m  
Meth Date : 16-Mar-2010 14:01 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 13 QC Sample: LCS  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2124.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpc1p1

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

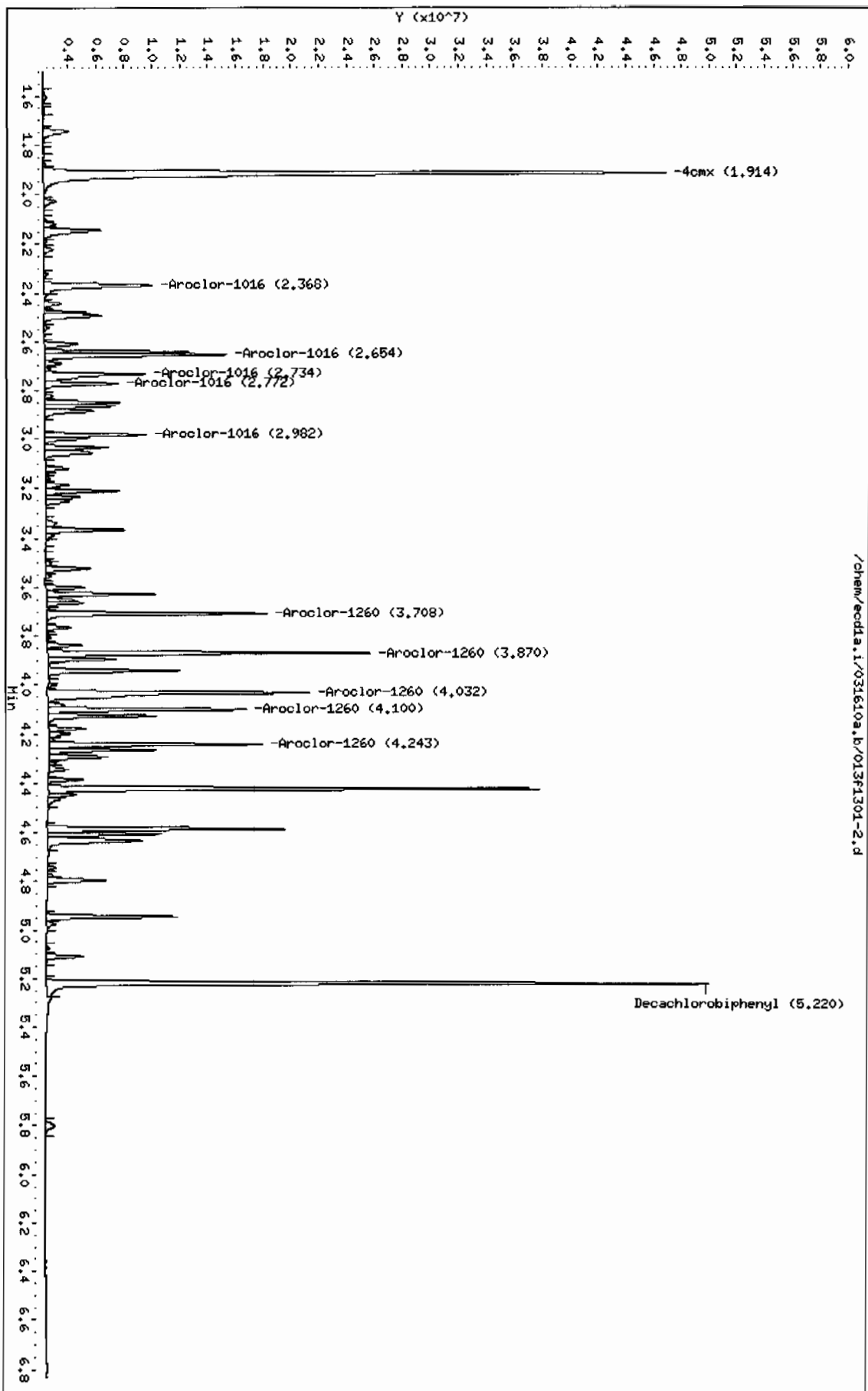
CONCENTRATIONS

RT	EXP RT	DLT RT	ON-COL	FINAL	TARGET RANGE	RATIO
RESPONSE ( ug/L)						
CAS #: 877-09-8						
1.914	1.915	-0.001	50730080	130.236	4.3 80.00- 120.00	100.00
CAS #: 2051-24-3						
5.220	5.220	0.000	38487864	129.619	4.3 80.00- 120.00	100.00
CAS #: 12674-11-2						
2.368	2.366	0.002	9182887	605.061	20.2 80.00- 120.00	100.00
2.654	2.654	0.000	11102321	586.315	19.5 108.70- 148.70	120.90
2.734	2.734	0.000	7177331	576.856	19.2 62.40- 102.40	78.16
2.772	2.771	0.001	4276768	582.006	19.4 28.98- 68.98	46.57

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)								
2.982	2.982	0.000	5613738	589.816	19.7	43.10-	83.10	61.13
Average of Peak Concentrations =					19.6			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.708	3.707	0.001	11814044	644.516	21.5	80.00-	120.00	100.00
3.870	3.870	0.000	17712426	658.704	22.0	127.52-	167.52	149.93
4.032	4.032	0.000	19013036	671.476	22.4	137.44-	177.44	160.94
4.100	4.100	0.000	10682777	661.150	22.0	68.67-	108.67	90.42
4.243	4.243	0.000	11215692	667.098	22.2	73.05-	113.05	94.94
Average of Peak Concentrations =					22.0			

Data File: /chem/ecdl1a.i/031610a.b/013f1301-2.d  
Date: 16-Mar-2010 14:26  
Client ID: PBLX01LCS  
Sample Info: 1120207139211  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: ecdl1a.i  
Operator: VSI  
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031610a.b/013b1301-2.d

Lab Smp Id: 1202071392

Client Smp ID: PBLK01LCS

Inj Date : 16-MAR-2010 14:26

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |1202071392|1|

Misc Info : |ECD82P\_1S|965380|SVA|QC A|SOIL|LCS|

Comment :

Method : /chem/ecdl1a.i/031610a.b/ECD1-B-8082-031110b.m

Meth Date : 16-Mar-2010 14:01 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 13

QC Sample: LCS

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2124.sub

Target Version: 3.50

Sample Matrix: Soil

Processing Host: hpclp1

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable

Local Compound Variable

CONCENTRATIONS								
			ON-COL	FINAL				
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO		
-----	-----	-----	-----	-----	-----	-----		
\$ 11 4cmx				CAS #: 877-09-8				
2.273	2.273	0.000	33473377	127.599	4.2	80.00-	120.00	100.00
-----								
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3				
5.916	5.915	0.001	24754308	132.253	4.4	80.00-	120.00	100.00
-----								
1 Aroclor-1016				CAS #: 12674-11-2				
3.169	3.168	0.001	7780608	618.246	20.6	80.00-	120.00	100.00 (M)
3.251	3.251	0.000	5183815	600.381	20.0	45.60-	85.60	66.62
3.315	3.315	0.000	3112295	588.710	19.6	20.32-	60.32	40.00
3.542	3.541	0.001	4100868	594.956	19.8	31.52-	71.52	52.71

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)									
3.617	3.617	0.000	3818861	594.601	19.8	28.68-	68.68	49.08	
Average of Peak Concentrations =					20.0				
-----									
7 Aroclor-1260					CAS #: 11096-82-5				
4.307	4.307	0.000	8428500	644.369	21.5	80.00-	120.00	100.00	
4.432	4.431	0.001	10244858	658.875	22.0	100.51-	140.51	121.55	
4.698	4.698	0.000	7853684	660.192	22.0	71.38-	111.38	93.18	
4.871	4.871	0.000	8192447	666.637	22.2	74.70-	114.70	97.20	
5.019	5.018	0.001	18331638	694.521	23.2	188.79-	228.79	217.50	
Average of Peak Concentrations =					22.2				
-----									

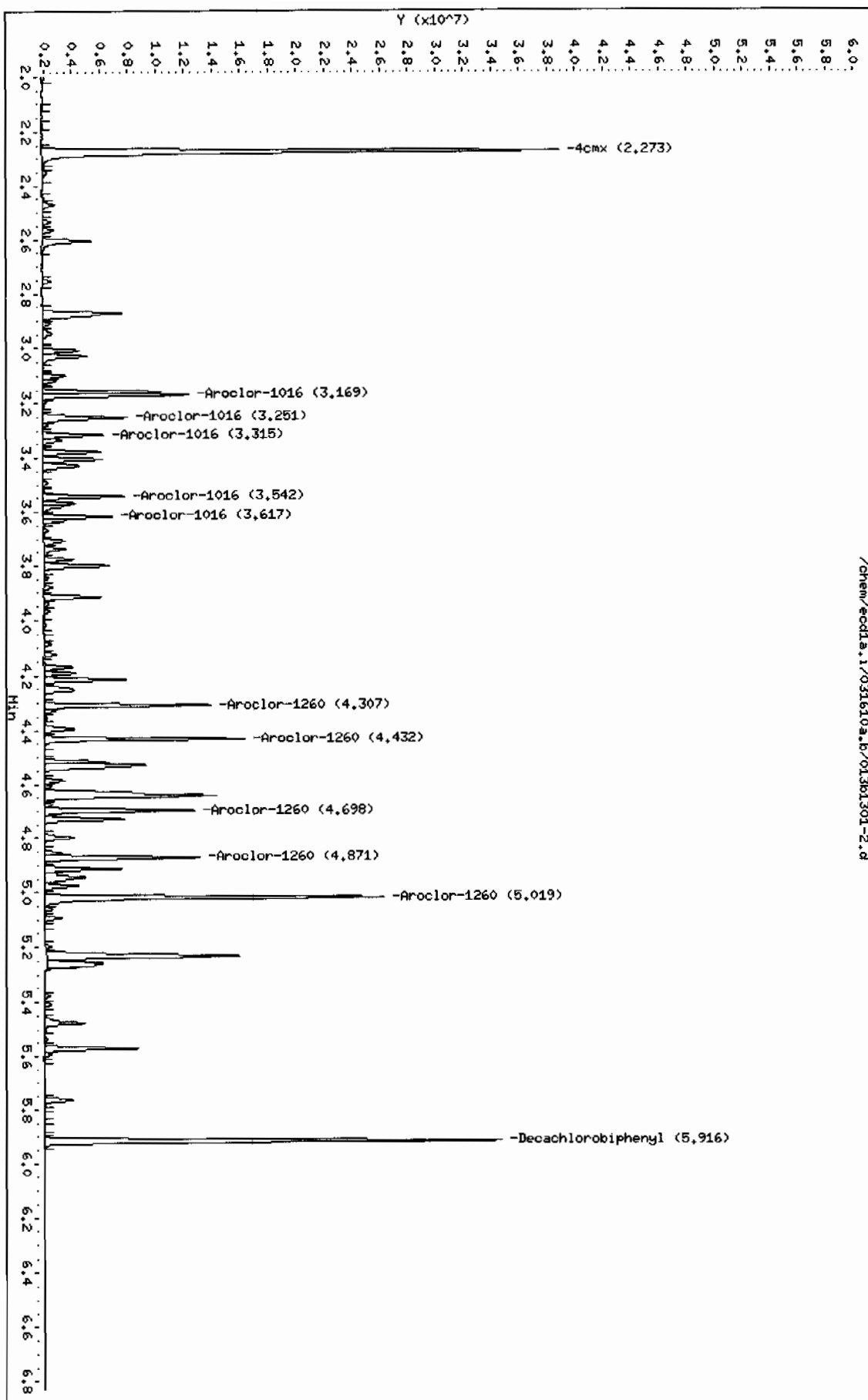
#### QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdl1a.i/031610a.b/013b1301-2.d  
Date: 16-MAR-2010 14:26  
Client ID: PBLK01LCS  
Sample Info: 1120207139211  
Volume Injected (uL): 1.0  
Column phase: CLP2

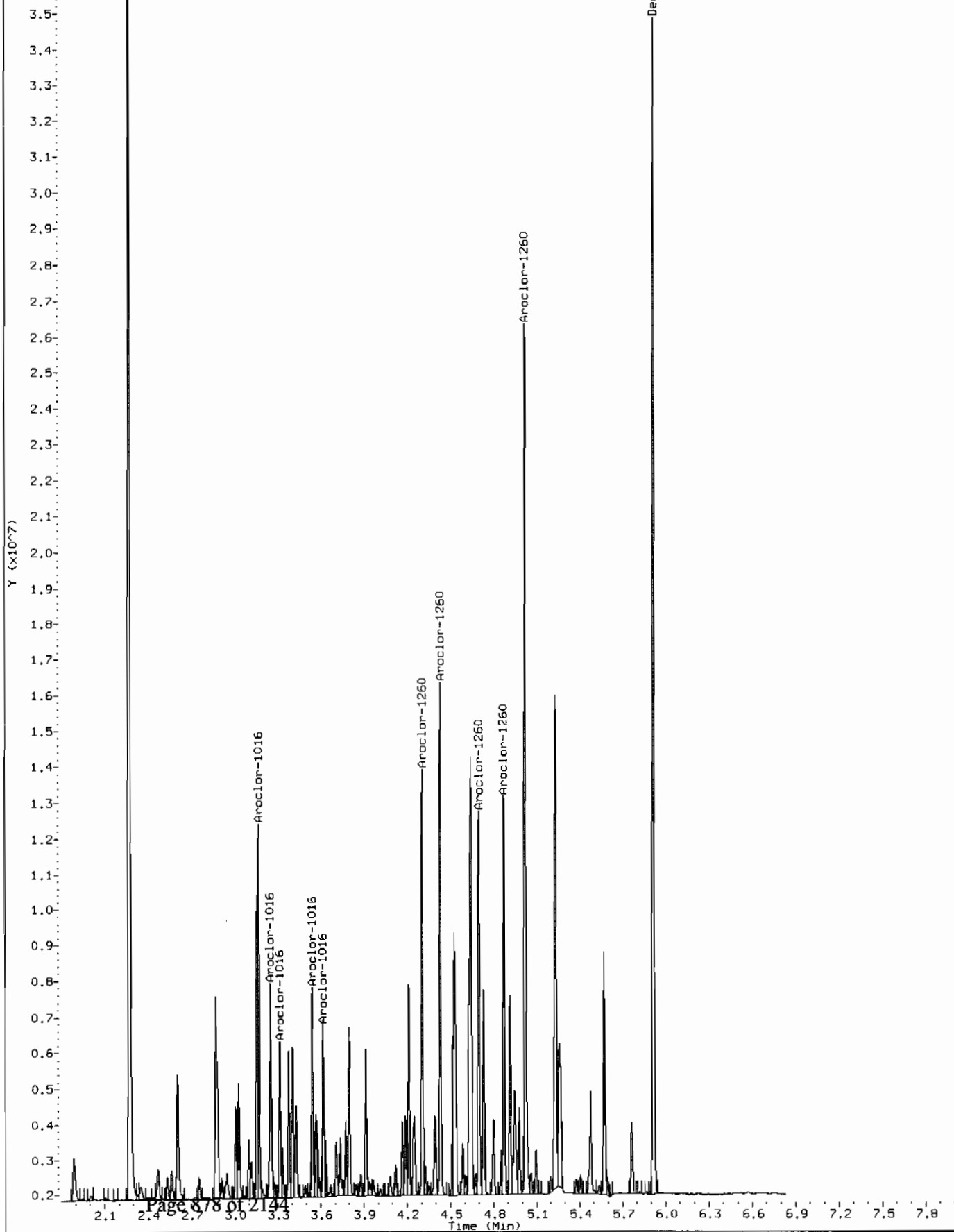
Instrument: ecdl1a.i  
Operator: YSL  
Column diameter: 0.25

/chem/ecdl1a.i/031610a.b/013b1301-2.d

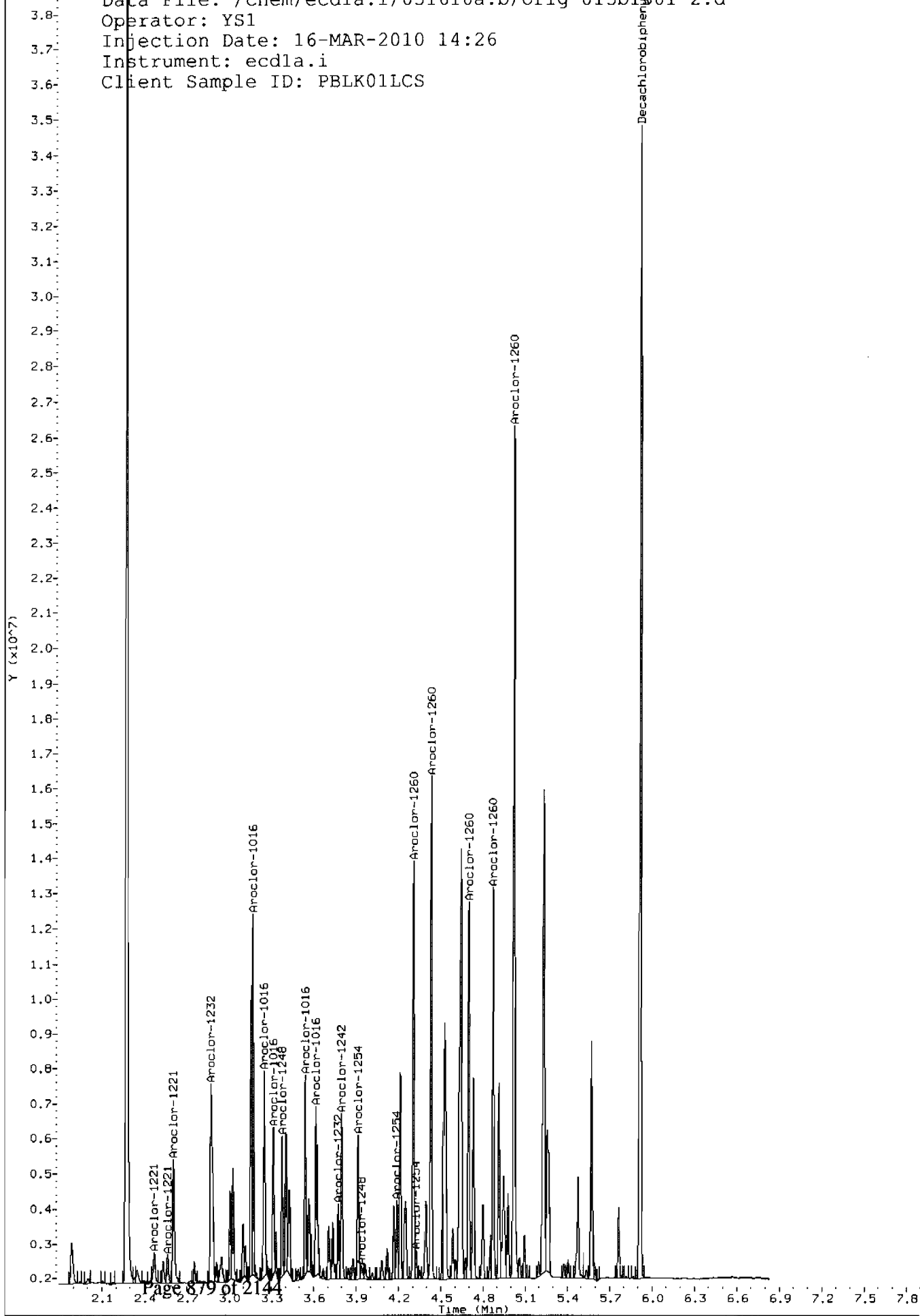




Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/031610a.b/013b1301-21.d  
Operator: YS1  
Injection Date: 16-MAR-2010 14:26  
Instrument: ecd1a.i  
Client Sample ID: PBLK01LCS



Comment: Before manual integration  
Data File: /chem/ecdl1.i/031610a.b/orig-013b1301-2.d  
Operator: YS1  
Injection Date: 16-MAR-2010 14:26  
Instrument: ecd1a.i  
Client Sample ID: PBLK01LCS



**PCB**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2124  
 Lab Sample ID: 1202071393  
 Client Sample: QC for batch 965377  
 Client ID: RE36-10-8282MS  
 Batch ID: 965380  
 Run Date: 03/16/2010 17:33  
 Prep Date: 03/15/2010 21:25  
 Data File: 028f2801.d  
 028b2801.d

Date Collected: 02/23/2010 12:00  
 Date Received: 02/26/2010 08:45  
 Client: LANL010  
 Method: SW846 8082  
 Inst: ECD1A.I  
 Analyst: YS1  
 Aliquot: 30.17 g  
 Column: 1 CLP1  
 2 CLP2

Matrix: R  
 % Moisture: 8.7  
 Project: QC  
 SOP Ref: GL-OA-E-040  
 Dilution: 1  
 Inj. Vol: 1 uL  
 Final Volume: 1 mL  
 Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		20.0	ug/kg	1.21	3.63	1
11104-28-2	Aroclor-1221	U	3.63	ug/kg	1.21	3.63	1
11141-16-5	Aroclor-1232	U	3.63	ug/kg	1.21	3.63	1
53469-21-9	Aroclor-1242	U	3.63	ug/kg	1.21	3.63	1
12672-29-6	Aroclor-1248	U	3.63	ug/kg	1.21	3.63	1
11097-69-1	Aroclor-1254	U	3.63	ug/kg	1.21	3.63	1
11096-82-5	Aroclor-1260		25.4	ug/kg	1.21	3.63	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/031610a.b/028f2801.d  
Lab Smp Id: 1202071393 Client Smp ID: RE36-10-8282MS  
Inj Date : 16-MAR-2010 17:33  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |1202071393|1|  
Misc Info : |ECD82P\_1S|965380|SVA|QC A|SOIL|MS|||  
Comment :  
Method : /chem/ecdla.i/031610a.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 07:58 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 28 QC Sample: MS  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2124.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpclpl

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weight of sample extracted (g)
M	8.69570	% Moisture

Cpnd Variable Local Compound Variable

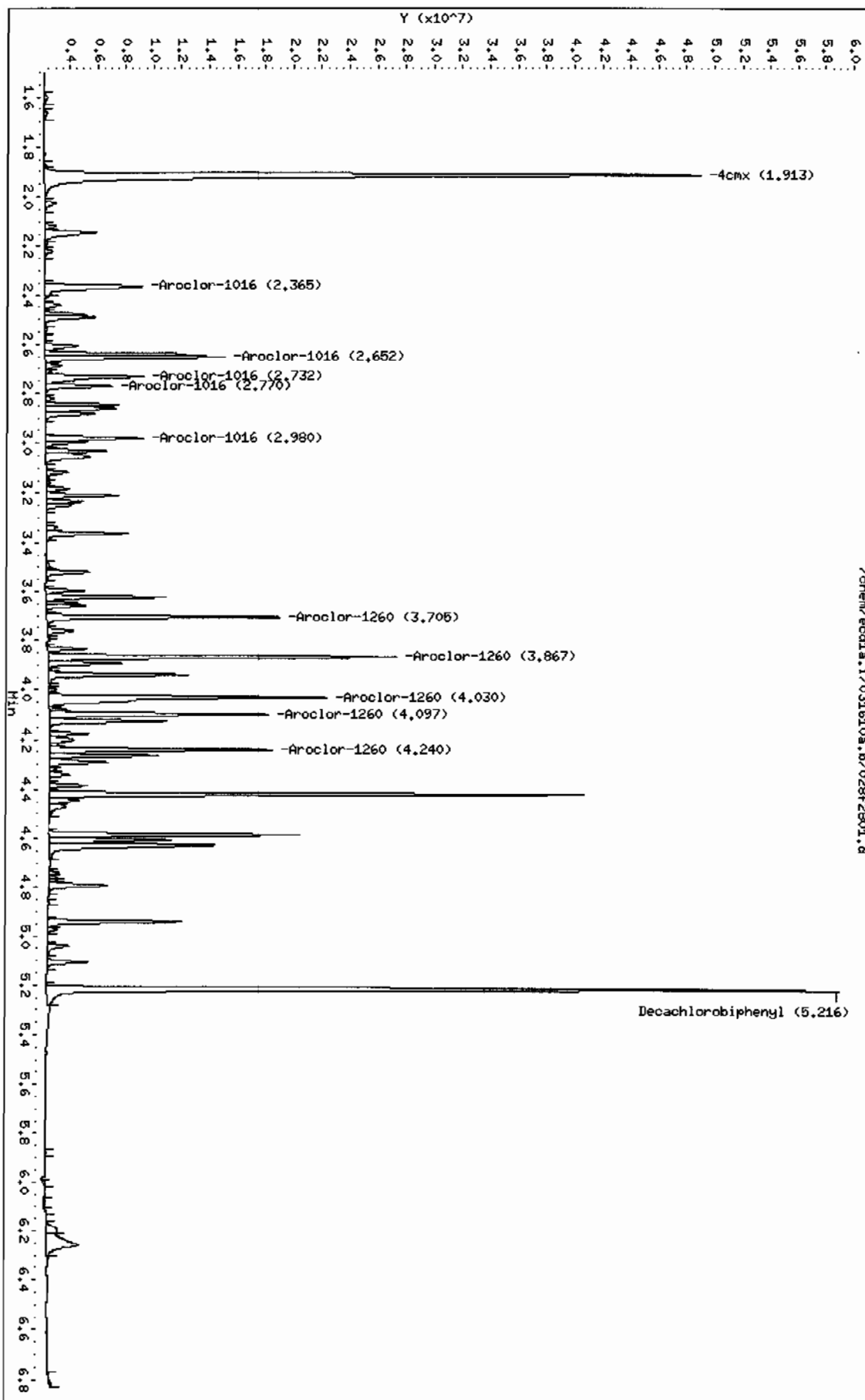
CONCENTRATIONS							
			ON-COL		FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx			CAS #: 877-09-8				
1.913	1.915	-0.002	52634482	135.125	4.9	80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl			CAS #: 2051-24-3				
5.216	5.220	-0.004	44691577	150.512	5.5	80.00- 120.00	100.00
1 Aroclor-1016			CAS #: 12674-11-2				
2.365	2.366	-0.001	8311299	547.632	19.9	80.00- 120.00	100.00
2.652	2.654	-0.002	10813530	571.064	20.7	108.81- 148.81	130.11
2.732	2.734	-0.002	6774808	544.504	19.8	62.30- 102.30	81.51
2.770	2.771	-0.001	3931167	534.975	19.4	29.44- 69.44	47.30

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	
1 Aroclor-1016 (continued)								
2.980	2.982	-0.002	5288247	555.618	20.2	43.36-	83.36	63.63
Average of Peak Concentrations =					20.0			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.705	3.707	-0.002	12386193	675.730	24.5	80.00-	120.00	100.00
3.867	3.870	-0.003	19020398	707.345	25.7	125.99-	165.99	153.56
4.030	4.032	-0.002	20060720	708.476	25.7	135.74-	175.74	161.96
4.097	4.100	-0.003	11671698	722.354	26.2	67.87-	107.87	94.23
4.240	4.243	-0.003	11621007	691.205	25.1	71.56-	111.56	93.82
Average of Peak Concentrations =					25.4			

Data File: /chem/ecdl1a.i/031610a.b/028f2801.d  
Date: 16-MAR-2010 17:33  
Client ID: RE36-10-8282MS  
Sample Info: 1120207139311  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: ecdl1a.i  
Operator: YSL  
Column diameter: 0.25

/chem/ecdl1a.i/031610a.b/028f2801.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/031610a.b/028b2801.d

Lab Smp Id: 1202071393

Client Smp ID: RE36-10-8282MS

Inj Date : 16-MAR-2010 17:33

Operator : YS1

Inst ID: ecdla.i

Smp Info : |1202071393|1|

Misc Info : |ECD82P\_1S|965380|SVA|QC A|SOIL|MS|

Comment :

Method : /chem/ecdla.i/031610a.b/ECD1-B-8082-031110b.m

Meth Date : 17-Mar-2010 07:58 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 28

QC Sample: MS

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2124.sub

Target Version: 3.50

Sample Matrix: Soil

Processing Host: hpc1p1

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weight of sample extracted (g)
M	8.69570	% Moisture

Cpnd Variable

Local Compound Variable

CONCENTRATIONS						
			ON-COL		FINAL	
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		TARGET RANGE	RATIO
-----						
\$ 11 4cmx					CAS #: 877-09-8	
2.271	2.273	-0.002	34806608	132.681	4.8 80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3	
5.914	5.915	-0.001	27387055	146.319	5.3 80.00- 120.00	100.00
-----						
1 Aroclor-1016					CAS #: 12674-11-2	
3.167	3.168	-0.001	7139848	567.331	20.6 80.00- 120.00	100.00 (M)
3.250	3.251	-0.001	4761525	551.472	20.0 48.22- 88.22	66.69
3.313	3.315	-0.002	2851692	539.415	19.6 21.88- 61.88	39.94
3.540	3.541	-0.001	3965469	575.313	20.9 35.49- 75.49	55.54

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)								
3.615	3.617	-0.002	3691563	574.780	20.9	30.58-	70.58	62.45
Average of Peak Concentrations =					20.4			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
4.305	4.307	-0.002	8793887	672.304	24.4	80.00-	120.00	100.00
4.430	4.431	-0.001	11165511	718.084	26.1	101.10-	141.10	126.97
4.696	4.698	-0.002	8439200	709.411	25.8	71.58-	111.58	95.97
4.869	4.871	-0.002	8366984	680.840	24.7	75.48-	115.48	95.15
5.016	5.018	-0.002	19371173	733.906	26.6	189.32-	229.32	220.28
Average of Peak Concentrations =					25.5			
-----								

#### QC Flag Legend

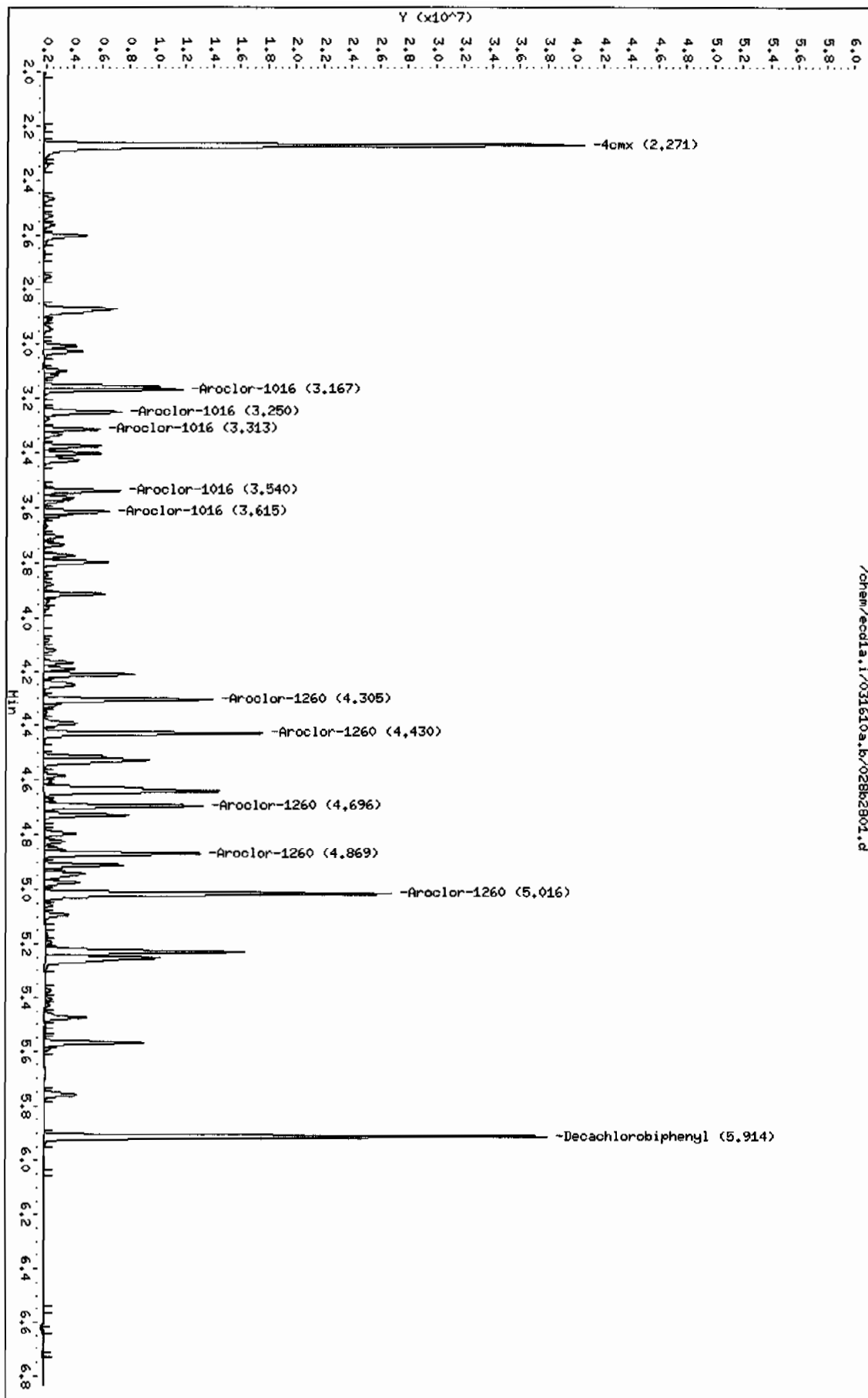
M - Compound response manually integrated.



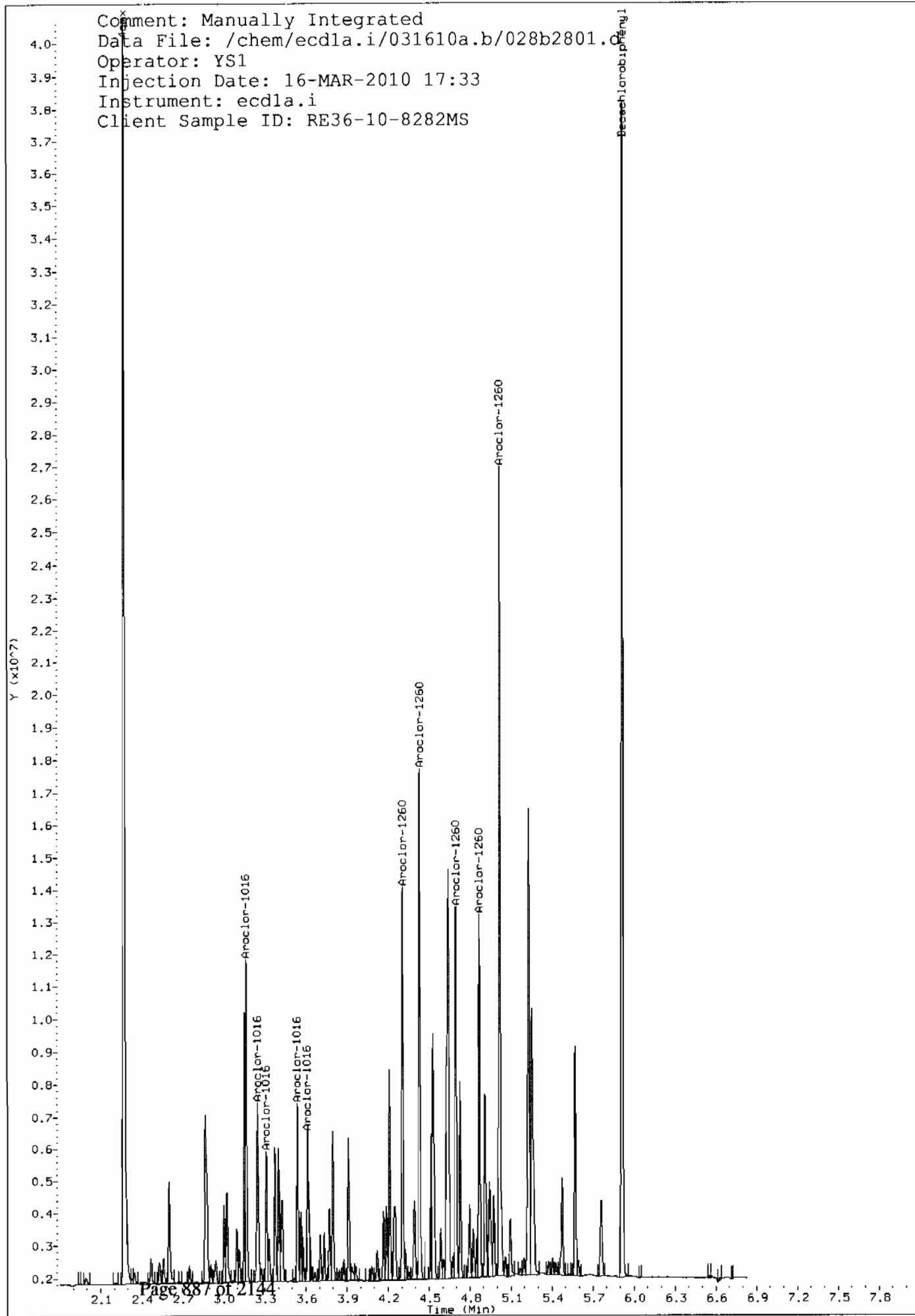
Data File: /chem/ecodla.i/031610a.b/02862801.d  
Date: 16-MAR-2010 17:33  
Client ID: RE36-10-8282MS  
Sample Info: 1120207139311  
Volume Injected (uL): 1.0  
Column Phase: CLP2

Instrument: ecodla.i  
Operator: YS1  
Column diameter: 0.25

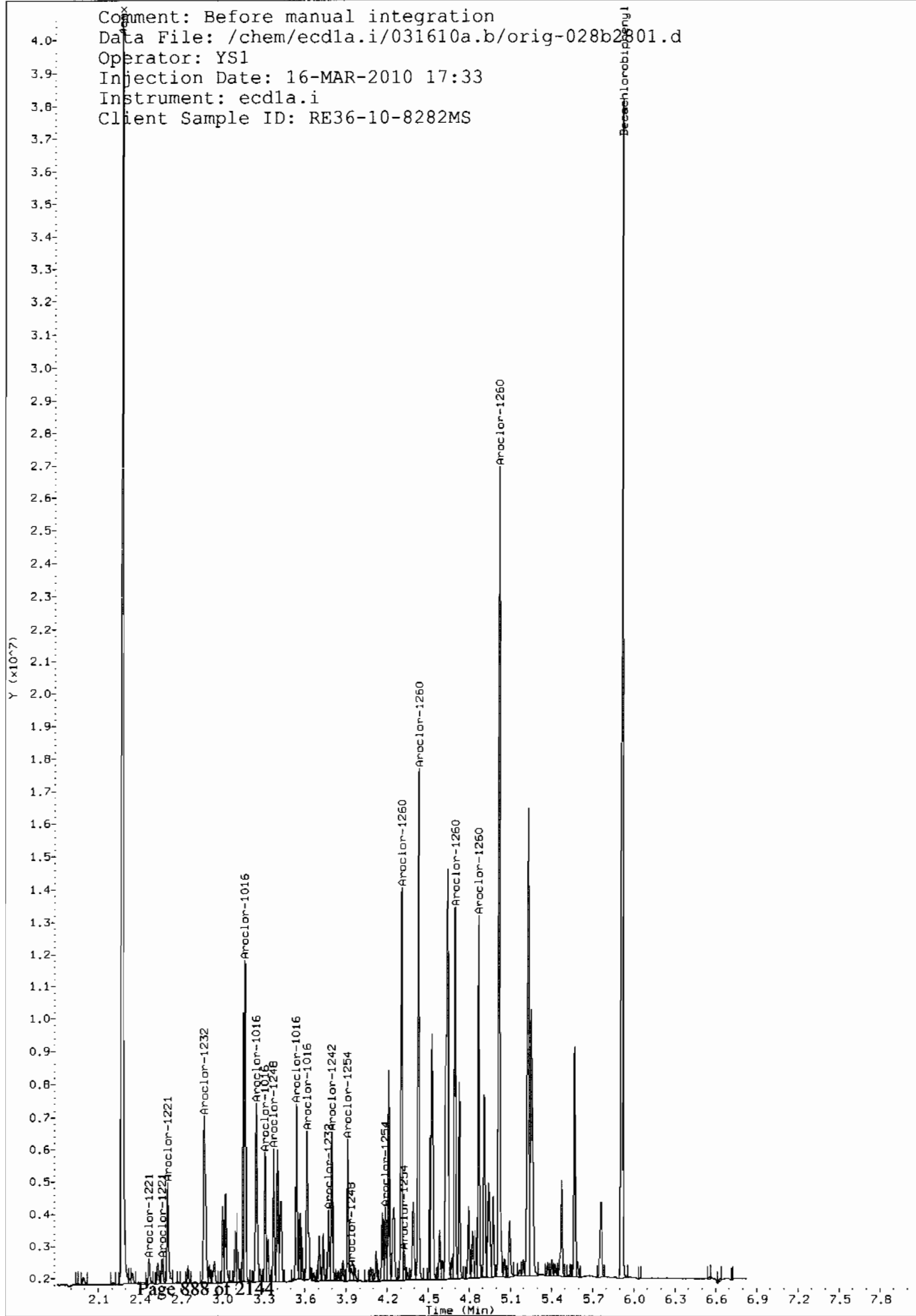
/chem/ecodla.i/031610a.b/02862801.d



Comment: Manually Integrated  
Data File: /chem/ecdl1.i/031610a.b/028b2801.d  
Operator: YS1  
Injection Date: 16-MAR-2010 17:33  
Instrument: ecd1a.i  
Client Sample ID: RE36-10-8282MS



Comment: Before manual integration  
Data File: /chem/ecdl1.i/031610a.b/orig-028b2801.d  
Operator: YS1  
Injection Date: 16-MAR-2010 17:33  
Instrument: ecd1a.i  
Client Sample ID: RE36-10-8282MS



## PCB

Page 1 of 1

## Certificate of Analysis

## Sample Summary

SDG Number:	10-2124	Date Collected:	02/23/2010 12:00	Matrix:	R
Lab Sample ID:	1202071394	Date Received:	02/26/2010 08:45	% Moisture:	8.7
Client Sample:	QC for batch 965377	Client:	LANL010	Project:	QC
Client ID:	RF36-10-8282MSD	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Batch ID:	965380	Inst:	ECD1A.I	Dilution:	1
Run Date:	03/16/2010 17:46	Analyst:	YS1	Inj. Vol:	1 uL
Prep Date:	03/15/2010 21:25	Aliquot:	30.18 g	Final Volume:	1 mL
Data File:	029f2901.d	Column:	1 CLP1	Level:	LOW
	029b2901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		22.0	ug/kg	1.21	3.63	1
11104-28-2	Aroclor-1221	U	3.63	ug/kg	1.21	3.63	1
11141-16-5	Aroclor-1232	U	3.63	ug/kg	1.21	3.63	1
53469-21-9	Aroclor-1242	U	3.63	ug/kg	1.21	3.63	1
12672-29-6	Aroclor-1248	U	3.63	ug/kg	1.21	3.63	1
11097-69-1	Aroclor-1254	U	3.63	ug/kg	1.21	3.63	1
11096-82-5	Aroclor-1260		27.7	ug/kg	1.21	3.63	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031610a.b/029f2901.d

Lab Smp Id: 1202071394

Client Smp ID: RE36-10-8282MSD

Inj Date : 16-MAR-2010 17:46

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |1202071394|1|

Misc Info : |ECD82P\_1S|965380|SVA|QC A|SOIL|MSD|||

Comment :

Method : /chem/ecdl1a.i/031610a.b/ECD1-F-8082-031110b.m

Meth Date : 17-Mar-2010 07:58 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 29

QC Sample: MSD

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2124.sub

Target Version: 3.50

Sample Matrix: Soil

Processing Host: hpc1p1

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	8.69570	% Moisture

Cpnd Variable

Local Compound Variable

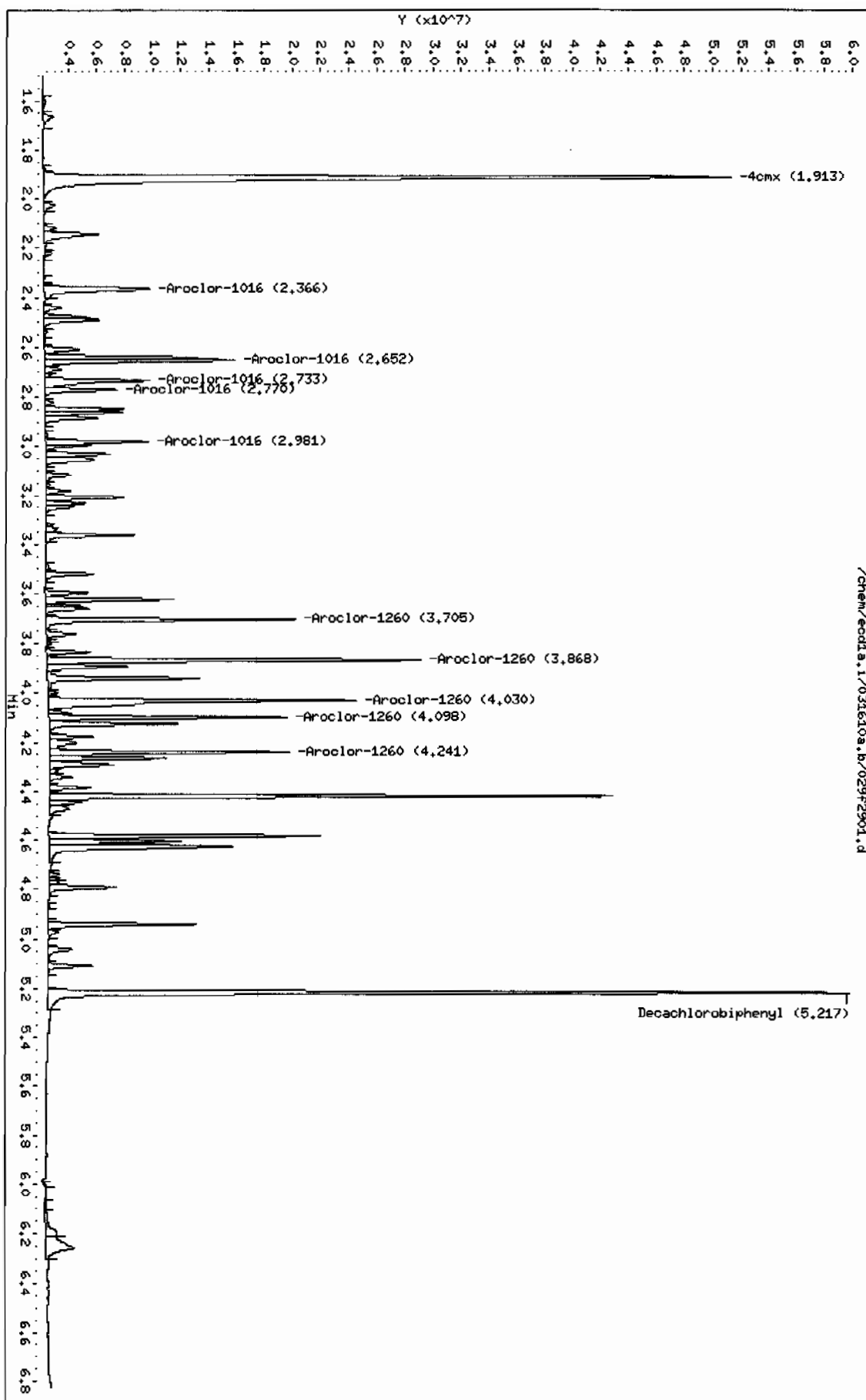
CONCENTRATIONS

RT	EXP RT	DLT RT	ON-COL	FINAL	TARGET RANGE	RATIO
==	=====	=====	RESPONSE ( ug/L)	(ug/Kg)	=====	=====
CAS #: 877-09-8						
1.913	1.915	-0.002	57167020 146.762	5.3	80.00- 120.00	100.00
CAS #: 2051-24-3						
5.217	5.220	-0.003	47925230 161.402	5.8	80.00- 120.00	100.00
CAS #: 12674-11-2						
2.366	2.366	0.000	9212188 606.991	22.0	80.00- 120.00	100.00
2.652	2.654	-0.002	12083707 638.142	23.2	108.81- 148.81	131.17
2.733	2.734	-0.001	7392174 594.123	21.6	62.30- 102.30	80.24
2.770	2.771	-0.001	4285460 583.189	21.2	29.44- 69.44	46.52

				CONCENTRATIONS					
				ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	TARGET	RANGE	RATIO	
--	=====	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)									
2.981	2.982	-0.001	5833620	612.918	22.2	43.36-	83.36	63.33	
Average of Peak Concentrations =					22.0				
-----									
7 Aroclor-1260					CAS #: 11096-82-5				
3.705	3.707	-0.002	13626236	743.381	27.0	80.00-	120.00	100.00	
3.868	3.870	-0.002	20685988	769.287	27.9	125.99-	165.99	151.81	
4.030	4.032	-0.002	21857163	771.920	28.0	135.74-	175.74	160.40	
4.098	4.100	-0.002	12643967	782.527	28.4	67.87-	107.87	92.79	
4.241	4.243	-0.002	12706429	755.765	27.4	71.56-	111.56	93.25	
Average of Peak Concentrations =					27.7				
-----									

Data File: /chem/eod1a.i/031610a.b/029f2901.d  
Date: 16-MAR-2010 17:46  
Client ID: RE36-10-6282MSD  
Sample Info: 1120207139411  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: eod1a.i  
Operator: YSL  
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1.i/031610a.b/029b2901.d  
 Lab Smp Id: 1202071394 Client Smp ID: RE36-10-8282MSD  
 Inj Date : 16-MAR-2010 17:46  
 Operator : YS1 Inst ID: ecd1a.i  
 Smp Info : |1202071394|1|  
 Misc Info : |ECD82P\_1S|965380|SVA|QC A|SOIL|MSD|||  
 Comment :  
 Method : /chem/ecdl1.i/031610a.b/ECD1-B-8082-031110b.m  
 Meth Date : 17-Mar-2010 07:58 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
 Als bottle: 29 QC Sample: MSD  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-2124.sub  
 Target Version: 3.50 Sample Matrix: Soil  
 Processing Host: hpc1p1

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	8.69570	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS							
			ON-COL		FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx CAS #: 877-09-8							
2.272	2.273	-0.001	38030287	144.970	5.3	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3							
5.914	5.915	-0.001	29525173	157.742	5.7	80.00- 120.00	100.00
-----							
1 Aroclor-1016 CAS #: 12674-11-2							
3.167	3.168	-0.001	8032120	638.231	23.2	80.00- 120.00	100.00(M)
3.250	3.251	-0.001	5234433	606.244	22.0	48.22- 88.22	65.17
3.314	3.315	-0.001	3137971	593.567	21.5	21.88- 61.88	39.07
3.541	3.541	0.000	4306456	624.783	22.7	35.49- 75.49	53.62



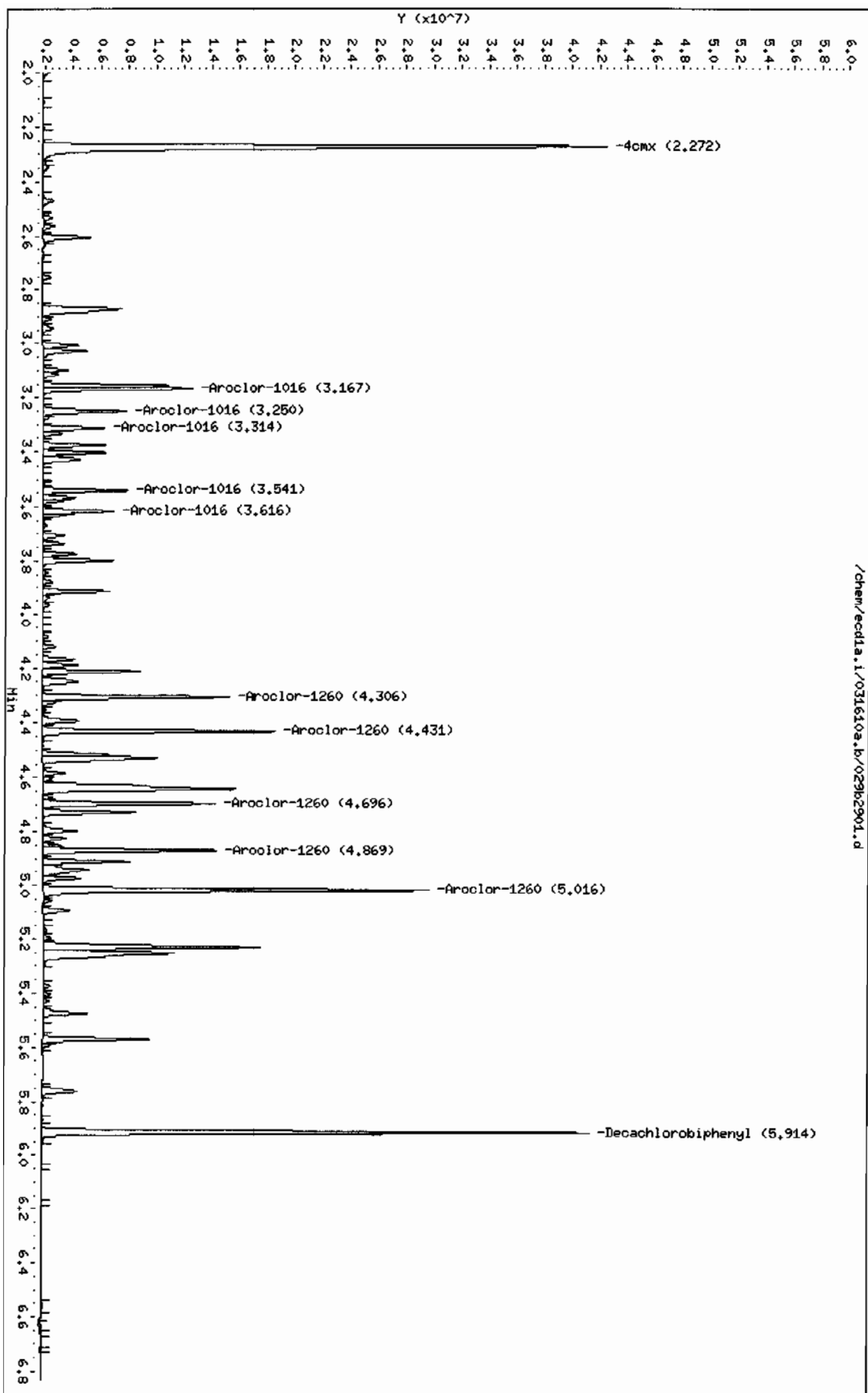
CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO	
==	=====	=====	=====	=====	=====	=====		=====	
1 Aroclor-1016 (continued)									
3.616	3.617	-0.001	4000460	622.876	22.6	30.58-	70.58	60.26	
Average of Peak Concentrations =					22.4				
-----									
7 Aroclor-1260					CAS #: 11096-82-5				
4.306	4.307	-0.001	9472270	724.167	26.3	80.00-	120.00	100.00	
4.431	4.431	0.000	12017897	772.904	28.0	101.10-	141.10	126.87	
4.696	4.698	-0.002	9060294	761.621	27.6	71.58-	111.58	95.65	
4.869	4.871	-0.002	9041079	735.692	26.7	75.48-	115.48	95.45	
5.016	5.018	-0.002	20988187	795.169	28.8	189.32-	229.32	221.58	
Average of Peak Concentrations =					27.5				
-----									

QC Flag Legend

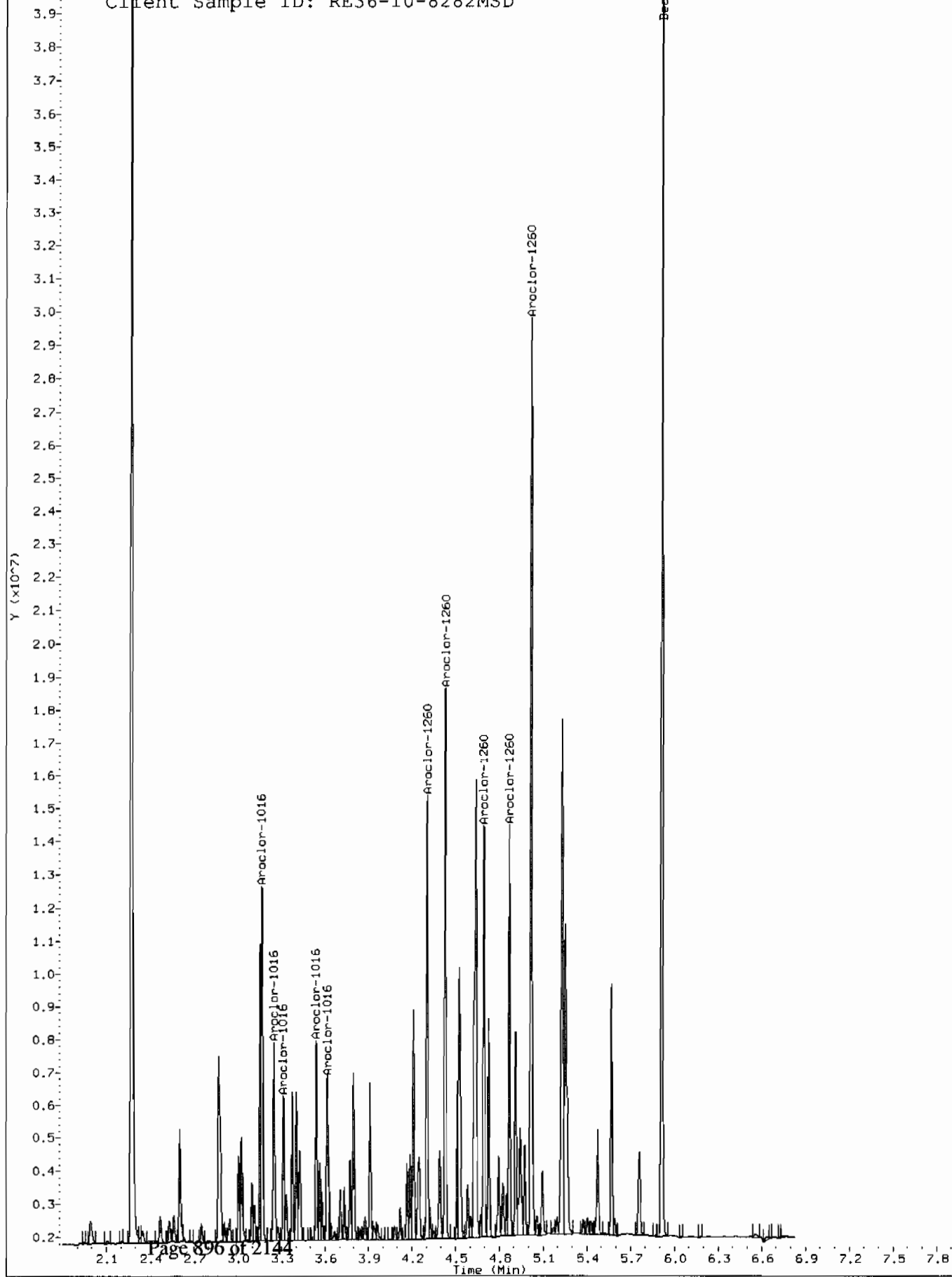
M - Compound response manually integrated.

Data File: /chem/ecdl1a.i/031610a.b/029b2901.d  
Date: 16-MAR-2010 17:46  
Client ID: RE36-10-8282MSD  
Sample Info: 1120207139411  
Volume Injected (uL): 1.0  
Column phase: CLP2

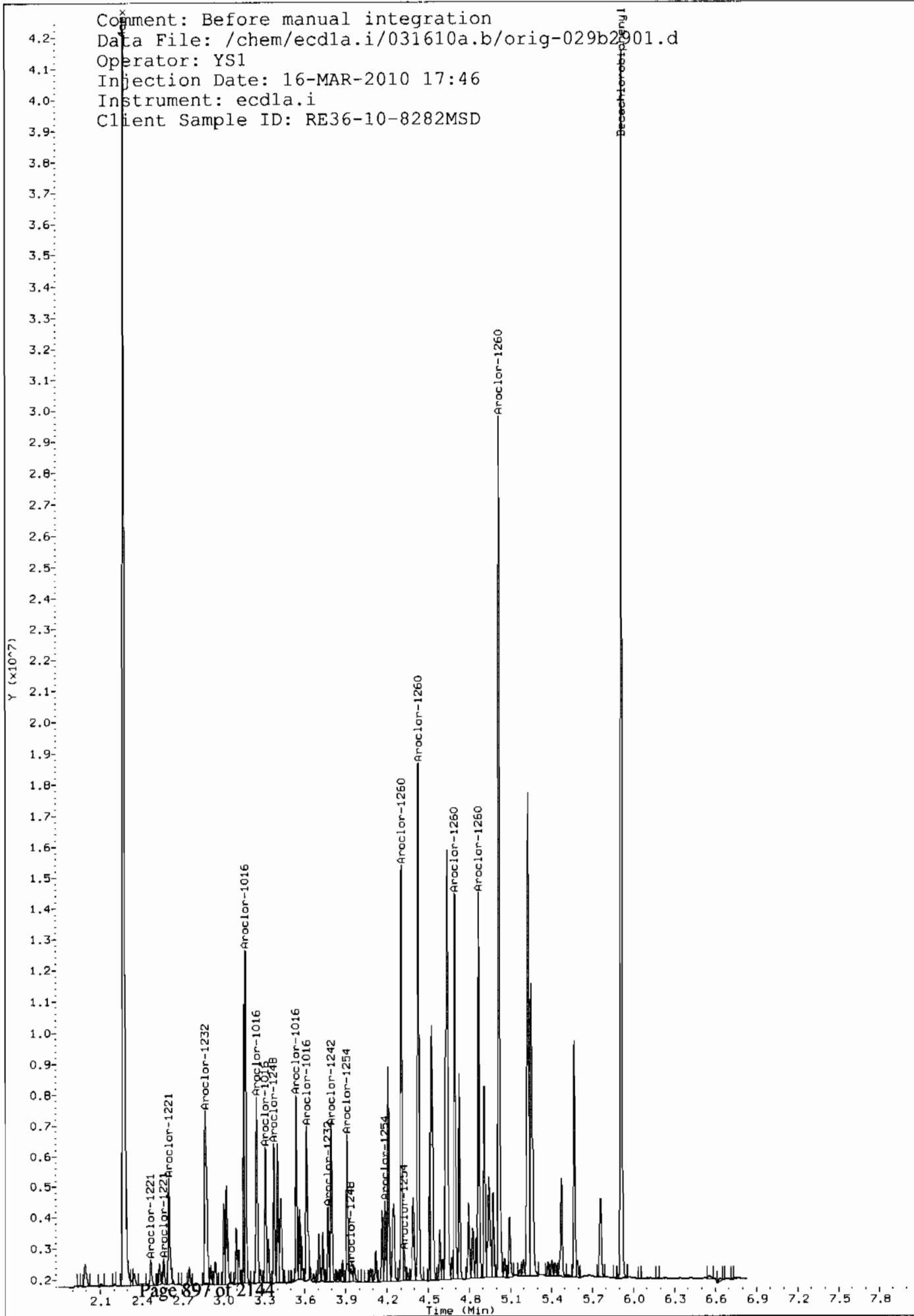
Instrument: ecdl1a.i  
Operator: YSL  
Column diameter: 0.25



Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/031610a.b/029b2901.d  
Operator: YS1  
Injection Date: 16-MAR-2010 17:46  
Instrument: ecd1a.i  
Client Sample ID: RE36-10-8282MSD



Comment: Before manual integration  
Data File: /chem/ecdl1.i/031610a.b/orig-029b2901.d  
Operator: YS1  
Injection Date: 16-MAR-2010 17:46  
Instrument: ecd1a.i  
Client Sample ID: RE36-10-8282MSD



# MISCELLANEOUS DATA

## GEL ORGANIC RUN LOG

INSTRUMENT ID: ECD1

DATE: 03/12/2010

METHOD: ECD1-F-8082-031110b.m

OPERATOR:YS1

REVIEWED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

HARDWARE CONFIGURATION &amp; METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936  
ALUMINA LOT 1281992-A  
COPPER LOT 1249397-A

## Calibration &amp; QC Information

Initial Calibration Dates: See Calibration History and Standard Logbook.

Initial Calibration Std ID's: See Calibration History and Standard Logbook.

GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082

Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,  
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,  
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/031110b.b

Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	11-MAR-2010 14:46		031110b	1.0	CLEAN	
002f0201.d	WAR100222-60 01	YS1	11-MAR-2010 14:56		031110b	1.0	DUSE RE-ICAL	
003f0301.d	WAR100219-54	YS1	11-MAR-2010 15:07		031110b	1.0	DUSE RE-ICAL	
004f0401.d	WAR100219-42	YS1	11-MAR-2010 15:17		031110b	1.0	DUSE RE-ICAL	
005f0501.d	WAR100223-48	YS1	11-MAR-2010 15:28		031110b	1.0	DUSE RE-ICAL	
006f0601.d	WAR100107-68	YS1	11-MAR-2010 15:38		031110b	1.0	PASSED ON BOTH COLUMNS	
007f0701.d	WAR100104-32	YS1	11-MAR-2010 15:49		031110b	1.0	PATTERN ONLY	
008f0801.d	WAR100104-21	YS1	11-MAR-2010 15:59		031110b	1.0	PATTERN ONLY	
009f0901.d	WAR100104-62	YS1	11-MAR-2010 16:10		031110b	1.0	PATTERN ONLY	
010f1001.d	WAR091219-DDT	YS1	11-MAR-2010 16:21		031110b	1.0	IDDT ANALOG STANDARD	
011f1101.d	WAR100311-01	YS1	11-MAR-2010 16:31		031110b	1.0	ARI660 I-CAL LEVEL 1	
012f1201.d	WAR100311-02	YS1	11-MAR-2010 16:41		031110b	1.0	ARI660 I-CAL LEVEL 2	
013f1301.d	WAR100311-03	YS1	11-MAR-2010 16:52		031110b	1.0	ARI660 I-CAL LEVEL 3	
014f1401.d	WAR100311-04	YS1	11-MAR-2010 17:02		031110b	1.0	ARI660 I-CAL LEVEL 4	
015f1501.d	WAR100311-01	YS1	11-MAR-2010 17:13		031110b	1.0	ARI660 I-CAL LEVEL 5	

Instrument Batch: /chem/ecd1a.i/031110b.b

Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
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016f1601.d	WAR100222-60 01	YS1	11-MAR-2010 17:24	031110b	1.0	PASSED ON BOTH COLUMNS
017f1701.d	WAR100311-05	YS1	11-MAR-2010 17:34	031110b	1.0	ARI254 I-CAL LEVEL 1
018f1801.d	WAR100311-06	YS1	11-MAR-2010 17:45	031110b	1.0	ARI254 I-CAL LEVEL 2
019f1901.d	WAR100311-07	YS1	11-MAR-2010 17:55	031110b	1.0	ARI254 I-CAL LEVEL 3
020f2001.d	WAR100311-08	YS1	11-MAR-2010 18:06	031110b	1.0	ARI254 I-CAL LEVEL 4
021f2101.d	IAR100219-02	YS1	11-MAR-2010 18:16	031110b	1.0	ARI254 I-CAL LEVEL 5
022f2201.d	WAR100219-54	YS1	11-MAR-2010 18:27	031110b	1.0	PASSED ON BOTH COLUMNS
023f2301.d	WAR100311-09	YS1	11-MAR-2010 18:37	031110b	1.0	ARI242 I-CAL LEVEL 1
024f2401.d	WAR100311-10	YS1	11-MAR-2010 18:48	031110b	1.0	ARI242 I-CAL LEVEL 2
025f2501.d	WAR100311-11	YS1	11-MAR-2010 18:58	031110b	1.0	ARI242 I-CAL LEVEL 3
026f2601.d	WAR100311-12	YS1	11-MAR-2010 19:09	031110b	1.0	ARI242 I-CAL LEVEL 4
027f2701.d	IAR100219-01	YS1	11-MAR-2010 19:19	031110b	1.0	ARI242 I-CAL LEVEL 5
028f2801.d	WAR100219-42	YS1	11-MAR-2010 19:30	031110b	1.0	PASSED ON BOTH COLUMNS
029f2901.d	WAR100311-13	YS1	11-MAR-2010 19:40	031110b	1.0	ARI248 I-CAL LEVEL 1
030f3001.d	WAR100311-14	YS1	11-MAR-2010 19:51	031110b	1.0	ARI248 I-CAL LEVEL 2
031f3101.d	WAR100311-15	YS1	11-MAR-2010 20:01	031110b	1.0	ARI248 I-CAL LEVEL 3
032f3201.d	WAR100311-16	YS1	11-MAR-2010 20:12	031110b	1.0	ARI248 I-CAL LEVEL 4
033f3301.d	IAR100211-01	YS1	11-MAR-2010 20:22	031110b	1.0	ARI248 I-CAL LEVEL 5
034f3401.d	WAR100223-48	YS1	11-MAR-2010 20:33	031110b	1.0	PASSED ON BOTH COLUMNS
035f3501.d	WAR100219-99 02	YS1	11-MAR-2010 20:44	031110b	1.0	CLEAN

Instrument Batch: /chem/ecdl1a.i/031110b.b

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Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	I202067743	YS1	11-MAR-2010 20:54	963869	246954	1.0	MB	IDUSE CON FIRMATION FOR THE SAMPLES HAD HIT
037f3701.d	I202067744	YS1	11-MAR-2010 21:05	963869	246954	1.0	LCS	IDUSE CON FIRMATION FOR THE SAMPLES HAD HIT
038f3801.d	I246954003	YS1	11-MAR-2010 21:15	963869	246954	1.0	BBS	IDUSE CON FIRMATION FOR THE SAMPLES HAD HIT
039f3901.d	I202067745	YS1	11-MAR-2010 21:26	963869	246954	1.0	IMS	IDUSE CON FIRMATION FOR THE SAMPLES HAD HIT
040f4001.d	I202067746	YS1	11-MAR-2010 21:36	963869	246954	1.0	MSD	IDUSE CON FIRMATION FOR THE SAMPLES HAD HIT

1041f4101.d	1246954006	YS1	11-MAR-2010 21:47	963869	246954	1.0 BBES	DOSE CON FIRMATION FOR THE SAMPLES HAD HIT
1042f4201.d	1246954007	YS1	11-MAR-2010 21:57	963869	246954	1.0 BBES	DOSE CON FIRMATION FOR THE SAMPLES HAD HIT
1043f4301.d	1246954009	YS1	11-MAR-2010 22:08	963869	246954	1.0 BBES	DOSE CON FIRMATION FOR THE SAMPLES HAD HIT
1044f4401.d	1246954012	YS1	11-MAR-2010 22:18	963869	246954	1.0 BBES	DOSE CON FIRMATION FOR THE SAMPLES HAD HIT
1045f4501.d	1246954014	YS1	11-MAR-2010 22:29	963869	246954	1.0 BBES	DOSE CON FIRMATION FOR THE SAMPLES HAD HIT
1046f4601.d	1WAR100222-60 02	YS1	11-MAR-2010 22:39		031110b	1.0	PASSED ON BOTH COLUMNS
1046f4901.d	1WAR100222-60 03	YS1	11-MAR-2010 23:11		031110b	1.0	ICLEAN
1047f4701.d	1WAR100219-99 03	YS1	11-MAR-2010 22:50		031210	1.0	
1047f5001.d	1WAR100219-99 04	YS1	11-MAR-2010 23:21		031110b	1.0	
1048f4801.d	1WE100311-07SCR	YS1	11-MAR-2010 23:00		031110b	1.0	LCS CSREEN FOR PREP



## GEL ORGANIC RUN LOG

INSTRUMENT ID: ECD1

DATE: 03/17/2010

METHOD: ECD1-F-8082-031110b.m

OPERATOR:YSI

REVIEWED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

HARDWARE CONFIGURATION &amp; METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936

ALUMINA LOT 1281992-A

COPPER LOT 1249397-A

Calibration &amp; QC Information

Initial Calibration Dates: See Calibration History and Standard Logbook.

Initial Calibration Std ID's: See Calibration History and Standard Logbook.

GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082

Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,

DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,

BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/031610a.b

Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YSI	16-MAR-2010 12:20		031610a	1.0I		CLEAN
002f0201.d	WAR100222-60 01	YSI	16-MAR-2010 12:30		031610a	1.0I		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YSI	16-MAR-2010 12:41		031610a	1.0I		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YSI	16-MAR-2010 12:51		031610a	1.0I		PASSED ON BOTH COLUMNS
005f0501.d	WAR100223-48	YSI	16-MAR-2010 13:02		031610a	1.0I		PASSED ON BOTH COLUMNS
006f0601.d	WAR100107-68	YSI	16-MAR-2010 13:12		031610a	1.0I		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YSI	16-MAR-2010 13:23		031610a	1.0I		PATTERN ONLY
008f0801.d	WAR100104-21	YSI	16-MAR-2010 13:33		031610a	1.0I		PATTERN ONLY
009f0901.d	WAR100104-62	YSI	16-MAR-2010 13:44		031610a	1.0I		PATTERN ONLY
010f1001.d	WAR091219-DDT	YSI	16-MAR-2010 13:54		031610a	1.0I		DDT ANALOG STANDARD
011f1101.d	WAR100219-99 02	YSI	16-MAR-2010 14:05		031610a	1.0I		CLEAN
012f1201.d	1202071391	YSI	16-MAR-2010 14:16	965380	10-2105	1.0IQC A		UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202071392	YSI	16-MAR-2010 14:26	965380	10-2105	1.0IQC A		UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	1248161001	YSI	16-MAR-2010 14:37	965380	10-2105	1.0I LANL		UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	1248161002	YSI	16-MAR-2010 14:49	965380	10-2105	1.0I LANL		UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/031610a.b

Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
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1016f1601.d	24816.003	YS1	16-MAR-2010 15:02	965380	10-2105	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1017f1701.d	248161004	YS1	16-MAR-2010 15:15	965380	10-2105	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1018f1801.d	248161005	YS1	16-MAR-2010 15:27	965380	10-2105	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1019f1901.d	248161006	YS1	16-MAR-2010 15:40	965380	10-2105	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1020f2001.d	100222-60 02	YS1	16-MAR-2010 15:52		031610a	1.0		PASSED ON BOTH COLUMNS
1021f2101.d	100219-99 03	YS1	16-MAR-2010 16:05		031610a	1.0		CLEAN
1022f2201.d	248197001	YS1	16-MAR-2010 16:17	965380	10-2121	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1023f2301.d	248197002	YS1	16-MAR-2010 16:30	965380	10-2121	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1024f2401.d	248197003	YS1	16-MAR-2010 16:43	965380	10-2121	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1025f2501.d	248197004	YS1	16-MAR-2010 16:55	965380	10-2121	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1026f2601.d	248197005	YS1	16-MAR-2010 17:08	965380	10-2121	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1027f2701.d	248202001	YS1	16-MAR-2010 17:20	965380	10-2124	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1028f2801.d	1202071393	YS1	16-MAR-2010 17:33	965380	10-2124	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
1029f2901.d	11202071394	YS1	16-MAR-2010 17:46	965380	10-2124	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
1030f3001.d	248202002	YS1	16-MAR-2010 17:58	965380	10-2124	1.0	LANL	DUSE RR 10X
1031f3101.d	100222-60 03	YS1	16-MAR-2010 18:11		031610a	1.0		PASSED ON BOTH COLUMNS
1032f3201.d	100219-99 04	YS1	16-MAR-2010 18:23		031610a	1.0		CLEAN
1033f3301.d	102PCBT1	YS1	16-MAR-2010 18:36		031610a	1.0		DUSE NEW RUNNING METHOD TEST
1034f3401.d	102PCBT2	YS1	16-MAR-2010 18:50		031610a	1.0		DUSE NEW RUNNING METHOD TEST
1035f3501.d	102PCBT3	YS1	16-MAR-2010 19:03		031610a	1.0		DUSE NEW RUNNING METHOD TEST

Instrument Batch: /chem/ecdl1a.i/031610a.b

Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
1036f3601.d	102PCBT4	YS1	16-MAR-2010 19:17		031610a	1.0		DUSE NEW RUNNING METHOD TEST



## GEL ORGANIC RUN LOG

INSTRUMENT ID: ECD1

DATE: 03/18/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR: YS1 REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

HARDWARE CONFIGURATION &amp; METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936  
ALUMINA LOT 1281992-A  
COPPER LOT 1249397-A

## Calibration &amp; QC Information

Initial Calibration Dates: See Calibration History and Standard Logbook.

Initial Calibration Std ID's: See Calibration History and Standard Logbook.

GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082

Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,

DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,

BF-Before, AF-After.

Sequence Number: /chem/ecdla.i/0317107.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	17-MAR-2010 05:57		0317107	1.01	CLEAN	
002f0201.d	WAR100222-60 01	YS1	17-MAR-2010 06:08		0317107	1.01	PASSED ON BOTH COLUMNS	
003f0301.d	WAR100219-54	YS1	17-MAR-2010 06:18		0317107	1.01	PASSED ON BOTH COLUMNS	
004f0401.d	WAR100219-42	YS1	17-MAR-2010 06:29		0317107	1.01	PASSED ON BOTH COLUMNS	
005f0501.d	WAR100223-48	YS1	17-MAR-2010 06:39		0317107	1.01	PASSED ON BOTH COLUMNS	
006f0601.d	WAR100107-68	YS1	17-MAR-2010 06:50		0317107	1.01	PASSED ON BOTH COLUMNS	
007f0701.d	WAR100104-32	YS1	17-MAR-2010 07:01		0317107	1.01	PATTERN ONLY	
008f0801.d	WAR100104-21	YS1	17-MAR-2010 07:11		0317107	1.01	PATTERN ONLY	
009f0901.d	WAR100104-62	YS1	17-MAR-2010 07:22		0317107	1.01	PATTERN ONLY	
010f1001.d	WAR091219-DDT	YS1	17-MAR-2010 07:36		0317107	1.01	DDT ANALOG STANDARD	
011f1101.d	WAR100219-99 02	YS1	17-MAR-2010 07:46		0317107	1.01	CLEAN	
012f1201.d	1202071118	YS1	17-MAR-2010 07:57	965286	0317107	1.01	QC A DUSE	
013f1301.d	1202071119	YS1	17-MAR-2010 08:07	965286	0317107	1.01	QC A DUSE	
014f1401.d	1202071120	YS1	17-MAR-2010 08:18	965286	15	1.01	QC A DUSE	
015f1501.d	1248998005	YS1	17-MAR-2010 08:28	965286	1248998	1.01	GC EEL DOSE CONFIRMATION FOR DCB LOW	

Instrument Batch: /chem/ecdla.i/0317107.b

Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
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1016f1601.d	1248202002	YS1	17-MAR-2010 08:41	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1017f1701.d	124820222-60 02	YS1	17-MAR-2010 08:53	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1018f1801.d	124820222-60 03	YS1	17-MAR-2010 09:04	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1019f1901.d	124820222-60 04	YS1	17-MAR-2010 09:15	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1020f2001.d	124820222-60 05	YS1	17-MAR-2010 09:26	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1021f2101.d	124820222-60 06	YS1	17-MAR-2010 09:37	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1022f2201.d	124820222-60 07	YS1	17-MAR-2010 09:48	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1023f2301.d	124820222-60 08	YS1	17-MAR-2010 09:59	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1024f2401.d	124820222-60 09	YS1	17-MAR-2010 10:10	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1025f2501.d	124820222-60 10	YS1	17-MAR-2010 10:21	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1026f2601.d	124820222-60 11	YS1	17-MAR-2010 10:32	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1027f2701.d	124820222-60 12	YS1	17-MAR-2010 10:43	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1028f2801.d	124820222-60 13	YS1	17-MAR-2010 10:54	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1029f2901.d	124820222-60 14	YS1	17-MAR-2010 11:05	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1030f3001.d	124820222-60 15	YS1	17-MAR-2010 11:16	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1031f3101.d	124820222-60 16	YS1	17-MAR-2010 11:27	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1032f3201.d	124820222-60 17	YS1	17-MAR-2010 11:38	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1033f3301.d	124820222-60 18	YS1	17-MAR-2010 11:49	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1034f3401.d	124820222-60 19	YS1	17-MAR-2010 12:00	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1035f3501.d	124820222-60 20	YS1	17-MAR-2010 12:11	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1036f3601.d	124820222-60 21	YS1	17-MAR-2010 12:22	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1037f3701.d	124820222-60 22	YS1	17-MAR-2010 12:33	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1038f3801.d	124820222-60 23	YS1	17-MAR-2010 12:44	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1039f3901.d	124820222-60 24	YS1	17-MAR-2010 12:55	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1040f4001.d	124820222-60 25	YS1	17-MAR-2010 13:06	965380	10-2124	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecdla.i/0317107.b

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Data File	GEZ Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
1036f3601.d	1248377005	YS1	17-MAR-2010 12:42	965805	10-2157	1.0 LANL	UPLOADED BOTH COLUMNS, USE HIGHER	
1037f3701.d	1248377006	YS1	17-MAR-2010 12:55	965805	10-2157	1.0 LANL	UPLOADED BOTH COLUMNS, USE HIGHER	
1038f3801.d	1248377007	YS1	17-MAR-2010 13:08	965805	10-2157	5.0 LANL	UPLOADED BOTH COLUMNS, USE HIGHER	
1039f3901.d	1248386003	YS1	17-MAR-2010 13:20	965805	10-2164	1.0 LANL	UPLOADED BOTH COLUMNS, USE HIGHER	
1040f4001.d	1248386004	YS1	17-MAR-2010 13:33	965805	10-2164	5.0 LANL	UPLOADED BOTH COLUMNS, USE HIGHER	

04:f4101.d	WARI00222-60 03	YS1	17-MAR-2010 13:45		0317107		1.0		PASSED ON BOTH COLUMNS
042f4201.d	WARI00219-99 04	YS1	17-MAR-2010 13:56		0317107		1.0		CLEAN
043f4301.d	248389002	YS1	17-MAR-2010 14:06		965805		10-2165		1.0 LANL
044f4401.d	1202072504	YS1	17-MAR-2010 14:19		965805		10-2165		1.0 QC A
045f4501.d	1202072505	YS1	17-MAR-2010 14:32		965805		10-2165		1.0 QC A
046f4601.d	248389003	YS1	17-MAR-2010 14:44		965805		10-2165		5.0 LANL
047f4701.d	248249001	YS1	17-MAR-2010 14:57		965805		10-2140		5.0 LANL
048f4801.d	248249002	YS1	17-MAR-2010 15:09		965805		10-2140		5.0 LANL
049f4901.d	248249003	YS1	17-MAR-2010 15:22		965805		10-2140		5.0 LANL
050f5001.d	248249004	YS1	17-MAR-2010 15:35		965805		10-2140		5.0 LANL
051f5101.d	248377003	YS1	17-MAR-2010 15:47		965805		10-2157		10.0 LANL
052f5201.d	WARI00222-60 05	YS1	17-MAR-2010 16:00		0317107		1.0		PASSED ON BOTH COLUMNS
053f5301.d	WARI00219-99 06	YS1	17-MAR-2010 16:10		0317107		1.0		CLEAN
054f5401.d	1202071505	YS1	17-MAR-2010 16:21		965431		249169		1.0 QC A
055f5501.d	1202071506	YS1	17-MAR-2010 16:34		965431		249169		1.0 QC A

Instrument Batch: /chem/ecdl1a.i/0317107.b

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: Data File		GEL Lab Sample ID		Analyst		Injection Date/Time		Batch		SDG		Dilution		Client		Comments
056f5601.d		249169011		YS1		17-MAR-2010 16:46		965431		249169		1.0		CDMF		UPLOAD BOTH COLUMNS, USE FRONT
057f5701.d		249169012		YS1		17-MAR-2010 16:59		965431		249169		5.0		CDMF		DUSE RR 2X
058f5801.d		249169013		YS1		17-MAR-2010 17:11		965431		249169		10.0		CDMF		DUSE RR 2X
059f5901.d		249169014		YS1		17-MAR-2010 17:24		965431		249169		10.0		CDMF		DUSE RR 2X
060f6001.d		249169015		YS1		17-MAR-2010 17:37		965431		249169		10.0		CDMF		DUSE RR 2X
061f6101.d		WARI00222-60 06		YS1		17-MAR-2010 17:49		0317107		1.0		PASSED ON BOTH COLUMNS				
062f6201.d		WARI00219-99 07		YS1		17-MAR-2010 18:02		0317107		1.0		CLEAN				
063f6301.d		248480001		YS1		17-MAR-2010 18:15		965431		248480		5.0		ENRG		UPLOAD BOTH COLUMNS, USE FRONT
064f6401.d		249106001		YS1		17-MAR-2010 18:27		965431		249106		5.0		COMM		UPLOAD BOTH COLUMNS, USE FRONT

065f6501.d	1249106002	YS1	17-MAR-2010 18:40	965431	249106	5.0 COMM	UPLOAD BOTH COLUMNS, USE FRONT
066f6601.d	1249106004	YS1	17-MAR-2010 18:52	965431	249106	5.0 COMM	UPLOAD BOTH COLUMNS, USE FRONT
067f6701.d	1249181001	YS1	17-MAR-2010 19:05	965431	249181	5.0 COMM	UPLOAD BOTH COLUMNS, USE FRONT
068f6801.d	1249181002	YS1	17-MAR-2010 19:18	965431	249181	10.0 COMM	UPLOAD BOTH COLUMNS, USE FRONT
069f6901.d	1249181004	YS1	17-MAR-2010 19:30	965431	249181	10.0 COMM	UPLOAD BOTH COLUMNS, USE FRONT
070f7001.d	1249196001	YS1	17-MAR-2010 19:43	965431	249196	5.0 ENRG	UPLOAD BOTH COLUMNS, USE FRONT
071f7101.d	1249231003	YS1	17-MAR-2010 19:56	965431	249231	5.0 PCGE	UPLOAD BOTH COLUMNS, USE FRONT
072f7201.d	1249231007	YS1	17-MAR-2010 20:08	965431	0317107	1.0	PASSED ON BOTH COLUMNS
073f7301.d	1249231008	YS1	17-MAR-2010 20:21	965431	0317107	1.0	CLEAN
074f7401.d	1249293001	YS1	17-MAR-2010 20:33	965431	249293	20.0 LLNL	UPLOAD BOTH COLUMNS, USE FRONT
075f7501.d	1249293007	YS1	17-MAR-2010 20:46	965431	249293	20.0 QC A	UPLOAD BOTH COLUMNS, USE FRONT

Instrument Batch: /chem/ecdla.i/0317107.b

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Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	1202071508	YS1	17-MAR-2010 20:59	965431	249293	20.0 QC A	UPLOAD BOTH COLUMNS, USE FRONT	
077f7701.d	249293002	YS1	17-MAR-2010 21:11	965431	249293	20.0 LLNL	UPLOAD BOTH COLUMNS, USE FRONT	
078f7801.d	249293003	YS1	17-MAR-2010 21:24	965431	249293	10.0 LLNL	UPLOAD BOTH COLUMNS, USE FRONT	
079f7901.d	249293004	YS1	17-MAR-2010 21:37	965431	249293	10.0 LLNL	UPLOAD BOTH COLUMNS, USE FRONT	
080f8001.d	1249293008	YS1	17-MAR-2010 21:49	965431	0317107	1.0	PASSED ON BOTH COLUMNS	
081f8101.d	1249293009	YS1	17-MAR-2010 22:02	965431	0317107	1.0	CLEAN	





# Prep Logbook

## Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 965377 Verified by: \_\_\_\_\_  
 Analyst: Andrew Schwemin  
 Method: SW846 3550B  
 Lab SOP: GL-OA-E-010 REV# 18  
 Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202071391 MB	15-MAR-2010 21:25:00	30	H2SO4/KM2	2	9	1	0.03333	
1202071392 LCS	15-MAR-2010 21:25:00	30	H2SO4/KM2	2	9	1	0.03333	
248161001	15-MAR-2010 21:25:00	30.12	H2SO4/KM2	2	9	1	0.0332	
248161002	15-MAR-2010 21:25:00	30.09	H2SO4/KM2	2	9	1	0.03323	
248161003	15-MAR-2010 21:25:00	30.02	H2SO4/KM2	2	9	1	0.03331	
248161004	15-MAR-2010 21:25:00	30.17	H2SO4/KM2	2	9	1	0.03315	
248161005	15-MAR-2010 21:25:00	30.09	H2SO4/KM2	2	9	1	0.03323	
248161006	15-MAR-2010 21:25:00	30.09	H2SO4/KM2	2	9	1	0.03323	
248197001	15-MAR-2010 21:25:00	30.11	H2SO4/KM2	2	9	1	0.03321	
248197002	15-MAR-2010 21:25:00	30.17	H2SO4/KM2	2	9	1	0.03315	
248197003	15-MAR-2010 21:25:00	30.15	H2SO4/KM2	2	9	1	0.03317	
248197004	15-MAR-2010 21:25:00	30.02	H2SO4/KM2	2	9	1	0.03331	
248197005	15-MAR-2010 21:25:00	30.05	H2SO4/KM2	2	9	1	0.03328	
248202001	15-MAR-2010 21:25:00	30.12	H2SO4/KM2	2	9	1	0.0332	
1202071393 MS (248202001)	15-MAR-2010 21:25:00	30.17	H2SO4/KM2	2	9	1	0.03315	
1202071394 MSD (248202001)	15-MAR-2010 21:25:00	30.18	H2SO4/KM2	2	9	1	0.03313	
248202002	15-MAR-2010 21:25:00	30.13	H2SO4/KM2	2	9	1	0.03319	

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202071392	PCB Laboratory Control	WE100224-07	1	mL	Clean up Date: 3/15/10
MS	1202071393	PCB Laboratory Control	WE100224-07	1	mL	Clean up Initials: AJS
MSD	1202071394	PCB Laboratory Control	WE100224-07	1	mL	Verified By: AAW
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100302-16	1	mL	Final Solvent: Hexane
REGNT	All	1:1 sulfuric acid	1260695a	5	mL	Clean Up SOP: GL-OA-E-037
REGNT	All	Acetone	1273823-B1	150	mL	
REGNT	All	Hexane	1279345-B2	150	mL	
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL	
SOURC	All	SODIUM SULFATE	1274910	30	g	

# **Metals Analysis**

# Case Narrative

**Metals Fractional Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2124**

**Sample Analysis**

<b>Sample ID</b>	<b>Client ID</b>
248202001	RE36-10-8282
248202002	RE36-10-8281
1202056901	Method Blank (MB) ICP
1202093058	Method Blank (MB) ICP
1202056906	Laboratory Control Sample (LCS)
1202093059	Laboratory Control Sample (LCS)
1202056903	248166001(RE32-10-11459L) Serial Dilution (SD)
1202056902	248166001(RE32-10-11459D) Sample Duplicate (DUP)
1202056904	248166001(RE32-10-11459S) Matrix Spike (MS)
1202056905	248166001(RE32-10-11459SD) Matrix Spike Duplicate (MSD)
1202056912	Method Blank (MB) ICP-MS
1202056917	Laboratory Control Sample (LCS)
1202056914	248166001(RE32-10-11459L) Serial Dilution (SD)
1202056913	248166001(RE32-10-11459D) Sample Duplicate (DUP)
1202056915	248166001(RE32-10-11459S) Matrix Spike (MS)
1202056916	248166001(RE32-10-11459SD) Matrix Spike Duplicate (MSD)
1202056211	Method Blank (MB) CVAA
1202056212	Laboratory Control Sample (LCS)
1202056215	248189001(RE11-10-1651L) Serial Dilution (SD)
1202056213	248189001(RE11-10-1651D) Sample Duplicate (DUP)

1202056214        248189001(RE11-10-1651S) Matrix Spike (MS)  
1202056216        248189001(RE11-10-1651SD) Matrix Spike Duplicate (MSD)

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

#### **Method/Analysis Information**

**Analytical Batch:**    959123, 974190, 959125 and 958770

**Prep Batch :**        959122, 974189, 959124 and 958769

**Standard Operating Procedures:** GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-009 REV# 20, 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 standard(s) met the referenced advisory control limits.

### **ICSA/ICSAB Statement**

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

### **Continuing Calibration Blank (CCB) Requirements**

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

### **Continuing Calibration Verification (CCV) Requirements**

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

## **Quality Control (QC) Information**

### **Method Blank (MB) Statement**

The MBs analyzed with this SDG met the acceptance criteria.

### **Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

### **Quality Control (QC) Sample Statement**

The following samples were selected as the quality control (QC) samples for this SDG: 248166001 (RE32-10-11459) and 248189001 (RE11-10-1651).

### **Matrix Spike (MS) Recovery Statement**

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

### **Matrix Spike Duplicate (MSD) Recovery Statement**

The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of magnesium, potassium, nickel and selenium, 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 mercury, 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 barium and nickel, 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 248202002 (RE36-10-8281) required dilutions for lead and nickel in order to bring over range concentrations within the linear calibration range of the instrument. Sample 248202002 (RE36-10-8281) required dilutions for copper and zinc in order to bring raw values within the linear range of the instrument, and for the analytes that those elements interfere with, in order to ensure that the inter-element correction factors were valid. The sample was diluted because copper was over the linear range, which affects zinc.

**Preparation Information**

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

**Miscellaneous Information****Electronic Packaging Comment**

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

packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

**Data Exception (DER) Documentation**

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 803463, 816396 and 819459. A copy of each DER is included in the Miscellaneous Data section of this package.

**Additional Comments**

Additional comments were not required for this SDG.

**Certification Statement**

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

**Review Validation:**

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

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

Reviewer: Kristen Panson Date: 4/21/10



# **Sample Data Summary**

**METALS**  
**-1-**  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2124

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248202001

BASIS: Dry Weight

DATE COLLECTED 23-FEB-10

CLIENT ID: RE36-10-8282

LEVEL: Low

DATE RECEIVED 26-FEB-10

MATRIX: SOIL

%SOLIDS: 91.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4860000	ug/Kg		7120	20900	20900	1	P	HSC	03/29/10 21:56	032910C-1	959123
7440-36-0	Antimony	1060	ug/Kg	U	350	1060	1060	1	P	LS	04/13/10 20:07	041310A-3	974190
7440-38-2	Arsenic	1.14	mg/kg		0.213	1.07	1.07	2	MS	SKJ	04/13/10 21:11	100413-5	959125
7440-39-3	Barium	28400	ug/Kg		105	524	524	1	P	HSC	03/29/10 21:56	032910C-1	959123
7440-41-7	Beryllium	0.466	mg/kg		0.0213	0.107	0.107	2	MS	SKJ	04/17/10 05:45	100416-8	959125
7440-43-9	Cadmium	1390	ug/Kg		105	524	524	1	P	HSC	03/29/10 21:56	032910C-1	959123
7440-70-2	Calcium	2060000	ug/Kg		8380	26200	26200	1	P	HSC	03/29/10 21:56	032910C-1	959123
7440-47-3	Chromium	30400	ug/Kg		157	524	524	1	P	HSC	03/29/10 21:56	032910C-1	959123
7440-48-4	Cobalt	1480	ug/Kg		157	524	524	1	P	HSC	03/29/10 21:56	032910C-1	959123
7440-50-8	Copper	309000	ug/Kg		314	1050	1050	1	P	HSC	03/29/10 21:56	032910C-1	959123
7439-89-6	Iron	7600000	ug/Kg		8380	26200	26200	1	P	HSC	03/29/10 21:56	032910C-1	959123
7439-92-1	Lead	35700	ug/Kg		265	1060	1060	1	P	LS	04/13/10 20:07	041310A-3	974190
7439-95-4	Magnesium	824000	ug/Kg		8900	31400	31400	1	P	HSC	03/29/10 21:56	032910C-1	959123
7439-96-5	Manganese	126000	ug/Kg		209	1050	1050	1	P	HSC	03/29/10 21:56	032910C-1	959123
7439-97-6	Mercury	131	ug/kg		3.94	11.6	11.6	1	AV	JXLI	03/12/10 11:13	031210S1-11	958770
7440-02-0	Nickel	4.05	mg/kg		0.107	0.426	0.426	2	MS	SKJ	04/17/10 05:45	100416-8	959125
7440-09-7	Potassium	721000	ug/Kg		6700	26200	26200	1	P	HSC	03/29/10 21:56	032910C-1	959123
7782-49-2	Selenium	0.635	mg/kg	J	0.533	1.07	1.07	2	MS	SKJ	04/13/10 21:11	100413-5	959125
7440-22-4	Silver	85900	ug/Kg		105	524	524	1	P	HSC	03/29/10 21:56	032910C-1	959123
7440-23-5	Sodium	269000	ug/Kg		7330	26200	26200	1	P	HSC	03/29/10 21:56	032910C-1	959123
7440-28-0	Thallium	0.213	mg/kg	U	0.0639	0.213	0.213	2	MS	SKJ	04/13/10 21:11	100413-5	959125
7440-61-1	Uranium	1.36	mg/kg		0.0141	0.0426	0.0426	2	MS	SKJ	04/14/10 03:35	100413-6	959125
7440-62-2	Vanadium	10900	ug/Kg		105	524	524	1	P	HSC	03/29/10 21:56	032910C-1	959123
7440-66-6	Zinc	235000	ug/Kg		346	1050	1050	1	P	HSC	03/29/10 21:56	032910C-1	959123

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958770	958769	SW846 7471A Prep	0.567	g	30	mL	03/11/10	TXB3
959123	959122	SW846 3050B	0.523	g	50	mL	03/04/10	FGA
959125	959124	SW846 3050B	0.514	g	50	mL	03/04/10	FGA
974190	974189	SW846 3050B	0.516	g	50	mL	04/13/10	LYH1

**METALS**  
-1-  
**INORGANICS ANALYSIS DATA PACKAGE**

SDG No: 10-2124

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248202002

BASIS: Dry Weight

DATE COLLECTED 23-FEB-10

CLIENT ID: RE36-10-8281

LEVEL: Low

DATE RECEIVED 26-FEB-10

MATRIX: SOIL

%SOLIDS: 73

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	14100000	ug/Kg		8940	26300	26300	1	P	HSC	03/29/10 21:58	032910C-1	959123
7440-36-0	Antimony	1350	ug/Kg	U	444	1350	1350	1	P	LS	04/13/10 20:09	041310A-3	974190
7440-38-2	Arsenic	2.59	mg/kg		0.271	1.35	1.35	2	MS	SKJ	04/13/10 21:15	100413-5	959125
7440-39-3	Barium	109000	ug/Kg		131	657	657	1	P	HSC	03/29/10 21:58	032910C-1	959123
7440-41-7	Beryllium	0.673	mg/kg		0.0271	0.135	0.135	2	MS	SKJ	04/17/10 05:47	100416-8	959125
7440-43-9	Cadmium	1360	ug/Kg		131	657	657	1	P	HSC	03/29/10 21:58	032910C-1	959123
7440-70-2	Calcium	11700000	ug/Kg		10500	32900	32900	1	P	HSC	03/29/10 21:58	032910C-1	959123
7440-47-3	Chromium	28500	ug/Kg		197	657	657	1	P	HSC	03/29/10 21:58	032910C-1	959123
7440-48-4	Cobalt	4180	ug/Kg		197	657	657	1	P	HSC	03/29/10 21:58	032910C-1	959123
7440-50-8	Copper	2720000	ug/Kg		1970	6570	6570	5	P	HSC	03/30/10 15:43	033010B-2	959123
7439-89-6	Iron	13000000	ug/Kg		10500	32900	32900	1	P	HSC	03/29/10 21:58	032910C-1	959123
7439-92-1	Lead	144000	ug/Kg		1680	6730	6730	5	P	HSC	04/14/10 13:06	041410-4	974190
7439-95-4	Magnesium	2040000	ug/Kg		11200	39400	39400	1	P	HSC	03/29/10 21:58	032910C-1	959123
7439-96-5	Manganese	587000	ug/Kg		263	1310	1310	1	P	HSC	03/29/10 21:58	032910C-1	959123
7439-97-6	Mercury	297	ug/kg		5.2	15.3	15.3	1	AV	JXL1	03/12/10 11:15	031210S1-11	958770
7440-02-0	Nickel	53	mg/kg		0.271	1.08	1.08	4	MS	SKJ	04/19/10 18:09	100419-9	959125
7440-09-7	Potassium	2590000	ug/Kg		8420	32900	32900	1	P	HSC	03/29/10 21:58	032910C-1	959123
7782-49-2	Selenium	1.35	mg/kg	U	0.677	1.35	1.35	2	MS	SKJ	04/13/10 21:15	100413-5	959125
7440-22-4	Silver	32400	ug/Kg		131	657	657	1	P	HSC	03/29/10 21:58	032910C-1	959123
7440-23-5	Sodium	503000	ug/Kg		9200	32900	32900	1	P	HSC	03/29/10 21:58	032910C-1	959123
7440-28-0	Thallium	0.271	mg/kg	U	0.0812	0.271	0.271	2	MS	SKJ	04/13/10 21:15	100413-5	959125
7440-61-1	Uranium	2.23	mg/kg		0.0179	0.0542	0.0542	2	MS	SKJ	04/14/10 03:37	100413-6	959125
7440-62-2	Vanadium	14600	ug/Kg		131	657	657	1	P	HSC	03/29/10 21:58	032910C-1	959123
7440-66-6	Zinc	1320000	ug/Kg		2170	6570	6570	5	P	HSC	03/30/10 15:43	033010B-2	959123

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958770	958769	SW846 7471A Prep	0.536	g	30	mL	03/11/10	TXB3
959123	959122	SW846 3050B	0.52	g	50	mL	03/04/10	FGA
959125	959124	SW846 3050B	0.505	g	50	mL	03/04/10	FGA
974190	974189	SW846 3050B	0.508	g	50	mL	04/13/10	LYH1

# **Quality Control Summary**

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-2124

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	5.14	ug/L	5	ug/L	102.8	90.0 – 110.0	AV	12-MAR-10 09:18	031210S1-11
	Aluminum	5140	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	29-MAR-10 18:35	032910C-1
	Barium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	29-MAR-10 18:35	032910C-1
	Cadmium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	29-MAR-10 18:35	032910C-1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	29-MAR-10 18:35	032910C-1
	Chromium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	29-MAR-10 18:35	032910C-1
	Cobalt	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	29-MAR-10 18:35	032910C-1
	Copper	510	ug/L	500	ug/L	102	90.0 – 110.0	P	29-MAR-10 18:35	032910C-1
	Iron	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	29-MAR-10 18:35	032910C-1
	Magnesium	5200	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	29-MAR-10 18:35	032910C-1
	Manganese	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	29-MAR-10 18:35	032910C-1
	Potassium	2470	ug/L	2500	ug/L	98.7	90.0 – 110.0	P	29-MAR-10 18:35	032910C-1
	Silver	257	ug/L	250	ug/L	102.8	90.0 – 110.0	P	29-MAR-10 18:35	032910C-1
	Sodium	2460	ug/L	2500	ug/L	98.5	90.0 – 110.0	P	29-MAR-10 18:35	032910C-1
	Vanadium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	29-MAR-10 18:35	032910C-1
	Zinc	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	29-MAR-10 18:35	032910C-1
	Copper	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	30-MAR-10 15:16	033010B-2
	Zinc	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	30-MAR-10 15:16	033010B-2
	Antimony	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	13-APR-10 14:05	041310A-3
	Lead	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	13-APR-10 14:05	041310A-3
	Arsenic	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	13-APR-10 19:08	100413-5
	Selenium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	13-APR-10 19:08	100413-5
	Thallium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	13-APR-10 19:08	100413-5
	Uranium	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	14-APR-10 02:46	100413-6
	Lead	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	14-APR-10 08:25	041410-4
	Uranium	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	17-APR-10 02:46	100416-7
	Beryllium	47.1	ug/L	50	ug/L	94.1	90.0 – 110.0	MS	17-APR-10 03:58	100416-8
	Nickel	47.5	ug/L	50	ug/L	95	90.0 – 110.0	MS	17-APR-10 03:58	100416-8
	Nickel	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	19-APR-10 17:53	100419-9
	Thallium	50.9	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	20-APR-10 14:36	100420-10

## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-2124

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>
CCV01										
	Mercury	5.09	ug/L	5	ug/L	101.7	80.0 – 120.0	AV	12-MAR-10 09:23	031210S1-11
	Aluminum	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	29-MAR-10 18:49	032910C-1
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	29-MAR-10 18:49	032910C-1
	Cadmium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	29-MAR-10 18:49	032910C-1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	29-MAR-10 18:49	032910C-1
	Chromium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29-MAR-10 18:49	032910C-1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	29-MAR-10 18:49	032910C-1
	Copper	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	29-MAR-10 18:49	032910C-1
	Iron	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	29-MAR-10 18:49	032910C-1
	Magnesium	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	29-MAR-10 18:49	032910C-1
	Manganese	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	29-MAR-10 18:49	032910C-1
	Potassium	5440	ug/L	5000	ug/L	108.7	90.0 – 110.0	P	29-MAR-10 18:49	032910C-1
	Silver	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	29-MAR-10 18:49	032910C-1
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	29-MAR-10 18:49	032910C-1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	29-MAR-10 18:49	032910C-1
	Zinc	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	29-MAR-10 18:49	032910C-1
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	30-MAR-10 15:38	033010B-2
	Zinc	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	30-MAR-10 15:38	033010B-2
	Antimony	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	13-APR-10 14:19	041310A-3
	Lead	520	ug/L	500	ug/L	104	90.0 – 110.0	P	13-APR-10 14:19	041310A-3
	Arsenic	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	13-APR-10 19:28	100413-5
	Selenium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	13-APR-10 19:28	100413-5
	Thallium	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	13-APR-10 19:28	100413-5
	Uranium	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	14-APR-10 02:54	100413-6
	Lead	515	ug/L	500	ug/L	103	90.0 – 110.0	P	14-APR-10 08:39	041410-4
	Uranium	52.5	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	17-APR-10 02:54	100416-7
	Beryllium	47.6	ug/L	50	ug/L	95.2	90.0 – 110.0	MS	17-APR-10 04:09	100416-8
	Nickel	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	17-APR-10 04:09	100416-8
	Nickel	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	19-APR-10 18:02	100419-9
	Thallium	49.5	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	20-APR-10 14:52	100420-10

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-2124

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>
CCV02										
	Mercury	5.13	ug/L	5	ug/L	102.6	80.0 – 120.0	AV	12-MAR-10 09:43	031210S1-11
	Aluminum	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	29-MAR-10 18:57	032910C-1
	Barium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	29-MAR-10 18:57	032910C-1
	Cadmium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	29-MAR-10 18:57	032910C-1
	Calcium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	29-MAR-10 18:57	032910C-1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	29-MAR-10 18:57	032910C-1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	29-MAR-10 18:57	032910C-1
	Copper	495	ug/L	500	ug/L	99	90.0 – 110.0	P	29-MAR-10 18:57	032910C-1
	Iron	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	29-MAR-10 18:57	032910C-1
	Magnesium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	29-MAR-10 18:57	032910C-1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29-MAR-10 18:57	032910C-1
	Potassium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	29-MAR-10 18:57	032910C-1
	Silver	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	29-MAR-10 18:57	032910C-1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	29-MAR-10 18:57	032910C-1
	Vanadium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	29-MAR-10 18:57	032910C-1
	Zinc	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	29-MAR-10 18:57	032910C-1
	Copper	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	30-MAR-10 15:54	033010B-2
	Zinc	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30-MAR-10 15:54	033010B-2
	Antimony	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	13-APR-10 14:26	041310A-3
	Lead	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	13-APR-10 14:26	041310A-3
	Arsenic	51.7	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	13-APR-10 20:09	100413-5
	Selenium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	13-APR-10 20:09	100413-5
	Thallium	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	13-APR-10 20:09	100413-5
	Uranium	49.8	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	14-APR-10 03:10	100413-6
	Lead	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	14-APR-10 08:45	041410-4
	Uranium	53.5	ug/L	50	ug/L	107	90.0 – 110.0	MS	17-APR-10 03:09	100416-7
	Beryllium	46.1	ug/L	50	ug/L	92.3	90.0 – 110.0	MS	17-APR-10 04:30	100416-8
	Nickel	47.7	ug/L	50	ug/L	95.5	90.0 – 110.0	MS	17-APR-10 04:30	100416-8
	Nickel	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	19-APR-10 18:10	100419-9
	Thallium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	20-APR-10 15:05	100420-10

## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-2124

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>
CCV03										
	Mercury	5.24	ug/L	5	ug/L	104.7	80.0 - 120.0	AV	12-MAR-10 10:03	031210S1-11
	Aluminum	5160	ug/L	5000	ug/L	103.3	90.0 - 110.0	P	29-MAR-10 19:31	032910C-1
	Barium	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	29-MAR-10 19:31	032910C-1
	Cadmium	483	ug/L	500	ug/L	96.5	90.0 - 110.0	P	29-MAR-10 19:31	032910C-1
	Calcium	4960	ug/L	5000	ug/L	99.2	90.0 - 110.0	P	29-MAR-10 19:31	032910C-1
	Chromium	488	ug/L	500	ug/L	97.7	90.0 - 110.0	P	29-MAR-10 19:31	032910C-1
	Cobalt	487	ug/L	500	ug/L	97.5	90.0 - 110.0	P	29-MAR-10 19:31	032910C-1
	Copper	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	29-MAR-10 19:31	032910C-1
	Iron	4930	ug/L	5000	ug/L	98.5	90.0 - 110.0	P	29-MAR-10 19:31	032910C-1
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	29-MAR-10 19:31	032910C-1
	Manganese	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	29-MAR-10 19:31	032910C-1
	Potassium	4830	ug/L	5000	ug/L	96.6	90.0 - 110.0	P	29-MAR-10 19:31	032910C-1
	Silver	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	29-MAR-10 19:31	032910C-1
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 - 110.0	P	29-MAR-10 19:31	032910C-1
	Vanadium	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	29-MAR-10 19:31	032910C-1
	Zinc	480	ug/L	500	ug/L	96.1	90.0 - 110.0	P	29-MAR-10 19:31	032910C-1
	Antimony	506	ug/L	500	ug/L	101.1	90.0 - 110.0	P	13-APR-10 14:34	041310A-3
	Lead	510	ug/L	500	ug/L	102	90.0 - 110.0	P	13-APR-10 14:34	041310A-3
	Arsenic	51.3	ug/L	50	ug/L	102.5	90.0 - 110.0	MS	13-APR-10 20:42	100413-5
	Selenium	53.3	ug/L	50	ug/L	106.6	90.0 - 110.0	MS	13-APR-10 20:42	100413-5
	Thallium	49.6	ug/L	50	ug/L	99.3	90.0 - 110.0	MS	13-APR-10 20:42	100413-5
	Uranium	49.1	ug/L	50	ug/L	98.1	90.0 - 110.0	MS	14-APR-10 03:24	100413-6
	Lead	502	ug/L	500	ug/L	100.5	90.0 - 110.0	P	14-APR-10 09:18	041410-4
	Uranium	53.4	ug/L	50	ug/L	106.8	90.0 - 110.0	MS	17-APR-10 03:28	100416-7
	Beryllium	47.5	ug/L	50	ug/L	95	90.0 - 110.0	MS	17-APR-10 04:50	100416-8
	Nickel	49.6	ug/L	50	ug/L	99.2	90.0 - 110.0	MS	17-APR-10 04:50	100416-8
	Thallium	49.9	ug/L	50	ug/L	99.9	90.0 - 110.0	MS	20-APR-10 15:33	100420-10
CCV04										
	Mercury	5.26	ug/L	5	ug/L	105.3	80.0 - 120.0	AV	12-MAR-10 10:23	031210S1-11
	Aluminum	5160	ug/L	5000	ug/L	103.1	90.0 - 110.0	P	29-MAR-10 19:52	032910C-1



## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-2124

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>
	Barium	498	ug/L	500	ug/L	99.5	90.0 - 110.0	P	29-MAR-10 19:52	032910C-1
	Cadmium	481	ug/L	500	ug/L	96.2	90.0 - 110.0	P	29-MAR-10 19:52	032910C-1
	Calcium	4950	ug/L	5000	ug/L	98.9	90.0 - 110.0	P	29-MAR-10 19:52	032910C-1
	Chromium	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	29-MAR-10 19:52	032910C-1
	Cobalt	486	ug/L	500	ug/L	97.1	90.0 - 110.0	P	29-MAR-10 19:52	032910C-1
	Copper	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	29-MAR-10 19:52	032910C-1
	Iron	4910	ug/L	5000	ug/L	98.3	90.0 - 110.0	P	29-MAR-10 19:52	032910C-1
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	29-MAR-10 19:52	032910C-1
	Manganese	490	ug/L	500	ug/L	98	90.0 - 110.0	P	29-MAR-10 19:52	032910C-1
	Potassium	4830	ug/L	5000	ug/L	96.7	90.0 - 110.0	P	29-MAR-10 19:52	032910C-1
	Silver	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	29-MAR-10 19:52	032910C-1
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 - 110.0	P	29-MAR-10 19:52	032910C-1
	Vanadium	498	ug/L	500	ug/L	99.7	90.0 - 110.0	P	29-MAR-10 19:52	032910C-1
	Zinc	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	29-MAR-10 19:52	032910C-1
	Antimony	499	ug/L	500	ug/L	99.7	90.0 - 110.0	P	13-APR-10 15:11	041310A-3
	Lead	500	ug/L	500	ug/L	100	90.0 - 110.0	P	13-APR-10 15:11	041310A-3
	Arsenic	50.5	ug/L	50	ug/L	100.9	90.0 - 110.0	MS	13-APR-10 21:19	100413-5
	Selenium	51.1	ug/L	50	ug/L	102.2	90.0 - 110.0	MS	13-APR-10 21:19	100413-5
	Thallium	50.5	ug/L	50	ug/L	100.9	90.0 - 110.0	MS	13-APR-10 21:19	100413-5
	Uranium	49.7	ug/L	50	ug/L	99.5	90.0 - 110.0	MS	14-APR-10 03:38	100413-6
	Lead	507	ug/L	500	ug/L	101.5	90.0 - 110.0	P	14-APR-10 09:43	041410-4
	Uranium	52.2	ug/L	50	ug/L	104.3	90.0 - 110.0	MS	17-APR-10 03:42	100416-7
	Beryllium	51.5	ug/L	50	ug/L	103.1	90.0 - 110.0	MS	17-APR-10 05:10	100416-8
	Nickel	52.7	ug/L	50	ug/L	105.4	90.0 - 110.0	MS	17-APR-10 05:10	100416-8
CCV05	Mercury	4.86	ug/L	5	ug/L	97.2	80.0 - 120.0	AV	12-MAR-10 10:43	031210S1-11
	Aluminum	5180	ug/L	5000	ug/L	103.6	90.0 - 110.0	P	29-MAR-10 20:14	032910C-1
	Barium	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	29-MAR-10 20:14	032910C-1
	Cadmium	485	ug/L	500	ug/L	97.1	90.0 - 110.0	P	29-MAR-10 20:14	032910C-1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 - 110.0	P	29-MAR-10 20:14	032910C-1

## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-2124

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	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	29-MAR-10 20:14	032910C-1
	Cobalt	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	29-MAR-10 20:14	032910C-1
	Copper	495	ug/L	500	ug/L	99	90.0 – 110.0	P	29-MAR-10 20:14	032910C-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	29-MAR-10 20:14	032910C-1
	Magnesium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	29-MAR-10 20:14	032910C-1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29-MAR-10 20:14	032910C-1
	Potassium	4780	ug/L	5000	ug/L	95.7	90.0 – 110.0	P	29-MAR-10 20:14	032910C-1
	Silver	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	29-MAR-10 20:14	032910C-1
	Sodium	9800	ug/L	10000	ug/L	98	90.0 – 110.0	P	29-MAR-10 20:14	032910C-1
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	29-MAR-10 20:14	032910C-1
	Zinc	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	29-MAR-10 20:14	032910C-1
	Antimony	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	13-APR-10 15:31	041310A-3
	Lead	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	13-APR-10 15:31	041310A-3
	Lead	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	14-APR-10 10:07	041410-4
	Beryllium	49.4	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	17-APR-10 05:27	100416-8
	Nickel	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	17-APR-10 05:27	100416-8
CCV06	Mercury	5.06	ug/L	5	ug/L	101.1	80.0 – 120.0	AV	12-MAR-10 11:03	031210S1-11
	Aluminum	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	29-MAR-10 20:39	032910C-1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	29-MAR-10 20:39	032910C-1
	Cadmium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	29-MAR-10 20:39	032910C-1
	Calcium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	29-MAR-10 20:39	032910C-1
	Chromium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	29-MAR-10 20:39	032910C-1
	Cobalt	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	29-MAR-10 20:39	032910C-1
	Copper	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	29-MAR-10 20:39	032910C-1
	Iron	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	29-MAR-10 20:39	032910C-1
	Magnesium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	29-MAR-10 20:39	032910C-1
	Manganese	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	29-MAR-10 20:39	032910C-1
	Potassium	4730	ug/L	5000	ug/L	94.6	90.0 – 110.0	P	29-MAR-10 20:39	032910C-1
	Silver	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	29-MAR-10 20:39	032910C-1

## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-2124

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	9760	ug/L	10000	ug/L	97.6	90.0 – 110.0	P	29-MAR-10 20:39	032910C-1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	29-MAR-10 20:39	032910C-1
	Zinc	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	29-MAR-10 20:39	032910C-1
	Antimony	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	13-APR-10 15:49	041310A-3
	Lead	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	13-APR-10 15:49	041310A-3
	Lead	510	ug/L	500	ug/L	102	90.0 – 110.0	P	14-APR-10 10:25	041410-4
	Beryllium	48.1	ug/L	50	ug/L	96.1	90.0 – 110.0	MS	17-APR-10 05:49	100416-8
	Nickel	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	17-APR-10 05:49	100416-8
CCV07										
	Mercury	5.02	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	12-MAR-10 11:23	031210S1-11
	Aluminum	5210	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	29-MAR-10 21:03	032910C-1
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	29-MAR-10 21:03	032910C-1
	Cadmium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	29-MAR-10 21:03	032910C-1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	29-MAR-10 21:03	032910C-1
	Chromium	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	29-MAR-10 21:03	032910C-1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	29-MAR-10 21:03	032910C-1
	Copper	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	29-MAR-10 21:03	032910C-1
	Iron	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	29-MAR-10 21:03	032910C-1
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	29-MAR-10 21:03	032910C-1
	Manganese	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	29-MAR-10 21:03	032910C-1
	Potassium	4790	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	29-MAR-10 21:03	032910C-1
	Silver	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	29-MAR-10 21:03	032910C-1
	Sodium	9820	ug/L	10000	ug/L	98.3	90.0 – 110.0	P	29-MAR-10 21:03	032910C-1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	29-MAR-10 21:03	032910C-1
	Zinc	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	29-MAR-10 21:03	032910C-1
	Antimony	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	13-APR-10 16:12	041310A-3
	Lead	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	13-APR-10 16:12	041310A-3
	Lead	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	14-APR-10 10:49	041410-4
CCV08										
	Aluminum	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	29-MAR-10 21:21	032910C-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-2124

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>
	Barium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	29-MAR-10 21:21	032910C-1
	Cadmium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	29-MAR-10 21:21	032910C-1
	Calcium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	29-MAR-10 21:21	032910C-1
	Chromium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	29-MAR-10 21:21	032910C-1
	Cobalt	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	29-MAR-10 21:21	032910C-1
	Copper	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	29-MAR-10 21:21	032910C-1
	Iron	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	29-MAR-10 21:21	032910C-1
	Magnesium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	29-MAR-10 21:21	032910C-1
	Manganese	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	29-MAR-10 21:21	032910C-1
	Potassium	4820	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	29-MAR-10 21:21	032910C-1
	Silver	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	29-MAR-10 21:21	032910C-1
	Sodium	9850	ug/L	10000	ug/L	98.5	90.0 – 110.0	P	29-MAR-10 21:21	032910C-1
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	29-MAR-10 21:21	032910C-1
	Zinc	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	29-MAR-10 21:21	032910C-1
	Antimony	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	13-APR-10 16:39	041310A-3
	Lead	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	13-APR-10 16:39	041310A-3
	Lead	510	ug/L	500	ug/L	102	90.0 – 110.0	P	14-APR-10 11:14	041410-4
CCV09	Aluminum	5260	ug/L	5000	ug/L	105.1	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Cadmium	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Calcium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Chromium	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Iron	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Magnesium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Potassium	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Silver	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1

## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-2124

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	9870	ug/L	10000	ug/L	98.7	90.0 - 110.0	P	29-MAR-10 21:41	032910C-1
	Vanadium	500	ug/L	500	ug/L	99.9	90.0 - 110.0	P	29-MAR-10 21:41	032910C-1
	Zinc	479	ug/L	500	ug/L	95.7	90.0 - 110.0	P	29-MAR-10 21:41	032910C-1
	Antimony	506	ug/L	500	ug/L	101.1	90.0 - 110.0	P	13-APR-10 16:58	041310A-3
	Lead	510	ug/L	500	ug/L	102	90.0 - 110.0	P	13-APR-10 16:58	041310A-3
	Lead	515	ug/L	500	ug/L	103	90.0 - 110.0	P	14-APR-10 11:24	041410-4
CCV10	Aluminum	5280	ug/L	5000	ug/L	105.6	90.0 - 110.0	P	29-MAR-10 22:01	032910C-1
	Barium	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	29-MAR-10 22:01	032910C-1
	Cadmium	482	ug/L	500	ug/L	96.4	90.0 - 110.0	P	29-MAR-10 22:01	032910C-1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 - 110.0	P	29-MAR-10 22:01	032910C-1
	Chromium	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	29-MAR-10 22:01	032910C-1
	Cobalt	488	ug/L	500	ug/L	97.7	90.0 - 110.0	P	29-MAR-10 22:01	032910C-1
	Copper	496	ug/L	500	ug/L	99.3	90.0 - 110.0	P	29-MAR-10 22:01	032910C-1
	Iron	4940	ug/L	5000	ug/L	98.9	90.0 - 110.0	P	29-MAR-10 22:01	032910C-1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	29-MAR-10 22:01	032910C-1
	Manganese	492	ug/L	500	ug/L	98.3	90.0 - 110.0	P	29-MAR-10 22:01	032910C-1
	Potassium	4900	ug/L	5000	ug/L	98	90.0 - 110.0	P	29-MAR-10 22:01	032910C-1
	Silver	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	29-MAR-10 22:01	032910C-1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 - 110.0	P	29-MAR-10 22:01	032910C-1
	Vanadium	500	ug/L	500	ug/L	99.9	90.0 - 110.0	P	29-MAR-10 22:01	032910C-1
	Zinc	482	ug/L	500	ug/L	96.5	90.0 - 110.0	P	29-MAR-10 22:01	032910C-1
	Antimony	515	ug/L	500	ug/L	103	90.0 - 110.0	P	13-APR-10 17:31	041310A-3
	Lead	517	ug/L	500	ug/L	103.3	90.0 - 110.0	P	13-APR-10 17:31	041310A-3
	Lead	517	ug/L	500	ug/L	103.4	90.0 - 110.0	P	14-APR-10 11:50	041410-4
CCV11	Antimony	507	ug/L	500	ug/L	101.5	90.0 - 110.0	P	13-APR-10 17:53	041310A-3
	Lead	510	ug/L	500	ug/L	101.9	90.0 - 110.0	P	13-APR-10 17:53	041310A-3
	Lead	509	ug/L	500	ug/L	101.9	90.0 - 110.0	P	14-APR-10 12:37	041410-4

## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-2124

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>
CCV12	Antimony	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	13-APR-10 18:15	041310A-3
	Lead	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	13-APR-10 18:15	041310A-3
	Lead	515	ug/L	500	ug/L	103	90.0 – 110.0	P	14-APR-10 13:08	041410-4
CCV13	Antimony	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	13-APR-10 18:38	041310A-3
	Lead	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	13-APR-10 18:38	041310A-3
CCV14	Antimony	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	13-APR-10 19:03	041310A-3
	Lead	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	13-APR-10 19:03	041310A-3
CCV15	Antimony	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	13-APR-10 19:20	041310A-3
	Lead	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	13-APR-10 19:20	041310A-3
CCV16	Antimony	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	13-APR-10 19:52	041310A-3
	Lead	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	13-APR-10 19:52	041310A-3
CCV17	Antimony	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	13-APR-10 20:12	041310A-3
	Lead	505	ug/L	500	ug/L	101	90.0 – 110.0	P	13-APR-10 20:12	041310A-3

**METALS**  
**-2b-**  
**CRDL Standard for AA & ICP**

SDG No: 10-2124

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	.154	ug/L	.2	ug/L	77	70.0 – 130.0	AV	12-MAR-10 09:21	031210S1-11
	Thallium	1.22	ug/L	1	ug/L	121.8	70.0 – 130.0	MS	13-APR-10 19:16	100413-5
	Arsenic	6.05	ug/L	5	ug/L	121	70.0 – 130.0	MS	13-APR-10 19:16	100413-5
	Selenium	5.77	ug/L	5	ug/L	115.4	70.0 – 130.0	MS	13-APR-10 19:16	100413-5
	Uranium	.2	ug/L	.2	ug/L	100	70.0 – 130.0	MS	14-APR-10 02:49	100413-6
	Uranium	.21	ug/L	.2	ug/L	105	70.0 – 130.0	MS	17-APR-10 02:49	100416-7
	Nickel	2.26	ug/L	2	ug/L	113.2	70.0 – 130.0	MS	17-APR-10 04:03	100416-8
	Beryllium	.584	ug/L	.5	ug/L	116.8	70.0 – 130.0	MS	17-APR-10 04:03	100416-8
	Nickel	2.5	ug/L	2	ug/L	124.8	70.0 – 130.0	MS	19-APR-10 17:57	100419-9
	Thallium	1.16	ug/L	1	ug/L	115.7	70.0 – 130.0	MS	20-APR-10 14:43	100420-10
PQL01										
	Aluminum	201	ug/L	200	ug/L	100.4	70.0 – 130.0	P	29-MAR-10 18:40	032910C-1
	Iron	103	ug/L	100	ug/L	103.4	70.0 – 130.0	P	29-MAR-10 18:40	032910C-1
	Magnesium	303	ug/L	300	ug/L	101.1	70.0 – 130.0	P	29-MAR-10 18:40	032910C-1
	Manganese	10.3	ug/L	10	ug/L	103.4	70.0 – 130.0	P	29-MAR-10 18:40	032910C-1
	Potassium	170	ug/L	150	ug/L	113.4	70.0 – 130.0	P	29-MAR-10 18:40	032910C-1
	Silver	4.62	ug/L	5	ug/L	92.4	70.0 – 130.0	P	29-MAR-10 18:40	032910C-1
	Sodium	260	ug/L	300	ug/L	86.8	70.0 – 130.0	P	29-MAR-10 18:40	032910C-1
	Barium	5.16	ug/L	5	ug/L	103.1	70.0 – 130.0	P	29-MAR-10 18:40	032910C-1
	Calcium	204	ug/L	200	ug/L	101.8	70.0 – 130.0	P	29-MAR-10 18:40	032910C-1
	Cadmium	4.98	ug/L	5	ug/L	99.6	70.0 – 130.0	P	29-MAR-10 18:40	032910C-1
	Chromium	4.84	ug/L	5	ug/L	96.8	70.0 – 130.0	P	29-MAR-10 18:40	032910C-1
	Cobalt	5.14	ug/L	5	ug/L	102.7	70.0 – 130.0	P	29-MAR-10 18:40	032910C-1
	Copper	10.1	ug/L	10	ug/L	101.4	70.0 – 130.0	P	29-MAR-10 18:40	032910C-1
	Vanadium	4.53	ug/L	5	ug/L	90.6	70.0 – 130.0	P	29-MAR-10 18:40	032910C-1
	Zinc	9.92	ug/L	10	ug/L	99.2	70.0 – 130.0	P	29-MAR-10 18:40	032910C-1
	Copper	10.4	ug/L	10	ug/L	104.4	70.0 – 130.0	P	30-MAR-10 15:21	033010B-2
	Zinc	10.2	ug/L	10	ug/L	101.8	70.0 – 130.0	P	30-MAR-10 15:21	033010B-2
	Lead	10.4	ug/L	10	ug/L	104.1	70.0 – 130.0	P	13-APR-10 14:10	041310A-3
	Antimony	9.75	ug/L	10	ug/L	97.5	70.0 – 130.0	P	13-APR-10 14:10	041310A-3

**METALS**  
**-2b-**  
**CRDL Standard for AA & ICP**

SDG No: 10-2124

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>
PQL02	Lead	11.9	ug/L	10	ug/L	119.2	70.0 – 130.0	P	14-APR-10 08:29	041410-4
	Antimony	9.94	ug/L	10	ug/L	99.4	70.0 – 130.0	P	13-APR-10 17:55	041310A-3
	Lead	10.9	ug/L	10	ug/L	109.1	70.0 – 130.0	P	13-APR-10 17:55	041310A-3
PQL03	Lead	11.2	ug/L	10	ug/L	112.4	70.0 – 130.0	P	14-APR-10 09:21	041410-4
	Lead	12.4	ug/L	10	ug/L	123.7	70.0 – 130.0	P	14-APR-10 09:45	041410-4
PQL04	Lead	13.2	ug/L	10	ug/L	132.4	70.0 – 130.0	P	14-APR-10 10:09	041410-4
PQL05	Lead	12.1	ug/L	10	ug/L	120.7	70.0 – 130.0	P	14-APR-10 10:28	041410-4
PQL06	Lead	12.5	ug/L	10	ug/L	125.4	70.0 – 130.0	P	14-APR-10 10:51	041410-4
PQL07	Lead	-.727	ug/L	10	ug/L	-7.3	70.0 – 130.0	P	14-APR-10 11:16	041410-4



**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2124

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	12-MAR-10 09:19	031210S1-11
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	29-MAR-10 18:37	032910C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 18:37	032910C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 18:37	032910C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 18:37	032910C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 18:37	032910C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 18:37	032910C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	29-MAR-10 18:37	032910C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 18:37	032910C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	29-MAR-10 18:37	032910C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	29-MAR-10 18:37	032910C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	29-MAR-10 18:37	032910C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 18:37	032910C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	29-MAR-10 18:37	032910C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 18:37	032910C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	29-MAR-10 18:37	032910C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	30-MAR-10 15:18	033010B-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	30-MAR-10 15:18	033010B-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 14:07	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	13-APR-10 14:07	041310A-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-APR-10 19:12	100413-5
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-APR-10 19:12	100413-5
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	13-APR-10 19:12	100413-5
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	14-APR-10 02:47	100413-6
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	14-APR-10 08:26	041410-4
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	17-APR-10 02:47	100416-7
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	17-APR-10 04:01	100416-8
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	17-APR-10 04:01	100416-8
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	19-APR-10 17:55	100419-9
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	20-APR-10 14:39	100420-10

Metals  
-3a-  
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2124

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>
CCB01	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	12-MAR-10 09:24	031210S1-11
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	29-MAR-10 18:51	032910C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 18:51	032910C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 18:51	032910C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 18:51	032910C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 18:51	032910C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 18:51	032910C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	29-MAR-10 18:51	032910C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 18:51	032910C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	29-MAR-10 18:51	032910C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	29-MAR-10 18:51	032910C-1
	Potassium	152.39	+/-250	J	64.0	250	SOL	P	29-MAR-10 18:51	032910C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 18:51	032910C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	29-MAR-10 18:51	032910C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 18:51	032910C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	29-MAR-10 18:51	032910C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	30-MAR-10 15:40	033010B-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	30-MAR-10 15:40	033010B-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 14:21	041310A-3
	Lead	2.86	+/-10	J	2.5	10.0	SOL	P	13-APR-10 14:21	041310A-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-APR-10 19:32	100413-5
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-APR-10 19:32	100413-5
	Thallium	0.324	+/-1	J	0.3	1.0	SOL	MS	13-APR-10 19:32	100413-5
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	14-APR-10 02:55	100413-6
	Lead	4.12	+/-10	J	2.5	10.0	SOL	P	14-APR-10 08:41	041410-4
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	17-APR-10 02:56	100416-7
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	17-APR-10 04:12	100416-8
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	17-APR-10 04:12	100416-8
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	19-APR-10 18:04	100419-9
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	20-APR-10 14:55	100420-10

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2124

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>
CCB02	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	12-MAR-10 09:44	031210S1-11
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	29-MAR-10 18:59	032910C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 18:59	032910C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 18:59	032910C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 18:59	032910C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 18:59	032910C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 18:59	032910C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	29-MAR-10 18:59	032910C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 18:59	032910C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	29-MAR-10 18:59	032910C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	29-MAR-10 18:59	032910C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	29-MAR-10 18:59	032910C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 18:59	032910C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	29-MAR-10 18:59	032910C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 18:59	032910C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	29-MAR-10 18:59	032910C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	30-MAR-10 15:56	033010B-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	30-MAR-10 15:56	033010B-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 14:28	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	13-APR-10 14:28	041310A-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-APR-10 20:13	100413-5
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-APR-10 20:13	100413-5
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	13-APR-10 20:13	100413-5
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	14-APR-10 03:12	100413-6
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	14-APR-10 08:47	041410-4
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	17-APR-10 03:11	100416-7
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	17-APR-10 04:32	100416-8
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	17-APR-10 04:32	100416-8
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	19-APR-10 18:12	100419-9
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	20-APR-10 15:08	100420-10

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2124

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>
<b>CCB03</b>										
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	12-MAR-10 10:04	031210S1-11
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	29-MAR-10 19:33	032910C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 19:33	032910C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 19:33	032910C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 19:33	032910C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 19:33	032910C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 19:33	032910C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	29-MAR-10 19:33	032910C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 19:33	032910C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	29-MAR-10 19:33	032910C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	29-MAR-10 19:33	032910C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	29-MAR-10 19:33	032910C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 19:33	032910C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	29-MAR-10 19:33	032910C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 19:33	032910C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	29-MAR-10 19:33	032910C-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 14:36	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	13-APR-10 14:36	041310A-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-APR-10 20:46	100413-5
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-APR-10 20:46	100413-5
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	13-APR-10 20:46	100413-5
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	14-APR-10 03:25	100413-6
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	14-APR-10 09:24	041410-4
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	17-APR-10 03:29	100416-7
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	17-APR-10 04:52	100416-8
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	17-APR-10 04:52	100416-8
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	20-APR-10 15:36	100420-10
<b>CCB04</b>										
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	12-MAR-10 10:25	031210S1-11
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	29-MAR-10 19:54	032910C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 19:54	032910C-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2124

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	29-MAR-10 19:54	032910C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 19:54	032910C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 19:54	032910C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 19:54	032910C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	29-MAR-10 19:54	032910C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 19:54	032910C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	29-MAR-10 19:54	032910C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	29-MAR-10 19:54	032910C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	29-MAR-10 19:54	032910C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 19:54	032910C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	29-MAR-10 19:54	032910C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 19:54	032910C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	29-MAR-10 19:54	032910C-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 15:14	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	13-APR-10 15:14	041310A-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-APR-10 21:23	100413-5
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-APR-10 21:23	100413-5
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	13-APR-10 21:23	100413-5
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	14-APR-10 03:40	100413-6
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	14-APR-10 09:48	041410-4
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	17-APR-10 03:44	100416-7
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	17-APR-10 05:12	100416-8
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	17-APR-10 05:12	100416-8
CCB05	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	12-MAR-10 10:45	031210S1-11
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	29-MAR-10 20:16	032910C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 20:16	032910C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 20:16	032910C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 20:16	032910C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 20:16	032910C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 20:16	032910C-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2124

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>
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	29-MAR-10 20:16	032910C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 20:16	032910C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	29-MAR-10 20:16	032910C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	29-MAR-10 20:16	032910C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	29-MAR-10 20:16	032910C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 20:16	032910C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	29-MAR-10 20:16	032910C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 20:16	032910C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	29-MAR-10 20:16	032910C-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 15:33	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	13-APR-10 15:33	041310A-3
	Lead	3.1	+/-10	J	2.5	10.0	SOL	P	14-APR-10 10:12	041410-4
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	17-APR-10 05:29	100416-8
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	17-APR-10 05:29	100416-8
<b>CCB06</b>	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	12-MAR-10 11:05	031210S1-11
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	29-MAR-10 20:41	032910C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 20:41	032910C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 20:41	032910C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 20:41	032910C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 20:41	032910C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 20:41	032910C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	29-MAR-10 20:41	032910C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 20:41	032910C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	29-MAR-10 20:41	032910C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	29-MAR-10 20:41	032910C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	29-MAR-10 20:41	032910C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 20:41	032910C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	29-MAR-10 20:41	032910C-1
	Vanadium	-1.05	+/-5	J	1.0	5.0	SOL	P	29-MAR-10 20:41	032910C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	29-MAR-10 20:41	032910C-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2124

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB07	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 15:51	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	13-APR-10 15:51	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	14-APR-10 10:31	041410-4
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	17-APR-10 05:51	100416-8
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	17-APR-10 05:51	100416-8
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	12-MAR-10 11:25	031210S1-11
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	29-MAR-10 21:05	032910C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 21:05	032910C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 21:05	032910C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 21:05	032910C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 21:05	032910C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 21:05	032910C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	29-MAR-10 21:05	032910C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 21:05	032910C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	29-MAR-10 21:05	032910C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	29-MAR-10 21:05	032910C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	29-MAR-10 21:05	032910C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 21:05	032910C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	29-MAR-10 21:05	032910C-1
	Vanadium	-1.02	+/-5	J	1.0	5.0	SOL	P	29-MAR-10 21:05	032910C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	29-MAR-10 21:05	032910C-1
CCB08	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 16:14	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	13-APR-10 16:14	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	14-APR-10 10:54	041410-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	29-MAR-10 21:23	032910C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 21:23	032910C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 21:23	032910C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 21:23	032910C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 21:23	032910C-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2124

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ng/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 21:23	032910C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	29-MAR-10 21:23	032910C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 21:23	032910C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	29-MAR-10 21:23	032910C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	29-MAR-10 21:23	032910C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	29-MAR-10 21:23	032910C-1
	Silver	1.24	+/-5	J	1.0	5.0	SOL	P	29-MAR-10 21:23	032910C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	29-MAR-10 21:23	032910C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 21:23	032910C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	29-MAR-10 21:23	032910C-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 16:41	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	13-APR-10 16:41	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	14-APR-10 11:19	041410-4
<b>CCB09</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	29-MAR-10 21:43	032910C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 21:43	032910C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 21:43	032910C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 21:43	032910C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 21:43	032910C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 21:43	032910C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	29-MAR-10 21:43	032910C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 21:43	032910C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	29-MAR-10 21:43	032910C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	29-MAR-10 21:43	032910C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	29-MAR-10 21:43	032910C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 21:43	032910C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	29-MAR-10 21:43	032910C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 21:43	032910C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	29-MAR-10 21:43	032910C-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 17:00	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	13-APR-10 17:00	041310A-3



**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2124

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB10	Lead	2.68	+/-10	J	2.5	10.0	SOL	P	14-APR-10 11:26	041410-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	29-MAR-10 22:03	032910C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 22:03	032910C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 22:03	032910C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 22:03	032910C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 22:03	032910C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	29-MAR-10 22:03	032910C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	29-MAR-10 22:03	032910C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	29-MAR-10 22:03	032910C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	29-MAR-10 22:03	032910C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	29-MAR-10 22:03	032910C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	29-MAR-10 22:03	032910C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 22:03	032910C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	29-MAR-10 22:03	032910C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	29-MAR-10 22:03	032910C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	29-MAR-10 22:03	032910C-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 17:34	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	13-APR-10 17:34	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	14-APR-10 11:52	041410-4
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 17:58	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	13-APR-10 17:58	041310A-3
CCB11	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	14-APR-10 12:39	041410-4
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 18:18	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	13-APR-10 18:18	041310A-3
CCB12	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	14-APR-10 13:11	041410-4
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 18:40	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	13-APR-10 18:40	041310A-3
CCB13	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 18:40	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	13-APR-10 18:40	041310A-3

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-2124

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>
<b>CCB14</b>	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 19:05	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	13-APR-10 19:05	041310A-3
<b>CCB15</b>	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 19:22	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	13-APR-10 19:22	041310A-3
<b>CCB16</b>	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 19:54	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	13-APR-10 19:54	041310A-3
<b>CCB17</b>	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	13-APR-10 20:14	041310A-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	13-APR-10 20:14	041310A-3

**METALS**  
**-3b-**  
**PREPARATION BLANK SUMMARY**

**SDG NO.** 10-2124  
**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>
1202056211	Mercury	3.55	ug/kg	+/-10.5	U	AV	3.55	10.5
1202056901	Aluminum	6600	ug/Kg	+/-19400	U	P	6600	19400
	Barium	97.1	ug/Kg	+/-485	U	P	97.1	485
	Cadmium	97.1	ug/Kg	+/-485	U	P	97.1	485
	Calcium	7770	ug/Kg	+/-24300	U	P	7770	24300
	Chromium	146	ug/Kg	+/-485	U	P	146	485
	Cobalt	146	ug/Kg	+/-485	U	P	146	485
	Copper	291	ug/Kg	+/-971	U	P	291	971
	Iron	7770	ug/Kg	+/-24300	U	P	7770	24300
	Magnesium	8250	ug/Kg	+/-29100	U	P	8250	29100
	Manganese	194	ug/Kg	+/-971	U	P	194	971
	Potassium	6210	ug/Kg	+/-24300	U	P	6210	24300
	Silver	97.1	ug/Kg	+/-485	U	P	97.1	485
	Sodium	6800	ug/Kg	+/-24300	U	P	6800	24300
	Vanadium	97.1	ug/Kg	+/-485	U	P	97.1	485
	Zinc	320	ug/Kg	+/-971	U	P	320	971
1202056912	Arsenic	0.2	mg/kg	+/-1	U	MS	0.2	1
	Beryllium	0.02	mg/kg	+/-0.1	U	MS	0.02	0.1
	Nickel	0.1	mg/kg	+/-0.4	U	MS	0.1	0.4
	Selenium	0.5	mg/kg	+/-1	U	MS	0.5	1
	Thallium	0.06	mg/kg	+/-0.2	U	MS	0.06	0.2
	Uranium	0.0132	mg/kg	+/-0.04	U	MS	0.0132	0.04
1202093058	Antimony	328	ug/Kg	+/-994	U	P	328	994
	Lead	249	ug/Kg	+/-994	U	P	249	994

## METALS

-4-

## Interference Check Sample

SDG No: 10-2124

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>
<b>ICSA01</b>									
	Aluminum	511000	ug/L	500000	ug/L	102	80.0 - 120.0	29-MAR-10 18:43	032910C-1
	Barium	0.49	ug/L					29-MAR-10 18:43	032910C-1
	Cadmium	-2.27	ug/L					29-MAR-10 18:43	032910C-1
	Calcium	479000	ug/L	500000	ug/L	95.7	80.0 - 120.0	29-MAR-10 18:43	032910C-1
	Chromium	1.9	ug/L					29-MAR-10 18:43	032910C-1
	Cobalt	-6.27	ug/L					29-MAR-10 18:43	032910C-1
	Copper	-2.45	ug/L					29-MAR-10 18:43	032910C-1
	Iron	189000	ug/L	200000	ug/L	94.6	80.0 - 120.0	29-MAR-10 18:43	032910C-1
	Magnesium	481000	ug/L	500000	ug/L	96.2	80.0 - 120.0	29-MAR-10 18:43	032910C-1
	Manganese	2.08	ug/L					29-MAR-10 18:43	032910C-1
	Potassium	-157.0	ug/L					29-MAR-10 18:43	032910C-1
	Silver	0.683	ug/L					29-MAR-10 18:43	032910C-1
	Sodium	12.5	ug/L					29-MAR-10 18:43	032910C-1
	Vanadium	1.57	ug/L					29-MAR-10 18:43	032910C-1
	Zinc	7.6	ug/L					29-MAR-10 18:43	032910C-1
<b>ICSAB01</b>									
	Aluminum	520000	ug/L	500000	ug/L	104	80.0 - 120.0	29-MAR-10 18:45	032910C-1
	Barium	500	ug/L	500	ug/L	100	80.0 - 120.0	29-MAR-10 18:45	032910C-1
	Cadmium	467	ug/L	500	ug/L	93.3	80.0 - 120.0	29-MAR-10 18:45	032910C-1
	Calcium	487000	ug/L	500000	ug/L	97.4	80.0 - 120.0	29-MAR-10 18:45	032910C-1
	Chromium	485	ug/L	500	ug/L	96.9	80.0 - 120.0	29-MAR-10 18:45	032910C-1
	Cobalt	437	ug/L	500	ug/L	87.5	80.0 - 120.0	29-MAR-10 18:45	032910C-1
	Copper	537	ug/L	500	ug/L	107	80.0 - 120.0	29-MAR-10 18:45	032910C-1
	Iron	191000	ug/L	200000	ug/L	95.3	80.0 - 120.0	29-MAR-10 18:45	032910C-1
	Magnesium	483000	ug/L	500000	ug/L	96.6	80.0 - 120.0	29-MAR-10 18:45	032910C-1
	Manganese	478	ug/L	500	ug/L	95.7	80.0 - 120.0	29-MAR-10 18:45	032910C-1
	Potassium	5450	ug/L	5000	ug/L	109	80.0 - 120.0	29-MAR-10 18:45	032910C-1
	Silver	271	ug/L	250	ug/L	108	80.0 - 120.0	29-MAR-10 18:45	032910C-1
	Sodium	5320	ug/L	5000	ug/L	106	80.0 - 120.0	29-MAR-10 18:45	032910C-1

**METALS**  
**-4-**  
**Interference Check Sample**

**SDG No:** 10-2124**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>
	Vanadium	517	ug/L	500	ug/L	103	80.0 – 120.0	29-MAR-10 18:45	032910C-1
	Zinc	484	ug/L	500	ug/L	96.8	80.0 – 120.0	29-MAR-10 18:45	032910C-1

## METALS

-4-

## Interference Check Sample

SDG No: 10-2124

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	Thallium	-0.065	ug/L					20-APR-10 14:46	100420-10
ICSAB01	Thallium	18.7	ug/L	20	ug/L	93.4	80.0 - 120.0	20-APR-10 14:49	100420-10

**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-2124

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	Copper	3.23	ug/L					30-MAR-10 15:23	033010B-2
	Zinc	8.7	ug/L					30-MAR-10 15:23	033010B-2
ICSAB01	Copper	547	ug/L	500	ug/L	109	80.0 - 120.0	30-MAR-10 15:25	033010B-2
	Zinc	499	ug/L	500	ug/L	99.7	80.0 - 120.0	30-MAR-10 15:25	033010B-2

## METALS

-4-

## Interference Check Sample

SDG No: 10-2124

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	Antimony	-0.175	ug/L					13-APR-10 14:13	041310A-3
	Lead	-1.23	ug/L					13-APR-10 14:13	041310A-3
ICSAB01	Antimony	521	ug/L	500	ug/L	104	80.0 - 120.0	13-APR-10 14:15	041310A-3
	Lead	477	ug/L	500	ug/L	95.4	80.0 - 120.0	13-APR-10 14:15	041310A-3



**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-2124

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: OPTIMA4

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<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	Lead	-0.936	ug/L					14-APR-10 08:32	041410-4
ICSAB01	Lead	467	ug/L	500	ug/L	93.4	80.0 - 120.0	14-APR-10 08:34	041410-4

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**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-2124

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>
<b>ICSA01</b>									
	Arsenic	-0.361	ug/L					13-APR-10 19:20	100413-5
	Selenium	-1.05	ug/L					13-APR-10 19:20	100413-5
	Thallium	-0.004	ug/L					13-APR-10 19:20	100413-5
<b>ICSAB01</b>									
	Arsenic	20.6	ug/L	20	ug/L	103	80.0 - 120.0	13-APR-10 19:24	100413-5
	Selenium	20.9	ug/L	20	ug/L	104	80.0 - 120.0	13-APR-10 19:24	100413-5
	Thallium	19.3	ug/L	20	ug/L	96.7	80.0 - 120.0	13-APR-10 19:24	100413-5

**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-2124

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS5

---

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (% R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Uranium	-0.015	ug/L					14-APR-10 02:50	100413-6
ICSAB01	Uranium	21.9	ug/L	20	ug/L	110	80.0 - 120.0	14-APR-10 02:52	100413-6

**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-2124

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS5

---

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Uranium	-0.014	ug/L					17-APR-10 02:51	100416-7
ICSAB01	Uranium	22.7	ug/L	20	ug/L	114	80.0 - 120.0	17-APR-10 02:52	100416-7

## METALS

-4-

## Interference Check Sample

SDG No: 10-2124

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS5

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<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Beryllium	0.098	ug/L					17-APR-10 04:05	100416-8
	Nickel	2.84	ug/L					17-APR-10 04:05	100416-8
ICSAB01	Beryllium	18.5	ug/L	20	ug/L	92.3	80.0 - 120.0	17-APR-10 04:07	100416-8
	Nickel	21.9	ug/L	23.31	ug/L	93.8	80.0 - 120.0	17-APR-10 04:07	100416-8

METALS  
-4-  
Interference Check Sample

SDG No: 10-2124

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	Nickel	3.01	ug/L					19-APR-10 17:58	100419-9
ICSAB01	Nickel	21.2	ug/L	23.31	ug/L	91	80.0 - 120.0	19-APR-10 18:00	100419-9

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-2124

Client ID RE11-10-1651S

Contract: LANL01004

Level: Low

Matrix: SOIL

% Solids: 77

Sample ID: 248189001

Spike ID: 1202056214

<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	164		8.44	J	149	104		AV

## METALS

--5a--

## Matrix Spike Duplicate Summary

**SDG NO.** 10-2124 **Client ID** RE11-10-1651SD**Contract:** LANL01004 **Level:** Low**Matrix:** SOIL **% Solids:** 77**Sample ID:** 248189001 **Spike ID:** 1202056216

<b>Analyte</b>	<b>Units</b>	<b>Acceptance Limit</b>	<b>Spiked Result</b>	<b>C</b>	<b>Sample Result</b>	<b>C</b>	<b>Spike Added</b>	<b>% Recovery</b>	<b>Qual</b>	<b>M</b>
Mercury	ug/kg	75-125	124		8.44	J	147	78.8		AV



## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-2124

Client ID RE32-10-11459S

Contract: LANL01004

Level: Low

Matrix: SOIL

% Solids: 94.5

Sample ID: 248166001

Spike ID: 1202056904

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Iron	ug/Kg		12700000		11000000		515000	348	N/A	P
Lead	ug/Kg	75-125	52700		7280		51600	88		P
Magnesium	ug/Kg	75-125	2300000		1310000		515000	192	N	P
Manganese	ug/Kg	75-125	242000		197000		51500	87.9		P
Potassium	ug/Kg	75-125	1580000		710000		515000	169	N	P
Silver	ug/Kg	75-125	49400		105	U	51500	95.9		P
Sodium	ug/Kg	75-125	752000		253000		515000	97		P
Vanadium	ug/Kg	75-125	60100		7350		51500	102		P
Zinc	ug/Kg	75-125	90800		39500		51500	99.7		P
Aluminum	ug/Kg		10900000		5560000		515000	1030	N/A	P
Antimony	ug/Kg	75-125	43800		333	U	51600	84.5		P
Barium	ug/Kg	75-125	130000		71100		51500	115		P
Cadmium	ug/Kg	75-125	47400		105	U	51500	92.1		P
Calcium	ug/Kg	75-125	2260000		1870000		515000	76.8		P
Chromium	ug/Kg	75-125	58500		7630		51500	98.9		P
Cobalt	ug/Kg	75-125	48600		1250		51500	92		P
Copper	ug/Kg	75-125	59100		5590		51500	104		P

## METALS

-5a-

## Matrix Spike Duplicate Summary

SDG NO. 10-2124 Client ID RE32-10-11459SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 94.5

Sample ID: 248166001 Spike ID: 1202056905

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		12200000		5560000		524000	1260	N/A	P
Antimony	ug/Kg	75-125	46700		333	U	52300	89		P
Barium	ug/Kg	75-125	122000		71100		52400	97.9		P
Cadmium	ug/Kg	75-125	47800		105	U	52400	91.2		P
Calcium	ug/Kg	75-125	2450000		1870000		524000	111		P
Chromium	ug/Kg	75-125	59100		7630		52400	98.3		P
Cobalt	ug/Kg	75-125	48900		1250		52400	91		P
Copper	ug/Kg	75-125	60100		5590		52400	104		P
Iron	ug/Kg		13200000		11000000		524000	425	N/A	P
Lead	ug/Kg	75-125	54800		7280		52300	90.9		P
Magnesium	ug/Kg	75-125	2460000		1310000		524000	220	N	P
Manganese	ug/Kg	75-125	254000		197000		52400	109		P
Potassium	ug/Kg	75-125	1680000		710000		524000	185	N	P
Silver	ug/Kg	75-125	49800		105	U	52400	95.1		P
Sodium	ug/Kg	75-125	774000		253000		524000	99.6		P
Vanadium	ug/Kg	75-125	61400		7350		52400	103		P
Zinc	ug/Kg	75-125	92300		39500		52400	101		P

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-2124 Client ID RE32-10-11459S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 94.5

Sample ID: 248166001 Spike ID: 1202056915

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	8.14		1.12		8.08	86.9		MS
Beryllium	mg/kg	75-125	5.47		0.964		5.05	89.2		MS
Nickel	mg/kg	75-125	10.1		5.78		5.05	86.3		MS
Selenium	mg/kg	75-125	2.08		0.672	J	2.02	69.8	N	MS
Thallium	mg/kg	75-125	9.48		0.317	U	10.1	93.9		MS
Uranium	mg/kg	75-125	5.31		0.609		5.05	93.1		MS

## METALS

-5a-

## Matrix Spike Duplicate Summary

SDG NO. 10-2124 Client ID RE32-10-11459SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 94.5

Sample ID: 248166001 Spike ID: 1202056916

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	8.03		1.12		8.16	84.7		MS
Beryllium	mg/kg	75-125	5.47		0.964		5.1	88.4		MS
Nickel	mg/kg	75-125	9.34		5.78		5.1	69.9	N	MS
Selenium	mg/kg	75-125	2.04		0.672	J	2.04	67.3	N	MS
Thallium	mg/kg	75-125	9.23		0.317	U	10.2	90.5		MS
Uranium	mg/kg	75-125	5.66		0.609		5.1	99.1		MS

## Metals

-6-

## Duplicate Sample Summary

SDG No.: 10-2124

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE11-10-1651D

Sample ID: 248189001

Duplicate ID: 1202056213

Percent Solids for Dup: 77

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-13.3	8.44 J		10 J		17.2		AV

---

**Metals**  
**-6-**  
**Duplicate Sample Summary**

**SDG No.:** 10-2124

**Contract:** LANL01004

**Lab Code:** GEL

**Matrix:** SOLID

**Level:** Low

**Client ID:** RE11-10-1651SD

**Sample ID:** 1202056214

**Duplicate ID:** 1202056216

**Percent Solids for Dup:** 77

---

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	164		124		27.5	*	AV

---

**Metals**  
**-6-**  
**Duplicate Sample Summary**

SDG No.: 10-2124

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE32-10-11459D

Sample ID: 248166001

Duplicate ID: 1202056902

Percent Solids for Dup: 94.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20%	5560000		6060000		8.57		P
Antimony	ug/Kg		333 U		336 U				P
Barium	ug/Kg	+/-20%	71100		99500		33.2	*	P
Cadmium	ug/Kg		105 U		104 U				P
Calcium	ug/Kg	+/-20%	1870000		1980000		5.53		P
Chromium	ug/Kg	+/-20%	7630		8900		15.4		P
Cobalt	ug/Kg	+/-521	1250		1250		.284		P
Copper	ug/Kg	+/-20%	5590		6230		10.8		P
Iron	ug/Kg	+/-20%	11000000		11300000		2.82		P
Lead	ug/Kg	+/-20%	7280		6830		6.24		P
Magnesium	ug/Kg	+/-20%	1310000		1430000		8.39		P
Manganese	ug/Kg	+/-20%	197000		205000		4		P
Potassium	ug/Kg	+/-20%	710000		762000		7.12		P
Silver	ug/Kg		105 U		104 U				P
Sodium	ug/Kg	+/-20%	253000		264000		4.3		P
Vanadium	ug/Kg	+/-20%	7350		7950		7.88		P
Zinc	ug/Kg	+/-20%	39500		39900		.978		P

**Metals**  
**-6-**  
**Duplicate Sample Summary**

SDG No.: 10-2124

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE32-10-11459SD

Sample ID: 1202056904

Duplicate ID: 1202056905

Percent Solids for Dup: 94.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20	10900000		12200000		11.3		P
Antimony	ug/Kg	+/-20	43800		46700		6.53		P
Barium	ug/Kg	+/-20	130000		122000		6.07		P
Cadmium	ug/Kg	+/-20	47400		47800		.764		P
Calcium	ug/Kg	+/-20	2260000		2450000		7.88		P
Chromium	ug/Kg	+/-20	58500		59100		1.04		P
Cobalt	ug/Kg	+/-20	48600		48900		.665		P
Copper	ug/Kg	+/-20	59100		60100		1.75		P
Iron	ug/Kg	+/-20	12700000		13200000		3.37		P
Lead	ug/Kg	+/-20	52700		54800		3.98		P
Magnesium	ug/Kg	+/-20	2300000		2460000		6.88		P
Manganese	ug/Kg	+/-20	242000		254000		4.75		P
Potassium	ug/Kg	+/-20	1580000		1680000		6.1		P
Silver	ug/Kg	+/-20	49400		49800		.872		P
Sodium	ug/Kg	+/-20	752000		774000		2.96		P
Vanadium	ug/Kg	+/-20	60100		61400		2.22		P
Zinc	ug/Kg	+/-20	90800		92300		1.66		P



## Metals

-6-

## Duplicate Sample Summary

SDG No.: 10-2124

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE32-10-11459D

Sample ID: 248166001

Duplicate ID: 1202056913

Percent Solids for Dup: 94.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-1.01	1.12		1.44		24.6		MS
Beryllium	mg/kg	+/-20%	0.964		1.13		15.6		MS
Nickel	mg/kg	+/-20%	5.78		7.58		27.1	*	MS
Selenium	mg/kg	+/-1.01	0.672 J		0.917 J		30.8		MS
Thallium	mg/kg		0.317 U		0.304 U				MS
Uranium	mg/kg	+/-20%	0.609		0.615		.939		MS

## Metals

-6-

## Duplicate Sample Summary

SDG No.: 10-2124

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE32-10-11459SD

Sample ID: 1202056915

Duplicate ID: 1202056916

Percent Solids for Dup: 94.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-20	8.14		8.03		1.4		MS
Beryllium	mg/kg	+/-20	5.47		5.47		.05		MS
Nickel	mg/kg	+/-20	10.1		9.34		8.2		MS
Selenium	mg/kg	+/-20	2.08		2.04		1.81		MS
Thallium	mg/kg	+/-20	9.48		9.23		2.7		MS
Uranium	mg/kg	+/-20	5.31		5.66		6.43		MS

## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-2124

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>
1202056212	Mercury	ug/kg	5150	5670		110	71.6-128.3	AV

**METALS**  
-7-  
**Laboratory Control Sample Summary**

SDG NO. 10-2124

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>
1202056906								
	Aluminum	ug/Kg	10500000	9740000		92.7	56-144	P
	Barium	ug/Kg	198000	194000		98	80-120	P
	Cadmium	ug/Kg	60700	56700		93.4	81-120	P
	Calcium	ug/Kg	9870000	9840000		99.7	83-117	P
	Chromium	ug/Kg	236000	230000		97.7	80-120	P
	Cobalt	ug/Kg	91200	86700		95.1	81-120	P
	Copper	ug/Kg	174000	179000		103	81-118	P
	Iron	ug/Kg	18000000	18000000		99.9	51-149	P
	Magnesium	ug/Kg	4000000	3890000		97.4	79-122	P
	Manganese	ug/Kg	558000	516000		92.4	81-119	P
	Potassium	ug/Kg	4300000	4020000		93.5	74-127	P
	Silver	ug/Kg	30100	29400		97.6	66-134	P
	Sodium	ug/Kg	1020000	1010000		98.9	74-127	P
	Vanadium	ug/Kg	115000	119000		103	79-121	P
	Zinc	ug/Kg	594000	551000		92.8	80-121	P

## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-2124

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>
1202056917								
	Arsenic	mg/kg	104	110		105	78-123	MS
	Beryllium	mg/kg	77.6	79.1		102	84-116	MS
	Nickel	mg/kg	134	146		109	78-123	MS
	Selenium	mg/kg	286	307		107	77-123	MS
	Thallium	mg/kg	121	117		97	78-122	MS
	Uranium	mg/kg	2.13	2.3		108	73-127	MS

## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-2124

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

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<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>
1202093059								
	Antimony	ug/Kg	173000	195000		113	71-130	P
	Lead	ug/Kg	86000	94200		110	79-121	P

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## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-2124

Client ID RE11-10-1651L

Contract: LANL01004

Matrix: SOLID

Level: Low

Sample ID: 248189001

Serial Dilution ID: 1202056215

Analyte	<u>Initial Value ug/L</u>	<u>C</u>	<u>Serial Value ug/L</u>	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M</u>
Mercury	.111	J	.34	U	100			AV

## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-2124 Client ID RE32-10-11459L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 248166001 Serial Dilution ID: 1202056903

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	52800		53500		1.33		10	P
Antimony	3.3	U	16.5	U				P
Barium	675		670		.741		10	P
Cadmium	1	U	5	U				P
Calcium	17700		17700		.282		10	P
Chromium	72.4		72		.552			P
Cobalt	11.9		13	J	8.82			P
Copper	53		53.5		.943			P
Iron	104000		105000		.962		10	P
Lead	72.2		73.5		1.8			P
Magnesium	12500		12500		.4		10	P
Manganese	1870		1880		.535		10	P
Potassium	6730		6550		2.67		10	P
Silver	1	U	5	U				P
Sodium	2400		2120		11.7			P
Vanadium	69.7		64		8.18		10	P
Zinc	375		373		.667		10	P



## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-2124 Client ID RE32-10-11459L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 248166001 Serial Dilution ID: 1202056914

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	5.32		8.2	J	54.1			MS
Beryllium	4.56		5.15		12.9			MS
Nickel	27.3		29.2		6.96			MS
Selenium	3.18	J	15.4	J	383			MS
Thallium	.3	U	1.5	U				MS
Uranium	2.88		3.34		15.8			MS

**METALS**  
**-13-**  
**SAMPLE PREPARATION SUMMARY**

SDG No: 10-2124

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>
<b>Batch Number 959122</b>							
1202056901	MB for batch 959122	MB	S	04-MAR-10	.515g	50mL	
1202056906	LCS for batch 959122	LCS	S	04-MAR-10	.504g	50mL	
1202056904	RE32-10-11459S	MS	S	04-MAR-10	.514g	50mL	
1202056905	RE32-10-11459SD	MSD	S	04-MAR-10	.505g	50mL	
1202056902	RE32-10-11459D	DUP	S	04-MAR-10	.508g	50mL	
248202001	RE36-10-8282	SAMPLE	S	04-MAR-10	.523g	50mL	
248202002	RE36-10-8281	SAMPLE	S	04-MAR-10	.52g	50mL	
<b>Batch Number 974189</b>							
1202093058	MB for batch 974189	MB	S	13-APR-10	.503g	50mL	
1202093059	LCS for batch 974189	LCS	S	13-APR-10	.517g	50mL	
1202056904	RE32-10-11459S	MS	S	13-APR-10	.513g	50mL	
1202056905	RE32-10-11459SD	MSD	S	13-APR-10	.506g	50mL	
1202056902	RE32-10-11459D	DUP	S	13-APR-10	.52g	50mL	
248202001	RE36-10-8282	SAMPLE	S	13-APR-10	.516g	50mL	
248202002	RE36-10-8281	SAMPLE	S	13-APR-10	.508g	50mL	

SW846

**METALS**  
**-13-**  
**SAMPLE PREPARATION SUMMARY**

SDG No: 10-2124

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	959124						
1202056912	MB for batch 959124	MB	S	04-MAR-10	.5g	50mL	
1202056917	LCS for batch 959124	LCS	S	04-MAR-10	.505g	50mL	
1202056915	RE32-10-11459S	MS	S	04-MAR-10	.524g	50mL	
1202056916	RE32-10-11459SD	MSD	S	04-MAR-10	.519g	50mL	
1202056913	RE32-10-11459D	DUP	S	04-MAR-10	.523g	50mL	
248202001	RE36-10-8282	SAMPLE	S	04-MAR-10	.514g	50mL	
248202002	RE36-10-8281	SAMPLE	S	04-MAR-10	.505g	50mL	

SW846

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METALS  
-13-  
SAMPLE PREPARATION SUMMARY

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SDG No: 10-2124

Method Type: AV

Contract: LANL01004

Lab Code: GEL

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<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 958769							
1202056211	MB for batch 958769	MB	S	11-MAR-10	.574g	30mL	
1202056212	LCS for batch 958769	LCS	S	11-MAR-10	.208g	30mL	
1202056214	RE11-10-1651S	MS	S	11-MAR-10	.521g	30mL	
1202056216	RE11-10-1651SD	MSD	S	11-MAR-10	.528g	30mL	
1202056213	RE11-10-1651D	DUP	S	11-MAR-10	.583g	30mL	
248202001	RE36-10-8282	SAMPLE	S	11-MAR-10	.567g	30mL	
248202002	RE36-10-8281	SAMPLE	S	11-MAR-10	.536g	30mL	

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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: 10-2124

Method MS

Data File: 100413-5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	18:56:00			X															X			X			
S10	1	19:00:00			X															X			X			
S100	1	19:04:00			X															X			X			
ICV01	1	19:08:00			X															X			X			
ICB01	1	19:12:00			X															X			X			
CRDL01	1	19:16:00			X															X			X			
ICSA01	1	19:20:00			X															X			X			
ICSAB01	1	19:24:00			X															X			X			
CCV01	1	19:28:00			X															X			X			
CCB01	1	19:32:00			X															X			X			
1202056912	2	19:37:00			X															X						
1202056917	40	19:41:00			X															X						
ZZZZZZ	2	19:45:00																								
1202056913	2	19:49:00			X															X						
1202056915	2	19:53:00			X															X						
1202056916	2	19:57:00			X															X						
1202056914	10	20:01:00			X															X						
ZZZZZZ	2	20:05:00																								
CCV02	1	20:09:00			X															X			X			
CCB02	1	20:13:00			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			
CCB03	1	20:46:00			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																								
248202001	2	21:11:00			X															X			X			
248202002	2	21:15:00			X															X			X			
CCV04	1	21:19:00			X															X			X			
CCB04	1	21:23:00			X															X			X			

**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: 10-2124

Method: MS

Data File: 100413-6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	02:41:00																						X		
S10	1	02:42:00																						X		
S100	1	02:44:00																						X		
ICV01	1	02:46:00																						X		
ICB01	1	02:47:00																						X		
CRDL01	1	02:49:00																						X		
ICSA01	1	02:50:00																						X		
ICSAB01	1	02:52:00																						X		
CCV01	1	02:54:00																						X		
CCB01	1	02:55:00																						X		
ZZZZZZ	2	02:57:00																								
ZZZZZZ	40	02:59:00																								
ZZZZZZ	2	03:00:00																								
ZZZZZZ	2	03:02:00																								
ZZZZZZ	2	03:04:00																								
ZZZZZZ	2	03:05:00																								
ZZZZZZ	10	03:07:00																								
ZZZZZZ	2	03:09:00																								
CCV02	1	03:10:00																						X		
CCB02	1	03:12:00																						X		
ZZZZZZ	2	03:14:00																								
ZZZZZZ	2	03:15:00																								
ZZZZZZ	2	03:17:00																								
ZZZZZZ	2	03:19:00																								
ZZZZZZ	2	03:20:00																								
ZZZZZZ	2	03:22:00																								
CCV03	1	03:24:00																						X		
CCB03	1	03:25:00																						X		
ZZZZZZ	2	03:27:00																								
ZZZZZZ	2	03:29:00																								
ZZZZZZ	2	03:30:00																								
ZZZZZZ	2	03:32:00																								
ZZZZZZ	2	03:34:00																								
248202001	2	03:35:00																						X		
248202002	2	03:37:00																						X		
CCV04	1	03:38:00																						X		
CCB04	1	03:40:00																						X		

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 17-APR-10

End Date: 17-APR-10

Client Sdg: 10-2124

Method MS

Data File: 100416-7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	02:41:00																						X		
S10	1	02:42:00																						X		
S100	1	02:44:00																						X		
ICV01	1	02:46:00																						X		
ICB01	1	02:47:00																						X		
CRDL01	1	02:49:00																						X		
ICSA01	1	02:51:00																						X		
ICSAB01	1	02:52:00																						X		
CCV01	1	02:54:00																						X		
CCB01	1	02:56:00																						X		
ZZZZZZ	1	02:57:00																								
ZZZZZZ	1	02:59:00																								
ZZZZZZ	1	03:01:00																								
ZZZZZZ	1	03:02:00																								
ZZZZZZ	1	03:04:00																								
ZZZZZZ	5	03:06:00																								
ZZZZZZ	1	03:07:00																								
CCV02	1	03:09:00																						X		
CCB02	1	03:11:00																						X		
ZZZZZZ	1	03:12:00																								
ZZZZZZ	1	03:14:00																								
ZZZZZZ	1	03:16:00																								
ZZZZZZ	1	03:17:00																								
ZZZZZZ	1	03:19:00																								
ZZZZZZ	1	03:21:00																								
ZZZZZZ	1	03:23:00																								
ZZZZZZ	5	03:24:00																								
ZZZZZZ	1	03:26:00																								
CCV03	1	03:28:00																						X		
CCB03	1	03:29:00																						X		
1202056912	2	03:31:00																						X		
1202056917	40	03:33:00																						X		
ZZZZZZ	2	03:34:00																								
1202056913	2	03:36:00																						X		
1202056915	2	03:37:00																						X		
1202056916	2	03:39:00																						X		
1202056914	10	03:41:00																						X		
CCV04	1	03:42:00																						X		
CCB04	1	03:44:00																						X		

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 17-APR-10

End Date: 17-APR-10

Client Sdg: 10-2124

Method MS

Data File: 100416-8

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	03:52:00					X											X								
S10	1	03:54:00					X											X								
S100	1	03:56:00					X											X								
ICV01	1	03:58:00					X											X								
ICB01	1	04:01:00					X											X								
CRDL01	1	04:03:00					X											X								
ICSA01	1	04:05:00					X											X								
ICSAB01	1	04:07:00					X											X								
CCV01	1	04:09:00					X											X								
CCB01	1	04:12:00					X											X								
ZZZZZZ	2	04:14:00																								
ZZZZZZ	40	04:16:00																								
ZZZZZZ	2	04:18:00																								
ZZZZZZ	2	04:21:00																								
ZZZZZZ	2	04:23:00																								
ZZZZZZ	2	04:25:00																								
ZZZZZZ	10	04:27:00																								
CCV02	1	04:30:00					X											X								
CCB02	1	04:32:00					X											X								
ZZZZZZ	2	04:34:00																								
ZZZZZZ	2	04:36:00																								
ZZZZZZ	2	04:39:00																								
ZZZZZZ	2	04:41:00																								
ZZZZZZ	2	04:43:00																								
ZZZZZZ	2	04:45:00																								
ZZZZZZ	2	04:48:00																								
CCV03	1	04:50:00					X											X								
CCB03	1	04:52:00					X											X								
1202056912	2	04:54:00					X											X								
1202056917	40	04:56:00					X											X								
ZZZZZZ	2	04:59:00																								
1202056913	2	05:01:00					X											X								
1202056915	2	05:03:00					X											X								
1202056916	2	05:05:00					X											X								
1202056914	10	05:07:00					X											X								
CCV04	1	05:10:00					X											X								
CCB04	1	05:12:00					X											X								
ZZZZZZ	2	05:14:00																								
ZZZZZZ	2	05:16:00																								
ZZZZZZ	2	05:18:00																								



Samp No.	D/F	Run Time
ZZZZZZ	2	05:21:00
ZZZZZZ	2	05:23:00
ZZZZZZ	2	05:25:00
CCV05	1	05:27:00
CCB05	1	05:29:00
ZZZZZZ	2	05:32:00
ZZZZZZ	2	05:34:00
ZZZZZZ	2	05:36:00
ZZZZZZ	2	05:38:00
ZZZZZZ	2	05:40:00
ZZZZZZ	2	05:43:00
248202001	2	05:45:00
248202002	2	05:47:00
CCV06	1	05:49:00
CCB06	1	05:51:00

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 19-APR-10

End Date: 19-APR-10

Client Sdg: 10-2124

Method MS

Data File: 100419-9

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Ti	U	V	Zn
S0.0	1	17:48:00																X								
S10	1	17:50:00																X								
S100	1	17:52:00																X								
ICV01	1	17:53:00																X								
ICB01	1	17:55:00																X								
CRDL01	1	17:57:00																X								
ICSA01	1	17:58:00																X								
ICSAB01	1	18:00:00																X								
CCV01	1	18:02:00																X								
CCB01	1	18:04:00																X								
ZZZZZZ	2	18:05:00																								
ZZZZZZ	40	18:07:00																								
248202002	4	18:09:00																X								
CCV02	1	18:10:00																X								
CCB02	1	18:12:00																X								

**Metals**  
**-14-**  
**Analysis Run Log**

**Contract:** LANL01004**Lab Code:** GEL**Inst Name:** ICPMS5**Start Date:** 20-APR-10**End Date:** 20-APR-10**Client Sdg:** 10-2124**Method:** MS**Data File:** 100420-10

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	14:27:00																					X			
S10	1	14:30:00																					X			
S100	1	14:33:00																					X			
ICV01	1	14:36:00																					X			
ICB01	1	14:39:00																					X			
CRDL01	1	14:43:00																					X			
ICSA01	1	14:46:00																					X			
ICSAB01	1	14:49:00																					X			
CCV01	1	14:52:00																					X			
CCB01	1	14:55:00																					X			
1202056912	2	14:58:00																					X			
1202056917	40	15:02:00																					X			
CCV02	1	15:05:00																					X			
CCB02	1	15:08:00																					X			
ZZZZZZ	2	15:11:00																								
ZZZZZZ	10	15:14:00																								
1202056913	10	15:17:00																					X			
1202056915	10	15:21:00																					X			
1202056916	10	15:24:00																					X			
1202056914	50	15:27:00																					X			
ZZZZZZ	10	15:30:00																								
CCV03	1	15:33:00																					X			
CCB03	1	15:36:00																					X			

Metals  
-14-  
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: HG3

Start Date: 12-MAR-10

Client Sdg: 10-2124

Method AV

Data File: 031210S1-11

End Date: 12-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	09:08:00															X									
S0.2	1	09:09:00															X									
S0.5	1	09:11:00															X									
S2.0	1	09:13:00															X									
S5.0	1	09:14:00															X									
S10.0	1	09:16:00															X									
ICV01	1	09:18:00															X									
ICB01	1	09:19:00															X									
CRDL01	1	09:21:00															X									
CCV01	1	09:23:00															X									
CCB01	1	09:24:00															X									
ZZZZZZ	1	09:26:00																								
ZZZZZZ	10	09:28:00																								
ZZZZZZ	1	09:29:00																								
ZZZZZZ	1	09:31:00																								
ZZZZZZ	1	09:33:00																								
ZZZZZZ	1	09:34:00																								
ZZZZZZ	5	09:36:00																								
ZZZZZZ	1	09:38:00																								
ZZZZZZ	1	09:39:00																								
ZZZZZZ	10	09:41:00																								
CCV02	1	09:43:00															X									
CCB02	1	09:44:00															X									
ZZZZZZ	1	09:46:00																								
ZZZZZZ	1	09:48:00																								
ZZZZZZ	1	09:49:00																								
ZZZZZZ	1	09:51:00																								
ZZZZZZ	5	09:53:00																								
ZZZZZZ	1	09:54:00																								
ZZZZZZ	1	09:56:00																								
ZZZZZZ	1	09:58:00																								
ZZZZZZ	1	09:59:00																								
ZZZZZZ	1	10:01:00																								
CCV03	1	10:03:00															X									
CCB03	1	10:04:00															X									
ZZZZZZ	1	10:06:00																								
ZZZZZZ	1	10:08:00																								
ZZZZZZ	1	10:09:00																								
ZZZZZZ	1	10:11:00																								
ZZZZZZ	1	10:13:00																								

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**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	11:22:00																								
CCV07	1	11:23:00																X								
CCB07	1	11:25:00																X								

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA4

Start Date: 29-MAR-10

End Date: 29-MAR-10

Client Sdg: 10-2124

Method P

Data File: 032910C-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	18:25:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
S0.1	1	18:28:00				X		X		X	X	X				X			X		X				X	X
S0.5	1	18:30:00	X			X		X	X	X	X	X			X	X			X		X				X	X
SCAL	1	18:32:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
S10	1	18:34:00	X						X				X		X							X				
ICV01	1	18:35:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
ICB01	1	18:37:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
PQL01	1	18:40:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
ICSA01	1	18:43:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
ICSAB01	1	18:45:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
LR01	1	18:46:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
LR02	1	18:48:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
CCV01	1	18:49:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
CCB01	1	18:51:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
CCV02	1	18:57:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
CCB02	1	18:59:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
ZZZZZZ	1	19:17:00																								
ZZZZZZ	1	19:20:00																								
ZZZZZZ	1	19:21:00																								
ZZZZZZ	1	19:23:00																								
ZZZZZZ	1	19:25:00																								
ZZZZZZ	1	19:26:00																								
ZZZZZZ	5	19:29:00																								
CCV03	1	19:31:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
CCB03	1	19:33:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
ZZZZZZ	1	19:36:00																								
ZZZZZZ	1	19:38:00																								
ZZZZZZ	1	19:40:00																								
ZZZZZZ	1	19:42:00																								
ZZZZZZ	1	19:44:00																								
ZZZZZZ	1	19:46:00																								
ZZZZZZ	1	19:48:00																								
ZZZZZZ	1	19:50:00																								
CCV04	1	19:52:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
CCB04	1	19:54:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
ZZZZZZ	1	19:57:00																								
ZZZZZZ	1	19:59:00																								
ZZZZZZ	1	20:02:00																								
ZZZZZZ	1	20:04:00																								
ZZZZZZ	1	20:06:00																								

**Metals**  
**-14-**  
**Analysis Run Log**

[illegible]



**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
CCB09	1	21:43:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
ZZZZZZ	1	21:46:00																								
ZZZZZZ	1	21:48:00																								
ZZZZZZ	1	21:50:00																								
ZZZZZZ	1	21:52:00																								
ZZZZZZ	1	21:54:00																								
248202001	1	21:56:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
248202002	1	21:58:00	X			X		X	X	X	X		X		X	X			X		X	X			X	
CCV10	1	22:01:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X
CCB10	1	22:03:00	X			X		X	X	X	X	X	X		X	X			X		X	X			X	X

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA4

Start Date: 30-MAR-10

End Date: 30-MAR-10

Client Sdg: 10-2124

Method P

Data File: 033010B-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	15:06:00										X														X
S0.1	1	15:09:00										X														X
S0.5	1	15:11:00										X														X
SCAL	1	15:13:00										X														X
S10	1	15:15:00																								
ICV01	1	15:16:00										X														X
ICB01	1	15:18:00										X														X
PQL01	1	15:21:00										X														X
ICSA01	1	15:23:00										X														X
ICSAB01	1	15:25:00										X														X
LR01	1	15:27:00										X														X
LR02	1	15:29:00										X														X
ZZZZZZ	1	15:30:00																								
ZZZZZZ	1	15:32:00																								
CCV01	1	15:38:00										X														X
CCB01	1	15:40:00										X														X
248202002	5	15:43:00										X														X
ZZZZZZ	10	15:45:00																								
ZZZZZZ	10	15:47:00																								
ZZZZZZ	10	15:49:00																								
ZZZZZZ	10	15:51:00																								
CCV02	1	15:54:00										X														X
CCB02	1	15:56:00										X														X

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA4

Start Date: 13-APR-10

End Date: 13-APR-10

Client Sdg: 10-2124

Method P

Data File: 041310A-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	13:54:24	X											X												
S0.1	1	13:57:35	X											X												
S0.5	1	13:59:33	X											X												
SCAL	1	14:01:45	X											X												
S10	1	14:04:02																								
ICV01	1	14:05:06	X											X												
ICB01	1	14:07:19	X											X												
PQL01	1	14:10:15	X											X												
ICSA01	1	14:13:27	X											X												
ICSAB01	1	14:15:41	X											X												
LR01	1	14:17:01	X											X												
LR02	1	14:18:05	X											X												
CCV01	1	14:19:32	X											X												
CCB01	1	14:21:34	X											X												
CCV02	1	14:26:05	X											X												
CCB02	1	14:28:18	X											X												
LR03	1	14:31:14	X											X												
CCV03	1	14:34:12	X											X												
CCB03	1	14:36:13	X											X												
ZZZZZZ	1	14:56:34																								
ZZZZZZ	1	14:59:33																								
ZZZZZZ	1	15:00:56																								
ZZZZZZ	1	15:03:09																								
ZZZZZZ	1	15:05:07																								
ZZZZZZ	1	15:07:20																								
ZZZZZZ	5	15:09:34																								
CCV04	1	15:11:51	X											X												
CCB04	1	15:14:07	X											X												
ZZZZZZ	1	15:17:03																								
ZZZZZZ	1	15:19:04																								
ZZZZZZ	1	15:21:16																								
ZZZZZZ	1	15:23:14																								
ZZZZZZ	1	15:25:12																								
ZZZZZZ	1	15:27:30																								
ZZZZZZ	1	15:29:29																								
CCV05	1	15:31:46	X											X												
CCB05	1	15:33:46	X											X												
ZZZZZZ	1	15:36:56																								
ZZZZZZ	1	15:39:16																								
ZZZZZZ	1	15:41:20																								

**Metals**  
**-14-**  
**Analysis Run Log**

[illegible]

**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
CCV11	1	17:53:04	X											X												
PQL02	1	17:55:19	X											X												
CCB11	1	17:58:30	X											X												
ZZZZZZ	1	18:01:41																								
ZZZZZZ	1	18:04:53																								
ZZZZZZ	1	18:06:02																								
ZZZZZZ	1	18:08:20																								
ZZZZZZ	1	18:10:24																								
ZZZZZZ	1	18:11:43																								
ZZZZZZ	5	18:13:43																								
CCV12	1	18:15:59	X											X												
CCB12	1	18:18:13	X											X												
ZZZZZZ	1	18:21:08																								
ZZZZZZ	1	18:23:27																								
ZZZZZZ	1	18:25:44																								
ZZZZZZ	1	18:28:01																								
ZZZZZZ	1	18:30:18																								
ZZZZZZ	1	18:32:21																								
ZZZZZZ	1	18:34:24																								
ZZZZZZ	1	18:36:27																								
CCV13	1	18:38:30	X											X												
CCB13	1	18:40:32	X											X												
ZZZZZZ	1	18:43:28																								
ZZZZZZ	1	18:45:48																								
ZZZZZZ	1	18:47:52																								
ZZZZZZ	1	18:50:10																								
ZZZZZZ	1	18:52:13																								
ZZZZZZ	1	18:54:16																								
ZZZZZZ	1	18:56:28																								
ZZZZZZ	1	18:58:46																								
ZZZZZZ	1	19:01:03																								
CCV14	1	19:03:01	X											X												
CCB14	1	19:05:16	X											X												
1202093058	1	19:08:11	X											X												
1202093059	1	19:11:10	X											X												
ZZZZZZ	1	19:12:18																								
1202056902	1	19:14:30	X											X												
1202056904	1	19:16:28	X											X												
1202056905	1	19:17:33	X											X												
1202056903	5	19:18:37	X											X												

**Metals**  
**-14-**  
**Analysis Run Log**

[illegible]

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA4

Start Date: 14-APR-10

Client Sdg: 10-2124

Method P

Data File: 041410-4

End Date: 14-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	08:15:10												X												
S0.1	1	08:18:10												X												
S0.5	1	08:20:08												X												
SCAL	1	08:22:20												X												
S10	1	08:24:39																								
ICV01	1	08:25:30												X												
ICB01	1	08:26:34												X												
PQL01	1	08:29:44												X												
ICSA01	1	08:32:40												X												
ICSAB01	1	08:34:53												X												
LR01	1	08:36:12												X												
LR02	1	08:37:30												X												
CCV01	1	08:39:11												X												
CCB01	1	08:41:26												X												
CCV02	1	08:45:48												X												
CCB02	1	08:47:49												X												
ZZZZZZ	1	09:01:20																								
ZZZZZZ	1	09:04:32																								
ZZZZZZ	1	09:06:45																								
ZZZZZZ	1	09:08:42																								
ZZZZZZ	1	09:10:42																								
ZZZZZZ	1	09:12:42																								
ZZZZZZ	5	09:14:55																								
ZZZZZZ	1	09:16:58																								
CCV03	1	09:18:56												X												
PQL02	1	09:21:12												X												
CCB03	1	09:24:23												X												
ZZZZZZ	1	09:27:21																								
ZZZZZZ	1	09:29:22																								
ZZZZZZ	1	09:31:20																								
ZZZZZZ	1	09:33:19																								
ZZZZZZ	1	09:35:17																								
ZZZZZZ	1	09:37:14																								
ZZZZZZ	1	09:39:26																								
ZZZZZZ	1	09:41:23																								
CCV04	1	09:43:20												X												
PQL03	1	09:45:20												X												
CCB04	1	09:48:17												X												
ZZZZZZ	1	09:51:14																								
ZZZZZZ	1	09:53:14																								

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**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
CCV10	1	11:50:05												X												
CCB10	1	11:52:06												X												
ZZZZZZ	5	11:55:16																								
ZZZZZZ	5	11:57:20																								
ZZZZZZ	5	11:59:23																								
ZZZZZZ	5	12:26:14																								
ZZZZZZ	5	12:28:38																								
ZZZZZZ	5	12:30:40																								
ZZZZZZ	5	12:32:42																								
ZZZZZZ	5	12:34:58																								
CCV11	1	12:37:01												X												
CCB11	1	12:39:02												X												
ZZZZZZ	5	12:55:57																								
ZZZZZZ	5	12:58:00																								
ZZZZZZ	5	13:00:16																								
ZZZZZZ	5	13:02:19																								
ZZZZZZ	5	13:04:21																								
248202002	5	13:06:33												X												
CCV12	1	13:08:45												X												
CCB12	1	13:11:00												X												

# Standards

**METALS**  
**-10-**  
**Instrument Detection Limits**

**SDG NO.** 10-2124

**Contract:** LANL01004

**Lab Code:** GEL

**MDL Effective Date:** 01-JUL-09

ICP/MS	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u>	<u>RDL</u>
			<u>ug/L</u>	<u>ug/L</u>
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

**METALS**  
**-10-**  
**Instrument Detection Limits**

**SDG NO.** 10-2124

**Contract:** LANL01004

**Lab Code:** GEL

**MDL Effective Date:** 15-JUN-09

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

**METALS**  
**-10-**  
**Instrument Detection Limits**

SDG NO. 10-2124

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u>	<u>RDL</u>
			<u>ug/L</u>	<u>ug/L</u>
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GEL

GEL Job No: 10-2124

Contract: LANL01004

Instrument: OPTIMA4

Effective Dates: 22-MAR-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

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

**METALS**  
**-11-**  
**Interelement Correction Factors**

Lab Code: GELGEL Job No: **10-2124**

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: GELGEL Job No: **10-2124**

Contract: LANL01004

Instrument: OPTIMA4

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

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Parmname	Wavelength					
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: **10-2124**

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: **10-2124**

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: 10-2124

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. 10-2124

Contract: LANL01004

Lab Code: GEL

Instrument IDICPMS5

<u>Analyte</u>	<u>Integration Time (msec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
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
Aluminum	1	50000	ug/L	01-FEB-10

**METALS**  
**-12-**  
**Linear Ranges**

SDG NO. 10-2124

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>
Aluminum	20	500000	ug/L	01-FEB-10
Antimony	20	10000	ug/L	01-FEB-10
Arsenic	20	10000	ug/L	01-FEB-10
Barium	20	15000	ug/L	01-FEB-10
Beryllium	20	3000	ug/L	01-FEB-10
Cadmium	20	10000	ug/L	01-FEB-10
Calcium	20	500000	ug/L	01-FEB-10
Chromium	20	25000	ug/L	01-FEB-10
Cobalt	20	10000	ug/L	01-FEB-10
Copper	20	20000	ug/L	01-FEB-10
Iron	20	500000	ug/L	01-FEB-10
Lead	20	25000	ug/L	01-FEB-10
Magnesium	20	500000	ug/L	01-FEB-10
Manganese	20	10000	ug/L	01-FEB-10
Nickel	20	10000	ug/L	01-FEB-10
Potassium	20	300000	ug/L	01-FEB-10
Selenium	20	10000	ug/L	01-FEB-10
Silver	20	1000	ug/L	01-FEB-10
Sodium	20	500000	ug/L	01-FEB-10
Thallium	20	10000	ug/L	01-FEB-10
Uranium	20	15000	ug/L	01-FEB-10
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10

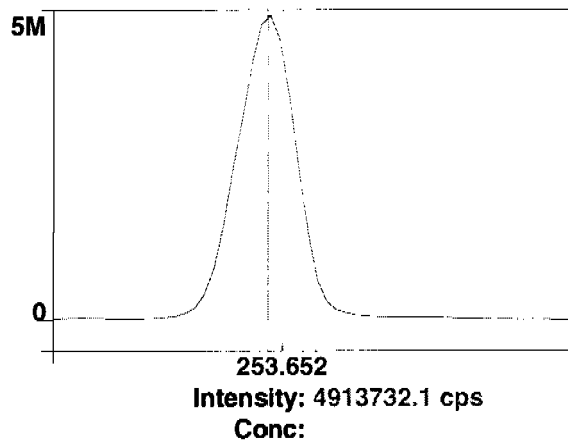
# Raw Data

Method: Hg\_ReAlign  
Result: 042010

Sample ID: Hg\_ReAlign

Hg 253.652

Rep: 1



1

## =====

Reprocessing Begun

Logged In Analyst: optima4

Technique: ICP Continuous

Results Data Set (original): 032910B

Results Library (original): C:\pe\optima4\Results\Results.mdb

Results Data Set (reprocessed): 032910C

Results Library (reprocessed): C:\pe\optima4\Results\Results.mdb

## =====

Method Loaded

Method Name: Gen Eng fast\_new Si

IEC File: 031810.iec

Method Description:

Method Last Saved: 3/29/2010 19:12:39

MSF File:

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

Sample ID: S0

Analyst:

Logged In Analyst (Original) : optima4

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/29/2010 18:25:17

Data Type: Reprocessed on 3/29/2010 19:14:31

Initial Sample Vol:

Sample Prep Vol:

## =====

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	1675486.4	1675486.4	100.16 %	18:27:09
1	Sc RADIAL	146509.4	146509.4	101 %	18:25:47
1	Y 371.029	1022720.1	1022720.1	100.01 %	18:27:09
1	Ag 328.068†	2983.2	2978.4	[0.00] µg/L	18:27:11
1	Al 396.153Radial†	-35.1	-35.0	[0.00] µg/L	18:26:07
1	As 188.979†	-19.2	-19.2	[0.00] µg/L	18:27:31



1	B 249.677†	3447.9	3442.3	[0.00]	µg/L	18:27:11
1	Ba 233.527†	-170.9	-170.6	[0.00]	µg/L	18:27:31
1	Be 313.107†	-760.2	-759.0	[0.00]	µg/L	18:27:11
1	Ca 317.933Radial†	609.6	606.5	[0.00]	µg/L	18:26:07
1	Cd 226.502†	-94.3	-94.2	[0.00]	µg/L	18:27:31
1	Co 228.616†	-177.2	-176.9	[0.00]	µg/L	18:27:31
1	Cr 267.716†	191.1	190.8	[0.00]	µg/L	18:27:31
1	Cu 324.752†	2447.0	2443.1	[0.00]	µg/L	18:27:11
1	Fe 238.204 Radial†	120.7	120.1	[0.00]	µg/L	18:26:07
1	K 766.490 Radial†	1409.9	1402.7	[0.00]	µg/L	18:25:47
1	Mg 279.077 IEC†	182.4	181.4	[0.00]	µg/L	18:26:07
1	Mn 257.610†	83.5	83.4	[0.00]	µg/L	18:27:31
1	Mo 202.031†	-61.5	-61.4	[0.00]	µg/L	18:27:31
1	Na 589.592 Radial†	1727.7	1718.8	[0.00]	µg/L	18:25:47
1	Ni 231.604†	-12.7	-12.7	[0.00]	µg/L	18:27:31
1	P 214.914†	74.6	74.5	[0.00]	µg/L	18:27:31
1	Pb 220.353†	124.0	123.8	[0.00]	µg/L	18:27:31
1	S 181.975 Axial†	92.2	92.1	[0.00]	µg/L	18:27:31
1	Sb 206.836†	94.8	94.7	[0.00]	µg/L	18:27:31
1	Se 196.026†	10.9	10.9	[0.00]	µg/L	18:27:31
1	SiO2†	1567.1	1564.5	[0.00]	µg/L	18:27:31
1	Si 251.611†	683.3	682.2	[0.00]	µg/L	18:27:11
1	Sn 189.927†	-0.3	-0.3	[0.00]	µg/L	18:27:31
1	Sr 421.552†	-242.7	-241.5	[0.00]	µg/L	18:25:47
1	Ti 334.940†	661.0	659.9	[0.00]	µg/L	18:27:11
1	Tl 190.801†	-125.7	-125.5	[0.00]	µg/L	18:27:31
1	U 409.014†	-452.8	-452.0	[0.00]	µg/L	18:27:11
1	V 292.402†	515.3	514.5	[0.00]	µg/L	18:27:11
1	Zn 213.857†	458.0	457.2	[0.00]	µg/L	18:27:31
2	Sc 361.383	1673882.1	1673882.1	100.07	%	18:27:33
2	Sc RADIAL	143614.2	143614.2	98.5	%	18:26:09
2	Y 371.029	1022767.5	1022767.5	100.02	%	18:27:33
2	Ag 328.068†	3053.8	3051.7	[0.00]	µg/L	18:27:35
2	Al 396.153Radial†	-38.9	-39.5	[0.00]	µg/L	18:26:29
2	As 188.979†	-15.1	-15.1	[0.00]	µg/L	18:27:55
2	B 249.677†	3293.2	3291.1	[0.00]	µg/L	18:27:35
2	Ba 233.527†	-175.9	-175.8	[0.00]	µg/L	18:27:55
2	Be 313.107†	-530.4	-530.1	[0.00]	µg/L	18:27:35
2	Ca 317.933Radial†	602.3	611.3	[0.00]	µg/L	18:26:29
2	Cd 226.502†	-94.9	-94.9	[0.00]	µg/L	18:27:55
2	Co 228.616†	-169.1	-169.0	[0.00]	µg/L	18:27:55
2	Cr 267.716†	157.6	157.5	[0.00]	µg/L	18:27:55
2	Cu 324.752†	2326.2	2324.7	[0.00]	µg/L	18:27:35
2	Fe 238.204 Radial†	112.7	114.4	[0.00]	µg/L	18:26:29
2	K 766.490 Radial†	1475.1	1497.1	[0.00]	µg/L	18:26:09
2	Mg 279.077 IEC†	191.8	194.7	[0.00]	µg/L	18:26:29
2	Mn 257.610†	69.4	69.3	[0.00]	µg/L	18:27:55
2	Mo 202.031†	-55.1	-55.0	[0.00]	µg/L	18:27:55
2	Na 589.592 Radial†	1691.1	1716.3	[0.00]	µg/L	18:26:09
2	Ni 231.604†	-51.5	-51.5	[0.00]	µg/L	18:27:55
2	P 214.914†	99.0	98.9	[0.00]	µg/L	18:27:55
2	Pb 220.353†	108.5	108.4	[0.00]	µg/L	18:27:55
2	S 181.975 Axial†	90.3	90.2	[0.00]	µg/L	18:27:55
2	Sb 206.836†	81.0	81.0	[0.00]	µg/L	18:27:55
2	Se 196.026†	15.5	15.5	[0.00]	µg/L	18:27:55
2	SiO2†	1541.6	1540.6	[0.00]	µg/L	18:27:55
2	Si 251.611†	721.8	721.4	[0.00]	µg/L	18:27:35
2	Sn 189.927†	7.0	7.0	[0.00]	µg/L	18:27:55
2	Sr 421.552†	-264.2	-268.1	[0.00]	µg/L	18:26:09
2	Ti 334.940†	533.5	533.1	[0.00]	µg/L	18:27:35
2	Tl 190.801†	-121.5	-121.4	[0.00]	µg/L	18:27:55
2	U 409.014†	-565.6	-565.2	[0.00]	µg/L	18:27:35
2	V 292.402†	425.8	425.5	[0.00]	µg/L	18:27:35
2	Zn 213.857†	466.7	466.4	[0.00]	µg/L	18:27:55
3	Sc 361.383	1668955.0	1668955.0	99.772	%	18:27:57
3	Sc RADIAL	147139.1	147139.1	101	%	18:26:31
3	Y 371.029	1022257.2	1022257.2	99.968	%	18:27:57
3	Ag 328.068†	2864.4	2871.0	[0.00]	µg/L	18:27:59
3	Al 396.153Radial†	-21.4	-21.2	[0.00]	µg/L	18:26:51
3	As 188.979†	-8.4	-8.4	[0.00]	µg/L	18:28:20
3	B 249.677†	3326.1	3333.7	[0.00]	µg/L	18:27:59

3	Ba 233.527†	-178.4	-178.8	[0.00]	µg/L	18:28:20
3	Be 313.107†	-689.7	-691.3	[0.00]	µg/L	18:27:59
3	Ca 317.933Radial†	636.8	630.8	[0.00]	µg/L	18:26:51
3	Cd 226.502†	-94.0	-94.2	[0.00]	µg/L	18:28:20
3	Co 228.616†	-183.5	-183.9	[0.00]	µg/L	18:28:20
3	Cr 267.716†	132.1	132.4	[0.00]	µg/L	18:28:20
3	Cu 324.752†	2501.2	2506.9	[0.00]	µg/L	18:27:59
3	Fe 238.204 Radial†	106.3	105.3	[0.00]	µg/L	18:26:51
3	K 766.490 Radial†	1479.1	1465.2	[0.00]	µg/L	18:26:31
3	Mg 279.077 IEC†	185.6	183.9	[0.00]	µg/L	18:26:51
3	Mn 257.610†	87.1	87.3	[0.00]	µg/L	18:28:20
3	Mo 202.031†	-49.1	-49.2	[0.00]	µg/L	18:28:20
3	Na 589.592 Radial†	1664.8	1649.1	[0.00]	µg/L	18:26:31
3	Ni 231.604†	-58.4	-58.5	[0.00]	µg/L	18:28:20
3	P 214.914†	65.2	65.3	[0.00]	µg/L	18:28:20
3	Pb 220.353†	104.9	105.1	[0.00]	µg/L	18:28:20
3	S 181.975 Axial†	101.9	102.2	[0.00]	µg/L	18:28:20
3	Sb 206.836†	84.1	84.3	[0.00]	µg/L	18:28:20
3	Se 196.026†	6.3	6.3	[0.00]	µg/L	18:28:20
3	SiO2†	1609.7	1613.4	[0.00]	µg/L	18:28:20
3	Si 251.611†	624.2	625.6	[0.00]	µg/L	18:27:59
3	Sn 189.927†	-0.6	-0.6	[0.00]	µg/L	18:28:20
3	Sr 421.552†	-327.4	-324.4	[0.00]	µg/L	18:26:31
3	Ti 334.940†	714.3	716.0	[0.00]	µg/L	18:27:59
3	Tl 190.801†	-113.7	-113.9	[0.00]	µg/L	18:28:20
3	U 409.014†	-419.1	-420.1	[0.00]	µg/L	18:27:59
3	V 292.402†	354.6	355.5	[0.00]	µg/L	18:27:59
3	Zn 213.857†	468.5	469.6	[0.00]	µg/L	18:28:20

## Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1672774.5	3403.67	0.20%	100.00 %
Sc RADIAL	145754.2	1879.88	1.29%	100 %
Y 371.029	1022581.6	281.95	0.03%	100.00 %
Ag 328.068†	2967.0	90.92	3.06%	[0.00] µg/L
Al 396.153Radial†	-31.9	9.54	29.92%	[0.00] µg/L
As 188.979†	-14.2	5.41	37.98%	[0.00] µg/L
B 249.677†	3355.7	78.00	2.32%	[0.00] µg/L
Ba 233.527†	-175.1	4.13	2.36%	[0.00] µg/L
Be 313.107†	-660.1	117.60	17.82%	[0.00] µg/L
Ca 317.933Radial†	616.2	12.87	2.09%	[0.00] µg/L
Cd 226.502†	-94.4	0.38	0.41%	[0.00] µg/L
Co 228.616†	-176.6	7.48	4.23%	[0.00] µg/L
Cr 267.716†	160.2	29.32	18.30%	[0.00] µg/L
Cu 324.752†	2424.9	92.45	3.81%	[0.00] µg/L
Fe 238.204 Radial†	113.3	7.45	6.58%	[0.00] µg/L
K 766.490 Radial†	1455.0	48.06	3.30%	[0.00] µg/L
Mg 279.077 IEC†	186.7	7.04	3.77%	[0.00] µg/L
Mn 257.610†	80.0	9.46	11.83%	[0.00] µg/L
Mo 202.031†	-55.2	6.06	10.98%	[0.00] µg/L
Na 589.592 Radial†	1694.7	39.52	2.33%	[0.00] µg/L
Ni 231.604†	-40.9	24.66	60.28%	[0.00] µg/L
P 214.914†	79.6	17.37	21.83%	[0.00] µg/L
Pb 220.353†	112.4	9.96	8.86%	[0.00] µg/L
S 181.975 Axial†	94.8	6.43	6.78%	[0.00] µg/L
Sb 206.836†	86.6	7.13	8.23%	[0.00] µg/L
Se 196.026†	10.9	4.59	42.08%	[0.00] µg/L
SiO2†	1572.9	37.13	2.36%	[0.00] µg/L
Si 251.611†	676.4	48.15	7.12%	[0.00] µg/L
Sn 189.927†	2.0	4.32	214.20%	[0.00] µg/L
Sr 421.552†	-278.0	42.30	15.22%	[0.00] µg/L
Ti 334.940†	636.3	93.67	14.72%	[0.00] µg/L
Tl 190.801†	-120.3	5.87	4.88%	[0.00] µg/L
U 409.014†	-479.1	76.26	15.92%	[0.00] µg/L
V 292.402†	431.8	79.70	18.46%	[0.00] µg/L
Zn 213.857†	464.4	6.40	1.38%	[0.00] µg/L

Sequence No.: 2  
 Sample ID: S0.1  
 Analyst:  
 Logged In Analyst (Original) : optima4  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 2  
 Date Collected: 3/29/2010 18:28:28  
 Data Type: Reprocessed on 3/29/2010 19:14:33  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	1661946.1	1661946.1	99.353 %	18:29:20
1	Sc RADIAL	142262.8	142262.8	97.6 %	18:28:58
1	Y 371.029	1013636.7	1013636.7	99.125 %	18:29:20
1	Ag 328.068†	28004.5	25219.9	[100] µg/L	18:29:22
1	As 188.979†	214.7	230.4	[100] µg/L	18:29:42
1	B 249.677†	9080.8	5784.2	[100] µg/L	18:29:22
1	Ba 233.527†	21988.9	22307.2	[100] µg/L	18:29:22
1	Be 313.107†	303759.0	306398.2	[100] µg/L	18:29:20
1	Cd 226.502†	14418.1	14606.5	[100] µg/L	18:29:22
1	Co 228.616†	7233.5	7457.2	[100] µg/L	18:29:42
1	Cr 267.716†	11824.2	11741.0	[100] µg/L	18:29:22
1	Cu 324.752†	25515.5	23256.9	[100] µg/L	18:29:22
1	K 766.490 Radial†	3700.4	2336.2	[1000] µg/L	18:28:58
1	Mn 257.610†	75396.6	75807.8	[100] µg/L	18:29:22
1	Mo 202.031†	3080.8	3156.1	[100] µg/L	18:29:42
1	Ni 231.604†	8001.7	8094.7	[100] µg/L	18:29:22
1	P 214.914†	2111.9	2046.0	[500] µg/L	18:29:42
1	Pb 220.353†	1769.2	1668.3	[100] µg/L	18:29:42
1	S 181.975 Axial†	329.8	237.2	[200] µg/L	18:29:42
1	Sb 206.836†	823.1	741.9	[100] µg/L	18:29:42
1	Se 196.026†	270.2	261.0	[100] µg/L	18:29:42
1	SiO2†	11219.8	9720.0	[1069.5] µg/L	18:29:22
1	Si 251.611†	30808.9	30333.3	[500] µg/L	18:29:22
1	Sn 189.927†	1389.8	1396.8	[100] µg/L	18:29:42
1	Sr 421.552†	43261.6	44601.3	[100] µg/L	18:28:58
1	Ti 334.940†	97625.2	97625.0	[100] µg/L	18:29:22
1	Tl 190.801†	629.9	754.3	[100] µg/L	18:29:42
1	U 409.014†	1288.2	1775.7	[100] µg/L	18:29:22
1	V 292.402†	18219.3	17906.2	[100] µg/L	18:29:22
1	Zn 213.857†	16338.0	15980.0	[100] µg/L	18:29:22
2	Sc 361.383	1666549.8	1666549.8	99.628 %	18:29:44
2	Sc RADIAL	146980.5	146980.5	101 %	18:29:00
2	Y 371.029	1017353.0	1017353.0	99.489 %	18:29:44
2	Ag 328.068†	28245.8	25384.2	[100] µg/L	18:29:47
2	As 188.979†	216.8	231.9	[100] µg/L	18:30:07
2	B 249.677†	9095.6	5773.9	[100] µg/L	18:29:47
2	Ba 233.527†	22220.1	22478.2	[100] µg/L	18:29:47
2	Be 313.107†	301592.1	303378.7	[100] µg/L	18:29:44
2	Cd 226.502†	14444.4	14592.7	[100] µg/L	18:29:47
2	Co 228.616†	7194.5	7397.9	[100] µg/L	18:30:07
2	Cr 267.716†	11989.4	11874.0	[100] µg/L	18:29:47
2	Cu 324.752†	25454.5	23124.7	[100] µg/L	18:29:47
2	K 766.490 Radial†	3828.6	2341.7	[1000] µg/L	18:29:00
2	Mn 257.610†	75955.3	76159.0	[100] µg/L	18:29:47
2	Mo 202.031†	3072.9	3139.6	[100] µg/L	18:30:07
2	Ni 231.604†	7945.1	8015.7	[100] µg/L	18:29:47
2	P 214.914†	2095.0	2023.3	[500] µg/L	18:30:07
2	Pb 220.353†	1806.4	1700.7	[100] µg/L	18:30:07
2	S 181.975 Axial†	328.8	235.2	[200] µg/L	18:30:07
2	Sb 206.836†	831.1	747.6	[100] µg/L	18:30:07
2	Se 196.026†	268.7	258.8	[100] µg/L	18:30:07
2	SiO2†	11380.9	9850.6	[1069.5] µg/L	18:29:47
2	Si 251.611†	30908.3	30347.4	[500] µg/L	18:29:47
2	Sn 189.927†	1386.9	1390.0	[100] µg/L	18:30:07
2	Sr 421.552†	43897.3	43809.0	[100] µg/L	18:29:00
2	Ti 334.940†	97949.2	97678.7	[100] µg/L	18:29:47
2	Tl 190.801†	629.9	752.6	[100] µg/L	18:30:07
2	U 409.014†	1127.3	1610.7	[100] µg/L	18:29:47

2	V 292.402†	18287.8	17924.3	[100]	µg/L	18:29:47
2	Zn 213.857†	16478.9	16076.1	[100]	µg/L	18:29:47
3	Sc 361.383	1678711.7	1678711.7	100.35	%	18:30:09
3	Sc RADIAL	143945.0	143945.0	98.8	%	18:29:02
3	Y 371.029	1024374.9	1024374.9	100.18	%	18:30:09
3	Ag 328.068†	27960.9	24894.9	[100]	µg/L	18:30:11
3	As 188.979†	221.3	234.7	[100]	µg/L	18:30:31
3	B 249.677†	9088.4	5700.5	[100]	µg/L	18:30:11
3	Ba 233.527†	21982.2	22079.5	[100]	µg/L	18:30:11
3	Be 313.107†	305374.6	304954.6	[100]	µg/L	18:30:09
3	Cd 226.502†	14449.3	14492.6	[100]	µg/L	18:30:11
3	Co 228.616†	7225.7	7376.7	[100]	µg/L	18:30:31
3	Cr 267.716†	11783.4	11581.4	[100]	µg/L	18:30:11
3	Cu 324.752†	25635.6	23120.1	[100]	µg/L	18:30:11
3	K 766.490 Radial†	3785.9	2378.5	[1000]	µg/L	18:29:02
3	Mn 257.610†	75567.2	75219.9	[100]	µg/L	18:30:11
3	Mo 202.031†	3088.5	3132.8	[100]	µg/L	18:30:31
3	Ni 231.604†	7999.7	8012.3	[100]	µg/L	18:30:11
3	P 214.914†	2091.9	2004.9	[500]	µg/L	18:30:31
3	Pb 220.353†	1784.3	1665.6	[100]	µg/L	18:30:31
3	S 181.975 Axial†	327.0	231.0	[200]	µg/L	18:30:31
3	Sb 206.836†	817.3	727.8	[100]	µg/L	18:30:31
3	Se 196.026†	251.7	239.9	[100]	µg/L	18:30:31
3	SiO2†	11327.9	9715.0	[1069.5]	µg/L	18:30:11
3	Si 251.611†	30819.3	30033.9	[500]	µg/L	18:30:11
3	Sn 189.927†	1401.4	1394.4	[100]	µg/L	18:30:31
3	Sr 421.552†	43851.5	44680.7	[100]	µg/L	18:29:02
3	Ti 334.940†	97740.3	96758.3	[100]	µg/L	18:30:11
3	Tl 190.801†	620.5	738.6	[100]	µg/L	18:30:31
3	U 409.014†	1269.9	1744.5	[100]	µg/L	18:30:11
3	V 292.402†	18059.5	17563.8	[100]	µg/L	18:30:11
3	Zn 213.857†	16510.7	15987.9	[100]	µg/L	18:30:11

## Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1669069.2	8662.09	0.52%	99.778 %
Sc RADIAL	144396.1	2390.99	1.66%	99.1 %
Y 371.029	1018454.9	5453.26	0.54%	99.596 %
Ag 328.068†	25166.4	249.02	0.99%	[100] µg/L
As 188.979†	232.3	2.20	0.95%	[100] µg/L
B 249.677†	5752.9	45.63	0.79%	[100] µg/L
Ba 233.527†	22288.3	200.02	0.90%	[100] µg/L
Be 313.107†	304910.5	1510.27	0.50%	[100] µg/L
Cd 226.502†	14563.9	62.13	0.43%	[100] µg/L
Co 228.616†	7410.6	41.70	0.56%	[100] µg/L
Cr 267.716†	11732.1	146.47	1.25%	[100] µg/L
Cu 324.752†	23167.2	77.70	0.34%	[100] µg/L
K 766.490 Radial†	2352.1	22.98	0.98%	[1000] µg/L
Mn 257.610†	75728.9	474.50	0.63%	[100] µg/L
Mo 202.031†	3142.8	11.99	0.38%	[100] µg/L
Ni 231.604†	8040.9	46.63	0.58%	[100] µg/L
P 214.914†	2024.7	20.61	1.02%	[500] µg/L
Pb 220.353†	1678.2	19.56	1.17%	[100] µg/L
S 181.975 Axial†	234.4	3.15	1.34%	[200] µg/L
Sb 206.836†	739.1	10.21	1.38%	[100] µg/L
Se 196.026†	253.2	11.62	4.59%	[100] µg/L
SiO2†	9761.9	76.87	0.79%	[1069.5] µg/L
Si 251.611†	30238.2	177.02	0.59%	[500] µg/L
Sn 189.927†	1393.8	3.45	0.25%	[100] µg/L
Sr 421.552†	44363.6	481.98	1.09%	[100] µg/L
Ti 334.940†	97354.0	516.57	0.53%	[100] µg/L
Tl 190.801†	748.5	8.62	1.15%	[100] µg/L
U 409.014†	1710.3	87.69	5.13%	[100] µg/L
V 292.402†	17798.1	203.14	1.14%	[100] µg/L
Zn 213.857†	16014.7	53.32	0.33%	[100] µg/L

Sequence No.: 3  
 Sample ID: S0.5  
 Analyst:  
 Logged In Analyst (Original) : optima4  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 3  
 Date Collected: 3/29/2010 18:30:39  
 Data Type: Reprocessed on 3/29/2010 19:14:34  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Analysis Time
1	Sc 361.383	1666330.4	1666330.4	99.615 %	18:31:37
1	Sc RADIAL	146255.9	146255.9	100 %	18:31:10
1	Y 371.029	1010770.4	1010770.4	98.845 %	18:31:37
1	Ag 328.068†	124810.0	122325.6	[500] µg/L	18:31:37
1	Al 396.153Radial†	22730.9	22684.8	[5000] µg/L	18:31:10
1	As 188.979†	1130.3	1148.9	[500] µg/L	18:31:57
1	B 249.677†	32443.2	29213.0	[500] µg/L	18:31:37
1	Ba 233.527†	108021.9	108614.7	[500] µg/L	18:31:37
1	Be 313.107†	1516563.3	1523088.3	[500] µg/L	18:31:37
1	Ca 317.933Radial†	86179.3	85267.4	[5000] µg/L	18:31:10
1	Cd 226.502†	71219.1	71589.0	[500] µg/L	18:31:37
1	Co 228.616†	35394.0	35707.4	[500] µg/L	18:31:57
1	Cr 267.716†	57615.1	57677.6	[500] µg/L	18:31:37
1	Cu 324.752†	116290.7	114315.5	[500] µg/L	18:31:37
1	K 766.490 Radial†	13629.8	12128.1	[5000] µg/L	18:31:10
1	Mg 279.077 IEC†	12468.2	12238.8	[5000] µg/L	18:31:10
1	Mn 257.610†	362696.8	364019.5	[500] µg/L	18:31:37
1	Mo 202.031†	15371.1	15485.8	[500] µg/L	18:31:57
1	Ni 231.604†	38767.1	38957.9	[500] µg/L	18:31:37
1	P 214.914†	10122.4	10082.0	[2500] µg/L	18:31:57
1	Pb 220.353†	8161.6	8080.8	[500] µg/L	18:31:57
1	S 181.975 Axial†	1278.6	1188.7	[1000] µg/L	18:31:57
1	Sb 206.836†	3687.2	3614.8	[500] µg/L	18:31:57
1	Se 196.026†	1225.0	1218.8	[500] µg/L	18:31:57
1	SiO2†	49926.4	48546.6	[5347.5] µg/L	18:31:37
1	Si 251.611†	150511.0	150416.7	[2500] µg/L	18:31:37
1	Sn 189.927†	6828.0	6852.4	[500] µg/L	18:31:57
1	Sr 421.552†	212817.9	212365.9	[500] µg/L	18:31:08
1	Ti 334.940†	484276.9	485513.3	[500] µg/L	18:31:37
1	Tl 190.801†	3503.2	3637.1	[500] µg/L	18:31:57
1	U 409.014†	6910.1	7415.9	[500] µg/L	18:31:37
1	V 292.402†	89155.4	89068.4	[500] µg/L	18:31:37
1	Zn 213.857†	79249.5	79091.5	[500] µg/L	18:31:37
2	Sc 361.383	1656377.5	1656377.5	99.020 %	18:32:00
2	Sc RADIAL	143364.9	143364.9	98.4 %	18:31:14
2	Y 371.029	1005040.5	1005040.5	98.285 %	18:32:00
2	Ag 328.068†	123893.4	122152.8	[500] µg/L	18:32:00
2	Al 396.153Radial†	22411.8	22817.2	[5000] µg/L	18:31:14
2	As 188.979†	1160.9	1186.7	[500] µg/L	18:32:21
2	B 249.677†	32166.0	29128.7	[500] µg/L	18:32:00
2	Ba 233.527†	106821.0	108053.5	[500] µg/L	18:32:00
2	Be 313.107†	1497872.7	1513360.7	[500] µg/L	18:32:00
2	Ca 317.933Radial†	83955.9	84739.0	[5000] µg/L	18:31:14
2	Cd 226.502†	70376.7	71167.8	[500] µg/L	18:32:00
2	Co 228.616†	35865.0	36396.7	[500] µg/L	18:32:21
2	Cr 267.716†	57094.1	57499.1	[500] µg/L	18:32:00
2	Cu 324.752†	115218.7	113934.4	[500] µg/L	18:32:00
2	K 766.490 Radial†	13146.4	11910.5	[5000] µg/L	18:31:14
2	Mg 279.077 IEC†	12081.5	12096.2	[5000] µg/L	18:31:14
2	Mn 257.610†	359096.8	362571.6	[500] µg/L	18:32:00
2	Mo 202.031†	15556.5	15765.7	[500] µg/L	18:32:21
2	Ni 231.604†	38151.2	38569.7	[500] µg/L	18:32:00
2	P 214.914†	10250.6	10272.5	[2500] µg/L	18:32:21
2	Pb 220.353†	8247.6	8216.9	[500] µg/L	18:32:21
2	S 181.975 Axial†	1295.5	1213.5	[1000] µg/L	18:32:21
2	Sb 206.836†	3729.7	3679.9	[500] µg/L	18:32:21
2	Se 196.026†	1259.6	1261.2	[500] µg/L	18:32:21
2	SiO2†	49488.1	48405.1	[5347.5] µg/L	18:32:00

2	Si 251.611†	149066.4	149865.6	[2500]	µg/L	18:32:00
2	Sn 189.927†	6928.0	6994.5	[500]	µg/L	18:32:21
2	Sr 421.552†	210571.1	214358.5	[500]	µg/L	18:31:12
2	Ti 334.940†	480119.5	484236.0	[500]	µg/L	18:32:00
2	Tl 190.801†	3520.8	3676.0	[500]	µg/L	18:32:21
2	U 409.014†	6871.4	7418.6	[500]	µg/L	18:32:00
2	V 292.402†	88228.0	88669.5	[500]	µg/L	18:32:00
2	Zn 213.857†	78116.6	78425.5	[500]	µg/L	18:32:00
3	Sc 361.383	1678591.9	1678591.9	100.35	%	18:32:24
3	Sc RADIAL	148088.8	148088.8	102	%	18:31:18
3	Y 371.029	1018746.9	1018746.9	99.625	%	18:32:24
3	Ag 328.068†	125886.3	122483.0	[500]	µg/L	18:32:24
3	Al 396.153Radial†	22914.6	22585.2	[5000]	µg/L	18:31:18
3	As 188.979†	1161.2	1171.4	[500]	µg/L	18:32:44
3	B 249.677†	32821.8	29352.3	[500]	µg/L	18:32:24
3	Ba 233.527†	108685.7	108484.1	[500]	µg/L	18:32:24
3	Be 313.107†	1528160.6	1523524.6	[500]	µg/L	18:32:24
3	Ca 317.933Radial†	86630.7	84648.8	[5000]	µg/L	18:31:18
3	Cd 226.502†	72351.9	72195.6	[500]	µg/L	18:32:24
3	Co 228.616†	36165.4	36216.7	[500]	µg/L	18:32:44
3	Cr 267.716†	58224.7	57862.7	[500]	µg/L	18:32:24
3	Cu 324.752†	117068.1	114237.5	[500]	µg/L	18:32:24
3	K 766.490 Radial†	13544.3	11875.7	[5000]	µg/L	18:31:18
3	Mg 279.077 IEC†	12711.0	12323.9	[5000]	µg/L	18:31:18
3	Mn 257.610†	365977.4	364629.0	[500]	µg/L	18:32:24
3	Mo 202.031†	15658.0	15658.9	[500]	µg/L	18:32:44
3	Ni 231.604†	38949.9	38855.9	[500]	µg/L	18:32:24
3	P 214.914†	10378.5	10262.9	[2500]	µg/L	18:32:44
3	Pb 220.353†	8301.3	8160.1	[500]	µg/L	18:32:44
3	S 181.975 Axial†	1298.3	1199.0	[1000]	µg/L	18:32:44
3	Sb 206.836†	3757.3	3657.7	[500]	µg/L	18:32:44
3	Se 196.026†	1268.4	1253.0	[500]	µg/L	18:32:44
3	SiO2†	50453.3	48705.6	[5347.5]	µg/L	18:32:24
3	Si 251.611†	151847.8	150645.2	[2500]	µg/L	18:32:24
3	Sn 189.927†	6976.6	6950.4	[500]	µg/L	18:32:44
3	Sr 421.552†	212729.2	209653.5	[500]	µg/L	18:31:16
3	Ti 334.940†	487904.2	485577.0	[500]	µg/L	18:32:24
3	Tl 190.801†	3573.5	3681.5	[500]	µg/L	18:32:44
3	U 409.014†	7083.7	7538.2	[500]	µg/L	18:32:24
3	V 292.402†	89928.1	89184.6	[500]	µg/L	18:32:24
3	Zn 213.857†	79862.3	79121.1	[500]	µg/L	18:32:24

## Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1667099.9	11127.18	0.67%	99.661 %
Sc RADIAL	145903.2	2381.65	1.63%	100 %
Y 371.029	1011519.3	6883.81	0.68%	98.918 %
Ag 328.068†	122320.5	165.15	0.14%	[500] µg/L
Al 396.153Radial†	22695.7	116.36	0.51%	[5000] µg/L
As 188.979†	1169.0	19.01	1.63%	[500] µg/L
B 249.677†	29231.4	112.94	0.39%	[500] µg/L
Ba 233.527†	108384.1	293.66	0.27%	[500] µg/L
Be 313.107†	1519991.2	5746.30	0.38%	[500] µg/L
Ca 317.933Radial†	84885.1	334.21	0.39%	[5000] µg/L
Cd 226.502†	71650.8	516.66	0.72%	[500] µg/L
Co 228.616†	36106.9	357.49	0.99%	[500] µg/L
Cr 267.716†	57679.8	181.81	0.32%	[500] µg/L
Cu 324.752†	114162.5	201.35	0.18%	[500] µg/L
K 766.490 Radial†	11971.4	136.75	1.14%	[5000] µg/L
Mg 279.077 IEC†	12219.6	115.04	0.94%	[5000] µg/L
Mn 257.610†	363740.0	1056.77	0.29%	[500] µg/L
Mo 202.031†	15636.8	141.25	0.90%	[500] µg/L
Ni 231.604†	38794.5	201.22	0.52%	[500] µg/L
P 214.914†	10205.8	107.31	1.05%	[2500] µg/L
Pb 220.353†	8152.6	68.35	0.84%	[500] µg/L
S 181.975 Axial†	1200.4	12.45	1.04%	[1000] µg/L
Sb 206.836†	3650.8	33.08	0.91%	[500] µg/L
Se 196.026†	1244.3	22.47	1.81%	[500] µg/L
SiO2†	48552.4	150.29	0.31%	[5347.5] µg/L

Si 251.611†	150309.2	400.75	0.27%	[2500] µg/L
Sn 189.927†	6932.4	72.76	1.05%	[500] µg/L
Sr 421.552†	212126.0	2361.66	1.11%	[500] µg/L
Ti 334.940†	485108.8	756.53	0.16%	[500] µg/L
Tl 190.801†	3664.9	24.20	0.66%	[500] µg/L
U 409.014†	7457.6	69.86	0.94%	[500] µg/L
V 292.402†	88974.2	270.15	0.30%	[500] µg/L
Zn 213.857†	78879.4	393.36	0.50%	[500] µg/L

Sequence No.: 4  
 Sample ID: SCAL  
 Analyst:  
 Logged In Analyst (Original) : optima4  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 3/29/2010 18:32:52  
 Data Type: Reprocessed on 3/29/2010 19:14:34  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Analysis Time
1	Sc 361.383	1695274.3	1695274.3	101.35 %	18:33:51
1	Sc RADIAL	148093.8	148093.8	102 %	18:33:23
1	Y 371.029	1024428.2	1024428.2	100.18 %	18:33:51
1	Ag 328.068†	253437.3	247106.6	[1000] µg/L	18:33:51
1	Al 396.153Radial†	47074.8	46363.0	[10000] µg/L	18:33:23
1	As 188.979†	2423.7	2405.8	[1000] µg/L	18:33:53
1	B 249.677†	64171.5	59964.1	[1000] µg/L	18:33:51
1	Ba 233.527†	222696.0	219915.4	[1000] µg/L	18:33:51
1	Be 313.107†	3125497.2	3084675.4	[1000] µg/L	18:33:51
1	Ca 317.933Radial†	175989.6	172593.1	[10000] µg/L	18:33:23
1	Cd 226.502†	147319.9	145459.1	[1000] µg/L	18:33:51
1	Co 228.616†	73285.4	72489.3	[1000] µg/L	18:33:53
1	Cr 267.716†	118453.3	116720.9	[1000] µg/L	18:33:51
1	Cu 324.752†	236158.0	230598.8	[1000] µg/L	18:33:51
1	Fe 238.204 Radial†	153305.8	150770.6	[10000] µg/L	18:33:23
1	K 766.490 Radial†	26333.7	24462.7	[10000] µg/L	18:33:23
1	Mg 279.077 IEC†	25539.7	24949.5	[10000] µg/L	18:33:23
1	Mn 257.610†	742700.4	732763.2	[1000] µg/L	18:33:51
1	Mo 202.031†	31916.7	31548.3	[1000] µg/L	18:33:53
1	Na 589.592 Radial†	67840.0	65073.6	[10000] µg/L	18:33:23
1	Ni 231.604†	79543.1	78528.3	[1000] µg/L	18:33:51
1	P 214.914†	21051.1	20692.1	[5000] µg/L	18:33:53
1	Pb 220.353†	16751.4	16416.6	[1000] µg/L	18:33:53
1	S 181.975 Axial†	2600.1	2470.7	[2000] µg/L	18:33:53
1	Sb 206.836†	7615.0	7427.3	[1000] µg/L	18:33:53
1	Se 196.026†	2517.5	2473.2	[1000] µg/L	18:33:53
1	SiO2†	101024.7	98111.1	[10695] µg/L	18:33:51
1	Si 251.611†	307939.1	303175.7	[5000] µg/L	18:33:51
1	Sn 189.927†	14211.0	14020.4	[1000] µg/L	18:33:53
1	Sr 421.552†	434456.1	427870.5	[1000] µg/L	18:33:21
1	Ti 334.940†	997481.3	983606.3	[1000] µg/L	18:33:51
1	Tl 190.801†	7335.9	7358.9	[1000] µg/L	18:33:53
1	U 409.014†	16212.4	16476.3	[1000] µg/L	18:33:51
1	V 292.402†	183867.8	180995.7	[1000] µg/L	18:33:51
1	Zn 213.857†	161925.8	159312.2	[1000] µg/L	18:33:51
2	Sc 361.383	1690996.4	1690996.4	101.09 %	18:33:57
2	Sc RADIAL	145999.7	145999.7	100 %	18:33:27
2	Y 371.029	1021922.1	1021922.1	99.936 %	18:33:57
2	Ag 328.068†	252044.6	246361.5	[1000] µg/L	18:33:57
2	Al 396.153Radial†	46624.8	46578.3	[10000] µg/L	18:33:27
2	As 188.979†	2403.1	2391.4	[1000] µg/L	18:33:59
2	B 249.677†	63843.6	59800.0	[1000] µg/L	18:33:57
2	Ba 233.527†	221227.7	219018.9	[1000] µg/L	18:33:57
2	Be 313.107†	3107291.9	3074468.3	[1000] µg/L	18:33:57
2	Ca 317.933Radial†	173656.9	172748.8	[10000] µg/L	18:33:27
2	Cd 226.502†	146575.4	145090.3	[1000] µg/L	18:33:57
2	Co 228.616†	74805.8	74176.3	[1000] µg/L	18:33:59
2	Cr 267.716†	118015.5	116583.5	[1000] µg/L	18:33:57
2	Cu 324.752†	235118.6	230160.1	[1000] µg/L	18:33:57
2	Fe 238.204 Radial†	151211.1	150843.6	[10000] µg/L	18:33:27
2	K 766.490 Radial†	25931.4	24432.8	[10000] µg/L	18:33:27
2	Mg 279.077 IEC†	24969.0	24740.4	[10000] µg/L	18:33:27
2	Mn 257.610†	740445.3	732386.4	[1000] µg/L	18:33:57
2	Mo 202.031†	32495.1	32200.2	[1000] µg/L	18:33:59
2	Na 589.592 Radial†	67249.4	65441.6	[10000] µg/L	18:33:27
2	Ni 231.604†	79100.3	78288.9	[1000] µg/L	18:33:57
2	P 214.914†	21690.5	21377.2	[5000] µg/L	18:33:59
2	Pb 220.353†	17172.9	16875.4	[1000] µg/L	18:33:59



2	S 181.975 Axial†	2679.6	2555.9	[2000]	µg/L	18:33:59
2	Sb 206.836†	7635.7	7466.8	[1000]	µg/L	18:33:59
2	Se 196.026†	2666.5	2626.9	[1000]	µg/L	18:33:59
2	SiO2†	100664.8	98007.2	[10695]	µg/L	18:33:57
2	Si 251.611†	306502.8	302523.6	[5000]	µg/L	18:33:57
2	Sn 189.927†	14443.7	14286.0	[1000]	µg/L	18:33:59
2	Sr 421.552†	430963.7	430517.1	[1000]	µg/L	18:33:25
2	Ti 334.940†	993955.9	982608.8	[1000]	µg/L	18:33:57
2	Tl 190.801†	7531.3	7570.4	[1000]	µg/L	18:33:59
2	U 409.014†	16040.6	16346.9	[1000]	µg/L	18:33:57
2	V 292.402†	183235.5	180829.1	[1000]	µg/L	18:33:57
2	Zn 213.857†	161264.5	159062.3	[1000]	µg/L	18:33:57
3	Sc 361.383	1679595.4	1679595.4	100.41	%	18:34:04
3	Sc RADIAL	149693.3	149693.3	103	%	18:33:31
3	Y 371.029	1015550.9	1015550.9	99.312	%	18:34:04
3	Ag 328.068†	251016.5	247030.1	[1000]	µg/L	18:34:04
3	Al 396.153Radial†	47551.4	46332.0	[10000]	µg/L	18:33:31
3	As 188.979†	2421.2	2425.6	[1000]	µg/L	18:34:06
3	B 249.677†	63426.3	59813.0	[1000]	µg/L	18:34:04
3	Ba 233.527†	219963.3	219245.0	[1000]	µg/L	18:34:04
3	Be 313.107†	3093622.9	3081719.7	[1000]	µg/L	18:34:04
3	Ca 317.933Radial†	178184.0	172879.1	[10000]	µg/L	18:33:31
3	Cd 226.502†	145509.3	145012.8	[1000]	µg/L	18:34:04
3	Co 228.616†	73160.7	73040.2	[1000]	µg/L	18:34:06
3	Cr 267.716†	117369.2	116732.4	[1000]	µg/L	18:34:04
3	Cu 324.752†	233979.9	230604.8	[1000]	µg/L	18:34:04
3	Fe 238.204 Radial†	154947.1	150756.5	[10000]	µg/L	18:33:31
3	K 766.490 Radial†	26410.5	24260.6	[10000]	µg/L	18:33:31
3	Mg 279.077 IEC†	25740.2	24876.2	[10000]	µg/L	18:33:31
3	Mn 257.610†	735902.7	732834.1	[1000]	µg/L	18:34:04
3	Mo 202.031†	31675.9	31602.5	[1000]	µg/L	18:34:06
3	Na 589.592 Radial†	68591.3	65091.7	[10000]	µg/L	18:33:31
3	Ni 231.604†	78372.8	78095.4	[1000]	µg/L	18:34:04
3	P 214.914†	21100.1	20934.8	[5000]	µg/L	18:34:06
3	Pb 220.353†	16565.8	16386.1	[1000]	µg/L	18:34:06
3	S 181.975 Axial†	2538.8	2433.7	[2000]	µg/L	18:34:06
3	Sb 206.836†	7547.1	7429.8	[1000]	µg/L	18:34:06
3	Se 196.026†	2534.8	2513.6	[1000]	µg/L	18:34:06
3	SiO2†	99973.5	97994.7	[10695]	µg/L	18:34:04
3	Si 251.611†	304718.9	302805.0	[5000]	µg/L	18:34:04
3	Sn 189.927†	14107.2	14047.9	[1000]	µg/L	18:34:06
3	Sr 421.552†	434068.2	422924.1	[1000]	µg/L	18:33:29
3	Ti 334.940†	988596.9	983945.8	[1000]	µg/L	18:34:04
3	Tl 190.801†	7419.8	7510.0	[1000]	µg/L	18:34:06
3	U 409.014†	16237.0	16650.2	[1000]	µg/L	18:34:04
3	V 292.402†	181988.8	180817.9	[1000]	µg/L	18:34:04
3	Zn 213.857†	160057.9	158943.5	[1000]	µg/L	18:34:04

## Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1688622.0	8104.65	0.48%	100.95 %
Sc RADIAL	147928.9	1852.30	1.25%	101 %
Y 371.029	1020633.7	4576.76	0.45%	99.810 %
Ag 328.068†	246832.7	409.85	0.17%	[1000] µg/L
Al 396.153Radial†	46424.4	134.12	0.29%	[10000] µg/L
As 188.979†	2407.6	17.16	0.71%	[1000] µg/L
B 249.677†	59859.0	91.23	0.15%	[1000] µg/L
Ba 233.527†	219393.1	466.22	0.21%	[1000] µg/L
Be 313.107†	3080287.8	5252.04	0.17%	[1000] µg/L
Ca 317.933Radial†	172740.3	143.17	0.08%	[10000] µg/L
Cd 226.502†	145187.4	238.43	0.16%	[1000] µg/L
Co 228.616†	73235.3	860.22	1.17%	[1000] µg/L
Cr 267.716†	116678.9	82.81	0.07%	[1000] µg/L
Cu 324.752†	230454.6	255.03	0.11%	[1000] µg/L
Fe 238.204 Radial†	150790.2	46.73	0.03%	[10000] µg/L
K 766.490 Radial†	24385.4	109.10	0.45%	[10000] µg/L
Mg 279.077 IEC†	24855.4	106.12	0.43%	[10000] µg/L
Mn 257.610†	732661.3	240.63	0.03%	[1000] µg/L
Mo 202.031†	31783.7	361.73	1.14%	[1000] µg/L

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Na 589.592 Radial†	65202.3	207.44	0.32%	[10000]	µg/L
Ni 231.604†	78304.2	216.83	0.28%	[1000]	µg/L
P 214.914†	21001.4	347.34	1.65%	[5000]	µg/L
Pb 220.353†	16559.4	274.11	1.66%	[1000]	µg/L
S 181.975 Axial†	2486.8	62.65	2.52%	[2000]	µg/L
Sb 206.836†	7441.3	22.10	0.30%	[1000]	µg/L
Se 196.026†	2537.9	79.67	3.14%	[1000]	µg/L
SiO2†	98037.6	63.89	0.07%	[10695]	µg/L
Si 251.611†	302834.8	327.07	0.11%	[5000]	µg/L
Sn 189.927†	14118.1	146.08	1.03%	[1000]	µg/L
Sr 421.552†	427103.9	3854.12	0.90%	[1000]	µg/L
Ti 334.940†	983387.0	694.94	0.07%	[1000]	µg/L
Tl 190.801†	7479.8	108.97	1.46%	[1000]	µg/L
U 409.014†	16491.1	152.21	0.92%	[1000]	µg/L
V 292.402†	180880.9	99.54	0.06%	[1000]	µg/L
Zn 213.857†	159106.0	188.24	0.12%	[1000]	µg/L

Sequence No.: 5

Sample ID: S10

Analyst:

Logged In Analyst (Original) : optima4

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 3/29/2010 18:34:14

Data Type: Reprocessed on 3/29/2010 19:14:35

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	1647889.5	1647889.5	98.512 %	18:35:05
1	Sc RADIAL	147922.0	147922.0	101 %	18:34:43
1	Y 371.029	997984.1	997984.1	97.595 %	18:35:05
1	Al 396.153Radial†	231630.6	228268.0	[50000] µg/L	18:34:43
1	Ca 317.933Radial†	864405.0	851121.2	[50000] µg/L	18:34:43
1	Fe 238.204 Radial†	304562.8	299986.3	[20000] µg/L	18:34:43
1	Mg 279.077 IEC†	122786.4	120800.3	[50000] µg/L	18:34:43
1	Na 589.592 Radial†	134121.8	130461.6	[20000] µg/L	18:34:43
2	Sc 361.383	1646965.2	1646965.2	98.457 %	18:35:08
2	Sc RADIAL	147135.1	147135.1	101 %	18:34:45
2	Y 371.029	998151.2	998151.2	97.611 %	18:35:08
2	Al 396.153Radial†	231070.3	228933.5	[50000] µg/L	18:34:45
2	Ca 317.933Radial†	860622.6	851929.2	[50000] µg/L	18:34:45
2	Fe 238.204 Radial†	303079.0	300121.2	[20000] µg/L	18:34:45
2	Mg 279.077 IEC†	122393.7	121058.3	[50000] µg/L	18:34:45
2	Na 589.592 Radial†	133483.0	130535.5	[20000] µg/L	18:34:45
3	Sc 361.383	1642134.3	1642134.3	98.168 %	18:35:10
3	Sc RADIAL	146873.2	146873.2	101 %	18:34:47
3	Y 371.029	994617.7	994617.7	97.265 %	18:35:10
3	Al 396.153Radial†	231391.3	229660.2	[50000] µg/L	18:34:47
3	Ca 317.933Radial†	862939.8	855749.1	[50000] µg/L	18:34:47
3	Fe 238.204 Radial†	304238.1	301806.9	[20000] µg/L	18:34:47
3	Mg 279.077 IEC†	122676.5	121555.2	[50000] µg/L	18:34:47
3	Na 589.592 Radial†	134070.7	131354.5	[20000] µg/L	18:34:47

## Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1645663.0	3090.68	0.19%	98.379 %
Sc RADIAL	147310.1	545.84	0.37%	101 %
Y 371.029	996917.7	1993.60	0.20%	97.490 %
Al 396.153Radial†	228953.9	696.32	0.30%	[50000] µg/L
Ca 317.933Radial†	852933.2	2471.89	0.29%	[50000] µg/L
Fe 238.204 Radial†	300638.1	1014.46	0.34%	[20000] µg/L
Mg 279.077 IEC†	121137.9	383.71	0.32%	[50000] µg/L
Na 589.592 Radial†	130783.9	495.57	0.38%	[20000] µg/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	246.4	0.00000	0.999992	
Al 396.153Radial	3	Lin Thru 0	0.0	4.581	0.00000	0.999996	
As 188.979	3	Lin Thru 0	0.0	2.393	0.00000	0.999929	
B 249.677	3	Lin Thru 0	0.0	59.56	0.00000	0.999952	
Ba 233.527	3	Lin Thru 0	0.0	218.9	0.00000	0.999987	
Be 313.107	3	Lin Thru 0	0.0	3072	0.00000	0.999986	
Ca 317.933Radial	3	Lin Thru 0	0.0	17.07	0.00000	0.999997	
Cd 226.502	3	Lin Thru 0	0.0	144.8	0.00000	0.999986	
Co 228.616	3	Lin Thru 0	0.0	73.04	0.00000	0.999984	
Cr 267.716	3	Lin Thru 0	0.0	116.4	0.00000	0.999990	
Cu 324.752	3	Lin Thru 0	0.0	230.0	0.00000	0.999993	
Fe 238.204 Radia	2	Lin Thru 0	0.0	15.04	0.00000	0.999999	
K 766.490 Radial	3	Lin Thru 0	0.0	2.429	0.00000	0.999970	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.425	0.00000	0.999987	
Mn 257.610	3	Lin Thru 0	0.0	731.8	0.00000	0.999991	
Mo 202.031	3	Lin Thru 0	0.0	31.68	0.00000	0.999979	

Na 589.592 Radia	2	Lin Thru 0	0.0	6.535	0.00000	0.999999
Ni 231.604	3	Lin Thru 0	0.0	78.18	0.00000	0.999990
P 214.914	3	Lin Thru 0	0.0	4.176	0.00000	0.999933
Pb 220.353	3	Lin Thru 0	0.0	16.51	0.00000	0.999980
S 181.975 Axial	3	Lin Thru 0	0.0	1.234	0.00000	0.999894
Sb 206.836	3	Lin Thru 0	0.0	7.413	0.00000	0.999972
Se 196.026	3	Lin Thru 0	0.0	2.528	0.00000	0.999970
SiO2	3	Lin Thru 0	0.0	9.149	0.00000	0.999993
Si 251.611	3	Lin Thru 0	0.0	60.48	0.00000	0.999996
Sn 189.927	3	Lin Thru 0	0.0	14.07	0.00000	0.999974
Sr 421.552	3	Lin Thru 0	0.0	426.7	0.00000	0.999990
Ti 334.940	3	Lin Thru 0	0.0	980.7	0.00000	0.999985
Tl 190.801	3	Lin Thru 0	0.0	7.450	0.00000	0.999968
U 409.014	3	Lin Thru 0	0.0	16.18	0.00000	0.999235
V 292.402	3	Lin Thru 0	0.0	180.3	0.00000	0.999978
Zn 213.857	3	Lin Thru 0	0.0	158.8	0.00000	0.999994

Sequence No.: 6

Sample ID: ICV

Analyst:

Logged In Analyst (Original) : optima4

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 3/29/2010 18:35:18

Data Type: Reprocessed on 3/29/2010 19:14:36

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	1701844.8	1701844.8	101.74 %		18:36:17
1	Sc RADIAL	151216.0	151216.0	104 %		18:35:50
1	Y 371.029	1036585.9	1036585.9	101.37 %		18:36:17
1	Ag 328.068†	65858.6	61766.5	256.87 µg/L	256.87 ppb	18:36:17
1	Al 396.153Radial†	24486.5	23634.0	5134.9 µg/L	5134.9 ppb	18:35:50
1	As 188.979†	1140.6	1135.4	481.67 µg/L	481.67 ppb	18:36:37
1	B 249.677†	34168.2	30228.9	505.75 µg/L	505.75 ppb	18:36:17
1	Ba 233.527†	112714.3	110964.0	507.33 µg/L	507.33 ppb	18:36:17
1	Be 313.107†	798269.6	785294.0	255.76 µg/L	255.76 ppb	18:36:17
1	Ca 317.933Radial†	89164.4	85327.7	4999.8 µg/L	4999.8 ppb	18:35:50
1	Cd 226.502†	72993.3	71840.9	495.79 µg/L	495.79 ppb	18:36:17
1	Co 228.616†	37444.2	36981.2	506.64 µg/L	506.64 ppb	18:36:17
1	Cr 267.716†	57873.1	56724.3	487.10 µg/L	487.10 ppb	18:36:17
1	Cu 324.752†	121386.5	116888.2	509.66 µg/L	509.66 ppb	18:36:17
1	Fe 238.204 Radial†	78431.6	75485.5	5018.5 µg/L	5018.5 ppb	18:35:50
1	K 766.490 Radial†	7725.2	5991.2	2463.6 µg/L	2463.6 ppb	18:35:50
1	Mg 279.077 IEC†	13310.9	12643.4	5221.4 µg/L	5221.4 ppb	18:35:50
1	Mn 257.610†	376288.9	369781.3	505.06 µg/L	505.06 ppb	18:36:17
1	Mo 202.031†	16673.6	16444.0	519.54 µg/L	519.54 ppb	18:36:37
1	Na 589.592 Radial†	18471.5	16109.6	2462.8 µg/L	2462.8 ppb	18:35:50
1	Ni 231.604†	39283.0	38652.9	494.42 µg/L	494.42 ppb	18:36:17
1	P 214.914†	10554.2	10294.3	2456.6 µg/L	2456.6 ppb	18:36:37
1	Pb 220.353†	8472.5	8215.3	499.30 µg/L	499.30 ppb	18:36:37
1	S 181.975 Axial†	3123.6	2975.4	2415.0 µg/L	2415.0 ppb	18:36:37
1	Sb 206.836†	3775.1	3624.0	490.49 µg/L	490.49 ppb	18:36:37
1	Se 196.026†	6364.3	6244.7	2470 µg/L	2470 ppb	18:36:37
1	SiO2†	99568.8	96295.2	10503 µg/L	10503 ppb	18:36:17
1	Si 251.611†	303093.3	297239.6	4904.5 µg/L	4904.5 ppb	18:36:17
1	Sn 189.927†	7432.7	7303.7	520.86 µg/L	520.86 ppb	18:36:37
1	Sr 421.552†	233447.1	225293.2	527.99 µg/L	527.99 ppb	18:35:48
1	Ti 334.940†	482527.6	473648.9	482.33 µg/L	482.33 ppb	18:36:17
1	Tl 190.801†	3799.6	3855.0	524.73 µg/L	524.73 ppb	18:36:37
1	U 409.014†	6773.0	7136.4	471.37 µg/L	471.37 ppb	18:36:17
1	V 292.402†	91625.4	89628.5	503.69 µg/L	503.69 ppb	18:36:17
1	Zn 213.857†	81346.1	79492.2	496.47 µg/L	496.47 ppb	18:36:17
2	Sc 361.383	1701980.9	1701980.9	101.75 %		18:36:40
2	Sc RADIAL	148848.9	148848.9	102 %		18:35:54
2	Y 371.029	1036246.9	1036246.9	101.34 %		18:36:40
2	Ag 328.068†	66063.0	61962.3	257.67 µg/L	257.67 ppb	18:36:40
2	Al 396.153Radial†	24189.6	23718.6	5153.2 µg/L	5153.2 ppb	18:35:54
2	As 188.979†	1141.1	1135.8	481.85 µg/L	481.85 ppb	18:37:00
2	B 249.677†	34342.1	30397.1	508.57 µg/L	508.57 ppb	18:36:40
2	Ba 233.527†	113003.6	111239.5	508.60 µg/L	508.60 ppb	18:36:40
2	Be 313.107†	803326.2	790201.1	257.35 µg/L	257.35 ppb	18:36:40
2	Ca 317.933Radial†	87776.3	85335.2	5000.3 µg/L	5000.3 ppb	18:35:54
2	Cd 226.502†	73305.6	72142.1	497.87 µg/L	497.87 ppb	18:36:40
2	Co 228.616†	37456.8	36990.6	506.77 µg/L	506.77 ppb	18:36:40
2	Cr 267.716†	58033.0	56876.9	488.42 µg/L	488.42 ppb	18:36:40
2	Cu 324.752†	121826.1	117310.6	511.48 µg/L	511.48 ppb	18:36:40
2	Fe 238.204 Radial†	77113.3	75396.8	5012.6 µg/L	5012.6 ppb	18:35:54
2	K 766.490 Radial†	7618.8	6005.4	2469.4 µg/L	2469.4 ppb	18:35:54
2	Mg 279.077 IEC†	12970.7	12514.3	5168.3 µg/L	5168.3 ppb	18:35:54
2	Mn 257.610†	377832.0	371268.3	507.10 µg/L	507.10 ppb	18:36:40
2	Mo 202.031†	16755.0	16522.7	522.02 µg/L	522.02 ppb	18:37:00
2	Na 589.592 Radial†	18069.9	15999.5	2445.9 µg/L	2445.9 ppb	18:35:54
2	Ni 231.604†	39447.3	38811.3	496.44 µg/L	496.44 ppb	18:36:40
2	P 214.914†	10626.3	10364.3	2473.3 µg/L	2473.3 ppb	18:37:00
2	Pb 220.353†	8494.9	8236.7	500.61 µg/L	500.61 ppb	18:37:00

2	S 181.975 Axial†	3125.4	2976.9	2416.3 µg/L	2416.3 ppb	18:37:00
2	Sb 206.836†	3806.5	3654.5	494.63 µg/L	494.63 ppb	18:37:00
2	Se 196.026†	6410.3	6289.4	2490 µg/L	2490 ppb	18:37:00
2	SiO2†	100159.6	96868.0	10565 µg/L	10565 ppb	18:36:40
2	Si 251.611†	304136.0	298240.5	4921.0 µg/L	4921.0 ppb	18:36:40
2	Sn 189.927†	7468.1	7337.9	523.29 µg/L	523.29 ppb	18:37:00
2	Sr 421.552†	233080.0	228512.0	535.53 µg/L	535.53 ppb	18:35:52
2	Ti 334.940†	484116.4	475172.5	483.90 µg/L	483.90 ppb	18:36:40
2	Tl 190.801†	3811.9	3866.8	526.34 µg/L	526.34 ppb	18:37:00
2	U 409.014†	6593.5	6959.4	460.57 µg/L	460.57 ppb	18:36:40
2	V 292.402†	92020.5	90009.6	505.83 µg/L	505.83 ppb	18:36:40
2	Zn 213.857†	81495.2	79632.3	497.34 µg/L	497.34 ppb	18:36:40
3	Sc 361.383	1720635.0	1720635.0	102.86 %		18:37:03
3	Sc RADIAL	149044.6	149044.6	102 %		18:35:58
3	Y 371.029	1046771.8	1046771.8	102.37 %		18:37:03
3	Ag 328.068†	66524.8	61707.3	256.63 µg/L	256.63 ppb	18:37:03
3	Al 396.153Radial†	24064.3	23565.0	5120.0 µg/L	5120.0 ppb	18:35:58
3	As 188.979†	1131.9	1114.6	473.00 µg/L	473.00 ppb	18:37:23
3	B 249.677†	34751.0	30428.7	509.10 µg/L	509.10 ppb	18:37:03
3	Ba 233.527†	114119.3	111120.0	508.05 µg/L	508.05 ppb	18:37:03
3	Be 313.107†	809136.9	787290.3	256.41 µg/L	256.41 ppb	18:37:03
3	Ca 317.933Radial†	87762.2	85208.6	4992.9 µg/L	4992.9 ppb	18:35:58
3	Cd 226.502†	74233.6	72263.2	498.71 µg/L	498.71 ppb	18:37:03
3	Co 228.616†	37810.4	36935.2	506.02 µg/L	506.02 ppb	18:37:03
3	Cr 267.716†	58579.7	56790.0	487.67 µg/L	487.67 ppb	18:37:03
3	Cu 324.752†	122627.9	116792.1	509.24 µg/L	509.24 ppb	18:37:03
3	Fe 238.204 Radial†	77211.6	75393.8	5012.4 µg/L	5012.4 ppb	18:35:58
3	K 766.490 Radial†	7631.8	6008.3	2470.6 µg/L	2470.6 ppb	18:35:58
3	Mg 279.077 IEC†	13062.0	12587.0	5198.1 µg/L	5198.1 ppb	18:35:58
3	Mn 257.610†	380724.0	370053.9	505.44 µg/L	505.44 ppb	18:37:03
3	Mo 202.031†	16767.7	16356.5	516.77 µg/L	516.77 ppb	18:37:23
3	Na 589.592 Radial†	18288.4	16189.9	2475.1 µg/L	2475.1 ppb	18:35:58
3	Ni 231.604†	39680.9	38618.1	493.97 µg/L	493.97 ppb	18:37:03
3	P 214.914†	10598.2	10223.8	2439.7 µg/L	2439.7 ppb	18:37:23
3	Pb 220.353†	8535.0	8185.1	497.46 µg/L	497.46 ppb	18:37:23
3	S 181.975 Axial†	3153.8	2971.2	2411.6 µg/L	2411.6 ppb	18:37:23
3	Sb 206.836†	3795.0	3602.8	487.58 µg/L	487.58 ppb	18:37:23
3	Se 196.026†	6408.5	6219.4	2460 µg/L	2460 ppb	18:37:23
3	SiO2†	100969.8	96588.4	10535 µg/L	10535 ppb	18:37:03
3	Si 251.611†	306927.5	297713.8	4912.4 µg/L	4912.4 ppb	18:37:03
3	Sn 189.927†	7476.5	7266.5	518.21 µg/L	518.21 ppb	18:37:23
3	Sr 421.552†	230245.5	225440.5	528.33 µg/L	528.33 ppb	18:35:56
3	Ti 334.940†	487355.2	473162.7	481.84 µg/L	481.84 ppb	18:37:03
3	Tl 190.801†	3807.3	3821.7	520.26 µg/L	520.26 ppb	18:37:23
3	U 409.014†	6788.8	7079.0	467.87 µg/L	467.87 ppb	18:37:03
3	V 292.402†	92755.7	89743.8	504.30 µg/L	504.30 ppb	18:37:03
3	Zn 213.857†	82290.5	79537.1	496.75 µg/L	496.75 ppb	18:37:03

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Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1708153.5	102.11 %	0.646			0.63%
Sc RADIAL	149703.2	103 %	0.9			0.88%
Y 371.029	1039868.2	101.69 %	0.585			0.58%
Ag 328.068†	61812.1	257.06 µg/L	0.547	257.06 ppb	0.547	0.21%
QC value within limits for Ag 328.068 Recovery = 102.82%						
Al 396.153Radial†	23639.2	5136.0 µg/L	16.67	5136.0 ppb	16.67	0.32%
QC value within limits for Al 396.153Radial Recovery = 102.72%						
As 188.979†	1128.6	478.84 µg/L	5.057	478.84 ppb	5.057	1.06%
QC value within limits for As 188.979 Recovery = 95.77%						
B 249.677†	30351.6	507.81 µg/L	1.804	507.81 ppb	1.804	0.36%
QC value within limits for B 249.677 Recovery = 101.56%						
Ba 233.527†	111107.9	507.99 µg/L	0.632	507.99 ppb	0.632	0.12%
QC value within limits for Ba 233.527 Recovery = 101.60%						
Be 313.107†	787595.1	256.51 µg/L	0.802	256.51 ppb	0.802	0.31%
QC value within limits for Be 313.107 Recovery = 102.60%						
Ca 317.933Radial†	85290.5	4997.7 µg/L	4.16	4997.7 ppb	4.16	0.08%
QC value within limits for Ca 317.933Radial Recovery = 99.95%						
Cd 226.502†	72082.0	497.46 µg/L	1.502	497.46 ppb	1.502	0.30%
QC value within limits for Cd 226.502 Recovery = 99.49%						

Co 228.616†	36969.0	506.48 µg/L	0.406	506.48 ppb	0.406	0.08%
QC value within limits for Co 228.616 Recovery = 101.30%						
Cr 267.716†	56797.1	487.73 µg/L	0.662	487.73 ppb	0.662	0.14%
QC value within limits for Cr 267.716 Recovery = 97.55%						
Cu 324.752†	116997.0	510.13 µg/L	1.195	510.13 ppb	1.195	0.23%
QC value within limits for Cu 324.752 Recovery = 102.03%						
Fe 238.204 Radial†	75425.3	5014.5 µg/L	3.46	5014.5 ppb	3.46	0.07%
QC value within limits for Fe 238.204 Radial Recovery = 100.29%						
K 766.490 Radial†	6001.6	2467.9 µg/L	3.77	2467.9 ppb	3.77	0.15%
QC value within limits for K 766.490 Radial Recovery = 98.71%						
Mg 279.077 IEC†	12581.6	5195.9 µg/L	26.65	5195.9 ppb	26.65	0.51%
QC value within limits for Mg 279.077 IEC Recovery = 103.92%						
Mn 257.610†	370367.8	505.87 µg/L	1.083	505.87 ppb	1.083	0.21%
QC value within limits for Mn 257.610 Recovery = 101.17%						
Mo 202.031†	16441.1	519.44 µg/L	2.624	519.44 ppb	2.624	0.51%
QC value within limits for Mo 202.031 Recovery = 103.89%						
Na 589.592 Radial†	16099.7	2461.3 µg/L	14.63	2461.3 ppb	14.63	0.59%
QC value within limits for Na 589.592 Radial Recovery = 98.45%						
Ni 231.604†	38694.1	494.94 µg/L	1.317	494.94 ppb	1.317	0.27%
QC value within limits for Ni 231.604 Recovery = 98.99%						
P 214.914†	10294.2	2456.5 µg/L	16.81	2456.5 ppb	16.81	0.68%
QC value within limits for P 214.914 Recovery = 98.26%						
Pb 220.353†	8212.4	499.12 µg/L	1.581	499.12 ppb	1.581	0.32%
QC value within limits for Pb 220.353 Recovery = 99.82%						
S 181.975 Axial†	2974.5	2414.3 µg/L	2.40	2414.3 ppb	2.40	0.10%
QC value within limits for S 181.975 Axial Recovery = 96.57%						
Sb 206.836†	3627.1	490.90 µg/L	3.546	490.90 ppb	3.546	0.72%
QC value within limits for Sb 206.836 Recovery = 98.18%						
Se 196.026†	6251.2	2470 µg/L	14.0	2470 ppb	14.0	0.57%
QC value within limits for Se 196.026 Recovery = 98.99%						
SiO2†	96583.8	10534 µg/L	31.3	10534 ppb	31.3	0.30%
QC value within limits for SiO2 Recovery = 98.50%						
Si 251.611†	297731.3	4912.6 µg/L	8.25	4912.6 ppb	8.25	0.17%
QC value within limits for Si 251.611 Recovery = 98.25%						
Sn 189.927†	7302.7	520.79 µg/L	2.541	520.79 ppb	2.541	0.49%
QC value within limits for Sn 189.927 Recovery = 104.16%						
Sr 421.552†	226415.3	530.62 µg/L	4.259	530.62 ppb	4.259	0.80%
QC value within limits for Sr 421.552 Recovery = 106.12%						
Ti 334.940†	473994.7	482.69 µg/L	1.073	482.69 ppb	1.073	0.22%
QC value within limits for Ti 334.940 Recovery = 96.54%						
Tl 190.801†	3847.8	523.78 µg/L	3.151	523.78 ppb	3.151	0.60%
QC value within limits for Tl 190.801 Recovery = 104.76%						
U 409.014†	7058.3	466.61 µg/L	5.511	466.61 ppb	5.511	1.18%
QC value within limits for U 409.014 Recovery = 93.32%						
V 292.402†	89793.9	504.61 µg/L	1.101	504.61 ppb	1.101	0.22%
QC value within limits for V 292.402 Recovery = 100.92%						
Zn 213.857†	79553.9	496.85 µg/L	0.443	496.85 ppb	0.443	0.09%
QC value within limits for Zn 213.857 Recovery = 99.37%						

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: ICB

Analyst:

Logged In Analyst (Original) : optima4

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 3/29/2010 18:37:32

Data Type: Reprocessed on 3/29/2010 19:14:36

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	1718110.5	1718110.5	102.71 %		18:39:24
1	Sc RADIAL	149870.1	149870.1	103 %		18:38:01
1	Y 371.029	1056124.6	1056124.6	103.28 %		18:39:24
1	Ag 328.068†	2764.1	-275.9	-1.1170 µg/L	-1.1170 ppb	18:39:26
1	Al 396.153Radial†	-34.1	-1.3	-0.3025 µg/L	-0.3025 ppb	18:38:21
1	As 188.979†	-13.9	0.8	0.3158 µg/L	0.3158 ppb	18:39:46
1	B 249.677†	3290.8	-151.7	-2.5477 µg/L	-2.5477 ppb	18:39:46
1	Ba 233.527†	-149.3	29.7	0.1352 µg/L	0.1352 ppb	18:39:46
1	Be 313.107†	-642.8	34.2	0.0134 µg/L	0.0134 ppb	18:39:26
1	Ca 317.933Radial†	601.2	-31.5	-1.8457 µg/L	-1.8457 ppb	18:38:21
1	Cd 226.502†	-82.2	14.4	0.0988 µg/L	0.0988 ppb	18:39:46
1	Co 228.616†	-179.0	2.3	0.0321 µg/L	0.0321 ppb	18:39:46
1	Cr 267.716†	164.4	-0.2	-0.0075 µg/L	-0.0075 ppb	18:39:46
1	Cu 324.752†	2372.4	-115.1	-0.4939 µg/L	-0.4939 ppb	18:39:26
1	Fe 238.204 Radial†	141.5	24.3	1.6170 µg/L	1.6170 ppb	18:38:21
1	K 766.490 Radial†	1569.1	71.0	29.223 µg/L	29.223 ppb	18:38:01
1	Mg 279.077 IEC†	162.3	-28.9	-11.902 µg/L	-11.902 ppb	18:38:21
1	Mn 257.610†	162.2	77.9	0.1069 µg/L	0.1069 ppb	18:39:46
1	Mo 202.031†	-48.8	7.7	0.2416 µg/L	0.2416 ppb	18:39:46
1	Na 589.592 Radial†	1595.3	-143.3	-21.948 µg/L	-21.948 ppb	18:38:01
1	Ni 231.604†	-74.2	-31.3	-0.4003 µg/L	-0.4003 ppb	18:39:46
1	P 214.914†	77.1	-4.5	-1.0788 µg/L	-1.0788 ppb	18:39:46
1	Pb 220.353†	105.8	-9.5	-0.5776 µg/L	-0.5776 ppb	18:39:46
1	S 181.975 Axial†	96.4	-1.0	-0.8082 µg/L	-0.8082 ppb	18:39:46
1	Sb 206.836†	76.9	-11.8	-1.5863 µg/L	-1.5863 ppb	18:39:46
1	Se 196.026†	30.3	18.6	7.35 µg/L	7.35 ppb	18:39:46
1	SiO2†	1615.4	-0.1	-0.0156 µg/L	-0.0156 ppb	18:39:46
1	Si 251.611†	756.3	60.0	0.9881 µg/L	0.9881 ppb	18:39:26
1	Sn 189.927†	2.2	0.2	0.0117 µg/L	0.0117 ppb	18:39:46
1	Sr 421.552†	-232.4	51.9	0.1217 µg/L	0.1217 ppb	18:38:01
1	Ti 334.940†	823.7	165.6	0.1667 µg/L	0.1667 ppb	18:39:26
1	Tl 190.801†	-129.5	-5.8	-0.7821 µg/L	-0.7821 ppb	18:39:46
1	U 409.014†	-365.4	123.4	7.5895 µg/L	7.5895 ppb	18:39:26
1	V 292.402†	336.7	-104.0	-0.5695 µg/L	-0.5695 ppb	18:39:26
1	Zn 213.857†	481.8	4.7	0.0326 µg/L	0.0326 ppb	18:39:46
2	Sc 361.383	1718304.1	1718304.1	102.72 %		18:39:48
2	Sc RADIAL	149819.8	149819.8	103 %		18:38:23
2	Y 371.029	1056622.1	1056622.1	103.33 %		18:39:48
2	Ag 328.068†	3062.4	14.3	0.0846 µg/L	0.0846 ppb	18:39:50
2	Al 396.153Radial†	-45.4	-12.3	-2.7171 µg/L	-2.7171 ppb	18:38:44
2	As 188.979†	-10.9	3.6	1.5162 µg/L	1.5162 ppb	18:40:10
2	B 249.677†	3277.0	-165.5	-2.7792 µg/L	-2.7792 ppb	18:40:10
2	Ba 233.527†	-168.1	11.4	0.0526 µg/L	0.0526 ppb	18:40:10
2	Be 313.107†	-415.9	255.2	0.0882 µg/L	0.0882 ppb	18:39:50
2	Ca 317.933Radial†	633.4	0.0	0.0016 µg/L	0.0016 ppb	18:38:44
2	Cd 226.502†	-115.3	-17.9	-0.1235 µg/L	-0.1235 ppb	18:40:10
2	Co 228.616†	-162.9	18.1	0.2472 µg/L	0.2472 ppb	18:40:10
2	Cr 267.716†	189.3	24.1	0.1939 µg/L	0.1939 ppb	18:40:10
2	Cu 324.752†	2490.6	-0.2	0.0132 µg/L	0.0132 ppb	18:39:50
2	Fe 238.204 Radial†	132.2	15.4	1.0215 µg/L	1.0215 ppb	18:38:44
2	K 766.490 Radial†	1519.5	23.3	9.5884 µg/L	9.5884 ppb	18:38:23
2	Mg 279.077 IEC†	195.8	3.8	1.5733 µg/L	1.5733 ppb	18:38:44
2	Mn 257.610†	168.0	83.5	0.1141 µg/L	0.1141 ppb	18:40:10
2	Mo 202.031†	-35.6	20.5	0.6489 µg/L	0.6489 ppb	18:40:10
2	Na 589.592 Radial†	1651.7	-87.8	-13.450 µg/L	-13.450 ppb	18:38:23
2	Ni 231.604†	-55.2	-12.8	-0.1641 µg/L	-0.1641 ppb	18:40:10
2	P 214.914†	83.6	1.8	0.4344 µg/L	0.4344 ppb	18:40:10
2	Pb 220.353†	94.6	-20.3	-1.2399 µg/L	-1.2399 ppb	18:40:10



2	S 181.975 Axial†	84.2	-12.9	-10.416 µg/L	-10.416 ppb	18:40:10
2	Sb 206.836†	72.7	-15.8	-2.1296 µg/L	-2.1296 ppb	18:40:10
2	Se 196.026†	25.1	13.5	5.37 µg/L	5.37 ppb	18:40:10
2	SiO2†	1629.2	13.2	1.4227 µg/L	1.4227 ppb	18:40:10
2	Si 251.611†	776.2	79.3	1.3023 µg/L	1.3023 ppb	18:39:50
2	Sn 189.927†	1.7	-0.4	-0.0258 µg/L	-0.0258 ppb	18:40:10
2	Sr 421.552†	-119.9	161.3	0.3781 µg/L	0.3781 ppb	18:38:23
2	Ti 334.940†	906.1	245.8	0.2435 µg/L	0.2435 ppb	18:39:50
2	Tl 190.801†	-120.0	3.5	0.4698 µg/L	0.4698 ppb	18:40:10
2	U 409.014†	-211.2	273.5	16.929 µg/L	16.929 ppb	18:39:50
2	V 292.402†	536.3	90.3	0.5193 µg/L	0.5193 ppb	18:39:50
2	Zn 213.857†	461.1	-15.5	-0.0967 µg/L	-0.0967 ppb	18:40:10
3	Sc 361.383	1698930.8	1698930.8	101.56 %		18:40:12
3	Sc RADIAL	152143.2	152143.2	104 %		18:38:46
3	Y 371.029	1045315.3	1045315.3	102.22 %		18:40:12
3	Ag 328.068†	3085.7	71.1	0.2837 µg/L	0.2837 ppb	18:40:14
3	Al 396.153Radial†	-62.8	-28.3	-6.2230 µg/L	-6.2230 ppb	18:39:06
3	As 188.979†	-25.2	-10.6	-4.4173 µg/L	-4.4173 ppb	18:40:34
3	B 249.677†	3266.7	-139.3	-2.3411 µg/L	-2.3411 ppb	18:40:34
3	Ba 233.527†	-163.9	13.7	0.0623 µg/L	0.0623 ppb	18:40:34
3	Be 313.107†	-627.7	42.1	0.0141 µg/L	0.0141 ppb	18:40:14
3	Ca 317.933Radial†	630.0	-12.6	-0.7399 µg/L	-0.7399 ppb	18:39:06
3	Cd 226.502†	-76.1	19.4	0.1339 µg/L	0.1339 ppb	18:40:34
3	Co 228.616†	-133.4	45.2	0.6195 µg/L	0.6195 ppb	18:40:34
3	Cr 267.716†	156.7	-5.9	-0.0523 µg/L	-0.0523 ppb	18:40:34
3	Cu 324.752†	2540.5	76.5	0.3341 µg/L	0.3341 ppb	18:40:14
3	Fe 238.204 Radial†	134.4	15.5	1.0313 µg/L	1.0313 ppb	18:39:06
3	K 766.490 Radial†	1520.9	2.1	0.8535 µg/L	0.8535 ppb	18:38:46
3	Mg 279.077 IEC†	186.1	-8.4	-3.4269 µg/L	-3.4269 ppb	18:39:06
3	Mn 257.610†	142.8	60.6	0.0829 µg/L	0.0829 ppb	18:40:34
3	Mo 202.031†	-28.7	26.9	0.8495 µg/L	0.8495 ppb	18:40:34
3	Na 589.592 Radial†	1594.0	-167.7	-25.662 µg/L	-25.662 ppb	18:38:46
3	Ni 231.604†	-74.3	-32.3	-0.4127 µg/L	-0.4127 ppb	18:40:34
3	P 214.914†	71.0	-9.6	-2.3151 µg/L	-2.3151 ppb	18:40:34
3	Pb 220.353†	138.9	24.3	1.4738 µg/L	1.4738 ppb	18:40:34
3	S 181.975 Axial†	87.7	-8.5	-6.8917 µg/L	-6.8917 ppb	18:40:34
3	Sb 206.836†	71.9	-15.8	-2.1234 µg/L	-2.1234 ppb	18:40:34
3	Se 196.026†	21.3	10.1	3.99 µg/L	3.99 ppb	18:40:34
3	SiO2†	1618.8	21.0	2.2686 µg/L	2.2686 ppb	18:40:34
3	Si 251.611†	788.9	100.3	1.6458 µg/L	1.6458 ppb	18:40:14
3	Sn 189.927†	6.3	4.2	0.2956 µg/L	0.2956 ppb	18:40:34
3	Sr 421.552†	-237.8	50.2	0.1176 µg/L	0.1176 ppb	18:38:46
3	Ti 334.940†	556.8	-88.1	-0.0902 µg/L	-0.0902 ppb	18:40:14
3	Tl 190.801†	-119.8	2.3	0.3073 µg/L	0.3073 ppb	18:40:34
3	U 409.014†	-464.1	22.2	1.3392 µg/L	1.3392 ppb	18:40:14
3	V 292.402†	338.6	-98.5	-0.5367 µg/L	-0.5367 ppb	18:40:14
3	Zn 213.857†	460.6	-10.9	-0.0662 µg/L	-0.0662 ppb	18:40:34

## Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1711781.8	102.33 %	0.665			0.65%
Sc RADIAL	150611.1	103 %	0.9			0.88%
Y 371.029	1052687.3	102.94 %	0.625			0.61%
Ag 328.068†	-63.5	-0.2496 µg/L	0.75780	-0.2496 ppb	0.75780	303.64%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-14.0	-3.0809 µg/L	2.97697	-3.0809 ppb	2.97697	96.63%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.1	-0.8618 µg/L	3.13716	-0.8618 ppb	3.13716	364.04%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-152.2	-2.5560 µg/L	0.21918	-2.5560 ppb	0.21918	8.58%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	18.2	0.0834 µg/L	0.04516	0.0834 ppb	0.04516	54.17%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	110.5	0.0386 µg/L	0.04296	0.0386 ppb	0.04296	111.35%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-14.7	-0.8613 µg/L	0.92961	-0.8613 ppb	0.92961	107.93%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	5.3	0.0364 µg/L	0.13959	0.0364 ppb	0.13959	383.42%
QC value within limits for Cd 226.502 Recovery = Not calculated						

Co 228.616†	21.9	0.2996 µg/L	0.29720	0.2996 ppb	0.29720	99.21%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	6.0	0.0447 µg/L	0.13112	0.0447 ppb	0.13112	293.47%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-12.9	-0.0489 µg/L	0.41746	-0.0489 ppb	0.41746	854.27%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	18.4	1.2233 µg/L	0.34099	1.2233 ppb	0.34099	27.88%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	32.1	13.222 µg/L	14.5294	13.222 ppb	14.5294	109.89%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-11.2	-4.5853 µg/L	6.81203	-4.5853 ppb	6.81203	148.56%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	74.0	0.1013 µg/L	0.01630	0.1013 ppb	0.01630	16.09%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	18.4	0.5800 µg/L	0.30975	0.5800 ppb	0.30975	53.40%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-132.9	-20.353 µg/L	6.2604	-20.353 ppb	6.2604	30.76%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-25.5	-0.3257 µg/L	0.14010	-0.3257 ppb	0.14010	43.01%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-4.1	-0.9865 µg/L	1.37705	-0.9865 ppb	1.37705	139.59%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-1.8	-0.1146 µg/L	1.41489	-0.1146 ppb	1.41489	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-7.5	-6.0387 µg/L	4.86046	-6.0387 ppb	4.86046	80.49%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-14.5	-1.9465 µg/L	0.31193	-1.9465 ppb	0.31193	16.03%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	14.1	5.57 µg/L	1.688	5.57 ppb	1.688	30.30%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	11.4	1.2252 µg/L	1.15483	1.2252 ppb	1.15483	94.25%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	79.9	1.3121 µg/L	0.32896	1.3121 ppb	0.32896	25.07%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	1.3	0.0938 µg/L	0.17571	0.0938 ppb	0.17571	187.29%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	87.8	0.2058 µg/L	0.14923	0.2058 ppb	0.14923	72.50%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	107.7	0.1067 µg/L	0.17474	0.1067 ppb	0.17474	163.81%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	0.0	-0.0017 µg/L	0.68072	-0.0017 ppb	0.68072	>999.9%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	139.7	8.6193 µg/L	7.84577	8.6193 ppb	7.84577	91.03%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-37.4	-0.1957 µg/L	0.61936	-0.1957 ppb	0.61936	316.55%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	-7.2	-0.0435 µg/L	0.06758	-0.0435 ppb	0.06758	155.53%
QC value within limits for Zn 213.857 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 8

Sample ID: PQL

Analyst:

Logged In Analyst (Original) : optima4

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 3/29/2010 18:40:43

Data Type: Reprocessed on 3/29/2010 19:14:37

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	1721442.6	1721442.6	102.91 %		18:41:40
1	Sc RADIAL	147903.8	147903.8	101 %		18:41:13
1	Y 371.029	1058404.9	1058404.9	103.50 %		18:41:40
1	Ag 328.068†	4025.6	944.7	3.9659 µg/L	3.9659 ppb	18:41:43
1	Al 396.153Radial†	922.6	941.1	204.98 µg/L	204.98 ppb	18:41:15
1	As 188.979†	70.2	82.5	34.551 µg/L	34.551 ppb	18:42:03
1	B 249.677†	6252.3	2719.8	45.645 µg/L	45.645 ppb	18:41:43
1	Ba 233.527†	968.6	1116.3	5.1042 µg/L	5.1042 ppb	18:42:03
1	Be 313.107†	14893.3	15132.4	4.9477 µg/L	4.9477 ppb	18:41:43
1	Ca 317.933Radial†	4243.5	3565.6	208.93 µg/L	208.93 ppb	18:41:15
1	Cd 226.502†	637.3	713.7	4.9197 µg/L	4.9197 ppb	18:42:03
1	Co 228.616†	202.6	373.5	5.1141 µg/L	5.1141 ppb	18:42:03
1	Cr 267.716†	729.0	548.1	4.6505 µg/L	4.6505 ppb	18:42:03
1	Cu 324.752†	4895.4	2332.1	10.224 µg/L	10.224 ppb	18:41:43
1	Fe 238.204 Radial†	1705.5	1567.4	104.21 µg/L	104.21 ppb	18:41:15
1	K 766.490 Radial†	1904.1	421.4	173.34 µg/L	173.34 ppb	18:41:13
1	Mg 279.077 IEC†	935.0	734.7	303.09 µg/L	303.09 ppb	18:41:15
1	Mn 257.610†	7824.8	7523.6	10.268 µg/L	10.268 ppb	18:41:43
1	Mo 202.031†	258.6	306.5	9.6870 µg/L	9.6870 ppb	18:42:03
1	Na 589.592 Radial†	3412.3	1667.9	255.06 µg/L	255.06 ppb	18:41:15
1	Ni 231.604†	353.8	384.7	4.9210 µg/L	4.9210 ppb	18:42:03
1	P 214.914†	701.3	601.9	143.99 µg/L	143.99 ppb	18:42:03
1	Pb 220.353†	285.3	164.8	9.9640 µg/L	9.9640 ppb	18:42:03
1	S 181.975 Axial†	217.5	116.6	94.518 µg/L	94.518 ppb	18:42:03
1	Sb 206.836†	151.7	60.8	8.2873 µg/L	8.2873 ppb	18:42:03
1	Se 196.026†	93.5	79.9	31.7 µg/L	31.7 ppb	18:42:03
1	SiO2†	3528.6	1856.0	202.45 µg/L	202.45 ppb	18:41:43
1	Si 251.611†	7008.2	6133.7	101.23 µg/L	101.23 ppb	18:41:43
1	Sn 189.927†	141.3	135.3	9.6379 µg/L	9.6379 ppb	18:42:03
1	Sr 421.552†	2328.3	2572.4	6.0274 µg/L	6.0274 ppb	18:41:15
1	Ti 334.940†	5694.2	4896.9	4.9428 µg/L	4.9428 ppb	18:41:43
1	Tl 190.801†	28.4	147.9	19.934 µg/L	19.934 ppb	18:42:03
1	U 409.014†	713.0	1172.0	72.715 µg/L	72.715 ppb	18:41:43
1	V 292.402†	1246.9	779.8	4.4736 µg/L	4.4736 ppb	18:41:43
1	Zn 213.857†	2077.4	1554.3	9.7365 µg/L	9.7365 ppb	18:42:03
2	Sc 361.383	1724623.2	1724623.2	103.10 %		18:42:05
2	Sc RADIAL	148676.2	148676.2	102 %		18:41:17
2	Y 371.029	1060877.7	1060877.7	103.75 %		18:42:05
2	Ag 328.068†	4441.5	1340.9	5.5444 µg/L	5.5444 ppb	18:42:07
2	Al 396.153Radial†	882.0	896.6	195.25 µg/L	195.25 ppb	18:41:19
2	As 188.979†	60.0	72.5	30.385 µg/L	30.385 ppb	18:42:27
2	B 249.677†	6195.0	2653.1	44.524 µg/L	44.524 ppb	18:42:07
2	Ba 233.527†	972.4	1118.3	5.1130 µg/L	5.1130 ppb	18:42:27
2	Be 313.107†	15035.6	15243.7	4.9775 µg/L	4.9775 ppb	18:42:07
2	Ca 317.933Radial†	4053.9	3358.0	196.76 µg/L	196.76 ppb	18:41:19
2	Cd 226.502†	642.0	717.1	4.9432 µg/L	4.9432 ppb	18:42:27
2	Co 228.616†	195.2	365.9	5.0104 µg/L	5.0104 ppb	18:42:27
2	Cr 267.716†	741.9	559.4	4.7640 µg/L	4.7640 ppb	18:42:27
2	Cu 324.752†	4804.6	2235.3	9.7851 µg/L	9.7851 ppb	18:42:07
2	Fe 238.204 Radial†	1689.7	1543.2	102.60 µg/L	102.60 ppb	18:41:19
2	K 766.490 Radial†	1941.0	447.8	184.20 µg/L	184.20 ppb	18:41:17
2	Mg 279.077 IEC†	934.9	729.8	301.08 µg/L	301.08 ppb	18:41:19
2	Mn 257.610†	7840.1	7524.4	10.269 µg/L	10.269 ppb	18:42:07
2	Mo 202.031†	268.7	315.9	9.9813 µg/L	9.9813 ppb	18:42:27
2	Na 589.592 Radial†	3585.8	1820.6	278.41 µg/L	278.41 ppb	18:41:19
2	Ni 231.604†	360.6	390.7	4.9969 µg/L	4.9969 ppb	18:42:27
2	P 214.914†	704.9	604.1	144.53 µg/L	144.53 ppb	18:42:27
2	Pb 220.353†	256.9	136.7	8.2831 µg/L	8.2831 ppb	18:42:27

2	S 181.975 Axial†	211.0	109.8	89.075 µg/L	89.075 ppb	18:42:27
2	Sb 206.836†	139.1	48.3	6.6025 µg/L	6.6025 ppb	18:42:27
2	Se 196.026†	85.2	71.7	28.4 µg/L	28.4 ppb	18:42:27
2	SiO2†	3666.3	1983.3	216.34 µg/L	216.34 ppb	18:42:07
2	Si 251.611†	6987.0	6100.5	100.67 µg/L	100.67 ppb	18:42:07
2	Sn 189.927†	148.9	142.4	10.142 µg/L	10.142 ppb	18:42:27
2	Sr 421.552†	2257.8	2491.4	5.8378 µg/L	5.8378 ppb	18:41:19
2	Ti 334.940†	5599.5	4794.8	4.8474 µg/L	4.8474 ppb	18:42:07
2	Tl 190.801†	28.5	147.9	19.938 µg/L	19.938 ppb	18:42:27
2	U 409.014†	356.1	824.5	51.229 µg/L	51.229 ppb	18:42:07
2	V 292.402†	1199.8	731.9	4.1969 µg/L	4.1969 ppb	18:42:07
2	Zn 213.857†	2110.9	1583.0	9.9172 µg/L	9.9172 ppb	18:42:27
3	Sc 361.383	1709181.0	1709181.0	102.18 %		18:42:29
3	Sc RADIAL	148765.1	148765.1	102 %		18:41:21
3	Y 371.029	1051117.1	1051117.1	102.79 %		18:42:29
3	Ag 328.068†	4096.5	1042.2	4.3518 µg/L	4.3518 ppb	18:42:31
3	Al 396.153Radial†	913.9	927.3	201.93 µg/L	201.93 ppb	18:41:23
3	As 188.979†	45.1	58.4	24.503 µg/L	24.503 ppb	18:42:51
3	B 249.677†	6365.0	2873.8	48.229 µg/L	48.229 ppb	18:42:31
3	Ba 233.527†	993.8	1147.7	5.2479 µg/L	5.2479 ppb	18:42:51
3	Be 313.107†	15404.4	15736.4	5.1406 µg/L	5.1406 ppb	18:42:31
3	Ca 317.933Radial†	4204.3	3503.0	205.26 µg/L	205.26 ppb	18:41:23
3	Cd 226.502†	656.9	737.3	5.0831 µg/L	5.0831 ppb	18:42:51
3	Co 228.616†	214.1	386.1	5.2868 µg/L	5.2868 ppb	18:42:51
3	Cr 267.716†	776.9	600.1	5.1070 µg/L	5.1070 ppb	18:42:51
3	Cu 324.752†	4905.4	2376.0	10.405 µg/L	10.405 ppb	18:42:31
3	Fe 238.204 Radial†	1701.7	1554.0	103.31 µg/L	103.31 ppb	18:41:23
3	K 766.490 Radial†	1863.7	371.0	152.58 µg/L	152.58 ppb	18:41:21
3	Mg 279.077 IEC†	946.2	740.4	305.43 µg/L	305.43 ppb	18:41:23
3	Mn 257.610†	7932.9	7683.9	10.487 µg/L	10.487 ppb	18:42:31
3	Mo 202.031†	276.9	326.2	10.308 µg/L	10.308 ppb	18:42:51
3	Na 589.592 Radial†	3380.4	1617.2	247.32 µg/L	247.32 ppb	18:41:23
3	Ni 231.604†	372.2	405.1	5.1823 µg/L	5.1823 ppb	18:42:51
3	P 214.914†	693.9	599.5	143.42 µg/L	143.42 ppb	18:42:51
3	Pb 220.353†	299.1	180.3	10.914 µg/L	10.914 ppb	18:42:51
3	S 181.975 Axial†	216.9	117.4	95.241 µg/L	95.241 ppb	18:42:51
3	Sb 206.836†	178.2	87.8	11.935 µg/L	11.935 ppb	18:42:51
3	Se 196.026†	84.3	71.6	28.4 µg/L	28.4 ppb	18:42:51
3	SiO2†	3665.9	2015.0	219.80 µg/L	219.80 ppb	18:42:31
3	Si 251.611†	7292.1	6460.4	106.62 µg/L	106.62 ppb	18:42:31
3	Sn 189.927†	146.0	140.9	10.035 µg/L	10.035 ppb	18:42:51
3	Sr 421.552†	2185.8	2419.5	5.6692 µg/L	5.6692 ppb	18:41:23
3	Ti 334.940†	5763.7	5004.6	5.0573 µg/L	5.0573 ppb	18:42:31
3	Tl 190.801†	37.2	156.7	21.117 µg/L	21.117 ppb	18:42:51
3	U 409.014†	504.2	972.6	60.421 µg/L	60.421 ppb	18:42:31
3	V 292.402†	1321.2	861.3	4.9254 µg/L	4.9254 ppb	18:42:31
3	Zn 213.857†	2122.4	1612.8	10.103 µg/L	10.103 ppb	18:42:51

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Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1718415.6	102.73 %	0.487			0.47%
Sc RADIAL	148448.4	102 %	0.3			0.32%
Y 371.029	1056799.9	103.35 %	0.496			0.48%
Ag 328.068†	1109.3	4.6207 µg/L	0.82285	4.6207 ppb	0.82285	17.81%
QC value within limits for Ag 328.068 Recovery = 92.41%						
Al 396.153Radial†	921.7	200.72 µg/L	4.978	200.72 ppb	4.978	2.48%
QC value within limits for Al 396.153Radial Recovery = 100.36%						
As 188.979†	71.1	29.813 µg/L	5.0483	29.813 ppb	5.0483	16.93%
QC value within limits for As 188.979 Recovery = 99.38%						
B 249.677†	2748.9	46.133 µg/L	1.8998	46.133 ppb	1.8998	4.12%
QC value within limits for B 249.677 Recovery = 92.27%						
Ba 233.527†	1127.4	5.1550 µg/L	0.08056	5.1550 ppb	0.08056	1.56%
QC value within limits for Ba 233.527 Recovery = 103.10%						
Be 313.107†	15370.8	5.0219 µg/L	0.10386	5.0219 ppb	0.10386	2.07%
QC value within limits for Be 313.107 Recovery = 100.44%						
Ca 317.933Radial†	3475.5	203.65 µg/L	6.241	203.65 ppb	6.241	3.06%
QC value within limits for Ca 317.933Radial Recovery = 101.83%						
Cd 226.502†	722.7	4.9820 µg/L	0.08834	4.9820 ppb	0.08834	1.77%
QC value within limits for Cd 226.502 Recovery = 99.64%						

Co 228.616†	375.2	5.1371 µg/L	0.13962	5.1371 ppb	0.13962	2.72%
QC value within limits for Co 228.616 Recovery = 102.74%						
Cr 267.716†	569.2	4.8405 µg/L	0.23770	4.8405 ppb	0.23770	4.91%
QC value within limits for Cr 267.716 Recovery = 96.81%						
Cu 324.752†	2314.5	10.138 µg/L	0.3187	10.138 ppb	0.3187	3.14%
QC value within limits for Cu 324.752 Recovery = 101.38%						
Fe 238.204 Radial†	1554.9	103.37 µg/L	0.806	103.37 ppb	0.806	0.78%
QC value within limits for Fe 238.204 Radial Recovery = 103.37%						
K 766.490 Radial†	413.4	170.04 µg/L	16.070	170.04 ppb	16.070	9.45%
QC value within limits for K 766.490 Radial Recovery = 113.36%						
Mg 279.077 IEC†	735.0	303.20 µg/L	2.180	303.20 ppb	2.180	0.72%
QC value within limits for Mg 279.077 IEC Recovery = 101.07%						
Mn 257.610†	7577.3	10.342 µg/L	0.1261	10.342 ppb	0.1261	1.22%
QC value within limits for Mn 257.610 Recovery = 103.42%						
Mo 202.031†	316.2	9.9921 µg/L	0.31074	9.9921 ppb	0.31074	3.11%
QC value within limits for Mo 202.031 Recovery = 99.92%						
Na 589.592 Radial†	1701.9	260.27 µg/L	16.186	260.27 ppb	16.186	6.22%
QC value within limits for Na 589.592 Radial Recovery = 86.76%						
Ni 231.604†	393.5	5.0334 µg/L	0.13439	5.0334 ppb	0.13439	2.67%
QC value within limits for Ni 231.604 Recovery = 100.67%						
P 214.914†	601.9	143.98 µg/L	0.554	143.98 ppb	0.554	0.38%
QC value within limits for P 214.914 Recovery = 95.99%						
Pb 220.353†	160.6	9.7204 µg/L	1.33235	9.7204 ppb	1.33235	13.71%
QC value within limits for Pb 220.353 Recovery = 97.20%						
S 181.975 Axial†	114.6	92.945 µg/L	3.3708	92.945 ppb	3.3708	3.63%
QC value within limits for S 181.975 Axial Recovery = 92.94%						
Sb 206.836†	65.6	8.9415 µg/L	2.72562	8.9415 ppb	2.72562	30.48%
QC value within limits for Sb 206.836 Recovery = 89.41%						
Se 196.026†	74.4	29.5 µg/L	1.90	29.5 ppb	1.90	6.42%
QC value within limits for Se 196.026 Recovery = 98.43%						
SiO2†	1951.4	212.86 µg/L	9.186	212.86 ppb	9.186	4.32%
QC value within limits for SiO2 Recovery = 99.94%						
Si 251.611†	6231.5	102.84 µg/L	3.285	102.84 ppb	3.285	3.19%
QC value within limits for Si 251.611 Recovery = 102.84%						
Sn 189.927†	139.6	9.9381 µg/L	0.26552	9.9381 ppb	0.26552	2.67%
QC value within limits for Sn 189.927 Recovery = 99.38%						
Sr 421.552†	2494.5	5.8448 µg/L	0.17922	5.8448 ppb	0.17922	3.07%
QC value within limits for Sr 421.552 Recovery = 116.90%						
Ti 334.940†	4898.8	4.9492 µg/L	0.10510	4.9492 ppb	0.10510	2.12%
QC value within limits for Ti 334.940 Recovery = 98.98%						
Tl 190.801†	150.8	20.330 µg/L	0.6817	20.330 ppb	0.6817	3.35%
QC value within limits for Tl 190.801 Recovery = 101.65%						
U 409.014†	989.7	61.455 µg/L	10.7804	61.455 ppb	10.7804	17.54%
QC value within limits for U 409.014 Recovery = 122.91%						
V 292.402†	791.0	4.5320 µg/L	0.36774	4.5320 ppb	0.36774	8.11%
QC value within limits for V 292.402 Recovery = 90.64%						
Zn 213.857†	1583.4	9.9190 µg/L	0.18336	9.9190 ppb	0.18336	1.85%
QC value within limits for Zn 213.857 Recovery = 99.19%						
All analyte(s) passed QC.						

Sequence No.: 9

Sample ID: ICSA

Analyst:

Logged In Analyst (Original) : optima4

Initial Sample Wt:

Dilution:

Autosampler Location: 103

Date Collected: 3/29/2010 18:43:01

Data Type: Reprocessed on 3/29/2010 19:14:38

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	1519975.5	1519975.5	90.866 %		18:44:01
1	Sc RADIAL	137750.3	137750.3	94.5 %		18:43:34
1	Y 371.029	919968.6	919968.6	89.965 %		18:44:01
1	Ag 328.068†	5916.7	3544.4	1.2267 µg/L	1.2267 ppb	18:44:01
1	Al 396.153Radial†	2228558.9	2358079.9	514740 µg/L	514740 ppb	18:43:31
1	As 188.979†	-88.3	-82.9	8.1301 µg/L	8.1301 ppb	18:44:21
1	B 249.677†	3032.6	-18.3	-0.3191 µg/L	-0.3191 ppb	18:44:01
1	Ba 233.527†	439.8	659.1	0.5804 µg/L	0.5804 ppb	18:44:21
1	Be 313.107†	-620.0	-22.3	0.0066 µg/L	0.0066 ppb	18:44:01
1	Ca 317.933Radial†	7783821.6	8235480.1	482560 µg/L	482560 ppb	18:43:31
1	Cd 226.502†	2257.8	2579.2	-2.2506 µg/L	-2.2506 ppb	18:44:21
1	Co 228.616†	76.3	260.5	-6.3814 µg/L	-6.3814 ppb	18:44:21
1	Cr 267.716†	306.4	176.9	2.2002 µg/L	2.2002 ppb	18:44:21
1	Cu 324.752†	-6875.9	-9992.0	-2.5122 µg/L	-2.5122 ppb	18:44:01
1	Fe 238.204 Radial†	2712004.8	2869471.1	190770 µg/L	190770 ppb	18:43:31
1	K 766.490 Radial†	1538.5	172.9	-171.54 µg/L	-171.54 ppb	18:43:34
1	Mg 279.077 IEC†	1111575.2	1175976.0	484700 µg/L	484700 ppb	18:43:31
1	Mn 257.610†	14620.3	16010.1	2.1476 µg/L	2.1476 ppb	18:44:01
1	Mo 202.031†	-501.7	-496.9	0.7251 µg/L	0.7251 ppb	18:44:01
1	Na 589.592 Radial†	1635.3	35.6	5.3873 µg/L	5.3873 ppb	18:43:34
1	Ni 231.604†	146.0	201.6	2.5791 µg/L	2.5791 ppb	18:44:21
1	P 214.914†	148.1	83.5	4.8563 µg/L	4.8563 ppb	18:44:21
1	Pb 220.353†	-247.5	-384.9	2.4276 µg/L	2.4276 ppb	18:44:21
1	S 181.975 Axial†	166.5	88.4	71.471 µg/L	71.471 ppb	18:44:21
1	Sb 206.836†	109.8	34.2	-1.4541 µg/L	-1.4541 ppb	18:44:21
1	Se 196.026†	-143.9	-169.3	-0.728 µg/L	-0.728 ppb	18:44:21
1	SiO2†	1500.4	78.4	8.9950 µg/L	8.9950 ppb	18:44:21
1	Si 251.611†	379.6	-258.7	-4.0756 µg/L	-4.0756 ppb	18:44:21
1	Sn 189.927†	17.0	16.7	1.2650 µg/L	1.2650 ppb	18:44:21
1	Sr 421.552†	1360.0	1717.1	0.2472 µg/L	0.2472 ppb	18:43:34
1	Ti 334.940†	20973.2	22445.2	-4.0421 µg/L	-4.0421 ppb	18:44:01
1	Tl 190.801†	-165.7	-62.0	-7.8287 µg/L	-7.8287 ppb	18:44:21
1	U 409.014†	239.9	743.1	25.180 µg/L	25.180 ppb	18:44:01
1	V 292.402†	5463.3	5580.7	0.4848 µg/L	0.4848 ppb	18:44:01
1	Zn 213.857†	3868.4	3792.8	7.6857 µg/L	7.6857 ppb	18:44:21
2	Sc 361.383	1532514.6	1532514.6	91.615 %		18:44:24
2	Sc RADIAL	139244.5	139244.5	95.5 %		18:43:38
2	Y 371.029	927898.5	927898.5	90.741 %		18:44:24
2	Ag 328.068†	5725.2	3282.1	0.2956 µg/L	0.2956 ppb	18:44:24
2	Al 396.153Radial†	2228857.8	2333088.7	509290 µg/L	509290 ppb	18:43:36
2	As 188.979†	-96.0	-90.5	4.5139 µg/L	4.5139 ppb	18:44:44
2	B 249.677†	3203.6	141.1	2.3574 µg/L	2.3574 ppb	18:44:24
2	Ba 233.527†	417.7	631.0	0.4768 µg/L	0.4768 ppb	18:44:44
2	Be 313.107†	-855.2	-273.4	-0.0781 µg/L	-0.0781 ppb	18:44:24
2	Ca 317.933Radial†	7791433.2	8155066.3	477850 µg/L	477850 ppb	18:43:36
2	Cd 226.502†	2233.3	2532.1	-2.3767 µg/L	-2.3767 ppb	18:44:44
2	Co 228.616†	66.6	249.3	-6.4368 µg/L	-6.4368 ppb	18:44:44
2	Cr 267.716†	246.3	108.6	1.6057 µg/L	1.6057 ppb	18:44:44
2	Cu 324.752†	-6872.9	-9926.8	-2.6212 µg/L	-2.6212 ppb	18:44:24
2	Fe 238.204 Radial†	2714288.8	2841068.4	188880 µg/L	188880 ppb	18:43:36
2	K 766.490 Radial†	1618.0	238.7	-142.04 µg/L	-142.04 ppb	18:43:38
2	Mg 279.077 IEC†	1114260.0	1166165.0	480660 µg/L	480660 ppb	18:43:36
2	Mn 257.610†	14586.8	15841.8	2.0830 µg/L	2.0830 ppb	18:44:24
2	Mo 202.031†	-508.1	-499.4	0.4957 µg/L	0.4957 ppb	18:44:24
2	Na 589.592 Radial†	1714.1	99.5	15.141 µg/L	15.141 ppb	18:43:38
2	Ni 231.604†	152.3	207.2	2.6500 µg/L	2.6500 ppb	18:44:44
2	P 214.914†	105.5	35.5	-6.5606 µg/L	-6.5606 ppb	18:44:44
2	Pb 220.353†	-290.5	-429.6	-0.5500 µg/L	-0.5500 ppb	18:44:44

2	S 181.975 Axial†	171.6	92.5	74.799 µg/L	74.799 ppb	18:44:44
2	Sb 206.836†	130.7	56.0	1.5606 µg/L	1.5606 ppb	18:44:44
2	Se 196.026†	-155.0	-180.1	-5.67 µg/L	-5.67 ppb	18:44:44
2	SiO2†	1504.6	69.4	8.0425 µg/L	8.0425 ppb	18:44:44
2	Si 251.611†	375.1	-267.0	-4.2014 µg/L	-4.2014 ppb	18:44:44
2	Sn 189.927†	-4.2	-6.6	-0.3924 µg/L	-0.3924 ppb	18:44:44
2	Sr 421.552†	1366.5	1708.4	0.2637 µg/L	0.2637 ppb	18:43:38
2	Ti 334.940†	21214.1	22519.4	-3.7556 µg/L	-3.7556 ppb	18:44:24
2	Tl 190.801†	-155.0	-48.9	-6.0537 µg/L	-6.0537 ppb	18:44:44
2	U 409.014†	96.2	584.1	15.646 µg/L	15.646 ppb	18:44:24
2	V 292.402†	5684.6	5773.1	1.8417 µg/L	1.8417 ppb	18:44:24
2	Zn 213.857†	3858.3	3747.0	7.5506 µg/L	7.5506 ppb	18:44:44
3	Sc 361.383	1531662.1	1531662.1	91.564 %		18:44:46
3	Sc RADIAL	139848.7	139848.7	95.9 %		18:43:42
3	Y 371.029	927170.5	927170.5	90.670 %		18:44:46
3	Ag 328.068†	5762.9	3326.8	0.5251 µg/L	0.5251 ppb	18:44:46
3	Al 396.153Radial†	2231390.2	2325648.7	507660 µg/L	507660 ppb	18:43:40
3	As 188.979†	-103.4	-98.7	0.8735 µg/L	0.8735 ppb	18:45:06
3	B 249.677†	3235.4	177.8	2.9710 µg/L	2.9710 ppb	18:44:46
3	Ba 233.527†	402.4	614.5	0.4137 µg/L	0.4137 ppb	18:45:06
3	Be 313.107†	-678.3	-80.7	-0.0209 µg/L	-0.0209 ppb	18:44:46
3	Ca 317.933Radial†	7787439.6	8115669.6	475540 µg/L	475540 ppb	18:43:40
3	Cd 226.502†	2245.5	2546.8	-2.1709 µg/L	-2.1709 ppb	18:45:06
3	Co 228.616†	93.2	278.4	-5.9871 µg/L	-5.9871 ppb	18:45:06
3	Cr 267.716†	275.9	141.1	1.8999 µg/L	1.8999 ppb	18:45:06
3	Cu 324.752†	-6732.3	-9777.4	-2.2074 µg/L	-2.2074 ppb	18:44:46
3	Fe 238.204 Radial†	2711795.4	2826195.2	187900 µg/L	187900 ppb	18:43:40
3	K 766.490 Radial†	1584.0	195.9	-158.63 µg/L	-158.63 ppb	18:43:42
3	Mg 279.077 IEC†	1112495.6	1159287.1	477830 µg/L	477830 ppb	18:43:40
3	Mn 257.610†	14462.2	15714.6	2.0242 µg/L	2.0242 ppb	18:44:46
3	Mo 202.031†	-593.4	-592.8	-2.5422 µg/L	-2.5422 ppb	18:44:46
3	Na 589.592 Radial†	1732.7	111.2	16.939 µg/L	16.939 ppb	18:43:42
3	Ni 231.604†	209.1	269.3	3.4450 µg/L	3.4450 ppb	18:45:06
3	P 214.914†	118.4	49.8	-2.8056 µg/L	-2.8056 ppb	18:45:06
3	Pb 220.353†	-264.9	-401.8	1.0704 µg/L	1.0704 ppb	18:45:06
3	S 181.975 Axial†	171.3	92.2	74.546 µg/L	74.546 ppb	18:45:06
3	Sb 206.836†	101.8	24.6	-2.6986 µg/L	-2.6986 ppb	18:45:06
3	Se 196.026†	-151.8	-176.7	-4.70 µg/L	-4.70 ppb	18:45:06
3	SiO2†	1457.7	19.2	2.6178 µg/L	2.6178 ppb	18:45:06
3	Si 251.611†	375.6	-266.2	-4.1555 µg/L	-4.1555 ppb	18:45:06
3	Sn 189.927†	9.2	8.1	0.6527 µg/L	0.6527 ppb	18:45:06
3	Sr 421.552†	1404.5	1741.8	0.3601 µg/L	0.3601 ppb	18:43:42
3	Ti 334.940†	21500.8	22845.3	-3.2450 µg/L	-3.2450 ppb	18:44:46
3	Tl 190.801†	-148.3	-41.6	-5.0807 µg/L	-5.0807 ppb	18:45:06
3	U 409.014†	-176.5	286.3	-2.6068 µg/L	-2.6068 ppb	18:44:46
3	V 292.402†	5753.1	5851.3	2.3911 µg/L	2.3911 ppb	18:44:46
3	Zn 213.857†	3845.3	3735.2	7.5699 µg/L	7.5699 ppb	18:45:06

## Mean Data: ICSEA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1528050.7	91.348 %	0.4188			0.46%
Sc RADIAL	138947.9	95.3 %	0.74			0.78%
Y 371.029	925012.6	90.459 %	0.4287			0.47%
Ag 328.068†	3384.5	0.6825 µg/L	0.48505	0.6825 ppb	0.48505	71.07%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	2338939.1	510560 µg/L	3708.4	510560 ppb	3708.4	0.73%
QC value within limits for Al 396.153Radial Recovery = 102.11%						
As 188.979†	-90.7	4.5059 µg/L	3.62830	4.5059 ppb	3.62830	80.52%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	100.2	1.6697 µg/L	1.74948	1.6697 ppb	1.74948	104.78%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	634.8	0.4903 µg/L	0.08415	0.4903 ppb	0.08415	17.16%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-125.5	-0.0308 µg/L	0.04321	-0.0308 ppb	0.04321	140.33%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	8168738.7	478650 µg/L	3578.1	478650 ppb	3578.1	0.75%
QC value within limits for Ca 317.933Radial Recovery = 95.73%						
Cd 226.502†	2552.7	-2.2661 µg/L	0.10379	-2.2661 ppb	0.10379	4.58%
QC value within limits for Cd 226.502 Recovery = Not calculated						

Co 228.616†	262.7	-6.2685 µg/L	0.24520	-6.2685 ppb	0.24520	3.91%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	142.2	1.9019 µg/L	0.29723	1.9019 ppb	0.29723	15.63%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-9898.7	-2.4469 µg/L	0.21446	-2.4469 ppb	0.21446	8.76%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	2845578.2	189180 µg/L	1461.8	189180 ppb	1461.8	0.77%
QC value within limits for Fe 238.204 Radial Recovery = 94.59%						
K 766.490 Radial†	202.5	-157.40 µg/L	14.790	-157.40 ppb	14.790	9.40%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	1167142.7	481060 µg/L	3456.9	481060 ppb	3456.9	0.72%
QC value within limits for Mg 279.077 IEC Recovery = 96.21%						
Mn 257.610†	15855.5	2.0849 µg/L	0.06170	2.0849 ppb	0.06170	2.96%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-529.7	-0.4405 µg/L	1.82378	-0.4405 ppb	1.82378	414.05%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	82.1	12.489 µg/L	6.2157	12.489 ppb	6.2157	49.77%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	226.0	2.8914 µg/L	0.48079	2.8914 ppb	0.48079	16.63%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	56.3	-1.5033 µg/L	5.81883	-1.5033 ppb	5.81883	387.07%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-405.4	0.9827 µg/L	1.49074	0.9827 ppb	1.49074	151.70%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	91.0	73.605 µg/L	1.8528	73.605 ppb	1.8528	2.52%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	38.3	-0.8640 µg/L	2.19006	-0.8640 ppb	2.19006	253.47%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-175.4	-3.70 µg/L	2.618	-3.70 ppb	2.618	70.77%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	55.7	6.5518 µg/L	3.44005	6.5518 ppb	3.44005	52.51%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	-264.0	-4.1441 µg/L	0.06368	-4.1441 ppb	0.06368	1.54%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	6.1	0.5084 µg/L	0.83805	0.5084 ppb	0.83805	164.84%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	1722.4	0.2904 µg/L	0.06098	0.2904 ppb	0.06098	21.00%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	22603.3	-3.6809 µg/L	0.40375	-3.6809 ppb	0.40375	10.97%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-50.8	-6.3210 µg/L	1.39339	-6.3210 ppb	1.39339	22.04%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	537.8	12.740 µg/L	14.1197	12.740 ppb	14.1197	110.83%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	5735.0	1.5725 µg/L	0.98127	1.5725 ppb	0.98127	62.40%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	3758.3	7.6020 µg/L	0.07306	7.6020 ppb	0.07306	0.96%
QC value within limits for Zn 213.857 Recovery = Not calculated						
All analyte(s) passed QC.						



Sequence No.: 10

Sample ID: ICSAB

Analyst:

Logged In Analyst (Original) : optima4

Initial Sample Wt:

Dilution:

Autosampler Location: 104

Date Collected: 3/29/2010 18:45:15

Data Type: Reprocessed on 3/29/2010 19:14:39

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	1510684.4	1510684.4	90.310 %		18:46:21
1	Sc RADIAL	137128.2	137128.2	94.1 %		18:45:49
1	Y 371.029	915417.0	915417.0	89.520 %		18:46:21
1	Ag 328.068†	64579.9	68542.0	271.32 µg/L	271.32 ppb	18:46:21
1	Al 396.153Radial†	2257035.7	2399046.7	523660 µg/L	523660 ppb	18:45:45
1	As 188.979†	1040.4	1166.3	536.34 µg/L	536.34 ppb	18:46:23
1	B 249.677†	30637.0	30568.6	511.66 µg/L	511.66 ppb	18:46:21
1	Ba 233.527†	99072.5	109877.7	499.99 µg/L	499.99 ppb	18:46:21
1	Be 313.107†	681148.0	754892.4	245.89 µg/L	245.89 ppb	18:46:21
1	Ca 317.933Radial†	7888724.1	8384349.0	491290 µg/L	491290 ppb	18:45:45
1	Cd 226.502†	63574.5	70490.2	466.80 µg/L	466.80 ppb	18:46:21
1	Co 228.616†	29268.7	32585.7	436.71 µg/L	436.71 ppb	18:46:23
1	Cr 267.716†	51261.8	56601.7	486.64 µg/L	486.64 ppb	18:46:23
1	Cu 324.752†	105042.3	113888.0	536.82 µg/L	536.82 ppb	18:46:21
1	Fe 238.204 Radial†	2714615.2	2885265.2	191820 µg/L	191820 ppb	18:45:47
1	K 766.490 Radial†	14492.6	13949.3	5495.4 µg/L	5495.4 ppb	18:45:49
1	Mg 279.077 IEC†	1107607.9	1177095.4	485180 µg/L	485180 ppb	18:45:49
1	Mn 257.610†	329092.8	364323.1	478.08 µg/L	478.08 ppb	18:46:21
1	Mo 202.031†	13229.8	14704.5	480.80 µg/L	480.80 ppb	18:46:23
1	Na 589.592 Radial†	34394.1	34862.9	5329.4 µg/L	5329.4 ppb	18:45:49
1	Ni 231.604†	31853.0	35311.6	451.68 µg/L	451.68 ppb	18:46:23
1	P 214.914†	9576.1	10524.0	2499.6 µg/L	2499.6 ppb	18:46:23
1	Pb 220.353†	6597.4	7192.9	463.36 µg/L	463.36 ppb	18:46:23
1	S 181.975 Axial†	3009.0	3237.0	2626.5 µg/L	2626.5 ppb	18:46:23
1	Sb 206.836†	3499.0	3787.8	505.98 µg/L	505.98 ppb	18:46:23
1	Se 196.026†	5309.9	5868.7	2390 µg/L	2390 ppb	18:46:23
1	SiO2†	92256.7	100582.6	10974 µg/L	10974 ppb	18:46:21
1	Si 251.611†	281270.8	310773.6	5129.3 µg/L	5129.3 ppb	18:46:21
1	Sn 189.927†	6022.0	6666.1	475.68 µg/L	475.68 ppb	18:46:23
1	Sr 421.552†	210049.1	223540.3	520.07 µg/L	520.07 ppb	18:45:49
1	Ti 334.940†	468269.2	517876.1	500.97 µg/L	500.97 ppb	18:46:21
1	Tl 190.801†	2818.9	3241.7	443.45 µg/L	443.45 ppb	18:46:23
1	U 409.014†	7133.6	8378.1	528.93 µg/L	528.93 ppb	18:46:21
1	V 292.402†	88326.4	97371.6	516.38 µg/L	516.38 ppb	18:46:21
1	Zn 213.857†	72620.0	79947.4	483.88 µg/L	483.88 ppb	18:46:21
2	Sc 361.383	1518034.6	1518034.6	90.750 %		18:46:26
2	Sc RADIAL	136837.3	136837.3	93.9 %		18:45:56
2	Y 371.029	919619.6	919619.6	89.931 %		18:46:26
2	Ag 328.068†	64494.6	68101.8	269.69 µg/L	269.69 ppb	18:46:26
2	Al 396.153Radial†	2229777.5	2375110.8	518440 µg/L	518440 ppb	18:45:52
2	As 188.979†	1016.8	1134.7	522.67 µg/L	522.67 ppb	18:46:28
2	B 249.677†	30917.4	30713.3	514.09 µg/L	514.09 ppb	18:46:26
2	Ba 233.527†	99392.7	109699.3	499.19 µg/L	499.19 ppb	18:46:26
2	Be 313.107†	684598.1	755042.2	245.93 µg/L	245.93 ppb	18:46:26
2	Ca 317.933Radial†	7784991.4	8291677.2	485860 µg/L	485860 ppb	18:45:52
2	Cd 226.502†	63805.9	70404.3	466.38 µg/L	466.38 ppb	18:46:26
2	Co 228.616†	29275.9	32436.7	434.76 µg/L	434.76 ppb	18:46:28
2	Cr 267.716†	50741.5	55753.6	479.35 µg/L	479.35 ppb	18:46:28
2	Cu 324.752†	105439.6	113762.6	535.91 µg/L	535.91 ppb	18:46:26
2	Fe 238.204 Radial†	2684811.7	2859651.8	190120 µg/L	190120 ppb	18:45:54
2	K 766.490 Radial†	14227.4	13699.5	5395.1 µg/L	5395.1 ppb	18:45:56
2	Mg 279.077 IEC†	1095117.9	1166293.6	480720 µg/L	480720 ppb	18:45:56
2	Mn 257.610†	330574.5	364191.4	478.08 µg/L	478.08 ppb	18:46:26
2	Mo 202.031†	13322.6	14735.9	481.64 µg/L	481.64 ppb	18:46:28
2	Na 589.592 Radial†	34233.3	34769.4	5315.2 µg/L	5315.2 ppb	18:45:56
2	Ni 231.604†	31592.4	34853.7	445.82 µg/L	445.82 ppb	18:46:28
2	P 214.914†	9407.5	10286.9	2442.8 µg/L	2442.8 ppb	18:46:28
2	Pb 220.353†	6453.4	6998.8	451.34 µg/L	451.34 ppb	18:46:28

2	S 181.975 Axial†	2940.7	3145.6	2552.4 µg/L	2552.4 ppb	18:46:28
2	Sb 206.836†	3475.9	3743.6	500.18 µg/L	500.18 ppb	18:46:28
2	Se 196.026†	5145.8	5659.4	2310 µg/L	2310 ppb	18:46:28
2	SiO2†	92799.3	100685.9	10985 µg/L	10985 ppb	18:46:26
2	Si 251.611†	282521.5	310643.8	5127.1 µg/L	5127.1 ppb	18:46:26
2	Sn 189.927†	5996.0	6605.2	471.35 µg/L	471.35 ppb	18:46:28
2	Sr 421.552†	208807.5	222692.2	518.13 µg/L	518.13 ppb	18:45:56
2	Ti 334.940†	470515.6	517840.9	501.16 µg/L	501.16 ppb	18:46:26
2	Tl 190.801†	2878.3	3292.0	450.21 µg/L	450.21 ppb	18:46:28
2	U 409.014†	7163.0	8372.3	528.73 µg/L	528.73 ppb	18:46:26
2	V 292.402†	88754.8	97370.2	516.63 µg/L	516.63 ppb	18:46:26
2	Zn 213.857†	72903.7	79870.6	483.58 µg/L	483.58 ppb	18:46:26
3	Sc 361.383	1509678.5	1509678.5	90.250 %		18:46:31
3	Sc RADIAL	138373.5	138373.5	94.9 %		18:46:03
3	Y 371.029	914674.1	914674.1	89.448 %		18:46:31
3	Ag 328.068†	64587.4	68598.0	271.77 µg/L	271.77 ppb	18:46:31
3	Al 396.153Radial†	2250390.9	2370456.7	517420 µg/L	517420 ppb	18:45:58
3	As 188.979†	1006.1	1129.0	520.40 µg/L	520.40 ppb	18:46:33
3	B 249.677†	30857.6	30835.5	516.13 µg/L	516.13 ppb	18:46:31
3	Ba 233.527†	99227.6	110122.6	501.13 µg/L	501.13 ppb	18:46:31
3	Be 313.107†	682431.3	756816.9	246.51 µg/L	246.51 ppb	18:46:31
3	Ca 317.933Radial†	7834035.4	8251280.0	483490 µg/L	483490 ppb	18:45:58
3	Cd 226.502†	63517.1	70473.5	466.87 µg/L	466.87 ppb	18:46:31
3	Co 228.616†	29487.3	32849.5	440.42 µg/L	440.42 ppb	18:46:33
3	Cr 267.716†	51368.6	56757.9	487.95 µg/L	487.95 ppb	18:46:33
3	Cu 324.752†	105432.6	114397.9	538.71 µg/L	538.71 ppb	18:46:31
3	Fe 238.204 Radial†	2714742.3	2859431.1	190100 µg/L	190100 ppb	18:46:01
3	K 766.490 Radial†	14507.9	13826.8	5448.0 µg/L	5448.0 ppb	18:46:03
3	Mg 279.077 IEC†	1111196.5	1170280.1	482370 µg/L	482370 ppb	18:46:03
3	Mn 257.610†	329292.9	364787.6	478.83 µg/L	478.83 ppb	18:46:31
3	Mo 202.031†	13311.3	14804.5	483.83 µg/L	483.83 ppb	18:46:33
3	Na 589.592 Radial†	34668.7	34823.2	5323.3 µg/L	5323.3 ppb	18:46:03
3	Ni 231.604†	31996.5	35494.2	454.01 µg/L	454.01 ppb	18:46:33
3	P 214.914†	9605.6	10563.7	2508.9 µg/L	2508.9 ppb	18:46:33
3	Pb 220.353†	6567.4	7164.5	461.32 µg/L	461.32 ppb	18:46:33
3	S 181.975 Axial†	2974.8	3201.4	2597.7 µg/L	2597.7 ppb	18:46:33
3	Sb 206.836†	3463.3	3750.8	501.08 µg/L	501.08 ppb	18:46:33
3	Se 196.026†	5291.7	5852.5	2380 µg/L	2380 ppb	18:46:33
3	SiO2†	92489.2	100908.3	11009 µg/L	11009 ppb	18:46:31
3	Si 251.611†	281639.3	311389.5	5139.4 µg/L	5139.4 ppb	18:46:31
3	Sn 189.927†	6087.5	6743.1	481.17 µg/L	481.17 ppb	18:46:33
3	Sr 421.552†	210738.5	222257.1	517.13 µg/L	517.13 ppb	18:46:03
3	Ti 334.940†	470683.6	520896.9	504.08 µg/L	504.08 ppb	18:46:31
3	Tl 190.801†	2864.6	3294.4	450.54 µg/L	450.54 ppb	18:46:33
3	U 409.014†	7145.1	8396.1	530.14 µg/L	530.14 ppb	18:46:31
3	V 292.402†	88390.3	97507.5	517.45 µg/L	517.45 ppb	18:46:31
3	Zn 213.857†	72542.0	79914.6	483.81 µg/L	483.81 ppb	18:46:31

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1512799.2	90.437 %	0.2727			0.30%
Sc RADIAL	137446.3	94.3 %	0.56			0.59%
Y 371.029	916570.2	89.633 %	0.2608			0.29%
Ag 328.068†	68413.9	270.93 µg/L	1.098	270.93 ppb	1.098	0.41%
QC value within limits for Ag 328.068 Recovery = 108.37%						
Al 396.153Radial†	2381538.1	519840 µg/L	3348.7	519840 ppb	3348.7	0.64%
QC value within limits for Al 396.153Radial Recovery = 103.97%						
As 188.979†	1143.3	526.47 µg/L	8.621	526.47 ppb	8.621	1.64%
QC value within limits for As 188.979 Recovery = 105.29%						
B 249.677†	30705.8	513.96 µg/L	2.238	513.96 ppb	2.238	0.44%
QC value within limits for B 249.677 Recovery = 102.79%						
Ba 233.527†	109899.8	500.10 µg/L	0.973	500.10 ppb	0.973	0.19%
QC value within limits for Ba 233.527 Recovery = 100.02%						
Be 313.107†	755583.8	246.11 µg/L	0.349	246.11 ppb	0.349	0.14%
QC value within limits for Be 313.107 Recovery = 98.44%						
Ca 317.933Radial†	8309102.1	486880 µg/L	3997.7	486880 ppb	3997.7	0.82%
QC value within limits for Ca 317.933Radial Recovery = 97.38%						
Cd 226.502†	70456.0	466.68 µg/L	0.262	466.68 ppb	0.262	0.06%
QC value within limits for Cd 226.502 Recovery = 93.34%						

Co 228.616†	32623.9	437.30 µg/L	2.873	437.30 ppb	2.873	0.66%
QC value within limits for Co 228.616 Recovery = 87.46%						
Cr 267.716†	56371.1	484.65 µg/L	4.635	484.65 ppb	4.635	0.96%
QC value within limits for Cr 267.716 Recovery = 96.93%						
Cu 324.752†	114016.2	537.15 µg/L	1.432	537.15 ppb	1.432	0.27%
QC value within limits for Cu 324.752 Recovery = 107.43%						
Fe 238.204 Radial†	2868116.0	190680 µg/L	987.4	190680 ppb	987.4	0.52%
QC value within limits for Fe 238.204 Radial Recovery = 95.34%						
K 766.490 Radial†	13825.2	5446.2 µg/L	50.18	5446.2 ppb	50.18	0.92%
QC value within limits for K 766.490 Radial Recovery = 108.92%						
Mg 279.077 IEC†	1171223.1	482760 µg/L	2251.4	482760 ppb	2251.4	0.47%
QC value within limits for Mg 279.077 IEC Recovery = 96.55%						
Mn 257.610†	364434.0	478.33 µg/L	0.433	478.33 ppb	0.433	0.09%
QC value within limits for Mn 257.610 Recovery = 95.67%						
Mo 202.031†	14748.3	482.09 µg/L	1.569	482.09 ppb	1.569	0.33%
QC value within limits for Mo 202.031 Recovery = 96.42%						
Na 589.592 Radial†	34818.5	5322.6 µg/L	7.14	5322.6 ppb	7.14	0.13%
QC value within limits for Na 589.592 Radial Recovery = 106.45%						
Ni 231.604†	35219.8	450.50 µg/L	4.221	450.50 ppb	4.221	0.94%
QC value within limits for Ni 231.604 Recovery = 90.10%						
P 214.914†	10458.2	2483.8 µg/L	35.79	2483.8 ppb	35.79	1.44%
QC value within limits for P 214.914 Recovery = 99.35%						
Pb 220.353†	7118.7	458.68 µg/L	6.431	458.68 ppb	6.431	1.40%
QC value within limits for Pb 220.353 Recovery = 91.74%						
S 181.975 Axial†	3194.7	2592.2 µg/L	37.32	2592.2 ppb	37.32	1.44%
QC value within limits for S 181.975 Axial Recovery = 103.69%						
Sb 206.836†	3760.7	502.41 µg/L	3.120	502.41 ppb	3.120	0.62%
QC value within limits for Sb 206.836 Recovery = 100.48%						
Se 196.026†	5793.5	2360 µg/L	46.2	2360 ppb	46.2	1.96%
QC value within limits for Se 196.026 Recovery = 94.33%						
SiO2†	100725.6	10989 µg/L	18.1	10989 ppb	18.1	0.16%
QC value within limits for SiO2 Recovery = 102.75%						
Si 251.611†	310935.6	5131.9 µg/L	6.54	5131.9 ppb	6.54	0.13%
QC value within limits for Si 251.611 Recovery = 102.64%						
Sn 189.927†	6671.5	476.07 µg/L	4.919	476.07 ppb	4.919	1.03%
QC value within limits for Sn 189.927 Recovery = 95.21%						
Sr 421.552†	222829.9	518.44 µg/L	1.498	518.44 ppb	1.498	0.29%
QC value within limits for Sr 421.552 Recovery = 103.69%						
Ti 334.940†	518871.3	502.07 µg/L	1.741	502.07 ppb	1.741	0.35%
QC value within limits for Ti 334.940 Recovery = 100.41%						
Tl 190.801†	3276.0	448.07 µg/L	4.004	448.07 ppb	4.004	0.89%
QC value within limits for Tl 190.801 Recovery = 89.61%						
U 409.014†	8382.2	529.27 µg/L	0.763	529.27 ppb	0.763	0.14%
QC value within limits for U 409.014 Recovery = 105.85%						
V 292.402†	97416.4	516.82 µg/L	0.558	516.82 ppb	0.558	0.11%
QC value within limits for V 292.402 Recovery = 103.36%						
Zn 213.857†	79910.9	483.76 µg/L	0.156	483.76 ppb	0.156	0.03%
QC value within limits for Zn 213.857 Recovery = 96.75%						
All analyte(s) passed QC.						

Sequence No.: 11

Sample ID: LR1

Analyst:

Logged In Analyst (Original) : optima4

Initial Sample Wt:

Dilution:

Autosampler Location: 105

Date Collected: 3/29/2010 18:46:42

Data Type: Reprocessed on 3/29/2010 19:14:40

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	1475217.1	1475217.1	88.190 %		18:47:41
1	Sc RADIAL	134988.0	134988.0	92.6 %		18:47:14
1	Y 371.029	890652.0	890652.0	87.098 %		18:47:41
1	Ag 328.068†	2600.2	-18.7	4.2300 µg/L	4.2300 ppb	18:47:41
1	Al 396.153Radial†	2173247.9	2346612.0	512240 µg/L	512240 ppb	18:47:12
1	As 188.979†	-221.7	-237.2	2.3463 µg/L	2.3463 ppb	18:47:43
1	B 249.677†	3640.1	771.9	12.918 µg/L	12.918 ppb	18:47:41
1	Ba 233.527†	451.6	687.2	-2.6252 µg/L	-2.6252 ppb	18:47:43
1	Be 313.107†	-13095.3	-14188.9	-0.0322 µg/L	-0.0322 ppb	18:47:41
1	Ca 317.933Radial†	7559025.2	8161296.1	478220 µg/L	478220 ppb	18:47:12
1	Cd 226.502†	5610.9	6456.7	-2.9745 µg/L	-2.9745 ppb	18:47:43
1	Co 228.616†	613.3	872.0	-11.650 µg/L	-11.650 ppb	18:47:43
1	Cr 267.716†	908.0	869.3	5.4318 µg/L	5.4318 ppb	18:47:43
1	Cu 324.752†	-17506.0	-22275.2	-5.5587 µg/L	-5.5587 ppb	18:47:43
1	Fe 238.204 Radial†	6300456.2	6802850.0	452280 µg/L	452280 ppb	18:47:12
1	K 766.490 Radial†	1898.7	595.1	-78.007 µg/L	-78.007 ppb	18:47:14
1	Mg 279.077 IEC†	1069506.5	1154620.7	475670 µg/L	475670 ppb	18:47:12
1	Mn 257.610†	14951.4	16873.6	2.9939 µg/L	2.9939 ppb	18:47:41
1	Mo 202.031†	-853.5	-912.6	-2.2055 µg/L	-2.2055 ppb	18:47:41
1	Na 589.592 Radial†	3064907.6	3307661.5	506110 µg/L	506110 ppb	18:47:12
1	Ni 231.604†	241.8	315.0	4.0298 µg/L	4.0298 ppb	18:47:43
1	P 214.914†	851.2	885.7	19.361 µg/L	19.361 ppb	18:47:43
1	Pb 220.353†	111.2	13.7	6.6643 µg/L	6.6643 ppb	18:47:43
1	S 181.975 Axial†	199.5	131.4	106.18 µg/L	106.18 ppb	18:47:43
1	Sb 206.836†	173.5	110.1	5.3162 µg/L	5.3162 ppb	18:47:43
1	Se 196.026†	-269.6	-316.6	46.3 µg/L	46.3 ppb	18:47:43
1	SiO2†	1875.2	553.5	61.247 µg/L	61.247 ppb	18:47:43
1	Si 251.611†	-2234.1	-3209.7	-52.717 µg/L	-52.717 ppb	18:47:43
1	Sn 189.927†	58.5	64.3	4.6670 µg/L	4.6670 ppb	18:47:43
1	Sr 421.552†	4787.3	5447.1	9.0235 µg/L	9.0235 ppb	18:47:14
1	Ti 334.940†	25472.1	28246.9	-3.7159 µg/L	-3.7159 ppb	18:47:41
1	Tl 190.801†	-294.1	-213.1	-27.836 µg/L	-27.836 ppb	18:47:43
1	U 409.014†	216123.9	245545.7	15094 µg/L	15094 ppb	18:47:41
1	V 292.402†	10776.3	11787.7	3.3989 µg/L	3.3989 ppb	18:47:43
1	Zn 213.857†	7832.8	8417.4	9.2023 µg/L	9.2023 ppb	18:47:43
2	Sc 361.383	1474797.5	1474797.5	88.165 %		18:47:46
2	Sc RADIAL	136487.8	136487.8	93.6 %		18:47:19
2	Y 371.029	890090.9	890090.9	87.044 %		18:47:46
2	Ag 328.068†	2591.0	-28.2	4.2336 µg/L	4.2336 ppb	18:47:46
2	Al 396.153Radial†	2181204.6	2329323.3	508460 µg/L	508460 ppb	18:47:17
2	As 188.979†	-251.7	-271.3	-12.460 µg/L	-12.460 ppb	18:47:48
2	B 249.677†	3729.3	874.2	14.628 µg/L	14.628 ppb	18:47:46
2	Ba 233.527†	527.6	773.5	-2.2009 µg/L	-2.2009 ppb	18:47:48
2	Be 313.107†	-13474.2	-14622.9	-0.1807 µg/L	-0.1807 ppb	18:47:46
2	Ca 317.933Radial†	7600178.4	8115555.5	475540 µg/L	475540 ppb	18:47:17
2	Cd 226.502†	5683.2	6540.6	-2.1393 µg/L	-2.1393 ppb	18:47:48
2	Co 228.616†	752.5	1030.1	-9.3590 µg/L	-9.3590 ppb	18:47:48
2	Cr 267.716†	724.6	661.7	3.6080 µg/L	3.6080 ppb	18:47:48
2	Cu 324.752†	-17459.2	-22227.9	-5.7811 µg/L	-5.7811 ppb	18:47:48
2	Fe 238.204 Radial†	6336284.1	6766355.5	449850 µg/L	449850 ppb	18:47:17
2	K 766.490 Radial†	1981.3	660.8	-49.077 µg/L	-49.077 ppb	18:47:19
2	Mg 279.077 IEC†	1076643.1	1149552.1	473590 µg/L	473590 ppb	18:47:17
2	Mn 257.610†	15045.5	16985.2	3.2356 µg/L	3.2356 ppb	18:47:46
2	Mo 202.031†	-881.3	-944.4	-3.3453 µg/L	-3.3453 ppb	18:47:46
2	Na 589.592 Radial†	3084400.4	3292112.6	503740 µg/L	503740 ppb	18:47:17
2	Ni 231.604†	341.9	428.7	5.4833 µg/L	5.4833 ppb	18:47:48
2	P 214.914†	888.6	928.3	30.390 µg/L	30.390 ppb	18:47:48
2	Pb 220.353†	63.3	-40.6	3.2317 µg/L	3.2317 ppb	18:47:48

2	S 181.975 Axial†	169.7	97.6	78.843 µg/L	78.843 ppb	18:47:48
2	Sb 206.836†	95.2	21.4	-6.5888 µg/L	-6.5888 ppb	18:47:48
2	Se 196.026†	-403.3	-468.4	-14.6 µg/L	-14.6 ppb	18:47:48
2	SiO2†	1816.0	486.9	54.020 µg/L	54.020 ppb	18:47:48
2	Si 251.611†	-2084.7	-3041.0	-49.906 µg/L	-49.906 ppb	18:47:48
2	Sn 189.927†	43.9	47.8	3.4920 µg/L	3.4920 ppb	18:47:48
2	Sr 421.552†	4824.6	5430.1	9.0047 µg/L	9.0047 ppb	18:47:19
2	Ti 334.940†	25083.7	27814.6	-4.0459 µg/L	-4.0459 ppb	18:47:46
2	Tl 190.801†	-241.3	-153.4	-19.840 µg/L	-19.840 ppb	18:47:48
2	U 409.014†	215721.0	245158.5	15071 µg/L	15071 ppb	18:47:46
2	V 292.402†	10612.7	11605.5	2.7405 µg/L	2.7405 ppb	18:47:48
2	Zn 213.857†	7898.7	8494.6	9.8973 µg/L	9.8973 ppb	18:47:48
3	Sc 361.383	1482973.9	1482973.9	88.654 %		18:47:51
3	Sc RADIAL	135581.7	135581.7	93.0 %		18:47:23
3	Y 371.029	894893.3	894893.3	87.513 %		18:47:51
3	Ag 328.068†	2907.1	312.1	5.3159 µg/L	5.3159 ppb	18:47:51
3	Al 396.153Radial†	2198157.6	2363115.2	515840 µg/L	515840 ppb	18:47:21
3	As 188.979†	-166.7	-173.8	30.035 µg/L	30.035 ppb	18:47:53
3	B 249.677†	3819.0	952.0	15.940 µg/L	15.940 ppb	18:47:51
3	Ba 233.527†	467.2	702.0	-2.6283 µg/L	-2.6283 ppb	18:47:53
3	Be 313.107†	-13583.2	-14661.6	-0.1997 µg/L	-0.1997 ppb	18:47:51
3	Ca 317.933Radial†	7679845.3	8255440.6	483730 µg/L	483730 ppb	18:47:21
3	Cd 226.502†	5523.3	6324.6	-4.4547 µg/L	-4.4547 ppb	18:47:53
3	Co 228.616†	665.1	926.8	-11.181 µg/L	-11.181 ppb	18:47:53
3	Cr 267.716†	895.3	849.6	5.3942 µg/L	5.3942 ppb	18:47:53
3	Cu 324.752†	-17409.5	-22062.6	-3.6839 µg/L	-3.6839 ppb	18:47:53
3	Fe 238.204 Radial†	6403813.8	6884172.5	457680 µg/L	457680 ppb	18:47:21
3	K 766.490 Radial†	2077.2	778.0	-6.1386 µg/L	-6.1386 ppb	18:47:23
3	Mg 279.077 IEC†	1090892.1	1172554.0	483060 µg/L	483060 ppb	18:47:21
3	Mn 257.610†	15096.7	16948.9	2.7894 µg/L	2.7894 ppb	18:47:51
3	Mo 202.031†	-879.5	-936.8	-2.6225 µg/L	-2.6225 ppb	18:47:51
3	Na 589.592 Radial†	3116499.7	3348632.9	512380 µg/L	512380 ppb	18:47:21
3	Ni 231.604†	249.4	322.2	4.1219 µg/L	4.1219 ppb	18:47:53
3	P 214.914†	734.4	748.9	-16.245 µg/L	-16.245 ppb	18:47:53
3	Pb 220.353†	-96.4	-221.1	-7.4793 µg/L	-7.4793 ppb	18:47:53
3	S 181.975 Axial†	169.9	96.8	78.205 µg/L	78.205 ppb	18:47:53
3	Sb 206.836†	73.9	-3.3	-10.074 µg/L	-10.074 ppb	18:47:53
3	Se 196.026†	-324.5	-376.9	24.3 µg/L	24.3 ppb	18:47:53
3	SiO2†	1980.5	661.1	72.973 µg/L	72.973 ppb	18:47:53
3	Si 251.611†	-1826.1	-2736.2	-44.905 µg/L	-44.905 ppb	18:47:53
3	Sn 189.927†	110.7	122.9	8.8298 µg/L	8.8298 ppb	18:47:53
3	Sr 421.552†	4811.0	5449.9	8.9869 µg/L	8.9869 ppb	18:47:23
3	Ti 334.940†	25226.4	27818.7	-4.5924 µg/L	-4.5924 ppb	18:47:51
3	Tl 190.801†	-184.7	-88.0	-11.070 µg/L	-11.070 ppb	18:47:53
3	U 409.014†	216613.9	244816.6	15048 µg/L	15048 ppb	18:47:51
3	V 292.402†	10498.6	11410.5	0.4086 µg/L	0.4086 ppb	18:47:53
3	Zn 213.857†	7725.4	8249.7	7.5805 µg/L	7.5805 ppb	18:47:53

## Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1477662.9	88.336 %	0.2752			0.31%
Sc RADIAL	135685.8	93.1 %	0.52			0.56%
Y 371.029	891878.7	87.218 %	0.2568			0.29%
Ag 328.068†	88.4	4.5932 µg/L	0.62588	4.5932 ppb	0.62588	13.63%
Al 396.153Radial†	2346350.2	512180 µg/L	3688.5	512180 ppb	3688.5	0.72%
QC value within limits for Al 396.153Radial Recovery = 102.44%						
As 188.979†	-227.4	6.6405 µg/L	21.57070	6.6405 ppb	21.57070	324.83%
B 249.677†	866.1	14.495 µg/L	1.5153	14.495 ppb	1.5153	10.45%
Ba 233.527†	720.9	-2.4848 µg/L	0.24586	-2.4848 ppb	0.24586	9.89%
Be 313.107†	-14491.1	-0.1375 µg/L	0.09171	-0.1375 ppb	0.09171	66.68%
Ca 317.933Radial†	8177430.7	479160 µg/L	4179.3	479160 ppb	4179.3	0.87%
QC value within limits for Ca 317.933Radial Recovery = 95.83%						
Cd 226.502†	6440.6	-3.1895 µg/L	1.17255	-3.1895 ppb	1.17255	36.76%
Co 228.616†	943.0	-10.730 µg/L	1.2103	-10.730 ppb	1.2103	11.28%
Cr 267.716†	793.5	4.8113 µg/L	1.04230	4.8113 ppb	1.04230	21.66%
Cu 324.752†	-22188.5	-5.0079 µg/L	1.15199	-5.0079 ppb	1.15199	23.00%
Fe 238.204 Radial†	6817792.7	453270 µg/L	4009.8	453270 ppb	4009.8	0.88%
QC value within limits for Fe 238.204 Radial Recovery = 90.65%						
K 766.490 Radial†	678.0	-44.408 µg/L	36.1609	-44.408 ppb	36.1609	81.43%

Mg 279.077 IEC†	1158908.9	477440 µg/L	4979.6	477440 ppb	4979.6	1.04%
QC value within limits for Mg 279.077 IEC Recovery = 95.49%						
Mn 257.610†	16935.9	3.0063 µg/L	0.22334	3.0063 ppb	0.22334	7.43%
Mo 202.031†	-931.3	-2.7244 µg/L	0.57668	-2.7244 ppb	0.57668	21.17%
Na 589.592 Radial†	3316135.7	507410 µg/L	4467.6	507410 ppb	4467.6	0.88%
QC value within limits for Na 589.592 Radial Recovery = 101.48%						
Ni 231.604†	355.3	4.5450 µg/L	0.81388	4.5450 ppb	0.81388	17.91%
P 214.914†	854.3	11.169 µg/L	24.3729	11.169 ppb	24.3729	218.22%
Pb 220.353†	-82.7	0.8056 µg/L	7.37729	0.8056 ppb	7.37729	915.80%
S 181.975 Axial†	108.6	87.742 µg/L	15.9697	87.742 ppb	15.9697	18.20%
Sb 206.836†	42.7	-3.7822 µg/L	8.06989	-3.7822 ppb	8.06989	213.36%
Se 196.026†	-387.3	18.7 µg/L	30.84	18.7 ppb	30.84	165.04%
SiO2†	567.2	62.747 µg/L	9.5648	62.747 ppb	9.5648	15.24%
Si 251.611†	-2995.6	-49.176 µg/L	3.9567	-49.176 ppb	3.9567	8.05%
Sn 189.927†	78.3	5.6629 µg/L	2.80476	5.6629 ppb	2.80476	49.53%
Sr 421.552†	5442.4	9.0050 µg/L	0.01831	9.0050 ppb	0.01831	0.20%
Ti 334.940†	27960.1	-4.1181 µg/L	0.44268	-4.1181 ppb	0.44268	10.75%
Tl 190.801†	-151.5	-19.582 µg/L	8.3859	-19.582 ppb	8.3859	42.82%
U 409.014†	245173.6	15071 µg/L	23.1	15071 ppb	23.1	0.15%
QC value within limits for U 409.014 Recovery = 100.47%						
V 292.402†	11601.2	2.1827 µg/L	1.57124	2.1827 ppb	1.57124	71.99%
Zn 213.857†	8387.2	8.8934 µg/L	1.18890	8.8934 ppb	1.18890	13.37%
All analyte(s) passed QC.						

Sequence No.: 12

Sample ID: LR2

Analyst:

Logged In Analyst (Original) : optima4

Initial Sample Wt:

Dilution:

Autosampler Location: 108

Date Collected: 3/29/2010 18:48:01

Data Type: Reprocessed on 3/29/2010 19:14:40

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	1698380.4	1698380.4	101.53 %		18:49:13
1	Sc RADIAL	151205.1	151205.1	104 %		18:48:34
1	Y 371.029	1017103.0	1017103.0	99.464 %		18:49:13
1	Ag 328.068†	-18686.1	-21371.4	31.131 µg/L	31.131 ppb	18:49:15
1	Al 396.153Radial†	2338.4	2286.0	66.356 µg/L	66.356 ppb	18:48:36
1	As 188.979†	24060.3	23711.8	10160 µg/L	10160 ppb	18:49:15
1	B 249.677†	302290.6	294377.4	4910.3 µg/L	4910.3 ppb	18:49:13
1	Ba 233.527†	3091920.0	3045479.3	13922 µg/L	13922 ppb	18:49:13
1	Be 313.107†	8967503.4	8832963.6	2875.2 µg/L	2875.2 ppb	18:49:09
1	Ca 317.933Radial†	1386.8	720.6	42.226 µg/L	42.226 ppb	18:48:36
1	Cd 226.502†	1391850.4	1370960.3	9471.5 µg/L	9471.5 ppb	18:49:13
1	Co 228.616†	680530.5	670447.0	9197.3 µg/L	9197.3 ppb	18:49:13
1	Cr 267.716†	2796482.2	2754160.4	23659 µg/L	23659 ppb	18:49:13
1	Cu 324.752†	4652514.4	4579945.2	19914 µg/L	19914 ppb	18:49:13
1	Fe 238.204 Radial†	-1093.2	-1167.1	-77.594 µg/L	-77.594 ppb	18:48:36
1	K 766.490 Radial†	735082.9	707128.4	291110 µg/L	291110 ppb	18:48:34
1	Mg 279.077 IEC†	-573.2	-739.2	-76.817 µg/L	-76.817 ppb	18:48:36
1	Mn 257.610†	6850554.7	6747191.3	9219.6 µg/L	9219.6 ppb	18:49:13
1	Mo 202.031†	299568.0	295106.7	9318.7 µg/L	9318.7 ppb	18:49:15
1	Na 589.592 Radial†	4106.1	2263.3	87.417 µg/L	87.417 ppb	18:48:36
1	Ni 231.604†	759020.4	747617.8	9562.9 µg/L	9562.9 ppb	18:49:13
1	P 214.914†	61793.1	60781.8	14324 µg/L	14324 ppb	18:49:15
1	Pb 220.353†	385088.4	379170.1	22997 µg/L	22997 ppb	18:49:13
1	S 181.975 Axial†	62300.3	61266.2	49715 µg/L	49715 ppb	18:49:15
1	Sb 206.836†	72365.8	71188.1	9412.3 µg/L	9412.3 ppb	18:49:15
1	Se 196.026†	23983.3	23610.8	9340 µg/L	9340 ppb	18:49:15
1	SiO2†	927224.5	911672.2	99243 µg/L	99243 ppb	18:49:13
1	Si 251.611†	2845330.8	2801756.4	46140 µg/L	46140 ppb	18:49:13
1	Sn 189.927†	135952.5	133900.7	9552.3 µg/L	9552.3 ppb	18:49:15
1	Sr 421.552†	4291141.6	4136725.5	9695.4 µg/L	9695.4 ppb	18:48:32
1	Ti 334.940†	9795412.6	9647094.3	9829.2 µg/L	9829.2 ppb	18:49:09
1	Tl 190.801†	68839.1	67921.6	9266.8 µg/L	9266.8 ppb	18:49:15
1	U 409.014†	-6352.9	-5778.0	247.84 µg/L	247.84 ppb	18:49:15
1	V 292.402†	1822287.8	1794382.0	10142 µg/L	10142 ppb	18:49:13
1	Zn 213.857†	2271454.5	2236744.1	14006 µg/L	14006 ppb	18:49:13
2	Sc 361.383	1692355.1	1692355.1	101.17 %		18:49:22
2	Sc RADIAL	148148.5	148148.5	102 %		18:48:40
2	Y 371.029	1013670.4	1013670.4	99.129 %		18:49:22
2	Ag 328.068†	-18902.0	-21650.3	30.241 µg/L	30.241 ppb	18:49:25
2	Al 396.153Radial†	2166.1	2162.9	32.480 µg/L	32.480 ppb	18:48:43
2	As 188.979†	24382.8	24114.9	10329 µg/L	10329 ppb	18:49:25
2	B 249.677†	301947.2	295098.0	4922.4 µg/L	4922.4 ppb	18:49:22
2	Ba 233.527†	3087006.8	3051465.1	13949 µg/L	13949 ppb	18:49:22
2	Be 313.107†	8888938.4	8786753.2	2860.1 µg/L	2860.1 ppb	18:49:19
2	Ca 317.933Radial†	1193.0	557.5	32.668 µg/L	32.668 ppb	18:48:43
2	Cd 226.502†	1387271.1	1371314.7	9474.0 µg/L	9474.0 ppb	18:49:22
2	Co 228.616†	679503.2	671817.9	9216.1 µg/L	9216.1 ppb	18:49:22
2	Cr 267.716†	2791317.7	2758861.8	23700 µg/L	23700 ppb	18:49:22
2	Cu 324.752†	4645173.2	4589003.5	19954 µg/L	19954 ppb	18:49:22
2	Fe 238.204 Radial†	-1141.0	-1235.9	-82.165 µg/L	-82.165 ppb	18:48:43
2	K 766.490 Radial†	723724.6	710573.4	292530 µg/L	292530 ppb	18:48:40
2	Mg 279.077 IEC†	-594.9	-771.9	-86.616 µg/L	-86.616 ppb	18:48:43
2	Mn 257.610†	6838819.1	6759613.7	9236.6 µg/L	9236.6 ppb	18:49:22
2	Mo 202.031†	303352.5	299897.9	9470.0 µg/L	9470.0 ppb	18:49:25
2	Na 589.592 Radial†	3886.9	2129.3	65.648 µg/L	65.648 ppb	18:48:43
2	Ni 231.604†	757365.3	748643.5	9576.0 µg/L	9576.0 ppb	18:49:22
2	P 214.914†	62941.1	62133.3	14647 µg/L	14647 ppb	18:49:25
2	Pb 220.353†	383628.9	379077.8	22992 µg/L	22992 ppb	18:49:22

2	S 181.975 Axial†	63093.2	62268.3	50529 µg/L	50529 ppb	18:49:25
2	Sb 206.836†	73391.6	72455.9	9585.2 µg/L	9585.2 ppb	18:49:25
2	Se 196.026†	24264.9	23973.2	9480 µg/L	9480 ppb	18:49:25
2	SiO2†	925612.2	913330.0	99418 µg/L	99418 ppb	18:49:22
2	Si 251.611†	2841383.2	2807831.9	46237 µg/L	46237 ppb	18:49:22
2	Sn 189.927†	137626.2	136031.8	9703.7 µg/L	9703.7 ppb	18:49:25
2	Sr 421.552†	4251704.3	4183270.4	9804.5 µg/L	9804.5 ppb	18:48:38
2	Ti 334.940†	9732958.3	9619711.2	9801.3 µg/L	9801.3 ppb	18:49:19
2	Tl 190.801†	69796.1	69108.9	9426.0 µg/L	9426.0 ppb	18:49:25
2	U 409.014†	-6518.6	-5964.1	237.63 µg/L	237.63 ppb	18:49:25
2	V 292.402†	1819682.2	1798196.6	10165 µg/L	10165 ppb	18:49:22
2	Zn 213.857†	2265596.7	2238919.2	14019 µg/L	14019 ppb	18:49:22
3	Sc 361.383	1700875.8	1700875.8	101.68 %		18:49:32
3	Sc RADIAL	149241.8	149241.8	102 %		18:48:47
3	Y 371.029	1018743.4	1018743.4	99.625 %		18:49:32
3	Ag 328.068†	-19043.0	-21695.4	29.614 µg/L	29.614 ppb	18:49:34
3	Al 396.153Radial†	2183.6	2164.5	34.118 µg/L	34.118 ppb	18:48:49
3	As 188.979†	24384.9	23996.2	10278 µg/L	10278 ppb	18:49:34
3	B 249.677†	302272.0	293922.3	4902.7 µg/L	4902.7 ppb	18:49:32
3	Ba 233.527†	3092416.4	3041499.6	13904 µg/L	13904 ppb	18:49:32
3	Be 313.107†	8907241.5	8760739.0	2851.7 µg/L	2851.7 ppb	18:49:28
3	Ca 317.933Radial†	1218.9	574.2	33.647 µg/L	33.647 ppb	18:48:49
3	Cd 226.502†	1391102.2	1368213.3	9452.5 µg/L	9452.5 ppb	18:49:32
3	Co 228.616†	681435.9	670354.0	9196.0 µg/L	9196.0 ppb	18:49:32
3	Cr 267.716†	2794875.2	2748538.9	23611 µg/L	23611 ppb	18:49:32
3	Cu 324.752†	4650199.8	4570945.8	19875 µg/L	19875 ppb	18:49:32
3	Fe 238.204 Radial†	-1251.6	-1335.7	-88.800 µg/L	-88.800 ppb	18:48:49
3	K 766.490 Radial†	729684.2	711177.7	292780 µg/L	292780 ppb	18:48:47
3	Mg 279.077 IEC†	-664.5	-835.6	-113.55 µg/L	-113.55 ppb	18:48:49
3	Mn 257.610†	6850008.1	6736754.4	9205.4 µg/L	9205.4 ppb	18:49:32
3	Mo 202.031†	303976.8	299009.8	9441.9 µg/L	9441.9 ppb	18:49:34
3	Na 589.592 Radial†	3504.7	1728.1	4.0327 µg/L	4.0327 ppb	18:48:49
3	Ni 231.604†	758972.5	746473.9	9548.3 µg/L	9548.3 ppb	18:49:32
3	P 214.914†	62994.4	61874.1	14586 µg/L	14586 ppb	18:49:34
3	Pb 220.353†	384992.3	378519.2	22958 µg/L	22958 ppb	18:49:32
3	S 181.975 Axial†	63225.2	62085.8	50381 µg/L	50381 ppb	18:49:34
3	Sb 206.836†	73461.5	72161.1	9546.2 µg/L	9546.2 ppb	18:49:34
3	Se 196.026†	24345.1	23931.9	9470 µg/L	9470 ppb	18:49:34
3	SiO2†	927967.0	911062.6	99172 µg/L	99172 ppb	18:49:32
3	Si 251.611†	2848954.5	2801208.6	46128 µg/L	46128 ppb	18:49:32
3	Sn 189.927†	137708.4	135431.2	9660.9 µg/L	9660.9 ppb	18:49:34
3	Sr 421.552†	4283363.5	4183546.2	9805.1 µg/L	9805.1 ppb	18:48:45
3	Ti 334.940†	9739101.8	9577559.1	9758.3 µg/L	9758.3 ppb	18:49:28
3	Tl 190.801†	69743.1	68711.1	9371.9 µg/L	9371.9 ppb	18:49:34
3	U 409.014†	-6372.0	-5787.7	246.22 µg/L	246.22 ppb	18:49:34
3	V 292.402†	1821804.8	1791273.7	10126 µg/L	10126 ppb	18:49:32
3	Zn 213.857†	2271404.4	2233412.6	13985 µg/L	13985 ppb	18:49:32

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1697203.7	101.46 %	0.262			0.26%
Sc RADIAL	149531.8	103 %	1.1			1.04%
Y 371.029	1016505.6	99.406 %	0.2532			0.25%
Ag 328.068†	-21572.4	30.328 µg/L	0.7622	30.328 ppb	0.7622	2.51%
Al 396.153Radial†	2204.5	44.318 µg/L	19.1029	44.318 ppb	19.1029	43.10%
As 188.979†	23941.0	10256 µg/L	86.9	10256 ppb	86.9	0.85%
QC value within limits for As 188.979 Recovery = 102.56%						
B 249.677†	294465.9	4911.8 µg/L	9.92	4911.8 ppb	9.92	0.20%
QC value within limits for B 249.677 Recovery = 98.24%						
Ba 233.527†	3046148.0	13925 µg/L	22.9	13925 ppb	22.9	0.16%
QC value within limits for Ba 233.527 Recovery = 92.83%						
Be 313.107†	8793485.2	2862.3 µg/L	11.91	2862.3 ppb	11.91	0.42%
QC value within limits for Be 313.107 Recovery = 95.41%						
Ca 317.933Radial†	617.5	36.181 µg/L	5.2587	36.181 ppb	5.2587	14.53%
Cd 226.502†	1370162.8	9466.0 µg/L	11.73	9466.0 ppb	11.73	0.12%
QC value within limits for Cd 226.502 Recovery = 94.66%						
Co 228.616†	670873.0	9203.1 µg/L	11.25	9203.1 ppb	11.25	0.12%
QC value within limits for Co 228.616 Recovery = 92.03%						
Cr 267.716†	2753853.7	23657 µg/L	44.4	23657 ppb	44.4	0.19%



QC value within limits for Cr 267.716 Recovery = 94.63%

Cu 324.752†	4579964.8	19914 µg/L	39.3	19914 ppb	39.3	0.20%
QC value within limits for Cu 324.752 Recovery = 99.57%						
Fe 238.204 Radial†	-1246.2	-82.853 µg/L	5.6347	-82.853 ppb	5.6347	6.80%
K 766.490 Radial†	709626.5	292140 µg/L	899.3	292140 ppb	899.3	0.31%
QC value within limits for K 766.490 Radial Recovery = 97.38%						
Mg 279.077 IEC†	-782.2	-92.329 µg/L	19.0229	-92.329 ppb	19.0229	20.60%
Mn 257.610†	6747853.1	9220.5 µg/L	15.64	9220.5 ppb	15.64	0.17%
QC value within limits for Mn 257.610 Recovery = 92.21%						
Mo 202.031†	298004.8	9410.2 µg/L	80.46	9410.2 ppb	80.46	0.86%
QC value within limits for Mo 202.031 Recovery = 94.10%						
Na 589.592 Radial†	2040.3	52.366 µg/L	43.2497	52.366 ppb	43.2497	82.59%
Ni 231.604†	747578.4	9562.4 µg/L	13.88	9562.4 ppb	13.88	0.15%
QC value within limits for Ni 231.604 Recovery = 95.62%						
P 214.914†	61596.4	14519 µg/L	171.5	14519 ppb	171.5	1.18%
QC value within limits for P 214.914 Recovery = 96.79%						
Pb 220.353†	378922.4	22983 µg/L	21.3	22983 ppb	21.3	0.09%
QC value within limits for Pb 220.353 Recovery = 91.93%						
S 181.975 Axial†	61873.4	50208 µg/L	433.1	50208 ppb	433.1	0.86%
QC value within limits for S 181.975 Axial Recovery = 100.42%						
Sb 206.836†	71935.0	9514.6 µg/L	90.66	9514.6 ppb	90.66	0.95%
QC value within limits for Sb 206.836 Recovery = 95.15%						
Se 196.026†	23838.7	9430 µg/L	78.5	9430 ppb	78.5	0.83%
QC value within limits for Se 196.026 Recovery = 94.29%						
SiO2†	912021.6	99278 µg/L	126.7	99278 ppb	126.7	0.13%
QC value within limits for SiO2 Recovery = 92.78%						
Si 251.611†	2803599.0	46168 µg/L	59.8	46168 ppb	59.8	0.13%
QC value within limits for Si 251.611 Recovery = 92.34%						
Sn 189.927†	135121.2	9639.0 µg/L	78.05	9639.0 ppb	78.05	0.81%
QC value within limits for Sn 189.927 Recovery = 96.39%						
Sr 421.552†	4167847.3	9768.3 µg/L	63.17	9768.3 ppb	63.17	0.65%
QC value within limits for Sr 421.552 Recovery = 97.68%						
Ti 334.940†	9614788.2	9796.3 µg/L	35.71	9796.3 ppb	35.71	0.36%
QC value within limits for Ti 334.940 Recovery = 97.96%						
Tl 190.801†	68580.5	9354.9 µg/L	80.95	9354.9 ppb	80.95	0.87%
QC value within limits for Tl 190.801 Recovery = 93.55%						
U 409.014†	-5843.2	243.90 µg/L	5.490	243.90 ppb	5.490	2.25%
V 292.402†	1794617.4	10145 µg/L	19.6	10145 ppb	19.6	0.19%
QC value within limits for V 292.402 Recovery = 101.45%						
Zn 213.857†	2236358.7	14003 µg/L	17.3	14003 ppb	17.3	0.12%
QC value within limits for Zn 213.857 Recovery = 93.36%						

All analyte(s) passed QC.

Sequence No.: 13

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : optima4

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/29/2010 18:49:43

Data Type: Reprocessed on 3/29/2010 19:14:41

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	1716469.7	1716469.7	102.61 %		18:50:43
1	Sc RADIAL	154139.7	154139.7	106 %		18:50:16
1	Y 371.029	1044074.8	1044074.8	102.10 %		18:50:43
1	Ag 328.068†	127602.5	121387.1	498.79 µg/L	498.79 ppb	18:50:43
1	Al 396.153Radial†	24715.7	23403.0	5085.7 µg/L	5085.7 ppb	18:50:16
1	As 188.979†	1226.4	1209.4	512.57 µg/L	512.57 ppb	18:51:03
1	B 249.677†	33333.5	29129.3	487.34 µg/L	487.34 ppb	18:50:43
1	Ba 233.527†	111436.2	108774.4	497.32 µg/L	497.32 ppb	18:50:43
1	Be 313.107†	1573483.9	1534088.7	499.51 µg/L	499.51 ppb	18:50:43
1	Ca 317.933Radial†	90206.4	84682.8	4962.0 µg/L	4962.0 ppb	18:50:16
1	Cd 226.502†	72401.2	70652.6	487.60 µg/L	487.60 ppb	18:50:43
1	Co 228.616†	36477.3	35725.3	489.45 µg/L	489.45 ppb	18:50:43
1	Cr 267.716†	59006.8	57344.5	492.41 µg/L	492.41 ppb	18:50:43
1	Cu 324.752†	119200.3	113741.0	495.97 µg/L	495.97 ppb	18:50:43
1	Fe 238.204 Radial†	78399.3	74021.0	4921.2 µg/L	4921.2 ppb	18:50:16
1	K 766.490 Radial†	15543.8	13243.2	5447.9 µg/L	5447.9 ppb	18:50:16
1	Mg 279.077 IEC†	13152.3	12250.1	5058.7 µg/L	5058.7 ppb	18:50:16
1	Mn 257.610†	370669.7	361153.8	493.28 µg/L	493.28 ppb	18:50:43
1	Mo 202.031†	15969.2	15617.9	493.45 µg/L	493.45 ppb	18:51:03
1	Na 589.592 Radial†	70596.7	65061.3	9950.4 µg/L	9950.4 ppb	18:50:16
1	Ni 231.604†	39349.5	38388.8	491.04 µg/L	491.04 ppb	18:50:43
1	P 214.914†	10515.6	10168.3	2426.7 µg/L	2426.7 ppb	18:51:03
1	Pb 220.353†	8561.1	8230.7	500.15 µg/L	500.15 ppb	18:51:03
1	S 181.975 Axial†	1372.2	1242.5	1010.8 µg/L	1010.8 ppb	18:51:03
1	Sb 206.836†	3825.6	3641.6	492.37 µg/L	492.37 ppb	18:51:03
1	Se 196.026†	1275.8	1232.4	490 µg/L	490 ppb	18:51:03
1	SiO2†	51362.9	48482.5	5278.0 µg/L	5278.0 ppb	18:50:43
1	Si 251.611†	154098.4	149499.2	2462.1 µg/L	2462.1 ppb	18:50:43
1	Sn 189.927†	7147.3	6963.3	496.69 µg/L	496.69 ppb	18:51:03
1	Sr 421.552†	225096.8	213129.1	499.48 µg/L	499.48 ppb	18:50:14
1	Ti 334.940†	496998.7	483710.6	492.59 µg/L	492.59 ppb	18:50:43
1	Tl 190.801†	3658.8	3685.9	502.16 µg/L	502.16 ppb	18:51:03
1	U 409.014†	7304.5	7597.6	499.58 µg/L	499.58 ppb	18:50:43
1	V 292.402†	91666.3	88901.0	499.43 µg/L	499.43 ppb	18:50:43
1	Zn 213.857†	80718.2	78199.0	488.38 µg/L	488.38 ppb	18:50:43
2	Sc 361.383	1735506.8	1735506.8	103.75 %		18:51:06
2	Sc RADIAL	152000.4	152000.4	104 %		18:50:20
2	Y 371.029	1054226.6	1054226.6	103.09 %		18:51:06
2	Ag 328.068†	129107.7	121473.9	499.12 µg/L	499.12 ppb	18:51:06
2	Al 396.153Radial†	24426.5	23454.6	5097.3 µg/L	5097.3 ppb	18:50:20
2	As 188.979†	1211.7	1182.2	501.18 µg/L	501.18 ppb	18:51:26
2	B 249.677†	33876.9	29296.7	490.15 µg/L	490.15 ppb	18:51:06
2	Ba 233.527†	112976.1	109067.5	498.66 µg/L	498.66 ppb	18:51:06
2	Be 313.107†	1597015.9	1539949.6	501.42 µg/L	501.42 ppb	18:51:06
2	Ca 317.933Radial†	89516.0	85221.3	4993.6 µg/L	4993.6 ppb	18:50:20
2	Cd 226.502†	73594.6	71028.9	490.19 µg/L	490.19 ppb	18:51:06
2	Co 228.616†	37103.5	35939.0	492.37 µg/L	492.37 ppb	18:51:06
2	Cr 267.716†	59788.6	57467.2	493.47 µg/L	493.47 ppb	18:51:06
2	Cu 324.752†	121059.6	114258.9	498.22 µg/L	498.22 ppb	18:51:06
2	Fe 238.204 Radial†	77655.1	74350.7	4943.1 µg/L	4943.1 ppb	18:50:20
2	K 766.490 Radial†	15260.2	13178.1	5421.1 µg/L	5421.1 ppb	18:50:20
2	Mg 279.077 IEC†	13002.7	12281.7	5071.5 µg/L	5071.5 ppb	18:50:20
2	Mn 257.610†	375944.4	362275.4	494.81 µg/L	494.81 ppb	18:51:06
2	Mo 202.031†	15890.3	15371.2	485.66 µg/L	485.66 ppb	18:51:26
2	Na 589.592 Radial†	70215.3	65635.2	10038 µg/L	10038 ppb	18:50:20
2	Ni 231.604†	40047.6	38641.0	494.26 µg/L	494.26 ppb	18:51:06
2	P 214.914†	10471.7	10013.6	2389.6 µg/L	2389.6 ppb	18:51:26
2	Pb 220.353†	8484.3	8065.2	490.12 µg/L	490.12 ppb	18:51:26

2	S 181.975 Axial†	1365.8	1221.6	993.82 µg/L	993.82 ppb	18:51:26
2	Sb 206.836†	3834.3	3609.1	487.85 µg/L	487.85 ppb	18:51:26
2	Se 196.026†	1280.6	1223.4	486 µg/L	486 ppb	18:51:26
2	SiO2†	52085.9	48630.3	5294.5 µg/L	5294.5 ppb	18:51:06
2	Si 251.611†	156279.7	149954.3	2469.8 µg/L	2469.8 ppb	18:51:06
2	Sn 189.927†	7113.5	6854.4	488.96 µg/L	488.96 ppb	18:51:26
2	Sr 421.552†	226242.9	217223.8	509.08 µg/L	509.08 ppb	18:50:18
2	Ti 334.940†	504866.7	485981.2	494.91 µg/L	494.91 ppb	18:51:06
2	Tl 190.801†	3631.8	3620.9	493.44 µg/L	493.44 ppb	18:51:26
2	U 409.014†	7123.0	7344.6	483.95 µg/L	483.95 ppb	18:51:06
2	V 292.402†	92685.9	88903.8	499.36 µg/L	499.36 ppb	18:51:06
2	Zn 213.857†	81781.8	78361.2	489.37 µg/L	489.37 ppb	18:51:06
3	Sc 361.383	1735485.3	1735485.3	103.75 %		18:51:29
3	Sc RADIAL	153403.0	153403.0	105 %		18:50:24
3	Y 371.029	1055021.0	1055021.0	103.17 %		18:51:29
3	Ag 328.068†	128496.4	120886.2	496.73 µg/L	496.73 ppb	18:51:29
3	Al 396.153Radial†	24553.1	23360.7	5076.8 µg/L	5076.8 ppb	18:50:24
3	As 188.979†	1228.3	1198.2	507.85 µg/L	507.85 ppb	18:51:49
3	B 249.677†	33764.7	29188.9	488.34 µg/L	488.34 ppb	18:51:29
3	Ba 233.527†	112730.4	108832.0	497.58 µg/L	497.58 ppb	18:51:29
3	Be 313.107†	1593609.1	1536684.9	500.35 µg/L	500.35 ppb	18:51:29
3	Ca 317.933Radial†	90597.1	85463.7	5007.8 µg/L	5007.8 ppb	18:50:24
3	Cd 226.502†	73406.3	70848.2	488.94 µg/L	488.94 ppb	18:51:29
3	Co 228.616†	37011.7	35850.9	491.16 µg/L	491.16 ppb	18:51:29
3	Cr 267.716†	59666.8	57350.6	492.47 µg/L	492.47 ppb	18:51:29
3	Cu 324.752†	120307.7	113535.5	495.08 µg/L	495.08 ppb	18:51:29
3	Fe 238.204 Radial†	78518.4	74490.1	4952.4 µg/L	4952.4 ppb	18:50:24
3	K 766.490 Radial†	15451.9	13226.5	5441.0 µg/L	5441.0 ppb	18:50:24
3	Mg 279.077 IEC†	13189.3	12345.0	5097.6 µg/L	5097.6 ppb	18:50:24
3	Mn 257.610†	374488.1	360876.2	492.90 µg/L	492.90 ppb	18:51:29
3	Mo 202.031†	15929.3	15408.9	486.85 µg/L	486.85 ppb	18:51:49
3	Na 589.592 Radial†	70596.2	65381.5	9999.4 µg/L	9999.4 ppb	18:50:24
3	Ni 231.604†	39740.3	38345.2	490.48 µg/L	490.48 ppb	18:51:29
3	P 214.914†	10488.7	10030.1	2393.6 µg/L	2393.6 ppb	18:51:49
3	Pb 220.353†	8512.5	8092.5	491.77 µg/L	491.77 ppb	18:51:49
3	S 181.975 Axial†	1342.5	1199.2	975.68 µg/L	975.68 ppb	18:51:49
3	Sb 206.836†	3856.9	3630.9	490.82 µg/L	490.82 ppb	18:51:49
3	Se 196.026†	1283.1	1225.8	487 µg/L	487 ppb	18:51:49
3	SiO2†	51906.7	48458.3	5275.6 µg/L	5275.6 ppb	18:51:29
3	Si 251.611†	155757.0	149452.4	2461.5 µg/L	2461.5 ppb	18:51:29
3	Sn 189.927†	7131.5	6871.8	490.19 µg/L	490.19 ppb	18:51:49
3	Sr 421.552†	223596.8	212726.1	498.53 µg/L	498.53 ppb	18:50:22
3	Ti 334.940†	502794.3	483989.7	492.88 µg/L	492.88 ppb	18:51:29
3	Tl 190.801†	3635.4	3624.3	493.87 µg/L	493.87 ppb	18:51:49
3	U 409.014†	7197.3	7416.4	488.32 µg/L	488.32 ppb	18:51:29
3	V 292.402†	92498.4	88724.2	498.37 µg/L	498.37 ppb	18:51:29
3	Zn 213.857†	81445.8	78038.4	487.36 µg/L	487.36 ppb	18:51:29

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1729154.0	103.37 %	0.657			0.64%
Sc RADIAL	153181.0	105 %	0.7			0.71%
Y 371.029	1051107.5	102.79 %	0.597			0.58%
Ag 328.068†	121249.1	498.21 µg/L	1.295	498.21 ppb	1.295	0.26%
QC value within limits for Ag 328.068 Recovery = 99.64%						
Al 396.153Radial†	23406.1	5086.6 µg/L	10.30	5086.6 ppb	10.30	0.20%
QC value within limits for Al 396.153Radial Recovery = 101.73%						
As 188.979†	1196.6	507.20 µg/L	5.724	507.20 ppb	5.724	1.13%
QC value within limits for As 188.979 Recovery = 101.44%						
B 249.677†	29205.0	488.61 µg/L	1.419	488.61 ppb	1.419	0.29%
QC value within limits for B 249.677 Recovery = 97.72%						
Ba 233.527†	108891.3	497.85 µg/L	0.708	497.85 ppb	0.708	0.14%
QC value within limits for Ba 233.527 Recovery = 99.57%						
Be 313.107†	1536907.7	500.43 µg/L	0.954	500.43 ppb	0.954	0.19%
QC value within limits for Be 313.107 Recovery = 100.09%						
Ca 317.933Radial†	85122.6	4987.8 µg/L	23.42	4987.8 ppb	23.42	0.47%
QC value within limits for Ca 317.933Radial Recovery = 99.76%						
Cd 226.502†	70843.2	488.91 µg/L	1.299	488.91 ppb	1.299	0.27%
QC value within limits for Cd 226.502 Recovery = 97.78%						

Co 228.616†	35838.4	490.99 µg/L	1.470	490.99 ppb	1.470	0.30%
QC value within limits for Co 228.616 Recovery = 98.20%						
Cr 267.716†	57387.4	492.78 µg/L	0.599	492.78 ppb	0.599	0.12%
QC value within limits for Cr 267.716 Recovery = 98.56%						
Cu 324.752†	113845.1	496.42 µg/L	1.617	496.42 ppb	1.617	0.33%
QC value within limits for Cu 324.752 Recovery = 99.28%						
Fe 238.204 Radial†	74287.3	4938.9 µg/L	16.02	4938.9 ppb	16.02	0.32%
QC value within limits for Fe 238.204 Radial Recovery = 98.78%						
K 766.490 Radial†	13215.9	5436.6 µg/L	13.92	5436.6 ppb	13.92	0.26%
QC value within limits for K 766.490 Radial Recovery = 108.73%						
Mg 279.077 IEC†	12292.3	5076.0 µg/L	19.85	5076.0 ppb	19.85	0.39%
QC value within limits for Mg 279.077 IEC Recovery = 101.52%						
Mn 257.610†	361435.1	493.67 µg/L	1.013	493.67 ppb	1.013	0.21%
QC value within limits for Mn 257.610 Recovery = 98.73%						
Mo 202.031†	15466.0	488.65 µg/L	4.194	488.65 ppb	4.194	0.86%
QC value within limits for Mo 202.031 Recovery = 97.73%						
Na 589.592 Radial†	65359.4	9996.0 µg/L	44.02	9996.0 ppb	44.02	0.44%
QC value within limits for Na 589.592 Radial Recovery = 99.96%						
Ni 231.604†	38458.3	491.93 µg/L	2.043	491.93 ppb	2.043	0.42%
QC value within limits for Ni 231.604 Recovery = 98.39%						
P 214.914†	10070.7	2403.3 µg/L	20.35	2403.3 ppb	20.35	0.85%
QC value within limits for P 214.914 Recovery = 96.13%						
Pb 220.353†	8129.5	494.02 µg/L	5.379	494.02 ppb	5.379	1.09%
QC value within limits for Pb 220.353 Recovery = 98.80%						
S 181.975 Axial†	1221.1	993.43 µg/L	17.559	993.43 ppb	17.559	1.77%
QC value within limits for S 181.975 Axial Recovery = 99.34%						
Sb 206.836†	3627.2	490.35 µg/L	2.300	490.35 ppb	2.300	0.47%
QC value within limits for Sb 206.836 Recovery = 98.07%						
Se 196.026†	1227.2	488 µg/L	1.8	488 ppb	1.8	0.38%
QC value within limits for Se 196.026 Recovery = 97.52%						
SiO2†	48523.7	5282.7 µg/L	10.27	5282.7 ppb	10.27	0.19%
QC value within limits for SiO2 Recovery = 98.79%						
Si 251.611†	149635.3	2464.5 µg/L	4.63	2464.5 ppb	4.63	0.19%
QC value within limits for Si 251.611 Recovery = 98.58%						
Sn 189.927†	6896.5	491.95 µg/L	4.158	491.95 ppb	4.158	0.85%
QC value within limits for Sn 189.927 Recovery = 98.39%						
Sr 421.552†	214359.7	502.36 µg/L	5.833	502.36 ppb	5.833	1.16%
QC value within limits for Sr 421.552 Recovery = 100.47%						
Ti 334.940†	484560.5	493.46 µg/L	1.265	493.46 ppb	1.265	0.26%
QC value within limits for Ti 334.940 Recovery = 98.69%						
Tl 190.801†	3643.7	496.49 µg/L	4.915	496.49 ppb	4.915	0.99%
QC value within limits for Tl 190.801 Recovery = 99.30%						
U 409.014†	7452.9	490.62 µg/L	8.063	490.62 ppb	8.063	1.64%
QC value within limits for U 409.014 Recovery = 98.12%						
V 292.402†	88843.0	499.05 µg/L	0.592	499.05 ppb	0.592	0.12%
QC value within limits for V 292.402 Recovery = 99.81%						
Zn 213.857†	78199.5	488.37 µg/L	1.004	488.37 ppb	1.004	0.21%
QC value within limits for Zn 213.857 Recovery = 97.67%						
All analyte(s) passed QC.						

Sequence No.: 14

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : optima4

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/29/2010 18:51:58

Data Type: Reprocessed on 3/29/2010 19:14:42

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	1728897.1	1728897.1	103.36 %		18:53:35
1	Sc RADIAL	154974.9	154974.9	106 %		18:52:27
1	Y 371.029	1063835.8	1063835.8	104.03 %		18:53:35
1	Ag 328.068†	3134.9	66.1	0.2939 µg/L	0.2939 ppb	18:53:37
1	Al 396.153Radial†	-26.1	7.3	1.5617 µg/L	1.5617 ppb	18:52:47
1	As 188.979†	-6.1	8.3	3.4794 µg/L	3.4794 ppb	18:53:57
1	B 249.677†	3279.3	-182.9	-3.0715 µg/L	-3.0715 ppb	18:53:57
1	Ba 233.527†	-172.5	8.1	0.0372 µg/L	0.0372 ppb	18:53:57
1	Be 313.107†	-265.8	402.9	0.1379 µg/L	0.1379 ppb	18:53:37
1	Ca 317.933Radial†	701.7	43.7	2.5615 µg/L	2.5615 ppb	18:52:47
1	Cd 226.502†	-78.0	18.9	0.1302 µg/L	0.1302 ppb	18:53:57
1	Co 228.616†	-150.4	31.1	0.4253 µg/L	0.4253 ppb	18:53:57
1	Cr 267.716†	165.7	0.1	-0.0163 µg/L	-0.0163 ppb	18:53:57
1	Cu 324.752†	2708.5	195.7	0.8692 µg/L	0.8692 ppb	18:53:37
1	Fe 238.204 Radial†	162.5	39.6	2.6306 µg/L	2.6306 ppb	18:52:47
1	K 766.490 Radial†	1937.4	367.1	151.11 µg/L	151.11 ppb	18:52:27
1	Mg 279.077 IEC†	162.4	-33.9	-13.972 µg/L	-13.972 ppb	18:52:47
1	Mn 257.610†	174.4	88.7	0.1218 µg/L	0.1218 ppb	18:53:57
1	Mo 202.031†	-30.8	25.4	0.8010 µg/L	0.8010 ppb	18:53:57
1	Na 589.592 Radial†	2342.1	508.0	77.603 µg/L	77.603 ppb	18:52:27
1	Ni 231.604†	-58.4	-15.6	-0.1996 µg/L	-0.1996 ppb	18:53:57
1	P 214.914†	71.2	-10.7	-2.5700 µg/L	-2.5700 ppb	18:53:57
1	Pb 220.353†	154.2	36.7	2.2095 µg/L	2.2095 ppb	18:53:57
1	S 181.975 Axial†	101.6	3.4	2.7893 µg/L	2.7893 ppb	18:53:57
1	Sb 206.836†	90.3	0.8	0.1164 µg/L	0.1164 ppb	18:53:57
1	Se 196.026†	18.0	6.5	2.59 µg/L	2.59 ppb	18:53:57
1	SiO2†	1694.9	67.0	7.2702 µg/L	7.2702 ppb	18:53:57
1	Si 251.611†	856.4	152.3	2.4932 µg/L	2.4932 ppb	18:53:57
1	Sn 189.927†	32.2	29.2	2.0730 µg/L	2.0730 ppb	18:53:57
1	Sr 421.552†	-130.0	155.7	0.3650 µg/L	0.3650 ppb	18:52:27
1	Ti 334.940†	561.4	-93.1	-0.1029 µg/L	-0.1029 ppb	18:53:37
1	Tl 190.801†	-112.5	11.5	1.5393 µg/L	1.5393 ppb	18:53:57
1	U 409.014†	-122.5	360.6	22.274 µg/L	22.274 ppb	18:53:37
1	V 292.402†	422.0	-23.5	-0.1074 µg/L	-0.1074 ppb	18:53:37
1	Zn 213.857†	665.5	179.5	1.1304 µg/L	1.1304 ppb	18:53:57
2	Sc 361.383	1739415.6	1739415.6	103.98 %		18:53:59
2	Sc RADIAL	153949.0	153949.0	106 %		18:52:49
2	Y 371.029	1070599.7	1070599.7	104.70 %		18:53:59
2	Ag 328.068†	3011.7	-70.7	-0.2648 µg/L	-0.2648 ppb	18:54:01
2	Al 396.153Radial†	-22.1	11.0	2.3766 µg/L	2.3766 ppb	18:53:09
2	As 188.979†	-13.6	1.2	0.4948 µg/L	0.4948 ppb	18:54:21
2	B 249.677†	3226.1	-253.2	-4.2510 µg/L	-4.2510 ppb	18:54:21
2	Ba 233.527†	-183.8	-1.7	-0.0082 µg/L	-0.0082 ppb	18:54:21
2	Be 313.107†	-497.9	181.3	0.0661 µg/L	0.0661 ppb	18:54:01
2	Ca 317.933Radial†	683.5	30.9	1.8113 µg/L	1.8113 ppb	18:53:09
2	Cd 226.502†	-81.2	16.3	0.1120 µg/L	0.1120 ppb	18:54:21
2	Co 228.616†	-169.3	13.8	0.1886 µg/L	0.1886 ppb	18:54:21
2	Cr 267.716†	203.3	35.3	0.2845 µg/L	0.2845 ppb	18:54:21
2	Cu 324.752†	2932.9	395.7	1.7397 µg/L	1.7397 ppb	18:54:01
2	Fe 238.204 Radial†	156.9	35.2	2.3419 µg/L	2.3419 ppb	18:53:09
2	K 766.490 Radial†	1851.5	297.9	122.64 µg/L	122.64 ppb	18:52:49
2	Mg 279.077 IEC†	181.3	-15.0	-6.1810 µg/L	-6.1810 ppb	18:53:09
2	Mn 257.610†	185.1	98.0	0.1342 µg/L	0.1342 ppb	18:54:21
2	Mo 202.031†	-40.6	16.1	0.5093 µg/L	0.5093 ppb	18:54:21
2	Na 589.592 Radial†	2203.5	391.5	59.792 µg/L	59.792 ppb	18:52:49
2	Ni 231.604†	-87.1	-42.9	-0.5483 µg/L	-0.5483 ppb	18:54:21
2	P 214.914†	70.7	-11.6	-2.7920 µg/L	-2.7920 ppb	18:54:21
2	Pb 220.353†	120.5	3.4	0.1904 µg/L	0.1904 ppb	18:54:21

2	S 181.975 Axial†	93.2	-5.2	-4.2193 µg/L	-4.2193 ppb	18:54:21
2	Sb 206.836†	93.2	3.0	0.4017 µg/L	0.4017 ppb	18:54:21
2	Se 196.026†	16.5	5.0	1.99 µg/L	1.99 ppb	18:54:21
2	SiO2†	1661.9	25.3	2.7424 µg/L	2.7424 ppb	18:54:21
2	Si 251.611†	798.6	91.6	1.5029 µg/L	1.5029 ppb	18:54:21
2	Sn 189.927†	13.9	11.4	0.8082 µg/L	0.8082 ppb	18:54:21
2	Sr 421.552†	-162.3	124.3	0.2914 µg/L	0.2914 ppb	18:52:49
2	Ti 334.940†	589.0	-69.9	-0.0804 µg/L	-0.0804 ppb	18:54:01
2	Tl 190.801†	-123.3	1.7	0.2267 µg/L	0.2267 ppb	18:54:21
2	U 409.014†	-105.6	377.6	23.300 µg/L	23.300 ppb	18:54:01
2	V 292.402†	344.7	-100.3	-0.5347 µg/L	-0.5347 ppb	18:54:01
2	Zn 213.857†	642.6	153.6	0.9689 µg/L	0.9689 ppb	18:54:21
3	Sc 361.383	1736015.7	1736015.7	103.78 %		18:54:23
3	Sc RADIAL	153754.9	153754.9	105 %		18:53:11
3	Y 371.029	1068282.8	1068282.8	104.47 %		18:54:23
3	Ag 328.068†	2964.9	-110.2	-0.4509 µg/L	-0.4509 ppb	18:54:26
3	Al 396.153Radial†	-16.1	16.6	3.5986 µg/L	3.5986 ppb	18:53:31
3	As 188.979†	-20.3	-5.3	-2.2272 µg/L	-2.2272 ppb	18:54:46
3	B 249.677†	3208.4	-264.2	-4.4364 µg/L	-4.4364 ppb	18:54:46
3	Ba 233.527†	-175.6	5.8	0.0262 µg/L	0.0262 ppb	18:54:46
3	Be 313.107†	-146.9	518.6	0.1704 µg/L	0.1704 ppb	18:54:26
3	Ca 317.933Radial†	709.7	56.6	3.3147 µg/L	3.3147 ppb	18:53:31
3	Cd 226.502†	-66.7	30.1	0.2078 µg/L	0.2078 ppb	18:54:46
3	Co 228.616†	-149.7	32.3	0.4424 µg/L	0.4424 ppb	18:54:46
3	Cr 267.716†	183.5	16.6	0.1380 µg/L	0.1380 ppb	18:54:46
3	Cu 324.752†	2785.8	259.4	1.1323 µg/L	1.1323 ppb	18:54:26
3	Fe 238.204 Radial†	167.4	45.4	3.0195 µg/L	3.0195 ppb	18:53:31
3	K 766.490 Radial†	2004.9	445.6	183.43 µg/L	183.43 ppb	18:53:11
3	Mg 279.077 IEC†	164.0	-31.2	-12.871 µg/L	-12.871 ppb	18:53:31
3	Mn 257.610†	141.8	56.6	0.0779 µg/L	0.0779 ppb	18:54:46
3	Mo 202.031†	-43.5	13.3	0.4189 µg/L	0.4189 ppb	18:54:46
3	Na 589.592 Radial†	2025.0	224.9	34.251 µg/L	34.251 ppb	18:53:11
3	Ni 231.604†	-54.8	-11.9	-0.1527 µg/L	-0.1527 ppb	18:54:46
3	P 214.914†	63.8	-18.1	-4.3341 µg/L	-4.3341 ppb	18:54:46
3	Pb 220.353†	149.8	31.9	1.9285 µg/L	1.9285 ppb	18:54:46
3	S 181.975 Axial†	104.0	5.4	4.3655 µg/L	4.3655 ppb	18:54:46
3	Sb 206.836†	91.0	1.1	0.1457 µg/L	0.1457 ppb	18:54:46
3	Se 196.026†	19.4	7.7	3.06 µg/L	3.06 ppb	18:54:46
3	SiO2†	1644.1	11.4	1.2195 µg/L	1.2195 ppb	18:54:46
3	Si 251.611†	797.5	92.1	1.5112 µg/L	1.5112 ppb	18:54:46
3	Sn 189.927†	13.8	11.3	0.8038 µg/L	0.8038 ppb	18:54:46
3	Sr 421.552†	-194.0	94.1	0.2206 µg/L	0.2206 ppb	18:53:11
3	Ti 334.940†	849.4	182.1	0.1846 µg/L	0.1846 ppb	18:54:26
3	Tl 190.801†	-118.6	6.0	0.7978 µg/L	0.7978 ppb	18:54:46
3	U 409.014†	-409.0	85.0	5.2024 µg/L	5.2024 ppb	18:54:26
3	V 292.402†	290.0	-152.4	-0.8373 µg/L	-0.8373 ppb	18:54:26
3	Zn 213.857†	615.7	128.9	0.8114 µg/L	0.8114 ppb	18:54:46

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1734776.2	103.71 %	0.321			0.31%
Sc RADIAL	154226.3	106 %	0.4			0.43%
Y 371.029	1067572.8	104.40 %	0.336			0.32%
Ag 328.068†	-38.3	-0.1406 µg/L	0.38763	-0.1406 ppb	0.38763	275.71%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	11.6	2.5123 µg/L	1.02521	2.5123 ppb	1.02521	40.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.4	0.5823 µg/L	2.85430	0.5823 ppb	2.85430	490.14%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-233.4	-3.9196 µg/L	0.74029	-3.9196 ppb	0.74029	18.89%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	4.1	0.0184 µg/L	0.02367	0.0184 ppb	0.02367	128.49%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	367.6	0.1248 µg/L	0.05339	0.1248 ppb	0.05339	42.78%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	43.7	2.5625 µg/L	0.75170	2.5625 ppb	0.75170	29.33%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	21.8	0.1500 µg/L	0.05085	0.1500 ppb	0.05085	33.90%
QC value within limits for Cd 226.502 Recovery = Not calculated						

Co 228.616†	25.7	0.3521 µg/L	0.14188	0.3521 ppb	0.14188	40.30%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	17.3	0.1354 µg/L	0.15041	0.1354 ppb	0.15041	111.10%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	283.6	1.2471 µg/L	0.44643	1.2471 ppb	0.44643	35.80%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	40.1	2.6640 µg/L	0.34002	2.6640 ppb	0.34002	12.76%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	370.2	152.39 µg/L	30.414	152.39 ppb	30.414	19.96%
QC value greater than the upper limit for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-26.7	-11.008 µg/L	4.2166	-11.008 ppb	4.2166	38.30%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	81.1	0.1113 µg/L	0.02959	0.1113 ppb	0.02959	26.59%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	18.3	0.5764 µg/L	0.19971	0.5764 ppb	0.19971	34.65%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	374.8	57.216 µg/L	21.7906	57.216 ppb	21.7906	38.09%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-23.5	-0.3002 µg/L	0.21614	-0.3002 ppb	0.21614	72.00%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-13.5	-3.2320 µg/L	0.96088	-3.2320 ppb	0.96088	29.73%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	24.0	1.4428 µg/L	1.09369	1.4428 ppb	1.09369	75.80%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	1.2	0.9785 µg/L	4.56987	0.9785 ppb	4.56987	467.04%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	1.6	0.2213 µg/L	0.15695	0.2213 ppb	0.15695	70.93%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	6.4	2.55 µg/L	0.537	2.55 ppb	0.537	21.07%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	34.6	3.7440 µg/L	3.14725	3.7440 ppb	3.14725	84.06%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	112.0	1.8358 µg/L	0.56935	1.8358 ppb	0.56935	31.01%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	17.3	1.2284 µg/L	0.73152	1.2284 ppb	0.73152	59.55%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	124.7	0.2923 µg/L	0.07221	0.2923 ppb	0.07221	24.70%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	6.3	0.0004 µg/L	0.15987	0.0004 ppb	0.15987	>999.9%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	6.4	0.8546 µg/L	0.65815	0.8546 ppb	0.65815	77.01%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	274.4	16.925 µg/L	10.1653	16.925 ppb	10.1653	60.06%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-92.1	-0.4931 µg/L	0.36672	-0.4931 ppb	0.36672	74.37%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	154.0	0.9702 µg/L	0.15951	0.9702 ppb	0.15951	16.44%
QC value within limits for Zn 213.857 Recovery = Not calculated						
QC Failed. Continue with analysis.						

Sequence No.: 15

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : optima4

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/29/2010 18:57:39

Data Type: Reprocessed on 3/29/2010 19:14:43

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	1742170.7	1742170.7	104.15 %		18:58:39
1	Sc RADIAL	154515.3	154515.3	106 %		18:58:11
1	Y 371.029	1059060.1	1059060.1	103.57 %		18:58:39
1	Ag 328.068†	129322.6	121204.2	498.05 µg/L	498.05 ppb	18:58:39
1	Al 396.153Radial†	24823.0	23447.4	5095.8 µg/L	5095.8 ppb	18:58:11
1	As 188.979†	1217.4	1183.1	501.56 µg/L	501.56 ppb	18:58:59
1	B 249.677†	33548.3	28856.2	482.76 µg/L	482.76 ppb	18:58:39
1	Ba 233.527†	113126.0	108794.9	497.41 µg/L	497.41 ppb	18:58:39
1	Be 313.107†	1604803.7	1541539.3	501.94 µg/L	501.94 ppb	18:58:39
1	Ca 317.933Radial†	90245.5	84512.4	4952.1 µg/L	4952.1 ppb	18:58:11
1	Cd 226.502†	73575.0	70738.7	488.19 µg/L	488.19 ppb	18:58:39
1	Co 228.616†	37114.9	35813.1	490.65 µg/L	490.65 ppb	18:58:39
1	Cr 267.716†	59986.2	57436.6	493.20 µg/L	493.20 ppb	18:58:39
1	Cu 324.752†	120959.5	113716.5	495.86 µg/L	495.86 ppb	18:58:39
1	Fe 238.204 Radial†	78194.0	73647.1	4896.3 µg/L	4896.3 ppb	18:58:11
1	K 766.490 Radial†	14176.6	11917.8	4902.2 µg/L	4902.2 ppb	18:58:11
1	Mg 279.077 IEC†	13187.4	12253.0	5059.7 µg/L	5059.7 ppb	18:58:11
1	Mn 257.610†	376145.4	361082.3	493.18 µg/L	493.18 ppb	18:58:39
1	Mo 202.031†	15919.4	15340.5	484.69 µg/L	484.69 ppb	18:58:59
1	Na 589.592 Radial†	70146.9	64474.8	9861.1 µg/L	9861.1 ppb	18:58:11
1	Ni 231.604†	39988.6	38436.6	491.65 µg/L	491.65 ppb	18:58:39
1	P 214.914†	10512.2	10013.9	2389.7 µg/L	2389.7 ppb	18:58:59
1	Pb 220.353†	8436.4	7988.0	485.43 µg/L	485.43 ppb	18:58:59
1	S 181.975 Axial†	1318.2	1170.9	952.74 µg/L	952.74 ppb	18:58:59
1	Sb 206.836†	3856.6	3616.3	488.81 µg/L	488.81 ppb	18:58:59
1	Se 196.026†	1269.9	1208.4	480 µg/L	480 ppb	18:58:59
1	SiO2†	51891.1	48251.3	5253.1 µg/L	5253.1 ppb	18:58:39
1	Si 251.611†	155814.4	148931.5	2452.9 µg/L	2452.9 ppb	18:58:39
1	Sn 189.927†	7088.8	6804.4	485.40 µg/L	485.40 ppb	18:58:59
1	Sr 421.552†	226055.0	213515.6	500.39 µg/L	500.39 ppb	18:58:09
1	Ti 334.940†	505203.6	484443.4	493.34 µg/L	493.34 ppb	18:58:39
1	Tl 190.801†	3627.2	3603.0	491.03 µg/L	491.03 ppb	18:58:59
1	U 409.014†	7391.3	7576.0	498.27 µg/L	498.27 ppb	18:58:39
1	V 292.402†	93133.5	88991.9	499.85 µg/L	499.85 ppb	18:58:39
1	Zn 213.857†	81243.9	77543.3	484.25 µg/L	484.25 ppb	18:58:39
2	Sc 361.383	1731918.8	1731918.8	103.54 %		18:59:02
2	Sc RADIAL	153334.6	153334.6	105 %		18:58:15
2	Y 371.029	1053099.9	1053099.9	102.98 %		18:59:02
2	Ag 328.068†	128679.2	121317.8	498.52 µg/L	498.52 ppb	18:59:02
2	Al 396.153Radial†	24533.3	23352.3	5074.9 µg/L	5074.9 ppb	18:58:15
2	As 188.979†	1225.6	1198.0	507.75 µg/L	507.75 ppb	18:59:22
2	B 249.677†	33340.5	28846.3	482.59 µg/L	482.59 ppb	18:59:02
2	Ba 233.527†	112441.8	108777.0	497.33 µg/L	497.33 ppb	18:59:02
2	Be 313.107†	1592364.8	1538646.2	501.00 µg/L	501.00 ppb	18:59:02
2	Ca 317.933Radial†	89792.3	84737.0	4965.2 µg/L	4965.2 ppb	18:58:15
2	Cd 226.502†	73051.4	70651.1	487.59 µg/L	487.59 ppb	18:59:02
2	Co 228.616†	36781.7	35702.2	489.13 µg/L	489.13 ppb	18:59:02
2	Cr 267.716†	59502.2	57310.0	492.11 µg/L	492.11 ppb	18:59:02
2	Cu 324.752†	119947.4	113426.4	494.60 µg/L	494.60 ppb	18:59:02
2	Fe 238.204 Radial†	77968.6	74000.8	4919.8 µg/L	4919.8 ppb	18:58:15
2	K 766.490 Radial†	14058.0	11908.0	4898.2 µg/L	4898.2 ppb	18:58:15
2	Mg 279.077 IEC†	13036.1	12205.0	5039.9 µg/L	5039.9 ppb	18:58:15
2	Mn 257.610†	373427.3	360594.9	492.52 µg/L	492.52 ppb	18:59:02
2	Mo 202.031†	15910.1	15421.9	487.26 µg/L	487.26 ppb	18:59:22
2	Na 589.592 Radial†	69792.3	64647.2	9887.5 µg/L	9887.5 ppb	18:58:15
2	Ni 231.604†	39642.4	38329.5	490.28 µg/L	490.28 ppb	18:59:02
2	P 214.914†	10490.2	10052.4	2398.9 µg/L	2398.9 ppb	18:59:22
2	Pb 220.353†	8461.2	8059.8	489.79 µg/L	489.79 ppb	18:59:22



2	S 181.975 Axial†	1332.4	1192.1	969.89 µg/L	969.89 ppb	18:59:22
2	Sb 206.836†	3845.4	3627.4	490.36 µg/L	490.36 ppb	18:59:22
2	Se 196.026†	1281.0	1226.3	487 µg/L	487 ppb	18:59:22
2	SiO2†	51762.5	48422.0	5271.6 µg/L	5271.6 ppb	18:59:02
2	Si 251.611†	154651.7	148694.0	2448.9 µg/L	2448.9 ppb	18:59:02
2	Sn 189.927†	7107.0	6862.3	489.51 µg/L	489.51 ppb	18:59:22
2	Sr 421.552†	226773.0	215840.0	505.83 µg/L	505.83 ppb	18:58:13
2	Ti 334.940†	500715.6	482980.0	491.85 µg/L	491.85 ppb	18:59:02
2	Tl 190.801†	3643.2	3639.1	495.88 µg/L	495.88 ppb	18:59:22
2	U 409.014†	7329.7	7558.5	497.20 µg/L	497.20 ppb	18:59:02
2	V 292.402†	92631.5	89036.3	500.12 µg/L	500.12 ppb	18:59:02
2	Zn 213.857†	80666.5	77447.4	483.65 µg/L	483.65 ppb	18:59:02
3	Sc 361.383	1731636.7	1731636.7	103.52 %		18:59:25
3	Sc RADIAL	154205.4	154205.4	106 %		18:58:20
3	Y 371.029	1052626.8	1052626.8	102.94 %		18:59:25
3	Ag 328.068†	128532.9	121196.7	498.02 µg/L	498.02 ppb	18:59:25
3	Al 396.153Radial†	24950.8	23615.3	5132.4 µg/L	5132.4 ppb	18:58:20
3	As 188.979†	1233.7	1206.0	511.11 µg/L	511.11 ppb	18:59:45
3	B 249.677†	33475.9	28982.3	484.88 µg/L	484.88 ppb	18:59:25
3	Ba 233.527†	112293.7	108651.6	496.76 µg/L	496.76 ppb	18:59:25
3	Be 313.107†	1590952.1	1537532.1	500.63 µg/L	500.63 ppb	18:59:25
3	Ca 317.933Radial†	90838.5	85244.0	4994.9 µg/L	4994.9 ppb	18:58:20
3	Cd 226.502†	73036.3	70648.1	487.56 µg/L	487.56 ppb	18:59:25
3	Co 228.616†	36829.8	35754.4	489.84 µg/L	489.84 ppb	18:59:25
3	Cr 267.716†	59440.0	57259.2	491.68 µg/L	491.68 ppb	18:59:25
3	Cu 324.752†	119916.0	113414.9	494.56 µg/L	494.56 ppb	18:59:25
3	Fe 238.204 Radial†	78885.0	74448.4	4949.6 µg/L	4949.6 ppb	18:58:20
3	K 766.490 Radial†	14076.3	11849.9	4874.3 µg/L	4874.3 ppb	18:58:20
3	Mg 279.077 IEC†	13322.3	12405.5	5122.6 µg/L	5122.6 ppb	18:58:20
3	Mn 257.610†	373424.5	360651.0	492.59 µg/L	492.59 ppb	18:59:25
3	Mo 202.031†	15880.4	15395.8	486.44 µg/L	486.44 ppb	18:59:45
3	Na 589.592 Radial†	70305.8	64758.0	9904.5 µg/L	9904.5 ppb	18:58:20
3	Ni 231.604†	39803.4	38491.3	492.35 µg/L	492.35 ppb	18:59:25
3	P 214.914†	10482.3	10046.4	2397.5 µg/L	2397.5 ppb	18:59:45
3	Pb 220.353†	8408.9	8010.6	486.81 µg/L	486.81 ppb	18:59:45
3	S 181.975 Axial†	1326.3	1186.4	965.31 µg/L	965.31 ppb	18:59:45
3	Sb 206.836†	3839.9	3622.7	489.73 µg/L	489.73 ppb	18:59:45
3	Se 196.026†	1268.7	1214.6	483 µg/L	483 ppb	18:59:45
3	SiO2†	51614.7	48287.3	5257.0 µg/L	5257.0 ppb	18:59:25
3	Si 251.611†	154566.1	148635.7	2448.0 µg/L	2448.0 ppb	18:59:25
3	Sn 189.927†	7092.3	6849.2	488.58 µg/L	488.58 ppb	18:59:45
3	Sr 421.552†	224060.1	212058.6	496.97 µg/L	496.97 ppb	18:58:17
3	Ti 334.940†	500694.3	483038.2	491.90 µg/L	491.90 ppb	18:59:25
3	Tl 190.801†	3646.3	3642.7	496.35 µg/L	496.35 ppb	18:59:45
3	U 409.014†	7327.6	7557.6	497.15 µg/L	497.15 ppb	18:59:25
3	V 292.402†	92621.5	89041.2	500.13 µg/L	500.13 ppb	18:59:25
3	Zn 213.857†	80736.0	77527.2	484.14 µg/L	484.14 ppb	18:59:25

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1735242.1	103.73 %	0.359			0.35%
Sc RADIAL	154018.4	106 %	0.4			0.40%
Y 371.029	1054928.9	103.16 %	0.351			0.34%
Ag 328.068†	121239.6	498.20 µg/L	0.276	498.20 ppb	0.276	0.06%
QC value within limits for Ag 328.068 Recovery = 99.64%						
Al 396.153Radial†	23471.7	5101.0 µg/L	29.08	5101.0 ppb	29.08	0.57%
QC value within limits for Al 396.153Radial Recovery = 102.02%						
As 188.979†	1195.7	506.81 µg/L	4.846	506.81 ppb	4.846	0.96%
QC value within limits for As 188.979 Recovery = 101.36%						
B 249.677†	28895.0	483.41 µg/L	1.273	483.41 ppb	1.273	0.26%
QC value within limits for B 249.677 Recovery = 96.68%						
Ba 233.527†	108741.2	497.17 µg/L	0.357	497.17 ppb	0.357	0.07%
QC value within limits for Ba 233.527 Recovery = 99.43%						
Be 313.107†	1539239.2	501.19 µg/L	0.673	501.19 ppb	0.673	0.13%
QC value within limits for Be 313.107 Recovery = 100.24%						
Ca 317.933Radial†	84831.1	4970.7 µg/L	21.96	4970.7 ppb	21.96	0.44%
QC value within limits for Ca 317.933Radial Recovery = 99.41%						
Cd 226.502†	70679.3	487.78 µg/L	0.358	487.78 ppb	0.358	0.07%
QC value within limits for Cd 226.502 Recovery = 97.56%						

Co 228.616†	35756.6	489.87 µg/L	0.760	489.87 ppb	0.760	0.16%
QC value within limits for Co 228.616 Recovery = 97.97%						
Cr 267.716†	57335.3	492.33 µg/L	0.783	492.33 ppb	0.783	0.16%
QC value within limits for Cr 267.716 Recovery = 98.47%						
Cu 324.752†	113519.3	495.01 µg/L	0.740	495.01 ppb	0.740	0.15%
QC value within limits for Cu 324.752 Recovery = 99.00%						
Fe 238.204 Radial†	74032.1	4921.9 µg/L	26.70	4921.9 ppb	26.70	0.54%
QC value within limits for Fe 238.204 Radial Recovery = 98.44%						
K 766.490 Radial†	11891.9	4891.6 µg/L	15.12	4891.6 ppb	15.12	0.31%
QC value within limits for K 766.490 Radial Recovery = 97.83%						
Mg 279.077 IEC†	12287.8	5074.1 µg/L	43.14	5074.1 ppb	43.14	0.85%
QC value within limits for Mg 279.077 IEC Recovery = 101.48%						
Mn 257.610†	360776.1	492.77 µg/L	0.365	492.77 ppb	0.365	0.07%
QC value within limits for Mn 257.610 Recovery = 98.55%						
Mo 202.031†	15386.1	486.13 µg/L	1.313	486.13 ppb	1.313	0.27%
QC value within limits for Mo 202.031 Recovery = 97.23%						
Na 589.592 Radial†	64626.7	9884.4 µg/L	21.84	9884.4 ppb	21.84	0.22%
QC value within limits for Na 589.592 Radial Recovery = 98.84%						
Ni 231.604†	38419.1	491.43 µg/L	1.053	491.43 ppb	1.053	0.21%
QC value within limits for Ni 231.604 Recovery = 98.29%						
P 214.914†	10037.5	2395.4 µg/L	4.95	2395.4 ppb	4.95	0.21%
QC value within limits for P 214.914 Recovery = 95.81%						
Pb 220.353†	8019.5	487.34 µg/L	2.227	487.34 ppb	2.227	0.46%
QC value within limits for Pb 220.353 Recovery = 97.47%						
S 181.975 Axial†	1183.1	962.65 µg/L	8.881	962.65 ppb	8.881	0.92%
QC value within limits for S 181.975 Axial Recovery = 96.26%						
Sb 206.836†	3622.2	489.63 µg/L	0.781	489.63 ppb	0.781	0.16%
QC value within limits for Sb 206.836 Recovery = 97.93%						
Se 196.026†	1216.4	483 µg/L	3.6	483 ppb	3.6	0.75%
QC value within limits for Se 196.026 Recovery = 96.66%						
SiO2†	48320.2	5260.6 µg/L	9.78	5260.6 ppb	9.78	0.19%
QC value within limits for SiO2 Recovery = 98.37%						
Si 251.611†	148753.7	2449.9 µg/L	2.62	2449.9 ppb	2.62	0.11%
QC value within limits for Si 251.611 Recovery = 98.00%						
Sn 189.927†	6838.6	487.83 µg/L	2.157	487.83 ppb	2.157	0.44%
QC value within limits for Sn 189.927 Recovery = 97.57%						
Sr 421.552†	213804.8	501.06 µg/L	4.470	501.06 ppb	4.470	0.89%
QC value within limits for Sr 421.552 Recovery = 100.21%						
Ti 334.940†	483487.2	492.36 µg/L	0.845	492.36 ppb	0.845	0.17%
QC value within limits for Ti 334.940 Recovery = 98.47%						
Tl 190.801†	3628.3	494.42 µg/L	2.943	494.42 ppb	2.943	0.60%
QC value within limits for Tl 190.801 Recovery = 98.88%						
U 409.014†	7564.0	497.54 µg/L	0.636	497.54 ppb	0.636	0.13%
QC value within limits for U 409.014 Recovery = 99.51%						
V 292.402†	89023.2	500.03 µg/L	0.157	500.03 ppb	0.157	0.03%
QC value within limits for V 292.402 Recovery = 100.01%						
Zn 213.857†	77506.0	484.01 µg/L	0.318	484.01 ppb	0.318	0.07%
QC value within limits for Zn 213.857 Recovery = 96.80%						
All analyte(s) passed QC.						

Sequence No.: 16

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : optima4

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/29/2010 18:59:54

Data Type: Reprocessed on 3/29/2010 19:14:44

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	1743930.9	1743930.9	104.25 %		19:01:45
1	Sc RADIAL	157207.9	157207.9	108 %		19:00:23
1	Y 371.029	1072817.8	1072817.8	104.91 %		19:01:45
1	Ag 328.068†	2785.5	-295.2	-1.1824 µg/L	-1.1824 ppb	19:01:47
1	Al 396.153Radial†	-35.9	-1.4	-0.3269 µg/L	-0.3269 ppb	19:00:43
1	As 188.979†	-9.7	4.9	2.0592 µg/L	2.0592 ppb	19:02:07
1	B 249.677†	3169.2	-315.8	-5.3028 µg/L	-5.3028 ppb	19:02:07
1	Ba 233.527†	-172.8	9.3	0.0423 µg/L	0.0423 ppb	19:02:07
1	Be 313.107†	-580.2	103.6	0.0392 µg/L	0.0392 ppb	19:01:47
1	Ca 317.933Radial†	703.1	35.6	2.0888 µg/L	2.0888 ppb	19:00:43
1	Cd 226.502†	-117.2	-18.0	-0.1248 µg/L	-0.1248 ppb	19:02:07
1	Co 228.616†	-175.0	8.7	0.1195 µg/L	0.1195 ppb	19:02:07
1	Cr 267.716†	174.7	7.4	0.0489 µg/L	0.0489 ppb	19:02:07
1	Cu 324.752†	2833.3	292.9	1.2883 µg/L	1.2883 ppb	19:01:47
1	Fe 238.204 Radial†	147.5	23.5	1.5605 µg/L	1.5605 ppb	19:00:43
1	K 766.490 Radial†	1652.9	77.5	31.907 µg/L	31.907 ppb	19:00:23
1	Mg 279.077 IEC†	179.9	-19.9	-8.1726 µg/L	-8.1726 ppb	19:00:43
1	Mn 257.610†	174.5	87.4	0.1197 µg/L	0.1197 ppb	19:02:07
1	Mo 202.031†	-38.4	18.4	0.5797 µg/L	0.5797 ppb	19:02:07
1	Na 589.592 Radial†	1931.7	96.3	14.699 µg/L	14.699 ppb	19:00:23
1	Ni 231.604†	-49.3	-6.4	-0.0822 µg/L	-0.0822 ppb	19:02:07
1	P 214.914†	78.3	-4.5	-1.0824 µg/L	-1.0824 ppb	19:02:07
1	Pb 220.353†	116.5	-0.7	-0.0551 µg/L	-0.0551 ppb	19:02:07
1	S 181.975 Axial†	92.5	-6.1	-4.9234 µg/L	-4.9234 ppb	19:02:07
1	Sb 206.836†	87.4	-2.8	-0.3729 µg/L	-0.3729 ppb	19:02:07
1	Se 196.026†	21.5	9.7	3.85 µg/L	3.85 ppb	19:02:07
1	SiO2†	1662.9	22.2	2.3983 µg/L	2.3983 ppb	19:02:07
1	Si 251.611†	781.9	73.6	1.2037 µg/L	1.2037 ppb	19:02:07
1	Sn 189.927†	15.0	12.4	0.8828 µg/L	0.8828 ppb	19:02:07
1	Sr 421.552†	-145.8	142.8	0.3347 µg/L	0.3347 ppb	19:00:23
1	Ti 334.940†	822.4	152.5	0.1487 µg/L	0.1487 ppb	19:01:47
1	Tl 190.801†	-112.5	12.4	1.6651 µg/L	1.6651 ppb	19:02:07
1	U 409.014†	-191.3	295.6	18.231 µg/L	18.231 ppb	19:01:47
1	V 292.402†	340.4	-105.3	-0.5658 µg/L	-0.5658 ppb	19:01:47
1	Zn 213.857†	528.4	42.4	0.2666 µg/L	0.2666 ppb	19:02:07
2	Sc 361.383	1749880.6	1749880.6	104.61 %		19:02:09
2	Sc RADIAL	154607.9	154607.9	106 %		19:00:45
2	Y 371.029	1075429.4	1075429.4	105.17 %		19:02:09
2	Ag 328.068†	2854.9	-238.0	-0.9266 µg/L	-0.9266 ppb	19:02:11
2	Al 396.153Radial†	-53.8	-18.9	-4.1894 µg/L	-4.1894 ppb	19:01:05
2	As 188.979†	-8.5	6.1	2.5641 µg/L	2.5641 ppb	19:02:31
2	B 249.677†	3184.7	-311.3	-5.2277 µg/L	-5.2277 ppb	19:02:31
2	Ba 233.527†	-166.1	16.2	0.0743 µg/L	0.0743 ppb	19:02:31
2	Be 313.107†	-429.5	249.5	0.0921 µg/L	0.0921 ppb	19:02:11
2	Ca 317.933Radial†	674.2	19.4	1.1395 µg/L	1.1395 ppb	19:01:05
2	Cd 226.502†	-92.3	6.1	0.0422 µg/L	0.0422 ppb	19:02:31
2	Co 228.616†	-147.4	35.7	0.4889 µg/L	0.4889 ppb	19:02:31
2	Cr 267.716†	146.6	-20.1	-0.2010 µg/L	-0.2010 ppb	19:02:31
2	Cu 324.752†	2740.1	194.5	0.8753 µg/L	0.8753 ppb	19:02:11
2	Fe 238.204 Radial†	152.9	30.9	2.0532 µg/L	2.0532 ppb	19:01:05
2	K 766.490 Radial†	1696.1	144.0	59.261 µg/L	59.261 ppb	19:00:45
2	Mg 279.077 IEC†	164.9	-31.2	-12.828 µg/L	-12.828 ppb	19:01:05
2	Mn 257.610†	159.3	72.2	0.0992 µg/L	0.0992 ppb	19:02:31
2	Mo 202.031†	-10.4	45.2	1.4272 µg/L	1.4272 ppb	19:02:31
2	Na 589.592 Radial†	1913.7	109.4	16.687 µg/L	16.687 ppb	19:00:45
2	Ni 231.604†	-34.9	7.5	0.0960 µg/L	0.0960 ppb	19:02:31
2	P 214.914†	88.9	5.5	1.2769 µg/L	1.2769 ppb	19:02:31
2	Pb 220.353†	116.9	-0.7	-0.0641 µg/L	-0.0641 ppb	19:02:31

2	S 181.975 Axial†	98.1	-1.0	-0.8273 µg/L	-0.8273 ppb	19:02:31
2	Sb 206.836†	79.8	-10.4	-1.3806 µg/L	-1.3806 ppb	19:02:31
2	Se 196.026†	23.1	11.2	4.46 µg/L	4.46 ppb	19:02:31
2	SiO2†	1662.3	16.2	1.7388 µg/L	1.7388 ppb	19:02:31
2	Si 251.611†	771.7	61.4	0.9975 µg/L	0.9975 ppb	19:02:31
2	Sn 189.927†	-2.4	-4.3	-0.3060 µg/L	-0.3060 ppb	19:02:31
2	Sr 421.552†	-168.4	119.2	0.2795 µg/L	0.2795 ppb	19:00:45
2	Ti 334.940†	843.2	169.7	0.1595 µg/L	0.1595 ppb	19:02:11
2	Tl 190.801†	-115.5	9.9	1.3206 µg/L	1.3206 ppb	19:02:31
2	U 409.014†	109.4	583.7	36.043 µg/L	36.043 ppb	19:02:11
2	V 292.402†	368.0	-80.0	-0.4063 µg/L	-0.4063 ppb	19:02:11
2	Zn 213.857†	532.3	44.4	0.2783 µg/L	0.2783 ppb	19:02:31
3	Sc 361.383	1734424.8	1734424.8	103.69 %		19:02:33
3	Sc RADIAL	152171.1	152171.1	104 %		19:01:07
3	Y 371.029	1067156.7	1067156.7	104.36 %		19:02:33
3	Ag 328.068†	2902.9	-167.4	-0.6806 µg/L	-0.6806 ppb	19:02:36
3	Al 396.153Radial†	-58.9	-24.5	-5.3555 µg/L	-5.3555 ppb	19:01:27
3	As 188.979†	-18.7	-3.8	-1.5762 µg/L	-1.5762 ppb	19:02:56
3	B 249.677†	3166.5	-301.7	-5.0666 µg/L	-5.0666 ppb	19:02:56
3	Ba 233.527†	-187.7	-6.0	-0.0277 µg/L	-0.0277 ppb	19:02:56
3	Be 313.107†	-333.0	339.0	0.1115 µg/L	0.1115 ppb	19:02:36
3	Ca 317.933Radial†	709.2	63.1	3.6954 µg/L	3.6954 ppb	19:01:27
3	Cd 226.502†	-99.5	-1.5	-0.0105 µg/L	-0.0105 ppb	19:02:56
3	Co 228.616†	-170.8	11.9	0.1624 µg/L	0.1624 ppb	19:02:56
3	Cr 267.716†	184.7	17.9	0.1506 µg/L	0.1506 ppb	19:02:56
3	Cu 324.752†	2715.6	194.2	0.8472 µg/L	0.8472 ppb	19:02:36
3	Fe 238.204 Radial†	137.1	18.1	1.2007 µg/L	1.2007 ppb	19:01:27
3	K 766.490 Radial†	1528.8	9.4	3.8507 µg/L	3.8507 ppb	19:01:07
3	Mg 279.077 IEC†	173.3	-20.7	-8.5238 µg/L	-8.5238 ppb	19:01:27
3	Mn 257.610†	141.1	56.1	0.0769 µg/L	0.0769 ppb	19:02:56
3	Mo 202.031†	-52.8	4.2	0.1336 µg/L	0.1336 ppb	19:02:56
3	Na 589.592 Radial†	1839.9	67.6	10.341 µg/L	10.341 ppb	19:01:07
3	Ni 231.604†	-39.3	3.0	0.0386 µg/L	0.0386 ppb	19:02:56
3	P 214.914†	57.3	-24.3	-5.8246 µg/L	-5.8246 ppb	19:02:56
3	Pb 220.353†	120.4	3.6	0.2179 µg/L	0.2179 ppb	19:02:56
3	S 181.975 Axial†	88.1	-9.8	-7.9574 µg/L	-7.9574 ppb	19:02:56
3	Sb 206.836†	87.1	-2.6	-0.3549 µg/L	-0.3549 ppb	19:02:56
3	Se 196.026†	3.8	-7.2	-2.85 µg/L	-2.85 ppb	19:02:56
3	SiO2†	1649.9	18.4	1.9980 µg/L	1.9980 ppb	19:02:56
3	Si 251.611†	767.7	64.1	1.0530 µg/L	1.0530 ppb	19:02:56
3	Sn 189.927†	11.8	9.4	0.6667 µg/L	0.6667 ppb	19:02:56
3	Sr 421.552†	-198.5	87.9	0.2060 µg/L	0.2060 ppb	19:01:07
3	Ti 334.940†	650.8	-8.7	-0.0097 µg/L	-0.0097 ppb	19:02:36
3	Tl 190.801†	-110.3	13.9	1.8642 µg/L	1.8642 ppb	19:02:56
3	U 409.014†	-434.4	60.1	3.6852 µg/L	3.6852 ppb	19:02:36
3	V 292.402†	355.5	-88.9	-0.4890 µg/L	-0.4890 ppb	19:02:36
3	Zn 213.857†	538.0	54.5	0.3420 µg/L	0.3420 ppb	19:02:56

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1742745.4	104.18 %		0.466			0.45%
Sc RADIAL	154662.3	106 %		1.7			1.63%
Y 371.029	1071801.3	104.81 %		0.414			0.39%
Ag 328.068†	-233.5	-0.9298 µg/L		0.25091	-0.9298 ppb	0.25091	26.98%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-14.9	-3.2906 µg/L		2.63203	-3.2906 ppb	2.63203	79.99%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	2.4	1.0157 µg/L		2.25883	1.0157 ppb	2.25883	222.39%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-309.6	-5.1990 µg/L		0.12069	-5.1990 ppb	0.12069	2.32%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	6.5	0.0297 µg/L		0.05216	0.0297 ppb	0.05216	175.89%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	230.7	0.0809 µg/L		0.03739	0.0809 ppb	0.03739	46.19%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	39.4	2.3079 µg/L		1.29199	2.3079 ppb	1.29199	55.98%
QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	-4.5	-0.0310 µg/L		0.08537	-0.0310 ppb	0.08537	275.14%
QC value within limits for Cd 226.502 Recovery = Not calculated							

Co 228.616†	18.8	0.2569 µg/L	0.20203	0.2569 ppb	0.20203	78.63%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	1.7	-0.0005 µg/L	0.18092	-0.0005 ppb	0.18092	>999.9%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	227.2	1.0036 µg/L	0.24693	1.0036 ppb	0.24693	24.60%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	24.1	1.6048 µg/L	0.42799	1.6048 ppb	0.42799	26.67%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	76.9	31.673 µg/L	27.7059	31.673 ppb	27.7059	87.48%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-23.9	-9.8414 µg/L	2.59218	-9.8414 ppb	2.59218	26.34%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	71.9	0.0986 µg/L	0.02141	0.0986 ppb	0.02141	21.70%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	22.6	0.7135 µg/L	0.65711	0.7135 ppb	0.65711	92.10%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	91.1	13.909 µg/L	3.2461	13.909 ppb	3.2461	23.34%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	1.4	0.0175 µg/L	0.09096	0.0175 ppb	0.09096	520.03%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-7.8	-1.8767 µg/L	3.61681	-1.8767 ppb	3.61681	192.72%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	0.8	0.0329 µg/L	0.16029	0.0329 ppb	0.16029	486.83%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-5.6	-4.5694 µg/L	3.57820	-4.5694 ppb	3.57820	78.31%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-5.3	-0.7028 µg/L	0.58704	-0.7028 ppb	0.58704	83.53%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	4.6	1.82 µg/L	4.054	1.82 ppb	4.054	222.54%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	19.0	2.0451 µg/L	0.33227	2.0451 ppb	0.33227	16.25%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	66.3	1.0847 µg/L	0.10673	1.0847 ppb	0.10673	9.84%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	5.8	0.4145 µg/L	0.63329	0.4145 ppb	0.63329	152.78%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	116.6	0.2734 µg/L	0.06458	0.2734 ppb	0.06458	23.62%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	104.5	0.0995 µg/L	0.09469	0.0995 ppb	0.09469	95.16%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	12.1	1.6167 µg/L	0.27502	1.6167 ppb	0.27502	17.01%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	313.1	19.320 µg/L	16.2065	19.320 ppb	16.2065	83.89%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-91.4	-0.4870 µg/L	0.07980	-0.4870 ppb	0.07980	16.39%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	47.1	0.2956 µg/L	0.04054	0.2956 ppb	0.04054	13.71%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 8

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/29/2010 19:31:23

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	154889.6	154889.6	106 %		19:31:56
1	Al 396.153Radial†	25248.9	23791.6	5171.1 µg/L	5171.1 ppb	19:31:56
1	Ca 317.933Radial†	90787.7	84816.9	4969.9 µg/L	4969.9 ppb	19:31:56
1	Fe 238.204 Radial†	79020.5	74246.6	4936.2 µg/L	4936.2 ppb	19:31:56
1	K 766.490 Radial†	14072.9	11787.9	4848.7 µg/L	4848.7 ppb	19:31:56
1	Mg 279.077 IEC†	13305.1	12333.7	5092.8 µg/L	5092.8 ppb	19:31:56
1	Na 589.592 Radial†	70517.8	64663.9	9890.1 µg/L	9890.1 ppb	19:31:56
1	Sr 421.552†	229051.2	215819.7	505.79 µg/L	505.79 ppb	19:31:54
1	Sc 361.383	1743822.4	1743822.4	104.25 %		19:32:23
1	Y 371.029	1059163.2	1059163.2	103.58 %		19:32:23
1	Ag 328.068†	128580.1	120374.3	494.64 µg/L	494.64 ppb	19:32:23
1	As 188.979†	1249.3	1212.6	513.82 µg/L	513.82 ppb	19:32:43
1	B 249.677†	33313.2	28600.3	478.47 µg/L	478.47 ppb	19:32:23
1	Ba 233.527†	113123.6	108689.7	496.93 µg/L	496.93 ppb	19:32:23
1	Be 313.107†	1610699.9	1545735.8	503.30 µg/L	503.30 ppb	19:32:23
1	Cd 226.502†	72730.5	69861.7	482.13 µg/L	482.13 ppb	19:32:23
1	Co 228.616†	36860.0	35534.8	486.84 µg/L	486.84 ppb	19:32:23
1	Cr 267.716†	59413.7	56832.8	488.02 µg/L	488.02 ppb	19:32:23
1	Cu 324.752†	120074.9	112757.8	491.69 µg/L	491.69 ppb	19:32:23
1	Mn 257.610†	374470.1	359133.2	490.52 µg/L	490.52 ppb	19:32:23
1	Mo 202.031†	15834.2	15244.3	481.66 µg/L	481.66 ppb	19:32:43
1	Ni 231.604†	39808.6	38227.6	488.98 µg/L	488.98 ppb	19:32:23
1	P 214.914†	10378.9	9876.5	2356.8 µg/L	2356.8 ppb	19:32:43
1	Pb 220.353†	8316.1	7864.8	477.97 µg/L	477.97 ppb	19:32:43
1	S 181.975 Axial†	1303.7	1155.8	940.47 µg/L	940.47 ppb	19:32:43
1	Sb 206.836†	3839.6	3596.5	486.17 µg/L	486.17 ppb	19:32:43
1	Se 196.026†	1266.7	1204.2	478 µg/L	478 ppb	19:32:43
1	SiO2†	51618.1	47942.2	5219.4 µg/L	5219.4 ppb	19:32:23
1	Si 251.611†	154593.2	147618.3	2431.2 µg/L	2431.2 ppb	19:32:23
1	Sn 189.927†	7080.7	6790.2	484.38 µg/L	484.38 ppb	19:32:43
1	Ti 334.940†	502894.8	481769.2	490.61 µg/L	490.61 ppb	19:32:23
1	Tl 190.801†	3593.0	3566.9	486.15 µg/L	486.15 ppb	19:32:43
1	U 409.014†	7303.3	7484.9	492.46 µg/L	492.46 ppb	19:32:23
1	V 292.402†	92682.1	88474.1	496.92 µg/L	496.92 ppb	19:32:23
1	Zn 213.857†	80453.5	76711.2	479.02 µg/L	479.02 ppb	19:32:23
2	Sc RADIAL	155203.4	155203.4	106 %		19:32:01
2	Al 396.153Radial†	25234.3	23729.9	5157.5 µg/L	5157.5 ppb	19:32:01
2	Ca 317.933Radial†	90949.0	84795.6	4968.7 µg/L	4968.7 ppb	19:32:01
2	Fe 238.204 Radial†	79090.7	74162.2	4930.6 µg/L	4930.6 ppb	19:32:01
2	K 766.490 Radial†	13942.4	11638.6	4787.3 µg/L	4787.3 ppb	19:32:01
2	Mg 279.077 IEC†	13250.9	12257.5	5061.5 µg/L	5061.5 ppb	19:32:01
2	Na 589.592 Radial†	70292.0	64317.7	9837.2 µg/L	9837.2 ppb	19:32:01
2	Sr 421.552†	228066.3	214459.1	502.60 µg/L	502.60 ppb	19:31:59
2	Sc 361.383	1737215.7	1737215.7	103.85 %		19:32:47
2	Y 371.029	1054931.1	1054931.1	103.16 %		19:32:47
2	Ag 328.068†	128483.5	120750.5	496.17 µg/L	496.17 ppb	19:32:47
2	As 188.979†	1256.3	1223.9	518.55 µg/L	518.55 ppb	19:33:07
2	B 249.677†	33149.8	28564.4	477.87 µg/L	477.87 ppb	19:32:47
2	Ba 233.527†	112832.9	108822.5	497.54 µg/L	497.54 ppb	19:32:47
2	Be 313.107†	1606762.7	1547820.7	503.98 µg/L	503.98 ppb	19:32:47
2	Cd 226.502†	72368.9	69778.8	481.56 µg/L	481.56 ppb	19:32:47
2	Co 228.616†	36711.4	35526.2	486.72 µg/L	486.72 ppb	19:32:47
2	Cr 267.716†	59192.4	56836.4	488.05 µg/L	488.05 ppb	19:32:47
2	Cu 324.752†	119958.6	113083.9	493.10 µg/L	493.10 ppb	19:32:47
2	Mn 257.610†	372915.3	359002.2	490.34 µg/L	490.34 ppb	19:32:47
2	Mo 202.031†	15840.2	15307.8	483.66 µg/L	483.66 ppb	19:33:07
2	Ni 231.604†	39651.1	38221.1	488.89 µg/L	488.89 ppb	19:32:47
2	P 214.914†	10418.1	9952.1	2374.9 µg/L	2374.9 ppb	19:33:07
2	Pb 220.353†	8335.8	7914.1	480.97 µg/L	480.97 ppb	19:33:07

2	S 181.975 Axial†	1310.0	1166.6	949.21 µg/L	949.21 ppb	19:33:07
2	Sb 206.836†	3818.2	3589.9	485.30 µg/L	485.30 ppb	19:33:07
2	Se 196.026†	1256.0	1198.5	476 µg/L	476 ppb	19:33:07
2	SiO2†	51436.2	47955.4	5220.8 µg/L	5220.8 ppb	19:32:47
2	Si 251.611†	154237.0	147839.3	2434.9 µg/L	2434.9 ppb	19:32:47
2	Sn 189.927†	7075.7	6811.2	485.88 µg/L	485.88 ppb	19:33:07
2	Ti 334.940†	501670.2	482424.6	491.29 µg/L	491.29 ppb	19:32:47
2	Tl 190.801†	3598.0	3584.8	488.57 µg/L	488.57 ppb	19:33:07
2	U 409.014†	7114.9	7330.1	482.93 µg/L	482.93 ppb	19:32:47
2	V 292.402†	92447.3	88586.2	497.56 µg/L	497.56 ppb	19:32:47
2	Zn 213.857†	80237.4	76796.6	479.56 µg/L	479.56 ppb	19:32:47
3	Sc RADIAL	152343.2	152343.2	105 %		19:32:05
3	Al 396.153Radial†	24790.2	23749.9	5162.0 µg/L	5162.0 ppb	19:32:05
3	Ca 317.933Radial†	88711.7	84258.7	4937.2 µg/L	4937.2 ppb	19:32:05
3	Fe 238.204 Radial†	77301.6	73844.9	4909.5 µg/L	4909.5 ppb	19:32:05
3	K 766.490 Radial†	13851.3	11797.3	4852.6 µg/L	4852.6 ppb	19:32:05
3	Mg 279.077 IEC†	12897.2	12152.7	5018.2 µg/L	5018.2 ppb	19:32:05
3	Na 589.592 Radial†	69172.5	64486.0	9862.9 µg/L	9862.9 ppb	19:32:05
3	Sr 421.552†	226674.9	217149.0	508.90 µg/L	508.90 ppb	19:32:03
3	Sc 361.383	1739184.0	1739184.0	103.97 %		19:33:10
3	Y 371.029	1056341.4	1056341.4	103.30 %		19:33:10
3	Ag 328.068†	128938.9	121048.4	497.41 µg/L	497.41 ppb	19:33:10
3	As 188.979†	1242.3	1209.1	512.38 µg/L	512.38 ppb	19:33:30
3	B 249.677†	33322.5	28694.4	480.05 µg/L	480.05 ppb	19:33:10
3	Ba 233.527†	113432.0	109275.8	499.61 µg/L	499.61 ppb	19:33:10
3	Be 313.107†	1612377.9	1551470.5	505.17 µg/L	505.17 ppb	19:33:10
3	Cd 226.502†	72852.6	70165.2	484.23 µg/L	484.23 ppb	19:33:10
3	Co 228.616†	36901.2	35668.8	488.67 µg/L	488.67 ppb	19:33:10
3	Cr 267.716†	59397.9	56969.5	489.19 µg/L	489.19 ppb	19:33:10
3	Cu 324.752†	120225.9	113210.3	493.66 µg/L	493.66 ppb	19:33:10
3	Mn 257.610†	374839.5	360446.6	492.32 µg/L	492.32 ppb	19:33:10
3	Mo 202.031†	15729.4	15184.0	479.75 µg/L	479.75 ppb	19:33:30
3	Ni 231.604†	40031.5	38543.8	493.02 µg/L	493.02 ppb	19:33:10
3	P 214.914†	10307.1	9834.0	2346.7 µg/L	2346.7 ppb	19:33:30
3	Pb 220.353†	8288.5	7859.6	477.65 µg/L	477.65 ppb	19:33:30
3	S 181.975 Axial†	1283.8	1140.0	927.63 µg/L	927.63 ppb	19:33:30
3	Sb 206.836†	3807.3	3575.3	483.25 µg/L	483.25 ppb	19:33:30
3	Se 196.026†	1249.7	1191.1	473 µg/L	473 ppb	19:33:30
3	SiO2†	51607.6	48064.2	5232.9 µg/L	5232.9 ppb	19:33:10
3	Si 251.611†	155270.1	148664.8	2448.6 µg/L	2448.6 ppb	19:33:10
3	Sn 189.927†	7010.2	6740.5	480.86 µg/L	480.86 ppb	19:33:30
3	Ti 334.940†	504064.8	484181.1	493.08 µg/L	493.08 ppb	19:33:10
3	Tl 190.801†	3573.6	3557.4	484.91 µg/L	484.91 ppb	19:33:30
3	U 409.014†	7322.0	7521.5	494.86 µg/L	494.86 ppb	19:33:10
3	V 292.402†	92839.2	88862.3	499.06 µg/L	499.06 ppb	19:33:10
3	Zn 213.857†	80753.8	77205.9	482.11 µg/L	482.11 ppb	19:33:10

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1740074.0	104.02 %	0.203			0.19%
Sc RADIAL	154145.4	106 %	1.1			1.02%
Y 371.029	1056811.9	103.35 %	0.211			0.20%
Ag 328.068†	120724.4	496.07 µg/L	1.385	496.07 ppb	1.385	0.28%
QC value within limits for Ag 328.068 Recovery = 99.21%						
Al 396.153Radial†	23757.1	5163.5 µg/L	6.91	5163.5 ppb	6.91	0.13%
QC value within limits for Al 396.153Radial Recovery = 103.27%						
As 188.979†	1215.2	514.92 µg/L	3.230	514.92 ppb	3.230	0.63%
QC value within limits for As 188.979 Recovery = 102.98%						
B 249.677†	28619.7	478.80 µg/L	1.123	478.80 ppb	1.123	0.23%
QC value within limits for B 249.677 Recovery = 95.76%						
Ba 233.527†	108929.3	498.02 µg/L	1.404	498.02 ppb	1.404	0.28%
QC value within limits for Ba 233.527 Recovery = 99.60%						
Be 313.107†	1548342.3	504.15 µg/L	0.946	504.15 ppb	0.946	0.19%
QC value within limits for Be 313.107 Recovery = 100.83%						
Ca 317.933Radial†	84623.7	4958.6 µg/L	18.54	4958.6 ppb	18.54	0.37%
QC value within limits for Ca 317.933Radial Recovery = 99.17%						
Cd 226.502†	69935.2	482.64 µg/L	1.407	482.64 ppb	1.407	0.29%
QC value within limits for Cd 226.502 Recovery = 96.53%						
Co 228.616†	35576.6	487.41 µg/L	1.097	487.41 ppb	1.097	0.23%

QC value within limits for Co 228.616 Recovery = 97.48%							
Cr 267.716†	56879.6	488.42 µg/L	0.666	488.42 ppb	0.666	0.14%	
QC value within limits for Cr 267.716 Recovery = 97.68%							
Cu 324.752†	113017.4	492.82 µg/L	1.012	492.82 ppb	1.012	0.21%	
QC value within limits for Cu 324.752 Recovery = 98.56%							
Fe 238.204 Radial†	74084.6	4925.4 µg/L	14.08	4925.4 ppb	14.08	0.29%	
QC value within limits for Fe 238.204 Radial Recovery = 98.51%							
K 766.490 Radial†	11741.2	4829.6 µg/L	36.64	4829.6 ppb	36.64	0.76%	
QC value within limits for K 766.490 Radial Recovery = 96.59%							
Mg 279.077 IEC†	12248.0	5057.5 µg/L	37.48	5057.5 ppb	37.48	0.74%	
QC value within limits for Mg 279.077 IEC Recovery = 101.15%							
Mn 257.610†	359527.3	491.06 µg/L	1.093	491.06 ppb	1.093	0.22%	
QC value within limits for Mn 257.610 Recovery = 98.21%							
Mo 202.031†	15245.4	481.69 µg/L	1.954	481.69 ppb	1.954	0.41%	
QC value within limits for Mo 202.031 Recovery = 96.34%							
Na 589.592 Radial†	64489.2	9863.4 µg/L	26.47	9863.4 ppb	26.47	0.27%	
QC value within limits for Na 589.592 Radial Recovery = 98.63%							
Ni 231.604†	38330.9	490.30 µg/L	2.360	490.30 ppb	2.360	0.48%	
QC value within limits for Ni 231.604 Recovery = 98.06%							
P 214.914†	9887.5	2359.5 µg/L	14.32	2359.5 ppb	14.32	0.61%	
QC value within limits for P 214.914 Recovery = 94.38%							
Pb 220.353†	7879.5	478.86 µg/L	1.831	478.86 ppb	1.831	0.38%	
QC value within limits for Pb 220.353 Recovery = 95.77%							
S 181.975 Axial†	1154.1	939.11 µg/L	10.857	939.11 ppb	10.857	1.16%	
QC value within limits for S 181.975 Axial Recovery = 93.91%							
Sb 206.836†	3587.2	484.91 µg/L	1.496	484.91 ppb	1.496	0.31%	
QC value within limits for Sb 206.836 Recovery = 96.98%							
Se 196.026†	1197.9	476 µg/L	2.6	476 ppb	2.6	0.55%	
QC value within limits for Se 196.026 Recovery = 95.20%							
SiO2†	47987.3	5224.4 µg/L	7.40	5224.4 ppb	7.40	0.14%	
QC value within limits for SiO2 Recovery = 97.70%							
Si 251.611†	148040.8	2438.2 µg/L	9.16	2438.2 ppb	9.16	0.38%	
QC value within limits for Si 251.611 Recovery = 97.53%							
Sn 189.927†	6780.7	483.70 µg/L	2.578	483.70 ppb	2.578	0.53%	
QC value within limits for Sn 189.927 Recovery = 96.74%							
Sr 421.552†	215809.3	505.76 µg/L	3.152	505.76 ppb	3.152	0.62%	
QC value within limits for Sr 421.552 Recovery = 101.15%							
Ti 334.940†	482791.6	491.66 µg/L	1.273	491.66 ppb	1.273	0.26%	
QC value within limits for Ti 334.940 Recovery = 98.33%							
Tl 190.801†	3569.7	486.55 µg/L	1.860	486.55 ppb	1.860	0.38%	
QC value within limits for Tl 190.801 Recovery = 97.31%							
U 409.014†	7445.5	490.08 µg/L	6.310	490.08 ppb	6.310	1.29%	
QC value within limits for U 409.014 Recovery = 98.02%							
V 292.402†	88640.9	497.85 µg/L	1.100	497.85 ppb	1.100	0.22%	
QC value within limits for V 292.402 Recovery = 99.57%							
Zn 213.857†	76904.5	480.23 µg/L	1.651	480.23 ppb	1.651	0.34%	
QC value within limits for Zn 213.857 Recovery = 96.05%							
All analyte(s) passed QC.							



Sequence No.: 9

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/29/2010 19:33:37

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	154440.8	154440.8	106 %		19:34:06
1	Al 396.153Radial†	-43.3	-9.0	-2.0043 µg/L	-2.0043 ppb	19:34:26
1	Ca 317.933Radial†	696.6	41.2	2.4138 µg/L	2.4138 ppb	19:34:26
1	Fe 238.204 Radial†	166.8	44.1	2.9352 µg/L	2.9352 ppb	19:34:26
1	K 766.490 Radial†	1613.3	67.6	27.814 µg/L	27.814 ppb	19:34:06
1	Mg 279.077 IEC†	157.8	-37.7	-15.541 µg/L	-15.541 ppb	19:34:26
1	Na 589.592 Radial†	1722.8	-68.9	-10.561 µg/L	-10.561 ppb	19:34:06
1	Sr 421.552†	-120.8	163.9	0.3842 µg/L	0.3842 ppb	19:34:06
1	Sc 361.383	1731581.1	1731581.1	103.52 %		19:35:14
1	Y 371.029	1065562.9	1065562.9	104.20 %		19:35:14
1	Ag 328.068†	3216.9	140.6	0.5847 µg/L	0.5847 ppb	19:35:16
1	As 188.979†	-11.7	2.9	1.2300 µg/L	1.2300 ppb	19:35:36
1	B 249.677†	3120.0	-341.7	-5.7362 µg/L	-5.7362 ppb	19:35:36
1	Ba 233.527†	-175.6	5.4	0.0247 µg/L	0.0247 ppb	19:35:36
1	Be 313.107†	-246.2	422.2	0.1424 µg/L	0.1424 ppb	19:35:16
1	Cd 226.502†	-69.1	27.7	0.1908 µg/L	0.1908 ppb	19:35:36
1	Co 228.616†	-181.3	1.5	0.0198 µg/L	0.0198 ppb	19:35:36
1	Cr 267.716†	175.8	9.6	0.0693 µg/L	0.0693 ppb	19:35:36
1	Cu 324.752†	2669.4	153.9	0.6825 µg/L	0.6825 ppb	19:35:16
1	Mn 257.610†	196.9	110.2	0.1512 µg/L	0.1512 ppb	19:35:36
1	Mo 202.031†	-29.9	26.3	0.8305 µg/L	0.8305 ppb	19:35:36
1	Ni 231.604†	-61.5	-18.5	-0.2372 µg/L	-0.2372 ppb	19:35:36
1	P 214.914†	55.3	-26.1	-6.2662 µg/L	-6.2662 ppb	19:35:36
1	Pb 220.353†	115.1	-1.2	-0.0837 µg/L	-0.0837 ppb	19:35:36
1	S 181.975 Axial†	87.6	-10.2	-8.2246 µg/L	-8.2246 ppb	19:35:36
1	Sb 206.836†	73.1	-16.1	-2.1571 µg/L	-2.1571 ppb	19:35:36
1	Se 196.026†	13.4	2.0	0.826 µg/L	0.826 ppb	19:35:36
1	SiO2†	1671.5	41.8	4.5433 µg/L	4.5433 ppb	19:35:36
1	Si 251.611†	796.8	93.3	1.5290 µg/L	1.5290 ppb	19:35:36
1	Sn 189.927†	8.8	6.4	0.4582 µg/L	0.4582 ppb	19:35:36
1	Ti 334.940†	627.3	-30.4	-0.0364 µg/L	-0.0364 ppb	19:35:16
1	Tl 190.801†	-118.4	5.9	0.7913 µg/L	0.7913 ppb	19:35:36
1	U 409.014†	-222.3	264.4	16.308 µg/L	16.308 ppb	19:35:16
1	V 292.402†	354.1	-89.7	-0.4781 µg/L	-0.4781 ppb	19:35:16
1	Zn 213.857†	527.0	44.7	0.2818 µg/L	0.2818 ppb	19:35:36
2	Sc RADIAL	154279.9	154279.9	106 %		19:34:28
2	Al 396.153Radial†	-70.9	-35.1	-7.7094 µg/L	-7.7094 ppb	19:34:48
2	Ca 317.933Radial†	709.7	54.3	3.1826 µg/L	3.1826 ppb	19:34:48
2	Fe 238.204 Radial†	178.3	55.2	3.6708 µg/L	3.6708 ppb	19:34:48
2	K 766.490 Radial†	1463.8	-72.1	-29.690 µg/L	-29.690 ppb	19:34:28
2	Mg 279.077 IEC†	161.8	-33.8	-13.912 µg/L	-13.912 ppb	19:34:48
2	Na 589.592 Radial†	1747.5	-43.7	-6.6675 µg/L	-6.6675 ppb	19:34:28
2	Sr 421.552†	-216.0	73.9	0.1732 µg/L	0.1732 ppb	19:34:28
2	Sc 361.383	1751103.4	1751103.4	104.68 %		19:35:38
2	Y 371.029	1076583.0	1076583.0	105.28 %		19:35:38
2	Ag 328.068†	2689.9	-397.5	-1.6314 µg/L	-1.6314 ppb	19:35:40
2	As 188.979†	-19.4	-4.3	-1.7955 µg/L	-1.7955 ppb	19:36:00
2	B 249.677†	3164.1	-333.1	-5.5927 µg/L	-5.5927 ppb	19:36:00
2	Ba 233.527†	-177.8	5.3	0.0236 µg/L	0.0236 ppb	19:36:00
2	Be 313.107†	-520.5	162.9	0.0516 µg/L	0.0516 ppb	19:35:40
2	Cd 226.502†	-104.5	-5.4	-0.0378 µg/L	-0.0378 ppb	19:36:00
2	Co 228.616†	-170.5	13.7	0.1872 µg/L	0.1872 ppb	19:36:00
2	Cr 267.716†	176.6	8.5	0.0762 µg/L	0.0762 ppb	19:36:00
2	Cu 324.752†	2448.1	-86.2	-0.3785 µg/L	-0.3785 ppb	19:35:40
2	Mn 257.610†	240.0	149.3	0.2045 µg/L	0.2045 ppb	19:36:00
2	Mo 202.031†	-29.0	27.5	0.8664 µg/L	0.8664 ppb	19:36:00
2	Ni 231.604†	-48.2	-5.1	-0.0655 µg/L	-0.0655 ppb	19:36:00
2	P 214.914†	58.0	-24.2	-5.7906 µg/L	-5.7906 ppb	19:36:00
2	Pb 220.353†	124.4	6.4	0.3918 µg/L	0.3918 ppb	19:36:00

2	S 181.975 Axial†	90.4	-8.5	-6.8756 µg/L	-6.8756 ppb	19:36:00
2	Sb 206.836†	78.1	-12.0	-1.6140 µg/L	-1.6140 ppb	19:36:00
2	Se 196.026†	15.0	3.5	1.36 µg/L	1.36 ppb	19:36:00
2	SiO2†	1656.1	9.2	0.9709 µg/L	0.9709 ppb	19:36:00
2	Si 251.611†	759.0	48.7	0.7903 µg/L	0.7903 ppb	19:36:00
2	Sn 189.927†	8.2	5.8	0.4148 µg/L	0.4148 ppb	19:36:00
2	Ti 334.940†	745.1	75.4	0.0800 µg/L	0.0800 ppb	19:35:40
2	Tl 190.801†	-111.6	13.7	1.8304 µg/L	1.8304 ppb	19:36:00
2	U 409.014†	-582.4	-77.2	-4.8304 µg/L	-4.8304 ppb	19:35:40
2	V 292.402†	254.3	-188.9	-1.0423 µg/L	-1.0423 ppb	19:35:40
2	Zn 213.857†	524.9	37.0	0.2333 µg/L	0.2333 ppb	19:36:00
3	Sc RADIAL	154300.7	154300.7	106 %		19:34:50
3	Al 396.153Radial†	-22.9	10.3	2.2225 µg/L	2.2225 ppb	19:35:10
3	Ca 317.933Radial†	702.8	47.7	2.7963 µg/L	2.7963 ppb	19:35:10
3	Fe 238.204 Radial†	157.6	35.6	2.3638 µg/L	2.3638 ppb	19:35:10
3	K 766.490 Radial†	1363.4	-167.1	-68.805 µg/L	-68.805 ppb	19:34:50
3	Mg 279.077 IEC†	165.1	-30.7	-12.669 µg/L	-12.669 ppb	19:35:10
3	Na 589.592 Radial†	1617.5	-166.8	-25.467 µg/L	-25.467 ppb	19:34:50
3	Sr 421.552†	-166.5	120.7	0.2829 µg/L	0.2829 ppb	19:34:50
3	Sc 361.383	1756722.7	1756722.7	105.02 %		19:36:02
3	Y 371.029	1079825.4	1079825.4	105.60 %		19:36:02
3	Ag 328.068†	3226.0	104.8	0.4137 µg/L	0.4137 ppb	19:36:04
3	As 188.979†	-24.9	-9.5	-3.9669 µg/L	-3.9669 ppb	19:36:25
3	B 249.677†	3162.1	-344.7	-5.7874 µg/L	-5.7874 ppb	19:36:25
3	Ba 233.527†	-158.1	24.5	0.1116 µg/L	0.1116 ppb	19:36:25
3	Be 313.107†	-509.5	174.9	0.0572 µg/L	0.0572 ppb	19:36:04
3	Cd 226.502†	-104.2	-4.8	-0.0337 µg/L	-0.0337 ppb	19:36:25
3	Co 228.616†	-161.9	22.4	0.3068 µg/L	0.3068 ppb	19:36:25
3	Cr 267.716†	163.5	-4.5	-0.0399 µg/L	-0.0399 ppb	19:36:25
3	Cu 324.752†	2579.5	31.3	0.1372 µg/L	0.1372 ppb	19:36:04
3	Mn 257.610†	210.9	120.8	0.1656 µg/L	0.1656 ppb	19:36:25
3	Mo 202.031†	-42.5	14.8	0.4652 µg/L	0.4652 ppb	19:36:25
3	Ni 231.604†	-54.2	-10.7	-0.1372 µg/L	-0.1372 ppb	19:36:25
3	P 214.914†	63.9	-18.7	-4.4865 µg/L	-4.4865 ppb	19:36:25
3	Pb 220.353†	88.7	-28.0	-1.6935 µg/L	-1.6935 ppb	19:36:25
3	S 181.975 Axial†	84.6	-14.3	-11.562 µg/L	-11.562 ppb	19:36:25
3	Sb 206.836†	89.1	-1.8	-0.2346 µg/L	-0.2346 ppb	19:36:25
3	Se 196.026†	11.7	0.2	0.100 µg/L	0.100 ppb	19:36:25
3	SiO2†	1684.0	30.6	3.3325 µg/L	3.3325 ppb	19:36:25
3	Si 251.611†	773.1	59.7	0.9802 µg/L	0.9802 ppb	19:36:25
3	Sn 189.927†	5.3	3.0	0.2161 µg/L	0.2161 ppb	19:36:25
3	Ti 334.940†	867.2	189.4	0.1939 µg/L	0.1939 ppb	19:36:04
3	Tl 190.801†	-113.0	12.7	1.7012 µg/L	1.7012 ppb	19:36:25
3	U 409.014†	-487.5	14.9	0.8641 µg/L	0.8641 ppb	19:36:04
3	V 292.402†	257.1	-187.1	-1.0329 µg/L	-1.0329 ppb	19:36:04
3	Zn 213.857†	501.2	12.8	0.0813 µg/L	0.0813 ppb	19:36:25

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1746469.1	104.41 %	0.789			0.76%
Sc RADIAL	154340.5	106 %	0.1			0.06%
Y 371.029	1073990.4	105.03 %	0.731			0.70%
Ag 328.068†	-50.7	-0.2110 µg/L	1.23303	-0.2110 ppb	1.23303	584.39%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-11.3	-2.4971 µg/L	4.98426	-2.4971 ppb	4.98426	199.60%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-3.6	-1.5108 µg/L	2.61013	-1.5108 ppb	2.61013	172.77%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-339.8	-5.7054 µg/L	0.10093	-5.7054 ppb	0.10093	1.77%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	11.7	0.0533 µg/L	0.05049	0.0533 ppb	0.05049	94.76%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	253.3	0.0837 µg/L	0.05087	0.0837 ppb	0.05087	60.76%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	47.7	2.7975 µg/L	0.38440	2.7975 ppb	0.38440	13.74%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	5.8	0.0397 µg/L	0.13082	0.0397 ppb	0.13082	329.26%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	12.5	0.1713 µg/L	0.14419	0.1713 ppb	0.14419	84.18%

QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	4.5	0.0352 µg/L	0.06512 185.02%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	33.0	0.1470 µg/L	0.53058 360.82%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	45.0	2.9899 µg/L	0.65521 21.91%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	-57.2	-23.560 µg/L	48.6004 206.28%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	-34.1	-14.041 µg/L	1.4406 10.26%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	126.8	0.1738 µg/L	0.02760 15.88%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	22.8	0.7207 µg/L	0.22201 30.81%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	-93.1	-14.232 µg/L	9.9226 69.72%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	-11.5	-0.1466 µg/L	0.08623 58.80%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-23.0	-5.5144 µg/L	0.92145 16.71%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-7.6	-0.4618 µg/L	1.09284 236.66%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-11.0	-8.8875 µg/L	2.41268 27.15%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	-10.0	-1.3353 µg/L	0.99108 74.22%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	1.9	0.763 µg/L	0.6334 83.06%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	27.2	2.9489 µg/L	1.81680 61.61%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	67.2	1.0998 µg/L	0.38363 34.88%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	5.1	0.3630 µg/L	0.12911 35.56%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	119.5	0.2801 µg/L	0.10556 37.69%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	78.1	0.0792 µg/L	0.11512 145.40%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	10.8	1.4410 µg/L	0.56631 39.30%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	67.4	4.1140 µg/L	10.93772 265.87%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	-155.2	-0.8511 µg/L	0.32304 37.96%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	31.5	0.1988 µg/L	0.10458 52.60%
QC value within limits for Zn 213.857	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 18

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/29/2010 19:52:48

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	155882.7	155882.7	107 %		19:53:21
1	Al 396.153Radial†	25404.5	23785.7	5169.7 µg/L	5169.7 ppb	19:53:21
1	Ca 317.933Radial†	90923.1	84399.2	4945.4 µg/L	4945.4 ppb	19:53:21
1	Fe 238.204 Radial†	79031.3	73782.9	4905.3 µg/L	4905.3 ppb	19:53:21
1	K 766.490 Radial†	14120.7	11748.2	4832.4 µg/L	4832.4 ppb	19:53:21
1	Mg 279.077 IEC†	13276.7	12227.4	5049.1 µg/L	5049.1 ppb	19:53:21
1	Na 589.592 Radial†	70685.1	64397.5	9849.3 µg/L	9849.3 ppb	19:53:21
1	Sr 421.552†	229627.1	214985.0	503.83 µg/L	503.83 ppb	19:53:19
1	Sc 361.383	1753609.4	1753609.4	104.83 %		19:53:33
1	Y 371.029	1065335.0	1065335.0	104.18 %		19:53:33
1	Ag 328.068†	129859.6	120906.6	496.82 µg/L	496.82 ppb	19:53:33
1	As 188.979†	1259.2	1215.4	515.01 µg/L	515.01 ppb	19:53:54
1	B 249.677†	33439.0	28541.9	477.50 µg/L	477.50 ppb	19:53:33
1	Ba 233.527†	114213.7	109124.0	498.92 µg/L	498.92 ppb	19:53:33
1	Be 313.107†	1623855.4	1549661.7	504.58 µg/L	504.58 ppb	19:53:33
1	Cd 226.502†	73102.1	69826.8	481.89 µg/L	481.89 ppb	19:53:33
1	Co 228.616†	36982.2	35454.0	485.73 µg/L	485.73 ppb	19:53:33
1	Cr 267.716†	59867.3	56947.4	489.01 µg/L	489.01 ppb	19:53:33
1	Cu 324.752†	121039.4	113035.1	492.88 µg/L	492.88 ppb	19:53:33
1	Mn 257.610†	376767.1	359319.5	490.78 µg/L	490.78 ppb	19:53:33
1	Mo 202.031†	15963.8	15283.1	482.88 µg/L	482.88 ppb	19:53:54
1	Ni 231.604†	39977.6	38175.7	488.31 µg/L	488.31 ppb	19:53:33
1	P 214.914†	10457.3	9895.7	2361.5 µg/L	2361.5 ppb	19:53:54
1	Pb 220.353†	8391.8	7892.5	479.66 µg/L	479.66 ppb	19:53:54
1	S 181.975 Axial†	1293.9	1139.4	927.23 µg/L	927.23 ppb	19:53:54
1	Sb 206.836†	3874.2	3609.0	487.86 µg/L	487.86 ppb	19:53:54
1	Se 196.026†	1272.9	1203.3	478 µg/L	478 ppb	19:53:54
1	SiO2†	51967.3	47999.0	5225.6 µg/L	5225.6 ppb	19:53:33
1	Si 251.611†	156115.9	148243.1	2441.5 µg/L	2441.5 ppb	19:53:33
1	Sn 189.927†	7141.4	6810.1	485.80 µg/L	485.80 ppb	19:53:54
1	Ti 334.940†	507174.4	483159.2	492.04 µg/L	492.04 ppb	19:53:33
1	Tl 190.801†	3640.2	3592.7	489.65 µg/L	489.65 ppb	19:53:54
1	U 409.014†	7175.3	7323.6	482.62 µg/L	482.62 ppb	19:53:33
1	V 292.402†	93601.0	88854.5	499.04 µg/L	499.04 ppb	19:53:33
1	Zn 213.857†	81005.3	76806.8	479.63 µg/L	479.63 ppb	19:53:33
2	Sc RADIAL	156189.6	156189.6	107 %		19:53:25
2	Al 396.153Radial†	25453.6	23784.9	5169.5 µg/L	5169.5 ppb	19:53:25
2	Ca 317.933Radial†	91189.7	84480.9	4950.2 µg/L	4950.2 ppb	19:53:25
2	Fe 238.204 Radial†	79453.6	74031.8	4921.9 µg/L	4921.9 ppb	19:53:25
2	K 766.490 Radial†	14048.5	11654.9	4794.0 µg/L	4794.0 ppb	19:53:25
2	Mg 279.077 IEC†	13352.4	12273.6	5068.1 µg/L	5068.1 ppb	19:53:25
2	Na 589.592 Radial†	70950.0	64514.9	9867.3 µg/L	9867.3 ppb	19:53:25
2	Sr 421.552†	232352.0	217106.1	508.80 µg/L	508.80 ppb	19:53:23
2	Sc 361.383	1749571.1	1749571.1	104.59 %		19:53:57
2	Y 371.029	1062777.0	1062777.0	103.93 %		19:53:57
2	Ag 328.068†	129030.1	120399.3	494.76 µg/L	494.76 ppb	19:53:57
2	As 188.979†	1277.4	1235.6	523.42 µg/L	523.42 ppb	19:54:17
2	B 249.677†	33289.1	28472.2	476.33 µg/L	476.33 ppb	19:53:57
2	Ba 233.527†	113708.3	108892.2	497.86 µg/L	497.86 ppb	19:53:57
2	Be 313.107†	1621134.0	1550635.2	504.90 µg/L	504.90 ppb	19:53:57
2	Cd 226.502†	72772.0	69672.1	480.82 µg/L	480.82 ppb	19:53:57
2	Co 228.616†	36900.7	35457.5	485.78 µg/L	485.78 ppb	19:53:57
2	Cr 267.716†	59600.3	56824.0	487.94 µg/L	487.94 ppb	19:53:57
2	Cu 324.752†	120397.9	112688.2	491.39 µg/L	491.39 ppb	19:53:57
2	Mn 257.610†	375323.1	358768.5	490.02 µg/L	490.02 ppb	19:53:57
2	Mo 202.031†	15936.5	15292.2	483.17 µg/L	483.17 ppb	19:54:17
2	Ni 231.604†	39772.4	38067.5	486.93 µg/L	486.93 ppb	19:53:57
2	P 214.914†	10473.9	9934.6	2370.8 µg/L	2370.8 ppb	19:54:17
2	Pb 220.353†	8398.2	7917.1	481.14 µg/L	481.14 ppb	19:54:17

2	S 181.975 Axial†	1310.8	1158.5	942.63 µg/L	942.63 ppb	19:54:17
2	Sb 206.836†	3846.2	3590.8	485.41 µg/L	485.41 ppb	19:54:17
2	Se 196.026†	1265.1	1198.6	476 µg/L	476 ppb	19:54:17
2	SiO2†	51895.6	48044.8	5230.6 µg/L	5230.6 ppb	19:53:57
2	Si 251.611†	155321.7	147827.6	2434.7 µg/L	2434.7 ppb	19:53:57
2	Sn 189.927†	7131.0	6815.9	486.21 µg/L	486.21 ppb	19:54:17
2	Ti 334.940†	504709.9	481919.6	490.77 µg/L	490.77 ppb	19:53:57
2	Tl 190.801†	3621.3	3582.7	488.28 µg/L	488.28 ppb	19:54:17
2	U 409.014†	7284.6	7443.9	490.00 µg/L	490.00 ppb	19:53:57
2	V 292.402†	93209.2	88686.0	498.11 µg/L	498.11 ppb	19:53:57
2	Zn 213.857†	80533.7	76534.3	477.93 µg/L	477.93 ppb	19:53:57
3	Sc RADIAL	155078.4	155078.4	106 %		19:53:29
3	Al 396.153Radial†	25069.2	23593.8	5127.8 µg/L	5127.8 ppb	19:53:29
3	Ca 317.933Radial†	90380.5	84330.2	4941.4 µg/L	4941.4 ppb	19:53:29
3	Fe 238.204 Radial†	78812.3	73960.4	4917.1 µg/L	4917.1 ppb	19:53:29
3	K 766.490 Radial†	14162.7	11856.1	4876.9 µg/L	4876.9 ppb	19:53:29
3	Mg 279.077 IEC†	13255.0	12271.4	5067.2 µg/L	5067.2 ppb	19:53:29
3	Na 589.592 Radial†	70378.5	64452.3	9857.7 µg/L	9857.7 ppb	19:53:29
3	Sr 421.552†	229789.0	216250.9	506.80 µg/L	506.80 ppb	19:53:27
3	Sc 361.383	1754221.5	1754221.5	104.87 %		19:54:20
3	Y 371.029	1065517.6	1065517.6	104.20 %		19:54:20
3	Ag 328.068†	129249.8	120281.8	494.30 µg/L	494.30 ppb	19:54:20
3	As 188.979†	1278.2	1233.1	522.37 µg/L	522.37 ppb	19:54:40
3	B 249.677†	33485.8	28575.4	478.06 µg/L	478.06 ppb	19:54:20
3	Ba 233.527†	113649.5	108547.9	496.28 µg/L	496.28 ppb	19:54:20
3	Be 313.107†	1620552.1	1545971.4	503.38 µg/L	503.38 ppb	19:54:20
3	Cd 226.502†	72839.4	69552.0	479.99 µg/L	479.99 ppb	19:54:20
3	Co 228.616†	36967.6	35427.9	485.37 µg/L	485.37 ppb	19:54:20
3	Cr 267.716†	59675.2	56744.3	487.25 µg/L	487.25 ppb	19:54:20
3	Cu 324.752†	120775.4	112743.0	491.64 µg/L	491.64 ppb	19:54:20
3	Mn 257.610†	375706.0	358182.3	489.22 µg/L	489.22 ppb	19:54:20
3	Mo 202.031†	15964.1	15278.1	482.72 µg/L	482.72 ppb	19:54:40
3	Ni 231.604†	39857.9	38048.2	486.68 µg/L	486.68 ppb	19:54:20
3	P 214.914†	10507.5	9940.1	2372.1 µg/L	2372.1 ppb	19:54:40
3	Pb 220.353†	8449.2	7944.5	482.78 µg/L	482.78 ppb	19:54:40
3	S 181.975 Axial†	1329.7	1173.2	954.54 µg/L	954.54 ppb	19:54:40
3	Sb 206.836†	3845.9	3580.7	484.06 µg/L	484.06 ppb	19:54:40
3	Se 196.026†	1261.3	1191.8	474 µg/L	474 ppb	19:54:40
3	SiO2†	51759.5	47783.5	5202.0 µg/L	5202.0 ppb	19:54:20
3	Si 251.611†	155480.2	147585.0	2430.6 µg/L	2430.6 ppb	19:54:20
3	Sn 189.927†	7188.1	6852.4	488.80 µg/L	488.80 ppb	19:54:40
3	Ti 334.940†	505136.1	481046.7	489.87 µg/L	489.87 ppb	19:54:20
3	Tl 190.801†	3646.0	3597.0	490.19 µg/L	490.19 ppb	19:54:40
3	U 409.014†	7585.0	7711.9	506.54 µg/L	506.54 ppb	19:54:20
3	V 292.402†	93415.0	88646.0	497.89 µg/L	497.89 ppb	19:54:20
3	Zn 213.857†	80914.4	76693.2	478.93 µg/L	478.93 ppb	19:54:20

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1752467.3	104.76 %	0.151			0.14%
Sc RADIAL	155716.9	107 %	0.4			0.37%
Y 371.029	1064543.2	104.10 %	0.150			0.14%
Ag 328.068†	120529.2	495.29 µg/L	1.342	495.29 ppb	1.342	0.27%
QC value within limits for Ag 328.068 Recovery = 99.06%						
Al 396.153Radial†	23721.5	5155.7 µg/L	24.12	5155.7 ppb	24.12	0.47%
QC value within limits for Al 396.153Radial Recovery = 103.11%						
As 188.979†	1228.0	520.27 µg/L	4.583	520.27 ppb	4.583	0.88%
QC value within limits for As 188.979 Recovery = 104.05%						
B 249.677†	28529.8	477.29 µg/L	0.884	477.29 ppb	0.884	0.19%
QC value within limits for B 249.677 Recovery = 95.46%						
Ba 233.527†	108854.7	497.68 µg/L	1.325	497.68 ppb	1.325	0.27%
QC value within limits for Ba 233.527 Recovery = 99.54%						
Be 313.107†	1548756.1	504.29 µg/L	0.798	504.29 ppb	0.798	0.16%
QC value within limits for Be 313.107 Recovery = 100.86%						
Ca 317.933Radial†	84403.4	4945.7 µg/L	4.42	4945.7 ppb	4.42	0.09%
QC value within limits for Ca 317.933Radial Recovery = 98.91%						
Cd 226.502†	69683.6	480.90 µg/L	0.952	480.90 ppb	0.952	0.20%
QC value within limits for Cd 226.502 Recovery = 96.18%						
Co 228.616†	35446.5	485.63 µg/L	0.223	485.63 ppb	0.223	0.05%

QC value within limits for Co 228.616 Recovery = 97.13%						
Cr 267.716†	56838.6	488.07 µg/L	0.888	488.07 ppb	0.888	0.18%
QC value within limits for Cr 267.716 Recovery = 97.61%						
Cu 324.752†	112822.1	491.97 µg/L	0.803	491.97 ppb	0.803	0.16%
QC value within limits for Cu 324.752 Recovery = 98.39%						
Fe 238.204 Radial†	73925.1	4914.8 µg/L	8.52	4914.8 ppb	8.52	0.17%
QC value within limits for Fe 238.204 Radial Recovery = 98.30%						
K 766.490 Radial†	11753.1	4834.4 µg/L	41.46	4834.4 ppb	41.46	0.86%
QC value within limits for K 766.490 Radial Recovery = 96.69%						
Mg 279.077 IEC†	12257.5	5061.5 µg/L	10.75	5061.5 ppb	10.75	0.21%
QC value within limits for Mg 279.077 IEC Recovery = 101.23%						
Mn 257.610†	358756.8	490.01 µg/L	0.777	490.01 ppb	0.777	0.16%
QC value within limits for Mn 257.610 Recovery = 98.00%						
Mo 202.031†	15284.5	482.92 µg/L	0.226	482.92 ppb	0.226	0.05%
QC value within limits for Mo 202.031 Recovery = 96.58%						
Na 589.592 Radial†	64454.9	9858.1 µg/L	9.01	9858.1 ppb	9.01	0.09%
QC value within limits for Na 589.592 Radial Recovery = 98.58%						
Ni 231.604†	38097.1	487.31 µg/L	0.879	487.31 ppb	0.879	0.18%
QC value within limits for Ni 231.604 Recovery = 97.46%						
P 214.914†	9923.5	2368.1 µg/L	5.81	2368.1 ppb	5.81	0.25%
QC value within limits for P 214.914 Recovery = 94.72%						
Pb 220.353†	7918.0	481.20 µg/L	1.563	481.20 ppb	1.563	0.32%
QC value within limits for Pb 220.353 Recovery = 96.24%						
S 181.975 Axial†	1157.0	941.47 µg/L	13.693	941.47 ppb	13.693	1.45%
QC value within limits for S 181.975 Axial Recovery = 94.15%						
Sb 206.836†	3593.5	485.78 µg/L	1.923	485.78 ppb	1.923	0.40%
QC value within limits for Sb 206.836 Recovery = 97.16%						
Se 196.026†	1197.9	476 µg/L	2.3	476 ppb	2.3	0.48%
QC value within limits for Se 196.026 Recovery = 95.20%						
SiO2†	47942.4	5219.4 µg/L	15.27	5219.4 ppb	15.27	0.29%
QC value within limits for SiO2 Recovery = 97.60%						
Si 251.611†	147885.2	2435.6 µg/L	5.51	2435.6 ppb	5.51	0.23%
QC value within limits for Si 251.611 Recovery = 97.42%						
Sn 189.927†	6826.1	486.94 µg/L	1.623	486.94 ppb	1.623	0.33%
QC value within limits for Sn 189.927 Recovery = 97.39%						
Sr 421.552†	216114.0	506.48 µg/L	2.501	506.48 ppb	2.501	0.49%
QC value within limits for Sr 421.552 Recovery = 101.30%						
Ti 334.940†	482041.8	490.89 µg/L	1.088	490.89 ppb	1.088	0.22%
QC value within limits for Ti 334.940 Recovery = 98.18%						
Tl 190.801†	3590.8	489.38 µg/L	0.983	489.38 ppb	0.983	0.20%
QC value within limits for Tl 190.801 Recovery = 97.88%						
U 409.014†	7493.2	493.05 µg/L	12.247	493.05 ppb	12.247	2.48%
QC value within limits for U 409.014 Recovery = 98.61%						
V 292.402†	88728.8	498.35 µg/L	0.611	498.35 ppb	0.611	0.12%
QC value within limits for V 292.402 Recovery = 99.67%						
Zn 213.857†	76678.1	478.83 µg/L	0.858	478.83 ppb	0.858	0.18%
QC value within limits for Zn 213.857 Recovery = 95.77%						
All analyte(s) passed QC.						

Sequence No.: 19  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 3/29/2010 19:54:47  
 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	157224.0	157224.0	108 %		19:55:16
1	Al 396.153Radial†	-32.4	1.9	0.3819 µg/L	0.3819 ppb	19:55:36
1	Ca 317.933Radial†	709.9	41.9	2.4560 µg/L	2.4560 ppb	19:55:36
1	Fe 238.204 Radial†	168.7	43.1	2.8662 µg/L	2.8662 ppb	19:55:36
1	K 766.490 Radial†	1483.0	-80.2	-33.015 µg/L	-33.015 ppb	19:55:16
1	Mg 279.077 IEC†	179.6	-20.2	-8.3135 µg/L	-8.3135 ppb	19:55:36
1	Na 589.592 Radial†	1705.0	-114.1	-17.428 µg/L	-17.428 ppb	19:55:16
1	Sr 421.552†	-122.3	164.6	0.3859 µg/L	0.3859 ppb	19:55:16
1	Sc 361.383	1744373.3	1744373.3	104.28 %		19:56:24
1	Y 371.029	1071958.2	1071958.2	104.83 %		19:56:24
1	Ag 328.068†	3041.9	-50.0	-0.2039 µg/L	-0.2039 ppb	19:56:26
1	As 188.979†	-16.7	-1.8	-0.7391 µg/L	-0.7391 ppb	19:56:46
1	B 249.677†	3115.7	-367.9	-6.1751 µg/L	-6.1751 ppb	19:56:46
1	Ba 233.527†	-172.9	9.3	0.0420 µg/L	0.0420 ppb	19:56:46
1	Be 313.107†	-510.3	170.7	0.0584 µg/L	0.0584 ppb	19:56:26
1	Cd 226.502†	-91.2	6.9	0.0476 µg/L	0.0476 ppb	19:56:46
1	Co 228.616†	-200.7	-15.9	-0.2172 µg/L	-0.2172 ppb	19:56:46
1	Cr 267.716†	193.2	25.0	0.2074 µg/L	0.2074 ppb	19:56:46
1	Cu 324.752†	2573.6	43.1	0.1952 µg/L	0.1952 ppb	19:56:26
1	Mn 257.610†	146.1	60.1	0.0824 µg/L	0.0824 ppb	19:56:46
1	Mo 202.031†	-38.9	17.9	0.5656 µg/L	0.5656 ppb	19:56:46
1	Ni 231.604†	-15.8	25.7	0.3290 µg/L	0.3290 ppb	19:56:46
1	P 214.914†	40.8	-40.5	-9.7010 µg/L	-9.7010 ppb	19:56:46
1	Pb 220.353†	105.0	-11.7	-0.7153 µg/L	-0.7153 ppb	19:56:46
1	S 181.975 Axial†	80.4	-17.8	-14.383 µg/L	-14.383 ppb	19:56:46
1	Sb 206.836†	78.7	-11.2	-1.5082 µg/L	-1.5082 ppb	19:56:46
1	Se 196.026†	26.3	14.3	5.65 µg/L	5.65 ppb	19:56:46
1	SiO2†	1648.2	7.7	0.8224 µg/L	0.8224 ppb	19:56:46
1	Si 251.611†	791.8	83.0	1.3617 µg/L	1.3617 ppb	19:56:46
1	Sn 189.927†	7.8	5.5	0.3882 µg/L	0.3882 ppb	19:56:46
1	Ti 334.940†	798.2	129.1	0.1285 µg/L	0.1285 ppb	19:56:26
1	Tl 190.801†	-105.6	19.0	2.5510 µg/L	2.5510 ppb	19:56:46
1	U 409.014†	-340.6	152.4	9.3589 µg/L	9.3589 ppb	19:56:26
1	V 292.402†	251.4	-190.7	-1.0454 µg/L	-1.0454 ppb	19:56:26
1	Zn 213.857†	524.6	38.6	0.2408 µg/L	0.2408 ppb	19:56:46
2	Sc RADIAL	153604.9	153604.9	105 %		19:55:38
2	Al 396.153Radial†	-40.7	-6.7	-1.5003 µg/L	-1.5003 ppb	19:55:58
2	Ca 317.933Radial†	698.2	46.3	2.7145 µg/L	2.7145 ppb	19:55:58
2	Fe 238.204 Radial†	160.1	38.6	2.5686 µg/L	2.5686 ppb	19:55:58
2	K 766.490 Radial†	1640.2	101.4	41.741 µg/L	41.741 ppb	19:55:38
2	Mg 279.077 IEC†	170.0	-25.4	-10.448 µg/L	-10.448 ppb	19:55:58
2	Na 589.592 Radial†	1652.3	-126.9	-19.447 µg/L	-19.447 ppb	19:55:38
2	Sr 421.552†	-170.5	116.2	0.2723 µg/L	0.2723 ppb	19:55:38
2	Sc 361.383	1769862.2	1769862.2	105.80 %		19:56:48
2	Y 371.029	1086957.3	1086957.3	106.30 %		19:56:48
2	Ag 328.068†	3055.4	-79.2	-0.3279 µg/L	-0.3279 ppb	19:56:50
2	As 188.979†	-3.9	10.5	4.3943 µg/L	4.3943 ppb	19:57:10
2	B 249.677†	3116.6	-410.1	-6.8860 µg/L	-6.8860 ppb	19:57:10
2	Ba 233.527†	-159.5	24.3	0.1105 µg/L	0.1105 ppb	19:57:10
2	Be 313.107†	-578.9	112.9	0.0378 µg/L	0.0378 ppb	19:56:50
2	Cd 226.502†	-100.7	-0.8	-0.0060 µg/L	-0.0060 ppb	19:57:10
2	Co 228.616†	-154.1	30.9	0.4233 µg/L	0.4233 ppb	19:57:10
2	Cr 267.716†	158.7	-10.2	-0.0909 µg/L	-0.0909 ppb	19:57:10
2	Cu 324.752†	2676.8	105.1	0.4602 µg/L	0.4602 ppb	19:56:50
2	Mn 257.610†	145.1	57.2	0.0785 µg/L	0.0785 ppb	19:57:10
2	Mo 202.031†	-36.1	21.0	0.6639 µg/L	0.6639 ppb	19:57:10
2	Ni 231.604†	-68.7	-24.1	-0.3078 µg/L	-0.3078 ppb	19:57:10
2	P 214.914†	59.6	-23.2	-5.5807 µg/L	-5.5807 ppb	19:57:10
2	Pb 220.353†	97.2	-20.5	-1.2440 µg/L	-1.2440 ppb	19:57:10

2	S 181.975 Axial†	84.9	-14.6	-11.787 µg/L	-11.787 ppb	19:57:10
2	Sb 206.836†	96.3	4.4	0.6052 µg/L	0.6052 ppb	19:57:10
2	Se 196.026†	0.8	-10.2	-4.02 µg/L	-4.02 ppb	19:57:10
2	SiO2†	1672.2	7.6	0.8120 µg/L	0.8120 ppb	19:57:10
2	Si 251.611†	794.7	74.7	1.2254 µg/L	1.2254 ppb	19:57:10
2	Sn 189.927†	4.2	1.9	0.1385 µg/L	0.1385 ppb	19:57:10
2	Ti 334.940†	903.8	217.9	0.2217 µg/L	0.2217 ppb	19:56:50
2	Tl 190.801†	-111.2	15.2	2.0307 µg/L	2.0307 ppb	19:57:10
2	U 409.014†	-447.5	56.1	3.4153 µg/L	3.4153 ppb	19:56:50
2	V 292.402†	287.1	-160.5	-0.8820 µg/L	-0.8820 ppb	19:56:50
2	Zn 213.857†	515.3	22.6	0.1440 µg/L	0.1440 ppb	19:57:10
3	Sc RADIAL	153703.8	153703.8	105 %		19:56:00
3	Al 396.153Radial†	-49.3	-14.8	-3.2844 µg/L	-3.2844 ppb	19:56:20
3	Ca 317.933Radial†	710.1	57.2	3.3512 µg/L	3.3512 ppb	19:56:20
3	Fe 238.204 Radial†	142.7	22.1	1.4665 µg/L	1.4665 ppb	19:56:20
3	K 766.490 Radial†	1683.5	141.5	58.243 µg/L	58.243 ppb	19:56:00
3	Mg 279.077 IEC†	155.1	-39.6	-16.319 µg/L	-16.319 ppb	19:56:20
3	Na 589.592 Radial†	1574.2	-202.0	-30.955 µg/L	-30.955 ppb	19:56:00
3	Sr 421.552†	-284.4	8.3	0.0193 µg/L	0.0193 ppb	19:56:00
3	Sc 361.383	1752547.4	1752547.4	104.77 %		19:57:12
3	Y 371.029	1077428.7	1077428.7	105.36 %		19:57:12
3	Ag 328.068†	3055.4	-50.7	-0.2129 µg/L	-0.2129 ppb	19:57:14
3	As 188.979†	-12.7	2.2	0.9041 µg/L	0.9041 ppb	19:57:35
3	B 249.677†	3085.6	-410.5	-6.8921 µg/L	-6.8921 ppb	19:57:35
3	Ba 233.527†	-169.6	13.1	0.0597 µg/L	0.0597 ppb	19:57:35
3	Be 313.107†	-482.0	200.1	0.0664 µg/L	0.0664 ppb	19:57:14
3	Cd 226.502†	-116.9	-17.2	-0.1188 µg/L	-0.1188 ppb	19:57:35
3	Co 228.616†	-195.4	-9.9	-0.1357 µg/L	-0.1357 ppb	19:57:35
3	Cr 267.716†	143.5	-23.2	-0.2031 µg/L	-0.2031 ppb	19:57:35
3	Cu 324.752†	2562.2	20.7	0.0929 µg/L	0.0929 ppb	19:57:14
3	Mn 257.610†	158.6	71.4	0.0982 µg/L	0.0982 ppb	19:57:35
3	Mo 202.031†	-25.3	31.1	0.9808 µg/L	0.9808 ppb	19:57:35
3	Ni 231.604†	-42.1	0.8	0.0099 µg/L	0.0099 ppb	19:57:35
3	P 214.914†	71.3	-11.5	-2.7700 µg/L	-2.7700 ppb	19:57:35
3	Pb 220.353†	104.0	-13.2	-0.8002 µg/L	-0.8002 ppb	19:57:35
3	S 181.975 Axial†	83.8	-14.8	-11.977 µg/L	-11.977 ppb	19:57:35
3	Sb 206.836†	75.3	-14.7	-1.9710 µg/L	-1.9710 ppb	19:57:35
3	Se 196.026†	23.6	11.6	4.60 µg/L	4.60 ppb	19:57:35
3	SiO2†	1653.5	5.4	0.5590 µg/L	0.5590 ppb	19:57:35
3	Si 251.611†	763.9	52.8	0.8589 µg/L	0.8589 ppb	19:57:35
3	Sn 189.927†	2.7	0.5	0.0386 µg/L	0.0386 ppb	19:57:35
3	Ti 334.940†	894.4	217.4	0.2215 µg/L	0.2215 ppb	19:57:14
3	Tl 190.801†	-118.7	7.0	0.9364 µg/L	0.9364 ppb	19:57:35
3	U 409.014†	-431.7	67.1	4.0863 µg/L	4.0863 ppb	19:57:14
3	V 292.402†	259.2	-184.4	-1.0115 µg/L	-1.0115 ppb	19:57:14
3	Zn 213.857†	491.0	4.2	0.0263 µg/L	0.0263 ppb	19:57:35

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1755594.3	104.95 %	0.778			0.74%
Sc RADIAL	154844.2	106 %	1.4			1.33%
Y 371.029	1078781.4	105.50 %	0.742			0.70%
Ag 328.068†	-60.0	-0.2482 µg/L	0.06913	-0.2482 ppb	0.06913	27.85%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-6.6	-1.4676 µg/L	1.83335	-1.4676 ppb	1.83335	124.92%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	3.6	1.5198 µg/L	2.62149	1.5198 ppb	2.62149	172.49%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-396.2	-6.6511 µg/L	0.41221	-6.6511 ppb	0.41221	6.20%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	15.6	0.0707 µg/L	0.03556	0.0707 ppb	0.03556	50.28%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	161.2	0.0542 µg/L	0.01474	0.0542 ppb	0.01474	27.20%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	48.5	2.8406 µg/L	0.46071	2.8406 ppb	0.46071	16.22%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-3.7	-0.0257 µg/L	0.08491	-0.0257 ppb	0.08491	330.30%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	1.7	0.0235 µg/L	0.34867	0.0235 ppb	0.34867	>999.9%



Cr	267.716†	QC value within limits for Co 228.616	Recovery = Not calculated			
		-2.8	-0.0289 µg/L	0.21215	-0.0289 ppb	0.21215 734.89%
Cu	324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated			
		56.3	0.2495 µg/L	0.18957	0.2495 ppb	0.18957 75.99%
Fe	238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated			
		34.6	2.3004 µg/L	0.73735	2.3004 ppb	0.73735 32.05%
K	766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated			
		54.2	22.323 µg/L	48.6295	22.323 ppb	48.6295 217.84%
Mg	279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated			
		-28.4	-11.693 µg/L	4.1454	-11.693 ppb	4.1454 35.45%
Mn	257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated			
		62.9	0.0864 µg/L	0.01044	0.0864 ppb	0.01044 12.09%
Mo	202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated			
		23.4	0.7368 µg/L	0.21697	0.7368 ppb	0.21697 29.45%
Na	589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated			
		-147.6	-22.610 µg/L	7.2970	-22.610 ppb	7.2970 32.27%
Ni	231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated			
		0.8	0.0104 µg/L	0.31844	0.0104 ppb	0.31844 >999.9%
P	214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated			
		-25.1	-6.0172 µg/L	3.48607	-6.0172 ppb	3.48607 57.93%
Pb	220.353†	QC value within limits for P 214.914	Recovery = Not calculated			
		-15.2	-0.9198 µg/L	0.28391	-0.9198 ppb	0.28391 30.87%
S	181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated			
		-15.7	-12.716 µg/L	1.4469	-12.716 ppb	1.4469 11.38%
Sb	206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated			
		-7.2	-0.9580 µg/L	1.37341	-0.9580 ppb	1.37341 143.36%
Se	196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated			
		5.2	2.08 µg/L	5.305	2.08 ppb	5.305 255.01%
SiO2†		QC value within limits for Se 196.026	Recovery = Not calculated			
		6.9	0.7311 µg/L	0.14916	0.7311 ppb	0.14916 20.40%
Si	251.611†	QC value within limits for SiO2	Recovery = Not calculated			
		70.1	1.1487 µg/L	0.26000	1.1487 ppb	0.26000 22.64%
Sn	189.927†	QC value within limits for Si 251.611	Recovery = Not calculated			
		2.6	0.1884 µg/L	0.18007	0.1884 ppb	0.18007 95.55%
Sr	421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated			
		96.4	0.2258 µg/L	0.18764	0.2258 ppb	0.18764 83.09%
Ti	334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated			
		188.1	0.1905 µg/L	0.05374	0.1905 ppb	0.05374 28.21%
Tl	190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated			
		13.7	1.8394 µg/L	0.82412	1.8394 ppb	0.82412 44.80%
U	409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated			
		91.9	5.6202 µg/L	3.25513	5.6202 ppb	3.25513 57.92%
V	292.402†	QC value within limits for U 409.014	Recovery = Not calculated			
		-178.5	-0.9796 µg/L	0.08622	-0.9796 ppb	0.08622 8.80%
Zn	213.857†	QC value within limits for V 292.402	Recovery = Not calculated			
		21.8	0.1370 µg/L	0.10743	0.1370 ppb	0.10743 78.42%
		QC value within limits for Zn 213.857	Recovery = Not calculated			

All analyte(s) passed QC.

Sequence No.: 28

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/29/2010 20:14:40

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	158830.4	158830.4	109 %		20:15:13
1	Al 396.153Radial†	25834.9	23739.9	5159.6 µg/L	5159.6 ppb	20:15:13
1	Ca 317.933Radial†	92141.6	83939.6	4918.5 µg/L	4918.5 ppb	20:15:13
1	Fe 238.204 Radial†	80227.4	73509.2	4887.1 µg/L	4887.1 ppb	20:15:13
1	K 766.490 Radial†	14250.9	11622.7	4780.8 µg/L	4780.8 ppb	20:15:13
1	Mg 279.077 IEC†	13509.5	12210.6	5042.2 µg/L	5042.2 ppb	20:15:13
1	Na 589.592 Radial†	71473.6	63894.6	9772.4 µg/L	9772.4 ppb	20:15:13
1	Sr 421.552†	233067.3	214157.3	501.89 µg/L	501.89 ppb	20:15:11
1	Sc 361.383	1758890.2	1758890.2	105.15 %		20:15:40
1	Y 371.029	1068006.2	1068006.2	104.44 %		20:15:40
1	Ag 328.068†	130795.7	121424.9	498.97 µg/L	498.97 ppb	20:15:40
1	As 188.979†	1305.1	1255.5	531.78 µg/L	531.78 ppb	20:16:00
1	B 249.677†	33757.2	28748.7	480.95 µg/L	480.95 ppb	20:15:40
1	Ba 233.527†	115387.0	109912.7	502.52 µg/L	502.52 ppb	20:15:40
1	Be 313.107†	1647211.3	1567223.6	510.30 µg/L	510.30 ppb	20:15:40
1	Cd 226.502†	73776.2	70258.5	484.88 µg/L	484.88 ppb	20:15:40
1	Co 228.616†	37405.4	35750.6	489.80 µg/L	489.80 ppb	20:15:40
1	Cr 267.716†	60425.3	57306.6	492.09 µg/L	492.09 ppb	20:15:40
1	Cu 324.752†	122063.0	113661.9	495.62 µg/L	495.62 ppb	20:15:40
1	Mn 257.610†	380412.8	361707.7	494.04 µg/L	494.04 ppb	20:15:40
1	Mo 202.031†	16080.3	15348.2	484.94 µg/L	484.94 ppb	20:16:00
1	Ni 231.604†	40320.7	38387.5	491.02 µg/L	491.02 ppb	20:15:40
1	P 214.914†	10614.3	10015.1	2390.0 µg/L	2390.0 ppb	20:16:00
1	Pb 220.353†	8478.6	7951.1	483.21 µg/L	483.21 ppb	20:16:00
1	S 181.975 Axial†	1339.7	1179.2	959.49 µg/L	959.49 ppb	20:16:00
1	Sb 206.836†	3893.5	3616.2	488.83 µg/L	488.83 ppb	20:16:00
1	Se 196.026†	1283.0	1209.3	480 µg/L	480 ppb	20:16:00
1	SiO2†	52444.4	48303.9	5258.8 µg/L	5258.8 ppb	20:15:40
1	Si 251.611†	157396.1	149013.5	2454.2 µg/L	2454.2 ppb	20:15:40
1	Sn 189.927†	7240.5	6884.0	491.06 µg/L	491.06 ppb	20:16:00
1	Ti 334.940†	511382.1	485708.4	494.63 µg/L	494.63 ppb	20:15:40
1	Tl 190.801†	3660.5	3601.6	490.88 µg/L	490.88 ppb	20:16:00
1	U 409.014†	7375.4	7493.4	493.30 µg/L	493.30 ppb	20:15:40
1	V 292.402†	94413.5	89359.2	501.88 µg/L	501.88 ppb	20:15:40
1	Zn 213.857†	81706.6	77241.8	482.36 µg/L	482.36 ppb	20:15:40
2	Sc RADIAL	157495.3	157495.3	108 %		20:15:18
2	Al 396.153Radial†	25706.5	23822.0	5177.5 µg/L	5177.5 ppb	20:15:18
2	Ca 317.933Radial†	91510.6	84072.4	4926.3 µg/L	4926.3 ppb	20:15:18
2	Fe 238.204 Radial†	79745.5	73687.3	4899.0 µg/L	4899.0 ppb	20:15:18
2	K 766.490 Radial†	14109.0	11602.1	4772.3 µg/L	4772.3 ppb	20:15:18
2	Mg 279.077 IEC†	13430.6	12242.7	5055.5 µg/L	5055.5 ppb	20:15:18
2	Na 589.592 Radial†	70962.0	63977.1	9785.1 µg/L	9785.1 ppb	20:15:18
2	Sr 421.552†	232192.9	215161.2	504.24 µg/L	504.24 ppb	20:15:16
2	Sc 361.383	1762035.0	1762035.0	105.34 %		20:16:04
2	Y 371.029	1068713.1	1068713.1	104.51 %		20:16:04
2	Ag 328.068†	130782.3	121190.1	498.00 µg/L	498.00 ppb	20:16:04
2	As 188.979†	1306.9	1255.0	531.56 µg/L	531.56 ppb	20:16:24
2	B 249.677†	33992.4	28914.7	483.74 µg/L	483.74 ppb	20:16:04
2	Ba 233.527†	115511.3	109834.8	502.16 µg/L	502.16 ppb	20:16:04
2	Be 313.107†	1645684.7	1562978.3	508.91 µg/L	508.91 ppb	20:16:04
2	Cd 226.502†	74022.3	70366.9	485.63 µg/L	485.63 ppb	20:16:04
2	Co 228.616†	37443.2	35723.0	489.42 µg/L	489.42 ppb	20:16:04
2	Cr 267.716†	60364.6	57146.4	490.71 µg/L	490.71 ppb	20:16:04
2	Cu 324.752†	122082.7	113473.4	494.80 µg/L	494.80 ppb	20:16:04
2	Mn 257.610†	380150.5	360813.0	492.82 µg/L	492.82 ppb	20:16:04
2	Mo 202.031†	16156.3	15393.1	486.35 µg/L	486.35 ppb	20:16:24
2	Ni 231.604†	40290.4	38290.3	489.78 µg/L	489.78 ppb	20:16:04
2	P 214.914†	10621.1	10003.5	2387.2 µg/L	2387.2 ppb	20:16:24
2	Pb 220.353†	8535.7	7990.8	485.62 µg/L	485.62 ppb	20:16:24

2	S 181.975 Axial†	1326.2	1164.2	947.33 µg/L	947.33 ppb	20:16:24
2	Sb 206.836†	3900.6	3616.4	488.88 µg/L	488.88 ppb	20:16:24
2	Se 196.026†	1284.8	1208.8	480 µg/L	480 ppb	20:16:24
2	SiO2†	52491.8	48259.9	5253.9 µg/L	5253.9 ppb	20:16:04
2	Si 251.611†	157382.7	148733.6	2449.6 µg/L	2449.6 ppb	20:16:04
2	Sn 189.927†	7227.9	6859.8	489.33 µg/L	489.33 ppb	20:16:24
2	Ti 334.940†	511020.6	484497.1	493.40 µg/L	493.40 ppb	20:16:04
2	Tl 190.801†	3689.6	3623.0	493.72 µg/L	493.72 ppb	20:16:24
2	U 409.014†	7356.3	7462.8	491.32 µg/L	491.32 ppb	20:16:04
2	V 292.402†	94327.3	89117.0	500.55 µg/L	500.55 ppb	20:16:04
2	Zn 213.857†	81870.2	77258.4	482.47 µg/L	482.47 ppb	20:16:04
3	Sc RADIAL	156537.6	156537.6	107 %		20:15:22
3	Al 396.153Radial†	25645.9	23911.1	5196.9 µg/L	5196.9 ppb	20:15:22
3	Ca 317.933Radial†	91188.8	84290.9	4939.1 µg/L	4939.1 ppb	20:15:22
3	Fe 238.204 Radial†	79529.7	73937.9	4915.6 µg/L	4915.6 ppb	20:15:22
3	K 766.490 Radial†	14092.0	11666.3	4798.7 µg/L	4798.7 ppb	20:15:22
3	Mg 279.077 IEC†	13237.8	12139.2	5012.8 µg/L	5012.8 ppb	20:15:22
3	Na 589.592 Radial†	70964.3	64381.0	9846.9 µg/L	9846.9 ppb	20:15:22
3	Sr 421.552†	233615.3	217800.3	510.43 µg/L	510.43 ppb	20:15:20
3	Sc 361.383	1760601.0	1760601.0	105.25 %		20:16:27
3	Y 371.029	1068160.3	1068160.3	104.46 %		20:16:27
3	Ag 328.068†	130523.2	121045.1	497.39 µg/L	497.39 ppb	20:16:27
3	As 188.979†	1312.2	1261.0	534.08 µg/L	534.08 ppb	20:16:47
3	B 249.677†	33684.6	28648.5	479.28 µg/L	479.28 ppb	20:16:27
3	Ba 233.527†	115155.8	109586.4	501.03 µg/L	501.03 ppb	20:16:27
3	Be 313.107†	1645527.7	1564101.6	509.28 µg/L	509.28 ppb	20:16:27
3	Cd 226.502†	73929.1	70335.6	485.41 µg/L	485.41 ppb	20:16:27
3	Co 228.616†	37338.0	35652.0	488.45 µg/L	488.45 ppb	20:16:27
3	Cr 267.716†	60447.8	57272.2	491.80 µg/L	491.80 ppb	20:16:27
3	Cu 324.752†	121740.8	113243.0	493.79 µg/L	493.79 ppb	20:16:27
3	Mn 257.610†	379672.2	360652.5	492.60 µg/L	492.60 ppb	20:16:27
3	Mo 202.031†	16168.3	15416.9	487.10 µg/L	487.10 ppb	20:16:47
3	Ni 231.604†	40268.9	38301.0	489.91 µg/L	489.91 ppb	20:16:27
3	P 214.914†	10675.3	10063.2	2401.6 µg/L	2401.6 ppb	20:16:47
3	Pb 220.353†	8520.4	7982.9	485.15 µg/L	485.15 ppb	20:16:47
3	S 181.975 Axial†	1321.3	1160.6	944.41 µg/L	944.41 ppb	20:16:47
3	Sb 206.836†	3929.7	3647.1	493.02 µg/L	493.02 ppb	20:16:47
3	Se 196.026†	1275.2	1200.7	477 µg/L	477 ppb	20:16:47
3	SiO2†	52357.5	48172.8	5244.4 µg/L	5244.4 ppb	20:16:27
3	Si 251.611†	157210.8	148692.0	2448.9 µg/L	2448.9 ppb	20:16:27
3	Sn 189.927†	7259.6	6895.4	491.87 µg/L	491.87 ppb	20:16:47
3	Ti 334.940†	509954.6	483879.4	492.77 µg/L	492.77 ppb	20:16:27
3	Tl 190.801†	3695.1	3631.0	494.80 µg/L	494.80 ppb	20:16:47
3	U 409.014†	7240.3	7358.2	484.82 µg/L	484.82 ppb	20:16:27
3	V 292.402†	94156.3	89027.6	500.06 µg/L	500.06 ppb	20:16:27
3	Zn 213.857†	81777.8	77234.0	482.31 µg/L	482.31 ppb	20:16:27

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1760508.7	105.24 %	0.094			0.09%
Sc RADIAL	157621.1	108 %	0.8			0.73%
Y 371.029	1068293.2	104.47 %	0.036			0.03%
Ag 328.068†	121220.0	498.12 µg/L	0.794	498.12 ppb	0.794	0.16%
QC value within limits for Ag 328.068 Recovery = 99.62%						
Al 396.153Radial†	23824.3	5178.0 µg/L	18.65	5178.0 ppb	18.65	0.36%
QC value within limits for Al 396.153Radial Recovery = 103.56%						
As 188.979†	1257.1	532.47 µg/L	1.398	532.47 ppb	1.398	0.26%
QC value within limits for As 188.979 Recovery = 106.49%						
B 249.677†	28770.7	481.32 µg/L	2.255	481.32 ppb	2.255	0.47%
QC value within limits for B 249.677 Recovery = 96.26%						
Ba 233.527†	109778.0	501.91 µg/L	0.779	501.91 ppb	0.779	0.16%
QC value within limits for Ba 233.527 Recovery = 100.38%						
Be 313.107†	1564767.8	509.50 µg/L	0.717	509.50 ppb	0.717	0.14%
QC value within limits for Be 313.107 Recovery = 101.90%						
Ca 317.933Radial†	84101.0	4928.0 µg/L	10.39	4928.0 ppb	10.39	0.21%
QC value within limits for Ca 317.933Radial Recovery = 98.56%						
Cd 226.502†	70320.3	485.30 µg/L	0.384	485.30 ppb	0.384	0.08%
QC value within limits for Cd 226.502 Recovery = 97.06%						
Co 228.616†	35708.6	489.22 µg/L	0.698	489.22 ppb	0.698	0.14%

QC value within limits for Co 228.616 Recovery = 97.84%							
Cr 267.716†	57241.7	491.53 µg/L	0.725	491.53 ppb	0.725	0.15%	
QC value within limits for Cr 267.716 Recovery = 98.31%							
Cu 324.752†	113459.4	494.74 µg/L	0.914	494.74 ppb	0.914	0.18%	
QC value within limits for Cu 324.752 Recovery = 98.95%							
Fe 238.204 Radial†	73711.5	4900.6 µg/L	14.32	4900.6 ppb	14.32	0.29%	
QC value within limits for Fe 238.204 Radial Recovery = 98.01%							
K 766.490 Radial†	11630.4	4783.9 µg/L	13.48	4783.9 ppb	13.48	0.28%	
QC value within limits for K 766.490 Radial Recovery = 95.68%							
Mg 279.077 IEC†	12197.5	5036.8 µg/L	21.85	5036.8 ppb	21.85	0.43%	
QC value within limits for Mg 279.077 IEC Recovery = 100.74%							
Mn 257.610†	361057.7	493.15 µg/L	0.777	493.15 ppb	0.777	0.16%	
QC value within limits for Mn 257.610 Recovery = 98.63%							
Mo 202.031†	15386.1	486.13 µg/L	1.101	486.13 ppb	1.101	0.23%	
QC value within limits for Mo 202.031 Recovery = 97.23%							
Na 589.592 Radial†	64084.3	9801.5 µg/L	39.82	9801.5 ppb	39.82	0.41%	
QC value within limits for Na 589.592 Radial Recovery = 98.01%							
Ni 231.604†	38326.3	490.24 µg/L	0.682	490.24 ppb	0.682	0.14%	
QC value within limits for Ni 231.604 Recovery = 98.05%							
P 214.914†	10027.2	2392.9 µg/L	7.59	2392.9 ppb	7.59	0.32%	
QC value within limits for P 214.914 Recovery = 95.72%							
Pb 220.353†	7974.9	484.66 µg/L	1.279	484.66 ppb	1.279	0.26%	
QC value within limits for Pb 220.353 Recovery = 96.93%							
S 181.975 Axial†	1168.0	950.41 µg/L	8.003	950.41 ppb	8.003	0.84%	
QC value within limits for S 181.975 Axial Recovery = 95.04%							
Sb 206.836†	3626.6	490.24 µg/L	2.403	490.24 ppb	2.403	0.49%	
QC value within limits for Sb 206.836 Recovery = 98.05%							
Se 196.026†	1206.3	479 µg/L	1.9	479 ppb	1.9	0.40%	
QC value within limits for Se 196.026 Recovery = 95.86%							
SiO2†	48245.5	5252.4 µg/L	7.33	5252.4 ppb	7.33	0.14%	
QC value within limits for SiO2 Recovery = 98.22%							
Si 251.611†	148813.1	2450.9 µg/L	2.90	2450.9 ppb	2.90	0.12%	
QC value within limits for Si 251.611 Recovery = 98.04%							
Sn 189.927†	6879.7	490.75 µg/L	1.293	490.75 ppb	1.293	0.26%	
QC value within limits for Sn 189.927 Recovery = 98.15%							
Sr 421.552†	215706.3	505.52 µg/L	4.410	505.52 ppb	4.410	0.87%	
QC value within limits for Sr 421.552 Recovery = 101.10%							
Ti 334.940†	484695.0	493.60 µg/L	0.946	493.60 ppb	0.946	0.19%	
QC value within limits for Ti 334.940 Recovery = 98.72%							
Tl 190.801†	3618.5	493.13 µg/L	2.027	493.13 ppb	2.027	0.41%	
QC value within limits for Tl 190.801 Recovery = 98.63%							
U 409.014†	7438.1	489.81 µg/L	4.433	489.81 ppb	4.433	0.91%	
QC value within limits for U 409.014 Recovery = 97.96%							
V 292.402†	89167.9	500.83 µg/L	0.945	500.83 ppb	0.945	0.19%	
QC value within limits for V 292.402 Recovery = 100.17%							
Zn 213.857†	77244.7	482.38 µg/L	0.080	482.38 ppb	0.080	0.02%	
QC value within limits for Zn 213.857 Recovery = 96.48%							
All analyte(s) passed QC.							

Sequence No.: 29

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/29/2010 20:16:54

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	158157.7	158157.7	109 %			20:17:23
1	Al 396.153Radial†	-63.6	-26.8	-5.8638 µg/L		-5.8638 ppb	20:17:43
1	Ca 317.933Radial†	734.1	60.4	3.5365 µg/L		3.5365 ppb	20:17:43
1	Fe 238.204 Radial†	186.1	58.3	3.8728 µg/L		3.8728 ppb	20:17:43
1	K 766.490 Radial†	1649.8	65.4	26.926 µg/L		26.926 ppb	20:17:23
1	Mg 279.077 IEC†	176.6	-23.9	-9.8603 µg/L		-9.8603 ppb	20:17:43
1	Na 589.592 Radial†	1600.7	-219.6	-33.624 µg/L		-33.624 ppb	20:17:23
1	Sr 421.552†	-113.7	173.2	0.4058 µg/L		0.4058 ppb	20:17:23
1	Sc 361.383	1797162.4	1797162.4	107.44 %			20:18:45
1	Y 371.029	1101535.0	1101535.0	107.72 %			20:18:45
1	Ag 328.068†	3189.5	1.7	0.0181 µg/L		0.0181 ppb	20:18:47
1	As 188.979†	-18.7	-3.2	-1.3282 µg/L		-1.3282 ppb	20:19:07
1	B 249.677†	3164.5	-410.2	-6.8868 µg/L		-6.8868 ppb	20:19:07
1	Ba 233.527†	-166.3	20.3	0.0925 µg/L		0.0925 ppb	20:19:07
1	Be 313.107†	-796.9	-81.6	-0.0232 µg/L		-0.0232 ppb	20:18:47
1	Cd 226.502†	-88.5	12.1	0.0830 µg/L		0.0830 ppb	20:19:07
1	Co 228.616†	-182.6	6.7	0.0913 µg/L		0.0913 ppb	20:19:07
1	Cr 267.716†	146.8	-23.6	-0.2111 µg/L		-0.2111 ppb	20:19:07
1	Cu 324.752†	2533.1	-67.1	-0.2822 µg/L		-0.2822 ppb	20:18:47
1	Mn 257.610†	189.2	96.1	0.1316 µg/L		0.1316 ppb	20:19:07
1	Mo 202.031†	-43.6	14.6	0.4617 µg/L		0.4617 ppb	20:19:07
1	Ni 231.604†	-36.3	7.1	0.0912 µg/L		0.0912 ppb	20:19:07
1	P 214.914†	33.9	-48.0	-11.496 µg/L		-11.496 ppb	20:19:07
1	Pb 220.353†	106.6	-13.2	-0.8080 µg/L		-0.8080 ppb	20:19:07
1	S 181.975 Axial†	94.0	-7.3	-5.9118 µg/L		-5.9118 ppb	20:19:07
1	Sb 206.836†	77.5	-14.5	-1.9423 µg/L		-1.9423 ppb	20:19:07
1	Se 196.026†	26.1	13.3	5.29 µg/L		5.29 ppb	20:19:07
1	SiO2†	1703.2	12.4	1.3407 µg/L		1.3407 ppb	20:19:07
1	Si 251.611†	757.0	28.3	0.4592 µg/L		0.4592 ppb	20:19:07
1	Sn 189.927†	6.4	3.9	0.2796 µg/L		0.2796 ppb	20:19:07
1	Ti 334.940†	1092.2	380.2	0.3841 µg/L		0.3841 ppb	20:18:47
1	Tl 190.801†	-110.1	17.8	2.3981 µg/L		2.3981 ppb	20:19:07
1	U 409.014†	-322.2	179.2	11.064 µg/L		11.064 ppb	20:18:47
1	V 292.402†	429.3	-32.2	-0.1685 µg/L		-0.1685 ppb	20:18:47
1	Zn 213.857†	497.4	-1.5	-0.0099 µg/L		-0.0099 ppb	20:19:07
2	Sc RADIAL	155691.2	155691.2	107 %			20:17:45
2	Al 396.153Radial†	-30.3	3.5	0.7196 µg/L		0.7196 ppb	20:18:05
2	Ca 317.933Radial†	713.2	51.5	3.0148 µg/L		3.0148 ppb	20:18:05
2	Fe 238.204 Radial†	162.5	38.8	2.5826 µg/L		2.5826 ppb	20:18:05
2	K 766.490 Radial†	1523.5	-28.7	-11.809 µg/L		-11.809 ppb	20:17:45
2	Mg 279.077 IEC†	195.4	-3.7	-1.5189 µg/L		-1.5189 ppb	20:18:05
2	Na 589.592 Radial†	1538.6	-254.3	-38.906 µg/L		-38.906 ppb	20:17:45
2	Sr 421.552†	-172.2	116.8	0.2737 µg/L		0.2737 ppb	20:17:45
2	Sc 361.383	1776190.8	1776190.8	106.18 %			20:19:09
2	Y 371.029	1089581.5	1089581.5	106.55 %			20:19:09
2	Ag 328.068†	3209.2	55.3	0.2233 µg/L		0.2233 ppb	20:19:11
2	As 188.979†	-18.8	-3.4	-1.4319 µg/L		-1.4319 ppb	20:19:31
2	B 249.677†	3163.9	-376.0	-6.3128 µg/L		-6.3128 ppb	20:19:31
2	Ba 233.527†	-158.5	25.8	0.1177 µg/L		0.1177 ppb	20:19:31
2	Be 313.107†	-622.2	74.1	0.0253 µg/L		0.0253 ppb	20:19:11
2	Cd 226.502†	-71.9	26.7	0.1839 µg/L		0.1839 ppb	20:19:31
2	Co 228.616†	-183.6	3.7	0.0500 µg/L		0.0500 ppb	20:19:31
2	Cr 267.716†	166.1	-3.8	-0.0355 µg/L		-0.0355 ppb	20:19:31
2	Cu 324.752†	2626.6	48.8	0.2155 µg/L		0.2155 ppb	20:19:11
2	Mn 257.610†	203.0	111.2	0.1519 µg/L		0.1519 ppb	20:19:31
2	Mo 202.031†	-29.4	27.5	0.8686 µg/L		0.8686 ppb	20:19:31
2	Ni 231.604†	-58.1	-13.8	-0.1766 µg/L		-0.1766 ppb	20:19:31
2	P 214.914†	38.3	-43.5	-10.438 µg/L		-10.438 ppb	20:19:31
2	Pb 220.353†	142.1	21.4	1.2928 µg/L		1.2928 ppb	20:19:31

2	S 181.975 Axial†	84.7	-15.1	-12.191 µg/L	-12.191 ppb	20:19:31
2	Sb 206.836†	90.2	-1.7	-0.2231 µg/L	-0.2231 ppb	20:19:31
2	Se 196.026†	16.7	4.8	1.90 µg/L	1.90 ppb	20:19:31
2	SiO2†	1687.5	16.4	1.7745 µg/L	1.7745 ppb	20:19:31
2	Si 251.611†	744.1	24.4	0.3950 µg/L	0.3950 ppb	20:19:31
2	Sn 189.927†	-5.5	-7.2	-0.5152 µg/L	-0.5152 ppb	20:19:31
2	Ti 334.940†	590.2	-80.5	-0.0834 µg/L	-0.0834 ppb	20:19:11
2	Tl 190.801†	-116.1	11.0	1.4736 µg/L	1.4736 ppb	20:19:31
2	U 409.014†	-444.6	60.4	3.7028 µg/L	3.7028 ppb	20:19:11
2	V 292.402†	365.2	-87.9	-0.4766 µg/L	-0.4766 ppb	20:19:11
2	Zn 213.857†	508.8	14.8	0.0938 µg/L	0.0938 ppb	20:19:31
3	Sc RADIAL	155889.7	155889.7	107 %		20:18:07
3	Al 396.153Radial†	-21.6	11.7	2.4989 µg/L	2.4989 ppb	20:18:27
3	Ca 317.933Radial†	710.6	48.2	2.8268 µg/L	2.8268 ppb	20:18:27
3	Fe 238.204 Radial†	176.6	51.8	3.4464 µg/L	3.4464 ppb	20:18:27
3	K 766.490 Radial†	1522.8	-31.2	-12.835 µg/L	-12.835 ppb	20:18:07
3	Mg 279.077 IEC†	169.6	-28.1	-11.582 µg/L	-11.582 ppb	20:18:27
3	Na 589.592 Radial†	1514.3	-278.9	-42.658 µg/L	-42.658 ppb	20:18:07
3	Sr 421.552†	-115.2	170.3	0.3991 µg/L	0.3991 ppb	20:18:07
3	Sc 361.383	1775735.1	1775735.1	106.16 %		20:19:33
3	Y 371.029	1090212.1	1090212.1	106.61 %		20:19:33
3	Ag 328.068†	3310.5	151.5	0.6044 µg/L	0.6044 ppb	20:19:35
3	As 188.979†	-18.3	-3.0	-1.2478 µg/L	-1.2478 ppb	20:19:55
3	B 249.677†	3162.1	-376.9	-6.3290 µg/L	-6.3290 ppb	20:19:55
3	Ba 233.527†	-165.4	19.2	0.0872 µg/L	0.0872 ppb	20:19:55
3	Be 313.107†	-659.6	38.8	0.0140 µg/L	0.0140 ppb	20:19:35
3	Cd 226.502†	-97.0	3.1	0.0206 µg/L	0.0206 ppb	20:19:55
3	Co 228.616†	-161.6	24.4	0.3340 µg/L	0.3340 ppb	20:19:55
3	Cr 267.716†	177.4	6.9	0.0553 µg/L	0.0553 ppb	20:19:55
3	Cu 324.752†	2774.4	188.7	0.8244 µg/L	0.8244 ppb	20:19:35
3	Mn 257.610†	182.4	91.8	0.1259 µg/L	0.1259 ppb	20:19:55
3	Mo 202.031†	-25.4	31.3	0.9879 µg/L	0.9879 ppb	20:19:55
3	Ni 231.604†	-68.5	-23.6	-0.3019 µg/L	-0.3019 ppb	20:19:55
3	P 214.914†	51.6	-31.0	-7.4391 µg/L	-7.4391 ppb	20:19:55
3	Pb 220.353†	84.6	-32.7	-1.9844 µg/L	-1.9844 ppb	20:19:55
3	S 181.975 Axial†	85.3	-14.4	-11.697 µg/L	-11.697 ppb	20:19:55
3	Sb 206.836†	54.5	-35.3	-4.7507 µg/L	-4.7507 ppb	20:19:55
3	Se 196.026†	0.8	-10.1	-4.01 µg/L	-4.01 ppb	20:19:55
3	SiO2†	1675.1	5.1	0.5352 µg/L	0.5352 ppb	20:19:55
3	Si 251.611†	757.0	36.7	0.5978 µg/L	0.5978 ppb	20:19:55
3	Sn 189.927†	-6.1	-7.8	-0.5522 µg/L	-0.5522 ppb	20:19:55
3	Ti 334.940†	761.4	80.9	0.0816 µg/L	0.0816 ppb	20:19:35
3	Tl 190.801†	-108.3	18.3	2.4419 µg/L	2.4419 ppb	20:19:55
3	U 409.014†	-429.2	74.8	4.5456 µg/L	4.5456 ppb	20:19:35
3	V 292.402†	201.6	-241.9	-1.3288 µg/L	-1.3288 ppb	20:19:35
3	Zn 213.857†	514.6	20.3	0.1291 µg/L	0.1291 ppb	20:19:55

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1783029.4	106.59 %	0.732			0.69%
Sc RADIAL	156579.5	107 %	0.9			0.88%
Y 371.029	1093776.2	106.96 %	0.658			0.61%
Ag 328.068†	69.5	0.2819 µg/L	0.29754	0.2819 ppb	0.29754	105.55%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-3.9	-0.8818 µg/L	4.40531	-0.8818 ppb	4.40531	499.59%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-3.2	-1.3360 µg/L	0.09228	-1.3360 ppb	0.09228	6.91%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-387.7	-6.5095 µg/L	0.32684	-6.5095 ppb	0.32684	5.02%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	21.7	0.0991 µg/L	0.01628	0.0991 ppb	0.01628	16.43%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	10.4	0.0053 µg/L	0.02537	0.0053 ppb	0.02537	474.55%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	53.3	3.1261 µg/L	0.36770	3.1261 ppb	0.36770	11.76%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	13.9	0.0958 µg/L	0.08241	0.0958 ppb	0.08241	85.99%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	11.6	0.1584 µg/L	0.15343	0.1584 ppb	0.15343	96.85%

QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	-6.8 -0.0638 µg/L	0.13543 -0.0638 ppb	0.13543 212.32%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	56.8 0.2526 µg/L	0.55423 0.2526 ppb	0.55423 219.45%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	49.6 3.3006 µg/L	0.65736 3.3006 ppb	0.65736 19.92%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	1.8 0.7609 µg/L	22.66551 0.7609 ppb	22.66551 >999.9%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	-18.6 -7.6537 µg/L	5.38218 -7.6537 ppb	5.38218 70.32%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	99.7 0.1365 µg/L	0.01367 0.1365 ppb	0.01367 10.02%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	24.5 0.7728 µg/L	0.27588 0.7728 ppb	0.27588 35.70%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	-250.9 -38.396 µg/L	4.5384 -38.396 ppb	4.5384 11.82%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	-10.1 -0.1291 µg/L	0.20080 -0.1291 ppb	0.20080 155.54%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-40.8 -9.7910 µg/L	2.10426 -9.7910 ppb	2.10426 21.49%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-8.2 -0.4998 µg/L	1.66019 -0.4998 ppb	1.66019 332.15%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-12.3 -9.9332 µg/L	3.49134 -9.9332 ppb	3.49134 35.15%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	-17.2 -2.3053 µg/L	2.28550 -2.3053 ppb	2.28550 99.14%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	2.7 1.06 µg/L	4.705 1.06 ppb	4.705 444.44%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	11.3 1.2168 µg/L	0.62889 1.2168 ppb	0.62889 51.68%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	29.8 0.4840 µg/L	0.10365 0.4840 ppb	0.10365 21.42%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	-3.7 -0.2626 µg/L	0.46990 -0.2626 ppb	0.46990 178.94%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	153.4 0.3595 µg/L	0.07442 0.3595 ppb	0.07442 20.70%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	126.9 0.1275 µg/L	0.23711 0.1275 ppb	0.23711 186.03%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	15.7 2.1045 µg/L	0.54683 2.1045 ppb	0.54683 25.98%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	104.8 6.4375 µg/L	4.02889 6.4375 ppb	4.02889 62.58%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	-120.7 -0.6580 µg/L	0.60105 -0.6580 ppb	0.60105 91.35%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	11.2 0.0710 µg/L	0.07224 0.0710 ppb	0.07224 101.73%
QC value within limits for Zn 213.857	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 37

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/29/2010 20:39:13

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	158480.3	158480.3	109 %		20:39:46
1	Al 396.153Radial†	25899.3	23851.4	5184.2 µg/L	5184.2 ppb	20:39:46
1	Ca 317.933Radial†	91372.8	83419.3	4888.0 µg/L	4888.0 ppb	20:39:46
1	Fe 238.204 Radial†	79864.5	73338.0	4875.8 µg/L	4875.8 ppb	20:39:46
1	K 766.490 Radial†	13976.2	11398.9	4688.7 µg/L	4688.7 ppb	20:39:46
1	Mg 279.077 IEC†	13513.6	12241.7	5054.9 µg/L	5054.9 ppb	20:39:46
1	Na 589.592 Radial†	70984.5	63589.7	9725.9 µg/L	9725.9 ppb	20:39:46
1	Sr 421.552†	231158.4	212874.2	498.88 µg/L	498.88 ppb	20:39:44
1	Sc 361.383	1746203.9	1746203.9	104.39 %		20:40:13
1	Y 371.029	1060403.2	1060403.2	103.70 %		20:40:13
1	Ag 328.068†	129222.9	120821.9	496.49 µg/L	496.49 ppb	20:40:13
1	As 188.979†	1283.9	1244.1	526.99 µg/L	526.99 ppb	20:40:33
1	B 249.677†	33276.5	28521.6	477.15 µg/L	477.15 ppb	20:40:13
1	Ba 233.527†	114363.4	109729.4	501.68 µg/L	501.68 ppb	20:40:13
1	Be 313.107†	1632572.9	1564581.9	509.43 µg/L	509.43 ppb	20:40:13
1	Cd 226.502†	72628.8	69669.1	480.81 µg/L	480.81 ppb	20:40:13
1	Co 228.616†	36875.4	35501.3	486.39 µg/L	486.39 ppb	20:40:13
1	Cr 267.716†	59790.0	57115.6	490.45 µg/L	490.45 ppb	20:40:13
1	Cu 324.752†	120808.8	113303.8	494.05 µg/L	494.05 ppb	20:40:13
1	Mn 257.610†	375213.3	359355.3	490.82 µg/L	490.82 ppb	20:40:13
1	Mo 202.031†	15789.8	15181.1	479.66 µg/L	479.66 ppb	20:40:33
1	Ni 231.604†	39738.4	38108.3	487.45 µg/L	487.45 ppb	20:40:13
1	P 214.914†	10363.4	9848.0	2350.1 µg/L	2350.1 ppb	20:40:33
1	Pb 220.353†	8305.0	7843.4	476.67 µg/L	476.67 ppb	20:40:33
1	S 181.975 Axial†	1299.5	1150.0	935.75 µg/L	935.75 ppb	20:40:33
1	Sb 206.836†	3827.9	3580.3	483.91 µg/L	483.91 ppb	20:40:33
1	Se 196.026†	1246.7	1183.4	470 µg/L	470 ppb	20:40:33
1	SiO2†	51835.7	48083.1	5234.9 µg/L	5234.9 ppb	20:40:13
1	Si 251.611†	155248.2	148043.5	2438.3 µg/L	2438.3 ppb	20:40:13
1	Sn 189.927†	7083.7	6783.8	483.93 µg/L	483.93 ppb	20:40:33
1	Ti 334.940†	505298.5	483413.9	492.29 µg/L	492.29 ppb	20:40:13
1	Tl 190.801†	3587.5	3556.9	484.85 µg/L	484.85 ppb	20:40:33
1	U 409.014†	7184.1	7361.1	484.98 µg/L	484.98 ppb	20:40:13
1	V 292.402†	93312.1	88956.4	499.59 µg/L	499.59 ppb	20:40:13
1	Zn 213.857†	80758.5	76898.2	480.22 µg/L	480.22 ppb	20:40:13
2	Sc RADIAL	157839.6	157839.6	108 %		20:39:50
2	Al 396.153Radial†	25654.3	23721.9	5156.0 µg/L	5156.0 ppb	20:39:50
2	Ca 317.933Radial†	90857.8	83284.8	4880.1 µg/L	4880.1 ppb	20:39:50
2	Fe 238.204 Radial†	79351.6	73162.6	4864.1 µg/L	4864.1 ppb	20:39:50
2	K 766.490 Radial†	14108.1	11572.9	4760.3 µg/L	4760.3 ppb	20:39:50
2	Mg 279.077 IEC†	13317.1	12110.8	5000.9 µg/L	5000.9 ppb	20:39:50
2	Na 589.592 Radial†	70889.1	63766.6	9752.9 µg/L	9752.9 ppb	20:39:50
2	Sr 421.552†	232019.8	214532.6	502.77 µg/L	502.77 ppb	20:39:48
2	Sc 361.383	1748401.5	1748401.5	104.52 %		20:40:36
2	Y 371.029	1060574.0	1060574.0	103.72 %		20:40:36
2	Ag 328.068†	128320.4	119802.8	492.33 µg/L	492.33 ppb	20:40:36
2	As 188.979†	1300.9	1258.8	533.09 µg/L	533.09 ppb	20:40:56
2	B 249.677†	33199.5	28407.7	475.25 µg/L	475.25 ppb	20:40:36
2	Ba 233.527†	113312.8	108586.5	496.46 µg/L	496.46 ppb	20:40:36
2	Be 313.107†	1626044.8	1556370.4	506.76 µg/L	506.76 ppb	20:40:36
2	Cd 226.502†	71814.6	68802.6	474.82 µg/L	474.82 ppb	20:40:36
2	Co 228.616†	36702.1	35291.2	483.50 µg/L	483.50 ppb	20:40:36
2	Cr 267.716†	59191.4	56470.8	484.90 µg/L	484.90 ppb	20:40:36
2	Cu 324.752†	120253.9	112627.4	491.11 µg/L	491.11 ppb	20:40:36
2	Mn 257.610†	372516.4	356323.3	486.68 µg/L	486.68 ppb	20:40:36
2	Mo 202.031†	15750.8	15124.7	477.88 µg/L	477.88 ppb	20:40:56
2	Ni 231.604†	39612.3	37939.8	485.29 µg/L	485.29 ppb	20:40:36
2	P 214.914†	10343.5	9816.5	2342.6 µg/L	2342.6 ppb	20:40:56
2	Pb 220.353†	8312.4	7840.4	476.48 µg/L	476.48 ppb	20:40:56



2	S 181.975 Axial†	1287.8	1137.3	925.44 µg/L	925.44 ppb	20:40:56
2	Sb 206.836†	3843.7	3590.8	485.39 µg/L	485.39 ppb	20:40:56
2	Se 196.026†	1243.8	1179.1	469 µg/L	469 ppb	20:40:56
2	SiO2†	51279.8	47488.8	5170.0 µg/L	5170.0 ppb	20:40:36
2	Si 251.611†	154265.1	146916.0	2419.7 µg/L	2419.7 ppb	20:40:36
2	Sn 189.927†	7111.0	6801.4	485.17 µg/L	485.17 ppb	20:40:56
2	Ti 334.940†	501677.3	479340.9	488.14 µg/L	488.14 ppb	20:40:36
2	Tl 190.801†	3591.8	3556.8	484.78 µg/L	484.78 ppb	20:40:56
2	U 409.014†	7373.9	7534.0	495.49 µg/L	495.49 ppb	20:40:36
2	V 292.402†	92934.7	88483.0	496.93 µg/L	496.93 ppb	20:40:36
2	Zn 213.857†	80169.9	76237.8	476.08 µg/L	476.08 ppb	20:40:36
3	Sc RADIAL	156089.6	156089.6	107 %		20:39:54
3	Al 396.153Radial†	25631.8	23966.5	5209.3 µg/L	5209.3 ppb	20:39:54
3	Ca 317.933Radial†	90218.0	83628.1	4900.2 µg/L	4900.2 ppb	20:39:54
3	Fe 238.204 Radial†	78756.2	73428.1	4881.8 µg/L	4881.8 ppb	20:39:54
3	K 766.490 Radial†	13885.5	11511.0	4734.8 µg/L	4734.8 ppb	20:39:54
3	Mg 279.077 IEC†	13155.9	12098.2	4995.8 µg/L	4995.8 ppb	20:39:54
3	Na 589.592 Radial†	70406.1	64049.4	9796.2 µg/L	9796.2 ppb	20:39:54
3	Sr 421.552†	227678.4	212880.7	498.90 µg/L	498.90 ppb	20:39:52
3	Sc 361.383	1750051.7	1750051.7	104.62 %		20:40:59
3	Y 371.029	1061656.2	1061656.2	103.82 %		20:40:59
3	Ag 328.068†	129101.5	120433.7	494.92 µg/L	494.92 ppb	20:40:59
3	As 188.979†	1318.4	1274.5	539.66 µg/L	539.66 ppb	20:41:19
3	B 249.677†	33442.7	28610.3	478.64 µg/L	478.64 ppb	20:40:59
3	Ba 233.527†	114533.5	109651.1	501.32 µg/L	501.32 ppb	20:40:59
3	Be 313.107†	1637681.6	1566026.4	509.91 µg/L	509.91 ppb	20:40:59
3	Cd 226.502†	72370.3	69269.0	478.04 µg/L	478.04 ppb	20:40:59
3	Co 228.616†	36966.6	35510.9	486.52 µg/L	486.52 ppb	20:40:59
3	Cr 267.716†	59644.0	56850.1	488.16 µg/L	488.16 ppb	20:40:59
3	Cu 324.752†	121321.2	113539.1	495.08 µg/L	495.08 ppb	20:40:59
3	Mn 257.610†	375810.6	359135.9	490.53 µg/L	490.53 ppb	20:40:59
3	Mo 202.031†	15874.8	15229.0	481.17 µg/L	481.17 ppb	20:41:19
3	Ni 231.604†	39836.0	38117.9	487.57 µg/L	487.57 ppb	20:40:59
3	P 214.914†	10423.7	9883.8	2358.6 µg/L	2358.6 ppb	20:41:19
3	Pb 220.353†	8358.7	7877.1	478.72 µg/L	478.72 ppb	20:41:19
3	S 181.975 Axial†	1303.9	1151.5	936.96 µg/L	936.96 ppb	20:41:19
3	Sb 206.836†	3860.5	3603.4	487.09 µg/L	487.09 ppb	20:41:19
3	Se 196.026†	1260.6	1194.1	474 µg/L	474 ppb	20:41:19
3	SiO2†	51807.0	47946.5	5219.9 µg/L	5219.9 ppb	20:40:59
3	Si 251.611†	155533.5	147989.2	2437.4 µg/L	2437.4 ppb	20:40:59
3	Sn 189.927†	7141.0	6823.7	486.76 µg/L	486.76 ppb	20:41:19
3	Ti 334.940†	505758.7	482789.5	491.66 µg/L	491.66 ppb	20:40:59
3	Tl 190.801†	3621.3	3581.7	488.18 µg/L	488.18 ppb	20:41:19
3	U 409.014†	7328.7	7484.2	492.60 µg/L	492.60 ppb	20:40:59
3	V 292.402†	93571.4	89007.7	499.88 µg/L	499.88 ppb	20:40:59
3	Zn 213.857†	80716.3	76687.7	478.89 µg/L	478.89 ppb	20:40:59

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1748219.0	104.51 %	0.115			0.11%
Sc RADIAL	157469.8	108 %	0.8			0.79%
Y 371.029	1060877.8	103.75 %	0.066			0.06%
Ag 328.068†	120352.8	494.58 µg/L	2.097	494.58 ppb	2.097	0.42%
QC value within limits for Ag 328.068 Recovery = 98.92%						
Al 396.153Radial†	23846.6	5183.2 µg/L	26.63	5183.2 ppb	26.63	0.51%
QC value within limits for Al 396.153Radial Recovery = 103.66%						
As 188.979†	1259.1	533.25 µg/L	6.336	533.25 ppb	6.336	1.19%
QC value within limits for As 188.979 Recovery = 106.65%						
B 249.677†	28513.2	477.02 µg/L	1.699	477.02 ppb	1.699	0.36%
QC value within limits for B 249.677 Recovery = 95.40%						
Ba 233.527†	109322.4	499.82 µg/L	2.918	499.82 ppb	2.918	0.58%
QC value within limits for Ba 233.527 Recovery = 99.96%						
Be 313.107†	1562326.2	508.70 µg/L	1.694	508.70 ppb	1.694	0.33%
QC value within limits for Be 313.107 Recovery = 101.74%						
Ca 317.933Radial†	83444.1	4889.5 µg/L	10.13	4889.5 ppb	10.13	0.21%
QC value within limits for Ca 317.933Radial Recovery = 97.79%						
Cd 226.502†	69246.9	477.89 µg/L	2.994	477.89 ppb	2.994	0.63%
QC value within limits for Cd 226.502 Recovery = 95.58%						
Co 228.616†	35434.5	485.47 µg/L	1.703	485.47 ppb	1.703	0.35%

QC value within limits for Co	228.616	Recovery = 97.09%			
Cr 267.716†	56812.2	487.84 µg/L	2.787	487.84 ppb	2.787 0.57%
QC value within limits for Cr	267.716	Recovery = 97.57%			
Cu 324.752†	113156.8	493.41 µg/L	2.057	493.41 ppb	2.057 0.42%
QC value within limits for Cu	324.752	Recovery = 98.68%			
Fe 238.204 Radial†	73309.6	4873.9 µg/L	8.98	4873.9 ppb	8.98 0.18%
QC value within limits for Fe	238.204 Radial	Recovery = 97.48%			
K 766.490 Radial†	11494.3	4727.9 µg/L	36.31	4727.9 ppb	36.31 0.77%
QC value within limits for K	766.490 Radial	Recovery = 94.56%			
Mg 279.077 IEC†	12150.2	5017.2 µg/L	32.78	5017.2 ppb	32.78 0.65%
QC value within limits for Mg	279.077 IEC	Recovery = 100.34%			
Mn 257.610†	358271.5	489.35 µg/L	2.310	489.35 ppb	2.310 0.47%
QC value within limits for Mn	257.610	Recovery = 97.87%			
Mo 202.031†	15178.3	479.57 µg/L	1.650	479.57 ppb	1.650 0.34%
QC value within limits for Mo	202.031	Recovery = 95.91%			
Na 589.592 Radial†	63801.9	9758.3 µg/L	35.47	9758.3 ppb	35.47 0.36%
QC value within limits for Na	589.592 Radial	Recovery = 97.58%			
Ni 231.604†	38055.3	486.77 µg/L	1.281	486.77 ppb	1.281 0.26%
QC value within limits for Ni	231.604	Recovery = 97.35%			
P 214.914†	9849.4	2350.4 µg/L	8.04	2350.4 ppb	8.04 0.34%
QC value within limits for P	214.914	Recovery = 94.02%			
Pb 220.353†	7853.6	477.29 µg/L	1.242	477.29 ppb	1.242 0.26%
QC value within limits for Pb	220.353	Recovery = 95.46%			
S 181.975 Axial†	1146.3	932.72 µg/L	6.328	932.72 ppb	6.328 0.68%
QC value within limits for S	181.975 Axial	Recovery = 93.27%			
Sb 206.836†	3591.5	485.47 µg/L	1.590	485.47 ppb	1.590 0.33%
QC value within limits for Sb	206.836	Recovery = 97.09%			
Se 196.026†	1185.5	471 µg/L	3.0	471 ppb	3.0 0.65%
QC value within limits for Se	196.026	Recovery = 94.21%			
SiO2†	47839.5	5208.2 µg/L	33.99	5208.2 ppb	33.99 0.65%
QC value within limits for SiO2		Recovery = 97.40%			
Si 251.611†	147649.6	2431.8 µg/L	10.49	2431.8 ppb	10.49 0.43%
QC value within limits for Si	251.611	Recovery = 97.27%			
Sn 189.927†	6803.0	485.29 µg/L	1.421	485.29 ppb	1.421 0.29%
QC value within limits for Sn	189.927	Recovery = 97.06%			
Sr 421.552†	213429.2	500.18 µg/L	2.240	500.18 ppb	2.240 0.45%
QC value within limits for Sr	421.552	Recovery = 100.04%			
Ti 334.940†	481848.1	490.70 µg/L	2.236	490.70 ppb	2.236 0.46%
QC value within limits for Ti	334.940	Recovery = 98.14%			
Tl 190.801†	3565.2	485.94 µg/L	1.942	485.94 ppb	1.942 0.40%
QC value within limits for Tl	190.801	Recovery = 97.19%			
U 409.014†	7459.8	491.02 µg/L	5.432	491.02 ppb	5.432 1.11%
QC value within limits for U	409.014	Recovery = 98.20%			
V 292.402†	88815.7	498.80 µg/L	1.625	498.80 ppb	1.625 0.33%
QC value within limits for V	292.402	Recovery = 99.76%			
Zn 213.857†	76607.9	478.40 µg/L	2.115	478.40 ppb	2.115 0.44%
QC value within limits for Zn	213.857	Recovery = 95.68%			

All analyte(s) passed QC.

Sequence No.: 38

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/29/2010 20:41:27

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	159642.2	159642.2	110 %		20:41:56
1	Al 396.153Radial†	-31.9	2.8	0.5753 µg/L	0.5753 ppb	20:42:16
1	Ca 317.933Radial†	722.9	43.8	2.5682 µg/L	2.5682 ppb	20:42:16
1	Fe 238.204 Radial†	156.5	29.6	1.9698 µg/L	1.9698 ppb	20:42:16
1	K 766.490 Radial†	1376.5	-198.2	-81.588 µg/L	-81.588 ppb	20:41:56
1	Mg 279.077 IEC†	160.5	-40.1	-16.536 µg/L	-16.536 ppb	20:42:16
1	Na 589.592 Radial†	1426.6	-392.2	-59.938 µg/L	-59.938 ppb	20:41:56
1	Sr 421.552†	-236.3	62.2	0.1458 µg/L	0.1458 ppb	20:41:56
1	Sc 361.383	1761363.3	1761363.3	105.30 %		20:43:04
1	Y 371.029	1082249.7	1082249.7	105.84 %		20:43:04
1	Ag 328.068†	2961.0	-154.9	-0.6438 µg/L	-0.6438 ppb	20:43:06
1	As 188.979†	-17.6	-2.5	-1.0426 µg/L	-1.0426 ppb	20:43:26
1	B 249.677†	3116.7	-395.7	-6.6440 µg/L	-6.6440 ppb	20:43:26
1	Ba 233.527†	-177.6	6.4	0.0281 µg/L	0.0281 ppb	20:43:26
1	Be 313.107†	-787.6	-87.9	-0.0270 µg/L	-0.0270 ppb	20:43:06
1	Cd 226.502†	-97.6	1.7	0.0116 µg/L	0.0116 ppb	20:43:26
1	Co 228.616†	-177.8	7.8	0.1062 µg/L	0.1062 ppb	20:43:26
1	Cr 267.716†	140.3	-27.0	-0.2369 µg/L	-0.2369 ppb	20:43:26
1	Cu 324.752†	2779.8	215.1	0.9395 µg/L	0.9395 ppb	20:43:06
1	Mn 257.610†	177.4	88.5	0.1216 µg/L	0.1216 ppb	20:43:26
1	Mo 202.031†	-33.7	23.2	0.7311 µg/L	0.7311 ppb	20:43:26
1	Ni 231.604†	-52.7	-9.1	-0.1163 µg/L	-0.1163 ppb	20:43:26
1	P 214.914†	64.5	-18.3	-4.4052 µg/L	-4.4052 ppb	20:43:26
1	Pb 220.353†	118.6	0.2	0.0090 µg/L	0.0090 ppb	20:43:26
1	S 181.975 Axial†	91.5	-7.9	-6.4221 µg/L	-6.4221 ppb	20:43:26
1	Sb 206.836†	85.6	-5.4	-0.7134 µg/L	-0.7134 ppb	20:43:26
1	Se 196.026†	17.8	6.0	2.38 µg/L	2.38 ppb	20:43:26
1	SiO2†	1758.9	97.6	10.643 µg/L	10.643 ppb	20:43:26
1	Si 251.611†	831.5	113.3	1.8631 µg/L	1.8631 ppb	20:43:26
1	Sn 189.927†	4.0	1.8	0.1284 µg/L	0.1284 ppb	20:43:26
1	Ti 334.940†	1053.8	364.4	0.3709 µg/L	0.3709 ppb	20:43:06
1	Tl 190.801†	-105.5	20.1	2.6847 µg/L	2.6847 ppb	20:43:26
1	U 409.014†	-413.2	86.7	5.2550 µg/L	5.2550 ppb	20:43:06
1	V 292.402†	111.6	-325.8	-1.7979 µg/L	-1.7979 ppb	20:43:06
1	Zn 213.857†	508.2	18.2	0.1146 µg/L	0.1146 ppb	20:43:26
2	Sc RADIAL	156186.9	156186.9	107 %		20:42:18
2	Al 396.153Radial†	-15.2	17.7	3.8291 µg/L	3.8291 ppb	20:42:38
2	Ca 317.933Radial†	693.6	31.0	1.8191 µg/L	1.8191 ppb	20:42:38
2	Fe 238.204 Radial†	162.9	38.7	2.5747 µg/L	2.5747 ppb	20:42:38
2	K 766.490 Radial†	1472.5	-80.8	-33.270 µg/L	-33.270 ppb	20:42:18
2	Mg 279.077 IEC†	190.1	-9.2	-3.7954 µg/L	-3.7954 ppb	20:42:38
2	Na 589.592 Radial†	1486.0	-308.0	-47.099 µg/L	-47.099 ppb	20:42:18
2	Sr 421.552†	-366.4	-64.0	-0.1499 µg/L	-0.1499 ppb	20:42:18
2	Sc 361.383	1768341.2	1768341.2	105.71 %		20:43:28
2	Y 371.029	1086167.8	1086167.8	106.22 %		20:43:28
2	Ag 328.068†	2860.7	-260.9	-1.0681 µg/L	-1.0681 ppb	20:43:30
2	As 188.979†	-12.8	2.1	0.8941 µg/L	0.8941 ppb	20:43:50
2	B 249.677†	3095.0	-428.0	-7.1869 µg/L	-7.1869 ppb	20:43:50
2	Ba 233.527†	-192.4	-6.9	-0.0315 µg/L	-0.0315 ppb	20:43:50
2	Be 313.107†	-460.5	224.5	0.0719 µg/L	0.0719 ppb	20:43:30
2	Cd 226.502†	-94.7	4.9	0.0334 µg/L	0.0334 ppb	20:43:50
2	Co 228.616†	-140.7	43.5	0.5958 µg/L	0.5958 ppb	20:43:50
2	Cr 267.716†	149.4	-18.9	-0.1596 µg/L	-0.1596 ppb	20:43:50
2	Cu 324.752†	2666.0	97.1	0.4194 µg/L	0.4194 ppb	20:43:30
2	Mn 257.610†	165.4	76.4	0.1046 µg/L	0.1046 ppb	20:43:50
2	Mo 202.031†	-30.4	26.4	0.8348 µg/L	0.8348 ppb	20:43:50
2	Ni 231.604†	-24.5	17.7	0.2263 µg/L	0.2263 ppb	20:43:50
2	P 214.914†	45.9	-36.2	-8.6751 µg/L	-8.6751 ppb	20:43:50
2	Pb 220.353†	89.4	-27.9	-1.6824 µg/L	-1.6824 ppb	20:43:50

2	S 181.975 Axial†	94.2	-5.7	-4.6425 µg/L	-4.6425 ppb	20:43:50
2	Sb 206.836†	72.8	-17.8	-2.3809 µg/L	-2.3809 ppb	20:43:50
2	Se 196.026†	8.4	-3.0	-1.17 µg/L	-1.17 ppb	20:43:50
2	SiO2†	1693.5	29.1	3.1523 µg/L	3.1523 ppb	20:43:50
2	Si 251.611†	804.4	84.5	1.3841 µg/L	1.3841 ppb	20:43:50
2	Sn 189.927†	8.2	5.7	0.4069 µg/L	0.4069 ppb	20:43:50
2	Ti 334.940†	839.4	157.7	0.1627 µg/L	0.1627 ppb	20:43:30
2	Tl 190.801†	-101.0	24.8	3.3258 µg/L	3.3258 ppb	20:43:50
2	U 409.014†	-571.5	-61.5	-3.8245 µg/L	-3.8245 ppb	20:43:30
2	V 292.402†	384.6	-68.0	-0.3725 µg/L	-0.3725 ppb	20:43:30
2	Zn 213.857†	520.5	28.0	0.1740 µg/L	0.1740 ppb	20:43:50
3	Sc RADIAL	157025.4	157025.4	108 %		20:42:40
3	Al 396.153Radial†	-41.8	-6.9	-1.5626 µg/L	-1.5626 ppb	20:43:00
3	Ca 317.933Radial†	735.1	66.2	3.8771 µg/L	3.8771 ppb	20:43:00
3	Fe 238.204 Radial†	156.0	31.5	2.0942 µg/L	2.0942 ppb	20:43:00
3	K 766.490 Radial†	1504.7	-58.3	-23.989 µg/L	-23.989 ppb	20:42:40
3	Mg 279.077 IEC†	175.7	-23.6	-9.6897 µg/L	-9.6897 ppb	20:43:00
3	Na 589.592 Radial†	1490.0	-311.7	-47.668 µg/L	-47.668 ppb	20:42:40
3	Sr 421.552†	-200.3	92.1	0.2158 µg/L	0.2158 ppb	20:42:40
3	Sc 361.383	1802169.8	1802169.8	107.74 %		20:43:52
3	Y 371.029	1105477.1	1105477.1	108.11 %		20:43:52
3	Ag 328.068†	2995.0	-187.1	-0.7466 µg/L	-0.7466 ppb	20:43:54
3	As 188.979†	-15.0	0.3	0.1424 µg/L	0.1424 ppb	20:44:15
3	B 249.677†	3108.4	-470.5	-7.8995 µg/L	-7.8995 ppb	20:44:15
3	Ba 233.527†	-173.6	13.9	0.0633 µg/L	0.0633 ppb	20:44:15
3	Be 313.107†	-686.3	23.1	0.0136 µg/L	0.0136 ppb	20:43:54
3	Cd 226.502†	-87.9	12.8	0.0881 µg/L	0.0881 ppb	20:44:15
3	Co 228.616†	-169.8	19.0	0.2599 µg/L	0.2599 ppb	20:44:15
3	Cr 267.716†	170.2	-2.2	-0.0351 µg/L	-0.0351 ppb	20:44:15
3	Cu 324.752†	2724.0	103.6	0.4670 µg/L	0.4670 ppb	20:43:54
3	Mn 257.610†	180.6	87.6	0.1201 µg/L	0.1201 ppb	20:44:15
3	Mo 202.031†	-18.7	37.8	1.1943 µg/L	1.1943 ppb	20:44:15
3	Ni 231.604†	-67.6	-21.8	-0.2790 µg/L	-0.2790 ppb	20:44:15
3	P 214.914†	48.5	-34.6	-8.3057 µg/L	-8.3057 ppb	20:44:15
3	Pb 220.353†	111.7	-8.7	-0.5419 µg/L	-0.5419 ppb	20:44:15
3	S 181.975 Axial†	82.0	-18.7	-15.128 µg/L	-15.128 ppb	20:44:15
3	Sb 206.836†	86.7	-6.1	-0.8115 µg/L	-0.8115 ppb	20:44:15
3	Se 196.026†	20.9	8.5	3.37 µg/L	3.37 ppb	20:44:15
3	SiO2†	1699.8	4.9	0.5106 µg/L	0.5106 ppb	20:44:15
3	Si 251.611†	817.9	82.8	1.3569 µg/L	1.3569 ppb	20:44:15
3	Sn 189.927†	-7.0	-8.5	-0.6027 µg/L	-0.6027 ppb	20:44:15
3	Ti 334.940†	578.4	-99.5	-0.1088 µg/L	-0.1088 ppb	20:43:54
3	Tl 190.801†	-115.5	13.1	1.7476 µg/L	1.7476 ppb	20:44:15
3	U 409.014†	-166.7	324.4	19.989 µg/L	19.989 ppb	20:43:54
3	V 292.402†	270.2	-181.0	-0.9785 µg/L	-0.9785 ppb	20:43:54
3	Zn 213.857†	519.3	17.6	0.1119 µg/L	0.1119 ppb	20:44:15

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1777291.5	106.25 %	1.305			1.23%
Sc RADIAL	157618.2	108 %	1.2			1.14%
Y 371.029	1091298.2	106.72 %	1.216			1.14%
Ag 328.068†	-201.0	-0.8195 µg/L	0.22133	-0.8195 ppb	0.22133	27.01%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	4.5	0.9472 µg/L	2.71501	0.9472 ppb	2.71501	286.62%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.0	-0.0020 µg/L	0.97639	-0.0020 ppb	0.97639	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-431.4	-7.2435 µg/L	0.62967	-7.2435 ppb	0.62967	8.69%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	4.5	0.0200 µg/L	0.04797	0.0200 ppb	0.04797	240.04%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	53.2	0.0195 µg/L	0.04972	0.0195 ppb	0.04972	254.94%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	47.0	2.7548 µg/L	1.04159	2.7548 ppb	1.04159	37.81%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	6.5	0.0444 µg/L	0.03942	0.0444 ppb	0.03942	88.81%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	23.4	0.3206 µg/L	0.25038	0.3206 ppb	0.25038	78.09%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-16.1	-0.1439 µg/L	0.10181	-0.1439 ppb	0.10181	70.75%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	138.6	0.6086 µg/L	0.28751	0.6086 ppb	0.28751	47.24%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	33.3	2.2129 µg/L	0.31946	2.2129 ppb	0.31946	14.44%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-112.4	-46.282 µg/L	30.9255	-46.282 ppb	30.9255	66.82%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-24.3	-10.007 µg/L	6.3764	-10.007 ppb	6.3764	63.72%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	84.2	0.1154 µg/L	0.00942	0.1154 ppb	0.00942	8.16%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	29.2	0.9200 µg/L	0.24309	0.9200 ppb	0.24309	26.42%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-337.3	-51.568 µg/L	7.2542	-51.568 ppb	7.2542	14.07%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-4.4	-0.0563 µg/L	0.25791	-0.0563 ppb	0.25791	457.85%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-29.7	-7.1287 µg/L	2.36584	-7.1287 ppb	2.36584	33.19%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-12.1	-0.7384 µg/L	0.86263	-0.7384 ppb	0.86263	116.82%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-10.8	-8.7308 µg/L	5.61093	-8.7308 ppb	5.61093	64.27%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-9.7	-1.3019 µg/L	0.93572	-1.3019 ppb	0.93572	71.87%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	3.8	1.53 µg/L	2.391	1.53 ppb	2.391	156.61%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	43.9	4.7687 µg/L	5.25620	4.7687 ppb	5.25620	110.22%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	93.5	1.5347 µg/L	0.28470	1.5347 ppb	0.28470	18.55%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-0.3	-0.0225 µg/L	0.52147	-0.0225 ppb	0.52147	>999.9%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	30.1	0.0706 µg/L	0.19411	0.0706 ppb	0.19411	275.10%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	140.8	0.1416 µg/L	0.24052	0.1416 ppb	0.24052	169.85%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	19.3	2.5860 µg/L	0.79369	2.5860 ppb	0.79369	30.69%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	116.5	7.1397 µg/L	12.01791	7.1397 ppb	12.01791	168.33%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-191.6	-1.0496 µg/L	0.71539	-1.0496 ppb	0.71539	68.16%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	21.3	0.1335 µg/L	0.03514	0.1335 ppb	0.03514	26.32%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 46

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/29/2010 21:03:21

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	154851.7	154851.7	106 %			21:03:53
1	Al 396.153Radial†	25485.8	24020.4	5220.8 µg/L		5220.8 ppb	21:03:53
1	Ca 317.933Radial†	90010.8	84106.5	4928.3 µg/L		4928.3 ppb	21:03:53
1	Fe 238.204 Radial†	78533.5	73806.4	4906.9 µg/L		4906.9 ppb	21:03:53
1	K 766.490 Radial†	13939.7	11665.7	4798.5 µg/L		4798.5 ppb	21:03:53
1	Mg 279.077 IEC†	13229.3	12265.4	5064.8 µg/L		5064.8 ppb	21:03:53
1	Na 589.592 Radial†	69846.3	64048.1	9795.9 µg/L		9795.9 ppb	21:03:53
1	Sr 421.552†	228674.2	215517.6	505.08 µg/L		505.08 ppb	21:03:51
1	Sc 361.383	1713248.9	1713248.9	102.42 %			21:04:06
1	Y 371.029	1039105.6	1039105.6	101.62 %			21:04:06
1	Ag 328.068†	126578.4	120621.1	495.66 µg/L		495.66 ppb	21:04:06
1	As 188.979†	1286.8	1270.6	538.07 µg/L		538.07 ppb	21:04:26
1	B 249.677†	32552.7	28428.0	475.59 µg/L		475.59 ppb	21:04:06
1	Ba 233.527†	111768.2	109302.8	499.73 µg/L		499.73 ppb	21:04:06
1	Be 313.107†	1595894.5	1558852.6	507.57 µg/L		507.57 ppb	21:04:06
1	Cd 226.502†	71067.7	69483.2	479.52 µg/L		479.52 ppb	21:04:06
1	Co 228.616†	36010.7	35336.6	484.13 µg/L		484.13 ppb	21:04:06
1	Cr 267.716†	58430.3	56889.7	488.51 µg/L		488.51 ppb	21:04:06
1	Cu 324.752†	118439.2	113216.3	493.68 µg/L		493.68 ppb	21:04:06
1	Mn 257.610†	368025.4	359251.0	490.68 µg/L		490.68 ppb	21:04:06
1	Mo 202.031†	15706.6	15390.8	486.28 µg/L		486.28 ppb	21:04:26
1	Ni 231.604†	38854.0	37977.0	485.77 µg/L		485.77 ppb	21:04:06
1	P 214.914†	10314.2	9990.9	2384.3 µg/L		2384.3 ppb	21:04:26
1	Pb 220.353†	8262.0	7954.4	483.41 µg/L		483.41 ppb	21:04:26
1	S 181.975 Axial†	1274.3	1149.4	935.31 µg/L		935.31 ppb	21:04:26
1	Sb 206.836†	3786.5	3610.4	488.11 µg/L		488.11 ppb	21:04:26
1	Se 196.026†	1247.6	1207.2	480 µg/L		480 ppb	21:04:26
1	SiO2†	50572.1	47804.5	5204.1 µg/L		5204.1 ppb	21:04:06
1	Si 251.611†	152175.1	147903.7	2435.8 µg/L		2435.8 ppb	21:04:06
1	Sn 189.927†	7069.4	6900.4	492.22 µg/L		492.22 ppb	21:04:26
1	Ti 334.940†	495105.0	482772.1	491.64 µg/L		491.64 ppb	21:04:06
1	Tl 190.801†	3560.4	3596.6	490.17 µg/L		490.17 ppb	21:04:26
1	U 409.014†	7150.7	7460.8	491.07 µg/L		491.07 ppb	21:04:06
1	V 292.402†	91336.8	88747.2	498.49 µg/L		498.49 ppb	21:04:06
1	Zn 213.857†	78849.4	76522.2	477.86 µg/L		477.86 ppb	21:04:06
2	Sc RADIAL	153431.3	153431.3	105 %			21:03:57
2	Al 396.153Radial†	25174.7	23947.0	5204.9 µg/L		5204.9 ppb	21:03:57
2	Ca 317.933Radial†	89019.4	83949.0	4919.1 µg/L		4919.1 ppb	21:03:57
2	Fe 238.204 Radial†	77673.0	73673.3	4898.1 µg/L		4898.1 ppb	21:03:57
2	K 766.490 Radial†	13736.1	11593.9	4768.9 µg/L		4768.9 ppb	21:03:57
2	Mg 279.077 IEC†	13051.1	12211.4	5042.5 µg/L		5042.5 ppb	21:03:57
2	Na 589.592 Radial†	69569.0	64393.3	9848.8 µg/L		9848.8 ppb	21:03:57
2	Sr 421.552†	230380.7	219131.5	513.55 µg/L		513.55 ppb	21:03:55
2	Sc 361.383	1723240.0	1723240.0	103.02 %			21:04:29
2	Y 371.029	1044358.9	1044358.9	102.13 %			21:04:29
2	Ag 328.068†	127680.9	120974.7	497.13 µg/L		497.13 ppb	21:04:29
2	As 188.979†	1279.6	1256.3	532.10 µg/L		532.10 ppb	21:04:49
2	B 249.677†	32914.0	28594.4	478.37 µg/L		478.37 ppb	21:04:29
2	Ba 233.527†	112872.1	109741.6	501.74 µg/L		501.74 ppb	21:04:29
2	Be 313.107†	1612082.1	1565532.0	509.75 µg/L		509.75 ppb	21:04:29
2	Cd 226.502†	71525.6	69525.3	479.81 µg/L		479.81 ppb	21:04:29
2	Co 228.616†	36504.1	35611.7	487.90 µg/L		487.90 ppb	21:04:29
2	Cr 267.716†	58865.9	56981.8	489.29 µg/L		489.29 ppb	21:04:29
2	Cu 324.752†	119296.1	113377.7	494.39 µg/L		494.39 ppb	21:04:29
2	Mn 257.610†	370507.0	359576.6	491.13 µg/L		491.13 ppb	21:04:29
2	Mo 202.031†	15700.9	15296.3	483.30 µg/L		483.30 ppb	21:04:49
2	Ni 231.604†	39299.1	38189.1	488.48 µg/L		488.48 ppb	21:04:29
2	P 214.914†	10271.7	9891.3	2360.4 µg/L		2360.4 ppb	21:04:49
2	Pb 220.353†	8221.9	7868.7	478.21 µg/L		478.21 ppb	21:04:49

2	S 181.975 Axial†	1283.0	1150.6	936.30 µg/L	936.30 ppb	21:04:49
2	Sb 206.836†	3813.2	3614.9	488.65 µg/L	488.65 ppb	21:04:49
2	Se 196.026†	1244.9	1197.5	476 µg/L	476 ppb	21:04:49
2	SiO2†	51026.3	47959.1	5221.2 µg/L	5221.2 ppb	21:04:29
2	Si 251.611†	153367.0	148199.2	2440.8 µg/L	2440.8 ppb	21:04:29
2	Sn 189.927†	7028.6	6820.7	486.55 µg/L	486.55 ppb	21:04:49
2	Ti 334.940†	498901.8	483655.0	492.54 µg/L	492.54 ppb	21:04:29
2	Tl 190.801†	3590.9	3606.0	491.45 µg/L	491.45 ppb	21:04:49
2	U 409.014†	7310.8	7575.8	498.29 µg/L	498.29 ppb	21:04:29
2	V 292.402†	92221.6	89089.0	500.36 µg/L	500.36 ppb	21:04:29
2	Zn 213.857†	79595.3	76799.9	479.59 µg/L	479.59 ppb	21:04:29
3	Sc RADIAL	153860.9	153860.9	106 %		21:04:01
3	Al 396.153Radial†	25294.4	23993.6	5215.1 µg/L	5215.1 ppb	21:04:01
3	Ca 317.933Radial†	89754.2	84409.0	4946.0 µg/L	4946.0 ppb	21:04:01
3	Fe 238.204 Radial†	78247.7	74011.6	4920.6 µg/L	4920.6 ppb	21:04:01
3	K 766.490 Radial†	13894.4	11707.3	4815.6 µg/L	4815.6 ppb	21:04:01
3	Mg 279.077 IEC†	13234.5	12350.5	5099.8 µg/L	5099.8 ppb	21:04:01
3	Na 589.592 Radial†	69626.7	64263.4	9828.8 µg/L	9828.8 ppb	21:04:01
3	Sr 421.552†	228028.2	216291.8	506.89 µg/L	506.89 ppb	21:03:59
3	Sc 361.383	1732745.4	1732745.4	103.59 %		21:04:52
3	Y 371.029	1050125.7	1050125.7	102.69 %		21:04:52
3	Ag 328.068†	127692.6	120306.0	494.38 µg/L	494.38 ppb	21:04:52
3	As 188.979†	1285.3	1255.0	531.54 µg/L	531.54 ppb	21:05:12
3	B 249.677†	33066.4	28566.3	477.91 µg/L	477.91 ppb	21:04:52
3	Ba 233.527†	113084.6	109345.8	499.93 µg/L	499.93 ppb	21:04:52
3	Be 313.107†	1614930.2	1559697.0	507.85 µg/L	507.85 ppb	21:04:52
3	Cd 226.502†	71595.2	69211.7	477.64 µg/L	477.64 ppb	21:04:52
3	Co 228.616†	36541.6	35453.5	485.73 µg/L	485.73 ppb	21:04:52
3	Cr 267.716†	58957.8	56757.0	487.36 µg/L	487.36 ppb	21:04:52
3	Cu 324.752†	119675.9	113109.0	493.23 µg/L	493.23 ppb	21:04:52
3	Mn 257.610†	371477.0	358540.1	489.71 µg/L	489.71 ppb	21:04:52
3	Mo 202.031†	15758.3	15268.1	482.41 µg/L	482.41 ppb	21:05:12
3	Ni 231.604†	39365.4	38043.9	486.63 µg/L	486.63 ppb	21:04:52
3	P 214.914†	10350.1	9912.3	2365.5 µg/L	2365.5 ppb	21:05:12
3	Pb 220.353†	8278.4	7879.4	478.85 µg/L	478.85 ppb	21:05:12
3	S 181.975 Axial†	1296.2	1156.5	941.02 µg/L	941.02 ppb	21:05:12
3	Sb 206.836†	3820.2	3601.3	486.84 µg/L	486.84 ppb	21:05:12
3	Se 196.026†	1245.9	1191.9	474 µg/L	474 ppb	21:05:12
3	SiO2†	51139.5	47796.6	5203.5 µg/L	5203.5 ppb	21:04:52
3	Si 251.611†	153580.9	147589.1	2430.7 µg/L	2430.7 ppb	21:04:52
3	Sn 189.927†	7084.4	6837.2	487.72 µg/L	487.72 ppb	21:05:12
3	Ti 334.940†	499459.5	481536.7	490.37 µg/L	490.37 ppb	21:04:52
3	Tl 190.801†	3572.9	3569.5	486.51 µg/L	486.51 ppb	21:05:12
3	U 409.014†	7416.3	7638.8	501.99 µg/L	501.99 ppb	21:04:52
3	V 292.402†	92167.5	88545.7	497.33 µg/L	497.33 ppb	21:04:52
3	Zn 213.857†	79634.5	76413.9	477.17 µg/L	477.17 ppb	21:04:52

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1723078.1	103.01 %	0.583			0.57%
Sc RADIAL	154048.0	106 %	0.5			0.47%
Y 371.029	1044530.0	102.15 %	0.539			0.53%
Ag 328.068†	120633.9	495.73 µg/L	1.374	495.73 ppb	1.374	0.28%
QC value within limits for Ag 328.068 Recovery = 99.15%						
Al 396.153Radial†	23987.0	5213.6 µg/L	8.05	5213.6 ppb	8.05	0.15%
QC value within limits for Al 396.153Radial Recovery = 104.27%						
As 188.979†	1260.7	533.90 µg/L	3.620	533.90 ppb	3.620	0.68%
QC value within limits for As 188.979 Recovery = 106.78%						
B 249.677†	28529.6	477.29 µg/L	1.490	477.29 ppb	1.490	0.31%
QC value within limits for B 249.677 Recovery = 95.46%						
Ba 233.527†	109463.4	500.47 µg/L	1.106	500.47 ppb	1.106	0.22%
QC value within limits for Ba 233.527 Recovery = 100.09%						
Be 313.107†	1561360.5	508.39 µg/L	1.184	508.39 ppb	1.184	0.23%
QC value within limits for Be 313.107 Recovery = 101.68%						
Ca 317.933Radial†	84154.8	4931.1 µg/L	13.70	4931.1 ppb	13.70	0.28%
QC value within limits for Ca 317.933Radial Recovery = 98.62%						
Cd 226.502†	69406.7	478.99 µg/L	1.177	478.99 ppb	1.177	0.25%
QC value within limits for Cd 226.502 Recovery = 95.80%						
Co 228.616†	35467.2	485.92 µg/L	1.892	485.92 ppb	1.892	0.39%

QC value within limits for Co 228.616 Recovery = 97.18%							
Cr 267.716†	56876.2	488.38 µg/L	0.973	488.38 ppb	0.973	0.20%	
QC value within limits for Cr 267.716 Recovery = 97.68%							
Cu 324.752†	113234.3	493.76 µg/L	0.585	493.76 ppb	0.585	0.12%	
QC value within limits for Cu 324.752 Recovery = 98.75%							
Fe 238.204 Radial†	73830.5	4908.5 µg/L	11.33	4908.5 ppb	11.33	0.23%	
QC value within limits for Fe 238.204 Radial Recovery = 98.17%							
K 766.490 Radial†	11655.6	4794.3 µg/L	23.63	4794.3 ppb	23.63	0.49%	
QC value within limits for K 766.490 Radial Recovery = 95.89%							
Mg 279.077 IEC†	12275.8	5069.1 µg/L	28.89	5069.1 ppb	28.89	0.57%	
QC value within limits for Mg 279.077 IEC Recovery = 101.38%							
Mn 257.610†	359122.6	490.51 µg/L	0.726	490.51 ppb	0.726	0.15%	
QC value within limits for Mn 257.610 Recovery = 98.10%							
Mo 202.031†	15318.4	483.99 µg/L	2.029	483.99 ppb	2.029	0.42%	
QC value within limits for Mo 202.031 Recovery = 96.80%							
Na 589.592 Radial†	64235.0	9824.5 µg/L	26.69	9824.5 ppb	26.69	0.27%	
QC value within limits for Na 589.592 Radial Recovery = 98.25%							
Ni 231.604†	38070.0	486.96 µg/L	1.387	486.96 ppb	1.387	0.28%	
QC value within limits for Ni 231.604 Recovery = 97.39%							
P 214.914†	9931.5	2370.0 µg/L	12.59	2370.0 ppb	12.59	0.53%	
QC value within limits for P 214.914 Recovery = 94.80%							
Pb 220.353†	7900.8	480.16 µg/L	2.839	480.16 ppb	2.839	0.59%	
QC value within limits for Pb 220.353 Recovery = 96.03%							
S 181.975 Axial†	1152.2	937.54 µg/L	3.050	937.54 ppb	3.050	0.33%	
QC value within limits for S 181.975 Axial Recovery = 93.75%							
Sb 206.836†	3608.9	487.87 µg/L	0.930	487.87 ppb	0.930	0.19%	
QC value within limits for Sb 206.836 Recovery = 97.57%							
Se 196.026†	1198.9	476 µg/L	3.1	476 ppb	3.1	0.64%	
QC value within limits for Se 196.026 Recovery = 95.27%							
SiO2†	47853.4	5209.6 µg/L	10.06	5209.6 ppb	10.06	0.19%	
QC value within limits for SiO2 Recovery = 97.42%							
Si 251.611†	147897.3	2435.8 µg/L	5.04	2435.8 ppb	5.04	0.21%	
QC value within limits for Si 251.611 Recovery = 97.43%							
Sn 189.927†	6852.8	488.83 µg/L	2.990	488.83 ppb	2.990	0.61%	
QC value within limits for Sn 189.927 Recovery = 97.77%							
Sr 421.552†	216980.3	508.51 µg/L	4.460	508.51 ppb	4.460	0.88%	
QC value within limits for Sr 421.552 Recovery = 101.70%							
Ti 334.940†	482654.6	491.52 µg/L	1.088	491.52 ppb	1.088	0.22%	
QC value within limits for Ti 334.940 Recovery = 98.30%							
Tl 190.801†	3590.7	489.37 µg/L	2.564	489.37 ppb	2.564	0.52%	
QC value within limits for Tl 190.801 Recovery = 97.87%							
U 409.014†	7558.5	497.12 µg/L	5.554	497.12 ppb	5.554	1.12%	
QC value within limits for U 409.014 Recovery = 99.42%							
V 292.402†	88794.0	498.73 µg/L	1.529	498.73 ppb	1.529	0.31%	
QC value within limits for V 292.402 Recovery = 99.75%							
Zn 213.857†	76578.7	478.21 µg/L	1.247	478.21 ppb	1.247	0.26%	
QC value within limits for Zn 213.857 Recovery = 95.64%							
All analyte(s) passed QC.							



Sequence No.: 47

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/29/2010 21:05:20

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	154996.4	154996.4	106 %		21:05:49
1	Al 396.153Radial†	-63.3	-27.7	-6.1097 µg/L	-6.1097 ppb	21:06:09
1	Ca 317.933Radial†	693.4	35.9	2.1034 µg/L	2.1034 ppb	21:06:09
1	Fe 238.204 Radial†	151.1	28.8	1.9138 µg/L	1.9138 ppb	21:06:09
1	K 766.490 Radial†	1597.5	47.3	19.463 µg/L	19.463 ppb	21:05:49
1	Mg 279.077 IEC†	208.9	9.8	4.0702 µg/L	4.0702 ppb	21:06:09
1	Na 589.592 Radial†	1678.5	-116.3	-17.818 µg/L	-17.818 ppb	21:05:49
1	Sr 421.552†	-227.7	63.9	0.1497 µg/L	0.1497 ppb	21:05:49
1	Sc 361.383	1725992.9	1725992.9	103.18 %		21:06:57
1	Y 371.029	1059747.2	1059747.2	103.63 %		21:06:57
1	Ag 328.068†	3051.7	-9.4	-0.0382 µg/L	-0.0382 ppb	21:06:59
1	As 188.979†	-12.6	2.0	0.8526 µg/L	0.8526 ppb	21:07:19
1	B 249.677†	3056.4	-393.5	-6.6077 µg/L	-6.6077 ppb	21:07:19
1	Ba 233.527†	-168.8	11.5	0.0524 µg/L	0.0524 ppb	21:07:19
1	Be 313.107†	-508.1	167.7	0.0571 µg/L	0.0571 ppb	21:06:59
1	Cd 226.502†	-60.4	35.9	0.2479 µg/L	0.2479 ppb	21:07:19
1	Co 228.616†	-169.8	12.0	0.1644 µg/L	0.1644 ppb	21:07:19
1	Cr 267.716†	146.1	-18.7	-0.1673 µg/L	-0.1673 ppb	21:07:19
1	Cu 324.752†	2666.8	159.7	0.7014 µg/L	0.7014 ppb	21:06:59
1	Mn 257.610†	177.8	92.3	0.1259 µg/L	0.1259 ppb	21:07:19
1	Mo 202.031†	-5.1	50.3	1.5872 µg/L	1.5872 ppb	21:07:19
1	Ni 231.604†	-16.9	24.5	0.3133 µg/L	0.3133 ppb	21:07:19
1	P 214.914†	22.6	-57.6	-13.826 µg/L	-13.826 ppb	21:07:19
1	Pb 220.353†	90.0	-25.2	-1.5281 µg/L	-1.5281 ppb	21:07:19
1	S 181.975 Axial†	71.1	-25.9	-21.007 µg/L	-21.007 ppb	21:07:19
1	Sb 206.836†	85.9	-3.3	-0.4268 µg/L	-0.4268 ppb	21:07:19
1	Se 196.026†	19.1	7.6	3.00 µg/L	3.00 ppb	21:07:19
1	SiO2†	1671.8	47.4	5.1244 µg/L	5.1244 ppb	21:07:19
1	Si 251.611†	772.8	72.6	1.1761 µg/L	1.1761 ppb	21:07:19
1	Sn 189.927†	9.7	7.4	0.5233 µg/L	0.5233 ppb	21:07:19
1	Ti 334.940†	780.1	119.7	0.1184 µg/L	0.1184 ppb	21:06:59
1	Tl 190.801†	-117.8	6.2	0.8248 µg/L	0.8248 ppb	21:07:19
1	U 409.014†	-356.1	134.0	8.2316 µg/L	8.2316 ppb	21:06:59
1	V 292.402†	287.8	-152.9	-0.8274 µg/L	-0.8274 ppb	21:06:59
1	Zn 213.857†	507.5	27.4	0.1698 µg/L	0.1698 ppb	21:07:19
2	Sc RADIAL	152412.0	152412.0	105 %		21:06:11
2	Al 396.153Radial†	-24.5	8.4	1.8014 µg/L	1.8014 ppb	21:06:31
2	Ca 317.933Radial†	694.0	47.5	2.7825 µg/L	2.7825 ppb	21:06:31
2	Fe 238.204 Radial†	146.8	27.1	1.7992 µg/L	1.7992 ppb	21:06:31
2	K 766.490 Radial†	1385.9	-129.6	-53.361 µg/L	-53.361 ppb	21:06:11
2	Mg 279.077 IEC†	168.1	-25.9	-10.680 µg/L	-10.680 ppb	21:06:31
2	Na 589.592 Radial†	1601.9	-162.8	-24.860 µg/L	-24.860 ppb	21:06:11
2	Sr 421.552†	-193.2	93.2	0.2184 µg/L	0.2184 ppb	21:06:11
2	Sc 361.383	1730228.9	1730228.9	103.43 %		21:07:21
2	Y 371.029	1062056.7	1062056.7	103.86 %		21:07:21
2	Ag 328.068†	3294.6	218.2	0.8697 µg/L	0.8697 ppb	21:07:23
2	As 188.979†	-7.8	6.7	2.7923 µg/L	2.7923 ppb	21:07:43
2	B 249.677†	3121.5	-337.9	-5.6726 µg/L	-5.6726 ppb	21:07:43
2	Ba 233.527†	-196.4	-14.9	-0.0686 µg/L	-0.0686 ppb	21:07:43
2	Be 313.107†	-630.3	50.7	0.0170 µg/L	0.0170 ppb	21:07:23
2	Cd 226.502†	-85.2	12.1	0.0830 µg/L	0.0830 ppb	21:07:43
2	Co 228.616†	-178.5	4.0	0.0551 µg/L	0.0551 ppb	21:07:43
2	Cr 267.716†	146.8	-18.3	-0.1593 µg/L	-0.1593 ppb	21:07:43
2	Cu 324.752†	2640.7	128.1	0.5583 µg/L	0.5583 ppb	21:07:23
2	Mn 257.610†	136.5	52.0	0.0714 µg/L	0.0714 ppb	21:07:43
2	Mo 202.031†	-31.2	25.1	0.7914 µg/L	0.7914 ppb	21:07:43
2	Ni 231.604†	-64.5	-21.4	-0.2741 µg/L	-0.2741 ppb	21:07:43
2	P 214.914†	43.5	-37.5	-8.9955 µg/L	-8.9955 ppb	21:07:43
2	Pb 220.353†	100.4	-15.4	-0.9295 µg/L	-0.9295 ppb	21:07:43

2	S 181.975 Axial†	84.3	-13.3	-10.766 µg/L	-10.766 ppb	21:07:43
2	Sb 206.836†	56.9	-31.6	-4.2573 µg/L	-4.2573 ppb	21:07:43
2	Se 196.026†	21.3	9.7	3.82 µg/L	3.82 ppb	21:07:43
2	SiO2†	1625.1	-1.7	-0.2117 µg/L	-0.2117 ppb	21:07:43
2	Si 251.611†	795.8	92.9	1.5262 µg/L	1.5262 ppb	21:07:43
2	Sn 189.927†	2.5	0.4	0.0269 µg/L	0.0269 ppb	21:07:43
2	Ti 334.940†	1026.5	356.1	0.3635 µg/L	0.3635 ppb	21:07:23
2	Tl 190.801†	-125.8	-1.3	-0.1808 µg/L	-0.1808 ppb	21:07:43
2	U 409.014†	-469.0	25.7	1.5015 µg/L	1.5015 ppb	21:07:23
2	V 292.402†	173.5	-264.1	-1.4569 µg/L	-1.4569 ppb	21:07:23
2	Zn 213.857†	498.1	17.1	0.1092 µg/L	0.1092 ppb	21:07:43
3	Sc RADIAL	153579.1	153579.1	105 %		21:06:33
3	Al 396.153Radial†	-58.8	-23.9	-5.2607 µg/L	-5.2607 ppb	21:06:53
3	Ca 317.933Radial†	673.1	22.6	1.3237 µg/L	1.3237 ppb	21:06:53
3	Fe 238.204 Radial†	131.8	11.8	0.7823 µg/L	0.7823 ppb	21:06:53
3	K 766.490 Radial†	1453.7	-75.3	-31.005 µg/L	-31.005 ppb	21:06:33
3	Mg 279.077 IEC†	180.2	-15.7	-6.4370 µg/L	-6.4370 ppb	21:06:53
3	Na 589.592 Radial†	1585.7	-189.9	-29.024 µg/L	-29.024 ppb	21:06:33
3	Sr 421.552†	-259.8	31.4	0.0737 µg/L	0.0737 ppb	21:06:33
3	Sc 361.383	1727714.6	1727714.6	103.28 %		21:07:45
3	Y 371.029	1060914.8	1060914.8	103.75 %		21:07:45
3	Ag 328.068†	3064.7	0.2	-0.0004 µg/L	-0.0004 ppb	21:07:47
3	As 188.979†	-17.3	-2.5	-1.0488 µg/L	-1.0488 ppb	21:08:08
3	B 249.677†	3076.5	-377.0	-6.3309 µg/L	-6.3309 ppb	21:08:08
3	Ba 233.527†	-187.7	-6.7	-0.0307 µg/L	-0.0307 ppb	21:08:08
3	Be 313.107†	-530.7	146.3	0.0497 µg/L	0.0497 ppb	21:07:47
3	Cd 226.502†	-118.4	-20.2	-0.1396 µg/L	-0.1396 ppb	21:08:08
3	Co 228.616†	-159.8	21.9	0.3001 µg/L	0.3001 ppb	21:08:08
3	Cr 267.716†	166.1	0.6	-0.0009 µg/L	-0.0009 ppb	21:08:08
3	Cu 324.752†	2799.8	285.9	1.2487 µg/L	1.2487 ppb	21:07:47
3	Mn 257.610†	156.9	71.9	0.0985 µg/L	0.0985 ppb	21:08:08
3	Mo 202.031†	-29.4	26.7	0.8435 µg/L	0.8435 ppb	21:08:08
3	Ni 231.604†	-49.4	-6.9	-0.0885 µg/L	-0.0885 ppb	21:08:08
3	P 214.914†	34.7	-45.9	-11.027 µg/L	-11.027 ppb	21:08:08
3	Pb 220.353†	99.2	-16.4	-0.9975 µg/L	-0.9975 ppb	21:08:08
3	S 181.975 Axial†	91.1	-6.6	-5.3466 µg/L	-5.3466 ppb	21:08:08
3	Sb 206.836†	84.8	-4.6	-0.6054 µg/L	-0.6054 ppb	21:08:08
3	Se 196.026†	15.6	4.2	1.65 µg/L	1.65 ppb	21:08:08
3	SiO2†	1696.3	69.5	7.5803 µg/L	7.5803 ppb	21:08:08
3	Si 251.611†	783.8	82.5	1.3544 µg/L	1.3544 ppb	21:08:08
3	Sn 189.927†	-1.7	-3.7	-0.2629 µg/L	-0.2629 ppb	21:08:08
3	Ti 334.940†	938.9	272.7	0.2758 µg/L	0.2758 ppb	21:07:47
3	Tl 190.801†	-117.7	6.3	0.8448 µg/L	0.8448 ppb	21:08:08
3	U 409.014†	-379.0	112.2	6.8863 µg/L	6.8863 ppb	21:07:47
3	V 292.402†	296.9	-144.3	-0.7876 µg/L	-0.7876 ppb	21:07:47
3	Zn 213.857†	483.2	3.5	0.0213 µg/L	0.0213 ppb	21:08:08

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1727978.8	103.30 %	0.127			0.12%
Sc RADIAL	153662.5	105 %	0.9			0.84%
Y 371.029	1060906.2	103.75 %	0.113			0.11%
Ag 328.068†	69.6	0.2771 µg/L	0.51363	0.2771 ppb	0.51363	185.39%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-14.4	-3.1897 µg/L	4.34321	-3.1897 ppb	4.34321	136.17%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	2.1	0.8654 µg/L	1.92055	0.8654 ppb	1.92055	221.93%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-369.5	-6.2037 µg/L	0.48034	-6.2037 ppb	0.48034	7.74%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-3.3	-0.0156 µg/L	0.06185	-0.0156 ppb	0.06185	395.65%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	121.6	0.0413 µg/L	0.02134	0.0413 ppb	0.02134	51.70%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	35.3	2.0699 µg/L	0.72997	2.0699 ppb	0.72997	35.27%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	9.3	0.0638 µg/L	0.19446	0.0638 ppb	0.19446	304.95%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	12.7	0.1732 µg/L	0.12276	0.1732 ppb	0.12276	70.87%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-12.2	-0.1092 µg/L	0.09382	-0.1092 ppb	0.09382	85.93%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	191.2	0.8362 µg/L	0.36438	0.8362 ppb	0.36438	43.58%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	22.5	1.4984 µg/L	0.62279	1.4984 ppb	0.62279	41.56%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-52.6	-21.634 µg/L	37.3056	-21.634 ppb	37.3056	172.44%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-10.6	-4.3490 µg/L	7.59366	-4.3490 ppb	7.59366	174.61%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	72.1	0.0986 µg/L	0.02726	0.0986 ppb	0.02726	27.63%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	34.0	1.0741 µg/L	0.44518	1.0741 ppb	0.44518	41.45%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-156.3	-23.901 µg/L	5.6641	-23.901 ppb	5.6641	23.70%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-1.3	-0.0164 µg/L	0.30026	-0.0164 ppb	0.30026	>999.9%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-47.0	-11.283 µg/L	2.4255	-11.283 ppb	2.4255	21.50%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-19.0	-1.1517 µg/L	0.32775	-1.1517 ppb	0.32775	28.46%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-15.3	-12.373 µg/L	7.9530	-12.373 ppb	7.9530	64.28%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-13.2	-1.7632 µg/L	2.16182	-1.7632 ppb	2.16182	122.61%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	7.1	2.83 µg/L	1.094	2.83 ppb	1.094	38.72%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	38.4	4.1643 µg/L	3.98373	4.1643 ppb	3.98373	95.66%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	82.7	1.3522 µg/L	0.17505	1.3522 ppb	0.17505	12.95%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	1.3	0.0958 µg/L	0.39756	0.0958 ppb	0.39756	415.11%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	62.8	0.1473 µg/L	0.07240	0.1473 ppb	0.07240	49.16%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	249.5	0.2525 µg/L	0.12417	0.2525 ppb	0.12417	49.17%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	3.7	0.4963 µg/L	0.58643	0.4963 ppb	0.58643	118.16%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	90.6	5.5398 µg/L	3.56137	5.5398 ppb	3.56137	64.29%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-187.1	-1.0240 µg/L	0.37548	-1.0240 ppb	0.37548	36.67%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	16.0	0.1001 µg/L	0.07465	0.1001 ppb	0.07465	74.57%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 48

Sample ID: 1202056901|959123|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 338

Date Collected: 3/29/2010 21:08:15

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056901|959123|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	149268.9	149268.9	102 %		21:08:45
1	Al 396.153Radial†	-36.7	-4.0	-0.8971 µg/L	-0.8971 ppb	21:09:06
1	Ca 317.933Radial†	873.7	236.9	13.881 µg/L	13.881 ppb	21:09:06
1	Fe 238.204 Radial†	711.4	581.4	38.654 µg/L	38.654 ppb	21:09:06
1	K 766.490 Radial†	1436.6	-52.2	-21.497 µg/L	-21.497 ppb	21:08:45
1	Mg 279.077 IEC†	186.4	-4.7	-1.9494 µg/L	-1.9494 ppb	21:09:06
1	Na 589.592 Radial†	1486.6	-243.2	-37.187 µg/L	-37.187 ppb	21:08:45
1	Sr 421.552†	-187.3	95.1	0.2228 µg/L	0.2228 ppb	21:08:45
1	Sc 361.383	1706699.8	1706699.8	102.03 %		21:09:53
1	Y 371.029	1044020.4	1044020.4	102.10 %		21:09:53
1	Ag 328.068†	3151.2	121.6	0.4993 µg/L	0.4993 ppb	21:09:55
1	As 188.979†	-8.7	5.7	2.3881 µg/L	2.3881 ppb	21:10:15
1	B 249.677†	3093.6	-323.5	-5.4324 µg/L	-5.4324 ppb	21:10:15
1	Ba 233.527†	-160.5	17.7	0.0807 µg/L	0.0807 ppb	21:10:15
1	Be 313.107†	-677.0	-3.5	0.0004 µg/L	0.0004 ppb	21:09:55
1	Cd 226.502†	-83.3	12.8	0.0841 µg/L	0.0841 ppb	21:10:15
1	Co 228.616†	-165.2	14.7	0.1990 µg/L	0.1990 ppb	21:10:15
1	Cr 267.716†	159.9	-3.5	-0.0334 µg/L	-0.0334 ppb	21:10:15
1	Cu 324.752†	2640.3	163.0	0.7184 µg/L	0.7184 ppb	21:09:55
1	Mn 257.610†	557.3	466.2	0.6370 µg/L	0.6370 ppb	21:10:15
1	Mo 202.031†	-36.6	19.4	0.6129 µg/L	0.6129 ppb	21:10:15
1	Ni 231.604†	-60.8	-18.7	-0.2389 µg/L	-0.2389 ppb	21:10:15
1	P 214.914†	60.0	-20.8	-5.0126 µg/L	-5.0126 ppb	21:10:15
1	Pb 220.353†	80.3	-33.7	-2.0465 µg/L	-2.0465 ppb	21:10:15
1	S 181.975 Axial†	89.6	-7.0	-5.6719 µg/L	-5.6719 ppb	21:10:15
1	Sb 206.836†	79.7	-8.5	-1.1384 µg/L	-1.1384 ppb	21:10:15
1	Se 196.026†	10.2	-0.9	-0.332 µg/L	-0.332 ppb	21:10:15
1	SiO2†	2098.2	483.6	52.849 µg/L	52.849 ppb	21:10:15
1	Si 251.611†	1990.0	1274.1	21.060 µg/L	21.060 ppb	21:09:55
1	Sn 189.927†	-0.7	-2.7	-0.1906 µg/L	-0.1906 ppb	21:10:15
1	Ti 334.940†	1147.0	487.9	0.4959 µg/L	0.4959 ppb	21:09:55
1	Tl 190.801†	-100.9	21.4	2.8815 µg/L	2.8815 ppb	21:10:15
1	U 409.014†	-403.0	84.1	5.1954 µg/L	5.1954 ppb	21:09:55
1	V 292.402†	446.7	6.0	0.0366 µg/L	0.0366 ppb	21:09:55
1	Zn 213.857†	768.4	288.7	1.8145 µg/L	1.8145 ppb	21:10:15
2	Sc RADIAL	149283.4	149283.4	102 %		21:09:08
2	Al 396.153Radial†	-31.5	1.1	0.1820 µg/L	0.1820 ppb	21:09:28
2	Ca 317.933Radial†	839.6	203.6	11.930 µg/L	11.930 ppb	21:09:28
2	Fe 238.204 Radial†	721.5	591.2	39.303 µg/L	39.303 ppb	21:09:28
2	K 766.490 Radial†	1347.7	-139.1	-57.272 µg/L	-57.272 ppb	21:09:08
2	Mg 279.077 IEC†	181.1	-9.8	-4.0624 µg/L	-4.0624 ppb	21:09:28
2	Na 589.592 Radial†	1593.1	-139.3	-21.264 µg/L	-21.264 ppb	21:09:08
2	Sr 421.552†	-184.1	98.2	0.2301 µg/L	0.2301 ppb	21:09:08
2	Sc 361.383	1707599.0	1707599.0	102.08 %		21:10:18
2	Y 371.029	1045088.8	1045088.8	102.20 %		21:10:18
2	Ag 328.068†	3223.7	190.9	0.7761 µg/L	0.7761 ppb	21:10:20
2	As 188.979†	-7.0	7.4	3.1095 µg/L	3.1095 ppb	21:10:40
2	B 249.677†	3090.4	-328.3	-5.5117 µg/L	-5.5117 ppb	21:10:40
2	Ba 233.527†	-143.3	34.7	0.1581 µg/L	0.1581 ppb	21:10:40
2	Be 313.107†	-634.5	38.6	0.0149 µg/L	0.0149 ppb	21:10:20
2	Cd 226.502†	-96.8	-0.4	-0.0070 µg/L	-0.0070 ppb	21:10:40
2	Co 228.616†	-172.9	7.2	0.0970 µg/L	0.0970 ppb	21:10:40
2	Cr 267.716†	156.1	-7.4	-0.0684 µg/L	-0.0684 ppb	21:10:40
2	Cu 324.752†	2605.7	127.7	0.5673 µg/L	0.5673 ppb	21:10:20
2	Mn 257.610†	567.6	476.1	0.6506 µg/L	0.6506 ppb	21:10:40
2	Mo 202.031†	-19.4	36.2	1.1431 µg/L	1.1431 ppb	21:10:40
2	Ni 231.604†	-50.3	-8.3	-0.1064 µg/L	-0.1064 ppb	21:10:40
2	P 214.914†	42.9	-37.5	-9.0257 µg/L	-9.0257 ppb	21:10:40
2	Pb 220.353†	117.7	2.9	0.1724 µg/L	0.1724 ppb	21:10:40

2	S 181.975 Axial†	86.6	-10.0	-8.1060 µg/L	-8.1060 ppb	21:10:40
2	Sb 206.836†	71.7	-16.4	-2.1947 µg/L	-2.1947 ppb	21:10:40
2	Se 196.026†	14.1	2.9	1.15 µg/L	1.15 ppb	21:10:40
2	SiO2†	2048.8	434.2	47.424 µg/L	47.424 ppb	21:10:40
2	Si 251.611†	1942.2	1226.2	20.260 µg/L	20.260 ppb	21:10:20
2	Sn 189.927†	3.7	1.6	0.1142 µg/L	0.1142 ppb	21:10:40
2	Ti 334.940†	1157.6	497.7	0.5049 µg/L	0.5049 ppb	21:10:20
2	Tl 190.801†	-110.6	12.0	1.6106 µg/L	1.6106 ppb	21:10:40
2	U 409.014†	-359.1	127.3	7.8261 µg/L	7.8261 ppb	21:10:20
2	V 292.402†	325.2	-113.3	-0.6182 µg/L	-0.6182 ppb	21:10:20
2	Zn 213.857†	752.4	272.7	1.7128 µg/L	1.7128 ppb	21:10:40
3	Sc RADIAL	149057.7	149057.7	102 %		21:09:30
3	Al 396.153Radial†	-22.1	10.2	2.1998 µg/L	2.1998 ppb	21:09:50
3	Ca 317.933Radial†	888.1	252.2	14.779 µg/L	14.779 ppb	21:09:50
3	Fe 238.204 Radial†	756.3	626.3	41.636 µg/L	41.636 ppb	21:09:50
3	K 766.490 Radial†	1338.4	-146.3	-60.223 µg/L	-60.223 ppb	21:09:30
3	Mg 279.077 IEC†	160.8	-29.4	-12.144 µg/L	-12.144 ppb	21:09:50
3	Na 589.592 Radial†	1607.7	-122.7	-18.714 µg/L	-18.714 ppb	21:09:30
3	Sr 421.552†	-221.0	61.9	0.1450 µg/L	0.1450 ppb	21:09:30
3	Sc 361.383	1712276.1	1712276.1	102.36 %		21:10:42
3	Y 371.029	1047900.0	1047900.0	102.48 %		21:10:42
3	Ag 328.068†	3053.3	15.8	0.0584 µg/L	0.0584 ppb	21:10:44
3	As 188.979†	-16.0	-1.4	-0.5872 µg/L	-0.5872 ppb	21:11:04
3	B 249.677†	3113.6	-313.9	-5.2708 µg/L	-5.2708 ppb	21:11:04
3	Ba 233.527†	-156.7	21.9	0.0994 µg/L	0.0994 ppb	21:11:04
3	Be 313.107†	-482.8	188.5	0.0625 µg/L	0.0625 ppb	21:10:44
3	Cd 226.502†	-83.1	13.2	0.0866 µg/L	0.0866 ppb	21:11:04
3	Co 228.616†	-153.1	27.1	0.3683 µg/L	0.3683 ppb	21:11:04
3	Cr 267.716†	177.6	13.3	0.1121 µg/L	0.1121 ppb	21:11:04
3	Cu 324.752†	2645.6	159.7	0.7031 µg/L	0.7031 ppb	21:10:44
3	Mn 257.610†	585.1	491.6	0.6722 µg/L	0.6722 ppb	21:11:04
3	Mo 202.031†	-33.5	22.4	0.7094 µg/L	0.7094 ppb	21:11:04
3	Ni 231.604†	-49.0	-7.0	-0.0893 µg/L	-0.0893 ppb	21:11:04
3	P 214.914†	47.0	-33.6	-8.0915 µg/L	-8.0915 ppb	21:11:04
3	Pb 220.353†	104.4	-10.5	-0.6366 µg/L	-0.6366 ppb	21:11:04
3	S 181.975 Axial†	97.8	0.8	0.6228 µg/L	0.6228 ppb	21:11:04
3	Sb 206.836†	77.2	-11.2	-1.5069 µg/L	-1.5069 ppb	21:11:04
3	Se 196.026†	19.3	8.0	3.17 µg/L	3.17 ppb	21:11:04
3	SiO2†	2052.3	432.1	47.207 µg/L	47.207 ppb	21:11:04
3	Si 251.611†	1940.1	1218.9	20.143 µg/L	20.143 ppb	21:10:44
3	Sn 189.927†	7.5	5.3	0.3773 µg/L	0.3773 ppb	21:11:04
3	Ti 334.940†	674.9	23.0	0.0233 µg/L	0.0233 ppb	21:10:44
3	Tl 190.801†	-105.4	17.3	2.3174 µg/L	2.3174 ppb	21:11:04
3	U 409.014†	-428.6	60.4	3.6821 µg/L	3.6821 ppb	21:10:44
3	V 292.402†	296.7	-142.0	-0.7840 µg/L	-0.7840 ppb	21:10:44
3	Zn 213.857†	759.2	277.2	1.7408 µg/L	1.7408 ppb	21:11:04

Mean Data: 1202056901|959123|1

Analyte	Mean Corrected	Conc.	Calib. Units	Std.Dev.	Conc. Sample	Std.Dev.	RSD
Sc 361.383	1708858.3	102.16	%	0.179			0.18%
Sc RADIAL	149203.4	102	%	0.1			0.08%
Y 371.029	1045669.7	102.26	%	0.196			0.19%
Ag 328.068†	109.4	0.4446	µg/L	0.36198	0.4446 ppb	0.36198	81.42%
Al 396.153Radial†	2.4	0.4949	µg/L	1.57198	0.4949 ppb	1.57198	317.62%
As 188.979†	3.9	1.6368	µg/L	1.95955	1.6368 ppb	1.95955	119.72%
B 249.677†	-321.9	-5.4050	µg/L	0.12277	-5.4050 ppb	0.12277	2.27%
Ba 233.527†	24.8	0.1127	µg/L	0.04037	0.1127 ppb	0.04037	35.81%
Be 313.107†	74.5	0.0259	µg/L	0.03245	0.0259 ppb	0.03245	125.07%
Ca 317.933Radial†	230.9	13.530	µg/L	1.4564	13.530 ppb	1.4564	10.76%
Cd 226.502†	8.5	0.0545	µg/L	0.05333	0.0545 ppb	0.05333	97.77%
Co 228.616†	16.3	0.2214	µg/L	0.13702	0.2214 ppb	0.13702	61.88%
Cr 267.716†	0.8	0.0034	µg/L	0.09570	0.0034 ppb	0.09570	>999.9%
Cu 324.752†	150.1	0.6629	µg/L	0.08320	0.6629 ppb	0.08320	12.55%
Fe 238.204 Radial†	599.6	39.864	µg/L	1.5682	39.864 ppb	1.5682	3.93%
K 766.490 Radial†	-112.5	-46.331	µg/L	21.5572	-46.331 ppb	21.5572	46.53%
Mg 279.077 IEC†	-14.6	-6.0518	µg/L	5.38040	-6.0518 ppb	5.38040	88.91%
Mn 257.610†	478.0	0.6532	µg/L	0.01774	0.6532 ppb	0.01774	2.72%
Mo 202.031†	26.0	0.8218	µg/L	0.28243	0.8218 ppb	0.28243	34.37%
Na 589.592 Radial†	-168.4	-25.722	µg/L	10.0106	-25.722 ppb	10.0106	38.92%

Ni 231.604†	-11.3	-0.1448 µg/L	0.08187	-0.1448 ppb	0.08187	56.53%
P 214.914†	-30.6	-7.3766 µg/L	2.09988	-7.3766 ppb	2.09988	28.47%
Pb 220.353†	-13.8	-0.8369 µg/L	1.12292	-0.8369 ppb	1.12292	134.17%
S 181.975 Axial†	-5.4	-4.3850 µg/L	4.50446	-4.3850 ppb	4.50446	102.72%
Sb 206.836†	-12.0	-1.6133 µg/L	0.53614	-1.6133 ppb	0.53614	33.23%
Se 196.026†	3.3	1.33 µg/L	1.759	1.33 ppb	1.759	132.22%
SiO2†	450.0	49.160 µg/L	3.1964	49.160 ppb	3.1964	6.50%
Si 251.611†	1239.7	20.487 µg/L	0.4989	20.487 ppb	0.4989	2.44%
Sn 189.927†	1.4	0.1003 µg/L	0.28421	0.1003 ppb	0.28421	283.37%
Sr 421.552†	85.1	0.1993 µg/L	0.04721	0.1993 ppb	0.04721	23.68%
Ti 334.940†	336.2	0.3414 µg/L	0.27549	0.3414 ppb	0.27549	80.71%
Tl 190.801†	16.9	2.2698 µg/L	0.63678	2.2698 ppb	0.63678	28.05%
U 409.014†	90.6	5.5679 µg/L	2.09696	5.5679 ppb	2.09696	37.66%
V 292.402†	-83.1	-0.4552 µg/L	0.43391	-0.4552 ppb	0.43391	95.32%
Zn 213.857†	279.5	1.7561 µg/L	0.05253	1.7561 ppb	0.05253	2.99%

Sequence No.: 49

Sample ID: 1202056906|959123|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 339

Date Collected: 3/29/2010 21:11:12

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056906|959123|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	154391.5	154391.5	106 %			21:11:44
1	Al 396.153Radial†	475579.2	449005.3	97991 µg/L		97991 ppb	21:11:44
1	Ca 317.933Radial†	1760742.9	1661623.8	97364 µg/L		97364 ppb	21:11:42
1	Fe 238.204 Radial†	2836393.4	2677601.1	178020 µg/L		178020 ppb	21:11:42
1	K 766.490 Radial†	105855.7	98478.7	40497 µg/L		40497 ppb	21:11:44
1	Mg 279.077 IEC†	101524.3	95657.9	39300 µg/L		39300 ppb	21:11:44
1	Na 589.592 Radial†	72465.0	66716.3	10172 µg/L		10172 ppb	21:11:44
1	Sr 421.552†	1028845.4	971565.7	2276.3 µg/L		2276.3 ppb	21:11:42
1	Sc 361.383	1717730.1	1717730.1	102.69 %			21:11:58
1	Y 371.029	1116859.8	1116859.8	109.22 %			21:11:58
1	Ag 328.068†	75694.8	70746.7	296.42 µg/L		296.42 ppb	21:11:58
1	As 188.979†	2549.0	2496.5	1106.5 µg/L		1106.5 ppb	21:12:00
1	B 249.677†	90534.0	84808.9	1420.8 µg/L		1420.8 ppb	21:11:58
1	Ba 233.527†	439517.2	428189.4	1954.7 µg/L		1954.7 ppb	21:11:58
1	Be 313.107†	2524838.3	2459419.5	800.51 µg/L		800.51 ppb	21:11:58
1	Cd 226.502†	87759.3	85556.9	572.71 µg/L		572.71 ppb	21:11:58
1	Co 228.616†	65510.3	63972.4	868.92 µg/L		868.92 ppb	21:12:00
1	Cr 267.716†	276923.5	269515.8	2320.1 µg/L		2320.1 ppb	21:11:58
1	Cu 324.752†	422396.4	408916.8	1804.9 µg/L		1804.9 ppb	21:11:58
1	Mn 257.610†	3905350.2	3803061.1	5194.6 µg/L		5194.6 ppb	21:11:58
1	Mo 202.031†	15043.2	14704.7	472.34 µg/L		472.34 ppb	21:12:00
1	Ni 231.604†	104847.6	102144.5	1306.5 µg/L		1306.5 ppb	21:11:58
1	P 214.914†	31713.1	30803.6	7261.6 µg/L		7261.6 ppb	21:12:00
1	Pb 220.353†	17882.2	17301.8	1056.7 µg/L		1056.7 ppb	21:12:00
1	S 181.975 Axial†	4508.3	4295.5	3484.0 µg/L		3484.0 ppb	21:12:00
1	Sb 206.836†	7661.6	7374.4	967.41 µg/L		967.41 ppb	21:12:00
1	Se 196.026†	6777.7	6589.4	2670 µg/L		2670 ppb	21:12:00
1	SiO2†	937544.7	911434.8	99593 µg/L		99593 ppb	21:11:58
1	Si 251.611†	2865571.8	2789899.0	46118 µg/L		46118 ppb	21:11:58
1	Sn 189.927†	13957.0	13589.7	985.41 µg/L		985.41 ppb	21:12:00
1	Ti 334.940†	5764871.2	5613359.3	5722.5 µg/L		5722.5 ppb	21:11:58
1	Tl 190.801†	8193.9	8099.7	1162.7 µg/L		1162.7 ppb	21:12:00
1	U 409.014†	-4244.8	-3654.6	-161.18 µg/L		-161.18 ppb	21:11:58
1	V 292.402†	225504.5	219170.9	1196.7 µg/L		1196.7 ppb	21:11:58
1	Zn 213.857†	911042.2	886734.4	5556.9 µg/L		5556.9 ppb	21:11:58
2	Sc RADIAL	153571.9	153571.9	105 %			21:11:48
2	Al 396.153Radial†	473896.3	449804.2	98165 µg/L		98165 ppb	21:11:48
2	Ca 317.933Radial†	1791737.2	1699911.7	99608 µg/L		99608 ppb	21:11:46
2	Fe 238.204 Radial†	2885577.6	2738572.5	182070 µg/L		182070 ppb	21:11:46
2	K 766.490 Radial†	105084.8	98280.4	40415 µg/L		40415 ppb	21:11:48
2	Mg 279.077 IEC†	100706.7	95393.5	39187 µg/L		39187 ppb	21:11:48
2	Na 589.592 Radial†	72021.0	66660.0	10164 µg/L		10164 ppb	21:11:48
2	Sr 421.552†	1047748.5	994690.3	2330.5 µg/L		2330.5 ppb	21:11:46
2	Sc 361.383	1721366.4	1721366.4	102.90 %			21:12:04
2	Y 371.029	1120049.3	1120049.3	109.53 %			21:12:04
2	Ag 328.068†	75793.7	70687.1	296.10 µg/L		296.10 ppb	21:12:04
2	As 188.979†	2585.2	2526.5	1120.0 µg/L		1120.0 ppb	21:12:06
2	B 249.677†	90532.5	84621.2	1417.6 µg/L		1417.6 ppb	21:12:04
2	Ba 233.527†	442029.2	429726.3	1961.7 µg/L		1961.7 ppb	21:12:04
2	Be 313.107†	2537047.0	2466089.5	802.68 µg/L		802.68 ppb	21:12:04
2	Cd 226.502†	87885.2	85498.7	571.88 µg/L		571.88 ppb	21:12:04
2	Co 228.616†	66078.0	64389.3	874.43 µg/L		874.43 ppb	21:12:06
2	Cr 267.716†	278508.9	270486.7	2328.6 µg/L		2328.6 ppb	21:12:04
2	Cu 324.752†	423874.1	409483.9	1808.0 µg/L		1808.0 ppb	21:12:04
2	Mn 257.610†	3922320.6	3811518.5	5206.2 µg/L		5206.2 ppb	21:12:04
2	Mo 202.031†	15146.3	14774.0	474.69 µg/L		474.69 ppb	21:12:06
2	Ni 231.604†	105531.8	102593.7	1312.3 µg/L		1312.3 ppb	21:12:04
2	P 214.914†	31868.8	30889.6	7279.5 µg/L		7279.5 ppb	21:12:06
2	Pb 220.353†	18172.7	17547.3	1071.5 µg/L		1071.5 ppb	21:12:06

2	S 181.975 Axial†	4515.7	4293.4	3482.4 µg/L	3482.4 ppb	21:12:06
2	Sb 206.836†	7772.1	7466.1	979.64 µg/L	979.64 ppb	21:12:06
2	Se 196.026†	6806.9	6603.9	2680 µg/L	2680 ppb	21:12:06
2	SiO2†	942335.1	914161.4	99891 µg/L	99891 ppb	21:12:04
2	Si 251.611†	2882024.5	2799992.3	46285 µg/L	46285 ppb	21:12:04
2	Sn 189.927†	14054.4	13655.7	990.13 µg/L	990.13 ppb	21:12:06
2	Ti 334.940†	5785617.5	5621660.6	5731.0 µg/L	5731.0 ppb	21:12:04
2	Tl 190.801†	8273.9	8160.7	1171.0 µg/L	1171.0 ppb	21:12:06
2	U 409.014†	-4462.9	-3857.8	-174.36 µg/L	-174.36 ppb	21:12:04
2	V 292.402†	226406.3	219583.3	1198.4 µg/L	1198.4 ppb	21:12:04
2	Zn 213.857†	914665.8	888381.6	5566.8 µg/L	5566.8 ppb	21:12:04
3	Sc RADIAL	152376.4	152376.4	105 %		21:11:53
3	Al 396.153Radial†	471017.8	450579.7	98334 µg/L	98334 ppb	21:11:53
3	Ca 317.933Radial†	1793112.6	1714569.4	100470 µg/L	100470 ppb	21:11:50
3	Fe 238.204 Radial†	2887047.3	2761465.8	183590 µg/L	183590 ppb	21:11:50
3	K 766.490 Radial†	104782.9	98774.2	40618 µg/L	40618 ppb	21:11:53
3	Mg 279.077 IEC†	100162.7	95623.1	39281 µg/L	39281 ppb	21:11:53
3	Na 589.592 Radial†	71536.0	66732.4	10175 µg/L	10175 ppb	21:11:53
3	Sr 421.552†	1047486.4	1002241.6	2348.2 µg/L	2348.2 ppb	21:11:50
3	Sc 361.383	1717291.2	1717291.2	102.66 %		21:12:10
3	Y 371.029	1117148.0	1117148.0	109.25 %		21:12:10
3	Ag 328.068†	75521.8	70597.0	295.68 µg/L	295.68 ppb	21:12:10
3	As 188.979†	2596.4	2543.4	1127.3 µg/L	1127.3 ppb	21:12:12
3	B 249.677†	90332.9	84635.5	1417.8 µg/L	1417.8 ppb	21:12:10
3	Ba 233.527†	439053.0	427846.7	1953.1 µg/L	1953.1 ppb	21:12:10
3	Be 313.107†	2527659.1	2462795.7	801.61 µg/L	801.61 ppb	21:12:10
3	Cd 226.502†	87385.2	85214.4	569.75 µg/L	569.75 ppb	21:12:10
3	Co 228.616†	66253.0	64712.2	878.76 µg/L	878.76 ppb	21:12:12
3	Cr 267.716†	276875.9	269538.3	2320.5 µg/L	2320.5 ppb	21:12:10
3	Cu 324.752†	422685.8	409303.8	1807.4 µg/L	1807.4 ppb	21:12:10
3	Mn 257.610†	3904143.4	3802857.7	5194.3 µg/L	5194.3 ppb	21:12:10
3	Mo 202.031†	15323.4	14981.4	481.30 µg/L	481.30 ppb	21:12:12
3	Ni 231.604†	104834.7	102158.0	1306.7 µg/L	1306.7 ppb	21:12:10
3	P 214.914†	32148.3	31235.3	7361.3 µg/L	7361.3 ppb	21:12:12
3	Pb 220.353†	18274.9	17688.7	1080.0 µg/L	1080.0 ppb	21:12:12
3	S 181.975 Axial†	4547.5	4334.8	3516.0 µg/L	3516.0 ppb	21:12:12
3	Sb 206.836†	7773.9	7485.8	982.50 µg/L	982.50 ppb	21:12:12
3	Se 196.026†	6731.7	6546.3	2650 µg/L	2650 ppb	21:12:12
3	SiO2†	936907.9	911047.9	99551 µg/L	99551 ppb	21:12:10
3	Si 251.611†	2865506.1	2790548.3	46129 µg/L	46129 ppb	21:12:10
3	Sn 189.927†	14129.5	13761.2	997.62 µg/L	997.62 ppb	21:12:12
3	Ti 334.940†	5768897.5	5618716.2	5728.0 µg/L	5728.0 ppb	21:12:10
3	Tl 190.801†	8257.4	8163.6	1171.2 µg/L	1171.2 ppb	21:12:12
3	U 409.014†	-4408.8	-3815.4	-172.28 µg/L	-172.28 ppb	21:12:10
3	V 292.402†	225354.9	219081.3	1195.4 µg/L	1195.4 ppb	21:12:10
3	Zn 213.857†	910125.7	886068.4	5552.1 µg/L	5552.1 ppb	21:12:10

Mean Data: 1202056906|959123|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1718795.9	102.75 %	0.134			0.13%
Sc RADIAL	153446.6	105 %	0.7			0.66%
Y 371.029	1118019.0	109.33 %	0.173			0.16%
Ag 328.068†	70676.9	296.07 µg/L	0.371	296.07 ppb	0.371	0.13%
Al 396.153Radial†	449796.4	98163 µg/L	171.6	98163 ppb	171.6	0.17%
As 188.979†	2522.1	1117.9 µg/L	10.58	1117.9 ppb	10.58	0.95%
B 249.677†	84688.5	1418.8 µg/L	1.77	1418.8 ppb	1.77	0.12%
Ba 233.527†	428587.5	1956.5 µg/L	4.57	1956.5 ppb	4.57	0.23%
Be 313.107†	2462768.2	801.60 µg/L	1.084	801.60 ppb	1.084	0.14%
Ca 317.933Radial†	1692035.0	99146 µg/L	1601.9	99146 ppb	1601.9	1.62%
Cd 226.502†	85423.3	571.45 µg/L	1.523	571.45 ppb	1.523	0.27%
Co 228.616†	64358.0	874.04 µg/L	4.930	874.04 ppb	4.930	0.56%
Cr 267.716†	269846.9	2323.1 µg/L	4.79	2323.1 ppb	4.79	0.21%
Cu 324.752†	409234.8	1806.8 µg/L	1.62	1806.8 ppb	1.62	0.09%
Fe 238.204 Radial†	2725879.8	181230 µg/L	2882.0	181230 ppb	2882.0	1.59%
K 766.490 Radial†	98511.1	40510 µg/L	102.2	40510 ppb	102.2	0.25%
Mg 279.077 IEC†	95558.2	39256 µg/L	60.2	39256 ppb	60.2	0.15%
Mn 257.610†	3805812.4	5198.4 µg/L	6.75	5198.4 ppb	6.75	0.13%
Mo 202.031†	14820.0	476.11 µg/L	4.644	476.11 ppb	4.644	0.98%
Na 589.592 Radial†	66702.9	10170 µg/L	5.7	10170 ppb	5.7	0.06%



Ni 231.604†	102298.7	1308.5 µg/L	3.27	1308.5 ppb	3.27	0.25%
P 214.914†	30976.2	7300.8 µg/L	53.15	7300.8 ppb	53.15	0.73%
Pb 220.353†	17512.6	1069.4 µg/L	11.80	1069.4 ppb	11.80	1.10%
S 181.975 Axial†	4307.9	3494.1 µg/L	18.93	3494.1 ppb	18.93	0.54%
Sb 206.836†	7442.1	976.51 µg/L	8.016	976.51 ppb	8.016	0.82%
Se 196.026†	6579.8	2670 µg/L	11.4	2670 ppb	11.4	0.43%
SiO2†	912214.7	99678 µg/L	185.5	99678 ppb	185.5	0.19%
Si 251.611†	2793479.8	46177 µg/L	93.4	46177 ppb	93.4	0.20%
Sn 189.927†	13668.9	991.05 µg/L	6.155	991.05 ppb	6.155	0.62%
Sr 421.552†	989499.2	2318.3 µg/L	37.45	2318.3 ppb	37.45	1.62%
Ti 334.940†	5617912.0	5727.2 µg/L	4.33	5727.2 ppb	4.33	0.08%
Tl 190.801†	8141.3	1168.3 µg/L	4.87	1168.3 ppb	4.87	0.42%
U 409.014†	-3775.9	-169.27 µg/L	7.088	-169.27 ppb	7.088	4.19%
Concentration less than lower limit for U 409.014.						
V 292.402†	219278.5	1196.9 µg/L	1.50	1196.9 ppb	1.50	0.13%
Zn 213.857†	887061.4	5558.6 µg/L	7.49	5558.6 ppb	7.49	0.13%

Sequence No.: 51

Sample ID: 1202056902|959123|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 341

Date Collected: 3/29/2010 21:14:32

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056902|959123|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	157518.7	157518.7	108 %		21:15:04
1	Al 396.153Radial†	287438.7	266002.8	58064 µg/L	58064 ppb	21:15:04
1	Ca 317.933Radial†	351241.6	324392.5	19008 µg/L	19008 ppb	21:15:04
1	Fe 238.204 Radial†	1745812.8	1615311.1	107390 µg/L	107390 ppb	21:15:02
1	K 766.490 Radial†	20897.1	17881.4	7343.4 µg/L	7343.4 ppb	21:15:04
1	Mg 279.077 IEC†	36416.7	33510.2	13725 µg/L	13725 ppb	21:15:04
1	Na 589.592 Radial†	19818.9	16644.0	2540.2 µg/L	2540.2 ppb	21:15:04
1	Sr 421.552†	67019.3	62291.9	145.85 µg/L	145.85 ppb	21:15:04
1	Sc 361.383	1760132.3	1760132.3	105.22 %		21:15:31
1	Y 371.029	1896967.9	1896967.9	185.51 %		21:15:31
1	Ag 328.068†	2602.8	-493.4	-3.1477 µg/L	-3.1477 ppb	21:15:31
1	As 188.979†	51.4	63.1	51.305 µg/L	51.305 ppb	21:15:51
1	B 249.677†	4960.8	1359.0	22.758 µg/L	22.758 ppb	21:15:31
1	Ba 233.527†	220249.0	209492.8	955.72 µg/L	955.72 ppb	21:15:31
1	Be 313.107†	41523.6	40122.8	12.924 µg/L	12.924 ppb	21:15:31
1	Cd 226.502†	1521.0	1539.9	-0.6190 µg/L	-0.6190 ppb	21:15:51
1	Co 228.616†	1087.7	1210.3	11.925 µg/L	11.925 ppb	21:15:51
1	Cr 267.716†	10130.8	9467.8	84.781 µg/L	84.781 ppb	21:15:51
1	Cu 324.752†	13219.4	10138.4	59.722 µg/L	59.722 ppb	21:15:31
1	Mn 257.610†	1517363.6	1441974.7	1969.5 µg/L	1969.5 ppb	21:15:31
1	Mo 202.031†	819.5	834.0	30.857 µg/L	30.857 ppb	21:15:51
1	Ni 231.604†	6908.3	6606.3	84.503 µg/L	84.503 ppb	21:15:51
1	P 214.914†	2602.4	2393.6	512.35 µg/L	512.35 ppb	21:15:51
1	Pb 220.353†	1172.4	1001.8	63.499 µg/L	63.499 ppb	21:15:51
1	S 181.975 Axial†	893.5	754.3	611.33 µg/L	611.33 ppb	21:15:51
1	Sb 206.836†	76.0	-14.4	-4.3746 µg/L	-4.3746 ppb	21:15:51
1	Se 196.026†	-76.1	-83.2	3.92 µg/L	3.92 ppb	21:15:51
1	SiO2†	995522.2	944540.2	103240 µg/L	103240 ppb	21:15:31
1	Si 251.611†	3022771.8	2872071.0	47489 µg/L	47489 ppb	21:15:31
1	Sn 189.927†	76.6	70.8	10.868 µg/L	10.868 ppb	21:15:51
1	Ti 334.940†	1785420.6	1696171.3	1729.1 µg/L	1729.1 ppb	21:15:31
1	Tl 190.801†	-344.5	-207.1	-4.7282 µg/L	-4.7282 ppb	21:15:51
1	V 409.014†	-8207.8	-7321.3	-457.89 µg/L	-457.89 ppb	21:15:31
1	V 292.402†	18362.4	17019.2	76.049 µg/L	76.049 ppb	21:15:51
1	Zn 213.857†	66121.9	62375.8	382.37 µg/L	382.37 ppb	21:15:31
2	Sc RADIAL	157383.8	157383.8	108 %		21:15:08
2	Al 396.153Radial†	288537.6	267248.5	58336 µg/L	58336 ppb	21:15:08
2	Ca 317.933Radial†	350566.1	324045.6	18988 µg/L	18988 ppb	21:15:08
2	Fe 238.204 Radial†	1744949.6	1615896.9	107430 µg/L	107430 ppb	21:15:06
2	K 766.490 Radial†	20726.2	17739.7	7285.1 µg/L	7285.1 ppb	21:15:08
2	Mg 279.077 IEC†	36399.7	33523.4	13731 µg/L	13731 ppb	21:15:08
2	Na 589.592 Radial†	19716.6	16565.0	2528.2 µg/L	2528.2 ppb	21:15:08
2	Sr 421.552†	66705.1	62054.1	145.29 µg/L	145.29 ppb	21:15:08
2	Sc 361.383	1755630.7	1755630.7	104.95 %		21:15:54
2	Y 371.029	1893477.5	1893477.5	185.17 %		21:15:54
2	Ag 328.068†	2458.6	-624.5	-3.6811 µg/L	-3.6811 ppb	21:15:54
2	As 188.979†	75.3	86.0	60.902 µg/L	60.902 ppb	21:16:14
2	B 249.677†	4980.7	1390.0	23.278 µg/L	23.278 ppb	21:15:54
2	Ba 233.527†	219294.0	209119.6	954.01 µg/L	954.01 ppb	21:15:54
2	Be 313.107†	41265.3	39977.9	12.875 µg/L	12.875 ppb	21:15:54
2	Cd 226.502†	1508.5	1531.7	-0.6795 µg/L	-0.6795 ppb	21:16:14
2	Co 228.616†	1089.9	1215.1	11.986 µg/L	11.986 ppb	21:16:14
2	Cr 267.716†	10196.4	9554.9	85.536 µg/L	85.536 ppb	21:16:14
2	Cu 324.752†	13284.7	10232.9	60.133 µg/L	60.133 ppb	21:15:54
2	Mn 257.610†	1513549.9	1442038.6	1969.6 µg/L	1969.6 ppb	21:15:54
2	Mo 202.031†	823.0	839.4	31.029 µg/L	31.029 ppb	21:16:14
2	Ni 231.604†	6916.0	6630.5	84.811 µg/L	84.811 ppb	21:16:14
2	P 214.914†	2592.1	2390.2	511.56 µg/L	511.56 ppb	21:16:14
2	Pb 220.353†	1214.0	1044.2	66.092 µg/L	66.092 ppb	21:16:14

2	S 181.975 Axial†	895.2	758.1	614.42 µg/L	614.42 ppb	21:16:14
2	Sb 206.836†	92.7	1.7	-2.2092 µg/L	-2.2092 ppb	21:16:14
2	Se 196.026†	-65.6	-73.4	7.80 µg/L	7.80 ppb	21:16:14
2	SiO2†	992669.8	944248.4	103210 µg/L	103210 ppb	21:15:54
2	Si 251.611†	3015331.1	2872347.5	47493 µg/L	47493 ppb	21:15:54
2	Sn 189.927†	85.0	79.0	11.452 µg/L	11.452 ppb	21:16:14
2	Ti 334.940†	1782061.4	1697321.5	1730.3 µg/L	1730.3 ppb	21:15:54
2	Tl 190.801†	-329.4	-193.5	-2.8949 µg/L	-2.8949 ppb	21:16:14
2	U 409.014†	-8295.1	-7424.5	-464.25 µg/L	-464.25 ppb	21:15:54
2	V 292.402†	18409.5	17108.9	76.540 µg/L	76.540 ppb	21:16:14
2	Zn 213.857†	66053.8	62472.0	382.98 µg/L	382.98 ppb	21:15:54
3	Sc RADIAL	154346.2	154346.2	106 %		21:15:12
3	Al 396.153Radial†	282407.5	266718.7	58220 µg/L	58220 ppb	21:15:12
3	Ca 317.933Radial†	342442.8	322764.0	18913 µg/L	18913 ppb	21:15:12
3	Fe 238.204 Radial†	1745712.0	1648420.7	109590 µg/L	109590 ppb	21:15:10
3	K 766.490 Radial†	20407.7	17816.7	7316.8 µg/L	7316.8 ppb	21:15:12
3	Mg 279.077 IEC†	35541.6	33376.5	13668 µg/L	13668 ppb	21:15:12
3	Na 589.592 Radial†	19324.9	16554.4	2526.5 µg/L	2526.5 ppb	21:15:12
3	Sr 421.552†	65637.9	62262.0	145.78 µg/L	145.78 ppb	21:15:12
3	Sc 361.383	1751306.5	1751306.5	104.69 %		21:16:17
3	Y 371.029	1888193.5	1888193.5	184.65 %		21:16:17
3	Ag 328.068†	2824.5	-269.2	-2.2608 µg/L	-2.2608 ppb	21:16:17
3	As 188.979†	61.4	72.8	55.890 µg/L	55.890 ppb	21:16:37
3	B 249.677†	4957.8	1379.8	23.106 µg/L	23.106 ppb	21:16:17
3	Ba 233.527†	218997.9	209352.6	955.05 µg/L	955.05 ppb	21:16:17
3	Be 313.107†	40903.4	39729.3	12.791 µg/L	12.791 ppb	21:16:17
3	Cd 226.502†	1513.8	1540.3	-0.8469 µg/L	-0.8469 ppb	21:16:37
3	Co 228.616†	1114.3	1241.0	12.230 µg/L	12.230 ppb	21:16:37
3	Cr 267.716†	10230.6	9611.6	86.107 µg/L	86.107 ppb	21:16:37
3	Cu 324.752†	13033.1	10023.8	59.528 µg/L	59.528 ppb	21:16:17
3	Mn 257.610†	1508976.8	1441231.3	1968.5 µg/L	1968.5 ppb	21:16:17
3	Mo 202.031†	844.3	861.7	31.817 µg/L	31.817 ppb	21:16:37
3	Ni 231.604†	6957.4	6686.3	85.526 µg/L	85.526 ppb	21:16:37
3	P 214.914†	2629.5	2432.0	520.08 µg/L	520.08 ppb	21:16:37
3	Pb 220.353†	1206.8	1040.3	65.782 µg/L	65.782 ppb	21:16:37
3	S 181.975 Axial†	900.0	764.8	619.90 µg/L	619.90 ppb	21:16:37
3	Sb 206.836†	78.3	-11.9	-4.0630 µg/L	-4.0630 ppb	21:16:37
3	Se 196.026†	-73.0	-80.6	5.67 µg/L	5.67 ppb	21:16:37
3	SiO2†	989541.8	943595.9	103130 µg/L	103130 ppb	21:16:17
3	Si 251.611†	3005160.5	2869726.9	47450 µg/L	47450 ppb	21:16:17
3	Sn 189.927†	80.4	74.7	11.140 µg/L	11.140 ppb	21:16:37
3	Ti 334.940†	1774810.7	1694588.4	1727.5 µg/L	1727.5 ppb	21:16:17
3	Tl 190.801†	-337.4	-201.9	-4.0511 µg/L	-4.0511 ppb	21:16:37
3	U 409.014†	-8460.2	-7601.7	-475.69 µg/L	-475.69 ppb	21:16:17
3	V 292.402†	18421.8	17163.9	76.506 µg/L	76.506 ppb	21:16:37
3	Zn 213.857†	66088.5	62660.6	383.93 µg/L	383.93 ppb	21:16:17

Mean Data: 1202056902|959123|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1755689.8	104.96 %	0.264			0.25%
Sc RADIAL	156416.2	107 %	1.2			1.15%
Y 371.029	1892879.6	185.11 %	0.432			0.23%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 185.1%						
Ag 328.068†	-462.4	-3.0299 µg/L	0.71747	-3.0299 ppb	0.71747	23.68%
Al 396.153Radial†	266656.7	58207 µg/L	136.5	58207 ppb	136.5	0.23%
As 188.979†	74.0	56.032 µg/L	4.7999	56.032 ppb	4.7999	8.57%
B 249.677†	1376.2	23.047 µg/L	0.2651	23.047 ppb	0.2651	1.15%
Ba 233.527†	209321.7	954.93 µg/L	0.859	954.93 ppb	0.859	0.09%
Be 313.107†	39943.3	12.863 µg/L	0.0674	12.863 ppb	0.0674	0.52%
Ca 317.933Radial†	323734.0	18969 µg/L	50.3	18969 ppb	50.3	0.26%
Cd 226.502†	1537.3	-0.7151 µg/L	0.11802	-0.7151 ppb	0.11802	16.50%
Co 228.616†	1222.1	12.047 µg/L	0.1610	12.047 ppb	0.1610	1.34%
Cr 267.716†	9544.8	85.475 µg/L	0.6654	85.475 ppb	0.6654	0.78%
Cu 324.752†	10131.7	59.794 µg/L	0.3087	59.794 ppb	0.3087	0.52%
Fe 238.204 Radial†	1626542.9	108140 µg/L	1259.8	108140 ppb	1259.8	1.16%
K 766.490 Radial†	17812.6	7315.1 µg/L	29.23	7315.1 ppb	29.23	0.40%
Mg 279.077 IEC†	33470.0	13708 µg/L	34.6	13708 ppb	34.6	0.25%
Mn 257.610†	1441748.2	1969.2 µg/L	0.62	1969.2 ppb	0.62	0.03%
Mo 202.031†	845.0	31.234 µg/L	0.5118	31.234 ppb	0.5118	1.64%

Na 589.592 Radial†	16587.8	2531.6 µg/L	7.47	2531.6 ppb	7.47	0.30%
Ni 231.604†	6641.0	84.947 µg/L	0.5247	84.947 ppb	0.5247	0.62%
P 214.914†	2405.3	514.67 µg/L	4.707	514.67 ppb	4.707	0.91%
Pb 220.353†	1028.8	65.124 µg/L	1.4161	65.124 ppb	1.4161	2.17%
S 181.975 Axial†	759.1	615.21 µg/L	4.339	615.21 ppb	4.339	0.71%
Sb 206.836†	-8.2	-3.5489 µg/L	1.17067	-3.5489 ppb	1.17067	32.99%
Se 196.026†	-79.1	5.79 µg/L	1.943	5.79 ppb	1.943	33.54%
SiO2†	944128.2	103190 µg/L	52.9	103190 ppb	52.9	0.05%
Si 251.611†	2871381.8	47478 µg/L	23.8	47478 ppb	23.8	0.05%
Sn 189.927†	74.8	11.153 µg/L	0.2923	11.153 ppb	0.2923	2.62%
Sr 421.552†	62202.6	145.64 µg/L	0.304	145.64 ppb	0.304	0.21%
Ti 334.940†	1696027.1	1728.9 µg/L	1.40	1728.9 ppb	1.40	0.08%
Tl 190.801†	-200.9	-3.8914 µg/L	0.92698	-3.8914 ppb	0.92698	23.82%
U 409.014†	-7449.2	-465.95 µg/L	9.017	-465.95 ppb	9.017	1.94%
Concentration less than lower limit for U 409.014.						
V 292.402†	17097.3	76.365 µg/L	0.2742	76.365 ppb	0.2742	0.36%
Zn 213.857†	62502.8	383.09 µg/L	0.785	383.09 ppb	0.785	0.20%
Internal Standard Check failed. Continue with analysis.						

Sequence No.: 52

Sample ID: 1202056904|959123|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 342

Date Collected: 3/29/2010 21:16:45

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056904|959123|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	157564.3	157564.3	108 %			21:17:17
1	Al 396.153Radial†	513275.3	474834.9	103630 µg/L		103630 ppb	21:17:15
1	Ca 317.933Radial†	404668.8	373720.9	21898 µg/L		21898 ppb	21:17:17
1	Fe 238.204 Radial†	1970646.8	1822825.0	121190 µg/L		121190 ppb	21:17:15
1	K 766.490 Radial†	41562.0	36991.7	15199 µg/L		15199 ppb	21:17:17
1	Mg 279.077 IEC†	58725.8	54137.4	22229 µg/L		22229 ppb	21:17:17
1	Na 589.592 Radial†	53120.3	47444.0	7246.0 µg/L		7246.0 ppb	21:17:17
1	Sr 421.552†	282180.7	261308.0	612.27 µg/L		612.27 ppb	21:17:15
1	Sc 361.383	1739247.4	1739247.4	103.97 %			21:17:44
1	Y 371.029	1858552.6	1858552.6	181.75 %			21:17:44
1	Ag 328.068†	124432.8	116710.0	478.75 µg/L		478.75 ppb	21:17:44
1	As 188.979†	1317.9	1281.8	569.50 µg/L		569.50 ppb	21:17:46
1	B 249.677†	34698.9	30017.0	502.30 µg/L		502.30 ppb	21:17:44
1	Ba 233.527†	287049.7	276253.9	1261.0 µg/L		1261.0 ppb	21:17:44
1	Be 313.107†	1646960.4	1584674.7	515.83 µg/L		515.83 ppb	21:17:44
1	Cd 226.502†	71032.7	68412.3	459.93 µg/L		459.93 ppb	21:17:44
1	Co 228.616†	35790.1	34598.8	468.72 µg/L		468.72 ppb	21:17:46
1	Cr 267.716†	68098.5	65335.5	564.83 µg/L		564.83 ppb	21:17:46
1	Cu 324.752†	135306.8	127710.6	573.68 µg/L		573.68 ppb	21:17:44
1	Mn 257.610†	1788387.7	1719956.6	2349.0 µg/L		2349.0 ppb	21:17:44
1	Mo 202.031†	15814.6	15265.3	487.27 µg/L		487.27 ppb	21:17:46
1	Ni 231.604†	44896.9	43221.9	552.86 µg/L		552.86 ppb	21:17:46
1	P 214.914†	4637.3	4380.5	982.49 µg/L		982.49 ppb	21:17:46
1	Pb 220.353†	8944.2	8489.9	521.74 µg/L		521.74 ppb	21:17:46
1	S 181.975 Axial†	6817.4	6462.0	5239.5 µg/L		5239.5 ppb	21:17:46
1	Sb 206.836†	2725.3	2534.5	339.82 µg/L		339.82 ppb	21:17:46
1	Se 196.026†	1111.0	1057.6	460 µg/L		460 ppb	21:17:46
1	SiO2†	964006.7	925590.2	101150 µg/L		101150 ppb	21:17:44
1	Si 251.611†	2929359.0	2816724.3	46565 µg/L		46565 ppb	21:17:44
1	Sn 189.927†	6726.8	6467.7	469.60 µg/L		469.60 ppb	21:17:46
1	Ti 334.940†	2965262.0	2851295.2	2906.0 µg/L		2906.0 ppb	21:17:44
1	Tl 190.801†	3232.2	3229.0	470.70 µg/L		470.70 ppb	21:17:46
1	U 409.014†	-915.8	-401.7	-2.4984 µg/L		-2.4984 ppb	21:17:44
1	V 292.402†	112331.0	107605.9	582.32 µg/L		582.32 ppb	21:17:44
1	Zn 213.857†	148209.2	142080.4	880.52 µg/L		880.52 ppb	21:17:44
2	Sc RADIAL	153503.4	153503.4	105 %			21:17:21
2	Al 396.153Radial†	519878.2	493665.4	107740 µg/L		107740 ppb	21:17:19
2	Ca 317.933Radial†	396463.9	375833.3	22022 µg/L		22022 ppb	21:17:21
2	Fe 238.204 Radial†	1996127.9	1895245.3	126000 µg/L		126000 ppb	21:17:19
2	K 766.490 Radial†	41001.6	37476.8	15397 µg/L		15397 ppb	21:17:21
2	Mg 279.077 IEC†	57565.2	54472.5	22363 µg/L		22363 ppb	21:17:21
2	Na 589.592 Radial†	52331.2	47994.7	7330.1 µg/L		7330.1 ppb	21:17:21
2	Sr 421.552†	285242.1	271120.4	635.26 µg/L		635.26 ppb	21:17:19
2	Sc 361.383	1733929.8	1733929.8	103.66 %			21:17:49
2	Y 371.029	1853309.4	1853309.4	181.24 %			21:17:49
2	Ag 328.068†	124348.4	116995.6	479.89 µg/L		479.89 ppb	21:17:49
2	As 188.979†	1320.4	1288.1	573.26 µg/L		573.26 ppb	21:17:51
2	B 249.677†	34471.9	29900.4	500.33 µg/L		500.33 ppb	21:17:49
2	Ba 233.527†	286562.9	276631.0	1262.7 µg/L		1262.7 ppb	21:17:49
2	Be 313.107†	1643517.5	1586211.1	516.33 µg/L		516.33 ppb	21:17:49
2	Cd 226.502†	70616.6	68220.4	458.10 µg/L		458.10 ppb	21:17:49
2	Co 228.616†	35959.7	34868.0	472.16 µg/L		472.16 ppb	21:17:51
2	Cr 267.716†	68377.4	65805.5	569.04 µg/L		569.04 ppb	21:17:51
2	Cu 324.752†	134598.4	127426.3	573.15 µg/L		573.15 ppb	21:17:49
2	Mn 257.610†	1784368.6	1721354.3	2350.9 µg/L		2350.9 ppb	21:17:49
2	Mo 202.031†	15830.3	15327.2	489.42 µg/L		489.42 ppb	21:17:51
2	Ni 231.604†	44787.4	43248.6	553.20 µg/L		553.20 ppb	21:17:51
2	P 214.914†	4659.8	4415.9	988.63 µg/L		988.63 ppb	21:17:51
2	Pb 220.353†	8954.2	8525.9	524.02 µg/L		524.02 ppb	21:17:51

2	S 181.975 Axial†	6790.9	6456.6	5235.1 µg/L	5235.1 ppb	21:17:51
2	Sb 206.836†	2725.1	2542.3	340.77 µg/L	340.77 ppb	21:17:51
2	Se 196.026†	1136.3	1085.3	473 µg/L	473 ppb	21:17:51
2	SiO2†	961163.8	925690.9	101160 µg/L	101160 ppb	21:17:49
2	Si 251.611†	2922218.9	2818476.5	46594 µg/L	46594 ppb	21:17:49
2	Sn 189.927†	6778.2	6537.2	474.54 µg/L	474.54 ppb	21:17:51
2	Ti 334.940†	2956888.7	2851963.5	2906.7 µg/L	2906.7 ppb	21:17:49
2	Tl 190.801†	3220.7	3227.4	470.50 µg/L	470.50 ppb	21:17:51
2	U 409.014†	-913.5	-402.2	-3.5357 µg/L	-3.5357 ppb	21:17:49
2	V 292.402†	112233.7	107843.4	582.91 µg/L	582.91 ppb	21:17:49
2	Zn 213.857†	147821.0	142143.0	880.47 µg/L	880.47 ppb	21:17:49
3	Sc RADIAL	153952.8	153952.8	106 %		21:17:25
3	Al 396.153Radial†	513028.0	485739.3	106010 µg/L	106010 ppb	21:17:23
3	Ca 317.933Radial†	398658.2	376812.0	22080 µg/L	22080 ppb	21:17:25
3	Fe 238.204 Radial†	1972278.4	1867134.3	124130 µg/L	124130 ppb	21:17:23
3	K 766.490 Radial†	41192.1	37543.5	15425 µg/L	15425 ppb	21:17:25
3	Mg 279.077 IEC†	57851.2	54583.7	22411 µg/L	22411 ppb	21:17:25
3	Na 589.592 Radial†	52495.3	48005.0	7331.6 µg/L	7331.6 ppb	21:17:25
3	Sr 421.552†	282538.1	267770.0	627.41 µg/L	627.41 ppb	21:17:23
3	Sc 361.383	1731999.5	1731999.5	103.54 %		21:17:54
3	Y 371.029	1853689.8	1853689.8	181.28 %		21:17:54
3	Ag 328.068†	124314.6	117096.6	480.34 µg/L	480.34 ppb	21:17:54
3	As 188.979†	1317.1	1286.3	572.12 µg/L	572.12 ppb	21:17:56
3	B 249.677†	34758.6	30214.4	505.59 µg/L	505.59 ppb	21:17:54
3	Ba 233.527†	287189.9	277544.6	1266.9 µg/L	1266.9 ppb	21:17:54
3	Be 313.107†	1649472.6	1593729.7	518.78 µg/L	518.78 ppb	21:17:54
3	Cd 226.502†	71243.8	68902.1	463.00 µg/L	463.00 ppb	21:17:54
3	Co 228.616†	36125.4	35066.7	474.98 µg/L	474.98 ppb	21:17:56
3	Cr 267.716†	68672.1	66163.6	572.05 µg/L	572.05 ppb	21:17:56
3	Cu 324.752†	135091.5	128047.3	575.58 µg/L	575.58 ppb	21:17:54
3	Mn 257.610†	1790168.4	1728874.4	2361.2 µg/L	2361.2 ppb	21:17:54
3	Mo 202.031†	15812.6	15327.2	489.34 µg/L	489.34 ppb	21:17:56
3	Ni 231.604†	45085.3	43584.6	557.50 µg/L	557.50 ppb	21:17:56
3	P 214.914†	4741.4	4499.7	1009.6 µg/L	1009.6 ppb	21:17:56
3	Pb 220.353†	8921.6	8504.1	522.67 µg/L	522.67 ppb	21:17:56
3	S 181.975 Axial†	6850.5	6521.4	5287.6 µg/L	5287.6 ppb	21:17:56
3	Sb 206.836†	2719.2	2539.5	340.39 µg/L	340.39 ppb	21:17:56
3	Se 196.026†	1080.0	1032.2	451 µg/L	451 ppb	21:17:56
3	SiO2†	963459.3	928941.3	101510 µg/L	101510 ppb	21:17:54
3	Si 251.611†	2930420.9	2829540.1	46777 µg/L	46777 ppb	21:17:54
3	Sn 189.927†	6768.6	6535.2	474.44 µg/L	474.44 ppb	21:17:56
3	Ti 334.940†	2965651.6	2863606.1	2918.5 µg/L	2918.5 ppb	21:17:54
3	Tl 190.801†	3192.3	3203.4	467.43 µg/L	467.43 ppb	21:17:56
3	U 409.014†	-961.3	-449.3	-5.7963 µg/L	-5.7963 ppb	21:17:54
3	V 292.402†	112631.0	108347.8	586.00 µg/L	586.00 ppb	21:17:54
3	Zn 213.857†	148445.1	142904.6	885.41 µg/L	885.41 ppb	21:17:54

Mean Data: 1202056904|959123|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1735058.9	103.72 %	0.224			0.22%
Sc RADIAL	155006.8	106 %	1.5			1.44%
Y 371.029	1855183.9	181.42 %	0.286			0.16%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 181.4%						
Ag 328.068†	116934.1	479.66 µg/L	0.819	479.66 ppb	0.819	0.17%
Al 396.153Radial†	484746.5	105790 µg/L	2063.7	105790 ppb	2063.7	1.95%
As 188.979†	1285.4	571.63 µg/L	1.928	571.63 ppb	1.928	0.34%
B 249.677†	30043.9	502.74 µg/L	2.659	502.74 ppb	2.659	0.53%
Ba 233.527†	276809.8	1263.5 µg/L	3.02	1263.5 ppb	3.02	0.24%
Be 313.107†	1588205.2	516.98 µg/L	1.577	516.98 ppb	1.577	0.31%
Ca 317.933Radial†	375455.4	22000 µg/L	92.6	22000 ppb	92.6	0.42%
Cd 226.502†	68511.6	460.34 µg/L	2.479	460.34 ppb	2.479	0.54%
Co 228.616†	34844.5	471.95 µg/L	3.135	471.95 ppb	3.135	0.66%
Cr 267.716†	65768.2	568.64 µg/L	3.623	568.64 ppb	3.623	0.64%
Cu 324.752†	127728.0	574.14 µg/L	1.277	574.14 ppb	1.277	0.22%
Fe 238.204 Radial†	1861734.9	123770 µg/L	2427.4	123770 ppb	2427.4	1.96%
K 766.490 Radial†	37337.3	15340 µg/L	123.6	15340 ppb	123.6	0.81%
Mg 279.077 IEC†	54397.9	22335 µg/L	94.2	22335 ppb	94.2	0.42%
Mn 257.610†	1723395.1	2353.7 µg/L	6.55	2353.7 ppb	6.55	0.28%
Mo 202.031†	15306.6	488.67 µg/L	1.219	488.67 ppb	1.219	0.25%

Na 589.592 Radial†	47814.6	7302.6 µg/L	49.00	7302.6 ppb	49.00	0.67%
Ni 231.604†	43351.7	554.52 µg/L	2.585	554.52 ppb	2.585	0.47%
P 214.914†	4432.0	993.56 µg/L	14.193	993.56 ppb	14.193	1.43%
Pb 220.353†	8506.7	522.81 µg/L	1.149	522.81 ppb	1.149	0.22%
S 181.975 Axial†	6480.0	5254.1 µg/L	29.13	5254.1 ppb	29.13	0.55%
Sb 206.836†	2538.8	340.32 µg/L	0.475	340.32 ppb	0.475	0.14%
Se 196.026†	1058.4	462 µg/L	10.9	462 ppb	10.9	2.36%
SiO2†	926740.8	101270 µg/L	208.3	101270 ppb	208.3	0.21%
Si 251.611†	2821580.3	46645 µg/L	114.9	46645 ppb	114.9	0.25%
Sn 189.927†	6513.4	472.86 µg/L	2.822	472.86 ppb	2.822	0.60%
Sr 421.552†	266732.8	624.98 µg/L	11.689	624.98 ppb	11.689	1.87%
Ti 334.940†	2855621.6	2910.4 µg/L	7.05	2910.4 ppb	7.05	0.24%
Tl 190.801†	3219.9	469.54 µg/L	1.833	469.54 ppb	1.833	0.39%
U 409.014†	-417.7	-3.9435 µg/L	1.68637	-3.9435 ppb	1.68637	42.76%
V 292.402†	107932.4	583.74 µg/L	1.979	583.74 ppb	1.979	0.34%
Zn 213.857†	142376.0	882.13 µg/L	2.837	882.13 ppb	2.837	0.32%
Internal Standard Check failed. Continue with analysis.						

Sequence No.: 53

Sample ID: 1202056905|959123|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 343

Date Collected: 3/29/2010 21:18:05

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056905|959123|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	156481.1	156481.1	107 %		21:18:37
1	Al 396.153Radial†	568281.9	529357.7	115530 µg/L	115530 ppb	21:18:35
1	Ca 317.933Radial†	428718.4	398713.3	23363 µg/L	23363 ppb	21:18:37
1	Fe 238.204 Radial†	2017674.1	1879247.9	124940 µg/L	124940 ppb	21:18:35
1	K 766.490 Radial†	43200.7	38784.3	15934 µg/L	15934 ppb	21:18:37
1	Mg 279.077 IEC†	61687.9	57272.5	23518 µg/L	23518 ppb	21:18:37
1	Na 589.592 Radial†	53625.3	48254.5	7369.4 µg/L	7369.4 ppb	21:18:37
1	Sr 421.552†	281904.3	262857.6	615.89 µg/L	615.89 ppb	21:18:35
1	Sc 361.383	1744395.3	1744395.3	104.28 %		21:18:50
1	Y 371.029	1832785.0	1832785.0	179.23 %		21:18:50
1	Ag 328.068†	124195.1	116128.9	476.27 µg/L	476.27 ppb	21:18:50
1	As 188.979†	1358.4	1316.8	584.97 µg/L	584.97 ppb	21:18:52
1	B 249.677†	34788.8	30004.7	502.10 µg/L	502.10 ppb	21:18:50
1	Ba 233.527†	267352.6	256550.8	1170.9 µg/L	1170.9 ppb	21:18:50
1	Be 313.107†	1649368.2	1582309.1	515.03 µg/L	515.03 ppb	21:18:50
1	Cd 226.502†	70922.1	68104.6	457.41 µg/L	457.41 ppb	21:18:50
1	Co 228.616†	35814.6	34520.7	467.37 µg/L	467.37 ppb	21:18:52
1	Cr 267.716†	68395.5	65427.1	565.78 µg/L	565.78 ppb	21:18:52
1	Cu 324.752†	135833.4	127831.6	574.72 µg/L	574.72 ppb	21:18:50
1	Mn 257.610†	1856960.7	1780638.3	2431.9 µg/L	2431.9 ppb	21:18:50
1	Mo 202.031†	15463.8	14884.1	475.41 µg/L	475.41 ppb	21:18:52
1	Ni 231.604†	45166.9	43353.4	554.54 µg/L	554.54 ppb	21:18:52
1	P 214.914†	4889.3	4609.0	1037.4 µg/L	1037.4 ppb	21:18:52
1	Pb 220.353†	8977.1	8496.1	522.71 µg/L	522.71 ppb	21:18:52
1	S 181.975 Axial†	6822.5	6447.5	5227.6 µg/L	5227.6 ppb	21:18:52
1	Sb 206.836†	2593.1	2400.0	321.37 µg/L	321.37 ppb	21:18:52
1	Se 196.026†	1068.2	1013.4	444 µg/L	444 ppb	21:18:52
1	SiO2†	957598.7	916709.1	100180 µg/L	100180 ppb	21:18:50
1	Si 251.611†	2911998.4	2791762.2	46152 µg/L	46152 ppb	21:18:50
1	Sn 189.927†	6654.3	6379.1	463.20 µg/L	463.20 ppb	21:18:52
1	Ti 334.940†	2943972.3	2822463.3	2876.6 µg/L	2876.6 ppb	21:18:50
1	Tl 190.801†	3059.2	3053.9	447.17 µg/L	447.17 ppb	21:18:52
1	U 409.014†	-2357.3	-1781.4	-87.674 µg/L	-87.674 ppb	21:18:50
1	V 292.402†	113756.4	108654.0	587.38 µg/L	587.38 ppb	21:18:50
1	Zn 213.857†	149349.1	142752.8	884.51 µg/L	884.51 ppb	21:18:50
2	Sc RADIAL	157249.4	157249.4	108 %		21:18:41
2	Al 396.153Radial†	576434.8	534328.4	116620 µg/L	116620 ppb	21:18:39
2	Ca 317.933Radial†	431028.1	398903.1	23374 µg/L	23374 ppb	21:18:41
2	Fe 238.204 Radial†	2046154.4	1896464.1	126080 µg/L	126080 ppb	21:18:39
2	K 766.490 Radial†	43728.1	39076.6	16054 µg/L	16054 ppb	21:18:41
2	Mg 279.077 IEC†	61930.8	57216.9	23494 µg/L	23494 ppb	21:18:41
2	Na 589.592 Radial†	54046.0	48400.5	7391.6 µg/L	7391.6 ppb	21:18:41
2	Sr 421.552†	285361.7	264779.3	620.39 µg/L	620.39 ppb	21:18:39
2	Sc 361.383	1750500.0	1750500.0	104.65 %		21:18:55
2	Y 371.029	1838720.1	1838720.1	179.81 %		21:18:55
2	Ag 328.068†	124411.7	115920.5	475.43 µg/L	475.43 ppb	21:18:55
2	As 188.979†	1352.6	1306.8	580.99 µg/L	580.99 ppb	21:18:57
2	B 249.677†	34613.8	29721.2	497.35 µg/L	497.35 ppb	21:18:55
2	Ba 233.527†	267889.8	256170.1	1169.2 µg/L	1169.2 ppb	21:18:55
2	Be 313.107†	1651212.4	1578555.5	513.81 µg/L	513.81 ppb	21:18:55
2	Cd 226.502†	71003.7	67945.4	456.19 µg/L	456.19 ppb	21:18:55
2	Co 228.616†	35805.3	34392.1	465.55 µg/L	465.55 ppb	21:18:57
2	Cr 267.716†	68324.8	65130.8	563.28 µg/L	563.28 ppb	21:18:57
2	Cu 324.752†	136034.4	127569.4	573.75 µg/L	573.75 ppb	21:18:55
2	Mn 257.610†	1859118.8	1776490.4	2426.2 µg/L	2426.2 ppb	21:18:55
2	Mo 202.031†	15447.6	14816.9	473.33 µg/L	473.33 ppb	21:18:57
2	Ni 231.604†	45292.1	43322.0	554.14 µg/L	554.14 ppb	21:18:57
2	P 214.914†	4864.2	4568.7	1027.2 µg/L	1027.2 ppb	21:18:57
2	Pb 220.353†	8997.7	8485.7	522.10 µg/L	522.10 ppb	21:18:57



2	S 181.975 Axial†	6773.0	6377.5	5170.9 µg/L	5170.9 ppb	21:18:57
2	Sb 206.836†	2600.9	2398.8	321.19 µg/L	321.19 ppb	21:18:57
2	Se 196.026†	1030.0	973.3	429 µg/L	429 ppb	21:18:57
2	SiO2†	958521.1	914388.1	99923 µg/L	99923 ppb	21:18:55
2	Si 251.611†	2914415.6	2784333.6	46029 µg/L	46029 ppb	21:18:55
2	Sn 189.927†	6679.2	6380.6	463.29 µg/L	463.29 ppb	21:18:57
2	Ti 334.940†	2946719.0	2815242.7	2869.2 µg/L	2869.2 ppb	21:18:55
2	Tl 190.801†	3071.9	3055.8	447.36 µg/L	447.36 ppb	21:18:57
2	U 409.014†	-2270.3	-1690.4	-82.317 µg/L	-82.317 ppb	21:18:55
2	V 292.402†	114239.0	108734.8	587.63 µg/L	587.63 ppb	21:18:55
2	Zn 213.857†	149378.0	142280.9	881.43 µg/L	881.43 ppb	21:18:55
3	Sc RADIAL	155311.9	155311.9	107 %		21:18:45
3	Al 396.153Radial†	570524.3	535447.0	116860 µg/L	116860 ppb	21:18:43
3	Ca 317.933Radial†	426617.7	399748.2	23424 µg/L	23424 ppb	21:18:45
3	Fe 238.204 Radial†	2024182.4	1899504.1	126290 µg/L	126290 ppb	21:18:43
3	K 766.490 Radial†	43239.7	39123.8	16073 µg/L	16073 ppb	21:18:45
3	Mg 279.077 IEC†	61213.2	57259.5	23512 µg/L	23512 ppb	21:18:45
3	Na 589.592 Radial†	53503.3	48516.1	7409.3 µg/L	7409.3 ppb	21:18:45
3	Sr 421.552†	283442.0	266277.4	623.90 µg/L	623.90 ppb	21:18:43
3	Sc 361.383	1737015.6	1737015.6	103.84 %		21:19:00
3	Y 371.029	1821805.6	1821805.6	178.16 %		21:19:00
3	Ag 328.068†	123209.1	115685.3	474.45 µg/L	474.45 ppb	21:19:00
3	As 188.979†	1299.8	1266.0	564.00 µg/L	564.00 ppb	21:19:02
3	B 249.677†	34431.3	29802.2	498.70 µg/L	498.70 ppb	21:19:00
3	Ba 233.527†	264773.0	255155.8	1164.5 µg/L	1164.5 ppb	21:19:00
3	Be 313.107†	1634825.2	1575023.5	512.67 µg/L	512.67 ppb	21:19:00
3	Cd 226.502†	70076.7	67579.4	453.64 µg/L	453.64 ppb	21:19:00
3	Co 228.616†	35672.8	34530.1	467.42 µg/L	467.42 ppb	21:19:02
3	Cr 267.716†	67947.2	65274.0	564.50 µg/L	564.50 ppb	21:19:02
3	Cu 324.752†	134964.9	127548.6	573.69 µg/L	573.69 ppb	21:19:00
3	Mn 257.610†	1837602.8	1769561.6	2416.7 µg/L	2416.7 ppb	21:19:00
3	Mo 202.031†	15422.1	14907.0	476.18 µg/L	476.18 ppb	21:19:02
3	Ni 231.604†	44858.0	43239.9	553.09 µg/L	553.09 ppb	21:19:02
3	P 214.914†	4897.4	4636.7	1043.4 µg/L	1043.4 ppb	21:19:02
3	Pb 220.353†	8846.5	8406.9	517.33 µg/L	517.33 ppb	21:19:02
3	S 181.975 Axial†	6781.5	6435.9	5218.2 µg/L	5218.2 ppb	21:19:02
3	Sb 206.836†	2664.3	2479.1	332.04 µg/L	332.04 ppb	21:19:02
3	Se 196.026†	1079.3	1028.4	451 µg/L	451 ppb	21:19:02
3	SiO2†	947707.1	911084.6	99562 µg/L	99562 ppb	21:19:00
3	Si 251.611†	2879149.1	2771991.3	45825 µg/L	45825 ppb	21:19:00
3	Sn 189.927†	6644.6	6396.9	464.42 µg/L	464.42 ppb	21:19:02
3	Ti 334.940†	2916618.3	2808114.8	2861.9 µg/L	2861.9 ppb	21:19:00
3	Tl 190.801†	3070.1	3076.9	450.05 µg/L	450.05 ppb	21:19:02
3	U 409.014†	-2087.2	-1530.9	-72.764 µg/L	-72.764 ppb	21:19:00
3	V 292.402†	112723.7	108123.0	584.25 µg/L	584.25 ppb	21:19:00
3	Zn 213.857†	147601.5	141678.2	877.63 µg/L	877.63 ppb	21:19:00

Mean Data: 1202056905|959123|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1743970.3	104.26 %	0.404			0.39%
Sc RADIAL	156347.5	107 %	0.7			0.62%
Y 371.029	1831103.6	179.07 %	0.839			0.47%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 179.1%						
Ag 328.068†	115911.6	475.39 µg/L	0.912	475.39 ppb	0.912	0.19%
Al 396.153Radial†	533044.4	116340 µg/L	707.6	116340 ppb	707.6	0.61%
As 188.979†	1296.5	576.66 µg/L	11.138	576.66 ppb	11.138	1.93%
B 249.677†	29842.7	499.38 µg/L	2.450	499.38 ppb	2.450	0.49%
Ba 233.527†	255958.9	1168.2 µg/L	3.30	1168.2 ppb	3.30	0.28%
Be 313.107†	1578629.4	513.84 µg/L	1.184	513.84 ppb	1.184	0.23%
Ca 317.933Radial†	399121.5	23387 µg/L	32.3	23387 ppb	32.3	0.14%
Cd 226.502†	67876.5	455.75 µg/L	1.923	455.75 ppb	1.923	0.42%
Co 228.616†	34481.0	466.78 µg/L	1.068	466.78 ppb	1.068	0.23%
Cr 267.716†	65277.3	564.52 µg/L	1.254	564.52 ppb	1.254	0.22%
Cu 324.752†	127649.8	574.05 µg/L	0.575	574.05 ppb	0.575	0.10%
Fe 238.204 Radial†	1891738.7	125770 µg/L	726.2	125770 ppb	726.2	0.58%
K 766.490 Radial†	38994.9	16020 µg/L	75.5	16020 ppb	75.5	0.47%
Mg 279.077 IEC†	57249.6	23508 µg/L	12.4	23508 ppb	12.4	0.05%
Mn 257.610†	1775563.4	2424.9 µg/L	7.65	2424.9 ppb	7.65	0.32%
Mo 202.031†	14869.3	474.97 µg/L	1.473	474.97 ppb	1.473	0.31%

Na 589.592 Radial†	48390.4	7390.1 µg/L	20.00	7390.1 ppb	20.00	0.27%
Ni 231.604†	43305.1	553.92 µg/L	0.750	553.92 ppb	0.750	0.14%
P 214.914†	4604.8	1036.0 µg/L	8.18	1036.0 ppb	8.18	0.79%
Pb 220.353†	8462.9	520.71 µg/L	2.950	520.71 ppb	2.950	0.57%
S 181.975 Axial†	6420.3	5205.6 µg/L	30.43	5205.6 ppb	30.43	0.58%
Sb 206.836†	2426.0	324.87 µg/L	6.212	324.87 ppb	6.212	1.91%
Se 196.026†	1005.1	441 µg/L	11.2	441 ppb	11.2	2.55%
SiO2†	914060.6	99888 µg/L	309.0	99888 ppb	309.0	0.31%
Si 251.611†	2782695.7	46002 µg/L	165.1	46002 ppb	165.1	0.36%
Sn 189.927†	6385.5	463.64 µg/L	0.679	463.64 ppb	0.679	0.15%
Sr 421.552†	264638.1	620.06 µg/L	4.018	620.06 ppb	4.018	0.65%
Ti 334.940†	2815273.6	2869.2 µg/L	7.32	2869.2 ppb	7.32	0.26%
Tl 190.801†	3062.2	448.19 µg/L	1.613	448.19 ppb	1.613	0.36%
U 409.014†	-1667.5	-80.918 µg/L	7.5528	-80.918 ppb	7.5528	9.33%
Concentration less than lower limit for U 409.014.						
V 292.402†	108503.9	586.42 µg/L	1.884	586.42 ppb	1.884	0.32%
Zn 213.857†	142237.3	881.19 µg/L	3.447	881.19 ppb	3.447	0.39%
Internal Standard Check failed. Continue with analysis.						

Sequence No.: 54

Sample ID: 1202056903|959123|5

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 344

Date Collected: 3/29/2010 21:19:10

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056903|959123|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	157613.2	157613.2	108 %		21:19:40
1	Al 396.153Radial†	52767.9	48829.4	10659 µg/L	10659 ppb	21:19:42
1	Ca 317.933Radial†	65535.0	59987.9	3515.0 µg/L	3515.0 ppb	21:19:42
1	Fe 238.204 Radial†	340509.6	314776.1	20927 µg/L	20927 ppb	21:19:40
1	K 766.490 Radial†	4945.8	3118.7	1280.6 µg/L	1280.6 ppb	21:19:42
1	Mg 279.077 IEC†	6743.0	6048.9	2476.3 µg/L	2476.3 ppb	21:19:42
1	Na 589.592 Radial†	4888.4	2825.9	431.25 µg/L	431.25 ppb	21:19:42
1	Sr 421.552†	11932.6	11312.7	26.487 µg/L	26.487 ppb	21:19:42
1	Sc 361.383	1777567.4	1777567.4	106.26 %		21:20:08
1	Y 371.029	1236935.5	1236935.5	120.96 %		21:20:08
1	Ag 328.068†	2835.2	-299.0	-1.4600 µg/L	-1.4600 ppb	21:20:10
1	As 188.979†	-18.1	-2.8	3.6697 µg/L	3.6697 ppb	21:20:30
1	B 249.677†	3291.4	-258.3	-4.3492 µg/L	-4.3492 ppb	21:20:10
1	Ba 233.527†	31094.2	29436.2	134.22 µg/L	134.22 ppb	21:20:10
1	Be 313.107†	7420.0	7642.6	2.4591 µg/L	2.4591 ppb	21:20:10
1	Cd 226.502†	219.3	300.8	-0.1164 µg/L	-0.1164 ppb	21:20:30
1	Co 228.616†	84.6	256.2	2.5510 µg/L	2.5510 ppb	21:20:30
1	Cr 267.716†	1882.6	1611.4	14.524 µg/L	14.524 ppb	21:20:30
1	Cu 324.752†	4539.4	1847.0	11.068 µg/L	11.068 ppb	21:20:10
1	Mn 257.610†	292398.0	275080.2	375.73 µg/L	375.73 ppb	21:20:10
1	Mo 202.031†	160.9	206.6	7.3997 µg/L	7.3997 ppb	21:20:30
1	Ni 231.604†	1166.7	1138.8	14.567 µg/L	14.567 ppb	21:20:30
1	P 214.914†	490.7	382.2	79.515 µg/L	79.515 ppb	21:20:30
1	Pb 220.353†	320.2	188.9	11.954 µg/L	11.954 ppb	21:20:30
1	S 181.975 Axial†	234.2	125.6	101.81 µg/L	101.81 ppb	21:20:30
1	Sb 206.836†	73.8	-17.2	-2.7463 µg/L	-2.7463 ppb	21:20:30
1	Se 196.026†	2.3	-8.7	3.73 µg/L	3.73 ppb	21:20:30
1	SiO2†	190637.0	177825.5	19436 µg/L	19436 ppb	21:20:10
1	Si 251.611†	586416.4	551169.1	9113.4 µg/L	9113.4 ppb	21:20:08
1	Sn 189.927†	12.6	9.8	1.8248 µg/L	1.8248 ppb	21:20:30
1	Ti 334.940†	348798.0	327599.0	333.97 µg/L	333.97 ppb	21:20:08
1	Tl 190.801†	-169.3	-39.0	-0.8032 µg/L	-0.8032 ppb	21:20:30
1	U 409.014†	-2144.0	-1538.5	-96.303 µg/L	-96.303 ppb	21:20:10
1	V 292.402†	3629.4	2983.7	12.977 µg/L	12.977 ppb	21:20:10
1	Zn 213.857†	13450.2	12192.9	74.753 µg/L	74.753 ppb	21:20:10
2	Sc RADIAL	158024.3	158024.3	108 %		21:19:44
2	Al 396.153Radial†	53066.1	48977.6	10691 µg/L	10691 ppb	21:19:46
2	Ca 317.933Radial†	66314.0	60548.8	3547.9 µg/L	3547.9 ppb	21:19:46
2	Fe 238.204 Radial†	344968.5	318069.6	21146 µg/L	21146 ppb	21:19:44
2	K 766.490 Radial†	5099.5	3248.6	1334.1 µg/L	1334.1 ppb	21:19:46
2	Mg 279.077 IEC†	6813.9	6098.2	2496.4 µg/L	2496.4 ppb	21:19:46
2	Na 589.592 Radial†	4821.3	2752.2	419.93 µg/L	419.93 ppb	21:19:46
2	Sr 421.552†	12160.7	11494.4	26.912 µg/L	26.912 ppb	21:19:46
2	Sc 361.383	1769841.6	1769841.6	105.80 %		21:20:32
2	Y 371.029	1233677.4	1233677.4	120.64 %		21:20:32
2	Ag 328.068†	3204.1	61.4	0.0128 µg/L	0.0128 ppb	21:20:34
2	As 188.979†	-2.8	11.6	9.7530 µg/L	9.7530 ppb	21:20:54
2	B 249.677†	3452.8	-92.3	-1.5619 µg/L	-1.5619 ppb	21:20:34
2	Ba 233.527†	30723.3	29213.3	133.20 µg/L	133.20 ppb	21:20:34
2	Be 313.107†	6976.3	7253.8	2.3365 µg/L	2.3365 ppb	21:20:34
2	Cd 226.502†	229.5	311.3	-0.0669 µg/L	-0.0669 ppb	21:20:54
2	Co 228.616†	93.0	264.5	2.6514 µg/L	2.6514 ppb	21:20:54
2	Cr 267.716†	1865.5	1602.9	14.448 µg/L	14.448 ppb	21:20:54
2	Cu 324.752†	4285.1	1625.2	10.147 µg/L	10.147 ppb	21:20:34
2	Mn 257.610†	288645.6	272734.8	372.52 µg/L	372.52 ppb	21:20:34
2	Mo 202.031†	156.6	203.3	7.3035 µg/L	7.3035 ppb	21:20:54
2	Ni 231.604†	1186.3	1162.1	14.865 µg/L	14.865 ppb	21:20:54
2	P 214.914†	481.4	375.5	77.764 µg/L	77.764 ppb	21:20:54
2	Pb 220.353†	311.9	182.3	11.547 µg/L	11.547 ppb	21:20:54

2	S 181.975 Axial†	222.0	115.0	93.205 µg/L	93.205 ppb	21:20:54
2	Sb 206.836†	72.5	-18.1	-2.8731 µg/L	-2.8731 ppb	21:20:54
2	Se 196.026†	-2.5	-13.3	1.99 µg/L	1.99 ppb	21:20:54
2	SiO2†	188078.2	176190.2	19258 µg/L	19258 ppb	21:20:34
2	Si 251.611†	588063.3	555134.5	9179.0 µg/L	9179.0 ppb	21:20:32
2	Sn 189.927†	11.5	8.8	1.7649 µg/L	1.7649 ppb	21:20:54
2	Ti 334.940†	350410.8	330556.1	336.98 µg/L	336.98 ppb	21:20:32
2	Tl 190.801†	-168.3	-38.7	-0.7486 µg/L	-0.7486 ppb	21:20:54
2	U 409.014†	-1906.4	-1322.8	-83.062 µg/L	-83.062 ppb	21:20:34
2	V 292.402†	3543.1	2916.9	12.577 µg/L	12.577 ppb	21:20:34
2	Zn 213.857†	13145.7	11960.3	73.266 µg/L	73.266 ppb	21:20:34
3	Sc RADIAL	158950.0	158950.0	109 %		21:19:48
3	Al 396.153Radial†	53136.5	48757.0	10643 µg/L	10643 ppb	21:19:50
3	Ca 317.933Radial†	66530.4	60390.9	3538.7 µg/L	3538.7 ppb	21:19:50
3	Fe 238.204 Radial†	343121.2	314522.4	20911 µg/L	20911 ppb	21:19:48
3	K 766.490 Radial†	5062.6	3187.3	1308.9 µg/L	1308.9 ppb	21:19:50
3	Mg 279.077 IEC†	6827.8	6074.3	2486.7 µg/L	2486.7 ppb	21:19:50
3	Na 589.592 Radial†	4854.4	2756.7	420.64 µg/L	420.64 ppb	21:19:50
3	Sr 421.552†	11971.2	11255.3	26.352 µg/L	26.352 ppb	21:19:50
3	Sc 361.383	1761507.4	1761507.4	105.30 %		21:20:57
3	Y 371.029	1227234.2	1227234.2	120.01 %		21:20:57
3	Ag 328.068†	3011.4	-107.3	-0.6640 µg/L	-0.6640 ppb	21:20:59
3	As 188.979†	-1.3	13.0	10.263 µg/L	10.263 ppb	21:21:19
3	B 249.677†	3540.9	6.9	0.1033 µg/L	0.1033 ppb	21:20:59
3	Ba 233.527†	31165.5	29770.6	135.75 µg/L	135.75 ppb	21:20:59
3	Be 313.107†	7341.1	7631.4	2.4603 µg/L	2.4603 ppb	21:20:59
3	Cd 226.502†	219.0	302.4	-0.1039 µg/L	-0.1039 ppb	21:21:19
3	Co 228.616†	86.1	258.3	2.5821 µg/L	2.5821 ppb	21:21:19
3	Cr 267.716†	1841.4	1588.4	14.312 µg/L	14.312 ppb	21:21:19
3	Cu 324.752†	4421.8	1774.2	10.763 µg/L	10.763 ppb	21:20:59
3	Mn 257.610†	292831.6	278000.7	379.72 µg/L	379.72 ppb	21:20:59
3	Mo 202.031†	157.0	204.3	7.3273 µg/L	7.3273 ppb	21:21:19
3	Ni 231.604†	1162.8	1145.2	14.648 µg/L	14.648 ppb	21:21:19
3	P 214.914†	491.3	387.0	80.685 µg/L	80.685 ppb	21:21:19
3	Pb 220.353†	318.0	189.5	11.984 µg/L	11.984 ppb	21:21:19
3	S 181.975 Axial†	236.1	129.4	104.90 µg/L	104.90 ppb	21:21:19
3	Sb 206.836†	78.2	-12.4	-2.0895 µg/L	-2.0895 ppb	21:21:19
3	Se 196.026†	13.7	2.1	8.00 µg/L	8.00 ppb	21:21:19
3	SiO2†	190679.6	179501.6	19619 µg/L	19619 ppb	21:20:59
3	Si 251.611†	582740.6	552709.6	9138.9 µg/L	9138.9 ppb	21:20:57
3	Sn 189.927†	25.4	22.1	2.7021 µg/L	2.7021 ppb	21:21:19
3	Ti 334.940†	347227.8	329100.4	335.49 µg/L	335.49 ppb	21:20:57
3	Tl 190.801†	-154.1	-26.0	0.9595 µg/L	0.9595 ppb	21:21:19
3	U 409.014†	-1846.8	-1274.7	-79.971 µg/L	-79.971 ppb	21:20:59
3	V 292.402†	3595.0	2982.1	12.979 µg/L	12.979 ppb	21:20:59
3	Zn 213.857†	13447.7	12305.9	75.466 µg/L	75.466 ppb	21:20:59

Mean Data: 1202056903|959123|5

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1769638.8	105.79 %	0.480			0.45%
Sc RADIAL	158195.8	109 %	0.5			0.43%
Y 371.029	1232615.7	120.54 %	0.483			0.40%
Ag 328.068†	-115.0	-0.7037 µg/L	0.73723	-0.7037 ppb	0.73723	104.76%
Al 396.153Radial†	48854.7	10664 µg/L	24.5	10664 ppb	24.5	0.23%
As 188.979†	7.3	7.8953 µg/L	3.66830	7.8953 ppb	3.66830	46.46%
B 249.677†	-114.6	-1.9360 µg/L	2.24973	-1.9360 ppb	2.24973	116.21%
Ba 233.527†	29473.4	134.39 µg/L	1.283	134.39 ppb	1.283	0.95%
Be 313.107†	7509.3	2.4186 µg/L	0.07112	2.4186 ppb	0.07112	2.94%
Ca 317.933Radial†	60309.2	3533.9 µg/L	16.95	3533.9 ppb	16.95	0.48%
Cd 226.502†	304.8	-0.0957 µg/L	0.02574	-0.0957 ppb	0.02574	26.88%
Co 228.616†	259.7	2.5948 µg/L	0.05141	2.5948 ppb	0.05141	1.98%
Cr 267.716†	1600.9	14.428 µg/L	0.1071	14.428 ppb	0.1071	0.74%
Cu 324.752†	1748.8	10.659 µg/L	0.4689	10.659 ppb	0.4689	4.40%
Fe 238.204 Radial†	315789.4	20995 µg/L	131.6	20995 ppb	131.6	0.63%
K 766.490 Radial†	3184.9	1307.8 µg/L	26.74	1307.8 ppb	26.74	2.04%
Mg 279.077 IEC†	6073.8	2486.4 µg/L	10.06	2486.4 ppb	10.06	0.40%
Mn 257.610†	275271.9	375.99 µg/L	3.605	375.99 ppb	3.605	0.96%
Mo 202.031†	204.7	7.3435 µg/L	0.05008	7.3435 ppb	0.05008	0.68%
Na 589.592 Radial†	2778.3	423.94 µg/L	6.340	423.94 ppb	6.340	1.50%

Ni 231.604†	1148.7	14.693 µg/L	0.1540	14.693 ppb	0.1540	1.05%
P 214.914†	381.6	79.321 µg/L	1.4700	79.321 ppb	1.4700	1.85%
Pb 220.353†	186.9	11.829 µg/L	0.2440	11.829 ppb	0.2440	2.06%
S 181.975 Axial†	123.3	99.972 µg/L	6.0605	99.972 ppb	6.0605	6.06%
Sb 206.836†	-15.9	-2.5696 µg/L	0.42061	-2.5696 ppb	0.42061	16.37%
Se 196.026†	-6.6	4.57 µg/L	3.095	4.57 ppb	3.095	67.67%
SiO2†	177839.1	19438 µg/L	181.0	19438 ppb	181.0	0.93%
Si 251.611†	553004.4	9143.8 µg/L	33.06	9143.8 ppb	33.06	0.36%
Sn 189.927†	13.6	2.0973 µg/L	0.52465	2.0973 ppb	0.52465	25.02%
Sr 421.552†	11354.2	26.583 µg/L	0.2925	26.583 ppb	0.2925	1.10%
Ti 334.940†	329085.2	335.48 µg/L	1.505	335.48 ppb	1.505	0.45%
Tl 190.801†	-34.6	-0.1974 µg/L	1.00231	-0.1974 ppb	1.00231	507.68%
U 409.014†	-1378.7	-86.445 µg/L	8.6758	-86.445 ppb	8.6758	10.04%
Concentration less than lower limit for U 409.014.						
V 292.402†	2960.9	12.844 µg/L	0.2316	12.844 ppb	0.2316	1.80%
Zn 213.857†	12153.0	74.495 µg/L	1.1222	74.495 ppb	1.1222	1.51%

Sequence No.: 55

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/29/2010 21:21:26

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	154714.0	154714.0	106 %		21:21:59
1	Al 396.153Radial†	25548.1	24100.5	5238.5 µg/L	5238.5 ppb	21:21:59
1	Ca 317.933Radial†	89497.2	83698.1	4904.3 µg/L	4904.3 ppb	21:21:59
1	Fe 238.204 Radial†	78346.3	73695.8	4899.6 µg/L	4899.6 ppb	21:21:59
1	K 766.490 Radial†	13948.1	11685.3	4806.5 µg/L	4806.5 ppb	21:21:59
1	Mg 279.077 IEC†	13187.8	12237.4	5053.2 µg/L	5053.2 ppb	21:21:59
1	Na 589.592 Radial†	69758.3	64023.7	9792.2 µg/L	9792.2 ppb	21:21:59
1	Sr 421.552†	228178.1	215241.9	504.43 µg/L	504.43 ppb	21:21:57
1	Sc 361.383	1735452.7	1735452.7	103.75 %		21:22:12
1	Y 371.029	1050791.1	1050791.1	102.76 %		21:22:12
1	Ag 328.068†	128429.5	120824.1	496.54 µg/L	496.54 ppb	21:22:12
1	As 188.979†	1304.3	1271.4	538.44 µg/L	538.44 ppb	21:22:32
1	B 249.677†	33357.7	28797.2	481.77 µg/L	481.77 ppb	21:22:12
1	Ba 233.527†	114396.7	110440.2	504.93 µg/L	504.93 ppb	21:22:12
1	Be 313.107†	1635862.4	1577441.1	513.62 µg/L	513.62 ppb	21:22:12
1	Cd 226.502†	72815.3	70279.9	485.02 µg/L	485.02 ppb	21:22:12
1	Co 228.616†	36981.4	35822.4	490.78 µg/L	490.78 ppb	21:22:12
1	Cr 267.716†	59642.9	57328.5	492.28 µg/L	492.28 ppb	21:22:12
1	Cu 324.752†	120492.9	113716.2	495.85 µg/L	495.85 ppb	21:22:12
1	Mn 257.610†	375406.7	361768.4	494.12 µg/L	494.12 ppb	21:22:12
1	Mo 202.031†	15724.6	15211.9	480.63 µg/L	480.63 ppb	21:22:32
1	Ni 231.604†	39726.7	38332.8	490.32 µg/L	490.32 ppb	21:22:12
1	P 214.914†	10354.3	9900.7	2362.7 µg/L	2362.7 ppb	21:22:32
1	Pb 220.353†	8256.8	7846.2	476.85 µg/L	476.85 ppb	21:22:32
1	S 181.975 Axial†	1288.8	1147.5	933.70 µg/L	933.70 ppb	21:22:32
1	Sb 206.836†	3841.8	3616.4	488.79 µg/L	488.79 ppb	21:22:32
1	Se 196.026†	1256.4	1200.2	477 µg/L	477 ppb	21:22:32
1	SiO2†	51655.1	48216.6	5249.4 µg/L	5249.4 ppb	21:22:12
1	Si 251.611†	155313.5	149027.7	2454.5 µg/L	2454.5 ppb	21:22:12
1	Sn 189.927†	7082.5	6824.6	486.84 µg/L	486.84 ppb	21:22:32
1	Ti 334.940†	504215.8	485369.0	494.29 µg/L	494.29 ppb	21:22:12
1	Tl 190.801†	3584.2	3575.1	487.32 µg/L	487.32 ppb	21:22:32
1	U 409.014†	7243.0	7460.5	491.31 µg/L	491.31 ppb	21:22:12
1	V 292.402†	93303.5	89501.9	502.63 µg/L	502.63 ppb	21:22:12
1	Zn 213.857†	80568.9	77194.6	482.06 µg/L	482.06 ppb	21:22:12
2	Sc RADIAL	155802.8	155802.8	107 %		21:22:03
2	Al 396.153Radial†	25671.7	24047.8	5226.9 µg/L	5226.9 ppb	21:22:03
2	Ca 317.933Radial†	90704.0	84237.8	4936.0 µg/L	4936.0 ppb	21:22:03
2	Fe 238.204 Radial†	79350.7	74119.7	4927.7 µg/L	4927.7 ppb	21:22:03
2	K 766.490 Radial†	14028.1	11668.4	4799.6 µg/L	4799.6 ppb	21:22:03
2	Mg 279.077 IEC†	13391.2	12340.9	5095.9 µg/L	5095.9 ppb	21:22:03
2	Na 589.592 Radial†	70468.8	64229.1	9823.6 µg/L	9823.6 ppb	21:22:03
2	Sr 421.552†	228226.2	213784.6	501.02 µg/L	501.02 ppb	21:22:01
2	Sc 361.383	1718458.2	1718458.2	102.73 %		21:22:35
2	Y 371.029	1040541.3	1040541.3	101.76 %		21:22:35
2	Ag 328.068†	127122.8	120776.3	496.30 µg/L	496.30 ppb	21:22:35
2	As 188.979†	1315.4	1294.6	548.12 µg/L	548.12 ppb	21:22:55
2	B 249.677†	32820.6	28592.4	478.34 µg/L	478.34 ppb	21:22:35
2	Ba 233.527†	112822.5	109998.3	502.91 µg/L	502.91 ppb	21:22:35
2	Be 313.107†	1612596.5	1570387.2	511.32 µg/L	511.32 ppb	21:22:35
2	Cd 226.502†	71251.1	69451.4	479.30 µg/L	479.30 ppb	21:22:35
2	Co 228.616†	36408.8	35617.5	487.97 µg/L	487.97 ppb	21:22:35
2	Cr 267.716†	58690.5	56970.0	489.20 µg/L	489.20 ppb	21:22:35
2	Cu 324.752†	118859.8	113275.1	493.93 µg/L	493.93 ppb	21:22:35
2	Mn 257.610†	369770.3	359860.3	491.51 µg/L	491.51 ppb	21:22:35
2	Mo 202.031†	15667.6	15306.3	483.62 µg/L	483.62 ppb	21:22:55
2	Ni 231.604†	39105.3	38106.6	487.43 µg/L	487.43 ppb	21:22:35
2	P 214.914†	10294.9	9941.7	2372.5 µg/L	2372.5 ppb	21:22:55
2	Pb 220.353†	8226.7	7895.5	479.85 µg/L	479.85 ppb	21:22:55

2	S 181.975 Axial†	1280.0	1151.2	936.74 µg/L	936.74 ppb	21:22:55
2	Sb 206.836†	3824.3	3636.0	491.52 µg/L	491.52 ppb	21:22:55
2	Se 196.026†	1243.4	1199.4	477 µg/L	477 ppb	21:22:55
2	SiO2†	50957.3	48029.8	5228.9 µg/L	5228.9 ppb	21:22:35
2	Si 251.611†	152847.9	148108.2	2439.3 µg/L	2439.3 ppb	21:22:35
2	Sn 189.927†	7068.4	6878.5	490.66 µg/L	490.66 ppb	21:22:55
2	Ti 334.940†	497011.6	483162.6	492.04 µg/L	492.04 ppb	21:22:35
2	Tl 190.801†	3575.6	3600.9	490.75 µg/L	490.75 ppb	21:22:55
2	U 409.014†	7042.3	7334.2	483.35 µg/L	483.35 ppb	21:22:35
2	V 292.402†	91957.7	89081.3	500.31 µg/L	500.31 ppb	21:22:35
2	Zn 213.857†	79391.5	76816.5	479.70 µg/L	479.70 ppb	21:22:35
3	Sc RADIAL	153629.1	153629.1	105 %		21:22:07
3	Al 396.153Radial†	25706.1	24420.3	5308.2 µg/L	5308.2 ppb	21:22:07
3	Ca 317.933Radial†	90217.9	84977.2	4979.3 µg/L	4979.3 ppb	21:22:07
3	Fe 238.204 Radial†	78896.4	74739.0	4968.9 µg/L	4968.9 ppb	21:22:07
3	K 766.490 Radial†	14006.0	11833.0	4867.3 µg/L	4867.3 ppb	21:22:07
3	Mg 279.077 IEC†	13233.2	12368.3	5107.1 µg/L	5107.1 ppb	21:22:07
3	Na 589.592 Radial†	70244.8	64949.4	9933.8 µg/L	9933.8 ppb	21:22:07
3	Sr 421.552†	231320.2	219741.0	514.98 µg/L	514.98 ppb	21:22:05
3	Sc 361.383	1729039.4	1729039.4	103.36 %		21:22:58
3	Y 371.029	1047411.6	1047411.6	102.43 %		21:22:58
3	Ag 328.068†	127427.9	120314.2	494.42 µg/L	494.42 ppb	21:22:58
3	As 188.979†	1312.7	1284.2	543.77 µg/L	543.77 ppb	21:23:18
3	B 249.677†	33004.1	28574.4	478.04 µg/L	478.04 ppb	21:22:58
3	Ba 233.527†	113024.4	109521.5	500.73 µg/L	500.73 ppb	21:22:58
3	Be 313.107†	1619574.1	1567531.4	510.39 µg/L	510.39 ppb	21:22:58
3	Cd 226.502†	71668.9	69431.2	479.16 µg/L	479.16 ppb	21:22:58
3	Co 228.616†	36487.7	35476.9	486.05 µg/L	486.05 ppb	21:22:58
3	Cr 267.716†	59071.0	56988.5	489.36 µg/L	489.36 ppb	21:22:58
3	Cu 324.752†	119482.8	113169.8	493.48 µg/L	493.48 ppb	21:22:58
3	Mn 257.610†	371130.6	358973.6	490.30 µg/L	490.30 ppb	21:22:58
3	Mo 202.031†	15756.3	15298.8	483.38 µg/L	483.38 ppb	21:23:18
3	Ni 231.604†	39442.5	38199.9	488.62 µg/L	488.62 ppb	21:22:58
3	P 214.914†	10384.3	9966.8	2378.5 µg/L	2378.5 ppb	21:23:18
3	Pb 220.353†	8281.8	7899.8	480.11 µg/L	480.11 ppb	21:23:18
3	S 181.975 Axial†	1288.9	1152.1	937.49 µg/L	937.49 ppb	21:23:18
3	Sb 206.836†	3835.5	3624.1	489.90 µg/L	489.90 ppb	21:23:18
3	Se 196.026†	1254.5	1202.8	478 µg/L	478 ppb	21:23:18
3	SiO2†	51174.5	47936.4	5218.7 µg/L	5218.7 ppb	21:22:58
3	Si 251.611†	153310.8	147645.6	2431.6 µg/L	2431.6 ppb	21:22:58
3	Sn 189.927†	7110.2	6876.8	490.54 µg/L	490.54 ppb	21:23:18
3	Ti 334.940†	498783.5	481916.1	490.77 µg/L	490.77 ppb	21:22:58
3	Tl 190.801†	3617.1	3619.7	493.26 µg/L	493.26 ppb	21:23:18
3	U 409.014†	7080.7	7329.4	482.98 µg/L	482.98 ppb	21:22:58
3	V 292.402†	92337.1	88900.5	499.30 µg/L	499.30 ppb	21:22:58
3	Zn 213.857†	79755.1	76695.4	478.93 µg/L	478.93 ppb	21:22:58

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Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1727650.1	103.28 %	0.513			0.50%
Sc RADIAL	154715.3	106 %	0.7			0.70%
Y 371.029	1046248.0	102.31 %	0.511			0.50%
Ag 328.068†	120638.2	495.75 µg/L	1.163	495.75 ppb	1.163	0.23%
QC value within limits for Ag 328.068 Recovery = 99.15%						
Al 396.153Radial†	24189.5	5257.9 µg/L	43.98	5257.9 ppb	43.98	0.84%
QC value within limits for Al 396.153Radial Recovery = 105.16%						
As 188.979†	1283.4	543.44 µg/L	4.846	543.44 ppb	4.846	0.89%
QC value within limits for As 188.979 Recovery = 108.69%						
B 249.677†	28654.7	479.38 µg/L	2.070	479.38 ppb	2.070	0.43%
QC value within limits for B 249.677 Recovery = 95.88%						
Ba 233.527†	109986.6	502.86 µg/L	2.100	502.86 ppb	2.100	0.42%
QC value within limits for Ba 233.527 Recovery = 100.57%						
Be 313.107†	1571786.6	511.78 µg/L	1.662	511.78 ppb	1.662	0.32%
QC value within limits for Be 313.107 Recovery = 102.36%						
Ca 317.933Radial†	84304.4	4939.9 µg/L	37.63	4939.9 ppb	37.63	0.76%
QC value within limits for Ca 317.933Radial Recovery = 98.80%						
Cd 226.502†	69720.8	481.16 µg/L	3.348	481.16 ppb	3.348	0.70%
QC value within limits for Cd 226.502 Recovery = 96.23%						
Co 228.616†	35638.9	488.27 µg/L	2.383	488.27 ppb	2.383	0.49%

QC value within limits for Co 228.616 Recovery = 97.65%							
Cr 267.716†	57095.7	490.28 µg/L	1.730	490.28 ppb	1.730	0.35%	
QC value within limits for Cr 267.716 Recovery = 98.06%							
Cu 324.752†	113387.0	494.42 µg/L	1.260	494.42 ppb	1.260	0.25%	
QC value within limits for Cu 324.752 Recovery = 98.88%							
Fe 238.204 Radial†	74184.8	4932.1 µg/L	34.88	4932.1 ppb	34.88	0.71%	
QC value within limits for Fe 238.204 Radial Recovery = 98.64%							
K 766.490 Radial†	11728.9	4824.5 µg/L	37.26	4824.5 ppb	37.26	0.77%	
QC value within limits for K 766.490 Radial Recovery = 96.49%							
Mg 279.077 IEC†	12315.5	5085.4 µg/L	28.47	5085.4 ppb	28.47	0.56%	
QC value within limits for Mg 279.077 IEC Recovery = 101.71%							
Mn 257.610†	360200.8	491.98 µg/L	1.953	491.98 ppb	1.953	0.40%	
QC value within limits for Mn 257.610 Recovery = 98.40%							
Mo 202.031†	15272.3	482.54 µg/L	1.658	482.54 ppb	1.658	0.34%	
QC value within limits for Mo 202.031 Recovery = 96.51%							
Na 589.592 Radial†	64400.7	9849.8 µg/L	74.35	9849.8 ppb	74.35	0.75%	
QC value within limits for Na 589.592 Radial Recovery = 98.50%							
Ni 231.604†	38213.1	488.79 µg/L	1.454	488.79 ppb	1.454	0.30%	
QC value within limits for Ni 231.604 Recovery = 97.76%							
P 214.914†	9936.4	2371.2 µg/L	7.98	2371.2 ppb	7.98	0.34%	
QC value within limits for P 214.914 Recovery = 94.85%							
Pb 220.353†	7880.5	478.93 µg/L	1.813	478.93 ppb	1.813	0.38%	
QC value within limits for Pb 220.353 Recovery = 95.79%							
S 181.975 Axial†	1150.2	935.98 µg/L	2.006	935.98 ppb	2.006	0.21%	
QC value within limits for S 181.975 Axial Recovery = 93.60%							
Sb 206.836†	3625.5	490.07 µg/L	1.373	490.07 ppb	1.373	0.28%	
QC value within limits for Sb 206.836 Recovery = 98.01%							
Se 196.026†	1200.8	477 µg/L	0.7	477 ppb	0.7	0.15%	
QC value within limits for Se 196.026 Recovery = 95.42%							
SiO2†	48060.9	5232.3 µg/L	15.67	5232.3 ppb	15.67	0.30%	
QC value within limits for SiO2 Recovery = 97.85%							
Si 251.611†	148260.5	2441.8 µg/L	11.67	2441.8 ppb	11.67	0.48%	
QC value within limits for Si 251.611 Recovery = 97.67%							
Sn 189.927†	6860.0	489.35 µg/L	2.170	489.35 ppb	2.170	0.44%	
QC value within limits for Sn 189.927 Recovery = 97.87%							
Sr 421.552†	216255.8	506.81 µg/L	7.277	506.81 ppb	7.277	1.44%	
QC value within limits for Sr 421.552 Recovery = 101.36%							
Ti 334.940†	483482.6	492.36 µg/L	1.782	492.36 ppb	1.782	0.36%	
QC value within limits for Ti 334.940 Recovery = 98.47%							
Tl 190.801†	3598.6	490.44 µg/L	2.982	490.44 ppb	2.982	0.61%	
QC value within limits for Tl 190.801 Recovery = 98.09%							
U 409.014†	7374.7	485.88 µg/L	4.704	485.88 ppb	4.704	0.97%	
QC value within limits for U 409.014 Recovery = 97.18%							
V 292.402†	89161.2	500.74 µg/L	1.709	500.74 ppb	1.709	0.34%	
QC value within limits for V 292.402 Recovery = 100.15%							
Zn 213.857†	76902.2	480.23 µg/L	1.635	480.23 ppb	1.635	0.34%	
QC value within limits for Zn 213.857 Recovery = 96.05%							

All analyte(s) passed QC.



Sequence No.: 56

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/29/2010 21:23:26

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Rep#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	155306.1	155306.1	107 %		21:23:55
1	Al 396.153Radial†	-24.3	9.1	1.9543 µg/L	1.9543 ppb	21:24:15
1	Ca 317.933Radial†	683.7	25.5	1.4938 µg/L	1.4938 ppb	21:24:15
1	Fe 238.204 Radial†	158.4	35.3	2.3500 µg/L	2.3500 ppb	21:24:15
1	K 766.490 Radial†	1643.9	87.8	36.134 µg/L	36.134 ppb	21:23:55
1	Mg 279.077 IEC†	167.4	-29.6	-12.187 µg/L	-12.187 ppb	21:24:15
1	Na 589.592 Radial†	1516.3	-271.7	-41.602 µg/L	-41.602 ppb	21:23:55
1	Sr 421.552†	-242.4	50.5	0.1183 µg/L	0.1183 ppb	21:23:55
1	Sc 361.383	1748094.6	1748094.6	104.50 %		21:25:03
1	Y 371.029	1071566.5	1071566.5	104.79 %		21:25:03
1	Ag 328.068†	3427.1	312.3	1.2793 µg/L	1.2793 ppb	21:25:05
1	As 188.979†	-13.5	1.3	0.5449 µg/L	0.5449 ppb	21:25:25
1	B 249.677†	3112.2	-377.5	-6.3385 µg/L	-6.3385 ppb	21:25:25
1	Ba 233.527†	-154.2	27.5	0.1256 µg/L	0.1256 ppb	21:25:25
1	Be 313.107†	-701.4	-11.1	0.0002 µg/L	0.0002 ppb	21:25:05
1	Cd 226.502†	-80.7	17.1	0.1180 µg/L	0.1180 ppb	21:25:25
1	Co 228.616†	-180.0	4.3	0.0591 µg/L	0.0591 ppb	21:25:25
1	Cr 267.716†	154.7	-12.2	-0.1146 µg/L	-0.1146 ppb	21:25:25
1	Cu 324.752†	2711.0	169.4	0.7467 µg/L	0.7467 ppb	21:25:05
1	Mn 257.610†	174.7	87.2	0.1196 µg/L	0.1196 ppb	21:25:25
1	Mo 202.031†	-33.7	22.9	0.7232 µg/L	0.7232 ppb	21:25:25
1	Ni 231.604†	-63.8	-20.2	-0.2580 µg/L	-0.2580 ppb	21:25:25
1	P 214.914†	25.7	-55.0	-13.175 µg/L	-13.175 ppb	21:25:25
1	Pb 220.353†	88.4	-27.8	-1.6943 µg/L	-1.6943 ppb	21:25:25
1	S 181.975 Axial†	88.7	-10.0	-8.0713 µg/L	-8.0713 ppb	21:25:25
1	Sb 206.836†	103.6	12.5	1.6953 µg/L	1.6953 ppb	21:25:25
1	Se 196.026†	29.5	17.3	6.85 µg/L	6.85 ppb	21:25:25
1	SiO2†	1690.4	44.8	4.8636 µg/L	4.8636 ppb	21:25:25
1	Si 251.611†	812.1	100.8	1.6531 µg/L	1.6531 ppb	21:25:25
1	Sn 189.927†	9.4	7.0	0.4982 µg/L	0.4982 ppb	21:25:25
1	Ti 334.940†	734.9	66.9	0.0641 µg/L	0.0641 ppb	21:25:05
1	Tl 190.801†	-117.2	8.2	1.0976 µg/L	1.0976 ppb	21:25:25
1	U 409.014†	-286.2	205.2	12.661 µg/L	12.661 ppb	21:25:05
1	V 292.402†	393.2	-55.5	-0.2928 µg/L	-0.2928 ppb	21:25:05
1	Zn 213.857†	542.6	54.8	0.3462 µg/L	0.3462 ppb	21:25:25
2	Sc RADIAL	153477.3	153477.3	105 %		21:24:17
2	Al 396.153Radial†	-47.4	-13.1	-2.9442 µg/L	-2.9442 ppb	21:24:37
2	Ca 317.933Radial†	711.1	59.1	3.4638 µg/L	3.4638 ppb	21:24:37
2	Fe 238.204 Radial†	171.6	49.7	3.3060 µg/L	3.3060 ppb	21:24:37
2	K 766.490 Radial†	1553.5	20.3	8.3817 µg/L	8.3817 ppb	21:24:17
2	Mg 279.077 IEC†	185.8	-10.2	-4.1787 µg/L	-4.1787 ppb	21:24:37
2	Na 589.592 Radial†	1510.8	-259.9	-39.777 µg/L	-39.777 ppb	21:24:17
2	Sr 421.552†	-111.6	172.0	0.4031 µg/L	0.4031 ppb	21:24:17
2	Sc 361.383	1741520.5	1741520.5	104.11 %		21:25:27
2	Y 371.029	1067626.4	1067626.4	104.41 %		21:25:27
2	Ag 328.068†	3414.4	312.6	1.2772 µg/L	1.2772 ppb	21:25:29
2	As 188.979†	-19.8	-4.8	-1.9816 µg/L	-1.9816 ppb	21:25:49
2	B 249.677†	3071.8	-405.2	-6.8037 µg/L	-6.8037 ppb	21:25:49
2	Ba 233.527†	-157.9	23.4	0.1075 µg/L	0.1075 ppb	21:25:49
2	Be 313.107†	-655.5	30.5	0.0121 µg/L	0.0121 ppb	21:25:29
2	Cd 226.502†	-93.0	5.0	0.0343 µg/L	0.0343 ppb	21:25:49
2	Co 228.616†	-157.6	25.2	0.3454 µg/L	0.3454 ppb	21:25:49
2	Cr 267.716†	146.2	-19.8	-0.1753 µg/L	-0.1753 ppb	21:25:49
2	Cu 324.752†	2664.3	134.2	0.5901 µg/L	0.5901 ppb	21:25:29
2	Mn 257.610†	201.1	113.2	0.1548 µg/L	0.1548 ppb	21:25:49
2	Mo 202.031†	-3.9	51.4	1.6241 µg/L	1.6241 ppb	21:25:49
2	Ni 231.604†	-71.2	-27.4	-0.3510 µg/L	-0.3510 ppb	21:25:49
2	P 214.914†	49.3	-32.2	-7.7507 µg/L	-7.7507 ppb	21:25:49
2	Pb 220.353†	105.7	-10.9	-0.6592 µg/L	-0.6592 ppb	21:25:49

2	S 181.975 Axial†	91.8	-6.6	-5.3552 µg/L	-5.3552 ppb	21:25:49
2	Sb 206.836†	83.1	-6.8	-0.8931 µg/L	-0.8931 ppb	21:25:49
2	Se 196.026†	11.8	0.5	0.191 µg/L	0.191 ppb	21:25:49
2	SiO2†	1682.8	43.5	4.7163 µg/L	4.7163 ppb	21:25:49
2	Si 251.611†	832.1	122.9	2.0124 µg/L	2.0124 ppb	21:25:49
2	Sn 189.927†	-2.3	-4.2	-0.2990 µg/L	-0.2990 ppb	21:25:49
2	Ti 334.940†	806.8	138.6	0.1389 µg/L	0.1389 ppb	21:25:29
2	Tl 190.801†	-103.8	20.6	2.7680 µg/L	2.7680 ppb	21:25:49
2	U 409.014†	-377.6	116.4	7.1940 µg/L	7.1940 ppb	21:25:29
2	V 292.402†	451.2	1.6	0.0290 µg/L	0.0290 ppb	21:25:29
2	Zn 213.857†	515.7	30.9	0.1963 µg/L	0.1963 ppb	21:25:49
3	Sc RADIAL	150012.7	150012.7	103 %		21:24:39
3	Al 396.153Radial†	-29.8	2.9	0.5867 µg/L	0.5867 ppb	21:24:59
3	Ca 317.933Radial†	710.4	74.0	4.3369 µg/L	4.3369 ppb	21:24:59
3	Fe 238.204 Radial†	151.9	34.3	2.2797 µg/L	2.2797 ppb	21:24:59
3	K 766.490 Radial†	1399.3	-95.4	-39.262 µg/L	-39.262 ppb	21:24:39
3	Mg 279.077 IEC†	165.1	-26.3	-10.817 µg/L	-10.817 ppb	21:24:59
3	Na 589.592 Radial†	1639.2	-102.0	-15.574 µg/L	-15.574 ppb	21:24:39
3	Sr 421.552†	-287.8	-1.6	-0.0038 µg/L	-0.0038 ppb	21:24:39
3	Sc 361.383	1723128.2	1723128.2	103.01 %		21:25:51
3	Y 371.029	1057308.7	1057308.7	103.40 %		21:25:51
3	Ag 328.068†	3346.0	281.2	1.1646 µg/L	1.1646 ppb	21:25:53
3	As 188.979†	-18.6	-3.8	-1.5909 µg/L	-1.5909 ppb	21:26:14
3	B 249.677†	3052.0	-392.9	-6.5974 µg/L	-6.5974 ppb	21:26:14
3	Ba 233.527†	-170.9	9.2	0.0418 µg/L	0.0418 ppb	21:26:14
3	Be 313.107†	-474.6	199.4	0.0725 µg/L	0.0725 ppb	21:25:53
3	Cd 226.502†	-97.7	-0.4	-0.0033 µg/L	-0.0033 ppb	21:26:14
3	Co 228.616†	-155.6	25.6	0.3503 µg/L	0.3503 ppb	21:26:14
3	Cr 267.716†	182.3	16.7	0.1237 µg/L	0.1237 ppb	21:26:14
3	Cu 324.752†	2711.9	207.8	0.9243 µg/L	0.9243 ppb	21:25:53
3	Mn 257.610†	171.1	86.1	0.1180 µg/L	0.1180 ppb	21:26:14
3	Mo 202.031†	-16.8	38.9	1.2275 µg/L	1.2275 ppb	21:26:14
3	Ni 231.604†	-81.5	-38.2	-0.4887 µg/L	-0.4887 ppb	21:26:14
3	P 214.914†	37.1	-43.6	-10.455 µg/L	-10.455 ppb	21:26:14
3	Pb 220.353†	81.7	-33.1	-2.0187 µg/L	-2.0187 ppb	21:26:14
3	S 181.975 Axial†	91.8	-5.7	-4.6479 µg/L	-4.6479 ppb	21:26:14
3	Sb 206.836†	81.4	-7.6	-1.0134 µg/L	-1.0134 ppb	21:26:14
3	Se 196.026†	21.3	9.8	3.89 µg/L	3.89 ppb	21:26:14
3	SiO2†	1680.3	58.3	6.3388 µg/L	6.3388 ppb	21:26:14
3	Si 251.611†	807.9	107.9	1.7669 µg/L	1.7669 ppb	21:26:14
3	Sn 189.927†	3.7	1.6	0.1137 µg/L	0.1137 ppb	21:26:14
3	Ti 334.940†	1049.1	382.1	0.3802 µg/L	0.3802 ppb	21:25:53
3	Tl 190.801†	-103.5	19.8	2.6620 µg/L	2.6620 ppb	21:26:14
3	U 409.014†	-71.7	409.5	25.265 µg/L	25.265 ppb	21:25:53
3	V 292.402†	327.3	-114.1	-0.6031 µg/L	-0.6031 ppb	21:25:53
3	Zn 213.857†	513.6	34.2	0.2177 µg/L	0.2177 ppb	21:26:14

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1737581.1	103.87 %		0.774			0.74%
Sc RADIAL	152932.0	105 %		1.8			1.76%
Y 371.029	1065500.5	104.20 %		0.720			0.69%
Ag 328.068†	302.0	1.2404 µg/L		0.06566	1.2404 ppb	0.06566	5.29%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-0.4	-0.1344 µg/L		2.52760	-0.1344 ppb	2.52760	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-2.4	-1.0092 µg/L		1.36000	-1.0092 ppb	1.36000	134.76%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-391.9	-6.5799 µg/L		0.23305	-6.5799 ppb	0.23305	3.54%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	20.0	0.0916 µg/L		0.04412	0.0916 ppb	0.04412	48.14%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	72.9	0.0283 µg/L		0.03879	0.0283 ppb	0.03879	137.14%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	52.9	3.0982 µg/L		1.45639	3.0982 ppb	1.45639	47.01%
QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	7.3	0.0497 µg/L		0.06207	0.0497 ppb	0.06207	124.90%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	18.4	0.2516 µg/L		0.16669	0.2516 ppb	0.16669	66.25%

QC value within limits for Co 228.616 Recovery = Not calculated					
Cr 267.716†	-5.1	-0.0554 µg/L	0.15802	-0.0554 ppb	0.15802 285.26%
QC value within limits for Cr 267.716 Recovery = Not calculated					
Cu 324.752†	170.5	0.7537 µg/L	0.16723	0.7537 ppb	0.16723 22.19%
QC value within limits for Cu 324.752 Recovery = Not calculated					
Fe 238.204 Radial†	39.8	2.6452 µg/L	0.57333	2.6452 ppb	0.57333 21.67%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated					
K 766.490 Radial†	4.2	1.7511 µg/L	38.13273	1.7511 ppb	38.13273 >999.9%
QC value within limits for K 766.490 Radial Recovery = Not calculated					
Mg 279.077 IEC†	-22.0	-9.0611 µg/L	4.28341	-9.0611 ppb	4.28341 47.27%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated					
Mn 257.610†	95.5	0.1308 µg/L	0.02079	0.1308 ppb	0.02079 15.90%
QC value within limits for Mn 257.610 Recovery = Not calculated					
Mo 202.031†	37.8	1.1916 µg/L	0.45152	1.1916 ppb	0.45152 37.89%
QC value within limits for Mo 202.031 Recovery = Not calculated					
Na 589.592 Radial†	-211.2	-32.318 µg/L	14.5288	-32.318 ppb	14.5288 44.96%
QC value within limits for Na 589.592 Radial Recovery = Not calculated					
Ni 231.604†	-28.6	-0.3659 µg/L	0.11605	-0.3659 ppb	0.11605 31.72%
QC value within limits for Ni 231.604 Recovery = Not calculated					
P 214.914†	-43.6	-10.460 µg/L	2.7120	-10.460 ppb	2.7120 25.93%
QC value within limits for P 214.914 Recovery = Not calculated					
Pb 220.353†	-23.9	-1.4574 µg/L	0.70999	-1.4574 ppb	0.70999 48.72%
QC value within limits for Pb 220.353 Recovery = Not calculated					
S 181.975 Axial†	-7.4	-6.0248 µg/L	1.80725	-6.0248 ppb	1.80725 30.00%
QC value within limits for S 181.975 Axial Recovery = Not calculated					
Sb 206.836†	-0.6	-0.0704 µg/L	1.53036	-0.0704 ppb	1.53036 >999.9%
QC value within limits for Sb 206.836 Recovery = Not calculated					
Se 196.026†	9.2	3.64 µg/L	3.337	3.64 ppb	3.337 91.59%
QC value within limits for Se 196.026 Recovery = Not calculated					
SiO2†	48.9	5.3062 µg/L	0.89725	5.3062 ppb	0.89725 16.91%
QC value within limits for SiO2 Recovery = Not calculated					
Si 251.611†	110.5	1.8108 µg/L	0.18363	1.8108 ppb	0.18363 10.14%
QC value within limits for Si 251.611 Recovery = Not calculated					
Sn 189.927†	1.5	0.1043 µg/L	0.39868	0.1043 ppb	0.39868 382.19%
QC value within limits for Sn 189.927 Recovery = Not calculated					
Sr 421.552†	73.6	0.1725 µg/L	0.20882	0.1725 ppb	0.20882 121.03%
QC value within limits for Sr 421.552 Recovery = Not calculated					
Ti 334.940†	195.9	0.1944 µg/L	0.16524	0.1944 ppb	0.16524 85.00%
QC value within limits for Ti 334.940 Recovery = Not calculated					
Tl 190.801†	16.2	2.1759 µg/L	0.93532	2.1759 ppb	0.93532 42.99%
QC value within limits for Tl 190.801 Recovery = Not calculated					
U 409.014†	243.7	15.040 µg/L	9.2675	15.040 ppb	9.2675 61.62%
QC value within limits for U 409.014 Recovery = Not calculated					
V 292.402†	-56.0	-0.2890 µg/L	0.31607	-0.2890 ppb	0.31607 109.37%
QC value within limits for V 292.402 Recovery = Not calculated					
Zn 213.857†	40.0	0.2534 µg/L	0.08112	0.2534 ppb	0.08112 32.01%
QC value within limits for Zn 213.857 Recovery = Not calculated					

All analyte(s) passed QC.

Sequence No.: 64

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/29/2010 21:41:23

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	155141.6	155141.6	106 %		21:41:56
1	Al 396.153Radial†	25732.1	24207.0	5261.9 µg/L	5261.9 ppb	21:41:56
1	Ca 317.933Radial†	90696.3	84592.2	4956.7 µg/L	4956.7 ppb	21:41:56
1	Fe 238.204 Radial†	79315.9	74403.3	4946.6 µg/L	4946.6 ppb	21:41:56
1	K 766.490 Radial†	13939.8	11641.4	4788.4 µg/L	4788.4 ppb	21:41:56
1	Mg 279.077 IEC†	13393.7	12396.6	5118.7 µg/L	5118.7 ppb	21:41:56
1	Na 589.592 Radial†	70468.0	64509.4	9866.5 µg/L	9866.5 ppb	21:41:56
1	Sr 421.552†	232398.2	218614.1	512.33 µg/L	512.33 ppb	21:41:53
1	Sc 361.383	1769586.3	1769586.3	105.79 %		21:42:08
1	Y 371.029	1071797.7	1071797.7	104.81 %		21:42:08
1	Ag 328.068†	129603.3	119545.9	491.31 µg/L	491.31 ppb	21:42:08
1	As 188.979†	1329.3	1270.8	538.12 µg/L	538.12 ppb	21:42:28
1	B 249.677†	33677.3	28479.2	476.45 µg/L	476.45 ppb	21:42:08
1	Ba 233.527†	115439.2	109298.8	499.71 µg/L	499.71 ppb	21:42:08
1	Be 313.107†	1651472.1	1561782.3	508.53 µg/L	508.53 ppb	21:42:08
1	Cd 226.502†	73101.7	69196.8	477.54 µg/L	477.54 ppb	21:42:08
1	Co 228.616†	37176.9	35319.6	483.89 µg/L	483.89 ppb	21:42:08
1	Cr 267.716†	60164.7	56712.9	486.98 µg/L	486.98 ppb	21:42:08
1	Cu 324.752†	121865.1	112773.1	491.76 µg/L	491.76 ppb	21:42:08
1	Mn 257.610†	378134.2	357367.0	488.10 µg/L	488.10 ppb	21:42:08
1	Mo 202.031†	15933.4	15116.9	477.64 µg/L	477.64 ppb	21:42:28
1	Ni 231.604†	40031.5	37882.3	484.56 µg/L	484.56 ppb	21:42:08
1	P 214.914†	10529.6	9874.0	2356.3 µg/L	2356.3 ppb	21:42:28
1	Pb 220.353†	8381.8	7810.8	474.69 µg/L	474.69 ppb	21:42:28
1	S 181.975 Axial†	1319.0	1152.0	937.38 µg/L	937.38 ppb	21:42:28
1	Sb 206.836†	3878.6	3579.8	483.87 µg/L	483.87 ppb	21:42:28
1	Se 196.026†	1271.4	1191.0	473 µg/L	473 ppb	21:42:28
1	SiO2†	52156.9	47730.6	5196.4 µg/L	5196.4 ppb	21:42:08
1	Si 251.611†	156637.6	147391.8	2427.5 µg/L	2427.5 ppb	21:42:08
1	Sn 189.927†	7201.5	6805.5	485.46 µg/L	485.46 ppb	21:42:28
1	Ti 334.940†	508354.7	479906.9	488.71 µg/L	488.71 ppb	21:42:08
1	Tl 190.801†	3635.0	3556.4	484.75 µg/L	484.75 ppb	21:42:28
1	U 409.014†	7495.6	7564.6	497.45 µg/L	497.45 ppb	21:42:08
1	V 292.402†	94313.8	88722.2	498.25 µg/L	498.25 ppb	21:42:08
1	Zn 213.857†	81212.0	76304.6	476.49 µg/L	476.49 ppb	21:42:08
2	Sc RADIAL	152571.4	152571.4	105 %		21:42:00
2	Al 396.153Radial†	25314.1	24214.9	5263.2 µg/L	5263.2 ppb	21:42:00
2	Ca 317.933Radial†	88626.2	84050.0	4925.0 µg/L	4925.0 ppb	21:42:00
2	Fe 238.204 Radial†	77784.9	74196.0	4932.8 µg/L	4932.8 ppb	21:42:00
2	K 766.490 Radial†	13885.1	11809.7	4857.7 µg/L	4857.7 ppb	21:42:00
2	Mg 279.077 IEC†	13015.3	12247.1	5057.3 µg/L	5057.3 ppb	21:42:00
2	Na 589.592 Radial†	69451.8	64653.8	9888.5 µg/L	9888.5 ppb	21:42:00
2	Sr 421.552†	226457.0	216616.4	507.65 µg/L	507.65 ppb	21:41:58
2	Sc 361.383	1736903.3	1736903.3	103.83 %		21:42:32
2	Y 371.029	1053285.4	1053285.4	103.00 %		21:42:32
2	Ag 328.068†	128049.4	120354.6	494.59 µg/L	494.59 ppb	21:42:32
2	As 188.979†	1336.9	1301.8	551.11 µg/L	551.11 ppb	21:42:52
2	B 249.677†	32949.6	28377.4	474.74 µg/L	474.74 ppb	21:42:32
2	Ba 233.527†	113487.1	109472.1	500.51 µg/L	500.51 ppb	21:42:32
2	Be 313.107†	1622396.8	1563155.8	508.97 µg/L	508.97 ppb	21:42:32
2	Cd 226.502†	71970.0	69407.2	478.99 µg/L	478.99 ppb	21:42:32
2	Co 228.616†	36579.3	35405.4	485.07 µg/L	485.07 ppb	21:42:32
2	Cr 267.716†	59093.3	56751.3	487.32 µg/L	487.32 ppb	21:42:32
2	Cu 324.752†	119729.1	112883.6	492.24 µg/L	492.24 ppb	21:42:32
2	Mn 257.610†	371985.4	358171.2	489.21 µg/L	489.21 ppb	21:42:32
2	Mo 202.031†	15973.6	15439.0	487.80 µg/L	487.80 ppb	21:42:52
2	Ni 231.604†	39464.7	38048.6	486.69 µg/L	486.69 ppb	21:42:32
2	P 214.914†	10515.6	10047.8	2397.9 µg/L	2397.9 ppb	21:42:52
2	Pb 220.353†	8420.5	7997.2	486.01 µg/L	486.01 ppb	21:42:52

2	S 181.975 Axial†	1316.9	1173.4	954.81 µg/L	954.81 ppb	21:42:52
2	Sb 206.836†	3875.7	3646.0	492.95 µg/L	492.95 ppb	21:42:52
2	Se 196.026†	1265.9	1208.2	480 µg/L	480 ppb	21:42:52
2	SiO2†	51399.8	47929.2	5217.7 µg/L	5217.7 ppb	21:42:32
2	Si 251.611†	153711.9	147360.2	2426.8 µg/L	2426.8 ppb	21:42:32
2	Sn 189.927†	7192.7	6925.1	493.97 µg/L	493.97 ppb	21:42:52
2	Ti 334.940†	500404.8	481292.9	490.13 µg/L	490.13 ppb	21:42:32
2	Tl 190.801†	3631.2	3617.4	492.94 µg/L	492.94 ppb	21:42:52
2	U 409.014†	7251.0	7462.4	491.17 µg/L	491.17 ppb	21:42:32
2	V 292.402†	92671.4	88818.0	498.89 µg/L	498.89 ppb	21:42:32
2	Zn 213.857†	79943.3	76527.3	477.88 µg/L	477.88 ppb	21:42:32
3	Sc RADIAL	153899.6	153899.6	106 %		21:42:04
3	Al 396.153Radial†	25427.3	24113.4	5241.3 µg/L	5241.3 ppb	21:42:04
3	Ca 317.933Radial†	89584.3	84226.7	4935.3 µg/L	4935.3 ppb	21:42:04
3	Fe 238.204 Radial†	78451.3	74185.8	4932.1 µg/L	4932.1 ppb	21:42:04
3	K 766.490 Radial†	13947.9	11754.7	4835.1 µg/L	4835.1 ppb	21:42:04
3	Mg 279.077 IEC†	13129.1	12247.5	5057.3 µg/L	5057.3 ppb	21:42:04
3	Na 589.592 Radial†	69867.9	64475.3	9861.2 µg/L	9861.2 ppb	21:42:04
3	Sr 421.552†	230570.5	218645.2	512.41 µg/L	512.41 ppb	21:42:02
3	Sc 361.383	1756529.9	1756529.9	105.01 %		21:42:55
3	Y 371.029	1063628.8	1063628.8	104.01 %		21:42:55
3	Ag 328.068†	129932.1	120769.6	496.30 µg/L	496.30 ppb	21:42:55
3	As 188.979†	1327.9	1278.8	541.51 µg/L	541.51 ppb	21:43:15
3	B 249.677†	33771.3	28805.3	481.91 µg/L	481.91 ppb	21:42:55
3	Ba 233.527†	115375.4	110049.1	503.14 µg/L	503.14 ppb	21:42:55
3	Be 313.107†	1656355.2	1578036.4	513.82 µg/L	513.82 ppb	21:42:55
3	Cd 226.502†	73621.8	70205.8	484.51 µg/L	484.51 ppb	21:42:55
3	Co 228.616†	37314.4	35711.8	489.27 µg/L	489.27 ppb	21:42:55
3	Cr 267.716†	60209.2	57178.1	490.99 µg/L	490.99 ppb	21:42:55
3	Cu 324.752†	121793.5	113561.3	495.18 µg/L	495.18 ppb	21:42:55
3	Mn 257.610†	379257.5	361093.6	493.20 µg/L	493.20 ppb	21:42:55
3	Mo 202.031†	15953.4	15247.9	481.77 µg/L	481.77 ppb	21:43:15
3	Ni 231.604†	40238.5	38360.8	490.68 µg/L	490.68 ppb	21:42:55
3	P 214.914†	10528.4	9946.8	2373.7 µg/L	2373.7 ppb	21:43:15
3	Pb 220.353†	8392.4	7879.8	478.89 µg/L	478.89 ppb	21:43:15
3	S 181.975 Axial†	1322.2	1164.3	947.34 µg/L	947.34 ppb	21:43:15
3	Sb 206.836†	3881.7	3610.0	487.96 µg/L	487.96 ppb	21:43:15
3	Se 196.026†	1265.3	1194.1	474 µg/L	474 ppb	21:43:15
3	SiO2†	52227.4	48164.2	5243.6 µg/L	5243.6 ppb	21:42:55
3	Si 251.611†	156492.0	148353.7	2443.4 µg/L	2443.4 ppb	21:42:55
3	Sn 189.927†	7205.6	6860.0	489.35 µg/L	489.35 ppb	21:43:15
3	Ti 334.940†	508571.1	483684.9	492.57 µg/L	492.57 ppb	21:42:55
3	Tl 190.801†	3639.0	3585.7	488.73 µg/L	488.73 ppb	21:43:15
3	U 409.014†	7286.8	7418.4	488.63 µg/L	488.63 ppb	21:42:55
3	V 292.402†	94216.9	89292.6	501.47 µg/L	501.47 ppb	21:42:55
3	Zn 213.857†	81432.1	77084.8	481.37 µg/L	481.37 ppb	21:42:55

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Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1754339.8	104.88 %	0.983			0.94%
Sc RADIAL	153870.9	106 %	0.9			0.84%
Y 371.029	1062904.0	103.94 %	0.907			0.87%
Ag 328.068†	120223.3	494.06 µg/L	2.537	494.06 ppb	2.537	0.51%
QC value within limits for Ag 328.068 Recovery = 98.81%						
Al 396.153Radial†	24178.4	5255.5 µg/L	12.29	5255.5 ppb	12.29	0.23%
QC value within limits for Al 396.153Radial Recovery = 105.11%						
As 188.979†	1283.8	543.58 µg/L	6.739	543.58 ppb	6.739	1.24%
QC value within limits for As 188.979 Recovery = 108.72%						
B 249.677†	28554.0	477.70 µg/L	3.745	477.70 ppb	3.745	0.78%
QC value within limits for B 249.677 Recovery = 95.54%						
Ba 233.527†	109606.6	501.12 µg/L	1.796	501.12 ppb	1.796	0.36%
QC value within limits for Ba 233.527 Recovery = 100.22%						
Be 313.107†	1567658.2	510.44 µg/L	2.933	510.44 ppb	2.933	0.57%
QC value within limits for Be 313.107 Recovery = 102.09%						
Ca 317.933Radial†	84289.7	4939.0 µg/L	16.20	4939.0 ppb	16.20	0.33%
QC value within limits for Ca 317.933Radial Recovery = 98.78%						
Cd 226.502†	69603.2	480.35 µg/L	3.678	480.35 ppb	3.678	0.77%
QC value within limits for Cd 226.502 Recovery = 96.07%						
Co 228.616†	35478.9	486.07 µg/L	2.825	486.07 ppb	2.825	0.58%

QC value within limits for Co 228.616 Recovery = 97.21%						
Cr 267.716†	56880.8	488.43 µg/L	2.221	488.43 ppb	2.221	0.45%
QC value within limits for Cr 267.716 Recovery = 97.69%						
Cu 324.752†	113072.7	493.06 µg/L	1.852	493.06 ppb	1.852	0.38%
QC value within limits for Cu 324.752 Recovery = 98.61%						
Fe 238.204 Radial†	74261.7	4937.2 µg/L	8.16	4937.2 ppb	8.16	0.17%
QC value within limits for Fe 238.204 Radial Recovery = 98.74%						
K 766.490 Radial†	11735.3	4827.1 µg/L	35.34	4827.1 ppb	35.34	0.73%
QC value within limits for K 766.490 Radial Recovery = 96.54%						
Mg 279.077 IEC†	12297.1	5077.8 µg/L	35.42	5077.8 ppb	35.42	0.70%
QC value within limits for Mg 279.077 IEC Recovery = 101.56%						
Mn 257.610†	358877.3	490.17 µg/L	2.681	490.17 ppb	2.681	0.55%
QC value within limits for Mn 257.610 Recovery = 98.03%						
Mo 202.031†	15267.9	482.40 µg/L	5.112	482.40 ppb	5.112	1.06%
QC value within limits for Mo 202.031 Recovery = 96.48%						
Na 589.592 Radial†	64546.2	9872.1 µg/L	14.48	9872.1 ppb	14.48	0.15%
QC value within limits for Na 589.592 Radial Recovery = 98.72%						
Ni 231.604†	38097.2	487.31 µg/L	3.107	487.31 ppb	3.107	0.64%
QC value within limits for Ni 231.604 Recovery = 97.46%						
P 214.914†	9956.2	2376.0 µg/L	20.89	2376.0 ppb	20.89	0.88%
QC value within limits for P 214.914 Recovery = 95.04%						
Pb 220.353†	7895.9	479.86 µg/L	5.722	479.86 ppb	5.722	1.19%
QC value within limits for Pb 220.353 Recovery = 95.97%						
S 181.975 Axial†	1163.3	946.51 µg/L	8.747	946.51 ppb	8.747	0.92%
QC value within limits for S 181.975 Axial Recovery = 94.65%						
Sb 206.836†	3611.9	488.26 µg/L	4.549	488.26 ppb	4.549	0.93%
QC value within limits for Sb 206.836 Recovery = 97.65%						
Se 196.026†	1197.8	476 µg/L	3.6	476 ppb	3.6	0.76%
QC value within limits for Se 196.026 Recovery = 95.19%						
SiO2†	47941.4	5219.2 µg/L	23.65	5219.2 ppb	23.65	0.45%
QC value within limits for SiO2 Recovery = 97.60%						
Si 251.611†	147701.9	2432.6 µg/L	9.35	2432.6 ppb	9.35	0.38%
QC value within limits for Si 251.611 Recovery = 97.30%						
Sn 189.927†	6863.5	489.59 µg/L	4.258	489.59 ppb	4.258	0.87%
QC value within limits for Sn 189.927 Recovery = 97.92%						
Sr 421.552†	217958.6	510.80 µg/L	2.724	510.80 ppb	2.724	0.53%
QC value within limits for Sr 421.552 Recovery = 102.16%						
Ti 334.940†	481628.2	490.47 µg/L	1.952	490.47 ppb	1.952	0.40%
QC value within limits for Ti 334.940 Recovery = 98.09%						
Tl 190.801†	3586.5	488.81 µg/L	4.099	488.81 ppb	4.099	0.84%
QC value within limits for Tl 190.801 Recovery = 97.76%						
U 409.014†	7481.8	492.42 µg/L	4.540	492.42 ppb	4.540	0.92%
QC value within limits for U 409.014 Recovery = 98.48%						
V 292.402†	88944.2	499.54 µg/L	1.704	499.54 ppb	1.704	0.34%
QC value within limits for V 292.402 Recovery = 99.91%						
Zn 213.857†	76638.9	478.58 µg/L	2.509	478.58 ppb	2.509	0.52%
QC value within limits for Zn 213.857 Recovery = 95.72%						
All analyte(s) passed QC.						

Sequence No.: 65

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/29/2010 21:43:22

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	155956.8	155956.8	107 %		21:43:51
1	Al 396.153Radial†	-16.8	16.2	3.4619 µg/L	3.4619 ppb	21:44:11
1	Ca 317.933Radial†	700.6	38.5	2.2587 µg/L	2.2587 ppb	21:44:11
1	Fe 238.204 Radial†	158.1	34.5	2.2919 µg/L	2.2919 ppb	21:44:11
1	K 766.490 Radial†	1477.7	-74.0	-30.465 µg/L	-30.465 ppb	21:43:51
1	Mg 279.077 IEC†	161.1	-36.2	-14.868 µg/L	-14.868 ppb	21:44:11
1	Na 589.592 Radial†	1643.2	-159.1	-24.311 µg/L	-24.311 ppb	21:43:51
1	Sr 421.552†	-196.3	94.6	0.2216 µg/L	0.2216 ppb	21:43:51
1	Sc 361.383	1765629.9	1765629.9	105.55 %		21:45:13
1	Y 371.029	1081668.4	1081668.4	105.78 %		21:45:13
1	Ag 328.068†	3343.9	201.0	0.8287 µg/L	0.8287 ppb	21:45:15
1	As 188.979†	-0.7	13.6	5.6736 µg/L	5.6736 ppb	21:45:35
1	B 249.677†	3087.2	-430.8	-7.2342 µg/L	-7.2342 ppb	21:45:35
1	Ba 233.527†	-174.6	9.6	0.0437 µg/L	0.0437 ppb	21:45:35
1	Be 313.107†	-668.1	27.1	0.0159 µg/L	0.0159 ppb	21:45:15
1	Cd 226.502†	-91.4	7.8	0.0536 µg/L	0.0536 ppb	21:45:35
1	Co 228.616†	-169.6	15.9	0.2174 µg/L	0.2174 ppb	21:45:35
1	Cr 267.716†	125.9	-40.9	-0.3702 µg/L	-0.3702 ppb	21:45:35
1	Cu 324.752†	2790.6	219.0	0.9713 µg/L	0.9713 ppb	21:45:15
1	Mn 257.610†	190.9	100.8	0.1384 µg/L	0.1384 ppb	21:45:35
1	Mo 202.031†	-5.1	50.4	1.5908 µg/L	1.5908 ppb	21:45:35
1	Ni 231.604†	-58.3	-14.3	-0.1833 µg/L	-0.1833 ppb	21:45:35
1	P 214.914†	44.9	-37.1	-8.9068 µg/L	-8.9068 ppb	21:45:35
1	Pb 220.353†	100.6	-17.1	-1.0500 µg/L	-1.0500 ppb	21:45:35
1	S 181.975 Axial†	88.1	-11.4	-9.1903 µg/L	-9.1903 ppb	21:45:35
1	Sb 206.836†	84.0	-7.1	-0.9269 µg/L	-0.9269 ppb	21:45:35
1	Se 196.026†	15.6	3.8	1.54 µg/L	1.54 ppb	21:45:35
1	SiO2†	1680.5	19.3	2.0584 µg/L	2.0584 ppb	21:45:35
1	Si 251.611†	824.6	104.8	1.7121 µg/L	1.7121 ppb	21:45:35
1	Sn 189.927†	2.6	0.4	0.0311 µg/L	0.0311 ppb	21:45:35
1	Ti 334.940†	807.6	128.8	0.1231 µg/L	0.1231 ppb	21:45:15
1	Tl 190.801†	-115.4	11.0	1.4674 µg/L	1.4674 ppb	21:45:35
1	U 409.014†	-105.6	379.0	23.345 µg/L	23.345 ppb	21:45:15
1	V 292.402†	205.8	-236.8	-1.2834 µg/L	-1.2834 ppb	21:45:15
1	Zn 213.857†	546.7	53.5	0.3372 µg/L	0.3372 ppb	21:45:35
2	Sc RADIAL	155375.0	155375.0	107 %		21:44:13
2	Al 396.153Radial†	-68.3	-32.2	-7.0550 µg/L	-7.0550 ppb	21:44:33
2	Ca 317.933Radial†	709.4	49.3	2.8889 µg/L	2.8889 ppb	21:44:33
2	Fe 238.204 Radial†	170.5	46.7	3.1031 µg/L	3.1031 ppb	21:44:33
2	K 766.490 Radial†	1698.0	137.8	56.753 µg/L	56.753 ppb	21:44:13
2	Mg 279.077 IEC†	155.9	-40.4	-16.664 µg/L	-16.664 ppb	21:44:33
2	Na 589.592 Radial†	1687.7	-111.6	-17.120 µg/L	-17.120 ppb	21:44:13
2	Sr 421.552†	-289.5	6.4	0.0151 µg/L	0.0151 ppb	21:44:13
2	Sc 361.383	1758365.8	1758365.8	105.12 %		21:45:38
2	Y 371.029	1078074.0	1078074.0	105.43 %		21:45:38
2	Ag 328.068†	3122.4	3.3	0.0229 µg/L	0.0229 ppb	21:45:40
2	As 188.979†	-17.5	-2.4	-0.9870 µg/L	-0.9870 ppb	21:46:00
2	B 249.677†	3114.5	-392.8	-6.5943 µg/L	-6.5943 ppb	21:46:00
2	Ba 233.527†	-174.5	9.1	0.0411 µg/L	0.0411 ppb	21:46:00
2	Be 313.107†	-678.6	14.5	0.0087 µg/L	0.0087 ppb	21:45:40
2	Cd 226.502†	-106.7	-7.1	-0.0492 µg/L	-0.0492 ppb	21:46:00
2	Co 228.616†	-181.1	4.3	0.0589 µg/L	0.0589 ppb	21:46:00
2	Cr 267.716†	186.4	17.1	0.1365 µg/L	0.1365 ppb	21:46:00
2	Cu 324.752†	2877.2	312.3	1.3685 µg/L	1.3685 ppb	21:45:40
2	Mn 257.610†	194.2	104.8	0.1438 µg/L	0.1438 ppb	21:46:00
2	Mo 202.031†	-37.8	19.2	0.6071 µg/L	0.6071 ppb	21:46:00
2	Ni 231.604†	-60.1	-16.3	-0.2082 µg/L	-0.2082 ppb	21:46:00
2	P 214.914†	32.8	-48.4	-11.617 µg/L	-11.617 ppb	21:46:00
2	Pb 220.353†	87.7	-29.0	-1.7681 µg/L	-1.7681 ppb	21:46:00

2	S 181.975 Axial†	91.7	-7.6	-6.1290 µg/L	-6.1290 ppb	21:46:00
2	Sb 206.836†	84.8	-5.9	-0.7957 µg/L	-0.7957 ppb	21:46:00
2	Se 196.026†	18.7	6.9	2.73 µg/L	2.73 ppb	21:46:00
2	SiO2†	1682.8	28.0	3.0520 µg/L	3.0520 ppb	21:46:00
2	Si 251.611†	805.7	90.1	1.4833 µg/L	1.4833 ppb	21:46:00
2	Sn 189.927†	-1.8	-3.8	-0.2671 µg/L	-0.2671 ppb	21:46:00
2	Ti 334.940†	866.0	187.5	0.1872 µg/L	0.1872 ppb	21:45:40
2	Tl 190.801†	-106.3	19.2	2.5714 µg/L	2.5714 ppb	21:46:00
2	U 409.014†	-280.2	212.6	13.103 µg/L	13.103 ppb	21:45:40
2	V 292.402†	347.0	-101.7	-0.5490 µg/L	-0.5490 ppb	21:45:40
2	Zn 213.857†	514.2	24.8	0.1559 µg/L	0.1559 ppb	21:46:00
3	Sc RADIAL	154236.9	154236.9	106 %		21:44:35
3	Al 396.153Radial†	-27.1	6.3	1.3236 µg/L	1.3236 ppb	21:44:55
3	Ca 317.933Radial†	725.7	69.6	4.0774 µg/L	4.0774 ppb	21:44:55
3	Fe 238.204 Radial†	170.1	47.5	3.1556 µg/L	3.1556 ppb	21:44:55
3	K 766.490 Radial†	1418.1	-114.9	-47.294 µg/L	-47.294 ppb	21:44:35
3	Mg 279.077 IEC†	159.9	-35.5	-14.632 µg/L	-14.632 ppb	21:44:55
3	Na 589.592 Radial†	1547.3	-232.5	-35.541 µg/L	-35.541 ppb	21:44:35
3	Sr 421.552†	-316.6	-21.2	-0.0498 µg/L	-0.0498 ppb	21:44:35
3	Sc 361.383	1753936.7	1753936.7	104.85 %		21:46:02
3	Y 371.029	1074322.0	1074322.0	105.06 %		21:46:02
3	Ag 328.068†	3311.5	191.2	0.7816 µg/L	0.7816 ppb	21:46:04
3	As 188.979†	-21.8	-6.6	-2.7393 µg/L	-2.7393 ppb	21:46:24
3	B 249.677†	3129.0	-371.5	-6.2368 µg/L	-6.2368 ppb	21:46:24
3	Ba 233.527†	-162.2	20.3	0.0929 µg/L	0.0929 ppb	21:46:24
3	Be 313.107†	-901.0	-199.2	-0.0620 µg/L	-0.0620 ppb	21:46:04
3	Cd 226.502†	-95.1	3.7	0.0249 µg/L	0.0249 ppb	21:46:24
3	Co 228.616†	-174.5	10.2	0.1392 µg/L	0.1392 ppb	21:46:24
3	Cr 267.716†	174.7	6.4	0.0473 µg/L	0.0473 ppb	21:46:24
3	Cu 324.752†	2668.6	120.3	0.5307 µg/L	0.5307 ppb	21:46:04
3	Mn 257.610†	187.9	99.2	0.1361 µg/L	0.1361 ppb	21:46:24
3	Mo 202.031†	-24.5	31.8	1.0050 µg/L	1.0050 ppb	21:46:24
3	Ni 231.604†	-80.3	-35.6	-0.4559 µg/L	-0.4559 ppb	21:46:24
3	P 214.914†	36.8	-44.4	-10.662 µg/L	-10.662 ppb	21:46:24
3	Pb 220.353†	101.1	-16.0	-0.9738 µg/L	-0.9738 ppb	21:46:24
3	S 181.975 Axial†	84.3	-14.4	-11.695 µg/L	-11.695 ppb	21:46:24
3	Sb 206.836†	73.7	-16.4	-2.1934 µg/L	-2.1934 ppb	21:46:24
3	Se 196.026†	9.7	-1.7	-0.644 µg/L	-0.644 ppb	21:46:24
3	SiO2†	1725.4	72.7	7.9170 µg/L	7.9170 ppb	21:46:24
3	Si 251.611†	849.4	133.7	2.1983 µg/L	2.1983 ppb	21:46:24
3	Sn 189.927†	1.0	-1.1	-0.0738 µg/L	-0.0738 ppb	21:46:24
3	Ti 334.940†	975.6	294.1	0.2973 µg/L	0.2973 ppb	21:46:04
3	Tl 190.801†	-110.8	14.6	1.9610 µg/L	1.9610 ppb	21:46:24
3	U 409.014†	-341.5	153.4	9.4487 µg/L	9.4487 ppb	21:46:04
3	V 292.402†	361.9	-86.7	-0.4648 µg/L	-0.4648 ppb	21:46:04
3	Zn 213.857†	519.6	31.1	0.1983 µg/L	0.1983 ppb	21:46:24

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1759310.8	105.17 %	0.353			0.34%
Sc RADIAL	155189.5	106 %	0.6			0.56%
Y 371.029	1078021.5	105.42 %	0.359			0.34%
Ag 328.068†	131.9	0.5444 µg/L	0.45227	0.5444 ppb	0.45227	83.07%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-3.2	-0.7565 µg/L	5.55848	-0.7565 ppb	5.55848	734.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.5	0.6491 µg/L	4.43866	0.6491 ppb	4.43866	683.80%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-398.4	-6.6884 µg/L	0.50530	-6.6884 ppb	0.50530	7.55%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	13.0	0.0592 µg/L	0.02918	0.0592 ppb	0.02918	49.24%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-52.5	-0.0125 µg/L	0.04303	-0.0125 ppb	0.04303	345.39%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	52.5	3.0750 µg/L	0.92355	3.0750 ppb	0.92355	30.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	1.5	0.0098 µg/L	0.05303	0.0098 ppb	0.05303	543.11%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	10.1	0.1385 µg/L	0.07927	0.1385 ppb	0.07927	57.23%



QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	-5.8 -0.0621 µg/L	0.27051 -0.0621 ppb	0.27051 435.31%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	217.2 0.9568 µg/L	0.41909 0.9568 ppb	0.41909 43.80%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	42.9 2.8502 µg/L	0.48420 2.8502 ppb	0.48420 16.99%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	-17.0 -7.0019 µg/L	55.85109 -7.0019 ppb	55.85109 797.66%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	-37.4 -15.388 µg/L	1.1111 -15.388 ppb	1.1111 7.22%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	101.6 0.1394 µg/L	0.00394 0.1394 ppb	0.00394 2.82%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	33.8 1.0676 µg/L	0.49486 1.0676 ppb	0.49486 46.35%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	-167.7 -25.657 µg/L	9.2837 -25.657 ppb	9.2837 36.18%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	-22.1 -0.2825 µg/L	0.15069 -0.2825 ppb	0.15069 53.35%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-43.3 -10.395 µg/L	1.3745 -10.395 ppb	1.3745 13.22%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-20.7 -1.2640 µg/L	0.43823 -1.2640 ppb	0.43823 34.67%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-11.1 -9.0047 µg/L	2.78752 -9.0047 ppb	2.78752 30.96%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	-9.8 -1.3053 µg/L	0.77187 -1.3053 ppb	0.77187 59.13%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	3.0 1.21 µg/L	1.710 1.21 ppb	1.710 141.69%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	40.0 4.3425 µg/L	3.13523 4.3425 ppb	3.13523 72.20%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	109.6 1.7979 µg/L	0.36513 1.7979 ppb	0.36513 20.31%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	-1.5 -0.1033 µg/L	0.15126 -0.1033 ppb	0.15126 146.44%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	26.6 0.0623 µg/L	0.14172 0.0623 ppb	0.14172 227.53%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	203.5 0.2025 µg/L	0.08808 0.2025 ppb	0.08808 43.49%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	14.9 1.9999 µg/L	0.55303 1.9999 ppb	0.55303 27.65%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	248.3 15.299 µg/L	7.2039 15.299 ppb	7.2039 47.09%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	-141.7 -0.7657 µg/L	0.45029 -0.7657 ppb	0.45029 58.81%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	36.5 0.2305 µg/L	0.09482 0.2305 ppb	0.09482 41.14%
QC value within limits for Zn 213.857	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 71

Sample ID: 248202001|959123|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 357

Date Collected: 3/29/2010 21:56:59

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248202001|959123|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	158668.4	158668.4	109 %			21:57:31
1	Al 396.153Radial†	230763.4	212013.1	46280 µg/L		46280 ppb	21:57:29
1	Ca 317.933Radial†	366157.7	335739.5	19673 µg/L		19673 ppb	21:57:31
1	Fe 238.204 Radial†	1187656.2	1090878.3	72525 µg/L		72525 ppb	21:57:29
1	K 766.490 Radial†	19900.8	16826.0	6911.9 µg/L		6911.9 ppb	21:57:31
1	Mg 279.077 IEC†	21173.6	19263.6	7880.5 µg/L		7880.5 ppb	21:57:31
1	Na 589.592 Radial†	20181.8	16844.4	2571.3 µg/L		2571.3 ppb	21:57:31
1	Sr 421.552†	47724.8	44118.4	103.25 µg/L		103.25 ppb	21:57:31
1	Sc 361.383	1758079.5	1758079.5	105.10 %			21:57:44
1	Y 371.029	1335171.4	1335171.4	130.57 %			21:57:44
1	Ag 328.068†	215831.0	202391.5	821.05 µg/L		821.05 ppb	21:57:44
1	As 188.979†	2.9	17.0	26.117 µg/L		26.117 ppb	21:58:04
1	B 249.677†	5962.5	2317.5	38.846 µg/L		38.846 ppb	21:57:44
1	Ba 233.527†	62382.0	59530.2	271.10 µg/L		271.10 ppb	21:57:44
1	Be 313.107†	25646.3	25062.0	8.0780 µg/L		8.0780 ppb	21:57:44
1	Cd 226.502†	3090.7	3035.1	13.365 µg/L		13.365 ppb	21:58:04
1	Co 228.616†	1184.8	1304.0	14.390 µg/L		14.390 ppb	21:58:04
1	Cr 267.716†	35474.5	33593.0	290.92 µg/L		290.92 ppb	21:57:44
1	Cu 324.752†	713647.8	676595.6	2951.8 µg/L		2951.8 ppb	21:57:44
1	Mn 257.610†	926634.5	881592.6	1204.1 µg/L		1204.1 ppb	21:57:44
1	Mo 202.031†	82.4	133.6	7.2699 µg/L		7.2699 ppb	21:58:04
1	Ni 231.604†	5727.2	5490.2	70.226 µg/L		70.226 ppb	21:58:04
1	P 214.914†	6049.0	5675.9	1288.4 µg/L		1288.4 ppb	21:58:04
1	Pb 220.353†	6494.5	6067.0	370.41 µg/L		370.41 ppb	21:58:04
1	S 181.975 Axial†	3022.8	2781.3	2253.4 µg/L		2253.4 ppb	21:58:04
1	Sb 206.836†	98.5	7.1	-4.2646 µg/L		-4.2646 ppb	21:58:04
1	Se 196.026†	-37.9	-47.0	6.31 µg/L		6.31 ppb	21:58:04
1	SiO2†	820441.6	779059.6	85151 µg/L		85151 ppb	21:57:44
1	Si 251.611†	2495480.0	2373718.7	39249 µg/L		39249 ppb	21:57:44
1	Sn 189.927†	695.5	659.7	54.959 µg/L		54.959 ppb	21:58:04
1	Ti 334.940†	2464027.4	2343832.2	2389.8 µg/L		2389.8 ppb	21:57:44
1	Tl 190.801†	-367.5	-229.4	-2.9100 µg/L		-2.9100 ppb	21:58:04
1	U 409.014†	-5010.5	-4288.3	-266.49 µg/L		-266.49 ppb	21:57:44
1	V 292.402†	22424.4	20904.5	103.32 µg/L		103.32 ppb	21:57:44
1	Zn 213.857†	376086.5	357373.8	2241.2 µg/L		2241.2 ppb	21:57:44
2	Sc RADIAL	156629.1	156629.1	107 %			21:57:35
2	Al 396.153Radial†	225989.0	210330.3	45912 µg/L		45912 ppb	21:57:33
2	Ca 317.933Radial†	360450.4	334807.8	19618 µg/L		19618 ppb	21:57:35
2	Fe 238.204 Radial†	1156508.2	1076097.5	71543 µg/L		71543 ppb	21:57:33
2	K 766.490 Radial†	19490.1	16681.9	6852.6 µg/L		6852.6 ppb	21:57:35
2	Mg 279.077 IEC†	20843.7	19209.8	7859.2 µg/L		7859.2 ppb	21:57:35
2	Na 589.592 Radial†	19850.0	16777.1	2561.0 µg/L		2561.0 ppb	21:57:35
2	Sr 421.552†	47233.5	44232.0	103.51 µg/L		103.51 ppb	21:57:35
2	Sc 361.383	1766969.2	1766969.2	105.63 %			21:58:07
2	Y 371.029	1341569.1	1341569.1	131.19 %			21:58:07
2	Ag 328.068†	216930.9	202399.5	821.09 µg/L		821.09 ppb	21:58:07
2	As 188.979†	5.8	19.8	27.069 µg/L		27.069 ppb	21:58:27
2	B 249.677†	6014.2	2338.0	39.191 µg/L		39.191 ppb	21:58:07
2	Ba 233.527†	62853.5	59677.9	271.79 µg/L		271.79 ppb	21:58:07
2	Be 313.107†	26107.6	25375.9	8.1763 µg/L		8.1763 ppb	21:58:07
2	Cd 226.502†	3098.1	3027.4	13.415 µg/L		13.415 ppb	21:58:27
2	Co 228.616†	1164.9	1279.4	14.106 µg/L		14.106 ppb	21:58:27
2	Cr 267.716†	35670.0	33608.3	291.03 µg/L		291.03 ppb	21:58:07
2	Cu 324.752†	717242.1	676582.0	2951.5 µg/L		2951.5 ppb	21:58:07
2	Mn 257.610†	932910.2	883098.0	1206.2 µg/L		1206.2 ppb	21:58:07
2	Mo 202.031†	82.7	133.5	7.2286 µg/L		7.2286 ppb	21:58:27
2	Ni 231.604†	5735.2	5470.4	69.972 µg/L		69.972 ppb	21:58:27
2	P 214.914†	6002.3	5602.8	1271.5 µg/L		1271.5 ppb	21:58:27
2	Pb 220.353†	6468.5	6011.2	367.05 µg/L		367.05 ppb	21:58:27

2	S 181.975 Axial†	3018.7	2763.0	2238.5 µg/L	2238.5 ppb	21:58:27
2	Sb 206.836†	103.1	11.0	-3.7196 µg/L	-3.7196 ppb	21:58:27
2	Se 196.026†	-40.4	-49.2	5.11 µg/L	5.11 ppb	21:58:27
2	SiO2†	825802.9	780207.6	85277 µg/L	85277 ppb	21:58:07
2	Si 251.611†	2512049.7	2377459.4	39311 µg/L	39311 ppb	21:58:07
2	Sn 189.927†	694.2	655.2	54.634 µg/L	54.634 ppb	21:58:27
2	Ti 334.940†	2476197.0	2343557.9	2389.6 µg/L	2389.6 ppb	21:58:07
2	Tl 190.801†	-356.5	-217.2	-1.2693 µg/L	-1.2693 ppb	21:58:27
2	U 409.014†	-5255.9	-4496.7	-279.07 µg/L	-279.07 ppb	21:58:07
2	V 292.402†	22726.1	21082.7	104.46 µg/L	104.46 ppb	21:58:07
2	Zn 213.857†	379269.2	358586.5	2248.9 µg/L	2248.9 ppb	21:58:07
3	Sc RADIAL	155821.1	155821.1	107 %		21:57:39
3	Al 396.153Radial†	230245.8	215402.5	47019 µg/L	47019 ppb	21:57:37
3	Ca 317.933Radial†	359162.4	335342.4	19650 µg/L	19650 ppb	21:57:39
3	Fe 238.204 Radial†	1185000.2	1108329.5	73686 µg/L	73686 ppb	21:57:37
3	K 766.490 Radial†	19476.4	16763.1	6885.8 µg/L	6885.8 ppb	21:57:39
3	Mg 279.077 IEC†	20789.8	19260.0	7878.0 µg/L	7878.0 ppb	21:57:39
3	Na 589.592 Radial†	19888.6	16909.0	2581.2 µg/L	2581.2 ppb	21:57:39
3	Sr 421.552†	47046.5	44285.0	103.64 µg/L	103.64 ppb	21:57:39
3	Sc 361.383	1791606.0	1791606.0	107.10 %		21:58:30
3	Y 371.029	1359017.4	1359017.4	132.90 %		21:58:30
3	Ag 328.068†	219715.9	202175.8	820.16 µg/L	820.16 ppb	21:58:30
3	As 188.979†	4.0	18.0	26.786 µg/L	26.786 ppb	21:58:50
3	B 249.677†	6089.0	2329.5	39.048 µg/L	39.048 ppb	21:58:30
3	Ba 233.527†	63577.8	59536.0	271.11 µg/L	271.11 ppb	21:58:30
3	Be 313.107†	26042.8	24975.6	8.0472 µg/L	8.0472 ppb	21:58:30
3	Cd 226.502†	3102.3	2990.9	12.938 µg/L	12.938 ppb	21:58:50
3	Co 228.616†	1175.6	1274.2	13.922 µg/L	13.922 ppb	21:58:50
3	Cr 267.716†	35943.6	33399.3	289.30 µg/L	289.30 ppb	21:58:30
3	Cu 324.752†	726410.4	675805.0	2948.5 µg/L	2948.5 ppb	21:58:30
3	Mn 257.610†	944242.7	881534.1	1204.1 µg/L	1204.1 ppb	21:58:30
3	Mo 202.031†	93.3	142.3	7.5907 µg/L	7.5907 ppb	21:58:50
3	Ni 231.604†	5759.9	5418.8	69.313 µg/L	69.313 ppb	21:58:50
3	P 214.914†	6035.5	5555.6	1259.0 µg/L	1259.0 ppb	21:58:50
3	Pb 220.353†	6474.0	5932.2	362.26 µg/L	362.26 ppb	21:58:50
3	S 181.975 Axial†	3006.3	2712.1	2197.3 µg/L	2197.3 ppb	21:58:50
3	Sb 206.836†	102.0	8.6	-4.0454 µg/L	-4.0454 ppb	21:58:50
3	Se 196.026†	-41.5	-49.6	5.67 µg/L	5.67 ppb	21:58:50
3	SiO2†	835777.2	778770.0	85119 µg/L	85119 ppb	21:58:30
3	Si 251.611†	2544188.0	2374763.7	39266 µg/L	39266 ppb	21:58:30
3	Sn 189.927†	694.4	646.3	53.997 µg/L	53.997 ppb	21:58:50
3	Ti 334.940†	2508442.9	2341429.5	2387.4 µg/L	2387.4 ppb	21:58:30
3	Tl 190.801†	-363.5	-219.1	-1.5562 µg/L	-1.5562 ppb	21:58:50
3	U 409.014†	-5259.3	-4431.4	-275.59 µg/L	-275.59 ppb	21:58:30
3	V 292.402†	22859.2	20911.2	103.16 µg/L	103.16 ppb	21:58:30
3	Zn 213.857†	384441.6	358478.4	2248.0 µg/L	2248.0 ppb	21:58:30

Mean Data: 248202001|959123|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1772218.2	105.94 %	1.038			0.98%
Sc RADIAL	157039.5	108 %	1.0			0.93%
Y 371.029	1345252.7	131.55 %	1.207			0.92%
Ag 328.068†	202322.3	820.76 µg/L	0.526	820.76 ppb	0.526	0.06%
Al 396.153Radial†	212582.0	46404 µg/L	563.9	46404 ppb	563.9	1.22%
As 188.979†	18.2	26.657 µg/L	0.4891	26.657 ppb	0.4891	1.83%
B 249.677†	2328.3	39.028 µg/L	0.1730	39.028 ppb	0.1730	0.44%
Ba 233.527†	59581.4	271.33 µg/L	0.394	271.33 ppb	0.394	0.15%
Be 313.107†	25137.8	8.1005 µg/L	0.06743	8.1005 ppb	0.06743	0.83%
Ca 317.933Radial†	335296.6	19647 µg/L	27.4	19647 ppb	27.4	0.14%
Cd 226.502†	3017.8	13.240 µg/L	0.2624	13.240 ppb	0.2624	1.98%
Co 228.616†	1285.9	14.139 µg/L	0.2357	14.139 ppb	0.2357	1.67%
Cr 267.716†	33533.5	290.42 µg/L	0.966	290.42 ppb	0.966	0.33%
Cu 324.752†	676327.5	2950.6 µg/L	1.83	2950.6 ppb	1.83	0.06%
Fe 238.204 Radial†	1091768.4	72585 µg/L	1072.7	72585 ppb	1072.7	1.48%
K 766.490 Radial†	16757.0	6883.5 µg/L	29.70	6883.5 ppb	29.70	0.43%
Mg 279.077 IEC†	19244.5	7872.6 µg/L	11.68	7872.6 ppb	11.68	0.15%
Mn 257.610†	882074.9	1204.8 µg/L	1.21	1204.8 ppb	1.21	0.10%
Mo 202.031†	136.5	7.3631 µg/L	0.19823	7.3631 ppb	0.19823	2.69%
Na 589.592 Radial†	16843.5	2571.1 µg/L	10.08	2571.1 ppb	10.08	0.39%

Ni 231.604†	5459.8	69.837 µg/L	0.4713	69.837 ppb	0.4713	0.67%
P 214.914†	5611.4	1273.0 µg/L	14.77	1273.0 ppb	14.77	1.16%
Pb 220.353†	6003.5	366.57 µg/L	4.096	366.57 ppb	4.096	1.12%
S 181.975 Axial†	2752.1	2229.7 µg/L	29.04	2229.7 ppb	29.04	1.30%
Sb 206.836†	8.9	-4.0099 µg/L	0.27424	-4.0099 ppb	0.27424	6.84%
Se 196.026†	-48.6	5.70 µg/L	0.602	5.70 ppb	0.602	10.56%
SiO2†	779345.7	85182 µg/L	83.1	85182 ppb	83.1	0.10%
Si 251.611†	2375313.9	39275 µg/L	31.9	39275 ppb	31.9	0.08%
Sn 189.927†	653.7	54.530 µg/L	0.4893	54.530 ppb	0.4893	0.90%
Sr 421.552†	44211.8	103.47 µg/L	0.200	103.47 ppb	0.200	0.19%
Ti 334.940†	2342939.9	2388.9 µg/L	1.34	2388.9 ppb	1.34	0.06%
Tl 190.801†	-221.9	-1.9118 µg/L	0.87625	-1.9118 ppb	0.87625	45.83%
U 409.014†	-4405.4	-273.72 µg/L	6.499	-273.72 ppb	6.499	2.37%
Concentration less than lower limit for U 409.014.						
V 292.402†	20966.2	103.65 µg/L	0.706	103.65 ppb	0.706	0.68%
Zn 213.857†	358146.2	2246.0 µg/L	4.23	2246.0 ppb	4.23	0.19%

Sequence No.: 72

Sample ID: 248202002|959123|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 358

Date Collected: 3/29/2010 21:58:59

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248202002|959123|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	152020.0	152020.0	104 %		21:59:31
1	Al 396.153Radial†	509629.3	488655.9	106670 µg/L	106670 ppb	21:59:29
1	Ca 317.933Radial†	1574118.4	1508622.3	88399 µg/L	88399 ppb	21:59:29
1	Fe 238.204 Radial†	1542885.2	1479179.3	98341 µg/L	98341 ppb	21:59:29
1	K 766.490 Radial†	51492.4	47915.1	19683 µg/L	19683 ppb	21:59:31
1	Mg 279.077 IEC†	39707.1	37883.8	15537 µg/L	15537 ppb	21:59:31
1	Na 589.592 Radial†	27908.8	25063.8	3817.5 µg/L	3817.5 ppb	21:59:31
1	Sr 421.552†	202374.5	194311.3	454.72 µg/L	454.72 ppb	21:59:31
1	Sc 361.383	1663822.7	1663822.7	99.465 %		21:59:44
1	Y 371.029	1118675.7	1118675.7	109.40 %		21:59:44
1	Ag 328.068†	64003.8	61381.1	246.24 µg/L	246.24 ppb	21:59:46
1	As 188.979†	-7.8	6.4	26.891 µg/L	26.891 ppb	22:00:07
1	B 249.677†	24268.3	21043.2	353.16 µg/L	353.16 ppb	21:59:46
1	Ba 233.527†	180600.0	181746.7	829.11 µg/L	829.11 ppb	21:59:46
1	Be 313.107†	21759.8	22537.0	7.2808 µg/L	7.2808 ppb	21:59:46
1	Cd 226.502†	2905.2	3015.2	10.547 µg/L	10.547 ppb	22:00:07
1	Co 228.616†	2451.1	2640.9	31.883 µg/L	31.883 ppb	22:00:07
1	Cr 267.716†	25079.6	25054.3	217.51 µg/L	217.51 ppb	22:00:07
1	Cu 324.752†	5084360.8	5109291.2	22225 µg/L	22225 ppb	21:59:44
1	Mn 257.610†	3250636.7	3268046.0	4464.7 µg/L	4464.7 ppb	21:59:44
1	Mo 202.031†	1347.8	1410.2	48.733 µg/L	48.733 ppb	22:00:07
1	Ni 231.604†	10883.2	10982.7	140.48 µg/L	140.48 ppb	22:00:07
1	P 214.914†	29318.6	29396.8	6753.8 µg/L	6753.8 ppb	21:59:46
1	Pb 220.353†	19509.7	19502.2	1179.8 µg/L	1179.8 ppb	22:00:07
1	S 181.975 Axial†	5720.1	5656.1	4582.8 µg/L	4582.8 ppb	22:00:07
1	Sb 206.836†	124.0	38.0	0.8174 µg/L	0.8174 ppb	22:00:07
1	Se 196.026†	-68.8	-80.1	2.26 µg/L	2.26 ppb	22:00:07
1	SiO2†	559531.1	560968.6	61313 µg/L	61313 ppb	21:59:46
1	Si 251.611†	1712563.7	1721101.4	28457 µg/L	28457 ppb	21:59:44
1	Sn 189.927†	331.1	330.8	29.102 µg/L	29.102 ppb	22:00:07
1	Ti 334.940†	1615410.7	1623465.7	1656.5 µg/L	1656.5 ppb	21:59:44
1	Tl 190.801†	-348.5	-230.1	-1.9776 µg/L	-1.9776 ppb	22:00:07
1	U 409.014†	-3422.5	-2961.8	-165.57 µg/L	-165.57 ppb	21:59:46
1	V 292.402†	23197.8	22890.8	111.07 µg/L	111.07 ppb	21:59:46
1	Zn 213.857†	1597647.2	1605778.6	10082 µg/L	10082 ppb	21:59:44
2	Sc RADIAL	150222.9	150222.9	103 %		21:59:36
2	Al 396.153Radial†	508457.4	493364.3	107690 µg/L	107690 ppb	21:59:33
2	Ca 317.933Radial†	1564724.5	1517562.8	88923 µg/L	88923 ppb	21:59:33
2	Fe 238.204 Radial†	1534280.2	1488527.1	98962 µg/L	98962 ppb	21:59:33
2	K 766.490 Radial†	50894.1	47925.2	19687 µg/L	19687 ppb	21:59:36
2	Mg 279.077 IEC†	39181.9	37829.7	15514 µg/L	15514 ppb	21:59:36
2	Na 589.592 Radial†	27634.0	25117.3	3825.7 µg/L	3825.7 ppb	21:59:36
2	Sr 421.552†	200838.0	195141.7	456.66 µg/L	456.66 ppb	21:59:36
2	Sc 361.383	1680072.5	1680072.5	100.44 %		22:00:09
2	Y 371.029	1129794.4	1129794.4	110.48 %		22:00:09
2	Ag 328.068†	64259.1	61012.9	244.72 µg/L	244.72 ppb	22:00:12
2	As 188.979†	5.6	19.8	32.620 µg/L	32.620 ppb	22:00:32
2	B 249.677†	24142.9	20682.4	347.11 µg/L	347.11 ppb	22:00:12
2	Ba 233.527†	179965.2	179358.6	818.19 µg/L	818.19 ppb	22:00:12
2	Be 313.107†	21274.7	21842.4	7.0540 µg/L	7.0540 ppb	22:00:12
2	Cd 226.502†	2890.5	2972.3	10.185 µg/L	10.185 ppb	22:00:32
2	Co 228.616†	2435.4	2601.4	31.299 µg/L	31.299 ppb	22:00:32
2	Cr 267.716†	25133.2	24863.8	215.89 µg/L	215.89 ppb	22:00:32
2	Cu 324.752†	5148311.4	5123522.9	22287 µg/L	22287 ppb	22:00:09
2	Mn 257.610†	3284201.6	3269855.4	4467.2 µg/L	4467.2 ppb	22:00:09
2	Mo 202.031†	1369.4	1418.6	49.022 µg/L	49.022 ppb	22:00:32
2	Ni 231.604†	10943.3	10936.7	139.89 µg/L	139.89 ppb	22:00:32
2	P 214.914†	29089.6	28883.7	6630.0 µg/L	6630.0 ppb	22:00:12
2	Pb 220.353†	19550.1	19352.7	1170.8 µg/L	1170.8 ppb	22:00:32

2	S 181.975 Axial†	5730.6	5610.9	4546.2 µg/L	4546.2 ppb	22:00:32
2	Sb 206.836†	130.1	42.9	1.4911 µg/L	1.4911 ppb	22:00:32
2	Se 196.026†	-52.2	-62.8	9.30 µg/L	9.30 ppb	22:00:32
2	SiO2†	556806.9	552815.3	60422 µg/L	60422 ppb	22:00:12
2	Si 251.611†	1729638.9	1721449.2	28463 µg/L	28463 ppb	22:00:09
2	Sn 189.927†	326.3	322.9	28.548 µg/L	28.548 ppb	22:00:32
2	Ti 334.940†	1633940.4	1626206.4	1659.3 µg/L	1659.3 ppb	22:00:09
2	Tl 190.801†	-346.9	-225.1	-1.2736 µg/L	-1.2736 ppb	22:00:32
2	U 409.014†	-3497.2	-3002.9	-168.26 µg/L	-168.26 ppb	22:00:12
2	V 292.402†	23271.2	22738.3	110.12 µg/L	110.12 ppb	22:00:12
2	Zn 213.857†	1611308.5	1603844.8	10069 µg/L	10069 ppb	22:00:09
3	Sc RADIAL	149086.1	149086.1	102 %		21:59:40
3	Al 396.153Radial†	506438.0	495151.6	108080 µg/L	108080 ppb	21:59:38
3	Ca 317.933Radial†	1552567.9	1517253.8	88905 µg/L	88905 ppb	21:59:38
3	Fe 238.204 Radial†	1521890.9	1487765.3	98912 µg/L	98912 ppb	21:59:38
3	K 766.490 Radial†	50654.4	48067.4	19746 µg/L	19746 ppb	21:59:40
3	Mg 279.077 IEC†	38770.1	37716.9	15467 µg/L	15467 ppb	21:59:40
3	Na 589.592 Radial†	27430.9	25123.1	3826.6 µg/L	3826.6 ppb	21:59:40
3	Sr 421.552†	199606.1	195423.2	457.32 µg/L	457.32 ppb	21:59:40
3	Sc 361.383	1682512.3	1682512.3	100.58 %		22:00:35
3	Y 371.029	1131978.0	1131978.0	110.70 %		22:00:35
3	Ag 328.068†	64979.1	61635.9	247.28 µg/L	247.28 ppb	22:00:37
3	As 188.979†	0.2	14.5	30.398 µg/L	30.398 ppb	22:00:57
3	B 249.677†	24488.4	20991.0	352.29 µg/L	352.29 ppb	22:00:37
3	Ba 233.527†	183535.9	182648.7	833.22 µg/L	833.22 ppb	22:00:37
3	Be 313.107†	22153.4	22685.3	7.3284 µg/L	7.3284 ppb	22:00:37
3	Cd 226.502†	2917.8	2995.4	10.350 µg/L	10.350 ppb	22:00:57
3	Co 228.616†	2505.0	2667.1	32.216 µg/L	32.216 ppb	22:00:57
3	Cr 267.716†	25292.0	24985.3	216.94 µg/L	216.94 ppb	22:00:57
3	Cu 324.752†	5155251.2	5122989.3	22285 µg/L	22285 ppb	22:00:35
3	Mn 257.610†	3288722.7	3269608.6	4466.8 µg/L	4466.8 ppb	22:00:35
3	Mo 202.031†	1387.4	1434.5	49.522 µg/L	49.522 ppb	22:00:57
3	Ni 231.604†	11034.5	11011.6	140.85 µg/L	140.85 ppb	22:00:57
3	P 214.914†	29859.2	29606.8	6803.3 µg/L	6803.3 ppb	22:00:37
3	Pb 220.353†	19669.0	19442.7	1176.3 µg/L	1176.3 ppb	22:00:57
3	S 181.975 Axial†	5772.6	5644.3	4573.3 µg/L	4573.3 ppb	22:00:57
3	Sb 206.836†	145.1	57.6	3.4697 µg/L	3.4697 ppb	22:00:57
3	Se 196.026†	-47.0	-57.7	11.3 µg/L	11.3 ppb	22:00:57
3	SiO2†	568082.5	563221.8	61559 µg/L	61559 ppb	22:00:37
3	Si 251.611†	1734547.9	1723832.5	28503 µg/L	28503 ppb	22:00:35
3	Sn 189.927†	341.4	337.4	29.584 µg/L	29.584 ppb	22:00:57
3	Ti 334.940†	1637053.6	1626942.5	1660.0 µg/L	1660.0 ppb	22:00:35
3	Tl 190.801†	-373.3	-250.8	-4.7036 µg/L	-4.7036 ppb	22:00:57
3	U 409.014†	-3499.2	-2999.9	-167.91 µg/L	-167.91 ppb	22:00:37
3	V 292.402†	23809.9	23240.3	112.92 µg/L	112.92 ppb	22:00:37
3	Zn 213.857†	1615014.0	1605202.3	10078 µg/L	10078 ppb	22:00:35

## Mean Data: 248202002|959123|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1675469.2	100.16 %	0.607			0.61%
Sc RADIAL	150443.0	103 %	1.0			0.98%
Y 371.029	1126816.1	110.19 %	0.698			0.63%
Ag 328.068†	61343.3	246.08 µg/L	1.289	246.08 ppb	1.289	0.52%
Al 396.153Radial†	492390.6	107480 µg/L	732.5	107480 ppb	732.5	0.68%
As 188.979†	13.5	29.970 µg/L	2.8881	29.970 ppb	2.8881	9.64%
B 249.677†	20905.5	350.85 µg/L	3.273	350.85 ppb	3.273	0.93%
Ba 233.527†	181251.3	826.84 µg/L	7.769	826.84 ppb	7.769	0.94%
Be 313.107†	22354.9	7.2211 µg/L	0.14666	7.2211 ppb	0.14666	2.03%
Ca 317.933Radial†	1514479.6	88742 µg/L	297.4	88742 ppb	297.4	0.34%
Cd 226.502†	2994.3	10.361 µg/L	0.1812	10.361 ppb	0.1812	1.75%
Co 228.616†	2636.5	31.800 µg/L	0.4642	31.800 ppb	0.4642	1.46%
Cr 267.716†	24967.8	216.78 µg/L	0.818	216.78 ppb	0.818	0.38%
Cu 324.752†	5118601.1	22265 µg/L	35.1	22265 ppb	35.1	0.16%
Concentration greater than upper limit for Cu 324.752.						
Fe 238.204 Radial†	1485157.2	98738 µg/L	345.1	98738 ppb	345.1	0.35%
K 766.490 Radial†	47969.2	19705 µg/L	34.9	19705 ppb	34.9	0.18%
Mg 279.077 IEC†	37810.1	15506 µg/L	35.3	15506 ppb	35.3	0.23%
Mn 257.610†	3269170.0	4466.2 µg/L	1.34	4466.2 ppb	1.34	0.03%
Mo 202.031†	1421.1	49.092 µg/L	0.3992	49.092 ppb	0.3992	0.81%

Na 589.592 Radial†	25101.4	3823.3 µg/L	4.99	3823.3 ppb	4.99	0.13%
Ni 231.604†	10977.0	140.41 µg/L	0.483	140.41 ppb	0.483	0.34%
P 214.914†	29295.7	6729.0 µg/L	89.27	6729.0 ppb	89.27	1.33%
Pb 220.353†	19432.6	1175.6 µg/L	4.55	1175.6 ppb	4.55	0.39%
S 181.975 Axial†	5637.1	4567.5 µg/L	18.99	4567.5 ppb	18.99	0.42%
Sb 206.836†	46.2	1.9261 µg/L	1.37861	1.9261 ppb	1.37861	71.58%
Se 196.026†	-66.9	7.63 µg/L	4.759	7.63 ppb	4.759	62.41%
SiO2†	559001.9	61098 µg/L	598.4	61098 ppb	598.4	0.98%
Si 251.611†	1722127.7	28474 µg/L	24.6	28474 ppb	24.6	0.09%
Sn 189.927†	330.4	29.078 µg/L	0.5184	29.078 ppb	0.5184	1.78%
Sr 421.552†	194958.7	456.24 µg/L	1.353	456.24 ppb	1.353	0.30%
Ti 334.940†	1625538.2	1658.6 µg/L	1.88	1658.6 ppb	1.88	0.11%
Tl 190.801†	-235.3	-2.6516 µg/L	1.81158	-2.6516 ppb	1.81158	68.32%
U 409.014†	-2988.2	-167.25 µg/L	1.461	-167.25 ppb	1.461	0.87%
Concentration less than lower limit for U 409.014.						
V 292.402†	22956.5	111.37 µg/L	1.425	111.37 ppb	1.425	1.28%
Zn 213.857†	1604941.9	10076 µg/L	6.3	10076 ppb	6.3	0.06%

Sequence No.: 73

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/29/2010 22:01:04

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	158049.5	158049.5	108 %		22:01:37
1	Al 396.153Radial†	26411.5	24388.7	5301.6 µg/L	5301.6 ppb	22:01:37
1	Ca 317.933Radial†	92553.1	84736.9	4965.2 µg/L	4965.2 ppb	22:01:37
1	Fe 238.204 Radial†	80932.2	74522.9	4954.5 µg/L	4954.5 ppb	22:01:37
1	K 766.490 Radial†	14535.0	11949.3	4915.2 µg/L	4915.2 ppb	22:01:37
1	Mg 279.077 IEC†	13642.6	12394.6	5117.9 µg/L	5117.9 ppb	22:01:37
1	Na 589.592 Radial†	72124.5	64818.9	9913.8 µg/L	9913.8 ppb	22:01:37
1	Sr 421.552†	236566.4	218441.0	511.93 µg/L	511.93 ppb	22:01:35
1	Sc 361.383	1796532.1	1796532.1	107.40 %		22:01:50
1	Y 371.029	1087433.5	1087433.5	106.34 %		22:01:50
1	Ag 328.068†	132761.6	120649.0	495.79 µg/L	495.79 ppb	22:01:50
1	As 188.979†	1379.4	1298.6	549.79 µg/L	549.79 ppb	22:02:10
1	B 249.677†	34327.9	28607.5	478.59 µg/L	478.59 ppb	22:01:50
1	Ba 233.527†	118329.1	110352.8	504.53 µg/L	504.53 ppb	22:01:50
1	Be 313.107†	1697099.0	1580851.1	514.73 µg/L	514.73 ppb	22:01:50
1	Cd 226.502†	75099.3	70020.3	483.23 µg/L	483.23 ppb	22:01:50
1	Co 228.616†	38144.6	35693.5	489.02 µg/L	489.02 ppb	22:01:50
1	Cr 267.716†	61551.1	57150.8	490.75 µg/L	490.75 ppb	22:01:50
1	Cu 324.752†	125230.0	114178.5	497.87 µg/L	497.87 ppb	22:01:50
1	Mn 257.610†	387183.9	360432.0	492.29 µg/L	492.29 ppb	22:01:50
1	Mo 202.031†	16175.9	15116.8	477.63 µg/L	477.63 ppb	22:02:10
1	Ni 231.604†	40995.7	38212.6	488.78 µg/L	488.78 ppb	22:01:50
1	P 214.914†	10701.6	9884.8	2358.9 µg/L	2358.9 ppb	22:02:10
1	Pb 220.353†	8517.0	7817.8	475.13 µg/L	475.13 ppb	22:02:10
1	S 181.975 Axial†	1332.8	1146.2	932.66 µg/L	932.66 ppb	22:02:10
1	Sb 206.836†	3939.5	3581.5	484.05 µg/L	484.05 ppb	22:02:10
1	Se 196.026†	1279.3	1180.3	469 µg/L	469 ppb	22:02:10
1	SiO2†	53216.1	47977.4	5223.3 µg/L	5223.3 ppb	22:01:50
1	Si 251.611†	160303.4	148584.2	2447.2 µg/L	2447.2 ppb	22:01:50
1	Sn 189.927†	7334.9	6827.6	487.05 µg/L	487.05 ppb	22:02:10
1	Ti 334.940†	519977.9	483521.9	492.40 µg/L	492.40 ppb	22:01:50
1	Tl 190.801†	3694.6	3560.4	485.32 µg/L	485.32 ppb	22:02:10
1	U 409.014†	7392.0	7361.9	485.07 µg/L	485.07 ppb	22:01:50
1	V 292.402†	96188.6	89130.7	500.52 µg/L	500.52 ppb	22:01:50
1	Zn 213.857†	83802.2	77564.9	484.40 µg/L	484.40 ppb	22:01:50
2	Sc RADIAL	156901.2	156901.2	108 %		22:01:41
2	Al 396.153Radial†	26045.7	24227.1	5266.1 µg/L	5266.1 ppb	22:01:41
2	Ca 317.933Radial†	91463.8	84349.6	4942.5 µg/L	4942.5 ppb	22:01:41
2	Fe 238.204 Radial†	80200.4	74389.3	4945.7 µg/L	4945.7 ppb	22:01:41
2	K 766.490 Radial†	14394.1	11916.4	4901.6 µg/L	4901.6 ppb	22:01:41
2	Mg 279.077 IEC†	13524.6	12377.1	5110.8 µg/L	5110.8 ppb	22:01:41
2	Na 589.592 Radial†	71678.0	64891.0	9924.8 µg/L	9924.8 ppb	22:01:41
2	Sr 421.552†	232732.3	216475.9	507.32 µg/L	507.32 ppb	22:01:39
2	Sc 361.383	1783616.2	1783616.2	106.63 %		22:02:13
2	Y 371.029	1079542.4	1079542.4	105.57 %		22:02:13
2	Ag 328.068†	131412.3	120278.7	494.27 µg/L	494.27 ppb	22:02:13
2	As 188.979†	1380.3	1308.7	554.01 µg/L	554.01 ppb	22:02:33
2	B 249.677†	34427.1	28932.0	484.03 µg/L	484.03 ppb	22:02:13
2	Ba 233.527†	116944.7	109852.3	502.24 µg/L	502.24 ppb	22:02:13
2	Be 313.107†	1678543.6	1574891.6	512.79 µg/L	512.79 ppb	22:02:13
2	Cd 226.502†	74410.0	69880.2	482.26 µg/L	482.26 ppb	22:02:13
2	Co 228.616†	37848.5	35673.1	488.73 µg/L	488.73 ppb	22:02:13
2	Cr 267.716†	60832.9	56892.2	488.54 µg/L	488.54 ppb	22:02:13
2	Cu 324.752†	123762.6	113646.6	495.55 µg/L	495.55 ppb	22:02:13
2	Mn 257.610†	383763.1	359834.4	491.48 µg/L	491.48 ppb	22:02:13
2	Mo 202.031†	16215.3	15262.8	482.24 µg/L	482.24 ppb	22:02:33
2	Ni 231.604†	40715.4	38226.1	488.96 µg/L	488.96 ppb	22:02:13
2	P 214.914†	10801.6	10050.8	2398.6 µg/L	2398.6 ppb	22:02:33
2	Pb 220.353†	8589.1	7942.9	482.72 µg/L	482.72 ppb	22:02:33



2	S 181.975 Axial†	1344.2	1165.8	948.58 µg/L	948.58 ppb	22:02:33
2	Sb 206.836†	3942.2	3610.6	488.08 µg/L	488.08 ppb	22:02:33
2	Se 196.026†	1283.6	1192.9	474 µg/L	474 ppb	22:02:33
2	SiO2†	52849.8	47992.6	5224.8 µg/L	5224.8 ppb	22:02:13
2	Si 251.611†	158621.6	148087.7	2438.9 µg/L	2438.9 ppb	22:02:13
2	Sn 189.927†	7373.6	6913.4	493.14 µg/L	493.14 ppb	22:02:33
2	Ti 334.940†	514397.9	481794.6	490.64 µg/L	490.64 ppb	22:02:13
2	Tl 190.801†	3715.3	3604.7	491.24 µg/L	491.24 ppb	22:02:33
2	U 409.014†	7243.6	7272.5	479.51 µg/L	479.51 ppb	22:02:13
2	V 292.402†	95349.6	88992.3	499.79 µg/L	499.79 ppb	22:02:13
2	Zn 213.857†	82609.2	77011.1	480.91 µg/L	480.91 ppb	22:02:13
3	Sc RADIAL	156463.7	156463.7	107 %		22:01:45
3	Al 396.153Radial†	25995.3	24247.8	5270.6 µg/L	5270.6 ppb	22:01:45
3	Ca 317.933Radial†	91157.7	84302.0	4939.7 µg/L	4939.7 ppb	22:01:45
3	Fe 238.204 Radial†	79790.6	74215.9	4934.1 µg/L	4934.1 ppb	22:01:45
3	K 766.490 Radial†	14295.4	11862.0	4879.2 µg/L	4879.2 ppb	22:01:45
3	Mg 279.077 IEC†	13441.9	12335.1	5093.5 µg/L	5093.5 ppb	22:01:45
3	Na 589.592 Radial†	71245.2	64673.9	9891.6 µg/L	9891.6 ppb	22:01:45
3	Sr 421.552†	235650.6	219799.0	515.11 µg/L	515.11 ppb	22:01:43
3	Sc 361.383	1779354.1	1779354.1	106.37 %		22:02:36
3	Y 371.029	1076400.2	1076400.2	105.26 %		22:02:36
3	Ag 328.068†	130833.4	120029.7	493.27 µg/L	493.27 ppb	22:02:36
3	As 188.979†	1382.7	1314.1	556.25 µg/L	556.25 ppb	22:02:57
3	B 249.677†	34071.7	28675.2	479.73 µg/L	479.73 ppb	22:02:36
3	Ba 233.527†	116809.2	109987.6	502.86 µg/L	502.86 ppb	22:02:36
3	Be 313.107†	1674596.4	1574951.7	512.81 µg/L	512.81 ppb	22:02:36
3	Cd 226.502†	73969.6	69633.4	480.55 µg/L	480.55 ppb	22:02:36
3	Co 228.616†	37628.2	35550.9	487.06 µg/L	487.06 ppb	22:02:36
3	Cr 267.716†	60619.6	56828.4	487.98 µg/L	487.98 ppb	22:02:36
3	Cu 324.752†	123542.2	113717.4	495.86 µg/L	495.86 ppb	22:02:36
3	Mn 257.610†	382395.5	359410.8	490.90 µg/L	490.90 ppb	22:02:36
3	Mo 202.031†	16173.8	15260.2	482.16 µg/L	482.16 ppb	22:02:57
3	Ni 231.604†	40421.3	38041.0	486.59 µg/L	486.59 ppb	22:02:36
3	P 214.914†	10736.5	10013.9	2389.8 µg/L	2389.8 ppb	22:02:57
3	Pb 220.353†	8554.5	7929.6	481.90 µg/L	481.90 ppb	22:02:57
3	S 181.975 Axial†	1335.2	1160.4	944.20 µg/L	944.20 ppb	22:02:57
3	Sb 206.836†	3941.0	3618.3	489.13 µg/L	489.13 ppb	22:02:57
3	Se 196.026†	1288.0	1199.9	477 µg/L	477 ppb	22:02:57
3	SiO2†	52993.8	48246.8	5252.6 µg/L	5252.6 ppb	22:02:36
3	Si 251.611†	158759.4	148573.6	2447.0 µg/L	2447.0 ppb	22:02:36
3	Sn 189.927†	7362.8	6919.8	493.59 µg/L	493.59 ppb	22:02:57
3	Ti 334.940†	513521.6	482126.3	490.98 µg/L	490.98 ppb	22:02:36
3	Tl 190.801†	3708.7	3606.8	491.53 µg/L	491.53 ppb	22:02:57
3	U 409.014†	7457.8	7490.2	492.90 µg/L	492.90 ppb	22:02:36
3	V 292.402†	94935.5	88817.2	498.83 µg/L	498.83 ppb	22:02:36
3	Zn 213.857†	82507.8	77101.4	481.50 µg/L	481.50 ppb	22:02:36

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1786500.8	106.80 %	0.535			0.50%
Sc RADIAL	157138.2	108 %	0.6			0.52%
Y 371.029	1081125.4	105.73 %	0.556			0.53%
Ag 328.068†	120319.2	494.45 µg/L	1.270	494.45 ppb	1.270	0.26%
QC value within limits for Ag 328.068 Recovery = 98.89%						
Al 396.153Radial†	24287.9	5279.4 µg/L	19.31	5279.4 ppb	19.31	0.37%
QC value within limits for Al 396.153Radial Recovery = 105.59%						
As 188.979†	1307.2	553.35 µg/L	3.278	553.35 ppb	3.278	0.59%
QC value greater than the upper limit for As 188.979 Recovery = 110.67%						
B 249.677†	28738.2	480.78 µg/L	2.873	480.78 ppb	2.873	0.60%
QC value within limits for B 249.677 Recovery = 96.16%						
Ba 233.527†	110064.3	503.21 µg/L	1.182	503.21 ppb	1.182	0.23%
QC value within limits for Ba 233.527 Recovery = 100.64%						
Be 313.107†	1576898.2	513.44 µg/L	1.114	513.44 ppb	1.114	0.22%
QC value within limits for Be 313.107 Recovery = 102.69%						
Ca 317.933Radial†	84462.8	4949.2 µg/L	13.98	4949.2 ppb	13.98	0.28%
QC value within limits for Ca 317.933Radial Recovery = 98.98%						
Cd 226.502†	69844.6	482.01 µg/L	1.352	482.01 ppb	1.352	0.28%
QC value within limits for Cd 226.502 Recovery = 96.40%						
Co 228.616†	35639.2	488.27 µg/L	1.056	488.27 ppb	1.056	0.22%

QC value within limits for Co 228.616 Recovery = 97.65%							
Cr 267.716†	56957.1	489.09 µg/L	1.468	489.09 ppb	1.468	0.30%	
QC value within limits for Cr 267.716 Recovery = 97.82%							
Cu 324.752†	113847.5	496.43 µg/L	1.257	496.43 ppb	1.257	0.25%	
QC value within limits for Cu 324.752 Recovery = 99.29%							
Fe 238.204 Radial†	74376.0	4944.8 µg/L	10.23	4944.8 ppb	10.23	0.21%	
QC value within limits for Fe 238.204 Radial Recovery = 98.90%							
K 766.490 Radial†	11909.2	4898.7 µg/L	18.15	4898.7 ppb	18.15	0.37%	
QC value within limits for K 766.490 Radial Recovery = 97.97%							
Mg 279.077 IEC†	12368.9	5107.4 µg/L	12.54	5107.4 ppb	12.54	0.25%	
QC value within limits for Mg 279.077 IEC Recovery = 102.15%							
Mn 257.610†	359892.4	491.56 µg/L	0.701	491.56 ppb	0.701	0.14%	
QC value within limits for Mn 257.610 Recovery = 98.31%							
Mo 202.031†	15213.3	480.68 µg/L	2.637	480.68 ppb	2.637	0.55%	
QC value within limits for Mo 202.031 Recovery = 96.14%							
Na 589.592 Radial†	64794.6	9910.0 µg/L	16.90	9910.0 ppb	16.90	0.17%	
QC value within limits for Na 589.592 Radial Recovery = 99.10%							
Ni 231.604†	38159.9	488.11 µg/L	1.320	488.11 ppb	1.320	0.27%	
QC value within limits for Ni 231.604 Recovery = 97.62%							
P 214.914†	9983.2	2382.4 µg/L	20.89	2382.4 ppb	20.89	0.88%	
QC value within limits for P 214.914 Recovery = 95.30%							
Pb 220.353†	7896.8	479.91 µg/L	4.167	479.91 ppb	4.167	0.87%	
QC value within limits for Pb 220.353 Recovery = 95.98%							
S 181.975 Axial†	1157.5	941.82 µg/L	8.224	941.82 ppb	8.224	0.87%	
QC value within limits for S 181.975 Axial Recovery = 94.18%							
Sb 206.836†	3603.5	487.09 µg/L	2.680	487.09 ppb	2.680	0.55%	
QC value within limits for Sb 206.836 Recovery = 97.42%							
Se 196.026†	1191.0	473 µg/L	3.9	473 ppb	3.9	0.83%	
QC value within limits for Se 196.026 Recovery = 94.65%							
SiO2†	48072.3	5233.6 µg/L	16.47	5233.6 ppb	16.47	0.31%	
QC value within limits for SiO2 Recovery = 97.87%							
Si 251.611†	148415.2	2444.4 µg/L	4.72	2444.4 ppb	4.72	0.19%	
QC value within limits for Si 251.611 Recovery = 97.78%							
Sn 189.927†	6886.9	491.26 µg/L	3.655	491.26 ppb	3.655	0.74%	
QC value within limits for Sn 189.927 Recovery = 98.25%							
Sr 421.552†	218238.6	511.45 µg/L	3.916	511.45 ppb	3.916	0.77%	
QC value within limits for Sr 421.552 Recovery = 102.29%							
Ti 334.940†	482481.0	491.34 µg/L	0.934	491.34 ppb	0.934	0.19%	
QC value within limits for Ti 334.940 Recovery = 98.27%							
Tl 190.801†	3590.7	489.36 µg/L	3.506	489.36 ppb	3.506	0.72%	
QC value within limits for Tl 190.801 Recovery = 97.87%							
U 409.014†	7374.9	485.83 µg/L	6.730	485.83 ppb	6.730	1.39%	
QC value within limits for U 409.014 Recovery = 97.17%							
V 292.402†	88980.1	499.71 µg/L	0.850	499.71 ppb	0.850	0.17%	
QC value within limits for V 292.402 Recovery = 99.94%							
Zn 213.857†	77225.8	482.27 µg/L	1.867	482.27 ppb	1.867	0.39%	
QC value within limits for Zn 213.857 Recovery = 96.45%							
QC Failed. Continue with analysis.							

Sequence No.: 74

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/29/2010 22:03:04

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	160449.4	160449.4	110 %		22:03:34
1	Al 396.153Radial†	-23.3	10.7	2.2857 µg/L	2.2857 ppb	22:03:54
1	Ca 317.933Radial†	663.3	-13.6	-0.7986 µg/L	-0.7986 ppb	22:03:54
1	Fe 238.204 Radial†	178.8	49.2	3.2692 µg/L	3.2692 ppb	22:03:54
1	K 766.490 Radial†	1550.2	-46.8	-19.248 µg/L	-19.248 ppb	22:03:34
1	Mg 279.077 IEC†	188.3	-15.6	-6.4221 µg/L	-6.4221 ppb	22:03:54
1	Na 589.592 Radial†	1720.0	-132.3	-20.226 µg/L	-20.226 ppb	22:03:34
1	Sr 421.552†	-107.7	180.2	0.4223 µg/L	0.4223 ppb	22:03:34
1	Sc 361.383	1782990.1	1782990.1	106.59 %		22:04:42
1	Y 371.029	1090676.4	1090676.4	106.66 %		22:04:42
1	Ag 328.068†	3540.4	354.5	1.4358 µg/L	1.4358 ppb	22:04:44
1	As 188.979†	-23.8	-8.1	-3.3731 µg/L	-3.3731 ppb	22:05:04
1	B 249.677†	3170.3	-381.3	-6.4031 µg/L	-6.4031 ppb	22:05:04
1	Ba 233.527†	-164.7	20.5	0.0937 µg/L	0.0937 ppb	22:05:04
1	Be 313.107†	-523.0	169.4	0.0564 µg/L	0.0564 ppb	22:04:44
1	Cd 226.502†	-92.5	7.6	0.0522 µg/L	0.0522 ppb	22:05:04
1	Co 228.616†	-166.7	20.2	0.2761 µg/L	0.2761 ppb	22:05:04
1	Cr 267.716†	144.9	-24.3	-0.2125 µg/L	-0.2125 ppb	22:05:04
1	Cu 324.752†	3308.1	678.7	2.9543 µg/L	2.9543 ppb	22:04:44
1	Mn 257.610†	226.5	132.5	0.1813 µg/L	0.1813 ppb	22:05:04
1	Mo 202.031†	-22.2	34.4	1.0857 µg/L	1.0857 ppb	22:05:04
1	Ni 231.604†	-71.5	-26.2	-0.3353 µg/L	-0.3353 ppb	22:05:04
1	P 214.914†	17.7	-63.0	-15.122 µg/L	-15.122 ppb	22:05:04
1	Pb 220.353†	110.9	-8.4	-0.5118 µg/L	-0.5118 ppb	22:05:04
1	S 181.975 Axial†	97.2	-3.6	-2.9298 µg/L	-2.9298 ppb	22:05:04
1	Sb 206.836†	92.1	-0.2	-0.0106 µg/L	-0.0106 ppb	22:05:04
1	Se 196.026†	10.0	-1.5	-0.603 µg/L	-0.603 ppb	22:05:04
1	SiO2†	1743.7	63.1	6.8545 µg/L	6.8545 ppb	22:05:04
1	Si 251.611†	838.2	110.0	1.8012 µg/L	1.8012 ppb	22:05:04
1	Sn 189.927†	10.0	7.4	0.5254 µg/L	0.5254 ppb	22:05:04
1	Ti 334.940†	839.9	151.6	0.1534 µg/L	0.1534 ppb	22:04:44
1	Tl 190.801†	-122.2	5.6	0.7511 µg/L	0.7511 ppb	22:05:04
1	U 409.014†	-437.1	69.0	4.2258 µg/L	4.2258 ppb	22:04:44
1	V 292.402†	331.6	-120.7	-0.6569 µg/L	-0.6569 ppb	22:04:44
1	Zn 213.857†	604.8	103.0	0.6478 µg/L	0.6478 ppb	22:05:04
2	Sc RADIAL	156747.2	156747.2	108 %		22:03:56
2	Al 396.153Radial†	-29.6	4.3	0.8879 µg/L	0.8879 ppb	22:04:16
2	Ca 317.933Radial†	666.7	3.7	0.2175 µg/L	0.2175 ppb	22:04:16
2	Fe 238.204 Radial†	175.2	49.7	3.3017 µg/L	3.3017 ppb	22:04:16
2	K 766.490 Radial†	1470.5	-87.7	-36.090 µg/L	-36.090 ppb	22:03:56
2	Mg 279.077 IEC†	169.6	-29.0	-11.920 µg/L	-11.920 ppb	22:04:16
2	Na 589.592 Radial†	1750.9	-66.6	-10.165 µg/L	-10.165 ppb	22:03:56
2	Sr 421.552†	-135.6	151.9	0.3559 µg/L	0.3559 ppb	22:03:56
2	Sc 361.383	1797191.3	1797191.3	107.44 %		22:05:06
2	Y 371.029	1098454.4	1098454.4	107.42 %		22:05:06
2	Ag 328.068†	3408.6	205.6	0.8469 µg/L	0.8469 ppb	22:05:08
2	As 188.979†	-12.7	2.4	1.0155 µg/L	1.0155 ppb	22:05:28
2	B 249.677†	3164.7	-410.0	-6.8848 µg/L	-6.8848 ppb	22:05:28
2	Ba 233.527†	-163.4	23.0	0.1052 µg/L	0.1052 ppb	22:05:28
2	Be 313.107†	-678.6	28.5	0.0135 µg/L	0.0135 ppb	22:05:08
2	Cd 226.502†	-87.1	13.3	0.0914 µg/L	0.0914 ppb	22:05:28
2	Co 228.616†	-175.3	13.5	0.1843 µg/L	0.1843 ppb	22:05:28
2	Cr 267.716†	187.5	14.3	0.1122 µg/L	0.1122 ppb	22:05:28
2	Cu 324.752†	3253.3	603.2	2.6341 µg/L	2.6341 ppb	22:05:08
2	Mn 257.610†	189.8	96.7	0.1326 µg/L	0.1326 ppb	22:05:28
2	Mo 202.031†	-18.9	37.7	1.1886 µg/L	1.1886 ppb	22:05:28
2	Ni 231.604†	-71.9	-26.0	-0.3327 µg/L	-0.3327 ppb	22:05:28
2	P 214.914†	32.5	-49.3	-11.863 µg/L	-11.863 ppb	22:05:28
2	Pb 220.353†	101.8	-17.6	-1.0762 µg/L	-1.0762 ppb	22:05:28

2	S 181.975 Axial†	94.3	-7.1	-5.7195 µg/L	-5.7195 ppb	22:05:28
2	Sb 206.836†	73.5	-18.2	-2.4456 µg/L	-2.4456 ppb	22:05:28
2	Se 196.026†	11.7	0.0	0.017 µg/L	0.017 ppb	22:05:28
2	SiO2†	1699.5	9.0	0.9499 µg/L	0.9499 ppb	22:05:28
2	Si 251.611†	884.5	146.9	2.4136 µg/L	2.4136 ppb	22:05:28
2	Sn 189.927†	-0.8	-2.7	-0.1939 µg/L	-0.1939 ppb	22:05:28
2	Ti 334.940†	738.9	51.4	0.0476 µg/L	0.0476 ppb	22:05:08
2	Tl 190.801†	-120.9	7.8	1.0385 µg/L	1.0385 ppb	22:05:28
2	U 409.014†	-272.9	225.1	13.889 µg/L	13.889 ppb	22:05:08
2	V 292.402†	392.8	-66.2	-0.3457 µg/L	-0.3457 ppb	22:05:08
2	Zn 213.857†	590.9	85.6	0.5385 µg/L	0.5385 ppb	22:05:28
3	Sc RADIAL	159177.1	159177.1	109 %		22:04:18
3	Al 396.153Radial†	-32.3	2.3	0.4484 µg/L	0.4484 ppb	22:04:38
3	Ca 317.933Radial†	661.7	-10.3	-0.6042 µg/L	-0.6042 ppb	22:04:38
3	Fe 238.204 Radial†	157.7	31.1	2.0666 µg/L	2.0666 ppb	22:04:38
3	K 766.490 Radial†	1654.5	60.0	24.710 µg/L	24.710 ppb	22:04:18
3	Mg 279.077 IEC†	173.1	-28.1	-11.572 µg/L	-11.572 ppb	22:04:38
3	Na 589.592 Radial†	1670.7	-164.9	-25.257 µg/L	-25.257 ppb	22:04:18
3	Sr 421.552†	-81.8	203.1	0.4761 µg/L	0.4761 ppb	22:04:18
3	Sc 361.383	1802721.6	1802721.6	107.77 %		22:05:30
3	Y 371.029	1101871.3	1101871.3	107.75 %		22:05:30
3	Ag 328.068†	3236.7	36.3	0.1614 µg/L	0.1614 ppb	22:05:33
3	As 188.979†	-14.2	1.1	0.4596 µg/L	0.4596 ppb	22:05:53
3	B 249.677†	3175.4	-409.2	-6.8698 µg/L	-6.8698 ppb	22:05:53
3	Ba 233.527†	-172.2	15.3	0.0698 µg/L	0.0698 ppb	22:05:53
3	Be 313.107†	-906.9	-181.5	-0.0538 µg/L	-0.0538 ppb	22:05:33
3	Cd 226.502†	-107.7	-5.6	-0.0386 µg/L	-0.0386 ppb	22:05:53
3	Co 228.616†	-189.6	0.7	0.0092 µg/L	0.0092 ppb	22:05:53
3	Cr 267.716†	175.9	3.0	0.0117 µg/L	0.0117 ppb	22:05:53
3	Cu 324.752†	3047.7	403.1	1.7668 µg/L	1.7668 ppb	22:05:33
3	Mn 257.610†	198.6	104.3	0.1430 µg/L	0.1430 ppb	22:05:53
3	Mo 202.031†	-19.7	36.9	1.1654 µg/L	1.1654 ppb	22:05:53
3	Ni 231.604†	-45.7	-1.5	-0.0189 µg/L	-0.0189 ppb	22:05:53
3	P 214.914†	24.9	-56.4	-13.551 µg/L	-13.551 ppb	22:05:53
3	Pb 220.353†	87.5	-31.3	-1.9030 µg/L	-1.9030 ppb	22:05:53
3	S 181.975 Axial†	90.3	-11.0	-8.9087 µg/L	-8.9087 ppb	22:05:53
3	Sb 206.836†	80.8	-11.6	-1.5550 µg/L	-1.5550 ppb	22:05:53
3	Se 196.026†	19.6	7.3	2.90 µg/L	2.90 ppb	22:05:53
3	SiO2†	1704.6	8.9	0.9407 µg/L	0.9407 ppb	22:05:53
3	Si 251.611†	850.1	112.5	1.8467 µg/L	1.8467 ppb	22:05:53
3	Sn 189.927†	-3.2	-5.0	-0.3566 µg/L	-0.3566 ppb	22:05:53
3	Ti 334.940†	849.3	151.7	0.1485 µg/L	0.1485 ppb	22:05:33
3	Tl 190.801†	-126.9	2.6	0.3427 µg/L	0.3427 ppb	22:05:53
3	U 409.014†	-211.7	282.7	17.431 µg/L	17.431 ppb	22:05:33
3	V 292.402†	343.3	-113.2	-0.6046 µg/L	-0.6046 ppb	22:05:33
3	Zn 213.857†	574.3	68.5	0.4296 µg/L	0.4296 ppb	22:05:53

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1794301.0	107.26 %	0.608			0.57%
Sc RADIAL	158791.2	109 %	1.3			1.18%
Y 371.029	1097000.7	107.28 %	0.561			0.52%
Ag 328.068†	198.8	0.8147 µg/L	0.63786	0.8147 ppb	0.63786	78.29%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	5.8	1.2073 µg/L	0.95936	1.2073 ppb	0.95936	79.46%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.5	-0.6327 µg/L	2.38947	-0.6327 ppb	2.38947	377.69%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-400.2	-6.7193 µg/L	0.27389	-6.7193 ppb	0.27389	4.08%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	19.6	0.0896 µg/L	0.01809	0.0896 ppb	0.01809	20.20%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	5.5	0.0054 µg/L	0.05556	0.0054 ppb	0.05556	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-6.7	-0.3951 µg/L	0.53934	-0.3951 ppb	0.53934	136.51%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	5.1	0.0350 µg/L	0.06666	0.0350 ppb	0.06666	190.46%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	11.4	0.1565 µg/L	0.13561	0.1565 ppb	0.13561	86.64%

Cr	267.716†	-2.3	-0.0296 µg/L	0.16621	-0.0296 ppb	0.16621	562.40%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	561.7	2.4517 µg/L	0.61441	2.4517 ppb	0.61441	25.06%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	43.3	2.8792 µg/L	0.70386	2.8792 ppb	0.70386	24.45%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	-24.8	-10.209 µg/L	31.3914	-10.209 ppb	31.3914	307.48%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-24.2	-9.9713 µg/L	3.07868	-9.9713 ppb	3.07868	30.88%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	111.1	0.1523 µg/L	0.02563	0.1523 ppb	0.02563	16.83%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	36.3	1.1466 µg/L	0.05397	1.1466 ppb	0.05397	4.71%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	-121.3	-18.549 µg/L	7.6848	-18.549 ppb	7.6848	41.43%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	-17.9	-0.2290 µg/L	0.18194	-0.2290 ppb	0.18194	79.46%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-56.3	-13.512 µg/L	1.6296	-13.512 ppb	1.6296	12.06%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-19.1	-1.1637 µg/L	0.69972	-1.1637 ppb	0.69972	60.13%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-7.2	-5.8527 µg/L	2.99169	-5.8527 ppb	2.99169	51.12%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	-10.0	-1.3371 µg/L	1.23203	-1.3371 ppb	1.23203	92.14%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	1.9	0.771 µg/L	1.8678	0.771 ppb	1.8678	242.41%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		27.0	2.9150 µg/L	3.41170	2.9150 ppb	3.41170	117.04%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	123.1	2.0205 µg/L	0.34120	2.0205 ppb	0.34120	16.89%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	-0.1	-0.0084 µg/L	0.46934	-0.0084 ppb	0.46934	>999.9%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	178.4	0.4181 µg/L	0.06020	0.4181 ppb	0.06020	14.40%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	118.2	0.1165 µg/L	0.05971	0.1165 ppb	0.05971	51.25%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	5.3	0.7108 µg/L	0.34967	0.7108 ppb	0.34967	49.20%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	192.3	11.848 µg/L	6.8347	11.848 ppb	6.8347	57.68%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-100.0	-0.5357 µg/L	0.16666	-0.5357 ppb	0.16666	31.11%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	85.7	0.5387 µg/L	0.10910	0.5387 ppb	0.10910	20.25%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

## =====

## Analysis Begun

Start Time: 3/30/2010 15:06:00

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\033010.sif

Batch ID:

Results Data Set: 033010B

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

Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 3/30/2010 15:06:02

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	146497.9	146497.9	99.1	%	15:06:32
1	Al 396.153Radial†	-101.0	-101.9	[0.00]	µg/L	15:06:52
1	Ca 317.933Radial†	670.1	676.2	[0.00]	µg/L	15:06:52
1	Fe 238.204 Radial†	133.7	134.9	[0.00]	µg/L	15:06:52
1	K 766.490 Radial†	1222.4	1233.5	[0.00]	µg/L	15:06:32
1	Mg 279.077 IEC†	174.9	176.5	[0.00]	µg/L	15:06:52
1	Na 589.592 Radial†	1269.7	1281.2	[0.00]	µg/L	15:06:32
1	Sr 421.552†	-245.3	-247.6	[0.00]	µg/L	15:06:32
1	Sc 361.383	1750148.6	1750148.6	99.719	%	15:07:54
1	Y 371.029	1060907.2	1060907.2	99.705	%	15:07:54
1	Ag 328.068†	3317.5	3326.9	[0.00]	µg/L	15:07:56
1	As 188.979†	-16.5	-16.5	[0.00]	µg/L	15:08:16
1	B 249.677†	3233.9	3243.0	[0.00]	µg/L	15:08:16
1	Ba 233.527†	-160.6	-161.1	[0.00]	µg/L	15:08:16
1	Be 313.107†	-773.6	-775.8	[0.00]	µg/L	15:07:56
1	Cd 226.502†	-119.9	-120.3	[0.00]	µg/L	15:08:16
1	Co 228.616†	-167.4	-167.9	[0.00]	µg/L	15:08:16
1	Cr 267.716†	181.0	181.5	[0.00]	µg/L	15:08:16
1	Cu 324.752†	2790.1	2798.0	[0.00]	µg/L	15:07:56
1	Mn 257.610†	176.6	177.1	[0.00]	µg/L	15:08:16
1	Mo 202.031†	-36.7	-36.8	[0.00]	µg/L	15:08:16
1	Ni 231.604†	-71.2	-71.4	[0.00]	µg/L	15:08:16
1	P 214.914†	0.0	0.0	[0.00]	µg/L	15:08:16
1	Pb 220.353†	115.5	115.9	[0.00]	µg/L	15:08:16
1	S 181.975 Axial†	85.9	86.1	[0.00]	µg/L	15:08:16
1	Sb 206.836†	81.3	81.5	[0.00]	µg/L	15:08:16
1	Se 196.026†	3.3	3.3	[0.00]	µg/L	15:08:16
1	SiO2†	1748.5	1753.4	[0.00]	µg/L	15:08:16
1	Si 251.611†	853.8	856.2	[0.00]	µg/L	15:07:56
1	Sn 189.927†	-7.6	-7.7	[0.00]	µg/L	15:08:16
1	Ti 334.940†	867.0	869.5	[0.00]	µg/L	15:07:56
1	Tl 190.801†	-111.8	-112.1	[0.00]	µg/L	15:08:16
1	U 409.014†	-248.2	-248.9	[0.00]	µg/L	15:07:56
1	V 292.402†	416.2	417.4	[0.00]	µg/L	15:07:56
1	Zn 213.857†	524.3	525.8	[0.00]	µg/L	15:08:16
2	Sc RADIAL	147907.3	147907.3	100	%	15:06:55
2	Al 396.153Radial†	-34.8	-34.7	[0.00]	µg/L	15:07:15
2	Ca 317.933Radial†	694.0	693.6	[0.00]	µg/L	15:07:15
2	Fe 238.204 Radial†	148.0	147.9	[0.00]	µg/L	15:07:15
2	K 766.490 Radial†	1396.5	1395.7	[0.00]	µg/L	15:06:55
2	Mg 279.077 IEC†	152.8	152.7	[0.00]	µg/L	15:07:15
2	Na 589.592 Radial†	1149.0	1148.4	[0.00]	µg/L	15:06:55
2	Sr 421.552†	-193.4	-193.3	[0.00]	µg/L	15:06:55
2	Sc 361.383	1758204.8	1758204.8	100.18	%	15:08:19
2	Y 371.029	1066082.1	1066082.1	100.19	%	15:08:19
2	Ag 328.068†	3417.1	3411.0	[0.00]	µg/L	15:08:21
2	As 188.979†	-15.0	-15.0	[0.00]	µg/L	15:08:41

2	B 249.677†	3227.6	3221.9	[0.00]	µg/L	15:08:41
2	Ba 233.527†	-147.6	-147.4	[0.00]	µg/L	15:08:41
2	Be 313.107†	-698.8	-697.5	[0.00]	µg/L	15:08:21
2	Cd 226.502†	-114.7	-114.5	[0.00]	µg/L	15:08:41
2	Co 228.616†	-169.7	-169.4	[0.00]	µg/L	15:08:41
2	Cr 267.716†	163.9	163.6	[0.00]	µg/L	15:08:41
2	Cu 324.752†	2765.8	2760.9	[0.00]	µg/L	15:08:21
2	Mn 257.610†	183.5	183.2	[0.00]	µg/L	15:08:41
2	Mo 202.031†	-33.7	-33.6	[0.00]	µg/L	15:08:41
2	Ni 231.604†	-86.0	-85.8	[0.00]	µg/L	15:08:41
2	P 214.914†	8.3	8.3	[0.00]	µg/L	15:08:41
2	Pb 220.353†	81.9	81.8	[0.00]	µg/L	15:08:41
2	S 181.975 Axial†	81.0	80.8	[0.00]	µg/L	15:08:41
2	Sb 206.836†	78.6	78.4	[0.00]	µg/L	15:08:41
2	Se 196.026†	28.8	28.8	[0.00]	µg/L	15:08:41
2	SiO2†	1754.9	1751.8	[0.00]	µg/L	15:08:41
2	Si 251.611†	1018.7	1016.9	[0.00]	µg/L	15:08:21
2	Sn 189.927†	0.3	0.3	[0.00]	µg/L	15:08:41
2	Ti 334.940†	994.7	992.9	[0.00]	µg/L	15:08:21
2	Tl 190.801†	-109.6	-109.4	[0.00]	µg/L	15:08:41
2	U 409.014†	-263.3	-262.8	[0.00]	µg/L	15:08:21
2	V 292.402†	284.4	283.9	[0.00]	µg/L	15:08:21
2	Zn 213.857†	528.6	527.6	[0.00]	µg/L	15:08:41
3	Sc RADIAL	149084.2	149084.2	101	%	15:07:17
3	Al 396.153Radial†	-52.4	-52.0	[0.00]	µg/L	15:07:37
3	Ca 317.933Radial†	730.3	724.2	[0.00]	µg/L	15:07:37
3	Fe 238.204 Radial†	140.4	139.2	[0.00]	µg/L	15:07:37
3	K 766.490 Radial†	1320.3	1309.2	[0.00]	µg/L	15:07:17
3	Mg 279.077 IEC†	178.6	177.1	[0.00]	µg/L	15:07:37
3	Na 589.592 Radial†	1200.4	1190.3	[0.00]	µg/L	15:07:17
3	Sr 421.552†	-226.0	-224.1	[0.00]	µg/L	15:07:17
3	Sc 361.383	1756878.6	1756878.6	100.10	%	15:08:43
3	Y 371.029	1065144.1	1065144.1	100.10	%	15:08:43
3	Ag 328.068†	3607.1	3603.4	[0.00]	µg/L	15:08:45
3	As 188.979†	-21.6	-21.6	[0.00]	µg/L	15:09:05
3	B 249.677†	3229.5	3226.2	[0.00]	µg/L	15:09:05
3	Ba 233.527†	-178.2	-178.0	[0.00]	µg/L	15:09:05
3	Be 313.107†	-884.3	-883.4	[0.00]	µg/L	15:08:45
3	Cd 226.502†	-95.4	-95.3	[0.00]	µg/L	15:09:05
3	Co 228.616†	-180.2	-180.0	[0.00]	µg/L	15:09:05
3	Cr 267.716†	190.8	190.6	[0.00]	µg/L	15:09:05
3	Cu 324.752†	2810.8	2808.0	[0.00]	µg/L	15:08:45
3	Mn 257.610†	166.6	166.4	[0.00]	µg/L	15:09:05
3	Mo 202.031†	-33.9	-33.9	[0.00]	µg/L	15:09:05
3	Ni 231.604†	-76.5	-76.4	[0.00]	µg/L	15:09:05
3	P 214.914†	6.7	6.7	[0.00]	µg/L	15:09:05
3	Pb 220.353†	93.4	93.3	[0.00]	µg/L	15:09:05
3	S 181.975 Axial†	96.2	96.1	[0.00]	µg/L	15:09:05
3	Sb 206.836†	74.4	74.3	[0.00]	µg/L	15:09:05
3	Se 196.026†	8.6	8.6	[0.00]	µg/L	15:09:05
3	SiO2†	1756.0	1754.2	[0.00]	µg/L	15:09:05
3	Si 251.611†	973.9	972.9	[0.00]	µg/L	15:08:45
3	Sn 189.927†	-0.2	-0.2	[0.00]	µg/L	15:09:05
3	Ti 334.940†	795.2	794.4	[0.00]	µg/L	15:08:45
3	Tl 190.801†	-129.9	-129.8	[0.00]	µg/L	15:09:05
3	U 409.014†	-340.0	-339.6	[0.00]	µg/L	15:08:45
3	V 292.402†	228.5	228.3	[0.00]	µg/L	15:08:45
3	Zn 213.857†	520.8	520.3	[0.00]	µg/L	15:09:05

## Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	1755077.4	4319.59	0.25%	100.00	%
Sc RADIAL	147829.8	1294.89	0.88%	100	%
Y 371.029	1064044.5	2757.13	0.26%	100.00	%
Ag 328.068†	3447.1	141.77	4.11%	[0.00]	µg/L
Al 396.153Radial†	-62.9	34.89	55.49%	[0.00]	µg/L
As 188.979†	-17.7	3.44	19.45%	[0.00]	µg/L
B 249.677†	3230.3	11.14	0.34%	[0.00]	µg/L
Ba 233.527†	-162.2	15.33	9.46%	[0.00]	µg/L

Be 313.107†	-785.6	93.33	11.88%	[0.00] µg/L
Ca 317.933Radial†	698.0	24.30	3.48%	[0.00] µg/L
Cd 226.502†	-110.0	13.07	11.88%	[0.00] µg/L
Co 228.616†	-172.4	6.63	3.84%	[0.00] µg/L
Cr 267.716†	178.6	13.74	7.69%	[0.00] µg/L
Cu 324.752†	2788.9	24.81	0.89%	[0.00] µg/L
Fe 238.204 Radial†	140.7	6.62	4.70%	[0.00] µg/L
K 766.490 Radial†	1312.8	81.17	6.18%	[0.00] µg/L
Mg 279.077 IEC†	168.8	13.89	8.23%	[0.00] µg/L
Mn 257.610†	175.6	8.49	4.84%	[0.00] µg/L
Mo 202.031†	-34.8	1.78	5.12%	[0.00] µg/L
Na 589.592 Radial†	1206.6	67.93	5.63%	[0.00] µg/L
Ni 231.604†	-77.9	7.31	9.39%	[0.00] µg/L
P 214.914†	5.0	4.37	87.51%	[0.00] µg/L
Pb 220.353†	97.0	17.35	17.90%	[0.00] µg/L
S 181.975 Axial†	87.7	7.77	8.86%	[0.00] µg/L
Sb 206.836†	78.1	3.61	4.63%	[0.00] µg/L
Se 196.026†	13.6	13.43	99.02%	[0.00] µg/L
SiO2†	1753.1	1.20	0.07%	[0.00] µg/L
Si 251.611†	948.7	83.02	8.75%	[0.00] µg/L
Sn 189.927†	-2.5	4.43	174.28%	[0.00] µg/L
Sr 421.552†	-221.7	27.19	12.27%	[0.00] µg/L
Ti 334.940†	885.6	100.24	11.32%	[0.00] µg/L
Tl 190.801†	-117.1	11.10	9.48%	[0.00] µg/L
U 409.014†	-283.8	48.88	17.23%	[0.00] µg/L
V 292.402†	309.8	97.21	31.37%	[0.00] µg/L
Zn 213.857†	524.6	3.82	0.73%	[0.00] µg/L



Sequence No.: 2

Sample ID: S0.1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 2

Date Collected: 3/30/2010 15:09:13

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc RADIAL	151106.4	151106.4	102 %		15:09:44
1	K 766.490 Radial†	3818.5	2422.9	[1000] µg/L		15:09:44
1	Sr 421.552†	45253.2	44493.6	[100] µg/L		15:09:44
1	Sc 361.383	1738037.7	1738037.7	99.029 %		15:09:52
1	Y 371.029	1049397.7	1049397.7	98.623 %		15:09:52
1	Ag 328.068†	28574.4	25407.5	[100] µg/L		15:09:54
1	As 188.979†	268.3	288.6	[100] µg/L		15:10:14
1	B 249.677†	9207.2	6067.1	[100] µg/L		15:09:54
1	Ba 233.527†	22852.5	23238.7	[100] µg/L		15:09:54
1	Be 313.107†	323892.5	327853.5	[100] µg/L		15:09:52
1	Cd 226.502†	14574.7	14827.6	[100] µg/L		15:09:54
1	Co 228.616†	7300.6	7544.6	[100] µg/L		15:10:14
1	Cr 267.716†	11891.0	11829.0	[100] µg/L		15:09:54
1	Cu 324.752†	26223.3	23691.5	[100] µg/L		15:09:54
1	Mn 257.610†	76566.4	77141.5	[100] µg/L		15:09:54
1	Mo 202.031†	3085.6	3150.6	[100] µg/L		15:10:14
1	Ni 231.604†	8046.1	8202.9	[100] µg/L		15:09:54
1	P 214.914†	2079.3	2094.7	[500] µg/L		15:10:14
1	Pb 220.353†	1741.7	1661.8	[100] µg/L		15:10:14
1	S 181.975 Axial†	326.5	242.0	[200] µg/L		15:10:14
1	Sb 206.836†	832.0	762.0	[100] µg/L		15:10:14
1	Se 196.026†	250.1	238.9	[100] µg/L		15:10:14
1	SiO2†	11525.9	9885.8	[1069.5] µg/L		15:09:54
1	Si 251.611†	31162.9	30519.8	[500] µg/L		15:09:54
1	Sn 189.927†	1432.7	1449.3	[100] µg/L		15:10:14
1	Ti 334.940†	99104.5	99190.5	[100] µg/L		15:09:54
1	Tl 190.801†	632.9	756.2	[100] µg/L		15:10:14
1	U 409.014†	1279.0	1575.3	[100] µg/L		15:09:54
1	V 292.402†	18747.4	18621.3	[100] µg/L		15:09:54
1	Zn 213.857†	16580.0	16218.0	[100] µg/L		15:09:54
2	Sc RADIAL	151100.7	151100.7	102 %		15:09:46
2	K 766.490 Radial†	3799.4	2404.3	[1000] µg/L		15:09:46
2	Sr 421.552†	45444.4	44682.4	[100] µg/L		15:09:46
2	Sc 361.383	1757465.9	1757465.9	100.14 %		15:10:16
2	Y 371.029	1061598.8	1061598.8	99.770 %		15:10:16
2	Ag 328.068†	28565.6	25079.7	[100] µg/L		15:10:18
2	As 188.979†	278.0	295.3	[100] µg/L		15:10:38
2	B 249.677†	9241.9	5999.0	[100] µg/L		15:10:18
2	Ba 233.527†	23009.2	23140.1	[100] µg/L		15:10:18
2	Be 313.107†	327346.9	327687.6	[100] µg/L		15:10:16
2	Cd 226.502†	14590.2	14680.4	[100] µg/L		15:10:18
2	Co 228.616†	7268.8	7431.4	[100] µg/L		15:10:38
2	Cr 267.716†	12079.9	11884.9	[100] µg/L		15:10:18
2	Cu 324.752†	26500.5	23675.6	[100] µg/L		15:10:18
2	Mn 257.610†	77037.2	76756.9	[100] µg/L		15:10:18
2	Mo 202.031†	3083.7	3114.3	[100] µg/L		15:10:38
2	Ni 231.604†	8112.2	8179.1	[100] µg/L		15:10:18
2	P 214.914†	2063.1	2055.3	[500] µg/L		15:10:38
2	Pb 220.353†	1736.3	1637.0	[100] µg/L		15:10:38
2	S 181.975 Axial†	322.2	234.0	[200] µg/L		15:10:38
2	Sb 206.836†	843.3	764.1	[100] µg/L		15:10:38
2	Se 196.026†	260.0	246.1	[100] µg/L		15:10:38
2	SiO2†	11608.3	9839.4	[1069.5] µg/L		15:10:18
2	Si 251.611†	31441.9	30450.5	[500] µg/L		15:10:18
2	Sn 189.927†	1435.4	1436.0	[100] µg/L		15:10:38
2	Ti 334.940†	99940.5	98919.1	[100] µg/L		15:10:18
2	Tl 190.801†	638.1	754.3	[100] µg/L		15:10:38
2	U 409.014†	1394.8	1676.7	[100] µg/L		15:10:18
2	V 292.402†	18757.2	18421.9	[100] µg/L		15:10:18

2	Zn 213.857†	16630.2	16083.1	[100] µg/L	15:10:18
3	Sc RADIAL	150595.1	150595.1	102 %	15:09:48
3	K 766.490 Radial†	3957.0	2571.5	[1000] µg/L	15:09:48
3	Sr 421.552†	45519.0	44904.8	[100] µg/L	15:09:48
3	Sc 361.383	1739244.5	1739244.5	99.098 %	15:10:40
3	Y 371.029	1050569.8	1050569.8	98.734 %	15:10:40
3	Ag 328.068†	28423.4	25235.1	[100] µg/L	15:10:42
3	As 188.979†	270.5	290.7	[100] µg/L	15:11:02
3	B 249.677†	9031.4	5883.3	[100] µg/L	15:10:42
3	Ba 233.527†	22814.2	23184.1	[100] µg/L	15:10:42
3	Be 313.107†	324651.0	328391.9	[100] µg/L	15:10:40
3	Cd 226.502†	14381.3	14622.3	[100] µg/L	15:10:42
3	Co 228.616†	7305.3	7544.2	[100] µg/L	15:11:02
3	Cr 267.716†	11842.0	11771.3	[100] µg/L	15:10:42
3	Cu 324.752†	26162.4	23611.6	[100] µg/L	15:10:42
3	Mn 257.610†	76240.8	76759.2	[100] µg/L	15:10:42
3	Mo 202.031†	3086.5	3149.4	[100] µg/L	15:11:02
3	Ni 231.604†	7930.5	8080.6	[100] µg/L	15:10:42
3	P 214.914†	2052.5	2066.2	[500] µg/L	15:11:02
3	Pb 220.353†	1737.1	1655.9	[100] µg/L	15:11:02
3	S 181.975 Axial†	322.8	238.0	[200] µg/L	15:11:02
3	Sb 206.836†	838.9	768.4	[100] µg/L	15:11:02
3	Se 196.026†	267.2	256.1	[100] µg/L	15:11:02
3	SiO2†	11482.8	9834.2	[1069.5] µg/L	15:10:42
3	Si 251.611†	31025.8	30359.6	[500] µg/L	15:10:42
3	Sn 189.927†	1439.4	1455.1	[100] µg/L	15:11:02
3	Ti 334.940†	98234.7	98243.4	[100] µg/L	15:10:42
3	Tl 190.801†	640.7	763.7	[100] µg/L	15:11:02
3	U 409.014†	1354.3	1650.4	[100] µg/L	15:10:42
3	V 292.402†	18608.8	18468.4	[100] µg/L	15:10:42
3	Zn 213.857†	16438.9	16064.0	[100] µg/L	15:10:42

## Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1744916.0	10885.22	0.62%	99.421 %	
Sc RADIAL	150934.1	293.54	0.19%	102 %	
Y 371.029	1053855.4	6731.54	0.64%	99.042 %	
Ag 328.068†	25240.8	163.97	0.65%	[100] µg/L	
As 188.979†	291.5	3.43	1.18%	[100] µg/L	
B 249.677†	5983.1	92.92	1.55%	[100] µg/L	
Ba 233.527†	23187.6	49.38	0.21%	[100] µg/L	
Be 313.107†	327977.7	368.24	0.11%	[100] µg/L	
Cd 226.502†	14710.1	105.82	0.72%	[100] µg/L	
Co 228.616†	7506.8	65.26	0.87%	[100] µg/L	
Cr 267.716†	11828.4	56.81	0.48%	[100] µg/L	
Cu 324.752†	23659.5	42.28	0.18%	[100] µg/L	
K 766.490 Radial†	2466.2	91.66	3.72%	[1000] µg/L	
Mn 257.610†	76885.9	221.36	0.29%	[100] µg/L	
Mo 202.031†	3138.1	20.62	0.66%	[100] µg/L	
Ni 231.604†	8154.2	64.85	0.80%	[100] µg/L	
P 214.914†	2072.0	20.35	0.98%	[500] µg/L	
Pb 220.353†	1651.6	12.97	0.79%	[100] µg/L	
S 181.975 Axial†	238.0	4.01	1.69%	[200] µg/L	
Sb 206.836†	764.9	3.26	0.43%	[100] µg/L	
Se 196.026†	247.0	8.60	3.48%	[100] µg/L	
SiO2†	9853.1	28.41	0.29%	[1069.5] µg/L	
Si 251.611†	30443.3	80.34	0.26%	[500] µg/L	
Sn 189.927†	1446.8	9.79	0.68%	[100] µg/L	
Sr 421.552†	44693.6	205.85	0.46%	[100] µg/L	
Ti 334.940†	98784.3	487.73	0.49%	[100] µg/L	
Tl 190.801†	758.0	4.95	0.65%	[100] µg/L	
U 409.014†	1634.1	52.62	3.22%	[100] µg/L	
V 292.402†	18503.9	104.35	0.56%	[100] µg/L	
Zn 213.857†	16121.7	83.92	0.52%	[100] µg/L	

Sequence No.: 3

Sample ID: S0.5

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 3/30/2010 15:11:10

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	153789.5	153789.5	104 %	15:11:41
1	Al 396.153Radial†	24481.1	23595.3	[5000] µg/L	15:11:41
1	Ca 317.933Radial†	85129.1	81132.2	[5000] µg/L	15:11:41
1	K 766.490 Radial†	13676.3	11833.5	[5000] µg/L	15:11:41
1	Mg 279.077 IEC†	12814.2	12148.8	[5000] µg/L	15:11:41
1	Sr 421.552†	211787.7	203802.1	[500] µg/L	15:11:39
1	Sc 361.383	1735951.4	1735951.4	98.910 %	15:11:54
1	Y 371.029	1040161.6	1040161.6	97.755 %	15:11:54
1	Ag 328.068†	126606.2	124554.0	[500] µg/L	15:11:54
1	As 188.979†	1397.2	1430.3	[500] µg/L	15:12:14
1	B 249.677†	33216.3	30351.9	[500] µg/L	15:11:54
1	Ba 233.527†	113577.9	114991.4	[500] µg/L	15:11:54
1	Be 313.107†	1647596.1	1666534.1	[500] µg/L	15:11:54
1	Cd 226.502†	72100.2	73004.6	[500] µg/L	15:11:54
1	Co 228.616†	36584.4	37159.9	[500] µg/L	15:11:54
1	Cr 267.716†	58901.1	59371.5	[500] µg/L	15:11:54
1	Cu 324.752†	119610.4	118139.2	[500] µg/L	15:11:54
1	Mn 257.610†	371672.1	375591.5	[500] µg/L	15:11:54
1	Mo 202.031†	15467.6	15672.8	[500] µg/L	15:12:14
1	Ni 231.604†	39521.0	40034.3	[500] µg/L	15:11:54
1	P 214.914†	10340.4	10449.3	[2500] µg/L	15:12:14
1	Pb 220.353†	8226.2	8219.8	[500] µg/L	15:12:14
1	S 181.975 Axial†	1292.3	1218.9	[1000] µg/L	15:12:14
1	Sb 206.836†	3846.6	3810.9	[500] µg/L	15:12:14
1	Se 196.026†	1241.8	1241.9	[500] µg/L	15:12:14
1	SiO2†	50998.0	49806.7	[5347.5] µg/L	15:11:54
1	Si 251.611†	153709.5	154454.4	[2500] µg/L	15:11:54
1	Sn 189.927†	7149.3	7230.6	[500] µg/L	15:12:14
1	Ti 334.940†	494470.5	499032.8	[500] µg/L	15:11:54
1	Tl 190.801†	3575.0	3731.4	[500] µg/L	15:12:14
1	U 409.014†	7148.3	7510.8	[500] µg/L	15:11:54
1	V 292.402†	92825.6	93538.5	[500] µg/L	15:11:54
1	Zn 213.857†	80524.0	80886.6	[500] µg/L	15:11:54
2	Sc RADIAL	152865.2	152865.2	103 %	15:11:45
2	Al 396.153Radial†	24989.3	24229.1	[5000] µg/L	15:11:45
2	Ca 317.933Radial†	86974.4	83411.5	[5000] µg/L	15:11:45
2	K 766.490 Radial†	13984.7	12211.3	[5000] µg/L	15:11:45
2	Mg 279.077 IEC†	12966.9	12370.9	[5000] µg/L	15:11:45
2	Sr 421.552†	222524.3	215416.0	[500] µg/L	15:11:43
2	Sc 361.383	1734190.5	1734190.5	98.810 %	15:12:17
2	Y 371.029	1038691.4	1038691.4	97.617 %	15:12:17
2	Ag 328.068†	126509.4	124586.0	[500] µg/L	15:12:17
2	As 188.979†	1391.7	1426.2	[500] µg/L	15:12:37
2	B 249.677†	33048.7	30216.4	[500] µg/L	15:12:17
2	Ba 233.527†	113148.6	114673.5	[500] µg/L	15:12:17
2	Be 313.107†	1642503.0	1663071.1	[500] µg/L	15:12:17
2	Cd 226.502†	71973.8	72950.7	[500] µg/L	15:12:17
2	Co 228.616†	36618.8	37232.2	[500] µg/L	15:12:17
2	Cr 267.716†	58524.7	59051.0	[500] µg/L	15:12:17
2	Cu 324.752†	119301.7	117949.6	[500] µg/L	15:12:17
2	Mn 257.610†	370432.5	374718.5	[500] µg/L	15:12:17
2	Mo 202.031†	15519.2	15740.9	[500] µg/L	15:12:37
2	Ni 231.604†	39230.4	39780.8	[500] µg/L	15:12:17
2	P 214.914†	10372.7	10492.7	[2500] µg/L	15:12:37
2	Pb 220.353†	8220.3	8222.3	[500] µg/L	15:12:37
2	S 181.975 Axial†	1292.2	1220.1	[1000] µg/L	15:12:37
2	Sb 206.836†	3819.7	3787.6	[500] µg/L	15:12:37
2	Se 196.026†	1255.4	1257.0	[500] µg/L	15:12:37
2	SiO2†	51109.7	49972.2	[5347.5] µg/L	15:12:17

2	Si 251.611†	153212.5	154109.2	[2500]	µg/L	15:12:17
2	Sn 189.927†	7129.5	7217.9	[500]	µg/L	15:12:37
2	Ti 334.940†	493094.1	498147.4	[500]	µg/L	15:12:17
2	Tl 190.801†	3556.4	3716.3	[500]	µg/L	15:12:37
2	U 409.014†	6944.1	7311.5	[500]	µg/L	15:12:17
2	V 292.402†	92554.7	93359.6	[500]	µg/L	15:12:17
2	Zn 213.857†	80255.8	80697.8	[500]	µg/L	15:12:17
3	Sc RADIAL	149863.4	149863.4	101	%	15:11:49
3	Al 396.153Radial†	24669.1	24397.3	[5000]	µg/L	15:11:49
3	Ca 317.933Radial†	85030.9	83179.1	[5000]	µg/L	15:11:49
3	K 766.490 Radial†	13600.3	12103.0	[5000]	µg/L	15:11:49
3	Mg 279.077 IEC†	12711.9	12370.7	[5000]	µg/L	15:11:49
3	Sr 421.552†	221546.3	218761.8	[500]	µg/L	15:11:47
3	Sc 361.383	1723472.7	1723472.7	98.199	%	15:12:40
3	Y 371.029	1032864.9	1032864.9	97.070	%	15:12:40
3	Ag 328.068†	125972.8	124835.8	[500]	µg/L	15:12:40
3	As 188.979†	1399.9	1443.2	[500]	µg/L	15:13:00
3	B 249.677†	33059.7	30435.6	[500]	µg/L	15:12:40
3	Ba 233.527†	112125.9	114344.2	[500]	µg/L	15:12:40
3	Be 313.107†	1630400.6	1661084.1	[500]	µg/L	15:12:40
3	Cd 226.502†	71306.5	72724.1	[500]	µg/L	15:12:40
3	Co 228.616†	36272.9	37110.5	[500]	µg/L	15:12:40
3	Cr 267.716†	58285.2	59175.5	[500]	µg/L	15:12:40
3	Cu 324.752†	118561.9	117947.1	[500]	µg/L	15:12:40
3	Mn 257.610†	367562.2	374126.9	[500]	µg/L	15:12:40
3	Mo 202.031†	15553.6	15873.5	[500]	µg/L	15:13:00
3	Ni 231.604†	38922.1	39713.7	[500]	µg/L	15:12:40
3	P 214.914†	10377.3	10562.6	[2500]	µg/L	15:13:00
3	Pb 220.353†	8241.3	8295.5	[500]	µg/L	15:13:00
3	S 181.975 Axial†	1295.0	1231.1	[1000]	µg/L	15:13:00
3	Sb 206.836†	3839.0	3831.3	[500]	µg/L	15:13:00
3	Se 196.026†	1246.3	1255.5	[500]	µg/L	15:13:00
3	SiO2†	50697.4	49873.9	[5347.5]	µg/L	15:12:40
3	Si 251.611†	152190.0	154032.2	[2500]	µg/L	15:12:40
3	Sn 189.927†	7135.8	7269.2	[500]	µg/L	15:13:00
3	Ti 334.940†	489890.4	497988.3	[500]	µg/L	15:12:40
3	Tl 190.801†	3591.9	3774.8	[500]	µg/L	15:13:00
3	U 409.014†	7340.9	7759.3	[500]	µg/L	15:12:40
3	V 292.402†	91865.1	93239.8	[500]	µg/L	15:12:40
3	Zn 213.857†	79572.2	80506.8	[500]	µg/L	15:12:40

## Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1731204.9	6753.87	0.39%	98.640	%
Sc RADIAL	152172.7	2052.66	1.35%	103	%
Y 371.029	1037239.3	3858.99	0.37%	97.481	%
Ag 328.068†	124658.6	154.27	0.12%	[500]	µg/L
Al 396.153Radial†	24073.9	422.90	1.76%	[5000]	µg/L
As 188.979†	1433.2	8.90	0.62%	[500]	µg/L
B 249.677†	30334.6	110.59	0.36%	[500]	µg/L
Ba 233.527†	114669.7	323.62	0.28%	[500]	µg/L
Be 313.107†	1663563.1	2758.14	0.17%	[500]	µg/L
Ca 317.933Radial†	82574.3	1254.28	1.52%	[5000]	µg/L
Cd 226.502†	72893.1	148.83	0.20%	[500]	µg/L
Co 228.616†	37167.5	61.23	0.16%	[500]	µg/L
Cr 267.716†	59199.3	161.54	0.27%	[500]	µg/L
Cu 324.752†	118012.0	110.23	0.09%	[500]	µg/L
K 766.490 Radial†	12049.3	194.52	1.61%	[5000]	µg/L
Mg 279.077 IEC†	12296.8	128.17	1.04%	[5000]	µg/L
Mn 257.610†	374812.3	736.78	0.20%	[500]	µg/L
Mo 202.031†	15762.4	102.07	0.65%	[500]	µg/L
Ni 231.604†	39842.9	169.11	0.42%	[500]	µg/L
P 214.914†	10501.5	57.19	0.54%	[2500]	µg/L
Pb 220.353†	8245.9	42.98	0.52%	[500]	µg/L
S 181.975 Axial†	1223.3	6.71	0.55%	[1000]	µg/L
Sb 206.836†	3809.9	21.86	0.57%	[500]	µg/L
Se 196.026†	1251.5	8.34	0.67%	[500]	µg/L
SiO2†	49884.3	83.19	0.17%	[5347.5]	µg/L
Si 251.611†	154198.6	224.84	0.15%	[2500]	µg/L

Sn 189.927†	7239.2	26.70	0.37%	[500] µg/L
Sr 421.552†	212660.0	7851.46	3.69%	[500] µg/L
Ti 334.940†	498389.5	562.78	0.11%	[500] µg/L
Tl 190.801†	3740.9	30.37	0.81%	[500] µg/L
U 409.014†	7527.2	224.34	2.98%	[500] µg/L
V 292.402†	93379.3	150.30	0.16%	[500] µg/L
Zn 213.857†	80697.1	189.88	0.24%	[500] µg/L

Sequence No.: 4

Sample ID: SCAL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/30/2010 15:13:09

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	151479.9	151479.9	102 %		15:13:40
1	Al 396.153Radial†	50248.0	49100.2	[10000] µg/L		15:13:40
1	Ca 317.933Radial†	172576.6	167720.3	[10000] µg/L		15:13:40
1	Fe 238.204 Radial†	152851.3	149027.6	[10000] µg/L		15:13:40
1	K 766.490 Radial†	26338.9	24391.4	[10000] µg/L		15:13:40
1	Mg 279.077 IEC†	25844.4	25052.9	[10000] µg/L		15:13:40
1	Na 589.592 Radial†	68427.5	65572.1	[10000] µg/L		15:13:40
1	Sr 421.552†	443569.3	433102.8	[1000] µg/L		15:13:38
1	Sc 361.383	1755665.6	1755665.6	100.03 %		15:13:53
1	Y 371.029	1044873.8	1044873.8	98.198 %		15:13:53
1	Ag 328.068†	252438.6	248906.9	[1000] µg/L		15:13:55
1	As 188.979†	2841.7	2858.5	[1000] µg/L		15:14:15
1	B 249.677†	63707.1	60455.4	[1000] µg/L		15:13:55
1	Ba 233.527†	226640.1	226726.3	[1000] µg/L		15:13:55
1	Be 313.107†	3325212.5	3324883.9	[1000] µg/L		15:13:53
1	Cd 226.502†	143542.8	143604.7	[1000] µg/L		15:13:55
1	Co 228.616†	72617.2	72765.3	[1000] µg/L		15:13:55
1	Cr 267.716†	117324.3	117106.4	[1000] µg/L		15:13:55
1	Cu 324.752†	237494.2	234625.7	[1000] µg/L		15:13:55
1	Mn 257.610†	738395.3	737972.3	[1000] µg/L		15:13:55
1	Mo 202.031†	31197.3	31221.6	[1000] µg/L		15:14:15
1	Ni 231.604†	78391.2	78442.8	[1000] µg/L		15:13:55
1	P 214.914†	20837.0	20825.0	[5000] µg/L		15:14:15
1	Pb 220.353†	16272.4	16170.0	[1000] µg/L		15:14:15
1	S 181.975 Axial†	2513.2	2424.7	[2000] µg/L		15:14:15
1	Sb 206.836†	7651.2	7570.5	[1000] µg/L		15:14:15
1	Se 196.026†	2493.0	2478.6	[1000] µg/L		15:14:15
1	SiO2†	100259.4	98472.6	[10695] µg/L		15:13:55
1	Si 251.611†	305887.8	304836.7	[5000] µg/L		15:13:55
1	Sn 189.927†	14332.6	14330.3	[1000] µg/L		15:14:15
1	Ti 334.940†	997065.9	995846.2	[1000] µg/L		15:13:53
1	Tl 190.801†	7268.8	7383.5	[1000] µg/L		15:14:15
1	U 409.014†	15767.1	16045.6	[1000] µg/L		15:13:55
1	V 292.402†	186730.1	186357.7	[1000] µg/L		15:13:55
1	Zn 213.857†	159431.2	158853.3	[1000] µg/L		15:13:55
2	Sc RADIAL	151260.0	151260.0	102 %		15:13:44
2	Al 396.153Radial†	50210.8	49135.1	[10000] µg/L		15:13:44
2	Ca 317.933Radial†	171845.0	167250.0	[10000] µg/L		15:13:44
2	Fe 238.204 Radial†	152123.6	148533.1	[10000] µg/L		15:13:44
2	K 766.490 Radial†	26188.8	24282.1	[10000] µg/L		15:13:44
2	Mg 279.077 IEC†	25703.0	24951.3	[10000] µg/L		15:13:44
2	Na 589.592 Radial†	67914.1	65167.3	[10000] µg/L		15:13:44
2	Sr 421.552†	445909.8	436019.5	[1000] µg/L		15:13:42
2	Sc 361.383	1749606.7	1749606.7	99.688 %		15:14:18
2	Y 371.029	1042280.4	1042280.4	97.955 %		15:14:18
2	Ag 328.068†	254491.0	251839.7	[1000] µg/L		15:14:20
2	As 188.979†	2842.0	2868.6	[1000] µg/L		15:14:40
2	B 249.677†	64704.3	61676.3	[1000] µg/L		15:14:20
2	Ba 233.527†	228264.2	229140.1	[1000] µg/L		15:14:20
2	Be 313.107†	3335523.1	3346738.2	[1000] µg/L		15:14:18
2	Cd 226.502†	144794.1	145356.9	[1000] µg/L		15:14:20
2	Co 228.616†	73330.2	73732.0	[1000] µg/L		15:14:20
2	Cr 267.716†	118422.9	118614.6	[1000] µg/L		15:14:20
2	Cu 324.752†	239130.0	237088.8	[1000] µg/L		15:14:20
2	Mn 257.610†	744297.2	746448.9	[1000] µg/L		15:14:20
2	Mo 202.031†	31343.1	31475.9	[1000] µg/L		15:14:40
2	Ni 231.604†	78921.8	79246.4	[1000] µg/L		15:14:20
2	P 214.914†	20931.4	20991.9	[5000] µg/L		15:14:40
2	Pb 220.353†	16369.7	16323.9	[1000] µg/L		15:14:40

2	S 181.975 Axial†	2522.0	2442.1	[2000]	µg/L	15:14:40
2	Sb 206.836†	7703.7	7649.7	[1000]	µg/L	15:14:40
2	Se 196.026†	2507.4	2501.6	[1000]	µg/L	15:14:40
2	SiO2†	101466.2	100030.3	[10695]	µg/L	15:14:20
2	Si 251.611†	308702.3	308718.9	[5000]	µg/L	15:14:20
2	Sn 189.927†	14433.4	14481.1	[1000]	µg/L	15:14:40
2	Ti 334.940†	998815.3	1001052.9	[1000]	µg/L	15:14:18
2	Tl 190.801†	7296.7	7436.6	[1000]	µg/L	15:14:40
2	U 409.014†	15818.7	16151.9	[1000]	µg/L	15:14:20
2	V 292.402†	188107.1	188385.4	[1000]	µg/L	15:14:20
2	Zn 213.857†	161016.2	160995.1	[1000]	µg/L	15:14:20
3	Sc RADIAL	151014.0	151014.0	102	%	15:13:48
3	Al 396.153Radial†	50198.3	49202.7	[10000]	µg/L	15:13:48
3	Ca 317.933Radial†	171941.8	167618.5	[10000]	µg/L	15:13:48
3	Fe 238.204 Radial†	152128.1	148779.8	[10000]	µg/L	15:13:48
3	K 766.490 Radial†	26223.9	24358.2	[10000]	µg/L	15:13:48
3	Mg 279.077 IEC†	25716.3	25005.2	[10000]	µg/L	15:13:48
3	Na 589.592 Radial†	67843.5	65206.4	[10000]	µg/L	15:13:48
3	Sr 421.552†	446265.2	437077.4	[1000]	µg/L	15:13:46
3	Sc 361.383	1732533.9	1732533.9	98.716	%	15:14:42
3	Y 371.029	1032118.8	1032118.8	97.000	%	15:14:42
3	Ag 328.068†	255803.1	255684.5	[1000]	µg/L	15:14:45
3	As 188.979†	2815.4	2869.7	[1000]	µg/L	15:15:05
3	B 249.677†	64798.9	62411.8	[1000]	µg/L	15:14:45
3	Ba 233.527†	230158.6	233315.5	[1000]	µg/L	15:14:45
3	Be 313.107†	3286563.4	3330113.2	[1000]	µg/L	15:14:42
3	Cd 226.502†	145823.0	147830.4	[1000]	µg/L	15:14:45
3	Co 228.616†	73882.3	75016.1	[1000]	µg/L	15:14:45
3	Cr 267.716†	119164.2	120536.2	[1000]	µg/L	15:14:45
3	Cu 324.752†	240884.9	241230.3	[1000]	µg/L	15:14:45
3	Mn 257.610†	748765.6	758332.8	[1000]	µg/L	15:14:45
3	Mo 202.031†	31112.5	31552.1	[1000]	µg/L	15:15:05
3	Ni 231.604†	79518.6	80631.2	[1000]	µg/L	15:14:45
3	P 214.914†	20780.9	21046.3	[5000]	µg/L	15:15:05
3	Pb 220.353†	16271.0	16385.8	[1000]	µg/L	15:15:05
3	S 181.975 Axial†	2504.4	2449.3	[2000]	µg/L	15:15:05
3	Sb 206.836†	7642.3	7663.6	[1000]	µg/L	15:15:05
3	Se 196.026†	2492.7	2511.6	[1000]	µg/L	15:15:05
3	SiO2†	102016.4	101590.7	[10695]	µg/L	15:14:45
3	Si 251.611†	310581.1	313673.7	[5000]	µg/L	15:14:45
3	Sn 189.927†	14306.7	14495.4	[1000]	µg/L	15:15:05
3	Ti 334.940†	986990.6	998947.6	[1000]	µg/L	15:14:42
3	Tl 190.801†	7254.3	7465.7	[1000]	µg/L	15:15:05
3	U 409.014†	15880.8	16371.2	[1000]	µg/L	15:14:45
3	V 292.402†	189443.3	191598.5	[1000]	µg/L	15:14:45
3	Zn 213.857†	162084.4	163668.8	[1000]	µg/L	15:14:45

## Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1745935.4	11994.92	0.69%	99.479 %
Sc RADIAL	151251.3	233.07	0.15%	102 %
Y 371.029	1039757.6	6741.31	0.65%	97.717 %
Ag 328.068†	252143.7	3399.00	1.35%	[1000] µg/L
Al 396.153Radial†	49146.0	52.14	0.11%	[10000] µg/L
As 188.979†	2865.6	6.19	0.22%	[1000] µg/L
B 249.677†	61514.5	988.13	1.61%	[1000] µg/L
Ba 233.527†	229727.3	3333.66	1.45%	[1000] µg/L
Be 313.107†	3333911.8	11411.59	0.34%	[1000] µg/L
Ca 317.933Radial†	167529.6	247.39	0.15%	[10000] µg/L
Cd 226.502†	145597.3	2123.07	1.46%	[1000] µg/L
Co 228.616†	73837.8	1129.09	1.53%	[1000] µg/L
Cr 267.716†	118752.4	1719.04	1.45%	[1000] µg/L
Cu 324.752†	237648.3	3337.68	1.40%	[1000] µg/L
Fe 238.204 Radial†	148780.2	247.21	0.17%	[10000] µg/L
K 766.490 Radial†	24343.9	56.06	0.23%	[10000] µg/L
Mg 279.077 IEC†	25003.1	50.81	0.20%	[10000] µg/L
Mn 257.610†	747584.7	10227.64	1.37%	[1000] µg/L
Mo 202.031†	31416.5	173.06	0.55%	[1000] µg/L
Na 589.592 Radial†	65315.3	223.25	0.34%	[10000] µg/L

Ni 231.604†	79440.2	1106.98	1.39%	[1000]	µg/L
P 214.914†	20954.4	115.28	0.55%	[5000]	µg/L
Pb 220.353†	16293.2	111.12	0.68%	[1000]	µg/L
S 181.975 Axial†	2438.7	12.65	0.52%	[2000]	µg/L
Sb 206.836†	7628.0	50.21	0.66%	[1000]	µg/L
Se 196.026†	2497.3	16.89	0.68%	[1000]	µg/L
SiO2†	100031.2	1559.01	1.56%	[10695]	µg/L
Si 251.611†	309076.4	4429.34	1.43%	[5000]	µg/L
Sn 189.927†	14435.6	91.46	0.63%	[1000]	µg/L
Sr 421.552†	435399.9	2058.45	0.47%	[1000]	µg/L
Ti 334.940†	998615.5	2619.17	0.26%	[1000]	µg/L
Tl 190.801†	7428.6	41.70	0.56%	[1000]	µg/L
U 409.014†	16189.6	166.03	1.03%	[1000]	µg/L
V 292.402†	188780.5	2642.62	1.40%	[1000]	µg/L
Zn 213.857†	161172.4	2412.67	1.50%	[1000]	µg/L



Sequence No.: 5

Sample ID: S10

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 3/30/2010 15:15:12

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Analysis Time
1	Sc RADIAL	147370.9	147370.9	99.7 %		15:15:41
1	Al 396.153Radial†	240906.1	241719.3	[50000] µg/L		15:15:41
1	Ca 317.933Radial†	827273.1	829151.6	[50000] µg/L		15:15:41
1	Fe 238.204 Radial†	295786.6	296567.1	[20000] µg/L		15:15:41
1	Mg 279.077 IEC†	121547.2	121756.9	[50000] µg/L		15:15:41
1	Na 589.592 Radial†	132367.2	131572.8	[20000] µg/L		15:15:41
1	Sc 361.383	1684238.1	1684238.1	95.964 %		15:16:04
1	Y 371.029	1003912.2	1003912.2	94.349 %		15:16:04
2	Sc RADIAL	146863.2	146863.2	99.3 %		15:15:43
2	Al 396.153Radial†	241723.2	243377.1	[50000] µg/L		15:15:43
2	Ca 317.933Radial†	829762.2	834525.6	[50000] µg/L		15:15:43
2	Fe 238.204 Radial†	296606.6	298418.2	[20000] µg/L		15:15:43
2	Mg 279.077 IEC†	121675.8	122307.8	[50000] µg/L		15:15:43
2	Na 589.592 Radial†	132905.7	132573.9	[20000] µg/L		15:15:43
2	Sc 361.383	1671225.1	1671225.1	95.222 %		15:16:06
2	Y 371.029	995871.7	995871.7	93.593 %		15:16:06
3	Sc RADIAL	146034.8	146034.8	98.8 %		15:15:45
3	Al 396.153Radial†	239485.6	242492.1	[50000] µg/L		15:15:45
3	Ca 317.933Radial†	819348.2	828721.4	[50000] µg/L		15:15:45
3	Fe 238.204 Radial†	292983.7	296444.2	[20000] µg/L		15:15:45
3	Mg 279.077 IEC†	119881.9	121186.7	[50000] µg/L		15:15:45
3	Na 589.592 Radial†	131389.7	131798.1	[20000] µg/L		15:15:45
3	Sc 361.383	1683479.0	1683479.0	95.921 %		15:16:09
3	Y 371.029	1003957.3	1003957.3	94.353 %		15:16:09

## Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib. Units
Sc 361.383	1679647.4	7303.80	0.43%	95.702 %	
Sc RADIAL	146756.3	674.41	0.46%	99.3 %	
Y 371.029	1001247.1	4655.29	0.46%	94.098 %	
Al 396.153Radial†	242529.5	829.53	0.34%	[50000] µg/L	
Ca 317.933Radial†	830799.6	3234.04	0.39%	[50000] µg/L	
Fe 238.204 Radial†	297143.2	1105.88	0.37%	[20000] µg/L	
Mg 279.077 IEC†	121750.5	560.60	0.46%	[50000] µg/L	
Na 589.592 Radial†	131981.6	525.16	0.40%	[20000] µg/L	

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	251.6	0.00000	0.999990	
Al 396.153Radial	3	Lin Thru 0	0.0	4.853	0.00000	0.999997	
As 188.979	3	Lin Thru 0	0.0	2.866	0.00000	0.999999	
B 249.677	3	Lin Thru 0	0.0	61.33	0.00000	0.999983	
Ba 233.527	3	Lin Thru 0	0.0	229.7	0.00000	0.999999	
Be 313.107	3	Lin Thru 0	0.0	3332	0.00000	0.999999	
Ca 317.933Radial	3	Lin Thru 0	0.0	16.62	0.00000	0.999999	
Cd 226.502	3	Lin Thru 0	0.0	145.6	0.00000	0.999999	
Co 228.616	3	Lin Thru 0	0.0	73.95	0.00000	0.999995	
Cr 267.716	3	Lin Thru 0	0.0	118.7	0.00000	0.999999	
Cu 324.752	3	Lin Thru 0	0.0	237.3	0.00000	0.999996	
Fe 238.204 Radia	2	Lin Thru 0	0.0	14.86	0.00000	1.000000	
K 766.490 Radial	3	Lin Thru 0	0.0	2.430	0.00000	0.999991	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.438	0.00000	0.999986	
Mn 257.610	3	Lin Thru 0	0.0	748.2	0.00000	0.999996	
Mo 202.031	3	Lin Thru 0	0.0	31.44	0.00000	0.999999	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.586	0.00000	0.999992	

Ni 231.604	3	Lin Thru 0	0.0	79.51	0.00000	0.999997
P 214.914	3	Lin Thru 0	0.0	4.192	0.00000	0.999999
Pb 220.353	3	Lin Thru 0	0.0	16.33	0.00000	0.999988
S 181.975 Axial	3	Lin Thru 0	0.0	1.220	0.00000	0.999997
Sb 206.836	3	Lin Thru 0	0.0	7.627	0.00000	1.000000
Se 196.026	3	Lin Thru 0	0.0	2.498	0.00000	0.999999
SiO2	3	Lin Thru 0	0.0	9.347	0.00000	0.999999
Si 251.611	3	Lin Thru 0	0.0	61.78	0.00000	0.999999
Sn 189.927	3	Lin Thru 0	0.0	14.44	0.00000	0.999999
Sr 421.552	3	Lin Thru 0	0.0	433.5	0.00000	0.999953
Ti 334.940	3	Lin Thru 0	0.0	998.2	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	7.440	0.00000	0.999995
U 409.014	3	Lin Thru 0	0.0	15.97	0.00000	0.999597
V 292.402	3	Lin Thru 0	0.0	188.3	0.00000	0.999990
Zn 213.857	3	Lin Thru 0	0.0	161.2	0.00000	1.000000

Sequence No.: 6

Sample ID: ICV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 3/30/2010 15:16:17

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	149158.9	149158.9	101 %		15:16:49
1	Al 396.153Radial†	25831.6	25664.3	5263.3 µg/L	5263.3 ppb	15:16:49
1	Ca 317.933Radial†	87376.8	85900.3	5168.4 µg/L	5168.4 ppb	15:16:49
1	Fe 238.204 Radial†	77792.8	76958.9	5178.5 µg/L	5178.5 ppb	15:16:49
1	K 766.490 Radial†	7770.6	6388.5	2626.3 µg/L	2626.3 ppb	15:16:49
1	Mg 279.077 IEC†	13533.9	13244.5	5442.1 µg/L	5442.1 ppb	15:16:49
1	Na 589.592 Radial†	18509.1	17137.5	2599.9 µg/L	2599.9 ppb	15:16:49
1	Sr 421.552†	239535.7	237623.0	548.12 µg/L	548.12 ppb	15:16:47
1	Sc 361.383	1733695.8	1733695.8	98.782 %		15:17:16
1	Y 371.029	1040751.9	1040751.9	97.811 %		15:17:16
1	Ag 328.068†	68135.2	65528.4	266.96 µg/L	266.96 ppb	15:17:16
1	As 188.979†	1329.3	1363.4	483.14 µg/L	483.14 ppb	15:17:36
1	B 249.677†	34869.6	32069.3	521.06 µg/L	521.06 ppb	15:17:16
1	Ba 233.527†	117588.5	119200.9	519.45 µg/L	519.45 ppb	15:17:16
1	Be 313.107†	875829.6	887416.8	266.46 µg/L	266.46 ppb	15:17:16
1	Cd 226.502†	73213.2	74226.2	509.34 µg/L	509.34 ppb	15:17:16
1	Co 228.616†	37882.5	38522.2	521.28 µg/L	521.28 ppb	15:17:16
1	Cr 267.716†	58712.5	59258.0	499.17 µg/L	499.17 ppb	15:17:16
1	Cu 324.752†	124786.7	123536.7	522.16 µg/L	522.16 ppb	15:17:16
1	Mn 257.610†	389862.8	394495.4	527.06 µg/L	527.06 ppb	15:17:16
1	Mo 202.031†	16938.7	17182.4	547.03 µg/L	547.03 ppb	15:17:36
1	Ni 231.604†	40201.0	40774.7	512.85 µg/L	512.85 ppb	15:17:16
1	P 214.914†	10575.5	10701.0	2543.4 µg/L	2543.4 ppb	15:17:36
1	Pb 220.353†	8363.7	8369.8	514.21 µg/L	514.21 ppb	15:17:36
1	S 181.975 Axial†	3115.2	3066.0	2517.9 µg/L	2517.9 ppb	15:17:36
1	Sb 206.836†	3912.6	3882.7	511.03 µg/L	511.03 ppb	15:17:36
1	Se 196.026†	6300.9	6365.0	2550 µg/L	2550 ppb	15:17:36
1	SiO2†	99885.1	99363.8	10607 µg/L	10607 ppb	15:17:16
1	Si 251.611†	304452.4	307258.6	4962.5 µg/L	4962.5 ppb	15:17:16
1	Sn 189.927†	7790.2	7888.8	547.86 µg/L	547.86 ppb	15:17:36
1	Ti 334.940†	499727.2	505004.7	505.26 µg/L	505.26 ppb	15:17:16
1	Tl 190.801†	3892.3	4057.4	552.96 µg/L	552.96 ppb	15:17:36
1	U 409.014†	7143.0	7514.9	502.35 µg/L	502.35 ppb	15:17:16
1	V 292.402†	96557.1	97438.1	524.43 µg/L	524.43 ppb	15:17:16
1	Zn 213.857†	83773.2	84281.8	518.68 µg/L	518.68 ppb	15:17:16
2	Sc RADIAL	150464.5	150464.5	102 %		15:16:53
2	Al 396.153Radial†	26338.4	25940.0	5320.0 µg/L	5320.0 ppb	15:16:53
2	Ca 317.933Radial†	88167.1	85925.3	5169.9 µg/L	5169.9 ppb	15:16:53
2	Fe 238.204 Radial†	78818.8	77298.0	5201.3 µg/L	5201.3 ppb	15:16:53
2	K 766.490 Radial†	7643.7	6197.1	2547.5 µg/L	2547.5 ppb	15:16:53
2	Mg 279.077 IEC†	13736.8	13327.5	5476.1 µg/L	5476.1 ppb	15:16:53
2	Na 589.592 Radial†	18678.7	17145.0	2601.2 µg/L	2601.2 ppb	15:16:53
2	Sr 421.552†	239844.1	235866.0	544.07 µg/L	544.07 ppb	15:16:51
2	Sc 361.383	1726627.6	1726627.6	98.379 %		15:17:39
2	Y 371.029	1036918.0	1036918.0	97.451 %		15:17:39
2	Ag 328.068†	67812.3	65482.6	266.77 µg/L	266.77 ppb	15:17:39
2	As 188.979†	1343.8	1383.7	490.23 µg/L	490.23 ppb	15:17:59
2	B 249.677†	34859.4	32203.4	523.24 µg/L	523.24 ppb	15:17:39
2	Ba 233.527†	117491.5	119589.6	521.15 µg/L	521.15 ppb	15:17:39
2	Be 313.107†	873409.7	888586.5	266.81 µg/L	266.81 ppb	15:17:39
2	Cd 226.502†	73073.6	74387.6	510.44 µg/L	510.44 ppb	15:17:39
2	Co 228.616†	37714.1	38508.0	521.09 µg/L	521.09 ppb	15:17:39
2	Cr 267.716†	58529.2	59315.0	499.66 µg/L	499.66 ppb	15:17:39
2	Cu 324.752†	124562.2	123825.7	523.38 µg/L	523.38 ppb	15:17:39
2	Mn 257.610†	389247.0	395485.0	528.38 µg/L	528.38 ppb	15:17:39
2	Mo 202.031†	16924.2	17237.8	548.80 µg/L	548.80 ppb	15:17:59
2	Ni 231.604†	40215.9	40956.5	515.14 µg/L	515.14 ppb	15:17:39
2	P 214.914†	10595.6	10765.2	2558.7 µg/L	2558.7 ppb	15:17:59
2	Pb 220.353†	8379.7	8420.8	517.34 µg/L	517.34 ppb	15:17:59

2	S 181.975 Axial†	3127.7	3091.5	2538.8 µg/L	2538.8 ppb	15:17:59
2	Sb 206.836†	3893.4	3879.5	510.62 µg/L	510.62 ppb	15:17:59
2	Se 196.026†	6305.0	6395.3	2560 µg/L	2560 ppb	15:17:59
2	SiO2†	99950.6	99844.4	10658 µg/L	10658 ppb	15:17:39
2	Si 251.611†	303842.4	307900.2	4972.8 µg/L	4972.8 ppb	15:17:39
2	Sn 189.927†	7799.1	7930.2	550.73 µg/L	550.73 ppb	15:17:59
2	Ti 334.940†	499097.0	506435.1	506.70 µg/L	506.70 ppb	15:17:39
2	Tl 190.801†	3884.6	4065.7	554.09 µg/L	554.09 ppb	15:17:59
2	U 409.014†	7044.9	7444.7	497.98 µg/L	497.98 ppb	15:17:39
2	V 292.402†	96220.1	97495.7	524.75 µg/L	524.75 ppb	15:17:39
2	Zn 213.857†	83633.8	84487.3	519.94 µg/L	519.94 ppb	15:17:39
3	Sc RADIAL	148694.2	148694.2	101 %		15:16:57
3	Al 396.153Radial†	25757.3	25670.4	5264.3 µg/L	5264.3 ppb	15:16:57
3	Ca 317.933Radial†	86641.6	85440.0	5140.7 µg/L	5140.7 ppb	15:16:57
3	Fe 238.204 Radial†	77077.3	76488.6	5146.8 µg/L	5146.8 ppb	15:16:57
3	K 766.490 Radial†	7760.1	6402.2	2631.9 µg/L	2631.9 ppb	15:16:57
3	Mg 279.077 IEC†	13465.4	13218.4	5431.5 µg/L	5431.5 ppb	15:16:57
3	Na 589.592 Radial†	18458.7	17144.8	2601.0 µg/L	2601.0 ppb	15:16:57
3	Sr 421.552†	238015.5	236853.6	546.35 µg/L	546.35 ppb	15:16:55
3	Sc 361.383	1717483.0	1717483.0	97.858 %		15:18:02
3	Y 371.029	1031891.3	1031891.3	96.978 %		15:18:02
3	Ag 328.068†	67510.7	65541.4	267.02 µg/L	267.02 ppb	15:18:02
3	As 188.979†	1346.0	1393.2	493.54 µg/L	493.54 ppb	15:18:22
3	B 249.677†	34582.2	32108.8	521.70 µg/L	521.70 ppb	15:18:02
3	Ba 233.527†	116478.8	119190.5	519.41 µg/L	519.41 ppb	15:18:02
3	Be 313.107†	866925.4	886687.4	266.25 µg/L	266.25 ppb	15:18:02
3	Cd 226.502†	72305.6	73998.3	507.78 µg/L	507.78 ppb	15:18:02
3	Co 228.616†	37543.9	38538.1	521.50 µg/L	521.50 ppb	15:18:02
3	Cr 267.716†	58047.4	59139.5	498.16 µg/L	498.16 ppb	15:18:02
3	Cu 324.752†	123812.4	123733.6	522.99 µg/L	522.99 ppb	15:18:02
3	Mn 257.610†	386013.5	394287.5	526.78 µg/L	526.78 ppb	15:18:02
3	Mo 202.031†	16915.6	17320.6	551.43 µg/L	551.43 ppb	15:18:22
3	Ni 231.604†	40039.0	40993.3	515.60 µg/L	515.60 ppb	15:18:02
3	P 214.914†	10618.3	10845.7	2578.0 µg/L	2578.0 ppb	15:18:22
3	Pb 220.353†	8376.9	8463.3	519.94 µg/L	519.94 ppb	15:18:22
3	S 181.975 Axial†	3127.7	3108.5	2552.8 µg/L	2552.8 ppb	15:18:22
3	Sb 206.836†	3899.6	3906.9	514.27 µg/L	514.27 ppb	15:18:22
3	Se 196.026†	6296.1	6420.3	2570 µg/L	2570 ppb	15:18:22
3	SiO2†	99144.2	99561.3	10628 µg/L	10628 ppb	15:18:02
3	Si 251.611†	301303.2	306949.8	4957.4 µg/L	4957.4 ppb	15:18:02
3	Sn 189.927†	7767.3	7939.9	551.39 µg/L	551.39 ppb	15:18:22
3	Ti 334.940†	494745.0	504689.0	504.94 µg/L	504.94 ppb	15:18:02
3	Tl 190.801†	3887.5	4089.7	557.29 µg/L	557.29 ppb	15:18:22
3	U 409.014†	7321.2	7765.3	517.97 µg/L	517.97 ppb	15:18:02
3	V 292.402†	95435.5	97214.7	523.30 µg/L	523.30 ppb	15:18:02
3	Zn 213.857†	82911.3	84201.6	518.17 µg/L	518.17 ppb	15:18:02

## Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1725935.5	98.340 %	0.4631			0.47%
Sc RADIAL	149439.2	101 %	0.6			0.61%
Y 371.029	1036520.4	97.413 %	0.4176			0.43%
Ag 328.068†	65517.5	266.92 µg/L	0.126	266.92 ppb	0.126	0.05%
QC value within limits for Ag 328.068 Recovery = 106.77%						
Al 396.153Radial†	25758.3	5282.6 µg/L	32.46	5282.6 ppb	32.46	0.61%
QC value within limits for Al 396.153Radial Recovery = 105.65%						
As 188.979†	1380.1	488.97 µg/L	5.311	488.97 ppb	5.311	1.09%
QC value within limits for As 188.979 Recovery = 97.79%						
B 249.677†	32127.2	522.00 µg/L	1.124	522.00 ppb	1.124	0.22%
QC value within limits for B 249.677 Recovery = 104.40%						
Ba 233.527†	119327.0	520.00 µg/L	0.990	520.00 ppb	0.990	0.19%
QC value within limits for Ba 233.527 Recovery = 104.00%						
Be 313.107†	887563.5	266.51 µg/L	0.285	266.51 ppb	0.285	0.11%
QC value within limits for Be 313.107 Recovery = 106.60%						
Ca 317.933Radial†	85755.2	5159.7 µg/L	16.44	5159.7 ppb	16.44	0.32%
QC value within limits for Ca 317.933Radial Recovery = 103.19%						
Cd 226.502†	74204.1	509.18 µg/L	1.340	509.18 ppb	1.340	0.26%
QC value within limits for Cd 226.502 Recovery = 101.84%						
Co 228.616†	38522.7	521.29 µg/L	0.204	521.29 ppb	0.204	0.04%

QC value within limits for Co 228.616 Recovery = 104.26%							
Cr 267.716†	59237.5	499.00 µg/L	0.764	499.00 ppb	0.764	0.15%	
QC value within limits for Cr 267.716 Recovery = 99.80%							
Cu 324.752†	123698.7	522.84 µg/L	0.623	522.84 ppb	0.623	0.12%	
QC value within limits for Cu 324.752 Recovery = 104.57%							
Fe 238.204 Radial†	76915.2	5175.5 µg/L	27.35	5175.5 ppb	27.35	0.53%	
QC value within limits for Fe 238.204 Radial Recovery = 103.51%							
K 766.490 Radial†	6329.3	2601.9 µg/L	47.21	2601.9 ppb	47.21	1.81%	
QC value within limits for K 766.490 Radial Recovery = 104.08%							
Mg 279.077 IEC†	13263.4	5449.9 µg/L	23.33	5449.9 ppb	23.33	0.43%	
QC value within limits for Mg 279.077 IEC Recovery = 109.00%							
Mn 257.610†	394756.0	527.41 µg/L	0.854	527.41 ppb	0.854	0.16%	
QC value within limits for Mn 257.610 Recovery = 105.48%							
Mo 202.031†	17246.9	549.09 µg/L	2.212	549.09 ppb	2.212	0.40%	
QC value within limits for Mo 202.031 Recovery = 109.82%							
Na 589.592 Radial†	17142.4	2600.7 µg/L	0.67	2600.7 ppb	0.67	0.03%	
QC value within limits for Na 589.592 Radial Recovery = 104.03%							
Ni 231.604†	40908.1	514.53 µg/L	1.472	514.53 ppb	1.472	0.29%	
QC value within limits for Ni 231.604 Recovery = 102.91%							
P 214.914†	10770.6	2560.0 µg/L	17.30	2560.0 ppb	17.30	0.68%	
QC value within limits for P 214.914 Recovery = 102.40%							
Pb 220.353†	8418.0	517.16 µg/L	2.867	517.16 ppb	2.867	0.55%	
QC value within limits for Pb 220.353 Recovery = 103.43%							
S 181.975 Axial†	3088.6	2536.5 µg/L	17.56	2536.5 ppb	17.56	0.69%	
QC value within limits for S 181.975 Axial Recovery = 101.46%							
Sb 206.836†	3889.7	511.97 µg/L	2.001	511.97 ppb	2.001	0.39%	
QC value within limits for Sb 206.836 Recovery = 102.39%							
Se 196.026†	6393.5	2560 µg/L	11.1	2560 ppb	11.1	0.43%	
QC value within limits for Se 196.026 Recovery = 102.46%							
SiO2†	99589.8	10631 µg/L	25.8	10631 ppb	25.8	0.24%	
QC value within limits for SiO2 Recovery = 99.40%							
Si 251.611†	307369.5	4964.2 µg/L	7.86	4964.2 ppb	7.86	0.16%	
QC value within limits for Si 251.611 Recovery = 99.28%							
Sn 189.927†	7919.6	549.99 µg/L	1.879	549.99 ppb	1.879	0.34%	
QC value within limits for Sn 189.927 Recovery = 110.00%							
Sr 421.552†	236780.8	546.18 µg/L	2.032	546.18 ppb	2.032	0.37%	
QC value within limits for Sr 421.552 Recovery = 109.24%							
Ti 334.940†	505376.2	505.63 µg/L	0.934	505.63 ppb	0.934	0.18%	
QC value within limits for Ti 334.940 Recovery = 101.13%							
Tl 190.801†	4070.9	554.78 µg/L	2.246	554.78 ppb	2.246	0.40%	
QC value greater than the upper limit for Tl 190.801 Recovery = 110.96%							
U 409.014†	7575.0	506.10 µg/L	10.510	506.10 ppb	10.510	2.08%	
QC value within limits for U 409.014 Recovery = 101.22%							
V 292.402†	97382.8	524.16 µg/L	0.762	524.16 ppb	0.762	0.15%	
QC value within limits for V 292.402 Recovery = 104.83%							
Zn 213.857†	84323.6	518.93 µg/L	0.911	518.93 ppb	0.911	0.18%	
QC value within limits for Zn 213.857 Recovery = 103.79%							
QC Failed. Continue with analysis.							

Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 3/30/2010 15:18:31

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	153206.5	153206.5	104 %		15:19:00
1	Al 396.153Radial†	-69.1	-3.8	-0.7740 µg/L	-0.7740 ppb	15:19:20
1	Ca 317.933Radial†	556.4	-161.1	-9.6939 µg/L	-9.6939 ppb	15:19:20
1	Fe 238.204 Radial†	151.0	5.0	0.3342 µg/L	0.3342 ppb	15:19:20
1	K 766.490 Radial†	1545.6	178.5	73.465 µg/L	73.465 ppb	15:19:00
1	Mg 279.077 IEC†	183.7	8.5	3.4678 µg/L	3.4678 ppb	15:19:20
1	Na 589.592 Radial†	1438.4	181.3	27.462 µg/L	27.462 ppb	15:19:00
1	Sr 421.552†	-358.4	-124.2	-0.2864 µg/L	-0.2864 ppb	15:19:00
1	Sc 361.383	1778800.0	1778800.0	101.35 %		15:20:22
1	Y 371.029	1078865.1	1078865.1	101.39 %		15:20:22
1	Ag 328.068†	3508.3	14.4	0.0586 µg/L	0.0586 ppb	15:20:24
1	As 188.979†	-17.8	0.1	0.0419 µg/L	0.0419 ppb	15:20:44
1	B 249.677†	3246.0	-27.6	-0.4511 µg/L	-0.4511 ppb	15:20:44
1	Ba 233.527†	-161.5	2.8	0.0123 µg/L	0.0123 ppb	15:20:44
1	Be 313.107†	-690.5	104.3	0.0315 µg/L	0.0315 ppb	15:20:24
1	Cd 226.502†	-93.8	17.5	0.1201 µg/L	0.1201 ppb	15:20:44
1	Co 228.616†	-157.8	16.7	0.2258 µg/L	0.2258 ppb	15:20:44
1	Cr 267.716†	167.7	-13.1	-0.1107 µg/L	-0.1107 ppb	15:20:44
1	Cu 324.752†	2840.6	13.8	0.0589 µg/L	0.0589 ppb	15:20:24
1	Mn 257.610†	177.2	-0.8	-0.0012 µg/L	-0.0012 ppb	15:20:44
1	Mo 202.031†	-35.1	0.1	0.0047 µg/L	0.0047 ppb	15:20:44
1	Ni 231.604†	-78.0	1.0	0.0124 µg/L	0.0124 ppb	15:20:44
1	P 214.914†	12.7	7.5	1.7929 µg/L	1.7929 ppb	15:20:44
1	Pb 220.353†	60.9	-36.9	-2.2599 µg/L	-2.2599 ppb	15:20:44
1	S 181.975 Axial†	88.2	-0.7	-0.5610 µg/L	-0.5610 ppb	15:20:44
1	Sb 206.836†	85.2	6.0	0.7853 µg/L	0.7853 ppb	15:20:44
1	Se 196.026†	10.8	-2.9	-1.16 µg/L	-1.16 ppb	15:20:44
1	SiO2†	1722.8	-53.3	-5.7163 µg/L	-5.7163 ppb	15:20:44
1	Si 251.611†	826.6	-133.1	-2.1594 µg/L	-2.1594 ppb	15:20:24
1	Sn 189.927†	10.2	12.7	0.8755 µg/L	0.8755 ppb	15:20:44
1	Ti 334.940†	723.6	-171.6	-0.1727 µg/L	-0.1727 ppb	15:20:24
1	Tl 190.801†	-106.8	11.7	1.5760 µg/L	1.5760 ppb	15:20:44
1	U 409.014†	-277.6	9.9	0.6216 µg/L	0.6216 ppb	15:20:24
1	V 292.402†	320.4	6.3	0.0333 µg/L	0.0333 ppb	15:20:24
1	Zn 213.857†	499.5	-31.7	-0.1969 µg/L	-0.1969 ppb	15:20:44
2	Sc RADIAL	150721.0	150721.0	102 %		15:19:22
2	Al 396.153Radial†	-48.2	15.6	3.2216 µg/L	3.2216 ppb	15:19:42
2	Ca 317.933Radial†	575.9	-133.2	-8.0115 µg/L	-8.0115 ppb	15:19:42
2	Fe 238.204 Radial†	145.3	1.8	0.1215 µg/L	0.1215 ppb	15:19:42
2	K 766.490 Radial†	1483.0	141.7	58.321 µg/L	58.321 ppb	15:19:22
2	Mg 279.077 IEC†	163.5	-8.4	-3.4473 µg/L	-3.4473 ppb	15:19:42
2	Na 589.592 Radial†	1391.5	158.1	23.961 µg/L	23.961 ppb	15:19:22
2	Sr 421.552†	-206.6	19.0	0.0439 µg/L	0.0439 ppb	15:19:22
2	Sc 361.383	1728906.2	1728906.2	98.509 %		15:20:46
2	Y 371.029	1049241.8	1049241.8	98.609 %		15:20:46
2	Ag 328.068†	3539.7	146.2	0.5945 µg/L	0.5945 ppb	15:20:48
2	As 188.979†	-19.5	-2.1	-0.7336 µg/L	-0.7336 ppb	15:21:09
2	B 249.677†	3272.0	91.1	1.4866 µg/L	1.4866 ppb	15:21:09
2	Ba 233.527†	-163.6	-3.9	-0.0168 µg/L	-0.0168 ppb	15:21:09
2	Be 313.107†	-841.3	-68.5	-0.0184 µg/L	-0.0184 ppb	15:20:48
2	Cd 226.502†	-103.2	5.3	0.0364 µg/L	0.0364 ppb	15:21:09
2	Co 228.616†	-181.8	-12.1	-0.1642 µg/L	-0.1642 ppb	15:21:09
2	Cr 267.716†	152.0	-24.2	-0.2095 µg/L	-0.2095 ppb	15:21:09
2	Cu 324.752†	2859.0	113.3	0.4833 µg/L	0.4833 ppb	15:20:48
2	Mn 257.610†	143.9	-29.5	-0.0393 µg/L	-0.0393 ppb	15:21:09
2	Mo 202.031†	-37.4	-3.3	-0.1034 µg/L	-0.1034 ppb	15:21:09
2	Ni 231.604†	-63.8	13.1	0.1646 µg/L	0.1646 ppb	15:21:09
2	P 214.914†	23.6	18.9	4.5148 µg/L	4.5148 ppb	15:21:09
2	Pb 220.353†	114.5	19.3	1.1760 µg/L	1.1760 ppb	15:21:09

2	S 181.975 Axial†	90.2	3.8	3.1293 µg/L	3.1293 ppb	15:21:09
2	Sb 206.836†	78.1	1.2	0.1567 µg/L	0.1567 ppb	15:21:09
2	Se 196.026†	19.1	5.8	2.34 µg/L	2.34 ppb	15:21:09
2	SiO2†	1747.5	20.9	2.2278 µg/L	2.2278 ppb	15:21:09
2	Si 251.611†	794.7	-141.9	-2.2988 µg/L	-2.2988 ppb	15:20:48
2	Sn 189.927†	3.9	6.5	0.4511 µg/L	0.4511 ppb	15:21:09
2	Ti 334.940†	935.4	64.0	0.0614 µg/L	0.0614 ppb	15:20:48
2	Tl 190.801†	-90.0	25.7	3.4630 µg/L	3.4630 ppb	15:21:09
2	U 409.014†	-168.9	112.3	7.0568 µg/L	7.0568 ppb	15:20:48
2	V 292.402†	376.2	72.1	0.3855 µg/L	0.3855 ppb	15:20:48
2	Zn 213.857†	512.2	-4.7	-0.0302 µg/L	-0.0302 ppb	15:21:09
3	Sc RADIAL	152025.6	152025.6	103 %		15:19:44
3	Al 396.153Radial†	-48.0	16.2	3.3357 µg/L	3.3357 ppb	15:20:04
3	Ca 317.933Radial†	564.3	-149.3	-8.9821 µg/L	-8.9821 ppb	15:20:04
3	Fe 238.204 Radial†	130.3	-14.0	-0.9447 µg/L	-0.9447 ppb	15:20:04
3	K 766.490 Radial†	1448.5	95.7	39.384 µg/L	39.384 ppb	15:19:44
3	Mg 279.077 IEC†	171.7	-1.8	-0.7289 µg/L	-0.7289 ppb	15:20:04
3	Na 589.592 Radial†	1555.7	306.1	46.445 µg/L	46.445 ppb	15:19:44
3	Sr 421.552†	-343.8	-112.6	-0.2598 µg/L	-0.2598 ppb	15:19:44
3	Sc 361.383	1742344.9	1742344.9	99.275 %		15:21:11
3	Y 371.029	1057263.7	1057263.7	99.363 %		15:21:11
3	Ag 328.068†	3422.8	0.7	0.0063 µg/L	0.0063 ppb	15:21:13
3	As 188.979†	-7.6	10.0	3.4870 µg/L	3.4870 ppb	15:21:33
3	B 249.677†	3234.7	28.0	0.4564 µg/L	0.4564 ppb	15:21:33
3	Ba 233.527†	-159.6	1.4	0.0057 µg/L	0.0057 ppb	15:21:33
3	Be 313.107†	-681.8	98.8	0.0318 µg/L	0.0318 ppb	15:21:13
3	Cd 226.502†	-79.8	29.6	0.2034 µg/L	0.2034 ppb	15:21:33
3	Co 228.616†	-174.0	-2.8	-0.0378 µg/L	-0.0378 ppb	15:21:33
3	Cr 267.716†	147.7	-29.7	-0.2566 µg/L	-0.2566 ppb	15:21:33
3	Cu 324.752†	2965.4	198.1	0.8405 µg/L	0.8405 ppb	15:21:13
3	Mn 257.610†	154.7	-19.8	-0.0264 µg/L	-0.0264 ppb	15:21:33
3	Mo 202.031†	-28.3	6.3	0.1999 µg/L	0.1999 ppb	15:21:33
3	Ni 231.604†	-70.4	6.9	0.0872 µg/L	0.0872 ppb	15:21:33
3	P 214.914†	20.5	15.7	3.7359 µg/L	3.7359 ppb	15:21:33
3	Pb 220.353†	105.1	8.9	0.5395 µg/L	0.5395 ppb	15:21:33
3	S 181.975 Axial†	78.6	-8.5	-6.9957 µg/L	-6.9957 ppb	15:21:33
3	Sb 206.836†	83.3	5.8	0.7689 µg/L	0.7689 ppb	15:21:33
3	Se 196.026†	22.9	9.5	3.79 µg/L	3.79 ppb	15:21:33
3	SiO2†	1714.3	-26.3	-2.8302 µg/L	-2.8302 ppb	15:21:33
3	Si 251.611†	912.8	-29.2	-0.4782 µg/L	-0.4782 ppb	15:21:13
3	Sn 189.927†	4.9	7.5	0.5192 µg/L	0.5192 ppb	15:21:33
3	Ti 334.940†	727.2	-153.0	-0.1564 µg/L	-0.1564 ppb	15:21:13
3	Tl 190.801†	-113.2	3.0	0.4038 µg/L	0.4038 ppb	15:21:33
3	U 409.014†	-166.2	116.3	7.2590 µg/L	7.2590 ppb	15:21:13
3	V 292.402†	217.4	-90.9	-0.4764 µg/L	-0.4764 ppb	15:21:13
3	Zn 213.857†	498.8	-22.1	-0.1381 µg/L	-0.1381 ppb	15:21:33

## Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1750017.0	99.712 %	1.4710			1.48%
Sc RADIAL	151984.4	103 %	0.8			0.82%
Y 371.029	1061790.2	99.788 %	1.4399			1.44%
Ag 328.068†	53.8	0.2198 µg/L	0.32552	0.2198 ppb	0.32552	148.11%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	9.4	1.9278 µg/L	2.34050	1.9278 ppb	2.34050	121.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	2.7	0.9318 µg/L	2.24662	0.9318 ppb	2.24662	241.11%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	30.5	0.4973 µg/L	0.96947	0.4973 ppb	0.96947	194.95%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	0.1	0.0004 µg/L	0.01528	0.0004 ppb	0.01528	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	44.9	0.0150 µg/L	0.02892	0.0150 ppb	0.02892	193.16%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-147.9	-8.8958 µg/L	0.84451	-8.8958 ppb	0.84451	9.49%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	17.5	0.1200 µg/L	0.08355	0.1200 ppb	0.08355	69.64%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	0.6	0.0079 µg/L	0.19896	0.0079 ppb	0.19896	>999.9%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-22.4	-0.1923 µg/L	0.07446	-0.1923 ppb	0.07446	38.72%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	108.4	0.4609 µg/L	0.39130	0.4609 ppb	0.39130	84.90%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-2.4	-0.1630 µg/L	0.68528	-0.1630 ppb	0.68528	420.53%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	138.6	57.056 µg/L	17.0760	57.056 ppb	17.0760	29.93%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.6	-0.2362 µg/L	3.48380	-0.2362 ppb	3.48380	>999.9%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-16.7	-0.0223 µg/L	0.01938	-0.0223 ppb	0.01938	86.94%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	1.1	0.0337 µg/L	0.15371	0.0337 ppb	0.15371	455.98%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	215.2	32.622 µg/L	12.0980	32.622 ppb	12.0980	37.09%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	7.0	0.0880 µg/L	0.07611	0.0880 ppb	0.07611	86.44%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	14.0	3.3479 µg/L	1.40183	3.3479 ppb	1.40183	41.87%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-2.9	-0.1815 µg/L	1.82791	-0.1815 ppb	1.82791	>999.9%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-1.8	-1.4758 µg/L	5.12412	-1.4758 ppb	5.12412	347.21%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	4.3	0.5703 µg/L	0.35827	0.5703 ppb	0.35827	62.82%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	4.1	1.66 µg/L	2.544	1.66 ppb	2.544	153.28%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-19.6	-2.1063 µg/L	4.02123	-2.1063 ppb	4.02123	190.92%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	-101.4	-1.6455 µg/L	1.01329	-1.6455 ppb	1.01329	61.58%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	8.9	0.6153 µg/L	0.22794	0.6153 ppb	0.22794	37.05%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-72.6	-0.1674 µg/L	0.18347	-0.1674 ppb	0.18347	109.58%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-86.9	-0.0892 µg/L	0.13068	-0.0892 ppb	0.13068	146.45%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	13.5	1.8143 µg/L	1.54345	1.8143 ppb	1.54345	85.07%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	79.5	4.9791 µg/L	3.77508	4.9791 ppb	3.77508	75.82%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-4.2	-0.0192 µg/L	0.43332	-0.0192 ppb	0.43332	>999.9%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-19.5	-0.1217 µg/L	0.08455	-0.1217 ppb	0.08455	69.46%	
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: 3/30/2010 15:21:41  
 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	151538.9	151538.9	103 %		15:22:11
1	Al 396.153Radial†	1003.2	1041.6	214.21 µg/L	214.21 ppb	15:22:13
1	Ca 317.933Radial†	4094.6	3296.4	198.34 µg/L	198.34 ppb	15:22:13
1	Fe 238.204 Radial†	1655.5	1474.3	99.205 µg/L	99.205 ppb	15:22:13
1	K 766.490 Radial†	1863.9	505.5	207.89 µg/L	207.89 ppb	15:22:11
1	Mg 279.077 IEC†	958.9	766.6	314.63 µg/L	314.63 ppb	15:22:13
1	Na 589.592 Radial†	3105.5	1822.9	276.62 µg/L	276.62 ppb	15:22:13
1	Sr 421.552†	2223.1	2390.3	5.5126 µg/L	5.5126 ppb	15:22:13
1	Sc 361.383	1725451.3	1725451.3	98.312 %		15:22:25
1	Y 371.029	1045817.3	1045817.3	98.287 %		15:22:25
1	Ag 328.068†	4999.9	1638.6	6.6213 µg/L	6.6213 ppb	15:22:27
1	As 188.979†	69.8	88.7	31.042 µg/L	31.042 ppb	15:22:47
1	B 249.677†	6177.2	3052.9	49.758 µg/L	49.758 ppb	15:22:27
1	Ba 233.527†	1015.0	1194.5	5.2065 µg/L	5.2065 ppb	15:22:47
1	Be 313.107†	15418.6	16468.9	4.9544 µg/L	4.9544 ppb	15:22:27
1	Cd 226.502†	613.7	734.2	5.0333 µg/L	5.0333 ppb	15:22:47
1	Co 228.616†	186.0	361.7	4.8917 µg/L	4.8917 ppb	15:22:47
1	Cr 267.716†	742.4	576.6	4.8271 µg/L	4.8271 ppb	15:22:47
1	Cu 324.752†	5231.2	2532.1	10.728 µg/L	10.728 ppb	15:22:27
1	Mn 257.610†	7935.2	7895.9	10.541 µg/L	10.541 ppb	15:22:27
1	Mo 202.031†	249.7	288.8	9.1970 µg/L	9.1970 ppb	15:22:47
1	Ni 231.604†	321.7	405.1	5.0950 µg/L	5.0950 ppb	15:22:47
1	P 214.914†	631.6	637.5	151.90 µg/L	151.90 ppb	15:22:47
1	Pb 220.353†	247.1	154.4	9.4588 µg/L	9.4588 ppb	15:22:47
1	S 181.975 Axial†	205.3	121.2	99.392 µg/L	99.392 ppb	15:22:47
1	Sb 206.836†	157.6	82.2	10.863 µg/L	10.863 ppb	15:22:47
1	Se 196.026†	84.0	71.8	28.8 µg/L	28.8 ppb	15:22:47
1	SiO2†	3795.8	2107.8	225.10 µg/L	225.10 ppb	15:22:27
1	Si 251.611†	7081.1	6254.0	101.04 µg/L	101.04 ppb	15:22:27
1	Sn 189.927†	137.7	142.6	9.8879 µg/L	9.8879 ppb	15:22:47
1	Ti 334.940†	5809.9	5024.1	4.9951 µg/L	4.9951 ppb	15:22:27
1	Tl 190.801†	48.7	166.6	22.483 µg/L	22.483 ppb	15:22:47
1	U 409.014†	339.2	628.8	39.760 µg/L	39.760 ppb	15:22:27
1	V 292.402†	1353.2	1066.6	5.7900 µg/L	5.7900 ppb	15:22:27
1	Zn 213.857†	2145.8	1658.1	10.236 µg/L	10.236 ppb	15:22:47
2	Sc RADIAL	148899.4	148899.4	101 %		15:22:15
2	Al 396.153Radial†	1029.3	1084.8	223.07 µg/L	223.07 ppb	15:22:17
2	Ca 317.933Radial†	4074.2	3347.0	201.38 µg/L	201.38 ppb	15:22:17
2	Fe 238.204 Radial†	1672.9	1520.1	102.29 µg/L	102.29 ppb	15:22:17
2	K 766.490 Radial†	1737.9	412.6	169.65 µg/L	169.65 ppb	15:22:15
2	Mg 279.077 IEC†	908.9	733.6	301.09 µg/L	301.09 ppb	15:22:17
2	Na 589.592 Radial†	3196.8	1967.2	298.57 µg/L	298.57 ppb	15:22:17
2	Sr 421.552†	2249.0	2454.5	5.6605 µg/L	5.6605 ppb	15:22:17
2	Sc 361.383	1717434.8	1717434.8	97.855 %		15:22:49
2	Y 371.029	1041401.9	1041401.9	97.872 %		15:22:49
2	Ag 328.068†	4641.9	1296.6	5.2704 µg/L	5.2704 ppb	15:22:51
2	As 188.979†	74.8	94.2	32.949 µg/L	32.949 ppb	15:23:11
2	B 249.677†	6109.5	3013.0	49.107 µg/L	49.107 ppb	15:22:51
2	Ba 233.527†	1038.4	1223.3	5.3319 µg/L	5.3319 ppb	15:23:11
2	Be 313.107†	15483.7	16608.6	4.9987 µg/L	4.9987 ppb	15:22:51
2	Cd 226.502†	609.6	733.0	5.0245 µg/L	5.0245 ppb	15:23:11
2	Co 228.616†	220.5	397.7	5.3796 µg/L	5.3796 ppb	15:23:11
2	Cr 267.716†	746.1	583.9	4.8822 µg/L	4.8822 ppb	15:23:11
2	Cu 324.752†	5004.9	2325.7	9.8653 µg/L	9.8653 ppb	15:22:51
2	Mn 257.610†	7953.3	7952.0	10.617 µg/L	10.617 ppb	15:22:51
2	Mo 202.031†	280.4	321.3	10.233 µg/L	10.233 ppb	15:23:11
2	Ni 231.604†	327.6	412.6	5.1901 µg/L	5.1901 ppb	15:23:11
2	P 214.914†	627.8	636.5	151.69 µg/L	151.69 ppb	15:23:11
2	Pb 220.353†	232.0	140.1	8.5854 µg/L	8.5854 ppb	15:23:11

2	S 181.975 Axial†	215.9	132.9	109.04 µg/L	109.04 ppb	15:23:11
2	Sb 206.836†	152.4	77.7	10.282 µg/L	10.282 ppb	15:23:11
2	Se 196.026†	92.7	81.2	32.6 µg/L	32.6 ppb	15:23:11
2	SiO2†	3796.8	2126.8	227.10 µg/L	227.10 ppb	15:22:51
2	Si 251.611†	7000.4	6205.2	100.23 µg/L	100.23 ppb	15:22:51
2	Sn 189.927†	143.5	149.1	10.342 µg/L	10.342 ppb	15:23:11
2	Ti 334.940†	5589.1	4826.0	4.7945 µg/L	4.7945 ppb	15:22:51
2	Tl 190.801†	51.0	169.2	22.830 µg/L	22.830 ppb	15:23:11
2	U 409.014†	463.4	757.3	47.801 µg/L	47.801 ppb	15:22:51
2	V 292.402†	1329.4	1048.7	5.7113 µg/L	5.7113 ppb	15:22:51
2	Zn 213.857†	2132.0	1654.1	10.211 µg/L	10.211 ppb	15:23:11
3	Sc RADIAL	147081.9	147081.9	99.5 %		15:22:19
3	Al 396.153Radial†	978.9	1046.8	215.27 µg/L	215.27 ppb	15:22:21
3	Ca 317.933Radial†	4080.3	3403.1	204.76 µg/L	204.76 ppb	15:22:21
3	Fe 238.204 Radial†	1709.0	1577.0	106.12 µg/L	106.12 ppb	15:22:21
3	K 766.490 Radial†	1766.2	462.3	190.12 µg/L	190.12 ppb	15:22:19
3	Mg 279.077 IEC†	964.2	800.3	328.44 µg/L	328.44 ppb	15:22:21
3	Na 589.592 Radial†	3215.9	2025.6	307.42 µg/L	307.42 ppb	15:22:21
3	Sr 421.552†	2210.3	2443.2	5.6344 µg/L	5.6344 ppb	15:22:21
3	Sc 361.383	1716395.9	1716395.9	97.796 %		15:23:13
3	Y 371.029	1041833.4	1041833.4	97.913 %		15:23:13
3	Ag 328.068†	4888.2	1551.3	6.2744 µg/L	6.2744 ppb	15:23:15
3	As 188.979†	68.7	88.0	30.793 µg/L	30.793 ppb	15:23:35
3	B 249.677†	6241.4	3151.7	51.368 µg/L	51.368 ppb	15:23:15
3	Ba 233.527†	993.3	1177.8	5.1332 µg/L	5.1332 ppb	15:23:35
3	Be 313.107†	15462.3	16596.3	4.9945 µg/L	4.9945 ppb	15:23:15
3	Cd 226.502†	611.3	735.1	5.0386 µg/L	5.0386 ppb	15:23:35
3	Co 228.616†	213.2	390.4	5.2802 µg/L	5.2802 ppb	15:23:35
3	Cr 267.716†	767.8	606.5	5.0744 µg/L	5.0744 ppb	15:23:35
3	Cu 324.752†	5204.8	2533.2	10.739 µg/L	10.739 ppb	15:23:15
3	Mn 257.610†	7893.3	7895.6	10.540 µg/L	10.540 ppb	15:23:15
3	Mo 202.031†	255.2	295.7	9.4171 µg/L	9.4171 ppb	15:23:35
3	Ni 231.604†	332.4	417.8	5.2544 µg/L	5.2544 ppb	15:23:35
3	P 214.914†	626.6	635.7	151.47 µg/L	151.47 ppb	15:23:35
3	Pb 220.353†	252.3	161.1	9.8653 µg/L	9.8653 ppb	15:23:35
3	S 181.975 Axial†	209.7	126.7	103.93 µg/L	103.93 ppb	15:23:35
3	Sb 206.836†	150.6	75.9	10.029 µg/L	10.029 ppb	15:23:35
3	Se 196.026†	96.6	85.2	34.2 µg/L	34.2 ppb	15:23:35
3	SiO2†	3748.3	2079.7	222.08 µg/L	222.08 ppb	15:23:15
3	Si 251.611†	6933.3	6140.9	99.207 µg/L	99.207 ppb	15:23:15
3	Sn 189.927†	138.0	143.7	9.9640 µg/L	9.9640 ppb	15:23:35
3	Ti 334.940†	5690.8	4933.4	4.9007 µg/L	4.9007 ppb	15:23:15
3	Tl 190.801†	46.5	164.6	22.211 µg/L	22.211 ppb	15:23:35
3	U 409.014†	434.0	727.6	45.909 µg/L	45.909 ppb	15:23:15
3	V 292.402†	1234.9	952.9	5.1933 µg/L	5.1933 ppb	15:23:15
3	Zn 213.857†	2110.8	1633.8	10.083 µg/L	10.083 ppb	15:23:35

## Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1719760.6	97.988 %	0.2824			0.29%
Sc RADIAL	149173.4	101 %	1.5			1.50%
Y 371.029	1043017.5	98.024 %	0.2288			0.23%
Ag 328.068†	1495.5	6.0554 µg/L	0.70156	6.0554 ppb	0.70156	11.59%
QC value within limits for Ag 328.068 Recovery = 121.11%						
Al 396.153Radial†	1057.7	217.52 µg/L	4.840	217.52 ppb	4.840	2.22%
QC value within limits for Al 396.153Radial Recovery = 108.76%						
As 188.979†	90.3	31.595 µg/L	1.1796	31.595 ppb	1.1796	3.73%
QC value within limits for As 188.979 Recovery = 105.32%						
B 249.677†	3072.5	50.078 µg/L	1.1640	50.078 ppb	1.1640	2.32%
QC value within limits for B 249.677 Recovery = 100.16%						
Ba 233.527†	1198.6	5.2239 µg/L	0.10050	5.2239 ppb	0.10050	1.92%
QC value within limits for Ba 233.527 Recovery = 104.48%						
Be 313.107†	16558.0	4.9825 µg/L	0.02447	4.9825 ppb	0.02447	0.49%
QC value within limits for Be 313.107 Recovery = 99.65%						
Ca 317.933Radial†	3348.8	201.49 µg/L	3.210	201.49 ppb	3.210	1.59%
QC value within limits for Ca 317.933Radial Recovery = 100.75%						
Cd 226.502†	734.1	5.0321 µg/L	0.00712	5.0321 ppb	0.00712	0.14%
QC value within limits for Cd 226.502 Recovery = 100.64%						
Co 228.616†	383.3	5.1838 µg/L	0.25781	5.1838 ppb	0.25781	4.97%

Cr	267.716†	589.0	4.9279 µg/L	0.12984	4.9279 ppb	0.12984	2.63%
QC value within limits for Cr 267.716 Recovery = 98.56%							
Cu	324.752†	2463.6	10.444 µg/L	0.5014	10.444 ppb	0.5014	4.80%
QC value within limits for Cu 324.752 Recovery = 104.44%							
Fe	238.204 Radial†	1523.8	102.54 µg/L	3.462	102.54 ppb	3.462	3.38%
QC value within limits for Fe 238.204 Radial Recovery = 102.54%							
K	766.490 Radial†	460.2	189.22 µg/L	19.137	189.22 ppb	19.137	10.11%
QC value within limits for K 766.490 Radial Recovery = 126.15%							
Mg	279.077 IEC†	766.8	314.72 µg/L	13.677	314.72 ppb	13.677	4.35%
QC value within limits for Mg 279.077 IEC Recovery = 104.91%							
Mn	257.610†	7914.5	10.566 µg/L	0.0439	10.566 ppb	0.0439	0.42%
QC value within limits for Mn 257.610 Recovery = 105.66%							
Mo	202.031†	301.9	9.6156 µg/L	0.54552	9.6156 ppb	0.54552	5.67%
QC value within limits for Mo 202.031 Recovery = 96.16%							
Na	589.592 Radial†	1938.6	294.20 µg/L	15.859	294.20 ppb	15.859	5.39%
QC value within limits for Na 589.592 Radial Recovery = 98.07%							
Ni	231.604†	411.8	5.1799 µg/L	0.08020	5.1799 ppb	0.08020	1.55%
QC value within limits for Ni 231.604 Recovery = 103.60%							
P	214.914†	636.6	151.69 µg/L	0.216	151.69 ppb	0.216	0.14%
QC value within limits for P 214.914 Recovery = 101.13%							
Pb	220.353†	151.8	9.3032 µg/L	0.65396	9.3032 ppb	0.65396	7.03%
QC value within limits for Pb 220.353 Recovery = 93.03%							
S	181.975 Axial†	126.9	104.12 µg/L	4.828	104.12 ppb	4.828	4.64%
QC value within limits for S 181.975 Axial Recovery = 104.12%							
Sb	206.836†	78.6	10.391 µg/L	0.4280	10.391 ppb	0.4280	4.12%
QC value within limits for Sb 206.836 Recovery = 103.91%							
Se	196.026†	79.4	31.9 µg/L	2.75	31.9 ppb	2.75	8.64%
QC value within limits for Se 196.026 Recovery = 106.24%							
SiO2†		2104.8	224.76 µg/L	2.527	224.76 ppb	2.527	1.12%
QC value within limits for SiO2 Recovery = 105.52%							
Si	251.611†	6200.0	100.16 µg/L	0.919	100.16 ppb	0.919	0.92%
QC value within limits for Si 251.611 Recovery = 100.16%							
Sn	189.927†	145.1	10.065 µg/L	0.2432	10.065 ppb	0.2432	2.42%
QC value within limits for Sn 189.927 Recovery = 100.65%							
Sr	421.552†	2429.3	5.6025 µg/L	0.07899	5.6025 ppb	0.07899	1.41%
QC value within limits for Sr 421.552 Recovery = 112.05%							
Ti	334.940†	4927.8	4.8968 µg/L	0.10034	4.8968 ppb	0.10034	2.05%
QC value within limits for Ti 334.940 Recovery = 97.94%							
Tl	190.801†	166.8	22.508 µg/L	0.3103	22.508 ppb	0.3103	1.38%
QC value within limits for Tl 190.801 Recovery = 112.54%							
U	409.014†	704.5	44.490 µg/L	4.2038	44.490 ppb	4.2038	9.45%
QC value within limits for U 409.014 Recovery = 88.98%							
V	292.402†	1022.7	5.5648 µg/L	0.32420	5.5648 ppb	0.32420	5.83%
QC value within limits for V 292.402 Recovery = 111.30%							
Zn	213.857†	1648.7	10.177 µg/L	0.0818	10.177 ppb	0.0818	0.80%
QC value within limits for Zn 213.857 Recovery = 101.77%							

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: ICSA

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 103

Date Collected: 3/30/2010 15:23:44

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	135491.3	135491.3	91.7 %		15:24:17
1	Al 396.153Radial†	2286947.2	2495271.1	514200 µg/L	514200 ppb	15:24:15
1	Ca 317.933Radial†	7501113.1	8183504.6	492380 µg/L	492380 ppb	15:24:15
1	Fe 238.204 Radial†	2650457.5	2891680.9	194580 µg/L	194580 ppb	15:24:15
1	K 766.490 Radial†	1541.2	368.7	-93.473 µg/L	-93.473 ppb	15:24:17
1	Mg 279.077 IEC†	1105922.5	1206464.7	494750 µg/L	494750 ppb	15:24:15
1	Na 589.592 Radial†	1485.9	414.6	62.815 µg/L	62.815 ppb	15:24:17
1	Sr 421.552†	1315.2	1656.6	-0.0324 µg/L	-0.0324 ppb	15:24:17
1	Sc 361.383	1550377.8	1550377.8	88.337 %		15:24:30
1	Y 371.029	923448.2	923448.2	86.787 %		15:24:30
1	Ag 328.068†	5848.7	3173.8	-0.9573 µg/L	-0.9573 ppb	15:24:30
1	As 188.979†	-95.4	-90.4	12.078 µg/L	12.078 ppb	15:24:50
1	B 249.677†	3031.8	201.7	3.2757 µg/L	3.2757 ppb	15:24:30
1	Ba 233.527†	439.1	659.2	0.3855 µg/L	0.3855 ppb	15:24:50
1	Be 313.107†	-852.7	-179.7	-0.0514 µg/L	-0.0514 ppb	15:24:30
1	Cd 226.502†	2265.2	2674.3	-2.0990 µg/L	-2.0990 ppb	15:24:50
1	Co 228.616†	89.3	273.6	-6.4479 µg/L	-6.4479 ppb	15:24:50
1	Cr 267.716†	184.7	30.5	0.9733 µg/L	0.9733 ppb	15:24:50
1	Cu 324.752†	-5458.4	-8968.0	3.9288 µg/L	3.9288 ppb	15:24:30
1	Mn 257.610†	15118.7	16939.3	2.5037 µg/L	2.5037 ppb	15:24:30
1	Mo 202.031†	-527.3	-562.2	-1.1409 µg/L	-1.1409 ppb	15:24:50
1	Ni 231.604†	156.5	255.0	3.2074 µg/L	3.2074 ppb	15:24:50
1	P 214.914†	186.0	205.6	31.164 µg/L	31.164 ppb	15:24:50
1	Pb 220.353†	-313.6	-451.9	-2.0684 µg/L	-2.0684 ppb	15:24:50
1	S 181.975 Axial†	145.2	76.7	62.685 µg/L	62.685 ppb	15:24:50
1	Sb 206.836†	119.3	56.9	1.3356 µg/L	1.3356 ppb	15:24:50
1	Se 196.026†	-140.9	-173.0	-1.74 µg/L	-1.74 ppb	15:24:50
1	SiO2†	1610.5	70.0	7.9672 µg/L	7.9672 ppb	15:24:50
1	Si 251.611†	429.3	-462.7	-7.2638 µg/L	-7.2638 ppb	15:24:50
1	Sn 189.927†	24.6	30.4	2.1790 µg/L	2.1790 ppb	15:24:50
1	Ti 334.940†	20051.3	21813.1	-5.6222 µg/L	-5.6222 ppb	15:24:30
1	Tl 190.801†	-176.0	-82.2	-10.613 µg/L	-10.613 ppb	15:24:50
1	U 409.014†	-134.3	131.7	-13.380 µg/L	-13.380 ppb	15:24:30
1	V 292.402†	4112.7	4345.8	2.3469 µg/L	2.3469 ppb	15:24:50
1	Zn 213.857†	4024.9	4031.8	8.3012 µg/L	8.3012 ppb	15:24:50
2	Sc RADIAL	134398.4	134398.4	90.9 %		15:24:22
2	Al 396.153Radial†	2251126.8	2476161.2	510270 µg/L	510270 ppb	15:24:20
2	Ca 317.933Radial†	7350398.9	8084279.8	486410 µg/L	486410 ppb	15:24:20
2	Fe 238.204 Radial†	2597180.3	2856594.8	192220 µg/L	192220 ppb	15:24:20
2	K 766.490 Radial†	1495.4	332.0	-106.03 µg/L	-106.03 ppb	15:24:22
2	Mg 279.077 IEC†	1081861.3	1189810.8	487920 µg/L	487920 ppb	15:24:20
2	Na 589.592 Radial†	1353.7	282.4	42.754 µg/L	42.754 ppb	15:24:22
2	Sr 421.552†	1363.4	1721.3	0.1636 µg/L	0.1636 ppb	15:24:22
2	Sc 361.383	1529302.7	1529302.7	87.136 %		15:24:53
2	Y 371.029	911641.3	911641.3	85.677 %		15:24:53
2	Ag 328.068†	6201.8	3670.3	1.1894 µg/L	1.1894 ppb	15:24:53
2	As 188.979†	-96.9	-93.6	10.426 µg/L	10.426 ppb	15:25:13
2	B 249.677†	3140.4	373.6	6.0801 µg/L	6.0801 ppb	15:24:53
2	Ba 233.527†	440.1	667.2	0.4501 µg/L	0.4501 ppb	15:25:13
2	Be 313.107†	-1112.6	-491.3	-0.1442 µg/L	-0.1442 ppb	15:24:53
2	Cd 226.502†	2279.3	2725.8	-1.4965 µg/L	-1.4965 ppb	15:25:13
2	Co 228.616†	67.3	249.7	-6.6477 µg/L	-6.6477 ppb	15:25:13
2	Cr 267.716†	204.6	56.2	1.1890 µg/L	1.1890 ppb	15:25:13
2	Cu 324.752†	-5392.7	-8977.8	3.3610 µg/L	3.3610 ppb	15:24:53
2	Mn 257.610†	15342.3	17431.7	3.4390 µg/L	3.4390 ppb	15:24:53
2	Mo 202.031†	-551.7	-598.4	-2.5108 µg/L	-2.5108 ppb	15:25:13
2	Ni 231.604†	154.5	255.2	3.2101 µg/L	3.2101 ppb	15:25:13
2	P 214.914†	160.5	179.1	25.620 µg/L	25.620 ppb	15:25:13
2	Pb 220.353†	-375.1	-527.4	-6.8630 µg/L	-6.8630 ppb	15:25:13

2	S 181.975 Axial†	153.7	88.7	72.553 µg/L	72.553 ppb	15:25:13
2	Sb 206.836†	118.2	57.5	1.4515 µg/L	1.4515 ppb	15:25:13
2	Se 196.026†	-176.7	-216.4	-19.9 µg/L	-19.9 ppb	15:25:13
2	SiO2†	1570.0	48.6	5.6934 µg/L	5.6934 ppb	15:25:13
2	Si 251.611†	436.0	-448.3	-7.0262 µg/L	-7.0262 ppb	15:25:13
2	Sn 189.927†	42.7	51.6	3.6464 µg/L	3.6464 ppb	15:25:13
2	Ti 334.940†	20530.0	22675.4	-4.3587 µg/L	-4.3587 ppb	15:24:53
2	Tl 190.801†	-173.6	-82.2	-10.599 µg/L	-10.599 ppb	15:25:13
2	U 409.014†	-99.0	170.2	-10.670 µg/L	-10.670 ppb	15:24:53
2	V 292.402†	4093.4	4387.9	2.8090 µg/L	2.8090 ppb	15:25:13
2	Zn 213.857†	4029.0	4099.2	8.9615 µg/L	8.9615 ppb	15:25:13
3	Sc RADIAL	135723.7	135723.7	91.8 %		15:24:26
3	Al 396.153Radial†	2273186.3	2476011.1	510240 µg/L	510240 ppb	15:24:24
3	Ca 317.933Radial†	7430044.5	8092086.0	486880 µg/L	486880 ppb	15:24:24
3	Fe 238.204 Radial†	2629467.1	2863867.6	192710 µg/L	192710 ppb	15:24:24
3	K 766.490 Radial†	1436.9	252.3	-139.06 µg/L	-139.06 ppb	15:24:26
3	Mg 279.077 IEC†	1095585.1	1193139.5	489280 µg/L	489280 ppb	15:24:24
3	Na 589.592 Radial†	1426.6	347.2	52.627 µg/L	52.627 ppb	15:24:26
3	Sr 421.552†	1369.3	1713.1	0.1409 µg/L	0.1409 ppb	15:24:26
3	Sc 361.383	1526692.0	1526692.0	86.987 %		15:25:16
3	Y 371.029	910201.6	910201.6	85.542 %		15:25:16
3	Ag 328.068†	6006.6	3458.1	0.3388 µg/L	0.3388 ppb	15:25:16
3	As 188.979†	-97.6	-94.5	10.205 µg/L	10.205 ppb	15:25:36
3	B 249.677†	3058.7	285.9	4.6488 µg/L	4.6488 ppb	15:25:16
3	Ba 233.527†	404.6	627.3	0.2707 µg/L	0.2707 ppb	15:25:36
3	Be 313.107†	-1039.4	-409.4	-0.1186 µg/L	-0.1186 ppb	15:25:16
3	Cd 226.502†	2276.1	2726.6	-1.5425 µg/L	-1.5425 ppb	15:25:36
3	Co 228.616†	93.3	279.7	-6.2669 µg/L	-6.2669 ppb	15:25:36
3	Cr 267.716†	191.5	41.6	1.0636 µg/L	1.0636 ppb	15:25:36
3	Cu 324.752†	-5604.7	-9232.1	2.4007 µg/L	2.4007 ppb	15:25:16
3	Mn 257.610†	15289.1	17400.7	3.3421 µg/L	3.3421 ppb	15:25:16
3	Mo 202.031†	-523.8	-567.4	-1.4815 µg/L	-1.4815 ppb	15:25:36
3	Ni 231.604†	202.7	310.9	3.9104 µg/L	3.9104 ppb	15:25:36
3	P 214.914†	185.5	208.2	32.197 µg/L	32.197 ppb	15:25:36
3	Pb 220.353†	-350.8	-500.2	-5.2143 µg/L	-5.2143 ppb	15:25:36
3	S 181.975 Axial†	149.8	84.5	69.091 µg/L	69.091 ppb	15:25:36
3	Sb 206.836†	125.1	65.7	2.5329 µg/L	2.5329 ppb	15:25:36
3	Se 196.026†	-153.6	-190.1	-9.22 µg/L	-9.22 ppb	15:25:36
3	SiO2†	1630.8	121.7	13.502 µg/L	13.502 ppb	15:25:36
3	Si 251.611†	470.7	-407.5	-6.3676 µg/L	-6.3676 ppb	15:25:36
3	Sn 189.927†	20.5	26.1	1.8853 µg/L	1.8853 ppb	15:25:36
3	Ti 334.940†	20741.8	22959.1	-4.1747 µg/L	-4.1747 ppb	15:25:16
3	Tl 190.801†	-132.1	-34.8	-4.2279 µg/L	-4.2279 ppb	15:25:36
3	U 409.014†	-51.7	224.3	-7.3537 µg/L	-7.3537 ppb	15:25:16
3	V 292.402†	4139.6	4449.0	3.0936 µg/L	3.0936 ppb	15:25:36
3	Zn 213.857†	4013.6	4089.5	8.8407 µg/L	8.8407 ppb	15:25:36

## Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1535457.5	87.487 %	0.7400			0.85%
Sc RADIAL	135204.5	91.5 %	0.48			0.52%
Y 371.029	915097.0	86.002 %	0.6831			0.79%
Ag 328.068†	3434.1	0.1903 µg/L	1.08102	0.1903 ppb	1.08102	567.98%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	2482481.1	511570 µg/L	2282.6	511570 ppb	2282.6	0.45%
QC value within limits for Al 396.153Radial Recovery = 102.31%						
As 188.979†	-92.8	10.903 µg/L	1.0235	10.903 ppb	1.0235	9.39%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	287.1	4.6682 µg/L	1.40228	4.6682 ppb	1.40228	30.04%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	651.2	0.3687 µg/L	0.09087	0.3687 ppb	0.09087	24.65%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-360.1	-0.1047 µg/L	0.04792	-0.1047 ppb	0.04792	45.74%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	8119956.8	488560 µg/L	3319.6	488560 ppb	3319.6	0.68%
QC value within limits for Ca 317.933Radial Recovery = 97.71%						
Cd 226.502†	2708.9	-1.7127 µg/L	0.33534	-1.7127 ppb	0.33534	19.58%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	267.6	-6.4542 µg/L	0.19046	-6.4542 ppb	0.19046	2.95%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	42.8	1.0753 µg/L	0.10833	1.0753 ppb	0.10833	10.07%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-9059.3	3.2302 µg/L	0.77242	3.2302 ppb	0.77242	23.91%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	2870714.4	193170 µg/L	1246.1	193170 ppb	1246.1	0.65%	
QC value within limits for Fe 238.204 Radial Recovery = 96.58%							
K 766.490 Radial†	317.7	-112.85 µg/L	23.545	-112.85 ppb	23.545	20.86%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	1196471.7	490650 µg/L	3614.1	490650 ppb	3614.1	0.74%	
QC value within limits for Mg 279.077 IEC Recovery = 98.13%							
Mn 257.610†	17257.2	3.0950 µg/L	0.51432	3.0950 ppb	0.51432	16.62%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-576.0	-1.7111 µg/L	0.71323	-1.7111 ppb	0.71323	41.68%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	348.0	52.732 µg/L	10.0310	52.732 ppb	10.0310	19.02%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	273.7	3.4426 µg/L	0.40513	3.4426 ppb	0.40513	11.77%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	197.6	29.660 µg/L	3.5371	29.660 ppb	3.5371	11.93%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-493.2	-4.7152 µg/L	2.43592	-4.7152 ppb	2.43592	51.66%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	83.3	68.110 µg/L	5.0065	68.110 ppb	5.0065	7.35%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	60.1	1.7733 µg/L	0.66034	1.7733 ppb	0.66034	37.24%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-193.2	-10.3 µg/L	9.13	-10.3 ppb	9.13	88.75%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	80.1	9.0540 µg/L	4.01594	9.0540 ppb	4.01594	44.36%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	-439.5	-6.8859 µg/L	0.46433	-6.8859 ppb	0.46433	6.74%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	36.0	2.5702 µg/L	0.94345	2.5702 ppb	0.94345	36.71%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	1697.0	0.0907 µg/L	0.10724	0.0907 ppb	0.10724	118.24%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	22482.5	-4.7185 µg/L	0.78801	-4.7185 ppb	0.78801	16.70%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-66.4	-8.4799 µg/L	3.68229	-8.4799 ppb	3.68229	43.42%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	175.4	-10.468 µg/L	3.0181	-10.468 ppb	3.0181	28.83%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	4394.2	2.7499 µg/L	0.37684	2.7499 ppb	0.37684	13.70%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	4073.5	8.7011 µg/L	0.35156	8.7011 ppb	0.35156	4.04%	
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: 3/30/2010 15:25:44

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	128969.8	128969.8	87.2 %		15:26:16
1	Al 396.153Radial†	2268643.5	2600464.8	535860 µg/L	535860 ppb	15:26:14
1	Ca 317.933Radial†	7418203.8	8502317.5	511560 µg/L	511560 ppb	15:26:14
1	Fe 238.204 Radial†	2626582.9	3010544.4	202580 µg/L	202580 ppb	15:26:14
1	K 766.490 Radial†	13932.0	14656.5	5776.6 µg/L	5776.6 ppb	15:26:16
1	Mg 279.077 IEC†	1076571.1	1233836.2	505980 µg/L	505980 ppb	15:26:16
1	Na 589.592 Radial†	33219.3	36870.5	5593.3 µg/L	5593.3 ppb	15:26:16
1	Sr 421.552†	207277.5	237810.7	544.59 µg/L	544.59 ppb	15:26:16
1	Sc 361.383	1516196.2	1516196.2	86.389 %		15:26:44
1	Y 371.029	903728.7	903728.7	84.933 %		15:26:44
1	Ag 328.068†	63350.6	69884.6	270.36 µg/L	270.36 ppb	15:26:44
1	As 188.979†	1221.1	1431.2	550.90 µg/L	550.90 ppb	15:26:46
1	B 249.677†	30854.5	32485.4	528.04 µg/L	528.04 ppb	15:26:44
1	Ba 233.527†	100374.9	116351.4	504.51 µg/L	504.51 ppb	15:26:44
1	Be 313.107†	710674.5	823428.9	247.28 µg/L	247.28 ppb	15:26:44
1	Cd 226.502†	62827.3	72836.0	479.01 µg/L	479.01 ppb	15:26:44
1	Co 228.616†	29526.2	34350.5	454.56 µg/L	454.56 ppb	15:26:46
1	Cr 267.716†	51013.6	58872.4	496.64 µg/L	496.64 ppb	15:26:46
1	Cu 324.752†	105945.5	119848.6	548.90 µg/L	548.90 ppb	15:26:44
1	Mn 257.610†	328467.2	380042.5	487.37 µg/L	487.37 ppb	15:26:44
1	Mo 202.031†	13247.4	15369.3	506.32 µg/L	506.32 ppb	15:26:46
1	Ni 231.604†	32031.3	37155.8	467.34 µg/L	467.34 ppb	15:26:46
1	P 214.914†	9671.9	11190.7	2643.8 µg/L	2643.8 ppb	15:26:46
1	Pb 220.353†	6483.0	7407.4	481.68 µg/L	481.68 ppb	15:26:46
1	S 181.975 Axial†	3019.3	3407.3	2797.2 µg/L	2797.2 ppb	15:26:46
1	Sb 206.836†	3474.0	3943.3	512.08 µg/L	512.08 ppb	15:26:46
1	Se 196.026†	5295.0	6115.7	2520 µg/L	2520 ppb	15:26:46
1	SiO2†	92064.6	104816.5	11193 µg/L	11193 ppb	15:26:44
1	Si 251.611†	280816.9	324111.7	5236.4 µg/L	5236.4 ppb	15:26:44
1	Sn 189.927†	6181.1	7157.5	497.35 µg/L	497.35 ppb	15:26:46
1	Ti 334.940†	466691.3	539334.3	512.06 µg/L	512.06 ppb	15:26:44
1	Tl 190.801†	2873.7	3443.5	471.18 µg/L	471.18 ppb	15:26:46
1	U 409.014†	7010.7	8399.0	535.66 µg/L	535.66 ppb	15:26:44
1	V 292.402†	87819.1	101345.4	523.74 µg/L	523.74 ppb	15:26:44
1	Zn 213.857†	72585.4	83496.9	497.27 µg/L	497.27 ppb	15:26:44
2	Sc RADIAL	138750.1	138750.1	93.9 %		15:26:21
2	Al 396.153Radial†	2248527.6	2395732.2	493670 µg/L	493670 ppb	15:26:19
2	Ca 317.933Radial†	7355600.1	7836246.5	471490 µg/L	471490 ppb	15:26:19
2	Fe 238.204 Radial†	2604562.2	2774861.9	186720 µg/L	186720 ppb	15:26:19
2	K 766.490 Radial†	14271.2	13892.3	5480.7 µg/L	5480.7 ppb	15:26:21
2	Mg 279.077 IEC†	1111258.4	1183809.4	485470 µg/L	485470 ppb	15:26:21
2	Na 589.592 Radial†	34192.5	35223.4	5343.5 µg/L	5343.5 ppb	15:26:21
2	Sr 421.552†	211492.1	225553.7	516.63 µg/L	516.63 ppb	15:26:21
2	Sc 361.383	1518506.0	1518506.0	86.521 %		15:26:49
2	Y 371.029	904980.6	904980.6	85.051 %		15:26:49
2	Ag 328.068†	63288.3	69701.0	270.75 µg/L	270.75 ppb	15:26:49
2	As 188.979†	1123.1	1315.7	507.01 µg/L	507.01 ppb	15:26:51
2	B 249.677†	31121.0	32739.1	532.19 µg/L	532.19 ppb	15:26:49
2	Ba 233.527†	100793.3	116658.3	506.05 µg/L	506.05 ppb	15:26:49
2	Be 313.107†	712144.3	823876.4	247.41 µg/L	247.41 ppb	15:26:49
2	Cd 226.502†	63049.4	72982.0	481.68 µg/L	481.68 ppb	15:26:49
2	Co 228.616†	29214.5	33938.3	449.81 µg/L	449.81 ppb	15:26:51
2	Cr 267.716†	50659.7	58373.5	492.13 µg/L	492.13 ppb	15:26:51
2	Cu 324.752†	106123.6	119867.9	546.12 µg/L	546.12 ppb	15:26:49
2	Mn 257.610†	329580.6	380751.0	489.17 µg/L	489.17 ppb	15:26:49
2	Mo 202.031†	13269.6	15371.7	505.39 µg/L	505.39 ppb	15:26:51
2	Ni 231.604†	31669.3	36681.0	461.36 µg/L	461.36 ppb	15:26:51
2	P 214.914†	9695.4	11200.9	2647.7 µg/L	2647.7 ppb	15:26:51
2	Pb 220.353†	6408.2	7309.6	473.58 µg/L	473.58 ppb	15:26:51



2	S 181.975 Axial†	3032.1	3416.8	2805.0 µg/L	2805.0 ppb	15:26:51
2	Sb 206.836†	3497.1	3963.8	515.32 µg/L	515.32 ppb	15:26:51
2	Se 196.026†	5153.5	5942.8	2440 µg/L	2440 ppb	15:26:51
2	SiO2†	92148.0	104750.8	11186 µg/L	11186 ppb	15:26:49
2	Si 251.611†	282053.1	325046.0	5251.5 µg/L	5251.5 ppb	15:26:49
2	Sn 189.927†	6186.0	7152.3	496.98 µg/L	496.98 ppb	15:26:51
2	Ti 334.940†	465598.1	537249.0	510.59 µg/L	510.59 ppb	15:26:49
2	Tl 190.801†	2897.1	3465.6	474.15 µg/L	474.15 ppb	15:26:51
2	U 409.014†	7068.1	8453.0	540.87 µg/L	540.87 ppb	15:26:49
2	V 292.402†	87740.2	101099.6	524.10 µg/L	524.10 ppb	15:26:49
2	Zn 213.857†	72899.1	83731.7	500.12 µg/L	500.12 ppb	15:26:49
3	Sc RADIAL	136915.4	136915.4	92.6 %		15:26:25
3	Al 396.153Radial†	2257454.6	2437473.9	502270 µg/L	502270 ppb	15:26:23
3	Ca 317.933Radial†	7359855.8	7945860.1	478080 µg/L	478080 ppb	15:26:23
3	Fe 238.204 Radial†	2604669.3	2812163.8	189230 µg/L	189230 ppb	15:26:23
3	K 766.490 Radial†	14264.5	14088.8	5558.0 µg/L	5558.0 ppb	15:26:25
3	Mg 279.077 IEC†	1106854.3	1194920.1	490030 µg/L	490030 ppb	15:26:25
3	Na 589.592 Radial†	34167.4	35684.5	5413.4 µg/L	5413.4 ppb	15:26:25
3	Sr 421.552†	210799.8	227825.7	521.82 µg/L	521.82 ppb	15:26:25
3	Sc 361.383	1532637.0	1532637.0	87.326 %		15:26:54
3	Y 371.029	912980.1	912980.1	85.803 %		15:26:54
3	Ag 328.068†	63997.3	69838.5	271.10 µg/L	271.10 ppb	15:26:54
3	As 188.979†	1202.6	1394.9	535.14 µg/L	535.14 ppb	15:26:56
3	B 249.677†	30994.7	32262.8	524.43 µg/L	524.43 ppb	15:26:54
3	Ba 233.527†	101425.8	116308.4	504.49 µg/L	504.49 ppb	15:26:54
3	Be 313.107†	717134.4	822001.9	246.85 µg/L	246.85 ppb	15:26:54
3	Cd 226.502†	63386.1	72695.7	479.45 µg/L	479.45 ppb	15:26:54
3	Co 228.616†	29425.6	33868.8	448.74 µg/L	448.74 ppb	15:26:56
3	Cr 267.716†	50967.1	58185.7	490.58 µg/L	490.58 ppb	15:26:56
3	Cu 324.752†	106853.0	119572.3	545.36 µg/L	545.36 ppb	15:26:54
3	Mn 257.610†	331501.6	379438.8	487.23 µg/L	487.23 ppb	15:26:54
3	Mo 202.031†	13182.9	15131.0	497.92 µg/L	497.92 ppb	15:26:56
3	Ni 231.604†	31816.9	36512.6	459.25 µg/L	459.25 ppb	15:26:56
3	P 214.914†	9750.3	11160.5	2638.3 µg/L	2638.3 ppb	15:26:56
3	Pb 220.353†	6296.3	7113.2	461.99 µg/L	461.99 ppb	15:26:56
3	S 181.975 Axial†	3014.7	3364.5	2762.1 µg/L	2762.1 ppb	15:26:56
3	Sb 206.836†	3428.2	3847.7	499.92 µg/L	499.92 ppb	15:26:56
3	Se 196.026†	5199.2	5940.2	2440 µg/L	2440 ppb	15:26:56
3	SiO2†	93000.5	104745.0	11185 µg/L	11185 ppb	15:26:54
3	Si 251.611†	283786.9	324025.9	5235.1 µg/L	5235.1 ppb	15:26:54
3	Sn 189.927†	6228.6	7135.1	495.78 µg/L	495.78 ppb	15:26:56
3	Ti 334.940†	468402.8	535499.2	508.64 µg/L	508.64 ppb	15:26:54
3	Tl 190.801†	2875.8	3410.2	466.69 µg/L	466.69 ppb	15:26:56
3	U 409.014†	7143.9	8464.4	541.20 µg/L	541.20 ppb	15:26:54
3	V 292.402†	88322.9	100831.9	522.33 µg/L	522.33 ppb	15:26:54
3	Zn 213.857†	73408.9	83538.6	498.75 µg/L	498.75 ppb	15:26:54

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1522446.4	86.745 %	0.5071			0.58%
Sc RADIAL	134878.4	91.2 %	3.52			3.85%
Y 371.029	907229.8	85.262 %	0.4717			0.55%
Ag 328.068†	69808.1	270.74 µg/L	0.366	270.74 ppb	0.366	0.14%
QC value within limits for Ag 328.068 Recovery = 108.29%						
Al 396.153Radial†	2477890.3	510600 µg/L	22293.7	510600 ppb	22293.7	4.37%
QC value within limits for Al 396.153Radial Recovery = 102.12%						
As 188.979†	1380.6	531.02 µg/L	22.233	531.02 ppb	22.233	4.19%
QC value within limits for As 188.979 Recovery = 106.20%						
B 249.677†	32495.8	528.22 µg/L	3.885	528.22 ppb	3.885	0.74%
QC value within limits for B 249.677 Recovery = 105.64%						
Ba 233.527†	116439.4	505.02 µg/L	0.894	505.02 ppb	0.894	0.18%
QC value within limits for Ba 233.527 Recovery = 101.00%						
Be 313.107†	823102.4	247.18 µg/L	0.294	247.18 ppb	0.294	0.12%
QC value within limits for Be 313.107 Recovery = 98.87%						
Ca 317.933Radial†	8094808.1	487050 µg/L	21488.5	487050 ppb	21488.5	4.41%
QC value within limits for Ca 317.933Radial Recovery = 97.41%						
Cd 226.502†	72837.9	480.04 µg/L	1.431	480.04 ppb	1.431	0.30%
QC value within limits for Cd 226.502 Recovery = 96.01%						
Co 228.616†	34052.5	451.03 µg/L	3.097	451.03 ppb	3.097	0.69%



QC value within limits for Co 228.616	Recovery = 90.21%				
Cr 267.716†	58477.2	493.12 µg/L	3.147	493.12 ppb	3.147 0.64%
QC value within limits for Cr 267.716	Recovery = 98.62%				
Cu 324.752†	119762.9	546.80 µg/L	1.864	546.80 ppb	1.864 0.34%
QC value within limits for Cu 324.752	Recovery = 109.36%				
Fe 238.204 Radial†	2865856.7	192840 µg/L	8524.4	192840 ppb	8524.4 4.42%
QC value within limits for Fe 238.204 Radial	Recovery = 96.42%				
K 766.490 Radial†	14212.5	5605.1 µg/L	153.49	5605.1 ppb	153.49 2.74%
QC value within limits for K 766.490 Radial	Recovery = 112.10%				
Mg 279.077 IEC†	1204188.6	493830 µg/L	10769.0	493830 ppb	10769.0 2.18%
QC value within limits for Mg 279.077 IEC	Recovery = 98.77%				
Mn 257.610†	380077.4	487.92 µg/L	1.083	487.92 ppb	1.083 0.22%
QC value within limits for Mn 257.610	Recovery = 97.58%				
Mo 202.031†	15290.7	503.21 µg/L	4.607	503.21 ppb	4.607 0.92%
QC value within limits for Mo 202.031	Recovery = 100.64%				
Na 589.592 Radial†	35926.2	5450.1 µg/L	128.88	5450.1 ppb	128.88 2.36%
QC value within limits for Na 589.592 Radial	Recovery = 109.00%				
Ni 231.604†	36783.1	462.65 µg/L	4.196	462.65 ppb	4.196 0.91%
QC value within limits for Ni 231.604	Recovery = 92.53%				
P 214.914†	11184.0	2643.3 µg/L	4.70	2643.3 ppb	4.70 0.18%
QC value within limits for P 214.914	Recovery = 105.73%				
Pb 220.353†	7276.7	472.42 µg/L	9.899	472.42 ppb	9.899 2.10%
QC value within limits for Pb 220.353	Recovery = 94.48%				
S 181.975 Axial†	3396.2	2788.1 µg/L	22.86	2788.1 ppb	22.86 0.82%
QC value within limits for S 181.975 Axial	Recovery = 111.52%				
Sb 206.836†	3918.3	509.11 µg/L	8.121	509.11 ppb	8.121 1.60%
QC value within limits for Sb 206.836	Recovery = 101.82%				
Se 196.026†	5999.6	2470 µg/L	43.2	2470 ppb	43.2 1.75%
QC value within limits for Se 196.026	Recovery = 98.76%				
SiO2†	104770.8	11188 µg/L	4.2	11188 ppb	4.2 0.04%
QC value within limits for SiO2	Recovery = 104.61%				
Si 251.611†	324394.5	5241.0 µg/L	9.12	5241.0 ppb	9.12 0.17%
QC value within limits for Si 251.611	Recovery = 104.82%				
Sn 189.927†	7148.3	496.70 µg/L	0.817	496.70 ppb	0.817 0.16%
QC value within limits for Sn 189.927	Recovery = 99.34%				
Sr 421.552†	230396.7	527.68 µg/L	14.874	527.68 ppb	14.874 2.82%
QC value within limits for Sr 421.552	Recovery = 105.54%				
Ti 334.940†	537360.8	510.43 µg/L	1.713	510.43 ppb	1.713 0.34%
QC value within limits for Ti 334.940	Recovery = 102.09%				
Tl 190.801†	3439.8	470.67 µg/L	3.758	470.67 ppb	3.758 0.80%
QC value within limits for Tl 190.801	Recovery = 94.13%				
U 409.014†	8438.8	539.25 µg/L	3.108	539.25 ppb	3.108 0.58%
QC value within limits for U 409.014	Recovery = 107.85%				
V 292.402†	101092.3	523.39 µg/L	0.936	523.39 ppb	0.936 0.18%
QC value within limits for V 292.402	Recovery = 104.68%				
Zn 213.857†	83589.1	498.71 µg/L	1.427	498.71 ppb	1.427 0.29%
QC value within limits for Zn 213.857	Recovery = 99.74%				

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: LR1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 105  
 Date Collected: 3/30/2010 15:27:03  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Sample Conc. Units	Analysis Time
1	Sc RADIAL	136437.1	136437.1	92.3	%		15:27:35
1	Al 396.153Radial†	2201698.9	2385608.2	491610	µg/L	491610 ppb	15:27:33
1	Ca 317.933Radial†	7214807.5	7816561.1	470300	µg/L	470300 ppb	15:27:33
1	Fe 238.204 Radial†	6118140.6	6628877.5	446050	µg/L	446050 ppb	15:27:33
1	K 766.490 Radial†	1829.8	669.7	-38.783	µg/L	-38.783 ppb	15:27:35
1	Mg 279.077 IEC†	1054744.4	1142649.0	468350	µg/L	468350 ppb	15:27:33
1	Na 589.592 Radial†	3004311.9	3253971.6	494110	µg/L	494110 ppb	15:27:33
1	Sr 421.552†	4865.0	5492.9	8.9901	µg/L	8.9901 ppb	15:27:35
1	Sc 361.383	1479324.6	1479324.6	84.288	%		15:27:49
1	Y 371.029	877883.5	877883.5	82.504	%		15:27:49
1	Ag 328.068†	2175.4	-866.2	2.3746	µg/L	2.3746 ppb	15:27:49
1	As 188.979†	-230.5	-255.8	10.757	µg/L	10.757 ppb	15:28:09
1	B 249.677†	4044.4	1567.9	25.520	µg/L	25.520 ppb	15:27:49
1	Ba 233.527†	614.2	890.8	-1.8194	µg/L	-1.8194 ppb	15:28:09
1	Be 313.107†	-14328.5	-16213.8	0.0899	µg/L	0.0899 ppb	15:27:49
1	Cd 226.502†	5667.7	6834.2	0.0189	µg/L	0.0189 ppb	15:27:49
1	Co 228.616†	648.7	942.0	-10.524	µg/L	-10.524 ppb	15:28:09
1	Cr 267.716†	423.8	324.2	-0.4000	µg/L	-0.4000 ppb	15:28:09
1	Cu 324.752†	-15616.5	-21316.4	1.3548	µg/L	1.3548 ppb	15:27:49
1	Mn 257.610†	16797.3	19752.8	6.6460	µg/L	6.6460 ppb	15:27:49
1	Mo 202.031†	-897.8	-1030.4	-6.5604	µg/L	-6.5604 ppb	15:27:49
1	Ni 231.604†	211.2	328.5	4.1319	µg/L	4.1319 ppb	15:28:09
1	P 214.914†	924.8	1092.2	67.436	µg/L	67.436 ppb	15:28:09
1	Pb 220.353†	-15.3	-115.1	-3.2134	µg/L	-3.2134 ppb	15:28:09
1	S 181.975 Axial†	174.3	119.1	97.381	µg/L	97.381 ppb	15:28:09
1	Sb 206.836†	113.6	56.7	-1.8998	µg/L	-1.8998 ppb	15:28:09
1	Se 196.026†	-352.5	-431.8	-2.26	µg/L	-2.26 ppb	15:28:09
1	SiO2†	1807.3	391.1	42.666	µg/L	42.666 ppb	15:28:09
1	Si 251.611†	-1781.3	-3062.0	-49.173	µg/L	-49.173 ppb	15:27:49
1	Sn 189.927†	87.2	106.0	7.4350	µg/L	7.4350 ppb	15:28:09
1	Ti 334.940†	24073.9	27675.7	-4.9000	µg/L	-4.9000 ppb	15:27:49
1	Tl 190.801†	-177.4	-93.4	-11.930	µg/L	-11.930 ppb	15:28:09
1	U 409.014†	220380.3	261743.9	16316	µg/L	16316 ppb	15:27:49
1	V 292.402†	7565.3	8665.6	9.6187	µg/L	9.6187 ppb	15:27:49
1	Zn 213.857†	7862.1	8803.1	11.198	µg/L	11.198 ppb	15:28:09
2	Sc RADIAL	133662.6	133662.6	90.4	%		15:27:40
2	Al 396.153Radial†	2208386.1	2442521.6	503340	µg/L	503340 ppb	15:27:38
2	Ca 317.933Radial†	7235360.6	8001557.4	481430	µg/L	481430 ppb	15:27:38
2	Fe 238.204 Radial†	6131145.7	6780861.1	456280	µg/L	456280 ppb	15:27:38
2	K 766.490 Radial†	1926.9	818.3	14.893	µg/L	14.893 ppb	15:27:40
2	Mg 279.077 IEC†	1057709.3	1169649.9	479420	µg/L	479420 ppb	15:27:38
2	Na 589.592 Radial†	3012824.9	3330955.4	505800	µg/L	505800 ppb	15:27:38
2	Sr 421.552†	4780.7	5509.1	8.9403	µg/L	8.9403 ppb	15:27:40
2	Sc 361.383	1491945.8	1491945.8	85.007	%		15:28:12
2	Y 371.029	884642.3	884642.3	83.140	%		15:28:12
2	Ag 328.068†	2189.1	-871.9	1.9264	µg/L	1.9264 ppb	15:28:12
2	As 188.979†	-239.5	-264.0	10.187	µg/L	10.187 ppb	15:28:32
2	B 249.677†	4005.3	1481.3	24.110	µg/L	24.110 ppb	15:28:12
2	Ba 233.527†	580.5	845.0	-2.1494	µg/L	-2.1494 ppb	15:28:32
2	Be 313.107†	-14594.1	-16382.5	0.0185	µg/L	0.0185 ppb	15:28:12
2	Cd 226.502†	5774.9	6903.5	-0.5813	µg/L	-0.5813 ppb	15:28:12
2	Co 228.616†	624.1	906.6	-11.537	µg/L	-11.537 ppb	15:28:32
2	Cr 267.716†	416.0	310.8	-0.2391	µg/L	-0.2391 ppb	15:28:32
2	Cu 324.752†	-15844.3	-21427.7	2.6175	µg/L	2.6175 ppb	15:28:12
2	Mn 257.610†	16681.9	19448.5	5.7732	µg/L	5.7732 ppb	15:28:12
2	Mo 202.031†	-885.2	-1006.6	-5.1979	µg/L	-5.1979 ppb	15:28:12
2	Ni 231.604†	194.7	306.9	3.8599	µg/L	3.8599 ppb	15:28:32
2	P 214.914†	903.2	1057.5	54.786	µg/L	54.786 ppb	15:28:32
2	Pb 220.353†	-9.7	-108.4	-2.3505	µg/L	-2.3505 ppb	15:28:32

2	S 181.975 Axial†	162.6	103.6	84.638 µg/L	84.638 ppb	15:28:32
2	Sb 206.836†	103.8	44.0	-3.7528 µg/L	-3.7528 ppb	15:28:32
2	Se 196.026†	-363.4	-441.0	-2.47 µg/L	-2.47 ppb	15:28:32
2	SiO2†	1787.0	349.0	38.154 µg/L	38.154 ppb	15:28:32
2	Si 251.611†	-1775.4	-3037.1	-48.774 µg/L	-48.774 ppb	15:28:12
2	Sn 189.927†	75.0	90.8	6.3853 µg/L	6.3853 ppb	15:28:32
2	Ti 334.940†	25851.7	29525.6	-3.6306 µg/L	-3.6306 ppb	15:28:12
2	Tl 190.801†	-199.4	-117.5	-15.139 µg/L	-15.139 ppb	15:28:32
2	U 409.014†	221329.4	260648.6	16245 µg/L	16245 ppb	15:28:12
2	V 292.402†	7749.2	8806.1	9.2452 µg/L	9.2452 ppb	15:28:12
2	Zn 213.857†	7893.7	8761.3	9.9501 µg/L	9.9501 ppb	15:28:32
3	Sc RADIAL	132134.1	132134.1	89.4 %		15:27:44
3	Al 396.153Radial†	2215858.4	2479134.6	510880 µg/L	510880 ppb	15:27:42
3	Ca 317.933Radial†	7272268.0	8135414.9	489490 µg/L	489490 ppb	15:27:42
3	Fe 238.204 Radial†	6164754.1	6896900.9	464080 µg/L	464080 ppb	15:27:42
3	K 766.490 Radial†	1800.0	701.0	-38.551 µg/L	-38.551 ppb	15:27:44
3	Mg 279.077 IEC†	1064515.1	1190796.0	488090 µg/L	488090 ppb	15:27:42
3	Na 589.592 Radial†	3025200.4	3383345.7	513750 µg/L	513750 ppb	15:27:42
3	Sr 421.552†	4781.2	5570.8	9.0197 µg/L	9.0197 ppb	15:27:44
3	Sc 361.383	1476102.9	1476102.9	84.105 %		15:28:34
3	Y 371.029	876472.2	876472.2	82.372 %		15:28:34
3	Ag 328.068†	1850.6	-1246.7	0.2207 µg/L	0.2207 ppb	15:28:34
3	As 188.979†	-230.9	-256.9	14.443 µg/L	14.443 ppb	15:28:55
3	B 249.677†	3692.4	1159.9	18.868 µg/L	18.868 ppb	15:28:34
3	Ba 233.527†	608.5	885.6	-2.0717 µg/L	-2.0717 ppb	15:28:55
3	Be 313.107†	-14186.1	-16081.6	0.1172 µg/L	0.1172 ppb	15:28:34
3	Cd 226.502†	5641.6	6817.9	-1.9905 µg/L	-1.9905 ppb	15:28:34
3	Co 228.616†	619.3	908.7	-11.915 µg/L	-11.915 ppb	15:28:55
3	Cr 267.716†	455.9	363.5	0.3478 µg/L	0.3478 ppb	15:28:55
3	Cu 324.752†	-15453.9	-21163.5	5.1254 µg/L	5.1254 ppb	15:28:34
3	Mn 257.610†	16497.8	19440.3	5.3978 µg/L	5.3978 ppb	15:28:34
3	Mo 202.031†	-841.4	-965.6	-3.4268 µg/L	-3.4268 ppb	15:28:34
3	Ni 231.604†	143.2	248.2	3.1217 µg/L	3.1217 ppb	15:28:55
3	P 214.914†	894.1	1058.1	51.284 µg/L	51.284 ppb	15:28:55
3	Pb 220.353†	-28.9	-131.3	-3.5614 µg/L	-3.5614 ppb	15:28:55
3	S 181.975 Axial†	161.0	103.7	84.779 µg/L	84.779 ppb	15:28:55
3	Sb 206.836†	120.2	64.8	-1.1601 µg/L	-1.1601 ppb	15:28:55
3	Se 196.026†	-381.7	-467.4	-10.3 µg/L	-10.3 ppb	15:28:55
3	SiO2†	1817.9	408.3	44.447 µg/L	44.447 ppb	15:28:55
3	Si 251.611†	-1958.8	-3277.6	-52.691 µg/L	-52.691 ppb	15:28:34
3	Sn 189.927†	86.5	105.4	7.3929 µg/L	7.3929 ppb	15:28:55
3	Ti 334.940†	24067.1	27730.1	-5.9375 µg/L	-5.9375 ppb	15:28:34
3	Tl 190.801†	-187.6	-105.9	-13.606 µg/L	-13.606 ppb	15:28:55
3	U 409.014†	219352.6	261092.7	16272 µg/L	16272 ppb	15:28:34
3	V 292.402†	7743.9	8897.6	8.9429 µg/L	8.9429 ppb	15:28:34
3	Zn 213.857†	7836.5	8793.0	9.3727 µg/L	9.3727 ppb	15:28:55

## Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1482457.8	84.467 %	0.4771			0.56%
Sc RADIAL	134077.9	90.7 %	1.48			1.63%
Y 371.029	879666.0	82.672 %	0.4104			0.50%
Ag 328.068†	-995.0	1.5072 µg/L	1.13650	1.5072 ppb	1.13650	75.40%
Al 396.153Radial†	2435754.8	501940 µg/L	9711.9	501940 ppb	9711.9	1.93%
QC value within limits for Al 396.153Radial Recovery = 100.39%						
As 188.979†	-258.9	11.796 µg/L	2.3107	11.796 ppb	2.3107	19.59%
B 249.677†	1403.1	22.833 µg/L	3.5049	22.833 ppb	3.5049	15.35%
Ba 233.527†	873.8	-2.0135 µg/L	0.17249	-2.0135 ppb	0.17249	8.57%
Be 313.107†	-16226.0	0.0752 µg/L	0.05096	0.0752 ppb	0.05096	67.76%
Ca 317.933Radial†	7984511.1	480410 µg/L	9633.4	480410 ppb	9633.4	2.01%
QC value within limits for Ca 317.933Radial Recovery = 96.08%						
Cd 226.502†	6851.9	-0.8510 µg/L	1.03148	-0.8510 ppb	1.03148	121.21%
Co 228.616†	919.1	-11.326 µg/L	0.7193	-11.326 ppb	0.7193	6.35%
Cr 267.716†	332.8	-0.0971 µg/L	0.39360	-0.0971 ppb	0.39360	405.29%
Cu 324.752†	-21302.5	3.0326 µg/L	1.91926	3.0326 ppb	1.91926	63.29%
Fe 238.204 Radial†	6768879.8	455470 µg/L	9044.5	455470 ppb	9044.5	1.99%
QC value within limits for Fe 238.204 Radial Recovery = 91.09%						
K 766.490 Radial†	729.7	-20.814 µg/L	30.9231	-20.814 ppb	30.9231	148.57%
Mg 279.077 IEC†	1167698.3	478620 µg/L	9892.0	478620 ppb	9892.0	2.07%

QC value within limits for Mg 279.077 IEC Recovery = 95.72%

Mn 257.610†	19547.2	5.9390 µg/L	0.64043	5.9390 ppb	0.64043	10.78%
Mo 202.031†	-1000.9	-5.0617 µg/L	1.57123	-5.0617 ppb	1.57123	31.04%
Na 589.592 Radial†	3322757.6	504550 µg/L	9881.5	504550 ppb	9881.5	1.96%

QC value within limits for Na 589.592 Radial Recovery = 100.91%

Ni 231.604†	294.5	3.7045 µg/L	0.52272	3.7045 ppb	0.52272	14.11%
P 214.914†	1069.3	57.835 µg/L	8.4971	57.835 ppb	8.4971	14.69%
Pb 220.353†	-118.3	-3.0417 µg/L	0.62343	-3.0417 ppb	0.62343	20.50%
S 181.975 Axial†	108.8	88.932 µg/L	7.3171	88.932 ppb	7.3171	8.23%
Sb 206.836†	55.2	-2.2709 µg/L	1.33559	-2.2709 ppb	1.33559	58.81%
Se 196.026†	-446.7	-5.01 µg/L	4.588	-5.01 ppb	4.588	91.56%
SiO2†	382.8	41.756 µg/L	3.2436	41.756 ppb	3.2436	7.77%
Si 251.611†	-3125.6	-50.213 µg/L	2.1553	-50.213 ppb	2.1553	4.29%
Sn 189.927†	100.8	7.0710 µg/L	0.59428	7.0710 ppb	0.59428	8.40%
Sr 421.552†	5524.3	8.9834 µg/L	0.04013	8.9834 ppb	0.04013	0.45%
Ti 334.940†	28310.5	-4.8227 µg/L	1.15537	-4.8227 ppb	1.15537	23.96%
Tl 190.801†	-105.6	-13.558 µg/L	1.6047	-13.558 ppb	1.6047	11.84%
U 409.014†	261161.7	16278 µg/L	35.6	16278 ppb	35.6	0.22%

QC value within limits for U 409.014 Recovery = 108.52%

V 292.402†	8789.8	9.2689 µg/L	0.33852	9.2689 ppb	0.33852	3.65%
Zn 213.857†	8785.8	10.174 µg/L	0.9330	10.174 ppb	0.9330	9.17%

All analyte(s) passed QC.

Sequence No.: 12

Sample ID: LR2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 108

Date Collected: 3/30/2010 15:29:03

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	144237.0	144237.0	97.6 %		15:29:37
1	Al 396.153Radial†	2225.8	2344.2	31.470 µg/L	31.470 ppb	15:29:39
1	Ca 317.933Radial†	1195.6	527.4	31.732 µg/L	31.732 ppb	15:29:39
1	Fe 238.204 Radial†	-828.0	-989.3	-66.568 µg/L	-66.568 ppb	15:29:39
1	K 766.490 Radial†	705257.6	721512.5	296950 µg/L	296950 ppb	15:29:37
1	Mg 279.077 IEC†	-489.5	-670.5	-37.134 µg/L	-37.134 ppb	15:29:39
1	Na 589.592 Radial†	5220.5	4143.9	365.14 µg/L	365.14 ppb	15:29:39
1	Sr 421.552†	4186503.5	4291009.0	9898.7 µg/L	9898.7 ppb	15:29:35
1	Sc 361.383	1663697.1	1663697.1	94.793 %		15:30:01
1	Y 371.029	981892.5	981892.5	92.279 %		15:30:01
1	Ag 328.068†	-23773.7	-28526.5	5.2873 µg/L	5.2873 ppb	15:30:03
1	As 188.979†	27146.9	28655.7	10253 µg/L	10253 ppb	15:30:03
1	B 249.677†	294226.0	307156.3	4975.3 µg/L	4975.3 ppb	15:30:01
1	Ba 233.527†	3027478.9	3193928.4	13916 µg/L	13916 ppb	15:30:01
1	Be 313.107†	8944351.3	9436414.6	2831.8 µg/L	2831.8 ppb	15:29:57
1	Cd 226.502†	1332439.6	1405735.3	9656.4 µg/L	9656.4 ppb	15:30:01
1	Co 228.616†	659087.3	695460.8	9423.0 µg/L	9423.0 ppb	15:30:01
1	Cr 267.716†	2697213.0	2845181.7	23977 µg/L	23977 ppb	15:30:01
1	Cu 324.752†	4547393.6	4794374.9	20208 µg/L	20208 ppb	15:30:01
1	Mn 257.610†	6649756.4	7014825.5	9376.1 µg/L	9376.1 ppb	15:30:01
1	Mo 202.031†	289733.3	305681.9	9726.8 µg/L	9726.8 ppb	15:30:03
1	Ni 231.604†	734586.5	775012.3	9747.9 µg/L	9747.9 ppb	15:30:01
1	P 214.914†	60333.5	63642.4	14943 µg/L	14943 ppb	15:30:03
1	Pb 220.353†	364788.7	384728.2	23587 µg/L	23587 ppb	15:30:03
1	S 181.975 Axial†	59471.6	62650.4	51439 µg/L	51439 ppb	15:30:03
1	Sb 206.836†	72079.2	75960.2	9771.1 µg/L	9771.1 ppb	15:30:03
1	Se 196.026†	22882.5	24125.7	9660 µg/L	9660 ppb	15:30:03
1	SiO2†	894874.0	942272.7	100390 µg/L	100390 ppb	15:30:01
1	Si 251.611†	2754729.3	2905086.9	46828 µg/L	46828 ppb	15:30:01
1	Sn 189.927†	134561.0	141954.4	9861.0 µg/L	9861.0 ppb	15:30:03
1	Ti 334.940†	9355396.9	9868366.1	9878.7 µg/L	9878.7 ppb	15:29:57
1	Tl 190.801†	66599.1	70374.2	9608.7 µg/L	9608.7 ppb	15:30:03
1	U 409.014†	-8124.9	-8287.4	91.396 µg/L	91.396 ppb	15:30:03
1	V 292.402†	1792814.5	1890976.9	10234 µg/L	10234 ppb	15:30:01
1	Zn 213.857†	2209060.9	2329871.3	14375 µg/L	14375 ppb	15:30:01
2	Sc RADIAL	143986.9	143986.9	97.4 %		15:29:43
2	Al 396.153Radial†	2195.1	2316.5	19.993 µg/L	19.993 ppb	15:29:45
2	Ca 317.933Radial†	1141.8	474.3	28.538 µg/L	28.538 ppb	15:29:45
2	Fe 238.204 Radial†	-802.9	-965.1	-64.938 µg/L	-64.938 ppb	15:29:45
2	K 766.490 Radial†	707310.9	724875.9	298330 µg/L	298330 ppb	15:29:43
2	Mg 279.077 IEC†	-481.5	-663.1	-31.044 µg/L	-31.044 ppb	15:29:45
2	Na 589.592 Radial†	5011.9	3939.1	332.81 µg/L	332.81 ppb	15:29:45
2	Sr 421.552†	4170441.9	4281970.6	9877.9 µg/L	9877.9 ppb	15:29:41
2	Sc 361.383	1652411.6	1652411.6	94.150 %		15:30:11
2	Y 371.029	975307.9	975307.9	91.660 %		15:30:11
2	Ag 328.068†	-23549.1	-28459.3	5.3021 µg/L	5.3021 ppb	15:30:13
2	As 188.979†	27298.6	29012.4	10378 µg/L	10378 ppb	15:30:13
2	B 249.677†	291433.3	306310.0	4961.5 µg/L	4961.5 ppb	15:30:11
2	Ba 233.527†	2999547.4	3186074.1	13882 µg/L	13882 ppb	15:30:11
2	Be 313.107†	9002117.0	9562212.2	2869.5 µg/L	2869.5 ppb	15:30:07
2	Cd 226.502†	1319189.5	1401262.0	9625.7 µg/L	9625.7 ppb	15:30:11
2	Co 228.616†	653056.4	693803.8	9400.6 µg/L	9400.6 ppb	15:30:11
2	Cr 267.716†	2673331.9	2839249.8	23927 µg/L	23927 ppb	15:30:11
2	Cu 324.752†	4508860.7	4786211.3	20173 µg/L	20173 ppb	15:30:11
2	Mn 257.610†	6592131.1	7001530.5	9358.4 µg/L	9358.4 ppb	15:30:11
2	Mo 202.031†	291456.6	309599.8	9851.4 µg/L	9851.4 ppb	15:30:13
2	Ni 231.604†	727344.3	772612.7	9717.7 µg/L	9717.7 ppb	15:30:11
2	P 214.914†	60767.2	64537.7	15157 µg/L	15157 ppb	15:30:13
2	Pb 220.353†	367598.0	390340.2	23931 µg/L	23931 ppb	15:30:13

2	S 181.975 Axial†	60050.6	63693.9	52295 µg/L	52295 ppb	15:30:13
2	Sb 206.836†	72605.5	77038.4	9915.2 µg/L	9915.2 ppb	15:30:13
2	Se 196.026†	23187.2	24614.2	9850 µg/L	9850 ppb	15:30:13
2	SiO2†	886511.8	939838.4	100120 µg/L	100120 ppb	15:30:11
2	Si 251.611†	2730380.4	2899072.8	46728 µg/L	46728 ppb	15:30:11
2	Sn 189.927†	135964.5	144414.7	10032 µg/L	10032 ppb	15:30:13
2	Ti 334.940†	9415705.5	9999826.1	10010 µg/L	10010 ppb	15:30:07
2	Tl 190.801†	67195.6	71487.6	9759.6 µg/L	9759.6 ppb	15:30:13
2	U 409.014†	-7767.0	-7965.8	110.12 µg/L	110.12 ppb	15:30:13
2	V 292.402†	1776456.8	1886519.8	10211 µg/L	10211 ppb	15:30:11
2	Zn 213.857†	2189903.3	2325439.4	14348 µg/L	14348 ppb	15:30:11
3	Sc RADIAL	144822.6	144822.6	98.0 %		15:29:50
3	Al 396.153Radial†	2092.1	2198.4	-0.8903 µg/L	-0.8903 ppb	15:29:52
3	Ca 317.933Radial†	1203.7	530.7	31.929 µg/L	31.929 ppb	15:29:52
3	Fe 238.204 Radial†	-857.2	-1015.7	-68.345 µg/L	-68.345 ppb	15:29:52
3	K 766.490 Radial†	711651.3	725116.0	298430 µg/L	298430 ppb	15:29:50
3	Mg 279.077 IEC†	-463.8	-642.2	-24.276 µg/L	-24.276 ppb	15:29:52
3	Na 589.592 Radial†	4742.0	3633.8	286.38 µg/L	286.38 ppb	15:29:52
3	Sr 421.552†	4172633.3	4259499.7	9826.0 µg/L	9826.0 ppb	15:29:48
3	Sc 361.383	1657044.9	1657044.9	94.414 %		15:30:20
3	Y 371.029	978361.9	978361.9	91.947 %		15:30:20
3	Ag 328.068†	-23261.7	-28085.0	6.8804 µg/L	6.8804 ppb	15:30:22
3	As 188.979†	26976.3	28590.0	10231 µg/L	10231 ppb	15:30:22
3	B 249.677†	292997.5	307101.2	4974.4 µg/L	4974.4 ppb	15:30:20
3	Ba 233.527†	3012217.2	3190585.1	13902 µg/L	13902 ppb	15:30:20
3	Be 313.107†	8910545.1	9438487.5	2832.4 µg/L	2832.4 ppb	15:30:17
3	Cd 226.502†	1326786.2	1405390.3	9654.0 µg/L	9654.0 ppb	15:30:20
3	Co 228.616†	655684.4	694647.7	9412.0 µg/L	9412.0 ppb	15:30:20
3	Cr 267.716†	2685859.8	2844579.4	23972 µg/L	23972 ppb	15:30:20
3	Cu 324.752†	4522887.5	4787677.1	20179 µg/L	20179 ppb	15:30:20
3	Mn 257.610†	6615553.1	7006760.3	9365.4 µg/L	9365.4 ppb	15:30:20
3	Mo 202.031†	290065.6	307260.9	9777.0 µg/L	9777.0 ppb	15:30:22
3	Ni 231.604†	731039.6	774366.6	9739.8 µg/L	9739.8 ppb	15:30:20
3	P 214.914†	60515.4	64090.6	15051 µg/L	15051 ppb	15:30:22
3	Pb 220.353†	365639.3	387174.0	23737 µg/L	23737 ppb	15:30:22
3	S 181.975 Axial†	59594.5	63032.5	51752 µg/L	51752 ppb	15:30:22
3	Sb 206.836†	72374.1	76577.8	9853.0 µg/L	9853.0 ppb	15:30:22
3	Se 196.026†	23069.3	24420.5	9770 µg/L	9770 ppb	15:30:22
3	SiO2†	891398.7	942381.5	100400 µg/L	100400 ppb	15:30:20
3	Si 251.611†	2745197.8	2906657.8	46852 µg/L	46852 ppb	15:30:20
3	Sn 189.927†	135116.5	143112.7	9941.3 µg/L	9941.3 ppb	15:30:22
3	Ti 334.940†	9334301.8	9885642.8	9896.0 µg/L	9896.0 ppb	15:30:17
3	Tl 190.801†	66740.2	70805.7	9666.8 µg/L	9666.8 ppb	15:30:22
3	U 409.014†	-8268.5	-8473.9	78.920 µg/L	78.920 ppb	15:30:22
3	V 292.402†	1783384.1	1888581.0	10222 µg/L	10222 ppb	15:30:20
3	Zn 213.857†	2199491.6	2329091.1	14370 µg/L	14370 ppb	15:30:20

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1657717.9	94.453 %	0.3232			0.34%
Sc RADIAL	144348.8	97.6 %	0.29			0.30%
Y 371.029	978520.8	91.962 %	0.3097			0.34%
Ag 328.068†	-28357.0	5.8233 µg/L	0.91551	5.8233 ppb	0.91551	15.72%
Al 396.153Radial†	2286.4	16.858 µg/L	16.4064	16.858 ppb	16.4064	97.32%
As 188.979†	28752.7	10287 µg/L	79.2	10287 ppb	79.2	0.77%
QC value within limits for As 188.979 Recovery = 102.87%						
B 249.677†	306855.8	4970.4 µg/L	7.69	4970.4 ppb	7.69	0.15%
QC value within limits for B 249.677 Recovery = 99.41%						
Ba 233.527†	3190195.9	13900 µg/L	17.1	13900 ppb	17.1	0.12%
QC value within limits for Ba 233.527 Recovery = 92.67%						
Be 313.107†	9479038.1	2844.6 µg/L	21.62	2844.6 ppb	21.62	0.76%
QC value within limits for Be 313.107 Recovery = 94.82%						
Ca 317.933Radial†	510.8	30.733 µg/L	1.9038	30.733 ppb	1.9038	6.19%
Cd 226.502†	1404129.2	9645.4 µg/L	17.10	9645.4 ppb	17.10	0.18%
QC value within limits for Cd 226.502 Recovery = 96.45%						
Co 228.616†	694637.5	9411.9 µg/L	11.23	9411.9 ppb	11.23	0.12%
QC value within limits for Co 228.616 Recovery = 94.12%						
Cr 267.716†	2843003.6	23958 µg/L	27.5	23958 ppb	27.5	0.11%
QC value within limits for Cr 267.716 Recovery = 95.83%						

Cu 324.752†	4789421.1	20187 µg/L	18.3	20187 ppb	18.3	0.09%
QC value within limits for Cu 324.752 Recovery = 100.93%						
Fe 238.204 Radial†	-990.0	-66.617 µg/L	1.7042	-66.617 ppb	1.7042	2.56%
K 766.490 Radial†	723834.8	297900 µg/L	829.2	297900 ppb	829.2	0.28%
QC value within limits for K 766.490 Radial Recovery = 99.30%						
Mg 279.077 IEC†	-658.6	-30.818 µg/L	6.4320	-30.818 ppb	6.4320	20.87%
Mn 257.610†	7007705.4	9366.6 µg/L	8.95	9366.6 ppb	8.95	0.10%
QC value within limits for Mn 257.610 Recovery = 93.67%						
Mo 202.031†	307514.2	9785.1 µg/L	62.70	9785.1 ppb	62.70	0.64%
QC value within limits for Mo 202.031 Recovery = 97.85%						
Na 589.592 Radial†	3905.6	328.11 µg/L	39.594	328.11 ppb	39.594	12.07%
Ni 231.604†	773997.2	9735.1 µg/L	15.62	9735.1 ppb	15.62	0.16%
QC value within limits for Ni 231.604 Recovery = 97.35%						
P 214.914†	64090.2	15051 µg/L	107.1	15051 ppb	107.1	0.71%
QC value within limits for P 214.914 Recovery = 100.34%						
Pb 220.353†	387414.1	23751 µg/L	172.5	23751 ppb	172.5	0.73%
QC value within limits for Pb 220.353 Recovery = 95.01%						
S 181.975 Axial†	63125.6	51829 µg/L	433.3	51829 ppb	433.3	0.84%
QC value within limits for S 181.975 Axial Recovery = 103.66%						
Sb 206.836†	76525.5	9846.4 µg/L	72.30	9846.4 ppb	72.30	0.73%
QC value within limits for Sb 206.836 Recovery = 98.46%						
Se 196.026†	24386.8	9760 µg/L	98.5	9760 ppb	98.5	1.01%
QC value within limits for Se 196.026 Recovery = 97.61%						
SiO2†	941497.5	100300 µg/L	156.5	100300 ppb	156.5	0.16%
QC value within limits for SiO2 Recovery = 93.74%						
Si 251.611†	2903605.8	46802 µg/L	65.9	46802 ppb	65.9	0.14%
QC value within limits for Si 251.611 Recovery = 93.60%						
Sn 189.927†	143160.6	9944.7 µg/L	85.44	9944.7 ppb	85.44	0.86%
QC value within limits for Sn 189.927 Recovery = 99.45%						
Sr 421.552†	4277493.1	9867.5 µg/L	37.43	9867.5 ppb	37.43	0.38%
QC value within limits for Sr 421.552 Recovery = 98.68%						
Ti 334.940†	9917945.0	9928.3 µg/L	71.57	9928.3 ppb	71.57	0.72%
QC value within limits for Ti 334.940 Recovery = 99.28%						
Tl 190.801†	70889.2	9678.4 µg/L	76.09	9678.4 ppb	76.09	0.79%
QC value within limits for Tl 190.801 Recovery = 96.78%						
U 409.014†	-8242.4	93.479 µg/L	15.7042	93.479 ppb	15.7042	16.80%
V 292.402†	1888692.6	10222 µg/L	11.4	10222 ppb	11.4	0.11%
QC value within limits for V 292.402 Recovery = 102.22%						
Zn 213.857†	2328133.9	14364 µg/L	14.5	14364 ppb	14.5	0.10%
QC value within limits for Zn 213.857 Recovery = 95.76%						
All analyte(s) passed QC.						

=====  
Analysis Begun

Start Time: 3/30/2010 15:38:03

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\033010.sif

Batch ID:

Results Data Set: 033010B

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

## Method Loaded

Method Name: Gen Eng fast\_new Si

Method Last Saved: 3/30/2010 14:42:21

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: 3/30/2010 15:38:05

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	151504.5	151504.5	102 %		15:38:38
1	Al 396.153Radial†	25127.4	24580.8	5041.9 µg/L	5041.9 ppb	15:38:38
1	Ca 317.933Radial†	86568.9	83771.3	5040.3 µg/L	5040.3 ppb	15:38:38
1	Fe 238.204 Radial†	76327.0	74335.0	5001.9 µg/L	5001.9 ppb	15:38:38



1	K 766.490 Radial†	14132.9	12477.3	5131.1 µg/L	5131.1 ppb	15:38:38
1	Mg 279.077 IEC†	12891.5	12410.0	5098.9 µg/L	5098.9 ppb	15:38:38
1	Na 589.592 Radial†	69008.8	66128.4	10037 µg/L	10037 ppb	15:38:38
1	Sr 421.552†	226574.4	221300.6	510.47 µg/L	510.47 ppb	15:38:36
1	Sc 361.383	1759627.0	1759627.0	100.26 %		15:39:05
1	Y 371.029	1053204.5	1053204.5	98.981 %		15:39:05
1	Ag 328.068†	128951.6	125171.1	503.81 µg/L	503.81 ppb	15:39:05
1	As 188.979†	1422.1	1436.1	508.39 µg/L	508.39 ppb	15:39:25
1	B 249.677†	33989.6	30671.4	498.32 µg/L	498.32 ppb	15:39:05
1	Ba 233.527†	115707.9	115570.8	503.62 µg/L	503.62 ppb	15:39:05
1	Be 313.107†	1680446.8	1676887.5	503.39 µg/L	503.39 ppb	15:39:05
1	Cd 226.502†	73648.0	73567.6	504.83 µg/L	504.83 ppb	15:39:05
1	Co 228.616†	37203.9	37280.2	504.48 µg/L	504.48 ppb	15:39:05
1	Cr 267.716†	59799.2	59466.0	500.92 µg/L	500.92 ppb	15:39:05
1	Cu 324.752†	121918.4	118814.3	502.21 µg/L	502.21 ppb	15:39:05
1	Mn 257.610†	378583.6	377429.2	504.26 µg/L	504.26 ppb	15:39:05
1	Mo 202.031†	15912.6	15906.2	506.42 µg/L	506.42 ppb	15:39:25
1	Ni 231.604†	40265.5	40239.2	506.12 µg/L	506.12 ppb	15:39:05
1	P 214.914†	10703.2	10670.6	2536.6 µg/L	2536.6 ppb	15:39:25
1	Pb 220.353†	8477.2	8358.3	513.39 µg/L	513.39 ppb	15:39:25
1	S 181.975 Axial†	1327.5	1236.3	1017.7 µg/L	1017.7 ppb	15:39:25
1	Sb 206.836†	3955.7	3867.4	508.32 µg/L	508.32 ppb	15:39:25
1	Se 196.026†	1278.1	1261.2	507 µg/L	507 ppb	15:39:25
1	SiO2†	52159.9	50271.9	5356.6 µg/L	5356.6 ppb	15:39:05
1	Si 251.611†	156911.9	155557.5	2507.8 µg/L	2507.8 ppb	15:39:05
1	Sn 189.927†	7362.3	7345.9	510.26 µg/L	510.26 ppb	15:39:25
1	Ti 334.940†	504167.2	501978.0	502.26 µg/L	502.26 ppb	15:39:05
1	Tl 190.801†	3668.6	3776.2	515.02 µg/L	515.02 ppb	15:39:25
1	U 409.014†	7195.7	7460.8	497.79 µg/L	497.79 ppb	15:39:05
1	V 292.402†	94524.8	93970.6	505.63 µg/L	505.63 ppb	15:39:05
1	Zn 213.857†	82270.9	81533.6	501.71 µg/L	501.71 ppb	15:39:05
2	Sc RADIAL	151631.1	151631.1	103 %		15:38:42
2	Al 396.153Radial†	25213.3	24644.1	5055.0 µg/L	5055.0 ppb	15:38:42
2	Ca 317.933Radial†	87483.6	84592.5	5089.7 µg/L	5089.7 ppb	15:38:42
2	Fe 238.204 Radial†	77201.5	75125.4	5055.1 µg/L	5055.1 ppb	15:38:42
2	K 766.490 Radial†	14019.2	12355.0	5080.7 µg/L	5080.7 ppb	15:38:42
2	Mg 279.077 IEC†	13203.3	12703.5	5219.2 µg/L	5219.2 ppb	15:38:42
2	Na 589.592 Radial†	69553.7	66603.4	10109 µg/L	10109 ppb	15:38:42
2	Sr 421.552†	226352.0	220899.3	509.54 µg/L	509.54 ppb	15:38:40
2	Sc 361.383	1767397.7	1767397.7	100.70 %		15:39:28
2	Y 371.029	1058646.7	1058646.7	99.493 %		15:39:28
2	Ag 328.068†	130859.4	126500.1	509.15 µg/L	509.15 ppb	15:39:28
2	As 188.979†	1436.5	1444.1	511.22 µg/L	511.22 ppb	15:39:48
2	B 249.677†	34379.8	30909.8	502.19 µg/L	502.19 ppb	15:39:28
2	Ba 233.527†	116901.8	116249.1	506.58 µg/L	506.58 ppb	15:39:28
2	Be 313.107†	1699340.4	1688280.0	506.81 µg/L	506.81 ppb	15:39:28
2	Cd 226.502†	74684.6	74274.0	509.68 µg/L	509.68 ppb	15:39:28
2	Co 228.616†	37834.3	37743.0	510.74 µg/L	510.74 ppb	15:39:28
2	Cr 267.716†	60466.1	59866.0	504.29 µg/L	504.29 ppb	15:39:28
2	Cu 324.752†	122933.7	119287.8	504.23 µg/L	504.23 ppb	15:39:28
2	Mn 257.610†	382584.1	379741.6	507.35 µg/L	507.35 ppb	15:39:28
2	Mo 202.031†	15964.7	15888.1	505.85 µg/L	505.85 ppb	15:39:48
2	Ni 231.604†	40711.4	40505.5	509.47 µg/L	509.47 ppb	15:39:28
2	P 214.914†	10678.1	10598.7	2519.4 µg/L	2519.4 ppb	15:39:48
2	Pb 220.353†	8471.7	8315.7	510.77 µg/L	510.77 ppb	15:39:48
2	S 181.975 Axial†	1340.2	1243.1	1023.3 µg/L	1023.3 ppb	15:39:48
2	Sb 206.836†	3947.9	3842.3	504.98 µg/L	504.98 ppb	15:39:48
2	Se 196.026†	1275.0	1252.5	504 µg/L	504 ppb	15:39:48
2	SiO2†	52564.4	50444.8	5375.1 µg/L	5375.1 ppb	15:39:28
2	Si 251.611†	158508.2	156454.6	2522.3 µg/L	2522.3 ppb	15:39:28
2	Sn 189.927†	7380.4	7331.5	509.27 µg/L	509.27 ppb	15:39:48
2	Ti 334.940†	508780.8	504348.6	504.62 µg/L	504.62 ppb	15:39:28
2	Tl 190.801†	3664.4	3755.9	512.33 µg/L	512.33 ppb	15:39:48
2	U 409.014†	7366.9	7599.3	506.72 µg/L	506.72 ppb	15:39:28
2	V 292.402†	95762.2	94784.8	509.95 µg/L	509.95 ppb	15:39:28
2	Zn 213.857†	83402.5	82296.5	506.42 µg/L	506.42 ppb	15:39:28
3	Sc RADIAL	151391.2	151391.2	102 %		15:38:46
3	Al 396.153Radial†	25270.0	24738.4	5074.3 µg/L	5074.3 ppb	15:38:46
3	Ca 317.933Radial†	87371.5	84618.2	5091.3 µg/L	5091.3 ppb	15:38:46
3	Fe 238.204 Radial†	77219.5	75262.3	5064.3 µg/L	5064.3 ppb	15:38:46
3	K 766.490 Radial†	14248.8	12600.8	5181.9 µg/L	5181.9 ppb	15:38:46

3	Mg 279.077 IEC†	13166.9	12688.3	5213.0 µg/L	5213.0 ppb	15:38:46
3	Na 589.592 Radial†	69635.2	66790.4	10137 µg/L	10137 ppb	15:38:46
3	Sr 421.552†	229157.3	223988.2	516.67 µg/L	516.67 ppb	15:38:44
3	Sc 361.383	1755860.8	1755860.8	100.04 %		15:39:51
3	Y 371.029	1051150.6	1051150.6	98.788 %		15:39:51
3	Ag 328.068†	129337.0	125832.2	506.50 µg/L	506.50 ppb	15:39:51
3	As 188.979†	1421.3	1438.3	509.21 µg/L	509.21 ppb	15:40:11
3	B 249.677†	34212.5	30966.9	503.12 µg/L	503.12 ppb	15:39:51
3	Ba 233.527†	115940.4	116050.8	505.72 µg/L	505.72 ppb	15:39:51
3	Be 313.107†	1687416.9	1687449.6	506.56 µg/L	506.56 ppb	15:39:51
3	Cd 226.502†	73921.5	73998.5	507.78 µg/L	507.78 ppb	15:39:51
3	Co 228.616†	37565.8	37721.5	510.45 µg/L	510.45 ppb	15:39:51
3	Cr 267.716†	60098.6	59893.2	504.51 µg/L	504.51 ppb	15:39:51
3	Cu 324.752†	122263.6	119420.1	504.79 µg/L	504.79 ppb	15:39:51
3	Mn 257.610†	379537.3	379192.3	506.61 µg/L	506.61 ppb	15:39:51
3	Mo 202.031†	15914.9	15942.5	507.58 µg/L	507.58 ppb	15:40:11
3	Ni 231.604†	40391.8	40451.7	508.79 µg/L	508.79 ppb	15:39:51
3	P 214.914†	10679.2	10669.4	2536.2 µg/L	2536.2 ppb	15:40:11
3	Pb 220.353†	8465.8	8365.1	513.80 µg/L	513.80 ppb	15:40:11
3	S 181.975 Axial†	1323.1	1234.8	1016.5 µg/L	1016.5 ppb	15:40:11
3	Sb 206.836†	3956.0	3876.1	509.43 µg/L	509.43 ppb	15:40:11
3	Se 196.026†	1279.2	1265.1	509 µg/L	509 ppb	15:40:11
3	SiO2†	52368.9	50592.4	5390.8 µg/L	5390.8 ppb	15:39:51
3	Si 251.611†	157439.7	156420.8	2521.7 µg/L	2521.7 ppb	15:39:51
3	Sn 189.927†	7339.1	7338.4	509.75 µg/L	509.75 ppb	15:40:11
3	Ti 334.940†	505640.1	504528.9	504.80 µg/L	504.80 ppb	15:39:51
3	Tl 190.801†	3657.4	3772.9	514.61 µg/L	514.61 ppb	15:40:11
3	U 409.014†	7450.5	7730.9	514.89 µg/L	514.89 ppb	15:39:51
3	V 292.402†	94903.2	94551.0	508.74 µg/L	508.74 ppb	15:39:51
3	Zn 213.857†	82565.8	82004.4	504.61 µg/L	504.61 ppb	15:39:51

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1760961.8	100.34 %	0.335			0.33%
Sc RADIAL	151508.9	102 %	0.1			0.08%
Y 371.029	1054333.9	99.087 %	0.3640			0.37%
Ag 328.068†	125834.5	506.49 µg/L	2.671	506.49 ppb	2.671	0.53%
QC value within limits for Ag 328.068 Recovery = 101.30%						
Al 396.153Radial†	24654.5	5057.1 µg/L	16.32	5057.1 ppb	16.32	0.32%
QC value within limits for Al 396.153Radial Recovery = 101.14%						
As 188.979†	1439.5	509.60 µg/L	1.458	509.60 ppb	1.458	0.29%
QC value within limits for As 188.979 Recovery = 101.92%						
B 249.677†	30849.4	501.21 µg/L	2.544	501.21 ppb	2.544	0.51%
QC value within limits for B 249.677 Recovery = 100.24%						
Ba 233.527†	115956.9	505.31 µg/L	1.519	505.31 ppb	1.519	0.30%
QC value within limits for Ba 233.527 Recovery = 101.06%						
Be 313.107†	1684205.7	505.59 µg/L	1.908	505.59 ppb	1.908	0.38%
QC value within limits for Be 313.107 Recovery = 101.12%						
Ca 317.933Radial†	84327.3	5073.8 µg/L	28.98	5073.8 ppb	28.98	0.57%
QC value within limits for Ca 317.933Radial Recovery = 101.48%						
Cd 226.502†	73946.7	507.43 µg/L	2.442	507.43 ppb	2.442	0.48%
QC value within limits for Cd 226.502 Recovery = 101.49%						
Co 228.616†	37581.5	508.55 µg/L	3.533	508.55 ppb	3.533	0.69%
QC value within limits for Co 228.616 Recovery = 101.71%						
Cr 267.716†	59741.7	503.24 µg/L	2.010	503.24 ppb	2.010	0.40%
QC value within limits for Cr 267.716 Recovery = 100.65%						
Cu 324.752†	119174.0	503.74 µg/L	1.358	503.74 ppb	1.358	0.27%
QC value within limits for Cu 324.752 Recovery = 100.75%						
Fe 238.204 Radial†	74907.6	5040.4 µg/L	33.68	5040.4 ppb	33.68	0.67%
QC value within limits for Fe 238.204 Radial Recovery = 100.81%						
K 766.490 Radial†	12477.7	5131.2 µg/L	50.59	5131.2 ppb	50.59	0.99%
QC value within limits for K 766.490 Radial Recovery = 102.62%						
Mg 279.077 IEC†	12600.6	5177.1 µg/L	67.76	5177.1 ppb	67.76	1.31%
QC value within limits for Mg 279.077 IEC Recovery = 103.54%						
Mn 257.610†	378787.7	506.08 µg/L	1.612	506.08 ppb	1.612	0.32%
QC value within limits for Mn 257.610 Recovery = 101.22%						
Mo 202.031†	15912.3	506.62 µg/L	0.882	506.62 ppb	0.882	0.17%
QC value within limits for Mo 202.031 Recovery = 101.32%						
Na 589.592 Radial†	66507.4	10094 µg/L	51.8	10094 ppb	51.8	0.51%

QC value within limits for Na 589.592 Radial Recovery = 100.94%

Ni 231.604†	40398.8	508.13 µg/L	1.771	508.13 ppb	1.771	0.35%
QC value within limits for Ni 231.604 Recovery = 101.63%						
P 214.914†	10646.2	2530.7 µg/L	9.83	2530.7 ppb	9.83	0.39%
QC value within limits for P 214.914 Recovery = 101.23%						
Pb 220.353†	8346.3	512.65 µg/L	1.641	512.65 ppb	1.641	0.32%
QC value within limits for Pb 220.353 Recovery = 102.53%						
S 181.975 Axial†	1238.1	1019.2 µg/L	3.61	1019.2 ppb	3.61	0.35%
QC value within limits for S 181.975 Axial Recovery = 101.92%						
Sb 206.836†	3861.9	507.58 µg/L	2.318	507.58 ppb	2.318	0.46%
QC value within limits for Sb 206.836 Recovery = 101.52%						
Se 196.026†	1259.6	506 µg/L	2.6	506 ppb	2.6	0.51%
QC value within limits for Se 196.026 Recovery = 101.28%						
SiO2†	50436.4	5374.2 µg/L	17.15	5374.2 ppb	17.15	0.32%
QC value within limits for SiO2 Recovery = 100.50%						
Si 251.611†	156144.3	2517.3 µg/L	8.23	2517.3 ppb	8.23	0.33%
QC value within limits for Si 251.611 Recovery = 100.69%						
Sn 189.927†	7338.6	509.76 µg/L	0.493	509.76 ppb	0.493	0.10%
QC value within limits for Sn 189.927 Recovery = 101.95%						
Sr 421.552†	222062.7	512.23 µg/L	3.874	512.23 ppb	3.874	0.76%
QC value within limits for Sr 421.552 Recovery = 102.45%						
Ti 334.940†	503618.5	503.89 µg/L	1.418	503.89 ppb	1.418	0.28%
QC value within limits for Ti 334.940 Recovery = 100.78%						
Tl 190.801†	3768.3	513.99 µg/L	1.448	513.99 ppb	1.448	0.28%
QC value within limits for Tl 190.801 Recovery = 102.80%						
U 409.014†	7597.0	506.47 µg/L	8.551	506.47 ppb	8.551	1.69%
QC value within limits for U 409.014 Recovery = 101.29%						
V 292.402†	94435.5	508.11 µg/L	2.233	508.11 ppb	2.233	0.44%
QC value within limits for V 292.402 Recovery = 101.62%						
Zn 213.857†	81944.8	504.24 µg/L	2.372	504.24 ppb	2.372	0.47%
QC value within limits for Zn 213.857 Recovery = 100.85%						

All analyte(s) passed QC.

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/30/2010 15:40:19

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	152271.6	152271.6	103 %		15:40:49
1	Al 396.153Radial†	-38.2	25.8	5.3134 µg/L	5.3134 ppb	15:41:09
1	Ca 317.933Radial†	593.7	-121.6	-7.3179 µg/L	-7.3179 ppb	15:41:09
1	Fe 238.204 Radial†	146.8	1.9	0.1250 µg/L	0.1250 ppb	15:41:09
1	K 766.490 Radial†	1582.5	223.6	91.992 µg/L	91.992 ppb	15:40:49
1	Mg 279.077 IEC†	171.9	-1.9	-0.7624 µg/L	-0.7624 ppb	15:41:09
1	Na 589.592 Radial†	1948.7	685.2	103.97 µg/L	103.97 ppb	15:40:49
1	Sr 421.552†	-262.3	-33.0	-0.0760 µg/L	-0.0760 ppb	15:40:49
1	Sc 361.383	1761746.1	1761746.1	100.38 %		15:42:11
1	Y 371.029	1068118.8	1068118.8	100.38 %		15:42:11
1	Ag 328.068†	3245.5	-213.9	-0.8439 µg/L	-0.8439 ppb	15:42:13
1	As 188.979†	-13.3	4.5	1.5509 µg/L	1.5509 ppb	15:42:33
1	B 249.677†	3249.5	6.9	0.1116 µg/L	0.1116 ppb	15:42:33
1	Ba 233.527†	-156.2	6.5	0.0280 µg/L	0.0280 ppb	15:42:33
1	Be 313.107†	-658.9	129.2	0.0424 µg/L	0.0424 ppb	15:42:13
1	Cd 226.502†	-73.5	36.8	0.2528 µg/L	0.2528 ppb	15:42:33
1	Co 228.616†	-169.4	3.7	0.0497 µg/L	0.0497 ppb	15:42:33
1	Cr 267.716†	146.3	-32.8	-0.2859 µg/L	-0.2859 ppb	15:42:33
1	Cu 324.752†	2940.0	139.9	0.5993 µg/L	0.5993 ppb	15:42:13
1	Mn 257.610†	146.6	-29.6	-0.0395 µg/L	-0.0395 ppb	15:42:33
1	Mo 202.031†	-31.7	3.2	0.1017 µg/L	0.1017 ppb	15:42:33
1	Ni 231.604†	-80.5	-2.3	-0.0290 µg/L	-0.0290 ppb	15:42:33
1	P 214.914†	10.9	5.9	1.4022 µg/L	1.4022 ppb	15:42:33
1	Pb 220.353†	91.1	-6.2	-0.3899 µg/L	-0.3899 ppb	15:42:33
1	S 181.975 Axial†	91.1	3.1	2.5246 µg/L	2.5246 ppb	15:42:33
1	Sb 206.836†	82.7	4.4	0.5766 µg/L	0.5766 ppb	15:42:33
1	Se 196.026†	16.5	2.9	1.16 µg/L	1.16 ppb	15:42:33
1	SiO2†	1686.5	-73.0	-7.8262 µg/L	-7.8262 ppb	15:42:33
1	Si 251.611†	796.3	-155.3	-2.5203 µg/L	-2.5203 ppb	15:42:33
1	Sn 189.927†	8.2	10.7	0.7386 µg/L	0.7386 ppb	15:42:33
1	Ti 334.940†	880.2	-8.7	-0.0137 µg/L	-0.0137 ppb	15:42:13
1	Tl 190.801†	-115.7	1.9	0.2434 µg/L	0.2434 ppb	15:42:33
1	U 409.014†	-94.2	189.9	11.851 µg/L	11.851 ppb	15:42:13
1	V 292.402†	174.7	-135.8	-0.7133 µg/L	-0.7133 ppb	15:42:13
1	Zn 213.857†	549.9	23.3	0.1441 µg/L	0.1441 ppb	15:42:33
2	Sc RADIAL	150618.8	150618.8	102 %		15:41:11
2	Al 396.153Radial†	-53.4	10.5	2.1418 µg/L	2.1418 ppb	15:41:31
2	Ca 317.933Radial†	581.3	-127.4	-7.6675 µg/L	-7.6675 ppb	15:41:31
2	Fe 238.204 Radial†	171.2	27.3	1.8369 µg/L	1.8369 ppb	15:41:31
2	K 766.490 Radial†	1606.1	263.5	108.45 µg/L	108.45 ppb	15:41:11
2	Mg 279.077 IEC†	179.0	6.9	2.8302 µg/L	2.8302 ppb	15:41:31
2	Na 589.592 Radial†	1952.8	710.0	107.71 µg/L	107.71 ppb	15:41:11
2	Sr 421.552†	-168.0	56.8	0.1310 µg/L	0.1310 ppb	15:41:11
2	Sc 361.383	1744841.8	1744841.8	99.417 %		15:42:35
2	Y 371.029	1059308.4	1059308.4	99.555 %		15:42:35
2	Ag 328.068†	3616.7	190.8	0.7580 µg/L	0.7580 ppb	15:42:37
2	As 188.979†	-24.5	-7.0	-2.4263 µg/L	-2.4263 ppb	15:42:57
2	B 249.677†	3270.5	59.3	0.9680 µg/L	0.9680 ppb	15:42:57
2	Ba 233.527†	-154.1	7.2	0.0313 µg/L	0.0313 ppb	15:42:57
2	Be 313.107†	-485.0	297.7	0.0894 µg/L	0.0894 ppb	15:42:37
2	Cd 226.502†	-103.0	6.4	0.0440 µg/L	0.0440 ppb	15:42:57
2	Co 228.616†	-197.0	-25.7	-0.3482 µg/L	-0.3482 ppb	15:42:57
2	Cr 267.716†	149.9	-27.8	-0.2344 µg/L	-0.2344 ppb	15:42:57
2	Cu 324.752†	2688.9	-84.2	-0.3548 µg/L	-0.3548 ppb	15:42:37
2	Mn 257.610†	185.8	11.3	0.0150 µg/L	0.0150 ppb	15:42:57
2	Mo 202.031†	-25.5	9.1	0.2905 µg/L	0.2905 ppb	15:42:57
2	Ni 231.604†	-56.6	20.9	0.2635 µg/L	0.2635 ppb	15:42:57
2	P 214.914†	13.3	8.4	2.0004 µg/L	2.0004 ppb	15:42:57
2	Pb 220.353†	110.4	14.1	0.8625 µg/L	0.8625 ppb	15:42:57

2	S 181.975 Axial†	98.4	11.2	9.2093 µg/L	9.2093 ppb	15:42:57
2	Sb 206.836†	81.8	4.2	0.5540 µg/L	0.5540 ppb	15:42:57
2	Se 196.026†	12.4	-1.1	-0.426 µg/L	-0.426 ppb	15:42:57
2	SiO2†	1708.7	-34.4	-3.6920 µg/L	-3.6920 ppb	15:42:57
2	Si 251.611†	793.5	-150.5	-2.4395 µg/L	-2.4395 ppb	15:42:57
2	Sn 189.927†	-3.9	-1.4	-0.0980 µg/L	-0.0980 ppb	15:42:57
2	Ti 334.940†	736.5	-144.8	-0.1454 µg/L	-0.1454 ppb	15:42:37
2	Tl 190.801†	-120.7	-4.3	-0.5836 µg/L	-0.5836 ppb	15:42:57
2	U 409.014†	-281.2	0.9	0.0544 µg/L	0.0544 ppb	15:42:37
2	V 292.402†	298.4	-9.7	-0.0495 µg/L	-0.0495 ppb	15:42:37
2	Zn 213.857†	548.3	27.0	0.1659 µg/L	0.1659 ppb	15:42:57
3	Sc RADIAL	150276.3	150276.3	102 %		15:41:33
3	Al 396.153Radial†	-42.9	20.6	4.2398 µg/L	4.2398 ppb	15:41:53
3	Ca 317.933Radial†	575.7	-131.7	-7.9223 µg/L	-7.9223 ppb	15:41:53
3	Fe 238.204 Radial†	159.4	16.1	1.0819 µg/L	1.0819 ppb	15:41:53
3	K 766.490 Radial†	1605.7	266.8	109.77 µg/L	109.77 ppb	15:41:33
3	Mg 279.077 IEC†	158.6	-12.8	-5.2449 µg/L	-5.2449 ppb	15:41:53
3	Na 589.592 Radial†	1794.4	558.5	84.715 µg/L	84.715 ppb	15:41:33
3	Sr 421.552†	-256.8	-31.0	-0.0714 µg/L	-0.0714 ppb	15:41:33
3	Sc 361.383	1748415.8	1748415.8	99.620 %		15:42:59
3	Y 371.029	1061132.7	1061132.7	99.726 %		15:42:59
3	Ag 328.068†	3479.1	45.3	0.1721 µg/L	0.1721 ppb	15:43:01
3	As 188.979†	-15.1	2.5	0.8709 µg/L	0.8709 ppb	15:43:21
3	B 249.677†	3242.7	24.7	0.4031 µg/L	0.4031 ppb	15:43:21
3	Ba 233.527†	-211.2	-49.8	-0.2173 µg/L	-0.2173 ppb	15:43:21
3	Be 313.107†	-621.8	161.4	0.0478 µg/L	0.0478 ppb	15:43:01
3	Cd 226.502†	-106.4	3.2	0.0217 µg/L	0.0217 ppb	15:43:21
3	Co 228.616†	-168.4	3.4	0.0451 µg/L	0.0451 ppb	15:43:21
3	Cr 267.716†	182.8	4.9	0.0428 µg/L	0.0428 ppb	15:43:21
3	Cu 324.752†	2822.4	44.2	0.1848 µg/L	0.1848 ppb	15:43:01
3	Mn 257.610†	163.1	-11.8	-0.0156 µg/L	-0.0156 ppb	15:43:21
3	Mo 202.031†	-27.1	7.5	0.2393 µg/L	0.2393 ppb	15:43:21
3	Ni 231.604†	-73.8	3.8	0.0482 µg/L	0.0482 ppb	15:43:21
3	P 214.914†	21.6	16.6	3.9756 µg/L	3.9756 ppb	15:43:21
3	Pb 220.353†	107.7	11.1	0.6820 µg/L	0.6820 ppb	15:43:21
3	S 181.975 Axial†	89.1	1.7	1.3920 µg/L	1.3920 ppb	15:43:21
3	Sb 206.836†	74.7	-3.1	-0.3965 µg/L	-0.3965 ppb	15:43:21
3	Se 196.026†	12.9	-0.6	-0.241 µg/L	-0.241 ppb	15:43:21
3	SiO2†	1708.0	-38.6	-4.1618 µg/L	-4.1618 ppb	15:43:21
3	Si 251.611†	777.3	-168.4	-2.7378 µg/L	-2.7378 ppb	15:43:21
3	Sn 189.927†	17.4	20.0	1.3815 µg/L	1.3815 ppb	15:43:21
3	Ti 334.940†	767.6	-115.0	-0.1142 µg/L	-0.1142 ppb	15:43:01
3	Tl 190.801†	-132.3	-15.7	-2.1132 µg/L	-2.1132 ppb	15:43:21
3	U 409.014†	-314.3	-31.8	-2.0187 µg/L	-2.0187 ppb	15:43:01
3	V 292.402†	220.4	-88.6	-0.4693 µg/L	-0.4693 ppb	15:43:01
3	Zn 213.857†	528.4	5.8	0.0357 µg/L	0.0357 ppb	15:43:21

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1751667.9	99.806 %	0.5076			0.51%
Sc RADIAL	151055.6	102 %	0.7			0.71%
Y 371.029	1062853.3	99.888 %	0.4370			0.44%
Ag 328.068†	7.4	0.0288 µg/L	0.81049	0.0288 ppb	0.81049	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	19.0	3.8983 µg/L	1.61314	3.8983 ppb	1.61314	41.38%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.0	-0.0015 µg/L	2.12733	-0.0015 ppb	2.12733	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	30.3	0.4942 µg/L	0.43544	0.4942 ppb	0.43544	88.10%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-12.0	-0.0527 µg/L	0.14255	-0.0527 ppb	0.14255	270.66%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	196.1	0.0599 µg/L	0.02571	0.0599 ppb	0.02571	42.95%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-126.9	-7.6359 µg/L	0.30344	-7.6359 ppb	0.30344	3.97%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	15.5	0.1061 µg/L	0.12749	0.1061 ppb	0.12749	120.11%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-6.2	-0.0845 µg/L	0.22840	-0.0845 ppb	0.22840	270.40%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-18.6	-0.1592 µg/L	0.17679	-0.1592 ppb	0.17679	111.07%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	33.3	0.1431 µg/L	0.47842	0.1431 ppb	0.47842	334.35%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	15.1	1.0146 µg/L	0.85793	1.0146 ppb	0.85793	84.56%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	251.3	103.40 µg/L	9.906	103.40 ppb	9.906	9.58%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-2.6	-1.0590 µg/L	4.04567	-1.0590 ppb	4.04567	382.01%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	-10.0	-0.0134 µg/L	0.02732	-0.0134 ppb	0.02732	204.49%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	6.6	0.2105 µg/L	0.09765	0.2105 ppb	0.09765	46.40%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	651.2	98.798 µg/L	12.3396	98.798 ppb	12.3396	12.49%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	7.5	0.0942 µg/L	0.15155	0.0942 ppb	0.15155	160.83%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	10.3	2.4594 µg/L	1.34672	2.4594 ppb	1.34672	54.76%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	6.3	0.3849 µg/L	0.67701	0.3849 ppb	0.67701	175.89%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	5.3	4.3753 µg/L	4.22448	4.3753 ppb	4.22448	96.55%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	1.8	0.2447 µg/L	0.55538	0.2447 ppb	0.55538	226.96%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	0.4	0.163 µg/L	0.8651	0.163 ppb	0.8651	529.21%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-48.7	-5.2267 µg/L	2.26347	-5.2267 ppb	2.26347	43.31%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	-158.1	-2.5658 µg/L	0.15427	-2.5658 ppb	0.15427	6.01%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	9.7	0.6740 µg/L	0.74189	0.6740 ppb	0.74189	110.07%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-2.4	-0.0055 µg/L	0.11824	-0.0055 ppb	0.11824	>999.9%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-89.5	-0.0911 µg/L	0.06887	-0.0911 ppb	0.06887	75.59%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-6.1	-0.8178 µg/L	1.19565	-0.8178 ppb	1.19565	146.20%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	53.0	3.2957 µg/L	7.48152	3.2957 ppb	7.48152	227.01%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-78.1	-0.4107 µg/L	0.33575	-0.4107 ppb	0.33575	81.75%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	18.7	0.1152 µg/L	0.06972	0.1152 ppb	0.06972	60.49%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 3  
 Sample ID: 248202002|959123|5  
 Analyst: HSC  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 149  
 Date Collected: 3/30/2010 15:43:29  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Replicate Data: 248202002|959123|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	154367.0	154367.0	104 %		15:44:00
1	Al 396.153Radial†	99517.4	95365.9	19652 µg/L	19652 ppb	15:44:00
1	Ca 317.933Radial†	295256.8	282055.3	16971 µg/L	16971 ppb	15:44:00
1	Fe 238.204 Radial†	295828.5	283160.0	19053 µg/L	19053 ppb	15:44:00
1	K 766.490 Radial†	11018.9	9239.5	3794.7 µg/L	3794.7 ppb	15:44:02
1	Mg 279.077 IEC†	7603.0	7112.3	2901.4 µg/L	2901.4 ppb	15:44:02
1	Na 589.592 Radial†	6616.2	5129.4	775.50 µg/L	775.50 ppb	15:44:02
1	Sr 421.552†	38422.8	37017.4	85.261 µg/L	85.261 ppb	15:44:00
1	Sc 361.383	1764921.5	1764921.5	100.56 %		15:44:29
1	Y 371.029	1080116.6	1080116.6	101.51 %		15:44:29
1	Ag 328.068†	15111.6	11580.2	45.419 µg/L	45.419 ppb	15:44:29
1	As 188.979†	-14.8	2.9	5.7158 µg/L	5.7158 ppb	15:44:49
1	B 249.677†	7345.9	4074.6	66.409 µg/L	66.409 ppb	15:44:49
1	Ba 233.527†	35287.8	35253.1	153.27 µg/L	153.27 ppb	15:44:29
1	Be 313.107†	3501.0	4267.0	1.2567 µg/L	1.2567 ppb	15:44:29
1	Cd 226.502†	506.7	613.8	2.2246 µg/L	2.2246 ppb	15:44:49
1	Co 228.616†	340.4	511.0	6.0746 µg/L	6.0746 ppb	15:44:49
1	Cr 267.716†	5094.4	4887.4	41.663 µg/L	41.663 ppb	15:44:49
1	Cu 324.752†	983343.5	975069.8	4111.5 µg/L	4111.5 ppb	15:44:29
1	Mn 257.610†	654879.0	651050.7	870.04 µg/L	870.04 ppb	15:44:29
1	Mo 202.031†	205.4	239.0	8.4183 µg/L	8.4183 ppb	15:44:49
1	Ni 231.604†	2165.3	2231.1	28.063 µg/L	28.063 ppb	15:44:49
1	P 214.914†	5770.7	5733.5	1314.0 µg/L	1314.0 ppb	15:44:49
1	Pb 220.353†	4028.2	3908.8	239.05 µg/L	239.05 ppb	15:44:49
1	S 181.975 Axial†	1166.5	1072.3	879.04 µg/L	879.04 ppb	15:44:49
1	Sb 206.836†	101.6	23.0	2.1742 µg/L	2.1742 ppb	15:44:49
1	Se 196.026†	7.2	-6.4	3.96 µg/L	3.96 ppb	15:44:49
1	SiO2†	112095.6	109717.2	11738 µg/L	11738 ppb	15:44:29
1	Si 251.611†	341118.4	338267.1	5475.1 µg/L	5475.1 ppb	15:44:29
1	Sn 189.927†	69.4	71.5	6.0000 µg/L	6.0000 ppb	15:44:49
1	Ti 334.940†	312527.6	309898.9	310.69 µg/L	310.69 ppb	15:44:29
1	Tl 190.801†	-156.0	-38.0	0.3945 µg/L	0.3945 ppb	15:44:49
1	U 409.014†	-1552.5	-1260.1	-75.568 µg/L	-75.568 ppb	15:44:29
1	V 292.402†	4812.6	4475.9	21.669 µg/L	21.669 ppb	15:44:49
1	Zn 213.857†	324478.9	322144.5	1993.0 µg/L	1993.0 ppb	15:44:29
2	Sc RADIAL	152555.7	152555.7	103 %		15:44:04
2	Al 396.153Radial†	99516.7	96496.8	19885 µg/L	19885 ppb	15:44:04
2	Ca 317.933Radial†	293616.3	283822.8	17077 µg/L	17077 ppb	15:44:04
2	Fe 238.204 Radial†	294769.2	285497.3	19211 µg/L	19211 ppb	15:44:04
2	K 766.490 Radial†	11272.1	9610.1	3947.1 µg/L	3947.1 ppb	15:44:06
2	Mg 279.077 IEC†	7806.3	7395.7	3017.6 µg/L	3017.6 ppb	15:44:06
2	Na 589.592 Radial†	6722.4	5307.6	802.42 µg/L	802.42 ppb	15:44:06
2	Sr 421.552†	38273.5	37309.6	85.934 µg/L	85.934 ppb	15:44:04
2	Sc 361.383	1788161.3	1788161.3	101.89 %		15:44:52
2	Y 371.029	1094324.1	1094324.1	102.85 %		15:44:52
2	Ag 328.068†	15458.8	11725.7	46.008 µg/L	46.008 ppb	15:44:52
2	As 188.979†	-6.7	11.1	8.5990 µg/L	8.5990 ppb	15:45:12
2	B 249.677†	7430.6	4062.8	66.217 µg/L	66.217 ppb	15:45:12
2	Ba 233.527†	36034.1	35529.6	154.47 µg/L	154.47 ppb	15:44:52
2	Be 313.107†	3762.8	4478.7	1.3247 µg/L	1.3247 ppb	15:44:52
2	Cd 226.502†	483.8	584.9	2.0086 µg/L	2.0086 ppb	15:45:12
2	Co 228.616†	339.3	505.4	5.9927 µg/L	5.9927 ppb	15:45:12
2	Cr 267.716†	5081.8	4809.2	40.995 µg/L	40.995 ppb	15:45:12
2	Cu 324.752†	1000252.0	978956.7	4127.9 µg/L	4127.9 ppb	15:44:52
2	Mn 257.610†	666618.1	654109.0	874.12 µg/L	874.12 ppb	15:44:52
2	Mo 202.031†	230.1	260.6	9.1126 µg/L	9.1126 ppb	15:45:12
2	Ni 231.604†	2122.3	2161.0	27.180 µg/L	27.180 ppb	15:45:12
2	P 214.914†	5735.2	5624.1	1287.7 µg/L	1287.7 ppb	15:45:12
2	Pb 220.353†	4059.6	3887.5	237.74 µg/L	237.74 ppb	15:45:12

2	S 181.975 Axial†	1165.8	1056.6	866.18 µg/L	866.18 ppb	15:45:12
2	Sb 206.836†	84.8	5.2	-0.1435 µg/L	-0.1435 ppb	15:45:12
2	Se 196.026†	1.2	-12.4	1.65 µg/L	1.65 ppb	15:45:12
2	SiO2†	113883.4	110023.2	11771 µg/L	11771 ppb	15:44:52
2	Si 251.611†	346568.2	339207.4	5490.3 µg/L	5490.3 ppb	15:44:52
2	Sn 189.927†	72.7	73.9	6.1654 µg/L	6.1654 ppb	15:45:12
2	Ti 334.940†	318147.8	311375.9	312.16 µg/L	312.16 ppb	15:44:52
2	Tl 190.801†	-160.9	-40.9	0.0379 µg/L	0.0379 ppb	15:45:12
2	U 409.014†	-1333.9	-1025.4	-60.889 µg/L	-60.889 ppb	15:44:52
2	V 292.402†	4830.5	4431.3	21.428 µg/L	21.428 ppb	15:45:12
2	Zn 213.857†	330671.6	324029.0	2004.7 µg/L	2004.7 ppb	15:44:52
3	Sc RADIAL	153054.9	153054.9	104 %		15:44:08
3	Al 396.153Radial†	98914.2	95600.3	19700 µg/L	19700 ppb	15:44:08
3	Ca 317.933Radial†	293280.8	282570.6	17002 µg/L	17002 ppb	15:44:08
3	Fe 238.204 Radial†	294323.0	284134.5	19119 µg/L	19119 ppb	15:44:08
3	K 766.490 Radial†	11062.4	9371.9	3849.2 µg/L	3849.2 ppb	15:44:10
3	Mg 279.077 IEC†	7791.2	7356.4	3001.6 µg/L	3001.6 ppb	15:44:10
3	Na 589.592 Radial†	6635.5	5202.3	786.53 µg/L	786.53 ppb	15:44:10
3	Sr 421.552†	38111.8	37032.4	85.295 µg/L	85.295 ppb	15:44:08
3	Sc 361.383	1785296.2	1785296.2	101.72 %		15:45:14
3	Y 371.029	1092751.0	1092751.0	102.70 %		15:45:14
3	Ag 328.068†	15553.4	11843.0	46.471 µg/L	46.471 ppb	15:45:14
3	As 188.979†	-10.8	7.0	7.1654 µg/L	7.1654 ppb	15:45:34
3	B 249.677†	7465.9	4109.2	66.972 µg/L	66.972 ppb	15:45:34
3	Ba 233.527†	36412.0	35957.8	156.34 µg/L	156.34 ppb	15:45:14
3	Be 313.107†	3799.7	4521.0	1.3356 µg/L	1.3356 ppb	15:45:14
3	Cd 226.502†	504.0	605.5	2.1602 µg/L	2.1602 ppb	15:45:34
3	Co 228.616†	366.3	532.6	6.3664 µg/L	6.3664 ppb	15:45:34
3	Cr 267.716†	5229.3	4962.2	42.283 µg/L	42.283 ppb	15:45:34
3	Cu 324.752†	1011530.7	991620.1	4181.3 µg/L	4181.3 ppb	15:45:14
3	Mn 257.610†	675465.5	663856.6	887.15 µg/L	887.15 ppb	15:45:14
3	Mo 202.031†	249.9	280.5	9.7408 µg/L	9.7408 ppb	15:45:34
3	Ni 231.604†	2196.7	2237.4	28.141 µg/L	28.141 ppb	15:45:34
3	P 214.914†	5873.6	5769.2	1321.7 µg/L	1321.7 ppb	15:45:34
3	Pb 220.353†	4089.1	3922.9	239.90 µg/L	239.90 ppb	15:45:34
3	S 181.975 Axial†	1189.9	1082.0	887.06 µg/L	887.06 ppb	15:45:34
3	Sb 206.836†	77.6	-1.8	-1.0683 µg/L	-1.0683 ppb	15:45:34
3	Se 196.026†	10.7	-3.0	5.36 µg/L	5.36 ppb	15:45:34
3	SiO2†	115241.7	111537.9	11933 µg/L	11933 ppb	15:45:14
3	Si 251.611†	351032.8	344142.4	5570.2 µg/L	5570.2 ppb	15:45:14
3	Sn 189.927†	66.7	68.1	5.7813 µg/L	5.7813 ppb	15:45:34
3	Ti 334.940†	321451.7	315125.0	315.92 µg/L	315.92 ppb	15:45:14
3	Tl 190.801†	-165.8	-45.9	-0.5675 µg/L	-0.5675 ppb	15:45:34
3	U 409.014†	-1426.3	-1118.4	-66.582 µg/L	-66.582 ppb	15:45:14
3	V 292.402†	4911.0	4518.0	21.903 µg/L	21.903 ppb	15:45:34
3	Zn 213.857†	334994.0	328799.2	2034.2 µg/L	2034.2 ppb	15:45:14

## Mean Data: 248202002|959123|5

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1779459.7	101.39 %	0.722			0.71%
Sc RADIAL	153325.9	104 %	0.6			0.61%
Y 371.029	1089063.9	102.35 %	0.732			0.72%
Ag 328.068†	11716.3	45.966 µg/L	0.5274	45.966 ppb	0.5274	1.15%
Al 396.153Radial†	95821.0	19746 µg/L	123.0	19746 ppb	123.0	0.62%
As 188.979†	7.0	7.1601 µg/L	1.44158	7.1601 ppb	1.44158	20.13%
B 249.677†	4082.2	66.533 µg/L	0.3924	66.533 ppb	0.3924	0.59%
Ba 233.527†	35580.2	154.69 µg/L	1.546	154.69 ppb	1.546	1.00%
Be 313.107†	4422.3	1.3057 µg/L	0.04275	1.3057 ppb	0.04275	3.27%
Ca 317.933Radial†	282816.2	17016 µg/L	54.7	17016 ppb	54.7	0.32%
Cd 226.502†	601.4	2.1311 µg/L	0.11089	2.1311 ppb	0.11089	5.20%
Co 228.616†	516.3	6.1446 µg/L	0.19640	6.1446 ppb	0.19640	3.20%
Cr 267.716†	4886.3	41.647 µg/L	0.6439	41.647 ppb	0.6439	1.55%
Cu 324.752†	981882.2	4140.2 µg/L	36.47	4140.2 ppb	36.47	0.88%
Fe 238.204 Radial†	284263.9	19128 µg/L	79.0	19128 ppb	79.0	0.41%
K 766.490 Radial†	9407.2	3863.7 µg/L	77.25	3863.7 ppb	77.25	2.00%
Mg 279.077 IEC†	7288.1	2973.5 µg/L	62.95	2973.5 ppb	62.95	2.12%
Mn 257.610†	656338.8	877.10 µg/L	8.938	877.10 ppb	8.938	1.02%
Mo 202.031†	260.0	9.0906 µg/L	0.66152	9.0906 ppb	0.66152	7.28%
Na 589.592 Radial†	5213.1	788.15 µg/L	13.531	788.15 ppb	13.531	1.72%



Ni 231.604†	2209.8	27.795 µg/L	0.5337	27.795 ppb	0.5337	1.92%
P 214.914†	5708.9	1307.8 µg/L	17.85	1307.8 ppb	17.85	1.37%
Pb 220.353†	3906.4	238.90 µg/L	1.084	238.90 ppb	1.084	0.45%
S 181.975 Axial†	1070.3	877.43 µg/L	10.531	877.43 ppb	10.531	1.20%
Sb 206.836†	8.8	0.3208 µg/L	1.67037	0.3208 ppb	1.67037	520.67%
Se 196.026†	-7.3	3.66 µg/L	1.873	3.66 ppb	1.873	51.24%
SiO2†	110426.1	11814 µg/L	104.3	11814 ppb	104.3	0.88%
Si 251.611†	340539.0	5511.9 µg/L	51.07	5511.9 ppb	51.07	0.93%
Sn 189.927†	71.2	5.9822 µg/L	0.19268	5.9822 ppb	0.19268	3.22%
Sr 421.552†	37119.8	85.497 µg/L	0.3792	85.497 ppb	0.3792	0.44%
Ti 334.940†	312133.3	312.92 µg/L	2.695	312.92 ppb	2.695	0.86%
Tl 190.801†	-41.6	-0.0450 µg/L	0.48632	-0.0450 ppb	0.48632	>999.9%
U 409.014†	-1134.6	-67.680 µg/L	7.4007	-67.680 ppb	7.4007	10.93%
Concentration less than lower limit for U 409.014.						
V 292.402†	4475.1	21.666 µg/L	0.2373	21.666 ppb	0.2373	1.10%
Zn 213.857†	324990.9	2010.7 µg/L	21.25	2010.7 ppb	21.25	1.06%

Sequence No.: 8

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/30/2010 15:54:07

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	152898.0	152898.0	103 %		15:54:41
1	Al 396.153Radial†	25494.9	24712.6	5069.0 µg/L	5069.0 ppb	15:54:41
1	Ca 317.933Radial†	88550.4	84917.2	5109.3 µg/L	5109.3 ppb	15:54:41
1	Fe 238.204 Radial†	78113.2	75383.3	5072.4 µg/L	5072.4 ppb	15:54:41
1	K 766.490 Radial†	14245.1	12460.1	5124.0 µg/L	5124.0 ppb	15:54:41
1	Mg 279.077 IEC†	13260.3	12651.9	5198.1 µg/L	5198.1 ppb	15:54:41
1	Na 589.592 Radial†	69947.5	66422.3	10081 µg/L	10081 ppb	15:54:41
1	Sr 421.552†	225954.2	218686.1	504.44 µg/L	504.44 ppb	15:54:39
1	Sc 361.383	1766476.2	1766476.2	100.65 %		15:54:53
1	Y 371.029	1056827.3	1056827.3	99.322 %		15:54:53
1	Ag 328.068†	130821.0	126529.7	509.27 µg/L	509.27 ppb	15:54:53
1	As 188.979†	1449.4	1457.7	516.01 µg/L	516.01 ppb	15:55:14
1	B 249.677†	34337.2	30885.3	501.79 µg/L	501.79 ppb	15:54:53
1	Ba 233.527†	116922.3	116330.0	506.93 µg/L	506.93 ppb	15:54:53
1	Be 313.107†	1701022.2	1690831.4	507.58 µg/L	507.58 ppb	15:54:53
1	Cd 226.502†	74763.6	74391.2	510.48 µg/L	510.48 ppb	15:54:53
1	Co 228.616†	37890.8	37818.7	511.76 µg/L	511.76 ppb	15:54:53
1	Cr 267.716†	60801.9	60231.0	507.36 µg/L	507.36 ppb	15:54:53
1	Cu 324.752†	123064.6	119481.6	505.05 µg/L	505.05 ppb	15:54:53
1	Mn 257.610†	383529.0	380878.5	508.87 µg/L	508.87 ppb	15:54:53
1	Mo 202.031†	16006.9	15938.4	507.45 µg/L	507.45 ppb	15:55:14
1	Ni 231.604†	40839.2	40653.6	511.33 µg/L	511.33 ppb	15:54:53
1	P 214.914†	10798.6	10723.9	2549.2 µg/L	2549.2 ppb	15:55:14
1	Pb 220.353†	8511.4	8359.5	513.46 µg/L	513.46 ppb	15:55:14
1	S 181.975 Axial†	1341.1	1244.7	1024.6 µg/L	1024.6 ppb	15:55:14
1	Sb 206.836†	3967.2	3863.5	507.74 µg/L	507.74 ppb	15:55:14
1	Se 196.026†	1297.6	1275.7	513 µg/L	513 ppb	15:55:14
1	SiO2†	53075.1	50979.5	5432.2 µg/L	5432.2 ppb	15:54:53
1	Si 251.611†	159406.2	157429.0	2538.1 µg/L	2538.1 ppb	15:54:53
1	Sn 189.927†	7400.1	7354.9	510.89 µg/L	510.89 ppb	15:55:14
1	Ti 334.940†	509982.0	505805.6	506.08 µg/L	506.08 ppb	15:54:53
1	Tl 190.801†	3697.9	3791.1	517.08 µg/L	517.08 ppb	15:55:14
1	U 409.014†	7385.3	7621.4	508.08 µg/L	508.08 ppb	15:54:53
1	V 292.402†	95602.3	94675.5	509.40 µg/L	509.40 ppb	15:54:53
1	Zn 213.857†	83405.4	82342.7	506.69 µg/L	506.69 ppb	15:54:53
2	Sc RADIAL	153813.3	153813.3	104 %		15:54:45
2	Al 396.153Radial†	25906.1	24961.2	5120.3 µg/L	5120.3 ppb	15:54:45
2	Ca 317.933Radial†	90324.6	86113.0	5181.2 µg/L	5181.2 ppb	15:54:45
2	Fe 238.204 Radial†	79894.0	76645.4	5157.4 µg/L	5157.4 ppb	15:54:45
2	K 766.490 Radial†	14489.5	12613.1	5186.9 µg/L	5186.9 ppb	15:54:45
2	Mg 279.077 IEC†	13565.2	12868.7	5286.9 µg/L	5286.9 ppb	15:54:45
2	Na 589.592 Radial†	71256.6	67278.0	10211 µg/L	10211 ppb	15:54:45
2	Sr 421.552†	230368.6	221628.8	511.22 µg/L	511.22 ppb	15:54:43
2	Sc 361.383	1761903.1	1761903.1	100.39 %		15:55:17
2	Y 371.029	1054491.7	1054491.7	99.102 %		15:55:17
2	Ag 328.068†	130499.2	126546.5	509.34 µg/L	509.34 ppb	15:55:17
2	As 188.979†	1426.1	1438.2	509.18 µg/L	509.18 ppb	15:55:37
2	B 249.677†	34599.7	31235.3	507.49 µg/L	507.49 ppb	15:55:17
2	Ba 233.527†	116559.6	116270.2	506.67 µg/L	506.67 ppb	15:55:17
2	Be 313.107†	1696997.8	1691209.1	507.69 µg/L	507.69 ppb	15:55:17
2	Cd 226.502†	74443.4	74265.1	509.60 µg/L	509.60 ppb	15:55:17
2	Co 228.616†	37855.1	37880.8	512.60 µg/L	512.60 ppb	15:55:17
2	Cr 267.716†	60290.1	59878.0	504.39 µg/L	504.39 ppb	15:55:17
2	Cu 324.752†	122978.4	119713.0	506.04 µg/L	506.04 ppb	15:55:17
2	Mn 257.610†	382160.3	380504.2	508.37 µg/L	508.37 ppb	15:55:17
2	Mo 202.031†	15939.1	15912.1	506.62 µg/L	506.62 ppb	15:55:37
2	Ni 231.604†	40586.6	40507.2	509.49 µg/L	509.49 ppb	15:55:17
2	P 214.914†	10736.5	10689.9	2541.1 µg/L	2541.1 ppb	15:55:37
2	Pb 220.353†	8464.9	8335.1	511.96 µg/L	511.96 ppb	15:55:37

2	S 181.975 Axial†	1327.2	1234.3	1016.1 µg/L	1016.1 ppb	15:55:37
2	Sb 206.836†	3978.2	3884.7	510.55 µg/L	510.55 ppb	15:55:37
2	Se 196.026†	1299.1	1280.5	515 µg/L	515 ppb	15:55:37
2	SiO2†	52598.8	50641.9	5396.2 µg/L	5396.2 ppb	15:55:17
2	Si 251.611†	158393.7	156831.4	2528.4 µg/L	2528.4 ppb	15:55:17
2	Sn 189.927†	7363.2	7337.2	509.67 µg/L	509.67 ppb	15:55:37
2	Ti 334.940†	508335.3	505480.4	505.75 µg/L	505.75 ppb	15:55:17
2	Tl 190.801†	3693.7	3796.5	517.79 µg/L	517.79 ppb	15:55:37
2	U 409.014†	7366.6	7621.9	508.14 µg/L	508.14 ppb	15:55:17
2	V 292.402†	95533.2	94853.3	510.32 µg/L	510.32 ppb	15:55:17
2	Zn 213.857†	83149.2	82302.5	506.44 µg/L	506.44 ppb	15:55:17
3	Sc RADIAL	153503.9	153503.9	104 %		15:54:49
3	Al 396.153Radial†	25953.2	25056.8	5139.8 µg/L	5139.8 ppb	15:54:49
3	Ca 317.933Radial†	89994.6	85970.1	5172.6 µg/L	5172.6 ppb	15:54:49
3	Fe 238.204 Radial†	79338.5	76265.2	5131.8 µg/L	5131.8 ppb	15:54:49
3	K 766.490 Radial†	14412.9	12567.4	5168.1 µg/L	5168.1 ppb	15:54:49
3	Mg 279.077 IEC†	13512.1	12843.9	5276.9 µg/L	5276.9 ppb	15:54:49
3	Na 589.592 Radial†	70773.4	66950.7	10162 µg/L	10162 ppb	15:54:49
3	Sr 421.552†	228639.3	220409.6	508.41 µg/L	508.41 ppb	15:54:47
3	Sc 361.383	1744601.8	1744601.8	99.403 %		15:55:40
3	Y 371.029	1045173.0	1045173.0	98.226 %		15:55:40
3	Ag 328.068†	129131.8	126460.1	509.00 µg/L	509.00 ppb	15:55:40
3	As 188.979†	1420.2	1446.5	512.07 µg/L	512.07 ppb	15:56:00
3	B 249.677†	33934.1	30907.5	502.15 µg/L	502.15 ppb	15:55:40
3	Ba 233.527†	115526.7	116382.5	507.16 µg/L	507.16 ppb	15:55:40
3	Be 313.107†	1678703.4	1689568.9	507.20 µg/L	507.20 ppb	15:55:40
3	Cd 226.502†	73616.8	74168.8	508.94 µg/L	508.94 ppb	15:55:40
3	Co 228.616†	37455.8	37853.1	512.22 µg/L	512.22 ppb	15:55:40
3	Cr 267.716†	59770.6	59950.9	505.00 µg/L	505.00 ppb	15:55:40
3	Cu 324.752†	121792.5	119734.9	506.13 µg/L	506.13 ppb	15:55:40
3	Mn 257.610†	378385.7	380482.1	508.34 µg/L	508.34 ppb	15:55:40
3	Mo 202.031†	15905.8	16036.1	510.56 µg/L	510.56 ppb	15:56:00
3	Ni 231.604†	40232.3	40551.8	510.05 µg/L	510.05 ppb	15:55:40
3	P 214.914†	10667.1	10726.2	2549.7 µg/L	2549.7 ppb	15:56:00
3	Pb 220.353†	8410.1	8363.6	513.72 µg/L	513.72 ppb	15:56:00
3	S 181.975 Axial†	1333.4	1253.7	1032.0 µg/L	1032.0 ppb	15:56:00
3	Sb 206.836†	3953.6	3899.3	512.51 µg/L	512.51 ppb	15:56:00
3	Se 196.026†	1280.3	1274.4	512 µg/L	512 ppb	15:56:00
3	SiO2†	52227.3	50787.7	5411.6 µg/L	5411.6 ppb	15:55:40
3	Si 251.611†	156966.4	156960.3	2530.4 µg/L	2530.4 ppb	15:55:40
3	Sn 189.927†	7357.1	7403.9	514.29 µg/L	514.29 ppb	15:56:00
3	Ti 334.940†	503753.2	505892.4	506.16 µg/L	506.16 ppb	15:55:40
3	Tl 190.801†	3662.1	3801.2	518.43 µg/L	518.43 ppb	15:56:00
3	U 409.014†	7305.2	7632.8	508.81 µg/L	508.81 ppb	15:55:40
3	V 292.402†	94531.3	94789.1	510.02 µg/L	510.02 ppb	15:55:40
3	Zn 213.857†	82414.1	82384.4	506.95 µg/L	506.95 ppb	15:55:40

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1757660.4	100.15 %	0.657			0.66%
Sc RADIAL	153405.1	104 %	0.3			0.30%
Y 371.029	1052164.0	98.883 %	0.5795			0.59%
Ag 328.068†	126512.1	509.20 µg/L	0.182	509.20 ppb	0.182	0.04%
QC value within limits for Ag 328.068 Recovery = 101.84%						
Al 396.153Radial†	24910.2	5109.7 µg/L	36.55	5109.7 ppb	36.55	0.72%
QC value within limits for Al 396.153Radial Recovery = 102.19%						
As 188.979†	1447.5	512.42 µg/L	3.425	512.42 ppb	3.425	0.67%
QC value within limits for As 188.979 Recovery = 102.48%						
B 249.677†	31009.4	503.81 µg/L	3.194	503.81 ppb	3.194	0.63%
QC value within limits for B 249.677 Recovery = 100.76%						
Ba 233.527†	116327.6	506.92 µg/L	0.245	506.92 ppb	0.245	0.05%
QC value within limits for Ba 233.527 Recovery = 101.38%						
Be 313.107†	1690536.5	507.49 µg/L	0.258	507.49 ppb	0.258	0.05%
QC value within limits for Be 313.107 Recovery = 101.50%						
Ca 317.933Radial†	85666.7	5154.4 µg/L	39.29	5154.4 ppb	39.29	0.76%
QC value within limits for Ca 317.933Radial Recovery = 103.09%						
Cd 226.502†	74275.0	509.68 µg/L	0.769	509.68 ppb	0.769	0.15%
QC value within limits for Cd 226.502 Recovery = 101.94%						
Co 228.616†	37850.9	512.19 µg/L	0.418	512.19 ppb	0.418	0.08%

QC value within limits for Co 228.616 Recovery = 102.44%							
Cr 267.716†	60020.0	505.58 µg/L	1.569	505.58 ppb	1.569	0.31%	
QC value within limits for Cr 267.716 Recovery = 101.12%							
Cu 324.752†	119643.1	505.74 µg/L	0.599	505.74 ppb	0.599	0.12%	
QC value within limits for Cu 324.752 Recovery = 101.15%							
Fe 238.204 Radial†	76097.9	5120.5 µg/L	43.57	5120.5 ppb	43.57	0.85%	
QC value within limits for Fe 238.204 Radial Recovery = 102.41%							
K 766.490 Radial†	12546.8	5159.6 µg/L	32.29	5159.6 ppb	32.29	0.63%	
QC value within limits for K 766.490 Radial Recovery = 103.19%							
Mg 279.077 IEC†	12788.2	5254.0 µg/L	48.64	5254.0 ppb	48.64	0.93%	
QC value within limits for Mg 279.077 IEC Recovery = 105.08%							
Mn 257.610†	380621.6	508.52 µg/L	0.300	508.52 ppb	0.300	0.06%	
QC value within limits for Mn 257.610 Recovery = 101.70%							
Mo 202.031†	15962.2	508.21 µg/L	2.079	508.21 ppb	2.079	0.41%	
QC value within limits for Mo 202.031 Recovery = 101.64%							
Na 589.592 Radial†	66883.7	10152 µg/L	65.5	10152 ppb	65.5	0.65%	
QC value within limits for Na 589.592 Radial Recovery = 101.52%							
Ni 231.604†	40570.9	510.29 µg/L	0.944	510.29 ppb	0.944	0.18%	
QC value within limits for Ni 231.604 Recovery = 102.06%							
P 214.914†	10713.3	2546.7 µg/L	4.86	2546.7 ppb	4.86	0.19%	
QC value within limits for P 214.914 Recovery = 101.87%							
Pb 220.353†	8352.7	513.05 µg/L	0.948	513.05 ppb	0.948	0.18%	
QC value within limits for Pb 220.353 Recovery = 102.61%							
S 181.975 Axial†	1244.2	1024.2 µg/L	7.94	1024.2 ppb	7.94	0.78%	
QC value within limits for S 181.975 Axial Recovery = 102.42%							
Sb 206.836†	3882.5	510.27 µg/L	2.400	510.27 ppb	2.400	0.47%	
QC value within limits for Sb 206.836 Recovery = 102.05%							
Se 196.026†	1276.9	513 µg/L	1.3	513 ppb	1.3	0.25%	
QC value within limits for Se 196.026 Recovery = 102.67%							
SiO2†	50803.0	5413.3 µg/L	18.10	5413.3 ppb	18.10	0.33%	
QC value within limits for SiO2 Recovery = 101.23%							
Si 251.611†	157073.6	2532.3 µg/L	5.09	2532.3 ppb	5.09	0.20%	
QC value within limits for Si 251.611 Recovery = 101.29%							
Sn 189.927†	7365.3	511.62 µg/L	2.390	511.62 ppb	2.390	0.47%	
QC value within limits for Sn 189.927 Recovery = 102.32%							
Sr 421.552†	220241.5	508.02 µg/L	3.410	508.02 ppb	3.410	0.67%	
QC value within limits for Sr 421.552 Recovery = 101.60%							
Ti 334.940†	505726.1	506.00 µg/L	0.218	506.00 ppb	0.218	0.04%	
QC value within limits for Ti 334.940 Recovery = 101.20%							
Tl 190.801†	3796.3	517.77 µg/L	0.678	517.77 ppb	0.678	0.13%	
QC value within limits for Tl 190.801 Recovery = 103.55%							
U 409.014†	7625.4	508.34 µg/L	0.406	508.34 ppb	0.406	0.08%	
QC value within limits for U 409.014 Recovery = 101.67%							
V 292.402†	94772.6	509.91 µg/L	0.466	509.91 ppb	0.466	0.09%	
QC value within limits for V 292.402 Recovery = 101.98%							
Zn 213.857†	82343.2	506.69 µg/L	0.254	506.69 ppb	0.254	0.05%	
QC value within limits for Zn 213.857 Recovery = 101.34%							
All analyte(s) passed QC.							

Sequence No.: 9

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/30/2010 15:56:07

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	151439.2	151439.2	102 %		15:56:36
1	Al 396.153Radial†	-72.0	-7.4	-1.5426 µg/L	-1.5426 ppb	15:56:56
1	Ca 317.933Radial†	616.3	-96.4	-5.7988 µg/L	-5.7988 ppb	15:56:56
1	Fe 238.204 Radial†	169.0	24.3	1.6349 µg/L	1.6349 ppb	15:56:56
1	K 766.490 Radial†	1445.7	98.4	40.501 µg/L	40.501 ppb	15:56:36
1	Mg 279.077 IEC†	154.2	-18.3	-7.4960 µg/L	-7.4960 ppb	15:56:56
1	Na 589.592 Radial†	1619.2	374.0	56.749 µg/L	56.749 ppb	15:56:36
1	Sr 421.552†	-165.2	60.4	0.1393 µg/L	0.1393 ppb	15:56:36
1	Sc 361.383	1780635.7	1780635.7	101.46 %		15:57:44
1	Y 371.029	1078953.6	1078953.6	101.40 %		15:57:44
1	Ag 328.068†	3244.7	-249.0	-0.9690 µg/L	-0.9690 ppb	15:57:46
1	As 188.979†	-21.9	-3.9	-1.3519 µg/L	-1.3519 ppb	15:58:06
1	B 249.677†	3281.0	3.6	0.0578 µg/L	0.0578 ppb	15:58:06
1	Ba 233.527†	-154.7	9.6	0.0424 µg/L	0.0424 ppb	15:58:06
1	Be 313.107†	-762.3	34.2	0.0139 µg/L	0.0139 ppb	15:57:46
1	Cd 226.502†	-101.4	10.1	0.0691 µg/L	0.0691 ppb	15:58:06
1	Co 228.616†	-173.3	1.6	0.0220 µg/L	0.0220 ppb	15:58:06
1	Cr 267.716†	179.0	-2.1	-0.0268 µg/L	-0.0268 ppb	15:58:06
1	Cu 324.752†	2941.0	109.8	0.4727 µg/L	0.4727 ppb	15:57:46
1	Mn 257.610†	182.1	3.9	0.0055 µg/L	0.0055 ppb	15:58:06
1	Mo 202.031†	-29.1	6.1	0.1930 µg/L	0.1930 ppb	15:58:06
1	Ni 231.604†	-53.4	25.3	0.3179 µg/L	0.3179 ppb	15:58:06
1	P 214.914†	-6.7	-11.6	-2.7718 µg/L	-2.7718 ppb	15:58:06
1	Pb 220.353†	74.0	-24.0	-1.4785 µg/L	-1.4785 ppb	15:58:06
1	S 181.975 Axial†	91.2	2.2	1.8313 µg/L	1.8313 ppb	15:58:06
1	Sb 206.836†	88.4	9.1	1.1933 µg/L	1.1933 ppb	15:58:06
1	Se 196.026†	5.5	-8.2	-3.26 µg/L	-3.26 ppb	15:58:06
1	SiO2†	1722.5	-55.4	-5.9330 µg/L	-5.9330 ppb	15:58:06
1	Si 251.611†	814.0	-146.4	-2.3730 µg/L	-2.3730 ppb	15:57:46
1	Sn 189.927†	0.5	3.0	0.2076 µg/L	0.2076 ppb	15:58:06
1	Ti 334.940†	800.0	-97.0	-0.1016 µg/L	-0.1016 ppb	15:57:46
1	Tl 190.801†	-108.0	10.6	1.4336 µg/L	1.4336 ppb	15:58:06
1	U 409.014†	-95.3	189.8	11.916 µg/L	11.916 ppb	15:57:46
1	V 292.402†	409.5	93.8	0.5079 µg/L	0.5079 ppb	15:57:46
1	Zn 213.857†	545.2	12.8	0.0767 µg/L	0.0767 ppb	15:58:06
2	Sc RADIAL	151193.9	151193.9	102 %		15:56:58
2	Al 396.153Radial†	-43.5	20.3	4.1777 µg/L	4.1777 ppb	15:57:18
2	Ca 317.933Radial†	606.3	-105.1	-6.3262 µg/L	-6.3262 ppb	15:57:18
2	Fe 238.204 Radial†	149.4	5.4	0.3634 µg/L	0.3634 ppb	15:57:18
2	K 766.490 Radial†	1567.7	220.0	90.539 µg/L	90.539 ppb	15:56:58
2	Mg 279.077 IEC†	165.7	-6.8	-2.7730 µg/L	-2.7730 ppb	15:57:18
2	Na 589.592 Radial†	1434.7	196.2	29.707 µg/L	29.707 ppb	15:56:58
2	Sr 421.552†	-144.2	80.6	0.1860 µg/L	0.1860 ppb	15:56:58
2	Sc 361.383	1788543.9	1788543.9	101.91 %		15:58:08
2	Y 371.029	1084926.2	1084926.2	101.96 %		15:58:08
2	Ag 328.068†	3467.9	-44.1	-0.1775 µg/L	-0.1775 ppb	15:58:10
2	As 188.979†	-14.5	3.4	1.1993 µg/L	1.1993 ppb	15:58:31
2	B 249.677†	3282.6	-9.2	-0.1495 µg/L	-0.1495 ppb	15:58:31
2	Ba 233.527†	-160.2	5.0	0.0214 µg/L	0.0214 ppb	15:58:31
2	Be 313.107†	-876.6	-74.6	-0.0216 µg/L	-0.0216 ppb	15:58:10
2	Cd 226.502†	-88.5	23.2	0.1594 µg/L	0.1594 ppb	15:58:31
2	Co 228.616†	-168.8	6.8	0.0915 µg/L	0.0915 ppb	15:58:31
2	Cr 267.716†	172.5	-9.3	-0.0809 µg/L	-0.0809 ppb	15:58:31
2	Cu 324.752†	2798.2	-43.1	-0.1793 µg/L	-0.1793 ppb	15:58:10
2	Mn 257.610†	188.0	8.9	0.0120 µg/L	0.0120 ppb	15:58:31
2	Mo 202.031†	-30.5	4.8	0.1539 µg/L	0.1539 ppb	15:58:31
2	Ni 231.604†	-56.6	22.4	0.2813 µg/L	0.2813 ppb	15:58:31
2	P 214.914†	16.7	11.4	2.7279 µg/L	2.7279 ppb	15:58:31
2	Pb 220.353†	87.8	-10.8	-0.6657 µg/L	-0.6657 ppb	15:58:31

2	S 181.975 Axial†	84.4	-4.9	-3.9753 µg/L	-3.9753 ppb	15:58:31
2	Sb 206.836†	83.3	3.7	0.4863 µg/L	0.4863 ppb	15:58:31
2	Se 196.026†	10.9	-2.8	-1.14 µg/L	-1.14 ppb	15:58:31
2	SiO2†	1694.0	-90.8	-9.7342 µg/L	-9.7342 ppb	15:58:31
2	Si 251.611†	679.6	-281.8	-4.5682 µg/L	-4.5682 ppb	15:58:10
2	Sn 189.927†	8.5	10.8	0.7504 µg/L	0.7504 ppb	15:58:31
2	Ti 334.940†	780.2	-120.0	-0.1212 µg/L	-0.1212 ppb	15:58:10
2	Tl 190.801†	-120.1	-0.8	-0.1139 µg/L	-0.1139 ppb	15:58:31
2	U 409.014†	-244.9	43.5	2.6943 µg/L	2.6943 ppb	15:58:10
2	V 292.402†	222.5	-91.5	-0.4827 µg/L	-0.4827 ppb	15:58:10
2	Zn 213.857†	522.6	-11.7	-0.0744 µg/L	-0.0744 ppb	15:58:31
3	Sc RADIAL	154076.6	154076.6	104 %		15:57:20
3	Al 396.153Radial†	-54.3	10.8	2.1942 µg/L	2.1942 ppb	15:57:40
3	Ca 317.933Radial†	596.1	-126.0	-7.5815 µg/L	-7.5815 ppb	15:57:40
3	Fe 238.204 Radial†	155.3	8.3	0.5568 µg/L	0.5568 ppb	15:57:40
3	K 766.490 Radial†	1553.2	177.5	73.025 µg/L	73.025 ppb	15:57:20
3	Mg 279.077 IEC†	169.5	-6.1	-2.5093 µg/L	-2.5093 ppb	15:57:40
3	Na 589.592 Radial†	1594.2	322.9	48.967 µg/L	48.967 ppb	15:57:20
3	Sr 421.552†	-178.8	50.1	0.1157 µg/L	0.1157 ppb	15:57:20
3	Sc 361.383	1782784.5	1782784.5	101.58 %		15:58:33
3	Y 371.029	1079758.6	1079758.6	101.48 %		15:58:33
3	Ag 328.068†	3519.5	17.7	0.0810 µg/L	0.0810 ppb	15:58:35
3	As 188.979†	-20.0	-2.0	-0.7016 µg/L	-0.7016 ppb	15:58:55
3	B 249.677†	3260.4	-20.6	-0.3346 µg/L	-0.3346 ppb	15:58:55
3	Ba 233.527†	-168.8	-4.1	-0.0174 µg/L	-0.0174 ppb	15:58:55
3	Be 313.107†	-744.6	52.6	0.0175 µg/L	0.0175 ppb	15:58:35
3	Cd 226.502†	-119.6	-7.7	-0.0530 µg/L	-0.0530 ppb	15:58:55
3	Co 228.616†	-192.4	-17.0	-0.2302 µg/L	-0.2302 ppb	15:58:55
3	Cr 267.716†	193.8	12.2	0.0986 µg/L	0.0986 ppb	15:58:55
3	Cu 324.752†	2820.2	-12.5	-0.0483 µg/L	-0.0483 ppb	15:58:35
3	Mn 257.610†	192.7	14.1	0.0190 µg/L	0.0190 ppb	15:58:55
3	Mo 202.031†	-18.1	16.9	0.5389 µg/L	0.5389 ppb	15:58:55
3	Ni 231.604†	-65.1	13.9	0.1742 µg/L	0.1742 ppb	15:58:55
3	P 214.914†	28.6	23.1	5.5155 µg/L	5.5155 ppb	15:58:55
3	Pb 220.353†	86.4	-11.9	-0.7331 µg/L	-0.7331 ppb	15:58:55
3	S 181.975 Axial†	100.3	11.1	9.0775 µg/L	9.0775 ppb	15:58:55
3	Sb 206.836†	82.3	2.9	0.3909 µg/L	0.3909 ppb	15:58:55
3	Se 196.026†	27.7	13.7	5.49 µg/L	5.49 ppb	15:58:55
3	SiO2†	1706.2	-73.4	-7.8720 µg/L	-7.8720 ppb	15:58:55
3	Si 251.611†	625.5	-332.9	-5.3961 µg/L	-5.3961 ppb	15:58:35
3	Sn 189.927†	-0.2	2.4	0.1627 µg/L	0.1627 ppb	15:58:55
3	Ti 334.940†	859.2	-39.7	-0.0422 µg/L	-0.0422 ppb	15:58:35
3	Tl 190.801†	-110.1	8.7	1.1743 µg/L	1.1743 ppb	15:58:55
3	U 409.014†	-196.3	90.5	5.6852 µg/L	5.6852 ppb	15:58:35
3	V 292.402†	371.6	56.0	0.3070 µg/L	0.3070 ppb	15:58:35
3	Zn 213.857†	538.8	5.9	0.0355 µg/L	0.0355 ppb	15:58:55

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1783988.0	101.65 %	0.233			0.23%
Sc RADIAL	152236.5	103 %	1.1			1.05%
Y 371.029	1081212.8	101.61 %	0.305			0.30%
Ag 328.068†	-91.8	-0.3551 µg/L	0.54711	-0.3551 ppb	0.54711	154.05%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	7.9	1.6098 µg/L	2.90460	1.6098 ppb	2.90460	180.44%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.8	-0.2847 µg/L	1.32573	-0.2847 ppb	1.32573	465.63%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-8.7	-0.1421 µg/L	0.19630	-0.1421 ppb	0.19630	138.15%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	3.5	0.0155 µg/L	0.03030	0.0155 ppb	0.03030	196.03%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	4.1	0.0033 µg/L	0.02159	0.0033 ppb	0.02159	661.63%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-109.2	-6.5688 µg/L	0.91577	-6.5688 ppb	0.91577	13.94%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	8.5	0.0585 µg/L	0.10659	0.0585 ppb	0.10659	182.23%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-2.9	-0.0389 µg/L	0.16924	-0.0389 ppb	0.16924	435.19%

Cr	267.716†	0.3	-0.0031 µg/L	0.09209	-0.0031 ppb	0.09209	>999.9%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	18.1	0.0817 µg/L	0.34488	0.0817 ppb	0.34488	421.99%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	12.7	0.8517 µg/L	0.68511	0.8517 ppb	0.68511	80.44%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	165.3	68.022 µg/L	25.3917	68.022 ppb	25.3917	37.33%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-10.4	-4.2595 µg/L	2.80607	-4.2595 ppb	2.80607	65.88%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	9.0	0.0122 µg/L	0.00674	0.0122 ppb	0.00674	55.45%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	9.3	0.2953 µg/L	0.21192	0.2953 ppb	0.21192	71.77%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	297.7	45.141 µg/L	13.9213	45.141 ppb	13.9213	30.84%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	20.5	0.2578 µg/L	0.07467	0.2578 ppb	0.07467	28.96%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	7.7	1.8239 µg/L	4.21694	1.8239 ppb	4.21694	231.21%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-15.6	-0.9591 µg/L	0.45107	-0.9591 ppb	0.45107	47.03%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	2.8	2.3112 µg/L	6.53963	2.3112 ppb	6.53963	282.96%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	5.2	0.6902 µg/L	0.43831	0.6902 ppb	0.43831	63.51%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	0.9	0.365 µg/L	4.5653	0.365 ppb	4.5653	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		-73.2	-7.8464 µg/L	1.90075	-7.8464 ppb	1.90075	24.22%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	-253.7	-4.1124 µg/L	1.56225	-4.1124 ppb	1.56225	37.99%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	5.4	0.3736 µg/L	0.32709	0.3736 ppb	0.32709	87.56%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	63.7	0.1470 µg/L	0.03582	0.1470 ppb	0.03582	24.37%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-85.6	-0.0883 µg/L	0.04118	-0.0883 ppb	0.04118	46.62%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	6.2	0.8313 µg/L	0.82883	0.8313 ppb	0.82883	99.70%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	107.9	6.7652 µg/L	4.70490	6.7652 ppb	4.70490	69.55%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	19.4	0.1107 µg/L	0.52363	0.1107 ppb	0.52363	472.88%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	2.3	0.0126 µg/L	0.07813	0.0126 ppb	0.07813	619.86%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

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Analysis Begun

Start Time: 4/13/2010 13:54:23

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\041310.SIF

Batch ID:

Results Data Set: 041310A

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

Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 4/13/2010 13:54:24

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:  
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## Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc RADIAL	114598.4	114598.4	100 %	13:54:54
1	Al 396.153Radial†	-66.9	-66.8	[0.00] µg/L	13:55:14
1	Ca 317.933Radial†	458.7	457.8	[0.00] µg/L	13:55:14
1	Fe 238.204 Radial†	131.0	130.8	[0.00] µg/L	13:55:14
1	K 766.490 Radial†	1394.5	1391.9	[0.00] µg/L	13:54:54
1	Mg 279.077 IEC†	158.0	157.7	[0.00] µg/L	13:55:14
1	Na 589.592 Radial†	845.2	843.7	[0.00] µg/L	13:54:54
1	Sr 421.552†	-40.2	-40.1	[0.00] µg/L	13:54:54
1	Sc 361.383	1709992.4	1709992.4	101.05 %	13:56:16
1	Y 371.029	967471.1	967471.1	101.09 %	13:56:16
1	Ag 328.068†	5143.2	5089.9	[0.00] µg/L	13:56:18
1	As 188.979†	-12.9	-12.8	[0.00] µg/L	13:56:38
1	B 249.677†	4108.0	4065.4	[0.00] µg/L	13:56:18
1	Ba 233.527†	-146.3	-144.8	[0.00] µg/L	13:56:38
1	Be 313.107†	-1019.9	-1009.3	[0.00] µg/L	13:56:18
1	Cd 226.502†	-63.8	-63.1	[0.00] µg/L	13:56:38
1	Co 228.616†	-230.4	-228.0	[0.00] µg/L	13:56:38
1	Cr 267.716†	339.5	336.0	[0.00] µg/L	13:56:38
1	Cu 324.752†	3232.7	3199.2	[0.00] µg/L	13:56:18
1	Mn 257.610†	213.2	210.9	[0.00] µg/L	13:56:38
1	Mo 202.031†	-15.1	-14.9	[0.00] µg/L	13:56:38
1	Ni 231.604†	-59.0	-58.3	[0.00] µg/L	13:56:38
1	P 214.914†	-15.3	-15.2	[0.00] µg/L	13:56:38
1	Pb 220.353†	116.6	115.4	[0.00] µg/L	13:56:38
1	S 181.975 Axial†	105.8	104.7	[0.00] µg/L	13:56:38
1	Sb 206.836†	86.3	85.4	[0.00] µg/L	13:56:38
1	Se 196.026†	25.6	25.3	[0.00] µg/L	13:56:38
1	SiO2†	1749.7	1731.5	[0.00] µg/L	13:56:18
1	Si 251.611†	784.1	776.0	[0.00] µg/L	13:56:18
1	Sn 189.927†	10.7	10.6	[0.00] µg/L	13:56:38
1	Ti 334.940†	888.1	878.8	[0.00] µg/L	13:56:18
1	Tl 190.801†	-116.5	-115.3	[0.00] µg/L	13:56:38
1	U 409.014†	-496.6	-491.4	[0.00] µg/L	13:56:18
1	V 292.402†	543.2	537.6	[0.00] µg/L	13:56:18
1	Zn 213.857†	623.7	617.2	[0.00] µg/L	13:56:38
2	Sc RADIAL	115518.6	115518.6	101 %	13:55:16
2	Al 396.153Radial†	-88.5	-87.6	[0.00] µg/L	13:55:36
2	Ca 317.933Radial†	446.9	442.5	[0.00] µg/L	13:55:36
2	Fe 238.204 Radial†	117.0	115.8	[0.00] µg/L	13:55:36
2	K 766.490 Radial†	1437.5	1423.4	[0.00] µg/L	13:55:16
2	Mg 279.077 IEC†	153.1	151.6	[0.00] µg/L	13:55:36
2	Na 589.592 Radial†	860.2	851.8	[0.00] µg/L	13:55:16
2	Sr 421.552†	-48.4	-48.0	[0.00] µg/L	13:55:16
2	Sc 361.383	1687736.4	1687736.4	99.732 %	13:56:40
2	Y 371.029	953891.3	953891.3	99.672 %	13:56:40
2	Ag 328.068†	5113.5	5127.2	[0.00] µg/L	13:56:42
2	As 188.979†	-6.3	-6.3	[0.00] µg/L	13:57:02



2	B 249.677†	4025.8	4036.6	[0.00]	µg/L	13:56:42
2	Ba 233.527†	-138.6	-139.0	[0.00]	µg/L	13:57:02
2	Be 313.107†	-1228.5	-1231.8	[0.00]	µg/L	13:56:42
2	Cd 226.502†	-61.5	-61.7	[0.00]	µg/L	13:57:02
2	Co 228.616†	-211.1	-211.6	[0.00]	µg/L	13:57:02
2	Cr 267.716†	324.0	324.9	[0.00]	µg/L	13:57:02
2	Cu 324.752†	3236.0	3244.7	[0.00]	µg/L	13:56:42
2	Mn 257.610†	221.5	222.1	[0.00]	µg/L	13:57:02
2	Mo 202.031†	-20.1	-20.2	[0.00]	µg/L	13:57:02
2	Ni 231.604†	-71.5	-71.7	[0.00]	µg/L	13:57:02
2	P 214.914†	-10.5	-10.5	[0.00]	µg/L	13:57:02
2	Pb 220.353†	123.7	124.0	[0.00]	µg/L	13:57:02
2	S 181.975 Axial†	100.6	100.8	[0.00]	µg/L	13:57:02
2	Sb 206.836†	68.9	69.1	[0.00]	µg/L	13:57:02
2	Se 196.026†	22.7	22.8	[0.00]	µg/L	13:57:02
2	SiO2†	1685.1	1689.6	[0.00]	µg/L	13:56:42
2	Si 251.611†	850.1	852.4	[0.00]	µg/L	13:56:42
2	Sn 189.927†	13.0	13.0	[0.00]	µg/L	13:57:02
2	Ti 334.940†	885.7	888.1	[0.00]	µg/L	13:56:42
2	Tl 190.801†	-111.5	-111.8	[0.00]	µg/L	13:57:02
2	U 409.014†	-313.9	-314.7	[0.00]	µg/L	13:56:42
2	V 292.402†	467.8	469.0	[0.00]	µg/L	13:56:42
2	Zn 213.857†	621.3	623.0	[0.00]	µg/L	13:57:02
3	Sc RADIAL	113047.2	113047.2	98.8	%	13:55:38
3	Al 396.153Radial†	-99.4	-100.5	[0.00]	µg/L	13:55:58
3	Ca 317.933Radial†	464.4	469.9	[0.00]	µg/L	13:55:58
3	Fe 238.204 Radial†	124.8	126.3	[0.00]	µg/L	13:55:58
3	K 766.490 Radial†	1396.0	1412.5	[0.00]	µg/L	13:55:38
3	Mg 279.077 IEC†	160.8	162.7	[0.00]	µg/L	13:55:58
3	Na 589.592 Radial†	801.0	810.5	[0.00]	µg/L	13:55:38
3	Sr 421.552†	-110.8	-112.1	[0.00]	µg/L	13:55:38
3	Sc 361.383	1679067.9	1679067.9	99.220	%	13:57:04
3	Y 371.029	949726.9	949726.9	99.237	%	13:57:04
3	Ag 328.068†	5052.1	5091.8	[0.00]	µg/L	13:57:06
3	As 188.979†	-21.0	-21.1	[0.00]	µg/L	13:57:26
3	B 249.677†	4200.8	4233.8	[0.00]	µg/L	13:57:06
3	Ba 233.527†	-152.7	-153.9	[0.00]	µg/L	13:57:26
3	Be 313.107†	-730.2	-735.9	[0.00]	µg/L	13:57:06
3	Cd 226.502†	-68.4	-68.9	[0.00]	µg/L	13:57:26
3	Co 228.616†	-239.7	-241.5	[0.00]	µg/L	13:57:26
3	Cr 267.716†	325.5	328.0	[0.00]	µg/L	13:57:26
3	Cu 324.752†	3254.3	3279.9	[0.00]	µg/L	13:57:06
3	Mn 257.610†	211.4	213.1	[0.00]	µg/L	13:57:26
3	Mo 202.031†	-29.5	-29.7	[0.00]	µg/L	13:57:26
3	Ni 231.604†	-90.9	-91.7	[0.00]	µg/L	13:57:26
3	P 214.914†	-31.7	-32.0	[0.00]	µg/L	13:57:26
3	Pb 220.353†	111.3	112.2	[0.00]	µg/L	13:57:26
3	S 181.975 Axial†	99.4	100.2	[0.00]	µg/L	13:57:26
3	Sb 206.836†	77.5	78.1	[0.00]	µg/L	13:57:26
3	Se 196.026†	11.7	11.8	[0.00]	µg/L	13:57:26
3	SiO2†	1632.7	1645.5	[0.00]	µg/L	13:57:06
3	Si 251.611†	725.5	731.2	[0.00]	µg/L	13:57:06
3	Sn 189.927†	1.7	1.7	[0.00]	µg/L	13:57:26
3	Ti 334.940†	884.4	891.3	[0.00]	µg/L	13:57:06
3	Tl 190.801†	-117.7	-118.6	[0.00]	µg/L	13:57:26
3	U 409.014†	-424.2	-427.6	[0.00]	µg/L	13:57:06
3	V 292.402†	477.7	481.5	[0.00]	µg/L	13:57:06
3	Zn 213.857†	612.9	617.7	[0.00]	µg/L	13:57:26

## Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1692265.5	15951.98	0.94%	100.00 %
Sc RADIAL	114388.1	1249.02	1.09%	100 %
Y 371.029	957029.8	9279.07	0.97%	100.00 %
Ag 328.068†	5103.0	21.01	0.41%	[0.00] µg/L
Al 396.153Radial†	-85.0	17.03	20.04%	[0.00] µg/L
As 188.979†	-13.4	7.42	55.27%	[0.00] µg/L
B 249.677†	4111.9	106.52	2.59%	[0.00] µg/L
Ba 233.527†	-145.9	7.51	5.15%	[0.00] µg/L

Be 313.107†	-992.3	248.35	25.03%	[0.00]	µg/L
Ca 317.933 Radial†	456.7	13.71	3.00%	[0.00]	µg/L
Cd 226.502†	-64.6	3.83	5.93%	[0.00]	µg/L
Co 228.616†	-227.1	14.98	6.60%	[0.00]	µg/L
Cr 267.716†	329.6	5.76	1.75%	[0.00]	µg/L
Cu 324.752†	3241.3	40.46	1.25%	[0.00]	µg/L
Fe 238.204 Radial†	124.3	7.65	6.16%	[0.00]	µg/L
K 766.490 Radial†	1409.3	16.00	1.13%	[0.00]	µg/L
Mg 279.077 IEC†	157.3	5.56	3.53%	[0.00]	µg/L
Mn 257.610†	215.4	5.91	2.74%	[0.00]	µg/L
Mo 202.031†	-21.6	7.51	34.73%	[0.00]	µg/L
Na 589.592 Radial†	835.3	21.89	2.62%	[0.00]	µg/L
Ni 231.604†	-73.9	16.76	22.68%	[0.00]	µg/L
P 214.914†	-19.2	11.29	58.79%	[0.00]	µg/L
Pb 220.353†	117.2	6.12	5.22%	[0.00]	µg/L
S 181.975 Axial†	101.9	2.43	2.38%	[0.00]	µg/L
Sb 206.836†	77.5	8.16	10.52%	[0.00]	µg/L
Se 196.026†	20.0	7.17	35.86%	[0.00]	µg/L
SiO2†	1688.9	43.02	2.55%	[0.00]	µg/L
Si 251.611†	786.5	61.28	7.79%	[0.00]	µg/L
Sn 189.927†	8.4	5.97	70.92%	[0.00]	µg/L
Sr 421.552†	-66.7	39.51	59.22%	[0.00]	µg/L
Ti 334.940†	886.1	6.48	0.73%	[0.00]	µg/L
Tl 190.801†	-115.2	3.39	2.94%	[0.00]	µg/L
U 409.014†	-411.2	89.46	21.75%	[0.00]	µg/L
V 292.402†	496.0	36.51	7.36%	[0.00]	µg/L
Zn 213.857†	619.3	3.19	0.52%	[0.00]	µg/L

Sequence No.: 2

Sample ID: S0.1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 2

Date Collected: 4/13/2010 13:57:35

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc RADIAL	115662.7	115662.7	101 %		13:58:06
1	K 766.490 Radial†	4010.8	2557.3	[1000] µg/L		13:58:06
1	Sr 421.552†	40565.9	40185.6	[100] µg/L		13:58:06
1	Sc 361.383	1679936.2	1679936.2	99.271 %		13:58:14
1	Y 371.029	946833.3	946833.3	98.935 %		13:58:14
1	Ag 328.068†	29744.5	24859.8	[100] µg/L		13:58:16
1	As 188.979†	270.5	285.9	[100] µg/L		13:58:36
1	B 249.677†	10722.8	6689.5	[100] µg/L		13:58:16
1	Ba 233.527†	22383.5	22693.6	[100] µg/L		13:58:16
1	Be 313.107†	348195.3	351743.1	[100] µg/L		13:58:14
1	Cd 226.502†	15347.5	15524.8	[100] µg/L		13:58:16
1	Co 228.616†	7541.4	7823.8	[100] µg/L		13:58:36
1	Cr 267.716†	11924.3	11682.2	[100] µg/L		13:58:16
1	Cu 324.752†	27630.0	24591.5	[100] µg/L		13:58:16
1	Mn 257.610†	80028.7	80400.7	[100] µg/L		13:58:16
1	Mo 202.031†	2918.0	2961.0	[100] µg/L		13:58:36
1	Ni 231.604†	8218.6	8352.8	[100] µg/L		13:58:16
1	P 214.914†	2141.9	2176.9	[500] µg/L		13:58:36
1	Pb 220.353†	1756.2	1651.8	[100] µg/L		13:58:36
1	S 181.975 Axial†	331.2	231.7	[200] µg/L		13:58:36
1	Sb 206.836†	853.1	781.9	[100] µg/L		13:58:36
1	Se 196.026†	269.7	251.7	[100] µg/L		13:58:36
1	SiO2†	12030.0	10429.4	[1069.5] µg/L		13:58:16
1	Si 251.611†	33399.6	32858.2	[500] µg/L		13:58:16
1	Sn 189.927†	1452.7	1454.9	[100] µg/L		13:58:36
1	Ti 334.940†	96021.2	95839.9	[100] µg/L		13:58:16
1	Tl 190.801†	609.2	728.9	[100] µg/L		13:58:36
1	U 409.014†	1131.7	1551.2	[100] µg/L		13:58:16
1	V 292.402†	20487.6	20142.0	[100] µg/L		13:58:16
1	Zn 213.857†	18222.9	17737.3	[100] µg/L		13:58:16
2	Sc RADIAL	115417.9	115417.9	101 %		13:58:08
2	K 766.490 Radial†	4085.6	2639.9	[1000] µg/L		13:58:08
2	Sr 421.552†	40433.3	40139.3	[100] µg/L		13:58:08
2	Sc 361.383	1665766.3	1665766.3	98.434 %		13:58:38
2	Y 371.029	939221.7	939221.7	98.139 %		13:58:38
2	Ag 328.068†	29804.6	25175.7	[100] µg/L		13:58:40
2	As 188.979†	273.7	291.5	[100] µg/L		13:59:00
2	B 249.677†	10828.6	6889.0	[100] µg/L		13:58:40
2	Ba 233.527†	22233.6	22733.2	[100] µg/L		13:58:40
2	Be 313.107†	345908.5	352403.6	[100] µg/L		13:58:38
2	Cd 226.502†	15193.5	15499.8	[100] µg/L		13:58:40
2	Co 228.616†	7524.7	7871.4	[100] µg/L		13:59:00
2	Cr 267.716†	11768.2	11625.8	[100] µg/L		13:58:40
2	Cu 324.752†	27135.9	24326.3	[100] µg/L		13:58:40
2	Mn 257.610†	79277.8	80323.6	[100] µg/L		13:58:40
2	Mo 202.031†	2925.7	2993.8	[100] µg/L		13:59:00
2	Ni 231.604†	8098.9	8301.6	[100] µg/L		13:58:40
2	P 214.914†	2130.2	2183.3	[500] µg/L		13:59:00
2	Pb 220.353†	1725.2	1635.4	[100] µg/L		13:59:00
2	S 181.975 Axial†	331.6	234.9	[200] µg/L		13:59:00
2	Sb 206.836†	876.9	813.4	[100] µg/L		13:59:00
2	Se 196.026†	275.3	259.7	[100] µg/L		13:59:00
2	SiO2†	11946.9	10448.0	[1069.5] µg/L		13:58:40
2	Si 251.611†	33198.3	32939.9	[500] µg/L		13:58:40
2	Sn 189.927†	1454.5	1469.2	[100] µg/L		13:59:00
2	Ti 334.940†	95388.0	96019.4	[100] µg/L		13:58:40
2	Tl 190.801†	607.6	732.5	[100] µg/L		13:59:00
2	U 409.014†	1595.3	2031.9	[100] µg/L		13:58:40
2	V 292.402†	20527.6	20358.1	[100] µg/L		13:58:40

2	Zn 213.857†	18003.3	17670.4	[100]	µg/L	13:58:40
3	Sc RADIAL	114124.7	114124.7	99.8	%	13:58:10
3	K 766.490 Radial†	4003.4	2603.4	[1000]	µg/L	13:58:10
3	Sr 421.552†	40289.2	40448.9	[100]	µg/L	13:58:10
3	Sc 361.383	1688518.0	1688518.0	99.779	%	13:59:02
3	Y 371.029	951515.1	951515.1	99.424	%	13:59:02
3	Ag 328.068†	29717.6	24680.6	[100]	µg/L	13:59:04
3	As 188.979†	276.0	290.0	[100]	µg/L	13:59:24
3	B 249.677†	10763.6	6675.6	[100]	µg/L	13:59:04
3	Ba 233.527†	22593.3	22789.3	[100]	µg/L	13:59:04
3	Be 313.107†	349199.9	350967.2	[100]	µg/L	13:59:02
3	Cd 226.502†	15385.6	15484.3	[100]	µg/L	13:59:04
3	Co 228.616†	7604.2	7848.1	[100]	µg/L	13:59:24
3	Cr 267.716†	11907.6	11604.4	[100]	µg/L	13:59:04
3	Cu 324.752†	27488.5	24308.2	[100]	µg/L	13:59:04
3	Mn 257.610†	80200.2	80162.8	[100]	µg/L	13:59:04
3	Mo 202.031†	2935.2	2963.4	[100]	µg/L	13:59:24
3	Ni 231.604†	8386.7	8479.2	[100]	µg/L	13:59:04
3	P 214.914†	2144.7	2168.6	[500]	µg/L	13:59:24
3	Pb 220.353†	1733.5	1620.1	[100]	µg/L	13:59:24
3	S 181.975 Axial†	335.2	234.0	[200]	µg/L	13:59:24
3	Sb 206.836†	869.2	793.6	[100]	µg/L	13:59:24
3	Se 196.026†	288.3	269.0	[100]	µg/L	13:59:24
3	SiO2†	12124.5	10462.6	[1069.5]	µg/L	13:59:04
3	Si 251.611†	33644.8	32932.9	[500]	µg/L	13:59:04
3	Sn 189.927†	1470.0	1464.9	[100]	µg/L	13:59:24
3	Ti 334.940†	96832.1	96160.9	[100]	µg/L	13:59:04
3	Tl 190.801†	594.0	710.5	[100]	µg/L	13:59:24
3	U 409.014†	1362.6	1776.9	[100]	µg/L	13:59:04
3	V 292.402†	20719.6	20269.6	[100]	µg/L	13:59:04
3	Zn 213.857†	18019.5	17440.2	[100]	µg/L	13:59:04

## Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1678073.5	11489.66	0.68%	99.161	%
Sc RADIAL	115068.4	826.39	0.72%	101	%
Y 371.029	945856.7	6204.61	0.66%	98.833	%
Ag 328.068†	24905.4	250.71	1.01%	[100]	µg/L
As 188.979†	289.1	2.89	1.00%	[100]	µg/L
B 249.677†	6751.4	119.37	1.77%	[100]	µg/L
Ba 233.527†	22738.7	48.10	0.21%	[100]	µg/L
Be 313.107†	351704.7	718.98	0.20%	[100]	µg/L
Cd 226.502†	15503.0	20.42	0.13%	[100]	µg/L
Co 228.616†	7847.8	23.82	0.30%	[100]	µg/L
Cr 267.716†	11637.5	40.19	0.35%	[100]	µg/L
Cu 324.752†	24408.7	158.60	0.65%	[100]	µg/L
K 766.490 Radial†	2600.2	41.39	1.59%	[1000]	µg/L
Mn 257.610†	80295.7	121.34	0.15%	[100]	µg/L
Mo 202.031†	2972.7	18.29	0.62%	[100]	µg/L
Ni 231.604†	8377.9	91.40	1.09%	[100]	µg/L
P 214.914†	2176.3	7.35	0.34%	[500]	µg/L
Pb 220.353†	1635.8	15.87	0.97%	[100]	µg/L
S 181.975 Axial†	233.5	1.67	0.72%	[200]	µg/L
Sb 206.836†	796.3	15.92	2.00%	[100]	µg/L
Se 196.026†	260.1	8.67	3.33%	[100]	µg/L
SiO2†	10446.7	16.63	0.16%	[1069.5]	µg/L
Si 251.611†	32910.4	45.29	0.14%	[500]	µg/L
Sn 189.927†	1463.0	7.34	0.50%	[100]	µg/L
Sr 421.552†	40257.9	167.00	0.41%	[100]	µg/L
Ti 334.940†	96006.7	160.89	0.17%	[100]	µg/L
Tl 190.801†	724.0	11.79	1.63%	[100]	µg/L
U 409.014†	1786.7	240.48	13.46%	[100]	µg/L
V 292.402†	20256.6	108.66	0.54%	[100]	µg/L
Zn 213.857†	17616.0	155.82	0.88%	[100]	µg/L

Sequence No.: 3

Sample ID: S0.5

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 4/13/2010 13:59:33

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	113312.7	113312.7	99.1	%	14:00:04
1	Al 396.153Radial†	21478.4	21767.2	[5000]	µg/L	14:00:04
1	Ca 317.933Radial†	61609.5	61737.4	[5000]	µg/L	14:00:04
1	K 766.490 Radial†	13916.9	12639.7	[5000]	µg/L	14:00:04
1	Mg 279.077 IEC†	9455.7	9388.1	[5000]	µg/L	14:00:04
1	Sr 421.552†	193082.9	194982.0	[500]	µg/L	14:00:02
1	Sc 361.383	1682640.5	1682640.5	99.431	%	14:00:31
1	Y 371.029	940830.0	940830.0	98.307	%	14:00:31
1	Ag 328.068†	124557.5	120167.1	[500]	µg/L	14:00:31
1	As 188.979†	1423.2	1444.7	[500]	µg/L	14:00:51
1	B 249.677†	37136.1	33236.5	[500]	µg/L	14:00:31
1	Ba 233.527†	109569.2	110341.8	[500]	µg/L	14:00:31
1	Be 313.107†	1752248.6	1763264.1	[500]	µg/L	14:00:31
1	Cd 226.502†	75136.1	75630.5	[500]	µg/L	14:00:31
1	Co 228.616†	37848.6	38292.1	[500]	µg/L	14:00:31
1	Cr 267.716†	56766.7	56761.8	[500]	µg/L	14:00:31
1	Cu 324.752†	122552.8	120012.6	[500]	µg/L	14:00:31
1	Mn 257.610†	381154.0	383119.0	[500]	µg/L	14:00:31
1	Mo 202.031†	14608.3	14713.5	[500]	µg/L	14:00:51
1	Ni 231.604†	39990.8	40293.5	[500]	µg/L	14:00:31
1	P 214.914†	10778.1	10859.0	[2500]	µg/L	14:00:51
1	Pb 220.353†	8037.0	7965.8	[500]	µg/L	14:00:51
1	S 181.975 Axial†	1254.8	1160.1	[1000]	µg/L	14:00:51
1	Sb 206.836†	3937.2	3882.2	[500]	µg/L	14:00:51
1	Se 196.026†	1285.1	1272.5	[500]	µg/L	14:00:51
1	SiO2†	52983.6	51597.8	[5347.5]	µg/L	14:00:31
1	Si 251.611†	163127.4	163274.0	[2500]	µg/L	14:00:31
1	Sn 189.927†	7126.0	7158.4	[500]	µg/L	14:00:51
1	Ti 334.940†	474216.5	476043.0	[500]	µg/L	14:00:31
1	Tl 190.801†	3404.2	3538.9	[500]	µg/L	14:00:51
1	U 409.014†	6934.6	7385.5	[500]	µg/L	14:00:31
1	V 292.402†	99950.1	100025.9	[500]	µg/L	14:00:31
1	Zn 213.857†	86546.3	86422.0	[500]	µg/L	14:00:31
2	Sc RADIAL	113273.4	113273.4	99.0	%	14:00:08
2	Al 396.153Radial†	21386.1	21681.6	[5000]	µg/L	14:00:08
2	Ca 317.933Radial†	61198.7	61344.2	[5000]	µg/L	14:00:08
2	K 766.490 Radial†	13915.4	12643.1	[5000]	µg/L	14:00:08
2	Mg 279.077 IEC†	9306.8	9241.0	[5000]	µg/L	14:00:08
2	Sr 421.552†	195960.0	197955.1	[500]	µg/L	14:00:06
2	Sc 361.383	1675433.5	1675433.5	99.005	%	14:00:54
2	Y 371.029	936252.4	936252.4	97.829	%	14:00:54
2	Ag 328.068†	124128.4	120272.4	[500]	µg/L	14:00:54
2	As 188.979†	1427.9	1455.6	[500]	µg/L	14:01:14
2	B 249.677†	37314.9	33577.9	[500]	µg/L	14:00:54
2	Ba 233.527†	109487.2	110733.0	[500]	µg/L	14:00:54
2	Be 313.107†	1745681.0	1764211.1	[500]	µg/L	14:00:54
2	Cd 226.502†	74829.2	75645.6	[500]	µg/L	14:00:54
2	Co 228.616†	37636.5	38241.7	[500]	µg/L	14:00:54
2	Cr 267.716†	56528.9	56767.1	[500]	µg/L	14:00:54
2	Cu 324.752†	121959.0	119943.0	[500]	µg/L	14:00:54
2	Mn 257.610†	379591.3	383189.4	[500]	µg/L	14:00:54
2	Mo 202.031†	14759.8	14929.7	[500]	µg/L	14:01:14
2	Ni 231.604†	39870.3	40344.7	[500]	µg/L	14:00:54
2	P 214.914†	10917.2	11046.1	[2500]	µg/L	14:01:14
2	Pb 220.353†	8142.4	8107.0	[500]	µg/L	14:01:14
2	S 181.975 Axial†	1271.8	1182.6	[1000]	µg/L	14:01:14
2	Sb 206.836†	3982.4	3944.8	[500]	µg/L	14:01:14
2	Se 196.026†	1314.2	1307.4	[500]	µg/L	14:01:14
2	SiO2†	52951.0	51794.1	[5347.5]	µg/L	14:00:54

2	Si 251.611†	163146.3	163998.8	[2500]	µg/L	14:00:54
2	Sn 189.927†	7224.3	7288.5	[500]	µg/L	14:01:14
2	Ti 334.940†	471991.2	475846.9	[500]	µg/L	14:00:54
2	Tl 190.801†	3433.8	3583.5	[500]	µg/L	14:01:14
2	U 409.014†	7090.3	7572.7	[500]	µg/L	14:00:54
2	V 292.402†	99867.3	100374.6	[500]	µg/L	14:00:54
2	Zn 213.857†	86594.2	86844.9	[500]	µg/L	14:00:54
3	Sc RADIAL	114467.9	114467.9	100	%	14:00:12
3	Al 396.153Radial†	21684.8	21754.6	[5000]	µg/L	14:00:12
3	Ca 317.933Radial†	61887.3	61387.4	[5000]	µg/L	14:00:12
3	K 766.490 Radial†	13951.7	12532.7	[5000]	µg/L	14:00:12
3	Mg 279.077 IEC†	9385.5	9221.6	[5000]	µg/L	14:00:12
3	Sr 421.552†	196872.3	196801.7	[500]	µg/L	14:00:10
3	Sc 361.383	1678505.5	1678505.5	99.187	%	14:01:17
3	Y 371.029	938771.8	938771.8	98.092	%	14:01:17
3	Ag 328.068†	124457.9	120375.2	[500]	µg/L	14:01:17
3	As 188.979†	1426.5	1451.6	[500]	µg/L	14:01:37
3	B 249.677†	37334.9	33529.0	[500]	µg/L	14:01:17
3	Ba 233.527†	109657.9	110702.7	[500]	µg/L	14:01:17
3	Be 313.107†	1753559.4	1768927.0	[500]	µg/L	14:01:17
3	Cd 226.502†	75192.1	75873.1	[500]	µg/L	14:01:17
3	Co 228.616†	37823.5	38360.6	[500]	µg/L	14:01:17
3	Cr 267.716†	56711.6	56846.9	[500]	µg/L	14:01:17
3	Cu 324.752†	122644.2	120408.3	[500]	µg/L	14:01:17
3	Mn 257.610†	381725.4	384639.3	[500]	µg/L	14:01:17
3	Mo 202.031†	14814.5	14957.6	[500]	µg/L	14:01:37
3	Ni 231.604†	40081.7	40484.2	[500]	µg/L	14:01:17
3	P 214.914†	10959.6	11068.6	[2500]	µg/L	14:01:37
3	Pb 220.353†	8165.6	8115.3	[500]	µg/L	14:01:37
3	S 181.975 Axial†	1266.2	1174.7	[1000]	µg/L	14:01:37
3	Sb 206.836†	4002.3	3957.6	[500]	µg/L	14:01:37
3	Se 196.026†	1319.2	1310.0	[500]	µg/L	14:01:37
3	SiO2†	53297.9	52046.0	[5347.5]	µg/L	14:01:17
3	Si 251.611†	163951.7	164509.2	[2500]	µg/L	14:01:17
3	Sn 189.927†	7245.9	7296.9	[500]	µg/L	14:01:37
3	Ti 334.940†	474632.8	477637.6	[500]	µg/L	14:01:17
3	Tl 190.801†	3427.0	3570.4	[500]	µg/L	14:01:37
3	U 409.014†	7331.9	7803.3	[500]	µg/L	14:01:17
3	V 292.402†	100178.9	100504.2	[500]	µg/L	14:01:17
3	Zn 213.857†	86822.2	86914.6	[500]	µg/L	14:01:17

## Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib
Sc 361.383	1678859.8	3616.52	0.22%	99.208	%
Sc RADIAL	113684.6	678.57	0.60%	99.4	%
Y 371.029	938618.1	2292.64	0.24%	98.076	%
Ag 328.068†	120271.5	104.06	0.09%	[500]	µg/L
Al 396.153Radial†	21734.5	46.26	0.21%	[5000]	µg/L
As 188.979†	1450.7	5.52	0.38%	[500]	µg/L
B 249.677†	33447.8	184.58	0.55%	[500]	µg/L
Ba 233.527†	110592.5	217.65	0.20%	[500]	µg/L
Be 313.107†	1765467.4	3033.28	0.17%	[500]	µg/L
Ca 317.933Radial†	61489.7	215.62	0.35%	[5000]	µg/L
Cd 226.502†	75716.4	135.93	0.18%	[500]	µg/L
Co 228.616†	38298.2	59.70	0.16%	[500]	µg/L
Cr 267.716†	56792.0	47.66	0.08%	[500]	µg/L
Cu 324.752†	120121.3	251.00	0.21%	[500]	µg/L
K 766.490 Radial†	12605.1	62.79	0.50%	[5000]	µg/L
Mg 279.077 IEC†	9283.6	91.05	0.98%	[5000]	µg/L
Mn 257.610†	383649.2	858.14	0.22%	[500]	µg/L
Mo 202.031†	14866.9	133.60	0.90%	[500]	µg/L
Ni 231.604†	40374.1	98.68	0.24%	[500]	µg/L
P 214.914†	10991.2	115.10	1.05%	[2500]	µg/L
Pb 220.353†	8062.7	84.03	1.04%	[500]	µg/L
S 181.975 Axial†	1172.5	11.44	0.98%	[1000]	µg/L
Sb 206.836†	3928.2	40.35	1.03%	[500]	µg/L
Se 196.026†	1296.6	20.96	1.62%	[500]	µg/L
SiO2†	51812.6	224.66	0.43%	[5347.5]	µg/L
Si 251.611†	163927.3	620.73	0.38%	[2500]	µg/L

Sn 189.927†	7247.9	77.66	1.07%	[500] µg/L
Sr 421.552†	196579.6	1498.94	0.76%	[500] µg/L
Ti 334.940†	476509.2	982.14	0.21%	[500] µg/L
Tl 190.801†	3564.3	22.94	0.64%	[500] µg/L
U 409.014†	7587.2	209.27	2.76%	[500] µg/L
V 292.402†	100301.5	247.37	0.25%	[500] µg/L
Zn 213.857†	86727.2	266.57	0.31%	[500] µg/L

Sequence No.: 4

Sample ID: SCAL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 4/13/2010 14:01:45

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	114834.2	114834.2	100 %		14:02:16
1	Al 396.153Radial†	43192.0	43109.1	[10000] µg/L		14:02:16
1	Ca 317.933Radial†	123466.7	122530.3	[10000] µg/L		14:02:16
1	Fe 238.204 Radial†	118908.2	118321.9	[10000] µg/L		14:02:16
1	K 766.490 Radial†	26527.9	25015.6	[10000] µg/L		14:02:16
1	Mg 279.077 IEC†	18679.8	18449.9	[10000] µg/L		14:02:16
1	Na 589.592 Radial†	63912.5	62828.9	[10000] µg/L		14:02:16
1	Sr 421.552†	390369.6	388919.6	[1000] µg/L		14:02:14
1	Sc 361.383	1667730.2	1667730.2	98.550 %		14:02:43
1	Y 371.029	928107.5	928107.5	96.978 %		14:02:43
1	Ag 328.068†	244379.5	242871.8	[1000] µg/L		14:02:45
1	As 188.979†	2863.0	2918.5	[1000] µg/L		14:03:05
1	B 249.677†	70534.4	67460.1	[1000] µg/L		14:02:45
1	Ba 233.527†	217804.1	221154.3	[1000] µg/L		14:02:45
1	Be 313.107†	3473218.5	3525308.1	[1000] µg/L		14:02:43
1	Cd 226.502†	149111.1	151369.4	[1000] µg/L		14:02:45
1	Co 228.616†	74990.8	76321.1	[1000] µg/L		14:02:45
1	Cr 267.716†	112900.0	114231.3	[1000] µg/L		14:02:45
1	Cu 324.752†	241770.1	242085.7	[1000] µg/L		14:02:45
1	Mn 257.610†	754879.3	765769.5	[1000] µg/L		14:02:45
1	Mo 202.031†	29200.7	29651.9	[1000] µg/L		14:03:05
1	Ni 231.604†	79120.1	80358.1	[1000] µg/L		14:02:45
1	P 214.914†	21724.9	22063.7	[5000] µg/L		14:03:05
1	Pb 220.353†	15920.8	16037.8	[1000] µg/L		14:03:05
1	S 181.975 Axial†	2437.8	2371.7	[2000] µg/L		14:03:05
1	Sb 206.836†	7823.2	7860.7	[1000] µg/L		14:03:05
1	Se 196.026†	2601.2	2619.5	[1000] µg/L		14:03:05
1	SiO2†	103588.9	103424.0	[10695] µg/L		14:02:45
1	Si 251.611†	323493.7	327466.3	[5000] µg/L		14:02:45
1	Sn 189.927†	14228.2	14429.1	[1000] µg/L		14:03:05
1	Ti 334.940†	939664.2	952602.2	[1000] µg/L		14:02:43
1	Tl 190.801†	6919.0	7136.0	[1000] µg/L		14:03:05
1	U 409.014†	16041.0	16688.3	[1000] µg/L		14:02:45
1	V 292.402†	200113.4	202561.4	[1000] µg/L		14:02:45
1	Zn 213.857†	171446.6	173349.5	[1000] µg/L		14:02:45
2	Sc RADIAL	115211.8	115211.8	101 %		14:02:20
2	Al 396.153Radial†	43071.5	42848.6	[10000] µg/L		14:02:20
2	Ca 317.933Radial†	123899.3	122556.7	[10000] µg/L		14:02:20
2	Fe 238.204 Radial†	118997.4	118022.3	[10000] µg/L		14:02:20
2	K 766.490 Radial†	26508.9	24910.1	[10000] µg/L		14:02:20
2	Mg 279.077 IEC†	18832.1	18540.1	[10000] µg/L		14:02:20
2	Na 589.592 Radial†	63795.8	62504.4	[10000] µg/L		14:02:20
2	Sr 421.552†	388119.6	385411.3	[1000] µg/L		14:02:18
2	Sc 361.383	1697269.8	1697269.8	100.30 %		14:03:08
2	Y 371.029	943343.3	943343.3	98.570 %		14:03:08
2	Ag 328.068†	247249.1	241417.1	[1000] µg/L		14:03:10
2	As 188.979†	2848.8	2853.8	[1000] µg/L		14:03:30
2	B 249.677†	71633.5	67310.4	[1000] µg/L		14:03:10
2	Ba 233.527†	219971.1	219468.4	[1000] µg/L		14:03:10
2	Be 313.107†	3539239.2	3529796.4	[1000] µg/L		14:03:08
2	Cd 226.502†	150771.2	150391.3	[1000] µg/L		14:03:10
2	Co 228.616†	75690.7	75694.6	[1000] µg/L		14:03:10
2	Cr 267.716†	113953.4	113287.8	[1000] µg/L		14:03:10
2	Cu 324.752†	244569.6	240607.2	[1000] µg/L		14:03:10
2	Mn 257.610†	762356.7	759893.6	[1000] µg/L		14:03:10
2	Mo 202.031†	29156.4	29092.1	[1000] µg/L		14:03:30
2	Ni 231.604†	79920.1	79758.4	[1000] µg/L		14:03:10
2	P 214.914†	21661.3	21616.6	[5000] µg/L		14:03:30
2	Pb 220.353†	15908.6	15744.5	[1000] µg/L		14:03:30



2	S 181.975 Axial†	2422.7	2313.6	[2000]	µg/L	14:03:30
2	Sb 206.836†	7816.3	7715.7	[1000]	µg/L	14:03:30
2	Se 196.026†	2569.9	2542.3	[1000]	µg/L	14:03:30
2	SiO2†	105093.2	103094.5	[10695]	µg/L	14:03:10
2	Si 251.611†	327910.7	326157.4	[5000]	µg/L	14:03:10
2	Sn 189.927†	14249.2	14198.8	[1000]	µg/L	14:03:30
2	Ti 334.940†	955746.6	952042.6	[1000]	µg/L	14:03:08
2	Tl 190.801†	6944.7	7039.5	[1000]	µg/L	14:03:30
2	U 409.014†	16268.4	16631.7	[1000]	µg/L	14:03:10
2	V 292.402†	202015.2	200923.5	[1000]	µg/L	14:03:10
2	Zn 213.857†	173209.0	172079.0	[1000]	µg/L	14:03:10
3	Sc RADIAL	113957.9	113957.9	99.6	%	14:02:25
3	Al 396.153Radial†	42520.9	42766.4	[10000]	µg/L	14:02:25
3	Ca 317.933Radial†	121747.8	121750.6	[10000]	µg/L	14:02:25
3	Fe 238.204 Radial†	117098.8	117416.5	[10000]	µg/L	14:02:25
3	K 766.490 Radial†	26132.1	24821.5	[10000]	µg/L	14:02:25
3	Mg 279.077 IEC†	18381.6	18293.7	[10000]	µg/L	14:02:25
3	Na 589.592 Radial†	62818.0	62219.8	[10000]	µg/L	14:02:25
3	Sr 421.552†	388706.1	390240.0	[1000]	µg/L	14:02:22
3	Sc 361.383	1677848.1	1677848.1	99.148	%	14:03:32
3	Y 371.029	933166.9	933166.9	97.507	%	14:03:32
3	Ag 328.068†	246276.8	243290.0	[1000]	µg/L	14:03:35
3	As 188.979†	2843.5	2881.4	[1000]	µg/L	14:03:55
3	B 249.677†	71177.6	67677.3	[1000]	µg/L	14:03:35
3	Ba 233.527†	219681.3	221714.8	[1000]	µg/L	14:03:35
3	Be 313.107†	3510497.3	3541654.7	[1000]	µg/L	14:03:32
3	Cd 226.502†	150345.4	151701.8	[1000]	µg/L	14:03:35
3	Co 228.616†	75675.0	76552.3	[1000]	µg/L	14:03:35
3	Cr 267.716†	113544.7	114190.7	[1000]	µg/L	14:03:35
3	Cu 324.752†	244032.2	242887.9	[1000]	µg/L	14:03:35
3	Mn 257.610†	760280.3	766597.9	[1000]	µg/L	14:03:35
3	Mo 202.031†	29145.7	29417.8	[1000]	µg/L	14:03:55
3	Ni 231.604†	80008.0	80769.5	[1000]	µg/L	14:03:35
3	P 214.914†	21689.6	21895.2	[5000]	µg/L	14:03:55
3	Pb 220.353†	15950.0	15969.8	[1000]	µg/L	14:03:55
3	S 181.975 Axial†	2451.9	2371.0	[2000]	µg/L	14:03:55
3	Sb 206.836†	7791.6	7781.1	[1000]	µg/L	14:03:55
3	Se 196.026†	2588.0	2590.2	[1000]	µg/L	14:03:55
3	SiO2†	104932.5	104145.3	[10695]	µg/L	14:03:35
3	Si 251.611†	327564.2	329592.4	[5000]	µg/L	14:03:35
3	Sn 189.927†	14229.7	14343.6	[1000]	µg/L	14:03:55
3	Ti 334.940†	948984.7	956253.1	[1000]	µg/L	14:03:32
3	Tl 190.801†	6907.2	7081.8	[1000]	µg/L	14:03:55
3	U 409.014†	16373.1	16925.1	[1000]	µg/L	14:03:35
3	V 292.402†	201146.7	202379.1	[1000]	µg/L	14:03:35
3	Zn 213.857†	172995.9	173863.1	[1000]	µg/L	14:03:35

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Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1680949.4	15011.98	0.89%	99.331 %
Sc RADIAL	114668.0	643.26	0.56%	100 %
Y 371.029	934872.6	7759.83	0.83%	97.685 %
Ag 328.068†	242526.3	983.06	0.41%	[1000] µg/L
Al 396.153Radial†	42908.0	178.94	0.42%	[10000] µg/L
As 188.979†	2884.6	32.48	1.13%	[1000] µg/L
B 249.677†	67482.6	184.46	0.27%	[1000] µg/L
Ba 233.527†	220779.2	1169.24	0.53%	[1000] µg/L
Be 313.107†	3532253.1	8445.67	0.24%	[1000] µg/L
Ca 317.933Radial†	122279.2	457.93	0.37%	[10000] µg/L
Cd 226.502†	151154.2	681.27	0.45%	[1000] µg/L
Co 228.616†	76189.3	443.74	0.58%	[1000] µg/L
Cr 267.716†	113903.3	533.40	0.47%	[1000] µg/L
Cu 324.752†	241860.3	1156.93	0.48%	[1000] µg/L
Fe 238.204 Radial†	117920.2	461.25	0.39%	[10000] µg/L
K 766.490 Radial†	24915.7	97.19	0.39%	[10000] µg/L
Mg 279.077 IEC†	18427.9	124.69	0.68%	[10000] µg/L
Mn 257.610†	764087.0	3655.15	0.48%	[1000] µg/L
Mo 202.031†	29387.3	281.18	0.96%	[1000] µg/L
Na 589.592 Radial†	62517.7	304.76	0.49%	[10000] µg/L

Ni 231.604†	80295.3	508.46	0.63%	[1000] µg/L
P 214.914†	21858.5	225.78	1.03%	[5000] µg/L
Pb 220.353†	15917.4	153.49	0.96%	[1000] µg/L
S 181.975 Axial†	2352.1	33.35	1.42%	[2000] µg/L
Sb 206.836†	7785.8	72.62	0.93%	[1000] µg/L
Se 196.026†	2584.0	38.96	1.51%	[1000] µg/L
SiO2†	103554.6	537.46	0.52%	[10695] µg/L
Si 251.611†	327738.7	1733.61	0.53%	[5000] µg/L
Sn 189.927†	14323.8	116.43	0.81%	[1000] µg/L
Sr 421.552†	388190.3	2495.56	0.64%	[1000] µg/L
Ti 334.940†	953632.6	2286.56	0.24%	[1000] µg/L
Tl 190.801†	7085.8	48.40	0.68%	[1000] µg/L
U 409.014†	16748.3	155.65	0.93%	[1000] µg/L
V 292.402†	201954.7	897.63	0.44%	[1000] µg/L
Zn 213.857†	173097.2	918.45	0.53%	[1000] µg/L

Sequence No.: 5

Sample ID: S10

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 4/13/2010 14:04:02

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	111326.0	111326.0	97.3 %	14:04:31
1	Al 396.153Radial†	205248.7	210979.2	[50000] µg/L	14:04:31
1	Ca 317.933Radial†	590258.0	606036.7	[50000] µg/L	14:04:31
1	Fe 238.204 Radial†	227697.9	233836.5	[20000] µg/L	14:04:31
1	Mg 279.077 IEC†	87919.7	90180.7	[50000] µg/L	14:04:31
1	Na 589.592 Radial†	122439.7	124972.2	[20000] µg/L	14:04:31
1	Sc 361.383	1627528.8	1627528.8	96.175 %	14:04:53
1	Y 371.029	906736.0	906736.0	94.745 %	14:04:53
2	Sc RADIAL	110554.8	110554.8	96.6 %	14:04:33
2	Al 396.153Radial†	205614.2	212828.4	[50000] µg/L	14:04:33
2	Ca 317.933Radial†	589278.4	609253.6	[50000] µg/L	14:04:33
2	Fe 238.204 Radial†	227105.1	234855.2	[20000] µg/L	14:04:33
2	Mg 279.077 IEC†	87634.1	90515.3	[50000] µg/L	14:04:33
2	Na 589.592 Radial†	122793.8	126216.1	[20000] µg/L	14:04:33
2	Sc 361.383	1632835.1	1632835.1	96.488 %	14:04:56
2	Y 371.029	909755.9	909755.9	95.060 %	14:04:56
3	Sc RADIAL	112055.6	112055.6	98.0 %	14:04:35
3	Al 396.153Radial†	207380.3	211781.8	[50000] µg/L	14:04:35
3	Ca 317.933Radial†	593806.8	605710.0	[50000] µg/L	14:04:35
3	Fe 238.204 Radial†	228996.4	233638.6	[20000] µg/L	14:04:35
3	Mg 279.077 IEC†	88565.6	90251.7	[50000] µg/L	14:04:35
3	Na 589.592 Radial†	123354.3	125086.6	[20000] µg/L	14:04:35
3	Sc 361.383	1631104.2	1631104.2	96.386 %	14:04:59
3	Y 371.029	908829.1	908829.1	94.964 %	14:04:59

## Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1630489.4	2706.03	0.17%	96.349 %
Sc RADIAL	111312.1	750.51	0.67%	97.3 %
Y 371.029	908440.3	1547.02	0.17%	94.923 %
Al 396.153Radial†	211863.1	927.26	0.44%	[50000] µg/L
Ca 317.933Radial†	607000.1	1958.42	0.32%	[50000] µg/L
Fe 238.204 Radial†	234110.1	652.83	0.28%	[20000] µg/L
Mg 279.077 IEC†	90315.9	176.28	0.20%	[50000] µg/L
Na 589.592 Radial†	125425.0	687.53	0.55%	[20000] µg/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	242.2	0.00000	0.999991	
Al 396.153Radial	3	Lin Thru 0	0.0	4.240	0.00000	0.999994	
As 188.979	3	Lin Thru 0	0.0	2.888	0.00000	0.999997	
B 249.677	3	Lin Thru 0	0.0	67.37	0.00000	0.999994	
Ba 233.527	3	Lin Thru 0	0.0	220.9	0.00000	0.999996	
Be 313.107	3	Lin Thru 0	0.0	3532	0.00000	1.000000	
Ca 317.933Radial	3	Lin Thru 0	0.0	12.14	0.00000	0.999998	
Cd 226.502	3	Lin Thru 0	0.0	151.2	0.00000	0.999997	
Co 228.616	3	Lin Thru 0	0.0	76.29	0.00000	0.999994	
Cr 267.716	3	Lin Thru 0	0.0	113.9	0.00000	0.999997	
Cu 324.752	3	Lin Thru 0	0.0	241.6	0.00000	0.999996	
Fe 238.204 Radia	2	Lin Thru 0	0.0	11.72	0.00000	0.999996	
K 766.490 Radial	3	Lin Thru 0	0.0	2.498	0.00000	0.999982	
Mg 279.077 IEC	3	Lin Thru 0	0.0	1.808	0.00000	0.999989	
Mn 257.610	3	Lin Thru 0	0.0	765.0	0.00000	0.999989	
Mo 202.031	3	Lin Thru 0	0.0	29.46	0.00000	0.999989	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.267	0.00000	0.999999	

Ni 231.604	3	Lin Thru 0	0.0	80.41	0.00000	0.999990
P 214.914	3	Lin Thru 0	0.0	4.376	0.00000	0.999997
Pb 220.353	3	Lin Thru 0	0.0	15.96	0.00000	0.999984
S 181.975 Axial	3	Lin Thru 0	0.0	1.175	0.00000	0.999999
Sb 206.836	3	Lin Thru 0	0.0	7.801	0.00000	0.999992
Se 196.026	3	Lin Thru 0	0.0	2.586	0.00000	0.999999
SiO2	3	Lin Thru 0	0.0	9.685	0.00000	1.000000
Si 251.611	3	Lin Thru 0	0.0	65.55	0.00000	1.000000
Sn 189.927	3	Lin Thru 0	0.0	14.36	0.00000	0.999987
Sr 421.552	3	Lin Thru 0	0.0	389.3	0.00000	0.999982
Ti 334.940	3	Lin Thru 0	0.0	953.6	0.00000	1.000000
Tl 190.801	3	Lin Thru 0	0.0	7.095	0.00000	0.999995
U 409.014	3	Lin Thru 0	0.0	16.44	0.00000	0.999244
V 292.402	3	Lin Thru 0	0.0	201.7	0.00000	0.999996
Zn 213.857	3	Lin Thru 0	0.0	173.2	0.00000	0.999998

Sequence No.: 6

Sample ID: ICV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 4/13/2010 14:05:06

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	114679.5	114679.5	100 %		14:05:38
1	Al 396.153Radial†	22571.7	22599.3	5304.0 µg/L	5304.0 ppb	14:05:38
1	Ca 317.933Radial†	63687.7	63069.1	5193.1 µg/L	5193.1 ppb	14:05:38
1	Fe 238.204 Radial†	60965.6	60686.4	5176.8 µg/L	5176.8 ppb	14:05:38
1	K 766.490 Radial†	8120.2	6690.3	2675.0 µg/L	2675.0 ppb	14:05:38
1	Mg 279.077 IEC†	9930.8	9748.2	5400.2 µg/L	5400.2 ppb	14:05:38
1	Na 589.592 Radial†	16770.8	15892.9	2533.4 µg/L	2533.4 ppb	14:05:38
1	Sr 421.552†	213677.5	213201.3	547.63 µg/L	547.63 ppb	14:05:36
1	Sc 361.383	1688876.0	1688876.0	99.800 %		14:06:05
1	Y 371.029	946580.4	946580.4	98.908 %		14:06:05
1	Ag 328.068†	67855.6	62888.8	266.10 µg/L	266.10 ppb	14:06:05
1	As 188.979†	1375.4	1391.6	489.41 µg/L	489.41 ppb	14:06:25
1	B 249.677†	40096.8	36065.3	533.51 µg/L	533.51 ppb	14:06:05
1	Ba 233.527†	114762.7	115138.8	521.63 µg/L	521.63 ppb	14:06:05
1	Be 313.107†	932024.2	934887.1	264.84 µg/L	264.84 ppb	14:06:05
1	Cd 226.502†	77949.4	78170.4	516.56 µg/L	516.56 ppb	14:06:05
1	Co 228.616†	40261.9	40569.7	532.13 µg/L	532.13 ppb	14:06:05
1	Cr 267.716†	57854.0	57640.5	506.11 µg/L	506.11 ppb	14:06:05
1	Cu 324.752†	129322.9	126341.2	524.63 µg/L	524.63 ppb	14:06:05
1	Mn 257.610†	400247.6	400835.6	523.72 µg/L	523.72 ppb	14:06:05
1	Mo 202.031†	16189.4	16243.5	551.88 µg/L	551.88 ppb	14:06:25
1	Ni 231.604†	40843.7	40999.6	509.86 µg/L	509.86 ppb	14:06:05
1	P 214.914†	11171.5	11213.1	2553.0 µg/L	2553.0 ppb	14:06:25
1	Pb 220.353†	8354.8	8254.3	518.94 µg/L	518.94 ppb	14:06:25
1	S 181.975 Axial†	3060.5	2964.7	2527.2 µg/L	2527.2 ppb	14:06:25
1	Sb 206.836†	4037.3	3967.9	510.49 µg/L	510.49 ppb	14:06:25
1	Se 196.026†	6624.7	6618.0	2560 µg/L	2560 ppb	14:06:25
1	SiO2†	103682.7	102201.9	10530 µg/L	10530 ppb	14:06:05
1	Si 251.611†	322867.9	322729.4	4912.1 µg/L	4912.1 ppb	14:06:05
1	Sn 189.927†	7746.8	7754.0	541.65 µg/L	541.65 ppb	14:06:25
1	Ti 334.940†	480246.9	480324.6	503.05 µg/L	503.05 ppb	14:06:05
1	Tl 190.801†	3708.5	3831.2	547.46 µg/L	547.46 ppb	14:06:25
1	U 409.014†	7137.8	7563.4	491.28 µg/L	491.28 ppb	14:06:05
1	V 292.402†	103677.1	103389.1	519.79 µg/L	519.79 ppb	14:06:05
1	Zn 213.857†	90749.6	90312.4	517.37 µg/L	517.37 ppb	14:06:05
2	Sc RADIAL	114636.8	114636.8	100 %		14:05:42
2	Al 396.153Radial†	22462.2	22498.4	5280.2 µg/L	5280.2 ppb	14:05:42
2	Ca 317.933Radial†	63786.8	63191.7	5203.2 µg/L	5203.2 ppb	14:05:42
2	Fe 238.204 Radial†	61338.3	61080.9	5210.4 µg/L	5210.4 ppb	14:05:42
2	K 766.490 Radial†	7948.7	6522.2	2607.7 µg/L	2607.7 ppb	14:05:42
2	Mg 279.077 IEC†	10015.9	9836.8	5449.2 µg/L	5449.2 ppb	14:05:42
2	Na 589.592 Radial†	17084.5	16212.2	2584.4 µg/L	2584.4 ppb	14:05:42
2	Sr 421.552†	211595.0	211202.6	542.49 µg/L	542.49 ppb	14:05:40
2	Sc 361.383	1686369.4	1686369.4	99.652 %		14:06:28
2	Y 371.029	945099.5	945099.5	98.753 %		14:06:28
2	Ag 328.068†	68737.2	63874.5	270.15 µg/L	270.15 ppb	14:06:28
2	As 188.979†	1366.7	1384.9	487.07 µg/L	487.07 ppb	14:06:48
2	B 249.677†	40112.6	36141.0	534.63 µg/L	534.63 ppb	14:06:28
2	Ba 233.527†	114539.2	115085.6	521.39 µg/L	521.39 ppb	14:06:28
2	Be 313.107†	931472.8	935721.9	265.07 µg/L	265.07 ppb	14:06:28
2	Cd 226.502†	77546.0	77881.7	514.65 µg/L	514.65 ppb	14:06:28
2	Co 228.616†	40235.3	40603.0	532.57 µg/L	532.57 ppb	14:06:28
2	Cr 267.716†	57690.5	57562.5	505.42 µg/L	505.42 ppb	14:06:28
2	Cu 324.752†	129289.7	126500.4	525.29 µg/L	525.29 ppb	14:06:28
2	Mn 257.610†	399527.2	400708.7	523.55 µg/L	523.55 ppb	14:06:28
2	Mo 202.031†	16173.8	16252.0	552.17 µg/L	552.17 ppb	14:06:48
2	Ni 231.604†	40988.7	41205.9	512.43 µg/L	512.43 ppb	14:06:28
2	P 214.914†	11159.0	11217.2	2553.9 µg/L	2553.9 ppb	14:06:48
2	Pb 220.353†	8355.7	8267.7	519.78 µg/L	519.78 ppb	14:06:48

2	S 181.975 Axial†	3046.5	2955.2	2519.1 µg/L	2519.1 ppb	14:06:48
2	Sb 206.836†	4038.6	3975.2	511.43 µg/L	511.43 ppb	14:06:48
2	Se 196.026†	6613.8	6617.0	2560 µg/L	2560 ppb	14:06:48
2	SiO2†	103340.4	102012.9	10510 µg/L	10510 ppb	14:06:28
2	Si 251.611†	322880.2	323222.6	4919.7 µg/L	4919.7 ppb	14:06:28
2	Sn 189.927†	7743.2	7761.9	542.20 µg/L	542.20 ppb	14:06:48
2	Ti 334.940†	479937.5	480729.5	503.48 µg/L	503.48 ppb	14:06:28
2	Tl 190.801†	3722.2	3850.4	550.17 µg/L	550.17 ppb	14:06:48
2	U 409.014†	7060.5	7496.5	487.11 µg/L	487.11 ppb	14:06:28
2	V 292.402†	103192.9	103057.7	518.14 µg/L	518.14 ppb	14:06:28
2	Zn 213.857†	90838.9	90537.1	518.65 µg/L	518.65 ppb	14:06:28
3	Sc RADIAL	114430.7	114430.7	100 %		14:05:46
3	Al 396.153Radial†	22424.7	22501.3	5280.7 µg/L	5280.7 ppb	14:05:46
3	Ca 317.933Radial†	63949.3	63468.7	5226.0 µg/L	5226.0 ppb	14:05:46
3	Fe 238.204 Radial†	61429.3	61282.2	5227.6 µg/L	5227.6 ppb	14:05:46
3	K 766.490 Radial†	8032.3	6620.1	2646.8 µg/L	2646.8 ppb	14:05:46
3	Mg 279.077 IEC†	9978.9	9817.9	5438.8 µg/L	5438.8 ppb	14:05:46
3	Na 589.592 Radial†	17114.3	16272.6	2594.1 µg/L	2594.1 ppb	14:05:46
3	Sr 421.552†	214292.0	214278.9	550.39 µg/L	550.39 ppb	14:05:44
3	Sc 361.383	1674918.8	1674918.8	98.975 %		14:06:51
3	Y 371.029	939425.7	939425.7	98.161 %		14:06:51
3	Ag 328.068†	67277.9	62871.7	265.99 µg/L	265.99 ppb	14:06:51
3	As 188.979†	1367.5	1395.1	490.63 µg/L	490.63 ppb	14:07:11
3	B 249.677†	39754.0	36053.8	533.34 µg/L	533.34 ppb	14:06:51
3	Ba 233.527†	113771.7	115095.9	521.44 µg/L	521.44 ppb	14:06:51
3	Be 313.107†	923054.0	933606.2	264.48 µg/L	264.48 ppb	14:06:51
3	Cd 226.502†	77072.1	77934.9	515.00 µg/L	515.00 ppb	14:06:51
3	Co 228.616†	39880.0	40520.0	531.48 µg/L	531.48 ppb	14:06:51
3	Cr 267.716†	57292.2	57555.9	505.37 µg/L	505.37 ppb	14:06:51
3	Cu 324.752†	128101.8	126187.2	524.00 µg/L	524.00 ppb	14:06:51
3	Mn 257.610†	395412.4	399292.2	521.70 µg/L	521.70 ppb	14:06:51
3	Mo 202.031†	16159.2	16348.2	555.43 µg/L	555.43 ppb	14:07:11
3	Ni 231.604†	40472.1	40965.2	509.44 µg/L	509.44 ppb	14:06:51
3	P 214.914†	11108.8	11243.1	2559.8 µg/L	2559.8 ppb	14:07:11
3	Pb 220.353†	8339.6	8308.7	522.36 µg/L	522.36 ppb	14:07:11
3	S 181.975 Axial†	3051.0	2980.7	2540.8 µg/L	2540.8 ppb	14:07:11
3	Sb 206.836†	4026.5	3990.7	513.47 µg/L	513.47 ppb	14:07:11
3	Se 196.026†	6591.2	6639.5	2570 µg/L	2570 ppb	14:07:11
3	SiO2†	102622.4	101996.4	10508 µg/L	10508 ppb	14:06:51
3	Si 251.611†	320030.8	322558.8	4909.5 µg/L	4909.5 ppb	14:06:51
3	Sn 189.927†	7712.8	7784.2	543.76 µg/L	543.76 ppb	14:07:11
3	Ti 334.940†	475445.5	479483.5	502.17 µg/L	502.17 ppb	14:06:51
3	Tl 190.801†	3705.9	3859.5	551.42 µg/L	551.42 ppb	14:07:11
3	U 409.014†	7019.8	7503.7	487.47 µg/L	487.47 ppb	14:06:51
3	V 292.402†	102240.5	102803.4	516.91 µg/L	516.91 ppb	14:06:51
3	Zn 213.857†	89776.9	90087.4	516.07 µg/L	516.07 ppb	14:06:51

## Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1683388.1	99.475 %	0.4397			0.44%
Sc RADIAL	114582.3	100 %	0.1			0.12%
Y 371.029	943701.9	98.607 %	0.3946			0.40%
Ag 328.068†	63211.7	267.41 µg/L	2.368	267.41 ppb	2.368	0.89%
QC value within limits for Ag 328.068 Recovery = 106.96%						
Al 396.153Radial†	22533.0	5288.3 µg/L	13.59	5288.3 ppb	13.59	0.26%
QC value within limits for Al 396.153Radial Recovery = 105.77%						
As 188.979†	1390.5	489.04 µg/L	1.806	489.04 ppb	1.806	0.37%
QC value within limits for As 188.979 Recovery = 97.81%						
B 249.677†	36086.7	533.83 µg/L	0.701	533.83 ppb	0.701	0.13%
QC value within limits for B 249.677 Recovery = 106.77%						
Ba 233.527†	115106.8	521.49 µg/L	0.129	521.49 ppb	0.129	0.02%
QC value within limits for Ba 233.527 Recovery = 104.30%						
Be 313.107†	934738.4	264.80 µg/L	0.302	264.80 ppb	0.302	0.11%
QC value within limits for Be 313.107 Recovery = 105.92%						
Ca 317.933Radial†	63243.2	5207.4 µg/L	16.86	5207.4 ppb	16.86	0.32%
QC value within limits for Ca 317.933Radial Recovery = 104.15%						
Cd 226.502†	77995.7	515.41 µg/L	1.018	515.41 ppb	1.018	0.20%
QC value within limits for Cd 226.502 Recovery = 103.08%						
Co 228.616†	40564.3	532.06 µg/L	0.548	532.06 ppb	0.548	0.10%

QC value within limits for Co 228.616 Recovery = 106.41%							
Cr 267.716†	57586.3	505.63 µg/L	0.411	505.63 ppb	0.411	0.08%	
QC value within limits for Cr 267.716 Recovery = 101.13%							
Cu 324.752†	126342.9	524.64 µg/L	0.647	524.64 ppb	0.647	0.12%	
QC value within limits for Cu 324.752 Recovery = 104.93%							
Fe 238.204 Radial†	61016.5	5204.9 µg/L	25.85	5204.9 ppb	25.85	0.50%	
QC value within limits for Fe 238.204 Radial Recovery = 104.10%							
K 766.490 Radial†	6610.8	2643.2 µg/L	33.79	2643.2 ppb	33.79	1.28%	
QC value within limits for K 766.490 Radial Recovery = 105.73%							
Mg 279.077 IEC†	9800.9	5429.4 µg/L	25.81	5429.4 ppb	25.81	0.48%	
QC value within limits for Mg 279.077 IEC Recovery = 108.59%							
Mn 257.610†	400278.8	522.99 µg/L	1.120	522.99 ppb	1.120	0.21%	
QC value within limits for Mn 257.610 Recovery = 104.60%							
Mo 202.031†	16281.2	553.16 µg/L	1.974	553.16 ppb	1.974	0.36%	
QC value greater than the upper limit for Mo 202.031 Recovery = 110.63%							
Na 589.592 Radial†	16125.9	2570.6 µg/L	32.57	2570.6 ppb	32.57	1.27%	
QC value within limits for Na 589.592 Radial Recovery = 102.83%							
Ni 231.604†	41056.9	510.58 µg/L	1.619	510.58 ppb	1.619	0.32%	
QC value within limits for Ni 231.604 Recovery = 102.12%							
P 214.914†	11224.5	2555.6 µg/L	3.69	2555.6 ppb	3.69	0.14%	
QC value within limits for P 214.914 Recovery = 102.22%							
Pb 220.353†	8276.9	520.36 µg/L	1.781	520.36 ppb	1.781	0.34%	
QC value within limits for Pb 220.353 Recovery = 104.07%							
S 181.975 Axial†	2966.9	2529.1 µg/L	10.97	2529.1 ppb	10.97	0.43%	
QC value within limits for S 181.975 Axial Recovery = 101.16%							
Sb 206.836†	3977.9	511.79 µg/L	1.524	511.79 ppb	1.524	0.30%	
QC value within limits for Sb 206.836 Recovery = 102.36%							
Se 196.026†	6624.8	2560 µg/L	4.9	2560 ppb	4.9	0.19%	
QC value within limits for Se 196.026 Recovery = 102.56%							
SiO2†	102070.4	10516 µg/L	11.8	10516 ppb	11.8	0.11%	
QC value within limits for SiO2 Recovery = 98.33%							
Si 251.611†	322836.9	4913.8 µg/L	5.28	4913.8 ppb	5.28	0.11%	
QC value within limits for Si 251.611 Recovery = 98.28%							
Sn 189.927†	7766.7	542.54 µg/L	1.092	542.54 ppb	1.092	0.20%	
QC value within limits for Sn 189.927 Recovery = 108.51%							
Sr 421.552†	212894.3	546.84 µg/L	4.010	546.84 ppb	4.010	0.73%	
QC value within limits for Sr 421.552 Recovery = 109.37%							
Ti 334.940†	480179.2	502.90 µg/L	0.666	502.90 ppb	0.666	0.13%	
QC value within limits for Ti 334.940 Recovery = 100.58%							
Tl 190.801†	3847.0	549.69 µg/L	2.024	549.69 ppb	2.024	0.37%	
QC value within limits for Tl 190.801 Recovery = 109.94%							
U 409.014†	7521.2	488.62 µg/L	2.313	488.62 ppb	2.313	0.47%	
QC value within limits for U 409.014 Recovery = 97.72%							
V 292.402†	103083.4	518.28 µg/L	1.444	518.28 ppb	1.444	0.28%	
QC value within limits for V 292.402 Recovery = 103.66%							
Zn 213.857†	90312.3	517.36 µg/L	1.289	517.36 ppb	1.289	0.25%	
QC value within limits for Zn 213.857 Recovery = 103.47%							
QC Failed. Continue with analysis.							

Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 4/13/2010 14:07:19

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	114752.6	114752.6	100 %		14:07:48
1	Al 396.153Radial†	-96.4	-11.1	-2.6301 µg/L	-2.6301 ppb	14:08:08
1	Ca 317.933Radial†	472.7	14.4	1.1879 µg/L	1.1879 ppb	14:08:08
1	Fe 238.204 Radial†	117.5	-7.1	-0.6073 µg/L	-0.6073 ppb	14:08:08
1	K 766.490 Radial†	1351.1	-62.5	-25.010 µg/L	-25.010 ppb	14:07:48
1	Mg 279.077 IEC†	148.2	-9.7	-5.3294 µg/L	-5.3294 ppb	14:08:08
1	Na 589.592 Radial†	797.3	-40.6	-6.4518 µg/L	-6.4518 ppb	14:07:48
1	Sr 421.552†	41.2	107.8	0.2770 µg/L	0.2770 ppb	14:07:48
1	Sc 361.383	1690118.5	1690118.5	99.873 %		14:08:56
1	Y 371.029	956294.5	956294.5	99.923 %		14:08:56
1	Ag 328.068†	5093.0	-3.5	-0.0196 µg/L	-0.0196 ppb	14:08:58
1	As 188.979†	-8.7	4.7	1.6152 µg/L	1.6152 ppb	14:09:18
1	B 249.677†	4278.5	172.0	2.5526 µg/L	2.5526 ppb	14:08:58
1	Ba 233.527†	-140.1	5.6	0.0252 µg/L	0.0252 ppb	14:09:18
1	Be 313.107†	-703.0	288.4	0.0821 µg/L	0.0821 ppb	14:08:58
1	Cd 226.502†	-36.2	28.3	0.1876 µg/L	0.1876 ppb	14:09:18
1	Co 228.616†	-224.7	2.0	0.0268 µg/L	0.0268 ppb	14:09:18
1	Cr 267.716†	311.9	-17.4	-0.1538 µg/L	-0.1538 ppb	14:09:18
1	Cu 324.752†	3170.8	-66.4	-0.2739 µg/L	-0.2739 ppb	14:08:58
1	Mn 257.610†	179.3	-35.8	-0.0466 µg/L	-0.0466 ppb	14:09:18
1	Mo 202.031†	-10.7	10.9	0.3702 µg/L	0.3702 ppb	14:09:18
1	Ni 231.604†	-56.8	17.0	0.2117 µg/L	0.2117 ppb	14:09:18
1	P 214.914†	-17.8	1.4	0.3160 µg/L	0.3160 ppb	14:09:18
1	Pb 220.353†	140.6	23.5	1.4747 µg/L	1.4747 ppb	14:09:18
1	S 181.975 Axial†	102.2	0.4	0.3564 µg/L	0.3564 ppb	14:09:18
1	Sb 206.836†	91.6	14.2	1.8263 µg/L	1.8263 ppb	14:09:18
1	Se 196.026†	30.5	10.6	4.09 µg/L	4.09 ppb	14:09:18
1	SiO2†	1732.4	45.7	4.7038 µg/L	4.7038 ppb	14:08:58
1	Si 251.611†	790.9	5.3	0.0730 µg/L	0.0730 ppb	14:08:58
1	Sn 189.927†	16.3	7.9	0.5464 µg/L	0.5464 ppb	14:09:18
1	Ti 334.940†	673.9	-211.3	-0.2217 µg/L	-0.2217 ppb	14:08:58
1	Tl 190.801†	-91.2	24.0	3.3695 µg/L	3.3695 ppb	14:09:18
1	U 409.014†	-386.7	24.0	1.4281 µg/L	1.4281 ppb	14:08:58
1	V 292.402†	378.6	-116.9	-0.5753 µg/L	-0.5753 ppb	14:08:58
1	Zn 213.857†	620.9	2.4	0.0125 µg/L	0.0125 ppb	14:09:18
2	Sc RADIAL	115224.8	115224.8	101 %		14:08:10
2	Al 396.153Radial†	-102.3	-16.6	-3.9252 µg/L	-3.9252 ppb	14:08:30
2	Ca 317.933Radial†	446.7	-13.3	-1.0910 µg/L	-1.0910 ppb	14:08:30
2	Fe 238.204 Radial†	120.7	-4.4	-0.3793 µg/L	-0.3793 ppb	14:08:30
2	K 766.490 Radial†	1465.3	45.4	18.171 µg/L	18.171 ppb	14:08:10
2	Mg 279.077 IEC†	146.3	-12.1	-6.6654 µg/L	-6.6654 ppb	14:08:30
2	Na 589.592 Radial†	1001.0	158.4	25.263 µg/L	25.263 ppb	14:08:10
2	Sr 421.552†	8.3	75.0	0.1926 µg/L	0.1926 ppb	14:08:10
2	Sc 361.383	1699339.5	1699339.5	100.42 %		14:09:20
2	Y 371.029	960943.9	960943.9	100.41 %		14:09:20
2	Ag 328.068†	5151.2	26.8	0.1058 µg/L	0.1058 ppb	14:09:22
2	As 188.979†	-15.4	-1.9	-0.6530 µg/L	-0.6530 ppb	14:09:42
2	B 249.677†	4295.4	165.6	2.4585 µg/L	2.4585 ppb	14:09:22
2	Ba 233.527†	-146.8	-0.3	-0.0013 µg/L	-0.0013 ppb	14:09:42
2	Be 313.107†	-932.7	63.5	0.0169 µg/L	0.0169 ppb	14:09:22
2	Cd 226.502†	-71.0	-6.1	-0.0403 µg/L	-0.0403 ppb	14:09:42
2	Co 228.616†	-241.1	-13.0	-0.1706 µg/L	-0.1706 ppb	14:09:42
2	Cr 267.716†	292.6	-38.2	-0.3329 µg/L	-0.3329 ppb	14:09:42
2	Cu 324.752†	3256.0	1.2	0.0017 µg/L	0.0017 ppb	14:09:22
2	Mn 257.610†	232.7	16.3	0.0216 µg/L	0.0216 ppb	14:09:42
2	Mo 202.031†	-12.9	8.8	0.2980 µg/L	0.2980 ppb	14:09:42
2	Ni 231.604†	-80.4	-6.1	-0.0761 µg/L	-0.0761 ppb	14:09:42
2	P 214.914†	9.3	28.5	6.5043 µg/L	6.5043 ppb	14:09:42
2	Pb 220.353†	121.4	3.7	0.2341 µg/L	0.2341 ppb	14:09:42



2	S 181.975 Axial†	100.9	-1.4	-1.2155 µg/L	-1.2155 ppb	14:09:42
2	Sb 206.836†	87.8	9.9	1.2793 µg/L	1.2793 ppb	14:09:42
2	Se 196.026†	32.1	12.0	4.64 µg/L	4.64 ppb	14:09:42
2	SiO2†	1730.1	34.0	3.4978 µg/L	3.4978 ppb	14:09:22
2	Si 251.611†	838.8	48.8	0.7359 µg/L	0.7359 ppb	14:09:22
2	Sn 189.927†	16.9	8.4	0.5846 µg/L	0.5846 ppb	14:09:42
2	Ti 334.940†	606.9	-281.7	-0.2934 µg/L	-0.2934 ppb	14:09:22
2	Tl 190.801†	-101.3	14.3	2.0167 µg/L	2.0167 ppb	14:09:42
2	U 409.014†	-470.4	-57.2	-3.4824 µg/L	-3.4824 ppb	14:09:22
2	V 292.402†	488.4	-9.6	-0.0482 µg/L	-0.0482 ppb	14:09:22
2	Zn 213.857†	596.9	-24.9	-0.1432 µg/L	-0.1432 ppb	14:09:42
3	Sc RADIAL	115162.2	115162.2	101 %		14:08:32
3	Al 396.153Radial†	-84.8	0.8	0.1725 µg/L	0.1725 ppb	14:08:52
3	Ca 317.933Radial†	466.4	6.5	0.5356 µg/L	0.5356 ppb	14:08:52
3	Fe 238.204 Radial†	108.8	-16.2	-1.3812 µg/L	-1.3812 ppb	14:08:52
3	K 766.490 Radial†	1435.6	16.7	6.6830 µg/L	6.6830 ppb	14:08:32
3	Mg 279.077 IEC†	149.6	-8.7	-4.8230 µg/L	-4.8230 ppb	14:08:52
3	Na 589.592 Radial†	785.9	-54.6	-8.7235 µg/L	-8.7235 ppb	14:08:32
3	Sr 421.552†	-180.5	-112.6	-0.2893 µg/L	-0.2893 ppb	14:08:32
3	Sc 361.383	1681677.0	1681677.0	99.374 %		14:09:45
3	Y 371.029	951126.6	951126.6	99.383 %		14:09:45
3	Ag 328.068†	5160.5	90.0	0.3715 µg/L	0.3715 ppb	14:09:47
3	As 188.979†	-11.6	1.7	0.6009 µg/L	0.6009 ppb	14:10:07
3	B 249.677†	4146.2	60.3	0.8958 µg/L	0.8958 ppb	14:09:47
3	Ba 233.527†	-168.9	-24.1	-0.1094 µg/L	-0.1094 ppb	14:10:07
3	Be 313.107†	-758.5	229.0	0.0662 µg/L	0.0662 ppb	14:09:47
3	Cd 226.502†	-56.0	8.3	0.0547 µg/L	0.0547 ppb	14:10:07
3	Co 228.616†	-231.7	-6.1	-0.0798 µg/L	-0.0798 ppb	14:10:07
3	Cr 267.716†	301.6	-26.2	-0.2334 µg/L	-0.2334 ppb	14:10:07
3	Cu 324.752†	3110.9	-110.8	-0.4556 µg/L	-0.4556 ppb	14:09:47
3	Mn 257.610†	215.0	1.0	0.0015 µg/L	0.0015 ppb	14:10:07
3	Mo 202.031†	-15.6	6.0	0.2022 µg/L	0.2022 ppb	14:10:07
3	Ni 231.604†	-81.9	-8.5	-0.1052 µg/L	-0.1052 ppb	14:10:07
3	P 214.914†	-9.5	9.6	2.2032 µg/L	2.2032 ppb	14:10:07
3	Pb 220.353†	118.0	1.5	0.0910 µg/L	0.0910 ppb	14:10:07
3	S 181.975 Axial†	105.4	4.2	3.5347 µg/L	3.5347 ppb	14:10:07
3	Sb 206.836†	85.9	8.9	1.1434 µg/L	1.1434 ppb	14:10:07
3	Se 196.026†	20.0	0.1	0.045 µg/L	0.045 ppb	14:10:07
3	SiO2†	1865.0	187.8	19.385 µg/L	19.385 ppb	14:09:47
3	Si 251.611†	680.5	-101.7	-1.5566 µg/L	-1.5566 ppb	14:09:47
3	Sn 189.927†	14.0	5.7	0.3944 µg/L	0.3944 ppb	14:10:07
3	Ti 334.940†	827.1	-53.8	-0.0577 µg/L	-0.0577 ppb	14:09:47
3	Tl 190.801†	-105.3	9.2	1.2991 µg/L	1.2991 ppb	14:10:07
3	U 409.014†	-336.9	72.2	4.3643 µg/L	4.3643 ppb	14:09:47
3	V 292.402†	402.5	-90.9	-0.4466 µg/L	-0.4466 ppb	14:09:47
3	Zn 213.857†	594.5	-21.1	-0.1205 µg/L	-0.1205 ppb	14:10:07

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Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1690378.3	99.888 %	0.5220			0.52%
Sc RADIAL	115046.5	101 %	0.2			0.22%
Y 371.029	956121.7	99.905 %	0.5131			0.51%
Ag 328.068†	37.8	0.1526 µg/L	0.19970	0.1526 ppb	0.19970	130.89%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-9.0	-2.1276 µg/L	2.09452	-2.1276 ppb	2.09452	98.45%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.5	0.5210 µg/L	1.13621	0.5210 ppb	1.13621	218.06%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	132.6	1.9690 µg/L	0.93057	1.9690 ppb	0.93057	47.26%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-6.3	-0.0285 µg/L	0.07128	-0.0285 ppb	0.07128	250.30%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	193.7	0.0551 µg/L	0.03397	0.0551 ppb	0.03397	61.69%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	2.6	0.2108 µg/L	1.17364	0.2108 ppb	1.17364	556.76%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	10.2	0.0673 µg/L	0.11443	0.0673 ppb	0.11443	169.97%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-5.7	-0.0745 µg/L	0.09879	-0.0745 ppb	0.09879	132.58%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	-27.2	-0.2400 µg/L	0.08975	-0.2400 ppb	0.08975	37.39%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-58.7	-0.2426 µg/L	0.23027	-0.2426 ppb	0.23027	94.92%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	-9.3	-0.7893 µg/L	0.52511	-0.7893 ppb	0.52511	66.53%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	-0.1	-0.0519 µg/L	22.36431	-0.0519 ppb	22.36431	>999.9%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-10.2	-5.6059 µg/L	0.95179	-5.6059 ppb	0.95179	16.98%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	-6.2	-0.0078 µg/L	0.03504	-0.0078 ppb	0.03504	447.36%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	8.6	0.2901 µg/L	0.08425	0.2901 ppb	0.08425	29.04%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	21.1	3.3625 µg/L	19.00019	3.3625 ppb	19.00019	565.06%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	0.8	0.0101 µg/L	0.17516	0.0101 ppb	0.17516	>999.9%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	13.1	3.0078 µg/L	3.17165	3.0078 ppb	3.17165	105.45%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	9.6	0.5999 µg/L	0.76094	0.5999 ppb	0.76094	126.84%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	1.0	0.8919 µg/L	2.41996	0.8919 ppb	2.41996	271.33%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	11.0	1.4163 µg/L	0.36149	1.4163 ppb	0.36149	25.52%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	7.6	2.92 µg/L	2.507	2.92 ppb	2.507	85.78%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		89.2	9.1955 µg/L	8.84473	9.1955 ppb	8.84473	96.19%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	-15.9	-0.2492 µg/L	1.17974	-0.2492 ppb	1.17974	473.37%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	7.3	0.5085 µg/L	0.10059	0.5085 ppb	0.10059	19.78%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	23.4	0.0601 µg/L	0.30548	0.0601 ppb	0.30548	508.19%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-182.3	-0.1909 µg/L	0.12080	-0.1909 ppb	0.12080	63.27%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	15.8	2.2284 µg/L	1.05127	2.2284 ppb	1.05127	47.18%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	13.0	0.7700 µg/L	3.96451	0.7700 ppb	3.96451	514.87%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-72.5	-0.3567 µg/L	0.27480	-0.3567 ppb	0.27480	77.04%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	-14.5	-0.0837 µg/L	0.08412	-0.0837 ppb	0.08412	100.47%
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: 4/13/2010 14:10:15

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	115870.6	115870.6	101 %		14:10:45
1	Al 396.153Radial†	810.3	884.9	208.26 µg/L	208.26 ppb	14:11:05
1	Ca 317.933Radial†	3005.7	2510.5	206.72 µg/L	206.72 ppb	14:11:05
1	Fe 238.204 Radial†	1327.6	1186.3	101.20 µg/L	101.20 ppb	14:11:05
1	K 766.490 Radial†	1865.8	432.7	173.03 µg/L	173.03 ppb	14:10:45
1	Mg 279.077 IEC†	734.6	567.9	314.21 µg/L	314.21 ppb	14:11:05
1	Na 589.592 Radial†	2899.0	2026.6	323.20 µg/L	323.20 ppb	14:10:45
1	Sr 421.552†	1997.7	2038.9	5.2358 µg/L	5.2358 ppb	14:10:45
1	Sc 361.383	1663979.2	1663979.2	98.328 %		14:12:07
1	Y 371.029	940482.1	940482.1	98.271 %		14:12:07
1	Ag 328.068†	6281.2	1285.0	5.4473 µg/L	5.4473 ppb	14:12:09
1	As 188.979†	77.0	91.8	31.866 µg/L	31.866 ppb	14:12:29
1	B 249.677†	7449.1	3463.8	51.400 µg/L	51.400 ppb	14:12:09
1	Ba 233.527†	997.0	1159.8	5.2549 µg/L	5.2549 ppb	14:12:29
1	Be 313.107†	16414.0	17685.4	5.0292 µg/L	5.0292 ppb	14:12:09
1	Cd 226.502†	694.9	771.3	5.0916 µg/L	5.0916 ppb	14:12:29
1	Co 228.616†	150.7	380.3	4.9857 µg/L	4.9857 ppb	14:12:29
1	Cr 267.716†	871.9	557.1	4.8352 µg/L	4.8352 ppb	14:12:29
1	Cu 324.752†	5546.8	2399.8	10.021 µg/L	10.021 ppb	14:12:09
1	Mn 257.610†	8170.6	8094.2	10.567 µg/L	10.567 ppb	14:12:09
1	Mo 202.031†	246.2	272.0	9.2460 µg/L	9.2460 ppb	14:12:29
1	Ni 231.604†	310.8	390.0	4.8505 µg/L	4.8505 ppb	14:12:29
1	P 214.914†	654.2	684.5	156.27 µg/L	156.27 ppb	14:12:29
1	Pb 220.353†	292.0	179.7	11.245 µg/L	11.245 ppb	14:12:29
1	S 181.975 Axial†	233.2	135.2	115.12 µg/L	115.12 ppb	14:12:29
1	Sb 206.836†	145.2	70.1	9.0722 µg/L	9.0722 ppb	14:12:29
1	Se 196.026†	105.9	87.7	34.0 µg/L	34.0 ppb	14:12:29
1	SiO2†	3856.6	2233.3	230.19 µg/L	230.19 ppb	14:12:09
1	Si 251.611†	7085.3	6419.3	97.730 µg/L	97.730 ppb	14:12:09
1	Sn 189.927†	157.2	151.4	10.562 µg/L	10.562 ppb	14:12:29
1	Ti 334.940†	5444.4	4650.9	4.8259 µg/L	4.8259 ppb	14:12:09
1	Tl 190.801†	37.7	153.6	21.740 µg/L	21.740 ppb	14:12:29
1	U 409.014†	766.1	1190.4	72.728 µg/L	72.728 ppb	14:12:09
1	V 292.402†	1492.2	1021.6	5.2151 µg/L	5.2151 ppb	14:12:09
1	Zn 213.857†	2410.7	1832.3	10.533 µg/L	10.533 ppb	14:12:29
2	Sc RADIAL	114830.0	114830.0	100 %		14:11:07
2	Al 396.153Radial†	801.1	883.0	207.77 µg/L	207.77 ppb	14:11:27
2	Ca 317.933Radial†	3001.9	2533.6	208.61 µg/L	208.61 ppb	14:11:27
2	Fe 238.204 Radial†	1321.5	1192.1	101.69 µg/L	101.69 ppb	14:11:27
2	K 766.490 Radial†	1794.4	378.2	151.23 µg/L	151.23 ppb	14:11:07
2	Mg 279.077 IEC†	716.3	556.2	307.76 µg/L	307.76 ppb	14:11:27
2	Na 589.592 Radial†	2678.4	1832.8	292.30 µg/L	292.30 ppb	14:11:07
2	Sr 421.552†	1964.0	2023.2	5.1955 µg/L	5.1955 ppb	14:11:07
2	Sc 361.383	1688831.4	1688831.4	99.797 %		14:12:31
2	Y 371.029	954649.8	954649.8	99.751 %		14:12:31
2	Ag 328.068†	6438.1	1348.2	5.6926 µg/L	5.6926 ppb	14:12:33
2	As 188.979†	69.6	83.2	28.900 µg/L	28.900 ppb	14:12:54
2	B 249.677†	7355.1	3258.2	48.348 µg/L	48.348 ppb	14:12:33
2	Ba 233.527†	982.1	1130.0	5.1198 µg/L	5.1198 ppb	14:12:54
2	Be 313.107†	16510.6	17536.5	4.9848 µg/L	4.9848 ppb	14:12:33
2	Cd 226.502†	697.0	763.0	5.0369 µg/L	5.0369 ppb	14:12:54
2	Co 228.616†	147.7	375.1	4.9173 µg/L	4.9173 ppb	14:12:54
2	Cr 267.716†	877.7	549.9	4.7778 µg/L	4.7778 ppb	14:12:54
2	Cu 324.752†	5271.6	2041.0	8.5292 µg/L	8.5292 ppb	14:12:33
2	Mn 257.610†	8117.5	7918.7	10.338 µg/L	10.338 ppb	14:12:33
2	Mo 202.031†	277.7	299.8	10.189 µg/L	10.189 ppb	14:12:54
2	Ni 231.604†	328.3	402.8	5.0097 µg/L	5.0097 ppb	14:12:54
2	P 214.914†	622.9	643.3	146.87 µg/L	146.87 ppb	14:12:54
2	Pb 220.353†	276.3	159.7	9.9965 µg/L	9.9965 ppb	14:12:54

2	S 181.975 Axial†	242.7	141.3	120.32 µg/L	120.32 ppb	14:12:54
2	Sb 206.836†	142.1	64.8	8.4020 µg/L	8.4020 ppb	14:12:54
2	Se 196.026†	103.9	84.1	32.6 µg/L	32.6 ppb	14:12:54
2	SiO2†	3818.6	2137.5	220.27 µg/L	220.27 ppb	14:12:33
2	Si 251.611†	7271.2	6499.4	98.941 µg/L	98.941 ppb	14:12:33
2	Sn 189.927†	158.2	150.1	10.468 µg/L	10.468 ppb	14:12:54
2	Ti 334.940†	5403.6	4528.5	4.7012 µg/L	4.7012 ppb	14:12:33
2	Tl 190.801†	23.4	138.7	19.626 µg/L	19.626 ppb	14:12:54
2	U 409.014†	654.1	1066.7	65.171 µg/L	65.171 ppb	14:12:33
2	V 292.402†	1405.2	912.0	4.6765 µg/L	4.6765 ppb	14:12:33
2	Zn 213.857†	2428.9	1814.5	10.430 µg/L	10.430 ppb	14:12:54
3	Sc RADIAL	114031.0	114031.0	99.7 %		14:11:29
3	Al 396.153Radial†	807.5	895.0	210.59 µg/L	210.59 ppb	14:11:49
3	Ca 317.933Radial†	3028.5	2581.3	212.54 µg/L	212.54 ppb	14:11:49
3	Fe 238.204 Radial†	1319.5	1199.4	102.31 µg/L	102.31 ppb	14:11:49
3	K 766.490 Radial†	1896.1	492.8	197.09 µg/L	197.09 ppb	14:11:29
3	Mg 279.077 IEC†	715.3	560.2	310.00 µg/L	310.00 ppb	14:11:49
3	Na 589.592 Radial†	2713.5	1886.7	300.87 µg/L	300.87 ppb	14:11:29
3	Sr 421.552†	2035.6	2108.7	5.4150 µg/L	5.4150 ppb	14:11:29
3	Sc 361.383	1694447.3	1694447.3	100.13 %		14:12:56
3	Y 371.029	958144.4	958144.4	100.12 %		14:12:56
3	Ag 328.068†	6291.5	1180.4	5.0125 µg/L	5.0125 ppb	14:12:58
3	As 188.979†	77.2	90.5	31.426 µg/L	31.426 ppb	14:13:18
3	B 249.677†	7438.9	3317.4	49.225 µg/L	49.225 ppb	14:12:58
3	Ba 233.527†	994.9	1139.5	5.1631 µg/L	5.1631 ppb	14:13:18
3	Be 313.107†	16605.4	17576.3	4.9982 µg/L	4.9982 ppb	14:12:58
3	Cd 226.502†	684.7	748.4	4.9403 µg/L	4.9403 ppb	14:13:18
3	Co 228.616†	182.6	409.4	5.3676 µg/L	5.3676 ppb	14:13:18
3	Cr 267.716†	877.9	547.1	4.7481 µg/L	4.7481 ppb	14:13:18
3	Cu 324.752†	5461.0	2212.7	9.2462 µg/L	9.2462 ppb	14:12:58
3	Mn 257.610†	8073.1	7847.3	10.245 µg/L	10.245 ppb	14:12:58
3	Mo 202.031†	282.0	303.3	10.306 µg/L	10.306 ppb	14:13:18
3	Ni 231.604†	315.2	388.7	4.8338 µg/L	4.8338 ppb	14:13:18
3	P 214.914†	631.4	649.8	148.34 µg/L	148.34 ppb	14:13:18
3	Pb 220.353†	277.3	159.8	9.9974 µg/L	9.9974 ppb	14:13:18
3	S 181.975 Axial†	238.8	136.6	116.33 µg/L	116.33 ppb	14:13:18
3	Sb 206.836†	169.0	91.2	11.788 µg/L	11.788 ppb	14:13:18
3	Se 196.026†	98.9	78.8	30.6 µg/L	30.6 ppb	14:13:18
3	SiO2†	3732.9	2039.2	210.12 µg/L	210.12 ppb	14:12:58
3	Si 251.611†	7118.1	6322.4	96.240 µg/L	96.240 ppb	14:12:58
3	Sn 189.927†	156.5	147.8	10.311 µg/L	10.311 ppb	14:13:18
3	Ti 334.940†	5380.9	4487.9	4.6557 µg/L	4.6557 ppb	14:12:58
3	Tl 190.801†	26.0	141.2	19.976 µg/L	19.976 ppb	14:13:18
3	U 409.014†	772.8	1183.0	72.265 µg/L	72.265 ppb	14:12:58
3	V 292.402†	1482.3	984.4	5.0412 µg/L	5.0412 ppb	14:12:58
3	Zn 213.857†	2419.2	1796.8	10.328 µg/L	10.328 ppb	14:13:18

## Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1682419.3	99.418 %	0.9582			0.96%
Sc RADIAL	114910.5	100 %	0.8			0.80%
Y 371.029	951092.1	99.380 %	0.9773			0.98%
Ag 328.068†	1271.2	5.3841 µg/L	0.34441	5.3841 ppb	0.34441	6.40%
QC value within limits for Ag 328.068 Recovery = 107.68%						
Al 396.153Radial†	887.6	208.87 µg/L	1.506	208.87 ppb	1.506	0.72%
QC value within limits for Al 396.153Radial Recovery = 104.44%						
As 188.979†	88.5	30.731 µg/L	1.6006	30.731 ppb	1.6006	5.21%
QC value within limits for As 188.979 Recovery = 102.44%						
B 249.677†	3346.4	49.658 µg/L	1.5711	49.658 ppb	1.5711	3.16%
QC value within limits for B 249.677 Recovery = 99.32%						
Ba 233.527†	1143.1	5.1793 µg/L	0.06899	5.1793 ppb	0.06899	1.33%
QC value within limits for Ba 233.527 Recovery = 103.59%						
Be 313.107†	17599.4	5.0041 µg/L	0.02279	5.0041 ppb	0.02279	0.46%
QC value within limits for Be 313.107 Recovery = 100.08%						
Ca 317.933Radial†	2541.8	209.29 µg/L	2.970	209.29 ppb	2.970	1.42%
QC value within limits for Ca 317.933Radial Recovery = 104.64%						
Cd 226.502†	760.9	5.0229 µg/L	0.07662	5.0229 ppb	0.07662	1.53%
QC value within limits for Cd 226.502 Recovery = 100.46%						
Co 228.616†	388.3	5.0902 µg/L	0.24268	5.0902 ppb	0.24268	4.77%

QC value within limits for Co 228.616 Recovery = 101.80%							
Cr 267.716†	551.4	4.7870 µg/L	0.04428	4.7870 ppb	0.04428	0.93%	
QC value within limits for Cr 267.716 Recovery = 95.74%							
Cu 324.752†	2217.9	9.2654 µg/L	0.74600	9.2654 ppb	0.74600	8.05%	
QC value within limits for Cu 324.752 Recovery = 92.65%							
Fe 238.204 Radial†	1192.6	101.74 µg/L	0.557	101.74 ppb	0.557	0.55%	
QC value within limits for Fe 238.204 Radial Recovery = 101.74%							
K 766.490 Radial†	434.6	173.78 µg/L	22.940	173.78 ppb	22.940	13.20%	
QC value within limits for K 766.490 Radial Recovery = 115.86%							
Mg 279.077 IEC†	561.4	310.66 µg/L	3.277	310.66 ppb	3.277	1.05%	
QC value within limits for Mg 279.077 IEC Recovery = 103.55%							
Mn 257.610†	7953.4	10.384 µg/L	0.1659	10.384 ppb	0.1659	1.60%	
QC value within limits for Mn 257.610 Recovery = 103.84%							
Mo 202.031†	291.7	9.9140 µg/L	0.58139	9.9140 ppb	0.58139	5.86%	
QC value within limits for Mo 202.031 Recovery = 99.14%							
Na 589.592 Radial†	1915.4	305.46 µg/L	15.955	305.46 ppb	15.955	5.22%	
QC value within limits for Na 589.592 Radial Recovery = 101.82%							
Ni 231.604†	393.9	4.8980 µg/L	0.09710	4.8980 ppb	0.09710	1.98%	
QC value within limits for Ni 231.604 Recovery = 97.96%							
P 214.914†	659.2	150.49 µg/L	5.057	150.49 ppb	5.057	3.36%	
QC value within limits for P 214.914 Recovery = 100.33%							
Pb 220.353†	166.4	10.413 µg/L	0.7206	10.413 ppb	0.7206	6.92%	
QC value within limits for Pb 220.353 Recovery = 104.13%							
S 181.975 Axial†	137.7	117.26 µg/L	2.721	117.26 ppb	2.721	2.32%	
QC value within limits for S 181.975 Axial Recovery = 117.26%							
Sb 206.836†	75.4	9.7541 µg/L	1.79307	9.7541 ppb	1.79307	18.38%	
QC value within limits for Sb 206.836 Recovery = 97.54%							
Se 196.026†	83.5	32.4 µg/L	1.73	32.4 ppb	1.73	5.33%	
QC value within limits for Se 196.026 Recovery = 108.02%							
SiO2†	2136.7	220.19 µg/L	10.036	220.19 ppb	10.036	4.56%	
QC value within limits for SiO2 Recovery = 103.38%							
Si 251.611†	6413.7	97.637 µg/L	1.3527	97.637 ppb	1.3527	1.39%	
QC value within limits for Si 251.611 Recovery = 97.64%							
Sn 189.927†	149.8	10.447 µg/L	0.1268	10.447 ppb	0.1268	1.21%	
QC value within limits for Sn 189.927 Recovery = 104.47%							
Sr 421.552†	2056.9	5.2821 µg/L	0.11685	5.2821 ppb	0.11685	2.21%	
QC value within limits for Sr 421.552 Recovery = 105.64%							
Ti 334.940†	4555.8	4.7276 µg/L	0.08810	4.7276 ppb	0.08810	1.86%	
QC value within limits for Ti 334.940 Recovery = 94.55%							
Tl 190.801†	144.5	20.447 µg/L	1.1328	20.447 ppb	1.1328	5.54%	
QC value within limits for Tl 190.801 Recovery = 102.24%							
U 409.014†	1146.7	70.054 µg/L	4.2359	70.054 ppb	4.2359	6.05%	
QC value greater than the upper limit for U 409.014 Recovery = 140.11%							
V 292.402†	972.7	4.9776 µg/L	0.27486	4.9776 ppb	0.27486	5.52%	
QC value within limits for V 292.402 Recovery = 99.55%							
Zn 213.857†	1814.6	10.430 µg/L	0.1024	10.430 ppb	0.1024	0.98%	
QC value within limits for Zn 213.857 Recovery = 104.30%							
QC Failed. Continue with analysis.							

Sequence No.: 9

Sample ID: ICSA

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 103

Date Collected: 4/13/2010 14:13:27

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	106980.2	106980.2	93.5 %		14:14:00
1	Al 396.153Radial†	1974515.2	2111326.5	497910 µg/L	497910 ppb	14:13:58
1	Ca 317.933Radial†	5511724.5	5892930.0	485220 µg/L	485220 ppb	14:13:58
1	Fe 238.204 Radial†	2083707.3	2227870.4	190050 µg/L	190050 ppb	14:13:58
1	K 766.490 Radial†	1431.2	121.0	-190.93 µg/L	-190.93 ppb	14:14:00
1	Mg 279.077 IEC†	817510.7	873962.4	483170 µg/L	483170 ppb	14:13:58
1	Na 589.592 Radial†	1341.8	599.4	95.592 µg/L	95.592 ppb	14:14:00
1	Sr 421.552†	4406.5	4778.3	8.4766 µg/L	8.4766 ppb	14:14:00
1	Sc 361.383	1501217.1	1501217.1	88.710 %		14:14:28
1	Y 371.029	836125.4	836125.4	87.367 %		14:14:28
1	Ag 328.068†	7406.8	3246.4	0.0494 µg/L	0.0494 ppb	14:14:28
1	As 188.979†	-102.7	-102.3	7.1552 µg/L	7.1552 ppb	14:14:48
1	B 249.677†	4385.1	831.3	12.327 µg/L	12.327 ppb	14:14:28
1	Ba 233.527†	413.6	612.1	0.3432 µg/L	0.3432 ppb	14:14:48
1	Be 313.107†	-419.2	519.8	0.1518 µg/L	0.1518 ppb	14:14:28
1	Cd 226.502†	2374.7	2741.5	-1.8569 µg/L	-1.8569 ppb	14:14:48
1	Co 228.616†	45.4	278.2	-6.2642 µg/L	-6.2642 ppb	14:14:48
1	Cr 267.716†	304.1	13.2	0.8100 µg/L	0.8100 ppb	14:14:48
1	Cu 324.752†	-5786.3	-9763.9	0.3302 µg/L	0.3302 ppb	14:14:28
1	Mn 257.610†	15583.3	17351.1	3.0137 µg/L	3.0137 ppb	14:14:28
1	Mo 202.031†	-519.5	-564.0	-2.7952 µg/L	-2.7952 ppb	14:14:48
1	Ni 231.604†	131.5	222.1	2.7621 µg/L	2.7621 ppb	14:14:48
1	P 214.914†	142.2	179.6	22.694 µg/L	22.694 ppb	14:14:48
1	Pb 220.353†	-267.1	-418.3	-1.4748 µg/L	-1.4748 ppb	14:14:48
1	S 181.975 Axial†	153.8	71.4	60.596 µg/L	60.596 ppb	14:14:48
1	Sb 206.836†	98.4	33.4	-1.7007 µg/L	-1.7007 ppb	14:14:48
1	Se 196.026†	-138.2	-175.7	-2.00 µg/L	-2.00 ppb	14:14:48
1	SiO2†	1629.1	147.6	15.727 µg/L	15.727 ppb	14:14:48
1	Si 251.611†	537.5	-180.7	-2.5260 µg/L	-2.5260 ppb	14:14:48
1	Sn 189.927†	56.6	55.4	3.9424 µg/L	3.9424 ppb	14:14:48
1	Ti 334.940†	21752.9	23635.1	-1.9360 µg/L	-1.9360 ppb	14:14:28
1	Tl 190.801†	-180.2	-88.0	-11.939 µg/L	-11.939 ppb	14:14:48
1	U 409.014†	-140.2	253.2	-5.5257 µg/L	-5.5257 ppb	14:14:28
1	V 292.402†	4511.8	4590.0	2.4975 µg/L	2.4975 ppb	14:14:28
1	Zn 213.857†	4310.5	4239.8	8.0554 µg/L	8.0554 ppb	14:14:48
2	Sc RADIAL	105749.8	105749.8	92.4 %		14:14:05
2	Al 396.153Radial†	1957961.1	2117984.4	499480 µg/L	499480 ppb	14:14:03
2	Ca 317.933Radial†	5463069.9	5908870.5	486530 µg/L	486530 ppb	14:14:03
2	Fe 238.204 Radial†	2063257.0	2231672.3	190370 µg/L	190370 ppb	14:14:03
2	K 766.490 Radial†	1385.7	89.6	-204.14 µg/L	-204.14 ppb	14:14:05
2	Mg 279.077 IEC†	809012.1	874939.8	483710 µg/L	483710 ppb	14:14:03
2	Na 589.592 Radial†	1120.4	376.7	60.070 µg/L	60.070 ppb	14:14:05
2	Sr 421.552†	4367.7	4791.2	8.4993 µg/L	8.4993 ppb	14:14:05
2	Sc 361.383	1502151.4	1502151.4	88.766 %		14:14:51
2	Y 371.029	836238.7	836238.7	87.379 %		14:14:51
2	Ag 328.068†	7339.1	3165.0	-0.3144 µg/L	-0.3144 ppb	14:14:51
2	As 188.979†	-92.5	-90.8	11.218 µg/L	11.218 ppb	14:15:11
2	B 249.677†	4347.8	786.1	11.656 µg/L	11.656 ppb	14:14:51
2	Ba 233.527†	461.5	665.8	0.5828 µg/L	0.5828 ppb	14:15:11
2	Be 313.107†	-147.4	826.3	0.2389 µg/L	0.2389 ppb	14:14:51
2	Cd 226.502†	2372.9	2737.8	-1.9158 µg/L	-1.9158 ppb	14:15:11
2	Co 228.616†	67.0	302.5	-5.9628 µg/L	-5.9628 ppb	14:15:11
2	Cr 267.716†	242.5	-56.4	0.2028 µg/L	0.2028 ppb	14:15:11
2	Cu 324.752†	-5737.3	-9704.7	0.6382 µg/L	0.6382 ppb	14:14:51
2	Mn 257.610†	15652.7	17418.4	3.0793 µg/L	3.0793 ppb	14:14:51
2	Mo 202.031†	-518.3	-562.3	-2.7154 µg/L	-2.7154 ppb	14:15:11
2	Ni 231.604†	75.7	159.2	1.9803 µg/L	1.9803 ppb	14:15:11
2	P 214.914†	92.8	123.7	10.060 µg/L	10.060 ppb	14:15:11
2	Pb 220.353†	-260.1	-410.2	-0.8817 µg/L	-0.8817 ppb	14:15:11

2	S 181.975 Axial†	167.0	86.2	73.204 µg/L	73.204 ppb	14:15:11
2	Sb 206.836†	104.9	40.6	-0.7717 µg/L	-0.7717 ppb	14:15:11
2	Se 196.026†	-140.3	-178.0	-2.78 µg/L	-2.78 ppb	14:15:11
2	SiO2†	1573.8	84.1	9.1730 µg/L	9.1730 ppb	14:15:11
2	Si 251.611†	544.9	-172.6	-2.4035 µg/L	-2.4035 ppb	14:15:11
2	Sn 189.927†	55.8	54.5	3.8774 µg/L	3.8774 ppb	14:15:11
2	Ti 334.940†	21661.2	23516.5	-2.0703 µg/L	-2.0703 ppb	14:14:51
2	Tl 190.801†	-143.0	-45.8	-6.0016 µg/L	-6.0016 ppb	14:15:11
2	U 409.014†	-127.5	267.6	-4.6328 µg/L	-4.6328 ppb	14:14:51
2	V 292.402†	4621.3	4710.1	3.0578 µg/L	3.0578 ppb	14:14:51
2	Zn 213.857†	4373.3	4307.5	8.4302 µg/L	8.4302 ppb	14:15:11
3	Sc RADIAL	106552.2	106552.2	93.1 %		14:14:09
3	Al 396.153Radial†	1980421.5	2126147.6	501410 µg/L	501410 ppb	14:14:07
3	Ca 317.933Radial†	5539384.4	5946296.6	489610 µg/L	489610 ppb	14:14:07
3	Fe 238.204 Radial†	2093288.7	2247105.9	191690 µg/L	191690 ppb	14:14:07
3	K 766.490 Radial†	1556.6	261.8	-136.50 µg/L	-136.50 ppb	14:14:09
3	Mg 279.077 IEC†	821065.1	881289.2	487220 µg/L	487220 ppb	14:14:07
3	Na 589.592 Radial†	1396.2	663.6	105.79 µg/L	105.79 ppb	14:14:09
3	Sr 421.552†	4358.3	4745.5	8.3579 µg/L	8.3579 ppb	14:14:09
3	Sc 361.383	1510747.3	1510747.3	89.274 %		14:15:14
3	Y 371.029	840652.7	840652.7	87.840 %		14:15:14
3	Ag 328.068†	7646.6	3462.4	0.8299 µg/L	0.8299 ppb	14:15:14
3	As 188.979†	-92.6	-90.3	11.685 µg/L	11.685 ppb	14:15:34
3	B 249.677†	4303.9	709.0	10.512 µg/L	10.512 ppb	14:15:14
3	Ba 233.527†	452.0	652.2	0.5050 µg/L	0.5050 ppb	14:15:34
3	Be 313.107†	-465.6	470.7	0.1372 µg/L	0.1372 ppb	14:15:14
3	Cd 226.502†	2368.8	2718.0	-2.1851 µg/L	-2.1851 ppb	14:15:34
3	Co 228.616†	58.5	292.6	-6.1615 µg/L	-6.1615 ppb	14:15:34
3	Cr 267.716†	290.3	-4.4	0.6654 µg/L	0.6654 ppb	14:15:34
3	Cu 324.752†	-5845.0	-9788.6	0.5747 µg/L	0.5747 ppb	14:15:14
3	Mn 257.610†	15773.6	17453.4	2.9824 µg/L	2.9824 ppb	14:15:14
3	Mo 202.031†	-488.1	-525.1	-1.3367 µg/L	-1.3367 ppb	14:15:34
3	Ni 231.604†	120.6	209.0	2.5989 µg/L	2.5989 ppb	14:15:34
3	P 214.914†	134.9	170.3	20.221 µg/L	20.221 ppb	14:15:34
3	Pb 220.353†	-269.2	-418.8	-1.3372 µg/L	-1.3372 ppb	14:15:34
3	S 181.975 Axial†	166.9	85.0	72.199 µg/L	72.199 ppb	14:15:34
3	Sb 206.836†	124.6	62.0	1.9474 µg/L	1.9474 ppb	14:15:34
3	Se 196.026†	-137.9	-174.5	-0.951 µg/L	-0.951 ppb	14:15:34
3	SiO2†	1588.1	90.0	9.7554 µg/L	9.7554 ppb	14:15:34
3	Si 251.611†	625.6	-85.8	-1.0907 µg/L	-1.0907 ppb	14:15:34
3	Sn 189.927†	47.0	44.3	3.1666 µg/L	3.1666 ppb	14:15:34
3	Ti 334.940†	21809.0	23543.3	-2.2467 µg/L	-2.2467 ppb	14:15:14
3	Tl 190.801†	-146.7	-49.1	-6.4553 µg/L	-6.4553 ppb	14:15:34
3	U 409.014†	-176.6	213.4	-8.0552 µg/L	-8.0552 ppb	14:15:14
3	V 292.402†	4764.3	4840.7	3.5789 µg/L	3.5789 ppb	14:15:14
3	Zn 213.857†	4371.9	4277.8	8.1187 µg/L	8.1187 ppb	14:15:34

## Mean Data: ICSEA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1504705.3	88.917 %	0.3104			0.35%
Sc RADIAL	106427.4	93.0 %	0.55			0.59%
Y 371.029	837672.3	87.528 %	0.2698			0.31%
Ag 328.068†	3291.2	0.1883 µg/L	0.58464	0.1883 ppb	0.58464	310.52%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	2118486.2	499600 µg/L	1750.6	499600 ppb	1750.6	0.35%
QC value within limits for Al 396.153Radial Recovery = 99.92%						
As 188.979†	-94.5	10.019 µg/L	2.4913	10.019 ppb	2.4913	24.87%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	775.5	11.498 µg/L	0.9177	11.498 ppb	0.9177	7.98%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	643.4	0.4770 µg/L	0.12224	0.4770 ppb	0.12224	25.63%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	605.6	0.1760 µg/L	0.05496	0.1760 ppb	0.05496	31.23%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	5916032.3	487120 µg/L	2255.7	487120 ppb	2255.7	0.46%
QC value within limits for Ca 317.933Radial Recovery = 97.42%						
Cd 226.502†	2732.5	-1.9859 µg/L	0.17496	-1.9859 ppb	0.17496	8.81%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	291.1	-6.1295 µg/L	0.15323	-6.1295 ppb	0.15323	2.50%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-15.9	0.5594 µg/L	0.31719	0.5594 ppb	0.31719	56.70%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-9752.4	0.5144 µg/L	0.16258	0.5144 ppb	0.16258	31.61%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	2235549.5	190700 µg/L	869.0	190700 ppb	869.0	0.46%	
QC value within limits for Fe 238.204 Radial Recovery = 95.35%							
K 766.490 Radial†	157.5	-177.19 µg/L	35.852	-177.19 ppb	35.852	20.23%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	876730.5	484700 µg/L	2199.3	484700 ppb	2199.3	0.45%	
QC value within limits for Mg 279.077 IEC Recovery = 96.94%							
Mn 257.610†	17407.7	3.0252 µg/L	0.04945	3.0252 ppb	0.04945	1.63%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-550.5	-2.2825 µg/L	0.82000	-2.2825 ppb	0.82000	35.93%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	546.6	87.152 µg/L	24.0022	87.152 ppb	24.0022	27.54%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	196.8	2.4471 µg/L	0.41242	2.4471 ppb	0.41242	16.85%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	157.9	17.658 µg/L	6.6952	17.658 ppb	6.6952	37.92%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-415.8	-1.2312 µg/L	0.31047	-1.2312 ppb	0.31047	25.22%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	80.9	68.666 µg/L	7.0067	68.666 ppb	7.0067	10.20%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	45.3	-0.1750 µg/L	1.89585	-0.1750 ppb	1.89585	>999.9%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-176.1	-1.91 µg/L	0.919	-1.91 ppb	0.919	48.09%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	107.2	11.552 µg/L	3.6274	11.552 ppb	3.6274	31.40%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	-146.3	-2.0067 µg/L	0.79569	-2.0067 ppb	0.79569	39.65%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	51.4	3.6621 µg/L	0.43038	3.6621 ppb	0.43038	11.75%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	4771.7	8.4446 µg/L	0.07591	8.4446 ppb	0.07591	0.90%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	23565.0	-2.0843 µg/L	0.15584	-2.0843 ppb	0.15584	7.48%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-61.0	-8.1318 µg/L	3.30453	-8.1318 ppb	3.30453	40.64%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	244.7	-6.0713 µg/L	1.77524	-6.0713 ppb	1.77524	29.24%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	4713.6	3.0447 µg/L	0.54079	3.0447 ppb	0.54079	17.76%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	4275.0	8.2014 µg/L	0.20064	8.2014 ppb	0.20064	2.45%	
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: 4/13/2010 14:15:41

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	106223.0	106223.0	92.9 %		14:16:13
1	Al 396.153Radial†	2010708.9	2165350.9	510630 µg/L	510630 ppb	14:16:11
1	Ca 317.933Radial†	5642547.1	6075815.7	500280 µg/L	500280 ppb	14:16:11
1	Fe 238.204 Radial†	2137562.5	2301746.0	196350 µg/L	196350 ppb	14:16:11
1	K 766.490 Radial†	14643.5	14359.8	5500.8 µg/L	5500.8 ppb	14:16:13
1	Mg 279.077 IEC†	838133.6	902401.1	498910 µg/L	498910 ppb	14:16:13
1	Na 589.592 Radial†	32516.1	34180.3	5448.6 µg/L	5448.6 ppb	14:16:13
1	Sr 421.552†	192158.4	206995.7	527.81 µg/L	527.81 ppb	14:16:13
1	Sc 361.383	1499397.8	1499397.8	88.603 %		14:16:41
1	Y 371.029	834580.4	834580.4	87.205 %		14:16:41
1	Ag 328.068†	64997.7	68255.4	274.70 µg/L	274.70 ppb	14:16:41
1	As 188.979†	1188.4	1354.7	519.25 µg/L	519.25 ppb	14:16:43
1	B 249.677†	35482.5	35934.7	531.78 µg/L	531.78 ppb	14:16:41
1	Ba 233.527†	99053.3	111940.4	504.70 µg/L	504.70 ppb	14:16:41
1	Be 313.107†	774060.6	874620.5	247.79 µg/L	247.79 ppb	14:16:41
1	Cd 226.502†	68029.3	76844.5	487.67 µg/L	487.67 ppb	14:16:41
1	Co 228.616†	31628.9	35924.4	461.25 µg/L	461.25 ppb	14:16:43
1	Cr 267.716†	50218.9	56349.0	495.36 µg/L	495.36 ppb	14:16:43
1	Cu 324.752†	111159.8	122217.0	548.72 µg/L	548.72 ppb	14:16:41
1	Mn 257.610†	347052.2	391478.2	491.41 µg/L	491.41 ppb	14:16:41
1	Mo 202.031†	12828.2	14499.9	509.27 µg/L	509.27 ppb	14:16:43
1	Ni 231.604†	33045.9	37370.5	464.73 µg/L	464.73 ppb	14:16:43
1	P 214.914†	10271.0	11611.3	2626.2 µg/L	2626.2 ppb	14:16:43
1	Pb 220.353†	6372.2	7074.7	470.08 µg/L	470.08 ppb	14:16:43
1	S 181.975 Axial†	3008.4	3293.4	2806.4 µg/L	2806.4 ppb	14:16:43
1	Sb 206.836†	3712.3	4112.3	522.47 µg/L	522.47 ppb	14:16:43
1	Se 196.026†	5453.3	6134.8	2440 µg/L	2440 ppb	14:16:43
1	SiO2†	98016.0	108934.9	11227 µg/L	11227 ppb	14:16:41
1	Si 251.611†	307173.4	345898.6	5266.7 µg/L	5266.7 ppb	14:16:41
1	Sn 189.927†	6249.0	7044.4	492.37 µg/L	492.37 ppb	14:16:43
1	Ti 334.940†	459015.3	517172.4	514.39 µg/L	514.39 ppb	14:16:41
1	Tl 190.801†	2863.0	3346.5	480.00 µg/L	480.00 ppb	14:16:43
1	U 409.014†	6834.9	8125.4	504.59 µg/L	504.59 ppb	14:16:41
1	V 292.402†	96422.1	108328.9	523.44 µg/L	523.44 ppb	14:16:41
1	Zn 213.857†	81315.3	91155.5	506.04 µg/L	506.04 ppb	14:16:41
2	Sc RADIAL	103812.5	103812.5	90.8 %		14:16:18
2	Al 396.153Radial†	2013692.9	2218916.0	523260 µg/L	523260 ppb	14:16:16
2	Ca 317.933Radial†	5613708.1	6185128.6	509280 µg/L	509280 ppb	14:16:16
2	Fe 238.204 Radial†	2127616.4	2344235.8	199970 µg/L	199970 ppb	14:16:16
2	K 766.490 Radial†	14393.8	14450.8	5532.7 µg/L	5532.7 ppb	14:16:18
2	Mg 279.077 IEC†	818451.0	901670.6	498500 µg/L	498500 ppb	14:16:18
2	Na 589.592 Radial†	31974.8	34396.8	5483.1 µg/L	5483.1 ppb	14:16:18
2	Sr 421.552†	188508.5	207778.9	529.75 µg/L	529.75 ppb	14:16:18
2	Sc 361.383	1503602.0	1503602.0	88.851 %		14:16:46
2	Y 371.029	837931.6	837931.6	87.555 %		14:16:46
2	Ag 328.068†	64380.0	67355.0	270.71 µg/L	270.71 ppb	14:16:46
2	As 188.979†	1246.7	1416.6	541.50 µg/L	541.50 ppb	14:16:48
2	B 249.677†	35491.5	35832.8	530.27 µg/L	530.27 ppb	14:16:46
2	Ba 233.527†	98724.7	111258.0	501.56 µg/L	501.56 ppb	14:16:46
2	Be 313.107†	770311.0	867957.7	245.91 µg/L	245.91 ppb	14:16:46
2	Cd 226.502†	67739.4	76303.5	483.72 µg/L	483.72 ppb	14:16:46
2	Co 228.616†	31720.8	35928.0	461.11 µg/L	461.11 ppb	14:16:48
2	Cr 267.716†	50544.1	56556.5	497.29 µg/L	497.29 ppb	14:16:48
2	Cu 324.752†	110774.3	121432.3	546.02 µg/L	546.02 ppb	14:16:46
2	Mn 257.610†	345757.6	388925.9	488.08 µg/L	488.08 ppb	14:16:46
2	Mo 202.031†	12857.4	14492.3	509.15 µg/L	509.15 ppb	14:16:48
2	Ni 231.604†	33216.1	37457.8	465.82 µg/L	465.82 ppb	14:16:48
2	P 214.914†	10155.5	11448.9	2589.5 µg/L	2589.5 ppb	14:16:48
2	Pb 220.353†	6566.8	7273.6	483.18 µg/L	483.18 ppb	14:16:48

2	S 181.975 Axial†	3053.9	3335.1	2841.9 µg/L	2841.9 ppb	14:16:48
2	Sb 206.836†	3723.7	4113.4	522.45 µg/L	522.45 ppb	14:16:48
2	Se 196.026†	5491.7	6160.7	2450 µg/L	2450 ppb	14:16:48
2	SiO2†	97214.6	107723.7	11102 µg/L	11102 ppb	14:16:46
2	Si 251.611†	305391.7	342924.1	5221.3 µg/L	5221.3 ppb	14:16:46
2	Sn 189.927†	6321.2	7105.9	496.65 µg/L	496.65 ppb	14:16:48
2	Ti 334.940†	458296.4	514914.8	512.27 µg/L	512.27 ppb	14:16:46
2	Tl 190.801†	2846.1	3318.4	475.97 µg/L	475.97 ppb	14:16:48
2	U 409.014†	7352.7	8686.5	537.97 µg/L	537.97 ppb	14:16:46
2	V 292.402†	95810.2	107335.9	518.16 µg/L	518.16 ppb	14:16:46
2	Zn 213.857†	80624.4	90121.4	499.80 µg/L	499.80 ppb	14:16:46
3	Sc RADIAL	104466.8	104466.8	91.3 %		14:16:22
3	Al 396.153Radial†	1989321.2	2178332.6	513690 µg/L	513690 ppb	14:16:20
3	Ca 317.933Radial†	5538632.9	6064181.9	499320 µg/L	499320 ppb	14:16:20
3	Fe 238.204 Radial†	2098275.3	2297424.9	195980 µg/L	195980 ppb	14:16:20
3	K 766.490 Radial†	14671.2	14655.2	5618.4 µg/L	5618.4 ppb	14:16:22
3	Mg 279.077 IEC†	826093.4	904390.4	500010 µg/L	500010 ppb	14:16:22
3	Na 589.592 Radial†	32061.2	34270.8	5462.9 µg/L	5462.9 ppb	14:16:22
3	Sr 421.552†	189860.8	207958.6	530.29 µg/L	530.29 ppb	14:16:22
3	Sc 361.383	1505306.3	1505306.3	88.952 %		14:16:51
3	Y 371.029	838292.0	838292.0	87.593 %		14:16:51
3	Ag 328.068†	64553.7	67468.3	271.49 µg/L	271.49 ppb	14:16:51
3	As 188.979†	1216.9	1381.5	528.40 µg/L	528.40 ppb	14:16:53
3	B 249.677†	35439.6	35729.2	528.76 µg/L	528.76 ppb	14:16:51
3	Ba 233.527†	98763.8	111176.1	501.24 µg/L	501.24 ppb	14:16:51
3	Be 313.107†	770732.2	867449.6	245.77 µg/L	245.77 ppb	14:16:51
3	Cd 226.502†	67691.8	76163.7	483.21 µg/L	483.21 ppb	14:16:51
3	Co 228.616†	31338.1	35457.3	455.14 µg/L	455.14 ppb	14:16:53
3	Cr 267.716†	50152.5	56051.9	492.70 µg/L	492.70 ppb	14:16:53
3	Cu 324.752†	110966.1	121506.8	545.79 µg/L	545.79 ppb	14:16:51
3	Mn 257.610†	345610.7	388320.3	487.24 µg/L	487.24 ppb	14:16:51
3	Mo 202.031†	12702.0	14301.2	502.53 µg/L	502.53 ppb	14:16:53
3	Ni 231.604†	32767.5	36911.1	459.02 µg/L	459.02 ppb	14:16:53
3	P 214.914†	10142.4	11421.3	2583.9 µg/L	2583.9 ppb	14:16:53
3	Pb 220.353†	6507.1	7198.1	477.97 µg/L	477.97 ppb	14:16:53
3	S 181.975 Axial†	2928.8	3190.6	2718.9 µg/L	2718.9 ppb	14:16:53
3	Sb 206.836†	3702.7	4085.0	518.91 µg/L	518.91 ppb	14:16:53
3	Se 196.026†	5437.6	6092.9	2420 µg/L	2420 ppb	14:16:53
3	SiO2†	97419.6	107830.3	11113 µg/L	11113 ppb	14:16:51
3	Si 251.611†	305460.1	342611.7	5216.6 µg/L	5216.6 ppb	14:16:51
3	Sn 189.927†	6336.5	7115.1	497.28 µg/L	497.28 ppb	14:16:53
3	Ti 334.940†	457676.9	513634.3	510.55 µg/L	510.55 ppb	14:16:51
3	Tl 190.801†	2846.1	3314.8	475.50 µg/L	475.50 ppb	14:16:53
3	U 409.014†	7374.8	8702.0	539.52 µg/L	539.52 ppb	14:16:51
3	V 292.402†	96330.4	107798.7	520.79 µg/L	520.79 ppb	14:16:51
3	Zn 213.857†	80758.3	90169.2	500.48 µg/L	500.48 ppb	14:16:51

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1502768.7	88.802 %	0.1797			0.20%
Sc RADIAL	104834.1	91.6 %	1.09			1.19%
Y 371.029	836934.7	87.451 %	0.2139			0.24%
Ag 328.068†	67692.9	272.30 µg/L	2.114	272.30 ppb	2.114	0.78%
QC value within limits for Ag 328.068 Recovery = 108.92%						
Al 396.153Radial†	2187533.2	515860 µg/L	6589.7	515860 ppb	6589.7	1.28%
QC value within limits for Al 396.153Radial Recovery = 103.17%						
As 188.979†	1384.3	529.71 µg/L	11.182	529.71 ppb	11.182	2.11%
QC value within limits for As 188.979 Recovery = 105.94%						
B 249.677†	35832.3	530.27 µg/L	1.514	530.27 ppb	1.514	0.29%
QC value within limits for B 249.677 Recovery = 106.05%						
Ba 233.527†	111458.2	502.50 µg/L	1.911	502.50 ppb	1.911	0.38%
QC value within limits for Ba 233.527 Recovery = 100.50%						
Be 313.107†	870009.2	246.49 µg/L	1.127	246.49 ppb	1.127	0.46%
QC value within limits for Be 313.107 Recovery = 98.59%						
Ca 317.933Radial†	6108375.4	502960 µg/L	5494.0	502960 ppb	5494.0	1.09%
QC value within limits for Ca 317.933Radial Recovery = 100.59%						
Cd 226.502†	76437.2	484.87 µg/L	2.445	484.87 ppb	2.445	0.50%
QC value within limits for Cd 226.502 Recovery = 96.97%						
Co 228.616†	35769.9	459.17 µg/L	3.485	459.17 ppb	3.485	0.76%

QC value within limits for Co 228.616 Recovery = 91.83%						
Cr 267.716†	56319.1	495.12 µg/L	2.304	495.12 ppb	2.304	0.47%
QC value within limits for Cr 267.716 Recovery = 99.02%						
Cu 324.752†	121718.7	546.84 µg/L	1.633	546.84 ppb	1.633	0.30%
QC value within limits for Cu 324.752 Recovery = 109.37%						
Fe 238.204 Radial†	2314468.9	197430 µg/L	2206.7	197430 ppb	2206.7	1.12%
QC value within limits for Fe 238.204 Radial Recovery = 98.72%						
K 766.490 Radial†	14488.6	5550.6 µg/L	60.84	5550.6 ppb	60.84	1.10%
QC value within limits for K 766.490 Radial Recovery = 111.01%						
Mg 279.077 IEC†	902820.7	499140 µg/L	779.8	499140 ppb	779.8	0.16%
QC value within limits for Mg 279.077 IEC Recovery = 99.83%						
Mn 257.610†	389574.8	488.91 µg/L	2.206	488.91 ppb	2.206	0.45%
QC value within limits for Mn 257.610 Recovery = 97.78%						
Mo 202.031†	14431.1	506.98 µg/L	3.857	506.98 ppb	3.857	0.76%
QC value within limits for Mo 202.031 Recovery = 101.40%						
Na 589.592 Radial†	34282.6	5464.9 µg/L	17.34	5464.9 ppb	17.34	0.32%
QC value within limits for Na 589.592 Radial Recovery = 109.30%						
Ni 231.604†	37246.4	463.19 µg/L	3.652	463.19 ppb	3.652	0.79%
QC value within limits for Ni 231.604 Recovery = 92.64%						
P 214.914†	11493.9	2599.9 µg/L	22.99	2599.9 ppb	22.99	0.88%
QC value within limits for P 214.914 Recovery = 104.00%						
Pb 220.353†	7182.1	477.08 µg/L	6.595	477.08 ppb	6.595	1.38%
QC value within limits for Pb 220.353 Recovery = 95.42%						
S 181.975 Axial†	3273.1	2789.1 µg/L	63.30	2789.1 ppb	63.30	2.27%
QC value within limits for S 181.975 Axial Recovery = 111.56%						
Sb 206.836†	4103.6	521.27 µg/L	2.052	521.27 ppb	2.052	0.39%
QC value within limits for Sb 206.836 Recovery = 104.25%						
Se 196.026†	6129.5	2440 µg/L	13.9	2440 ppb	13.9	0.57%
QC value within limits for Se 196.026 Recovery = 97.57%						
SiO2†	108162.9	11148 µg/L	69.2	11148 ppb	69.2	0.62%
QC value within limits for SiO2 Recovery = 104.23%						
Si 251.611†	343811.5	5234.9 µg/L	27.66	5234.9 ppb	27.66	0.53%
QC value within limits for Si 251.611 Recovery = 104.70%						
Sn 189.927†	7088.5	495.43 µg/L	2.669	495.43 ppb	2.669	0.54%
QC value within limits for Sn 189.927 Recovery = 99.09%						
Sr 421.552†	207577.7	529.28 µg/L	1.305	529.28 ppb	1.305	0.25%
QC value within limits for Sr 421.552 Recovery = 105.86%						
Ti 334.940†	515240.5	512.40 µg/L	1.923	512.40 ppb	1.923	0.38%
QC value within limits for Ti 334.940 Recovery = 102.48%						
Tl 190.801†	3326.6	477.16 µg/L	2.471	477.16 ppb	2.471	0.52%
QC value within limits for Tl 190.801 Recovery = 95.43%						
U 409.014†	8504.6	527.36 µg/L	19.736	527.36 ppb	19.736	3.74%
QC value within limits for U 409.014 Recovery = 105.47%						
V 292.402†	107821.2	520.80 µg/L	2.638	520.80 ppb	2.638	0.51%
QC value within limits for V 292.402 Recovery = 104.16%						
Zn 213.857†	90482.0	502.11 µg/L	3.421	502.11 ppb	3.421	0.68%
QC value within limits for Zn 213.857 Recovery = 100.42%						

All analyte(s) passed QC.

Sequence No.: 11

Sample ID: LR1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 105

Date Collected: 4/13/2010 14:17:01

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	101618.4	101618.4	88.8 %		14:17:33
1	Al 396.153Radial†	1943210.1	2187483.6	515880 µg/L	515880 ppb	14:17:31
1	Ca 317.933Radial†	5408483.1	6087669.7	501260 µg/L	501260 ppb	14:17:31
1	Fe 238.204 Radial†	4964166.3	5587851.5	476660 µg/L	476660 ppb	14:17:31
1	K 766.490 Radial†	1644.8	442.2	-155.17 µg/L	-155.17 ppb	14:17:33
1	Mg 279.077 IEC†	785677.1	884249.9	488620 µg/L	488620 ppb	14:17:33
1	Na 589.592 Radial†	2921118.1	3287357.7	524520 µg/L	524520 ppb	14:17:31
1	Sr 421.552†	4353.4	4967.2	8.8363 µg/L	8.8363 ppb	14:17:33
1	Sc 361.383	1451048.9	1451048.9	85.746 %		14:17:46
1	Y 371.029	805183.5	805183.5	84.134 %		14:17:46
1	Ag 328.068†	4051.2	-378.3	3.1073 µg/L	3.1073 ppb	14:17:46
1	As 188.979†	-228.7	-253.3	19.155 µg/L	19.155 ppb	14:17:48
1	B 249.677†	4969.3	1683.5	24.945 µg/L	24.945 ppb	14:17:46
1	Ba 233.527†	806.8	1086.8	-1.1700 µg/L	-1.1700 ppb	14:17:48
1	Be 313.107†	-15029.4	-16535.5	0.2344 µg/L	0.2344 ppb	14:17:46
1	Cd 226.502†	5903.4	6949.3	-4.1753 µg/L	-4.1753 ppb	14:17:48
1	Co 228.616†	637.5	970.6	-12.137 µg/L	-12.137 ppb	14:17:48
1	Cr 267.716†	504.9	259.2	0.0608 µg/L	0.0608 ppb	14:17:48
1	Cu 324.752†	-16422.5	-22393.8	3.3698 µg/L	3.3698 ppb	14:17:46
1	Mn 257.610†	17552.6	20255.1	5.8354 µg/L	5.8354 ppb	14:17:46
1	Mo 202.031†	-785.2	-894.1	-2.5554 µg/L	-2.5554 ppb	14:17:48
1	Ni 231.604†	234.8	347.7	4.3240 µg/L	4.3240 ppb	14:17:48
1	P 214.914†	968.2	1148.4	53.892 µg/L	53.892 ppb	14:17:48
1	Pb 220.353†	134.0	39.0	6.8944 µg/L	6.8944 ppb	14:17:48
1	S 181.975 Axial†	183.6	112.1	95.158 µg/L	95.158 ppb	14:17:48
1	Sb 206.836†	114.4	55.9	-2.6688 µg/L	-2.6688 ppb	14:17:48
1	Se 196.026†	-375.8	-458.2	3.88 µg/L	3.88 ppb	14:17:48
1	SiO2†	1940.8	574.5	60.057 µg/L	60.057 ppb	14:17:48
1	Si 251.611†	-2012.3	-3133.3	-47.449 µg/L	-47.449 ppb	14:17:48
1	Sn 189.927†	113.8	124.3	8.7464 µg/L	8.7464 ppb	14:17:48
1	Ti 334.940†	22993.9	25930.2	-6.2256 µg/L	-6.2256 ppb	14:17:46
1	Tl 190.801†	-239.8	-164.5	-22.560 µg/L	-22.560 ppb	14:17:48
1	U 409.014†	228975.2	267450.4	16179 µg/L	16179 ppb	14:17:46
1	V 292.402†	8387.4	9285.7	6.3554 µg/L	6.3554 ppb	14:17:48
1	Zn 213.857†	8658.3	9478.3	8.1931 µg/L	8.1931 ppb	14:17:48
2	Sc RADIAL	102321.2	102321.2	89.5 %		14:17:38
2	Al 396.153Radial†	1946639.3	2176294.8	513240 µg/L	513240 ppb	14:17:36
2	Ca 317.933Radial†	5403416.6	6040193.8	497350 µg/L	497350 ppb	14:17:36
2	Fe 238.204 Radial†	4952835.0	5536806.9	472310 µg/L	472310 ppb	14:17:36
2	K 766.490 Radial†	1697.8	488.7	-134.37 µg/L	-134.37 ppb	14:17:38
2	Mg 279.077 IEC†	789460.4	882405.5	487600 µg/L	487600 ppb	14:17:38
2	Na 589.592 Radial†	2914785.7	3257696.0	519790 µg/L	519790 ppb	14:17:36
2	Sr 421.552†	4392.5	4977.2	8.8926 µg/L	8.8926 ppb	14:17:38
2	Sc 361.383	1443441.1	1443441.1	85.296 %		14:17:51
2	Y 371.029	800939.8	800939.8	83.690 %		14:17:51
2	Ag 328.068†	4124.8	-267.2	3.7115 µg/L	3.7115 ppb	14:17:51
2	As 188.979†	-226.0	-251.6	18.808 µg/L	18.808 ppb	14:17:53
2	B 249.677†	5172.5	1952.2	28.930 µg/L	28.930 ppb	14:17:51
2	Ba 233.527†	727.0	998.2	-1.5148 µg/L	-1.5148 ppb	14:17:53
2	Be 313.107†	-15035.4	-16635.0	0.2078 µg/L	0.2078 ppb	14:17:51
2	Cd 226.502†	5968.0	7061.3	-2.9762 µg/L	-2.9762 ppb	14:17:53
2	Co 228.616†	732.9	1086.3	-10.393 µg/L	-10.393 ppb	14:17:53
2	Cr 267.716†	613.1	389.1	1.0597 µg/L	1.0597 ppb	14:17:53
2	Cu 324.752†	-16257.3	-22301.1	3.0973 µg/L	3.0973 ppb	14:17:51
2	Mn 257.610†	17311.8	20080.7	5.6594 µg/L	5.6594 ppb	14:17:51
2	Mo 202.031†	-773.8	-885.6	-2.4578 µg/L	-2.4578 ppb	14:17:53
2	Ni 231.604†	307.5	434.4	5.4020 µg/L	5.4020 ppb	14:17:53
2	P 214.914†	838.3	1002.1	22.793 µg/L	22.793 ppb	14:17:53
2	Pb 220.353†	-74.9	-205.0	-8.4162 µg/L	-8.4162 ppb	14:17:53

2	S 181.975 Axial†	172.1	99.8	84.675 µg/L	84.675 ppb	14:17:53
2	Sb 206.836†	130.0	74.9	-0.1769 µg/L	-0.1769 ppb	14:17:53
2	Se 196.026†	-357.8	-439.5	9.62 µg/L	9.62 ppb	14:17:53
2	SiO2†	1907.5	547.5	57.320 µg/L	57.320 ppb	14:17:53
2	Si 251.611†	-1844.0	-2948.4	-44.606 µg/L	-44.606 ppb	14:17:53
2	Sn 189.927†	63.4	65.9	4.6843 µg/L	4.6843 ppb	14:17:53
2	Ti 334.940†	23049.9	26137.2	-6.0299 µg/L	-6.0299 ppb	14:17:51
2	Tl 190.801†	-252.7	-181.0	-24.888 µg/L	-24.888 ppb	14:17:53
2	U 409.014†	227848.4	267536.8	16185 µg/L	16185 ppb	14:17:51
2	V 292.402†	8499.3	9468.4	7.7317 µg/L	7.7317 ppb	14:17:53
2	Zn 213.857†	8749.4	9638.3	9.5633 µg/L	9.5633 ppb	14:17:53
3	Sc RADIAL	102776.7	102776.7	89.8 %		14:17:42
3	Al 396.153Radial†	1944918.6	2164733.5	510510 µg/L	510510 ppb	14:17:40
3	Ca 317.933Radial†	5395053.8	6004110.7	494370 µg/L	494370 ppb	14:17:40
3	Fe 238.204 Radial†	4944761.9	5503278.9	469450 µg/L	469450 ppb	14:17:40
3	K 766.490 Radial†	1556.1	322.6	-199.36 µg/L	-199.36 ppb	14:17:42
3	Mg 279.077 IEC†	792672.2	882068.1	487420 µg/L	487420 ppb	14:17:42
3	Na 589.592 Radial†	2915975.4	3244576.5	517690 µg/L	517690 ppb	14:17:40
3	Sr 421.552†	4386.8	4949.1	8.8437 µg/L	8.8437 ppb	14:17:42
3	Sc 361.383	1441855.7	1441855.7	85.203 %		14:17:56
3	Y 371.029	800135.8	800135.8	83.606 %		14:17:56
3	Ag 328.068†	3930.4	-490.0	2.9115 µg/L	2.9115 ppb	14:17:56
3	As 188.979†	-223.7	-249.1	19.005 µg/L	19.005 ppb	14:17:58
3	B 249.677†	4889.6	1626.9	24.105 µg/L	24.105 ppb	14:17:56
3	Ba 233.527†	656.6	916.5	-1.8485 µg/L	-1.8485 ppb	14:17:58
3	Be 313.107†	-15019.5	-16635.6	0.2128 µg/L	0.2128 ppb	14:17:56
3	Cd 226.502†	5902.7	6992.4	-3.1320 µg/L	-3.1320 ppb	14:17:58
3	Co 228.616†	655.4	996.2	-11.425 µg/L	-11.425 ppb	14:17:58
3	Cr 267.716†	510.7	269.7	-0.0990 µg/L	-0.0990 ppb	14:17:58
3	Cu 324.752†	-16176.0	-22226.5	2.9978 µg/L	2.9978 ppb	14:17:56
3	Mn 257.610†	17396.2	20202.0	5.8328 µg/L	5.8328 ppb	14:17:56
3	Mo 202.031†	-835.6	-959.1	-5.0674 µg/L	-5.0674 ppb	14:17:58
3	Ni 231.604†	214.2	325.3	4.0460 µg/L	4.0460 ppb	14:17:58
3	P 214.914†	771.2	924.4	6.4274 µg/L	6.4274 ppb	14:17:58
3	Pb 220.353†	47.6	-61.4	0.4844 µg/L	0.4844 ppb	14:17:58
3	S 181.975 Axial†	146.3	69.7	59.070 µg/L	59.070 ppb	14:17:58
3	Sb 206.836†	223.3	184.6	13.925 µg/L	13.925 ppb	14:17:58
3	Se 196.026†	-446.7	-544.2	-31.9 µg/L	-31.9 ppb	14:17:58
3	SiO2†	1948.9	598.5	62.609 µg/L	62.609 ppb	14:17:58
3	Si 251.611†	-1800.7	-2899.9	-43.856 µg/L	-43.856 ppb	14:17:58
3	Sn 189.927†	106.8	117.0	8.2367 µg/L	8.2367 ppb	14:17:58
3	Ti 334.940†	22940.7	26038.8	-6.2021 µg/L	-6.2021 ppb	14:17:56
3	Tl 190.801†	-163.9	-77.1	-10.240 µg/L	-10.240 ppb	14:17:58
3	U 409.014†	227839.0	267819.5	16203 µg/L	16203 ppb	14:17:56
3	V 292.402†	8559.5	9550.0	8.4195 µg/L	8.4195 ppb	14:17:58
3	Zn 213.857†	8617.8	9495.1	9.0308 µg/L	9.0308 ppb	14:17:58

## Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1445448.6	85.415 %	0.2904			0.34%
Sc RADIAL	102238.8	89.4 %	0.51			0.57%
Y 371.029	802086.4	83.810 %	0.2834			0.34%
Ag 328.068†	-378.5	3.2434 µg/L	0.41706	3.2434 ppb	0.41706	12.86%
Al 396.153Radial†	2176170.6	513210 µg/L	2682.7	513210 ppb	2682.7	0.52%
QC value within limits for Al 396.153Radial Recovery = 102.64%						
As 188.979†	-251.3	18.989 µg/L	0.1741	18.989 ppb	0.1741	0.92%
B 249.677†	1754.2	25.993 µg/L	2.5778	25.993 ppb	2.5778	9.92%
Ba 233.527†	1000.5	-1.5111 µg/L	0.33925	-1.5111 ppb	0.33925	22.45%
Be 313.107†	-16602.0	0.2184 µg/L	0.01411	0.2184 ppb	0.01411	6.46%
Ca 317.933Radial†	6043991.4	497660 µg/L	3450.7	497660 ppb	3450.7	0.69%
QC value within limits for Ca 317.933Radial Recovery = 99.53%						
Cd 226.502†	7001.0	-3.4278 µg/L	0.65201	-3.4278 ppb	0.65201	19.02%
Co 228.616†	1017.7	-11.319 µg/L	0.8771	-11.319 ppb	0.8771	7.75%
Cr 267.716†	306.0	0.3405 µg/L	0.62793	0.3405 ppb	0.62793	184.42%
Cu 324.752†	-22307.2	3.1550 µg/L	0.19260	3.1550 ppb	0.19260	6.10%
Fe 238.204 Radial†	5542645.8	472810 µg/L	3632.9	472810 ppb	3632.9	0.77%
QC value within limits for Fe 238.204 Radial Recovery = 94.56%						
K 766.490 Radial†	417.8	-162.97 µg/L	33.187	-162.97 ppb	33.187	20.36%
Mg 279.077 IEC†	882907.8	487880 µg/L	646.5	487880 ppb	646.5	0.13%

QC value within limits for Mg 279.077 IEC Recovery = 97.58%							
Mn 257.610†	20179.3	5.7759 µg/L	0.10089	5.7759 ppb	0.10089	1.75%	
Mo 202.031†	-912.9	-3.3602 µg/L	1.47930	-3.3602 ppb	1.47930	44.02%	
Na 589.592 Radial†	3263210.1	520670 µg/L	3497.0	520670 ppb	3497.0	0.67%	
QC value within limits for Na 589.592 Radial Recovery = 104.13%							
Ni 231.604†	369.1	4.5907 µg/L	0.71624	4.5907 ppb	0.71624	15.60%	
P 214.914†	1024.9	27.704 µg/L	24.1102	27.704 ppb	24.1102	87.03%	
Pb 220.353†	-75.8	-0.3458 µg/L	7.68897	-0.3458 ppb	7.68897	>999.9%	
S 181.975 Axial†	93.9	79.634 µg/L	18.5646	79.634 ppb	18.5646	23.31%	
Sb 206.836†	105.1	3.6930 µg/L	8.94807	3.6930 ppb	8.94807	242.30%	
Se 196.026†	-480.7	-6.12 µg/L	22.477	-6.12 ppb	22.477	367.13%	
SiO2†	573.5	59.995 µg/L	2.6451	59.995 ppb	2.6451	4.41%	
Si 251.611†	-2993.9	-45.304 µg/L	1.8957	-45.304 ppb	1.8957	4.18%	
Sn 189.927†	102.4	7.2225 µg/L	2.21285	7.2225 ppb	2.21285	30.64%	
Sr 421.552†	4964.5	8.8575 µg/L	0.03063	8.8575 ppb	0.03063	0.35%	
Ti 334.940†	26035.4	-6.1525 µg/L	0.10684	-6.1525 ppb	0.10684	1.74%	
Tl 190.801†	-140.8	-19.230 µg/L	7.8717	-19.230 ppb	7.8717	40.94%	
U 409.014†	267602.2	16189 µg/L	12.4	16189 ppb	12.4	0.08%	
QC value within limits for U 409.014 Recovery = 107.93%							
V 292.402†	9434.7	7.5022 µg/L	1.05102	7.5022 ppb	1.05102	14.01%	
Zn 213.857†	9537.2	8.9291 µg/L	0.69073	8.9291 ppb	0.69073	7.74%	
All analyte(s) passed QC.							

Sequence No.: 12

Sample ID: LR2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 108

Date Collected: 4/13/2010 14:18:05

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	113057.1	113057.1	98.8 %		14:18:39
1	Al 396.153Radial†	1979.7	2088.0	28.253 µg/L	28.253 ppb	14:18:41
1	Ca 317.933Radial†	1178.8	735.9	60.595 µg/L	60.595 ppb	14:18:41
1	Fe 238.204 Radial†	-386.1	-514.9	-43.927 µg/L	-43.927 ppb	14:18:41
1	K 766.490 Radial†	740197.3	747501.7	299210 µg/L	299210 ppb	14:18:39
1	Mg 279.077 IEC†	-269.8	-430.4	6.5176 µg/L	6.5176 ppb	14:18:41
1	Na 589.592 Radial†	2408.3	1601.3	-10.601 µg/L	-10.601 ppb	14:18:41
1	Sr 421.552†	3757575.8	3801877.0	9766.2 µg/L	9766.2 ppb	14:18:37
1	Sc 361.383	1627056.1	1627056.1	96.147 %		14:19:03
1	Y 371.029	896254.3	896254.3	93.650 %		14:19:03
1	Ag 328.068†	-21181.0	-27132.8	7.9518 µg/L	7.9518 ppb	14:19:05
1	As 188.979†	27513.5	28629.6	10175 µg/L	10175 ppb	14:19:05
1	B 249.677†	332796.8	342022.7	5043.2 µg/L	5043.2 ppb	14:19:03
1	Ba 233.527†	2731023.6	2840624.0	12868 µg/L	12868 ppb	14:19:03
1	Be 313.107†	10023230.3	10425935.4	2951.9 µg/L	2951.9 ppb	14:18:59
1	Cd 226.502†	1438589.6	1496310.2	9898.4 µg/L	9898.4 ppb	14:19:03
1	Co 228.616†	713699.8	742530.6	9750.4 µg/L	9750.4 ppb	14:19:03
1	Cr 267.716†	2691360.1	2798895.3	24585 µg/L	24585 ppb	14:19:03
1	Cu 324.752†	4756253.5	4943634.1	20471 µg/L	20471 ppb	14:19:03
1	Mn 257.610†	7004818.2	7285343.2	9522.9 µg/L	9522.9 ppb	14:19:03
1	Mo 202.031†	283045.3	294410.8	9997.4 µg/L	9997.4 ppb	14:19:05
1	Ni 231.604†	767548.0	798383.8	9928.6 µg/L	9928.6 ppb	14:19:03
1	P 214.914†	64525.6	67130.9	15097 µg/L	15097 ppb	14:19:05
1	Pb 220.353†	369576.8	384271.6	24108 µg/L	24108 ppb	14:19:03
1	S 181.975 Axial†	59080.3	61346.2	52281 µg/L	52281 ppb	14:19:05
1	Sb 206.836†	76097.6	79070.0	9941.6 µg/L	9941.6 ppb	14:19:05
1	Se 196.026†	24505.6	25467.8	9850 µg/L	9850 ppb	14:19:05
1	SiO2†	957701.9	994395.9	102250 µg/L	102250 ppb	14:19:03
1	Si 251.611†	3023960.8	3144369.1	47767 µg/L	47767 ppb	14:19:03
1	Sn 189.927†	137061.4	142546.1	9961.0 µg/L	9961.0 ppb	14:19:05
1	Ti 334.940†	9419561.6	9796194.4	10265 µg/L	10265 ppb	14:18:59
1	Tl 190.801†	65725.3	68474.7	9804.0 µg/L	9804.0 ppb	14:19:05
1	U 409.014†	-5128.7	-4923.0	316.31 µg/L	316.31 ppb	14:19:05
1	V 292.402†	1964093.0	2042314.2	10325 µg/L	10325 ppb	14:19:03
1	Zn 213.857†	2451285.7	2548909.5	14639 µg/L	14639 ppb	14:19:03
2	Sc RADIAL	111791.4	111791.4	97.7 %		14:18:45
2	Al 396.153Radial†	1955.0	2085.4	26.986 µg/L	26.986 ppb	14:18:47
2	Ca 317.933Radial†	993.7	560.0	46.110 µg/L	46.110 ppb	14:18:47
2	Fe 238.204 Radial†	-493.4	-629.1	-53.668 µg/L	-53.668 ppb	14:18:47
2	K 766.490 Radial†	738179.0	753915.8	301770 µg/L	301770 ppb	14:18:45
2	Mg 279.077 IEC†	-354.4	-520.0	-42.678 µg/L	-42.678 ppb	14:18:47
2	Na 589.592 Radial†	2259.9	1477.1	-32.705 µg/L	-32.705 ppb	14:18:47
2	Sr 421.552†	3820347.3	3909151.0	10042 µg/L	10042 ppb	14:18:43
2	Sc 361.383	1633949.6	1633949.6	96.554 %		14:19:13
2	Y 371.029	900415.6	900415.6	94.084 %		14:19:13
2	Ag 328.068†	-21328.4	-27192.6	7.1208 µg/L	7.1208 ppb	14:19:15
2	As 188.979†	27764.9	28769.3	10223 µg/L	10223 ppb	14:19:15
2	B 249.677†	332666.5	340427.5	5019.7 µg/L	5019.7 ppb	14:19:13
2	Ba 233.527†	2729926.4	2827503.9	12809 µg/L	12809 ppb	14:19:13
2	Be 313.107†	9898126.5	10252384.9	2902.7 µg/L	2902.7 ppb	14:19:09
2	Cd 226.502†	1435333.2	1486625.1	9834.3 µg/L	9834.3 ppb	14:19:13
2	Co 228.616†	711992.2	737630.4	9686.1 µg/L	9686.1 ppb	14:19:13
2	Cr 267.716†	2688281.6	2783897.3	24453 µg/L	24453 ppb	14:19:13
2	Cu 324.752†	4752584.8	4918964.2	20369 µg/L	20369 ppb	14:19:13
2	Mn 257.610†	6997905.1	7247446.3	9473.4 µg/L	9473.4 ppb	14:19:13
2	Mo 202.031†	284646.2	294826.9	10012 µg/L	10012 ppb	14:19:15
2	Ni 231.604†	766144.9	793562.6	9868.6 µg/L	9868.6 ppb	14:19:13
2	P 214.914†	64919.2	67255.4	15127 µg/L	15127 ppb	14:19:15
2	Pb 220.353†	368356.6	381386.1	23928 µg/L	23928 ppb	14:19:13

2	S 181.975 Axial†	59321.7	61337.0	52274 µg/L	52274 ppb	14:19:15
2	Sb 206.836†	76388.8	79037.6	9939.6 µg/L	9939.6 ppb	14:19:15
2	Se 196.026†	24615.4	25473.9	9850 µg/L	9850 ppb	14:19:15
2	SiO2†	958315.6	990829.1	101880 µg/L	101880 ppb	14:19:13
2	Si 251.611†	3025752.0	3132955.2	47592 µg/L	47592 ppb	14:19:13
2	Sn 189.927†	138059.0	142977.9	9990.5 µg/L	9990.5 ppb	14:19:15
2	Ti 334.940†	9311775.6	9643228.6	10105 µg/L	10105 ppb	14:19:09
2	Tl 190.801†	65883.1	68349.7	9784.6 µg/L	9784.6 ppb	14:19:15
2	U 409.014†	-5181.6	-4955.2	311.35 µg/L	311.35 ppb	14:19:15
2	V 292.402†	1962839.4	2032397.5	10276 µg/L	10276 ppb	14:19:13
2	Zn 213.857†	2447290.1	2534015.0	14554 µg/L	14554 ppb	14:19:13
3	Sc RADIAL	111474.3	111474.3	97.5 %		14:18:52
3	Al 396.153Radial†	2221.8	2364.8	85.955 µg/L	85.955 ppb	14:18:54
3	Ca 317.933Radial†	1483.9	1066.0	87.771 µg/L	87.771 ppb	14:18:54
3	Fe 238.204 Radial†	-45.9	-171.4	-14.618 µg/L	-14.618 ppb	14:18:54
3	K 766.490 Radial†	741039.7	759000.3	303810 µg/L	303810 ppb	14:18:52
3	Mg 279.077 IEC†	-288.4	-453.3	-2.2053 µg/L	-2.2053 ppb	14:18:54
3	Na 589.592 Radial†	2434.6	1662.9	-4.8658 µg/L	-4.8658 ppb	14:18:54
3	Sr 421.552†	3806040.0	3905592.2	10033 µg/L	10033 ppb	14:18:50
3	Sc 361.383	1616630.6	1616630.6	95.531 %		14:19:22
3	Y 371.029	890258.4	890258.4	93.023 %		14:19:22
3	Ag 328.068†	-22052.3	-28187.0	3.2889 µg/L	3.2889 ppb	14:19:25
3	As 188.979†	28082.0	29409.2	10445 µg/L	10445 ppb	14:19:25
3	B 249.677†	330052.1	341381.9	5033.8 µg/L	5033.8 ppb	14:19:22
3	Ba 233.527†	2708661.7	2835533.8	12845 µg/L	12845 ppb	14:19:22
3	Be 313.107†	9845255.5	10306863.5	2918.2 µg/L	2918.2 ppb	14:19:19
3	Cd 226.502†	1421588.9	1488163.3	9844.5 µg/L	9844.5 ppb	14:19:22
3	Co 228.616†	706473.4	739753.2	9714.0 µg/L	9714.0 ppb	14:19:22
3	Cr 267.716†	2665538.6	2789917.7	24506 µg/L	24506 ppb	14:19:22
3	Cu 324.752†	4720530.1	4938141.5	20449 µg/L	20449 ppb	14:19:22
3	Mn 257.610†	6940639.6	7265145.9	9496.5 µg/L	9496.5 ppb	14:19:22
3	Mo 202.031†	285828.6	299222.8	10161 µg/L	10161 ppb	14:19:25
3	Ni 231.604†	758915.0	794495.1	9880.2 µg/L	9880.2 ppb	14:19:22
3	P 214.914†	65258.4	68330.8	15372 µg/L	15372 ppb	14:19:25
3	Pb 220.353†	365201.9	382170.9	23977 µg/L	23977 ppb	14:19:22
3	S 181.975 Axial†	59689.8	62380.5	53163 µg/L	53163 ppb	14:19:25
3	Sb 206.836†	76727.7	80239.9	10095 µg/L	10095 ppb	14:19:25
3	Se 196.026†	24687.4	25822.5	9990 µg/L	9990 ppb	14:19:25
3	SiO2†	952195.5	995055.6	102310 µg/L	102310 ppb	14:19:22
3	Si 251.611†	3007396.0	3147312.2	47808 µg/L	47808 ppb	14:19:22
3	Sn 189.927†	138667.0	145146.2	10142 µg/L	10142 ppb	14:19:25
3	Ti 334.940†	9266032.1	9698662.5	10163 µg/L	10163 ppb	14:19:19
3	Tl 190.801†	66198.5	69410.9	9934.8 µg/L	9934.8 ppb	14:19:25
3	U 409.014†	-4988.6	-4810.8	321.48 µg/L	321.48 ppb	14:19:25
3	V 292.402†	1946274.3	2036835.8	10300 µg/L	10300 ppb	14:19:22
3	Zn 213.857†	2427801.1	2540767.8	14593 µg/L	14593 ppb	14:19:22

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1625878.7	96.077 %	0.5152			0.54%
Sc RADIAL	112107.6	98.0 %	0.73			0.75%
Y 371.029	895642.8	93.586 %	0.5335			0.57%
Ag 328.068†	-27504.1	6.1205 µg/L	2.48720	6.1205 ppb	2.48720	40.64%
Al 396.153Radial†	2179.4	47.065 µg/L	33.6857	47.065 ppb	33.6857	71.57%
As 188.979†	28936.0	10281 µg/L	144.0	10281 ppb	144.0	1.40%
QC value within limits for As 188.979 Recovery = 102.81%						
B 249.677†	341277.3	5032.3 µg/L	11.81	5032.3 ppb	11.81	0.23%
QC value within limits for B 249.677 Recovery = 100.65%						
Ba 233.527†	2834553.9	12841 µg/L	30.0	12841 ppb	30.0	0.23%
QC value less than the lower limit for Ba 233.527 Recovery = 85.61%						
Be 313.107†	10328394.6	2924.3 µg/L	25.13	2924.3 ppb	25.13	0.86%
QC value within limits for Be 313.107 Recovery = 97.48%						
Ca 317.933Radial†	787.3	64.825 µg/L	21.1501	64.825 ppb	21.1501	32.63%
Cd 226.502†	1490366.2	9859.1 µg/L	34.43	9859.1 ppb	34.43	0.35%
QC value within limits for Cd 226.502 Recovery = 98.59%						
Co 228.616†	739971.4	9716.8 µg/L	32.25	9716.8 ppb	32.25	0.33%
QC value within limits for Co 228.616 Recovery = 97.17%						
Cr 267.716†	2790903.4	24514 µg/L	66.3	24514 ppb	66.3	0.27%
QC value within limits for Cr 267.716 Recovery = 98.06%						



Cu 324.752†	4933579.9	20430 µg/L	53.6	20430 ppb	53.6	0.26%
QC value within limits for Cu 324.752 Recovery = 102.15%						
Fe 238.204 Radial†	-438.5	-37.404 µg/L	20.3260	-37.404 ppb	20.3260	54.34%
K 766.490 Radial†	753472.6	301600 µg/L	2306.4	301600 ppb	2306.4	0.76%
QC value within limits for K 766.490 Radial Recovery = 100.53%						
Mg 279.077 IEC†	-467.9	-12.789 µg/L	26.2498	-12.789 ppb	26.2498	205.26%
Mn 257.610†	7265978.4	9497.6 µg/L	24.79	9497.6 ppb	24.79	0.26%
QC value within limits for Mn 257.610 Recovery = 94.98%						
Mo 202.031†	296153.5	10057 µg/L	90.5	10057 ppb	90.5	0.90%
QC value within limits for Mo 202.031 Recovery = 100.57%						
Na 589.592 Radial†	1580.5	-16.057 µg/L	14.6997	-16.057 ppb	14.6997	91.54%
Ni 231.604†	795480.5	9892.5 µg/L	31.80	9892.5 ppb	31.80	0.32%
QC value within limits for Ni 231.604 Recovery = 98.92%						
P 214.914†	67572.3	15199 µg/L	150.5	15199 ppb	150.5	0.99%
QC value within limits for P 214.914 Recovery = 101.32%						
Pb 220.353†	382609.5	24004 µg/L	93.5	24004 ppb	93.5	0.39%
QC value within limits for Pb 220.353 Recovery = 96.02%						
S 181.975 Axial†	61687.9	52573 µg/L	511.1	52573 ppb	511.1	0.97%
QC value within limits for S 181.975 Axial Recovery = 105.15%						
Sb 206.836†	79449.2	9992.2 µg/L	89.34	9992.2 ppb	89.34	0.89%
QC value within limits for Sb 206.836 Recovery = 99.92%						
Se 196.026†	25588.1	9890 µg/L	78.5	9890 ppb	78.5	0.79%
QC value within limits for Se 196.026 Recovery = 98.95%						
SiO2†	993426.9	102150 µg/L	232.7	102150 ppb	232.7	0.23%
QC value within limits for SiO2 Recovery = 95.47%						
Si 251.611†	3141545.5	47723 µg/L	114.6	47723 ppb	114.6	0.24%
QC value within limits for Si 251.611 Recovery = 95.45%						
Sn 189.927†	143556.7	10031 µg/L	96.9	10031 ppb	96.9	0.97%
QC value within limits for Sn 189.927 Recovery = 100.31%						
Sr 421.552†	3872206.7	9946.8 µg/L	156.52	9946.8 ppb	156.52	1.57%
QC value within limits for Sr 421.552 Recovery = 99.47%						
Ti 334.940†	9712695.1	10178 µg/L	81.2	10178 ppb	81.2	0.80%
QC value within limits for Ti 334.940 Recovery = 101.78%						
Tl 190.801†	68745.1	9841.2 µg/L	81.71	9841.2 ppb	81.71	0.83%
QC value within limits for Tl 190.801 Recovery = 98.41%						
U 409.014†	-4896.3	316.38 µg/L	5.066	316.38 ppb	5.066	1.60%
V 292.402†	2037182.5	10300 µg/L	24.7	10300 ppb	24.7	0.24%
QC value within limits for V 292.402 Recovery = 103.00%						
Zn 213.857†	2541230.8	14595 µg/L	42.9	14595 ppb	42.9	0.29%
QC value within limits for Zn 213.857 Recovery = 97.30%						
QC Failed. Continue with analysis.						

Sequence No.: 13  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 4/13/2010 14:19:32  
 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	112203.8	112203.8	98.1 %		14:20:06
1	Al 396.153Radial†	21489.9	21993.2	5162.9 µg/L	5162.9 ppb	14:20:06
1	Ca 317.933Radial†	61613.2	62355.9	5134.3 µg/L	5134.3 ppb	14:20:06
1	Fe 238.204 Radial†	59068.1	60093.7	5126.2 µg/L	5126.2 ppb	14:20:06
1	K 766.490 Radial†	15049.0	13932.7	5572.7 µg/L	5572.7 ppb	14:20:06
1	Mg 279.077 IEC†	9386.0	9411.4	5213.0 µg/L	5213.0 ppb	14:20:06
1	Na 589.592 Radial†	64068.9	64480.9	10283 µg/L	10283 ppb	14:20:04
1	Sr 421.552†	196127.7	200012.4	513.75 µg/L	513.75 ppb	14:20:04
1	Sc 361.383	1663650.0	1663650.0	98.309 %		14:20:19
1	Y 371.029	930876.1	930876.1	97.267 %		14:20:19
1	Ag 328.068†	125303.2	122355.5	511.54 µg/L	511.54 ppb	14:20:19
1	As 188.979†	1417.3	1455.1	511.27 µg/L	511.27 ppb	14:20:39
1	B 249.677†	38223.4	34769.0	514.34 µg/L	514.34 ppb	14:20:19
1	Ba 233.527†	110371.5	112415.8	509.29 µg/L	509.29 ppb	14:20:19
1	Be 313.107†	1754134.0	1785298.2	505.62 µg/L	505.62 ppb	14:20:19
1	Cd 226.502†	76017.7	77389.8	511.41 µg/L	511.41 ppb	14:20:19
1	Co 228.616†	38086.1	38968.3	511.13 µg/L	511.13 ppb	14:20:19
1	Cr 267.716†	57242.2	57897.1	508.36 µg/L	508.36 ppb	14:20:19
1	Cu 324.752†	124009.6	122901.4	510.36 µg/L	510.36 ppb	14:20:19
1	Mn 257.610†	383714.0	390098.7	509.69 µg/L	509.69 ppb	14:20:19
1	Mo 202.031†	14766.9	15042.5	511.10 µg/L	511.10 ppb	14:20:39
1	Ni 231.604†	40209.4	40974.9	509.56 µg/L	509.56 ppb	14:20:19
1	P 214.914†	10884.8	11091.3	2525.5 µg/L	2525.5 ppb	14:20:39
1	Pb 220.353†	8325.6	8351.6	524.93 µg/L	524.93 ppb	14:20:39
1	S 181.975 Axial†	1314.8	1235.5	1055.6 µg/L	1055.6 ppb	14:20:39
1	Sb 206.836†	3971.7	3962.5	509.12 µg/L	509.12 ppb	14:20:39
1	Se 196.026†	1332.0	1334.9	518 µg/L	518 ppb	14:20:39
1	SiO2†	53455.9	52686.4	5418.3 µg/L	5418.3 ppb	14:20:19
1	Si 251.611†	165269.8	167326.0	2542.3 µg/L	2542.3 ppb	14:20:19
1	Sn 189.927†	7215.1	7330.8	512.20 µg/L	512.20 ppb	14:20:39
1	Ti 334.940†	478219.0	485558.5	508.56 µg/L	508.56 ppb	14:20:19
1	Tl 190.801†	3441.0	3615.4	517.12 µg/L	517.12 ppb	14:20:39
1	U 409.014†	7002.5	7534.2	488.93 µg/L	488.93 ppb	14:20:19
1	V 292.402†	100424.5	101655.8	510.78 µg/L	510.78 ppb	14:20:19
1	Zn 213.857†	87874.3	88766.5	508.47 µg/L	508.47 ppb	14:20:19
2	Sc RADIAL	111485.0	111485.0	97.5 %		14:20:10
2	Al 396.153Radial†	21686.2	22335.9	5244.0 µg/L	5244.0 ppb	14:20:10
2	Ca 317.933Radial†	62036.2	63194.9	5203.4 µg/L	5203.4 ppb	14:20:10
2	Fe 238.204 Radial†	59099.2	60513.8	5162.1 µg/L	5162.1 ppb	14:20:10
2	K 766.490 Radial†	15114.4	14098.7	5639.1 µg/L	5639.1 ppb	14:20:10
2	Mg 279.077 IEC†	9440.1	9528.6	5277.6 µg/L	5277.6 ppb	14:20:10
2	Na 589.592 Radial†	63223.6	64034.7	10212 µg/L	10212 ppb	14:20:08
2	Sr 421.552†	193487.6	198592.8	510.10 µg/L	510.10 ppb	14:20:08
2	Sc 361.383	1684649.2	1684649.2	99.550 %		14:20:42
2	Y 371.029	942088.8	942088.8	98.439 %		14:20:42
2	Ag 328.068†	126565.4	122034.6	510.21 µg/L	510.21 ppb	14:20:42
2	As 188.979†	1414.0	1433.8	503.88 µg/L	503.88 ppb	14:21:02
2	B 249.677†	38415.8	34477.6	510.02 µg/L	510.02 ppb	14:20:42
2	Ba 233.527†	111543.9	112194.1	508.28 µg/L	508.28 ppb	14:20:42
2	Be 313.107†	1772159.3	1781163.6	504.45 µg/L	504.45 ppb	14:20:42
2	Cd 226.502†	76829.4	77241.3	510.42 µg/L	510.42 ppb	14:20:42
2	Co 228.616†	38456.0	38856.9	509.67 µg/L	509.67 ppb	14:20:42
2	Cr 267.716†	57736.0	57667.4	506.34 µg/L	506.34 ppb	14:20:42
2	Cu 324.752†	124574.4	121896.3	506.21 µg/L	506.21 ppb	14:20:42
2	Mn 257.610†	387164.3	388699.3	507.86 µg/L	507.86 ppb	14:20:42
2	Mo 202.031†	14777.1	14865.5	505.09 µg/L	505.09 ppb	14:21:02
2	Ni 231.604†	40823.3	41081.8	510.89 µg/L	510.89 ppb	14:20:42
2	P 214.914†	10900.2	10968.7	2497.5 µg/L	2497.5 ppb	14:21:02
2	Pb 220.353†	8257.1	8177.2	513.98 µg/L	513.98 ppb	14:21:02

2	S 181.975 Axial†	1299.2	1203.2	1028.0 µg/L	1028.0 ppb	14:21:02
2	Sb 206.836†	3974.3	3914.7	502.92 µg/L	502.92 ppb	14:21:02
2	Se 196.026†	1306.9	1292.8	502 µg/L	502 ppb	14:21:02
2	SiO2†	53943.0	52498.0	5399.2 µg/L	5399.2 ppb	14:20:42
2	Si 251.611†	166874.4	166842.3	2535.0 µg/L	2535.0 ppb	14:20:42
2	Sn 189.927†	7194.7	7218.9	504.40 µg/L	504.40 ppb	14:21:02
2	Ti 334.940†	481648.5	482939.9	505.80 µg/L	505.80 ppb	14:20:42
2	Tl 190.801†	3446.2	3577.0	511.67 µg/L	511.67 ppb	14:21:02
2	U 409.014†	7194.5	7638.3	495.19 µg/L	495.19 ppb	14:20:42
2	V 292.402†	101490.1	101452.9	509.71 µg/L	509.71 ppb	14:20:42
2	Zn 213.857†	88574.5	88355.7	506.08 µg/L	506.08 ppb	14:20:42
3	Sc RADIAL	111168.9	111168.9	97.2 %		14:20:14
3	Al 396.153Radial†	21699.3	22412.6	5261.7 µg/L	5261.7 ppb	14:20:14
3	Ca 317.933Radial†	62059.5	63399.8	5220.3 µg/L	5220.3 ppb	14:20:14
3	Fe 238.204 Radial†	59000.9	60585.2	5168.1 µg/L	5168.1 ppb	14:20:14
3	K 766.490 Radial†	14976.1	14000.5	5599.8 µg/L	5599.8 ppb	14:20:14
3	Mg 279.077 IEC†	9531.8	9650.4	5345.2 µg/L	5345.2 ppb	14:20:14
3	Na 589.592 Radial†	64449.2	65480.2	10443 µg/L	10443 ppb	14:20:12
3	Sr 421.552†	197345.4	203126.8	521.75 µg/L	521.75 ppb	14:20:12
3	Sc 361.383	1667850.3	1667850.3	98.557 %		14:21:05
3	Y 371.029	933777.1	933777.1	97.570 %		14:21:05
3	Ag 328.068†	124700.3	121422.8	507.67 µg/L	507.67 ppb	14:21:05
3	As 188.979†	1421.1	1455.3	511.33 µg/L	511.33 ppb	14:21:25
3	B 249.677†	37695.1	34135.0	504.94 µg/L	504.94 ppb	14:21:05
3	Ba 233.527†	109824.4	111578.0	505.49 µg/L	505.49 ppb	14:21:05
3	Be 313.107†	1748485.2	1775073.2	502.73 µg/L	502.73 ppb	14:21:05
3	Cd 226.502†	75160.0	76324.8	504.36 µg/L	504.36 ppb	14:21:05
3	Co 228.616†	37938.9	38721.3	507.89 µg/L	507.89 ppb	14:21:05
3	Cr 267.716†	56714.7	57215.3	502.36 µg/L	502.36 ppb	14:21:05
3	Cu 324.752†	122905.3	121463.2	504.43 µg/L	504.43 ppb	14:21:05
3	Mn 257.610†	382135.2	387513.8	506.31 µg/L	506.31 ppb	14:21:05
3	Mo 202.031†	14861.6	15100.8	513.08 µg/L	513.08 ppb	14:21:25
3	Ni 231.604†	40100.8	40761.7	506.91 µg/L	506.91 ppb	14:21:05
3	P 214.914†	10963.3	11143.0	2537.4 µg/L	2537.4 ppb	14:21:25
3	Pb 220.353†	8289.4	8293.5	521.29 µg/L	521.29 ppb	14:21:25
3	S 181.975 Axial†	1308.9	1226.1	1047.6 µg/L	1047.6 ppb	14:21:25
3	Sb 206.836†	3998.2	3979.2	511.37 µg/L	511.37 ppb	14:21:25
3	Se 196.026†	1335.5	1335.0	519 µg/L	519 ppb	14:21:25
3	SiO2†	53112.4	52201.0	5368.2 µg/L	5368.2 ppb	14:21:05
3	Si 251.611†	164521.7	166143.6	2524.2 µg/L	2524.2 ppb	14:21:05
3	Sn 189.927†	7246.9	7344.5	513.15 µg/L	513.15 ppb	14:21:25
3	Ti 334.940†	475815.9	481895.2	504.70 µg/L	504.70 ppb	14:21:05
3	Tl 190.801†	3458.7	3624.5	518.35 µg/L	518.35 ppb	14:21:25
3	U 409.014†	7277.3	7795.1	504.58 µg/L	504.58 ppb	14:21:05
3	V 292.402†	99997.8	100965.6	507.36 µg/L	507.36 ppb	14:21:05
3	Zn 213.857†	87256.3	87914.3	503.56 µg/L	503.56 ppb	14:21:05

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1672049.8	98.805 %	0.6566			0.66%
Sc RADIAL	111619.2	97.6 %	0.46			0.48%
Y 371.029	935580.6	97.759 %	0.6081			0.62%
Ag 328.068†	121937.6	509.81 µg/L	1.969	509.81 ppb	1.969	0.39%
QC value within limits for Ag 328.068 Recovery = 101.96%						
Al 396.153Radial†	22247.2	5222.9 µg/L	52.68	5222.9 ppb	52.68	1.01%
QC value within limits for Al 396.153Radial Recovery = 104.46%						
As 188.979†	1448.1	508.83 µg/L	4.283	508.83 ppb	4.283	0.84%
QC value within limits for As 188.979 Recovery = 101.77%						
B 249.677†	34460.5	509.77 µg/L	4.705	509.77 ppb	4.705	0.92%
QC value within limits for B 249.677 Recovery = 101.95%						
Ba 233.527†	112062.6	507.69 µg/L	1.966	507.69 ppb	1.966	0.39%
QC value within limits for Ba 233.527 Recovery = 101.54%						
Be 313.107†	1780511.7	504.27 µg/L	1.454	504.27 ppb	1.454	0.29%
QC value within limits for Be 313.107 Recovery = 100.85%						
Ca 317.933Radial†	62983.5	5186.0 µg/L	45.54	5186.0 ppb	45.54	0.88%
QC value within limits for Ca 317.933Radial Recovery = 103.72%						
Cd 226.502†	76985.3	508.73 µg/L	3.816	508.73 ppb	3.816	0.75%
QC value within limits for Cd 226.502 Recovery = 101.75%						
Co 228.616†	38848.8	509.56 µg/L	1.625	509.56 ppb	1.625	0.32%

QC value within limits for Co 228.616 Recovery = 101.91%						
Cr 267.716†	57593.3	505.69 µg/L	3.054	505.69 ppb	3.054	0.60%
QC value within limits for Cr 267.716 Recovery = 101.14%						
Cu 324.752†	122087.0	507.00 µg/L	3.044	507.00 ppb	3.044	0.60%
QC value within limits for Cu 324.752 Recovery = 101.40%						
Fe 238.204 Radial†	60397.6	5152.1 µg/L	22.65	5152.1 ppb	22.65	0.44%
QC value within limits for Fe 238.204 Radial Recovery = 103.04%						
K 766.490 Radial†	14010.6	5603.9 µg/L	33.39	5603.9 ppb	33.39	0.60%
QC value greater than the upper limit for K 766.490 Radial Recovery = 112.08%						
Mg 279.077 IEC†	9530.1	5278.6 µg/L	66.11	5278.6 ppb	66.11	1.25%
QC value within limits for Mg 279.077 IEC Recovery = 105.57%						
Mn 257.610†	388770.6	507.95 µg/L	1.694	507.95 ppb	1.694	0.33%
QC value within limits for Mn 257.610 Recovery = 101.59%						
Mo 202.031†	15002.9	509.76 µg/L	4.159	509.76 ppb	4.159	0.82%
QC value within limits for Mo 202.031 Recovery = 101.95%						
Na 589.592 Radial†	64665.2	10313 µg/L	118.1	10313 ppb	118.1	1.15%
QC value within limits for Na 589.592 Radial Recovery = 103.13%						
Ni 231.604†	40939.5	509.12 µg/L	2.026	509.12 ppb	2.026	0.40%
QC value within limits for Ni 231.604 Recovery = 101.82%						
P 214.914†	11067.7	2520.1 µg/L	20.46	2520.1 ppb	20.46	0.81%
QC value within limits for P 214.914 Recovery = 100.81%						
Pb 220.353†	8274.1	520.07 µg/L	5.576	520.07 ppb	5.576	1.07%
QC value within limits for Pb 220.353 Recovery = 104.01%						
S 181.975 Axial†	1221.6	1043.7 µg/L	14.19	1043.7 ppb	14.19	1.36%
QC value within limits for S 181.975 Axial Recovery = 104.37%						
Sb 206.836†	3952.1	507.80 µg/L	4.375	507.80 ppb	4.375	0.86%
QC value within limits for Sb 206.836 Recovery = 101.56%						
Se 196.026†	1320.9	513 µg/L	9.4	513 ppb	9.4	1.83%
QC value within limits for Se 196.026 Recovery = 102.61%						
SiO2†	52461.8	5395.2 µg/L	25.33	5395.2 ppb	25.33	0.47%
QC value within limits for SiO2 Recovery = 100.89%						
Si 251.611†	166770.6	2533.9 µg/L	9.09	2533.9 ppb	9.09	0.36%
QC value within limits for Si 251.611 Recovery = 101.35%						
Sn 189.927†	7298.0	509.92 µg/L	4.801	509.92 ppb	4.801	0.94%
QC value within limits for Sn 189.927 Recovery = 101.98%						
Sr 421.552†	200577.3	515.20 µg/L	5.957	515.20 ppb	5.957	1.16%
QC value within limits for Sr 421.552 Recovery = 103.04%						
Ti 334.940†	483464.5	506.35 µg/L	1.985	506.35 ppb	1.985	0.39%
QC value within limits for Ti 334.940 Recovery = 101.27%						
Tl 190.801†	3605.7	515.71 µg/L	3.553	515.71 ppb	3.553	0.69%
QC value within limits for Tl 190.801 Recovery = 103.14%						
U 409.014†	7655.9	496.23 µg/L	7.875	496.23 ppb	7.875	1.59%
QC value within limits for U 409.014 Recovery = 99.25%						
V 292.402†	101358.1	509.28 µg/L	1.748	509.28 ppb	1.748	0.34%
QC value within limits for V 292.402 Recovery = 101.86%						
Zn 213.857†	88345.5	506.04 µg/L	2.452	506.04 ppb	2.452	0.48%
QC value within limits for Zn 213.857 Recovery = 101.21%						
QC Failed. Continue with analysis.						

Sequence No.: 14

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/13/2010 14:21:34

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	114703.5	114703.5	100 %		14:22:03
1	Al 396.153Radial†	-66.8	18.4	4.2925 µg/L	4.2925 ppb	14:22:23
1	Ca 317.933Radial†	516.1	58.0	4.7733 µg/L	4.7733 ppb	14:22:23
1	Fe 238.204 Radial†	198.0	73.2	6.2429 µg/L	6.2429 ppb	14:22:23
1	K 766.490 Radial†	1866.6	452.2	180.99 µg/L	180.99 ppb	14:22:03
1	Mg 279.077 IEC†	177.2	19.3	10.704 µg/L	10.704 ppb	14:22:23
1	Na 589.592 Radial†	1301.1	462.2	73.587 µg/L	73.587 ppb	14:22:03
1	Sr 421.552†	9.1	75.8	0.1947 µg/L	0.1947 ppb	14:22:03
1	Sc 361.383	1686563.7	1686563.7	99.663 %		14:23:25
1	Y 371.029	953976.9	953976.9	99.681 %		14:23:25
1	Ag 328.068†	5099.1	13.4	0.0513 µg/L	0.0513 ppb	14:23:27
1	As 188.979†	-11.8	1.6	0.5453 µg/L	0.5453 ppb	14:23:47
1	B 249.677†	4361.4	264.2	3.9223 µg/L	3.9223 ppb	14:23:27
1	Ba 233.527†	-147.4	-2.1	-0.0092 µg/L	-0.0092 ppb	14:23:47
1	Be 313.107†	-565.2	425.2	0.1195 µg/L	0.1195 ppb	14:23:27
1	Cd 226.502†	26.6	91.3	0.6031 µg/L	0.6031 ppb	14:23:47
1	Co 228.616†	-231.0	-4.8	-0.0628 µg/L	-0.0628 ppb	14:23:47
1	Cr 267.716†	333.6	5.1	0.0475 µg/L	0.0475 ppb	14:23:47
1	Cu 324.752†	3305.5	75.4	0.3108 µg/L	0.3108 ppb	14:23:27
1	Mn 257.610†	298.5	84.1	0.1095 µg/L	0.1095 ppb	14:23:47
1	Mo 202.031†	1.8	23.4	0.7964 µg/L	0.7964 ppb	14:23:47
1	Ni 231.604†	-56.3	17.4	0.2161 µg/L	0.2161 ppb	14:23:47
1	P 214.914†	-34.6	-15.5	-3.5505 µg/L	-3.5505 ppb	14:23:47
1	Pb 220.353†	170.2	53.5	3.3582 µg/L	3.3582 ppb	14:23:47
1	S 181.975 Axial†	110.4	8.8	7.5339 µg/L	7.5339 ppb	14:23:47
1	Sb 206.836†	85.6	8.3	1.0810 µg/L	1.0810 ppb	14:23:47
1	Se 196.026†	41.2	21.4	8.27 µg/L	8.27 ppb	14:23:47
1	SiO2†	1827.2	144.5	14.891 µg/L	14.891 ppb	14:23:27
1	Si 251.611†	811.8	28.0	0.4115 µg/L	0.4115 ppb	14:23:27
1	Sn 189.927†	19.5	11.1	0.7738 µg/L	0.7738 ppb	14:23:47
1	Ti 334.940†	787.1	-96.3	-0.1005 µg/L	-0.1005 ppb	14:23:27
1	Tl 190.801†	-112.7	2.1	0.2993 µg/L	0.2993 ppb	14:23:47
1	U 409.014†	-459.7	-50.0	-3.0405 µg/L	-3.0405 ppb	14:23:27
1	V 292.402†	492.6	-1.8	-0.0030 µg/L	-0.0030 ppb	14:23:27
1	Zn 213.857†	773.5	156.8	0.9032 µg/L	0.9032 ppb	14:23:47
2	Sc RADIAL	113535.1	113535.1	99.3 %		14:22:25
2	Al 396.153Radial†	-73.2	11.2	2.6255 µg/L	2.6255 ppb	14:22:45
2	Ca 317.933Radial†	474.8	21.6	1.7819 µg/L	1.7819 ppb	14:22:45
2	Fe 238.204 Radial†	158.2	35.1	2.9908 µg/L	2.9908 ppb	14:22:45
2	K 766.490 Radial†	1863.5	468.2	187.41 µg/L	187.41 ppb	14:22:25
2	Mg 279.077 IEC†	144.2	-12.0	-6.6399 µg/L	-6.6399 ppb	14:22:45
2	Na 589.592 Radial†	1342.9	517.7	82.435 µg/L	82.435 ppb	14:22:25
2	Sr 421.552†	317.3	386.4	0.9927 µg/L	0.9927 ppb	14:22:25
2	Sc 361.383	1678691.8	1678691.8	99.198 %		14:23:50
2	Y 371.029	949781.6	949781.6	99.243 %		14:23:50
2	Ag 328.068†	5150.1	88.8	0.3809 µg/L	0.3809 ppb	14:23:52
2	As 188.979†	-9.8	3.5	1.2170 µg/L	1.2170 ppb	14:24:12
2	B 249.677†	4385.0	308.5	4.5810 µg/L	4.5810 ppb	14:23:52
2	Ba 233.527†	-128.9	15.9	0.0720 µg/L	0.0720 ppb	14:24:12
2	Be 313.107†	-506.1	482.1	0.1409 µg/L	0.1409 ppb	14:23:52
2	Cd 226.502†	23.9	88.7	0.5863 µg/L	0.5863 ppb	14:24:12
2	Co 228.616†	-244.8	-19.8	-0.2592 µg/L	-0.2592 ppb	14:24:12
2	Cr 267.716†	351.3	24.5	0.2038 µg/L	0.2038 ppb	14:24:12
2	Cu 324.752†	3267.9	53.0	0.2316 µg/L	0.2316 ppb	14:23:52
2	Mn 257.610†	264.5	51.3	0.0673 µg/L	0.0673 ppb	14:24:12
2	Mo 202.031†	-6.8	14.8	0.5025 µg/L	0.5025 ppb	14:24:12
2	Ni 231.604†	-75.1	-1.8	-0.0218 µg/L	-0.0218 ppb	14:24:12
2	P 214.914†	-22.7	-3.7	-0.8446 µg/L	-0.8446 ppb	14:24:12
2	Pb 220.353†	148.1	32.1	2.0019 µg/L	2.0019 ppb	14:24:12

2	S 181.975 Axial†	124.7	23.7	20.202 µg/L	20.202 ppb	14:24:12
2	Sb 206.836†	74.9	-2.0	-0.2562 µg/L	-0.2562 ppb	14:24:12
2	Se 196.026†	25.1	5.3	2.05 µg/L	2.05 ppb	14:24:12
2	SiO2†	1694.8	19.6	1.9987 µg/L	1.9987 ppb	14:23:52
2	Si 251.611†	1040.9	262.8	3.9963 µg/L	3.9963 ppb	14:23:52
2	Sn 189.927†	21.7	13.4	0.9346 µg/L	0.9346 ppb	14:24:12
2	Ti 334.940†	968.2	89.9	0.0888 µg/L	0.0888 ppb	14:23:52
2	Tl 190.801†	-122.2	-7.9	-1.1202 µg/L	-1.1202 ppb	14:24:12
2	U 409.014†	-168.6	241.3	14.655 µg/L	14.655 ppb	14:23:52
2	V 292.402†	429.6	-62.9	-0.2963 µg/L	-0.2963 ppb	14:23:52
2	Zn 213.857†	744.1	130.8	0.7553 µg/L	0.7553 ppb	14:24:12
3	Sc RADIAL	114385.5	114385.5	100.0 %		14:22:47
3	Al 396.153Radial†	-107.4	-22.4	-5.3267 µg/L	-5.3267 ppb	14:23:07
3	Ca 317.933Radial†	470.3	13.5	1.1156 µg/L	1.1156 ppb	14:23:07
3	Fe 238.204 Radial†	162.0	37.8	3.2207 µg/L	3.2207 ppb	14:23:07
3	K 766.490 Radial†	1913.3	504.1	201.77 µg/L	201.77 ppb	14:22:47
3	Mg 279.077 IEC†	155.6	-1.7	-0.9201 µg/L	-0.9201 ppb	14:23:07
3	Na 589.592 Radial†	1169.8	334.5	53.199 µg/L	53.199 ppb	14:22:47
3	Sr 421.552†	-78.5	-11.8	-0.0303 µg/L	-0.0303 ppb	14:22:47
3	Sc 361.383	1694798.9	1694798.9	100.15 %		14:24:14
3	Y 371.029	957606.3	957606.3	100.06 %		14:24:14
3	Ag 328.068†	5225.0	114.2	0.4742 µg/L	0.4742 ppb	14:24:16
3	As 188.979†	-7.3	6.2	2.1422 µg/L	2.1422 ppb	14:24:36
3	B 249.677†	4280.2	161.9	2.4017 µg/L	2.4017 ppb	14:24:16
3	Ba 233.527†	-129.6	16.5	0.0744 µg/L	0.0744 ppb	14:24:36
3	Be 313.107†	-705.8	287.6	0.0837 µg/L	0.0837 ppb	14:24:16
3	Cd 226.502†	-2.6	61.9	0.4093 µg/L	0.4093 ppb	14:24:36
3	Co 228.616†	-195.8	31.5	0.4132 µg/L	0.4132 ppb	14:24:36
3	Cr 267.716†	361.8	31.7	0.2720 µg/L	0.2720 ppb	14:24:36
3	Cu 324.752†	3303.6	57.4	0.2445 µg/L	0.2445 ppb	14:24:16
3	Mn 257.610†	252.2	36.4	0.0476 µg/L	0.0476 ppb	14:24:36
3	Mo 202.031†	8.9	30.5	1.0349 µg/L	1.0349 ppb	14:24:36
3	Ni 231.604†	-63.0	11.0	0.1366 µg/L	0.1366 ppb	14:24:36
3	P 214.914†	-13.2	6.0	1.3698 µg/L	1.3698 ppb	14:24:36
3	Pb 220.353†	168.9	51.5	3.2211 µg/L	3.2211 ppb	14:24:36
3	S 181.975 Axial†	105.4	3.3	2.8487 µg/L	2.8487 ppb	14:24:36
3	Sb 206.836†	86.0	8.4	1.0838 µg/L	1.0838 ppb	14:24:36
3	Se 196.026†	26.6	6.5	2.54 µg/L	2.54 ppb	14:24:36
3	SiO2†	1763.2	71.7	7.3576 µg/L	7.3576 ppb	14:24:16
3	Si 251.611†	889.8	101.9	1.5353 µg/L	1.5353 ppb	14:24:16
3	Sn 189.927†	20.6	12.2	0.8482 µg/L	0.8482 ppb	14:24:36
3	Ti 334.940†	698.1	-189.1	-0.2013 µg/L	-0.2013 ppb	14:24:16
3	Tl 190.801†	-114.9	0.5	0.0599 µg/L	0.0599 ppb	14:24:36
3	U 409.014†	-288.5	123.1	7.4564 µg/L	7.4564 ppb	14:24:16
3	V 292.402†	386.7	-109.9	-0.5283 µg/L	-0.5283 ppb	14:24:16
3	Zn 213.857†	736.4	116.0	0.6683 µg/L	0.6683 ppb	14:24:36

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1686684.8	99.670 %	0.4759			0.48%
Sc RADIAL	114208.0	99.8 %	0.53			0.53%
Y 371.029	953788.3	99.661 %	0.4092			0.41%
Ag 328.068†	72.1	0.3021 µg/L	0.22217	0.3021 ppb	0.22217	73.53%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	2.4	0.5304 µg/L	5.14048	0.5304 ppb	5.14048	969.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	3.7	1.3015 µg/L	0.80181	1.3015 ppb	0.80181	61.61%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	244.9	3.6350 µg/L	1.11768	3.6350 ppb	1.11768	30.75%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	10.1	0.0458 µg/L	0.04757	0.0458 ppb	0.04757	103.96%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	398.3	0.1147 µg/L	0.02892	0.1147 ppb	0.02892	25.22%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	31.1	2.5569 µg/L	1.94812	2.5569 ppb	1.94812	76.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	80.7	0.5329 µg/L	0.10738	0.5329 ppb	0.10738	20.15%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	2.3	0.0304 µg/L	0.34576	0.0304 ppb	0.34576	>999.9%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	20.4	0.1745 µg/L	0.11508	0.1745 ppb	0.11508	65.97%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	61.9	0.2623 µg/L	0.04249	0.2623 ppb	0.04249	16.20%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	48.7	4.1515 µg/L	1.81490	4.1515 ppb	1.81490	43.72%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	474.8	190.05 µg/L	10.640	190.05 ppb	10.640	5.60%	
QC value greater than the upper limit for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	1.9	1.0481 µg/L	8.83794	1.0481 ppb	8.83794	843.27%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	57.3	0.0748 µg/L	0.03162	0.0748 ppb	0.03162	42.26%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	22.9	0.7779 µg/L	0.26667	0.7779 ppb	0.26667	34.28%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	438.1	69.740 µg/L	14.9928	69.740 ppb	14.9928	21.50%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	8.9	0.1103 µg/L	0.12111	0.1103 ppb	0.12111	109.81%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-4.4	-1.0084 µg/L	2.46419	-1.0084 ppb	2.46419	244.36%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	45.7	2.8604 µg/L	0.74666	2.8604 ppb	0.74666	26.10%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	12.0	10.195 µg/L	8.9773	10.195 ppb	8.9773	88.06%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	4.9	0.6362 µg/L	0.77281	0.6362 ppb	0.77281	121.47%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	11.1	4.29 µg/L	3.458	4.29 ppb	3.458	80.65%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	78.6	8.0823 µg/L	6.47643	8.0823 ppb	6.47643	80.13%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	130.9	1.9810 µg/L	1.83351	1.9810 ppb	1.83351	92.55%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	12.2	0.8522 µg/L	0.08043	0.8522 ppb	0.08043	9.44%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	150.2	0.3857 µg/L	0.53757	0.3857 ppb	0.53757	139.38%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-65.2	-0.0710 µg/L	0.14728	-0.0710 ppb	0.14728	207.35%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-1.8	-0.2537 µg/L	0.75993	-0.2537 ppb	0.75993	299.58%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	104.8	6.3569 µg/L	8.89875	6.3569 ppb	8.89875	139.99%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-58.2	-0.2759 µg/L	0.26326	-0.2759 ppb	0.26326	95.44%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	134.6	0.7756 µg/L	0.11877	0.7756 ppb	0.11877	15.31%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

QC Failed. Continue with analysis.

=====  
Analysis Begun

Start Time: 4/13/2010 14:26:03

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\041310.SIF

Batch ID:

Results Data Set: 041310A

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

## Method Loaded

Method Name: Gen Eng fast\_new Si

Method Last Saved: 4/13/2010 13:42:53

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: 4/13/2010 14:26:05

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	114153.9	114153.9	99.8 %		14:26:37
1	Al 396.153Radial†	21542.4	21671.6	5087.5 µg/L	5087.5 ppb	14:26:37
1	Ca 317.933Radial†	62108.9	61779.5	5086.9 µg/L	5086.9 ppb	14:26:37
1	Fe 238.204 Radial†	59230.2	59227.4	5052.3 µg/L	5052.3 ppb	14:26:37



1	K 766.490 Radial†	14338.0	12958.2	5182.7 µg/L	5182.7 ppb	14:26:37
1	Mg 279.077 IEC†	9390.1	9252.0	5124.7 µg/L	5124.7 ppb	14:26:37
1	Na 589.592 Radial†	63653.4	62948.7	10039 µg/L	10039 ppb	14:26:35
1	Sr 421.552†	195196.4	195663.5	502.58 µg/L	502.58 ppb	14:26:35
1	Sc 361.383	1680728.7	1680728.7	99.318 %		14:27:04
1	Y 371.029	940068.0	940068.0	98.228 %		14:27:04
1	Ag 328.068†	125006.2	120761.3	504.94 µg/L	504.94 ppb	14:27:04
1	As 188.979†	1400.3	1423.3	500.19 µg/L	500.19 ppb	14:27:24
1	B 249.677†	37688.3	33835.1	500.49 µg/L	500.49 ppb	14:27:04
1	Ba 233.527†	110370.8	111274.3	504.12 µg/L	504.12 ppb	14:27:04
1	Be 313.107†	1757092.2	1770145.6	501.33 µg/L	501.33 ppb	14:27:04
1	Cd 226.502†	75941.1	76526.9	505.71 µg/L	505.71 ppb	14:27:04
1	Co 228.616†	38191.1	38680.3	507.35 µg/L	507.35 ppb	14:27:04
1	Cr 267.716†	57170.7	57233.5	502.52 µg/L	502.52 ppb	14:27:04
1	Cu 324.752†	123330.3	120935.6	502.22 µg/L	502.22 ppb	14:27:04
1	Mn 257.610†	383314.1	385729.9	503.98 µg/L	503.98 ppb	14:27:04
1	Mo 202.031†	14655.4	14777.6	502.10 µg/L	502.10 ppb	14:27:24
1	Ni 231.604†	40419.2	40770.6	507.02 µg/L	507.02 ppb	14:27:04
1	P 214.914†	10885.8	10979.7	2500.1 µg/L	2500.1 ppb	14:27:24
1	Pb 220.353†	8089.9	8028.3	504.63 µg/L	504.63 ppb	14:27:24
1	S 181.975 Axial†	1276.5	1183.3	1011.1 µg/L	1011.1 ppb	14:27:24
1	Sb 206.836†	3950.5	3900.1	501.06 µg/L	501.06 ppb	14:27:24
1	Se 196.026†	1309.4	1298.4	504 µg/L	504 ppb	14:27:24
1	SiO2†	53281.1	51957.9	5343.5 µg/L	5343.5 ppb	14:27:04
1	Si 251.611†	164820.3	165165.2	2509.5 µg/L	2509.5 ppb	14:27:04
1	Sn 189.927†	7145.8	7186.4	502.13 µg/L	502.13 ppb	14:27:24
1	Ti 334.940†	476912.6	479300.1	502.00 µg/L	502.00 ppb	14:27:04
1	Tl 190.801†	3402.9	3541.5	506.62 µg/L	506.62 ppb	14:27:24
1	U 409.014†	7275.3	7736.5	501.04 µg/L	501.04 ppb	14:27:04
1	V 292.402†	100833.2	101029.3	507.58 µg/L	507.58 ppb	14:27:04
1	Zn 213.857†	87704.1	87686.8	502.26 µg/L	502.26 ppb	14:27:04
2	Sc RADIAL	112326.9	112326.9	98.2 %		14:26:41
2	Al 396.153Radial†	21299.4	21775.2	5111.9 µg/L	5111.9 ppb	14:26:41
2	Ca 317.933Radial†	60862.5	61522.5	5065.7 µg/L	5065.7 ppb	14:26:41
2	Fe 238.204 Radial†	58178.2	59121.5	5043.3 µg/L	5043.3 ppb	14:26:41
2	K 766.490 Radial†	14076.1	12925.1	5169.5 µg/L	5169.5 ppb	14:26:41
2	Mg 279.077 IEC†	9290.6	9303.8	5153.3 µg/L	5153.3 ppb	14:26:41
2	Na 589.592 Radial†	63507.0	63837.0	10181 µg/L	10181 ppb	14:26:39
2	Sr 421.552†	194064.0	197691.7	507.79 µg/L	507.79 ppb	14:26:39
2	Sc 361.383	1680636.9	1680636.9	99.313 %		14:27:27
2	Y 371.029	940462.8	940462.8	98.269 %		14:27:27
2	Ag 328.068†	124086.1	119841.7	501.07 µg/L	501.07 ppb	14:27:27
2	As 188.979†	1411.5	1434.7	504.10 µg/L	504.10 ppb	14:27:47
2	B 249.677†	37543.1	33690.9	498.37 µg/L	498.37 ppb	14:27:27
2	Ba 233.527†	109743.9	110649.1	501.29 µg/L	501.29 ppb	14:27:27
2	Be 313.107†	1744655.1	1757719.0	497.81 µg/L	497.81 ppb	14:27:27
2	Cd 226.502†	75364.7	75950.8	501.90 µg/L	501.90 ppb	14:27:27
2	Co 228.616†	37791.4	38280.0	502.10 µg/L	502.10 ppb	14:27:27
2	Cr 267.716†	56795.3	56858.7	499.24 µg/L	499.24 ppb	14:27:27
2	Cu 324.752†	122589.2	120196.1	499.14 µg/L	499.14 ppb	14:27:27
2	Mn 257.610†	381076.0	383497.4	501.07 µg/L	501.07 ppb	14:27:27
2	Mo 202.031†	14700.0	14823.3	503.65 µg/L	503.65 ppb	14:27:47
2	Ni 231.604†	40042.7	40393.7	502.33 µg/L	502.33 ppb	14:27:27
2	P 214.914†	10884.7	10979.2	2500.1 µg/L	2500.1 ppb	14:27:47
2	Pb 220.353†	8154.4	8093.6	508.74 µg/L	508.74 ppb	14:27:47
2	S 181.975 Axial†	1290.7	1197.7	1023.4 µg/L	1023.4 ppb	14:27:47
2	Sb 206.836†	3962.4	3912.3	502.70 µg/L	502.70 ppb	14:27:47
2	Se 196.026†	1300.3	1289.3	501 µg/L	501 ppb	14:27:47
2	SiO2†	53006.4	51684.3	5315.2 µg/L	5315.2 ppb	14:27:27
2	Si 251.611†	164171.7	164521.1	2499.7 µg/L	2499.7 ppb	14:27:27
2	Sn 189.927†	7176.2	7217.4	504.28 µg/L	504.28 ppb	14:27:47
2	Ti 334.940†	473648.0	476039.1	498.58 µg/L	498.58 ppb	14:27:27
2	Tl 190.801†	3418.2	3557.1	508.76 µg/L	508.76 ppb	14:27:47
2	U 409.014†	7080.4	7540.6	488.82 µg/L	488.82 ppb	14:27:27
2	V 292.402†	99806.2	100000.8	502.48 µg/L	502.48 ppb	14:27:27
2	Zn 213.857†	86958.5	86940.8	497.99 µg/L	497.99 ppb	14:27:27
3	Sc RADIAL	113750.4	113750.4	99.4 %		14:26:45
3	Al 396.153Radial†	21522.5	21728.1	5100.4 µg/L	5100.4 ppb	14:26:45
3	Ca 317.933Radial†	61905.3	61795.6	5088.2 µg/L	5088.2 ppb	14:26:45
3	Fe 238.204 Radial†	59117.3	59324.4	5060.6 µg/L	5060.6 ppb	14:26:45
3	K 766.490 Radial†	14210.4	12880.8	5151.7 µg/L	5151.7 ppb	14:26:45

3	Mg 279.077 IEC†	9384.7	9279.9	5140.3 µg/L	5140.3 ppb	14:26:45
3	Na 589.592 Radial†	63260.5	62779.8	10012 µg/L	10012 ppb	14:26:43
3	Sr 421.552†	193682.0	194834.4	500.45 µg/L	500.45 ppb	14:26:43
3	Sc 361.383	1659399.4	1659399.4	98.058 %		14:27:50
3	Y 371.029	929182.0	929182.0	97.090 %		14:27:50
3	Ag 328.068†	123376.4	120717.0	504.69 µg/L	504.69 ppb	14:27:50
3	As 188.979†	1423.0	1464.6	514.48 µg/L	514.48 ppb	14:28:10
3	B 249.677†	36938.4	33558.1	496.39 µg/L	496.39 ppb	14:27:50
3	Ba 233.527†	108243.4	110533.2	500.76 µg/L	500.76 ppb	14:27:50
3	Be 313.107†	1723993.9	1759131.7	498.21 µg/L	498.21 ppb	14:27:50
3	Cd 226.502†	74111.9	75644.3	499.87 µg/L	499.87 ppb	14:27:50
3	Co 228.616†	37422.5	38390.7	503.55 µg/L	503.55 ppb	14:27:50
3	Cr 267.716†	56111.8	56893.5	499.55 µg/L	499.55 ppb	14:27:50
3	Cu 324.752†	121113.6	120271.1	499.45 µg/L	499.45 ppb	14:27:50
3	Mn 257.610†	376644.0	383888.5	501.58 µg/L	501.58 ppb	14:27:50
3	Mo 202.031†	14749.0	15062.8	511.78 µg/L	511.78 ppb	14:28:10
3	Ni 231.604†	39678.3	40538.1	504.12 µg/L	504.12 ppb	14:27:50
3	P 214.914†	10878.7	11113.4	2530.7 µg/L	2530.7 ppb	14:28:10
3	Pb 220.353†	8131.7	8175.6	513.90 µg/L	513.90 ppb	14:28:10
3	S 181.975 Axial†	1272.6	1195.9	1021.9 µg/L	1021.9 ppb	14:28:10
3	Sb 206.836†	3962.5	3963.4	509.37 µg/L	509.37 ppb	14:28:10
3	Se 196.026†	1304.8	1310.6	509 µg/L	509 ppb	14:28:10
3	SiO2†	52670.9	52025.2	5350.1 µg/L	5350.1 ppb	14:27:50
3	Si 251.611†	162195.0	164621.0	2501.0 µg/L	2501.0 ppb	14:27:50
3	Sn 189.927†	7186.8	7320.7	511.47 µg/L	511.47 ppb	14:28:10
3	Ti 334.940†	468396.3	476787.2	499.37 µg/L	499.37 ppb	14:27:50
3	Tl 190.801†	3428.1	3611.2	516.39 µg/L	516.39 ppb	14:28:10
3	U 409.014†	6949.2	7498.1	486.28 µg/L	486.28 ppb	14:27:50
3	V 292.402†	98715.7	100174.9	503.42 µg/L	503.42 ppb	14:27:50
3	Zn 213.857†	85685.9	86763.7	496.95 µg/L	496.95 ppb	14:27:50

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1673588.4	98.896 %	0.7261			0.73%
Sc RADIAL	113410.4	99.1 %	0.84			0.85%
Y 371.029	936570.9	97.862 %	0.6690			0.68%
Ag 328.068†	120440.0	503.57 µg/L	2.166	503.57 ppb	2.166	0.43%
QC value within limits for Ag 328.068 Recovery = 100.71%						
Al 396.153Radial†	21725.0	5099.9 µg/L	12.18	5099.9 ppb	12.18	0.24%
QC value within limits for Al 396.153Radial Recovery = 102.00%						
As 188.979†	1440.9	506.26 µg/L	7.384	506.26 ppb	7.384	1.46%
QC value within limits for As 188.979 Recovery = 101.25%						
B 249.677†	33694.7	498.42 µg/L	2.050	498.42 ppb	2.050	0.41%
QC value within limits for B 249.677 Recovery = 99.68%						
Ba 233.527†	110818.9	502.06 µg/L	1.805	502.06 ppb	1.805	0.36%
QC value within limits for Ba 233.527 Recovery = 100.41%						
Be 313.107†	1762332.1	499.12 µg/L	1.929	499.12 ppb	1.929	0.39%
QC value within limits for Be 313.107 Recovery = 99.82%						
Ca 317.933Radial†	61699.2	5080.3 µg/L	12.62	5080.3 ppb	12.62	0.25%
QC value within limits for Ca 317.933Radial Recovery = 101.61%						
Cd 226.502†	76040.7	502.49 µg/L	2.964	502.49 ppb	2.964	0.59%
QC value within limits for Cd 226.502 Recovery = 100.50%						
Co 228.616†	38450.3	504.34 µg/L	2.711	504.34 ppb	2.711	0.54%
QC value within limits for Co 228.616 Recovery = 100.87%						
Cr 267.716†	56995.2	500.43 µg/L	1.814	500.43 ppb	1.814	0.36%
QC value within limits for Cr 267.716 Recovery = 100.09%						
Cu 324.752†	120467.6	500.27 µg/L	1.693	500.27 ppb	1.693	0.34%
QC value within limits for Cu 324.752 Recovery = 100.05%						
Fe 238.204 Radial†	59224.4	5052.1 µg/L	8.66	5052.1 ppb	8.66	0.17%
QC value within limits for Fe 238.204 Radial Recovery = 101.04%						
K 766.490 Radial†	12921.4	5168.0 µg/L	15.55	5168.0 ppb	15.55	0.30%
QC value within limits for K 766.490 Radial Recovery = 103.36%						
Mg 279.077 IEC†	9278.6	5139.4 µg/L	14.37	5139.4 ppb	14.37	0.28%
QC value within limits for Mg 279.077 IEC Recovery = 102.79%						
Mn 257.610†	384371.9	502.21 µg/L	1.559	502.21 ppb	1.559	0.31%
QC value within limits for Mn 257.610 Recovery = 100.44%						
Mo 202.031†	14887.9	505.84 µg/L	5.199	505.84 ppb	5.199	1.03%
QC value within limits for Mo 202.031 Recovery = 101.17%						
Na 589.592 Radial†	63188.5	10078 µg/L	90.6	10078 ppb	90.6	0.90%

QC value within limits for Na 589.592 Radial Recovery = 100.78%

Ni 231.604†	40567.4	504.49 µg/L	2.365	504.49 ppb	2.365	0.47%
QC value within limits for Ni 231.604 Recovery = 100.90%						
P 214.914†	11024.1	2510.3 µg/L	17.66	2510.3 ppb	17.66	0.70%
QC value within limits for P 214.914 Recovery = 100.41%						
Pb 220.353†	8099.2	509.09 µg/L	4.643	509.09 ppb	4.643	0.91%
QC value within limits for Pb 220.353 Recovery = 101.82%						
S 181.975 Axial†	1192.3	1018.8 µg/L	6.70	1018.8 ppb	6.70	0.66%
QC value within limits for S 181.975 Axial Recovery = 101.88%						
Sb 206.836†	3925.3	504.37 µg/L	4.400	504.37 ppb	4.400	0.87%
QC value within limits for Sb 206.836 Recovery = 100.87%						
Se 196.026†	1299.5	505 µg/L	4.1	505 ppb	4.1	0.82%
QC value within limits for Se 196.026 Recovery = 100.94%						
SiO2†	51889.1	5336.3 µg/L	18.54	5336.3 ppb	18.54	0.35%
QC value within limits for SiO2 Recovery = 99.79%						
Si 251.611†	164769.1	2503.4 µg/L	5.34	2503.4 ppb	5.34	0.21%
QC value within limits for Si 251.611 Recovery = 100.14%						
Sn 189.927†	7241.5	505.96 µg/L	4.894	505.96 ppb	4.894	0.97%
QC value within limits for Sn 189.927 Recovery = 101.19%						
Sr 421.552†	196063.2	503.60 µg/L	3.776	503.60 ppb	3.776	0.75%
QC value within limits for Sr 421.552 Recovery = 100.72%						
Ti 334.940†	477375.5	499.98 µg/L	1.789	499.98 ppb	1.789	0.36%
QC value within limits for Ti 334.940 Recovery = 100.00%						
Tl 190.801†	3569.9	510.59 µg/L	5.138	510.59 ppb	5.138	1.01%
QC value within limits for Tl 190.801 Recovery = 102.12%						
U 409.014†	7591.7	492.04 µg/L	7.890	492.04 ppb	7.890	1.60%
QC value within limits for U 409.014 Recovery = 98.41%						
V 292.402†	100401.6	504.49 µg/L	2.714	504.49 ppb	2.714	0.54%
QC value within limits for V 292.402 Recovery = 100.90%						
Zn 213.857†	87130.5	499.06 µg/L	2.814	499.06 ppb	2.814	0.56%
QC value within limits for Zn 213.857 Recovery = 99.81%						

All analyte(s) passed QC.

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/13/2010 14:28:18

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	113653.9	113653.9	99.4 %		14:28:47
1	Al 396.153Radial†	-78.8	5.7	1.3199 µg/L	1.3199 ppb	14:29:07
1	Ca 317.933Radial†	504.0	50.5	4.1564 µg/L	4.1564 ppb	14:29:07
1	Fe 238.204 Radial†	149.0	25.7	2.1885 µg/L	2.1885 ppb	14:29:07
1	K 766.490 Radial†	1703.2	304.9	122.04 µg/L	122.04 ppb	14:28:47
1	Mg 279.077 IEC†	143.6	-12.8	-7.0943 µg/L	-7.0943 ppb	14:29:07
1	Na 589.592 Radial†	1200.5	373.0	59.404 µg/L	59.404 ppb	14:28:47
1	Sr 421.552†	-110.5	-44.5	-0.1143 µg/L	-0.1143 ppb	14:28:47
1	Sc 361.383	1691399.3	1691399.3	99.949 %		14:29:55
1	Y 371.029	955660.1	955660.1	99.857 %		14:29:55
1	Ag 328.068†	5157.4	57.0	0.2550 µg/L	0.2550 ppb	14:29:57
1	As 188.979†	-19.1	-5.7	-1.9797 µg/L	-1.9797 ppb	14:30:17
1	B 249.677†	4226.1	116.4	1.7282 µg/L	1.7282 ppb	14:29:57
1	Ba 233.527†	-138.3	7.4	0.0343 µg/L	0.0343 ppb	14:30:17
1	Be 313.107†	-633.9	358.1	0.1041 µg/L	0.1041 ppb	14:29:57
1	Cd 226.502†	-12.0	52.5	0.3472 µg/L	0.3472 ppb	14:30:17
1	Co 228.616†	-241.2	-14.2	-0.1868 µg/L	-0.1868 ppb	14:30:17
1	Cr 267.716†	340.6	11.1	0.0911 µg/L	0.0911 ppb	14:30:17
1	Cu 324.752†	3251.9	12.2	0.0580 µg/L	0.0580 ppb	14:29:57
1	Mn 257.610†	244.9	29.7	0.0391 µg/L	0.0391 ppb	14:30:17
1	Mo 202.031†	-8.7	12.9	0.4380 µg/L	0.4380 ppb	14:30:17
1	Ni 231.604†	-66.3	7.6	0.0947 µg/L	0.0947 ppb	14:30:17
1	P 214.914†	-32.7	-13.5	-3.0902 µg/L	-3.0902 ppb	14:30:17
1	Pb 220.353†	143.2	26.1	1.6291 µg/L	1.6291 ppb	14:30:17
1	S 181.975 Axial†	108.8	6.9	5.8886 µg/L	5.8886 ppb	14:30:17
1	Sb 206.836†	85.2	7.7	0.9911 µg/L	0.9911 ppb	14:30:17
1	Se 196.026†	23.1	3.2	1.23 µg/L	1.23 ppb	14:30:17
1	SiO2†	1706.4	18.4	1.8818 µg/L	1.8818 ppb	14:30:17
1	Si 251.611†	806.1	20.0	0.2965 µg/L	0.2965 ppb	14:29:57
1	Sn 189.927†	15.3	6.8	0.4769 µg/L	0.4769 ppb	14:30:17
1	Ti 334.940†	1107.9	222.4	0.2303 µg/L	0.2303 ppb	14:29:57
1	Tl 190.801†	-125.7	-10.5	-1.4720 µg/L	-1.4720 ppb	14:30:17
1	U 409.014†	-266.7	144.4	8.8224 µg/L	8.8224 ppb	14:29:57
1	V 292.402†	645.7	150.0	0.7543 µg/L	0.7543 ppb	14:29:57
1	Zn 213.857†	685.2	66.2	0.3815 µg/L	0.3815 ppb	14:30:17
2	Sc RADIAL	114946.2	114946.2	100 %		14:29:09
2	Al 396.153Radial†	-81.0	4.4	1.0084 µg/L	1.0084 ppb	14:29:29
2	Ca 317.933Radial†	441.3	-17.6	-1.4487 µg/L	-1.4487 ppb	14:29:29
2	Fe 238.204 Radial†	130.8	5.9	0.5048 µg/L	0.5048 ppb	14:29:29
2	K 766.490 Radial†	1720.0	302.4	121.05 µg/L	121.05 ppb	14:29:09
2	Mg 279.077 IEC†	144.7	-13.4	-7.3721 µg/L	-7.3721 ppb	14:29:29
2	Na 589.592 Radial†	1078.3	237.8	37.831 µg/L	37.831 ppb	14:29:09
2	Sr 421.552†	-183.0	-115.4	-0.2965 µg/L	-0.2965 ppb	14:29:09
2	Sc 361.383	1694824.4	1694824.4	100.15 %		14:30:19
2	Y 371.029	958260.6	958260.6	100.13 %		14:30:19
2	Ag 328.068†	5167.4	56.6	0.2464 µg/L	0.2464 ppb	14:30:21
2	As 188.979†	-12.8	0.7	0.2335 µg/L	0.2335 ppb	14:30:42
2	B 249.677†	4238.5	120.1	1.7822 µg/L	1.7822 ppb	14:30:21
2	Ba 233.527†	-144.3	1.7	0.0085 µg/L	0.0085 ppb	14:30:42
2	Be 313.107†	-637.9	355.4	0.1020 µg/L	0.1020 ppb	14:30:21
2	Cd 226.502†	-21.5	43.1	0.2848 µg/L	0.2848 ppb	14:30:42
2	Co 228.616†	-202.8	24.6	0.3219 µg/L	0.3219 ppb	14:30:42
2	Cr 267.716†	344.8	14.6	0.1250 µg/L	0.1250 ppb	14:30:42
2	Cu 324.752†	3314.5	68.2	0.2864 µg/L	0.2864 ppb	14:30:21
2	Mn 257.610†	263.1	47.3	0.0622 µg/L	0.0622 ppb	14:30:42
2	Mo 202.031†	-2.6	19.0	0.6453 µg/L	0.6453 ppb	14:30:42
2	Ni 231.604†	-75.6	-1.6	-0.0194 µg/L	-0.0194 ppb	14:30:42
2	P 214.914†	-11.8	7.5	1.7053 µg/L	1.7053 ppb	14:30:42
2	Pb 220.353†	124.6	7.2	0.4465 µg/L	0.4465 ppb	14:30:42

2	S 181.975 Axial†	113.2	11.1	9.4905 µg/L	9.4905 ppb	14:30:42
2	Sb 206.836†	87.2	9.5	1.2273 µg/L	1.2273 ppb	14:30:42
2	Se 196.026†	19.2	-0.8	-0.305 µg/L	-0.305 ppb	14:30:42
2	SiO2†	1686.0	-5.5	-0.5965 µg/L	-0.5965 ppb	14:30:42
2	Si 251.611†	780.4	-7.3	-0.1263 µg/L	-0.1263 ppb	14:30:21
2	Sn 189.927†	22.5	14.1	0.9778 µg/L	0.9778 ppb	14:30:42
2	Ti 334.940†	578.7	-308.3	-0.3247 µg/L	-0.3247 ppb	14:30:21
2	Tl 190.801†	-109.3	6.1	0.8535 µg/L	0.8535 ppb	14:30:42
2	U 409.014†	-335.4	76.4	4.6772 µg/L	4.6772 ppb	14:30:21
2	V 292.402†	613.5	116.6	0.5885 µg/L	0.5885 ppb	14:30:21
2	Zn 213.857†	688.5	68.1	0.3931 µg/L	0.3931 ppb	14:30:42
3	Sc RADIAL	114071.3	114071.3	99.7 %		14:29:31
3	Al 396.153Radial†	-105.0	-20.4	-4.7958 µg/L	-4.7958 ppb	14:29:51
3	Ca 317.933Radial†	458.4	2.9	0.2383 µg/L	0.2383 ppb	14:29:51
3	Fe 238.204 Radial†	142.9	19.1	1.6257 µg/L	1.6257 ppb	14:29:51
3	K 766.490 Radial†	1673.9	269.3	107.79 µg/L	107.79 ppb	14:29:31
3	Mg 279.077 IEC†	170.0	13.2	7.2865 µg/L	7.2865 ppb	14:29:51
3	Na 589.592 Radial†	1145.1	313.0	49.846 µg/L	49.846 ppb	14:29:31
3	Sr 421.552†	-23.5	43.2	0.1109 µg/L	0.1109 ppb	14:29:31
3	Sc 361.383	1677977.5	1677977.5	99.156 %		14:30:44
3	Y 371.029	949652.6	949652.6	99.229 %		14:30:44
3	Ag 328.068†	5147.0	87.8	0.3793 µg/L	0.3793 ppb	14:30:46
3	As 188.979†	-13.3	-0.0	-0.0053 µg/L	-0.0053 ppb	14:31:06
3	B 249.677†	4303.7	228.4	3.3902 µg/L	3.3902 ppb	14:30:46
3	Ba 233.527†	-122.1	22.7	0.1025 µg/L	0.1025 ppb	14:31:06
3	Be 313.107†	-774.5	211.3	0.0647 µg/L	0.0647 ppb	14:30:46
3	Cd 226.502†	13.9	78.6	0.5195 µg/L	0.5195 ppb	14:31:06
3	Co 228.616†	-207.1	18.2	0.2389 µg/L	0.2389 ppb	14:31:06
3	Cr 267.716†	368.5	42.0	0.3558 µg/L	0.3558 ppb	14:31:06
3	Cu 324.752†	3039.3	-176.1	-0.7150 µg/L	-0.7150 ppb	14:30:46
3	Mn 257.610†	305.4	92.7	0.1208 µg/L	0.1208 ppb	14:31:06
3	Mo 202.031†	-25.0	-3.6	-0.1211 µg/L	-0.1211 ppb	14:31:06
3	Ni 231.604†	-69.4	3.9	0.0490 µg/L	0.0490 ppb	14:31:06
3	P 214.914†	-5.5	13.6	3.1240 µg/L	3.1240 ppb	14:31:06
3	Pb 220.353†	129.4	13.3	0.8185 µg/L	0.8185 ppb	14:31:06
3	S 181.975 Axial†	110.5	9.5	8.0980 µg/L	8.0980 ppb	14:31:06
3	Sb 206.836†	89.8	13.0	1.6662 µg/L	1.6662 ppb	14:31:06
3	Se 196.026†	41.7	22.1	8.56 µg/L	8.56 ppb	14:31:06
3	SiO2†	1725.4	51.2	5.2768 µg/L	5.2768 ppb	14:31:06
3	Si 251.611†	790.8	11.0	0.1656 µg/L	0.1656 ppb	14:30:46
3	Sn 189.927†	17.5	9.2	0.6409 µg/L	0.6409 ppb	14:31:06
3	Ti 334.940†	911.4	33.1	0.0273 µg/L	0.0273 ppb	14:30:46
3	Tl 190.801†	-118.5	-4.2	-0.6001 µg/L	-0.6001 ppb	14:31:06
3	U 409.014†	-144.4	265.7	16.139 µg/L	16.139 ppb	14:30:46
3	V 292.402†	439.4	-52.9	-0.2511 µg/L	-0.2511 ppb	14:30:46
3	Zn 213.857†	677.0	63.4	0.3662 µg/L	0.3662 ppb	14:31:06

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1688067.1	99.752 %	0.5262			0.53%
Sc RADIAL	114223.8	99.9 %	0.58			0.58%
Y 371.029	954524.4	99.738 %	0.4613			0.46%
Ag 328.068†	67.1	0.2936 µg/L	0.07436	0.2936 ppb	0.07436	25.33%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-3.4	-0.8225 µg/L	3.44451	-0.8225 ppb	3.44451	418.78%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.7	-0.5838 µg/L	1.21477	-0.5838 ppb	1.21477	208.07%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	155.0	2.3002 µg/L	0.94435	2.3002 ppb	0.94435	41.06%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	10.6	0.0484 µg/L	0.04856	0.0484 ppb	0.04856	100.31%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	308.3	0.0903 µg/L	0.02216	0.0903 ppb	0.02216	24.55%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	11.9	0.9820 µg/L	2.87562	0.9820 ppb	2.87562	292.83%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	58.1	0.3839 µg/L	0.12156	0.3839 ppb	0.12156	31.67%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	9.5	0.1247 µg/L	0.27290	0.1247 ppb	0.27290	218.93%

QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	22.6 0.1906 µg/L	0.14402 0.1906 ppb	0.14402 75.54%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	-31.9 -0.1236 µg/L	0.52482 -0.1236 ppb	0.52482 424.74%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	16.9 1.4397 µg/L	0.85709 1.4397 ppb	0.85709 59.53%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	292.2 116.96 µg/L	7.954 116.96 ppb	7.954 6.80%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	-4.3 -2.3933 µg/L	8.38409 -2.3933 ppb	8.38409 350.32%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	56.6 0.0740 µg/L	0.04215 0.0740 ppb	0.04215 56.93%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	9.4 0.3208 µg/L	0.39644 0.3208 ppb	0.39644 123.59%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	307.9 49.027 µg/L	10.8096 49.027 ppb	10.8096 22.05%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	3.3 0.0414 µg/L	0.05744 0.0414 ppb	0.05744 138.60%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	2.5 0.5797 µg/L	3.25644 0.5797 ppb	3.25644 561.75%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	15.5 0.9647 µg/L	0.60471 0.9647 ppb	0.60471 62.68%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	9.2 7.8257 µg/L	1.81633 7.8257 ppb	1.81633 23.21%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	10.1 1.2949 µg/L	0.34256 1.2949 ppb	0.34256 26.45%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	8.1 3.16 µg/L	4.738 3.16 ppb	4.738 149.88%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	21.4 2.1874 µg/L	2.94855 2.1874 ppb	2.94855 134.80%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	7.9 0.1119 µg/L	0.21646 0.1119 ppb	0.21646 193.40%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	10.0 0.6985 µg/L	0.25539 0.6985 ppb	0.25539 36.56%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	-38.9 -0.1000 µg/L	0.20411 -0.1000 ppb	0.20411 204.18%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	-17.6 -0.0224 µg/L	0.28080 -0.0224 ppb	0.28080 >999.9%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	-2.9 -0.4062 µg/L	1.17482 -0.4062 ppb	1.17482 289.25%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	162.1 9.8795 µg/L	5.80355 9.8795 ppb	5.80355 58.74%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	71.2 0.3639 µg/L	0.53902 0.3639 ppb	0.53902 148.14%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	65.9 0.3803 µg/L	0.01351 0.3803 ppb	0.01351 3.55%
QC value within limits for Zn 213.857	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 3

Sample ID: LR2

Analyst: JWW

Initial Sample Wt:

Dilution:

Autosampler Location: 125

Date Collected: 4/13/2010 14:31:14

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	113995.2	113995.2	99.7 %		14:31:45
1	Al 396.153Radial†	-48.5	36.3	8.5687 µg/L	8.5687 ppb	14:32:05
1	Ca 317.933Radial†	459.8	4.6	0.3828 µg/L	0.3828 ppb	14:32:05
1	Fe 238.204 Radial†	141.9	18.1	1.5472 µg/L	1.5472 ppb	14:32:05
1	K 766.490 Radial†	1600.8	197.0	78.848 µg/L	78.848 ppb	14:31:45
1	Mg 279.077 IEC†	156.9	0.1	0.0497 µg/L	0.0497 ppb	14:32:05
1	Na 589.592 Radial†	1081.4	249.9	39.797 µg/L	39.797 ppb	14:31:45
1	Sr 421.552†	-104.7	-38.4	-0.0986 µg/L	-0.0986 ppb	14:31:45
1	Sc 361.383	1699694.8	1699694.8	100.44 %		14:32:53
1	Y 371.029	963460.8	963460.8	100.67 %		14:32:53
1	Ag 328.068†	5291.1	165.0	0.6869 µg/L	0.6869 ppb	14:32:55
1	As 188.979†	-14.5	-1.0	-0.3431 µg/L	-0.3431 ppb	14:33:15
1	B 249.677†	4312.4	181.6	2.7310 µg/L	2.7310 ppb	14:32:55
1	Ba 233.527†	2284321.0	2274482.3	10296 µg/L	10296 ppb	14:32:53
1	Be 313.107†	-859.9	136.2	0.0410 µg/L	0.0410 ppb	14:32:55
1	Cd 226.502†	-51.0	13.8	0.0914 µg/L	0.0914 ppb	14:33:15
1	Co 228.616†	-994.6	-763.2	0.1239 µg/L	0.1239 ppb	14:33:15
1	Cr 267.716†	358.3	27.1	0.2314 µg/L	0.2314 ppb	14:33:15
1	Cu 324.752†	3312.8	57.0	0.2368 µg/L	0.2368 ppb	14:32:55
1	Mn 257.610†	253.1	36.6	0.0479 µg/L	0.0479 ppb	14:33:15
1	Mo 202.031†	-30.2	-8.4	-0.2866 µg/L	-0.2866 ppb	14:33:15
1	Ni 231.604†	3.9	77.8	0.9681 µg/L	0.9681 ppb	14:33:15
1	P 214.914†	-4.6	14.7	3.3583 µg/L	3.3583 ppb	14:33:15
1	Pb 220.353†	104.7	-13.0	-0.8211 µg/L	-0.8211 ppb	14:33:15
1	S 181.975 Axial†	107.8	5.4	4.5652 µg/L	4.5652 ppb	14:33:15
1	Sb 206.836†	63.6	-14.2	-1.8239 µg/L	-1.8239 ppb	14:33:15
1	Se 196.026†	30.9	10.8	4.18 µg/L	4.18 ppb	14:33:15
1	SiO2†	1567.4	-128.3	-13.245 µg/L	-13.245 ppb	14:32:55
1	Si 251.611†	600.5	-188.6	-2.8753 µg/L	-2.8753 ppb	14:32:55
1	Sn 189.927†	12.0	3.5	0.2414 µg/L	0.2414 ppb	14:33:15
1	Ti 334.940†	565.5	-323.0	-0.3421 µg/L	-0.3421 ppb	14:32:55
1	Tl 190.801†	-125.3	-9.5	-1.2914 µg/L	-1.2914 ppb	14:33:15
1	U 409.014†	-281.1	131.4	7.9683 µg/L	7.9683 ppb	14:32:55
1	V 292.402†	430.8	-67.1	-0.3293 µg/L	-0.3293 ppb	14:32:55
1	Zn 213.857†	693.0	70.6	0.4023 µg/L	0.4023 ppb	14:33:15
2	Sc RADIAL	113980.1	113980.1	99.6 %		14:32:07
2	Al 396.153Radial†	-79.3	5.4	1.2671 µg/L	1.2671 ppb	14:32:27
2	Ca 317.933Radial†	487.1	32.1	2.6449 µg/L	2.6449 ppb	14:32:27
2	Fe 238.204 Radial†	133.1	9.3	0.7949 µg/L	0.7949 ppb	14:32:27
2	K 766.490 Radial†	1637.7	234.3	93.793 µg/L	93.793 ppb	14:32:07
2	Mg 279.077 IEC†	158.1	1.4	0.7486 µg/L	0.7486 ppb	14:32:27
2	Na 589.592 Radial†	1005.0	173.3	27.562 µg/L	27.562 ppb	14:32:07
2	Sr 421.552†	-242.4	-176.5	-0.4534 µg/L	-0.4534 ppb	14:32:07
2	Sc 361.383	1697722.2	1697722.2	100.32 %		14:33:17
2	Y 371.029	962224.7	962224.7	100.54 %		14:33:17
2	Ag 328.068†	5133.7	14.2	0.0650 µg/L	0.0650 ppb	14:33:20
2	As 188.979†	-11.0	2.4	0.8425 µg/L	0.8425 ppb	14:33:40
2	B 249.677†	4297.7	171.9	2.5877 µg/L	2.5877 ppb	14:33:20
2	Ba 233.527†	2287183.7	2279978.4	10321 µg/L	10321 ppb	14:33:17
2	Be 313.107†	-928.2	67.1	0.0206 µg/L	0.0206 ppb	14:33:20
2	Cd 226.502†	-38.2	26.5	0.1757 µg/L	0.1757 ppb	14:33:40
2	Co 228.616†	-1014.8	-784.5	-0.1308 µg/L	-0.1308 ppb	14:33:40
2	Cr 267.716†	339.6	8.9	0.0736 µg/L	0.0736 ppb	14:33:40
2	Cu 324.752†	3107.4	-143.9	-0.5972 µg/L	-0.5972 ppb	14:33:20
2	Mn 257.610†	253.8	37.6	0.0492 µg/L	0.0492 ppb	14:33:40
2	Mo 202.031†	-21.4	0.3	0.0113 µg/L	0.0113 ppb	14:33:40
2	Ni 231.604†	-3.1	70.9	0.8813 µg/L	0.8813 ppb	14:33:40
2	P 214.914†	-22.7	-3.4	-0.7802 µg/L	-0.7802 ppb	14:33:40
2	Pb 220.353†	130.8	13.1	0.8184 µg/L	0.8184 ppb	14:33:40

2	S 181.975 Axial†	111.5	9.2	7.8098 µg/L	7.8098 ppb	14:33:40
2	Sb 206.836†	70.4	-7.4	-0.9458 µg/L	-0.9458 ppb	14:33:40
2	Se 196.026†	20.6	0.5	0.201 µg/L	0.201 ppb	14:33:40
2	SiO2†	1638.9	-55.2	-5.7026 µg/L	-5.7026 ppb	14:33:20
2	Si 251.611†	602.4	-186.0	-2.8385 µg/L	-2.8385 ppb	14:33:20
2	Sn 189.927†	9.4	0.9	0.0639 µg/L	0.0639 ppb	14:33:40
2	Ti 334.940†	840.7	-48.1	-0.0527 µg/L	-0.0527 ppb	14:33:20
2	Tl 190.801†	-116.1	-0.5	-0.0209 µg/L	-0.0209 ppb	14:33:40
2	U 409.014†	-324.3	88.0	5.3509 µg/L	5.3509 ppb	14:33:20
2	V 292.402†	495.1	-2.5	-0.0085 µg/L	-0.0085 ppb	14:33:20
2	Zn 213.857†	696.4	74.8	0.4279 µg/L	0.4279 ppb	14:33:40
3	Sc RADIAL	114281.6	114281.6	99.9 %		14:32:29
3	Al 396.153Radial†	-76.5	8.4	1.9890 µg/L	1.9890 ppb	14:32:49
3	Ca 317.933Radial†	458.5	2.2	0.1815 µg/L	0.1815 ppb	14:32:49
3	Fe 238.204 Radial†	124.3	0.2	0.0129 µg/L	0.0129 ppb	14:32:49
3	K 766.490 Radial†	1651.9	244.2	97.733 µg/L	97.733 ppb	14:32:29
3	Mg 279.077 IEC†	156.6	-0.6	-0.3222 µg/L	-0.3222 ppb	14:32:49
3	Na 589.592 Radial†	1055.9	221.6	35.274 µg/L	35.274 ppb	14:32:29
3	Sr 421.552†	44.9	111.7	0.2869 µg/L	0.2869 ppb	14:32:29
3	Sc 361.383	1680656.7	1680656.7	99.314 %		14:33:42
3	Y 371.029	953102.5	953102.5	99.590 %		14:33:42
3	Ag 328.068†	5323.8	257.6	1.0587 µg/L	1.0587 ppb	14:33:44
3	As 188.979†	9.0	22.5	7.7981 µg/L	7.7981 ppb	14:34:04
3	B 249.677†	4123.2	39.8	0.6267 µg/L	0.6267 ppb	14:33:44
3	Ba 233.527†	2255056.1	2270778.3	10279 µg/L	10279 ppb	14:33:42
3	Be 313.107†	-1010.1	-24.7	-0.0092 µg/L	-0.0092 ppb	14:33:44
3	Cd 226.502†	-59.6	4.5	0.0303 µg/L	0.0303 ppb	14:34:04
3	Co 228.616†	-1009.0	-789.0	-0.2305 µg/L	-0.2305 ppb	14:34:04
3	Cr 267.716†	330.2	2.8	0.0306 µg/L	0.0306 ppb	14:34:04
3	Cu 324.752†	3098.9	-121.0	-0.5130 µg/L	-0.5130 ppb	14:33:44
3	Mn 257.610†	250.6	37.0	0.0484 µg/L	0.0484 ppb	14:34:04
3	Mo 202.031†	-21.7	-0.2	-0.0078 µg/L	-0.0078 ppb	14:34:04
3	Ni 231.604†	-2.9	71.0	0.8829 µg/L	0.8829 ppb	14:34:04
3	P 214.914†	-21.9	-2.8	-0.6280 µg/L	-0.6280 ppb	14:34:04
3	Pb 220.353†	109.5	-7.0	-0.4308 µg/L	-0.4308 ppb	14:34:04
3	S 181.975 Axial†	105.6	4.4	3.7180 µg/L	3.7180 ppb	14:34:04
3	Sb 206.836†	67.8	-9.3	-1.1919 µg/L	-1.1919 ppb	14:34:04
3	Se 196.026†	17.1	-2.8	-1.08 µg/L	-1.08 ppb	14:34:04
3	SiO2†	1714.9	37.9	3.9024 µg/L	3.9024 ppb	14:33:44
3	Si 251.611†	591.0	-191.4	-2.9244 µg/L	-2.9244 ppb	14:33:44
3	Sn 189.927†	17.8	9.5	0.6586 µg/L	0.6586 ppb	14:34:04
3	Ti 334.940†	660.1	-221.4	-0.2292 µg/L	-0.2292 ppb	14:33:44
3	Tl 190.801†	-110.3	4.2	0.6391 µg/L	0.6391 ppb	14:34:04
3	U 409.014†	-526.8	-119.2	-7.2308 µg/L	-7.2308 ppb	14:33:44
3	V 292.402†	562.0	69.9	0.3418 µg/L	0.3418 ppb	14:33:44
3	Zn 213.857†	686.6	72.0	0.4117 µg/L	0.4117 ppb	14:34:04

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1692691.2	100.03 %		0.619			0.62%
Sc RADIAL	114085.6	99.7 %		0.15			0.15%
Y 371.029	959596.0	100.27 %		0.591			0.59%
Ag 328.068†	145.6	0.6036 µg/L		0.50207	0.6036 ppb	0.50207	83.19%
Al 396.153Radial†	16.7	3.9416 µg/L		4.02338	3.9416 ppb	4.02338	102.07%
As 188.979†	8.0	2.7658 µg/L		4.39825	2.7658 ppb	4.39825	159.02%
B 249.677†	131.1	1.9818 µg/L		1.17574	1.9818 ppb	1.17574	59.33%
Ba 233.527†	2275079.7	10299 µg/L		21.0	10299 ppb	21.0	0.20%
Be 313.107†	59.5	0.0175 µg/L		0.02524	0.0175 ppb	0.02524	144.48%
Ca 317.933Radial†	13.0	1.0697 µg/L		1.36783	1.0697 ppb	1.36783	127.87%
Cd 226.502†	14.9	0.0991 µg/L		0.07300	0.0991 ppb	0.07300	73.64%
Co 228.616†	-778.9	-0.0791 µg/L		0.18275	-0.0791 ppb	0.18275	231.04%
Cr 267.716†	12.9	0.1119 µg/L		0.10572	0.1119 ppb	0.10572	94.50%
Cu 324.752†	-69.3	-0.2912 µg/L		0.45915	-0.2912 ppb	0.45915	157.69%
Fe 238.204 Radial†	9.2	0.7850 µg/L		0.76722	0.7850 ppb	0.76722	97.74%
K 766.490 Radial†	225.2	90.125 µg/L		9.9622	90.125 ppb	9.9622	11.05%
Mg 279.077 IEC†	0.3	0.1587 µg/L		0.54368	0.1587 ppb	0.54368	342.54%
Mn 257.610†	37.1	0.0485 µg/L		0.00066	0.0485 ppb	0.00066	1.36%
Mo 202.031†	-2.8	-0.0944 µg/L		0.16671	-0.0944 ppb	0.16671	176.66%
Na 589.592 Radial†	214.9	34.211 µg/L		6.1864	34.211 ppb	6.1864	18.08%



Ni 231.604†	73.2	0.9107 µg/L	0.04966	0.9107 ppb	0.04966	5.45%
P 214.914†	2.8	0.6500 µg/L	2.34663	0.6500 ppb	2.34663	361.01%
Pb 220.353†	-2.3	-0.1445 µg/L	0.85646	-0.1445 ppb	0.85646	592.62%
S 181.975 Axial†	6.3	5.3644 µg/L	2.15979	5.3644 ppb	2.15979	40.26%
Sb 206.836†	-10.3	-1.3205 µg/L	0.45298	-1.3205 ppb	0.45298	34.30%
Se 196.026†	2.8	1.10 µg/L	2.742	1.10 ppb	2.742	249.22%
SiO2†	-48.5	-5.0149 µg/L	8.59419	-5.0149 ppb	8.59419	171.37%
Si 251.611†	-188.7	-2.8794 µg/L	0.04309	-2.8794 ppb	0.04309	1.50%
Sn 189.927†	4.6	0.3213 µg/L	0.30527	0.3213 ppb	0.30527	95.01%
Sr 421.552†	-34.4	-0.0884 µg/L	0.37026	-0.0884 ppb	0.37026	418.94%
Ti 334.940†	-197.5	-0.2080 µg/L	0.14588	-0.2080 ppb	0.14588	70.14%
Tl 190.801†	-1.9	-0.2244 µg/L	0.98117	-0.2244 ppb	0.98117	437.26%
U 409.014†	33.4	2.0295 µg/L	8.12569	2.0295 ppb	8.12569	400.39%
V 292.402†	0.1	0.0013 µg/L	0.33566	0.0013 ppb	0.33566	>999.9%
Zn 213.857†	72.5	0.4140 µg/L	0.01295	0.4140 ppb	0.01295	3.13%

Sequence No.: 4

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/13/2010 14:34:12

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	113240.2	113240.2	99.0 %		14:34:45
1	Al 396.153Radial†	21302.7	21603.6	5071.5 µg/L	5071.5 ppb	14:34:45
1	Ca 317.933Radial†	61422.1	61587.9	5071.1 µg/L	5071.1 ppb	14:34:45
1	Fe 238.204 Radial†	58690.8	59161.5	5046.7 µg/L	5046.7 ppb	14:34:45
1	K 766.490 Radial†	13960.5	12692.7	5076.5 µg/L	5076.5 ppb	14:34:45
1	Mg 279.077 IEC†	9324.1	9261.3	5129.8 µg/L	5129.8 ppb	14:34:45
1	Na 589.592 Radial†	63353.4	63160.3	10073 µg/L	10073 ppb	14:34:43
1	Sr 421.552†	194495.8	196534.1	504.81 µg/L	504.81 ppb	14:34:43
1	Sc 361.383	1695901.3	1695901.3	100.21 %		14:34:58
1	Y 371.029	949027.3	949027.3	99.164 %		14:34:58
1	Ag 328.068†	126474.9	121100.8	506.32 µg/L	506.32 ppb	14:34:58
1	As 188.979†	1404.7	1415.1	497.33 µg/L	497.33 ppb	14:35:18
1	B 249.677†	37905.0	33711.8	498.66 µg/L	498.66 ppb	14:34:58
1	Ba 233.527†	111594.7	111501.3	505.14 µg/L	505.14 ppb	14:34:58
1	Be 313.107†	1775252.9	1772439.3	501.98 µg/L	501.98 ppb	14:34:58
1	Cd 226.502†	76648.7	76549.0	505.86 µg/L	505.86 ppb	14:34:58
1	Co 228.616†	38628.4	38772.6	508.56 µg/L	508.56 ppb	14:34:58
1	Cr 267.716†	57693.6	57240.2	502.58 µg/L	502.58 ppb	14:34:58
1	Cu 324.752†	124309.8	120802.1	501.66 µg/L	501.66 ppb	14:34:58
1	Mn 257.610†	387113.8	386068.5	504.43 µg/L	504.43 ppb	14:34:58
1	Mo 202.031†	14749.3	14739.3	500.80 µg/L	500.80 ppb	14:35:18
1	Ni 231.604†	40806.7	40793.2	507.30 µg/L	507.30 ppb	14:34:58
1	P 214.914†	10894.1	10890.0	2479.6 µg/L	2479.6 ppb	14:35:18
1	Pb 220.353†	8132.9	7998.2	502.75 µg/L	502.75 ppb	14:35:18
1	S 181.975 Axial†	1275.7	1171.1	1000.6 µg/L	1000.6 ppb	14:35:18
1	Sb 206.836†	3973.0	3887.0	499.35 µg/L	499.35 ppb	14:35:18
1	Se 196.026†	1303.3	1280.5	497 µg/L	497 ppb	14:35:18
1	SiO2†	53534.3	51730.6	5320.1 µg/L	5320.1 ppb	14:34:58
1	Si 251.611†	166249.2	165106.3	2508.6 µg/L	2508.6 ppb	14:34:58
1	Sn 189.927†	7192.8	7169.0	500.91 µg/L	500.91 ppb	14:35:18
1	Ti 334.940†	481280.4	479362.5	502.06 µg/L	502.06 ppb	14:34:58
1	Tl 190.801†	3429.0	3536.9	505.95 µg/L	505.95 ppb	14:35:18
1	U 409.014†	7261.9	7657.6	496.16 µg/L	496.16 ppb	14:34:58
1	V 292.402†	101442.3	100728.8	506.07 µg/L	506.07 ppb	14:34:58
1	Zn 213.857†	88554.0	87744.9	502.59 µg/L	502.59 ppb	14:34:58
2	Sc RADIAL	113959.5	113959.5	99.6 %		14:34:49
2	Al 396.153Radial†	21595.0	21761.2	5108.1 µg/L	5108.1 ppb	14:34:49
2	Ca 317.933Radial†	62072.1	61848.8	5092.6 µg/L	5092.6 ppb	14:34:49
2	Fe 238.204 Radial†	59433.7	59532.9	5078.4 µg/L	5078.4 ppb	14:34:49
2	K 766.490 Radial†	14016.3	12659.7	5063.3 µg/L	5063.3 ppb	14:34:49
2	Mg 279.077 IEC†	9458.8	9337.1	5172.0 µg/L	5172.0 ppb	14:34:49
2	Na 589.592 Radial†	63402.7	62805.9	10017 µg/L	10017 ppb	14:34:47
2	Sr 421.552†	193642.2	194437.2	499.43 µg/L	499.43 ppb	14:34:47
2	Sc 361.383	1659159.7	1659159.7	98.044 %		14:35:21
2	Y 371.029	928632.1	928632.1	97.033 %		14:35:21
2	Ag 328.068†	123758.6	121125.0	506.42 µg/L	506.42 ppb	14:35:21
2	As 188.979†	1414.2	1455.8	511.45 µg/L	511.45 ppb	14:35:41
2	B 249.677†	37102.0	33730.4	498.95 µg/L	498.95 ppb	14:35:21
2	Ba 233.527†	108638.7	110952.3	502.66 µg/L	502.66 ppb	14:35:21
2	Be 313.107†	1728125.6	1763599.8	499.48 µg/L	499.48 ppb	14:35:21
2	Cd 226.502†	74439.6	75989.5	502.15 µg/L	502.15 ppb	14:35:21
2	Co 228.616†	37438.4	38412.5	503.84 µg/L	503.84 ppb	14:35:21
2	Cr 267.716†	56224.0	57016.2	500.62 µg/L	500.62 ppb	14:35:21
2	Cu 324.752†	121370.3	120550.7	500.62 µg/L	500.62 ppb	14:35:21
2	Mn 257.610†	377917.9	385243.3	503.35 µg/L	503.35 ppb	14:35:21
2	Mo 202.031†	14788.7	15105.4	513.23 µg/L	513.23 ppb	14:35:41
2	Ni 231.604†	39745.1	40612.1	505.04 µg/L	505.04 ppb	14:35:21
2	P 214.914†	10959.6	11197.5	2549.9 µg/L	2549.9 ppb	14:35:41
2	Pb 220.353†	8172.5	8218.3	516.58 µg/L	516.58 ppb	14:35:41

2	S 181.975 Axial†	1280.9	1204.5	1029.2 µg/L	1029.2 ppb	14:35:41
2	Sb 206.836†	3988.3	3990.4	512.84 µg/L	512.84 ppb	14:35:41
2	Se 196.026†	1316.8	1323.0	514 µg/L	514 ppb	14:35:41
2	SiO2†	52510.8	51869.7	5333.9 µg/L	5333.9 ppb	14:35:21
2	Si 251.611†	162146.2	164595.0	2500.6 µg/L	2500.6 ppb	14:35:21
2	Sn 189.927†	7244.4	7380.5	515.64 µg/L	515.64 ppb	14:35:41
2	Ti 334.940†	469830.8	478319.4	500.97 µg/L	500.97 ppb	14:35:21
2	Tl 190.801†	3456.2	3640.4	520.55 µg/L	520.55 ppb	14:35:41
2	U 409.014†	7058.0	7610.1	493.28 µg/L	493.28 ppb	14:35:21
2	V 292.402†	99337.5	100823.6	506.66 µg/L	506.66 ppb	14:35:21
2	Zn 213.857†	86193.0	87293.5	500.00 µg/L	500.00 ppb	14:35:21
3	Sc RADIAL	113378.4	113378.4	99.1 %		14:34:53
3	Al 396.153Radial†	21480.8	21757.0	5107.5 µg/L	5107.5 ppb	14:34:53
3	Ca 317.933Radial†	61309.5	61398.8	5055.5 µg/L	5055.5 ppb	14:34:53
3	Fe 238.204 Radial†	58726.0	59124.6	5043.6 µg/L	5043.6 ppb	14:34:53
3	K 766.490 Radial†	13911.3	12625.9	5049.7 µg/L	5049.7 ppb	14:34:53
3	Mg 279.077 IEC†	9449.6	9376.4	5193.5 µg/L	5193.5 ppb	14:34:53
3	Na 589.592 Radial†	62979.6	62705.2	10001 µg/L	10001 ppb	14:34:51
3	Sr 421.552†	193250.1	195037.8	500.97 µg/L	500.97 ppb	14:34:51
3	Sc 361.383	1675612.4	1675612.4	99.016 %		14:35:44
3	Y 371.029	937898.4	937898.4	98.001 %		14:35:44
3	Ag 328.068†	124647.8	120783.6	505.01 µg/L	505.01 ppb	14:35:44
3	As 188.979†	1412.0	1439.4	505.75 µg/L	505.75 ppb	14:36:04
3	B 249.677†	37336.7	33595.8	496.94 µg/L	496.94 ppb	14:35:44
3	Ba 233.527†	109746.1	110982.7	502.80 µg/L	502.80 ppb	14:35:44
3	Be 313.107†	1746684.2	1765036.0	499.89 µg/L	499.89 ppb	14:35:44
3	Cd 226.502†	75488.7	76303.5	504.23 µg/L	504.23 ppb	14:35:44
3	Co 228.616†	37977.1	38581.6	506.06 µg/L	506.06 ppb	14:35:44
3	Cr 267.716†	56895.0	57130.8	501.62 µg/L	501.62 ppb	14:35:44
3	Cu 324.752†	122865.7	120845.5	501.85 µg/L	501.85 ppb	14:35:44
3	Mn 257.610†	382222.8	385806.2	504.08 µg/L	504.08 ppb	14:35:44
3	Mo 202.031†	14702.0	14869.8	505.23 µg/L	505.23 ppb	14:36:04
3	Ni 231.604†	40137.0	40609.8	505.02 µg/L	505.02 ppb	14:35:44
3	P 214.914†	10894.1	11021.6	2509.7 µg/L	2509.7 ppb	14:36:04
3	Pb 220.353†	8151.7	8115.5	510.11 µg/L	510.11 ppb	14:36:04
3	S 181.975 Axial†	1286.4	1197.2	1022.9 µg/L	1022.9 ppb	14:36:04
3	Sb 206.836†	3964.2	3926.1	504.46 µg/L	504.46 ppb	14:36:04
3	Se 196.026†	1323.1	1316.2	511 µg/L	511 ppb	14:36:04
3	SiO2†	53036.6	51874.8	5334.8 µg/L	5334.8 ppb	14:35:44
3	Si 251.611†	163924.4	164767.1	2503.4 µg/L	2503.4 ppb	14:35:44
3	Sn 189.927†	7190.9	7254.0	506.83 µg/L	506.83 ppb	14:36:04
3	Ti 334.940†	474934.0	478768.1	501.43 µg/L	501.43 ppb	14:35:44
3	Tl 190.801†	3431.8	3581.1	512.19 µg/L	512.19 ppb	14:36:04
3	U 409.014†	7271.0	7754.5	502.03 µg/L	502.03 ppb	14:35:44
3	V 292.402†	100159.4	100658.9	505.77 µg/L	505.77 ppb	14:35:44
3	Zn 213.857†	87194.3	87441.6	500.86 µg/L	500.86 ppb	14:35:44

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1676891.2	99.091 %	1.0875			1.10%
Sc RADIAL	113526.0	99.2 %	0.33			0.34%
Y 371.029	938519.2	98.066 %	1.0670			1.09%
Ag 328.068†	121003.1	505.92 µg/L	0.785	505.92 ppb	0.785	0.16%
QC value within limits for Ag 328.068 Recovery = 101.18%						
Al 396.153Radial†	21707.3	5095.7 µg/L	20.95	5095.7 ppb	20.95	0.41%
QC value within limits for Al 396.153Radial Recovery = 101.91%						
As 188.979†	1436.8	504.85 µg/L	7.105	504.85 ppb	7.105	1.41%
QC value within limits for As 188.979 Recovery = 100.97%						
B 249.677†	33679.3	498.18 µg/L	1.083	498.18 ppb	1.083	0.22%
QC value within limits for B 249.677 Recovery = 99.64%						
Ba 233.527†	111145.4	503.54 µg/L	1.395	503.54 ppb	1.395	0.28%
QC value within limits for Ba 233.527 Recovery = 100.71%						
Be 313.107†	1767025.0	500.45 µg/L	1.343	500.45 ppb	1.343	0.27%
QC value within limits for Be 313.107 Recovery = 100.09%						
Ca 317.933Radial†	61611.8	5073.1 µg/L	18.61	5073.1 ppb	18.61	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.46%						
Cd 226.502†	76280.6	504.08 µg/L	1.857	504.08 ppb	1.857	0.37%
QC value within limits for Cd 226.502 Recovery = 100.82%						
Co 228.616†	38588.9	506.15 µg/L	2.364	506.15 ppb	2.364	0.47%

QC value within limits for Co 228.616 Recovery = 101.23%							
Cr 267.716†	57129.1	501.61 µg/L	0.982	501.61 ppb	0.982	0.20%	
QC value within limits for Cr 267.716 Recovery = 100.32%							
Cu 324.752†	120732.8	501.38 µg/L	0.660	501.38 ppb	0.660	0.13%	
QC value within limits for Cu 324.752 Recovery = 100.28%							
Fe 238.204 Radial†	59273.0	5056.2 µg/L	19.26	5056.2 ppb	19.26	0.38%	
QC value within limits for Fe 238.204 Radial Recovery = 101.12%							
K 766.490 Radial†	12659.5	5063.2 µg/L	13.36	5063.2 ppb	13.36	0.26%	
QC value within limits for K 766.490 Radial Recovery = 101.26%							
Mg 279.077 IEC†	9324.9	5165.1 µg/L	32.42	5165.1 ppb	32.42	0.63%	
QC value within limits for Mg 279.077 IEC Recovery = 103.30%							
Mn 257.610†	385706.0	503.95 µg/L	0.552	503.95 ppb	0.552	0.11%	
QC value within limits for Mn 257.610 Recovery = 100.79%							
Mo 202.031†	14904.8	506.42 µg/L	6.300	506.42 ppb	6.300	1.24%	
QC value within limits for Mo 202.031 Recovery = 101.28%							
Na 589.592 Radial†	62890.5	10030 µg/L	38.1	10030 ppb	38.1	0.38%	
QC value within limits for Na 589.592 Radial Recovery = 100.30%							
Ni 231.604†	40671.7	505.79 µg/L	1.308	505.79 ppb	1.308	0.26%	
QC value within limits for Ni 231.604 Recovery = 101.16%							
P 214.914†	11036.3	2513.1 µg/L	35.25	2513.1 ppb	35.25	1.40%	
QC value within limits for P 214.914 Recovery = 100.52%							
Pb 220.353†	8110.7	509.81 µg/L	6.918	509.81 ppb	6.918	1.36%	
QC value within limits for Pb 220.353 Recovery = 101.96%							
S 181.975 Axial†	1190.9	1017.6 µg/L	15.02	1017.6 ppb	15.02	1.48%	
QC value within limits for S 181.975 Axial Recovery = 101.76%							
Sb 206.836†	3934.5	505.55 µg/L	6.809	505.55 ppb	6.809	1.35%	
QC value within limits for Sb 206.836 Recovery = 101.11%							
Se 196.026†	1306.6	507 µg/L	8.8	507 ppb	8.8	1.74%	
QC value within limits for Se 196.026 Recovery = 101.49%							
SiO2†	51825.0	5329.6 µg/L	8.23	5329.6 ppb	8.23	0.15%	
QC value within limits for SiO2 Recovery = 99.67%							
Si 251.611†	164822.8	2504.2 µg/L	4.09	2504.2 ppb	4.09	0.16%	
QC value within limits for Si 251.611 Recovery = 100.17%							
Sn 189.927†	7267.8	507.79 µg/L	7.410	507.79 ppb	7.410	1.46%	
QC value within limits for Sn 189.927 Recovery = 101.56%							
Sr 421.552†	195336.4	501.74 µg/L	2.774	501.74 ppb	2.774	0.55%	
QC value within limits for Sr 421.552 Recovery = 100.35%							
Ti 334.940†	478816.6	501.49 µg/L	0.550	501.49 ppb	0.550	0.11%	
QC value within limits for Ti 334.940 Recovery = 100.30%							
Tl 190.801†	3586.1	512.90 µg/L	7.324	512.90 ppb	7.324	1.43%	
QC value within limits for Tl 190.801 Recovery = 102.58%							
U 409.014†	7674.1	497.16 µg/L	4.457	497.16 ppb	4.457	0.90%	
QC value within limits for U 409.014 Recovery = 99.43%							
V 292.402†	100737.1	506.17 µg/L	0.451	506.17 ppb	0.451	0.09%	
QC value within limits for V 292.402 Recovery = 101.23%							
Zn 213.857†	87493.3	501.15 µg/L	1.321	501.15 ppb	1.321	0.26%	
QC value within limits for Zn 213.857 Recovery = 100.23%							

All analyte(s) passed QC.

Sequence No.: 5

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/13/2010 14:36:13

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	114242.2	114242.2	99.9 %		14:36:42
1	Al 396.153Radial†	-88.0	-3.1	-0.7468 µg/L	-0.7468 ppb	14:37:02
1	Ca 317.933Radial†	474.8	18.6	1.5333 µg/L	1.5333 ppb	14:37:02
1	Fe 238.204 Radial†	138.6	14.4	1.2323 µg/L	1.2323 ppb	14:37:02
1	K 766.490 Radial†	1539.7	132.4	52.981 µg/L	52.981 ppb	14:36:42
1	Mg 279.077 IEC†	166.2	9.1	5.0516 µg/L	5.0516 ppb	14:37:02
1	Na 589.592 Radial†	961.9	127.8	20.345 µg/L	20.345 ppb	14:36:42
1	Sr 421.552†	14.8	81.5	0.2093 µg/L	0.2093 ppb	14:36:42
1	Sc 361.383	1691996.5	1691996.5	99.984 %		14:37:50
1	Y 371.029	957245.2	957245.2	100.02 %		14:37:50
1	Ag 328.068†	5292.0	189.8	0.7895 µg/L	0.7895 ppb	14:37:52
1	As 188.979†	-14.6	-1.1	-0.3903 µg/L	-0.3903 ppb	14:38:12
1	B 249.677†	4150.5	39.2	0.5812 µg/L	0.5812 ppb	14:37:52
1	Ba 233.527†	-127.0	18.8	0.0851 µg/L	0.0851 ppb	14:38:12
1	Be 313.107†	-962.6	29.6	0.0111 µg/L	0.0111 ppb	14:37:52
1	Cd 226.502†	-40.8	23.7	0.1568 µg/L	0.1568 ppb	14:38:12
1	Co 228.616†	-217.9	9.1	0.1199 µg/L	0.1199 ppb	14:38:12
1	Cr 267.716†	353.1	23.5	0.1992 µg/L	0.1992 ppb	14:38:12
1	Cu 324.752†	3176.8	-64.0	-0.2569 µg/L	-0.2569 ppb	14:37:52
1	Mn 257.610†	237.3	22.0	0.0286 µg/L	0.0286 ppb	14:38:12
1	Mo 202.031†	-10.9	10.7	0.3643 µg/L	0.3643 ppb	14:38:12
1	Ni 231.604†	-67.8	6.1	0.0753 µg/L	0.0753 ppb	14:38:12
1	P 214.914†	-11.4	7.8	1.7830 µg/L	1.7830 ppb	14:38:12
1	Pb 220.353†	158.8	41.6	2.6032 µg/L	2.6032 ppb	14:38:12
1	S 181.975 Axial†	99.1	-2.8	-2.4037 µg/L	-2.4037 ppb	14:38:12
1	Sb 206.836†	69.9	-7.6	-0.9701 µg/L	-0.9701 ppb	14:38:12
1	Se 196.026†	22.2	2.3	0.885 µg/L	0.885 ppb	14:38:12
1	SiO2†	1774.0	85.4	8.8083 µg/L	8.8083 ppb	14:37:52
1	Si 251.611†	665.0	-121.5	-1.8588 µg/L	-1.8588 ppb	14:37:52
1	Sn 189.927†	11.1	2.7	0.1856 µg/L	0.1856 ppb	14:38:12
1	Ti 334.940†	711.8	-174.1	-0.1868 µg/L	-0.1868 ppb	14:37:52
1	Tl 190.801†	-106.2	9.0	1.2653 µg/L	1.2653 ppb	14:38:12
1	U 409.014†	-261.4	149.8	9.0823 µg/L	9.0823 ppb	14:37:52
1	V 292.402†	403.2	-92.8	-0.4492 µg/L	-0.4492 ppb	14:37:52
1	Zn 213.857†	672.2	53.0	0.3056 µg/L	0.3056 ppb	14:38:12
2	Sc RADIAL	113917.7	113917.7	99.6 %		14:37:04
2	Al 396.153Radial†	-95.9	-11.3	-2.6826 µg/L	-2.6826 ppb	14:37:24
2	Ca 317.933Radial†	464.2	9.4	0.7740 µg/L	0.7740 ppb	14:37:24
2	Fe 238.204 Radial†	140.5	16.8	1.4295 µg/L	1.4295 ppb	14:37:24
2	K 766.490 Radial†	1689.6	287.3	115.00 µg/L	115.00 ppb	14:37:04
2	Mg 279.077 IEC†	147.8	-8.9	-4.9025 µg/L	-4.9025 ppb	14:37:24
2	Na 589.592 Radial†	1049.9	219.0	34.836 µg/L	34.836 ppb	14:37:04
2	Sr 421.552†	20.2	87.0	0.2234 µg/L	0.2234 ppb	14:37:04
2	Sc 361.383	1731059.2	1731059.2	102.29 %		14:38:14
2	Y 371.029	978761.8	978761.8	102.27 %		14:38:14
2	Ag 328.068†	5131.6	-86.3	-0.3506 µg/L	-0.3506 ppb	14:38:16
2	As 188.979†	-20.7	-6.8	-2.3539 µg/L	-2.3539 ppb	14:38:37
2	B 249.677†	4408.6	197.8	2.9359 µg/L	2.9359 ppb	14:38:16
2	Ba 233.527†	-104.8	43.4	0.1953 µg/L	0.1953 ppb	14:38:37
2	Be 313.107†	-908.3	104.4	0.0369 µg/L	0.0369 ppb	14:38:16
2	Cd 226.502†	-59.3	6.6	0.0431 µg/L	0.0431 ppb	14:38:37
2	Co 228.616†	-212.5	19.4	0.2538 µg/L	0.2538 ppb	14:38:37
2	Cr 267.716†	325.8	-11.1	-0.1177 µg/L	-0.1177 ppb	14:38:37
2	Cu 324.752†	3037.6	-271.8	-1.1048 µg/L	-1.1048 ppb	14:38:16
2	Mn 257.610†	235.2	14.6	0.0193 µg/L	0.0193 ppb	14:38:37
2	Mo 202.031†	-8.0	13.8	0.4674 µg/L	0.4674 ppb	14:38:37
2	Ni 231.604†	-97.0	-20.9	-0.2604 µg/L	-0.2604 ppb	14:38:37
2	P 214.914†	-8.3	11.1	2.5432 µg/L	2.5432 ppb	14:38:37
2	Pb 220.353†	95.1	-24.3	-1.5387 µg/L	-1.5387 ppb	14:38:37

2	S 181.975 Axial†	108.5	4.2	3.5409 µg/L	3.5409 ppb	14:38:37
2	Sb 206.836†	81.2	1.8	0.2409 µg/L	0.2409 ppb	14:38:37
2	Se 196.026†	36.3	15.5	6.04 µg/L	6.04 ppb	14:38:37
2	SiO2†	1745.7	17.7	1.8049 µg/L	1.8049 ppb	14:38:16
2	Si 251.611†	800.6	-3.8	-0.0680 µg/L	-0.0680 ppb	14:38:16
2	Sn 189.927†	16.1	7.3	0.5070 µg/L	0.5070 ppb	14:38:37
2	Ti 334.940†	800.5	-103.5	-0.1180 µg/L	-0.1180 ppb	14:38:16
2	Tl 190.801†	-102.4	15.2	2.1215 µg/L	2.1215 ppb	14:38:37
2	U 409.014†	-13.0	398.6	24.120 µg/L	24.120 ppb	14:38:16
2	V 292.402†	94.3	-403.9	-1.9818 µg/L	-1.9818 ppb	14:38:16
2	Zn 213.857†	673.2	38.8	0.2266 µg/L	0.2266 ppb	14:38:37
3	Sc RADIAL	114950.9	114950.9	100 %		14:37:26
3	Al 396.153Radial†	-101.6	-16.1	-3.8179 µg/L	-3.8179 ppb	14:37:46
3	Ca 317.933Radial†	468.0	9.0	0.7384 µg/L	0.7384 ppb	14:37:46
3	Fe 238.204 Radial†	137.6	12.7	1.0798 µg/L	1.0798 ppb	14:37:46
3	K 766.490 Radial†	1513.9	97.3	38.928 µg/L	38.928 ppb	14:37:26
3	Mg 279.077 IEC†	138.9	-19.1	-10.566 µg/L	-10.566 ppb	14:37:46
3	Na 589.592 Radial†	894.1	54.4	8.6531 µg/L	8.6531 ppb	14:37:26
3	Sr 421.552†	-96.9	-29.7	-0.0764 µg/L	-0.0764 ppb	14:37:26
3	Sc 361.383	1707197.9	1707197.9	100.88 %		14:38:39
3	Y 371.029	965197.5	965197.5	100.85 %		14:38:39
3	Ag 328.068†	5056.5	-90.7	-0.3684 µg/L	-0.3684 ppb	14:38:41
3	As 188.979†	-19.0	-5.4	-1.8561 µg/L	-1.8561 ppb	14:39:01
3	B 249.677†	4249.9	100.8	1.4959 µg/L	1.4959 ppb	14:38:41
3	Ba 233.527†	-122.1	24.8	0.1122 µg/L	0.1122 ppb	14:39:01
3	Be 313.107†	-636.6	361.3	0.1042 µg/L	0.1042 ppb	14:38:41
3	Cd 226.502†	-46.6	18.4	0.1215 µg/L	0.1215 ppb	14:39:01
3	Co 228.616†	-231.6	-2.5	-0.0333 µg/L	-0.0333 ppb	14:39:01
3	Cr 267.716†	354.3	21.6	0.1847 µg/L	0.1847 ppb	14:39:01
3	Cu 324.752†	3086.5	-181.8	-0.7475 µg/L	-0.7475 ppb	14:38:41
3	Mn 257.610†	254.4	36.8	0.0485 µg/L	0.0485 ppb	14:39:01
3	Mo 202.031†	-12.9	8.9	0.3007 µg/L	0.3007 ppb	14:39:01
3	Ni 231.604†	-79.3	-4.6	-0.0578 µg/L	-0.0578 ppb	14:39:01
3	P 214.914†	-7.6	11.7	2.6690 µg/L	2.6690 ppb	14:39:01
3	Pb 220.353†	131.3	13.0	0.8074 µg/L	0.8074 ppb	14:39:01
3	S 181.975 Axial†	97.1	-5.7	-4.8574 µg/L	-4.8574 ppb	14:39:01
3	Sb 206.836†	85.6	7.4	0.9467 µg/L	0.9467 ppb	14:39:01
3	Se 196.026†	23.1	2.9	1.12 µg/L	1.12 ppb	14:39:01
3	SiO2†	1790.4	85.8	8.8474 µg/L	8.8474 ppb	14:38:41
3	Si 251.611†	819.1	25.4	0.3816 µg/L	0.3816 ppb	14:38:41
3	Sn 189.927†	13.3	4.7	0.3296 µg/L	0.3296 ppb	14:39:01
3	Ti 334.940†	927.8	33.6	0.0334 µg/L	0.0334 ppb	14:38:41
3	Tl 190.801†	-118.6	-2.3	-0.3241 µg/L	-0.3241 ppb	14:39:01
3	U 409.014†	-308.3	105.6	6.4152 µg/L	6.4152 ppb	14:38:41
3	V 292.402†	471.5	-28.7	-0.1341 µg/L	-0.1341 ppb	14:38:41
3	Zn 213.857†	654.5	29.4	0.1707 µg/L	0.1707 ppb	14:39:01

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1710084.5	101.05 %	1.164			1.15%
Sc RADIAL	114370.3	100.0 %	0.46			0.46%
Y 371.029	967068.2	101.05 %	1.137			1.13%
Ag 328.068†	4.3	0.0235 µg/L	0.66345	0.0235 ppb	0.66345	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-10.2	-2.4158 µg/L	1.55284	-2.4158 ppb	1.55284	64.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-4.4	-1.5334 µg/L	1.02077	-1.5334 ppb	1.02077	66.57%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	112.6	1.6710 µg/L	1.18706	1.6710 ppb	1.18706	71.04%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	29.0	0.1309 µg/L	0.05743	0.1309 ppb	0.05743	43.88%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	165.1	0.0508 µg/L	0.04808	0.0508 ppb	0.04808	94.74%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	12.3	1.0153 µg/L	0.44900	1.0153 ppb	0.44900	44.23%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	16.2	0.1072 µg/L	0.05820	0.1072 ppb	0.05820	54.31%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	8.6	0.1134 µg/L	0.14364	0.1134 ppb	0.14364	126.62%

QC value within limits for Co 228.616 Recovery = Not calculated					
Cr 267.716†	11.3	0.0887 µg/L	0.17894	0.0887 ppb	0.17894 201.70%
QC value within limits for Cr 267.716 Recovery = Not calculated					
Cu 324.752†	-172.5	-0.7031 µg/L	0.42567	-0.7031 ppb	0.42567 60.55%
QC value within limits for Cu 324.752 Recovery = Not calculated					
Fe 238.204 Radial†	14.6	1.2472 µg/L	0.17536	1.2472 ppb	0.17536 14.06%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated					
K 766.490 Radial†	172.3	68.969 µg/L	40.4762	68.969 ppb	40.4762 58.69%
QC value within limits for K 766.490 Radial Recovery = Not calculated					
Mg 279.077 IEC†	-6.3	-3.4723 µg/L	7.90644	-3.4723 ppb	7.90644 227.70%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated					
Mn 257.610†	24.5	0.0321 µg/L	0.01496	0.0321 ppb	0.01496 46.58%
QC value within limits for Mn 257.610 Recovery = Not calculated					
Mo 202.031†	11.1	0.3775 µg/L	0.08413	0.3775 ppb	0.08413 22.29%
QC value within limits for Mo 202.031 Recovery = Not calculated					
Na 589.592 Radial†	133.7	21.278 µg/L	13.1164	21.278 ppb	13.1164 61.64%
QC value within limits for Na 589.592 Radial Recovery = Not calculated					
Ni 231.604†	-6.5	-0.0809 µg/L	0.16906	-0.0809 ppb	0.16906 208.86%
QC value within limits for Ni 231.604 Recovery = Not calculated					
P 214.914†	10.2	2.3317 µg/L	0.47937	2.3317 ppb	0.47937 20.56%
QC value within limits for P 214.914 Recovery = Not calculated					
Pb 220.353†	10.1	0.6240 µg/L	2.07705	0.6240 ppb	2.07705 332.88%
QC value within limits for Pb 220.353 Recovery = Not calculated					
S 181.975 Axial†	-1.5	-1.2401 µg/L	4.31838	-1.2401 ppb	4.31838 348.24%
QC value within limits for S 181.975 Axial Recovery = Not calculated					
Sb 206.836†	0.5	0.0725 µg/L	0.96945	0.0725 ppb	0.96945 >999.9%
QC value within limits for Sb 206.836 Recovery = Not calculated					
Se 196.026†	6.9	2.68 µg/L	2.908	2.68 ppb	2.908 108.48%
QC value within limits for Se 196.026 Recovery = Not calculated					
SiO2†	63.0	6.4869 µg/L	4.05478	6.4869 ppb	4.05478 62.51%
QC value within limits for SiO2 Recovery = Not calculated					
Si 251.611†	-33.3	-0.5151 µg/L	1.18521	-0.5151 ppb	1.18521 230.12%
QC value within limits for Si 251.611 Recovery = Not calculated					
Sn 189.927†	4.9	0.3407 µg/L	0.16097	0.3407 ppb	0.16097 47.24%
QC value within limits for Sn 189.927 Recovery = Not calculated					
Sr 421.552†	46.2	0.1188 µg/L	0.16919	0.1188 ppb	0.16919 142.45%
QC value within limits for Sr 421.552 Recovery = Not calculated					
Ti 334.940†	-81.4	-0.0905 µg/L	0.11265	-0.0905 ppb	0.11265 124.50%
QC value within limits for Ti 334.940 Recovery = Not calculated					
Tl 190.801†	7.3	1.0209 µg/L	1.24097	1.0209 ppb	1.24097 121.56%
QC value within limits for Tl 190.801 Recovery = Not calculated					
U 409.014†	218.0	13.206 µg/L	9.5459	13.206 ppb	9.5459 72.28%
QC value within limits for U 409.014 Recovery = Not calculated					
V 292.402†	-175.1	-0.8550 µg/L	0.98845	-0.8550 ppb	0.98845 115.61%
QC value within limits for V 292.402 Recovery = Not calculated					
Zn 213.857†	40.4	0.2343 µg/L	0.06773	0.2343 ppb	0.06773 28.91%
QC value within limits for Zn 213.857 Recovery = Not calculated					

All analyte(s) passed QC.

Sequence No.: 8

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/13/2010 15:11:51

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	113827.0	113827.0	99.5 %		15:12:25
1	Al 396.153Radial†	21500.0	21690.9	5092.1 µg/L	5092.1 ppb	15:12:25
1	Ca 317.933Radial†	61893.6	61742.0	5083.8 µg/L	5083.8 ppb	15:12:25
1	Fe 238.204 Radial†	59191.9	59359.3	5063.6 µg/L	5063.6 ppb	15:12:25
1	K 766.490 Radial†	14025.7	12685.6	5073.6 µg/L	5073.6 ppb	15:12:25
1	Mg 279.077 IEC†	9443.3	9332.5	5169.1 µg/L	5169.1 ppb	15:12:25
1	Na 589.592 Radial†	64016.8	63497.1	10127 µg/L	10127 ppb	15:12:23
1	Sr 421.552†	196718.6	197754.9	507.95 µg/L	507.95 ppb	15:12:23
1	Sc 361.383	1690317.5	1690317.5	99.885 %		15:12:52
1	Y 371.029	946754.9	946754.9	98.926 %		15:12:52
1	Ag 328.068†	125179.7	120221.0	502.66 µg/L	502.66 ppb	15:12:52
1	As 188.979†	1390.9	1405.9	494.13 µg/L	494.13 ppb	15:13:12
1	B 249.677†	37332.3	33263.4	492.02 µg/L	492.02 ppb	15:12:52
1	Ba 233.527†	110310.6	110583.6	500.99 µg/L	500.99 ppb	15:12:52
1	Be 313.107†	1755738.9	1758754.7	498.11 µg/L	498.11 ppb	15:12:52
1	Cd 226.502†	75268.4	75419.8	498.39 µg/L	498.39 ppb	15:12:52
1	Co 228.616†	37998.6	38269.5	501.96 µg/L	501.96 ppb	15:12:52
1	Cr 267.716†	57050.2	56786.4	498.60 µg/L	498.60 ppb	15:12:52
1	Cu 324.752†	123249.9	120150.6	498.96 µg/L	498.96 ppb	15:12:52
1	Mn 257.610†	383997.1	384224.2	502.01 µg/L	502.01 ppb	15:12:52
1	Mo 202.031†	14722.9	14761.5	501.56 µg/L	501.56 ppb	15:13:12
1	Ni 231.604†	40180.9	40301.1	501.18 µg/L	501.18 ppb	15:12:52
1	P 214.914†	10888.5	10920.2	2486.6 µg/L	2486.6 ppb	15:13:12
1	Pb 220.353†	8076.5	7968.6	500.90 µg/L	500.90 ppb	15:13:12
1	S 181.975 Axial†	1272.5	1172.1	1001.5 µg/L	1001.5 ppb	15:13:12
1	Sb 206.836†	3961.2	3888.3	499.59 µg/L	499.59 ppb	15:13:12
1	Se 196.026†	1301.8	1283.3	498 µg/L	498 ppb	15:13:12
1	SiO2†	53272.9	51645.4	5311.3 µg/L	5311.3 ppb	15:12:52
1	Si 251.611†	164568.5	163971.6	2491.3 µg/L	2491.3 ppb	15:12:52
1	Sn 189.927†	7159.8	7159.6	500.26 µg/L	500.26 ppb	15:13:12
1	Ti 334.940†	477785.5	477450.0	500.06 µg/L	500.06 ppb	15:12:52
1	Tl 190.801†	3427.6	3546.8	507.34 µg/L	507.34 ppb	15:13:12
1	U 409.014†	7099.1	7518.5	487.59 µg/L	487.59 ppb	15:12:52
1	V 292.402†	100768.0	100388.1	504.37 µg/L	504.37 ppb	15:12:52
1	Zn 213.857†	87253.0	86734.2	496.80 µg/L	496.80 ppb	15:12:52
2	Sc RADIAL	113900.0	113900.0	99.6 %		15:12:29
2	Al 396.153Radial†	21398.2	21574.8	5064.8 µg/L	5064.8 ppb	15:12:29
2	Ca 317.933Radial†	61412.5	61218.9	5040.7 µg/L	5040.7 ppb	15:12:29
2	Fe 238.204 Radial†	58755.9	58883.4	5023.0 µg/L	5023.0 ppb	15:12:29
2	K 766.490 Radial†	13875.1	12525.3	5009.4 µg/L	5009.4 ppb	15:12:29
2	Mg 279.077 IEC†	9351.8	9234.5	5115.0 µg/L	5115.0 ppb	15:12:29
2	Na 589.592 Radial†	64201.6	63641.4	10150 µg/L	10150 ppb	15:12:27
2	Sr 421.552†	197257.8	198169.7	509.01 µg/L	509.01 ppb	15:12:27
2	Sc 361.383	1694008.1	1694008.1	100.10 %		15:13:15
2	Y 371.029	948333.9	948333.9	99.091 %		15:13:15
2	Ag 328.068†	125608.6	120376.4	503.30 µg/L	503.30 ppb	15:13:15
2	As 188.979†	1409.8	1421.8	499.60 µg/L	499.60 ppb	15:13:35
2	B 249.677†	37663.0	33512.3	495.71 µg/L	495.71 ppb	15:13:15
2	Ba 233.527†	110639.4	110671.4	501.39 µg/L	501.39 ppb	15:13:15
2	Be 313.107†	1758697.9	1757881.1	497.86 µg/L	497.86 ppb	15:13:15
2	Cd 226.502†	75729.3	75716.0	500.35 µg/L	500.35 ppb	15:13:15
2	Co 228.616†	38205.7	38393.5	503.59 µg/L	503.59 ppb	15:13:15
2	Cr 267.716†	57193.5	56805.0	498.76 µg/L	498.76 ppb	15:13:15
2	Cu 324.752†	123481.1	120112.8	498.80 µg/L	498.80 ppb	15:13:15
2	Mn 257.610†	384870.4	384259.1	502.06 µg/L	502.06 ppb	15:13:15
2	Mo 202.031†	14696.2	14702.7	499.55 µg/L	499.55 ppb	15:13:35
2	Ni 231.604†	40433.1	40465.5	503.22 µg/L	503.22 ppb	15:13:15
2	P 214.914†	10820.7	10828.8	2465.7 µg/L	2465.7 ppb	15:13:35
2	Pb 220.353†	8060.9	7935.4	498.81 µg/L	498.81 ppb	15:13:35



2	S 181.975 Axial†	1262.4	1159.2	990.49 µg/L	990.49 ppb	15:13:35
2	Sb 206.836†	3956.7	3875.1	497.87 µg/L	497.87 ppb	15:13:35
2	Se 196.026†	1298.2	1276.9	496 µg/L	496 ppb	15:13:35
2	SiO2†	53538.4	51794.5	5326.8 µg/L	5326.8 ppb	15:13:15
2	Si 251.611†	165310.8	164354.2	2497.2 µg/L	2497.2 ppb	15:13:15
2	Sn 189.927†	7164.3	7148.5	499.48 µg/L	499.48 ppb	15:13:35
2	Ti 334.940†	478631.0	477252.5	499.85 µg/L	499.85 ppb	15:13:15
2	Tl 190.801†	3409.6	3521.3	503.74 µg/L	503.74 ppb	15:13:35
2	U 409.014†	7182.2	7586.1	491.69 µg/L	491.69 ppb	15:13:15
2	V 292.402†	100943.1	100343.2	504.13 µg/L	504.13 ppb	15:13:15
2	Zn 213.857†	87600.5	86891.1	497.69 µg/L	497.69 ppb	15:13:15
3	Sc RADIAL	115279.9	115279.9	101 %		15:12:33
3	Al 396.153Radial†	21637.1	21554.7	5060.0 µg/L	5060.0 ppb	15:12:33
3	Ca 317.933Radial†	62333.6	61394.6	5055.2 µg/L	5055.2 ppb	15:12:33
3	Fe 238.204 Radial†	59573.9	58988.8	5032.0 µg/L	5032.0 ppb	15:12:33
3	K 766.490 Radial†	14274.5	12754.8	5101.3 µg/L	5101.3 ppb	15:12:33
3	Mg 279.077 IEC†	9515.5	9284.6	5142.7 µg/L	5142.7 ppb	15:12:33
3	Na 589.592 Radial†	64324.4	62991.5	10046 µg/L	10046 ppb	15:12:31
3	Sr 421.552†	197592.9	196131.1	503.78 µg/L	503.78 ppb	15:12:31
3	Sc 361.383	1693105.0	1693105.0	100.05 %		15:13:38
3	Y 371.029	946341.5	946341.5	98.883 %		15:13:38
3	Ag 328.068†	125984.3	120818.9	505.13 µg/L	505.13 ppb	15:13:38
3	As 188.979†	1398.8	1411.6	496.09 µg/L	496.09 ppb	15:13:58
3	B 249.677†	37768.6	33637.9	497.57 µg/L	497.57 ppb	15:13:38
3	Ba 233.527†	110664.0	110755.0	501.77 µg/L	501.77 ppb	15:13:38
3	Be 313.107†	1766246.1	1766362.8	500.26 µg/L	500.26 ppb	15:13:38
3	Cd 226.502†	76043.8	76070.7	502.69 µg/L	502.69 ppb	15:13:38
3	Co 228.616†	38292.3	38500.4	504.99 µg/L	504.99 ppb	15:13:38
3	Cr 267.716†	57378.9	57020.9	500.65 µg/L	500.65 ppb	15:13:38
3	Cu 324.752†	124234.8	120931.9	502.20 µg/L	502.20 ppb	15:13:38
3	Mn 257.610†	385821.5	385414.9	503.57 µg/L	503.57 ppb	15:13:38
3	Mo 202.031†	14755.5	14769.8	501.83 µg/L	501.83 ppb	15:13:58
3	Ni 231.604†	40482.0	40535.8	504.10 µg/L	504.10 ppb	15:13:38
3	P 214.914†	10851.3	10865.1	2473.9 µg/L	2473.9 ppb	15:13:58
3	Pb 220.353†	8084.1	7962.9	500.54 µg/L	500.54 ppb	15:13:58
3	S 181.975 Axial†	1275.6	1173.0	1002.3 µg/L	1002.3 ppb	15:13:58
3	Sb 206.836†	3958.0	3878.5	498.31 µg/L	498.31 ppb	15:13:58
3	Se 196.026†	1296.0	1275.3	495 µg/L	495 ppb	15:13:58
3	SiO2†	53963.0	52247.4	5373.4 µg/L	5373.4 ppb	15:13:38
3	Si 251.611†	166503.5	165634.4	2516.7 µg/L	2516.7 ppb	15:13:38
3	Sn 189.927†	7176.7	7164.7	500.61 µg/L	500.61 ppb	15:13:58
3	Ti 334.940†	480124.9	479000.8	501.68 µg/L	501.68 ppb	15:13:38
3	Tl 190.801†	3427.1	3540.7	506.48 µg/L	506.48 ppb	15:13:58
3	U 409.014†	7265.8	7673.4	497.00 µg/L	497.00 ppb	15:13:38
3	V 292.402†	100847.3	100301.3	503.96 µg/L	503.96 ppb	15:13:38
3	Zn 213.857†	88039.7	87376.8	500.49 µg/L	500.49 ppb	15:13:38

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1692476.8	100.01 %	0.114			0.11%
Sc RADIAL	114335.6	100.0 %	0.72			0.72%
Y 371.029	947143.5	98.967 %	0.1099			0.11%
Ag 328.068†	120472.1	503.70 µg/L	1.284	503.70 ppb	1.284	0.25%
QC value within limits for Ag 328.068 Recovery = 100.74%						
Al 396.153Radial†	21606.8	5072.3 µg/L	17.32	5072.3 ppb	17.32	0.34%
QC value within limits for Al 396.153Radial Recovery = 101.45%						
As 188.979†	1413.1	496.61 µg/L	2.774	496.61 ppb	2.774	0.56%
QC value within limits for As 188.979 Recovery = 99.32%						
B 249.677†	33471.2	495.10 µg/L	2.824	495.10 ppb	2.824	0.57%
QC value within limits for B 249.677 Recovery = 99.02%						
Ba 233.527†	110670.0	501.38 µg/L	0.388	501.38 ppb	0.388	0.08%
QC value within limits for Ba 233.527 Recovery = 100.28%						
Be 313.107†	1760999.5	498.74 µg/L	1.322	498.74 ppb	1.322	0.27%
QC value within limits for Be 313.107 Recovery = 99.75%						
Ca 317.933Radial†	61451.8	5059.9 µg/L	21.92	5059.9 ppb	21.92	0.43%
QC value within limits for Ca 317.933Radial Recovery = 101.20%						
Cd 226.502†	75735.5	500.48 µg/L	2.157	500.48 ppb	2.157	0.43%
QC value within limits for Cd 226.502 Recovery = 100.10%						
Co 228.616†	38387.8	503.52 µg/L	1.516	503.52 ppb	1.516	0.30%

QC value within limits for Co 228.616 Recovery = 100.70%							
Cr 267.716†	56870.7	499.34 µg/L	1.141	499.34 ppb	1.141	0.23%	
QC value within limits for Cr 267.716 Recovery = 99.87%							
Cu 324.752†	120398.4	499.98 µg/L	1.918	499.98 ppb	1.918	0.38%	
QC value within limits for Cu 324.752 Recovery = 100.00%							
Fe 238.204 Radial†	59077.2	5039.5 µg/L	21.32	5039.5 ppb	21.32	0.42%	
QC value within limits for Fe 238.204 Radial Recovery = 100.79%							
K 766.490 Radial†	12655.2	5061.4 µg/L	47.12	5061.4 ppb	47.12	0.93%	
QC value within limits for K 766.490 Radial Recovery = 101.23%							
Mg 279.077 IEC†	9283.9	5142.3 µg/L	27.10	5142.3 ppb	27.10	0.53%	
QC value within limits for Mg 279.077 IEC Recovery = 102.85%							
Mn 257.610†	384632.8	502.55 µg/L	0.886	502.55 ppb	0.886	0.18%	
QC value within limits for Mn 257.610 Recovery = 100.51%							
Mo 202.031†	14744.7	500.98 µg/L	1.243	500.98 ppb	1.243	0.25%	
QC value within limits for Mo 202.031 Recovery = 100.20%							
Na 589.592 Radial†	63376.7	10108 µg/L	54.5	10108 ppb	54.5	0.54%	
QC value within limits for Na 589.592 Radial Recovery = 101.08%							
Ni 231.604†	40434.1	502.83 µg/L	1.498	502.83 ppb	1.498	0.30%	
QC value within limits for Ni 231.604 Recovery = 100.57%							
P 214.914†	10871.4	2475.4 µg/L	10.51	2475.4 ppb	10.51	0.42%	
QC value within limits for P 214.914 Recovery = 99.02%							
Pb 220.353†	7955.6	500.08 µg/L	1.116	500.08 ppb	1.116	0.22%	
QC value within limits for Pb 220.353 Recovery = 100.02%							
S 181.975 Axial†	1168.1	998.09 µg/L	6.593	998.09 ppb	6.593	0.66%	
QC value within limits for S 181.975 Axial Recovery = 99.81%							
Sb 206.836†	3880.6	498.59 µg/L	0.893	498.59 ppb	0.893	0.18%	
QC value within limits for Sb 206.836 Recovery = 99.72%							
Se 196.026†	1278.5	497 µg/L	1.6	497 ppb	1.6	0.33%	
QC value within limits for Se 196.026 Recovery = 99.32%							
SiO2†	51895.7	5337.2 µg/L	32.35	5337.2 ppb	32.35	0.61%	
QC value within limits for SiO2 Recovery = 99.81%							
Si 251.611†	164653.4	2501.7 µg/L	13.28	2501.7 ppb	13.28	0.53%	
QC value within limits for Si 251.611 Recovery = 100.07%							
Sn 189.927†	7157.6	500.12 µg/L	0.580	500.12 ppb	0.580	0.12%	
QC value within limits for Sn 189.927 Recovery = 100.02%							
Sr 421.552†	197351.9	506.91 µg/L	2.768	506.91 ppb	2.768	0.55%	
QC value within limits for Sr 421.552 Recovery = 101.38%							
Ti 334.940†	477901.1	500.53 µg/L	1.002	500.53 ppb	1.002	0.20%	
QC value within limits for Ti 334.940 Recovery = 100.11%							
Tl 190.801†	3536.3	505.85 µg/L	1.878	505.85 ppb	1.878	0.37%	
QC value within limits for Tl 190.801 Recovery = 101.17%							
U 409.014†	7592.7	492.09 µg/L	4.717	492.09 ppb	4.717	0.96%	
QC value within limits for U 409.014 Recovery = 98.42%							
V 292.402†	100344.2	504.15 µg/L	0.206	504.15 ppb	0.206	0.04%	
QC value within limits for V 292.402 Recovery = 100.83%							
Zn 213.857†	87000.7	498.33 µg/L	1.926	498.33 ppb	1.926	0.39%	
QC value within limits for Zn 213.857 Recovery = 99.67%							
All analyte(s) passed QC.							

Sequence No.: 9

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/13/2010 15:14:07

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	113500.1	113500.1	99.2 %		15:14:36
1	Al 396.153Radial†	-82.4	1.9	0.4328 µg/L	0.4328 ppb	15:14:56
1	Ca 317.933Radial†	460.4	7.2	0.5952 µg/L	0.5952 ppb	15:14:56
1	Fe 238.204 Radial†	139.4	16.2	1.3857 µg/L	1.3857 ppb	15:14:56
1	K 766.490 Radial†	1535.2	137.9	55.208 µg/L	55.208 ppb	15:14:36
1	Mg 279.077 IEC†	139.6	-16.6	-9.1930 µg/L	-9.1930 ppb	15:14:56
1	Na 589.592 Radial†	955.3	127.4	20.285 µg/L	20.285 ppb	15:14:36
1	Sr 421.552†	-63.6	2.6	0.0067 µg/L	0.0067 ppb	15:14:36
1	Sc 361.383	1693791.6	1693791.6	100.09 %		15:15:44
1	Y 371.029	958031.9	958031.9	100.10 %		15:15:44
1	Ag 328.068†	5169.2	61.6	0.2654 µg/L	0.2654 ppb	15:15:46
1	As 188.979†	-17.0	-3.6	-1.2485 µg/L	-1.2485 ppb	15:16:06
1	B 249.677†	4109.8	-5.8	-0.0865 µg/L	-0.0865 ppb	15:15:46
1	Ba 233.527†	-143.0	3.0	0.0139 µg/L	0.0139 ppb	15:16:06
1	Be 313.107†	-729.9	263.1	0.0762 µg/L	0.0762 ppb	15:15:46
1	Cd 226.502†	-41.6	23.0	0.1519 µg/L	0.1519 ppb	15:16:06
1	Co 228.616†	-228.0	-0.8	-0.0100 µg/L	-0.0100 ppb	15:16:06
1	Cr 267.716†	327.1	-2.8	-0.0289 µg/L	-0.0289 ppb	15:16:06
1	Cu 324.752†	3104.4	-139.7	-0.5738 µg/L	-0.5738 ppb	15:15:46
1	Mn 257.610†	254.6	39.0	0.0514 µg/L	0.0514 ppb	15:16:06
1	Mo 202.031†	-6.1	15.5	0.5271 µg/L	0.5271 ppb	15:16:06
1	Ni 231.604†	-55.3	18.7	0.2327 µg/L	0.2327 ppb	15:16:06
1	P 214.914†	-22.4	-3.1	-0.7152 µg/L	-0.7152 ppb	15:16:06
1	Pb 220.353†	145.9	28.6	1.7877 µg/L	1.7877 ppb	15:16:06
1	S 181.975 Axial†	111.5	9.5	8.0906 µg/L	8.0906 ppb	15:16:06
1	Sb 206.836†	56.6	-21.0	-2.6776 µg/L	-2.6776 ppb	15:16:06
1	Se 196.026†	24.8	4.8	1.87 µg/L	1.87 ppb	15:16:06
1	SiO2†	1713.5	23.1	2.3649 µg/L	2.3649 ppb	15:15:46
1	Si 251.611†	798.5	11.2	0.1643 µg/L	0.1643 ppb	15:15:46
1	Sn 189.927†	8.7	0.2	0.0159 µg/L	0.0159 ppb	15:16:06
1	Ti 334.940†	811.5	-75.4	-0.0806 µg/L	-0.0806 ppb	15:15:46
1	Tl 190.801†	-129.9	-14.6	-2.0488 µg/L	-2.0488 ppb	15:16:06
1	U 409.014†	-318.7	92.9	5.6673 µg/L	5.6673 ppb	15:15:46
1	V 292.402†	568.5	72.0	0.3658 µg/L	0.3658 ppb	15:15:46
1	Zn 213.857†	621.6	1.7	0.0086 µg/L	0.0086 ppb	15:16:06
2	Sc RADIAL	114112.5	114112.5	99.8 %		15:14:58
2	Al 396.153Radial†	-86.5	-1.7	-0.4209 µg/L	-0.4209 ppb	15:15:18
2	Ca 317.933Radial†	456.6	1.0	0.0813 µg/L	0.0813 ppb	15:15:18
2	Fe 238.204 Radial†	146.1	22.2	1.8909 µg/L	1.8909 ppb	15:15:18
2	K 766.490 Radial†	1472.3	66.6	26.640 µg/L	26.640 ppb	15:14:58
2	Mg 279.077 IEC†	138.1	-18.9	-10.424 µg/L	-10.424 ppb	15:15:18
2	Na 589.592 Radial†	1025.7	192.8	30.747 µg/L	30.747 ppb	15:14:58
2	Sr 421.552†	-72.7	-6.1	-0.0158 µg/L	-0.0158 ppb	15:14:58
2	Sc 361.383	1706699.4	1706699.4	100.85 %		15:16:08
2	Y 371.029	965414.3	965414.3	100.88 %		15:16:08
2	Ag 328.068†	4917.1	-227.4	-0.9462 µg/L	-0.9462 ppb	15:16:10
2	As 188.979†	-10.2	3.3	1.1430 µg/L	1.1430 ppb	15:16:31
2	B 249.677†	4215.8	68.2	1.0120 µg/L	1.0120 ppb	15:16:10
2	Ba 233.527†	-121.9	25.0	0.1132 µg/L	0.1132 ppb	15:16:31
2	Be 313.107†	-642.5	355.2	0.0993 µg/L	0.0993 ppb	15:16:10
2	Cd 226.502†	-53.4	11.6	0.0766 µg/L	0.0766 ppb	15:16:31
2	Co 228.616†	-211.1	17.7	0.2319 µg/L	0.2319 ppb	15:16:31
2	Cr 267.716†	370.1	37.4	0.3317 µg/L	0.3317 ppb	15:16:31
2	Cu 324.752†	3129.6	-138.1	-0.5752 µg/L	-0.5752 ppb	15:16:10
2	Mn 257.610†	285.9	68.2	0.0895 µg/L	0.0895 ppb	15:16:31
2	Mo 202.031†	-15.1	6.7	0.2257 µg/L	0.2257 ppb	15:16:31
2	Ni 231.604†	-104.2	-29.4	-0.3660 µg/L	-0.3660 ppb	15:16:31
2	P 214.914†	-33.6	-14.1	-3.2103 µg/L	-3.2103 ppb	15:16:31
2	Pb 220.353†	115.2	-2.9	-0.1807 µg/L	-0.1807 ppb	15:16:31

2	S 181.975 Axial†	102.9	0.1	0.0601 µg/L	0.0601 ppb	15:16:31
2	Sb 206.836†	94.4	16.1	2.0627 µg/L	2.0627 ppb	15:16:31
2	Se 196.026†	26.1	5.9	2.29 µg/L	2.29 ppb	15:16:31
2	SiO2†	1707.9	4.6	0.4717 µg/L	0.4717 ppb	15:16:10
2	Si 251.611†	743.4	-49.4	-0.7556 µg/L	-0.7556 ppb	15:16:10
2	Sn 189.927†	7.4	-1.1	-0.0757 µg/L	-0.0757 ppb	15:16:31
2	Ti 334.940†	1033.8	139.0	0.1482 µg/L	0.1482 ppb	15:16:10
2	Tl 190.801†	-116.1	0.2	0.0213 µg/L	0.0213 ppb	15:16:31
2	U 409.014†	-484.1	-68.8	-4.1938 µg/L	-4.1938 ppb	15:16:10
2	V 292.402†	466.6	-33.3	-0.1647 µg/L	-0.1647 ppb	15:16:10
2	Zn 213.857†	653.1	28.2	0.1658 µg/L	0.1658 ppb	15:16:31
3	Sc RADIAL	114670.2	114670.2	100 %		15:15:20
3	Al 396.153Radial†	-126.7	-41.4	-9.7734 µg/L	-9.7734 ppb	15:15:40
3	Ca 317.933Radial†	450.9	-6.9	-0.5714 µg/L	-0.5714 ppb	15:15:40
3	Fe 238.204 Radial†	136.2	11.6	0.9862 µg/L	0.9862 ppb	15:15:40
3	K 766.490 Radial†	1327.7	-84.8	-33.960 µg/L	-33.960 ppb	15:15:20
3	Mg 279.077 IEC†	159.6	1.8	1.0207 µg/L	1.0207 ppb	15:15:40
3	Na 589.592 Radial†	867.6	30.1	4.8405 µg/L	4.8405 ppb	15:15:20
3	Sr 421.552†	-41.8	25.0	0.0642 µg/L	0.0642 ppb	15:15:20
3	Sc 361.383	1711395.5	1711395.5	101.13 %		15:16:33
3	Y 371.029	967520.8	967520.8	101.10 %		15:16:33
3	Ag 328.068†	5244.7	83.1	0.3380 µg/L	0.3380 ppb	15:16:35
3	As 188.979†	-22.1	-8.4	-2.9176 µg/L	-2.9176 ppb	15:16:55
3	B 249.677†	4214.0	55.0	0.8161 µg/L	0.8161 ppb	15:16:35
3	Ba 233.527†	-140.0	7.4	0.0337 µg/L	0.0337 ppb	15:16:55
3	Be 313.107†	-598.3	400.7	0.1122 µg/L	0.1122 ppb	15:16:35
3	Cd 226.502†	-47.0	18.1	0.1196 µg/L	0.1196 ppb	15:16:55
3	Co 228.616†	-231.0	-1.4	-0.0180 µg/L	-0.0180 ppb	15:16:55
3	Cr 267.716†	349.7	16.1	0.1449 µg/L	0.1449 ppb	15:16:55
3	Cu 324.752†	2995.5	-279.3	-1.1595 µg/L	-1.1595 ppb	15:16:35
3	Mn 257.610†	302.7	84.0	0.1097 µg/L	0.1097 ppb	15:16:55
3	Mo 202.031†	-13.6	8.1	0.2760 µg/L	0.2760 ppb	15:16:55
3	Ni 231.604†	-67.6	7.1	0.0885 µg/L	0.0885 ppb	15:16:55
3	P 214.914†	-0.4	18.8	4.3128 µg/L	4.3128 ppb	15:16:55
3	Pb 220.353†	131.7	13.1	0.8218 µg/L	0.8218 ppb	15:16:55
3	S 181.975 Axial†	113.3	10.1	8.6167 µg/L	8.6167 ppb	15:16:55
3	Sb 206.836†	91.8	13.3	1.7045 µg/L	1.7045 ppb	15:16:55
3	Se 196.026†	17.1	-3.1	-1.20 µg/L	-1.20 ppb	15:16:55
3	SiO2†	1684.8	-22.9	-2.3847 µg/L	-2.3847 ppb	15:16:35
3	Si 251.611†	750.1	-44.8	-0.6931 µg/L	-0.6931 ppb	15:16:35
3	Sn 189.927†	22.7	14.0	0.9753 µg/L	0.9753 ppb	15:16:55
3	Ti 334.940†	852.7	-42.9	-0.0434 µg/L	-0.0434 ppb	15:16:35
3	Tl 190.801†	-124.2	-7.6	-1.0678 µg/L	-1.0678 ppb	15:16:55
3	U 409.014†	-486.3	-69.6	-4.2337 µg/L	-4.2337 ppb	15:16:35
3	V 292.402†	500.1	-1.5	-0.0070 µg/L	-0.0070 ppb	15:16:35
3	Zn 213.857†	645.9	19.3	0.1117 µg/L	0.1117 ppb	15:16:55

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1703962.1	100.69 %	0.539			0.53%
Sc RADIAL	114094.3	99.7 %	0.51			0.51%
Y 371.029	963655.7	100.69 %	0.521			0.52%
Ag 328.068†	-27.6	-0.1143 µg/L	0.72138	-0.1143 ppb	0.72138	631.39%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-13.7	-3.2538 µg/L	5.66220	-3.2538 ppb	5.66220	174.02%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.9	-1.0077 µg/L	2.04099	-1.0077 ppb	2.04099	202.54%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	39.1	0.5805 µg/L	0.58593	0.5805 ppb	0.58593	100.93%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	11.8	0.0536 µg/L	0.05256	0.0536 ppb	0.05256	98.00%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	339.7	0.0959 µg/L	0.01823	0.0959 ppb	0.01823	19.01%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	0.4	0.0350 µg/L	0.58468	0.0350 ppb	0.58468	>999.9%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	17.6	0.1160 µg/L	0.03779	0.1160 ppb	0.03779	32.57%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	5.2	0.0680 µg/L	0.14206	0.0680 ppb	0.14206	209.00%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	16.9	0.1492 µg/L	0.18032	0.1492 ppb	0.18032	120.83%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-185.7	-0.7695 µg/L	0.33775	-0.7695 ppb	0.33775	43.89%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	16.7	1.4210 µg/L	0.45338	1.4210 ppb	0.45338	31.91%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	39.9	15.962 µg/L	45.5331	15.962 ppb	45.5331	285.25%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-11.2	-6.1989 µg/L	6.28254	-6.1989 ppb	6.28254	101.35%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	63.7	0.0835 µg/L	0.02963	0.0835 ppb	0.02963	35.47%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	10.1	0.3429 µg/L	0.16148	0.3429 ppb	0.16148	47.09%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	116.8	18.624 µg/L	13.0327	18.624 ppb	13.0327	69.98%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	-1.2	-0.0149 µg/L	0.31248	-0.0149 ppb	0.31248	>999.9%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	0.5	0.1291 µg/L	3.83196	0.1291 ppb	3.83196	>999.9%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	12.9	0.8096 µg/L	0.98425	0.8096 ppb	0.98425	121.58%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	6.6	5.5891 µg/L	4.79547	5.5891 ppb	4.79547	85.80%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	2.8	0.3632 µg/L	2.63947	0.3632 ppb	2.63947	726.70%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	2.6	0.987 µg/L	1.9020	0.987 ppb	1.9020	192.69%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		1.6	0.1506 µg/L	2.39104	0.1506 ppb	2.39104	>999.9%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	-27.6	-0.4281 µg/L	0.51403	-0.4281 ppb	0.51403	120.06%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	4.4	0.3052 µg/L	0.58217	0.3052 ppb	0.58217	190.76%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	7.2	0.0184 µg/L	0.04122	0.0184 ppb	0.04122	224.33%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	6.9	0.0081 µg/L	0.12277	0.0081 ppb	0.12277	>999.9%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	-7.3	-1.0318 µg/L	1.03554	-1.0318 ppb	1.03554	100.37%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-15.2	-0.9201 µg/L	5.70483	-0.9201 ppb	5.70483	620.03%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	12.4	0.0647 µg/L	0.27242	0.0647 ppb	0.27242	420.86%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	16.4	0.0954 µg/L	0.07984	0.0954 ppb	0.07984	83.70%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 17

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/13/2010 15:31:46

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	115943.5	115943.5	101 %		15:32:19
1	Al 396.153Radial†	21784.9	21577.6	5065.3 µg/L	5065.3 ppb	15:32:19
1	Ca 317.933Radial†	63085.9	61782.8	5087.2 µg/L	5087.2 ppb	15:32:19
1	Fe 238.204 Radial†	60474.9	59539.3	5078.9 µg/L	5078.9 ppb	15:32:19
1	K 766.490 Radial†	14088.3	12490.1	4995.3 µg/L	4995.3 ppb	15:32:19
1	Mg 279.077 IEC†	9545.4	9260.1	5129.1 µg/L	5129.1 ppb	15:32:19
1	Na 589.592 Radial†	64872.2	63166.6	10074 µg/L	10074 ppb	15:32:17
1	Sr 421.552†	200154.8	197536.3	507.39 µg/L	507.39 ppb	15:32:17
1	Sc 361.383	1701873.6	1701873.6	100.57 %		15:32:32
1	Y 371.029	953824.9	953824.9	99.665 %		15:32:32
1	Ag 328.068†	125653.4	119841.0	501.07 µg/L	501.07 ppb	15:32:32
1	As 188.979†	1409.7	1415.2	497.33 µg/L	497.33 ppb	15:32:52
1	B 249.677†	37252.4	32930.1	487.07 µg/L	487.07 ppb	15:32:32
1	Ba 233.527†	110849.7	110369.8	500.02 µg/L	500.02 ppb	15:32:32
1	Be 313.107†	1761453.1	1752501.0	496.34 µg/L	496.34 ppb	15:32:32
1	Cd 226.502†	75766.7	75403.6	498.28 µg/L	498.28 ppb	15:32:32
1	Co 228.616†	38361.7	38372.1	503.31 µg/L	503.31 ppb	15:32:32
1	Cr 267.716†	57392.4	56738.7	498.18 µg/L	498.18 ppb	15:32:32
1	Cu 324.752†	123993.5	120052.2	498.55 µg/L	498.55 ppb	15:32:32
1	Mn 257.610†	385995.4	383600.8	501.20 µg/L	501.20 ppb	15:32:32
1	Mo 202.031†	14870.9	14808.6	503.15 µg/L	503.15 ppb	15:32:52
1	Ni 231.604†	40490.9	40336.2	501.61 µg/L	501.61 ppb	15:32:32
1	P 214.914†	10942.7	10900.1	2481.9 µg/L	2481.9 ppb	15:32:52
1	Pb 220.353†	8151.9	7988.7	502.16 µg/L	502.16 ppb	15:32:52
1	S 181.975 Axial†	1285.0	1175.8	1004.7 µg/L	1004.7 ppb	15:32:52
1	Sb 206.836†	4008.0	3907.8	502.12 µg/L	502.12 ppb	15:32:52
1	Se 196.026†	1307.0	1279.6	497 µg/L	497 ppb	15:32:52
1	SiO2†	53459.6	51468.9	5293.1 µg/L	5293.1 ppb	15:32:32
1	Si 251.611†	165036.7	163318.5	2481.4 µg/L	2481.4 ppb	15:32:32
1	Sn 189.927†	7186.1	7137.1	498.69 µg/L	498.69 ppb	15:32:52
1	Ti 334.940†	480935.9	477334.7	499.94 µg/L	499.94 ppb	15:32:32
1	Tl 190.801†	3459.7	3555.4	508.54 µg/L	508.54 ppb	15:32:52
1	U 409.014†	7205.5	7576.1	490.99 µg/L	490.99 ppb	15:32:32
1	V 292.402†	101144.6	100077.6	502.85 µg/L	502.85 ppb	15:32:32
1	Zn 213.857†	87614.4	86500.4	495.44 µg/L	495.44 ppb	15:32:32
2	Sc RADIAL	114403.2	114403.2	100 %		15:32:23
2	Al 396.153Radial†	21832.2	21914.2	5144.6 µg/L	5144.6 ppb	15:32:23
2	Ca 317.933Radial†	62078.7	61613.8	5073.2 µg/L	5073.2 ppb	15:32:23
2	Fe 238.204 Radial†	59597.5	59465.3	5072.6 µg/L	5072.6 ppb	15:32:23
2	K 766.490 Radial†	14097.9	12686.8	5074.1 µg/L	5074.1 ppb	15:32:23
2	Mg 279.077 IEC†	9453.6	9295.0	5148.5 µg/L	5148.5 ppb	15:32:23
2	Na 589.592 Radial†	63824.1	62980.3	10044 µg/L	10044 ppb	15:32:21
2	Sr 421.552†	196583.2	196623.9	505.04 µg/L	505.04 ppb	15:32:21
2	Sc 361.383	1691683.2	1691683.2	99.966 %		15:32:55
2	Y 371.029	947869.3	947869.3	99.043 %		15:32:55
2	Ag 328.068†	125396.8	120337.0	503.11 µg/L	503.11 ppb	15:32:55
2	As 188.979†	1410.9	1424.8	500.64 µg/L	500.64 ppb	15:33:15
2	B 249.677†	37277.6	33178.5	490.77 µg/L	490.77 ppb	15:32:55
2	Ba 233.527†	110068.0	110251.8	499.49 µg/L	499.49 ppb	15:32:55
2	Be 313.107†	1746376.7	1747970.2	495.05 µg/L	495.05 ppb	15:32:55
2	Cd 226.502†	75233.2	75323.7	497.75 µg/L	497.75 ppb	15:32:55
2	Co 228.616†	37973.6	38213.8	501.23 µg/L	501.23 ppb	15:32:55
2	Cr 267.716†	56860.8	56550.7	496.53 µg/L	496.53 ppb	15:32:55
2	Cu 324.752†	123027.2	119828.3	497.63 µg/L	497.63 ppb	15:32:55
2	Mn 257.610†	383905.7	383822.5	501.49 µg/L	501.49 ppb	15:32:55
2	Mo 202.031†	14835.9	14862.6	504.99 µg/L	504.99 ppb	15:33:15
2	Ni 231.604†	40197.5	40285.2	500.98 µg/L	500.98 ppb	15:32:55
2	P 214.914†	10963.8	10986.7	2501.8 µg/L	2501.8 ppb	15:33:15
2	Pb 220.353†	8127.7	8013.3	503.71 µg/L	503.71 ppb	15:33:15

2	S 181.975 Axial†	1279.2	1177.7	1006.3 µg/L	1006.3 ppb	15:33:15
2	Sb 206.836†	3989.4	3913.2	502.87 µg/L	502.87 ppb	15:33:15
2	Se 196.026†	1307.2	1287.6	500 µg/L	500 ppb	15:33:15
2	SiO2†	53195.0	51524.4	5298.7 µg/L	5298.7 ppb	15:32:55
2	Si 251.611†	164561.6	163831.7	2489.1 µg/L	2489.1 ppb	15:32:55
2	Sn 189.927†	7220.7	7214.8	504.09 µg/L	504.09 ppb	15:33:15
2	Ti 334.940†	477243.2	476521.4	499.09 µg/L	499.09 ppb	15:32:55
2	Tl 190.801†	3454.9	3571.3	510.77 µg/L	510.77 ppb	15:33:15
2	U 409.014†	7180.5	7594.2	492.03 µg/L	492.03 ppb	15:32:55
2	V 292.402†	100292.9	99831.4	501.64 µg/L	501.64 ppb	15:32:55
2	Zn 213.857†	87223.1	86633.8	496.22 µg/L	496.22 ppb	15:32:55
3	Sc RADIAL	115565.4	115565.4	101 %		15:32:27
3	Al 396.153Radial†	21693.1	21557.1	5060.6 µg/L	5060.6 ppb	15:32:27
3	Ca 317.933Radial†	62348.6	61256.7	5043.8 µg/L	5043.8 ppb	15:32:27
3	Fe 238.204 Radial†	59765.5	59032.3	5035.7 µg/L	5035.7 ppb	15:32:27
3	K 766.490 Radial†	14118.7	12565.6	5025.6 µg/L	5025.6 ppb	15:32:27
3	Mg 279.077 IEC†	9418.3	9165.0	5076.5 µg/L	5076.5 ppb	15:32:27
3	Na 589.592 Radial†	63686.5	62202.4	9920.4 µg/L	9920.4 ppb	15:32:25
3	Sr 421.552†	195926.5	193997.2	498.30 µg/L	498.30 ppb	15:32:25
3	Sc 361.383	1714077.6	1714077.6	101.29 %		15:33:18
3	Y 371.029	959082.2	959082.2	100.21 %		15:33:18
3	Ag 328.068†	127424.9	120700.4	504.63 µg/L	504.63 ppb	15:33:18
3	As 188.979†	1405.4	1401.0	492.40 µg/L	492.40 ppb	15:33:38
3	B 249.677†	38032.6	33436.7	494.59 µg/L	494.59 ppb	15:33:18
3	Ba 233.527†	112015.2	110735.6	501.68 µg/L	501.68 ppb	15:33:18
3	Be 313.107†	1780228.7	1758567.3	498.05 µg/L	498.05 ppb	15:33:18
3	Cd 226.502†	76729.0	75817.2	501.02 µg/L	501.02 ppb	15:33:18
3	Co 228.616†	38739.6	38473.7	504.64 µg/L	504.64 ppb	15:33:18
3	Cr 267.716†	57886.5	56820.2	498.90 µg/L	498.90 ppb	15:33:18
3	Cu 324.752†	125228.6	120393.8	499.96 µg/L	499.96 ppb	15:33:18
3	Mn 257.610†	389981.8	384803.9	502.78 µg/L	502.78 ppb	15:33:18
3	Mo 202.031†	14878.3	14710.6	499.82 µg/L	499.82 ppb	15:33:38
3	Ni 231.604†	40973.3	40525.8	503.97 µg/L	503.97 ppb	15:33:18
3	P 214.914†	10941.3	10821.3	2463.9 µg/L	2463.9 ppb	15:33:38
3	Pb 220.353†	8147.1	7926.2	498.24 µg/L	498.24 ppb	15:33:38
3	S 181.975 Axial†	1283.1	1164.8	995.31 µg/L	995.31 ppb	15:33:38
3	Sb 206.836†	4005.5	3877.0	498.11 µg/L	498.11 ppb	15:33:38
3	Se 196.026†	1325.6	1288.7	501 µg/L	501 ppb	15:33:38
3	SiO2†	54369.8	51989.1	5346.9 µg/L	5346.9 ppb	15:33:18
3	Si 251.611†	168387.2	165458.0	2514.0 µg/L	2514.0 ppb	15:33:18
3	Sn 189.927†	7220.1	7119.8	497.49 µg/L	497.49 ppb	15:33:38
3	Ti 334.940†	485030.3	477972.0	500.61 µg/L	500.61 ppb	15:33:18
3	Tl 190.801†	3462.8	3534.0	505.53 µg/L	505.53 ppb	15:33:38
3	U 409.014†	7172.3	7492.2	485.98 µg/L	485.98 ppb	15:33:18
3	V 292.402†	102126.6	100331.0	504.07 µg/L	504.07 ppb	15:33:18
3	Zn 213.857†	88685.1	86937.2	497.95 µg/L	497.95 ppb	15:33:18

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1702544.8	100.61 %	0.663			0.66%
Sc RADIAL	115304.0	101 %	0.7			0.70%
Y 371.029	953592.2	99.641 %	0.5862			0.59%
Ag 328.068†	120292.8	502.94 µg/L	1.785	502.94 ppb	1.785	0.35%
QC value within limits for Ag 328.068 Recovery = 100.59%						
Al 396.153Radial†	21683.0	5090.2 µg/L	47.20	5090.2 ppb	47.20	0.93%
QC value within limits for Al 396.153Radial Recovery = 101.80%						
As 188.979†	1413.6	496.79 µg/L	4.147	496.79 ppb	4.147	0.83%
QC value within limits for As 188.979 Recovery = 99.36%						
B 249.677†	33181.8	490.81 µg/L	3.758	490.81 ppb	3.758	0.77%
QC value within limits for B 249.677 Recovery = 98.16%						
Ba 233.527†	110452.4	500.39 µg/L	1.142	500.39 ppb	1.142	0.23%
QC value within limits for Ba 233.527 Recovery = 100.08%						
Be 313.107†	1753012.8	496.48 µg/L	1.504	496.48 ppb	1.504	0.30%
QC value within limits for Be 313.107 Recovery = 99.30%						
Ca 317.933Radial†	61551.1	5068.1 µg/L	22.12	5068.1 ppb	22.12	0.44%
QC value within limits for Ca 317.933Radial Recovery = 101.36%						
Cd 226.502†	75514.8	499.01 µg/L	1.755	499.01 ppb	1.755	0.35%
QC value within limits for Cd 226.502 Recovery = 99.80%						
Co 228.616†	38353.2	503.06 µg/L	1.719	503.06 ppb	1.719	0.34%

QC value within limits for Co 228.616 Recovery = 100.61%							
Cr 267.716†	56703.2	497.87 µg/L	1.217	497.87 ppb	1.217	0.24%	
QC value within limits for Cr 267.716 Recovery = 99.57%							
Cu 324.752†	120091.4	498.71 µg/L	1.173	498.71 ppb	1.173	0.24%	
QC value within limits for Cu 324.752 Recovery = 99.74%							
Fe 238.204 Radial†	59345.6	5062.4 µg/L	23.36	5062.4 ppb	23.36	0.46%	
QC value within limits for Fe 238.204 Radial Recovery = 101.25%							
K 766.490 Radial†	12580.8	5031.7 µg/L	39.71	5031.7 ppb	39.71	0.79%	
QC value within limits for K 766.490 Radial Recovery = 100.63%							
Mg 279.077 IEC†	9240.0	5118.0 µg/L	37.25	5118.0 ppb	37.25	0.73%	
QC value within limits for Mg 279.077 IEC Recovery = 102.36%							
Mn 257.610†	384075.7	501.82 µg/L	0.838	501.82 ppb	0.838	0.17%	
QC value within limits for Mn 257.610 Recovery = 100.36%							
Mo 202.031†	14793.9	502.65 µg/L	2.618	502.65 ppb	2.618	0.52%	
QC value within limits for Mo 202.031 Recovery = 100.53%							
Na 589.592 Radial†	62783.1	10013 µg/L	81.6	10013 ppb	81.6	0.82%	
QC value within limits for Na 589.592 Radial Recovery = 100.13%							
Ni 231.604†	40382.4	502.19 µg/L	1.577	502.19 ppb	1.577	0.31%	
QC value within limits for Ni 231.604 Recovery = 100.44%							
P 214.914†	10902.7	2482.5 µg/L	18.92	2482.5 ppb	18.92	0.76%	
QC value within limits for P 214.914 Recovery = 99.30%							
Pb 220.353†	7976.0	501.37 µg/L	2.819	501.37 ppb	2.819	0.56%	
QC value within limits for Pb 220.353 Recovery = 100.27%							
S 181.975 Axial†	1172.8	1002.1 µg/L	5.93	1002.1 ppb	5.93	0.59%	
QC value within limits for S 181.975 Axial Recovery = 100.21%							
Sb 206.836†	3899.3	501.03 µg/L	2.558	501.03 ppb	2.558	0.51%	
QC value within limits for Sb 206.836 Recovery = 100.21%							
Se 196.026†	1285.3	499 µg/L	1.9	499 ppb	1.9	0.38%	
QC value within limits for Se 196.026 Recovery = 99.85%							
SiO2†	51660.8	5312.9 µg/L	29.59	5312.9 ppb	29.59	0.56%	
QC value within limits for SiO2 Recovery = 99.35%							
Si 251.611†	164202.7	2494.8 µg/L	17.08	2494.8 ppb	17.08	0.68%	
QC value within limits for Si 251.611 Recovery = 99.79%							
Sn 189.927†	7157.3	500.09 µg/L	3.520	500.09 ppb	3.520	0.70%	
QC value within limits for Sn 189.927 Recovery = 100.02%							
Sr 421.552†	196052.5	503.58 µg/L	4.720	503.58 ppb	4.720	0.94%	
QC value within limits for Sr 421.552 Recovery = 100.72%							
Ti 334.940†	477276.0	499.88 µg/L	0.766	499.88 ppb	0.766	0.15%	
QC value within limits for Ti 334.940 Recovery = 99.98%							
Tl 190.801†	3553.6	508.28 µg/L	2.627	508.28 ppb	2.627	0.52%	
QC value within limits for Tl 190.801 Recovery = 101.66%							
U 409.014†	7554.2	489.67 µg/L	3.234	489.67 ppb	3.234	0.66%	
QC value within limits for U 409.014 Recovery = 97.93%							
V 292.402†	100080.0	502.85 µg/L	1.216	502.85 ppb	1.216	0.24%	
QC value within limits for V 292.402 Recovery = 100.57%							
Zn 213.857†	86690.5	496.54 µg/L	1.285	496.54 ppb	1.285	0.26%	
QC value within limits for Zn 213.857 Recovery = 99.31%							
All analyte(s) passed QC.							



Sequence No.: 18

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/13/2010 15:33:46

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	114111.8	114111.8	99.8 %		15:34:15
1	Al 396.153Radial†	-71.7	13.1	3.0730 µg/L	3.0730 ppb	15:34:35
1	Ca 317.933Radial†	472.5	16.9	1.3890 µg/L	1.3890 ppb	15:34:35
1	Fe 238.204 Radial†	152.1	28.2	2.4040 µg/L	2.4040 ppb	15:34:35
1	K 766.490 Radial†	1512.4	106.8	42.758 µg/L	42.758 ppb	15:34:15
1	Mg 279.077 IEC†	166.9	10.0	5.5128 µg/L	5.5128 ppb	15:34:35
1	Na 589.592 Radial†	963.4	130.5	20.779 µg/L	20.779 ppb	15:34:15
1	Sr 421.552†	-60.1	6.4	0.0166 µg/L	0.0166 ppb	15:34:15
1	Sc 361.383	1707720.4	1707720.4	100.91 %		15:35:37
1	Y 371.029	966443.9	966443.9	100.98 %		15:35:37
1	Ag 328.068†	4995.8	-152.4	-0.6221 µg/L	-0.6221 ppb	15:35:39
1	As 188.979†	-10.7	2.8	0.9603 µg/L	0.9603 ppb	15:35:59
1	B 249.677†	4169.6	19.9	0.2949 µg/L	0.2949 ppb	15:35:39
1	Ba 233.527†	-150.5	-3.2	-0.0145 µg/L	-0.0145 ppb	15:35:59
1	Be 313.107†	-328.9	666.4	0.1902 µg/L	0.1902 ppb	15:35:39
1	Cd 226.502†	-44.2	20.8	0.1372 µg/L	0.1372 ppb	15:35:59
1	Co 228.616†	-215.9	13.1	0.1715 µg/L	0.1715 ppb	15:35:59
1	Cr 267.716†	321.2	-11.3	-0.1035 µg/L	-0.1035 ppb	15:35:59
1	Cu 324.752†	3054.7	-214.2	-0.8822 µg/L	-0.8822 ppb	15:35:39
1	Mn 257.610†	429.9	210.6	0.2751 µg/L	0.2751 ppb	15:35:59
1	Mo 202.031†	-13.9	7.8	0.2656 µg/L	0.2656 ppb	15:35:59
1	Ni 231.604†	-71.9	2.7	0.0337 µg/L	0.0337 ppb	15:35:59
1	P 214.914†	-3.2	16.0	3.6742 µg/L	3.6742 ppb	15:35:59
1	Pb 220.353†	98.7	-19.4	-1.2192 µg/L	-1.2192 ppb	15:35:59
1	S 181.975 Axial†	103.4	0.5	0.4655 µg/L	0.4655 ppb	15:35:59
1	Sb 206.836†	81.6	3.3	0.4295 µg/L	0.4295 ppb	15:35:59
1	Se 196.026†	34.6	14.3	5.55 µg/L	5.55 ppb	15:35:59
1	SiO2†	1849.8	144.2	14.870 µg/L	14.870 ppb	15:35:39
1	Si 251.611†	1034.4	238.5	3.6292 µg/L	3.6292 ppb	15:35:39
1	Sn 189.927†	21.8	13.2	0.9199 µg/L	0.9199 ppb	15:35:59
1	Ti 334.940†	923.4	28.9	0.0279 µg/L	0.0279 ppb	15:35:39
1	Tl 190.801†	-112.2	4.1	0.5725 µg/L	0.5725 ppb	15:35:59
1	U 409.014†	-333.8	80.5	4.9007 µg/L	4.9007 ppb	15:35:39
1	V 292.402†	524.8	24.1	0.1247 µg/L	0.1247 ppb	15:35:39
1	Zn 213.857†	634.8	9.7	0.0562 µg/L	0.0562 ppb	15:35:59
2	Sc RADIAL	114949.9	114949.9	100 %		15:34:37
2	Al 396.153Radial†	-94.9	-9.5	-2.2533 µg/L	-2.2533 ppb	15:34:57
2	Ca 317.933Radial†	480.4	21.3	1.7515 µg/L	1.7515 ppb	15:34:57
2	Fe 238.204 Radial†	203.3	78.0	6.6560 µg/L	6.6560 ppb	15:34:57
2	K 766.490 Radial†	1603.2	186.1	74.491 µg/L	74.491 ppb	15:34:37
2	Mg 279.077 IEC†	168.7	10.6	5.8444 µg/L	5.8444 ppb	15:34:57
2	Na 589.592 Radial†	918.0	78.3	12.420 µg/L	12.420 ppb	15:34:37
2	Sr 421.552†	-201.1	-133.4	-0.3428 µg/L	-0.3428 ppb	15:34:37
2	Sc 361.383	1709598.0	1709598.0	101.02 %		15:36:02
2	Y 371.029	967704.1	967704.1	101.12 %		15:36:02
2	Ag 328.068†	5012.4	-141.4	-0.5720 µg/L	-0.5720 ppb	15:36:04
2	As 188.979†	-16.7	-3.1	-1.0627 µg/L	-1.0627 ppb	15:36:24
2	B 249.677†	4199.1	44.6	0.6626 µg/L	0.6626 ppb	15:36:04
2	Ba 233.527†	-140.5	6.8	0.0308 µg/L	0.0308 ppb	15:36:24
2	Be 313.107†	-794.1	206.3	0.0609 µg/L	0.0609 ppb	15:36:04
2	Cd 226.502†	-56.6	8.6	0.0562 µg/L	0.0562 ppb	15:36:24
2	Co 228.616†	-228.2	1.2	0.0150 µg/L	0.0150 ppb	15:36:24
2	Cr 267.716†	342.7	9.6	0.0784 µg/L	0.0784 ppb	15:36:24
2	Cu 324.752†	2957.2	-314.1	-1.2925 µg/L	-1.2925 ppb	15:36:04
2	Mn 257.610†	327.0	108.3	0.1413 µg/L	0.1413 ppb	15:36:24
2	Mo 202.031†	-11.0	10.7	0.3643 µg/L	0.3643 ppb	15:36:24
2	Ni 231.604†	-47.6	26.8	0.3330 µg/L	0.3330 ppb	15:36:24
2	P 214.914†	-5.4	13.9	3.1806 µg/L	3.1806 ppb	15:36:24
2	Pb 220.353†	148.8	30.1	1.8777 µg/L	1.8777 ppb	15:36:24

2	S 181.975 Axial†	111.4	8.4	7.1453 µg/L	7.1453 ppb	15:36:24
2	Sb 206.836†	79.5	1.2	0.1581 µg/L	0.1581 ppb	15:36:24
2	Se 196.026†	19.7	-0.5	-0.182 µg/L	-0.182 ppb	15:36:24
2	SiO2†	1754.6	48.0	4.9360 µg/L	4.9360 ppb	15:36:04
2	Si 251.611†	955.5	159.3	2.4224 µg/L	2.4224 ppb	15:36:04
2	Sn 189.927†	13.8	5.3	0.3665 µg/L	0.3665 ppb	15:36:24
2	Ti 334.940†	836.3	-58.2	-0.0648 µg/L	-0.0648 ppb	15:36:04
2	Tl 190.801†	-107.0	9.3	1.3185 µg/L	1.3185 ppb	15:36:24
2	U 409.014†	-280.7	133.4	8.1178 µg/L	8.1178 ppb	15:36:04
2	V 292.402†	532.9	31.5	0.1649 µg/L	0.1649 ppb	15:36:04
2	Zn 213.857†	640.2	14.4	0.0811 µg/L	0.0811 ppb	15:36:24
3	Sc RADIAL	115878.1	115878.1	101 %		15:34:59
3	Al 396.153Radial†	-65.3	20.6	4.8310 µg/L	4.8310 ppb	15:35:19
3	Ca 317.933Radial†	462.0	-0.7	-0.0547 µg/L	-0.0547 ppb	15:35:19
3	Fe 238.204 Radial†	200.7	73.9	6.3023 µg/L	6.3023 ppb	15:35:19
3	K 766.490 Radial†	1521.7	92.8	37.160 µg/L	37.160 ppb	15:34:59
3	Mg 279.077 IEC†	159.9	0.5	0.3002 µg/L	0.3002 ppb	15:35:19
3	Na 589.592 Radial†	965.1	117.4	18.701 µg/L	18.701 ppb	15:34:59
3	Sr 421.552†	-232.8	-163.1	-0.4188 µg/L	-0.4188 ppb	15:34:59
3	Sc 361.383	1713556.7	1713556.7	101.26 %		15:36:26
3	Y 371.029	969829.7	969829.7	101.34 %		15:36:26
3	Ag 328.068†	5031.8	-133.7	-0.5364 µg/L	-0.5364 ppb	15:36:28
3	As 188.979†	-11.4	2.2	0.7499 µg/L	0.7499 ppb	15:36:48
3	B 249.677†	4023.7	-138.2	-2.0514 µg/L	-2.0514 ppb	15:36:28
3	Ba 233.527†	-168.6	-20.7	-0.0933 µg/L	-0.0933 ppb	15:36:48
3	Be 313.107†	-485.1	513.3	0.1482 µg/L	0.1482 ppb	15:36:28
3	Cd 226.502†	-54.4	10.8	0.0708 µg/L	0.0708 ppb	15:36:48
3	Co 228.616†	-240.9	-10.9	-0.1430 µg/L	-0.1430 ppb	15:36:48
3	Cr 267.716†	340.3	6.4	0.0493 µg/L	0.0493 ppb	15:36:48
3	Cu 324.752†	3137.5	-142.8	-0.5825 µg/L	-0.5825 ppb	15:36:28
3	Mn 257.610†	327.9	108.5	0.1418 µg/L	0.1418 ppb	15:36:48
3	Mo 202.031†	-10.6	11.1	0.3782 µg/L	0.3782 ppb	15:36:48
3	Ni 231.604†	-74.9	-0.1	-0.0007 µg/L	-0.0007 ppb	15:36:48
3	P 214.914†	-14.6	4.8	1.1059 µg/L	1.1059 ppb	15:36:48
3	Pb 220.353†	121.7	3.0	0.1811 µg/L	0.1811 ppb	15:36:48
3	S 181.975 Axial†	105.1	1.9	1.5787 µg/L	1.5787 ppb	15:36:48
3	Sb 206.836†	80.9	2.3	0.3037 µg/L	0.3037 ppb	15:36:48
3	Se 196.026†	13.4	-6.8	-2.60 µg/L	-2.60 ppb	15:36:48
3	SiO2†	1879.5	167.3	17.253 µg/L	17.253 ppb	15:36:28
3	Si 251.611†	1041.1	241.6	3.6761 µg/L	3.6761 ppb	15:36:28
3	Sn 189.927†	19.4	10.8	0.7490 µg/L	0.7490 ppb	15:36:48
3	Ti 334.940†	826.3	-70.1	-0.0774 µg/L	-0.0774 ppb	15:36:28
3	Tl 190.801†	-101.7	14.8	2.0824 µg/L	2.0824 ppb	15:36:48
3	U 409.014†	-260.2	154.2	9.3985 µg/L	9.3985 ppb	15:36:28
3	V 292.402†	571.6	68.4	0.3492 µg/L	0.3492 ppb	15:36:28
3	Zn 213.857†	634.2	7.0	0.0403 µg/L	0.0403 ppb	15:36:48

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1710291.7	101.07 %	0.176			0.17%
Sc RADIAL	114979.9	101 %	0.8			0.77%
Y 371.029	967992.6	101.15 %	0.179			0.18%
Ag 328.068†	-142.5	-0.5768 µg/L	0.04303	-0.5768 ppb	0.04303	7.46%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	8.1	1.8835 µg/L	3.68888	1.8835 ppb	3.68888	195.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.6	0.2158 µg/L	1.11219	0.2158 ppb	1.11219	515.29%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-24.6	-0.3646 µg/L	1.47232	-0.3646 ppb	1.47232	403.79%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-5.7	-0.0257 µg/L	0.06282	-0.0257 ppb	0.06282	244.90%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	462.0	0.1331 µg/L	0.06596	0.1331 ppb	0.06596	49.57%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	12.5	1.0286 µg/L	0.95553	1.0286 ppb	0.95553	92.90%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	13.4	0.0881 µg/L	0.04318	0.0881 ppb	0.04318	49.04%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	1.1	0.0145 µg/L	0.15726	0.0145 ppb	0.15726	>999.9%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	1.6	0.0081 µg/L	0.09770	0.0081 ppb	0.09770	>999.9%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-223.7	-0.9191 µg/L	0.35640	-0.9191 ppb	0.35640	38.78%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	60.0	5.1208 µg/L	2.35941	5.1208 ppb	2.35941	46.08%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	128.6	51.470 µg/L	20.1323	51.470 ppb	20.1323	39.11%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	7.0	3.8858 µg/L	3.10964	3.8858 ppb	3.10964	80.03%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	142.5	0.1861 µg/L	0.07707	0.1861 ppb	0.07707	41.42%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	9.9	0.3361 µg/L	0.06139	0.3361 ppb	0.06139	18.27%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	108.7	17.300 µg/L	4.3521	17.300 ppb	4.3521	25.16%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	9.8	0.1220 µg/L	0.18352	0.1220 ppb	0.18352	150.45%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	11.6	2.6536 µg/L	1.36284	2.6536 ppb	1.36284	51.36%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	4.5	0.2799 µg/L	1.55080	0.2799 ppb	1.55080	554.13%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	3.6	3.0632 µg/L	3.57877	3.0632 ppb	3.57877	116.83%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	2.3	0.2971 µg/L	0.13579	0.2971 ppb	0.13579	45.70%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	2.4	0.923 µg/L	4.1854	0.923 ppb	4.1854	453.68%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	119.8	12.353 µg/L	6.5328	12.353 ppb	6.5328	52.88%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	213.2	3.2426 µg/L	0.71066	3.2426 ppb	0.71066	21.92%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	9.7	0.6785 µg/L	0.28335	0.6785 ppb	0.28335	41.76%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-96.7	-0.2484 µg/L	0.23255	-0.2484 ppb	0.23255	93.64%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-33.1	-0.0381 µg/L	0.05752	-0.0381 ppb	0.05752	151.00%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	9.4	1.3244 µg/L	0.75497	1.3244 ppb	0.75497	57.00%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	122.7	7.4723 µg/L	2.31734	7.4723 ppb	2.31734	31.01%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	41.3	0.2129 µg/L	0.11973	0.2129 ppb	0.11973	56.23%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	10.4	0.0592 µg/L	0.02059	0.0592 ppb	0.02059	34.78%
QC value within limits for Zn 213.857 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 25

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/13/2010 15:49:39

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	114198.9	114198.9	99.8 %		15:50:13
1	Al 396.153Radial†	21668.7	21789.6	5115.3 µg/L	5115.3 ppb	15:50:13
1	Ca 317.933Radial†	62362.3	62008.9	5105.8 µg/L	5105.8 ppb	15:50:13
1	Fe 238.204 Radial†	60169.5	60144.9	5130.6 µg/L	5130.6 ppb	15:50:13
1	K 766.490 Radial†	14195.5	12809.7	5123.3 µg/L	5123.3 ppb	15:50:13
1	Mg 279.077 IEC†	9472.1	9330.4	5168.0 µg/L	5168.0 ppb	15:50:13
1	Na 589.592 Radial†	63931.5	63202.1	10080 µg/L	10080 ppb	15:50:11
1	Sr 421.552†	196962.7	197355.7	506.92 µg/L	506.92 ppb	15:50:11
1	Sc 361.383	1691811.1	1691811.1	99.973 %		15:50:26
1	Y 371.029	947452.4	947452.4	98.999 %		15:50:26
1	Ag 328.068†	126209.9	121140.8	506.51 µg/L	506.51 ppb	15:50:26
1	As 188.979†	1396.6	1410.4	495.72 µg/L	495.72 ppb	15:50:46
1	B 249.677†	37486.6	33384.7	493.81 µg/L	493.81 ppb	15:50:26
1	Ba 233.527†	110833.5	111009.1	502.92 µg/L	502.92 ppb	15:50:26
1	Be 313.107†	1759299.1	1760764.0	498.68 µg/L	498.68 ppb	15:50:26
1	Cd 226.502†	75902.2	75987.1	502.13 µg/L	502.13 ppb	15:50:26
1	Co 228.616†	38325.1	38562.5	505.80 µg/L	505.80 ppb	15:50:26
1	Cr 267.716†	57420.7	57106.4	501.40 µg/L	501.40 ppb	15:50:26
1	Cu 324.752†	124399.5	121191.7	503.30 µg/L	503.30 ppb	15:50:26
1	Mn 257.610†	387036.4	386925.0	505.54 µg/L	505.54 ppb	15:50:26
1	Mo 202.031†	14769.0	14794.6	502.68 µg/L	502.68 ppb	15:50:46
1	Ni 231.604†	40584.5	40669.3	505.76 µg/L	505.76 ppb	15:50:26
1	P 214.914†	10843.4	10865.6	2474.0 µg/L	2474.0 ppb	15:50:46
1	Pb 220.353†	8096.3	7981.2	501.68 µg/L	501.68 ppb	15:50:46
1	S 181.975 Axial†	1259.2	1157.6	989.17 µg/L	989.17 ppb	15:50:46
1	Sb 206.836†	3983.4	3906.9	501.95 µg/L	501.95 ppb	15:50:46
1	Se 196.026†	1300.9	1281.3	498 µg/L	498 ppb	15:50:46
1	SiO2†	53634.4	51959.9	5343.8 µg/L	5343.8 ppb	15:50:26
1	Si 251.611†	165839.5	165097.5	2508.5 µg/L	2508.5 ppb	15:50:26
1	Sn 189.927†	7148.8	7142.2	499.06 µg/L	499.06 ppb	15:50:46
1	Ti 334.940†	480930.0	480173.0	502.90 µg/L	502.90 ppb	15:50:26
1	Tl 190.801†	3434.9	3551.1	507.98 µg/L	507.98 ppb	15:50:46
1	U 409.014†	7491.1	7904.3	511.19 µg/L	511.19 ppb	15:50:26
1	V 292.402†	101334.0	100865.2	506.76 µg/L	506.76 ppb	15:50:26
1	Zn 213.857†	88041.6	87445.9	500.87 µg/L	500.87 ppb	15:50:26
2	Sc RADIAL	114000.1	114000.1	99.7 %		15:50:17
2	Al 396.153Radial†	21602.4	21760.9	5108.2 µg/L	5108.2 ppb	15:50:17
2	Ca 317.933Radial†	61953.6	61707.7	5081.0 µg/L	5081.0 ppb	15:50:17
2	Fe 238.204 Radial†	59601.2	59679.7	5090.9 µg/L	5090.9 ppb	15:50:17
2	K 766.490 Radial†	14059.0	12697.6	5078.4 µg/L	5078.4 ppb	15:50:17
2	Mg 279.077 IEC†	9394.9	9269.5	5134.5 µg/L	5134.5 ppb	15:50:17
2	Na 589.592 Radial†	63296.0	62676.1	9995.9 µg/L	9995.9 ppb	15:50:15
2	Sr 421.552†	194813.1	195542.8	502.27 µg/L	502.27 ppb	15:50:15
2	Sc 361.383	1668820.4	1668820.4	98.615 %		15:50:49
2	Y 371.029	935630.4	935630.4	97.764 %		15:50:49
2	Ag 328.068†	124594.7	121242.2	506.91 µg/L	506.91 ppb	15:50:49
2	As 188.979†	1386.4	1419.2	498.80 µg/L	498.80 ppb	15:51:09
2	B 249.677†	37079.2	33488.2	495.35 µg/L	495.35 ppb	15:50:49
2	Ba 233.527†	109489.2	111173.2	503.66 µg/L	503.66 ppb	15:50:49
2	Be 313.107†	1733975.4	1759328.1	498.27 µg/L	498.27 ppb	15:50:49
2	Cd 226.502†	74876.5	75993.0	502.18 µg/L	502.18 ppb	15:50:49
2	Co 228.616†	37806.7	38564.8	505.84 µg/L	505.84 ppb	15:50:49
2	Cr 267.716†	56774.2	57242.1	502.60 µg/L	502.60 ppb	15:50:49
2	Cu 324.752†	122458.1	120937.2	502.22 µg/L	502.22 ppb	15:50:49
2	Mn 257.610†	381294.2	386435.6	504.91 µg/L	504.91 ppb	15:50:49
2	Mo 202.031†	14767.1	14996.2	509.52 µg/L	509.52 ppb	15:51:09
2	Ni 231.604†	40035.1	40671.5	505.78 µg/L	505.78 ppb	15:50:49
2	P 214.914†	10891.1	11063.3	2519.2 µg/L	2519.2 ppb	15:51:09
2	Pb 220.353†	8097.6	8094.1	508.79 µg/L	508.79 ppb	15:51:09

2	S 181.975 Axial†	1266.0	1181.8	1009.9 µg/L	1009.9 ppb	15:51:09
2	Sb 206.836†	3998.0	3976.6	510.98 µg/L	510.98 ppb	15:51:09
2	Se 196.026†	1299.7	1298.0	504 µg/L	504 ppb	15:51:09
2	SiO2†	53035.3	52091.5	5357.0 µg/L	5357.0 ppb	15:50:49
2	Si 251.611†	163571.3	165082.7	2508.1 µg/L	2508.1 ppb	15:50:49
2	Sn 189.927†	7177.9	7270.3	507.97 µg/L	507.97 ppb	15:51:09
2	Ti 334.940†	474367.8	480146.1	502.89 µg/L	502.89 ppb	15:50:49
2	Tl 190.801†	3439.3	3602.8	515.27 µg/L	515.27 ppb	15:51:09
2	U 409.014†	7077.9	7588.6	492.01 µg/L	492.01 ppb	15:50:49
2	V 292.402†	100009.6	100918.6	507.10 µg/L	507.10 ppb	15:50:49
2	Zn 213.857†	86526.3	87122.6	499.01 µg/L	499.01 ppb	15:50:49
3	Sc RADIAL	113895.8	113895.8	99.6 %		15:50:21
3	Al 396.153Radial†	21539.7	21717.8	5098.5 µg/L	5098.5 ppb	15:50:21
3	Ca 317.933Radial†	62184.2	61996.2	5104.7 µg/L	5104.7 ppb	15:50:21
3	Fe 238.204 Radial†	59787.7	59921.8	5111.6 µg/L	5111.6 ppb	15:50:21
3	K 766.490 Radial†	14019.9	12671.2	5067.8 µg/L	5067.8 ppb	15:50:21
3	Mg 279.077 IEC†	9474.1	9357.7	5183.0 µg/L	5183.0 ppb	15:50:21
3	Na 589.592 Radial†	63709.3	63149.3	10071 µg/L	10071 ppb	15:50:19
3	Sr 421.552†	195444.3	196355.6	504.35 µg/L	504.35 ppb	15:50:19
3	Sc 361.383	1698609.9	1698609.9	100.37 %		15:51:12
3	Y 371.029	951230.2	951230.2	99.394 %		15:51:12
3	Ag 328.068†	126547.3	120971.6	505.78 µg/L	505.78 ppb	15:51:12
3	As 188.979†	1376.5	1384.7	486.81 µg/L	486.81 ppb	15:51:32
3	B 249.677†	37633.2	33380.7	493.76 µg/L	493.76 ppb	15:51:12
3	Ba 233.527†	111204.6	110935.1	502.58 µg/L	502.58 ppb	15:51:12
3	Be 313.107†	1764224.4	1758627.3	498.07 µg/L	498.07 ppb	15:51:12
3	Cd 226.502†	76044.9	75825.5	501.07 µg/L	501.07 ppb	15:51:12
3	Co 228.616†	38379.2	38462.9	504.50 µg/L	504.50 ppb	15:51:12
3	Cr 267.716†	57539.6	56995.0	500.43 µg/L	500.43 ppb	15:51:12
3	Cu 324.752†	124404.7	120698.7	501.25 µg/L	501.25 ppb	15:51:12
3	Mn 257.610†	386861.2	385200.9	503.29 µg/L	503.29 ppb	15:51:12
3	Mo 202.031†	14771.7	14738.1	500.76 µg/L	500.76 ppb	15:51:32
3	Ni 231.604†	40755.9	40677.6	505.86 µg/L	505.86 ppb	15:51:12
3	P 214.914†	10869.4	10848.1	2470.0 µg/L	2470.0 ppb	15:51:32
3	Pb 220.353†	8088.2	7940.8	499.14 µg/L	499.14 ppb	15:51:32
3	S 181.975 Axial†	1275.0	1168.3	998.25 µg/L	998.25 ppb	15:51:32
3	Sb 206.836†	3977.2	3884.8	499.11 µg/L	499.11 ppb	15:51:32
3	Se 196.026†	1287.9	1263.1	491 µg/L	491 ppb	15:51:32
3	SiO2†	54075.6	52184.7	5367.0 µg/L	5367.0 ppb	15:51:12
3	Si 251.611†	166698.4	165289.3	2511.4 µg/L	2511.4 ppb	15:51:12
3	Sn 189.927†	7174.2	7139.0	498.82 µg/L	498.82 ppb	15:51:32
3	Ti 334.940†	481718.8	479033.4	501.71 µg/L	501.71 ppb	15:51:12
3	Tl 190.801†	3435.3	3537.7	506.08 µg/L	506.08 ppb	15:51:32
3	U 409.014†	7395.7	7779.4	503.48 µg/L	503.48 ppb	15:51:12
3	V 292.402†	101401.5	100526.7	505.06 µg/L	505.06 ppb	15:51:12
3	Zn 213.857†	88323.3	87374.1	500.46 µg/L	500.46 ppb	15:51:12

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1686413.8	99.654 %	0.9225			0.93%
Sc RADIAL	114031.6	99.7 %	0.13			0.13%
Y 371.029	944771.0	98.719 %	0.8504			0.86%
Ag 328.068†	121118.2	506.40 µg/L	0.571	506.40 ppb	0.571	0.11%
QC value within limits for Ag 328.068 Recovery = 101.28%						
Al 396.153Radial†	21756.1	5107.3 µg/L	8.46	5107.3 ppb	8.46	0.17%
QC value within limits for Al 396.153Radial Recovery = 102.15%						
As 188.979†	1404.8	493.78 µg/L	6.229	493.78 ppb	6.229	1.26%
QC value within limits for As 188.979 Recovery = 98.76%						
B 249.677†	33417.9	494.31 µg/L	0.903	494.31 ppb	0.903	0.18%
QC value within limits for B 249.677 Recovery = 98.86%						
Ba 233.527†	111039.2	503.05 µg/L	0.554	503.05 ppb	0.554	0.11%
QC value within limits for Ba 233.527 Recovery = 100.61%						
Be 313.107†	1759573.1	498.34 µg/L	0.310	498.34 ppb	0.310	0.06%
QC value within limits for Be 313.107 Recovery = 99.67%						
Ca 317.933Radial†	61904.3	5097.2 µg/L	14.03	5097.2 ppb	14.03	0.28%
QC value within limits for Ca 317.933Radial Recovery = 101.94%						
Cd 226.502†	75935.2	501.79 µg/L	0.629	501.79 ppb	0.629	0.13%
QC value within limits for Cd 226.502 Recovery = 100.36%						
Co 228.616†	38530.1	505.38 µg/L	0.764	505.38 ppb	0.764	0.15%

QC value within limits for Co 228.616 Recovery = 101.08%							
Cr 267.716†	57114.5	501.48 µg/L	1.092	501.48 ppb	1.092	0.22%	
QC value within limits for Cr 267.716 Recovery = 100.30%							
Cu 324.752†	120942.5	502.26 µg/L	1.025	502.26 ppb	1.025	0.20%	
QC value within limits for Cu 324.752 Recovery = 100.45%							
Fe 238.204 Radial†	59915.5	5111.0 µg/L	19.85	5111.0 ppb	19.85	0.39%	
QC value within limits for Fe 238.204 Radial Recovery = 102.22%							
K 766.490 Radial†	12726.2	5089.8 µg/L	29.44	5089.8 ppb	29.44	0.58%	
QC value within limits for K 766.490 Radial Recovery = 101.80%							
Mg 279.077 IEC†	9319.2	5161.8 µg/L	24.85	5161.8 ppb	24.85	0.48%	
QC value within limits for Mg 279.077 IEC Recovery = 103.24%							
Mn 257.610†	386187.2	504.58 µg/L	1.162	504.58 ppb	1.162	0.23%	
QC value within limits for Mn 257.610 Recovery = 100.92%							
Mo 202.031†	14843.0	504.32 µg/L	4.605	504.32 ppb	4.605	0.91%	
QC value within limits for Mo 202.031 Recovery = 100.86%							
Na 589.592 Radial†	63009.2	10049 µg/L	46.2	10049 ppb	46.2	0.46%	
QC value within limits for Na 589.592 Radial Recovery = 100.49%							
Ni 231.604†	40672.8	505.80 µg/L	0.054	505.80 ppb	0.054	0.01%	
QC value within limits for Ni 231.604 Recovery = 101.16%							
P 214.914†	10925.7	2487.7 µg/L	27.33	2487.7 ppb	27.33	1.10%	
QC value within limits for P 214.914 Recovery = 99.51%							
Pb 220.353†	8005.4	503.20 µg/L	4.999	503.20 ppb	4.999	0.99%	
QC value within limits for Pb 220.353 Recovery = 100.64%							
S 181.975 Axial†	1169.2	999.09 µg/L	10.370	999.09 ppb	10.370	1.04%	
QC value within limits for S 181.975 Axial Recovery = 99.91%							
Sb 206.836†	3922.8	504.01 µg/L	6.200	504.01 ppb	6.200	1.23%	
QC value within limits for Sb 206.836 Recovery = 100.80%							
Se 196.026†	1280.8	498 µg/L	6.7	498 ppb	6.7	1.36%	
QC value within limits for Se 196.026 Recovery = 99.50%							
SiO2†	52078.7	5355.9 µg/L	11.68	5355.9 ppb	11.68	0.22%	
QC value within limits for SiO2 Recovery = 100.16%							
Si 251.611†	165156.5	2509.4 µg/L	1.82	2509.4 ppb	1.82	0.07%	
QC value within limits for Si 251.611 Recovery = 100.37%							
Sn 189.927†	7183.9	501.95 µg/L	5.217	501.95 ppb	5.217	1.04%	
QC value within limits for Sn 189.927 Recovery = 100.39%							
Sr 421.552†	196418.0	504.51 µg/L	2.333	504.51 ppb	2.333	0.46%	
QC value within limits for Sr 421.552 Recovery = 100.90%							
Ti 334.940†	479784.2	502.50 µg/L	0.683	502.50 ppb	0.683	0.14%	
QC value within limits for Ti 334.940 Recovery = 100.50%							
Tl 190.801†	3563.9	509.78 µg/L	4.854	509.78 ppb	4.854	0.95%	
QC value within limits for Tl 190.801 Recovery = 101.96%							
U 409.014†	7757.4	502.23 µg/L	9.653	502.23 ppb	9.653	1.92%	
QC value within limits for U 409.014 Recovery = 100.45%							
V 292.402†	100770.2	506.31 µg/L	1.093	506.31 ppb	1.093	0.22%	
QC value within limits for V 292.402 Recovery = 101.26%							
Zn 213.857†	87314.2	500.11 µg/L	0.978	500.11 ppb	0.978	0.20%	
QC value within limits for Zn 213.857 Recovery = 100.02%							

All analyte(s) passed QC.

Sequence No.: 26

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/13/2010 15:51:40

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	112743.2	112743.2	98.6 %		15:52:09
1	Al 396.153Radial†	-75.9	8.0	1.8688 µg/L	1.8688 ppb	15:52:29
1	Ca 317.933Radial†	483.0	33.3	2.7390 µg/L	2.7390 ppb	15:52:29
1	Fe 238.204 Radial†	190.0	68.5	5.8393 µg/L	5.8393 ppb	15:52:29
1	K 766.490 Radial†	1403.3	14.5	5.8111 µg/L	5.8111 ppb	15:52:09
1	Mg 279.077 IEC†	162.9	8.0	4.4175 µg/L	4.4175 ppb	15:52:29
1	Na 589.592 Radial†	985.9	165.0	26.315 µg/L	26.315 ppb	15:52:09
1	Sr 421.552†	-32.4	33.9	0.0870 µg/L	0.0870 ppb	15:52:09
1	Sc 361.383	1680509.1	1680509.1	99.305 %		15:53:17
1	Y 371.029	952089.9	952089.9	99.484 %		15:53:17
1	Ag 328.068†	4812.8	-256.5	-1.0336 µg/L	-1.0336 ppb	15:53:19
1	As 188.979†	-7.7	5.6	1.9569 µg/L	1.9569 ppb	15:53:39
1	B 249.677†	4126.6	43.5	0.6472 µg/L	0.6472 ppb	15:53:19
1	Ba 233.527†	-136.8	8.1	0.0365 µg/L	0.0365 ppb	15:53:39
1	Be 313.107†	-592.8	395.3	0.1193 µg/L	0.1193 ppb	15:53:19
1	Cd 226.502†	-58.9	5.3	0.0343 µg/L	0.0343 ppb	15:53:39
1	Co 228.616†	-252.3	-27.0	-0.3545 µg/L	-0.3545 ppb	15:53:39
1	Cr 267.716†	366.5	39.4	0.3272 µg/L	0.3272 ppb	15:53:39
1	Cu 324.752†	2931.9	-288.9	-1.1749 µg/L	-1.1749 ppb	15:53:19
1	Mn 257.610†	289.8	76.4	0.0997 µg/L	0.0997 ppb	15:53:39
1	Mo 202.031†	-9.0	12.5	0.4259 µg/L	0.4259 ppb	15:53:39
1	Ni 231.604†	-66.3	7.1	0.0884 µg/L	0.0884 ppb	15:53:39
1	P 214.914†	-4.1	15.1	3.4565 µg/L	3.4565 ppb	15:53:39
1	Pb 220.353†	122.3	5.9	0.3533 µg/L	0.3533 ppb	15:53:39
1	S 181.975 Axial†	110.4	9.2	7.8567 µg/L	7.8567 ppb	15:53:39
1	Sb 206.836†	92.9	16.0	2.0569 µg/L	2.0569 ppb	15:53:39
1	Se 196.026†	2.3	-17.7	-6.82 µg/L	-6.82 ppb	15:53:39
1	SiO2†	1640.9	-36.5	-3.7876 µg/L	-3.7876 ppb	15:53:19
1	Si 251.611†	770.5	-10.6	-0.1697 µg/L	-0.1697 ppb	15:53:19
1	Sn 189.927†	12.4	4.1	0.2849 µg/L	0.2849 ppb	15:53:39
1	Ti 334.940†	753.2	-127.6	-0.1442 µg/L	-0.1442 ppb	15:53:19
1	Tl 190.801†	-126.1	-11.8	-1.6586 µg/L	-1.6586 ppb	15:53:39
1	U 409.014†	-9.6	401.6	24.400 µg/L	24.400 ppb	15:53:19
1	V 292.402†	420.7	-72.3	-0.3368 µg/L	-0.3368 ppb	15:53:19
1	Zn 213.857†	633.1	18.2	0.1047 µg/L	0.1047 ppb	15:53:39
2	Sc RADIAL	113250.6	113250.6	99.0 %		15:52:31
2	Al 396.153Radial†	-90.8	-6.7	-1.6008 µg/L	-1.6008 ppb	15:52:51
2	Ca 317.933Radial†	468.3	16.2	1.3361 µg/L	1.3361 ppb	15:52:51
2	Fe 238.204 Radial†	134.7	11.8	1.0037 µg/L	1.0037 ppb	15:52:51
2	K 766.490 Radial†	1371.0	-24.5	-9.7867 µg/L	-9.7867 ppb	15:52:31
2	Mg 279.077 IEC†	160.6	4.9	2.7058 µg/L	2.7058 ppb	15:52:51
2	Na 589.592 Radial†	790.9	-36.5	-5.8144 µg/L	-5.8144 ppb	15:52:31
2	Sr 421.552†	-146.4	-81.2	-0.2085 µg/L	-0.2085 ppb	15:52:31
2	Sc 361.383	1684012.1	1684012.1	99.512 %		15:53:41
2	Y 371.029	953509.5	953509.5	99.632 %		15:53:41
2	Ag 328.068†	4964.5	-114.2	-0.4598 µg/L	-0.4598 ppb	15:53:44
2	As 188.979†	-4.5	8.9	3.0905 µg/L	3.0905 ppb	15:54:04
2	B 249.677†	3967.8	-124.7	-1.8526 µg/L	-1.8526 ppb	15:53:44
2	Ba 233.527†	-157.1	-12.0	-0.0542 µg/L	-0.0542 ppb	15:54:04
2	Be 313.107†	-715.0	273.8	0.0811 µg/L	0.0811 ppb	15:53:44
2	Cd 226.502†	-77.6	-13.4	-0.0886 µg/L	-0.0886 ppb	15:54:04
2	Co 228.616†	-196.0	30.1	0.3940 µg/L	0.3940 ppb	15:54:04
2	Cr 267.716†	326.4	-1.6	-0.0238 µg/L	-0.0238 ppb	15:54:04
2	Cu 324.752†	2934.5	-292.4	-1.2004 µg/L	-1.2004 ppb	15:53:44
2	Mn 257.610†	277.6	63.6	0.0830 µg/L	0.0830 ppb	15:54:04
2	Mo 202.031†	-15.3	6.3	0.2123 µg/L	0.2123 ppb	15:54:04
2	Ni 231.604†	-93.4	-19.9	-0.2475 µg/L	-0.2475 ppb	15:54:04
2	P 214.914†	-8.3	10.9	2.5060 µg/L	2.5060 ppb	15:54:04
2	Pb 220.353†	114.1	-2.5	-0.1651 µg/L	-0.1651 ppb	15:54:04

2	S 181.975 Axial†	109.6	8.3	7.0278 µg/L	7.0278 ppb	15:54:04
2	Sb 206.836†	88.4	11.3	1.4476 µg/L	1.4476 ppb	15:54:04
2	Se 196.026†	23.2	3.3	1.29 µg/L	1.29 ppb	15:54:04
2	SiO2†	1756.0	75.7	7.8027 µg/L	7.8027 ppb	15:53:44
2	Si 251.611†	791.6	8.9	0.1299 µg/L	0.1299 ppb	15:53:44
2	Sn 189.927†	16.5	8.2	0.5709 µg/L	0.5709 ppb	15:54:04
2	Ti 334.940†	754.0	-128.4	-0.1396 µg/L	-0.1396 ppb	15:53:44
2	Tl 190.801†	-119.3	-4.7	-0.6651 µg/L	-0.6651 ppb	15:54:04
2	U 409.014†	-217.4	192.8	11.710 µg/L	11.710 ppb	15:53:44
2	V 292.402†	447.2	-46.7	-0.2213 µg/L	-0.2213 ppb	15:53:44
2	Zn 213.857†	640.6	24.4	0.1431 µg/L	0.1431 ppb	15:54:04
3	Sc RADIAL	114599.6	114599.6	100 %		15:52:53
3	Al 396.153Radial†	-71.4	13.7	3.2003 µg/L	3.2003 ppb	15:53:13
3	Ca 317.933Radial†	464.5	6.9	0.5688 µg/L	0.5688 ppb	15:53:13
3	Fe 238.204 Radial†	134.5	10.0	0.8519 µg/L	0.8519 ppb	15:53:13
3	K 766.490 Radial†	1419.1	7.2	2.8938 µg/L	2.8938 ppb	15:52:53
3	Mg 279.077 IEC†	163.5	5.9	3.2605 µg/L	3.2605 ppb	15:53:13
3	Na 589.592 Radial†	817.2	-19.6	-3.1289 µg/L	-3.1289 ppb	15:52:53
3	Sr 421.552†	-19.5	47.2	0.1213 µg/L	0.1213 ppb	15:52:53
3	Sc 361.383	1692860.9	1692860.9	100.04 %		15:54:06
3	Y 371.029	958440.2	958440.2	100.15 %		15:54:06
3	Ag 328.068†	4930.1	-174.6	-0.7260 µg/L	-0.7260 ppb	15:54:08
3	As 188.979†	-6.7	6.7	2.3325 µg/L	2.3325 ppb	15:54:28
3	B 249.677†	4241.2	127.7	1.8954 µg/L	1.8954 ppb	15:54:08
3	Ba 233.527†	-158.5	-12.6	-0.0567 µg/L	-0.0567 ppb	15:54:28
3	Be 313.107†	-731.8	260.8	0.0728 µg/L	0.0728 ppb	15:54:08
3	Cd 226.502†	-60.1	4.5	0.0298 µg/L	0.0298 ppb	15:54:28
3	Co 228.616†	-214.0	13.1	0.1723 µg/L	0.1723 ppb	15:54:28
3	Cr 267.716†	364.5	34.7	0.3074 µg/L	0.3074 ppb	15:54:28
3	Cu 324.752†	3056.7	-185.6	-0.7708 µg/L	-0.7708 ppb	15:54:08
3	Mn 257.610†	293.0	77.6	0.1013 µg/L	0.1013 ppb	15:54:28
3	Mo 202.031†	-7.8	13.8	0.4677 µg/L	0.4677 ppb	15:54:28
3	Ni 231.604†	-55.6	18.3	0.2274 µg/L	0.2274 ppb	15:54:28
3	P 214.914†	7.1	26.3	6.0261 µg/L	6.0261 ppb	15:54:28
3	Pb 220.353†	130.2	12.9	0.8118 µg/L	0.8118 ppb	15:54:28
3	S 181.975 Axial†	100.5	-1.4	-1.2192 µg/L	-1.2192 ppb	15:54:28
3	Sb 206.836†	85.9	8.3	1.0700 µg/L	1.0700 ppb	15:54:28
3	Se 196.026†	24.4	4.4	1.69 µg/L	1.69 ppb	15:54:28
3	SiO2†	1735.5	46.0	4.7311 µg/L	4.7311 ppb	15:54:08
3	Si 251.611†	883.6	96.8	1.4659 µg/L	1.4659 ppb	15:54:08
3	Sn 189.927†	18.4	10.0	0.6950 µg/L	0.6950 ppb	15:54:28
3	Ti 334.940†	694.5	-191.8	-0.2002 µg/L	-0.2002 ppb	15:54:08
3	Tl 190.801†	-109.3	6.0	0.8435 µg/L	0.8435 ppb	15:54:28
3	U 409.014†	-465.7	-54.3	-3.3072 µg/L	-3.3072 ppb	15:54:08
3	V 292.402†	480.9	-15.3	-0.0716 µg/L	-0.0716 ppb	15:54:08
3	Zn 213.857†	614.2	-5.3	-0.0317 µg/L	-0.0317 ppb	15:54:28

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1685794.0	99.618 %	0.3762			0.38%
Sc RADIAL	113531.2	99.3 %	0.84			0.85%
Y 371.029	954679.9	99.754 %	0.3483			0.35%
Ag 328.068†	-181.8	-0.7398 µg/L	0.28718	-0.7398 ppb	0.28718	38.82%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	5.0	1.1561 µg/L	2.47862	1.1561 ppb	2.47862	214.39%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	7.1	2.4600 µg/L	0.57742	2.4600 ppb	0.57742	23.47%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	15.5	0.2300 µg/L	1.90854	0.2300 ppb	1.90854	829.76%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-5.5	-0.0248 µg/L	0.05310	-0.0248 ppb	0.05310	213.81%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	310.0	0.0911 µg/L	0.02480	0.0911 ppb	0.02480	27.23%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	18.8	1.5480 µg/L	1.10049	1.5480 ppb	1.10049	71.09%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-1.2	-0.0081 µg/L	0.06970	-0.0081 ppb	0.06970	857.00%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	5.4	0.0706 µg/L	0.38449	0.0706 ppb	0.38449	544.69%



QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	24.2	0.2036 µg/L	0.19715	0.2036 ppb	0.19715	96.83%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-255.6	-1.0487 µg/L	0.24099	-1.0487 ppb	0.24099	22.98%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	30.1	2.5650 µg/L	2.83671	2.5650 ppb	2.83671	110.59%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-0.9	-0.3606 µg/L	8.29253	-0.3606 ppb	8.29253	>999.9%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	6.2	3.4613 µg/L	0.87335	3.4613 ppb	0.87335	25.23%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	72.5	0.0947 µg/L	0.01011	0.0947 ppb	0.01011	10.68%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	10.9	0.3686 µg/L	0.13698	0.3686 ppb	0.13698	37.16%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	36.3	5.7907 µg/L	17.82560	5.7907 ppb	17.82560	307.83%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	1.8	0.0228 µg/L	0.24419	0.0228 ppb	0.24419	>999.9%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	17.4	3.9962 µg/L	1.82106	3.9962 ppb	1.82106	45.57%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	5.4	0.3333 µg/L	0.48877	0.3333 ppb	0.48877	146.63%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	5.3	4.5551 µg/L	5.01786	4.5551 ppb	5.01786	110.16%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	11.9	1.5248 µg/L	0.49800	1.5248 ppb	0.49800	32.66%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-3.3	-1.28 µg/L	4.799	-1.28 ppb	4.799	374.76%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	28.4	2.9154 µg/L	6.00468	2.9154 ppb	6.00468	205.97%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	31.7	0.4754 µg/L	0.87084	0.4754 ppb	0.87084	183.19%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	7.4	0.5170 µg/L	0.21032	0.5170 ppb	0.21032	40.68%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-0.0	-0.0001 µg/L	0.18133	-0.0001 ppb	0.18133	>999.9%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-149.3	-0.1614 µg/L	0.03371	-0.1614 ppb	0.03371	20.89%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-3.5	-0.4934 µg/L	1.25982	-0.4934 ppb	1.25982	255.33%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	180.0	10.934 µg/L	13.8701	10.934 ppb	13.8701	126.85%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-44.8	-0.2099 µg/L	0.13298	-0.2099 ppb	0.13298	63.35%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	12.4	0.0720 µg/L	0.09184	0.0720 ppb	0.09184	127.47%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/13/2010 16:12:39

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	113566.3	113566.3	99.3 %		16:13:13
1	Al 396.153Radial†	21566.3	21807.3	5119.2 µg/L	5119.2 ppb	16:13:13
1	Ca 317.933Radial†	62400.2	62394.9	5137.6 µg/L	5137.6 ppb	16:13:13
1	Fe 238.204 Radial†	59469.7	59775.7	5099.1 µg/L	5099.1 ppb	16:13:13
1	K 766.490 Radial†	13989.9	12681.9	5072.1 µg/L	5072.1 ppb	16:13:13
1	Mg 279.077 IEC†	9463.1	9374.2	5192.4 µg/L	5192.4 ppb	16:13:13
1	Na 589.592 Radial†	63819.2	63445.7	10119 µg/L	10119 ppb	16:13:11
1	Sr 421.552†	196390.1	197877.8	508.26 µg/L	508.26 ppb	16:13:11
1	Sc 361.383	1685659.0	1685659.0	99.610 %		16:13:40
1	Y 371.029	944171.4	944171.4	98.656 %		16:13:40
1	Ag 328.068†	125980.2	121371.0	507.46 µg/L	507.46 ppb	16:13:40
1	As 188.979†	1398.0	1416.9	497.99 µg/L	497.99 ppb	16:14:00
1	B 249.677†	37575.3	33610.6	497.16 µg/L	497.16 ppb	16:13:40
1	Ba 233.527†	110304.0	110882.2	502.34 µg/L	502.34 ppb	16:13:40
1	Be 313.107†	1750565.4	1758418.6	498.02 µg/L	498.02 ppb	16:13:40
1	Cd 226.502†	75714.0	76075.3	502.72 µg/L	502.72 ppb	16:13:40
1	Co 228.616†	38247.7	38624.7	506.62 µg/L	506.62 ppb	16:13:40
1	Cr 267.716†	57314.4	57209.4	502.30 µg/L	502.30 ppb	16:13:40
1	Cu 324.752†	123659.5	120902.9	502.10 µg/L	502.10 ppb	16:13:40
1	Mn 257.610†	385293.9	386588.6	505.10 µg/L	505.10 ppb	16:13:40
1	Mo 202.031†	14867.8	14947.6	507.88 µg/L	507.88 ppb	16:14:00
1	Ni 231.604†	40460.7	40693.2	506.05 µg/L	506.05 ppb	16:13:40
1	P 214.914†	10973.6	11035.8	2512.9 µg/L	2512.9 ppb	16:14:00
1	Pb 220.353†	8238.8	8153.8	512.51 µg/L	512.51 ppb	16:14:00
1	S 181.975 Axial†	1285.3	1188.4	1015.4 µg/L	1015.4 ppb	16:14:00
1	Sb 206.836†	4004.7	3942.8	506.63 µg/L	506.63 ppb	16:14:00
1	Se 196.026†	1322.2	1307.4	508 µg/L	508 ppb	16:14:00
1	SiO2†	53612.7	52133.9	5361.5 µg/L	5361.5 ppb	16:13:40
1	Si 251.611†	165861.8	165725.3	2517.9 µg/L	2517.9 ppb	16:13:40
1	Sn 189.927†	7238.8	7258.7	507.17 µg/L	507.17 ppb	16:14:00
1	Ti 334.940†	478772.4	479762.7	502.47 µg/L	502.47 ppb	16:13:40
1	Tl 190.801†	3439.9	3568.6	510.44 µg/L	510.44 ppb	16:14:00
1	U 409.014†	7424.8	7865.1	508.81 µg/L	508.81 ppb	16:13:40
1	V 292.402†	100955.8	100855.5	506.78 µg/L	506.78 ppb	16:13:40
1	Zn 213.857†	87680.0	87404.3	500.63 µg/L	500.63 ppb	16:13:40
2	Sc RADIAL	114611.6	114611.6	100 %		16:13:18
2	Al 396.153Radial†	21539.6	21582.5	5066.3 µg/L	5066.3 ppb	16:13:18
2	Ca 317.933Radial†	62337.7	61759.4	5085.2 µg/L	5085.2 ppb	16:13:18
2	Fe 238.204 Radial†	59509.8	59269.5	5055.9 µg/L	5055.9 ppb	16:13:18
2	K 766.490 Radial†	14167.2	12730.3	5091.5 µg/L	5091.5 ppb	16:13:18
2	Mg 279.077 IEC†	9419.3	9243.6	5120.1 µg/L	5120.1 ppb	16:13:18
2	Na 589.592 Radial†	64350.6	63389.8	10110 µg/L	10110 ppb	16:13:15
2	Sr 421.552†	197811.1	197492.1	507.27 µg/L	507.27 ppb	16:13:15
2	Sc 361.383	1677779.1	1677779.1	99.144 %		16:14:03
2	Y 371.029	939033.3	939033.3	98.120 %		16:14:03
2	Ag 328.068†	125265.9	121244.5	506.94 µg/L	506.94 ppb	16:14:03
2	As 188.979†	1375.4	1400.7	492.36 µg/L	492.36 ppb	16:14:24
2	B 249.677†	37450.1	33661.5	497.92 µg/L	497.92 ppb	16:14:03
2	Ba 233.527†	109874.3	110968.8	502.74 µg/L	502.74 ppb	16:14:03
2	Be 313.107†	1743612.1	1759659.3	498.37 µg/L	498.37 ppb	16:14:03
2	Cd 226.502†	75501.0	76217.5	503.66 µg/L	503.66 ppb	16:14:03
2	Co 228.616†	38056.4	38612.0	506.46 µg/L	506.46 ppb	16:14:03
2	Cr 267.716†	57124.7	57288.3	502.99 µg/L	502.99 ppb	16:14:03
2	Cu 324.752†	123140.7	120962.7	502.34 µg/L	502.34 ppb	16:14:03
2	Mn 257.610†	383432.6	386527.9	505.03 µg/L	505.03 ppb	16:14:03
2	Mo 202.031†	14748.7	14897.7	506.18 µg/L	506.18 ppb	16:14:24
2	Ni 231.604†	40281.8	40703.5	506.18 µg/L	506.18 ppb	16:14:03
2	P 214.914†	10855.8	10968.7	2497.6 µg/L	2497.6 ppb	16:14:24
2	Pb 220.353†	8107.6	8060.4	506.65 µg/L	506.65 ppb	16:14:24

2	S 181.975 Axial†	1297.7	1207.0	1031.2 µg/L	1031.2 ppb	16:14:24
2	Sb 206.836†	3988.6	3945.5	506.93 µg/L	506.93 ppb	16:14:24
2	Se 196.026†	1292.7	1283.8	499 µg/L	499 ppb	16:14:24
2	SiO2†	53660.4	52434.8	5392.6 µg/L	5392.6 ppb	16:14:03
2	Si 251.611†	165343.2	165984.3	2521.9 µg/L	2521.9 ppb	16:14:03
2	Sn 189.927†	7172.2	7225.7	504.86 µg/L	504.86 ppb	16:14:24
2	Ti 334.940†	476450.3	479678.0	502.39 µg/L	502.39 ppb	16:14:03
2	Tl 190.801†	3414.4	3559.1	509.11 µg/L	509.11 ppb	16:14:24
2	U 409.014†	7447.1	7922.6	512.31 µg/L	512.31 ppb	16:14:03
2	V 292.402†	100494.9	100866.6	506.82 µg/L	506.82 ppb	16:14:03
2	Zn 213.857†	87455.0	87590.8	501.71 µg/L	501.71 ppb	16:14:03
3	Sc RADIAL	114049.4	114049.4	99.7 %		16:13:22
3	Al 396.153Radial†	21443.8	21592.4	5068.6 µg/L	5068.6 ppb	16:13:22
3	Ca 317.933Radial†	62000.0	61727.4	5082.6 µg/L	5082.6 ppb	16:13:22
3	Fe 238.204 Radial†	59271.3	59323.1	5060.5 µg/L	5060.5 ppb	16:13:22
3	K 766.490 Radial†	13931.9	12564.0	5024.9 µg/L	5024.9 ppb	16:13:22
3	Mg 279.077 IEC†	9428.2	9298.9	5150.7 µg/L	5150.7 ppb	16:13:22
3	Na 589.592 Radial†	65007.7	64365.4	10265 µg/L	10265 ppb	16:13:20
3	Sr 421.552†	199741.5	200401.4	514.75 µg/L	514.75 ppb	16:13:20
3	Sc 361.383	1673465.1	1673465.1	98.889 %		16:14:27
3	Y 371.029	936655.1	936655.1	97.871 %		16:14:27
3	Ag 328.068†	125584.2	121892.0	509.65 µg/L	509.65 ppb	16:14:27
3	As 188.979†	1378.6	1407.5	494.72 µg/L	494.72 ppb	16:14:47
3	B 249.677†	37414.7	33723.1	498.83 µg/L	498.83 ppb	16:14:27
3	Ba 233.527†	109930.2	111311.1	504.29 µg/L	504.29 ppb	16:14:27
3	Be 313.107†	1742934.5	1763507.7	499.46 µg/L	499.46 ppb	16:14:27
3	Cd 226.502†	75575.9	76489.5	505.46 µg/L	505.46 ppb	16:14:27
3	Co 228.616†	38072.5	38727.3	507.97 µg/L	507.97 ppb	16:14:27
3	Cr 267.716†	56981.3	57291.8	503.02 µg/L	503.02 ppb	16:14:27
3	Cu 324.752†	123417.9	121563.1	504.83 µg/L	504.83 ppb	16:14:27
3	Mn 257.610†	384117.3	388217.2	507.23 µg/L	507.23 ppb	16:14:27
3	Mo 202.031†	14748.4	14935.7	507.47 µg/L	507.47 ppb	16:14:47
3	Ni 231.604†	40348.4	40875.6	508.32 µg/L	508.32 ppb	16:14:27
3	P 214.914†	10863.4	11004.7	2505.8 µg/L	2505.8 ppb	16:14:47
3	Pb 220.353†	8136.4	8110.6	509.79 µg/L	509.79 ppb	16:14:47
3	S 181.975 Axial†	1273.7	1186.1	1013.4 µg/L	1013.4 ppb	16:14:47
3	Sb 206.836†	3967.5	3934.6	505.56 µg/L	505.56 ppb	16:14:47
3	Se 196.026†	1306.2	1300.8	505 µg/L	505 ppb	16:14:47
3	SiO2†	53826.0	52741.8	5424.3 µg/L	5424.3 ppb	16:14:27
3	Si 251.611†	166265.0	167346.4	2542.7 µg/L	2542.7 ppb	16:14:27
3	Sn 189.927†	7164.6	7236.7	505.64 µg/L	505.64 ppb	16:14:47
3	Ti 334.940†	477578.1	482057.3	504.88 µg/L	504.88 ppb	16:14:27
3	Tl 190.801†	3426.8	3580.5	512.15 µg/L	512.15 ppb	16:14:47
3	U 409.014†	7562.1	8058.3	520.68 µg/L	520.68 ppb	16:14:27
3	V 292.402†	100601.4	101235.5	508.67 µg/L	508.67 ppb	16:14:27
3	Zn 213.857†	87498.1	87861.8	503.26 µg/L	503.26 ppb	16:14:27

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1678967.8	99.214 %	0.3654			0.37%
Sc RADIAL	114075.8	99.7 %	0.46			0.46%
Y 371.029	939953.3	98.216 %	0.4014			0.41%
Ag 328.068†	121502.5	508.01 µg/L	1.436	508.01 ppb	1.436	0.28%
QC value within limits for Ag 328.068 Recovery = 101.60%						
Al 396.153Radial†	21660.8	5084.7 µg/L	29.92	5084.7 ppb	29.92	0.59%
QC value within limits for Al 396.153Radial Recovery = 101.69%						
As 188.979†	1408.4	495.03 µg/L	2.826	495.03 ppb	2.826	0.57%
QC value within limits for As 188.979 Recovery = 99.01%						
B 249.677†	33665.1	497.97 µg/L	0.834	497.97 ppb	0.834	0.17%
QC value within limits for B 249.677 Recovery = 99.59%						
Ba 233.527†	111054.0	503.12 µg/L	1.027	503.12 ppb	1.027	0.20%
QC value within limits for Ba 233.527 Recovery = 100.62%						
Be 313.107†	1760528.5	498.62 µg/L	0.753	498.62 ppb	0.753	0.15%
QC value within limits for Be 313.107 Recovery = 99.72%						
Ca 317.933Radial†	61960.6	5101.8 µg/L	31.00	5101.8 ppb	31.00	0.61%
QC value within limits for Ca 317.933Radial Recovery = 102.04%						
Cd 226.502†	76260.8	503.95 µg/L	1.394	503.95 ppb	1.394	0.28%
QC value within limits for Cd 226.502 Recovery = 100.79%						
Co 228.616†	38654.6	507.01 µg/L	0.830	507.01 ppb	0.830	0.16%

QC value within limits for Co 228.616 Recovery = 101.40%							
Cr 267.716†	57263.1	502.77 µg/L	0.406	502.77 ppb	0.406	0.08%	
QC value within limits for Cr 267.716 Recovery = 100.55%							
Cu 324.752†	121142.9	503.09 µg/L	1.515	503.09 ppb	1.515	0.30%	
QC value within limits for Cu 324.752 Recovery = 100.62%							
Fe 238.204 Radial†	59456.1	5071.8 µg/L	23.72	5071.8 ppb	23.72	0.47%	
QC value within limits for Fe 238.204 Radial Recovery = 101.44%							
K 766.490 Radial†	12658.7	5062.8 µg/L	34.24	5062.8 ppb	34.24	0.68%	
QC value within limits for K 766.490 Radial Recovery = 101.26%							
Mg 279.077 IEC†	9305.6	5154.4 µg/L	36.27	5154.4 ppb	36.27	0.70%	
QC value within limits for Mg 279.077 IEC Recovery = 103.09%							
Mn 257.610†	387111.2	505.79 µg/L	1.253	505.79 ppb	1.253	0.25%	
QC value within limits for Mn 257.610 Recovery = 101.16%							
Mo 202.031†	14927.0	507.17 µg/L	0.888	507.17 ppb	0.888	0.18%	
QC value within limits for Mo 202.031 Recovery = 101.43%							
Na 589.592 Radial†	63733.6	10165 µg/L	87.4	10165 ppb	87.4	0.86%	
QC value within limits for Na 589.592 Radial Recovery = 101.65%							
Ni 231.604†	40757.4	506.85 µg/L	1.274	506.85 ppb	1.274	0.25%	
QC value within limits for Ni 231.604 Recovery = 101.37%							
P 214.914†	11003.1	2505.4 µg/L	7.66	2505.4 ppb	7.66	0.31%	
QC value within limits for P 214.914 Recovery = 100.22%							
Pb 220.353†	8108.3	509.65 µg/L	2.935	509.65 ppb	2.935	0.58%	
QC value within limits for Pb 220.353 Recovery = 101.93%							
S 181.975 Axial†	1193.8	1020.0 µg/L	9.75	1020.0 ppb	9.75	0.96%	
QC value within limits for S 181.975 Axial Recovery = 102.00%							
Sb 206.836†	3941.0	506.37 µg/L	0.724	506.37 ppb	0.724	0.14%	
QC value within limits for Sb 206.836 Recovery = 101.27%							
Se 196.026†	1297.3	504 µg/L	4.7	504 ppb	4.7	0.93%	
QC value within limits for Se 196.026 Recovery = 100.78%							
SiO2†	52436.9	5392.8 µg/L	31.40	5392.8 ppb	31.40	0.58%	
QC value within limits for SiO2 Recovery = 100.85%							
Si 251.611†	166352.0	2527.5 µg/L	13.29	2527.5 ppb	13.29	0.53%	
QC value within limits for Si 251.611 Recovery = 101.10%							
Sn 189.927†	7240.4	505.89 µg/L	1.171	505.89 ppb	1.171	0.23%	
QC value within limits for Sn 189.927 Recovery = 101.18%							
Sr 421.552†	198590.4	510.09 µg/L	4.059	510.09 ppb	4.059	0.80%	
QC value within limits for Sr 421.552 Recovery = 102.02%							
Ti 334.940†	480499.4	503.25 µg/L	1.413	503.25 ppb	1.413	0.28%	
QC value within limits for Ti 334.940 Recovery = 100.65%							
Tl 190.801†	3569.4	510.57 µg/L	1.528	510.57 ppb	1.528	0.30%	
QC value within limits for Tl 190.801 Recovery = 102.11%							
U 409.014†	7948.7	513.93 µg/L	6.103	513.93 ppb	6.103	1.19%	
QC value within limits for U 409.014 Recovery = 102.79%							
V 292.402†	100985.9	507.42 µg/L	1.079	507.42 ppb	1.079	0.21%	
QC value within limits for V 292.402 Recovery = 101.48%							
Zn 213.857†	87618.9	501.87 µg/L	1.321	501.87 ppb	1.321	0.26%	
QC value within limits for Zn 213.857 Recovery = 100.37%							
All analyte(s) passed QC.							

Sequence No.: 8

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/13/2010 16:14:55

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	114323.0	114323.0	99.9 %		16:15:24
1	Al 396.153Radial†	-100.8	-15.9	-3.7813 µg/L	-3.7813 ppb	16:15:44
1	Ca 317.933Radial†	464.4	7.9	0.6531 µg/L	0.6531 ppb	16:15:44
1	Fe 238.204 Radial†	144.7	20.5	1.7473 µg/L	1.7473 ppb	16:15:44
1	K 766.490 Radial†	1429.9	21.4	8.5812 µg/L	8.5812 ppb	16:15:24
1	Mg 279.077 IEC†	158.0	0.8	0.4335 µg/L	0.4335 ppb	16:15:44
1	Na 589.592 Radial†	952.0	117.3	18.703 µg/L	18.703 ppb	16:15:24
1	Sr 421.552†	-84.8	-18.1	-0.0466 µg/L	-0.0466 ppb	16:15:24
1	Sc 361.383	1713378.1	1713378.1	101.25 %		16:16:32
1	Y 371.029	969360.2	969360.2	101.29 %		16:16:32
1	Ag 328.068†	4885.2	-278.0	-1.1641 µg/L	-1.1641 ppb	16:16:34
1	As 188.979†	-12.3	1.3	0.4445 µg/L	0.4445 ppb	16:16:54
1	B 249.677†	4301.8	136.9	2.0321 µg/L	2.0321 ppb	16:16:34
1	Ba 233.527†	-138.2	9.4	0.0423 µg/L	0.0423 ppb	16:16:54
1	Be 313.107†	-670.9	329.6	0.0906 µg/L	0.0906 ppb	16:16:34
1	Cd 226.502†	-49.5	15.7	0.1040 µg/L	0.1040 ppb	16:16:54
1	Co 228.616†	-231.9	-2.0	-0.0267 µg/L	-0.0267 ppb	16:16:54
1	Cr 267.716†	329.7	-4.0	-0.0279 µg/L	-0.0279 ppb	16:16:54
1	Cu 324.752†	3022.7	-255.8	-1.0662 µg/L	-1.0662 ppb	16:16:34
1	Mn 257.610†	276.7	57.9	0.0757 µg/L	0.0757 ppb	16:16:54
1	Mo 202.031†	-4.5	17.2	0.5834 µg/L	0.5834 ppb	16:16:54
1	Ni 231.604†	-49.1	25.4	0.3161 µg/L	0.3161 ppb	16:16:54
1	P 214.914†	-2.4	16.8	3.8517 µg/L	3.8517 ppb	16:16:54
1	Pb 220.353†	136.0	17.1	1.0820 µg/L	1.0820 ppb	16:16:54
1	S 181.975 Axial†	116.3	12.9	10.993 µg/L	10.993 ppb	16:16:54
1	Sb 206.836†	79.8	1.3	0.1801 µg/L	0.1801 ppb	16:16:54
1	Se 196.026†	19.8	-0.4	-0.170 µg/L	-0.170 ppb	16:16:54
1	SiO2†	1733.2	23.0	2.3507 µg/L	2.3507 ppb	16:16:34
1	Si 251.611†	733.9	-61.7	-0.9515 µg/L	-0.9515 ppb	16:16:34
1	Sn 189.927†	15.3	6.7	0.4645 µg/L	0.4645 ppb	16:16:54
1	Ti 334.940†	765.2	-130.3	-0.1330 µg/L	-0.1330 ppb	16:16:34
1	Tl 190.801†	-119.6	-2.9	-0.4106 µg/L	-0.4106 ppb	16:16:54
1	U 409.014†	-565.6	-147.4	-8.9887 µg/L	-8.9887 ppb	16:16:34
1	V 292.402†	411.7	-89.4	-0.4435 µg/L	-0.4435 ppb	16:16:34
1	Zn 213.857†	661.1	33.7	0.1930 µg/L	0.1930 ppb	16:16:54
2	Sc RADIAL	114617.8	114617.8	100 %		16:15:46
2	Al 396.153Radial†	-74.3	10.8	2.5221 µg/L	2.5221 ppb	16:16:06
2	Ca 317.933Radial†	461.9	4.3	0.3515 µg/L	0.3515 ppb	16:16:06
2	Fe 238.204 Radial†	136.4	11.8	1.0074 µg/L	1.0074 ppb	16:16:06
2	K 766.490 Radial†	1627.3	214.8	85.982 µg/L	85.982 ppb	16:15:46
2	Mg 279.077 IEC†	167.2	9.5	5.2663 µg/L	5.2663 ppb	16:16:06
2	Na 589.592 Radial†	903.6	66.5	10.533 µg/L	10.533 ppb	16:15:46
2	Sr 421.552†	43.1	109.7	0.2818 µg/L	0.2818 ppb	16:15:46
2	Sc 361.383	1714943.4	1714943.4	101.34 %		16:16:56
2	Y 371.029	970197.8	970197.8	101.38 %		16:16:56
2	Ag 328.068†	4892.0	-275.7	-1.1493 µg/L	-1.1493 ppb	16:16:58
2	As 188.979†	-5.6	7.9	2.7411 µg/L	2.7411 ppb	16:17:18
2	B 249.677†	4141.2	-25.5	-0.3804 µg/L	-0.3804 ppb	16:16:58
2	Ba 233.527†	-142.3	5.5	0.0249 µg/L	0.0249 ppb	16:17:18
2	Be 313.107†	-905.1	99.2	0.0261 µg/L	0.0261 ppb	16:16:58
2	Cd 226.502†	-48.9	16.3	0.1078 µg/L	0.1078 ppb	16:17:18
2	Co 228.616†	-199.8	29.8	0.3912 µg/L	0.3912 ppb	16:17:18
2	Cr 267.716†	323.7	-10.2	-0.0844 µg/L	-0.0844 ppb	16:17:18
2	Cu 324.752†	2952.4	-327.9	-1.3623 µg/L	-1.3623 ppb	16:16:58
2	Mn 257.610†	247.4	28.8	0.0374 µg/L	0.0374 ppb	16:17:18
2	Mo 202.031†	-2.5	19.1	0.6501 µg/L	0.6501 ppb	16:17:18
2	Ni 231.604†	-80.3	-5.4	-0.0667 µg/L	-0.0667 ppb	16:17:18
2	P 214.914†	-5.9	13.4	3.0706 µg/L	3.0706 ppb	16:17:18
2	Pb 220.353†	136.5	17.5	1.1023 µg/L	1.1023 ppb	16:17:18

2	S 181.975 Axial†	100.5	-2.7	-2.3203 µg/L	-2.3203 ppb	16:17:18
2	Sb 206.836†	75.0	-3.5	-0.4413 µg/L	-0.4413 ppb	16:17:18
2	Se 196.026†	31.1	10.7	4.13 µg/L	4.13 ppb	16:17:18
2	SiO2†	1815.5	102.6	10.566 µg/L	10.566 ppb	16:16:58
2	Si 251.611†	731.6	-64.6	-0.9961 µg/L	-0.9961 ppb	16:16:58
2	Sn 189.927†	14.6	6.0	0.4175 µg/L	0.4175 ppb	16:17:18
2	Ti 334.940†	924.1	25.8	0.0294 µg/L	0.0294 ppb	16:16:58
2	Tl 190.801†	-119.4	-2.6	-0.3666 µg/L	-0.3666 ppb	16:17:18
2	U 409.014†	-526.9	-108.7	-6.6223 µg/L	-6.6223 ppb	16:16:58
2	V 292.402†	454.4	-47.6	-0.2343 µg/L	-0.2343 ppb	16:16:58
2	Zn 213.857†	635.9	8.1	0.0484 µg/L	0.0484 ppb	16:17:18
3	Sc RADIAL	114145.0	114145.0	99.8 %		16:16:08
3	Al 396.153Radial†	-83.8	1.0	0.2178 µg/L	0.2178 ppb	16:16:28
3	Ca 317.933Radial†	464.6	8.9	0.7291 µg/L	0.7291 ppb	16:16:28
3	Fe 238.204 Radial†	129.9	5.9	0.5015 µg/L	0.5015 ppb	16:16:28
3	K 766.490 Radial†	1541.5	135.5	54.253 µg/L	54.253 ppb	16:16:08
3	Mg 279.077 IEC†	156.4	-0.6	-0.3066 µg/L	-0.3066 ppb	16:16:28
3	Na 589.592 Radial†	977.2	144.0	22.928 µg/L	22.928 ppb	16:16:08
3	Sr 421.552†	-207.7	-141.4	-0.3632 µg/L	-0.3632 ppb	16:16:08
3	Sc 361.383	1704742.6	1704742.6	100.74 %		16:17:21
3	Y 371.029	964294.2	964294.2	100.76 %		16:17:21
3	Ag 328.068†	5064.9	-75.2	-0.3143 µg/L	-0.3143 ppb	16:17:23
3	As 188.979†	-3.3	10.2	3.5192 µg/L	3.5192 ppb	16:17:43
3	B 249.677†	4226.0	83.1	1.2340 µg/L	1.2340 ppb	16:17:23
3	Ba 233.527†	-157.4	-10.4	-0.0471 µg/L	-0.0471 ppb	16:17:43
3	Be 313.107†	-705.1	292.4	0.0825 µg/L	0.0825 ppb	16:17:23
3	Cd 226.502†	-18.1	46.6	0.3079 µg/L	0.3079 ppb	16:17:43
3	Co 228.616†	-231.8	-3.0	-0.0400 µg/L	-0.0400 ppb	16:17:43
3	Cr 267.716†	330.1	-2.0	-0.0167 µg/L	-0.0167 ppb	16:17:43
3	Cu 324.752†	2930.5	-332.2	-1.3761 µg/L	-1.3761 ppb	16:17:23
3	Mn 257.610†	240.5	23.3	0.0305 µg/L	0.0305 ppb	16:17:43
3	Mo 202.031†	-10.2	11.5	0.3906 µg/L	0.3906 ppb	16:17:43
3	Ni 231.604†	-59.6	14.8	0.1841 µg/L	0.1841 ppb	16:17:43
3	P 214.914†	-1.7	17.5	4.0141 µg/L	4.0141 ppb	16:17:43
3	Pb 220.353†	106.4	-11.6	-0.7262 µg/L	-0.7262 ppb	16:17:43
3	S 181.975 Axial†	103.5	0.8	0.7092 µg/L	0.7092 ppb	16:17:43
3	Sb 206.836†	85.3	7.2	0.9261 µg/L	0.9261 ppb	16:17:43
3	Se 196.026†	24.5	4.3	1.66 µg/L	1.66 ppb	16:17:43
3	SiO2†	1725.1	23.6	2.4262 µg/L	2.4262 ppb	16:17:23
3	Si 251.611†	724.6	-67.2	-1.0306 µg/L	-1.0306 ppb	16:17:23
3	Sn 189.927†	9.9	1.4	0.0978 µg/L	0.0978 ppb	16:17:43
3	Ti 334.940†	779.9	-111.9	-0.1169 µg/L	-0.1169 ppb	16:17:23
3	Tl 190.801†	-115.2	0.9	0.1174 µg/L	0.1174 ppb	16:17:43
3	U 409.014†	-430.0	-15.6	-0.9596 µg/L	-0.9596 ppb	16:17:23
3	V 292.402†	452.7	-46.6	-0.2279 µg/L	-0.2279 ppb	16:17:23
3	Zn 213.857†	632.1	8.1	0.0467 µg/L	0.0467 ppb	16:17:43

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1711021.4	101.11 %	0.325			0.32%
Sc RADIAL	114361.9	100.0 %	0.21			0.21%
Y 371.029	967950.8	101.14 %	0.334			0.33%
Ag 328.068†	-209.6	-0.8759 µg/L	0.48640	-0.8759 ppb	0.48640	55.53%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-1.4	-0.3471 µg/L	3.18945	-0.3471 ppb	3.18945	918.87%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	6.5	2.2349 µg/L	1.59863	2.2349 ppb	1.59863	71.53%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	64.8	0.9619 µg/L	1.22907	0.9619 ppb	1.22907	127.78%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	1.5	0.0067 µg/L	0.04738	0.0067 ppb	0.04738	705.62%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	240.4	0.0664 µg/L	0.03516	0.0664 ppb	0.03516	52.95%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	7.0	0.5779 µg/L	0.19974	0.5779 ppb	0.19974	34.56%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	26.2	0.1732 µg/L	0.11667	0.1732 ppb	0.11667	67.34%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	8.3	0.1082 µg/L	0.24522	0.1082 ppb	0.24522	226.73%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-5.4	-0.0430 µg/L	0.03626	-0.0430 ppb	0.03626	84.35%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-305.3	-1.2682 µg/L	0.17510	-1.2682 ppb	0.17510	13.81%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	12.7	1.0854 µg/L	0.62653	1.0854 ppb	0.62653	57.72%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	123.9	49.605 µg/L	38.9090	49.605 ppb	38.9090	78.44%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	3.2	1.7977 µg/L	3.02656	1.7977 ppb	3.02656	168.35%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	36.7	0.0479 µg/L	0.02433	0.0479 ppb	0.02433	50.80%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	15.9	0.5414 µg/L	0.13475	0.5414 ppb	0.13475	24.89%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	109.3	17.388 µg/L	6.3009	17.388 ppb	6.3009	36.24%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	11.6	0.1445 µg/L	0.19449	0.1445 ppb	0.19449	134.60%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	15.9	3.6455 µg/L	0.50443	3.6455 ppb	0.50443	13.84%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	7.7	0.4860 µg/L	1.04990	0.4860 ppb	1.04990	216.01%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	3.7	3.1273 µg/L	6.97822	3.1273 ppb	6.97822	223.14%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	1.7	0.2216 µg/L	0.68463	0.2216 ppb	0.68463	308.90%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	4.9	1.88 µg/L	2.159	1.88 ppb	2.159	115.13%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	49.7	5.1142 µg/L	4.72126	5.1142 ppb	4.72126	92.32%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	-64.5	-0.9928 µg/L	0.03964	-0.9928 ppb	0.03964	3.99%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	4.7	0.3266 µg/L	0.19951	0.3266 ppb	0.19951	61.09%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-16.6	-0.0426 µg/L	0.32249	-0.0426 ppb	0.32249	756.34%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-72.1	-0.0735 µg/L	0.08948	-0.0735 ppb	0.08948	121.71%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-1.5	-0.2199 µg/L	0.29300	-0.2199 ppb	0.29300	133.22%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-90.5	-5.5236 µg/L	4.12577	-5.5236 ppb	4.12577	74.69%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-61.2	-0.3019 µg/L	0.12268	-0.3019 ppb	0.12268	40.64%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	16.6	0.0960 µg/L	0.08397	0.0960 ppb	0.08397	87.48%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 17

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/13/2010 16:39:35

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	113664.5	113664.5	99.4 %		16:40:09
1	Al 396.153Radial†	21335.2	21556.0	5060.2 µg/L	5060.2 ppb	16:40:09
1	Ca 317.933Radial†	61346.1	61279.8	5045.7 µg/L	5045.7 ppb	16:40:09
1	Fe 238.204 Radial†	58421.1	58668.7	5004.7 µg/L	5004.7 ppb	16:40:09
1	K 766.490 Radial†	13991.2	12671.0	5067.8 µg/L	5067.8 ppb	16:40:09
1	Mg 279.077 IEC†	9254.9	9156.5	5071.9 µg/L	5071.9 ppb	16:40:09
1	Na 589.592 Radial†	64518.0	64093.4	10222 µg/L	10222 ppb	16:40:07
1	Sr 421.552†	198209.1	199537.5	512.53 µg/L	512.53 ppb	16:40:07
1	Sc 361.383	1695742.9	1695742.9	100.21 %		16:40:36
1	Y 371.029	949403.5	949403.5	99.203 %		16:40:36
1	Ag 328.068†	125184.4	119824.7	500.97 µg/L	500.97 ppb	16:40:36
1	As 188.979†	1380.7	1391.3	489.01 µg/L	489.01 ppb	16:40:56
1	B 249.677†	37241.8	33053.5	488.91 µg/L	488.91 ppb	16:40:36
1	Ba 233.527†	109632.6	109553.7	496.33 µg/L	496.33 ppb	16:40:36
1	Be 313.107†	1738739.4	1736166.2	491.71 µg/L	491.71 ppb	16:40:36
1	Cd 226.502†	75323.1	75233.2	497.16 µg/L	497.16 ppb	16:40:36
1	Co 228.616†	38070.6	38219.6	501.31 µg/L	501.31 ppb	16:40:36
1	Cr 267.716†	56981.3	56534.8	496.40 µg/L	496.40 ppb	16:40:36
1	Cu 324.752†	122572.5	119079.9	494.51 µg/L	494.51 ppb	16:40:36
1	Mn 257.610†	382373.4	381374.0	498.29 µg/L	498.29 ppb	16:40:36
1	Mo 202.031†	14787.0	14778.2	502.12 µg/L	502.12 ppb	16:40:56
1	Ni 231.604†	40231.8	40223.2	500.21 µg/L	500.21 ppb	16:40:36
1	P 214.914†	10921.0	10917.8	2486.1 µg/L	2486.1 ppb	16:40:56
1	Pb 220.353†	8161.4	8027.4	504.59 µg/L	504.59 ppb	16:40:56
1	S 181.975 Axial†	1290.6	1186.0	1013.4 µg/L	1013.4 ppb	16:40:56
1	Sb 206.836†	3977.6	3891.9	500.09 µg/L	500.09 ppb	16:40:56
1	Se 196.026†	1314.5	1291.8	502 µg/L	502 ppb	16:40:56
1	SiO2†	53449.3	51650.8	5311.8 µg/L	5311.8 ppb	16:40:36
1	Si 251.611†	164731.1	163606.8	2485.7 µg/L	2485.7 ppb	16:40:36
1	Sn 189.927†	7217.3	7194.1	502.64 µg/L	502.64 ppb	16:40:56
1	Ti 334.940†	475047.3	473187.1	495.60 µg/L	495.60 ppb	16:40:36
1	Tl 190.801†	3427.6	3535.8	505.71 µg/L	505.71 ppb	16:40:56
1	U 409.014†	7005.3	7402.2	480.28 µg/L	480.28 ppb	16:40:36
1	V 292.402†	100288.7	99587.0	500.40 µg/L	500.40 ppb	16:40:36
1	Zn 213.857†	87149.1	86351.1	494.60 µg/L	494.60 ppb	16:40:36
2	Sc RADIAL	115392.7	115392.7	101 %		16:40:13
2	Al 396.153Radial†	21607.1	21503.9	5047.8 µg/L	5047.8 ppb	16:40:13
2	Ca 317.933Radial†	62342.6	61343.1	5051.0 µg/L	5051.0 ppb	16:40:13
2	Fe 238.204 Radial†	59571.9	58928.9	5026.9 µg/L	5026.9 ppb	16:40:13
2	K 766.490 Radial†	14154.8	12622.2	5048.3 µg/L	5048.3 ppb	16:40:13
2	Mg 279.077 IEC†	9427.9	9188.5	5089.6 µg/L	5089.6 ppb	16:40:13
2	Na 589.592 Radial†	64105.1	62711.7	10002 µg/L	10002 ppb	16:40:11
2	Sr 421.552†	196747.4	195101.2	501.13 µg/L	501.13 ppb	16:40:11
2	Sc 361.383	1696826.0	1696826.0	100.27 %		16:40:59
2	Y 371.029	950699.3	950699.3	99.339 %		16:40:59
2	Ag 328.068†	125416.4	119976.4	501.62 µg/L	501.62 ppb	16:40:59
2	As 188.979†	1389.6	1399.3	491.81 µg/L	491.81 ppb	16:41:19
2	B 249.677†	37471.6	33258.9	491.96 µg/L	491.96 ppb	16:40:59
2	Ba 233.527†	110155.1	110004.9	498.37 µg/L	498.37 ppb	16:40:59
2	Be 313.107†	1745442.0	1741743.2	493.29 µg/L	493.29 ppb	16:40:59
2	Cd 226.502†	75669.4	75530.6	499.12 µg/L	499.12 ppb	16:40:59
2	Co 228.616†	38114.8	38239.4	501.57 µg/L	501.57 ppb	16:40:59
2	Cr 267.716†	57115.2	56632.0	497.24 µg/L	497.24 ppb	16:40:59
2	Cu 324.752†	123264.2	119691.6	497.06 µg/L	497.06 ppb	16:40:59
2	Mn 257.610†	383680.2	382433.6	499.68 µg/L	499.68 ppb	16:40:59
2	Mo 202.031†	14878.0	14859.6	504.88 µg/L	504.88 ppb	16:41:19
2	Ni 231.604†	40289.9	40255.5	500.61 µg/L	500.61 ppb	16:40:59
2	P 214.914†	11014.0	11003.6	2505.6 µg/L	2505.6 ppb	16:41:19
2	Pb 220.353†	8184.9	8045.7	505.73 µg/L	505.73 ppb	16:41:19



2	S 181.975 Axial†	1285.2	1179.8	1008.1 µg/L	1008.1 ppb	16:41:19
2	Sb 206.836†	4015.2	3926.9	504.60 µg/L	504.60 ppb	16:41:19
2	Se 196.026†	1322.2	1298.6	504 µg/L	504 ppb	16:41:19
2	SiO2†	53920.0	52086.2	5356.7 µg/L	5356.7 ppb	16:40:59
2	Si 251.611†	166031.6	164798.8	2503.9 µg/L	2503.9 ppb	16:40:59
2	Sn 189.927†	7228.1	7200.3	503.08 µg/L	503.08 ppb	16:41:19
2	Ti 334.940†	476655.4	474488.2	496.96 µg/L	496.96 ppb	16:40:59
2	Tl 190.801†	3424.8	3530.8	505.03 µg/L	505.03 ppb	16:41:19
2	U 409.014†	7267.3	7659.0	495.92 µg/L	495.92 ppb	16:40:59
2	V 292.402†	100446.8	99680.8	500.90 µg/L	500.90 ppb	16:40:59
2	Zn 213.857†	87672.9	86817.9	497.29 µg/L	497.29 ppb	16:40:59
3	Sc RADIAL	115421.4	115421.4	101 %		16:40:17
3	Al 396.153Radial†	21529.6	21421.8	5028.4 µg/L	5028.4 ppb	16:40:17
3	Ca 317.933Radial†	62633.3	61615.9	5073.4 µg/L	5073.4 ppb	16:40:17
3	Fe 238.204 Radial†	59767.6	59108.3	5042.2 µg/L	5042.2 ppb	16:40:17
3	K 766.490 Radial†	14184.6	12648.3	5058.7 µg/L	5058.7 ppb	16:40:17
3	Mg 279.077 IEC†	9446.8	9204.9	5098.8 µg/L	5098.8 ppb	16:40:17
3	Na 589.592 Radial†	63829.1	62422.4	9955.4 µg/L	9955.4 ppb	16:40:15
3	Sr 421.552†	195847.8	194161.2	498.72 µg/L	498.72 ppb	16:40:15
3	Sc 361.383	1680841.3	1680841.3	99.325 %		16:41:22
3	Y 371.029	940752.5	940752.5	98.299 %		16:41:22
3	Ag 328.068†	125685.0	121436.3	507.71 µg/L	507.71 ppb	16:41:22
3	As 188.979†	1396.8	1419.8	498.96 µg/L	498.96 ppb	16:41:42
3	B 249.677†	37480.0	33622.9	497.34 µg/L	497.34 ppb	16:41:22
3	Ba 233.527†	110191.3	111086.1	503.27 µg/L	503.27 ppb	16:41:22
3	Be 313.107†	1747343.4	1760212.0	498.52 µg/L	498.52 ppb	16:41:22
3	Cd 226.502†	75839.4	76419.4	505.00 µg/L	505.00 ppb	16:41:22
3	Co 228.616†	38243.1	38730.0	508.00 µg/L	508.00 ppb	16:41:22
3	Cr 267.716†	57129.8	57188.5	502.13 µg/L	502.13 ppb	16:41:22
3	Cu 324.752†	123316.8	120913.7	502.12 µg/L	502.12 ppb	16:41:22
3	Mn 257.610†	384113.0	386508.4	505.00 µg/L	505.00 ppb	16:41:22
3	Mo 202.031†	14807.0	14929.2	507.25 µg/L	507.25 ppb	16:41:42
3	Ni 231.604†	40297.9	40645.7	505.46 µg/L	505.46 ppb	16:41:22
3	P 214.914†	10968.1	11061.9	2518.9 µg/L	2518.9 ppb	16:41:42
3	Pb 220.353†	8135.3	8073.4	507.47 µg/L	507.47 ppb	16:41:42
3	S 181.975 Axial†	1277.9	1184.6	1012.2 µg/L	1012.2 ppb	16:41:42
3	Sb 206.836†	3986.1	3935.6	505.70 µg/L	505.70 ppb	16:41:42
3	Se 196.026†	1293.5	1282.3	498 µg/L	498 ppb	16:41:42
3	SiO2†	53841.1	52518.1	5401.1 µg/L	5401.1 ppb	16:41:22
3	Si 251.611†	166357.2	166701.3	2532.8 µg/L	2532.8 ppb	16:41:22
3	Sn 189.927†	7230.6	7271.3	508.04 µg/L	508.04 ppb	16:41:42
3	Ti 334.940†	477172.9	479530.0	502.24 µg/L	502.24 ppb	16:41:22
3	Tl 190.801†	3434.7	3573.2	511.08 µg/L	511.08 ppb	16:41:42
3	U 409.014†	7200.1	7660.3	496.35 µg/L	496.35 ppb	16:41:22
3	V 292.402†	100608.0	100795.8	506.47 µg/L	506.47 ppb	16:41:22
3	Zn 213.857†	87549.8	87525.5	501.34 µg/L	501.34 ppb	16:41:22

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Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1691136.7	99.933 %	0.5278			0.53%
Sc RADIAL	114826.2	100 %	0.9			0.88%
Y 371.029	946951.8	98.947 %	0.5651			0.57%
Ag 328.068†	120412.4	503.43 µg/L	3.720	503.43 ppb	3.720	0.74%
QC value within limits for Ag 328.068 Recovery = 100.69%						
Al 396.153Radial†	21493.9	5045.5 µg/L	16.07	5045.5 ppb	16.07	0.32%
QC value within limits for Al 396.153Radial Recovery = 100.91%						
As 188.979†	1403.4	493.26 µg/L	5.130	493.26 ppb	5.130	1.04%
QC value within limits for As 188.979 Recovery = 98.65%						
B 249.677†	33311.8	492.74 µg/L	4.268	492.74 ppb	4.268	0.87%
QC value within limits for B 249.677 Recovery = 98.55%						
Ba 233.527†	110214.9	499.32 µg/L	3.567	499.32 ppb	3.567	0.71%
QC value within limits for Ba 233.527 Recovery = 99.86%						
Be 313.107†	1746040.5	494.51 µg/L	3.565	494.51 ppb	3.565	0.72%
QC value within limits for Be 313.107 Recovery = 98.90%						
Ca 317.933Radial†	61412.9	5056.7 µg/L	14.70	5056.7 ppb	14.70	0.29%
QC value within limits for Ca 317.933Radial Recovery = 101.13%						
Cd 226.502†	75727.7	500.43 µg/L	4.080	500.43 ppb	4.080	0.82%
QC value within limits for Cd 226.502 Recovery = 100.09%						
Co 228.616†	38396.3	503.63 µg/L	3.794	503.63 ppb	3.794	0.75%

QC value within limits for Co 228.616 Recovery = 100.73%							
Cr 267.716†	56785.1	498.59 µg/L	3.094	498.59 ppb	3.094	0.62%	
QC value within limits for Cr 267.716 Recovery = 99.72%							
Cu 324.752†	119895.0	497.89 µg/L	3.876	497.89 ppb	3.876	0.78%	
QC value within limits for Cu 324.752 Recovery = 99.58%							
Fe 238.204 Radial†	58902.0	5024.6 µg/L	18.85	5024.6 ppb	18.85	0.38%	
QC value within limits for Fe 238.204 Radial Recovery = 100.49%							
K 766.490 Radial†	12647.2	5058.3 µg/L	9.75	5058.3 ppb	9.75	0.19%	
QC value within limits for K 766.490 Radial Recovery = 101.17%							
Mg 279.077 IEC†	9183.3	5086.8 µg/L	13.67	5086.8 ppb	13.67	0.27%	
QC value within limits for Mg 279.077 IEC Recovery = 101.74%							
Mn 257.610†	383438.7	500.99 µg/L	3.543	500.99 ppb	3.543	0.71%	
QC value within limits for Mn 257.610 Recovery = 100.20%							
Mo 202.031†	14855.7	504.75 µg/L	2.567	504.75 ppb	2.567	0.51%	
QC value within limits for Mo 202.031 Recovery = 100.95%							
Na 589.592 Radial†	63075.8	10060 µg/L	142.5	10060 ppb	142.5	1.42%	
QC value within limits for Na 589.592 Radial Recovery = 100.60%							
Ni 231.604†	40374.8	502.09 µg/L	2.925	502.09 ppb	2.925	0.58%	
QC value within limits for Ni 231.604 Recovery = 100.42%							
P 214.914†	10994.4	2503.5 µg/L	16.49	2503.5 ppb	16.49	0.66%	
QC value within limits for P 214.914 Recovery = 100.14%							
Pb 220.353†	8048.8	505.93 µg/L	1.453	505.93 ppb	1.453	0.29%	
QC value within limits for Pb 220.353 Recovery = 101.19%							
S 181.975 Axial†	1183.5	1011.2 µg/L	2.76	1011.2 ppb	2.76	0.27%	
QC value within limits for S 181.975 Axial Recovery = 101.12%							
Sb 206.836†	3918.1	503.47 µg/L	2.972	503.47 ppb	2.972	0.59%	
QC value within limits for Sb 206.836 Recovery = 100.69%							
Se 196.026†	1290.9	501 µg/L	3.2	501 ppb	3.2	0.63%	
QC value within limits for Se 196.026 Recovery = 100.28%							
SiO2†	52085.0	5356.5 µg/L	44.67	5356.5 ppb	44.67	0.83%	
QC value within limits for SiO2 Recovery = 100.17%							
Si 251.611†	165035.7	2507.5 µg/L	23.76	2507.5 ppb	23.76	0.95%	
QC value within limits for Si 251.611 Recovery = 100.30%							
Sn 189.927†	7221.9	504.59 µg/L	3.001	504.59 ppb	3.001	0.59%	
QC value within limits for Sn 189.927 Recovery = 100.92%							
Sr 421.552†	196266.6	504.13 µg/L	7.376	504.13 ppb	7.376	1.46%	
QC value within limits for Sr 421.552 Recovery = 100.83%							
Ti 334.940†	475735.1	498.26 µg/L	3.509	498.26 ppb	3.509	0.70%	
QC value within limits for Ti 334.940 Recovery = 99.65%							
Tl 190.801†	3546.6	507.27 µg/L	3.318	507.27 ppb	3.318	0.65%	
QC value within limits for Tl 190.801 Recovery = 101.45%							
U 409.014†	7573.8	490.85 µg/L	9.157	490.85 ppb	9.157	1.87%	
QC value within limits for U 409.014 Recovery = 98.17%							
V 292.402†	100021.2	502.59 µg/L	3.369	502.59 ppb	3.369	0.67%	
QC value within limits for V 292.402 Recovery = 100.52%							
Zn 213.857†	86898.2	497.74 µg/L	3.392	497.74 ppb	3.392	0.68%	
QC value within limits for Zn 213.857 Recovery = 99.55%							
All analyte(s) passed QC.							

Sequence No.: 18

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/13/2010 16:41:50

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	115275.2	115275.2	101 %		16:42:19
1	Al 396.153Radial†	-68.2	17.3	4.0923 µg/L	4.0923 ppb	16:42:39
1	Ca 317.933Radial†	484.3	23.8	1.9599 µg/L	1.9599 ppb	16:42:39
1	Fe 238.204 Radial†	130.3	5.1	0.4313 µg/L	0.4313 ppb	16:42:39
1	K 766.490 Radial†	1607.1	185.5	74.236 µg/L	74.236 ppb	16:42:19
1	Mg 279.077 IEC†	166.9	8.2	4.5572 µg/L	4.5572 ppb	16:42:39
1	Na 589.592 Radial†	1046.7	203.4	32.381 µg/L	32.381 ppb	16:42:19
1	Sr 421.552†	-55.5	11.6	0.0298 µg/L	0.0298 ppb	16:42:19
1	Sc 361.383	1692873.1	1692873.1	100.04 %		16:43:41
1	Y 371.029	958147.9	958147.9	100.12 %		16:43:41
1	Ag 328.068†	4946.6	-158.2	-0.6429 µg/L	-0.6429 ppb	16:43:43
1	As 188.979†	-3.6	9.8	3.4093 µg/L	3.4093 ppb	16:44:03
1	B 249.677†	4116.6	3.2	0.0474 µg/L	0.0474 ppb	16:43:43
1	Ba 233.527†	-157.0	-11.1	-0.0505 µg/L	-0.0505 ppb	16:44:03
1	Be 313.107†	-836.8	155.8	0.0487 µg/L	0.0487 ppb	16:43:43
1	Cd 226.502†	-71.1	-6.5	-0.0431 µg/L	-0.0431 ppb	16:44:03
1	Co 228.616†	-224.7	2.4	0.0319 µg/L	0.0319 ppb	16:44:03
1	Cr 267.716†	348.4	18.6	0.1514 µg/L	0.1514 ppb	16:44:03
1	Cu 324.752†	3215.9	-26.6	-0.0972 µg/L	-0.0972 ppb	16:43:43
1	Mn 257.610†	260.1	44.6	0.0581 µg/L	0.0581 ppb	16:44:03
1	Mo 202.031†	-24.1	-2.5	-0.0857 µg/L	-0.0857 ppb	16:44:03
1	Ni 231.604†	-84.5	-10.6	-0.1314 µg/L	-0.1314 ppb	16:44:03
1	P 214.914†	-11.5	7.7	1.7657 µg/L	1.7657 ppb	16:44:03
1	Pb 220.353†	135.7	18.4	1.1426 µg/L	1.1426 ppb	16:44:03
1	S 181.975 Axial†	113.5	11.5	9.7989 µg/L	9.7989 ppb	16:44:03
1	Sb 206.836†	65.0	-12.6	-1.6150 µg/L	-1.6150 ppb	16:44:03
1	Se 196.026†	16.3	-3.7	-1.43 µg/L	-1.43 ppb	16:44:03
1	SiO2†	1714.5	25.0	2.5730 µg/L	2.5730 ppb	16:43:43
1	Si 251.611†	851.4	64.6	0.9838 µg/L	0.9838 ppb	16:43:43
1	Sn 189.927†	14.1	5.7	0.3975 µg/L	0.3975 ppb	16:44:03
1	Ti 334.940†	698.7	-187.6	-0.2033 µg/L	-0.2033 ppb	16:43:43
1	Tl 190.801†	-119.7	-4.5	-0.6363 µg/L	-0.6363 ppb	16:44:03
1	U 409.014†	-162.3	249.0	15.101 µg/L	15.101 ppb	16:43:43
1	V 292.402†	355.0	-141.1	-0.6895 µg/L	-0.6895 ppb	16:43:43
1	Zn 213.857†	627.8	8.2	0.0484 µg/L	0.0484 ppb	16:44:03
2	Sc RADIAL	115129.5	115129.5	101 %		16:42:41
2	Al 396.153Radial†	-73.6	11.8	2.7884 µg/L	2.7884 ppb	16:43:01
2	Ca 317.933Radial†	461.2	1.5	0.1221 µg/L	0.1221 ppb	16:43:01
2	Fe 238.204 Radial†	136.6	11.5	0.9780 µg/L	0.9780 ppb	16:43:01
2	K 766.490 Radial†	1458.5	39.9	15.946 µg/L	15.946 ppb	16:42:41
2	Mg 279.077 IEC†	155.7	-2.7	-1.4718 µg/L	-1.4718 ppb	16:43:01
2	Na 589.592 Radial†	1053.3	211.2	33.683 µg/L	33.683 ppb	16:42:41
2	Sr 421.552†	38.5	105.0	0.2698 µg/L	0.2698 ppb	16:42:41
2	Sc 361.383	1697438.9	1697438.9	100.31 %		16:44:05
2	Y 371.029	959561.8	959561.8	100.26 %		16:44:05
2	Ag 328.068†	4845.6	-272.1	-1.1327 µg/L	-1.1327 ppb	16:44:07
2	As 188.979†	-18.5	-5.0	-1.7247 µg/L	-1.7247 ppb	16:44:28
2	B 249.677†	4058.8	-65.5	-0.9723 µg/L	-0.9723 ppb	16:44:07
2	Ba 233.527†	-168.2	-21.8	-0.0991 µg/L	-0.0991 ppb	16:44:28
2	Be 313.107†	-818.3	176.5	0.0499 µg/L	0.0499 ppb	16:44:07
2	Cd 226.502†	-41.2	23.5	0.1554 µg/L	0.1554 ppb	16:44:28
2	Co 228.616†	-221.3	6.4	0.0837 µg/L	0.0837 ppb	16:44:28
2	Cr 267.716†	338.0	7.4	0.0647 µg/L	0.0647 ppb	16:44:28
2	Cu 324.752†	2896.5	-353.7	-1.4641 µg/L	-1.4641 ppb	16:44:07
2	Mn 257.610†	236.4	20.3	0.0266 µg/L	0.0266 ppb	16:44:28
2	Mo 202.031†	-24.5	-2.8	-0.0949 µg/L	-0.0949 ppb	16:44:28
2	Ni 231.604†	-77.9	-3.7	-0.0463 µg/L	-0.0463 ppb	16:44:28
2	P 214.914†	-6.8	12.4	2.8570 µg/L	2.8570 ppb	16:44:28
2	Pb 220.353†	100.7	-16.8	-1.0511 µg/L	-1.0511 ppb	16:44:28

2	S 181.975 Axial†	103.9	1.7	1.4432 µg/L	1.4432 ppb	16:44:28
2	Sb 206.836†	80.0	2.2	0.2839 µg/L	0.2839 ppb	16:44:28
2	Se 196.026†	32.1	12.0	4.63 µg/L	4.63 ppb	16:44:28
2	SiO2†	1672.7	-21.3	-2.1976 µg/L	-2.1976 ppb	16:44:07
2	Si 251.611†	824.7	35.7	0.5452 µg/L	0.5452 ppb	16:44:07
2	Sn 189.927†	9.5	1.1	0.0733 µg/L	0.0733 ppb	16:44:28
2	Ti 334.940†	718.5	-169.8	-0.1778 µg/L	-0.1778 ppb	16:44:07
2	Tl 190.801†	-107.8	7.7	1.0810 µg/L	1.0810 ppb	16:44:28
2	U 409.014†	-416.9	-4.4	-0.3079 µg/L	-0.3079 ppb	16:44:07
2	V 292.402†	347.9	-149.2	-0.7405 µg/L	-0.7405 ppb	16:44:07
2	Zn 213.857†	641.0	19.7	0.1149 µg/L	0.1149 ppb	16:44:28
3	Sc RADIAL	115780.6	115780.6	101 %		16:43:03
3	Al 396.153Radial†	-69.5	16.3	3.8246 µg/L	3.8246 ppb	16:43:23
3	Ca 317.933Radial†	485.8	23.2	1.9125 µg/L	1.9125 ppb	16:43:23
3	Fe 238.204 Radial†	122.2	-3.5	-0.3013 µg/L	-0.3013 ppb	16:43:23
3	K 766.490 Radial†	1429.3	2.9	1.1473 µg/L	1.1473 ppb	16:43:03
3	Mg 279.077 IEC†	184.3	24.7	13.668 µg/L	13.668 ppb	16:43:23
3	Na 589.592 Radial†	1019.2	171.6	27.384 µg/L	27.384 ppb	16:43:03
3	Sr 421.552†	-112.5	-44.4	-0.1141 µg/L	-0.1141 ppb	16:43:03
3	Sc 361.383	1700270.3	1700270.3	100.47 %		16:44:30
3	Y 371.029	961954.9	961954.9	100.51 %		16:44:30
3	Ag 328.068†	5260.2	132.4	0.5268 µg/L	0.5268 ppb	16:44:32
3	As 188.979†	-16.2	-2.7	-0.9299 µg/L	-0.9299 ppb	16:44:52
3	B 249.677†	4186.0	54.4	0.8077 µg/L	0.8077 ppb	16:44:32
3	Ba 233.527†	-128.9	17.5	0.0791 µg/L	0.0791 ppb	16:44:52
3	Be 313.107†	-581.1	414.0	0.1142 µg/L	0.1142 ppb	16:44:32
3	Cd 226.502†	-49.4	15.4	0.1021 µg/L	0.1021 ppb	16:44:52
3	Co 228.616†	-236.0	-7.8	-0.1026 µg/L	-0.1026 ppb	16:44:52
3	Cr 267.716†	321.2	-10.0	-0.0803 µg/L	-0.0803 ppb	16:44:52
3	Cu 324.752†	2993.8	-261.6	-1.0909 µg/L	-1.0909 ppb	16:44:32
3	Mn 257.610†	234.9	18.4	0.0235 µg/L	0.0235 ppb	16:44:52
3	Mo 202.031†	-9.7	11.9	0.4054 µg/L	0.4054 ppb	16:44:52
3	Ni 231.604†	-84.1	-9.8	-0.1213 µg/L	-0.1213 ppb	16:44:52
3	P 214.914†	-4.4	14.8	3.3978 µg/L	3.3978 ppb	16:44:52
3	Pb 220.353†	127.9	10.1	0.6437 µg/L	0.6437 ppb	16:44:52
3	S 181.975 Axial†	122.1	19.6	16.696 µg/L	16.696 ppb	16:44:52
3	Sb 206.836†	74.2	-3.6	-0.4596 µg/L	-0.4596 ppb	16:44:52
3	Se 196.026†	14.2	-5.9	-2.28 µg/L	-2.28 ppb	16:44:52
3	SiO2†	1780.6	83.4	8.5927 µg/L	8.5927 ppb	16:44:32
3	Si 251.611†	804.2	13.9	0.2043 µg/L	0.2043 ppb	16:44:32
3	Sn 189.927†	13.3	4.8	0.3337 µg/L	0.3337 ppb	16:44:52
3	Ti 334.940†	831.9	-58.1	-0.0578 µg/L	-0.0578 ppb	16:44:32
3	Tl 190.801†	-109.2	6.5	0.9164 µg/L	0.9164 ppb	16:44:52
3	U 409.014†	-577.9	-164.0	-10.008 µg/L	-10.008 ppb	16:44:32
3	V 292.402†	366.9	-130.9	-0.6517 µg/L	-0.6517 ppb	16:44:32
3	Zn 213.857†	629.0	6.7	0.0404 µg/L	0.0404 ppb	16:44:52

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1696860.8	100.27 %	0.221			0.22%
Sc RADIAL	115395.1	101 %	0.3			0.30%
Y 371.029	959888.2	100.30 %	0.201			0.20%
Ag 328.068†	-99.3	-0.4162 µg/L	0.85265	-0.4162 ppb	0.85265	204.85%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	15.1	3.5684 µg/L	0.68865	3.5684 ppb	0.68865	19.30%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.7	0.2516 µg/L	2.76341	0.2516 ppb	2.76341	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-2.6	-0.0390 µg/L	0.89313	-0.0390 ppb	0.89313	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-5.1	-0.0235 µg/L	0.09211	-0.0235 ppb	0.09211	391.43%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	248.8	0.0709 µg/L	0.03747	0.0709 ppb	0.03747	52.83%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	16.2	1.3315 µg/L	1.04763	1.3315 ppb	1.04763	78.68%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	10.8	0.0715 µg/L	0.10275	0.0715 ppb	0.10275	143.80%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	0.3	0.0044 µg/L	0.09616	0.0044 ppb	0.09616	>999.9%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	5.3	0.0453 µg/L	0.11705	0.0453 ppb	0.11705	258.44%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-213.9	-0.8841 µg/L	0.70652	-0.8841 ppb	0.70652	79.91%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	4.3	0.3693 µg/L	0.64191	0.3693 ppb	0.64191	173.81%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	76.1	30.443 µg/L	38.6406	30.443 ppb	38.6406	126.93%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	10.1	5.5845 µg/L	7.62199	5.5845 ppb	7.62199	136.49%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	27.8	0.0361 µg/L	0.01916	0.0361 ppb	0.01916	53.12%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	2.2	0.0749 µg/L	0.28621	0.0749 ppb	0.28621	381.88%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	195.4	31.150 µg/L	3.3250	31.150 ppb	3.3250	10.67%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-8.0	-0.0997 µg/L	0.04651	-0.0997 ppb	0.04651	46.67%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	11.6	2.6735 µg/L	0.83138	2.6735 ppb	0.83138	31.10%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	3.9	0.2451 µg/L	1.14993	0.2451 ppb	1.14993	469.24%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	10.9	9.3128 µg/L	7.63813	9.3128 ppb	7.63813	82.02%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-4.7	-0.5969 µg/L	0.95687	-0.5969 ppb	0.95687	160.30%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	0.8	0.310 µg/L	3.7686	0.310 ppb	3.7686	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	29.0	2.9894 µg/L	5.40722	2.9894 ppb	5.40722	180.88%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	38.1	0.5778 µg/L	0.39082	0.5778 ppb	0.39082	67.64%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	3.9	0.2682 µg/L	0.17171	0.2682 ppb	0.17171	64.03%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	24.1	0.0618 µg/L	0.19391	0.0618 ppb	0.19391	313.56%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-138.5	-0.1463 µg/L	0.07768	-0.1463 ppb	0.07768	53.09%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	3.3	0.4537 µg/L	0.94750	0.4537 ppb	0.94750	208.84%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	26.9	1.5950 µg/L	12.66237	1.5950 ppb	12.66237	793.86%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-140.4	-0.6939 µg/L	0.04455	-0.6939 ppb	0.04455	6.42%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	11.5	0.0679 µg/L	0.04092	0.0679 ppb	0.04092	60.24%
QC value within limits for Zn 213.857 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 25

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/13/2010 16:58:17

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	109995.3	109995.3	96.2 %		16:58:51
1	Al 396.153Radial†	20824.2	21740.8	5103.9 µg/L	5103.9 ppb	16:58:51
1	Ca 317.933Radial†	59641.9	61567.1	5069.4 µg/L	5069.4 ppb	16:58:51
1	Fe 238.204 Radial†	57075.3	59230.4	5052.6 µg/L	5052.6 ppb	16:58:51
1	K 766.490 Radial†	13604.0	12738.0	5094.5 µg/L	5094.5 ppb	16:58:51
1	Mg 279.077 IEC†	8969.0	9169.8	5079.2 µg/L	5079.2 ppb	16:58:51
1	Na 589.592 Radial†	63620.5	65325.9	10419 µg/L	10419 ppb	16:58:49
1	Sr 421.552†	191639.2	199359.3	512.07 µg/L	512.07 ppb	16:58:49
1	Sc 361.383	1648536.0	1648536.0	97.416 %		16:59:04
1	Y 371.029	922411.1	922411.1	96.383 %		16:59:04
1	Ag 328.068†	122528.7	120676.0	504.54 µg/L	504.54 ppb	16:59:04
1	As 188.979†	1347.1	1396.3	490.78 µg/L	490.78 ppb	16:59:24
1	B 249.677†	36777.7	33641.3	497.63 µg/L	497.63 ppb	16:59:04
1	Ba 233.527†	107379.5	110373.8	500.04 µg/L	500.04 ppb	16:59:04
1	Be 313.107†	1702660.6	1748818.2	495.29 µg/L	495.29 ppb	16:59:04
1	Cd 226.502†	73268.6	75276.7	497.44 µg/L	497.44 ppb	16:59:04
1	Co 228.616†	37046.6	38256.4	501.79 µg/L	501.79 ppb	16:59:04
1	Cr 267.716†	55697.7	56845.5	499.12 µg/L	499.12 ppb	16:59:04
1	Cu 324.752†	120457.5	120411.6	500.04 µg/L	500.04 ppb	16:59:04
1	Mn 257.610†	374306.6	384020.2	501.75 µg/L	501.75 ppb	16:59:04
1	Mo 202.031†	14345.7	14747.8	501.09 µg/L	501.09 ppb	16:59:24
1	Ni 231.604†	39241.0	40355.8	501.86 µg/L	501.86 ppb	16:59:04
1	P 214.914†	10540.5	10839.3	2468.0 µg/L	2468.0 ppb	16:59:24
1	Pb 220.353†	7914.3	8007.0	503.30 µg/L	503.30 ppb	16:59:24
1	S 181.975 Axial†	1428.1	1364.1	1164.9 µg/L	1164.9 ppb	16:59:24
1	Sb 206.836†	3852.9	3877.6	498.20 µg/L	498.20 ppb	16:59:24
1	Se 196.026†	1267.9	1281.6	498 µg/L	498 ppb	16:59:24
1	SiO2†	51981.2	51671.2	5314.0 µg/L	5314.0 ppb	16:59:04
1	Si 251.611†	160046.0	163504.9	2484.2 µg/L	2484.2 ppb	16:59:04
1	Sn 189.927†	6958.5	7134.7	498.52 µg/L	498.52 ppb	16:59:24
1	Ti 334.940†	466285.9	477768.7	500.40 µg/L	500.40 ppb	16:59:04
1	Tl 190.801†	3343.5	3547.4	507.42 µg/L	507.42 ppb	16:59:24
1	U 409.014†	7086.7	7685.9	497.73 µg/L	497.73 ppb	16:59:04
1	V 292.402†	98146.1	100253.5	503.71 µg/L	503.71 ppb	16:59:04
1	Zn 213.857†	84980.6	86615.5	496.11 µg/L	496.11 ppb	16:59:04
2	Sc RADIAL	110061.7	110061.7	96.2 %		16:58:55
2	Al 396.153Radial†	20769.4	21670.7	5087.1 µg/L	5087.1 ppb	16:58:55
2	Ca 317.933Radial†	59815.7	61710.2	5081.2 µg/L	5081.2 ppb	16:58:55
2	Fe 238.204 Radial†	57061.1	59179.8	5048.3 µg/L	5048.3 ppb	16:58:55
2	K 766.490 Radial†	13646.0	12773.1	5108.6 µg/L	5108.6 ppb	16:58:55
2	Mg 279.077 IEC†	9080.8	9280.4	5140.5 µg/L	5140.5 ppb	16:58:55
2	Na 589.592 Radial†	63220.4	64870.2	10346 µg/L	10346 ppb	16:58:53
2	Sr 421.552†	189776.3	197302.8	506.79 µg/L	506.79 ppb	16:58:53
2	Sc 361.383	1633191.2	1633191.2	96.509 %		16:59:27
2	Y 371.029	914789.9	914789.9	95.586 %		16:59:27
2	Ag 328.068†	122587.4	121918.5	509.75 µg/L	509.75 ppb	16:59:27
2	As 188.979†	1355.3	1417.8	498.29 µg/L	498.29 ppb	16:59:47
2	B 249.677†	36637.3	33850.6	500.72 µg/L	500.72 ppb	16:59:27
2	Ba 233.527†	107123.0	111143.7	503.53 µg/L	503.53 ppb	16:59:27
2	Be 313.107†	1701239.2	1763767.3	499.53 µg/L	499.53 ppb	16:59:27
2	Cd 226.502†	73293.0	76008.7	502.28 µg/L	502.28 ppb	16:59:27
2	Co 228.616†	37137.5	38707.9	507.71 µg/L	507.71 ppb	16:59:27
2	Cr 267.716†	55632.4	57315.1	503.23 µg/L	503.23 ppb	16:59:27
2	Cu 324.752†	120101.7	121204.6	503.34 µg/L	503.34 ppb	16:59:27
2	Mn 257.610†	373342.9	386631.7	505.16 µg/L	505.16 ppb	16:59:27
2	Mo 202.031†	14395.5	14937.8	507.54 µg/L	507.54 ppb	16:59:47
2	Ni 231.604†	39176.7	40667.7	505.74 µg/L	505.74 ppb	16:59:27
2	P 214.914†	10597.2	10999.8	2504.7 µg/L	2504.7 ppb	16:59:47
2	Pb 220.353†	7945.8	8116.0	510.14 µg/L	510.14 ppb	16:59:47

2	S 181.975 Axial†	1409.2	1358.3	1160.0 µg/L	1160.0 ppb	16:59:47
2	Sb 206.836†	3877.0	3939.7	506.21 µg/L	506.21 ppb	16:59:47
2	Se 196.026†	1260.7	1286.3	500 µg/L	500 ppb	16:59:47
2	SiO2†	51875.9	52063.4	5354.2 µg/L	5354.2 ppb	16:59:27
2	Si 251.611†	159902.2	164899.5	2505.4 µg/L	2505.4 ppb	16:59:27
2	Sn 189.927†	6996.6	7241.3	505.96 µg/L	505.96 ppb	16:59:47
2	Ti 334.940†	465177.3	481117.2	503.90 µg/L	503.90 ppb	16:59:27
2	Tl 190.801†	3324.1	3559.6	509.19 µg/L	509.19 ppb	16:59:47
2	U 409.014†	7253.6	7927.3	512.70 µg/L	512.70 ppb	16:59:27
2	V 292.402†	98163.1	101217.7	508.58 µg/L	508.58 ppb	16:59:27
2	Zn 213.857†	84953.3	87406.9	500.65 µg/L	500.65 ppb	16:59:27
3	Sc RADIAL	110436.1	110436.1	96.5 %		16:58:59
3	Al 396.153Radial†	20717.0	21543.3	5056.7 µg/L	5056.7 ppb	16:58:59
3	Ca 317.933Radial†	59673.0	61351.7	5051.7 µg/L	5051.7 ppb	16:58:59
3	Fe 238.204 Radial†	56910.6	58822.9	5017.8 µg/L	5017.8 ppb	16:58:59
3	K 766.490 Radial†	13525.7	12600.4	5039.5 µg/L	5039.5 ppb	16:58:59
3	Mg 279.077 IEC†	8944.1	9106.9	5044.7 µg/L	5044.7 ppb	16:58:59
3	Na 589.592 Radial†	64523.5	65997.2	10526 µg/L	10526 ppb	16:58:57
3	Sr 421.552†	193499.0	200490.1	514.97 µg/L	514.97 ppb	16:58:57
3	Sc 361.383	1634909.9	1634909.9	96.611 %		16:59:50
3	Y 371.029	914282.2	914282.2	95.533 %		16:59:50
3	Ag 328.068†	123242.4	122463.0	512.00 µg/L	512.00 ppb	16:59:50
3	As 188.979†	1372.3	1433.9	503.90 µg/L	503.90 ppb	17:00:10
3	B 249.677†	36870.1	34051.6	503.69 µg/L	503.69 ppb	16:59:50
3	Ba 233.527†	108181.1	112122.1	507.96 µg/L	507.96 ppb	16:59:50
3	Be 313.107†	1714657.4	1775803.1	502.94 µg/L	502.94 ppb	16:59:50
3	Cd 226.502†	73755.6	76407.7	504.93 µg/L	504.93 ppb	16:59:50
3	Co 228.616†	37429.3	38969.5	511.15 µg/L	511.15 ppb	16:59:50
3	Cr 267.716†	56117.5	57756.6	507.12 µg/L	507.12 ppb	16:59:50
3	Cu 324.752†	121050.3	122055.7	506.85 µg/L	506.85 ppb	16:59:50
3	Mn 257.610†	376525.9	389519.8	508.94 µg/L	508.94 ppb	16:59:50
3	Mo 202.031†	14569.0	15101.7	513.10 µg/L	513.10 ppb	17:00:10
3	Ni 231.604†	39571.6	41033.7	510.29 µg/L	510.29 ppb	16:59:50
3	P 214.914†	10718.0	11113.3	2530.6 µg/L	2530.6 ppb	17:00:10
3	Pb 220.353†	8040.9	8205.8	515.79 µg/L	515.79 ppb	17:00:10
3	S 181.975 Axial†	1417.9	1365.7	1166.4 µg/L	1166.4 ppb	17:00:10
3	Sb 206.836†	3927.4	3987.6	512.39 µg/L	512.39 ppb	17:00:10
3	Se 196.026†	1283.4	1308.4	508 µg/L	508 ppb	17:00:10
3	SiO2†	52139.5	52279.7	5376.3 µg/L	5376.3 ppb	16:59:50
3	Si 251.611†	161278.1	166149.5	2524.3 µg/L	2524.3 ppb	16:59:50
3	Sn 189.927†	7108.7	7349.7	513.51 µg/L	513.51 ppb	17:00:10
3	Ti 334.940†	468793.2	484353.2	507.30 µg/L	507.30 ppb	16:59:50
3	Tl 190.801†	3376.2	3609.9	516.33 µg/L	516.33 ppb	17:00:10
3	U 409.014†	7047.1	7705.6	499.36 µg/L	499.36 ppb	16:59:50
3	V 292.402†	98644.4	101609.0	510.58 µg/L	510.58 ppb	16:59:50
3	Zn 213.857†	85499.8	87879.9	503.35 µg/L	503.35 ppb	16:59:50

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1638879.0	96.845 %	0.4968			0.51%
Sc RADIAL	110164.4	96.3 %	0.21			0.22%
Y 371.029	917161.1	95.834 %	0.4758			0.50%
Ag 328.068†	121685.8	508.76 µg/L	3.826	508.76 ppb	3.826	0.75%
QC value within limits for Ag 328.068 Recovery = 101.75%						
Al 396.153Radial†	21651.6	5082.6 µg/L	23.88	5082.6 ppb	23.88	0.47%
QC value within limits for Al 396.153Radial Recovery = 101.65%						
As 188.979†	1416.0	497.65 µg/L	6.584	497.65 ppb	6.584	1.32%
QC value within limits for As 188.979 Recovery = 99.53%						
B 249.677†	33847.9	500.68 µg/L	3.029	500.68 ppb	3.029	0.61%
QC value within limits for B 249.677 Recovery = 100.14%						
Ba 233.527†	111213.2	503.84 µg/L	3.971	503.84 ppb	3.971	0.79%
QC value within limits for Ba 233.527 Recovery = 100.77%						
Be 313.107†	1762796.2	499.25 µg/L	3.828	499.25 ppb	3.828	0.77%
QC value within limits for Be 313.107 Recovery = 99.85%						
Ca 317.933Radial†	61543.0	5067.4 µg/L	14.86	5067.4 ppb	14.86	0.29%
QC value within limits for Ca 317.933Radial Recovery = 101.35%						
Cd 226.502†	75897.7	501.55 µg/L	3.796	501.55 ppb	3.796	0.76%
QC value within limits for Cd 226.502 Recovery = 100.31%						
Co 228.616†	38644.6	506.88 µg/L	4.734	506.88 ppb	4.734	0.93%

QC value within limits for Co 228.616 Recovery = 101.38%							
Cr 267.716†	57305.7	503.15 µg/L	4.001	503.15 ppb	4.001	0.80%	
QC value within limits for Cr 267.716 Recovery = 100.63%							
Cu 324.752†	121223.9	503.41 µg/L	3.404	503.41 ppb	3.404	0.68%	
QC value within limits for Cu 324.752 Recovery = 100.68%							
Fe 238.204 Radial†	59077.7	5039.5 µg/L	18.95	5039.5 ppb	18.95	0.38%	
QC value within limits for Fe 238.204 Radial Recovery = 100.79%							
K 766.490 Radial†	12703.9	5080.9 µg/L	36.54	5080.9 ppb	36.54	0.72%	
QC value within limits for K 766.490 Radial Recovery = 101.62%							
Mg 279.077 IEC†	9185.7	5088.1 µg/L	48.52	5088.1 ppb	48.52	0.95%	
QC value within limits for Mg 279.077 IEC Recovery = 101.76%							
Mn 257.610†	386723.9	505.29 µg/L	3.597	505.29 ppb	3.597	0.71%	
QC value within limits for Mn 257.610 Recovery = 101.06%							
Mo 202.031†	14929.1	507.24 µg/L	6.012	507.24 ppb	6.012	1.19%	
QC value within limits for Mo 202.031 Recovery = 101.45%							
Na 589.592 Radial†	65397.8	10430 µg/L	90.5	10430 ppb	90.5	0.87%	
QC value within limits for Na 589.592 Radial Recovery = 104.30%							
Ni 231.604†	40685.8	505.96 µg/L	4.220	505.96 ppb	4.220	0.83%	
QC value within limits for Ni 231.604 Recovery = 101.19%							
P 214.914†	10984.1	2501.1 µg/L	31.43	2501.1 ppb	31.43	1.26%	
QC value within limits for P 214.914 Recovery = 100.04%							
Pb 220.353†	8109.6	509.74 µg/L	6.255	509.74 ppb	6.255	1.23%	
QC value within limits for Pb 220.353 Recovery = 101.95%							
S 181.975 Axial†	1362.7	1163.7 µg/L	3.34	1163.7 ppb	3.34	0.29%	
QC value greater than the upper limit for S 181.975 Axial Recovery = 116.37%							
Sb 206.836†	3935.0	505.60 µg/L	7.115	505.60 ppb	7.115	1.41%	
QC value within limits for Sb 206.836 Recovery = 101.12%							
Se 196.026†	1292.1	502 µg/L	5.5	502 ppb	5.5	1.10%	
QC value within limits for Se 196.026 Recovery = 100.37%							
SiO2†	52004.8	5348.2 µg/L	31.58	5348.2 ppb	31.58	0.59%	
QC value within limits for SiO2 Recovery = 100.01%							
Si 251.611†	164851.3	2504.6 µg/L	20.05	2504.6 ppb	20.05	0.80%	
QC value within limits for Si 251.611 Recovery = 100.19%							
Sn 189.927†	7241.9	506.00 µg/L	7.497	506.00 ppb	7.497	1.48%	
QC value within limits for Sn 189.927 Recovery = 101.20%							
Sr 421.552†	199050.7	511.28 µg/L	4.151	511.28 ppb	4.151	0.81%	
QC value within limits for Sr 421.552 Recovery = 102.26%							
Ti 334.940†	481079.7	503.86 µg/L	3.452	503.86 ppb	3.452	0.69%	
QC value within limits for Ti 334.940 Recovery = 100.77%							
Tl 190.801†	3572.3	510.98 µg/L	4.715	510.98 ppb	4.715	0.92%	
QC value within limits for Tl 190.801 Recovery = 102.20%							
U 409.014†	7772.9	503.26 µg/L	8.214	503.26 ppb	8.214	1.63%	
QC value within limits for U 409.014 Recovery = 100.65%							
V 292.402†	101026.8	507.62 µg/L	3.537	507.62 ppb	3.537	0.70%	
QC value within limits for V 292.402 Recovery = 101.52%							
Zn 213.857†	87300.8	500.04 µg/L	3.661	500.04 ppb	3.661	0.73%	
QC value within limits for Zn 213.857 Recovery = 100.01%							
QC Failed. Continue with analysis.							



Sequence No.: 26

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/13/2010 17:00:18

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	110760.1	110760.1	96.8 %		17:00:47
1	Al 396.153Radial†	-79.3	3.1	0.7191 µg/L	0.7191 ppb	17:01:07
1	Ca 317.933Radial†	451.9	9.9	0.8189 µg/L	0.8189 ppb	17:01:07
1	Fe 238.204 Radial†	124.9	4.7	0.4046 µg/L	0.4046 ppb	17:01:07
1	K 766.490 Radial†	1531.2	172.1	68.839 µg/L	68.839 ppb	17:00:47
1	Mg 279.077 IEC†	172.5	20.8	11.511 µg/L	11.511 ppb	17:01:07
1	Na 589.592 Radial†	2144.5	1379.5	220.04 µg/L	220.04 ppb	17:00:47
1	Sr 421.552†	-56.6	8.3	0.0214 µg/L	0.0214 ppb	17:00:47
1	Sc 361.383	1683526.6	1683526.6	99.484 %		17:02:09
1	Y 371.029	952339.9	952339.9	99.510 %		17:02:09
1	Ag 328.068†	5002.3	-74.7	-0.2978 µg/L	-0.2978 ppb	17:02:11
1	As 188.979†	-14.6	-1.2	-0.4171 µg/L	-0.4171 ppb	17:02:31
1	B 249.677†	4273.5	183.8	2.7281 µg/L	2.7281 ppb	17:02:11
1	Ba 233.527†	-153.3	-8.2	-0.0373 µg/L	-0.0373 ppb	17:02:31
1	Be 313.107†	-594.9	394.4	0.1148 µg/L	0.1148 ppb	17:02:11
1	Cd 226.502†	-59.0	5.3	0.0351 µg/L	0.0351 ppb	17:02:31
1	Co 228.616†	-226.0	-0.1	-0.0015 µg/L	-0.0015 ppb	17:02:31
1	Cr 267.716†	327.0	-0.9	-0.0166 µg/L	-0.0166 ppb	17:02:31
1	Cu 324.752†	3020.8	-204.8	-0.8388 µg/L	-0.8388 ppb	17:02:11
1	Mn 257.610†	274.0	60.1	0.0780 µg/L	0.0780 ppb	17:02:31
1	Mo 202.031†	-14.6	6.9	0.2353 µg/L	0.2353 ppb	17:02:31
1	Ni 231.604†	-87.5	-14.0	-0.1746 µg/L	-0.1746 ppb	17:02:31
1	P 214.914†	-5.0	14.2	3.2434 µg/L	3.2434 ppb	17:02:31
1	Pb 220.353†	128.5	12.0	0.7446 µg/L	0.7446 ppb	17:02:31
1	S 181.975 Axial†	196.5	95.6	81.317 µg/L	81.317 ppb	17:02:31
1	Sb 206.836†	73.7	-3.4	-0.4338 µg/L	-0.4338 ppb	17:02:31
1	Se 196.026†	23.5	3.6	1.41 µg/L	1.41 ppb	17:02:31
1	SiO2†	1703.6	23.6	2.4243 µg/L	2.4243 ppb	17:02:31
1	Si 251.611†	674.6	-108.4	-1.6597 µg/L	-1.6597 ppb	17:02:11
1	Sn 189.927†	13.1	4.7	0.3301 µg/L	0.3301 ppb	17:02:31
1	Ti 334.940†	748.5	-133.7	-0.1454 µg/L	-0.1454 ppb	17:02:11
1	Tl 190.801†	-129.8	-15.3	-2.1535 µg/L	-2.1535 ppb	17:02:31
1	U 409.014†	-237.1	172.9	10.502 µg/L	10.502 ppb	17:02:11
1	V 292.402†	454.9	-38.7	-0.1824 µg/L	-0.1824 ppb	17:02:11
1	Zn 213.857†	660.4	44.5	0.2586 µg/L	0.2586 ppb	17:02:31
2	Sc RADIAL	112898.4	112898.4	98.7 %		17:01:09
2	Al 396.153Radial†	-83.7	0.2	-0.0124 µg/L	-0.0124 ppb	17:01:29
2	Ca 317.933Radial†	465.4	14.8	1.2172 µg/L	1.2172 ppb	17:01:29
2	Fe 238.204 Radial†	143.2	20.8	1.7732 µg/L	1.7732 ppb	17:01:29
2	K 766.490 Radial†	1626.0	238.2	95.315 µg/L	95.315 ppb	17:01:09
2	Mg 279.077 IEC†	150.2	-5.2	-2.8454 µg/L	-2.8454 ppb	17:01:29
2	Na 589.592 Radial†	2076.5	1268.6	202.32 µg/L	202.32 ppb	17:01:09
2	Sr 421.552†	-35.8	30.5	0.0782 µg/L	0.0782 ppb	17:01:09
2	Sc 361.383	1670869.1	1670869.1	98.736 %		17:02:33
2	Y 371.029	945215.1	945215.1	98.765 %		17:02:33
2	Ag 328.068†	5247.4	211.6	0.8632 µg/L	0.8632 ppb	17:02:35
2	As 188.979†	-4.5	8.9	3.0768 µg/L	3.0768 ppb	17:02:56
2	B 249.677†	4342.3	285.9	4.2444 µg/L	4.2444 ppb	17:02:35
2	Ba 233.527†	-146.3	-2.3	-0.0105 µg/L	-0.0105 ppb	17:02:56
2	Be 313.107†	-806.5	175.5	0.0497 µg/L	0.0497 ppb	17:02:35
2	Cd 226.502†	-59.9	3.9	0.0259 µg/L	0.0259 ppb	17:02:56
2	Co 228.616†	-220.0	4.2	0.0553 µg/L	0.0553 ppb	17:02:56
2	Cr 267.716†	347.8	22.6	0.1983 µg/L	0.1983 ppb	17:02:56
2	Cu 324.752†	2903.9	-300.2	-1.2425 µg/L	-1.2425 ppb	17:02:35
2	Mn 257.610†	267.5	55.6	0.0728 µg/L	0.0728 ppb	17:02:56
2	Mo 202.031†	9.2	30.9	1.0482 µg/L	1.0482 ppb	17:02:56
2	Ni 231.604†	-81.7	-8.8	-0.1095 µg/L	-0.1095 ppb	17:02:56
2	P 214.914†	8.2	27.5	6.2911 µg/L	6.2911 ppb	17:02:56
2	Pb 220.353†	128.8	13.2	0.8318 µg/L	0.8318 ppb	17:02:56

2	S 181.975 Axial†	201.6	102.2	87.002 µg/L	87.002 ppb	17:02:56
2	Sb 206.836†	96.4	20.1	2.5864 µg/L	2.5864 ppb	17:02:56
2	Se 196.026†	19.9	0.1	0.052 µg/L	0.052 ppb	17:02:56
2	SiO2†	1649.9	-17.9	-1.8768 µg/L	-1.8768 ppb	17:02:56
2	Si 251.611†	607.6	-171.1	-2.6246 µg/L	-2.6246 ppb	17:02:35
2	Sn 189.927†	8.1	-0.3	-0.0189 µg/L	-0.0189 ppb	17:02:56
2	Ti 334.940†	768.6	-107.7	-0.1127 µg/L	-0.1127 ppb	17:02:35
2	Tl 190.801†	-111.8	2.0	0.2728 µg/L	0.2728 ppb	17:02:56
2	U 409.014†	-407.7	-1.7	-0.1541 µg/L	-0.1541 ppb	17:02:35
2	V 292.402†	316.3	-175.7	-0.8597 µg/L	-0.8597 ppb	17:02:35
2	Zn 213.857†	668.0	57.3	0.3321 µg/L	0.3321 ppb	17:02:56
3	Sc RADIAL	113329.1	113329.1	99.1 %		17:01:31
3	Al 396.153Radial†	-93.4	-9.3	-2.2289 µg/L	-2.2289 ppb	17:01:51
3	Ca 317.933Radial†	455.9	3.5	0.2848 µg/L	0.2848 ppb	17:01:51
3	Fe 238.204 Radial†	124.3	1.2	0.1025 µg/L	0.1025 ppb	17:01:51
3	K 766.490 Radial†	1607.0	212.8	85.142 µg/L	85.142 ppb	17:01:31
3	Mg 279.077 IEC†	161.8	6.0	3.3120 µg/L	3.3120 ppb	17:01:51
3	Na 589.592 Radial†	1987.1	1170.4	186.67 µg/L	186.67 ppb	17:01:31
3	Sr 421.552†	-203.7	-138.9	-0.3568 µg/L	-0.3568 ppb	17:01:31
3	Sc 361.383	1680962.6	1680962.6	99.332 %		17:02:58
3	Y 371.029	950504.8	950504.8	99.318 %		17:02:58
3	Ag 328.068†	5189.2	121.1	0.4921 µg/L	0.4921 ppb	17:03:00
3	As 188.979†	-3.2	10.2	3.5231 µg/L	3.5231 ppb	17:03:20
3	B 249.677†	4108.3	24.0	0.3559 µg/L	0.3559 ppb	17:03:00
3	Ba 233.527†	-130.1	14.9	0.0670 µg/L	0.0670 ppb	17:03:20
3	Be 313.107†	-1132.7	-147.9	-0.0421 µg/L	-0.0421 ppb	17:03:00
3	Cd 226.502†	-70.5	-6.4	-0.0425 µg/L	-0.0425 ppb	17:03:20
3	Co 228.616†	-219.4	6.2	0.0809 µg/L	0.0809 ppb	17:03:20
3	Cr 267.716†	332.4	5.0	0.0438 µg/L	0.0438 ppb	17:03:20
3	Cu 324.752†	3128.3	-92.0	-0.3811 µg/L	-0.3811 ppb	17:03:00
3	Mn 257.610†	233.5	19.7	0.0257 µg/L	0.0257 ppb	17:03:20
3	Mo 202.031†	-3.8	17.8	0.6030 µg/L	0.6030 ppb	17:03:20
3	Ni 231.604†	-62.1	11.4	0.1412 µg/L	0.1412 ppb	17:03:20
3	P 214.914†	-5.4	13.8	3.1510 µg/L	3.1510 ppb	17:03:20
3	Pb 220.353†	131.2	14.9	0.9330 µg/L	0.9330 ppb	17:03:20
3	S 181.975 Axial†	183.5	82.8	70.428 µg/L	70.428 ppb	17:03:20
3	Sb 206.836†	83.1	6.1	0.7949 µg/L	0.7949 ppb	17:03:20
3	Se 196.026†	17.3	-2.6	-0.999 µg/L	-0.999 ppb	17:03:20
3	SiO2†	1638.1	-39.7	-4.1282 µg/L	-4.1282 ppb	17:03:20
3	Si 251.611†	643.6	-138.6	-2.1257 µg/L	-2.1257 ppb	17:03:00
3	Sn 189.927†	16.4	8.1	0.5637 µg/L	0.5637 ppb	17:03:20
3	Ti 334.940†	812.3	-68.3	-0.0717 µg/L	-0.0717 ppb	17:03:00
3	Tl 190.801†	-107.0	7.5	1.0495 µg/L	1.0495 ppb	17:03:20
3	U 409.014†	-418.7	-10.3	-0.6624 µg/L	-0.6624 ppb	17:03:00
3	V 292.402†	370.0	-123.6	-0.6066 µg/L	-0.6066 ppb	17:03:00
3	Zn 213.857†	647.7	32.7	0.1881 µg/L	0.1881 ppb	17:03:20

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1678452.8	99.184 %	0.3954			0.40%
Sc RADIAL	112329.2	98.2 %	1.20			1.22%
Y 371.029	949353.3	99.198 %	0.3865			0.39%
Ag 328.068†	86.0	0.3525 µg/L	0.59291	0.3525 ppb	0.59291	168.21%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-2.0	-0.5074 µg/L	1.53506	-0.5074 ppb	1.53506	302.54%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	5.9	2.0610 µg/L	2.15760	2.0610 ppb	2.15760	104.69%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	164.6	2.4428 µg/L	1.95987	2.4428 ppb	1.95987	80.23%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	1.5	0.0064 µg/L	0.05418	0.0064 ppb	0.05418	844.53%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	140.6	0.0408 µg/L	0.07883	0.0408 ppb	0.07883	193.18%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	9.4	0.7737 µg/L	0.46784	0.7737 ppb	0.46784	60.47%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	0.9	0.0061 µg/L	0.04239	0.0061 ppb	0.04239	691.68%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	3.4	0.0449 µg/L	0.04217	0.0449 ppb	0.04217	93.93%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	8.9	0.0751 µg/L	0.11085	0.0751 ppb	0.11085	147.53%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-199.0	-0.8208 µg/L	0.43099	-0.8208 ppb	0.43099	52.51%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	8.9	0.7601 µg/L	0.89030	0.7601 ppb	0.89030	117.13%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	207.7	83.099 µg/L	13.3560	83.099 ppb	13.3560	16.07%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	7.2	3.9924 µg/L	7.20213	3.9924 ppb	7.20213	180.39%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	45.1	0.0588 µg/L	0.02884	0.0588 ppb	0.02884	49.04%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	18.5	0.6288 µg/L	0.40705	0.6288 ppb	0.40705	64.73%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	1272.8	203.01 µg/L	16.695	203.01 ppb	16.695	8.22%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-3.8	-0.0476 µg/L	0.16676	-0.0476 ppb	0.16676	350.11%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	18.5	4.2285 µg/L	1.78685	4.2285 ppb	1.78685	42.26%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	13.4	0.8365 µg/L	0.09432	0.8365 ppb	0.09432	11.28%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	93.5	79.583 µg/L	8.4220	79.583 ppb	8.4220	10.58%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	7.6	0.9825 µg/L	1.51883	0.9825 ppb	1.51883	154.59%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	0.4	0.155 µg/L	1.2087	0.155 ppb	1.2087	779.25%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-11.3	-1.1936 µg/L	3.32921	-1.1936 ppb	3.32921	278.93%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	-139.4	-2.1366 µg/L	0.48255	-2.1366 ppb	0.48255	22.58%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	4.2	0.2916 µg/L	0.29323	0.2916 ppb	0.29323	100.55%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-33.4	-0.0858 µg/L	0.23647	-0.0858 ppb	0.23647	275.77%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-103.2	-0.1099 µg/L	0.03694	-0.1099 ppb	0.03694	33.60%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-1.9	-0.2771 µg/L	1.67077	-0.2771 ppb	1.67077	602.99%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	53.6	3.2285 µg/L	6.30417	3.2285 ppb	6.30417	195.27%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-112.7	-0.5496 µg/L	0.34222	-0.5496 ppb	0.34222	62.27%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	44.8	0.2596 µg/L	0.07201	0.2596 ppb	0.07201	27.74%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

## =====

## Analysis Begun

Start Time: 4/13/2010 17:31:48

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\041310D.SIF

Batch ID:

Results Data Set: 041310A

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

Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 4/13/2010 17:31:50

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	114517.5	114517.5	100 %		17:32:23
1	Al 396.153Radial†	21649.6	21710.1	5096.0 µg/L	5096.0 ppb	17:32:23
1	Ca 317.933Radial†	63117.2	62589.1	5153.5 µg/L	5153.5 ppb	17:32:23
1	Fe 238.204 Radial†	60443.8	60251.2	5139.7 µg/L	5139.7 ppb	17:32:23
1	K 766.490 Radial†	14101.4	12676.2	5069.8 µg/L	5069.8 ppb	17:32:23
1	Mg 279.077 IEC†	9558.9	9390.8	5201.7 µg/L	5201.7 ppb	17:32:23
1	Na 589.592 Radial†	63927.1	63019.6	10051 µg/L	10051 ppb	17:32:21
1	Sr 421.552†	195880.3	195725.5	502.73 µg/L	502.73 ppb	17:32:21
1	Sc 361.383	1661524.7	1661524.7	98.183 %		17:32:50
1	Y 371.029	928395.3	928395.3	97.008 %		17:32:50
1	Ag 328.068†	124598.8	121801.1	509.25 µg/L	509.25 ppb	17:32:50
1	As 188.979†	1405.7	1445.1	507.81 µg/L	507.81 ppb	17:33:10
1	B 249.677†	37266.5	33844.1	500.61 µg/L	500.61 ppb	17:32:50
1	Ba 233.527†	109407.1	111577.2	505.49 µg/L	505.49 ppb	17:32:50
1	Be 313.107†	1742772.7	1776009.1	502.99 µg/L	502.99 ppb	17:32:50
1	Cd 226.502†	75464.2	76925.0	508.33 µg/L	508.33 ppb	17:32:50
1	Co 228.616†	38170.9	39104.1	512.91 µg/L	512.91 ppb	17:32:50
1	Cr 267.716†	56751.3	57471.6	504.62 µg/L	504.62 ppb	17:32:50
1	Cu 324.752†	122295.8	121317.2	503.81 µg/L	503.81 ppb	17:32:50
1	Mn 257.610†	382290.1	389147.7	508.45 µg/L	508.45 ppb	17:32:50
1	Mo 202.031†	14869.7	15166.4	515.31 µg/L	515.31 ppb	17:33:10
1	Ni 231.604†	40235.5	41053.8	510.54 µg/L	510.54 ppb	17:32:50
1	P 214.914†	11034.0	11257.3	2563.5 µg/L	2563.5 ppb	17:33:10
1	Pb 220.353†	8207.9	8242.5	518.09 µg/L	518.09 ppb	17:33:10
1	S 181.975 Axial†	1311.3	1233.7	1054.0 µg/L	1054.0 ppb	17:33:10
1	Sb 206.836†	4008.2	4004.9	514.67 µg/L	514.67 ppb	17:33:10
1	Se 196.026†	1315.8	1320.2	513 µg/L	513 ppb	17:33:10
1	SiO2†	53097.4	52390.9	5387.6 µg/L	5387.6 ppb	17:32:50
1	Si 251.611†	163892.1	166137.8	2524.1 µg/L	2524.1 ppb	17:32:50
1	Sn 189.927†	7271.7	7397.9	516.86 µg/L	516.86 ppb	17:33:10
1	Ti 334.940†	474420.9	482312.4	505.15 µg/L	505.15 ppb	17:32:50
1	Tl 190.801†	3460.6	3639.8	520.50 µg/L	520.50 ppb	17:33:10
1	U 409.014†	7177.6	7721.6	500.24 µg/L	500.24 ppb	17:32:50
1	V 292.402†	100030.0	101384.7	509.47 µg/L	509.47 ppb	17:32:50
1	Zn 213.857†	87149.8	88142.9	504.86 µg/L	504.86 ppb	17:32:50
2	Sc RADIAL	112866.2	112866.2	98.7 %		17:32:27
2	Al 396.153Radial†	21293.9	21666.0	5085.6 µg/L	5085.6 ppb	17:32:27
2	Ca 317.933Radial†	62053.1	62433.0	5140.7 µg/L	5140.7 ppb	17:32:27
2	Fe 238.204 Radial†	59209.4	59883.5	5108.3 µg/L	5108.3 ppb	17:32:27
2	K 766.490 Radial†	14081.9	12862.5	5144.4 µg/L	5144.4 ppb	17:32:27
2	Mg 279.077 IEC†	9399.6	9369.0	5189.6 µg/L	5189.6 ppb	17:32:27
2	Na 589.592 Radial†	63805.2	63830.2	10180 µg/L	10180 ppb	17:32:25
2	Sr 421.552†	194559.9	197250.0	506.65 µg/L	506.65 ppb	17:32:25
2	Sc 361.383	1665056.5	1665056.5	98.392 %		17:33:13
2	Y 371.029	930559.8	930559.8	97.234 %		17:33:13
2	Ag 328.068†	125042.6	121983.0	510.01 µg/L	510.01 ppb	17:33:13
2	As 188.979†	1402.2	1438.5	505.52 µg/L	505.52 ppb	17:33:33

2	B 249.677†	37487.6	33988.3	502.75 µg/L	502.75 ppb	17:33:13
2	Ba 233.527†	109568.5	111504.8	505.17 µg/L	505.17 ppb	17:33:13
2	Be 313.107†	1747254.7	1776799.3	503.22 µg/L	503.22 ppb	17:33:13
2	Cd 226.502†	75703.4	77005.0	508.87 µg/L	508.87 ppb	17:33:13
2	Co 228.616†	38089.8	38939.3	510.75 µg/L	510.75 ppb	17:33:13
2	Cr 267.716†	57087.2	57690.4	506.54 µg/L	506.54 ppb	17:33:13
2	Cu 324.752†	122577.1	121338.9	503.90 µg/L	503.90 ppb	17:33:13
2	Mn 257.610†	383270.9	389318.7	508.67 µg/L	508.67 ppb	17:33:13
2	Mo 202.031†	14870.8	15135.4	514.25 µg/L	514.25 ppb	17:33:33
2	Ni 231.604†	40414.4	41148.7	511.72 µg/L	511.72 ppb	17:33:13
2	P 214.914†	11062.1	11262.1	2564.6 µg/L	2564.6 ppb	17:33:33
2	Pb 220.353†	8232.7	8250.1	518.56 µg/L	518.56 ppb	17:33:33
2	S 181.975 Axial†	1318.2	1237.8	1057.5 µg/L	1057.5 ppb	17:33:33
2	Sb 206.836†	4038.0	4026.4	517.39 µg/L	517.39 ppb	17:33:33
2	Se 196.026†	1318.7	1320.3	513 µg/L	513 ppb	17:33:33
2	SiO2†	53387.8	52571.3	5406.3 µg/L	5406.3 ppb	17:33:13
2	Si 251.611†	164756.6	166662.4	2532.1 µg/L	2532.1 ppb	17:33:13
2	Sn 189.927†	7281.6	7392.1	516.46 µg/L	516.46 ppb	17:33:33
2	Ti 334.940†	475542.5	482427.4	505.27 µg/L	505.27 ppb	17:33:13
2	Tl 190.801†	3473.6	3645.6	521.33 µg/L	521.33 ppb	17:33:33
2	U 409.014†	7164.4	7692.8	498.54 µg/L	498.54 ppb	17:33:13
2	V 292.402†	100406.0	101550.7	510.30 µg/L	510.30 ppb	17:33:13
2	Zn 213.857†	87398.6	88207.5	505.23 µg/L	505.23 ppb	17:33:13
3	Sc RADIAL	114005.1	114005.1	99.7 %		17:32:31
3	Al 396.153Radial†	21389.4	21546.3	5057.5 µg/L	5057.5 ppb	17:32:31
3	Ca 317.933Radial†	62671.5	62425.3	5140.1 µg/L	5140.1 ppb	17:32:31
3	Fe 238.204 Radial†	59879.7	59956.6	5114.5 µg/L	5114.5 ppb	17:32:31
3	K 766.490 Radial†	14051.1	12689.0	5074.9 µg/L	5074.9 ppb	17:32:31
3	Mg 279.077 IEC†	9604.1	9479.0	5250.4 µg/L	5250.4 ppb	17:32:31
3	Na 589.592 Radial†	64155.3	63535.6	10133 µg/L	10133 ppb	17:32:29
3	Sr 421.552†	195661.8	196385.8	504.43 µg/L	504.43 ppb	17:32:29
3	Sc 361.383	1673732.9	1673732.9	98.905 %		17:33:36
3	Y 371.029	934582.3	934582.3	97.654 %		17:33:36
3	Ag 328.068†	126308.4	122604.0	512.57 µg/L	512.57 ppb	17:33:36
3	As 188.979†	1417.6	1446.7	508.38 µg/L	508.38 ppb	17:33:56
3	B 249.677†	37805.4	34112.0	504.58 µg/L	504.58 ppb	17:33:36
3	Ba 233.527†	110826.3	112199.3	508.31 µg/L	508.31 ppb	17:33:36
3	Be 313.107†	1766876.1	1787432.5	506.22 µg/L	506.22 ppb	17:33:36
3	Cd 226.502†	76485.3	77396.8	511.46 µg/L	511.46 ppb	17:33:36
3	Co 228.616†	38565.4	39219.5	514.42 µg/L	514.42 ppb	17:33:36
3	Cr 267.716†	57557.4	57865.1	508.09 µg/L	508.09 ppb	17:33:36
3	Cu 324.752†	123799.7	121929.2	506.33 µg/L	506.33 ppb	17:33:36
3	Mn 257.610†	387279.5	391352.3	511.33 µg/L	511.33 ppb	17:33:36
3	Mo 202.031†	14860.8	15046.9	511.25 µg/L	511.25 ppb	17:33:56
3	Ni 231.604†	40871.4	41397.9	514.82 µg/L	514.82 ppb	17:33:36
3	P 214.914†	11006.5	11147.5	2538.4 µg/L	2538.4 ppb	17:33:56
3	Pb 220.353†	8189.3	8162.8	513.10 µg/L	513.10 ppb	17:33:56
3	S 181.975 Axial†	1315.2	1227.8	1049.0 µg/L	1049.0 ppb	17:33:56
3	Sb 206.836†	4019.8	3986.8	512.24 µg/L	512.24 ppb	17:33:56
3	Se 196.026†	1310.7	1305.2	507 µg/L	507 ppb	17:33:56
3	SiO2†	54073.6	52983.4	5449.0 µg/L	5449.0 ppb	17:33:36
3	Si 251.611†	167025.7	168088.6	2553.9 µg/L	2553.9 ppb	17:33:36
3	Sn 189.927†	7268.7	7340.8	512.89 µg/L	512.89 ppb	17:33:56
3	Ti 334.940†	479418.3	483840.6	506.76 µg/L	506.76 ppb	17:33:36
3	Tl 190.801†	3469.8	3623.5	518.23 µg/L	518.23 ppb	17:33:56
3	U 409.014†	6892.7	7380.2	479.64 µg/L	479.64 ppb	17:33:36
3	V 292.402†	101237.8	101862.7	511.80 µg/L	511.80 ppb	17:33:36
3	Zn 213.857†	88476.3	88836.7	508.84 µg/L	508.84 ppb	17:33:36

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1666771.3	98.493 %	0.3712			0.38%
Sc RADIAL	113796.3	99.5 %	0.74			0.74%
Y 371.029	931179.1	97.299 %	0.3281			0.34%
Ag 328.068†	122129.4	510.61 µg/L	1.738	510.61 ppb	1.738	0.34%
QC value within limits for Ag 328.068 Recovery = 102.12%						
Al 396.153Radial†	21640.8	5079.7 µg/L	19.90	5079.7 ppb	19.90	0.39%
QC value within limits for Al 396.153Radial Recovery = 101.59%						
As 188.979†	1443.4	507.24 µg/L	1.513	507.24 ppb	1.513	0.30%

QC value within limits for As 188.979 Recovery = 101.45%							
B 249.677†	33981.5	502.65 µg/L	1.988	502.65 ppb	1.988	0.40%	
QC value within limits for B 249.677 Recovery = 100.53%							
Ba 233.527†	111760.4	506.32 µg/L	1.728	506.32 ppb	1.728	0.34%	
QC value within limits for Ba 233.527 Recovery = 101.26%							
Be 313.107†	1780080.3	504.14 µg/L	1.803	504.14 ppb	1.803	0.36%	
QC value within limits for Be 313.107 Recovery = 100.83%							
Ca 317.933Radial†	62482.5	5144.8 µg/L	7.61	5144.8 ppb	7.61	0.15%	
QC value within limits for Ca 317.933Radial Recovery = 102.90%							
Cd 226.502†	77108.9	509.55 µg/L	1.671	509.55 ppb	1.671	0.33%	
QC value within limits for Cd 226.502 Recovery = 101.91%							
Co 228.616†	39087.6	512.69 µg/L	1.847	512.69 ppb	1.847	0.36%	
QC value within limits for Co 228.616 Recovery = 102.54%							
Cr 267.716†	57675.7	506.41 µg/L	1.739	506.41 ppb	1.739	0.34%	
QC value within limits for Cr 267.716 Recovery = 101.28%							
Cu 324.752†	121528.4	504.68 µg/L	1.429	504.68 ppb	1.429	0.28%	
QC value within limits for Cu 324.752 Recovery = 100.94%							
Fe 238.204 Radial†	60030.4	5120.8 µg/L	16.60	5120.8 ppb	16.60	0.32%	
QC value within limits for Fe 238.204 Radial Recovery = 102.42%							
K 766.490 Radial†	12742.6	5096.4 µg/L	41.66	5096.4 ppb	41.66	0.82%	
QC value within limits for K 766.490 Radial Recovery = 101.93%							
Mg 279.077 IBC†	9412.9	5213.9 µg/L	32.18	5213.9 ppb	32.18	0.62%	
QC value within limits for Mg 279.077 IEC Recovery = 104.28%							
Mn 257.610†	389939.6	509.48 µg/L	1.602	509.48 ppb	1.602	0.31%	
QC value within limits for Mn 257.610 Recovery = 101.90%							
Mo 202.031†	15116.3	513.60 µg/L	2.104	513.60 ppb	2.104	0.41%	
QC value within limits for Mo 202.031 Recovery = 102.72%							
Na 589.592 Radial†	63461.8	10121 µg/L	65.4	10121 ppb	65.4	0.65%	
QC value within limits for Na 589.592 Radial Recovery = 101.21%							
Ni 231.604†	41200.2	512.36 µg/L	2.210	512.36 ppb	2.210	0.43%	
QC value within limits for Ni 231.604 Recovery = 102.47%							
P 214.914†	11222.3	2555.5 µg/L	14.82	2555.5 ppb	14.82	0.58%	
QC value within limits for P 214.914 Recovery = 102.22%							
Pb 220.353†	8218.4	516.59 µg/L	3.028	516.59 ppb	3.028	0.59%	
QC value within limits for Pb 220.353 Recovery = 103.32%							
S 181.975 Axial†	1233.1	1053.5 µg/L	4.30	1053.5 ppb	4.30	0.41%	
QC value within limits for S 181.975 Axial Recovery = 105.35%							
Sb 206.836†	4006.0	514.77 µg/L	2.578	514.77 ppb	2.578	0.50%	
QC value within limits for Sb 206.836 Recovery = 102.95%							
Se 196.026†	1315.2	511 µg/L	3.4	511 ppb	3.4	0.66%	
QC value within limits for Se 196.026 Recovery = 102.17%							
SiO2†	52648.5	5414.3 µg/L	31.45	5414.3 ppb	31.45	0.58%	
QC value within limits for SiO2 Recovery = 101.25%							
Si 251.611†	166962.9	2536.7 µg/L	15.44	2536.7 ppb	15.44	0.61%	
QC value within limits for Si 251.611 Recovery = 101.47%							
Sn 189.927†	7376.9	515.41 µg/L	2.185	515.41 ppb	2.185	0.42%	
QC value within limits for Sn 189.927 Recovery = 103.08%							
Sr 421.552†	196453.8	504.61 µg/L	1.964	504.61 ppb	1.964	0.39%	
QC value within limits for Sr 421.552 Recovery = 100.92%							
Ti 334.940†	482860.1	505.73 µg/L	0.894	505.73 ppb	0.894	0.18%	
QC value within limits for Ti 334.940 Recovery = 101.15%							
Tl 190.801†	3636.3	520.02 µg/L	1.606	520.02 ppb	1.606	0.31%	
QC value within limits for Tl 190.801 Recovery = 104.00%							
U 409.014†	7598.2	492.81 µg/L	11.436	492.81 ppb	11.436	2.32%	
QC value within limits for U 409.014 Recovery = 98.56%							
V 292.402†	101599.4	510.53 µg/L	1.182	510.53 ppb	1.182	0.23%	
QC value within limits for V 292.402 Recovery = 102.11%							
Zn 213.857†	88395.7	506.31 µg/L	2.198	506.31 ppb	2.198	0.43%	
QC value within limits for Zn 213.857 Recovery = 101.26%							
All analyte(s) passed QC.							

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/13/2010 17:34:05

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	113358.7	113358.7	99.1 %		17:34:34
1	Al 396.153Radial†	-85.9	-1.7	-0.4356 µg/L	-0.4356 ppb	17:34:54
1	Ca 317.933Radial†	437.6	-15.2	-1.2505 µg/L	-1.2505 ppb	17:34:54
1	Fe 238.204 Radial†	139.9	16.9	1.4424 µg/L	1.4424 ppb	17:34:54
1	K 766.490 Radial†	1576.1	181.2	72.510 µg/L	72.510 ppb	17:34:34
1	Mg 279.077 IEC†	157.8	1.9	1.0892 µg/L	1.0892 ppb	17:34:54
1	Na 589.592 Radial†	1313.4	490.0	78.123 µg/L	78.123 ppb	17:34:34
1	Sr 421.552†	-13.0	53.6	0.1377 µg/L	0.1377 ppb	17:34:34
1	Sc 361.383	1672191.5	1672191.5	98.814 %		17:35:56
1	Y 371.029	944339.6	944339.6	98.674 %		17:35:56
1	Ag 328.068†	4968.9	-74.5	-0.2959 µg/L	-0.2959 ppb	17:35:58
1	As 188.979†	-3.3	10.0	3.4806 µg/L	3.4806 ppb	17:36:18
1	B 249.677†	4153.2	91.2	1.3531 µg/L	1.3531 ppb	17:35:58
1	Ba 233.527†	-166.8	-23.0	-0.1035 µg/L	-0.1035 ppb	17:36:18
1	Be 313.107†	-826.6	155.8	0.0454 µg/L	0.0454 ppb	17:35:58
1	Cd 226.502†	-50.0	14.0	0.0921 µg/L	0.0921 ppb	17:36:18
1	Co 228.616†	-222.7	1.7	0.0223 µg/L	0.0223 ppb	17:36:18
1	Cr 267.716†	352.1	26.7	0.2314 µg/L	0.2314 ppb	17:36:18
1	Cu 324.752†	3065.0	-139.5	-0.5738 µg/L	-0.5738 ppb	17:35:58
1	Mn 257.610†	239.9	27.4	0.0357 µg/L	0.0357 ppb	17:36:18
1	Mo 202.031†	-2.8	18.8	0.6374 µg/L	0.6374 ppb	17:36:18
1	Ni 231.604†	-74.9	-1.9	-0.0237 µg/L	-0.0237 ppb	17:36:18
1	P 214.914†	2.0	21.2	4.8548 µg/L	4.8548 ppb	17:36:18
1	Pb 220.353†	88.2	-27.9	-1.7517 µg/L	-1.7517 ppb	17:36:18
1	S 181.975 Axial†	128.3	27.9	23.763 µg/L	23.763 ppb	17:36:18
1	Sb 206.836†	79.2	2.7	0.3466 µg/L	0.3466 ppb	17:36:18
1	Se 196.026†	21.4	1.7	0.649 µg/L	0.649 ppb	17:36:18
1	SiO2†	1664.8	-4.1	-0.4450 µg/L	-0.4450 ppb	17:36:18
1	Si 251.611†	655.7	-122.9	-1.8849 µg/L	-1.8849 ppb	17:35:58
1	Sn 189.927†	12.1	3.8	0.2630 µg/L	0.2630 ppb	17:36:18
1	Ti 334.940†	730.7	-146.6	-0.1557 µg/L	-0.1557 ppb	17:35:58
1	Tl 190.801†	-101.9	12.1	1.7040 µg/L	1.7040 ppb	17:36:18
1	U 409.014†	-336.7	70.5	4.3143 µg/L	4.3143 ppb	17:35:58
1	V 292.402†	594.6	105.8	0.5348 µg/L	0.5348 ppb	17:35:58
1	Zn 213.857†	654.1	42.6	0.2464 µg/L	0.2464 ppb	17:36:18
2	Sc RADIAL	113327.5	113327.5	99.1 %		17:34:56
2	Al 396.153Radial†	-85.1	-0.9	-0.2185 µg/L	-0.2185 ppb	17:35:16
2	Ca 317.933Radial†	450.9	-1.6	-0.1336 µg/L	-0.1336 ppb	17:35:16
2	Fe 238.204 Radial†	137.5	14.5	1.2371 µg/L	1.2371 ppb	17:35:16
2	K 766.490 Radial†	1465.1	69.6	27.842 µg/L	27.842 ppb	17:34:56
2	Mg 279.077 IEC†	158.3	2.5	1.3736 µg/L	1.3736 ppb	17:35:16
2	Na 589.592 Radial†	1281.2	457.9	73.034 µg/L	73.034 ppb	17:34:56
2	Sr 421.552†	-111.3	-45.6	-0.1172 µg/L	-0.1172 ppb	17:34:56
2	Sc 361.383	1690043.6	1690043.6	99.869 %		17:36:20
2	Y 371.029	954492.8	954492.8	99.735 %		17:36:20
2	Ag 328.068†	4911.0	-185.5	-0.7675 µg/L	-0.7675 ppb	17:36:22
2	As 188.979†	-26.2	-12.8	-4.4392 µg/L	-4.4392 ppb	17:36:43
2	B 249.677†	4206.5	100.1	1.4874 µg/L	1.4874 ppb	17:36:22
2	Ba 233.527†	-151.9	-6.3	-0.0287 µg/L	-0.0287 ppb	17:36:43
2	Be 313.107†	-881.6	109.6	0.0323 µg/L	0.0323 ppb	17:36:22
2	Cd 226.502†	-81.2	-16.8	-0.1110 µg/L	-0.1110 ppb	17:36:43
2	Co 228.616†	-247.0	-20.3	-0.2661 µg/L	-0.2661 ppb	17:36:43
2	Cr 267.716†	359.5	30.4	0.2632 µg/L	0.2632 ppb	17:36:43
2	Cu 324.752†	3031.7	-205.6	-0.8475 µg/L	-0.8475 ppb	17:36:22
2	Mn 257.610†	257.3	42.2	0.0552 µg/L	0.0552 ppb	17:36:43
2	Mo 202.031†	-15.0	6.6	0.2252 µg/L	0.2252 ppb	17:36:43
2	Ni 231.604†	-75.9	-2.1	-0.0259 µg/L	-0.0259 ppb	17:36:43
2	P 214.914†	-7.9	11.3	2.6005 µg/L	2.6005 ppb	17:36:43
2	Pb 220.353†	120.4	3.3	0.2052 µg/L	0.2052 ppb	17:36:43

2	S 181.975 Axial†	116.1	14.4	12.221 µg/L	12.221 ppb	17:36:43
2	Sb 206.836†	96.0	18.6	2.3891 µg/L	2.3891 ppb	17:36:43
2	Se 196.026†	28.1	8.2	3.16 µg/L	3.16 ppb	17:36:43
2	SiO2†	1692.8	6.1	0.6200 µg/L	0.6200 ppb	17:36:43
2	Si 251.611†	540.1	-245.7	-3.7522 µg/L	-3.7522 ppb	17:36:22
2	Sn 189.927†	12.1	3.7	0.2542 µg/L	0.2542 ppb	17:36:43
2	Ti 334.940†	834.9	-50.0	-0.0544 µg/L	-0.0544 ppb	17:36:22
2	Tl 190.801†	-96.3	18.8	2.6495 µg/L	2.6495 ppb	17:36:43
2	U 409.014†	-342.2	68.6	4.1379 µg/L	4.1379 ppb	17:36:22
2	V 292.402†	384.9	-110.6	-0.5420 µg/L	-0.5420 ppb	17:36:22
2	Zn 213.857†	658.9	40.5	0.2345 µg/L	0.2345 ppb	17:36:43
3	Sc RADIAL	114788.0	114788.0	100 %		17:35:18
3	Al 396.153Radial†	-78.9	6.3	1.4657 µg/L	1.4657 ppb	17:35:38
3	Ca 317.933Radial†	476.3	17.9	1.4726 µg/L	1.4726 ppb	17:35:38
3	Fe 238.204 Radial†	127.1	2.4	0.2062 µg/L	0.2062 ppb	17:35:38
3	K 766.490 Radial†	1604.3	189.5	75.833 µg/L	75.833 ppb	17:35:18
3	Mg 279.077 IEC†	167.1	9.1	5.0669 µg/L	5.0669 ppb	17:35:38
3	Na 589.592 Radial†	1212.5	373.0	59.451 µg/L	59.451 ppb	17:35:18
3	Sr 421.552†	-56.2	10.7	0.0274 µg/L	0.0274 ppb	17:35:18
3	Sc 361.383	1690092.2	1690092.2	99.872 %		17:36:45
3	Y 371.029	954694.6	954694.6	99.756 %		17:36:45
3	Ag 328.068†	5050.5	-46.0	-0.1986 µg/L	-0.1986 ppb	17:36:47
3	As 188.979†	-5.1	8.3	2.8711 µg/L	2.8711 ppb	17:37:07
3	B 249.677†	4276.3	169.9	2.5210 µg/L	2.5210 ppb	17:36:47
3	Ba 233.527†	-133.3	12.4	0.0557 µg/L	0.0557 ppb	17:37:07
3	Be 313.107†	-981.7	9.4	0.0028 µg/L	0.0028 ppb	17:36:47
3	Cd 226.502†	-71.9	-7.4	-0.0490 µg/L	-0.0490 ppb	17:37:07
3	Co 228.616†	-216.8	9.9	0.1303 µg/L	0.1303 ppb	17:37:07
3	Cr 267.716†	375.0	45.8	0.4016 µg/L	0.4016 ppb	17:37:07
3	Cu 324.752†	2890.0	-347.5	-1.4381 µg/L	-1.4381 ppb	17:36:47
3	Mn 257.610†	201.4	-13.7	-0.0181 µg/L	-0.0181 ppb	17:37:07
3	Mo 202.031†	-7.6	14.0	0.4766 µg/L	0.4766 ppb	17:37:07
3	Ni 231.604†	-80.4	-6.5	-0.0814 µg/L	-0.0814 ppb	17:37:07
3	P 214.914†	-3.2	16.0	3.6765 µg/L	3.6765 ppb	17:37:07
3	Pb 220.353†	132.2	15.2	0.9533 µg/L	0.9533 ppb	17:37:07
3	S 181.975 Axial†	125.9	24.2	20.567 µg/L	20.567 ppb	17:37:07
3	Sb 206.836†	73.6	-3.9	-0.4947 µg/L	-0.4947 ppb	17:37:07
3	Se 196.026†	19.5	-0.5	-0.195 µg/L	-0.195 ppb	17:37:07
3	SiO2†	1640.9	-45.9	-4.7514 µg/L	-4.7514 ppb	17:37:07
3	Si 251.611†	579.4	-206.4	-3.1554 µg/L	-3.1554 ppb	17:36:47
3	Sn 189.927†	11.2	2.7	0.1917 µg/L	0.1917 ppb	17:37:07
3	Ti 334.940†	1035.7	150.9	0.1576 µg/L	0.1576 ppb	17:36:47
3	Tl 190.801†	-114.9	0.2	0.0277 µg/L	0.0277 ppb	17:37:07
3	U 409.014†	-404.5	6.2	0.3304 µg/L	0.3304 ppb	17:36:47
3	V 292.402†	338.2	-157.4	-0.7737 µg/L	-0.7737 ppb	17:36:47
3	Zn 213.857†	629.9	11.4	0.0674 µg/L	0.0674 ppb	17:37:07

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1684109.1	99.518 %	0.6099			0.61%
Sc RADIAL	113824.7	99.5 %	0.73			0.73%
Y 371.029	951175.7	99.388 %	0.6187			0.62%
Ag 328.068†	-102.0	-0.4207 µg/L	0.30429	-0.4207 ppb	0.30429	72.33%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	1.2	0.2705 µg/L	1.04074	0.2705 ppb	1.04074	384.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.8	0.6375 µg/L	4.40711	0.6375 ppb	4.40711	691.30%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	120.4	1.7872 µg/L	0.63908	1.7872 ppb	0.63908	35.76%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-5.6	-0.0255 µg/L	0.07963	-0.0255 ppb	0.07963	312.58%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	91.6	0.0268 µg/L	0.02184	0.0268 ppb	0.02184	81.42%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	0.4	0.0295 µg/L	1.36884	0.0295 ppb	1.36884	>999.9%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-3.4	-0.0226 µg/L	0.10406	-0.0226 ppb	0.10406	460.04%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-2.9	-0.0378 µg/L	0.20491	-0.0378 ppb	0.20491	541.53%



QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	34.3	0.2988 µg/L	0.09052	0.2988 ppb	0.09052	30.30%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-230.9	-0.9531 µg/L	0.44172	-0.9531 ppb	0.44172	46.34%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	11.3	0.9619 µg/L	0.66247	0.9619 ppb	0.66247	68.87%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	146.7	58.729 µg/L	26.8000	58.729 ppb	26.8000	45.63%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	4.5	2.5099 µg/L	2.21901	2.5099 ppb	2.21901	88.41%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	18.6	0.0242 µg/L	0.03798	0.0242 ppb	0.03798	156.64%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	13.2	0.4464 µg/L	0.20773	0.4464 ppb	0.20773	46.53%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	440.3	70.203 µg/L	9.6527	70.203 ppb	9.6527	13.75%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-3.5	-0.0437 µg/L	0.03267	-0.0437 ppb	0.03267	74.79%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	16.2	3.7106 µg/L	1.12754	3.7106 ppb	1.12754	30.39%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-3.1	-0.1977 µg/L	1.39678	-0.1977 ppb	1.39678	706.41%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	22.1	18.850 µg/L	5.9598	18.850 ppb	5.9598	31.62%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	5.8	0.7470 µg/L	1.48298	0.7470 ppb	1.48298	198.52%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	3.1	1.21 µg/L	1.746	1.21 ppb	1.746	144.87%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-14.6	-1.5255 µg/L	2.84408	-1.5255 ppb	2.84408	186.44%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	-191.6	-2.9309 µg/L	0.95369	-2.9309 ppb	0.95369	32.54%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	3.4	0.2363 µg/L	0.03889	0.2363 ppb	0.03889	16.46%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	6.2	0.0160 µg/L	0.12780	0.0160 ppb	0.12780	799.60%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-15.2	-0.0175 µg/L	0.15989	-0.0175 ppb	0.15989	914.66%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	10.4	1.4604 µg/L	1.32776	1.4604 ppb	1.32776	90.92%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	48.4	2.9275 µg/L	2.25092	2.9275 ppb	2.25092	76.89%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-54.1	-0.2603 µg/L	0.69825	-0.2603 ppb	0.69825	268.25%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	31.5	0.1828 µg/L	0.10010	0.1828 ppb	0.10010	54.78%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 10

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/13/2010 17:53:04

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	116720.9	116720.9	102 %		17:53:38
1	Al 396.153Radial†	22200.8	21842.1	5127.4 µg/L	5127.4 ppb	17:53:38
1	Ca 317.933Radial†	63862.3	62129.2	5115.7 µg/L	5115.7 ppb	17:53:38
1	Fe 238.204 Radial†	61055.7	59711.2	5093.6 µg/L	5093.6 ppb	17:53:38
1	K 766.490 Radial†	14376.0	12679.4	5071.1 µg/L	5071.1 ppb	17:53:38
1	Mg 279.077 IEC†	9638.6	9288.7	5145.1 µg/L	5145.1 ppb	17:53:38
1	Na 589.592 Radial†	64954.2	62820.7	10019 µg/L	10019 ppb	17:53:36
1	Sr 421.552†	198858.5	194950.7	500.74 µg/L	500.74 ppb	17:53:36
1	Sc 361.383	1694954.3	1694954.3	100.16 %		17:54:05
1	Y 371.029	948824.6	948824.6	99.143 %		17:54:05
1	Ag 328.068†	126533.7	121230.0	506.88 µg/L	506.88 ppb	17:54:05
1	As 188.979†	1425.3	1436.4	504.75 µg/L	504.75 ppb	17:54:25
1	B 249.677†	37795.5	33623.6	497.36 µg/L	497.36 ppb	17:54:05
1	Ba 233.527†	111314.4	111283.7	504.16 µg/L	504.16 ppb	17:54:05
1	Be 313.107†	1769894.2	1768078.9	500.75 µg/L	500.75 ppb	17:54:05
1	Cd 226.502†	76259.8	76203.4	503.57 µg/L	503.57 ppb	17:54:05
1	Co 228.616†	38451.5	38617.5	506.53 µg/L	506.53 ppb	17:54:05
1	Cr 267.716†	57598.4	57177.4	502.03 µg/L	502.03 ppb	17:54:05
1	Cu 324.752†	124666.5	121227.5	503.43 µg/L	503.43 ppb	17:54:05
1	Mn 257.610†	387748.1	386917.6	505.54 µg/L	505.54 ppb	17:54:05
1	Mo 202.031†	14962.7	14960.6	508.32 µg/L	508.32 ppb	17:54:25
1	Ni 231.604†	40667.4	40676.8	505.85 µg/L	505.85 ppb	17:54:05
1	P 214.914†	11045.5	11047.1	2515.5 µg/L	2515.5 ppb	17:54:25
1	Pb 220.353†	8235.6	8105.3	509.48 µg/L	509.48 ppb	17:54:25
1	S 181.975 Axial†	1302.3	1198.3	1023.9 µg/L	1023.9 ppb	17:54:25
1	Sb 206.836†	4029.7	3945.8	507.03 µg/L	507.03 ppb	17:54:25
1	Se 196.026†	1301.3	1279.3	497 µg/L	497 ppb	17:54:25
1	SiO2†	53771.6	51997.4	5347.3 µg/L	5347.3 ppb	17:54:05
1	Si 251.611†	166232.4	165182.2	2509.6 µg/L	2509.6 ppb	17:54:05
1	Sn 189.927†	7301.7	7281.6	508.77 µg/L	508.77 ppb	17:54:25
1	Ti 334.940†	482818.8	481166.8	503.95 µg/L	503.95 ppb	17:54:05
1	Tl 190.801†	3466.1	3575.8	511.49 µg/L	511.49 ppb	17:54:25
1	U 409.014†	7317.4	7717.1	499.89 µg/L	499.89 ppb	17:54:05
1	V 292.402†	101795.7	101138.2	508.17 µg/L	508.17 ppb	17:54:05
1	Zn 213.857†	88285.3	87526.0	501.33 µg/L	501.33 ppb	17:54:05
2	Sc RADIAL	114891.0	114891.0	100 %		17:53:42
2	Al 396.153Radial†	21843.6	21832.9	5125.4 µg/L	5125.4 ppb	17:53:42
2	Ca 317.933Radial†	62584.0	61853.3	5093.0 µg/L	5093.0 ppb	17:53:42
2	Fe 238.204 Radial†	59822.8	59436.7	5070.2 µg/L	5070.2 ppb	17:53:42
2	K 766.490 Radial†	14181.9	12710.5	5083.6 µg/L	5083.6 ppb	17:53:42
2	Mg 279.077 IEC†	9514.6	9315.6	5159.9 µg/L	5159.9 ppb	17:53:42
2	Na 589.592 Radial†	65150.9	64030.4	10212 µg/L	10212 ppb	17:53:40
2	Sr 421.552†	199656.2	198849.0	510.76 µg/L	510.76 ppb	17:53:40
2	Sc 361.383	1698271.4	1698271.4	100.35 %		17:54:28
2	Y 371.029	950665.8	950665.8	99.335 %		17:54:28
2	Ag 328.068†	126586.8	121036.1	506.08 µg/L	506.08 ppb	17:54:28
2	As 188.979†	1401.7	1410.2	495.63 µg/L	495.63 ppb	17:54:48
2	B 249.677†	37851.3	33605.5	497.09 µg/L	497.09 ppb	17:54:28
2	Ba 233.527†	111221.4	110973.9	502.76 µg/L	502.76 ppb	17:54:28
2	Be 313.107†	1768286.4	1763025.3	499.32 µg/L	499.32 ppb	17:54:28
2	Cd 226.502†	76302.5	76097.3	502.87 µg/L	502.87 ppb	17:54:28
2	Co 228.616†	38489.1	38580.0	506.04 µg/L	506.04 ppb	17:54:28
2	Cr 267.716†	57576.4	57043.2	500.84 µg/L	500.84 ppb	17:54:28
2	Cu 324.752†	124576.3	120894.5	502.06 µg/L	502.06 ppb	17:54:28
2	Mn 257.610†	388137.0	386549.0	505.05 µg/L	505.05 ppb	17:54:28
2	Mo 202.031†	14913.0	14881.9	505.64 µg/L	505.64 ppb	17:54:48
2	Ni 231.604†	40611.5	40541.8	504.17 µg/L	504.17 ppb	17:54:28
2	P 214.914†	10990.9	10971.3	2498.2 µg/L	2498.2 ppb	17:54:48
2	Pb 220.353†	8174.3	8028.2	504.63 µg/L	504.63 ppb	17:54:48

2	S 181.975 Axial†	1287.3	1180.8	1009.0 µg/L	1009.0 ppb	17:54:48
2	Sb 206.836†	4017.2	3925.5	504.39 µg/L	504.39 ppb	17:54:48
2	Se 196.026†	1318.9	1294.3	503 µg/L	503 ppb	17:54:48
2	SiO2†	53939.1	52059.5	5353.9 µg/L	5353.9 ppb	17:54:28
2	Si 251.611†	166394.0	165019.0	2507.2 µg/L	2507.2 ppb	17:54:28
2	Sn 189.927†	7232.9	7198.9	503.00 µg/L	503.00 ppb	17:54:48
2	Ti 334.940†	482625.3	480032.4	502.76 µg/L	502.76 ppb	17:54:28
2	Tl 190.801†	3470.6	3573.6	511.15 µg/L	511.15 ppb	17:54:48
2	U 409.014†	7464.9	7849.8	507.92 µg/L	507.92 ppb	17:54:28
2	V 292.402†	101850.4	100994.2	507.44 µg/L	507.44 ppb	17:54:28
2	Zn 213.857†	88250.8	87319.4	500.16 µg/L	500.16 ppb	17:54:28
3	Sc RADIAL	115658.6	115658.6	101 %		17:53:46
3	Al 396.153Radial†	21951.8	21795.7	5116.3 µg/L	5116.3 ppb	17:53:46
3	Ca 317.933Radial†	63069.7	61920.2	5098.5 µg/L	5098.5 ppb	17:53:46
3	Fe 238.204 Radial†	60310.8	59524.0	5077.6 µg/L	5077.6 ppb	17:53:46
3	K 766.490 Radial†	14284.2	12718.1	5086.6 µg/L	5086.6 ppb	17:53:46
3	Mg 279.077 IEC†	9596.7	9334.0	5170.2 µg/L	5170.2 ppb	17:53:46
3	Na 589.592 Radial†	64293.9	62752.3	10008 µg/L	10008 ppb	17:53:44
3	Sr 421.552†	196863.0	194767.2	500.27 µg/L	500.27 ppb	17:53:44
3	Sc 361.383	1677322.8	1677322.8	99.117 %		17:54:51
3	Y 371.029	938910.8	938910.8	98.107 %		17:54:51
3	Ag 328.068†	125571.9	121587.6	508.36 µg/L	508.36 ppb	17:54:51
3	As 188.979†	1418.4	1444.4	507.53 µg/L	507.53 ppb	17:55:11
3	B 249.677†	37546.5	33769.0	499.52 µg/L	499.52 ppb	17:54:51
3	Ba 233.527†	110122.3	111249.2	504.01 µg/L	504.01 ppb	17:54:51
3	Be 313.107†	1752098.5	1768699.8	500.92 µg/L	500.92 ppb	17:54:51
3	Cd 226.502†	75635.8	76374.2	504.70 µg/L	504.70 ppb	17:54:51
3	Co 228.616†	38016.5	38582.3	506.07 µg/L	506.07 ppb	17:54:51
3	Cr 267.716†	57143.8	57323.2	503.31 µg/L	503.31 ppb	17:54:51
3	Cu 324.752†	123389.5	121247.5	503.51 µg/L	503.51 ppb	17:54:51
3	Mn 257.610†	384386.1	387595.1	506.42 µg/L	506.42 ppb	17:54:51
3	Mo 202.031†	14930.2	15084.8	512.53 µg/L	512.53 ppb	17:55:11
3	Ni 231.604†	40253.2	40685.8	505.96 µg/L	505.96 ppb	17:54:51
3	P 214.914†	11006.2	11123.5	2532.9 µg/L	2532.9 ppb	17:55:11
3	Pb 220.353†	8229.3	8185.4	514.51 µg/L	514.51 ppb	17:55:11
3	S 181.975 Axial†	1306.1	1215.8	1038.8 µg/L	1038.8 ppb	17:55:11
3	Sb 206.836†	4012.7	3970.9	510.29 µg/L	510.29 ppb	17:55:11
3	Se 196.026†	1314.6	1306.4	507 µg/L	507 ppb	17:55:11
3	SiO2†	53445.4	52232.6	5371.5 µg/L	5371.5 ppb	17:54:51
3	Si 251.611†	165360.8	166047.4	2522.8 µg/L	2522.8 ppb	17:54:51
3	Sn 189.927†	7262.3	7318.5	511.34 µg/L	511.34 ppb	17:55:11
3	Ti 334.940†	478373.9	481749.5	504.56 µg/L	504.56 ppb	17:54:51
3	Tl 190.801†	3469.2	3615.4	517.07 µg/L	517.07 ppb	17:55:11
3	U 409.014†	7256.2	7732.1	500.80 µg/L	500.80 ppb	17:54:51
3	V 292.402†	100713.8	101115.0	508.11 µg/L	508.11 ppb	17:54:51
3	Zn 213.857†	87347.8	87506.6	501.22 µg/L	501.22 ppb	17:54:51

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1690182.8	99.877 %	0.6654			0.67%
Sc RADIAL	115756.8	101 %	0.8			0.79%
Y 371.029	946133.7	98.861 %	0.6606			0.67%
Ag 328.068†	121284.6	507.11 µg/L	1.154	507.11 ppb	1.154	0.23%
QC value within limits for Ag 328.068 Recovery = 101.42%						
Al 396.153Radial†	21823.6	5123.0 µg/L	5.93	5123.0 ppb	5.93	0.12%
QC value within limits for Al 396.153Radial Recovery = 102.46%						
As 188.979†	1430.3	502.64 µg/L	6.226	502.64 ppb	6.226	1.24%
QC value within limits for As 188.979 Recovery = 100.53%						
B 249.677†	33666.1	497.99 µg/L	1.331	497.99 ppb	1.331	0.27%
QC value within limits for B 249.677 Recovery = 99.60%						
Ba 233.527†	111168.9	503.64 µg/L	0.769	503.64 ppb	0.769	0.15%
QC value within limits for Ba 233.527 Recovery = 100.73%						
Be 313.107†	1766601.3	500.33 µg/L	0.880	500.33 ppb	0.880	0.18%
QC value within limits for Be 313.107 Recovery = 100.07%						
Ca 317.933Radial†	61967.5	5102.4 µg/L	11.85	5102.4 ppb	11.85	0.23%
QC value within limits for Ca 317.933Radial Recovery = 102.05%						
Cd 226.502†	76225.0	503.71 µg/L	0.924	503.71 ppb	0.924	0.18%
QC value within limits for Cd 226.502 Recovery = 100.74%						
Co 228.616†	38593.3	506.21 µg/L	0.275	506.21 ppb	0.275	0.05%

QC value within limits for Co 228.616	Recovery = 101.24%			
Cr 267.716†	57181.3	502.06 µg/L	1.233	502.06 ppb
QC value within limits for Cr 267.716	Recovery = 100.41%			
Cu 324.752†	121123.2	503.00 µg/L	0.819	503.00 ppb
QC value within limits for Cu 324.752	Recovery = 100.60%			
Fe 238.204 Radial†	59557.3	5080.5 µg/L	11.96	5080.5 ppb
QC value within limits for Fe 238.204 Radial	Recovery = 101.61%			
K 766.490 Radial†	12702.7	5080.4 µg/L	8.19	5080.4 ppb
QC value within limits for K 766.490 Radial	Recovery = 101.61%			
Mg 279.077 IEC†	9312.7	5158.4 µg/L	12.65	5158.4 ppb
QC value within limits for Mg 279.077 IEC	Recovery = 103.17%			
Mn 257.610†	387020.6	505.67 µg/L	0.693	505.67 ppb
QC value within limits for Mn 257.610	Recovery = 101.13%			
Mo 202.031†	14975.8	508.83 µg/L	3.473	508.83 ppb
QC value within limits for Mo 202.031	Recovery = 101.77%			
Na 589.592 Radial†	63201.1	10080 µg/L	114.7	10080 ppb
QC value within limits for Na 589.592 Radial	Recovery = 100.80%			
Ni 231.604†	40634.8	505.33 µg/L	1.003	505.33 ppb
QC value within limits for Ni 231.604	Recovery = 101.07%			
P 214.914†	11047.3	2515.5 µg/L	17.38	2515.5 ppb
QC value within limits for P 214.914	Recovery = 100.62%			
Pb 220.353†	8106.3	509.54 µg/L	4.938	509.54 ppb
QC value within limits for Pb 220.353	Recovery = 101.91%			
S 181.975 Axial†	1198.3	1023.9 µg/L	14.91	1023.9 ppb
QC value within limits for S 181.975 Axial	Recovery = 102.39%			
Sb 206.836†	3947.4	507.24 µg/L	2.957	507.24 ppb
QC value within limits for Sb 206.836	Recovery = 101.45%			
Se 196.026†	1293.3	502 µg/L	5.2	502 ppb
QC value within limits for Se 196.026	Recovery = 100.47%			
SiO2†	52096.5	5357.6 µg/L	12.47	5357.6 ppb
QC value within limits for SiO2	Recovery = 100.19%			
Si 251.611†	165416.2	2513.2 µg/L	8.36	2513.2 ppb
QC value within limits for Si 251.611	Recovery = 100.53%			
Sn 189.927†	7266.4	507.70 µg/L	4.268	507.70 ppb
QC value within limits for Sn 189.927	Recovery = 101.54%			
Sr 421.552†	196189.0	503.93 µg/L	5.922	503.93 ppb
QC value within limits for Sr 421.552	Recovery = 100.79%			
Ti 334.940†	480982.9	503.76 µg/L	0.917	503.76 ppb
QC value within limits for Ti 334.940	Recovery = 100.75%			
Tl 190.801†	3588.3	513.24 µg/L	3.325	513.24 ppb
QC value within limits for Tl 190.801	Recovery = 102.65%			
U 409.014†	7766.3	502.87 µg/L	4.397	502.87 ppb
QC value within limits for U 409.014	Recovery = 100.57%			
V 292.402†	101082.5	507.91 µg/L	0.409	507.91 ppb
QC value within limits for V 292.402	Recovery = 101.58%			
Zn 213.857†	87450.7	500.90 µg/L	0.651	500.90 ppb
QC value within limits for Zn 213.857	Recovery = 100.18%			

All analyte(s) passed QC.

Sequence No.: 11

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 4/13/2010 17:55:19

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	114936.7	114936.7	100 %		17:55:50
1	Al 396.153Radial†	813.9	895.0	210.60 µg/L	210.60 ppb	17:56:10
1	Ca 317.933Radial†	3040.9	2569.7	211.59 µg/L	211.59 ppb	17:56:10
1	Fe 238.204 Radial†	1349.4	1218.7	103.96 µg/L	103.96 ppb	17:56:10
1	K 766.490 Radial†	1802.8	385.0	153.92 µg/L	153.92 ppb	17:55:50
1	Mg 279.077 IEC†	715.7	555.0	307.07 µg/L	307.07 ppb	17:56:10
1	Na 589.592 Radial†	2978.8	2129.3	339.61 µg/L	339.61 ppb	17:55:50
1	Sr 421.552†	1986.7	2043.9	5.2487 µg/L	5.2487 ppb	17:55:50
1	Sc 361.383	1693684.4	1693684.4	100.08 %		17:57:12
1	Y 371.029	957815.0	957815.0	100.08 %		17:57:12
1	Ag 328.068†	6576.2	1467.7	6.1695 µg/L	6.1695 ppb	17:57:14
1	As 188.979†	79.3	92.6	32.176 µg/L	32.176 ppb	17:57:34
1	B 249.677†	7485.8	3367.6	49.971 µg/L	49.971 ppb	17:57:14
1	Ba 233.527†	968.2	1113.2	5.0440 µg/L	5.0440 ppb	17:57:34
1	Be 313.107†	16693.7	17672.0	5.0189 µg/L	5.0189 ppb	17:57:14
1	Cd 226.502†	708.5	772.5	5.0993 µg/L	5.0993 ppb	17:57:34
1	Co 228.616†	174.0	400.9	5.2553 µg/L	5.2553 ppb	17:57:34
1	Cr 267.716†	880.4	550.0	4.7905 µg/L	4.7905 ppb	17:57:34
1	Cu 324.752†	5615.3	2369.3	9.8770 µg/L	9.8770 ppb	17:57:14
1	Mn 257.610†	8199.9	7977.6	10.415 µg/L	10.415 ppb	17:57:14
1	Mo 202.031†	278.7	300.1	10.197 µg/L	10.197 ppb	17:57:34
1	Ni 231.604†	309.9	383.5	4.7695 µg/L	4.7695 ppb	17:57:34
1	P 214.914†	631.8	650.5	148.50 µg/L	148.50 ppb	17:57:34
1	Pb 220.353†	285.1	167.6	10.504 µg/L	10.504 ppb	17:57:34
1	S 181.975 Axial†	232.3	130.2	110.89 µg/L	110.89 ppb	17:57:34
1	Sb 206.836†	152.7	75.0	9.7087 µg/L	9.7087 ppb	17:57:34
1	Se 196.026†	102.9	82.8	32.1 µg/L	32.1 ppb	17:57:34
1	SiO2†	3818.9	2126.9	219.17 µg/L	219.17 ppb	17:57:14
1	Si 251.611†	7263.1	6470.5	98.498 µg/L	98.498 ppb	17:57:14
1	Sn 189.927†	162.2	153.7	10.718 µg/L	10.718 ppb	17:57:34
1	Ti 334.940†	5645.4	4754.6	4.9443 µg/L	4.9443 ppb	17:57:14
1	Tl 190.801†	34.7	150.0	21.218 µg/L	21.218 ppb	17:57:34
1	U 409.014†	421.7	832.6	50.945 µg/L	50.945 ppb	17:57:14
1	V 292.402†	1428.5	931.3	4.7622 µg/L	4.7622 ppb	17:57:14
1	Zn 213.857†	2445.0	1823.6	10.483 µg/L	10.483 ppb	17:57:34
2	Sc RADIAL	115079.4	115079.4	101 %		17:56:12
2	Al 396.153Radial†	804.5	884.6	208.14 µg/L	208.14 ppb	17:56:32
2	Ca 317.933Radial†	3081.4	2606.1	214.59 µg/L	214.59 ppb	17:56:32
2	Fe 238.204 Radial†	1356.4	1224.0	104.41 µg/L	104.41 ppb	17:56:32
2	K 766.490 Radial†	1872.8	452.3	180.88 µg/L	180.88 ppb	17:56:12
2	Mg 279.077 IEC†	725.2	563.5	311.79 µg/L	311.79 ppb	17:56:32
2	Na 589.592 Radial†	3067.1	2213.4	353.00 µg/L	353.00 ppb	17:56:12
2	Sr 421.552†	1991.9	2046.7	5.2558 µg/L	5.2558 ppb	17:56:12
2	Sc 361.383	1702956.6	1702956.6	100.63 %		17:57:36
2	Y 371.029	962235.1	962235.1	100.54 %		17:57:36
2	Ag 328.068†	6233.6	1091.5	4.6031 µg/L	4.6031 ppb	17:57:38
2	As 188.979†	78.3	91.2	31.688 µg/L	31.688 ppb	17:57:58
2	B 249.677†	7364.9	3206.8	47.583 µg/L	47.583 ppb	17:57:38
2	Ba 233.527†	965.6	1105.4	5.0087 µg/L	5.0087 ppb	17:57:58
2	Be 313.107†	16478.6	17367.5	4.9289 µg/L	4.9289 ppb	17:57:38
2	Cd 226.502†	706.7	766.8	5.0616 µg/L	5.0616 ppb	17:57:58
2	Co 228.616†	188.6	414.5	5.4334 µg/L	5.4334 ppb	17:57:58
2	Cr 267.716†	898.4	563.2	4.9157 µg/L	4.9157 ppb	17:57:58
2	Cu 324.752†	5542.1	2266.0	9.4393 µg/L	9.4393 ppb	17:57:38
2	Mn 257.610†	8115.7	7849.4	10.248 µg/L	10.248 ppb	17:57:38
2	Mo 202.031†	285.2	305.0	10.366 µg/L	10.366 ppb	17:57:58
2	Ni 231.604†	296.5	368.5	4.5831 µg/L	4.5831 ppb	17:57:58
2	P 214.914†	633.5	648.8	148.09 µg/L	148.09 ppb	17:57:58
2	Pb 220.353†	296.0	177.0	11.099 µg/L	11.099 ppb	17:57:58

2	S 181.975 Axial†	251.5	148.0	126.01 µg/L	126.01 ppb	17:57:58
2	Sb 206.836†	161.2	82.6	10.686 µg/L	10.686 ppb	17:57:58
2	Se 196.026†	94.3	73.7	28.6 µg/L	28.6 ppb	17:57:58
2	SiO2†	3809.4	2096.6	216.06 µg/L	216.06 ppb	17:57:38
2	Si 251.611†	7226.4	6394.5	97.343 µg/L	97.343 ppb	17:57:38
2	Sn 189.927†	146.8	137.4	9.5873 µg/L	9.5873 ppb	17:57:58
2	Ti 334.940†	5586.2	4665.0	4.8552 µg/L	4.8552 ppb	17:57:38
2	Tl 190.801†	39.1	154.1	21.801 µg/L	21.801 ppb	17:57:58
2	U 409.014†	216.2	626.1	38.395 µg/L	38.395 ppb	17:57:38
2	V 292.402†	1481.8	976.5	4.9801 µg/L	4.9801 ppb	17:57:38
2	Zn 213.857†	2478.8	1843.9	10.601 µg/L	10.601 ppb	17:57:58
3	Sc RADIAL	114497.0	114497.0	100 %		17:56:34
3	Al 396.153Radial†	792.9	877.1	206.39 µg/L	206.39 ppb	17:56:54
3	Ca 317.933Radial†	3038.8	2579.1	212.36 µg/L	212.36 ppb	17:56:54
3	Fe 238.204 Radial†	1337.0	1211.5	103.34 µg/L	103.34 ppb	17:56:54
3	K 766.490 Radial†	2048.2	636.9	254.79 µg/L	254.79 ppb	17:56:34
3	Mg 279.077 IEC†	741.3	583.3	322.73 µg/L	322.73 ppb	17:56:54
3	Na 589.592 Radial†	3014.8	2176.7	347.07 µg/L	347.07 ppb	17:56:34
3	Sr 421.552†	2086.4	2151.1	5.5240 µg/L	5.5240 ppb	17:56:34
3	Sc 361.383	1708308.6	1708308.6	100.95 %		17:58:00
3	Y 371.029	965719.2	965719.2	100.91 %		17:58:00
3	Ag 328.068†	6328.5	1166.1	4.9414 µg/L	4.9414 ppb	17:58:03
3	As 188.979†	76.9	89.6	31.121 µg/L	31.121 ppb	17:58:23
3	B 249.677†	7470.7	3288.6	48.799 µg/L	48.799 ppb	17:58:03
3	Ba 233.527†	966.2	1103.0	4.9979 µg/L	4.9979 ppb	17:58:23
3	Be 313.107†	16547.2	17384.1	4.9412 µg/L	4.9412 ppb	17:58:03
3	Cd 226.502†	685.5	743.6	4.9081 µg/L	4.9081 ppb	17:58:23
3	Co 228.616†	171.3	396.8	5.2014 µg/L	5.2014 ppb	17:58:23
3	Cr 267.716†	873.9	536.0	4.6574 µg/L	4.6574 ppb	17:58:23
3	Cu 324.752†	5509.0	2215.9	9.2529 µg/L	9.2529 ppb	17:58:03
3	Mn 257.610†	8288.0	7994.8	10.437 µg/L	10.437 ppb	17:58:03
3	Mo 202.031†	277.4	296.4	10.073 µg/L	10.073 ppb	17:58:23
3	Ni 231.604†	292.4	363.5	4.5209 µg/L	4.5209 ppb	17:58:23
3	P 214.914†	627.1	640.4	146.19 µg/L	146.19 ppb	17:58:23
3	Pb 220.353†	297.5	177.5	11.112 µg/L	11.112 ppb	17:58:23
3	S 181.975 Axial†	247.2	142.9	121.71 µg/L	121.71 ppb	17:58:23
3	Sb 206.836†	151.8	72.8	9.4294 µg/L	9.4294 ppb	17:58:23
3	Se 196.026†	106.1	85.1	33.0 µg/L	33.0 ppb	17:58:23
3	SiO2†	3802.5	2077.9	214.11 µg/L	214.11 ppb	17:58:03
3	Si 251.611†	7331.8	6476.4	98.590 µg/L	98.590 ppb	17:58:03
3	Sn 189.927†	162.4	152.4	10.632 µg/L	10.632 ppb	17:58:23
3	Ti 334.940†	5584.9	4646.3	4.8243 µg/L	4.8243 ppb	17:58:03
3	Tl 190.801†	29.6	144.6	20.459 µg/L	20.459 ppb	17:58:23
3	U 409.014†	637.8	1043.0	63.749 µg/L	63.749 ppb	17:58:03
3	V 292.402†	1472.4	962.5	4.9238 µg/L	4.9238 ppb	17:58:03
3	Zn 213.857†	2452.4	1810.1	10.406 µg/L	10.406 ppb	17:58:23

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Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1701649.8	100.55 %	0.437			0.43%
Sc RADIAL	114837.7	100 %	0.3			0.26%
Y 371.029	961923.1	100.51 %	0.414			0.41%
Ag 328.068†	1241.8	5.2380 µg/L	0.82423	5.2380 ppb	0.82423	15.74%
QC value within limits for Ag 328.068 Recovery = 104.76%						
Al 396.153Radial†	885.6	208.37 µg/L	2.115	208.37 ppb	2.115	1.02%
QC value within limits for Al 396.153Radial Recovery = 104.19%						
As 188.979†	91.2	31.662 µg/L	0.5283	31.662 ppb	0.5283	1.67%
QC value within limits for As 188.979 Recovery = 105.54%						
B 249.677†	3287.7	48.784 µg/L	1.1941	48.784 ppb	1.1941	2.45%
QC value within limits for B 249.677 Recovery = 97.57%						
Ba 233.527†	1107.2	5.0169 µg/L	0.02412	5.0169 ppb	0.02412	0.48%
QC value within limits for Ba 233.527 Recovery = 100.34%						
Be 313.107†	17474.5	4.9630 µg/L	0.04879	4.9630 ppb	0.04879	0.98%
QC value within limits for Be 313.107 Recovery = 99.26%						
Ca 317.933Radial†	2585.0	212.85 µg/L	1.558	212.85 ppb	1.558	0.73%
QC value within limits for Ca 317.933Radial Recovery = 106.42%						
Cd 226.502†	761.0	5.0230 µg/L	0.10126	5.0230 ppb	0.10126	2.02%
QC value within limits for Cd 226.502 Recovery = 100.46%						
Co 228.616†	404.0	5.2967 µg/L	0.12142	5.2967 ppb	0.12142	2.29%

QC value within limits for Co 228.616 Recovery = 105.93%							
Cr 267.716†	549.7	4.7878 µg/L	0.12915	4.7878 ppb	0.12915	2.70%	
QC value within limits for Cr 267.716 Recovery = 95.76%							
Cu 324.752†	2283.8	9.5231 µg/L	0.32035	9.5231 ppb	0.32035	3.36%	
QC value within limits for Cu 324.752 Recovery = 95.23%							
Fe 238.204 Radial†	1218.0	103.90 µg/L	0.535	103.90 ppb	0.535	0.52%	
QC value within limits for Fe 238.204 Radial Recovery = 103.90%							
K 766.490 Radial†	491.4	196.53 µg/L	52.221	196.53 ppb	52.221	26.57%	
QC value greater than the upper limit for K 766.490 Radial Recovery = 131.02%							
Mg 279.077 IEC†	567.2	313.86 µg/L	8.032	313.86 ppb	8.032	2.56%	
QC value within limits for Mg 279.077 IEC Recovery = 104.62%							
Mn 257.610†	7940.6	10.367 µg/L	0.1038	10.367 ppb	0.1038	1.00%	
QC value within limits for Mn 257.610 Recovery = 103.67%							
Mo 202.031†	300.5	10.212 µg/L	0.1467	10.212 ppb	0.1467	1.44%	
QC value within limits for Mo 202.031 Recovery = 102.12%							
Na 589.592 Radial†	2173.1	346.56 µg/L	6.707	346.56 ppb	6.707	1.94%	
QC value within limits for Na 589.592 Radial Recovery = 115.52%							
Ni 231.604†	371.9	4.6245 µg/L	0.12934	4.6245 ppb	0.12934	2.80%	
QC value within limits for Ni 231.604 Recovery = 92.49%							
P 214.914†	646.6	147.59 µg/L	1.232	147.59 ppb	1.232	0.83%	
QC value within limits for P 214.914 Recovery = 98.39%							
Pb 220.353†	174.0	10.905 µg/L	0.3473	10.905 ppb	0.3473	3.18%	
QC value within limits for Pb 220.353 Recovery = 109.05%							
S 181.975 Axial†	140.4	119.54 µg/L	7.794	119.54 ppb	7.794	6.52%	
QC value within limits for S 181.975 Axial Recovery = 119.54%							
Sb 206.836†	76.8	9.9414 µg/L	0.65991	9.9414 ppb	0.65991	6.64%	
QC value within limits for Sb 206.836 Recovery = 99.41%							
Se 196.026†	80.6	31.2 µg/L	2.34	31.2 ppb	2.34	7.48%	
QC value within limits for Se 196.026 Recovery = 104.12%							
SiO2†	2100.5	216.45 µg/L	2.550	216.45 ppb	2.550	1.18%	
QC value within limits for SiO2 Recovery = 101.62%							
Si 251.611†	6447.1	98.144 µg/L	0.6948	98.144 ppb	0.6948	0.71%	
QC value within limits for Si 251.611 Recovery = 98.14%							
Sn 189.927†	147.9	10.312 µg/L	0.6294	10.312 ppb	0.6294	6.10%	
QC value within limits for Sn 189.927 Recovery = 103.12%							
Sr 421.552†	2080.6	5.3428 µg/L	0.15697	5.3428 ppb	0.15697	2.94%	
QC value within limits for Sr 421.552 Recovery = 106.86%							
Ti 334.940†	4688.7	4.8746 µg/L	0.06232	4.8746 ppb	0.06232	1.28%	
QC value within limits for Ti 334.940 Recovery = 97.49%							
Tl 190.801†	149.5	21.159 µg/L	0.6728	21.159 ppb	0.6728	3.18%	
QC value within limits for Tl 190.801 Recovery = 105.80%							
U 409.014†	833.9	51.030 µg/L	12.6771	51.030 ppb	12.6771	24.84%	
QC value within limits for U 409.014 Recovery = 102.06%							
V 292.402†	956.8	4.8887 µg/L	0.11312	4.8887 ppb	0.11312	2.31%	
QC value within limits for V 292.402 Recovery = 97.77%							
Zn 213.857†	1825.9	10.497 µg/L	0.0981	10.497 ppb	0.0981	0.93%	
QC value within limits for Zn 213.857 Recovery = 104.97%							
QC Failed. Continue with analysis.							

Sequence No.: 12

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/13/2010 17:58:30

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	114168.3	114168.3	99.8 %		17:59:00
1	Al 396.153Radial†	-90.3	-5.5	-1.3077 µg/L	-1.3077 ppb	17:59:20
1	Ca 317.933Radial†	473.6	17.7	1.4591 µg/L	1.4591 ppb	17:59:20
1	Fe 238.204 Radial†	125.1	1.1	0.0931 µg/L	0.0931 ppb	17:59:20
1	K 766.490 Radial†	1524.6	118.2	47.312 µg/L	47.312 ppb	17:59:00
1	Mg 279.077 IEC†	165.9	8.8	4.8950 µg/L	4.8950 ppb	17:59:20
1	Na 589.592 Radial†	1049.3	216.0	34.422 µg/L	34.422 ppb	17:59:00
1	Sr 421.552†	-110.7	-44.2	-0.1134 µg/L	-0.1134 ppb	17:59:00
1	Sc 361.383	1704291.5	1704291.5	100.71 %		18:00:22
1	Y 371.029	964163.5	964163.5	100.75 %		18:00:22
1	Ag 328.068†	5189.8	50.2	0.2047 µg/L	0.2047 ppb	18:00:24
1	As 188.979†	-17.3	-3.7	-1.2855 µg/L	-1.2855 ppb	18:00:44
1	B 249.677†	4067.8	-72.8	-1.0812 µg/L	-1.0812 ppb	18:00:24
1	Ba 233.527†	-119.3	27.4	0.1239 µg/L	0.1239 ppb	18:00:44
1	Be 313.107†	-682.5	314.7	0.0900 µg/L	0.0900 ppb	18:00:24
1	Cd 226.502†	-49.4	15.6	0.1030 µg/L	0.1030 ppb	18:00:44
1	Co 228.616†	-231.4	-2.7	-0.0349 µg/L	-0.0349 ppb	18:00:44
1	Cr 267.716†	354.0	21.9	0.1897 µg/L	0.1897 ppb	18:00:44
1	Cu 324.752†	2905.6	-356.2	-1.4719 µg/L	-1.4719 ppb	18:00:24
1	Mn 257.610†	257.4	40.2	0.0524 µg/L	0.0524 ppb	18:00:44
1	Mo 202.031†	-17.2	4.5	0.1524 µg/L	0.1524 ppb	18:00:44
1	Ni 231.604†	-75.9	-1.5	-0.0181 µg/L	-0.0181 ppb	18:00:44
1	P 214.914†	-14.5	4.9	1.1274 µg/L	1.1274 ppb	18:00:44
1	Pb 220.353†	120.9	2.8	0.1736 µg/L	0.1736 ppb	18:00:44
1	S 181.975 Axial†	108.4	5.7	4.8393 µg/L	4.8393 ppb	18:00:44
1	Sb 206.836†	71.5	-6.5	-0.8341 µg/L	-0.8341 ppb	18:00:44
1	Se 196.026†	27.4	7.2	2.78 µg/L	2.78 ppb	18:00:44
1	SiO2†	1879.6	177.4	18.314 µg/L	18.314 ppb	18:00:44
1	Si 251.611†	667.8	-123.5	-1.8868 µg/L	-1.8868 ppb	18:00:24
1	Sn 189.927†	11.9	3.3	0.2322 µg/L	0.2322 ppb	18:00:44
1	Ti 334.940†	656.4	-234.3	-0.2474 µg/L	-0.2474 ppb	18:00:24
1	Tl 190.801†	-115.3	0.7	0.0927 µg/L	0.0927 ppb	18:00:44
1	U 409.014†	-364.6	49.2	2.9630 µg/L	2.9630 ppb	18:00:24
1	V 292.402†	391.0	-107.7	-0.5296 µg/L	-0.5296 ppb	18:00:24
1	Zn 213.857†	644.6	20.7	0.1208 µg/L	0.1208 ppb	18:00:44
2	Sc RADIAL	115055.8	115055.8	101 %		17:59:22
2	Al 396.153Radial†	-107.9	-22.4	-5.2599 µg/L	-5.2599 ppb	17:59:43
2	Ca 317.933Radial†	470.4	10.9	0.8987 µg/L	0.8987 ppb	17:59:43
2	Fe 238.204 Radial†	131.3	6.3	0.5335 µg/L	0.5335 ppb	17:59:43
2	K 766.490 Radial†	1467.1	49.3	19.712 µg/L	19.712 ppb	17:59:22
2	Mg 279.077 IEC†	147.9	-10.3	-5.6865 µg/L	-5.6865 ppb	17:59:43
2	Na 589.592 Radial†	1158.9	316.9	50.539 µg/L	50.539 ppb	17:59:22
2	Sr 421.552†	-88.1	-20.8	-0.0535 µg/L	-0.0535 ppb	17:59:22
2	Sc 361.383	1692350.8	1692350.8	100.01 %		18:00:47
2	Y 371.029	957073.6	957073.6	100.00 %		18:00:47
2	Ag 328.068†	5044.9	-58.3	-0.2300 µg/L	-0.2300 ppb	18:00:49
2	As 188.979†	-8.3	5.1	1.7611 µg/L	1.7611 ppb	18:01:09
2	B 249.677†	4122.2	10.1	0.1492 µg/L	0.1492 ppb	18:00:49
2	Ba 233.527†	-139.8	6.1	0.0276 µg/L	0.0276 ppb	18:01:09
2	Be 313.107†	-978.2	14.2	0.0058 µg/L	0.0058 ppb	18:00:49
2	Cd 226.502†	-32.3	32.2	0.2131 µg/L	0.2131 ppb	18:01:09
2	Co 228.616†	-222.6	4.5	0.0586 µg/L	0.0586 ppb	18:01:09
2	Cr 267.716†	333.8	4.1	0.0318 µg/L	0.0318 ppb	18:01:09
2	Cu 324.752†	2985.2	-256.2	-1.0559 µg/L	-1.0559 ppb	18:00:49
2	Mn 257.610†	244.6	29.2	0.0384 µg/L	0.0384 ppb	18:01:09
2	Mo 202.031†	-28.5	-6.9	-0.2343 µg/L	-0.2343 ppb	18:01:09
2	Ni 231.604†	-67.6	6.3	0.0783 µg/L	0.0783 ppb	18:01:09
2	P 214.914†	10.7	29.9	6.8340 µg/L	6.8340 ppb	18:01:09
2	Pb 220.353†	110.8	-6.4	-0.4072 µg/L	-0.4072 ppb	18:01:09



2	S 181.975 Axial†	113.9	12.0	10.188 µg/L	10.188 ppb	18:01:09
2	Sb 206.836†	82.4	4.9	0.6172 µg/L	0.6172 ppb	18:01:09
2	Se 196.026†	26.3	6.3	2.44 µg/L	2.44 ppb	18:01:09
2	SiO2†	1633.1	-55.9	-5.7496 µg/L	-5.7496 ppb	18:01:09
2	Si 251.611†	552.1	-234.4	-3.5676 µg/L	-3.5676 ppb	18:00:49
2	Sn 189.927†	-3.1	-11.6	-0.8059 µg/L	-0.8059 ppb	18:01:09
2	Ti 334.940†	568.6	-317.5	-0.3350 µg/L	-0.3350 ppb	18:00:49
2	Tl 190.801†	-105.7	9.6	1.3479 µg/L	1.3479 ppb	18:01:09
2	U 409.014†	-311.9	99.3	6.0576 µg/L	6.0576 ppb	18:00:49
2	V 292.402†	554.6	58.6	0.2924 µg/L	0.2924 ppb	18:00:49
2	Zn 213.857†	631.9	12.6	0.0727 µg/L	0.0727 ppb	18:01:09
3	Sc RADIAL	114981.3	114981.3	101 %		17:59:45
3	Al 396.153Radial†	-99.4	-13.9	-3.2687 µg/L	-3.2687 ppb	18:00:05
3	Ca 317.933Radial†	471.9	12.7	1.0481 µg/L	1.0481 ppb	18:00:05
3	Fe 238.204 Radial†	122.8	-2.1	-0.1821 µg/L	-0.1821 ppb	18:00:05
3	K 766.490 Radial†	1366.8	-49.5	-19.821 µg/L	-19.821 ppb	17:59:45
3	Mg 279.077 IEC†	147.9	-10.2	-5.6418 µg/L	-5.6418 ppb	18:00:05
3	Na 589.592 Radial†	1062.0	221.2	35.309 µg/L	35.309 ppb	17:59:45
3	Sr 421.552†	28.1	94.6	0.2431 µg/L	0.2431 ppb	17:59:45
3	Sc 361.383	1687442.8	1687442.8	99.715 %		18:01:11
3	Y 371.029	954483.0	954483.0	99.734 %		18:01:11
3	Ag 328.068†	4936.3	-152.6	-0.6231 µg/L	-0.6231 ppb	18:01:13
3	As 188.979†	-1.1	12.3	4.2563 µg/L	4.2563 ppb	18:01:33
3	B 249.677†	4053.6	-46.7	-0.6929 µg/L	-0.6929 ppb	18:01:13
3	Ba 233.527†	-154.6	-9.2	-0.0422 µg/L	-0.0422 ppb	18:01:33
3	Be 313.107†	-880.5	109.4	0.0345 µg/L	0.0345 ppb	18:01:13
3	Cd 226.502†	-39.8	24.7	0.1630 µg/L	0.1630 ppb	18:01:33
3	Co 228.616†	-240.5	-14.2	-0.1859 µg/L	-0.1859 ppb	18:01:33
3	Cr 267.716†	321.3	-7.4	-0.0743 µg/L	-0.0743 ppb	18:01:33
3	Cu 324.752†	2930.5	-302.4	-1.2427 µg/L	-1.2427 ppb	18:01:13
3	Mn 257.610†	255.7	41.0	0.0538 µg/L	0.0538 ppb	18:01:33
3	Mo 202.031†	-29.1	-7.6	-0.2575 µg/L	-0.2575 ppb	18:01:33
3	Ni 231.604†	-71.6	2.2	0.0269 µg/L	0.0269 ppb	18:01:33
3	P 214.914†	4.4	23.7	5.4204 µg/L	5.4204 ppb	18:01:33
3	Pb 220.353†	120.5	3.6	0.2191 µg/L	0.2191 ppb	18:01:33
3	S 181.975 Axial†	114.7	13.1	11.163 µg/L	11.163 ppb	18:01:33
3	Sb 206.836†	71.4	-5.9	-0.7662 µg/L	-0.7662 ppb	18:01:33
3	Se 196.026†	19.5	-0.4	-0.155 µg/L	-0.155 ppb	18:01:33
3	SiO2†	1668.2	-15.9	-1.6343 µg/L	-1.6343 ppb	18:01:33
3	Si 251.611†	622.0	-162.8	-2.4796 µg/L	-2.4796 ppb	18:01:13
3	Sn 189.927†	8.5	0.1	0.0086 µg/L	0.0086 ppb	18:01:33
3	Ti 334.940†	622.9	-261.4	-0.2783 µg/L	-0.2783 ppb	18:01:13
3	Tl 190.801†	-106.5	8.5	1.1864 µg/L	1.1864 ppb	18:01:33
3	U 409.014†	-220.5	190.1	11.527 µg/L	11.527 ppb	18:01:13
3	V 292.402†	374.7	-120.2	-0.5909 µg/L	-0.5909 ppb	18:01:13
3	Zn 213.857†	618.7	1.1	0.0071 µg/L	0.0071 ppb	18:01:33

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1694695.0	100.14 %	0.512			0.51%
Sc RADIAL	114735.1	100 %	0.4			0.43%
Y 371.029	958573.4	100.16 %	0.524			0.52%
Ag 328.068†	-53.6	-0.2161 µg/L	0.41409	-0.2161 ppb	0.41409	191.58%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-13.9	-3.2788 µg/L	1.97612	-3.2788 ppb	1.97612	60.27%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	4.6	1.5773 µg/L	2.77547	1.5773 ppb	2.77547	175.96%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-36.5	-0.5417 µg/L	0.62898	-0.5417 ppb	0.62898	116.12%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	8.1	0.0364 µg/L	0.08336	0.0364 ppb	0.08336	228.74%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	146.1	0.0434 µg/L	0.04279	0.0434 ppb	0.04279	98.53%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	13.8	1.1353 µg/L	0.29021	1.1353 ppb	0.29021	25.56%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	24.2	0.1597 µg/L	0.05515	0.1597 ppb	0.05515	34.53%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-4.1	-0.0541 µg/L	0.12339	-0.0541 ppb	0.12339	228.17%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	6.2	0.0491 µg/L	0.13283	0.0491 ppb	0.13283	270.80%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-304.9	-1.2568 µg/L	0.20835	-1.2568 ppb	0.20835	16.58%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	1.7	0.1482 µg/L	0.36096	0.1482 ppb	0.36096	243.62%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	39.3	15.734 µg/L	33.7429	15.734 ppb	33.7429	214.45%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-3.9	-2.1444 µg/L	6.09639	-2.1444 ppb	6.09639	284.29%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	36.8	0.0482 µg/L	0.00850	0.0482 ppb	0.00850	17.62%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	-3.3	-0.1131 µg/L	0.23022	-0.1131 ppb	0.23022	203.49%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	251.3	40.090 µg/L	9.0603	40.090 ppb	9.0603	22.60%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	2.3	0.0290 µg/L	0.04823	0.0290 ppb	0.04823	166.33%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	19.5	4.4606 µg/L	2.97193	4.4606 ppb	2.97193	66.63%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	0.0	-0.0048 µg/L	0.34916	-0.0048 ppb	0.34916	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	10.3	8.7303 µg/L	3.40474	8.7303 ppb	3.40474	39.00%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	-2.5	-0.3277 µg/L	0.81904	-0.3277 ppb	0.81904	249.94%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	4.3	1.69 µg/L	1.603	1.69 ppb	1.603	95.11%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		35.2	3.6433 µg/L	12.87057	3.6433 ppb	12.87057	353.27%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	-173.5	-2.6446 µg/L	0.85247	-2.6446 ppb	0.85247	32.23%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	-2.7	-0.1884 µg/L	0.54634	-0.1884 ppb	0.54634	290.05%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	9.9	0.0254 µg/L	0.19090	0.0254 ppb	0.19090	752.31%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-271.1	-0.2869 µg/L	0.04444	-0.2869 ppb	0.04444	15.49%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	6.2	0.8757 µg/L	0.68285	0.8757 ppb	0.68285	77.98%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	112.9	6.8490 µg/L	4.33629	6.8490 ppb	4.33629	63.31%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-56.5	-0.2760 µg/L	0.49326	-0.2760 ppb	0.49326	178.70%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	11.5	0.0669 µg/L	0.05706	0.0669 ppb	0.05706	85.34%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 20

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/13/2010 18:15:59

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Conc. Units	Sample Units	Analysis Time
1	Sc RADIAL	114802.0	114802.0	100	%			18:16:32
1	Al 396.153Radial†	21715.5	21722.2	5099.1	µg/L	5099.1	ppb	18:16:32
1	Ca 317.933Radial†	62151.5	61470.6	5061.5	µg/L	5061.5	ppb	18:16:32
1	Fe 238.204 Radial†	59547.4	59208.4	5050.7	µg/L	5050.7	ppb	18:16:32
1	K 766.490 Radial†	14228.5	12767.9	5106.6	µg/L	5106.6	ppb	18:16:32
1	Mg 279.077 IEC†	9394.7	9203.5	5098.0	µg/L	5098.0	ppb	18:16:32
1	Na 589.592 Radial†	64073.9	63007.6	10049	µg/L	10049	ppb	18:16:30
1	Sr 421.552†	197693.8	197047.7	506.13	µg/L	506.13	ppb	18:16:30
1	Sc 361.383	1676245.8	1676245.8	99.053	%			18:16:59
1	Y 371.029	938820.6	938820.6	98.097	%			18:16:59
1	Ag 328.068†	124890.3	120980.9	505.84	µg/L	505.84	ppb	18:16:59
1	As 188.979†	1412.7	1439.6	505.82	µg/L	505.82	ppb	18:17:19
1	B 249.677†	37129.1	33372.1	493.62	µg/L	493.62	ppb	18:16:59
1	Ba 233.527†	109598.2	110791.5	501.93	µg/L	501.93	ppb	18:16:59
1	Be 313.107†	1748686.8	1766391.2	500.27	µg/L	500.27	ppb	18:16:59
1	Cd 226.502†	75087.0	75869.2	501.36	µg/L	501.36	ppb	18:16:59
1	Co 228.616†	38003.2	38593.4	506.21	µg/L	506.21	ppb	18:16:59
1	Cr 267.716†	56827.9	57041.4	500.83	µg/L	500.83	ppb	18:16:59
1	Cu 324.752†	123265.5	121202.2	503.32	µg/L	503.32	ppb	18:16:59
1	Mn 257.610†	382264.1	385702.0	503.95	µg/L	503.95	ppb	18:16:59
1	Mo 202.031†	14835.9	14999.3	509.62	µg/L	509.62	ppb	18:17:19
1	Ni 231.604†	40101.0	40558.2	504.37	µg/L	504.37	ppb	18:16:59
1	P 214.914†	10924.0	11047.6	2515.6	µg/L	2515.6	ppb	18:17:19
1	Pb 220.353†	8100.9	8061.1	506.71	µg/L	506.71	ppb	18:17:19
1	S 181.975 Axial†	1287.1	1197.5	1023.2	µg/L	1023.2	ppb	18:17:19
1	Sb 206.836†	3983.9	3944.5	506.89	µg/L	506.89	ppb	18:17:19
1	Se 196.026†	1305.8	1298.3	504	µg/L	504	ppb	18:17:19
1	SiO2†	53142.6	51961.6	5343.6	µg/L	5343.6	ppb	18:16:59
1	Si 251.611†	163994.0	164774.8	2503.4	µg/L	2503.4	ppb	18:16:59
1	Sn 189.927†	7205.5	7265.9	507.67	µg/L	507.67	ppb	18:17:19
1	Ti 334.940†	476957.1	480629.2	503.39	µg/L	503.39	ppb	18:16:59
1	Tl 190.801†	3451.6	3599.9	514.85	µg/L	514.85	ppb	18:17:19
1	U 409.014†	7331.1	7812.4	505.59	µg/L	505.59	ppb	18:16:59
1	V 292.402†	100346.0	100809.0	506.56	µg/L	506.56	ppb	18:16:59
1	Zn 213.857†	87075.9	87288.8	499.98	µg/L	499.98	ppb	18:16:59
2	Sc RADIAL	115615.5	115615.5	101	%			18:16:36
2	Al 396.153Radial†	21882.9	21735.5	5102.4	µg/L	5102.4	ppb	18:16:36
2	Ca 317.933Radial†	63241.6	62113.4	5114.4	µg/L	5114.4	ppb	18:16:36
2	Fe 238.204 Radial†	60462.4	59696.2	5092.3	µg/L	5092.3	ppb	18:16:36
2	K 766.490 Radial†	14362.0	12800.2	5119.5	µg/L	5119.5	ppb	18:16:36
2	Mg 279.077 IEC†	9642.2	9382.5	5196.9	µg/L	5196.9	ppb	18:16:36
2	Na 589.592 Radial†	64819.9	63296.5	10095	µg/L	10095	ppb	18:16:34
2	Sr 421.552†	199190.7	197142.7	506.38	µg/L	506.38	ppb	18:16:34
2	Sc 361.383	1691794.9	1691794.9	99.972	%			18:17:22
2	Y 371.029	946910.6	946910.6	98.943	%			18:17:22
2	Ag 328.068†	126523.1	121455.3	507.81	µg/L	507.81	ppb	18:17:22
2	As 188.979†	1388.1	1401.9	492.77	µg/L	492.77	ppb	18:17:42
2	B 249.677†	37614.4	33512.9	495.72	µg/L	495.72	ppb	18:17:22
2	Ba 233.527†	110583.2	110759.8	501.79	µg/L	501.79	ppb	18:17:22
2	Be 313.107†	1765694.9	1767178.5	500.50	µg/L	500.50	ppb	18:17:22
2	Cd 226.502†	75906.8	75992.5	502.17	µg/L	502.17	ppb	18:17:22
2	Co 228.616†	38209.3	38447.0	504.29	µg/L	504.29	ppb	18:17:22
2	Cr 267.716†	57484.2	57170.5	501.96	µg/L	501.96	ppb	18:17:22
2	Cu 324.752†	124370.7	121164.0	503.17	µg/L	503.17	ppb	18:17:22
2	Mn 257.610†	386282.3	386174.4	504.56	µg/L	504.56	ppb	18:17:22
2	Mo 202.031†	14862.2	14887.9	505.85	µg/L	505.85	ppb	18:17:42
2	Ni 231.604†	40504.5	40589.7	504.77	µg/L	504.77	ppb	18:17:22
2	P 214.914†	10966.6	10988.9	2502.2	µg/L	2502.2	ppb	18:17:42
2	Pb 220.353†	8149.4	8034.4	505.02	µg/L	505.02	ppb	18:17:42

2	S 181.975 Axial†	1288.5	1187.0	1014.2 µg/L	1014.2 ppb	18:17:42
2	Sb 206.836†	3991.8	3915.4	503.09 µg/L	503.09 ppb	18:17:42
2	Se 196.026†	1320.9	1301.2	505 µg/L	505 ppb	18:17:42
2	SiO2†	53866.2	52192.3	5367.6 µg/L	5367.6 ppb	18:17:22
2	Si 251.611†	166218.2	165478.0	2514.2 µg/L	2514.2 ppb	18:17:22
2	Sn 189.927†	7222.0	7215.6	504.17 µg/L	504.17 ppb	18:17:42
2	Ti 334.940†	481686.2	480934.1	503.70 µg/L	503.70 ppb	18:17:22
2	Tl 190.801†	3442.0	3558.2	509.00 µg/L	509.00 ppb	18:17:42
2	U 409.014†	7415.9	7829.2	506.68 µg/L	506.68 ppb	18:17:22
2	V 292.402†	101527.5	101059.7	507.76 µg/L	507.76 ppb	18:17:22
2	Zn 213.857†	88261.6	87666.8	502.15 µg/L	502.15 ppb	18:17:22
3	Sc RADIAL	116168.2	116168.2	102 %		18:16:40
3	Al 396.153Radial†	22019.2	21766.8	5109.8 µg/L	5109.8 ppb	18:16:40
3	Ca 317.933Radial†	63055.0	61632.0	5074.7 µg/L	5074.7 ppb	18:16:40
3	Fe 238.204 Radial†	60573.3	59520.8	5077.4 µg/L	5077.4 ppb	18:16:40
3	K 766.490 Radial†	14199.6	12572.8	5028.4 µg/L	5028.4 ppb	18:16:40
3	Mg 279.077 IEC†	9543.7	9240.2	5118.2 µg/L	5118.2 ppb	18:16:40
3	Na 589.592 Radial†	64445.3	62622.4	9987.4 µg/L	9987.4 ppb	18:16:38
3	Sr 421.552†	198268.5	195296.9	501.63 µg/L	501.63 ppb	18:16:38
3	Sc 361.383	1687721.8	1687721.8	99.731 %		18:17:45
3	Y 371.029	944218.9	944218.9	98.661 %		18:17:45
3	Ag 328.068†	126128.8	121365.4	507.43 µg/L	507.43 ppb	18:17:45
3	As 188.979†	1417.7	1434.9	504.23 µg/L	504.23 ppb	18:18:05
3	B 249.677†	37610.1	33599.4	496.99 µg/L	496.99 ppb	18:17:45
3	Ba 233.527†	110539.8	110983.3	502.80 µg/L	502.80 ppb	18:17:45
3	Be 313.107†	1761237.0	1766971.0	500.43 µg/L	500.43 ppb	18:17:45
3	Cd 226.502†	75805.0	76073.7	502.71 µg/L	502.71 ppb	18:17:45
3	Co 228.616†	38322.5	38652.7	506.99 µg/L	506.99 ppb	18:17:45
3	Cr 267.716†	57444.5	57269.5	502.84 µg/L	502.84 ppb	18:17:45
3	Cu 324.752†	124062.5	121155.3	503.13 µg/L	503.13 ppb	18:17:45
3	Mn 257.610†	385732.6	386555.7	505.06 µg/L	505.06 ppb	18:17:45
3	Mo 202.031†	14833.4	14894.9	506.08 µg/L	506.08 ppb	18:18:05
3	Ni 231.604†	40473.6	40656.5	505.60 µg/L	505.60 ppb	18:17:45
3	P 214.914†	10969.3	11018.1	2508.9 µg/L	2508.9 ppb	18:18:05
3	Pb 220.353†	8153.6	8058.3	506.53 µg/L	506.53 ppb	18:18:05
3	S 181.975 Axial†	1278.6	1180.1	1008.3 µg/L	1008.3 ppb	18:18:05
3	Sb 206.836†	3981.5	3914.7	502.98 µg/L	502.98 ppb	18:18:05
3	Se 196.026†	1330.6	1314.2	510 µg/L	510 ppb	18:18:05
3	SiO2†	53741.4	52197.2	5368.1 µg/L	5368.1 ppb	18:17:45
3	Si 251.611†	166033.4	165693.9	2517.5 µg/L	2517.5 ppb	18:17:45
3	Sn 189.927†	7209.9	7220.8	504.53 µg/L	504.53 ppb	18:18:05
3	Ti 334.940†	480254.9	480661.8	503.43 µg/L	503.43 ppb	18:17:45
3	Tl 190.801†	3440.0	3564.5	509.88 µg/L	509.88 ppb	18:18:05
3	U 409.014†	7259.1	7689.9	498.18 µg/L	498.18 ppb	18:17:45
3	V 292.402†	101173.3	100949.7	507.22 µg/L	507.22 ppb	18:17:45
3	Zn 213.857†	87846.3	87463.5	500.98 µg/L	500.98 ppb	18:17:45

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1685254.1	99.586 %	0.4765			0.48%
Sc RADIAL	115528.6	101 %	0.6			0.59%
Y 371.029	943316.7	98.567 %	0.4305			0.44%
Ag 328.068†	121267.2	507.03 µg/L	1.045	507.03 ppb	1.045	0.21%
QC value within limits for Ag 328.068 Recovery = 101.41%						
Al 396.153Radial†	21741.5	5103.8 µg/L	5.47	5103.8 ppb	5.47	0.11%
QC value within limits for Al 396.153Radial Recovery = 102.08%						
As 188.979†	1425.5	500.94 µg/L	7.124	500.94 ppb	7.124	1.42%
QC value within limits for As 188.979 Recovery = 100.19%						
B 249.677†	33494.8	495.45 µg/L	1.703	495.45 ppb	1.703	0.34%
QC value within limits for B 249.677 Recovery = 99.09%						
Ba 233.527†	110844.8	502.18 µg/L	0.547	502.18 ppb	0.547	0.11%
QC value within limits for Ba 233.527 Recovery = 100.44%						
Be 313.107†	1766846.9	500.40 µg/L	0.115	500.40 ppb	0.115	0.02%
QC value within limits for Be 313.107 Recovery = 100.08%						
Ca 317.933Radial†	61738.7	5083.5 µg/L	27.53	5083.5 ppb	27.53	0.54%
QC value within limits for Ca 317.933Radial Recovery = 101.67%						
Cd 226.502†	75978.5	502.08 µg/L	0.680	502.08 ppb	0.680	0.14%
QC value within limits for Cd 226.502 Recovery = 100.42%						
Co 228.616†	38564.4	505.83 µg/L	1.389	505.83 ppb	1.389	0.27%

QC value within limits for Co 228.616 Recovery = 101.17%							
Cr	267.716†	57160.5	501.88 µg/L	1.008	501.88 ppb	1.008	0.20%
QC value within limits for Cr 267.716 Recovery = 100.38%							
Cu	324.752†	121173.8	503.21 µg/L	0.102	503.21 ppb	0.102	0.02%
QC value within limits for Cu 324.752 Recovery = 100.64%							
Fe	238.204 Radial†	59475.1	5073.5 µg/L	21.08	5073.5 ppb	21.08	0.42%
QC value within limits for Fe 238.204 Radial Recovery = 101.47%							
K	766.490 Radial†	12713.6	5084.8 µg/L	49.25	5084.8 ppb	49.25	0.97%
QC value within limits for K 766.490 Radial Recovery = 101.70%							
Mg	279.077 IEC†	9275.4	5137.7 µg/L	52.25	5137.7 ppb	52.25	1.02%
QC value within limits for Mg 279.077 IEC Recovery = 102.75%							
Mn	257.610†	386144.1	504.53 µg/L	0.558	504.53 ppb	0.558	0.11%
QC value within limits for Mn 257.610 Recovery = 100.91%							
Mo	202.031†	14927.4	507.19 µg/L	2.115	507.19 ppb	2.115	0.42%
QC value within limits for Mo 202.031 Recovery = 101.44%							
Na	589.592 Radial†	62975.5	10044 µg/L	53.9	10044 ppb	53.9	0.54%
QC value within limits for Na 589.592 Radial Recovery = 100.44%							
Ni	231.604†	40601.5	504.91 µg/L	0.625	504.91 ppb	0.625	0.12%
QC value within limits for Ni 231.604 Recovery = 100.98%							
P	214.914†	11018.2	2508.9 µg/L	6.72	2508.9 ppb	6.72	0.27%
QC value within limits for P 214.914 Recovery = 100.36%							
Pb	220.353†	8051.3	506.09 µg/L	0.925	506.09 ppb	0.925	0.18%
QC value within limits for Pb 220.353 Recovery = 101.22%							
S	181.975 Axial†	1188.2	1015.2 µg/L	7.46	1015.2 ppb	7.46	0.73%
QC value within limits for S 181.975 Axial Recovery = 101.52%							
Sb	206.836†	3924.8	504.32 µg/L	2.224	504.32 ppb	2.224	0.44%
QC value within limits for Sb 206.836 Recovery = 100.86%							
Se	196.026†	1304.6	507 µg/L	3.3	507 ppb	3.3	0.64%
QC value within limits for Se 196.026 Recovery = 101.34%							
SiO2†		52117.0	5359.8 µg/L	13.99	5359.8 ppb	13.99	0.26%
QC value within limits for SiO2 Recovery = 100.23%							
Si	251.611†	165315.5	2511.7 µg/L	7.37	2511.7 ppb	7.37	0.29%
QC value within limits for Si 251.611 Recovery = 100.47%							
Sn	189.927†	7234.1	505.45 µg/L	1.925	505.45 ppb	1.925	0.38%
QC value within limits for Sn 189.927 Recovery = 101.09%							
Sr	421.552†	196495.8	504.71 µg/L	2.670	504.71 ppb	2.670	0.53%
QC value within limits for Sr 421.552 Recovery = 100.94%							
Ti	334.940†	480741.7	503.51 µg/L	0.171	503.51 ppb	0.171	0.03%
QC value within limits for Ti 334.940 Recovery = 100.70%							
Tl	190.801†	3574.2	511.24 µg/L	3.155	511.24 ppb	3.155	0.62%
QC value within limits for Tl 190.801 Recovery = 102.25%							
U	409.014†	7777.2	503.48 µg/L	4.625	503.48 ppb	4.625	0.92%
QC value within limits for U 409.014 Recovery = 100.70%							
V	292.402†	100939.5	507.18 µg/L	0.603	507.18 ppb	0.603	0.12%
QC value within limits for V 292.402 Recovery = 101.44%							
Zn	213.857†	87473.0	501.04 µg/L	1.089	501.04 ppb	1.089	0.22%
QC value within limits for Zn 213.857 Recovery = 100.21%							

All analyte(s) passed QC.

Sequence No.: 21

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/13/2010 18:18:13

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	115497.4	115497.4	101 %		18:18:42
1	Al 396.153Radial†	-87.2	-1.4	-0.3360 µg/L	-0.3360 ppb	18:19:02
1	Ca 317.933Radial†	480.0	18.7	1.5367 µg/L	1.5367 ppb	18:19:02
1	Fe 238.204 Radial†	155.0	29.2	2.4949 µg/L	2.4949 ppb	18:19:02
1	K 766.490 Radial†	1556.9	132.7	53.098 µg/L	53.098 ppb	18:18:42
1	Mg 279.077 IEC†	162.5	3.6	1.9694 µg/L	1.9694 ppb	18:19:02
1	Na 589.592 Radial†	1053.3	207.9	33.127 µg/L	33.127 ppb	18:18:42
1	Sr 421.552†	-75.5	-8.0	-0.0206 µg/L	-0.0206 ppb	18:18:42
1	Sc 361.383	1706204.3	1706204.3	100.82 %		18:19:50
1	Y 371.029	964556.2	964556.2	100.79 %		18:19:50
1	Ag 328.068†	4865.0	-277.7	-1.1389 µg/L	-1.1389 ppb	18:19:52
1	As 188.979†	-22.3	-8.7	-2.9951 µg/L	-2.9951 ppb	18:20:12
1	B 249.677†	4219.7	73.3	1.0870 µg/L	1.0870 ppb	18:19:52
1	Ba 233.527†	-142.8	4.2	0.0188 µg/L	0.0188 ppb	18:20:12
1	Be 313.107†	-779.6	219.1	0.0648 µg/L	0.0648 ppb	18:19:52
1	Cd 226.502†	-60.9	4.2	0.0277 µg/L	0.0277 ppb	18:20:12
1	Co 228.616†	-202.8	25.9	0.3397 µg/L	0.3397 ppb	18:20:12
1	Cr 267.716†	344.7	12.3	0.1006 µg/L	0.1006 ppb	18:20:12
1	Cu 324.752†	2926.8	-338.4	-1.3926 µg/L	-1.3926 ppb	18:19:52
1	Mn 257.610†	300.3	82.5	0.1077 µg/L	0.1077 ppb	18:20:12
1	Mo 202.031†	-23.3	-1.5	-0.0509 µg/L	-0.0509 ppb	18:20:12
1	Ni 231.604†	-59.9	14.5	0.1807 µg/L	0.1807 ppb	18:20:12
1	P 214.914†	-10.4	8.9	2.0593 µg/L	2.0593 ppb	18:20:12
1	Pb 220.353†	85.2	-32.7	-2.0559 µg/L	-2.0559 ppb	18:20:12
1	S 181.975 Axial†	110.0	7.1	6.0699 µg/L	6.0699 ppb	18:20:12
1	Sb 206.836†	92.1	13.8	1.7732 µg/L	1.7732 ppb	18:20:12
1	Se 196.026†	25.8	5.6	2.19 µg/L	2.19 ppb	18:20:12
1	SiO2†	1693.8	-8.9	-0.9286 µg/L	-0.9286 ppb	18:20:12
1	Si 251.611†	790.8	-2.2	-0.0368 µg/L	-0.0368 ppb	18:19:52
1	Sn 189.927†	16.9	8.4	0.5839 µg/L	0.5839 ppb	18:20:12
1	Ti 334.940†	838.8	-54.1	-0.0607 µg/L	-0.0607 ppb	18:19:52
1	Tl 190.801†	-98.1	17.9	2.5248 µg/L	2.5248 ppb	18:20:12
1	U 409.014†	-261.8	151.6	9.1995 µg/L	9.1995 ppb	18:19:52
1	V 292.402†	439.0	-60.6	-0.2943 µg/L	-0.2943 ppb	18:19:52
1	Zn 213.857†	648.2	23.6	0.1356 µg/L	0.1356 ppb	18:20:12
2	Sc RADIAL	115087.5	115087.5	101 %		18:19:04
2	Al 396.153Radial†	-96.2	-10.7	-2.5461 µg/L	-2.5461 ppb	18:19:24
2	Ca 317.933Radial†	471.0	11.4	0.9390 µg/L	0.9390 ppb	18:19:24
2	Fe 238.204 Radial†	141.0	15.8	1.3517 µg/L	1.3517 ppb	18:19:24
2	K 766.490 Radial†	1579.6	160.7	64.338 µg/L	64.338 ppb	18:19:04
2	Mg 279.077 IEC†	159.2	0.8	0.4816 µg/L	0.4816 ppb	18:19:24
2	Na 589.592 Radial†	953.8	112.8	17.934 µg/L	17.934 ppb	18:19:04
2	Sr 421.552†	-114.9	-47.5	-0.1220 µg/L	-0.1220 ppb	18:19:04
2	Sc 361.383	1726035.7	1726035.7	102.00 %		18:20:14
2	Y 371.029	974616.4	974616.4	101.84 %		18:20:14
2	Ag 328.068†	5280.4	74.1	0.2929 µg/L	0.2929 ppb	18:20:16
2	As 188.979†	-14.7	-1.0	-0.3426 µg/L	-0.3426 ppb	18:20:36
2	B 249.677†	4210.3	16.0	0.2370 µg/L	0.2370 ppb	18:20:16
2	Ba 233.527†	-106.9	41.1	0.1859 µg/L	0.1859 ppb	18:20:36
2	Be 313.107†	-869.7	139.6	0.0378 µg/L	0.0378 ppb	18:20:16
2	Cd 226.502†	-63.5	2.3	0.0153 µg/L	0.0153 ppb	18:20:36
2	Co 228.616†	-232.9	-1.3	-0.0173 µg/L	-0.0173 ppb	18:20:36
2	Cr 267.716†	324.4	-11.6	-0.0973 µg/L	-0.0973 ppb	18:20:36
2	Cu 324.752†	3092.8	-209.0	-0.8697 µg/L	-0.8697 ppb	18:20:16
2	Mn 257.610†	287.0	66.0	0.0863 µg/L	0.0863 ppb	18:20:36
2	Mo 202.031†	-4.4	17.3	0.5868 µg/L	0.5868 ppb	18:20:36
2	Ni 231.604†	-65.8	9.4	0.1175 µg/L	0.1175 ppb	18:20:36
2	P 214.914†	-30.4	-10.6	-2.4234 µg/L	-2.4234 ppb	18:20:36
2	Pb 220.353†	135.6	15.8	0.9942 µg/L	0.9942 ppb	18:20:36

2	S 181.975 Axial†	118.9	14.6	12.435 µg/L	12.435 ppb	18:20:36
2	Sb 206.836†	79.5	0.4	0.0670 µg/L	0.0670 ppb	18:20:36
2	Se 196.026†	21.5	1.1	0.426 µg/L	0.426 ppb	18:20:36
2	SiO2†	1680.8	-40.9	-4.2488 µg/L	-4.2488 ppb	18:20:36
2	Si 251.611†	769.4	-32.2	-0.5011 µg/L	-0.5011 ppb	18:20:16
2	Sn 189.927†	13.2	4.5	0.3164 µg/L	0.3164 ppb	18:20:36
2	Ti 334.940†	895.0	-8.6	-0.0066 µg/L	-0.0066 ppb	18:20:16
2	Tl 190.801†	-110.1	7.3	1.0293 µg/L	1.0293 ppb	18:20:36
2	U 409.014†	-516.9	-95.5	-5.8372 µg/L	-5.8372 ppb	18:20:16
2	V 292.402†	405.3	-98.7	-0.4876 µg/L	-0.4876 ppb	18:20:16
2	Zn 213.857†	647.5	15.5	0.0891 µg/L	0.0891 ppb	18:20:36
3	Sc RADIAL	115041.0	115041.0	101 %		18:19:26
3	Al 396.153Radial†	-111.2	-25.6	-6.0337 µg/L	-6.0337 ppb	18:19:46
3	Ca 317.933Radial†	473.0	13.5	1.1154 µg/L	1.1154 ppb	18:19:46
3	Fe 238.204 Radial†	134.1	9.1	0.7750 µg/L	0.7750 ppb	18:19:46
3	K 766.490 Radial†	1458.9	41.3	16.531 µg/L	16.531 ppb	18:19:26
3	Mg 279.077 IEC†	133.3	-24.8	-13.714 µg/L	-13.714 ppb	18:19:46
3	Na 589.592 Radial†	1078.5	237.1	37.820 µg/L	37.820 ppb	18:19:26
3	Sr 421.552†	-23.3	43.5	0.1118 µg/L	0.1118 ppb	18:19:26
3	Sc 361.383	1696339.0	1696339.0	100.24 %		18:20:39
3	Y 371.029	958911.3	958911.3	100.20 %		18:20:39
3	Ag 328.068†	4999.1	-115.9	-0.4769 µg/L	-0.4769 ppb	18:20:41
3	As 188.979†	-14.7	-1.2	-0.4162 µg/L	-0.4162 ppb	18:21:01
3	B 249.677†	4157.8	35.8	0.5319 µg/L	0.5319 ppb	18:20:41
3	Ba 233.527†	-146.5	-0.3	-0.0017 µg/L	-0.0017 ppb	18:21:01
3	Be 313.107†	-750.6	243.5	0.0707 µg/L	0.0707 ppb	18:20:41
3	Cd 226.502†	-48.8	15.9	0.1051 µg/L	0.1051 ppb	18:21:01
3	Co 228.616†	-224.0	3.6	0.0474 µg/L	0.0474 ppb	18:21:01
3	Cr 267.716†	358.6	28.1	0.2425 µg/L	0.2425 ppb	18:21:01
3	Cu 324.752†	2911.2	-337.1	-1.3909 µg/L	-1.3909 ppb	18:20:41
3	Mn 257.610†	265.9	49.9	0.0658 µg/L	0.0658 ppb	18:21:01
3	Mo 202.031†	-20.0	1.7	0.0572 µg/L	0.0572 ppb	18:21:01
3	Ni 231.604†	-78.3	-4.2	-0.0521 µg/L	-0.0521 ppb	18:21:01
3	P 214.914†	-3.8	15.4	3.5419 µg/L	3.5419 ppb	18:21:01
3	Pb 220.353†	116.1	-1.4	-0.0922 µg/L	-0.0922 ppb	18:21:01
3	S 181.975 Axial†	124.2	21.9	18.662 µg/L	18.662 ppb	18:21:01
3	Sb 206.836†	87.8	10.0	1.2821 µg/L	1.2821 ppb	18:21:01
3	Se 196.026†	22.8	2.7	1.05 µg/L	1.05 ppb	18:21:01
3	SiO2†	1673.4	-19.5	-2.0190 µg/L	-2.0190 ppb	18:21:01
3	Si 251.611†	830.4	41.9	0.6366 µg/L	0.6366 ppb	18:20:41
3	Sn 189.927†	11.8	3.3	0.2313 µg/L	0.2313 ppb	18:21:01
3	Ti 334.940†	814.0	-74.0	-0.0790 µg/L	-0.0790 ppb	18:20:41
3	Tl 190.801†	-104.1	11.3	1.5945 µg/L	1.5945 ppb	18:21:01
3	U 409.014†	-313.7	98.3	5.9516 µg/L	5.9516 ppb	18:20:41
3	V 292.402†	402.6	-94.3	-0.4621 µg/L	-0.4621 ppb	18:20:41
3	Zn 213.857†	625.5	4.7	0.0283 µg/L	0.0283 ppb	18:21:01

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1709526.3	101.02 %	0.894			0.88%
Sc RADIAL	115208.6	101 %	0.2			0.22%
Y 371.029	966027.9	100.94 %	0.831			0.82%
Ag 328.068†	-106.5	-0.4410 µg/L	0.71657	-0.4410 ppb	0.71657	162.49%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-12.6	-2.9719 µg/L	2.87258	-2.9719 ppb	2.87258	96.66%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-3.6	-1.2513 µg/L	1.51060	-1.2513 ppb	1.51060	120.72%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	41.7	0.6186 µg/L	0.43157	0.6186 ppb	0.43157	69.76%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	15.0	0.0677 µg/L	0.10288	0.0677 ppb	0.10288	152.06%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	200.7	0.0578 µg/L	0.01758	0.0578 ppb	0.01758	30.42%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	14.5	1.1971 µg/L	0.30709	1.1971 ppb	0.30709	25.65%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	7.5	0.0494 µg/L	0.04868	0.0494 ppb	0.04868	98.58%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	9.4	0.1232 µg/L	0.19020	0.1232 ppb	0.19020	154.33%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	9.6	0.0819 µg/L	0.17063	0.0819 ppb	0.17063	208.27%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-294.8	-1.2177 µg/L	0.30142	-1.2177 ppb	0.30142	24.75%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	18.1	1.5405 µg/L	0.87534	1.5405 ppb	0.87534	56.82%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	111.6	44.656 µg/L	24.9966	44.656 ppb	24.9966	55.98%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-6.8	-3.7543 µg/L	8.65727	-3.7543 ppb	8.65727	230.60%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	66.1	0.0866 µg/L	0.02096	0.0866 ppb	0.02096	24.20%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	5.8	0.1977 µg/L	0.34126	0.1977 ppb	0.34126	172.62%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	185.9	29.627 µg/L	10.3946	29.627 ppb	10.3946	35.09%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	6.6	0.0820 µg/L	0.12035	0.0820 ppb	0.12035	146.72%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	4.6	1.0593 µg/L	3.10586	1.0593 ppb	3.10586	293.21%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-6.1	-0.3846 µg/L	1.54590	-0.3846 ppb	1.54590	401.91%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	14.6	12.389 µg/L	6.2961	12.389 ppb	6.2961	50.82%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	8.1	1.0407 µg/L	0.87834	1.0407 ppb	0.87834	84.39%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	3.2	1.22 µg/L	0.893	1.22 ppb	0.893	73.06%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-23.1	-2.3988 µg/L	1.69238	-2.3988 ppb	1.69238	70.55%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	2.5	0.0329 µg/L	0.57202	0.0329 ppb	0.57202	>999.9%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	5.4	0.3772 µg/L	0.18398	0.3772 ppb	0.18398	48.78%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-4.0	-0.0102 µg/L	0.11725	-0.0102 ppb	0.11725	>999.9%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-45.6	-0.0488 µg/L	0.03763	-0.0488 ppb	0.03763	77.12%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	12.2	1.7162 µg/L	0.75514	1.7162 ppb	0.75514	44.00%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	51.4	3.1046 µg/L	7.91230	3.1046 ppb	7.91230	254.85%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-84.5	-0.4147 µg/L	0.10502	-0.4147 ppb	0.10502	25.32%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	14.6	0.0843 µg/L	0.05382	0.0843 ppb	0.05382	63.83%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.



Sequence No.: 30

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/13/2010 18:38:30

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	117555.6	117555.6	103 %		18:39:04
1	Al 396.153Radial†	22365.6	21848.0	5128.5 µg/L	5128.5 ppb	18:39:04
1	Ca 317.933Radial†	63957.5	61777.4	5086.7 µg/L	5086.7 ppb	18:39:04
1	Fe 238.204 Radial†	61555.7	59772.8	5098.8 µg/L	5098.8 ppb	18:39:04
1	K 766.490 Radial†	14556.4	12754.9	5101.4 µg/L	5101.4 ppb	18:39:04
1	Mg 279.077 IEC†	9703.2	9284.4	5142.8 µg/L	5142.8 ppb	18:39:04
1	Na 589.592 Radial†	65394.2	62796.8	10015 µg/L	10015 ppb	18:39:02
1	Sr 421.552†	201211.9	195856.9	503.07 µg/L	503.07 ppb	18:39:02
1	Sc 361.383	1667480.4	1667480.4	98.535 %		18:39:17
1	Y 371.029	933146.2	933146.2	97.504 %		18:39:17
1	Ag 328.068†	125142.5	121899.6	509.70 µg/L	509.70 ppb	18:39:17
1	As 188.979†	1404.0	1438.2	505.43 µg/L	505.43 ppb	18:39:37
1	B 249.677†	37073.2	33512.3	495.69 µg/L	495.69 ppb	18:39:17
1	Ba 233.527†	109853.0	111631.7	505.74 µg/L	505.74 ppb	18:39:17
1	Be 313.107†	1754968.7	1782046.6	504.71 µg/L	504.71 ppb	18:39:17
1	Cd 226.502†	75181.8	76363.9	504.63 µg/L	504.63 ppb	18:39:17
1	Co 228.616†	38080.4	38873.5	509.89 µg/L	509.89 ppb	18:39:17
1	Cr 267.716†	57087.6	57606.5	505.78 µg/L	505.78 ppb	18:39:17
1	Cu 324.752†	123356.6	121948.8	506.44 µg/L	506.44 ppb	18:39:17
1	Mn 257.610†	383760.9	389249.7	508.58 µg/L	508.58 ppb	18:39:17
1	Mo 202.031†	14897.8	15140.9	514.44 µg/L	514.44 ppb	18:39:37
1	Ni 231.604†	40258.5	40930.8	509.01 µg/L	509.01 ppb	18:39:17
1	P 214.914†	10944.7	11126.6	2533.6 µg/L	2533.6 ppb	18:39:37
1	Pb 220.353†	8177.3	8181.6	514.27 µg/L	514.27 ppb	18:39:37
1	S 181.975 Axial†	1288.9	1206.2	1030.6 µg/L	1030.6 ppb	18:39:37
1	Sb 206.836†	4041.8	4024.4	517.14 µg/L	517.14 ppb	18:39:37
1	Se 196.026†	1298.9	1298.2	504 µg/L	504 ppb	18:39:37
1	SiO2†	53058.8	52158.5	5363.7 µg/L	5363.7 ppb	18:39:17
1	Si 251.611†	164142.5	165795.8	2518.9 µg/L	2518.9 ppb	18:39:17
1	Sn 189.927†	7240.4	7339.6	512.81 µg/L	512.81 ppb	18:39:37
1	Ti 334.940†	478057.6	484277.3	507.21 µg/L	507.21 ppb	18:39:17
1	Tl 190.801†	3453.4	3620.0	517.75 µg/L	517.75 ppb	18:39:37
1	U 409.014†	7508.5	8031.3	519.14 µg/L	519.14 ppb	18:39:17
1	V 292.402†	100600.0	101599.3	510.55 µg/L	510.55 ppb	18:39:17
1	Zn 213.857†	87227.7	87904.9	503.50 µg/L	503.50 ppb	18:39:17
2	Sc RADIAL	115620.7	115620.7	101 %		18:39:08
2	Al 396.153Radial†	21996.4	21846.9	5128.5 µg/L	5128.5 ppb	18:39:08
2	Ca 317.933Radial†	62870.0	61743.0	5083.9 µg/L	5083.9 ppb	18:39:08
2	Fe 238.204 Radial†	60315.3	59548.0	5079.7 µg/L	5079.7 ppb	18:39:08
2	K 766.490 Radial†	14272.4	12711.0	5083.8 µg/L	5083.8 ppb	18:39:08
2	Mg 279.077 IEC†	9606.8	9347.0	5177.4 µg/L	5177.4 ppb	18:39:08
2	Na 589.592 Radial†	64872.6	63345.7	10103 µg/L	10103 ppb	18:39:06
2	Sr 421.552†	199196.4	197139.5	506.37 µg/L	506.37 ppb	18:39:06
2	Sc 361.383	1696128.5	1696128.5	100.23 %		18:39:40
2	Y 371.029	949072.2	949072.2	99.169 %		18:39:40
2	Ag 328.068†	126544.4	121153.2	506.57 µg/L	506.57 ppb	18:39:40
2	As 188.979†	1423.6	1433.8	503.83 µg/L	503.83 ppb	18:40:00
2	B 249.677†	37709.0	33511.2	495.69 µg/L	495.69 ppb	18:39:40
2	Ba 233.527†	111128.0	111020.7	502.97 µg/L	502.97 ppb	18:39:40
2	Be 313.107†	1772002.4	1768959.0	501.00 µg/L	501.00 ppb	18:39:40
2	Cd 226.502†	76210.9	76102.0	502.90 µg/L	502.90 ppb	18:39:40
2	Co 228.616†	38485.2	38624.6	506.62 µg/L	506.62 ppb	18:39:40
2	Cr 267.716†	57619.9	57159.1	501.86 µg/L	501.86 ppb	18:39:40
2	Cu 324.752†	124749.1	121223.7	503.42 µg/L	503.42 ppb	18:39:40
2	Mn 257.610†	388753.1	387652.3	506.50 µg/L	506.50 ppb	18:39:40
2	Mo 202.031†	14985.1	14972.6	508.72 µg/L	508.72 ppb	18:40:00
2	Ni 231.604†	40616.1	40597.5	504.86 µg/L	504.86 ppb	18:39:40
2	P 214.914†	11077.5	11071.4	2521.1 µg/L	2521.1 ppb	18:40:00
2	Pb 220.353†	8242.0	8106.0	509.52 µg/L	509.52 ppb	18:40:00

2	S 181.975 Axial†	1299.6	1194.7	1020.8 µg/L	1020.8 ppb	18:40:00
2	Sb 206.836†	4035.4	3948.7	507.40 µg/L	507.40 ppb	18:40:00
2	Se 196.026†	1329.2	1306.1	507 µg/L	507 ppb	18:40:00
2	SiO2†	53901.3	52089.6	5356.8 µg/L	5356.8 ppb	18:39:40
2	Si 251.611†	166340.6	165175.2	2509.5 µg/L	2509.5 ppb	18:39:40
2	Sn 189.927†	7297.0	7272.0	508.09 µg/L	508.09 ppb	18:40:00
2	Ti 334.940†	483559.2	481571.8	504.37 µg/L	504.37 ppb	18:39:40
2	Tl 190.801†	3490.6	3597.9	514.60 µg/L	514.60 ppb	18:40:00
2	U 409.014†	7448.4	7842.7	507.51 µg/L	507.51 ppb	18:39:40
2	V 292.402†	101752.8	101025.0	507.62 µg/L	507.62 ppb	18:39:40
2	Zn 213.857†	88414.2	87593.5	501.73 µg/L	501.73 ppb	18:39:40
3	Sc RADIAL	115046.0	115046.0	101 %		18:39:12
3	Al 396.153Radial†	21928.6	21888.2	5138.2 µg/L	5138.2 ppb	18:39:12
3	Ca 317.933Radial†	63179.0	62360.9	5134.8 µg/L	5134.8 ppb	18:39:12
3	Fe 238.204 Radial†	60537.7	60067.2	5124.0 µg/L	5124.0 ppb	18:39:12
3	K 766.490 Radial†	14321.8	12830.6	5131.6 µg/L	5131.6 ppb	18:39:12
3	Mg 279.077 IEC†	9544.2	9332.3	5169.2 µg/L	5169.2 ppb	18:39:12
3	Na 589.592 Radial†	65285.1	64076.5	10219 µg/L	10219 ppb	18:39:10
3	Sr 421.552†	200860.1	199778.2	513.15 µg/L	513.15 ppb	18:39:10
3	Sc 361.383	1686572.6	1686572.6	99.664 %		18:40:03
3	Y 371.029	943941.5	943941.5	98.632 %		18:40:03
3	Ag 328.068†	125901.5	121223.5	506.86 µg/L	506.86 ppb	18:40:03
3	As 188.979†	1420.3	1438.5	505.47 µg/L	505.47 ppb	18:40:23
3	B 249.677†	37631.2	33646.3	497.69 µg/L	497.69 ppb	18:40:03
3	Ba 233.527†	110682.8	111202.3	503.79 µg/L	503.79 ppb	18:40:03
3	Be 313.107†	1764844.2	1771793.6	501.80 µg/L	501.80 ppb	18:40:03
3	Cd 226.502†	76210.5	76532.3	505.74 µg/L	505.74 ppb	18:40:03
3	Co 228.616†	38305.3	38661.7	507.10 µg/L	507.10 ppb	18:40:03
3	Cr 267.716†	57228.5	57092.1	501.28 µg/L	501.28 ppb	18:40:03
3	Cu 324.752†	124134.0	121311.7	503.79 µg/L	503.79 ppb	18:40:03
3	Mn 257.610†	385972.5	387060.0	505.72 µg/L	505.72 ppb	18:40:03
3	Mo 202.031†	14930.1	15002.1	509.72 µg/L	509.72 ppb	18:40:23
3	Ni 231.604†	40444.0	40654.4	505.57 µg/L	505.57 ppb	18:40:03
3	P 214.914†	11005.1	11061.4	2518.7 µg/L	2518.7 ppb	18:40:23
3	Pb 220.353†	8217.2	8127.7	510.89 µg/L	510.89 ppb	18:40:23
3	S 181.975 Axial†	1294.4	1196.8	1022.6 µg/L	1022.6 ppb	18:40:23
3	Sb 206.836†	4014.1	3950.2	507.61 µg/L	507.61 ppb	18:40:23
3	Se 196.026†	1309.4	1293.8	503 µg/L	503 ppb	18:40:23
3	SiO2†	53677.2	52169.5	5365.1 µg/L	5365.1 ppb	18:40:03
3	Si 251.611†	166048.7	165822.7	2519.4 µg/L	2519.4 ppb	18:40:03
3	Sn 189.927†	7258.0	7274.1	508.24 µg/L	508.24 ppb	18:40:23
3	Ti 334.940†	480962.2	481699.6	504.51 µg/L	504.51 ppb	18:40:03
3	Tl 190.801†	3466.0	3593.0	513.91 µg/L	513.91 ppb	18:40:23
3	U 409.014†	7300.0	7735.9	501.03 µg/L	501.03 ppb	18:40:03
3	V 292.402†	101316.3	101162.3	508.30 µg/L	508.30 ppb	18:40:03
3	Zn 213.857†	88062.8	87740.8	502.57 µg/L	502.57 ppb	18:40:03

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1683393.8	99.476 %	0.8619			0.87%
Sc RADIAL	116074.1	101 %	1.1			1.13%
Y 371.029	942053.3	98.435 %	0.8494			0.86%
Ag 328.068†	121425.4	507.71 µg/L	1.730	507.71 ppb	1.730	0.34%
QC value within limits for Ag 328.068 Recovery = 101.54%						
Al 396.153Radial†	21861.0	5131.8 µg/L	5.61	5131.8 ppb	5.61	0.11%
QC value within limits for Al 396.153Radial Recovery = 102.64%						
As 188.979†	1436.9	504.91 µg/L	0.936	504.91 ppb	0.936	0.19%
QC value within limits for As 188.979 Recovery = 100.98%						
B 249.677†	33556.6	496.36 µg/L	1.155	496.36 ppb	1.155	0.23%
QC value within limits for B 249.677 Recovery = 99.27%						
Ba 233.527†	111284.9	504.17 µg/L	1.422	504.17 ppb	1.422	0.28%
QC value within limits for Ba 233.527 Recovery = 100.83%						
Be 313.107†	1774266.4	502.50 µg/L	1.952	502.50 ppb	1.952	0.39%
QC value within limits for Be 313.107 Recovery = 100.50%						
Ca 317.933Radial†	61960.4	5101.8 µg/L	28.59	5101.8 ppb	28.59	0.56%
QC value within limits for Ca 317.933Radial Recovery = 102.04%						
Cd 226.502†	76332.7	504.42 µg/L	1.432	504.42 ppb	1.432	0.28%
QC value within limits for Cd 226.502 Recovery = 100.88%						
Co 228.616†	38719.9	507.87 µg/L	1.762	507.87 ppb	1.762	0.35%

QC value within limits for Co 228.616 Recovery = 101.57%							
Cr 267.716†	57285.9	502.98 µg/L	2.450	502.98 ppb	2.450	0.49%	
QC value within limits for Cr 267.716 Recovery = 100.60%							
Cu 324.752†	121494.7	504.55 µg/L	1.646	504.55 ppb	1.646	0.33%	
QC value within limits for Cu 324.752 Recovery = 100.91%							
Fe 238.204 Radial†	59796.0	5100.8 µg/L	22.21	5100.8 ppb	22.21	0.44%	
QC value within limits for Fe 238.204 Radial Recovery = 102.02%							
K 766.490 Radial†	12765.5	5105.6 µg/L	24.20	5105.6 ppb	24.20	0.47%	
QC value within limits for K 766.490 Radial Recovery = 102.11%							
Mg 279.077 IEC†	9321.2	5163.1 µg/L	18.03	5163.1 ppb	18.03	0.35%	
QC value within limits for Mg 279.077 IEC Recovery = 103.26%							
Mn 257.610†	387987.3	506.93 µg/L	1.481	506.93 ppb	1.481	0.29%	
QC value within limits for Mn 257.610 Recovery = 101.39%							
Mo 202.031†	15038.5	510.96 µg/L	3.051	510.96 ppb	3.051	0.60%	
QC value within limits for Mo 202.031 Recovery = 102.19%							
Na 589.592 Radial†	63406.4	10112 µg/L	102.4	10112 ppb	102.4	1.01%	
QC value within limits for Na 589.592 Radial Recovery = 101.12%							
Ni 231.604†	40727.6	506.48 µg/L	2.217	506.48 ppb	2.217	0.44%	
QC value within limits for Ni 231.604 Recovery = 101.30%							
P 214.914†	11086.5	2524.5 µg/L	8.00	2524.5 ppb	8.00	0.32%	
QC value within limits for P 214.914 Recovery = 100.98%							
Pb 220.353†	8138.5	511.56 µg/L	2.442	511.56 ppb	2.442	0.48%	
QC value within limits for Pb 220.353 Recovery = 102.31%							
S 181.975 Axial†	1199.2	1024.7 µg/L	5.22	1024.7 ppb	5.22	0.51%	
QC value within limits for S 181.975 Axial Recovery = 102.47%							
Sb 206.836†	3974.4	510.72 µg/L	5.563	510.72 ppb	5.563	1.09%	
QC value within limits for Sb 206.836 Recovery = 102.14%							
Se 196.026†	1299.4	505 µg/L	2.4	505 ppb	2.4	0.48%	
QC value within limits for Se 196.026 Recovery = 100.94%							
SiO2†	52139.2	5361.9 µg/L	4.41	5361.9 ppb	4.41	0.08%	
QC value within limits for SiO2 Recovery = 100.27%							
Si 251.611†	165597.9	2515.9 µg/L	5.55	2515.9 ppb	5.55	0.22%	
QC value within limits for Si 251.611 Recovery = 100.64%							
Sn 189.927†	7295.2	509.71 µg/L	2.683	509.71 ppb	2.683	0.53%	
QC value within limits for Sn 189.927 Recovery = 101.94%							
Sr 421.552†	197591.5	507.53 µg/L	5.136	507.53 ppb	5.136	1.01%	
QC value within limits for Sr 421.552 Recovery = 101.51%							
Ti 334.940†	482516.2	505.36 µg/L	1.598	505.36 ppb	1.598	0.32%	
QC value within limits for Ti 334.940 Recovery = 101.07%							
Tl 190.801†	3603.6	515.42 µg/L	2.049	515.42 ppb	2.049	0.40%	
QC value within limits for Tl 190.801 Recovery = 103.08%							
U 409.014†	7870.0	509.23 µg/L	9.177	509.23 ppb	9.177	1.80%	
QC value within limits for U 409.014 Recovery = 101.85%							
V 292.402†	101262.2	508.82 µg/L	1.532	508.82 ppb	1.532	0.30%	
QC value within limits for V 292.402 Recovery = 101.76%							
Zn 213.857†	87746.4	502.60 µg/L	0.884	502.60 ppb	0.884	0.18%	
QC value within limits for Zn 213.857 Recovery = 100.52%							

All analyte(s) passed QC.

Sequence No.: 31  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 4/13/2010 18:40:32  
 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	116505.8	116505.8	102 %		18:41:02
1	Al 396.153Radial†	-72.4	13.9	3.2576 µg/L	3.2576 ppb	18:41:22
1	Ca 317.933Radial†	470.4	5.1	0.4211 µg/L	0.4211 ppb	18:41:22
1	Fe 238.204 Radial†	161.4	34.2	2.9145 µg/L	2.9145 ppb	18:41:22
1	K 766.490 Radial†	1566.6	128.8	51.562 µg/L	51.562 ppb	18:41:02
1	Mg 279.077 IEC†	156.4	-3.8	-2.0768 µg/L	-2.0768 ppb	18:41:22
1	Na 589.592 Radial†	828.4	-22.0	-3.5496 µg/L	-3.5496 ppb	18:41:02
1	Sr 421.552†	-47.3	20.2	0.0520 µg/L	0.0520 ppb	18:41:02
1	Sc 361.383	1682039.9	1682039.9	99.396 %		18:42:10
1	Y 371.029	950697.8	950697.8	99.338 %		18:42:10
1	Ag 328.068†	5221.2	150.0	0.6240 µg/L	0.6240 ppb	18:42:12
1	As 188.979†	-9.0	4.4	1.5142 µg/L	1.5142 ppb	18:42:32
1	B 249.677†	4217.7	131.4	1.9499 µg/L	1.9499 ppb	18:42:12
1	Ba 233.527†	-125.5	19.6	0.0887 µg/L	0.0887 ppb	18:42:32
1	Be 313.107†	-729.6	258.3	0.0746 µg/L	0.0746 ppb	18:42:12
1	Cd 226.502†	-40.1	24.2	0.1598 µg/L	0.1598 ppb	18:42:32
1	Co 228.616†	-221.7	4.0	0.0523 µg/L	0.0523 ppb	18:42:32
1	Cr 267.716†	325.9	-1.7	-0.0187 µg/L	-0.0187 ppb	18:42:32
1	Cu 324.752†	2991.5	-231.6	-0.9546 µg/L	-0.9546 ppb	18:42:12
1	Mn 257.610†	305.1	91.6	0.1197 µg/L	0.1197 ppb	18:42:32
1	Mo 202.031†	-14.8	6.7	0.2272 µg/L	0.2272 ppb	18:42:32
1	Ni 231.604†	-75.1	-1.6	-0.0199 µg/L	-0.0199 ppb	18:42:32
1	P 214.914†	18.5	37.8	8.6395 µg/L	8.6395 ppb	18:42:32
1	Pb 220.353†	119.6	3.1	0.1904 µg/L	0.1904 ppb	18:42:32
1	S 181.975 Axial†	100.8	-0.5	-0.4635 µg/L	-0.4635 ppb	18:42:32
1	Sb 206.836†	71.4	-5.7	-0.7294 µg/L	-0.7294 ppb	18:42:32
1	Se 196.026†	30.5	10.7	4.15 µg/L	4.15 ppb	18:42:32
1	SiO2†	1618.5	-60.5	-6.2493 µg/L	-6.2493 ppb	18:42:12
1	Si 251.611†	740.7	-41.3	-0.6310 µg/L	-0.6310 ppb	18:42:12
1	Sn 189.927†	4.6	-3.8	-0.2639 µg/L	-0.2639 ppb	18:42:32
1	Ti 334.940†	744.4	-137.2	-0.1456 µg/L	-0.1456 ppb	18:42:12
1	Tl 190.801†	-103.5	11.1	1.5650 µg/L	1.5650 ppb	18:42:32
1	U 409.014†	-331.4	77.8	4.7292 µg/L	4.7292 ppb	18:42:12
1	V 292.402†	476.7	-16.5	-0.0763 µg/L	-0.0763 ppb	18:42:12
1	Zn 213.857†	653.3	37.9	0.2196 µg/L	0.2196 ppb	18:42:32
2	Sc RADIAL	114942.1	114942.1	100 %		18:41:24
2	Al 396.153Radial†	-105.5	-20.0	-4.7250 µg/L	-4.7250 ppb	18:41:44
2	Ca 317.933Radial†	472.5	13.5	1.1119 µg/L	1.1119 ppb	18:41:44
2	Fe 238.204 Radial†	221.5	96.2	8.2039 µg/L	8.2039 ppb	18:41:44
2	K 766.490 Radial†	1562.1	145.3	58.157 µg/L	58.157 ppb	18:41:24
2	Mg 279.077 IEC†	153.6	-4.5	-2.4645 µg/L	-2.4645 ppb	18:41:44
2	Na 589.592 Radial†	990.8	150.8	24.005 µg/L	24.005 ppb	18:41:24
2	Sr 421.552†	-46.4	20.5	0.0528 µg/L	0.0528 ppb	18:41:24
2	Sc 361.383	1662429.1	1662429.1	98.237 %		18:42:34
2	Y 371.029	941046.9	941046.9	98.330 %		18:42:34
2	Ag 328.068†	4873.4	-142.1	-0.5780 µg/L	-0.5780 ppb	18:42:36
2	As 188.979†	-14.2	-1.0	-0.3519 µg/L	-0.3519 ppb	18:42:56
2	B 249.677†	4016.1	-23.7	-0.3523 µg/L	-0.3523 ppb	18:42:36
2	Ba 233.527†	-140.6	2.7	0.0120 µg/L	0.0120 ppb	18:42:56
2	Be 313.107†	-608.3	373.1	0.1092 µg/L	0.1092 ppb	18:42:36
2	Cd 226.502†	-66.6	-3.2	-0.0218 µg/L	-0.0218 ppb	18:42:56
2	Co 228.616†	-219.9	3.2	0.0415 µg/L	0.0415 ppb	18:42:56
2	Cr 267.716†	336.8	13.2	0.1071 µg/L	0.1071 ppb	18:42:56
2	Cu 324.752†	2923.3	-265.5	-1.0881 µg/L	-1.0881 ppb	18:42:36
2	Mn 257.610†	313.6	103.9	0.1359 µg/L	0.1359 ppb	18:42:56
2	Mo 202.031†	-13.1	8.3	0.2811 µg/L	0.2811 ppb	18:42:56
2	Ni 231.604†	-60.9	11.9	0.1480 µg/L	0.1480 ppb	18:42:56
2	P 214.914†	-13.1	5.9	1.3529 µg/L	1.3529 ppb	18:42:56
2	Pb 220.353†	105.4	-10.0	-0.6328 µg/L	-0.6328 ppb	18:42:56

2	S 181.975 Axial†	109.2	9.2	7.8241 µg/L	7.8241 ppb	18:42:56
2	Sb 206.836†	79.7	3.6	0.4672 µg/L	0.4672 ppb	18:42:56
2	Se 196.026†	17.3	-2.4	-0.911 µg/L	-0.911 ppb	18:42:56
2	SiO2†	1642.2	-17.2	-1.7811 µg/L	-1.7811 ppb	18:42:36
2	Si 251.611†	709.4	-64.4	-0.9859 µg/L	-0.9859 ppb	18:42:36
2	Sn 189.927†	8.5	0.2	0.0140 µg/L	0.0140 ppb	18:42:56
2	Ti 334.940†	684.5	-189.3	-0.2032 µg/L	-0.2032 ppb	18:42:36
2	Tl 190.801†	-112.2	1.0	0.1367 µg/L	0.1367 ppb	18:42:56
2	U 409.014†	-212.2	195.2	11.844 µg/L	11.844 ppb	18:42:36
2	V 292.402†	392.6	-96.4	-0.4673 µg/L	-0.4673 ppb	18:42:36
2	Zn 213.857†	633.0	25.1	0.1435 µg/L	0.1435 ppb	18:42:56
3	Sc RADIAL	114863.3	114863.3	100 %		18:41:46
3	Al 396.153Radial†	-72.5	12.8	2.9861 µg/L	2.9861 ppb	18:42:06
3	Ca 317.933Radial†	480.7	22.0	1.8081 µg/L	1.8081 ppb	18:42:06
3	Fe 238.204 Radial†	141.7	16.9	1.4385 µg/L	1.4385 ppb	18:42:06
3	K 766.490 Radial†	1570.3	154.5	61.834 µg/L	61.834 ppb	18:41:46
3	Mg 279.077 IEC†	170.0	12.0	6.6339 µg/L	6.6339 ppb	18:42:06
3	Na 589.592 Radial†	904.3	65.2	10.352 µg/L	10.352 ppb	18:41:46
3	Sr 421.552†	-151.8	-84.5	-0.2170 µg/L	-0.2170 ppb	18:41:46
3	Sc 361.383	1744402.5	1744402.5	103.08 %		18:42:58
3	Y 371.029	986368.7	986368.7	103.07 %		18:42:58
3	Ag 328.068†	5063.0	-191.3	-0.7817 µg/L	-0.7817 ppb	18:43:00
3	As 188.979†	-8.9	4.8	1.6477 µg/L	1.6477 ppb	18:43:20
3	B 249.677†	4232.8	-5.7	-0.0841 µg/L	-0.0841 ppb	18:43:00
3	Ba 233.527†	-170.9	-19.9	-0.0900 µg/L	-0.0900 ppb	18:43:20
3	Be 313.107†	-675.6	336.9	0.0975 µg/L	0.0975 ppb	18:43:00
3	Cd 226.502†	-68.7	-2.0	-0.0137 µg/L	-0.0137 ppb	18:43:20
3	Co 228.616†	-237.4	-3.3	-0.0429 µg/L	-0.0429 ppb	18:43:20
3	Cr 267.716†	332.3	-7.2	-0.0692 µg/L	-0.0692 ppb	18:43:20
3	Cu 324.752†	3183.9	-152.6	-0.6254 µg/L	-0.6254 ppb	18:43:00
3	Mn 257.610†	330.0	104.7	0.1366 µg/L	0.1366 ppb	18:43:20
3	Mo 202.031†	-4.0	17.7	0.6023 µg/L	0.6023 ppb	18:43:20
3	Ni 231.604†	-76.4	-0.2	-0.0027 µg/L	-0.0027 ppb	18:43:20
3	P 214.914†	-12.4	7.2	1.6361 µg/L	1.6361 ppb	18:43:20
3	Pb 220.353†	108.8	-11.6	-0.7276 µg/L	-0.7276 ppb	18:43:20
3	S 181.975 Axial†	104.0	-1.0	-0.8486 µg/L	-0.8486 ppb	18:43:20
3	Sb 206.836†	82.7	2.7	0.3575 µg/L	0.3575 ppb	18:43:20
3	Se 196.026†	23.7	3.0	1.17 µg/L	1.17 ppb	18:43:20
3	SiO2†	8262.7	6326.8	653.28 µg/L	653.28 ppb	18:43:00
3	Si 251.611†	21498.6	20069.5	306.14 µg/L	306.14 ppb	18:43:00
3	Sn 189.927†	6.9	-1.7	-0.1080 µg/L	-0.1080 ppb	18:43:20
3	Ti 334.940†	3993.6	2988.2	3.1303 µg/L	3.1303 ppb	18:43:00
3	Tl 190.801†	-105.2	13.2	1.8915 µg/L	1.8915 ppb	18:43:20
3	U 409.014†	-304.5	115.8	7.0407 µg/L	7.0407 ppb	18:43:00
3	V 292.402†	504.4	-6.7	-0.0255 µg/L	-0.0255 ppb	18:43:00
3	Zn 213.857†	624.2	-13.8	-0.0772 µg/L	-0.0772 ppb	18:43:20

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1696290.5	100.24 %	2.529			2.52%
Sc RADIAL	115437.1	101 %	0.8			0.80%
Y 371.029	959371.2	100.24 %	2.495			2.49%
Ag 328.068†	-61.1	-0.2452 µg/L	0.75964	-0.2452 ppb	0.75964	309.79%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	2.2	0.5062 µg/L	4.53238	0.5062 ppb	4.53238	895.32%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	2.7	0.9367 µg/L	1.11791	0.9367 ppb	1.11791	119.35%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	34.0	0.5045 µg/L	1.25892	0.5045 ppb	1.25892	249.53%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	0.8	0.0036 µg/L	0.08965	0.0036 ppb	0.08965	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	322.8	0.0938 µg/L	0.01763	0.0938 ppb	0.01763	18.80%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	13.5	1.1137 µg/L	0.69349	1.1137 ppb	0.69349	62.27%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	6.3	0.0415 µg/L	0.10261	0.0415 ppb	0.10261	247.55%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	1.3	0.0170 µg/L	0.05211	0.0170 ppb	0.05211	307.32%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	1.4	0.0064 µg/L	0.09080	0.0064 ppb	0.09080	>999.9%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-216.6	-0.8893 µg/L	0.23815	-0.8893 ppb	0.23815	26.78%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	49.1	4.1856 µg/L	3.55733	4.1856 ppb	3.55733	84.99%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	142.9	57.184 µg/L	5.2047	57.184 ppb	5.2047	9.10%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	1.3	0.6975 µg/L	5.14471	0.6975 ppb	5.14471	737.55%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	100.1	0.1308 µg/L	0.00954	0.1308 ppb	0.00954	7.30%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	10.9	0.3702 µg/L	0.20278	0.3702 ppb	0.20278	54.78%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	64.7	10.269 µg/L	13.7773	10.269 ppb	13.7773	134.16%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	3.4	0.0418 µg/L	0.09237	0.0418 ppb	0.09237	221.07%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	17.0	3.8762 µg/L	4.12762	3.8762 ppb	4.12762	106.49%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-6.2	-0.3900 µg/L	0.50490	-0.3900 ppb	0.50490	129.45%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	2.5	2.1707 µg/L	4.89982	2.1707 ppb	4.89982	225.73%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	0.2	0.0318 µg/L	0.66147	0.0318 ppb	0.66147	>999.9%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	3.8	1.47 µg/L	2.541	1.47 ppb	2.541	173.16%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	2083.1	215.08 µg/L	379.494	215.08 ppb	379.494	176.44%
QC value greater than the upper limit for SiO2 Recovery = Not calculated						
Si 251.611†	6654.6	101.51 µg/L	177.219	101.51 ppb	177.219	174.58%
QC value greater than the upper limit for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-1.8	-0.1193 µg/L	0.13929	-0.1193 ppb	0.13929	116.74%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-14.6	-0.0374 µg/L	0.15552	-0.0374 ppb	0.15552	415.64%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	887.2	0.9272 µg/L	1.90820	0.9272 ppb	1.90820	205.81%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	8.4	1.1977 µg/L	0.93328	1.1977 ppb	0.93328	77.92%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	129.6	7.8714 µg/L	3.62956	7.8714 ppb	3.62956	46.11%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-39.9	-0.1897 µg/L	0.24176	-0.1897 ppb	0.24176	127.44%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	16.4	0.0953 µg/L	0.15417	0.0953 ppb	0.15417	161.78%
QC value within limits for Zn 213.857 Recovery = Not calculated						

QC Failed. Continue with analysis.

Sequence No.: 41

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/13/2010 19:03:01

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	118713.0	118713.0	104 %		19:03:35
1	Al 396.153Radial†	22471.4	21737.7	5103.2 µg/L	5103.2 ppb	19:03:35
1	Ca 317.933Radial†	64147.2	61353.4	5051.8 µg/L	5051.8 ppb	19:03:35
1	Fe 238.204 Radial†	61459.6	59096.2	5041.1 µg/L	5041.1 ppb	19:03:35
1	K 766.490 Radial†	14453.6	12517.7	5006.5 µg/L	5006.5 ppb	19:03:35
1	Mg 279.077 IEC†	9647.1	9138.3	5061.8 µg/L	5061.8 ppb	19:03:35
1	Na 589.592 Radial†	64682.5	61490.7	9806.8 µg/L	9806.8 ppb	19:03:33
1	Sr 421.552†	199568.2	192364.2	494.10 µg/L	494.10 ppb	19:03:33
1	Sc 361.383	1704898.1	1704898.1	100.75 %		19:04:02
1	Y 371.029	953986.3	953986.3	99.682 %		19:04:02
1	Ag 328.068†	126027.3	119990.5	501.70 µg/L	501.70 ppb	19:04:02
1	As 188.979†	1393.0	1396.1	490.71 µg/L	490.71 ppb	19:04:22
1	B 249.677†	37565.7	33175.4	490.72 µg/L	490.72 ppb	19:04:02
1	Ba 233.527†	110590.2	109916.6	497.97 µg/L	497.97 ppb	19:04:02
1	Be 313.107†	1769258.3	1757141.2	497.65 µg/L	497.65 ppb	19:04:02
1	Cd 226.502†	75786.6	75289.6	497.53 µg/L	497.53 ppb	19:04:02
1	Co 228.616†	38311.4	38254.5	501.77 µg/L	501.77 ppb	19:04:02
1	Cr 267.716†	57493.9	56738.2	498.17 µg/L	498.17 ppb	19:04:02
1	Cu 324.752†	124108.8	119948.0	498.12 µg/L	498.12 ppb	19:04:02
1	Mn 257.610†	386986.7	383903.9	501.60 µg/L	501.60 ppb	19:04:02
1	Mo 202.031†	14811.1	14722.9	500.24 µg/L	500.24 ppb	19:04:22
1	Ni 231.604†	40457.1	40231.2	500.31 µg/L	500.31 ppb	19:04:02
1	P 214.914†	10908.9	10847.3	2469.9 µg/L	2469.9 ppb	19:04:22
1	Pb 220.353†	8139.9	7962.4	500.50 µg/L	500.50 ppb	19:04:22
1	S 181.975 Axial†	1272.3	1160.9	991.98 µg/L	991.98 ppb	19:04:22
1	Sb 206.836†	3994.6	3887.5	499.47 µg/L	499.47 ppb	19:04:22
1	Se 196.026†	1312.0	1282.3	498 µg/L	498 ppb	19:04:22
1	SiO2†	53592.2	51506.3	5297.0 µg/L	5297.0 ppb	19:04:02
1	Si 251.611†	165635.3	163621.5	2486.0 µg/L	2486.0 ppb	19:04:02
1	Sn 189.927†	7192.5	7130.8	498.25 µg/L	498.25 ppb	19:04:22
1	Ti 334.940†	481740.0	477284.4	499.89 µg/L	499.89 ppb	19:04:02
1	Tl 190.801†	3419.5	3509.4	502.06 µg/L	502.06 ppb	19:04:22
1	U 409.014†	7313.7	7670.7	496.78 µg/L	496.78 ppb	19:04:02
1	V 292.402†	101413.5	100166.1	503.26 µg/L	503.26 ppb	19:04:02
1	Zn 213.857†	87787.0	86517.2	495.55 µg/L	495.55 ppb	19:04:02
2	Sc RADIAL	116468.1	116468.1	102 %		19:03:39
2	Al 396.153Radial†	22094.3	21784.6	5114.0 µg/L	5114.0 ppb	19:03:39
2	Ca 317.933Radial†	62956.0	61374.9	5053.6 µg/L	5053.6 ppb	19:03:39
2	Fe 238.204 Radial†	60260.3	59059.8	5038.0 µg/L	5038.0 ppb	19:03:39
2	K 766.490 Radial†	14412.9	12746.3	5097.9 µg/L	5097.9 ppb	19:03:39
2	Mg 279.077 IEC†	9561.0	9232.9	5114.2 µg/L	5114.2 ppb	19:03:39
2	Na 589.592 Radial†	64271.1	62288.0	9933.9 µg/L	9933.9 ppb	19:03:37
2	Sr 421.552†	198881.5	195396.4	501.89 µg/L	501.89 ppb	19:03:37
2	Sc 361.383	1686942.5	1686942.5	99.685 %		19:04:25
2	Y 371.029	944311.4	944311.4	98.671 %		19:04:25
2	Ag 328.068†	125320.9	120613.4	504.29 µg/L	504.29 ppb	19:04:25
2	As 188.979†	1398.5	1416.3	497.70 µg/L	497.70 ppb	19:04:45
2	B 249.677†	37189.0	33194.4	491.01 µg/L	491.01 ppb	19:04:25
2	Ba 233.527†	109726.3	110218.4	499.34 µg/L	499.34 ppb	19:04:25
2	Be 313.107†	1750834.8	1757351.8	497.71 µg/L	497.71 ppb	19:04:25
2	Cd 226.502†	74914.7	75215.6	497.04 µg/L	497.04 ppb	19:04:25
2	Co 228.616†	37817.9	38164.3	500.58 µg/L	500.58 ppb	19:04:25
2	Cr 267.716†	56728.3	56577.6	496.77 µg/L	496.77 ppb	19:04:25
2	Cu 324.752†	123233.8	120381.4	499.91 µg/L	499.91 ppb	19:04:25
2	Mn 257.610†	382855.5	383848.2	501.53 µg/L	501.53 ppb	19:04:25
2	Mo 202.031†	14789.6	14857.9	504.83 µg/L	504.83 ppb	19:04:45
2	Ni 231.604†	39933.2	40133.1	499.09 µg/L	499.09 ppb	19:04:25
2	P 214.914†	10901.3	10954.9	2494.5 µg/L	2494.5 ppb	19:04:45
2	Pb 220.353†	8136.7	8045.1	505.70 µg/L	505.70 ppb	19:04:45

2	S 181.975 Axial†	1270.2	1172.3	1001.7 µg/L	1001.7 ppb	19:04:45
2	Sb 206.836†	3997.5	3932.6	505.35 µg/L	505.35 ppb	19:04:45
2	Se 196.026†	1317.0	1301.1	505 µg/L	505 ppb	19:04:45
2	SiO2†	53096.7	51575.4	5303.9 µg/L	5303.9 ppb	19:04:25
2	Si 251.611†	164373.6	164105.7	2493.3 µg/L	2493.3 ppb	19:04:25
2	Sn 189.927†	7202.4	7216.7	504.23 µg/L	504.23 ppb	19:04:45
2	Ti 334.940†	476810.8	477429.3	500.04 µg/L	500.04 ppb	19:04:25
2	Tl 190.801†	3439.2	3565.3	509.96 µg/L	509.96 ppb	19:04:45
2	U 409.014†	7150.2	7584.0	491.61 µg/L	491.61 ppb	19:04:25
2	V 292.402†	100708.6	100530.3	505.11 µg/L	505.11 ppb	19:04:25
2	Zn 213.857†	86896.0	86550.8	495.76 µg/L	495.76 ppb	19:04:25
3	Sc RADIAL	115779.5	115779.5	101 %		19:03:43
3	Al 396.153Radial†	21980.6	21801.4	5118.2 µg/L	5118.2 ppb	19:03:43
3	Ca 317.933Radial†	62523.2	61315.1	5048.6 µg/L	5048.6 ppb	19:03:43
3	Fe 238.204 Radial†	59822.9	58979.7	5031.2 µg/L	5031.2 ppb	19:03:43
3	K 766.490 Radial†	14327.9	12746.5	5097.9 µg/L	5097.9 ppb	19:03:43
3	Mg 279.077 IEC†	9539.3	9267.3	5133.1 µg/L	5133.1 ppb	19:03:43
3	Na 589.592 Radial†	65877.1	64250.1	10247 µg/L	10247 ppb	19:03:41
3	Sr 421.552†	202060.1	199698.5	512.94 µg/L	512.94 ppb	19:03:41
3	Sc 361.383	1708552.9	1708552.9	100.96 %		19:04:48
3	Y 371.029	956785.3	956785.3	99.974 %		19:04:48
3	Ag 328.068†	126958.5	120645.2	504.41 µg/L	504.41 ppb	19:04:48
3	As 188.979†	1409.0	1408.9	495.16 µg/L	495.16 ppb	19:05:08
3	B 249.677†	37918.9	33445.5	494.72 µg/L	494.72 ppb	19:04:48
3	Ba 233.527†	111654.0	110735.5	501.68 µg/L	501.68 ppb	19:04:48
3	Be 313.107†	1778110.2	1762152.0	499.07 µg/L	499.07 ppb	19:04:48
3	Cd 226.502†	76539.5	75874.4	501.40 µg/L	501.40 ppb	19:04:48
3	Co 228.616†	38510.0	38370.0	503.28 µg/L	503.28 ppb	19:04:48
3	Cr 267.716†	57672.4	56793.0	498.66 µg/L	498.66 ppb	19:04:48
3	Cu 324.752†	125191.4	120756.7	501.46 µg/L	501.46 ppb	19:04:48
3	Mn 257.610†	388824.7	384902.7	502.90 µg/L	502.90 ppb	19:04:48
3	Mo 202.031†	14857.5	14737.5	500.74 µg/L	500.74 ppb	19:05:08
3	Ni 231.604†	40709.0	40394.9	502.34 µg/L	502.34 ppb	19:04:48
3	P 214.914†	10969.5	10884.2	2478.3 µg/L	2478.3 ppb	19:05:08
3	Pb 220.353†	8210.2	8014.7	503.79 µg/L	503.79 ppb	19:05:08
3	S 181.975 Axial†	1282.1	1167.9	997.96 µg/L	997.96 ppb	19:05:08
3	Sb 206.836†	4020.2	3904.3	501.63 µg/L	501.63 ppb	19:05:08
3	Se 196.026†	1307.7	1275.2	495 µg/L	495 ppb	19:05:08
3	SiO2†	54138.1	51933.1	5341.1 µg/L	5341.1 ppb	19:04:48
3	Si 251.611†	167152.4	164772.4	2503.6 µg/L	2503.6 ppb	19:04:48
3	Sn 189.927†	7203.8	7126.7	497.97 µg/L	497.97 ppb	19:05:08
3	Ti 334.940†	484540.6	479035.4	501.72 µg/L	501.72 ppb	19:04:48
3	Tl 190.801†	3451.1	3533.4	505.47 µg/L	505.47 ppb	19:05:08
3	U 409.014†	7221.3	7563.7	490.35 µg/L	490.35 ppb	19:04:48
3	V 292.402†	101867.3	100400.2	504.42 µg/L	504.42 ppb	19:04:48
3	Zn 213.857†	88209.0	86748.8	496.88 µg/L	496.88 ppb	19:04:48

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1700131.2	100.46 %	0.684			0.68%
Sc RADIAL	116986.9	102 %	1.3			1.31%
Y 371.029	951694.3	99.442 %	0.6839			0.69%
Ag 328.068†	120416.4	503.47 µg/L	1.530	503.47 ppb	1.530	0.30%
QC value within limits for Ag 328.068 Recovery = 100.69%						
Al 396.153Radial†	21774.6	5111.8 µg/L	7.76	5111.8 ppb	7.76	0.15%
QC value within limits for Al 396.153Radial Recovery = 102.24%						
As 188.979†	1407.1	494.52 µg/L	3.539	494.52 ppb	3.539	0.72%
QC value within limits for As 188.979 Recovery = 98.90%						
B 249.677†	33271.8	492.15 µg/L	2.233	492.15 ppb	2.233	0.45%
QC value within limits for B 249.677 Recovery = 98.43%						
Ba 233.527†	110290.2	499.66 µg/L	1.875	499.66 ppb	1.875	0.38%
QC value within limits for Ba 233.527 Recovery = 99.93%						
Be 313.107†	1758881.7	498.14 µg/L	0.802	498.14 ppb	0.802	0.16%
QC value within limits for Be 313.107 Recovery = 99.63%						
Ca 317.933Radial†	61347.8	5051.3 µg/L	2.50	5051.3 ppb	2.50	0.05%
QC value within limits for Ca 317.933Radial Recovery = 101.03%						
Cd 226.502†	75459.9	498.65 µg/L	2.388	498.65 ppb	2.388	0.48%
QC value within limits for Cd 226.502 Recovery = 99.73%						
Co 228.616†	38262.9	501.88 µg/L	1.353	501.88 ppb	1.353	0.27%



QC value within limits for Co 228.616 Recovery = 100.38%							
Cr 267.716†	56703.0	497.87 µg/L	0.982	497.87 ppb	0.982	0.20%	
QC value within limits for Cr 267.716 Recovery = 99.57%							
Cu 324.752†	120362.0	499.83 µg/L	1.673	499.83 ppb	1.673	0.33%	
QC value within limits for Cu 324.752 Recovery = 99.97%							
Fe 238.204 Radial†	59045.2	5036.8 µg/L	5.08	5036.8 ppb	5.08	0.10%	
QC value within limits for Fe 238.204 Radial Recovery = 100.74%							
K 766.490 Radial†	12670.2	5067.4 µg/L	52.80	5067.4 ppb	52.80	1.04%	
QC value within limits for K 766.490 Radial Recovery = 101.35%							
Mg 279.077 IEC†	9212.8	5103.0 µg/L	36.96	5103.0 ppb	36.96	0.72%	
QC value within limits for Mg 279.077 IEC Recovery = 102.06%							
Mn 257.610†	384218.3	502.01 µg/L	0.775	502.01 ppb	0.775	0.15%	
QC value within limits for Mn 257.610 Recovery = 100.40%							
Mo 202.031†	14772.8	501.94 µg/L	2.515	501.94 ppb	2.515	0.50%	
QC value within limits for Mo 202.031 Recovery = 100.39%							
Na 589.592 Radial†	62676.2	9995.9 µg/L	226.55	9995.9 ppb	226.55	2.27%	
QC value within limits for Na 589.592 Radial Recovery = 99.96%							
Ni 231.604†	40253.1	500.58 µg/L	1.645	500.58 ppb	1.645	0.33%	
QC value within limits for Ni 231.604 Recovery = 100.12%							
P 214.914†	10895.4	2480.9 µg/L	12.50	2480.9 ppb	12.50	0.50%	
QC value within limits for P 214.914 Recovery = 99.24%							
Pb 220.353†	8007.4	503.33 µg/L	2.630	503.33 ppb	2.630	0.52%	
QC value within limits for Pb 220.353 Recovery = 100.67%							
S 181.975 Axial†	1167.1	997.23 µg/L	4.918	997.23 ppb	4.918	0.49%	
QC value within limits for S 181.975 Axial Recovery = 99.72%							
Sb 206.836†	3908.2	502.15 µg/L	2.975	502.15 ppb	2.975	0.59%	
QC value within limits for Sb 206.836 Recovery = 100.43%							
Se 196.026†	1286.2	500 µg/L	5.2	500 ppb	5.2	1.04%	
QC value within limits for Se 196.026 Recovery = 99.92%							
SiO2†	51671.6	5314.0 µg/L	23.70	5314.0 ppb	23.70	0.45%	
QC value within limits for SiO2 Recovery = 99.37%							
Si 251.611†	164166.6	2494.3 µg/L	8.82	2494.3 ppb	8.82	0.35%	
QC value within limits for Si 251.611 Recovery = 99.77%							
Sn 189.927†	7158.1	500.15 µg/L	3.539	500.15 ppb	3.539	0.71%	
QC value within limits for Sn 189.927 Recovery = 100.03%							
Sr 421.552†	195819.7	502.98 µg/L	9.467	502.98 ppb	9.467	1.88%	
QC value within limits for Sr 421.552 Recovery = 100.60%							
Ti 334.940†	477916.4	500.55 µg/L	1.018	500.55 ppb	1.018	0.20%	
QC value within limits for Ti 334.940 Recovery = 100.11%							
Tl 190.801†	3536.0	505.83 µg/L	3.963	505.83 ppb	3.963	0.78%	
QC value within limits for Tl 190.801 Recovery = 101.17%							
U 409.014†	7606.1	492.91 µg/L	3.408	492.91 ppb	3.408	0.69%	
QC value within limits for U 409.014 Recovery = 98.58%							
V 292.402†	100365.5	504.26 µg/L	0.932	504.26 ppb	0.932	0.18%	
QC value within limits for V 292.402 Recovery = 100.85%							
Zn 213.857†	86605.6	496.06 µg/L	0.713	496.06 ppb	0.713	0.14%	
QC value within limits for Zn 213.857 Recovery = 99.21%							
All analyte(s) passed QC.							

Sequence No.: 42

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/13/2010 19:05:16

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	114953.8	114953.8	100 %		19:05:45
1	Al 396.153Radial†	-122.7	-37.1	-8.7432 µg/L	-8.7432 ppb	19:06:05
1	Ca 317.933Radial†	480.3	21.2	1.7459 µg/L	1.7459 ppb	19:06:05
1	Fe 238.204 Radial†	148.7	23.7	2.0188 µg/L	2.0188 ppb	19:06:05
1	K 766.490 Radial†	1435.0	18.7	7.4782 µg/L	7.4782 ppb	19:05:45
1	Mg 279.077 IEC†	164.7	6.5	3.6124 µg/L	3.6124 ppb	19:06:05
1	Na 589.592 Radial†	868.0	28.4	4.5320 µg/L	4.5320 ppb	19:05:45
1	Sr 421.552†	-91.6	-24.4	-0.0627 µg/L	-0.0627 ppb	19:05:45
1	Sc 361.383	1685803.6	1685803.6	99.618 %		19:06:53
1	Y 371.029	953823.9	953823.9	99.665 %		19:06:53
1	Ag 328.068†	5216.0	133.0	0.5273 µg/L	0.5273 ppb	19:06:55
1	As 188.979†	-9.4	4.0	1.3906 µg/L	1.3906 ppb	19:07:15
1	B 249.677†	4218.5	122.7	1.8228 µg/L	1.8228 ppb	19:06:55
1	Ba 233.527†	-146.2	-0.9	-0.0045 µg/L	-0.0045 ppb	19:07:15
1	Be 313.107†	-693.7	296.0	0.0799 µg/L	0.0799 ppb	19:06:55
1	Cd 226.502†	-71.6	-7.3	-0.0484 µg/L	-0.0484 ppb	19:07:15
1	Co 228.616†	-254.8	-28.8	-0.3771 µg/L	-0.3771 ppb	19:07:15
1	Cr 267.716†	313.3	-15.2	-0.1234 µg/L	-0.1234 ppb	19:07:15
1	Cu 324.752†	2914.6	-315.5	-1.3167 µg/L	-1.3167 ppb	19:06:55
1	Mn 257.610†	324.2	110.1	0.1438 µg/L	0.1438 ppb	19:07:15
1	Mo 202.031†	-21.9	-0.3	-0.0110 µg/L	-0.0110 ppb	19:07:15
1	Ni 231.604†	-77.6	-4.0	-0.0492 µg/L	-0.0492 ppb	19:07:15
1	P 214.914†	-18.6	0.6	0.1395 µg/L	0.1395 ppb	19:07:15
1	Pb 220.353†	105.8	-11.0	-0.6817 µg/L	-0.6817 ppb	19:07:15
1	S 181.975 Axial†	106.7	5.2	4.4475 µg/L	4.4475 ppb	19:07:15
1	Sb 206.836†	73.8	-3.5	-0.4462 µg/L	-0.4462 ppb	19:07:15
1	Se 196.026†	13.5	-6.4	-2.49 µg/L	-2.49 ppb	19:07:15
1	SiO2†	1659.4	-23.1	-2.3878 µg/L	-2.3878 ppb	19:06:55
1	Si 251.611†	633.0	-151.1	-2.3071 µg/L	-2.3071 ppb	19:06:55
1	Sn 189.927†	12.7	4.3	0.3018 µg/L	0.3018 ppb	19:07:15
1	Ti 334.940†	831.0	-51.9	-0.0493 µg/L	-0.0493 ppb	19:06:55
1	Tl 190.801†	-112.8	2.0	0.2764 µg/L	0.2764 ppb	19:07:15
1	U 409.014†	-621.5	-212.6	-12.957 µg/L	-12.957 ppb	19:06:55
1	V 292.402†	394.9	-99.6	-0.5032 µg/L	-0.5032 ppb	19:06:55
1	Zn 213.857†	632.4	15.5	0.0907 µg/L	0.0907 ppb	19:07:15
2	Sc RADIAL	114879.9	114879.9	100 %		19:06:07
2	Al 396.153Radial†	-61.1	24.1	5.6594 µg/L	5.6594 ppb	19:06:27
2	Ca 317.933Radial†	469.2	10.4	0.8594 µg/L	0.8594 ppb	19:06:27
2	Fe 238.204 Radial†	152.9	28.0	2.3865 µg/L	2.3865 ppb	19:06:27
2	K 766.490 Radial†	1525.9	110.1	44.062 µg/L	44.062 ppb	19:06:07
2	Mg 279.077 IEC†	155.7	-2.3	-1.2714 µg/L	-1.2714 ppb	19:06:27
2	Na 589.592 Radial†	911.5	72.3	11.491 µg/L	11.491 ppb	19:06:07
2	Sr 421.552†	-76.6	-9.6	-0.0246 µg/L	-0.0246 ppb	19:06:07
2	Sc 361.383	1705488.1	1705488.1	100.78 %		19:07:17
2	Y 371.029	963507.7	963507.7	100.68 %		19:07:17
2	Ag 328.068†	5136.6	-6.2	-0.0287 µg/L	-0.0287 ppb	19:07:19
2	As 188.979†	-8.5	5.0	1.7202 µg/L	1.7202 ppb	19:07:39
2	B 249.677†	4101.9	-41.8	-0.6214 µg/L	-0.6214 ppb	19:07:19
2	Ba 233.527†	-131.2	15.7	0.0715 µg/L	0.0715 ppb	19:07:39
2	Be 313.107†	-690.8	306.9	0.0852 µg/L	0.0852 ppb	19:07:19
2	Cd 226.502†	-51.8	13.2	0.0870 µg/L	0.0870 ppb	19:07:39
2	Co 228.616†	-208.8	19.8	0.2599 µg/L	0.2599 ppb	19:07:39
2	Cr 267.716†	352.3	19.9	0.1798 µg/L	0.1798 ppb	19:07:39
2	Cu 324.752†	2918.5	-345.4	-1.4341 µg/L	-1.4341 ppb	19:07:19
2	Mn 257.610†	345.9	127.8	0.1671 µg/L	0.1671 ppb	19:07:39
2	Mo 202.031†	-6.9	14.7	0.5004 µg/L	0.5004 ppb	19:07:39
2	Ni 231.604†	-56.9	17.5	0.2173 µg/L	0.2173 ppb	19:07:39
2	P 214.914†	-25.0	-5.6	-1.2714 µg/L	-1.2714 ppb	19:07:39
2	Pb 220.353†	126.6	8.4	0.5349 µg/L	0.5349 ppb	19:07:39

2	S 181.975 Axial†	106.1	3.3	2.8433 µg/L	2.8433 ppb	19:07:39
2	Sb 206.836†	75.4	-2.7	-0.3412 µg/L	-0.3412 ppb	19:07:39
2	Se 196.026†	13.9	-6.2	-2.39 µg/L	-2.39 ppb	19:07:39
2	SiO2†	1730.6	28.3	2.8954 µg/L	2.8954 ppb	19:07:19
2	Si 251.611†	748.4	-43.9	-0.6816 µg/L	-0.6816 ppb	19:07:19
2	Sn 189.927†	19.7	11.2	0.7760 µg/L	0.7760 ppb	19:07:39
2	Ti 334.940†	674.6	-216.8	-0.2249 µg/L	-0.2249 ppb	19:07:19
2	Tl 190.801†	-98.6	17.4	2.4578 µg/L	2.4578 ppb	19:07:39
2	U 409.014†	-508.8	-93.6	-5.6727 µg/L	-5.6727 ppb	19:07:19
2	V 292.402†	564.8	64.4	0.3214 µg/L	0.3214 ppb	19:07:19
2	Zn 213.857†	633.4	9.2	0.0523 µg/L	0.0523 ppb	19:07:39
3	Sc RADIAL	114457.2	114457.2	100 %		19:06:29
3	Al 396.153Radial†	-49.4	35.6	8.3852 µg/L	8.3852 ppb	19:06:49
3	Ca 317.933Radial†	448.0	-9.0	-0.7422 µg/L	-0.7422 ppb	19:06:49
3	Fe 238.204 Radial†	164.4	40.1	3.4174 µg/L	3.4174 ppb	19:06:49
3	K 766.490 Radial†	1498.3	88.1	35.277 µg/L	35.277 ppb	19:06:29
3	Mg 279.077 IEC†	161.0	3.6	1.9798 µg/L	1.9798 ppb	19:06:49
3	Na 589.592 Radial†	1000.4	164.5	26.215 µg/L	26.215 ppb	19:06:29
3	Sr 421.552†	-111.3	-44.5	-0.1143 µg/L	-0.1143 ppb	19:06:29
3	Sc 361.383	1692227.6	1692227.6	99.998 %		19:07:42
3	Y 371.029	956601.1	956601.1	99.955 %		19:07:42
3	Ag 328.068†	5452.6	349.7	1.4516 µg/L	1.4516 ppb	19:07:44
3	As 188.979†	-2.2	11.2	3.8704 µg/L	3.8704 ppb	19:08:04
3	B 249.677†	4018.2	-93.7	-1.3905 µg/L	-1.3905 ppb	19:07:44
3	Ba 233.527†	-133.9	11.9	0.0540 µg/L	0.0540 ppb	19:08:04
3	Be 313.107†	-1067.1	-74.8	-0.0192 µg/L	-0.0192 ppb	19:07:44
3	Cd 226.502†	-79.8	-15.2	-0.1011 µg/L	-0.1011 ppb	19:08:04
3	Co 228.616†	-219.6	7.4	0.0973 µg/L	0.0973 ppb	19:08:04
3	Cr 267.716†	305.8	-23.8	-0.2144 µg/L	-0.2144 ppb	19:08:04
3	Cu 324.752†	3021.3	-219.9	-0.9043 µg/L	-0.9043 ppb	19:07:44
3	Mn 257.610†	308.1	92.7	0.1211 µg/L	0.1211 ppb	19:08:04
3	Mo 202.031†	-12.4	9.2	0.3126 µg/L	0.3126 ppb	19:08:04
3	Ni 231.604†	-71.3	2.6	0.0328 µg/L	0.0328 ppb	19:08:04
3	P 214.914†	-23.2	-4.0	-0.9122 µg/L	-0.9122 ppb	19:08:04
3	Pb 220.353†	144.9	27.7	1.7340 µg/L	1.7340 ppb	19:08:04
3	S 181.975 Axial†	99.3	-2.6	-2.2095 µg/L	-2.2095 ppb	19:08:04
3	Sb 206.836†	92.8	15.2	1.9591 µg/L	1.9591 ppb	19:08:04
3	Se 196.026†	28.8	8.8	3.41 µg/L	3.41 ppb	19:08:04
3	SiO2†	1742.0	53.2	5.4839 µg/L	5.4839 ppb	19:07:44
3	Si 251.611†	720.3	-66.2	-1.0133 µg/L	-1.0133 ppb	19:07:44
3	Sn 189.927†	7.4	-1.0	-0.0692 µg/L	-0.0692 ppb	19:08:04
3	Ti 334.940†	912.3	26.3	0.0248 µg/L	0.0248 ppb	19:07:44
3	Tl 190.801†	-119.0	-3.7	-0.5284 µg/L	-0.5284 ppb	19:08:04
3	U 409.014†	-303.8	107.4	6.5297 µg/L	6.5297 ppb	19:07:44
3	V 292.402†	488.9	-7.1	-0.0290 µg/L	-0.0290 ppb	19:07:44
3	Zn 213.857†	631.7	12.4	0.0716 µg/L	0.0716 ppb	19:08:04

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1694506.4	100.13 %	0.593			0.59%
Sc RADIAL	114763.6	100 %	0.2			0.23%
Y 371.029	957977.6	100.10 %	0.521			0.52%
Ag 328.068†	158.9	0.6501 µg/L	0.74775	0.6501 ppb	0.74775	115.02%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	7.5	1.7671 µg/L	9.20366	1.7671 ppb	9.20366	520.82%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	6.7	2.3271 µg/L	1.34672	2.3271 ppb	1.34672	57.87%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-4.2	-0.0630 µg/L	1.67783	-0.0630 ppb	1.67783	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	8.9	0.0403 µg/L	0.03978	0.0403 ppb	0.03978	98.60%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	176.0	0.0486 µg/L	0.05880	0.0486 ppb	0.05880	120.94%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	7.5	0.6210 µg/L	1.26103	0.6210 ppb	1.26103	203.05%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-3.1	-0.0209 µg/L	0.09701	-0.0209 ppb	0.09701	465.25%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-0.5	-0.0066 µg/L	0.33098	-0.0066 ppb	0.33098	>999.9%

Cr	267.716†	-6.4	-0.0527 µg/L	0.20637	-0.0527 ppb	0.20637	391.94%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cu	324.752†	-293.6	-1.2184 µg/L	0.27827	-1.2184 ppb	0.27827	22.84%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	30.6	2.6075 µg/L	0.72504	2.6075 ppb	0.72504	27.81%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	72.3	28.939 µg/L	19.0977	28.939 ppb	19.0977	65.99%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	2.6	1.4402 µg/L	2.48618	1.4402 ppb	2.48618	172.62%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	110.2	0.1440 µg/L	0.02301	0.1440 ppb	0.02301	15.98%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	7.9	0.2673 µg/L	0.25870	0.2673 ppb	0.25870	96.78%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	88.4	14.079 µg/L	11.0708	14.079 ppb	11.0708	78.63%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	5.4	0.0670 µg/L	0.13650	0.0670 ppb	0.13650	203.77%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-3.0	-0.6814 µg/L	0.73325	-0.6814 ppb	0.73325	107.61%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	8.4	0.5290 µg/L	1.20786	0.5290 ppb	1.20786	228.31%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	2.0	1.6938 µg/L	3.47417	1.6938 ppb	3.47417	205.11%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	3.0	0.3906 µg/L	1.35940	0.3906 ppb	1.35940	348.03%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	-1.3	-0.490 µg/L	3.3765	-0.490 ppb	3.3765	688.98%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		19.5	1.9972 µg/L	4.01197	1.9972 ppb	4.01197	200.88%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	-87.1	-1.3340 µg/L	0.85888	-1.3340 ppb	0.85888	64.38%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	4.8	0.3362 µg/L	0.42368	0.3362 ppb	0.42368	126.02%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-26.2	-0.0672 µg/L	0.04502	-0.0672 ppb	0.04502	67.00%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-80.8	-0.0832 µg/L	0.12823	-0.0832 ppb	0.12823	154.17%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	5.2	0.7352 µg/L	1.54505	0.7352 ppb	1.54505	210.14%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-66.3	-4.0335 µg/L	9.84641	-4.0335 ppb	9.84641	244.12%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-14.1	-0.0703 µg/L	0.41384	-0.0703 ppb	0.41384	589.10%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	12.3	0.0715 µg/L	0.01923	0.0715 ppb	0.01923	26.88%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 43

Sample ID: 1202093058|974190|1

Analyst: LS

Initial Sample Wt:

Dilution:

Autosampler Location: 332

Date Collected: 4/13/2010 19:08:11

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202093058|974190|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	112130.5	112130.5	98.0 %		19:08:43
1	Al 396.153Radial†	-7.8	77.0	18.132 µg/L	18.132 ppb	19:09:03
1	Ca 317.933Radial†	2434.5	2026.8	166.88 µg/L	166.88 ppb	19:09:03
1	Fe 238.204 Radial†	722.0	612.3	52.231 µg/L	52.231 ppb	19:09:03
1	K 766.490 Radial†	1522.7	144.1	57.622 µg/L	57.622 ppb	19:08:43
1	Mg 279.077 IEC†	162.3	8.2	4.5141 µg/L	4.5141 ppb	19:09:03
1	Na 589.592 Radial†	1141.6	329.3	52.487 µg/L	52.487 ppb	19:08:43
1	Sr 421.552†	46.8	114.4	0.2926 µg/L	0.2926 ppb	19:08:43
1	Sc 361.383	1678102.4	1678102.4	99.163 %		19:09:51
1	Y 371.029	946336.9	946336.9	98.883 %		19:09:51
1	Ag 328.068†	5049.2	-11.1	-0.0292 µg/L	-0.0292 ppb	19:09:53
1	As 188.979†	-16.0	-2.7	-0.9112 µg/L	-0.9112 ppb	19:10:13
1	B 249.677†	4212.3	135.9	2.0179 µg/L	2.0179 ppb	19:09:53
1	Ba 233.527†	-106.2	38.7	0.1753 µg/L	0.1753 ppb	19:10:13
1	Be 313.107†	-677.5	309.1	0.0906 µg/L	0.0906 ppb	19:09:53
1	Cd 226.502†	-49.9	14.3	0.0888 µg/L	0.0888 ppb	19:10:13
1	Co 228.616†	-226.3	-1.1	-0.0173 µg/L	-0.0173 ppb	19:10:13
1	Cr 267.716†	351.8	25.2	0.2145 µg/L	0.2145 ppb	19:10:13
1	Cu 324.752†	3236.2	22.2	0.1083 µg/L	0.1083 ppb	19:09:53
1	Mn 257.610†	1578.0	1376.0	1.7983 µg/L	1.7983 ppb	19:10:13
1	Mo 202.031†	-9.2	12.3	0.4212 µg/L	0.4212 ppb	19:10:13
1	Ni 231.604†	-61.1	12.3	0.1527 µg/L	0.1527 ppb	19:10:13
1	P 214.914†	-8.9	10.3	2.3131 µg/L	2.3131 ppb	19:10:13
1	Pb 220.353†	148.0	32.0	2.0003 µg/L	2.0003 ppb	19:10:13
1	S 181.975 Axial†	112.8	11.8	10.055 µg/L	10.055 ppb	19:10:13
1	Sb 206.836†	72.6	-4.3	-0.5505 µg/L	-0.5505 ppb	19:10:13
1	Se 196.026†	21.8	2.0	0.813 µg/L	0.813 ppb	19:10:13
1	SiO2†	2135.6	464.7	47.965 µg/L	47.965 ppb	19:09:53
1	Si 251.611†	2765.8	2002.6	30.539 µg/L	30.539 ppb	19:09:53
1	Sn 189.927†	18.1	9.8	0.6823 µg/L	0.6823 ppb	19:10:13
1	Ti 334.940†	1223.2	347.5	0.3641 µg/L	0.3641 ppb	19:09:53
1	Tl 190.801†	-114.3	-0.0	0.0135 µg/L	0.0135 ppb	19:10:13
1	U 409.014†	-239.9	169.3	10.345 µg/L	10.345 ppb	19:09:53
1	V 292.402†	644.3	153.7	0.7684 µg/L	0.7684 ppb	19:09:53
1	Zn 213.857†	979.2	368.1	2.1178 µg/L	2.1178 ppb	19:10:13
2	Sc RADIAL	113122.7	113122.7	98.9 %		19:09:05
2	Al 396.153Radial†	-64.5	19.7	4.6643 µg/L	4.6643 ppb	19:09:25
2	Ca 317.933Radial†	2440.4	2010.9	165.58 µg/L	165.58 ppb	19:09:25
2	Fe 238.204 Radial†	722.0	605.8	51.677 µg/L	51.677 ppb	19:09:25
2	K 766.490 Radial†	1618.3	227.1	90.868 µg/L	90.868 ppb	19:09:05
2	Mg 279.077 IEC†	151.4	-4.3	-2.4033 µg/L	-2.4033 ppb	19:09:25
2	Na 589.592 Radial†	1114.6	291.8	46.474 µg/L	46.474 ppb	19:09:05
2	Sr 421.552†	-102.2	-36.6	-0.0953 µg/L	-0.0953 ppb	19:09:05
2	Sc 361.383	1697672.9	1697672.9	100.32 %		19:10:15
2	Y 371.029	956345.5	956345.5	99.928 %		19:10:15
2	Ag 328.068†	5093.8	-25.4	-0.1015 µg/L	-0.1015 ppb	19:10:17
2	As 188.979†	-6.9	6.6	2.2859 µg/L	2.2859 ppb	19:10:38
2	B 249.677†	4236.4	111.0	1.6463 µg/L	1.6463 ppb	19:10:17
2	Ba 233.527†	-141.6	4.7	0.0204 µg/L	0.0204 ppb	19:10:38
2	Be 313.107†	-695.6	298.9	0.0871 µg/L	0.0871 ppb	19:10:17
2	Cd 226.502†	-61.4	3.4	0.0172 µg/L	0.0172 ppb	19:10:38
2	Co 228.616†	-212.5	15.2	0.1967 µg/L	0.1967 ppb	19:10:38
2	Cr 267.716†	377.9	47.1	0.4085 µg/L	0.4085 ppb	19:10:38
2	Cu 324.752†	3301.3	49.5	0.2192 µg/L	0.2192 ppb	19:10:17
2	Mn 257.610†	1586.3	1365.9	1.7854 µg/L	1.7854 ppb	19:10:38
2	Mo 202.031†	-27.7	-6.0	-0.2026 µg/L	-0.2026 ppb	19:10:38
2	Ni 231.604†	-44.7	29.4	0.3652 µg/L	0.3652 ppb	19:10:38
2	P 214.914†	-19.6	-0.4	-0.1132 µg/L	-0.1132 ppb	19:10:38
2	Pb 220.353†	125.8	8.1	0.5027 µg/L	0.5027 ppb	19:10:38

2	S 181.975 Axial†	120.4	18.1	15.388 µg/L	15.388 ppb	19:10:38
2	Sb 206.836†	83.1	5.3	0.6736 µg/L	0.6736 ppb	19:10:38
2	Se 196.026†	16.0	-4.1	-1.55 µg/L	-1.55 ppb	19:10:38
2	SiO2†	2232.1	536.1	55.356 µg/L	55.356 ppb	19:10:17
2	Si 251.611†	2565.5	1770.9	27.015 µg/L	27.015 ppb	19:10:17
2	Sn 189.927†	12.0	3.6	0.2501 µg/L	0.2501 ppb	19:10:38
2	Ti 334.940†	1332.5	442.2	0.4647 µg/L	0.4647 ppb	19:10:17
2	Tl 190.801†	-110.6	5.0	0.7133 µg/L	0.7133 ppb	19:10:38
2	U 409.014†	-276.6	135.5	8.2370 µg/L	8.2370 ppb	19:10:17
2	V 292.402†	468.9	-28.6	-0.1424 µg/L	-0.1424 ppb	19:10:17
2	Zn 213.857†	981.9	359.5	2.0662 µg/L	2.0662 ppb	19:10:38
3	Sc RADIAL	114317.0	114317.0	99.9 %		19:09:27
3	Al 396.153Radial†	-54.8	30.2	7.0976 µg/L	7.0976 ppb	19:09:47
3	Ca 317.933Radial†	2426.0	1970.8	162.27 µg/L	162.27 ppb	19:09:47
3	Fe 238.204 Radial†	726.6	602.8	51.421 µg/L	51.421 ppb	19:09:47
3	K 766.490 Radial†	1424.6	16.2	6.4413 µg/L	6.4413 ppb	19:09:27
3	Mg 279.077 IEC†	164.9	7.7	4.2216 µg/L	4.2216 ppb	19:09:47
3	Na 589.592 Radial†	1166.7	332.1	52.982 µg/L	52.982 ppb	19:09:27
3	Sr 421.552†	91.5	158.3	0.4053 µg/L	0.4053 ppb	19:09:27
3	Sc 361.383	1682559.8	1682559.8	99.426 %		19:10:40
3	Y 371.029	947973.2	947973.2	99.054 %		19:10:40
3	Ag 328.068†	5050.0	-23.8	-0.1095 µg/L	-0.1095 ppb	19:10:42
3	As 188.979†	-9.3	4.0	1.4062 µg/L	1.4062 ppb	19:11:02
3	B 249.677†	4317.0	230.0	3.4134 µg/L	3.4134 ppb	19:10:42
3	Ba 233.527†	-137.4	7.6	0.0337 µg/L	0.0337 ppb	19:11:02
3	Be 313.107†	-759.3	228.6	0.0650 µg/L	0.0650 ppb	19:10:42
3	Cd 226.502†	-60.8	3.5	0.0175 µg/L	0.0175 ppb	19:11:02
3	Co 228.616†	-215.9	9.9	0.1270 µg/L	0.1270 ppb	19:11:02
3	Cr 267.716†	345.9	18.2	0.1606 µg/L	0.1606 ppb	19:11:02
3	Cu 324.752†	3263.5	41.0	0.1782 µg/L	0.1782 ppb	19:10:42
3	Mn 257.610†	1579.8	1373.5	1.7950 µg/L	1.7950 ppb	19:11:02
3	Mo 202.031†	-10.5	11.0	0.3764 µg/L	0.3764 ppb	19:11:02
3	Ni 231.604†	-79.0	-5.5	-0.0689 µg/L	-0.0689 ppb	19:11:02
3	P 214.914†	-2.1	17.1	3.8625 µg/L	3.8625 ppb	19:11:02
3	Pb 220.353†	134.6	18.2	1.1388 µg/L	1.1388 ppb	19:11:02
3	S 181.975 Axial†	115.5	14.3	12.134 µg/L	12.134 ppb	19:11:02
3	Sb 206.836†	74.2	-2.9	-0.3688 µg/L	-0.3688 ppb	19:11:02
3	Se 196.026†	13.2	-6.7	-2.59 µg/L	-2.59 ppb	19:11:02
3	SiO2†	2358.2	683.0	70.505 µg/L	70.505 ppb	19:10:42
3	Si 251.611†	2895.4	2125.6	32.417 µg/L	32.417 ppb	19:10:42
3	Sn 189.927†	13.8	5.4	0.3805 µg/L	0.3805 ppb	19:11:02
3	Ti 334.940†	1395.9	517.9	0.5466 µg/L	0.5466 ppb	19:10:42
3	Tl 190.801†	-124.9	-10.4	-1.4586 µg/L	-1.4586 ppb	19:11:02
3	U 409.014†	-396.0	12.9	0.7600 µg/L	0.7600 ppb	19:10:42
3	V 292.402†	374.2	-119.6	-0.5940 µg/L	-0.5940 ppb	19:10:42
3	Zn 213.857†	993.3	379.7	2.1861 µg/L	2.1861 ppb	19:11:02

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Mean Data: 1202093058|974190|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1686111.7	99.636 %	%	0.6061			0.61%
Sc RADIAL	113190.1	99.0 %	%	0.96			0.97%
Y 371.029	950218.6	99.288 %	%	0.5610			0.57%
Ag 328.068†	-20.1	-0.0801 µg/L	µg/L	0.04422	-0.0801 ppb	0.04422	55.23%
Al 396.153Radial†	42.3	9.9646 µg/L	µg/L	7.17700	9.9646 ppb	7.17700	72.02%
As 188.979†	2.6	0.9270 µg/L	µg/L	1.65157	0.9270 ppb	1.65157	178.17%
B 249.677†	159.0	2.3592 µg/L	µg/L	0.93167	2.3592 ppb	0.93167	39.49%
Ba 233.527†	17.0	0.0765 µg/L	µg/L	0.08583	0.0765 ppb	0.08583	112.22%
Be 313.107†	278.9	0.0809 µg/L	µg/L	0.01392	0.0809 ppb	0.01392	17.20%
Ca 317.933Radial†	2002.8	164.91 µg/L	µg/L	2.377	164.91 ppb	2.377	1.44%
Cd 226.502†	7.0	0.0412 µg/L	µg/L	0.04128	0.0412 ppb	0.04128	100.25%
Co 228.616†	8.0	0.1021 µg/L	µg/L	0.10913	0.1021 ppb	0.10913	106.87%
Cr 267.716†	30.2	0.2612 µg/L	µg/L	0.13039	0.2612 ppb	0.13039	49.92%
Cu 324.752†	37.6	0.1686 µg/L	µg/L	0.05606	0.1686 ppb	0.05606	33.25%
Fe 238.204 Radial†	607.0	51.776 µg/L	µg/L	0.4141	51.776 ppb	0.4141	0.80%
K 766.490 Radial†	129.1	51.644 µg/L	µg/L	42.5296	51.644 ppb	42.5296	82.35%
Mg 279.077 IEC†	3.9	2.1108 µg/L	µg/L	3.91205	2.1108 ppb	3.91205	185.34%
Mn 257.610†	1371.8	1.7929 µg/L	µg/L	0.00672	1.7929 ppb	0.00672	0.37%
Mo 202.031†	5.8	0.1983 µg/L	µg/L	0.34796	0.1983 ppb	0.34796	175.43%
Na 589.592 Radial†	317.7	50.647 µg/L	µg/L	3.6229	50.647 ppb	3.6229	7.15%

Ni 231.604†	12.0	0.1496 µg/L	0.21706	0.1496 ppb	0.21706	145.06%
P 214.914†	9.0	2.0208 µg/L	2.00392	2.0208 ppb	2.00392	99.16%
Pb 220.353†	19.5	1.2139 µg/L	0.75163	1.2139 ppb	0.75163	61.92%
S 181.975 Axial†	14.7	12.526 µg/L	2.6881	12.526 ppb	2.6881	21.46%
Sb 206.836†	-0.6	-0.0819 µg/L	0.66054	-0.0819 ppb	0.66054	806.47%
Se 196.026†	-2.9	-1.11 µg/L	1.742	-1.11 ppb	1.742	157.26%
SiO2†	561.3	57.942 µg/L	11.4901	57.942 ppb	11.4901	19.83%
Si 251.611†	1966.4	29.990 µg/L	2.7429	29.990 ppb	2.7429	9.15%
Sn 189.927†	6.3	0.4376 µg/L	0.22167	0.4376 ppb	0.22167	50.66%
Sr 421.552†	78.7	0.2009 µg/L	0.26261	0.2009 ppb	0.26261	130.74%
Ti 334.940†	435.8	0.4585 µg/L	0.09144	0.4585 ppb	0.09144	19.94%
Tl 190.801†	-1.8	-0.2440 µg/L	1.10861	-0.2440 ppb	1.10861	454.44%
U 409.014†	105.9	6.4472 µg/L	5.03670	6.4472 ppb	5.03670	78.12%
V 292.402†	1.8	0.0107 µg/L	0.69402	0.0107 ppb	0.69402	>999.9%
Zn 213.857†	369.1	2.1234 µg/L	0.06013	2.1234 ppb	0.06013	2.83%

Sequence No.: 44

Sample ID: 1202093059|974190|1

Analyst: LS

Initial Sample Wt:

Dilution:

Autosampler Location: 333

Date Collected: 4/13/2010 19:11:10

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202093059|974190|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	119698.2	119698.2	105 %		19:11:42
1	Al 396.153Radial†	473199.6	452292.1	106640 µg/L	106640 ppb	19:11:42
1	Ca 317.933Radial†	1415840.1	1352572.6	111370 µg/L	111370 ppb	19:11:42
1	Fe 238.204 Radial†	2564819.6	2450912.7	209070 µg/L	209070 ppb	19:11:40
1	K 766.490 Radial†	126905.1	119866.0	47929 µg/L	47929 ppb	19:11:42
1	Mg 279.077 IEC†	83367.4	79511.6	43809 µg/L	43809 ppb	19:11:42
1	Na 589.592 Radial†	74244.8	70115.8	11145 µg/L	11145 ppb	19:11:42
1	Sr 421.552†	1057282.3	1010445.0	2594.7 µg/L	2594.7 ppb	19:11:40
1	Sc 361.383	1720217.6	1720217.6	101.65 %		19:11:56
1	Y 371.029	1049811.7	1049811.7	109.69 %		19:11:56
1	Ag 328.068†	90394.4	83822.6	356.75 µg/L	356.75 ppb	19:11:56
1	As 188.979†	3295.2	3255.0	1202.3 µg/L	1202.3 ppb	19:11:59
1	B 249.677†	119309.8	113259.2	1677.5 µg/L	1677.5 ppb	19:11:56
1	Ba 233.527†	474675.4	467108.2	2112.8 µg/L	2112.8 ppb	19:11:56
1	Be 313.107†	3277842.6	3225572.8	913.20 µg/L	913.20 ppb	19:11:56
1	Cd 226.502†	110809.7	109073.7	699.97 µg/L	699.97 ppb	19:11:56
1	Co 228.616†	83917.2	82780.7	1076.8 µg/L	1076.8 ppb	19:11:56
1	Cr 267.716†	324345.3	318745.3	2805.5 µg/L	2805.5 ppb	19:11:56
1	Cu 324.752†	526125.3	514334.9	2161.3 µg/L	2161.3 ppb	19:11:56
1	Mn 257.610†	4775093.0	4697286.5	6137.7 µg/L	6137.7 ppb	19:11:56
1	Mo 202.031†	17983.3	17712.7	610.81 µg/L	610.81 ppb	19:11:59
1	Ni 231.604†	128662.0	126645.2	1574.9 µg/L	1574.9 ppb	19:11:56
1	P 214.914†	41747.3	41088.2	9250.5 µg/L	9250.5 ppb	19:11:59
1	Pb 220.353†	15763.3	15389.9	974.14 µg/L	974.14 ppb	19:11:59
1	S 181.975 Axial†	5337.4	5148.7	4385.9 µg/L	4385.9 ppb	19:11:59
1	Sb 206.836†	16195.6	15854.9	1999.9 µg/L	1999.9 ppb	19:11:59
1	Se 196.026†	8517.3	8358.9	3300 µg/L	3300 ppb	19:11:59
1	SiO2†	248998.1	243263.2	25085 µg/L	25085 ppb	19:11:56
1	Si 251.611†	784298.7	770768.0	11742 µg/L	11742 ppb	19:11:56
1	Sn 189.927†	17106.5	16820.1	1194.2 µg/L	1194.2 ppb	19:11:59
1	Ti 334.940†	6582317.9	6474474.8	6788.3 µg/L	6788.3 ppb	19:11:56
1	Tl 190.801†	9119.6	9086.7	1369.5 µg/L	1369.5 ppb	19:11:59
1	U 409.014†	-4678.7	-4191.5	-180.95 µg/L	-180.95 ppb	19:11:56
1	V 292.402†	286072.2	280927.8	1382.6 µg/L	1382.6 ppb	19:11:56
1	Zn 213.857†	1200003.8	1179885.4	6782.4 µg/L	6782.4 ppb	19:11:56
2	Sc RADIAL	119056.8	119056.8	104 %		19:11:46
2	Al 396.153Radial†	469912.5	451570.3	106470 µg/L	106470 ppb	19:11:46
2	Ca 317.933Radial†	1401474.6	1346060.3	110830 µg/L	110830 ppb	19:11:46
2	Fe 238.204 Radial†	2563602.7	2462949.0	210100 µg/L	210100 ppb	19:11:44
2	K 766.490 Radial†	125719.6	119380.4	47735 µg/L	47735 ppb	19:11:46
2	Mg 279.077 IEC†	82313.1	78927.9	43485 µg/L	43485 ppb	19:11:46
2	Na 589.592 Radial†	73284.8	69575.7	11059 µg/L	11059 ppb	19:11:46
2	Sr 421.552†	1057335.7	1015939.9	2608.9 µg/L	2608.9 ppb	19:11:44
2	Sc 361.383	1693705.8	1693705.8	100.09 %		19:12:03
2	Y 371.029	1035145.6	1035145.6	108.16 %		19:12:03
2	Ag 328.068†	89251.7	84072.9	357.83 µg/L	357.83 ppb	19:12:03
2	As 188.979†	3340.9	3351.5	1236.0 µg/L	1236.0 ppb	19:12:05
2	B 249.677†	117074.4	112862.9	1671.6 µg/L	1671.6 ppb	19:12:03
2	Ba 233.527†	466859.8	466608.7	2110.6 µg/L	2110.6 ppb	19:12:03
2	Be 313.107†	3221609.3	3219862.1	911.59 µg/L	911.59 ppb	19:12:03
2	Cd 226.502†	108750.4	108722.5	697.54 µg/L	697.54 ppb	19:12:03
2	Co 228.616†	82455.0	82611.9	1074.5 µg/L	1074.5 ppb	19:12:03
2	Cr 267.716†	319213.0	318611.9	2804.4 µg/L	2804.4 ppb	19:12:03
2	Cu 324.752†	518847.5	515165.0	2164.9 µg/L	2164.9 ppb	19:12:03
2	Mn 257.610†	4700495.4	4696282.9	6136.4 µg/L	6136.4 ppb	19:12:03
2	Mo 202.031†	17982.2	17988.5	620.21 µg/L	620.21 ppb	19:12:05
2	Ni 231.604†	126438.5	126404.9	1571.9 µg/L	1571.9 ppb	19:12:03
2	P 214.914†	41787.2	41770.9	9405.8 µg/L	9405.8 ppb	19:12:05
2	Pb 220.353†	15497.7	15367.3	972.71 µg/L	972.71 ppb	19:12:05



2	S 181.975 Axial†	5299.8	5193.3	4423.9 µg/L	4423.9 ppb	19:12:05
2	Sb 206.836†	16195.6	16104.3	2032.0 µg/L	2032.0 ppb	19:12:05
2	Se 196.026†	8411.5	8384.3	3310 µg/L	3310 ppb	19:12:05
2	SiO2†	240821.8	238928.1	24636 µg/L	24636 ppb	19:12:03
2	Si 251.611†	758424.1	756992.7	11532 µg/L	11532 ppb	19:12:03
2	Sn 189.927†	17129.1	17106.1	1214.1 µg/L	1214.1 ppb	19:12:05
2	Ti 334.940†	6491653.5	6485247.2	6799.6 µg/L	6799.6 ppb	19:12:03
2	Tl 190.801†	9133.8	9241.3	1391.4 µg/L	1391.4 ppb	19:12:05
2	U 409.014†	-4413.3	-3998.3	-169.35 µg/L	-169.35 ppb	19:12:03
2	V 292.402†	282095.0	281359.1	1384.7 µg/L	1384.7 ppb	19:12:03
2	Zn 213.857†	1178770.5	1177148.8	6766.5 µg/L	6766.5 ppb	19:12:03
3	Sc RADIAL	116674.0	116674.0	102 %		19:11:51
3	Al 396.153Radial†	466801.5	457740.7	107920 µg/L	107920 ppb	19:11:51
3	Ca 317.933Radial†	1381582.7	1354057.3	111490 µg/L	111490 ppb	19:11:51
3	Fe 238.204 Radial†	2537505.4	2487665.1	212210 µg/L	212210 ppb	19:11:49
3	K 766.490 Radial†	123613.8	119782.7	47896 µg/L	47896 ppb	19:11:51
3	Mg 279.077 IEC†	81119.3	79372.6	43729 µg/L	43729 ppb	19:11:51
3	Na 589.592 Radial†	72454.7	70199.8	11158 µg/L	11158 ppb	19:11:51
3	Sr 421.552†	1050433.4	1029919.6	2644.8 µg/L	2644.8 ppb	19:11:49
3	Sc 361.383	1712831.9	1712831.9	101.22 %		19:12:09
3	Y 371.029	1046630.6	1046630.6	109.36 %		19:12:09
3	Ag 328.068†	90014.8	83831.0	356.74 µg/L	356.74 ppb	19:12:09
3	As 188.979†	3379.1	3351.9	1236.6 µg/L	1236.6 ppb	19:12:11
3	B 249.677†	118564.8	113029.3	1674.1 µg/L	1674.1 ppb	19:12:09
3	Ba 233.527†	471841.3	466321.7	2109.2 µg/L	2109.2 ppb	19:12:09
3	Be 313.107†	3256113.2	3218008.6	911.06 µg/L	911.06 ppb	19:12:09
3	Cd 226.502†	109924.9	108669.6	696.97 µg/L	696.97 ppb	19:12:09
3	Co 228.616†	83113.3	82342.4	1070.9 µg/L	1070.9 ppb	19:12:09
3	Cr 267.716†	322486.9	318285.1	2801.6 µg/L	2801.6 ppb	19:12:09
3	Cu 324.752†	523827.2	514296.3	2161.6 µg/L	2161.6 ppb	19:12:09
3	Mn 257.610†	4744889.8	4687701.5	6125.2 µg/L	6125.2 ppb	19:12:09
3	Mo 202.031†	18056.7	17861.5	615.99 µg/L	615.99 ppb	19:12:11
3	Ni 231.604†	127460.1	126003.5	1567.0 µg/L	1567.0 ppb	19:12:09
3	P 214.914†	41881.0	41397.3	9319.3 µg/L	9319.3 ppb	19:12:11
3	Pb 220.353†	15722.2	15416.2	975.82 µg/L	975.82 ppb	19:12:11
3	S 181.975 Axial†	5344.8	5178.7	4411.5 µg/L	4411.5 ppb	19:12:11
3	Sb 206.836†	16253.4	15980.7	2016.1 µg/L	2016.1 ppb	19:12:11
3	Se 196.026†	8444.2	8322.8	3290 µg/L	3290 ppb	19:12:11
3	SiO2†	245897.6	241256.1	24877 µg/L	24877 ppb	19:12:09
3	Si 251.611†	775160.0	765066.0	11655 µg/L	11655 ppb	19:12:09
3	Sn 189.927†	17196.6	16981.7	1205.5 µg/L	1205.5 ppb	19:12:11
3	Ti 334.940†	6578435.2	6498560.4	6813.5 µg/L	6813.5 ppb	19:12:09
3	Tl 190.801†	9174.3	9179.4	1382.8 µg/L	1382.8 ppb	19:12:11
3	U 409.014†	-4675.6	-4208.2	-182.88 µg/L	-182.88 ppb	19:12:09
3	V 292.402†	284426.0	280514.8	1380.2 µg/L	1380.2 ppb	19:12:09
3	Zn 213.857†	1189204.3	1174306.0	6749.9 µg/L	6749.9 ppb	19:12:09

Mean Data: 1202093059|974190|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1708918.4	100.98 %	0.809			0.80%
Sc RADIAL	118476.3	104 %	1.4			1.34%
Y 371.029	1043862.6	109.07 %	0.806			0.74%
Ag 328.068†	83908.8	357.10 µg/L	0.627	357.10 ppb	0.627	0.18%
Al 396.153Radial†	453867.7	107010 µg/L	795.6	107010 ppb	795.6	0.74%
As 188.979†	3319.5	1224.9 µg/L	19.60	1224.9 ppb	19.60	1.60%
B 249.677†	113050.4	1674.4 µg/L	2.95	1674.4 ppb	2.95	0.18%
Ba 233.527†	466679.5	2110.9 µg/L	1.82	2110.9 ppb	1.82	0.09%
Be 313.107†	3221147.8	911.95 µg/L	1.116	911.95 ppb	1.116	0.12%
Ca 317.933Radial†	1350896.8	111230 µg/L	350.3	111230 ppb	350.3	0.31%
Cd 226.502†	108821.9	698.16 µg/L	1.596	698.16 ppb	1.596	0.23%
Co 228.616†	82578.3	1074.1 µg/L	2.98	1074.1 ppb	2.98	0.28%
Cr 267.716†	318547.4	2803.8 µg/L	2.02	2803.8 ppb	2.02	0.07%
Cu 324.752†	514598.7	2162.6 µg/L	1.99	2162.6 ppb	1.99	0.09%
Fe 238.204 Radial†	2467175.6	210460 µg/L	1598.4	210460 ppb	1598.4	0.76%
K 766.490 Radial†	119676.3	47853 µg/L	103.8	47853 ppb	103.8	0.22%
Mg 279.077 IEC†	79270.7	43674 µg/L	168.6	43674 ppb	168.6	0.39%
Mn 257.610†	4693757.0	6133.1 µg/L	6.89	6133.1 ppb	6.89	0.11%
Mo 202.031†	17854.2	615.67 µg/L	4.708	615.67 ppb	4.708	0.76%
Na 589.592 Radial†	69963.8	11121 µg/L	54.0	11121 ppb	54.0	0.49%

Ni 231.604†	126351.2	1571.3 µg/L	4.03	1571.3 ppb	4.03	0.26%
P 214.914†	41418.8	9325.2 µg/L	77.81	9325.2 ppb	77.81	0.83%
Pb 220.353†	15391.1	974.22 µg/L	1.554	974.22 ppb	1.554	0.16%
S 181.975 Axial†	5173.6	4407.1 µg/L	19.38	4407.1 ppb	19.38	0.44%
Sb 206.836†	15980.0	2016.0 µg/L	16.08	2016.0 ppb	16.08	0.80%
Se 196.026†	8355.4	3300 µg/L	11.6	3300 ppb	11.6	0.35%
SiO2†	241149.1	24866 µg/L	224.3	24866 ppb	224.3	0.90%
Si 251.611†	764275.6	11643 µg/L	105.7	11643 ppb	105.7	0.91%
Sn 189.927†	16969.3	1204.6 µg/L	10.01	1204.6 ppb	10.01	0.83%
Sr 421.552†	1018768.1	2616.1 µg/L	25.79	2616.1 ppb	25.79	0.99%
Ti 334.940†	6486094.1	6800.5 µg/L	12.66	6800.5 ppb	12.66	0.19%
Tl 190.801†	9169.1	1381.2 µg/L	11.05	1381.2 ppb	11.05	0.80%
U 409.014†	-4132.7	-177.73 µg/L	7.319	-177.73 ppb	7.319	4.12%
Concentration less than lower limit for U 409.014.						
V 292.402†	280933.9	1382.5 µg/L	2.24	1382.5 ppb	2.24	0.16%
Zn 213.857†	1177113.4	6766.2 µg/L	16.23	6766.2 ppb	16.23	0.24%

Sequence No.: 46

Sample ID: 1202056902|974190|1

Analyst: LS

Initial Sample Wt:

Dilution:

Autosampler Location: 335

Date Collected: 4/13/2010 19:14:30

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056902|974190|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	119238.2	119238.2	104 %		19:15:02
1	Al 396.153Radial†	254644.5	244371.4	57629 µg/L	57629 ppb	19:15:00
1	Ca 317.933Radial†	228163.8	218426.2	17985 µg/L	17985 ppb	19:15:02
1	Fe 238.204 Radial†	1322502.6	1268583.6	108210 µg/L	108210 ppb	19:15:00
1	K 766.490 Radial†	21980.6	19677.3	7858.6 µg/L	7858.6 ppb	19:15:02
1	Mg 279.077 IEC†	26352.2	25123.0	13802 µg/L	13802 ppb	19:15:02
1	Na 589.592 Radial†	17628.4	16076.1	2558.0 µg/L	2558.0 ppb	19:15:02
1	Sr 421.552†	52211.4	50154.3	128.69 µg/L	128.69 ppb	19:15:02
1	Sc 361.383	1702956.3	1702956.3	100.63 %		19:15:15
1	Y 371.029	1625069.2	1625069.2	169.80 %		19:15:15
1	Ag 328.068†	4878.6	-255.0	-2.1930 µg/L	-2.1930 ppb	19:15:15
1	As 188.979†	73.9	86.9	55.304 µg/L	55.304 ppb	19:15:35
1	B 249.677†	5813.4	1664.9	24.658 µg/L	24.658 ppb	19:15:15
1	Ba 233.527†	138763.4	138038.2	623.54 µg/L	623.54 ppb	19:15:15
1	Be 313.107†	42602.7	43327.6	12.116 µg/L	12.116 ppb	19:15:15
1	Cd 226.502†	1561.8	1616.6	-0.6497 µg/L	-0.6497 ppb	19:15:35
1	Co 228.616†	1032.2	1252.8	11.408 µg/L	11.408 ppb	19:15:35
1	Cr 267.716†	10509.0	10113.4	92.406 µg/L	92.406 ppb	19:15:35
1	Cu 324.752†	13349.2	10024.1	57.230 µg/L	57.230 ppb	19:15:15
1	Mn 257.610†	1333412.5	1324826.3	1730.9 µg/L	1730.9 ppb	19:15:15
1	Mo 202.031†	921.1	937.0	36.370 µg/L	36.370 ppb	19:15:35
1	Ni 231.604†	6818.8	6850.0	85.185 µg/L	85.185 ppb	19:15:35
1	P 214.914†	3105.0	3104.7	647.85 µg/L	647.85 ppb	19:15:35
1	Pb 220.353†	1151.6	1027.1	67.345 µg/L	67.345 ppb	19:15:35
1	S 181.975 Axial†	742.7	636.1	541.54 µg/L	541.54 ppb	19:15:35
1	Sb 206.836†	100.6	22.4	0.3996 µg/L	0.3996 ppb	19:15:35
1	Se 196.026†	-65.6	-85.2	4.12 µg/L	4.12 ppb	19:15:35
1	SiO2†	142985.0	140398.5	14496 µg/L	14496 ppb	19:15:15
1	Si 251.611†	447937.1	444338.5	6777.7 µg/L	6777.7 ppb	19:15:15
1	Sn 189.927†	98.3	89.2	12.497 µg/L	12.497 ppb	19:15:35
1	Ti 334.940†	1788696.8	1776581.7	1862.6 µg/L	1862.6 ppb	19:15:15
1	Tl 190.801†	-326.6	-209.3	-5.7176 µg/L	-5.7176 ppb	19:15:35
1	U 409.014†	-8694.9	-8229.1	-507.80 µg/L	-507.80 ppb	19:15:15
1	V 292.402†	19253.9	18637.0	79.634 µg/L	79.634 ppb	19:15:15
1	Zn 213.857†	69032.2	67979.5	382.21 µg/L	382.21 ppb	19:15:15
2	Sc RADIAL	118649.3	118649.3	104 %		19:15:06
2	Al 396.153Radial†	253124.1	244118.2	57569 µg/L	57569 ppb	19:15:04
2	Ca 317.933Radial†	227137.4	218523.1	17993 µg/L	17993 ppb	19:15:06
2	Fe 238.204 Radial†	1305316.1	1258311.7	107340 µg/L	107340 ppb	19:15:04
2	K 766.490 Radial†	21828.4	19635.2	7841.8 µg/L	7841.8 ppb	19:15:06
2	Mg 279.077 IEC†	26305.9	25203.8	13847 µg/L	13847 ppb	19:15:06
2	Na 589.592 Radial†	17732.2	16260.1	2587.4 µg/L	2587.4 ppb	19:15:06
2	Sr 421.552†	52181.7	50374.3	129.26 µg/L	129.26 ppb	19:15:06
2	Sc 361.383	1709301.8	1709301.8	101.01 %		19:15:38
2	Y 371.029	1628508.3	1628508.3	170.16 %		19:15:38
2	Ag 328.068†	4865.0	-286.5	-2.3140 µg/L	-2.3140 ppb	19:15:38
2	As 188.979†	55.9	68.8	48.823 µg/L	48.823 ppb	19:15:58
2	B 249.677†	5814.1	1644.3	24.350 µg/L	24.350 ppb	19:15:38
2	Ba 233.527†	138970.3	137731.1	622.16 µg/L	622.16 ppb	19:15:38
2	Be 313.107†	42918.2	43482.8	12.160 µg/L	12.160 ppb	19:15:38
2	Cd 226.502†	1521.1	1570.5	-0.8625 µg/L	-0.8625 ppb	19:15:58
2	Co 228.616†	1047.6	1264.2	11.602 µg/L	11.602 ppb	19:15:58
2	Cr 267.716†	10481.0	10046.9	91.793 µg/L	91.793 ppb	19:15:58
2	Cu 324.752†	13227.3	9854.2	56.399 µg/L	56.399 ppb	19:15:38
2	Mn 257.610†	1335603.7	1322076.6	1727.3 µg/L	1727.3 ppb	19:15:38
2	Mo 202.031†	892.4	905.1	35.255 µg/L	35.255 ppb	19:15:58
2	Ni 231.604†	6795.2	6801.4	84.581 µg/L	84.581 ppb	19:15:58
2	P 214.914†	3086.3	3074.7	641.60 µg/L	641.60 ppb	19:15:58
2	Pb 220.353†	1167.2	1038.4	68.065 µg/L	68.065 ppb	19:15:58

2	S 181.975 Axial†	733.7	624.4	531.56 µg/L	531.56 ppb	19:15:58
2	Sb 206.836†	107.5	28.9	1.2317 µg/L	1.2317 ppb	19:15:58
2	Se 196.026†	-83.0	-102.2	-2.75 µg/L	-2.75 ppb	19:15:58
2	SiO2†	143980.3	140856.4	14544 µg/L	14544 ppb	19:15:38
2	Si 251.611†	451480.1	446193.7	6806.0 µg/L	6806.0 ppb	19:15:38
2	Sn 189.927†	89.0	79.7	11.814 µg/L	11.814 ppb	19:15:58
2	Ti 334.940†	1789788.3	1771063.7	1856.8 µg/L	1856.8 ppb	19:15:38
2	Tl 190.801†	-338.1	-219.5	-7.2145 µg/L	-7.2145 ppb	19:15:58
2	U 409.014†	-8746.0	-8247.6	-508.73 µg/L	-508.73 ppb	19:15:38
2	V 292.402†	19392.1	18702.8	80.043 µg/L	80.043 ppb	19:15:38
2	Zn 213.857†	68887.5	67581.6	380.00 µg/L	380.00 ppb	19:15:38
3	Sc RADIAL	117372.7	117372.7	103 %		19:15:10
3	Al 396.153Radial†	253078.0	246727.6	58184 µg/L	58184 ppb	19:15:08
3	Ca 317.933Radial†	224527.0	218360.9	17980 µg/L	17980 ppb	19:15:10
3	Fe 238.204 Radial†	1306749.5	1273396.6	108630 µg/L	108630 ppb	19:15:08
3	K 766.490 Radial†	21594.1	19635.7	7841.9 µg/L	7841.9 ppb	19:15:10
3	Mg 279.077 IEC†	25787.8	24974.7	13720 µg/L	13720 ppb	19:15:10
3	Na 589.592 Radial†	17516.3	16235.6	2583.5 µg/L	2583.5 ppb	19:15:10
3	Sr 421.552†	51824.7	50573.6	129.77 µg/L	129.77 ppb	19:15:10
3	Sc 361.383	1709396.1	1709396.1	101.01 %		19:16:01
3	Y 371.029	1633107.4	1633107.4	170.64 %		19:16:01
3	Ag 328.068†	4779.8	-371.1	-2.6858 µg/L	-2.6858 ppb	19:16:01
3	As 188.979†	72.5	85.2	54.786 µg/L	54.786 ppb	19:16:21
3	B 249.677†	5953.7	1782.1	26.397 µg/L	26.397 ppb	19:16:01
3	Ba 233.527†	139824.7	138569.3	625.94 µg/L	625.94 ppb	19:16:01
3	Be 313.107†	42847.2	43410.1	12.135 µg/L	12.135 ppb	19:16:01
3	Cd 226.502†	1578.8	1627.5	-0.6206 µg/L	-0.6206 ppb	19:16:21
3	Co 228.616†	1037.6	1254.2	11.408 µg/L	11.408 ppb	19:16:21
3	Cr 267.716†	10490.8	10056.0	91.927 µg/L	91.927 ppb	19:16:21
3	Cu 324.752†	13168.6	9795.3	56.329 µg/L	56.329 ppb	19:16:01
3	Mn 257.610†	1342061.0	1328396.3	1735.6 µg/L	1735.6 ppb	19:16:01
3	Mo 202.031†	919.5	931.9	36.213 µg/L	36.213 ppb	19:16:21
3	Ni 231.604†	6837.7	6843.1	85.100 µg/L	85.100 ppb	19:16:21
3	P 214.914†	3086.1	3074.4	640.78 µg/L	640.78 ppb	19:16:21
3	Pb 220.353†	1135.2	1006.6	66.102 µg/L	66.102 ppb	19:16:21
3	S 181.975 Axial†	738.1	628.8	535.30 µg/L	535.30 ppb	19:16:21
3	Sb 206.836†	100.4	21.9	0.3318 µg/L	0.3318 ppb	19:16:21
3	Se 196.026†	-63.5	-82.9	5.14 µg/L	5.14 ppb	19:16:21
3	SiO2†	143549.4	140421.9	14499 µg/L	14499 ppb	19:16:01
3	Si 251.611†	449820.2	444525.9	6780.6 µg/L	6780.6 ppb	19:16:01
3	Sn 189.927†	74.0	64.8	10.820 µg/L	10.820 ppb	19:16:21
3	Ti 334.940†	1801995.3	1783050.7	1869.4 µg/L	1869.4 ppb	19:16:01
3	Tl 190.801†	-329.0	-210.5	-5.8032 µg/L	-5.8032 ppb	19:16:21
3	U 409.014†	-8960.8	-8459.8	-521.86 µg/L	-521.86 ppb	19:16:01
3	V 292.402†	19451.4	18760.5	80.183 µg/L	80.183 ppb	19:16:01
3	Zn 213.857†	69235.3	67922.1	381.85 µg/L	381.85 ppb	19:16:01

Mean Data: 1202056902|974190|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1707218.1	100.88 %	0.218			0.22%
Sc RADIAL	118420.1	104 %	0.8			0.81%
Y 371.029	1628895.0	170.20 %	0.421			0.25%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 170.2%						
Ag 328.068†	-304.2	-2.3976 µg/L	0.25680	-2.3976 ppb	0.25680	10.71%
Al 396.153Radial†	245072.4	57794 µg/L	339.4	57794 ppb	339.4	0.59%
As 188.979†	80.3	52.971 µg/L	3.6015	52.971 ppb	3.6015	6.80%
B 249.677†	1697.1	25.135 µg/L	1.1035	25.135 ppb	1.1035	4.39%
Ba 233.527†	138112.9	623.88 µg/L	1.912	623.88 ppb	1.912	0.31%
Be 313.107†	43406.8	12.137 µg/L	0.0218	12.137 ppb	0.0218	0.18%
Ca 317.933Radial†	218436.7	17986 µg/L	6.7	17986 ppb	6.7	0.04%
Cd 226.502†	1604.9	-0.7109 µg/L	0.13208	-0.7109 ppb	0.13208	18.58%
Co 228.616†	1257.1	11.472 µg/L	0.1120	11.472 ppb	0.1120	0.98%
Cr 267.716†	10072.1	92.042 µg/L	0.3223	92.042 ppb	0.3223	0.35%
Cu 324.752†	9891.2	56.652 µg/L	0.5012	56.652 ppb	0.5012	0.88%
Fe 238.204 Radial†	1266764.0	108060 µg/L	657.3	108060 ppb	657.3	0.61%
K 766.490 Radial†	19649.4	7847.4 µg/L	9.70	7847.4 ppb	9.70	0.12%
Mg 279.077 IEC†	25100.5	13790 µg/L	64.8	13790 ppb	64.8	0.47%
Mn 257.610†	1325099.7	1731.2 µg/L	4.14	1731.2 ppb	4.14	0.24%
Mo 202.031†	924.7	35.946 µg/L	0.6035	35.946 ppb	0.6035	1.68%

Na 589.592 Radial†	16190.6	2576.3 µg/L	15.95	2576.3 ppb	15.95	0.62%
Ni 231.604†	6831.5	84.955 µg/L	0.3271	84.955 ppb	0.3271	0.39%
P 214.914†	3084.6	643.41 µg/L	3.867	643.41 ppb	3.867	0.60%
Pb 220.353†	1024.0	67.171 µg/L	0.9931	67.171 ppb	0.9931	1.48%
S 181.975 Axial†	629.8	536.14 µg/L	5.044	536.14 ppb	5.044	0.94%
Sb 206.836†	24.4	0.6544 µg/L	0.50111	0.6544 ppb	0.50111	76.58%
Se 196.026†	-90.1	2.17 µg/L	4.290	2.17 ppb	4.290	197.92%
SiO2†	140558.9	14513 µg/L	26.6	14513 ppb	26.6	0.18%
Si 251.611†	445019.4	6788.1 µg/L	15.59	6788.1 ppb	15.59	0.23%
Sn 189.927†	77.9	11.710 µg/L	0.8435	11.710 ppb	0.8435	7.20%
Sr 421.552†	50367.4	129.24 µg/L	0.539	129.24 ppb	0.539	0.42%
Ti 334.940†	1776898.7	1862.9 µg/L	6.30	1862.9 ppb	6.30	0.34%
Tl 190.801†	-213.1	-6.2451 µg/L	0.84061	-6.2451 ppb	0.84061	13.46%
U 409.014†	-8312.1	-512.79 µg/L	7.862	-512.79 ppb	7.862	1.53%
Concentration less than lower limit for U 409.014.						
V 292.402†	18700.1	79.953 µg/L	0.2855	79.953 ppb	0.2855	0.36%
Zn 213.857†	67827.7	381.35 µg/L	1.182	381.35 ppb	1.182	0.31%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 47

Sample ID: 1202056904|974190|1

Analyst: LS

Initial Sample Wt:

Dilution:

Autosampler Location: 336

Date Collected: 4/13/2010 19:16:28

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056904|974190|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	118072.4	118072.4	103 %		19:17:00
1	Al 396.153Radial†	397492.6	385174.1	90813 µg/L	90813 ppb	19:16:58
1	Ca 317.933Radial†	307595.0	297540.0	24499 µg/L	24499 ppb	19:17:00
1	Fe 238.204 Radial†	1267616.7	1227937.3	104750 µg/L	104750 ppb	19:16:58
1	K 766.490 Radial†	37723.6	35137.2	14037 µg/L	14037 ppb	19:17:00
1	Mg 279.077 IEC†	37705.6	36371.7	20037 µg/L	20037 ppb	19:17:00
1	Na 589.592 Radial†	46196.0	43919.2	6995.1 µg/L	6995.1 ppb	19:17:00
1	Sr 421.552†	242103.9	234616.0	602.48 µg/L	602.48 ppb	19:17:00
1	Sc 361.383	1719371.6	1719371.6	101.60 %		19:17:13
1	Y 371.029	1678170.3	1678170.3	175.35 %		19:17:13
1	Ag 328.068†	119907.8	112914.5	471.12 µg/L	471.12 ppb	19:17:13
1	As 188.979†	1375.7	1367.4	503.69 µg/L	503.69 ppb	19:17:15
1	B 249.677†	38036.3	33324.7	493.02 µg/L	493.02 ppb	19:17:13
1	Ba 233.527†	246502.6	242762.4	1098.1 µg/L	1098.1 ppb	19:17:13
1	Be 313.107†	1713330.9	1687312.4	477.74 µg/L	477.74 ppb	19:17:13
1	Cd 226.502†	72277.5	71202.6	460.04 µg/L	460.04 ppb	19:17:13
1	Co 228.616†	36779.5	36426.7	473.21 µg/L	473.21 ppb	19:17:15
1	Cr 267.716†	64710.2	63360.4	559.65 µg/L	559.65 ppb	19:17:15
1	Cu 324.752†	133145.2	127804.9	545.17 µg/L	545.17 ppb	19:17:13
1	Mn 257.610†	1487274.8	1463612.4	1912.1 µg/L	1912.1 ppb	19:17:13
1	Mo 202.031†	14760.9	14549.8	498.60 µg/L	498.60 ppb	19:17:15
1	Ni 231.604†	43938.4	43319.6	538.72 µg/L	538.72 ppb	19:17:15
1	P 214.914†	5083.9	5023.0	1089.6 µg/L	1089.6 ppb	19:17:15
1	Pb 220.353†	8391.2	8141.7	516.76 µg/L	516.76 ppb	19:17:15
1	S 181.975 Axial†	6617.8	6411.6	5459.5 µg/L	5459.5 ppb	19:17:15
1	Sb 206.836†	3457.6	3325.6	424.68 µg/L	424.68 ppb	19:17:15
1	Se 196.026†	1205.8	1166.8	488 µg/L	488 ppb	19:17:15
1	SiO2†	145209.5	141231.3	14563 µg/L	14563 ppb	19:17:13
1	Si 251.611†	456277.8	448298.0	6829.0 µg/L	6829.0 ppb	19:17:13
1	Sn 189.927†	6631.7	6518.8	462.23 µg/L	462.23 ppb	19:17:15
1	Ti 334.940†	2381887.4	2343450.6	2456.4 µg/L	2456.4 ppb	19:17:13
1	Tl 190.801†	2925.2	2994.3	453.34 µg/L	453.34 ppb	19:17:15
1	U 409.014†	-510.5	-91.2	15.574 µg/L	15.574 ppb	19:17:13
1	V 292.402†	114916.5	112608.8	552.49 µg/L	552.49 ppb	19:17:13
1	Zn 213.857†	144861.1	141958.0	807.11 µg/L	807.11 ppb	19:17:13
2	Sc RADIAL	117751.2	117751.2	103 %		19:17:04
2	Al 396.153Radial†	400261.4	388914.3	91695 µg/L	91695 ppb	19:17:02
2	Ca 317.933Radial†	307026.6	297800.7	24521 µg/L	24521 ppb	19:17:04
2	Fe 238.204 Radial†	1278277.9	1241644.1	105920 µg/L	105920 ppb	19:17:02
2	K 766.490 Radial†	37672.1	35186.8	14057 µg/L	14057 ppb	19:17:04
2	Mg 279.077 IEC†	37518.8	36289.9	19991 µg/L	19991 ppb	19:17:04
2	Na 589.592 Radial†	46248.1	44091.9	7022.6 µg/L	7022.6 ppb	19:17:04
2	Sr 421.552†	242127.0	235278.2	604.19 µg/L	604.19 ppb	19:17:04
2	Sc 361.383	1715729.6	1715729.6	101.39 %		19:17:18
2	Y 371.029	1672773.6	1672773.6	174.79 %		19:17:18
2	Ag 328.068†	119385.6	112649.9	470.01 µg/L	470.01 ppb	19:17:18
2	As 188.979†	1380.3	1374.9	506.42 µg/L	506.42 ppb	19:17:20
2	B 249.677†	37729.0	33101.1	489.73 µg/L	489.73 ppb	19:17:18
2	Ba 233.527†	245361.3	242151.6	1095.3 µg/L	1095.3 ppb	19:17:18
2	Be 313.107†	1707759.5	1685396.8	477.19 µg/L	477.19 ppb	19:17:18
2	Cd 226.502†	72121.9	71200.2	459.89 µg/L	459.89 ppb	19:17:18
2	Co 228.616†	36022.0	35756.4	464.36 µg/L	464.36 ppb	19:17:20
2	Cr 267.716†	63617.0	62417.4	551.42 µg/L	551.42 ppb	19:17:20
2	Cu 324.752†	132349.8	127298.5	543.23 µg/L	543.23 ppb	19:17:18
2	Mn 257.610†	1482601.0	1462109.8	1910.1 µg/L	1910.1 ppb	19:17:18
2	Mo 202.031†	14460.4	14284.2	489.63 µg/L	489.63 ppb	19:17:20
2	Ni 231.604†	43081.5	42566.2	529.35 µg/L	529.35 ppb	19:17:20
2	P 214.914†	4946.5	4898.1	1060.5 µg/L	1060.5 ppb	19:17:20
2	Pb 220.353†	8157.3	7928.5	503.40 µg/L	503.40 ppb	19:17:20

2	S 181.975 Axial†	6396.9	6207.5	5285.8 µg/L	5285.8 ppb	19:17:20
2	Sb 206.836†	3430.8	3306.3	422.17 µg/L	422.17 ppb	19:17:20
2	Se 196.026†	1121.4	1086.1	457 µg/L	457 ppb	19:17:20
2	SiO2†	144153.6	140493.2	14487 µg/L	14487 ppb	19:17:18
2	Si 251.611†	452284.9	445313.0	6783.6 µg/L	6783.6 ppb	19:17:18
2	Sn 189.927†	6497.2	6400.0	453.94 µg/L	453.94 ppb	19:17:20
2	Ti 334.940†	2373168.8	2339827.7	2452.6 µg/L	2452.6 ppb	19:17:18
2	Tl 190.801†	2925.9	3001.1	454.30 µg/L	454.30 ppb	19:17:20
2	U 409.014†	-657.3	-237.1	6.4397 µg/L	6.4397 ppb	19:17:18
2	V 292.402†	114675.2	112610.9	552.25 µg/L	552.25 ppb	19:17:18
2	Zn 213.857†	144502.2	141906.7	806.77 µg/L	806.77 ppb	19:17:18
3	Sc RADIAL	119757.5	119757.5	105 %		19:17:08
3	Al 396.153Radial†	397183.3	379460.3	89465 µg/L	89465 ppb	19:17:06
3	Ca 317.933Radial†	312933.2	298445.9	24574 µg/L	24574 ppb	19:17:08
3	Fe 238.204 Radial†	1266981.5	1210051.2	103220 µg/L	103220 ppb	19:17:06
3	K 766.490 Radial†	38415.3	35283.7	14096 µg/L	14096 ppb	19:17:08
3	Mg 279.077 IEC†	38331.8	36455.9	20085 µg/L	20085 ppb	19:17:08
3	Na 589.592 Radial†	46947.7	44007.5	7009.1 µg/L	7009.1 ppb	19:17:08
3	Sr 421.552†	245855.5	234899.1	603.21 µg/L	603.21 ppb	19:17:08
3	Sc 361.383	1723851.9	1723851.9	101.87 %		19:17:23
3	Y 371.029	1681114.0	1681114.0	175.66 %		19:17:23
3	Ag 328.068†	119830.0	112531.4	469.56 µg/L	469.56 ppb	19:17:23
3	As 188.979†	1387.9	1375.8	506.28 µg/L	506.28 ppb	19:17:25
3	B 249.677†	38364.0	33549.1	496.35 µg/L	496.35 ppb	19:17:23
3	Ba 233.527†	246914.3	242535.9	1097.1 µg/L	1097.1 ppb	19:17:23
3	Be 313.107†	1718887.7	1688384.7	478.04 µg/L	478.04 ppb	19:17:23
3	Cd 226.502†	72724.2	71456.3	461.88 µg/L	461.88 ppb	19:17:23
3	Co 228.616†	36913.7	36464.4	473.78 µg/L	473.78 ppb	19:17:25
3	Cr 267.716†	65092.7	63570.3	561.43 µg/L	561.43 ppb	19:17:25
3	Cu 324.752†	133434.3	127748.1	544.72 µg/L	544.72 ppb	19:17:23
3	Mn 257.610†	1492423.0	1464861.8	1913.7 µg/L	1913.7 ppb	19:17:23
3	Mo 202.031†	14816.6	14566.8	499.12 µg/L	499.12 ppb	19:17:25
3	Ni 231.604†	44205.8	43469.7	540.58 µg/L	540.58 ppb	19:17:25
3	P 214.914†	5068.4	4994.7	1083.9 µg/L	1083.9 ppb	19:17:25
3	Pb 220.353†	8326.1	8056.3	511.36 µg/L	511.36 ppb	19:17:25
3	S 181.975 Axial†	6606.0	6383.1	5435.3 µg/L	5435.3 ppb	19:17:25
3	Sb 206.836†	3475.1	3333.9	425.76 µg/L	425.76 ppb	19:17:25
3	Se 196.026†	1112.3	1072.0	450 µg/L	450 ppb	19:17:25
3	SiO2†	144259.6	139927.5	14428 µg/L	14428 ppb	19:17:23
3	Si 251.611†	452946.7	443860.8	6761.2 µg/L	6761.2 ppb	19:17:23
3	Sn 189.927†	6715.8	6584.3	466.79 µg/L	466.79 ppb	19:17:25
3	Ti 334.940†	2386545.6	2341930.6	2454.8 µg/L	2454.8 ppb	19:17:23
3	Tl 190.801†	3058.3	3117.5	470.69 µg/L	470.69 ppb	19:17:25
3	U 409.014†	-337.0	80.4	26.397 µg/L	26.397 ppb	19:17:23
3	V 292.402†	115300.6	112691.9	553.09 µg/L	553.09 ppb	19:17:23
3	Zn 213.857†	145574.2	142287.6	809.14 µg/L	809.14 ppb	19:17:23

Mean Data: 1202056904|974190|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1719651.0	101.62 %	0.240			0.24%
Sc RADIAL	118527.0	104 %	0.9			0.91%
Y 371.029	1677352.6	175.27 %	0.442			0.25%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 175.3%						
Ag 328.068†	112698.6	470.23 µg/L	0.802	470.23 ppb	0.802	0.17%
Al 396.153Radial†	384516.2	90658 µg/L	1123.0	90658 ppb	1123.0	1.24%
As 188.979†	1372.7	505.46 µg/L	1.535	505.46 ppb	1.535	0.30%
B 249.677†	33325.0	493.03 µg/L	3.309	493.03 ppb	3.309	0.67%
Ba 233.527†	242483.3	1096.8 µg/L	1.41	1096.8 ppb	1.41	0.13%
Be 313.107†	1687031.3	477.66 µg/L	0.431	477.66 ppb	0.431	0.09%
Ca 317.933Radial†	297928.9	24531 µg/L	38.4	24531 ppb	38.4	0.16%
Cd 226.502†	71286.3	460.60 µg/L	1.105	460.60 ppb	1.105	0.24%
Co 228.616†	36215.8	470.45 µg/L	5.284	470.45 ppb	5.284	1.12%
Cr 267.716†	63116.0	557.50 µg/L	5.343	557.50 ppb	5.343	0.96%
Cu 324.752†	127617.2	544.37 µg/L	1.016	544.37 ppb	1.016	0.19%
Fe 238.204 Radial†	1226544.2	104630 µg/L	1351.4	104630 ppb	1351.4	1.29%
K 766.490 Radial†	35202.6	14063 µg/L	30.0	14063 ppb	30.0	0.21%
Mg 279.077 IEC†	36372.5	20038 µg/L	47.2	20038 ppb	47.2	0.24%
Mn 257.610†	1463528.0	1912.0 µg/L	1.80	1912.0 ppb	1.80	0.09%
Mo 202.031†	14466.9	495.79 µg/L	5.334	495.79 ppb	5.334	1.08%

Na 589.592 Radial†	44006.2	7009.0 µg/L	13.77	7009.0 ppb	13.77	0.20%
Ni 231.604†	43118.5	536.21 µg/L	6.021	536.21 ppb	6.021	1.12%
P 214.914†	4971.9	1078.0 µg/L	15.42	1078.0 ppb	15.42	1.43%
Pb 220.353†	8042.2	510.51 µg/L	6.723	510.51 ppb	6.723	1.32%
S 181.975 Axial†	6334.1	5393.5 µg/L	94.07	5393.5 ppb	94.07	1.74%
Sb 206.836†	3321.9	424.20 µg/L	1.839	424.20 ppb	1.839	0.43%
Se 196.026†	1108.3	465 µg/L	19.9	465 ppb	19.9	4.28%
SiO2†	140550.7	14492 µg/L	67.5	14492 ppb	67.5	0.47%
Si 251.611†	445823.9	6791.3 µg/L	34.51	6791.3 ppb	34.51	0.51%
Sn 189.927†	6501.0	460.99 µg/L	6.511	460.99 ppb	6.511	1.41%
Sr 421.552†	234931.1	603.29 µg/L	0.853	603.29 ppb	0.853	0.14%
Ti 334.940†	2341736.3	2454.6 µg/L	1.90	2454.6 ppb	1.90	0.08%
Tl 190.801†	3037.6	459.44 µg/L	9.754	459.44 ppb	9.754	2.12%
U 409.014†	-82.6	16.137 µg/L	9.9903	16.137 ppb	9.9903	61.91%
V 292.402†	112637.2	552.61 µg/L	0.432	552.61 ppb	0.432	0.08%
Zn 213.857†	142050.7	807.67 µg/L	1.281	807.67 ppb	1.281	0.16%

Internal Standard Check failed. Continue with analysis.



Sequence No.: 48

Sample ID: 1202056905|974190|1

Analyst: LS

Initial Sample Wt:

Dilution:

Autosampler Location: 337

Date Collected: 4/13/2010 19:17:33

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056905|974190|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	118835.5	118835.5	104 %		19:18:05
1	Al 396.153Radial†	428546.2	412592.9	97278 µg/L	97278 ppb	19:18:03
1	Ca 317.933Radial†	286184.7	275017.5	22645 µg/L	22645 ppb	19:18:05
1	Fe 238.204 Radial†	1341818.0	1291476.4	110170 µg/L	110170 ppb	19:18:03
1	K 766.490 Radial†	39931.0	37027.4	14792 µg/L	14792 ppb	19:18:05
1	Mg 279.077 IEC†	40344.7	38677.5	21308 µg/L	21308 ppb	19:18:05
1	Na 589.592 Radial†	46900.6	44310.0	7056.8 µg/L	7056.8 ppb	19:18:05
1	Sr 421.552†	243677.2	234624.3	602.52 µg/L	602.52 ppb	19:18:05
1	Sc 361.383	1708462.9	1708462.9	100.96 %		19:18:18
1	Y 371.029	1630478.5	1630478.5	170.37 %		19:18:18
1	Ag 328.068†	121014.3	114764.0	479.06 µg/L	479.06 ppb	19:18:18
1	As 188.979†	1428.5	1428.4	526.04 µg/L	526.04 ppb	19:18:20
1	B 249.677†	37926.7	33455.2	494.91 µg/L	494.91 ppb	19:18:18
1	Ba 233.527†	250284.7	248057.7	1122.0 µg/L	1122.0 ppb	19:18:18
1	Be 313.107†	1745323.1	1729768.6	489.78 µg/L	489.78 ppb	19:18:18
1	Cd 226.502†	73219.2	72589.6	468.64 µg/L	468.64 ppb	19:18:18
1	Co 228.616†	37499.9	37371.4	485.33 µg/L	485.33 ppb	19:18:20
1	Cr 267.716†	64271.0	63332.1	559.55 µg/L	559.55 ppb	19:18:20
1	Cu 324.752†	135296.1	130772.2	558.33 µg/L	558.33 ppb	19:18:18
1	Mn 257.610†	1432907.9	1419107.7	1853.8 µg/L	1853.8 ppb	19:18:18
1	Mo 202.031†	15031.2	14910.3	511.08 µg/L	511.08 ppb	19:18:20
1	Ni 231.604†	44229.1	43883.7	545.73 µg/L	545.73 ppb	19:18:20
1	P 214.914†	4486.0	4462.7	959.21 µg/L	959.21 ppb	19:18:20
1	Pb 220.353†	8641.6	8442.4	535.77 µg/L	535.77 ppb	19:18:20
1	S 181.975 Axial†	6679.8	6514.5	5547.2 µg/L	5547.2 ppb	19:18:20
1	Sb 206.836†	3614.2	3502.4	447.47 µg/L	447.47 ppb	19:18:20
1	Se 196.026†	1201.0	1169.6	491 µg/L	491 ppb	19:18:20
1	SiO2†	163855.0	160612.7	16563 µg/L	16563 ppb	19:18:18
1	Si 251.611†	514813.2	509145.9	7756.9 µg/L	7756.9 ppb	19:18:18
1	Sn 189.927†	6831.9	6758.7	478.84 µg/L	478.84 ppb	19:18:20
1	Ti 334.940†	2339626.3	2316559.0	2428.0 µg/L	2428.0 ppb	19:18:18
1	Tl 190.801†	3027.5	3114.0	469.85 µg/L	469.85 ppb	19:18:20
1	U 409.014†	420.8	828.0	70.788 µg/L	70.788 ppb	19:18:18
1	V 292.402†	117739.0	116126.8	569.55 µg/L	569.55 ppb	19:18:18
1	Zn 213.857†	148101.0	146077.6	830.38 µg/L	830.38 ppb	19:18:18
2	Sc RADIAL	118026.5	118026.5	103 %		19:18:09
2	Al 396.153Radial†	423168.4	410208.2	96716 µg/L	96716 ppb	19:18:07
2	Ca 317.933Radial†	283540.3	274342.8	22589 µg/L	22589 ppb	19:18:09
2	Fe 238.204 Radial†	1318321.9	1277557.2	108980 µg/L	108980 ppb	19:18:07
2	K 766.490 Radial†	39675.2	37042.9	14799 µg/L	14799 ppb	19:18:09
2	Mg 279.077 IEC†	40052.0	38660.0	21299 µg/L	21299 ppb	19:18:09
2	Na 589.592 Radial†	46634.5	44361.6	7065.0 µg/L	7065.0 ppb	19:18:09
2	Sr 421.552†	241459.7	234082.9	601.13 µg/L	601.13 ppb	19:18:09
2	Sc 361.383	1716691.2	1716691.2	101.44 %		19:18:23
2	Y 371.029	1637802.2	1637802.2	171.13 %		19:18:23
2	Ag 328.068†	122345.5	115501.7	482.13 µg/L	482.13 ppb	19:18:23
2	As 188.979†	1427.5	1420.6	523.04 µg/L	523.04 ppb	19:18:25
2	B 249.677†	38252.4	33596.2	497.02 µg/L	497.02 ppb	19:18:23
2	Ba 233.527†	251820.0	248382.9	1123.5 µg/L	1123.5 ppb	19:18:23
2	Be 313.107†	1755733.1	1731744.3	490.33 µg/L	490.33 ppb	19:18:23
2	Cd 226.502†	74112.3	73122.4	472.29 µg/L	472.29 ppb	19:18:23
2	Co 228.616†	37435.7	37130.1	482.23 µg/L	482.23 ppb	19:18:25
2	Cr 267.716†	64183.4	62940.6	556.07 µg/L	556.07 ppb	19:18:25
2	Cu 324.752†	135922.6	130747.4	558.05 µg/L	558.05 ppb	19:18:23
2	Mn 257.610†	1443260.2	1422509.7	1858.3 µg/L	1858.3 ppb	19:18:23
2	Mo 202.031†	15011.6	14819.6	507.96 µg/L	507.96 ppb	19:18:25
2	Ni 231.604†	44283.3	43727.1	543.78 µg/L	543.78 ppb	19:18:25
2	P 214.914†	4529.5	4484.3	964.87 µg/L	964.87 ppb	19:18:25
2	Pb 220.353†	8447.9	8210.5	521.24 µg/L	521.24 ppb	19:18:25

2	S 181.975 Axial†	6745.5	6547.6	5575.4 µg/L	5575.4 ppb	19:18:25
2	Sb 206.836†	3604.8	3476.0	444.11 µg/L	444.11 ppb	19:18:25
2	Se 196.026†	1186.8	1149.9	483 µg/L	483 ppb	19:18:25
2	SiO2†	164440.5	160411.9	16543 µg/L	16543 ppb	19:18:23
2	Si 251.611†	517055.2	508911.9	7753.4 µg/L	7753.4 ppb	19:18:23
2	Sn 189.927†	6864.2	6758.1	478.81 µg/L	478.81 ppb	19:18:25
2	Ti 334.940†	2353639.0	2319264.5	2430.9 µg/L	2430.9 ppb	19:18:23
2	Tl 190.801†	3018.4	3090.7	466.63 µg/L	466.63 ppb	19:18:25
2	U 409.014†	405.0	810.5	70.105 µg/L	70.105 ppb	19:18:23
2	V 292.402†	118599.8	116416.3	571.06 µg/L	571.06 ppb	19:18:23
2	Zn 213.857†	149416.3	146671.1	833.94 µg/L	833.94 ppb	19:18:23
3	Sc RADIAL	117875.9	117875.9	103 %		19:18:13
3	Al 396.153Radial†	420529.7	408171.8	96236 µg/L	96236 ppb	19:18:11
3	Ca 317.933Radial†	284154.4	275289.8	22667 µg/L	22667 ppb	19:18:13
3	Fe 238.204 Radial†	1301546.0	1262910.6	107730 µg/L	107730 ppb	19:18:11
3	K 766.490 Radial†	39827.1	37239.4	14878 µg/L	14878 ppb	19:18:13
3	Mg 279.077 IEC†	40116.9	38772.5	21363 µg/L	21363 ppb	19:18:13
3	Na 589.592 Radial†	46832.7	44611.7	7104.9 µg/L	7104.9 ppb	19:18:13
3	Sr 421.552†	242187.5	235088.2	603.71 µg/L	603.71 ppb	19:18:13
3	Sc 361.383	1712542.2	1712542.2	101.20 %		19:18:28
3	Y 371.029	1634376.7	1634376.7	170.78 %		19:18:28
3	Ag 328.068†	121529.9	114988.0	479.98 µg/L	479.98 ppb	19:18:28
3	As 188.979†	1434.7	1431.1	526.36 µg/L	526.36 ppb	19:18:30
3	B 249.677†	37971.4	33409.9	494.26 µg/L	494.26 ppb	19:18:28
3	Ba 233.527†	250138.4	247322.6	1118.7 µg/L	1118.7 ppb	19:18:28
3	Be 313.107†	1743624.4	1723972.1	488.13 µg/L	488.13 ppb	19:18:28
3	Cd 226.502†	73274.6	72471.6	468.11 µg/L	468.11 ppb	19:18:28
3	Co 228.616†	37045.2	36833.6	478.40 µg/L	478.40 ppb	19:18:30
3	Cr 267.716†	63725.2	62641.1	553.41 µg/L	553.41 ppb	19:18:30
3	Cu 324.752†	135421.6	130576.9	557.15 µg/L	557.15 ppb	19:18:28
3	Mn 257.610†	1433393.3	1416206.5	1850.0 µg/L	1850.0 ppb	19:18:28
3	Mo 202.031†	14873.3	14718.8	504.49 µg/L	504.49 ppb	19:18:30
3	Ni 231.604†	43569.4	43127.4	536.33 µg/L	536.33 ppb	19:18:30
3	P 214.914†	4541.3	4506.8	970.72 µg/L	970.72 ppb	19:18:30
3	Pb 220.353†	8326.6	8110.8	515.00 µg/L	515.00 ppb	19:18:30
3	S 181.975 Axial†	6609.1	6428.9	5474.3 µg/L	5474.3 ppb	19:18:30
3	Sb 206.836†	3630.4	3509.9	448.45 µg/L	448.45 ppb	19:18:30
3	Se 196.026†	1136.4	1102.9	464 µg/L	464 ppb	19:18:30
3	SiO2†	161648.1	158045.3	16298 µg/L	16298 ppb	19:18:28
3	Si 251.611†	508154.2	501351.1	7638.1 µg/L	7638.1 ppb	19:18:28
3	Sn 189.927†	6738.8	6650.6	471.30 µg/L	471.30 ppb	19:18:30
3	Ti 334.940†	2340851.2	2312249.3	2423.5 µg/L	2423.5 ppb	19:18:28
3	Tl 190.801†	2975.8	3055.8	461.61 µg/L	461.61 ppb	19:18:30
3	U 409.014†	231.9	640.4	59.861 µg/L	59.861 ppb	19:18:28
3	V 292.402†	117825.0	115933.9	568.76 µg/L	568.76 ppb	19:18:28
3	Zn 213.857†	148167.0	145793.4	829.04 µg/L	829.04 ppb	19:18:28

Mean Data: 1202056905|974190|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1712565.4	101.20 %	0.243			0.24%
Sc RADIAL	118245.9	103 %	0.5			0.44%
Y 371.029	1634219.1	170.76 %	0.383			0.22%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 170.8%						
Ag 328.068†	115084.6	480.39 µg/L	1.576	480.39 ppb	1.576	0.33%
Al 396.153Radial†	410324.3	96743 µg/L	521.7	96743 ppb	521.7	0.54%
As 188.979†	1426.7	525.14 µg/L	1.832	525.14 ppb	1.832	0.35%
B 249.677†	33487.1	495.40 µg/L	1.439	495.40 ppb	1.439	0.29%
Ba 233.527†	247921.1	1121.4 µg/L	2.45	1121.4 ppb	2.45	0.22%
Be 313.107†	1728495.0	489.41 µg/L	1.146	489.41 ppb	1.146	0.23%
Ca 317.933Radial†	274883.4	22634 µg/L	40.1	22634 ppb	40.1	0.18%
Cd 226.502†	72727.9	469.68 µg/L	2.273	469.68 ppb	2.273	0.48%
Co 228.616†	37111.7	481.99 µg/L	3.470	481.99 ppb	3.470	0.72%
Cr 267.716†	62971.2	556.35 µg/L	3.081	556.35 ppb	3.081	0.55%
Cu 324.752†	130698.8	557.85 µg/L	0.614	557.85 ppb	0.614	0.11%
Fe 238.204 Radial†	1277314.7	108960 µg/L	1218.5	108960 ppb	1218.5	1.12%
K 766.490 Radial†	37103.2	14823 µg/L	47.4	14823 ppb	47.4	0.32%
Mg 279.077 IEC†	38703.3	21323 µg/L	34.3	21323 ppb	34.3	0.16%
Mn 257.610†	1419274.6	1854.0 µg/L	4.12	1854.0 ppb	4.12	0.22%
Mo 202.031†	14816.2	507.84 µg/L	3.300	507.84 ppb	3.300	0.65%

Na 589.592 Radial†	44427.8	7075.6 µg/L	25.70	7075.6 ppb	25.70	0.36%
Ni 231.604†	43579.4	541.95 µg/L	4.965	541.95 ppb	4.965	0.92%
P 214.914†	4484.6	964.93 µg/L	5.759	964.93 ppb	5.759	0.60%
Pb 220.353†	8254.6	524.01 µg/L	10.659	524.01 ppb	10.659	2.03%
S 181.975 Axial†	6497.0	5532.3 µg/L	52.15	5532.3 ppb	52.15	0.94%
Sb 206.836†	3496.1	446.67 µg/L	2.276	446.67 ppb	2.276	0.51%
Se 196.026†	1140.8	479 µg/L	13.7	479 ppb	13.7	2.85%
SiO2†	159690.0	16468 µg/L	147.3	16468 ppb	147.3	0.89%
Si 251.611†	506469.6	7716.1 µg/L	67.58	7716.1 ppb	67.58	0.88%
Sn 189.927†	6722.5	476.32 µg/L	4.347	476.32 ppb	4.347	0.91%
Sr 421.552†	234598.5	602.45 µg/L	1.292	602.45 ppb	1.292	0.21%
Ti 334.940†	2316024.3	2427.5 µg/L	3.71	2427.5 ppb	3.71	0.15%
Tl 190.801†	3086.8	466.03 µg/L	4.149	466.03 ppb	4.149	0.89%
U 409.014†	759.6	66.918 µg/L	6.1210	66.918 ppb	6.1210	9.15%
V 292.402†	116159.0	569.79 µg/L	1.172	569.79 ppb	1.172	0.21%
Zn 213.857†	146180.7	831.12 µg/L	2.531	831.12 ppb	2.531	0.30%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 49

Sample ID: 1202056903|974190|5

Analyst: LS

Initial Sample Wt:

Dilution:

Autosampler Location: 338

Date Collected: 4/13/2010 19:18:37

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056903|974190|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	118712.3	118712.3	104 %		19:19:09
1	Al 396.153Radial†	55755.6	53809.6	12690 µg/L	12690 ppb	19:19:07
1	Ca 317.933Radial†	50198.8	47913.5	3945.2 µg/L	3945.2 ppb	19:19:09
1	Fe 238.204 Radial†	298127.8	287143.9	24494 µg/L	24494 ppb	19:19:07
1	K 766.490 Radial†	5748.3	4129.6	1649.1 µg/L	1649.1 ppb	19:19:09
1	Mg 279.077 IEC†	5818.8	5449.5	2993.0 µg/L	2993.0 ppb	19:19:09
1	Na 589.592 Radial†	4716.5	3709.4	590.40 µg/L	590.40 ppb	19:19:09
1	Sr 421.552†	11662.2	11304.1	29.007 µg/L	29.007 ppb	19:19:09
1	Sc 361.383	1709820.2	1709820.2	101.04 %		19:19:21
1	Y 371.029	1126539.9	1126539.9	117.71 %		19:19:21
1	Ag 328.068†	4964.9	-189.0	-1.0432 µg/L	-1.0432 ppb	19:19:23
1	As 188.979†	-0.1	13.3	10.266 µg/L	10.266 ppb	19:19:43
1	B 249.677†	4611.1	451.8	6.6941 µg/L	6.6941 ppb	19:19:23
1	Ba 233.527†	33150.1	32955.6	148.88 µg/L	148.88 ppb	19:19:23
1	Be 313.107†	9348.4	10244.7	2.8668 µg/L	2.8668 ppb	19:19:23
1	Cd 226.502†	300.2	361.7	-0.1769 µg/L	-0.1769 ppb	19:19:43
1	Co 228.616†	44.3	270.9	2.4231 µg/L	2.4231 ppb	19:19:43
1	Cr 267.716†	2049.6	1698.9	15.732 µg/L	15.732 ppb	19:19:43
1	Cu 324.752†	5318.7	2022.9	11.933 µg/L	11.933 ppb	19:19:23
1	Mn 257.610†	301601.2	298289.3	389.72 µg/L	389.72 ppb	19:19:23
1	Mo 202.031†	188.3	208.0	8.0898 µg/L	8.0898 ppb	19:19:43
1	Ni 231.604†	1199.3	1260.9	15.680 µg/L	15.680 ppb	19:19:43
1	P 214.914†	519.6	533.4	107.89 µg/L	107.89 ppb	19:19:43
1	Pb 220.353†	351.4	230.6	15.066 µg/L	15.066 ppb	19:19:43
1	S 181.975 Axial†	250.0	145.6	123.90 µg/L	123.90 ppb	19:19:43
1	Sb 206.836†	72.4	-5.9	-1.2339 µg/L	-1.2339 ppb	19:19:43
1	Se 196.026†	3.0	-17.0	1.81 µg/L	1.81 ppb	19:19:43
1	SiO2†	31320.7	29310.2	3026.3 µg/L	3026.3 ppb	19:19:23
1	Si 251.611†	94954.3	93192.9	1421.5 µg/L	1421.5 ppb	19:19:23
1	Sn 189.927†	21.9	13.3	2.2534 µg/L	2.2534 ppb	19:19:43
1	Ti 334.940†	380882.3	376085.7	394.30 µg/L	394.30 ppb	19:19:21
1	Tl 190.801†	-176.3	-59.3	-3.2563 µg/L	-3.2563 ppb	19:19:43
1	U 409.014†	-2274.3	-1839.8	-113.61 µg/L	-113.61 ppb	19:19:23
1	V 292.402†	4596.0	4052.8	17.206 µg/L	17.206 ppb	19:19:23
1	Zn 213.857†	15443.3	14665.4	82.350 µg/L	82.350 ppb	19:19:23
2	Sc RADIAL	116746.3	116746.3	102 %		19:19:13
2	Al 396.153Radial†	54992.5	53966.6	12727 µg/L	12727 ppb	19:19:11
2	Ca 317.933Radial†	48967.9	47522.1	3912.9 µg/L	3912.9 ppb	19:19:13
2	Fe 238.204 Radial†	294109.6	288044.5	24571 µg/L	24571 ppb	19:19:11
2	K 766.490 Radial†	5652.9	4129.5	1649.0 µg/L	1649.0 ppb	19:19:13
2	Mg 279.077 IEC†	5603.8	5333.3	2928.6 µg/L	2928.6 ppb	19:19:13
2	Na 589.592 Radial†	4597.7	3669.5	584.02 µg/L	584.02 ppb	19:19:13
2	Sr 421.552†	11466.2	11301.3	29.000 µg/L	29.000 ppb	19:19:13
2	Sc 361.383	1715401.8	1715401.8	101.37 %		19:19:45
2	Y 371.029	1129443.4	1129443.4	118.02 %		19:19:45
2	Ag 328.068†	5133.6	-38.6	-0.4197 µg/L	-0.4197 ppb	19:19:47
2	As 188.979†	3.8	17.2	11.622 µg/L	11.622 ppb	19:20:07
2	B 249.677†	4598.3	424.3	6.2861 µg/L	6.2861 ppb	19:19:47
2	Ba 233.527†	33692.2	33383.7	150.82 µg/L	150.82 ppb	19:19:47
2	Be 313.107†	9145.1	10014.1	2.7993 µg/L	2.7993 ppb	19:19:47
2	Cd 226.502†	296.1	356.7	-0.2178 µg/L	-0.2178 ppb	19:20:07
2	Co 228.616†	60.4	286.6	2.6265 µg/L	2.6265 ppb	19:20:07
2	Cr 267.716†	2084.3	1726.5	15.984 µg/L	15.984 ppb	19:20:07
2	Cu 324.752†	5402.7	2088.6	12.208 µg/L	12.208 ppb	19:19:47
2	Mn 257.610†	306315.3	301968.6	394.53 µg/L	394.53 ppb	19:19:47
2	Mo 202.031†	173.2	192.5	7.5673 µg/L	7.5673 ppb	19:20:07
2	Ni 231.604†	1204.0	1261.7	15.690 µg/L	15.690 ppb	19:20:07
2	P 214.914†	492.2	504.8	101.30 µg/L	101.30 ppb	19:20:07
2	Pb 220.353†	362.4	240.3	15.674 µg/L	15.674 ppb	19:20:07

2	S 181.975 Axial†	256.6	151.2	128.73 µg/L	128.73 ppb	19:20:07
2	Sb 206.836†	79.4	0.8	-0.3852 µg/L	-0.3852 ppb	19:20:07
2	Se 196.026†	-5.0	-25.0	-1.24 µg/L	-1.24 ppb	19:20:07
2	SiO2†	32370.0	30244.5	3122.8 µg/L	3122.8 ppb	19:19:47
2	Si 251.611†	98146.7	96036.4	1464.9 µg/L	1464.9 ppb	19:19:47
2	Sn 189.927†	30.5	21.7	2.8385 µg/L	2.8385 ppb	19:20:07
2	Ti 334.940†	381576.1	375543.6	393.74 µg/L	393.74 ppb	19:19:45
2	Tl 190.801†	-160.1	-42.7	-0.9038 µg/L	-0.9038 ppb	19:20:07
2	U 409.014†	-2402.7	-1959.1	-120.79 µg/L	-120.79 ppb	19:19:47
2	V 292.402†	4824.0	4262.9	18.231 µg/L	18.231 ppb	19:19:47
2	Zn 213.857†	15571.0	14741.7	82.782 µg/L	82.782 ppb	19:19:47
3	Sc RADIAL	116880.4	116880.4	102 %		19:19:17
3	Al 396.153Radial†	56219.0	55105.2	12995 µg/L	12995 ppb	19:19:15
3	Ca 317.933Radial†	49243.4	47736.6	3930.6 µg/L	3930.6 ppb	19:19:17
3	Fe 238.204 Radial†	300940.1	294398.5	25113 µg/L	25113 ppb	19:19:15
3	K 766.490 Radial†	5761.4	4229.3	1688.9 µg/L	1688.9 ppb	19:19:17
3	Mg 279.077 IEC†	5642.0	5364.3	2945.3 µg/L	2945.3 ppb	19:19:17
3	Na 589.592 Radial†	4472.8	3542.1	563.66 µg/L	563.66 ppb	19:19:17
3	Sr 421.552†	11514.7	11335.9	29.089 µg/L	29.089 ppb	19:19:17
3	Sc 361.383	1710307.9	1710307.9	101.07 %		19:20:10
3	Y 371.029	1126507.0	1126507.0	117.71 %		19:20:10
3	Ag 328.068†	4635.6	-516.2	-2.3836 µg/L	-2.3836 ppb	19:20:12
3	As 188.979†	14.7	27.9	15.467 µg/L	15.467 ppb	19:20:32
3	B 249.677†	4572.0	411.8	6.1003 µg/L	6.1003 ppb	19:20:12
3	Ba 233.527†	33176.4	32972.3	148.95 µg/L	148.95 ppb	19:20:12
3	Be 313.107†	9308.6	10202.7	2.8566 µg/L	2.8566 ppb	19:20:12
3	Cd 226.502†	286.8	348.3	-0.3303 µg/L	-0.3303 ppb	19:20:32
3	Co 228.616†	57.4	283.9	2.5606 µg/L	2.5606 ppb	19:20:32
3	Cr 267.716†	2032.7	1681.6	15.599 µg/L	15.599 ppb	19:20:32
3	Cu 324.752†	5209.5	1913.2	11.572 µg/L	11.572 ppb	19:20:12
3	Mn 257.610†	301139.3	297747.1	389.01 µg/L	389.01 ppb	19:20:12
3	Mo 202.031†	181.4	201.1	7.8801 µg/L	7.8801 ppb	19:20:32
3	Ni 231.604†	1192.7	1254.0	15.595 µg/L	15.595 ppb	19:20:32
3	P 214.914†	527.0	540.6	109.19 µg/L	109.19 ppb	19:20:32
3	Pb 220.353†	326.4	205.8	13.504 µg/L	13.504 ppb	19:20:32
3	S 181.975 Axial†	246.2	141.7	120.64 µg/L	120.64 ppb	19:20:32
3	Sb 206.836†	61.2	-17.0	-2.6727 µg/L	-2.6727 ppb	19:20:32
3	Se 196.026†	-2.2	-22.2	0.043 µg/L	0.043 ppb	19:20:32
3	SiO2†	31830.6	29806.0	3077.5 µg/L	3077.5 ppb	19:20:12
3	Si 251.611†	96326.4	94523.7	1441.8 µg/L	1441.8 ppb	19:20:12
3	Sn 189.927†	35.0	26.2	3.1515 µg/L	3.1515 ppb	19:20:32
3	Ti 334.940†	380207.0	375310.0	393.49 µg/L	393.49 ppb	19:20:10
3	Tl 190.801†	-177.5	-60.4	-3.4247 µg/L	-3.4247 ppb	19:20:32
3	U 409.014†	-2186.1	-1751.8	-108.37 µg/L	-108.37 ppb	19:20:12
3	V 292.402†	4724.5	4178.7	17.766 µg/L	17.766 ppb	19:20:12
3	Zn 213.857†	15386.3	14604.7	81.939 µg/L	81.939 ppb	19:20:12

Mean Data: 1202056903|974190|5

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1711843.3	101.16 %	0.183			0.18%
Sc RADIAL	117446.3	103 %	1.0			0.94%
Y 371.029	1127496.8	117.81 %	0.176			0.15%
Ag 328.068†	-248.0	-1.2822 µg/L	1.00352	-1.2822 ppb	1.00352	78.26%
Al 396.153Radial†	54293.8	12804 µg/L	166.7	12804 ppb	166.7	1.30%
As 188.979†	19.5	12.452 µg/L	2.6981	12.452 ppb	2.6981	21.67%
B 249.677†	429.3	6.3602 µg/L	0.30372	6.3602 ppb	0.30372	4.78%
Ba 233.527†	33103.9	149.55 µg/L	1.099	149.55 ppb	1.099	0.74%
Be 313.107†	10153.8	2.8409 µg/L	0.03637	2.8409 ppb	0.03637	1.28%
Ca 317.933Radial†	47724.0	3929.6 µg/L	16.14	3929.6 ppb	16.14	0.41%
Cd 226.502†	355.6	-0.2417 µg/L	0.07942	-0.2417 ppb	0.07942	32.86%
Co 228.616†	280.5	2.5367 µg/L	0.10377	2.5367 ppb	0.10377	4.09%
Cr 267.716†	1702.3	15.772 µg/L	0.1954	15.772 ppb	0.1954	1.24%
Cu 324.752†	2008.2	11.904 µg/L	0.3190	11.904 ppb	0.3190	2.68%
Fe 238.204 Radial†	289862.3	24726 µg/L	337.3	24726 ppb	337.3	1.36%
K 766.490 Radial†	4162.8	1662.4 µg/L	23.01	1662.4 ppb	23.01	1.38%
Mg 279.077 IEC†	5382.4	2955.6 µg/L	33.39	2955.6 ppb	33.39	1.13%
Mn 257.610†	299335.0	391.09 µg/L	3.003	391.09 ppb	3.003	0.77%
Mo 202.031†	200.5	7.8458 µg/L	0.26294	7.8458 ppb	0.26294	3.35%
Na 589.592 Radial†	3640.3	579.36 µg/L	13.965	579.36 ppb	13.965	2.41%

Ni 231.604†	1258.9	15.655 µg/L	0.0523	15.655 ppb	0.0523	0.33%
P 214.914†	526.3	106.12 µg/L	4.229	106.12 ppb	4.229	3.99%
Pb 220.353†	225.5	14.748 µg/L	1.1197	14.748 ppb	1.1197	7.59%
S 181.975 Axial†	146.2	124.43 µg/L	4.073	124.43 ppb	4.073	3.27%
Sb 206.836†	-7.3	-1.4306 µg/L	1.15637	-1.4306 ppb	1.15637	80.83%
Se 196.026†	-21.4	0.205 µg/L	1.5347	0.205 ppb	1.5347	748.06%
SiO2†	29786.9	3075.5 µg/L	48.27	3075.5 ppb	48.27	1.57%
Si 251.611†	94584.3	1442.7 µg/L	21.70	1442.7 ppb	21.70	1.50%
Sn 189.927†	20.4	2.7478 µg/L	0.45587	2.7478 ppb	0.45587	16.59%
Sr 421.552†	11313.8	29.032 µg/L	0.0493	29.032 ppb	0.0493	0.17%
Ti 334.940†	375646.5	393.84 µg/L	0.416	393.84 ppb	0.416	0.11%
Tl 190.801†	-54.1	-2.5283 µg/L	1.40931	-2.5283 ppb	1.40931	55.74%
U 409.014†	-1850.2	-114.26 µg/L	6.236	-114.26 ppb	6.236	5.46%
Concentration less than lower limit for U 409.014.						
V 292.402†	4164.8	17.734 µg/L	0.5131	17.734 ppb	0.5131	2.89%
Zn 213.857†	14670.6	82.357 µg/L	0.4214	82.357 ppb	0.4214	0.51%

Sequence No.: 50

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/13/2010 19:20:39

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	116878.5	116878.5	102 %		19:21:12
1	Al 396.153Radial†	22346.1	21954.9	5153.9 µg/L	5153.9 ppb	19:21:12
1	Ca 317.933Radial†	63965.1	62145.4	5117.0 µg/L	5117.0 ppb	19:21:12
1	Fe 238.204 Radial†	61307.2	59876.6	5107.7 µg/L	5107.7 ppb	19:21:12
1	K 766.490 Radial†	14501.2	12782.9	5112.5 µg/L	5112.5 ppb	19:21:12
1	Mg 279.077 IEC†	9782.3	9416.5	5215.8 µg/L	5215.8 ppb	19:21:12
1	Na 589.592 Radial†	65701.8	63466.5	10122 µg/L	10122 ppb	19:21:10
1	Sr 421.552†	201050.8	196833.5	505.58 µg/L	505.58 ppb	19:21:10
1	Sc 361.383	1684861.6	1684861.6	99.562 %		19:21:25
1	Y 371.029	942158.9	942158.9	98.446 %		19:21:25
1	Ag 328.068†	126386.4	121838.8	509.42 µg/L	509.42 ppb	19:21:25
1	As 188.979†	1434.9	1454.6	511.07 µg/L	511.07 ppb	19:21:45
1	B 249.677†	37689.7	33743.4	499.13 µg/L	499.13 ppb	19:21:25
1	Ba 233.527†	111184.4	111818.8	506.59 µg/L	506.59 ppb	19:21:25
1	Be 313.107†	1773793.6	1782580.7	504.86 µg/L	504.86 ppb	19:21:25
1	Cd 226.502†	76163.9	76563.2	505.94 µg/L	505.94 ppb	19:21:25
1	Co 228.616†	38369.2	38764.9	508.46 µg/L	508.46 ppb	19:21:25
1	Cr 267.716†	57603.9	57527.4	505.10 µg/L	505.10 ppb	19:21:25
1	Cu 324.752†	124682.1	121988.8	506.59 µg/L	506.59 ppb	19:21:25
1	Mn 257.610†	387951.4	389440.9	508.83 µg/L	508.83 ppb	19:21:25
1	Mo 202.031†	14968.7	15056.1	511.56 µg/L	511.56 ppb	19:21:45
1	Ni 231.604†	40646.8	40899.3	508.62 µg/L	508.62 ppb	19:21:25
1	P 214.914†	11116.2	11184.2	2546.8 µg/L	2546.8 ppb	19:21:45
1	Pb 220.353†	8263.2	8182.3	514.31 µg/L	514.31 ppb	19:21:45
1	S 181.975 Axial†	1295.2	1199.0	1024.5 µg/L	1024.5 ppb	19:21:45
1	Sb 206.836†	4024.5	3964.7	509.45 µg/L	509.45 ppb	19:21:45
1	Se 196.026†	1328.5	1314.3	510 µg/L	510 ppb	19:21:45
1	SiO2†	53992.9	52541.3	5403.4 µg/L	5403.4 ppb	19:21:25
1	Si 251.611†	166669.9	166615.8	2531.5 µg/L	2531.5 ppb	19:21:25
1	Sn 189.927†	7292.8	7316.4	511.20 µg/L	511.20 ppb	19:21:45
1	Ti 334.940†	481986.3	483218.2	506.10 µg/L	506.10 ppb	19:21:25
1	Tl 190.801†	3487.5	3618.1	517.47 µg/L	517.47 ppb	19:21:45
1	U 409.014†	7355.2	7798.7	504.95 µg/L	504.95 ppb	19:21:25
1	V 292.402†	101487.4	101437.4	509.70 µg/L	509.70 ppb	19:21:25
1	Zn 213.857†	88163.0	87931.1	503.65 µg/L	503.65 ppb	19:21:25
2	Sc RADIAL	114488.3	114488.3	100 %		19:21:16
2	Al 396.153Radial†	22129.6	22195.2	5210.7 µg/L	5210.7 ppb	19:21:16
2	Ca 317.933Radial†	62756.4	62244.7	5125.2 µg/L	5125.2 ppb	19:21:16
2	Fe 238.204 Radial†	60132.8	59955.8	5114.5 µg/L	5114.5 ppb	19:21:16
2	K 766.490 Radial†	14150.8	12729.2	5091.0 µg/L	5091.0 ppb	19:21:16
2	Mg 279.077 IEC†	9572.7	9407.0	5210.5 µg/L	5210.5 ppb	19:21:16
2	Na 589.592 Radial†	65680.6	64787.8	10333 µg/L	10333 ppb	19:21:14
2	Sr 421.552†	201163.1	201053.7	516.42 µg/L	516.42 ppb	19:21:14
2	Sc 361.383	1696943.7	1696943.7	100.28 %		19:21:48
2	Y 371.029	948629.8	948629.8	99.122 %		19:21:48
2	Ag 328.068†	127029.1	121576.0	508.30 µg/L	508.30 ppb	19:21:48
2	As 188.979†	1433.1	1442.5	506.87 µg/L	506.87 ppb	19:22:08
2	B 249.677†	37888.6	33672.2	498.07 µg/L	498.07 ppb	19:21:48
2	Ba 233.527†	111643.6	111481.7	505.06 µg/L	505.06 ppb	19:21:48
2	Be 313.107†	1782142.4	1778221.7	503.62 µg/L	503.62 ppb	19:21:48
2	Cd 226.502†	76428.6	76282.5	504.09 µg/L	504.09 ppb	19:21:48
2	Co 228.616†	38615.0	38735.6	508.08 µg/L	508.08 ppb	19:21:48
2	Cr 267.716†	57805.6	57316.6	503.26 µg/L	503.26 ppb	19:21:48
2	Cu 324.752†	124939.1	121353.4	503.95 µg/L	503.95 ppb	19:21:48
2	Mn 257.610†	389252.1	387963.6	506.90 µg/L	506.90 ppb	19:21:48
2	Mo 202.031†	15008.9	14989.1	509.28 µg/L	509.28 ppb	19:22:08
2	Ni 231.604†	41009.6	40970.4	509.50 µg/L	509.50 ppb	19:21:48
2	P 214.914†	11158.5	11147.0	2538.3 µg/L	2538.3 ppb	19:22:08
2	Pb 220.353†	8285.4	8145.3	512.00 µg/L	512.00 ppb	19:22:08

2	S 181.975 Axial†	1315.5	1210.0	1033.8 µg/L	1033.8 ppb	19:22:08
2	Sb 206.836†	4038.3	3949.6	507.51 µg/L	507.51 ppb	19:22:08
2	Se 196.026†	1336.5	1312.8	510 µg/L	510 ppb	19:22:08
2	SiO2†	54551.7	52712.5	5421.1 µg/L	5421.1 ppb	19:21:48
2	Si 251.611†	168140.7	166890.6	2535.7 µg/L	2535.7 ppb	19:21:48
2	Sn 189.927†	7325.7	7297.1	509.84 µg/L	509.84 ppb	19:22:08
2	Ti 334.940†	484065.0	481844.4	504.66 µg/L	504.66 ppb	19:21:48
2	Tl 190.801†	3483.5	3589.1	513.37 µg/L	513.37 ppb	19:22:08
2	U 409.014†	7145.4	7536.9	488.96 µg/L	488.96 ppb	19:21:48
2	V 292.402†	102000.0	101222.8	508.60 µg/L	508.60 ppb	19:21:48
2	Zn 213.857†	88710.8	87846.9	503.16 µg/L	503.16 ppb	19:21:48
3	Sc RADIAL	115292.1	115292.1	101 %		19:21:20
3	Al 396.153Radial†	21994.4	21907.0	5142.7 µg/L	5142.7 ppb	19:21:20
3	Ca 317.933Radial†	62842.7	61893.2	5096.2 µg/L	5096.2 ppb	19:21:20
3	Fe 238.204 Radial†	60069.5	59474.1	5073.4 µg/L	5073.4 ppb	19:21:20
3	K 766.490 Radial†	14207.4	12686.7	5074.0 µg/L	5074.0 ppb	19:21:20
3	Mg 279.077 IEC†	9550.3	9318.1	5161.4 µg/L	5161.4 ppb	19:21:20
3	Na 589.592 Radial†	64779.3	63436.0	10117 µg/L	10117 ppb	19:21:18
3	Sr 421.552†	199593.7	198095.4	508.82 µg/L	508.82 ppb	19:21:18
3	Sc 361.383	1687821.0	1687821.0	99.737 %		19:22:11
3	Y 371.029	944156.1	944156.1	98.655 %		19:22:11
3	Ag 328.068†	126435.7	121665.6	508.70 µg/L	508.70 ppb	19:22:11
3	As 188.979†	1414.9	1432.0	503.24 µg/L	503.24 ppb	19:22:31
3	B 249.677†	37952.6	33940.6	502.05 µg/L	502.05 ppb	19:22:11
3	Ba 233.527†	111322.6	111761.6	506.33 µg/L	506.33 ppb	19:22:11
3	Be 313.107†	1778890.3	1784566.9	505.42 µg/L	505.42 ppb	19:22:11
3	Cd 226.502†	76535.8	76801.9	507.53 µg/L	507.53 ppb	19:22:11
3	Co 228.616†	38563.0	38891.6	510.12 µg/L	510.12 ppb	19:22:11
3	Cr 267.716†	57707.4	57529.7	505.12 µg/L	505.12 ppb	19:22:11
3	Cu 324.752†	124341.3	121427.4	504.26 µg/L	504.26 ppb	19:22:11
3	Mn 257.610†	387835.3	388641.2	507.79 µg/L	507.79 ppb	19:22:11
3	Mo 202.031†	14942.2	15003.2	509.76 µg/L	509.76 ppb	19:22:31
3	Ni 231.604†	40749.8	40931.0	509.01 µg/L	509.01 ppb	19:22:11
3	P 214.914†	11051.2	11099.5	2527.5 µg/L	2527.5 ppb	19:22:31
3	Pb 220.353†	8233.8	8138.2	511.55 µg/L	511.55 ppb	19:22:31
3	S 181.975 Axial†	1302.3	1203.8	1028.5 µg/L	1028.5 ppb	19:22:31
3	Sb 206.836†	4032.7	3965.8	509.57 µg/L	509.57 ppb	19:22:31
3	Se 196.026†	1331.4	1314.9	511 µg/L	511 ppb	19:22:31
3	SiO2†	54454.4	52909.0	5441.4 µg/L	5441.4 ppb	19:22:11
3	Si 251.611†	168266.4	167923.0	2551.4 µg/L	2551.4 ppb	19:22:11
3	Sn 189.927†	7304.9	7315.7	511.14 µg/L	511.14 ppb	19:22:31
3	Ti 334.940†	482625.6	483010.4	505.88 µg/L	505.88 ppb	19:22:11
3	Tl 190.801†	3483.7	3608.2	516.06 µg/L	516.06 ppb	19:22:31
3	U 409.014†	7276.8	7707.2	499.40 µg/L	499.40 ppb	19:22:11
3	V 292.402†	101696.8	101468.6	509.84 µg/L	509.84 ppb	19:22:11
3	Zn 213.857†	88471.5	88085.2	504.54 µg/L	504.54 ppb	19:22:11

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1689875.4	99.859 %	0.3721			0.37%
Sc RADIAL	115553.0	101 %	1.1			1.05%
Y 371.029	944981.6	98.741 %	0.3462			0.35%
Ag 328.068†	121693.5	508.81 µg/L	0.566	508.81 ppb	0.566	0.11%
QC value within limits for Ag 328.068 Recovery = 101.76%						
Al 396.153Radial†	22019.0	5169.1 µg/L	36.45	5169.1 ppb	36.45	0.71%
QC value within limits for Al 396.153Radial Recovery = 103.38%						
As 188.979†	1443.0	507.06 µg/L	3.918	507.06 ppb	3.918	0.77%
QC value within limits for As 188.979 Recovery = 101.41%						
B 249.677†	33785.4	499.75 µg/L	2.060	499.75 ppb	2.060	0.41%
QC value within limits for B 249.677 Recovery = 99.95%						
Ba 233.527†	111687.4	505.99 µg/L	0.817	505.99 ppb	0.817	0.16%
QC value within limits for Ba 233.527 Recovery = 101.20%						
Be 313.107†	1781789.8	504.63 µg/L	0.921	504.63 ppb	0.921	0.18%
QC value within limits for Be 313.107 Recovery = 100.93%						
Ca 317.933Radial†	62094.4	5112.8 µg/L	14.92	5112.8 ppb	14.92	0.29%
QC value within limits for Ca 317.933Radial Recovery = 102.26%						
Cd 226.502†	76549.2	505.85 µg/L	1.721	505.85 ppb	1.721	0.34%
QC value within limits for Cd 226.502 Recovery = 101.17%						
Co 228.616†	38797.4	508.89 µg/L	1.088	508.89 ppb	1.088	0.21%



QC value within limits for Co 228.616 Recovery = 101.78%							
Cr 267.716†	57457.9	504.50 µg/L	1.069	504.50 ppb	1.069	0.21%	
QC value within limits for Cr 267.716 Recovery = 100.90%							
Cu 324.752†	121589.8	504.93 µg/L	1.445	504.93 ppb	1.445	0.29%	
QC value within limits for Cu 324.752 Recovery = 100.99%							
Fe 238.204 Radial†	59768.8	5098.5 µg/L	22.03	5098.5 ppb	22.03	0.43%	
QC value within limits for Fe 238.204 Radial Recovery = 101.97%							
K 766.490 Radial†	12732.9	5092.5 µg/L	19.29	5092.5 ppb	19.29	0.38%	
QC value within limits for K 766.490 Radial Recovery = 101.85%							
Mg 279.077 IEC†	9380.5	5195.9 µg/L	30.02	5195.9 ppb	30.02	0.58%	
QC value within limits for Mg 279.077 IEC Recovery = 103.92%							
Mn 257.610†	388681.9	507.84 µg/L	0.966	507.84 ppb	0.966	0.19%	
QC value within limits for Mn 257.610 Recovery = 101.57%							
Mo 202.031†	15016.1	510.20 µg/L	1.199	510.20 ppb	1.199	0.23%	
QC value within limits for Mo 202.031 Recovery = 102.04%							
Na 589.592 Radial†	63896.8	10191 µg/L	123.1	10191 ppb	123.1	1.21%	
QC value within limits for Na 589.592 Radial Recovery = 101.91%							
Ni 231.604†	40933.6	509.04 µg/L	0.443	509.04 ppb	0.443	0.09%	
QC value within limits for Ni 231.604 Recovery = 101.81%							
P 214.914†	11143.6	2537.5 µg/L	9.67	2537.5 ppb	9.67	0.38%	
QC value within limits for P 214.914 Recovery = 101.50%							
Pb 220.353†	8155.3	512.62 µg/L	1.482	512.62 ppb	1.482	0.29%	
QC value within limits for Pb 220.353 Recovery = 102.52%							
S 181.975 Axial†	1204.2	1028.9 µg/L	4.69	1028.9 ppb	4.69	0.46%	
QC value within limits for S 181.975 Axial Recovery = 102.89%							
Sb 206.836†	3960.0	508.84 µg/L	1.157	508.84 ppb	1.157	0.23%	
QC value within limits for Sb 206.836 Recovery = 101.77%							
Se 196.026†	1314.0	510 µg/L	0.4	510 ppb	0.4	0.08%	
QC value within limits for Se 196.026 Recovery = 102.07%							
SiO2†	52720.9	5422.0 µg/L	19.02	5422.0 ppb	19.02	0.35%	
QC value within limits for SiO2 Recovery = 101.39%							
Si 251.611†	167143.1	2539.5 µg/L	10.52	2539.5 ppb	10.52	0.41%	
QC value within limits for Si 251.611 Recovery = 101.58%							
Sn 189.927†	7309.7	510.73 µg/L	0.767	510.73 ppb	0.767	0.15%	
QC value within limits for Sn 189.927 Recovery = 102.15%							
Sr 421.552†	198660.9	510.28 µg/L	5.564	510.28 ppb	5.564	1.09%	
QC value within limits for Sr 421.552 Recovery = 102.06%							
Ti 334.940†	482691.0	505.55 µg/L	0.773	505.55 ppb	0.773	0.15%	
QC value within limits for Ti 334.940 Recovery = 101.11%							
Tl 190.801†	3605.1	515.63 µg/L	2.086	515.63 ppb	2.086	0.40%	
QC value within limits for Tl 190.801 Recovery = 103.13%							
U 409.014†	7680.9	497.77 µg/L	8.120	497.77 ppb	8.120	1.63%	
QC value within limits for U 409.014 Recovery = 99.55%							
V 292.402†	101376.3	509.38 µg/L	0.681	509.38 ppb	0.681	0.13%	
QC value within limits for V 292.402 Recovery = 101.88%							
Zn 213.857†	87954.4	503.79 µg/L	0.701	503.79 ppb	0.701	0.14%	
QC value within limits for Zn 213.857 Recovery = 100.76%							
All analyte(s) passed QC.							

Sequence No.: 51

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/13/2010 19:22:39

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	118188.1	118188.1	103 %		19:23:08
1	Al 396.153Radial†	-33.7	52.3	12.293 µg/L	12.293 ppb	19:23:28
1	Ca 317.933Radial†	560.9	86.1	7.0900 µg/L	7.0900 ppb	19:23:28
1	Fe 238.204 Radial†	525.7	384.5	32.797 µg/L	32.797 ppb	19:23:28
1	K 766.490 Radial†	1595.2	134.6	53.877 µg/L	53.877 ppb	19:23:08
1	Mg 279.077 IEC†	174.8	11.8	6.5309 µg/L	6.5309 ppb	19:23:28
1	Na 589.592 Radial†	939.0	73.5	11.682 µg/L	11.682 ppb	19:23:08
1	Sr 421.552†	-86.2	-16.7	-0.0429 µg/L	-0.0429 ppb	19:23:08
1	Sc 361.383	1698225.4	1698225.4	100.35 %		19:24:16
1	Y 371.029	960016.4	960016.4	100.31 %		19:24:16
1	Ag 328.068†	4917.6	-202.6	-0.8418 µg/L	-0.8418 ppb	19:24:18
1	As 188.979†	-9.3	4.1	1.4437 µg/L	1.4437 ppb	19:24:38
1	B 249.677†	4142.6	16.1	0.2397 µg/L	0.2397 ppb	19:24:18
1	Ba 233.527†	-114.9	31.3	0.1411 µg/L	0.1411 ppb	19:24:38
1	Be 313.107†	-591.3	403.1	0.1156 µg/L	0.1156 ppb	19:24:18
1	Cd 226.502†	-53.3	11.5	0.0728 µg/L	0.0728 ppb	19:24:38
1	Co 228.616†	-239.3	-11.4	-0.1509 µg/L	-0.1509 ppb	19:24:38
1	Cr 267.716†	334.4	3.6	0.0280 µg/L	0.0280 ppb	19:24:38
1	Cu 324.752†	2991.5	-260.3	-1.0686 µg/L	-1.0686 ppb	19:24:18
1	Mn 257.610†	472.7	255.7	0.3339 µg/L	0.3339 ppb	19:24:38
1	Mo 202.031†	6.7	28.3	0.9631 µg/L	0.9631 ppb	19:24:38
1	Ni 231.604†	-42.3	31.8	0.3951 µg/L	0.3951 ppb	19:24:38
1	P 214.914†	7.0	26.2	5.9737 µg/L	5.9737 ppb	19:24:38
1	Pb 220.353†	127.0	9.4	0.5857 µg/L	0.5857 ppb	19:24:38
1	S 181.975 Axial†	113.4	11.1	9.4720 µg/L	9.4720 ppb	19:24:38
1	Sb 206.836†	91.0	13.1	1.6903 µg/L	1.6903 ppb	19:24:38
1	Se 196.026†	32.5	12.4	4.80 µg/L	4.80 ppb	19:24:38
1	SiO2†	2013.4	317.5	32.759 µg/L	32.759 ppb	19:24:18
1	Si 251.611†	1680.5	888.1	13.535 µg/L	13.535 ppb	19:24:18
1	Sn 189.927†	5.6	-2.8	-0.1942 µg/L	-0.1942 ppb	19:24:38
1	Ti 334.940†	1126.1	236.1	0.2452 µg/L	0.2452 ppb	19:24:18
1	Tl 190.801†	-94.3	21.3	3.0009 µg/L	3.0009 ppb	19:24:38
1	U 409.014†	-331.8	80.7	4.8482 µg/L	4.8482 ppb	19:24:18
1	V 292.402†	317.7	-179.4	-0.8799 µg/L	-0.8799 ppb	19:24:18
1	Zn 213.857†	652.2	30.6	0.1719 µg/L	0.1719 ppb	19:24:38
2	Sc RADIAL	115466.2	115466.2	101 %		19:23:30
2	Al 396.153Radial†	39.6	124.2	29.290 µg/L	29.290 ppb	19:23:50
2	Ca 317.933Radial†	542.7	80.9	6.6637 µg/L	6.6637 ppb	19:23:50
2	Fe 238.204 Radial†	444.2	315.7	26.935 µg/L	26.935 ppb	19:23:50
2	K 766.490 Radial†	1647.1	222.5	89.032 µg/L	89.032 ppb	19:23:30
2	Mg 279.077 IEC†	150.9	-7.9	-4.3696 µg/L	-4.3696 ppb	19:23:50
2	Na 589.592 Radial†	942.7	98.6	15.654 µg/L	15.654 ppb	19:23:30
2	Sr 421.552†	39.1	105.5	0.2709 µg/L	0.2709 ppb	19:23:30
2	Sc 361.383	1699893.1	1699893.1	100.45 %		19:24:40
2	Y 371.029	961245.7	961245.7	100.44 %		19:24:40
2	Ag 328.068†	5014.2	-111.2	-0.4641 µg/L	-0.4641 ppb	19:24:42
2	As 188.979†	-12.2	1.3	0.4627 µg/L	0.4627 ppb	19:25:02
2	B 249.677†	4044.5	-85.6	-1.2713 µg/L	-1.2713 ppb	19:24:42
2	Ba 233.527†	-113.0	33.3	0.1506 µg/L	0.1506 ppb	19:25:02
2	Be 313.107†	-807.3	188.6	0.0527 µg/L	0.0527 ppb	19:24:42
2	Cd 226.502†	-60.0	4.9	0.0293 µg/L	0.0293 ppb	19:25:02
2	Co 228.616†	-208.4	19.6	0.2559 µg/L	0.2559 ppb	19:25:02
2	Cr 267.716†	370.0	38.7	0.3423 µg/L	0.3423 ppb	19:25:02
2	Cu 324.752†	2960.7	-293.8	-1.2145 µg/L	-1.2145 ppb	19:24:42
2	Mn 257.610†	427.2	209.9	0.2745 µg/L	0.2745 ppb	19:25:02
2	Mo 202.031†	-15.2	6.5	0.2221 µg/L	0.2221 ppb	19:25:02
2	Ni 231.604†	-106.4	-32.0	-0.3983 µg/L	-0.3983 ppb	19:25:02
2	P 214.914†	-15.4	3.9	0.8891 µg/L	0.8891 ppb	19:25:02
2	Pb 220.353†	120.0	2.2	0.1444 µg/L	0.1444 ppb	19:25:02

2	S 181.975 Axial†	113.6	11.2	9.5312 µg/L	9.5312 ppb	19:25:02
2	Sb 206.836†	85.1	7.2	0.9170 µg/L	0.9170 ppb	19:25:02
2	Se 196.026†	23.4	3.3	1.28 µg/L	1.28 ppb	19:25:02
2	SiO2†	2086.5	388.3	40.083 µg/L	40.083 ppb	19:24:42
2	Si 251.611†	2113.4	1317.4	20.093 µg/L	20.093 ppb	19:24:42
2	Sn 189.927†	10.1	1.6	0.1107 µg/L	0.1107 ppb	19:25:02
2	Ti 334.940†	1042.9	152.1	0.1609 µg/L	0.1609 ppb	19:24:42
2	Tl 190.801†	-111.2	4.5	0.6389 µg/L	0.6389 ppb	19:25:02
2	U 409.014†	-453.7	-40.4	-2.4703 µg/L	-2.4703 ppb	19:24:42
2	V 292.402†	474.9	-23.3	-0.1163 µg/L	-0.1163 ppb	19:24:42
2	Zn 213.857†	668.5	46.2	0.2677 µg/L	0.2677 ppb	19:25:02
3	Sc RADIAL	114356.1	114356.1	100.0 %		19:23:52
3	Al 396.153Radial†	-34.7	50.2	11.820 µg/L	11.820 ppb	19:24:12
3	Ca 317.933Radial†	526.1	69.5	5.7260 µg/L	5.7260 ppb	19:24:12
3	Fe 238.204 Radial†	367.2	243.0	20.732 µg/L	20.732 ppb	19:24:12
3	K 766.490 Radial†	1415.3	6.4	2.5578 µg/L	2.5578 ppb	19:23:52
3	Mg 279.077 IEC†	151.1	-6.2	-3.4218 µg/L	-3.4218 ppb	19:24:12
3	Na 589.592 Radial†	957.9	122.9	19.600 µg/L	19.600 ppb	19:23:52
3	Sr 421.552†	35.0	101.8	0.2614 µg/L	0.2614 ppb	19:23:52
3	Sc 361.383	1730519.1	1730519.1	102.26 %		19:25:05
3	Y 371.029	976840.4	976840.4	102.07 %		19:25:05
3	Ag 328.068†	4893.1	-318.0	-1.3217 µg/L	-1.3217 ppb	19:25:07
3	As 188.979†	-9.3	4.3	1.5026 µg/L	1.5026 ppb	19:25:27
3	B 249.677†	4162.9	-41.0	-0.6104 µg/L	-0.6104 ppb	19:25:07
3	Ba 233.527†	-110.2	38.1	0.1723 µg/L	0.1723 ppb	19:25:27
3	Be 313.107†	-885.4	126.5	0.0346 µg/L	0.0346 ppb	19:25:07
3	Cd 226.502†	-66.2	-0.2	-0.0035 µg/L	-0.0035 ppb	19:25:27
3	Co 228.616†	-208.3	23.3	0.3051 µg/L	0.3051 ppb	19:25:27
3	Cr 267.716†	350.1	12.7	0.1155 µg/L	0.1155 ppb	19:25:27
3	Cu 324.752†	3097.6	-212.1	-0.8786 µg/L	-0.8786 ppb	19:25:07
3	Mn 257.610†	359.9	136.6	0.1786 µg/L	0.1786 ppb	19:25:27
3	Mo 202.031†	-7.9	13.9	0.4721 µg/L	0.4721 ppb	19:25:27
3	Ni 231.604†	-101.9	-25.7	-0.3199 µg/L	-0.3199 ppb	19:25:27
3	P 214.914†	-16.9	2.7	0.6226 µg/L	0.6226 ppb	19:25:27
3	Pb 220.353†	96.8	-22.6	-1.4112 µg/L	-1.4112 ppb	19:25:27
3	S 181.975 Axial†	120.7	16.1	13.700 µg/L	13.700 ppb	19:25:27
3	Sb 206.836†	83.5	4.1	0.5310 µg/L	0.5310 ppb	19:25:27
3	Se 196.026†	21.4	0.9	0.355 µg/L	0.355 ppb	19:25:27
3	SiO2†	2249.3	510.7	52.705 µg/L	52.705 ppb	19:25:07
3	Si 251.611†	2628.6	1783.9	27.202 µg/L	27.202 ppb	19:25:07
3	Sn 189.927†	20.1	11.2	0.7822 µg/L	0.7822 ppb	19:25:27
3	Ti 334.940†	944.7	37.7	0.0416 µg/L	0.0416 ppb	19:25:07
3	Tl 190.801†	-125.8	-7.8	-1.0970 µg/L	-1.0970 ppb	19:25:27
3	U 409.014†	-490.8	-68.7	-4.1956 µg/L	-4.1956 ppb	19:25:07
3	V 292.402†	452.3	-53.7	-0.2661 µg/L	-0.2661 ppb	19:25:07
3	Zn 213.857†	669.8	35.7	0.2069 µg/L	0.2069 ppb	19:25:27

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Std.Dev.	RSD
Sc 361.383	1709545.9	101.02 %		1.074			1.06%
Sc RADIAL	116003.5	101 %		1.7			1.70%
Y 371.029	966034.2	100.94 %		0.980			0.97%
Ag 328.068†	-210.6	-0.8759 µg/L		0.42979	-0.8759 ppb	0.42979	49.07%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	75.6	17.801 µg/L		9.9526	17.801 ppb	9.9526	55.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	3.3	1.1363 µg/L		0.58411	1.1363 ppb	0.58411	51.40%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-36.8	-0.5473 µg/L		0.75747	-0.5473 ppb	0.75747	138.40%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	34.3	0.1547 µg/L		0.01596	0.1547 ppb	0.01596	10.32%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	239.4	0.0676 µg/L		0.04255	0.0676 ppb	0.04255	62.92%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	78.9	6.4932 µg/L		0.69779	6.4932 ppb	0.69779	10.75%
QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	5.4	0.0328 µg/L		0.03826	0.0328 ppb	0.03826	116.51%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	10.5	0.1367 µg/L		0.25027	0.1367 ppb	0.25027	183.08%

QC value within limits for Co 228.616 Recovery = Not calculated  
 Cr 267.716† 18.3 0.1620 µg/L 0.16222 0.1620 ppb 0.16222 100.16%  
 QC value within limits for Cr 267.716 Recovery = Not calculated  
 Cu 324.752† -255.4 -1.0539 µg/L 0.16845 -1.0539 ppb 0.16845 15.98%  
 QC value within limits for Cu 324.752 Recovery = Not calculated  
 Fe 238.204 Radial† 314.4 26.821 µg/L 6.0336 26.821 ppb 6.0336 22.50%  
 QC value within limits for Fe 238.204 Radial Recovery = Not calculated  
 K 766.490 Radial† 121.2 48.489 µg/L 43.4883 48.489 ppb 43.4883 89.69%  
 QC value within limits for K 766.490 Radial Recovery = Not calculated  
 Mg 279.077 IEC† -0.7 -0.4202 µg/L 6.03841 -0.4202 ppb 6.03841 >999.9%  
 QC value within limits for Mg 279.077 IEC Recovery = Not calculated  
 Mn 257.610† 200.7 0.2623 µg/L 0.07836 0.2623 ppb 0.07836 29.87%  
 QC value within limits for Mn 257.610 Recovery = Not calculated  
 Mo 202.031† 16.2 0.5524 µg/L 0.37694 0.5524 ppb 0.37694 68.23%  
 QC value within limits for Mo 202.031 Recovery = Not calculated  
 Na 589.592 Radial† 98.3 15.646 µg/L 3.9588 15.646 ppb 3.9588 25.30%  
 QC value within limits for Na 589.592 Radial Recovery = Not calculated  
 Ni 231.604† -8.7 -0.1077 µg/L 0.43718 -0.1077 ppb 0.43718 405.84%  
 QC value within limits for Ni 231.604 Recovery = Not calculated  
 P 214.914† 10.9 2.4951 µg/L 3.01546 2.4951 ppb 3.01546 120.85%  
 QC value within limits for P 214.914 Recovery = Not calculated  
 Pb 220.353† -3.7 -0.2271 µg/L 1.04899 -0.2271 ppb 1.04899 461.98%  
 QC value within limits for Pb 220.353 Recovery = Not calculated  
 S 181.975 Axial† 12.8 10.901 µg/L 2.4241 10.901 ppb 2.4241 22.24%  
 QC value within limits for S 181.975 Axial Recovery = Not calculated  
 Sb 206.836† 8.1 1.0461 µg/L 0.59036 1.0461 ppb 0.59036 56.44%  
 QC value within limits for Sb 206.836 Recovery = Not calculated  
 Se 196.026† 5.5 2.14 µg/L 2.345 2.14 ppb 2.345 109.36%  
 QC value within limits for Se 196.026 Recovery = Not calculated  
 SiO2† 405.5 41.849 µg/L 10.0900 41.849 ppb 10.0900 24.11%  
 QC value within limits for SiO2 Recovery = Not calculated  
 Si 251.611† 1329.8 20.277 µg/L 6.8351 20.277 ppb 6.8351 33.71%  
 QC value within limits for Si 251.611 Recovery = Not calculated  
 Sn 189.927† 3.3 0.2329 µg/L 0.49955 0.2329 ppb 0.49955 214.48%  
 QC value within limits for Sn 189.927 Recovery = Not calculated  
 Sr 421.552† 63.5 0.1631 µg/L 0.17850 0.1631 ppb 0.17850 109.41%  
 QC value within limits for Sr 421.552 Recovery = Not calculated  
 Ti 334.940† 142.0 0.1493 µg/L 0.10230 0.1493 ppb 0.10230 68.54%  
 QC value within limits for Ti 334.940 Recovery = Not calculated  
 Tl 190.801† 6.0 0.8476 µg/L 2.05691 0.8476 ppb 2.05691 242.67%  
 QC value within limits for Tl 190.801 Recovery = Not calculated  
 U 409.014† -9.5 -0.6059 µg/L 4.80155 -0.6059 ppb 4.80155 792.48%  
 QC value within limits for U 409.014 Recovery = Not calculated  
 V 292.402† -85.5 -0.4208 µg/L 0.40460 -0.4208 ppb 0.40460 96.16%  
 QC value within limits for V 292.402 Recovery = Not calculated  
 Zn 213.857† 37.5 0.2155 µg/L 0.04848 0.2155 ppb 0.04848 22.49%  
 QC value within limits for Zn 213.857 Recovery = Not calculated  
 All analyte(s) passed QC.

Sequence No.: 6

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/13/2010 19:52:18

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	115473.7	115473.7	101 %		19:52:52
1	Al 396.153Radial†	22060.0	21937.6	5150.0 µg/L	5150.0 ppb	19:52:52
1	Ca 317.933Radial†	63167.3	62116.7	5114.6 µg/L	5114.6 ppb	19:52:52
1	Fe 238.204 Radial†	60605.6	59911.6	5110.7 µg/L	5110.7 ppb	19:52:52
1	K 766.490 Radial†	14299.8	12756.1	5101.8 µg/L	5101.8 ppb	19:52:52
1	Mg 279.077 IEC†	9551.8	9304.7	5153.8 µg/L	5153.8 ppb	19:52:52
1	Na 589.592 Radial†	65099.8	63652.4	10152 µg/L	10152 ppb	19:52:50
1	Sr 421.552†	199643.0	197832.8	508.15 µg/L	508.15 ppb	19:52:50
1	Sc 361.383	1688623.8	1688623.8	99.785 %		19:53:19
1	Y 371.029	945740.0	945740.0	74.453 %		19:53:19
1	Ag 328.068†	126183.1	121352.2	507.36 µg/L	507.36 ppb	19:53:19
1	As 188.979†	1401.8	1418.3	498.46 µg/L	498.46 ppb	19:53:39
1	B 249.677†	37472.9	33441.8	494.66 µg/L	494.66 ppb	19:53:19
1	Ba 233.527†	110731.3	111116.0	503.40 µg/L	503.40 ppb	19:53:19
1	Be 313.107†	1766758.1	1771560.6	501.73 µg/L	501.73 ppb	19:53:19
1	Cd 226.502†	75974.4	76202.9	503.56 µg/L	503.56 ppb	19:53:19
1	Co 228.616†	38249.1	38558.7	505.75 µg/L	505.75 ppb	19:53:19
1	Cr 267.716†	57454.9	57249.2	502.67 µg/L	502.67 ppb	19:53:19
1	Cu 324.752†	124574.4	121601.8	504.97 µg/L	504.97 ppb	19:53:19
1	Mn 257.610†	386804.5	387423.3	506.20 µg/L	506.20 ppb	19:53:19
1	Mo 202.031†	14839.6	14893.2	506.03 µg/L	506.03 ppb	19:53:39
1	Ni 231.604†	40563.4	40724.8	506.45 µg/L	506.45 ppb	19:53:19
1	P 214.914†	10913.2	10955.9	2494.6 µg/L	2494.6 ppb	19:53:39
1	Pb 220.353†	8128.7	8029.0	504.71 µg/L	504.71 ppb	19:53:39
1	S 181.975 Axial†	1275.3	1176.1	1005.0 µg/L	1005.0 ppb	19:53:39
1	Sb 206.836†	4007.0	3938.1	505.99 µg/L	505.99 ppb	19:53:39
1	Se 196.026†	1312.8	1295.6	503 µg/L	503 ppb	19:53:39
1	SiO2†	53750.9	52177.9	5366.1 µg/L	5366.1 ppb	19:53:19
1	Si 251.611†	166444.3	166016.7	2522.4 µg/L	2522.4 ppb	19:53:19
1	Sn 189.927†	7217.0	7224.1	504.76 µg/L	504.76 ppb	19:53:39
1	Ti 334.940†	481252.6	481404.4	504.21 µg/L	504.21 ppb	19:53:19
1	Tl 190.801†	3436.8	3559.5	509.19 µg/L	509.19 ppb	19:53:39
1	U 409.014†	7097.2	7523.7	488.10 µg/L	488.10 ppb	19:53:19
1	V 292.402†	101315.1	101037.6	507.64 µg/L	507.64 ppb	19:53:19
1	Zn 213.857†	87867.9	87438.1	500.82 µg/L	500.82 ppb	19:53:19
2	Sc RADIAL	115621.1	115621.1	101 %		19:52:56
2	Al 396.153Radial†	22193.5	22041.8	5174.5 µg/L	5174.5 ppb	19:52:56
2	Ca 317.933Radial†	62999.9	61871.4	5094.4 µg/L	5094.4 ppb	19:52:56
2	Fe 238.204 Radial†	60511.4	59741.8	5096.2 µg/L	5096.2 ppb	19:52:56
2	K 766.490 Radial†	14386.0	12823.3	5128.7 µg/L	5128.7 ppb	19:52:56
2	Mg 279.077 IEC†	9574.9	9315.5	5159.9 µg/L	5159.9 ppb	19:52:56
2	Na 589.592 Radial†	64960.4	63432.4	10117 µg/L	10117 ppb	19:52:54
2	Sr 421.552†	200300.7	198231.4	509.17 µg/L	509.17 ppb	19:52:54
2	Sc 361.383	1679797.5	1679797.5	99.263 %		19:53:42
2	Y 371.029	940125.5	940125.5	74.011 %		19:53:42
2	Ag 328.068†	125463.8	121292.1	507.16 µg/L	507.16 ppb	19:53:42
2	As 188.979†	1408.5	1432.4	503.36 µg/L	503.36 ppb	19:54:02
2	B 249.677†	37425.2	33591.1	496.86 µg/L	496.86 ppb	19:53:42
2	Ba 233.527†	110572.4	111538.9	505.32 µg/L	505.32 ppb	19:53:42
2	Be 313.107†	1764233.9	1778321.0	503.65 µg/L	503.65 ppb	19:53:42
2	Cd 226.502†	75398.2	76022.5	502.37 µg/L	502.37 ppb	19:53:42
2	Co 228.616†	38274.4	38785.6	508.73 µg/L	508.73 ppb	19:53:42
2	Cr 267.716†	57302.3	57398.0	503.96 µg/L	503.96 ppb	19:53:42
2	Cu 324.752†	124263.1	121944.2	506.40 µg/L	506.40 ppb	19:53:42
2	Mn 257.610†	385379.4	388024.4	506.98 µg/L	506.98 ppb	19:53:42
2	Mo 202.031†	14856.6	14988.5	509.26 µg/L	509.26 ppb	19:54:02
2	Ni 231.604†	40505.0	40879.6	508.37 µg/L	508.37 ppb	19:53:42
2	P 214.914†	10949.6	11050.1	2516.1 µg/L	2516.1 ppb	19:54:02
2	Pb 220.353†	8108.0	8050.9	506.08 µg/L	506.08 ppb	19:54:02

2	S 181.975 Axial†	1273.5	1181.0	1009.2 µg/L	1009.2 ppb	19:54:02
2	Sb 206.836†	4004.3	3956.5	508.38 µg/L	508.38 ppb	19:54:02
2	Se 196.026†	1322.5	1312.3	510 µg/L	510 ppb	19:54:02
2	SiO2†	54017.2	52729.3	5422.9 µg/L	5422.9 ppb	19:53:42
2	Si 251.611†	166417.5	166866.2	2535.3 µg/L	2535.3 ppb	19:53:42
2	Sn 189.927†	7219.4	7264.6	507.58 µg/L	507.58 ppb	19:54:02
2	Ti 334.940†	479968.7	482645.1	505.50 µg/L	505.50 ppb	19:53:42
2	Tl 190.801†	3437.6	3578.4	511.86 µg/L	511.86 ppb	19:54:02
2	U 409.014†	7330.3	7796.0	504.76 µg/L	504.76 ppb	19:53:42
2	V 292.402†	101119.8	101374.3	509.36 µg/L	509.36 ppb	19:53:42
2	Zn 213.857†	87563.2	87593.8	501.71 µg/L	501.71 ppb	19:53:42
3	Sc RADIAL	115219.8	115219.8	101 %		19:53:00
3	Al 396.153Radial†	21982.0	21908.3	5142.9 µg/L	5142.9 ppb	19:53:00
3	Ca 317.933Radial†	62544.0	61635.7	5075.0 µg/L	5075.0 ppb	19:53:00
3	Fe 238.204 Radial†	60093.6	59535.5	5078.6 µg/L	5078.6 ppb	19:53:00
3	K 766.490 Radial†	14270.0	12757.7	5102.4 µg/L	5102.4 ppb	19:53:00
3	Mg 279.077 IEC†	9486.7	9260.9	5129.8 µg/L	5129.8 ppb	19:53:00
3	Na 589.592 Radial†	65770.9	64460.9	10281 µg/L	10281 ppb	19:52:58
3	Sr 421.552†	202890.3	201492.4	517.55 µg/L	517.55 ppb	19:52:58
3	Sc 361.383	1677576.1	1677576.1	99.132 %		19:54:05
3	Y 371.029	939631.5	939631.5	73.972 %		19:54:05
3	Ag 328.068†	125587.2	121583.9	508.34 µg/L	508.34 ppb	19:54:05
3	As 188.979†	1421.7	1447.6	508.62 µg/L	508.62 ppb	19:54:25
3	B 249.677†	37496.4	33712.8	498.68 µg/L	498.68 ppb	19:54:05
3	Ba 233.527†	110224.1	111335.2	504.40 µg/L	504.40 ppb	19:54:05
3	Be 313.107†	1759636.1	1776036.4	503.00 µg/L	503.00 ppb	19:54:05
3	Cd 226.502†	75280.2	76003.9	502.25 µg/L	502.25 ppb	19:54:05
3	Co 228.616†	38072.7	38633.1	506.73 µg/L	506.73 ppb	19:54:05
3	Cr 267.716†	57064.9	57234.9	502.54 µg/L	502.54 ppb	19:54:05
3	Cu 324.752†	124061.3	121906.3	506.23 µg/L	506.23 ppb	19:54:05
3	Mn 257.610†	384199.8	387348.7	506.10 µg/L	506.10 ppb	19:54:05
3	Mo 202.031†	14922.6	15074.9	512.19 µg/L	512.19 ppb	19:54:25
3	Ni 231.604†	40287.0	40713.7	506.31 µg/L	506.31 ppb	19:54:05
3	P 214.914†	10955.3	11070.5	2520.8 µg/L	2520.8 ppb	19:54:25
3	Pb 220.353†	8184.9	8139.4	511.63 µg/L	511.63 ppb	19:54:25
3	S 181.975 Axial†	1293.9	1203.3	1028.2 µg/L	1028.2 ppb	19:54:25
3	Sb 206.836†	4032.3	3990.1	512.75 µg/L	512.75 ppb	19:54:25
3	Se 196.026†	1333.2	1324.9	515 µg/L	515 ppb	19:54:25
3	SiO2†	53996.8	52780.7	5428.1 µg/L	5428.1 ppb	19:54:05
3	Si 251.611†	166813.5	167487.7	2544.8 µg/L	2544.8 ppb	19:54:05
3	Sn 189.927†	7252.9	7308.0	510.61 µg/L	510.61 ppb	19:54:25
3	Ti 334.940†	479613.7	482927.2	505.80 µg/L	505.80 ppb	19:54:05
3	Tl 190.801†	3464.4	3610.0	516.33 µg/L	516.33 ppb	19:54:25
3	U 409.014†	7138.3	7612.0	493.55 µg/L	493.55 ppb	19:54:05
3	V 292.402†	100892.0	101279.4	508.91 µg/L	508.91 ppb	19:54:05
3	Zn 213.857†	87322.4	87467.7	501.00 µg/L	501.00 ppb	19:54:05

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1681999.2	99.393 %	0.3453			0.35%
Sc RADIAL	115438.2	101 %	0.2			0.18%
Y 371.029	941832.3	74.145 %	0.2671			0.36%
Ag 328.068†	121409.4	507.62 µg/L	0.634	507.62 ppb	0.634	0.12%
QC value within limits for Ag 328.068 Recovery = 101.52%						
Al 396.153Radial†	21962.6	5155.8 µg/L	16.57	5155.8 ppb	16.57	0.32%
QC value within limits for Al 396.153Radial Recovery = 103.12%						
As 188.979†	1432.7	503.48 µg/L	5.084	503.48 ppb	5.084	1.01%
QC value within limits for As 188.979 Recovery = 100.70%						
B 249.677†	33581.9	496.73 µg/L	2.013	496.73 ppb	2.013	0.41%
QC value within limits for B 249.677 Recovery = 99.35%						
Ba 233.527†	111330.0	504.37 µg/L	0.959	504.37 ppb	0.959	0.19%
QC value within limits for Ba 233.527 Recovery = 100.87%						
Be 313.107†	1775306.0	502.79 µg/L	0.976	502.79 ppb	0.976	0.19%
QC value within limits for Be 313.107 Recovery = 100.56%						
Ca 317.933Radial†	61874.6	5094.7 µg/L	19.80	5094.7 ppb	19.80	0.39%
QC value within limits for Ca 317.933Radial Recovery = 101.89%						
Cd 226.502†	76076.4	502.73 µg/L	0.725	502.73 ppb	0.725	0.14%
QC value within limits for Cd 226.502 Recovery = 100.55%						
Co 228.616†	38659.1	507.07 µg/L	1.518	507.07 ppb	1.518	0.30%

QC value within limits for Co	228.616	Recovery = 101.41%				
Cr 267.716†	57294.0	503.06 µg/L	0.787	503.06 ppb	0.787	0.16%
QC value within limits for Cr	267.716	Recovery = 100.61%				
Cu 324.752†	121817.4	505.87 µg/L	0.782	505.87 ppb	0.782	0.15%
QC value within limits for Cu	324.752	Recovery = 101.17%				
Fe 238.204 Radial†	59729.6	5095.2 µg/L	16.06	5095.2 ppb	16.06	0.32%
QC value within limits for Fe	238.204 Radial	Recovery = 101.90%				
K 766.490 Radial†	12779.0	5111.0 µg/L	15.37	5111.0 ppb	15.37	0.30%
QC value within limits for K	766.490 Radial	Recovery = 102.22%				
Mg 279.077 IEC†	9293.7	5147.9 µg/L	15.93	5147.9 ppb	15.93	0.31%
QC value within limits for Mg	279.077 IEC	Recovery = 102.96%				
Mn 257.610†	387598.8	506.43 µg/L	0.484	506.43 ppb	0.484	0.10%
QC value within limits for Mn	257.610	Recovery = 101.29%				
Mo 202.031†	14985.5	509.16 µg/L	3.085	509.16 ppb	3.085	0.61%
QC value within limits for Mo	202.031	Recovery = 101.83%				
Na 589.592 Radial†	63848.6	10183 µg/L	86.4	10183 ppb	86.4	0.85%
QC value within limits for Na	589.592 Radial	Recovery = 101.83%				
Ni 231.604†	40772.7	507.04 µg/L	1.153	507.04 ppb	1.153	0.23%
QC value within limits for Ni	231.604	Recovery = 101.41%				
P 214.914†	11025.5	2510.5 µg/L	13.95	2510.5 ppb	13.95	0.56%
QC value within limits for P	214.914	Recovery = 100.42%				
Pb 220.353†	8073.1	507.47 µg/L	3.669	507.47 ppb	3.669	0.72%
QC value within limits for Pb	220.353	Recovery = 101.49%				
S 181.975 Axial†	1186.8	1014.1 µg/L	12.37	1014.1 ppb	12.37	1.22%
QC value within limits for S	181.975 Axial	Recovery = 101.41%				
Sb 206.836†	3961.5	509.04 µg/L	3.430	509.04 ppb	3.430	0.67%
QC value within limits for Sb	206.836	Recovery = 101.81%				
Se 196.026†	1310.9	509 µg/L	5.7	509 ppb	5.7	1.12%
QC value within limits for Se	196.026	Recovery = 101.83%				
SiO2†	52562.6	5405.7 µg/L	34.39	5405.7 ppb	34.39	0.64%
QC value within limits for SiO2		Recovery = 101.09%				
Si 251.611†	166790.2	2534.2 µg/L	11.20	2534.2 ppb	11.20	0.44%
QC value within limits for Si	251.611	Recovery = 101.37%				
Sn 189.927†	7265.6	507.65 µg/L	2.923	507.65 ppb	2.923	0.58%
QC value within limits for Sn	189.927	Recovery = 101.53%				
Sr 421.552†	199185.6	511.62 µg/L	5.158	511.62 ppb	5.158	1.01%
QC value within limits for Sr	421.552	Recovery = 102.32%				
Ti 334.940†	482325.6	505.17 µg/L	0.848	505.17 ppb	0.848	0.17%
QC value within limits for Ti	334.940	Recovery = 101.03%				
Tl 190.801†	3582.6	512.46 µg/L	3.609	512.46 ppb	3.609	0.70%
QC value within limits for Tl	190.801	Recovery = 102.49%				
U 409.014†	7643.9	495.47 µg/L	8.494	495.47 ppb	8.494	1.71%
QC value within limits for U	409.014	Recovery = 99.09%				
V 292.402†	101230.4	508.64 µg/L	0.892	508.64 ppb	0.892	0.18%
QC value within limits for V	292.402	Recovery = 101.73%				
Zn 213.857†	87499.8	501.17 µg/L	0.470	501.17 ppb	0.470	0.09%
QC value within limits for Zn	213.857	Recovery = 100.23%				

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/13/2010 19:54:33

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	115604.0	115604.0	101 %		19:55:02
1	Al 396.153Radial†	-57.0	28.5	6.7244 µg/L	6.7244 ppb	19:55:22
1	Ca 317.933Radial†	465.8	4.2	0.3443 µg/L	0.3443 ppb	19:55:22
1	Fe 238.204 Radial†	152.2	26.3	2.2477 µg/L	2.2477 ppb	19:55:22
1	K 766.490 Radial†	1327.6	-95.6	-38.288 µg/L	-38.288 ppb	19:55:02
1	Mg 279.077 IEC†	137.8	-21.0	-11.593 µg/L	-11.593 ppb	19:55:22
1	Na 589.592 Radial†	969.9	124.4	19.876 µg/L	19.876 ppb	19:55:02
1	Sr 421.552†	-25.9	41.1	0.1057 µg/L	0.1057 ppb	19:55:02
1	Sc 361.383	1692865.0	1692865.0	100.04 %		19:56:24
1	Y 371.029	957476.3	957476.3	75.376 %		19:56:24
1	Ag 328.068†	5052.1	-52.6	-0.2114 µg/L	-0.2114 ppb	19:56:26
1	As 188.979†	-6.0	7.4	2.5627 µg/L	2.5627 ppb	19:56:46
1	B 249.677†	4066.0	-47.4	-0.7045 µg/L	-0.7045 ppb	19:56:26
1	Ba 233.527†	-148.2	-2.2	-0.0106 µg/L	-0.0106 ppb	19:56:46
1	Be 313.107†	-639.9	352.6	0.1034 µg/L	0.1034 ppb	19:56:26
1	Cd 226.502†	-63.1	1.5	0.0098 µg/L	0.0098 ppb	19:56:46
1	Co 228.616†	-209.7	17.5	0.2288 µg/L	0.2288 ppb	19:56:46
1	Cr 267.716†	364.2	34.4	0.2927 µg/L	0.2927 ppb	19:56:46
1	Cu 324.752†	2953.0	-289.3	-1.1878 µg/L	-1.1878 ppb	19:56:26
1	Mn 257.610†	430.4	214.9	0.2814 µg/L	0.2814 ppb	19:56:46
1	Mo 202.031†	-17.6	4.1	0.1374 µg/L	0.1374 ppb	19:56:46
1	Ni 231.604†	-64.9	9.0	0.1123 µg/L	0.1123 ppb	19:56:46
1	P 214.914†	-17.8	1.4	0.3452 µg/L	0.3452 ppb	19:56:46
1	Pb 220.353†	118.6	1.3	0.0752 µg/L	0.0752 ppb	19:56:46
1	S 181.975 Axial†	107.8	5.9	4.9886 µg/L	4.9886 ppb	19:56:46
1	Sb 206.836†	73.8	-3.7	-0.4782 µg/L	-0.4782 ppb	19:56:46
1	Se 196.026†	10.7	-9.3	-3.59 µg/L	-3.59 ppb	19:56:46
1	SiO2†	1931.8	242.3	25.001 µg/L	25.001 ppb	19:56:46
1	Si 251.611†	1380.5	593.5	9.0460 µg/L	9.0460 ppb	19:56:26
1	Sn 189.927†	20.1	11.6	0.8094 µg/L	0.8094 ppb	19:56:46
1	Ti 334.940†	847.3	-39.1	-0.0450 µg/L	-0.0450 ppb	19:56:26
1	Tl 190.801†	-105.3	10.0	1.4005 µg/L	1.4005 ppb	19:56:46
1	U 409.014†	-216.6	194.7	11.798 µg/L	11.798 ppb	19:56:26
1	V 292.402†	352.2	-143.9	-0.7031 µg/L	-0.7031 ppb	19:56:26
1	Zn 213.857†	673.9	54.3	0.3138 µg/L	0.3138 ppb	19:56:46
2	Sc RADIAL	113784.9	113784.9	99.5 %		19:55:24
2	Al 396.153Radial†	-83.7	0.8	0.1784 µg/L	0.1784 ppb	19:55:44
2	Ca 317.933Radial†	442.3	-12.1	-0.9981 µg/L	-0.9981 ppb	19:55:44
2	Fe 238.204 Radial†	151.7	28.2	2.4041 µg/L	2.4041 ppb	19:55:44
2	K 766.490 Radial†	1558.9	157.9	63.204 µg/L	63.204 ppb	19:55:24
2	Mg 279.077 IEC†	169.9	13.5	7.4679 µg/L	7.4679 ppb	19:55:44
2	Na 589.592 Radial†	832.6	1.8	0.2247 µg/L	0.2247 ppb	19:55:24
2	Sr 421.552†	-38.8	27.7	0.0711 µg/L	0.0711 ppb	19:55:24
2	Sc 361.383	1680491.4	1680491.4	99.304 %		19:56:48
2	Y 371.029	950809.8	950809.8	74.852 %		19:56:48
2	Ag 328.068†	5260.5	194.3	0.8100 µg/L	0.8100 ppb	19:56:51
2	As 188.979†	-5.6	7.7	2.6783 µg/L	2.6783 ppb	19:57:11
2	B 249.677†	4268.2	186.2	2.7631 µg/L	2.7631 ppb	19:56:51
2	Ba 233.527†	-131.4	13.6	0.0616 µg/L	0.0616 ppb	19:57:11
2	Be 313.107†	-748.6	238.5	0.0695 µg/L	0.0695 ppb	19:56:51
2	Cd 226.502†	-54.6	9.6	0.0630 µg/L	0.0630 ppb	19:57:11
2	Co 228.616†	-202.0	23.6	0.3095 µg/L	0.3095 ppb	19:57:11
2	Cr 267.716†	303.1	-24.4	-0.2195 µg/L	-0.2195 ppb	19:57:11
2	Cu 324.752†	3062.5	-157.3	-0.6451 µg/L	-0.6451 ppb	19:56:51
2	Mn 257.610†	436.6	224.3	0.2929 µg/L	0.2929 ppb	19:57:11
2	Mo 202.031†	-8.7	12.8	0.4360 µg/L	0.4360 ppb	19:57:11
2	Ni 231.604†	-78.4	-5.0	-0.0620 µg/L	-0.0620 ppb	19:57:11
2	P 214.914†	-6.6	12.6	2.8907 µg/L	2.8907 ppb	19:57:11
2	Pb 220.353†	132.6	16.3	1.0172 µg/L	1.0172 ppb	19:57:11



2	S 181.975 Axial†	101.4	0.2	0.1578 µg/L	0.1578 ppb	19:57:11
2	Sb 206.836†	85.4	8.4	1.0919 µg/L	1.0919 ppb	19:57:11
2	Se 196.026†	3.1	-16.9	-6.51 µg/L	-6.51 ppb	19:57:11
2	SiO2†	1929.9	254.5	26.255 µg/L	26.255 ppb	19:57:11
2	Si 251.611†	1460.9	684.6	10.433 µg/L	10.433 ppb	19:56:51
2	Sn 189.927†	19.5	11.2	0.7786 µg/L	0.7786 ppb	19:57:11
2	Ti 334.940†	993.9	114.7	0.1171 µg/L	0.1171 ppb	19:56:51
2	Tl 190.801†	-119.0	-4.6	-0.6534 µg/L	-0.6534 ppb	19:57:11
2	U 409.014†	-303.8	105.3	6.4023 µg/L	6.4023 ppb	19:56:51
2	V 292.402†	488.5	-4.1	-0.0127 µg/L	-0.0127 ppb	19:56:51
2	Zn 213.857†	663.8	49.2	0.2846 µg/L	0.2846 ppb	19:57:11
3	Sc RADIAL	117173.0	117173.0	102 %		19:55:46
3	Al 396.153Radial†	-86.2	0.8	0.1582 µg/L	0.1582 ppb	19:56:06
3	Ca 317.933Radial†	459.2	-8.5	-0.6971 µg/L	-0.6971 ppb	19:56:06
3	Fe 238.204 Radial†	182.3	53.7	4.5823 µg/L	4.5823 ppb	19:56:06
3	K 766.490 Radial†	1367.1	-74.7	-29.887 µg/L	-29.887 ppb	19:55:46
3	Mg 279.077 IEC†	165.5	4.2	2.3364 µg/L	2.3364 ppb	19:56:06
3	Na 589.592 Radial†	898.1	41.4	6.6374 µg/L	6.6374 ppb	19:55:46
3	Sr 421.552†	-41.4	26.3	0.0677 µg/L	0.0677 ppb	19:55:46
3	Sc 361.383	1702717.7	1702717.7	100.62 %		19:57:13
3	Y 371.029	962853.2	962853.2	75.800 %		19:57:13
3	Ag 328.068†	5256.5	121.2	0.5113 µg/L	0.5113 ppb	19:57:15
3	As 188.979†	-5.8	7.7	2.6701 µg/L	2.6701 ppb	19:57:35
3	B 249.677†	4073.5	-63.4	-0.9424 µg/L	-0.9424 ppb	19:57:15
3	Ba 233.527†	-119.0	27.6	0.1248 µg/L	0.1248 ppb	19:57:35
3	Be 313.107†	-757.6	239.4	0.0723 µg/L	0.0723 ppb	19:57:15
3	Cd 226.502†	-30.9	33.8	0.2232 µg/L	0.2232 ppb	19:57:35
3	Co 228.616†	-201.2	27.0	0.3544 µg/L	0.3544 ppb	19:57:35
3	Cr 267.716†	351.6	19.8	0.1620 µg/L	0.1620 ppb	19:57:35
3	Cu 324.752†	3104.5	-155.8	-0.6316 µg/L	-0.6316 ppb	19:57:15
3	Mn 257.610†	1215.4	992.6	1.2974 µg/L	1.2974 ppb	19:57:35
3	Mo 202.031†	-5.9	15.7	0.5345 µg/L	0.5345 ppb	19:57:35
3	Ni 231.604†	-75.9	-1.6	-0.0193 µg/L	-0.0193 ppb	19:57:35
3	P 214.914†	-11.2	8.1	1.8469 µg/L	1.8469 ppb	19:57:35
3	Pb 220.353†	123.3	5.3	0.3211 µg/L	0.3211 ppb	19:57:35
3	S 181.975 Axial†	104.7	2.1	1.7875 µg/L	1.7875 ppb	19:57:35
3	Sb 206.836†	80.5	2.5	0.3263 µg/L	0.3263 ppb	19:57:35
3	Se 196.026†	9.9	-10.1	-3.90 µg/L	-3.90 ppb	19:57:35
3	SiO2†	2060.5	359.0	37.056 µg/L	37.056 ppb	19:57:35
3	Si 251.611†	1533.8	737.9	11.250 µg/L	11.250 ppb	19:57:15
3	Sn 189.927†	6.5	-2.0	-0.1371 µg/L	-0.1371 ppb	19:57:35
3	Ti 334.940†	713.9	-176.6	-0.1916 µg/L	-0.1916 ppb	19:57:15
3	Tl 190.801†	-119.0	-3.0	-0.4326 µg/L	-0.4326 ppb	19:57:35
3	U 409.014†	-166.0	246.3	14.948 µg/L	14.948 ppb	19:57:15
3	V 292.402†	374.8	-123.5	-0.5962 µg/L	-0.5962 ppb	19:57:15
3	Zn 213.857†	693.9	70.4	0.4062 µg/L	0.4062 ppb	19:57:35

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1692024.7	99.986 %	0.6581			0.66%
Sc RADIAL	115520.6	101 %	1.5			1.47%
Y 371.029	957046.4	75.343 %	0.4750			0.63%
Ag 328.068†	87.6	0.3700 µg/L	0.52515	0.3700 ppb	0.52515	141.94%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	10.1	2.3537 µg/L	3.78514	2.3537 ppb	3.78514	160.82%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	7.6	2.6370 µg/L	0.06447	2.6370 ppb	0.06447	2.44%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	25.1	0.3721 µg/L	2.07414	0.3721 ppb	2.07414	557.46%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	13.0	0.0586 µg/L	0.06775	0.0586 ppb	0.06775	115.57%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	276.8	0.0817 µg/L	0.01884	0.0817 ppb	0.01884	23.05%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-5.5	-0.4503 µg/L	0.70442	-0.4503 ppb	0.70442	156.43%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	15.0	0.0986 µg/L	0.11107	0.0986 ppb	0.11107	112.59%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	22.7	0.2976 µg/L	0.06364	0.2976 ppb	0.06364	21.38%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	10.0	0.0784 µg/L	0.26614	0.0784 ppb	0.26614	339.28%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-200.8	-0.8215 µg/L	0.31730	-0.8215 ppb	0.31730	38.62%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	36.1	3.0781 µg/L	1.30507	3.0781 ppb	1.30507	42.40%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-4.1	-1.6570 µg/L	56.32842	-1.6570 ppb	56.32842	>999.9%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-1.1	-0.5961 µg/L	9.86292	-0.5961 ppb	9.86292	>999.9%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	477.3	0.6239 µg/L	0.58329	0.6239 ppb	0.58329	93.49%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	10.9	0.3693 µg/L	0.20678	0.3693 ppb	0.20678	55.99%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	55.9	8.9127 µg/L	10.02140	8.9127 ppb	10.02140	112.44%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	0.8	0.0103 µg/L	0.09082	0.0103 ppb	0.09082	879.14%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	7.4	1.6943 µg/L	1.27956	1.6943 ppb	1.27956	75.52%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	7.6	0.4712 µg/L	0.48857	0.4712 ppb	0.48857	103.69%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	2.7	2.3113 µg/L	2.45763	2.3113 ppb	2.45763	106.33%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	2.4	0.3133 µg/L	0.78512	0.3133 ppb	0.78512	250.58%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-12.1	-4.67 µg/L	1.607	-4.67 ppb	1.607	34.43%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	285.3	29.437 µg/L	6.6276	29.437 ppb	6.6276	22.51%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	672.0	10.243 µg/L	1.1141	10.243 ppb	1.1141	10.88%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	6.9	0.4836 µg/L	0.53782	0.4836 ppb	0.53782	111.21%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	31.7	0.0815 µg/L	0.02100	0.0815 ppb	0.02100	25.77%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-33.6	-0.0398 µg/L	0.15440	-0.0398 ppb	0.15440	388.04%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	0.8	0.1048 µg/L	1.12751	0.1048 ppb	1.12751	>999.9%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	182.1	11.049 µg/L	4.3217	11.049 ppb	4.3217	39.11%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-90.5	-0.4373 µg/L	0.37162	-0.4373 ppb	0.37162	84.97%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	58.0	0.3349 µg/L	0.06349	0.3349 ppb	0.06349	18.96%
QC value within limits for Zn 213.857 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 13

Sample ID: 248202001|974190|1

Analyst: LS

Initial Sample Wt:

Dilution:

Autosampler Location: 351

Date Collected: 4/13/2010 20:07:51

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248202001|974190|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	117902.7	117902.7	103	%		20:08:23
1	Al 396.153Radial†	152127.5	147677.6	34826	µg/L	34826 ppb	20:08:23
1	Ca 317.933Radial†	199883.7	193468.5	15930	µg/L	15930 ppb	20:08:23
1	Fe 238.204 Radial†	829710.6	804852.8	68657	µg/L	68657 ppb	20:08:21
1	K 766.490 Radial†	16069.5	14181.2	5664.8	µg/L	5664.8 ppb	20:08:23
1	Mg 279.077 IEC†	12195.4	11674.5	6397.7	µg/L	6397.7 ppb	20:08:23
1	Na 589.592 Radial†	13787.4	12541.1	1996.0	µg/L	1996.0 ppb	20:08:23
1	Sr 421.552†	34756.9	33787.5	86.668	µg/L	86.668 ppb	20:08:23
1	Sc 361.383	1706513.8	1706513.8	100.84	%		20:08:36
1	Y 371.029	1182645.4	1182645.4	93.103	%		20:08:36
1	Ag 328.068†	169717.2	163197.2	673.65	µg/L	673.65 ppb	20:08:36
1	As 188.979†	8.9	22.2	25.538	µg/L	25.538 ppb	20:08:56
1	B 249.677†	6796.0	2627.3	38.946	µg/L	38.946 ppb	20:08:36
1	Ba 233.527†	52762.3	52467.6	236.69	µg/L	236.69 ppb	20:08:36
1	Be 313.107†	23681.3	24475.9	6.8430	µg/L	6.8430 ppb	20:08:36
1	Cd 226.502†	2975.1	3014.8	12.747	µg/L	12.747 ppb	20:08:56
1	Co 228.616†	980.5	1199.4	12.421	µg/L	12.421 ppb	20:08:56
1	Cr 267.716†	29663.8	29086.5	257.77	µg/L	257.77 ppb	20:08:36
1	Cu 324.752†	415406.1	408696.5	1701.9	µg/L	1701.9 ppb	20:08:36
1	Mn 257.610†	821981.2	814902.8	1064.8	µg/L	1064.8 ppb	20:08:36
1	Mo 202.031†	172.8	193.0	9.4206	µg/L	9.4206 ppb	20:08:56
1	Ni 231.604†	5408.8	5437.6	67.621	µg/L	67.621 ppb	20:08:56
1	P 214.914†	5569.8	5542.5	1209.0	µg/L	1209.0 ppb	20:08:56
1	Pb 220.353†	5465.2	5302.3	334.86	µg/L	334.86 ppb	20:08:56
1	S 181.975 Axial†	2726.6	2601.9	2213.9	µg/L	2213.9 ppb	20:08:56
1	Sb 206.836†	102.3	23.9	-1.5768	µg/L	-1.5768 ppb	20:08:56
1	Se 196.026†	-47.5	-67.1	-2.39	µg/L	-2.39 ppb	20:08:56
1	SiO2†	126318.3	123574.8	12760	µg/L	12760 ppb	20:08:36
1	Si 251.611†	394372.5	390293.2	5953.6	µg/L	5953.6 ppb	20:08:36
1	Sn 189.927†	169.7	159.9	18.892	µg/L	18.892 ppb	20:08:56
1	Ti 334.940†	2213400.2	2194033.6	2300.8	µg/L	2300.8 ppb	20:08:36
1	Tl 190.801†	-320.8	-202.9	-2.0270	µg/L	-2.0270 ppb	20:08:56
1	U 409.014†	-5188.0	-4733.5	-290.02	µg/L	-290.02 ppb	20:08:36
1	V 292.402†	22205.6	21524.2	98.314	µg/L	98.314 ppb	20:08:36
1	Zn 213.857†	369423.5	365719.7	2104.2	µg/L	2104.2 ppb	20:08:36
2	Sc RADIAL	116469.1	116469.1	102	%		20:08:27
2	Al 396.153Radial†	151700.7	149075.2	35156	µg/L	35156 ppb	20:08:27
2	Ca 317.933Radial†	198435.4	194433.2	16010	µg/L	16010 ppb	20:08:27
2	Fe 238.204 Radial†	827327.7	812421.2	69303	µg/L	69303 ppb	20:08:25
2	K 766.490 Radial†	16171.1	14472.9	5781.5	µg/L	5781.5 ppb	20:08:27
2	Mg 279.077 IEC†	12059.5	11686.7	6403.9	µg/L	6403.9 ppb	20:08:27
2	Na 589.592 Radial†	13788.5	12706.9	2022.3	µg/L	2022.3 ppb	20:08:27
2	Sr 421.552†	34690.4	34137.3	87.566	µg/L	87.566 ppb	20:08:27
2	Sc 361.383	1712843.0	1712843.0	101.22	%		20:08:59
2	Y 371.029	1187698.8	1187698.8	93.501	%		20:08:59
2	Ag 328.068†	170489.1	163337.9	674.20	µg/L	674.20 ppb	20:08:59
2	As 188.979†	2.7	16.1	23.584	µg/L	23.584 ppb	20:09:19
2	B 249.677†	6736.7	2543.9	37.708	µg/L	37.708 ppb	20:08:59
2	Ba 233.527†	52879.0	52389.6	236.33	µg/L	236.33 ppb	20:08:59
2	Be 313.107†	24243.2	24944.2	6.9692	µg/L	6.9692 ppb	20:08:59
2	Cd 226.502†	2986.3	3015.0	12.680	µg/L	12.680 ppb	20:09:19
2	Co 228.616†	953.0	1168.6	11.984	µg/L	11.984 ppb	20:09:19
2	Cr 267.716†	29856.5	29168.2	258.53	µg/L	258.53 ppb	20:08:59
2	Cu 324.752†	417199.1	408945.8	1703.0	µg/L	1703.0 ppb	20:08:59
2	Mn 257.610†	825002.8	814876.1	1064.7	µg/L	1064.7 ppb	20:08:59
2	Mo 202.031†	173.5	193.0	9.4462	µg/L	9.4462 ppb	20:09:19
2	Ni 231.604†	5434.7	5443.4	67.693	µg/L	67.693 ppb	20:09:19
2	P 214.914†	5601.0	5552.9	1211.0	µg/L	1211.0 ppb	20:09:19
2	Pb 220.353†	5450.0	5267.3	332.68	µg/L	332.68 ppb	20:09:19

2	S 181.975 Axial†	2752.0	2617.0	2226.7 µg/L	2226.7 ppb	20:09:19
2	Sb 206.836†	116.8	37.9	0.1926 µg/L	0.1926 ppb	20:09:19
2	Se 196.026†	-20.1	-39.8	8.35 µg/L	8.35 ppb	20:09:19
2	SiO2†	128522.7	125289.8	12937 µg/L	12937 ppb	20:08:59
2	Si 251.611†	401409.0	395800.1	6037.6 µg/L	6037.6 ppb	20:08:59
2	Sn 189.927†	155.0	144.7	17.841 µg/L	17.841 ppb	20:09:19
2	Ti 334.940†	2222773.7	2195184.1	2302.0 µg/L	2302.0 ppb	20:08:59
2	Tl 190.801†	-321.6	-202.5	-1.9641 µg/L	-1.9641 ppb	20:09:19
2	U 409.014†	-5562.3	-5084.2	-311.49 µg/L	-311.49 ppb	20:08:59
2	V 292.402†	22317.3	21553.1	98.377 µg/L	98.377 ppb	20:08:59
2	Zn 213.857†	370670.4	365598.0	2103.5 µg/L	2103.5 ppb	20:08:59
3	Sc RADIAL	115426.7	115426.7	101 %		20:08:31
3	Al 396.153Radial†	150186.7	148920.3	35120 µg/L	35120 ppb	20:08:31
3	Ca 317.933Radial†	195978.7	193758.5	15954 µg/L	15954 ppb	20:08:31
3	Fe 238.204 Radial†	821758.3	814239.5	69458 µg/L	69458 ppb	20:08:29
3	K 766.490 Radial†	15748.4	14197.4	5671.2 µg/L	5671.2 ppb	20:08:31
3	Mg 279.077 IEC†	11874.2	11610.0	6361.4 µg/L	6361.4 ppb	20:08:31
3	Na 589.592 Radial†	13675.6	12717.2	2024.1 µg/L	2024.1 ppb	20:08:31
3	Sr 421.552†	34150.4	33909.8	86.982 µg/L	86.982 ppb	20:08:31
3	Sc 361.383	1677639.4	1677639.4	99.136 %		20:09:22
3	Y 371.029	1163453.9	1163453.9	91.592 %		20:09:22
3	Ag 328.068†	167090.3	163444.1	674.64 µg/L	674.64 ppb	20:09:22
3	As 188.979†	9.0	22.5	25.800 µg/L	25.800 ppb	20:09:42
3	B 249.677†	6568.0	2513.4	37.254 µg/L	37.254 ppb	20:09:22
3	Ba 233.527†	51754.6	52351.7	236.16 µg/L	236.16 ppb	20:09:22
3	Be 313.107†	23670.1	24868.8	6.9493 µg/L	6.9493 ppb	20:09:22
3	Cd 226.502†	2999.7	3090.5	13.163 µg/L	13.163 ppb	20:09:42
3	Co 228.616†	974.8	1210.3	12.522 µg/L	12.522 ppb	20:09:42
3	Cr 267.716†	29094.4	29018.4	257.21 µg/L	257.21 ppb	20:09:22
3	Cu 324.752†	408059.0	408375.3	1700.6 µg/L	1700.6 ppb	20:09:22
3	Mn 257.610†	806200.6	813013.9	1062.3 µg/L	1062.3 ppb	20:09:22
3	Mo 202.031†	162.2	185.3	9.1894 µg/L	9.1894 ppb	20:09:42
3	Ni 231.604†	5388.8	5509.7	68.518 µg/L	68.518 ppb	20:09:42
3	P 214.914†	5583.4	5651.3	1233.4 µg/L	1233.4 ppb	20:09:42
3	Pb 220.353†	5478.9	5409.4	341.57 µg/L	341.57 ppb	20:09:42
3	S 181.975 Axial†	2734.2	2656.1	2260.0 µg/L	2260.0 ppb	20:09:42
3	Sb 206.836†	117.4	40.9	0.5888 µg/L	0.5888 ppb	20:09:42
3	Se 196.026†	-27.8	-48.1	5.22 µg/L	5.22 ppb	20:09:42
3	SiO2†	123467.3	122854.8	12685 µg/L	12685 ppb	20:09:22
3	Si 251.611†	386260.6	388841.6	5931.4 µg/L	5931.4 ppb	20:09:22
3	Sn 189.927†	152.9	145.8	17.905 µg/L	17.905 ppb	20:09:42
3	Ti 334.940†	2173880.8	2191947.2	2298.6 µg/L	2298.6 ppb	20:09:22
3	Tl 190.801†	-337.0	-224.7	-5.1375 µg/L	-5.1375 ppb	20:09:42
3	U 409.014†	-5366.7	-5002.2	-306.58 µg/L	-306.58 ppb	20:09:22
3	V 292.402†	21762.6	21456.3	97.879 µg/L	97.879 ppb	20:09:22
3	Zn 213.857†	362122.8	364660.6	2098.0 µg/L	2098.0 ppb	20:09:22

Mean Data: 248202001|974190|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1698998.7	100.40 %	1.109			1.10%
Sc RADIAL	116599.5	102 %	1.1			1.07%
Y 371.029	1177932.7	92.732 %	1.0070			1.09%
Ag 328.068†	163326.4	674.16 µg/L	0.496	674.16 ppb	0.496	0.07%
Al 396.153Radial†	148557.7	35034 µg/L	180.7	35034 ppb	180.7	0.52%
As 188.979†	20.3	24.974 µg/L	1.2105	24.974 ppb	1.2105	4.85%
B 249.677†	2561.5	37.969 µg/L	0.8758	37.969 ppb	0.8758	2.31%
Ba 233.527†	52403.0	236.40 µg/L	0.273	236.40 ppb	0.273	0.12%
Be 313.107†	24763.0	6.9205 µg/L	0.06784	6.9205 ppb	0.06784	0.98%
Ca 317.933Radial†	193886.7	15965 µg/L	40.8	15965 ppb	40.8	0.26%
Cd 226.502†	3040.1	12.863 µg/L	0.2617	12.863 ppb	0.2617	2.03%
Co 228.616†	1192.8	12.309 µg/L	0.2859	12.309 ppb	0.2859	2.32%
Cr 267.716†	29091.0	257.84 µg/L	0.659	257.84 ppb	0.659	0.26%
Cu 324.752†	408672.5	1701.8 µg/L	1.17	1701.8 ppb	1.17	0.07%
Fe 238.204 Radial†	810504.5	69139 µg/L	424.7	69139 ppb	424.7	0.61%
K 766.490 Radial†	14283.8	5705.8 µg/L	65.57	5705.8 ppb	65.57	1.15%
Mg 279.077 IEC†	11657.1	6387.7 µg/L	22.97	6387.7 ppb	22.97	0.36%
Mn 257.610†	814264.3	1063.9 µg/L	1.42	1063.9 ppb	1.42	0.13%
Mo 202.031†	190.4	9.3521 µg/L	0.14147	9.3521 ppb	0.14147	1.51%
Na 589.592 Radial†	12655.1	2014.1 µg/L	15.74	2014.1 ppb	15.74	0.78%

Ni 231.604†	5463.6	67.944 µg/L	0.4984	67.944 ppb	0.4984	0.73%
P 214.914†	5582.2	1217.8 µg/L	13.54	1217.8 ppb	13.54	1.11%
Pb 220.353†	5326.4	336.37 µg/L	4.631	336.37 ppb	4.631	1.38%
S 181.975 Axial†	2625.0	2233.6 µg/L	23.78	2233.6 ppb	23.78	1.06%
Sb 206.836†	34.2	-0.2651 µg/L	1.15304	-0.2651 ppb	1.15304	434.90%
Se 196.026†	-51.6	3.73 µg/L	5.521	3.73 ppb	5.521	148.10%
SiO2†	123906.5	12794 µg/L	129.2	12794 ppb	129.2	1.01%
Si 251.611†	391645.0	5974.2 µg/L	56.00	5974.2 ppb	56.00	0.94%
Sn 189.927†	150.1	18.212 µg/L	0.5895	18.212 ppb	0.5895	3.24%
Sr 421.552†	33944.9	87.072 µg/L	0.4556	87.072 ppb	0.4556	0.52%
Ti 334.940†	2193721.6	2300.5 µg/L	1.72	2300.5 ppb	1.72	0.07%
Tl 190.801†	-210.0	-3.0429 µg/L	1.81428	-3.0429 ppb	1.81428	59.62%
U 409.014†	-4940.0	-302.70 µg/L	11.247	-302.70 ppb	11.247	3.72%
Concentration less than lower limit for U 409.014.						
V 292.402†	21511.2	98.190 µg/L	0.2713	98.190 ppb	0.2713	0.28%
Zn 213.857†	365326.1	2101.9 µg/L	3.38	2101.9 ppb	3.38	0.16%

Sequence No.: 14

Sample ID: 248202002|974190|1

Analyst: LS

Initial Sample Wt:

Dilution:

Autosampler Location: 352

Date Collected: 4/13/2010 20:09:49

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248202002|974190|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	118538.7	118538.7	104 %		20:10:21
1	Al 396.153Radial†	172183.2	166239.3	39202 µg/L	39202 ppb	20:10:19
1	Ca 317.933Radial†	437818.0	422031.2	34750 µg/L	34750 ppb	20:10:19
1	Fe 238.204 Radial†	1046651.5	1009878.9	86146 µg/L	86146 ppb	20:10:19
1	K 766.490 Radial†	22174.9	19989.2	7985.1 µg/L	7985.1 ppb	20:10:21
1	Mg 279.077 IEC†	13037.5	12423.7	6797.8 µg/L	6797.8 ppb	20:10:21
1	Na 589.592 Radial†	12183.2	10921.3	1735.5 µg/L	1735.5 ppb	20:10:21
1	Sr 421.552†	68324.7	65999.0	169.26 µg/L	169.26 ppb	20:10:21
1	Sc 361.383	1726390.5	1726390.5	102.02 %		20:10:48
1	Y 371.029	1030570.1	1030570.1	81.131 %		20:10:48
1	Ag 328.068†	56366.3	50149.1	205.77 µg/L	205.77 ppb	20:10:50
1	As 188.979†	2.3	15.7	26.100 µg/L	26.100 ppb	20:11:10
1	B 249.677†	12249.9	7895.8	117.13 µg/L	117.13 ppb	20:10:50
1	Ba 233.527†	80931.0	79477.2	358.72 µg/L	358.72 ppb	20:10:50
1	Be 313.107†	12232.6	12983.1	3.6444 µg/L	3.6444 ppb	20:10:50
1	Cd 226.502†	2500.6	2515.8	7.6244 µg/L	7.6244 ppb	20:11:10
1	Co 228.616†	1546.4	1742.9	18.730 µg/L	18.730 ppb	20:11:10
1	Cr 267.716†	15560.1	14922.9	133.57 µg/L	133.57 ppb	20:11:10
1	Cu 324.752†	7511504.7	7359786.1	30481 µg/L	30481 ppb	20:10:48
1	Mn 257.610†	1606446.9	1574477.4	2057.6 µg/L	2057.6 ppb	20:10:48
1	Mo 202.031†	1098.5	1098.4	40.842 µg/L	40.842 ppb	20:11:10
1	Ni 231.604†	8291.4	8201.5	101.99 µg/L	101.99 ppb	20:11:10
1	P 214.914†	12458.2	12231.2	2411.7 µg/L	2411.7 ppb	20:10:50
1	Pb 220.353†	15090.9	14675.4	910.53 µg/L	910.53 ppb	20:11:10
1	S 181.975 Axial†	2847.4	2689.2	2288.4 µg/L	2288.4 ppb	20:11:10
1	Sb 206.836†	133.9	53.7	4.2547 µg/L	4.2547 ppb	20:11:10
1	Se 196.026†	-39.2	-58.4	7.21 µg/L	7.21 ppb	20:11:10
1	SiO2†	60470.9	57586.7	5944.9 µg/L	5944.9 ppb	20:10:50
1	Si 251.611†	186925.1	182443.7	2782.4 µg/L	2782.4 ppb	20:10:50
1	Sn 189.927†	351.6	336.2	26.689 µg/L	26.689 ppb	20:11:10
1	Ti 334.940†	946375.9	926783.2	972.26 µg/L	972.26 ppb	20:10:48
1	Tl 190.801†	-230.8	-111.0	-0.1705 µg/L	-0.1705 ppb	20:11:10
1	U 409.014†	-2173.2	-1719.0	-105.40 µg/L	-105.40 ppb	20:10:50
1	V 292.402†	14939.9	14148.5	61.039 µg/L	61.039 ppb	20:11:10
1	Zn 213.857†	2413942.7	2365607.9	13626 µg/L	13626 ppb	20:10:48
2	Sc RADIAL	119556.9	119556.9	105 %		20:10:25
2	Al 396.153Radial†	174010.2	166572.2	39281 µg/L	39281 ppb	20:10:23
2	Ca 317.933Radial†	443745.3	424104.1	34920 µg/L	34920 ppb	20:10:23
2	Fe 238.204 Radial†	1060542.7	1014567.9	86546 µg/L	86546 ppb	20:10:23
2	K 766.490 Radial†	22361.6	19985.6	7983.6 µg/L	7983.6 ppb	20:10:25
2	Mg 279.077 IEC†	13344.7	12610.4	6900.7 µg/L	6900.7 ppb	20:10:25
2	Na 589.592 Radial†	12191.5	10829.1	1720.7 µg/L	1720.7 ppb	20:10:25
2	Sr 421.552†	69245.7	66318.7	170.08 µg/L	170.08 ppb	20:10:25
2	Sc 361.383	1737784.1	1737784.1	102.69 %		20:11:13
2	Y 371.029	1036395.9	1036395.9	81.589 %		20:11:13
2	Ag 328.068†	56665.0	50077.8	205.47 µg/L	205.47 ppb	20:11:15
2	As 188.979†	2.4	15.8	26.220 µg/L	26.220 ppb	20:11:35
2	B 249.677†	12408.1	7971.2	118.24 µg/L	118.24 ppb	20:11:15
2	Ba 233.527†	81518.3	79528.9	358.95 µg/L	358.95 ppb	20:11:15
2	Be 313.107†	12511.4	13176.0	3.7010 µg/L	3.7010 ppb	20:11:15
2	Cd 226.502†	2501.3	2500.4	7.4805 µg/L	7.4805 ppb	20:11:35
2	Co 228.616†	1592.9	1778.2	19.172 µg/L	19.172 ppb	20:11:35
2	Cr 267.716†	15617.5	14878.8	133.18 µg/L	133.18 ppb	20:11:35
2	Cu 324.752†	7559034.1	7357795.5	30473 µg/L	30473 ppb	20:11:13
2	Mn 257.610†	1618394.8	1575788.1	2059.3 µg/L	2059.3 ppb	20:11:13
2	Mo 202.031†	1073.5	1067.0	39.793 µg/L	39.793 ppb	20:11:35
2	Ni 231.604†	8314.4	8170.5	101.61 µg/L	101.61 ppb	20:11:35
2	P 214.914†	12500.8	12192.5	2402.7 µg/L	2402.7 ppb	20:11:15
2	Pb 220.353†	15097.1	14584.4	904.81 µg/L	904.81 ppb	20:11:35

2	S 181.975 Axial†	2842.4	2666.0	2268.7 µg/L	2268.7 ppb	20:11:35
2	Sb 206.836†	116.9	36.3	2.0105 µg/L	2.0105 ppb	20:11:35
2	Se 196.026†	-41.7	-60.6	6.49 µg/L	6.49 ppb	20:11:35
2	SiO2†	60567.8	57292.4	5914.5 µg/L	5914.5 ppb	20:11:15
2	Si 251.611†	186986.2	181301.9	2765.0 µg/L	2765.0 ppb	20:11:15
2	Sn 189.927†	348.4	330.9	26.314 µg/L	26.314 ppb	20:11:35
2	Ti 334.940†	951782.5	925965.9	971.40 µg/L	971.40 ppb	20:11:13
2	Tl 190.801†	-247.2	-125.5	-2.2221 µg/L	-2.2221 ppb	20:11:35
2	U 409.014†	-2078.7	-1613.0	-99.073 µg/L	-99.073 ppb	20:11:15
2	V 292.402†	14876.5	13990.8	60.207 µg/L	60.207 ppb	20:11:35
2	Zn 213.857†	2434899.0	2370501.2	13654 µg/L	13654 ppb	20:11:13
3	Sc RADIAL	120490.5	120490.5	105 %		20:10:29
3	Al 396.153Radial†	174961.2	166185.1	39190 µg/L	39190 ppb	20:10:27
3	Ca 317.933Radial†	446731.3	423649.2	34883 µg/L	34883 ppb	20:10:27
3	Fe 238.204 Radial†	1067946.4	1013734.5	86475 µg/L	86475 ppb	20:10:27
3	K 766.490 Radial†	22519.3	19969.5	7977.2 µg/L	7977.2 ppb	20:10:29
3	Mg 279.077 IEC†	13354.2	12520.6	6851.1 µg/L	6851.1 ppb	20:10:29
3	Na 589.592 Radial†	12245.8	10790.3	1714.6 µg/L	1714.6 ppb	20:10:29
3	Sr 421.552†	69162.2	65726.1	168.56 µg/L	168.56 ppb	20:10:29
3	Sc 361.383	1717206.4	1717206.4	101.47 %		20:11:38
3	Y 371.029	1024783.2	1024783.2	80.675 %		20:11:38
3	Ag 328.068†	56021.8	50105.2	205.62 µg/L	205.62 ppb	20:11:40
3	As 188.979†	-2.4	11.0	24.588 µg/L	24.588 ppb	20:12:00
3	B 249.677†	12273.7	7983.5	118.43 µg/L	118.43 ppb	20:11:40
3	Ba 233.527†	80806.4	79778.6	360.08 µg/L	360.08 ppb	20:11:40
3	Be 313.107†	12318.2	13131.7	3.6934 µg/L	3.6934 ppb	20:11:40
3	Cd 226.502†	2503.2	2531.4	7.6942 µg/L	7.6942 ppb	20:12:00
3	Co 228.616†	1572.0	1776.3	19.152 µg/L	19.152 ppb	20:12:00
3	Cr 267.716†	15643.7	15086.9	135.00 µg/L	135.00 ppb	20:12:00
3	Cu 324.752†	7493330.9	7381256.0	30570 µg/L	30570 ppb	20:11:38
3	Mn 257.610†	1601902.2	1578420.8	2062.7 µg/L	2062.7 ppb	20:11:38
3	Mo 202.031†	1087.4	1093.2	40.680 µg/L	40.680 ppb	20:12:00
3	Ni 231.604†	8373.1	8325.4	103.53 µg/L	103.53 ppb	20:12:00
3	P 214.914†	12310.5	12150.9	2392.2 µg/L	2392.2 ppb	20:11:40
3	Pb 220.353†	15114.8	14778.0	916.90 µg/L	916.90 ppb	20:12:00
3	S 181.975 Axial†	2849.9	2706.6	2303.2 µg/L	2303.2 ppb	20:12:00
3	Sb 206.836†	124.6	45.3	3.1433 µg/L	3.1433 ppb	20:12:00
3	Se 196.026†	-42.2	-61.6	6.10 µg/L	6.10 ppb	20:12:00
3	SiO2†	59688.6	57132.8	5898.0 µg/L	5898.0 ppb	20:11:40
3	Si 251.611†	184286.1	180823.0	2757.7 µg/L	2757.7 ppb	20:11:40
3	Sn 189.927†	352.9	339.3	26.915 µg/L	26.915 ppb	20:12:00
3	Ti 334.940†	943497.3	928907.8	974.48 µg/L	974.48 ppb	20:11:38
3	Tl 190.801†	-229.9	-111.3	-0.1819 µg/L	-0.1819 ppb	20:12:00
3	U 409.014†	-1778.4	-1341.3	-82.463 µg/L	-82.463 ppb	20:11:40
3	V 292.402†	14907.5	14195.0	61.252 µg/L	61.252 ppb	20:12:00
3	Zn 213.857†	2407958.6	2372366.0	13665 µg/L	13665 ppb	20:11:38

## Mean Data: 248202002|974190|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1727127.0	102.06 %	0.609			0.60%
Sc RADIAL	119528.7	104 %	0.9			0.82%
Y 371.029	1030583.1	81.132 %	0.4571			0.56%
Ag 328.068†	50110.7	205.62 µg/L	0.152	205.62 ppb	0.152	0.07%
Al 396.153Radial†	166332.2	39224 µg/L	49.5	39224 ppb	49.5	0.13%
As 188.979†	14.2	25.636 µg/L	0.9091	25.636 ppb	0.9091	3.55%
B 249.677†	7950.2	117.93 µg/L	0.704	117.93 ppb	0.704	0.60%
Ba 233.527†	79594.9	359.25 µg/L	0.729	359.25 ppb	0.729	0.20%
Be 313.107†	13096.9	3.6796 µg/L	0.03071	3.6796 ppb	0.03071	0.83%
Ca 317.933Radial†	423261.5	34851 µg/L	89.7	34851 ppb	89.7	0.26%
Cd 226.502†	2515.9	7.5997 µg/L	0.10895	7.5997 ppb	0.10895	1.43%
Co 228.616†	1765.8	19.018 µg/L	0.2497	19.018 ppb	0.2497	1.31%
Cr 267.716†	14962.9	133.92 µg/L	0.955	133.92 ppb	0.955	0.71%
Cu 324.752†	7366279.2	30508 µg/L	53.9	30508 ppb	53.9	0.18%
Concentration greater than upper limit for Cu 324.752.						
Fe 238.204 Radial†	1012727.1	86389 µg/L	213.4	86389 ppb	213.4	0.25%
K 766.490 Radial†	19981.4	7981.9 µg/L	4.20	7981.9 ppb	4.20	0.05%
Mg 279.077 IEC†	12518.2	6849.9 µg/L	51.46	6849.9 ppb	51.46	0.75%
Mn 257.610†	1576228.7	2059.8 µg/L	2.62	2059.8 ppb	2.62	0.13%
Mo 202.031†	1086.2	40.438 µg/L	0.5648	40.438 ppb	0.5648	1.40%

Na 589.592 Radial†	10846.9	1723.6 µg/L	10.74	1723.6 ppb	10.74	0.62%
Ni 231.604†	8232.5	102.38 µg/L	1.019	102.38 ppb	1.019	1.00%
P 214.914†	12191.6	2402.2 µg/L	9.78	2402.2 ppb	9.78	0.41%
Pb 220.353†	14679.3	910.75 µg/L	6.047	910.75 ppb	6.047	0.66%
S 181.975 Axial†	2687.3	2286.8 µg/L	17.32	2286.8 ppb	17.32	0.76%
Sb 206.836†	45.1	3.1362 µg/L	1.12212	3.1362 ppb	1.12212	35.78%
Se 196.026†	-60.2	6.60 µg/L	0.559	6.60 ppb	0.559	8.47%
SiO2†	57337.3	5919.1 µg/L	23.77	5919.1 ppb	23.77	0.40%
Si 251.611†	181522.9	2768.4 µg/L	12.70	2768.4 ppb	12.70	0.46%
Sn 189.927†	335.5	26.639 µg/L	0.3035	26.639 ppb	0.3035	1.14%
Sr 421.552†	66014.6	169.30 µg/L	0.762	169.30 ppb	0.762	0.45%
Ti 334.940†	927218.9	972.71 µg/L	1.589	972.71 ppb	1.589	0.16%
Tl 190.801†	-115.9	-0.8582 µg/L	1.18119	-0.8582 ppb	1.18119	137.64%
U 409.014†	-1557.8	-95.646 µg/L	11.8474	-95.646 ppb	11.8474	12.39%
Concentration less than lower limit for U 409.014.						
V 292.402†	14111.4	60.833 µg/L	0.5521	60.833 ppb	0.5521	0.91%
Zn 213.857†	2369491.7	13648 µg/L	20.1	13648 ppb	20.1	0.15%



Sequence No.: 15

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/13/2010 20:12:08

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	117309.3	117309.3	103 %		20:12:41
1	Al 396.153Radial†	22428.0	21954.5	5153.9 µg/L	5153.9 ppb	20:12:41
1	Ca 317.933Radial†	64061.5	62009.5	5105.8 µg/L	5105.8 ppb	20:12:41
1	Fe 238.204 Radial†	61658.6	59998.9	5118.1 µg/L	5118.1 ppb	20:12:41
1	K 766.490 Radial†	14452.0	12682.9	5072.5 µg/L	5072.5 ppb	20:12:41
1	Mg 279.077 IEC†	9775.2	9374.4	5192.5 µg/L	5192.5 ppb	20:12:41
1	Na 589.592 Radial†	65842.4	63367.5	10106 µg/L	10106 ppb	20:12:39
1	Sr 421.552†	202194.3	197225.9	506.59 µg/L	506.59 ppb	20:12:39
1	Sc 361.383	1686569.3	1686569.3	99.663 %		20:12:54
1	Y 371.029	943563.8	943563.8	74.281 %		20:12:54
1	Ag 328.068†	125714.3	121035.9	506.08 µg/L	506.08 ppb	20:12:54
1	As 188.979†	1423.4	1441.6	506.58 µg/L	506.58 ppb	20:13:14
1	B 249.677†	37450.2	33464.8	494.99 µg/L	494.99 ppb	20:12:54
1	Ba 233.527†	111174.4	111695.8	506.03 µg/L	506.03 ppb	20:12:54
1	Be 313.107†	1773807.4	1780790.6	504.34 µg/L	504.34 ppb	20:12:54
1	Cd 226.502†	75807.9	76128.5	503.07 µg/L	503.07 ppb	20:12:54
1	Co 228.616†	38463.5	38820.5	509.19 µg/L	509.19 ppb	20:12:54
1	Cr 267.716†	57558.5	57423.2	504.20 µg/L	504.20 ppb	20:12:54
1	Cu 324.752†	125695.6	122878.9	510.26 µg/L	510.26 ppb	20:12:54
1	Mn 257.610†	387186.4	388278.7	507.31 µg/L	507.31 ppb	20:12:54
1	Mo 202.031†	14911.9	14983.9	509.11 µg/L	509.11 ppb	20:13:14
1	Ni 231.604†	40599.0	40810.0	507.51 µg/L	507.51 ppb	20:12:54
1	P 214.914†	11002.0	11058.4	2518.0 µg/L	2518.0 ppb	20:13:14
1	Pb 220.353†	8189.4	8099.8	509.15 µg/L	509.15 ppb	20:13:14
1	S 181.975 Axial†	1290.7	1193.2	1019.5 µg/L	1019.5 ppb	20:13:14
1	Sb 206.836†	4027.5	3963.5	509.28 µg/L	509.28 ppb	20:13:14
1	Se 196.026†	1326.6	1311.1	509 µg/L	509 ppb	20:13:14
1	SiO2†	53857.8	52350.8	5383.8 µg/L	5383.8 ppb	20:12:54
1	Si 251.611†	166387.6	166163.1	2524.6 µg/L	2524.6 ppb	20:12:54
1	Sn 189.927†	7261.3	7277.4	508.48 µg/L	508.48 ppb	20:13:14
1	Ti 334.940†	482247.4	482990.1	505.87 µg/L	505.87 ppb	20:12:54
1	Tl 190.801†	3455.0	3581.9	512.36 µg/L	512.36 ppb	20:13:14
1	U 409.014†	7084.5	7519.6	487.95 µg/L	487.95 ppb	20:12:54
1	V 292.402†	101506.2	101353.0	509.24 µg/L	509.24 ppb	20:12:54
1	Zn 213.857†	88773.4	88453.9	506.67 µg/L	506.67 ppb	20:12:54
2	Sc RADIAL	114935.8	114935.8	100 %		20:12:45
2	Al 396.153Radial†	22194.7	22173.9	5205.8 µg/L	5205.8 ppb	20:12:45
2	Ca 317.933Radial†	62786.2	62030.3	5107.5 µg/L	5107.5 ppb	20:12:45
2	Fe 238.204 Radial†	60459.4	60047.0	5122.2 µg/L	5122.2 ppb	20:12:45
2	K 766.490 Radial†	14395.5	12917.6	5166.4 µg/L	5166.4 ppb	20:12:45
2	Mg 279.077 IEC†	9565.4	9362.5	5185.8 µg/L	5185.8 ppb	20:12:45
2	Na 589.592 Radial†	64982.2	63837.3	10181 µg/L	10181 ppb	20:12:43
2	Sr 421.552†	200821.4	199931.1	513.54 µg/L	513.54 ppb	20:12:43
2	Sc 361.383	1694542.8	1694542.8	100.13 %		20:13:17
2	Y 371.029	948481.0	948481.0	74.668 %		20:13:17
2	Ag 328.068†	126183.3	120910.8	505.55 µg/L	505.55 ppb	20:13:17
2	As 188.979†	1430.4	1441.9	506.64 µg/L	506.64 ppb	20:13:37
2	B 249.677†	37656.3	33493.8	495.43 µg/L	495.43 ppb	20:13:17
2	Ba 233.527†	111149.1	111145.6	503.54 µg/L	503.54 ppb	20:13:17
2	Be 313.107†	1780172.3	1778772.2	503.78 µg/L	503.78 ppb	20:13:17
2	Cd 226.502†	76024.8	75987.2	502.13 µg/L	502.13 ppb	20:13:17
2	Co 228.616†	38484.2	38659.6	507.08 µg/L	507.08 ppb	20:13:17
2	Cr 267.716†	57481.1	57074.2	501.12 µg/L	501.12 ppb	20:13:17
2	Cu 324.752†	125461.3	122051.4	506.85 µg/L	506.85 ppb	20:13:17
2	Mn 257.610†	387930.0	387193.3	505.89 µg/L	505.89 ppb	20:13:17
2	Mo 202.031†	14899.1	14900.7	506.28 µg/L	506.28 ppb	20:13:37
2	Ni 231.604†	40756.0	40775.1	507.07 µg/L	507.07 ppb	20:13:17
2	P 214.914†	11002.8	11007.2	2506.3 µg/L	2506.3 ppb	20:13:37
2	Pb 220.353†	8180.6	8052.4	506.16 µg/L	506.16 ppb	20:13:37

2	S 181.975 Axial†	1280.4	1176.8	1005.5 µg/L	1005.5 ppb	20:13:37
2	Sb 206.836†	4013.5	3930.6	505.05 µg/L	505.05 ppb	20:13:37
2	Se 196.026†	1311.4	1289.6	501 µg/L	501 ppb	20:13:37
2	SiO2†	54340.6	52578.7	5407.5 µg/L	5407.5 ppb	20:13:17
2	Si 251.611†	167387.8	166376.4	2527.9 µg/L	2527.9 ppb	20:13:17
2	Sn 189.927†	7210.4	7192.3	502.55 µg/L	502.55 ppb	20:13:37
2	Ti 334.940†	483289.0	481753.4	504.56 µg/L	504.56 ppb	20:13:17
2	Tl 190.801†	3474.0	3584.5	512.71 µg/L	512.71 ppb	20:13:37
2	U 409.014†	7417.8	7819.1	506.02 µg/L	506.02 ppb	20:13:17
2	V 292.402†	101514.5	100882.0	506.88 µg/L	506.88 ppb	20:13:17
2	Zn 213.857†	88779.2	88040.5	504.29 µg/L	504.29 ppb	20:13:17
3	Sc RADIAL	114077.6	114077.6	99.7 %		20:12:49
3	Al 396.153Radial†	22234.5	22380.0	5254.7 µg/L	5254.7 ppb	20:12:49
3	Ca 317.933Radial†	62707.6	62421.5	5139.7 µg/L	5139.7 ppb	20:12:49
3	Fe 238.204 Radial†	60012.4	60051.4	5122.6 µg/L	5122.6 ppb	20:12:49
3	K 766.490 Radial†	14237.0	12866.4	5145.9 µg/L	5145.9 ppb	20:12:49
3	Mg 279.077 IEC†	9418.1	9286.4	5143.5 µg/L	5143.5 ppb	20:12:49
3	Na 589.592 Radial†	65176.7	64518.8	10290 µg/L	10290 ppb	20:12:47
3	Sr 421.552†	199814.0	200424.5	514.81 µg/L	514.81 ppb	20:12:47
3	Sc 361.383	1717680.4	1717680.4	101.50 %		20:13:40
3	Y 371.029	959809.9	959809.9	75.560 %		20:13:40
3	Ag 328.068†	128261.0	121260.2	506.99 µg/L	506.99 ppb	20:13:40
3	As 188.979†	1428.1	1420.4	499.19 µg/L	499.19 ppb	20:14:00
3	B 249.677†	38453.3	33772.4	499.56 µg/L	499.56 ppb	20:13:40
3	Ba 233.527†	113291.9	111761.5	506.32 µg/L	506.32 ppb	20:13:40
3	Be 313.107†	1812219.4	1786398.1	505.93 µg/L	505.93 ppb	20:13:40
3	Cd 226.502†	77685.0	76600.2	506.19 µg/L	506.19 ppb	20:13:40
3	Co 228.616†	39131.0	38779.1	508.65 µg/L	508.65 ppb	20:13:40
3	Cr 267.716†	58476.5	57281.7	502.96 µg/L	502.96 ppb	20:13:40
3	Cu 324.752†	126795.7	121678.3	505.29 µg/L	505.29 ppb	20:13:40
3	Mn 257.610†	394298.9	388249.5	507.28 µg/L	507.28 ppb	20:13:40
3	Mo 202.031†	14875.4	14676.9	498.69 µg/L	498.69 ppb	20:14:00
3	Ni 231.604†	41272.1	40735.4	506.58 µg/L	506.58 ppb	20:13:40
3	P 214.914†	11004.7	10861.1	2473.0 µg/L	2473.0 ppb	20:14:00
3	Pb 220.353†	8182.5	7944.2	499.38 µg/L	499.38 ppb	20:14:00
3	S 181.975 Axial†	1285.9	1165.0	995.43 µg/L	995.43 ppb	20:14:00
3	Sb 206.836†	4027.4	3890.3	499.74 µg/L	499.74 ppb	20:14:00
3	Se 196.026†	1318.4	1279.0	497 µg/L	497 ppb	20:14:00
3	SiO2†	55471.6	52961.9	5447.3 µg/L	5447.3 ppb	20:13:40
3	Si 251.611†	170816.1	167502.2	2545.2 µg/L	2545.2 ppb	20:13:40
3	Sn 189.927†	7271.1	7155.1	499.96 µg/L	499.96 ppb	20:14:00
3	Ti 334.940†	490610.6	482465.4	505.32 µg/L	505.32 ppb	20:13:40
3	Tl 190.801†	3452.9	3517.0	503.21 µg/L	503.21 ppb	20:14:00
3	U 409.014†	7089.5	7395.9	480.41 µg/L	480.41 ppb	20:13:40
3	V 292.402†	103327.2	101302.3	508.87 µg/L	508.87 ppb	20:13:40
3	Zn 213.857†	90154.5	88201.3	505.23 µg/L	505.23 ppb	20:13:40

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1699597.5	100.43 %	0.955			0.95%
Sc RADIAL	115440.9	101 %	1.5			1.45%
Y 371.029	950618.2	74.837 %	0.6559			0.88%
Ag 328.068†	121069.0	506.21 µg/L	0.726	506.21 ppb	0.726	0.14%
QC value within limits for Ag 328.068 Recovery = 101.24%						
Al 396.153Radial†	22169.5	5204.8 µg/L	50.42	5204.8 ppb	50.42	0.97%
QC value within limits for Al 396.153Radial Recovery = 104.10%						
As 188.979†	1434.7	504.14 µg/L	4.282	504.14 ppb	4.282	0.85%
QC value within limits for As 188.979 Recovery = 100.83%						
B 249.677†	33577.0	496.66 µg/L	2.521	496.66 ppb	2.521	0.51%
QC value within limits for B 249.677 Recovery = 99.33%						
Ba 233.527†	111534.3	505.30 µg/L	1.531	505.30 ppb	1.531	0.30%
QC value within limits for Ba 233.527 Recovery = 101.06%						
Be 313.107†	1781987.0	504.68 µg/L	1.115	504.68 ppb	1.115	0.22%
QC value within limits for Be 313.107 Recovery = 100.94%						
Ca 317.933Radial†	62153.8	5117.7 µg/L	19.11	5117.7 ppb	19.11	0.37%
QC value within limits for Ca 317.933Radial Recovery = 102.35%						
Cd 226.502†	76238.6	503.80 µg/L	2.122	503.80 ppb	2.122	0.42%
QC value within limits for Cd 226.502 Recovery = 100.76%						
Co 228.616†	38753.1	508.30 µg/L	1.097	508.30 ppb	1.097	0.22%

QC value within limits for Co 228.616 Recovery = 101.66%							
Cr 267.716†	57259.7	502.76 µg/L	1.550	502.76 ppb	1.550	0.31%	
QC value within limits for Cr 267.716 Recovery = 100.55%							
Cu 324.752†	122202.9	507.47 µg/L	2.545	507.47 ppb	2.545	0.50%	
QC value within limits for Cu 324.752 Recovery = 101.49%							
Fe 238.204 Radial†	60032.4	5121.0 µg/L	2.49	5121.0 ppb	2.49	0.05%	
QC value within limits for Fe 238.204 Radial Recovery = 102.42%							
K 766.490 Radial†	12822.3	5128.3 µg/L	49.39	5128.3 ppb	49.39	0.96%	
QC value within limits for K 766.490 Radial Recovery = 102.57%							
Mg 279.077 IEC†	9341.1	5173.9 µg/L	26.55	5173.9 ppb	26.55	0.51%	
QC value within limits for Mg 279.077 IEC Recovery = 103.48%							
Mn 257.610†	387907.2	506.83 µg/L	0.809	506.83 ppb	0.809	0.16%	
QC value within limits for Mn 257.610 Recovery = 101.37%							
Mo 202.031†	14853.8	504.69 µg/L	5.390	504.69 ppb	5.390	1.07%	
QC value within limits for Mo 202.031 Recovery = 100.94%							
Na 589.592 Radial†	63907.8	10192 µg/L	92.3	10192 ppb	92.3	0.91%	
QC value within limits for Na 589.592 Radial Recovery = 101.92%							
Ni 231.604†	40773.5	507.05 µg/L	0.465	507.05 ppb	0.465	0.09%	
QC value within limits for Ni 231.604 Recovery = 101.41%							
P 214.914†	10975.6	2499.1 µg/L	23.34	2499.1 ppb	23.34	0.93%	
QC value within limits for P 214.914 Recovery = 99.96%							
Pb 220.353†	8032.2	504.90 µg/L	5.003	504.90 ppb	5.003	0.99%	
QC value within limits for Pb 220.353 Recovery = 100.98%							
S 181.975 Axial†	1178.3	1006.8 µg/L	12.08	1006.8 ppb	12.08	1.20%	
QC value within limits for S 181.975 Axial Recovery = 100.68%							
Sb 206.836†	3928.1	504.69 µg/L	4.778	504.69 ppb	4.778	0.95%	
QC value within limits for Sb 206.836 Recovery = 100.94%							
Se 196.026†	1293.2	502 µg/L	6.3	502 ppb	6.3	1.26%	
QC value within limits for Se 196.026 Recovery = 100.46%							
SiO2†	52630.5	5412.9 µg/L	32.10	5412.9 ppb	32.10	0.59%	
QC value within limits for SiO2 Recovery = 101.22%							
Si 251.611†	166680.5	2532.6 µg/L	11.07	2532.6 ppb	11.07	0.44%	
QC value within limits for Si 251.611 Recovery = 101.30%							
Sn 189.927†	7208.3	503.66 µg/L	4.366	503.66 ppb	4.366	0.87%	
QC value within limits for Sn 189.927 Recovery = 100.73%							
Sr 421.552†	199193.9	511.64 µg/L	4.423	511.64 ppb	4.423	0.86%	
QC value within limits for Sr 421.552 Recovery = 102.33%							
Ti 334.940†	482403.0	505.25 µg/L	0.654	505.25 ppb	0.654	0.13%	
QC value within limits for Ti 334.940 Recovery = 101.05%							
Tl 190.801†	3561.1	509.43 µg/L	5.384	509.43 ppb	5.384	1.06%	
QC value within limits for Tl 190.801 Recovery = 101.89%							
U 409.014†	7578.2	491.46 µg/L	13.160	491.46 ppb	13.160	2.68%	
QC value within limits for U 409.014 Recovery = 98.29%							
V 292.402†	101179.1	508.33 µg/L	1.272	508.33 ppb	1.272	0.25%	
QC value within limits for V 292.402 Recovery = 101.67%							
Zn 213.857†	88231.9	505.40 µg/L	1.200	505.40 ppb	1.200	0.24%	
QC value within limits for Zn 213.857 Recovery = 101.08%							

All analyte(s) passed QC.

Sequence No.: 16

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/13/2010 20:14:08

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	116571.1	116571.1	102 %		20:14:37
1	Al 396.153Radial†	-66.3	19.9	4.6881 µg/L	4.6881 ppb	20:14:57
1	Ca 317.933Radial†	478.6	12.9	1.0637 µg/L	1.0637 ppb	20:14:57
1	Fe 238.204 Radial†	164.1	36.8	3.1373 µg/L	3.1373 ppb	20:14:57
1	K 766.490 Radial†	1535.4	97.3	38.958 µg/L	38.958 ppb	20:14:37
1	Mg 279.077 IEC†	153.8	-6.4	-3.5328 µg/L	-3.5328 ppb	20:14:57
1	Na 589.592 Radial†	861.2	9.7	1.5208 µg/L	1.5208 ppb	20:14:37
1	Sr 421.552†	-62.7	5.2	0.0133 µg/L	0.0133 ppb	20:14:37
1	Sc 361.383	1702757.1	1702757.1	100.62 %		20:15:45
1	Y 371.029	962865.3	962865.3	75.801 %		20:15:45
1	Ag 328.068†	5305.0	169.3	0.7077 µg/L	0.7077 ppb	20:15:47
1	As 188.979†	-12.8	0.7	0.2343 µg/L	0.2343 ppb	20:16:07
1	B 249.677†	4133.2	-4.2	-0.0626 µg/L	-0.0626 ppb	20:15:47
1	Ba 233.527†	-136.6	10.1	0.0458 µg/L	0.0458 ppb	20:16:07
1	Be 313.107†	-719.4	277.4	0.0806 µg/L	0.0806 ppb	20:15:47
1	Cd 226.502†	-69.9	-4.9	-0.0325 µg/L	-0.0325 ppb	20:16:07
1	Co 228.616†	-219.0	9.4	0.1236 µg/L	0.1236 ppb	20:16:07
1	Cr 267.716†	343.6	11.9	0.0990 µg/L	0.0990 ppb	20:16:07
1	Cu 324.752†	3277.7	16.3	0.0735 µg/L	0.0735 ppb	20:15:47
1	Mn 257.610†	341.0	123.5	0.1616 µg/L	0.1616 ppb	20:16:07
1	Mo 202.031†	-19.4	2.3	0.0786 µg/L	0.0786 ppb	20:16:07
1	Ni 231.604†	-72.9	1.4	0.0177 µg/L	0.0177 ppb	20:16:07
1	P 214.914†	-26.4	-7.0	-1.6142 µg/L	-1.6142 ppb	20:16:07
1	Pb 220.353†	106.0	-11.9	-0.7474 µg/L	-0.7474 ppb	20:16:07
1	S 181.975 Axial†	112.2	9.5	8.1175 µg/L	8.1175 ppb	20:16:07
1	Sb 206.836†	77.7	-0.4	-0.0471 µg/L	-0.0471 ppb	20:16:07
1	Se 196.026†	13.7	-6.4	-2.47 µg/L	-2.47 ppb	20:16:07
1	SiO2†	1934.3	233.4	24.110 µg/L	24.110 ppb	20:15:47
1	Si 251.611†	1378.2	583.2	8.8981 µg/L	8.8981 ppb	20:15:47
1	Sn 189.927†	1.9	-6.5	-0.4522 µg/L	-0.4522 ppb	20:16:07
1	Ti 334.940†	943.0	51.1	0.0510 µg/L	0.0510 ppb	20:15:47
1	Tl 190.801†	-129.1	-13.0	-1.8373 µg/L	-1.8373 ppb	20:16:07
1	U 409.014†	-298.9	114.2	6.9436 µg/L	6.9436 ppb	20:15:47
1	V 292.402†	499.1	0.0	0.0056 µg/L	0.0056 ppb	20:15:47
1	Zn 213.857†	968.0	342.7	1.9784 µg/L	1.9784 ppb	20:16:07
2	Sc RADIAL	117706.3	117706.3	103 %		20:14:59
2	Al 396.153Radial†	-93.3	-5.7	-1.3664 µg/L	-1.3664 ppb	20:15:19
2	Ca 317.933Radial†	472.8	2.8	0.2266 µg/L	0.2266 ppb	20:15:19
2	Fe 238.204 Radial†	161.3	32.5	2.7698 µg/L	2.7698 ppb	20:15:19
2	K 766.490 Radial†	1531.6	79.2	31.681 µg/L	31.681 ppb	20:14:59
2	Mg 279.077 IEC†	143.2	-18.2	-10.064 µg/L	-10.064 ppb	20:15:19
2	Na 589.592 Radial†	1060.6	195.4	31.157 µg/L	31.157 ppb	20:14:59
2	Sr 421.552†	-21.8	45.5	0.1170 µg/L	0.1170 ppb	20:14:59
2	Sc 361.383	1721705.4	1721705.4	101.74 %		20:16:09
2	Y 371.029	971435.8	971435.8	76.475 %		20:16:09
2	Ag 328.068†	5289.3	95.9	0.4012 µg/L	0.4012 ppb	20:16:11
2	As 188.979†	-12.0	1.6	0.5646 µg/L	0.5646 ppb	20:16:31
2	B 249.677†	3885.8	-292.6	-4.3440 µg/L	-4.3440 ppb	20:16:11
2	Ba 233.527†	-170.4	-21.7	-0.0982 µg/L	-0.0982 ppb	20:16:31
2	Be 313.107†	-681.7	322.3	0.0934 µg/L	0.0934 ppb	20:16:11
2	Cd 226.502†	-54.0	11.5	0.0757 µg/L	0.0757 ppb	20:16:31
2	Co 228.616†	-202.7	27.8	0.3645 µg/L	0.3645 ppb	20:16:31
2	Cr 267.716†	322.1	-13.0	-0.1201 µg/L	-0.1201 ppb	20:16:31
2	Cu 324.752†	3329.6	31.4	0.1362 µg/L	0.1362 ppb	20:16:11
2	Mn 257.610†	328.1	107.1	0.1404 µg/L	0.1404 ppb	20:16:31
2	Mo 202.031†	-12.3	9.5	0.3225 µg/L	0.3225 ppb	20:16:31
2	Ni 231.604†	-115.9	-40.0	-0.4975 µg/L	-0.4975 ppb	20:16:31
2	P 214.914†	-21.3	-1.7	-0.3981 µg/L	-0.3981 ppb	20:16:31
2	Pb 220.353†	113.2	-5.9	-0.3764 µg/L	-0.3764 ppb	20:16:31

2	S 181.975 Axial†	102.4	-1.3	-1.0694 µg/L	-1.0694 ppb	20:16:31
2	Sb 206.836†	82.2	3.3	0.4307 µg/L	0.4307 ppb	20:16:31
2	Se 196.026†	20.1	-0.2	-0.080 µg/L	-0.080 ppb	20:16:31
2	SiO2†	1911.5	190.0	19.596 µg/L	19.596 ppb	20:16:11
2	Si 251.611†	1504.4	692.2	10.550 µg/L	10.550 ppb	20:16:11
2	Sn 189.927†	18.9	10.2	0.7083 µg/L	0.7083 ppb	20:16:31
2	Ti 334.940†	721.6	-176.8	-0.1875 µg/L	-0.1875 ppb	20:16:11
2	Tl 190.801†	-112.6	4.5	0.6329 µg/L	0.6329 ppb	20:16:31
2	U 409.014†	-298.5	117.8	7.1491 µg/L	7.1491 ppb	20:16:11
2	V 292.402†	445.8	-57.9	-0.2795 µg/L	-0.2795 ppb	20:16:11
2	Zn 213.857†	958.9	323.2	1.8686 µg/L	1.8686 ppb	20:16:31
3	Sc RADIAL	116780.0	116780.0	102 %		20:15:21
3	Al 396.153Radial†	-74.3	12.2	2.8511 µg/L	2.8511 ppb	20:15:41
3	Ca 317.933Radial†	473.7	7.3	0.6004 µg/L	0.6004 ppb	20:15:41
3	Fe 238.204 Radial†	153.9	26.5	2.2573 µg/L	2.2573 ppb	20:15:41
3	K 766.490 Radial†	1518.9	78.6	31.443 µg/L	31.443 ppb	20:15:21
3	Mg 279.077 IEC†	156.9	-3.6	-1.9960 µg/L	-1.9960 ppb	20:15:41
3	Na 589.592 Radial†	904.1	50.3	7.9989 µg/L	7.9989 ppb	20:15:21
3	Sr 421.552†	-232.7	-161.2	-0.4141 µg/L	-0.4141 ppb	20:15:21
3	Sc 361.383	1722333.9	1722333.9	101.78 %		20:16:34
3	Y 371.029	972483.1	972483.1	76.558 %		20:16:34
3	Ag 328.068†	5113.7	-78.5	-0.3454 µg/L	-0.3454 ppb	20:16:36
3	As 188.979†	-18.3	-4.6	-1.5827 µg/L	-1.5827 ppb	20:16:56
3	B 249.677†	4172.9	-11.9	-0.1762 µg/L	-0.1762 ppb	20:16:36
3	Ba 233.527†	-120.6	27.4	0.1235 µg/L	0.1235 ppb	20:16:56
3	Be 313.107†	-738.4	266.8	0.0726 µg/L	0.0726 ppb	20:16:36
3	Cd 226.502†	-62.9	2.8	0.0180 µg/L	0.0180 ppb	20:16:56
3	Co 228.616†	-226.4	4.6	0.0608 µg/L	0.0608 ppb	20:16:56
3	Cr 267.716†	314.8	-20.4	-0.1716 µg/L	-0.1716 ppb	20:16:56
3	Cu 324.752†	3246.7	-51.3	-0.2200 µg/L	-0.2200 ppb	20:16:36
3	Mn 257.610†	337.8	116.6	0.1525 µg/L	0.1525 ppb	20:16:56
3	Mo 202.031†	0.1	21.7	0.7373 µg/L	0.7373 ppb	20:16:56
3	Ni 231.604†	-91.7	-16.2	-0.2009 µg/L	-0.2009 ppb	20:16:56
3	P 214.914†	-18.8	0.7	0.1609 µg/L	0.1609 ppb	20:16:56
3	Pb 220.353†	119.3	-0.0	0.0067 µg/L	0.0067 ppb	20:16:56
3	S 181.975 Axial†	107.8	4.0	3.4034 µg/L	3.4034 ppb	20:16:56
3	Sb 206.836†	86.7	7.7	0.9929 µg/L	0.9929 ppb	20:16:56
3	Se 196.026†	27.4	7.0	2.69 µg/L	2.69 ppb	20:16:56
3	SiO2†	2016.0	291.9	30.124 µg/L	30.124 ppb	20:16:36
3	Si 251.611†	1562.4	748.6	11.413 µg/L	11.413 ppb	20:16:36
3	Sn 189.927†	2.6	-5.8	-0.4065 µg/L	-0.4065 ppb	20:16:56
3	Ti 334.940†	641.2	-256.1	-0.2644 µg/L	-0.2644 ppb	20:16:36
3	Tl 190.801†	-120.2	-2.9	-0.4110 µg/L	-0.4110 ppb	20:16:56
3	U 409.014†	-579.8	-158.5	-9.6810 µg/L	-9.6810 ppb	20:16:36
3	V 292.402†	345.0	-157.1	-0.7784 µg/L	-0.7784 ppb	20:16:36
3	Zn 213.857†	938.0	302.3	1.7468 µg/L	1.7468 ppb	20:16:56

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1715598.8	101.38 %	0.657			0.65%
Sc RADIAL	117019.1	102 %	0.5			0.52%
Y 371.029	968928.0	76.278 %	0.4154			0.54%
Ag 328.068†	62.2	0.2545 µg/L	0.54162	0.2545 ppb	0.54162	212.82%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	8.8	2.0576 µg/L	3.10428	2.0576 ppb	3.10428	150.87%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.8	-0.2613 µg/L	1.15623	-0.2613 ppb	1.15623	442.56%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-102.9	-1.5276 µg/L	2.43976	-1.5276 ppb	2.43976	159.71%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	5.3	0.0237 µg/L	0.11249	0.0237 ppb	0.11249	473.94%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	288.8	0.0822 µg/L	0.01048	0.0822 ppb	0.01048	12.74%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	7.7	0.6302 µg/L	0.41936	0.6302 ppb	0.41936	66.54%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	3.1	0.0204 µg/L	0.05414	0.0204 ppb	0.05414	265.20%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	14.0	0.1830 µg/L	0.16035	0.1830 ppb	0.16035	87.64%

Cr	267.716†	QC value within limits for Co 228.616	Recovery = Not calculated			
		-7.2	-0.0642 µg/L	0.14370	-0.0642 ppb	0.14370 223.73%
Cu	324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated			
		-1.2	-0.0035 µg/L	0.19017	-0.0035 ppb	0.19017 >999.9%
Fe	238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated			
		31.9	2.7214 µg/L	0.44197	2.7214 ppb	0.44197 16.24%
K	766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated			
		85.0	34.028 µg/L	4.2717	34.028 ppb	4.2717 12.55%
Mg	279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated			
		-9.4	-5.1976 µg/L	4.28380	-5.1976 ppb	4.28380 82.42%
Mn	257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated			
		115.8	0.1515 µg/L	0.01062	0.1515 ppb	0.01062 7.01%
Mo	202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated			
		11.2	0.3795 µg/L	0.33303	0.3795 ppb	0.33303 87.76%
Na	589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated			
		85.2	13.559 µg/L	15.5807	13.559 ppb	15.5807 114.91%
Ni	231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated			
		-18.2	-0.2269 µg/L	0.25857	-0.2269 ppb	0.25857 113.96%
P	214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated			
		-2.7	-0.6171 µg/L	0.90762	-0.6171 ppb	0.90762 147.07%
Pb	220.353†	QC value within limits for P 214.914	Recovery = Not calculated			
		-5.9	-0.3724 µg/L	0.37706	-0.3724 ppb	0.37706 101.25%
S	181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated			
		4.1	3.4838 µg/L	4.59398	3.4838 ppb	4.59398 131.87%
Sb	206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated			
		3.5	0.4588 µg/L	0.52053	0.4588 ppb	0.52053 113.44%
Se	196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated			
		0.1	0.046 µg/L	2.5837	0.046 ppb	2.5837 >999.9%
SiO2†		QC value within limits for Se 196.026	Recovery = Not calculated			
		238.4	24.610 µg/L	5.2816	24.610 ppb	5.2816 21.46%
Si	251.611†	QC value within limits for SiO2	Recovery = Not calculated			
		674.7	10.287 µg/L	1.2776	10.287 ppb	1.2776 12.42%
Sn	189.927†	QC value within limits for Si 251.611	Recovery = Not calculated			
		-0.7	-0.0501 µg/L	0.65720	-0.0501 ppb	0.65720 >999.9%
Sr	421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated			
		-36.8	-0.0946 µg/L	0.28148	-0.0946 ppb	0.28148 297.57%
Ti	334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated			
		-127.3	-0.1336 µg/L	0.16445	-0.1336 ppb	0.16445 123.06%
Tl	190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated			
		-3.8	-0.5384 µg/L	1.24006	-0.5384 ppb	1.24006 230.30%
U	409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated			
		24.5	1.4706 µg/L	9.65809	1.4706 ppb	9.65809 656.75%
V	292.402†	QC value within limits for U 409.014	Recovery = Not calculated			
		-71.7	-0.3508 µg/L	0.39683	-0.3508 ppb	0.39683 113.13%
Zn	213.857†	QC value within limits for V 292.402	Recovery = Not calculated			
		322.7	1.8646 µg/L	0.11588	1.8646 ppb	0.11588 6.21%
		QC value within limits for Zn 213.857	Recovery = Not calculated			

All analyte(s) passed QC.

4/14/2010 8:12:27 Hg ReAlign... Actual peak offset (nm): -0.006  
Drift (nm): -0.000 Slit adjustment: 0

## Analysis Begun

Start Time: 4/14/2010 8:15:09 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\041410.sif

Batch ID:

Results Data Set: 041410

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

## Method Loaded

Method Name: Gen Eng fast\_new Si

IEC File: 031810.iec

Method Description:

Method Last Saved: 4/13/2010 19:33:16

MSF File:

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

Sample ID: S0

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/14/2010 8:15:10

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
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1	Sc RADIAL	115866.2	115866.2	99.5 %	08:15:44
1	Al 396.153Radial†	-90.2	-90.6	[0.00] µg/L	08:16:04
1	Ca 317.933Radial†	440.0	442.1	[0.00] µg/L	08:16:04
1	Fe 238.204 Radial†	109.0	109.5	[0.00] µg/L	08:16:04
1	K 766.490 Radial†	1426.0	1432.7	[0.00] µg/L	08:15:44
1	Mg 279.077 IEC†	168.2	169.0	[0.00] µg/L	08:16:04
1	Na 589.592 Radial†	611.0	613.8	[0.00] µg/L	08:15:44
1	Sr 421.552†	-82.4	-82.8	[0.00] µg/L	08:15:44
1	Sc 361.383	1708349.1	1708349.1	99.166 %	08:16:52
1	Y 371.029	968535.2	968535.2	99.218 %	08:16:52
1	Ag 328.068†	5072.5	5115.1	[0.00] µg/L	08:16:54
1	As 188.979†	-26.2	-26.4	[0.00] µg/L	08:17:14
1	B 249.677†	4045.8	4079.8	[0.00] µg/L	08:16:54
1	Ba 233.527†	-126.5	-127.6	[0.00] µg/L	08:17:14
1	Be 313.107†	-904.4	-912.0	[0.00] µg/L	08:16:54
1	Cd 226.502†	-116.5	-117.5	[0.00] µg/L	08:17:14
1	Co 228.616†	-235.4	-237.4	[0.00] µg/L	08:17:14
1	Cr 267.716†	280.9	283.2	[0.00] µg/L	08:17:14
1	Cu 324.752†	3146.4	3172.8	[0.00] µg/L	08:16:54
1	Mn 257.610†	184.6	186.2	[0.00] µg/L	08:17:14
1	Mo 202.031†	-6.1	-6.1	[0.00] µg/L	08:17:14
1	Ni 231.604†	-83.1	-83.8	[0.00] µg/L	08:17:14
1	P 214.914†	-45.8	-46.2	[0.00] µg/L	08:17:14
1	Pb 220.353†	89.5	90.3	[0.00] µg/L	08:17:14
1	S 181.975 Axial†	90.5	91.2	[0.00] µg/L	08:17:14
1	Sb 206.836†	77.2	77.9	[0.00] µg/L	08:17:14
1	Se 196.026†	12.3	12.4	[0.00] µg/L	08:17:14
1	SiO2†	1734.1	1748.7	[0.00] µg/L	08:17:14
1	Si 251.611†	730.7	736.9	[0.00] µg/L	08:16:54
1	Sn 189.927†	4.7	4.7	[0.00] µg/L	08:17:14
1	Ti 334.940†	904.8	912.4	[0.00] µg/L	08:16:54
1	Tl 190.801†	-116.7	-117.6	[0.00] µg/L	08:17:14
1	U 409.014†	-409.1	-412.6	[0.00] µg/L	08:16:54
1	V 292.402†	518.8	523.1	[0.00] µg/L	08:16:54
1	Zn 213.857†	580.3	585.1	[0.00] µg/L	08:17:14
2	Sc RADIAL	115913.3	115913.3	99.6 %	08:16:06
2	Al 396.153Radial†	-83.6	-83.9	[0.00] µg/L	08:16:26
2	Ca 317.933Radial†	424.0	425.8	[0.00] µg/L	08:16:26
2	Fe 238.204 Radial†	92.8	93.1	[0.00] µg/L	08:16:26
2	K 766.490 Radial†	1412.8	1418.8	[0.00] µg/L	08:16:06
2	Mg 279.077 IEC†	146.5	147.1	[0.00] µg/L	08:16:26
2	Na 589.592 Radial†	707.3	710.4	[0.00] µg/L	08:16:06
2	Sr 421.552†	99.7	100.2	[0.00] µg/L	08:16:06
2	Sc 361.383	1730835.1	1730835.1	100.47 %	08:17:16
2	Y 371.029	980597.9	980597.9	100.45 %	08:17:16
2	Ag 328.068†	5231.2	5206.6	[0.00] µg/L	08:17:18
2	As 188.979†	-8.6	-8.6	[0.00] µg/L	08:17:38
2	B 249.677†	3932.7	3914.2	[0.00] µg/L	08:17:18
2	Ba 233.527†	-158.7	-158.0	[0.00] µg/L	08:17:38
2	Be 313.107†	-905.6	-901.4	[0.00] µg/L	08:17:18
2	Cd 226.502†	-94.5	-94.1	[0.00] µg/L	08:17:38
2	Co 228.616†	-233.6	-232.5	[0.00] µg/L	08:17:38
2	Cr 267.716†	289.1	287.7	[0.00] µg/L	08:17:38
2	Cu 324.752†	3201.1	3186.1	[0.00] µg/L	08:17:18
2	Mn 257.610†	172.0	171.2	[0.00] µg/L	08:17:38
2	Mo 202.031†	-37.1	-36.9	[0.00] µg/L	08:17:38
2	Ni 231.604†	-90.7	-90.3	[0.00] µg/L	08:17:38
2	P 214.914†	-25.2	-25.1	[0.00] µg/L	08:17:38
2	Pb 220.353†	64.5	64.2	[0.00] µg/L	08:17:38
2	S 181.975 Axial†	85.9	85.5	[0.00] µg/L	08:17:38
2	Sb 206.836†	67.5	67.2	[0.00] µg/L	08:17:38
2	Se 196.026†	2.0	2.0	[0.00] µg/L	08:17:38
2	SiO2†	1718.9	1710.9	[0.00] µg/L	08:17:38
2	Si 251.611†	845.6	841.6	[0.00] µg/L	08:17:18
2	Sn 189.927†	18.1	18.0	[0.00] µg/L	08:17:38
2	Ti 334.940†	601.4	598.6	[0.00] µg/L	08:17:18
2	Tl 190.801†	-116.1	-115.6	[0.00] µg/L	08:17:38
2	U 409.014†	-133.3	-132.7	[0.00] µg/L	08:17:18
2	V 292.402†	535.7	533.2	[0.00] µg/L	08:17:18
2	Zn 213.857†	577.7	575.0	[0.00] µg/L	08:17:38
3	Sc RADIAL	117442.7	117442.7	101 %	08:16:28



3	Al 396.153Radial†	-58.6	-58.1	[0.00]	µg/L	08:16:48
3	Ca 317.933Radial†	435.7	431.9	[0.00]	µg/L	08:16:48
3	Fe 238.204 Radial†	110.2	109.3	[0.00]	µg/L	08:16:48
3	K 766.490 Radial†	1495.3	1482.1	[0.00]	µg/L	08:16:28
3	Mg 279.077 IEC†	154.6	153.2	[0.00]	µg/L	08:16:48
3	Na 589.592 Radial†	549.3	544.4	[0.00]	µg/L	08:16:28
3	Sr 421.552†	-29.0	-28.8	[0.00]	µg/L	08:16:28
3	Sc 361.383	1728953.3	1728953.3	100.36	%	08:17:40
3	Y 371.029	979378.7	979378.7	100.33	%	08:17:40
3	Ag 328.068†	5054.5	5036.3	[0.00]	µg/L	08:17:42
3	As 188.979†	-14.2	-14.2	[0.00]	µg/L	08:18:02
3	B 249.677†	4006.5	3992.1	[0.00]	µg/L	08:17:42
3	Ba 233.527†	-127.8	-127.4	[0.00]	µg/L	08:18:02
3	Be 313.107†	-834.1	-831.1	[0.00]	µg/L	08:17:42
3	Cd 226.502†	-81.2	-80.9	[0.00]	µg/L	08:18:02
3	Co 228.616†	-212.8	-212.1	[0.00]	µg/L	08:18:02
3	Cr 267.716†	288.1	287.0	[0.00]	µg/L	08:18:02
3	Cu 324.752†	2981.0	2970.2	[0.00]	µg/L	08:17:42
3	Mn 257.610†	187.8	187.2	[0.00]	µg/L	08:18:02
3	Mo 202.031†	-18.6	-18.5	[0.00]	µg/L	08:18:02
3	Ni 231.604†	-118.6	-118.1	[0.00]	µg/L	08:18:02
3	P 214.914†	-24.6	-24.5	[0.00]	µg/L	08:18:02
3	Pb 220.353†	101.6	101.2	[0.00]	µg/L	08:18:02
3	S 181.975 Axial†	86.4	86.1	[0.00]	µg/L	08:18:02
3	Sb 206.836†	83.5	83.2	[0.00]	µg/L	08:18:02
3	Se 196.026†	23.1	23.0	[0.00]	µg/L	08:18:02
3	SiO2†	1744.1	1737.8	[0.00]	µg/L	08:18:02
3	Si 251.611†	779.9	777.0	[0.00]	µg/L	08:17:42
3	Sn 189.927†	14.0	14.0	[0.00]	µg/L	08:18:02
3	Ti 334.940†	889.1	885.9	[0.00]	µg/L	08:17:42
3	Tl 190.801†	-104.4	-104.0	[0.00]	µg/L	08:18:02
3	U 409.014†	-299.6	-298.5	[0.00]	µg/L	08:17:42
3	V 292.402†	584.3	582.2	[0.00]	µg/L	08:17:42
3	Zn 213.857†	578.6	576.5	[0.00]	µg/L	08:18:02

## Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1722712.5	12474.61	0.72%	100.00 %
Sc RADIAL	116407.4	896.94	0.77%	100 %
Y 371.029	976170.6	6640.49	0.68%	100.00 %
Ag 328.068†	5119.3	85.24	1.67%	[0.00] µg/L
Al 396.153Radial†	-77.5	17.19	22.17%	[0.00] µg/L
As 188.979†	-16.4	9.12	55.68%	[0.00] µg/L
B 249.677†	3995.4	82.85	2.07%	[0.00] µg/L
Ba 233.527†	-137.6	17.62	12.80%	[0.00] µg/L
Be 313.107†	-881.5	43.96	4.99%	[0.00] µg/L
Ca 317.933Radial†	433.2	8.22	1.90%	[0.00] µg/L
Cd 226.502†	-97.5	18.53	19.00%	[0.00] µg/L
Co 228.616†	-227.3	13.44	5.91%	[0.00] µg/L
Cr 267.716†	286.0	2.41	0.84%	[0.00] µg/L
Cu 324.752†	3109.7	120.99	3.89%	[0.00] µg/L
Fe 238.204 Radial†	104.0	9.37	9.01%	[0.00] µg/L
K 766.490 Radial†	1444.5	33.30	2.31%	[0.00] µg/L
Mg 279.077 IEC†	156.4	11.27	7.21%	[0.00] µg/L
Mn 257.610†	181.5	8.92	4.91%	[0.00] µg/L
Mo 202.031†	-20.5	15.48	75.54%	[0.00] µg/L
Na 589.592 Radial†	622.9	83.32	13.38%	[0.00] µg/L
Ni 231.604†	-97.4	18.24	18.73%	[0.00] µg/L
P 214.914†	-32.0	12.35	38.64%	[0.00] µg/L
Pb 220.353†	85.2	19.01	22.30%	[0.00] µg/L
S 181.975 Axial†	87.6	3.16	3.61%	[0.00] µg/L
Sb 206.836†	76.1	8.15	10.71%	[0.00] µg/L
Se 196.026†	12.5	10.50	84.09%	[0.00] µg/L
SiO2†	1732.5	19.48	1.12%	[0.00] µg/L
Si 251.611†	785.2	52.83	6.73%	[0.00] µg/L
Sn 189.927†	12.2	6.79	55.57%	[0.00] µg/L
Sr 421.552†	-3.8	93.99	>999.9%	[0.00] µg/L
Ti 334.940†	799.0	174.05	21.78%	[0.00] µg/L
Tl 190.801†	-112.4	7.36	6.54%	[0.00] µg/L

U 409.014†	-281.2	140.76	50.05%	[0.00] µg/L
V 292.402†	546.2	31.58	5.78%	[0.00] µg/L
Zn 213.857†	578.9	5.47	0.95%	[0.00] µg/L

Sequence No.: 2

Sample ID: S0.1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 2

Date Collected: 4/14/2010 8:18:10

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	116830.0	116830.0	100 %	08:18:41
1	K 766.490 Radial†	3968.0	2509.1	[1000] µg/L	08:18:41
1	Sr 421.552†	40330.7	40188.6	[100] µg/L	08:18:41
1	Sc 361.383	1729389.0	1729389.0	100.39 %	08:18:49
1	Y 371.029	973722.3	973722.3	99.749 %	08:18:49
1	Ag 328.068†	29153.5	23921.6	[100] µg/L	08:18:51
1	As 188.979†	277.3	292.6	[100] µg/L	08:19:11
1	B 249.677†	10583.0	6546.7	[100] µg/L	08:18:51
1	Ba 233.527†	22242.3	22294.1	[100] µg/L	08:18:51
1	Be 313.107†	350984.0	350510.5	[100] µg/L	08:18:49
1	Cd 226.502†	14979.8	15019.5	[100] µg/L	08:18:51
1	Co 228.616†	7563.8	7761.9	[100] µg/L	08:19:11
1	Cr 267.716†	11660.7	11329.7	[100] µg/L	08:18:51
1	Cu 324.752†	27437.1	24221.5	[100] µg/L	08:18:51
1	Mn 257.610†	78887.2	78401.1	[100] µg/L	08:18:51
1	Mo 202.031†	2911.2	2920.4	[100] µg/L	08:19:11
1	Ni 231.604†	8074.8	8141.0	[100] µg/L	08:18:51
1	P 214.914†	2114.2	2138.0	[500] µg/L	08:19:11
1	Pb 220.353†	1746.7	1654.7	[100] µg/L	08:19:11
1	S 181.975 Axial†	324.1	235.2	[200] µg/L	08:19:11
1	Sb 206.836†	857.3	778.0	[100] µg/L	08:19:11
1	Se 196.026†	269.1	255.6	[100] µg/L	08:19:11
1	SiO2†	11910.8	10132.3	[1069.5] µg/L	08:18:51
1	Si 251.611†	33260.8	32347.3	[500] µg/L	08:18:51
1	Sn 189.927†	1455.1	1437.3	[100] µg/L	08:19:11
1	Ti 334.940†	94906.4	93741.1	[100] µg/L	08:18:51
1	Tl 190.801†	640.6	750.6	[100] µg/L	08:19:11
1	U 409.014†	1104.9	1381.9	[100] µg/L	08:18:51
1	V 292.402†	20281.6	19657.1	[100] µg/L	08:18:51
1	Zn 213.857†	18180.2	17531.1	[100] µg/L	08:18:51
2	Sc RADIAL	115599.8	115599.8	99.3 %	08:18:43
2	K 766.490 Radial†	4045.0	2628.7	[1000] µg/L	08:18:43
2	Sr 421.552†	40185.0	40469.5	[100] µg/L	08:18:43
2	Sc 361.383	1690604.1	1690604.1	98.136 %	08:19:13
2	Y 371.029	954733.5	954733.5	97.804 %	08:19:13
2	Ag 328.068†	29951.4	25400.9	[100] µg/L	08:19:15
2	As 188.979†	301.0	323.1	[100] µg/L	08:19:35
2	B 249.677†	10839.7	7050.2	[100] µg/L	08:19:15
2	Ba 233.527†	22432.4	22996.1	[100] µg/L	08:19:15
2	Be 313.107†	354436.2	362049.2	[100] µg/L	08:19:13
2	Cd 226.502†	15201.6	15587.8	[100] µg/L	08:19:15
2	Co 228.616†	7605.4	7977.2	[100] µg/L	08:19:35
2	Cr 267.716†	11981.4	11923.0	[100] µg/L	08:19:15
2	Cu 324.752†	27761.2	25178.7	[100] µg/L	08:19:15
2	Mn 257.610†	79995.9	81333.7	[100] µg/L	08:19:15
2	Mo 202.031†	2917.1	2993.0	[100] µg/L	08:19:35
2	Ni 231.604†	8113.8	8365.3	[100] µg/L	08:19:15
2	P 214.914†	2138.0	2210.5	[500] µg/L	08:19:35
2	Pb 220.353†	1707.4	1654.6	[100] µg/L	08:19:35
2	S 181.975 Axial†	333.5	252.3	[200] µg/L	08:19:35
2	Sb 206.836†	855.3	795.5	[100] µg/L	08:19:35
2	Se 196.026†	265.0	257.6	[100] µg/L	08:19:35
2	SiO2†	12186.7	10685.7	[1069.5] µg/L	08:19:15
2	Si 251.611†	33816.4	33673.5	[500] µg/L	08:19:15
2	Sn 189.927†	1466.0	1481.6	[100] µg/L	08:19:35
2	Ti 334.940†	96423.5	97455.8	[100] µg/L	08:19:15
2	Tl 190.801†	619.0	743.2	[100] µg/L	08:19:35
2	U 409.014†	1324.2	1630.6	[100] µg/L	08:19:15
2	V 292.402†	20753.6	20601.6	[100] µg/L	08:19:15

2	Zn 213.857†	18511.1	18283.8	[100] µg/L	08:19:15
3	Sc RADIAL	119674.3	119674.3	103 %	08:18:45
3	K 766.490 Radial†	4067.6	2512.0	[1000] µg/L	08:18:45
3	Sr 421.552†	39876.5	38791.8	[100] µg/L	08:18:45
3	Sc 361.383	1705624.8	1705624.8	99.008 %	08:19:37
3	Y 371.029	962631.9	962631.9	98.613 %	08:19:37
3	Ag 328.068†	29649.1	24826.8	[100] µg/L	08:19:39
3	As 188.979†	293.7	313.0	[100] µg/L	08:19:59
3	B 249.677†	10657.2	6768.6	[100] µg/L	08:19:39
3	Ba 233.527†	22258.5	22619.1	[100] µg/L	08:19:39
3	Be 313.107†	353679.0	358103.8	[100] µg/L	08:19:37
3	Cd 226.502†	15151.0	15400.3	[100] µg/L	08:19:39
3	Co 228.616†	7624.2	7927.9	[100] µg/L	08:19:59
3	Cr 267.716†	11834.9	11667.4	[100] µg/L	08:19:39
3	Cu 324.752†	27349.5	24513.8	[100] µg/L	08:19:39
3	Mn 257.610†	79061.3	79671.9	[100] µg/L	08:19:39
3	Mo 202.031†	2904.9	2954.5	[100] µg/L	08:19:59
3	Ni 231.604†	8128.0	8306.9	[100] µg/L	08:19:39
3	P 214.914†	2115.3	2168.5	[500] µg/L	08:19:59
3	Pb 220.353†	1727.3	1659.3	[100] µg/L	08:19:59
3	S 181.975 Axial†	322.4	238.0	[200] µg/L	08:19:59
3	Sb 206.836†	862.8	795.4	[100] µg/L	08:19:59
3	Se 196.026†	268.8	259.0	[100] µg/L	08:19:59
3	SiO2†	12154.5	10543.8	[1069.5] µg/L	08:19:39
3	Si 251.611†	33910.2	33464.8	[500] µg/L	08:19:39
3	Sn 189.927†	1453.1	1455.4	[100] µg/L	08:19:59
3	Ti 334.940†	95197.8	95352.6	[100] µg/L	08:19:39
3	Tl 190.801†	604.3	722.8	[100] µg/L	08:19:59
3	U 409.014†	1150.3	1443.0	[100] µg/L	08:19:39
3	V 292.402†	20496.8	20156.0	[100] µg/L	08:19:39
3	Zn 213.857†	18216.9	17820.5	[100] µg/L	08:19:39

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Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1708539.3	19556.01	1.14%	99.177 %
Sc RADIAL	117368.0	2089.85	1.78%	101 %
Y 371.029	963695.9	9539.01	0.99%	98.722 %
Ag 328.068†	24716.4	745.80	3.02%	[100] µg/L
As 188.979†	309.6	15.55	5.02%	[100] µg/L
B 249.677†	6788.5	252.31	3.72%	[100] µg/L
Ba 233.527†	22636.4	351.31	1.55%	[100] µg/L
Be 313.107†	356887.8	5864.67	1.64%	[100] µg/L
Cd 226.502†	15335.8	289.57	1.89%	[100] µg/L
Co 228.616†	7889.0	112.76	1.43%	[100] µg/L
Cr 267.716†	11640.1	297.57	2.56%	[100] µg/L
Cu 324.752†	24638.0	490.56	1.99%	[100] µg/L
K 766.490 Radial†	2549.9	68.22	2.68%	[1000] µg/L
Mn 257.610†	79802.2	1470.62	1.84%	[100] µg/L
Mo 202.031†	2956.0	36.32	1.23%	[100] µg/L
Ni 231.604†	8271.1	116.35	1.41%	[100] µg/L
P 214.914†	2172.3	36.42	1.68%	[500] µg/L
Pb 220.353†	1656.2	2.70	0.16%	[100] µg/L
S 181.975 Axial†	241.8	9.14	3.78%	[200] µg/L
Sb 206.836†	789.6	10.10	1.28%	[100] µg/L
Se 196.026†	257.4	1.70	0.66%	[100] µg/L
SiO2†	10454.0	287.42	2.75%	[1069.5] µg/L
Si 251.611†	33161.8	713.12	2.15%	[500] µg/L
Sn 189.927†	1458.1	22.27	1.53%	[100] µg/L
Sr 421.552†	39816.6	898.60	2.26%	[100] µg/L
Ti 334.940†	95516.5	1862.77	1.95%	[100] µg/L
Tl 190.801†	738.8	14.41	1.95%	[100] µg/L
U 409.014†	1485.2	129.59	8.73%	[100] µg/L
V 292.402†	20138.2	472.48	2.35%	[100] µg/L
Zn 213.857†	17878.5	379.67	2.12%	[100] µg/L

Sequence No.: 3

Sample ID: S0.5

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 4/14/2010 8:20:08

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc RADIAL	116290.2	116290.2	99.9	%	08:20:39
1	Al 396.153Radial†	22066.1	22165.9	[5000]	µg/L	08:20:39
1	Ca 317.933Radial†	61627.6	61256.5	[5000]	µg/L	08:20:39
1	K 766.490 Radial†	14026.8	12596.4	[5000]	µg/L	08:20:39
1	Mg 279.077 IEC†	9428.3	9281.4	[5000]	µg/L	08:20:39
1	Sr 421.552†	195350.2	195551.0	[500]	µg/L	08:20:37
1	Sc 361.383	1712949.4	1712949.4	99.433	%	08:21:06
1	Y 371.029	960101.7	960101.7	98.354	%	08:21:06
1	Ag 328.068†	125119.9	120713.7	[500]	µg/L	08:21:06
1	As 188.979†	1483.6	1508.5	[500]	µg/L	08:21:26
1	B 249.677†	37764.0	33983.8	[500]	µg/L	08:21:06
1	Ba 233.527†	110686.6	111455.1	[500]	µg/L	08:21:06
1	Be 313.107†	1792943.2	1804043.8	[500]	µg/L	08:21:06
1	Cd 226.502†	75544.3	76072.3	[500]	µg/L	08:21:06
1	Co 228.616†	38200.6	38645.6	[500]	µg/L	08:21:06
1	Cr 267.716†	56941.6	56980.2	[500]	µg/L	08:21:06
1	Cu 324.752†	123533.8	121128.2	[500]	µg/L	08:21:06
1	Mn 257.610†	384759.7	386771.2	[500]	µg/L	08:21:06
1	Mo 202.031†	14642.4	14746.4	[500]	µg/L	08:21:26
1	Ni 231.604†	40380.4	40707.9	[500]	µg/L	08:21:06
1	P 214.914†	10899.4	10993.4	[2500]	µg/L	08:21:26
1	Pb 220.353†	8074.7	8035.4	[500]	µg/L	08:21:26
1	S 181.975 Axial†	1260.1	1179.7	[1000]	µg/L	08:21:26
1	Sb 206.836†	3971.4	3918.0	[500]	µg/L	08:21:26
1	Se 196.026†	1294.1	1289.0	[500]	µg/L	08:21:26
1	SiO2†	54423.9	53001.6	[5347.5]	µg/L	08:21:06
1	Si 251.611†	168071.9	168244.7	[2500]	µg/L	08:21:06
1	Sn 189.927†	7216.2	7245.1	[500]	µg/L	08:21:26
1	Ti 334.940†	479033.9	480965.2	[500]	µg/L	08:21:06
1	Tl 190.801†	3417.7	3549.5	[500]	µg/L	08:21:26
1	U 409.014†	7239.1	7561.6	[500]	µg/L	08:21:06
1	V 292.402†	101046.4	101076.1	[500]	µg/L	08:21:06
1	Zn 213.857†	87874.4	87796.4	[500]	µg/L	08:21:06
2	Sc RADIAL	116347.8	116347.8	99.9	%	08:20:43
2	Al 396.153Radial†	22016.7	22105.5	[5000]	µg/L	08:20:43
2	Ca 317.933Radial†	61724.1	61322.5	[5000]	µg/L	08:20:43
2	K 766.490 Radial†	14137.3	12700.0	[5000]	µg/L	08:20:43
2	Mg 279.077 IEC†	9428.5	9276.9	[5000]	µg/L	08:20:43
2	Sr 421.552†	195716.5	195820.6	[500]	µg/L	08:20:41
2	Sc 361.383	1727520.9	1727520.9	100.28	%	08:21:30
2	Y 371.029	967457.2	967457.2	99.107	%	08:21:30
2	Ag 328.068†	126485.9	121014.5	[500]	µg/L	08:21:30
2	As 188.979†	1474.9	1487.2	[500]	µg/L	08:21:50
2	B 249.677†	38135.1	34033.6	[500]	µg/L	08:21:30
2	Ba 233.527†	111827.0	111653.4	[500]	µg/L	08:21:30
2	Be 313.107†	1808865.5	1804712.1	[500]	µg/L	08:21:30
2	Cd 226.502†	76435.2	76319.9	[500]	µg/L	08:21:30
2	Co 228.616†	38461.5	38581.8	[500]	µg/L	08:21:30
2	Cr 267.716†	57467.2	57021.3	[500]	µg/L	08:21:30
2	Cu 324.752†	124707.5	121250.7	[500]	µg/L	08:21:30
2	Mn 257.610†	387895.3	386634.1	[500]	µg/L	08:21:30
2	Mo 202.031†	14686.4	14666.0	[500]	µg/L	08:21:50
2	Ni 231.604†	40506.1	40490.7	[500]	µg/L	08:21:30
2	P 214.914†	10901.6	10903.2	[2500]	µg/L	08:21:50
2	Pb 220.353†	8114.8	8007.0	[500]	µg/L	08:21:50
2	S 181.975 Axial†	1254.6	1163.5	[1000]	µg/L	08:21:50
2	Sb 206.836†	3967.3	3880.2	[500]	µg/L	08:21:50
2	Se 196.026†	1295.1	1279.0	[500]	µg/L	08:21:50
2	SiO2†	55113.2	53227.3	[5347.5]	µg/L	08:21:30

2	Si 251.611†	170362.5	169103.1	[2500]	µg/L	08:21:30
2	Sn 189.927†	7228.0	7195.7	[500]	µg/L	08:21:50
2	Ti 334.940†	482786.4	480643.6	[500]	µg/L	08:21:30
2	Tl 190.801†	3423.7	3526.6	[500]	µg/L	08:21:50
2	U 409.014†	7189.9	7451.1	[500]	µg/L	08:21:30
2	V 292.402†	101805.9	100976.3	[500]	µg/L	08:21:30
2	Zn 213.857†	88721.4	87895.6	[500]	µg/L	08:21:30
3	Sc RADIAL	116544.6	116544.6	100	%	08:20:47
3	Al 396.153Radial†	22183.5	22234.9	[5000]	µg/L	08:20:47
3	Ca 317.933Radial†	62036.9	61530.6	[5000]	µg/L	08:20:47
3	K 766.490 Radial†	14210.9	12749.6	[5000]	µg/L	08:20:47
3	Mg 279.077 IEC†	9584.9	9417.2	[5000]	µg/L	08:20:47
3	Sr 421.552†	195450.8	195224.5	[500]	µg/L	08:20:45
3	Sc 361.383	1715234.2	1715234.2	99.566	%	08:21:53
3	Y 371.029	960365.1	960365.1	98.381	%	08:21:53
3	Ag 328.068†	125457.1	120884.7	[500]	µg/L	08:21:53
3	As 188.979†	1494.9	1517.8	[500]	µg/L	08:22:13
3	B 249.677†	37789.5	33958.9	[500]	µg/L	08:21:53
3	Ba 233.527†	110516.8	111136.3	[500]	µg/L	08:21:53
3	Be 313.107†	1792524.0	1801220.7	[500]	µg/L	08:21:53
3	Cd 226.502†	75593.0	76020.1	[500]	µg/L	08:21:53
3	Co 228.616†	38147.0	38540.6	[500]	µg/L	08:21:53
3	Cr 267.716†	56996.7	56959.3	[500]	µg/L	08:21:53
3	Cu 324.752†	123374.2	120802.4	[500]	µg/L	08:21:53
3	Mn 257.610†	384397.8	385892.2	[500]	µg/L	08:21:53
3	Mo 202.031†	14757.7	14842.6	[500]	µg/L	08:22:13
3	Ni 231.604†	40219.6	40492.4	[500]	µg/L	08:21:53
3	P 214.914†	10962.4	11042.1	[2500]	µg/L	08:22:13
3	Pb 220.353†	8122.6	8072.7	[500]	µg/L	08:22:13
3	S 181.975 Axial†	1271.9	1189.8	[1000]	µg/L	08:22:13
3	Sb 206.836†	3988.2	3929.6	[500]	µg/L	08:22:13
3	Se 196.026†	1301.9	1295.1	[500]	µg/L	08:22:13
3	SiO2†	54970.3	53477.5	[5347.5]	µg/L	08:21:53
3	Si 251.611†	169252.4	169205.1	[2500]	µg/L	08:21:53
3	Sn 189.927†	7260.2	7279.6	[500]	µg/L	08:22:13
3	Ti 334.940†	478501.2	479788.5	[500]	µg/L	08:21:53
3	Tl 190.801†	3443.3	3570.7	[500]	µg/L	08:22:13
3	U 409.014†	6905.7	7217.0	[500]	µg/L	08:21:53
3	V 292.402†	100746.4	100639.5	[500]	µg/L	08:21:53
3	Zn 213.857†	87828.2	87632.3	[500]	µg/L	08:21:53

## Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1718568.2	7837.02	0.46%	99.759	%
Sc RADIAL	116394.2	133.40	0.11%	100.0	%
Y 371.029	962641.3	4172.72	0.43%	98.614	%
Ag 328.068†	120871.0	150.88	0.12%	[500]	µg/L
Al 396.153Radial†	22168.8	64.75	0.29%	[5000]	µg/L
As 188.979†	1504.5	15.69	1.04%	[500]	µg/L
B 249.677†	33992.1	37.99	0.11%	[500]	µg/L
Ba 233.527†	111414.9	260.88	0.23%	[500]	µg/L
Be 313.107†	1803325.5	1853.19	0.10%	[500]	µg/L
Ca 317.933Radial†	61369.9	143.07	0.23%	[5000]	µg/L
Cd 226.502†	76137.5	160.17	0.21%	[500]	µg/L
Co 228.616†	38589.3	52.90	0.14%	[500]	µg/L
Cr 267.716†	56986.9	31.55	0.06%	[500]	µg/L
Cu 324.752†	121060.4	231.70	0.19%	[500]	µg/L
K 766.490 Radial†	12682.0	78.18	0.62%	[5000]	µg/L
Mg 279.077 IEC†	9325.2	79.70	0.85%	[5000]	µg/L
Mn 257.610†	386432.5	472.88	0.12%	[500]	µg/L
Mo 202.031†	14751.7	88.40	0.60%	[500]	µg/L
Ni 231.604†	40563.7	124.93	0.31%	[500]	µg/L
P 214.914†	10979.6	70.49	0.64%	[2500]	µg/L
Pb 220.353†	8038.4	32.98	0.41%	[500]	µg/L
S 181.975 Axial†	1177.7	13.28	1.13%	[1000]	µg/L
Sb 206.836†	3909.3	25.80	0.66%	[500]	µg/L
Se 196.026†	1287.7	8.12	0.63%	[500]	µg/L
SiO2†	53235.5	238.02	0.45%	[5347.5]	µg/L
Si 251.611†	168851.0	527.55	0.31%	[2500]	µg/L

Sn 189.927†	7240.1	42.19	0.58%	[500] µg/L
Sr 421.552†	195532.0	298.48	0.15%	[500] µg/L
Ti 334.940†	480465.8	608.20	0.13%	[500] µg/L
Tl 190.801†	3548.9	22.08	0.62%	[500] µg/L
U 409.014†	7409.9	175.93	2.37%	[500] µg/L
V 292.402†	100897.3	228.77	0.23%	[500] µg/L
Zn 213.857†	87774.7	132.96	0.15%	[500] µg/L

Sequence No.: 4

Sample ID: SCAL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 4/14/2010 8:22:20

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc RADIAL	115872.1	115872.1	99.5 %	08:22:51
1	Al 396.153Radial†	43789.4	44069.3	[10000] µg/L	08:22:51
1	Ca 317.933Radial†	121747.7	121876.9	[10000] µg/L	08:22:51
1	Fe 238.204 Radial†	117978.8	118419.9	[10000] µg/L	08:22:51
1	K 766.490 Radial†	26689.0	25367.7	[10000] µg/L	08:22:51
1	Mg 279.077 IEC†	18657.3	18587.0	[10000] µg/L	08:22:51
1	Na 589.592 Radial†	63660.8	63332.1	[10000] µg/L	08:22:51
1	Sr 421.552†	398002.3	399844.9	[1000] µg/L	08:22:49
1	Sc 361.383	1713951.9	1713951.9	99.491 %	08:23:18
1	Y 371.029	954590.7	954590.7	97.789 %	08:23:18
1	Ag 328.068†	248441.0	244591.5	[1000] µg/L	08:23:20
1	As 188.979†	2965.5	2997.0	[1000] µg/L	08:23:40
1	B 249.677†	72355.2	68729.6	[1000] µg/L	08:23:20
1	Ba 233.527†	222829.8	224106.4	[1000] µg/L	08:23:20
1	Be 313.107†	3606191.6	3625505.5	[1000] µg/L	08:23:18
1	Cd 226.502†	152130.2	153005.4	[1000] µg/L	08:23:20
1	Co 228.616†	76427.5	77045.4	[1000] µg/L	08:23:20
1	Cr 267.716†	114790.6	115091.3	[1000] µg/L	08:23:20
1	Cu 324.752†	247319.8	245474.2	[1000] µg/L	08:23:20
1	Mn 257.610†	769852.1	773605.5	[1000] µg/L	08:23:18
1	Mo 202.031†	29124.9	29294.3	[1000] µg/L	08:23:40
1	Ni 231.604†	80805.8	81316.2	[1000] µg/L	08:23:20
1	P 214.914†	21690.0	21832.8	[5000] µg/L	08:23:40
1	Pb 220.353†	15886.5	15882.5	[1000] µg/L	08:23:40
1	S 181.975 Axial†	2412.5	2337.2	[2000] µg/L	08:23:40
1	Sb 206.836†	7830.1	7794.0	[1000] µg/L	08:23:40
1	Se 196.026†	2582.9	2583.6	[1000] µg/L	08:23:40
1	SiO2†	106231.3	105041.8	[10695] µg/L	08:23:20
1	Si 251.611†	332005.1	332916.9	[5000] µg/L	08:23:20
1	Sn 189.927†	14291.9	14352.7	[1000] µg/L	08:23:40
1	Ti 334.940†	958175.3	962273.9	[1000] µg/L	08:23:18
1	Tl 190.801†	6926.9	7074.7	[1000] µg/L	08:23:40
1	U 409.014†	16321.5	16686.1	[1000] µg/L	08:23:20
1	V 292.402†	204556.2	205055.6	[1000] µg/L	08:23:20
1	Zn 213.857†	175213.9	175530.6	[1000] µg/L	08:23:20
2	Sc RADIAL	117124.5	117124.5	101 %	08:22:55
2	Al 396.153Radial†	44150.9	43958.1	[10000] µg/L	08:22:55
2	Ca 317.933Radial†	123239.8	122052.0	[10000] µg/L	08:22:55
2	Fe 238.204 Radial†	119553.6	118717.6	[10000] µg/L	08:22:55
2	K 766.490 Radial†	26798.9	25190.3	[10000] µg/L	08:22:55
2	Mg 279.077 IEC†	18956.6	18684.1	[10000] µg/L	08:22:55
2	Na 589.592 Radial†	64645.6	63626.9	[10000] µg/L	08:22:55
2	Sr 421.552†	398965.8	396526.8	[1000] µg/L	08:22:53
2	Sc 361.383	1697368.5	1697368.5	98.529 %	08:23:43
2	Y 371.029	945580.1	945580.1	96.866 %	08:23:43
2	Ag 328.068†	243679.5	242198.6	[1000] µg/L	08:23:45
2	As 188.979†	2976.4	3037.2	[1000] µg/L	08:24:05
2	B 249.677†	71008.7	68073.6	[1000] µg/L	08:23:45
2	Ba 233.527†	218989.6	222397.0	[1000] µg/L	08:23:45
2	Be 313.107†	3573718.4	3627960.3	[1000] µg/L	08:23:43
2	Cd 226.502†	149066.2	151389.5	[1000] µg/L	08:23:45
2	Co 228.616†	75104.0	76452.8	[1000] µg/L	08:23:45
2	Cr 267.716†	112822.3	114220.9	[1000] µg/L	08:23:45
2	Cu 324.752†	242790.2	243305.7	[1000] µg/L	08:23:45
2	Mn 257.610†	763902.6	775127.2	[1000] µg/L	08:23:43
2	Mo 202.031†	29156.2	29612.1	[1000] µg/L	08:24:05
2	Ni 231.604†	79245.5	80526.2	[1000] µg/L	08:23:45
2	P 214.914†	21723.2	22079.5	[5000] µg/L	08:24:05
2	Pb 220.353†	15924.7	16077.2	[1000] µg/L	08:24:05



2	S 181.975 Axial†	2429.8	2378.4	[2000]	µg/L	08:24:05
2	Sb 206.836†	7839.7	7880.7	[1000]	µg/L	08:24:05
2	Se 196.026†	2589.7	2615.9	[1000]	µg/L	08:24:05
2	SiO2†	104850.3	104683.4	[10695]	µg/L	08:23:45
2	Si 251.611†	327188.8	331289.0	[5000]	µg/L	08:23:45
2	Sn 189.927†	14287.6	14488.7	[1000]	µg/L	08:24:05
2	Ti 334.940†	950045.0	963431.4	[1000]	µg/L	08:23:43
2	Tl 190.801†	6929.8	7145.6	[1000]	µg/L	08:24:05
2	U 409.014†	16256.9	16780.9	[1000]	µg/L	08:23:45
2	V 292.402†	200690.5	203140.9	[1000]	µg/L	08:23:45
2	Zn 213.857†	171742.4	173727.9	[1000]	µg/L	08:23:45
3	Sc RADIAL	116899.5	116899.5	100	%	08:22:59
3	Al 396.153Radial†	44120.4	44012.3	[10000]	µg/L	08:22:59
3	Ca 317.933Radial†	123088.1	122136.8	[10000]	µg/L	08:22:59
3	Fe 238.204 Radial†	119362.1	118755.7	[10000]	µg/L	08:22:59
3	K 766.490 Radial†	26848.2	25290.7	[10000]	µg/L	08:22:59
3	Mg 279.077 IEC†	18902.2	18666.2	[10000]	µg/L	08:22:59
3	Na 589.592 Radial†	64435.8	63541.7	[10000]	µg/L	08:22:59
3	Sr 421.552†	394238.0	392582.3	[1000]	µg/L	08:22:57
3	Sc 361.383	1705217.7	1705217.7	98.984	%	08:24:08
3	Y 371.029	950366.1	950366.1	97.357	%	08:24:08
3	Ag 328.068†	247592.6	245013.4	[1000]	µg/L	08:24:10
3	As 188.979†	2974.0	3020.9	[1000]	µg/L	08:24:30
3	B 249.677†	72165.4	68910.4	[1000]	µg/L	08:24:10
3	Ba 233.527†	222448.3	224868.2	[1000]	µg/L	08:24:10
3	Be 313.107†	3570012.2	3607520.4	[1000]	µg/L	08:24:08
3	Cd 226.502†	151638.9	153292.1	[1000]	µg/L	08:24:10
3	Co 228.616†	76124.3	77132.6	[1000]	µg/L	08:24:10
3	Cr 267.716†	114380.8	115268.3	[1000]	µg/L	08:24:10
3	Cu 324.752†	246553.9	245973.8	[1000]	µg/L	08:24:10
3	Mn 257.610†	764597.4	772260.3	[1000]	µg/L	08:24:08
3	Mo 202.031†	28996.8	29314.8	[1000]	µg/L	08:24:30
3	Ni 231.604†	80354.7	81276.5	[1000]	µg/L	08:24:10
3	P 214.914†	21578.6	21831.9	[5000]	µg/L	08:24:30
3	Pb 220.353†	15777.1	15853.7	[1000]	µg/L	08:24:30
3	S 181.975 Axial†	2415.5	2352.6	[2000]	µg/L	08:24:30
3	Sb 206.836†	7806.3	7810.4	[1000]	µg/L	08:24:30
3	Se 196.026†	2590.2	2604.2	[1000]	µg/L	08:24:30
3	SiO2†	106963.2	106328.1	[10695]	µg/L	08:24:10
3	Si 251.611†	333578.7	336215.9	[5000]	µg/L	08:24:10
3	Sn 189.927†	14202.0	14335.5	[1000]	µg/L	08:24:30
3	Ti 334.940†	951045.7	960004.1	[1000]	µg/L	08:24:08
3	Tl 190.801†	6885.4	7068.5	[1000]	µg/L	08:24:30
3	U 409.014†	16355.4	16804.4	[1000]	µg/L	08:24:10
3	V 292.402†	203630.6	205173.6	[1000]	µg/L	08:24:10
3	Zn 213.857†	174402.1	175612.5	[1000]	µg/L	08:24:10

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Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1705512.7	8295.64	0.49%	99.002 %
Sc RADIAL	116632.0	667.68	0.57%	100 %
Y 371.029	950178.9	4508.19	0.47%	97.337 %
Ag 328.068†	243934.5	1518.07	0.62%	[1000] µg/L
Al 396.153Radial†	44013.2	55.59	0.13%	[10000] µg/L
As 188.979†	3018.4	20.21	0.67%	[1000] µg/L
B 249.677†	68571.2	440.31	0.64%	[1000] µg/L
Ba 233.527†	223790.5	1265.47	0.57%	[1000] µg/L
Be 313.107†	3620328.7	11160.06	0.31%	[1000] µg/L
Ca 317.933Radial†	122021.9	132.50	0.11%	[10000] µg/L
Cd 226.502†	152562.3	1025.80	0.67%	[1000] µg/L
Co 228.616†	76876.9	369.91	0.48%	[1000] µg/L
Cr 267.716†	114860.2	560.65	0.49%	[1000] µg/L
Cu 324.752†	244917.9	1418.36	0.58%	[1000] µg/L
Fe 238.204 Radial†	118631.1	183.88	0.16%	[10000] µg/L
K 766.490 Radial†	25282.9	88.96	0.35%	[10000] µg/L
Mg 279.077 IEC†	18645.8	51.65	0.28%	[10000] µg/L
Mn 257.610†	773664.4	1434.37	0.19%	[1000] µg/L
Mo 202.031†	29407.0	177.84	0.60%	[1000] µg/L
Na 589.592 Radial†	63500.2	151.75	0.24%	[10000] µg/L

Ni 231.604†	81039.6	445.10	0.55%	[1000] µg/L
P 214.914†	21914.8	142.66	0.65%	[5000] µg/L
Pb 220.353†	15937.8	121.57	0.76%	[1000] µg/L
S 181.975 Axial†	2356.1	20.81	0.88%	[2000] µg/L
Sb 206.836†	7828.3	46.03	0.59%	[1000] µg/L
Se 196.026†	2601.2	16.36	0.63%	[1000] µg/L
SiO2†	105351.1	864.89	0.82%	[10695] µg/L
Si 251.611†	333473.9	2510.20	0.75%	[5000] µg/L
Sn 189.927†	14392.3	83.96	0.58%	[1000] µg/L
Sr 421.552†	396318.0	3635.83	0.92%	[1000] µg/L
Ti 334.940†	961903.1	1743.50	0.18%	[1000] µg/L
Tl 190.801†	7096.3	42.87	0.60%	[1000] µg/L
U 409.014†	16757.2	62.62	0.37%	[1000] µg/L
V 292.402†	204456.7	1141.05	0.56%	[1000] µg/L
Zn 213.857†	174957.0	1065.22	0.61%	[1000] µg/L

Sequence No.: 5

Sample ID: S10

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 4/14/2010 8:24:39

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc RADIAL	115791.8	115791.8	99.5 %		08:25:08
1	Al 396.153Radial†	211884.8	213088.7	[50000] µg/L		08:25:08
1	Ca 317.933Radial†	589385.2	592085.2	[50000] µg/L		08:25:08
1	Fe 238.204 Radial†	228948.6	230061.7	[20000] µg/L		08:25:08
1	Mg 279.077 IEC†	88636.0	88950.7	[50000] µg/L		08:25:08
1	Na 589.592 Radial†	124937.7	124979.0	[20000] µg/L		08:25:08
1	Sc 361.383	1692451.8	1692451.8	98.243 %		08:25:17
1	Y 371.029	944014.5	944014.5	96.706 %		08:25:17
2	Sc RADIAL	116239.7	116239.7	99.9 %		08:25:11
2	Al 396.153Radial†	212764.3	213148.8	[50000] µg/L		08:25:11
2	Ca 317.933Radial†	593481.2	593904.1	[50000] µg/L		08:25:11
2	Fe 238.204 Radial†	231016.1	231245.4	[20000] µg/L		08:25:11
2	Mg 279.077 IEC†	89739.6	89712.6	[50000] µg/L		08:25:11
2	Na 589.592 Radial†	125924.7	125483.5	[20000] µg/L		08:25:11
2	Sc 361.383	1690101.2	1690101.2	98.107 %		08:25:19
2	Y 371.029	943131.4	943131.4	96.615 %		08:25:19
3	Sc RADIAL	114637.0	114637.0	98.5 %		08:25:13
3	Al 396.153Radial†	211372.4	214714.3	[50000] µg/L		08:25:13
3	Ca 317.933Radial†	586765.8	595394.2	[50000] µg/L		08:25:13
3	Fe 238.204 Radial†	228418.6	231842.2	[20000] µg/L		08:25:13
3	Mg 279.077 IEC†	88427.9	89637.1	[50000] µg/L		08:25:13
3	Na 589.592 Radial†	124500.2	125800.1	[20000] µg/L		08:25:13
3	Sc 361.383	1686998.4	1686998.4	97.927 %		08:25:22
3	Y 371.029	940767.1	940767.1	96.373 %		08:25:22

## Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib.
Sc 361.383	1689850.5	2735.37	0.16%	98.092 %	
Sc RADIAL	115556.2	826.93	0.72%	99.3 %	
Y 371.029	942637.7	1679.05	0.18%	96.565 %	
Al 396.153Radial†	213650.6	921.67	0.43%	[50000] µg/L	
Ca 317.933Radial†	593794.5	1657.23	0.28%	[50000] µg/L	
Fe 238.204 Radial†	231049.7	906.21	0.39%	[20000] µg/L	
Mg 279.077 IEC†	89433.5	419.78	0.47%	[50000] µg/L	
Na 589.592 Radial†	125420.9	414.09	0.33%	[20000] µg/L	

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	243.5	0.00000	0.999993	
Al 396.153Radial	3	Lin Thru 0	0.0	4.279	0.00000	0.999977	
As 188.979	3	Lin Thru 0	0.0	3.017	0.00000	0.999997	
B 249.677	3	Lin Thru 0	0.0	68.45	0.00000	0.999994	
Ba 233.527	3	Lin Thru 0	0.0	223.6	0.00000	0.999998	
Be 313.107	3	Lin Thru 0	0.0	3617	0.00000	0.999998	
Ca 317.933Radial	3	Lin Thru 0	0.0	11.89	0.00000	0.999981	
Cd 226.502	3	Lin Thru 0	0.0	152.5	0.00000	1.000000	
Co 228.616	3	Lin Thru 0	0.0	76.95	0.00000	0.999996	
Cr 267.716	3	Lin Thru 0	0.0	114.7	0.00000	0.999994	
Cu 324.752	3	Lin Thru 0	0.0	244.4	0.00000	0.999989	
Fe 238.204 Radia	2	Lin Thru 0	0.0	11.61	0.00000	0.999943	
K 766.490 Radial	3	Lin Thru 0	0.0	2.530	0.00000	0.999999	
Mg 279.077 IEC	3	Lin Thru 0	0.0	1.792	0.00000	0.999959	
Mn 257.610	3	Lin Thru 0	0.0	773.7	0.00000	0.999996	
Mo 202.031	3	Lin Thru 0	0.0	29.43	0.00000	0.999999	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.287	0.00000	0.999987	

Ni 231.604	3	Lin Thru 0	0.0	81.07	0.00000	0.999998
P 214.914	3	Lin Thru 0	0.0	4.384	0.00000	0.999999
Pb 220.353	3	Lin Thru 0	0.0	15.97	0.00000	0.999989
S 181.975 Axial	3	Lin Thru 0	0.0	1.178	0.00000	0.999997
Sb 206.836	3	Lin Thru 0	0.0	7.827	0.00000	1.000000
Se 196.026	3	Lin Thru 0	0.0	2.596	0.00000	0.999992
SiO2	3	Lin Thru 0	0.0	9.871	0.00000	0.999991
Si 251.611	3	Lin Thru 0	0.0	66.86	0.00000	0.999987
Sn 189.927	3	Lin Thru 0	0.0	14.41	0.00000	0.999996
Sr 421.552	3	Lin Thru 0	0.0	395.3	0.00000	0.999986
Ti 334.940	3	Lin Thru 0	0.0	961.7	0.00000	1.000000
Tl 190.801	3	Lin Thru 0	0.0	7.099	0.00000	0.999993
U 409.014	3	Lin Thru 0	0.0	16.36	0.00000	0.998855
V 292.402	3	Lin Thru 0	0.0	203.9	0.00000	0.999986
Zn 213.857	3	Lin Thru 0	0.0	175.1	0.00000	0.999997

Sequence No.: 6

Sample ID: ICV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 4/14/2010 8:25:30

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	118863.0	118863.0	102 %		08:26:02
1	Al 396.153Radial†	23417.8	23011.6	5351.8 µg/L	5351.8 ppb	08:26:02
1	Ca 317.933Radial†	64072.3	62315.4	5240.1 µg/L	5240.1 ppb	08:26:02
1	Fe 238.204 Radial†	62041.3	60655.6	5222.4 µg/L	5222.4 ppb	08:26:02
1	K 766.490 Radial†	8003.6	6393.7	2524.1 µg/L	2524.1 ppb	08:26:02
1	Mg 279.077 IEC†	10179.5	9812.8	5483.9 µg/L	5483.9 ppb	08:26:02
1	Na 589.592 Radial†	17012.7	16038.3	2548.8 µg/L	2548.8 ppb	08:26:02
1	Sr 421.552†	217052.4	212572.1	537.72 µg/L	537.72 ppb	08:26:00
1	Sc 361.383	1733146.0	1733146.0	100.61 %		08:26:15
1	Y 371.029	973824.4	973824.4	99.760 %		08:26:15
1	Ag 328.068†	68181.2	62651.4	263.61 µg/L	263.61 ppb	08:26:15
1	As 188.979†	1426.0	1433.8	482.68 µg/L	482.68 ppb	08:26:17
1	B 249.677†	40155.9	35918.8	522.93 µg/L	522.93 ppb	08:26:15
1	Ba 233.527†	115190.5	114634.7	513.06 µg/L	513.06 ppb	08:26:15
1	Be 313.107†	948562.1	943733.3	261.04 µg/L	261.04 ppb	08:26:15
1	Cd 226.502†	77641.7	77271.8	506.36 µg/L	506.36 ppb	08:26:15
1	Co 228.616†	40290.2	40275.0	523.70 µg/L	523.70 ppb	08:26:17
1	Cr 267.716†	57780.6	57146.7	498.10 µg/L	498.10 ppb	08:26:17
1	Cu 324.752†	129918.0	126026.2	517.32 µg/L	517.32 ppb	08:26:15
1	Mn 257.610†	400798.8	398204.5	514.45 µg/L	514.45 ppb	08:26:15
1	Mo 202.031†	16189.1	16112.1	548.00 µg/L	548.00 ppb	08:26:17
1	Ni 231.604†	40819.4	40671.1	501.68 µg/L	501.68 ppb	08:26:17
1	P 214.914†	11146.4	11111.2	2525.2 µg/L	2525.2 ppb	08:26:17
1	Pb 220.353†	8354.2	8218.7	516.43 µg/L	516.43 ppb	08:26:17
1	S 181.975 Axial†	3012.3	2906.5	2471.5 µg/L	2471.5 ppb	08:26:17
1	Sb 206.836†	4049.8	3949.3	506.48 µg/L	506.48 ppb	08:26:17
1	Se 196.026†	6579.4	6527.3	2520 µg/L	2520 ppb	08:26:17
1	SiO2†	103701.1	101344.4	10244 µg/L	10244 ppb	08:26:15
1	Si 251.611†	323480.6	320748.0	4786.5 µg/L	4786.5 ppb	08:26:15
1	Sn 189.927†	7746.6	7687.7	535.13 µg/L	535.13 ppb	08:26:17
1	Ti 334.940†	481803.8	478104.4	496.50 µg/L	496.50 ppb	08:26:15
1	Tl 190.801†	3718.4	3808.4	543.89 µg/L	543.89 ppb	08:26:17
1	U 409.014†	7369.5	7606.4	495.84 µg/L	495.84 ppb	08:26:15
1	V 292.402†	104028.5	102856.0	511.54 µg/L	511.54 ppb	08:26:15
1	Zn 213.857†	90566.3	89442.2	506.76 µg/L	506.76 ppb	08:26:15
2	Sc RADIAL	117265.5	117265.5	101 %		08:26:06
2	Al 396.153Radial†	22960.2	22869.7	5318.4 µg/L	5318.4 ppb	08:26:06
2	Ca 317.933Radial†	62888.4	61995.0	5213.1 µg/L	5213.1 ppb	08:26:06
2	Fe 238.204 Radial†	60811.2	60262.2	5188.5 µg/L	5188.5 ppb	08:26:06
2	K 766.490 Radial†	8002.8	6499.6	2566.0 µg/L	2566.0 ppb	08:26:06
2	Mg 279.077 IEC†	9961.0	9731.7	5438.8 µg/L	5438.8 ppb	08:26:06
2	Na 589.592 Radial†	16980.2	16233.1	2579.8 µg/L	2579.8 ppb	08:26:06
2	Sr 421.552†	214262.4	212698.3	538.04 µg/L	538.04 ppb	08:26:04
2	Sc 361.383	1744833.3	1744833.3	101.28 %		08:26:20
2	Y 371.029	979001.4	979001.4	100.29 %		08:26:20
2	Ag 328.068†	68438.1	62451.1	262.77 µg/L	262.77 ppb	08:26:20
2	As 188.979†	1439.1	1437.2	483.87 µg/L	483.87 ppb	08:26:22
2	B 249.677†	40642.1	36131.5	526.02 µg/L	526.02 ppb	08:26:20
2	Ba 233.527†	116056.6	114722.9	513.46 µg/L	513.46 ppb	08:26:20
2	Be 313.107†	956956.5	945705.8	261.58 µg/L	261.58 ppb	08:26:20
2	Cd 226.502†	78159.6	77266.2	506.32 µg/L	506.32 ppb	08:26:20
2	Co 228.616†	40911.0	40619.6	528.18 µg/L	528.18 ppb	08:26:22
2	Cr 267.716†	58744.9	57714.1	503.06 µg/L	503.06 ppb	08:26:22
2	Cu 324.752†	130739.8	125972.6	517.08 µg/L	517.08 ppb	08:26:20
2	Mn 257.610†	403086.6	397794.8	513.92 µg/L	513.92 ppb	08:26:20
2	Mo 202.031†	16447.5	16259.5	553.00 µg/L	553.00 ppb	08:26:22
2	Ni 231.604†	41585.3	41155.5	507.65 µg/L	507.65 ppb	08:26:22
2	P 214.914†	11489.1	11375.4	2585.5 µg/L	2585.5 ppb	08:26:22
2	Pb 220.353†	8426.0	8233.9	517.40 µg/L	517.40 ppb	08:26:22

2	S 181.975 Axial†	3037.2	2911.1	2475.4 µg/L	2475.4 ppb	08:26:22
2	Sb 206.836†	4050.4	3923.0	503.13 µg/L	503.13 ppb	08:26:22
2	Se 196.026†	6735.1	6637.2	2560 µg/L	2560 ppb	08:26:22
2	SiO2†	104289.3	101234.7	10233 µg/L	10233 ppb	08:26:20
2	Si 251.611†	326019.6	321101.1	4791.7 µg/L	4791.7 ppb	08:26:20
2	Sn 189.927†	7929.8	7817.1	544.11 µg/L	544.11 ppb	08:26:22
2	Ti 334.940†	485073.9	478125.2	496.53 µg/L	496.53 ppb	08:26:20
2	Tl 190.801†	3726.3	3791.5	541.48 µg/L	541.48 ppb	08:26:22
2	U 409.014†	7208.4	7398.3	483.13 µg/L	483.13 ppb	08:26:20
2	V 292.402†	104801.5	102926.7	511.96 µg/L	511.96 ppb	08:26:20
2	Zn 213.857†	91656.3	89915.4	509.42 µg/L	509.42 ppb	08:26:20
3	Sc RADIAL	117213.7	117213.7	101 %		08:26:10
3	Al 396.153Radial†	23285.1	23202.5	5396.2 µg/L	5396.2 ppb	08:26:10
3	Ca 317.933Radial†	63344.9	62475.9	5253.6 µg/L	5253.6 ppb	08:26:10
3	Fe 238.204 Radial†	61345.5	60819.6	5236.5 µg/L	5236.5 ppb	08:26:10
3	K 766.490 Radial†	8120.7	6620.3	2613.6 µg/L	2613.6 ppb	08:26:10
3	Mg 279.077 IEC†	10028.0	9802.6	5478.4 µg/L	5478.4 ppb	08:26:10
3	Na 589.592 Radial†	16871.8	16132.8	2563.8 µg/L	2563.8 ppb	08:26:10
3	Sr 421.552†	214328.7	212858.2	538.44 µg/L	538.44 ppb	08:26:08
3	Sc 361.383	1736899.1	1736899.1	100.82 %		08:26:25
3	Y 371.029	974491.6	974491.6	99.828 %		08:26:25
3	Ag 328.068†	68411.4	62733.2	263.95 µg/L	263.95 ppb	08:26:25
3	As 188.979†	1437.4	1442.1	485.49 µg/L	485.49 ppb	08:26:27
3	B 249.677†	40560.3	36233.6	527.51 µg/L	527.51 ppb	08:26:25
3	Ba 233.527†	116189.4	115378.0	516.39 µg/L	516.39 ppb	08:26:25
3	Be 313.107†	957237.2	950300.2	262.85 µg/L	262.85 ppb	08:26:25
3	Cd 226.502†	78333.9	77791.6	509.77 µg/L	509.77 ppb	08:26:25
3	Co 228.616†	40851.2	40744.8	529.81 µg/L	529.81 ppb	08:26:27
3	Cr 267.716†	58584.1	57819.6	503.98 µg/L	503.98 ppb	08:26:27
3	Cu 324.752†	130642.3	126465.5	519.11 µg/L	519.11 ppb	08:26:25
3	Mn 257.610†	403459.2	399982.3	516.74 µg/L	516.74 ppb	08:26:25
3	Mo 202.031†	16391.4	16278.0	553.64 µg/L	553.64 ppb	08:26:27
3	Ni 231.604†	41470.8	41229.5	508.56 µg/L	508.56 ppb	08:26:27
3	P 214.914†	11264.9	11204.8	2546.5 µg/L	2546.5 ppb	08:26:27
3	Pb 220.353†	8470.1	8315.7	522.53 µg/L	522.53 ppb	08:26:27
3	S 181.975 Axial†	3046.9	2934.4	2495.2 µg/L	2495.2 ppb	08:26:27
3	Sb 206.836†	4058.8	3949.6	506.52 µg/L	506.52 ppb	08:26:27
3	Se 196.026†	6653.9	6587.0	2540 µg/L	2540 ppb	08:26:27
3	SiO2†	104393.1	101808.0	10291 µg/L	10291 ppb	08:26:25
3	Si 251.611†	325998.5	322550.7	4813.4 µg/L	4813.4 ppb	08:26:25
3	Sn 189.927†	7857.4	7781.0	541.61 µg/L	541.61 ppb	08:26:27
3	Ti 334.940†	485246.1	480483.7	498.98 µg/L	498.98 ppb	08:26:25
3	Tl 190.801†	3789.7	3871.2	552.75 µg/L	552.75 ppb	08:26:27
3	U 409.014†	7123.7	7346.8	480.11 µg/L	480.11 ppb	08:26:25
3	V 292.402†	104744.5	103342.7	514.00 µg/L	514.00 ppb	08:26:25
3	Zn 213.857†	91634.1	90306.8	511.65 µg/L	511.65 ppb	08:26:25

## Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1738292.8	100.90 %	0.346			0.34%
Sc RADIAL	117780.7	101 %	0.8			0.80%
Y 371.029	975772.5	99.959 %	0.2885			0.29%
Ag 328.068†	62611.9	263.44 µg/L	0.605	263.44 ppb	0.605	0.23%
QC value within limits for Ag 328.068 Recovery = 105.38%						
Al 396.153Radial†	23027.9	5355.5 µg/L	39.00	5355.5 ppb	39.00	0.73%
QC value within limits for Al 396.153Radial Recovery = 107.11%						
As 188.979†	1437.7	484.02 µg/L	1.411	484.02 ppb	1.411	0.29%
QC value within limits for As 188.979 Recovery = 96.80%						
B 249.677†	36094.6	525.49 µg/L	2.335	525.49 ppb	2.335	0.44%
QC value within limits for B 249.677 Recovery = 105.10%						
Ba 233.527†	114911.9	514.30 µg/L	1.817	514.30 ppb	1.817	0.35%
QC value within limits for Ba 233.527 Recovery = 102.86%						
Be 313.107†	946579.7	261.83 µg/L	0.929	261.83 ppb	0.929	0.35%
QC value within limits for Be 313.107 Recovery = 104.73%						
Ca 317.933Radial†	62262.1	5235.6 µg/L	20.59	5235.6 ppb	20.59	0.39%
QC value within limits for Ca 317.933Radial Recovery = 104.71%						
Cd 226.502†	77443.2	507.48 µg/L	1.978	507.48 ppb	1.978	0.39%
QC value within limits for Cd 226.502 Recovery = 101.50%						
Co 228.616†	40546.5	527.23 µg/L	3.164	527.23 ppb	3.164	0.60%

QC value within limits for Co 228.616 Recovery = 105.45%							
Cr 267.716†	57560.2	501.71 µg/L	3.162	501.71 ppb	3.162	0.63%	
QC value within limits for Cr 267.716 Recovery = 100.34%							
Cu 324.752†	126154.8	517.84 µg/L	1.107	517.84 ppb	1.107	0.21%	
QC value within limits for Cu 324.752 Recovery = 103.57%							
Fe 238.204 Radial†	60579.1	5215.8 µg/L	24.66	5215.8 ppb	24.66	0.47%	
QC value within limits for Fe 238.204 Radial Recovery = 104.32%							
K 766.490 Radial†	6504.6	2567.9 µg/L	44.82	2567.9 ppb	44.82	1.75%	
QC value within limits for K 766.490 Radial Recovery = 102.72%							
Mg 279.077 IEC†	9782.4	5467.0 µg/L	24.59	5467.0 ppb	24.59	0.45%	
QC value within limits for Mg 279.077 IEC Recovery = 109.34%							
Mn 257.610†	398660.5	515.04 µg/L	1.502	515.04 ppb	1.502	0.29%	
QC value within limits for Mn 257.610 Recovery = 103.01%							
Mo 202.031†	16216.5	551.55 µg/L	3.089	551.55 ppb	3.089	0.56%	
QC value greater than the upper limit for Mo 202.031 Recovery = 110.31%							
Na 589.592 Radial†	16134.7	2564.1 µg/L	15.47	2564.1 ppb	15.47	0.60%	
QC value within limits for Na 589.592 Radial Recovery = 102.57%							
Ni 231.604†	41018.7	505.96 µg/L	3.741	505.96 ppb	3.741	0.74%	
QC value within limits for Ni 231.604 Recovery = 101.19%							
P 214.914†	11230.5	2552.4 µg/L	30.58	2552.4 ppb	30.58	1.20%	
QC value within limits for P 214.914 Recovery = 102.10%							
Pb 220.353†	8256.1	518.79 µg/L	3.280	518.79 ppb	3.280	0.63%	
QC value within limits for Pb 220.353 Recovery = 103.76%							
S 181.975 Axial†	2917.3	2480.7 µg/L	12.69	2480.7 ppb	12.69	0.51%	
QC value within limits for S 181.975 Axial Recovery = 99.23%							
Sb 206.836†	3940.6	505.38 µg/L	1.944	505.38 ppb	1.944	0.38%	
QC value within limits for Sb 206.836 Recovery = 101.08%							
Se 196.026†	6583.8	2540 µg/L	21.2	2540 ppb	21.2	0.83%	
QC value within limits for Se 196.026 Recovery = 101.54%							
SiO2†	101462.4	10256 µg/L	30.8	10256 ppb	30.8	0.30%	
QC value within limits for SiO2 Recovery = 95.89%							
Si 251.611†	321466.6	4797.2 µg/L	14.24	4797.2 ppb	14.24	0.30%	
QC value within limits for Si 251.611 Recovery = 95.94%							
Sn 189.927†	7761.9	540.28 µg/L	4.634	540.28 ppb	4.634	0.86%	
QC value within limits for Sn 189.927 Recovery = 108.06%							
Sr 421.552†	212709.6	538.07 µg/L	0.363	538.07 ppb	0.363	0.07%	
QC value within limits for Sr 421.552 Recovery = 107.61%							
Ti 334.940†	478904.5	497.34 µg/L	1.423	497.34 ppb	1.423	0.29%	
QC value within limits for Ti 334.940 Recovery = 99.47%							
Tl 190.801†	3823.7	546.04 µg/L	5.931	546.04 ppb	5.931	1.09%	
QC value within limits for Tl 190.801 Recovery = 109.21%							
U 409.014†	7450.5	486.36 µg/L	8.348	486.36 ppb	8.348	1.72%	
QC value within limits for U 409.014 Recovery = 97.27%							
V 292.402†	103041.8	512.50 µg/L	1.315	512.50 ppb	1.315	0.26%	
QC value within limits for V 292.402 Recovery = 102.50%							
Zn 213.857†	89888.1	509.28 µg/L	2.448	509.28 ppb	2.448	0.48%	
QC value within limits for Zn 213.857 Recovery = 101.86%							
QC Failed. Continue with analysis.							

Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 4/14/2010 8:26:34

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	116796.3	116796.3	100 %		08:27:03
1	Al 396.153Radial†	-74.0	3.8	0.8626 µg/L	0.8626 ppb	08:27:23
1	Ca 317.933Radial†	457.6	22.8	1.9191 µg/L	1.9191 ppb	08:27:23
1	Fe 238.204 Radial†	120.1	15.8	1.3584 µg/L	1.3584 ppb	08:27:23
1	K 766.490 Radial†	1539.1	89.4	35.352 µg/L	35.352 ppb	08:27:03
1	Mg 279.077 IEC†	165.2	8.2	4.5956 µg/L	4.5956 ppb	08:27:23
1	Na 589.592 Radial†	675.1	50.0	7.9240 µg/L	7.9240 ppb	08:27:03
1	Sr 421.552†	-149.6	-145.3	-0.3677 µg/L	-0.3677 ppb	08:27:03
1	Sc 361.383	1737483.5	1737483.5	100.86 %		08:28:25
1	Y 371.029	984422.4	984422.4	100.85 %		08:28:25
1	Ag 328.068†	5675.7	508.1	2.0816 µg/L	2.0816 ppb	08:28:27
1	As 188.979†	-12.3	4.2	1.3899 µg/L	1.3899 ppb	08:28:47
1	B 249.677†	4237.7	206.3	3.0139 µg/L	3.0139 ppb	08:28:27
1	Ba 233.527†	-112.6	26.0	0.1161 µg/L	0.1161 ppb	08:28:47
1	Be 313.107†	-750.4	137.5	0.0373 µg/L	0.0373 ppb	08:28:27
1	Cd 226.502†	-29.7	68.1	0.4463 µg/L	0.4463 ppb	08:28:47
1	Co 228.616†	-214.0	15.1	0.1968 µg/L	0.1968 ppb	08:28:47
1	Cr 267.716†	323.3	34.6	0.3028 µg/L	0.3028 ppb	08:28:47
1	Cu 324.752†	3154.3	17.8	0.0714 µg/L	0.0714 ppb	08:28:27
1	Mn 257.610†	271.0	87.2	0.1126 µg/L	0.1126 ppb	08:28:47
1	Mo 202.031†	-4.4	16.1	0.5487 µg/L	0.5487 ppb	08:28:47
1	Ni 231.604†	-103.9	-5.7	-0.0697 µg/L	-0.0697 ppb	08:28:47
1	P 214.914†	-16.8	15.3	3.4941 µg/L	3.4941 ppb	08:28:47
1	Pb 220.353†	96.8	10.7	0.6749 µg/L	0.6749 ppb	08:28:47
1	S 181.975 Axial†	90.2	1.9	1.5809 µg/L	1.5809 ppb	08:28:47
1	Sb 206.836†	81.2	4.4	0.5716 µg/L	0.5716 ppb	08:28:47
1	Se 196.026†	21.8	9.1	3.51 µg/L	3.51 ppb	08:28:47
1	SiO2†	1750.4	3.1	0.2878 µg/L	0.2878 ppb	08:28:47
1	Si 251.611†	679.9	-111.1	-1.6727 µg/L	-1.6727 ppb	08:28:27
1	Sn 189.927†	21.3	8.9	0.6161 µg/L	0.6161 ppb	08:28:47
1	Ti 334.940†	506.7	-296.6	-0.3079 µg/L	-0.3079 ppb	08:28:27
1	Tl 190.801†	-113.6	-0.2	-0.0372 µg/L	-0.0372 ppb	08:28:47
1	U 409.014†	-319.5	-35.5	-2.1821 µg/L	-2.1821 ppb	08:28:27
1	V 292.402†	511.0	-39.5	-0.1880 µg/L	-0.1880 ppb	08:28:27
1	Zn 213.857†	626.7	42.5	0.2426 µg/L	0.2426 ppb	08:28:47
2	Sc RADIAL	115660.8	115660.8	99.4 %		08:27:25
2	Al 396.153Radial†	-83.7	-6.7	-1.6189 µg/L	-1.6189 ppb	08:27:45
2	Ca 317.933Radial†	430.2	-0.3	-0.0248 µg/L	-0.0248 ppb	08:27:45
2	Fe 238.204 Radial†	125.7	22.6	1.9440 µg/L	1.9440 ppb	08:27:45
2	K 766.490 Radial†	1559.2	124.7	49.307 µg/L	49.307 ppb	08:27:25
2	Mg 279.077 IEC†	160.3	4.9	2.7379 µg/L	2.7379 ppb	08:27:45
2	Na 589.592 Radial†	568.8	-50.4	-8.0661 µg/L	-8.0661 ppb	08:27:25
2	Sr 421.552†	-129.1	-126.2	-0.3192 µg/L	-0.3192 ppb	08:27:25
2	Sc 361.383	1737136.1	1737136.1	100.84 %		08:28:50
2	Y 371.029	984144.7	984144.7	100.82 %		08:28:50
2	Ag 328.068†	5230.4	67.7	0.2614 µg/L	0.2614 ppb	08:28:52
2	As 188.979†	-7.6	8.9	2.9474 µg/L	2.9474 ppb	08:29:12
2	B 249.677†	4183.6	153.4	2.2401 µg/L	2.2401 ppb	08:28:52
2	Ba 233.527†	-112.3	26.3	0.1176 µg/L	0.1176 ppb	08:29:12
2	Be 313.107†	-866.8	21.9	0.0039 µg/L	0.0039 ppb	08:28:52
2	Cd 226.502†	-67.3	30.8	0.2017 µg/L	0.2017 ppb	08:29:12
2	Co 228.616†	-193.0	35.9	0.4667 µg/L	0.4667 ppb	08:29:12
2	Cr 267.716†	304.4	15.8	0.1436 µg/L	0.1436 ppb	08:29:12
2	Cu 324.752†	3310.3	173.1	0.7028 µg/L	0.7028 ppb	08:28:52
2	Mn 257.610†	196.3	13.1	0.0168 µg/L	0.0168 ppb	08:29:12
2	Mo 202.031†	11.9	32.3	1.0964 µg/L	1.0964 ppb	08:29:12
2	Ni 231.604†	-102.8	-4.6	-0.0562 µg/L	-0.0562 ppb	08:29:12
2	P 214.914†	-42.5	-10.2	-2.3340 µg/L	-2.3340 ppb	08:29:12
2	Pb 220.353†	117.4	31.1	1.9581 µg/L	1.9581 ppb	08:29:12



2	S 181.975 Axial†	81.6	-6.7	-5.7090 µg/L	-5.7090 ppb	08:29:12
2	Sb 206.836†	89.6	12.8	1.6430 µg/L	1.6430 ppb	08:29:12
2	Se 196.026†	22.6	9.9	3.82 µg/L	3.82 ppb	08:29:12
2	SiO2†	1723.5	-23.3	-2.3946 µg/L	-2.3946 ppb	08:29:12
2	Si 251.611†	714.2	-76.9	-1.1667 µg/L	-1.1667 ppb	08:28:52
2	Sn 189.927†	17.1	4.7	0.3264 µg/L	0.3264 ppb	08:29:12
2	Ti 334.940†	789.9	-15.6	-0.0136 µg/L	-0.0136 ppb	08:28:52
2	Tl 190.801†	-118.2	-4.9	-0.6905 µg/L	-0.6905 ppb	08:29:12
2	U 409.014†	-403.7	-119.1	-7.3201 µg/L	-7.3201 ppb	08:28:52
2	V 292.402†	421.9	-127.7	-0.6197 µg/L	-0.6197 ppb	08:28:52
2	Zn 213.857†	623.3	39.2	0.2235 µg/L	0.2235 ppb	08:29:12
3	Sc RADIAL	117990.7	117990.7	101 %		08:27:47
3	Al 396.153Radial†	-81.3	-2.7	-0.6241 µg/L	-0.6241 ppb	08:28:07
3	Ca 317.933Radial†	445.5	6.3	0.5321 µg/L	0.5321 ppb	08:28:07
3	Fe 238.204 Radial†	112.2	6.7	0.5752 µg/L	0.5752 ppb	08:28:07
3	K 766.490 Radial†	1489.3	24.8	9.7874 µg/L	9.7874 ppb	08:27:47
3	Mg 279.077 IEC†	153.9	-4.6	-2.5849 µg/L	-2.5849 ppb	08:28:07
3	Na 589.592 Radial†	711.4	78.9	12.548 µg/L	12.548 ppb	08:27:47
3	Sr 421.552†	-169.7	-163.6	-0.4139 µg/L	-0.4139 ppb	08:27:47
3	Sc 361.383	1729754.1	1729754.1	100.41 %		08:29:14
3	Y 371.029	979980.1	979980.1	100.39 %		08:29:14
3	Ag 328.068†	5375.4	234.2	0.9532 µg/L	0.9532 ppb	08:29:16
3	As 188.979†	-14.9	1.6	0.5258 µg/L	0.5258 ppb	08:29:36
3	B 249.677†	4194.4	181.9	2.6582 µg/L	2.6582 ppb	08:29:16
3	Ba 233.527†	-118.2	19.9	0.0886 µg/L	0.0886 ppb	08:29:36
3	Be 313.107†	-783.2	101.5	0.0269 µg/L	0.0269 ppb	08:29:16
3	Cd 226.502†	-67.7	30.1	0.1969 µg/L	0.1969 ppb	08:29:36
3	Co 228.616†	-232.1	-3.8	-0.0493 µg/L	-0.0493 ppb	08:29:36
3	Cr 267.716†	302.1	14.9	0.1324 µg/L	0.1324 ppb	08:29:36
3	Cu 324.752†	3184.7	62.1	0.2510 µg/L	0.2510 ppb	08:29:16
3	Mn 257.610†	220.7	38.2	0.0495 µg/L	0.0495 ppb	08:29:36
3	Mo 202.031†	-21.1	-0.6	-0.0193 µg/L	-0.0193 ppb	08:29:36
3	Ni 231.604†	-108.6	-10.8	-0.1328 µg/L	-0.1328 ppb	08:29:36
3	P 214.914†	-31.7	0.4	0.0842 µg/L	0.0842 ppb	08:29:36
3	Pb 220.353†	123.6	37.9	2.3729 µg/L	2.3729 ppb	08:29:36
3	S 181.975 Axial†	96.6	8.6	7.2934 µg/L	7.2934 ppb	08:29:36
3	Sb 206.836†	93.9	17.5	2.2309 µg/L	2.2309 ppb	08:29:36
3	Se 196.026†	29.5	16.9	6.51 µg/L	6.51 ppb	08:29:36
3	SiO2†	1732.3	-7.2	-0.7241 µg/L	-0.7241 ppb	08:29:36
3	Si 251.611†	850.8	62.1	0.9297 µg/L	0.9297 ppb	08:29:16
3	Sn 189.927†	11.6	-0.7	-0.0488 µg/L	-0.0488 ppb	08:29:36
3	Ti 334.940†	1006.0	202.9	0.2127 µg/L	0.2127 ppb	08:29:16
3	Tl 190.801†	-112.5	0.4	0.0579 µg/L	0.0579 ppb	08:29:36
3	U 409.014†	-342.7	-60.0	-3.6880 µg/L	-3.6880 ppb	08:29:16
3	V 292.402†	480.2	-67.9	-0.3354 µg/L	-0.3354 ppb	08:29:16
3	Zn 213.857†	637.1	55.6	0.3181 µg/L	0.3181 ppb	08:29:36

## Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1734791.2	100.70 %	0.253			0.25%
Sc RADIAL	116815.9	100 %	1.0			1.00%
Y 371.029	982849.1	100.68 %	0.255			0.25%
Ag 328.068†	270.0	1.0987 µg/L	0.91879	1.0987 ppb	0.91879	83.62%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-1.9	-0.4601 µg/L	1.24888	-0.4601 ppb	1.24888	271.43%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	4.9	1.6210 µg/L	1.22723	1.6210 ppb	1.22723	75.71%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	180.6	2.6374 µg/L	0.38731	2.6374 ppb	0.38731	14.69%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	24.0	0.1075 µg/L	0.01630	0.1075 ppb	0.01630	15.17%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	86.9	0.0227 µg/L	0.01714	0.0227 ppb	0.01714	75.45%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	9.6	0.8088 µg/L	1.00107	0.8088 ppb	1.00107	123.77%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	43.0	0.2817 µg/L	0.14265	0.2817 ppb	0.14265	50.65%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	15.7	0.2047 µg/L	0.25811	0.2047 ppb	0.25811	126.08%

Cr	267.716†	QC value within limits for Co 228.616	Recovery = Not calculated			
		21.8	0.1930 µg/L	0.09532	0.1930 ppb	0.09532 49.40%
		QC value within limits for Cr 267.716	Recovery = Not calculated			
Cu	324.752†	84.3	0.3418 µg/L	0.32534	0.3418 ppb	0.32534 95.20%
		QC value within limits for Cu 324.752	Recovery = Not calculated			
Fe	238.204 Radial†	15.0	1.2925 µg/L	0.68678	1.2925 ppb	0.68678 53.13%
		QC value within limits for Fe 238.204 Radial	Recovery = Not calculated			
K	766.490 Radial†	79.7	31.482 µg/L	20.0420	31.482 ppb	20.0420 63.66%
		QC value within limits for K 766.490 Radial	Recovery = Not calculated			
Mg	279.077 IEC†	2.8	1.5829 µg/L	3.72703	1.5829 ppb	3.72703 235.46%
		QC value within limits for Mg 279.077 IEC	Recovery = Not calculated			
Mn	257.610†	46.2	0.0596 µg/L	0.04865	0.0596 ppb	0.04865 81.57%
		QC value within limits for Mn 257.610	Recovery = Not calculated			
Mo	202.031†	16.0	0.5420 µg/L	0.55788	0.5420 ppb	0.55788 102.94%
		QC value within limits for Mo 202.031	Recovery = Not calculated			
Na	589.592 Radial†	26.2	4.1353 µg/L	10.81667	4.1353 ppb	10.81667 261.57%
		QC value within limits for Na 589.592 Radial	Recovery = Not calculated			
Ni	231.604†	-7.0	-0.0862 µg/L	0.04087	-0.0862 ppb	0.04087 47.41%
		QC value within limits for Ni 231.604	Recovery = Not calculated			
P	214.914†	1.9	0.4148 µg/L	2.92806	0.4148 ppb	2.92806 705.94%
		QC value within limits for P 214.914	Recovery = Not calculated			
Pb	220.353†	26.6	1.6686 µg/L	0.88522	1.6686 ppb	0.88522 53.05%
		QC value within limits for Pb 220.353	Recovery = Not calculated			
S	181.975 Axial†	1.2	1.0551 µg/L	6.51711	1.0551 ppb	6.51711 617.69%
		QC value within limits for S 181.975 Axial	Recovery = Not calculated			
Sb	206.836†	11.6	1.4818 µg/L	0.84130	1.4818 ppb	0.84130 56.77%
		QC value within limits for Sb 206.836	Recovery = Not calculated			
Se	196.026†	12.0	4.61 µg/L	1.648	4.61 ppb	1.648 35.73%
		QC value within limits for Se 196.026	Recovery = Not calculated			
SiO2†		-9.1	-0.9437 µg/L	1.35460	-0.9437 ppb	1.35460 143.55%
		QC value within limits for SiO2	Recovery = Not calculated			
Si	251.611†	-41.9	-0.6366 µg/L	1.37980	-0.6366 ppb	1.37980 216.75%
		QC value within limits for Si 251.611	Recovery = Not calculated			
Sn	189.927†	4.3	0.2979 µg/L	0.33334	0.2979 ppb	0.33334 111.89%
		QC value within limits for Sn 189.927	Recovery = Not calculated			
Sr	421.552†	-145.0	-0.3669 µg/L	0.04735	-0.3669 ppb	0.04735 12.90%
		QC value within limits for Sr 421.552	Recovery = Not calculated			
Ti	334.940†	-36.4	-0.0363 µg/L	0.26105	-0.0363 ppb	0.26105 719.79%
		QC value within limits for Ti 334.940	Recovery = Not calculated			
Tl	190.801†	-1.6	-0.2232 µg/L	0.40743	-0.2232 ppb	0.40743 182.51%
		QC value within limits for Tl 190.801	Recovery = Not calculated			
U	409.014†	-71.6	-4.3967 µg/L	2.64131	-4.3967 ppb	2.64131 60.07%
		QC value within limits for U 409.014	Recovery = Not calculated			
V	292.402†	-78.4	-0.3810 µg/L	0.21941	-0.3810 ppb	0.21941 57.58%
		QC value within limits for V 292.402	Recovery = Not calculated			
Zn	213.857†	45.8	0.2614 µg/L	0.05007	0.2614 ppb	0.05007 19.16%
		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: 4/14/2010 8:29:44

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	114291.7	114291.7	98.2 %		08:30:14
1	Al 396.153Radial†	839.8	932.9	217.54 µg/L	217.54 ppb	08:30:34
1	Ca 317.933Radial†	3071.2	2694.8	226.60 µg/L	226.60 ppb	08:30:34
1	Fe 238.204 Radial†	1355.5	1276.6	109.92 µg/L	109.92 ppb	08:30:34
1	K 766.490 Radial†	1891.1	481.6	190.18 µg/L	190.18 ppb	08:30:14
1	Mg 279.077 IEC†	729.7	586.7	327.50 µg/L	327.50 ppb	08:30:34
1	Na 589.592 Radial†	2610.8	2036.3	323.73 µg/L	323.73 ppb	08:30:14
1	Sr 421.552†	2031.3	2072.7	5.2418 µg/L	5.2418 ppb	08:30:14
1	Sc 361.383	1699804.4	1699804.4	98.670 %		08:31:22
1	Y 371.029	962226.0	962226.0	98.572 %		08:31:22
1	Ag 328.068†	6370.8	1337.3	5.5922 µg/L	5.5922 ppb	08:31:24
1	As 188.979†	75.9	93.3	31.026 µg/L	31.026 ppb	08:31:44
1	B 249.677†	7655.8	3763.6	54.966 µg/L	54.966 ppb	08:31:24
1	Ba 233.527†	1005.3	1156.5	5.1759 µg/L	5.1759 ppb	08:31:44
1	Be 313.107†	16817.0	17925.1	4.9703 µg/L	4.9703 ppb	08:31:24
1	Cd 226.502†	675.1	781.7	5.1168 µg/L	5.1168 ppb	08:31:44
1	Co 228.616†	173.8	403.5	5.2434 µg/L	5.2434 ppb	08:31:44
1	Cr 267.716†	902.1	628.2	5.4380 µg/L	5.4380 ppb	08:31:44
1	Cu 324.752†	5707.0	2674.2	11.011 µg/L	11.011 ppb	08:31:24
1	Mn 257.610†	8247.9	8177.5	10.556 µg/L	10.556 ppb	08:31:24
1	Mo 202.031†	262.9	286.9	9.7612 µg/L	9.7612 ppb	08:31:44
1	Ni 231.604†	356.1	458.3	5.6529 µg/L	5.6529 ppb	08:31:44
1	P 214.914†	603.1	643.2	146.53 µg/L	146.53 ppb	08:31:44
1	Pb 220.353†	285.1	203.7	12.757 µg/L	12.757 ppb	08:31:44
1	S 181.975 Axial†	215.6	130.9	111.19 µg/L	111.19 ppb	08:31:44
1	Sb 206.836†	146.5	72.4	9.3262 µg/L	9.3262 ppb	08:31:44
1	Se 196.026†	108.3	97.3	37.6 µg/L	37.6 ppb	08:31:44
1	SiO2†	3858.8	2178.3	220.27 µg/L	220.27 ppb	08:31:24
1	Si 251.611†	7420.5	6735.3	100.54 µg/L	100.54 ppb	08:31:24
1	Sn 189.927†	152.8	142.6	9.9131 µg/L	9.9131 ppb	08:31:44
1	Ti 334.940†	5635.2	4912.2	5.0654 µg/L	5.0654 ppb	08:31:24
1	Tl 190.801†	40.3	153.3	21.672 µg/L	21.672 ppb	08:31:44
1	U 409.014†	511.5	799.7	49.173 µg/L	49.173 ppb	08:31:24
1	V 292.402†	1371.6	843.9	4.2798 µg/L	4.2798 ppb	08:31:24
1	Zn 213.857†	2876.1	2336.0	13.286 µg/L	13.286 ppb	08:31:44
2	Sc RADIAL	116255.6	116255.6	99.9 %		08:30:36
2	Al 396.153Radial†	845.2	923.9	215.42 µg/L	215.42 ppb	08:30:56
2	Ca 317.933Radial†	3074.1	2644.9	222.41 µg/L	222.41 ppb	08:30:56
2	Fe 238.204 Radial†	1338.8	1236.6	106.47 µg/L	106.47 ppb	08:30:56
2	K 766.490 Radial†	1919.7	477.6	188.61 µg/L	188.61 ppb	08:30:36
2	Mg 279.077 IEC†	732.7	577.2	322.22 µg/L	322.22 ppb	08:30:56
2	Na 589.592 Radial†	2903.3	2284.2	363.16 µg/L	363.16 ppb	08:30:36
2	Sr 421.552†	2075.7	2082.2	5.2659 µg/L	5.2659 ppb	08:30:36
2	Sc 361.383	1733109.2	1733109.2	100.60 %		08:31:46
2	Y 371.029	980282.0	980282.0	100.42 %		08:31:46
2	Ag 328.068†	6547.8	1389.2	5.7957 µg/L	5.7957 ppb	08:31:48
2	As 188.979†	72.8	88.7	29.508 µg/L	29.508 ppb	08:32:08
2	B 249.677†	7466.8	3426.6	50.042 µg/L	50.042 ppb	08:31:48
2	Ba 233.527†	1017.4	1148.9	5.1426 µg/L	5.1426 ppb	08:32:08
2	Be 313.107†	16925.7	17705.7	4.9062 µg/L	4.9062 ppb	08:31:48
2	Cd 226.502†	680.3	773.7	5.0649 µg/L	5.0649 ppb	08:32:08
2	Co 228.616†	188.6	414.7	5.3900 µg/L	5.3900 ppb	08:32:08
2	Cr 267.716†	900.3	608.9	5.2787 µg/L	5.2787 ppb	08:32:08
2	Cu 324.752†	5690.4	2546.6	10.479 µg/L	10.479 ppb	08:31:48
2	Mn 257.610†	8298.2	8066.9	10.413 µg/L	10.413 ppb	08:31:48
2	Mo 202.031†	275.0	293.8	9.9955 µg/L	9.9955 ppb	08:32:08
2	Ni 231.604†	361.1	456.3	5.6290 µg/L	5.6290 ppb	08:32:08
2	P 214.914†	616.8	645.1	146.97 µg/L	146.97 ppb	08:32:08
2	Pb 220.353†	267.6	180.8	11.333 µg/L	11.333 ppb	08:32:08

2	S 181.975 Axial†	214.6	125.7	106.75 µg/L	106.75 ppb	08:32:08
2	Sb 206.836†	160.0	83.0	10.689 µg/L	10.689 ppb	08:32:08
2	Se 196.026†	95.7	82.7	31.9 µg/L	31.9 ppb	08:32:08
2	SiO2†	3880.7	2125.0	214.85 µg/L	214.85 ppb	08:31:48
2	Si 251.611†	7370.0	6540.7	97.628 µg/L	97.628 ppb	08:31:48
2	Sn 189.927†	157.0	143.9	9.9988 µg/L	9.9988 ppb	08:32:08
2	Ti 334.940†	5604.2	4771.6	4.9243 µg/L	4.9243 ppb	08:31:48
2	Tl 190.801†	33.5	145.7	20.611 µg/L	20.611 ppb	08:32:08
2	U 409.014†	333.2	612.4	37.744 µg/L	37.744 ppb	08:31:48
2	V 292.402†	1470.9	915.9	4.6271 µg/L	4.6271 ppb	08:31:48
2	Zn 213.857†	2875.3	2279.1	12.962 µg/L	12.962 ppb	08:32:08
3	Sc RADIAL	114274.1	114274.1	98.2 %		08:30:58
3	Al 396.153Radial†	833.5	926.6	216.08 µg/L	216.08 ppb	08:31:18
3	Ca 317.933Radial†	3077.2	2701.4	227.16 µg/L	227.16 ppb	08:31:18
3	Fe 238.204 Radial†	1327.3	1248.1	107.46 µg/L	107.46 ppb	08:31:18
3	K 766.490 Radial†	1862.2	452.4	178.64 µg/L	178.64 ppb	08:30:58
3	Mg 279.077 IEC†	725.2	582.3	325.05 µg/L	325.05 ppb	08:31:18
3	Na 589.592 Radial†	2421.6	1843.9	293.13 µg/L	293.13 ppb	08:30:58
3	Sr 421.552†	1954.4	1994.6	5.0443 µg/L	5.0443 ppb	08:30:58
3	Sc 361.383	1722749.7	1722749.7	100.00 %		08:32:10
3	Y 371.029	975607.6	975607.6	99.942 %		08:32:10
3	Ag 328.068†	6455.9	1336.4	5.5851 µg/L	5.5851 ppb	08:32:12
3	As 188.979†	74.0	90.4	30.071 µg/L	30.071 ppb	08:32:33
3	B 249.677†	7369.5	3373.9	49.273 µg/L	49.273 ppb	08:32:12
3	Ba 233.527†	1036.6	1174.2	5.2554 µg/L	5.2554 ppb	08:32:33
3	Be 313.107†	16614.1	17495.2	4.8498 µg/L	4.8498 ppb	08:32:12
3	Cd 226.502†	683.3	780.8	5.1112 µg/L	5.1112 ppb	08:32:33
3	Co 228.616†	163.3	390.7	5.0771 µg/L	5.0771 ppb	08:32:33
3	Cr 267.716†	909.5	623.5	5.4009 µg/L	5.4009 ppb	08:32:33
3	Cu 324.752†	5672.7	2562.9	10.551 µg/L	10.551 ppb	08:32:12
3	Mn 257.610†	8153.4	7971.7	10.290 µg/L	10.290 ppb	08:32:12
3	Mo 202.031†	270.0	290.5	9.8832 µg/L	9.8832 ppb	08:32:33
3	Ni 231.604†	346.1	443.5	5.4700 µg/L	5.4700 ppb	08:32:33
3	P 214.914†	607.4	639.4	145.67 µg/L	145.67 ppb	08:32:33
3	Pb 220.353†	271.5	186.3	11.673 µg/L	11.673 ppb	08:32:33
3	S 181.975 Axial†	213.1	125.5	106.63 µg/L	106.63 ppb	08:32:33
3	Sb 206.836†	154.8	78.7	10.136 µg/L	10.136 ppb	08:32:33
3	Se 196.026†	85.2	72.7	28.1 µg/L	28.1 ppb	08:32:33
3	SiO2†	3824.1	2091.5	211.46 µg/L	211.46 ppb	08:32:12
3	Si 251.611†	7546.6	6761.2	100.92 µg/L	100.92 ppb	08:32:12
3	Sn 189.927†	164.0	151.7	10.546 µg/L	10.546 ppb	08:32:33
3	Ti 334.940†	5673.9	4874.8	5.0290 µg/L	5.0290 ppb	08:32:12
3	Tl 190.801†	25.1	137.5	19.456 µg/L	19.456 ppb	08:32:33
3	U 409.014†	431.7	713.0	43.884 µg/L	43.884 ppb	08:32:12
3	V 292.402†	1441.0	894.8	4.5269 µg/L	4.5269 ppb	08:32:12
3	Zn 213.857†	2884.1	2305.2	13.112 µg/L	13.112 ppb	08:32:33

## Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1718554.4	99.759 %	0.9894			0.99%
Sc RADIAL	114940.4	98.7 %	0.98			0.99%
Y 371.029	972705.2	99.645 %	0.9600			0.96%
Ag 328.068†	1354.3	5.6577 µg/L	0.11956	5.6577 ppb	0.11956	2.11%
QC value within limits for Ag 328.068 Recovery = 113.15%						
Al 396.153Radial†	927.8	216.35 µg/L	1.083	216.35 ppb	1.083	0.50%
QC value within limits for Al 396.153Radial Recovery = 108.17%						
As 188.979†	90.8	30.202 µg/L	0.7673	30.202 ppb	0.7673	2.54%
QC value within limits for As 188.979 Recovery = 100.67%						
B 249.677†	3521.4	51.427 µg/L	3.0889	51.427 ppb	3.0889	6.01%
QC value within limits for B 249.677 Recovery = 102.85%						
Ba 233.527†	1159.9	5.1913 µg/L	0.05795	5.1913 ppb	0.05795	1.12%
QC value within limits for Ba 233.527 Recovery = 103.83%						
Be 313.107†	17708.7	4.9088 µg/L	0.06027	4.9088 ppb	0.06027	1.23%
QC value within limits for Be 313.107 Recovery = 98.18%						
Ca 317.933Radial†	2680.4	225.39 µg/L	2.598	225.39 ppb	2.598	1.15%
QC value within limits for Ca 317.933Radial Recovery = 112.69%						
Cd 226.502†	778.8	5.0976 µg/L	0.02851	5.0976 ppb	0.02851	0.56%
QC value within limits for Cd 226.502 Recovery = 101.95%						
Co 228.616†	403.0	5.2368 µg/L	0.15654	5.2368 ppb	0.15654	2.99%

QC value within limits for Co 228.616 Recovery = 104.74%							
Cr 267.716†	620.2	5.3726 µg/L	0.08336	5.3726 ppb	0.08336	1.55%	
QC value within limits for Cr 267.716 Recovery = 107.45%							
Cu 324.752†	2594.5	10.680 µg/L	0.2888	10.680 ppb	0.2888	2.70%	
QC value within limits for Cu 324.752 Recovery = 106.80%							
Fe 238.204 Radial†	1253.8	107.95 µg/L	1.775	107.95 ppb	1.775	1.64%	
QC value within limits for Fe 238.204 Radial Recovery = 107.95%							
K 766.490 Radial†	470.5	185.81 µg/L	6.260	185.81 ppb	6.260	3.37%	
QC value within limits for K 766.490 Radial Recovery = 123.87%							
Mg 279.077 IEC†	582.1	324.92 µg/L	2.645	324.92 ppb	2.645	0.81%	
QC value within limits for Mg 279.077 IEC Recovery = 108.31%							
Mn 257.610†	8072.1	10.420 µg/L	0.1331	10.420 ppb	0.1331	1.28%	
QC value within limits for Mn 257.610 Recovery = 104.20%							
Mo 202.031†	290.4	9.8799 µg/L	0.11720	9.8799 ppb	0.11720	1.19%	
QC value within limits for Mo 202.031 Recovery = 98.80%							
Na 589.592 Radial†	2054.8	326.67 µg/L	35.105	326.67 ppb	35.105	10.75%	
QC value within limits for Na 589.592 Radial Recovery = 108.89%							
Ni 231.604†	452.7	5.5840 µg/L	0.09944	5.5840 ppb	0.09944	1.78%	
QC value within limits for Ni 231.604 Recovery = 111.68%							
P 214.914†	642.5	146.39 µg/L	0.662	146.39 ppb	0.662	0.45%	
QC value within limits for P 214.914 Recovery = 97.60%							
Pb 220.353†	190.3	11.921 µg/L	0.7437	11.921 ppb	0.7437	6.24%	
QC value within limits for Pb 220.353 Recovery = 119.21%							
S 181.975 Axial†	127.4	108.19 µg/L	2.602	108.19 ppb	2.602	2.40%	
QC value within limits for S 181.975 Axial Recovery = 108.19%							
Sb 206.836†	78.0	10.051 µg/L	0.6854	10.051 ppb	0.6854	6.82%	
QC value within limits for Sb 206.836 Recovery = 100.51%							
Se 196.026†	84.2	32.5 µg/L	4.78	32.5 ppb	4.78	14.70%	
QC value within limits for Se 196.026 Recovery = 108.40%							
SiO2†	2131.6	215.53 µg/L	4.440	215.53 ppb	4.440	2.06%	
QC value within limits for SiO2 Recovery = 101.19%							
Si 251.611†	6679.1	99.698 µg/L	1.8033	99.698 ppb	1.8033	1.81%	
QC value within limits for Si 251.611 Recovery = 99.70%							
Sn 189.927†	146.1	10.153 µg/L	0.3433	10.153 ppb	0.3433	3.38%	
QC value within limits for Sn 189.927 Recovery = 101.53%							
Sr 421.552†	2049.9	5.1840 µg/L	0.12159	5.1840 ppb	0.12159	2.35%	
QC value within limits for Sr 421.552 Recovery = 103.68%							
Ti 334.940†	4852.9	5.0062 µg/L	0.07326	5.0062 ppb	0.07326	1.46%	
QC value within limits for Ti 334.940 Recovery = 100.12%							
Tl 190.801†	145.5	20.580 µg/L	1.1084	20.580 ppb	1.1084	5.39%	
QC value within limits for Tl 190.801 Recovery = 102.90%							
U 409.014†	708.4	43.600 µg/L	5.7195	43.600 ppb	5.7195	13.12%	
QC value within limits for U 409.014 Recovery = 87.20%							
V 292.402†	884.8	4.4779 µg/L	0.17875	4.4779 ppb	0.17875	3.99%	
QC value within limits for V 292.402 Recovery = 89.56%							
Zn 213.857†	2306.8	13.120 µg/L	0.1621	13.120 ppb	0.1621	1.24%	
QC value greater than the upper limit for Zn 213.857 Recovery = 131.20%							
QC Failed. Continue with analysis.							

Sequence No.: 9

Sample ID: ICSA

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 103

Date Collected: 4/14/2010 8:32:40

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	106618.5	106618.5	91.6 %		08:33:13
1	Al 396.153Radial†	2023286.5	2209127.3	516220 µg/L	516220 ppb	08:33:11
1	Ca 317.933Radial†	5473684.2	5975804.3	502500 µg/L	502500 ppb	08:33:11
1	Fe 238.204 Radial†	2092626.6	2284652.2	196710 µg/L	196710 ppb	08:33:11
1	K 766.490 Radial†	1618.2	322.2	-119.90 µg/L	-119.90 ppb	08:33:13
1	Mg 279.077 IEC†	805231.1	879005.1	490270 µg/L	490270 ppb	08:33:13
1	Na 589.592 Radial†	1082.0	558.5	88.720 µg/L	88.720 ppb	08:33:13
1	Sr 421.552†	4339.0	4741.2	8.0610 µg/L	8.0610 ppb	08:33:13
1	Sc 361.383	1530638.1	1530638.1	88.850 %		08:33:40
1	Y 371.029	852952.3	852952.3	87.377 %		08:33:40
1	Ag 328.068†	7307.0	3104.5	-1.1479 µg/L	-1.1479 ppb	08:33:40
1	As 188.979†	-98.1	-94.0	12.935 µg/L	12.935 ppb	08:34:00
1	B 249.677†	4319.8	866.5	12.646 µg/L	12.646 ppb	08:33:40
1	Ba 233.527†	383.5	569.2	0.0309 µg/L	0.0309 ppb	08:34:00
1	Be 313.107†	-311.9	530.4	0.1478 µg/L	0.1478 ppb	08:33:40
1	Cd 226.502†	2314.5	2702.5	-2.9648 µg/L	-2.9648 ppb	08:34:00
1	Co 228.616†	57.9	292.4	-6.4582 µg/L	-6.4582 ppb	08:34:00
1	Cr 267.716†	306.2	58.6	1.3563 µg/L	1.3563 ppb	08:34:00
1	Cu 324.752†	-5289.0	-9062.4	4.8194 µg/L	4.8194 ppb	08:33:40
1	Mn 257.610†	15709.4	17499.2	2.6519 µg/L	2.6519 ppb	08:33:40
1	Mo 202.031†	-488.3	-529.1	-1.2377 µg/L	-1.2377 ppb	08:34:00
1	Ni 231.604†	40.4	142.9	1.7627 µg/L	1.7627 ppb	08:34:00
1	P 214.914†	122.3	169.6	19.829 µg/L	19.829 ppb	08:34:00
1	Pb 220.353†	-320.3	-445.8	-2.2509 µg/L	-2.2509 ppb	08:34:00
1	S 181.975 Axial†	158.9	91.2	77.236 µg/L	77.236 ppb	08:34:00
1	Sb 206.836†	106.0	43.3	-0.6502 µg/L	-0.6502 ppb	08:34:00
1	Se 196.026†	-144.9	-175.6	0.606 µg/L	0.606 ppb	08:34:00
1	SiO2†	1664.7	141.2	14.744 µg/L	14.744 ppb	08:34:00
1	Si 251.611†	667.1	-34.4	-0.3059 µg/L	-0.3059 ppb	08:34:00
1	Sn 189.927†	71.8	68.6	4.8452 µg/L	4.8452 ppb	08:34:00
1	Ti 334.940†	21732.2	23660.3	-2.2418 µg/L	-2.2418 ppb	08:33:40
1	Tl 190.801†	-169.7	-78.6	-10.643 µg/L	-10.643 ppb	08:34:00
1	U 409.014†	-191.6	65.6	-17.884 µg/L	-17.884 ppb	08:33:40
1	V 292.402†	3971.9	3924.1	-1.7111 µg/L	-1.7111 ppb	08:33:40
1	Zn 213.857†	4330.1	4294.6	7.5401 µg/L	7.5401 ppb	08:34:00
2	Sc RADIAL	107506.7	107506.7	92.4 %		08:33:17
2	Al 396.153Radial†	2012644.8	2179353.4	509260 µg/L	509260 ppb	08:33:15
2	Ca 317.933Radial†	5427360.9	5876270.4	494130 µg/L	494130 ppb	08:33:15
2	Fe 238.204 Radial†	2072818.2	2244327.2	193230 µg/L	193230 ppb	08:33:15
2	K 766.490 Radial†	1591.1	278.3	-134.46 µg/L	-134.46 ppb	08:33:17
2	Mg 279.077 IEC†	819024.2	886676.6	494550 µg/L	494550 ppb	08:33:17
2	Na 589.592 Radial†	1127.8	598.3	95.061 µg/L	95.061 ppb	08:33:17
2	Sr 421.552†	4463.2	4836.6	8.3678 µg/L	8.3678 ppb	08:33:17
2	Sc 361.383	1530020.6	1530020.6	88.815 %		08:34:03
2	Y 371.029	852339.7	852339.7	87.315 %		08:34:03
2	Ag 328.068†	7575.8	3410.6	0.3206 µg/L	0.3206 ppb	08:34:03
2	As 188.979†	-73.5	-66.4	21.304 µg/L	21.304 ppb	08:34:23
2	B 249.677†	4248.1	787.8	11.497 µg/L	11.497 ppb	08:34:03
2	Ba 233.527†	440.8	633.9	0.3639 µg/L	0.3639 ppb	08:34:23
2	Be 313.107†	-635.1	166.4	0.0439 µg/L	0.0439 ppb	08:34:03
2	Cd 226.502†	2296.8	2683.6	-2.7234 µg/L	-2.7234 ppb	08:34:23
2	Co 228.616†	34.8	266.6	-6.6133 µg/L	-6.6133 ppb	08:34:23
2	Cr 267.716†	275.6	24.3	0.8933 µg/L	0.8933 ppb	08:34:23
2	Cu 324.752†	-5263.5	-9036.1	4.5275 µg/L	4.5275 ppb	08:34:03
2	Mn 257.610†	15691.4	17486.1	2.4743 µg/L	2.4743 ppb	08:34:03
2	Mo 202.031†	-511.2	-555.1	-2.1799 µg/L	-2.1799 ppb	08:34:23
2	Ni 231.604†	75.0	181.8	2.2431 µg/L	2.2431 ppb	08:34:23
2	P 214.914†	135.9	184.9	24.146 µg/L	24.146 ppb	08:34:23
2	Pb 220.353†	-270.0	-389.2	0.9761 µg/L	0.9761 ppb	08:34:23

2	S 181.975 Axial†	165.7	99.0	83.846 µg/L	83.846 ppb	08:34:23
2	Sb 206.836†	108.2	45.8	-0.2507 µg/L	-0.2507 ppb	08:34:23
2	Se 196.026†	-142.0	-172.4	0.634 µg/L	0.634 ppb	08:34:23
2	SiO2†	1612.8	83.4	8.9295 µg/L	8.9295 ppb	08:34:23
2	Si 251.611†	660.9	-41.0	-0.3884 µg/L	-0.3884 ppb	08:34:23
2	Sn 189.927†	62.5	58.1	4.1144 µg/L	4.1144 ppb	08:34:23
2	Ti 334.940†	21664.9	23594.5	-2.8724 µg/L	-2.8724 ppb	08:34:03
2	Tl 190.801†	-129.0	-32.8	-4.1961 µg/L	-4.1961 ppb	08:34:23
2	U 409.014†	-351.6	-114.7	-28.531 µg/L	-28.531 ppb	08:34:03
2	V 292.402†	3801.1	3733.6	-2.2970 µg/L	-2.2970 ppb	08:34:03
2	Zn 213.857†	4360.5	4330.8	8.0752 µg/L	8.0752 ppb	08:34:23
3	Sc RADIAL	107676.1	107676.1	92.5 %		08:33:22
3	Al 396.153Radial†	2001569.8	2163951.0	505660 µg/L	505660 ppb	08:33:20
3	Ca 317.933Radial†	5370133.2	5805154.4	488150 µg/L	488150 ppb	08:33:20
3	Fe 238.204 Radial†	2048929.0	2214969.1	190710 µg/L	190710 ppb	08:33:20
3	K 766.490 Radial†	1446.2	118.9	-195.49 µg/L	-195.49 ppb	08:33:22
3	Mg 279.077 IEC†	819926.1	886256.1	494320 µg/L	494320 ppb	08:33:22
3	Na 589.592 Radial†	1038.3	499.6	79.425 µg/L	79.425 ppb	08:33:22
3	Sr 421.552†	4393.6	4753.7	8.2049 µg/L	8.2049 ppb	08:33:22
3	Sc 361.383	1540641.3	1540641.3	89.431 %		08:34:26
3	Y 371.029	859138.1	859138.1	88.011 %		08:34:26
3	Ag 328.068†	7101.7	2821.6	-1.9157 µg/L	-1.9157 ppb	08:34:26
3	As 188.979†	-74.5	-66.9	20.562 µg/L	20.562 ppb	08:34:46
3	B 249.677†	4489.3	1024.4	14.953 µg/L	14.953 ppb	08:34:26
3	Ba 233.527†	411.3	597.5	0.2336 µg/L	0.2336 ppb	08:34:46
3	Be 313.107†	-621.6	186.4	0.0519 µg/L	0.0519 ppb	08:34:26
3	Cd 226.502†	2323.6	2695.7	-2.3780 µg/L	-2.3780 ppb	08:34:46
3	Co 228.616†	52.8	286.4	-6.2238 µg/L	-6.2238 ppb	08:34:46
3	Cr 267.716†	277.8	24.7	0.8058 µg/L	0.8058 ppb	08:34:46
3	Cu 324.752†	-5325.0	-9064.0	4.0456 µg/L	4.0456 ppb	08:34:26
3	Mn 257.610†	15936.3	17638.1	2.6867 µg/L	2.6867 ppb	08:34:26
3	Mo 202.031†	-498.2	-536.6	-1.6561 µg/L	-1.6561 ppb	08:34:46
3	Ni 231.604†	108.2	218.4	2.6934 µg/L	2.6934 ppb	08:34:46
3	P 214.914†	124.0	170.6	21.779 µg/L	21.779 ppb	08:34:46
3	Pb 220.353†	-305.6	-427.0	-1.5335 µg/L	-1.5335 ppb	08:34:46
3	S 181.975 Axial†	158.8	89.9	76.161 µg/L	76.161 ppb	08:34:46
3	Sb 206.836†	110.8	47.9	0.0779 µg/L	0.0779 ppb	08:34:46
3	Se 196.026†	-156.4	-187.4	-6.02 µg/L	-6.02 ppb	08:34:46
3	SiO2†	1653.4	116.3	12.278 µg/L	12.278 ppb	08:34:46
3	Si 251.611†	667.0	-39.4	-0.3550 µg/L	-0.3550 ppb	08:34:46
3	Sn 189.927†	30.0	21.3	1.5620 µg/L	1.5620 ppb	08:34:46
3	Ti 334.940†	21328.0	23049.5	-3.5791 µg/L	-3.5791 ppb	08:34:26
3	Tl 190.801†	-147.6	-52.7	-6.9998 µg/L	-6.9998 ppb	08:34:46
3	U 409.014†	-235.7	17.7	-20.107 µg/L	-20.107 ppb	08:34:26
3	V 292.402†	3874.5	3786.2	-1.7599 µg/L	-1.7599 ppb	08:34:26
3	Zn 213.857†	4369.4	4306.9	8.1999 µg/L	8.1999 ppb	08:34:46

## Mean Data: ICSCA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1533766.7	89.032 %	0.3461			0.39%
Sc RADIAL	107267.1	92.1 %	0.49			0.53%
Y 371.029	854810.0	87.568 %	0.3852			0.44%
Ag 328.068†	3112.2	-0.9143 µg/L	1.13633	-0.9143 ppb	1.13633	124.28%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	2184143.9	510380 µg/L	5366.6	510380 ppb	5366.6	1.05%
QC value within limits for Al 396.153Radial Recovery = 102.08%						
As 188.979†	-75.8	18.267 µg/L	4.6325	18.267 ppb	4.6325	25.36%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	892.9	13.032 µg/L	1.7601	13.032 ppb	1.7601	13.51%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	600.2	0.2095 µg/L	0.16781	0.2095 ppb	0.16781	80.11%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	294.4	0.0812 µg/L	0.05785	0.0812 ppb	0.05785	71.24%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	5885743.0	494930 µg/L	7208.0	494930 ppb	7208.0	1.46%
QC value within limits for Ca 317.933Radial Recovery = 98.99%						
Cd 226.502†	2693.9	-2.6887 µg/L	0.29491	-2.6887 ppb	0.29491	10.97%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	281.8	-6.4318 µg/L	0.19610	-6.4318 ppb	0.19610	3.05%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	35.9	1.0185 µg/L	0.29584	1.0185 ppb	0.29584	29.05%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-9054.2	4.4641 µg/L	0.39077	4.4641 ppb	0.39077	8.75%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	2247982.8	193550 µg/L	3012.2	193550 ppb	3012.2	1.56%
QC value within limits for Fe 238.204 Radial Recovery = 96.77%						
K 766.490 Radial†	239.8	-149.95 µg/L	40.102	-149.95 ppb	40.102	26.74%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	883979.2	493050 µg/L	2408.6	493050 ppb	2408.6	0.49%
QC value within limits for Mg 279.077 IEC Recovery = 98.61%						
Mn 257.610†	17541.1	2.6043 µg/L	0.11392	2.6043 ppb	0.11392	4.37%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-540.2	-1.6913 µg/L	0.47209	-1.6913 ppb	0.47209	27.91%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	552.1	87.736 µg/L	7.8644	87.736 ppb	7.8644	8.96%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	181.0	2.2330 µg/L	0.46539	2.2330 ppb	0.46539	20.84%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	175.0	21.918 µg/L	2.1619	21.918 ppb	2.1619	9.86%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-420.7	-0.9361 µg/L	1.69440	-0.9361 ppb	1.69440	181.01%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	93.4	79.081 µg/L	4.1618	79.081 ppb	4.1618	5.26%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	45.6	-0.2743 µg/L	0.36464	-0.2743 ppb	0.36464	132.93%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-178.5	-1.59 µg/L	3.834	-1.59 ppb	3.834	240.55%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	113.6	11.984 µg/L	2.9185	11.984 ppb	2.9185	24.35%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	-38.3	-0.3498 µg/L	0.04152	-0.3498 ppb	0.04152	11.87%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	49.4	3.5072 µg/L	1.72378	3.5072 ppb	1.72378	49.15%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	4777.1	8.2113 µg/L	0.15349	8.2113 ppb	0.15349	1.87%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	23434.8	-2.8978 µg/L	0.66900	-2.8978 ppb	0.66900	23.09%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-54.7	-7.2798 µg/L	3.23276	-7.2798 ppb	3.23276	44.41%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-10.5	-22.174 µg/L	5.6165	-22.174 ppb	5.6165	25.33%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	3814.6	-1.9227 µg/L	0.32506	-1.9227 ppb	0.32506	16.91%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	4310.8	7.9384 µg/L	0.35051	7.9384 ppb	0.35051	4.42%
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: 4/14/2010 8:34:53

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	107653.6	107653.6	92.5 %		08:35:25
1	Al 396.153Radial†	2030054.4	2195205.5	512940 µg/L	512940 ppb	08:35:23
1	Ca 317.933Radial†	5439692.6	5881587.0	494580 µg/L	494580 ppb	08:35:23
1	Fe 238.204 Radial†	2079987.2	2249017.0	193640 µg/L	193640 ppb	08:35:23
1	K 766.490 Radial†	14683.4	14432.9	5457.8 µg/L	5457.8 ppb	08:35:25
1	Mg 279.077 IEC†	830488.0	897862.5	500800 µg/L	500800 ppb	08:35:25
1	Na 589.592 Radial†	32202.3	34198.0	5434.5 µg/L	5434.5 ppb	08:35:25
1	Sr 421.552†	191871.1	207476.9	521.00 µg/L	521.00 ppb	08:35:25
1	Sc 361.383	1551986.8	1551986.8	90.090 %		08:35:53
1	Y 371.029	865453.3	865453.3	88.658 %		08:35:53
1	Ag 328.068†	64568.5	66552.0	266.12 µg/L	266.12 ppb	08:35:53
1	As 188.979†	1301.0	1460.5	533.44 µg/L	533.44 ppb	08:35:55
1	B 249.677†	35967.1	35928.2	523.30 µg/L	523.30 ppb	08:35:53
1	Ba 233.527†	99805.1	110921.7	494.03 µg/L	494.03 ppb	08:35:53
1	Be 313.107†	790423.8	878255.6	242.95 µg/L	242.95 ppb	08:35:53
1	Cd 226.502†	67971.9	75546.7	475.21 µg/L	475.21 ppb	08:35:53
1	Co 228.616†	31410.6	35093.2	446.51 µg/L	446.51 ppb	08:35:55
1	Cr 267.716†	49848.9	55046.6	480.28 µg/L	480.28 ppb	08:35:55
1	Cu 324.752†	112485.7	121749.9	540.63 µg/L	540.63 ppb	08:35:53
1	Mn 257.610†	348887.0	387084.6	479.93 µg/L	479.93 ppb	08:35:53
1	Mo 202.031†	12663.2	14076.7	495.34 µg/L	495.34 ppb	08:35:55
1	Ni 231.604†	32797.4	36502.7	450.26 µg/L	450.26 ppb	08:35:55
1	P 214.914†	10022.3	11156.8	2520.3 µg/L	2520.3 ppb	08:35:55
1	Pb 220.353†	6284.3	6890.4	458.50 µg/L	458.50 ppb	08:35:55
1	S 181.975 Axial†	2932.6	3167.5	2692.4 µg/L	2692.4 ppb	08:35:55
1	Sb 206.836†	3674.2	4002.3	506.69 µg/L	506.69 ppb	08:35:55
1	Se 196.026†	5439.2	6025.0	2390 µg/L	2390 ppb	08:35:55
1	SiO2†	98105.2	107164.7	10836 µg/L	10836 ppb	08:35:53
1	Si 251.611†	307671.6	340731.7	5086.7 µg/L	5086.7 ppb	08:35:53
1	Sn 189.927†	6253.1	6928.8	482.58 µg/L	482.58 ppb	08:35:55
1	Ti 334.940†	460968.3	510878.0	502.98 µg/L	502.98 ppb	08:35:53
1	Tl 190.801†	2788.8	3207.9	460.07 µg/L	460.07 ppb	08:35:55
1	U 409.014†	7014.8	8067.8	503.10 µg/L	503.10 ppb	08:35:53
1	V 292.402†	96228.6	106268.1	507.59 µg/L	507.59 ppb	08:35:53
1	Zn 213.857†	81116.9	89461.2	491.09 µg/L	491.09 ppb	08:35:53
2	Sc RADIAL	107726.7	107726.7	92.5 %		08:35:30
2	Al 396.153Radial†	2029577.9	2193200.4	512480 µg/L	512480 ppb	08:35:28
2	Ca 317.933Radial†	5407568.2	5842881.0	491320 µg/L	491320 ppb	08:35:28
2	Fe 238.204 Radial†	2065582.0	2231924.2	192170 µg/L	192170 ppb	08:35:28
2	K 766.490 Radial†	14724.0	14466.0	5471.5 µg/L	5471.5 ppb	08:35:30
2	Mg 279.077 IEC†	834404.6	901485.2	502830 µg/L	502830 ppb	08:35:30
2	Na 589.592 Radial†	32267.6	34244.8	5442.0 µg/L	5442.0 ppb	08:35:30
2	Sr 421.552†	192269.2	207766.2	521.76 µg/L	521.76 ppb	08:35:30
2	Sc 361.383	1534501.3	1534501.3	89.075 %		08:35:58
2	Y 371.029	855906.3	855906.3	87.680 %		08:35:58
2	Ag 328.068†	63723.0	66419.4	265.71 µg/L	265.71 ppb	08:35:58
2	As 188.979†	1303.6	1479.8	539.65 µg/L	539.65 ppb	08:36:00
2	B 249.677†	35644.7	36021.2	524.63 µg/L	524.63 ppb	08:35:58
2	Ba 233.527†	98874.3	111139.2	495.02 µg/L	495.02 ppb	08:35:58
2	Be 313.107†	782689.5	879570.2	243.32 µg/L	243.32 ppb	08:35:58
2	Cd 226.502†	67347.9	75705.8	476.41 µg/L	476.41 ppb	08:35:58
2	Co 228.616†	31682.5	35795.7	455.72 µg/L	455.72 ppb	08:36:00
2	Cr 267.716†	50464.4	56368.0	491.70 µg/L	491.70 ppb	08:36:00
2	Cu 324.752†	111332.8	121878.4	541.02 µg/L	541.02 ppb	08:35:58
2	Mn 257.610†	345320.3	387493.3	480.38 µg/L	480.38 ppb	08:35:58
2	Mo 202.031†	12784.4	14372.9	505.38 µg/L	505.38 ppb	08:36:00
2	Ni 231.604†	33046.4	37197.1	458.82 µg/L	458.82 ppb	08:36:00
2	P 214.914†	10270.3	11561.9	2613.6 µg/L	2613.6 ppb	08:36:00
2	Pb 220.353†	6452.3	7158.4	475.31 µg/L	475.31 ppb	08:36:00

2	S 181.975 Axial†	2908.2	3177.3	2700.8 µg/L	2700.8 ppb	08:36:00
2	Sb 206.836†	3648.8	4020.3	509.02 µg/L	509.02 ppb	08:36:00
2	Se 196.026†	5485.8	6146.1	2430 µg/L	2430 ppb	08:36:00
2	SiO2†	97439.4	107658.1	10886 µg/L	10886 ppb	08:35:58
2	Si 251.611†	305009.1	341634.2	5099.9 µg/L	5099.9 ppb	08:35:58
2	Sn 189.927†	6435.6	7212.8	502.29 µg/L	502.29 ppb	08:36:00
2	Ti 334.940†	456187.8	511341.7	503.20 µg/L	503.20 ppb	08:35:58
2	Tl 190.801†	2761.4	3212.5	460.69 µg/L	460.69 ppb	08:36:00
2	U 409.014†	7279.8	8453.9	526.95 µg/L	526.95 ppb	08:35:58
2	V 292.402†	95327.3	106473.3	508.92 µg/L	508.92 ppb	08:35:58
2	Zn 213.857†	80357.4	89634.6	492.20 µg/L	492.20 ppb	08:35:58
3	Sc RADIAL	106843.1	106843.1	91.8 %		08:35:34
3	Al 396.153Radial†	2042680.8	2225614.2	520050 µg/L	520050 ppb	08:35:32
3	Ca 317.933Radial†	5475580.5	5965308.0	501620 µg/L	501620 ppb	08:35:32
3	Fe 238.204 Radial†	2092318.0	2279513.3	196260 µg/L	196260 ppb	08:35:32
3	K 766.490 Radial†	14664.8	14533.0	5494.6 µg/L	5494.6 ppb	08:35:34
3	Mg 279.077 IEC†	822790.0	896287.8	499920 µg/L	499920 ppb	08:35:34
3	Na 589.592 Radial†	31903.5	34136.6	5424.7 µg/L	5424.7 ppb	08:35:34
3	Sr 421.552†	191031.6	208136.0	522.61 µg/L	522.61 ppb	08:35:34
3	Sc 361.383	1545723.5	1545723.5	89.726 %		08:36:03
3	Y 371.029	862667.3	862667.3	88.373 %		08:36:03
3	Ag 328.068†	64704.3	66993.8	267.73 µg/L	267.73 ppb	08:36:03
3	As 188.979†	1255.0	1415.0	519.01 µg/L	519.01 ppb	08:36:05
3	B 249.677†	35575.4	35653.5	519.28 µg/L	519.28 ppb	08:36:03
3	Ba 233.527†	99639.2	111185.7	495.18 µg/L	495.18 ppb	08:36:03
3	Be 313.107†	787555.0	878613.4	243.05 µg/L	243.05 ppb	08:36:03
3	Cd 226.502†	67935.3	75811.5	476.67 µg/L	476.67 ppb	08:36:03
3	Co 228.616†	31440.8	35268.2	448.65 µg/L	448.65 ppb	08:36:05
3	Cr 267.716†	50168.3	55626.6	485.44 µg/L	485.44 ppb	08:36:05
3	Cu 324.752†	111952.7	121661.9	540.62 µg/L	540.62 ppb	08:36:03
3	Mn 257.610†	347353.9	386945.3	479.78 µg/L	479.78 ppb	08:36:03
3	Mo 202.031†	12650.5	14119.5	496.88 µg/L	496.88 ppb	08:36:05
3	Ni 231.604†	32938.6	36807.5	454.02 µg/L	454.02 ppb	08:36:05
3	P 214.914†	10177.8	11375.1	2569.9 µg/L	2569.9 ppb	08:36:05
3	Pb 220.353†	6366.6	7010.3	466.37 µg/L	466.37 ppb	08:36:05
3	S 181.975 Axial†	2959.2	3210.4	2728.9 µg/L	2728.9 ppb	08:36:05
3	Sb 206.836†	3574.2	3907.4	494.44 µg/L	494.44 ppb	08:36:05
3	Se 196.026†	5513.0	6131.7	2430 µg/L	2430 ppb	08:36:05
3	SiO2†	97831.3	107300.8	10850 µg/L	10850 ppb	08:36:03
3	Si 251.611†	306405.8	340704.8	5086.2 µg/L	5086.2 ppb	08:36:03
3	Sn 189.927†	6295.2	7003.8	487.78 µg/L	487.78 ppb	08:36:05
3	Ti 334.940†	458109.2	509764.9	502.07 µg/L	502.07 ppb	08:36:03
3	Tl 190.801†	2751.6	3179.0	455.97 µg/L	455.97 ppb	08:36:05
3	U 409.014†	6915.5	7988.6	497.93 µg/L	497.93 ppb	08:36:03
3	V 292.402†	95752.7	106170.5	506.87 µg/L	506.87 ppb	08:36:03
3	Zn 213.857†	80788.4	89460.0	490.83 µg/L	490.83 ppb	08:36:03

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1544070.5	89.630 %	0.5143			0.57%
Sc RADIAL	107407.8	92.3 %	0.42			0.46%
Y 371.029	861342.3	88.237 %	0.5029			0.57%
Ag 328.068†	66655.1	266.52 µg/L	1.065	266.52 ppb	1.065	0.40%
QC value within limits for Ag 328.068 Recovery = 106.61%						
Al 396.153Radial†	2204673.4	515160 µg/L	4244.4	515160 ppb	4244.4	0.82%
QC value within limits for Al 396.153Radial Recovery = 103.03%						
As 188.979†	1451.8	530.70 µg/L	10.590	530.70 ppb	10.590	2.00%
QC value within limits for As 188.979 Recovery = 106.14%						
B 249.677†	35867.7	522.40 µg/L	2.785	522.40 ppb	2.785	0.53%
QC value within limits for B 249.677 Recovery = 104.48%						
Ba 233.527†	111082.2	494.74 µg/L	0.623	494.74 ppb	0.623	0.13%
QC value within limits for Ba 233.527 Recovery = 98.95%						
Be 313.107†	878813.1	243.10 µg/L	0.192	243.10 ppb	0.192	0.08%
QC value within limits for Be 313.107 Recovery = 97.24%						
Ca 317.933Radial†	5896592.0	495840 µg/L	5262.1	495840 ppb	5262.1	1.06%
QC value within limits for Ca 317.933Radial Recovery = 99.17%						
Cd 226.502†	75688.0	476.09 µg/L	0.780	476.09 ppb	0.780	0.16%
QC value within limits for Cd 226.502 Recovery = 95.22%						
Co 228.616†	35385.7	450.29 µg/L	4.819	450.29 ppb	4.819	1.07%

QC value within limits for Co 228.616 Recovery = 90.06%							
Cr 267.716†	55680.4	485.81 µg/L	5.723	485.81 ppb	5.723	1.18%	
QC value within limits for Cr 267.716 Recovery = 97.16%							
Cu 324.752†	121763.4	540.76 µg/L	0.227	540.76 ppb	0.227	0.04%	
QC value within limits for Cu 324.752 Recovery = 108.15%							
Fe 238.204 Radial†	2253484.8	194020 µg/L	2075.6	194020 ppb	2075.6	1.07%	
QC value within limits for Fe 238.204 Radial Recovery = 97.01%							
K 766.490 Radial†	14477.3	5474.6 µg/L	18.58	5474.6 ppb	18.58	0.34%	
QC value within limits for K 766.490 Radial Recovery = 109.49%							
Mg 279.077 IEC†	898545.2	501180 µg/L	1488.8	501180 ppb	1488.8	0.30%	
QC value within limits for Mg 279.077 IEC Recovery = 100.24%							
Mn 257.610†	387174.4	480.03 µg/L	0.314	480.03 ppb	0.314	0.07%	
QC value within limits for Mn 257.610 Recovery = 96.01%							
Mo 202.031†	14189.7	499.20 µg/L	5.409	499.20 ppb	5.409	1.08%	
QC value within limits for Mo 202.031 Recovery = 99.84%							
Na 589.592 Radial†	34193.1	5433.8 µg/L	8.65	5433.8 ppb	8.65	0.16%	
QC value within limits for Na 589.592 Radial Recovery = 108.68%							
Ni 231.604†	36835.8	454.37 µg/L	4.293	454.37 ppb	4.293	0.94%	
QC value within limits for Ni 231.604 Recovery = 90.87%							
P 214.914†	11364.6	2567.9 µg/L	46.71	2567.9 ppb	46.71	1.82%	
QC value within limits for P 214.914 Recovery = 102.72%							
Pb 220.353†	7019.7	466.73 µg/L	8.411	466.73 ppb	8.411	1.80%	
QC value within limits for Pb 220.353 Recovery = 93.35%							
S 181.975 Axial†	3185.1	2707.4 µg/L	19.08	2707.4 ppb	19.08	0.70%	
QC value within limits for S 181.975 Axial Recovery = 108.29%							
Sb 206.836†	3976.7	503.39 µg/L	7.834	503.39 ppb	7.834	1.56%	
QC value within limits for Sb 206.836 Recovery = 100.68%							
Se 196.026†	6101.0	2420 µg/L	25.5	2420 ppb	25.5	1.06%	
QC value within limits for Se 196.026 Recovery = 96.72%							
SiO2†	107374.6	10857 µg/L	25.5	10857 ppb	25.5	0.24%	
QC value within limits for SiO2 Recovery = 101.52%							
Si 251.611†	341023.6	5090.9 µg/L	7.78	5090.9 ppb	7.78	0.15%	
QC value within limits for Si 251.611 Recovery = 101.82%							
Sn 189.927†	7048.4	490.88 µg/L	10.213	490.88 ppb	10.213	2.08%	
QC value within limits for Sn 189.927 Recovery = 98.18%							
Sr 421.552†	207793.0	521.79 µg/L	0.807	521.79 ppb	0.807	0.15%	
QC value within limits for Sr 421.552 Recovery = 104.36%							
Ti 334.940†	510661.5	502.75 µg/L	0.594	502.75 ppb	0.594	0.12%	
QC value within limits for Ti 334.940 Recovery = 100.55%							
Tl 190.801†	3199.8	458.91 µg/L	2.563	458.91 ppb	2.563	0.56%	
QC value within limits for Tl 190.801 Recovery = 91.78%							
U 409.014†	8170.1	509.33 µg/L	15.480	509.33 ppb	15.480	3.04%	
QC value within limits for U 409.014 Recovery = 101.87%							
V 292.402†	106304.0	507.79 µg/L	1.041	507.79 ppb	1.041	0.21%	
QC value within limits for V 292.402 Recovery = 101.56%							
Zn 213.857†	89518.6	491.37 µg/L	0.728	491.37 ppb	0.728	0.15%	
QC value within limits for Zn 213.857 Recovery = 98.27%							
All analyte(s) passed QC.							

Sequence No.: 11

Sample ID: LR1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 105

Date Collected: 4/14/2010 8:36:12

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	104297.2	104297.2	89.6 %		08:36:44
1	Al 396.153Radial†	1980431.7	2210462.5	516530 µg/L	516530 ppb	08:36:42
1	Ca 317.933Radial†	5291174.0	5905113.2	496560 µg/L	496560 ppb	08:36:42
1	Fe 238.204 Radial†	4900528.5	5469438.0	470910 µg/L	470910 ppb	08:36:42
1	K 766.490 Radial†	1611.7	354.3	-190.33 µg/L	-190.33 ppb	08:36:44
1	Mg 279.077 IEC†	784562.5	875503.7	488080 µg/L	488080 ppb	08:36:44
1	Na 589.592 Radial†	2919868.8	3258279.7	518270 µg/L	518270 ppb	08:36:42
1	Sr 421.552†	4261.2	4759.8	8.1546 µg/L	8.1546 ppb	08:36:44
1	Sc 361.383	1484469.5	1484469.5	86.170 %		08:37:11
1	Y 371.029	824805.1	824805.1	84.494 %		08:37:11
1	Ag 328.068†	3974.7	-506.8	2.3764 µg/L	2.3764 ppb	08:37:11
1	As 188.979†	-201.4	-217.3	33.571 µg/L	33.571 ppb	08:37:13
1	B 249.677†	4814.0	1591.2	23.201 µg/L	23.201 ppb	08:37:11
1	Ba 233.527†	707.4	958.6	-1.7353 µg/L	-1.7353 ppb	08:37:13
1	Be 313.107†	-15418.0	-17011.0	0.1484 µg/L	0.1484 ppb	08:37:11
1	Cd 226.502†	5921.8	6969.7	-3.8196 µg/L	-3.8196 ppb	08:37:13
1	Co 228.616†	671.6	1006.7	-11.478 µg/L	-11.478 ppb	08:37:13
1	Cr 267.716†	521.7	319.4	0.5412 µg/L	0.5412 ppb	08:37:13
1	Cu 324.752†	-15402.3	-20983.9	9.1781 µg/L	9.1781 ppb	08:37:13
1	Mn 257.610†	18037.8	20751.2	6.2166 µg/L	6.2166 ppb	08:37:11
1	Mo 202.031†	-812.4	-922.3	-3.7869 µg/L	-3.7869 ppb	08:37:13
1	Ni 231.604†	149.1	270.4	3.3351 µg/L	3.3351 ppb	08:37:13
1	P 214.914†	933.3	1115.1	49.785 µg/L	49.785 ppb	08:37:13
1	Pb 220.353†	-73.2	-170.2	-5.8274 µg/L	-5.8274 ppb	08:37:13
1	S 181.975 Axial†	191.5	134.6	113.95 µg/L	113.95 ppb	08:37:13
1	Sb 206.836†	201.6	157.9	10.364 µg/L	10.364 ppb	08:37:13
1	Se 196.026†	-257.3	-311.1	59.0 µg/L	59.0 ppb	08:37:13
1	SiO2†	1920.8	496.7	51.117 µg/L	51.117 ppb	08:37:13
1	Si 251.611†	-1749.6	-2815.6	-41.734 µg/L	-41.734 ppb	08:37:13
1	Sn 189.927†	87.6	89.5	6.2999 µg/L	6.2999 ppb	08:37:13
1	Ti 334.940†	23076.7	25981.3	-6.3919 µg/L	-6.3919 ppb	08:37:11
1	Tl 190.801†	-280.2	-212.8	-29.425 µg/L	-29.425 ppb	08:37:13
1	U 409.014†	225966.6	262513.3	15965 µg/L	15965 ppb	08:37:11
1	V 292.402†	7024.9	7606.2	-1.9265 µg/L	-1.9265 ppb	08:37:13
1	Zn 213.857†	8655.2	9465.4	8.1874 µg/L	8.1874 ppb	08:37:13
2	Sc RADIAL	105188.2	105188.2	90.4 %		08:36:49
2	Al 396.153Radial†	1975070.2	2185806.0	510770 µg/L	510770 ppb	08:36:47
2	Ca 317.933Radial†	5280873.8	5843691.3	491390 µg/L	491390 ppb	08:36:47
2	Fe 238.204 Radial†	4883358.4	5404106.7	465290 µg/L	465290 ppb	08:36:47
2	K 766.490 Radial†	1487.3	201.4	-247.66 µg/L	-247.66 ppb	08:36:49
2	Mg 279.077 IEC†	787710.5	871570.2	485890 µg/L	485890 ppb	08:36:49
2	Na 589.592 Radial†	2920481.7	3231353.4	513990 µg/L	513990 ppb	08:36:47
2	Sr 421.552†	4263.1	4721.5	8.0983 µg/L	8.0983 ppb	08:36:49
2	Sc 361.383	1499791.2	1499791.2	87.060 %		08:37:16
2	Y 371.029	833836.9	833836.9	85.419 %		08:37:16
2	Ag 328.068†	3441.5	-1166.3	-0.1827 µg/L	-0.1827 ppb	08:37:16
2	As 188.979†	-228.0	-245.5	22.957 µg/L	22.957 ppb	08:37:18
2	B 249.677†	5030.4	1782.7	25.999 µg/L	25.999 ppb	08:37:16
2	Ba 233.527†	557.7	778.3	-2.4692 µg/L	-2.4692 ppb	08:37:18
2	Be 313.107†	-15535.3	-16962.9	0.1582 µg/L	0.1582 ppb	08:37:16
2	Cd 226.502†	5769.0	6723.9	-4.8393 µg/L	-4.8393 ppb	08:37:18
2	Co 228.616†	656.3	981.2	-11.517 µg/L	-11.517 ppb	08:37:18
2	Cr 267.716†	488.1	274.7	-0.0074 µg/L	-0.0074 ppb	08:37:18
2	Cu 324.752†	-15061.7	-20410.1	10.638 µg/L	10.638 ppb	08:37:18
2	Mn 257.610†	17761.6	20220.1	5.6319 µg/L	5.6319 ppb	08:37:16
2	Mo 202.031†	-778.4	-873.6	-2.3944 µg/L	-2.3944 ppb	08:37:18
2	Ni 231.604†	206.8	334.9	4.1311 µg/L	4.1311 ppb	08:37:18
2	P 214.914†	937.8	1109.2	50.997 µg/L	50.997 ppb	08:37:18
2	Pb 220.353†	-89.7	-188.3	-7.1207 µg/L	-7.1207 ppb	08:37:18

2	S 181.975 Axial†	216.7	161.3	136.68 µg/L	136.68 ppb	08:37:18
2	Sb 206.836†	175.3	125.3	6.3466 µg/L	6.3466 ppb	08:37:18
2	Se 196.026†	-389.8	-460.2	-0.387 µg/L	-0.387 ppb	08:37:18
2	SiO2†	1934.0	489.0	50.232 µg/L	50.232 ppb	08:37:18
2	Si 251.611†	-1727.8	-2769.8	-41.103 µg/L	-41.103 ppb	08:37:18
2	Sn 189.927†	146.6	156.2	10.924 µg/L	10.924 ppb	08:37:18
2	Ti 334.940†	22636.5	25202.1	-7.1531 µg/L	-7.1531 ppb	08:37:16
2	Tl 190.801†	-121.3	-26.9	-3.2521 µg/L	-3.2521 ppb	08:37:18
2	U 409.014†	228133.2	262323.0	15954 µg/L	15954 ppb	08:37:16
2	V 292.402†	7025.4	7523.5	-1.7303 µg/L	-1.7303 ppb	08:37:18
2	Zn 213.857†	8592.6	9290.8	7.7309 µg/L	7.7309 ppb	08:37:18
3	Sc RADIAL	106398.5	106398.5	91.4 %		08:36:53
3	Al 396.153Radial†	1970102.6	2155508.6	503690 µg/L	503690 ppb	08:36:51
3	Ca 317.933Radial†	5251641.9	5745232.8	483110 µg/L	483110 ppb	08:36:51
3	Fe 238.204 Radial†	4858093.1	5314992.0	457610 µg/L	457610 ppb	08:36:51
3	K 766.490 Radial†	1616.2	323.7	-195.02 µg/L	-195.02 ppb	08:36:53
3	Mg 279.077 IEC†	799320.9	874357.0	487450 µg/L	487450 ppb	08:36:53
3	Na 589.592 Radial†	2909067.9	3182102.3	506150 µg/L	506150 ppb	08:36:51
3	Sr 421.552†	4376.9	4792.4	8.3425 µg/L	8.3425 ppb	08:36:53
3	Sc 361.383	1484538.6	1484538.6	86.174 %		08:37:20
3	Y 371.029	825331.3	825331.3	84.548 %		08:37:20
3	Ag 328.068†	3774.2	-739.7	1.8463 µg/L	1.8463 ppb	08:37:20
3	As 188.979†	-278.3	-306.6	1.0026 µg/L	1.0026 ppb	08:37:22
3	B 249.677†	5172.6	2007.1	29.280 µg/L	29.280 ppb	08:37:20
3	Ba 233.527†	532.1	755.1	-2.4742 µg/L	-2.4742 ppb	08:37:22
3	Be 313.107†	-15149.4	-16698.4	0.2355 µg/L	0.2355 ppb	08:37:20
3	Cd 226.502†	5861.8	6899.8	-2.8799 µg/L	-2.8799 ppb	08:37:22
3	Co 228.616†	629.7	958.0	-11.418 µg/L	-11.418 ppb	08:37:22
3	Cr 267.716†	470.2	259.6	-0.4341 µg/L	-0.4341 ppb	08:37:22
3	Cu 324.752†	-15282.0	-20843.5	7.8001 µg/L	7.8001 ppb	08:37:22
3	Mn 257.610†	17778.0	20448.8	5.8858 µg/L	5.8858 ppb	08:37:20
3	Mo 202.031†	-750.3	-850.2	-1.8736 µg/L	-1.8736 ppb	08:37:22
3	Ni 231.604†	157.8	280.5	3.4599 µg/L	3.4599 ppb	08:37:22
3	P 214.914†	941.4	1124.4	58.096 µg/L	58.096 ppb	08:37:22
3	Pb 220.353†	-33.7	-124.3	-3.3126 µg/L	-3.3126 ppb	08:37:22
3	S 181.975 Axial†	95.6	23.3	19.565 µg/L	19.565 ppb	08:37:22
3	Sb 206.836†	218.6	177.6	13.179 µg/L	13.179 ppb	08:37:22
3	Se 196.026†	-282.1	-339.9	43.3 µg/L	43.3 ppb	08:37:22
3	SiO2†	1857.4	423.0	43.564 µg/L	43.564 ppb	08:37:22
3	Si 251.611†	-1635.0	-2682.5	-39.787 µg/L	-39.787 ppb	08:37:22
3	Sn 189.927†	105.4	110.1	7.7322 µg/L	7.7322 ppb	08:37:22
3	Ti 334.940†	23945.3	26988.1	-5.6440 µg/L	-5.6440 ppb	08:37:20
3	Tl 190.801†	-183.0	-100.0	-13.525 µg/L	-13.525 ppb	08:37:22
3	U 409.014†	226008.1	262549.2	15970 µg/L	15970 ppb	08:37:20
3	V 292.402†	6940.0	7507.2	-0.9851 µg/L	-0.9851 ppb	08:37:22
3	Zn 213.857†	8554.5	9348.1	8.8371 µg/L	8.8371 ppb	08:37:22

## Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1489599.8	86.468 %	0.5123			0.59%
Sc RADIAL	105294.6	90.5 %	0.91			1.00%
Y 371.029	827991.1	84.820 %	0.5193			0.61%
Ag 328.068†	-804.2	1.3467 µg/L	1.35070	1.3467 ppb	1.35070	100.30%
Al 396.153Radial†	2183925.7	510330 µg/L	6432.0	510330 ppb	6432.0	1.26%
QC value within limits for Al 396.153Radial Recovery = 102.07%						
As 188.979†	-256.4	19.177 µg/L	16.6098	19.177 ppb	16.6098	86.61%
B 249.677†	1793.7	26.160 µg/L	3.0423	26.160 ppb	3.0423	11.63%
Ba 233.527†	830.6	-2.2262 µg/L	0.42520	-2.2262 ppb	0.42520	19.10%
Be 313.107†	-16890.8	0.1807 µg/L	0.04771	0.1807 ppb	0.04771	26.40%
Ca 317.933Radial†	5831345.8	490350 µg/L	6782.0	490350 ppb	6782.0	1.38%
QC value within limits for Ca 317.933Radial Recovery = 98.07%						
Cd 226.502†	6864.5	-3.8463 µg/L	0.97998	-3.8463 ppb	0.97998	25.48%
Co 228.616†	982.0	-11.471 µg/L	0.0499	-11.471 ppb	0.0499	0.43%
Cr 267.716†	284.6	0.0332 µg/L	0.48894	0.0332 ppb	0.48894	>999.9%
Cu 324.752†	-20745.8	9.2054 µg/L	1.41912	9.2054 ppb	1.41912	15.42%
Fe 238.204 Radial†	5396178.9	464600 µg/L	6675.0	464600 ppb	6675.0	1.44%
QC value within limits for Fe 238.204 Radial Recovery = 92.92%						
K 766.490 Radial†	293.1	-211.00 µg/L	31.829	-211.00 ppb	31.829	15.08%
Mg 279.077 IEC†	873810.3	487140 µg/L	1127.6	487140 ppb	1127.6	0.23%

QC value within limits for Mg 279.077 IEC Recovery = 97.43%							
Mn 257.610†	20473.3	5.9114 µg/L	0.29322	5.9114 ppb	0.29322	4.96%	
Mo 202.031†	-882.0	-2.6850 µg/L	0.98920	-2.6850 ppb	0.98920	36.84%	
Na 589.592 Radial†	3223911.8	512800 µg/L	6144.6	512800 ppb	6144.6	1.20%	
QC value within limits for Na 589.592 Radial Recovery = 102.56%							
Ni 231.604†	295.3	3.6421 µg/L	0.42811	3.6421 ppb	0.42811	11.75%	
P 214.914†	1116.2	52.959 µg/L	4.4896	52.959 ppb	4.4896	8.48%	
Pb 220.353†	-161.0	-5.4202 µg/L	1.93646	-5.4202 ppb	1.93646	35.73%	
S 181.975 Axial†	106.4	90.065 µg/L	62.1027	90.065 ppb	62.1027	68.95%	
Sb 206.836†	153.6	9.9633 µg/L	3.43398	9.9633 ppb	3.43398	34.47%	
Se 196.026†	-370.4	34.0 µg/L	30.78	34.0 ppb	30.78	90.58%	
SiO2†	469.6	48.304 µg/L	4.1293	48.304 ppb	4.1293	8.55%	
Si 251.611†	-2756.0	-40.874 µg/L	0.9936	-40.874 ppb	0.9936	2.43%	
Sn 189.927†	118.6	8.3187 µg/L	2.36730	8.3187 ppb	2.36730	28.46%	
Sr 421.552†	4757.9	8.1984 µg/L	0.12786	8.1984 ppb	0.12786	1.56%	
Ti 334.940†	26057.2	-6.3963 µg/L	0.75459	-6.3963 ppb	0.75459	11.80%	
Tl 190.801†	-113.2	-15.401 µg/L	13.1870	-15.401 ppb	13.1870	85.63%	
U 409.014†	262461.8	15963 µg/L	7.8	15963 ppb	7.8	0.05%	
QC value within limits for U 409.014 Recovery = 106.42%							
V 292.402†	7545.6	-1.5473 µg/L	0.49665	-1.5473 ppb	0.49665	32.10%	
Zn 213.857†	9368.1	8.2518 µg/L	0.55589	8.2518 ppb	0.55589	6.74%	
All analyte(s) passed QC.							

Sequence No.: 12

Sample ID: LR2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 108

Date Collected: 4/14/2010 8:37:30

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	114212.8	114212.8	98.1 %		08:38:04
1	Al 396.153Radial†	2038.9	2155.7	51.827 µg/L	51.827 ppb	08:38:06
1	Ca 317.933Radial†	1058.6	645.7	54.300 µg/L	54.300 ppb	08:38:06
1	Fe 238.204 Radial†	-315.8	-425.9	-36.666 µg/L	-36.666 ppb	08:38:06
1	K 766.490 Radial†	730277.0	742864.9	293610 µg/L	293610 ppb	08:38:04
1	Mg 279.077 IEC†	-286.7	-448.7	-12.280 µg/L	-12.280 ppb	08:38:06
1	Na 589.592 Radial†	2596.0	2023.0	60.649 µg/L	60.649 ppb	08:38:06
1	Sr 421.552†	3834033.7	3907709.6	9885.7 µg/L	9885.7 ppb	08:38:01
1	Sc 361.383	1698953.5	1698953.5	98.621 %		08:38:42
1	Y 371.029	937373.7	937373.7	96.026 %		08:38:42
1	Ag 328.068†	-23643.8	-29093.8	-2.9918 µg/L	-2.9918 ppb	08:38:44
1	As 188.979†	29107.9	29531.3	10042 µg/L	10042 ppb	08:38:44
1	B 249.677†	336515.6	337226.2	4893.9 µg/L	4893.9 ppb	08:38:42
1	Ba 233.527†	3104272.4	3147821.6	14086 µg/L	14086 ppb	08:38:42
1	Be 313.107†	10009074.0	10149926.9	2805.9 µg/L	2805.9 ppb	08:38:38
1	Cd 226.502†	1441720.3	1461979.4	9590.7 µg/L	9590.7 ppb	08:38:42
1	Co 228.616†	715571.0	725805.2	9450.1 µg/L	9450.1 ppb	08:38:42
1	Cr 267.716†	2695144.9	2732549.1	23827 µg/L	23827 ppb	08:38:42
1	Cu 324.752†	4788925.2	4852786.0	19863 µg/L	19863 ppb	08:38:42
1	Mn 257.610†	7045329.5	7143673.1	9233.2 µg/L	9233.2 ppb	08:38:42
1	Mo 202.031†	282359.9	286329.0	9733.4 µg/L	9733.4 ppb	08:38:44
1	Ni 231.604†	768299.2	779140.9	9610.7 µg/L	9610.7 ppb	08:38:42
1	P 214.914†	64653.7	65589.8	14726 µg/L	14726 ppb	08:38:44
1	Pb 220.353†	372125.1	377243.8	23655 µg/L	23655 ppb	08:38:42
1	S 181.975 Axial†	59114.0	59853.0	50882 µg/L	50882 ppb	08:38:44
1	Sb 206.836†	76309.5	77300.5	9689.1 µg/L	9689.1 ppb	08:38:44
1	Se 196.026†	24483.6	24813.5	9560 µg/L	9560 ppb	08:38:44
1	SiO2†	968903.1	980720.3	98939 µg/L	98939 ppb	08:38:42
1	Si 251.611†	3057754.4	3099730.3	46168 µg/L	46168 ppb	08:38:42
1	Sn 189.927†	138008.9	139926.7	9742.5 µg/L	9742.5 ppb	08:38:44
1	Ti 334.940†	9266395.8	9395182.3	9761.9 µg/L	9761.9 ppb	08:38:38
1	Tl 190.801†	65691.5	66722.6	9546.1 µg/L	9546.1 ppb	08:38:44
1	U 409.014†	-6621.7	-6433.1	204.96 µg/L	204.96 ppb	08:38:44
1	V 292.402†	1979357.1	2006491.2	10034 µg/L	10034 ppb	08:38:42
1	Zn 213.857†	2458532.2	2492334.5	14158 µg/L	14158 ppb	08:38:42
2	Sc RADIAL	114930.2	114930.2	98.7 %		08:38:10
2	Al 396.153Radial†	2044.8	2148.6	47.768 µg/L	47.768 ppb	08:38:12
2	Ca 317.933Radial†	1083.4	664.1	55.840 µg/L	55.840 ppb	08:38:12
2	Fe 238.204 Radial†	-353.9	-462.4	-39.812 µg/L	-39.812 ppb	08:38:12
2	K 766.490 Radial†	738406.3	746452.4	295030 µg/L	295030 ppb	08:38:10
2	Mg 279.077 IEC†	-282.0	-442.1	-7.3146 µg/L	-7.3146 ppb	08:38:12
2	Na 589.592 Radial†	2347.0	1754.3	16.648 µg/L	16.648 ppb	08:38:12
2	Sr 421.552†	3795263.4	3844047.6	9724.6 µg/L	9724.6 ppb	08:38:08
2	Sc 361.383	1677052.6	1677052.6	97.350 %		08:38:52
2	Y 371.029	926354.5	926354.5	94.897 %		08:38:52
2	Ag 328.068†	-23990.7	-29763.2	-5.6610 µg/L	-5.6610 ppb	08:38:54
2	As 188.979†	28851.9	29653.8	10083 µg/L	10083 ppb	08:38:54
2	B 249.677†	331590.3	336622.9	4885.1 µg/L	4885.1 ppb	08:38:52
2	Ba 233.527†	3065633.7	3149237.1	14092 µg/L	14092 ppb	08:38:52
2	Be 313.107†	9989727.9	10262592.3	2837.0 µg/L	2837.0 ppb	08:38:48
2	Cd 226.502†	1419997.9	1458756.6	9569.5 µg/L	9569.5 ppb	08:38:52
2	Co 228.616†	705434.0	724867.6	9437.9 µg/L	9437.9 ppb	08:38:52
2	Cr 267.716†	2661692.2	2733874.1	23838 µg/L	23838 ppb	08:38:52
2	Cu 324.752†	4727560.3	4853164.3	19865 µg/L	19865 ppb	08:38:52
2	Mn 257.610†	6951102.7	7140173.7	9228.6 µg/L	9228.6 ppb	08:38:52
2	Mo 202.031†	280206.2	287855.7	9785.2 µg/L	9785.2 ppb	08:38:54
2	Ni 231.604†	757219.2	777932.8	9595.8 µg/L	9595.8 ppb	08:38:52
2	P 214.914†	64054.6	65830.5	14780 µg/L	14780 ppb	08:38:54
2	Pb 220.353†	366275.1	376162.2	23587 µg/L	23587 ppb	08:38:52

2	S 181.975 Axial†	58500.6	60005.8	51012 µg/L	51012 ppb	08:38:54
2	Sb 206.836†	75742.4	77728.5	9744.4 µg/L	9744.4 ppb	08:38:54
2	Se 196.026†	24251.8	24899.6	9590 µg/L	9590 ppb	08:38:54
2	SiO2†	956632.1	980945.2	98960 µg/L	98960 ppb	08:38:52
2	Si 251.611†	3018530.4	3099928.6	46170 µg/L	46170 ppb	08:38:52
2	Sn 189.927†	136840.0	140553.4	9786.3 µg/L	9786.3 ppb	08:38:54
2	Ti 334.940†	9246756.7	9497712.3	9868.6 µg/L	9868.6 ppb	08:38:48
2	Tl 190.801†	65203.5	67091.2	9599.2 µg/L	9599.2 ppb	08:38:54
2	U 409.014†	-6655.0	-6554.9	197.89 µg/L	197.89 ppb	08:38:54
2	V 292.402†	1955255.3	2007943.4	10042 µg/L	10042 ppb	08:38:52
2	Zn 213.857†	2424498.8	2489930.0	14144 µg/L	14144 ppb	08:38:52
3	Sc RADIAL	115512.5	115512.5	99.2 %		08:38:17
3	Al 396.153Radial†	1967.8	2060.6	17.914 µg/L	17.914 ppb	08:38:19
3	Ca 317.933Radial†	969.3	543.5	45.706 µg/L	45.706 ppb	08:38:19
3	Fe 238.204 Radial†	-432.4	-539.7	-46.468 µg/L	-46.468 ppb	08:38:19
3	K 766.490 Radial†	740683.2	744976.7	294450 µg/L	294450 ppb	08:38:17
3	Mg 279.077 IEC†	-294.8	-453.6	-8.8430 µg/L	-8.8430 ppb	08:38:19
3	Na 589.592 Radial†	2147.6	1541.3	-16.704 µg/L	-16.704 ppb	08:38:19
3	Sr 421.552†	3760091.1	3789224.6	9585.9 µg/L	9585.9 ppb	08:38:14
3	Sc 361.383	1682564.7	1682564.7	97.670 %		08:39:01
3	Y 371.029	928538.9	928538.9	95.121 %		08:39:01
3	Ag 328.068†	-24323.8	-30023.5	-6.8089 µg/L	-6.8089 ppb	08:39:03
3	As 188.979†	29872.5	30601.6	10397 µg/L	10397 ppb	08:39:03
3	B 249.677†	332549.8	336489.4	4883.1 µg/L	4883.1 ppb	08:39:01
3	Ba 233.527†	3076587.3	3150135.6	14096 µg/L	14096 ppb	08:39:01
3	Be 313.107†	10036608.8	10276974.4	2841.0 µg/L	2841.0 ppb	08:38:58
3	Cd 226.502†	1428490.5	1462673.3	9595.2 µg/L	9595.2 ppb	08:39:01
3	Co 228.616†	708821.4	725962.0	9452.1 µg/L	9452.1 ppb	08:39:01
3	Cr 267.716†	2670525.0	2733960.5	23839 µg/L	23839 ppb	08:39:01
3	Cu 324.752†	4740233.8	4850231.1	19853 µg/L	19853 ppb	08:39:01
3	Mn 257.610†	6975119.6	7141371.8	9230.2 µg/L	9230.2 ppb	08:39:01
3	Mo 202.031†	286870.1	293735.6	9985.1 µg/L	9985.1 ppb	08:39:03
3	Ni 231.604†	760743.0	778992.6	9608.9 µg/L	9608.9 ppb	08:39:01
3	P 214.914†	65885.4	67489.5	15159 µg/L	15159 ppb	08:39:03
3	Pb 220.353†	369021.6	377741.6	23687 µg/L	23687 ppb	08:39:01
3	S 181.975 Axial†	60211.6	61560.7	52333 µg/L	52333 ppb	08:39:03
3	Sb 206.836†	77567.6	79342.4	9953.8 µg/L	9953.8 ppb	08:39:03
3	Se 196.026†	25164.4	25752.4	9920 µg/L	9920 ppb	08:39:03
3	SiO2†	962144.0	983369.3	99196 µg/L	99196 ppb	08:39:01
3	Si 251.611†	3037412.0	3109102.6	46303 µg/L	46303 ppb	08:39:01
3	Sn 189.927†	140761.0	144107.4	10033 µg/L	10033 ppb	08:39:03
3	Ti 334.940†	9277800.8	9498380.0	9869.3 µg/L	9869.3 ppb	08:38:58
3	Tl 190.801†	66956.3	68666.4	9821.0 µg/L	9821.0 ppb	08:39:03
3	U 409.014†	-7029.5	-6916.0	175.54 µg/L	175.54 ppb	08:39:03
3	V 292.402†	1960714.1	2006952.6	10039 µg/L	10039 ppb	08:39:01
3	Zn 213.857†	2436749.4	2494314.0	14169 µg/L	14169 ppb	08:39:01

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1686190.3	97.880 %	0.6613			0.68%
Sc RADIAL	114885.2	98.7 %	0.56			0.57%
Y 371.029	930755.7	95.348 %	0.5977			0.63%
Ag 328.068†	-29626.8	-5.1539 µg/L	1.95842	-5.1539 ppb	1.95842	38.00%
Al 396.153Radial†	2121.6	39.170 µg/L	18.5196	39.170 ppb	18.5196	47.28%
As 188.979†	29928.9	10174 µg/L	194.6	10174 ppb	194.6	1.91%
QC value within limits for As 188.979 Recovery = 101.74%						
B 249.677†	336779.5	4887.3 µg/L	5.73	4887.3 ppb	5.73	0.12%
QC value within limits for B 249.677 Recovery = 97.75%						
Ba 233.527†	3149064.8	14092 µg/L	5.3	14092 ppb	5.3	0.04%
QC value within limits for Ba 233.527 Recovery = 93.94%						
Be 313.107†	10229831.2	2828.0 µg/L	19.23	2828.0 ppb	19.23	0.68%
QC value within limits for Be 313.107 Recovery = 94.27%						
Ca 317.933Radial†	617.8	51.949 µg/L	5.4610	51.949 ppb	5.4610	10.51%
Cd 226.502†	1461136.4	9585.1 µg/L	13.71	9585.1 ppb	13.71	0.14%
QC value within limits for Cd 226.502 Recovery = 95.85%						
Co 228.616†	725544.9	9446.7 µg/L	7.69	9446.7 ppb	7.69	0.08%
QC value within limits for Co 228.616 Recovery = 94.47%						
Cr 267.716†	2733461.2	23835 µg/L	6.9	23835 ppb	6.9	0.03%
QC value within limits for Cr 267.716 Recovery = 95.34%						



Cu 324.752†	4852060.5	19860 µg/L	6.5	19860 ppb	6.5	0.03%
QC value within limits for Cu 324.752 Recovery = 99.30%						
Fe 238.204 Radial†	-476.0	-40.982 µg/L	5.0047	-40.982 ppb	5.0047	12.21%
K 766.490 Radial†	744764.7	294370 µg/L	712.7	294370 ppb	712.7	0.24%
QC value within limits for K 766.490 Radial Recovery = 98.12%						
Mg 279.077 IEC†	-448.1	-9.4791 µg/L	2.54293	-9.4791 ppb	2.54293	26.83%
Mn 257.610†	7141739.5	9230.7 µg/L	2.30	9230.7 ppb	2.30	0.02%
QC value within limits for Mn 257.610 Recovery = 92.31%						
Mo 202.031†	289306.8	9834.6 µg/L	132.89	9834.6 ppb	132.89	1.35%
QC value within limits for Mo 202.031 Recovery = 98.35%						
Na 589.592 Radial†	1772.9	20.198 µg/L	38.7985	20.198 ppb	38.7985	192.09%
Ni 231.604†	778688.8	9605.1 µg/L	8.13	9605.1 ppb	8.13	0.08%
QC value within limits for Ni 231.604 Recovery = 96.05%						
P 214.914†	66303.3	14888 µg/L	235.9	14888 ppb	235.9	1.58%
QC value within limits for P 214.914 Recovery = 99.25%						
Pb 220.353†	377049.2	23643 µg/L	50.8	23643 ppb	50.8	0.21%
QC value within limits for Pb 220.353 Recovery = 94.57%						
S 181.975 Axial†	60473.2	51409 µg/L	803.1	51409 ppb	803.1	1.56%
QC value within limits for S 181.975 Axial Recovery = 102.82%						
Sb 206.836†	78123.8	9795.8 µg/L	139.65	9795.8 ppb	139.65	1.43%
QC value within limits for Sb 206.836 Recovery = 97.96%						
Se 196.026†	25155.2	9690 µg/L	199.9	9690 ppb	199.9	2.06%
QC value within limits for Se 196.026 Recovery = 96.90%						
SiO2†	981678.2	99032 µg/L	142.8	99032 ppb	142.8	0.14%
QC value within limits for SiO2 Recovery = 92.55%						
Si 251.611†	3102920.5	46214 µg/L	77.3	46214 ppb	77.3	0.17%
QC value within limits for Si 251.611 Recovery = 92.43%						
Sn 189.927†	141529.2	9853.9 µg/L	156.59	9853.9 ppb	156.59	1.59%
QC value within limits for Sn 189.927 Recovery = 98.54%						
Sr 421.552†	3846993.9	9732.1 µg/L	150.01	9732.1 ppb	150.01	1.54%
QC value within limits for Sr 421.552 Recovery = 97.32%						
Ti 334.940†	9463758.2	9833.3 µg/L	61.76	9833.3 ppb	61.76	0.63%
QC value within limits for Ti 334.940 Recovery = 98.33%						
Tl 190.801†	67493.4	9655.5 µg/L	145.82	9655.5 ppb	145.82	1.51%
QC value within limits for Tl 190.801 Recovery = 96.55%						
U 409.014†	-6634.7	192.80 µg/L	15.357	192.80 ppb	15.357	7.97%
V 292.402†	2007129.1	10038 µg/L	3.8	10038 ppb	3.8	0.04%
QC value within limits for V 292.402 Recovery = 100.38%						
Zn 213.857†	2492192.8	14157 µg/L	12.5	14157 ppb	12.5	0.09%
QC value within limits for Zn 213.857 Recovery = 94.38%						

All analyte(s) passed QC.

Sequence No.: 13

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/14/2010 8:39:11

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	117068.1	117068.1	101 %		08:39:45
1	Al 396.153Radial†	22043.0	21996.2	5116.5 µg/L	5116.5 ppb	08:39:45
1	Ca 317.933Radial†	61519.6	60739.2	5107.5 µg/L	5107.5 ppb	08:39:45
1	Fe 238.204 Radial†	59417.4	58978.1	5077.9 µg/L	5077.9 ppb	08:39:45
1	K 766.490 Radial†	15391.9	13860.5	5474.1 µg/L	5474.1 ppb	08:39:45
1	Mg 279.077 IEC†	9610.4	9399.7	5252.5 µg/L	5252.5 ppb	08:39:45
1	Na 589.592 Radial†	64735.9	63747.7	10135 µg/L	10135 ppb	08:39:42
1	Sr 421.552†	197347.8	196237.9	496.40 µg/L	496.40 ppb	08:39:42
1	Sc 361.383	1707150.7	1707150.7	99.097 %		08:40:11
1	Y 371.029	958074.8	958074.8	98.146 %		08:40:11
1	Ag 328.068†	124041.5	120052.9	499.15 µg/L	499.15 ppb	08:40:11
1	As 188.979†	1479.3	1509.2	507.48 µg/L	507.48 ppb	08:40:32
1	B 249.677†	38020.8	34372.0	500.43 µg/L	500.43 ppb	08:40:11
1	Ba 233.527†	109648.4	110785.5	495.83 µg/L	495.83 ppb	08:40:11
1	Be 313.107†	1766395.0	1783378.3	493.16 µg/L	493.16 ppb	08:40:11
1	Cd 226.502†	74787.7	75567.0	495.19 µg/L	495.19 ppb	08:40:11
1	Co 228.616†	37491.7	38060.8	494.91 µg/L	494.91 ppb	08:40:11
1	Cr 267.716†	56390.5	56618.6	493.50 µg/L	493.50 ppb	08:40:11
1	Cu 324.752†	122311.1	120316.3	493.90 µg/L	493.90 ppb	08:40:11
1	Mn 257.610†	379990.4	383272.8	495.16 µg/L	495.16 ppb	08:40:11
1	Mo 202.031†	14730.8	14885.6	506.30 µg/L	506.30 ppb	08:40:32
1	Ni 231.604†	39721.7	40181.2	495.63 µg/L	495.63 ppb	08:40:11
1	P 214.914†	10825.6	10956.3	2490.3 µg/L	2490.3 ppb	08:40:32
1	Pb 220.353†	8270.4	8260.6	518.94 µg/L	518.94 ppb	08:40:32
1	S 181.975 Axial†	1292.3	1216.4	1036.7 µg/L	1036.7 ppb	08:40:32
1	Sb 206.836†	3966.2	3926.3	502.95 µg/L	502.95 ppb	08:40:32
1	Se 196.026†	1326.9	1326.5	513 µg/L	513 ppb	08:40:32
1	SiO2†	53851.2	52609.7	5308.2 µg/L	5308.2 ppb	08:40:11
1	Si 251.611†	165795.7	166521.8	2480.5 µg/L	2480.5 ppb	08:40:11
1	Sn 189.927†	7202.8	7256.2	505.18 µg/L	505.18 ppb	08:40:32
1	Ti 334.940†	473491.1	477008.4	495.38 µg/L	495.38 ppb	08:40:11
1	Tl 190.801†	3432.7	3576.4	511.20 µg/L	511.20 ppb	08:40:32
1	U 409.014†	7092.8	7438.7	484.71 µg/L	484.71 ppb	08:40:11
1	V 292.402†	99742.1	100105.1	497.61 µg/L	497.61 ppb	08:40:11
1	Zn 213.857†	87052.3	87267.0	494.41 µg/L	494.41 ppb	08:40:11
2	Sc RADIAL	116466.6	116466.6	100 %		08:39:49
2	Al 396.153Radial†	21878.5	21944.9	5104.5 µg/L	5104.5 ppb	08:39:49
2	Ca 317.933Radial†	61185.2	60720.9	5106.0 µg/L	5106.0 ppb	08:39:49
2	Fe 238.204 Radial†	59093.7	58959.7	5076.3 µg/L	5076.3 ppb	08:39:49
2	K 766.490 Radial†	15295.6	13843.3	5467.4 µg/L	5467.4 ppb	08:39:49
2	Mg 279.077 IEC†	9470.0	9308.7	5201.8 µg/L	5201.8 ppb	08:39:49
2	Na 589.592 Radial†	64135.9	63480.4	10092 µg/L	10092 ppb	08:39:47
2	Sr 421.552†	196071.8	195975.9	495.74 µg/L	495.74 ppb	08:39:47
2	Sc 361.383	1704242.6	1704242.6	98.928 %		08:40:35
2	Y 371.029	955451.6	955451.6	97.878 %		08:40:35
2	Ag 328.068†	123539.6	119759.1	497.90 µg/L	497.90 ppb	08:40:35
2	As 188.979†	1490.0	1522.5	511.88 µg/L	511.88 ppb	08:40:55
2	B 249.677†	37467.2	33877.9	493.21 µg/L	493.21 ppb	08:40:35
2	Ba 233.527†	109063.5	110383.1	494.03 µg/L	494.03 ppb	08:40:35
2	Be 313.107†	1761005.4	1780971.9	492.49 µg/L	492.49 ppb	08:40:35
2	Cd 226.502†	74497.9	75402.8	494.11 µg/L	494.11 ppb	08:40:35
2	Co 228.616†	37467.2	38100.6	495.43 µg/L	495.43 ppb	08:40:35
2	Cr 267.716†	56159.1	56481.7	492.33 µg/L	492.33 ppb	08:40:35
2	Cu 324.752†	122077.7	120291.0	493.77 µg/L	493.77 ppb	08:40:35
2	Mn 257.610†	378418.6	382338.3	493.95 µg/L	493.95 ppb	08:40:35
2	Mo 202.031†	14726.9	14907.0	507.03 µg/L	507.03 ppb	08:40:55
2	Ni 231.604†	39580.3	40106.6	494.71 µg/L	494.71 ppb	08:40:35
2	P 214.914†	10829.1	10978.4	2495.4 µg/L	2495.4 ppb	08:40:55
2	Pb 220.353†	8194.7	8198.3	515.05 µg/L	515.05 ppb	08:40:55

2	S 181.975 Axial†	1275.1	1201.3	1023.9 µg/L	1023.9 ppb	08:40:55
2	Sb 206.836†	3953.2	3920.0	502.17 µg/L	502.17 ppb	08:40:55
2	Se 196.026†	1320.4	1322.2	512 µg/L	512 ppb	08:40:55
2	SiO2†	53704.4	52554.0	5302.5 µg/L	5302.5 ppb	08:40:35
2	Si 251.611†	165535.1	166543.9	2480.9 µg/L	2480.9 ppb	08:40:35
2	Sn 189.927†	7214.7	7280.6	506.87 µg/L	506.87 ppb	08:40:55
2	Ti 334.940†	471944.2	476260.0	494.62 µg/L	494.62 ppb	08:40:35
2	Tl 190.801†	3417.5	3567.0	509.83 µg/L	509.83 ppb	08:40:55
2	U 409.014†	6721.1	7075.2	462.38 µg/L	462.38 ppb	08:40:35
2	V 292.402†	99207.6	99736.6	495.79 µg/L	495.79 ppb	08:40:35
2	Zn 213.857†	86764.1	87125.6	493.61 µg/L	493.61 ppb	08:40:35
3	Sc RADIAL	115604.5	115604.5	99.3 %		08:39:53
3	Al 396.153Radial†	21992.6	22222.8	5169.5 µg/L	5169.5 ppb	08:39:53
3	Ca 317.933Radial†	60861.5	60850.9	5116.9 µg/L	5116.9 ppb	08:39:53
3	Fe 238.204 Radial†	58813.1	59117.6	5089.9 µg/L	5089.9 ppb	08:39:53
3	K 766.490 Radial†	15078.7	13738.8	5426.0 µg/L	5426.0 ppb	08:39:53
3	Mg 279.077 IEC†	9383.9	9292.6	5192.7 µg/L	5192.7 ppb	08:39:53
3	Na 589.592 Radial†	64424.4	64248.9	10215 µg/L	10215 ppb	08:39:51
3	Sr 421.552†	197197.5	198570.8	502.30 µg/L	502.30 ppb	08:39:51
3	Sc 361.383	1720851.3	1720851.3	99.892 %		08:40:58
3	Y 371.029	964127.2	964127.2	98.766 %		08:40:58
3	Ag 328.068†	124698.7	119714.2	497.75 µg/L	497.75 ppb	08:40:58
3	As 188.979†	1485.3	1503.3	505.52 µg/L	505.52 ppb	08:41:18
3	B 249.677†	38149.3	34195.2	497.85 µg/L	497.85 ppb	08:40:58
3	Ba 233.527†	110249.7	110506.6	494.58 µg/L	494.58 ppb	08:40:58
3	Be 313.107†	1783355.2	1786165.4	493.93 µg/L	493.93 ppb	08:40:58
3	Cd 226.502†	75395.7	75574.8	495.24 µg/L	495.24 ppb	08:40:58
3	Co 228.616†	37799.2	38067.4	495.00 µg/L	495.00 ppb	08:40:58
3	Cr 267.716†	56772.5	56547.9	492.89 µg/L	492.89 ppb	08:40:58
3	Cu 324.752†	123042.0	120065.4	492.87 µg/L	492.87 ppb	08:40:58
3	Mn 257.610†	382810.7	383043.2	494.86 µg/L	494.86 ppb	08:40:58
3	Mo 202.031†	14787.6	14824.1	504.22 µg/L	504.22 ppb	08:41:18
3	Ni 231.604†	39999.2	40139.9	495.12 µg/L	495.12 ppb	08:40:58
3	P 214.914†	10900.8	10944.5	2487.7 µg/L	2487.7 ppb	08:41:18
3	Pb 220.353†	8208.6	8132.2	510.90 µg/L	510.90 ppb	08:41:18
3	S 181.975 Axial†	1283.3	1197.0	1020.2 µg/L	1020.2 ppb	08:41:18
3	Sb 206.836†	3965.6	3893.8	498.78 µg/L	498.78 ppb	08:41:18
3	Se 196.026†	1316.3	1305.2	505 µg/L	505 ppb	08:41:18
3	SiO2†	54399.7	52726.1	5320.1 µg/L	5320.1 ppb	08:40:58
3	Si 251.611†	167586.7	166982.8	2487.5 µg/L	2487.5 ppb	08:40:58
3	Sn 189.927†	7246.8	7242.4	504.22 µg/L	504.22 ppb	08:41:18
3	Ti 334.940†	476659.1	476375.7	494.73 µg/L	494.73 ppb	08:40:58
3	Tl 190.801†	3449.3	3565.4	509.63 µg/L	509.63 ppb	08:41:18
3	U 409.014†	7080.8	7369.7	480.45 µg/L	480.45 ppb	08:40:58
3	V 292.402†	100388.3	99950.7	496.82 µg/L	496.82 ppb	08:40:58
3	Zn 213.857†	87687.0	87203.0	494.05 µg/L	494.05 ppb	08:40:58

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1710748.2	99.305 %	0.5149			0.52%
Sc RADIAL	116379.7	100.0 %	0.63			0.63%
Y 371.029	959217.9	98.263 %	0.4558			0.46%
Ag 328.068†	119842.1	498.26 µg/L	0.772	498.26 ppb	0.772	0.15%
QC value within limits for Ag 328.068 Recovery = 99.65%						
Al 396.153Radial†	22054.6	5130.2 µg/L	34.63	5130.2 ppb	34.63	0.68%
QC value within limits for Al 396.153Radial Recovery = 102.60%						
As 188.979†	1511.7	508.29 µg/L	3.260	508.29 ppb	3.260	0.64%
QC value within limits for As 188.979 Recovery = 101.66%						
B 249.677†	34148.4	497.16 µg/L	3.659	497.16 ppb	3.659	0.74%
QC value within limits for B 249.677 Recovery = 99.43%						
Ba 233.527†	110558.4	494.81 µg/L	0.922	494.81 ppb	0.922	0.19%
QC value within limits for Ba 233.527 Recovery = 98.96%						
Be 313.107†	1783505.2	493.20 µg/L	0.721	493.20 ppb	0.721	0.15%
QC value within limits for Be 313.107 Recovery = 98.64%						
Ca 317.933Radial†	60770.3	5110.1 µg/L	5.92	5110.1 ppb	5.92	0.12%
QC value within limits for Ca 317.933Radial Recovery = 102.20%						
Cd 226.502†	75514.9	494.85 µg/L	0.637	494.85 ppb	0.637	0.13%
QC value within limits for Cd 226.502 Recovery = 98.97%						
Co 228.616†	38076.3	495.11 µg/L	0.276	495.11 ppb	0.276	0.06%

QC value within limits for Co 228.616 Recovery = 99.02%							
Cr	267.716†	56549.4	492.90 µg/L	0.588	492.90 ppb	0.588	0.12%
QC value within limits for Cr 267.716 Recovery = 98.58%							
Cu	324.752†	120224.2	493.51 µg/L	0.563	493.51 ppb	0.563	0.11%
QC value within limits for Cu 324.752 Recovery = 98.70%							
Fe	238.204 Radial†	59018.5	5081.4 µg/L	7.43	5081.4 ppb	7.43	0.15%
QC value within limits for Fe 238.204 Radial Recovery = 101.63%							
K	766.490 Radial†	13814.2	5455.9 µg/L	26.04	5455.9 ppb	26.04	0.48%
QC value within limits for K 766.490 Radial Recovery = 109.12%							
Mg	279.077 IEC†	9333.7	5215.7 µg/L	32.23	5215.7 ppb	32.23	0.62%
QC value within limits for Mg 279.077 IEC Recovery = 104.31%							
Mn	257.610†	382884.7	494.66 µg/L	0.629	494.66 ppb	0.629	0.13%
QC value within limits for Mn 257.610 Recovery = 98.93%							
Mo	202.031†	14872.2	505.85 µg/L	1.462	505.85 ppb	1.462	0.29%
QC value within limits for Mo 202.031 Recovery = 101.17%							
Na	589.592 Radial†	63825.7	10147 µg/L	62.1	10147 ppb	62.1	0.61%
QC value within limits for Na 589.592 Radial Recovery = 101.47%							
Ni	231.604†	40142.6	495.16 µg/L	0.461	495.16 ppb	0.461	0.09%
QC value within limits for Ni 231.604 Recovery = 99.03%							
P	214.914†	10959.7	2491.1 µg/L	3.91	2491.1 ppb	3.91	0.16%
QC value within limits for P 214.914 Recovery = 99.64%							
Pb	220.353†	8197.0	514.96 µg/L	4.019	514.96 ppb	4.019	0.78%
QC value within limits for Pb 220.353 Recovery = 102.99%							
S	181.975 Axial†	1204.9	1026.9 µg/L	8.65	1026.9 ppb	8.65	0.84%
QC value within limits for S 181.975 Axial Recovery = 102.69%							
Sb	206.836†	3913.4	501.30 µg/L	2.218	501.30 ppb	2.218	0.44%
QC value within limits for Sb 206.836 Recovery = 100.26%							
Se	196.026†	1318.0	510 µg/L	4.3	510 ppb	4.3	0.85%
QC value within limits for Se 196.026 Recovery = 101.98%							
SiO2†		52629.9	5310.3 µg/L	8.96	5310.3 ppb	8.96	0.17%
QC value within limits for SiO2 Recovery = 99.30%							
Si	251.611†	166682.8	2483.0 µg/L	3.91	2483.0 ppb	3.91	0.16%
QC value within limits for Si 251.611 Recovery = 99.32%							
Sn	189.927†	7259.7	505.43 µg/L	1.343	505.43 ppb	1.343	0.27%
QC value within limits for Sn 189.927 Recovery = 101.09%							
Sr	421.552†	196928.2	498.15 µg/L	3.614	498.15 ppb	3.614	0.73%
QC value within limits for Sr 421.552 Recovery = 99.63%							
Ti	334.940†	476548.0	494.91 µg/L	0.413	494.91 ppb	0.413	0.08%
QC value within limits for Ti 334.940 Recovery = 98.98%							
Tl	190.801†	3569.6	510.22 µg/L	0.850	510.22 ppb	0.850	0.17%
QC value within limits for Tl 190.801 Recovery = 102.04%							
U	409.014†	7294.5	475.85 µg/L	11.855	475.85 ppb	11.855	2.49%
QC value within limits for U 409.014 Recovery = 95.17%							
V	292.402†	99930.8	496.74 µg/L	0.912	496.74 ppb	0.912	0.18%
QC value within limits for V 292.402 Recovery = 99.35%							
Zn	213.857†	87198.5	494.02 µg/L	0.401	494.02 ppb	0.401	0.08%
QC value within limits for Zn 213.857 Recovery = 98.80%							

All analyte(s) passed QC.

Sequence No.: 14

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/14/2010 8:41:26

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	116608.9	116608.9	100 %		08:41:55
1	Al 396.153Radial†	298.5	375.5	87.739 µg/L	87.739 ppb	08:42:15
1	Ca 317.933Radial†	1571.2	1135.2	95.459 µg/L	95.459 ppb	08:42:15
1	Fe 238.204 Radial†	893.4	787.9	67.836 µg/L	67.836 ppb	08:42:15
1	K 766.490 Radial†	1897.9	450.1	177.83 µg/L	177.83 ppb	08:41:55
1	Mg 279.077 IEC†	322.2	165.2	92.134 µg/L	92.134 ppb	08:42:15
1	Na 589.592 Radial†	1177.6	552.7	87.756 µg/L	87.756 ppb	08:41:55
1	Sr 421.552†	11.0	14.8	0.0367 µg/L	0.0367 ppb	08:41:55
1	Sc 361.383	1722810.9	1722810.9	100.01 %		08:43:17
1	Y 371.029	975763.1	975763.1	99.958 %		08:43:17
1	Ag 328.068†	5755.4	635.8	2.6127 µg/L	2.6127 ppb	08:43:19
1	As 188.979†	-18.8	-2.4	-0.7727 µg/L	-0.7727 ppb	08:43:39
1	B 249.677†	4392.6	397.0	5.7991 µg/L	5.7991 ppb	08:43:19
1	Ba 233.527†	-104.7	32.9	0.1467 µg/L	0.1467 ppb	08:43:39
1	Be 313.107†	-815.1	66.4	0.0179 µg/L	0.0179 ppb	08:43:19
1	Cd 226.502†	37.8	135.3	0.8800 µg/L	0.8800 ppb	08:43:39
1	Co 228.616†	-223.3	4.1	0.0493 µg/L	0.0493 ppb	08:43:39
1	Cr 267.716†	295.1	9.0	0.0814 µg/L	0.0814 ppb	08:43:39
1	Cu 324.752†	3481.3	371.4	1.5310 µg/L	1.5310 ppb	08:43:19
1	Mn 257.610†	298.4	116.9	0.1472 µg/L	0.1472 ppb	08:43:39
1	Mo 202.031†	-11.7	8.8	0.3021 µg/L	0.3021 ppb	08:43:39
1	Ni 231.604†	-101.3	-3.9	-0.0476 µg/L	-0.0476 ppb	08:43:39
1	P 214.914†	-33.7	-1.8	-0.4391 µg/L	-0.4391 ppb	08:43:39
1	Pb 220.353†	168.8	83.5	5.2359 µg/L	5.2359 ppb	08:43:39
1	S 181.975 Axial†	96.3	8.7	7.4028 µg/L	7.4028 ppb	08:43:39
1	Sb 206.836†	92.0	15.9	2.0398 µg/L	2.0398 ppb	08:43:39
1	Se 196.026†	32.0	19.5	7.54 µg/L	7.54 ppb	08:43:39
1	SiO2†	1751.1	18.5	1.8547 µg/L	1.8547 ppb	08:43:19
1	Si 251.611†	916.4	131.1	1.9518 µg/L	1.9518 ppb	08:43:19
1	Sn 189.927†	24.7	12.5	0.8663 µg/L	0.8663 ppb	08:43:39
1	Ti 334.940†	835.6	36.6	0.0336 µg/L	0.0336 ppb	08:43:19
1	Tl 190.801†	-120.0	-7.6	-1.0648 µg/L	-1.0648 ppb	08:43:39
1	U 409.014†	-304.3	-23.0	-1.3856 µg/L	-1.3856 ppb	08:43:19
1	V 292.402†	659.0	112.8	0.5485 µg/L	0.5485 ppb	08:43:19
1	Zn 213.857†	762.9	184.0	1.0434 µg/L	1.0434 ppb	08:43:39
2	Sc RADIAL	114892.3	114892.3	98.7 %		08:42:17
2	Al 396.153Radial†	-62.8	14.0	3.2388 µg/L	3.2388 ppb	08:42:37
2	Ca 317.933Radial†	474.4	47.5	3.9915 µg/L	3.9915 ppb	08:42:37
2	Fe 238.204 Radial†	177.5	75.8	6.5292 µg/L	6.5292 ppb	08:42:37
2	K 766.490 Radial†	1905.4	485.9	192.05 µg/L	192.05 ppb	08:42:17
2	Mg 279.077 IEC†	151.8	-2.7	-1.4838 µg/L	-1.4838 ppb	08:42:37
2	Na 589.592 Radial†	1182.8	575.5	91.365 µg/L	91.365 ppb	08:42:17
2	Sr 421.552†	18.6	22.6	0.0572 µg/L	0.0572 ppb	08:42:17
2	Sc 361.383	1709270.3	1709270.3	99.220 %		08:43:41
2	Y 371.029	967529.2	967529.2	99.115 %		08:43:41
2	Ag 328.068†	5233.5	155.3	0.6364 µg/L	0.6364 ppb	08:43:43
2	As 188.979†	-15.1	1.2	0.3974 µg/L	0.3974 ppb	08:44:04
2	B 249.677†	4382.2	421.3	6.1548 µg/L	6.1548 ppb	08:43:43
2	Ba 233.527†	-112.9	23.8	0.1066 µg/L	0.1066 ppb	08:44:04
2	Be 313.107†	-773.2	102.2	0.0284 µg/L	0.0284 ppb	08:43:43
2	Cd 226.502†	14.0	111.6	0.7313 µg/L	0.7313 ppb	08:44:04
2	Co 228.616†	-232.8	-7.4	-0.0958 µg/L	-0.0958 ppb	08:44:04
2	Cr 267.716†	306.0	22.4	0.1953 µg/L	0.1953 ppb	08:44:04
2	Cu 324.752†	3399.9	317.0	1.2984 µg/L	1.2984 ppb	08:43:43
2	Mn 257.610†	283.1	103.8	0.1342 µg/L	0.1342 ppb	08:44:04
2	Mo 202.031†	-6.1	14.4	0.4894 µg/L	0.4894 ppb	08:44:04
2	Ni 231.604†	-90.2	6.5	0.0804 µg/L	0.0804 ppb	08:44:04
2	P 214.914†	-38.7	-7.0	-1.6251 µg/L	-1.6251 ppb	08:44:04
2	Pb 220.353†	152.7	68.6	4.2992 µg/L	4.2992 ppb	08:44:04

2	S 181.975 Axial†	97.5	10.7	9.0590 µg/L	9.0590 ppb	08:44:04
2	Sb 206.836†	79.4	4.0	0.5164 µg/L	0.5164 ppb	08:44:04
2	Se 196.026†	18.6	6.2	2.41 µg/L	2.41 ppb	08:44:04
2	SiO2†	1825.9	107.8	10.904 µg/L	10.904 ppb	08:43:43
2	Si 251.611†	1023.3	246.2	3.6741 µg/L	3.6741 ppb	08:43:43
2	Sn 189.927†	15.5	3.4	0.2348 µg/L	0.2348 ppb	08:44:04
2	Ti 334.940†	1019.3	228.3	0.2374 µg/L	0.2374 ppb	08:43:43
2	Tl 190.801†	-108.8	2.8	0.3913 µg/L	0.3913 ppb	08:44:04
2	U 409.014†	-269.6	9.5	0.5717 µg/L	0.5717 ppb	08:43:43
2	V 292.402†	509.3	-32.8	-0.1556 µg/L	-0.1556 ppb	08:43:43
2	Zn 213.857†	766.8	194.0	1.1056 µg/L	1.1056 ppb	08:44:04
3	Sc RADIAL	113890.1	113890.1	97.8 %		08:42:39
3	Al 396.153Radial†	-74.6	1.3	0.2212 µg/L	0.2212 ppb	08:42:59
3	Ca 317.933Radial†	438.8	15.2	1.2809 µg/L	1.2809 ppb	08:42:59
3	Fe 238.204 Radial†	145.9	45.2	3.8906 µg/L	3.8906 ppb	08:42:59
3	K 766.490 Radial†	1961.0	559.8	221.25 µg/L	221.25 ppb	08:42:39
3	Mg 279.077 IEC†	178.9	26.4	14.772 µg/L	14.772 ppb	08:42:59
3	Na 589.592 Radial†	1192.9	596.4	94.668 µg/L	94.668 ppb	08:42:39
3	Sr 421.552†	-134.7	-133.9	-0.3387 µg/L	-0.3387 ppb	08:42:39
3	Sc 361.383	1718816.6	1718816.6	99.774 %		08:44:06
3	Y 371.029	973252.9	973252.9	99.701 %		08:44:06
3	Ag 328.068†	5402.7	295.6	1.2092 µg/L	1.2092 ppb	08:44:08
3	As 188.979†	-15.0	1.3	0.4443 µg/L	0.4443 ppb	08:44:28
3	B 249.677†	4418.6	433.2	6.3291 µg/L	6.3291 ppb	08:44:08
3	Ba 233.527†	-110.8	26.6	0.1191 µg/L	0.1191 ppb	08:44:28
3	Be 313.107†	-912.0	-32.6	-0.0082 µg/L	-0.0082 ppb	08:44:08
3	Cd 226.502†	-2.2	95.3	0.6246 µg/L	0.6246 ppb	08:44:28
3	Co 228.616†	-221.1	5.7	0.0738 µg/L	0.0738 ppb	08:44:28
3	Cr 267.716†	307.2	21.9	0.1889 µg/L	0.1889 ppb	08:44:28
3	Cu 324.752†	3507.3	405.6	1.6628 µg/L	1.6628 ppb	08:44:08
3	Mn 257.610†	239.2	58.2	0.0747 µg/L	0.0747 ppb	08:44:28
3	Mo 202.031†	27.0	47.6	1.6162 µg/L	1.6162 ppb	08:44:28
3	Ni 231.604†	-90.9	6.3	0.0774 µg/L	0.0774 ppb	08:44:28
3	P 214.914†	-25.2	6.7	1.4908 µg/L	1.4908 ppb	08:44:28
3	Pb 220.353†	130.1	45.1	2.8284 µg/L	2.8284 ppb	08:44:28
3	S 181.975 Axial†	104.0	16.6	14.098 µg/L	14.098 ppb	08:44:28
3	Sb 206.836†	82.9	7.0	0.9123 µg/L	0.9123 ppb	08:44:28
3	Se 196.026†	29.3	16.8	6.49 µg/L	6.49 ppb	08:44:28
3	SiO2†	1707.1	-21.5	-2.2312 µg/L	-2.2312 ppb	08:44:08
3	Si 251.611†	837.8	54.6	0.7916 µg/L	0.7916 ppb	08:44:08
3	Sn 189.927†	18.1	5.9	0.4128 µg/L	0.4128 ppb	08:44:28
3	Ti 334.940†	820.4	23.3	0.0219 µg/L	0.0219 ppb	08:44:08
3	Tl 190.801†	-106.2	5.9	0.8300 µg/L	0.8300 ppb	08:44:28
3	U 409.014†	-236.6	44.1	2.6584 µg/L	2.6584 ppb	08:44:08
3	V 292.402†	412.3	-133.0	-0.6332 µg/L	-0.6332 ppb	08:44:08
3	Zn 213.857†	752.8	175.7	1.0010 µg/L	1.0010 ppb	08:44:28

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1716965.9	99.666 %	0.4039			0.41%
Sc RADIAL	115130.4	98.9 %	1.18			1.19%
Y 371.029	972181.7	99.591 %	0.4323			0.43%
Ag 328.068†	362.2	1.4861 µg/L	1.01680	1.4861 ppb	1.01680	68.42%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	130.3	30.400 µg/L	49.6802	30.400 ppb	49.6802	163.42%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.0	0.0230 µg/L	0.68950	0.0230 ppb	0.68950	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	417.2	6.0944 µg/L	0.27012	6.0944 ppb	0.27012	4.43%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	27.8	0.1241 µg/L	0.02053	0.1241 ppb	0.02053	16.54%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	45.3	0.0127 µg/L	0.01886	0.0127 ppb	0.01886	148.24%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	399.3	33.577 µg/L	53.6083	33.577 ppb	53.6083	159.66%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	114.1	0.7453 µg/L	0.12825	0.7453 ppb	0.12825	17.21%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	0.8	0.0091 µg/L	0.09165	0.0091 ppb	0.09165	>999.9%

QC value within limits for Co 228.616	Recovery = Not calculated			
Cr 267.716†	17.8	0.1552 µg/L	0.06395	0.1552 ppb
QC value within limits for Cr 267.716	Recovery = Not calculated			
Cu 324.752†	364.6	1.4974 µg/L	0.18450	1.4974 ppb
QC value within limits for Cu 324.752	Recovery = Not calculated			
Fe 238.204 Radial†	303.0	26.085 µg/L	36.1810	26.085 ppb
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated			
K 766.490 Radial†	498.6	197.04 µg/L	22.135	197.04 ppb
QC value greater than the upper limit for K 766.490 Radial	Recovery = Not calculated			
Mg 279.077 IEC†	63.0	35.141 µg/L	50.0226	35.141 ppb
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated			
Mn 257.610†	93.0	0.1187 µg/L	0.03871	0.1187 ppb
QC value within limits for Mn 257.610	Recovery = Not calculated			
Mo 202.031†	23.6	0.8026 µg/L	0.71086	0.8026 ppb
QC value within limits for Mo 202.031	Recovery = Not calculated			
Na 589.592 Radial†	574.9	91.263 µg/L	3.4573	91.263 ppb
QC value within limits for Na 589.592 Radial	Recovery = Not calculated			
Ni 231.604†	3.0	0.0367 µg/L	0.07305	0.0367 ppb
QC value within limits for Ni 231.604	Recovery = Not calculated			
P 214.914†	-0.7	-0.1911 µg/L	1.57267	-0.1911 ppb
QC value within limits for P 214.914	Recovery = Not calculated			
Pb 220.353†	65.8	4.1212 µg/L	1.21361	4.1212 ppb
QC value within limits for Pb 220.353	Recovery = Not calculated			
S 181.975 Axial†	12.0	10.187 µg/L	3.4870	10.187 ppb
QC value within limits for S 181.975 Axial	Recovery = Not calculated			
Sb 206.836†	9.0	1.1561 µg/L	0.79047	1.1561 ppb
QC value within limits for Sb 206.836	Recovery = Not calculated			
Se 196.026†	14.2	5.48 µg/L	2.710	5.48 ppb
QC value within limits for Se 196.026	Recovery = Not calculated			
SiO2†	34.9	3.5092 µg/L	6.72213	3.5092 ppb
QC value within limits for SiO2	Recovery = Not calculated			
Si 251.611†	144.0	2.1392 µg/L	1.45034	2.1392 ppb
QC value within limits for Si 251.611	Recovery = Not calculated			
Sn 189.927†	7.3	0.5046 µg/L	0.32561	0.5046 ppb
QC value within limits for Sn 189.927	Recovery = Not calculated			
Sr 421.552†	-32.2	-0.0816 µg/L	0.22292	-0.0816 ppb
QC value within limits for Sr 421.552	Recovery = Not calculated			
Ti 334.940†	96.1	0.0976 µg/L	0.12118	0.0976 ppb
QC value within limits for Ti 334.940	Recovery = Not calculated			
Tl 190.801†	0.4	0.0522 µg/L	0.99185	0.0522 ppb
QC value within limits for Tl 190.801	Recovery = Not calculated			
U 409.014†	10.2	0.6148 µg/L	2.02239	0.6148 ppb
QC value within limits for U 409.014	Recovery = Not calculated			
V 292.402†	-17.7	-0.0801 µg/L	0.59444	-0.0801 ppb
QC value within limits for V 292.402	Recovery = Not calculated			
Zn 213.857†	184.5	1.0500 µg/L	0.05261	1.0500 ppb
QC value within limits for Zn 213.857	Recovery = Not calculated			
QC Failed. Continue with analysis.				

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Analysis Begun

Start Time: 4/14/2010 8:45:47

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\041410.sif

Batch ID:

Results Data Set: 041410

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

## Method Loaded

Method Name: Gen Eng fast\_new Si

Method Last Saved: 4/14/2010 8:18:04

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: 4/14/2010 8:45:48

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	115578.4	115578.4	99.3 %		08:46:21
1	Al 396.153Radial†	22153.2	22389.7	5208.2 µg/L	5208.2 ppb	08:46:21
1	Ca 317.933Radial†	61866.6	61877.1	5203.2 µg/L	5203.2 ppb	08:46:21
1	Fe 238.204 Radial†	59629.9	59953.6	5161.9 µg/L	5161.9 ppb	08:46:21



1	K 766.490 Radial†	14386.9	13045.5	5152.0 µg/L	5152.0 ppb	08:46:21
1	Mg 279.077 IEC†	9610.3	9522.8	5321.3 µg/L	5321.3 ppb	08:46:21
1	Na 589.592 Radial†	64371.5	64210.4	10209 µg/L	10209 ppb	08:46:19
1	Sr 421.552†	197618.3	199039.4	503.49 µg/L	503.49 ppb	08:46:19
1	Sc 361.383	1694146.1	1694146.1	98.342 %		08:46:33
1	Y 371.029	948634.7	948634.7	97.179 %		08:46:33
1	Ag 328.068†	124446.0	121425.0	504.87 µg/L	504.87 ppb	08:46:33
1	As 188.979†	1490.0	1531.5	514.98 µg/L	514.98 ppb	08:46:54
1	B 249.677†	37751.6	34392.8	500.70 µg/L	500.70 ppb	08:46:33
1	Ba 233.527†	110188.6	112184.2	502.09 µg/L	502.09 ppb	08:46:33
1	Be 313.107†	1780582.4	1811487.8	500.93 µg/L	500.93 ppb	08:46:33
1	Cd 226.502†	75253.4	76619.8	502.09 µg/L	502.09 ppb	08:46:33
1	Co 228.616†	37978.8	38846.5	505.13 µg/L	505.13 ppb	08:46:33
1	Cr 267.716†	56729.4	57399.9	500.32 µg/L	500.32 ppb	08:46:33
1	Cu 324.752†	123146.8	122113.6	501.27 µg/L	501.27 ppb	08:46:33
1	Mn 257.610†	382571.9	388841.2	502.35 µg/L	502.35 ppb	08:46:33
1	Mo 202.031†	14771.1	15040.6	511.58 µg/L	511.58 ppb	08:46:54
1	Ni 231.604†	40058.4	40831.3	503.65 µg/L	503.65 ppb	08:46:33
1	P 214.914†	11003.3	11220.8	2550.6 µg/L	2550.6 ppb	08:46:54
1	Pb 220.353†	8157.9	8210.3	515.81 µg/L	515.81 ppb	08:46:54
1	S 181.975 Axial†	1272.4	1206.3	1028.1 µg/L	1028.1 ppb	08:46:54
1	Sb 206.836†	4011.7	4003.3	512.78 µg/L	512.78 ppb	08:46:54
1	Se 196.026†	1312.9	1322.6	512 µg/L	512 ppb	08:46:54
1	SiO2†	53865.7	53041.5	5351.7 µg/L	5351.7 ppb	08:46:33
1	Si 251.611†	166296.9	168315.8	2507.2 µg/L	2507.2 ppb	08:46:33
1	Sn 189.927†	7292.0	7402.8	515.37 µg/L	515.37 ppb	08:46:54
1	Ti 334.940†	475741.9	482964.8	501.57 µg/L	501.57 ppb	08:46:33
1	Tl 190.801†	3435.7	3606.0	515.45 µg/L	515.45 ppb	08:46:54
1	U 409.014†	6976.8	7375.7	481.35 µg/L	481.35 ppb	08:46:33
1	V 292.402†	100578.0	101727.7	505.63 µg/L	505.63 ppb	08:46:33
1	Zn 213.857†	87763.3	88664.3	502.32 µg/L	502.32 ppb	08:46:33
2	Sc RADIAL	114953.8	114953.8	98.8 %		08:46:25
2	Al 396.153Radial†	21988.6	22344.2	5197.6 µg/L	5197.6 ppb	08:46:25
2	Ca 317.933Radial†	61491.5	61835.9	5199.7 µg/L	5199.7 ppb	08:46:25
2	Fe 238.204 Radial†	59382.4	60029.4	5168.4 µg/L	5168.4 ppb	08:46:25
2	K 766.490 Radial†	14281.8	13017.9	5141.1 µg/L	5141.1 ppb	08:46:25
2	Mg 279.077 IEC†	9540.4	9504.6	5311.1 µg/L	5311.1 ppb	08:46:25
2	Na 589.592 Radial†	64052.5	64239.5	10214 µg/L	10214 ppb	08:46:23
2	Sr 421.552†	196362.0	198848.8	503.00 µg/L	503.00 ppb	08:46:23
2	Sc 361.383	1700070.9	1700070.9	98.686 %		08:46:57
2	Y 371.029	951932.9	951932.9	97.517 %		08:46:57
2	Ag 328.068†	124915.7	121460.0	504.99 µg/L	504.99 ppb	08:46:57
2	As 188.979†	1491.9	1528.1	513.85 µg/L	513.85 ppb	08:47:17
2	B 249.677†	37633.3	34139.1	497.00 µg/L	497.00 ppb	08:46:57
2	Ba 233.527†	110426.2	112034.5	501.42 µg/L	501.42 ppb	08:46:57
2	Be 313.107†	1785769.1	1810433.5	500.64 µg/L	500.64 ppb	08:46:57
2	Cd 226.502†	75483.7	76586.5	501.87 µg/L	501.87 ppb	08:46:57
2	Co 228.616†	38068.0	38802.3	504.55 µg/L	504.55 ppb	08:46:57
2	Cr 267.716†	56928.3	57400.5	500.33 µg/L	500.33 ppb	08:46:57
2	Cu 324.752†	123343.1	121876.1	500.29 µg/L	500.29 ppb	08:46:57
2	Mn 257.610†	383745.1	388674.3	502.13 µg/L	502.13 ppb	08:46:57
2	Mo 202.031†	14776.4	14993.7	509.99 µg/L	509.99 ppb	08:47:17
2	Ni 231.604†	40165.8	40798.1	503.24 µg/L	503.24 ppb	08:46:57
2	P 214.914†	10981.6	11159.8	2536.6 µg/L	2536.6 ppb	08:47:17
2	Pb 220.353†	8165.4	8188.9	514.48 µg/L	514.48 ppb	08:47:17
2	S 181.975 Axial†	1272.5	1201.9	1024.4 µg/L	1024.4 ppb	08:47:17
2	Sb 206.836†	3981.3	3958.3	507.00 µg/L	507.00 ppb	08:47:17
2	Se 196.026†	1335.8	1341.1	519 µg/L	519 ppb	08:47:17
2	SiO2†	53866.5	52851.4	5332.5 µg/L	5332.5 ppb	08:46:57
2	Si 251.611†	167068.3	168508.1	2510.2 µg/L	2510.2 ppb	08:46:57
2	Sn 189.927†	7270.4	7355.0	512.06 µg/L	512.06 ppb	08:47:17
2	Ti 334.940†	477348.0	482906.3	501.51 µg/L	501.51 ppb	08:46:57
2	Tl 190.801†	3439.0	3597.2	514.21 µg/L	514.21 ppb	08:47:17
2	U 409.014†	6869.9	7242.6	473.12 µg/L	473.12 ppb	08:46:57
2	V 292.402†	100646.4	101440.7	504.20 µg/L	504.20 ppb	08:46:57
2	Zn 213.857†	87830.6	88421.4	500.94 µg/L	500.94 ppb	08:46:57
2	Sc RADIAL	114418.2	114418.2	98.3 %		08:46:29
3	Al 396.153Radial†	21829.3	22286.3	5184.1 µg/L	5184.1 ppb	08:46:29
3	Ca 317.933Radial†	60799.8	61423.6	5165.1 µg/L	5165.1 ppb	08:46:29
3	Fe 238.204 Radial†	58792.9	59711.0	5141.0 µg/L	5141.0 ppb	08:46:29
3	K 766.490 Radial†	14305.4	13109.5	5177.3 µg/L	5177.3 ppb	08:46:29

3	Mg 279.077 IEC†	9442.8	9450.5	5280.9 µg/L	5280.9 ppb	08:46:29
3	Na 589.592 Radial†	63267.2	63744.3	10135 µg/L	10135 ppb	08:46:27
3	Sr 421.552†	194734.4	198123.7	501.17 µg/L	501.17 ppb	08:46:27
3	Sc 361.383	1702678.5	1702678.5	98.837 %		08:47:20
3	Y 371.029	954207.1	954207.1	97.750 %		08:47:20
3	Ag 328.068†	125228.1	121582.2	505.53 µg/L	505.53 ppb	08:47:20
3	As 188.979†	1486.9	1520.8	511.42 µg/L	511.42 ppb	08:47:40
3	B 249.677†	37918.4	34369.2	500.35 µg/L	500.35 ppb	08:47:20
3	Ba 233.527†	110986.9	112430.4	503.19 µg/L	503.19 ppb	08:47:20
3	Be 313.107†	1793438.6	1815422.0	502.03 µg/L	502.03 ppb	08:47:20
3	Cd 226.502†	75842.1	76832.0	503.48 µg/L	503.48 ppb	08:47:20
3	Co 228.616†	38252.8	38930.2	506.22 µg/L	506.22 ppb	08:47:20
3	Cr 267.716†	57261.1	57648.9	502.48 µg/L	502.48 ppb	08:47:20
3	Cu 324.752†	124105.8	122456.4	502.68 µg/L	502.68 ppb	08:47:20
3	Mn 257.610†	385093.5	389443.1	503.13 µg/L	503.13 ppb	08:47:20
3	Mo 202.031†	14781.4	14975.9	509.38 µg/L	509.38 ppb	08:47:40
3	Ni 231.604†	40420.8	40993.8	505.66 µg/L	505.66 ppb	08:47:20
3	P 214.914†	10972.3	11133.4	2530.6 µg/L	2530.6 ppb	08:47:40
3	Pb 220.353†	8129.3	8139.7	511.38 µg/L	511.38 ppb	08:47:40
3	S 181.975 Axial†	1277.0	1204.4	1026.5 µg/L	1026.5 ppb	08:47:40
3	Sb 206.836†	3992.6	3963.5	507.63 µg/L	507.63 ppb	08:47:40
3	Se 196.026†	1321.0	1324.1	512 µg/L	512 ppb	08:47:40
3	SiO2†	54437.7	53345.7	5382.6 µg/L	5382.6 ppb	08:47:20
3	Si 251.611†	167853.5	169043.4	2518.2 µg/L	2518.2 ppb	08:47:20
3	Sn 189.927†	7282.4	7355.9	512.12 µg/L	512.12 ppb	08:47:40
3	Ti 334.940†	478816.1	483651.0	502.28 µg/L	502.28 ppb	08:47:20
3	Tl 190.801†	3448.1	3601.1	514.76 µg/L	514.76 ppb	08:47:40
3	U 409.014†	7248.6	7615.1	495.98 µg/L	495.98 ppb	08:47:20
3	V 292.402†	101068.3	101711.3	505.55 µg/L	505.55 ppb	08:47:20
3	Zn 213.857†	88104.2	88562.0	501.73 µg/L	501.73 ppb	08:47:20

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1698965.1	98.622 %	0.2538			0.26%
Sc RADIAL	114983.5	98.8 %	0.50			0.51%
Y 371.029	951591.6	97.482 %	0.2870			0.29%
Ag 328.068†	121489.1	505.13 µg/L	0.354	505.13 ppb	0.354	0.07%
QC value within limits for Ag 328.068 Recovery = 101.03%						
Al 396.153Radial†	22340.1	5196.7 µg/L	12.05	5196.7 ppb	12.05	0.23%
QC value within limits for Al 396.153Radial Recovery = 103.93%						
As 188.979†	1526.8	513.42 µg/L	1.821	513.42 ppb	1.821	0.35%
QC value within limits for As 188.979 Recovery = 102.68%						
B 249.677†	34300.3	499.35 µg/L	2.045	499.35 ppb	2.045	0.41%
QC value within limits for B 249.677 Recovery = 99.87%						
Ba 233.527†	112216.4	502.23 µg/L	0.894	502.23 ppb	0.894	0.18%
QC value within limits for Ba 233.527 Recovery = 100.45%						
Be 313.107†	1812447.8	501.20 µg/L	0.730	501.20 ppb	0.730	0.15%
QC value within limits for Be 313.107 Recovery = 100.24%						
Ca 317.933Radial†	61712.2	5189.3 µg/L	21.09	5189.3 ppb	21.09	0.41%
QC value within limits for Ca 317.933Radial Recovery = 103.79%						
Cd 226.502†	76679.4	502.48 µg/L	0.875	502.48 ppb	0.875	0.17%
QC value within limits for Cd 226.502 Recovery = 100.50%						
Co 228.616†	38859.7	505.30 µg/L	0.846	505.30 ppb	0.846	0.17%
QC value within limits for Co 228.616 Recovery = 101.06%						
Cr 267.716†	57483.1	501.04 µg/L	1.243	501.04 ppb	1.243	0.25%
QC value within limits for Cr 267.716 Recovery = 100.21%						
Cu 324.752†	122148.7	501.41 µg/L	1.201	501.41 ppb	1.201	0.24%
QC value within limits for Cu 324.752 Recovery = 100.28%						
Fe 238.204 Radial†	59898.0	5157.1 µg/L	14.32	5157.1 ppb	14.32	0.28%
QC value within limits for Fe 238.204 Radial Recovery = 103.14%						
K 766.490 Radial†	13057.6	5156.8 µg/L	18.59	5156.8 ppb	18.59	0.36%
QC value within limits for K 766.490 Radial Recovery = 103.14%						
Mg 279.077 IEC†	9492.6	5304.4 µg/L	20.99	5304.4 ppb	20.99	0.40%
QC value within limits for Mg 279.077 IEC Recovery = 106.09%						
Mn 257.610†	388986.2	502.54 µg/L	0.523	502.54 ppb	0.523	0.10%
QC value within limits for Mn 257.610 Recovery = 100.51%						
Mo 202.031†	15003.4	510.32 µg/L	1.138	510.32 ppb	1.138	0.22%
QC value within limits for Mo 202.031 Recovery = 102.06%						
Na 589.592 Radial†	64064.7	10186 µg/L	44.2	10186 ppb	44.2	0.43%

QC value within limits for Na 589.592 Radial Recovery = 101.86%

Ni 231.604†	40874.4	504.18 µg/L	1.291	504.18 ppb	1.291	0.26%
QC value within limits for Ni 231.604 Recovery = 100.84%						
P 214.914†	11171.3	2539.3 µg/L	10.23	2539.3 ppb	10.23	0.40%
QC value within limits for P 214.914 Recovery = 101.57%						
Pb 220.353†	8179.6	513.89 µg/L	2.274	513.89 ppb	2.274	0.44%
QC value within limits for Pb 220.353 Recovery = 102.78%						
S 181.975 Axial†	1204.2	1026.3 µg/L	1.88	1026.3 ppb	1.88	0.18%
QC value within limits for S 181.975 Axial Recovery = 102.63%						
Sb 206.836†	3975.0	509.14 µg/L	3.171	509.14 ppb	3.171	0.62%
QC value within limits for Sb 206.836 Recovery = 101.83%						
Se 196.026†	1329.3	514 µg/L	4.0	514 ppb	4.0	0.77%
QC value within limits for Se 196.026 Recovery = 102.86%						
SiO2†	53079.5	5355.6 µg/L	25.28	5355.6 ppb	25.28	0.47%
QC value within limits for SiO2 Recovery = 100.15%						
Si 251.611†	168622.4	2511.9 µg/L	5.66	2511.9 ppb	5.66	0.23%
QC value within limits for Si 251.611 Recovery = 100.47%						
Sn 189.927†	7371.2	513.19 µg/L	1.895	513.19 ppb	1.895	0.37%
QC value within limits for Sn 189.927 Recovery = 102.64%						
Sr 421.552†	198670.7	502.55 µg/L	1.222	502.55 ppb	1.222	0.24%
QC value within limits for Sr 421.552 Recovery = 100.51%						
Ti 334.940†	483174.0	501.79 µg/L	0.427	501.79 ppb	0.427	0.09%
QC value within limits for Ti 334.940 Recovery = 100.36%						
Tl 190.801†	3601.4	514.81 µg/L	0.625	514.81 ppb	0.625	0.12%
QC value within limits for Tl 190.801 Recovery = 102.96%						
U 409.014†	7411.2	483.49 µg/L	11.578	483.49 ppb	11.578	2.39%
QC value within limits for U 409.014 Recovery = 96.70%						
V 292.402†	101626.6	505.13 µg/L	0.803	505.13 ppb	0.803	0.16%
QC value within limits for V 292.402 Recovery = 101.03%						
Zn 213.857†	88549.2	501.66 µg/L	0.694	501.66 ppb	0.694	0.14%
QC value within limits for Zn 213.857 Recovery = 100.33%						

All analyte(s) passed QC.

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/14/2010 8:47:49

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	116004.5	116004.5	99.7 %		08:48:18
1	Al 396.153Radial†	-79.5	-2.2	-0.5296 µg/L	-0.5296 ppb	08:48:38
1	Ca 317.933Radial†	452.6	20.9	1.7565 µg/L	1.7565 ppb	08:48:38
1	Fe 238.204 Radial†	158.5	55.1	4.7455 µg/L	4.7455 ppb	08:48:38
1	K 766.490 Radial†	1804.5	366.3	144.75 µg/L	144.75 ppb	08:48:18
1	Mg 279.077 IEC†	176.0	20.2	11.248 µg/L	11.248 ppb	08:48:38
1	Na 589.592 Radial†	962.6	343.1	54.446 µg/L	54.446 ppb	08:48:18
1	Sr 421.552†	-10.6	-6.8	-0.0173 µg/L	-0.0173 ppb	08:48:18
1	Sc 361.383	1698153.9	1698153.9	98.574 %		08:49:40
1	Y 371.029	961607.3	961607.3	98.508 %		08:49:40
1	Ag 328.068†	5337.1	294.9	1.1987 µg/L	1.1987 ppb	08:49:42
1	As 188.979†	-10.5	5.8	1.9172 µg/L	1.9172 ppb	08:50:02
1	B 249.677†	4397.9	466.2	6.8109 µg/L	6.8109 ppb	08:49:42
1	Ba 233.527†	-127.3	8.5	0.0376 µg/L	0.0376 ppb	08:50:02
1	Be 313.107†	-722.8	148.2	0.0393 µg/L	0.0393 ppb	08:49:42
1	Cd 226.502†	-24.6	72.6	0.4754 µg/L	0.4754 ppb	08:50:02
1	Co 228.616†	-237.8	-13.9	-0.1804 µg/L	-0.1804 ppb	08:50:02
1	Cr 267.716†	331.9	50.7	0.4464 µg/L	0.4464 ppb	08:50:02
1	Cu 324.752†	3478.9	419.5	1.7131 µg/L	1.7131 ppb	08:49:42
1	Mn 257.610†	234.2	56.1	0.0720 µg/L	0.0720 ppb	08:50:02
1	Mo 202.031†	-12.7	7.6	0.2585 µg/L	0.2585 ppb	08:50:02
1	Ni 231.604†	-98.1	-2.1	-0.0260 µg/L	-0.0260 ppb	08:50:02
1	P 214.914†	-38.0	-6.6	-1.5290 µg/L	-1.5290 ppb	08:50:02
1	Pb 220.353†	108.1	24.4	1.5323 µg/L	1.5323 ppb	08:50:02
1	S 181.975 Axial†	89.6	3.3	2.7774 µg/L	2.7774 ppb	08:50:02
1	Sb 206.836†	78.4	3.5	0.4404 µg/L	0.4404 ppb	08:50:02
1	Se 196.026†	11.5	-0.9	-0.340 µg/L	-0.340 ppb	08:50:02
1	SiO2†	1858.6	153.1	15.497 µg/L	15.497 ppb	08:49:42
1	Si 251.611†	802.1	28.5	0.4222 µg/L	0.4222 ppb	08:49:42
1	Sn 189.927†	14.1	2.0	0.1424 µg/L	0.1424 ppb	08:50:02
1	Ti 334.940†	971.6	186.7	0.1954 µg/L	0.1954 ppb	08:49:42
1	Tl 190.801†	-108.3	2.6	0.3624 µg/L	0.3624 ppb	08:50:02
1	U 409.014†	-366.6	-90.6	-5.5691 µg/L	-5.5691 ppb	08:49:42
1	V 292.402†	446.5	-93.2	-0.4568 µg/L	-0.4568 ppb	08:49:42
1	Zn 213.857†	677.0	107.9	0.6147 µg/L	0.6147 ppb	08:50:02
2	Sc RADIAL	114569.6	114569.6	98.4 %		08:48:40
2	Al 396.153Radial†	-90.7	-14.6	-3.4330 µg/L	-3.4330 ppb	08:49:00
2	Ca 317.933Radial†	450.0	24.0	2.0148 µg/L	2.0148 ppb	08:49:00
2	Fe 238.204 Radial†	162.4	61.1	5.2588 µg/L	5.2588 ppb	08:49:00
2	K 766.490 Radial†	1670.4	252.7	99.868 µg/L	99.868 ppb	08:48:40
2	Mg 279.077 IEC†	165.2	11.5	6.4010 µg/L	6.4010 ppb	08:49:00
2	Na 589.592 Radial†	950.9	343.3	54.511 µg/L	54.511 ppb	08:48:40
2	Sr 421.552†	-8.3	-4.6	-0.0117 µg/L	-0.0117 ppb	08:48:40
2	Sc 361.383	1721393.1	1721393.1	99.923 %		08:50:04
2	Y 371.029	974627.4	974627.4	99.842 %		08:50:04
2	Ag 328.068†	5530.8	415.7	1.7048 µg/L	1.7048 ppb	08:50:06
2	As 188.979†	-14.1	2.3	0.7703 µg/L	0.7703 ppb	08:50:27
2	B 249.677†	4414.2	422.2	6.1675 µg/L	6.1675 ppb	08:50:06
2	Ba 233.527†	-131.7	5.9	0.0260 µg/L	0.0260 ppb	08:50:27
2	Be 313.107†	-1108.7	-228.1	-0.0618 µg/L	-0.0618 ppb	08:50:06
2	Cd 226.502†	-34.7	62.8	0.4114 µg/L	0.4114 ppb	08:50:27
2	Co 228.616†	-227.3	-0.2	-0.0022 µg/L	-0.0022 ppb	08:50:27
2	Cr 267.716†	315.0	29.3	0.2517 µg/L	0.2517 ppb	08:50:27
2	Cu 324.752†	3346.7	239.5	0.9847 µg/L	0.9847 ppb	08:50:06
2	Mn 257.610†	238.6	57.3	0.0738 µg/L	0.0738 ppb	08:50:27
2	Mo 202.031†	-5.0	15.5	0.5251 µg/L	0.5251 ppb	08:50:27
2	Ni 231.604†	-88.4	8.9	0.1102 µg/L	0.1102 ppb	08:50:27
2	P 214.914†	-30.8	1.2	0.2536 µg/L	0.2536 ppb	08:50:27
2	Pb 220.353†	120.9	35.8	2.2372 µg/L	2.2372 ppb	08:50:27

2	S 181.975 Axial†	103.6	16.0	13.625 µg/L	13.625 ppb	08:50:27
2	Sb 206.836†	67.2	-8.8	-1.1188 µg/L	-1.1188 ppb	08:50:27
2	Se 196.026†	28.3	15.8	6.09 µg/L	6.09 ppb	08:50:27
2	SiO2†	1778.2	47.1	4.7434 µg/L	4.7434 ppb	08:50:06
2	Si 251.611†	810.4	25.9	0.3745 µg/L	0.3745 ppb	08:50:06
2	Sn 189.927†	23.9	11.7	0.8130 µg/L	0.8130 ppb	08:50:27
2	Ti 334.940†	978.3	180.1	0.1850 µg/L	0.1850 ppb	08:50:06
2	Tl 190.801†	-110.3	2.0	0.2782 µg/L	0.2782 ppb	08:50:27
2	U 409.014†	-211.6	69.5	4.2127 µg/L	4.2127 ppb	08:50:06
2	V 292.402†	418.7	-127.1	-0.6148 µg/L	-0.6148 ppb	08:50:06
2	Zn 213.857†	648.2	69.8	0.3967 µg/L	0.3967 ppb	08:50:27
3	Sc RADIAL	115649.6	115649.6	99.3 %		08:49:02
3	Al 396.153Radial†	-67.8	9.3	2.1201 µg/L	2.1201 ppb	08:49:22
3	Ca 317.933Radial†	435.0	4.7	0.3916 µg/L	0.3916 ppb	08:49:22
3	Fe 238.204 Radial†	135.2	32.1	2.7667 µg/L	2.7667 ppb	08:49:22
3	K 766.490 Radial†	1740.8	307.6	121.58 µg/L	121.58 ppb	08:49:02
3	Mg 279.077 IEC†	148.4	-7.1	-3.9478 µg/L	-3.9478 ppb	08:49:22
3	Na 589.592 Radial†	1051.1	435.1	69.108 µg/L	69.108 ppb	08:49:02
3	Sr 421.552†	89.3	93.7	0.2371 µg/L	0.2371 ppb	08:49:02
3	Sc 361.383	1703344.4	1703344.4	98.876 %		08:50:29
3	Y 371.029	964245.0	964245.0	98.778 %		08:50:29
3	Ag 328.068†	5542.7	486.4	1.9803 µg/L	1.9803 ppb	08:50:31
3	As 188.979†	-2.1	14.3	4.7301 µg/L	4.7301 ppb	08:50:51
3	B 249.677†	4402.7	457.4	6.6817 µg/L	6.6817 ppb	08:50:31
3	Ba 233.527†	-112.9	23.5	0.1048 µg/L	0.1048 ppb	08:50:51
3	Be 313.107†	-953.5	-82.9	-0.0251 µg/L	-0.0251 ppb	08:50:31
3	Cd 226.502†	-21.4	75.8	0.4969 µg/L	0.4969 ppb	08:50:51
3	Co 228.616†	-213.4	11.5	0.1498 µg/L	0.1498 ppb	08:50:51
3	Cr 267.716†	322.9	40.6	0.3598 µg/L	0.3598 ppb	08:50:51
3	Cu 324.752†	3155.4	81.6	0.3282 µg/L	0.3282 ppb	08:50:31
3	Mn 257.610†	252.4	73.7	0.0954 µg/L	0.0954 ppb	08:50:51
3	Mo 202.031†	6.8	27.4	0.9312 µg/L	0.9312 ppb	08:50:51
3	Ni 231.604†	-109.6	-13.4	-0.1656 µg/L	-0.1656 ppb	08:50:51
3	P 214.914†	-38.2	-6.6	-1.5203 µg/L	-1.5203 ppb	08:50:51
3	Pb 220.353†	138.5	54.8	3.4396 µg/L	3.4396 ppb	08:50:51
3	S 181.975 Axial†	92.5	5.9	5.0224 µg/L	5.0224 ppb	08:50:51
3	Sb 206.836†	60.7	-14.6	-1.8630 µg/L	-1.8630 ppb	08:50:51
3	Se 196.026†	31.4	19.3	7.42 µg/L	7.42 ppb	08:50:51
3	SiO2†	1719.9	7.0	0.6756 µg/L	0.6756 ppb	08:50:31
3	Si 251.611†	685.5	-91.8	-1.3912 µg/L	-1.3912 ppb	08:50:31
3	Sn 189.927†	23.6	11.6	0.8086 µg/L	0.8086 ppb	08:50:51
3	Ti 334.940†	919.3	130.8	0.1392 µg/L	0.1392 ppb	08:50:31
3	Tl 190.801†	-104.7	6.5	0.9161 µg/L	0.9161 ppb	08:50:51
3	U 409.014†	-396.9	-120.2	-7.3873 µg/L	-7.3873 ppb	08:50:31
3	V 292.402†	404.6	-137.0	-0.6660 µg/L	-0.6660 ppb	08:50:31
3	Zn 213.857†	678.0	106.8	0.6106 µg/L	0.6106 ppb	08:50:51

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1707630.5	99.125 %	0.7081			0.71%
Sc RADIAL	115407.9	99.1 %	0.64			0.65%
Y 371.029	966826.6	99.043 %	0.7051			0.71%
Ag 328.068†	399.0	1.6279 µg/L	0.39643	1.6279 ppb	0.39643	24.35%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-2.5	-0.6142 µg/L	2.77752	-0.6142 ppb	2.77752	452.25%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	7.4	2.4725 µg/L	2.03746	2.4725 ppb	2.03746	82.40%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	448.6	6.5534 µg/L	0.34034	6.5534 ppb	0.34034	5.19%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	12.6	0.0561 µg/L	0.04254	0.0561 ppb	0.04254	75.76%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-54.2	-0.0159 µg/L	0.05117	-0.0159 ppb	0.05117	322.50%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	16.5	1.3876 µg/L	0.87218	1.3876 ppb	0.87218	62.85%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	70.4	0.4612 µg/L	0.04445	0.4612 ppb	0.04445	9.64%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-0.8	-0.0109 µg/L	0.16527	-0.0109 ppb	0.16527	>999.9%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	40.2	0.3527 µg/L	0.09757	0.3527 ppb	0.09757	27.67%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	246.9	1.0087 µg/L	0.69278	1.0087 ppb	0.69278	68.68%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	49.4	4.2570 µg/L	1.31594	4.2570 ppb	1.31594	30.91%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	308.9	122.07 µg/L	22.445	122.07 ppb	22.445	18.39%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	8.2	4.5671 µg/L	7.76217	4.5671 ppb	7.76217	169.96%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	62.4	0.0804 µg/L	0.01304	0.0804 ppb	0.01304	16.21%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	16.8	0.5716 µg/L	0.33875	0.5716 ppb	0.33875	59.26%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	373.8	59.355 µg/L	8.4461	59.355 ppb	8.4461	14.23%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-2.2	-0.0271 µg/L	0.13788	-0.0271 ppb	0.13788	508.20%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-4.0	-0.9319 µg/L	1.02669	-0.9319 ppb	1.02669	110.17%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	38.3	2.4030 µg/L	0.96441	2.4030 ppb	0.96441	40.13%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	8.4	7.1416 µg/L	5.72581	7.1416 ppb	5.72581	80.18%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-6.7	-0.8471 µg/L	1.17550	-0.8471 ppb	1.17550	138.76%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	11.4	4.39 µg/L	4.149	4.39 ppb	4.149	94.53%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	69.1	6.9722 µg/L	7.65810	6.9722 ppb	7.65810	109.84%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	-12.5	-0.1982 µg/L	1.03349	-0.1982 ppb	1.03349	521.54%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	8.5	0.5880 µg/L	0.38589	0.5880 ppb	0.38589	65.63%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	27.4	0.0694 µg/L	0.14525	0.0694 ppb	0.14525	209.34%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	165.8	0.1732 µg/L	0.02989	0.1732 ppb	0.02989	17.26%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	3.7	0.5189 µg/L	0.34653	0.5189 ppb	0.34653	66.78%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-47.1	-2.9146 µg/L	6.23898	-2.9146 ppb	6.23898	214.06%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-119.1	-0.5792 µg/L	0.10905	-0.5792 ppb	0.10905	18.83%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	94.8	0.5407 µg/L	0.12467	0.5407 ppb	0.12467	23.06%	
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: 4/14/2010 9:18:56

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	118668.7	118668.7	102 %		09:19:30
1	Al 396.153Radial†	22652.1	22298.0	5187.3 µg/L	5187.3 ppb	09:19:30
1	Ca 317.933Radial†	62362.6	60741.1	5107.7 µg/L	5107.7 ppb	09:19:30
1	Fe 238.204 Radial†	60274.1	59021.6	5081.7 µg/L	5081.7 ppb	09:19:30
1	K 766.490 Radial†	14375.3	12656.8	4998.4 µg/L	4998.4 ppb	09:19:30
1	Mg 279.077 IEC†	9620.9	9281.1	5186.2 µg/L	5186.2 ppb	09:19:30
1	Na 589.592 Radial†	64981.3	63120.2	10036 µg/L	10036 ppb	09:19:28
1	Sr 421.552†	200451.6	196635.7	497.41 µg/L	497.41 ppb	09:19:28
1	Sc 361.383	1733736.7	1733736.7	100.64 %		09:19:57
1	Y 371.029	971562.1	971562.1	99.528 %		09:19:57
1	Ag 328.068†	125542.4	119624.7	497.39 µg/L	497.39 ppb	09:19:57
1	As 188.979†	1493.7	1500.6	504.61 µg/L	504.61 ppb	09:20:17
1	B 249.677†	37739.8	33504.4	487.75 µg/L	487.75 ppb	09:19:57
1	Ba 233.527†	111226.0	110656.3	495.25 µg/L	495.25 ppb	09:19:57
1	Be 313.107†	1793563.9	1783040.7	493.07 µg/L	493.07 ppb	09:19:57
1	Cd 226.502†	75688.1	75304.3	493.47 µg/L	493.47 ppb	09:19:57
1	Co 228.616†	38337.9	38321.5	498.30 µg/L	498.30 ppb	09:19:57
1	Cr 267.716†	57296.0	56645.7	493.74 µg/L	493.74 ppb	09:19:57
1	Cu 324.752†	124006.1	120107.9	493.04 µg/L	493.04 ppb	09:19:57
1	Mn 257.610†	385743.5	383109.1	494.95 µg/L	494.95 ppb	09:19:57
1	Mo 202.031†	14781.9	14708.4	500.28 µg/L	500.28 ppb	09:20:17
1	Ni 231.604†	40395.0	40235.5	496.30 µg/L	496.30 ppb	09:19:57
1	P 214.914†	10943.2	10905.6	2478.8 µg/L	2478.8 ppb	09:20:17
1	Pb 220.353†	8157.3	8020.1	503.87 µg/L	503.87 ppb	09:20:17
1	S 181.975 Axial†	1274.5	1178.8	1004.7 µg/L	1004.7 ppb	09:20:17
1	Sb 206.836†	3981.7	3880.3	496.98 µg/L	496.98 ppb	09:20:17
1	Se 196.026†	1323.2	1302.3	504 µg/L	504 ppb	09:20:17
1	SiO2†	54550.5	52471.2	5294.4 µg/L	5294.4 ppb	09:19:57
1	Si 251.611†	168444.7	166588.5	2481.6 µg/L	2481.6 ppb	09:19:57
1	Sn 189.927†	7270.9	7212.5	502.14 µg/L	502.14 ppb	09:20:17
1	Ti 334.940†	479692.7	475843.6	494.18 µg/L	494.18 ppb	09:19:57
1	Tl 190.801†	3455.8	3546.3	506.92 µg/L	506.92 ppb	09:20:17
1	U 409.014†	7163.7	7399.4	482.31 µg/L	482.31 ppb	09:19:57
1	V 292.402†	101293.0	100102.7	497.53 µg/L	497.53 ppb	09:19:57
1	Zn 213.857†	88031.5	86892.9	492.27 µg/L	492.27 ppb	09:19:57
2	Sc RADIAL	117365.6	117365.6	101 %		09:19:34
2	Al 396.153Radial†	22293.6	22189.2	5162.0 µg/L	5162.0 ppb	09:19:34
2	Ca 317.933Radial†	61711.8	60774.8	5110.5 µg/L	5110.5 ppb	09:19:34
2	Fe 238.204 Radial†	59660.3	59069.2	5085.8 µg/L	5085.8 ppb	09:19:34
2	K 766.490 Radial†	14191.3	12630.9	4988.1 µg/L	4988.1 ppb	09:19:34
2	Mg 279.077 IEC†	9490.5	9256.6	5172.5 µg/L	5172.5 ppb	09:19:34
2	Na 589.592 Radial†	65377.4	64220.8	10211 µg/L	10211 ppb	09:19:32
2	Sr 421.552†	201634.7	199992.3	505.90 µg/L	505.90 ppb	09:19:32
2	Sc 361.383	1742233.9	1742233.9	101.13 %		09:20:20
2	Y 371.029	975801.9	975801.9	99.962 %		09:20:20
2	Ag 328.068†	125912.3	119382.1	496.38 µg/L	496.38 ppb	09:20:20
2	As 188.979†	1495.8	1495.5	502.88 µg/L	502.88 ppb	09:20:40
2	B 249.677†	38008.0	33586.8	488.95 µg/L	488.95 ppb	09:20:20
2	Ba 233.527†	111562.2	110449.8	494.32 µg/L	494.32 ppb	09:20:20
2	Be 313.107†	1803219.1	1783895.9	493.30 µg/L	493.30 ppb	09:20:20
2	Cd 226.502†	76023.5	75269.2	493.24 µg/L	493.24 ppb	09:20:20
2	Co 228.616†	38417.2	38214.1	496.90 µg/L	496.90 ppb	09:20:20
2	Cr 267.716†	57253.4	56325.9	490.96 µg/L	490.96 ppb	09:20:20
2	Cu 324.752†	124637.1	120130.9	493.13 µg/L	493.13 ppb	09:20:20
2	Mn 257.610†	387177.9	382658.1	494.36 µg/L	494.36 ppb	09:20:20
2	Mo 202.031†	14786.4	14641.2	498.00 µg/L	498.00 ppb	09:20:40
2	Ni 231.604†	40562.3	40205.2	495.93 µg/L	495.93 ppb	09:20:20
2	P 214.914†	10942.0	10851.3	2466.4 µg/L	2466.4 ppb	09:20:40
2	Pb 220.353†	8105.0	7928.9	498.16 µg/L	498.16 ppb	09:20:40

2	S 181.975 Axial†	1266.2	1164.4	992.45 µg/L	992.45 ppb	09:20:40
2	Sb 206.836†	3999.4	3878.6	496.76 µg/L	496.76 ppb	09:20:40
2	Se 196.026†	1306.8	1279.6	495 µg/L	495 ppb	09:20:40
2	SiO2†	55104.8	52755.0	5323.3 µg/L	5323.3 ppb	09:20:20
2	Si 251.611†	170005.2	167315.1	2492.6 µg/L	2492.6 ppb	09:20:20
2	Sn 189.927†	7252.5	7159.0	498.43 µg/L	498.43 ppb	09:20:40
2	Ti 334.940†	481794.0	475596.7	493.92 µg/L	493.92 ppb	09:20:20
2	Tl 190.801†	3456.3	3530.0	504.63 µg/L	504.63 ppb	09:20:40
2	U 409.014†	7068.3	7270.3	474.39 µg/L	474.39 ppb	09:20:20
2	V 292.402†	101704.9	100019.2	497.08 µg/L	497.08 ppb	09:20:20
2	Zn 213.857†	88580.5	87009.1	492.93 µg/L	492.93 ppb	09:20:20
3	Sc RADIAL	117846.2	117846.2	101 %		09:19:38
3	Al 396.153Radial†	22471.4	22274.6	5181.7 µg/L	5181.7 ppb	09:19:38
3	Ca 317.933Radial†	62090.7	60899.4	5121.0 µg/L	5121.0 ppb	09:19:38
3	Fe 238.204 Radial†	59924.3	59088.7	5087.4 µg/L	5087.4 ppb	09:19:38
3	K 766.490 Radial†	14303.7	12684.5	5009.3 µg/L	5009.3 ppb	09:19:38
3	Mg 279.077 IEC†	9520.7	9248.0	5167.8 µg/L	5167.8 ppb	09:19:38
3	Na 589.592 Radial†	64536.9	63126.1	10037 µg/L	10037 ppb	09:19:36
3	Sr 421.552†	198708.1	196285.9	496.52 µg/L	496.52 ppb	09:19:36
3	Sc 361.383	1732973.3	1732973.3	100.60 %		09:20:43
3	Y 371.029	971746.2	971746.2	99.547 %		09:20:43
3	Ag 328.068†	125873.0	120008.4	498.99 µg/L	498.99 ppb	09:20:43
3	As 188.979†	1494.8	1502.3	505.18 µg/L	505.18 ppb	09:21:03
3	B 249.677†	37960.8	33740.6	491.20 µg/L	491.20 ppb	09:20:43
3	Ba 233.527†	111150.2	110629.8	495.13 µg/L	495.13 ppb	09:20:43
3	Be 313.107†	1797975.2	1788211.0	494.50 µg/L	494.50 ppb	09:20:43
3	Cd 226.502†	75823.5	75472.1	494.57 µg/L	494.57 ppb	09:20:43
3	Co 228.616†	38324.3	38324.7	498.34 µg/L	498.34 ppb	09:20:43
3	Cr 267.716†	57116.6	56492.4	492.40 µg/L	492.40 ppb	09:20:43
3	Cu 324.752†	124292.3	120446.6	494.44 µg/L	494.44 ppb	09:20:43
3	Mn 257.610†	386006.4	383539.4	495.50 µg/L	495.50 ppb	09:20:43
3	Mo 202.031†	14841.2	14773.8	502.51 µg/L	502.51 ppb	09:21:03
3	Ni 231.604†	40448.4	40306.3	497.18 µg/L	497.18 ppb	09:20:43
3	P 214.914†	10995.6	10962.4	2491.7 µg/L	2491.7 ppb	09:21:03
3	Pb 220.353†	8176.0	8042.3	505.26 µg/L	505.26 ppb	09:21:03
3	S 181.975 Axial†	1280.2	1185.0	1010.0 µg/L	1010.0 ppb	09:21:03
3	Sb 206.836†	4015.9	3916.0	501.60 µg/L	501.60 ppb	09:21:03
3	Se 196.026†	1316.5	1296.3	502 µg/L	502 ppb	09:21:03
3	SiO2†	55044.9	52986.5	5346.5 µg/L	5346.5 ppb	09:20:43
3	Si 251.611†	169942.5	168151.1	2505.0 µg/L	2505.0 ppb	09:20:43
3	Sn 189.927†	7308.2	7252.7	504.94 µg/L	504.94 ppb	09:21:03
3	Ti 334.940†	480444.0	476800.3	495.17 µg/L	495.17 ppb	09:20:43
3	Tl 190.801†	3483.7	3575.5	511.05 µg/L	511.05 ppb	09:21:03
3	U 409.014†	7316.4	7554.3	491.85 µg/L	491.85 ppb	09:20:43
3	V 292.402†	101482.8	100335.8	498.70 µg/L	498.70 ppb	09:20:43
3	Zn 213.857†	88355.9	87253.9	494.32 µg/L	494.32 ppb	09:20:43

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Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1736314.6	100.79 %	0.298			0.30%
Sc RADIAL	117960.1	101 %	0.6			0.56%
Y 371.029	973036.7	99.679 %	0.2455			0.25%
Ag 328.068†	119671.8	497.59 µg/L	1.317	497.59 ppb	1.317	0.26%
QC value within limits for Ag 328.068 Recovery = 99.52%						
Al 396.153Radial†	22253.9	5177.0 µg/L	13.31	5177.0 ppb	13.31	0.26%
QC value within limits for Al 396.153Radial Recovery = 103.54%						
As 188.979†	1499.5	504.22 µg/L	1.199	504.22 ppb	1.199	0.24%
QC value within limits for As 188.979 Recovery = 100.84%						
B 249.677†	33610.6	489.30 µg/L	1.751	489.30 ppb	1.751	0.36%
QC value within limits for B 249.677 Recovery = 97.86%						
Ba 233.527†	110578.6	494.90 µg/L	0.503	494.90 ppb	0.503	0.10%
QC value within limits for Ba 233.527 Recovery = 98.98%						
Be 313.107†	1785049.2	493.63 µg/L	0.768	493.63 ppb	0.768	0.16%
QC value within limits for Be 313.107 Recovery = 98.73%						
Ca 317.933Radial†	60805.1	5113.1 µg/L	7.01	5113.1 ppb	7.01	0.14%
QC value within limits for Ca 317.933Radial Recovery = 102.26%						
Cd 226.502†	75348.5	493.76 µg/L	0.711	493.76 ppb	0.711	0.14%
QC value within limits for Cd 226.502 Recovery = 98.75%						
Co 228.616†	38286.8	497.85 µg/L	0.819	497.85 ppb	0.819	0.16%



QC value within limits for Co 228.616 Recovery = 99.57%							
Cr 267.716†	56488.0	492.36 µg/L	1.391	492.36 ppb	1.391	0.28%	
QC value within limits for Cr 267.716 Recovery = 98.47%							
Cu 324.752†	120228.5	493.54 µg/L	0.781	493.54 ppb	0.781	0.16%	
QC value within limits for Cu 324.752 Recovery = 98.71%							
Fe 238.204 Radial†	59059.8	5085.0 µg/L	2.97	5085.0 ppb	2.97	0.06%	
QC value within limits for Fe 238.204 Radial Recovery = 101.70%							
K 766.490 Radial†	12657.4	4998.6 µg/L	10.60	4998.6 ppb	10.60	0.21%	
QC value within limits for K 766.490 Radial Recovery = 99.97%							
Mg 279.077 IEC†	9261.9	5175.5 µg/L	9.57	5175.5 ppb	9.57	0.18%	
QC value within limits for Mg 279.077 IEC Recovery = 103.51%							
Mn 257.610†	383102.2	494.94 µg/L	0.570	494.94 ppb	0.570	0.12%	
QC value within limits for Mn 257.610 Recovery = 98.99%							
Mo 202.031†	14707.8	500.26 µg/L	2.253	500.26 ppb	2.253	0.45%	
QC value within limits for Mo 202.031 Recovery = 100.05%							
Na 589.592 Radial†	63489.0	10094 µg/L	100.8	10094 ppb	100.8	1.00%	
QC value within limits for Na 589.592 Radial Recovery = 100.94%							
Ni 231.604†	40249.0	496.47 µg/L	0.640	496.47 ppb	0.640	0.13%	
QC value within limits for Ni 231.604 Recovery = 99.29%							
P 214.914†	10906.4	2479.0 µg/L	12.67	2479.0 ppb	12.67	0.51%	
QC value within limits for P 214.914 Recovery = 99.16%							
Pb 220.353†	7997.1	502.43 µg/L	3.764	502.43 ppb	3.764	0.75%	
QC value within limits for Pb 220.353 Recovery = 100.49%							
S 181.975 Axial†	1176.1	1002.4 µg/L	9.01	1002.4 ppb	9.01	0.90%	
QC value within limits for S 181.975 Axial Recovery = 100.24%							
Sb 206.836†	3891.6	498.45 µg/L	2.734	498.45 ppb	2.734	0.55%	
QC value within limits for Sb 206.836 Recovery = 99.69%							
Se 196.026†	1292.7	500 µg/L	4.5	500 ppb	4.5	0.90%	
QC value within limits for Se 196.026 Recovery = 100.04%							
SiO2†	52737.5	5321.4 µg/L	26.10	5321.4 ppb	26.10	0.49%	
QC value within limits for SiO2 Recovery = 99.51%							
Si 251.611†	167351.6	2493.1 µg/L	11.67	2493.1 ppb	11.67	0.47%	
QC value within limits for Si 251.611 Recovery = 99.72%							
Sn 189.927†	7208.1	501.84 µg/L	3.262	501.84 ppb	3.262	0.65%	
QC value within limits for Sn 189.927 Recovery = 100.37%							
Sr 421.552†	197638.0	499.94 µg/L	5.177	499.94 ppb	5.177	1.04%	
QC value within limits for Sr 421.552 Recovery = 99.99%							
Ti 334.940†	476080.2	494.42 µg/L	0.658	494.42 ppb	0.658	0.13%	
QC value within limits for Ti 334.940 Recovery = 98.88%							
Tl 190.801†	3550.6	507.53 µg/L	3.255	507.53 ppb	3.255	0.64%	
QC value within limits for Tl 190.801 Recovery = 101.51%							
U 409.014†	7408.0	482.85 µg/L	8.741	482.85 ppb	8.741	1.81%	
QC value within limits for U 409.014 Recovery = 96.57%							
V 292.402†	100152.5	497.77 µg/L	0.834	497.77 ppb	0.834	0.17%	
QC value within limits for V 292.402 Recovery = 99.55%							
Zn 213.857†	87051.9	493.17 µg/L	1.049	493.17 ppb	1.049	0.21%	
QC value within limits for Zn 213.857 Recovery = 98.63%							
All analyte(s) passed QC.							

Sequence No.: 10

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 4/14/2010 9:21:12

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Conc. Units	Sample Units	Analysis Time
1	Sc RADIAL	117245.4	117245.4	101 %				09:21:43
1	Al 396.153Radial†	873.2	944.5	220.24 µg/L		220.24 ppb		09:22:03
1	Ca 317.933Radial†	3068.0	2612.8	219.71 µg/L		219.71 ppb		09:22:03
1	Fe 238.204 Radial†	1378.0	1264.2	108.84 µg/L		108.84 ppb		09:22:03
1	K 766.490 Radial†	2057.6	598.4	236.33 µg/L		236.33 ppb		09:21:43
1	Mg 279.077 IEC†	747.9	586.1	327.19 µg/L		327.19 ppb		09:22:03
1	Na 589.592 Radial†	2726.0	2083.7	331.22 µg/L		331.22 ppb		09:21:43
1	Sr 421.552†	2066.3	2055.3	5.1977 µg/L		5.1977 ppb		09:21:43
1	Sc 361.383	1754075.6	1754075.6	101.82 %				09:23:05
1	Y 371.029	992066.0	992066.0	101.63 %				09:23:05
1	Ag 328.068†	6327.6	1095.1	4.5920 µg/L		4.5920 ppb		09:23:07
1	As 188.979†	78.1	93.1	30.944 µg/L		30.944 ppb		09:23:27
1	B 249.677†	7754.3	3620.2	52.871 µg/L		52.871 ppb		09:23:07
1	Ba 233.527†	1028.4	1147.6	5.1367 µg/L		5.1367 ppb		09:23:27
1	Be 313.107†	17118.4	17693.8	4.9039 µg/L		4.9039 ppb		09:23:07
1	Cd 226.502†	742.5	826.7	5.4119 µg/L		5.4119 ppb		09:23:27
1	Co 228.616†	184.2	408.2	5.3048 µg/L		5.3048 ppb		09:23:27
1	Cr 267.716†	891.6	589.7	5.1086 µg/L		5.1086 ppb		09:23:27
1	Cu 324.752†	5735.7	2523.5	10.388 µg/L		10.388 ppb		09:23:07
1	Mn 257.610†	8356.0	8025.1	10.359 µg/L		10.359 ppb		09:23:07
1	Mo 202.031†	285.3	300.7	10.230 µg/L		10.230 ppb		09:23:27
1	Ni 231.604†	348.8	440.0	5.4271 µg/L		5.4271 ppb		09:23:27
1	P 214.914†	625.5	646.3	147.25 µg/L		147.25 ppb		09:23:27
1	Pb 220.353†	258.9	169.0	10.596 µg/L		10.596 ppb		09:23:27
1	S 181.975 Axial†	215.2	123.7	105.09 µg/L		105.09 ppb		09:23:27
1	Sb 206.836†	163.7	84.7	10.910 µg/L		10.910 ppb		09:23:27
1	Se 196.026†	96.7	82.5	31.9 µg/L		31.9 ppb		09:23:27
1	SiO2†	4227.0	2419.0	244.64 µg/L		244.64 ppb		09:23:07
1	Si 251.611†	8582.8	7644.2	114.13 µg/L		114.13 ppb		09:23:07
1	Sn 189.927†	154.4	139.4	9.6895 µg/L		9.6895 ppb		09:23:27
1	Ti 334.940†	5805.2	4902.5	5.0585 µg/L		5.0585 ppb		09:23:07
1	Tl 190.801†	37.4	149.2	21.100 µg/L		21.100 ppb		09:23:27
1	U 409.014†	395.6	669.8	41.250 µg/L		41.250 ppb		09:23:07
1	V 292.402†	1482.0	909.3	4.5986 µg/L		4.5986 ppb		09:23:07
1	Zn 213.857†	2867.9	2237.8	12.728 µg/L		12.728 ppb		09:23:27
2	Sc RADIAL	117328.8	117328.8	101 %				09:22:05
2	Al 396.153Radial†	878.5	949.2	221.31 µg/L		221.31 ppb		09:22:25
2	Ca 317.933Radial†	3083.1	2625.6	220.79 µg/L		220.79 ppb		09:22:25
2	Fe 238.204 Radial†	1353.2	1238.6	106.64 µg/L		106.64 ppb		09:22:25
2	K 766.490 Radial†	1941.9	482.1	190.38 µg/L		190.38 ppb		09:22:05
2	Mg 279.077 IEC†	740.5	578.3	322.82 µg/L		322.82 ppb		09:22:25
2	Na 589.592 Radial†	2756.0	2111.5	335.69 µg/L		335.69 ppb		09:22:05
2	Sr 421.552†	2052.4	2040.1	5.1593 µg/L		5.1593 ppb		09:22:05
2	Sc 361.383	1753699.7	1753699.7	101.80 %				09:23:29
2	Y 371.029	991692.9	991692.9	101.59 %				09:23:29
2	Ag 328.068†	6369.2	1137.3	4.7623 µg/L		4.7623 ppb		09:23:31
2	As 188.979†	91.5	106.3	35.337 µg/L		35.337 ppb		09:23:51
2	B 249.677†	7521.3	3393.1	49.553 µg/L		49.553 ppb		09:23:31
2	Ba 233.527†	1029.3	1148.8	5.1415 µg/L		5.1415 ppb		09:23:51
2	Be 313.107†	16999.6	17580.7	4.8746 µg/L		4.8746 ppb		09:23:31
2	Cd 226.502†	717.5	802.4	5.2524 µg/L		5.2524 ppb		09:23:51
2	Co 228.616†	158.2	382.7	4.9735 µg/L		4.9735 ppb		09:23:51
2	Cr 267.716†	880.1	578.5	5.0055 µg/L		5.0055 ppb		09:23:51
2	Cu 324.752†	5740.1	2529.0	10.415 µg/L		10.415 ppb		09:23:31
2	Mn 257.610†	8437.7	8107.1	10.465 µg/L		10.465 ppb		09:23:31
2	Mo 202.031†	294.9	310.2	10.552 µg/L		10.552 ppb		09:23:51
2	Ni 231.604†	322.8	414.5	5.1126 µg/L		5.1126 ppb		09:23:51
2	P 214.914†	624.8	645.7	147.11 µg/L		147.11 ppb		09:23:51
2	Pb 220.353†	300.5	210.0	13.155 µg/L		13.155 ppb		09:23:51

2	S 181.975 Axial†	212.9	121.6	103.26 µg/L	103.26 ppb	09:23:51
2	Sb 206.836†	151.2	72.5	9.3502 µg/L	9.3502 ppb	09:23:51
2	Se 196.026†	96.7	82.5	31.9 µg/L	31.9 ppb	09:23:51
2	SiO2†	4286.8	2478.6	250.67 µg/L	250.67 ppb	09:23:31
2	Si 251.611†	8906.0	7963.5	118.90 µg/L	118.90 ppb	09:23:31
2	Sn 189.927†	155.4	140.4	9.7593 µg/L	9.7593 ppb	09:23:51
2	Ti 334.940†	5589.9	4692.2	4.8376 µg/L	4.8376 ppb	09:23:31
2	Tl 190.801†	27.1	139.0	19.657 µg/L	19.657 ppb	09:23:51
2	U 409.014†	503.7	776.1	47.695 µg/L	47.695 ppb	09:23:31
2	V 292.402†	1292.9	723.9	3.6971 µg/L	3.6971 ppb	09:23:31
2	Zn 213.857†	2899.5	2269.4	12.910 µg/L	12.910 ppb	09:23:51
3	Sc RADIAL	118905.5	118905.5	102 %		09:22:27
3	Al 396.153Radial†	866.8	926.1	215.95 µg/L	215.95 ppb	09:22:47
3	Ca 317.933Radial†	3076.9	2579.1	216.87 µg/L	216.87 ppb	09:22:47
3	Fe 238.204 Radial†	1384.4	1251.4	107.74 µg/L	107.74 ppb	09:22:47
3	K 766.490 Radial†	2113.5	624.5	246.68 µg/L	246.68 ppb	09:22:27
3	Mg 279.077 IEC†	747.3	575.1	321.04 µg/L	321.04 ppb	09:22:47
3	Na 589.592 Radial†	2693.1	2013.7	320.08 µg/L	320.08 ppb	09:22:27
3	Sr 421.552†	2011.9	1973.5	4.9907 µg/L	4.9907 ppb	09:22:27
3	Sc 361.383	1755158.2	1755158.2	101.88 %		09:23:54
3	Y 371.029	993570.6	993570.6	101.78 %		09:23:54
3	Ag 328.068†	6541.8	1301.5	5.4474 µg/L	5.4474 ppb	09:23:56
3	As 188.979†	75.3	90.3	30.038 µg/L	30.038 ppb	09:24:16
3	B 249.677†	7576.9	3441.5	50.261 µg/L	50.261 ppb	09:23:56
3	Ba 233.527†	1018.5	1137.3	5.0902 µg/L	5.0902 ppb	09:24:16
3	Be 313.107†	16906.8	17475.7	4.8474 µg/L	4.8474 ppb	09:23:56
3	Cd 226.502†	707.6	792.1	5.1845 µg/L	5.1845 ppb	09:24:16
3	Co 228.616†	139.0	363.7	4.7268 µg/L	4.7268 ppb	09:24:16
3	Cr 267.716†	903.9	601.2	5.1984 µg/L	5.1984 ppb	09:24:16
3	Cu 324.752†	5677.3	2462.7	10.149 µg/L	10.149 ppb	09:23:56
3	Mn 257.610†	8335.3	7999.7	10.327 µg/L	10.327 ppb	09:23:56
3	Mo 202.031†	279.6	295.0	10.035 µg/L	10.035 ppb	09:24:16
3	Ni 231.604†	312.7	404.3	4.9867 µg/L	4.9867 ppb	09:24:16
3	P 214.914†	613.1	633.7	144.39 µg/L	144.39 ppb	09:24:16
3	Pb 220.353†	248.9	159.1	9.9620 µg/L	9.9620 ppb	09:24:16
3	S 181.975 Axial†	218.1	126.5	107.43 µg/L	107.43 ppb	09:24:16
3	Sb 206.836†	124.5	46.2	5.9826 µg/L	5.9826 ppb	09:24:16
3	Se 196.026†	100.2	85.9	33.2 µg/L	33.2 ppb	09:24:16
3	SiO2†	4461.5	2646.6	267.70 µg/L	267.70 ppb	09:23:56
3	Si 251.611†	8956.3	8005.6	119.54 µg/L	119.54 ppb	09:23:56
3	Sn 189.927†	161.7	146.5	10.185 µg/L	10.185 ppb	09:24:16
3	Ti 334.940†	5931.1	5022.5	5.1787 µg/L	5.1787 ppb	09:23:56
3	Tl 190.801†	16.4	128.5	18.189 µg/L	18.189 ppb	09:24:16
3	U 409.014†	602.7	872.8	53.624 µg/L	53.624 ppb	09:23:56
3	V 292.402†	1354.7	783.5	3.9885 µg/L	3.9885 ppb	09:23:56
3	Zn 213.857†	2888.5	2256.2	12.836 µg/L	12.836 ppb	09:24:16

## Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1754311.2	101.83 %	0.044			0.04%
Sc RADIAL	117826.6	101 %	0.8			0.79%
Y 371.029	992443.2	101.67 %	0.102			0.10%
Ag 328.068†	1178.0	4.9339 µg/L	0.45282	4.9339 ppb	0.45282	9.18%
QC value within limits for Ag 328.068 Recovery = 98.68%						
Al 396.153Radial†	940.0	219.17 µg/L	2.839	219.17 ppb	2.839	1.30%
QC value within limits for Al 396.153Radial Recovery = 109.58%						
As 188.979†	96.6	32.107 µg/L	2.8344	32.107 ppb	2.8344	8.83%
QC value within limits for As 188.979 Recovery = 107.02%						
B 249.677†	3484.9	50.895 µg/L	1.7474	50.895 ppb	1.7474	3.43%
QC value within limits for B 249.677 Recovery = 101.79%						
Ba 233.527†	1144.6	5.1228 µg/L	0.02835	5.1228 ppb	0.02835	0.55%
QC value within limits for Ba 233.527 Recovery = 102.46%						
Be 313.107†	17583.4	4.8753 µg/L	0.02828	4.8753 ppb	0.02828	0.58%
QC value within limits for Be 313.107 Recovery = 97.51%						
Ca 317.933Radial†	2605.8	219.12 µg/L	2.023	219.12 ppb	2.023	0.92%
QC value within limits for Ca 317.933Radial Recovery = 109.56%						
Cd 226.502†	807.1	5.2829 µg/L	0.11674	5.2829 ppb	0.11674	2.21%
QC value within limits for Cd 226.502 Recovery = 105.66%						
Co 228.616†	384.9	5.0017 µg/L	0.29002	5.0017 ppb	0.29002	5.80%

QC value within limits for Co 228.616 Recovery = 100.03%							
Cr 267.716†	589.8	5.1042 µg/L	0.09651	5.1042 ppb	0.09651	1.89%	
QC value within limits for Cr 267.716 Recovery = 102.08%							
Cu 324.752†	2505.0	10.317 µg/L	0.1466	10.317 ppb	0.1466	1.42%	
QC value within limits for Cu 324.752 Recovery = 103.17%							
Fe 238.204 Radial†	1251.4	107.74 µg/L	1.100	107.74 ppb	1.100	1.02%	
QC value within limits for Fe 238.204 Radial Recovery = 107.74%							
K 766.490 Radial†	568.3	224.46 µg/L	29.970	224.46 ppb	29.970	13.35%	
QC value greater than the upper limit for K 766.490 Radial Recovery = 149.64%							
Mg 279.077 IEC†	579.9	323.68 µg/L	3.164	323.68 ppb	3.164	0.98%	
QC value within limits for Mg 279.077 IEC Recovery = 107.89%							
Mn 257.610†	8043.9	10.384 µg/L	0.0725	10.384 ppb	0.0725	0.70%	
QC value within limits for Mn 257.610 Recovery = 103.84%							
Mo 202.031†	302.0	10.272 µg/L	0.2613	10.272 ppb	0.2613	2.54%	
QC value within limits for Mo 202.031 Recovery = 102.72%							
Na 589.592 Radial†	2069.6	329.00 µg/L	8.039	329.00 ppb	8.039	2.44%	
QC value within limits for Na 589.592 Radial Recovery = 109.67%							
Ni 231.604†	419.6	5.1755 µg/L	0.22680	5.1755 ppb	0.22680	4.38%	
QC value within limits for Ni 231.604 Recovery = 103.51%							
P 214.914†	641.9	146.25 µg/L	1.612	146.25 ppb	1.612	1.10%	
QC value within limits for P 214.914 Recovery = 97.50%							
Pb 220.353†	179.4	11.237 µg/L	1.6903	11.237 ppb	1.6903	15.04%	
QC value within limits for Pb 220.353 Recovery = 112.37%							
S 181.975 Axial†	123.9	105.26 µg/L	2.088	105.26 ppb	2.088	1.98%	
QC value within limits for S 181.975 Axial Recovery = 105.26%							
Sb 206.836†	67.8	8.7476 µg/L	2.51838	8.7476 ppb	2.51838	28.79%	
QC value within limits for Sb 206.836 Recovery = 87.48%							
Se 196.026†	83.6	32.3 µg/L	0.76	32.3 ppb	0.76	2.34%	
QC value within limits for Se 196.026 Recovery = 107.66%							
SiO2†	2514.8	254.34 µg/L	11.957	254.34 ppb	11.957	4.70%	
QC value within limits for SiO2 Recovery = 119.41%							
Si 251.611†	7871.1	117.52 µg/L	2.955	117.52 ppb	2.955	2.51%	
QC value within limits for Si 251.611 Recovery = 117.52%							
Sn 189.927†	142.1	9.8781 µg/L	0.26840	9.8781 ppb	0.26840	2.72%	
QC value within limits for Sn 189.927 Recovery = 98.78%							
Sr 421.552†	2022.9	5.1159 µg/L	0.11009	5.1159 ppb	0.11009	2.15%	
QC value within limits for Sr 421.552 Recovery = 102.32%							
Ti 334.940†	4872.4	5.0250 µg/L	0.17301	5.0250 ppb	0.17301	3.44%	
QC value within limits for Ti 334.940 Recovery = 100.50%							
Tl 190.801†	138.9	19.648 µg/L	1.4554	19.648 ppb	1.4554	7.41%	
QC value within limits for Tl 190.801 Recovery = 98.24%							
U 409.014†	772.9	47.523 µg/L	6.1888	47.523 ppb	6.1888	13.02%	
QC value within limits for U 409.014 Recovery = 95.05%							
V 292.402†	805.6	4.0947 µg/L	0.46005	4.0947 ppb	0.46005	11.24%	
QC value within limits for V 292.402 Recovery = 81.89%							
Zn 213.857†	2254.5	12.825 µg/L	0.0919	12.825 ppb	0.0919	0.72%	
QC value within limits for Zn 213.857 Recovery = 128.25%							
QC Failed. Continue with analysis.							

Sequence No.: 11

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/14/2010 9:24:23

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	118472.4	118472.4	102 %		09:24:53
1	Al 396.153Radial†	-88.2	-9.1	-2.1482 µg/L	-2.1482 ppb	09:25:13
1	Ca 317.933Radial†	452.7	11.5	0.9702 µg/L	0.9702 ppb	09:25:13
1	Fe 238.204 Radial†	140.0	33.6	2.8890 µg/L	2.8890 ppb	09:25:13
1	K 766.490 Radial†	1618.3	145.5	57.523 µg/L	57.523 ppb	09:24:53
1	Mg 279.077 IEC†	140.1	-18.7	-10.452 µg/L	-10.452 ppb	09:25:13
1	Na 589.592 Radial†	764.0	127.8	20.272 µg/L	20.272 ppb	09:24:53
1	Sr 421.552†	-45.4	-40.8	-0.1032 µg/L	-0.1032 ppb	09:24:53
1	Sc 361.383	1734547.1	1734547.1	100.69 %		09:26:01
1	Y 371.029	981488.4	981488.4	100.54 %		09:26:01
1	Ag 328.068†	5360.0	204.1	0.8609 µg/L	0.8609 ppb	09:26:03
1	As 188.979†	0.8	17.2	5.6890 µg/L	5.6890 ppb	09:26:23
1	B 249.677†	4224.5	200.3	2.9246 µg/L	2.9246 ppb	09:26:03
1	Ba 233.527†	-116.0	22.4	0.1002 µg/L	0.1002 ppb	09:26:23
1	Be 313.107†	-1148.2	-258.9	-0.0654 µg/L	-0.0654 ppb	09:26:03
1	Cd 226.502†	-63.2	34.8	0.2278 µg/L	0.2278 ppb	09:26:23
1	Co 228.616†	-205.3	23.4	0.3038 µg/L	0.3038 ppb	09:26:23
1	Cr 267.716†	316.8	28.7	0.2341 µg/L	0.2341 ppb	09:26:23
1	Cu 324.752†	3140.9	9.8	0.0573 µg/L	0.0573 ppb	09:26:03
1	Mn 257.610†	213.2	30.3	0.0395 µg/L	0.0395 ppb	09:26:23
1	Mo 202.031†	-6.2	14.3	0.4861 µg/L	0.4861 ppb	09:26:23
1	Ni 231.604†	-86.2	11.8	0.1458 µg/L	0.1458 ppb	09:26:23
1	P 214.914†	-35.5	-3.3	-0.7763 µg/L	-0.7763 ppb	09:26:23
1	Pb 220.353†	99.4	13.5	0.8281 µg/L	0.8281 ppb	09:26:23
1	S 181.975 Axial†	94.4	6.2	5.2241 µg/L	5.2241 ppb	09:26:23
1	Sb 206.836†	79.9	3.3	0.4280 µg/L	0.4280 ppb	09:26:23
1	Se 196.026†	25.0	12.3	4.76 µg/L	4.76 ppb	09:26:23
1	SiO2†	1928.4	182.8	18.517 µg/L	18.517 ppb	09:26:03
1	Si 251.611†	1144.3	351.3	5.2514 µg/L	5.2514 ppb	09:26:03
1	Sn 189.927†	4.1	-8.2	-0.5671 µg/L	-0.5671 ppb	09:26:23
1	Ti 334.940†	495.3	-307.0	-0.3268 µg/L	-0.3268 ppb	09:26:03
1	Tl 190.801†	-101.5	11.6	1.6334 µg/L	1.6334 ppb	09:26:23
1	U 409.014†	53.6	334.4	20.433 µg/L	20.433 ppb	09:26:03
1	V 292.402†	508.0	-41.7	-0.1846 µg/L	-0.1846 ppb	09:26:03
1	Zn 213.857†	628.3	45.1	0.2562 µg/L	0.2562 ppb	09:26:23
2	Sc RADIAL	117038.4	117038.4	101 %		09:25:15
2	Al 396.153Radial†	-72.8	5.2	1.1926 µg/L	1.1926 ppb	09:25:35
2	Ca 317.933Radial†	435.1	-0.5	-0.0410 µg/L	-0.0410 ppb	09:25:35
2	Fe 238.204 Radial†	134.8	30.1	2.5896 µg/L	2.5896 ppb	09:25:35
2	K 766.490 Radial†	1481.1	28.5	11.276 µg/L	11.276 ppb	09:25:15
2	Mg 279.077 IEC†	152.1	-5.1	-2.8429 µg/L	-2.8429 ppb	09:25:35
2	Na 589.592 Radial†	653.6	27.2	4.3227 µg/L	4.3227 ppb	09:25:15
2	Sr 421.552†	-51.0	-46.9	-0.1187 µg/L	-0.1187 ppb	09:25:15
2	Sc 361.383	1746455.3	1746455.3	101.38 %		09:26:26
2	Y 371.029	988598.0	988598.0	101.27 %		09:26:26
2	Ag 328.068†	5419.2	226.2	0.9179 µg/L	0.9179 ppb	09:26:28
2	As 188.979†	-18.5	-1.9	-0.6190 µg/L	-0.6190 ppb	09:26:48
2	B 249.677†	4088.2	37.2	0.5437 µg/L	0.5437 ppb	09:26:28
2	Ba 233.527†	-135.7	3.8	0.0170 µg/L	0.0170 ppb	09:26:48
2	Be 313.107†	-1060.6	-164.7	-0.0484 µg/L	-0.0484 ppb	09:26:28
2	Cd 226.502†	-51.7	46.5	0.3043 µg/L	0.3043 ppb	09:26:48
2	Co 228.616†	-232.2	-1.7	-0.0220 µg/L	-0.0220 ppb	09:26:48
2	Cr 267.716†	310.0	19.8	0.1800 µg/L	0.1800 ppb	09:26:48
2	Cu 324.752†	3056.9	-94.3	-0.3936 µg/L	-0.3936 ppb	09:26:28
2	Mn 257.610†	201.0	16.8	0.0218 µg/L	0.0218 ppb	09:26:48
2	Mo 202.031†	-10.2	10.4	0.3545 µg/L	0.3545 ppb	09:26:48
2	Ni 231.604†	-129.2	-30.1	-0.3708 µg/L	-0.3708 ppb	09:26:48
2	P 214.914†	-55.5	-22.8	-5.2052 µg/L	-5.2052 ppb	09:26:48
2	Pb 220.353†	112.1	25.3	1.5932 µg/L	1.5932 ppb	09:26:48

2	S 181.975 Axial†	98.5	9.5	8.0734 µg/L	8.0734 ppb	09:26:48
2	Sb 206.836†	65.4	-11.5	-1.4676 µg/L	-1.4676 ppb	09:26:48
2	Se 196.026†	26.0	13.1	5.05 µg/L	5.05 ppb	09:26:48
2	SiO2†	1911.0	152.6	15.445 µg/L	15.445 ppb	09:26:28
2	Si 251.611†	1573.3	766.7	11.463 µg/L	11.463 ppb	09:26:28
2	Sn 189.927†	12.3	-0.1	-0.0080 µg/L	-0.0080 ppb	09:26:48
2	Ti 334.940†	939.3	127.6	0.1367 µg/L	0.1367 ppb	09:26:28
2	Tl 190.801†	-107.6	6.2	0.8819 µg/L	0.8819 ppb	09:26:48
2	U 409.014†	-443.9	-156.6	-9.5720 µg/L	-9.5720 ppb	09:26:28
2	V 292.402†	571.0	17.0	0.0811 µg/L	0.0811 ppb	09:26:28
2	Zn 213.857†	602.5	15.4	0.0908 µg/L	0.0908 ppb	09:26:48
3	Sc RADIAL	115530.0	115530.0	99.2 %		09:25:37
3	Al 396.153Radial†	-90.9	-14.0	-3.2592 µg/L	-3.2592 ppb	09:25:58
3	Ca 317.933Radial†	434.5	4.6	0.3867 µg/L	0.3867 ppb	09:25:58
3	Fe 238.204 Radial†	127.6	24.6	2.1160 µg/L	2.1160 ppb	09:25:58
3	K 766.490 Radial†	1588.7	156.2	61.745 µg/L	61.745 ppb	09:25:37
3	Mg 279.077 IEC†	165.5	10.3	5.7562 µg/L	5.7562 ppb	09:25:58
3	Na 589.592 Radial†	758.8	141.7	22.488 µg/L	22.488 ppb	09:25:37
3	Sr 421.552†	-116.6	-113.7	-0.2877 µg/L	-0.2877 ppb	09:25:37
3	Sc 361.383	1727216.6	1727216.6	100.26 %		09:26:50
3	Y 371.029	977844.2	977844.2	100.17 %		09:26:50
3	Ag 328.068†	5254.3	121.3	0.4936 µg/L	0.4936 ppb	09:26:52
3	As 188.979†	-11.5	5.0	1.6480 µg/L	1.6480 ppb	09:27:12
3	B 249.677†	4296.9	290.3	4.2403 µg/L	4.2403 ppb	09:26:52
3	Ba 233.527†	-158.5	-20.5	-0.0921 µg/L	-0.0921 ppb	09:27:12
3	Be 313.107†	-958.0	-74.0	-0.0199 µg/L	-0.0199 ppb	09:26:52
3	Cd 226.502†	-51.9	45.8	0.3000 µg/L	0.3000 ppb	09:27:12
3	Co 228.616†	-217.3	10.6	0.1380 µg/L	0.1380 ppb	09:27:12
3	Cr 267.716†	325.2	38.4	0.3327 µg/L	0.3327 ppb	09:27:12
3	Cu 324.752†	3168.3	50.3	0.2080 µg/L	0.2080 ppb	09:26:52
3	Mn 257.610†	205.5	23.5	0.0301 µg/L	0.0301 ppb	09:27:12
3	Mo 202.031†	-30.0	-9.4	-0.3207 µg/L	-0.3207 ppb	09:27:12
3	Ni 231.604†	-101.3	-3.6	-0.0448 µg/L	-0.0448 ppb	09:27:12
3	P 214.914†	-19.4	12.6	2.8764 µg/L	2.8764 ppb	09:27:12
3	Pb 220.353†	99.9	14.4	0.8990 µg/L	0.8990 ppb	09:27:12
3	S 181.975 Axial†	101.3	13.4	11.369 µg/L	11.369 ppb	09:27:12
3	Sb 206.836†	77.2	1.0	0.1114 µg/L	0.1114 ppb	09:27:12
3	Se 196.026†	17.1	4.6	1.76 µg/L	1.76 ppb	09:27:12
3	SiO2†	2019.4	281.7	28.548 µg/L	28.548 ppb	09:26:52
3	Si 251.611†	1728.1	938.5	14.041 µg/L	14.041 ppb	09:26:52
3	Sn 189.927†	11.4	-0.9	-0.0621 µg/L	-0.0621 ppb	09:27:12
3	Ti 334.940†	805.0	4.0	0.0028 µg/L	0.0028 ppb	09:26:52
3	Tl 190.801†	-115.5	-2.8	-0.3934 µg/L	-0.3934 ppb	09:27:12
3	U 409.014†	-252.0	29.9	1.7939 µg/L	1.7939 ppb	09:26:52
3	V 292.402†	434.6	-112.8	-0.5538 µg/L	-0.5538 ppb	09:26:52
3	Zn 213.857†	622.3	41.8	0.2384 µg/L	0.2384 ppb	09:27:12

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1736073.0	100.78 %	0.564			0.56%
Sc RADIAL	117013.6	101 %	1.3			1.26%
Y 371.029	982643.5	100.66 %	0.560			0.56%
Ag 328.068†	183.9	0.7575 µg/L	0.23028	0.7575 ppb	0.23028	30.40%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-6.0	-1.4049 µg/L	2.31708	-1.4049 ppb	2.31708	164.92%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	6.7	2.2394 µg/L	3.19528	2.2394 ppb	3.19528	142.69%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	175.9	2.5695 µg/L	1.87369	2.5695 ppb	1.87369	72.92%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	1.9	0.0084 µg/L	0.09645	0.0084 ppb	0.09645	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-165.9	-0.0446 µg/L	0.02299	-0.0446 ppb	0.02299	51.58%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	5.2	0.4386 µg/L	0.50759	0.4386 ppb	0.50759	115.72%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	42.4	0.2774 µg/L	0.04295	0.2774 ppb	0.04295	15.49%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	10.8	0.1399 µg/L	0.16288	0.1399 ppb	0.16288	116.39%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	28.9	0.2489 µg/L	0.07738	0.2489 ppb	0.07738	31.08%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-11.4	-0.0427 µg/L	0.31304	-0.0427 ppb	0.31304	732.51%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	29.4	2.5315 µg/L	0.38977	2.5315 ppb	0.38977	15.40%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	110.1	43.515 µg/L	27.9993	43.515 ppb	27.9993	64.34%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-4.5	-2.5129 µg/L	8.10907	-2.5129 ppb	8.10907	322.70%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	23.5	0.0304 µg/L	0.00888	0.0304 ppb	0.00888	29.16%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	5.1	0.1733 µg/L	0.43281	0.1733 ppb	0.43281	249.77%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	98.9	15.694 µg/L	9.9102	15.694 ppb	9.9102	63.15%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-7.3	-0.0900 µg/L	0.26122	-0.0900 ppb	0.26122	290.40%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-4.5	-1.0350 µg/L	4.04699	-1.0350 ppb	4.04699	391.00%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	17.7	1.1068 µg/L	0.42277	1.1068 ppb	0.42277	38.20%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	9.7	8.2222 µg/L	3.07518	8.2222 ppb	3.07518	37.40%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-2.4	-0.3094 µg/L	1.01546	-0.3094 ppb	1.01546	328.21%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	10.0	3.86 µg/L	1.819	3.86 ppb	1.819	47.19%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	205.7	20.837 µg/L	6.8524	20.837 ppb	6.8524	32.89%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	685.5	10.252 µg/L	4.5182	10.252 ppb	4.5182	44.07%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-3.1	-0.2124 µg/L	0.30835	-0.2124 ppb	0.30835	145.19%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-67.1	-0.1698 µg/L	0.10233	-0.1698 ppb	0.10233	60.25%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-58.5	-0.0624 µg/L	0.23856	-0.0624 ppb	0.23856	382.11%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	5.0	0.7073 µg/L	1.02462	0.7073 ppb	1.02462	144.87%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	69.2	4.2183 µg/L	15.14860	4.2183 ppb	15.14860	359.12%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-45.8	-0.2191 µg/L	0.31889	-0.2191 ppb	0.31889	145.54%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	34.1	0.1951 µg/L	0.09080	0.1951 ppb	0.09080	46.53%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 20

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/14/2010 9:43:20

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	115781.2	115781.2	99.5 %		09:43:53
1	Al 396.153Radial†	22380.7	22579.3	5252.9 µg/L	5252.9 ppb	09:43:53
1	Ca 317.933Radial†	61241.4	61139.4	5141.2 µg/L	5141.2 ppb	09:43:53
1	Fe 238.204 Radial†	59477.0	59694.8	5139.6 µg/L	5139.6 ppb	09:43:53
1	K 766.490 Radial†	14160.4	12792.5	5052.0 µg/L	5052.0 ppb	09:43:53
1	Mg 279.077 IEC†	9491.1	9386.0	5244.7 µg/L	5244.7 ppb	09:43:53
1	Na 589.592 Radial†	63958.2	63681.3	10125 µg/L	10125 ppb	09:43:51
1	Sr 421.552†	198428.4	199505.4	504.67 µg/L	504.67 ppb	09:43:51
1	Sc 361.383	1738696.7	1738696.7	100.93 %		09:44:06
1	Y 371.029	973273.7	973273.7	99.703 %		09:44:06
1	Ag 328.068†	127376.1	121085.7	503.43 µg/L	503.43 ppb	09:44:06
1	As 188.979†	1506.0	1508.5	507.32 µg/L	507.32 ppb	09:44:26
1	B 249.677†	38061.6	33716.3	490.82 µg/L	490.82 ppb	09:44:06
1	Ba 233.527†	112440.2	111544.2	499.22 µg/L	499.22 ppb	09:44:06
1	Be 313.107†	1816819.8	1800998.8	498.03 µg/L	498.03 ppb	09:44:06
1	Cd 226.502†	76907.8	76298.3	499.98 µg/L	499.98 ppb	09:44:06
1	Co 228.616†	38864.6	38734.7	503.67 µg/L	503.67 ppb	09:44:06
1	Cr 267.716†	58135.2	57314.8	499.58 µg/L	499.58 ppb	09:44:06
1	Cu 324.752†	125934.0	121666.6	499.43 µg/L	499.43 ppb	09:44:06
1	Mn 257.610†	390789.5	387015.4	499.99 µg/L	499.99 ppb	09:44:06
1	Mo 202.031†	14897.3	14780.9	502.75 µg/L	502.75 ppb	09:44:26
1	Ni 231.604†	40823.0	40545.1	500.12 µg/L	500.12 ppb	09:44:06
1	P 214.914†	11026.3	10956.8	2490.4 µg/L	2490.4 ppb	09:44:26
1	Pb 220.353†	8193.9	8033.3	504.72 µg/L	504.72 ppb	09:44:26
1	S 181.975 Axial†	1269.4	1170.2	997.40 µg/L	997.40 ppb	09:44:26
1	Sb 206.836†	4020.4	3907.4	500.39 µg/L	500.39 ppb	09:44:26
1	Se 196.026†	1318.8	1294.2	501 µg/L	501 ppb	09:44:26
1	SiO2†	55117.0	52877.9	5335.5 µg/L	5335.5 ppb	09:44:06
1	Si 251.611†	169949.1	167601.6	2496.8 µg/L	2496.8 ppb	09:44:06
1	Sn 189.927†	7300.7	7221.4	502.78 µg/L	502.78 ppb	09:44:26
1	Ti 334.940†	486682.7	481409.6	499.96 µg/L	499.96 ppb	09:44:06
1	Tl 190.801†	3472.9	3553.4	508.00 µg/L	508.00 ppb	09:44:26
1	U 409.014†	6996.3	7213.3	471.22 µg/L	471.22 ppb	09:44:06
1	V 292.402†	102572.2	101083.1	502.37 µg/L	502.37 ppb	09:44:06
1	Zn 213.857†	89283.2	87883.6	497.89 µg/L	497.89 ppb	09:44:06
2	Sc RADIAL	116544.1	116544.1	100 %		09:43:58
2	Al 396.153Radial†	22444.5	22495.7	5233.1 µg/L	5233.1 ppb	09:43:58
2	Ca 317.933Radial†	61450.0	60944.7	5124.8 µg/L	5124.8 ppb	09:43:58
2	Fe 238.204 Radial†	59464.5	59290.8	5104.8 µg/L	5104.8 ppb	09:43:58
2	K 766.490 Radial†	14216.1	12754.8	5037.1 µg/L	5037.1 ppb	09:43:58
2	Mg 279.077 IEC†	9419.4	9251.9	5170.1 µg/L	5170.1 ppb	09:43:58
2	Na 589.592 Radial†	64643.6	63944.8	10167 µg/L	10167 ppb	09:43:56
2	Sr 421.552†	200088.9	199858.0	505.56 µg/L	505.56 ppb	09:43:56
2	Sc 361.383	1725051.8	1725051.8	100.14 %		09:44:29
2	Y 371.029	966535.6	966535.6	99.013 %		09:44:29
2	Ag 328.068†	126003.0	120712.8	501.91 µg/L	501.91 ppb	09:44:29
2	As 188.979†	1497.7	1512.1	508.48 µg/L	508.48 ppb	09:44:50
2	B 249.677†	37749.7	33703.1	490.64 µg/L	490.64 ppb	09:44:29
2	Ba 233.527†	111177.3	111164.2	497.52 µg/L	497.52 ppb	09:44:29
2	Be 313.107†	1796282.9	1794728.5	496.30 µg/L	496.30 ppb	09:44:29
2	Cd 226.502†	76048.3	76042.7	498.31 µg/L	498.31 ppb	09:44:29
2	Co 228.616†	38295.7	38471.1	500.24 µg/L	500.24 ppb	09:44:29
2	Cr 267.716†	57444.8	57080.9	497.54 µg/L	497.54 ppb	09:44:29
2	Cu 324.752†	124563.8	121285.2	497.86 µg/L	497.86 ppb	09:44:29
2	Mn 257.610†	386470.9	385765.3	498.38 µg/L	498.38 ppb	09:44:29
2	Mo 202.031†	14947.9	14948.1	508.43 µg/L	508.43 ppb	09:44:50
2	Ni 231.604†	40537.9	40580.3	500.56 µg/L	500.56 ppb	09:44:29
2	P 214.914†	11075.8	11092.7	2521.4 µg/L	2521.4 ppb	09:44:50
2	Pb 220.353†	8211.2	8114.8	509.83 µg/L	509.83 ppb	09:44:50



2	S 181.975 Axial†	1277.6	1188.3	1012.8 µg/L	1012.8 ppb	09:44:50
2	Sb 206.836†	4057.7	3976.1	509.30 µg/L	509.30 ppb	09:44:50
2	Se 196.026†	1310.9	1296.6	502 µg/L	502 ppb	09:44:50
2	SiO2†	54673.4	52866.8	5334.1 µg/L	5334.1 ppb	09:44:29
2	Si 251.611†	168422.3	167408.7	2493.8 µg/L	2493.8 ppb	09:44:29
2	Sn 189.927†	7350.7	7328.5	510.21 µg/L	510.21 ppb	09:44:50
2	Ti 334.940†	480885.3	479434.3	497.91 µg/L	497.91 ppb	09:44:29
2	Tl 190.801†	3468.0	3575.7	511.14 µg/L	511.14 ppb	09:44:50
2	U 409.014†	7090.9	7362.5	480.34 µg/L	480.34 ppb	09:44:29
2	V 292.402†	101731.9	101047.8	502.26 µg/L	502.26 ppb	09:44:29
2	Zn 213.857†	88061.5	87363.2	494.92 µg/L	494.92 ppb	09:44:29
3	Sc RADIAL	114966.5	114966.5	98.8 %		09:44:02
3	Al 396.153Radial†	22320.8	22678.1	5275.9 µg/L	5275.9 ppb	09:44:02
3	Ca 317.933Radial†	61130.5	61463.4	5168.4 µg/L	5168.4 ppb	09:44:02
3	Fe 238.204 Radial†	59248.0	59886.6	5156.1 µg/L	5156.1 ppb	09:44:02
3	K 766.490 Radial†	14085.7	12817.7	5061.9 µg/L	5061.9 ppb	09:44:02
3	Mg 279.077 IEC†	9484.6	9447.0	5278.9 µg/L	5278.9 ppb	09:44:02
3	Na 589.592 Radial†	64871.8	65061.9	10344 µg/L	10344 ppb	09:44:00
3	Sr 421.552†	200625.3	203143.5	513.87 µg/L	513.87 ppb	09:44:00
3	Sc 361.383	1728936.7	1728936.7	100.36 %		09:44:53
3	Y 371.029	968956.8	968956.8	99.261 %		09:44:53
3	Ag 328.068†	127045.1	121468.4	505.01 µg/L	505.01 ppb	09:44:53
3	As 188.979†	1517.9	1528.8	514.04 µg/L	514.04 ppb	09:45:13
3	B 249.677†	38127.4	33994.7	494.90 µg/L	494.90 ppb	09:44:53
3	Ba 233.527†	111852.3	111587.3	499.41 µg/L	499.41 ppb	09:44:53
3	Be 313.107†	1808617.8	1802988.2	498.58 µg/L	498.58 ppb	09:44:53
3	Cd 226.502†	76355.1	76177.7	499.19 µg/L	499.19 ppb	09:44:53
3	Co 228.616†	38534.6	38623.1	502.22 µg/L	502.22 ppb	09:44:53
3	Cr 267.716†	57582.5	57089.3	497.62 µg/L	497.62 ppb	09:44:53
3	Cu 324.752†	125193.7	121633.3	499.30 µg/L	499.30 ppb	09:44:53
3	Mn 257.610†	388988.7	387406.8	500.50 µg/L	500.50 ppb	09:44:53
3	Mo 202.031†	14904.1	14870.9	505.81 µg/L	505.81 ppb	09:45:13
3	Ni 231.604†	40733.2	40684.0	501.84 µg/L	501.84 ppb	09:44:53
3	P 214.914†	11032.4	11024.6	2505.8 µg/L	2505.8 ppb	09:45:13
3	Pb 220.353†	8197.5	8082.7	507.82 µg/L	507.82 ppb	09:45:13
3	S 181.975 Axial†	1273.9	1181.7	1007.2 µg/L	1007.2 ppb	09:45:13
3	Sb 206.836†	4011.9	3921.4	502.27 µg/L	502.27 ppb	09:45:13
3	Se 196.026†	1339.3	1322.0	511 µg/L	511 ppb	09:45:13
3	SiO2†	55090.5	53159.7	5363.9 µg/L	5363.9 ppb	09:44:53
3	Si 251.611†	169892.6	168495.8	2510.1 µg/L	2510.1 ppb	09:44:53
3	Sn 189.927†	7323.8	7285.2	507.21 µg/L	507.21 ppb	09:45:13
3	Ti 334.940†	483652.8	481112.6	499.65 µg/L	499.65 ppb	09:44:53
3	Tl 190.801†	3484.1	3584.0	512.32 µg/L	512.32 ppb	09:45:13
3	U 409.014†	7014.8	7270.8	474.78 µg/L	474.78 ppb	09:44:53
3	V 292.402†	102142.0	101228.1	503.11 µg/L	503.11 ppb	09:44:53
3	Zn 213.857†	88813.7	87915.1	498.06 µg/L	498.06 ppb	09:44:53

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1730895.1	100.47 %	0.408			0.41%
Sc RADIAL	115763.9	99.4 %	0.68			0.68%
Y 371.029	969588.7	99.326 %	0.3497			0.35%
Ag 328.068†	121089.0	503.45 µg/L	1.552	503.45 ppb	1.552	0.31%
QC value within limits for Ag 328.068 Recovery = 100.69%						
Al 396.153Radial†	22584.4	5254.0 µg/L	21.39	5254.0 ppb	21.39	0.41%
QC value within limits for Al 396.153Radial Recovery = 105.08%						
As 188.979†	1516.5	509.95 µg/L	3.592	509.95 ppb	3.592	0.70%
QC value within limits for As 188.979 Recovery = 101.99%						
B 249.677†	33804.7	492.12 µg/L	2.405	492.12 ppb	2.405	0.49%
QC value within limits for B 249.677 Recovery = 98.42%						
Ba 233.527†	111431.9	498.72 µg/L	1.040	498.72 ppb	1.040	0.21%
QC value within limits for Ba 233.527 Recovery = 99.74%						
Be 313.107†	1799571.8	497.64 µg/L	1.191	497.64 ppb	1.191	0.24%
QC value within limits for Be 313.107 Recovery = 99.53%						
Ca 317.933Radial†	61182.5	5144.8 µg/L	22.03	5144.8 ppb	22.03	0.43%
QC value within limits for Ca 317.933Radial Recovery = 102.90%						
Cd 226.502†	76172.9	499.16 µg/L	0.837	499.16 ppb	0.837	0.17%
QC value within limits for Cd 226.502 Recovery = 99.83%						
Co 228.616†	38609.6	502.05 µg/L	1.720	502.05 ppb	1.720	0.34%

QC value within limits for Co 228.616 Recovery = 100.41%							
Cr 267.716†	57161.7	498.25 µg/L	1.159	498.25 ppb	1.159	0.23%	
QC value within limits for Cr 267.716 Recovery = 99.65%							
Cu 324.752†	121528.4	498.86 µg/L	0.867	498.86 ppb	0.867	0.17%	
QC value within limits for Cu 324.752 Recovery = 99.77%							
Fe 238.204 Radial†	59624.1	5133.5 µg/L	26.19	5133.5 ppb	26.19	0.51%	
QC value within limits for Fe 238.204 Radial Recovery = 102.67%							
K 766.490 Radial†	12788.3	5050.3 µg/L	12.48	5050.3 ppb	12.48	0.25%	
QC value within limits for K 766.490 Radial Recovery = 101.01%							
Mg 279.077 IEC†	9361.6	5231.2 µg/L	55.61	5231.2 ppb	55.61	1.06%	
QC value within limits for Mg 279.077 IEC Recovery = 104.62%							
Mn 257.610†	386729.2	499.62 µg/L	1.106	499.62 ppb	1.106	0.22%	
QC value within limits for Mn 257.610 Recovery = 99.92%							
Mo 202.031†	14866.6	505.66 µg/L	2.843	505.66 ppb	2.843	0.56%	
QC value within limits for Mo 202.031 Recovery = 101.13%							
Na 589.592 Radial†	64229.3	10212 µg/L	116.6	10212 ppb	116.6	1.14%	
QC value within limits for Na 589.592 Radial Recovery = 102.12%							
Ni 231.604†	40603.1	500.84 µg/L	0.891	500.84 ppb	0.891	0.18%	
QC value within limits for Ni 231.604 Recovery = 100.17%							
P 214.914†	11024.7	2505.9 µg/L	15.52	2505.9 ppb	15.52	0.62%	
QC value within limits for P 214.914 Recovery = 100.24%							
Pb 220.353†	8076.9	507.46 µg/L	2.575	507.46 ppb	2.575	0.51%	
QC value within limits for Pb 220.353 Recovery = 101.49%							
S 181.975 Axial†	1180.0	1005.8 µg/L	7.81	1005.8 ppb	7.81	0.78%	
QC value within limits for S 181.975 Axial Recovery = 100.58%							
Sb 206.836†	3935.0	503.99 µg/L	4.694	503.99 ppb	4.694	0.93%	
QC value within limits for Sb 206.836 Recovery = 100.80%							
Se 196.026†	1304.3	505 µg/L	5.9	505 ppb	5.9	1.18%	
QC value within limits for Se 196.026 Recovery = 100.93%							
SiO2†	52968.1	5344.5 µg/L	16.81	5344.5 ppb	16.81	0.31%	
QC value within limits for SiO2 Recovery = 99.94%							
Si 251.611†	167835.4	2500.2 µg/L	8.68	2500.2 ppb	8.68	0.35%	
QC value within limits for Si 251.611 Recovery = 100.01%							
Sn 189.927†	7278.3	506.73 µg/L	3.736	506.73 ppb	3.736	0.74%	
QC value within limits for Sn 189.927 Recovery = 101.35%							
Sr 421.552†	200835.6	508.03 µg/L	5.076	508.03 ppb	5.076	1.00%	
QC value within limits for Sr 421.552 Recovery = 101.61%							
Ti 334.940†	480652.2	499.18 µg/L	1.105	499.18 ppb	1.105	0.22%	
QC value within limits for Ti 334.940 Recovery = 99.84%							
Tl 190.801†	3571.0	510.49 µg/L	2.232	510.49 ppb	2.232	0.44%	
QC value within limits for Tl 190.801 Recovery = 102.10%							
U 409.014†	7282.2	475.45 µg/L	4.593	475.45 ppb	4.593	0.97%	
QC value within limits for U 409.014 Recovery = 95.09%							
V 292.402†	101119.6	502.58 µg/L	0.460	502.58 ppb	0.460	0.09%	
QC value within limits for V 292.402 Recovery = 100.52%							
Zn 213.857†	87720.6	496.96 µg/L	1.765	496.96 ppb	1.765	0.36%	
QC value within limits for Zn 213.857 Recovery = 99.39%							
All analyte(s) passed QC.							

Sequence No.: 21

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 4/14/2010 9:45:20

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	115364.7	115364.7	99.1 %		09:45:51
1	Al 396.153Radial†	849.2	934.4	217.84 µg/L	217.84 ppb	09:46:11
1	Ca 317.933Radial†	3061.4	2655.8	223.33 µg/L	223.33 ppb	09:46:11
1	Fe 238.204 Radial†	1377.2	1285.7	110.70 µg/L	110.70 ppb	09:46:11
1	K 766.490 Radial†	2087.1	661.4	261.26 µg/L	261.26 ppb	09:45:51
1	Mg 279.077 IEC†	738.8	589.0	328.81 µg/L	328.81 ppb	09:46:11
1	Na 589.592 Radial†	2691.6	2093.0	332.69 µg/L	332.69 ppb	09:45:51
1	Sr 421.552†	2101.1	2123.9	5.3713 µg/L	5.3713 ppb	09:45:51
1	Sc 361.383	1718961.0	1718961.0	99.782 %		09:46:59
1	Y 371.029	972721.0	972721.0	99.647 %		09:46:59
1	Ag 328.068†	6273.7	1168.0	4.8961 µg/L	4.8961 ppb	09:47:01
1	As 188.979†	76.4	93.0	30.927 µg/L	30.927 ppb	09:47:21
1	B 249.677†	7595.8	3617.0	52.825 µg/L	52.825 ppb	09:47:01
1	Ba 233.527†	1013.7	1153.6	5.1640 µg/L	5.1640 ppb	09:47:21
1	Be 313.107†	17169.8	18088.8	5.0127 µg/L	5.0127 ppb	09:47:01
1	Cd 226.502†	731.0	830.1	5.4336 µg/L	5.4336 ppb	09:47:21
1	Co 228.616†	169.0	396.7	5.1553 µg/L	5.1553 ppb	09:47:21
1	Cr 267.716†	911.2	627.2	5.4371 µg/L	5.4371 ppb	09:47:21
1	Cu 324.752†	5802.0	2705.0	11.130 µg/L	11.130 ppb	09:47:01
1	Mn 257.610†	8347.8	8184.5	10.565 µg/L	10.565 ppb	09:47:01
1	Mo 202.031†	305.6	326.8	11.118 µg/L	11.118 ppb	09:47:21
1	Ni 231.604†	335.3	433.5	5.3470 µg/L	5.3470 ppb	09:47:21
1	P 214.914†	638.7	672.0	153.11 µg/L	153.11 ppb	09:47:21
1	Pb 220.353†	286.0	201.4	12.627 µg/L	12.627 ppb	09:47:21
1	S 181.975 Axial†	205.2	118.0	100.29 µg/L	100.29 ppb	09:47:21
1	Sb 206.836†	159.0	83.3	10.744 µg/L	10.744 ppb	09:47:21
1	Se 196.026†	96.3	84.0	32.4 µg/L	32.4 ppb	09:47:21
1	SiO2†	3950.9	2227.0	225.15 µg/L	225.15 ppb	09:47:01
1	Si 251.611†	7906.4	7138.5	106.55 µg/L	106.55 ppb	09:47:01
1	Sn 189.927†	164.6	152.8	10.619 µg/L	10.619 ppb	09:47:21
1	Ti 334.940†	5722.2	4935.7	5.0936 µg/L	5.0936 ppb	09:47:01
1	Tl 190.801†	29.9	142.3	20.142 µg/L	20.142 ppb	09:47:21
1	U 409.014†	363.9	645.9	39.822 µg/L	39.822 ppb	09:47:01
1	V 292.402†	1566.1	1023.4	5.1674 µg/L	5.1674 ppb	09:47:01
1	Zn 213.857†	2878.0	2305.4	13.114 µg/L	13.114 ppb	09:47:21
2	Sc RADIAL	115255.1	115255.1	99.0 %		09:46:13
2	Al 396.153Radial†	856.4	942.5	219.75 µg/L	219.75 ppb	09:46:33
2	Ca 317.933Radial†	3042.8	2640.0	222.00 µg/L	222.00 ppb	09:46:33
2	Fe 238.204 Radial†	1382.6	1292.5	111.28 µg/L	111.28 ppb	09:46:33
2	K 766.490 Radial†	2026.0	601.8	237.68 µg/L	237.68 ppb	09:46:13
2	Mg 279.077 IEC†	731.9	582.7	325.31 µg/L	325.31 ppb	09:46:33
2	Na 589.592 Radial†	2538.6	1941.1	308.54 µg/L	308.54 ppb	09:46:13
2	Sr 421.552†	1993.9	2017.6	5.1023 µg/L	5.1023 ppb	09:46:13
2	Sc 361.383	1728560.5	1728560.5	100.34 %		09:47:23
2	Y 371.029	979102.5	979102.5	100.30 %		09:47:23
2	Ag 328.068†	6344.7	1203.9	5.0588 µg/L	5.0588 ppb	09:47:25
2	As 188.979†	77.9	94.1	31.284 µg/L	31.284 ppb	09:47:45
2	B 249.677†	7524.5	3503.7	51.169 µg/L	51.169 ppb	09:47:25
2	Ba 233.527†	1033.2	1167.4	5.2255 µg/L	5.2255 ppb	09:47:45
2	Be 313.107†	17012.7	17836.6	4.9467 µg/L	4.9467 ppb	09:47:25
2	Cd 226.502†	699.0	794.1	5.1979 µg/L	5.1979 ppb	09:47:45
2	Co 228.616†	167.4	394.2	5.1224 µg/L	5.1224 ppb	09:47:45
2	Cr 267.716†	889.8	600.8	5.1968 µg/L	5.1968 ppb	09:47:45
2	Cu 324.752†	5893.8	2764.2	11.382 µg/L	11.382 ppb	09:47:25
2	Mn 257.610†	8385.6	8175.7	10.554 µg/L	10.554 ppb	09:47:25
2	Mo 202.031†	294.9	314.4	10.695 µg/L	10.695 ppb	09:47:45
2	Ni 231.604†	334.3	430.6	5.3112 µg/L	5.3112 ppb	09:47:45
2	P 214.914†	621.2	651.0	148.32 µg/L	148.32 ppb	09:47:45
2	Pb 220.353†	283.8	197.6	12.375 µg/L	12.375 ppb	09:47:45

2	S 181.975 Axial†	223.1	134.8	114.47 µg/L	114.47 ppb	09:47:45
2	Sb 206.836†	157.6	81.0	10.441 µg/L	10.441 ppb	09:47:45
2	Se 196.026†	96.8	84.0	32.5 µg/L	32.5 ppb	09:47:45
2	SiO2†	4108.7	2362.4	238.88 µg/L	238.88 ppb	09:47:25
2	Si 251.611†	8129.5	7316.8	109.22 µg/L	109.22 ppb	09:47:25
2	Sn 189.927†	164.7	151.9	10.556 µg/L	10.556 ppb	09:47:45
2	Ti 334.940†	5604.9	4787.0	4.9342 µg/L	4.9342 ppb	09:47:25
2	Tl 190.801†	46.8	159.1	22.496 µg/L	22.496 ppb	09:47:45
2	U 409.014†	566.4	845.8	52.042 µg/L	52.042 ppb	09:47:25
2	V 292.402†	1577.8	1026.3	5.1849 µg/L	5.1849 ppb	09:47:25
2	Zn 213.857†	2891.0	2302.3	13.096 µg/L	13.096 ppb	09:47:45
3	Sc RADIAL	117134.1	117134.1	101 %		09:46:35
3	Al 396.153Radial†	859.5	931.7	217.22 µg/L	217.22 ppb	09:46:55
3	Ca 317.933Radial†	3097.8	2645.3	222.44 µg/L	222.44 ppb	09:46:55
3	Fe 238.204 Radial†	1384.6	1272.0	109.52 µg/L	109.52 ppb	09:46:55
3	K 766.490 Radial†	2066.9	609.5	240.75 µg/L	240.75 ppb	09:46:35
3	Mg 279.077 IEC†	743.4	582.3	325.08 µg/L	325.08 ppb	09:46:55
3	Na 589.592 Radial†	2723.4	2083.6	331.21 µg/L	331.21 ppb	09:46:35
3	Sr 421.552†	2021.2	2012.5	5.0895 µg/L	5.0895 ppb	09:46:35
3	Sc 361.383	1732085.5	1732085.5	100.54 %		09:47:47
3	Y 371.029	980294.1	980294.1	100.42 %		09:47:47
3	Ag 328.068†	6742.2	1586.4	6.6273 µg/L	6.6273 ppb	09:47:50
3	As 188.979†	91.6	107.5	35.729 µg/L	35.729 ppb	09:48:10
3	B 249.677†	7631.5	3594.9	52.501 µg/L	52.501 ppb	09:47:50
3	Ba 233.527†	1017.1	1149.2	5.1437 µg/L	5.1437 ppb	09:48:10
3	Be 313.107†	17114.5	17903.4	4.9675 µg/L	4.9675 ppb	09:47:50
3	Cd 226.502†	732.7	826.2	5.4085 µg/L	5.4085 ppb	09:48:10
3	Co 228.616†	155.2	381.6	4.9598 µg/L	4.9598 ppb	09:48:10
3	Cr 267.716†	911.8	620.8	5.3651 µg/L	5.3651 ppb	09:48:10
3	Cu 324.752†	5636.2	2496.0	10.291 µg/L	10.291 ppb	09:47:50
3	Mn 257.610†	8324.2	8097.6	10.453 µg/L	10.453 ppb	09:47:50
3	Mo 202.031†	298.5	317.4	10.798 µg/L	10.798 ppb	09:48:10
3	Ni 231.604†	337.9	433.4	5.3464 µg/L	5.3464 ppb	09:48:10
3	P 214.914†	626.9	655.5	149.34 µg/L	149.34 ppb	09:48:10
3	Pb 220.353†	280.1	193.4	12.106 µg/L	12.106 ppb	09:48:10
3	S 181.975 Axial†	213.3	124.6	105.82 µg/L	105.82 ppb	09:48:10
3	Sb 206.836†	158.9	82.0	10.568 µg/L	10.568 ppb	09:48:10
3	Se 196.026†	96.8	83.8	32.4 µg/L	32.4 ppb	09:48:10
3	SiO2†	4141.3	2386.4	241.30 µg/L	241.30 ppb	09:47:50
3	Si 251.611†	8066.0	7237.2	108.03 µg/L	108.03 ppb	09:47:50
3	Sn 189.927†	171.3	158.1	10.988 µg/L	10.988 ppb	09:48:10
3	Ti 334.940†	5736.8	4906.8	5.0556 µg/L	5.0556 ppb	09:47:50
3	Tl 190.801†	48.9	161.1	22.775 µg/L	22.775 ppb	09:48:10
3	U 409.014†	697.9	975.4	59.906 µg/L	59.906 ppb	09:47:50
3	V 292.402†	1380.4	826.8	4.2135 µg/L	4.2135 ppb	09:47:50
3	Zn 213.857†	2858.1	2263.8	12.876 µg/L	12.876 ppb	09:48:10

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Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1726535.7	100.22 %	0.394			0.39%
Sc RADIAL	115918.0	99.6 %	0.91			0.91%
Y 371.029	977372.6	100.12 %	0.417			0.42%
Ag 328.068†	1319.4	5.5274 µg/L	0.95604	5.5274 ppb	0.95604	17.30%
QC value within limits for Ag 328.068 Recovery = 110.55%						
Al 396.153Radial†	936.2	218.27 µg/L	1.318	218.27 ppb	1.318	0.60%
QC value within limits for Al 396.153Radial Recovery = 109.13%						
As 188.979†	98.2	32.647 µg/L	2.6754	32.647 ppb	2.6754	8.20%
QC value within limits for As 188.979 Recovery = 108.82%						
B 249.677†	3571.9	52.165 µg/L	0.8775	52.165 ppb	0.8775	1.68%
QC value within limits for B 249.677 Recovery = 104.33%						
Ba 233.527†	1156.7	5.1778 µg/L	0.04260	5.1778 ppb	0.04260	0.82%
QC value within limits for Ba 233.527 Recovery = 103.56%						
Be 313.107†	17942.9	4.9756 µg/L	0.03375	4.9756 ppb	0.03375	0.68%
QC value within limits for Be 313.107 Recovery = 99.51%						
Ca 317.933Radial†	2647.1	222.59 µg/L	0.676	222.59 ppb	0.676	0.30%
QC value within limits for Ca 317.933Radial Recovery = 111.30%						
Cd 226.502†	816.8	5.3466 µg/L	0.12944	5.3466 ppb	0.12944	2.42%
QC value within limits for Cd 226.502 Recovery = 106.93%						
Co 228.616†	390.8	5.0792 µg/L	0.10465	5.0792 ppb	0.10465	2.06%

QC value within limits for Co 228.616 Recovery = 101.58%							
Cr 267.716†	616.3	5.3330 µg/L	0.12332	5.3330 ppb	0.12332	2.31%	
QC value within limits for Cr 267.716 Recovery = 106.66%							
Cu 324.752†	2655.1	10.934 µg/L	0.5713	10.934 ppb	0.5713	5.22%	
QC value within limits for Cu 324.752 Recovery = 109.34%							
Fe 238.204 Radial†	1283.4	110.50 µg/L	0.897	110.50 ppb	0.897	0.81%	
QC value within limits for Fe 238.204 Radial Recovery = 110.50%							
K 766.490 Radial†	624.2	246.56 µg/L	12.821	246.56 ppb	12.821	5.20%	
QC value greater than the upper limit for K 766.490 Radial Recovery = 164.38%							
Mg 279.077 IEC†	584.7	326.40 µg/L	2.093	326.40 ppb	2.093	0.64%	
QC value within limits for Mg 279.077 IEC Recovery = 108.80%							
Mn 257.610†	8152.6	10.524 µg/L	0.0618	10.524 ppb	0.0618	0.59%	
QC value within limits for Mn 257.610 Recovery = 105.24%							
Mo 202.031†	319.5	10.870 µg/L	0.2203	10.870 ppb	0.2203	2.03%	
QC value within limits for Mo 202.031 Recovery = 108.70%							
Na 589.592 Radial†	2039.2	324.15 µg/L	13.539	324.15 ppb	13.539	4.18%	
QC value within limits for Na 589.592 Radial Recovery = 108.05%							
Ni 231.604†	432.5	5.3349 µg/L	0.02052	5.3349 ppb	0.02052	0.38%	
QC value within limits for Ni 231.604 Recovery = 106.70%							
P 214.914†	659.5	150.26 µg/L	2.522	150.26 ppb	2.522	1.68%	
QC value within limits for P 214.914 Recovery = 100.17%							
Pb 220.353†	197.5	12.369 µg/L	0.2605	12.369 ppb	0.2605	2.11%	
QC value within limits for Pb 220.353 Recovery = 123.69%							
S 181.975 Axial†	125.8	106.86 µg/L	7.148	106.86 ppb	7.148	6.69%	
QC value within limits for S 181.975 Axial Recovery = 106.86%							
Sb 206.836†	82.1	10.584 µg/L	0.1520	10.584 ppb	0.1520	1.44%	
QC value within limits for Sb 206.836 Recovery = 105.84%							
Se 196.026†	83.9	32.4 µg/L	0.04	32.4 ppb	0.04	0.12%	
QC value within limits for Se 196.026 Recovery = 108.07%							
SiO2†	2325.3	235.11 µg/L	8.711	235.11 ppb	8.711	3.70%	
QC value within limits for SiO2 Recovery = 110.38%							
Si 251.611†	7230.8	107.93 µg/L	1.339	107.93 ppb	1.339	1.24%	
QC value within limits for Si 251.611 Recovery = 107.93%							
Sn 189.927†	154.3	10.721 µg/L	0.2333	10.721 ppb	0.2333	2.18%	
QC value within limits for Sn 189.927 Recovery = 107.21%							
Sr 421.552†	2051.3	5.1877 µg/L	0.15916	5.1877 ppb	0.15916	3.07%	
QC value within limits for Sr 421.552 Recovery = 103.75%							
Ti 334.940†	4876.5	5.0278 µg/L	0.08322	5.0278 ppb	0.08322	1.66%	
QC value within limits for Ti 334.940 Recovery = 100.56%							
Tl 190.801†	154.2	21.805 µg/L	1.4463	21.805 ppb	1.4463	6.63%	
QC value within limits for Tl 190.801 Recovery = 109.02%							
U 409.014†	822.3	50.590 µg/L	10.1207	50.590 ppb	10.1207	20.01%	
QC value within limits for U 409.014 Recovery = 101.18%							
V 292.402†	958.8	4.8553 µg/L	0.55583	4.8553 ppb	0.55583	11.45%	
QC value within limits for V 292.402 Recovery = 97.11%							
Zn 213.857†	2290.5	13.029 µg/L	0.1322	13.029 ppb	0.1322	1.01%	
QC value greater than the upper limit for Zn 213.857 Recovery = 130.29%							
QC Failed. Continue with analysis.							

Sequence No.: 22

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/14/2010 9:48:17

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	118733.1	118733.1	102 %			09:48:47
1	Al 396.153Radial†	-61.1	17.6	4.1025 µg/L		4.1025 ppb	09:49:07
1	Ca 317.933Radial†	461.2	18.9	1.5880 µg/L		1.5880 ppb	09:49:07
1	Fe 238.204 Radial†	135.2	28.6	2.4638 µg/L		2.4638 ppb	09:49:07
1	K 766.490 Radial†	1481.3	7.7	3.0484 µg/L		3.0484 ppb	09:48:47
1	Mg 279.077 IEC†	154.6	-4.8	-2.6972 µg/L		-2.6972 ppb	09:49:07
1	Na 589.592 Radial†	732.4	95.2	15.139 µg/L		15.139 ppb	09:48:47
1	Sr 421.552†	-138.8	-132.3	-0.3347 µg/L		-0.3347 ppb	09:48:47
1	Sc 361.383	1764570.3	1764570.3	102.43 %			09:49:55
1	Y 371.029	999483.5	999483.5	102.39 %			09:49:55
1	Ag 328.068†	5233.9	-9.6	-0.0368 µg/L		-0.0368 ppb	09:49:57
1	As 188.979†	-21.8	-4.9	-1.6248 µg/L		-1.6248 ppb	09:50:17
1	B 249.677†	3977.9	-111.8	-1.6336 µg/L		-1.6336 ppb	09:49:57
1	Ba 233.527†	-146.5	-5.4	-0.0248 µg/L		-0.0248 ppb	09:50:17
1	Be 313.107†	-1157.4	-248.4	-0.0650 µg/L		-0.0650 ppb	09:49:57
1	Cd 226.502†	-71.0	28.2	0.1846 µg/L		0.1846 ppb	09:50:17
1	Co 228.616†	-231.3	1.5	0.0191 µg/L		0.0191 ppb	09:50:17
1	Cr 267.716†	310.9	17.5	0.1427 µg/L		0.1427 ppb	09:50:17
1	Cu 324.752†	3128.5	-55.4	-0.2164 µg/L		-0.2164 ppb	09:49:57
1	Mn 257.610†	210.7	24.2	0.0314 µg/L		0.0314 ppb	09:50:17
1	Mo 202.031†	-13.8	7.1	0.2396 µg/L		0.2396 ppb	09:50:17
1	Ni 231.604†	-87.7	11.8	0.1454 µg/L		0.1454 ppb	09:50:17
1	P 214.914†	-42.8	-9.8	-2.2526 µg/L		-2.2526 ppb	09:50:17
1	Pb 220.353†	68.0	-18.9	-1.1911 µg/L		-1.1911 ppb	09:50:17
1	S 181.975 Axial†	90.7	1.0	0.8365 µg/L		0.8365 ppb	09:50:17
1	Sb 206.836†	59.5	-17.9	-2.2951 µg/L		-2.2951 ppb	09:50:17
1	Se 196.026†	21.6	8.6	3.34 µg/L		3.34 ppb	09:50:17
1	SiO2†	1877.2	100.2	10.165 µg/L		10.165 ppb	09:49:57
1	Si 251.611†	949.9	142.2	2.1325 µg/L		2.1325 ppb	09:49:57
1	Sn 189.927†	-8.2	-20.2	-1.4026 µg/L		-1.4026 ppb	09:50:17
1	Ti 334.940†	687.9	-127.4	-0.1372 µg/L		-0.1372 ppb	09:49:57
1	Tl 190.801†	-109.7	5.3	0.7406 µg/L		0.7406 ppb	09:50:17
1	U 409.014†	-86.1	197.2	11.995 µg/L		11.995 ppb	09:49:57
1	V 292.402†	345.8	-208.6	-1.0121 µg/L		-1.0121 ppb	09:49:57
1	Zn 213.857†	611.6	18.2	0.1032 µg/L		0.1032 ppb	09:50:17
2	Sc RADIAL	116881.6	116881.6	100 %			09:49:09
2	Al 396.153Radial†	-60.5	17.3	4.0569 µg/L		4.0569 ppb	09:49:29
2	Ca 317.933Radial†	444.7	9.6	0.8104 µg/L		0.8104 ppb	09:49:29
2	Fe 238.204 Radial†	129.0	24.5	2.1064 µg/L		2.1064 ppb	09:49:29
2	K 766.490 Radial†	1605.4	154.4	61.004 µg/L		61.004 ppb	09:49:09
2	Mg 279.077 IEC†	151.9	-5.2	-2.9040 µg/L		-2.9040 ppb	09:49:29
2	Na 589.592 Radial†	706.4	80.7	12.777 µg/L		12.777 ppb	09:49:09
2	Sr 421.552†	-157.4	-153.0	-0.3870 µg/L		-0.3870 ppb	09:49:09
2	Sc 361.383	1736719.2	1736719.2	100.81 %			09:50:20
2	Y 371.029	983521.4	983521.4	100.75 %			09:50:20
2	Ag 328.068†	5440.0	276.8	1.1244 µg/L		1.1244 ppb	09:50:22
2	As 188.979†	-8.5	7.9	2.6284 µg/L		2.6284 ppb	09:50:42
2	B 249.677†	4139.7	110.9	1.6205 µg/L		1.6205 ppb	09:50:22
2	Ba 233.527†	-112.8	25.7	0.1144 µg/L		0.1144 ppb	09:50:42
2	Be 313.107†	-1062.6	-172.6	-0.0482 µg/L		-0.0482 ppb	09:50:22
2	Cd 226.502†	-56.7	41.3	0.2706 µg/L		0.2706 ppb	09:50:42
2	Co 228.616†	-223.1	6.0	0.0782 µg/L		0.0782 ppb	09:50:42
2	Cr 267.716†	284.1	-4.1	-0.0353 µg/L		-0.0353 ppb	09:50:42
2	Cu 324.752†	3376.6	239.7	0.9798 µg/L		0.9798 ppb	09:50:22
2	Mn 257.610†	241.3	57.9	0.0749 µg/L		0.0749 ppb	09:50:42
2	Mo 202.031†	-25.5	-4.8	-0.1620 µg/L		-0.1620 ppb	09:50:42
2	Ni 231.604†	-87.8	10.3	0.1267 µg/L		0.1267 ppb	09:50:42
2	P 214.914†	-38.0	-5.7	-1.3156 µg/L		-1.3156 ppb	09:50:42
2	Pb 220.353†	102.1	16.1	1.0060 µg/L		1.0060 ppb	09:50:42

2	S 181.975 Axial†	89.3	1.0	0.8408 µg/L	0.8408 ppb	09:50:42
2	Sb 206.836†	71.0	-5.6	-0.7246 µg/L	-0.7246 ppb	09:50:42
2	Se 196.026†	17.2	4.6	1.76 µg/L	1.76 ppb	09:50:42
2	SiO2†	1831.5	84.2	8.5426 µg/L	8.5426 ppb	09:50:22
2	Si 251.611†	996.3	203.1	3.0418 µg/L	3.0418 ppb	09:50:22
2	Sn 189.927†	9.4	-2.9	-0.1985 µg/L	-0.1985 ppb	09:50:42
2	Ti 334.940†	820.9	15.3	0.0168 µg/L	0.0168 ppb	09:50:22
2	Tl 190.801†	-108.7	4.6	0.6447 µg/L	0.6447 ppb	09:50:42
2	U 409.014†	-307.6	-23.8	-1.5072 µg/L	-1.5072 ppb	09:50:22
2	V 292.402†	374.1	-175.1	-0.8618 µg/L	-0.8618 ppb	09:50:22
2	Zn 213.857†	635.2	51.3	0.2909 µg/L	0.2909 ppb	09:50:42
3	Sc RADIAL	115971.3	115971.3	99.6 %		09:49:32
3	Al 396.153Radial†	-55.2	22.1	5.1536 µg/L	5.1536 ppb	09:49:52
3	Ca 317.933Radial†	438.6	7.0	0.5901 µg/L	0.5901 ppb	09:49:52
3	Fe 238.204 Radial†	125.0	21.5	1.8526 µg/L	1.8526 ppb	09:49:52
3	K 766.490 Radial†	1582.6	144.0	56.908 µg/L	56.908 ppb	09:49:32
3	Mg 279.077 IEC†	164.3	8.4	4.7136 µg/L	4.7136 ppb	09:49:52
3	Na 589.592 Radial†	734.3	114.2	18.117 µg/L	18.117 ppb	09:49:32
3	Sr 421.552†	-114.1	-110.8	-0.2803 µg/L	-0.2803 ppb	09:49:32
3	Sc 361.383	1734133.3	1734133.3	100.66 %		09:50:44
3	Y 371.029	981481.0	981481.0	100.54 %		09:50:44
3	Ag 328.068†	5413.6	258.6	1.0510 µg/L	1.0510 ppb	09:50:46
3	As 188.979†	-12.2	4.2	1.4026 µg/L	1.4026 ppb	09:51:06
3	B 249.677†	4263.2	239.7	3.5013 µg/L	3.5013 ppb	09:50:46
3	Ba 233.527†	-159.8	-21.1	-0.0946 µg/L	-0.0946 ppb	09:51:06
3	Be 313.107†	-798.7	88.0	0.0237 µg/L	0.0237 ppb	09:50:46
3	Cd 226.502†	-56.6	41.3	0.2707 µg/L	0.2707 ppb	09:51:06
3	Co 228.616†	-210.1	18.6	0.2418 µg/L	0.2418 ppb	09:51:06
3	Cr 267.716†	317.1	29.0	0.2541 µg/L	0.2541 ppb	09:51:06
3	Cu 324.752†	3234.7	103.7	0.4230 µg/L	0.4230 ppb	09:50:46
3	Mn 257.610†	226.8	43.7	0.0563 µg/L	0.0563 ppb	09:51:06
3	Mo 202.031†	-13.5	7.1	0.2410 µg/L	0.2410 ppb	09:51:06
3	Ni 231.604†	-103.4	-5.3	-0.0659 µg/L	-0.0659 ppb	09:51:06
3	P 214.914†	-32.7	-0.6	-0.1463 µg/L	-0.1463 ppb	09:51:06
3	Pb 220.353†	104.8	18.8	1.1803 µg/L	1.1803 ppb	09:51:06
3	S 181.975 Axial†	97.5	9.3	7.8907 µg/L	7.8907 ppb	09:51:06
3	Sb 206.836†	67.3	-9.2	-1.1760 µg/L	-1.1760 ppb	09:51:06
3	Se 196.026†	14.8	2.2	0.846 µg/L	0.846 ppb	09:51:06
3	SiO2†	1807.5	63.1	6.3993 µg/L	6.3993 ppb	09:50:46
3	Si 251.611†	1137.1	344.4	5.1541 µg/L	5.1541 ppb	09:50:46
3	Sn 189.927†	-1.5	-13.7	-0.9516 µg/L	-0.9516 ppb	09:51:06
3	Ti 334.940†	655.0	-148.2	-0.1537 µg/L	-0.1537 ppb	09:50:46
3	Tl 190.801†	-114.0	-0.9	-0.1313 µg/L	-0.1313 ppb	09:51:06
3	U 409.014†	-318.9	-35.6	-2.2142 µg/L	-2.2142 ppb	09:50:46
3	V 292.402†	408.2	-140.7	-0.6878 µg/L	-0.6878 ppb	09:50:46
3	Zn 213.857†	624.7	41.7	0.2380 µg/L	0.2380 ppb	09:51:06

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1745140.9	101.30 %	0.980			0.97%
Sc RADIAL	117195.3	101 %	1.2			1.20%
Y 371.029	988162.0	101.23 %	1.010			1.00%
Ag 328.068†	175.3	0.7128 µg/L	0.65024	0.7128 ppb	0.65024	91.22%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	19.0	4.4376 µg/L	0.62043	4.4376 ppb	0.62043	13.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	2.4	0.8020 µg/L	2.18926	0.8020 ppb	2.18926	272.96%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	79.6	1.1627 µg/L	2.59786	1.1627 ppb	2.59786	223.43%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-0.3	-0.0017 µg/L	0.10639	-0.0017 ppb	0.10639	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-111.0	-0.0298 µg/L	0.04711	-0.0298 ppb	0.04711	157.88%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	11.8	0.9962 µg/L	0.52426	0.9962 ppb	0.52426	52.63%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	36.9	0.2419 µg/L	0.04969	0.2419 ppb	0.04969	20.54%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	8.7	0.1130 µg/L	0.11536	0.1130 ppb	0.11536	102.04%

Cr	267.716†	14.1	0.1205 µg/L	0.14598	0.1205 ppb	0.14598	121.16%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	96.0	0.3955 µg/L	0.59858	0.3955 ppb	0.59858	151.36%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	24.9	2.1409 µg/L	0.30706	2.1409 ppb	0.30706	14.34%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	102.0	40.320 µg/L	32.3431	40.320 ppb	32.3431	80.22%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-0.5	-0.2959 µg/L	4.33957	-0.2959 ppb	4.33957	>999.9%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	41.9	0.0542 µg/L	0.02184	0.0542 ppb	0.02184	40.30%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	3.1	0.1062 µg/L	0.23227	0.1062 ppb	0.23227	218.74%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	96.7	15.344 µg/L	2.6760	15.344 ppb	2.6760	17.44%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	5.6	0.0687 µg/L	0.11699	0.0687 ppb	0.11699	170.24%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-5.4	-1.2382 µg/L	1.05531	-1.2382 ppb	1.05531	85.23%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	5.3	0.3317 µg/L	1.32167	0.3317 ppb	1.32167	398.40%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	3.8	3.1893 µg/L	4.07148	3.1893 ppb	4.07148	127.66%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	-10.9	-1.3986 µg/L	0.80859	-1.3986 ppb	0.80859	57.82%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	5.1	1.98 µg/L	1.260	1.98 ppb	1.260	63.64%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		82.5	8.3690 µg/L	1.88886	8.3690 ppb	1.88886	22.57%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	229.9	3.4428 µg/L	1.55019	3.4428 ppb	1.55019	45.03%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	-12.3	-0.8509 µg/L	0.60833	-0.8509 ppb	0.60833	71.49%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-132.0	-0.3340 µg/L	0.05337	-0.3340 ppb	0.05337	15.98%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-86.8	-0.0914 µg/L	0.09403	-0.0914 ppb	0.09403	102.88%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	3.0	0.4180 µg/L	0.47808	0.4180 ppb	0.47808	114.37%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	45.9	2.7578 µg/L	8.00723	2.7578 ppb	8.00723	290.35%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-174.8	-0.8539 µg/L	0.16229	-0.8539 ppb	0.16229	19.01%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	37.1	0.2107 µg/L	0.09681	0.2107 ppb	0.09681	45.95%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.



Sequence No.: 31

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/14/2010 10:07:48

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	117479.1	117479.1	101	%		10:08:21
1	Al 396.153Radial†	22396.4	22269.6	5180.4	µg/L	5180.4 ppb	10:08:21
1	Ca 317.933Radial†	62366.4	61364.2	5160.1	µg/L	5160.1 ppb	10:08:21
1	Fe 238.204 Radial†	60349.1	59694.6	5139.6	µg/L	5139.6 ppb	10:08:21
1	K 766.490 Radial†	14296.1	12721.1	5023.8	µg/L	5023.8 ppb	10:08:21
1	Mg 279.077 IEC†	9635.6	9391.2	5247.8	µg/L	5247.8 ppb	10:08:21
1	Na 589.592 Radial†	64508.4	63297.0	10064	µg/L	10064 ppb	10:08:19
1	Sr 421.552†	198725.9	196916.9	498.12	µg/L	498.12 ppb	10:08:19
1	Sc 361.383	1732817.3	1732817.3	100.59	%		10:08:34
1	Y 371.029	971173.6	971173.6	99.488	%		10:08:34
1	Ag 328.068†	126707.0	120848.7	502.45	µg/L	502.45 ppb	10:08:34
1	As 188.979†	1499.5	1507.1	506.84	µg/L	506.84 ppb	10:08:54
1	B 249.677†	37656.4	33441.4	486.82	µg/L	486.82 ppb	10:08:34
1	Ba 233.527†	111665.7	111152.2	497.47	µg/L	497.47 ppb	10:08:34
1	Be 313.107†	1802174.6	1792546.8	495.70	µg/L	495.70 ppb	10:08:34
1	Cd 226.502†	76169.0	75822.3	496.86	µg/L	496.86 ppb	10:08:34
1	Co 228.616†	38423.5	38426.8	499.67	µg/L	499.67 ppb	10:08:34
1	Cr 267.716†	57687.9	57065.5	497.40	µg/L	497.40 ppb	10:08:34
1	Cu 324.752†	124796.3	120958.9	496.54	µg/L	496.54 ppb	10:08:34
1	Mn 257.610†	388054.0	385609.6	498.18	µg/L	498.18 ppb	10:08:34
1	Mo 202.031†	14958.8	14892.0	506.53	µg/L	506.53 ppb	10:08:54
1	Ni 231.604†	40509.2	40370.4	497.97	µg/L	497.97 ppb	10:08:34
1	P 214.914†	11048.4	11015.9	2503.9	µg/L	2503.9 ppb	10:08:54
1	Pb 220.353†	8227.8	8094.5	508.55	µg/L	508.55 ppb	10:08:54
1	S 181.975 Axial†	1265.9	1170.9	998.08	µg/L	998.08 ppb	10:08:54
1	Sb 206.836†	4044.9	3945.2	505.32	µg/L	505.32 ppb	10:08:54
1	Se 196.026†	1318.4	1298.2	502	µg/L	502 ppb	10:08:54
1	SiO2†	54667.6	52616.4	5308.9	µg/L	5308.9 ppb	10:08:34
1	Si 251.611†	168612.3	166843.8	2485.4	µg/L	2485.4 ppb	10:08:34
1	Sn 189.927†	7320.8	7265.8	505.86	µg/L	505.86 ppb	10:08:54
1	Ti 334.940†	483017.3	479401.7	497.87	µg/L	497.87 ppb	10:08:34
1	Tl 190.801†	3476.3	3568.5	510.10	µg/L	510.10 ppb	10:08:54
1	U 409.014†	7214.8	7454.0	485.81	µg/L	485.81 ppb	10:08:34
1	V 292.402†	101823.9	100683.9	500.46	µg/L	500.46 ppb	10:08:34
1	Zn 213.857†	88445.0	87350.4	494.86	µg/L	494.86 ppb	10:08:34
2	Sc RADIAL	116429.5	116429.5	100	%		10:08:25
2	Al 396.153Radial†	22273.4	22346.8	5198.5	µg/L	5198.5 ppb	10:08:25
2	Ca 317.933Radial†	61668.9	61224.0	5148.3	µg/L	5148.3 ppb	10:08:25
2	Fe 238.204 Radial†	59696.2	59580.9	5129.8	µg/L	5129.8 ppb	10:08:25
2	K 766.490 Radial†	14094.4	12647.2	4994.6	µg/L	4994.6 ppb	10:08:25
2	Mg 279.077 IEC†	9468.2	9309.9	5202.4	µg/L	5202.4 ppb	10:08:25
2	Na 589.592 Radial†	63863.6	63228.6	10053	µg/L	10053 ppb	10:08:23
2	Sr 421.552†	196908.8	196875.2	498.01	µg/L	498.01 ppb	10:08:23
2	Sc 361.383	1729254.4	1729254.4	100.38	%		10:08:57
2	Y 371.029	968856.7	968856.7	99.251	%		10:08:57
2	Ag 328.068†	126968.2	121368.5	504.60	µg/L	504.60 ppb	10:08:57
2	As 188.979†	1509.6	1520.3	511.23	µg/L	511.23 ppb	10:09:17
2	B 249.677†	38010.0	33870.8	493.08	µg/L	493.08 ppb	10:08:57
2	Ba 233.527†	112379.5	112092.0	501.67	µg/L	501.67 ppb	10:08:57
2	Be 313.107†	1813940.9	1807960.1	499.96	µg/L	499.96 ppb	10:08:57
2	Cd 226.502†	76454.8	76263.1	499.75	µg/L	499.75 ppb	10:08:57
2	Co 228.616†	38674.4	38755.4	503.94	µg/L	503.94 ppb	10:08:57
2	Cr 267.716†	57945.8	57440.6	500.68	µg/L	500.68 ppb	10:08:57
2	Cu 324.752†	125583.6	121998.8	500.78	µg/L	500.78 ppb	10:08:57
2	Mn 257.610†	389978.6	388321.8	501.68	µg/L	501.68 ppb	10:08:57
2	Mo 202.031†	14873.6	14837.8	504.68	µg/L	504.68 ppb	10:09:17
2	Ni 231.604†	40799.6	40742.7	502.56	µg/L	502.56 ppb	10:08:57
2	P 214.914†	10970.0	10960.5	2491.2	µg/L	2491.2 ppb	10:09:17
2	Pb 220.353†	8167.7	8051.5	505.86	µg/L	505.86 ppb	10:09:17

2	S 181.975 Axial†	1264.4	1172.0	998.99 µg/L	998.99 ppb	10:09:17
2	Sb 206.836†	4019.8	3928.6	503.11 µg/L	503.11 ppb	10:09:17
2	Se 196.026†	1315.8	1298.3	502 µg/L	502 ppb	10:09:17
2	SiO2†	54998.7	53058.1	5353.7 µg/L	5353.7 ppb	10:08:57
2	Si 251.611†	170108.3	168679.6	2512.9 µg/L	2512.9 ppb	10:08:57
2	Sn 189.927†	7278.8	7239.0	504.01 µg/L	504.01 ppb	10:09:17
2	Ti 334.940†	485493.2	482857.6	501.47 µg/L	501.47 ppb	10:08:57
2	Tl 190.801†	3449.7	3549.1	507.41 µg/L	507.41 ppb	10:09:17
2	U 409.014†	6942.8	7197.8	470.32 µg/L	470.32 ppb	10:08:57
2	V 292.402†	102135.5	101202.9	502.99 µg/L	502.99 ppb	10:08:57
2	Zn 213.857†	88936.2	88020.9	498.66 µg/L	498.66 ppb	10:08:57
3	Sc RADIAL	116549.2	116549.2	100 %		10:08:29
3	Al 396.153Radial†	22190.5	22241.1	5173.7 µg/L	5173.7 ppb	10:08:29
3	Ca 317.933Radial†	61841.6	61333.2	5157.5 µg/L	5157.5 ppb	10:08:29
3	Fe 238.204 Radial†	59897.6	59720.7	5141.9 µg/L	5141.9 ppb	10:08:29
3	K 766.490 Radial†	14149.4	12687.7	5010.6 µg/L	5010.6 ppb	10:08:29
3	Mg 279.077 IEC†	9473.0	9305.1	5199.7 µg/L	5199.7 ppb	10:08:29
3	Na 589.592 Radial†	64018.0	63317.2	10067 µg/L	10067 ppb	10:08:27
3	Sr 421.552†	197311.8	197075.5	498.52 µg/L	498.52 ppb	10:08:27
3	Sc 361.383	1722394.5	1722394.5	99.982 %		10:09:20
3	Y 371.029	965466.3	965466.3	98.903 %		10:09:20
3	Ag 328.068†	125820.8	120724.7	501.95 µg/L	501.95 ppb	10:09:20
3	As 188.979†	1480.9	1497.6	503.69 µg/L	503.69 ppb	10:09:40
3	B 249.677†	37605.7	33617.3	489.39 µg/L	489.39 ppb	10:09:20
3	Ba 233.527†	111639.1	111797.4	500.35 µg/L	500.35 ppb	10:09:20
3	Be 313.107†	1797949.8	1799163.2	497.52 µg/L	497.52 ppb	10:09:20
3	Cd 226.502†	75740.9	75852.4	497.06 µg/L	497.06 ppb	10:09:20
3	Co 228.616†	38259.2	38493.6	500.54 µg/L	500.54 ppb	10:09:20
3	Cr 267.716†	57408.8	57133.4	498.00 µg/L	498.00 ppb	10:09:20
3	Cu 324.752†	124734.9	121648.2	499.35 µg/L	499.35 ppb	10:09:20
3	Mn 257.610†	386675.4	386565.3	499.41 µg/L	499.41 ppb	10:09:20
3	Mo 202.031†	14864.3	14887.5	506.37 µg/L	506.37 ppb	10:09:40
3	Ni 231.604†	40359.2	40464.1	499.12 µg/L	499.12 ppb	10:09:20
3	P 214.914†	11018.7	11052.7	2512.2 µg/L	2512.2 ppb	10:09:40
3	Pb 220.353†	8186.0	8102.3	509.04 µg/L	509.04 ppb	10:09:40
3	S 181.975 Axial†	1261.3	1173.9	1000.6 µg/L	1000.6 ppb	10:09:40
3	Sb 206.836†	4010.1	3934.8	503.97 µg/L	503.97 ppb	10:09:40
3	Se 196.026†	1321.6	1309.3	507 µg/L	507 ppb	10:09:40
3	SiO2†	54716.9	52994.6	5347.2 µg/L	5347.2 ppb	10:09:20
3	Si 251.611†	169156.6	168402.7	2508.7 µg/L	2508.7 ppb	10:09:20
3	Sn 189.927†	7244.1	7233.3	503.60 µg/L	503.60 ppb	10:09:40
3	Ti 334.940†	481759.4	481049.4	499.59 µg/L	499.59 ppb	10:09:20
3	Tl 190.801†	3451.3	3564.3	509.55 µg/L	509.55 ppb	10:09:40
3	U 409.014†	6926.6	7209.1	470.96 µg/L	470.96 ppb	10:09:20
3	V 292.402†	101577.5	101050.1	502.24 µg/L	502.24 ppb	10:09:20
3	Zn 213.857†	88200.2	87637.6	496.49 µg/L	496.49 ppb	10:09:20

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1728155.4	100.32 %	0.308			0.31%
Sc RADIAL	116819.3	100 %	0.5			0.49%
Y 371.029	968498.9	99.214 %	0.2940			0.30%
Ag 328.068†	120980.6	503.00 µg/L	1.408	503.00 ppb	1.408	0.28%
QC value within limits for Ag 328.068 Recovery = 100.60%						
Al 396.153Radial†	22285.8	5184.2 µg/L	12.82	5184.2 ppb	12.82	0.25%
QC value within limits for Al 396.153Radial Recovery = 103.68%						
As 188.979†	1508.3	507.26 µg/L	3.789	507.26 ppb	3.789	0.75%
QC value within limits for As 188.979 Recovery = 101.45%						
B 249.677†	33643.2	489.76 µg/L	3.146	489.76 ppb	3.146	0.64%
QC value within limits for B 249.677 Recovery = 97.95%						
Ba 233.527†	111680.5	499.83 µg/L	2.150	499.83 ppb	2.150	0.43%
QC value within limits for Ba 233.527 Recovery = 99.97%						
Be 313.107†	1799890.0	497.73 µg/L	2.135	497.73 ppb	2.135	0.43%
QC value within limits for Be 313.107 Recovery = 99.55%						
Ca 317.933Radial†	61307.1	5155.3 µg/L	6.19	5155.3 ppb	6.19	0.12%
QC value within limits for Ca 317.933Radial Recovery = 103.11%						
Cd 226.502†	75979.3	497.89 µg/L	1.617	497.89 ppb	1.617	0.32%
QC value within limits for Cd 226.502 Recovery = 99.58%						
Co 228.616†	38558.6	501.38 µg/L	2.259	501.38 ppb	2.259	0.45%

QC value within limits for Co 228.616 Recovery = 100.28%							
Cr 267.716†	57213.2	498.70 µg/L	1.748	498.70 ppb	1.748	0.35%	
QC value within limits for Cr 267.716 Recovery = 99.74%							
Cu 324.752†	121535.3	498.89 µg/L	2.158	498.89 ppb	2.158	0.43%	
QC value within limits for Cu 324.752 Recovery = 99.78%							
Fe 238.204 Radial†	59665.4	5137.1 µg/L	6.40	5137.1 ppb	6.40	0.12%	
QC value within limits for Fe 238.204 Radial Recovery = 102.74%							
K 766.490 Radial†	12685.3	5009.7 µg/L	14.62	5009.7 ppb	14.62	0.29%	
QC value within limits for K 766.490 Radial Recovery = 100.19%							
Mg 279.077 IEC†	9335.4	5216.6 µg/L	27.02	5216.6 ppb	27.02	0.52%	
QC value within limits for Mg 279.077 IEC Recovery = 104.33%							
Mn 257.610†	386832.2	499.76 µg/L	1.779	499.76 ppb	1.779	0.36%	
QC value within limits for Mn 257.610 Recovery = 99.95%							
Mo 202.031†	14872.5	505.86 µg/L	1.023	505.86 ppb	1.023	0.20%	
QC value within limits for Mo 202.031 Recovery = 101.17%							
Na 589.592 Radial†	63280.9	10061 µg/L	7.4	10061 ppb	7.4	0.07%	
QC value within limits for Na 589.592 Radial Recovery = 100.61%							
Ni 231.604†	40525.7	499.88 µg/L	2.388	499.88 ppb	2.388	0.48%	
QC value within limits for Ni 231.604 Recovery = 99.98%							
P 214.914†	11009.7	2502.4 µg/L	10.58	2502.4 ppb	10.58	0.42%	
QC value within limits for P 214.914 Recovery = 100.10%							
Pb 220.353†	8082.8	507.82 µg/L	1.710	507.82 ppb	1.710	0.34%	
QC value within limits for Pb 220.353 Recovery = 101.56%							
S 181.975 Axial†	1172.3	999.23 µg/L	1.294	999.23 ppb	1.294	0.13%	
QC value within limits for S 181.975 Axial Recovery = 99.92%							
Sb 206.836†	3936.2	504.13 µg/L	1.111	504.13 ppb	1.111	0.22%	
QC value within limits for Sb 206.836 Recovery = 100.83%							
Se 196.026†	1302.0	504 µg/L	2.5	504 ppb	2.5	0.49%	
QC value within limits for Se 196.026 Recovery = 100.75%							
SiO2†	52889.7	5336.6 µg/L	24.23	5336.6 ppb	24.23	0.45%	
QC value within limits for SiO2 Recovery = 99.80%							
Si 251.611†	167975.4	2502.3 µg/L	14.82	2502.3 ppb	14.82	0.59%	
QC value within limits for Si 251.611 Recovery = 100.09%							
Sn 189.927†	7246.0	504.49 µg/L	1.202	504.49 ppb	1.202	0.24%	
QC value within limits for Sn 189.927 Recovery = 100.90%							
Sr 421.552†	196955.9	498.22 µg/L	0.267	498.22 ppb	0.267	0.05%	
QC value within limits for Sr 421.552 Recovery = 99.64%							
Ti 334.940†	481102.9	499.65 µg/L	1.802	499.65 ppb	1.802	0.36%	
QC value within limits for Ti 334.940 Recovery = 99.93%							
Tl 190.801†	3560.6	509.02 µg/L	1.421	509.02 ppb	1.421	0.28%	
QC value within limits for Tl 190.801 Recovery = 101.80%							
U 409.014†	7286.9	475.70 µg/L	8.768	475.70 ppb	8.768	1.84%	
QC value within limits for U 409.014 Recovery = 95.14%							
V 292.402†	100979.0	501.90 µg/L	1.299	501.90 ppb	1.299	0.26%	
QC value within limits for V 292.402 Recovery = 100.38%							
Zn 213.857†	87669.6	496.67 µg/L	1.905	496.67 ppb	1.905	0.38%	
QC value within limits for Zn 213.857 Recovery = 99.33%							
All analyte(s) passed QC.							

Sequence No.: 32

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 4/14/2010 10:09:48

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	118130.9	118130.9	101 %		10:10:19
1	Al 396.153Radial†	851.8	916.9	213.77 µg/L	213.77 ppb	10:10:39
1	Ca 317.933Radial†	3064.5	2586.6	217.50 µg/L	217.50 ppb	10:10:39
1	Fe 238.204 Radial†	1392.6	1268.3	109.20 µg/L	109.20 ppb	10:10:39
1	K 766.490 Radial†	2007.5	533.6	210.76 µg/L	210.76 ppb	10:10:19
1	Mg 279.077 IEC†	757.7	590.2	329.46 µg/L	329.46 ppb	10:10:39
1	Na 589.592 Radial†	2514.0	1854.5	294.79 µg/L	294.79 ppb	10:10:19
1	Sr 421.552†	2070.7	2044.3	5.1700 µg/L	5.1700 ppb	10:10:19
1	Sc 361.383	1722828.9	1722828.9	100.01 %		10:11:27
1	Y 371.029	975412.1	975412.1	99.922 %		10:11:27
1	Ag 328.068†	7038.0	1918.2	8.0124 µg/L	8.0124 ppb	10:11:29
1	As 188.979†	79.5	95.9	31.888 µg/L	31.888 ppb	10:11:49
1	B 249.677†	7493.7	3497.8	51.084 µg/L	51.084 ppb	10:11:29
1	Ba 233.527†	992.9	1130.4	5.0603 µg/L	5.0603 ppb	10:11:49
1	Be 313.107†	16887.5	17767.9	4.9330 µg/L	4.9330 ppb	10:11:29
1	Cd 226.502†	684.4	781.8	5.1175 µg/L	5.1175 ppb	10:11:49
1	Co 228.616†	136.6	363.9	4.7288 µg/L	4.7288 ppb	10:11:49
1	Cr 267.716†	921.5	635.4	5.4850 µg/L	5.4850 ppb	10:11:49
1	Cu 324.752†	5669.5	2559.4	10.558 µg/L	10.558 ppb	10:11:29
1	Mn 257.610†	8319.9	8137.8	10.505 µg/L	10.505 ppb	10:11:29
1	Mo 202.031†	291.2	311.7	10.605 µg/L	10.605 ppb	10:11:49
1	Ni 231.604†	319.0	416.4	5.1362 µg/L	5.1362 ppb	10:11:49
1	P 214.914†	618.1	650.0	148.09 µg/L	148.09 ppb	10:11:49
1	Pb 220.353†	273.0	187.8	11.748 µg/L	11.748 ppb	10:11:49
1	S 181.975 Axial†	205.8	118.2	100.42 µg/L	100.42 ppb	10:11:49
1	Sb 206.836†	167.9	91.8	11.823 µg/L	11.823 ppb	10:11:49
1	Se 196.026†	83.8	71.3	27.6 µg/L	27.6 ppb	10:11:49
1	SiO2†	4086.9	2354.2	238.04 µg/L	238.04 ppb	10:11:29
1	Si 251.611†	7935.9	7150.2	106.73 µg/L	106.73 ppb	10:11:29
1	Sn 189.927†	173.3	161.1	11.193 µg/L	11.193 ppb	10:11:49
1	Ti 334.940†	5654.9	4855.6	4.9977 µg/L	4.9977 ppb	10:11:29
1	Tl 190.801†	47.4	159.8	22.604 µg/L	22.604 ppb	10:11:49
1	U 409.014†	854.6	1135.8	69.766 µg/L	69.766 ppb	10:11:29
1	V 292.402†	1550.3	1004.0	5.0878 µg/L	5.0878 ppb	10:11:29
1	Zn 213.857†	2845.3	2266.3	12.892 µg/L	12.892 ppb	10:11:49
2	Sc RADIAL	115677.0	115677.0	99.4 %		10:10:41
2	Al 396.153Radial†	845.7	928.5	216.46 µg/L	216.46 ppb	10:11:01
2	Ca 317.933Radial†	3060.5	2646.5	222.55 µg/L	222.55 ppb	10:11:01
2	Fe 238.204 Radial†	1377.5	1282.2	110.40 µg/L	110.40 ppb	10:11:01
2	K 766.490 Radial†	1890.7	458.1	180.88 µg/L	180.88 ppb	10:10:41
2	Mg 279.077 IEC†	746.5	594.8	332.03 µg/L	332.03 ppb	10:11:01
2	Na 589.592 Radial†	2630.2	2024.0	321.77 µg/L	321.77 ppb	10:10:41
2	Sr 421.552†	2055.6	2072.4	5.2410 µg/L	5.2410 ppb	10:10:41
2	Sc 361.383	1677990.3	1677990.3	97.404 %		10:11:51
2	Y 371.029	950419.7	950419.7	97.362 %		10:11:51
2	Ag 328.068†	6555.6	1611.0	6.7059 µg/L	6.7059 ppb	10:11:53
2	As 188.979†	75.3	93.7	31.154 µg/L	31.154 ppb	10:12:13
2	B 249.677†	7722.0	3932.4	57.432 µg/L	57.432 ppb	10:11:53
2	Ba 233.527†	1026.7	1191.7	5.3345 µg/L	5.3345 ppb	10:12:13
2	Be 313.107†	17254.2	18595.6	5.1504 µg/L	5.1504 ppb	10:11:53
2	Cd 226.502†	680.1	795.8	5.2088 µg/L	5.2088 ppb	10:12:13
2	Co 228.616†	168.6	400.4	5.2040 µg/L	5.2040 ppb	10:12:13
2	Cr 267.716†	870.6	607.8	5.2741 µg/L	5.2741 ppb	10:12:13
2	Cu 324.752†	5716.3	2759.0	11.344 µg/L	11.344 ppb	10:11:53
2	Mn 257.610†	8410.3	8452.9	10.912 µg/L	10.912 ppb	10:11:53
2	Mo 202.031†	302.2	330.8	11.252 µg/L	11.252 ppb	10:12:13
2	Ni 231.604†	323.7	429.8	5.3013 µg/L	5.3013 ppb	10:12:13
2	P 214.914†	636.8	685.8	156.23 µg/L	156.23 ppb	10:12:13
2	Pb 220.353†	294.7	217.4	13.630 µg/L	13.630 ppb	10:12:13

2	S 181.975 Axial†	211.1	129.1	109.69 µg/L	109.69 ppb	10:12:13
2	Sb 206.836†	146.2	74.1	9.5674 µg/L	9.5674 ppb	10:12:13
2	Se 196.026†	98.5	88.7	34.2 µg/L	34.2 ppb	10:12:13
2	SiO2†	3923.8	2295.9	232.13 µg/L	232.13 ppb	10:11:53
2	Si 251.611†	7920.6	7346.5	109.66 µg/L	109.66 ppb	10:11:53
2	Sn 189.927†	158.8	150.8	10.481 µg/L	10.481 ppb	10:12:13
2	Ti 334.940†	5537.5	4886.1	5.0449 µg/L	5.0449 ppb	10:11:53
2	Tl 190.801†	50.3	164.0	23.197 µg/L	23.197 ppb	10:12:13
2	U 409.014†	231.5	518.9	32.060 µg/L	32.060 ppb	10:11:53
2	V 292.402†	1533.0	1027.7	5.1841 µg/L	5.1841 ppb	10:11:53
2	Zn 213.857†	2866.8	2364.3	13.450 µg/L	13.450 ppb	10:12:13
3	Sc RADIAL	116130.9	116130.9	99.8 %		10:11:03
3	Al 396.153Radial†	844.2	923.7	215.35 µg/L	215.35 ppb	10:11:23
3	Ca 317.933Radial†	3055.9	2629.9	221.15 µg/L	221.15 ppb	10:11:23
3	Fe 238.204 Radial†	1370.3	1269.6	109.31 µg/L	109.31 ppb	10:11:23
3	K 766.490 Radial†	2145.1	705.6	278.74 µg/L	278.74 ppb	10:11:03
3	Mg 279.077 IEC†	725.3	570.6	318.53 µg/L	318.53 ppb	10:11:23
3	Na 589.592 Radial†	2571.7	1955.0	310.71 µg/L	310.71 ppb	10:11:03
3	Sr 421.552†	2039.2	2047.8	5.1788 µg/L	5.1788 ppb	10:11:03
3	Sc 361.383	1738150.9	1738150.9	100.90 %		10:12:16
3	Y 371.029	983247.0	983247.0	100.72 %		10:12:16
3	Ag 328.068†	6643.1	1464.7	6.1132 µg/L	6.1132 ppb	10:12:18
3	As 188.979†	72.1	87.9	29.238 µg/L	29.238 ppb	10:12:38
3	B 249.677†	7525.5	3463.3	50.579 µg/L	50.579 ppb	10:12:18
3	Ba 233.527†	1022.8	1151.3	5.1534 µg/L	5.1534 ppb	10:12:38
3	Be 313.107†	17411.7	18138.6	5.0279 µg/L	5.0279 ppb	10:12:18
3	Cd 226.502†	682.6	774.0	5.0664 µg/L	5.0664 ppb	10:12:38
3	Co 228.616†	158.8	384.7	4.9994 µg/L	4.9994 ppb	10:12:38
3	Cr 267.716†	908.5	614.5	5.3220 µg/L	5.3220 ppb	10:12:38
3	Cu 324.752†	5666.9	2506.8	10.322 µg/L	10.322 ppb	10:12:18
3	Mn 257.610†	8467.8	8211.1	10.600 µg/L	10.600 ppb	10:12:18
3	Mo 202.031†	298.7	316.6	10.769 µg/L	10.769 ppb	10:12:38
3	Ni 231.604†	351.7	446.0	5.5017 µg/L	5.5017 ppb	10:12:38
3	P 214.914†	638.2	664.5	151.39 µg/L	151.39 ppb	10:12:38
3	Pb 220.353†	317.1	229.1	14.354 µg/L	14.354 ppb	10:12:38
3	S 181.975 Axial†	222.1	132.5	112.54 µg/L	112.54 ppb	10:12:38
3	Sb 206.836†	147.8	70.4	9.0936 µg/L	9.0936 ppb	10:12:38
3	Se 196.026†	100.2	86.9	33.5 µg/L	33.5 ppb	10:12:38
3	SiO2†	4037.0	2268.7	229.39 µg/L	229.39 ppb	10:12:18
3	Si 251.611†	8263.5	7405.0	110.54 µg/L	110.54 ppb	10:12:18
3	Sn 189.927†	157.8	144.1	10.019 µg/L	10.019 ppb	10:12:38
3	Ti 334.940†	5912.4	5060.9	5.2226 µg/L	5.2226 ppb	10:12:18
3	Tl 190.801†	51.6	163.6	23.133 µg/L	23.133 ppb	10:12:38
3	U 409.014†	448.1	725.4	44.646 µg/L	44.646 ppb	10:12:18
3	V 292.402†	1458.2	899.0	4.5568 µg/L	4.5568 ppb	10:12:18
3	Zn 213.857†	2834.3	2230.3	12.684 µg/L	12.684 ppb	10:12:38

## Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1712990.0	99.436 %	1.8148			1.83%
Sc RADIAL	116646.3	100 %	1.1			1.12%
Y 371.029	969692.9	99.336 %	1.7563			1.77%
Ag 328.068†	1664.6	6.9438 µg/L	0.97168	6.9438 ppb	0.97168	13.99%
QC value greater than the upper limit for Ag 328.068 Recovery = 138.88%						
Al 396.153Radial†	923.1	215.19 µg/L	1.351	215.19 ppb	1.351	0.63%
QC value within limits for Al 396.153Radial Recovery = 107.60%						
As 188.979†	92.5	30.760 µg/L	1.3683	30.760 ppb	1.3683	4.45%
QC value within limits for As 188.979 Recovery = 102.53%						
B 249.677†	3631.2	53.031 µg/L	3.8190	53.031 ppb	3.8190	7.20%
QC value within limits for B 249.677 Recovery = 106.06%						
Ba 233.527†	1157.8	5.1827 µg/L	0.13939	5.1827 ppb	0.13939	2.69%
QC value within limits for Ba 233.527 Recovery = 103.65%						
Be 313.107†	18167.3	5.0371 µg/L	0.10900	5.0371 ppb	0.10900	2.16%
QC value within limits for Be 313.107 Recovery = 100.74%						
Ca 317.933Radial†	2621.0	220.40 µg/L	2.603	220.40 ppb	2.603	1.18%
QC value within limits for Ca 317.933Radial Recovery = 110.20%						
Cd 226.502†	783.9	5.1309 µg/L	0.07216	5.1309 ppb	0.07216	1.41%
QC value within limits for Cd 226.502 Recovery = 102.62%						
Co 228.616†	383.0	4.9774 µg/L	0.23838	4.9774 ppb	0.23838	4.79%

QC value within limits for Co 228.616 Recovery = 99.55%							
Cr 267.716†	619.3	5.3604 µg/L	0.11059	5.3604 ppb	0.11059	2.06%	
QC value within limits for Cr 267.716 Recovery = 107.21%							
Cu 324.752†	2608.4	10.742 µg/L	0.5351	10.742 ppb	0.5351	4.98%	
QC value within limits for Cu 324.752 Recovery = 107.42%							
Fe 238.204 Radial†	1273.4	109.64 µg/L	0.661	109.64 ppb	0.661	0.60%	
QC value within limits for Fe 238.204 Radial Recovery = 109.64%							
K 766.490 Radial†	565.8	223.46 µg/L	50.151	223.46 ppb	50.151	22.44%	
QC value greater than the upper limit for K 766.490 Radial Recovery = 148.97%							
Mg 279.077 IEC†	585.2	326.68 µg/L	7.168	326.68 ppb	7.168	2.19%	
QC value within limits for Mg 279.077 IEC Recovery = 108.89%							
Mn 257.610†	8267.3	10.672 µg/L	0.2130	10.672 ppb	0.2130	2.00%	
QC value within limits for Mn 257.610 Recovery = 106.72%							
Mo 202.031†	319.7	10.875 µg/L	0.3366	10.875 ppb	0.3366	3.09%	
QC value within limits for Mo 202.031 Recovery = 108.75%							
Na 589.592 Radial†	1944.5	309.09 µg/L	13.565	309.09 ppb	13.565	4.39%	
QC value within limits for Na 589.592 Radial Recovery = 103.03%							
Ni 231.604†	430.7	5.3130 µg/L	0.18303	5.3130 ppb	0.18303	3.45%	
QC value within limits for Ni 231.604 Recovery = 106.26%							
P 214.914†	666.7	151.91 µg/L	4.094	151.91 ppb	4.094	2.69%	
QC value within limits for P 214.914 Recovery = 101.27%							
Pb 220.353†	211.4	13.244 µg/L	1.3453	13.244 ppb	1.3453	10.16%	
QC value greater than the upper limit for Pb 220.353 Recovery = 132.44%							
S 181.975 Axial†	126.6	107.55 µg/L	6.336	107.55 ppb	6.336	5.89%	
QC value within limits for S 181.975 Axial Recovery = 107.55%							
Sb 206.836†	78.8	10.161 µg/L	1.4585	10.161 ppb	1.4585	14.35%	
QC value within limits for Sb 206.836 Recovery = 101.61%							
Se 196.026†	82.3	31.8 µg/L	3.66	31.8 ppb	3.66	11.53%	
QC value within limits for Se 196.026 Recovery = 105.93%							
SiO2†	2306.3	233.19 µg/L	4.421	233.19 ppb	4.421	1.90%	
QC value within limits for SiO2 Recovery = 109.48%							
Si 251.611†	7300.6	108.98 µg/L	1.997	108.98 ppb	1.997	1.83%	
QC value within limits for Si 251.611 Recovery = 108.98%							
Sn 189.927†	152.0	10.564 µg/L	0.5914	10.564 ppb	0.5914	5.60%	
QC value within limits for Sn 189.927 Recovery = 105.64%							
Sr 421.552†	2054.8	5.1966 µg/L	0.03871	5.1966 ppb	0.03871	0.74%	
QC value within limits for Sr 421.552 Recovery = 103.93%							
Ti 334.940†	4934.2	5.0884 µg/L	0.11856	5.0884 ppb	0.11856	2.33%	
QC value within limits for Ti 334.940 Recovery = 101.77%							
Tl 190.801†	162.5	22.978 µg/L	0.3251	22.978 ppb	0.3251	1.42%	
QC value within limits for Tl 190.801 Recovery = 114.89%							
U 409.014†	793.4	48.824 µg/L	19.1972	48.824 ppb	19.1972	39.32%	
QC value within limits for U 409.014 Recovery = 97.65%							
V 292.402†	976.9	4.9429 µg/L	0.33780	4.9429 ppb	0.33780	6.83%	
QC value within limits for V 292.402 Recovery = 98.86%							
Zn 213.857†	2287.0	13.009 µg/L	0.3961	13.009 ppb	0.3961	3.04%	
QC value greater than the upper limit for Zn 213.857 Recovery = 130.09%							
QC Failed. Continue with analysis.							

Sequence No.: 33

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/14/2010 10:12:45

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	118291.3	118291.3	102 %		10:13:15
1	Al 396.153Radial†	-82.2	-3.4	-0.7688 µg/L	-0.7688 ppb	10:13:35
1	Ca 317.933Radial†	428.1	-11.9	-1.0045 µg/L	-1.0045 ppb	10:13:35
1	Fe 238.204 Radial†	133.5	27.4	2.3577 µg/L	2.3577 ppb	10:13:35
1	K 766.490 Radial†	1572.6	103.0	40.713 µg/L	40.713 ppb	10:13:15
1	Mg 279.077 IEC†	165.3	6.2	3.4406 µg/L	3.4406 ppb	10:13:35
1	Na 589.592 Radial†	711.7	77.5	12.286 µg/L	12.286 ppb	10:13:15
1	Sr 421.552†	21.3	24.8	0.0627 µg/L	0.0627 ppb	10:13:15
1	Sc 361.383	1763592.7	1763592.7	102.37 %		10:14:23
1	Y 371.029	997885.3	997885.3	102.22 %		10:14:23
1	Ag 328.068†	5369.8	126.0	0.5206 µg/L	0.5206 ppb	10:14:25
1	As 188.979†	-3.1	13.4	4.4300 µg/L	4.4300 ppb	10:14:45
1	B 249.677†	4288.3	193.5	2.8267 µg/L	2.8267 ppb	10:14:25
1	Ba 233.527†	-144.5	-3.5	-0.0160 µg/L	-0.0160 ppb	10:14:45
1	Be 313.107†	-1261.8	-351.1	-0.0958 µg/L	-0.0958 ppb	10:14:25
1	Cd 226.502†	-60.7	38.3	0.2507 µg/L	0.2507 ppb	10:14:45
1	Co 228.616†	-220.5	11.9	0.1543 µg/L	0.1543 ppb	10:14:45
1	Cr 267.716†	287.0	-5.6	-0.0524 µg/L	-0.0524 ppb	10:14:45
1	Cu 324.752†	3114.9	-67.0	-0.2704 µg/L	-0.2704 ppb	10:14:25
1	Mn 257.610†	217.5	31.0	0.0399 µg/L	0.0399 ppb	10:14:45
1	Mo 202.031†	-32.1	-10.9	-0.3693 µg/L	-0.3693 ppb	10:14:45
1	Ni 231.604†	-95.4	4.2	0.0515 µg/L	0.0515 ppb	10:14:45
1	P 214.914†	-42.1	-9.1	-2.0742 µg/L	-2.0742 ppb	10:14:45
1	Pb 220.353†	130.9	42.6	2.6618 µg/L	2.6618 ppb	10:14:45
1	S 181.975 Axial†	99.3	9.4	7.9472 µg/L	7.9472 ppb	10:14:45
1	Sb 206.836†	76.6	-1.3	-0.1667 µg/L	-0.1667 ppb	10:14:45
1	Se 196.026†	17.6	4.7	1.81 µg/L	1.81 ppb	10:14:45
1	SiO2†	1936.4	159.1	16.124 µg/L	16.124 ppb	10:14:25
1	Si 251.611†	1339.5	523.3	7.8307 µg/L	7.8307 ppb	10:14:25
1	Sn 189.927†	13.4	0.9	0.0624 µg/L	0.0624 ppb	10:14:45
1	Ti 334.940†	924.3	103.9	0.1061 µg/L	0.1061 ppb	10:14:25
1	Tl 190.801†	-117.4	-2.3	-0.3234 µg/L	-0.3234 ppb	10:14:45
1	U 409.014†	-218.8	67.5	4.1203 µg/L	4.1203 ppb	10:14:25
1	V 292.402†	527.5	-30.9	-0.1530 µg/L	-0.1530 ppb	10:14:25
1	Zn 213.857†	609.5	16.5	0.0936 µg/L	0.0936 ppb	10:14:45
2	Sc RADIAL	117401.7	117401.7	101 %		10:13:37
2	Al 396.153Radial†	-92.1	-13.7	-3.2022 µg/L	-3.2022 ppb	10:13:57
2	Ca 317.933Radial†	432.8	-4.1	-0.3480 µg/L	-0.3480 ppb	10:13:57
2	Fe 238.204 Radial†	137.1	32.0	2.7511 µg/L	2.7511 ppb	10:13:57
2	K 766.490 Radial†	1613.1	154.9	61.215 µg/L	61.215 ppb	10:13:37
2	Mg 279.077 IEC†	161.3	3.5	1.9482 µg/L	1.9482 ppb	10:13:57
2	Na 589.592 Radial†	643.3	15.0	2.3286 µg/L	2.3286 ppb	10:13:37
2	Sr 421.552†	-91.2	-86.7	-0.2193 µg/L	-0.2193 ppb	10:13:37
2	Sc 361.383	1724082.4	1724082.4	100.08 %		10:14:48
2	Y 371.029	976169.8	976169.8	100.000 %		10:14:48
2	Ag 328.068†	4946.5	-176.8	-0.7408 µg/L	-0.7408 ppb	10:14:50
2	As 188.979†	-10.3	6.1	2.0109 µg/L	2.0109 ppb	10:15:10
2	B 249.677†	4302.5	303.7	4.4357 µg/L	4.4357 ppb	10:14:50
2	Ba 233.527†	-171.6	-33.9	-0.1520 µg/L	-0.1520 ppb	10:15:10
2	Be 313.107†	-1126.0	-243.6	-0.0689 µg/L	-0.0689 ppb	10:14:50
2	Cd 226.502†	-91.8	5.7	0.0373 µg/L	0.0373 ppb	10:15:10
2	Co 228.616†	-201.8	25.6	0.3329 µg/L	0.3329 ppb	10:15:10
2	Cr 267.716†	288.7	2.5	0.0252 µg/L	0.0252 ppb	10:15:10
2	Cu 324.752†	3233.8	121.5	0.4937 µg/L	0.4937 ppb	10:14:50
2	Mn 257.610†	201.4	19.7	0.0254 µg/L	0.0254 ppb	10:15:10
2	Mo 202.031†	-27.2	-6.6	-0.2256 µg/L	-0.2256 ppb	10:15:10
2	Ni 231.604†	-99.6	-2.1	-0.0263 µg/L	-0.0263 ppb	10:15:10
2	P 214.914†	-22.0	10.0	2.2698 µg/L	2.2698 ppb	10:15:10
2	Pb 220.353†	130.8	45.4	2.8458 µg/L	2.8458 ppb	10:15:10

2	S 181.975 Axial†	96.8	9.1	7.7328 µg/L	7.7328 ppb	10:15:10
2	Sb 206.836†	66.4	-9.7	-1.2474 µg/L	-1.2474 ppb	10:15:10
2	Se 196.026†	23.5	11.0	4.24 µg/L	4.24 ppb	10:15:10
2	SiO2†	1907.3	173.3	17.565 µg/L	17.565 ppb	10:14:50
2	Si 251.611†	973.2	187.3	2.8046 µg/L	2.8046 ppb	10:14:50
2	Sn 189.927†	11.0	-1.3	-0.0883 µg/L	-0.0883 ppb	10:15:10
2	Ti 334.940†	751.4	-48.1	-0.0482 µg/L	-0.0482 ppb	10:14:50
2	Tl 190.801†	-116.3	-3.8	-0.5382 µg/L	-0.5382 ppb	10:15:10
2	U 409.014†	-362.9	-81.4	-5.0171 µg/L	-5.0171 ppb	10:14:50
2	V 292.402†	398.3	-148.2	-0.7324 µg/L	-0.7324 ppb	10:14:50
2	Zn 213.857†	619.6	40.2	0.2292 µg/L	0.2292 ppb	10:15:10
3	Sc RADIAL	116687.6	116687.6	100 %		10:13:59
3	Al 396.153Radial†	-95.6	-17.9	-4.1732 µg/L	-4.1732 ppb	10:14:20
3	Ca 317.933Radial†	485.0	50.6	4.2544 µg/L	4.2544 ppb	10:14:20
3	Fe 238.204 Radial†	112.9	8.6	0.7422 µg/L	0.7422 ppb	10:14:20
3	K 766.490 Radial†	1467.5	19.4	7.6597 µg/L	7.6597 ppb	10:13:59
3	Mg 279.077 IEC†	156.0	-0.8	-0.4747 µg/L	-0.4747 ppb	10:14:20
3	Na 589.592 Radial†	693.9	69.3	11.017 µg/L	11.017 ppb	10:13:59
3	Sr 421.552†	-49.6	-45.6	-0.1155 µg/L	-0.1155 ppb	10:13:59
3	Sc 361.383	1744325.6	1744325.6	101.25 %		10:15:12
3	Y 371.029	986530.2	986530.2	101.06 %		10:15:12
3	Ag 328.068†	5601.6	412.9	1.6865 µg/L	1.6865 ppb	10:15:14
3	As 188.979†	-4.8	11.7	3.8746 µg/L	3.8746 ppb	10:15:34
3	B 249.677†	4247.8	199.8	2.9197 µg/L	2.9197 ppb	10:15:14
3	Ba 233.527†	-128.0	11.2	0.0504 µg/L	0.0504 ppb	10:15:34
3	Be 313.107†	-819.4	72.2	0.0169 µg/L	0.0169 ppb	10:15:14
3	Cd 226.502†	-82.6	15.9	0.1042 µg/L	0.1042 ppb	10:15:34
3	Co 228.616†	-248.2	-17.8	-0.2317 µg/L	-0.2317 ppb	10:15:34
3	Cr 267.716†	305.2	15.4	0.1427 µg/L	0.1427 ppb	10:15:34
3	Cu 324.752†	3120.1	-28.2	-0.1239 µg/L	-0.1239 ppb	10:15:14
3	Mn 257.610†	197.1	13.1	0.0170 µg/L	0.0170 ppb	10:15:34
3	Mo 202.031†	-21.9	-1.2	-0.0400 µg/L	-0.0400 ppb	10:15:34
3	Ni 231.604†	-98.1	0.5	0.0065 µg/L	0.0065 ppb	10:15:34
3	P 214.914†	-60.2	-27.5	-6.2812 µg/L	-6.2812 ppb	10:15:34
3	Pb 220.353†	147.5	60.4	3.7897 µg/L	3.7897 ppb	10:15:34
3	S 181.975 Axial†	99.7	10.8	9.1891 µg/L	9.1891 ppb	10:15:34
3	Sb 206.836†	79.9	2.9	0.3659 µg/L	0.3659 ppb	10:15:34
3	Se 196.026†	15.6	2.9	1.10 µg/L	1.10 ppb	10:15:34
3	SiO2†	1836.5	81.3	8.2455 µg/L	8.2455 ppb	10:15:14
3	Si 251.611†	1050.1	251.9	3.7737 µg/L	3.7737 ppb	10:15:14
3	Sn 189.927†	-0.0	-12.3	-0.8513 µg/L	-0.8513 ppb	10:15:34
3	Ti 334.940†	755.0	-53.3	-0.0512 µg/L	-0.0512 ppb	10:15:14
3	Tl 190.801†	-112.7	1.1	0.1622 µg/L	0.1622 ppb	10:15:34
3	U 409.014†	-454.1	-167.2	-10.206 µg/L	-10.206 ppb	10:15:14
3	V 292.402†	619.7	65.9	0.3164 µg/L	0.3164 ppb	10:15:14
3	Zn 213.857†	613.3	26.8	0.1529 µg/L	0.1529 ppb	10:15:34

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1744000.2	101.24 %	1.147			1.13%
Sc RADIAL	117460.2	101 %	0.7			0.68%
Y 371.029	986861.8	101.10 %	1.113			1.10%
Ag 328.068†	120.7	0.4888 µg/L	1.21399	0.4888 ppb	1.21399	248.38%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-11.7	-2.7148 µg/L	1.75378	-2.7148 ppb	1.75378	64.60%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	10.4	3.4385 µg/L	1.26715	3.4385 ppb	1.26715	36.85%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	232.3	3.3940 µg/L	0.90334	3.3940 ppb	0.90334	26.62%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-8.7	-0.0392 µg/L	0.10318	-0.0392 ppb	0.10318	263.25%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-174.2	-0.0493 µg/L	0.05884	-0.0493 ppb	0.05884	119.44%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	11.5	0.9673 µg/L	2.86555	0.9673 ppb	2.86555	296.25%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	20.0	0.1307 µg/L	0.10912	0.1307 ppb	0.10912	83.48%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	6.6	0.0852 µg/L	0.28858	0.0852 ppb	0.28858	338.83%



QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	4.1	0.0385 µg/L	0.09824	0.0385 ppb	0.09824	255.21%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	8.7	0.0331 µg/L	0.40552	0.0331 ppb	0.40552	>999.9%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	22.7	1.9503 µg/L	1.06460	1.9503 ppb	1.06460	54.59%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	92.4	36.529 µg/L	27.0215	36.529 ppb	27.0215	73.97%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	2.9	1.6380 µg/L	1.97600	1.6380 ppb	1.97600	120.63%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	21.3	0.0274 µg/L	0.01158	0.0274 ppb	0.01158	42.20%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-6.2	-0.2116 µg/L	0.16510	-0.2116 ppb	0.16510	78.01%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	53.9	8.5438 µg/L	5.41978	8.5438 ppb	5.41978	63.44%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	0.9	0.0106 µg/L	0.03903	0.0106 ppb	0.03903	368.93%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-8.9	-2.0285 µg/L	4.27569	-2.0285 ppb	4.27569	210.78%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	49.5	3.0991 µg/L	0.60514	3.0991 ppb	0.60514	19.53%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	9.8	8.2897 µg/L	0.78626	8.2897 ppb	0.78626	9.48%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-2.7	-0.3494 µg/L	0.82203	-0.3494 ppb	0.82203	235.29%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	6.2	2.38 µg/L	1.648	2.38 ppb	1.648	69.17%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	137.9	13.978 µg/L	5.0165	13.978 ppb	5.0165	35.89%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	320.8	4.8030 µg/L	2.66646	4.8030 ppb	2.66646	55.52%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-4.2	-0.2924 µg/L	0.48986	-0.2924 ppb	0.48986	167.53%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-35.9	-0.0907 µg/L	0.14262	-0.0907 ppb	0.14262	157.23%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	0.8	0.0023 µg/L	0.08994	0.0023 ppb	0.08994	>999.9%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-1.6	-0.2332 µg/L	0.35883	-0.2332 ppb	0.35883	153.90%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-60.4	-3.7009 µg/L	7.25315	-3.7009 ppb	7.25315	195.99%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-37.7	-0.1897 µg/L	0.52536	-0.1897 ppb	0.52536	276.96%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	27.8	0.1586 µg/L	0.06796	0.1586 ppb	0.06796	42.85%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 39

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/14/2010 10:25:51

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	116234.4	116234.4	99.9 %		10:26:25
1	Al 396.153Radial†	22329.7	22440.5	5220.3 µg/L	5220.3 ppb	10:26:25
1	Ca 317.933Radial†	61772.0	61430.7	5165.7 µg/L	5165.7 ppb	10:26:25
1	Fe 238.204 Radial†	59654.9	59639.8	5134.9 µg/L	5134.9 ppb	10:26:25
1	K 766.490 Radial†	14156.0	12732.6	5028.3 µg/L	5028.3 ppb	10:26:25
1	Mg 279.077 IEC†	9525.4	9383.2	5243.3 µg/L	5243.3 ppb	10:26:25
1	Na 589.592 Radial†	63903.3	63375.5	10076 µg/L	10076 ppb	10:26:23
1	Sr 421.552†	197249.1	197546.6	499.71 µg/L	499.71 ppb	10:26:23
1	Sc 361.383	1723246.4	1723246.4	100.03 %		10:26:51
1	Y 371.029	965025.8	965025.8	98.858 %		10:26:51
1	Ag 328.068†	126116.7	120958.3	502.90 µg/L	502.90 ppb	10:26:51
1	As 188.979†	1497.6	1513.5	508.95 µg/L	508.95 ppb	10:27:12
1	B 249.677†	37715.4	33708.3	490.72 µg/L	490.72 ppb	10:26:51
1	Ba 233.527†	111476.7	111579.8	499.38 µg/L	499.38 ppb	10:26:51
1	Be 313.107†	1796526.4	1796851.2	496.88 µg/L	496.88 ppb	10:26:51
1	Cd 226.502†	75902.9	75976.9	497.87 µg/L	497.87 ppb	10:26:51
1	Co 228.616†	38309.3	38524.7	500.94 µg/L	500.94 ppb	10:26:51
1	Cr 267.716†	57239.3	56935.6	496.28 µg/L	496.28 ppb	10:26:51
1	Cu 324.752†	124524.6	121376.3	498.23 µg/L	498.23 ppb	10:26:51
1	Mn 257.610†	386974.2	386672.8	499.55 µg/L	499.55 ppb	10:26:51
1	Mo 202.031†	14864.9	14880.8	506.15 µg/L	506.15 ppb	10:27:12
1	Ni 231.604†	40650.4	40735.2	502.47 µg/L	502.47 ppb	10:26:51
1	P 214.914†	11023.7	11052.2	2512.1 µg/L	2512.1 ppb	10:27:12
1	Pb 220.353†	8157.6	8069.9	507.02 µg/L	507.02 ppb	10:27:12
1	S 181.975 Axial†	1264.3	1176.3	1002.6 µg/L	1002.6 ppb	10:27:12
1	Sb 206.836†	4017.1	3939.8	504.64 µg/L	504.64 ppb	10:27:12
1	Se 196.026†	1323.4	1310.5	507 µg/L	507 ppb	10:27:12
1	SiO2†	54350.0	52600.7	5307.3 µg/L	5307.3 ppb	10:26:51
1	Si 251.611†	167885.4	167048.2	2488.4 µg/L	2488.4 ppb	10:26:51
1	Sn 189.927†	7278.9	7264.4	505.76 µg/L	505.76 ppb	10:27:12
1	Ti 334.940†	480810.1	479862.2	498.36 µg/L	498.36 ppb	10:26:51
1	Tl 190.801†	3468.3	3579.6	511.69 µg/L	511.69 ppb	10:27:12
1	U 409.014†	6835.5	7114.6	465.18 µg/L	465.18 ppb	10:26:51
1	V 292.402†	101610.3	101032.6	502.15 µg/L	502.15 ppb	10:26:51
1	Zn 213.857†	88286.2	87679.9	496.71 µg/L	496.71 ppb	10:26:51
2	Sc RADIAL	116024.8	116024.8	99.7 %		10:26:29
2	Al 396.153Radial†	22377.1	22528.5	5240.8 µg/L	5240.8 ppb	10:26:29
2	Ca 317.933Radial†	61559.8	61329.6	5157.2 µg/L	5157.2 ppb	10:26:29
2	Fe 238.204 Radial†	59425.5	59517.5	5124.4 µg/L	5124.4 ppb	10:26:29
2	K 766.490 Radial†	14120.2	12722.2	5024.2 µg/L	5024.2 ppb	10:26:29
2	Mg 279.077 IEC†	9535.1	9410.1	5258.3 µg/L	5258.3 ppb	10:26:29
2	Na 589.592 Radial†	63545.5	63132.2	10037 µg/L	10037 ppb	10:26:27
2	Sr 421.552†	197139.0	197792.9	500.33 µg/L	500.33 ppb	10:26:27
2	Sc 361.383	1716631.7	1716631.7	99.647 %		10:27:15
2	Y 371.029	961484.9	961484.9	98.496 %		10:27:15
2	Ag 328.068†	125565.5	120891.0	502.64 µg/L	502.64 ppb	10:27:15
2	As 188.979†	1506.0	1527.7	513.66 µg/L	513.66 ppb	10:27:35
2	B 249.677†	37704.5	33842.7	492.68 µg/L	492.68 ppb	10:27:15
2	Ba 233.527†	110746.4	111276.3	498.02 µg/L	498.02 ppb	10:27:15
2	Be 313.107†	1785098.7	1792303.5	495.63 µg/L	495.63 ppb	10:27:15
2	Cd 226.502†	75666.6	76032.1	498.24 µg/L	498.24 ppb	10:27:15
2	Co 228.616†	38114.8	38477.2	500.32 µg/L	500.32 ppb	10:27:15
2	Cr 267.716†	57164.0	57080.5	497.53 µg/L	497.53 ppb	10:27:15
2	Cu 324.752†	123825.6	121154.5	497.34 µg/L	497.34 ppb	10:27:15
2	Mn 257.610†	384594.7	385775.5	498.39 µg/L	498.39 ppb	10:27:15
2	Mo 202.031†	14879.3	14952.5	508.58 µg/L	508.58 ppb	10:27:35
2	Ni 231.604†	40345.1	40585.4	500.62 µg/L	500.62 ppb	10:27:15
2	P 214.914†	11005.4	11076.4	2517.7 µg/L	2517.7 ppb	10:27:35
2	Pb 220.353†	8188.6	8132.4	510.92 µg/L	510.92 ppb	10:27:35

2	S 181.975 Axial†	1276.9	1193.9	1017.6 µg/L	1017.6 ppb	10:27:35
2	Sb 206.836†	4011.7	3949.8	505.94 µg/L	505.94 ppb	10:27:35
2	Se 196.026†	1320.5	1312.7	508 µg/L	508 ppb	10:27:35
2	SiO2†	54241.7	52701.4	5317.4 µg/L	5317.4 ppb	10:27:15
2	Si 251.611†	167726.6	167535.6	2495.7 µg/L	2495.7 ppb	10:27:15
2	Sn 189.927†	7279.3	7292.9	507.74 µg/L	507.74 ppb	10:27:35
2	Ti 334.940†	478783.1	479680.2	498.16 µg/L	498.16 ppb	10:27:15
2	Tl 190.801†	3472.4	3597.1	514.15 µg/L	514.15 ppb	10:27:35
2	U 409.014†	7206.4	7513.1	489.48 µg/L	489.48 ppb	10:27:15
2	V 292.402†	101032.1	100843.8	501.27 µg/L	501.27 ppb	10:27:15
2	Zn 213.857†	88053.6	87786.6	497.34 µg/L	497.34 ppb	10:27:15
3	Sc RADIAL	115140.6	115140.6	98.9 %		10:26:33
3	Al 396.153Radial†	22267.0	22589.5	5255.0 µg/L	5255.0 ppb	10:26:33
3	Ca 317.933Radial†	61232.4	61472.8	5169.2 µg/L	5169.2 ppb	10:26:33
3	Fe 238.204 Radial†	59276.9	59825.1	5150.9 µg/L	5150.9 ppb	10:26:33
3	K 766.490 Radial†	14087.9	12798.3	5054.3 µg/L	5054.3 ppb	10:26:33
3	Mg 279.077 IEC†	9449.1	9396.6	5250.8 µg/L	5250.8 ppb	10:26:33
3	Na 589.592 Radial†	64444.3	64530.5	10260 µg/L	10260 ppb	10:26:31
3	Sr 421.552†	198968.3	201161.2	508.85 µg/L	508.85 ppb	10:26:31
3	Sc 361.383	1706363.2	1706363.2	99.051 %		10:27:38
3	Y 371.029	956040.6	956040.6	97.938 %		10:27:38
3	Ag 328.068†	125012.7	121091.1	503.46 µg/L	503.46 ppb	10:27:38
3	As 188.979†	1496.5	1527.2	513.50 µg/L	513.50 ppb	10:27:58
3	B 249.677†	37606.0	33971.0	494.55 µg/L	494.55 ppb	10:27:38
3	Ba 233.527†	110493.2	111689.5	499.87 µg/L	499.87 ppb	10:27:38
3	Be 313.107†	1782109.4	1800065.9	497.78 µg/L	497.78 ppb	10:27:38
3	Cd 226.502†	75220.5	76038.7	498.28 µg/L	498.28 ppb	10:27:38
3	Co 228.616†	37888.2	38478.5	500.34 µg/L	500.34 ppb	10:27:38
3	Cr 267.716†	56755.7	57013.6	496.95 µg/L	496.95 ppb	10:27:38
3	Cu 324.752†	123449.9	121523.0	498.84 µg/L	498.84 ppb	10:27:38
3	Mn 257.610†	383511.4	387004.4	499.98 µg/L	499.98 ppb	10:27:38
3	Mo 202.031†	14804.6	14966.9	509.07 µg/L	509.07 ppb	10:27:58
3	Ni 231.604†	40179.4	40661.8	501.56 µg/L	501.56 ppb	10:27:38
3	P 214.914†	10985.2	11122.4	2528.1 µg/L	2528.1 ppb	10:27:58
3	Pb 220.353†	8145.9	8138.7	511.33 µg/L	511.33 ppb	10:27:58
3	S 181.975 Axial†	1263.9	1188.4	1012.9 µg/L	1012.9 ppb	10:27:58
3	Sb 206.836†	3985.4	3947.5	505.67 µg/L	505.67 ppb	10:27:58
3	Se 196.026†	1312.8	1312.8	508 µg/L	508 ppb	10:27:58
3	SiO2†	54304.9	53092.7	5357.0 µg/L	5357.0 ppb	10:27:38
3	Si 251.611†	167635.0	168456.0	2509.4 µg/L	2509.4 ppb	10:27:38
3	Sn 189.927†	7266.6	7324.0	509.90 µg/L	509.90 ppb	10:27:58
3	Ti 334.940†	477198.7	480972.0	499.51 µg/L	499.51 ppb	10:27:38
3	Tl 190.801†	3447.3	3592.7	513.55 µg/L	513.55 ppb	10:27:58
3	U 409.014†	6987.3	7335.5	478.71 µg/L	478.71 ppb	10:27:38
3	V 292.402†	100706.1	101124.8	502.64 µg/L	502.64 ppb	10:27:38
3	Zn 213.857†	87668.4	87929.5	498.15 µg/L	498.15 ppb	10:27:38

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1715413.8	99.576 %	0.4938			0.50%
Sc RADIAL	115799.9	99.5 %	0.50			0.50%
Y 371.029	960850.4	98.431 %	0.4637			0.47%
Ag 328.068†	120980.1	503.00 µg/L	0.422	503.00 ppb	0.422	0.08%
QC value within limits for Ag 328.068 Recovery = 100.60%						
Al 396.153Radial†	22519.5	5238.7 µg/L	17.43	5238.7 ppb	17.43	0.33%
QC value within limits for Al 396.153Radial Recovery = 104.77%						
As 188.979†	1522.8	512.03 µg/L	2.674	512.03 ppb	2.674	0.52%
QC value within limits for As 188.979 Recovery = 102.41%						
B 249.677†	33840.7	492.65 µg/L	1.920	492.65 ppb	1.920	0.39%
QC value within limits for B 249.677 Recovery = 98.53%						
Ba 233.527†	111515.2	499.09 µg/L	0.957	499.09 ppb	0.957	0.19%
QC value within limits for Ba 233.527 Recovery = 99.82%						
Be 313.107†	1796406.9	496.76 µg/L	1.076	496.76 ppb	1.076	0.22%
QC value within limits for Be 313.107 Recovery = 99.35%						
Ca 317.933Radial†	61411.0	5164.0 µg/L	6.19	5164.0 ppb	6.19	0.12%
QC value within limits for Ca 317.933Radial Recovery = 103.28%						
Cd 226.502†	76015.9	498.13 µg/L	0.222	498.13 ppb	0.222	0.04%
QC value within limits for Cd 226.502 Recovery = 99.63%						
Co 228.616†	38493.5	500.54 µg/L	0.352	500.54 ppb	0.352	0.07%

QC value within limits for Co 228.616 Recovery = 100.11%							
Cr	267.716†	57009.9	496.92 µg/L	0.622	496.92 ppb	0.622	0.13%
QC value within limits for Cr 267.716 Recovery = 99.38%							
Cu	324.752†	121351.3	498.14 µg/L	0.756	498.14 ppb	0.756	0.15%
QC value within limits for Cu 324.752 Recovery = 99.63%							
Fe	238.204 Radial†	59660.8	5136.7 µg/L	13.33	5136.7 ppb	13.33	0.26%
QC value within limits for Fe 238.204 Radial Recovery = 102.73%							
K	766.490 Radial†	12751.0	5035.6 µg/L	16.29	5035.6 ppb	16.29	0.32%
QC value within limits for K 766.490 Radial Recovery = 100.71%							
Mg	279.077 IEC†	9396.6	5250.8 µg/L	7.54	5250.8 ppb	7.54	0.14%
QC value within limits for Mg 279.077 IEC Recovery = 105.02%							
Mn	257.610†	386484.2	499.31 µg/L	0.822	499.31 ppb	0.822	0.16%
QC value within limits for Mn 257.610 Recovery = 99.86%							
Mo	202.031†	14933.4	507.93 µg/L	1.568	507.93 ppb	1.568	0.31%
QC value within limits for Mo 202.031 Recovery = 101.59%							
Na	589.592 Radial†	63679.4	10125 µg/L	118.8	10125 ppb	118.8	1.17%
QC value within limits for Na 589.592 Radial Recovery = 101.25%							
Ni	231.604†	40660.8	501.55 µg/L	0.924	501.55 ppb	0.924	0.18%
QC value within limits for Ni 231.604 Recovery = 100.31%							
P	214.914†	11083.7	2519.3 µg/L	8.13	2519.3 ppb	8.13	0.32%
QC value within limits for P 214.914 Recovery = 100.77%							
Pb	220.353†	8113.7	509.76 µg/L	2.381	509.76 ppb	2.381	0.47%
QC value within limits for Pb 220.353 Recovery = 101.95%							
S	181.975 Axial†	1186.2	1011.0 µg/L	7.65	1011.0 ppb	7.65	0.76%
QC value within limits for S 181.975 Axial Recovery = 101.10%							
Sb	206.836†	3945.7	505.41 µg/L	0.686	505.41 ppb	0.686	0.14%
QC value within limits for Sb 206.836 Recovery = 101.08%							
Se	196.026†	1312.0	508 µg/L	0.5	508 ppb	0.5	0.10%
QC value within limits for Se 196.026 Recovery = 101.53%							
SiO2†		52798.3	5327.2 µg/L	26.27	5327.2 ppb	26.27	0.49%
QC value within limits for SiO2 Recovery = 99.62%							
Si	251.611†	167679.9	2497.8 µg/L	10.66	2497.8 ppb	10.66	0.43%
QC value within limits for Si 251.611 Recovery = 99.91%							
Sn	189.927†	7293.8	507.80 µg/L	2.071	507.80 ppb	2.071	0.41%
QC value within limits for Sn 189.927 Recovery = 101.56%							
Sr	421.552†	198833.5	502.97 µg/L	5.109	502.97 ppb	5.109	1.02%
QC value within limits for Sr 421.552 Recovery = 100.59%							
Ti	334.940†	480171.4	498.67 µg/L	0.728	498.67 ppb	0.728	0.15%
QC value within limits for Ti 334.940 Recovery = 99.73%							
Tl	190.801†	3589.8	513.13 µg/L	1.285	513.13 ppb	1.285	0.25%
QC value within limits for Tl 190.801 Recovery = 102.63%							
U	409.014†	7321.1	477.79 µg/L	12.177	477.79 ppb	12.177	2.55%
QC value within limits for U 409.014 Recovery = 95.56%							
V	292.402†	101000.4	502.02 µg/L	0.694	502.02 ppb	0.694	0.14%
QC value within limits for V 292.402 Recovery = 100.40%							
Zn	213.857†	87798.7	497.40 µg/L	0.717	497.40 ppb	0.717	0.14%
QC value within limits for Zn 213.857 Recovery = 99.48%							

All analyte(s) passed QC.

Sequence No.: 40

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 109

Date Collected: 4/14/2010 10:28:06

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	116086.9	116086.9	99.7 %		10:28:38
1	Al 396.153Radial†	846.3	926.1	215.93 µg/L	215.93 ppb	10:28:59
1	Ca 317.933Radial†	3038.6	2613.7	219.79 µg/L	219.79 ppb	10:28:59
1	Fe 238.204 Radial†	1364.7	1264.4	108.87 µg/L	108.87 ppb	10:28:59
1	K 766.490 Radial†	2089.9	651.1	257.18 µg/L	257.18 ppb	10:28:38
1	Mg 279.077 IEC†	739.4	585.0	326.55 µg/L	326.55 ppb	10:28:59
1	Na 589.592 Radial†	2610.0	1994.3	316.99 µg/L	316.99 ppb	10:28:38
1	Sr 421.552†	2087.2	2096.7	5.3026 µg/L	5.3026 ppb	10:28:38
1	Sc 361.383	1729947.4	1729947.4	100.42 %		10:30:00
1	Y 371.029	979477.3	979477.3	100.34 %		10:30:00
1	Ag 328.068†	6295.6	1150.0	4.8433 µg/L	4.8433 ppb	10:30:02
1	As 188.979†	81.9	98.0	32.578 µg/L	32.578 ppb	10:30:23
1	B 249.677†	7630.6	3603.4	52.625 µg/L	52.625 ppb	10:30:02
1	Ba 233.527†	982.8	1116.3	4.9965 µg/L	4.9965 ppb	10:30:23
1	Be 313.107†	16540.2	17352.5	4.8172 µg/L	4.8172 ppb	10:30:02
1	Cd 226.502†	731.8	826.3	5.4087 µg/L	5.4087 ppb	10:30:23
1	Co 228.616†	162.7	389.3	5.0598 µg/L	5.0598 ppb	10:30:23
1	Cr 267.716†	899.5	609.7	5.2633 µg/L	5.2633 ppb	10:30:23
1	Cu 324.752†	5631.3	2498.1	10.305 µg/L	10.305 ppb	10:30:02
1	Mn 257.610†	8312.7	8096.4	10.451 µg/L	10.451 ppb	10:30:02
1	Mo 202.031†	285.9	305.2	10.383 µg/L	10.383 ppb	10:30:23
1	Ni 231.604†	304.7	400.8	4.9443 µg/L	4.9443 ppb	10:30:23
1	P 214.914†	608.7	638.1	145.39 µg/L	145.39 ppb	10:30:23
1	Pb 220.353†	285.5	199.1	12.458 µg/L	12.458 ppb	10:30:23
1	S 181.975 Axial†	214.6	126.1	107.14 µg/L	107.14 ppb	10:30:23
1	Sb 206.836†	147.1	70.4	9.0881 µg/L	9.0881 ppb	10:30:23
1	Se 196.026†	97.9	85.0	32.9 µg/L	32.9 ppb	10:30:23
1	SiO2†	3876.1	2127.4	215.09 µg/L	215.09 ppb	10:30:02
1	Si 251.611†	7782.7	6965.0	103.97 µg/L	103.97 ppb	10:30:02
1	Sn 189.927†	162.9	150.0	10.424 µg/L	10.424 ppb	10:30:23
1	Ti 334.940†	5745.5	4922.5	5.0691 µg/L	5.0691 ppb	10:30:02
1	Tl 190.801†	31.1	143.4	20.281 µg/L	20.281 ppb	10:30:23
1	U 409.014†	803.2	1081.1	66.371 µg/L	66.371 ppb	10:30:02
1	V 292.402†	1378.6	826.7	4.2127 µg/L	4.2127 ppb	10:30:02
1	Zn 213.857†	2816.8	2226.2	12.664 µg/L	12.664 ppb	10:30:23
2	Sc RADIAL	116511.8	116511.8	100 %		10:29:01
2	Al 396.153Radial†	845.4	922.2	214.98 µg/L	214.98 ppb	10:29:21
2	Ca 317.933Radial†	2997.9	2562.0	215.44 µg/L	215.44 ppb	10:29:21
2	Fe 238.204 Radial†	1351.9	1246.7	107.34 µg/L	107.34 ppb	10:29:21
2	K 766.490 Radial†	2076.1	629.7	248.72 µg/L	248.72 ppb	10:29:01
2	Mg 279.077 IEC†	735.1	578.0	322.69 µg/L	322.69 ppb	10:29:21
2	Na 589.592 Radial†	2664.2	2038.9	324.10 µg/L	324.10 ppb	10:29:01
2	Sr 421.552†	1954.2	1956.3	4.9472 µg/L	4.9472 ppb	10:29:01
2	Sc 361.383	1709387.3	1709387.3	99.227 %		10:30:25
2	Y 371.029	967741.6	967741.6	99.137 %		10:30:25
2	Ag 328.068†	6686.8	1619.6	6.7471 µg/L	6.7471 ppb	10:30:27
2	As 188.979†	75.1	92.1	30.621 µg/L	30.621 ppb	10:30:47
2	B 249.677†	7589.4	3653.2	53.353 µg/L	53.353 ppb	10:30:27
2	Ba 233.527†	995.9	1141.3	5.1089 µg/L	5.1089 ppb	10:30:47
2	Be 313.107†	16858.5	17871.4	4.9533 µg/L	4.9533 ppb	10:30:27
2	Cd 226.502†	703.1	806.1	5.2771 µg/L	5.2771 ppb	10:30:47
2	Co 228.616†	167.8	396.4	5.1516 µg/L	5.1516 ppb	10:30:47
2	Cr 267.716†	884.3	605.2	5.2428 µg/L	5.2428 ppb	10:30:47
2	Cu 324.752†	5615.7	2549.8	10.496 µg/L	10.496 ppb	10:30:27
2	Mn 257.610†	8274.1	8157.1	10.530 µg/L	10.530 ppb	10:30:27
2	Mo 202.031†	300.6	323.5	11.004 µg/L	11.004 ppb	10:30:47
2	Ni 231.604†	339.4	439.5	5.4211 µg/L	5.4211 ppb	10:30:47
2	P 214.914†	620.2	657.0	149.69 µg/L	149.69 ppb	10:30:47
2	Pb 220.353†	265.8	182.6	11.446 µg/L	11.446 ppb	10:30:47

2	S 181.975 Axial†	208.0	122.0	103.66 µg/L	103.66 ppb	10:30:47
2	Sb 206.836†	148.7	73.8	9.5273 µg/L	9.5273 ppb	10:30:47
2	Se 196.026†	103.9	92.3	35.6 µg/L	35.6 ppb	10:30:47
2	SiO2†	3920.1	2218.2	224.27 µg/L	224.27 ppb	10:30:27
2	Si 251.611†	7690.8	6965.6	103.97 µg/L	103.97 ppb	10:30:27
2	Sn 189.927†	154.2	143.2	9.9547 µg/L	9.9547 ppb	10:30:47
2	Ti 334.940†	5560.0	4804.3	4.9564 µg/L	4.9564 ppb	10:30:27
2	Tl 190.801†	43.5	156.3	22.098 µg/L	22.098 ppb	10:30:47
2	U 409.014†	399.4	683.8	42.106 µg/L	42.106 ppb	10:30:27
2	V 292.402†	1446.5	911.6	4.6191 µg/L	4.6191 ppb	10:30:27
2	Zn 213.857†	2843.4	2286.7	13.007 µg/L	13.007 ppb	10:30:47
3	Sc RADIAL	116072.5	116072.5	99.7 %		10:29:23
3	Al 396.153Radial†	840.9	920.9	214.73 µg/L	214.73 ppb	10:29:43
3	Ca 317.933Radial†	3026.3	2601.8	218.78 µg/L	218.78 ppb	10:29:43
3	Fe 238.204 Radial†	1358.8	1258.8	108.38 µg/L	108.38 ppb	10:29:43
3	K 766.490 Radial†	1958.9	520.0	205.35 µg/L	205.35 ppb	10:29:23
3	Mg 279.077 IEC†	741.0	586.7	327.47 µg/L	327.47 ppb	10:29:43
3	Na 589.592 Radial†	2623.1	2007.8	319.18 µg/L	319.18 ppb	10:29:23
3	Sr 421.552†	2105.4	2115.3	5.3495 µg/L	5.3495 ppb	10:29:23
3	Sc 361.383	1726976.5	1726976.5	100.25 %		10:30:49
3	Y 371.029	977051.1	977051.1	100.09 %		10:30:49
3	Ag 328.068†	6560.0	1424.4	5.9469 µg/L	5.9469 ppb	10:30:51
3	As 188.979†	74.5	90.7	30.154 µg/L	30.154 ppb	10:31:11
3	B 249.677†	7789.6	3775.0	55.133 µg/L	55.133 ppb	10:30:51
3	Ba 233.527†	1025.9	1161.0	5.1965 µg/L	5.1965 ppb	10:31:11
3	Be 313.107†	16944.5	17784.1	4.9294 µg/L	4.9294 ppb	10:30:51
3	Cd 226.502†	713.6	809.3	5.2978 µg/L	5.2978 ppb	10:31:11
3	Co 228.616†	151.3	378.2	4.9154 µg/L	4.9154 ppb	10:31:11
3	Cr 267.716†	898.4	610.2	5.2857 µg/L	5.2857 ppb	10:31:11
3	Cu 324.752†	5678.3	2554.6	10.517 µg/L	10.517 ppb	10:30:51
3	Mn 257.610†	8318.9	8116.9	10.478 µg/L	10.478 ppb	10:30:51
3	Mo 202.031†	272.4	292.2	9.9416 µg/L	9.9416 ppb	10:31:11
3	Ni 231.604†	328.6	425.2	5.2450 µg/L	5.2450 ppb	10:31:11
3	P 214.914†	622.9	653.4	148.86 µg/L	148.86 ppb	10:31:11
3	Pb 220.353†	282.4	196.5	12.310 µg/L	12.310 ppb	10:31:11
3	S 181.975 Axial†	207.3	119.2	101.27 µg/L	101.27 ppb	10:31:11
3	Sb 206.836†	150.3	73.9	9.5214 µg/L	9.5214 ppb	10:31:11
3	Se 196.026†	91.1	78.4	30.3 µg/L	30.3 ppb	10:31:11
3	SiO2†	3922.5	2180.4	220.47 µg/L	220.47 ppb	10:30:51
3	Si 251.611†	7998.0	7193.1	107.39 µg/L	107.39 ppb	10:30:51
3	Sn 189.927†	153.6	141.0	9.7975 µg/L	9.7975 ppb	10:31:11
3	Ti 334.940†	5596.4	4783.6	4.9341 µg/L	4.9341 ppb	10:30:51
3	Tl 190.801†	32.7	145.0	20.509 µg/L	20.509 ppb	10:31:11
3	U 409.014†	417.6	697.8	42.966 µg/L	42.966 ppb	10:30:51
3	V 292.402†	1468.6	918.8	4.6443 µg/L	4.6443 ppb	10:30:51
3	Zn 213.857†	2825.7	2239.8	12.740 µg/L	12.740 ppb	10:31:11

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Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1722103.7	99.965 %	0.6451			0.65%
Sc RADIAL	116223.7	99.8 %	0.21			0.21%
Y 371.029	974756.6	99.855 %	0.6346			0.64%
Ag 328.068†	1398.0	5.8458 µg/L	0.95591	5.8458 ppb	0.95591	16.35%
QC value within limits for Ag 328.068 Recovery = 116.92%						
Al 396.153Radial†	923.1	215.21 µg/L	0.637	215.21 ppb	0.637	0.30%
QC value within limits for Al 396.153Radial Recovery = 107.61%						
As 188.979†	93.6	31.118 µg/L	1.2858	31.118 ppb	1.2858	4.13%
QC value within limits for As 188.979 Recovery = 103.73%						
B 249.677†	3677.2	53.704 µg/L	1.2901	53.704 ppb	1.2901	2.40%
QC value within limits for B 249.677 Recovery = 107.41%						
Ba 233.527†	1139.5	5.1006 µg/L	0.10028	5.1006 ppb	0.10028	1.97%
QC value within limits for Ba 233.527 Recovery = 102.01%						
Be 313.107†	17669.3	4.9000 µg/L	0.07267	4.9000 ppb	0.07267	1.48%
QC value within limits for Be 313.107 Recovery = 98.00%						
Ca 317.933Radial†	2592.5	218.00 µg/L	2.277	218.00 ppb	2.277	1.04%
QC value within limits for Ca 317.933Radial Recovery = 109.00%						
Cd 226.502†	813.9	5.3279 µg/L	0.07078	5.3279 ppb	0.07078	1.33%
QC value within limits for Cd 226.502 Recovery = 106.56%						
Co 228.616†	388.0	5.0423 µg/L	0.11909	5.0423 ppb	0.11909	2.36%

QC value within limits for Co 228.616 Recovery = 100.85%							
Cr 267.716†	608.4	5.2639 µg/L	0.02147	5.2639 ppb	0.02147	0.41%	
QC value within limits for Cr 267.716 Recovery = 105.28%							
Cu 324.752†	2534.2	10.439 µg/L	0.1169	10.439 ppb	0.1169	1.12%	
QC value within limits for Cu 324.752 Recovery = 104.39%							
Fe 238.204 Radial†	1256.6	108.19 µg/L	0.780	108.19 ppb	0.780	0.72%	
QC value within limits for Fe 238.204 Radial Recovery = 108.19%							
K 766.490 Radial†	600.3	237.09 µg/L	27.805	237.09 ppb	27.805	11.73%	
QC value greater than the upper limit for K 766.490 Radial Recovery = 158.06%							
Mg 279.077 IEC†	583.2	325.57 µg/L	2.537	325.57 ppb	2.537	0.78%	
QC value within limits for Mg 279.077 IEC Recovery = 108.52%							
Mn 257.610†	8123.5	10.486 µg/L	0.0400	10.486 ppb	0.0400	0.38%	
QC value within limits for Mn 257.610 Recovery = 104.86%							
Mo 202.031†	307.0	10.443 µg/L	0.5339	10.443 ppb	0.5339	5.11%	
QC value within limits for Mo 202.031 Recovery = 104.43%							
Na 589.592 Radial†	2013.7	320.09 µg/L	3.638	320.09 ppb	3.638	1.14%	
QC value within limits for Na 589.592 Radial Recovery = 106.70%							
Ni 231.604†	421.8	5.2035 µg/L	0.24108	5.2035 ppb	0.24108	4.63%	
QC value within limits for Ni 231.604 Recovery = 104.07%							
P 214.914†	649.5	147.98 µg/L	2.281	147.98 ppb	2.281	1.54%	
QC value within limits for P 214.914 Recovery = 98.65%							
Pb 220.353†	192.7	12.071 µg/L	0.5462	12.071 ppb	0.5462	4.53%	
QC value within limits for Pb 220.353 Recovery = 120.71%							
S 181.975 Axial†	122.5	104.02 µg/L	2.952	104.02 ppb	2.952	2.84%	
QC value within limits for S 181.975 Axial Recovery = 104.02%							
Sb 206.836†	72.7	9.3789 µg/L	0.25189	9.3789 ppb	0.25189	2.69%	
QC value within limits for Sb 206.836 Recovery = 93.79%							
Se 196.026†	85.2	32.9 µg/L	2.68	32.9 ppb	2.68	8.14%	
QC value within limits for Se 196.026 Recovery = 109.71%							
SiO2†	2175.3	219.94 µg/L	4.614	219.94 ppb	4.614	2.10%	
QC value within limits for SiO2 Recovery = 103.26%							
Si 251.611†	7041.2	105.11 µg/L	1.974	105.11 ppb	1.974	1.88%	
QC value within limits for Si 251.611 Recovery = 105.11%							
Sn 189.927†	144.7	10.059 µg/L	0.3258	10.059 ppb	0.3258	3.24%	
QC value within limits for Sn 189.927 Recovery = 100.59%							
Sr 421.552†	2056.1	5.1998 µg/L	0.21996	5.1998 ppb	0.21996	4.23%	
QC value within limits for Sr 421.552 Recovery = 104.00%							
Ti 334.940†	4836.8	4.9865 µg/L	0.07235	4.9865 ppb	0.07235	1.45%	
QC value within limits for Ti 334.940 Recovery = 99.73%							
Tl 190.801†	148.2	20.963 µg/L	0.9901	20.963 ppb	0.9901	4.72%	
QC value within limits for Tl 190.801 Recovery = 104.81%							
U 409.014†	820.9	50.481 µg/L	13.7679	50.481 ppb	13.7679	27.27%	
QC value within limits for U 409.014 Recovery = 100.96%							
V 292.402†	885.7	4.4921 µg/L	0.24225	4.4921 ppb	0.24225	5.39%	
QC value within limits for V 292.402 Recovery = 89.84%							
Zn 213.857†	2250.9	12.804 µg/L	0.1799	12.804 ppb	0.1799	1.41%	
QC value within limits for Zn 213.857 Recovery = 128.04%							
QC Failed. Continue with analysis.							

Sequence No.: 41

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/14/2010 10:31:19

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	118225.3	118225.3	102 %		10:31:51
1	Al 396.153Radial†	-78.7	0.0	-0.0036 µg/L	-0.0036 ppb	10:32:11
1	Ca 317.933Radial†	449.6	9.5	0.7963 µg/L	0.7963 ppb	10:32:11
1	Fe 238.204 Radial†	139.0	32.9	2.8346 µg/L	2.8346 ppb	10:32:11
1	K 766.490 Radial†	1487.4	20.0	7.9003 µg/L	7.9003 ppb	10:31:51
1	Mg 279.077 IEC†	154.7	-4.2	-2.3163 µg/L	-2.3163 ppb	10:32:11
1	Na 589.592 Radial†	702.4	68.8	10.931 µg/L	10.931 ppb	10:31:51
1	Sr 421.552†	-128.9	-123.1	-0.3114 µg/L	-0.3114 ppb	10:31:51
1	Sc 361.383	1727894.0	1727894.0	100.30 %		10:32:58
1	Y 371.029	978026.4	978026.4	100.19 %		10:32:58
1	Ag 328.068†	5522.2	386.3	1.5831 µg/L	1.5831 ppb	10:33:00
1	As 188.979†	-9.7	6.7	2.2190 µg/L	2.2190 ppb	10:33:21
1	B 249.677†	4272.4	264.2	3.8590 µg/L	3.8590 ppb	10:33:00
1	Ba 233.527†	-134.2	3.8	0.0167 µg/L	0.0167 ppb	10:33:21
1	Be 313.107†	-995.1	-110.6	-0.0296 µg/L	-0.0296 ppb	10:33:00
1	Cd 226.502†	-76.7	21.1	0.1380 µg/L	0.1380 ppb	10:33:21
1	Co 228.616†	-222.5	5.5	0.0714 µg/L	0.0714 ppb	10:33:21
1	Cr 267.716†	316.8	29.9	0.2579 µg/L	0.2579 ppb	10:33:21
1	Cu 324.752†	3243.9	124.4	0.5122 µg/L	0.5122 ppb	10:33:00
1	Mn 257.610†	195.4	13.3	0.0172 µg/L	0.0172 ppb	10:33:21
1	Mo 202.031†	-13.4	7.2	0.2432 µg/L	0.2432 ppb	10:33:21
1	Ni 231.604†	-100.1	-2.3	-0.0290 µg/L	-0.0290 ppb	10:33:21
1	P 214.914†	-53.2	-21.1	-4.8176 µg/L	-4.8176 ppb	10:33:21
1	Pb 220.353†	122.6	37.0	2.3160 µg/L	2.3160 ppb	10:33:21
1	S 181.975 Axial†	92.8	4.9	4.1809 µg/L	4.1809 ppb	10:33:21
1	Sb 206.836†	94.3	17.9	2.2885 µg/L	2.2885 ppb	10:33:21
1	Se 196.026†	16.7	4.2	1.61 µg/L	1.61 ppb	10:33:21
1	SiO2†	1741.0	3.4	0.3439 µg/L	0.3439 ppb	10:33:00
1	Si 251.611†	837.9	50.2	0.7519 µg/L	0.7519 ppb	10:33:00
1	Sn 189.927†	3.5	-8.8	-0.6078 µg/L	-0.6078 ppb	10:33:21
1	Ti 334.940†	629.8	-171.1	-0.1790 µg/L	-0.1790 ppb	10:33:00
1	Tl 190.801†	-108.5	4.2	0.5875 µg/L	0.5875 ppb	10:33:21
1	U 409.014†	-230.1	51.8	3.1312 µg/L	3.1312 ppb	10:33:00
1	V 292.402†	425.1	-122.3	-0.5942 µg/L	-0.5942 ppb	10:33:00
1	Zn 213.857†	618.6	37.9	0.2156 µg/L	0.2156 ppb	10:33:21
2	Sc RADIAL	114370.6	114370.6	98.3 %		10:32:13
2	Al 396.153Radial†	-90.1	-14.2	-3.3268 µg/L	-3.3268 ppb	10:32:33
2	Ca 317.933Radial†	431.1	5.5	0.4629 µg/L	0.4629 ppb	10:32:33
2	Fe 238.204 Radial†	124.0	22.2	1.9120 µg/L	1.9120 ppb	10:32:33
2	K 766.490 Radial†	1544.3	127.2	50.283 µg/L	50.283 ppb	10:32:13
2	Mg 279.077 IEC†	148.6	-5.2	-2.9095 µg/L	-2.9095 ppb	10:32:33
2	Na 589.592 Radial†	629.9	18.2	2.8509 µg/L	2.8509 ppb	10:32:13
2	Sr 421.552†	-17.3	-13.9	-0.0350 µg/L	-0.0350 ppb	10:32:13
2	Sc 361.383	1732217.1	1732217.1	100.55 %		10:33:23
2	Y 371.029	980884.2	980884.2	100.48 %		10:33:23
2	Ag 328.068†	5645.1	494.8	2.0127 µg/L	2.0127 ppb	10:33:25
2	As 188.979†	-17.9	-1.4	-0.4627 µg/L	-0.4627 ppb	10:33:45
2	B 249.677†	4124.1	106.1	1.5491 µg/L	1.5491 ppb	10:33:25
2	Ba 233.527†	-128.0	10.3	0.0458 µg/L	0.0458 ppb	10:33:45
2	Be 313.107†	-1214.0	-325.8	-0.0935 µg/L	-0.0935 ppb	10:33:25
2	Cd 226.502†	-78.5	19.4	0.1272 µg/L	0.1272 ppb	10:33:45
2	Co 228.616†	-218.1	10.4	0.1353 µg/L	0.1353 ppb	10:33:45
2	Cr 267.716†	294.2	6.6	0.0663 µg/L	0.0663 ppb	10:33:45
2	Cu 324.752†	3250.5	123.0	0.4942 µg/L	0.4942 ppb	10:33:25
2	Mn 257.610†	204.6	21.9	0.0285 µg/L	0.0285 ppb	10:33:45
2	Mo 202.031†	-15.8	4.8	0.1638 µg/L	0.1638 ppb	10:33:45
2	Ni 231.604†	-95.9	2.0	0.0246 µg/L	0.0246 ppb	10:33:45
2	P 214.914†	-32.0	0.1	0.0170 µg/L	0.0170 ppb	10:33:45
2	Pb 220.353†	91.1	5.3	0.3415 µg/L	0.3415 ppb	10:33:45



2	S 181.975 Axial†	96.2	8.1	6.8476 µg/L	6.8476 ppb	10:33:45
2	Sb 206.836†	72.5	-4.0	-0.5089 µg/L	-0.5089 ppb	10:33:45
2	Se 196.026†	6.5	-6.0	-2.31 µg/L	-2.31 ppb	10:33:45
2	SiO2†	1851.8	109.2	11.066 µg/L	11.066 ppb	10:33:25
2	Si 251.611†	901.9	111.8	1.6735 µg/L	1.6735 ppb	10:33:25
2	Sn 189.927†	4.5	-7.8	-0.5380 µg/L	-0.5380 ppb	10:33:45
2	Ti 334.940†	757.8	-45.3	-0.0423 µg/L	-0.0423 ppb	10:33:25
2	Tl 190.801†	-105.5	7.5	1.0487 µg/L	1.0487 ppb	10:33:45
2	U 409.014†	-466.6	-182.8	-11.201 µg/L	-11.201 ppb	10:33:25
2	V 292.402†	456.6	-92.1	-0.4575 µg/L	-0.4575 ppb	10:33:25
2	Zn 213.857†	607.9	25.7	0.1459 µg/L	0.1459 ppb	10:33:45
3	Sc RADIAL	115950.3	115950.3	99.6 %		10:32:35
3	Al 396.153Radial†	-93.7	-16.5	-3.8461 µg/L	-3.8461 ppb	10:32:55
3	Ca 317.933Radial†	440.5	9.0	0.7573 µg/L	0.7573 ppb	10:32:55
3	Fe 238.204 Radial†	135.0	31.5	2.7160 µg/L	2.7160 ppb	10:32:55
3	K 766.490 Radial†	1506.0	67.4	26.624 µg/L	26.624 ppb	10:32:35
3	Mg 279.077 IEC†	173.1	17.3	9.6428 µg/L	9.6428 ppb	10:32:55
3	Na 589.592 Radial†	518.2	-102.6	-16.350 µg/L	-16.350 ppb	10:32:35
3	Sr 421.552†	-115.9	-112.5	-0.2847 µg/L	-0.2847 ppb	10:32:35
3	Sc 361.383	1741467.3	1741467.3	101.09 %		10:33:47
3	Y 371.029	985600.5	985600.5	100.97 %		10:33:47
3	Ag 328.068†	5527.9	349.0	1.4013 µg/L	1.4013 ppb	10:33:49
3	As 188.979†	-10.1	6.4	2.1329 µg/L	2.1329 ppb	10:34:09
3	B 249.677†	4237.0	196.0	2.8629 µg/L	2.8629 ppb	10:33:49
3	Ba 233.527†	-135.9	3.2	0.0136 µg/L	0.0136 ppb	10:34:09
3	Be 313.107†	-888.5	2.5	-0.0051 µg/L	-0.0051 ppb	10:33:49
3	Cd 226.502†	-69.5	28.7	0.1883 µg/L	0.1883 ppb	10:34:09
3	Co 228.616†	-226.0	3.8	0.0488 µg/L	0.0488 ppb	10:34:09
3	Cr 267.716†	313.3	23.9	0.2231 µg/L	0.2231 ppb	10:34:09
3	Cu 324.752†	3243.7	99.0	0.3902 µg/L	0.3902 ppb	10:33:49
3	Mn 257.610†	213.8	30.0	0.0383 µg/L	0.0383 ppb	10:34:09
3	Mo 202.031†	-28.3	-7.5	-0.2561 µg/L	-0.2561 ppb	10:34:09
3	Ni 231.604†	-83.1	15.2	0.1872 µg/L	0.1872 ppb	10:34:09
3	P 214.914†	-38.2	-5.8	-1.3264 µg/L	-1.3264 ppb	10:34:09
3	Pb 220.353†	101.0	14.6	0.9286 µg/L	0.9286 ppb	10:34:09
3	S 181.975 Axial†	89.5	1.0	0.8142 µg/L	0.8142 ppb	10:34:09
3	Sb 206.836†	57.0	-19.7	-2.5233 µg/L	-2.5233 ppb	10:34:09
3	Se 196.026†	13.0	0.4	0.118 µg/L	0.118 ppb	10:34:09
3	SiO2†	1855.9	103.4	10.487 µg/L	10.487 ppb	10:33:49
3	Si 251.611†	977.2	181.6	2.7198 µg/L	2.7198 ppb	10:33:49
3	Sn 189.927†	10.3	-2.0	-0.1404 µg/L	-0.1404 ppb	10:34:09
3	Ti 334.940†	526.9	-277.7	-0.2818 µg/L	-0.2818 ppb	10:33:49
3	Tl 190.801†	-112.9	0.7	0.0932 µg/L	0.0932 ppb	10:34:09
3	U 409.014†	-600.0	-312.2	-19.129 µg/L	-19.129 ppb	10:33:49
3	V 292.402†	409.6	-141.0	-0.7060 µg/L	-0.7060 ppb	10:33:49
3	Zn 213.857†	596.3	11.0	0.0609 µg/L	0.0609 ppb	10:34:09

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1733859.4	100.65 %	0.403			0.40%
Sc RADIAL	116182.1	99.8 %	1.66			1.67%
Y 371.029	981503.7	100.55 %	0.392			0.39%
Ag 328.068†	410.0	1.6657 µg/L	0.31396	1.6657 ppb	0.31396	18.85%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-10.2	-2.3922 µg/L	2.08480	-2.3922 ppb	2.08480	87.15%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	3.9	1.2964 µg/L	1.52405	1.2964 ppb	1.52405	117.56%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	188.7	2.7570 µg/L	1.15858	2.7570 ppb	1.15858	42.02%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	5.8	0.0254 µg/L	0.01778	0.0254 ppb	0.01778	70.04%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-144.6	-0.0427 µg/L	0.04562	-0.0427 ppb	0.04562	106.80%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	8.0	0.6722 µg/L	0.18228	0.6722 ppb	0.18228	27.12%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	23.1	0.1512 µg/L	0.03260	0.1512 ppb	0.03260	21.57%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	6.6	0.0852 µg/L	0.04490	0.0852 ppb	0.04490	52.72%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	20.1	0.1824 µg/L	0.10205	0.1824 ppb	0.10205	55.94%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	115.5	0.4655 µg/L	0.06587	0.4655 ppb	0.06587	14.15%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	28.9	2.4875 µg/L	0.50195	2.4875 ppb	0.50195	20.18%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	71.5	28.269 µg/L	21.2394	28.269 ppb	21.2394	75.13%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	2.6	1.4723 µg/L	7.08208	1.4723 ppb	7.08208	481.01%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	21.7	0.0280 µg/L	0.01056	0.0280 ppb	0.01056	37.68%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	1.5	0.0503 µg/L	0.26831	0.0503 ppb	0.26831	533.33%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-5.2	-0.8561 µg/L	14.01331	-0.8561 ppb	14.01331	>999.9%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	4.9	0.0609 µg/L	0.11255	0.0609 ppb	0.11255	184.67%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-8.9	-2.0423 µg/L	2.49557	-2.0423 ppb	2.49557	122.19%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	19.0	1.1954 µg/L	1.01393	1.1954 ppb	1.01393	84.82%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	4.7	3.9475 µg/L	3.02346	3.9475 ppb	3.02346	76.59%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-1.9	-0.2479 µg/L	2.41650	-0.2479 ppb	2.41650	974.76%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-0.5	-0.195 µg/L	1.9798	-0.195 ppb	1.9798	>999.9%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	72.0	7.2989 µg/L	6.03014	7.2989 ppb	6.03014	82.62%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	114.5	1.7151 µg/L	0.98459	1.7151 ppb	0.98459	57.41%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-6.2	-0.4287 µg/L	0.25213	-0.4287 ppb	0.25213	58.81%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-83.2	-0.2104 µg/L	0.15244	-0.2104 ppb	0.15244	72.46%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-164.7	-0.1677 µg/L	0.12014	-0.1677 ppb	0.12014	71.62%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	4.1	0.5764 µg/L	0.47785	0.5764 ppb	0.47785	82.90%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-147.8	-9.0665 µg/L	11.28270	-9.0665 ppb	11.28270	124.44%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-118.5	-0.5859 µg/L	0.12447	-0.5859 ppb	0.12447	21.24%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	24.9	0.1408 µg/L	0.07747	0.1408 ppb	0.07747	55.02%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 49

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/14/2010 10:49:38

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	117081.3	117081.3	101 %		10:50:10
1	Al 396.153Radial†	22475.8	22424.0	5216.7 µg/L	5216.7 ppb	10:50:10
1	Ca 317.933Radial†	61882.3	61092.9	5137.3 µg/L	5137.3 ppb	10:50:10
1	Fe 238.204 Radial†	59893.6	59444.8	5118.1 µg/L	5118.1 ppb	10:50:10
1	K 766.490 Radial†	14362.4	12835.2	5068.9 µg/L	5068.9 ppb	10:50:10
1	Mg 279.077 IEC†	9609.7	9397.9	5251.4 µg/L	5251.4 ppb	10:50:10
1	Na 589.592 Radial†	64212.3	63219.8	10051 µg/L	10051 ppb	10:50:08
1	Sr 421.552†	199126.6	197984.2	500.82 µg/L	500.82 ppb	10:50:08
1	Sc 361.383	1733190.6	1733190.6	100.61 %		10:50:23
1	Y 371.029	970718.8	970718.8	99.442 %		10:50:23
1	Ag 328.068†	126543.9	120659.5	501.65 µg/L	501.65 ppb	10:50:23
1	As 188.979†	1500.1	1507.4	506.90 µg/L	506.90 ppb	10:50:43
1	B 249.677†	37987.1	33762.1	491.51 µg/L	491.51 ppb	10:50:23
1	Ba 233.527†	111753.5	111215.6	497.75 µg/L	497.75 ppb	10:50:23
1	Be 313.107†	1805177.6	1795145.8	496.41 µg/L	496.41 ppb	10:50:23
1	Cd 226.502†	76385.0	76020.8	498.16 µg/L	498.16 ppb	10:50:23
1	Co 228.616†	38406.1	38401.2	499.34 µg/L	499.34 ppb	10:50:23
1	Cr 267.716†	57617.6	56983.3	496.70 µg/L	496.70 ppb	10:50:23
1	Cu 324.752†	124781.8	120917.8	496.35 µg/L	496.35 ppb	10:50:23
1	Mn 257.610†	387889.4	385362.9	497.86 µg/L	497.86 ppb	10:50:23
1	Mo 202.031†	14778.3	14709.4	500.32 µg/L	500.32 ppb	10:50:43
1	Ni 231.604†	40724.9	40576.1	500.51 µg/L	500.51 ppb	10:50:23
1	P 214.914†	10910.8	10876.8	2472.2 µg/L	2472.2 ppb	10:50:43
1	Pb 220.353†	8085.7	7951.6	499.59 µg/L	499.59 ppb	10:50:43
1	S 181.975 Axial†	1257.5	1162.3	990.70 µg/L	990.70 ppb	10:50:43
1	Sb 206.836†	4005.4	3905.1	500.10 µg/L	500.10 ppb	10:50:43
1	Se 196.026†	1312.9	1292.5	500 µg/L	500 ppb	10:50:43
1	SiO2†	55010.4	52945.4	5342.5 µg/L	5342.5 ppb	10:50:23
1	Si 251.611†	169782.2	167970.6	2502.3 µg/L	2502.3 ppb	10:50:23
1	Sn 189.927†	7232.3	7176.3	499.64 µg/L	499.64 ppb	10:50:43
1	Ti 334.940†	482172.3	478458.4	496.90 µg/L	496.90 ppb	10:50:23
1	Tl 190.801†	3449.8	3541.4	506.28 µg/L	506.28 ppb	10:50:43
1	U 409.014†	6868.0	7107.7	464.65 µg/L	464.65 ppb	10:50:23
1	V 292.402†	101859.1	100697.1	500.44 µg/L	500.44 ppb	10:50:23
1	Zn 213.857†	88815.6	87699.8	496.84 µg/L	496.84 ppb	10:50:23
2	Sc RADIAL	116363.8	116363.8	100.0 %		10:50:14
2	Al 396.153Radial†	22316.2	22402.1	5211.3 µg/L	5211.3 ppb	10:50:14
2	Ca 317.933Radial†	61791.4	61381.4	5161.5 µg/L	5161.5 ppb	10:50:14
2	Fe 238.204 Radial†	59840.5	59759.0	5145.2 µg/L	5145.2 ppb	10:50:14
2	K 766.490 Radial†	14306.5	12867.3	5081.6 µg/L	5081.6 ppb	10:50:14
2	Mg 279.077 IEC†	9611.8	9459.0	5285.6 µg/L	5285.6 ppb	10:50:14
2	Na 589.592 Radial†	64070.4	63471.5	10091 µg/L	10091 ppb	10:50:12
2	Sr 421.552†	198236.7	198314.8	501.65 µg/L	501.65 ppb	10:50:12
2	Sc 361.383	1703732.6	1703732.6	98.898 %		10:50:46
2	Y 371.029	954828.3	954828.3	97.814 %		10:50:46
2	Ag 328.068†	124238.6	120503.3	500.99 µg/L	500.99 ppb	10:50:46
2	As 188.979†	1493.2	1526.2	513.17 µg/L	513.17 ppb	10:51:06
2	B 249.677†	37370.2	33791.2	491.93 µg/L	491.93 ppb	10:50:46
2	Ba 233.527†	109820.0	111181.0	497.60 µg/L	497.60 ppb	10:50:46
2	Be 313.107†	1771042.8	1791654.0	495.44 µg/L	495.44 ppb	10:50:46
2	Cd 226.502†	74709.4	75639.2	495.66 µg/L	495.66 ppb	10:50:46
2	Co 228.616†	37695.5	38342.7	498.57 µg/L	498.57 ppb	10:50:46
2	Cr 267.716†	56630.3	56975.2	496.63 µg/L	496.63 ppb	10:50:46
2	Cu 324.752†	122581.6	120837.5	496.02 µg/L	496.02 ppb	10:50:46
2	Mn 257.610†	380670.7	384729.9	497.04 µg/L	497.04 ppb	10:50:46
2	Mo 202.031†	14746.1	14930.8	507.85 µg/L	507.85 ppb	10:51:06
2	Ni 231.604†	39734.1	40274.1	496.78 µg/L	496.78 ppb	10:50:46
2	P 214.914†	10926.4	11080.1	2518.5 µg/L	2518.5 ppb	10:51:06
2	Pb 220.353†	8091.1	8096.0	508.66 µg/L	508.66 ppb	10:51:06

2	S 181.975 Axial†	1255.0	1181.4	1007.0 µg/L	1007.0 ppb	10:51:06
2	Sb 206.836†	3983.9	3952.3	506.25 µg/L	506.25 ppb	10:51:06
2	Se 196.026†	1303.8	1305.8	505 µg/L	505 ppb	10:51:06
2	SiO2†	54309.7	53182.2	5366.1 µg/L	5366.1 ppb	10:50:46
2	Si 251.611†	167543.0	168624.3	2512.0 µg/L	2512.0 ppb	10:50:46
2	Sn 189.927†	7235.7	7304.1	508.52 µg/L	508.52 ppb	10:51:06
2	Ti 334.940†	475372.6	479869.3	498.36 µg/L	498.36 ppb	10:50:46
2	Tl 190.801†	3437.0	3587.7	512.82 µg/L	512.82 ppb	10:51:06
2	U 409.014†	6649.0	7004.4	458.28 µg/L	458.28 ppb	10:50:46
2	V 292.402†	99963.1	100530.5	499.70 µg/L	499.70 ppb	10:50:46
2	Zn 213.857†	86965.5	87355.4	494.90 µg/L	494.90 ppb	10:50:46
3	Sc RADIAL	115407.8	115407.8	99.1 %		10:50:18
3	Al 396.153Radial†	22184.1	22453.8	5223.5 µg/L	5223.5 ppb	10:50:18
3	Ca 317.933Radial†	61159.2	61255.7	5151.0 µg/L	5151.0 ppb	10:50:18
3	Fe 238.204 Radial†	59060.4	59468.0	5120.1 µg/L	5120.1 ppb	10:50:18
3	K 766.490 Radial†	14152.8	12830.8	5067.2 µg/L	5067.2 ppb	10:50:18
3	Mg 279.077 IEC†	9452.1	9377.5	5240.1 µg/L	5240.1 ppb	10:50:18
3	Na 589.592 Radial†	63534.2	63461.7	10090 µg/L	10090 ppb	10:50:16
3	Sr 421.552†	196870.5	198579.6	502.32 µg/L	502.32 ppb	10:50:16
3	Sc 361.383	1727140.6	1727140.6	100.26 %		10:51:09
3	Y 371.029	968382.4	968382.4	99.202 %		10:51:09
3	Ag 328.068†	126432.0	120988.5	503.04 µg/L	503.04 ppb	10:51:09
3	As 188.979†	1507.1	1519.6	510.98 µg/L	510.98 ppb	10:51:29
3	B 249.677†	38171.1	34077.8	496.11 µg/L	496.11 ppb	10:51:09
3	Ba 233.527†	111588.5	111440.0	498.76 µg/L	498.76 ppb	10:51:09
3	Be 313.107†	1801791.9	1798053.9	497.22 µg/L	497.22 ppb	10:51:09
3	Cd 226.502†	76525.8	76427.1	500.83 µg/L	500.83 ppb	10:51:09
3	Co 228.616†	38402.3	38531.2	501.03 µg/L	501.03 ppb	10:51:09
3	Cr 267.716†	57513.3	57079.8	497.53 µg/L	497.53 ppb	10:51:09
3	Cu 324.752†	124583.2	121154.1	497.33 µg/L	497.33 ppb	10:51:09
3	Mn 257.610†	387418.1	386243.3	499.00 µg/L	499.00 ppb	10:51:09
3	Mo 202.031†	14873.2	14855.5	505.29 µg/L	505.29 ppb	10:51:29
3	Ni 231.604†	40583.2	40576.5	500.51 µg/L	500.51 ppb	10:51:09
3	P 214.914†	11071.9	11075.4	2517.5 µg/L	2517.5 ppb	10:51:29
3	Pb 220.353†	8209.6	8103.3	509.10 µg/L	509.10 ppb	10:51:29
3	S 181.975 Axial†	1268.1	1177.3	1003.5 µg/L	1003.5 ppb	10:51:29
3	Sb 206.836†	4054.9	3968.4	508.27 µg/L	508.27 ppb	10:51:29
3	Se 196.026†	1340.2	1324.3	512 µg/L	512 ppb	10:51:29
3	SiO2†	55677.7	53802.5	5429.0 µg/L	5429.0 ppb	10:51:09
3	Si 251.611†	171614.5	170389.3	2538.4 µg/L	2538.4 ppb	10:51:09
3	Sn 189.927†	7326.4	7295.4	507.91 µg/L	507.91 ppb	10:51:29
3	Ti 334.940†	481651.9	479618.0	498.10 µg/L	498.10 ppb	10:51:09
3	Tl 190.801†	3470.8	3574.3	510.94 µg/L	510.94 ppb	10:51:29
3	U 409.014†	7110.6	7373.6	481.00 µg/L	481.00 ppb	10:51:09
3	V 292.402†	101819.0	101011.8	502.05 µg/L	502.05 ppb	10:51:09
3	Zn 213.857†	88756.1	87949.7	498.27 µg/L	498.27 ppb	10:51:09

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1721354.6	99.921 %	0.9031			0.90%
Sc RADIAL	116284.3	99.9 %	0.72			0.72%
Y 371.029	964643.2	98.819 %	0.8789			0.89%
Ag 328.068†	120717.1	501.89 µg/L	1.045	501.89 ppb	1.045	0.21%
QC value within limits for Ag 328.068 Recovery = 100.38%						
Al 396.153Radial†	22426.7	5217.2 µg/L	6.11	5217.2 ppb	6.11	0.12%
QC value within limits for Al 396.153Radial Recovery = 104.34%						
As 188.979†	1517.8	510.35 µg/L	3.185	510.35 ppb	3.185	0.62%
QC value within limits for As 188.979 Recovery = 102.07%						
B 249.677†	33877.0	493.18 µg/L	2.545	493.18 ppb	2.545	0.52%
QC value within limits for B 249.677 Recovery = 98.64%						
Ba 233.527†	111278.9	498.03 µg/L	0.630	498.03 ppb	0.630	0.13%
QC value within limits for Ba 233.527 Recovery = 99.61%						
Be 313.107†	1794951.2	496.36 µg/L	0.889	496.36 ppb	0.889	0.18%
QC value within limits for Be 313.107 Recovery = 99.27%						
Ca 317.933Radial†	61243.3	5149.9 µg/L	12.16	5149.9 ppb	12.16	0.24%
QC value within limits for Ca 317.933Radial Recovery = 103.00%						
Cd 226.502†	76029.0	498.22 µg/L	2.586	498.22 ppb	2.586	0.52%
QC value within limits for Cd 226.502 Recovery = 99.64%						
Co 228.616†	38425.0	499.65 µg/L	1.255	499.65 ppb	1.255	0.25%

QC value within limits for Co 228.616 Recovery = 99.93%							
Cr	267.716†	57012.8	496.95 µg/L	0.499	496.95 ppb	0.499	0.10%
QC value within limits for Cr 267.716 Recovery = 99.39%							
Cu	324.752†	120969.8	496.57 µg/L	0.682	496.57 ppb	0.682	0.14%
QC value within limits for Cu 324.752 Recovery = 99.31%							
Fe	238.204 Radial†	59557.3	5127.8 µg/L	15.07	5127.8 ppb	15.07	0.29%
QC value within limits for Fe 238.204 Radial Recovery = 102.56%							
K	766.490 Radial†	12844.4	5072.5 µg/L	7.86	5072.5 ppb	7.86	0.16%
QC value within limits for K 766.490 Radial Recovery = 101.45%							
Mg	279.077 IEC†	9411.5	5259.0 µg/L	23.69	5259.0 ppb	23.69	0.45%
QC value within limits for Mg 279.077 IEC Recovery = 105.18%							
Mn	257.610†	385445.4	497.96 µg/L	0.983	497.96 ppb	0.983	0.20%
QC value within limits for Mn 257.610 Recovery = 99.59%							
Mo	202.031†	14831.9	504.48 µg/L	3.826	504.48 ppb	3.826	0.76%
QC value within limits for Mo 202.031 Recovery = 100.90%							
Na	589.592 Radial†	63384.3	10078 µg/L	22.7	10078 ppb	22.7	0.23%
QC value within limits for Na 589.592 Radial Recovery = 100.78%							
Ni	231.604†	40475.6	499.27 µg/L	2.152	499.27 ppb	2.152	0.43%
QC value within limits for Ni 231.604 Recovery = 99.85%							
P	214.914†	11010.8	2502.7 µg/L	26.47	2502.7 ppb	26.47	1.06%
QC value within limits for P 214.914 Recovery = 100.11%							
Pb	220.353†	8050.3	505.78 µg/L	5.366	505.78 ppb	5.366	1.06%
QC value within limits for Pb 220.353 Recovery = 101.16%							
S	181.975 Axial†	1173.7	1000.4 µg/L	8.57	1000.4 ppb	8.57	0.86%
QC value within limits for S 181.975 Axial Recovery = 100.04%							
Sb	206.836†	3941.9	504.87 µg/L	4.255	504.87 ppb	4.255	0.84%
QC value within limits for Sb 206.836 Recovery = 100.97%							
Se	196.026†	1307.5	506 µg/L	6.2	506 ppb	6.2	1.22%
QC value within limits for Se 196.026 Recovery = 101.18%							
SiO2†		53310.0	5379.2 µg/L	44.74	5379.2 ppb	44.74	0.83%
QC value within limits for SiO2 Recovery = 100.59%							
Si	251.611†	168994.7	2517.6 µg/L	18.67	2517.6 ppb	18.67	0.74%
QC value within limits for Si 251.611 Recovery = 100.70%							
Sn	189.927†	7258.6	505.36 µg/L	4.957	505.36 ppb	4.957	0.98%
QC value within limits for Sn 189.927 Recovery = 101.07%							
Sr	421.552†	198292.9	501.60 µg/L	0.755	501.60 ppb	0.755	0.15%
QC value within limits for Sr 421.552 Recovery = 100.32%							
Ti	334.940†	479315.2	497.79 µg/L	0.782	497.79 ppb	0.782	0.16%
QC value within limits for Ti 334.940 Recovery = 99.56%							
Tl	190.801†	3567.8	510.01 µg/L	3.364	510.01 ppb	3.364	0.66%
QC value within limits for Tl 190.801 Recovery = 102.00%							
U	409.014†	7161.9	467.98 µg/L	11.721	467.98 ppb	11.721	2.50%
QC value within limits for U 409.014 Recovery = 93.60%							
V	292.402†	100746.5	500.73 µg/L	1.204	500.73 ppb	1.204	0.24%
QC value within limits for V 292.402 Recovery = 100.15%							
Zn	213.857†	87668.3	496.67 µg/L	1.692	496.67 ppb	1.692	0.34%
QC value within limits for Zn 213.857 Recovery = 99.33%							

All analyte(s) passed QC.

Sequence No.: 50

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 109

Date Collected: 4/14/2010 10:51:37

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	117050.0	117050.0	101 %		10:52:09
1	Al 396.153Radial†	850.2	923.1	215.22 µg/L	215.22 ppb	10:52:29
1	Ca 317.933Radial†	3033.3	2583.4	217.24 µg/L	217.24 ppb	10:52:29
1	Fe 238.204 Radial†	1362.2	1250.8	107.69 µg/L	107.69 ppb	10:52:29
1	K 766.490 Radial†	1930.4	475.3	187.68 µg/L	187.68 ppb	10:52:09
1	Mg 279.077 IEC†	763.8	603.2	336.71 µg/L	336.71 ppb	10:52:29
1	Na 589.592 Radial†	2659.5	2022.0	321.46 µg/L	321.46 ppb	10:52:09
1	Sr 421.552†	1963.9	1956.9	4.9489 µg/L	4.9489 ppb	10:52:09
1	Sc 361.383	1733683.4	1733683.4	100.64 %		10:53:17
1	Y 371.029	980569.8	980569.8	100.45 %		10:53:17
1	Ag 328.068†	6603.3	1442.2	6.0331 µg/L	6.0331 ppb	10:53:19
1	As 188.979†	80.0	95.9	31.874 µg/L	31.874 ppb	10:53:39
1	B 249.677†	7595.7	3552.2	51.878 µg/L	51.878 ppb	10:53:19
1	Ba 233.527†	981.3	1112.7	4.9805 µg/L	4.9805 ppb	10:53:39
1	Be 313.107†	17128.1	17901.2	4.9653 µg/L	4.9653 ppb	10:53:19
1	Cd 226.502†	731.6	824.5	5.3973 µg/L	5.3973 ppb	10:53:39
1	Co 228.616†	161.0	387.3	5.0327 µg/L	5.0327 ppb	10:53:39
1	Cr 267.716†	879.2	587.6	5.0799 µg/L	5.0799 ppb	10:53:39
1	Cu 324.752†	5616.9	2471.7	10.187 µg/L	10.187 ppb	10:53:19
1	Mn 257.610†	8223.7	7990.1	10.314 µg/L	10.314 ppb	10:53:19
1	Mo 202.031†	285.8	304.5	10.359 µg/L	10.359 ppb	10:53:39
1	Ni 231.604†	346.3	441.5	5.4458 µg/L	5.4458 ppb	10:53:39
1	P 214.914†	615.5	643.6	146.63 µg/L	146.63 ppb	10:53:39
1	Pb 220.353†	292.1	205.0	12.839 µg/L	12.839 ppb	10:53:39
1	S 181.975 Axial†	206.5	117.6	99.892 µg/L	99.892 ppb	10:53:39
1	Sb 206.836†	145.0	68.0	8.7764 µg/L	8.7764 ppb	10:53:39
1	Se 196.026†	111.4	98.2	37.9 µg/L	37.9 ppb	10:53:39
1	SiO2†	4273.0	2513.6	254.21 µg/L	254.21 ppb	10:53:19
1	Si 251.611†	9006.3	8164.2	121.90 µg/L	121.90 ppb	10:53:19
1	Sn 189.927†	160.3	147.1	10.221 µg/L	10.221 ppb	10:53:39
1	Ti 334.940†	5597.4	4763.0	4.9073 µg/L	4.9073 ppb	10:53:19
1	Tl 190.801†	40.5	152.6	21.586 µg/L	21.586 ppb	10:53:39
1	U 409.014†	609.0	886.4	54.487 µg/L	54.487 ppb	10:53:19
1	V 292.402†	1454.2	898.8	4.5576 µg/L	4.5576 ppb	10:53:19
1	Zn 213.857†	2835.5	2238.6	12.733 µg/L	12.733 ppb	10:53:39
2	Sc RADIAL	115548.8	115548.8	99.3 %		10:52:31
2	Al 396.153Radial†	854.9	938.8	218.90 µg/L	218.90 ppb	10:52:51
2	Ca 317.933Radial†	2993.4	2582.4	217.16 µg/L	217.16 ppb	10:52:51
2	Fe 238.204 Radial†	1348.0	1254.0	107.97 µg/L	107.97 ppb	10:52:51
2	K 766.490 Radial†	1849.6	418.8	165.38 µg/L	165.38 ppb	10:52:31
2	Mg 279.077 IEC†	747.9	597.0	333.24 µg/L	333.24 ppb	10:52:51
2	Na 589.592 Radial†	2462.1	1857.5	295.31 µg/L	295.31 ppb	10:52:31
2	Sr 421.552†	2021.9	2040.7	5.1608 µg/L	5.1608 ppb	10:52:31
2	Sc 361.383	1746390.3	1746390.3	101.37 %		10:53:41
2	Y 371.029	988763.8	988763.8	101.29 %		10:53:41
2	Ag 328.068†	6595.9	1387.2	5.8057 µg/L	5.8057 ppb	10:53:43
2	As 188.979†	79.8	95.1	31.636 µg/L	31.636 ppb	10:54:03
2	B 249.677†	7728.8	3628.6	52.994 µg/L	52.994 ppb	10:53:43
2	Ba 233.527†	1042.6	1166.1	5.2189 µg/L	5.2189 ppb	10:54:03
2	Be 313.107†	17300.7	17947.6	4.9799 µg/L	4.9799 ppb	10:53:43
2	Cd 226.502†	745.9	833.3	5.4552 µg/L	5.4552 ppb	10:54:03
2	Co 228.616†	166.4	391.5	5.0878 µg/L	5.0878 ppb	10:54:03
2	Cr 267.716†	872.1	574.3	4.9585 µg/L	4.9585 ppb	10:54:03
2	Cu 324.752†	5595.6	2410.1	9.9396 µg/L	9.9396 ppb	10:53:43
2	Mn 257.610†	8334.4	8039.9	10.378 µg/L	10.378 ppb	10:53:43
2	Mo 202.031†	288.6	305.2	10.382 µg/L	10.382 ppb	10:54:03
2	Ni 231.604†	325.0	418.0	5.1556 µg/L	5.1556 ppb	10:54:03
2	P 214.914†	635.6	658.9	150.13 µg/L	150.13 ppb	10:54:03
2	Pb 220.353†	286.4	197.2	12.348 µg/L	12.348 ppb	10:54:03

2	S 181.975 Axial†	216.3	125.8	106.86 µg/L	106.86 ppb	10:54:03
2	Sb 206.836†	151.7	73.6	9.4982 µg/L	9.4982 ppb	10:54:03
2	Se 196.026†	104.4	90.5	35.0 µg/L	35.0 ppb	10:54:03
2	SiO2†	4447.5	2654.7	268.51 µg/L	268.51 ppb	10:53:43
2	Si 251.611†	9283.2	8372.2	125.02 µg/L	125.02 ppb	10:53:43
2	Sn 189.927†	158.5	144.1	10.018 µg/L	10.018 ppb	10:54:03
2	Ti 334.940†	5542.9	4668.8	4.8072 µg/L	4.8072 ppb	10:53:43
2	Tl 190.801†	43.8	155.6	21.995 µg/L	21.995 ppb	10:54:03
2	U 409.014†	710.2	981.8	60.279 µg/L	60.279 ppb	10:53:43
2	V 292.402†	1319.0	755.0	3.8559 µg/L	3.8559 ppb	10:53:43
2	Zn 213.857†	2841.8	2224.4	12.653 µg/L	12.653 ppb	10:54:03
3	Sc RADIAL	116658.5	116658.5	100 %		10:52:53
3	Al 396.153Radial†	817.4	893.2	208.24 µg/L	208.24 ppb	10:53:13
3	Ca 317.933Radial†	3009.8	2570.1	216.12 µg/L	216.12 ppb	10:53:13
3	Fe 238.204 Radial†	1360.6	1253.7	107.94 µg/L	107.94 ppb	10:53:13
3	K 766.490 Radial†	1886.6	438.0	172.97 µg/L	172.97 ppb	10:52:53
3	Mg 279.077 IEC†	740.8	582.8	325.34 µg/L	325.34 ppb	10:53:13
3	Na 589.592 Radial†	2591.4	1962.9	312.07 µg/L	312.07 ppb	10:52:53
3	Sr 421.552†	2020.4	2019.8	5.1081 µg/L	5.1081 ppb	10:52:53
3	Sc 361.383	1736430.7	1736430.7	100.80 %		10:54:05
3	Y 371.029	983878.8	983878.8	100.79 %		10:54:05
3	Ag 328.068†	6813.0	1639.8	6.8170 µg/L	6.8170 ppb	10:54:07
3	As 188.979†	76.0	91.7	30.514 µg/L	30.514 ppb	10:54:27
3	B 249.677†	7873.1	3815.5	55.725 µg/L	55.725 ppb	10:54:07
3	Ba 233.527†	998.1	1127.8	5.0480 µg/L	5.0480 ppb	10:54:27
3	Be 313.107†	17063.7	17810.4	4.9350 µg/L	4.9350 ppb	10:54:07
3	Cd 226.502†	712.8	804.6	5.2673 µg/L	5.2673 ppb	10:54:27
3	Co 228.616†	165.4	391.5	5.0874 µg/L	5.0874 ppb	10:54:27
3	Cr 267.716†	941.7	648.3	5.6223 µg/L	5.6223 ppb	10:54:27
3	Cu 324.752†	5605.0	2451.0	10.088 µg/L	10.088 ppb	10:54:07
3	Mn 257.610†	8290.7	8043.7	10.383 µg/L	10.383 ppb	10:54:07
3	Mo 202.031†	292.6	310.8	10.573 µg/L	10.573 ppb	10:54:27
3	Ni 231.604†	347.8	442.4	5.4576 µg/L	5.4576 ppb	10:54:27
3	P 214.914†	629.0	656.0	149.47 µg/L	149.47 ppb	10:54:27
3	Pb 220.353†	286.0	198.5	12.443 µg/L	12.443 ppb	10:54:27
3	S 181.975 Axial†	211.5	122.3	103.85 µg/L	103.85 ppb	10:54:27
3	Sb 206.836†	149.7	72.5	9.3482 µg/L	9.3482 ppb	10:54:27
3	Se 196.026†	89.8	76.6	29.6 µg/L	29.6 ppb	10:54:27
3	SiO2†	4603.6	2834.8	286.73 µg/L	286.73 ppb	10:54:07
3	Si 251.611†	9684.4	8822.8	131.75 µg/L	131.75 ppb	10:54:07
3	Sn 189.927†	170.5	156.9	10.903 µg/L	10.903 ppb	10:54:27
3	Ti 334.940†	5670.3	4826.5	4.9811 µg/L	4.9811 ppb	10:54:07
3	Tl 190.801†	35.7	147.8	20.902 µg/L	20.902 ppb	10:54:27
3	U 409.014†	325.5	604.1	37.202 µg/L	37.202 ppb	10:54:07
3	V 292.402†	1349.2	792.4	4.0284 µg/L	4.0284 ppb	10:54:07
3	Zn 213.857†	2853.2	2251.8	12.807 µg/L	12.807 ppb	10:54:27

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Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1738834.8	100.94 %	0.388			0.38%
Sc RADIAL	116419.1	100 %	0.7			0.67%
Y 371.029	984404.1	100.84 %	0.422			0.42%
Ag 328.068†	1489.7	6.2186 µg/L	0.53056	6.2186 ppb	0.53056	8.53%
QC value within limits for Ag 328.068 Recovery = 124.37%						
Al 396.153Radial†	918.4	214.12 µg/L	5.417	214.12 ppb	5.417	2.53%
QC value within limits for Al 396.153Radial Recovery = 107.06%						
As 188.979†	94.2	31.341 µg/L	0.7259	31.341 ppb	0.7259	2.32%
QC value within limits for As 188.979 Recovery = 104.47%						
B 249.677†	3665.4	53.532 µg/L	1.9789	53.532 ppb	1.9789	3.70%
QC value within limits for B 249.677 Recovery = 107.06%						
Ba 233.527†	1135.5	5.0825 µg/L	0.12287	5.0825 ppb	0.12287	2.42%
QC value within limits for Ba 233.527 Recovery = 101.65%						
Be 313.107†	17886.4	4.9600 µg/L	0.02291	4.9600 ppb	0.02291	0.46%
QC value within limits for Be 313.107 Recovery = 99.20%						
Ca 317.933Radial†	2578.7	216.84 µg/L	0.622	216.84 ppb	0.622	0.29%
QC value within limits for Ca 317.933Radial Recovery = 108.42%						
Cd 226.502†	820.8	5.3732 µg/L	0.09624	5.3732 ppb	0.09624	1.79%
QC value within limits for Cd 226.502 Recovery = 107.46%						
Co 228.616†	390.1	5.0693 µg/L	0.03171	5.0693 ppb	0.03171	0.63%

QC value within limits for Co 228.616	Recovery = 101.39%					
Cr 267.716†	603.4	5.2202 µg/L	0.35349	5.2202 ppb	0.35349	6.77%
QC value within limits for Cr 267.716	Recovery = 104.40%					
Cu 324.752†	2444.2	10.071 µg/L	0.1244	10.071 ppb	0.1244	1.24%
QC value within limits for Cu 324.752	Recovery = 100.71%					
Fe 238.204 Radial†	1252.8	107.87 µg/L	0.154	107.87 ppb	0.154	0.14%
QC value within limits for Fe 238.204 Radial	Recovery = 107.87%					
K 766.490 Radial†	444.0	175.34 µg/L	11.339	175.34 ppb	11.339	6.47%
QC value within limits for K 766.490 Radial	Recovery = 116.90%					
Mg 279.077 IEC†	594.3	331.77 µg/L	5.826	331.77 ppb	5.826	1.76%
QC value within limits for Mg 279.077 IEC	Recovery = 110.59%					
Mn 257.610†	8024.6	10.358 µg/L	0.0388	10.358 ppb	0.0388	0.37%
QC value within limits for Mn 257.610	Recovery = 103.58%					
Mo 202.031†	306.8	10.438 µg/L	0.1176	10.438 ppb	0.1176	1.13%
QC value within limits for Mo 202.031	Recovery = 104.38%					
Na 589.592 Radial†	1947.5	309.61 µg/L	13.248	309.61 ppb	13.248	4.28%
QC value within limits for Na 589.592 Radial	Recovery = 103.20%					
Ni 231.604†	434.0	5.3530 µg/L	0.17103	5.3530 ppb	0.17103	3.20%
QC value within limits for Ni 231.604	Recovery = 107.06%					
P 214.914†	652.8	148.75 µg/L	1.861	148.75 ppb	1.861	1.25%
QC value within limits for P 214.914	Recovery = 99.16%					
Pb 220.353†	200.2	12.543 µg/L	0.2604	12.543 ppb	0.2604	2.08%
QC value within limits for Pb 220.353	Recovery = 125.43%					
S 181.975 Axial†	121.9	103.54 µg/L	3.496	103.54 ppb	3.496	3.38%
QC value within limits for S 181.975 Axial	Recovery = 103.54%					
Sb 206.836†	71.4	9.2076 µg/L	0.38087	9.2076 ppb	0.38087	4.14%
QC value within limits for Sb 206.836	Recovery = 92.08%					
Se 196.026†	88.4	34.1 µg/L	4.23	34.1 ppb	4.23	12.39%
QC value within limits for Se 196.026	Recovery = 113.83%					
SiO2†	2667.7	269.82 µg/L	16.303	269.82 ppb	16.303	6.04%
QC value within limits for SiO2	Recovery = 126.67%					
Si 251.611†	8453.0	126.22 µg/L	5.031	126.22 ppb	5.031	3.99%
QC value within limits for Si 251.611	Recovery = 126.22%					
Sn 189.927†	149.4	10.380 µg/L	0.4636	10.380 ppb	0.4636	4.47%
QC value within limits for Sn 189.927	Recovery = 103.80%					
Sr 421.552†	2005.8	5.0726 µg/L	0.11030	5.0726 ppb	0.11030	2.17%
QC value within limits for Sr 421.552	Recovery = 101.45%					
Ti 334.940†	4752.8	4.8985 µg/L	0.08728	4.8985 ppb	0.08728	1.78%
QC value within limits for Ti 334.940	Recovery = 97.97%					
Tl 190.801†	152.0	21.494 µg/L	0.5521	21.494 ppb	0.5521	2.57%
QC value within limits for Tl 190.801	Recovery = 107.47%					
U 409.014†	824.1	50.656 µg/L	12.0062	50.656 ppb	12.0062	23.70%
QC value within limits for U 409.014	Recovery = 101.31%					
V 292.402†	815.4	4.1473 µg/L	0.36561	4.1473 ppb	0.36561	8.82%
QC value within limits for V 292.402	Recovery = 82.95%					
Zn 213.857†	2238.3	12.731 µg/L	0.0772	12.731 ppb	0.0772	0.61%
QC value within limits for Zn 213.857	Recovery = 127.31%					

All analyte(s) passed QC.



Sequence No.: 51

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/14/2010 10:54:35

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	118013.9	118013.9	101 %		10:55:07
1	Al 396.153Radial†	-116.1	-37.0	-8.6393 µg/L	-8.6393 ppb	10:55:27
1	Ca 317.933Radial†	433.2	-5.9	-0.4968 µg/L	-0.4968 ppb	10:55:27
1	Fe 238.204 Radial†	136.7	30.8	2.6559 µg/L	2.6559 ppb	10:55:27
1	K 766.490 Radial†	1568.8	102.9	40.676 µg/L	40.676 ppb	10:55:07
1	Mg 279.077 IEC†	145.7	-12.8	-7.1165 µg/L	-7.1165 ppb	10:55:27
1	Na 589.592 Radial†	621.3	-10.1	-1.6356 µg/L	-1.6356 ppb	10:55:07
1	Sr 421.552†	15.8	19.3	0.0489 µg/L	0.0489 ppb	10:55:07
1	Sc 361.383	1743182.9	1743182.9	101.19 %		10:56:28
1	Y 371.029	987133.6	987133.6	101.12 %		10:56:28
1	Ag 328.068†	5316.7	134.9	0.5449 µg/L	0.5449 ppb	10:56:31
1	As 188.979†	1.8	18.1	6.0175 µg/L	6.0175 ppb	10:56:51
1	B 249.677†	4282.3	236.6	3.4569 µg/L	3.4569 ppb	10:56:31
1	Ba 233.527†	-125.0	14.1	0.0626 µg/L	0.0626 ppb	10:56:51
1	Be 313.107†	-1030.7	-137.1	-0.0389 µg/L	-0.0389 ppb	10:56:31
1	Cd 226.502†	-55.6	42.6	0.2790 µg/L	0.2790 ppb	10:56:51
1	Co 228.616†	-236.3	-6.2	-0.0804 µg/L	-0.0804 ppb	10:56:51
1	Cr 267.716†	310.1	20.5	0.1815 µg/L	0.1815 ppb	10:56:51
1	Cu 324.752†	3088.7	-57.2	-0.2369 µg/L	-0.2369 ppb	10:56:31
1	Mn 257.610†	173.7	-9.8	-0.0124 µg/L	-0.0124 ppb	10:56:51
1	Mo 202.031†	-19.1	1.6	0.0558 µg/L	0.0558 ppb	10:56:51
1	Ni 231.604†	-127.7	-28.8	-0.3554 µg/L	-0.3554 ppb	10:56:51
1	P 214.914†	-49.4	-16.9	-3.8544 µg/L	-3.8544 ppb	10:56:51
1	Pb 220.353†	92.0	5.7	0.3577 µg/L	0.3577 ppb	10:56:51
1	S 181.975 Axial†	103.1	14.3	12.159 µg/L	12.159 ppb	10:56:51
1	Sb 206.836†	67.5	-9.3	-1.1926 µg/L	-1.1926 ppb	10:56:51
1	Se 196.026†	29.8	17.0	6.54 µg/L	6.54 ppb	10:56:51
1	SiO2†	2087.2	330.2	33.450 µg/L	33.450 ppb	10:56:31
1	Si 251.611†	1721.7	916.3	13.702 µg/L	13.702 ppb	10:56:31
1	Sn 189.927†	17.2	4.7	0.3271 µg/L	0.3271 ppb	10:56:51
1	Ti 334.940†	549.7	-255.7	-0.2640 µg/L	-0.2640 ppb	10:56:31
1	Tl 190.801†	-103.9	9.7	1.3654 µg/L	1.3654 ppb	10:56:51
1	U 409.014†	-342.1	-56.8	-3.4992 µg/L	-3.4992 ppb	10:56:31
1	V 292.402†	468.5	-83.1	-0.4088 µg/L	-0.4088 ppb	10:56:31
1	Zn 213.857†	620.4	34.3	0.1976 µg/L	0.1976 ppb	10:56:51
2	Sc RADIAL	116210.6	116210.6	99.8 %		10:55:29
2	Al 396.153Radial†	-69.0	8.5	1.9709 µg/L	1.9709 ppb	10:55:49
2	Ca 317.933Radial†	441.7	9.2	0.7722 µg/L	0.7722 ppb	10:55:49
2	Fe 238.204 Radial†	119.0	15.2	1.3118 µg/L	1.3118 ppb	10:55:49
2	K 766.490 Radial†	1421.8	-20.3	-8.0261 µg/L	-8.0261 ppb	10:55:29
2	Mg 279.077 IEC†	142.2	-14.0	-7.7836 µg/L	-7.7836 ppb	10:55:49
2	Na 589.592 Radial†	662.3	40.5	6.4557 µg/L	6.4557 ppb	10:55:29
2	Sr 421.552†	-50.1	-46.3	-0.1173 µg/L	-0.1173 ppb	10:55:29
2	Sc 361.383	1739578.1	1739578.1	100.98 %		10:56:53
2	Y 371.029	984797.7	984797.7	100.88 %		10:56:53
2	Ag 328.068†	5155.8	-13.6	-0.0837 µg/L	-0.0837 ppb	10:56:55
2	As 188.979†	-17.1	-0.5	-0.1633 µg/L	-0.1633 ppb	10:57:15
2	B 249.677†	4137.8	102.3	1.4948 µg/L	1.4948 ppb	10:56:55
2	Ba 233.527†	-89.3	49.2	0.2194 µg/L	0.2194 ppb	10:57:15
2	Be 313.107†	-987.7	-96.7	-0.0314 µg/L	-0.0314 ppb	10:56:55
2	Cd 226.502†	-61.7	36.4	0.2384 µg/L	0.2384 ppb	10:57:15
2	Co 228.616†	-222.7	6.8	0.0881 µg/L	0.0881 ppb	10:57:15
2	Cr 267.716†	318.1	29.0	0.2646 µg/L	0.2646 ppb	10:57:15
2	Cu 324.752†	3365.0	222.7	0.8985 µg/L	0.8985 ppb	10:56:55
2	Mn 257.610†	223.6	39.9	0.0519 µg/L	0.0519 ppb	10:57:15
2	Mo 202.031†	-16.5	4.1	0.1398 µg/L	0.1398 ppb	10:57:15
2	Ni 231.604†	-104.3	-5.9	-0.0726 µg/L	-0.0726 ppb	10:57:15
2	P 214.914†	-58.4	-25.9	-5.9164 µg/L	-5.9164 ppb	10:57:15
2	Pb 220.353†	126.1	39.6	2.4907 µg/L	2.4907 ppb	10:57:15

2	S 181.975 Axial†	104.8	16.2	13.729 µg/L	13.729 ppb	10:57:15
2	Sb 206.836†	59.0	-17.7	-2.2593 µg/L	-2.2593 ppb	10:57:15
2	Se 196.026†	10.4	-2.1	-0.841 µg/L	-0.841 ppb	10:57:15
2	SiO2†	2133.3	380.1	38.508 µg/L	38.508 ppb	10:56:55
2	Si 251.611†	1952.3	1148.2	17.171 µg/L	17.171 ppb	10:56:55
2	Sn 189.927†	11.2	-1.2	-0.0818 µg/L	-0.0818 ppb	10:57:15
2	Ti 334.940†	745.7	-60.5	-0.0561 µg/L	-0.0561 ppb	10:56:55
2	Tl 190.801†	-112.1	1.4	0.1969 µg/L	0.1969 ppb	10:57:15
2	U 409.014†	-538.4	-251.9	-15.446 µg/L	-15.446 ppb	10:56:55
2	V 292.402†	395.5	-154.5	-0.7656 µg/L	-0.7656 ppb	10:56:55
2	Zn 213.857†	625.6	40.7	0.2319 µg/L	0.2319 ppb	10:57:15
3	Sc RADIAL	117085.4	117085.4	101 %		10:55:51
3	Al 396.153Radial†	-68.6	9.3	2.1750 µg/L	2.1750 ppb	10:56:11
3	Ca 317.933Radial†	425.4	-10.3	-0.8628 µg/L	-0.8628 ppb	10:56:11
3	Fe 238.204 Radial†	118.0	13.3	1.1482 µg/L	1.1482 ppb	10:56:11
3	K 766.490 Radial†	1634.4	180.3	71.283 µg/L	71.283 ppb	10:55:51
3	Mg 279.077 IEC†	137.3	-19.9	-11.112 µg/L	-11.112 ppb	10:56:11
3	Na 589.592 Radial†	488.3	-137.4	-21.915 µg/L	-21.915 ppb	10:55:51
3	Sr 421.552†	24.8	28.4	0.0719 µg/L	0.0719 ppb	10:55:51
3	Sc 361.383	1743368.8	1743368.8	101.20 %		10:57:17
3	Y 371.029	986048.4	986048.4	101.01 %		10:57:17
3	Ag 328.068†	5167.3	-13.3	-0.0705 µg/L	-0.0705 ppb	10:57:19
3	As 188.979†	-10.4	6.1	2.0170 µg/L	2.0170 ppb	10:57:39
3	B 249.677†	4219.5	174.2	2.5457 µg/L	2.5457 ppb	10:57:19
3	Ba 233.527†	-140.7	-1.4	-0.0063 µg/L	-0.0063 ppb	10:57:39
3	Be 313.107†	-898.6	-6.4	-0.0056 µg/L	-0.0056 ppb	10:57:19
3	Cd 226.502†	-66.5	31.8	0.2087 µg/L	0.2087 ppb	10:57:39
3	Co 228.616†	-256.6	-26.2	-0.3404 µg/L	-0.3404 ppb	10:57:39
3	Cr 267.716†	315.3	25.5	0.2329 µg/L	0.2329 ppb	10:57:39
3	Cu 324.752†	3247.9	99.7	0.3971 µg/L	0.3971 ppb	10:57:19
3	Mn 257.610†	216.2	32.1	0.0419 µg/L	0.0419 ppb	10:57:39
3	Mo 202.031†	-18.8	1.9	0.0637 µg/L	0.0637 ppb	10:57:39
3	Ni 231.604†	-101.7	-3.1	-0.0384 µg/L	-0.0384 ppb	10:57:39
3	P 214.914†	-47.6	-15.1	-3.4425 µg/L	-3.4425 ppb	10:57:39
3	Pb 220.353†	104.7	18.2	1.1500 µg/L	1.1500 ppb	10:57:39
3	S 181.975 Axial†	94.9	6.2	5.2240 µg/L	5.2240 ppb	10:57:39
3	Sb 206.836†	59.9	-16.9	-2.1553 µg/L	-2.1553 ppb	10:57:39
3	Se 196.026†	15.4	2.7	1.04 µg/L	1.04 ppb	10:57:39
3	SiO2†	2076.3	319.3	32.336 µg/L	32.336 ppb	10:57:19
3	Si 251.611†	2168.2	1357.3	20.298 µg/L	20.298 ppb	10:57:19
3	Sn 189.927†	18.1	5.7	0.3932 µg/L	0.3932 ppb	10:57:39
3	Ti 334.940†	947.1	136.9	0.1484 µg/L	0.1484 ppb	10:57:19
3	Tl 190.801†	-110.4	3.3	0.4704 µg/L	0.4704 ppb	10:57:39
3	U 409.014†	-496.1	-209.0	-12.777 µg/L	-12.777 ppb	10:57:19
3	V 292.402†	546.1	-6.6	-0.0395 µg/L	-0.0395 ppb	10:57:19
3	Zn 213.857†	585.5	-0.3	-0.0015 µg/L	-0.0015 ppb	10:57:39

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1742043.2	101.12 %	0.124			0.12%
Sc RADIAL	117103.3	101 %	0.8			0.77%
Y 371.029	985993.2	101.01 %	0.120			0.12%
Ag 328.068†	36.0	0.1302 µg/L	0.35917	0.1302 ppb	0.35917	275.80%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-6.4	-1.4978 µg/L	6.18555	-1.4978 ppb	6.18555	412.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	7.9	2.6237 µg/L	3.13475	2.6237 ppb	3.13475	119.48%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	171.0	2.4992 µg/L	0.98187	2.4992 ppb	0.98187	39.29%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	20.6	0.0919 µg/L	0.11571	0.0919 ppb	0.11571	125.90%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-80.1	-0.0253 µg/L	0.01746	-0.0253 ppb	0.01746	68.96%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-2.3	-0.1958 µg/L	0.85806	-0.1958 ppb	0.85806	438.25%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	36.9	0.2420 µg/L	0.03529	0.2420 ppb	0.03529	14.58%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-8.5	-0.1109 µg/L	0.21590	-0.1109 ppb	0.21590	194.72%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	25.0	0.2263 µg/L	0.04199	0.2263 ppb	0.04199	18.55%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	88.4	0.3529 µg/L	0.56901	0.3529 ppb	0.56901	161.24%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	19.8	1.7053 µg/L	0.82729	1.7053 ppb	0.82729	48.51%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	87.6	34.644 µg/L	39.9970	34.644 ppb	39.9970	115.45%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-15.5	-8.6706 µg/L	2.14013	-8.6706 ppb	2.14013	24.68%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	20.7	0.0271 µg/L	0.03460	0.0271 ppb	0.03460	127.53%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	2.6	0.0865 µg/L	0.04638	0.0865 ppb	0.04638	53.65%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-35.6	-5.6984 µg/L	14.61534	-5.6984 ppb	14.61534	256.48%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-12.6	-0.1555 µg/L	0.17400	-0.1555 ppb	0.17400	111.92%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-19.3	-4.4044 µg/L	1.32547	-4.4044 ppb	1.32547	30.09%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	21.2	1.3328 µg/L	1.07816	1.3328 ppb	1.07816	80.89%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	12.2	10.371 µg/L	4.5257	10.371 ppb	4.5257	43.64%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-14.6	-1.8690 µg/L	0.58810	-1.8690 ppb	0.58810	31.47%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	5.9	2.25 µg/L	3.834	2.25 ppb	3.834	170.78%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	343.2	34.765 µg/L	3.2892	34.765 ppb	3.2892	9.46%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	1140.6	17.057 µg/L	3.2995	17.057 ppb	3.2995	19.34%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	3.1	0.2128 µg/L	0.25725	0.2128 ppb	0.25725	120.88%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	0.5	0.0012 µg/L	0.10323	0.0012 ppb	0.10323	>999.9%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-59.8	-0.0572 µg/L	0.20620	-0.0572 ppb	0.20620	360.56%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	4.8	0.6775 µg/L	0.61118	0.6775 ppb	0.61118	90.20%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-172.6	-10.574 µg/L	6.2708	-10.574 ppb	6.2708	59.30%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-81.4	-0.4046 µg/L	0.36308	-0.4046 ppb	0.36308	89.73%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	24.9	0.1427 µg/L	0.12604	0.1427 ppb	0.12604	88.36%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 2

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/14/2010 11:14:13

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	115289.6	115289.6	99.0 %		11:14:46
1	Al 396.153Radial†	22419.8	22714.7	5284.5 µg/L	5284.5 ppb	11:14:46
1	Ca 317.933Radial†	62034.1	62202.3	5230.6 µg/L	5230.6 ppb	11:14:46
1	Fe 238.204 Radial†	59838.8	60315.0	5193.0 µg/L	5193.0 ppb	11:14:46
1	K 766.490 Radial†	14237.8	12931.3	5106.8 µg/L	5106.8 ppb	11:14:46
1	Mg 279.077 IEC†	9590.5	9527.1	5323.4 µg/L	5323.4 ppb	11:14:46
1	Na 589.592 Radial†	64214.1	64213.8	10209 µg/L	10209 ppb	11:14:44
1	Sr 421.552†	197963.6	199886.7	505.63 µg/L	505.63 ppb	11:14:44
1	Sc 361.383	1725653.5	1725653.5	100.17 %		11:15:13
1	Y 371.029	966356.5	966356.5	98.995 %		11:15:13
1	Ag 328.068†	126681.7	121346.4	504.53 µg/L	504.53 ppb	11:15:13
1	As 188.979†	1494.1	1508.0	507.14 µg/L	507.14 ppb	11:15:33
1	B 249.677†	37989.0	33928.9	493.93 µg/L	493.93 ppb	11:15:13
1	Ba 233.527†	111680.6	111627.9	499.59 µg/L	499.59 ppb	11:15:13
1	Be 313.107†	1803046.8	1800855.3	498.00 µg/L	498.00 ppb	11:15:13
1	Cd 226.502†	76541.0	76508.0	501.35 µg/L	501.35 ppb	11:15:13
1	Co 228.616†	38571.6	38733.2	503.65 µg/L	503.65 ppb	11:15:13
1	Cr 267.716†	57573.0	57188.9	498.47 µg/L	498.47 ppb	11:15:13
1	Cu 324.752†	124860.2	121537.7	498.93 µg/L	498.93 ppb	11:15:13
1	Mn 257.610†	388123.4	387280.4	500.33 µg/L	500.33 ppb	11:15:13
1	Mo 202.031†	14803.7	14799.0	503.37 µg/L	503.37 ppb	11:15:33
1	Ni 231.604†	40813.7	40841.6	503.78 µg/L	503.78 ppb	11:15:13
1	P 214.914†	10986.3	10999.6	2500.1 µg/L	2500.1 ppb	11:15:33
1	Pb 220.353†	8151.7	8052.5	505.91 µg/L	505.91 ppb	11:15:33
1	S 181.975 Axial†	1255.1	1165.4	993.35 µg/L	993.35 ppb	11:15:33
1	Sb 206.836†	4021.9	3939.0	504.46 µg/L	504.46 ppb	11:15:33
1	Se 196.026†	1331.1	1316.3	509 µg/L	509 ppb	11:15:33
1	SiO2†	54868.4	53042.4	5352.1 µg/L	5352.1 ppb	11:15:13
1	Si 251.611†	169144.9	168071.5	2503.8 µg/L	2503.8 ppb	11:15:13
1	Sn 189.927†	7276.4	7251.8	504.89 µg/L	504.89 ppb	11:15:33
1	Ti 334.940†	482173.8	480553.1	499.06 µg/L	499.06 ppb	11:15:13
1	Tl 190.801†	3448.0	3554.5	508.16 µg/L	508.16 ppb	11:15:33
1	U 409.014†	7290.5	7559.3	492.39 µg/L	492.39 ppb	11:15:13
1	V 292.402†	101869.7	101149.9	502.71 µg/L	502.71 ppb	11:15:13
1	Zn 213.857†	88881.6	88151.3	499.39 µg/L	499.39 ppb	11:15:13
2	Sc RADIAL	114264.3	114264.3	98.2 %		11:14:50
2	Al 396.153Radial†	22024.1	22514.7	5237.6 µg/L	5237.6 ppb	11:14:50
2	Ca 317.933Radial†	61323.3	62040.2	5216.9 µg/L	5216.9 ppb	11:14:50
2	Fe 238.204 Radial†	59297.7	60305.9	5192.2 µg/L	5192.2 ppb	11:14:50
2	K 766.490 Radial†	14216.1	13038.2	5149.1 µg/L	5149.1 ppb	11:14:50
2	Mg 279.077 IEC†	9471.8	9493.0	5304.5 µg/L	5304.5 ppb	11:14:50
2	Na 589.592 Radial†	64908.9	65503.4	10415 µg/L	10415 ppb	11:14:48
2	Sr 421.552†	199951.4	203705.4	515.29 µg/L	515.29 ppb	11:14:48
2	Sc 361.383	1710951.4	1710951.4	99.317 %		11:15:36
2	Y 371.029	958928.6	958928.6	98.234 %		11:15:36
2	Ag 328.068†	125694.6	121439.3	504.90 µg/L	504.90 ppb	11:15:36
2	As 188.979†	1480.3	1506.8	506.76 µg/L	506.76 ppb	11:15:56
2	B 249.677†	37555.9	33818.7	492.32 µg/L	492.32 ppb	11:15:36
2	Ba 233.527†	110890.6	111790.5	500.32 µg/L	500.32 ppb	11:15:36
2	Be 313.107†	1783898.6	1797042.6	496.94 µg/L	496.94 ppb	11:15:36
2	Cd 226.502†	75800.7	76419.3	500.77 µg/L	500.77 ppb	11:15:36
2	Co 228.616†	38219.7	38709.8	503.35 µg/L	503.35 ppb	11:15:36
2	Cr 267.716†	56962.2	57067.8	497.42 µg/L	497.42 ppb	11:15:36
2	Cu 324.752†	123460.9	121199.8	497.54 µg/L	497.54 ppb	11:15:36
2	Mn 257.610†	384410.0	386870.9	499.80 µg/L	499.80 ppb	11:15:36
2	Mo 202.031†	14795.0	14917.2	507.39 µg/L	507.39 ppb	11:15:56
2	Ni 231.604†	40212.7	40586.5	500.63 µg/L	500.63 ppb	11:15:36
2	P 214.914†	10974.5	11081.9	2518.9 µg/L	2518.9 ppb	11:15:56
2	Pb 220.353†	8160.4	8131.2	510.84 µg/L	510.84 ppb	11:15:56

2	S 181.975 Axial†	1269.1	1190.2	1014.5 µg/L	1014.5 ppb	11:15:56
2	Sb 206.836†	4007.5	3959.0	507.09 µg/L	507.09 ppb	11:15:56
2	Se 196.026†	1330.0	1326.7	513 µg/L	513 ppb	11:15:56
2	SiO2†	54555.2	53197.7	5367.7 µg/L	5367.7 ppb	11:15:36
2	Si 251.611†	168223.8	168595.0	2511.5 µg/L	2511.5 ppb	11:15:36
2	Sn 189.927†	7285.8	7323.6	509.87 µg/L	509.87 ppb	11:15:56
2	Ti 334.940†	477823.7	480309.3	498.81 µg/L	498.81 ppb	11:15:36
2	Tl 190.801†	3444.5	3580.6	511.82 µg/L	511.82 ppb	11:15:56
2	U 409.014†	7214.7	7545.5	491.51 µg/L	491.51 ppb	11:15:36
2	V 292.402†	100902.0	101049.4	502.26 µg/L	502.26 ppb	11:15:36
2	Zn 213.857†	88183.8	88211.1	499.75 µg/L	499.75 ppb	11:15:36
3	Sc RADIAL	115375.0	115375.0	99.1 %		11:14:54
3	Al 396.153Radial†	22354.1	22631.7	5264.8 µg/L	5264.8 ppb	11:14:54
3	Ca 317.933Radial†	62046.1	62168.1	5227.7 µg/L	5227.7 ppb	11:14:54
3	Fe 238.204 Radial†	59776.8	60207.7	5183.8 µg/L	5183.8 ppb	11:14:54
3	K 766.490 Radial†	14200.2	12882.7	5087.6 µg/L	5087.6 ppb	11:14:54
3	Mg 279.077 IEC†	9499.6	9428.2	5268.4 µg/L	5268.4 ppb	11:14:54
3	Na 589.592 Radial†	63615.5	63561.9	10106 µg/L	10106 ppb	11:14:52
3	Sr 421.552†	196626.5	198389.7	501.84 µg/L	501.84 ppb	11:14:52
3	Sc 361.383	1691088.9	1691088.9	98.164 %		11:15:59
3	Y 371.029	947527.7	947527.7	97.066 %		11:15:59
3	Ag 328.068†	123796.0	120991.6	503.05 µg/L	503.05 ppb	11:15:59
3	As 188.979†	1483.2	1527.4	513.56 µg/L	513.56 ppb	11:16:19
3	B 249.677†	36924.1	33619.2	489.41 µg/L	489.41 ppb	11:15:59
3	Ba 233.527†	109044.7	111221.5	497.78 µg/L	497.78 ppb	11:15:59
3	Be 313.107†	1754762.4	1788458.2	494.57 µg/L	494.57 ppb	11:15:59
3	Cd 226.502†	74523.2	76014.3	498.11 µg/L	498.11 ppb	11:15:59
3	Co 228.616†	37561.5	38491.2	500.50 µg/L	500.50 ppb	11:15:59
3	Cr 267.716†	56138.4	56902.2	495.97 µg/L	495.97 ppb	11:15:59
3	Cu 324.752†	121805.8	120973.9	496.61 µg/L	496.61 ppb	11:15:59
3	Mn 257.610†	378842.3	385745.2	498.35 µg/L	498.35 ppb	11:15:59
3	Mo 202.031†	14721.0	15016.7	510.77 µg/L	510.77 ppb	11:16:19
3	Ni 231.604†	39599.2	40437.2	498.79 µg/L	498.79 ppb	11:15:59
3	P 214.914†	10886.0	11121.5	2527.9 µg/L	2527.9 ppb	11:16:19
3	Pb 220.353†	8102.2	8168.4	513.18 µg/L	513.18 ppb	11:16:19
3	S 181.975 Axial†	1263.3	1199.3	1022.2 µg/L	1022.2 ppb	11:16:19
3	Sb 206.836†	3985.9	3984.4	510.41 µg/L	510.41 ppb	11:16:19
3	Se 196.026†	1301.3	1313.1	508 µg/L	508 ppb	11:16:19
3	SiO2†	54022.5	53300.3	5377.9 µg/L	5377.9 ppb	11:15:59
3	Si 251.611†	165896.2	168213.4	2505.7 µg/L	2505.7 ppb	11:15:59
3	Sn 189.927†	7231.0	7354.0	511.97 µg/L	511.97 ppb	11:16:19
3	Ti 334.940†	470536.3	478536.5	496.97 µg/L	496.97 ppb	11:15:59
3	Tl 190.801†	3433.6	3610.3	515.98 µg/L	515.98 ppb	11:16:19
3	U 409.014†	7114.8	7529.1	490.44 µg/L	490.44 ppb	11:15:59
3	V 292.402†	99505.1	100819.7	501.16 µg/L	501.16 ppb	11:15:59
3	Zn 213.857†	86634.9	87676.1	496.71 µg/L	496.71 ppb	11:15:59

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1709231.3	99.217 %	1.0069			1.01%
Sc RADIAL	114976.3	98.8 %	0.53			0.54%
Y 371.029	957604.3	98.098 %	0.9715			0.99%
Ag 328.068†	121259.1	504.16 µg/L	0.980	504.16 ppb	0.980	0.19%
QC value within limits for Ag 328.068 Recovery = 100.83%						
Al 396.153Radial†	22620.4	5262.3 µg/L	23.56	5262.3 ppb	23.56	0.45%
QC value within limits for Al 396.153Radial Recovery = 105.25%						
As 188.979†	1514.1	509.15 µg/L	3.822	509.15 ppb	3.822	0.75%
QC value within limits for As 188.979 Recovery = 101.83%						
B 249.677†	33788.9	491.89 µg/L	2.288	491.89 ppb	2.288	0.47%
QC value within limits for B 249.677 Recovery = 98.38%						
Ba 233.527†	111546.6	499.23 µg/L	1.310	499.23 ppb	1.310	0.26%
QC value within limits for Ba 233.527 Recovery = 99.85%						
Be 313.107†	1795452.0	496.50 µg/L	1.756	496.50 ppb	1.756	0.35%
QC value within limits for Be 313.107 Recovery = 99.30%						
Ca 317.933Radial†	62136.9	5225.1 µg/L	7.18	5225.1 ppb	7.18	0.14%
QC value within limits for Ca 317.933Radial Recovery = 104.50%						
Cd 226.502†	76313.9	500.08 µg/L	1.726	500.08 ppb	1.726	0.35%
QC value within limits for Cd 226.502 Recovery = 100.02%						
Co 228.616†	38644.7	502.50 µg/L	1.736	502.50 ppb	1.736	0.35%

QC value within limits for Co 228.616 Recovery = 100.50%							
Cr 267.716†	57052.9	497.29 µg/L	1.254	497.29 ppb	1.254	0.25%	
QC value within limits for Cr 267.716 Recovery = 99.46%							
Cu 324.752†	121237.1	497.69 µg/L	1.164	497.69 ppb	1.164	0.23%	
QC value within limits for Cu 324.752 Recovery = 99.54%							
Fe 238.204 Radial†	60276.2	5189.7 µg/L	5.12	5189.7 ppb	5.12	0.10%	
QC value within limits for Fe 238.204 Radial Recovery = 103.79%							
K 766.490 Radial†	12950.7	5114.5 µg/L	31.42	5114.5 ppb	31.42	0.61%	
QC value within limits for K 766.490 Radial Recovery = 102.29%							
Mg 279.077 IEC†	9482.7	5298.8 µg/L	27.93	5298.8 ppb	27.93	0.53%	
QC value within limits for Mg 279.077 IEC Recovery = 105.98%							
Mn 257.610†	386632.2	499.50 µg/L	1.026	499.50 ppb	1.026	0.21%	
QC value within limits for Mn 257.610 Recovery = 99.90%							
Mo 202.031†	14911.0	507.17 µg/L	3.703	507.17 ppb	3.703	0.73%	
QC value within limits for Mo 202.031 Recovery = 101.43%							
Na 589.592 Radial†	64426.4	10243 µg/L	157.1	10243 ppb	157.1	1.53%	
QC value within limits for Na 589.592 Radial Recovery = 102.43%							
Ni 231.604†	40621.8	501.07 µg/L	2.522	501.07 ppb	2.522	0.50%	
QC value within limits for Ni 231.604 Recovery = 100.21%							
P 214.914†	11067.7	2515.7 µg/L	14.19	2515.7 ppb	14.19	0.56%	
QC value within limits for P 214.914 Recovery = 100.63%							
Pb 220.353†	8117.4	509.98 µg/L	3.714	509.98 ppb	3.714	0.73%	
QC value within limits for Pb 220.353 Recovery = 102.00%							
S 181.975 Axial†	1185.0	1010.0 µg/L	14.93	1010.0 ppb	14.93	1.48%	
QC value within limits for S 181.975 Axial Recovery = 101.00%							
Sb 206.836†	3960.8	507.32 µg/L	2.984	507.32 ppb	2.984	0.59%	
QC value within limits for Sb 206.836 Recovery = 101.46%							
Se 196.026†	1318.7	510 µg/L	2.7	510 ppb	2.7	0.54%	
QC value within limits for Se 196.026 Recovery = 102.05%							
SiO2†	53180.1	5365.9 µg/L	13.00	5365.9 ppb	13.00	0.24%	
QC value within limits for SiO2 Recovery = 100.34%							
Si 251.611†	168293.3	2507.0 µg/L	4.02	2507.0 ppb	4.02	0.16%	
QC value within limits for Si 251.611 Recovery = 100.28%							
Sn 189.927†	7309.8	508.91 µg/L	3.640	508.91 ppb	3.640	0.72%	
QC value within limits for Sn 189.927 Recovery = 101.78%							
Sr 421.552†	200660.6	507.59 µg/L	6.934	507.59 ppb	6.934	1.37%	
QC value within limits for Sr 421.552 Recovery = 101.52%							
Ti 334.940†	479799.6	498.28 µg/L	1.142	498.28 ppb	1.142	0.23%	
QC value within limits for Ti 334.940 Recovery = 99.66%							
Tl 190.801†	3581.8	511.99 µg/L	3.916	511.99 ppb	3.916	0.76%	
QC value within limits for Tl 190.801 Recovery = 102.40%							
U 409.014†	7544.6	491.45 µg/L	0.975	491.45 ppb	0.975	0.20%	
QC value within limits for U 409.014 Recovery = 98.29%							
V 292.402†	101006.3	502.04 µg/L	0.798	502.04 ppb	0.798	0.16%	
QC value within limits for V 292.402 Recovery = 100.41%							
Zn 213.857†	88012.8	498.62 µg/L	1.661	498.62 ppb	1.661	0.33%	
QC value within limits for Zn 213.857 Recovery = 99.72%							

All analyte(s) passed QC.

Sequence No.: 3

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 4/14/2010 11:16:27

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	69844.3	69844.3	60.0 %		11:16:58
1	Al 396.153Radial†	24.8	118.8	27.701 µg/L	27.701 ppb	11:16:58
1	Ca 317.933Radial†	752.8	821.4	69.072 µg/L	69.072 ppb	11:17:18
1	Fe 238.204 Radial†	114.7	87.3	7.5130 µg/L	7.5130 ppb	11:17:18
1	K 766.490 Radial†	1343.8	795.1	314.24 µg/L	314.24 ppb	11:16:58
1	Mg 279.077 IEC†	117.1	38.8	21.681 µg/L	21.681 ppb	11:17:18
1	Na 589.592 Radial†	429.7	93.3	14.566 µg/L	14.566 ppb	11:16:58
1	Sr 421.552†	23.2	42.4	0.1067 µg/L	0.1067 ppb	11:16:58
1	Sc 361.383	5601163.1	5601163.1	325.14 %		11:18:06
1	Y 371.029	3209991.1	3209991.1	328.84 %		11:18:06
1	Ag 328.068†	4412.7	-3762.1	-15.464 µg/L	-15.464 ppb	11:18:08
1	As 188.979†	0.7	16.6	5.4983 µg/L	5.4983 ppb	11:18:28
1	B 249.677†	3891.4	-2798.5	-40.893 µg/L	-40.893 ppb	11:18:28
1	Ba 233.527†	70.8	159.4	0.7120 µg/L	0.7120 ppb	11:18:28
1	Be 313.107†	-97.6	851.5	0.2380 µg/L	0.2380 ppb	11:18:08
1	Cd 226.502†	73.4	120.1	0.7872 µg/L	0.7872 ppb	11:18:28
1	Co 228.616†	-127.0	188.3	2.4464 µg/L	2.4464 ppb	11:18:28
1	Cr 267.716†	347.7	-179.0	-1.5688 µg/L	-1.5688 ppb	11:18:28
1	Cu 324.752†	2719.0	-2273.4	-9.2928 µg/L	-9.2928 ppb	11:18:08
1	Mn 257.610†	1619.4	316.6	0.4083 µg/L	0.4083 ppb	11:18:28
1	Mo 202.031†	62.3	39.7	1.3480 µg/L	1.3480 ppb	11:18:28
1	Ni 231.604†	-13.2	93.3	1.1513 µg/L	1.1513 ppb	11:18:28
1	P 214.914†	58.1	49.8	11.452 µg/L	11.452 ppb	11:18:28
1	Pb 220.353†	151.9	-38.5	-2.4123 µg/L	-2.4123 ppb	11:18:28
1	S 181.975 Axial†	92.0	-59.3	-50.322 µg/L	-50.322 ppb	11:18:28
1	Sb 206.836†	82.7	-50.6	-6.4282 µg/L	-6.4282 ppb	11:18:28
1	Se 196.026†	44.5	1.2	0.469 µg/L	0.469 ppb	11:18:28
1	SiO2†	7216.0	486.9	49.293 µg/L	49.293 ppb	11:18:28
1	Si 251.611†	10712.7	2509.7	37.519 µg/L	37.519 ppb	11:18:28
Saturated within auto integration window (code 4)						
1	Sn 189.927†	31.6	-2.5	-0.1769 µg/L	-0.1769 ppb	11:18:28
1	Ti 334.940†	694.4	-585.4	-0.6117 µg/L	-0.6117 ppb	11:18:08
1	Tl 190.801†	-90.3	84.6	11.889 µg/L	11.889 ppb	11:18:28
1	U 409.014†	-458.1	140.4	8.4697 µg/L	8.4697 ppb	11:18:08
1	V 292.402†	428.0	-414.6	-2.0203 µg/L	-2.0203 ppb	11:18:08
1	Zn 213.857†	948.9	-287.0	-1.6410 µg/L	-1.6410 ppb	11:18:28
2	Sc RADIAL	140627.3	140627.3	121 %		11:17:20
Saturated within auto integration window (code 4)						
2	Al 396.153Radial†	-81.1	10.4	2.2735 µg/L	2.2735 ppb	11:17:20
2	Ca 317.933Radial†	1073.9	455.7	38.318 µg/L	38.318 ppb	11:17:40
2	Fe 238.204 Radial†	120.0	-4.6	-0.3975 µg/L	-0.3975 ppb	11:17:40
2	K 766.490 Radial†	1312.0	-358.6	-141.72 µg/L	-141.72 ppb	11:17:20
2	Mg 279.077 IEC†	122.8	-54.8	-30.468 µg/L	-30.468 ppb	11:17:40
2	Na 589.592 Radial†	550.8	-167.0	-26.431 µg/L	-26.431 ppb	11:17:20
2	Sr 421.552†	-4.6	-0.0	-0.0003 µg/L	-0.0003 ppb	11:17:20
2	Sc 361.383	2352110.2	2352110.2	136.54 %		11:18:30
2	Y 371.029	1299182.6	1299182.6	133.09 %		11:18:30
2	Ag 328.068†	4625.0	-1732.0	-7.1017 µg/L	-7.1017 ppb	11:18:32
2	As 188.979†	3.4	18.9	6.2775 µg/L	6.2775 ppb	11:18:53
2	B 249.677†	4145.9	-958.9	-14.015 µg/L	-14.015 ppb	11:18:53
2	Ba 233.527†	177.9	267.9	1.1993 µg/L	1.1993 ppb	11:18:53
2	Be 313.107†	5414.2	4846.9	1.3427 µg/L	1.3427 ppb	11:18:32
2	Cd 226.502†	115.6	182.2	1.1952 µg/L	1.1952 ppb	11:18:53
2	Co 228.616†	-128.6	133.1	1.7308 µg/L	1.7308 ppb	11:18:53
2	Cr 267.716†	435.7	33.1	0.2814 µg/L	0.2814 ppb	11:18:53
2	Cu 324.752†	3598.1	-474.4	-1.9338 µg/L	-1.9338 ppb	11:18:32
2	Mn 257.610†	2267.7	1479.3	1.9133 µg/L	1.9133 ppb	11:18:53
2	Mo 202.031†	117.0	106.2	3.6088 µg/L	3.6088 ppb	11:18:53
2	Ni 231.604†	24.2	115.1	1.4198 µg/L	1.4198 ppb	11:18:53

2	P 214.914†	137.3	132.5	30.224 µg/L	30.224 ppb	11:18:53
2	Pb 220.353†	154.5	27.9	1.7537 µg/L	1.7537 ppb	11:18:53
2	S 181.975 Axial†	102.5	-12.6	-10.635 µg/L	-10.635 ppb	11:18:53
2	Sb 206.836†	94.7	-6.7	-0.8103 µg/L	-0.8103 ppb	11:18:53
2	Se 196.026†	48.5	23.0	8.87 µg/L	8.87 ppb	11:18:53
2	SiO2†	3617.9	917.3	92.816 µg/L	92.816 ppb	11:18:53
2	Si 251.611†	6775.8	4177.5	62.426 µg/L	62.426 ppb	11:18:53
Saturated within auto integration window (code 4)						
2	Sn 189.927†	38.6	16.1	1.1244 µg/L	1.1244 ppb	11:18:53
2	Ti 334.940†	4690.8	2636.7	2.7415 µg/L	2.7415 ppb	11:18:32
2	Tl 190.801†	-69.2	61.7	8.7220 µg/L	8.7220 ppb	11:18:53
2	U 409.014†	-181.6	148.2	9.0792 µg/L	9.0792 ppb	11:18:32
2	V 292.402†	760.4	10.8	0.0950 µg/L	0.0950 ppb	11:18:32
2	Zn 213.857†	1091.0	220.2	1.2505 µg/L	1.2505 ppb	11:18:53
3	Sc RADIAL	143482.3	143482.3	123 %		11:17:42
Saturated within auto integration window (code 4)						
3	Al 396.153Radial†	-98.4	-2.3	-0.6440 µg/L	-0.6440 ppb	11:17:42
3	Ca 317.933Radial†	1256.4	586.1	49.286 µg/L	49.286 ppb	11:18:02
3	Fe 238.204 Radial†	190.2	50.3	4.3328 µg/L	4.3328 ppb	11:18:02
3	K 766.490 Radial†	1387.0	-319.3	-126.20 µg/L	-126.20 ppb	11:17:42
3	Mg 279.077 IEC†	129.7	-51.2	-28.528 µg/L	-28.528 ppb	11:18:02
3	Na 589.592 Radial†	495.3	-221.0	-35.046 µg/L	-35.046 ppb	11:17:42
3	Sr 421.552†	65.5	56.9	0.1435 µg/L	0.1435 ppb	11:17:42
3	Sc 361.383	3790447.0	3790447.0	220.03 %		11:18:55
3	Y 371.029	2166204.4	2166204.4	221.91 %		11:18:55
3	Ag 328.068†	5146.9	-2780.1	-11.397 µg/L	-11.397 ppb	11:18:57
3	As 188.979†	8.8	20.4	6.7628 µg/L	6.7628 ppb	11:19:17
3	B 249.677†	4277.4	-2051.3	-29.977 µg/L	-29.977 ppb	11:19:17
3	Ba 233.527†	203.1	230.0	1.0288 µg/L	1.0288 ppb	11:19:17
3	Be 313.107†	8796.1	4879.2	1.3551 µg/L	1.3551 ppb	11:18:57
3	Cd 226.502†	128.5	155.9	1.0225 µg/L	1.0225 ppb	11:19:17
3	Co 228.616†	-92.6	185.2	2.4078 µg/L	2.4078 ppb	11:19:17
3	Cr 267.716†	436.3	-87.7	-0.7809 µg/L	-0.7809 ppb	11:19:17
3	Cu 324.752†	4285.4	-1162.0	-4.7368 µg/L	-4.7368 ppb	11:18:57
3	Mn 257.610†	2488.3	949.4	1.2282 µg/L	1.2282 ppb	11:19:17
3	Mo 202.031†	101.2	66.5	2.2591 µg/L	2.2591 ppb	11:19:17
3	Ni 231.604†	8.7	101.4	1.2502 µg/L	1.2502 ppb	11:19:17
3	P 214.914†	153.1	101.5	23.186 µg/L	23.186 ppb	11:19:17
3	Pb 220.353†	134.3	-24.2	-1.5225 µg/L	-1.5225 ppb	11:19:17
3	S 181.975 Axial†	95.8	-44.1	-37.380 µg/L	-37.380 ppb	11:19:17
3	Sb 206.836†	100.2	-30.5	-3.8584 µg/L	-3.8584 ppb	11:19:17
3	Se 196.026†	47.3	9.0	3.49 µg/L	3.49 ppb	11:19:17
3	SiO2†	3144.0	-303.6	-30.829 µg/L	-30.829 ppb	11:19:17
3	Si 251.611†	6068.5	1972.9	29.473 µg/L	29.473 ppb	11:19:17
Saturated within auto integration window (code 4)						
3	Sn 189.927†	49.8	10.4	0.7267 µg/L	0.7267 ppb	11:19:17
3	Ti 334.940†	4134.9	1080.3	1.1188 µg/L	1.1188 ppb	11:18:57
3	Tl 190.801†	-70.1	80.6	11.347 µg/L	11.347 ppb	11:19:17
3	U 409.014†	121.4	336.4	20.557 µg/L	20.557 ppb	11:18:57
3	V 292.402†	1043.2	-72.0	-0.3209 µg/L	-0.3209 ppb	11:18:57
3	Zn 213.857†	1149.6	-56.4	-0.3270 µg/L	-0.3270 ppb	11:19:17

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Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	3914573.5	227.23 %	94.507			41.59%
Internal Standard Check greater than the upper limit for Sc 361.383. Recovery = 227.2%						
Sc RADIAL	117984.6	101 %	35.8			35.36%
Saturated within auto integration window (code 4)						
Y 371.029	2225126.0	227.94 %	98.012			43.00%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 227.9%						
Ag 328.068†	-2758.1	-11.321 µg/L	4.1819	-11.321 ppb	4.1819	36.94%
QC value less than the lower limit for Ag 328.068 Recovery = -226.42%						
Al 396.153Radial†	42.3	9.7770 µg/L	15.59145	9.7770 ppb	15.59145	159.47%
QC value less than the lower limit for Al 396.153Radial Recovery = 4.89%						
As 188.979†	18.6	6.1795 µg/L	0.63793	6.1795 ppb	0.63793	10.32%
QC value less than the lower limit for As 188.979 Recovery = 20.60%						
B 249.677†	-1936.3	-28.295 µg/L	13.5178	-28.295 ppb	13.5178	47.77%
QC value less than the lower limit for B 249.677 Recovery = -56.59%						
Ba 233.527†	219.1	0.9800 µg/L	0.24731	0.9800 ppb	0.24731	25.23%



QC value less than the lower limit for Ba 233.527	Recovery = 19.60%		
Be 313.107† 3525.9 0.9786 µg/L	0.64142 0.9786 ppb	0.64142	65.54%
QC value less than the lower limit for Be 313.107	Recovery = 19.57%		
Ca 317.933Radial† 621.1 52.226 µg/L	15.5864 52.226 ppb	15.5864	29.84%
QC value less than the lower limit for Ca 317.933Radial	Recovery = 26.11%		
Cd 226.502† 152.7 1.0016 µg/L	0.20480 1.0016 ppb	0.20480	20.45%
QC value less than the lower limit for Cd 226.502	Recovery = 20.03%		
Co 228.616† 168.9 2.1950 µg/L	0.40245 2.1950 ppb	0.40245	18.33%
QC value less than the lower limit for Co 228.616	Recovery = 43.90%		
Cr 267.716† -77.9 -0.6894 µg/L	0.92850 -0.6894 ppb	0.92850	134.68%
QC value less than the lower limit for Cr 267.716	Recovery = -13.79%		
Cu 324.752† -1303.3 -5.3211 µg/L	3.71415 -5.3211 ppb	3.71415	69.80%
QC value less than the lower limit for Cu 324.752	Recovery = -53.21%		
Fe 238.204 Radial† 44.3 3.8161 µg/L	3.98047 3.8161 ppb	3.98047	104.31%
QC value less than the lower limit for Fe 238.204	Radial Recovery = 3.82%		
K 766.490 Radial† 39.1 15.441 µg/L	258.8869 15.441 ppb	258.8869	>999.9%
QC value less than the lower limit for K 766.490 Radial	Recovery = 10.29%		
Mg 279.077 IEC† -22.4 -12.438 µg/L	29.5639 -12.438 ppb	29.5639	237.68%
QC value less than the lower limit for Mg 279.077 IEC	Recovery = -4.15%		
Mn 257.610† 915.1 1.1832 µg/L	0.75350 1.1832 ppb	0.75350	63.68%
QC value less than the lower limit for Mn 257.610	Recovery = 11.83%		
Mo 202.031† 70.8 2.4053 µg/L	1.13749 2.4053 ppb	1.13749	47.29%
QC value less than the lower limit for Mo 202.031	Recovery = 24.05%		
Na 589.592 Radial† -98.2 -15.637 µg/L	26.5087 -15.637 ppb	26.5087	169.53%
QC value less than the lower limit for Na 589.592	Radial Recovery = -5.21%		
Ni 231.604† 103.3 1.2738 µg/L	0.13580 1.2738 ppb	0.13580	10.66%
QC value less than the lower limit for Ni 231.604	Recovery = 25.48%		
P 214.914† 94.6 21.621 µg/L	9.4834 21.621 ppb	9.4834	43.86%
QC value less than the lower limit for P 214.914	Recovery = 14.41%		
Pb 220.353† -11.6 -0.7271 µg/L	2.19394 -0.7271 ppb	2.19394	301.76%
QC value less than the lower limit for Pb 220.353	Recovery = -7.27%		
S 181.975 Axial† -38.6 -32.779 µg/L	20.2397 -32.779 ppb	20.2397	61.75%
QC value less than the lower limit for S 181.975 Axial	Recovery = -32.78%		
Sb 206.836† -29.3 -3.6990 µg/L	2.81235 -3.6990 ppb	2.81235	76.03%
QC value less than the lower limit for Sb 206.836	Recovery = -36.99%		
Se 196.026† 11.1 4.28 µg/L	4.255 4.28 ppb	4.255	99.49%
QC value less than the lower limit for Se 196.026	Recovery = 14.26%		
SiO2† 366.9 37.094 µg/L	62.7190 37.094 ppb	62.7190	169.08%
QC value less than the lower limit for SiO2	Recovery = 17.41%		
Si 251.611† 2886.7 43.140 µg/L	17.1804 43.140 ppb	17.1804	39.83%
Saturated within auto integration window (code 4)			
QC value less than the lower limit for Si 251.611	Recovery = 43.14%		
Sn 189.927† 8.0 0.5581 µg/L	0.66688 0.5581 ppb	0.66688	119.50%
QC value less than the lower limit for Sn 189.927	Recovery = 5.58%		
Sr 421.552† 33.1 0.0833 µg/L	0.07474 0.0833 ppb	0.07474	89.70%
QC value less than the lower limit for Sr 421.552	Recovery = 1.67%		
Ti 334.940† 1043.9 1.0829 µg/L	1.67685 1.0829 ppb	1.67685	154.85%
QC value less than the lower limit for Ti 334.940	Recovery = 21.66%		
Tl 190.801† 75.6 10.653 µg/L	1.6937 10.653 ppb	1.6937	15.90%
QC value less than the lower limit for Tl 190.801	Recovery = 53.26%		
U 409.014† 208.3 12.702 µg/L	6.8098 12.702 ppb	6.8098	53.61%
QC value less than the lower limit for U 409.014	Recovery = 25.40%		
V 292.402† -158.6 -0.7487 µg/L	1.12067 -0.7487 ppb	1.12067	149.67%
QC value less than the lower limit for V 292.402	Recovery = -14.97%		
Zn 213.857† -41.1 -0.2391 µg/L	1.44777 -0.2391 ppb	1.44777	605.41%
QC value less than the lower limit for Zn 213.857	Recovery = -2.39%		

Internal Standard Check failed. Continue with analysis.  
QC Failed. Continue with analysis.

Sequence No.: 4

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/14/2010 11:19:26

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	115304.3	115304.3	99.1 %		11:19:56
1	Al 396.153Radial†	-79.7	-2.9	-0.6853 µg/L	-0.6853 ppb	11:20:16
1	Ca 317.933Radial†	451.8	22.9	1.9282 µg/L	1.9282 ppb	11:20:16
1	Fe 238.204 Radial†	127.5	24.7	2.1283 µg/L	2.1283 ppb	11:20:16
1	K 766.490 Radial†	1545.2	115.4	45.610 µg/L	45.610 ppb	11:19:56
1	Mg 279.077 IEC†	147.8	-7.3	-4.0537 µg/L	-4.0537 ppb	11:20:16
1	Na 589.592 Radial†	705.2	89.1	14.126 µg/L	14.126 ppb	11:19:56
1	Sr 421.552†	-19.2	-15.6	-0.0394 µg/L	-0.0394 ppb	11:19:56
1	Sc 361.383	1702940.2	1702940.2	98.852 %		11:21:18
1	Y 371.029	964640.6	964640.6	98.819 %		11:21:18
1	Ag 328.068†	5370.9	313.9	1.2987 µg/L	1.2987 ppb	11:21:20
1	As 188.979†	-2.4	14.0	4.6442 µg/L	4.6442 ppb	11:21:40
1	B 249.677†	4148.3	201.1	2.9389 µg/L	2.9389 ppb	11:21:20
1	Ba 233.527†	-118.5	17.7	0.0791 µg/L	0.0791 ppb	11:21:40
1	Be 313.107†	-993.8	-123.9	-0.0312 µg/L	-0.0312 ppb	11:21:20
1	Cd 226.502†	-80.7	15.8	0.1036 µg/L	0.1036 ppb	11:21:40
1	Co 228.616†	-247.7	-23.3	-0.3022 µg/L	-0.3022 ppb	11:21:40
1	Cr 267.716†	318.0	35.7	0.3031 µg/L	0.3031 ppb	11:21:40
1	Cu 324.752†	3046.2	-28.2	-0.1069 µg/L	-0.1069 ppb	11:21:20
1	Mn 257.610†	212.1	33.1	0.0429 µg/L	0.0429 ppb	11:21:40
1	Mo 202.031†	-19.4	0.9	0.0290 µg/L	0.0290 ppb	11:21:40
1	Ni 231.604†	-99.3	-3.0	-0.0375 µg/L	-0.0375 ppb	11:21:40
1	P 214.914†	-23.3	8.4	1.9022 µg/L	1.9022 ppb	11:21:40
1	Pb 220.353†	135.8	52.1	3.2571 µg/L	3.2571 ppb	11:21:40
1	S 181.975 Axial†	96.3	9.8	8.2932 µg/L	8.2932 ppb	11:21:40
1	Sb 206.836†	82.8	7.7	0.9817 µg/L	0.9817 ppb	11:21:40
1	Se 196.026†	24.5	12.3	4.76 µg/L	4.76 ppb	11:21:40
1	SiO2†	1940.8	230.9	23.394 µg/L	23.394 ppb	11:21:20
1	Si 251.611†	1410.4	641.6	9.5986 µg/L	9.5986 ppb	11:21:20
1	Sn 189.927†	5.8	-6.4	-0.4412 µg/L	-0.4412 ppb	11:21:40
1	Ti 334.940†	778.3	-11.6	-0.0159 µg/L	-0.0159 ppb	11:21:20
1	Tl 190.801†	-109.4	1.7	0.2428 µg/L	0.2428 ppb	11:21:40
1	U 409.014†	-114.2	165.7	10.117 µg/L	10.117 ppb	11:21:20
1	V 292.402†	491.9	-48.6	-0.2300 µg/L	-0.2300 ppb	11:21:20
1	Zn 213.857†	603.1	31.2	0.1785 µg/L	0.1785 ppb	11:21:40
2	Sc RADIAL	115381.2	115381.2	99.1 %		11:20:18
2	Al 396.153Radial†	-103.5	-26.9	-6.2862 µg/L	-6.2862 ppb	11:20:39
2	Ca 317.933Radial†	437.8	8.5	0.7112 µg/L	0.7112 ppb	11:20:39
2	Fe 238.204 Radial†	119.3	16.4	1.4125 µg/L	1.4125 ppb	11:20:39
2	K 766.490 Radial†	1557.8	127.1	50.236 µg/L	50.236 ppb	11:20:18
2	Mg 279.077 IEC†	132.5	-22.8	-12.716 µg/L	-12.716 ppb	11:20:39
2	Na 589.592 Radial†	681.3	64.5	10.218 µg/L	10.218 ppb	11:20:18
2	Sr 421.552†	-90.1	-87.2	-0.2205 µg/L	-0.2205 ppb	11:20:18
2	Sc 361.383	1696310.2	1696310.2	98.467 %		11:21:43
2	Y 371.029	961645.4	961645.4	98.512 %		11:21:43
2	Ag 328.068†	5280.5	243.3	1.0064 µg/L	1.0064 ppb	11:21:45
2	As 188.979†	-7.3	9.0	2.9871 µg/L	2.9871 ppb	11:22:05
2	B 249.677†	4153.3	222.6	3.2513 µg/L	3.2513 ppb	11:21:45
2	Ba 233.527†	-144.2	-8.8	-0.0393 µg/L	-0.0393 ppb	11:22:05
2	Be 313.107†	-900.8	-33.3	-0.0071 µg/L	-0.0071 ppb	11:21:45
2	Cd 226.502†	-70.9	25.6	0.1673 µg/L	0.1673 ppb	11:22:05
2	Co 228.616†	-204.9	19.3	0.2505 µg/L	0.2505 ppb	11:22:05
2	Cr 267.716†	349.3	68.7	0.5938 µg/L	0.5938 ppb	11:22:05
2	Cu 324.752†	3178.2	118.0	0.4887 µg/L	0.4887 ppb	11:21:45
2	Mn 257.610†	245.9	68.2	0.0886 µg/L	0.0886 ppb	11:22:05
2	Mo 202.031†	-21.6	-1.4	-0.0478 µg/L	-0.0478 ppb	11:22:05
2	Ni 231.604†	-119.3	-23.8	-0.2933 µg/L	-0.2933 ppb	11:22:05
2	P 214.914†	-48.1	-16.9	-3.8599 µg/L	-3.8599 ppb	11:22:05
2	Pb 220.353†	118.4	35.0	2.1854 µg/L	2.1854 ppb	11:22:05

2	S 181.975 Axial†	97.4	11.4	9.6357 µg/L	9.6357 ppb	11:22:05
2	Sb 206.836†	71.6	-3.4	-0.4396 µg/L	-0.4396 ppb	11:22:05
2	Se 196.026†	18.0	5.8	2.25 µg/L	2.25 ppb	11:22:05
2	SiO2†	1959.7	257.8	26.116 µg/L	26.116 ppb	11:21:45
2	Si 251.611†	1579.1	818.5	12.243 µg/L	12.243 ppb	11:21:45
2	Sn 189.927†	11.4	-0.6	-0.0441 µg/L	-0.0441 ppb	11:22:05
2	Ti 334.940†	854.9	69.3	0.0700 µg/L	0.0700 ppb	11:21:45
2	Tl 190.801†	-102.3	8.5	1.1919 µg/L	1.1919 ppb	11:22:05
2	U 409.014†	-164.5	114.2	6.9765 µg/L	6.9765 ppb	11:21:45
2	V 292.402†	515.8	-22.3	-0.1029 µg/L	-0.1029 ppb	11:21:45
2	Zn 213.857†	605.4	36.0	0.2067 µg/L	0.2067 ppb	11:22:05
3	Sc RADIAL	115108.6	115108.6	98.9 %		11:20:41
3	Al 396.153Radial†	-97.5	-21.1	-4.9398 µg/L	-4.9398 ppb	11:21:01
3	Ca 317.933Radial†	440.4	12.1	1.0164 µg/L	1.0164 ppb	11:21:01
3	Fe 238.204 Radial†	121.8	19.2	1.6570 µg/L	1.6570 ppb	11:21:01
3	K 766.490 Radial†	1541.1	113.9	45.019 µg/L	45.019 ppb	11:20:41
3	Mg 279.077 IEC†	155.7	1.0	0.5799 µg/L	0.5799 ppb	11:21:01
3	Na 589.592 Radial†	693.3	78.2	12.403 µg/L	12.403 ppb	11:20:41
3	Sr 421.552†	-5.9	-2.1	-0.0054 µg/L	-0.0054 ppb	11:20:41
3	Sc 361.383	1717998.7	1717998.7	99.726 %		11:22:07
3	Y 371.029	973660.3	973660.3	99.743 %		11:22:07
3	Ag 328.068†	5696.7	593.0	2.4254 µg/L	2.4254 ppb	11:22:09
3	As 188.979†	-15.1	1.2	0.4125 µg/L	0.4125 ppb	11:22:29
3	B 249.677†	4281.8	298.2	4.3554 µg/L	4.3554 ppb	11:22:09
3	Ba 233.527†	-113.6	23.7	0.1059 µg/L	0.1059 ppb	11:22:29
3	Be 313.107†	-1109.6	-231.1	-0.0650 µg/L	-0.0650 ppb	11:22:09
3	Cd 226.502†	-64.7	32.6	0.2137 µg/L	0.2137 ppb	11:22:29
3	Co 228.616†	-218.6	8.1	0.1051 µg/L	0.1051 ppb	11:22:29
3	Cr 267.716†	338.9	53.8	0.4717 µg/L	0.4717 ppb	11:22:29
3	Cu 324.752†	3157.9	56.9	0.2302 µg/L	0.2302 ppb	11:22:09
3	Mn 257.610†	236.2	55.3	0.0715 µg/L	0.0715 ppb	11:22:29
3	Mo 202.031†	-14.2	6.3	0.2126 µg/L	0.2126 ppb	11:22:29
3	Ni 231.604†	-107.3	-10.2	-0.1256 µg/L	-0.1256 ppb	11:22:29
3	P 214.914†	-27.1	4.8	1.0845 µg/L	1.0845 ppb	11:22:29
3	Pb 220.353†	113.0	28.1	1.7620 µg/L	1.7620 ppb	11:22:29
3	S 181.975 Axial†	84.7	-2.7	-2.2521 µg/L	-2.2521 ppb	11:22:29
3	Sb 206.836†	87.0	11.2	1.4209 µg/L	1.4209 ppb	11:22:29
3	Se 196.026†	40.3	28.0	10.8 µg/L	10.8 ppb	11:22:29
3	SiO2†	2198.3	471.8	47.792 µg/L	47.792 ppb	11:22:09
3	Si 251.611†	1855.2	1075.1	16.075 µg/L	16.075 ppb	11:22:09
3	Sn 189.927†	15.8	3.7	0.2542 µg/L	0.2542 ppb	11:22:29
3	Ti 334.940†	985.1	188.9	0.1977 µg/L	0.1977 ppb	11:22:09
3	Tl 190.801†	-121.8	-9.7	-1.3668 µg/L	-1.3668 ppb	11:22:29
3	U 409.014†	-338.4	-58.1	-3.5767 µg/L	-3.5767 ppb	11:22:09
3	V 292.402†	452.9	-92.1	-0.4501 µg/L	-0.4501 ppb	11:22:09
3	Zn 213.857†	630.0	52.8	0.3023 µg/L	0.3023 ppb	11:22:29

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1705749.7	99.015 %	0.6451			0.65%
Sc RADIAL	115264.7	99.0 %	0.12			0.12%
Y 371.029	966648.8	99.025 %	0.6407			0.65%
Ag 328.068†	383.4	1.5769 µg/L	0.74927	1.5769 ppb	0.74927	47.52%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-17.0	-3.9704 µg/L	2.92357	-3.9704 ppb	2.92357	73.63%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	8.1	2.6813 µg/L	2.13238	2.6813 ppb	2.13238	79.53%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	240.6	3.5152 µg/L	0.74422	3.5152 ppb	0.74422	21.17%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	10.9	0.0486 µg/L	0.07725	0.0486 ppb	0.07725	159.08%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-129.4	-0.0344 µg/L	0.02906	-0.0344 ppb	0.02906	84.45%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	14.5	1.2186 µg/L	0.63321	1.2186 ppb	0.63321	51.96%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	24.7	0.1616 µg/L	0.05528	0.1616 ppb	0.05528	34.22%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	1.4	0.0178 µg/L	0.28649	0.0178 ppb	0.28649	>999.9%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	52.7	0.4562 µg/L	0.14595	0.4562 ppb	0.14595	31.99%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	48.9	0.2040 µg/L	0.29864	0.2040 ppb	0.29864	146.38%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	20.1	1.7326 µg/L	0.36387	1.7326 ppb	0.36387	21.00%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	118.8	46.955 µg/L	2.8568	46.955 ppb	2.8568	6.08%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-9.7	-5.3965 µg/L	6.74879	-5.3965 ppb	6.74879	125.06%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	52.2	0.0677 µg/L	0.02311	0.0677 ppb	0.02311	34.15%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	1.9	0.0646 µg/L	0.13381	0.0646 ppb	0.13381	207.25%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	77.3	12.249 µg/L	1.9582	12.249 ppb	1.9582	15.99%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-12.3	-0.1521 µg/L	0.12993	-0.1521 ppb	0.12993	85.41%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-1.3	-0.2911 µg/L	3.11761	-0.2911 ppb	3.11761	>999.9%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	38.4	2.4015 µg/L	0.77066	2.4015 ppb	0.77066	32.09%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	6.2	5.2256 µg/L	6.51058	5.2256 ppb	6.51058	124.59%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	5.2	0.6543 µg/L	0.97252	0.6543 ppb	0.97252	148.63%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	15.4	5.92 µg/L	4.376	5.92 ppb	4.376	73.86%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	320.2	32.434 µg/L	13.3697	32.434 ppb	13.3697	41.22%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	845.1	12.639 µg/L	3.2563	12.639 ppb	3.2563	25.76%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-1.1	-0.0770 µg/L	0.34889	-0.0770 ppb	0.34889	453.03%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-35.0	-0.0885 µg/L	0.11560	-0.0885 ppb	0.11560	130.68%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	82.2	0.0839 µg/L	0.10747	0.0839 ppb	0.10747	128.03%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	0.2	0.0227 µg/L	1.29348	0.0227 ppb	1.29348	>999.9%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	74.0	4.5055 µg/L	7.17334	4.5055 ppb	7.17334	159.21%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-54.3	-0.2610 µg/L	0.17562	-0.2610 ppb	0.17562	67.29%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	40.0	0.2292 µg/L	0.06486	0.2292 ppb	0.06486	28.30%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 6

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/14/2010 11:24:52

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	115351.6	115351.6	99.1 %		11:25:25
1	Al 396.153Radial†	22226.3	22507.2	5235.8 µg/L	5235.8 ppb	11:25:25
1	Ca 317.933Radial†	61704.1	61835.6	5199.7 µg/L	5199.7 ppb	11:25:25
1	Fe 238.204 Radial†	59583.4	60024.8	5168.0 µg/L	5168.0 ppb	11:25:25
1	K 766.490 Radial†	14331.0	13017.6	5141.0 µg/L	5141.0 ppb	11:25:25
1	Mg 279.077 IEC†	9502.1	9432.6	5270.9 µg/L	5270.9 ppb	11:25:25
1	Na 589.592 Radial†	63733.9	63694.3	10127 µg/L	10127 ppb	11:25:23
1	Sr 421.552†	196754.5	198559.1	502.27 µg/L	502.27 ppb	11:25:23
1	Sc 361.383	1705380.6	1705380.6	98.994 %		11:25:38
1	Y 371.029	954509.3	954509.3	97.781 %		11:25:38
1	Ag 328.068†	126227.9	122391.4	508.85 µg/L	508.85 ppb	11:25:38
1	As 188.979†	1481.8	1513.2	508.93 µg/L	508.93 ppb	11:25:58
1	B 249.677†	37818.2	34207.1	497.98 µg/L	497.98 ppb	11:25:38
1	Ba 233.527†	111499.2	112770.0	504.71 µg/L	504.71 ppb	11:25:38
1	Be 313.107†	1795512.0	1814641.3	501.81 µg/L	501.81 ppb	11:25:38
1	Cd 226.502†	76221.7	77093.8	505.20 µg/L	505.20 ppb	11:25:38
1	Co 228.616†	38314.9	38931.6	506.24 µg/L	506.24 ppb	11:25:38
1	Cr 267.716†	57447.9	57745.7	503.33 µg/L	503.33 ppb	11:25:38
1	Cu 324.752†	124219.7	122372.5	502.33 µg/L	502.33 ppb	11:25:38
1	Mn 257.610†	387497.8	391254.4	505.47 µg/L	505.47 ppb	11:25:38
1	Mo 202.031†	14812.9	14984.0	509.66 µg/L	509.66 ppb	11:25:58
1	Ni 231.604†	40695.9	41206.9	508.29 µg/L	508.29 ppb	11:25:38
1	P 214.914†	10992.7	11136.4	2531.3 µg/L	2531.3 ppb	11:25:58
1	Pb 220.353†	8164.3	8162.0	512.79 µg/L	512.79 ppb	11:25:58
1	S 181.975 Axial†	1280.1	1205.5	1027.4 µg/L	1027.4 ppb	11:25:58
1	Sb 206.836†	4022.9	3987.7	510.72 µg/L	510.72 ppb	11:25:58
1	Se 196.026†	1310.2	1311.0	507 µg/L	507 ppb	11:25:58
1	SiO2†	54584.6	53406.9	5388.8 µg/L	5388.8 ppb	11:25:38
1	Si 251.611†	168234.1	169158.7	2519.9 µg/L	2519.9 ppb	11:25:38
1	Sn 189.927†	7283.6	7345.4	511.40 µg/L	511.40 ppb	11:25:58
1	Ti 334.940†	480704.4	484790.8	503.47 µg/L	503.47 ppb	11:25:38
1	Tl 190.801†	3441.9	3589.3	513.13 µg/L	513.13 ppb	11:25:58
1	U 409.014†	7079.7	7432.9	484.91 µg/L	484.91 ppb	11:25:38
1	V 292.402†	101424.9	101909.5	506.52 µg/L	506.52 ppb	11:25:38
1	Zn 213.857†	88566.7	88888.0	503.57 µg/L	503.57 ppb	11:25:38
2	Sc RADIAL	115657.4	115657.4	99.4 %		11:25:29
2	Al 396.153Radial†	22265.4	22487.3	5231.1 µg/L	5231.1 ppb	11:25:29
2	Ca 317.933Radial†	62184.8	62154.8	5226.6 µg/L	5226.6 ppb	11:25:29
2	Fe 238.204 Radial†	60118.3	60404.2	5200.7 µg/L	5200.7 ppb	11:25:29
2	K 766.490 Radial†	14178.6	12826.0	5065.2 µg/L	5065.2 ppb	11:25:29
2	Mg 279.077 IEC†	9612.3	9518.1	5318.6 µg/L	5318.6 ppb	11:25:29
2	Na 589.592 Radial†	63498.6	63287.5	10062 µg/L	10062 ppb	11:25:27
2	Sr 421.552†	195996.1	197270.9	499.01 µg/L	499.01 ppb	11:25:27
2	Sc 361.383	1706106.3	1706106.3	99.036 %		11:26:01
2	Y 371.029	955246.1	955246.1	97.856 %		11:26:01
2	Ag 328.068†	125878.1	121984.0	507.17 µg/L	507.17 ppb	11:26:01
2	As 188.979†	1498.4	1529.4	514.31 µg/L	514.31 ppb	11:26:21
2	B 249.677†	37803.2	34175.8	497.53 µg/L	497.53 ppb	11:26:01
2	Ba 233.527†	111174.6	112394.3	503.03 µg/L	503.03 ppb	11:26:01
2	Be 313.107†	1792671.7	1811002.0	500.80 µg/L	500.80 ppb	11:26:01
2	Cd 226.502†	76087.4	76925.5	504.09 µg/L	504.09 ppb	11:26:01
2	Co 228.616†	38256.6	38856.3	505.25 µg/L	505.25 ppb	11:26:01
2	Cr 267.716†	57452.8	57726.0	503.17 µg/L	503.17 ppb	11:26:01
2	Cu 324.752†	124278.6	122378.6	502.36 µg/L	502.36 ppb	11:26:01
2	Mn 257.610†	386996.8	390582.1	504.60 µg/L	504.60 ppb	11:26:01
2	Mo 202.031†	14851.6	15016.7	510.77 µg/L	510.77 ppb	11:26:21
2	Ni 231.604†	40481.4	40972.8	505.40 µg/L	505.40 ppb	11:26:01
2	P 214.914†	11019.8	11159.0	2536.4 µg/L	2536.4 ppb	11:26:21
2	Pb 220.353†	8210.6	8205.3	515.50 µg/L	515.50 ppb	11:26:21

2	S 181.975 Axial†	1265.6	1190.3	1014.5 µg/L	1014.5 ppb	11:26:21
2	Sb 206.836†	4004.5	3967.4	508.15 µg/L	508.15 ppb	11:26:21
2	Se 196.026†	1309.8	1310.0	507 µg/L	507 ppb	11:26:21
2	SiO2†	54725.2	53525.4	5400.7 µg/L	5400.7 ppb	11:26:01
2	Si 251.611†	168329.8	169183.0	2520.2 µg/L	2520.2 ppb	11:26:01
2	Sn 189.927†	7319.2	7378.2	513.67 µg/L	513.67 ppb	11:26:21
2	Ti 334.940†	480340.6	484217.0	502.87 µg/L	502.87 ppb	11:26:01
2	Tl 190.801†	3462.7	3608.8	515.87 µg/L	515.87 ppb	11:26:21
2	U 409.014†	6980.2	7329.3	478.55 µg/L	478.55 ppb	11:26:01
2	V 292.402†	101400.9	101841.7	506.19 µg/L	506.19 ppb	11:26:01
2	Zn 213.857†	88425.4	88707.2	502.55 µg/L	502.55 ppb	11:26:01
3	Sc RADIAL	112942.2	112942.2	97.0 %		11:25:33
3	Al 396.153Radial†	21830.7	22578.0	5252.2 µg/L	5252.2 ppb	11:25:33
3	Ca 317.933Radial†	60586.1	62011.7	5214.5 µg/L	5214.5 ppb	11:25:33
3	Fe 238.204 Radial†	58329.4	60015.0	5167.2 µg/L	5167.2 ppb	11:25:33
3	K 766.490 Radial†	14030.1	13016.0	5140.2 µg/L	5140.2 ppb	11:25:33
3	Mg 279.077 IEC†	9342.7	9472.9	5293.5 µg/L	5293.5 ppb	11:25:33
3	Na 589.592 Radial†	64645.0	66005.6	10494 µg/L	10494 ppb	11:25:31
3	Sr 421.552†	199142.3	205256.1	519.21 µg/L	519.21 ppb	11:25:31
3	Sc 361.383	1705406.9	1705406.9	98.995 %		11:26:24
3	Y 371.029	955285.9	955285.9	97.861 %		11:26:24
3	Ag 328.068†	125983.3	122142.4	507.85 µg/L	507.85 ppb	11:26:24
3	As 188.979†	1502.6	1534.2	515.90 µg/L	515.90 ppb	11:26:44
3	B 249.677†	37915.4	34304.8	499.40 µg/L	499.40 ppb	11:26:24
3	Ba 233.527†	111296.8	112563.8	503.79 µg/L	503.79 ppb	11:26:24
3	Be 313.107†	1796907.8	1816023.3	502.19 µg/L	502.19 ppb	11:26:24
3	Cd 226.502†	76105.3	76975.0	504.42 µg/L	504.42 ppb	11:26:24
3	Co 228.616†	38539.5	39157.8	509.17 µg/L	509.17 ppb	11:26:24
3	Cr 267.716†	57536.3	57834.2	504.09 µg/L	504.09 ppb	11:26:24
3	Cu 324.752†	124430.8	122583.8	503.21 µg/L	503.21 ppb	11:26:24
3	Mn 257.610†	387070.9	390817.2	504.91 µg/L	504.91 ppb	11:26:24
3	Mo 202.031†	14878.9	15050.3	511.91 µg/L	511.91 ppb	11:26:44
3	Ni 231.604†	40379.1	40886.2	504.33 µg/L	504.33 ppb	11:26:24
3	P 214.914†	11052.8	11197.0	2545.1 µg/L	2545.1 ppb	11:26:44
3	Pb 220.353†	8221.2	8219.3	516.38 µg/L	516.38 ppb	11:26:44
3	S 181.975 Axial†	1271.8	1197.1	1020.4 µg/L	1020.4 ppb	11:26:44
3	Sb 206.836†	4022.1	3986.9	510.64 µg/L	510.64 ppb	11:26:44
3	Se 196.026†	1320.9	1321.8	511 µg/L	511 ppb	11:26:44
3	SiO2†	54837.2	53661.2	5414.4 µg/L	5414.4 ppb	11:26:24
3	Si 251.611†	168906.4	169835.2	2530.0 µg/L	2530.0 ppb	11:26:24
3	Sn 189.927†	7325.9	7388.1	514.36 µg/L	514.36 ppb	11:26:44
3	Ti 334.940†	480871.4	484952.1	503.63 µg/L	503.63 ppb	11:26:24
3	Tl 190.801†	3474.7	3622.4	517.78 µg/L	517.78 ppb	11:26:44
3	U 409.014†	7272.9	7627.9	496.86 µg/L	496.86 ppb	11:26:24
3	V 292.402†	101544.0	102028.3	507.13 µg/L	507.13 ppb	11:26:24
3	Zn 213.857†	88543.4	88863.0	503.45 µg/L	503.45 ppb	11:26:24

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1705631.3	99.008 %	0.0239			0.02%
Sc RADIAL	114650.4	98.5 %	1.28			1.30%
Y 371.029	955013.8	97.833 %	0.0448			0.05%
Ag 328.068†	122172.6	507.96 µg/L	0.848	507.96 ppb	0.848	0.17%
QC value within limits for Ag 328.068 Recovery = 101.59%						
Al 396.153Radial†	22524.2	5239.7 µg/L	11.10	5239.7 ppb	11.10	0.21%
QC value within limits for Al 396.153Radial Recovery = 104.79%						
As 188.979†	1525.6	513.04 µg/L	3.651	513.04 ppb	3.651	0.71%
QC value within limits for As 188.979 Recovery = 102.61%						
B 249.677†	34229.2	498.31 µg/L	0.976	498.31 ppb	0.976	0.20%
QC value within limits for B 249.677 Recovery = 99.66%						
Ba 233.527†	112576.0	503.84 µg/L	0.841	503.84 ppb	0.841	0.17%
QC value within limits for Ba 233.527 Recovery = 100.77%						
Be 313.107†	1813888.9	501.60 µg/L	0.720	501.60 ppb	0.720	0.14%
QC value within limits for Be 313.107 Recovery = 100.32%						
Ca 317.933Radial†	62000.7	5213.6 µg/L	13.44	5213.6 ppb	13.44	0.26%
QC value within limits for Ca 317.933Radial Recovery = 104.27%						
Cd 226.502†	76998.1	504.57 µg/L	0.569	504.57 ppb	0.569	0.11%
QC value within limits for Cd 226.502 Recovery = 100.91%						
Co 228.616†	38981.9	506.89 µg/L	2.040	506.89 ppb	2.040	0.40%

QC value within limits for Co 228.616 Recovery = 101.38%							
Cr 267.716†	57768.7	503.53 µg/L	0.495	503.53 ppb	0.495	0.10%	
QC value within limits for Cr 267.716 Recovery = 100.71%							
Cu 324.752†	122444.9	502.63 µg/L	0.499	502.63 ppb	0.499	0.10%	
QC value within limits for Cu 324.752 Recovery = 100.53%							
Fe 238.204 Radial†	60148.0	5178.6 µg/L	19.10	5178.6 ppb	19.10	0.37%	
QC value within limits for Fe 238.204 Radial Recovery = 103.57%							
K 766.490 Radial†	12953.2	5115.5 µg/L	43.51	5115.5 ppb	43.51	0.85%	
QC value within limits for K 766.490 Radial Recovery = 102.31%							
Mg 279.077 IEC†	9474.6	5294.3 µg/L	23.88	5294.3 ppb	23.88	0.45%	
QC value within limits for Mg 279.077 IEC Recovery = 105.89%							
Mn 257.610†	390884.6	504.99 µg/L	0.442	504.99 ppb	0.442	0.09%	
QC value within limits for Mn 257.610 Recovery = 101.00%							
Mo 202.031†	15017.0	510.78 µg/L	1.128	510.78 ppb	1.128	0.22%	
QC value within limits for Mo 202.031 Recovery = 102.16%							
Na 589.592 Radial†	64329.1	10228 µg/L	233.2	10228 ppb	233.2	2.28%	
QC value within limits for Na 589.592 Radial Recovery = 102.28%							
Ni 231.604†	41022.0	506.00 µg/L	2.046	506.00 ppb	2.046	0.40%	
QC value within limits for Ni 231.604 Recovery = 101.20%							
P 214.914†	11164.1	2537.6 µg/L	6.98	2537.6 ppb	6.98	0.28%	
QC value within limits for P 214.914 Recovery = 101.50%							
Pb 220.353†	8195.5	514.89 µg/L	1.871	514.89 ppb	1.871	0.36%	
QC value within limits for Pb 220.353 Recovery = 102.98%							
S 181.975 Axial†	1197.6	1020.8 µg/L	6.45	1020.8 ppb	6.45	0.63%	
QC value within limits for S 181.975 Axial Recovery = 102.08%							
Sb 206.836†	3980.7	509.84 µg/L	1.462	509.84 ppb	1.462	0.29%	
QC value within limits for Sb 206.836 Recovery = 101.97%							
Se 196.026†	1314.3	509 µg/L	2.5	509 ppb	2.5	0.50%	
QC value within limits for Se 196.026 Recovery = 101.71%							
SiO2†	53531.2	5401.3 µg/L	12.84	5401.3 ppb	12.84	0.24%	
QC value within limits for SiO2 Recovery = 101.01%							
Si 251.611†	169392.3	2523.4 µg/L	5.72	2523.4 ppb	5.72	0.23%	
QC value within limits for Si 251.611 Recovery = 100.93%							
Sn 189.927†	7370.6	513.14 µg/L	1.548	513.14 ppb	1.548	0.30%	
QC value within limits for Sn 189.927 Recovery = 102.63%							
Sr 421.552†	200362.0	506.83 µg/L	10.845	506.83 ppb	10.845	2.14%	
QC value within limits for Sr 421.552 Recovery = 101.37%							
Ti 334.940†	484653.3	503.33 µg/L	0.400	503.33 ppb	0.400	0.08%	
QC value within limits for Ti 334.940 Recovery = 100.67%							
Tl 190.801†	3606.8	515.59 µg/L	2.337	515.59 ppb	2.337	0.45%	
QC value within limits for Tl 190.801 Recovery = 103.12%							
U 409.014†	7463.4	486.77 µg/L	9.298	486.77 ppb	9.298	1.91%	
QC value within limits for U 409.014 Recovery = 97.35%							
V 292.402†	101926.5	506.61 µg/L	0.480	506.61 ppb	0.480	0.09%	
QC value within limits for V 292.402 Recovery = 101.32%							
Zn 213.857†	88819.4	503.19 µg/L	0.557	503.19 ppb	0.557	0.11%	
QC value within limits for Zn 213.857 Recovery = 100.64%							
All analyte(s) passed QC.							

Sequence No.: 7

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/14/2010 11:26:52

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	115551.2	115551.2	99.3 %		11:27:21
1	Al 396.153Radial†	-71.6	5.4	1.2428 µg/L	1.2428 ppb	11:27:41
1	Ca 317.933Radial†	469.1	39.3	3.3077 µg/L	3.3077 ppb	11:27:41
1	Fe 238.204 Radial†	125.8	22.8	1.9596 µg/L	1.9596 ppb	11:27:41
1	K 766.490 Radial†	1591.8	159.0	62.861 µg/L	62.861 ppb	11:27:21
1	Mg 279.077 IEC†	162.5	7.3	4.0640 µg/L	4.0640 ppb	11:27:41
1	Na 589.592 Radial†	674.5	56.6	8.9469 µg/L	8.9469 ppb	11:27:21
1	Sr 421.552†	-32.9	-29.3	-0.0742 µg/L	-0.0742 ppb	11:27:21
1	Sc 361.383	1721897.2	1721897.2	99.953 %		11:28:29
1	Y 371.029	975909.3	975909.3	99.973 %		11:28:29
1	Ag 328.068†	5224.6	107.8	0.4279 µg/L	0.4279 ppb	11:28:31
1	As 188.979†	-13.8	2.6	0.8734 µg/L	0.8734 ppb	11:28:51
1	B 249.677†	4280.2	286.8	4.1898 µg/L	4.1898 ppb	11:28:31
1	Ba 233.527†	-147.2	-9.6	-0.0431 µg/L	-0.0431 ppb	11:28:51
1	Be 313.107†	-936.9	-55.8	-0.0181 µg/L	-0.0181 ppb	11:28:31
1	Cd 226.502†	-45.0	52.5	0.3440 µg/L	0.3440 ppb	11:28:51
1	Co 228.616†	-213.1	14.1	0.1831 µg/L	0.1831 ppb	11:28:51
1	Cr 267.716†	320.2	34.3	0.3062 µg/L	0.3062 ppb	11:28:51
1	Cu 324.752†	3043.7	-64.6	-0.2711 µg/L	-0.2711 ppb	11:28:31
1	Mn 257.610†	250.5	69.1	0.0892 µg/L	0.0892 ppb	11:28:51
1	Mo 202.031†	-8.3	12.2	0.4138 µg/L	0.4138 ppb	11:28:51
1	Ni 231.604†	-110.8	-13.5	-0.1661 µg/L	-0.1661 ppb	11:28:51
1	P 214.914†	-31.4	0.5	0.1152 µg/L	0.1152 ppb	11:28:51
1	Pb 220.353†	118.2	33.0	2.0765 µg/L	2.0765 ppb	11:28:51
1	S 181.975 Axial†	102.2	14.6	12.403 µg/L	12.403 ppb	11:28:51
1	Sb 206.836†	74.1	-1.9	-0.2401 µg/L	-0.2401 ppb	11:28:51
1	Se 196.026†	20.3	7.8	3.01 µg/L	3.01 ppb	11:28:51
1	SiO2†	1822.1	90.5	9.1485 µg/L	9.1485 ppb	11:28:31
1	Si 251.611†	1111.0	326.3	4.8724 µg/L	4.8724 ppb	11:28:31
1	Sn 189.927†	18.7	6.5	0.4498 µg/L	0.4498 ppb	11:28:51
1	Ti 334.940†	702.4	-96.3	-0.0968 µg/L	-0.0968 ppb	11:28:31
1	Tl 190.801†	-100.6	11.7	1.6470 µg/L	1.6470 ppb	11:28:51
1	U 409.014†	-427.7	-146.7	-8.9830 µg/L	-8.9830 ppb	11:28:31
1	V 292.402†	486.0	-59.9	-0.2945 µg/L	-0.2945 ppb	11:28:31
1	Zn 213.857†	644.1	65.5	0.3752 µg/L	0.3752 ppb	11:28:51
2	Sc RADIAL	114899.3	114899.3	98.7 %		11:27:43
2	Al 396.153Radial†	-96.2	-19.9	-4.6926 µg/L	-4.6926 ppb	11:28:03
2	Ca 317.933Radial†	441.5	14.0	1.1785 µg/L	1.1785 ppb	11:28:03
2	Fe 238.204 Radial†	144.3	42.2	3.6374 µg/L	3.6374 ppb	11:28:03
2	K 766.490 Radial†	1481.8	56.7	22.412 µg/L	22.412 ppb	11:27:43
2	Mg 279.077 IEC†	135.3	-19.4	-10.793 µg/L	-10.793 ppb	11:28:03
2	Na 589.592 Radial†	668.9	54.8	8.7033 µg/L	8.7033 ppb	11:27:43
2	Sr 421.552†	-93.5	-90.9	-0.2299 µg/L	-0.2299 ppb	11:27:43
2	Sc 361.383	1722328.7	1722328.7	99.978 %		11:28:53
2	Y 371.029	974840.5	974840.5	99.864 %		11:28:53
2	Ag 328.068†	5454.0	335.8	1.3663 µg/L	1.3663 ppb	11:28:55
2	As 188.979†	-6.4	10.0	3.3222 µg/L	3.3222 ppb	11:29:15
2	B 249.677†	4347.1	352.7	5.1520 µg/L	5.1520 ppb	11:28:55
2	Ba 233.527†	-124.3	13.3	0.0593 µg/L	0.0593 ppb	11:29:15
2	Be 313.107†	-833.0	48.4	0.0114 µg/L	0.0114 ppb	11:28:55
2	Cd 226.502†	-67.8	29.7	0.1939 µg/L	0.1939 ppb	11:29:15
2	Co 228.616†	-208.0	19.3	0.2505 µg/L	0.2505 ppb	11:29:15
2	Cr 267.716†	311.2	25.3	0.2255 µg/L	0.2255 ppb	11:29:15
2	Cu 324.752†	3161.9	52.9	0.2116 µg/L	0.2116 ppb	11:28:55
2	Mn 257.610†	233.2	51.7	0.0673 µg/L	0.0673 ppb	11:29:15
2	Mo 202.031†	4.4	24.9	0.8446 µg/L	0.8446 ppb	11:29:15
2	Ni 231.604†	-153.7	-56.3	-0.6950 µg/L	-0.6950 ppb	11:29:15
2	P 214.914†	-26.6	5.3	1.2004 µg/L	1.2004 ppb	11:29:15
2	Pb 220.353†	128.9	43.7	2.7425 µg/L	2.7425 ppb	11:29:15



2	S 181.975 Axial†	91.5	3.9	3.3335 µg/L	3.3335 ppb	11:29:15
2	Sb 206.836†	84.5	8.4	1.0861 µg/L	1.0861 ppb	11:29:15
2	Se 196.026†	6.4	-6.1	-2.35 µg/L	-2.35 ppb	11:29:15
2	SiO2†	1828.9	96.9	9.7828 µg/L	9.7828 ppb	11:28:55
2	Si 251.611†	1237.8	453.0	6.7608 µg/L	6.7608 ppb	11:28:55
2	Sn 189.927†	18.1	5.9	0.4082 µg/L	0.4082 ppb	11:29:15
2	Ti 334.940†	819.4	20.6	0.0249 µg/L	0.0249 ppb	11:28:55
2	Tl 190.801†	-106.6	5.8	0.8067 µg/L	0.8067 ppb	11:29:15
2	U 409.014†	-385.3	-104.2	-6.3925 µg/L	-6.3925 ppb	11:28:55
2	V 292.402†	462.7	-83.4	-0.4040 µg/L	-0.4040 ppb	11:28:55
2	Zn 213.857†	610.3	31.6	0.1843 µg/L	0.1843 ppb	11:29:15
3	Sc RADIAL	114108.2	114108.2	98.0 %		11:28:05
3	Al 396.153Radial†	-78.4	-2.5	-0.5984 µg/L	-0.5984 ppb	11:28:25
3	Ca 317.933Radial†	437.4	13.0	1.0945 µg/L	1.0945 ppb	11:28:25
3	Fe 238.204 Radial†	112.6	10.9	0.9373 µg/L	0.9373 ppb	11:28:25
3	K 766.490 Radial†	1508.4	94.2	37.242 µg/L	37.242 ppb	11:28:05
3	Mg 279.077 IEC†	150.2	-3.2	-1.7805 µg/L	-1.7805 ppb	11:28:25
3	Na 589.592 Radial†	690.5	81.5	12.934 µg/L	12.934 ppb	11:28:05
3	Sr 421.552†	-120.2	-118.8	-0.3006 µg/L	-0.3006 ppb	11:28:05
3	Sc 361.383	1726164.0	1726164.0	100.20 %		11:29:18
3	Y 371.029	977075.8	977075.8	100.09 %		11:29:18
3	Ag 328.068†	5387.6	257.5	1.0492 µg/L	1.0492 ppb	11:29:20
3	As 188.979†	-0.2	16.2	5.3565 µg/L	5.3565 ppb	11:29:40
3	B 249.677†	4305.7	301.7	4.4068 µg/L	4.4068 ppb	11:29:20
3	Ba 233.527†	-168.4	-30.4	-0.1359 µg/L	-0.1359 ppb	11:29:40
3	Be 313.107†	-995.0	-111.5	-0.0326 µg/L	-0.0326 ppb	11:29:20
3	Cd 226.502†	-47.0	50.6	0.3316 µg/L	0.3316 ppb	11:29:40
3	Co 228.616†	-211.4	16.3	0.2117 µg/L	0.2117 ppb	11:29:40
3	Cr 267.716†	294.6	8.1	0.0749 µg/L	0.0749 ppb	11:29:40
3	Cu 324.752†	3188.6	72.5	0.2919 µg/L	0.2919 ppb	11:29:20
3	Mn 257.610†	271.0	88.9	0.1150 µg/L	0.1150 ppb	11:29:40
3	Mo 202.031†	-6.7	13.8	0.4694 µg/L	0.4694 ppb	11:29:40
3	Ni 231.604†	-97.7	-0.1	-0.0008 µg/L	-0.0008 ppb	11:29:40
3	P 214.914†	-21.6	10.4	2.3602 µg/L	2.3602 ppb	11:29:40
3	Pb 220.353†	137.0	51.4	3.2271 µg/L	3.2271 ppb	11:29:40
3	S 181.975 Axial†	94.3	6.5	5.5332 µg/L	5.5332 ppb	11:29:40
3	Sb 206.836†	84.5	8.3	1.0689 µg/L	1.0689 ppb	11:29:40
3	Se 196.026†	14.5	2.0	0.746 µg/L	0.746 ppb	11:29:40
3	SiO2†	1895.9	159.7	16.161 µg/L	16.161 ppb	11:29:20
3	Si 251.611†	1435.2	647.2	9.6720 µg/L	9.6720 ppb	11:29:20
3	Sn 189.927†	15.7	3.5	0.2418 µg/L	0.2418 ppb	11:29:40
3	Ti 334.940†	838.5	37.8	0.0419 µg/L	0.0419 ppb	11:29:20
3	Tl 190.801†	-103.0	9.6	1.3559 µg/L	1.3559 ppb	11:29:40
3	U 409.014†	-378.9	-96.9	-5.9284 µg/L	-5.9284 ppb	11:29:20
3	V 292.402†	536.9	-10.4	-0.0500 µg/L	-0.0500 ppb	11:29:20
3	Zn 213.857†	621.1	41.0	0.2338 µg/L	0.2338 ppb	11:29:40

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1723463.3	100.04 %	0.136			0.14%
Sc RADIAL	114852.9	98.7 %	0.62			0.63%
Y 371.029	975941.9	99.977 %	0.1145			0.11%
Ag 328.068†	233.7	0.9478 µg/L	0.47737	0.9478 ppb	0.47737	50.37%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-5.7	-1.3494 µg/L	3.03808	-1.3494 ppb	3.03808	225.14%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	9.6	3.1840 µg/L	2.24476	3.1840 ppb	2.24476	70.50%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	313.7	4.5829 µg/L	0.50470	4.5829 ppb	0.50470	11.01%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-8.9	-0.0399 µg/L	0.09765	-0.0399 ppb	0.09765	244.67%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-39.7	-0.0131 µg/L	0.02246	-0.0131 ppb	0.02246	171.34%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	22.1	1.8602 µg/L	1.25426	1.8602 ppb	1.25426	67.43%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	44.3	0.2899 µg/L	0.08330	0.2899 ppb	0.08330	28.74%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	16.6	0.2151 µg/L	0.03380	0.2151 ppb	0.03380	15.71%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	22.6	0.2022 µg/L	0.11739	0.2022 ppb	0.11739	58.06%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	20.3	0.0775 µg/L	0.30453	0.0775 ppb	0.30453	393.03%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	25.3	2.1781 µg/L	1.36325	2.1781 ppb	1.36325	62.59%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	103.3	40.838 µg/L	20.4630	40.838 ppb	20.4630	50.11%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-5.1	-2.8366 µg/L	7.48466	-2.8366 ppb	7.48466	263.86%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	69.9	0.0905 µg/L	0.02390	0.0905 ppb	0.02390	26.42%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	16.9	0.5759 µg/L	0.23432	0.5759 ppb	0.23432	40.69%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	64.3	10.195 µg/L	2.3756	10.195 ppb	2.3756	23.30%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-23.3	-0.2873 µg/L	0.36259	-0.2873 ppb	0.36259	126.22%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	5.4	1.2253 µg/L	1.12267	1.2253 ppb	1.12267	91.63%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	42.7	2.6820 µg/L	0.57769	2.6820 ppb	0.57769	21.54%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	8.3	7.0900 µg/L	4.73113	7.0900 ppb	4.73113	66.73%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	5.0	0.6383 µg/L	0.76079	0.6383 ppb	0.76079	119.19%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	1.2	0.470 µg/L	2.6935	0.470 ppb	2.6935	573.63%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	115.7	11.697 µg/L	3.8785	11.697 ppb	3.8785	33.16%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	475.5	7.1017 µg/L	2.41789	7.1017 ppb	2.41789	34.05%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	5.3	0.3666 µg/L	0.11009	0.3666 ppb	0.11009	30.03%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-79.7	-0.2016 µg/L	0.11583	-0.2016 ppb	0.11583	57.47%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-12.6	-0.0100 µg/L	0.07563	-0.0100 ppb	0.07563	756.56%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	9.0	1.2699 µg/L	0.42670	1.2699 ppb	0.42670	33.60%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-115.9	-7.1013 µg/L	1.64604	-7.1013 ppb	1.64604	23.18%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-51.2	-0.2495 µg/L	0.18124	-0.2495 ppb	0.18124	72.65%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	46.0	0.2644 µg/L	0.09905	0.2644 ppb	0.09905	37.46%	
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 6

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/14/2010 11:50:05

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	113618.3	113618.3	97.6 %		11:50:39
1	Al 396.153Radial†	22029.8	22648.1	5268.4 µg/L	5268.4 ppb	11:50:39
1	Ca 317.933Radial†	60829.1	61889.1	5204.2 µg/L	5204.2 ppb	11:50:39
1	Fe 238.204 Radial†	58873.3	60214.6	5184.4 µg/L	5184.4 ppb	11:50:39
1	K 766.490 Radial†	14076.6	12977.6	5125.1 µg/L	5125.1 ppb	11:50:39
1	Mg 279.077 IEC†	9464.9	9540.8	5331.4 µg/L	5331.4 ppb	11:50:39
1	Na 589.592 Radial†	63327.0	64258.7	10217 µg/L	10217 ppb	11:50:37
1	Sr 421.552†	195692.4	200500.1	507.18 µg/L	507.18 ppb	11:50:37
1	Sc 361.383	1690173.8	1690173.8	98.111 %		11:50:52
1	Y 371.029	946159.3	946159.3	96.926 %		11:50:52
1	Ag 328.068†	125437.3	122732.9	510.28 µg/L	510.28 ppb	11:50:52
1	As 188.979†	1493.5	1538.6	517.37 µg/L	517.37 ppb	11:51:12
1	B 249.677†	37594.6	34323.0	499.67 µg/L	499.67 ppb	11:50:52
1	Ba 233.527†	110656.7	112924.7	505.40 µg/L	505.40 ppb	11:50:52
1	Be 313.107†	1784092.8	1819321.1	503.10 µg/L	503.10 ppb	11:50:52
1	Cd 226.502†	75738.9	77294.5	506.51 µg/L	506.51 ppb	11:50:52
1	Co 228.616†	38156.6	39118.5	508.66 µg/L	508.66 ppb	11:50:52
1	Cr 267.716†	57006.8	57818.3	503.97 µg/L	503.97 ppb	11:50:52
1	Cu 324.752†	123480.0	122747.5	503.87 µg/L	503.87 ppb	11:50:52
1	Mn 257.610†	384661.0	391884.9	506.28 µg/L	506.28 ppb	11:50:52
1	Mo 202.031†	14826.0	15131.9	514.69 µg/L	514.69 ppb	11:51:12
1	Ni 231.604†	40410.2	41285.6	509.26 µg/L	509.26 ppb	11:50:52
1	P 214.914†	10996.3	11239.9	2554.9 µg/L	2554.9 ppb	11:51:12
1	Pb 220.353†	8174.0	8246.1	518.07 µg/L	518.07 ppb	11:51:12
1	S 181.975 Axial†	1254.5	1191.1	1015.2 µg/L	1015.2 ppb	11:51:12
1	Sb 206.836†	4014.6	4015.8	514.38 µg/L	514.38 ppb	11:51:12
1	Se 196.026†	1318.1	1331.0	515 µg/L	515 ppb	11:51:12
1	SiO2†	54120.0	53429.5	5390.9 µg/L	5390.9 ppb	11:50:52
1	Si 251.611†	167348.9	169785.5	2529.2 µg/L	2529.2 ppb	11:50:52
1	Sn 189.927†	7273.6	7401.4	515.29 µg/L	515.29 ppb	11:51:12
1	Ti 334.940†	477207.5	485595.6	504.31 µg/L	504.31 ppb	11:50:52
1	Tl 190.801†	3463.9	3643.0	520.70 µg/L	520.70 ppb	11:51:12
1	U 409.014†	6957.8	7373.0	481.37 µg/L	481.37 ppb	11:50:52
1	V 292.402†	100925.2	102322.0	508.59 µg/L	508.59 ppb	11:50:52
1	Zn 213.857†	88197.3	89316.4	506.01 µg/L	506.01 ppb	11:50:52
2	Sc RADIAL	114862.8	114862.8	98.7 %		11:50:43
2	Al 396.153Radial†	22223.6	22600.0	5257.4 µg/L	5257.4 ppb	11:50:43
2	Ca 317.933Radial†	61982.7	62382.9	5245.7 µg/L	5245.7 ppb	11:50:43
2	Fe 238.204 Radial†	60124.0	60828.5	5237.2 µg/L	5237.2 ppb	11:50:43
2	K 766.490 Radial†	14241.5	12988.4	5129.4 µg/L	5129.4 ppb	11:50:43
2	Mg 279.077 IEC†	9680.7	9654.5	5394.7 µg/L	5394.7 ppb	11:50:43
2	Na 589.592 Radial†	63177.2	63403.9	10081 µg/L	10081 ppb	11:50:41
2	Sr 421.552†	195954.2	198593.1	502.36 µg/L	502.36 ppb	11:50:41
2	Sc 361.383	1714232.3	1714232.3	99.508 %		11:51:15
2	Y 371.029	959785.6	959785.6	98.322 %		11:51:15
2	Ag 328.068†	127265.8	122776.1	510.46 µg/L	510.46 ppb	11:51:15
2	As 188.979†	1505.4	1529.2	514.29 µg/L	514.29 ppb	11:51:35
2	B 249.677†	38402.7	34597.2	503.67 µg/L	503.67 ppb	11:51:15
2	Ba 233.527†	112347.4	113040.8	505.92 µg/L	505.92 ppb	11:51:15
2	Be 313.107†	1815768.4	1825632.3	504.85 µg/L	504.85 ppb	11:51:15
2	Cd 226.502†	77005.4	77483.9	507.75 µg/L	507.75 ppb	11:51:15
2	Co 228.616†	38876.0	39295.6	510.96 µg/L	510.96 ppb	11:51:15
2	Cr 267.716†	58025.6	58026.7	505.78 µg/L	505.78 ppb	11:51:15
2	Cu 324.752†	125448.2	122959.1	504.75 µg/L	504.75 ppb	11:51:15
2	Mn 257.610†	390627.2	392378.0	506.92 µg/L	506.92 ppb	11:51:15
2	Mo 202.031†	14931.3	15025.7	511.08 µg/L	511.08 ppb	11:51:35
2	Ni 231.604†	40931.5	41231.4	508.59 µg/L	508.59 ppb	11:51:15
2	P 214.914†	11112.0	11198.9	2545.5 µg/L	2545.5 ppb	11:51:35
2	Pb 220.353†	8229.6	8185.1	514.23 µg/L	514.23 ppb	11:51:35

2	S 181.975 Axial†	1280.5	1199.2	1022.1 µg/L	1022.1 ppb	11:51:35
2	Sb 206.836†	4036.8	3980.7	509.81 µg/L	509.81 ppb	11:51:35
2	Se 196.026†	1340.6	1334.7	516 µg/L	516 ppb	11:51:35
2	SiO2†	55186.0	53726.6	5421.1 µg/L	5421.1 ppb	11:51:15
2	Si 251.611†	170443.4	170501.4	2539.9 µg/L	2539.9 ppb	11:51:15
2	Sn 189.927†	7363.4	7387.6	514.33 µg/L	514.33 ppb	11:51:35
2	Ti 334.940†	484799.3	486398.7	505.13 µg/L	505.13 ppb	11:51:15
2	Tl 190.801†	3470.1	3599.7	514.59 µg/L	514.59 ppb	11:51:35
2	U 409.014†	7213.9	7530.9	491.00 µg/L	491.00 ppb	11:51:15
2	V 292.402†	102349.0	102309.2	508.50 µg/L	508.50 ppb	11:51:15
2	Zn 213.857†	89636.3	89500.9	507.06 µg/L	507.06 ppb	11:51:15
3	Sc RADIAL	113133.3	113133.3	97.2 %		11:50:47
3	Al 396.153Radial†	22092.6	22809.5	5306.1 µg/L	5306.1 ppb	11:50:47
3	Ca 317.933Radial†	60894.3	62223.4	5232.3 µg/L	5232.3 ppb	11:50:47
3	Fe 238.204 Radial†	58933.6	60535.2	5212.0 µg/L	5212.0 ppb	11:50:47
3	K 766.490 Radial†	14080.6	13043.5	5151.1 µg/L	5151.1 ppb	11:50:47
3	Mg 279.077 IEC†	9350.7	9464.9	5289.0 µg/L	5289.0 ppb	11:50:47
3	Na 589.592 Radial†	64340.4	65579.5	10427 µg/L	10427 ppb	11:50:45
3	Sr 421.552†	199095.4	204861.0	518.21 µg/L	518.21 ppb	11:50:45
3	Sc 361.383	1688367.1	1688367.1	98.006 %		11:51:38
3	Y 371.029	945819.5	945819.5	96.891 %		11:51:38
3	Ag 328.068†	124999.4	122422.9	509.02 µg/L	509.02 ppb	11:51:38
3	As 188.979†	1493.8	1540.6	518.04 µg/L	518.04 ppb	11:51:58
3	B 249.677†	37518.7	34286.6	499.14 µg/L	499.14 ppb	11:51:38
3	Ba 233.527†	110463.1	112847.8	505.06 µg/L	505.06 ppb	11:51:38
3	Be 313.107†	1781775.0	1818902.1	502.99 µg/L	502.99 ppb	11:51:38
3	Cd 226.502†	75435.8	77067.9	505.02 µg/L	505.02 ppb	11:51:38
3	Co 228.616†	37999.1	38999.4	507.11 µg/L	507.11 ppb	11:51:38
3	Cr 267.716†	56970.7	57843.6	504.18 µg/L	504.18 ppb	11:51:38
3	Cu 324.752†	123480.0	122882.2	504.43 µg/L	504.43 ppb	11:51:38
3	Mn 257.610†	383957.2	391586.3	505.90 µg/L	505.90 ppb	11:51:38
3	Mo 202.031†	14860.8	15183.6	516.44 µg/L	516.44 ppb	11:51:58
3	Ni 231.604†	40205.0	41120.3	507.22 µg/L	507.22 ppb	11:51:38
3	P 214.914†	11037.2	11293.6	2567.1 µg/L	2567.1 ppb	11:51:58
3	Pb 220.353†	8180.0	8261.2	519.01 µg/L	519.01 ppb	11:51:58
3	S 181.975 Axial†	1250.6	1188.4	1013.0 µg/L	1013.0 ppb	11:51:58
3	Sb 206.836†	4020.4	4026.1	515.73 µg/L	515.73 ppb	11:51:58
3	Se 196.026†	1311.3	1325.5	513 µg/L	513 ppb	11:51:58
3	SiO2†	54237.1	53608.0	5408.9 µg/L	5408.9 ppb	11:51:38
3	Si 251.611†	168181.4	170817.5	2544.6 µg/L	2544.6 ppb	11:51:38
3	Sn 189.927†	7320.0	7456.7	519.13 µg/L	519.13 ppb	11:51:58
3	Ti 334.940†	477482.2	486396.4	505.14 µg/L	505.14 ppb	11:51:38
3	Tl 190.801†	3472.7	3655.7	522.51 µg/L	522.51 ppb	11:51:58
3	U 409.014†	7121.8	7547.9	492.06 µg/L	492.06 ppb	11:51:38
3	V 292.402†	100863.7	102369.3	508.84 µg/L	508.84 ppb	11:51:38
3	Zn 213.857†	87751.3	88957.5	503.97 µg/L	503.97 ppb	11:51:38

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Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1697591.1	98.542 %	0.8382			0.85%
Sc RADIAL	113871.5	97.8 %	0.77			0.78%
Y 371.029	950588.1	97.379 %	0.8162			0.84%
Ag 328.068†	122643.9	509.92 µg/L	0.786	509.92 ppb	0.786	0.15%
QC value within limits for Ag 328.068 Recovery = 101.98%						
Al 396.153Radial†	22685.8	5277.3 µg/L	25.53	5277.3 ppb	25.53	0.48%
QC value within limits for Al 396.153Radial Recovery = 105.55%						
As 188.979†	1536.1	516.57 µg/L	2.002	516.57 ppb	2.002	0.39%
QC value within limits for As 188.979 Recovery = 103.31%						
B 249.677†	34402.3	500.83 µg/L	2.475	500.83 ppb	2.475	0.49%
QC value within limits for B 249.677 Recovery = 100.17%						
Ba 233.527†	112937.8	505.46 µg/L	0.433	505.46 ppb	0.433	0.09%
QC value within limits for Ba 233.527 Recovery = 101.09%						
Be 313.107†	1821285.2	503.64 µg/L	1.043	503.64 ppb	1.043	0.21%
QC value within limits for Be 313.107 Recovery = 100.73%						
Ca 317.933Radial†	62165.1	5227.4 µg/L	21.19	5227.4 ppb	21.19	0.41%
QC value within limits for Ca 317.933Radial Recovery = 104.55%						
Cd 226.502†	77282.1	506.43 µg/L	1.365	506.43 ppb	1.365	0.27%
QC value within limits for Cd 226.502 Recovery = 101.29%						
Co 228.616†	39137.8	508.91 µg/L	1.937	508.91 ppb	1.937	0.38%

QC value within limits for Co 228.616 Recovery = 101.78%							
Cr 267.716†	57896.2	504.64 µg/L	0.989	504.64 ppb	0.989	0.20%	
QC value within limits for Cr 267.716 Recovery = 100.93%							
Cu 324.752†	122862.9	504.35 µg/L	0.448	504.35 ppb	0.448	0.09%	
QC value within limits for Cu 324.752 Recovery = 100.87%							
Fe 238.204 Radial†	60526.1	5211.2 µg/L	26.44	5211.2 ppb	26.44	0.51%	
QC value within limits for Fe 238.204 Radial Recovery = 104.22%							
K 766.490 Radial†	13003.2	5135.2 µg/L	13.94	5135.2 ppb	13.94	0.27%	
QC value within limits for K 766.490 Radial Recovery = 102.70%							
Mg 279.077 IEC†	9553.4	5338.4 µg/L	53.16	5338.4 ppb	53.16	1.00%	
QC value within limits for Mg 279.077 IEC Recovery = 106.77%							
Mn 257.610†	391949.7	506.37 µg/L	0.515	506.37 ppb	0.515	0.10%	
QC value within limits for Mn 257.610 Recovery = 101.27%							
Mo 202.031†	15113.7	514.07 µg/L	2.735	514.07 ppb	2.735	0.53%	
QC value within limits for Mo 202.031 Recovery = 102.81%							
Na 589.592 Radial†	64414.0	10241 µg/L	174.3	10241 ppb	174.3	1.70%	
QC value within limits for Na 589.592 Radial Recovery = 102.41%							
Ni 231.604†	41212.4	508.35 µg/L	1.039	508.35 ppb	1.039	0.20%	
QC value within limits for Ni 231.604 Recovery = 101.67%							
P 214.914†	11244.2	2555.8 µg/L	10.84	2555.8 ppb	10.84	0.42%	
QC value within limits for P 214.914 Recovery = 102.23%							
Pb 220.353†	8230.8	517.11 µg/L	2.534	517.11 ppb	2.534	0.49%	
QC value within limits for Pb 220.353 Recovery = 103.42%							
S 181.975 Axial†	1192.9	1016.8 µg/L	4.73	1016.8 ppb	4.73	0.47%	
QC value within limits for S 181.975 Axial Recovery = 101.68%							
Sb 206.836†	4007.5	513.31 µg/L	3.103	513.31 ppb	3.103	0.60%	
QC value within limits for Sb 206.836 Recovery = 102.66%							
Se 196.026†	1330.4	515 µg/L	1.8	515 ppb	1.8	0.35%	
QC value within limits for Se 196.026 Recovery = 102.95%							
SiO2†	53588.0	5406.9 µg/L	15.20	5406.9 ppb	15.20	0.28%	
QC value within limits for SiO2 Recovery = 101.11%							
Si 251.611†	170368.1	2537.9 µg/L	7.89	2537.9 ppb	7.89	0.31%	
QC value within limits for Si 251.611 Recovery = 101.52%							
Sn 189.927†	7415.2	516.25 µg/L	2.537	516.25 ppb	2.537	0.49%	
QC value within limits for Sn 189.927 Recovery = 103.25%							
Sr 421.552†	201318.1	509.25 µg/L	8.128	509.25 ppb	8.128	1.60%	
QC value within limits for Sr 421.552 Recovery = 101.85%							
Ti 334.940†	486130.2	504.86 µg/L	0.479	504.86 ppb	0.479	0.09%	
QC value within limits for Ti 334.940 Recovery = 100.97%							
Tl 190.801†	3632.8	519.27 µg/L	4.148	519.27 ppb	4.148	0.80%	
QC value within limits for Tl 190.801 Recovery = 103.85%							
U 409.014†	7483.9	488.14 µg/L	5.893	488.14 ppb	5.893	1.21%	
QC value within limits for U 409.014 Recovery = 97.63%							
V 292.402†	102333.5	508.64 µg/L	0.180	508.64 ppb	0.180	0.04%	
QC value within limits for V 292.402 Recovery = 101.73%							
Zn 213.857†	89258.2	505.68 µg/L	1.571	505.68 ppb	1.571	0.31%	
QC value within limits for Zn 213.857 Recovery = 101.14%							
All analyte(s) passed QC.							

Sequence No.: 7

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/14/2010 11:52:06

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	113476.2	113476.2	97.5 %		11:52:35
1	Al 396.153Radial†	-82.5	-7.1	-1.6893 µg/L	-1.6893 ppb	11:52:55
1	Ca 317.933Radial†	464.1	42.9	3.6033 µg/L	3.6033 ppb	11:52:55
1	Fe 238.204 Radial†	146.2	46.0	3.9573 µg/L	3.9573 ppb	11:52:55
1	K 766.490 Radial†	1560.5	156.2	61.749 µg/L	61.749 ppb	11:52:35
1	Mg 279.077 IEC†	161.4	9.1	5.0946 µg/L	5.0946 ppb	11:52:55
1	Na 589.592 Radial†	730.5	126.5	20.064 µg/L	20.064 ppb	11:52:35
1	Sr 421.552†	-139.6	-139.4	-0.3527 µg/L	-0.3527 ppb	11:52:35
1	Sc 361.383	1713993.4	1713993.4	99.494 %		11:53:57
1	Y 371.029	970466.3	970466.3	99.416 %		11:53:57
1	Ag 328.068†	5099.6	6.2	0.0236 µg/L	0.0236 ppb	11:53:59
1	As 188.979†	-11.9	4.4	1.4753 µg/L	1.4753 ppb	11:54:20
1	B 249.677†	4253.3	279.6	4.0851 µg/L	4.0851 ppb	11:53:59
1	Ba 233.527†	-137.4	-0.5	-0.0025 µg/L	-0.0025 ppb	11:54:20
1	Be 313.107†	-959.5	-82.9	-0.0219 µg/L	-0.0219 ppb	11:53:59
1	Cd 226.502†	-40.3	57.0	0.3736 µg/L	0.3736 ppb	11:54:20
1	Co 228.616†	-245.6	-19.6	-0.2543 µg/L	-0.2543 ppb	11:54:20
1	Cr 267.716†	360.1	76.0	0.6594 µg/L	0.6594 ppb	11:54:20
1	Cu 324.752†	3127.1	33.3	0.1398 µg/L	0.1398 ppb	11:53:59
1	Mn 257.610†	254.6	74.4	0.0959 µg/L	0.0959 ppb	11:54:20
1	Mo 202.031†	-3.7	16.8	0.5704 µg/L	0.5704 ppb	11:54:20
1	Ni 231.604†	-91.3	5.7	0.0700 µg/L	0.0700 ppb	11:54:20
1	P 214.914†	-35.3	-3.5	-0.8042 µg/L	-0.8042 ppb	11:54:20
1	Pb 220.353†	90.8	6.0	0.3722 µg/L	0.3722 ppb	11:54:20
1	S 181.975 Axial†	94.4	7.2	6.1523 µg/L	6.1523 ppb	11:54:20
1	Sb 206.836†	101.5	26.0	3.3180 µg/L	3.3180 ppb	11:54:20
1	Se 196.026†	29.1	16.8	6.46 µg/L	6.46 ppb	11:54:20
1	SiO2†	1995.3	273.0	27.632 µg/L	27.632 ppb	11:53:59
1	Si 251.611†	1283.1	504.5	7.5326 µg/L	7.5326 ppb	11:53:59
1	Sn 189.927†	23.7	11.5	0.8014 µg/L	0.8014 ppb	11:54:20
1	Ti 334.940†	817.6	22.8	0.0218 µg/L	0.0218 ppb	11:53:59
1	Tl 190.801†	-107.6	4.3	0.6031 µg/L	0.6031 ppb	11:54:20
1	U 409.014†	-223.1	57.0	3.4567 µg/L	3.4567 ppb	11:53:59
1	V 292.402†	442.1	-101.8	-0.4885 µg/L	-0.4885 ppb	11:53:59
1	Zn 213.857†	622.0	46.3	0.2635 µg/L	0.2635 ppb	11:54:20
2	Sc RADIAL	114106.3	114106.3	98.0 %		11:52:57
2	Al 396.153Radial†	-81.6	-5.7	-1.3357 µg/L	-1.3357 ppb	11:53:17
2	Ca 317.933Radial†	463.3	39.4	3.3096 µg/L	3.3096 ppb	11:53:17
2	Fe 238.204 Radial†	124.7	23.3	2.0054 µg/L	2.0054 ppb	11:53:17
2	K 766.490 Radial†	1493.5	79.1	31.265 µg/L	31.265 ppb	11:52:57
2	Mg 279.077 IEC†	155.6	2.3	1.2581 µg/L	1.2581 ppb	11:53:17
2	Na 589.592 Radial†	655.2	45.5	7.2156 µg/L	7.2156 ppb	11:52:57
2	Sr 421.552†	-13.8	-10.2	-0.0259 µg/L	-0.0259 ppb	11:52:57
2	Sc 361.383	1722239.4	1722239.4	99.973 %		11:54:22
2	Y 371.029	974335.5	974335.5	99.812 %		11:54:22
2	Ag 328.068†	5263.5	145.6	0.5749 µg/L	0.5749 ppb	11:54:24
2	As 188.979†	-7.9	8.5	2.8089 µg/L	2.8089 ppb	11:54:44
2	B 249.677†	4249.5	255.3	3.7301 µg/L	3.7301 ppb	11:54:24
2	Ba 233.527†	-122.1	15.5	0.0690 µg/L	0.0690 ppb	11:54:44
2	Be 313.107†	-949.0	-67.8	-0.0231 µg/L	-0.0231 ppb	11:54:24
2	Cd 226.502†	-66.4	31.1	0.2039 µg/L	0.2039 ppb	11:54:44
2	Co 228.616†	-227.2	0.1	0.0014 µg/L	0.0014 ppb	11:54:44
2	Cr 267.716†	305.1	19.1	0.1782 µg/L	0.1782 ppb	11:54:44
2	Cu 324.752†	3266.3	157.5	0.6330 µg/L	0.6330 ppb	11:54:24
2	Mn 257.610†	214.9	33.4	0.0431 µg/L	0.0431 ppb	11:54:44
2	Mo 202.031†	-23.2	-2.7	-0.0928 µg/L	-0.0928 ppb	11:54:44
2	Ni 231.604†	-111.6	-14.3	-0.1758 µg/L	-0.1758 ppb	11:54:44
2	P 214.914†	-32.6	-0.6	-0.1586 µg/L	-0.1586 ppb	11:54:44
2	Pb 220.353†	123.6	38.3	2.4112 µg/L	2.4112 ppb	11:54:44

2	S 181.975 Axial†	88.3	0.7	0.5966 µg/L	0.5966 ppb	11:54:44
2	Sb 206.836†	72.2	-3.8	-0.4967 µg/L	-0.4967 ppb	11:54:44
2	Se 196.026†	30.6	18.1	6.96 µg/L	6.96 ppb	11:54:44
2	SiO2†	1883.7	151.8	15.386 µg/L	15.386 ppb	11:54:24
2	Si 251.611†	1407.8	623.0	9.3220 µg/L	9.3220 ppb	11:54:24
2	Sn 189.927†	6.1	-6.2	-0.4264 µg/L	-0.4264 ppb	11:54:44
2	Ti 334.940†	960.8	162.1	0.1745 µg/L	0.1745 ppb	11:54:24
2	Tl 190.801†	-124.0	-11.6	-1.6374 µg/L	-1.6374 ppb	11:54:44
2	U 409.014†	-518.6	-237.5	-14.546 µg/L	-14.546 ppb	11:54:24
2	V 292.402†	462.6	-83.5	-0.4197 µg/L	-0.4197 ppb	11:54:24
2	Zn 213.857†	597.5	18.8	0.1080 µg/L	0.1080 ppb	11:54:44
3	Sc RADIAL	114790.7	114790.7	98.6 %		11:53:19
3	Al 396.153Radial†	-81.2	-4.7	-1.1362 µg/L	-1.1362 ppb	11:53:39
3	Ca 317.933Radial†	465.8	39.1	3.2901 µg/L	3.2901 ppb	11:53:39
3	Fe 238.204 Radial†	135.7	33.6	2.8958 µg/L	2.8958 ppb	11:53:39
3	K 766.490 Radial†	1533.1	110.2	43.552 µg/L	43.552 ppb	11:53:19
3	Mg 279.077 IEC†	161.3	7.2	4.0163 µg/L	4.0163 ppb	11:53:39
3	Na 589.592 Radial†	684.6	71.4	11.315 µg/L	11.315 ppb	11:53:19
3	Sr 421.552†	-19.6	-16.1	-0.0408 µg/L	-0.0408 ppb	11:53:19
3	Sc 361.383	1741720.0	1741720.0	101.10 %		11:54:46
3	Y 371.029	985547.0	985547.0	100.96 %		11:54:46
3	Ag 328.068†	5257.0	80.3	0.3229 µg/L	0.3229 ppb	11:54:48
3	As 188.979†	-11.9	4.6	1.5237 µg/L	1.5237 ppb	11:55:08
3	B 249.677†	4325.9	283.3	4.1391 µg/L	4.1391 ppb	11:54:48
3	Ba 233.527†	-94.1	44.6	0.1994 µg/L	0.1994 ppb	11:55:08
3	Be 313.107†	-1077.1	-183.8	-0.0515 µg/L	-0.0515 ppb	11:54:48
3	Cd 226.502†	-61.3	36.9	0.2416 µg/L	0.2416 ppb	11:55:08
3	Co 228.616†	-223.9	5.9	0.0767 µg/L	0.0767 ppb	11:55:08
3	Cr 267.716†	311.3	21.9	0.1925 µg/L	0.1925 ppb	11:55:08
3	Cu 324.752†	3043.5	-99.4	-0.4082 µg/L	-0.4082 ppb	11:54:48
3	Mn 257.610†	232.1	48.0	0.0619 µg/L	0.0619 ppb	11:55:08
3	Mo 202.031†	-3.5	17.0	0.5775 µg/L	0.5775 ppb	11:55:08
3	Ni 231.604†	-124.5	-25.7	-0.3170 µg/L	-0.3170 ppb	11:55:08
3	P 214.914†	-49.3	-16.8	-3.8345 µg/L	-3.8345 ppb	11:55:08
3	Pb 220.353†	126.9	40.3	2.5254 µg/L	2.5254 ppb	11:55:08
3	S 181.975 Axial†	85.7	-2.8	-2.3837 µg/L	-2.3837 ppb	11:55:08
3	Sb 206.836†	72.1	-4.8	-0.6025 µg/L	-0.6025 ppb	11:55:08
3	Se 196.026†	21.0	8.3	3.20 µg/L	3.20 ppb	11:55:08
3	SiO2†	1872.6	119.7	12.110 µg/L	12.110 ppb	11:54:48
3	Si 251.611†	1478.7	677.4	10.123 µg/L	10.123 ppb	11:54:48
3	Sn 189.927†	13.0	0.6	0.0432 µg/L	0.0432 ppb	11:55:08
3	Ti 334.940†	883.2	74.6	0.0782 µg/L	0.0782 ppb	11:54:48
3	Tl 190.801†	-108.1	5.4	0.7646 µg/L	0.7646 ppb	11:55:08
3	U 409.014†	-322.0	-37.2	-2.2941 µg/L	-2.2941 ppb	11:54:48
3	V 292.402†	483.5	-68.0	-0.3284 µg/L	-0.3284 ppb	11:54:48
3	Zn 213.857†	623.2	37.5	0.2163 µg/L	0.2163 ppb	11:55:08

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1725984.3	100.19 %	0.826			0.82%
Sc RADIAL	114124.4	98.0 %	0.56			0.58%
Y 371.029	976782.9	100.06 %	0.802			0.80%
Ag 328.068†	77.4	0.3071 µg/L	0.27600	0.3071 ppb	0.27600	89.86%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-5.9	-1.3871 µg/L	0.28011	-1.3871 ppb	0.28011	20.19%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	5.8	1.9360 µg/L	0.75637	1.9360 ppb	0.75637	39.07%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	272.7	3.9847 µg/L	0.22222	3.9847 ppb	0.22222	5.58%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	19.9	0.0886 µg/L	0.10236	0.0886 ppb	0.10236	115.47%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-111.5	-0.0322 µg/L	0.01676	-0.0322 ppb	0.01676	52.10%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	40.4	3.4010 µg/L	0.17547	3.4010 ppb	0.17547	5.16%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	41.7	0.2730 µg/L	0.08908	0.2730 ppb	0.08908	32.63%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-4.5	-0.0587 µg/L	0.17353	-0.0587 ppb	0.17353	295.42%

QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	39.0	0.3434 µg/L	0.27381 0.3434 ppb 0.27381 79.74%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	30.5	0.1216 µg/L	0.52083 0.1216 ppb 0.52083 428.49%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	34.3	2.9529 µg/L	0.97720 2.9529 ppb 0.97720 33.09%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	115.2	45.522 µg/L	15.3374 45.522 ppb 15.3374 33.69%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	6.2	3.4563 µg/L	1.97861 3.4563 ppb 1.97861 57.25%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	51.9	0.0670 µg/L	0.02678 0.0670 ppb 0.02678 39.98%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	10.3	0.3517 µg/L	0.38499 0.3517 ppb 0.38499 109.47%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	81.1	12.865 µg/L	6.5630 12.865 ppb 6.5630 51.01%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	-11.4	-0.1409 µg/L	0.19582 -0.1409 ppb 0.19582 138.94%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-7.0	-1.5991 µg/L	1.96264 -1.5991 ppb 1.96264 122.73%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	28.2	1.7696 µg/L	1.21151 1.7696 ppb 1.21151 68.46%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	1.7	1.4551 µg/L	4.33230 1.4551 ppb 4.33230 297.74%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	5.8	0.7396 µg/L	2.23359 0.7396 ppb 2.23359 301.99%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	14.4	5.54 µg/L	2.043 5.54 ppb 2.043 36.88%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	181.5	18.376 µg/L	8.1815 18.376 ppb 8.1815 44.52%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	601.6	8.9926 µg/L	1.32632 8.9926 ppb 1.32632 14.75%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	2.0	0.1394 µg/L	0.61950 0.1394 ppb 0.61950 444.44%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	-55.3	-0.1398 µg/L	0.18452 -0.1398 ppb 0.18452 131.97%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	86.5	0.0915 µg/L	0.07722 0.0915 ppb 0.07722 84.41%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	-0.6	-0.0899 µg/L	1.34259 -0.0899 ppb 1.34259 >999.9%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	-72.6	-4.4611 µg/L	9.19480 -4.4611 ppb 9.19480 206.11%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	-84.4	-0.4122 µg/L	0.08030 -0.4122 ppb 0.08030 19.48%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	34.2	0.1959 µg/L	0.07973 0.1959 ppb 0.07973 40.70%
QC value within limits for Zn 213.857	Recovery = Not calculated		

All analyte(s) passed QC.



Sequence No.: 6

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/14/2010 12:37:01

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	115253.5	115253.5	99.0 %		12:37:35
1	Al 396.153Radial†	22163.5	22463.0	5225.5 µg/L	5225.5 ppb	12:37:35
1	Ca 317.933Radial†	61361.9	61543.0	5175.1 µg/L	5175.1 ppb	12:37:35
1	Fe 238.204 Radial†	59240.1	59729.2	5142.6 µg/L	5142.6 ppb	12:37:35
1	K 766.490 Radial†	14119.6	12816.4	5061.5 µg/L	5061.5 ppb	12:37:35
1	Mg 279.077 IEC†	9436.4	9374.5	5238.5 µg/L	5238.5 ppb	12:37:35
1	Na 589.592 Radial†	63214.4	63224.4	10052 µg/L	10052 ppb	12:37:33
1	Sr 421.552†	194459.1	196409.8	496.83 µg/L	496.83 ppb	12:37:33
1	Sc 361.383	1701560.7	1701560.7	98.772 %		12:37:48
1	Y 371.029	952984.4	952984.4	89.466 %		12:37:48
1	Ag 328.068†	127127.6	123588.6	513.86 µg/L	513.86 ppb	12:37:48
1	As 188.979†	1477.8	1512.6	508.77 µg/L	508.77 ppb	12:38:08
1	B 249.677†	38219.5	34699.2	505.15 µg/L	505.15 ppb	12:37:48
1	Ba 233.527†	112364.1	113898.5	509.76 µg/L	509.76 ppb	12:37:48
1	Be 313.107†	1813912.8	1837342.6	508.08 µg/L	508.08 ppb	12:37:48
1	Cd 226.502†	77258.0	78315.9	513.21 µg/L	513.21 ppb	12:37:48
1	Co 228.616†	38842.8	39553.0	514.32 µg/L	514.32 ppb	12:37:48
1	Cr 267.716†	58022.1	58457.4	509.53 µg/L	509.53 ppb	12:37:48
1	Cu 324.752†	125312.2	123760.2	508.02 µg/L	508.02 ppb	12:37:48
1	Mn 257.610†	390785.5	395461.7	510.91 µg/L	510.91 ppb	12:37:48
1	Mo 202.031†	14726.1	14929.7	507.81 µg/L	507.81 ppb	12:38:08
1	Ni 231.604†	40905.3	41511.2	512.04 µg/L	512.04 ppb	12:37:48
1	P 214.914†	10922.5	11090.2	2520.7 µg/L	2520.7 ppb	12:38:08
1	Pb 220.353†	8164.7	8180.9	513.97 µg/L	513.97 ppb	12:38:08
1	S 181.975 Axial†	1273.6	1201.9	1024.3 µg/L	1024.3 ppb	12:38:08
1	Sb 206.836†	3992.7	3966.3	507.87 µg/L	507.87 ppb	12:38:08
1	Se 196.026†	1315.7	1319.6	511 µg/L	511 ppb	12:38:08
1	SiO2†	55083.5	54035.8	5452.6 µg/L	5452.6 ppb	12:37:48
1	Si 251.611†	169802.1	171127.7	2549.4 µg/L	2549.4 ppb	12:37:48
1	Sn 189.927†	7259.8	7337.8	510.89 µg/L	510.89 ppb	12:38:08
1	Ti 334.940†	484481.3	489704.9	508.58 µg/L	508.58 ppb	12:37:48
1	Tl 190.801†	3436.4	3591.5	513.52 µg/L	513.52 ppb	12:38:08
1	U 409.014†	7160.1	7530.3	491.29 µg/L	491.29 ppb	12:37:48
1	V 292.402†	102571.2	103300.1	513.35 µg/L	513.35 ppb	12:37:48
1	Zn 213.857†	89695.6	90231.7	511.22 µg/L	511.22 ppb	12:37:48
2	Sc RADIAL	113560.8	113560.8	97.6 %		12:37:39
2	Al 396.153Radial†	21817.1	22441.6	5220.7 µg/L	5220.7 ppb	12:37:39
2	Ca 317.933Radial†	60516.7	61600.5	5179.9 µg/L	5179.9 ppb	12:37:39
2	Fe 238.204 Radial†	58476.5	59838.3	5152.0 µg/L	5152.0 ppb	12:37:39
2	K 766.490 Radial†	13893.5	12797.2	5053.8 µg/L	5053.8 ppb	12:37:39
2	Mg 279.077 IEC†	9326.9	9404.3	5255.0 µg/L	5255.0 ppb	12:37:39
2	Na 589.592 Radial†	63637.3	64609.6	10272 µg/L	10272 ppb	12:37:37
2	Sr 421.552†	195775.9	200687.2	507.66 µg/L	507.66 ppb	12:37:37
2	Sc 361.383	1720324.7	1720324.7	99.861 %		12:38:11
2	Y 371.029	964261.8	964261.8	90.524 %		12:38:11
2	Ag 328.068†	125422.2	120476.9	500.93 µg/L	500.93 ppb	12:38:11
2	As 188.979†	1487.2	1505.6	506.32 µg/L	506.32 ppb	12:38:31
2	B 249.677†	37685.3	33742.3	491.22 µg/L	491.22 ppb	12:38:11
2	Ba 233.527†	110829.1	111120.6	497.32 µg/L	497.32 ppb	12:38:11
2	Be 313.107†	1784647.0	1788005.5	494.45 µg/L	494.45 ppb	12:38:11
2	Cd 226.502†	75882.4	76085.2	498.58 µg/L	498.58 ppb	12:38:11
2	Co 228.616†	38159.5	38439.8	499.84 µg/L	499.84 ppb	12:38:11
2	Cr 267.716†	56958.0	56751.1	494.65 µg/L	494.65 ppb	12:38:11
2	Cu 324.752†	123622.0	120683.9	495.42 µg/L	495.42 ppb	12:38:11
2	Mn 257.610†	384215.8	384567.5	496.83 µg/L	496.83 ppb	12:38:11
2	Mo 202.031†	14776.5	14817.5	503.99 µg/L	503.99 ppb	12:38:31
2	Ni 231.604†	40337.9	40491.3	499.46 µg/L	499.46 ppb	12:38:11
2	P 214.914†	11003.2	11050.4	2511.8 µg/L	2511.8 ppb	12:38:31
2	Pb 220.353†	8141.2	8067.2	506.82 µg/L	506.82 ppb	12:38:31

2	S 181.975 Axial†	1262.0	1176.1	1002.5 µg/L	1002.5 ppb	12:38:31
2	Sb 206.836†	4009.7	3939.2	504.55 µg/L	504.55 ppb	12:38:31
2	Se 196.026†	1321.9	1311.2	507 µg/L	507 ppb	12:38:31
2	SiO2†	54410.0	52753.1	5322.8 µg/L	5322.8 ppb	12:38:11
2	Si 251.611†	167615.0	167062.5	2488.6 µg/L	2488.6 ppb	12:38:11
2	Sn 189.927†	7292.6	7290.4	507.56 µg/L	507.56 ppb	12:38:31
2	Ti 334.940†	477478.6	477342.4	495.73 µg/L	495.73 ppb	12:38:11
2	Tl 190.801†	3428.5	3545.6	506.86 µg/L	506.86 ppb	12:38:31
2	U 409.014†	7318.1	7609.5	495.30 µg/L	495.30 ppb	12:38:11
2	V 292.402†	101024.8	100618.9	500.11 µg/L	500.11 ppb	12:38:11
2	Zn 213.857†	88243.8	87787.4	497.35 µg/L	497.35 ppb	12:38:11
3	Sc RADIAL	114607.0	114607.0	98.5 %		12:37:43
3	Al 396.153Radial†	22181.9	22607.9	5259.5 µg/L	5259.5 ppb	12:37:43
3	Ca 317.933Radial†	61662.9	62198.4	5230.2 µg/L	5230.2 ppb	12:37:43
3	Fe 238.204 Radial†	59530.9	60362.2	5197.1 µg/L	5197.1 ppb	12:37:43
3	K 766.490 Radial†	14275.9	13055.6	5156.0 µg/L	5156.0 ppb	12:37:43
3	Mg 279.077 IEC†	9516.0	9509.0	5313.4 µg/L	5313.4 ppb	12:37:43
3	Na 589.592 Radial†	63797.0	64176.3	10203 µg/L	10203 ppb	12:37:41
3	Sr 421.552†	196652.1	199745.2	505.27 µg/L	505.27 ppb	12:37:41
3	Sc 361.383	1718550.7	1718550.7	99.758 %		12:38:34
3	Y 371.029	962116.5	962116.5	90.323 %		12:38:34
3	Ag 328.068†	127036.4	122224.7	508.17 µg/L	508.17 ppb	12:38:34
3	As 188.979†	1496.2	1516.2	509.93 µg/L	509.93 ppb	12:38:54
3	B 249.677†	38400.3	34497.9	502.22 µg/L	502.22 ppb	12:38:34
3	Ba 233.527†	112250.6	112660.1	504.21 µg/L	504.21 ppb	12:38:34
3	Be 313.107†	1811534.7	1816803.1	502.40 µg/L	502.40 ppb	12:38:34
3	Cd 226.502†	77426.7	77711.7	509.25 µg/L	509.25 ppb	12:38:34
3	Co 228.616†	38812.4	39133.7	508.86 µg/L	508.86 ppb	12:38:34
3	Cr 267.716†	57990.4	57844.9	504.21 µg/L	504.21 ppb	12:38:34
3	Cu 324.752†	125157.2	122350.6	502.24 µg/L	502.24 ppb	12:38:34
3	Mn 257.610†	390577.1	391341.5	505.58 µg/L	505.58 ppb	12:38:34
3	Mo 202.031†	14783.6	14839.8	504.76 µg/L	504.76 ppb	12:38:54
3	Ni 231.604†	41029.9	41226.6	508.53 µg/L	508.53 ppb	12:38:34
3	P 214.914†	10974.3	11032.8	2507.7 µg/L	2507.7 ppb	12:38:54
3	Pb 220.353†	8134.4	8068.9	506.95 µg/L	506.95 ppb	12:38:54
3	S 181.975 Axial†	1254.3	1169.7	997.06 µg/L	997.06 ppb	12:38:54
3	Sb 206.836†	4013.4	3947.1	505.44 µg/L	505.44 ppb	12:38:54
3	Se 196.026†	1316.5	1307.2	506 µg/L	506 ppb	12:38:54
3	SiO2†	55546.1	53948.2	5443.8 µg/L	5443.8 ppb	12:38:34
3	Si 251.611†	171175.0	170804.4	2544.6 µg/L	2544.6 ppb	12:38:34
3	Sn 189.927†	7270.9	7276.3	506.60 µg/L	506.60 ppb	12:38:54
3	Ti 334.940†	484232.5	484606.2	503.28 µg/L	503.28 ppb	12:38:34
3	Tl 190.801†	3436.3	3557.1	508.58 µg/L	508.58 ppb	12:38:54
3	U 409.014†	6934.7	7232.7	472.77 µg/L	472.77 ppb	12:38:34
3	V 292.402†	102568.8	102271.0	508.23 µg/L	508.23 ppb	12:38:34
3	Zn 213.857†	89773.7	89412.2	506.56 µg/L	506.56 ppb	12:38:34

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Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1713478.7	99.464 %	0.6013			0.60%
Sc RADIAL	114473.7	98.3 %	0.73			0.75%
Y 371.029	959787.6	90.104 %	0.5622			0.62%
Ag 328.068†	122096.7	507.65 µg/L	6.479	507.65 ppb	6.479	1.28%
QC value within limits for Ag 328.068 Recovery = 101.53%						
Al 396.153Radial†	22504.2	5235.2 µg/L	21.17	5235.2 ppb	21.17	0.40%
QC value within limits for Al 396.153Radial Recovery = 104.70%						
As 188.979†	1511.5	508.34 µg/L	1.843	508.34 ppb	1.843	0.36%
QC value within limits for As 188.979 Recovery = 101.67%						
B 249.677†	34313.1	499.53 µg/L	7.346	499.53 ppb	7.346	1.47%
QC value within limits for B 249.677 Recovery = 99.91%						
Ba 233.527†	112559.7	503.77 µg/L	6.228	503.77 ppb	6.228	1.24%
QC value within limits for Ba 233.527 Recovery = 100.75%						
Be 313.107†	1814050.4	501.64 µg/L	6.850	501.64 ppb	6.850	1.37%
QC value within limits for Be 313.107 Recovery = 100.33%						
Ca 317.933Radial†	61780.6	5195.1 µg/L	30.52	5195.1 ppb	30.52	0.59%
QC value within limits for Ca 317.933Radial Recovery = 103.90%						
Cd 226.502†	77370.9	507.01 µg/L	7.568	507.01 ppb	7.568	1.49%
QC value within limits for Cd 226.502 Recovery = 101.40%						
Co 228.616†	39042.1	507.67 µg/L	7.314	507.67 ppb	7.314	1.44%

QC value within limits for Co 228.616 Recovery = 101.53%							
Cr 267.716†	57684.4	502.80 µg/L	7.541	502.80 ppb	7.541	1.50%	
QC value within limits for Cr 267.716 Recovery = 100.56%							
Cu 324.752†	122264.9	501.89 µg/L	6.303	501.89 ppb	6.303	1.26%	
QC value within limits for Cu 324.752 Recovery = 100.38%							
Fe 238.204 Radial†	59976.6	5163.9 µg/L	29.13	5163.9 ppb	29.13	0.56%	
QC value within limits for Fe 238.204 Radial Recovery = 103.28%							
K 766.490 Radial†	12889.7	5090.4 µg/L	56.89	5090.4 ppb	56.89	1.12%	
QC value within limits for K 766.490 Radial Recovery = 101.81%							
Mg 279.077 IEC†	9429.3	5269.0 µg/L	39.38	5269.0 ppb	39.38	0.75%	
QC value within limits for Mg 279.077 IEC Recovery = 105.38%							
Mn 257.610†	390456.9	504.44 µg/L	7.110	504.44 ppb	7.110	1.41%	
QC value within limits for Mn 257.610 Recovery = 100.89%							
Mo 202.031†	14862.3	505.52 µg/L	2.019	505.52 ppb	2.019	0.40%	
QC value within limits for Mo 202.031 Recovery = 101.10%							
Na 589.592 Radial†	64003.5	10176 µg/L	112.7	10176 ppb	112.7	1.11%	
QC value within limits for Na 589.592 Radial Recovery = 101.76%							
Ni 231.604†	41076.4	506.68 µg/L	6.492	506.68 ppb	6.492	1.28%	
QC value within limits for Ni 231.604 Recovery = 101.34%							
P 214.914†	11057.8	2513.4 µg/L	6.68	2513.4 ppb	6.68	0.27%	
QC value within limits for P 214.914 Recovery = 100.54%							
Pb 220.353†	8105.7	509.25 µg/L	4.088	509.25 ppb	4.088	0.80%	
QC value within limits for Pb 220.353 Recovery = 101.85%							
S 181.975 Axial†	1182.6	1008.0 µg/L	14.45	1008.0 ppb	14.45	1.43%	
QC value within limits for S 181.975 Axial Recovery = 100.80%							
Sb 206.836†	3950.8	505.95 µg/L	1.718	505.95 ppb	1.718	0.34%	
QC value within limits for Sb 206.836 Recovery = 101.19%							
Se 196.026†	1312.7	508 µg/L	2.4	508 ppb	2.4	0.48%	
QC value within limits for Se 196.026 Recovery = 101.58%							
SiO2†	53579.0	5406.4 µg/L	72.55	5406.4 ppb	72.55	1.34%	
QC value within limits for SiO2 Recovery = 101.10%							
Si 251.611†	169664.8	2527.5 µg/L	33.77	2527.5 ppb	33.77	1.34%	
QC value within limits for Si 251.611 Recovery = 101.10%							
Sn 189.927†	7301.5	508.35 µg/L	2.248	508.35 ppb	2.248	0.44%	
QC value within limits for Sn 189.927 Recovery = 101.67%							
Sr 421.552†	198947.4	503.25 µg/L	5.686	503.25 ppb	5.686	1.13%	
QC value within limits for Sr 421.552 Recovery = 100.65%							
Ti 334.940†	483884.5	502.53 µg/L	6.460	502.53 ppb	6.460	1.29%	
QC value within limits for Ti 334.940 Recovery = 100.51%							
Tl 190.801†	3564.7	509.65 µg/L	3.454	509.65 ppb	3.454	0.68%	
QC value within limits for Tl 190.801 Recovery = 101.93%							
U 409.014†	7457.5	486.45 µg/L	12.021	486.45 ppb	12.021	2.47%	
QC value within limits for U 409.014 Recovery = 97.29%							
V 292.402†	102063.3	507.23 µg/L	6.676	507.23 ppb	6.676	1.32%	
QC value within limits for V 292.402 Recovery = 101.45%							
Zn 213.857†	89143.8	505.04 µg/L	7.059	505.04 ppb	7.059	1.40%	
QC value within limits for Zn 213.857 Recovery = 101.01%							
All analyte(s) passed QC.							

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

Autosampler Location: 8  
 Date Collected: 4/14/2010 12:39:02  
 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	114516.3	114516.3	98.4 %		12:39:31
1	Al 396.153Radial†	-75.7	0.6	0.1328 µg/L	0.1328 ppb	12:39:51
1	Ca 317.933Radial†	442.8	16.8	1.4154 µg/L	1.4154 ppb	12:39:51
1	Fe 238.204 Radial†	138.3	36.6	3.1521 µg/L	3.1521 ppb	12:39:51
1	K 766.490 Radial†	1518.9	99.5	39.317 µg/L	39.317 ppb	12:39:31
1	Mg 279.077 IEC†	163.8	10.0	5.5987 µg/L	5.5987 ppb	12:39:51
1	Na 589.592 Radial†	636.9	24.6	3.8710 µg/L	3.8710 ppb	12:39:31
1	Sr 421.552†	-53.6	-50.7	-0.1282 µg/L	-0.1282 ppb	12:39:31
1	Sc 361.383	1699766.0	1699766.0	98.668 %		12:40:39
1	Y 371.029	962157.9	962157.9	90.327 %		12:40:39
1	Ag 328.068†	5236.2	187.6	0.7495 µg/L	0.7495 ppb	12:40:41
1	As 188.979†	-13.2	3.0	1.0055 µg/L	1.0055 ppb	12:41:01
1	B 249.677†	4320.8	383.7	5.6059 µg/L	5.6059 ppb	12:40:41
1	Ba 233.527†	-117.7	18.3	0.0816 µg/L	0.0816 ppb	12:41:01
1	Be 313.107†	-1086.7	-219.9	-0.0644 µg/L	-0.0644 ppb	12:40:41
1	Cd 226.502†	-54.7	42.0	0.2752 µg/L	0.2752 ppb	12:41:01
1	Co 228.616†	-228.1	-3.8	-0.0498 µg/L	-0.0498 ppb	12:41:01
1	Cr 267.716†	307.9	26.1	0.2367 µg/L	0.2367 ppb	12:41:01
1	Cu 324.752†	3087.6	19.6	0.0710 µg/L	0.0710 ppb	12:40:41
1	Mn 257.610†	203.2	24.4	0.0314 µg/L	0.0314 ppb	12:41:01
1	Mo 202.031†	-11.0	9.4	0.3179 µg/L	0.3179 ppb	12:41:01
1	Ni 231.604†	-106.1	-10.1	-0.1249 µg/L	-0.1249 ppb	12:41:01
1	P 214.914†	-42.8	-11.4	-2.5988 µg/L	-2.5988 ppb	12:41:01
1	Pb 220.353†	113.2	29.5	1.8562 µg/L	1.8562 ppb	12:41:01
1	S 181.975 Axial†	102.6	16.3	13.877 µg/L	13.877 ppb	12:41:01
1	Sb 206.836†	98.1	23.4	2.9881 µg/L	2.9881 ppb	12:41:01
1	Se 196.026†	21.9	9.7	3.72 µg/L	3.72 ppb	12:41:01
1	SiO2†	1821.1	113.3	11.460 µg/L	11.460 ppb	12:40:41
1	Si 251.611†	874.3	100.9	1.5025 µg/L	1.5025 ppb	12:40:41
1	Sn 189.927†	17.5	5.5	0.3800 µg/L	0.3800 ppb	12:41:01
1	Ti 334.940†	804.5	16.4	0.0214 µg/L	0.0214 ppb	12:40:41
1	Tl 190.801†	-117.4	-6.5	-0.9235 µg/L	-0.9235 ppb	12:41:01
1	U 409.014†	-467.3	-192.4	-11.791 µg/L	-11.791 ppb	12:40:41
1	V 292.402†	432.4	-107.9	-0.5333 µg/L	-0.5333 ppb	12:40:41
1	Zn 213.857†	616.0	45.5	0.2602 µg/L	0.2602 ppb	12:41:01
2	Sc RADIAL	114640.9	114640.9	98.5 %		12:39:53
2	Al 396.153Radial†	-89.8	-13.6	-3.1949 µg/L	-3.1949 ppb	12:40:13
2	Ca 317.933Radial†	454.7	28.4	2.3910 µg/L	2.3910 ppb	12:40:13
2	Fe 238.204 Radial†	139.7	37.9	3.2589 µg/L	3.2589 ppb	12:40:13
2	K 766.490 Radial†	1391.4	-31.7	-12.541 µg/L	-12.541 ppb	12:39:53
2	Mg 279.077 IEC†	170.9	17.1	9.5181 µg/L	9.5181 ppb	12:40:13
2	Na 589.592 Radial†	784.4	173.6	27.617 µg/L	27.617 ppb	12:39:53
2	Sr 421.552†	56.6	61.3	0.1550 µg/L	0.1550 ppb	12:39:53
2	Sc 361.383	1716155.2	1716155.2	99.619 %		12:41:03
2	Y 371.029	972325.0	972325.0	91.281 %		12:41:03
2	Ag 328.068†	5448.1	349.6	1.4231 µg/L	1.4231 ppb	12:41:05
2	As 188.979†	-5.8	10.5	3.4982 µg/L	3.4982 ppb	12:41:25
2	B 249.677†	4253.8	274.7	4.0132 µg/L	4.0132 ppb	12:41:05
2	Ba 233.527†	-124.0	13.2	0.0588 µg/L	0.0588 ppb	12:41:25
2	Be 313.107†	-858.1	20.1	0.0039 µg/L	0.0039 ppb	12:41:05
2	Cd 226.502†	-75.7	21.5	0.1407 µg/L	0.1407 ppb	12:41:25
2	Co 228.616†	-228.1	-1.6	-0.0214 µg/L	-0.0214 ppb	12:41:25
2	Cr 267.716†	323.2	38.5	0.3396 µg/L	0.3396 ppb	12:41:25
2	Cu 324.752†	2922.2	-176.4	-0.7256 µg/L	-0.7256 ppb	12:41:05
2	Mn 257.610†	245.6	65.0	0.0836 µg/L	0.0836 ppb	12:41:25
2	Mo 202.031†	-12.8	7.6	0.2582 µg/L	0.2582 ppb	12:41:25
2	Ni 231.604†	-69.9	27.3	0.3366 µg/L	0.3366 ppb	12:41:25
2	P 214.914†	-26.4	5.5	1.2559 µg/L	1.2559 ppb	12:41:25
2	Pb 220.353†	139.4	54.7	3.4297 µg/L	3.4297 ppb	12:41:25

2	S 181.975 Axial†	102.9	15.7	13.354 µg/L	13.354 ppb	12:41:25
2	Sb 206.836†	85.3	9.5	1.2160 µg/L	1.2160 ppb	12:41:25
2	Se 196.026†	1.1	-11.3	-4.37 µg/L	-4.37 ppb	12:41:25
2	SiO2†	1718.0	-7.9	-0.8150 µg/L	-0.8150 ppb	12:41:05
2	Si 251.611†	1003.8	222.4	3.3209 µg/L	3.3209 ppb	12:41:05
2	Sn 189.927†	17.4	5.3	0.3665 µg/L	0.3665 ppb	12:41:25
2	Ti 334.940†	763.7	-32.4	-0.0322 µg/L	-0.0322 ppb	12:41:05
2	Tl 190.801†	-110.0	2.0	0.2734 µg/L	0.2734 ppb	12:41:25
2	U 409.014†	-369.4	-89.6	-5.5034 µg/L	-5.5034 ppb	12:41:05
2	V 292.402†	445.9	-98.6	-0.4835 µg/L	-0.4835 ppb	12:41:05
2	Zn 213.857†	630.6	54.1	0.3070 µg/L	0.3070 ppb	12:41:25
3	Sc RADIAL	115547.9	115547.9	99.3 %		12:40:15
3	Al 396.153Radial†	-73.1	3.9	0.8889 µg/L	0.8889 ppb	12:40:35
3	Ca 317.933Radial†	449.4	19.5	1.6437 µg/L	1.6437 ppb	12:40:35
3	Fe 238.204 Radial†	134.5	31.5	2.7150 µg/L	2.7150 ppb	12:40:35
3	K 766.490 Radial†	1583.6	150.9	59.629 µg/L	59.629 ppb	12:40:15
3	Mg 279.077 IEC†	157.1	1.8	1.0118 µg/L	1.0118 ppb	12:40:35
3	Na 589.592 Radial†	736.5	119.1	18.883 µg/L	18.883 ppb	12:40:15
3	Sr 421.552†	-40.8	-37.4	-0.0945 µg/L	-0.0945 ppb	12:40:15
3	Sc 361.383	1677504.3	1677504.3	97.376 %		12:41:28
3	Y 371.029	950646.3	950646.3	89.246 %		12:41:28
3	Ag 328.068†	5291.9	315.2	1.2865 µg/L	1.2865 ppb	12:41:30
3	As 188.979†	-7.1	9.1	3.0210 µg/L	3.0210 ppb	12:41:50
3	B 249.677†	4168.0	284.9	4.1616 µg/L	4.1616 ppb	12:41:30
3	Ba 233.527†	-143.2	-9.4	-0.0422 µg/L	-0.0422 ppb	12:41:50
3	Be 313.107†	-790.0	70.2	0.0188 µg/L	0.0188 ppb	12:41:30
3	Cd 226.502†	-84.5	10.7	0.0701 µg/L	0.0701 ppb	12:41:50
3	Co 228.616†	-207.3	14.4	0.1868 µg/L	0.1868 ppb	12:41:50
3	Cr 267.716†	332.2	55.2	0.4824 µg/L	0.4824 ppb	12:41:50
3	Cu 324.752†	3254.3	232.3	0.9495 µg/L	0.9495 ppb	12:41:30
3	Mn 257.610†	206.9	31.0	0.0400 µg/L	0.0400 ppb	12:41:50
3	Mo 202.031†	-0.5	20.0	0.6780 µg/L	0.6780 ppb	12:41:50
3	Ni 231.604†	-81.2	14.0	0.1727 µg/L	0.1727 ppb	12:41:50
3	P 214.914†	-30.6	0.5	0.0923 µg/L	0.0923 ppb	12:41:50
3	Pb 220.353†	104.7	22.3	1.3980 µg/L	1.3980 ppb	12:41:50
3	S 181.975 Axial†	93.9	8.8	7.4625 µg/L	7.4625 ppb	12:41:50
3	Sb 206.836†	76.9	2.9	0.3748 µg/L	0.3748 ppb	12:41:50
3	Se 196.026†	16.5	4.5	1.73 µg/L	1.73 ppb	12:41:50
3	SiO2†	1660.2	-27.5	-2.8067 µg/L	-2.8067 ppb	12:41:30
3	Si 251.611†	844.0	81.6	1.2102 µg/L	1.2102 ppb	12:41:30
3	Sn 189.927†	14.3	2.4	0.1688 µg/L	0.1688 ppb	12:41:50
3	Ti 334.940†	816.9	39.9	0.0421 µg/L	0.0421 ppb	12:41:30
3	Tl 190.801†	-109.6	-0.1	-0.0179 µg/L	-0.0179 ppb	12:41:50
3	U 409.014†	-306.1	-33.1	-2.0502 µg/L	-2.0502 ppb	12:41:30
3	V 292.402†	446.1	-88.0	-0.4244 µg/L	-0.4244 ppb	12:41:30
3	Zn 213.857†	644.9	83.4	0.4739 µg/L	0.4739 ppb	12:41:50

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1697808.5	98.554 %	1.1261			1.14%
Sc RADIAL	114901.7	98.7 %	0.48			0.49%
Y 371.029	961709.7	90.285 %	1.0182			1.13%
Ag 328.068†	284.1	1.1530 µg/L	0.35605	1.1530 ppb	0.35605	30.88%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-3.0	-0.7244 µg/L	2.17265	-0.7244 ppb	2.17265	299.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	7.6	2.5082 µg/L	1.32307	2.5082 ppb	1.32307	52.75%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	314.4	4.5936 µg/L	0.87985	4.5936 ppb	0.87985	19.15%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	7.4	0.0327 µg/L	0.06592	0.0327 ppb	0.06592	201.41%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-43.2	-0.0139 µg/L	0.04434	-0.0139 ppb	0.04434	319.44%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	21.6	1.8167 µg/L	0.51026	1.8167 ppb	0.51026	28.09%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	24.7	0.1620 µg/L	0.10419	0.1620 ppb	0.10419	64.33%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	3.0	0.0386 µg/L	0.12918	0.0386 ppb	0.12918	334.86%

QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	39.9 0.3529 µg/L	0.12340 0.3529 ppb	0.12340 34.97%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	25.2 0.0983 µg/L	0.83789 0.0983 ppb	0.83789 852.21%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	35.3 3.0420 µg/L	0.28819 3.0420 ppb	0.28819 9.47%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	72.9 28.802 µg/L	37.2163 28.802 ppb	37.2163 129.21%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	9.6 5.3762 µg/L	4.25748 5.3762 ppb	4.25748 79.19%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	40.1 0.0517 µg/L	0.02802 0.0517 ppb	0.02802 54.24%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	12.3 0.4180 µg/L	0.22710 0.4180 ppb	0.22710 54.32%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	105.7 16.791 µg/L	12.0107 16.791 ppb	12.0107 71.53%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	10.4 0.1281 µg/L	0.23394 0.1281 ppb	0.23394 182.59%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-1.8 -0.4169 µg/L	1.97715 -0.4169 ppb	1.97715 474.28%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	35.5 2.2280 µg/L	1.06567 2.2280 ppb	1.06567 47.83%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	13.6 11.565 µg/L	3.5622 11.565 ppb	3.5622 30.80%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	11.9 1.5263 µg/L	1.33396 1.5263 ppb	1.33396 87.40%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	0.9 0.358 µg/L	4.2144 0.358 ppb	4.2144 >999.9%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	25.9 2.6127 µg/L	7.72627 2.6127 ppb	7.72627 295.72%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	135.0 2.0112 µg/L	1.14361 2.0112 ppb	1.14361 56.86%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	4.4 0.3051 µg/L	0.11822 0.3051 ppb	0.11822 38.75%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	-8.9 -0.0226 µg/L	0.15470 -0.0226 ppb	0.15470 685.51%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	8.0 0.0104 µg/L	0.03837 0.0104 ppb	0.03837 368.09%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	-1.6 -0.2226 µg/L	0.62415 -0.2226 ppb	0.62415 280.33%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	-105.0 -6.4481 µg/L	4.93845 -6.4481 ppb	4.93845 76.59%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	-98.2 -0.4804 µg/L	0.05454 -0.4804 ppb	0.05454 11.35%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	61.0 0.3470 µg/L	0.11233 0.3470 ppb	0.11233 32.37%
QC value within limits for Zn 213.857	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 13

Sample ID: 248202002|974190|5

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 419

Date Collected: 4/14/2010 13:06:33

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248202002|974190|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	115627.5	115627.5	99.3 %		13:07:02
1	Al 396.153Radial†	37049.4	37376.8	8733.7 µg/L	8733.7 ppb	13:07:02
1	Ca 317.933Radial†	93889.2	94089.2	7911.9 µg/L	7911.9 ppb	13:07:02
1	Fe 238.204 Radial†	228600.5	230038.5	19806 µg/L	19806 ppb	13:07:02
1	K 766.490 Radial†	5849.1	4444.0	1752.9 µg/L	1752.9 ppb	13:07:02
1	Mg 279.077 IEC†	3031.7	2895.7	1598.9 µg/L	1598.9 ppb	13:07:04
1	Na 589.592 Radial†	2911.1	2307.8	365.53 µg/L	365.53 ppb	13:07:04
1	Sr 421.552†	14324.5	14424.9	36.430 µg/L	36.430 ppb	13:07:02
1	Sc 361.383	1730019.9	1730019.9	100.42 %		13:07:31
1	Y 371.029	987133.8	987133.8	92.672 %		13:07:31
1	Ag 328.068†	16726.7	11536.7	46.987 µg/L	46.987 ppb	13:07:31
1	As 188.979†	-7.7	8.7	7.6423 µg/L	7.6423 ppb	13:07:51
1	B 249.677†	6012.8	1992.1	29.085 µg/L	29.085 ppb	13:07:51
1	Ba 233.527†	17583.3	17646.7	78.672 µg/L	78.672 ppb	13:07:51
1	Be 313.107†	1946.6	2819.9	0.7540 µg/L	0.7540 ppb	13:07:31
1	Cd 226.502†	507.1	602.4	1.8784 µg/L	1.8784 ppb	13:07:51
1	Co 228.616†	168.8	395.4	4.1880 µg/L	4.1880 ppb	13:07:51
1	Cr 267.716†	3685.4	3383.8	30.127 µg/L	30.127 ppb	13:07:51
1	Cu 324.752†	1603524.0	1593641.2	6524.2 µg/L	6524.2 ppb	13:07:31
1	Mn 257.610†	357189.7	355499.4	459.36 µg/L	459.36 ppb	13:07:31
1	Mo 202.031†	233.0	252.5	9.3978 µg/L	9.3978 ppb	13:07:51
1	Ni 231.604†	1781.4	1871.3	23.082 µg/L	23.082 ppb	13:07:51
1	P 214.914†	2627.1	2648.0	521.10 µg/L	521.10 ppb	13:07:31
1	Pb 220.353†	3526.8	3426.6	212.69 µg/L	212.69 ppb	13:07:51
1	S 181.975 Axial†	688.5	598.0	507.60 µg/L	507.60 ppb	13:07:51
1	Sb 206.836†	87.8	11.4	0.8567 µg/L	0.8567 ppb	13:07:51
1	Se 196.026†	0.9	-11.6	2.32 µg/L	2.32 ppb	13:07:51
1	SiO2†	12327.5	10543.0	1067.8 µg/L	1067.8 ppb	13:07:51
1	Si 251.611†	38915.7	37966.1	567.70 µg/L	567.70 ppb	13:07:31
1	Sn 189.927†	93.3	80.7	6.3035 µg/L	6.3035 ppb	13:07:51
1	Ti 334.940†	203008.3	201351.8	209.48 µg/L	209.48 ppb	13:07:31
1	Tl 190.801†	-130.8	-17.8	0.8574 µg/L	0.8574 ppb	13:07:51
1	U 409.014†	-1671.9	-1383.6	-84.972 µg/L	-84.972 ppb	13:07:31
1	V 292.402†	3502.0	2941.0	12.298 µg/L	12.298 ppb	13:07:51
1	Zn 213.857†	540650.8	537788.3	3064.0 µg/L	3064.0 ppb	13:07:31
2	Sc RADIAL	117451.3	117451.3	101 %		13:07:07
2	Al 396.153Radial†	37656.1	37398.9	8738.8 µg/L	8738.8 ppb	13:07:07
2	Ca 317.933Radial†	95498.5	94216.5	7922.6 µg/L	7922.6 ppb	13:07:07
2	Fe 238.204 Radial†	232921.8	230747.6	19867 µg/L	19867 ppb	13:07:07
2	K 766.490 Radial†	5917.3	4420.2	1743.4 µg/L	1743.4 ppb	13:07:07
2	Mg 279.077 IEC†	3015.7	2832.5	1563.5 µg/L	1563.5 ppb	13:07:09
2	Na 589.592 Radial†	2857.1	2208.9	349.79 µg/L	349.79 ppb	13:07:09
2	Sr 421.552†	14677.3	14550.7	36.748 µg/L	36.748 ppb	13:07:07
2	Sc 361.383	1734645.1	1734645.1	100.69 %		13:07:54
2	Y 371.029	988889.1	988889.1	92.836 %		13:07:54
2	Ag 328.068†	16430.4	11198.0	45.605 µg/L	45.605 ppb	13:07:54
2	As 188.979†	-6.4	10.0	8.0731 µg/L	8.0731 ppb	13:08:14
2	B 249.677†	6034.2	1997.3	29.161 µg/L	29.161 ppb	13:08:14
2	Ba 233.527†	17574.9	17591.6	78.425 µg/L	78.425 ppb	13:08:14
2	Be 313.107†	1768.6	2637.9	0.7053 µg/L	0.7053 ppb	13:07:54
2	Cd 226.502†	495.4	589.5	1.7870 µg/L	1.7870 ppb	13:08:14
2	Co 228.616†	182.6	408.7	4.3571 µg/L	4.3571 ppb	13:08:14
2	Cr 267.716†	3686.3	3375.0	30.048 µg/L	30.048 ppb	13:08:14
2	Cu 324.752†	1607409.1	1593242.0	6522.5 µg/L	6522.5 ppb	13:07:54
2	Mn 257.610†	358153.6	355508.4	459.38 µg/L	459.38 ppb	13:07:54
2	Mo 202.031†	235.7	254.6	9.4700 µg/L	9.4700 ppb	13:08:14
2	Ni 231.604†	1781.8	1867.0	23.029 µg/L	23.029 ppb	13:08:14
2	P 214.914†	2639.4	2653.2	522.28 µg/L	522.28 ppb	13:07:54
2	Pb 220.353†	3542.1	3432.5	213.05 µg/L	213.05 ppb	13:08:14

2	S 181.975 Axial†	695.7	603.3	512.15 µg/L	512.15 ppb	13:08:14
2	Sb 206.836†	90.5	13.8	1.1709 µg/L	1.1709 ppb	13:08:14
2	Se 196.026†	11.9	-0.7	6.55 µg/L	6.55 ppb	13:08:14
2	SiO2†	12012.4	10197.3	1032.8 µg/L	1032.8 ppb	13:08:14
2	Si 251.611†	34250.5	33229.7	496.86 µg/L	496.86 ppb	13:07:54
2	Sn 189.927†	88.3	75.5	5.9462 µg/L	5.9462 ppb	13:08:14
2	Ti 334.940†	203569.0	201369.7	209.50 µg/L	209.50 ppb	13:07:54
2	Tl 190.801†	-138.7	-25.3	-0.1971 µg/L	-0.1971 ppb	13:08:14
2	U 409.014†	-1587.4	-1295.3	-79.571 µg/L	-79.571 ppb	13:07:54
2	V 292.402†	3569.5	2998.8	12.579 µg/L	12.579 ppb	13:08:14
2	Zn 213.857†	542930.3	538616.6	3068.7 µg/L	3068.7 ppb	13:07:54
3	Sc RADIAL	118272.0	118272.0	102 %		13:07:11
3	Al 396.153Radial†	37937.2	37416.7	8743.0 µg/L	8743.0 ppb	13:07:11
3	Ca 317.933Radial†	96430.9	94477.4	7944.5 µg/L	7944.5 ppb	13:07:11
3	Fe 238.204 Radial†	235065.4	231255.6	19911 µg/L	19911 ppb	13:07:11
3	K 766.490 Radial†	6026.3	4486.7	1769.7 µg/L	1769.7 ppb	13:07:11
3	Mg 279.077 IEC†	2938.1	2735.4	1509.3 µg/L	1509.3 ppb	13:07:13
3	Na 589.592 Radial†	2920.4	2251.5	356.55 µg/L	356.55 ppb	13:07:13
3	Sr 421.552†	14758.9	14530.0	36.696 µg/L	36.696 ppb	13:07:11
3	Sc 361.383	1730943.4	1730943.4	100.48 %		13:08:17
3	Y 371.029	987533.2	987533.2	92.709 %		13:08:17
3	Ag 328.068†	16826.3	11627.0	47.359 µg/L	47.359 ppb	13:08:17
3	As 188.979†	-2.3	14.1	9.4360 µg/L	9.4360 ppb	13:08:37
3	B 249.677†	6046.4	2022.3	29.526 µg/L	29.526 ppb	13:08:37
3	Ba 233.527†	17541.3	17595.5	78.441 µg/L	78.441 ppb	13:08:37
3	Be 313.107†	2082.2	2953.8	0.7918 µg/L	0.7918 ppb	13:08:17
3	Cd 226.502†	481.4	576.6	1.6980 µg/L	1.6980 ppb	13:08:37
3	Co 228.616†	175.8	402.3	4.2717 µg/L	4.2717 ppb	13:08:37
3	Cr 267.716†	3691.8	3388.3	30.168 µg/L	30.168 ppb	13:08:37
3	Cu 324.752†	1605999.5	1595253.0	6530.8 µg/L	6530.8 ppb	13:08:17
3	Mn 257.610†	358028.1	356144.1	460.20 µg/L	460.20 ppb	13:08:17
3	Mo 202.031†	219.7	239.1	8.9457 µg/L	8.9457 ppb	13:08:37
3	Ni 231.604†	1796.4	1885.3	23.255 µg/L	23.255 ppb	13:08:37
3	P 214.914†	2612.7	2632.3	517.38 µg/L	517.38 ppb	13:08:17
3	Pb 220.353†	3561.2	3459.0	214.71 µg/L	214.71 ppb	13:08:37
3	S 181.975 Axial†	706.0	615.0	522.05 µg/L	522.05 ppb	13:08:37
3	Sb 206.836†	83.8	7.3	0.3315 µg/L	0.3315 ppb	13:08:37
3	Se 196.026†	10.1	-2.5	5.87 µg/L	5.87 ppb	13:08:37
3	SiO2†	11937.5	10148.3	1027.8 µg/L	1027.8 ppb	13:08:37
3	Si 251.611†	33110.2	32167.6	480.98 µg/L	480.98 ppb	13:08:17
3	Sn 189.927†	78.1	65.5	5.2524 µg/L	5.2524 ppb	13:08:37
3	Ti 334.940†	202889.1	201125.4	209.25 µg/L	209.25 ppb	13:08:17
3	Tl 190.801†	-150.0	-36.9	-1.8280 µg/L	-1.8280 ppb	13:08:37
3	U 409.014†	-1632.3	-1343.3	-82.524 µg/L	-82.524 ppb	13:08:17
3	V 292.402†	3513.9	2951.0	12.334 µg/L	12.334 ppb	13:08:37
3	Zn 213.857†	542195.1	539038.0	3071.1 µg/L	3071.1 ppb	13:08:17

## Mean Data: 248202002|974190|5

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1731869.4	100.53 %	0.142			0.14%
Sc RADIAL	117116.9	101 %	1.2			1.16%
Y 371.029	987852.0	92.739 %	0.0864			0.09%
Ag 328.068†	11453.9	46.650 µg/L	0.9241	46.650 ppb	0.9241	1.98%
Al 396.153Radial†	37397.5	8738.5 µg/L	4.68	8738.5 ppb	4.68	0.05%
As 188.979†	10.9	8.3838 µg/L	0.93634	8.3838 ppb	0.93634	11.17%
B 249.677†	2003.9	29.257 µg/L	0.2360	29.257 ppb	0.2360	0.81%
Ba 233.527†	17611.3	78.513 µg/L	0.1379	78.513 ppb	0.1379	0.18%
Be 313.107†	2803.9	0.7504 µg/L	0.04333	0.7504 ppb	0.04333	5.77%
Ca 317.933Radial†	94261.0	7926.3 µg/L	16.64	7926.3 ppb	16.64	0.21%
Cd 226.502†	589.5	1.7878 µg/L	0.09021	1.7878 ppb	0.09021	5.05%
Co 228.616†	402.1	4.2723 µg/L	0.08454	4.2723 ppb	0.08454	1.98%
Cr 267.716†	3382.4	30.115 µg/L	0.0609	30.115 ppb	0.0609	0.20%
Cu 324.752†	1594045.4	6525.8 µg/L	4.36	6525.8 ppb	4.36	0.07%
Fe 238.204 Radial†	230680.6	19861 µg/L	52.6	19861 ppb	52.6	0.27%
K 766.490 Radial†	4450.3	1755.3 µg/L	13.33	1755.3 ppb	13.33	0.76%
Mg 279.077 IEC†	2821.2	1557.2 µg/L	45.13	1557.2 ppb	45.13	2.90%
Mn 257.610†	355717.3	459.65 µg/L	0.479	459.65 ppb	0.479	0.10%
Mo 202.031†	248.7	9.2712 µg/L	0.28419	9.2712 ppb	0.28419	3.07%
Na 589.592 Radial†	2256.1	357.29 µg/L	7.894	357.29 ppb	7.894	2.21%



Ni 231.604†	1874.5	23.122 µg/L	0.1182	23.122 ppb	0.1182	0.51%
P 214.914†	2644.5	520.25 µg/L	2.558	520.25 ppb	2.558	0.49%
Pb 220.353†	3439.4	213.49 µg/L	1.076	213.49 ppb	1.076	0.50%
S 181.975 Axial†	605.4	513.93 µg/L	7.390	513.93 ppb	7.390	1.44%
Sb 206.836†	10.8	0.7864 µg/L	0.42410	0.7864 ppb	0.42410	53.93%
Se 196.026†	-4.9	4.91 µg/L	2.275	4.91 ppb	2.275	46.31%
SiO2†	10296.2	1042.8 µg/L	21.79	1042.8 ppb	21.79	2.09%
Si 251.611†	34454.5	515.18 µg/L	46.169	515.18 ppb	46.169	8.96%
Sn 189.927†	73.9	5.8340 µg/L	0.53449	5.8340 ppb	0.53449	9.16%
Sr 421.552†	14501.9	36.625 µg/L	0.1705	36.625 ppb	0.1705	0.47%
Ti 334.940†	201282.3	209.41 µg/L	0.138	209.41 ppb	0.138	0.07%
Tl 190.801†	-26.7	-0.3892 µg/L	1.35299	-0.3892 ppb	1.35299	347.59%
U 409.014†	-1340.7	-82.356 µg/L	2.7041	-82.356 ppb	2.7041	3.28%
Concentration less than lower limit for U 409.014.						
V 292.402†	2963.6	12.404 µg/L	0.1531	12.404 ppb	0.1531	1.23%
Zn 213.857†	538481.0	3067.9 µg/L	3.62	3067.9 ppb	3.62	0.12%

Sequence No.: 14

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 4/14/2010 13:08:45

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	113263.5	113263.5	97.3 %		13:09:19
1	Al 396.153Radial†	21793.1	22475.5	5228.2 µg/L	5228.2 ppb	13:09:19
1	Ca 317.933Radial†	60823.2	62078.3	5220.1 µg/L	5220.1 ppb	13:09:19
1	Fe 238.204 Radial†	58876.9	60407.1	5201.0 µg/L	5201.0 ppb	13:09:19
1	K 766.490 Radial†	13990.6	12934.3	5108.0 µg/L	5108.0 ppb	13:09:19
1	Mg 279.077 IEC†	9372.4	9476.1	5295.2 µg/L	5295.2 ppb	13:09:19
1	Na 589.592 Radial†	62985.7	64111.2	10193 µg/L	10193 ppb	13:09:17
1	Sr 421.552†	193837.3	199221.4	503.95 µg/L	503.95 ppb	13:09:17
1	Sc 361.383	1698342.1	1698342.1	98.585 %		13:09:46
1	Y 371.029	951283.9	951283.9	89.306 %		13:09:46
1	Ag 328.068†	125623.6	122306.9	508.50 µg/L	508.50 ppb	13:09:46
1	As 188.979†	1492.6	1530.4	514.63 µg/L	514.63 ppb	13:10:06
1	B 249.677†	37478.2	34020.6	495.26 µg/L	495.26 ppb	13:09:46
1	Ba 233.527†	110700.4	112426.6	503.17 µg/L	503.17 ppb	13:09:46
1	Be 313.107†	1783016.6	1809483.5	500.38 µg/L	500.38 ppb	13:09:46
1	Cd 226.502†	75908.4	77095.2	505.20 µg/L	505.20 ppb	13:09:46
1	Co 228.616†	38160.1	38935.0	506.28 µg/L	506.28 ppb	13:09:46
1	Cr 267.716†	57132.6	57666.4	502.64 µg/L	502.64 ppb	13:09:46
1	Cu 324.752†	123567.3	122230.7	501.76 µg/L	501.76 ppb	13:09:46
1	Mn 257.610†	384716.0	390055.0	503.92 µg/L	503.92 ppb	13:09:46
1	Mo 202.031†	14822.7	15055.9	512.10 µg/L	512.10 ppb	13:10:06
1	Ni 231.604†	40427.4	41104.9	507.03 µg/L	507.03 ppb	13:09:46
1	P 214.914†	11056.0	11246.7	2556.4 µg/L	2556.4 ppb	13:10:06
1	Pb 220.353†	8207.3	8239.9	517.67 µg/L	517.67 ppb	13:10:06
1	S 181.975 Axial†	1277.2	1207.9	1029.5 µg/L	1029.5 ppb	13:10:06
1	Sb 206.836†	3997.1	3978.4	509.58 µg/L	509.58 ppb	13:10:06
1	Se 196.026†	1331.9	1338.5	518 µg/L	518 ppb	13:10:06
1	SiO2†	54228.1	53273.8	5375.1 µg/L	5375.1 ppb	13:09:46
1	Si 251.611†	167359.2	168975.5	2517.1 µg/L	2517.1 ppb	13:09:46
1	Sn 189.927†	7336.7	7429.7	517.25 µg/L	517.25 ppb	13:10:06
1	Ti 334.940†	477430.2	483482.1	502.11 µg/L	502.11 ppb	13:09:46
1	Tl 190.801†	3457.0	3619.1	517.30 µg/L	517.30 ppb	13:10:06
1	U 409.014†	7078.6	7461.4	486.61 µg/L	486.61 ppb	13:09:46
1	V 292.402†	100908.5	101810.3	506.05 µg/L	506.05 ppb	13:09:46
1	Zn 213.857†	88367.7	89056.9	504.54 µg/L	504.54 ppb	13:09:46
2	Sc RADIAL	113024.0	113024.0	97.1 %		13:09:23
2	Al 396.153Radial†	21700.8	22428.0	5217.3 µg/L	5217.3 ppb	13:09:23
2	Ca 317.933Radial†	60465.5	61842.3	5200.3 µg/L	5200.3 ppb	13:09:23
2	Fe 238.204 Radial†	58676.2	60328.7	5194.2 µg/L	5194.2 ppb	13:09:23
2	K 766.490 Radial†	13944.4	12917.3	5101.3 µg/L	5101.3 ppb	13:09:23
2	Mg 279.077 IEC†	9347.7	9471.1	5292.3 µg/L	5292.3 ppb	13:09:23
2	Na 589.592 Radial†	63052.7	64317.3	10226 µg/L	10226 ppb	13:09:21
2	Sr 421.552†	194029.8	199841.9	505.52 µg/L	505.52 ppb	13:09:21
2	Sc 361.383	1710488.3	1710488.3	99.290 %		13:10:09
2	Y 371.029	957556.6	957556.6	89.895 %		13:10:09
2	Ag 328.068†	126572.2	122357.4	508.71 µg/L	508.71 ppb	13:10:09
2	As 188.979†	1502.0	1529.1	514.20 µg/L	514.20 ppb	13:10:29
2	B 249.677†	38147.0	34424.2	501.15 µg/L	501.15 ppb	13:10:09
2	Ba 233.527†	111538.2	112472.9	503.38 µg/L	503.38 ppb	13:10:09
2	Be 313.107†	1796629.8	1810351.0	500.62 µg/L	500.62 ppb	13:10:09
2	Cd 226.502†	76721.9	77367.7	506.99 µg/L	506.99 ppb	13:10:09
2	Co 228.616†	38652.5	39156.1	509.15 µg/L	509.15 ppb	13:10:09
2	Cr 267.716†	57514.0	57639.1	502.40 µg/L	502.40 ppb	13:10:09
2	Cu 324.752†	124331.9	122110.8	501.27 µg/L	501.27 ppb	13:10:09
2	Mn 257.610†	387954.1	390545.1	504.55 µg/L	504.55 ppb	13:10:09
2	Mo 202.031†	14813.5	14939.9	508.16 µg/L	508.16 ppb	13:10:29
2	Ni 231.604†	40817.2	41206.3	508.28 µg/L	508.28 ppb	13:10:09
2	P 214.914†	11039.7	11150.5	2534.5 µg/L	2534.5 ppb	13:10:29
2	Pb 220.353†	8185.0	8158.3	512.54 µg/L	512.54 ppb	13:10:29

2	S 181.975 Axial†	1270.1	1191.6	1015.6 µg/L	1015.6 ppb	13:10:29
2	Sb 206.836†	4033.8	3986.6	510.56 µg/L	510.56 ppb	13:10:29
2	Se 196.026†	1336.5	1333.6	516 µg/L	516 ppb	13:10:29
2	SiO2†	54792.5	53451.7	5393.4 µg/L	5393.4 ppb	13:10:09
2	Si 251.611†	169097.1	169520.4	2525.3 µg/L	2525.3 ppb	13:10:09
2	Sn 189.927†	7294.5	7334.4	510.63 µg/L	510.63 ppb	13:10:29
2	Ti 334.940†	480654.6	483290.6	501.91 µg/L	501.91 ppb	13:10:09
2	Tl 190.801†	3448.1	3585.1	512.50 µg/L	512.50 ppb	13:10:29
2	U 409.014†	7136.5	7468.7	487.03 µg/L	487.03 ppb	13:10:09
2	V 292.402†	101531.5	101711.0	505.52 µg/L	505.52 ppb	13:10:09
2	Zn 213.857†	89236.0	89294.9	505.89 µg/L	505.89 ppb	13:10:09
3	Sc RADIAL	113152.9	113152.9	97.2 %		13:09:27
3	Al 396.153Radial†	21710.6	22412.5	5213.7 µg/L	5213.7 ppb	13:09:27
3	Ca 317.933Radial†	60616.2	61926.4	5207.3 µg/L	5207.3 ppb	13:09:27
3	Fe 238.204 Radial†	58543.1	60122.9	5176.5 µg/L	5176.5 ppb	13:09:27
3	K 766.490 Radial†	13963.8	12920.9	5102.7 µg/L	5102.7 ppb	13:09:27
3	Mg 279.077 IEC†	9306.8	9418.1	5262.7 µg/L	5262.7 ppb	13:09:27
3	Na 589.592 Radial†	63230.6	64426.4	10243 µg/L	10243 ppb	13:09:25
3	Sr 421.552†	194333.0	199926.2	505.73 µg/L	505.73 ppb	13:09:25
3	Sc 361.383	1722025.3	1722025.3	99.960 %		13:10:32
3	Y 371.029	964288.5	964288.5	90.527 %		13:10:32
3	Ag 328.068†	127294.0	122225.5	508.19 µg/L	508.19 ppb	13:10:32
3	As 188.979†	1493.4	1510.4	507.99 µg/L	507.99 ppb	13:10:52
3	B 249.677†	38470.1	34490.0	502.10 µg/L	502.10 ppb	13:10:32
3	Ba 233.527†	112580.9	112763.4	504.68 µg/L	504.68 ppb	13:10:32
3	Be 313.107†	1818023.1	1819630.1	503.19 µg/L	503.19 ppb	13:10:32
3	Cd 226.502†	77557.7	77686.1	509.08 µg/L	509.08 ppb	13:10:32
3	Co 228.616†	39094.5	39337.4	511.51 µg/L	511.51 ppb	13:10:32
3	Cr 267.716†	58044.1	57781.3	503.65 µg/L	503.65 ppb	13:10:32
3	Cu 324.752†	125719.0	122659.5	503.51 µg/L	503.51 ppb	13:10:32
3	Mn 257.610†	391495.4	391470.1	505.75 µg/L	505.75 ppb	13:10:32
3	Mo 202.031†	14881.0	14907.4	507.05 µg/L	507.05 ppb	13:10:52
3	Ni 231.604†	41156.1	41269.9	509.06 µg/L	509.06 ppb	13:10:32
3	P 214.914†	11079.4	11115.8	2526.6 µg/L	2526.6 ppb	13:10:52
3	Pb 220.353†	8265.1	8183.1	514.10 µg/L	514.10 ppb	13:10:52
3	S 181.975 Axial†	1288.1	1201.0	1023.6 µg/L	1023.6 ppb	13:10:52
3	Sb 206.836†	4013.7	3939.2	504.49 µg/L	504.49 ppb	13:10:52
3	Se 196.026†	1329.1	1317.1	510 µg/L	510 ppb	13:10:52
3	SiO2†	55465.0	53754.7	5424.1 µg/L	5424.1 ppb	13:10:32
3	Si 251.611†	171384.0	170667.2	2542.5 µg/L	2542.5 ppb	13:10:32
3	Sn 189.927†	7335.9	7326.6	510.10 µg/L	510.10 ppb	13:10:52
3	Ti 334.940†	485462.9	484857.7	503.54 µg/L	503.54 ppb	13:10:32
3	Tl 190.801†	3459.3	3573.1	510.83 µg/L	510.83 ppb	13:10:52
3	U 409.014†	7121.9	7406.0	483.35 µg/L	483.35 ppb	13:10:32
3	V 292.402†	102733.5	102228.3	508.05 µg/L	508.05 ppb	13:10:32
3	Zn 213.857†	90125.0	89582.1	507.53 µg/L	507.53 ppb	13:10:32

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1710285.2	99.279 %	0.6875			0.69%
Sc RADIAL	113146.8	97.2 %	0.10			0.11%
Y 371.029	957709.7	89.909 %	0.6106			0.68%
Ag 328.068†	122296.6	508.47 µg/L	0.260	508.47 ppb	0.260	0.05%
QC value within limits for Ag 328.068 Recovery = 101.69%						
Al 396.153Radial†	22438.7	5219.8 µg/L	7.55	5219.8 ppb	7.55	0.14%
QC value within limits for Al 396.153Radial Recovery = 104.40%						
As 188.979†	1523.3	512.27 µg/L	3.716	512.27 ppb	3.716	0.73%
QC value within limits for As 188.979 Recovery = 102.45%						
B 249.677†	34311.6	499.50 µg/L	3.704	499.50 ppb	3.704	0.74%
QC value within limits for B 249.677 Recovery = 99.90%						
Ba 233.527†	112554.3	503.74 µg/L	0.817	503.74 ppb	0.817	0.16%
QC value within limits for Ba 233.527 Recovery = 100.75%						
Be 313.107†	1813154.9	501.40 µg/L	1.554	501.40 ppb	1.554	0.31%
QC value within limits for Be 313.107 Recovery = 100.28%						
Ca 317.933Radial†	61949.0	5209.2 µg/L	10.06	5209.2 ppb	10.06	0.19%
QC value within limits for Ca 317.933Radial Recovery = 104.18%						
Cd 226.502†	77383.0	507.09 µg/L	1.941	507.09 ppb	1.941	0.38%
QC value within limits for Cd 226.502 Recovery = 101.42%						
Co 228.616†	39142.8	508.98 µg/L	2.620	508.98 ppb	2.620	0.51%

QC value within limits for Co 228.616 Recovery = 101.80%							
Cr 267.716†	57695.6	502.90 µg/L	0.660	502.90 ppb	0.660	0.13%	
QC value within limits for Cr 267.716 Recovery = 100.58%							
Cu 324.752†	122333.6	502.18 µg/L	1.178	502.18 ppb	1.178	0.23%	
QC value within limits for Cu 324.752 Recovery = 100.44%							
Fe 238.204 Radial†	60286.3	5190.6 µg/L	12.64	5190.6 ppb	12.64	0.24%	
QC value within limits for Fe 238.204 Radial Recovery = 103.81%							
K 766.490 Radial†	12924.2	5104.0 µg/L	3.55	5104.0 ppb	3.55	0.07%	
QC value within limits for K 766.490 Radial Recovery = 102.08%							
Mg 279.077 IEC†	9455.1	5283.4 µg/L	17.98	5283.4 ppb	17.98	0.34%	
QC value within limits for Mg 279.077 IEC Recovery = 105.67%							
Mn 257.610†	390690.1	504.74 µg/L	0.930	504.74 ppb	0.930	0.18%	
QC value within limits for Mn 257.610 Recovery = 100.95%							
Mo 202.031†	14967.7	509.11 µg/L	2.653	509.11 ppb	2.653	0.52%	
QC value within limits for Mo 202.031 Recovery = 101.82%							
Na 589.592 Radial†	64284.9	10221 µg/L	25.5	10221 ppb	25.5	0.25%	
QC value within limits for Na 589.592 Radial Recovery = 102.21%							
Ni 231.604†	41193.7	508.12 µg/L	1.026	508.12 ppb	1.026	0.20%	
QC value within limits for Ni 231.604 Recovery = 101.62%							
P 214.914†	11171.0	2539.2 µg/L	15.47	2539.2 ppb	15.47	0.61%	
QC value within limits for P 214.914 Recovery = 101.57%							
Pb 220.353†	8193.8	514.77 µg/L	2.625	514.77 ppb	2.625	0.51%	
QC value within limits for Pb 220.353 Recovery = 102.95%							
S 181.975 Axial†	1200.2	1022.9 µg/L	6.96	1022.9 ppb	6.96	0.68%	
QC value within limits for S 181.975 Axial Recovery = 102.29%							
Sb 206.836†	3968.1	508.21 µg/L	3.263	508.21 ppb	3.263	0.64%	
QC value within limits for Sb 206.836 Recovery = 101.64%							
Se 196.026†	1329.7	514 µg/L	4.3	514 ppb	4.3	0.84%	
QC value within limits for Se 196.026 Recovery = 102.90%							
SiO2†	53493.4	5397.5 µg/L	24.75	5397.5 ppb	24.75	0.46%	
QC value within limits for SiO2 Recovery = 100.94%							
Si 251.611†	169721.0	2528.3 µg/L	12.97	2528.3 ppb	12.97	0.51%	
QC value within limits for Si 251.611 Recovery = 101.13%							
Sn 189.927†	7363.6	512.66 µg/L	3.981	512.66 ppb	3.981	0.78%	
QC value within limits for Sn 189.927 Recovery = 102.53%							
Sr 421.552†	199663.2	505.06 µg/L	0.974	505.06 ppb	0.974	0.19%	
QC value within limits for Sr 421.552 Recovery = 101.01%							
Ti 334.940†	483876.8	502.52 µg/L	0.891	502.52 ppb	0.891	0.18%	
QC value within limits for Ti 334.940 Recovery = 100.50%							
Tl 190.801†	3592.4	513.54 µg/L	3.358	513.54 ppb	3.358	0.65%	
QC value within limits for Tl 190.801 Recovery = 102.71%							
U 409.014†	7445.4	485.66 µg/L	2.012	485.66 ppb	2.012	0.41%	
QC value within limits for U 409.014 Recovery = 97.13%							
V 292.402†	101916.5	506.54 µg/L	1.334	506.54 ppb	1.334	0.26%	
QC value within limits for V 292.402 Recovery = 101.31%							
Zn 213.857†	89311.3	505.99 µg/L	1.496	505.99 ppb	1.496	0.30%	
QC value within limits for Zn 213.857 Recovery = 101.20%							

All analyte(s) passed QC.

Sequence No.: 15

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 4/14/2010 13:11:00

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	114550.2	114550.2	98.4 %		13:11:29
1	Al 396.153Radial†	-42.0	34.9	8.1594 µg/L	8.1594 ppb	13:11:49
1	Ca 317.933Radial†	441.9	15.8	1.3287 µg/L	1.3287 ppb	13:11:49
1	Fe 238.204 Radial†	157.4	56.0	4.8212 µg/L	4.8212 ppb	13:11:49
1	K 766.490 Radial†	1508.4	88.3	34.884 µg/L	34.884 ppb	13:11:29
1	Mg 279.077 IEC†	155.6	1.6	0.9130 µg/L	0.9130 ppb	13:11:49
1	Na 589.592 Radial†	684.5	72.8	11.541 µg/L	11.541 ppb	13:11:29
1	Sr 421.552†	-75.1	-72.5	-0.1835 µg/L	-0.1835 ppb	13:11:29
1	Sc 361.383	1710582.9	1710582.9	99.296 %		13:12:37
1	Y 371.029	968408.2	968408.2	90.914 %		13:12:37
1	Ag 328.068†	5165.2	82.5	0.3294 µg/L	0.3294 ppb	13:12:39
1	As 188.979†	-12.1	4.2	1.3856 µg/L	1.3856 ppb	13:12:59
1	B 249.677†	4082.7	116.3	1.6964 µg/L	1.6964 ppb	13:12:39
1	Ba 233.527†	-127.2	9.5	0.0420 µg/L	0.0420 ppb	13:12:59
1	Be 313.107†	-883.0	-7.8	-0.0026 µg/L	-0.0026 ppb	13:12:39
1	Cd 226.502†	-61.4	35.6	0.2331 µg/L	0.2331 ppb	13:12:59
1	Co 228.616†	-180.2	45.8	0.5952 µg/L	0.5952 ppb	13:12:59
1	Cr 267.716†	316.1	32.3	0.2829 µg/L	0.2829 ppb	13:12:59
1	Cu 324.752†	3354.3	268.4	1.0981 µg/L	1.0981 ppb	13:12:39
1	Mn 257.610†	239.1	59.3	0.0766 µg/L	0.0766 ppb	13:12:59
1	Mo 202.031†	-21.2	-0.9	-0.0300 µg/L	-0.0300 ppb	13:12:59
1	Ni 231.604†	-112.6	-16.0	-0.1969 µg/L	-0.1969 ppb	13:12:59
1	P 214.914†	-49.7	-18.1	-4.1290 µg/L	-4.1290 ppb	13:12:59
1	Pb 220.353†	102.4	17.8	1.1185 µg/L	1.1185 ppb	13:12:59
1	S 181.975 Axial†	104.7	17.9	15.157 µg/L	15.157 ppb	13:12:59
1	Sb 206.836†	68.9	-6.6	-0.8524 µg/L	-0.8524 ppb	13:12:59
1	Se 196.026†	7.1	-5.3	-2.05 µg/L	-2.05 ppb	13:12:59
1	SiO2†	1736.4	16.2	1.6314 µg/L	1.6314 ppb	13:12:39
1	Si 251.611†	854.0	74.9	1.1154 µg/L	1.1154 ppb	13:12:39
1	Sn 189.927†	24.2	12.2	0.8434 µg/L	0.8434 ppb	13:12:59
1	Ti 334.940†	657.9	-136.3	-0.1413 µg/L	-0.1413 ppb	13:12:39
1	Tl 190.801†	-113.2	-1.6	-0.2358 µg/L	-0.2358 ppb	13:12:59
1	U 409.014†	-304.7	-25.6	-1.6039 µg/L	-1.6039 ppb	13:12:39
1	V 292.402†	415.6	-127.6	-0.6264 µg/L	-0.6264 ppb	13:12:39
1	Zn 213.857†	703.3	129.4	0.7390 µg/L	0.7390 ppb	13:12:59
2	Sc RADIAL	114451.5	114451.5	98.3 %		13:11:51
2	Al 396.153Radial†	-69.0	7.4	1.7125 µg/L	1.7125 ppb	13:12:11
2	Ca 317.933Radial†	452.6	27.1	2.2769 µg/L	2.2769 ppb	13:12:11
2	Fe 238.204 Radial†	124.9	23.1	1.9872 µg/L	1.9872 ppb	13:12:11
2	K 766.490 Radial†	1529.2	110.8	43.790 µg/L	43.790 ppb	13:11:51
2	Mg 279.077 IEC†	152.8	-1.0	-0.5468 µg/L	-0.5468 ppb	13:12:11
2	Na 589.592 Radial†	770.6	160.9	25.557 µg/L	25.557 ppb	13:11:51
2	Sr 421.552†	29.4	33.7	0.0852 µg/L	0.0852 ppb	13:11:51
2	Sc 361.383	1698707.2	1698707.2	98.607 %		13:13:01
2	Y 371.029	962175.9	962175.9	90.329 %		13:13:01
2	Ag 328.068†	5043.3	-4.7	-0.0316 µg/L	-0.0316 ppb	13:13:03
2	As 188.979†	-1.9	14.5	4.8074 µg/L	4.8074 ppb	13:13:23
2	B 249.677†	4279.1	344.1	5.0274 µg/L	5.0274 ppb	13:13:03
2	Ba 233.527†	-118.5	17.5	0.0786 µg/L	0.0786 ppb	13:13:23
2	Be 313.107†	-1226.3	-362.1	-0.1039 µg/L	-0.1039 ppb	13:13:03
2	Cd 226.502†	-78.7	17.7	0.1161 µg/L	0.1161 ppb	13:13:23
2	Co 228.616†	-215.8	8.5	0.1107 µg/L	0.1107 ppb	13:13:23
2	Cr 267.716†	353.1	72.1	0.6383 µg/L	0.6383 ppb	13:13:23
2	Cu 324.752†	3086.0	19.9	0.0713 µg/L	0.0713 ppb	13:13:03
2	Mn 257.610†	254.8	76.9	0.0994 µg/L	0.0994 ppb	13:13:23
2	Mo 202.031†	-7.6	12.8	0.4353 µg/L	0.4353 ppb	13:13:23
2	Ni 231.604†	-76.1	20.3	0.2501 µg/L	0.2501 ppb	13:13:23
2	P 214.914†	-40.0	-8.6	-1.9699 µg/L	-1.9699 ppb	13:13:23
2	Pb 220.353†	95.7	11.8	0.7502 µg/L	0.7502 ppb	13:13:23

2	S 181.975 Axial†	103.3	17.2	14.573 µg/L	14.573 ppb	13:13:23
2	Sb 206.836†	80.7	5.8	0.7374 µg/L	0.7374 ppb	13:13:23
2	Se 196.026†	2.8	-9.7	-3.73 µg/L	-3.73 ppb	13:13:23
2	SiO2†	1842.7	136.3	13.792 µg/L	13.792 ppb	13:13:03
2	Si 251.611†	875.4	102.6	1.5265 µg/L	1.5265 ppb	13:13:03
2	Sn 189.927†	16.1	4.1	0.2862 µg/L	0.2862 ppb	13:13:23
2	Ti 334.940†	738.4	-50.1	-0.0471 µg/L	-0.0471 ppb	13:13:03
2	Tl 190.801†	-104.8	6.1	0.8584 µg/L	0.8584 ppb	13:13:23
2	U 409.014†	-478.9	-204.4	-12.482 µg/L	-12.482 ppb	13:13:03
2	V 292.402†	593.4	55.6	0.2712 µg/L	0.2712 ppb	13:13:03
2	Zn 213.857†	699.1	130.1	0.7408 µg/L	0.7408 ppb	13:13:23
3	Sc RADIAL	113456.0	113456.0	97.5 %		13:12:13
3	Al 396.153Radial†	-71.3	4.3	0.9601 µg/L	0.9601 ppb	13:12:33
3	Ca 317.933Radial†	455.9	34.5	2.9002 µg/L	2.9002 ppb	13:12:33
3	Fe 238.204 Radial†	142.6	42.3	3.6412 µg/L	3.6412 ppb	13:12:33
3	K 766.490 Radial†	1378.1	-30.6	-12.088 µg/L	-12.088 ppb	13:12:13
3	Mg 279.077 IEC†	156.9	4.6	2.5787 µg/L	2.5787 ppb	13:12:33
3	Na 589.592 Radial†	711.1	106.7	16.980 µg/L	16.980 ppb	13:12:13
3	Sr 421.552†	-7.7	-4.1	-0.0105 µg/L	-0.0105 ppb	13:12:13
3	Sc 361.383	1717912.1	1717912.1	99.721 %		13:13:26
3	Y 371.029	972291.2	972291.2	91.278 %		13:13:26
3	Ag 328.068†	5531.9	428.0	1.7343 µg/L	1.7343 ppb	13:13:28
3	As 188.979†	-5.1	11.3	3.7474 µg/L	3.7474 ppb	13:13:48
3	B 249.677†	4065.5	81.4	1.1891 µg/L	1.1891 ppb	13:13:28
3	Ba 233.527†	-119.4	17.9	0.0796 µg/L	0.0796 ppb	13:13:48
3	Be 313.107†	-1137.0	-258.7	-0.0738 µg/L	-0.0738 ppb	13:13:28
3	Cd 226.502†	-77.5	19.8	0.1292 µg/L	0.1292 ppb	13:13:48
3	Co 228.616†	-212.9	13.8	0.1798 µg/L	0.1798 ppb	13:13:48
3	Cr 267.716†	301.7	16.6	0.1499 µg/L	0.1499 ppb	13:13:48
3	Cu 324.752†	3273.9	173.3	0.7036 µg/L	0.7036 ppb	13:13:28
3	Mn 257.610†	257.7	76.9	0.0993 µg/L	0.0993 ppb	13:13:48
3	Mo 202.031†	14.4	34.9	1.1867 µg/L	1.1867 ppb	13:13:48
3	Ni 231.604†	-103.0	-5.9	-0.0723 µg/L	-0.0723 ppb	13:13:48
3	P 214.914†	-21.5	10.4	2.3433 µg/L	2.3433 ppb	13:13:48
3	Pb 220.353†	128.2	43.3	2.7214 µg/L	2.7214 ppb	13:13:48
3	S 181.975 Axial†	96.9	9.6	8.1462 µg/L	8.1462 ppb	13:13:48
3	Sb 206.836†	91.0	15.2	1.9508 µg/L	1.9508 ppb	13:13:48
3	Se 196.026†	30.3	17.9	6.89 µg/L	6.89 ppb	13:13:48
3	SiO2†	1765.6	38.1	3.8338 µg/L	3.8338 ppb	13:13:28
3	Si 251.611†	869.3	86.5	1.2830 µg/L	1.2830 ppb	13:13:28
3	Sn 189.927†	1.8	-10.4	-0.7232 µg/L	-0.7232 ppb	13:13:48
3	Ti 334.940†	904.9	108.5	0.1158 µg/L	0.1158 ppb	13:13:28
3	Tl 190.801†	-110.0	2.1	0.2903 µg/L	0.2903 ppb	13:13:48
3	U 409.014†	-404.7	-124.6	-7.6826 µg/L	-7.6826 ppb	13:13:28
3	V 292.402†	308.4	-237.0	-1.1548 µg/L	-1.1548 ppb	13:13:28
3	Zn 213.857†	697.1	120.1	0.6857 µg/L	0.6857 ppb	13:13:48

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1709067.4	99.208 %	0.5626			0.57%
Sc RADIAL	114152.5	98.1 %	0.52			0.53%
Y 371.029	967625.1	90.840 %	0.4791			0.53%
Ag 328.068†	168.6	0.6774 µg/L	0.93297	0.6774 ppb	0.93297	137.73%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	15.6	3.6107 µg/L	3.95720	3.6107 ppb	3.95720	109.60%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	10.0	3.3135 µg/L	1.75169	3.3135 ppb	1.75169	52.87%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	180.6	2.6376 µg/L	2.08508	2.6376 ppb	2.08508	79.05%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	15.0	0.0667 µg/L	0.02139	0.0667 ppb	0.02139	32.05%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-209.5	-0.0601 µg/L	0.05200	-0.0601 ppb	0.05200	86.52%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	25.8	2.1686 µg/L	0.79134	2.1686 ppb	0.79134	36.49%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	24.4	0.1594 µg/L	0.06410	0.1594 ppb	0.06410	40.21%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	22.7	0.2952 µg/L	0.26207	0.2952 ppb	0.26207	88.77%

Cr	267.716†	40.3	0.3570 µg/L	0.25253	0.3570 ppb	0.25253	70.73%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	153.9	0.6243 µg/L	0.51798	0.6243 ppb	0.51798	82.97%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	40.5	3.4832 µg/L	1.42355	3.4832 ppb	1.42355	40.87%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	56.2	22.195 µg/L	30.0225	22.195 ppb	30.0225	135.26%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	1.7	0.9816 µg/L	1.56386	0.9816 ppb	1.56386	159.31%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	71.0	0.0918 µg/L	0.01313	0.0918 ppb	0.01313	14.31%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	15.6	0.5307 µg/L	0.61396	0.5307 ppb	0.61396	115.70%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	113.5	18.026 µg/L	7.0660	18.026 ppb	7.0660	39.20%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	-0.5	-0.0064 µg/L	0.23065	-0.0064 ppb	0.23065	>999.9%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-5.4	-1.2518 µg/L	3.29536	-1.2518 ppb	3.29536	263.24%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	24.3	1.5300 µg/L	1.04810	1.5300 ppb	1.04810	68.50%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	14.9	12.626 µg/L	3.8902	12.626 ppb	3.8902	30.81%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	4.8	0.6119 µg/L	1.40583	0.6119 ppb	1.40583	229.74%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	1.0	0.371 µg/L	5.7112	0.371 ppb	5.7112	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		63.5	6.4192 µg/L	6.47960	6.4192 ppb	6.47960	100.94%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	88.0	1.3083 µg/L	0.20674	1.3083 ppb	0.20674	15.80%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	2.0	0.1355 µg/L	0.79411	0.1355 ppb	0.79411	586.19%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-14.3	-0.0363 µg/L	0.13617	-0.0363 ppb	0.13617	375.51%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-26.0	-0.0242 µg/L	0.13005	-0.0242 ppb	0.13005	537.25%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	2.2	0.3043 µg/L	0.54721	0.3043 ppb	0.54721	179.82%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-118.2	-7.2563 µg/L	5.45175	-7.2563 ppb	5.45175	75.13%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-103.0	-0.5033 µg/L	0.72094	-0.5033 ppb	0.72094	143.23%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	126.5	0.7218 µg/L	0.03127	0.7218 ppb	0.03127	4.33%
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\ani 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	MassCurve Type	Correlation Coefficient
Be	9Simple Linear	
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Simple Linear	
As	75Simple Linear	
Se	77Simple Linear	
Se	82Simple Linear	
Kr	83Simple Linear	
Lu	175Linear Thru Zero	
Tl	205Simple Linear	
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					
[ 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: Blank

Report Date/Time: Tuesday, April 13, 2010 18:56:54

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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\_soli.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	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45						
Ni	60						
> Ge	74						
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175						
Tl	205						
U	238						

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

Sample ID: Standard 1

Report Date/Time: Tuesday, April 13, 2010 19:00:57

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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\lanl 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 % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45					
Ni	60					
> Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175					
Tl	205					
U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

Sample ID: Standard 2

Report Date/Time: Tuesday, April 13, 2010 19:05:00

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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\VanI 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	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	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\ani 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	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		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 MassOut 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\VanI soli.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 % Recov	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	Mass	Out of Limits Message
QC Std 3	Be	9	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

Sample ID: QC Std 3

Report Date/Time: Tuesday, April 13, 2010 19:17:16

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## 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\ani 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 % Recov	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\lanl 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 % Recov	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

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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\ani 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 % Recov	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

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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\ani 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	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		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 Mass Out of Limits Message

### QC Action

Sample ID: QC Std 7

Report Date/Time: Tuesday, April 13, 2010 19:33:39

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QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056912

Sample Date/Time: Tuesday, April 13, 2010 19:37:02

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 959125[2]skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100413\1202056912.189

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.020	ug/L	31.519	17	-0.000
> Sc	45		ug/L		478181	478180.833
Ni	60	-0.024	ug/L	68.556	116	-0.000
> Ge	74		ug/L		261734	261733.859
As	75	0.134	ug/L	64.944	84	0.000
Se	77		ug/L		2979	-0.004
Se	82	0.637	ug/L	30.620	41	0.000
Kr	83		ug/L		71	-0.000
> Lu	175		ug/L		381347	381347.202
Tl	205	0.097	ug/L	1.446	4694	0.004
U	238	-0.015	ug/L	2.302	105	-0.002

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
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		107.3			
Ni	60					
> Ge	74		103.0			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		109.3			
Tl	205					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

Sample ID: 1202056912

Report Date/Time: Tuesday, April 13, 2010 19:37:43

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QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056917

Sample Date/Time: Tuesday, April 13, 2010 19:41:06

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 959125|40|skj

Method File: c:\elandata\Method\Vanl soil.mth

Dataset File: C:\elandata\Dataset\100413\1202056917.190

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	20.807	ug/L	6.889	3221	0.007
Sc	45		ug/L		443825	443825.115
Ni	60	35.446	ug/L	1.378	32327	0.073
Ge	74		ug/L		243514	243514.061
As	75	27.680	ug/L	1.480	18523	0.076
Se	77		ug/L		7462	0.016
Se	82	77.606	ug/L	0.415	5104	0.021
Kr	83		ug/L		85	0.000
Lu	175		ug/L		342510	342510.369
Tl	205	32.311	ug/L	1.854	466859	1.355
U	238	0.533	ug/L	2.814	20027	0.057

### 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		99.6			
Ni	60					
Ge	74		95.9			
As	75					
Se	77					
Se	82					
Kr	83					
Lu	175		98.1			
Tl	205					
U	238					

### QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

### QC Action

Sample ID: 1202056917

Report Date/Time: Tuesday, April 13, 2010 19:41:47

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QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056913

Sample Date/Time: Tuesday, April 13, 2010 19:49:15

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 959125|2|skj

Method File: c:\elandata\Method\ani soil.mth

Dataset File: C:\elandata\Dataset\100413\1202056913.192

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	5.357	ug/L	1.417	1040	0.002
> Sc	45		ug/L		547273	547272.743
[ Ni	60	31.865	ug/L	1.230	35849	0.065
[> Ge	74		ug/L		250777	250777.107
As	75	7.107	ug/L	6.557	4885	0.020
Se	77		ug/L		2584	-0.005
Se	82	4.532	ug/L	13.425	303	0.001
[ Kr	83		ug/L		235	0.001
[> Lu	175		ug/L		456418	456417.778
Tl	205	0.494	ug/L	2.141	13212	0.021
[ U	238	2.536	ug/L	1.290	123798	0.269

### 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		122.8			
[ Ni	60					
[> Ge	74		98.7			
As	75					
Se	77					
Se	82					
[ Kr	83					
[> Lu	175		130.8			
Tl	205					
[ U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Sc 45 Int Std for samSc		45
Lu 175 Int Std for saLu		175

Sample ID: 1202056913

Report Date/Time: Tuesday, April 13, 2010 19:49:56

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## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: 1202056915

Sample Date/Time: Tuesday, April 13, 2010 19:53:19

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 959125[2]skj

Method File: c:\elandata\Method\ani soil.mth

Dataset File: C:\elandata\Dataset\100413\1202056915.193

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	26.898	ug/L	5.123	4976	0.009
Sc	45		ug/L		530921	530921.235
Ni	60	43.471	ug/L	1.477	47382	0.089
Ge	74		ug/L		246336	246336.238
As	75	40.306	ug/L	1.350	27290	0.111
Se	77		ug/L		2871	-0.003
Se	82	10.311	ug/L	7.150	683	0.003
Kr	83		ug/L		229	0.001
Lu	175		ug/L		430234	430234.354
Ti	205	38.473	ug/L	2.231	697539	1.613
U	238	23.110	ug/L	2.650	1056552	2.455

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Ti	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9					
Sc	45		119.1			
Ni	60					
Ge	74		97.0			
As	75					
Se	77					
Se	82					
Kr	83					
Lu	175		123.3			
Ti	205					
U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu 175 Int Std for sa	Lu	175	

Sample ID: 1202056915

Report Date/Time: Tuesday, April 13, 2010 19:54:00

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## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: 1202056916

Sample Date/Time: Tuesday, April 13, 2010 19:57:24

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 959125|2|skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100413\1202056916.194

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	25.670	ug/L	6.301	4669	0.009
[>	Sc	45		ug/L		522325	522324.796
[	Ni	60	40.387	ug/L	1.358	43325	0.083
[>	Ge	74		ug/L		247055	247054.746
[	As	75	39.367	ug/L	4.388	26716	0.108
[	Se	77		ug/L		2743	-0.004
[	Se	82	10.029	ug/L	8.354	666	0.003
[	Kr	83		ug/L		202	0.000
[>	Lu	175		ug/L		425117	425116.601
[	Tl	205	40.037	ug/L	0.518	717282	1.679
[	U	238	23.650	ug/L	0.491	1068694	2.512

### 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		117.2			
[	Ni	60					
[>	Ge	74		97.2			
[	As	75					
[	Se	77					
[	Se	82					
[	Kr	83					
[>	Lu	175		121.8			
[	Tl	205					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu 175 Int Std for saLu		175	

Sample ID: 1202056916

Report Date/Time: Tuesday, April 13, 2010 19:58:05

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## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: 1202056914

Sample Date/Time: Tuesday, April 13, 2010 20:01:29

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 959125|10|skj

Method File: c:\elandata\MethodVanl soil.mth

Dataset File: C:\elandata\Dataset\100413\1202056914.195

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.999	ug/L	11.907	173	0.000
> Sc	45		ug/L		444855	444855.344
Ni	60	5.429	ug/L	7.380	5068	0.011
> Ge	74		ug/L		235455	235454.700
As	75	1.640	ug/L	7.396	1051	0.005
Se	77		ug/L		2837	-0.003
Se	82	3.070	ug/L	14.374	192	0.001
Kr	83		ug/L		91	0.000
> Lu	175		ug/L		348513	348513.270
Tl	205	0.156	ug/L	8.063	5141	0.007
U	238	0.599	ug/L	2.508	22840	0.064

### 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		99.8				
Ni	60						
> Ge	74		92.7				
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175		99.9				
Tl	205						
U	238						

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

Sample ID: 1202056914

Report Date/Time: Tuesday, April 13, 2010 20:02:11

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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 20:09:39

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 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	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	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	9CCV 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 % Recov	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\ani 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 % Recov	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 % Recovery	Dilution % Dil	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: 248202001

Sample Date/Time: Tuesday, April 13, 2010 21:11:00

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959125[2]skj

Method File: c:\elandata\Method\VanI soil.mth

Dataset File: C:\elandata\Dataset\100413\248202001.212

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	2.023	ug/L	3.872	365	0.001
[> Sc	45		ug/L		491368	491368.246
[ Ni	60	16.150	ug/L	0.696	16386	0.033
[> Ge	74		ug/L		237890	237889.710
[ As	75	5.340	ug/L	8.789	3482	0.015
[ Se	77		ug/L		1945	-0.007
[ Se	82	2.980	ug/L	16.938	188	0.001
[ Kr	83		ug/L		146	0.000
[> Lu	175		ug/L		376743	376743.494
[ Tl	205	0.123	ug/L	7.752	5039	0.005
[ U	238	6.744	ug/L	1.823	270570	0.716

### 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		110.3				
[ Ni	60						
[> Ge	74		93.6				
[ As	75						
[ Se	77						
[ Se	82						
[ Kr	83						
[> Lu	175		107.9				
[ Tl	205						
[ U	238						

### QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

### QC Action

Sample ID: 248202001

Report Date/Time: Tuesday, April 13, 2010 21:11:42

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QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 248202002

Sample Date/Time: Tuesday, April 13, 2010 21:15:05

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959125|2|skj

Method File: c:\elandata\Method\ani soil.mth

Dataset File: C:\elandata\Dataset\100413\248202002.213

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.339	ug/L	9.658	417	0.001
Sc	45		ug/L		488706	488706.323
Ni	60	168.074	ug/L	1.878	168250	0.344
Ge	74		ug/L		239073	239072.502
As	75	9.576	ug/L	6.956	6282	0.026
Se	77		ug/L		2342	-0.005
Se	82	0.571	ug/L	22.193	34	0.000
Kr	83		ug/L		187	0.000
Lu	175		ug/L		355944	355944.064
Tl	205	0.258	ug/L	4.796	6774	0.011
U	238	8.630	ug/L	2.114	326859	0.917

### 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		109.7				
Ni	60						
Ge	74		94.1				
As	75						
Se	77						
Se	82						
Kr	83						
Lu	175		102.0				
Tl	205						
U	238						

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

Sample ID: 248202002

Report Date/Time: Tuesday, April 13, 2010 21:15:47

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 21:19:11

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\VanI soli.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 % Recov	Dilution % Di	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 % Recov	Dilution % Di	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: Blank

Sample Date/Time: Wednesday, April 14, 2010 02:41:06

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\Blank.292

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		324498	
[	U	238		ug/L		820	

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Wednesday, April 14, 2010 02:42:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100413\Standard 1.293

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		318618	318617.515
[	U	238	10.000	ug/L	1.232	375118	1.175

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175					
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Wednesday, April 14, 2010 02:44:22

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\Standard 2.294

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		322299	322299.023
[	U	238	99.924	ug/L	2.116	3515839	10.906

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175					
[	U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Wednesday, April 14, 2010 02:46:00

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 1.295

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		315984	315984.344
[	U	238	51.724	ug/L	1.125	1784502	5.645

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Lu	175			97.4			
[	U	238	103.448					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Wednesday, April 14, 2010 02:47:40

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 2.296

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		322910	322909.568
[	U	238	0.010	ug/L	6.862	1173	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175			99.5		
[	U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Wednesday, April 14, 2010 02:49:20

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 3.297

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		314336	314336.030
[	U	238	0.200	ug/L	0.842	7657	0.022

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel.	% Difference
[>	Lu	175			96.9			
[	U	238	100.018					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Wednesday, April 14, 2010 02:50:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 4.298

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		297809	297808.935
[	U	238	-0.015	ug/L	3.065	259	-0.002

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			91.8			
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Wednesday, April 14, 2010 02:52:38

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 5.299

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		295191	295190.752
[	U	238	21.937	ug/L	2.226	707396	2.394

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Lu	175			91.0			
[	U	238	109.686					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Wednesday, April 14, 2010 02:54:18

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 6.300

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		327468	327468.139
[	U	238	49.786	ug/L	1.814	1779961	5.434

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			100.9			
[	U	238	99.572					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Wednesday, April 14, 2010 02:55:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 7.301

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		322788	322788.284
[ U	238	0.016	ug/L	4.401	1386	0.002

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175		99.5			
[ U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Wednesday, April 14, 2010 03:10:48

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.310

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		326663	326663.494
[	U	238	49.826	ug/L	0.686	1777193	5.438

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			100.7			
[	U	238	99.651					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Wednesday, April 14, 2010 03:12:29

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.311

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		325222	325221.634
[	U	238	0.008	ug/L	3.649	1104	0.001

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Lu	175			100.2			
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Wednesday, April 14, 2010 03:24:03

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.318

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		327812	327811.877
[	U	238	49.070	ug/L	0.939	1756490	5.355

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate	Rel. % Difference
[>	Lu	175			101.0			
[	U	238	98.140					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Wednesday, April 14, 2010 03:25:44

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.319

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		322851	322851.413
[	U	238	0.011	ug/L	5.248	1200	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			99.5		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 248202001

Sample Date/Time: Wednesday, April 14, 2010 03:35:40

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959125|2|skj

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\248202001.325

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175	ug/L		372051	372050.930
[	U	238	6.397 ug/L	0.770	260697	0.698

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Lu	175		114.7			
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: 248202002

Sample Date/Time: Wednesday, April 14, 2010 03:37:19

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959125[2]skj

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\248202002.326

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		344100	344100.389
[	U	238	8.237	ug/L	1.142	310208	0.899

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175			106.0		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Wednesday, April 14, 2010 03:38:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.327

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		325530	325530.211
[	U	238	49.725	ug/L	2.170	1767309	5.427

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175			100.3		
[	U	238	99.451				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Wednesday, April 14, 2010 03:40:39

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.328

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		330316	330316.418
[ U	238	0.009	ug/L	21.861	1177	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175		101.8			
[ U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS #5 Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Friday, April 16, 2010 14:12:40

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.1080

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	4096.4	4096.388	103.077	2.5
Mg	24.0	57078.2	57078.225	954.120	1.7
Co	58.9	106943.5	106943.490	1811.457	1.7
Rh	102.9	205757.0	205756.988	958.409	0.5
In	114.9	287057.5	287057.547	3658.722	1.3
Pb	208.0	304945.8	304945.848	5761.142	1.9
[> Ba	137.9	275284.2	275284.201	4136.739	1.5
[ Ba++	69.0	4779.6	0.017	0.000	1.4
[> Ce	139.9	340439.5	340439.475	3719.924	1.1
[ CeO	155.9	8053.2	0.024	0.001	3.3
Bkgd	220.0	26.5	26.500	4.077	15.4

### Current Optimization File Data

Current Value	Description
0.88	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	9.0	3118.7
Co	59	21	9.8	70529.0
In	115	21	10.8	192576.0

## ICPMS #5 Instrument Tuning Report

File Name: 100416.tun  
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	601	2072	0.577
Be	9.0	9.1	2059	2088	0.597
Mg	24.0	24.0	5693	2085	0.586
Mg	25.0	25.0	5945	2085	0.585
Mg	26.0	25.9	6170	2100	0.578
Co	58.9	58.9	14187	2125	0.570
Rh	102.9	102.9	24871	2180	0.571
In	114.9	114.9	27799	2200	0.579
Ce	139.9	139.9	33869	2220	0.589
Pb	206.0	206.0	49948	2305	0.598
Pb	207.0	207.0	50171	2240	0.653
Pb	208.0	207.9	50439	2280	0.700
U	238.1	238.0	57725	2295	0.708

## ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Saturday, April 17, 2010 02:41:15

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100416\Blank.197

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		480241	
[ U	238		ug/L		859	

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Simple Linear	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175					
[ U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Saturday, April 17, 2010 02:42:55

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100416\Standard 1.198

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		477606	477605.958
[	U	238	10.000	ug/L	1.510	433712	0.906

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
[	U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Saturday, April 17, 2010 02:44:32

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100416\Standard 2.199

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		473304	473304.247
[	U	238	99.894	ug/L	0.766	3873959	8.183

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175						
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Saturday, April 17, 2010 02:46:09

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 1.200

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		473128	473127.858
[	U	238	51.433	ug/L	1.146	1994127	4.213

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			98.5			
[	U	238	102.866					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Saturday, April 17, 2010 02:47:49

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 2.201

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		471739	471738.675
[	U	238	0.020	ug/L	9.497	1632	0.002

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		98.2			
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Saturday, April 17, 2010 02:49:30

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 3.202

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		475542	475542.457
[	U	238	0.210	ug/L	1.195	9012	0.017

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			99.0		
[	U	238	104.755				

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Saturday, April 17, 2010 02:51:09

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 4.203

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		444530	444529.905
[ U	238	-0.014	ug/L	1.988	282	-0.001

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175		92.6			
[ U	238					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Saturday, April 17, 2010 02:52:48

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 5.204

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		447699	447698.864
[	U	238	22.727	ug/L	0.492	834286	1.862

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175			93.2		
[	U	238	113.637				

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Saturday, April 17, 2010 02:54:27

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 6.205

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		463655	463654.534
[	U	238	52.472	ug/L	1.110	1993708	4.298

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			96.5		
[	U	238	104.945				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, April 17, 2010 02:56:08

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 7.206

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		487589	487589.426
[ U	238	0.016	ug/L	10.466	1513	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Duplicate Rel. % Difference
[> Lu	175		101.5			
[ U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Saturday, April 17, 2010 03:09:32

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 8.214

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		450881	450880.531
[ U	238	53.499	ug/L	0.529	1976776	4.383

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175			93.9		
[ U	238	106.997				

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Saturday, April 17, 2010 03:11:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 9.215

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		464346	464346.092
[	U	238	0.022	ug/L	4.837	1661	0.002

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175			96.7		
[	U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Saturday, April 17, 2010 03:28:04

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 8.225

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		441343	441343.222
[	U	238	53.410	ug/L	0.248	1931768	4.375

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate	Rel. % Difference
[>	Lu	175			91.9			
[	U	238	106.820					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Saturday, April 17, 2010 03:29:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 9.226

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		476715	476715.227
[	U	238	0.020	ug/L	5.801	1646	0.002

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		99.3			
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056912

Sample Date/Time: Saturday, April 17, 2010 03:31:25

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 959125[2]sk

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100416\1202056912.227

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		445066	445066.284
[	U	238	0.000	ug/L	256.049	805	0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		92.7			
[	U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056917

Sample Date/Time: Saturday, April 17, 2010 03:33:02

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 959125[40]skj

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100416\1202056917.228

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		438388	438388.306
[	U	238	0.580	ug/L	2.781	21612	0.048

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Lu	175			91.3			
[	U	238						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056913

Sample Date/Time: Saturday, April 17, 2010 03:36:20

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 959125|2|skj

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100416\1202056913.230

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		549342	549341.575
[	U	238	3.038	ug/L	2.332	137700	0.249

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			114.4		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056915

Sample Date/Time: Saturday, April 17, 2010 03:37:59

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 959125|2|skj

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100416\1202056915.231

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		556151	556151.191
[ U	238	26.279	ug/L	1.243	1198145	2.153

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[> Lu	175		115.8			
[ U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056916

Sample Date/Time: Saturday, April 17, 2010 03:39:38

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 959125|2|skj

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100416\1202056916.232

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		539123	539122.603
[	U	238	27.757	ug/L	0.956	1226876	2.274

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175			112.3		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: 1202056914

Sample Date/Time: Saturday, April 17, 2010 03:41:15

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 959125|10|skj

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100416\1202056914.233

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		464593	464593.029
[ U	238	0.667	ug/L	1.275	26216	0.055

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175			96.7		
[ U	238					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Saturday, April 17, 2010 03:42:54

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\w only.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 6.234

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		463677	463676.611
[	U	238	52.146	ug/L	1.274	1981527	4.272

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			96.6			
[	U	238	104.292					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, April 17, 2010 03:44:35

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 7.235

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		470432	470432.366
[	U	238	0.019	ug/L	3.775	1569	0.002

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175			98.0		
[	U	238					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Saturday, April 17, 2010 03:52:21

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\Blank.237

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9		ug/L		24	
>	Sc	45		ug/L		801047	
[	Ni	60		ug/L		153	

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Simple Linear	
Ni	60	Simple Linear	

### QC Calculated Values

	Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike	% Recov	Dilution	% Dil	Duplicate	Rel. % Difference
[	Be	9										
>	Sc	45										
[	Ni	60										

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Saturday, April 17, 2010 03:54:33

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\Standard 1.238

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	10.000	ug/L	2.458	3108	0.004
Sc	45		ug/L		822594	822593.939
Ni	60	10.000	ug/L	1.449	11101	0.013

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. % Difference
Be	9					
Sc	45					
Ni	60					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Saturday, April 17, 2010 03:56:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\Standard 2.239

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	100.062	ug/L	1.003	30019	0.040
>	Sc	45		ug/L		750454	750453.569
[	Ni	60	100.084	ug/L	0.918	109243	0.145

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45					
[	Ni	60					

### QC Out Of Limits

Measurement Type    Analyte    Mass    Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Saturday, April 17, 2010 03:58:54

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 1.240

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	47.059	ug/L	1.381	15650	0.019
>	Sc	45		ug/L		831301	831301.016
[	Ni	60	47.514	ug/L	0.489	57528	0.069

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9	94.117					
>	Sc	45		103.8				
[	Ni	60	95.028					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Saturday, April 17, 2010 04:01:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 2.241

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.017	ug/L	94.647	30	0.000
>	Sc	45		ug/L		794564	794563.746
[	Ni	60	0.008	ug/L	228.092	161	0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9						
>	Sc	45		99.2				
[	Ni	60						

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Saturday, April 17, 2010 04:03:20

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 3.242

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.584	ug/L	12.613	206	0.000
>	Sc	45		ug/L		782834	782834.109
[	Ni	60	2.264	ug/L	0.794	2724	0.003

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9	116.861					
>	Sc	45		97.7				
[	Ni	60	113.220					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Saturday, April 17, 2010 04:05:31

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 4.243

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.098	ug/L	5.646	55	0.000
>	Sc	45		ug/L		796900	796900.227
[	Ni	60	2.835	ug/L	0.946	3434	0.004

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45		99.5			
[	Ni	60	85.657				

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Saturday, April 17, 2010 04:07:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 5.244

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	18.465	ug/L	2.468	5701	0.007
>	Sc	45		ug/L		769973	769972.754
[	Ni	60	21.867	ug/L	1.113	24600	0.032

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9	92.324					
>	Sc	45		96.1				
[	Ni	60	93.810					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Saturday, April 17, 2010 04:09:56

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 6.245

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	47.622	ug/L	1.561	14633	0.019
Sc	45		ug/L		768102	768102.083
Ni	60	50.272	ug/L	1.752	56225	0.073

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
Be	9	95.245					
Sc	45		95.9				
Ni	60	100.545					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, April 17, 2010 04:12:10

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 7.246

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.010	ug/L	160.149	28	0.000
>	Sc	45		ug/L		826056	826056.143
[	Ni	60	-0.006	ug/L	158.563	150	-0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9						
>	Sc	45		103.1				
[	Ni	60						

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Saturday, April 17, 2010 04:30:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 8.254

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	46.124	ug/L	1.808	15058	0.018
>	Sc	45		ug/L		816062	816061.629
[	Ni	60	47.733	ug/L	0.833	56733	0.069

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[	Be	9	92.248					
>	Sc	45		101.9				
[	Ni	60	95.466					

### QC Out Of Limits

Measurement Type    Analyte    Mass    Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Saturday, April 17, 2010 04:32:21

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 9.255

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.026	ug/L	22.798	31	0.000
Sc	45		ug/L		766224	766223.521
Ni	60	0.005	ug/L	174.317	151	0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		95.7			
Ni	60					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Saturday, April 17, 2010 04:50:16

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 8.263

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	47.490	ug/L	0.738	14703	0.019
>	Sc	45		ug/L		773831	773831.484
[	Ni	60	49.617	ug/L	1.874	55909	0.072

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9	94.980				
>	Sc	45		96.6			
[	Ni	60	99.235				

### QC Out Of Limits

Measurement Type    Analyte    Mass    Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Saturday, April 17, 2010 04:52:30

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 9.264

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.021	ug/L	51.357	29	0.000
>	Sc	45		ug/L		747008	747008.141
[	Ni	60	0.001	ug/L	476.102	144	0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9						
>	Sc	45		93.3				
[	Ni	60						

### QC Out Of Limits

Measurement Type: Analyte      Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056912

Sample Date/Time: Saturday, April 17, 2010 04:54:43

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 959125[2]skj

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\1202056912.265

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	-0.003	ug/L	277.595	21	-0.000
>	Sc	45		ug/L		732719	732718.544
[	Ni	60	-0.008	ug/L	117.314	131	-0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9						
>	Sc	45		91.5				
[	Ni	60						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056917

Sample Date/Time: Saturday, April 17, 2010 04:56:54

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 959125|40|skj

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\1202056917.266

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	19.976	ug/L	2.031	5894	0.008
>	Sc	45		ug/L		735918	735917.502
[	Ni	60	36.759	ug/L	0.337	39432	0.053

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9						
>	Sc	45		91.9				
[	Ni	60						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056913

Sample Date/Time: Saturday, April 17, 2010 05:01:18

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 959125[2]skj

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\1202056913.268

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	5.569	ug/L	3.161	1845	0.002
>	Sc	45		ug/L		818473	818473.317
[	Ni	60	37.479	ug/L	0.355	44713	0.054

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45		102.2			
[	Ni	60					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056915

Sample Date/Time: Saturday, April 17, 2010 05:03:30

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 959125|2|skj

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\1202056915.269

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	27.081	ug/L	1.053	8359	0.011
>	Sc	45		ug/L		770527	770527.326
[	Ni	60	50.183	ug/L	0.787	56312	0.073

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45		96.2			
[	Ni	60					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056916

Sample Date/Time: Saturday, April 17, 2010 05:05:42

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 959125|2|skj

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\1202056916.270

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	26.836	ug/L	0.444	8294	0.011
>	Sc	45		ug/L		771575	771575.133
[	Ni	60	45.788	ug/L	0.985	51456	0.067

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45		96.3			
[	Ni	60					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056914

Sample Date/Time: Saturday, April 17, 2010 05:07:53

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 959125[10]sk]

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\1202056914.271

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	1.030 ug/L	6.575	318	0.000
>	Sc	45	ug/L		720568	720568.394
[	Ni	60	5.842 ug/L	1.170	6252	0.008

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9				
>	Sc	45		90.0		
[	Ni	60				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Saturday, April 17, 2010 05:10:04

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 8.272

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	51.540	ug/L	1.171	14540	0.021
>	Sc	45		ug/L		705222	705222.456
[	Ni	60	52.682	ug/L	0.832	54097	0.077

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9	103.080				
>	Sc	45		88.0			
[	Ni	60	105.365				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Saturday, April 17, 2010 05:12:18

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 9.273

### Concentration Results

	Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Be	9	0.030		ug/L	64.202	33	0.000
	Sc	45			ug/L		773134	773133.948
	Ni	60	0.019		ug/L	90.794	169	0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
Sc	45		96.5				
Ni	60						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Saturday, April 17, 2010 05:27:41

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 8.280

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	49.439	ug/L	1.648	14351	0.020
>	Sc	45		ug/L		725614	725613.822
[	Ni	60	48.284	ug/L	3.040	51021	0.070

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9	98.878				
>	Sc	45		90.6			
[	Ni	60	96.568				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Saturday, April 17, 2010 05:29:55

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 9.281

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.006	ug/L	95.279	24	0.000
>	Sc	45		ug/L		728796	728795.505
L	Ni	60	-0.001	ug/L	2956.153	138	-0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9						
>	Sc	45		91.0				
L	Ni	60						

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 248202001

Sample Date/Time: Saturday, April 17, 2010 05:45:19

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959125[2]skj

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\248202001.288

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.186	ug/L	5.194	617	0.001
Sc	45		ug/L		682883	682883.367
Ni	60	18.988	ug/L	0.941	18962	0.028

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		85.2			
Ni	60					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 248202002

Sample Date/Time: Saturday, April 17, 2010 05:47:31

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959125[2]skj

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\248202002.289

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	2.487	ug/L	1.889	728	0.001
>	Sc	45		ug/L		710837	710836.629
[	Ni	60	193.992	ug/L	1.048	200408	0.282

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45		88.7			
[	Ni	60					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Saturday, April 17, 2010 05:49:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 6.290

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	48.068	ug/L	0.732	14640	0.019
>	Sc	45		ug/L		761194	761194.440
[	Ni	60	49.009	ug/L	2.537	54321	0.071

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[	Be	9	96.136					
>	Sc	45		95.0				
[	Ni	60	98.018					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, April 17, 2010 05:51:57

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100416\QC Std 7.291

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.026	ug/L	119.094	27	0.000
>	Sc	45		ug/L		655456	655456.016
[	Ni	60	0.018	ug/L	46.273	142	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45		81.8			
[	Ni	60					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS #5 Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Monday, April 19, 2010 12:17:39

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.1107

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		3531.8		3531.837		56.806		1.6
	Mg	24.0		36822.0		36822.000		471.598		1.3
	Co	58.9		75018.3		75018.278		913.434		1.2
	Rh	102.9		145846.6		145846.566		1408.008		1.0
	In	114.9		198705.4		198705.430		1203.223		0.6
	Pb	208.0		210614.1		210614.082		1931.273		0.9
[>	Ba	137.9		185593.3		185593.294		2326.983		1.3
[	Ba++	69.0		2814.7		0.015		0.000		1.2
[>	Ce	139.9		229364.1		229364.116		1945.335		0.8
[	CeO	155.9		4679.2		0.020		0.000		1.6
	Bkgd	220.0		27.8		27.800		2.775		10.0

### Current Optimization File Data

Current Value	Description
0.92	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	9.3	3099.3
Co	59	21	9.8	61346.8
In	115	21	10.8	171164.3



## ICPMS #5 Instrument Tuning Report

File Name: 100419.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	0.552
Be	9.0	9.0	2046	2088	0.571
Mg	24.0	23.9	5687	2085	0.583
Mg	25.0	24.9	5927	2085	0.573
Mg	26.0	26.0	6177	2100	0.562
Co	58.9	59.0	14193	2125	0.563
Rh	102.9	102.9	24886	2180	0.569
In	114.9	114.9	27802	2200	0.574
Ce	139.9	139.9	33872	2220	0.584
Pb	206.0	206.0	49948	2305	0.575
Pb	207.0	207.0	50171	2240	0.648
Pb	208.0	208.0	50439	2280	0.690
U	238.1	238.1	57730	2295	0.686

## ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Monday, April 19, 2010 17:48:47

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100419\Blank.100

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9		ug/L		22	
Sc	45		ug/L		643670	
Ni	60		ug/L		87	

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Simple Linear	
Ni	60	Simple Linear	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45					
Ni	60					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Monday, April 19, 2010 17:50:30

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100419\Standard 1.101

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	10.000	ug/L	0.210	3148	0.005
Sc	45		ug/L		654555	654555.349
Ni	60	10.000	ug/L	2.487	12121	0.018

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45					
Ni	60					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Monday, April 19, 2010 17:52:10

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100419\Standard 2.102

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	99.990	ug/L	1.321	30281	0.047
Sc	45		ug/L		640109	640109.437
Ni	60	99.974	ug/L	1.643	114797	0.179

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9					
Sc	45					
Ni	60					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Monday, April 19, 2010 17:53:50

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100419\QC Std 1.103

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	50.298	ug/L	0.118	15392	0.024
>	Sc	45		ug/L		646283	646283.115
[	Ni	60	51.761	ug/L	0.357	60065	0.093

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9	100.595				
>	Sc	45		100.4			
[	Ni	60	103.523				

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Monday, April 19, 2010 17:55:33

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100419\QC Std 2.104

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.015	ug/L	98.900	26	0.000
Sc	45		ug/L		623575	623574.690
Ni	60	0.010	ug/L	76.629	96	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
Be	9						
Sc	45		96.9				
Ni	60						

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Monday, April 19, 2010 17:57:16

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100419\QC Std 3.105

### Concentration Results

	Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.619		ug/L	11.104	206	0.000
>	Sc	45			ug/L		628653	628653.078
[	Ni	60	2.495		ug/L	3.314	2896	0.004

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9	123.844					
>	Sc	45		97.7				
[	Ni	60	124.727					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Monday, April 19, 2010 17:58:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100419\QC Std 4.106

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.072	ug/L	23.683	42	0.000
>	Sc	45		ug/L		616690	616689.501
[	Ni	60	3.011	ug/L	1.396	3413	0.005

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9						
>	Sc	45		95.8				
[	Ni	60	90.970					

### QC Out Of Limits

Measurement Type    Analyte    Mass    Out of Limits    Message

### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Monday, April 19, 2010 18:00:40

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100419\QC Std 5.107

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	18.025	ug/L	2.619	5644	0.009
>	Sc	45		ug/L		659666	659665.920
[	Ni	60	21.201	ug/L	2.944	25157	0.038

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9	90.127				
>	Sc	45		102.5			
[	Ni	60	90.951				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, April 19, 2010 18:02:23

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100419\QC Std 6.108

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	49.382	ug/L	1.113	15044	0.023
>	Sc	45		ug/L		643316	643315.743
[	Ni	60	51.427	ug/L	0.673	59403	0.092

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9	98.764					
>	Sc	45		99.9				
[	Ni	60	102.853					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, April 19, 2010 18:04:06

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100419\QC Std 7.109

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.017	ug/L	65.294	28	0.000
>	Sc	45		ug/L		644113	644113.138
[	Ni	60	0.016	ug/L	91.781	105	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9					
>	Sc	45		100.1			
[	Ni	60					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 248202002

Sample Date/Time: Monday, April 19, 2010 18:09:15

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959125J4|skj

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100419\248202002.112

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.137	ug/L	3.880	391	0.001
Sc	45		ug/L		683705	683704.677
Ni	60	97.920	ug/L	1.094	120133	0.176

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		106.2			
Ni	60					

### QC Out Of Limits

Measurement Type: Analyte      Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Monday, April 19, 2010 18:10:57

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100419\QC Std 8.113

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	48.897	ug/L	1.900	15034	0.023
>	Sc	45		ug/L		649329	649329.474
[	Ni	60	51.725	ug/L	1.212	60307	0.093

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9	97.794					
>	Sc	45		100.9				
[	Ni	60	103.451					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Monday, April 19, 2010 18:12:41

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be and ni.mth

Dataset File: C:\elandata\Dataset\100419\QC Std 9.114

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.004	ug/L	304.257	24	0.000
>	Sc	45		ug/L		647874	647874.147
[	Ni	60	0.013	ug/L	37.747	102	0.000

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9						
>	Sc	45		100.7				
[	Ni	60						

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS #5 Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Tuesday, April 20, 2010 12:13:09

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.1112

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		2313.0		2312.987		14.187		0.6
Mg	24.0		31900.2		31900.180		303.025		0.9
Co	58.9		67855.0		67854.979		618.654		0.9
Rh	102.9		133570.6		133570.581		1318.743		1.0
In	114.9		189135.9		189135.864		1537.568		0.8
Pb	208.0		201237.1		201237.076		778.547		0.4
[> Ba	137.9		179976.5		179976.475		1603.323		0.9
[ Ba++	69.0		2756.0		0.015		0.000		2.5
[> Ce	139.9		219223.1		219223.131		1727.246		0.8
[ CeO	155.9		4598.3		0.021		0.000		1.1
Bkgd	220.0		28.2		28.200		4.222		15.0

### Current Optimization File Data

Current Value	Description
0.95	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	8.3	2874.6
Co	59	21	9.3	60162.1
In	115	21	10.3	173624.0

## ICPMS #5 Instrument Tuning Report

File Name: 100420.tun  
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	608	2072	0.545
Be	9.0	9.1	2061	2088	0.565
Mg	24.0	24.0	5697	2085	0.569
Mg	25.0	25.0	5925	2085	0.541
Mg	26.0	26.0	6187	2100	0.550
Co	58.9	58.9	14191	2125	0.541
Rh	102.9	102.9	24879	2180	0.553
In	114.9	114.9	27795	2200	0.545
Ce	139.9	139.9	33877	2220	0.559
Pb	206.0	206.0	49948	2305	0.557
Pb	207.0	207.0	50183	2240	0.641
Pb	208.0	208.0	50451	2280	0.666
U	238.1	238.1	57736	2295	0.660



## ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Tuesday, April 20, 2010 14:27:22

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\1 only.mth

Dataset File: C:\elandata\Dataset\100420\Blank.038

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		367957	
[ TI	205		ug/L		3080	

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
TI	205	Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[> Lu	175					
[ TI	205					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Tuesday, April 20, 2010 14:30:31

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\11 only.mth

Dataset File: C:\elandata\Dataset\100420\Standard 1.039

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		370296	370295.653
[	TI	205	10.000	ug/L	0.607	174718	0.463

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
TI	205	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Duplicate Rel. % Difference
[>	Lu	175					
[	TI	205					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Tuesday, April 20, 2010 14:33:38

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\il only.mth

Dataset File: C:\elandata\Dataset\100420\Standard 2.040

### Concentration Results

	Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175			ug/L		375603	375602.876
[	TI	205	99.927		ug/L	0.536	1624377	4.316

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
TI	205	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175					
[	TI	205					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Tuesday, April 20, 2010 14:36:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\I only.mth

Dataset File: C:\elandata\Dataset\100420\QC Std 1.041

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ >	Lu	175		ug/L		379437	379436.863
[	Tl	205	50.865	ug/L	0.889	836805	2.197

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[ >	Lu	175			103.1		
[	Tl	205	101.731				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Tuesday, April 20, 2010 14:39:56

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\1 only.mth

Dataset File: C:\elandata\Dataset\100420\QC Std 2.042

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		378764	378764.307
[	TI	205	0.016	ug/L	25.943	3440	0.001

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
TI	205Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175			102.9		
[	TI	205					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Tuesday, April 20, 2010 14:43:06

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\l only.mth

Dataset File: C:\elandata\Dataset\100420\QC Std 3.043

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		377847	377846.881
[	Tl	205	1.157	ug/L	1.584	22051	0.050

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			102.7			
[	Tl	205	115.736					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Tuesday, April 20, 2010 14:46:14

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\1 only.mth

Dataset File: C:\elandata\Dataset\100420\QC Std 4.044

### Concentration Results

	Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175			ug/L		365954	365953.677
[	Tl	205	-0.065		ug/L	5.135	2037	-0.003

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			99.5			
[	Tl	205						

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Tuesday, April 20, 2010 14:49:23

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\l only.mth

Dataset File: C:\elandata\Dataset\100420\QC Std 5.045

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		370057	370057.157
[ TI	205	18.680	ug/L	1.128	301653	0.807

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
TI	205	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175			100.6		
[ TI	205	93.398				

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Tuesday, April 20, 2010 14:52:32

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\I only.mth

Dataset File: C:\elandata\Dataset\100420\QC Std 6.046

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		385395	385394.640
[	Tl	205	49.541	ug/L	1.200	827850	2.140

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			104.7			
[	Tl	205	99.081					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Tuesday, April 20, 2010 14:55:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\l only.mth

Dataset File: C:\elandata\Dataset\100420\QC Std 7.047

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		375750	375750.337
[ TI	205	-0.019	ug/L	9.475	2836	-0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
TI	205	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175		102.1			
[ TI	205					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056912

Sample Date/Time: Tuesday, April 20, 2010 14:58:53

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 95912512[skj]

Method File: c:\elandata\Method\I only.mth

Dataset File: C:\elandata\Dataset\100420\1202056912.048

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		436060	436060.423
[ TI	205	-0.066	ug/L	6.400	2400	-0.003

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
TI	205	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[> Lu	175			118.5			
[ TI	205						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056917

Sample Date/Time: Tuesday, April 20, 2010 15:02:00

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 959125[40]skj

Method File: c:\elandata\Method\Tl only.mth

Dataset File: C:\elandata\Dataset\100420\1202056917.049

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		383052	383052.197
[	Tl	205	29.631	ug/L	2.213	493445	1.280

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Lu	175			104.1			
[	Tl	205						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, April 20, 2010 15:05:09

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\I only.mth

Dataset File: C:\elandata\Dataset\100420\QC Std 8.050

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		374797	374797.133
[	Tl	205	50.897	ug/L	0.670	827111	2.198

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			101.9			
[	Tl	205	101.794					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 20, 2010 15:08:19

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\TI only.mth

Dataset File: C:\elandata\Dataset\100420\QC Std 9.051

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		378258	378258.442
[	TI	205	0.016	ug/L	19.638	3421	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
TI	205	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			102.8			
[	TI	205						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056913

Sample Date/Time: Tuesday, April 20, 2010 15:17:56

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 959125[10]skj

Method File: c:\elandata\Method\I only.mth

Dataset File: C:\elandata\Dataset\100420\1202056913.054

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		403448	403447.898
[ TI	205	0.018	ug/L	31.087	3697	0.001

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
TI	205Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175			109.6		
[ TI	205					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056915

Sample Date/Time: Tuesday, April 20, 2010 15:21:05

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 959125|10|skj

Method File: c:\elandata\Method\1 only.mth

Dataset File: C:\elandata\Dataset\100420\1202056915.055

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		387967	387966.751
[	Tl	205	9.386	ug/L	0.480	160535	0.405

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			105.4			
[	Tl	205						

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: 1202056916

Sample Date/Time: Tuesday, April 20, 2010 15:24:14

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 959125|10|skj

Method File: c:\elandata\Method\l only.mth

Dataset File: C:\elandata\Dataset\100420\1202056916.056

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		394128	394128.108
[	Tl	205	9.049	ug/L	1.331	157355	0.391

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			107.1		
[	Tl	205					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202056914

Sample Date/Time: Tuesday, April 20, 2010 15:27:23

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 959125[50]skj

Method File: c:\elandata\Method\I only.mth

Dataset File: C:\elandata\Dataset\100420\1202056914.057

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		376067	376067.375
[	TI	205	-0.084	ug/L	3.742	1781	-0.004

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
TI	205	Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			102.2		
[	TI	205					

### QC Out Of Limits

Measurement Type    Analyte    Mass    Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Tuesday, April 20, 2010 15:33:39

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\tl only.mth

Dataset File: C:\elandata\Dataset\100420\QC Std 6.059

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		367750	367749.633
[	TI	205	49.932	ug/L	0.461	796244	2.157

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
TI	205Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			99.9			
[	TI	205	99.864					

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Tuesday, April 20, 2010 15:36:50

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Tl only.mth

Dataset File: C:\elandata\Dataset\100420\QC Std 7.060

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		374691	374691.038
[ TI	205	-0.047	ug/L	6.282	2378	-0.002

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
TI	205	Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175		101.8			
[ TI	205					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

=====  
Analysis Begun

Logged In Analyst: Administrator

Technique: AA FIMS-MHS

Spectrometer Model: FIMS-100, S/N B050-9550

Autosampler Model: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\031210S1.SIF

Batch ID:

Results Data Set: 031210S1

Results Library: C:\data-AA\Administrator\Results\Results.mdb

=====  
Method Loaded

Method Name: SOIL

Method Last Saved: 1/4/2010 13:53:20

Method Description: 7471A, ILM04 ANALYST JXL

Sequence No.: 1

Autosampler Location: 1

Sample ID: Calib Blank

Date Collected: 3/12/2010 09:06:46

Analyst:

Data Type: Original

-----  
Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0008	0.0029	0.0008	09:07:37	Yes
2		[0.00]	0.0008	0.0026	0.0008	09:08:07	Yes
Mean:		[0.00]	0.0008				
SD:		0.00	0.0000				
%RSD:		0.00	4.72				

Auto-zero performed.

Sequence No.: 2

Autosampler Location: 2

Sample ID: S0.2

Date Collected: 3/12/2010 09:08:26

Analyst:

Data Type: Original

-----  
Replicate Data: S0.2

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0023	0.0135	0.0031	09:09:16	Yes
2		[0.2]	0.0021	0.0115	0.0029	09:09:46	Yes
Mean:		[0.2]	0.0022				
SD:		0.0	0.0001				
%RSD:		0.0	4.67				

Standard number 1 applied. [0.2]  
Correlation Coef.: 1.000000 Slope: 0.01111 Intercept: 0.00000

Sequence No.: 3

Autosampler Location: 3

Sample ID: S0.5

Date Collected: 3/12/2010 09:10:05

Analyst:

Data Type: Original

-----  
Replicate Data: S0.5

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0061	0.0307	0.0069	09:10:56	Yes
2		[0.5]	0.0061	0.0298	0.0069	09:11:26	Yes
Mean:		[0.5]	0.0061				
SD:		0.0	0.0000				
%RSD:		0.0	0.01				

Standard number 2 applied. [0.5]  
Correlation Coef.: 0.999210 Slope: 0.01223 Intercept: -0.00008

Sequence No.: 4

Autosampler Location: 4

Sample ID: S2.0

Date Collected: 3/12/2010 09:11:45

Analyst:

Data Type: Original

## Replicate Data: S2.0

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[2.0]	[2.0]	0.0262	0.1219	0.0270	09:12:37	Yes
2	[2.0]	[2.0]	0.0260	0.1210	0.0268	09:13:07	Yes
Mean:	[2.0]		0.0261				
SD:		0.0	0.0002				
%RSD:		0.0	0.61				

Standard number 3 applied. [2.0]  
Correlation Coef.: 0.999827 Slope: 0.01317 Intercept: -0.00028

Sequence No.: 5

Autosampler Location: 5

Sample ID: S5.0

Date Collected: 3/12/2010 09:13:27

Analyst:

Data Type: Original

## Replicate Data: S5.0

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[5.0]	[5.0]	0.0658	0.3028	0.0666	09:14:19	Yes
2	[5.0]	[5.0]	0.0654	0.2997	0.0662	09:14:49	Yes
Mean:	[5.0]		0.0656				
SD:		0.0	0.0003				
%RSD:		0.0	0.44				

Standard number 4 applied. [5.0]  
Correlation Coef.: 0.999975 Slope: 0.01317 Intercept: -0.00028

Sequence No.: 6

Autosampler Location: 6

Sample ID: S10.0

Date Collected: 3/12/2010 09:15:09

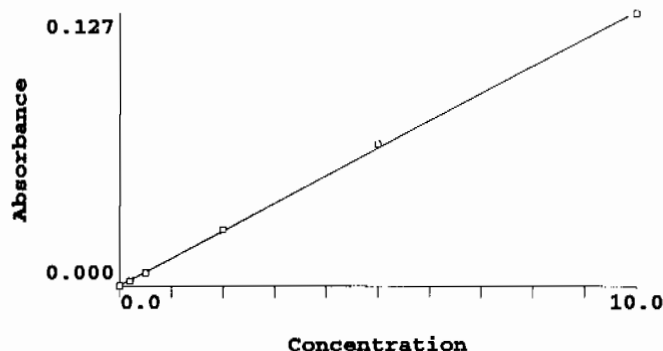
Analyst:

Data Type: Original

## Replicate Data: S10.0

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	[10.0]	[10.0]	0.1271	0.5848	0.1279	09:15:59	Yes
2	[10.0]	[10.0]	0.1262	0.5786	0.1270	09:16:29	Yes
Mean:	[10.0]		0.1266				
SD:		0.0	0.0006				
%RSD:		0.0	0.49				

Standard number 5 applied. [10.0]  
Correlation Coef.: 0.999819 Slope: 0.01273 Intercept: 0.00021



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	-0.017	0.00	4.7
S0.2	0.0022	0.2	0.158	0.00	4.7
S0.5	0.0061	0.5	0.461	0.00	0.0
S2.0	0.0261	2.0	2.035	0.00	0.6

S5.0 0.0656 5.0 5.134 0.00 0.4  
S10.0 0.1266 10.0 9.929 0.00 0.5  
Correlation Coef.: 0.999819 Slope: 0.01273 Intercept: 0.00021

Sequence No.: 7

Autosampler Location: 9

Sample ID: ICV

Date Collected: 3/12/2010 09:16:48

Analyst:

Data Type: Original

## Replicate Data: ICV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.156	5.156	0.0659	0.3041	0.0667	09:17:39	Yes
2	5.121	5.121	0.0654	0.3014	0.0662	09:18:09	Yes
Mean:	5.138	5.138	0.0656				
SD:	0.025	0.025	0.0003				
%RSD:	0.481	0.481	0.48				

QC value within limits for Hg 253.7 Recovery = 102.76%  
All analyte(s) passed QC.

Sequence No.: 8

Autosampler Location: 10

Sample ID: ICB

Date Collected: 3/12/2010 09:18:29

Analyst:

Data Type: Original

## Replicate Data: ICB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.042	-0.042	-0.0003	0.0008	0.0005	09:19:20	Yes
2	-0.033	-0.033	-0.0002	0.0013	0.0006	09:19:50	Yes
Mean:	-0.038	-0.038	-0.0003				
SD:	0.006	0.006	0.0001				
%RSD:	15.79	15.79	28.62				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 9

Autosampler Location: 11

Sample ID: CRDL

Date Collected: 3/12/2010 09:20:10

Analyst:

Data Type: Original

## Replicate Data: CRDL

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.152	0.152	0.0021	0.0124	0.0029	09:21:02	Yes
2	0.157	0.157	0.0022	0.0133	0.0030	09:21:32	Yes
Mean:	0.154	0.154	0.0022				
SD:	0.003	0.003	0.0000				
%RSD:	2.094	2.094	1.89				

QC value within limits for Hg 253.7 Recovery = 77.13%  
All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/12/2010 09:21:52

Analyst:

Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.075	5.075	0.0648	0.2992	0.0656	09:22:42	Yes
2	5.095	5.095	0.0651	0.2994	0.0659	09:23:11	Yes
Mean:	5.085	5.085	0.0650				
SD:	0.015	0.015	0.0002				
%RSD:	0.285	0.285	0.28				

QC value within limits for Hg 253.7 Recovery = 101.70%  
All analyte(s) passed QC.

Sequence No.: 11  
Sample ID: CCB  
Analyst:

Autosampler Location: 8  
Date Collected: 3/12/2010 09:23:31  
Data Type: Original

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.040	-0.040	-0.0003	0.0011	0.0005	09:24:22	Yes
2	-0.038	-0.038	-0.0003	0.0014	0.0005	09:24:51	Yes
Mean:	-0.039	-0.039	-0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	3.041	3.041	5.39				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 12  
Sample ID: 1202068231|964066|1  
Analyst: JXL

Autosampler Location: 12  
Date Collected: 3/12/2010 09:25:11  
Data Type: Original

## Replicate Data: 1202068231|964066|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.056	-0.056	-0.0005	0.0008	0.0003	09:26:02	Yes
2	-0.051	-0.051	-0.0004	0.0011	0.0004	09:26:32	Yes
Mean:	-0.053	-0.053	-0.0005				
SD:	0.004	0.004	0.0000				
%RSD:	7.231	7.231	10.57				

Sequence No.: 13  
Sample ID: 1202068232|964066|10  
Analyst: JXL

Autosampler Location: 13  
Date Collected: 3/12/2010 09:26:52  
Data Type: Original

## Replicate Data: 1202068232|964066|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.852	3.852	0.0493	0.2302	0.0501	09:27:44	Yes
2	3.864	3.864	0.0494	0.2300	0.0502	09:28:14	Yes
Mean:	3.858	3.858	0.0493				
SD:	0.009	0.009	0.0001				
%RSD:	0.225	0.225	0.22				

Sequence No.: 14  
Sample ID: 248393004|964066|1  
Analyst: JXL

Autosampler Location: 14  
Date Collected: 3/12/2010 09:28:35  
Data Type: Original

## Replicate Data: 248393004|964066|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.175	0.175	0.0024	0.0144	0.0032	09:29:25	Yes
2	0.175	0.175	0.0024	0.0142	0.0032	09:29:55	Yes
Mean:	0.175	0.175	0.0024				
SD:	0.001	0.001	0.0000				
%RSD:	0.290	0.290	0.26				

Sequence No.: 15  
Sample ID: 1202068233|964066|1  
Analyst: JXL

Autosampler Location: 15  
Date Collected: 3/12/2010 09:30:14  
Data Type: Original

## Replicate Data: 1202068233|964066|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------



-----  
Replicate Data: 1202056205|958767|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.057	-0.057	-0.0005	0.0007	0.0003	09:39:20	Yes
2	-0.057	-0.057	-0.0005	0.0005	0.0003	09:39:50	Yes
Mean:	-0.057	-0.057	-0.0005				
SD:	0.000	0.000	0.0000				
%RSD:	0.407	0.407	0.58				

Sequence No.: 21

Autosampler Location: 21

Sample ID: 1202056206|958767|10

Date Collected: 3/12/2010 09:40:09

Analyst: JXL

Data Type: Original  
-----

## Replicate Data: 1202056206|958767|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.544	3.544	0.0453	0.2117	0.0461	09:41:00	Yes
2	3.521	3.521	0.0450	0.2095	0.0458	09:41:30	Yes
Mean:	3.532	3.532	0.0452				
SD:	0.016	0.016	0.0002				
%RSD:	0.454	0.454	0.45				

Sequence No.: 22

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/12/2010 09:41:50

Analyst:

Data Type: Original  
-----

## Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.142	5.142	0.0657	0.3043	0.0665	09:42:40	Yes
2	5.114	5.114	0.0653	0.3018	0.0661	09:43:10	Yes
Mean:	5.128	5.128	0.0655				
SD:	0.020	0.020	0.0003				
%RSD:	0.391	0.391	0.39				

QC value within limits for Hg 253.7 Recovery = 102.56%  
All analyte(s) passed QC.

Sequence No.: 23

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/12/2010 09:43:29

Analyst:

Data Type: Original  
-----

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.032	-0.032	-0.0002	0.0021	0.0006	09:44:20	Yes
2	-0.031	-0.031	-0.0002	0.0026	0.0006	09:44:49	Yes
Mean:	-0.031	-0.031	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	2.472	2.472	5.34				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 24

Autosampler Location: 22

Sample ID: 248183001|958767|1

Date Collected: 3/12/2010 09:45:09

Analyst: JXL

Data Type: Original  
-----

## Replicate Data: 248183001|958767|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.067	0.067	0.0011	0.0079	0.0019	09:46:00	Yes
2	0.071	0.071	0.0011	0.0087	0.0019	09:46:30	Yes

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.131	0.131	0.0019	0.0119	0.0027	09:54:26	Yes
2	0.125	0.125	0.0018	0.0115	0.0026	09:54:56	Yes
Mean:	0.128	0.128	0.0018				
SD:	0.004	0.004	0.0000				
%RSD:	3.053	3.053	2.70				

Sequence No.: 30  
Sample ID: 248183003|958767|1  
Analyst: JXL

Autosampler Location: 28  
Date Collected: 3/12/2010 09:55:15  
Data Type: Original

## Replicate Data: 248183003|958767|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.075	0.075	0.0012	0.0087	0.0020	09:56:05	Yes
2	0.075	0.075	0.0012	0.0086	0.0020	09:56:35	Yes
Mean:	0.075	0.075	0.0012				
SD:	0.000	0.000	0.0000				
%RSD:	0.576	0.576	0.47				

Sequence No.: 31  
Sample ID: 248183004|958767|1  
Analyst: JXL

Autosampler Location: 29  
Date Collected: 3/12/2010 09:56:54  
Data Type: Original

## Replicate Data: 248183004|958767|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.058	0.058	0.0010	0.0078	0.0018	09:57:45	Yes
2	0.057	0.057	0.0009	0.0081	0.0017	09:58:15	Yes
Mean:	0.058	0.058	0.0010				
SD:	0.001	0.001	0.0000				
%RSD:	1.283	1.283	0.99				

Sequence No.: 32  
Sample ID: 248183005|958767|1  
Analyst: JXL

Autosampler Location: 30  
Date Collected: 3/12/2010 09:58:34  
Data Type: Original

## Replicate Data: 248183005|958767|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.090	0.090	0.0014	0.0104	0.0022	09:59:25	Yes
2	0.093	0.093	0.0014	0.0112	0.0022	09:59:55	Yes
Mean:	0.092	0.092	0.0014				
SD:	0.003	0.003	0.0000				
%RSD:	2.837	2.837	2.40				

Sequence No.: 33  
Sample ID: 248183006|958767|1  
Analyst: JXL

Autosampler Location: 31  
Date Collected: 3/12/2010 10:00:14  
Data Type: Original

## Replicate Data: 248183006|958767|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.010	0.010	0.0003	0.0055	0.0011	10:01:04	Yes
2	0.011	0.011	0.0004	0.0054	0.0012	10:01:34	Yes
Mean:	0.011	0.011	0.0004				
SD:	0.000	0.000	0.0000				
%RSD:	3.345	3.345	1.30				

Sequence No.: 34  
Sample ID: CCV

Autosampler Location: 7  
Date Collected: 3/12/2010 10:01:53

Analyst:

Data Type: Original

-----  
Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.241	5.241	0.0669	0.3111	0.0677	10:02:44	Yes
2	5.231	5.231	0.0668	0.3109	0.0676	10:03:14	Yes
Mean:	5.236	5.236	0.0669				
SD:	0.007	0.007	0.0001				
%RSD:	0.138	0.138	0.14				

QC value within limits for Hg 253.7 Recovery = 104.71%  
All analyte(s) passed QC.

Sequence No.: 35

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/12/2010 10:03:33

Analyst:

Data Type: Original

-----  
Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.016	-0.016	0.0000	0.0044	0.0008	10:04:24	Yes
2	-0.022	-0.022	-0.0001	0.0035	0.0007	10:04:54	Yes
Mean:	-0.019	-0.019	-0.0000				
SD:	0.004	0.004	0.0001				
%RSD:	21.80	21.80	190.85				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 36

Autosampler Location: 32

Sample ID: 248183007|958767|1

Date Collected: 3/12/2010 10:05:13

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 248183007|958767|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.017	-0.017	-0.0000	0.0036	0.0008	10:06:04	Yes
2	-0.015	-0.015	0.0000	0.0034	0.0008	10:06:34	Yes
Mean:	-0.016	-0.016	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	8.297	8.297	174.81				

Sequence No.: 37

Autosampler Location: 33

Sample ID: 248183008|958767|1

Date Collected: 3/12/2010 10:06:53

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 248183008|958767|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.095	0.095	0.0014	0.0100	0.0022	10:07:44	Yes
2	0.094	0.094	0.0014	0.0102	0.0022	10:08:14	Yes
Mean:	0.095	0.095	0.0014				
SD:	0.001	0.001	0.0000				
%RSD:	1.230	1.230	1.04				

Sequence No.: 38

Autosampler Location: 34

Sample ID: 248183009|958767|1

Date Collected: 3/12/2010 10:08:34

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 248183009|958767|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.106	0.106	0.0016	0.0110	0.0024	10:09:25	Yes

## Replicate Data: 248183014|958767|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.124	0.124	0.0018	0.0120	0.0026	10:17:50	Yes
2	0.125	0.125	0.0018	0.0122	0.0026	10:18:20	Yes
Mean:	0.124	0.124	0.0018				
SD:	0.000	0.000	0.0000				
%RSD:	0.270	0.270	0.24				

Sequence No.: 44

Autosampler Location: 40

Sample ID: 248183015|958767|1

Date Collected: 3/12/2010 10:18:39

Analyst: JXL

Data Type: Original

## Replicate Data: 248183015|958767|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.093	0.093	0.0014	0.0104	0.0022	10:19:31	Yes
2	0.090	0.090	0.0014	0.0100	0.0022	10:20:01	Yes
Mean:	0.091	0.091	0.0014				
SD:	0.002	0.002	0.0000				
%RSD:	2.349	2.349	1.98				

Sequence No.: 45

Autosampler Location: 41

Sample ID: 248183016|958767|1

Date Collected: 3/12/2010 10:20:20

Analyst: JXL

Data Type: Original

## Replicate Data: 248183016|958767|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.027	0.027	0.0006	0.0064	0.0014	10:21:11	Yes
2	0.027	0.027	0.0006	0.0065	0.0014	10:21:41	Yes
Mean:	0.027	0.027	0.0006				
SD:	0.000	0.000	0.0000				
%RSD:	0.581	0.581	0.36				

Sequence No.: 46

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/12/2010 10:22:01

Analyst:

Data Type: Original

## Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.272	5.272	0.0673	0.3120	0.0681	10:22:51	Yes
2	5.257	5.257	0.0671	0.3099	0.0679	10:23:21	Yes
Mean:	5.264	5.264	0.0672				
SD:	0.011	0.011	0.0001				
%RSD:	0.200	0.200	0.20				

QC value within limits for Hg 253.7 Recovery = 105.29%

All analyte(s) passed QC.

Sequence No.: 47

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/12/2010 10:23:40

Analyst:

Data Type: Original

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.019	-0.019	-0.0000	0.0035	0.0008	10:24:31	Yes
2	-0.017	-0.017	-0.0000	0.0039	0.0008	10:25:01	Yes
Mean:	-0.018	-0.018	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	7.513	7.513	128.72				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 48

Sample ID: 248183017|958767|1

Analyst: JXL

Autosampler Location: 42

Date Collected: 3/12/2010 10:25:20

Data Type: Original

Replicate Data: 248183017|958767|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.041	0.041	0.0007	0.0072	0.0015	10:26:11	Yes
2	0.038	0.038	0.0007	0.0068	0.0015	10:26:41	Yes
Mean:	0.039	0.039	0.0007				
SD:	0.002	0.002	0.0000				
%RSD:	5.832	5.832	4.08				

Sequence No.: 49

Sample ID: 248183018|958767|1

Analyst: JXL

Autosampler Location: 43

Date Collected: 3/12/2010 10:27:01

Data Type: Original

Replicate Data: 248183018|958767|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.258	0.258	0.0035	0.0201	0.0043	10:27:52	Yes
2	0.254	0.254	0.0035	0.0196	0.0043	10:28:22	Yes
Mean:	0.256	0.256	0.0035				
SD:	0.002	0.002	0.0000				
%RSD:	0.841	0.841	0.79				

Sequence No.: 50

Sample ID: 248183019|958767|1

Analyst: JXL

Autosampler Location: 44

Date Collected: 3/12/2010 10:28:41

Data Type: Original

Replicate Data: 248183019|958767|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.105	0.105	0.0016	0.0116	0.0024	10:29:32	Yes
2	0.106	0.106	0.0016	0.0115	0.0024	10:30:02	Yes
Mean:	0.106	0.106	0.0016				
SD:	0.001	0.001	0.0000				
%RSD:	0.511	0.511	0.44				

Sequence No.: 51

Sample ID: 248183020|958767|1

Analyst: JXL

Autosampler Location: 45

Date Collected: 3/12/2010 10:30:21

Data Type: Original

Replicate Data: 248183020|958767|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.092	0.092	0.0014	0.0102	0.0022	10:31:12	Yes
2	0.095	0.095	0.0014	0.0103	0.0022	10:31:42	Yes
Mean:	0.094	0.094	0.0014				
SD:	0.002	0.002	0.0000				
%RSD:	2.150	2.150	1.82				

Sequence No.: 52

Sample ID: 1202056211|958770|1

Analyst: JXL

Autosampler Location: 46

Date Collected: 3/12/2010 10:32:01

Data Type: Original

Replicate Data: 1202056211|958770|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored

1	-0.055	-0.055	-0.0005	0.0013	0.0003	10:32:52	Yes
2	-0.054	-0.054	-0.0005	0.0014	0.0003	10:33:22	Yes
Mean:	-0.054	-0.054	-0.0005				
SD:	0.000	0.000	0.0000				
%RSD:	0.580	0.580	0.84				

Sequence No.: 53

Sample ID: 1202056212|958770|10

Analyst: JXL

Autosampler Location: 47

Date Collected: 3/12/2010 10:33:42

Data Type: Original

Replicate Data: 1202056212|958770|10

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.932	3.932	0.0503	0.2338	0.0511	10:34:34	Yes
2	3.927	3.927	0.0502	0.2318	0.0510	10:35:04	Yes
Mean:	3.930	3.930	0.0502				
SD:	0.004	0.004	0.0000				
%RSD:	0.094	0.094	0.09				

Sequence No.: 54

Sample ID: 248189001|958770|1

Analyst: JXL

Autosampler Location: 48

Date Collected: 3/12/2010 10:35:24

Data Type: Original

Replicate Data: 248189001|958770|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.111	0.111	0.0016	0.0110	0.0024	10:36:16	Yes
2	0.111	0.111	0.0016	0.0110	0.0024	10:36:46	Yes
Mean:	0.111	0.111	0.0016				
SD:	0.000	0.000	0.0000				
%RSD:	0.127	0.127	0.11				

Sequence No.: 55

Sample ID: 1202056213|958770|1

Analyst: JXL

Autosampler Location: 49

Date Collected: 3/12/2010 10:37:06

Data Type: Original

Replicate Data: 1202056213|958770|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.150	0.150	0.0021	0.0133	0.0029	10:37:58	Yes
2	0.151	0.151	0.0021	0.0135	0.0029	10:38:28	Yes
Mean:	0.151	0.151	0.0021				
SD:	0.001	0.001	0.0000				
%RSD:	0.471	0.471	0.42				

Sequence No.: 56

Sample ID: 1202056214|958770|1

Analyst: JXL

Autosampler Location: 50

Date Collected: 3/12/2010 10:38:48

Data Type: Original

Replicate Data: 1202056214|958770|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.197	2.197	0.0282	0.1341	0.0290	10:39:39	Yes
2	2.206	2.206	0.0283	0.1340	0.0291	10:40:09	Yes
Mean:	2.201	2.201	0.0282				
SD:	0.006	0.006	0.0001				
%RSD:	0.276	0.276	0.27				

Sequence No.: 57

Sample ID: 1202056216|958770|1

Analyst: JXL

Autosampler Location: 51

Date Collected: 3/12/2010 10:40:28

Data Type: Original

-----  
Replicate Data: 1202056216|958770|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.703	1.703	0.0219	0.1094	0.0227	10:41:19	Yes
2	1.680	1.680	0.0216	0.1076	0.0224	10:41:49	Yes
Mean:	1.692	1.692	0.0218				
SD:	0.016	0.016	0.0002				
%RSD:	0.961	0.961	0.95				

Sequence No.: 58  
Sample ID: CCV  
Analyst:Autosampler Location: 7  
Date Collected: 3/12/2010 10:42:09  
Data Type: Original-----  
Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.850	4.850	0.0620	0.2887	0.0628	10:42:59	Yes
2	4.873	4.873	0.0623	0.2887	0.0631	10:43:29	Yes
Mean:	4.861	4.861	0.0621				
SD:	0.016	0.016	0.0002				
%RSD:	0.328	0.328	0.33				

QC value within limits for Hg 253.7 Recovery = 97.23%  
All analyte(s) passed QC.Sequence No.: 59  
Sample ID: CCB  
Analyst:Autosampler Location: 8  
Date Collected: 3/12/2010 10:43:48  
Data Type: Original-----  
Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.031	-0.031	-0.0002	0.0030	0.0006	10:44:39	Yes
2	-0.036	-0.036	-0.0002	0.0026	0.0006	10:45:09	Yes
Mean:	-0.034	-0.034	-0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	9.940	9.940	19.99				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.Sequence No.: 60  
Sample ID: 1202056215|958770|5  
Analyst: JXLAutosampler Location: 52  
Date Collected: 3/12/2010 10:45:28  
Data Type: Original-----  
Replicate Data: 1202056215|958770|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.002	0.002	0.0002	0.0050	0.0010	10:46:19	Yes
2	0.000	0.000	0.0002	0.0047	0.0010	10:46:49	Yes
Mean:	0.001	0.001	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	87.86	87.86	4.91				

Sequence No.: 61  
Sample ID: 248189002|958770|1  
Analyst: JXLAutosampler Location: 53  
Date Collected: 3/12/2010 10:47:08  
Data Type: Original-----  
Replicate Data: 248189002|958770|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.108	0.108	0.0016	0.0115	0.0024	10:48:00	Yes
2	0.105	0.105	0.0016	0.0111	0.0023	10:48:30	Yes
Mean:	0.106	0.106	0.0016				

#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.697	1.697	0.0218	0.1047	0.0226	10:56:24	Yes
2	1.690	1.690	0.0217	0.1037	0.0225	10:56:54	Yes
Mean:	1.694	1.694	0.0218				
SD:	0.005	0.005	0.0001				
%RSD:	0.325	0.325	0.32				

Sequence No.: 67

Autosampler Location: 59

Sample ID: 248198006|958770|1

Date Collected: 3/12/2010 10:57:14

Analyst: JXL

Data Type: Original

Replicate Data: 248198006|958770|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.303	0.303	0.0041	0.0222	0.0049	10:58:05	Yes
2	0.304	0.304	0.0041	0.0222	0.0049	10:58:35	Yes
Mean:	0.303	0.303	0.0041				
SD:	0.000	0.000	0.0000				
%RSD:	0.118	0.118	0.11				

Sequence No.: 68

Autosampler Location: 60

Sample ID: 248198007|958770|1

Date Collected: 3/12/2010 10:58:55

Analyst: JXL

Data Type: Original

Replicate Data: 248198007|958770|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	84.43	84.43	1.0752	6.2903	1.0760	10:59:47	Yes
Sample concentration is greater than that of the highest standard.							
2	83.54	83.54	1.0639	6.2043	1.0647	11:00:16	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	83.98	83.98	1.0695				
SD:	0.627	0.627	0.0080				
%RSD:	0.747	0.747	0.75				

Sample concentration is greater than that of the highest standard.

Sequence No.: 69

Autosampler Location: 61

Sample ID: 248198008|958770|1

Date Collected: 3/12/2010 11:00:36

Analyst: JXL

Data Type: Original

Replicate Data: 248198008|958770|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	89.14	89.14	1.1352	6.9808	1.1360	11:01:28	Yes
Sample concentration is greater than that of the highest standard.							
2	88.17	88.17	1.1228	6.8672	1.1236	11:01:57	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	88.65	88.65	1.1290				
SD:	0.688	0.688	0.0088				
%RSD:	0.776	0.776	0.78				

Sample concentration is greater than that of the highest standard.

Sequence No.: 70

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/12/2010 11:02:18

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.058	5.058	0.0646	0.2936	0.0654	11:03:09	Yes
2	5.054	5.054	0.0646	0.2953	0.0654	11:03:39	Yes
Mean:	5.056	5.056	0.0646				
SD:	0.003	0.003	0.0000				



%RSD: 0.062 0.062 0.06

QC value within limits for Hg 253.7 Recovery = 101.12%

All analyte(s) passed QC.

Sequence No.: 71

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/12/2010 11:03:58

Data Type: Original

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.044	0.044	0.0008	0.0059	0.0016	11:04:49	Yes
2	0.039	0.039	0.0007	0.0060	0.0015	11:05:19	Yes
Mean:	0.041	0.041	0.0007				
SD:	0.003	0.003	0.0000				
%RSD:	8.340	8.340	5.92				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 72

Sample ID: 248198009|958770|1

Analyst: JXL

Autosampler Location: 62

Date Collected: 3/12/2010 11:05:38

Data Type: Original

## Replicate Data: 248198009|958770|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.949	0.949	0.0123	0.0605	0.0131	11:06:29	Yes
2	0.941	0.941	0.0122	0.0599	0.0130	11:06:59	Yes
Mean:	0.945	0.945	0.0122				
SD:	0.006	0.006	0.0001				
%RSD:	0.596	0.596	0.59				

Sequence No.: 73

Sample ID: 248198010|958770|1

Analyst: JXL

Autosampler Location: 63

Date Collected: 3/12/2010 11:07:19

Data Type: Original

## Replicate Data: 248198010|958770|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.479	0.479	0.0063	0.0362	0.0071	11:08:10	Yes
2	0.418	0.418	0.0055	0.0312	0.0063	11:08:40	Yes
Mean:	0.448	0.448	0.0059				
SD:	0.043	0.043	0.0005				
%RSD:	9.615	9.615	9.27				

Sequence No.: 74

Sample ID: 248198011|958770|1

Analyst: JXL

Autosampler Location: 64

Date Collected: 3/12/2010 11:09:00

Data Type: Original

## Replicate Data: 248198011|958770|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.328	0.328	0.0044	0.0265	0.0052	11:09:51	Yes
2	0.314	0.314	0.0042	0.0251	0.0050	11:10:21	Yes
Mean:	0.321	0.321	0.0043				
SD:	0.010	0.010	0.0001				
%RSD:	3.028	3.028	2.88				

Sequence No.: 75

Sample ID: 248198012|958770|1

Analyst: JXL

Autosampler Location: 65

Date Collected: 3/12/2010 11:10:41

Data Type: Original

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Replicate Data: 248198012|958770|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.553	0.553	0.0073	0.0403	0.0081	11:11:32	Yes
2	0.558	0.558	0.0073	0.0393	0.0081	11:12:02	Yes
Mean:	0.556	0.556	0.0073				
SD:	0.003	0.003	0.0000				
%RSD:	0.594	0.594	0.58				

Sequence No.: 76

Sample ID: 248202001|958770|1

Analyst: JXL

Autosampler Location: 66

Date Collected: 3/12/2010 11:12:21

Data Type: Original

-----  
Replicate Data: 248202001|958770|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.304	2.304	0.0296	0.1417	0.0304	11:13:12	Yes
2	2.223	2.223	0.0285	0.1358	0.0293	11:13:42	Yes
Mean:	2.264	2.264	0.0290				
SD:	0.057	0.057	0.0007				
%RSD:	2.535	2.535	2.52				

Sequence No.: 77

Sample ID: 248202002|958770|1

Analyst: JXL

Autosampler Location: 67

Date Collected: 3/12/2010 11:14:02

Data Type: Original

-----  
Replicate Data: 248202002|958770|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.873	3.873	0.0495	0.2351	0.0503	11:14:53	Yes
2	3.898	3.898	0.0499	0.2346	0.0507	11:15:23	Yes
Mean:	3.886	3.886	0.0497				
SD:	0.018	0.018	0.0002				
%RSD:	0.466	0.466	0.46				

Sequence No.: 78

Sample ID: 248203002|958770|1

Analyst: JXL

Autosampler Location: 68

Date Collected: 3/12/2010 11:15:43

Data Type: Original

-----  
Replicate Data: 248203002|958770|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.028	-0.028	-0.0001	0.0031	0.0007	11:16:34	Yes
2	-0.029	-0.029	-0.0002	0.0030	0.0006	11:17:04	Yes
Mean:	-0.029	-0.029	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	1.164	1.164	2.84				

Sequence No.: 79

Sample ID: 1202056115|958725|1

Analyst: JXL

Autosampler Location: 69

Date Collected: 3/12/2010 11:17:24

Data Type: Original

-----  
Replicate Data: 1202056115|958725|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.048	-0.048	-0.0004	0.0018	0.0004	11:18:15	Yes
2	-0.045	-0.045	-0.0004	0.0020	0.0004	11:18:45	Yes
Mean:	-0.047	-0.047	-0.0004				
SD:	0.002	0.002	0.0000				
%RSD:	4.499	4.499	7.06				

Sequence No.: 80  
Sample ID: 1202056116|958725|10  
Analyst: JXL

Autosampler Location: 70  
Date Collected: 3/12/2010 11:19:05  
Data Type: Original

-----  
Replicate Data: 1202056116|958725|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.789	1.789	0.0230	0.1092	0.0238	11:19:57	Yes
2	1.784	1.784	0.0229	0.1080	0.0237	11:20:27	Yes
Mean:	1.787	1.787	0.0230				
SD:	0.003	0.003	0.0000				
%RSD:	0.192	0.192	0.19				

Sequence No.: 81  
Sample ID: 247899001|958725|1  
Analyst: JXL

Autosampler Location: 71  
Date Collected: 3/12/2010 11:20:46  
Data Type: Original

-----  
Replicate Data: 247899001|958725|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.270	0.270	0.0036	0.0198	0.0044	11:21:38	Yes
2	0.267	0.267	0.0036	0.0201	0.0044	11:22:08	Yes
Mean:	0.268	0.268	0.0036				
SD:	0.002	0.002	0.0000				
%RSD:	0.715	0.715	0.67				

Sequence No.: 82  
Sample ID: CCV  
Analyst:

Autosampler Location: 7  
Date Collected: 3/12/2010 11:22:28  
Data Type: Original

-----  
Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.034	5.034	0.0643	0.2955	0.0651	11:23:18	Yes
2	4.999	4.999	0.0639	0.2926	0.0647	11:23:48	Yes
Mean:	5.016	5.016	0.0641				
SD:	0.024	0.024	0.0003				
%RSD:	0.488	0.488	0.49				

QC value within limits for Hg 253.7 Recovery = 100.33%  
All analyte(s) passed QC.

Sequence No.: 83  
Sample ID: CCB  
Analyst:

Autosampler Location: 8  
Date Collected: 3/12/2010 11:24:07  
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	0.0000	0.0033	0.0008	11:24:57	Yes
2	-0.014	-0.014	0.0000	0.0037	0.0008	11:25:27	Yes
Mean:	-0.014	-0.014	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	5.343	5.343	26.71				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 84  
Sample ID: 1202056117|958725|1  
Analyst: JXL

Autosampler Location: 72  
Date Collected: 3/12/2010 11:25:47  
Data Type: Original

-----  
Replicate Data: 1202056117|958725|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
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# Miscellaneous

# Prep Logbook

## Acid Digestion of Sediments, Sludges, and Soils

<b>Batch ID:</b>	959122.0	Verified by:	
<b>Analyst:</b>	Francena Armstrong		
<b>Method:</b>	SW846 3050B		
<b>Lab SOP:</b>	GL-MA-E-009 REV# 19		
<b>Instrument:</b>	Sartorius Balance B-001		

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check I	Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
1202056901 MB	04-MAR-2010 14:00:00	Soil	0.515	50	97.08738		LCS	1202056906	Metals Soil LCS SRM ICP/Hg	U1062540-I	.504	g
1202056906 LCS	04-MAR-2010 14:00:00	Soil	0.504	50	99.20635		MS	1202056904	Metals Spike Mix I	U1100205-01	.25	mL
248166001	04-MAR-2010 14:00:00	Soil	0.502	50	99.60159		MS	1202056904	Metals Spike Mix II	U1100205-06	.25	mL
1202056902 DUP (248166001)	04-MAR-2010 14:00:00	Soil	0.508	50	98.4252		MSD	1202056905	Metals Spike Mix I	U1100205-01	.25	mL
1202056903 SDILT (248166001)	04-MAR-2010 14:00:00	Soil	0.502	50	99.60159		MSD	1202056905	Metals Spike Mix II	U1100205-06	.25	mL
1202056904 MS (248166001)	04-MAR-2010 14:00:00	Soil	0.514	50	97.27626							
1202056905 MSD (248166001)	04-MAR-2010 14:00:00	Soil	0.505	50	99.0099							
248166002	04-MAR-2010 14:00:00	Soil	0.521	50	95.96929							
248171001	04-MAR-2010 14:00:00	Soil	0.516	50	96.89922							
248171002	04-MAR-2010 14:00:00	Soil	0.525	50	95.2381							
248171003	04-MAR-2010 14:00:00	Soil	0.501	50	99.8004							
248171004	04-MAR-2010 14:00:00	Soil	0.507	50	98.61933							
248171005	04-MAR-2010 14:00:00	Soil	0.506	50	98.81423							
248176001	04-MAR-2010 14:00:00	Soil	0.51	50	98.03922							
248176002	04-MAR-2010 14:00:00	Soil	0.508	50	98.4252							
248176003	04-MAR-2010 14:00:00	Soil	0.517	50	96.7118							
248176004	04-MAR-2010 14:00:00	Soil	0.524	50	95.41985							
248176005	04-MAR-2010 14:00:00	Soil	0.524	50	95.41985							
248176006	04-MAR-2010 14:00:00	Soil	0.503	50	99.40358							
248202001	04-MAR-2010 14:00:00	Soil	0.523	50	95.60229							
248202002	04-MAR-2010 14:00:00	Soil	0.52	50	96.15385							

Reagent/Solvent Lot ID	Description	Amount	Comments:
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GEL Laboratories LLC

Prep Logbook

Batch ID: 959122.0  
Analyst: Francena Armstrong  
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	1202056906	Metals Soil LCS SRM 1CP/Hg	U1062540-1	.504	g
MS	1202056904	Metals Spike Mix I	U1100205-01	.25	mL
MS	1202056904	Metals Spike Mix II	U1100205-06	.25	mL
MSD	1202056905	Metals Spike Mix I	U1100205-01	.25	mL
MSD	1202056905	Metals Spike Mix II	U1100205-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check	I
1277916	HYDROCHLORIC ACID	10 mL					
1277919	Nitric Acid CONC.	1.25 mL					
Light brown soil.							

# Prep Logbook

## Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 959124.0      Verified by: \_\_\_\_\_  
 Analyst: Francena Armstrong  
 Method: SW846 3050B      Lab SOP: GL-MA-E-009 REV# 19  
    Instrument: Sartorius Balance B-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check
1202056912 MB	04-MAR-2010 14:00:00	0.5	50	100	
1202056917 LCS	04-MAR-2010 14:00:00	0.505	50	99.0099	
248166001	04-MAR-2010 14:00:00	0.501	50	99.8004	
1202056913 DUP (248166001)	04-MAR-2010 14:00:00	0.523	50	95.60229	
1202056914 SDILT (248166001)	04-MAR-2010 14:00:00	0.501	50	99.8004	
1202056915 MS (248166001)	04-MAR-2010 14:00:00	0.524	50	95.41985	
1202056916 MSD (248166001)	04-MAR-2010 14:00:00	0.519	50	96.33911	
248166002	04-MAR-2010 14:00:00	0.502	50	99.60159	
248171001	04-MAR-2010 14:00:00	0.522	50	95.78544	
248171002	04-MAR-2010 14:00:00	0.505	50	99.0099	
248171003	04-MAR-2010 14:00:00	0.503	50	99.40358	
248171004	04-MAR-2010 14:00:00	0.513	50	97.46589	
248171005	04-MAR-2010 14:00:00	0.509	50	98.23183	
248176001	04-MAR-2010 14:00:00	0.506	50	98.81423	
248176002	04-MAR-2010 14:00:00	0.515	50	97.08738	
248176003	04-MAR-2010 14:00:00	0.509	50	98.23183	
248176004	04-MAR-2010 14:00:00	0.509	50	98.23183	
248176005	04-MAR-2010 14:00:00	0.507	50	98.61933	
248176006	04-MAR-2010 14:00:00	0.525	50	95.2381	
248202001	04-MAR-2010 14:00:00	0.514	50	97.27626	
248202002	04-MAR-2010 14:00:00	0.505	50	99.0099	

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202056917	Metals Soil LCS SRM ICPMS	U062540-MS	.505	g	
MS	1202056915	ICP-MS Spike for soil products.	U090827-A	.5	mL	Light brown soil.
MS	1202056915	ICP-MS Spike for Soil Products	U090827-B	.5	mL	
MSD	1202056916	ICP-MS Spike for soil products.	U090827-A	.5	mL	
MSD	1202056916	ICP-MS Spike for Soil Products	U090827-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:** 974189.0  
**Analyst:** Louis Hall  
**Method:** SW846 3050B  
**Lab SOP:** GL-MA-E-009 REV# 20  
**Instrument:** Sartorius Balance B-001

Verified by:

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202093059	Metals Soil LCS SRM ICP/Hg	U1062540-I	.517	g
MS	1202056904	Metals Spike Mix I	U11286772-01	.25	mL
MS	1202056904	Metals Spike Mix II	U11286774-06	.25	mL
MSD	1202056905	Metals Spike Mix I	U11286772-01	.25	mL
MSD	1202056905	Metals Spike Mix II	U11286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check I
1202093058 MB	13-APR-2010 09:15:00	Soil	0.503	50	99.40358	<2
1202093059 LCS	13-APR-2010 09:15:00	Soil	0.517	50	96.7118	<2
248166001 - 2	13-APR-2010 09:15:00	Soil	0.525	50	95.2381	<2
1202056902 - 2 DUP	13-APR-2010 09:15:00	Soil	0.52	50	96.15385	<2
(248166001)						
1202056903 - 2 SDILT	13-APR-2010 09:15:00	Soil	0.525	50	95.2381	<2
(248166001)						
1202056904 - 2 MS (248166001)	13-APR-2010 09:15:00	Soil	0.513	50	97.46589	<2
1202056905 - 2 MSD	13-APR-2010 09:15:00	Soil	0.506	50	98.81423	<2
(248166001)						
248166002 - 2	13-APR-2010 09:15:00	Soil	0.518	50	96.5251	<2
248171001 - 2	13-APR-2010 09:15:00	Soil	0.5	50	100	<2
248171002 - 2	13-APR-2010 09:15:00	Soil	0.505	50	99.0099	<2
248171003 - 2	13-APR-2010 09:15:00	Soil	0.552	50	90.57971	<2
248171004 - 2	13-APR-2010 09:15:00	Soil	0.508	50	98.4252	<2
248171005 - 2	13-APR-2010 09:15:00	Soil	0.505	50	99.0099	<2
248176001 - 2	13-APR-2010 09:15:00	Soil	0.52	50	96.15385	<2
248176002 - 2	13-APR-2010 09:15:00	Soil	0.501	50	99.8004	<2
248176003 - 2	13-APR-2010 09:15:00	Soil	0.509	50	98.23183	<2
248176004 - 2	13-APR-2010 09:15:00	Soil	0.519	50	96.33911	<2
248176005 - 2	13-APR-2010 09:15:00	Soil	0.503	50	99.40358	<2
248176006 - 2	13-APR-2010 09:15:00	Soil	0.552	50	90.57971	<2
248202001 - 2	13-APR-2010 09:15:00	Soil	0.516	50	96.89922	<2
248202002 - 2	13-APR-2010 09:15:00	Soil	0.508	50	98.4252	<2

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Prep Logbook

Batch ID: 974189.0  
Analyst: Louis Hall  
Method: SW846 3050B  
Lab SOP: GL-MA-E-009 REV# 20  
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202093059	Metals Soil LCS SRM ICP/Hg	U1062540-I	.517	g
MS	1202056904	Metals Spike Mix I	U11286772-01	.25	mL
MS	1202056904	Metals Spike Mix II	U11286774-06	.25	mL
MSD	1202056905	Metals Spike Mix I	U11286772-01	.25	mL
MSD	1202056905	Metals Spike Mix II	U11286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check
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Reagent/Solvent Lot ID	Description	Amount	Comments:
1282566	Nitric Acid CONC.	1.25 mL	clumpy, brown soil
1298333	HYDROCHLORIC ACID	10 mL	

# Prep Logbook

## Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

<b>Batch ID:</b>	958769.0	Verified by:	
<b>Analyst:</b>	Tara Griffin		
<b>Method:</b>	SW846 7471A Prep		
<b>Lab SOP:</b>	GL-MA-E-010 REV# 23		
<b>Instrument:</b>	BAL-002		

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1	Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
1202056211 MB	11-MAR-2010 14:30:00	Soil	0.574	30	52.26481		LCS	1202056212	Metals LCS Soil SRM	U1031809A	.208	g
1202056212 LCS	11-MAR-2010 14:30:00	Soil	0.208	30	144.23077		MS	1202056214	Mercury soil working intermediate standard for MS	WHG100311-14	.3	mL
248189001	11-MAR-2010 14:30:00	Soil	0.509	30	58.9391		MSD	1202056216	Mercury soil working intermediate standard for MS	WHG100311-14	.3	mL
1202056213 DUP (248189001)	11-MAR-2010 14:30:00	Soil	0.583	30	51.45798							
1202056214 MS (248189001)	11-MAR-2010 14:30:00	Soil	0.521	30	57.58157							
1202056216 MSD (248189001)	11-MAR-2010 14:30:00	Soil	0.528	30	56.81818							
1202056215 SDILT (248189001)	11-MAR-2010 14:30:00	Soil	0.509	30	58.9391							
248189002	11-MAR-2010 14:30:00	Soil	0.524	30	57.25191							
248198001	11-MAR-2010 14:30:00	Soil	0.514	30	58.36576							
248198002	11-MAR-2010 14:30:00	Soil	0.569	30	52.72408							
248198003	11-MAR-2010 14:30:00	Soil	0.545	30	55.04587							
248198004	11-MAR-2010 14:30:00	Soil	0.576	30	52.08333							
248198005	11-MAR-2010 14:30:00	Soil	0.511	30	58.70841							
248198006	11-MAR-2010 14:30:00	Soil	0.501	30	59.88024							
248198007	11-MAR-2010 14:30:00	Soil	0.521	30	57.58157							
248198008	11-MAR-2010 14:30:00	Soil	0.515	30	58.25243							
248198009	11-MAR-2010 14:30:00	Soil	0.565	30	53.09735							
248198010	11-MAR-2010 14:30:00	Soil	0.546	30	54.94505							
248198011	11-MAR-2010 14:30:00	Soil	0.581	30	51.63511							
248198012	11-MAR-2010 14:30:00	Soil	0.52	30	57.69231							
248202001	11-MAR-2010 14:30:00	Soil	0.567	30	52.91005							
248202002	11-MAR-2010 14:30:00	Soil	0.536	30	55.97015							
248203002	11-MAR-2010 14:30:00	Soil	0.523	30	57.36138							

Reagent/Solvent Lot ID	Description	Amount	Comments:
125532-C	Hg reducing agent	2 mL	Sample 248189001 is a clumpy dark soil.

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# Prep Logbook

**Batch ID:** 958769.0  
**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	1202056212	Metals LCS Soil SRM	UI031809A	.208	g
MS	1202056214	Mercury soil working intermediate standard for MS	WHG100311-14	.3	mL
MSD	1202056216	Mercury soil working intermediate standard for MS	WHG100311-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check
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				
WHG100311-07	Mercury Working Standard 1st Source CAL S	30 uL				
WHG100311-08	0.2/CRA					
WHG100311-09	Mercury Working Standard 1st Source CAL S	75 uL				
WHG100311-10	Mercury Working 1st Source CAL S 2.0	300 uL				
WHG100311-11	Mercury Working 1st Source CAL S 5.0/CCV	750 uL				
WHG100311-12	Mercury Working 1st Source CAL S 10.0	1.5 mL				
	Mercury Working 2nd Source S 5.0/CCV	750 uL				

Digestion Start Date: 11-MAR-10 14:30  
 Digestion End Date: 11-MAR-10 15:00

### DATA EXCEPTION REPORT

**Mo.Day Yr.**  
12-MAR-10

**Division:**  
Industrial

**Quality Criteria:**  
Specifications

**Type:**  
Process

**Instrument Type:**  
MERCURY

**Test / Method:**  
SW846 7471A

**Matrix Type:**  
Solid

**Client Code:**  
LANL

**Batch ID:**  
958770

**Sample Numbers:**  
See Below

**Potentially affected work order(s)(SDG):** 248189(10-2120-1),248198(10-2122),248202(10-2124),248203(10-2125)

**Application Issues:**

Failed RPD for MS/MSD, or PS/PSD

**Specification and Requirements  
Exception Description:**

**DER Disposition:**

1. Failed RPD for MS/MSD, or PS/PSD:

QC 1202056216MSD

1. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for Hg due to possible matrix interferences and/or sample non-homogeneity. Sample is a clumpy, dark 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

12-MAR-10

**Data Validator/Group Leader:**

Jamie Johnson

14-MAR-10

### DATA EXCEPTION REPORT

**Mo. Day Yr.**  
12-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:**  
959123

**Sample Numbers:**  
See Below

**Potentially affected work order(s)(SDG):** 248166(10-2112),248171(10-2113),248176(10-2114-1),248202(10-2124)

**Application Issues:**

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for MSD/PSD

**Specification and Requirements  
Exception Description:**

1. Failed Recovery for MS/PS:  
QC 1202056904MS
2. Failed RPD for DUP:  
QC 1202056902DUP
3. Failed Recovery for MSD/PSD:  
QC 1202056905MSD

**DER Disposition:**

- 1./3. The matrix spike and matrix spike duplicate recovery failed outside of the control limits for magnesium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
2. The sample and sample duplicate % RPD failed outside the control limits for barium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

**Originator's Name:**

Helen Camello 12-APR-10

**Data Validator/Group Leader:**

Louise Smith 13-APR-10

### DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 20-APR-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> ICP/MS	<b>Test / Method:</b> SW846 3050B/6020	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 959125	<b>Sample Numbers:</b> See Below		

**Potentially affected work order(s)(SDG):** 248166(10-2112),248171(10-2113),248176(10-2114-1),248202(10-2124)

**Application Issues:**

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for MSD/PSD

**Specification and Requirements  
Exception Description:**

1. Failed Recovery for MS/PS:

QC 1202056915MS

2. Failed RPD for DUP:

QC 1202056913DUP

3. Failed Recovery for MSD/PSD:

QC 1202056916MSD

**DER Disposition:**

The sample and sample duplicate % RPD failed outside the control limits for Ni 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.

The matrix spike recovery failed outside of the control limits for Se due to possible matrix interferences and/or non-homogeneity. The matrix spike duplicate recovery failed outside of the control limits for Se and Ni due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

**Originator's Name:**

Samantha Jacobs 20-APR-10

**Data Validator/Group Leader:**

Paul Boyd 20-APR-10

# Standard Logbook

**Serial ID:** UHG1167639-01      **Opened:** 13-AUG-09      **Amount :** 125 mL  
**Name:** MHGSTOCK1      **Received:** 13-AUG-09      **Catalog Number :** PLHG4-2Y  
**Type:** Source Material      **Expires:** 13-AUG-10      **Lot Number :** 15-37HG  
**Employee:** Bryan Davis      **Solvent :** 10% HNO3  
**Supplier:** Spex  
**Description:** Mercury Source Standard #1 1,000 mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

**Serial ID:** UHG1167641-02      **Opened:** 13-AUG-09      **Amount :** 100 mL  
**Name:** MHGSTOCK2      **Received:** 13-AUG-09      **Catalog Number :** AHG1KN-100  
**Type:** Source Material      **Expires:** 13-AUG-10      **Lot Number :** 4905530  
**Employee:** Bryan Davis      **Solvent :** 3% HNO3  
**Supplier:** Ricca Chemical Company  
**Description:** Mercury Source Standard #2 1,000 mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

**Serial ID:** UI031809A      **Opened:** 18-MAR-09      **Catalog Number :** 540  
**Name:** METALSOILSRM      **Received:** 18-MAR-09      **Lot Number :** D061-540  
**Type:** Source Material      **Expires:** 10-OCT-10  
**Employee:** Jamie Johnson  
**Supplier:** ERA  
**Description:** Metals LCS Soil SRM  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

# Standard Logbook

**Serial ID:** UI062540-I      **Opened:** 12-JUN-09      **Amount :** 80 g  
**Name:** ICP SOIL SRM      **Received:** 12-JUN-09      **Lot Number :** D062-540  
**Type:** Source Material      **Expires:** 12-JUN-10  
**Employee:** Bryan Davis  
**Supplier:** ERA  
**Description:** Metals Soil LCS SRM ICP/Hg  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

**Serial ID:** UI062540-MS      **Opened:** 12-JUN-09      **Lot Number :** D062-540  
**Name:** ICPMS SOIL SRM      **Received:** 12-JUN-09  
**Type:** Source Material      **Expires:** 12-JUN-10  
**Employee:** Bryan Davis  
**Supplier:** ERA  
**Description:** Metals Soil LCS SRM ICPMS  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg



# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

**Serial ID:** UI090421-40      **Opened:** 09-OCT-09      **Amount :** 250 mL  
**Name:** TRACE ICP Na-1000SOUR      **Received:** 21-APR-09      **Catalog Number :** HP100052-1  
**Type:** Source Material      **Expires:** 09-OCT-10      **Lot Number :** 0830227  
**Employee:** Helen Camello      **Solvent :** 1%HNO3  
**Supplier:** ENVIRONMENTAL EXPRESS  
**Description:** Sodium 1000 +/- 3 ug/mL in 1% HNO3  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

**Serial ID:** UI090422-40      **Opened:** 04-MAY-09      **Amount :** 500 mL  
**Name:** TRACE ICP ICSEA 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 ICSEA SOLN A mg/L +/- 0.5% IN 5% HNO3  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

**Serial ID:** UI090612-02      **Opened:** 12-JUN-09      **Catalog Number :** 060074-06-01  
**Name:** ICPMS Tungsten - 10mg/L      **Received:** 12-JUN-09      **Lot Number :** 1016377  
**Type:** Source Material      **Expires:** 12-JUN-10      **Solvent :** 2% HNO3  
**Employee:** Paul Boyd  
**Supplier:** O2SI  
**Description:** ICPMS Tungsten standard SPIKE - 10mg/L  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

## Standard Logbook

**Serial ID:** UI090701-09      **Opened:** 01-JUL-09      **Amount :** 250 mL  
**Name:** ICP-MS CRDL Master #1      **Received:** 01-JUL-09      **Catalog Number :** 160044-09-02  
**Type:** Source Material      **Expires:** 01-JUL-10      **Lot Number :** 1016477  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% IN 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS CRDL Master Soln #1  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

**Serial ID:** UI090701-10      **Opened:** 01-JUL-09      **Amount :** 250 mL  
**Name:** ICP-MS CRDL Master #2      **Received:** 01-JUL-09      **Catalog Number :** 160044-08-02  
**Type:** Source Material      **Expires:** 01-JUL-10      **Lot Number :** 1016476  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% IN 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS CRDL Soln #2  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

**Serial ID:** UI090701-40      **Opened:** 01-JUL-09      **Amount :** 500 mL  
**Name:** TRACE ICP Stock PQL St      **Received:** 30-JUN-09      **Catalog Number :** 160543-01-03  
**Type:** Source Material      **Expires:** 01-JUL-10      **Lot Number :** 1016475  
**Employee:** Helen Camello      **Solvent :** +/-0.5%in2%HNO3+TrHF  
**Supplier:** 02si  
**Description:** TRACE ICP Stock PQL Standard  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
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# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

**Serial ID:** UI090827-A      **Opened:** 27-AUG-09      **Catalog Number :** 160067-03  
**Name:** ICP-MS DOE SOIL SPIKE      **Received:** 27-AUG-09      **Lot Number :** 1017142  
**Type:** Source Material      **Expires:** 27-AUG-10  
**Employee:** Francena Armstrong  
**Supplier:** 02si  
**Description:** ICP-MS Spike for soil products.  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

# Standard Logbook

**Serial ID:** UI090827-B      **Opened:** 27-AUG-09      **Catalog Number :** 160067-03  
**Name:** ICP-MS DOE SOIL SPIKE      **Received:** 27-AUG-09      **Lot Number :** 1017142  
**Type:** Source Material      **Expires:** 27-AUG-10  
**Employee:** Francena Armstrong  
**Supplier:** Q2si  
**Description:** ICP-MS Spike for Soil Products  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

**Serial ID:** UI090925-40      **Opened:** 23-OCT-09      **Amount :** 500 mL  
**Name:** SECOND SOURCE STD -1      **Received:** 25-SEP-09      **Catalog Number :** SGELMX38-500N  
**Type:** Source Material      **Expires:** 30-SEP-10      **Lot Number :** 4909129  
**Employee:** Helen Camello      **Solvent :** 5%HNO3  
**Supplier:** SPECTRO PURE  
**Description:** SECOND SOURCE STD #1A 5%HNO3  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

**Serial ID:** UI090925-41      **Opened:** 23-OCT-09      **Amount :** 500 mL  
**Name:** SECOND SOURCE STD -1      **Received:** 25-SEP-09      **Catalog Number :** SGELMX39-500B  
**Type:** Source Material      **Expires:** 30-SEP-10      **Lot Number :** 4909130  
**Employee:** Helen Camello      **Solvent :** 5%HNO3,TR.HF  
**Supplier:** SPECTRO PURE  
**Description:** SECOND SOURCE STD #1B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Vanadium	100 mg/L	Zinc	100 mg/L

**Serial ID:** UI091015-42      **Opened:** 28-OCT-09      **Amount :** 500 mL  
**Name:** SI 1000mg/L      **Received:** 15-OCT-09      **Catalog Number :** 060014-02-03  
**Type:** Source Material      **Expires:** 28-OCT-10      **Lot Number :** 1017581  
**Employee:** Helen Camello      **Solvent :** 0.3%H2O(NH4)2SiF6  
**Supplier:** o2si  
**Description:** Silicon 1000mg/L +/- 0.3% in H2O(NH4)2SiF6  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

**Serial ID:** UI091102-40      **Opened:** 16-NOV-09      **Amount :** 500 mL  
**Name:** TRACE CALSTD#1A SOUF      **Received:** 02-NOV-09      **Catalog Number :** HP2270-1-500  
**Type:** Source Material      **Expires:** 31-OCT-10      **Lot Number :** 0930215  
**Employee:** Helen Camello      **Solvent :** HNO3  
**Supplier:** Environmental Express  
**Description:** Trace Calibration Std #1A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

**Serial ID:** UI091102-41      **Opened:** 16-NOV-09      **Amount :** 500 mL  
**Name:** TRACE CALSTD#1B SOUF      **Received:** 02-NOV-09      **Catalog Number :** HP2270-2-500  
**Type:** Source Material      **Expires:** 31-OCT-10      **Lot Number :** 0930216  
**Employee:** Helen Camello      **Solvent :** HNO3  
**Supplier:** Environmental Express  
**Description:** Trace Calibration Standard #1B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
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# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

**Serial ID:** UI091102-42      **Opened:** 17-NOV-09      **Amount :** 200 mL  
**Name:** SILICON      **Received:** 02-NOV-09      **Catalog Number :** HP100050-4F  
**Type:** Source Material      **Expires:** 17-NOV-10      **Lot Number :** 0921924  
**Employee:** Helen Camello      **Solvent :** H2O/tr HF  
**Supplier:** ENVIRONMENTAL EXPRESS  
**Description:** SILICON 1000mg/L H2O/tr HF  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

**Serial ID:** UI100205-01      **Opened:** 05-FEB-10      **Lot Number :** 1018514  
**Name:** METALSPIKE-1      **Received:** 05-FEB-10  
**Type:** Source Material      **Expires:** 05-FEB-11  
**Employee:** Francena Armstrong  
**Supplier:** OS2I  
**Description:** Metals Spike Mix I  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

**Serial ID:** UI100205-06      **Opened:** 05-FEB-10      **Lot Number :** 1018515  
**Name:** METALSPIKE-2      **Received:** 05-FEB-10  
**Type:** Source Material      **Expires:** 05-FEB-11  
**Employee:** Francena Armstrong  
**Supplier:** OS2I  
**Description:** Metals Spike Mix II  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL

## Standard Logbook

Analyte	Concentration	Analyte	Concentration
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:** UI100310-48      **Opened:** 19-MAR-10      **Amount :** 1000 mL  
**Name:** Trace ICP ICSEA      **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:** UI100310-49.11      **Opened:** 29-MAR-10      **Amount :** 100 ml  
**Name:** Trace ICP ICSEAB      **Received:** 12-MAR-10      **Catalog Number :** 160066-04  
**Type:** Source Material      **Expires:** 30-MAR-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
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

# Standard Logbook

**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

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L



## Standard Logbook

Analyte	Concentration	Analyte	Concentration
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

**Serial ID:** UI100318-11      **Opened:** 18-MAR-10      **Amount :** 1000 mL  
**Name:** ICP-MS ICSA Master A      **Received:** 18-MAR-10      **Catalog Number :** 160013-01-01L  
**Type:** Source Material      **Expires:** 15-APR-10      **Lot Number :** 1018321  
**Employee:** Paul Boyd      **Solvent :** 2% HNO3  
**Supplier:** 02SI  
**Description:** ICP-MS ICSA Master A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

**Serial ID:** UI100325-40      **Opened:** 25-MAR-10      **Amount :** 500 mL  
**Name:** ICP HIGH RANGE STD-A      **Received:** 25-MAR-10      **Catalog Number :** 160211-05-03  
**Type:** Source Material      **Expires:** 25-MAR-11      **Lot Number :** 1019348  
**Employee:** Helen Camello      **Solvent :** +/-0.5%in2%HNO3  
**Supplier:** 02SI  
**Description:** ICP HIGH RANGE STD SOLUTION A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
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:** UI100329-40      **Opened:** 08-APR-10      **Amount :** 500 mL  
**Name:** TRACE CALSTD#1A SOUF      **Received:** 29-MAR-10      **Catalog Number :** HP2270-1-500  
**Type:** Source Material      **Expires:** 08-APR-11      **Lot Number :** 1008325  
**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:** UI100329-41      **Opened:** 08-APR-10      **Amount :** 500 mL  
**Name:** TRACE CALSTD#1B SOUF      **Received:** 29-MAR-10      **Catalog Number :** HP2270-2-500  
**Type:** Source Material      **Expires:** 08-APR-11      **Lot Number :** 1008323  
**Employee:** Helen Camello      **Solvent :** HNO3  
**Supplier:** Environmental Express  
**Description:** Trace Calibration Standard #1B  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

**Serial ID:** UI100329-42      **Opened:** 01-APR-10      **Amount :** 200 mL  
**Name:** SILICON      **Received:** 29-MAR-10      **Catalog Number :** HP100050-4F  
**Type:** Source Material      **Expires:** 01-APR-11      **Lot Number :** 1004838  
**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:** UI100331-42      **Opened:** 08-APR-10      **Amount :** 500 mL  
**Name:** SI 1000mg/L      **Received:** 31-MAR-10      **Catalog Number :** 060014-02-03  
**Type:** Source Material      **Expires:** 08-APR-11      **Lot Number :** 1019414  
**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:** UI100401-48      **Opened:** 02-APR-10      **Amount :** 1000 mL  
**Name:** Trace ICP ICSA      **Received:** 01-APR-10      **Catalog Number :** 160005-02  
**Type:** Source Material      **Expires:** 16-APR-10      **Lot Number :** 1019463  
**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:** 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

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

**Serial ID:** UI100405-13      **Opened:** 05-APR-10      **Amount :** 250 mL  
**Name:** ICP-MS ICSAB Master C      **Received:** 05-APR-10      **Catalog Number :** 160033-03  
**Type:** Source Material      **Expires:** 05-APR-11      **Lot Number :** 1019467  
**Employee:** Paul Boyd      **Solvent :** +/- 0.5% in 2% HNO3  
**Supplier:** 02SI  
**Description:** ICPMS ICSAB Master C  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

**Serial ID:** UI100405-40      **Opened:** 05-APR-10      **Amount :** 500 mL  
**Name:** ICP HIGH RANGE STD-A      **Received:** 02-APR-10      **Catalog Number :** 160211-05-03  
**Type:** Source Material      **Expires:** 05-APR-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

## Standard Logbook

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
Vanadium	10000 ug/L	Zinc	15000 ug/L

**Serial ID:** UI100405-41      **Opened:** 05-APR-10      **Amount :** 500 mL  
**Name:** ICP HIGH RANGE STD B      **Received:** 02-APR-10      **Catalog Number :** 160211-05-03  
**Type:** Source Material      **Expires:** 05-APR-11      **Lot Number :** 1019348  
**Employee:** Helen Camello      **Solvent :** +/-0.5%in2%HNO3  
**Supplier:** 02SI  
**Description:** ICP HIGH RANGE STD SOLUTION B  
**Comments:** None

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
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:** UI100407-49.3      **Opened:** 13-APR-10      **Amount :** 100 ml  
**Name:** Trace ICP ICSAB      **Received:** 08-APR-10      **Catalog Number :** 160066-04  
**Type:** Source Material      **Expires:** 14-APR-10      **Lot Number :** 1019511  
**Employee:** Louise Smith      **Solvent :** 3% HCl + 1% HNO3  
**Supplier:** o2si  
**Description:** Trace ICP Interferent Check Standard AB  
**Comments:** None

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

# Standard Logbook

**Serial ID:** UI100407-49.4      **Opened:** 14-APR-10      **Amount :** 100 ml  
**Name:** Trace ICP ICSAB      **Received:** 08-APR-10      **Catalog Number :** 160066-04  
**Type:** Source Material      **Expires:** 15-APR-10      **Lot Number :** 1019511  
**Employee:** Helen Camello      **Solvent :** 3% HCl + 1% HNO3  
**Supplier:** o2si  
**Description:** Trace ICP Inteferent Check Standard AB  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

**Serial ID:** UI100415-11      **Opened:** 15-APR-10      **Amount :** 1000 mL  
**Name:** ICP-MS ICSA Master A      **Received:** 15-APR-10      **Catalog Number :** 160013-01-01L  
**Type:** Source Material      **Expires:** 15-APR-11      **Lot Number :** 1018321  
**Employee:** Paul Boyd      **Solvent :** 2% HNO3  
**Supplier:** O2SI  
**Description:** ICP-MS ICSA Master A  
**Comments:** None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

# Standard Logbook

**Serial ID:** UI1286772-01      **Opened:** 16-MAR-10      **Lot Number :** 1019097  
**Name:** METALSPIKE-1      **Received:** 16-MAR-10  
**Type:** Source Material      **Expires:** 16-MAR-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:** UI1286774-06      **Opened:** 16-MAR-10      **Lot Number :** 1018913  
**Name:** METALSPIKE-2      **Received:** 16-MAR-10  
**Type:** Source Material      **Expires:** 16-MAR-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:** ICPMSCalSPIKEA      **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:** ICPMSCalSPIKEC      **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:** UMS100415-01      **Opened:** 15-APR-10      **Amount :** 250 mL  
**Name:** ICPMSCalSPIKEB      **Received:** 15-APR-10      **Catalog Number :** ZGEL-100-250  
**Type:** Source Material      **Expires:** 28-FEB-11      **Lot Number :** 22-20JB  
**Employee:** Paul Boyd  
**Supplier:** SPEX  
**Description:** ICPMS Calibration Standard Solution B



# Standard Logbook

Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

**Serial ID:** UMS100415-02      **Opened:** 15-APR-10      **Catalog Number :** ZGEL-102-250  
**Name:** ICPMSCalSPIKEA      **Received:** 15-APR-10      **Lot Number :** 22-21JB  
**Type:** Source Material      **Expires:** 28-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:** UMS100415-03      **Opened:** 15-APR-11      **Amount :** 250 ml  
**Name:** ICPMSCalSPIKEC      **Received:** 15-APR-10      **Catalog Number :** ZGEL-101-250  
**Type:** Source Material      **Expires:** 28-FEB-11      **Lot Number :** 22-22JB  
**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:** IHG100311-01      **Opened:** 11-MAR-10      **Instrument Id :** Mercury  
**Name:** MHGINTER1      **Received:** 11-MAR-10      **Pipet Id :** Minou1  
**Type:** Intermediate      **Expires:** 12-MAR-10      **Solvent :** 1mL HNO3 + Typel H2O  
**Employee:** Tara Griffin  
**Supplier:** GEL

# Standard Logbook

**Description:** Mercury Intermediate 1st Source 200 ug/L

**Comments:** Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

**Serial ID:** IHG100311-02      **Opened:** 11-MAR-10      **Pipet Id :** Minou1  
**Name:** MHGINTER2      **Received:** 11-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Intermediate      **Expires:** 12-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:** WHG100311-07      **Opened:** 11-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS0.2CRA      **Received:** 11-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 18-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.
IHG100311-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

**Serial ID:** WHG100311-08      **Opened:** 11-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS0.5      **Received:** 11-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 18-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.
IHG100311-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

**Serial ID:** WHG100311-09      **Opened:** 11-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS2.0      **Received:** 11-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 18-MAR-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL

**Description:** Mercury Working 1st Source CAL S 2.0

# Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
IHG100311-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

**Serial ID:** WHG100311-10      **Opened:** 11-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS5.0CCV      **Received:** 11-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 18-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.	Allquot	Final Vol.	Final Conc.
IHG100311-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

**Serial ID:** WHG100311-11      **Opened:** 11-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS10.0      **Received:** 11-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 18-MAR-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL S 10.0  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
IHG100311-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

**Serial ID:** WHG100311-12      **Opened:** 11-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKS5.0ICV      **Received:** 11-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 18-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.	Allquot	Final Vol.	Final Conc.
IHG100311-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

**Serial ID:** WHG100311-14      **Opened:** 11-MAR-10      **Pipet Id :** Hg1289245  
**Name:** MHGSOILMSSPIKE      **Received:** 11-MAR-10      **Solvent :** 2% HNO3-1274391  
**Type:** Working      **Expires:** 18-MAR-10  
**Employee:** Tara Griffin      **Verified:** 20-JUL-07  
**Supplier:** GEL  
**Description:** Mercury soil working intermediate standard for MS  
**Comments:** None

# Standard Logbook

<b>Parent Material</b>	<b>Analyte</b>	<b>Parent Conc.</b>	<b>Allquot</b>	<b>Final Vol.</b>	<b>Final Conc.</b>
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

**Serial ID:** WI100329-42      **Opened:** 29-MAR-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.1 PPM STD.      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 30-MAR-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.	Allquot	Final Vol.	Final Conc.
WI100329-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100329-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100329-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100329-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100329-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100329-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100329-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100329-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100329-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100329-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100329-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

# Standard Logbook

**Serial ID:** WI100329-43      **Opened:** 29-MAR-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.5/CCV STD.      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 30-MAR-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:** WI100329-44      **Opened:** 29-MAR-10      **Balance Id :** 216  
**Name:** TRACE ICP SCAL 1.0      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expres:** 30-MAR-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:** WI100329-45      **Opened:** 29-MAR-10      **Balance Id :** 216  
**Name:** TRACE ICP S-10 STD      **Received:** 22-APR-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 30-MAR-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:** WI100329-46      **Opened:** 29-MAR-10      **Balance Id :** 216  
**Name:** ICP TRACE ICV      **Received:** 25-SEP-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 30-MAR-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:** WI100329-47      **Opened:** 29-MAR-10      **Balance Id :** 216  
**Name:** PQL Working Standard      **Received:** 30-JUN-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 30-MAR-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:** WI100330-42      **Opened:** 30-MAR-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.1 PPM STD.      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 31-MAR-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.
WI100330-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100330-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100330-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100330-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100330-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100330-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100330-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100330-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100330-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100330-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100330-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100330-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

**Serial ID:** WI100330-43      **Opened:** 30-MAR-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.5/CCV STD.      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 31-MAR-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:** WI100330-44      **Opened:** 30-MAR-10      **Balance Id :** 216  
**Name:** TRACE ICP SCAL 1.0      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 31-MAR-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:** W100330-45      **Opened:** 30-MAR-10      **Balance Id :** 216  
**Name:** TRACE ICP S-10 STD      **Received:** 22-APR-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 31-MAR-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:** W100330-46      **Opened:** 30-MAR-10      **Balance Id :** 216  
**Name:** ICP TRACE ICV      **Received:** 25-SEP-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 31-MAR-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:** W1100330-47      **Opened:** 30-MAR-10      **Balance Id :** 216  
**Name:** PQL Working Standard      **Received:** 30-JUN-09      **Pipet Id :** 3581809  
**Type:** Working      **Expres:** 31-MAR-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:** WI100413-42      **Opened:** 13-APR-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.1 PPM STD.      **Received:** 29-MAR-10      **Pipet Id :** 3581809  
**Type:** Working      **Expres:** 14-APR-10      **Solvent :** 3%HCL and 1%HNO3 -1300128  
**Employee:** Louise Smith  
**Supplier:** GEL  
**Description:** TRACE ICP 0.1 PPM CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100413-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100413-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100413-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100413-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100413-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100413-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

**Serial ID:** WI100413-43      **Opened:** 13-APR-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.5/CCV STD.      **Received:** 29-MAR-10      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 14-APR-10      **Solvent :** 3%HCL and 1%HNO3 -1300128  
**Employee:** Louise Smith  
**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
UI100329-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI100329-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100331-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L

# Standard Logbook

**Serial ID:** WI100413-44      **Opened:** 13-APR-10      **Balance Id :** 216  
**Name:** TRACE ICP SCAL 1.0      **Received:** 29-MAR-10      **Pipet Id :** 3581809  
**Type:** Working      **Expres:** 14-APR-10      **Solvent :** 3%HCL and 1 %HNO3-1300128  
**Employee:** Louise Smith  
**Supplier:** o2si  
**Description:** Trace ICP Calibration Standard 1.0ppm  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI100329-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100331-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L



# Standard Logbook

**Serial ID:** WI100413-45      **Opened:** 13-APR-10      **Balance Id :** 216  
**Name:** TRACE ICP S-10 STD      **Received:** 22-APR-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 14-APR-10      **Solvent :** 3%HCL and 1%HNO3 -1300128  
**Employee:** Louise Smith  
**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:** WI100413-46      **Opened:** 13-APR-10      **Balance Id :** 216  
**Name:** ICP TRACE ICPV      **Received:** 25-SEP-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 14-APR-10      **Solvent :** 3%HCL AND 1%HNO3-1300128  
**Employee:** Louise Smith  
**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
UI100329-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI100329-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

**Serial ID:** WI100413-47      **Opened:** 13-APR-10      **Balance Id :** 216  
**Name:** PQL Working Standard      **Received:** 30-JUN-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 14-APR-10      **Solvent :** 3%HCL &1%HNO3-1300128  
**Employee:** Louise Smith  
**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:** WI100414-42      **Opened:** 14-APR-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.1 PPM STD.      **Received:** 29-MAR-10      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 15-APR-10      **Solvent :** 3%HCL and 1%HNO3 -1300128  
**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.
WI100414-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100414-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100414-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100414-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100414-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100414-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100414-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100414-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100414-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100414-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100414-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100414-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100414-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

**Serial ID:** WI100414-43      **Opened:** 14-APR-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.5/CCV STD.      **Received:** 29-MAR-10      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 15-APR-10      **Solvent :** 3%HCL and 1%HNO3 -1300128  
**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
UI100329-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI100329-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100331-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L

# Standard Logbook

**Serial ID:** WI100414-44      **Opened:** 14-APR-10      **Balance Id :** 216  
**Name:** TRACE ICP SCAL 1.0      **Received:** 29-MAR-10      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 15-APR-10      **Solvent :** 3%HCL and 1 %HNO3-1300128  
**Employee:** Helen Camello  
**Supplier:** o2si  
**Description:** Trace ICP Calibration Standard 1.0ppm  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI100329-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100331-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

# Standard Logbook

**Serial ID:** WI100414-45      **Opened:** 14-APR-10      **Balance Id :** 216  
**Name:** TRACE ICP S-10 STD      **Received:** 22-APR-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 15-APR-10      **Solvent :** 3%HCL and 1%HNO3 -1300128  
**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:** WI100414-46      **Opened:** 14-APR-10      **Balance Id :** 216  
**Name:** ICP TRACE ICV      **Received:** 29-SEP-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 15-APR-10      **Solvent :** 3%HCL AND 1%HNO3-1300128  
**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
UI100329-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI100329-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

**Serial ID:** WI100414-47      **Opened:** 14-APR-10      **Balance Id :** 216  
**Name:** PQL Working Standard      **Received:** 30-JUN-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 15-APR-10      **Solvent :** 3%HCL &1%HNO3-1300128  
**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:** WMS100413-05      **Opened:** 13-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICV      **Received:** 13-APR-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 14-APR-10      **Solvent :** 2%HNO3/1%HCl - 1300209  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
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.	Allquot	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:** WMS100416-04      **Opened:** 16-APR-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 16-APR-10      **Balance Id :** 4025216  
**Type:** Working      **Expires:** 17-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
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l

## Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

**Serial ID:** WMS100416-04A      **Opened:** 16-APR-10      **Balance Id :** 4025216  
**Name:** ICPMS Cal Standard 10      **Received:** 16-APR-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 17-APR-10      **Solvent :** 2%HNO3/1%HCl - 1300209  
**Employee:** Paul Boyd      **Verified:** 16-APR-10  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (10 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100416-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100416-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100416-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100416-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100416-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100416-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100416-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100416-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100416-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100416-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

**Serial ID:** WMS100416-05      **Opened:** 16-APR-10      **Balance Id:** 40245216  
**Name:** ICPMS ICV      **Received:** 16-APR-10      **Pipet Id:** 3541598  
**Type:** Working      **Expires:** 17-APR-10      **Solvent:** 2%HNO3/1%HCl - 1300209  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

**Serial ID:** WMS100416-06      **Opened:** 16-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 16-APR-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 17-APR-10      **Solvent :** 2%HNO3/1%HCl - 1300209  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS CRDL  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L



# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

**Serial ID:** WMS100416-07      **Opened:** 16-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSA      **Received:** 16-APR-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 17-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.
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

**Serial ID:** WMS100416-08      **Opened:** 16-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 16-APR-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 17-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.
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

## Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

**Serial ID:** WMS100419-04      **Opened:** 19-APR-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 19-APR-10      **Balance Id :** 4025216  
**Type:** Working      **Expires:** 20-APR-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl-1303289  
**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
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l

## Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

**Serial ID:** WMS100419-04A      **Opened:** 19-APR-10      **Balance Id :** 4025216  
**Name:** ICPMS Cal Standard 10      **Received:** 19-APR-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 20-APR-10      **Solvent :** 2%HNO3/1%HCl - 1303289  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (10 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100419-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100419-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100419-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100419-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100419-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100419-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100419-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100419-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100419-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100419-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100419-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

**Serial ID:** WMS100419-05      **Opened:** 19-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICV      **Received:** 19-APR-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 20-APR-10      **Solvent :** 2%HNO3/1%HCl - 1303289  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

**Serial ID:** WMS100419-06      **Opened:** 19-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 19-APR-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 20-APR-10      **Solvent :** 2%HNO3/1%HCl - 1303289  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS CRDL  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

**Serial ID:** WMS100419-07      **Opened:** 19-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICESA      **Received:** 19-APR-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 20-APR-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl - 1303289  
**Supplier:** GEL  
**Description:** ICPMS ICESA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

# Standard Logbook

**Serial ID:** WMS100419-08      **Opened:** 19-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 19-APR-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 20-APR-10      **Solvent :** 2%HNO3/1%HCl - 1303289  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICSAB  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

# Standard Logbook

**Serial ID:** WMS100420-04      **Opened:** 20-APR-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 20-APR-10      **Balance Id :** 4025216  
**Type:** Working      **Expires:** 21-APR-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl-1303289  
**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
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l



# Standard Logbook

**Serial ID:** WMS100420-04A      **Opened:** 20-APR-10      **Balance Id :** 4025216  
**Name:** ICPMS Cal Standard 10      **Received:** 20-APR-10      **Pipet Id :** 3541598  
**Type:** Working      **Expres:** 21-APR-10      **Solvent :** 2%HNO3/1%HCl - 1303289  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (10 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
WMS100420-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100420-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100420-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100420-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100420-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100420-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100420-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100420-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100420-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100420-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100420-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

# Standard Logbook

**Serial ID:** WMS100420-05  
**Name:** ICPMS ICV  
**Type:** Working  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICV  
**Comments:** None

**Opened:** 20-APR-10    **Balance Id :** 40245216  
**Received:** 20-APR-10    **Pipet Id :** 3541598  
**Expires:** 21-APR-10    **Solvent :** 2%HNO3/1%HCl - 1303289

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:** WMS100420-06      **Opened:** 20-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 20-APR-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 21-APR-10      **Solvent :** 2%HNO3/1%HCl - 1303289  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS CRDL  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

# Standard Logbook

**Serial ID:** WMS100420-07      **Opened:** 20-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSA      **Received:** 20-APR-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 21-APR-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl - 1303289  
**Supplier:** GEL  
**Description:** ICPMS ICSA  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

**Serial ID:** WMS100420-08      **Opened:** 20-APR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 20-APR-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 21-APR-10      **Solvent :** 2%HNO3/1%HCl - 1303289  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS ICSAB  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 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:** 125532-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: 1282566      Opened: 09-MAR-10      Lot Number : J 04043 L  
Name: I-HNO3      Received: 09-MAR-10  
Type: Reagent/Solvent      Expires: 09-MAR-11  
Employee: Anthony Green  
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: 1298333      Opened: 07-APR-10      Lot Number : J07033  
Name: I-HCL      Received: 07-APR-10      Preservative\_Id : 5 none  
Type: Reagent/Solvent      Expires: 07-APR-11  
Employee: Anthony Green  
Supplier: J.T. BAKER  
Description: HYDROCHLORIC ACID  
Comments: None

---

# Standard Logbook

**Serial ID:** 1300128      **Opened:** 12-APR-10      **Amount :** 20 L  
**Name:** B-ICP-RINSE SOLN      **Received:** 02-APR-10      **Lot Number :** H04040+G34050  
**Type:** Reagent/Solvent      **Expires:** 18-APR-10      **Solvent :** 3%HCL+1%HNO3  
**Employee:** Helen Camello  
**Supplier:** GEL  
**Description:** 3%HCL+1%HNO3 RINSE SOLN.  
**Comments:** None

**Serial ID:** 1300209      **Opened:** 12-APR-10      **Solvent :** Type I Water  
**Name:** B-2%HNO3/1%HCl-ICPMS      **Received:** 12-APR-10  
**Type:** Reagent/Solvent      **Expires:** 19-APR-10  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** 2%HNO3/1%HCl Solution (Type I Water)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1277916	I-HCL	36.5-38.0	90 mL	9 l	N/A
1291278	I-HNO3	69.0-70.0	180 mL	9 l	N/A

**Serial ID:** 1303289      **Opened:** 19-APR-10      **Solvent :** Type I Water  
**Name:** B-2%HNO3/1%HCl-ICPMS      **Received:** 19-APR-10  
**Type:** Reagent/Solvent      **Expires:** 26-APR-10  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** 2%HNO3/1%HCl Solution (Type I Water)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1277916	I-HCL	36.5-38.0	90 mL	9 l	N/A
1291278	I-HNO3	69.0-70.0	180 mL	9 l	N/A



# **General Chemistry Analysis**

# Case Narrative

**General Chemistry Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2124**

**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:

<b>Sample ID</b>	<b>Client ID</b>
248202001	RE36-10-8282
248202002	RE36-10-8281
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), 248202001 (RE36-10-8282) and 248202002 (RE36-10-8281).

**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:** 959210      **Method:** SW9012A Cyanide and Total  
**Prep Batch :** 959209      **Method:** SSW846 9010B Prep

### **Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

<b>Sample ID</b>	<b>Client ID</b>
248202001	RE36-10-8282
248202002	RE36-10-8281
1202057137	Method Blank (MB)
1202057138	248016004(RE46-10-13331) Sample Duplicate (DUP)
1202057139	248025003(CAPU-10-12548) Sample Duplicate (DUP)
1202057140	248016004(RE46-10-13331) Matrix Spike (MS)
1202057141	248025003(CAPU-10-12548) Matrix Spike (MS)
1202057142	248016004(RE46-10-13331) Matrix Spike Duplicate (MSD)
1202057143	248025003(CAPU-10-12548) Matrix Spike Duplicate (MSD)
1202057144	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: 248016004 (RE46-10-13331) and 248025003 (CAPU-10-12548).

**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 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: 1202057144 (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:** 962080      **Method:** EPA 300.0 Nitrate in Soil

**Prep Batch :** 962079      **Method:** EPA 300.0 PREP

### **Sample Analysis**

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

<b>Sample ID</b>	<b>Client ID</b>
248202001	RE36-10-8282
248202002	RE36-10-8281
1202063614	Method Blank (MB)
1202063615	248159001(RE46-10-13510) Sample Duplicate (DUP)
1202063616	248159001(RE46-10-13510) Matrix Spike (MS)
1202063617	248159001(RE46-10-13510) Matrix Spike Duplicate (MSD)
1202063618	Laboratory Control Sample (LCS)

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

### **SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

### **Preparation/Analytical Method Verification**

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

### **Calibration Information**

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

### **Initial Calibration**

All initial calibration requirements have been met for this SDG.

### **Continuing Calibration Blanks**

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

### **Calibration Verification Information (CCV)**

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

### **Y Intercept Rule**

The absolute value of the intercept is less than 3 times the MDL.



### **Quality Control (QC) Information**

#### **Method Blank (MB) Statement**

The MB analyzed with this SDG met the acceptance criteria.

#### **Laboratory Control Sample (LCS) Recovery**

The LCS spike recovery met the acceptance limits.

#### **Quality Control (QC) Designation**

The following sample was selected for QC analysis: 248159001 (RE46-10-13510).

#### **Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202063616 (RE46-10-13510).

#### **Matrix Spike Duplicate (MSD) Recovery Statement**

The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202063617 (RE46-10-13510).

#### **MS/MSD Relative Percent Difference (RPD) Statement**

The RPD between the spike and spike duplicate met the acceptance limits.

#### **Duplicate Relative Percent Difference (RPD) Statement**

The RPD between the sample and its duplicate met the acceptance limits.

### **Technical Information**

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

#### **Holding Times**

All samples in this SDG met the specified holding time.

#### **Sample Dilutions**

The samples in this SDG did not require dilutions.

#### **Sample Re-analysis**

The samples in this SDG did not require re-analysis.

### **Miscellaneous Information**

#### **Data Exception (DER) Documentation**

The following DER was generated for this SDG: 808590 1202063616 (RE46-10-13510) and 1202063617 (RE46-10-13510).

#### **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**

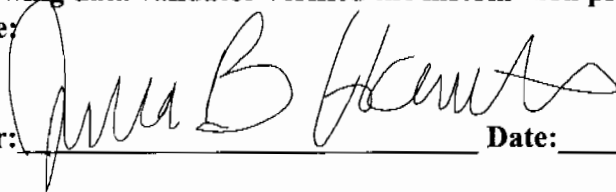
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**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:**



**Date:**

03/24/10

# Sample Data Summary

## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - [www.gel.com](http://www.gel.com)

### Certificate of Analysis Report for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2124 GEL Work Order: 248202

**The Qualifiers in this report are defined as follows:**

- \* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- \*\* Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by



---

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 24, 2010

Client SDG: 10-2124

Client Sample ID: RE36-10-8282  
Sample ID: 248202001  
Matrix: R  
Collect Date: 23-FEB-10 12:00  
Receive Date: 26-FEB-10  
Collector: Client  
Moisture: 8.7%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 21.1C	H	6.74	0.010	0.100	SU	1	TXT1	03/03/10	1328	960262	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	J	192	74.5	274	ug/kg	1	AXC2	03/09/10	1511	959210	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		4.07	0.329	1.10	mg/kg	1	MAR1	03/22/10	2259	962080	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	0900	962079
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/09/10	1121	959209

### 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 24, 2010

Client SDG: 10-2124

Client Sample ID: RE36-10-8281  
Sample ID: 248202002  
Matrix: R  
Collect Date: 23-FEB-10 12:00  
Receive Date: 26-FEB-10  
Collector: Client  
Moisture: 26.9%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 21.0C	H	7.41	0.010	0.100	SU	1	TXT1	03/03/10	1332	960262	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		1650	81.6	300	ug/kg	1	AXC2	03/09/10	1512	959210	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		19.9	0.410	1.37	mg/kg	1	MAR1	03/22/10	2325	962080	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	0900	962079
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/09/10	1121	959209

### 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 24, 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: 248202

Parmname	NOM	Sample	Qual	QC	Units	RPD %	REC %	Range	Anlst	Date	Time
<b>Electrode Analysis</b>											
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
<b>Flow Injection Analysis</b>											
Batch	959210										
QC1202057138	248016004	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A		AXC2	03/09/10	13:57
QC1202057139	248025003	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			03/09/10	14:01
QC1202057144	LCS										
Cyanide, Total	67900				60000	ug/kg	88.4	(32%-157%)		03/09/10	13:55
QC1202057137	MB										
Cyanide, Total				U	250	ug/kg				03/09/10	13:54
QC1202057140	248016004	MS									
Cyanide, Total	4760	U	ND		4540	ug/kg	95.3	(26%-158%)		03/09/10	13:58
QC1202057141	248025003	MS									
Cyanide, Total	4670	U	ND		5090	ug/kg	109	(26%-158%)		03/09/10	14:05
QC1202057142	248016004	MSD									
Cyanide, Total	4590	U	ND		3870	ug/kg	15.8	84.3 (0%-30%)		03/09/10	13:59
QC1202057143	248025003	MSD									
Cyanide, Total	4840	U	ND		5370	ug/kg	5.39	111 (0%-30%)		03/09/10	14:06
<b>Ion Chromatography</b>											
Batch	962080										
QC1202063615	248159001	DUP									
Nitrate-N		U	ND	U	ND	mg/kg	N/A		MAR1	03/22/10	18:30
QC1202063618	LCS										
Nitrate-N	50.0				46.8	mg/kg	93.5	(90%-110%)		03/22/10	17:36
QC1202063614	MB										
Nitrate-N				U	1.00	mg/kg				03/22/10	17:09
QC1202063616	248159001	MS									
Nitrate-N	63.4	U	ND		56.9	mg/kg	89.8 *	(90%-110%)		03/22/10	18:56
QC1202063617	248159001	MSD									
Nitrate-N	63.4	U	ND		56.8	mg/kg	0.169	89.6 * (0%-20%)		03/22/10	19:23

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

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### QC Summary

Workorder: 248202

Page 2 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD %	REC %	Range	Anlst	Date	Time
>	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										
JNX	Non Calibrated Compound										
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	Compound cannot be extracted										
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: 248202

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: 24-MAR-2010 17:07

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2124

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	09-MAR-2010 12:07:51	OM_3-9-2010_11-57-23	149	150	99.3	(90%-110%)	Yes
CCV	09-MAR-2010 13:49:29	OM_3-9-2010_11-57-23	104	100	104	(90%-110%)	Yes
CCV	09-MAR-2010 14:01:59	OM_3-9-2010_11-57-23	104	100	104	(90%-110%)	Yes
CCV	09-MAR-2010 14:14:37	OM_3-9-2010_11-57-23	103	100	103	(90%-110%)	Yes
CCV	09-MAR-2010 15:00:31	OM_3-9-2010_14-57-11	103	100	103	(90%-110%)	Yes
CCV	09-MAR-2010 15:13:07	OM_3-9-2010_14-57-11	107	100	107	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	09-MAR-2010 12:09:41	OM_3-9-2010_11-57-23	1.3	10	Yes
CCB	09-MAR-2010 13:51:19	OM_3-9-2010_11-57-23	-2.64	10	Yes
CCB	09-MAR-2010 14:03:49	OM_3-9-2010_11-57-23	-2.62	10	Yes
CCB	09-MAR-2010 14:16:28	OM_3-9-2010_11-57-23	-2.62	10	Yes
CCB	09-MAR-2010 15:02:22	OM_3-9-2010_14-57-11	-3.2	10	Yes
CCB	09-MAR-2010 15:14:59	OM_3-9-2010_14-57-11	-3.21	10	Yes

# INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-MAR-2010 17:07

**GEL Laboratories LLC**

**Contract: LANL01004**

**SDG #: 10-2124**

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
<b>ICV</b>	<b>22-MAR-2010 12:37:00</b>	<b>100322</b>	<b>4.6718</b>	<b>5</b>	<b>93.4</b>	<b>(90%-110%)</b>	<b>Yes</b>
CCV	22-MAR-2010 16:16:00	100322	4.7099	5	94.2	(90%-110%)	Yes
CCV	22-MAR-2010 21:38:00	100322	7.2381	7.5	96.5	(90%-110%)	Yes
CCV	22-MAR-2010 23:52:00	100322	4.6492	5	93	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
<b>ICB</b>	<b>22-MAR-2010 13:54:00</b>	<b>100322</b>	<b>0</b>	<b>0.1</b>	<b>Yes</b>
CCB	22-MAR-2010 16:42:00	100322	0	0.1	Yes
CCB	22-MAR-2010 22:05:00	100322	0	0.1	Yes
CCB	23-MAR-2010 00:19:00	100322	0	0.1	Yes

# Cyanide, Total

# Prep Logbook

## Cyanide Sample Distillation

Verified by:

Batch ID: 959209.0

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	1202057144	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202057140	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202057141	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202057142	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202057143	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
1202057137 MB	09-MAR-2010 11:21:00	Soil	0.5	25	50	>12
1202057144 LCS	09-MAR-2010 11:21:00	Soil	0.25	25	100	>12
248016004	09-MAR-2010 11:21:00	Soil	0.54	25	46.2963	>12
1202057138 DUP (248016004)	09-MAR-2010 11:21:00	Soil	0.55	25	45.45455	>12
1202057140 MS (248016004)	09-MAR-2010 11:21:00	Soil	0.55	25	45.45455	>12
1202057142 MSD (248016004)	09-MAR-2010 11:21:00	Soil	0.57	25	43.85965	>12
248025003	09-MAR-2010 11:21:00	Soil	0.51	25	49.01961	>12
1202057139 DUP (248025003)	09-MAR-2010 11:21:00	Soil	0.57	25	43.85965	>12
1202057141 MS (248025003)	09-MAR-2010 11:21:00	Soil	0.57	25	43.85965	>12
1202057143 MSD (248025003)	09-MAR-2010 11:21:00	Soil	0.55	25	45.45455	>12
248025005	09-MAR-2010 11:21:00	Soil	0.56	25	44.64286	>12
248025007	09-MAR-2010 11:21:00	Soil	0.57	25	43.85965	>12
248159001	09-MAR-2010 11:21:00	Soil	0.52	25	48.07692	>12
248159002	09-MAR-2010 11:21:00	Soil	0.53	25	47.16981	>12
248198001	09-MAR-2010 11:21:00	Soil	0.51	25	49.01961	>12
248198002	09-MAR-2010 11:21:00	Soil	0.5	25	50	>12
248198003	09-MAR-2010 11:21:00	Soil	0.52	25	48.07692	>12
248198004	09-MAR-2010 11:21:00	Soil	0.55	25	45.45455	>12
248198005	09-MAR-2010 11:21:00	Soil	0.53	25	47.16981	>12
248198006	09-MAR-2010 11:21:00	Soil	0.55	25	45.45455	>12
248198007	09-MAR-2010 11:21:00	Soil	0.5	25	50	>12

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC



# Prep Logbook

**Batch ID:** 959209.0  
**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	1202057144	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202057140	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202057141	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202057142	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202057143	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
248198008	09-MAR-2010 11:21:00	Soil	0.5	25	50	>12
248198009	09-MAR-2010 11:21:00	Soil	0.5	25	50	>12
248198010	09-MAR-2010 11:21:00	Soil	0.54	25	46.2963	>12
248198011	09-MAR-2010 11:21:00	Soil	0.52	25	48.07692	>12
248198012	09-MAR-2010 11:21:00	Soil	0.53	25	47.16981	>12
248202001	09-MAR-2010 11:21:00	Soil	0.5	25	50	>12
248202002	09-MAR-2010 11:21:00	Soil	0.57	25	43.85965	>12

## Comments:

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
W/CNI00308-07	150 ppb CN Distilled ICV Standard	.0375 mL

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/9/2010 12:00:41	OM_3-9-2010_11-57-23
150 ppb		1	axc2	3/9/2010 12:01:33	OM_3-9-2010_11-57-23
100 ppb		1	axc2	3/9/2010 12:02:26	OM_3-9-2010_11-57-23
50 ppb		1	axc2	3/9/2010 12:03:19	OM_3-9-2010_11-57-23
10 ppb		1	axc2	3/9/2010 12:04:12	OM_3-9-2010_11-57-23
CRDL 5.0 ppb		1	axc2	3/9/2010 12:05:06	OM_3-9-2010_11-57-23
ICAL-00		1	axc2	3/9/2010 12:06:00	OM_3-9-2010_11-57-23
ICV		1	axc2	3/9/2010 12:07:51	OM_3-9-2010_11-57-23
ICB		1	axc2	3/9/2010 12:09:41	OM_3-9-2010_11-57-23
CRDL		1	axc2	3/9/2010 12:11:31	OM_3-9-2010_11-57-23
1202064105	962251	1	axc2	3/9/2010 12:13:20	OM_3-9-2010_11-57-23
1202064112	962251	25	axc2	3/9/2010 12:14:14	OM_3-9-2010_11-57-23
248635001	962251	1	axc2	3/9/2010 12:15:07	OM_3-9-2010_11-57-23
1202064106	962251	1	axc2	3/9/2010 12:16:00	OM_3-9-2010_11-57-23
1202064108	962251	1	axc2	3/9/2010 12:16:53	OM_3-9-2010_11-57-23
1202064110*	962251	1	axc2	3/9/2010 12:17:46	OM_3-9-2010_11-57-23
248635002	962251	1	axc2	3/9/2010 12:18:38	OM_3-9-2010_11-57-23
1202064107	962251	1	axc2	3/9/2010 12:19:31	OM_3-9-2010_11-57-23
1202064109	962251	1	axc2	3/9/2010 12:20:24	OM_3-9-2010_11-57-23
1202064111	962251	1	axc2	3/9/2010 12:21:16	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010 12:22:08	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010 12:23:58	OM_3-9-2010_11-57-23
248635003	962251	1	axc2	3/9/2010 12:25:47	OM_3-9-2010_11-57-23
248635004	962251	1	axc2	3/9/2010 12:26:39	OM_3-9-2010_11-57-23
1202064110	962251	1	axc2	3/9/2010 12:27:31	OM_3-9-2010_11-57-23
248635005	962251	1	axc2	3/9/2010 12:28:23	OM_3-9-2010_11-57-23
248635006	962251	1	axc2	3/9/2010 12:29:15	OM_3-9-2010_11-57-23
248635007	962251	1	axc2	3/9/2010 12:30:07	OM_3-9-2010_11-57-23
248635008	962251	1	axc2	3/9/2010 12:31:00	OM_3-9-2010_11-57-23
248635009	962251	1	axc2	3/9/2010 12:31:54	OM_3-9-2010_11-57-23
248635010	962251	1	axc2	3/9/2010 12:32:48	OM_3-9-2010_11-57-23
248635011	962251	1	axc2	3/9/2010 12:33:41	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010 12:34:33	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010 12:36:23	OM_3-9-2010_11-57-23
248635012	962251	1	axc2	3/9/2010 12:38:13	OM_3-9-2010_11-57-23
248635013	962251	1	axc2	3/9/2010 12:39:06	OM_3-9-2010_11-57-23
248635014	962251	1	axc2	3/9/2010 12:39:59	OM_3-9-2010_11-57-23
248658001	962251	1	axc2	3/9/2010 12:40:52	OM_3-9-2010_11-57-23
248658002	962251	1	axc2	3/9/2010 12:41:45	OM_3-9-2010_11-57-23
248658003	962251	1	axc2	3/9/2010 12:42:37	OM_3-9-2010_11-57-23
248658004	962251	1	axc2	3/9/2010 12:43:29	OM_3-9-2010_11-57-23
248658005	962251	1	axc2	3/9/2010 12:44:21	OM_3-9-2010_11-57-23
248833001	962251	1	axc2	3/9/2010 12:45:13	OM_3-9-2010_11-57-23
1202057121	959206	1	axc2	3/9/2010 12:46:05	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010 12:46:58	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010 12:48:48	OM_3-9-2010_11-57-23
1202057128	959206	25	axc2	3/9/2010 12:50:36	OM_3-9-2010_11-57-23
248150001	959206	1	axc2	3/9/2010 12:51:30	OM_3-9-2010_11-57-23
1202057123	959206	1	axc2	3/9/2010 12:52:24	OM_3-9-2010_11-57-23
1202057125	959206	1	axc2	3/9/2010 12:53:18	OM_3-9-2010_11-57-23
1202057127	959206	1	axc2	3/9/2010 12:54:11	OM_3-9-2010_11-57-23
248150002	959206	1	axc2	3/9/2010 12:55:04	OM_3-9-2010_11-57-23
248150003	959206	1	axc2	3/9/2010 12:55:57	OM_3-9-2010_11-57-23
1202057122	959206	1	axc2	3/9/2010 12:56:50	OM_3-9-2010_11-57-23
1202057124	959206	1	axc2	3/9/2010 12:57:43	OM_3-9-2010_11-57-23
1202057126	959206	1	axc2	3/9/2010 12:58:36	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010 12:59:29	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010 13:01:19	OM_3-9-2010_11-57-23

248150004	959206	1	axc2	3/9/2010	13:03:08	OM_3-9-2010_11-57-23
248233001	959206	1	axc2	3/9/2010	13:04:00	OM_3-9-2010_11-57-23
248233002	959206	1	axc2	3/9/2010	13:04:53	OM_3-9-2010_11-57-23
248233003	959206	1	axc2	3/9/2010	13:05:45	OM_3-9-2010_11-57-23
248233004	959206	1	axc2	3/9/2010	13:06:37	OM_3-9-2010_11-57-23
248233005	959206	1	axc2	3/9/2010	13:07:29	OM_3-9-2010_11-57-23
248233006	959206	1	axc2	3/9/2010	13:08:24	OM_3-9-2010_11-57-23
248233007	959206	1	axc2	3/9/2010	13:09:17	OM_3-9-2010_11-57-23
248233008	959206	1	axc2	3/9/2010	13:10:11	OM_3-9-2010_11-57-23
248233009	959206	1	axc2	3/9/2010	13:11:05	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010	13:11:57	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010	13:13:47	OM_3-9-2010_11-57-23
248233010	959206	1	axc2	3/9/2010	13:15:37	OM_3-9-2010_11-57-23
248233011	959206	1	axc2	3/9/2010	13:16:30	OM_3-9-2010_11-57-23
248233012	959206	1	axc2	3/9/2010	13:17:23	OM_3-9-2010_11-57-23
248233013	959206	1	axc2	3/9/2010	13:18:16	OM_3-9-2010_11-57-23
1202057129	959208	1	axc2	3/9/2010	13:19:09	OM_3-9-2010_11-57-23
1202057136	959208	25	axc2	3/9/2010	13:20:02	OM_3-9-2010_11-57-23
248009006	959208	1	axc2	3/9/2010	13:20:54	OM_3-9-2010_11-57-23
248009007	959208	1	axc2	3/9/2010	13:21:47	OM_3-9-2010_11-57-23
248016001	959208	1	axc2	3/9/2010	13:22:39	OM_3-9-2010_11-57-23
248016002	959208	1	axc2	3/9/2010	13:23:31	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010	13:24:24	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010	13:26:14	OM_3-9-2010_11-57-23
248016003	959208	1	axc2	3/9/2010	13:28:02	OM_3-9-2010_11-57-23
248203002	959208	1	axc2	3/9/2010	13:28:57	OM_3-9-2010_11-57-23
248233014	959208	1	axc2	3/9/2010	13:29:50	OM_3-9-2010_11-57-23
1202057130	959208	1	axc2	3/9/2010	13:30:45	OM_3-9-2010_11-57-23
1202057132	959208	1	axc2	3/9/2010	13:31:38	OM_3-9-2010_11-57-23
1202057134	959208	1	axc2	3/9/2010	13:32:32	OM_3-9-2010_11-57-23
248233015	959208	1	axc2	3/9/2010	13:33:26	OM_3-9-2010_11-57-23
1202057131	959208	1	axc2	3/9/2010	13:34:19	OM_3-9-2010_11-57-23
1202057133	959208	1	axc2	3/9/2010	13:35:12	OM_3-9-2010_11-57-23
1202057135	959208	1	axc2	3/9/2010	13:36:06	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010	13:36:58	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010	13:38:49	OM_3-9-2010_11-57-23
248233016	959208	1	axc2	3/9/2010	13:40:37	OM_3-9-2010_11-57-23
248233017	959208	1	axc2	3/9/2010	13:41:30	OM_3-9-2010_11-57-23
248233018	959208	1	axc2	3/9/2010	13:42:23	OM_3-9-2010_11-57-23
248233019	959208	1	axc2	3/9/2010	13:43:15	OM_3-9-2010_11-57-23
248233020	959208	1	axc2	3/9/2010	13:44:07	OM_3-9-2010_11-57-23
248237001	959208	1	axc2	3/9/2010	13:45:00	OM_3-9-2010_11-57-23
248237002	959208	1	axc2	3/9/2010	13:45:54	OM_3-9-2010_11-57-23
248237003	959208	1	axc2	3/9/2010	13:46:48	OM_3-9-2010_11-57-23
248237004	959208	1	axc2	3/9/2010	13:47:42	OM_3-9-2010_11-57-23
248237005	959208	1	axc2	3/9/2010	13:48:37	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010	13:49:29	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010	13:51:19	OM_3-9-2010_11-57-23
248237006	959208	1	axc2	3/9/2010	13:53:09	OM_3-9-2010_11-57-23
248237007	959208	1	axc2	3/9/2010	13:54:02	OM_3-9-2010_11-57-23
1202057137	959210	1	axc2	3/9/2010	13:54:56	OM_3-9-2010_11-57-23
1202057144	959210	25	axc2	3/9/2010	13:55:49	OM_3-9-2010_11-57-23
248016004	959210	1	axc2	3/9/2010	13:56:43	OM_3-9-2010_11-57-23
1202057138	959210	1	axc2	3/9/2010	13:57:35	OM_3-9-2010_11-57-23
1202057140	959210	1	axc2	3/9/2010	13:58:29	OM_3-9-2010_11-57-23
1202057142	959210	1	axc2	3/9/2010	13:59:21	OM_3-9-2010_11-57-23
248025003	959210	1	axc2	3/9/2010	14:00:14	OM_3-9-2010_11-57-23
1202057139	959210	1	axc2	3/9/2010	14:01:06	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010	14:01:59	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010	14:03:49	OM_3-9-2010_11-57-23

1202057141	959210	1	axc2	3/9/2010 14:05:38	OM_3-9-2010_11-57-23
1202057143	959210	1	axc2	3/9/2010 14:06:32	OM_3-9-2010_11-57-23
248025005	959210	1	axc2	3/9/2010 14:07:27	OM_3-9-2010_11-57-23
248025007	959210	1	axc2	3/9/2010 14:08:21	OM_3-9-2010_11-57-23
248159001	959210	1	axc2	3/9/2010 14:09:15	OM_3-9-2010_11-57-23
248159002	959210	1	axc2	3/9/2010 14:10:09	OM_3-9-2010_11-57-23
248198001	959210	1	axc2	3/9/2010 14:11:04	OM_3-9-2010_11-57-23
248198002	959210	1	axc2	3/9/2010 14:11:58	OM_3-9-2010_11-57-23
248198003	959210	1	axc2	3/9/2010 14:12:51	OM_3-9-2010_11-57-23
248198004	959210	1	axc2	3/9/2010 14:13:45	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010 14:14:37	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010 14:16:28	OM_3-9-2010_11-57-23

Original Run Filename: OM\_3-9-2010\_11-57-23.OMN created 3/9/2010 11:57:23  
 Original Run Author's Signature: [axc2]  
 Current Run Filename: OM\_3-9-2010\_11-57-23.OMN last modified 3/9/2010 14:17:33  
 Current Run Author's Signature: [axc2]  
 Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M  
 Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1		Detection Time	ADF	MDF	Description
			TCYANIDE					
			Conc. (ug/L)	Area (Vs)				
WCN100309-01	1	S1	200	10.4	3/9/2010@12:00:41			200 ppb
WCN100309-02	1	S2	150	7.71	3/9/2010@12:01:33			150 ppb
WCN100309-03	1	S3	100	5.04	3/9/2010@12:02:26			100 ppb
WCN100309-04	1	S4	50.0	2.89	3/9/2010@12:03:19			50 ppb
WCN100309-05	1	S5	10.0	0.718	3/9/2010@12:04:12			10 ppb
WCN100309-06	1	S6	5.00	0.434	3/9/2010@12:05:06			CRDL 5.0 ppb
WCN100309-08	1	S7	0.00	0.0640	3/9/2010@12:06:00			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99952 > 0.99500					
Message			Pass					
Action			Continue					
WCN100309-07	1	S8	149	7.73	3/9/2010@12:07:51			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			-0.4 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-0.4 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100309-08	1	S7	1.30	0.228	3/9/2010@12:09:41			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			1.30 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.30 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100309-06	1	S6	4.64	0.397	3/9/2010@12:11:31			CRDL
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			4.64 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			4.64 > 2.50					
Message			Pass					
Action			None					
1202064105 962251 MB	1	1	-2.89	0.0155	3/9/2010@12:13:20			
1202064112  LCS	1	2	26.9	1.52	3/9/2010@12:14:14		25.00	
248635001	1	3	-2.70	0.0250	3/9/2010@12:15:07			
1202064106  DUP	1	4	2.49	0.288	3/9/2010@12:16:00			
1202064108  MS	1	5	101	5.28	3/9/2010@12:16:53			
1202064110  MSD	1	6	73.8	3.90	3/9/2010@12:17:46			
248635002	1	7	-0.895	0.116	3/9/2010@12:18:38			
1202064107  DUP	1	8	-1.34	0.0937	3/9/2010@12:19:31			
1202064109  MS	1	9	88.8	4.66	3/9/2010@12:20:24			
1202064111  MSD	1	10	97.3	5.09	3/9/2010@12:21:16			
WCN100309-03	1	S3	102	5.32	3/9/2010@12:22:08			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			2.0 < 10.0					

			Message	CCV Passed				
			Action	Continue				
DQM Test: < - Percent Relative Difference								
			Result:	2.0 < 10.0				
			Message	CCV Passed				
			Action	Continue				
WCN100309-08	1	S7		-2.29	0.0456	3/9/2010@12:23:58		CCB
			Known Conc:	0.00				
DQM Test: > + Concentration Limit								
			Result:	-2.29 < 5.00				
			Message	CCB Passed				
			Action	Continue				
DQM Test: < - Concentration Limit								
			Result:	-2.29 > -5.00				
			Message	CCB Passed				
			Action	Continue				
248635003	1	11		-1.23	0.0996	3/9/2010@12:25:47		
248635004	1	12		-1.74	0.0736	3/9/2010@12:26:39		
1202064110 MSD	1	6		91.2	4.78	3/9/2010@12:27:31		
248635005	1	13		18.8	1.11	3/9/2010@12:28:23		
248635006	1	14		-1.56	0.0824	3/9/2010@12:29:15		
248635007	1	15		-2.47	0.0367	3/9/2010@12:30:07		
248635008	1	16		-1.82	0.0693	3/9/2010@12:31:00		
248635009	1	17		-2.00	0.0603	3/9/2010@12:31:54		
248635010	1	18		-1.75	0.0732	3/9/2010@12:32:48		
248635011	1	19		-1.96	0.0623	3/9/2010@12:33:41		
WCN100309-03	1	S3		102	5.34	3/9/2010@12:34:33		CCV
			Known Conc:	100				
DQM Test: > + Percent Relative Difference								
			Result:	2.3 < 10.0				
			Message	CCV Passed				
			Action	Continue				
DQM Test: < - Percent Relative Difference								
			Result:	2.3 < 10.0				
			Message	CCV Passed				
			Action	Continue				
WCN100309-08	1	S7		-2.61	0.0297	3/9/2010@12:36:23		CCB
			Known Conc:	0.00				
DQM Test: > + Concentration Limit								
			Result:	-2.61 < 5.00				
			Message	CCB Passed				
			Action	Continue				
DQM Test: < - Concentration Limit								
			Result:	-2.61 > -5.00				
			Message	CCB Passed				
			Action	Continue				
248635012	1	20		-1.70	0.0757	3/9/2010@12:38:13		
248635013	1	21		-1.92	0.0643	3/9/2010@12:39:06		
248635014	1	22		-2.19	0.0507	3/9/2010@12:39:59		
248658001	1	23		4.37	0.383	3/9/2010@12:40:52		
248658002	1	24		-2.35	0.0428	3/9/2010@12:41:45		
248658003	1	25		6.98	0.515	3/9/2010@12:42:37		
248658004	1	26		-2.38	0.0413	3/9/2010@12:43:29		
248658005	1	27		-3.20	-1.68e-4	3/9/2010@12:44:21		
248833001	1	28		0.788	0.201	3/9/2010@12:45:13		
1202057121 959206 MB	1	29		-2.21	0.0497	3/9/2010@12:46:05		
WCN100309-03	1	S3		103	5.38	3/9/2010@12:46:58		CCV
			Known Conc:	100				
DQM Test: > + Percent Relative Difference								
			Result:	3.1 < 10.0				
			Message	CCV Passed				
			Action	Continue				
DQM Test: < - Percent Relative Difference								
			Result:	3.1 < 10.0				
			Message	CCV Passed				
			Action	Continue				
WCN100309-08	1	S7		-2.19	0.0507	3/9/2010@12:48:48		CCB
			Known Conc:	0.00				

DQM Test: > + Concentration Limit							
Result:		-2.19 < 5.00					
Message		CCB Passed					
Action		Continue					
DQM Test: < - Concentration Limit							
Result:		-2.19 > -5.00					
Message		CCB Passed					
Action		Continue					
1202057128  LCS	1	30	16.0	0.971	3/9/2010@12:50:36	25.00	
248150001	1	31	-2.01	0.0601	3/9/2010@12:51:30		
1202057123  DUP	1	32	-2.21	0.0495	3/9/2010@12:52:24		
1202057125  MS	1	33	94.1	4.93	3/9/2010@12:53:18		
1202057127  MSD	1	34	102	5.35	3/9/2010@12:54:11		
248150002	1	35	-2.41	0.0396	3/9/2010@12:55:04		
248150003	1	36	-3.35	-0.00807	3/9/2010@12:55:57		
1202057122  DUP	1	37	-2.20	0.0500	3/9/2010@12:56:50		
1202057124  MS	1	38	93.1	4.88	3/9/2010@12:57:43		
1202057126  MSD	1	39	101	5.29	3/9/2010@12:58:36		
WCN100309-03	1	S3	103	5.39	3/9/2010@12:59:29		CCV
Known Conc:		100					
DQM Test: > + Percent Relative Difference							
Result:		3.2 < 10.0					
Message		CCV Passed					
Action		Continue					
DQM Test: < - Percent Relative Difference							
Result:		3.2 < 10.0					
Message		CCV Passed					
Action		Continue					
WCN100309-08	1	S7	-3.29	-0.00505	3/9/2010@13:01:19		CCB
Known Conc:		0.00					
DQM Test: > + Concentration Limit							
Result:		-3.29 < 5.00					
Message		CCB Passed					
Action		Continue					
DQM Test: < - Concentration Limit							
Result:		-3.29 > -5.00					
Message		CCB Passed					
Action		Continue					
248150004	1	40	4.56	0.392	3/9/2010@13:03:08		
248233001	1	41	-0.178	0.153	3/9/2010@13:04:00		
248233002	1	42	-1.89	0.0661	3/9/2010@13:04:53		
248233003	1	43	-0.892	0.116	3/9/2010@13:05:45		
248233004	1	44	-1.37	0.0920	3/9/2010@13:06:37		
248233005	1	45	1.72	0.249	3/9/2010@13:07:29		
248233006	1	46	-0.449	0.139	3/9/2010@13:08:24		
248233007	1	47	-0.472	0.138	3/9/2010@13:09:17		
248233008	1	48	-2.47	0.0363	3/9/2010@13:10:11		
248233009	1	49	-1.83	0.0690	3/9/2010@13:11:05		
WCN100309-03	1	S3	103	5.38	3/9/2010@13:11:57		CCV
Known Conc:		100					
DQM Test: > + Percent Relative Difference							
Result:		3.1 < 10.0					
Message		CCV Passed					
Action		Continue					
DQM Test: < - Percent Relative Difference							
Result:		3.1 < 10.0					
Message		CCV Passed					
Action		Continue					
WCN100309-08	1	S7	-2.40	0.0399	3/9/2010@13:13:47		CCB
Known Conc:		0.00					
DQM Test: > + Concentration Limit							
Result:		-2.40 < 5.00					
Message		CCB Passed					
Action		Continue					
DQM Test: < - Concentration Limit							
Result:		-2.40 > -5.00					
Message		CCB Passed					
Action		Continue					

248233010	1	50	-1.31	0.0954	3/9/2010@13:15:37		
248233011	1	51	2.13	0.269	3/9/2010@13:16:30		
248233012	1	52	-2.29	0.0457	3/9/2010@13:17:23		
248233013	1	53	-3.19	-5.62e-5	3/9/2010@13:18:16		
1202057129 959208 MB	1	54	-2.50	0.0348	3/9/2010@13:19:09		
1202057136 LCS	1	55	21.3	1.24	3/9/2010@13:20:02	25.00	
248009006	1	56	0.355	0.180	3/9/2010@13:20:54		
248009007	1	57	-2.02	0.0593	3/9/2010@13:21:47		
248016001	1	58	-3.20	-3.29e-4	3/9/2010@13:22:39		
248016002	1	59	-1.81	0.0698	3/9/2010@13:23:31		
WCN100309-03	1	S3	103	5.40	3/9/2010@13:24:24		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			3.4 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			3.4 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100309-08	1	S7	-3.22	-0.00147	3/9/2010@13:26:14		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-3.22 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-3.22 > -5.00				
Message			CCB Passed				
Action			Continue				
248016003	1	60	-2.36	0.0423	3/9/2010@13:28:02		
248203002	1	61	3.85	0.357	3/9/2010@13:28:57		
248233014	1	62	-0.288	0.147	3/9/2010@13:29:50		
1202057130 DUP	1	63	0.100	0.167	3/9/2010@13:30:45		
1202057132 MS	1	64	92.5	4.84	3/9/2010@13:31:38		
1202057134 MSD	1	65	79.9	4.20	3/9/2010@13:32:32		
248233015	1	66	-3.34	-0.00759	3/9/2010@13:33:26		
1202057131 DUP	1	67	-2.22	0.0494	3/9/2010@13:34:19		
1202057133 MS	1	68	101	5.29	3/9/2010@13:35:12		
1202057135 MSD	1	69	98.6	5.15	3/9/2010@13:36:06		
WCN100309-03	1	S3	103	5.39	3/9/2010@13:36:58		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			3.4 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			3.4 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100309-08	1	S7	-3.31	-0.00620	3/9/2010@13:38:49		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-3.31 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-3.31 > -5.00				
Message			CCB Passed				
Action			Continue				
248233016	1	70	1.39	0.232	3/9/2010@13:40:37		
248233017	1	71	-2.62	0.0291	3/9/2010@13:41:30		
248233018	1	72	-2.05	0.0580	3/9/2010@13:42:23		
248233019	1	73	-1.46	0.0878	3/9/2010@13:43:15		
248233020	1	74	-0.206	0.151	3/9/2010@13:44:07		
248237001	1	75	86.4	4.53	3/9/2010@13:45:00		
248237002	1	76	-3.20	-1.38e-4	3/9/2010@13:45:54		
248237003	1	77	-1.59	0.0809	3/9/2010@13:46:48		



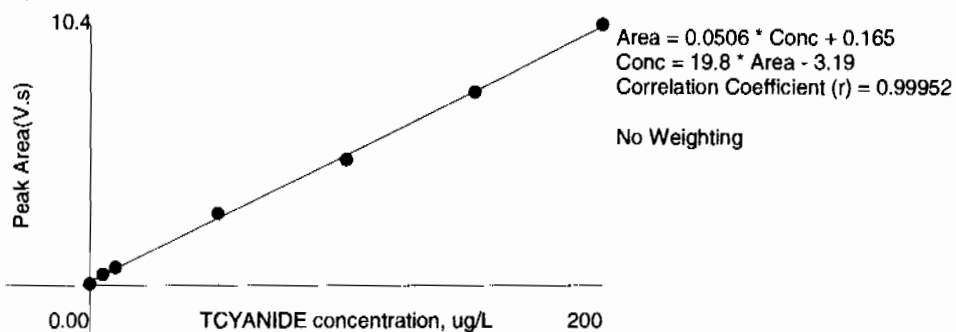
248237004	1	78	5.35	0.432	3/9/2010@13:47:42		
248237005	1	79	-2.60	0.0299	3/9/2010@13:48:37		
WCN100309-03	1	S3	104	5.40	3/9/2010@13:49:29		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			3.5 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			3.5 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100309-08	1	S7	-2.64	0.0281	3/9/2010@13:51:19		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-2.64 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-2.64 > -5.00				
Message			CCB Passed				
Action			Continue				
248237006	1	80	-2.30	0.0454	3/9/2010@13:53:09		
248237007	1	81	0.226	0.173	3/9/2010@13:54:02		
1202057137 959210 MB	1	82	-3.13	0.00320	3/9/2010@13:54:56		
1202057144 LCS	1	83	24.0	1.37	3/9/2010@13:55:49	25.00	
248016004	1	84	-2.18	0.0513	3/9/2010@13:56:43		
1202057138 DUP	1	85	-1.72	0.0745	3/9/2010@13:57:35		
1202057140 MS	1	86	95.3	4.99	3/9/2010@13:58:29		
1202057142 MSD	1	87	84.3	4.43	3/9/2010@13:59:21		
248025003	1	88	-2.42	0.0393	3/9/2010@14:00:14		
1202057139 DUP	1	89	-2.70	0.0249	3/9/2010@14:01:06		
WCN100309-03	1	S3	104	5.43	3/9/2010@14:01:59		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				
WCN100309-08	1	S7	-2.62	0.0292	3/9/2010@14:03:49		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-2.62 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-2.62 > -5.00				
Message			CCB Passed				
Action			Continue				
1202057141 MS	1	90	109	5.66	3/9/2010@14:05:38		
1202057143 MSD	1	91	111	5.79	3/9/2010@14:06:32		
248025005	1	92	-2.32	0.0440	3/9/2010@14:07:27		
248025007	1	93	-3.19	-1.36e-4	3/9/2010@14:08:21		
248159001	1	94	-2.56	0.0321	3/9/2010@14:09:15		
248159002	1	95	-3.27	-0.00381	3/9/2010@14:10:09		
248198001	1	96	16.5	0.996	3/9/2010@14:11:04		
248198002	1	97	1.42	0.233	3/9/2010@14:11:58		
248198003	1	98	3.53	0.340	3/9/2010@14:12:51		
248198004	1	99	0.666	0.195	3/9/2010@14:13:45		
WCN100309-03	1	S3	103	5.39	3/9/2010@14:14:37		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			3.2 < 10.0				
Message			CCV Passed				
Action			Continue				



Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.4	0.678	-0.7	3/9/2010	12:01:44
2	150	1	7.71	0.512	0.5	3/9/2010	12:02:36
3	100	1	5.04	0.334	3.6	3/9/2010	12:03:29
4	50.0	1	2.89	0.190	-7.2	3/9/2010	12:04:22
5	10.0	1	0.718	0.0464	-7.0	3/9/2010	12:05:15
6	5.00	1	0.434	0.0270	-3.8	3/9/2010	12:06:09
7	0.00	1	0.0640	0.00267		3/9/2010	12:07:03

Figure 1: TCYANIDE



This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	3/9/2010 15:00:31	OM_3-9-2010_14-57-11
CCB		1	axc2	3/9/2010 15:02:22	OM_3-9-2010_14-57-11
248198005	959210	1	axc2	3/9/2010 15:04:11	OM_3-9-2010_14-57-11
248198006	959210	1	axc2	3/9/2010 15:05:04	OM_3-9-2010_14-57-11
248198007	959210	1	axc2	3/9/2010 15:05:57	OM_3-9-2010_14-57-11
248198008	959210	1	axc2	3/9/2010 15:06:50	OM_3-9-2010_14-57-11
248198009	959210	1	axc2	3/9/2010 15:07:43	OM_3-9-2010_14-57-11
248198010	959210	1	axc2	3/9/2010 15:08:36	OM_3-9-2010_14-57-11
248198011	959210	1	axc2	3/9/2010 15:09:30	OM_3-9-2010_14-57-11
248198012	959210	1	axc2	3/9/2010 15:10:25	OM_3-9-2010_14-57-11
248202001	959210	1	axc2	3/9/2010 15:11:20	OM_3-9-2010_14-57-11
248202002	959210	1	axc2	3/9/2010 15:12:14	OM_3-9-2010_14-57-11
CCV		1	axc2	3/9/2010 15:13:07	OM_3-9-2010_14-57-11
CCB		1	axc2	3/9/2010 15:14:59	OM_3-9-2010_14-57-11
1202065974	963030	1	axc2	3/9/2010 15:16:51	OM_3-9-2010_14-57-11
1202065975	963030	1	axc2	3/9/2010 15:17:45	OM_3-9-2010_14-57-11
248044004	963030	1	axc2	3/9/2010 15:18:39	OM_3-9-2010_14-57-11
1202065976	963030	1	axc2	3/9/2010 15:19:33	OM_3-9-2010_14-57-11
1202065977	963030	1	axc2	3/9/2010 15:20:26	OM_3-9-2010_14-57-11
1202065978	963030	1	axc2	3/9/2010 15:21:20	OM_3-9-2010_14-57-11
1202064157	962265	1	axc2	3/9/2010 15:22:14	OM_3-9-2010_14-57-11
1202064159	962265	1	axc2	3/9/2010 15:23:07	OM_3-9-2010_14-57-11
248728001	962265	1	axc2	3/9/2010 15:23:59	OM_3-9-2010_14-57-11
1202064158	962265	1	axc2	3/9/2010 15:24:52	OM_3-9-2010_14-57-11
CCV		1	axc2	3/9/2010 15:25:45	OM_3-9-2010_14-57-11
CCB		1	axc2	3/9/2010 15:27:36	OM_3-9-2010_14-57-11
248833001	962265	1	axc2	3/9/2010 15:29:27	OM_3-9-2010_14-57-11
CCV		1	axc2	3/9/2010 15:30:20	OM_3-9-2010_14-57-11
CCB		1	axc2	3/9/2010 15:32:12	OM_3-9-2010_14-57-11

Original Run Filename: OM\_3-9-2010\_14-57-11.OMN created 3/9/2010 14:57:11  
 Original Run Author's Signature: [axc2]  
 Current Run Filename: OM\_3-9-2010\_14-57-11.OMN last modified 3/9/2010 15:33:16  
 Current Run Author's Signature: [axc2]  
 Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M  
 Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1		Detection Time	ADF	MDF	Description
			TCYANIDE	Area (Vs)				
WCN100309-03	1	S3	103	5.39	3/9/2010@15:00:31			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			3.4 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			3.4 < 10.0					
Message			CCV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100309-08	1	S7	-3.20	-2.06e-4	3/9/2010@15:02:22			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-3.20 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-3.20 > -5.00					
Message			CCB Passed					
Action			Continue					
248198005 959210	1	100	16.9	1.02	3/9/2010@15:04:11			
248198006	1	101	8.24	0.579	3/9/2010@15:05:04			
248198007	1	102	0.0197	0.163	3/9/2010@15:05:57			
248198008	1	103	-0.546	0.134	3/9/2010@15:06:50			
248198009	1	104	8.24	0.579	3/9/2010@15:07:43			
248198010	1	105	6.72	0.502	3/9/2010@15:08:36			
248198011	1	106	5.06	0.418	3/9/2010@15:09:30			
248198012	1	107	8.73	0.603	3/9/2010@15:10:25			
248202001	1	108	3.51	0.339	3/9/2010@15:11:20			
248202002	1	109	27.5	1.55	3/9/2010@15:12:14			
WCN100309-03	1	S3	107	5.60	3/9/2010@15:13:07			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			7.4 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			7.4 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100309-08	1	S7	-3.21	-7.87e-4	3/9/2010@15:14:59			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-3.21 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-3.21 > -5.00					
Message			CCB Passed					
Action			Continue					
1202065974 963030 MB	1	110	-3.19	1.70e-4	3/9/2010@15:16:51			
1202065975 LCS	1	111	51.8	2.78	3/9/2010@15:17:45			
248044004	1	112	-1.83	0.0689	3/9/2010@15:18:39			
1202065976 DUP	1	113	-2.25	0.0477	3/9/2010@15:19:33			
1202065977 MS	1	114	106	5.55	3/9/2010@15:20:26			

1202065978 MSD	1	115	109	5.70	3/9/2010@15:21:20		
1202064157 962265 MB	1	116	-2.32	0.0441	3/9/2010@15:22:14		
1202064159 LCS	1	117	-1.36	0.0928	3/9/2010@15:23:07		
248728001	1	118	3.51	0.339	3/9/2010@15:23:59		
1202064158 DUP	1	119	4.25	0.377	3/9/2010@15:24:52		
WCN100309-03	1	S3	109	5.69	3/9/2010@15:25:45		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			9.2 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			9.2 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100309-08	1	S7	-2.34	0.0432	3/9/2010@15:27:36		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				
248833001	1	120	0.457	0.185	3/9/2010@15:29:27		
WCN100309-03	1	S3	107	5.58	3/9/2010@15:30:20		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			7.1 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			7.1 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100309-08	1	S7	-2.49	0.0354	3/9/2010@15:32:12		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-2.49 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-2.49 > -5.00				
Message			CCB Passed				
Action			Continue				

Analyte Properties Table for OM\_3-9-2010\_14-57-11.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

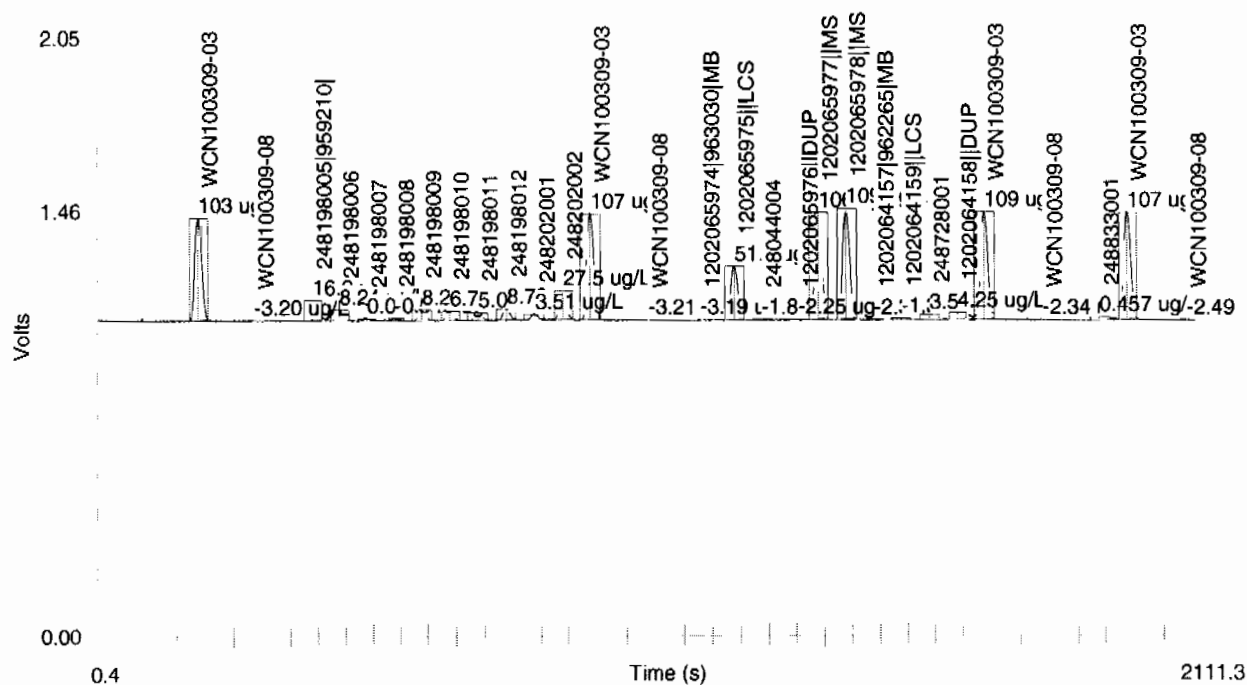
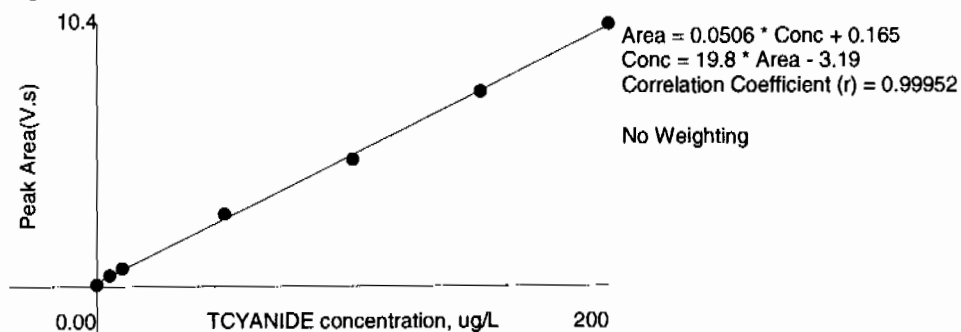


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.4	0.678	-0.7	3/9/2010	12:01:44
2	150	1	7.71	0.512	0.5	3/9/2010	12:02:36
3	100	1	5.04	0.334	3.6	3/9/2010	12:03:29
4	50.0	1	2.89	0.190	-7.2	3/9/2010	12:04:22
5	10.0	1	0.718	0.0464	-7.0	3/9/2010	12:05:15
6	5.00	1	0.434	0.0270	-3.8	3/9/2010	12:06:09
7	0.00	1	0.0640	0.00267		3/9/2010	12:07:03

Figure 1: TCYANIDE



# **Ion Chromatography**



Ion Chromatography (IC)

<b>Batch ID:</b>	962079.0	Verified by:	
<b>Analyst:</b>	Mary Sherwood		
<b>Method:</b>	EPA 300.0 PREP		
<b>Lab SOP:</b>	GL-GC-E-086 REV# 17		
<b>Instrument:</b>	Sartorius Balance B-001		
<b>Type</b>	<b>Sample Id</b>	<b>Description</b>	<b>Serial Number</b>
LCS	1202063618	GEL-ANION-4C Spiking Solution	UIC100224SPK
MS	1202063616	GEL-ANION-4C Spiking Solution	UIC100224SPK
MSD	1202063617	GEL-ANION-4C Spiking Solution	UIC100224SPK
			<b>Spike Amount</b>
			<b>Spike Units</b>
			.8 mL
			.8 mL
			.8 mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202063614 MB	22-MAR-2010 09:00:00	Soil	4	40	10	
1202063618 LCS	22-MAR-2010 09:00:00	Soil	4	40	10	
248159001	22-MAR-2010 09:00:00	Soil	4	40	10	
1202063615 DUP (248159001)	22-MAR-2010 09:00:00	Soil	4	40	10	
1202063616 MS (248159001)	22-MAR-2010 09:00:00	Soil	4	40	10	
1202063617 MSD (248159001)	22-MAR-2010 09:00:00	Soil	4	40	10	
248159002	22-MAR-2010 09:00:00	Soil	4	40	10	
248159003	22-MAR-2010 09:00:00	Soil	4	40	10	
248159004	22-MAR-2010 09:00:00	Soil	4	40	10	
248159005	22-MAR-2010 09:00:00	Soil	4	40	10	
248159006	22-MAR-2010 09:00:00	Soil	4	40	10	
248202001	22-MAR-2010 09:00:00	Soil	4	40	10	
248202002	22-MAR-2010 09:00:00	Soil	4	40	10	

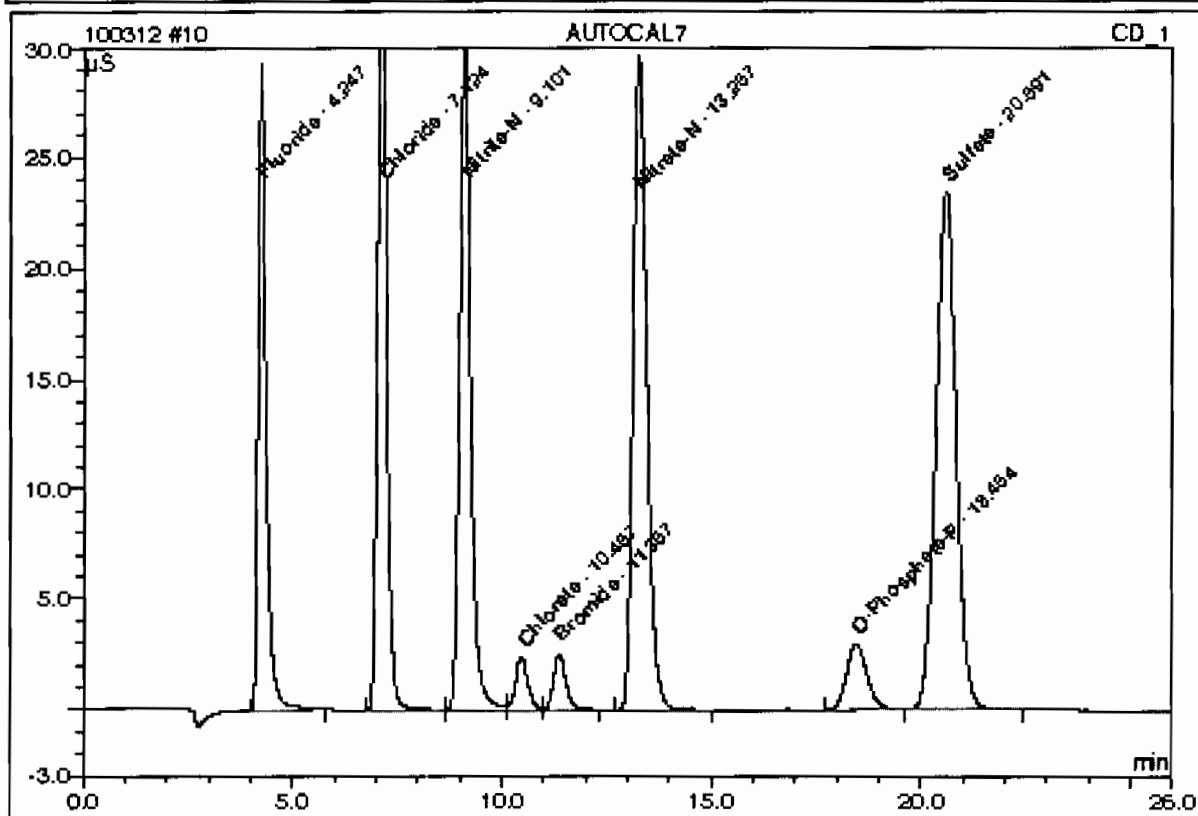
Reagent/Solvent Lot ID	Description	Amount	Comments:
------------------------	-------------	--------	-----------

This is runlog for Sequence 100312.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/12/10 11:16		1	100312	MAR1
BLK	03/12/10 11:44		1	100312	MAR1
ICAL-07	03/12/10 12:13		1	100312	MAR1
ICAL-06	03/12/10 12:42		1	100312	MAR1
ICAL-05	03/12/10 13:11		1	100312	MAR1
ICAL-04	03/12/10 13:40		1	100312	MAR1
ICAL-03	03/12/10 14:08		1	100312	MAR1
ICAL-02	03/12/10 14:37		1	100312	MAR1
ICAL-01	03/12/10 15:06		1	100312	MAR1
ICV	03/12/10 15:35		1	100312	MAR1
ICB	03/12/10 16:04		1	100312	MAR1
1202063659	03/12/10 16:33	962090	1	100312	MAR1
1202063663	03/12/10 17:02	962090	1	100312	MAR1
248065001	03/12/10 17:31	962090	1	100312	MAR1
1202063660	03/12/10 18:00	962090	1	100312	MAR1
1202063661	03/12/10 18:29	962090	1	100312	MAR1
1202063662	03/12/10 18:58	962090	1	100312	MAR1
248065002	03/12/10 19:27	962090	1	100312	MAR1
248065003	03/12/10 19:55	962090	1	100312	MAR1
248065004	03/12/10 20:24	962090	1	100312	MAR1
248065005	03/12/10 20:53	962090	1	100312	MAR1
CVH	03/12/10 21:22		1	100312	MAR1
CCB	03/12/10 21:51		1	100312	MAR1
248065006	03/12/10 22:20	962090	1	100312	MAR1
248065007	03/12/10 22:49	962090	1	100312	MAR1
248065008	03/12/10 23:18	962090	1	100312	MAR1
248068001	03/12/10 23:47	962090	1	100312	MAR1

**10 AUTOCAL7**

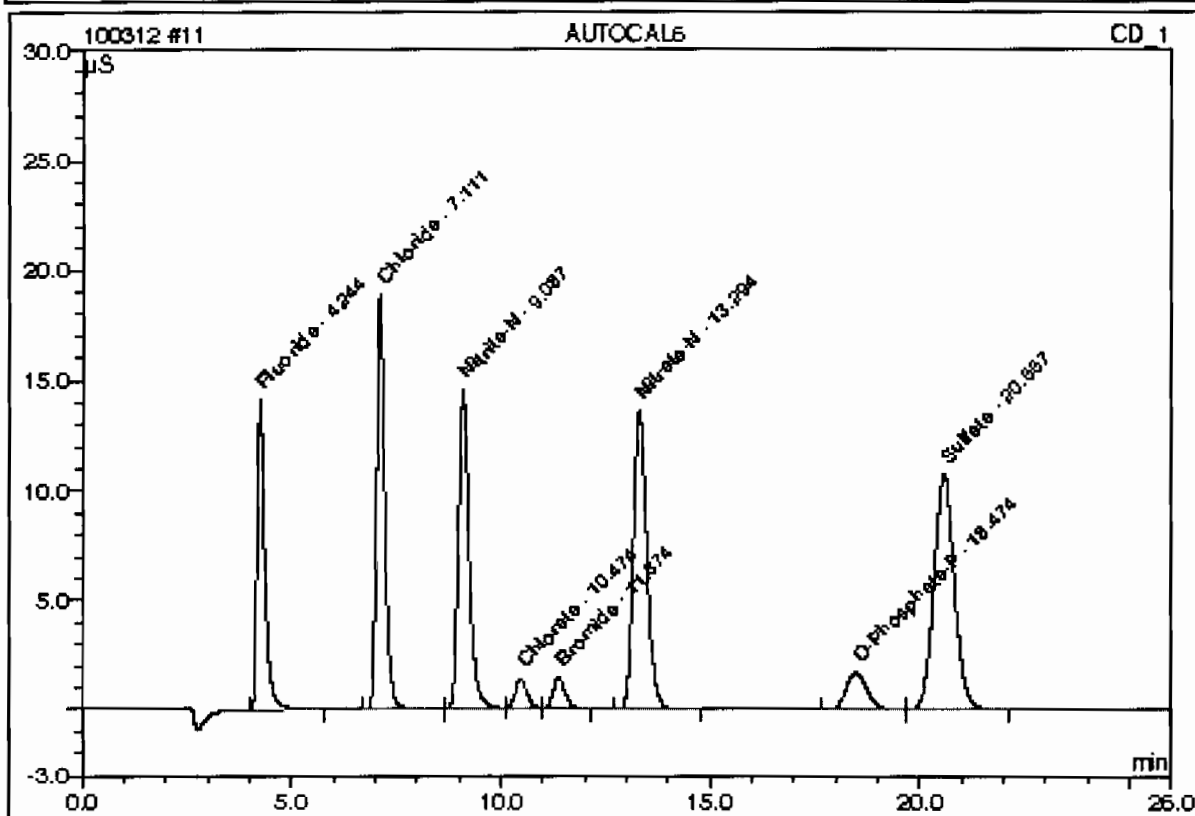
Sample Name:	AUTOCAL7	Injection Volume:	1.0
Vial Number:	3	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100312an	Sample Amount:	1.0000
Recording Time:	3/12/2010 12:13	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.25	Fluoride	10.0000	10.0082		6.22157	11.84
2	7.12	Chloride	20.0000	20.0326		9.47163	18.02
3	9.10	Nitrate-N	10.0000	10.0084		9.13994	17.39
4	10.47	Chlorate	5.0000	5.0492		0.79245	1.51
5	11.37	Bromide	5.0000	5.0195		0.84636	1.61
6	13.26	Nitrate-N	10.0000	10.0123		11.22910	21.36
7	18.45	O-Phosphate-P	5.0000	5.0489		1.66651	3.17
8	20.59	Sulfate	40.0000	40.0441		13.19754	25.11
Total:				105.2231	0.000	52.565	100.00

**11 AUTOCAL6**

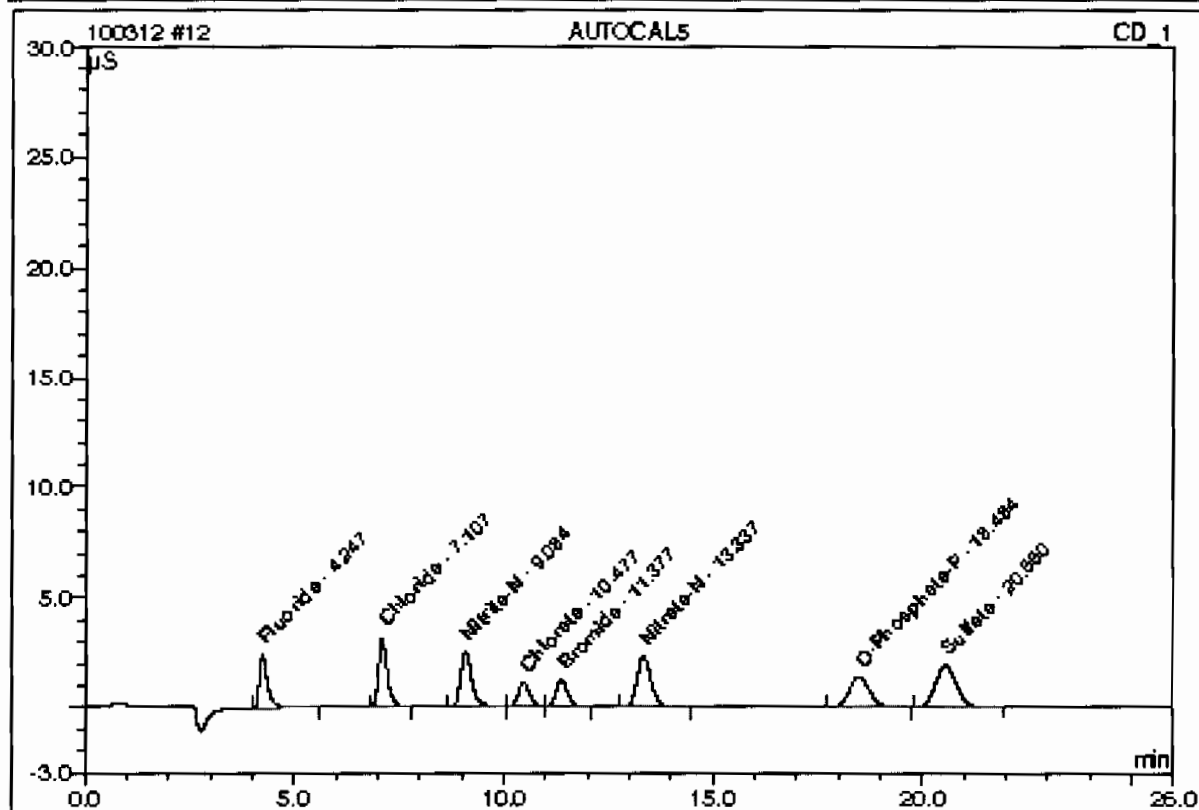
Sample Name:	AUTOCAL6	Injection Volume:	1.0
Vial Number:	4	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100312an	Sample Amount:	1.0000
Recording Time:	3/12/2010 12:42	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;8056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.24	Fluoride	5.0000	4.8561		2.99032	12.03
2	7.11	Chloride	10.0000	9.3413		4.33873	17.46
3	9.09	Nitrate-N	5.0000	4.8263		4.34814	17.50
4	10.47	Chlorate	3.0000	2.9358		0.46050	1.85
5	11.37	Bromide	3.0000	2.9362		0.49122	1.98
6	13.29	Nitrate-N	5.0000	4.8985		5.14610	20.71
7	18.47	O-Phosphate-P	3.0000	2.9248		0.95491	3.84
8	20.57	Sulfate	20.0000	18.9050		6.12051	24.63
Total:				51.4240	0.000	24.850	100.00

**12 AUTOCAL5**

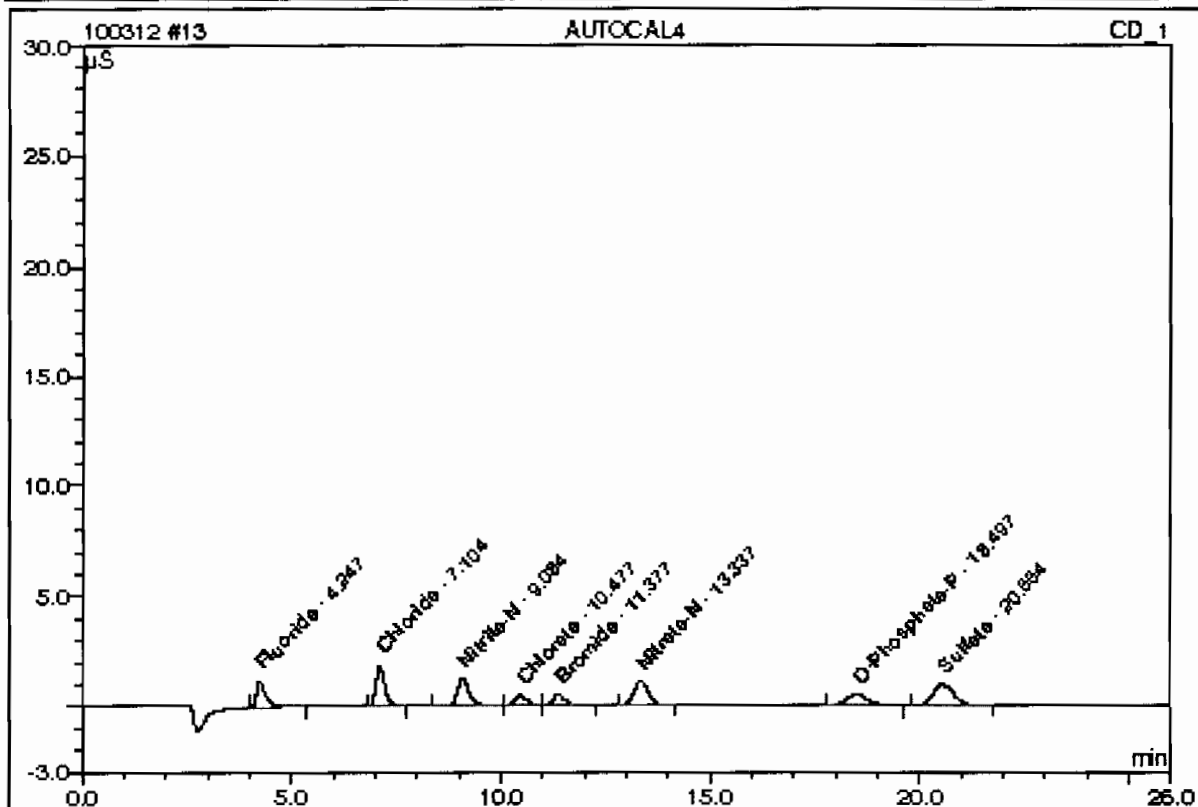
Sample Name:	AUTOCAL5	Injection Volume:	1.0
Vial Number:	5	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100312an	Sample Amount:	1.0000
Recording Time:	3/12/2010 13:11	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.25	Fluoride	1.0000	0.9247		0.54471	9.60
2	7.11	Chloride	2.0000	1.7462		0.75932	13.38
3	9.08	Nitrite-N	1.0000	0.9359		0.79384	13.99
4	10.48	Chlorate	2.5000	2.3846		0.36888	6.50
5	11.38	Bromide	2.5000	2.4488		0.40750	7.18
6	13.34	Nitrate-N	1.0000	0.9150		0.90731	15.99
7	18.48	O-Phosphate-P	2.5000	2.4403		0.78917	13.90
8	20.55	Sulfate	4.0000	3.6492		1.10495	19.47
Total:				15.4446	0.000	5.676	100.00

**13 AUTOCAL4**

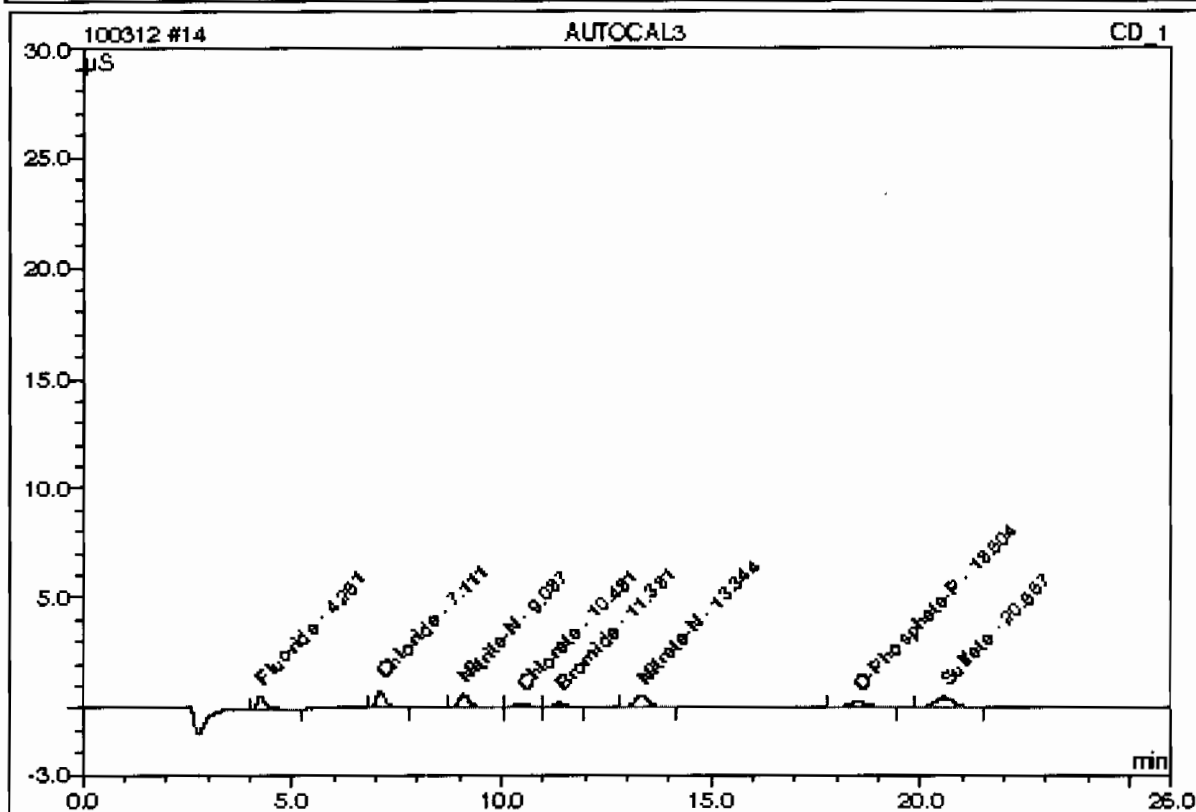
Sample Name:	AUTOCAL4	Injection Volume:	1.0
Vial Number:	6	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100312an	Sample Amount:	1.0000
Recording Time:	3/12/2010 13:40	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.25	Fluoride	0.5000	0.5181		0.29079	10.43
2	7.10	Chloride	1.0000	1.0724		0.44928	16.11
3	9.08	Nitrate-N	0.5000	0.5242		0.41773	14.98
4	10.48	Chlorate	1.0000	1.0431		0.15901	5.70
5	11.38	Bromide	1.0000	1.0406		0.17190	6.16
6	13.34	Nitrate-N	0.5000	0.5021		0.43247	15.51
7	18.50	O-Phosphate-P	1.0000	0.9735		0.29999	10.76
8	20.55	Sulfate	2.0000	2.0444		0.56783	20.36
Total:				7.7184	0.000	2.789	100.00

**14 AUTOCAL3**

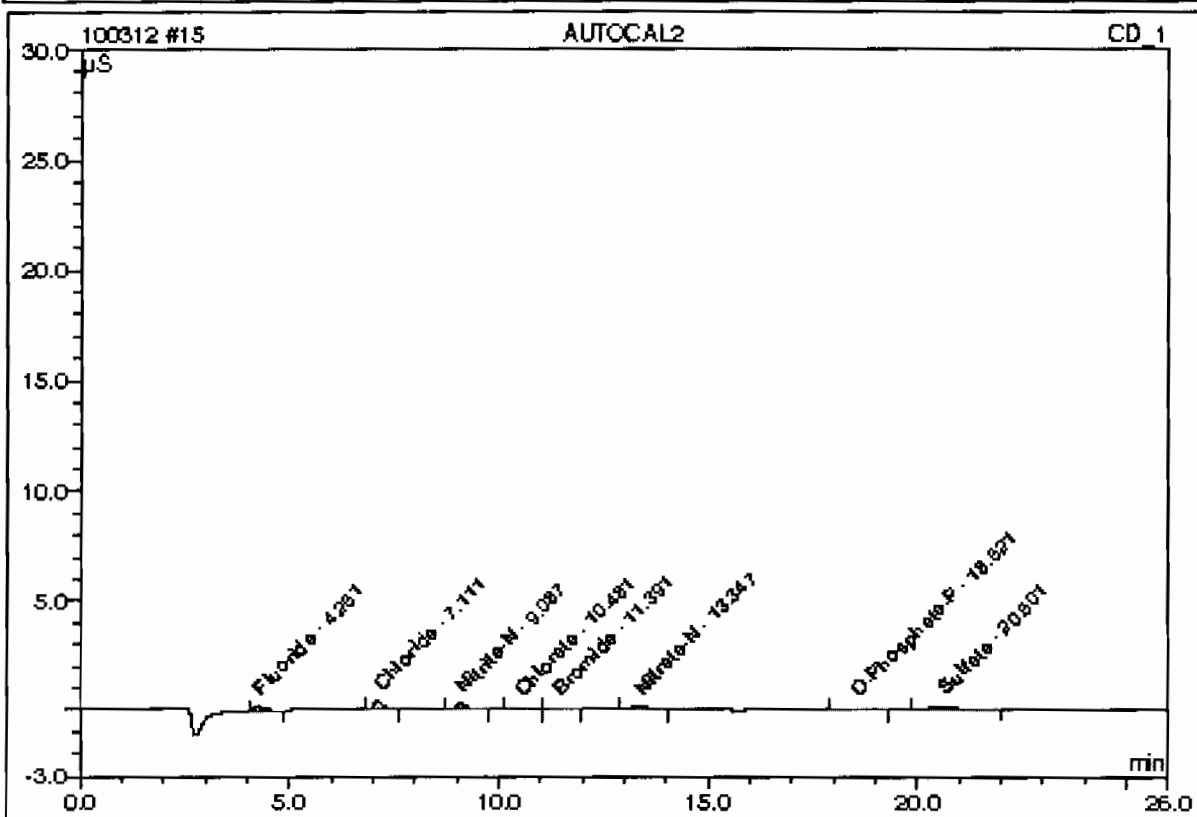
Sample Name:	AUTOCAL3	Injection Volume:	1.0
Vial Number:	7	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100312an	Sample Amount:	1.0000
Recording Time:	3/12/2010 14:08	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
1	4.25	Fluoride	0.2500	0.2767		0.13273	10.36
2	7.11	Chloride	0.5000	0.6177		0.19612	15.31
3	9.09	Nitrite-N	0.2500	0.2802		0.18850	14.72
4	10.48	Chlorate	0.5000	0.4873		0.07006	5.47
5	11.38	Bromide	0.5000	0.4930		0.07924	6.19
6	13.34	Nitrate-N	0.2500	0.3124		0.20857	16.29
7	18.50	O-Phosphate-P	0.5000	0.4938		0.13887	10.84
8	20.57	Sulfate	1.0000	1.2082		0.26661	20.82
Total:				4.1694	0.000	1.281	100.00

**15 AUTOCAL2**

Sample Name:	AUTOCAL2	Injection Volume:	1.0
Vial Number:	8	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100312an	Sample Amount:	1.0000
Recording Time:	3/12/2010 14:37	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056

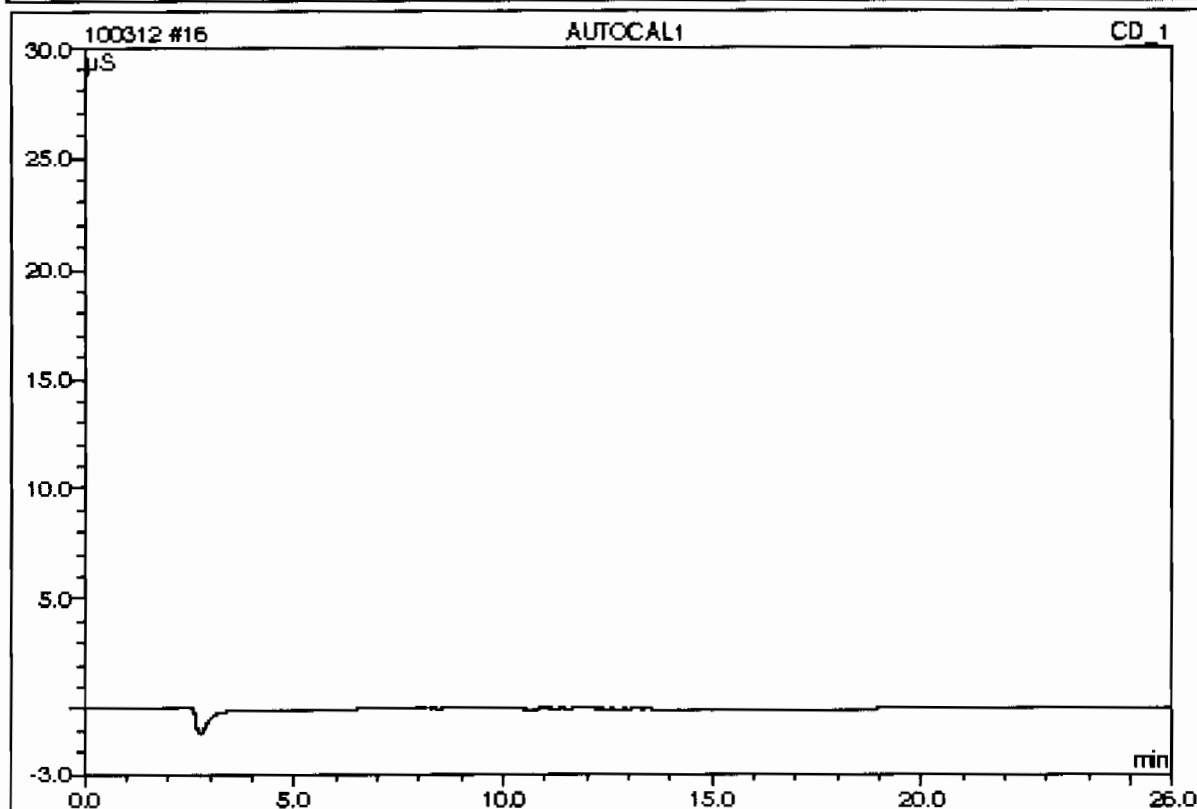


No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.25	Fluoride	0.1000	0.1393		0.05352	9.78
2	7.11	Chloride	0.2000	0.3635		0.09592	17.52
3	9.09	Nitrite-N	0.1000	0.1457		0.07635	13.95
4	10.48	Chlorate	0.2000	0.2155		0.02807	5.13
5	11.39	Bromide	0.2000	0.2128		0.03286	6.00
6	13.35	Nitrate-N	0.1000	0.1770		0.07876	14.39
7	18.52	O-Phosphate-P	0.2000	0.2166		0.04829	8.82
8	20.80	Sulfate	0.4000	0.7224		0.13373	24.43
Total:				2.1926	0.000	0.548	100.00



**16 AUTOCAL1**

Sample Name:	AUTOCAL1	Injection Volume:	1.0
Vial Number:	9	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100312an	Sample Amount:	1.0000
Recording Time:	3/12/2010 15:06	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

**16 AUTOCAL1**

Sample Name: AUTOCAL1

Vial Number: 9

Sample Type: standard

Control Program: AS23

Quantif. Method: 100312an

Recording Time: 3/12/2010 15:06

Run Time (min): 26.00

Injection Volume: 1.0

Channel: CD\_1

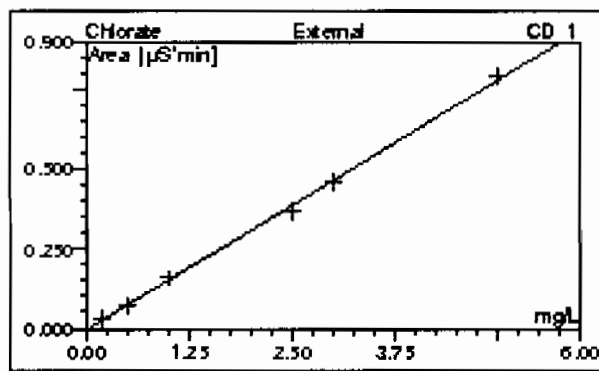
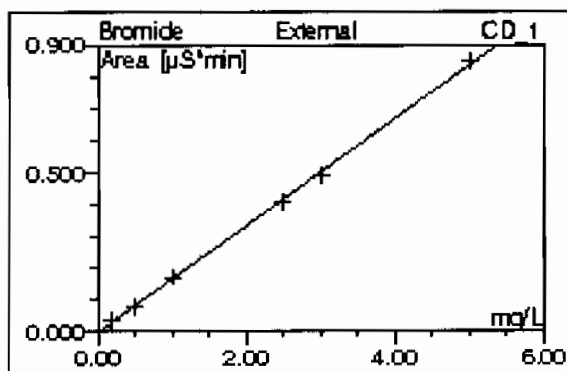
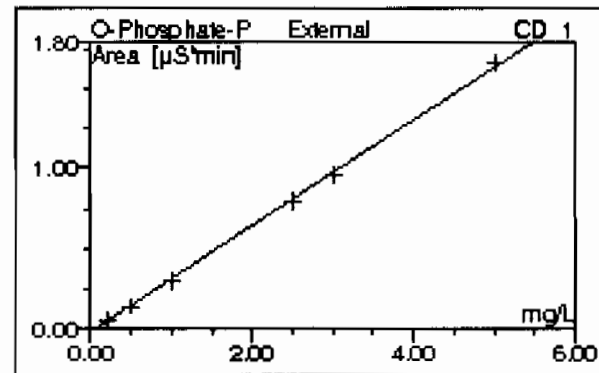
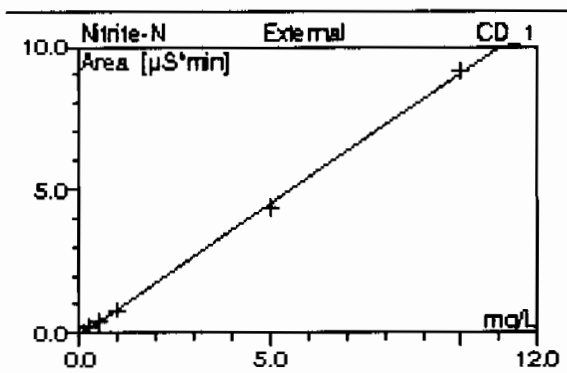
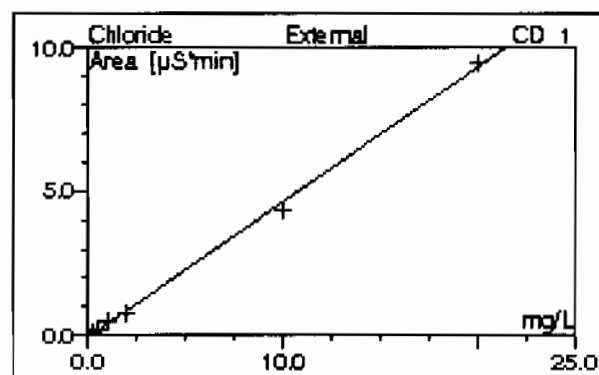
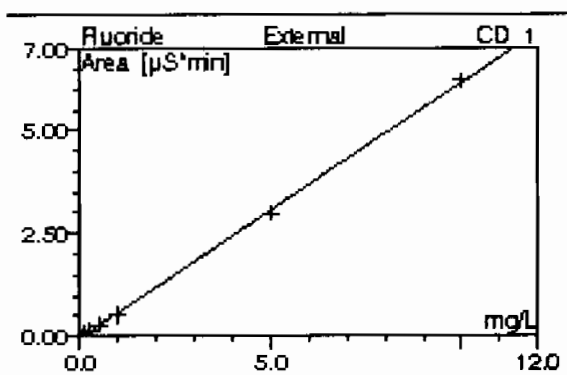
Dilution Factor: 1.0000

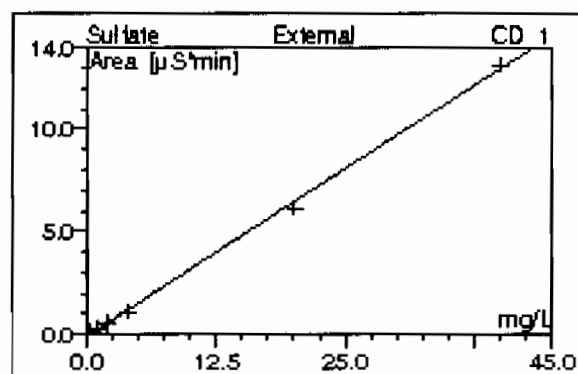
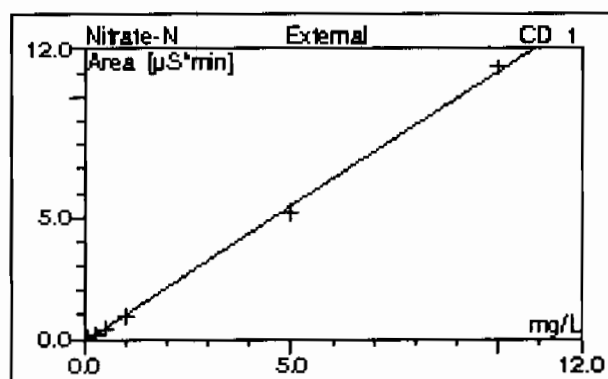
Sample Weight: 1.0000

Sample Amount: 1.0000

Analyst: MAR1

Column: AS23-002712; GL GCED86;300;9056

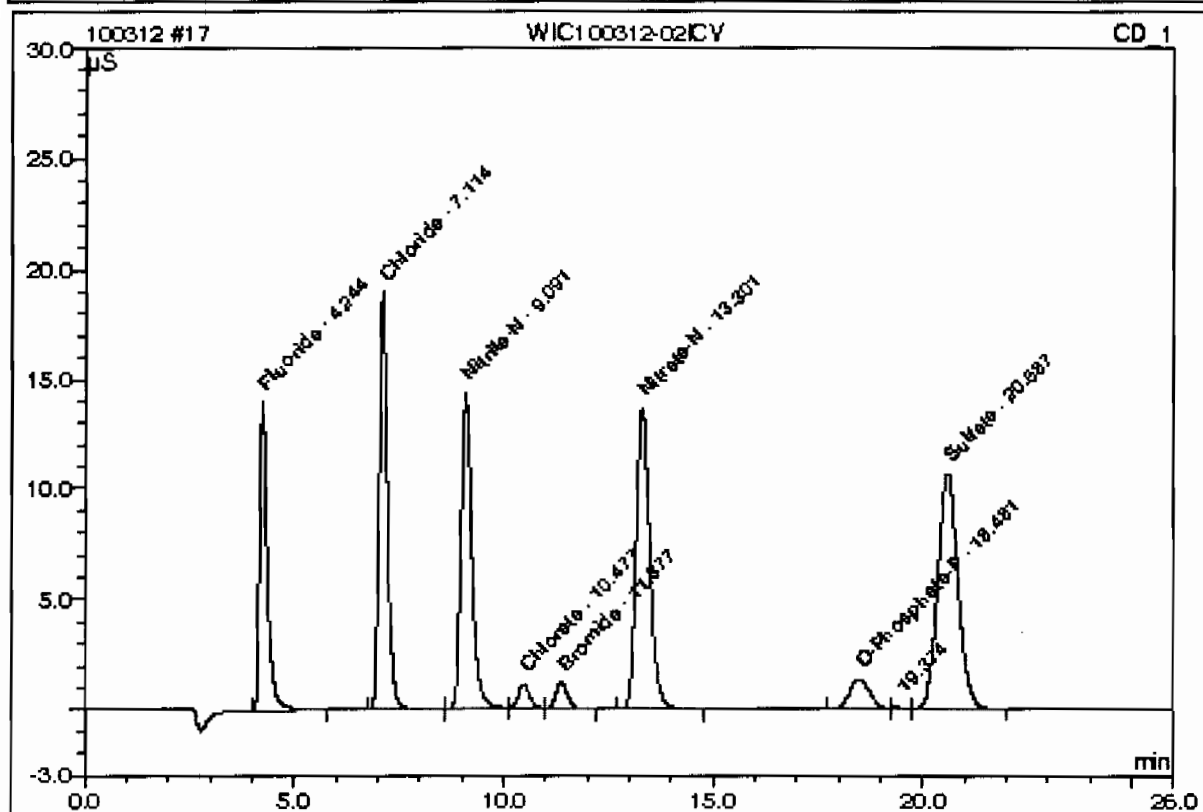




No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	OLO#	99.9627	-0.0330	0.6210	0.0000
n.a.	n.a.	Chloride	OLO#	99.8225	-0.0749	0.4699	0.0000
n.a.	n.a.	Nitrite-N	OLO#	99.9452	-0.0564	0.9115	0.0000
n.a.	n.a.	Chlorate	OLO#	99.8605	-0.0058	0.1574	0.0000
n.a.	n.a.	Bromide	OLO#	99.9304	-0.0029	0.1660	0.0000
n.a.	n.a.	Nitrate-N	OLO#	99.8475	-0.1191	1.1179	0.0000
n.a.	n.a.	O-Phosphate-P	OLO#	99.9176	-0.0239	0.3332	0.0000
n.a.	n.a.	Sulfate	OLO#	99.8762	-0.1033	0.3281	0.0000
Average:				99.8953	-0.0524	0.5134	0.0000

**17 WIC100312-02ICV**

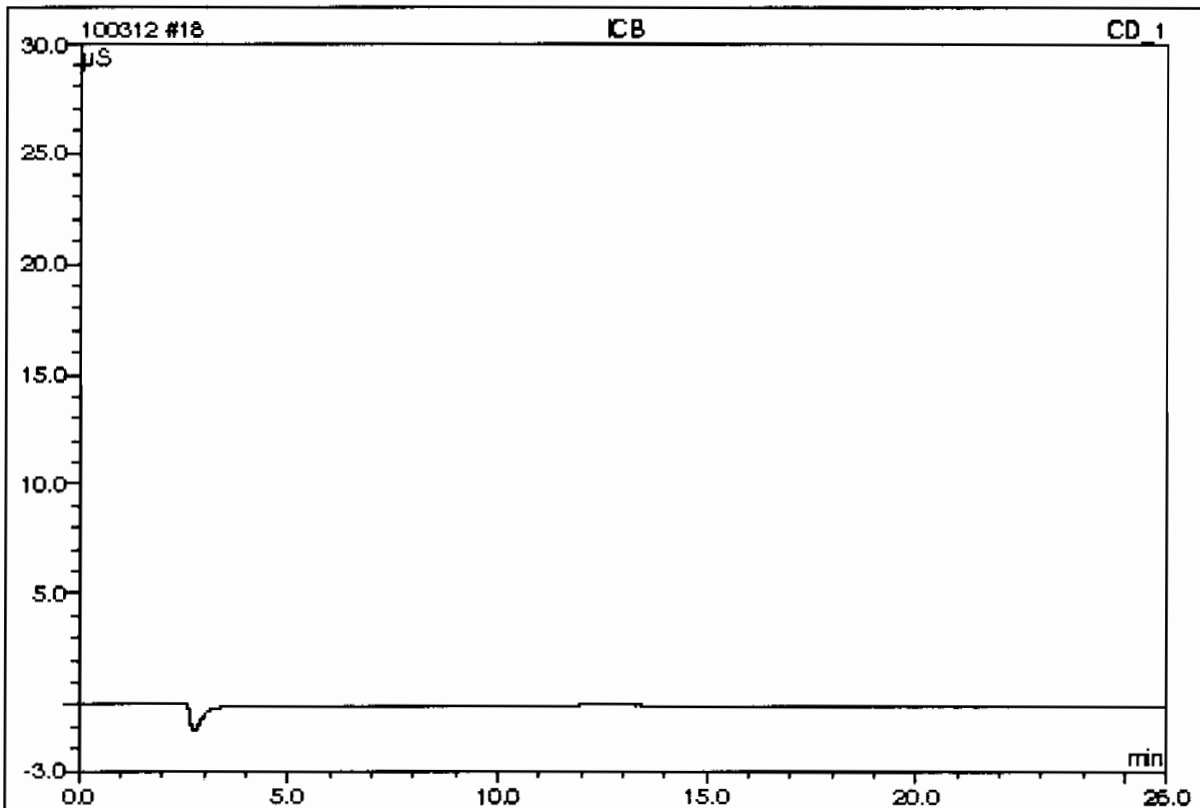
Sample Name:	WIC100312-02ICV	Injection Volume:	1.0
Vial Number:	10	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100312an	Sample Amount:	1.0000
Recording Time:	3/12/2010 15:35	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC ED86;300;9058



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.24	Fluoride	n.a.	4.8260		2.98419	12.10
2	7.11	Chloride	n.a.	9.4396		4.36065	17.80
3	9.09	Nitrate-N	n.a.	4.7879		4.30795	17.58
4	10.48	Chlorate	n.a.	2.5037		0.38815	1.58
5	11.38	Bromide	n.a.	2.5123		0.41911	1.71
6	13.30	Nitrate-N	n.a.	4.7318		5.17038	21.10
7	18.48	O-Phosphate-P	n.a.	2.4304		0.78590	3.21
9	20.59	Sulfate	n.a.	18.8328		6.07580	24.80
Total:				50.0645	0.000	24.472	99.88

**18 ICB**

Sample Name:	ICB	Injection Volume:	1.0
Vial Number:	11	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100312an	Sample Amount:	1.0000
Recording Time:	3/12/2010 16:04	Analyst:	MAR1
Run Time (min):	28.00	Column:	AS23-001528; GL GCED86;300;9056



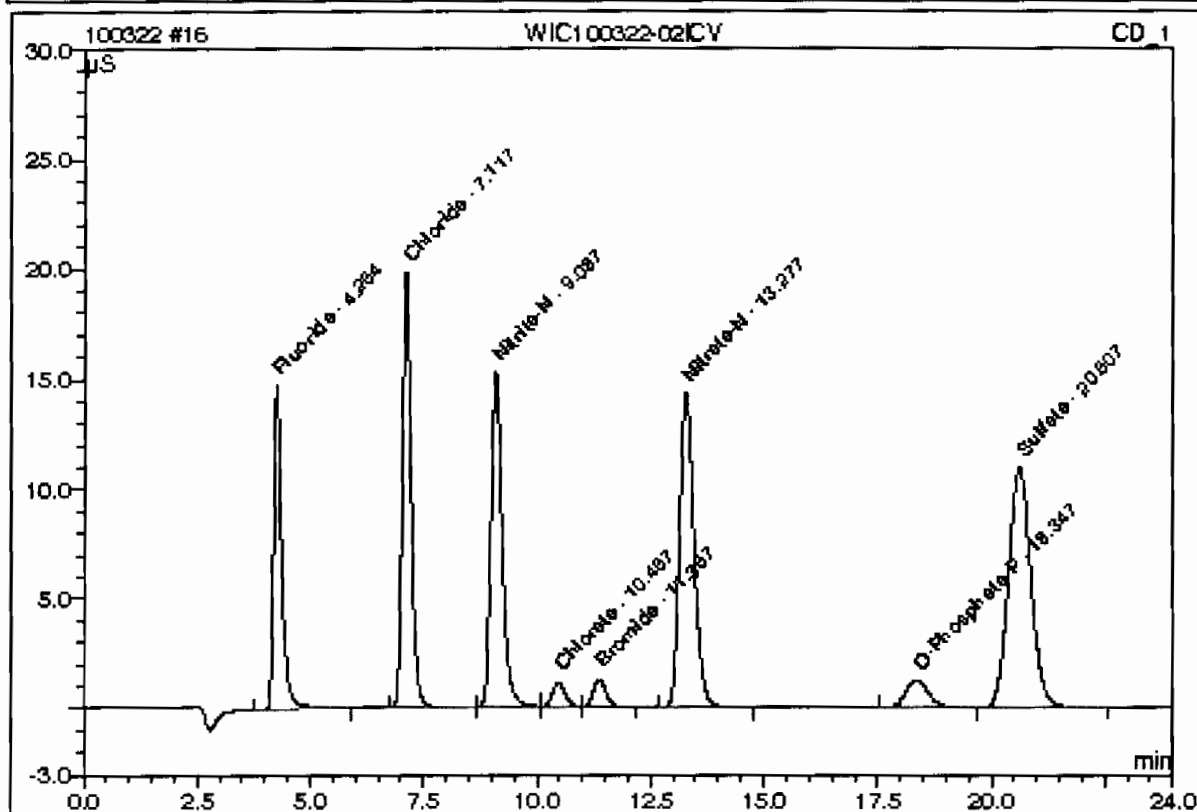
No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100322.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/22/10 08:37		1	100322	MAR1
BLK	03/22/10 12:10		1	100322	MAR1
ICV	03/22/10 12:37		1	100322	MAR1
ICB	03/22/10 13:54		1	100322	MAR1
CCV	03/22/10 16:16		1	100322	MAR1
CCB	03/22/10 16:42		1	100322	MAR1
1202063614	03/22/10 17:09	962080	1	100322	MAR1
1202063618	03/22/10 17:36	962080	1	100322	MAR1
248159001	03/22/10 18:03	962080	1	100322	MAR1
1202063615	03/22/10 18:30	962080	1	100322	MAR1
1202063616	03/22/10 18:56	962080	1	100322	MAR1
1202063617	03/22/10 19:23	962080	1	100322	MAR1
248159002	03/22/10 19:50	962080	1	100322	MAR1
248159003	03/22/10 20:17	962080	1	100322	MAR1
248159004	03/22/10 20:44	962080	1	100322	MAR1
248159005	03/22/10 21:11	962080	1	100322	MAR1
CVH	03/22/10 21:38		1	100322	MAR1
CCB	03/22/10 22:05		1	100322	MAR1
248159006	03/22/10 22:32	962080	1	100322	MAR1
248202001	03/22/10 22:59	962080	1	100322	MAR1
248202002	03/22/10 23:25	962080	1	100322	MAR1
CCV	03/22/10 23:52		1	100322	MAR1

**16 WIC100322-02ICV**

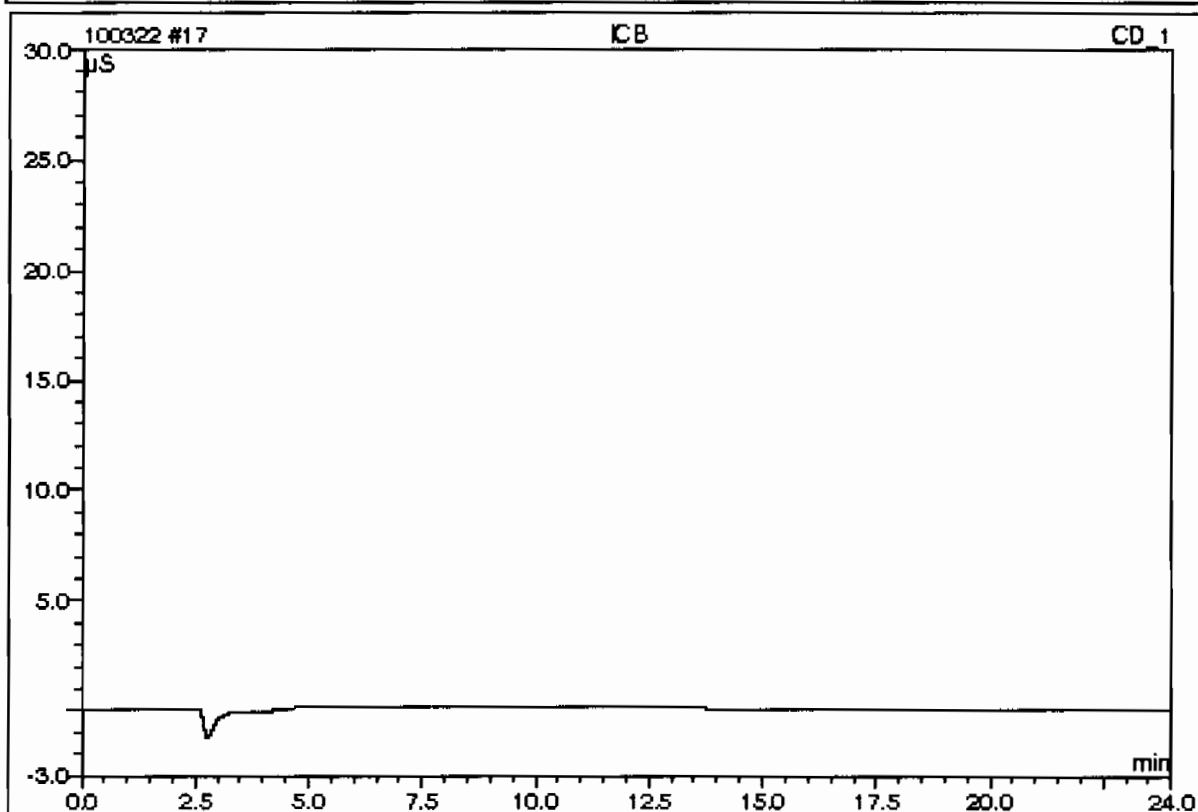
Sample Name:	WIC100322-02ICV	Injection Volume:	1.0
Vial Number:	3	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 12:37	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;8056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.7977		3.04546	12.15
2	7.12	Chloride	n.a.	9.2903		4.46193	17.80
3	9.09	Nitrate-N	n.a.	4.7978		4.45697	17.78
4	10.47	Chlorate	n.a.	2.4239		0.37856	1.51
5	11.37	Bromide	n.a.	2.5309		0.42478	1.69
6	13.28	Nitrate-N	n.a.	4.6718		5.29282	21.11
7	18.35	O-Phosphate-P	n.a.	2.2433		0.71674	2.86
8	20.61	Sulfate	n.a.	18.8207		6.29189	25.10
Total:				49.5762	0.000	25.069	100.00

**17 ICB**

Sample Name:	ICB	Injection Volume:	1.0
Vial Number:	4	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 13:54	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056

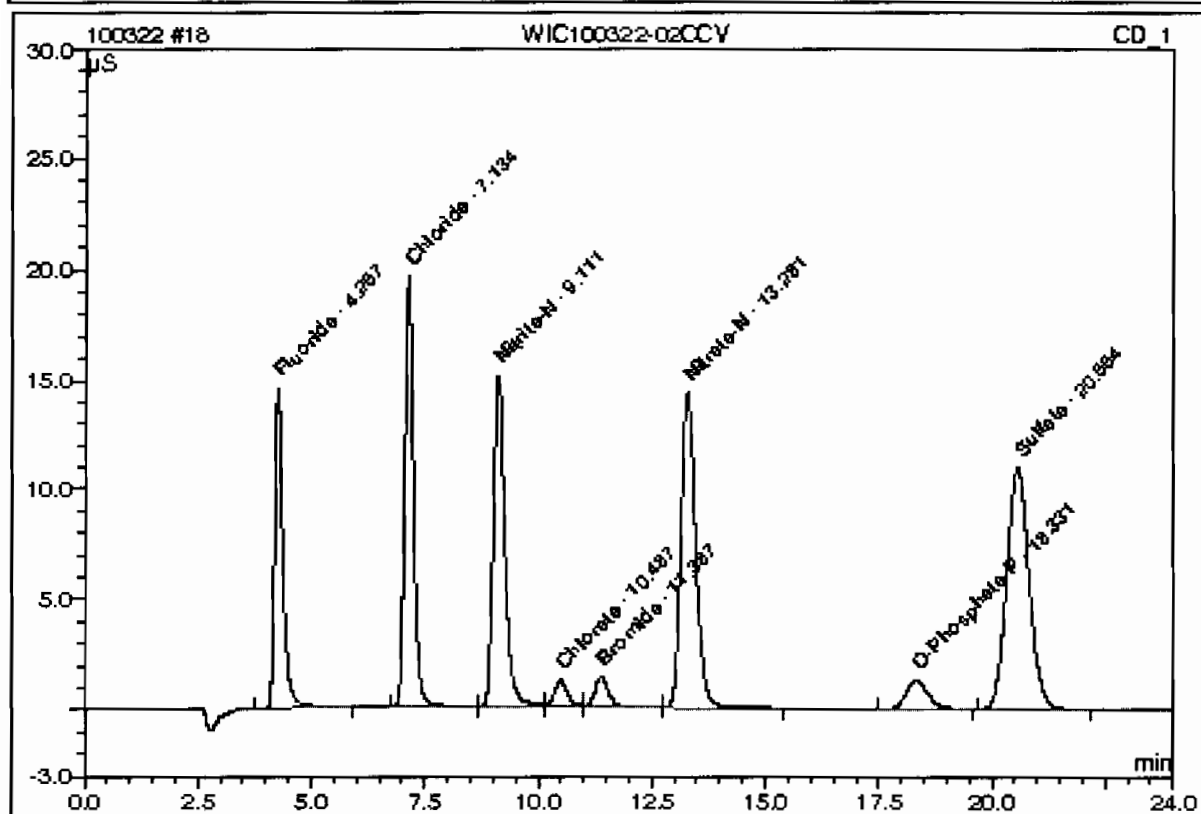


No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00



**18 WIC100322-02CCV**

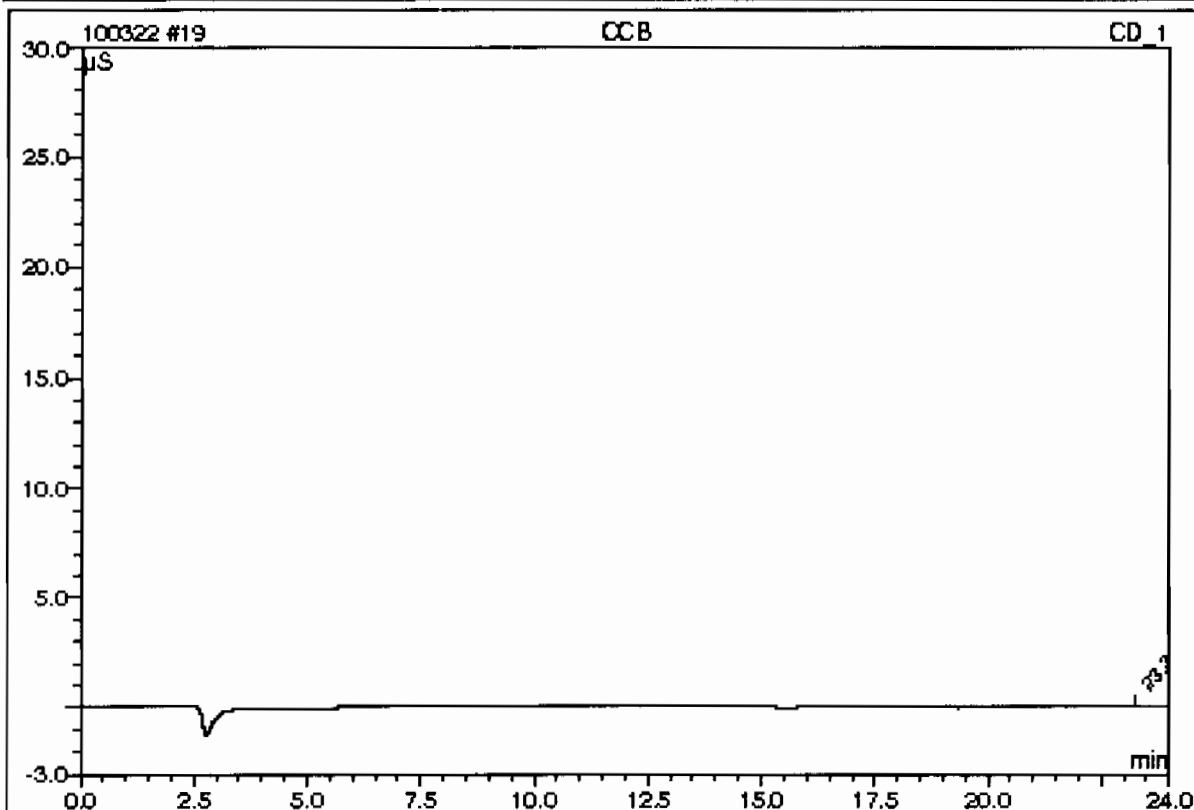
Sample Name:	WIC100322-02CCV	Injection Volume:	1.0
Vial Number:	3	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 16:16	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
1	4.26	Fluoride	n.a.	4.7920		3.04180	12.07
2	7.13	Chloride	n.a.	9.2636		4.44691	17.65
3	9.11	Nitrite-N	n.a.	4.8266		4.48424	17.79
4	10.49	Chlorate	n.a.	2.7252		0.42617	1.69
5	11.39	Bromide	n.a.	3.1743		0.53364	2.12
6	13.28	Nitrate-N	n.a.	4.7099		5.33720	21.17
7	18.33	O-Phosphate-P	n.a.	2.2329		0.71332	2.83
8	20.55	Sulfate	n.a.	18.6168		6.22248	24.68
Total:				50.3412	0.000	25.208	100.00

**19 CCB**

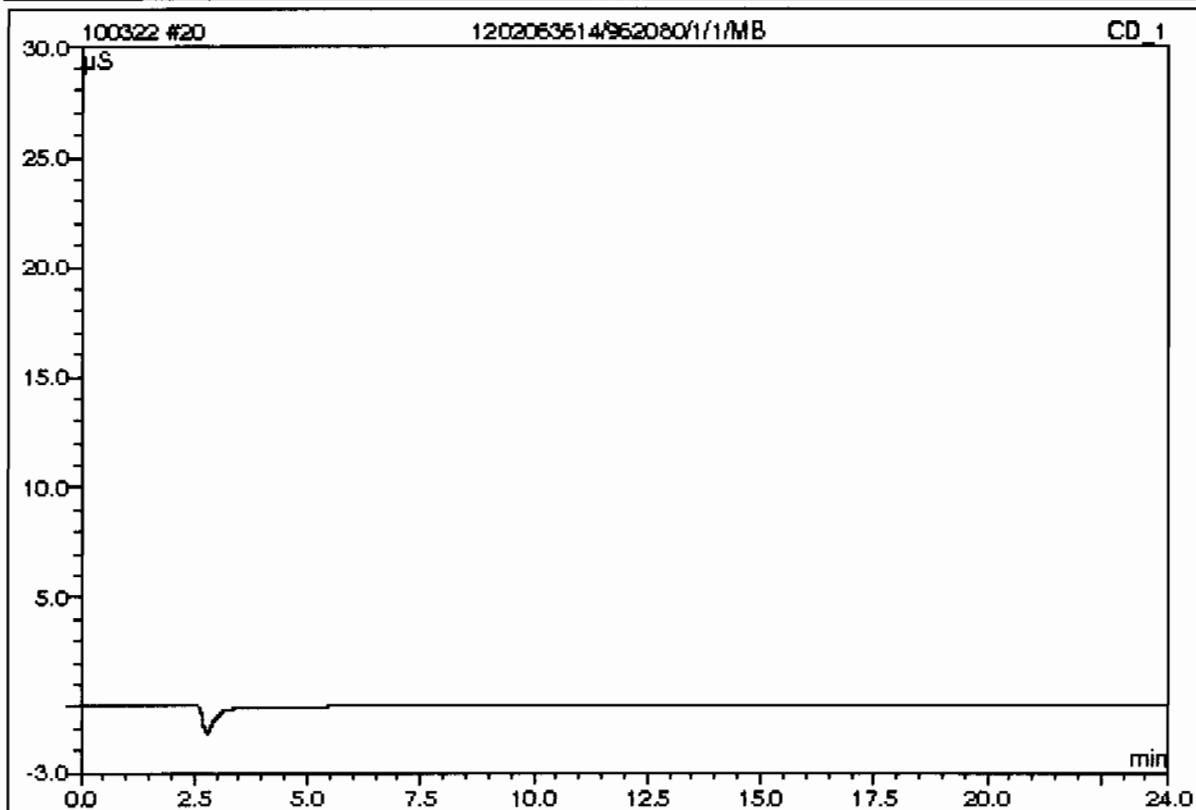
Sample Name:	CCB	Injection Volume:	1.0
Vial Number:	4	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 16:42	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

**20 1202063614/962080/1/1/MB**

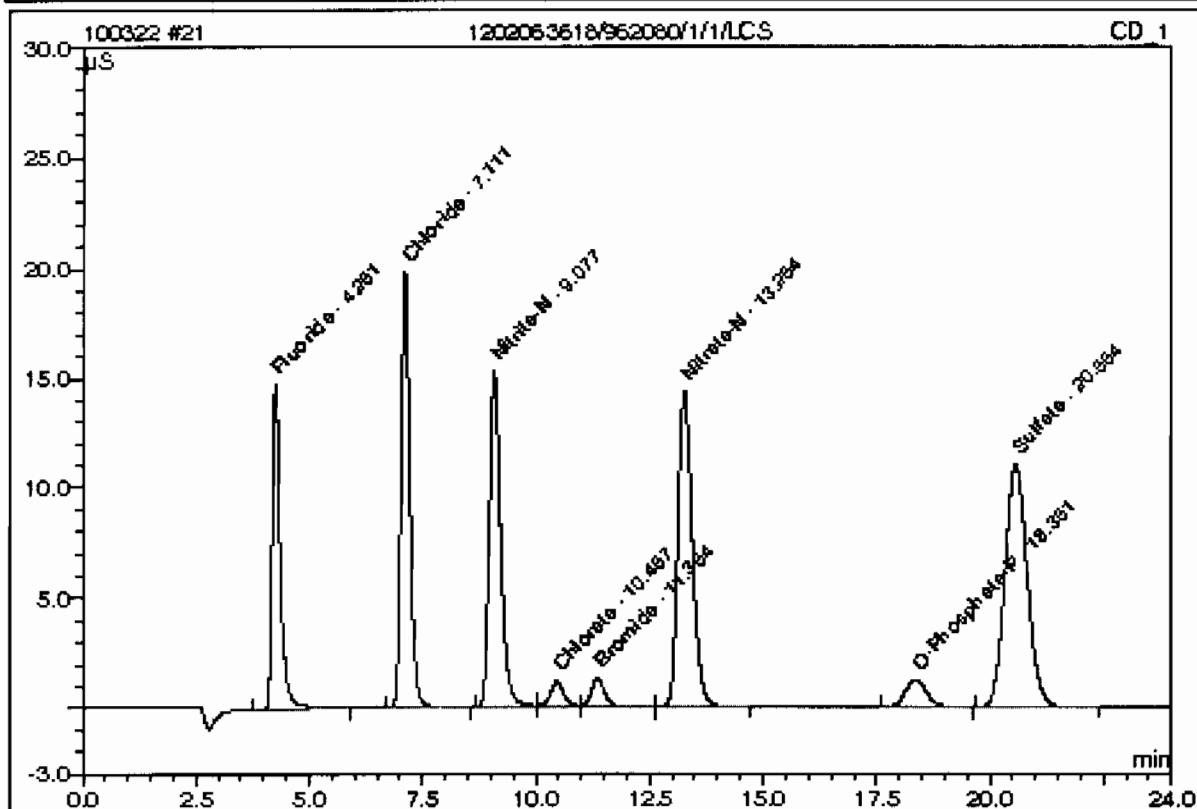
Sample Name:	1202063614/962080/1/1/MB	Injection Volume:	1.0
Vial Number:	5	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 17:09	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

**21 1202063618/962080/1/1/LCS**

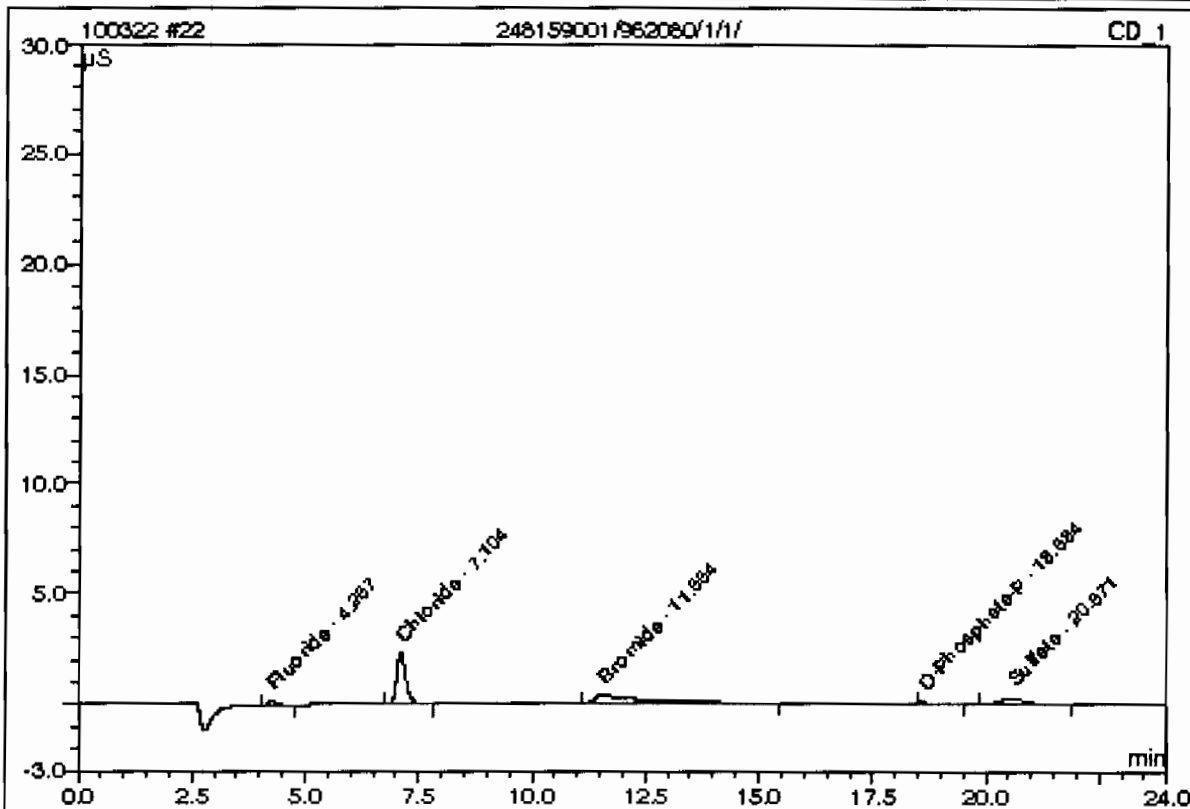
Sample Name:	1202063618/962080/1/1/LCS	Injection Volume:	1.0
Vial Number:	6	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 17:36	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area $\mu\text{S} \cdot \text{min}$	Rel. Area %
1	4.25	Fluoride	n.a.	4.8005		3.04731	12.14
2	7.11	Chloride	n.a.	9.2486		4.44156	17.69
3	9.08	Nitrate-N	n.a.	4.7883		4.44806	17.72
4	10.46	Chlorate	n.a.	2.7421		0.42884	1.71
5	11.35	Bromide	n.a.	2.6930		0.45221	1.80
6	13.26	Nitrate-N	n.a.	4.6753		5.29686	21.10
7	18.35	O-Phosphate-P	n.a.	2.2250		0.71072	2.83
8	20.56	Sulfate	n.a.	18.7811		6.27842	25.01
Total:				49.9538	0.000	25.104	100.00

**22 248159001/962080/1/1/**

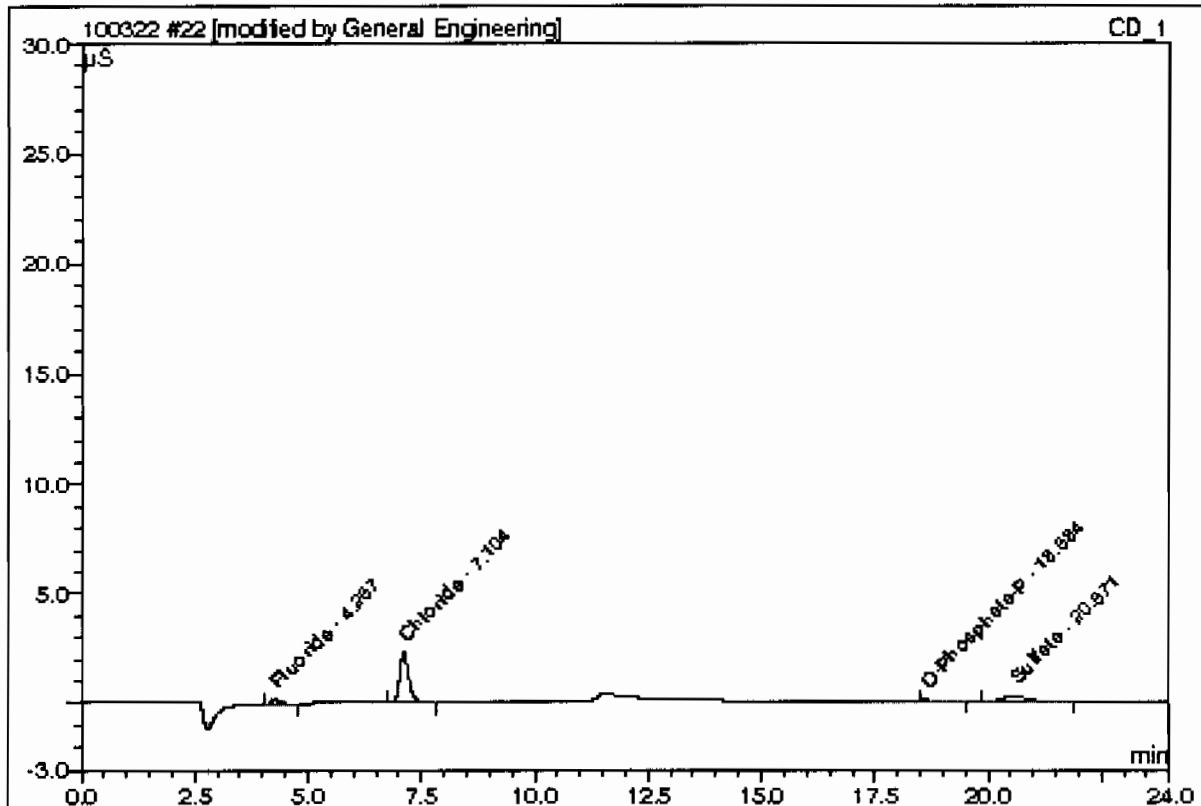
Sample Name:	248159001/962080/1/1/	Injection Volume:	1.0
Vial Number:	7	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 18:03	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.26	Fluoride	n.a.	0.1202		0.03929	2.99
2	7.10	Chloride	n.a.	1.2564		0.53573	40.76
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
3	11.55	Bromide	n.a.	3.2504		0.54652	41.58
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
4	18.58	O-Phosphate-P	n.a.	0.1482		0.02669	2.03
5	20.57	Sulfate	n.a.	0.8203		0.16612	12.64
Total:				5.5955	0.000	1.314	100.00

**22 248159001/962080/1/1/**

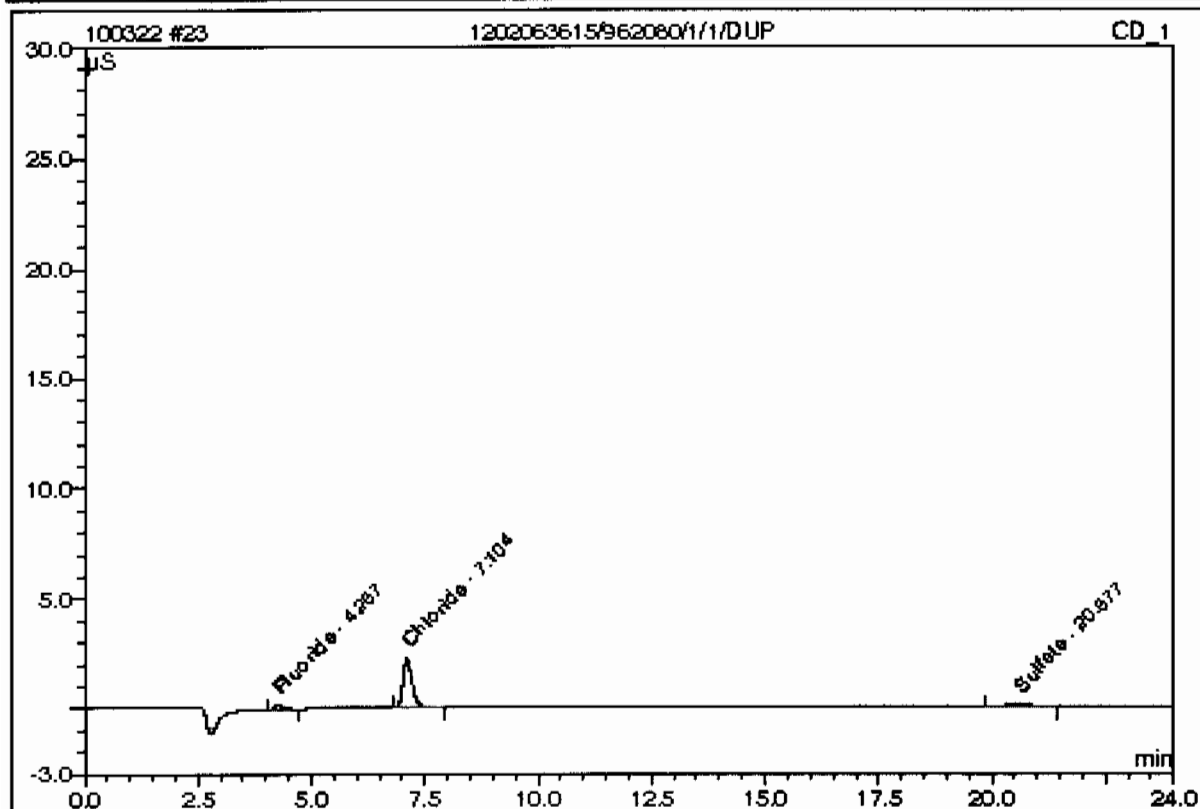
Sample Name:	248159001/962080/1/1/	Injection Volume:	1.0
Vial Number:	7	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 18:03	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.26	Fluoride	n.a.	0.1202		0.03929	5.12
2	7.10	Chloride	n.a.	1.2564		0.53573	69.77
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	18.58	O-Phosphate-P	n.a.	0.1482		0.02669	3.48
4	20.57	Sulfate	n.a.	0.8203		0.18612	21.63
Total:				2.3451	0.000	0.768	100.00

**23 1202063615/962080/1/1/DUP**

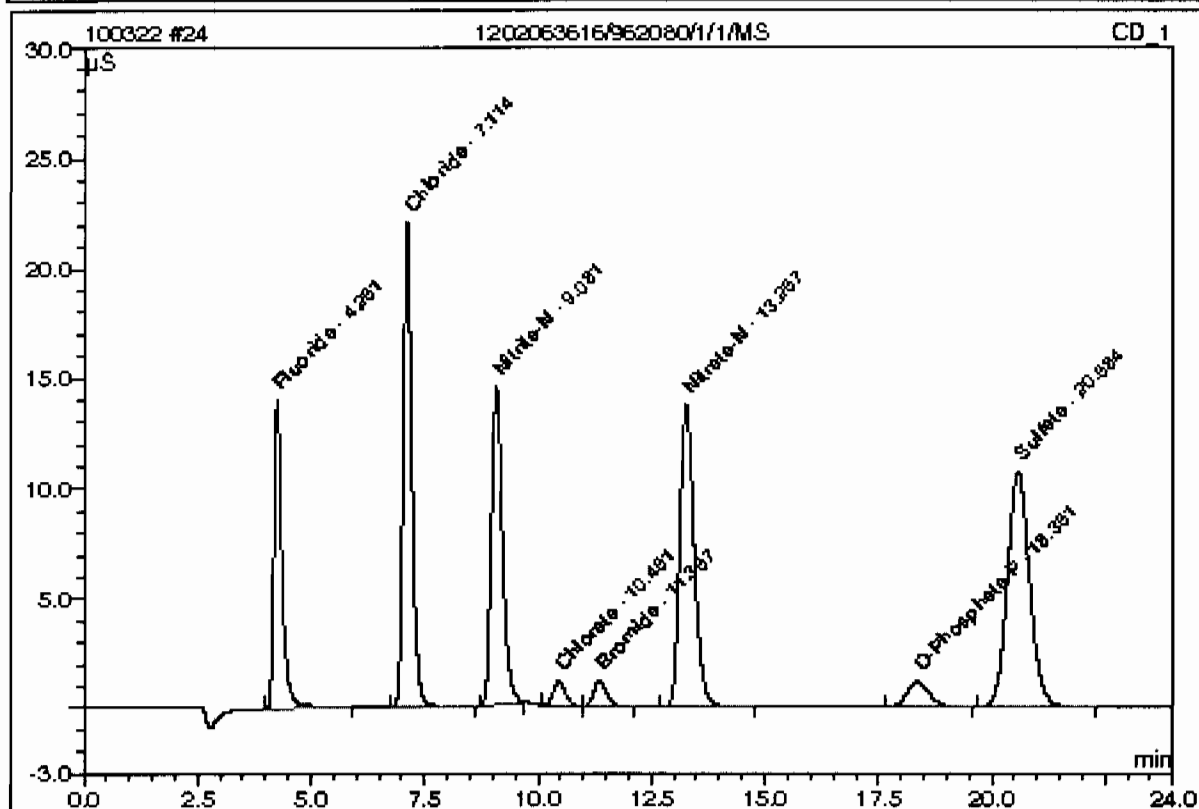
Sample Name:	1202063615/962080/1/1/DUP	Injection Volume:	1.0
Vial Number:	8	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 18:30	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.28	Fluoride	n.a.	0.1215		0.04012	5.88
2	7.10	Chloride	n.a.	1.2394		0.52740	77.30
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	20.58	Sulfate	n.a.	0.6694		0.11477	16.82
Total:				2.0302	0.000	0.682	100.00

**24 1202063616/962080/1/1/MS**

Sample Name:	1202063616/962080/1/1/MS	Injection Volume:	1.0
Vial Number:	9	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 18:56	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056

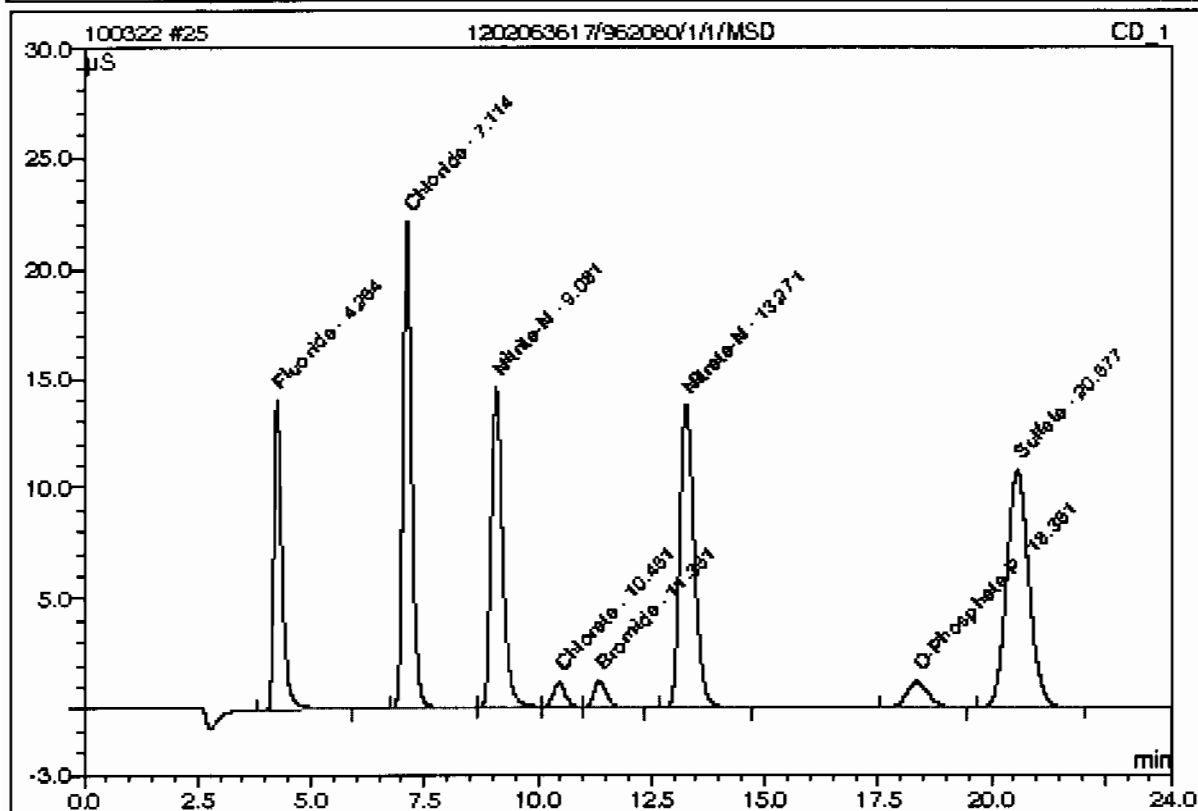


No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.25	Fluoride	n.a.	4.5830		2.90750	11.84
2	7.11	Chloride	n.a.	10.2807		4.93619	20.09
3	9.08	Nitrite-N	n.a.	4.4382		4.11727	16.76
4	10.48	Chlorate	n.a.	2.2041		0.34382	1.40
5	11.36	Bromide	n.a.	2.3398		0.39246	1.60
6	13.27	Nitrate-N	n.a.	4.4896		5.08090	20.68
7	18.36	O-Phosphate-P	n.a.	2.0743		0.66110	2.69
8	20.58	Sulfate	n.a.	18.3330		6.12589	24.94
Total:				48.7228	0.000	24.565	100.00



**25 1202063617/962080/1/1/MSD**

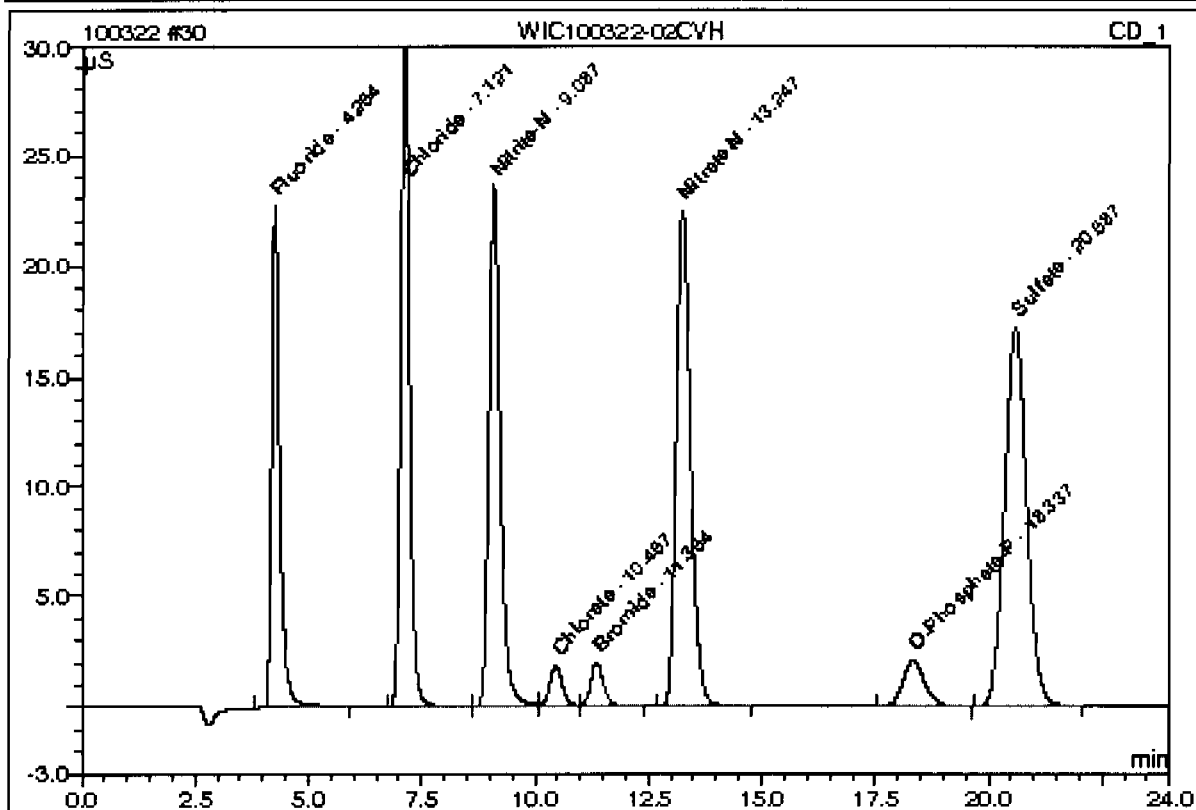
Sample Name:	1202063617/962080/1/1/MSD	Injection Volume:	1.0
Vial Number:	10	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 19:23	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.5777		2.90406	11.75
2	7.11	Chloride	n.a.	10.2471		4.92953	19.94
3	9.08	Nitrite-N	n.a.	4.5921		4.26266	17.24
4	10.46	Chlorate	n.a.	2.4476		0.38230	1.55
5	11.38	Bromide	n.a.	2.4639		0.41345	1.67
6	13.27	Nitrate-N	n.a.	4.4820		5.07207	20.52
7	18.38	O-Phosphate-P	n.a.	2.0697		0.65957	2.67
8	20.58	Sulfate	n.a.	18.2451		6.09600	24.66
Total:				49.1251	0.000	24.720	100.00

**30 WIC100322-02CVH**

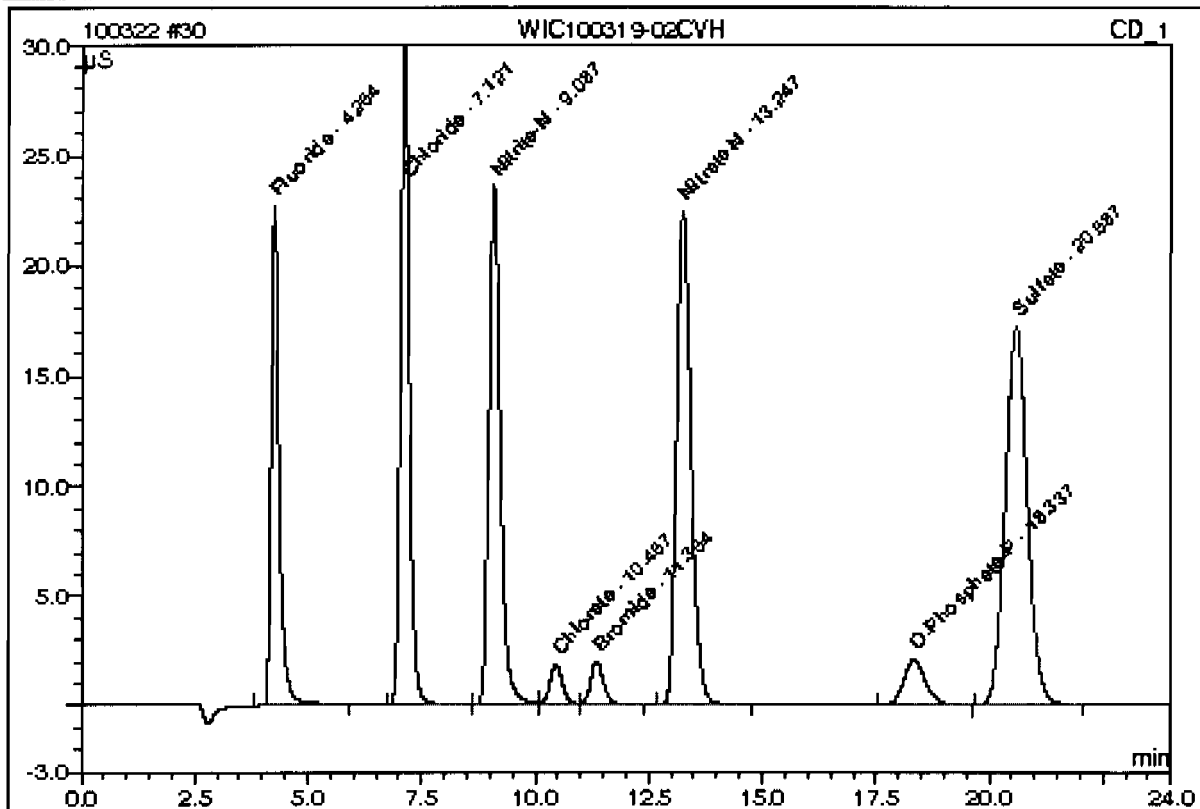
Sample Name:	WIC100322-02CVH	Injection Volume:	1.0
Vial Number:	15	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 21:38	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	7.2959		4.85107	11.98
2	7.12	Chloride	n.a.	14.4346		6.97599	17.97
3	9.09	Nitrite-N	n.a.	7.3192		6.83949	17.61
4	10.46	Chlorate	n.a.	3.8040		0.59669	1.54
5	11.35	Bromide	n.a.	3.8176		0.64247	1.65
6	13.25	Nitrate-N	n.a.	7.2381		8.27837	21.32
7	18.34	O-Phosphate-P	n.a.	3.5443		1.14527	2.95
8	20.59	Sulfate	n.a.	28.8337		9.69944	24.98
Total:				76.2875	0.000	38.829	100.00

**30 WIC100319-02CVH**

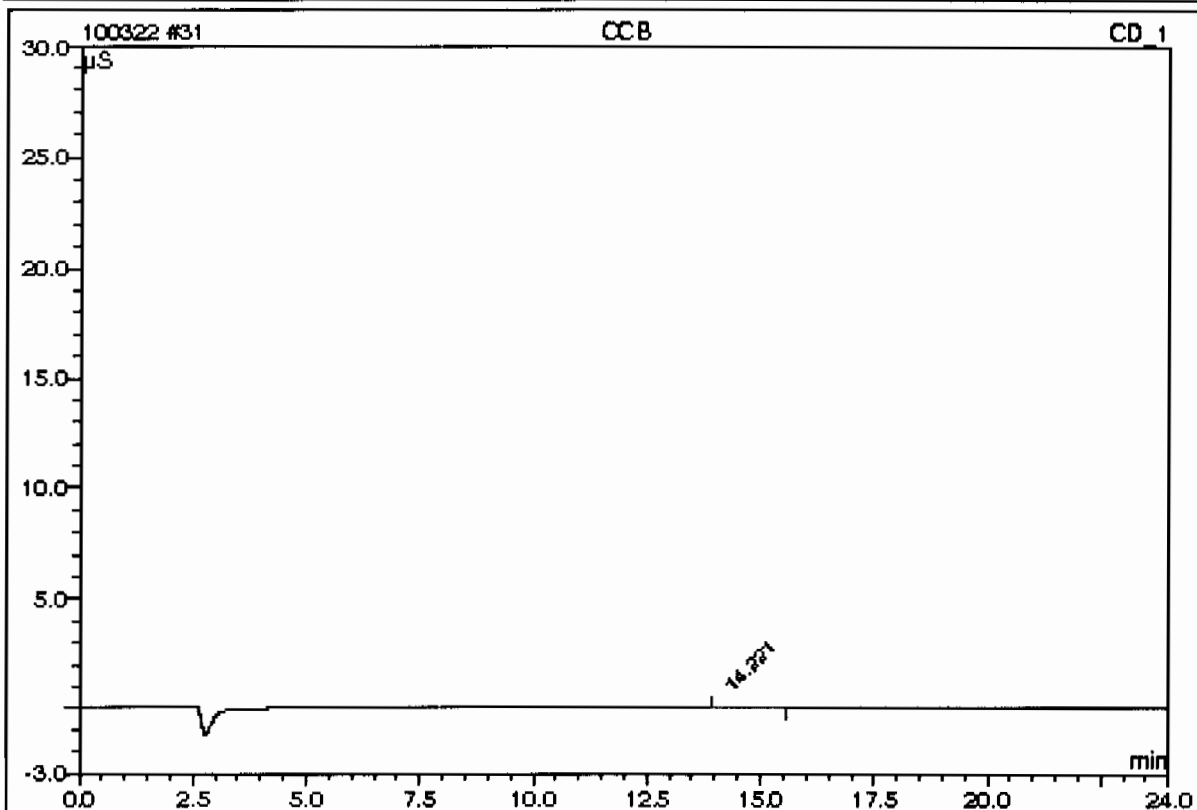
Sample Name:	WIC100319-02CVH	Injection Volume:	1.0
Vial Number:	15	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 21:38	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	7.2959		4.65107	11.98
2	7.12	Chloride	n.a.	14.4346		6.97599	17.97
3	9.09	Nitrite-N	n.a.	7.3192		6.83949	17.61
4	10.46	Chlorate	n.a.	3.8040		0.59669	1.54
5	11.35	Bromide	n.a.	3.8176		0.64247	1.65
6	13.25	Nitrate-N	n.a.	7.2381		8.27837	21.32
7	18.34	O-Phosphate-P	n.a.	3.5443		1.14527	2.95
8	20.59	Sulfate	n.a.	28.8337		9.69944	24.98
Total:				76.2875	0.000	38.829	100.00

**31 CCB**

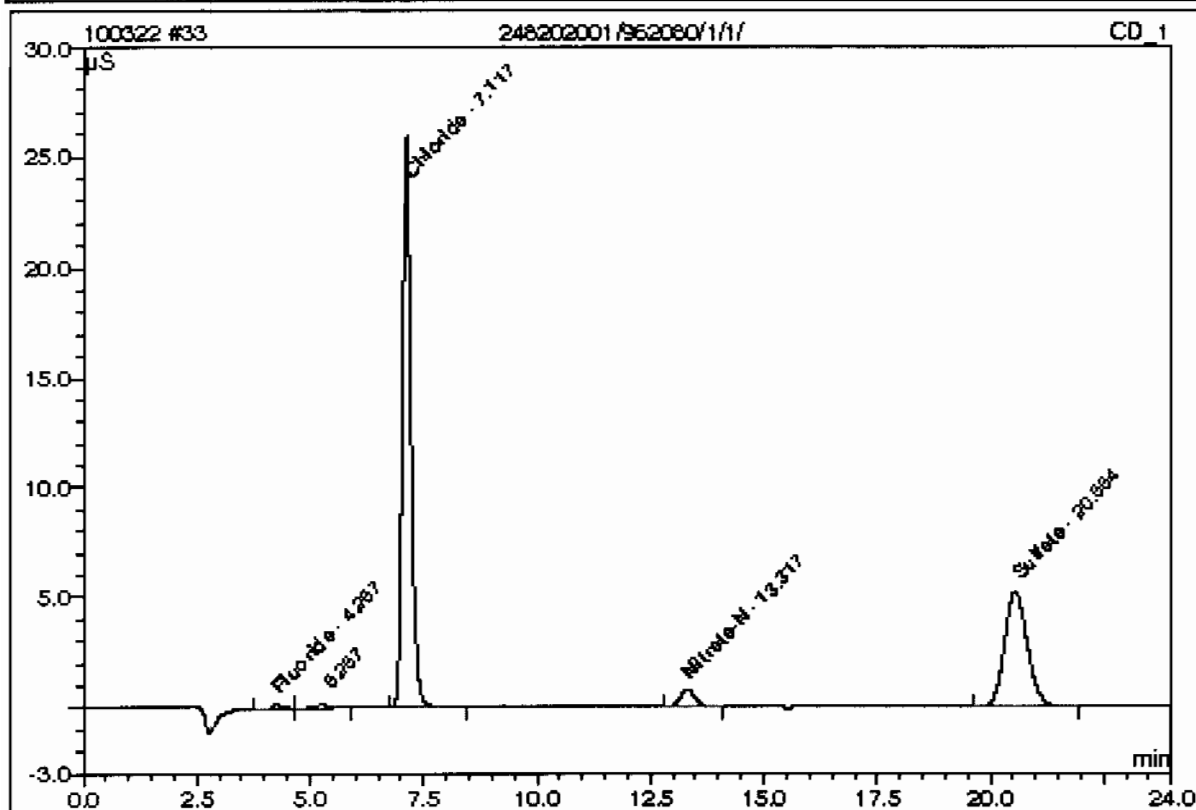
Sample Name:	CCB	Injection Volume:	1.0
Vial Number:	16	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 22:05	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

**33 248202001/962080/1/1/**

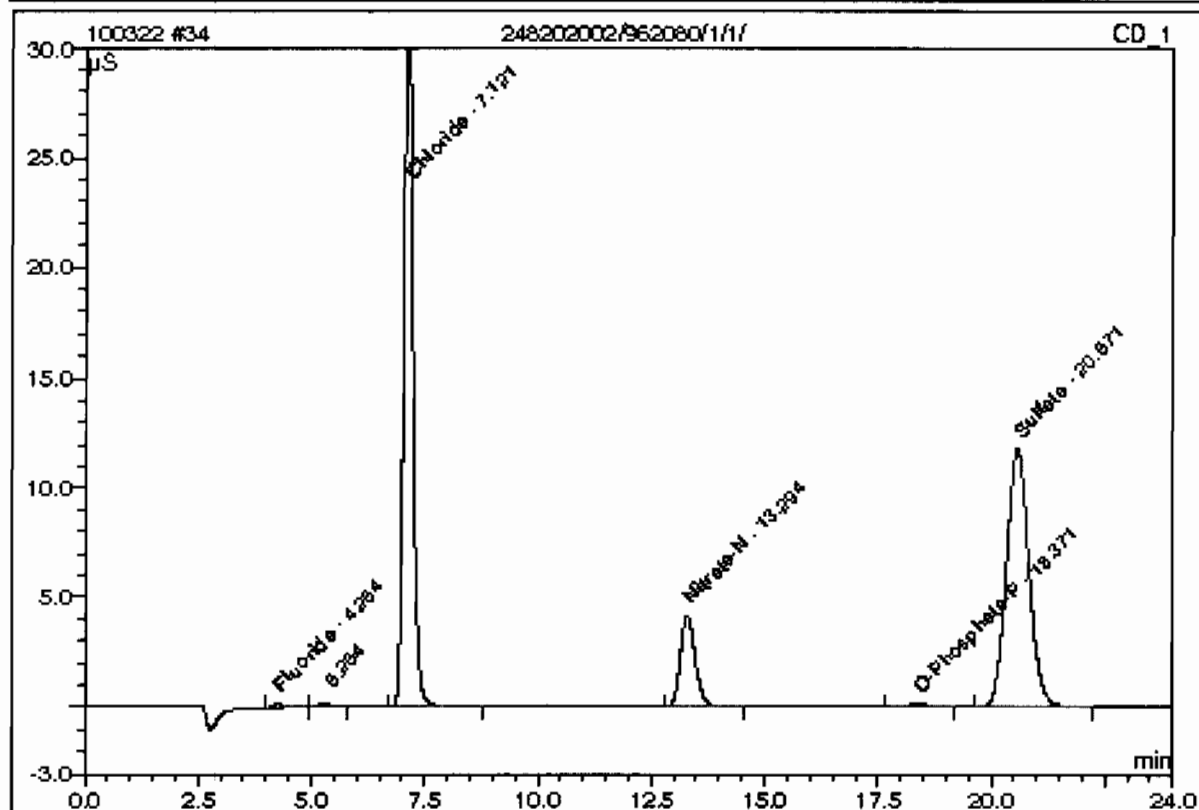
Sample Name:	248202001/962080/1/1/	Injection Volume:	1.0
Vial Number:	18	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 22:59	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1319		0.04682	0.51
3	7.12	Chloride	n.a.	11.7837		5.68049	62.38
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.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
4	13.32	Nitrate-N	n.a.	0.3716		0.29011	3.19
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	20.55	Sulfate	n.a.	9.2655		3.04014	33.38
Total:				21.5527	0.000	9.058	99.46

**34 248202002/962080/1/1/**

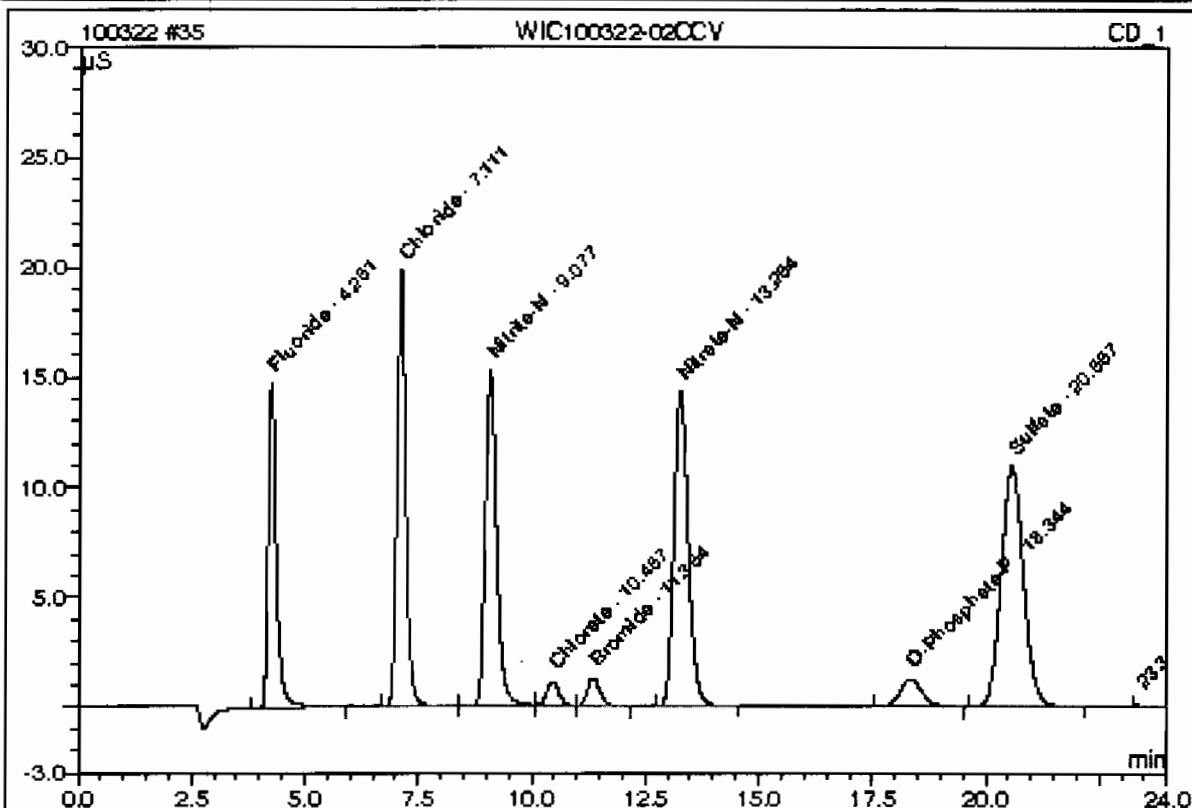
Sample Name:	248202002/962080/1/1/	Injection Volume:	1.0
Vial Number:	19	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 23:25	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9058



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
1	4.25	Fluoride	n.a.	0.1322		0.04704	0.29
3	7.12	Chloride	n.a.	15.6805		7.58487	47.31
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.
4	13.29	Nitrate-N	n.a.	1.4572		1.55305	9.69
5	18.37	O-Phosphate-P	n.a.	0.2813		0.07052	0.44
6	20.57	Sulfate	n.a.	20.1158		6.73262	42.00
Total:				37.6669	0.000	15.988	99.73

**35 WIC100322-02CCV**

Sample Name:	WIC100322-02CCV	Injection Volume:	1.0
Vial Number:	20	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 23:52	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.25	Fluoride	n.a.	4.7826		3.03575	12.14
2	7.11	Chloride	n.a.	9.2378		4.43631	17.74
3	9.08	Nitrite-N	n.a.	4.8078		4.46647	17.86
4	10.46	Chlorate	n.a.	2.4299		0.37950	1.52
5	11.35	Bromide	n.a.	2.5316		0.42490	1.70
6	13.26	Nitrate-N	n.a.	4.6492		5.26659	21.06
7	18.34	O-Phosphate-P	n.a.	2.2619		0.72289	2.89
8	20.57	Sulfate	n.a.	18.7010		6.25116	25.00
Total:				49.4019	0.000	24.984	99.92

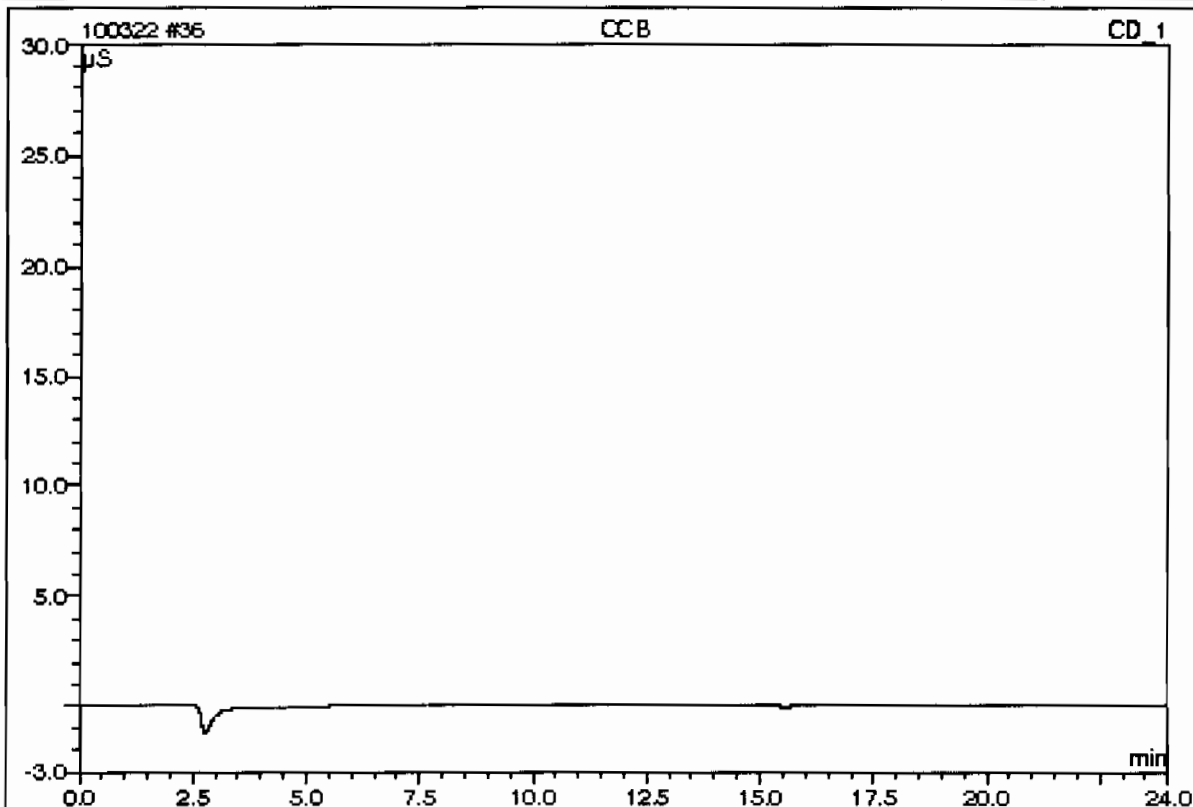
This is runlog for Sequence 100322.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
CCB	03/23/10 00:19		1	100322	MAR1
1202075357	03/23/10 00:46	966999	1	100322	MAR1
1202075361	03/23/10 01:13	966999	1	100322	MAR1
248241001	03/23/10 01:40	966999	1	100322	MAR1
1202075358	03/23/10 02:07	966999	1	100322	MAR1
1202075359	03/23/10 02:34	966999	1	100322	MAR1
1202075360	03/23/10 03:01	966999	1	100322	MAR1
248241002	03/23/10 03:28	966999	1	100322	MAR1
248241003	03/23/10 03:55	966999	1	100322	MAR1
248241004	03/23/10 04:22	966999	1	100322	MAR1
248241005	03/23/10 04:48	966999	1	100322	MAR1
CVH	03/23/10 05:15		1	100322	MAR1
CCB	03/23/10 05:42		1	100322	MAR1
248241006	03/23/10 06:09	966999	1	100322	MAR1
248241007	03/23/10 06:36	966999	1	100322	MAR1
248241008	03/23/10 07:03	966999	1	100322	MAR1
248241009	03/23/10 07:30	966999	1	100322	MAR1
248241010	03/23/10 07:57	966999	1	100322	MAR1
CCV	03/23/10 08:24		1	100322	MAR1
CCB	03/23/10 08:51		1	100322	MAR1



**36 CCB**

Sample Name:	CCB	Injection Volume:	1.0
Vial Number:	21	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 0:19	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
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  
 Page Method: SW846 9045C/9045D

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parname	Initial Wt(g)	Final Vol(mL)	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
202059709 LCS		Soil	10:30	10:35	03-MAR-10 13:24	pH	20	20	6.98	20.8°C	7	99.714	
202059709 LCS		Soil	10:30	10:35	03-MAR-10 13:24	pH 2	20	20	6.98	20.9°C	7	99.714	
248202001		Soil	10:30	10:35	03-MAR-10 13:28	pH	20	20	6.74	21.1°C			
248202001		Soil	10:30	10:35	03-MAR-10 13:28	pH 2	20	20	6.74	21.1°C			
1202059707 DUP	248202001	Soil	10:30	10:35	03-MAR-10 13:30	pH	20	20	6.73	21.0°C			.148
1202059707 DUP	248202001	Soil	10:30	10:35	03-MAR-10 13:30	pH 2	20	20	6.73	21.0°C			.148
248202002		Soil	10:30	10:35	03-MAR-10 13:32	pH	20	20	7.41	21.0°C			
248202002		Soil	10:30	10:35	03-MAR-10 13:32	pH 2	20	20	7.41	21.0°C			
248241001		Soil	10:30	10:35	03-MAR-10 13:34	pH	20	20	5.24	21.0°C			
248241001		Soil	10:30	10:35	03-MAR-10 13:34	pH 2	20	20	5.24	21.0°C			
CCV			10:30	10:35	03-MAR-10 13:36	pH	20	20	7.02	20.0°C	7	100.286	
CCV			10:30	10:35	03-MAR-10 13:36	pH 2	20	20	7.02	20.0°C	7	100.286	
1202059708 DUP	248241001	Soil	10:30	10:35	03-MAR-10 13:37	pH	20	20	5.21	20.8°C			.574
1202059708 DUP	248241001	Soil	10:30	10:35	03-MAR-10 13:37	pH 2	20	20	5.21	20.9°C			.574
248241002		Soil	10:30	10:35	03-MAR-10 13:39	pH	20	20	6.73	20.8°C			
248241002		Soil	10:30	10:35	03-MAR-10 13:39	pH 2	20	20	6.74	20.8°C			
248241003		Soil	10:30	10:35	03-MAR-10 13:42	pH	20	20	7.77	20.8°C			
248241003		Soil	10:30	10:35	03-MAR-10 13:42	pH 2	20	20	7.76	20.8°C			
248241004		Soil	10:30	10:35	03-MAR-10 13:43	pH	20	20	6.55	20.7°C			
248241004		Soil	10:30	10:35	03-MAR-10 13:43	pH 2	20	20	6.59	20.7°C			
248241005		Soil	10:30	10:35	03-MAR-10 13:46	pH	20	20	6.16	20.3°C			
248241005		Soil	10:30	10:35	03-MAR-10 13:46	pH 2	20	20	6.16	20.4°C			
CCV			10:30	10:35	03-MAR-10 13:47	pH	20	20	7.02	19.2°C	7	100.286	
CCV			10:30	10:35	03-MAR-10 13:47	pH 2	20	20	7.02	19.2°C	7	100.286	
248241006		Soil	10:30	10:35	03-MAR-10 13:49	pH	20	20	6.39	20.3°C			
248241006		Soil	10:30	10:35	03-MAR-10 13:49	pH 2	20	20	6.4	20.3°C			
248241007		Soil	10:30	10:35	03-MAR-10 13:57	pH	20	20	6.87	20.0°C			
248241007		Soil	10:30	10:35	03-MAR-10 13:57	pH 2	20	20	6.86	20.0°C			

# pH / Corrosivity LogBook

Analyst: TXT1  
 Batch: 960262  
 Lab SOP: GL-GC-E-008 REV# 17  
 Description: pH  
 Method: SW846 9045C/9045D

Type: CCV  
 Sample Id: 240  
 Serial Number: IMM091029-PH  
 Description: PH 7 BUFFER FOR PH  
 LCS  
 1202059709  
 IMM100209-01  
 LCS BUFFER SOLUTION

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Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parname	Initial Wt(g)	Final Vol(mL)	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
248241008		Soil	10:30	10:35	03-MAR-10 13:57	pH	20	20	5.63	19.9°C			
248241008		Soil	10:30	10:35	03-MAR-10 13:57	pH 2	20	20	5.63	19.8°C			
248241009		Soil	10:30	10:35	03-MAR-10 13:59	pH	20	20	6.9	20.0°C			
248241009		Soil	10:30	10:35	03-MAR-10 13:59	pH 2	20	20	6.91	20.0°C			
248241010		Soil	10:30	10:35	03-MAR-10 14:00	pH	20	20	6.91	19.8°C			
248241010		Soil	10:30	10:35	03-MAR-10 14:00	pH 2	20	20	6.91	19.8°C			
CCV			10:30	10:35	03-MAR-10 14:02	pH	20	20	7.03	18.4°C	7	100.429	
CCV			10:30	10:35	03-MAR-10 14:02	pH 2	20	20	7.02	18.4°C	7	100.286	
248250001		Soil	10:30	10:35	03-MAR-10 14:04	pH	20	20	6.4	19.7°C			
248250001		Soil	10:30	10:35	03-MAR-10 14:04	pH 2	20	20	6.4	19.7°C			
248250002		Soil	10:30	10:35	03-MAR-10 14:06	pH	20	20	5.93	19.7°C			
248250002		Soil	10:30	10:35	03-MAR-10 14:06	pH 2	20	20	5.93	19.7°C			
248250003		Soil	10:30	10:35	03-MAR-10 14:08	pH	20	20	6.23	19.6°C			
248250003		Soil	10:30	10:35	03-MAR-10 14:08	pH 2	20	20	6.24	19.6°C			
248250004		Soil	10:30	10:35	03-MAR-10 14:10	pH	20	20	5.98	19.5°C			
248250004		Soil	10:30	10:35	03-MAR-10 14:10	pH 2	20	20	5.99	19.5°C			
CCV			10:30	10:35	03-MAR-10 14:11	pH	20	20	7.02	18.3°C	7	100.286	
CCV			10:30	10:35	03-MAR-10 14:11	pH 2	20	20	7.02	18.3°C	7	100.286	

Calibration Information: Run Date: 03-MAR-10 12:16 Instrument: PHX370 Analyst: TXT1

Standard	Observed	Theoretical	C	%Recovery	Comments:
12:16 IMM100303-PH1	4.02	4	19	100.5	
12:16 IMM100303-PH2	7.02	7	19	100.29	
12:16 UPH100303-PH3	10.01	10	19	100.1	
12:16 UPH100303-PH4	2.08	2	19	104	
12:16 UPH100303-PH5	11.99	12	19	99.917	
12:16 IMM100303-PH6	7	7	19	100	

# Miscellaneous

### DATA EXCEPTION REPORT

<b>Mo.Day Yr.</b> 23-MAR-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> IC	<b>Test / Method:</b> EPA 300.0	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 962080	<b>Sample Numbers:</b> See Below		

Potentially affected work order(s)(SDG): 248159(10-2106),248202(10-2124)

**Application Issues:**

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

**Specification and Requirements  
Exception Description:**

1. Failed Recovery for MS/MSD:

QC 1202063616MS, 1202063617MSD

**DER Disposition:**

1. The spike recovery falls outside of the GEL acceptance limits but within the client specified limits.

**Originator's Name:**

Mary Sherwood 23-MAR-10

**Data Validator/Group Leader:**

Elzbieta Szulc 24-MAR-10

# RADIOLOGICAL ANALYSIS

**Radiochemistry Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2124**

**Method/Analysis Information**

**Product:** Dry Weight-Percent Moisture

Analytical Method: Dry Soil Prep

Analytical Batch Number: 959184

Sample ID	Client ID
248202001	RE36-10-8282
248202002	RE36-10-8281
1202057044	248189001(RE11-10-1651) 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: 248189001 (RE11-10-1651). The QC was from LANL work order 248189.

**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: 961175

Prep Batch Number: 959184

Sample ID	Client ID
248202001	RE36-10-8282
248202002	RE36-10-8281
1202061665	Method Blank (MB)
1202061666	248202001(RE36-10-8282) Sample Duplicate (DUP)
1202061667	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 1202061665 (MB) was changed to 1.0 per client request.

##### **Designated QC**

The following sample was used for QC: 248202001 (RE36-10-8282). The QC was from LANL work order 248202.

##### **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**

<b>Product:</b>	<b>ISOPU</b>
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	961176
Prep Batch Number:	959184

<b>Sample ID</b>	<b>Client ID</b>
248202001	RE36-10-8282
248202002	RE36-10-8281
1202061669	Method Blank (MB)
1202061670	248202001(RE36-10-8282) Sample Duplicate (DUP)
1202061671	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 1202061669 (MB) was changed to 1.0 per client request.

##### **Designated QC**

The following sample was used for QC: 248202001 (RE36-10-8282). The QC was from LANL work order 248202.

##### **QC Information**

All of the QC samples met the required acceptance limits.

##### **CSU**

The blank result is less than 1.65 times the CSU.

#### **Technical Information:**

##### **Holding Time**

All sample procedures for this sample set were performed within the required holding time.

##### **Sample Re-prep/Re-analysis**

Samples 1202061669 (MB), 1202061670 (RE36-10-8282), 248202001 (RE36-10-8282) and 248202002 (RE36-10-8281) were given additional clean-up steps and recounted in order to remove suspected interferences.

#### **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. Samples 1202061670 (RE36-10-8282) and 248202002 (RE36-10-8281) did not meet the client's yield requirement. However, there are 400 tracer counts, GEL's standard tracer yield requirements are met, and the client's detection limits are met.

##### **Blank Decision Level**

The 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:** 961183  
**Prep Batch Number:** 959184

<b>Sample ID</b>	<b>Client ID</b>
248202001	RE36-10-8282
248202002	RE36-10-8281
1202061682	Method Blank (MB)
1202061683	248202001(RE36-10-8282) Sample Duplicate (DUP)
1202061684	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 1202061682 (MB) was changed to 1.0 per client request.

#### **Designated QC**

The following sample was used for QC: 248202001 (RE36-10-8282). The QC was from LANL work

order 248202.

**QC Information**

All of the QC samples met the required acceptance limits.

**CSU**

The blank result is less than 1.65 times the CSU.

**Technical Information:**

**Holding Time**

All sample procedures for this sample set were performed within the required holding time.

**Sample Re-prep/Re-analysis**

Sample 248202002 (RE36-10-8281) was given additional clean-up steps and recounted due to poor resolution.

**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**

<b>Product:</b>	<b>GAMMA SPEC</b>
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	959279
Prep Batch Number:	959184

<b>Sample ID</b>	<b>Client ID</b>
248202001	RE36-10-8282
248202002	RE36-10-8281
1202057346	Method Blank (MB)
1202057347	248202001(RE36-10-8282) Sample Duplicate (DUP)
1202057348	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 March 2009, April 2009, July 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 volume in this batch.

##### **Designated QC**

The following sample was used for QC: 248202001 (RE36-10-8282). The QC was from LANL work order 248202.

##### **QC Information**

All of the QC samples met the required acceptance limits.

##### **CSU**

The method blank 1202057346 (MB) result is greater than 1.65 times the CSU but less than the MDC for Pb-212.

#### **Technical Information:**

##### **Holding Time**

All sample procedures for this sample set were performed within the required holding time.

**Sample Re-prep/Re-analysis**

None of the samples in this sample set required reprep or reanalysis.

**Miscellaneous Information:****Data Exception (DER) Documentation**

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG:

DER 807577 was generated due to Failed RPD for DUP. 1. Failed RPD for DUP: QC 1202057347DUP Pb-212 did not meet the relative error ratio requirement for samples 248202001 and 1202057347. 1. All other nuclides met the duplication requirements. Reporting results.

**Additional Comments**

Additional comments were not required for this sample set.

**Blank Decision Level**

The method blank 1202057346 (MB) result is greater than the decision level but less than the MDC for Pb-212.

**Qualifier information**

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	248202001	RE36-10-8282
			248202002	RE36-10-8281
			1202057347	RE36-10-8282(248202001DUP)
		Cadmium-109	248202001	RE36-10-8282
			248202002	RE36-10-8281
			1202057347	RE36-10-8282(248202001DUP)
		Radium-224	248202001	RE36-10-8282
			248202002	RE36-10-8281
UI	Data rejected due to low abundance.	Strontium-85	248202001	RE36-10-8282
			1202057347	RE36-10-8282(248202001DUP)
		Thorium-234	1202057346	MB for batch 959279

**Method/Analysis Information**



**Product:** H3  
**Analytical Method:** GL-RAD-A-002  
**Analytical Batch Number:** 961542

<b>Sample ID</b>	<b>Client ID</b>
248202001	RE36-10-8282
248202002	RE36-10-8281
1202062415	Method Blank (MB)
1202062416	247911004(RE15-10-8017) Sample Duplicate (DUP)
1202062417	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: 247911004 (RE15-10-8017). The QC was from LANL work order 247911.

##### **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:** \_\_\_\_\_

*Ramla M. Miller 3/23/10*

### DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 22-MAR-10	<b>Division:</b> Radiochemistry	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> GAMMA SPECTROMETER	<b>Test / Method:</b> DOE HASL 300, 4.5.2.3/Ga-01-R	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 959279	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG):</b> 248201(10-2123), 248202(10-2124)			
<b>Application Issues:</b> Failed RPD for DUP			
<b>Specification and Requirements Exception Description:</b>		<b>DER Disposition:</b>	
1. Failed RPD for DUP:  QC 1202057347DUP  Pb-212 did not meet the relative error ratio requirement for samples 248202001 and 1202057347.		1. All other nuclides met the duplication requirements. Reporting results.	

**Originator's Name:**

Shenise Euland 22-MAR-10

**Data Validator/Group Leader:**

Jimmy Hartley 23-MAR-10

# SAMPLE DATA SUMMARY

## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - [www.gel.com](http://www.gel.com)

### Certificate of Analysis Report for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2124 GEL Work Order: 248202

**The Qualifiers in this report are defined as follows:**

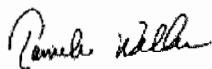
- \* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- \*\* Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by



# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 23, 2010

Client Sample ID: RE36-10-8282  
Sample ID: 248202001  
Matrix: R  
Collect Date: 23-FEB-10  
Receive Date: 26-FEB-10  
Collector: Client  
Moisture: 8.7%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
<b>Gravimetric Solids</b>												
<i>"As Received"</i>												
<b>Rad Alpha Spec Analysis</b>												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.00588	0.0226	+/-0.00303	0.050	pCi/g		JXH2	03/16/10	0735	961175	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	0.0042	0.0296	+/-0.00298	0.050	pCi/g		JXH2	03/16/10	1910	961176	3
Plutonium-239/240	U	-0.0021	0.0249	+/-0.00363	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		1.83	0.103	+/-0.153	0.100	pCi/g		JXH2	03/13/10	1415	961183	5
Uranium-235/236		0.122	0.0632	+/-0.0251	0.100	pCi/g						
Uranium-238		1.80	0.0727	+/-0.151	0.100	pCi/g						
<b>Rad Gamma Spec Analysis</b>												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.154	0.250	+/-0.0805	0.200	pCi/g		MXR1	03/18/10	1310	959279	6
Bismuth-211	UI	5.10	0.348	+/-0.295		pCi/g						
Bismuth-214		1.50	0.125	+/-0.108	0.200	pCi/g						
Cadmium-109	UI	2.57	1.44	+/-0.616		pCi/g						
Cerium-139	U	-0.0205	0.0559	+/-0.0174	0.050	pCi/g						
Cesium-134	U	0.0837	0.0979	+/-0.0274	0.100	pCi/g						
Cesium-137	U	0.0377	0.0789	+/-0.0229	0.100	pCi/g						
Cobalt-60	U	-0.0161	0.0725	+/-0.0229	0.100	pCi/g						
Europium-152	U	-0.0766	0.173	+/-0.071	0.200	pCi/g						
Lanthanum-140	U	0.0512	0.251	+/-0.0738		pCi/g						
Lead-212		2.24	0.102	+/-0.107	0.100	pCi/g						
Lead-214		1.85	0.127	+/-0.119	0.100	pCi/g						
Mercury-203	U	0.0365	0.083	+/-0.0269	0.100	pCi/g						
Potassium-40		32.4	0.552	+/-1.50	1.00	pCi/g						
Radium-223	U	0.0727	1.18	+/-0.398		pCi/g						
Radium-224	UI	5.03	1.10	+/-0.669		pCi/g						
Radium-226		1.50	0.125	+/-0.108		pCi/g						
Radium-228		2.57	0.254	+/-0.247	0.500	pCi/g						
Ruthenium-106	U	0.273	0.572	+/-0.164	0.800	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 23, 2010

Client Sample ID: RE36-10-8282  
Sample ID: 248202001

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gamma Spec Analysis</b>												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Sodium-22	U	-0.0399	0.0717	+/-0.0237	0.080	pCi/g						
Strontium-85	UI	0.133	0.0904	+/-0.0241		pCi/g						
Thallium-208		0.621	0.0606	+/-0.0498	0.080	pCi/g						
Thorium-227	U	-0.0776	0.460	+/-0.136		pCi/g						
Thorium-231	U	0.0727	1.18	+/-0.398		pCi/g						
Thorium-234		2.68	2.16	+/-0.869	2.00	pCi/g						
Tin-113	U	-0.026	0.0848	+/-0.0259	0.100	pCi/g						
Uranium-235	U	0.190	0.398	+/-0.119	0.500	pCi/g						
Yttrium-88	U	-0.018	0.0485	+/-0.0171	0.100	pCi/g						

### **Rad Liquid Scintillation Analysis**

*H3 "As Received"*

Tritium		1620	175	+/-137	250	pCi/L	KXK2	03/14/10	1115	961542	7
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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, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.7	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	54.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	96.3	(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

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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 23, 2010

Client Sample ID: RE36-10-8282  
Sample ID: 248202001  
Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
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B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.  
BD Results are either below the MDC or tracer recovery is low  
C Analyte has been confirmed by GC/MS analysis  
D Results are reported from a diluted aliquot of the sample  
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range  
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria  
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  
JNX Non Calibrated Compound  
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 Compound cannot be extracted  
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  
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Los Alamos, New Mexico 87545  
Contact: Ms. Joylene Valdez  
Project: LANL ER Project

Report Date: March 23, 2010

Client Sample ID: RE36-10-8281  
Sample ID: 248202002  
Matrix: R  
Collect Date: 23-FEB-10  
Receive Date: 26-FEB-10  
Collector: Client  
Moisture: 26.9%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
<b>Gravimetric Solids</b>												
<i>"As Received"</i>												
<b>Rad Alpha Spec Analysis</b>												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	0.0163	0.0217	+/-0.00529	0.050	pCi/g		JXH2	03/16/10	0735	961175	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	-0.00697	0.0328	+/-0.0107	0.050	pCi/g		JXH2	03/16/10	1941	961176	3
Plutonium-239/240		0.0302	0.0276	+/-0.00977	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		1.57	0.113	+/-0.137	0.100	pCi/g		JXH2	03/16/10	0859	961183	5
Uranium-235/236		0.134	0.0691	+/-0.0284	0.100	pCi/g						
Uranium-238		2.01	0.0796	+/-0.169	0.100	pCi/g						
<b>Rad Gamma Spec Analysis</b>												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	0.0305	0.119	+/-0.0385	0.200	pCi/g		MXR1	03/18/10	1311	959279	7
Bismuth-211	UI	4.27	0.419	+/-0.355		pCi/g						
Bismuth-214		1.26	0.170	+/-0.138	0.200	pCi/g						
Cadmium-109	UI	4.19	1.09	+/-0.544		pCi/g						
Cerium-139	U	-0.00868	0.0594	+/-0.0185	0.050	pCi/g						
Cesium-134	U	0.129	0.153	+/-0.0417	0.100	pCi/g						
Cesium-137		0.766	0.090	+/-0.0659	0.100	pCi/g						
Cobalt-60	U	0.0177	0.100	+/-0.0298	0.100	pCi/g						
Europium-152	U	-0.0481	0.192	+/-0.0614	0.200	pCi/g						
Lanthanum-140	U	-0.0965	0.306	+/-0.103		pCi/g						
Lead-212		1.70	0.101	+/-0.113	0.100	pCi/g						
Lead-214		1.55	0.151	+/-0.136	0.100	pCi/g						
Mercury-203	U	-0.0261	0.084	+/-0.0257	0.100	pCi/g						
Potassium-40		26.3	0.743	+/-1.62	1.00	pCi/g						
Radium-223	U	-0.348	1.34	+/-0.429		pCi/g						
Radium-224	UI	5.71	1.09	+/-0.823		pCi/g						
Radium-226		1.26	0.170	+/-0.138		pCi/g						
Radium-228		1.60	0.314	+/-0.289	0.500	pCi/g						
Ruthenium-106	U	-0.345	0.764	+/-0.257	0.800	pCi/g						
Sodium-22	U	0.0174	0.115	+/-0.035	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 23, 2010

Client Sample ID: RE36-10-8281  
Sample ID: 248202002

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	0.0362	0.104	+/-0.0347		pCi/g						
Thallium-208		0.543	0.082	+/-0.0613	0.080	pCi/g						
Thorium-227	U	-0.0626	0.509	+/-0.163		pCi/g						
Thorium-231	U	-0.348	1.34	+/-0.429		pCi/g						
Thorium-234		3.05	1.21	+/-0.636	2.00	pCi/g						
Tin-113	U	-0.0187	0.108	+/-0.0332	0.100	pCi/g						
Uranium-235	U	0.0119	0.401	+/-0.127	0.500	pCi/g						
Yttrium-88	U	0.0323	0.0917	+/-0.0242	0.100	pCi/g						

### Rad Liquid Scintillation Analysis

*H3 "As Received"*

Tritium		247	176	+/-58.7	250	pCi/L	KXK2	03/14/10	1253	961542	8	
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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, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R
8	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.8	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	46.3 *	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	61.4	(50%-105%)

### Notes:

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

- \*\* Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

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## Certificate of Analysis

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

Report Date: March 23, 2010

Client Sample ID: RE36-10-8281 Project: LANL01004  
Sample ID: 248202002 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time Batch	Mtd.
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B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.  
BD Results are either below the MDC or tracer recovery is low  
C Analyte has been confirmed by GC/MS analysis  
D Results are reported from a diluted aliquot of the sample  
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range  
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria  
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  
JNX Non Calibrated Compound  
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 Compound cannot be extracted  
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

# GEL LABORATORIES LLC

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## QC Summary

Report Date: March 23, 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: 248202

Paramname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
<b>Rad Alpha Spec</b>											
Batch	961175										
QC1202061666	248202001 DUP										
Americium-241		U	0.00588	U	-0.00132	pCi/g	0.687	(0-1)	JXH2	03/16/1007:38	
		TPU:	+/-0.00303		+/-0.00221						
		Yield:	83.7		70.4						
QC1202061667	LCS										
Americium-241	33.2				33.6	pCi/g	101	(75%-125%)		03/16/1007:38	
		TPU:			+/-2.42						
		Yield:			93.6						
QC1202061665	MB										
Americium-241		U	0.000497			pCi/g				03/16/1007:38	
		TPU:	+/-0.00296								
		Yield:	88.4								
Batch	961176										
QC1202061670	248202001 DUP										
Plutonium-238		U	0.0042	U	0.00222	pCi/g	0.0727	(0-1)	JXH2	03/16/1019:41	
		TPU:	+/-0.00298		+/-0.0106						
		Yield:	54.8		48.5						
Plutonium-239/240		U	-0.0021	U	0.00	pCi/g	0.155	(0-1)			
		TPU:	+/-0.00363		+/-0.00314						
		Yield:	54.8		48.5						
QC1202061671	LCS										
Plutonium-238					4.86	pCi/g		(75%-125%)		03/13/1015:39	
		TPU:			+/-0.388						
		Yield:			83.4						
Plutonium-239/240	41.8				39.9	pCi/g	95.5	(75%-125%)			
		TPU:			+/-2.50						
		Yield:			83.4						
QC1202061669	MB										
Plutonium-238		U	-0.0149			pCi/g				03/16/1019:41	
		TPU:	+/-0.013								
		Yield:	51.0								
Plutonium-239/240		U	0.00298			pCi/g					
		TPU:	+/-0.00666								
		Yield:	51.0								
Batch	961183										
QC1202061683	248202001 DUP										
Uranium-233/234			1.83		1.85	pCi/g	0.0275	(0-1)	JXH2	03/13/1014:15	
		TPU:	+/-0.153		+/-0.157						
		Yield:	96.3		96.5						
Uranium-235/236			0.122		0.0829	pCi/g	0.425	(0-1)			
		TPU:	+/-0.0251		+/-0.0214						
		Yield:	96.3		96.5						
Uranium-238			1.80		1.73	pCi/g	0.109	(0-1)			
		TPU:	+/-0.151		+/-0.149						

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## QC Summary

Workorder: 248202

Page 2 of 7

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	961183										
QC1202061684	LCS	Yield:	96.3	96.5							
Uranium-233/234				6.25	pCi/g					03/13/1014:15	
		TPU:		+/-0.583							
		Yield:		98.5							
Uranium-235/236			U	0.0868	pCi/g						
		TPU:		+/-0.0536							
		Yield:		98.5							
Uranium-238	5.75			5.92	pCi/g		103	(75%-125%)			
		TPU:		+/-0.557							
		Yield:		98.5							
QC1202061682	MB										
Uranium-233/234			U	-0.00205	pCi/g					03/13/1014:15	
		TPU:		+/-0.00255							
		Yield:		101							
Uranium-235/236			U	0.00446	pCi/g						
		TPU:		+/-0.00317							
		Yield:		101							
Uranium-238			U	0.00361	pCi/g						
		TPU:		+/-0.00256							
		Yield:		101							
Rad Gamma Spec											
Batch	959279										
QC1202057347	248202001	DUP									
Americium-241		U	0.154	U	-0.0283	pCi/g	0.365	(0-1)	MXR1	03/18/1016:18	
		TPU:	+/-0.0805		+/-0.169						
Bismuth-211		UI	5.10	UI	5.22	pCi/g	0.0928	(0-1)			
		TPU:	+/-0.295		+/-0.400						
Bismuth-214			1.50		1.41	pCi/g	0.200	(0-1)			
		TPU:	+/-0.108		+/-0.127						
Cadmium-109		UI	2.57	UI	3.53	pCi/g	0.339	(0-1)			
		TPU:	+/-0.616		+/-0.792						
Cerium-139		U	-0.0205	U	0.000904	pCi/g	0.275	(0-1)			
		TPU:	+/-0.0174		+/-0.0216						
Cesium-134		U	0.0837	U	0.0913	pCi/g	0.0653	(0-1)			
		TPU:	+/-0.0274		+/-0.0305						
Cesium-137		U	0.0377		0.114	pCi/g	0.726	(0-1)			
		TPU:	+/-0.0229		+/-0.0294						
Cobalt-60		U	-0.0161	U	0.000864	pCi/g	0.171	(0-1)			
		TPU:	+/-0.0229		+/-0.0266						
Europium-152		U	-0.0766	U	-0.0117	pCi/g	0.212	(0-1)			
		TPU:	+/-0.071		+/-0.0822						
Lanthanum-140		U	0.0512	U	-0.0709	pCi/g	0.382	(0-1)			
		TPU:	+/-0.0738		+/-0.0858						
Lead-212			2.24		1.66	pCi/g	1.13	(0-1)			
		TPU:	+/-0.107		+/-0.150						
Lead-214			1.85		1.90	pCi/g	0.0861	(0-1)			
		TPU:	+/-0.119		+/-0.154						
Mercury-203		U	0.0365	U	-0.0128	pCi/g	0.429	(0-1)			
		TPU:	+/-0.0269		+/-0.0305						

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## QC Summary

Workorder: 248202

Page 3 of 7

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	959279										
Potassium-40		32.4		32.2	pCi/g	0.0366		(0-1)			
		TPU: +/-1.50		+/-1.92							
Radium-223		U 0.0727	U	-0.873	pCi/g	0.548		(0-1)			
		TPU: +/-0.398		+/-0.466							
Radium-224		UI 5.03	U	1.88	pCi/g	1.27		(0-1)			
		TPU: +/-0.669		+/-0.576							
Radium-226		1.50		1.41	pCi/g	0.200		(0-1)			
		TPU: +/-0.108		+/-0.127							
Radium-228		2.57		2.13	pCi/g	0.452		(0-1)			
		TPU: +/-0.247		+/-0.238							
Ruthenium-106		U 0.273	U	-0.127	pCi/g	0.521		(0-1)			
		TPU: +/-0.164		+/-0.220							
Sodium-22		U -0.0399	U	-0.00456	pCi/g	0.326		(0-1)			
		TPU: +/-0.0237		+/-0.0305							
Strontium-85		UI 0.133	UI	0.179	pCi/g	0.419		(0-1)			
		TPU: +/-0.0241		+/-0.0315							
Thallium-208		0.621		0.736	pCi/g	0.511		(0-1)			
		TPU: +/-0.0498		+/-0.0632							
Thorium-227		U -0.0776	U	0.0654	pCi/g	0.233		(0-1)			
		TPU: +/-0.136		+/-0.171							
Thorium-231		U 0.0727	U	-0.873	pCi/g	0.548		(0-1)			
		TPU: +/-0.398		+/-0.466							
Thorium-234		2.68	U	0.670	pCi/g	0.446		(0-1)			
		TPU: +/-0.869		+/-1.39							
Tin-113		U -0.026	U	0.0288	pCi/g	0.466		(0-1)			
		TPU: +/-0.0259		+/-0.0328							
Uranium-235		U 0.190	U	0.291	pCi/g	0.191		(0-1)			
		TPU: +/-0.119		+/-0.146							
Yttrium-88		U -0.018	U	0.000486	pCi/g	0.246		(0-1)			
		TPU: +/-0.0171		+/-0.0205							
QC1202057348	LCS										
Americium-241	16.3			14.0	pCi/g		85.7	(75%-125%)		03/18/10	15:39
		TPU: +/-0.619		2.59	pCi/g						
Bismuth-211											
		TPU: +/-0.403		1.20	pCi/g						
Bismuth-214											
		TPU: +/-0.151		36.5	pCi/g						
Cadmium-109											
		TPU: +/-1.93		0.013	pCi/g						
Cerium-139			U								
		TPU: +/-0.0205		0.110	pCi/g						
Cesium-134			U								
		TPU: +/-0.0614		6.40	pCi/g		113	(75%-125%)			
Cesium-137	5.69										
		TPU: +/-0.394		7.05	pCi/g		108	(75%-125%)			
Cobalt-60	6.50										
		TPU: +/-0.357		-0.046	pCi/g						
Europium-152			U								
		TPU: +/-0.0941		0.0693	pCi/g						
Lanthanum-140			U								
		TPU: +/-0.0776									

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## QC Summary

Workorder: 248202

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Parmname	NOM	Sample Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec									
Batch	959279								
Lead-212			1.33	pCi/g					
	TPU:		+/-0.115						
Lead-214			0.940	pCi/g					
	TPU:		+/-0.149						
Mercury-203		U	-0.0255	pCi/g					
	TPU:		+/-0.0346						
Potassium-40		U	0.729	pCi/g					
	TPU:		+/-0.339						
Radium-223		U	-0.917	pCi/g					
	TPU:		+/-0.615						
Radium-224			3.31	pCi/g					
	TPU:		+/-0.792						
Radium-226			1.20	pCi/g					
	TPU:		+/-0.151						
Radium-228			1.69	pCi/g					
	TPU:		+/-0.451						
Ruthenium-106		U	0.726	pCi/g					
	TPU:		+/-0.328						
Sodium-22		U	0.027	pCi/g					
	TPU:		+/-0.029						
Strontium-85		U	-0.14	pCi/g					
	TPU:		+/-0.0464						
Thallium-208			0.584	pCi/g					
	TPU:		+/-0.0874						
Thorium-227		U	-0.0697	pCi/g					
	TPU:		+/-0.213						
Thorium-231		U	-0.917	pCi/g					
	TPU:		+/-0.615						
Thorium-234		U	0.467	pCi/g					
	TPU:		+/-0.387						
Tin-113		U	0.0186	pCi/g					
	TPU:		+/-0.0467						
Uranium-235		U	-0.075	pCi/g					
	TPU:		+/-0.138						
Yttrium-88		U	-0.00374	pCi/g					
	TPU:		+/-0.0393						
QC1202057346 MB									
Americium-241		U	-0.0562	pCi/g					03/18/1013:12
	TPU:		+/-0.0502						
Bismuth-211		U	-0.0508	pCi/g					
	TPU:		+/-0.0554						
Bismuth-214		U	-0.0244	pCi/g					
	TPU:		+/-0.0231						
Cadmium-109		U	-0.394	pCi/g					
	TPU:		+/-0.182						
Cerium-139		U	-0.00214	pCi/g					
	TPU:		+/-0.00616						
Cesium-134		U	-0.0156	pCi/g					
	TPU:		+/-0.011						
Cesium-137		U	-0.0102	pCi/g					
	TPU:		+/-0.00815						



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## QC Summary

Workorder: 248202

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Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	959279										
Cobalt-60			U	0.00443	pCi/g						
	TPU:			+/-0.00895							
Europium-152			U	-0.0365	pCi/g						
	TPU:			+/-0.0246							
Lanthanum-140			U	-0.0119	pCi/g						
	TPU:			+/-0.0182							
Lead-212			U	0.0514	pCi/g						
	TPU:			+/-0.0216							
Lead-214			U	-0.00824	pCi/g						
	TPU:			+/-0.0193							
Mercury-203			U	-0.00615	pCi/g						
	TPU:			+/-0.00836							
Potassium-40			U	-0.147	pCi/g						
	TPU:			+/-0.108							
Radium-223			U	0.0156	pCi/g						
	TPU:			+/-0.147							
Radium-224			U	0.125	pCi/g						
	TPU:			+/-0.173							
Radium-226			U	-0.0244	pCi/g						
	TPU:			+/-0.0231							
Radium-228			U	0.0434	pCi/g						
	TPU:			+/-0.0424							
Ruthenium-106			U	-0.0556	pCi/g						
	TPU:			+/-0.0808							
Sodium-22			U	4.16E-05	pCi/g						
	TPU:			+/-0.00957							
Strontium-85			U	-0.0989	pCi/g						
	TPU:			+/-0.0159							
Thallium-208			U	0.000834	pCi/g						
	TPU:			+/-0.0101							
Thorium-227			U	0.0202	pCi/g						
	TPU:			+/-0.0604							
Thorium-231			U	0.0156	pCi/g						
	TPU:			+/-0.147							
Thorium-234			UI	1.60	pCi/g						
	TPU:			+/-0.640							
Tin-113			U	-0.00152	pCi/g						
	TPU:			+/-0.00942							
Uranium-235			U	-0.0715	pCi/g						
	TPU:			+/-0.054							
Yttrium-88			U	-0.00561	pCi/g						
	TPU:			+/-0.00902							
Rad Liquid Scintillation											
Batch	961542										
QC1202062416	247911004	DUP									
Tritium			35400		38600	pCi/L	0.311	(0-1)	KXX2	03/14/1016:08	
			TPU:	+/-2490	+/-2720						
QC1202062417	LCS										
Tritium	5540				5630	pCi/L	102	(80%-120%)		03/14/1017:58	
			TPU:		+/-485						

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## QC Summary

Workorder: 248202

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Parmname	NOM	Sample Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
<b>Rad Liquid Scintillation</b>										
Batch	961542									
QC1202062415	MB									
Tritium		U	-19	pCi/L					03/14/10	14:31
	TPU:		+/-50.9							

### 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
- JNX Non Calibrated Compound
- 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 Compound cannot be extracted
- 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: 248202

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Parmname	NOM	Sample Qual	QC	Units	RER	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.

\*\* 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#

961175

Product:

Am

Date:

3/18/10

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 stasured.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hil 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:

Jocelyn 3/18/10

Secondary Review Performed By:

[Signature] 3/18/10

3/19

LANL

# Am/Cm Que Sheet

04-MAR-10

Batch #: 961175 Analyst: JXH2 First Client Due Date: 19-MAR-10 Internal Due Date: 09-MAR-10 Comments:  
 Tracer Code: 445-96-2-55 Expiration Date: 5-11-10 Vol: 6.1  
 LCS Isotope(s): Am241/Cm244 LCS Code(s): 58M 0244-B / Expiration Date: 4-30-20 / Vol(s): - / -  
 Spike Isotope(s): Am241/Cm244 Spike Code(s): - / - / - Expiration Date: - / - / - Vol(s): - / -  
 Prep Date: 3-10-10 Initials: JEH Pipet ID: 247105P Balance ID: 50410772 Witness: 3/10/10 CMV

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Aliquot (g/ml / n)	Am/Cm Det #
248189001-1	RE11-10-1651	SAMPLE		.05 pCi/g	SOIL	LANL010	22-FEB-10	1	1	1.253	211
248189002-1	RE11-10-1652	SAMPLE		.05 pCi/g	SOIL	LANL010	22-FEB-10	2	2	1.252	212
248201001-1	RE36-10-7405	SAMPLE		.05 pCi/g	SOIL	LANL010	23-FEB-10	3	3	1.251	213
248201002-1	RE36-10-7403	SAMPLE		.05 pCi/g	SOIL	LANL010	23-FEB-10	4	4	1.255	214
248201003-1	RE36-10-7406	SAMPLE		.05 pCi/g	SOIL	LANL010	23-FEB-10	5	5	1.255	215
248201004-1	RE36-10-7404	SAMPLE		.05 pCi/g	SOIL	LANL010	23-FEB-10	6	6	1.254	216
248201005-1	RE36-10-7516	SAMPLE		.05 pCi/g	SOIL	LANL010	23-FEB-10	7	7	1.252	217
248201006-1	RE36-10-7426	SAMPLE		.05 pCi/g	SOIL	LANL010	23-FEB-10	8	8	1.251	218
248201007-1	RE36-10-7432	SAMPLE		.05 pCi/g	SOIL	LANL010	23-FEB-10	9	9	1.254	219
248201008-1	RE36-10-7431	SAMPLE		.05 pCi/g	SOIL	LANL010	23-FEB-10	10	10	1.251	220
248201009-1	RE36-10-7434	SAMPLE		.05 pCi/g	SOIL	LANL010	23-FEB-10	11	11	1.253	221
248201010-1	RE36-10-7425	SAMPLE		.05 pCi/g	SOIL	LANL010	23-FEB-10	12	12	1.254	222
248201011-1	RE36-10-7429	SAMPLE		.05 pCi/g	SOIL	LANL010	23-FEB-10	13	13	1.255	223
248201012-1	RE36-10-7433	SAMPLE		.05 pCi/g	SOIL	LANL010	23-FEB-10	14	14	1.256	224
248202001-1	RE36-10-8282	SAMPLE		.05 pCi/g	SOIL	LANL010	23-FEB-10	15	15	1.252	225
248202002-1	RE36-10-8281	SAMPLE		.05 pCi/g	SOIL	LANL010	23-FEB-10	16	16	1.253	226
1202061665-1	MB for batch 961175	MB		.05 pCi/g	SOIL	QC ACCOUNT		17	17	1.00	234
1202061666-1	RE36-10-8282(248202001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	23-FEB-10	18	18	1.251	235
1202061667-1	LCS for batch 961175	LCS		.05 pCi/g	SOIL	QC ACCOUNT		19	19	0.108	236

Choose SOP Used: GL-RAD-A-011  
 GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION

Circle One

Data Reviewed By: SPC/LP 1-3/18/10

# Blank Correction Report

**Batch ID 961175**

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202061666	DUP	Americium-241	1.25 g	-0.00132	0.00221	0.0262	.0003976	pCi/g	YES
1202061667	LCS	Americium-241	0.108 g	33.6	2.42	0.220	.004601852	pCi/g	NO
1202061665	MB	Americium-241	1.00 g	0.000497	0.00296	0.0261	.000497	pCi/g	YES
248189001	RE11-10-1651	Americium-241	1.25 g	0.00563	0.00325	0.0207	.0003976	pCi/g	NO
248189002	RE11-10-1652	Americium-241	1.25 g	0.00544	0.00283	0.0213	.0003976	pCi/g	NO
248201001	RE36-10-7405	Americium-241	1.25 g	0.0108	0.00446	0.0224	.0003976	pCi/g	NO
248201002	RE36-10-7403	Americium-241	1.26 g	0.00626	0.00321	0.0237	.000394444	pCi/g	NO
248201003	RE36-10-7406	Americium-241	1.26 g	0.00148	0.00218	0.0212	.000394444	pCi/g	YES
248201004	RE36-10-7404	Americium-241	1.25 g	0.00155	0.00386	0.0317	.0003976	pCi/g	YES
248201005	RE36-10-7516	Americium-241	1.25 g	0.0126	0.00481	0.0228	.0003976	pCi/g	NO
248201006	RE36-10-7426	Americium-241	1.25 g	-0.00207	0.00245	0.0225	.0003976	pCi/g	YES
248201007	RE36-10-7432	Americium-241	1.25 g	0.00328	0.00285	0.0228	.0003976	pCi/g	NO
248201008	RE36-10-7431	Americium-241	1.25 g	0.00961	0.00375	0.021	.0003976	pCi/g	NO
248201009	RE36-10-7434	Americium-241	1.25 g	-0.000962	0.00219	0.0225	.0003976	pCi/g	YES
248201010	RE36-10-7425	Americium-241	1.25 g	0.0077	0.00353	0.0233	.0003976	pCi/g	NO
248201011	RE36-10-7429	Americium-241	1.26 g	0.00619	0.0029	0.0196	.000394444	pCi/g	NO
248201012	RE36-10-7433	Americium-241	1.26 g	0.0184	0.00755	0.0247	.000394444	pCi/g	NO
248202001	RE36-10-8282	Americium-241	1.25 g	0.00588	0.00303	0.0226	.0003976	pCi/g	NO
248202002	RE36-10-8281	Americium-241	1.25 g	0.0163	0.00529	0.0217	.0003976	pCi/g	NO

GEL Laboratories LLC  
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 961175 SAMPLE ID : S0248202001_AM SAMPLE QTY : 1.252 G SAMPLE DATE : 23-FEB-2010 00:00:00 ANALYST : JXH2 % YIELD : 83.677	CHAMBER : 225 DETECTOR S/N : 79418 AVERAGE %EFFICIENCY : 38.8004 COUNT DATE : 16-MAR-2010 07:35:31 ELAPSED LIVE TIME(SEC) : 43200.00	LIB FILE : ENV_ALPHA_AM BKG FILE : B225.CNF:89 BKG DATE : 14-MAR-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W225.CNF:30 CAL DATE : 28-FEB-2010
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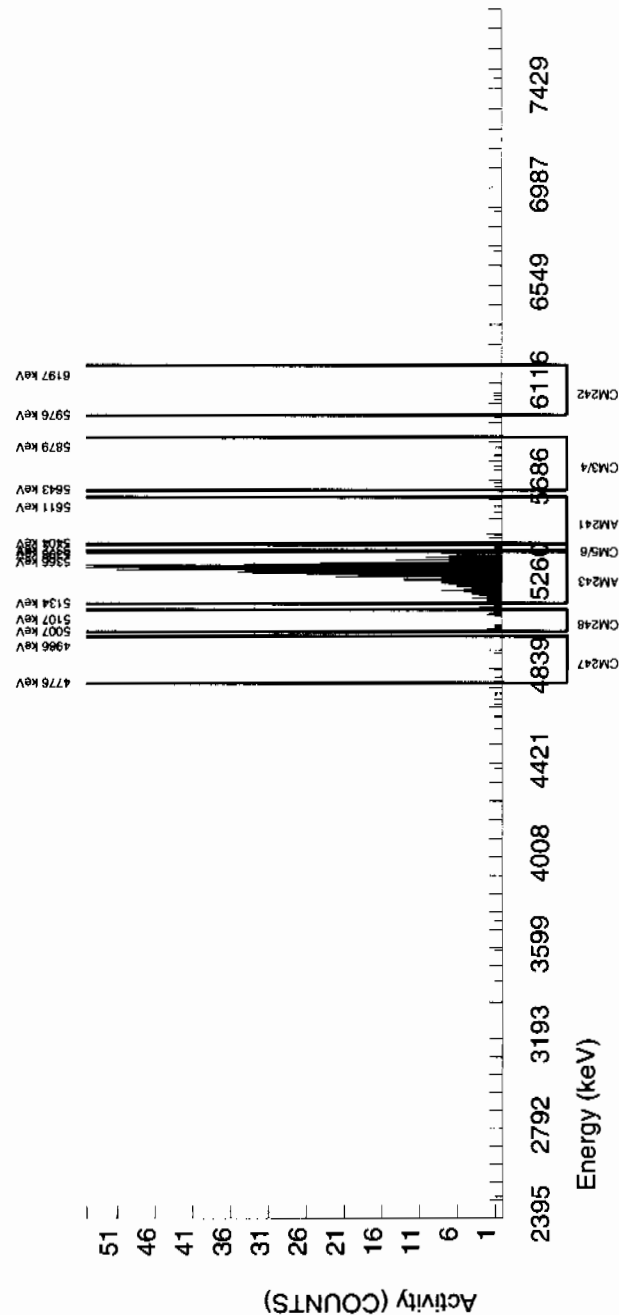
TRACER ID : 445-96-2-SS NUCLIDE : AM243 NOMINAL : 2.9165E+00 dpm RESULTS : 2.4405E+00 dpm	MS/MSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3152E+01 pCi/G	LCS/LCSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3152E+01 pCi/G
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## NUCLIDE ACTIVITY SUMMARY

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	5493.968	7.254	5.000	3.816	0.000	2.7707	99.94000	5.88E-03	3.03E-03	9.21E-03	2.26E-02	3.01E-03
AM243	5270.000	5284.635	46.267	681.000	680.280	0.720	0.8485	99.78000	1.05E+00	7.82E-02	2.82E-03	9.83E-03	4.03E-02
CM-242	6102.000	6029.378	0.000	5.000	4.280	0.720	4.0092	100.0000	7.22E-03	3.99E-03	1.33E-02	3.08E-02	3.96E-03
CM-3/4	5795.020	5753.233	162.993	7.000	6.280	0.720	4.8510	100.0000	9.69E-03	4.27E-03	1.61E-02	3.64E-02	4.23E-03
CM-5/6	5386.000	5380.346	6.586	8.000	8.000	0.000	6.1294	86.09000	1.43E-02	5.14E-03	2.36E-02	5.21E-02	5.06E-03
CM-247	4946.000	4826.274	128.419	5.000	4.280	0.720	6.3427	79.30000	8.31E-03	4.59E-03	2.66E-02	5.84E-02	4.56E-03
CM-248	5078.600	5058.781	71.618	12.000	12.000	0.000	11.0244	91.00000	2.03E-02	6.00E-03	4.02E-02	8.50E-02	5.86E-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

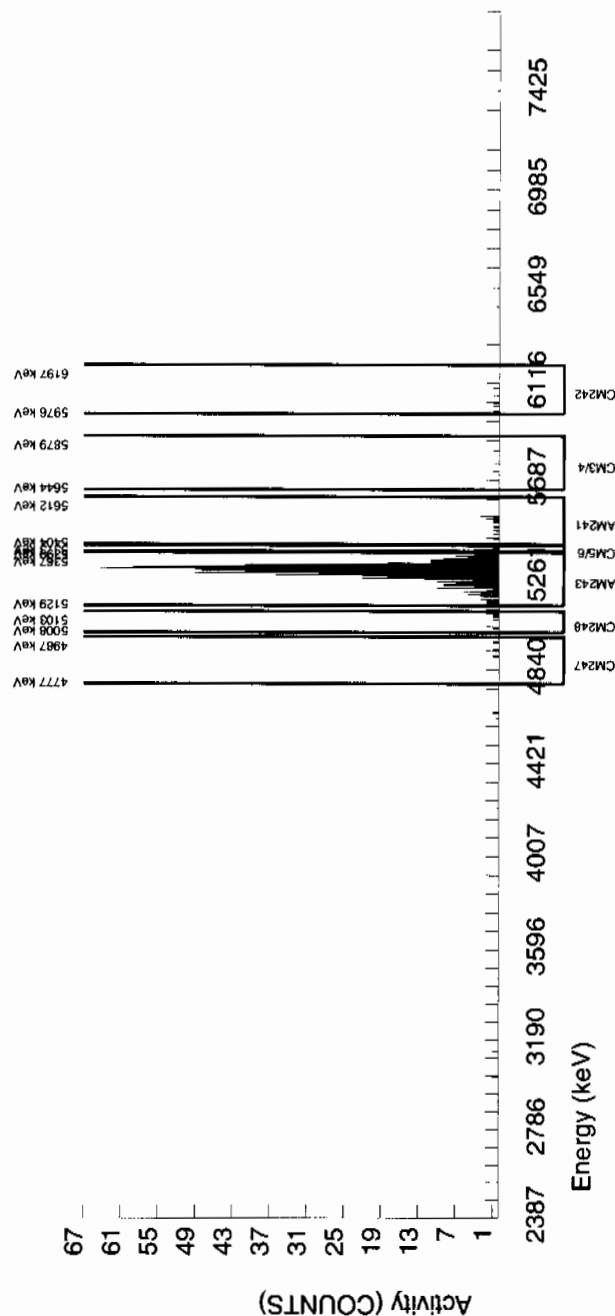
<b>BATCH NUMBER :</b> 961175 <b>SAMPLE ID :</b> S0248202002_AM <b>SAMPLE QTY :</b> 1.253 G <b>SAMPLE DATE :</b> 23-FEB-2010 00:00:00 <b>ANALYST :</b> JXH2 <b>% YIELD :</b> 86.815		<b>CHAMBER :</b> 226 <b>DETECTOR S/N :</b> 79419 <b>AVERAGE %EFFICIENCY :</b> 38.9218 <b>COUNT DATE :</b> 16-MAR-2010 07:35:33 <b>ELAPSED LIVE TIME(SEC) :</b> 43200.00		<b>LIB FILE :</b> ENV_ALPHA_AM <b>BKG FILE :</b> B226.CNF;89 <b>BKG DATE :</b> 14-MAR-2010 <b>BKG LIVE TIME(SEC) :</b> 60000.00 <b>EFF FILE :</b> W226.CNF;30 <b>CAL DATE :</b> 28-FEB-2010	
---	--	---	--	--	--

<b>TRACER</b> <b>ID :</b> 445-96-2-SS <b>NUCLIDE :</b> AM243 <b>NOMINAL :</b> 2.9165E+00 dpm <b>RESULTS :</b> 2.5320E+00 dpm		<b>MS/MSD</b> <b>ID :</b> 0244-B <b>NUCLIDE :</b> AM-241 <b>NOMINAL :</b> 3.3152E+01 pCi/G	<b>LCS/LCSD</b> <b>ID :</b> 0244-B <b>NUCLIDE :</b> AM-241 <b>NOMINAL :</b> 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
AM-241	5479.150	5493.578	6.162	13.000	11.048	0.720	2.7707	99.94000	1.63E-02	5.29E-03
AM243	5270.000	5287.472	47.110	708.000	708.000	0.000	0.0000	99.78000	1.05E+00	7.73E-02
CM-242	6102.000	6045.082	99.420	7.000	7.000	0.000	4.0092	100.0000	1.13E-02	4.35E-03
CM-3/4	5795.020	5770.454	89.478	3.000	3.000	0.000	4.8510	100.0000	4.44E-03	2.58E-03
CM-5/6	5386.000	5381.439	0.000	21.000	21.000	0.000	6.1294	86.09000	3.60E-02	8.19E-03
CM-247	4946.000	4912.197	178.955	6.000	6.000	0.000	6.3427	79.30000	1.12E-02	4.62E-03
CM-248	5078.600	5070.556	0.000	11.000	11.000	0.000	11.0244	91.00000	1.79E-02	5.50E-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	: 961175
SAMPLE ID	: S1202061665_AM
SAMPLE QTY	: 1.000 G
SAMPLE DATE	: 10-MAR-2010 00:00:00
ANALYST	: JXH2
% YIELD	: 88.428

CHAMBER : 234  
DETECTOR S/N : 79427  
AVERAGE %EFFICIENCY : 39.7384  
COUNT DATE : 16-MAR-2000  
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE	ENV_ALPHA_AM
BKG FILE	B234.CNF;90
BKG DATE	14-MAR-2010
BKG LIVE TIME(SEC)	60000.00
EFF FILE	W234.CNF;30
CAL DATE	28-FEB-2010

TRACER	:	445-96-2-SS
ID	:	AM243
NUCLIDE	:	2.9165E+00 dpm
NOMINAL	:	2.5790E+00 dpm
RESULTS	:	

MS/MSD  
ID : 0244-B  
NUCLIDE : AM-241  
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD  
ID : 0244-B  
NUCLIDE : AM-241  
NOMINAL : 3.3150E+01 pCi/G

## NUCLIDE ACTIVITY SUMMARY

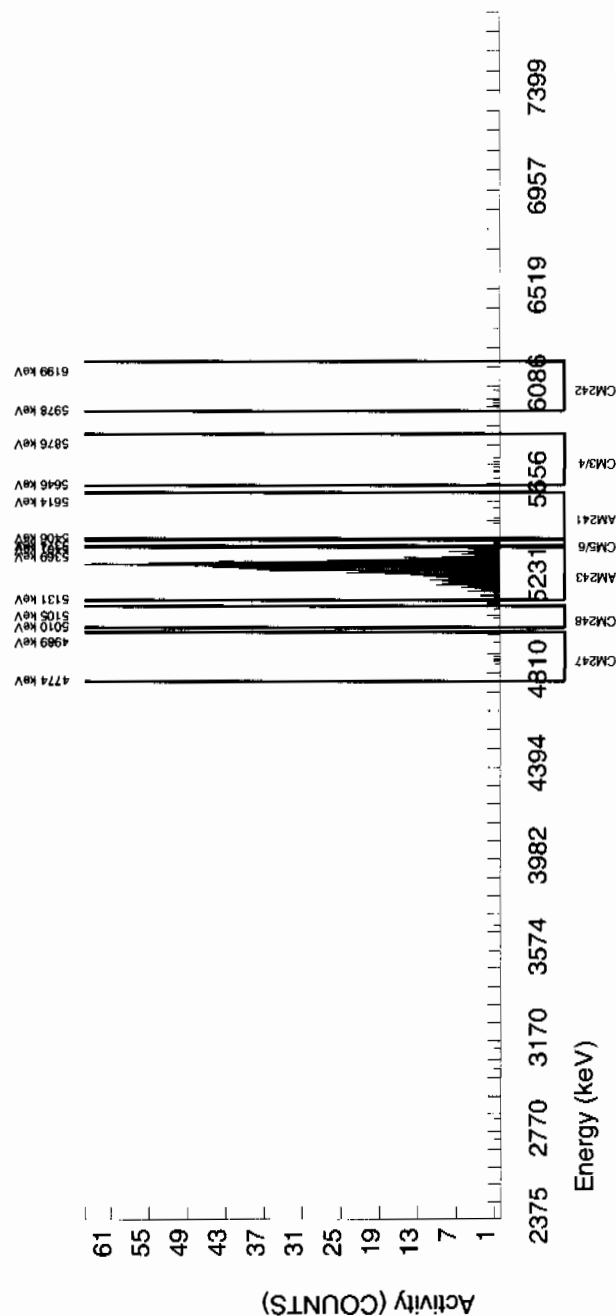
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5510.588	68.795	3.000	0.279	1.440	2.7707	99.94000	4.97E-04	2.96E-03	1.06E-02	2.61E-02	2.96E-03
AM243	5270.000	5279.986	43.531	737.000	736.280	0.720	0.8485	99.78000	1.31E+00	9.60E-02	3.27E-03	1.14E-02	4.85E-02
CM-242	6102.000	6022.694	7.217	9.000	9.000	0.000	4.0092	100.0000	1.65E-02	5.59E-03	1.54E-02	3.56E-02	5.49E-03
CM-3/4	5795.020	5728.426	88.451	6.000	6.000	0.000	4.8510	100.0000	1.07E-02	4.42E-03	1.86E-02	4.21E-02	4.36E-03
CM-5/6	5386.000	5379.001	0.000	10.000	10.000	0.000	6.1294	86.09000	2.07E-02	6.67E-03	2.73E-02	6.03E-02	6.54E-03
CM-247	4946.000	4887.997	88.451	5.000	3.560	1.440	6.3427	79.30000	7.99E-03	5.54E-03	3.07E-02	6.75E-02	5.52E-03
CM-248	5078.600	5067.697	0.000	6.000	6.000	0.000	11.0244	91.00000	1.17E-02	4.85E-03	4.65E-02	9.84E-02	4.79E-03

## NOTES:

\* BKG Sg calculated via blank population.  
(Sg updated 8-MAR-2010)

\* BKG Sq 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 : 961175	CHAMBER : 235	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202061666_AM	DETECTOR S/N : 79428	BKG FILE : B235.CNF;89
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 39.7692	BKG DATE : 14-MAR-2010
SAMPLE DATE : 23-FEB-2010 00:00:00	COUNT DATE : 16-MAR-2010 07:38:42	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W235.CNF;30
% YIELD : 70.392		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 : 3.3152E+01 pCi/G	NOMINAL : 3.3152E+01 pCi/G
RESULTS : 2.0530E+00 dpm		

## NUCLIDE ACTIVITY SUMMARY

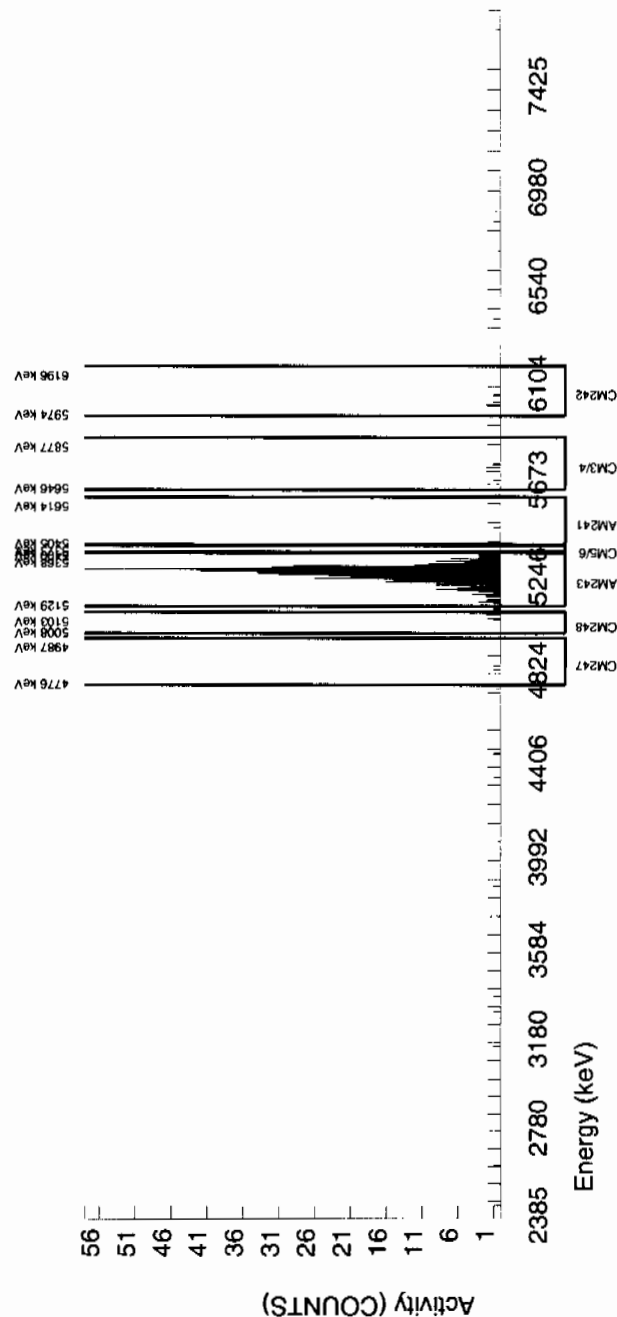
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5485.311	4.911	1.000	-0.741	0.720	2.7707	99.94000	-1.32E-03	2.21E-03	1.07E-02	2.62E-02	2.20E-03
AM243	5270.000	5280.520	35.116	588.000	586.560	1.440	1.2000	99.78000	1.05E+00	8.16E-02	4.64E-03	1.41E-02	4.35E-02
CM-242	6102.000	6035.306	4.911	6.000	6.000	0.000	4.0092	100.0000	1.17E-02	4.86E-03	1.55E-02	3.57E-02	4.80E-03
CM-3/4	5795.020	5753.787	19.645	8.000	6.560	1.440	4.8510	100.0000	1.17E-02	5.44E-03	1.87E-02	4.22E-02	5.38E-03
CM-5/6	5386.000	5379.443	0.000	7.000	7.000	0.000	6.1294	86.09000	1.45E-02	5.57E-03	2.74E-02	6.05E-02	5.49E-03
CM-247	4946.000	4857.654	19.645	2.000	1.280	0.720	6.3427	79.30000	2.88E-03	3.58E-03	3.08E-02	6.78E-02	3.58E-03
CM-248	5078.600	5087.791	7.213	6.000	6.000	0.000	11.0244	91.00000	1.18E-02	4.87E-03	4.67E-02	9.87E-02	4.81E-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 : 961175 SAMPLE ID : S1202061667_AM SAMPLE QTY : 0.108 G SAMPLE DATE : 10-MAR-2010 00:00:00 ANALYST : JXH2 % YIELD : 93.628	CHAMBER : 236 DETECTOR S/N : 79429 AVERAGE %EFFICIENCY : 41.3400 COUNT DATE : 16-MAR-2010 07:38:45 ELAPSED LIVE TIME(SEC) : 43200.00	LIB FILE : ENV_ALPHA_AM BKG FILE : B236.CNF:89 BKG DATE : 14-MAR-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W236.CNF:30 CAL DATE : 28-FEB-2010
---	--	--

TRACER ID : 445-96-2-SS NUCLIDE : AM243 NOMINAL : 2.9165E+00 dpm RESULTS : 2.7307E+00 dpm	MS/MSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3150E+01 pCi/G	LCS/LCSD ID : 0244-B NUCLIDE : AM-241 NOMINAL : 3.3150E+01 pCi/G
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## NUCLIDE ACTIVITY SUMMARY

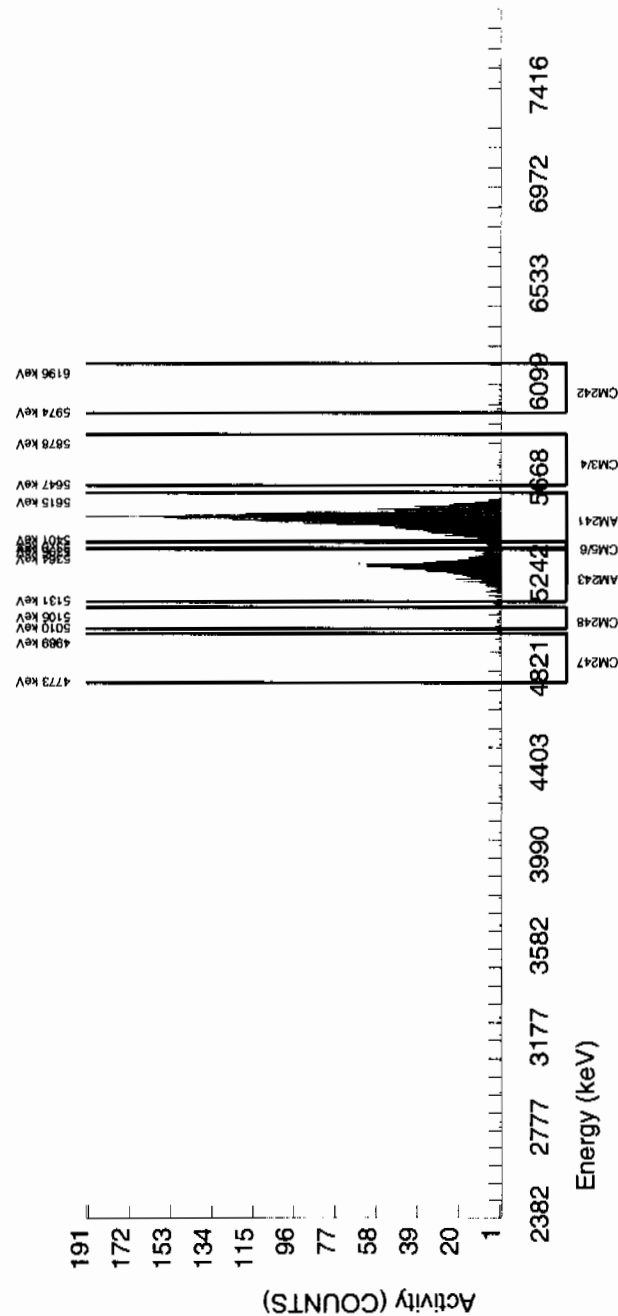
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5502.625	47.045	2249.000	2246.869	0.720	2.7707	99.94000	3.36E+01	2.42E+00	8.95E-02	2.20E-01	7.10E-01
AM243	5270.000	5280.821	35.098	811.000	811.000	0.000	0.0000	99.78000	1.22E+01	9.40E-01	0.00E+00	4.06E-02	4.27E-01
CM-242	6102.000	6038.523	4.918	8.000	8.000	0.000	4.0092	100.0000	1.23E-01	4.43E-02	1.29E-01	2.99E-01	4.35E-02
CM-3/4	5795.020	5748.628	7.223	8.000	5.840	2.160	4.8510	100.0000	8.75E-02	4.67E-02	1.57E-01	3.54E-01	4.63E-02
CM-5/6	5386.000	5381.714	0.000	57.000	57.000	0.000	6.1294	86.09000	9.91E-01	1.48E-01	2.30E-01	5.07E-01	1.31E-01
CM-247	4946.000	4918.557	6.096	12.000	9.840	2.160	6.3427	79.30000	1.86E-01	7.07E-02	2.58E-01	5.68E-01	6.95E-02
CM-248	5078.600	5056.907	58.933	17.000	17.000	0.000	11.0244	91.00000	2.80E-01	7.05E-02	3.91E-01	8.27E-01	6.78E-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# 961176 Product: Pu Date: 3/17/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to 100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits.	✓		
Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%.	✓		
Or meets the client's required RER acceptance criteria.			
Tracer yield is 15-125% . Carrier yield 25-125%.	✓		Case narrative
Or meets the client's contract acceptance criteria.			
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 stasured.	✓		
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: JorLM1- 3/17/10Secondary Review Performed By: Kell Bell

3/26

LANL

# Plutonium Que Sheet

04-MAR-10

Batch #: -961176 Pu-238 Analyst: JXH2 First Client Due Date: 19-MAR-10 Internal Due Date: 09-MAR-10  
 Tracer Isotope(s): Pu-238 Tracer Code: 1430-2 Expiration Date: 3-4-11 Vol: 0.1  
 LCS Isotope(s): Pu-239/Pu-238 LCS Code: --- Expiration Date: --- Vol: ---  
 Spike Isotope(s): Pu-239/Pu-238 Spike Code: --- Expiration Date: --- Vol: ---  
 Prep Date: 3-10-10 Initials: JEH Pipet ID: 2171058 Balance ID: 50410272 Witness: 3/10/10 CUN

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Ally	Allyquot	Pu	Det #
248180001-1	RE36-10-7405	SAMPLE	.05 pCi/g		SOIL	LANL010	23-FEB-10	1	1	1.253		230	
248180002-1	RE36-10-7405	SAMPLE	.05 pCi/g		SOIL	LANL010	23-FEB-10	2	2	1.252		231	
248201001-1	RE36-10-7405	SAMPLE	.05 pCi/g		SOIL	LANL010	23-FEB-10	3	3	1.251		232	
248201002-1	RE36-10-7403	SAMPLE	.05 pCi/g		SOIL	LANL010	23-FEB-10	4	4	1.255		233	
248201003-1	RE36-10-7406	SAMPLE	.05 pCi/g		SOIL	LANL010	23-FEB-10	5	5	1.255		234	
248201004-1	RE36-10-7404	SAMPLE	.05 pCi/g		SOIL	LANL010	23-FEB-10	6	6	1.254		235	
248201005-1	RE36-10-7516	SAMPLE	.05 pCi/g		SOIL	LANL010	23-FEB-10	7	7	1.252		236	
248201006-1	RE36-10-7426	SAMPLE	.05 pCi/g		SOIL	LANL010	23-FEB-10	8	8	1.251		237	
248201007-1	RE36-10-7432	SAMPLE	.05 pCi/g		SOIL	LANL010	23-FEB-10	9	9	1.254		238	
248201008-1	RE36-10-7431	SAMPLE	.05 pCi/g		SOIL	LANL010	23-FEB-10	10	10	1.251		239	
248201009-1	RE36-10-7434	SAMPLE	.05 pCi/g		SOIL	LANL010	23-FEB-10	11	11	1.253		240	
248201010-1	RE36-10-7425	SAMPLE	.05 pCi/g		SOIL	LANL010	23-FEB-10	12	12	1.254		241	
248201011-1	RE36-10-7429	SAMPLE	.05 pCi/g		SOIL	LANL010	23-FEB-10	13	13	1.255		242	
248201012-1	RE36-10-7433	SAMPLE	.05 pCi/g		SOIL	LANL010	23-FEB-10	14	14	1.256		243	
248202001-1	RE36-10-8282	SAMPLE	.05 pCi/g		SOIL	LANL010	23-FEB-10	15	15	1.252		244	
248202002-1	RE36-10-8281	SAMPLE	.05 pCi/g		SOIL	LANL010	23-FEB-10	16	16	1.253		245	
1202061669-1	MB for batch 961176	MB	.05 pCi/g		SOIL	QC ACCOUNT		17	17	1		246	
1202061670-1	RE36-10-8282(248202001DUP)	DUP	.05 pCi/g		SOIL	QC ACCOUNT	23-FEB-10	18	18	1.251		247	
1202061671-1	LCS for batch 961176	LCS	.05 pCi/g		SOIL	QC ACCOUNT		19	19	0.108		248	

\*SRM 0244-B  
 exp 4/30/20

Solid Sample Dissolution by: JEACH or DIGESTION  
 Circle One

Choose SOP Used: GL-RAD-A-041, GL-RAD-A-036,  
 RAD-A-045, GL-RAD-A-045, GL-RAD-A-043

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: 306ML-3/17/10

# Blank Correction Report

**Batch ID 961176**

GEL Sample ID	Client sample ID	Parameter	Alliquot	Result	TPU	MDA	Alliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202061670	DUP	Plutonium-238	1.25 g	0.00222	0.0106	0.0313	-.01192	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00	0.00314	0.0264	.002384	pCi/g	YES
1202061671	LCS	Plutonium-238	0.108 g	4.86	0.388	0.176	-.13796296	pCi/g	NO
		Plutonium-239/240	0.108 g	39.9	2.50	0.148	.027592593	pCi/g	NO
1202061669	MB	Plutonium-238	1.00 g	-0.0149	0.013	0.042	-.0149	pCi/g	NO
		Plutonium-239/240	1.00 g	0.00298	0.00668	0.0354	.00298	pCi/g	YES
248201001	RE36-10-7405	Plutonium-238	1.25 g	-1.01E-09	0.00517	0.0297	-.01192	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0253	0.00857	0.0251	.002384	pCi/g	NO
248201002	RE36-10-7403	Plutonium-238	1.26 g	0.0104	0.00886	0.0244	-.01182540	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0295	0.00812	0.0206	.002365079	pCi/g	NO
248201003	RE36-10-7406	Plutonium-238	1.26 g	0.00208	0.00858	0.0293	-.01182540	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00416	0.00295	0.0247	.002365079	pCi/g	YES
248201004	RE36-10-7404	Plutonium-238	1.25 g	0.00774	0.0095	0.0273	-.01192	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0135	0.00754	0.023	.002384	pCi/g	NO
248201005	RE36-10-7516	Plutonium-238	1.25 g	0.00805	0.00405	0.0284	-.01192	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0422	0.00997	0.0239	.002384	pCi/g	NO
248201006	RE36-10-7426	Plutonium-238	1.25 g	-2.70E-10	0.00321	0.032	-.01192	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0159	0.00687	0.027	.002384	pCi/g	NO
248201007	RE36-10-7432	Plutonium-238	1.25 g	-0.00186	0.00416	0.0262	-.01192	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00743	0.00527	0.0221	.002384	pCi/g	YES
248201008	RE36-10-7431	Plutonium-238	1.25 g	-0.00204	0.00889	0.0288	-.01192	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0408	0.00988	0.0242	.002384	pCi/g	NO
248201009	RE36-10-7434	Plutonium-238	1.25 g	0.0159	0.0109	0.0319	-.01192	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0136	0.00721	0.0269	.002384	pCi/g	NO
248201010	RE36-10-7425	Plutonium-238	1.25 g	0.00	0.00287	0.0286	-.01192	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0263	0.00801	0.0241	.002384	pCi/g	NO
248201011	RE36-10-7429	Plutonium-238	1.26 g	0.00635	0.00582	0.0299	-.01182540	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0339	0.00822	0.0252	.002365079	pCi/g	NO
248201012	RE36-10-7433	Plutonium-238	1.26 g	0.00203	0.00203	0.0286	-.01182540	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0953	0.0158	0.0241	.002365079	pCi/g	NO
248202001	RE36-10-8282	Plutonium-238	1.25 g	0.0042	0.00298	0.0296	-.01192	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.0021	0.00363	0.0249	.002384	pCi/g	YES
248202002	RE36-10-8281	Plutonium-238	1.25 g	-0.00697	0.0107	0.0328	-.01192	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0302	0.00977	0.0276	.002384	pCi/g	NO

# GEL Laboratories LLC ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 961176	CHAMBER : 076	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248202001_PU	DETECTOR S/N : 78779	BKG FILE : B076.CNF;1116
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 31.3281	BKG DATE : 14-MAR-2010
SAMPLE DATE : 23-FEB-2010 00:00:00	COUNT DATE : 16-MAR-2010 19:10:08	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W076.CNF;297
% YIELD : 54.813		CAL DATE : 12-MAR-2010

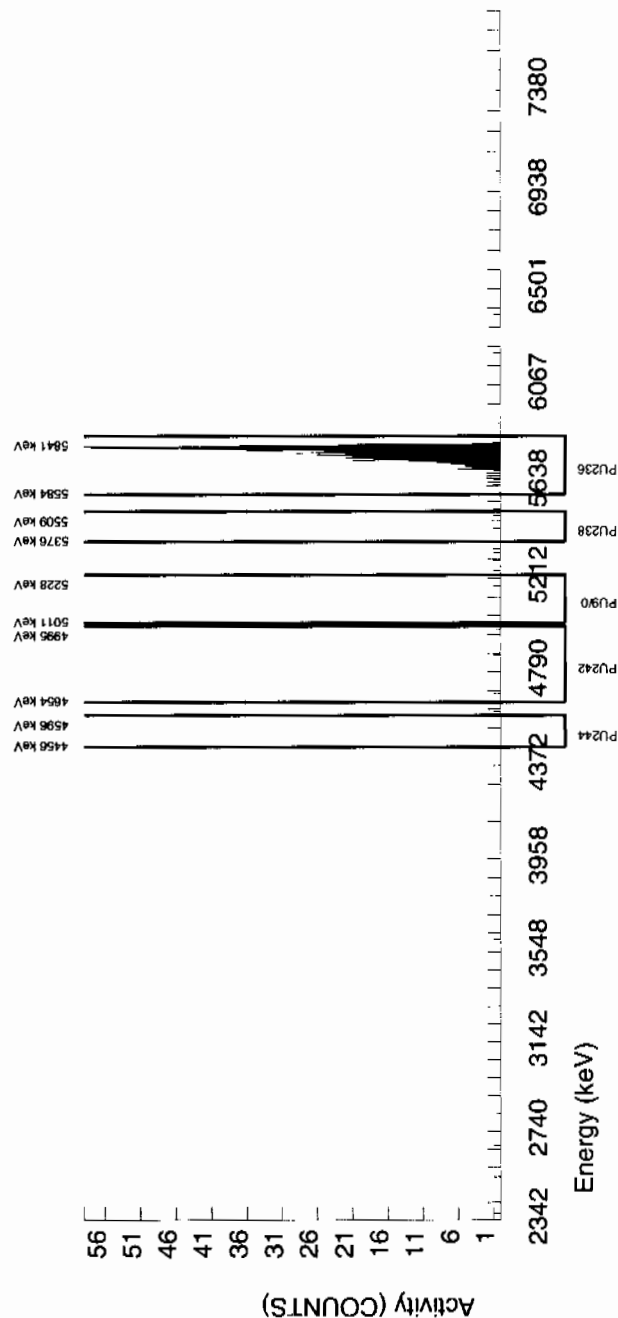
TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0199E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 1.6553E+00 dpm		

## NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5771.107	24.422	511.000	511.000	0.000	0.000	100.0000	1.09E+00	8.17E-02	0.00E+00	5.68E-03	4.81E-02
PU-238	5499.000	5469.504	59.420	2.000	2.000	0.000	2.4495	99.90000	4.20E-03	2.98E-03	1.20E-02	2.96E-02	2.97E-03
PU-9/0	5155.000	5185.418	4.952	1.000	-1.000	2.000	1.9732	99.90000	-2.10E-03	3.63E-03	9.63E-03	2.49E-02	3.63E-03
PU242	4890.000	4855.770	277.294	4.000	3.000	1.000	*****	100.0000	6.29E-03	4.70E-03	6.08E-01	1.22E+00	4.69E-03
PU-244	4589.000	4525.916	0.000	0.000	-1.000	1.000	6.4609	99.90000	-2.10E-03	2.97E-03	3.15E-02	6.87E-02	2.97E-03

## NOTES:

- \* BKG Sg calculated via blank population.
- (Sg updated 8-MAR-2010)
- \* BKG Sg of PU-236 calculated as sqrt(BKG AREA).



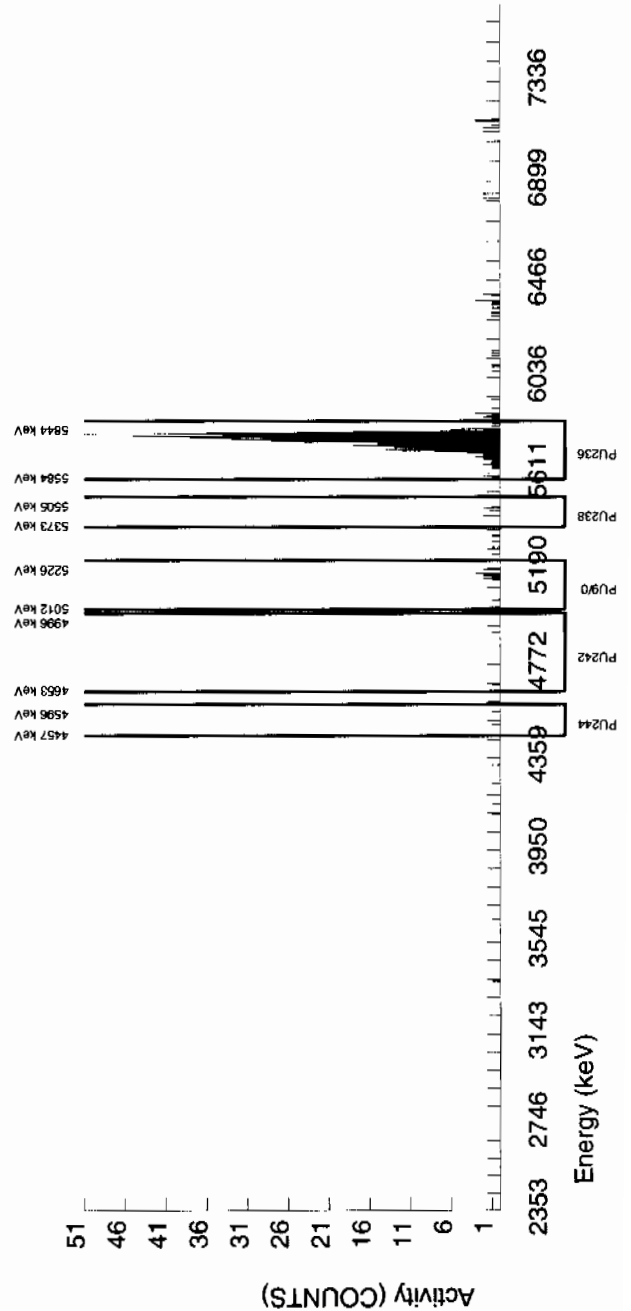


GEL Laboratories LLC  
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 961176 SAMPLE ID : S0248202002_PU SAMPLE QTY : 1.253 G SAMPLE DATE : 23-FEB-2010 00:00:00 ANALYST : JXH2 % YIELD : 46.263				CHAMBER : 016 DETECTOR S/N : 78774 AVERAGE %EFFICIENCY : 33.4863 COUNT DATE : 16-MAR-2010 19:41:59 ELAPSED LIVE TIME(SEC) : 60000.00				LIB FILE : ENV_ALPHA_PU BKG FILE : B016.CNF:1099 BKG DATE : 14-MAR-2010 BKG LIVE TIME(SEC) : 60000.00 EFF FILE : W016.CNF:313 CAL DATE : 4-MAR-2010					
TRACER ID : 1430-C NUCLIDE : PU-236 NOMINAL : 3.0199E+00 dpm RESULTS : 1.3971E+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	5762.872	40.119	482.000	461.000	21.000	4.5826	100.0000	1.09E+00	8.73E-02	2.47E-02	5.58E-02	5.28E-02
PU-238	5499.000	5443.089	41.557	9.000	-3.000	12.000	2.4495	99.90000	-6.97E-03	1.07E-02	1.32E-02	3.28E-02	1.06E-02
PU-9/0	5155.000	5157.825	37.432	15.000	13.000	2.000	1.9732	99.90000	3.02E-02	9.77E-03	1.07E-02	2.76E-02	9.58E-03
PU242	4890.000	4803.471	220.007	2.000	-1.000	3.000	*****	100.0000	-2.32E-03	5.19E-03	6.73E-01	1.35E+00	5.19E-03
PU-244	4589.000	4516.984	102.670	3.000	3.000	0.000	6.4609	99.90000	6.97E-03	4.05E-03	3.49E-02	7.61E-02	4.02E-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 : 961176	CHAMBER : 017	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202061669_PU	DETECTOR S/N : 78791	BKG FILE : B017.CNF;1946
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 29.7179	BKG DATE : 14-MAR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 16-MAR-2010 19:41:59	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W017.CNF;1264
% YIELD : 50.999		CAL DATE : 4-MAR-2010

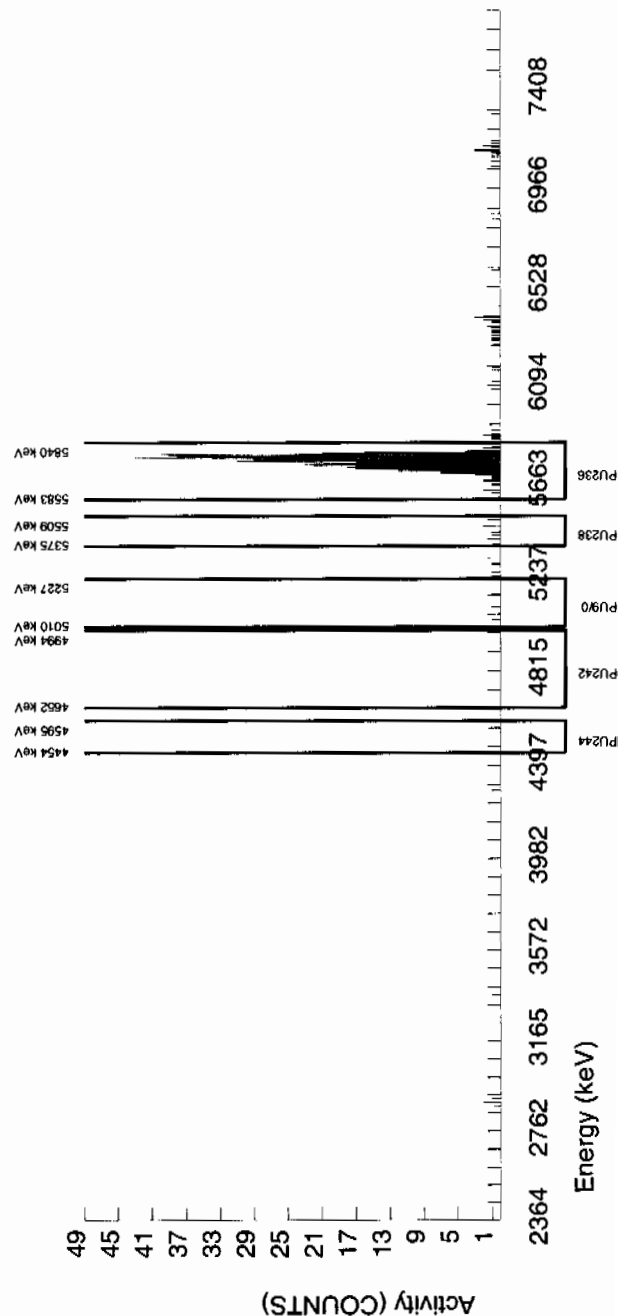
TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9900E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 1.5248E+00 dpm		

## NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5762.462	36.166	475.000	451.000	24.000	4.8990	100.0000	1.35E+00	1.10E-01	3.39E-02	7.58E-02	6.67E-02
PU-238	5499.000	5431.605	4.959	7.000	-5.000	12.000	2.4495	99.900000	-1.49E-02	1.30E-02	1.70E-02	4.20E-02	1.30E-02
PU-9/0	5155.000	5104.849	114.058	3.000	1.000	2.000	1.9732	99.900000	2.98E-03	6.66E-03	1.37E-02	3.54E-02	6.65E-03
PU242	4890.000	4822.817	0.000	0.000	-3.000	3.000	*****	100.0000	-8.92E-03	5.95E-03	8.62E-01	1.73E+00	5.94E-03
PU-244	4589.000	4524.268	0.000	0.000	0.000	0.000	6.4609	99.900000	0.00E+00	2.98E-03	4.47E-02	9.75E-02	2.98E-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 : 961176	CHAMBER : 018	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202061670_PU	DETECTOR S/N : 78782	BKG FILE : B018.CNF:1098
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 33.5036	BKG DATE : 14-MAR-2010
SAMPLE DATE : 23-FEB-2010 00:00:00	COUNT DATE : 16-MAR-2010 19:41:59	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W018.CNF:308
% YIELD : 48.546		CAL DATE : 4-MAR-2010

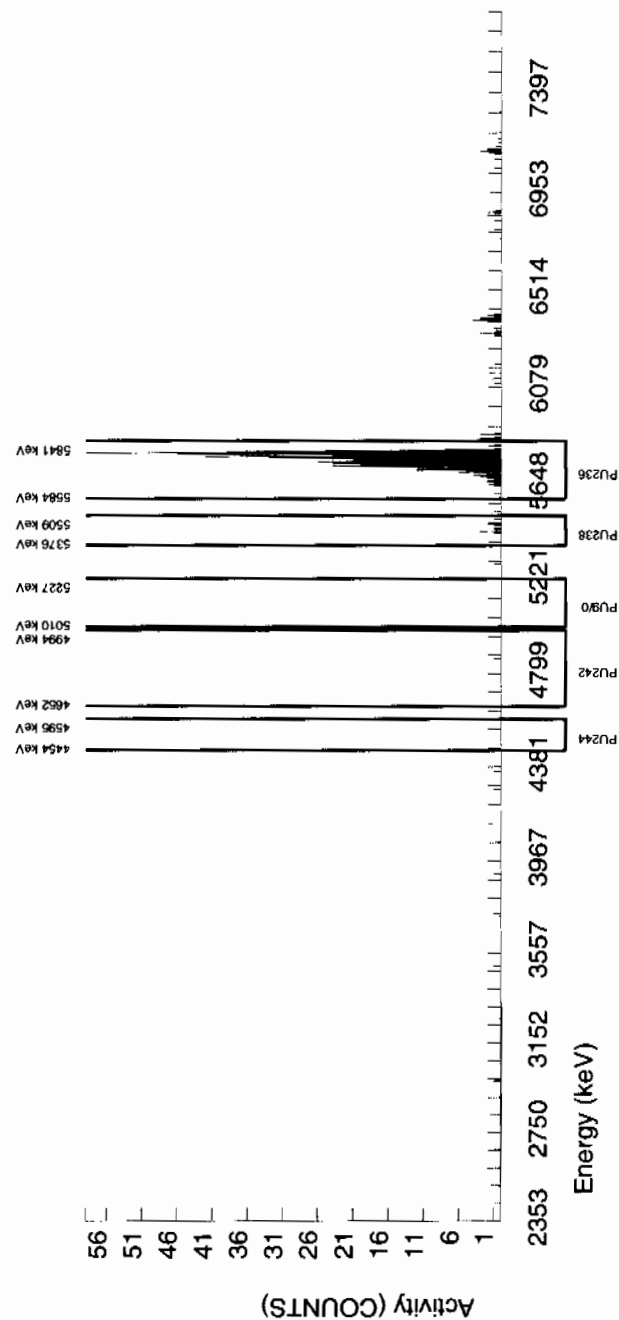
TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0199E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 1.4660E+00 dpm		

## NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5766.013	30.099	508.000	484.000	24.000	4.8990	100.0000	1.09E+00	8.62E-02	2.52E-02	5.65E-02	5.18E-02
PU-238	5499.000	5452.372	34.490	12.000	1.000	11.000	2.4495	99.900000	2.22E-03	1.06E-02	1.26E-02	3.13E-02	1.06E-02
PU-9/0	5155.000	5178.939	4.936	1.000	0.000	1.000	1.9732	99.900000	0.00E+00	3.14E-03	1.02E-02	2.64E-02	3.13E-03
PU242	4890.000	4872.591	4.936	1.000	0.000	1.000	*****	100.0000	0.00E+00	3.13E-03	6.42E-01	1.29E+00	3.13E-03
PU-244	4589.000	4524.079	0.000	0.000	-1.000	1.000	6.4609	99.900000	-2.22E-03	3.14E-03	3.33E-02	7.26E-02	3.13E-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**

LIB FILE :	ENV_ALPHA_PU
BKG FILE :	B238.CNF;89
3BKG DATE :	7-MAR-2010
TIME(SEC) :	60000.00
EFF FILE :	W238.CNF;32
CAL DATE :	28-FEB-2010

CHAMBER : 238  
DETECTOR S/N : 79431  
AVERAGE %EFFICIENCY : 40.181  
COUNT DATE : 13-MA  
ELAPSED LIVE TIME(SEC) : 60000

BATCH NUMBER	: 961176
SAMPLE ID	: S1202061671_PU
SAMPLE QTY	: 0.108 G
SAMPLE DATE	: 10-MAR-2010 00:00:00
ANALYST	: JXH2
% YIELD	: 83.373

LCS/LCSD	
ID	: 0244-B
NUCLIDE	: PU-9/0
NOMINAL	: 4.1778E+01 pCi/G

MS/MSD  
ID : 0244-B  
NUCLIDE : PU-9/0  
NOMINAL : 4.1778E+01 pCi/G

TRACER	:	1430-C
ID	:	PU-236
NUCLIDE	:	2.9900E+00 dpm
NOMINAL	:	2.4928E+00 dpm
RESULTS	:	

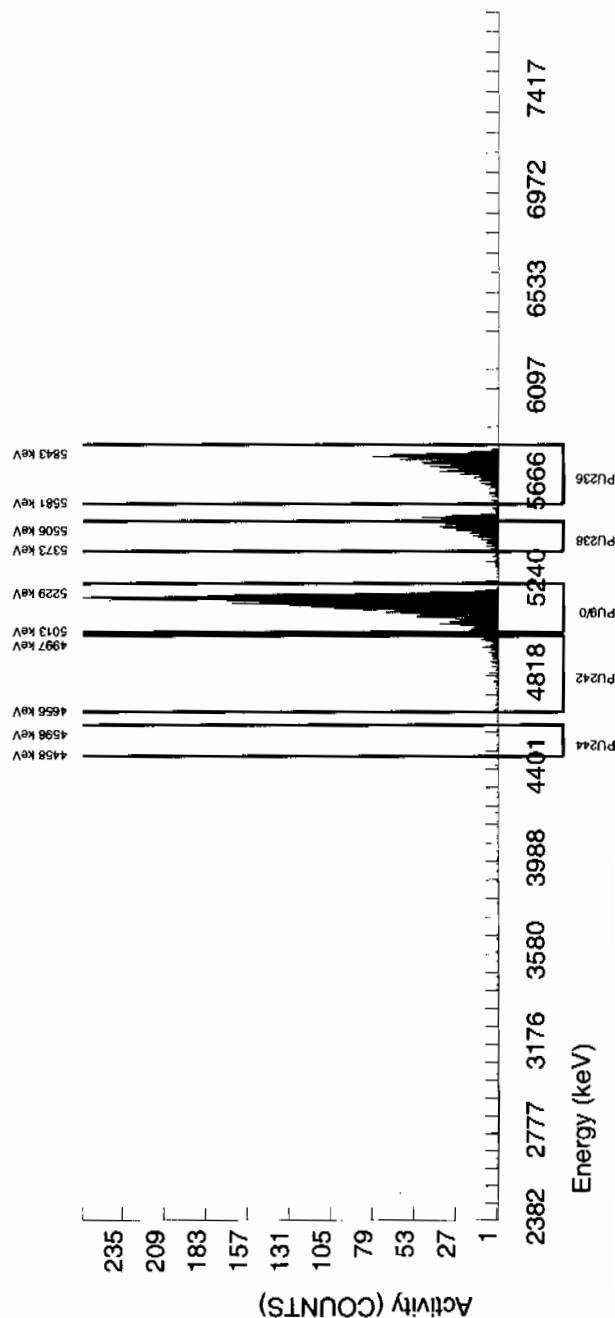
## NUCLIDE ACTIVITY SUMMARY

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	5759.536	57.553	1001.000	999.000	2.000	1.4142	100.0000	1.25E+01	8.48E-01	4.10E-02	1.16E-01	3.95E-01
PU-238	5499.000	5469.126	0.000	403.000	390.000	13.000	2.4495	99.90000	4.86E+00	3.88E-01	7.10E-02	1.76E-01	2.54E-01
PU-9/0	5155.000	5143.553	47.290	3204.000	3202.000	2.000	1.9732	99.90000	3.99E+01	2.50E+00	5.72E-02	1.48E-01	7.06E-01
PU242	4890.000	4898.408	0.000	184.000	179.000	5.000	*****	100.0000	2.23E+00	2.17E-01	3.61E+00	7.25E+00	1.71E-01
PU-244	4589.000	4551.397	0.000	9.000	9.000	0.000	6.4609	99.90000	1.12E-01	3.80E-02	1.87E-01	4.08E-01	3.74E-02

## NOTES:

\* BKG Sg calculated via blank population.  
(Sg updated 8-MAR-2010)

\* BKG Sg of PU-236 calculated as  $\sqrt{\text{BKG AREA}}$ .



## Radiochemistry Batch Checklist, Rev10

Batch# 9601183 Product: U Date: 3/17/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to 100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10" MDA/ MDC, error is 150% or less of sample activity. If greater 10" MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits.	✓		
Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5" MDA/ MDC, then RPD is 100% or less. If greater 5" MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%.	✓		
Or meets the client's required RER acceptance criteria.			
Tracer yield is 15-125% . Carrier yield 25-125%.	✓		case narrative
Or meets the client's contract acceptance criteria.			
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 REWV	✓		
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
Allquot 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

RADcheckdistrev10, revised 1/13/2010

Primary Review Performed By: Danise Brown 3/17/10Secondary Review Performed By: Joe Caldwell 3/17/103/19  
LANC

# Uranium Que Sheet

04-MAR-10

Batch #: 961183 Analyst: JXH2 First Client Due Date: 19-MAR-10 Internal Due Date: 09-MAR-10  
 Tracer Isotope: U-233 Tracer Code: 1283-H Expiration Date: 12-9-10 Vol: 0.1  
 LCS Isotope: U-238 LCS Code: 5010244-A Expiration Date: 10.31.20 Vol: -  
 Spike Isotope: U-238 Spike Code: - Expiration Date: - Vol: -  
 Prep Date: 3-10-10 Initials: JEH Pipet ID: 2471058 Balance ID: 50410272

Witness: 3/10/10 CMAS

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry	Aliquot (g/l)	U Det #
248189001-1	RE11-10-1651	SAMPLE		.1 pCi/g	SOIL	LANL010	22-FEB-10	1	1	0.512		126
248189002-1	RE11-10-1652	SAMPLE		.1 pCi/g	SOIL	LANL010	22-FEB-10	2	2	0.501		127
248201001-1	RE36-10-7405	SAMPLE		.1 pCi/g	SOIL	LANL010	23-FEB-10	3	3	0.528		128
248201002-1	RE36-10-7403	SAMPLE		.1 pCi/g	SOIL	LANL010	23-FEB-10	4	4	0.505		129
248201003-1	RE36-10-7406	SAMPLE		.1 pCi/g	SOIL	LANL010	23-FEB-10	5	5	0.504		130
248201004-1	RE36-10-7404	SAMPLE		.1 pCi/g	SOIL	LANL010	23-FEB-10	6	6	0.502		131
248201005-1	RE36-10-7516	SAMPLE		.1 pCi/g	SOIL	LANL010	23-FEB-10	7	7	0.503		132
248201006-1	RE36-10-7426	SAMPLE		.1 pCi/g	SOIL	LANL010	23-FEB-10	8	8	0.505		133
248201007-1	RE36-10-7432	SAMPLE		.1 pCi/g	SOIL	LANL010	23-FEB-10	9	9	0.508		138
248201008-1	RE36-10-7431	SAMPLE		.1 pCi/g	SOIL	LANL010	23-FEB-10	10	10	0.522		134
248201009-1	RE36-10-7434	SAMPLE		.1 pCi/g	SOIL	LANL010	23-FEB-10	11	11	0.521		140
248201010-1	RE36-10-7425	SAMPLE		.1 pCi/g	SOIL	LANL010	23-FEB-10	12	12	0.503		141
248201011-1	RE36-10-7429	SAMPLE		.1 pCi/g	SOIL	LANL010	23-FEB-10	13	13	0.504		142
248201012-1	RE36-10-7433	SAMPLE		.1 pCi/g	SOIL	LANL010	23-FEB-10	14	14	0.502		143
248202001-1	RE36-10-8282	SAMPLE		.1 pCi/g	SOIL	LANL010	23-FEB-10	15	15	0.507		144
248202002-1	RE36-10-8281	SAMPLE		.1 pCi/g	SOIL	LANL010	23-FEB-10	16	16	0.501		145
1202061682-1	MB for batch 961183	MB		.1 pCi/g	QC ACCOUNT	QC ACCOUNT	23-FEB-10	17	17	1.0		146
1202061683-1	RE36-10-8282(248202001DUP)	DUP		.1 pCi/g	QC ACCOUNT	QC ACCOUNT	23-FEB-10	18	18	0.512		147
1202061684-1	LCS for batch 961183	LCS		.1 pCi/g	QC ACCOUNT	QC ACCOUNT	23-FEB-10	19	19	0.106		148

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: **LEACH or DIGESTION**  
 Circle One

Data Reviewed By:

*[Signature]* 3/17/10  
 3/17/10

# Blank Correction Report

**Batch ID 961183**

GEL Sample ID	Client sample ID	Parameter	Allquot	Result	TPU	MDA	Allquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202061683	DUP	Uranium-233/234	0.512 g	1.85	0.157	0.105	-.00400391	pCi/g	NO
		Uranium-235/236	0.512 g	0.0829	0.0214	0.0642	.008710938	pCi/g	NO
		Uranium-238	0.512 g	1.73	0.149	0.0738	.007050781	pCi/g	NO
1202061684	LCS	Uranium-233/234	0.106 g	6.25	0.583	0.495	-.01933962	pCi/g	NO
		Uranium-235/236	0.106 g	0.0868	0.0536	0.303	.042075472	pCi/g	YES
		Uranium-238	0.106 g	5.92	0.557	0.348	.034056604	pCi/g	NO
1202061682	MB	Uranium-233/234	1.00 g	-0.00205	0.00255	0.0509	-.00205	pCi/g	NO
		Uranium-235/236	1.00 g	0.00446	0.00317	0.0311	.00446	pCi/g	YES
		Uranium-238	1.00 g	0.00361	0.00256	0.0358	.00361	pCi/g	YES
248189001	RE11-10-1651	Uranium-233/234	0.512 g	0.975	0.0988	0.137	-.00400391	pCi/g	NO
		Uranium-235/236	0.512 g	0.0479	0.0173	0.0835	.008710938	pCi/g	NO
		Uranium-238	0.512 g	1.00	0.101	0.0961	.007050781	pCi/g	NO
248189002	RE11-10-1652	Uranium-233/234	0.501 g	1.41	0.136	0.151	-.00409182	pCi/g	NO
		Uranium-235/236	0.501 g	0.0859	0.0264	0.0921	.008902196	pCi/g	NO
		Uranium-238	0.501 g	1.61	0.151	0.106	.007205589	pCi/g	NO
248201001	RE36-10-7405	Uranium-233/234	0.528 g	1.25	0.141	0.229	-.00388258	pCi/g	NO
		Uranium-235/236	0.528 g	0.0905	0.031	0.140	.008446970	pCi/g	NO
		Uranium-238	0.528 g	1.46	0.159	0.161	.006837121	pCi/g	NO
248201002	RE36-10-7403	Uranium-233/234	0.505 g	1.43	0.140	0.162	-.00405941	pCi/g	NO
		Uranium-235/236	0.505 g	0.0711	0.0271	0.0991	.008831683	pCi/g	NO
		Uranium-238	0.505 g	1.66	0.158	0.114	.007148515	pCi/g	NO
248201003	RE36-10-7406	Uranium-233/234	0.504 g	1.04	0.106	0.146	-.00406746	pCi/g	NO
		Uranium-235/236	0.504 g	0.0576	0.0197	0.0892	.008849206	pCi/g	NO
		Uranium-238	0.504 g	1.08	0.109	0.103	.007162698	pCi/g	NO
248201004	RE36-10-7404	Uranium-233/234	0.502 g	1.31	0.116	0.108	-.00408367	pCi/g	NO
		Uranium-235/236	0.502 g	0.0424	0.0145	0.0657	.008884462	pCi/g	YES
		Uranium-238	0.502 g	1.33	0.118	0.0756	.007191235	pCi/g	NO
248201005	RE36-10-7516	Uranium-233/234	0.503 g	1.29	0.124	0.144	-.00407555	pCi/g	NO
		Uranium-235/236	0.503 g	0.076	0.0226	0.0882	.008866799	pCi/g	NO
		Uranium-238	0.503 g	1.51	0.141	0.102	.007176938	pCi/g	NO
248201006	RE36-10-7426	Uranium-233/234	0.505 g	0.940	0.0913	0.115	-.00405941	pCi/g	NO
		Uranium-235/236	0.505 g	0.0503	0.0192	0.0701	.008831683	pCi/g	NO
		Uranium-238	0.505 g	1.10	0.103	0.0806	.007148515	pCi/g	NO
248201007	RE36-10-7432	Uranium-233/234	0.508 g	1.37	0.121	0.106	-.00403543	pCi/g	NO
		Uranium-235/236	0.508 g	0.0926	0.0217	0.0645	.008779528	pCi/g	NO
		Uranium-238	0.508 g	1.53	0.133	0.0743	.007106299	pCi/g	NO
248201008	RE36-10-7431	Uranium-233/234	0.522 g	4.30	0.348	0.132	-.00392720	pCi/g	NO
		Uranium-235/236	0.522 g	0.196	0.0375	0.0804	.008544061	pCi/g	NO
		Uranium-238	0.522 g	5.17	0.413	0.0925	.006915709	pCi/g	NO
248201009	RE36-10-7434	Uranium-233/234	0.521 g	0.972	0.104	0.160	-.00393474	pCi/g	NO
		Uranium-235/236	0.521 g	0.0561	0.0226	0.0977	.008560461	pCi/g	NO

## Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248201009	RE36-10-7434	Uranium-238	0.521 g	1.27	0.127	0.112	.006928983	pCi/g	NO
248201010	RE36-10-7425	Uranium-233/234	0.503 g	0.991	0.103	0.146	-.00407555	pCi/g	NO
		Uranium-235/236	0.503 g	0.032	0.0145	0.0892	.008866799	pCi/g	YES
		Uranium-238	0.503 g	1.18	0.118	0.103	.007176938	pCi/g	NO
248201011	RE36-10-7429	Uranium-233/234	0.504 g	1.09	0.123	0.207	-.00406746	pCi/g	NO
		Uranium-235/236	0.504 g	0.0818	0.028	0.127	.008849206	pCi/g	NO
		Uranium-238	0.504 g	1.46	0.153	0.146	.007162698	pCi/g	NO
248201012	RE36-10-7433	Uranium-233/234	0.502 g	1.61	0.157	0.167	-.00408367	pCi/g	NO
		Uranium-235/236	0.502 g	0.0584	0.0211	0.102	.008884462	pCi/g	NO
		Uranium-238	0.502 g	1.98	0.185	0.117	.007191235	pCi/g	NO
248202001	RE36-10-8282	Uranium-233/234	0.507 g	1.83	0.153	0.103	-.00404339	pCi/g	NO
		Uranium-235/236	0.507 g	0.122	0.0251	0.0632	.008796844	pCi/g	NO
		Uranium-238	0.507 g	1.80	0.151	0.0727	.007120316	pCi/g	NO
248202002	RE36-10-8281	Uranium-233/234	0.501 g	1.57	0.137	0.113	-.00409182	pCi/g	NO
		Uranium-235/236	0.501 g	0.134	0.0284	0.0691	.008902196	pCi/g	NO
		Uranium-238	0.501 g	2.01	0.169	0.0796	.007205589	pCi/g	NO



GEL Laboratories LLC  
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 961183	CHAMBER : 144	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248202001_UU	DETECTOR S/N : 75551	BKG FILE : B144.CNF;401
SAMPLE QTY : 0.507 G	AVERAGE %EFFICIENCY : 25.1386	BKG DATE : 7-MAR-2010
SAMPLE DATE : 23-FEB-2010 00:00:00	COUNT DATE : 13-MAR-2010 14:15:34	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W144.CNF;108
% YIELD : 96.342		CAL DATE : 19-FEB-2010

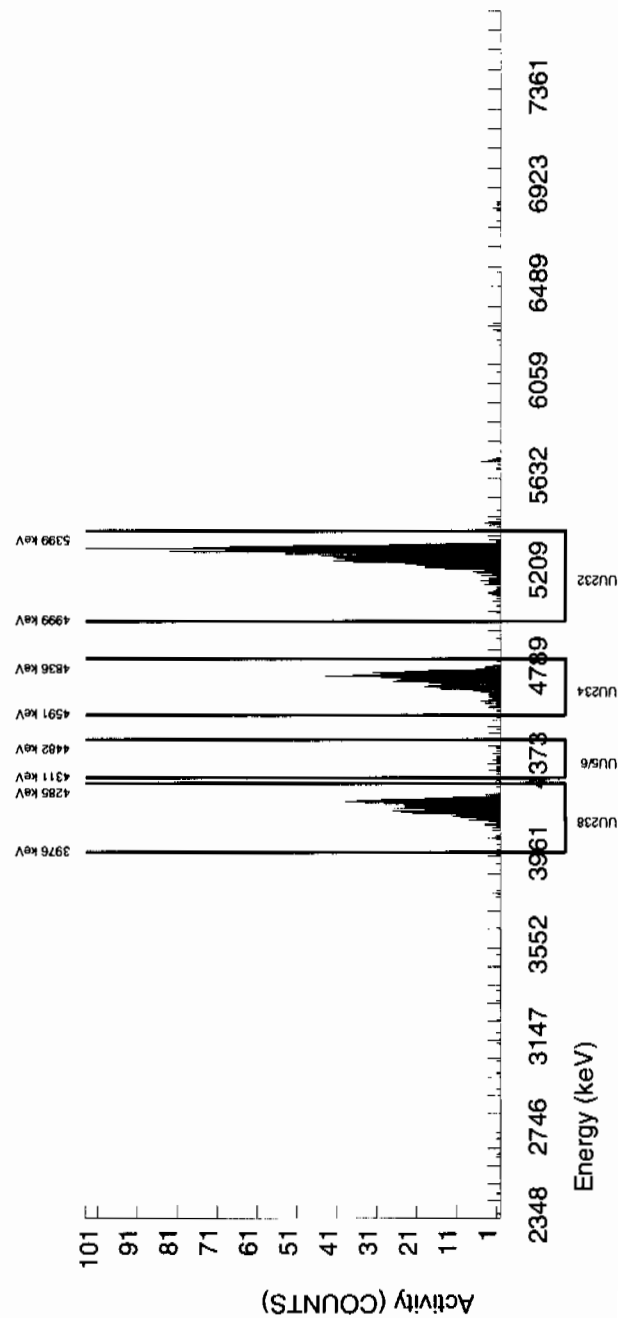
TRACER ID : 1283-H	MS/MSD ID : 0244-A	LCS/LCSD ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5029E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3382E+00 dpm		

## NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5295.618	35.155	1099.000	1090.000	9.000	3.0000	100.0000	4.00E+00	3.08E-01	2.56E-02	6.11E-02	1.22E-01
U-3/4	4763.020	4749.089	48.939	502.000	498.896	2.000	5.4790	100.0000	1.83E+00	1.53E-01	4.68E-02	1.03E-01	8.23E-02
U-235	4391.000	4396.720	103.928	27.000	27.000	0.000	2.4127	80.90000	1.22E-01	2.51E-02	2.55E-02	6.32E-02	2.36E-02
U-238	4184.730	4179.980	65.454	491.000	490.000	1.000	3.6781	100.0000	1.80E+00	1.51E-01	3.14E-02	7.27E-02	8.14E-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

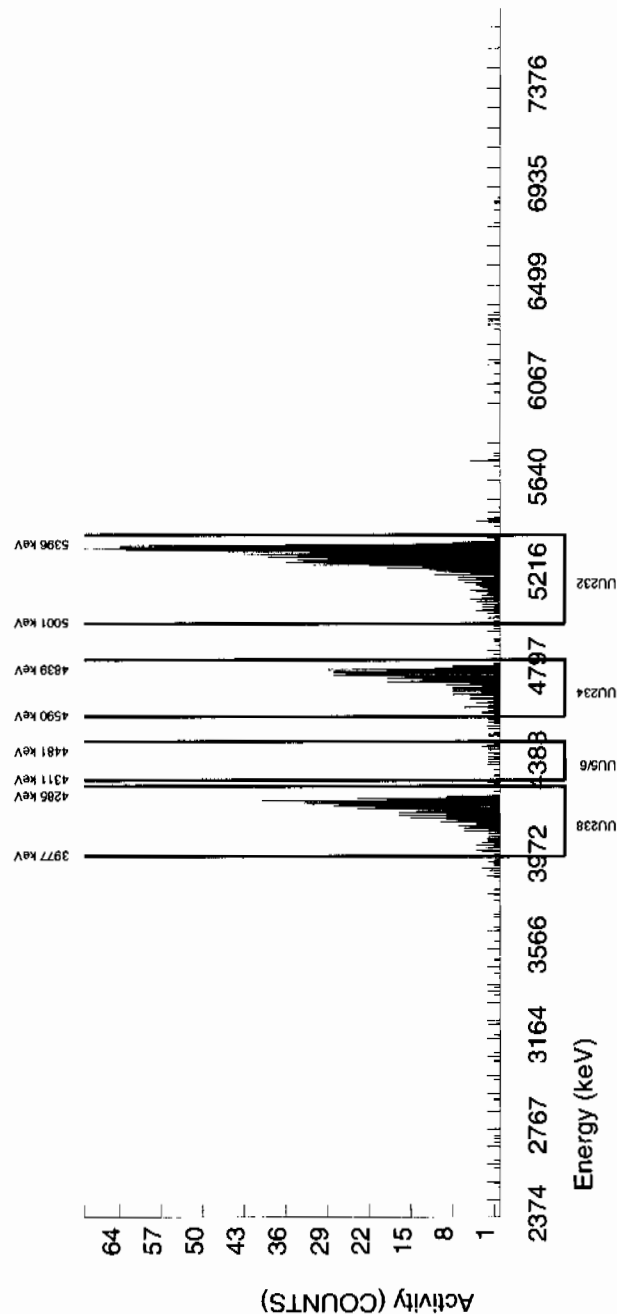


GEL Laboratories LLC  
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 961183				CHAMBER : 161				LIB FILE : ENV_ALPHA_UU					
SAMPLE ID : S0248202002_UU				DETECTOR S/N : 70321				BKG FILE : B161.CNF;180					
SAMPLE QTY : 0.501 G				AVERAGE %EFFICIENCY : 36.5056				BKG DATE : 14-MAR-2010					
SAMPLE DATE : 23-FEB-2010 00:00:00				COUNT DATE : 16-MAR-2010 08:59:15				BKG LIVE TIME(SEC) : 60000.00					
ANALYST : JXH2				ELAPSED LIVE TIME(SEC) : 60000.00				EFF FILE : W161.CNF;63					
% YIELD : 61.357								CAL DATE : 22-FEB-2010					
TRACER				MS/MSD				LCS/LCSD					
ID : 1283-H				ID : 0244-A				ID : 0244-A					
NUCLIDE : U232				NUCLIDE : U-238				NUCLIDE : U-238					
NOMINAL : 4.5029E+00 dpm				NOMINAL : 5.7500E+00 pCi/G				NOMINAL : 5.7500E+00 pCi/G					
RESULTS : 2.7629E+00 dpm													
NUCLIDE ACTIVITY SUMMARY													
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5296.259	74.232	1017.000	1008.000	9.000	3.0000	100.0000	4.05E+00	3.15E-01	2.80E-02	6.69E-02	1.29E-01
U-3/4	4763.020	4754.458	59.184	393.000	390.979	1.000	5.4790	100.0000	1.57E+00	1.37E-01	5.12E-02	1.13E-01	7.96E-02
U-235	4391.000	4406.742	145.155	28.000	27.000	1.000	2.4127	80.90000	1.34E-01	2.84E-02	2.78E-02	6.91E-02	2.67E-02
U-238	4184.730	4182.076	46.361	501.000	500.000	1.000	3.6781	100.0000	2.01E+00	1.69E-01	3.43E-02	7.96E-02	8.99E-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

<b>BATCH NUMBER :</b> 961183 <b>SAMPLE ID :</b> S1202061682_UU <b>SAMPLE QTY :</b> 1.000 G <b>SAMPLE DATE :</b> 10-MAR-2010 00:00:00 <b>ANALYST :</b> JXH2 <b>% YIELD :</b> 100.959		<b>CHAMBER :</b> 146 <b>DETECTOR S/N :</b> 72527 <b>AVERAGE %EFFICIENCY :</b> 24.7373 <b>COUNT DATE :</b> 13-MAR-2010 14:15:39 <b>ELAPSED LIVE TIME(SEC) :</b> 60000.00	<b>LIB FILE :</b> ENV_ALPHA_UU <b>BKG FILE :</b> B146.CNF:404 <b>BKG DATE :</b> 7-MAR-2010 <b>BKG LIVE TIME(SEC) :</b> 60000.00 <b>EFF FILE :</b> W146.CNF:115 <b>CAL DATE :</b> 19-FEB-2010
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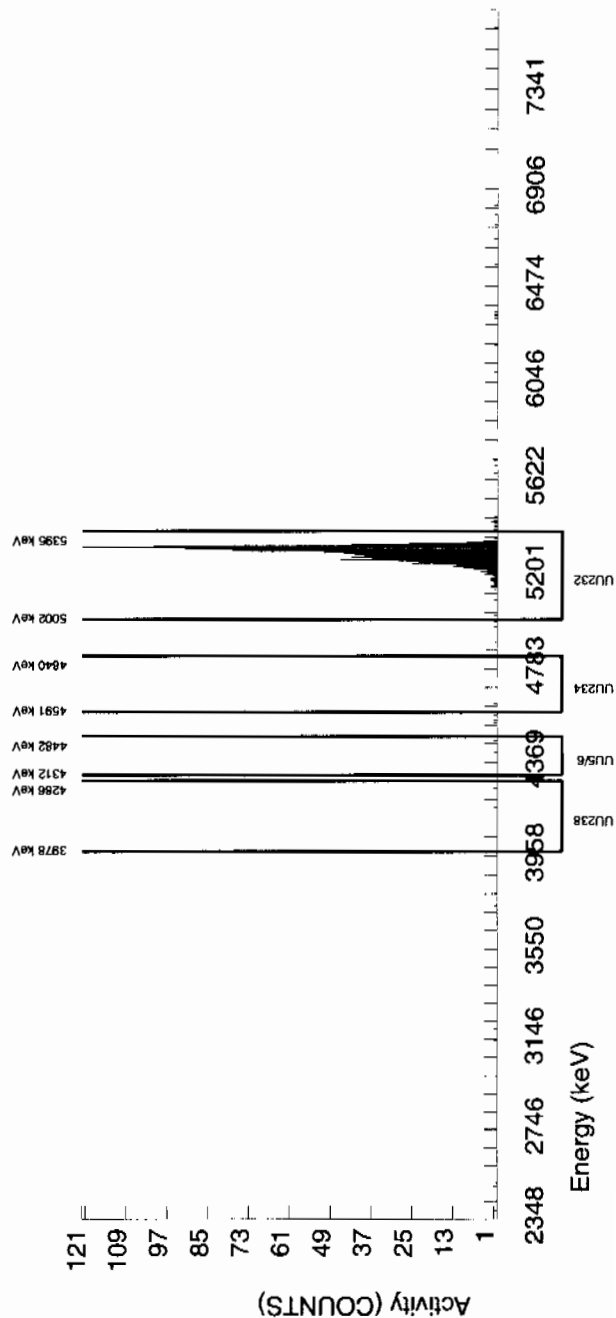
<b>TRACER ID :</b> 1283-H <b>NUCLIDE :</b> U232 <b>NOMINAL :</b> 4.5011E+00 dpm <b>RESULTS :</b> 4.5442E+00 dpm	<b>MS/MSD ID :</b> 0244-A <b>NUCLIDE :</b> U-238 <b>NOMINAL :</b> 5.7500E+00 pCi/G	<b>LCS/LCSD ID :</b> 0244-A <b>NUCLIDE :</b> U-238 <b>NOMINAL :</b> 5.7500E+00 pCi/G
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## 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	5304.074	30.823	1128.000	1124.000	4.000	2.0000	100.0000	2.03E+00	1.55E-01	8.39E-03	2.17E-02	6.07E-02
U-3/4	4763.020	4632.524	4.944	1.000	-1.138	1.000	5.4790	100.0000	-2.05E-03	2.55E-03	2.30E-02	5.09E-02	2.55E-03
U-235	4391.000	4443.632	49.442	2.000	2.000	0.000	2.4127	80.90000	4.46E-03	3.17E-03	1.25E-02	3.11E-02	3.15E-03
U-238	4184.730	4216.871	88.996	2.000	2.000	0.000	3.6781	100.0000	3.61E-03	2.56E-03	1.54E-02	3.58E-02	2.55E-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

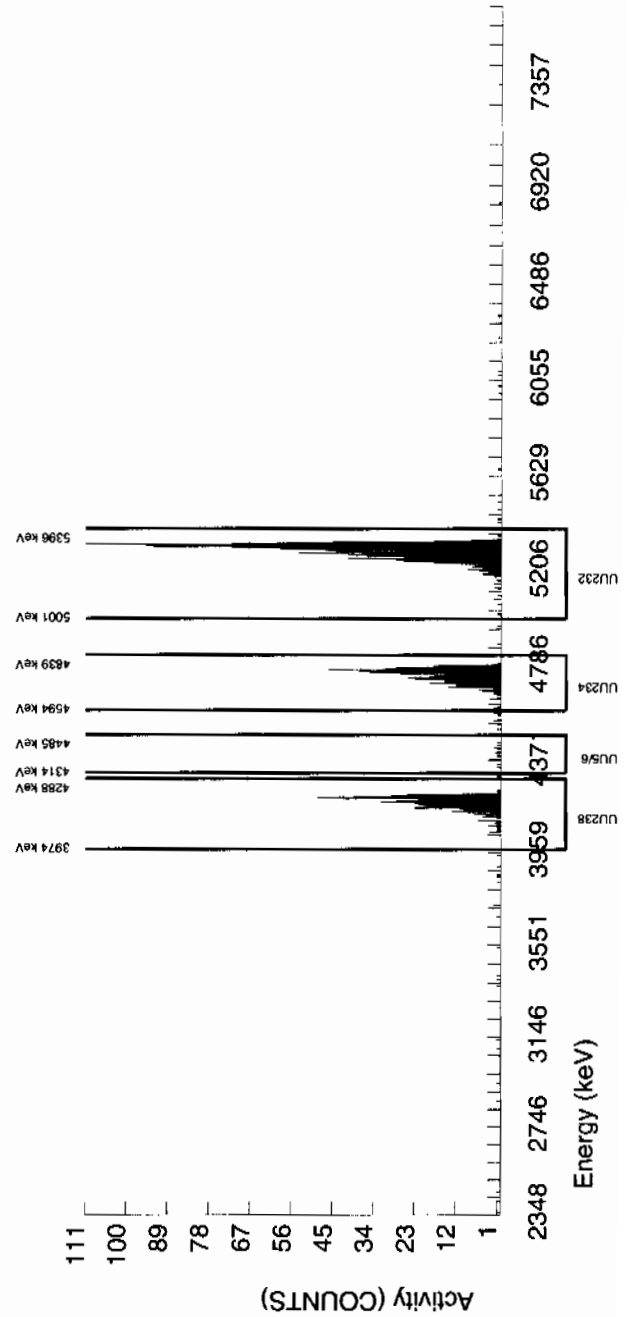


GEL Laboratories LLC  
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 961183				CHAMBER : 147				LIB FILE : ENV_ALPHA_UU					
SAMPLE ID : S1202061683_UU				DETECTOR S/N : 75550				BKG FILE : B147.CNF:404					
SAMPLE QTY : 0.512 G				AVERAGE %EFFICIENCY : 24.4814				BKG DATE : 7-MAR-2010					
SAMPLE DATE : 23-FEB-2010 00:00:00				COUNT DATE : 13-MAR-2010 14:15:43				BKG LIVE TIME(SEC) : 60000.00					
ANALYST : JXH2				ELAPSED LIVE TIME(SEC) : 60000.00				EFF FILE : W147.CNF:114					
% YIELD : 96.478								CAL DATE : 19-FEB-2010					
TRACER ID : 1283-H				MS/MSD ID : 0244-A				LCS/LCSD ID : 0244-A					
NUCLIDE : U232				NUCLIDE : U-238				NUCLIDE : U-238					
NOMINAL : 4.5029E+00 dpm				NOMINAL : 5.7500E+00 pCi/G				NOMINAL : 5.7500E+00 pCi/G					
RESULTS : 4.3443E+00 dpm													
NUCLIDE ACTIVITY SUMMARY													
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5300.741	28.803	1069.000	1063.000	6.000	2.4495	100.0000	3.96E+00	3.11E-01	2.12E-02	5.25E-02	1.22E-01
U-3/4	4763.020	4751.683	50.205	497.000	495.923	0.000	5.4790	100.0000	1.85E+00	1.57E-01	4.75E-02	1.05E-01	8.30E-02
U-235	4391.000	4394.341	0.000	19.000	18.000	1.000	2.4127	80.90000	8.29E-02	2.14E-02	2.58E-02	6.42E-02	2.06E-02
U-238	4184.730	4185.326	54.759	467.000	465.000	2.000	3.6781	100.0000	1.73E+00	1.49E-01	3.19E-02	7.38E-02	8.07E-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	: 961183
SAMPLE ID	: S1202061684_UU
SAMPLE QTY	: 0.106 G
SAMPLE DATE	: 10-MAR-2010 00:00:00
ANALYST	: JXH2
% YIELD	: 98.473

CHAMBER : 148  
DETECTOR S/N : 74429  
AVERAGE %EFFICIENCY : 24.5720  
COUNT DATE : 13-MAR-2000  
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE	:	ENV_ALPHA_UU
BKG FILE	:	B148.CNF;403
BKG DATE	:	7-MAR-2010
TIME(SEC)	:	60000.00
EFF FILE	:	W148.CNF;129
CAL DATE	:	19-FEB-2010

TRACER	ID	: 1283-H
	NUCLIDE	: U232
	NOMINAL	: 4.5011E+00 dpm
	RESULTS	: 4.4323E+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

## NUCLIDE ACTIVITY SUMMARY

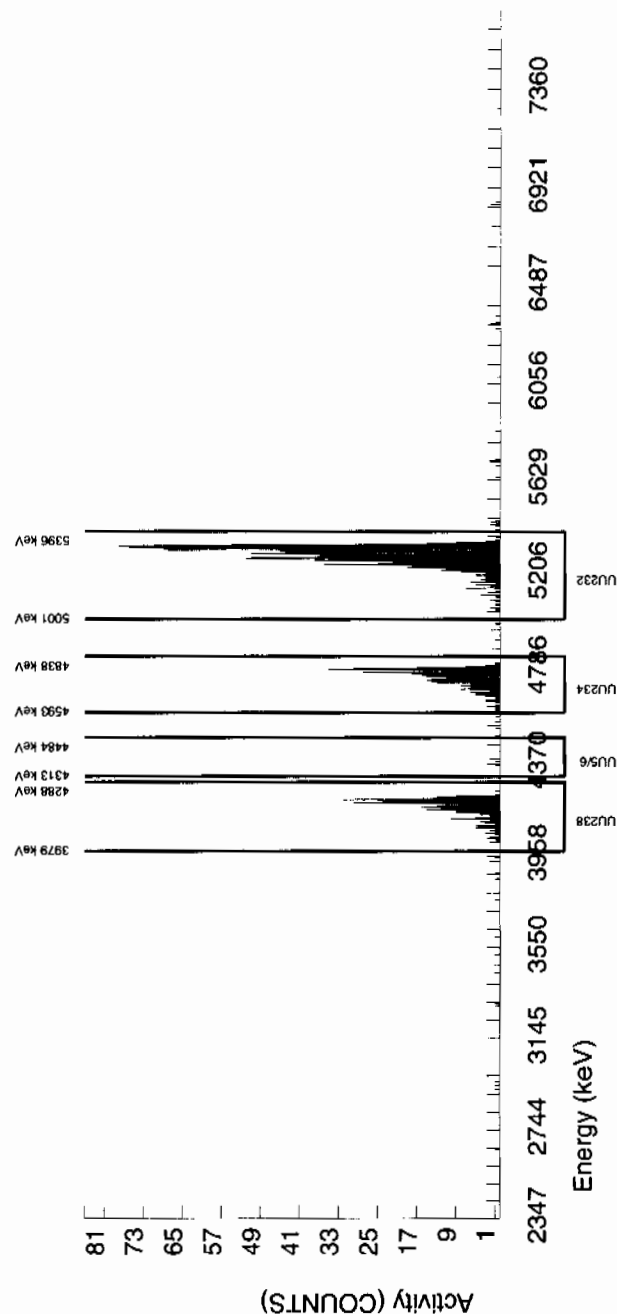
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/g	TPU 1-SIGMA	DLC pCi/g	MDC pCi/g	UNC pCi/g
U232	5302.100	5291.802	63.592	1093.000	1089.000	4.000	2.0000	100.0000	1.91E+01	1.58E+00	8.17E-02	2.11E-01	5.82E-01
U-3/4	4763.020	4752.693	29.526	357.000	355.897	0.000	5.4790	100.0000	6.25E+00	5.83E-01	2.24E-01	4.95E-01	3.31E-01
U-235	4391.000	4395.142	4.941	5.000	4.000	1.000	2.4127	80.90000	8.68E-02	5.36E-02	1.22E-01	3.03E-01	5.32E-02
U-238	4184.730	4179.373	30.893	338.000	337.000	1.000	3.6781	100.0000	5.92E+00	5.57E-01	1.50E-01	3.48E-01	3.23E-01

## NOTES:

\* BKG Sg calculated via blank population.  
(Sg updated 8-MAR-2010)

\* BKG Sq of U232 calculated as sqrt(BKG AREA).

\* Corrections made to the following net area due to tracer impurity:  
U-3/4



# Radiochemistry Batch Checklist, Rev10

Batch# 959279 Product: XS Date: 3/22/10

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%.		✓	DER # 807577
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.			NA
Method blank is less than the RDL/ LLD.	✓		
(If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.			
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms.			
All line outs initialed and dated.	✓		
No transcription errors are apparent.			
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	✓		NA DER # 807577
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	✓		NA 3/22/10
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: H. Eulau 3/22/10

Secondary Review Performed By: J. Hentley 3/23/10

hnl  
3/26/10

# Gamma Spec Que Sheet

1.6. - 3/11/10

03/01/2010

Batch #: 959279

Analyst: MXR1

First Client Due Date: 03/26/2010

Internal Due Date: 03/15/2010

Gamma Spike Isotope: Mixed Gamma

Spike Code: NA

Expiration Date: NA

Vol: NA Nominal Concentration: NA

Gamma LCS Isotope: Mixed Gamma

LCS Code: 1032-A

Expiration Date: 12/24/10

Vol: 1.0m Nominal Concentration: Am241-14.29 Cs137-6.687

Initials: MS

Prep Date: 3/4/10

Library: SOLD

Witness: NA

Co60-6.497

Wet/Dry

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Aliquot (1/8) F	Detector	Sealing Date/Time (if Applicable)
248201001-1	RE36-10-7405	SAMPLE	LANL010	LANL010	SOIL	23-FEB-10 12:00:00	Can	116.84	72	3/4/10
248201002-1	RE36-10-7403	SAMPLE	LANL010	LANL010	SOIL	23-FEB-10 12:00:00	Can	115.49	73	3/7/10
248201003-1	RE36-10-7406	SAMPLE	LANL010	LANL010	SOIL	23-FEB-10 12:00:00	Can	128.71	1	3/4/10
248201004-1	RE36-10-7404	SAMPLE	LANL010	LANL010	SOIL	23-FEB-10 12:00:00	Can	123.78	19	3/4/10
248201005-1	RE36-10-7516	SAMPLE	LANL010	LANL010	SOIL	23-FEB-10 12:00:00	Can	113.63	14	3/4/10
248201006-1	RE36-10-7426	SAMPLE	LANL010	LANL010	SOIL	23-FEB-10 12:00:00	Can	118.85	17	3/4/10
248201007-1	RE36-10-7432	SAMPLE	LANL010	LANL010	SOIL	23-FEB-10 12:00:00	Can	120.99	18	3/4/10
248201008-1	RE36-10-7431	SAMPLE	LANL010	LANL010	SOIL	23-FEB-10 12:00:00	Can	117.59	21	3/3/10
248201009-1	RE36-10-7434	SAMPLE	LANL010	LANL010	SOIL	23-FEB-10 12:00:00	Can	126.63	20	3/4/10
248201010-1	RE36-10-7425	SAMPLE	LANL010	LANL010	SOIL	23-FEB-10 12:00:00	Can	127.27	29	3/4/10
248201011-1	RE36-10-7429	SAMPLE	LANL010	LANL010	SOIL	23-FEB-10 12:00:00	Can	111.63	1	3/4/10
248201012-1	RE36-10-7433	SAMPLE	LANL010	LANL010	SOIL	23-FEB-10 12:00:00	Can	106.08	19	3/4/10
248202001-1	RE36-10-8282	SAMPLE	LANL010	LANL010	SOIL	23-FEB-10 12:00:00	Can	126.41	14	3/4/10
248202002-1	RE36-10-8281	SAMPLE	LANL010	LANL010	SOIL	23-FEB-10 12:00:00	Can	101.71	17	3/4/10
1202057346-1	MB	MB	QC ACCOUNT	QC ACCOUNT	SOIL	8/4/10	Can	128.71	18	3/4/10
1202057347-1	DUP RE36-10-8282(248202001)	DUP	QC ACCOUNT	QC ACCOUNT	SOIL	3/4/10	Can	126.41	15	3/4/10
1202057348-1	LCS	LCS	QC ACCOUNT	QC ACCOUNT	SOIL	3/4/10	Can	151.73	21	3/4/10

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: Stefan J 3/22/10

Calculus

# Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
959279	248201001	SAMPLE	18-MAR-10		Americium-241	0.08556	0.2208	0.200
					Cerium-139	-0.02334	0.05246	0.050
959279	248201002	SAMPLE	18-MAR-10					
959279	248201003	SAMPLE	18-MAR-10		Americium-241	0.03038	0.3315	0.200
					Cerium-139	0.0063	0.06207	0.050
					Sodium-22	-0.01743	0.08323	0.080
					Thorium-234	1.391	3.008	2.00
959279	248201004	SAMPLE	18-MAR-10		Americium-241	0.1486	0.2939	0.200
					Cerium-139	-0.01432	0.06063	0.050
					Thorium-234	2	2.597	2.00
959279	248201005	SAMPLE	18-MAR-10		Americium-241	-0.1667	0.241	0.200
					Cerium-139	0.01644	0.05555	0.050
					Thorium-234	1.264	2.359	2.00
959279	248201006	SAMPLE	18-MAR-10		Cerium-139	0.00522	0.0594	0.050
					Cesium-134	0.1136	0.1295	0.100
					Sodium-22	0.0206	0.1014	0.080
959279	248201007	SAMPLE	18-MAR-10		Americium-241	0.1447	0.3246	0.200
					Thorium-234	0.08334	2.78	2.00
959279	248201008	SAMPLE	18-MAR-10		Cesium-134	0.00217	0.1041	0.100
					Sodium-22	-0.01106	0.0843	0.080
959279	248201009	SAMPLE	18-MAR-10					
959279	248201010	SAMPLE	18-MAR-10		Americium-241	0.2104	0.3062	0.200
					Cerium-139	-0.02364	0.05894	0.050
					Sodium-22	0.0111	0.08228	0.080
959279	248201011	SAMPLE	18-MAR-10		Americium-241	0.09443	0.3335	0.200
					Cerium-139	0.01377	0.06545	0.050
					Cesium-134	0.0335	0.1092	0.100
					Sodium-22	-0.00548	0.0847	0.080
					Thorium-234	1.938	2.7	2.00
959279	248201012	SAMPLE	18-MAR-10		Americium-241	-0.1478	0.3041	0.200
					Cerium-139	-0.00208	0.05858	0.050
					Sodium-22	0.03745	0.08218	0.080
					Thorium-234	1.085	2.779	2.00
959279	248202001	SAMPLE	18-MAR-10		Americium-241	0.1539	0.2496	0.200
					Cerium-139	-0.02051	0.05586	0.050
959279	248202002	SAMPLE	18-MAR-10		Cerium-139	-0.00868	0.05935	0.050
					Cesium-134	0.1293	0.1534	0.100
					Cobalt-60	0.01771	0.1003	0.100
					Sodium-22	0.01737	0.1151	0.080
					Tin-113	-0.01871	0.1077	0.100
959279	1202057346	MB	18-MAR-10					
959279	1202057347	DUP	18-MAR-10		Americium-241	-0.02825	0.5841	0.200
					Cerium-139	0.0009	0.07174	0.050
					Cesium-134	0.09128	0.1121	0.100



## Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
959279	1202057347	DUP	18-MAR-10		Europium-152	-0.01168	0.226	0.200
					Mercury-203	-0.01283	0.1033	0.100
					Sodium-22	-0.00456	0.09801	0.080
					Thorium-234	0.6703	4.717	2.00
					Tin-113	0.02877	0.1125	0.100
959279	1202057348	LCS	18-MAR-10		Cerium-139	0.01296	0.07552	0.050
					Cesium-134	0.1095	0.2156	0.100
					Europium-152	-0.04602	0.3107	0.200
					Mercury-203	-0.02546	0.1166	0.100
					Potassium-40	0.7291	1.359	1.00
					Ruthenium-106	0.726	1.21	0.800
					Sodium-22	0.027	0.1037	0.080
					Tin-113	0.01858	0.1569	0.100
					Yttrium-88	-0.00374	0.126	0.100

## Gamma Review Report based on Result &gt; MDA for Batch:959279

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248201001	23-FEB-10 12:00	18-MAR-10 10:35	22.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy	*** FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228 $\mu$	1.811	0.1815	pCi/g	0.234	N	911.4	3 1.565	IDENTIFIED 7.386	<input type="checkbox"/>	
Annihilation Rad.	0.1322	0.03516	pCi/g	0.04417	N	510.8	1 1.807	IDENTIFIED 26.12	<input type="checkbox"/>	
Barium-137m $\mu$	0.613	0.04986	pCi/g	0.06085	N	661.7	2 1.794	IDENTIFIED 6.194	<input type="checkbox"/>	
Bismuth-211 $\mu$	4.576	0.3415	pCi/g	0.3439	Y	352	2 1.355	IDENTIFIED 4.676	<input checked="" type="checkbox"/> UI	
Bismuth-212 HE	1.762	0.4015	pCi/g	1.074	N	0	10 0	FAIL_ABUND 0	<input type="checkbox"/>	
Bismuth-214 $\checkmark$	1.288	0.1065	pCi/g	0.1082	0.200	609.4	2 1.649	IDENTIFIED 5.867	<input type="checkbox"/>	
Cadmium-109 $\mu$	4.333	0.5588	pCi/g	1.18	Y	87.12	3 1.272	IDENTIFIED 12.01	<input checked="" type="checkbox"/> UI	
Cadmium-115 HE	106.3	61.33	pCi/g	0	N	0	10 0	SHORT_HLIF 0	<input type="checkbox"/>	
Cerium-143	44890	7555	pCi/g	0	N	0	10 0	SHORT_HLIF 0	<input type="checkbox"/>	
Cesium-137 $\checkmark$	0.6476	0.05271	pCi/g	0.06428	0.100	661.7	2 1.794	IDENTIFIED 6.194	<input type="checkbox"/>	
Gross Gamma	10.24	1.429	pCi/g	2.732	N	0			<input type="checkbox"/>	
Iodine-133 HE	6.85E+05	1.48E+06	pCi/g	0	N	0	10 0	SHORT_HLIF 0	<input type="checkbox"/>	
Iodine-135	2.13E+24	0	pCi/g	0	N	0	10 0	SHORT_HLIF 0	<input type="checkbox"/>	
Lead-212 $\checkmark$	1.832	0.1337	pCi/g	0.09711	0.100	238.7	2 1.239	IDENTIFIED 3.059	<input type="checkbox"/>	
Lead-214 $\checkmark$	1.661	0.1321	pCi/g	0.1233	0.100	352	2 1.355	IDENTIFIED 4.676	<input type="checkbox"/>	
Molybdenum-99 HE	1.162	43.05	pCi/g	0	N	0	10 0	SHORT_HLIF 0	<input type="checkbox"/>	
Neptunium-237 $\mu$	1.249	0.2076	pCi/g	0.3449	N	87.12	3 1.272	IDENTIFIED 12.01	<input type="checkbox"/>	
Potassium-40 $\checkmark$	28.45	1.507	pCi/g	0.4574	1.00	1461	1 2.521	IDENTIFIED 2.659	<input type="checkbox"/>	
Radium-224 $\mu$	4.57	0.6589	pCi/g	1.04	Y	241.8	1 1.703	IDENTIFIED 12.98	<input checked="" type="checkbox"/> UI	
Radium-226 $\checkmark$	1.288	0.1065	pCi/g	0.1082	Y	609.4	2 1.649	IDENTIFIED 5.867	<input type="checkbox"/>	
Radium-228 $\checkmark$	1.811	0.1815	pCi/g	0.234	0.500	911.4	3 1.565	IDENTIFIED 7.386	<input type="checkbox"/>	
Silver-110m HE	0.08174	0.02127	pCi/g	0.06794	N	0	10 0	NOT_IDENTI 0	<input type="checkbox"/>	
Sodium-24 HE	2.03E+09	2.17E+09	pCi/g	0	N	0	10 0	SHORT_HLIF 0	<input type="checkbox"/>	
Strontium-85 LA	0.1603	0.02518	pCi/g	0.08178	Y	0	10 0	NOT_IDENTI 0	<input checked="" type="checkbox"/> UI	Data rejected due to low abundance.
Technetium-99m	6.77E+25	0	pCi/g	0	N	0	10 0	SHORT_HLIF 0	<input type="checkbox"/>	
Thallium-208 $\checkmark$	0.5049	0.04533	pCi/g	0.05521	0.080	583.4	1 1.69	IDENTIFIED 7.16	<input type="checkbox"/>	
Thorium-228 $\mu$	1.832	0.1337	pCi/g	0.09711	N	238.7	2 1.239	IDENTIFIED 3.059	<input type="checkbox"/>	
Thorium-232 $\mu$	1.811	0.1815	pCi/g	0.234	N	911.4	3 1.565	IDENTIFIED 7.386	<input type="checkbox"/>	
Thorium-234 $\checkmark$	3.854	1.047	pCi/g	1.923	2.00	62.77	2 1.255	IDENTIFIED 25.68	<input type="checkbox"/>	
Tin-126 $\mu$	0.4186	0.05399	pCi/g	0.1144	N	87.12	3 1.272	IDENTIFIED 12.01	<input type="checkbox"/>	
Total Uranium	11.621	3.12E-06	ug/g	2.8636	N	0			<input type="checkbox"/>	
Uranium-238 HE	3.854	1.047	pCi/g	1.923	N	62.77	2 1.255	IDENTIFIED 25.68	<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
248201002	23-FEB-10 12:00	18-MAR-10 10:36	22.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy	*** FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228 $\mu$	2.159	0.2272	pCi/g	0.2405	N	911.2	3 1.501	IDENTIFIED 8.566	<input type="checkbox"/>	
Barium-137m $\mu$	0.8361	0.06598	pCi/g	0.06421	N	661.6	2 1.557	IDENTIFIED 5.621	<input type="checkbox"/>	
Bismuth-211 $\mu$	4.59	0.3414	pCi/g	0.3535	Y	351.9	2 1.177	IDENTIFIED 5.261	<input checked="" type="checkbox"/> UI	
Bismuth-212 $\checkmark$	2.994	0.4637	pCi/g	0.8896	N	727.3	1 1.69	IDENTIFIED 13.79	<input type="checkbox"/>	

Bismuth-214	✓	1.428	0.1323	pCi/g 0.1198	0.200	609.2	2	1.32	IDENTIFIED	7.013	□
Cadmium-109	INT	3.955	0.424	pCi/g 0.8232	Y	87.2	3	0.9794	IDENTIFIED	9.289	✓ UI
Cerium-143		25760	5071	pCi/g 0	N	0	7	0	SHORT_HLIF	0	□
Cesium-134	LA	0.1286	0.0356	pCi/g 0.1008	0.100	0	7	0	FAIL_ABUND	0	☑ UI Data rejected due to low abundance.
Cesium-137	✓	0.8833	0.06974	pCi/g 0.06783	0.100	661.6	2	1.557	IDENTIFIED	5.621	□
Europium-155	HE	0.1598	0.04198	pCi/g 0.1524	N	0	7	0	FAIL_ABUND	0	□
Gross Gamma		11.66	1.404	pCi/g 4.159	N		0				□
Iodine-133	HE	1.61E+06	1.67E+06	pCi/g 0	N	0	7	0	SHORT_HLIF	0	□
Lead-210	✓	1.931	0.4257	pCi/g 0.6304	N	46.59	1	0.8247	IDENTIFIED	21.44	□
Lead-212	✓	2.059	0.1325	pCi/g 0.08932	0.100	238.6	2	1.041	IDENTIFIED	2.967	□
Lead-214	✓	1.666	0.1322	pCi/g 0.131	0.100	351.9	2	1.177	IDENTIFIED	5.261	□
Mercury-203	INT	0.1	0.03295	pCi/g 0.06791	0.100	277.8	1	1.545	IDENTIFIED	32.45	✓ UI
Neptunium-237	MM	1.14	0.171	pCi/g 0.262	N	87.2	3	0.9794	IDENTIFIED	9.289	□
Potassium-40	✓	30.43	1.635	pCi/g 0.5856	1.00	1461	1	2.04	IDENTIFIED	3.278	□
Promethium-149	HE	159.7	537.8	pCi/g 0	N	0	7	0	SHORT_HLIF	0	□
Radium-224	INT	6.127	0.6633	pCi/g 0.9585	Y	241.6	1	1.935	IDENTIFIED	9.463	✓ UI
Radium-226	✓	1.428	0.1323	pCi/g 0.1198	Y	609.2	2	1.32	IDENTIFIED	7.013	□
Radium-228	✓	2.159	0.2272	pCi/g 0.2405	0.500	911.2	3	1.501	IDENTIFIED	8.566	□
Sodium-24	HE	6.58E+08	2.34E+09	pCi/g 0	N	0	7	0	SHORT_HLIF	0	□
Technetium-99m		9.34E+25	0	pCi/g 0	N	0	7	0	SHORT_HLIF	0	□
Thallium-208	✓	0.5625	0.05715	pCi/g 0.07005	0.080	583.2	1	1.208	IDENTIFIED	8.456	□
Thorium-228	MM	2.059	0.1325	pCi/g 0.08932	N	238.6	2	1.041	IDENTIFIED	2.967	□
Thorium-232	MM	2.159	0.2272	pCi/g 0.2405	N	911.2	3	1.501	IDENTIFIED	8.566	□
Thorium-234	✓	1.391	0.459	pCi/g 0.8376	2.00	63.36	2	0.6734	IDENTIFIED	31.6	□
Tin-126	MM	0.3821	0.04096	pCi/g 0.07937	N	87.2	3	0.9794	IDENTIFIED	9.289	□
Total Uranium		4.1856	1.37E-06	ug/g 1.2489	N		0				□
Uranium-238	HE	1.391	0.459	pCi/g 0.8376	N	63.36	2	0.6734	IDENTIFIED	31.6	□

\*\*\* = 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	
248201003	23-FEB-10 12:00	18-MAR-10 10:37	22.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP	
Name	Result	Uncert.	Units	MDA	RDL	Energy	*** FWHM	Comb Act Rpt Err (%)	Qual	Qual Comment	
Actinium-228 MM	2.394	0.2275	pCi/g	0.2552	N	911.6	3	1.701	IDENTIFIED	7.404	<input type="checkbox"/>
Annihilation Rad.	0.1407	0.03969	pCi/g	0.05137	N	511.2	1	1.544	IDENTIFIED	27.89	<input type="checkbox"/>
Bismuth-211 INT	4.975	0.3606	pCi/g	0.4373	Y	352.4	2	1.328	IDENTIFIED	5.65	<input checked="" type="checkbox"/> UI
Bismuth-212 LA	2.705	0.618	pCi/g	1.444	N	0	6	0	FAIL_ABUND	0	<input type="checkbox"/>
Bismuth-214 V	1.591	0.1262	pCi/g	0.1341	0.200	609.8	2	1.46	IDENTIFIED	6.198	<input type="checkbox"/>
Cadmium-109 INT	3.323	0.6943	pCi/g	1.509	Y	87.37	3	1.275	IDENTIFIED	20.36	<input checked="" type="checkbox"/> UI
Cerium-143	26470	5554	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Cesium-134 LA	0.1245	0.03266	pCi/g	0.1071	0.100	0	6	0	FAIL_ABUND	0	<input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Gross Gamma	10.85	1.561	pCi/g	4.389	N	0					<input type="checkbox"/>
Lead-212 V	1.853	0.1274	pCi/g	0.1276	0.100	239	2	1.178	IDENTIFIED	4.622	<input type="checkbox"/>
Lead-214 V	1.805	0.14	pCi/g	0.1436	0.100	352.4	2	1.328	IDENTIFIED	5.65	<input type="checkbox"/>
Molybdenum-99 HE	41.37	52.81	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Neptunium-237 MM	0.9579	0.2239	pCi/g	0.443	N	87.37	3	1.275	IDENTIFIED	20.36	<input type="checkbox"/>
Potassium-40 V	30.23	1.685	pCi/g	0.6379	1.00	1461	1	2.084	IDENTIFIED	3.361	<input type="checkbox"/>
Radium-224 INT	2.381	0.5376	pCi/g	1.748	Y	242.2	1	0.9452	IDENTIFIED	22.11	<input checked="" type="checkbox"/> UI

Radium-226	✓	1.591	0.1262	pCi/g 0.1341	Y	609.8	2	1.46	IDENTIFIED	6.198	<input type="checkbox"/>
Radium-228	✓	2.394	0.2275	pCi/g 0.2552	0.500	911.6	3	1.701	IDENTIFIED	7.404	<input type="checkbox"/>
Sodium-24	HE	2.62E+09	2.12E+09	pCi/g 0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Strontium-85	LA	0.1638	0.02934	pCi/g 0.1017	Y	0	6	0	NOT_IDENTI	0	<input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Thallium-208	✓	0.6248	0.0588	pCi/g 0.06959	0.080	583.5	1	1.411	IDENTIFIED	8.246	<input type="checkbox"/>
Thorium-228	UL	1.853	0.1274	pCi/g 0.1276	N	239	2	1.178	IDENTIFIED	4.622	<input type="checkbox"/>
Thorium-232	UL	2.394	0.2275	pCi/g 0.2552	N	911.6	3	1.701	IDENTIFIED	7.404	<input type="checkbox"/>
Tin-126	ALL	0.321	0.06707	pCi/g 0.1466	N	87.37	3	1.275	IDENTIFIED	20.36	<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
248201004	23-FEB-10 12:00	18-MAR-10 10:37	22.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	UL	1.906	0.1968	pCi/g 0.2597	N	911.8	3	1.486	IDENTIFIED	8.524	<input type="checkbox"/>
Annihilation Rad.	HE	0.1154	0.03585	pCi/g 0.05438	N	510.7	1	2.283	IDENTIFIED	30.92	<input type="checkbox"/>
Barium-137m	UL	0.3427	0.04308	pCi/g 0.06936	N	661.6	2	1.642	IDENTIFIED	12.23	<input type="checkbox"/>
Bismuth-211	INT	4.856	0.3145	pCi/g 0.3511	Y	351.9	2	1.423	IDENTIFIED	5.635	✓ UI
Bismuth-212	HE	2.141	0.4506	pCi/g 1.292	N	0	8	0	FAIL_ABUND	0	<input type="checkbox"/>
Bismuth-214	✓	1.355	0.1078	pCi/g 0.1239	0.200	609.5	2	1.564	IDENTIFIED	6.896	<input type="checkbox"/>
Cadmium-109	INT	4.186	0.5848	pCi/g 1.354	Y	87.21	3	1.37	IDENTIFIED	13.25	✓ UI
Cerium-143		56620	8591	pCi/g 0	N	0	8	0	SHORT_HLIF	0	<input type="checkbox"/>
Cesium-134	LA	0.1219	0.042	pCi/g 0.09949	0.100	0	8	0	FAIL_ABUND	0	<input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Cesium-135	HE	0.3949	0.09781	pCi/g 0.3259	N	0	8	0	NOT_IDENTI	0	<input type="checkbox"/>
Cesium-137	✓	0.362	0.04552	pCi/g 0.07327	0.100	661.6	2	1.642	IDENTIFIED	12.23	<input type="checkbox"/>
Gross Gamma		11.64	1.712	pCi/g 5.162	N	0					<input type="checkbox"/>
Iodine-133	HE	3.53E+05	1.73E+06	pCi/g 0	N	0	8	0	SHORT_HLIF	0	<input type="checkbox"/>
Iodine-135		1.20E+24	0	pCi/g 0	N	0	8	0	SHORT_HLIF	0	<input type="checkbox"/>
Lead-212	✓	1.953	0.09637	pCi/g 0.1144	0.100	238.6	2	1.332	IDENTIFIED	3.332	<input type="checkbox"/>
Lead-214	✓	1.762	0.1241	pCi/g 0.1277	0.100	351.9	2	1.423	IDENTIFIED	5.635	<input type="checkbox"/>
Neptunium-237	UL	1.207	0.2108	pCi/g 0.3964	N	87.21	3	1.37	IDENTIFIED	13.25	<input type="checkbox"/>
Niobium-95m	LA	0.5498	0.09926	pCi/g 0.3189	N	0	8	0	NOT_IDENTI	0	<input type="checkbox"/>
Potassium-40	✓	31.24	1.49	pCi/g 0.5731	1.00	1461	1	2.216	IDENTIFIED	2.981	<input type="checkbox"/>
Radium-224	INT	4.512	0.6213	pCi/g 1.225	Y	241.6	1	1.654	IDENTIFIED	13.47	✓ UI
Radium-226	✓	1.355	0.1078	pCi/g 0.1239	Y	609.5	2	1.564	IDENTIFIED	6.896	<input type="checkbox"/>
Radium-228	✓	1.906	0.1968	pCi/g 0.2597	0.500	911.8	3	1.486	IDENTIFIED	8.524	<input type="checkbox"/>
Strontium-85	LA	0.1228	0.02663	pCi/g 0.09094	Y	0	8	0	NOT_IDENTI	0	<input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Thallium-208	✓	0.5638	0.05104	pCi/g 0.06239	0.080	583.3	1	1.281	IDENTIFIED	8.394	<input type="checkbox"/>
Thorium-228	UL	1.953	0.09637	pCi/g 0.1144	N	238.6	2	1.332	IDENTIFIED	3.332	<input type="checkbox"/>
Thorium-232	UL	1.906	0.1968	pCi/g 0.2597	N	911.8	3	1.486	IDENTIFIED	8.524	<input type="checkbox"/>
Tin-126	UL	0.4044	0.0565	pCi/g 0.1314	N	87.21	3	1.37	IDENTIFIED	13.25	<input type="checkbox"/>
Total Uranium		5.9925	2.84E-06	ug/g 3.8664	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
248201005	23-FEB-10 12:00	18-MAR-10 10:38	22.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	UL	1.82	0.2146	pCi/g 0.2631	N	911.8	3	1.769	IDENTIFIED	10.13	<input type="checkbox"/>

Annihilation Rad.	0.1445	0.039	pCi/g	0.04952	N	511.1	1	1.939	IDENTIFIED	26.82	<input type="checkbox"/>
Barium-137m <i>UL</i>	0.6307	0.04695	pCi/g	0.06911	N	661.9	2	1.68	IDENTIFIED	6.824	<input type="checkbox"/>
Bismuth-211 <i>INT</i>	4.538	0.2824	pCi/g	0.3647	Y	351.7	2	1.454	IDENTIFIED	5.358	<input checked="" type="checkbox"/> <i>UL</i>
Bismuth-212 <i>LA</i>	2.424	0.4455	pCi/g	1.267	N	0	6	0	FAIL_ABUND	0	<input type="checkbox"/>
Bismuth-214 <i>V</i>	1.547	0.1019	pCi/g	0.1147	0.200	609.5	2	1.58	IDENTIFIED	5.24	<input type="checkbox"/>
Cadmium-109 <i>INT</i>	4.591	0.6588	pCi/g	1.301	Y	87.32	3	1.634	IDENTIFIED	13.68	<input checked="" type="checkbox"/> <i>UL</i>
Cerium-143	57970	8594	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Cesium-137 <i>V</i>	0.6663	0.04964	pCi/g	0.07301	0.100	661.9	2	1.68	IDENTIFIED	6.824	<input type="checkbox"/>
Gross Gamma	10.51	1.335	pCi/g	4.257	N	0					<input type="checkbox"/>
Iodine-133 HE	1.05E+06	1.70E+06	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Lead-212 <i>V</i>	1.884	0.09364	pCi/g	0.09787	0.100	238.5	2	1.553	IDENTIFIED	3.347	<input type="checkbox"/>
Lead-214 <i>V</i>	1.647	0.1121	pCi/g	0.1292	0.100	351.7	2	1.454	IDENTIFIED	5.358	<input type="checkbox"/>
Molybdenum-99 HE	16.7	46.34	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Neptunium-237 <i>UL</i>	1.323	0.2352	pCi/g	0.3795	N	87.32	3	1.634	IDENTIFIED	13.68	<input type="checkbox"/>
Niobium-95m <i>LA</i>	0.9117	0.09634	pCi/g	0.3285	N	0	6	0	NOT_IDENTI	0	<input type="checkbox"/>
Potassium-40 <i>V</i>	27.41	1.339	pCi/g	0.5621	1.00	1462	1	2.058	IDENTIFIED	3.266	<input type="checkbox"/>
Radium-224 <i>INT</i>	4.679	0.5457	pCi/g	1.048	Y	241.7	1	1.684	IDENTIFIED	11.3	<input checked="" type="checkbox"/> <i>UL</i>
Radium-226 <i>V</i>	1.547	0.1019	pCi/g	0.1147	Y	609.5	2	1.58	IDENTIFIED	5.24	<input type="checkbox"/>
Radium-228 <i>V</i>	1.82	0.2146	pCi/g	0.2631	0.500	911.8	3	1.769	IDENTIFIED	10.13	<input type="checkbox"/>
Strontium-85 <i>LA</i>	0.09558	0.02686	pCi/g	0.08743	Y	0	6	0	NOT_IDENTI	0	<input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Thallium-208 <i>V</i>	0.5409	0.04799	pCi/g	0.06579	0.080	583.5	1	1.179	IDENTIFIED	8.19	<input type="checkbox"/>
Thorium-228 <i>UL</i>	1.884	0.09364	pCi/g	0.09787	N	238.5	2	1.553	IDENTIFIED	3.347	<input type="checkbox"/>
Thorium-232 <i>UL</i>	1.82	0.2146	pCi/g	0.2631	N	911.8	3	1.769	IDENTIFIED	10.13	<input type="checkbox"/>
Tin-126 <i>UL</i>	0.4435	0.06365	pCi/g	0.1261	N	87.32	3	1.634	IDENTIFIED	13.68	<input type="checkbox"/>
Total Uranium	3.8906	2.07E-06	ug/g	3.5127	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
248201006	23-FEB-10 12:00	18-MAR-10 10:39	22.9	SAMPLE	LOAD	1	LANL	LANLQ1004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err (%)	Qual	Qual Comment
Actinium-228 <i>UL</i>	2.236	0.2693	pCi/g	0.3174	N	910.9	3	1.356	IDENTIFIED	10.53 <input type="checkbox"/>
Barium-137m <i>UL</i>	0.1569	0.0335	pCi/g	0.08099	N	661.6	2	1.629	IDENTIFIED	20.93 <input type="checkbox"/>
Bismuth-211 <i>INT</i>	5.071	0.3822	pCi/g	0.3983	Y	351.8	2	1.161	IDENTIFIED	5.922 <input checked="" type="checkbox"/> <i>UL</i>
Bismuth-212 HE	2.684	0.656	pCi/g	1.617	N	0	4	0	FAIL_ABUND	0 <input type="checkbox"/>
Bismuth-214 <i>V</i>	1.651	0.1347	pCi/g	0.1323	0.200	609.2	2	1.366	IDENTIFIED	6.359 <input type="checkbox"/>
Cadmium-109 <i>INT</i>	3.043	0.5267	pCi/g	1.238	Y	86.97	3	1.137	IDENTIFIED	16.6 <input checked="" type="checkbox"/> <i>UL</i>
Cadmium-115 HE	66.25	77.57	pCi/g	0	N	0	4	0	SHORT_HLIF	0 <input type="checkbox"/>
Cerium-143	21020	5209	pCi/g	0	N	0	4	0	SHORT_HLIF	0 <input type="checkbox"/>
Cesium-137 <i>V</i>	0.1657	0.03539	pCi/g	0.08556	0.100	661.6	2	1.629	IDENTIFIED	20.93 <input type="checkbox"/>
Gross Gamma	10.62	1.688	pCi/g	4.58	N	0				<input type="checkbox"/>
Lead-212 <i>V</i>	1.75	0.111	pCi/g	0.1064	0.100	238.7	2	1.001	IDENTIFIED	3.819 <input type="checkbox"/>
Lead-214 <i>V</i>	1.84	0.1477	pCi/g	0.1449	0.100	351.8	2	1.161	IDENTIFIED	5.922 <input type="checkbox"/>
Neptunium-237 <i>UL</i>	0.8773	0.1775	pCi/g	0.2789	N	86.97	3	1.137	IDENTIFIED	16.6 <input type="checkbox"/>
Potassium-40 <i>V</i>	29.99	1.736	pCi/g	0.6393	1.00	1460	1	1.807	IDENTIFIED	3.713 <input type="checkbox"/>
Radium-224 <i>INT</i>	4.989	0.6366	pCi/g	1.141	Y	241.7	1	1.507	IDENTIFIED	11.93 <input checked="" type="checkbox"/> <i>UL</i>
Radium-226 <i>V</i>	1.651	0.1347	pCi/g	0.1323	Y	609.2	2	1.366	IDENTIFIED	6.359 <input type="checkbox"/>
Radium-228 <i>V</i>	2.236	0.2693	pCi/g	0.3174	0.500	910.9	3	1.356	IDENTIFIED	10.53 <input type="checkbox"/>

Sodium-24	HE	3.70E+09	2.91E+09	pCi/g	0	N	0	4	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-208	✓	0.5396	0.05501	pCi/g	0.07958	0.080	583.3	1	1.49	IDENTIFIED	9.035	<input type="checkbox"/>
Thorium-228	✓	1.75	0.111	pCi/g	0.1064	N	238.7	2	1.001	IDENTIFIED	3.819	<input type="checkbox"/>
Thorium-232	✓	2.236	0.2693	pCi/g	0.3174	N	910.9	3	1.356	IDENTIFIED	10.53	<input type="checkbox"/>
Thorium-234	✓	2.406	0.6258	pCi/g	1.159	2.00	63.6	2	1.174	IDENTIFIED	24.21	<input type="checkbox"/>
Tin-126	✓	0.294	0.05088	pCi/g	0.1195	N	86.97	3	1.137	IDENTIFIED	16.6	<input type="checkbox"/>
Total Uranium		7.1898	1.86E-06	ug/g	1.7268	N		0				<input type="checkbox"/>
Uranium-238	HE	2.406	0.6258	pCi/g	1.159	N	63.6	2	1.174	IDENTIFIED	24.21	<input type="checkbox"/>

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248201007	23-FEB-10 12:00	18-MAR-10 10:40	22.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.228	0.2119	pCi/g	0.2113	N	910.6	3	2.038	IDENTIFIED 6.677 <input type="checkbox"/>
Annihilation Rad.		0.1412	0.03128	pCi/g	0.04248	N	510.3	1	1.889	IDENTIFIED 21.9 <input type="checkbox"/>
Barium-137m	✓	0.2155	0.03199	pCi/g	0.05269	N	660.9	2	1.377	IDENTIFIED 14.35 <input type="checkbox"/>
Bismuth-211	INT	4.941	0.265	pCi/g	0.2802	Y	351.8	2	1.343	IDENTIFIED 4.296 ✓ U <sub>I</sub>
Bismuth-212	✓	2.382	0.3819	pCi/g	1.062	N	0	8	0	FAIL_ABUND 0 <input type="checkbox"/>
Bismuth-214	✓	1.501	0.09729	pCi/g	0.09759	0.200	608.9	2	1.586	IDENTIFIED 4.675 <input type="checkbox"/>
Cadmium-109	INT	3.774	0.5879	pCi/g	1.232	Y	87.24	3	1.086	IDENTIFIED 14.89 ✓ U <sub>I</sub>
Cerium-143		52790	7557	pCi/g	0	N	0	8	0	SHORT_HLIF 0 <input type="checkbox"/>
Cesium-134	✓	0.1501	0.03288	pCi/g	0.08642	0.100	0	8	0	FAIL_ABUND 0 <input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Cesium-137	✓	0.2276	0.0338	pCi/g	0.05566	0.100	660.9	2	1.377	IDENTIFIED 14.35 <input type="checkbox"/>
Gross Gamma		11.38	1.502	pCi/g	3.494	N		0		<input type="checkbox"/>
Iodine-133	HE	3.46E+05	1.35E+06	pCi/g	0	N	0	8	0	SHORT_HLIF 0 <input type="checkbox"/>
Lead-212	✓	2.098	0.09358	pCi/g	0.08455	0.100	238.6	2	1.197	IDENTIFIED 2.629 <input type="checkbox"/>
Lead-214	✓	1.793	0.1081	pCi/g	0.1019	0.100	351.8	2	1.343	IDENTIFIED 4.296 <input type="checkbox"/>
Molybdenum-99	HE	15.58	38.49	pCi/g	0	N	0	8	0	SHORT_HLIF 0 <input type="checkbox"/>
Neptunium-237	✓	1.088	0.2043	pCi/g	0.4574	N	87.24	3	1.086	IDENTIFIED 14.89 <input type="checkbox"/>
Niobium-95	HE	0.1282	0.02542	pCi/g	0.08489	N	0	8	0	NOT_IDENTI 0 <input type="checkbox"/>
Potassium-40	✓	30.07	1.367	pCi/g	0.4406	1.00	1460	1	2.309	IDENTIFIED 2.502 <input type="checkbox"/>
Promethium-149	HE	627.8	479.5	pCi/g	0	N	0	8	0	SHORT_HLIF 0 <input type="checkbox"/>
Radium-224	INT	5.197	0.5825	pCi/g	0.905	Y	241.6	1	1.6	IDENTIFIED 10.86 ✓ U <sub>I</sub>
Radium-226	✓	1.501	0.09729	pCi/g	0.09759	Y	608.9	2	1.586	IDENTIFIED 4.675 <input type="checkbox"/>
Radium-228	✓	2.228	0.2119	pCi/g	0.2113	0.500	910.6	3	2.038	IDENTIFIED 6.677 <input type="checkbox"/>
Strontium-85	✓	0.07795	0.02074	pCi/g	0.06727	Y	0	8	0	NOT_IDENTI 0 <input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Thallium-208	✓	0.6096	0.04718	pCi/g	0.0478	0.080	582.9	1	1.708	IDENTIFIED 6.678 <input type="checkbox"/>
Thorium-228	✓	2.098	0.09358	pCi/g	0.08455	N	238.6	2	1.197	IDENTIFIED 2.629 <input type="checkbox"/>
Thorium-232	✓	2.228	0.2119	pCi/g	0.2113	N	910.6	3	2.038	IDENTIFIED 6.677 <input type="checkbox"/>
Tin-126	✓	0.3646	0.05679	pCi/g	0.1501	N	87.24	3	1.086	IDENTIFIED 14.89 <input type="checkbox"/>

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248201008	23-FEB-10 12:00	18-MAR-10 10:40	22.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	1.519	0.1784	pCi/g	0.2567	N	910.7	3	1.766	IDENTIFIED 10.18 <input type="checkbox"/>
Annihilation Rad.	HE	0.128	0.04706	pCi/g	0.05536	N	510.5	1	1.748	IDENTIFIED 36.44 <input type="checkbox"/>

Barium-137m	MM	0.3904	0.05916	pCi/g	0.07375	N	661.6	2	1.294	IDENTIFIED	14.11	<input type="checkbox"/>
Bismuth-211	INT	3.603	0.3036	pCi/g	0.3171	Y	351.8	2	1.008	IDENTIFIED	7.12	<input checked="" type="checkbox"/> UT
Bismuth-212	HE	1.854	0.5806	pCi/g	1.511	N	0	6	0	FAIL_ABUND	0	<input type="checkbox"/>
Bismuth-214	V	1.333	0.1189	pCi/g	0.1198	0.200	609	2	1.468	IDENTIFIED	6.667	<input type="checkbox"/>
Cadmium-109	INT	2.354	0.3735	pCi/g	0.8316	Y	87.12	3	0.9578	IDENTIFIED	15.17	<input checked="" type="checkbox"/> UT
Cerium-143		8645	3865	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Cesium-137	V	0.4124	0.06251	pCi/g	0.07791	0.100	661.6	2	1.294	IDENTIFIED	14.11	<input type="checkbox"/>
Gadolinium-153	HE	0.1476	0.03983	pCi/g	0.09339	N	0	6	0	FAIL_ABUND	0	<input type="checkbox"/>
Gross Gamma		9.055	1.227	pCi/g	3.556	N						<input type="checkbox"/>
Iodine-133	HE	7.15E+05	1.68E+06	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Iodine-135		7.80E+23	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Lead-210	V	3.772	0.4245	pCi/g	0.6322	N	46.51	1	0.6854	IDENTIFIED	10.21	<input type="checkbox"/>
Lead-212	V	1.47	0.09189	pCi/g	0.08372	0.100	238.5	2	0.8871	IDENTIFIED	3.76	<input type="checkbox"/>
Lead-214	V	1.307	0.1159	pCi/g	0.1154	0.100	351.8	2	1.008	IDENTIFIED	7.12	<input type="checkbox"/>
Molybdenum-99	HE	30.07	54.9	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Neptunium-237	MM	0.6785	0.129	pCi/g	0.1987	N	87.12	3	0.9578	IDENTIFIED	15.17	<input type="checkbox"/>
Potassium-40	V	23.92	1.461	pCi/g	0.6531	1.00	1460	1	2.224	IDENTIFIED	4.371	<input type="checkbox"/>
Radium-224	INT	4.615	0.705	pCi/g	0.8999	Y	241.3	1	1.71	IDENTIFIED	14.62	<input checked="" type="checkbox"/> UT
Radium-226	V	1.333	0.1189	pCi/g	0.1198	Y	609	2	1.468	IDENTIFIED	6.667	<input type="checkbox"/>
Radium-228	V	1.519	0.1784	pCi/g	0.2567	0.500	910.7	3	1.766	IDENTIFIED	10.18	<input type="checkbox"/>
Thallium-208	V	0.5398	0.05515	pCi/g	0.06977	0.080	583	1	1.232	IDENTIFIED	8.646	<input type="checkbox"/>
Thorium-228	MM	1.47	0.09189	pCi/g	0.08372	N	238.5	2	0.8871	IDENTIFIED	3.76	<input type="checkbox"/>
Thorium-232	MM	1.519	0.1784	pCi/g	0.2567	N	910.7	3	1.766	IDENTIFIED	10.18	<input type="checkbox"/>
Thorium-234	V	5.051	0.6673	pCi/g	0.8099	2.00	63.35	2	0.8747	IDENTIFIED	9.65	<input type="checkbox"/>
Tin-126	MM	0.2274	0.03608	pCi/g	0.08578	N	87.12	3	0.9578	IDENTIFIED	15.17	<input type="checkbox"/>
Total Uranium		15.099	1.99E-06	ug/g	1.2074	N						<input type="checkbox"/>
Uranium-238	MM	5.051	0.6673	pCi/g	0.8099	N	63.35	2	0.8747	IDENTIFIED	9.65	<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
248201009	23-FEB-10 12:00	18-MAR-10 10:42	22.9	SAMPLE	LOAD	1	LANL	LANL01004IGEL		N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	MM	2.157	0.1955	pCi/g	0.209	N	911.6	3	1.627	IDENTIFIED	6.532 <input type="checkbox"/>
Annihilation Rad.		0.1392	0.03564	pCi/g	0.04354	N	511.5	1	1.809	IDENTIFIED	25.17 <input type="checkbox"/>
Barium-137m	MM	0.2937	0.03849	pCi/g	0.06523	N	662.3	2	1.299	IDENTIFIED	12.11 <input type="checkbox"/>
Bismuth-211	INT	4.133	0.2985	pCi/g	0.3336	Y	352.1	2	1.403	IDENTIFIED	5.413 <input checked="" type="checkbox"/> UT
Bismuth-212	HE	1.532	0.5224	pCi/g	1.069	N	0	7	0	FAIL_ABUND	0 <input type="checkbox"/>
Bismuth-214	V	1.323	0.1156	pCi/g	0.1049	0.200	609.6	2	1.527	IDENTIFIED	6.72 <input type="checkbox"/>
Cadmium-109	INT	3.828	0.541	pCi/g	1.204	Y	87.29	3	1.281	IDENTIFIED	13.34 <input checked="" type="checkbox"/> UT
Cadmium-115	HE	11.66	58.75	pCi/g	0	N	0	7	0	SHORT_HLIF	0 <input type="checkbox"/>
Cerium-143		27710	5065	pCi/g	0	N	0	7	0	SHORT_HLIF	0 <input type="checkbox"/>
Cesium-134	LA	0.1136	0.03568	pCi/g	0.09211	0.100	0	7	0	FAIL_ABUND	0 <input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Cesium-137	V	0.3103	0.04067	pCi/g	0.06891	0.100	662.3	2	1.299	IDENTIFIED	12.11 <input type="checkbox"/>
Gross Gamma		9.965	1.473	pCi/g	4.583	N					<input type="checkbox"/>
Lead-212	V	1.685	0.1059	pCi/g	0.08676	0.100	238.7	2	1.137	IDENTIFIED	3.321 <input type="checkbox"/>
Lead-214	V	1.5	0.116	pCi/g	0.1158	0.100	352.1	2	1.403	IDENTIFIED	5.413 <input type="checkbox"/>
Molybdenum-99	HE	4.86	40.5	pCi/g	0	N	0	7	0	SHORT_HLIF	0 <input type="checkbox"/>

Neptunium-237	ML	1.103	0.1942	pCi/g	0.389	N	87.29	3	1.281	IDENTIFIED	13.34	<input type="checkbox"/>
Potassium-40	✓	28.82	1.53	pCi/g	0.5093	1.00	1462	1	1.829	IDENTIFIED	3.027	<input type="checkbox"/>
Promethium-149	HE	302.9	480.2	pCi/g	0	N	0	7	0	SHORT_HLIF	0	<input type="checkbox"/>
Radium-224	INT	4.452	0.5897	pCi/g	0.9296	Y	241.8	1	1.637	IDENTIFIED	12.33	✓ UI
Radium-226	✓	1.323	0.1156	pCi/g	0.1049	Y	609.6	2	1.527	IDENTIFIED	6.72	<input type="checkbox"/>
Radium-228	✓	2.157	0.1955	pCi/g	0.209	0.500	911.6	3	1.627	IDENTIFIED	6.532	<input type="checkbox"/>
Strontium-85	LA	0.1025	0.02178	pCi/g	0.08016	Y	0	7	0	NOT_IDENTI	0	<input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Thallium-208	✓	0.4032	0.04224	pCi/g	0.05278	0.080	583.5	1	1.063	IDENTIFIED	9.13	<input type="checkbox"/>
Thorium-228	ML	1.685	0.1059	pCi/g	0.08676	N	238.7	2	1.137	IDENTIFIED	3.321	<input type="checkbox"/>
Thorium-232	ML	2.157	0.1955	pCi/g	0.209	N	911.6	3	1.627	IDENTIFIED	6.532	<input type="checkbox"/>
Thorium-234	✓	2.256	0.7912	pCi/g	1.635	2.00	63.29	2	1.037	IDENTIFIED	33.93	<input type="checkbox"/>
Tin-126	ML	0.3698	0.05227	pCi/g	0.1167	N	87.29	3	1.281	IDENTIFIED	13.34	<input type="checkbox"/>
Total Uranium		6.785	2.35E-06	ug/g	2.4341	N		0				<input type="checkbox"/>
Uranium-238	HE	2.256	0.7912	pCi/g	1.635	N	63.29	2	1.037	IDENTIFIED	33.93	<input type="checkbox"/>

\*\*\* = Number of isotopes identified with a skyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248201010	23-FEB-10 12:00	18-MAR-10 10:42	22.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy	*** FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	ML	1.715	0.1979	pCi/g	0.2407	N	911.2	3	1.754	IDENTIFIED 8.669 <input type="checkbox"/>
Annihilation Rad.	HE	0.06825	0.03658	pCi/g	0.05447	N	511	1	1.759	IDENTIFIED 53.4 <input type="checkbox"/>
Barium-137m	ML	0.3377	0.03447	pCi/g	0.06284	N	661.6	2	1.437	IDENTIFIED 9.347 <input type="checkbox"/>
Bismuth-211	INT	3.985	0.2954	pCi/g	0.3908	Y	351.9	2	1.14	IDENTIFIED 5.659 ✓ UI
Bismuth-212	HE	1.813	0.4935	pCi/g	0.901	N	727.5	1	2.149	IDENTIFIED 26.42 <input type="checkbox"/>
Bismuth-214	✓	1.351	0.1057	pCi/g	0.119	0.200	609.2	2	1.409	IDENTIFIED 5.975 <input type="checkbox"/>
Cadmium-109	INT	5.085	0.6536	pCi/g	1.481	Y	87.27	3	1.543	IDENTIFIED 11.97 ✓ UI
Cerium-143		57040	8841	pCi/g	0	N	0	6	0	SHORT_HLIF 0 <input type="checkbox"/>
Cesium-134	LA	0.1217	0.02821	pCi/g	0.09794	0.100	0	6	0	FAIL_ABUND 0 <input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Cesium-137	✓	0.3568	0.03643	pCi/g	0.06639	0.100	661.6	2	1.437	IDENTIFIED 9.347 <input type="checkbox"/>
Gross Gamma		10.05	1.455	pCi/g	4.729	N		0		<input type="checkbox"/>
Iodine-135		1.28E+24	0	pCi/g	0	N	0	6	0	SHORT_HLIF 0 <input type="checkbox"/>
Lead-212	✓	1.76	0.107	pCi/g	0.107	0.100	238.5	2	1.121	IDENTIFIED 3.476 <input type="checkbox"/>
Lead-214	✓	1.446	0.1144	pCi/g	0.1392	0.100	351.9	2	1.14	IDENTIFIED 5.659 <input type="checkbox"/>
Molybdenum-99	HE	5.423	47.02	pCi/g	0	N	0	6	0	SHORT_HLIF 0 <input type="checkbox"/>
Neptunium-237	ML	1.466	0.2431	pCi/g	0.4338	N	87.27	3	1.543	IDENTIFIED 11.97 <input type="checkbox"/>
Niobium-95m	LA	0.7215	0.1027	pCi/g	0.3364	N	0	6	0	NOT_IDENTI 0 <input type="checkbox"/>
Potassium-40	✓	25.94	1.623	pCi/g	0.5718	1.00	1461	1	1.849	IDENTIFIED 3.091 <input type="checkbox"/>
Radium-224	INT	6.139	0.8013	pCi/g	1.145	Y	241.5	1	2.02	IDENTIFIED 12.27 ✓ UI
Radium-226	✓	1.351	0.1057	pCi/g	0.119	Y	609.2	2	1.409	IDENTIFIED 5.975 <input type="checkbox"/>
Radium-228	✓	1.715	0.1979	pCi/g	0.2407	0.500	911.2	3	1.754	IDENTIFIED 8.669 <input type="checkbox"/>
Strontium-85	LA	0.1133	0.02699	pCi/g	0.0885	Y	0	6	0	NOT_IDENTI 0 <input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Thallium-208	✓	0.5529	0.05066	pCi/g	0.06323	0.080	583	1	1.368	IDENTIFIED 7.872 <input type="checkbox"/>
Thorium-228	ML	1.76	0.107	pCi/g	0.107	N	238.5	2	1.121	IDENTIFIED 3.476 <input type="checkbox"/>
Thorium-232	ML	1.715	0.1979	pCi/g	0.2407	N	911.2	3	1.754	IDENTIFIED 8.669 <input type="checkbox"/>
Thorium-234	✓	5.226	1.402	pCi/g	2.585	2.00	63.18	2	1.338	IDENTIFIED 25.25 <input type="checkbox"/>
Tin-126	ML	0.4912	0.06314	pCi/g	0.1438	N	87.27	3	1.543	IDENTIFIED 11.97 <input type="checkbox"/>
Total Uranium		15.624	4.17E-06	ug/g	3.8487	N		0		<input type="checkbox"/>



Uranium-238 HE 5.226 1.402 pCi/g 2.585 N 63.18 2 1.338 IDENTIFIED 25.25 ☐

\*\*\* = 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
248201011	23-FEB-10 12:00	18-MAR-10 13:09	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>u</i>	1.877	0.2218	pCi/g	0.2723	N	911.6	3	1.772	IDENTIFIED	10.21	<input type="checkbox"/>
Annihilation Rad.	0.1679	0.04678	pCi/g	0.0628	N	511.4	1	1.751	IDENTIFIED	27.54	<input type="checkbox"/>
Barium-137m <i>u</i>	0.4971	0.05387	pCi/g	0.07393	N	662.1	2	0.8927	IDENTIFIED	10.03	<input type="checkbox"/>
Bismuth-211 <i>INT</i>	4.838	0.3606	pCi/g	0.422	Y	352.3	2	1.281	IDENTIFIED	5.911	<i>u</i> <input type="checkbox"/>
Bismuth-214 <i>V</i>	1.512	0.1248	pCi/g	0.151	0.200	609.7	2	1.719	IDENTIFIED	6.599	<input type="checkbox"/>
Cadmium-109 <i>INT</i>	2.243	0.8226	pCi/g	1.581	Y	87.69	3	1.049	IDENTIFIED	36.36	<i>u</i> <input type="checkbox"/>
Cadmium-115 HE	31.33	84.9	pCi/g	0	N	0	7	0	SHORT_HLIF	0	<input type="checkbox"/>
Cerium-143	25690	6104	pCi/g	0	N	0	7	0	SHORT_HLIF	0	<input type="checkbox"/>
Cesium-137 <i>✓</i>	0.5251	0.05692	pCi/g	0.0781	0.100	662.1	2	0.8927	IDENTIFIED	10.03	<input type="checkbox"/>
Gross Gamma	10.34	1.62	pCi/g	4.32	N	0					<input type="checkbox"/>
Iodine-135	1.17E+24 0		pCi/g	0	N	0	7	0	SHORT_HLIF	0	<input type="checkbox"/>
Lead-212 <i>✓</i>	1.941	0.122	pCi/g	0.1173	0.100	239	2	1.212	IDENTIFIED	3.691	<input type="checkbox"/>
Lead-214 <i>✓</i>	1.756	0.1395	pCi/g	0.1447	0.100	352.3	2	1.281	IDENTIFIED	5.911	<input type="checkbox"/>
Molybdenum-99 HE	15.02	60.48	pCi/g	0	N	0	7	0	SHORT_HLIF	0	<input type="checkbox"/>
Neptunium-237 HE	0.6466	0.2466	pCi/g	0.5002	N	87.69	3	1.049	IDENTIFIED	36.36	<input type="checkbox"/>
Potassium-40 <i>✓</i>	27.34	1.583	pCi/g	0.699	1.00	1461	1	1.998	IDENTIFIED	3.709	<input type="checkbox"/>
Promethium-149 HE	1145	704.2	pCi/g	0	N	0	7	0	SHORT_HLIF	0	<input type="checkbox"/>
Radium-224 <i>INT</i>	5.005	0.8154	pCi/g	1.257	Y	241.9	1	1.708	IDENTIFIED	15.64	<i>u</i> <input type="checkbox"/>
Radium-226 <i>✓</i>	1.512	0.1248	pCi/g	0.151	Y	609.7	2	1.719	IDENTIFIED	6.599	<input type="checkbox"/>
Radium-228 <i>✓</i>	1.877	0.2218	pCi/g	0.2723	0.500	911.6	3	1.772	IDENTIFIED	10.21	<input type="checkbox"/>
Sodium-24 HE	1.55E+08	2.62E+09	pCi/g	0	N	0	7	0	SHORT_HLIF	0	<input type="checkbox"/>
Strontium-85 <i>LA</i>	0.1228	0.03357	pCi/g	0.1087	Y	0	7	0	NOT_IDENTI	0	<input checked="" type="checkbox"/> UI Data rejected due to low abundance.
Thallium-208 <i>✓</i>	0.6163	0.05733	pCi/g	0.07343	0.080	583.6	1	1.291	IDENTIFIED	8.122	<input type="checkbox"/>
Thorium-228 <i>u</i>	1.941	0.122	pCi/g	0.1173	N	239	2	1.212	IDENTIFIED	3.691	<input type="checkbox"/>
Thorium-232 <i>u</i>	1.877	0.2218	pCi/g	0.2723	N	911.6	3	1.772	IDENTIFIED	10.21	<input type="checkbox"/>
Tin-126 HE	0.2167	0.07945	pCi/g	0.1865	N	87.69	3	1.049	IDENTIFIED	36.36	<input type="checkbox"/>
Total Uranium	5.7308	3.23E-06	ug/g	4.0199	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
248201012	23-FEB-10 12:00	18-MAR-10 13:09	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>u</i>	1.619	0.2051	pCi/g	0.262	N	911.8	3	1.699	IDENTIFIED	11.25	<input type="checkbox"/>
Annihilation Rad. HE	0.0963	0.04462	pCi/g	0.05648	N	510.7	1	1.864	IDENTIFIED	46.24	<input type="checkbox"/>
Barium-137m <i>u</i>	1.012	0.06015	pCi/g	0.06479	N	661.8	2	1.76	IDENTIFIED	5.183	<input type="checkbox"/>
Bismuth-211 <i>INT</i>	4.597	0.287	pCi/g	0.3599	Y	351.7	2	1.403	IDENTIFIED	5.366	<i>u</i> <input type="checkbox"/>
Bismuth-212 HE	1.641	0.4548	pCi/g	1.275	N	0	6	0	FAIL_ABUND	0	<input type="checkbox"/>
Bismuth-214 <i>✓</i>	1.323	0.1164	pCi/g	0.1178	0.200	609.5	2	1.568	IDENTIFIED	7.855	<input type="checkbox"/>
Cadmium-109 <i>INT</i>	2.823	0.5726	pCi/g	1.709	Y	87.24	3	1.095	IDENTIFIED	19.79	<i>u</i> <input type="checkbox"/>
Cadmium-115 HE	21.08	75.87	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>
Cerium-143	53330	8705	pCi/g	0	N	0	6	0	SHORT_HLIF	0	<input type="checkbox"/>

Cesium-134	LA	0.1551	0.04151	pCi/g	0.1106	0.100	0	6	0	FAIL_ABUND 0	<input checked="" type="checkbox"/> UI	Data rejected due to low abundance.
Cesium-137	✓	1.069	0.06361	pCi/g	0.06845	0.100	661.8	2	1.76	IDENTIFIED 5.183	<input type="checkbox"/>	
Gross Gamma		9.573	1.38	pCi/g	4.357	N		0			<input type="checkbox"/>	
Lead-212	✓	1.623	0.08798	pCi/g	0.1114	0.100	238.6	2	1.294	IDENTIFIED 4.014	<input type="checkbox"/>	
Lead-214	✓	1.668	0.1139	pCi/g	0.1311	0.100	351.7	2	1.403	IDENTIFIED 5.366	<input type="checkbox"/>	
Neptunium-237	HE	0.8137	0.1858	pCi/g	0.5078	N	87.24	3	1.095	IDENTIFIED 19.79	<input type="checkbox"/>	
Niobium-95m	HE	0.4222	0.1009	pCi/g	0.315	N	0	6	0	NOT_IDENTI 0	<input type="checkbox"/>	
Potassium-40	✓	23.72	1.225	pCi/g	0.54	1.00	1461	1	1.907	IDENTIFIED 3.577	<input type="checkbox"/>	
Radium-224	INT	4.672	0.6756	pCi/g	1.194	Y	241.7	1	1.798	IDENTIFIED 14.18	<input checked="" type="checkbox"/> UT	
Radium-226	✓	1.323	0.1164	pCi/g	0.1178	Y	609.5	2	1.568	IDENTIFIED 7.855	<input type="checkbox"/>	
Radium-228	✓	1.619	0.2051	pCi/g	0.262	0.500	911.8	3	1.699	IDENTIFIED 11.25	<input type="checkbox"/>	
Strontium-85	LA	0.1364	0.02867	pCi/g	0.09815	Y	0	6	0	NOT_IDENTI 0	<input checked="" type="checkbox"/> UI	Data rejected due to low abundance.
Thallium-208	✓	0.5461	0.04611	pCi/g	0.06915	0.080	583.2	1	1.469	IDENTIFIED 7.733	<input type="checkbox"/>	
Thorium-228	ML	1.623	0.08798	pCi/g	0.1114	N	238.6	2	1.294	IDENTIFIED 4.014	<input type="checkbox"/>	
Thorium-232	ML	1.619	0.2051	pCi/g	0.262	N	911.8	3	1.699	IDENTIFIED 11.25	<input type="checkbox"/>	
Tin-126	HE	0.2727	0.05531	pCi/g	0.1788	N	87.24	3	1.095	IDENTIFIED 19.79	<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
248202001	23-FEB-10 12:00	18-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 ML	2.569	0.2465	pCi/g	0.2543	N	911.7	3	1.675	IDENTIFIED 7.458	<input type="checkbox"/>	
Annihilation Rad.	0.177	0.0394	pCi/g	0.04921	N	511.3	1	2.351	IDENTIFIED 22.07	<input type="checkbox"/>	
Bismuth-211 INT	5.095	0.295	pCi/g	0.3484	Y	351.9	2	1.561	IDENTIFIED 4.846	<input checked="" type="checkbox"/> UT	
Bismuth-212 ✓	2.036	0.5208	pCi/g	0.8987	N	727.9	1	2.498	IDENTIFIED 24.94	<input type="checkbox"/>	
Bismuth-214 ✓	1.502	0.1078	pCi/g	0.125	0.200	609.4	2	1.434	IDENTIFIED 5.962	<input type="checkbox"/>	
Cadmium-109 INT	2.573	0.6155	pCi/g	1.443	Y	87.41	3	1.552	IDENTIFIED 23.53	<input checked="" type="checkbox"/> UT	
Cadmium-115 HE	34.77	71.96	pCi/g	0	N	0	8	0	SHORT_HLIF 0	<input type="checkbox"/>	
Cerium-141 HE	0.1766	0.04312	pCi/g	0.1517	N	0	8	0	NOT_IDENTI 0	<input type="checkbox"/>	
Cerium-143	66160	9463	pCi/g	0	N	0	8	0	SHORT_HLIF 0	<input type="checkbox"/>	
Gross Gamma	11.62	1.622	pCi/g	4.277	N		0			<input type="checkbox"/>	
Lead-212 ✓	2.242	0.1066	pCi/g	0.1024	0.100	238.6	2	1.59	IDENTIFIED 3.022	<input type="checkbox"/>	
Lead-214 ✓	1.849	0.1186	pCi/g	0.1267	0.100	351.9	2	1.561	IDENTIFIED 4.846	<input type="checkbox"/>	
Molybdenum-99 HE	45.27	52.52	pCi/g	0	N	0	8	0	SHORT_HLIF 0	<input type="checkbox"/>	
Neptunium-237 HE	0.7415	0.1937	pCi/g	0.4676	N	87.41	3	1.552	IDENTIFIED 23.53	<input type="checkbox"/>	
Niobium-95m LA	0.8877	0.09767	pCi/g	0.3304	N	0	8	0	NOT_IDENTI 0	<input type="checkbox"/>	
Potassium-40 ✓	32.42	1.495	pCi/g	0.5515	1.00	1462	1	2.108	IDENTIFIED 2.844	<input type="checkbox"/>	
Promethium-149 HE	735.3	578.9	pCi/g	0	N	0	8	0	SHORT_HLIF 0	<input type="checkbox"/>	
Radium-224 INT	5.032	0.669	pCi/g	1.097	Y	241.5	1	1.781	IDENTIFIED 12.98	<input checked="" type="checkbox"/> UT	
Radium-226 ✓	1.502	0.1078	pCi/g	0.125	Y	609.4	2	1.434	IDENTIFIED 5.962	<input type="checkbox"/>	
Radium-228 ✓	2.569	0.2465	pCi/g	0.2543	0.500	911.7	3	1.675	IDENTIFIED 7.458	<input type="checkbox"/>	
Sodium-24 HE	4.50E+09	2.62E+09	pCi/g	0	N	0	8	0	SHORT_HLIF 0	<input type="checkbox"/>	
Strontium-85 LA	0.1327	0.02411	pCi/g	0.09035	Y	0	8	0	NOT_IDENTI 0	<input checked="" type="checkbox"/> UI	Data rejected due to low abundance.
Thallium-208 ✓	0.6207	0.04978	pCi/g	0.06062	0.080	583.4	1	1.471	IDENTIFIED 7.258	<input type="checkbox"/>	
Thorium-228 ML	2.242	0.1066	pCi/g	0.1024	N	238.6	2	1.59	IDENTIFIED 3.022	<input type="checkbox"/>	
Thorium-232 ML	2.569	0.2465	pCi/g	0.2543	N	911.7	3	1.675	IDENTIFIED 7.458	<input type="checkbox"/>	



Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202057347	23-FEB-10 12:00	18-MAR-10 16:18	23.2	DUP	LOAD	1		LANL01004GEL	N	RGSP
Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Actinium-228 <i>u</i>	2.131	0.2384	pCi/g	0.2866	N	910.9	3	1.725 IDENTIFIED	9.403	☐
Annihilation Rad.	0.2192	0.04549	pCi/g	0.05811	N	511.1	1	1.947 IDENTIFIED	20.3	☐
Barium-137m HE	0.1076	0.02783	pCi/g	0.08188	N	661.1	2	0.9422 IDENTIFIED	25.53	☐
Bismuth-211 <i>INT</i>	5.224	0.4003	pCi/g	0.4534	Y	351.9	2	1.367 IDENTIFIED	5.832	<i>W U</i>
Bismuth-212 <i>u</i>	2.897	0.5097	pCi/g	1.546	N	0	9	0 FAIL_ABUND	0	☐
Bismuth-214 <i>✓</i>	1.408	0.1272	pCi/g	0.1442	0.200	609	2	1.554 IDENTIFIED	7.542	☐
Cadmium-109 <i>INT</i>	3.526	0.7916	pCi/g	1.879	Y	87.31	3	1.34 IDENTIFIED	21.58	<i>W U</i>
Cadmium-115 HE	114.2	87.55	pCi/g	0	N	0	9	0 SHORT_HLIF	0	☐
Cerium-143	58860	10070	pCi/g	0	N	0	9	0 SHORT_HLIF	0	☐
Cesium-135 HE	0.443	0.1255	pCi/g	0.4043	N	0	9	0 NOT_IDENTI	0	☐
Cesium-137 <i>✓</i>	0.1137	0.0294	pCi/g	0.08649	0.100	661.1	2	0.9422 IDENTIFIED	25.53	☐
Gross Gamma	10.95	1.564	pCi/g	4.067	N	0				☐
Iodine-133 HE	4.17E+05	2.43E+06	pCi/g	0	N	0	9	0 SHORT_HLIF	0	☐
Lead-212 <i>✓</i>	1.662	0.1497	pCi/g	0.1683	0.100	238.6	2	1.238 IDENTIFIED	6.741	☐
Lead-214 <i>✓</i>	1.896	0.1544	pCi/g	0.1596	0.100	351.9	2	1.367 IDENTIFIED	5.832	☐
Molybdenum-99 HE	45.15	61.44	pCi/g	0	N	0	9	0 SHORT_HLIF	0	☐
Neptunium-237 HE	1.016	0.2518	pCi/g	0.5562	N	87.31	3	1.34 IDENTIFIED	21.58	☐
Niobium-95m <i>u</i>	0.6765	0.12	pCi/g	0.3867	N	0	9	0 NOT_IDENTI	0	☐
Potassium-40 <i>✓</i>	32.17	1.923	pCi/g	0.666	1.00	1460	1	2.27 IDENTIFIED	3.404	☐
Promethium-149 HE	334.2	771.4	pCi/g	0	N	0	9	0 SHORT_HLIF	0	☐
Radium-226 <i>✓</i>	1.408	0.1272	pCi/g	0.1442	Y	609	2	1.554 IDENTIFIED	7.542	☐
Radium-228 <i>✓</i>	2.131	0.2384	pCi/g	0.2866	0.500	910.9	3	1.725 IDENTIFIED	9.403	☐
Strontium-85 <i>u</i>	0.1793	0.0315	pCi/g	0.1084	Y	0	9	0 NOT_IDENTI	0	☐ <i>UI Data rejected due to low abundance.</i>
Thallium-208 <i>✓</i>	0.7362	0.06315	pCi/g	0.07633	0.080	583.1	1	1.375 IDENTIFIED	7.257	☐
Thorium-228 <i>u</i>	1.662	0.1497	pCi/g	0.1683	N	238.6	2	1.238 IDENTIFIED	6.741	☐
Thorium-232 <i>u</i>	2.131	0.2384	pCi/g	0.2866	N	910.9	3	1.725 IDENTIFIED	9.403	☐
Tin-126 <i>u</i>	0.3406	0.07645	pCi/g	0.1829	N	87.31	3	1.34 IDENTIFIED	21.58	☐

\*\*\* = 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
1202057348		18-MAR-10 15:39	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	1.69	0.4512	pCi/g	1.024	N	0	8	0 FAIL_ABUND	0	☐
Americium-241 <i>✓</i>	13.96	0.6188	pCi/g	0.2009	0.200	59.57	1	0.6335 IDENTIFIED	1.29	☐
Barium-137m	6.06	0.3728	pCi/g	0.1389	N	661.4	2	1.262 IDENTIFIED	2.714	☐
Bismuth-211	2.589	0.4033	pCi/g	0.6432	Y	352.1	2	1.074 IDENTIFIED	14.91	☐
Bismuth-214	1.203	0.1508	pCi/g	0.4509	0.200	0	8	0 FAIL_ABUND	0	☐
Cadmium-109	36.54	1.933	pCi/g	1.343	Y	87.98	3	0.7796 IDENTIFIED	2.424	☐
Cerium-143	224.8	104.7	pCi/g	0	N	0	8	0 SHORT_HLIF	0	☐
Cesium-137 <i>✓</i>	6.401	0.3942	pCi/g	0.1468	0.100	661.4	2	1.262 IDENTIFIED	2.714	☐
Cobalt-57	0.2369	0.03176	pCi/g	0.05354	N	121.9	1	0.6757 IDENTIFIED	12.12	☐
Cobalt-60 <i>✓</i>	7.047	0.3572	pCi/g	0.08342	0.100	1332	1	1.919 IDENTIFIED	3.037	☐
Gross Gamma	29.96	2.663	pCi/g	3.566	N	0				☐

Lead-212	1.329	0.1151	pCi/g 0.1745	0.100	238.5	2	0.905	IDENTIFIED	7.078	<input type="checkbox"/>
Lead-214	0.9398	0.1487	pCi/g 0.2341	0.100	352.1	2	1.074	IDENTIFIED	14.91	<input type="checkbox"/>
Neptunium-237	10.66	1.252	pCi/g 0.3897	N	87.98	3	0.7796	IDENTIFIED	2.424	<input type="checkbox"/>
Radium-224	3.309	0.7916	pCi/g 2.007	Y	242.1	1	1.117	IDENTIFIED	23.5	<input type="checkbox"/>
Radium-226	1.203	0.1508	pCi/g 0.4509	Y	0	8	0	FAIL_ABUND	0	<input type="checkbox"/>
Radium-228	1.69	0.4512	pCi/g 1.024	0.500	0	8	0	FAIL_ABUND	0	<input type="checkbox"/>
Sodium-24 HE	1.41E+05	2.27E+05	pCi/g 0	N	0	8	0	SHORT_HLIF	0	<input type="checkbox"/>
Technetium-99m HE	6.53E+15	6.99E+15	pCi/g 0	N	0	8	0	SHORT_HLIF	0	<input type="checkbox"/>
Thallium-208	0.5838	0.08736	pCi/g 0.1339	0.080	583	1	1.154	IDENTIFIED	13.94	<input type="checkbox"/>
Thorium-228	1.329	0.1151	pCi/g 0.1745	N	238.5	2	0.905	IDENTIFIED	7.078	<input type="checkbox"/>
Thorium-232 HE	1.69	0.4512	pCi/g 1.024	N	0	8	0	FAIL_ABUND	0	<input type="checkbox"/>
Tin-126	3.574	0.1891	pCi/g 0.1311	N	87.98	3	0.7796	IDENTIFIED	2.424	<input type="checkbox"/>

\*\*\* = Number of isotopes identified with a keyline at this energy.

# Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Paramname	Result	Uncertainty	Units	DL	RDL
959279	248202001	SAMPLE	18-MAR-10	Thorium-234	2.682	0.869	pCi/g	1.081	2.00
959279	248202002	SAMPLE	18-MAR-10	Antimony-127	13.3	4.07	pCi/g	7.428	N
				Bismuth-211	4.272	0.3545	pCi/g	0.2095	Y
				Bismuth-214	1.264	0.1377	pCi/g	0.08503	0.200
				Cadmium-109	4.185	0.5441	pCi/g	0.5464	Y
				Cerium-143	30500	6123	pCi/g	0	N
				Cesium-134	0.1293	0.04171	pCi/g	0.07677	0.100
				Cesium-137	0.7662	0.06592	pCi/g	0.045	0.100
				Gross Gamma	10.09	1.338	pCi/g	2.073	N
				Lead-212	1.702	0.1128	pCi/g	0.0506	0.100
				Lead-214	1.55	0.1356	pCi/g	0.07571	0.100
				Potassium-40	26.26	1.616	pCi/g	0.3718	1.00
				Promethium-149	874.7	650.5	pCi/g	0	N
				Radium-224	5.706	0.823	pCi/g	0.5428	Y
				Radium-226	1.264	0.1377	pCi/g	0.08503	Y
				Radium-228	1.595	0.2885	pCi/g	0.1568	0.500
				Thallium-208	0.5434	0.06129	pCi/g	0.041	0.080
				Thorium-234	3.049	0.6358	pCi/g	0.6063	2.00
959279	1202057346	MB	18-MAR-10	Cerium-143	29.16	22.7	pCi/g	0	N
				Lead-212	0.05139	0.02157	pCi/g	0.02984	0.100
				Molybdenum-99	5.512	2.642	pCi/g	4.85	N
				Thorium-234	1.6	0.6398	pCi/g	0.7718	2.00
959279	1202057347	DUP	18-MAR-10	Bismuth-211	5.224	0.4003	pCi/g	0.2268	Y
				Bismuth-214	1.408	0.1272	pCi/g	0.07217	0.200
				Cadmium-109	3.526	0.7916	pCi/g	0.9402	Y
				Cadmium-115	114.2	87.55	pCi/g	0	N
				Cerium-143	58860	10070	pCi/g	0	N
				Cesium-134	0.09128	0.03053	pCi/g	0.05611	0.100
				Cesium-137	0.1137	0.0294	pCi/g	0.04327	0.100
				Gross Gamma	10.95	1.564	pCi/g	1.981	N
				Iodine-133	4.17E+05	2.43E+06	pCi/g	0	N
				Lead-212	1.862	0.1497	pCi/g	0.08421	0.100
				Lead-214	1.896	0.1544	pCi/g	0.07984	0.100
				Molybdenum-99	45.15	61.44	pCi/g	0	N
				Potassium-40	32.17	1.923	pCi/g	0.3332	1.00
				Promethium-149	334.2	771.4	pCi/g	0	N
				Protactinium-234m	8.127	3.215	pCi/g	5.726	N

## VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 15:11:13.85

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*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248202001.CNF;1
Sample date        : 23-FEB-2010 12:00:00 Acquisition date : 18-MAR-2010 13:10:38
Sample ID          : G248202001 Sample quantity : 1.26410E+02 GRAM
Detector name      : GAM14 Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00 Elapsed real time: 0 02:00:01.68 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity : 5.00000
Batch ID           : 959279 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	63.55*	156	652	1.31	126.66	122	9	2.17E-02	31.2	
2	1	74.87	807	729	1.49	149.28	141	20	1.12E-01	7.4	2.89E+00
3	1	77.13*	1026	615	1.37	153.79	141	20	1.42E-01	5.6	
4	2	87.41	219	847	1.55	174.33	169	23	3.04E-02	23.5	2.73E+00
5	2	90.02	172	564	1.15	179.54	169	23	2.38E-02	24.4	
6	2	92.90*	362	652	1.72	185.29	169	23	5.02E-02	15.9	
7	0	105.28	99	435	1.57	210.03	206	9	1.37E-02	39.5	
8	0	129.67	143	564	0.87	258.75	254	11	1.99E-02	33.2	
9	0	186.05*	248	375	1.28	371.42	367	9	3.45E-02	16.0	
10	0	209.42	184	358	1.37	418.12	414	10	2.55E-02	20.6	
11	4	238.60*	1832	314	1.59	476.42	469	19	2.55E-01	3.0	5.15E+00
12	4	241.46	384	321	1.78	482.14	469	19	5.33E-02	13.0	
13	0	270.07	117	348	1.48	539.31	531	13	1.63E-02	34.1	
14	0	276.85	124	247	2.00	552.86	547	12	1.72E-02	26.8	
15	3	295.19	535	200	1.46	589.51	583	23	7.43E-02	6.5	1.10E+00
16	3	300.08	167	269	1.97	599.29	583	23	2.32E-02	20.9	
17	3	327.76	97	220	1.59	654.61	647	17	1.35E-02	30.1	1.22E+00
18	3	330.39	52	198	1.48	659.87	647	17	7.22E-03	51.8	
19	0	338.26	355	254	1.34	675.59	670	14	4.93E-02	10.8	
20	0	351.87*	926	234	1.56	702.79	696	14	1.29E-01	4.8	
21	0	462.92	99	161	1.22	924.75	919	12	1.37E-02	27.8	
22	0	511.27*	184	200	2.35	1021.41	1014	20	2.55E-02	22.1	
23	0	569.26*	192	156	1.91	1137.33	1131	13	2.67E-02	15.5	
24	0	583.37*	490	162	1.47	1165.53	1160	14	6.80E-02	7.3	
25	0	609.41*	611	155	1.43	1217.60	1210	14	8.49E-02	6.0	
26	0	727.90*	104	124	2.50	1454.51	1448	14	1.44E-02	24.9	
27	0	768.94	75	99	1.86	1536.55	1528	13	1.04E-02	28.7	
28	0	785.01	59	104	1.46	1568.69	1561	16	8.14E-03	41.1	
29	0	861.31	46	58	1.09	1721.27	1714	11	6.44E-03	35.0	
30	0	911.66*	411	99	1.68	1821.96	1814	17	5.71E-02	7.5	
31	2	965.14	79	57	1.97	1928.93	1922	25	1.09E-02	22.3	2.39E+00
32	2	969.53	238	56	2.29	1937.71	1922	25	3.30E-02	9.5	
33	0	1120.98*	128	84	2.10	2240.66	2230	16	1.78E-02	18.3	
34	0	1461.57*	1409	30	2.11	2922.11	2912	20	1.96E-01	2.8	
35	0	1765.47*	104	9	1.73	3530.41	3524	13	1.45E-02	11.8	

Flag: "\*" = Peak area was modified by background subtraction

## VMS Nuclide Identification Report V3.1 Generated 18-MAR-2010 15:11:16

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248202001.CNF;1  
 Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8  
 Sample title : MXR1  
 Sample date : 23-FEB-2010 12:00:00 Acquisition date : 18-MAR-2010 13:10:38  
 Sample ID : G248202001 Sample quantity : 126.41 GRAM  
 Sample type : SOLID Sample geometry :  
 Detector name : GAMMA14 Detector geometry: CAN  
 Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.68 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	*	3.242E+01	2.990E+00	5.518E-01	4.007E-02	58.750
CD-109	+	88.03	*	2.573E+00	1.231E+00	1.386E+00	1.212E-01	1.856
SN-126	+	64.28		1.034E+00	6.613E-01	7.988E-01	1.138E-01	1.294
	+	86.94		1.033E+00	6.473E-01	5.612E-01	2.321E-01	1.841
	+	87.57	*	2.485E-01	1.189E-01	1.344E-01	1.169E-02	1.850
EU-155	+	86.55		3.023E-01	1.447E-01	1.830E-01	1.588E-02	1.652
	+	105.31	*	1.834E-01	1.456E-01	1.863E-01	1.441E-02	0.984
TL-208	+	277.37		1.115E+00	6.103E-01	6.293E-01	6.796E-02	1.771
	+	583.19	*	6.207E-01	9.956E-02	5.983E-02	4.082E-03	10.375
	+	860.56		5.670E-01	4.001E-01	4.607E-01	4.333E-02	1.231
BI-211		72.87		1.977E+01	3.920E+00	6.633E+00	4.888E-01	2.981
	+	351.06	*	5.095E+00	5.899E-01	3.413E-01	2.163E-02	14.928
BI-212	+	727.33	*	2.036E+00	1.042E+00	8.898E-01	1.005E-01	2.289
	+	785.37		7.475E+00	6.167E+00	4.966E+00	3.798E-01	1.505
		1620.50		6.207E-01	2.151E+00	3.668E+00	2.403E-01	0.169
PB-212	+	74.82		3.831E+00	7.359E-01	5.947E-01	7.310E-02	6.442
	+	77.11		2.824E+00	3.839E-01	3.452E-01	2.658E-02	8.179
	+	238.63	*	2.242E+00	2.133E-01	9.980E-02	7.333E-03	22.460
	+	300.09		3.187E+00	1.356E+00	1.304E+00	1.096E-01	2.444
BI-214	+	609.32	*	1.502E+00	2.155E-01	1.234E-01	9.843E-03	12.176
	+	1120.29		1.673E+00	6.305E-01	5.551E-01	5.175E-02	3.014
	+	1764.49		1.911E+00	4.669E-01	3.821E-01	2.292E-02	5.001
PB-214	+	74.82		6.790E+00	1.247E+00	1.054E+00	1.152E-01	6.442
	+	77.11		4.978E+00	7.916E-01	6.086E-01	6.867E-02	8.179
	+	242.00		2.846E+00	7.745E-01	6.032E-01	4.924E-02	4.718
	+	295.22		1.806E+00	2.814E-01	2.305E-01	2.016E-02	7.833
	+	351.93	*	1.849E+00	2.372E-01	1.241E-01	1.042E-02	14.897
RA-224	+	240.99	*	5.032E+00	1.338E+00	1.069E+00	6.145E-02	4.706
RA-226	+	609.32	*	1.502E+00	2.155E-01	1.234E-01	9.843E-03	12.176
	+	1120.29		1.673E+00	6.305E-01	5.551E-01	5.175E-02	3.014
	+	1764.49		1.911E+00	4.669E-01	3.821E-01	2.292E-02	5.001
AC-228	+	338.32		2.173E+00	1.012E+00	3.915E-01	1.614E-01	5.550
	+	911.20	*	2.569E+00	4.931E-01	2.526E-01	3.051E-02	10.171
	+	968.97		2.566E+00	7.947E-01	4.111E-01	1.002E-01	6.242



---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	+	338.32		2.173E+00	1.012E+00	3.915E-01	1.614E-01	5.550
	+	911.20	*	2.569E+00	4.931E-01	2.526E-01	3.051E-02	10.171
	+	968.97		2.566E+00	7.947E-01	4.111E-01	1.002E-01	6.242
TH-228	+	74.82		3.831E+00	6.361E-01	5.947E-01	4.523E-02	6.442
	+	77.11		2.824E+00	3.839E-01	3.452E-01	2.658E-02	8.179
	+	238.63	*	2.242E+00	2.133E-01	9.980E-02	7.333E-03	22.460
	+	300.09		3.187E+00	2.352E+00	1.304E+00	7.938E-01	2.444
TH-232	+	338.32		2.173E+00	4.868E-01	3.915E-01	2.249E-02	5.550
	+	911.20	*	2.569E+00	4.931E-01	2.526E-01	3.051E-02	10.171
	+	968.97		2.566E+00	7.947E-01	4.111E-01	1.002E-01	6.242
TH-234	+	63.29	*	2.682E+00	1.738E+00	2.066E+00	3.632E-01	1.298
	+	92.59		3.469E+00	1.344E+00	1.139E+00	2.504E-01	3.045
U-235	+	89.96		2.041E+00	1.115E+00	1.410E+00	3.467E-01	1.448
	+	93.35		2.621E+00	1.030E+00	8.573E-01	1.970E-01	3.057
		143.76	*	1.901E-01	2.370E-01	3.846E-01	6.103E-02	0.494
		163.33		3.231E-01	4.829E-01	7.871E-01	1.312E-01	0.411
	+	185.72		1.975E-01	6.413E-02	7.323E-02	4.011E-03	2.697
		205.31		-1.357E-01	5.756E-01	8.321E-01	1.408E-01	-0.163
NP-237	+	86.48	*	7.415E-01	3.874E-01	4.490E-01	1.017E-01	1.651
		95.86		8.242E-01	1.186E+00	1.703E+00	4.056E-01	0.484
U-238	+	63.29	*	2.682E+00	1.738E+00	2.066E+00	3.632E-01	1.298
	+	92.59		3.469E+00	1.144E+00	1.139E+00	9.513E-02	3.045
ANH-511	+	511.00	*	1.770E-01	7.879E-02	4.847E-02	2.848E-03	3.651

---- 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	*	-7.462E-02	3.883E-01	6.289E-01	4.237E-02	-0.119
NA-22		1274.54	*	-3.990E-02	4.744E-02	7.155E-02	4.674E-03	-0.558
NA-24		1368.63	*	4.499E+03	4.744E-02	Half-Life too short		
SC-46		889.28	*	-4.971E-04	4.452E-02	7.443E-02	6.878E-03	-0.007
	+	1120.55		3.022E-01	1.121E-01	1.505E-01	9.747E-03	2.007
V-48		944.13		-9.767E-03	1.302E+00	2.172E+00	1.941E-01	-0.004
		983.53	*	-1.461E-02	1.058E-01	1.742E-01	1.479E-02	-0.084
		1312.11		-3.360E-02	1.173E-01	1.868E-01	1.291E-02	-0.180
CR-51		320.08	*	-2.375E-01	5.519E-01	8.117E-01	5.237E-02	-0.293
MN-54		834.85	*	1.218E-02	4.312E-02	7.367E-02	6.179E-03	0.165
CO-56		846.77	*	-1.011E-02	4.577E-02	7.544E-02	6.466E-03	-0.134
		1037.84		-4.826E-01	3.653E-01	5.325E-01	4.407E-02	-0.906
		1238.28		1.942E-01	1.103E-01	2.021E-01	1.313E-02	0.961
		1771.35		-1.443E-01	2.832E-01	3.287E-01	1.962E-02	-0.439
CO-57		122.06	*	-6.799E-03	2.869E-02	4.578E-02	3.257E-03	-0.149
		136.47		2.769E-01	2.475E-01	3.989E-01	2.924E-02	0.694
CO-58		810.76	*	-2.842E-02	4.679E-02	7.097E-02	5.711E-03	-0.400
FE-59		1099.45	*	-3.258E-02	1.126E-01	1.820E-01	1.401E-02	-0.179
		1291.59		-9.030E-04	1.605E-01	2.639E-01	2.148E-02	-0.003
CO-60		1173.23		2.371E-02	5.049E-02	8.647E-02	4.763E-03	0.274
		1332.49	*	-1.610E-02	4.579E-02	7.246E-02	5.164E-03	-0.222

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZN-65	1115.54	*		4.179E-04	1.195E-01	1.703E-01	1.120E-02	0.002
SE-75	121.12			-2.971E-02	1.531E-01	2.447E-01	2.440E-02	-0.121
	136.00			6.876E-02	4.988E-02	7.813E-02	5.162E-03	0.880
	264.66	*		-9.937E-04	5.740E-02	8.327E-02	4.890E-03	-0.012
	279.54			6.200E-02	1.402E-01	2.086E-01	1.315E-02	0.297
	400.66			-4.802E-02	3.014E-01	4.930E-01	4.374E-02	-0.097
SR-85	514.00	*		1.327E-01	4.822E-02	8.900E-02	5.234E-03	1.491
Y-88	898.04			7.104E-03	4.733E-02	8.006E-02	7.542E-03	0.089
	1836.06	*		-1.801E-02	3.421E-02	4.867E-02	2.764E-03	-0.370
Y-91	1204.77	*		-1.883E+00	2.516E+01	4.126E+01	2.400E+00	-0.046
NB-94	702.65	*		-1.336E-02	3.763E-02	5.915E-02	3.836E-03	-0.226
	871.09			2.855E-02	3.622E-02	6.419E-02	5.746E-03	0.445
NB-95	765.81	*		8.268E-02	5.958E-02	9.371E-02	6.901E-03	0.882
NB-95M	235.69	*		8.877E-01	1.953E-01	3.218E-01	2.413E-02	2.758
ZR-95	724.19			5.317E-02	1.345E-01	1.942E-01	1.492E-02	0.274
	756.73	*		1.128E-01	8.923E-02	1.564E-01	1.297E-02	0.721
MO-99	140.51			-3.801E-04	8.923E-02	Half-Life	too short	
	181.07			2.842E-05	8.923E-02	Half-Life	too short	
	366.42			1.567E-04	8.923E-02	Half-Life	too short	
	739.50	*		4.527E-05	8.923E-02	Half-Life	too short	
	777.92			-1.987E-04	8.923E-02	Half-Life	too short	
TC-99M	140.51	*		-2.925E+20	8.923E-02	Half-Life	too short	
RU-103	497.08	*		2.846E-02	5.064E-02	8.555E-02	1.065E-02	0.333
	610.33	+		1.784E+01	3.435E+00	3.645E+00	5.512E-01	4.894
RH-106	621.93	*		2.730E-01	3.290E-01	5.645E-01	6.611E-02	0.484
	1050.41			-1.757E+00	2.730E+00	4.269E+00	3.243E-01	-0.412
RU-106	621.93	*		2.730E-01	3.279E-01	5.645E-01	3.375E-02	0.484
	1050.41			-1.757E+00	2.730E+00	4.269E+00	3.243E-01	-0.412
AG-108M	433.94	*		-3.592E-02	3.361E-02	5.179E-02	3.134E-03	-0.693
	614.28			2.039E-02	3.949E-02	5.842E-02	3.729E-03	0.349
	722.91			2.588E-02	4.756E-02	6.986E-02	4.968E-03	0.370
AG-110M	657.76	*		-5.266E-02	4.292E-02	6.330E-02	3.999E-03	-0.832
	677.62			-1.931E-01	3.649E-01	5.666E-01	3.681E-02	-0.341
	706.68			7.074E-02	2.371E-01	3.911E-01	2.685E-02	0.181
	763.94			-5.712E-02	2.168E-01	2.918E-01	2.222E-02	-0.196
	884.68			-4.995E-03	5.467E-02	9.083E-02	8.563E-03	-0.055
	937.49			-1.829E-02	1.269E-01	2.094E-01	1.949E-02	-0.087
	1384.29			-1.321E-01	2.022E-01	3.084E-01	2.269E-02	-0.428
	1505.03			-2.997E-01	3.161E-01	4.474E-01	3.074E-02	-0.670
SN-113	391.69	*		-2.597E-02	5.183E-02	8.324E-02	4.871E-03	-0.312
CD-115	260.90			-8.514E-04	5.183E-02	Half-Life	too short	
	492.35			-4.678E-04	5.183E-02	Half-Life	too short	
	527.90	*		3.477E-05	5.183E-02	Half-Life	too short	
SN-117M	156.02			3.282E+00	3.963E+00	6.521E+00	3.754E-01	0.503
	158.56	*		2.236E-02	9.605E-02	1.550E-01	8.766E-03	0.144
TE-123M	159.00	*		-3.525E-03	3.454E-02	5.505E-02	3.148E-03	-0.064
SB-124	602.73			-3.364E-02	5.655E-02	7.486E-02	4.480E-03	-0.449
	645.85			-4.128E-01	5.470E-01	8.297E-01	5.526E-02	-0.497
	722.78			3.053E-01	5.247E-01	7.734E-01	5.422E-02	0.395

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-125		1690.97	*	5.742E-02	9.756E-02	1.725E-01	1.171E-02	0.333
		427.87	*	-4.168E-02	1.046E-01	1.684E-01	9.856E-03	-0.247
	+	463.37		8.418E-01	4.716E-01	5.941E-01	3.967E-02	1.417
		600.60		8.354E-02	2.066E-01	3.357E-01	2.306E-02	0.249
TE-125M		635.95		2.643E-01	3.034E-01	5.213E-01	3.620E-02	0.507
		109.28	*	-3.018E+00	1.389E+01	1.937E+01	1.856E+00	-0.156
	I-126	388.63		1.818E-01	2.811E-01	4.792E-01	2.618E-02	0.379
		666.33	*	-1.620E-01	4.055E-01	6.383E-01	3.833E-02	-0.254
SB-126		753.82		-3.447E-01	3.185E+00	5.085E+00	3.658E-01	-0.068
		414.70		-1.852E-01	1.293E-01	1.950E-01	1.082E-02	-0.950
		666.50		-5.975E-02	1.418E-01	2.229E-01	1.339E-02	-0.268
		695.00		-1.482E-02	1.425E-01	2.285E-01	1.459E-02	-0.065
SB-127		697.00		-1.850E-01	4.869E-01	7.651E-01	4.904E-02	-0.242
		720.70	*	4.294E-01	2.706E-01	4.513E-01	3.038E-02	0.952
		856.80		2.543E-02	8.310E-01	1.206E+00	1.052E-01	0.021
		252.40		1.735E+01	2.025E+01	3.279E+01	1.372E+01	0.529
I-131		473.00		5.058E-01	7.204E+00	1.186E+01	1.628E+00	0.043
		685.70	*	-4.105E+00	6.318E+00	9.680E+00	1.226E+00	-0.424
	+	783.70		3.479E+01	2.901E+01	3.029E+01	4.313E+00	1.149
		80.19		-8.246E+00	1.138E+01	1.569E+01	1.272E+00	-0.526
TE-132		284.31		-1.278E+00	3.235E+00	5.152E+00	3.382E-01	-0.248
		364.49	*	1.696E-01	2.456E-01	4.202E-01	2.695E-02	0.404
		636.99		2.422E+00	3.345E+00	5.704E+00	3.855E-01	0.424
		49.72		-9.169E+01	7.806E+01	1.213E+02	1.487E+01	-0.756
BA-133		111.76		-2.795E+01	2.137E+02	3.431E+02	4.381E+01	-0.081
		116.30		4.439E+00	1.844E+02	2.973E+02	3.774E+01	0.015
		228.16	*	4.673E+00	4.483E+00	7.687E+00	1.264E+00	0.608
		81.00		-2.833E-01	1.523E-01	1.561E-01	2.374E-02	-1.815
I-133	+	276.40		1.032E+00	5.689E-01	6.958E-01	8.768E-02	1.483
		302.85		2.411E-01	1.658E-01	2.587E-01	2.955E-02	0.932
		356.01	*	5.707E-03	4.765E-02	6.907E-02	7.742E-03	0.083
		383.85		-2.126E-02	3.233E-01	5.321E-01	5.589E-02	-0.040
CS-134		529.87	*	-7.557E-01	3.233E-01	Half-Life	too short	
		875.33		-2.086E+01	3.233E-01	Half-Life	too short	
		1298.22		9.733E+00	3.233E-01	Half-Life	too short	
	+	563.25		2.310E-01	4.544E-01	6.703E-01	4.075E-02	0.345
CS-135		569.33		1.346E+00	4.265E-01	6.005E-01	3.684E-02	2.241
		604.72		-7.769E-03	4.516E-02	6.236E-02	3.750E-03	-0.125
		795.86	*	8.372E-02	5.477E-02	9.702E-02	7.636E-03	0.863
		801.95		1.658E-01	4.632E-01	7.643E-01	6.073E-02	0.217
I-135		1365.19		-8.432E-01	1.427E+00	2.180E+00	1.652E-01	-0.387
		268.22	*	2.862E-01	1.889E-01	3.157E-01	2.422E-02	0.907
		546.56		5.100E+18	1.889E-01	Half-Life	too short	
		836.80		1.147E+19	1.889E-01	Half-Life	too short	
I-135		1038.76		-1.145E+19	1.889E-01	Half-Life	too short	
		1131.51		-1.452E+18	1.889E-01	Half-Life	too short	
		1260.41	*	-1.847E+18	1.889E-01	Half-Life	too short	
		1457.56		1.368E+20	1.889E-01	Half-Life	too short	
		1678.03		9.151E+17	1.889E-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	1791.20			5.104E+18	1.889E-01	Half-Life	too short	
	153.25			5.339E-01	1.495E+00	2.424E+00	1.964E-01	0.220
	176.60			-1.788E-01	8.739E-01	1.383E+00	9.354E-02	-0.129
	273.65			-1.984E-01	1.344E+00	1.283E+00	8.818E-02	-0.155
	340.55			1.079E+00	2.999E-01	5.066E-01	3.157E-02	2.130
	818.51			-1.894E-02	1.148E-01	1.902E-01	1.552E-02	-0.100
BA-137M	1048.07	*		-6.140E-02	1.772E-01	2.855E-01	2.298E-02	-0.215
	1235.36			-8.826E-01	1.029E+00	1.586E+00	1.600E-01	-0.557
	661.66	*		3.570E-02	4.337E-02	7.383E-02	4.390E-03	0.484
	661.66	*		3.772E-02	4.582E-02	7.799E-02	4.656E-03	0.484
	165.86	*		-2.051E-02	3.470E-02	5.414E-02	2.907E-03	-0.379
	162.66			3.607E-01	1.378E+00	2.226E+00	1.417E-01	0.162
BA-140	304.85			3.051E-01	2.397E+00	3.491E+00	9.975E-01	0.087
	423.72			-6.540E-01	3.251E+00	5.280E+00	1.702E+00	-0.124
	537.26	*		-1.053E-01	4.531E-01	7.128E-01	2.376E-01	-0.148
	328.76	+		1.131E+00	6.850E-01	9.818E-01	6.372E-02	1.152
	487.02			3.095E-03	2.187E-01	3.585E-01	2.358E-02	0.009
	815.77			1.642E-01	5.111E-01	8.793E-01	8.061E-02	0.187
CE-141	1596.21	*		5.117E-02	1.477E-01	2.513E-01	1.666E-02	0.204
	145.44	*		1.766E-01	8.623E-02	1.467E-01	9.366E-03	1.203
	57.36			3.811E-02	8.623E-02	Half-Life	too short	
	293.27	*		6.616E-02	8.623E-02	Half-Life	too short	
	664.57			9.075E-03	8.623E-02	Half-Life	too short	
	721.93			8.298E-02	8.623E-02	Half-Life	too short	
CE-144	80.12			-2.056E+00	3.167E+00	4.380E+00	3.487E-01	-0.469
	133.52	*		-9.441E-02	2.678E-01	3.683E-01	5.251E-02	-0.256
	476.78			-4.287E-02	7.218E-02	1.139E-01	7.800E-03	-0.377
	618.01			-4.164E-03	3.384E-02	5.305E-02	3.357E-03	-0.078
	696.49	*		-2.679E-02	4.061E-02	6.243E-02	4.003E-03	-0.429
	696.51	*		-2.006E+00	3.052E+00	4.694E+00	3.005E-01	-0.427
PM-144	1489.16			2.267E+00	1.533E+01	2.550E+01	1.761E+00	0.089
	453.88	*		3.720E-03	4.780E-02	7.885E-02	6.618E-03	0.047
	633.25			3.779E-01	1.541E+00	2.534E+00	9.549E-01	0.149
	735.93			5.836E-02	1.790E-01	2.781E-01	7.664E-02	0.210
	747.24			-3.661E-02	1.104E-01	1.728E-01	2.375E-02	-0.212
	91.11	+		1.091E+00	5.413E-01	9.699E-01	8.922E-02	1.124
ND-147	319.41			-1.888E+00	6.405E+00	9.879E+00	5.737E-01	-0.191
	531.02	*		-3.599E-01	9.773E-01	1.553E+00	2.108E-01	-0.232
	285.90	*		7.353E-04	9.773E-01	Half-Life	too short	
	121.78			-1.801E-02	8.103E-02	1.294E-01	1.116E-02	-0.139
	244.70			6.606E-01	3.807E-01	6.053E-01	3.487E-02	1.091
	344.28	*		-7.661E-02	1.420E-01	1.695E-01	1.096E-02	-0.452
EU-152	778.90			-1.928E-01	3.408E-01	4.395E-01	3.320E-02	-0.439
	964.08	+		9.159E-01	4.167E-01	6.355E-01	5.541E-02	1.441
	1085.87			-9.517E-02	4.408E-01	7.179E-01	5.064E-02	-0.133
	1112.07			3.038E-01	3.773E-01	5.886E-01	3.897E-02	0.516
	1408.01			1.466E-01	1.903E-01	3.390E-01	2.389E-02	0.432
	69.67			1.876E+00	2.090E+00	3.070E+00	2.195E-01	0.611
GD-153	97.43	*		1.180E-01	1.055E-01	1.562E-01	1.253E-02	0.755

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-154		103.18	-8.311E-03	1.419E-01	1.996E-01	1.540E-02	-0.042
		123.07	-9.382E-04	6.011E-02	9.328E-02	9.531E-03	-0.010
		723.31	4.128E-03	2.265E-01	3.154E-01	2.476E-02	0.013
		873.19	1.300E-01	3.069E-01	5.298E-01	6.444E-02	0.245
		996.26	-3.087E-01	3.922E-01	6.034E-01	1.046E-01	-0.512
TB-160		1004.73	3.541E-02	2.319E-01	3.907E-01	4.434E-02	0.091
		1274.44	* -1.126E-01	1.341E-01	2.019E-01	1.996E-02	-0.558
	+	86.79	8.626E-01	4.128E-01	5.797E-01	4.996E-02	1.488
		197.04	-5.012E-01	6.334E-01	1.024E+00	5.677E-02	-0.489
		215.65	1.072E+00	9.424E-01	1.513E+00	8.536E-02	0.709
		298.57	4.241E-01	1.399E-01	2.557E-01	1.491E-02	1.659
		879.36	* 8.040E-02	1.631E-01	2.831E-01	2.571E-02	0.284
		962.29	6.864E-01	7.060E-01	1.112E+00	9.718E-02	0.617
	+	966.15	6.896E-01	3.137E-01	5.883E-01	5.115E-02	1.172
		1177.93	-3.152E-01	4.321E-01	6.702E-01	3.722E-02	-0.470
HO-166M		1271.85	-5.030E-01	8.608E-01	1.339E+00	8.694E-02	-0.376
		80.57	-6.456E-01	3.733E-01	4.500E-01	3.602E-02	-1.435
		184.41	1.391E-01	4.710E-02	7.654E-02	4.186E-03	1.817
		280.46	-3.006E-02	1.006E-01	1.430E-01	8.341E-03	-0.210
		410.95	4.066E-01	2.757E-01	4.862E-01	2.690E-02	0.836
		711.68	* -3.806E-02	6.764E-02	1.043E-01	6.895E-03	-0.365
		752.31	-3.333E-01	3.156E-01	4.635E-01	3.324E-02	-0.719
TA-182		810.29	-2.341E-02	6.366E-02	9.876E-02	7.917E-03	-0.237
		67.75	1.201E-01	1.870E-01	1.998E-01	1.405E-02	0.601
		100.11	1.306E-01	2.504E-01	3.376E-01	2.657E-02	0.387
		152.43	2.761E-01	4.172E-01	6.835E-01	4.029E-02	0.404
		222.11	4.974E-01	3.868E-01	6.776E-01	3.843E-02	0.734
	+	1121.30	8.227E-01	3.051E-01	4.082E-01	2.637E-02	2.016
		1189.05	-5.126E-02	3.673E-01	5.998E-01	3.396E-02	-0.085
IR-192		1221.41	* -1.534E-02	2.320E-01	3.807E-01	2.277E-02	-0.040
		1231.02	1.857E-01	5.531E-01	9.346E-01	5.680E-02	0.199
	+	295.96	1.438E+00	2.042E-01	3.434E-01	2.035E-02	4.189
		308.46	-1.195E-01	1.103E-01	1.735E-01	1.021E-02	-0.689
		316.51	* -1.842E-02	4.177E-02	6.799E-02	3.969E-03	-0.271
		468.07	-2.491E-02	8.405E-02	1.160E-01	7.724E-03	-0.215
HG-203		70.83	1.435E+00	1.831E+00	2.662E+00	4.088E-01	0.539
		72.87	5.540E+00	1.311E+00	1.858E+00	2.765E-01	2.981
		279.20	* 3.645E-02	5.379E-02	8.103E-02	4.985E-03	0.450
BI-207		72.81	1.068E+00	2.225E-01	3.774E-01	2.780E-02	2.831
	+	74.97	1.105E+00	1.830E-01	2.779E-01	2.092E-02	3.975
	+	569.70	2.075E-01	6.567E-02	9.152E-02	5.460E-03	2.267
		1063.66	* -1.718E-02	5.667E-02	9.161E-02	6.779E-03	-0.187
PB-210		1770.23	-5.146E-03	5.260E-01	7.252E-01	4.331E-02	-0.007
		46.54	* 7.112E-01	2.415E+00	3.973E+00	2.909E-01	0.179
		404.85	* -7.417E-01	9.307E-01	1.358E+00	6.508E-01	-0.546
PB-211		427.09	-1.022E+00	1.800E+00	2.768E+00	1.268E+00	-0.369
		832.01	-9.146E-01	1.228E+00	1.794E+00	9.293E-01	-0.510
		832.01	-9.146E-01	1.228E+00	1.794E+00	9.293E-01	-0.510
RN-219	+	271.23	6.322E-01	4.337E-01	4.815E-01	3.875E-02	1.313
		401.81	* 1.711E-01	4.746E-01	7.862E-01	1.046E-01	0.218

---- 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		-6.388E-01	3.346E-01	3.534E-01	2.844E-02	-1.808
		83.79		5.006E-02	1.898E-01	2.291E-01	1.904E-02	0.219
		94.87		1.989E+00	6.128E-01	9.430E-01	7.718E-02	2.110
		144.24		9.618E-01	7.889E-01	1.303E+00	9.827E-02	0.738
		154.21		-9.229E-02	4.510E-01	7.168E-01	5.010E-02	-0.129
	+	269.46		4.912E-01	3.360E-01	3.744E-01	2.273E-02	1.312
		323.87	*	7.265E-02	7.958E-01	1.154E+00	1.860E-01	0.063
AC-227	+	338.28		8.622E+00	2.064E+00	2.560E+00	2.616E-01	3.368
		79.69		2.032E+00	1.624E+00	2.357E+00	3.983E-01	0.862
		235.96		1.675E+00	2.601E-01	4.138E-01	3.348E-02	4.049
		256.23	*	-7.757E-02	2.717E-01	4.486E-01	4.585E-02	-0.173
	+	299.98		3.505E+00	1.512E+00	1.834E+00	2.018E-01	1.912
		304.50		7.858E-01	1.859E+00	2.759E+00	4.210E-01	0.285
		334.37		-3.752E-02	3.010E+00	2.895E+00	4.113E-01	-0.013
TH-227		79.80		1.712E+00	2.104E+00	3.030E+00	6.519E-01	0.565
		235.96		1.675E+00	2.537E-01	4.138E-01	3.033E-02	4.049
		256.23	*	-7.757E-02	2.717E-01	4.486E-01	5.390E-02	-0.173
	+	299.98		3.505E+00	1.512E+00	1.834E+00	2.018E-01	1.912
		304.50		7.858E-01	1.859E+00	2.759E+00	4.210E-01	0.285
		334.37		-3.752E-02	3.010E+00	2.895E+00	4.113E-01	-0.013
		85.43		7.330E-01	2.764E-01	4.180E-01	3.543E-02	1.753
TH-229	+	88.47		3.831E-01	1.833E-01	2.661E-01	2.316E-02	1.440
		193.51	*	7.215E-02	5.412E-01	9.155E-01	5.056E-02	0.079
	+	210.85		3.211E+00	1.333E+00	1.851E+00	1.040E-01	1.735
PA-231		283.69	*	-8.786E-01	1.666E+00	2.527E+00	3.318E-01	-0.348
	+	301.36		2.252E+00	9.677E-01	1.169E+00	1.211E-01	1.926
TH-231		81.07		-6.388E-01	3.346E-01	3.534E-01	2.844E-02	-1.808
		83.79		5.006E-02	1.898E-01	2.291E-01	1.904E-02	0.219
		94.87		1.989E+00	6.128E-01	9.430E-01	7.718E-02	2.110
		144.24		9.618E-01	7.889E-01	1.303E+00	9.827E-02	0.738
		154.21		-9.229E-02	4.510E-01	7.168E-01	5.010E-02	-0.129
	+	269.46		4.912E-01	3.360E-01	3.744E-01	2.273E-02	1.312
		323.87	*	7.265E-02	7.958E-01	1.154E+00	1.860E-01	0.063
PA-233	+	338.28		8.622E+00	2.064E+00	2.560E+00	2.616E-01	3.368
	+	300.13		1.586E+00	6.948E-01	8.302E-01	1.113E-01	1.911
		311.90	*	3.570E-02	7.097E-02	1.206E-01	7.447E-03	0.296
		340.48		3.253E+00	1.121E+00	1.449E+00	3.361E-01	2.244
PA-234		94.67		8.494E-01	2.404E-01	3.523E-01	4.267E-02	2.411
		98.44		1.882E-01	1.527E-01	1.691E-01	9.418E-02	1.113
		111.00		1.104E-02	2.284E-01	3.408E-01	3.836E-02	0.032
		131.20		2.032E-01	1.395E-01	2.080E-01	1.397E-02	0.977
	+	569.50		1.841E+00	5.829E-01	8.183E-01	4.882E-02	2.250
		733.00		-7.009E-01	5.543E-01	6.346E-01	1.370E-01	-1.104
		880.51		3.253E-01	2.995E-01	5.405E-01	4.919E-02	0.602
		883.24		-1.215E-01	3.301E-01	5.196E-01	3.496E-01	-0.234
		926.50		2.039E-02	1.871E-01	3.151E-01	8.020E-02	0.065
		946.00	*	-1.779E-01	3.271E-01	5.185E-01	9.801E-02	-0.343
		949.00		2.886E-01	4.766E-01	8.322E-01	7.393E-02	0.347
		766.42		2.317E+01	1.930E+01	2.431E+01	1.228E+01	0.953
PA-234M		766.42		2.317E+01	1.930E+01	2.431E+01	1.228E+01	0.953

---- 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	*		3.630E+00	4.968E+00	8.767E+00	8.476E-01	0.414
	99.53			2.168E-01	2.173E-01	2.998E-01	2.368E-02	0.723
	103.37			6.719E-03	1.265E-01	1.790E-01	1.379E-02	0.038
	+	106.12		1.458E-01	1.157E-01	1.558E-01	1.182E-02	0.936
	117.23	*		1.893E-01	4.524E-01	7.393E-01	5.338E-02	0.256
	228.18			2.491E-01	2.352E-01	4.086E-01	2.329E-02	0.610
AM-241	+	277.60		5.094E-01	2.751E-01	3.399E-01	1.981E-02	1.499
	59.54	*		1.539E-01	1.610E-01	2.385E-01	1.770E-02	0.645
CM-247	+	278.00		2.164E+00	1.168E+00	1.431E+00	8.342E-02	1.512
	287.50			1.968E-01	1.391E+00	2.205E+00	1.287E-01	0.089
CF-249	402.40	*		2.083E-02	4.280E-02	7.139E-02	3.921E-03	0.292
	252.80			9.638E-01	1.013E+00	1.756E+00	1.015E-01	0.549
	333.37			5.597E-03	3.170E-01	3.062E-01	1.765E-02	0.018
CF-251	388.16	*		3.356E-02	4.434E-02	7.595E-02	4.151E-03	0.442
	177.52	*		-1.122E-01	1.496E-01	2.315E-01	1.257E-02	-0.485
	227.38			7.519E-02	3.827E-01	6.464E-01	3.681E-02	0.116
	285.41			1.151E+00	2.274E+00	3.874E+00	2.260E-01	0.297

# 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]G248202001      *
* Acquisition date   : 18-MAR-2010 13:10:38 Detector SN#      :              *
* Detector ID        : GAM14                      Sensitivity    : 5.000      *
* Geometry           : CAN                      Energy tolerance: 1.500      *
* Elapsed live time  : 0 02:00:00.00              Abundance limit : 75.000      *
* Elapsed real time  : 0 02:00:01.68              Half life ratio : 8.000      *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date        : 23-FEB-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID          : G248202001              Analyst initials: MXR1        *
* Batch Number       : 959279                  Sample Quantity : 1.2641E+02 GRAM *
* Recovery           : 1.00000                  Carrier Weight  : 0.00000      *
*****
*
*                                     QC DATA                              *
*
* Standard Weight    : 0.00000                      *
* CALIB. DATE/TIME   : 6-MAR-2009 11:43:06 MS Isotope      :              *
* MSD DPM             : 0.000                      MSD Isotope :              *
* LCS DPM             : 0.000                      LCS Isotope  :              *
* LCSD DPM            : 0.000                      LCSD Isotope :              *
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## Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM )	Act error	MDA (pCi/GRAM )	
K-40	3.242E+01	2.930E+00	5.515E-01	0.000E+00
CD-109	2.573E+00	1.206E+00	1.443E+00	0.000E+00
SN-126	2.485E-01	1.165E-01	1.399E-01	0.000E+00
EU-155	1.834E-01	1.427E-01	1.935E-01	0.000E+00
TL-208	6.207E-01	9.757E-02	6.062E-02	0.000E+00
BI-211	5.095E+00	5.781E-01	3.484E-01	0.000E+00
BI-212	2.036E+00	1.021E+00	8.987E-01	0.000E+00
PB-212	2.242E+00	2.090E-01	1.024E-01	0.000E+00
BI-214	1.502E+00	2.112E-01	1.250E-01	0.000E+00
PB-214	1.849E+00	2.324E-01	1.267E-01	0.000E+00
RA-224	5.032E+00	1.311E+00	1.097E+00	0.000E+00
RA-226	1.502E+00	2.112E-01	1.250E-01	0.000E+00
AC-228	2.569E+00	4.832E-01	2.543E-01	0.000E+00
RA-228	2.569E+00	4.832E-01	2.543E-01	0.000E+00
TH-228	2.242E+00	2.090E-01	1.024E-01	0.000E+00
TH-232	2.569E+00	4.832E-01	2.543E-01	0.000E+00
TH-234	2.682E+00	1.703E+00	2.160E+00	0.000E+00
U-235	1.901E-01	2.322E-01	3.976E-01	0.000E+00
NP-237	7.415E-01	3.796E-01	4.676E-01	0.000E+00
U-238	2.682E+00	1.703E+00	2.160E+00	0.000E+00
ANH-511	1.770E-01	7.722E-02	4.921E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM )	K.L. Act error ) Ided	MDA (pCi/GRAM )	
BE-7	-7.462E-02	3.805E-01	6.391E-01	0.000E+00 NOT IDENT.
NA-22	-3.990E-02	4.650E-02	7.167E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	5.140E+09	0.000E+00	0.000E+00 SHORT HLIF
SC-46	-4.971E-04	4.363E-02	7.495E-02	0.000E+00 FAIL ABUN
V-48	-1.461E-02	1.037E-01	1.752E-01	0.000E+00 NOT IDENT.
CR-51	-2.375E-01	5.409E-01	8.297E-01	0.000E+00 NOT IDENT.



MN-54	1.218E-02	4.226E-02	7.425E-02	0.000E+00	NOT IDENT.
CO-56	-1.011E-02	4.485E-02	7.602E-02	0.000E+00	NOT IDENT.
CO-57	-6.799E-03	2.812E-02	4.744E-02	0.000E+00	NOT IDENT.
CO-58	-2.842E-02	4.585E-02	7.157E-02	0.000E+00	NOT IDENT.
FE-59	-3.258E-02	1.104E-01	1.827E-01	0.000E+00	NOT IDENT.
CO-60	-1.610E-02	4.488E-02	7.253E-02	0.000E+00	NOT IDENT.
ZN-65	4.179E-04	1.171E-01	1.710E-01	0.000E+00	NOT IDENT.
SE-75	-9.937E-04	5.625E-02	8.535E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.725E-02	9.035E-02	0.000E+00	NOT IDENT.
Y-88	-1.801E-02	3.353E-02	4.848E-02	0.000E+00	NOT IDENT.
Y-91	-1.883E+00	2.465E+01	4.136E+01	0.000E+00	NOT IDENT.
NB-94	-1.336E-02	3.687E-02	5.977E-02	0.000E+00	NOT IDENT.
NB-95	8.268E-02	5.839E-02	9.457E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.914E-01	3.304E-01	0.000E+00	NOT IDENT.
ZR-95	1.128E-01	8.744E-02	1.579E-01	0.000E+00	NOT IDENT.
MO-99	0.000E+00	1.029E+02	0.000E+00	0.000E+00	SHORT HLIF
TC-99M	0.000E+00	1.900E+26	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.846E-02	4.963E-02	8.689E-02	0.000E+00	FAIL ABUN
RH-106	2.730E-01	3.224E-01	5.715E-01	0.000E+00	NOT IDENT.
RU-106	2.730E-01	3.213E-01	5.715E-01	0.000E+00	NOT IDENT.
AG-108M	-3.592E-02	3.294E-02	5.271E-02	0.000E+00	NOT IDENT.
AG-110M	-5.266E-02	4.206E-02	6.403E-02	0.000E+00	NOT IDENT.
SN-113	-2.597E-02	5.079E-02	8.484E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	1.410E+02	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	2.236E-02	9.413E-02	1.600E-01	0.000E+00	NOT IDENT.
TE-123M	-3.525E-03	3.385E-02	5.683E-02	0.000E+00	NOT IDENT.
SB-124	5.742E-02	9.561E-02	1.721E-01	0.000E+00	NOT IDENT.
SB-125	-4.168E-02	1.025E-01	1.714E-01	0.000E+00	FAIL ABUN
TE-125M	-3.018E+00	1.361E+01	2.011E+01	0.000E+00	NOT IDENT.
I-126	-1.620E-01	3.974E-01	6.455E-01	0.000E+00	NOT IDENT.
SB-126	4.294E-01	2.652E-01	4.559E-01	0.000E+00	NOT IDENT.
SB-127	-4.105E+00	6.192E+00	9.785E+00	0.000E+00	FAIL ABUN
I-131	1.696E-01	2.406E-01	4.287E-01	0.000E+00	NOT IDENT.
TE-132	4.673E+00	4.394E+00	7.896E+00	0.000E+00	NOT IDENT.
BA-133	5.707E-03	4.670E-02	7.050E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	3.529E+06	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.372E-02	5.368E-02	9.786E-02	0.000E+00	FAIL ABUN
CS-135	2.862E-01	1.852E-01	3.235E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.895E+24	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.140E-02	1.736E-01	2.868E-01	0.000E+00	NOT IDENT.
BA-137M	3.570E-02	4.251E-02	7.467E-02	0.000E+00	NOT IDENT.
CS-137	3.772E-02	4.490E-02	7.888E-02	0.000E+00	NOT IDENT.
CE-139	-2.051E-02	3.400E-02	5.586E-02	0.000E+00	NOT IDENT.
BA-140	-1.053E-01	4.441E-01	7.232E-01	0.000E+00	NOT IDENT.
LA-140	5.117E-02	1.447E-01	2.508E-01	0.000E+00	FAIL ABUN
CE-141	0.000E+00	8.451E-02	1.517E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.855E+04	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-9.441E-02	2.624E-01	3.812E-01	0.000E+00	NOT IDENT.
PM-144	-2.679E-02	3.979E-02	6.310E-02	0.000E+00	NOT IDENT.
PR-144	-2.006E+00	2.991E+00	4.743E+00	0.000E+00	NOT IDENT.
PM-146	3.720E-03	4.685E-02	8.019E-02	0.000E+00	NOT IDENT.
ND-147	-3.599E-01	9.577E-01	1.576E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	1.135E+03	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-7.661E-02	1.391E-01	1.731E-01	0.000E+00	FAIL ABUN
GD-153	1.180E-01	1.034E-01	1.624E-01	0.000E+00	NOT IDENT.
EU-154	-1.126E-01	1.315E-01	2.022E-01	0.000E+00	NOT IDENT.
TB-160	8.040E-02	1.599E-01	2.851E-01	0.000E+00	FAIL ABUN
HO-166M	-3.806E-02	6.629E-02	1.054E-01	0.000E+00	NOT IDENT.
TA-182	-1.534E-02	2.274E-01	3.815E-01	0.000E+00	FAIL ABUN
IR-192	-1.842E-02	4.094E-02	6.951E-02	0.000E+00	FAIL ABUN
HG-203	3.645E-02	5.271E-02	8.298E-02	0.000E+00	NOT IDENT.
BI-207	-1.718E-02	5.554E-02	9.200E-02	0.000E+00	FAIL ABUN
PB-210	7.112E-01	2.367E+00	4.173E+00	0.000E+00	NOT IDENT.
PB-211	-7.417E-01	9.121E-01	1.383E+00	0.000E+00	NOT IDENT.
RN-219	1.711E-01	4.652E-01	8.010E-01	0.000E+00	FAIL ABUN
RA-223	7.265E-02	7.798E-01	1.179E+00	0.000E+00	FAIL ABUN
AC-227	-7.757E-02	2.662E-01	4.600E-01	0.000E+00	FAIL ABUN
TH-227	-7.757E-02	2.663E-01	4.600E-01	0.000E+00	FAIL ABUN
TH-229	7.215E-02	5.304E-01	9.426E-01	0.000E+00	FAIL ABUN
PA-231	-8.786E-01	1.633E+00	2.588E+00	0.000E+00	FAIL ABUN
TH-231	7.265E-02	7.798E-01	1.179E+00	0.000E+00	FAIL ABUN
PA-233	3.570E-02	6.955E-02	1.233E-01	0.000E+00	FAIL ABUN
PA-234	-1.779E-01	3.206E-01	5.216E-01	0.000E+00	FAIL ABUN
PA-234M	3.630E+00	4.868E+00	8.813E+00	0.000E+00	NOT IDENT.
NP-239	1.893E-01	4.434E-01	7.665E-01	0.000E+00	FAIL ABUN
AM-241	1.539E-01	1.578E-01	2.496E-01	0.000E+00	NOT IDENT.
CM-247	2.083E-02	4.195E-02	7.274E-02	0.000E+00	FAIL ABUN
CF-249	3.356E-02	4.345E-02	7.741E-02	0.000E+00	NOT IDENT.

CF-251	-1.122E-01	1.466E-01	2.386E-01	0.000E+00 NOT IDENT.
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VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 15:11:14.80

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*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248202001.CNF;1
Sample date        : 23-FEB-2010 12:00:00 Acquisition date : 18-MAR-2010 13:10:38
Sample ID          : G248202001 Sample quantity   : 1.26410E+02 GRAM
Detector name      : GAM14 Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00 Elapsed real time: 0 02:00:01.68 0.0%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity        : 5.00000
Batch ID           : 959279 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	1409	10.66*	1.211E+00	3.242E+01	3.242E+01	9.22
CD-109	88.03	219	3.70*	7.060E+00	2.485E+00	2.573E+00	47.85
SN-126	64.28	156	9.60	4.667E+00	1.034E+00	1.034E+00	63.99
	86.94	219	8.90	7.060E+00	1.033E+00	1.033E+00	62.66
	87.57	219	37.00*	7.060E+00	2.485E-01	2.485E-01	47.85
EU-155	86.55	219	30.70	7.060E+00	2.995E-01	3.023E-01	47.87
	105.31	99	21.10*	7.632E+00	1.817E-01	1.834E-01	79.41
TL-208	277.37	124	6.60	5.008E+00	1.115E+00	1.115E+00	54.76
	583.19	490	85.00*	2.757E+00	6.207E-01	6.207E-01	16.04
	860.56	46	12.50	1.943E+00	5.670E-01	5.670E-01	70.56
BI-211	72.87	-----	1.23	5.875E+00	-----	Line Not Found	-----
	351.06	926	12.92*	4.177E+00	5.095E+00	5.095E+00	11.58
BI-212	727.33	104	6.67*	2.266E+00	2.036E+00	2.036E+00	51.14
	785.37	59	1.10	2.116E+00	7.475E+00	7.475E+00	82.50
	1620.50	-----	1.47	1.120E+00	-----	Line Not Found	-----
PB-212	74.82	807	10.28	6.088E+00	3.831E+00	3.831E+00	19.21
	77.11	1026	17.10	6.307E+00	2.824E+00	2.824E+00	13.60
	238.63	1832	43.60*	5.568E+00	2.242E+00	2.242E+00	9.51
	300.09	167	3.30	4.718E+00	3.187E+00	3.187E+00	42.55
BI-214	609.32	611	45.49*	2.654E+00	1.502E+00	1.502E+00	14.35
	1120.29	128	14.92	1.523E+00	1.673E+00	1.673E+00	37.68
	1764.49	104	15.30	1.058E+00	1.911E+00	1.911E+00	24.43
PB-214	74.82	807	5.80	6.088E+00	6.790E+00	6.790E+00	18.36
	77.11	1026	9.70	6.307E+00	4.978E+00	4.978E+00	15.90
	242.00	384	7.25	5.522E+00	2.845E+00	2.846E+00	27.22
	295.22	535	18.42	4.776E+00	1.806E+00	1.806E+00	15.58
	351.93	926	35.60*	4.177E+00	1.849E+00	1.849E+00	12.83
RA-224	240.99	384	4.10*	5.522E+00	5.032E+00	5.032E+00	26.59
RA-226	609.32	611	45.49*	2.654E+00	1.502E+00	1.502E+00	14.35
	1120.29	128	14.92	1.523E+00	1.673E+00	1.673E+00	37.68
	1764.49	104	15.30	1.058E+00	1.911E+00	1.911E+00	24.43
AC-228	338.32	355	11.27	4.307E+00	2.173E+00	2.173E+00	46.56

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	411	25.80*	1.843E+00	2.569E+00	2.569E+00	19.19
	968.97	238	15.80	1.741E+00	2.566E+00	2.566E+00	30.97
RA-228	338.32	355	11.27	4.307E+00	2.173E+00	2.173E+00	46.56
	911.20	411	25.80*	1.843E+00	2.569E+00	2.569E+00	19.19
	968.97	238	15.80	1.741E+00	2.566E+00	2.566E+00	30.97
TH-228	74.82	807	10.28	6.088E+00	3.831E+00	3.831E+00	16.60
	77.11	1026	17.10	6.307E+00	2.824E+00	2.824E+00	13.60
	238.63	1832	43.60*	5.568E+00	2.242E+00	2.242E+00	9.51
	300.09	167	3.30	4.718E+00	3.187E+00	3.187E+00	73.80
TH-232	338.32	355	11.27	4.307E+00	2.173E+00	2.173E+00	22.40
	911.20	411	25.80*	1.843E+00	2.569E+00	2.569E+00	19.19
	968.97	238	15.80	1.741E+00	2.566E+00	2.566E+00	30.97
TH-234	63.29	156	3.70*	4.667E+00	2.682E+00	2.682E+00	64.81
	92.59	362	4.23	7.319E+00	3.469E+00	3.469E+00	38.73
U-235	89.96	172	3.47	7.194E+00	2.041E+00	2.041E+00	54.61
	93.35	362	5.60	7.319E+00	2.621E+00	2.621E+00	39.32
	143.76	-----	10.96*	7.372E+00	-----	Line Not Found	-----
	163.33	-----	5.08	6.992E+00	-----	Line Not Found	-----
	185.72	248	57.20	6.527E+00	1.975E-01	1.975E-01	32.47
	205.31	-----	5.01	6.150E+00	-----	Line Not Found	-----
NP-237	86.48	219	12.40*	7.060E+00	7.415E-01	7.415E-01	52.24
	95.86	-----	2.68	7.425E+00	-----	Line Not Found	-----
U-238	63.29	156	3.70*	4.667E+00	2.682E+00	2.682E+00	64.81
	92.59	362	4.23	7.319E+00	3.469E+00	3.469E+00	32.97
ANH-511	511.00	184	100.00*	3.086E+00	1.770E-01	1.770E-01	44.52

Flag: "\*" = Keyline

Summary of Nuclide Activity  
Sample ID : G248202001

Page : 3  
Acquisition date : 18-MAR-2010 13:10:38

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	3.242E+01	3.242E+01	0.299E+01	9.22	
CD-109	461.40D	1.04	2.485E+00	2.573E+00	1.231E+00	47.85	
SN-126	2.30E+05Y	1.00	2.485E-01	2.485E-01	1.189E-01	47.85	
EU-155	4.75Y	1.01	1.817E-01	1.834E-01	1.456E-01	79.41	
TL-208	1.41E+10Y	1.00	6.207E-01	6.207E-01	0.996E-01	16.04	
BI-211	7.04E+08Y	1.00	5.095E+00	5.095E+00	0.590E+00	11.58	
BI-212	1.41E+10Y	1.00	2.036E+00	2.036E+00	1.042E+00	51.14	
PB-212	1.41E+10Y	1.00	2.242E+00	2.242E+00	0.213E+00	9.51	
BI-214	1600.00Y	1.00	1.502E+00	1.502E+00	0.216E+00	14.35	
PB-214	1600.00Y	1.00	1.849E+00	1.849E+00	0.237E+00	12.83	
RA-224	1.41E+10Y	1.00	5.032E+00	5.032E+00	1.338E+00	26.59	
RA-226	1600.00Y	1.00	1.502E+00	1.502E+00	0.216E+00	14.35	
AC-228	1.41E+10Y	1.00	2.569E+00	2.569E+00	0.493E+00	19.19	
RA-228	1.41E+10Y	1.00	2.569E+00	2.569E+00	0.493E+00	19.19	
TH-228	1.41E+10Y	1.00	2.242E+00	2.242E+00	0.213E+00	9.51	
TH-232	1.41E+10Y	1.00	2.569E+00	2.569E+00	0.493E+00	19.19	
TH-234	4.47E+09Y	1.00	2.682E+00	2.682E+00	1.738E+00	64.81	
U-235	7.04E+08Y	1.00	1.975E-01	1.975E-01	0.641E-01	32.47	K
NP-237	2.14E+06Y	1.00	7.415E-01	7.415E-01	3.874E-01	52.24	
U-238	4.47E+09Y	1.00	2.682E+00	2.682E+00	1.738E+00	64.81	
ANH-511	1.00E+09Y	1.00	1.770E-01	1.770E-01	0.788E-01	44.52	

Total Activity : 7.164E+01 7.173E+01

Grand Total Activity : 7.164E+01 7.173E+01

Flags: "K" = Keyline not found  
"E" = Manually edited

"M" = Manually accepted  
"A" = Nuclide specific abn. limit

Unidentified Energy Lines  
Sample ID : G248202001

Page : 4  
Acquisition date : 18-MAR-2010 13:10:38

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.67	143	564	0.87	258.75	254	11	1.99E-02	66.5	7.59E+00	
0	209.42	184	358	1.37	418.12	414	10	2.55E-02	41.1	6.07E+00	T
0	270.07	117	348	1.48	539.31	531	13	1.63E-02	68.1	5.10E+00	T
3	327.76	97	220	1.59	654.61	647	17	1.35E-02	60.2	4.41E+00	T
3	330.39	52	198	1.48	659.87	647	17	7.22E-03	****	4.39E+00	
0	462.92	99	161	1.22	924.75	919	12	1.37E-02	55.6	3.35E+00	T
0	569.26	192	156	1.91	1137.33	1131	13	2.67E-02	31.1	2.82E+00	T
0	768.94	75	99	1.86	1536.55	1528	13	1.04E-02	57.4	2.16E+00	
2	965.14	79	57	1.97	1928.93	1922	25	1.09E-02	44.7	1.75E+00	T

Flags: "T" = Tentatively associated

```

*****
*                                     GEL Laboratories LLC
*                                     2040 Savage Road
*                                     Charleston, SC 29414
*****
*
*                               DETECTOR DATA
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248202001.CNF;1
* Acquisition date   : 18-MAR-2010 13:10:38   Detector SN#      :
* Detector ID        : GAM14                  Sensitivity          : 5.00000
* Geometry           : CAN                    Energy tolerance    : 1.50000
* Elapsed live time  : 0 02:00:00.00          Abundance limit      : 75.00000
* Elapsed real time  : 0 02:00:01.68          Half life ratio      : 8.00000
*****
*
*                               SAMPLE DATA
*
* Sample date        : 23-FEB-2010 12:00:00   Nuclide Library      : SOLID
* Sample ID          : G248202001             Analyst initials      : MXR1
* Batch Number       : 959279                 Sample Quantity       : 1.26410E+02 GRAM
*****
*
*                               QC DATA
*
* CALIB. DATE/TIME   : 6-MAR-2009 11:43:06.61MS Isotope      :
* MSD ID             :                          MSD Isotope    :
* LCS ID             : 1032-A                   LCS Isotope         :
*****

```

## Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.242E+01	2.990E+00	5.518E-01	4.007E-02	58.750
CD-109	2.573E+00	1.231E+00	1.386E+00	1.212E-01	1.856
SN-126	2.485E-01	1.189E-01	1.344E-01	1.169E-02	1.850
EU-155	1.834E-01	1.456E-01	1.863E-01	1.441E-02	0.984
TL-208	6.207E-01	9.956E-02	5.983E-02	4.082E-03	10.375
BI-211	5.095E+00	5.899E-01	3.413E-01	2.163E-02	14.928
BI-212	2.036E+00	1.042E+00	8.898E-01	1.005E-01	2.289
PB-212	2.242E+00	2.133E-01	9.980E-02	7.333E-03	22.460
BI-214	1.502E+00	2.155E-01	1.234E-01	9.843E-03	12.176
PB-214	1.849E+00	2.372E-01	1.241E-01	1.042E-02	14.897
RA-224	5.032E+00	1.338E+00	1.069E+00	6.145E-02	4.706
RA-226	1.502E+00	2.155E-01	1.234E-01	9.843E-03	12.176
AC-228	2.569E+00	4.931E-01	2.526E-01	3.051E-02	10.171
RA-228	2.569E+00	4.931E-01	2.526E-01	3.051E-02	10.171
TH-228	2.242E+00	2.133E-01	9.980E-02	7.333E-03	22.460
TH-232	2.569E+00	4.931E-01	2.526E-01	3.051E-02	10.171
TH-234	2.682E+00	1.738E+00	2.066E+00	3.632E-01	1.298
U-235	1.975E-01	6.413E-02	3.846E-01	6.103E-02	0.514

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	7.415E-01	3.874E-01	4.490E-01	1.017E-01	1.651
U-238	2.682E+00	1.738E+00	2.066E+00	3.632E-01	1.298
ANH-511	1.770E-01	7.879E-02	4.847E-02	2.848E-03	3.651

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-7.462E-02		3.883E-01	6.289E-01	4.237E-02	-0.119
NA-22	-3.990E-02		4.744E-02	7.155E-02	4.674E-03	-0.558
NA-24	4.499E+03		2.623E+03	Half-Life too short		
SC-46	-4.971E-04		4.452E-02	7.443E-02	6.878E-03	-0.007
V-48	-1.461E-02		1.058E-01	1.742E-01	1.479E-02	-0.084
CR-51	-2.375E-01		5.519E-01	8.117E-01	5.237E-02	-0.293
MN-54	1.218E-02		4.312E-02	7.367E-02	6.179E-03	0.165
CO-56	-1.011E-02		4.577E-02	7.544E-02	6.466E-03	-0.134
CO-57	-6.799E-03		2.869E-02	4.578E-02	3.257E-03	-0.149
CO-58	-2.842E-02		4.679E-02	7.097E-02	5.711E-03	-0.400
FE-59	-3.258E-02		1.126E-01	1.820E-01	1.401E-02	-0.179
CO-60	-1.610E-02		4.579E-02	7.246E-02	5.164E-03	-0.222
ZN-65	4.179E-04		1.195E-01	1.703E-01	1.120E-02	0.002
SE-75	-9.937E-04		5.740E-02	8.327E-02	4.890E-03	-0.012
SR-85	1.327E-01		4.822E-02	8.900E-02	5.234E-03	1.491
Y-88	-1.801E-02		3.421E-02	4.867E-02	2.764E-03	-0.370
Y-91	-1.883E+00		2.516E+01	4.126E+01	2.400E+00	-0.046
NB-94	-1.336E-02		3.763E-02	5.915E-02	3.836E-03	-0.226
NB-95	8.268E-02		5.958E-02	9.371E-02	6.901E-03	0.882
NB-95M	8.877E-01		1.953E-01	3.218E-01	2.413E-02	2.758
ZR-95	1.128E-01		8.923E-02	1.564E-01	1.297E-02	0.721
MO-99	4.527E-05		5.252E-05	Half-Life too short		
TC-99M	-2.925E+20		9.694E+19	Half-Life too short		
RU-103	2.846E-02		5.064E-02	8.555E-02	1.065E-02	0.333
RH-106	2.730E-01		3.290E-01	5.645E-01	6.611E-02	0.484
RU-106	2.730E-01		3.279E-01	5.645E-01	3.375E-02	0.484
AG-108M	-3.592E-02		3.361E-02	5.179E-02	3.134E-03	-0.693
AG-110M	-5.266E-02		4.292E-02	6.330E-02	3.999E-03	-0.832
SN-113	-2.597E-02		5.183E-02	8.324E-02	4.871E-03	-0.312
CD-115	3.477E-05		7.196E-05	Half-Life too short		
SN-117M	2.236E-02		9.605E-02	1.550E-01	8.766E-03	0.144
TE-123M	-3.525E-03		3.454E-02	5.505E-02	3.148E-03	-0.064
SB-124	5.742E-02		9.756E-02	1.725E-01	1.171E-02	0.333
SB-125	-4.168E-02		1.046E-01	1.684E-01	9.856E-03	-0.247
TE-125M	-3.018E+00		1.389E+01	1.937E+01	1.856E+00	-0.156
I-126	-1.620E-01		4.055E-01	6.383E-01	3.833E-02	-0.254
SB-126	4.294E-01		2.706E-01	4.513E-01	3.038E-02	0.952
SB-127	-4.105E+00		6.318E+00	9.680E+00	1.226E+00	-0.424
I-131	1.696E-01		2.456E-01	4.202E-01	2.695E-02	0.404
TE-132	4.673E+00		4.483E+00	7.687E+00	1.264E+00	0.608



---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-133	5.707E-03		4.765E-02	6.907E-02	7.742E-03	0.083
I-133	-7.557E-01		1.801E+00	Half-Life too short		
CS-134	8.372E-02		5.477E-02	9.702E-02	7.636E-03	0.863
CS-135	2.862E-01		1.889E-01	3.157E-01	2.422E-02	0.907
I-135	-1.847E+18		1.987E+18	Half-Life too short		
CS-136	-6.140E-02		1.772E-01	2.855E-01	2.298E-02	-0.215
BA-137M	3.570E-02		4.337E-02	7.383E-02	4.390E-03	0.484
CS-137	3.772E-02		4.582E-02	7.799E-02	4.656E-03	0.484
CE-139	-2.051E-02		3.470E-02	5.414E-02	2.907E-03	-0.379
BA-140	-1.053E-01		4.531E-01	7.128E-01	2.376E-01	-0.148
LA-140	5.117E-02		1.477E-01	2.513E-01	1.666E-02	0.204
CE-141	1.766E-01		8.623E-02	1.467E-01	9.366E-03	1.203
CE-143	6.616E-02		9.463E-03	Half-Life too short		
CE-144	-9.441E-02		2.678E-01	3.683E-01	5.251E-02	-0.256
PM-144	-2.679E-02		4.061E-02	6.243E-02	4.003E-03	-0.429
PR-144	-2.006E+00		3.052E+00	4.694E+00	3.005E-01	-0.427
PM-146	3.720E-03		4.780E-02	7.885E-02	6.618E-03	0.047
ND-147	-3.599E-01		9.773E-01	1.553E+00	2.108E-01	-0.232
PM-149	7.353E-04		5.789E-04	Half-Life too short		
EU-152	-7.661E-02		1.420E-01	1.695E-01	1.096E-02	-0.452
GD-153	1.180E-01		1.055E-01	1.562E-01	1.253E-02	0.755
EU-154	-1.126E-01		1.341E-01	2.019E-01	1.996E-02	-0.558
TB-160	8.040E-02		1.631E-01	2.831E-01	2.571E-02	0.284
HO-166M	-3.806E-02		6.764E-02	1.043E-01	6.895E-03	-0.365
TA-182	-1.534E-02		2.320E-01	3.807E-01	2.277E-02	-0.040
IR-192	-1.842E-02		4.177E-02	6.799E-02	3.969E-03	-0.271
HG-203	3.645E-02		5.379E-02	8.103E-02	4.985E-03	0.450
BI-207	-1.718E-02		5.667E-02	9.161E-02	6.779E-03	-0.187
PB-210	7.112E-01		2.415E+00	3.973E+00	2.909E-01	0.179
PB-211	-7.417E-01		9.307E-01	1.358E+00	6.508E-01	-0.546
RN-219	1.711E-01		4.746E-01	7.862E-01	1.046E-01	0.218
RA-223	7.265E-02		7.958E-01	1.154E+00	1.860E-01	0.063
AC-227	-7.757E-02		2.717E-01	4.486E-01	4.585E-02	-0.173
TH-227	-7.757E-02		2.717E-01	4.486E-01	5.390E-02	-0.173
TH-229	7.215E-02		5.412E-01	9.155E-01	5.056E-02	0.079
PA-231	-8.786E-01		1.666E+00	2.527E+00	3.318E-01	-0.348
TH-231	7.265E-02		7.958E-01	1.154E+00	1.860E-01	0.063
PA-233	3.570E-02		7.097E-02	1.206E-01	7.447E-03	0.296
PA-234	-1.779E-01		3.271E-01	5.185E-01	9.801E-02	-0.343
PA-234M	3.630E+00		4.968E+00	8.767E+00	8.476E-01	0.414
NP-239	1.893E-01		4.524E-01	7.393E-01	5.338E-02	0.256
AM-241	1.539E-01		1.610E-01	2.385E-01	1.770E-02	0.645
CM-247	2.083E-02		4.280E-02	7.139E-02	3.921E-03	0.292
CF-249	3.356E-02		4.434E-02	7.595E-02	4.151E-03	0.442
CF-251	-1.122E-01		1.496E-01	2.315E-01	1.257E-02	-0.485

# VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                    *
*****
*
*                                     DETECTOR DATA                          *
*
* Configuration      : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248202001          *
* Acquisition date   : 18-MAR-2010 13:10:38 Detector SN#      :             *
* Detector ID        : GAM14                      Sensitivity   : 5.000        *
* Geometry           : CAN                        Energy tolerance: 1.500        *
* Elapsed live time  : 0 02:00:00.00             Abundance limit : 75.000        *
* Elapsed real time  : 0 02:00:01.68             Half life ratio : 8.000        *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date        : 23-FEB-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID          : G248202001              Analyst initials: MXR1          *
* Batch Number       : 959279                  Sample Quantity : 1.2641E+02 GRAM    *
* Recovery           : 1.00000                 Carrier Weight  : 0.00000        *
*****
*
*                                     QC DATA                               *
*
* CALIB. DATE/TIME   : 6-MAR-2009 11:43:06 MS Isotope         :             *
* MSD DPM             : 0.000                     MSD Isotope   :             *
* LCS DPM             : 0.000                     LCS Isotope   :             *
* LCSD DPM            : 0.000                     LCSD Isotope  :             *
*****

```

## Combined Activity-MDA Report

### ---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM )	Act Error	DLC (pCi/GRAM )	TPU
K-40	3.242E+01	2.930E+00	2.759E-01	1.495E+00
CD-109	2.573E+00	1.206E+00	7.220E-01	6.155E-01
SN-126	2.485E-01	1.165E-01	6.998E-02	5.945E-02
EU-155	1.834E-01	1.427E-01	9.680E-02	7.282E-02
TL-208	6.207E-01	9.757E-02	3.033E-02	4.978E-02
BI-211	5.095E+00	5.781E-01	1.743E-01	2.950E-01
BI-212	2.036E+00	1.021E+00	4.496E-01	5.208E-01
PB-212	2.242E+00	2.090E-01	5.125E-02	1.066E-01
BI-214	1.502E+00	2.112E-01	6.252E-02	1.078E-01
PB-214	1.849E+00	2.324E-01	6.339E-02	1.186E-01
RA-224	5.032E+00	1.311E+00	5.490E-01	6.690E-01
RA-226	1.502E+00	2.112E-01	6.252E-02	1.078E-01
AC-228	2.569E+00	4.832E-01	1.272E-01	2.465E-01
RA-228	2.569E+00	4.832E-01	1.272E-01	2.465E-01
TH-228	2.242E+00	2.090E-01	5.125E-02	1.066E-01
TH-232	2.569E+00	4.832E-01	1.272E-01	2.465E-01
TH-234	2.682E+00	1.703E+00	1.081E+00	8.690E-01
U-235	1.901E-01	2.322E-01	1.989E-01	1.185E-01
NP-237	7.415E-01	3.796E-01	2.339E-01	1.937E-01
U-238	2.682E+00	1.703E+00	1.081E+00	8.690E-01
ANH-511	1.770E-01	7.722E-02	2.462E-02	3.940E-02

### ---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM )	K.L Act error	DLC (pCi/GRAM )	TPU
BE-7	-7.462E-02	3.805E-01	3.198E-01	1.942E-01 NOT IDENT.
NA-22	-3.990E-02	4.650E-02	3.586E-02	2.372E-02 NOT IDENT.
NA-24	4.499E+09	5.140E+09	0.000E+00	2.623E+09 SHORT HLIF
SC-46	-4.971E-04	4.363E-02	3.750E-02	2.226E-02 FAIL ABUN
V-48	-1.461E-02	1.037E-01	8.764E-02	5.292E-02 NOT IDENT.
CR-51	-2.375E-01	5.409E-01	4.151E-01	2.760E-01 NOT IDENT.

MN-54	1.218E-02	4.226E-02	3.715E-02	2.156E-02	NOT IDENT.
CO-56	-1.011E-02	4.485E-02	3.803E-02	2.288E-02	NOT IDENT.
CO-57	-6.799E-03	2.812E-02	2.373E-02	1.435E-02	NOT IDENT.
CO-58	-2.842E-02	4.585E-02	3.581E-02	2.340E-02	NOT IDENT.
FE-59	-3.258E-02	1.104E-01	9.141E-02	5.630E-02	NOT IDENT.
CO-60	-1.610E-02	4.488E-02	3.629E-02	2.290E-02	NOT IDENT.
ZN-65	4.179E-04	1.171E-01	8.553E-02	5.977E-02	NOT IDENT.
SE-75	-9.937E-04	5.625E-02	4.270E-02	2.870E-02	NOT IDENT.
SR-85	1.327E-01	4.725E-02	4.520E-02	2.411E-02	NOT IDENT.
Y-88	-1.801E-02	3.353E-02	2.425E-02	1.711E-02	NOT IDENT.
Y-91	-1.883E+00	2.465E+01	2.069E+01	1.258E+01	NOT IDENT.
NB-94	-1.336E-02	3.687E-02	2.990E-02	1.881E-02	NOT IDENT.
NB-95	8.268E-02	5.839E-02	4.731E-02	2.979E-02	NOT IDENT.
NB-95M	8.877E-01	1.914E-01	1.653E-01	9.767E-02	NOT IDENT.
ZR-95	1.128E-01	8.744E-02	7.899E-02	4.461E-02	NOT IDENT.
MO-99	4.527E+01	1.029E+02	0.000E+00	5.252E+01	SHORT HLIF
TC-99M	-2.925E+26	1.900E+26	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.846E-02	4.963E-02	4.347E-02	2.532E-02	FAIL ABUN
RH-106	2.730E-01	3.224E-01	2.859E-01	1.645E-01	NOT IDENT.
RU-106	2.730E-01	3.213E-01	2.859E-01	1.639E-01	NOT IDENT.
AG-108M	-3.592E-02	3.294E-02	2.637E-02	1.680E-02	NOT IDENT.
AG-110M	-5.266E-02	4.206E-02	3.203E-02	2.146E-02	NOT IDENT.
SN-113	-2.597E-02	5.079E-02	4.244E-02	2.591E-02	NOT IDENT.
CD-115	3.477E+01	1.410E+02	0.000E+00	7.196E+01	SHORT HLIF
SN-117M	2.236E-02	9.413E-02	8.004E-02	4.803E-02	NOT IDENT.
TE-123M	-3.525E-03	3.385E-02	2.843E-02	1.727E-02	NOT IDENT.
SB-124	5.742E-02	9.561E-02	8.608E-02	4.878E-02	NOT IDENT.
SB-125	-4.168E-02	1.025E-01	8.576E-02	5.232E-02	FAIL ABUN
TE-125M	-3.018E+00	1.361E+01	1.006E+01	6.946E+00	NOT IDENT.
I-126	-1.620E-01	3.974E-01	3.229E-01	2.027E-01	NOT IDENT.
SB-126	4.294E-01	2.652E-01	2.281E-01	1.353E-01	NOT IDENT.
SB-127	-4.105E+00	6.192E+00	4.896E+00	3.159E+00	FAIL ABUN
I-131	1.696E-01	2.406E-01	2.145E-01	1.228E-01	NOT IDENT.
TE-132	4.673E+00	4.394E+00	3.950E+00	2.242E+00	NOT IDENT.
BA-133	5.707E-03	4.670E-02	3.527E-02	2.382E-02	FAIL ABUN
I-133	-7.557E+05	3.529E+06	0.000E+00	1.801E+06	SHORT HLIF
CS-134	8.372E-02	5.368E-02	4.896E-02	2.739E-02	FAIL ABUN
CS-135	2.862E-01	1.852E-01	1.618E-01	9.447E-02	NOT IDENT.
I-135	-1.847E+24	3.895E+24	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.140E-02	1.736E-01	1.435E-01	8.859E-02	NOT IDENT.
BA-137M	3.570E-02	4.251E-02	3.736E-02	2.169E-02	NOT IDENT.
CS-137	3.772E-02	4.490E-02	3.946E-02	2.291E-02	NOT IDENT.
CE-139	-2.051E-02	3.400E-02	2.795E-02	1.735E-02	NOT IDENT.
BA-140	-1.053E-01	4.441E-01	3.618E-01	2.266E-01	NOT IDENT.
LA-140	5.117E-02	1.447E-01	1.255E-01	7.384E-02	FAIL ABUN
CE-141	1.766E-01	8.451E-02	7.589E-02	4.312E-02	NOT IDENT.
CE-143	6.616E+04	1.855E+04	0.000E+00	9.463E+03	SHORT HLIF
CE-144	-9.441E-02	2.624E-01	1.907E-01	1.339E-01	NOT IDENT.
PM-144	-2.679E-02	3.979E-02	3.157E-02	2.030E-02	NOT IDENT.
PR-144	-2.006E+00	2.991E+00	2.373E+00	1.526E+00	NOT IDENT.
PM-146	3.720E-03	4.685E-02	4.012E-02	2.390E-02	NOT IDENT.
ND-147	-3.599E-01	9.577E-01	7.883E-01	4.886E-01	FAIL ABUN
PM-149	7.353E+02	1.135E+03	0.000E+00	5.789E+02	SHORT HLIF
EU-152	-7.661E-02	1.391E-01	8.658E-02	7.099E-02	FAIL ABUN
GD-153	1.180E-01	1.034E-01	8.124E-02	5.274E-02	NOT IDENT.
EU-154	-1.126E-01	1.315E-01	1.012E-01	6.707E-02	NOT IDENT.
TB-160	8.040E-02	1.599E-01	1.426E-01	8.157E-02	FAIL ABUN
HO-166M	-3.806E-02	6.629E-02	5.274E-02	3.382E-02	NOT IDENT.
TA-182	-1.534E-02	2.274E-01	1.909E-01	1.160E-01	FAIL ABUN
IR-192	-1.842E-02	4.094E-02	3.477E-02	2.089E-02	FAIL ABUN
HG-203	3.645E-02	5.271E-02	4.152E-02	2.689E-02	NOT IDENT.
BI-207	-1.718E-02	5.554E-02	4.603E-02	2.834E-02	FAIL ABUN
PB-210	7.112E-01	2.367E+00	2.088E+00	1.208E+00	NOT IDENT.
PB-211	-7.417E-01	9.121E-01	6.920E-01	4.654E-01	NOT IDENT.
RN-219	1.711E-01	4.652E-01	4.007E-01	2.373E-01	FAIL ABUN
RA-223	7.265E-02	7.798E-01	5.900E-01	3.979E-01	FAIL ABUN
AC-227	-7.757E-02	2.662E-01	2.301E-01	1.358E-01	FAIL ABUN
TH-227	-7.757E-02	2.663E-01	2.301E-01	1.358E-01	FAIL ABUN
TH-229	7.215E-02	5.304E-01	4.716E-01	2.706E-01	FAIL ABUN
PA-231	-8.786E-01	1.633E+00	1.295E+00	8.331E-01	FAIL ABUN
TH-231	7.265E-02	7.798E-01	5.900E-01	3.979E-01	FAIL ABUN
PA-233	3.570E-02	6.955E-02	6.168E-02	3.548E-02	FAIL ABUN
PA-234	-1.779E-01	3.206E-01	2.610E-01	1.635E-01	FAIL ABUN
PA-234M	3.630E+00	4.868E+00	4.409E+00	2.484E+00	NOT IDENT.
NP-239	1.893E-01	4.434E-01	3.835E-01	2.262E-01	FAIL ABUN
AM-241	1.539E-01	1.578E-01	1.249E-01	8.050E-02	NOT IDENT.
CM-247	2.083E-02	4.195E-02	3.639E-02	2.140E-02	FAIL ABUN
CF-249	3.356E-02	4.345E-02	3.873E-02	2.217E-02	NOT IDENT.

CF-251	-1.122E-01	1.466E-01	1.194E-01	7.480E-02 NOT IDENT.
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*                               GEL Laboratories LLC                      *
*                               2040 SAVAGE ROAD                          *
*                               CHARLESTON , SC 29417                     *
*                               GAMMA SPECTROSCOPY BACKGROUND REPORT      *
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ENERGY          MDA COUNTS

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46.54	446.0775
49.72	515.0569
57.36	0.0000
59.54	552.5711
63.29	656.1101
63.29	656.1101
64.28	702.7546
67.75	656.9214
69.67	688.1249
70.83	738.9183
72.81	723.7872
72.87	723.8268
72.87	723.8268
74.82	725.1275
74.82	725.1275
74.82	725.1275
74.97	725.2280
77.11	726.6343
77.11	726.6343
77.11	726.6343
79.69	748.2731
79.80	748.3464
80.12	775.4698
80.19	775.5177
80.57	835.0957
81.00	864.1696
81.07	864.2228
81.07	864.2228
83.79	756.5679
83.79	756.5679
85.43	702.9877
86.48	798.3293
86.55	798.3754
86.79	647.1170
86.94	647.2010
87.57	647.5419
88.03	647.7894
88.47	648.0275
89.96	648.8259
91.11	649.4376
92.59	650.2197
92.59	650.2197
93.35	650.6189
94.67	543.1820
94.87	543.2696
94.87	543.2696
95.86	547.1067
97.43	445.3950
98.44	423.5450
99.53	446.5535
100.11	470.2678
103.18	474.8038
103.37	474.8731
105.31	463.5500
106.12	481.0107
109.28	499.3597
111.00	497.1146
111.76	507.8112
116.30	474.8543
117.23	442.6959
121.12	429.7911
121.78	434.3307
122.06	434.4147
123.07	437.2009
131.20	435.3549
133.52	469.2911
136.00	380.0130

136.47	404.7751
140.51	0.0000
140.51	0.0000
143.76	443.9543
144.24	427.5572
144.24	427.5572
145.44	401.4103
152.43	421.9626
153.25	441.0090
154.21	463.4381
154.21	463.4381
156.02	429.5348
158.56	434.6277
159.00	435.8530
162.66	385.5332
163.33	371.1927
165.86	409.6914
176.60	409.9372
177.52	421.3829
181.07	0.0000
184.41	419.5870
185.72	392.7930
193.51	340.9267
197.04	363.3569
205.31	358.8182
210.85	388.7852
215.65	313.0790
222.11	285.1550
227.38	325.5296
228.16	304.4323
228.18	304.4363
235.69	314.7698
235.96	311.7228
235.96	311.7228
238.63	307.7829
238.63	307.7829
240.99	308.1193
242.00	304.8566
244.70	238.6088
252.40	244.4129
252.80	245.3907
256.23	280.3391
256.23	280.3391
260.90	0.0000
264.66	259.4932
268.22	272.4166
269.46	272.5618
269.46	272.5618
271.23	206.9268
273.65	249.5115
276.40	236.8412
277.37	226.3271
277.60	226.3506
278.00	232.6772
279.20	250.0970
279.54	246.9862
280.46	242.3576
283.69	248.2022
284.31	251.1562
285.41	219.5192
285.90	0.0000
287.50	235.5716
293.27	0.0000
295.22	215.6528
295.96	215.7165
298.57	215.9465
299.98	216.0684
299.98	216.0684
300.09	216.0767
300.09	216.0767
300.13	216.0795
301.36	204.7592
302.85	187.4095
304.50	192.3022
304.50	192.3022
304.85	201.8649
308.46	236.8533
311.90	216.1346

316.51	239.5172
319.41	226.5975
320.08	235.7351
323.87	216.1780
323.87	216.1780
328.76	223.3198
333.37	197.6729
334.37	197.7479
334.37	197.7479
338.28	189.3415
338.28	189.3415
338.32	189.3462
338.32	189.3462
338.32	189.3462
340.48	191.7529
340.55	191.7577
344.28	220.2629
351.06	178.5892
351.93	178.6453
356.01	158.8134
364.49	162.8739
366.42	0.0000
383.85	181.6532
388.16	168.1549
388.63	167.1985
391.69	190.0173
400.66	188.6172
401.81	179.7983
402.40	170.9410
404.85	228.4396
410.95	155.5722
414.70	191.4804
423.72	160.2021
427.09	181.2957
427.87	178.3510
433.94	182.6917
453.88	154.7050
463.37	99.0715
468.07	126.1185
473.00	128.3270
476.78	147.6931
477.60	138.6239
487.02	116.6888
492.35	0.0000
497.08	122.1226
511.00	117.5065
514.00	117.6076
527.90	0.0000
529.87	0.0000
531.02	116.1174
537.26	114.2628
546.56	0.0000
563.25	108.8555
569.33	104.8787
569.50	104.8837
569.70	104.8886
583.19	103.1814
600.60	117.4936
602.73	141.4171
604.72	139.7428
609.32	116.4741
609.32	116.4741
610.33	99.7106
614.28	84.0508
618.01	90.4407
621.93	80.0022
621.93	80.0022
633.25	93.9541
635.95	89.7916
636.99	85.5879
645.85	94.2474
657.76	140.1888
661.66	113.7476
661.66	113.7476
664.57	0.0000
666.33	129.8394
666.50	129.8454
677.62	112.0496

685.70	112.2649
695.00	116.7971
696.49	123.2684
696.51	123.2684
697.00	118.9944
702.65	110.5641
706.68	93.4761
711.68	105.4170
720.70	72.3736
721.93	0.0000
722.78	91.6655
722.91	91.6697
723.31	107.8564
724.19	107.8784
727.33	94.9996
733.00	129.7119
735.93	91.9395
739.50	0.0000
747.24	96.5115
752.31	109.6476
753.82	97.7388
756.73	74.9819
763.94	103.4006
765.81	83.4798
766.42	94.3812
777.92	0.0000
778.90	94.6393
783.70	69.9594
785.37	69.9844
795.86	77.8157
801.95	85.5981
810.29	79.1543
810.76	85.7581
815.77	66.9553
818.51	72.5002
832.01	105.8355
834.85	94.8483
836.80	0.0000
846.77	82.1573
856.80	66.6006
860.56	65.7261
871.09	61.2278
873.19	69.6060
875.33	0.0000
879.36	67.8345
880.51	57.6255
883.24	82.7657
884.68	74.4173
889.28	70.7614
898.04	72.7505
911.20	75.7430
911.20	75.7430
911.20	75.7430
926.50	67.5278
937.49	79.8898
944.13	65.8742
946.00	77.1953
949.00	62.1677
962.29	74.4660
964.08	77.7288
966.15	67.0941
968.97	67.1302
968.97	67.1302
968.97	67.1302
983.53	66.3641
996.26	78.8746
1001.03	55.1656
1004.73	68.5283
1037.84	83.3007
1038.76	0.0000
1048.07	70.9829
1050.41	70.0534
1050.41	70.0534
1063.66	69.2549
1085.87	74.3525
1099.45	71.6243
1112.07	58.1982
1115.54	79.8616



1120.29	83.5330
1120.29	83.5330
1120.55	81.5972
1121.30	91.6002
1131.51	0.0000
1173.23	70.5557
1177.93	84.3413
1189.05	81.5478
1204.77	72.8889
1221.41	84.9362
1231.02	80.1200
1235.36	114.8200
1238.28	73.2803
1260.41	0.0000
1271.85	67.6956
1274.44	65.7314
1274.54	65.7314
1291.59	59.9121
1298.22	0.0000
1312.11	47.0784
1332.49	53.2523
1365.19	46.4455
1368.63	0.0000
1384.29	56.7018
1408.01	28.4489
1457.56	0.0000
1460.82	26.6168
1489.16	25.6948
1505.03	39.1427
1596.21	26.0701
1620.50	15.6921
1678.03	0.0000
1690.97	16.8913
1764.49	20.0917
1764.49	20.0917
1770.23	14.6222
1771.35	16.4525
1791.20	0.0000
1836.06	15.0470

TOTAL URANIUM BY GAMMA SPEC REPORT  
Sample:G248202001

Total Uranium Activity	8.0658E+00	ug/g
Total Uranium Counting Unc.	5.0685E+00	ug/g
Total Uranium Tpu	2.5860E-06	ug/g
Total Uranium Mda	3.2168E+00	ug/g

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*****
*
*               GEL Laboratories LLC                      *
*               2040 SAVAGE ROAD                          *
*               CHARLESTON ,SC 29417                      *
*               GROSS GAMMA REPORT                        *
*
*****
*
*  BATCH ID      : 959279                                SAMPLE ID   : G248202001
*  ANALYST       : MXR1                                  DETECTOR    : GAM14
*  SAMPLE DATE   : 23-FEB-2010 12:00:00.00              COUNT TIME   : 0 02:00:00.00
*  ANALYSIS DATE : 18-MAR-2010 13:10:38.29              SAMPLE ALQT  : 126.410 GRAM
*
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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 1.162E+01
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.622E+00
GROSS GAMMA MDA      (pCi/GRAM ) : 4.277E+00
GROSS GAMMA DLC      (pCi/GRAM ) : 2.094E+00

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VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 15:12:15.56

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*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248202002.CNF;1
Sample date        : 23-FEB-2010 12:00:00 Acquisition date : 18-MAR-2010 13:11:37
Sample ID          : G248202002          Sample quantity  : 1.01710E+02 GRAM
Detector name      : GAM17              Detector geometry: CAN
Elapsed live time   : 0 02:00:00.00      Elapsed real time: 0 02:00:09.74  0.1%
Energy tolerance    : 1.50000 keV        Analyst Initials : MXR1
Abundance limit     : 75.00000           Sensitivity       : 5.00000
Batch ID           : 959279              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	46.60*	217	254	0.88	92.83	90	7	3.02E-02	14.9	
2	0	63.31*	207	389	1.08	126.26	122	8	2.88E-02	18.6	
3	4	74.95*	529	329	1.05	149.54	145	13	7.34E-02	7.1	2.29E+00
4	4	77.21*	732	297	0.99	154.07	145	13	1.02E-01	5.5	
5	5	87.38*	270	278	1.18	174.42	164	29	3.76E-02	12.1	1.52E+00
6	5	89.92*	203	258	1.23	179.50	164	29	2.82E-02	15.6	
7	5	92.97*	279	272	1.42	185.61	164	29	3.87E-02	13.0	
8	0	185.99*	182	221	1.13	371.71	367	10	2.52E-02	17.8	
9	0	209.27*	87	120	1.25	418.28	415	7	1.20E-02	24.6	
10	5	238.73*	808	115	1.12	477.24	472	17	1.12E-01	4.3	2.56E+00
11	5	241.73	252	122	1.82	483.24	472	17	3.51E-02	13.7	
12	0	295.22*	282	116	1.08	590.26	584	11	3.92E-02	9.6	
13	0	300.28	86	140	1.35	600.38	596	12	1.19E-02	29.5	
14	0	338.30*	143	143	1.00	676.46	671	11	1.98E-02	18.5	
15	0	352.06*	435	114	1.14	703.99	699	11	6.04E-02	6.9	
16	0	463.91*	85	124	3.37	927.81	918	18	1.18E-02	33.4	
17	0	510.90*	59	108	1.58	1021.83	1014	13	8.15E-03	44.9	
18	0	583.22*	227	67	1.28	1166.54	1162	12	3.15E-02	10.2	
19	0	609.27*	270	84	1.45	1218.67	1213	14	3.76E-02	9.6	
20	0	661.46	283	41	1.55	1323.11	1316	12	3.93E-02	7.5	
21	0	727.42	73	49	1.30	1455.12	1449	13	1.01E-02	22.9	
22	0	911.11*	132	72	1.31	1822.73	1815	16	1.83E-02	17.1	
23	0	969.22*	71	39	1.67	1939.02	1932	12	9.90E-03	21.7	
24	0	1119.92	75	53	1.48	2240.65	2233	15	1.04E-02	24.1	
25	0	1237.91	29	30	0.70	2476.80	2470	13	4.05E-03	42.6	
26	0	1378.23	28	9	1.35	2757.68	2751	13	3.95E-03	29.1	
27	0	1460.44*	590	8	2.10	2922.25	2914	15	8.19E-02	4.3	
28	0	1764.05	61	3	1.68	3530.03	3523	13	8.42E-03	14.3	

Flag: "\*" = Peak area was modified by background subtraction

## VMS Nuclide Identification Report V3.1 Generated 18-MAR-2010 15:12:18

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248202002.CNF;1  
 Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8  
 Sample title : MXR1  
 Sample date : 23-FEB-2010 12:00:00 Acquisition date : 18-MAR-2010 13:11:37  
 Sample ID : G248202002 Sample quantity : 101.71 GRAM  
 Sample type : SOLID Sample geometry :  
 Detector name : GAMMA17 Detector geometry: CAN  
 Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:09.74 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	*	2.626E+01	3.232E+00	7.492E-01	6.652E-02	35.049
CD-109	+	88.03	*	4.185E+00	1.088E+00	1.091E+00	1.065E-01	3.837
SN-126	+	64.28		1.175E+00	4.748E-01	4.662E-01	7.442E-02	2.521
	+	86.94		1.680E+00	8.081E-01	4.365E-01	1.816E-01	3.850
	+	87.57	*	4.042E-01	1.051E-01	1.052E-01	1.027E-02	3.842
BA-137M	+	661.66	*	7.252E-01	1.247E-01	8.561E-02	7.212E-03	8.472
CS-137	+	661.66	*	7.662E-01	1.318E-01	9.044E-02	7.634E-03	8.472
TL-208		277.37		3.283E-01	4.756E-01	8.226E-01	1.063E-01	0.399
	+	583.19	*	5.434E-01	1.226E-01	8.237E-02	7.782E-03	6.597
		860.56		5.914E-01	4.604E-01	8.507E-01	8.000E-02	0.695
PB-210	+	46.54	*	2.991E+00	9.496E-01	9.336E-01	1.006E-01	3.204
BI-211		72.87		1.981E-01	2.506E+00	3.826E+00	3.741E-01	0.052
	+	351.06	*	4.272E+00	7.090E-01	4.201E-01	3.921E-02	10.169
PB-212	+	74.82		2.793E+00	5.516E-01	4.209E-01	5.801E-02	6.636
	+	77.11		2.330E+00	3.424E-01	2.542E-01	2.478E-02	9.167
	+	238.63	*	1.702E+00	2.256E-01	1.013E-01	1.026E-02	16.791
	+	300.09		2.873E+00	1.724E+00	1.591E+00	1.750E-01	1.805
BI-214	+	609.32	*	1.264E+00	2.753E-01	1.708E-01	1.746E-02	7.398
	+	1120.29		1.897E+00	9.350E-01	6.713E-01	7.210E-02	2.826
	+	1764.49		2.177E+00	6.471E-01	5.412E-01	4.576E-02	4.022
PB-214	+	74.82		4.951E+00	9.371E-01	7.461E-01	9.384E-02	6.636
	+	77.11		4.108E+00	6.922E-01	4.481E-01	5.722E-02	9.167
	+	242.00		3.227E+00	9.494E-01	6.171E-01	6.630E-02	5.229
	+	295.22		1.670E+00	3.731E-01	2.323E-01	2.615E-02	7.191
	+	351.93	*	1.550E+00	2.712E-01	1.518E-01	1.645E-02	10.210
RA-224	+	240.99	*	5.706E+00	1.646E+00	1.087E+00	9.831E-02	5.249
RA-226	+	609.32	*	1.264E+00	2.753E-01	1.708E-01	1.746E-02	7.398
	+	1120.29		1.897E+00	9.350E-01	6.713E-01	7.210E-02	2.826
	+	1764.49		2.177E+00	6.471E-01	5.412E-01	4.576E-02	4.022
AC-228	+	338.32		1.553E+00	8.668E-01	5.117E-01	2.139E-01	3.035
	+	911.20	*	1.595E+00	5.769E-01	3.155E-01	3.688E-02	5.055
	+	968.97		1.493E+00	7.444E-01	5.185E-01	1.265E-01	2.880
RA-228	+	338.32		1.553E+00	8.668E-01	5.117E-01	2.139E-01	3.035
	+	911.20	*	1.595E+00	5.769E-01	3.155E-01	3.688E-02	5.055

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	968.97		1.493E+00	7.444E-01	5.185E-01	1.265E-01	2.880
	+	74.82		2.793E+00	4.811E-01	4.209E-01	4.138E-02	6.636
	+	77.11		2.330E+00	3.424E-01	2.542E-01	2.478E-02	9.167
	+	238.63	*	1.702E+00	2.256E-01	1.013E-01	1.026E-02	16.791
	+	300.09		2.873E+00	2.444E+00	1.591E+00	9.755E-01	1.805
TH-232	+	338.32		1.553E+00	5.913E-01	5.117E-01	4.611E-02	3.035
	+	911.20	*	1.595E+00	5.769E-01	3.155E-01	3.688E-02	5.055
	+	968.97		1.493E+00	7.444E-01	5.185E-01	1.265E-01	2.880
TH-234	+	63.29	*	3.049E+00	1.272E+00	1.209E+00	2.300E-01	2.523
	+	92.59		3.693E+00	1.274E+00	9.352E-01	2.118E-01	3.949
U-235	+	89.96		3.253E+00	1.303E+00	1.130E+00	2.833E-01	2.878
	+	93.35		2.789E+00	9.806E-01	7.082E-01	1.675E-01	3.939
		143.76	*	1.185E-02	2.533E-01	4.006E-01	7.133E-02	0.030
		163.33		4.374E-01	5.104E-01	8.614E-01	1.544E-01	0.508
	+	185.72		2.440E-01	8.914E-02	8.273E-02	7.084E-03	2.949
		205.31		-2.002E-01	6.512E-01	8.947E-01	1.630E-01	-0.224
NP-237	+	86.48	*	1.206E+00	4.029E-01	3.129E-01	7.235E-02	3.855
		95.86		-8.910E-01	9.782E-01	1.345E+00	3.306E-01	-0.662
U-238	+	63.29	*	3.049E+00	1.272E+00	1.209E+00	2.300E-01	2.523
	+	92.59		3.693E+00	1.029E+00	9.352E-01	9.330E-02	3.949
ANH-511	+	511.00	*	1.053E-01	9.498E-02	7.484E-02	6.684E-03	1.408

---- 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	*	-1.159E-01	5.138E-01	8.257E-01	7.855E-02	-0.140
NA-22		1274.54	*	1.737E-02	6.994E-02	1.160E-01	9.775E-03	0.150
NA-24		1368.63	*	-9.209E+03	6.994E-02	Half-Life too short		
SC-46		889.28	*	1.088E-03	6.574E-02	1.090E-01	9.544E-03	0.010
	+	1120.55		3.426E-01	1.673E-01	2.209E-01	1.853E-02	1.551
V-48		944.13		2.139E+00	1.913E+00	3.523E+00	3.083E-01	0.607
		983.53	*	-1.329E-02	1.497E-01	2.432E-01	2.121E-02	-0.055
		1312.11		1.862E-02	1.808E-01	3.070E-01	2.606E-02	0.061
CR-51		320.08	*	1.233E-02	5.707E-01	9.616E-01	9.177E-02	0.013
MN-54		834.85	*	3.160E-02	5.773E-02	1.010E-01	8.884E-03	0.313
CO-56		846.77	*	-1.660E-02	5.947E-02	9.553E-02	8.397E-03	-0.174
		1037.84		-6.329E-02	4.980E-01	8.010E-01	7.277E-02	-0.079
	+	1238.28		2.212E-01	1.893E-01	2.652E-01	2.279E-02	0.834
		1771.35		-1.164E-01	3.721E-01	5.606E-01	4.734E-02	-0.208
CO-57		122.06	*	-1.688E-02	2.821E-02	4.503E-02	5.276E-03	-0.375
		136.47		1.354E-01	2.314E-01	3.918E-01	4.407E-02	0.346
CO-58		810.76	*	-3.938E-02	5.823E-02	8.905E-02	7.842E-03	-0.442
FE-59		1099.45	*	-3.882E-03	1.645E-01	2.668E-01	2.449E-02	-0.015
		1291.59		2.243E-01	2.118E-01	3.890E-01	3.749E-02	0.577
CO-60		1173.23		3.219E-02	7.241E-02	1.230E-01	1.005E-02	0.262
		1332.49	*	1.771E-02	5.955E-02	1.011E-01	8.615E-03	0.175
ZN-65		1115.54	*	8.021E-02	1.439E-01	2.224E-01	1.873E-02	0.361
SE-75		121.12		2.426E-02	1.441E-01	2.405E-01	3.265E-02	0.101

## ---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		136.00		1.998E-02	4.488E-02	7.554E-02	8.170E-03	0.265
		264.66	*	-1.879E-02	6.078E-02	9.398E-02	8.635E-03	-0.200
		279.54		-8.540E-02	1.350E-01	2.193E-01	2.081E-02	-0.389
		400.66		-7.634E-02	3.507E-01	5.717E-01	6.278E-02	-0.134
SR-85		514.00	*	3.623E-02	6.946E-02	1.048E-01	9.365E-03	0.346
Y-88		898.04		4.859E-03	6.517E-02	1.087E-01	9.547E-03	0.045
		1836.06	*	3.229E-02	4.841E-02	9.252E-02	7.715E-03	0.349
Y-91		1204.77	*	-8.958E+00	3.751E+01	5.883E+01	4.856E+00	-0.152
NB-94		702.65	*	-4.493E-03	4.885E-02	8.160E-02	6.999E-03	-0.055
		871.09		-2.717E-02	5.251E-02	8.184E-02	7.182E-03	-0.332
NB-95		765.81	*	-2.054E-03	6.622E-02	1.105E-01	9.655E-03	-0.019
NB-95M		235.69	*	-9.456E-02	1.768E-01	2.380E-01	2.435E-02	-0.397
ZR-95		724.19		8.983E-02	1.545E-01	2.440E-01	2.286E-02	0.368
		756.73	*	2.888E-02	1.187E-01	2.034E-01	1.955E-02	0.142
MO-99		140.51		-1.830E-04	1.187E-01	Half-Life	too short	
		181.07		4.478E-06	1.187E-01	Half-Life	too short	
		366.42		2.042E-04	1.187E-01	Half-Life	too short	
		739.50	*	1.915E-06	1.187E-01	Half-Life	too short	
		777.92		-1.840E-04	1.187E-01	Half-Life	too short	
TC-99M		140.51	*	-1.411E+20	1.187E-01	Half-Life	too short	
RU-103		497.08	*	-3.620E-02	7.016E-02	1.093E-01	1.546E-02	-0.331
	+	610.33		1.501E+01	3.795E+00	4.628E+00	7.596E-01	3.242
RH-106		621.93	*	-3.446E-01	5.144E-01	7.682E-01	1.022E-01	-0.449
		1050.41		3.177E+00	4.045E+00	7.193E+00	6.191E-01	0.442
RU-106		621.93	*	-3.446E-01	5.132E-01	7.682E-01	6.674E-02	-0.449
		1050.41		3.177E+00	4.045E+00	7.193E+00	6.191E-01	0.442
AG-108M		433.94	*	2.057E-03	4.133E-02	6.847E-02	6.137E-03	0.030
		614.28		-4.304E-02	5.924E-02	7.407E-02	6.672E-03	-0.581
		722.91		-1.392E-02	5.993E-02	8.482E-02	7.562E-03	-0.164
AG-110M		657.76	*	3.341E-02	5.223E-02	8.059E-02	7.024E-03	0.415
		677.62		1.663E-01	4.454E-01	7.421E-01	6.487E-02	0.224
		706.68		-8.536E-02	3.233E-01	5.311E-01	4.695E-02	-0.161
		763.94		-2.310E-01	2.473E-01	3.746E-01	3.358E-02	-0.617
		884.68		-3.905E-02	7.853E-02	1.226E-01	1.107E-02	-0.319
		937.49		-1.689E-01	1.857E-01	2.736E-01	2.478E-02	-0.617
		1384.29		2.212E-02	2.289E-01	3.381E-01	2.981E-02	0.065
		1505.03		-3.796E-03	4.058E-01	6.719E-01	5.810E-02	-0.006
SN-113		391.69	*	-1.871E-02	6.645E-02	1.081E-01	9.394E-03	-0.173
CD-115		260.90		4.701E-05	6.645E-02	Half-Life	too short	
		492.35		1.440E-04	6.645E-02	Half-Life	too short	
		527.90	*	-2.937E-05	6.645E-02	Half-Life	too short	
SN-117M		156.02		-1.381E+00	4.117E+00	6.599E+00	6.075E-01	-0.209
		158.56	*	8.407E-03	9.552E-02	1.566E-01	1.408E-02	0.054
TE-123M		159.00	*	-1.554E-02	3.513E-02	5.583E-02	5.025E-03	-0.278
SB-124		602.73		-6.093E-02	6.496E-02	8.426E-02	7.400E-03	-0.723
		645.85		-5.739E-01	8.162E-01	1.203E+00	1.088E-01	-0.477
		722.78		-1.537E-01	6.595E-01	9.333E-01	8.247E-02	-0.165
		1690.97	*	1.053E-01	1.531E-01	2.821E-01	2.516E-02	0.373
SB-125		427.87	*	9.916E-02	1.268E-01	2.217E-01	1.954E-02	0.447

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	463.37	1.338E+00	9.033E-01	7.883E-01	7.453E-02	1.697
		600.60	-2.553E-01	2.514E-01	3.583E-01	3.374E-02	-0.713
		635.95	-1.210E-02	3.910E-01	6.254E-01	5.820E-02	-0.019
TE-125M		109.28	* -4.077E+00	1.173E+01	1.915E+01	2.382E+00	-0.213
I-126		388.63	1.691E-02	3.655E-01	6.095E-01	5.158E-02	0.028
	*	666.33	1.898E-02	5.531E-01	7.751E-01	6.545E-02	0.024
		753.82	1.197E+00	4.014E+00	6.922E+00	6.031E-01	0.173
SB-126		414.70	2.090E-02	1.688E-01	2.819E-01	2.418E-02	0.074
		666.50	-1.458E-02	1.955E-01	2.694E-01	2.275E-02	-0.054
		695.00	9.026E-02	1.798E-01	3.161E-01	2.703E-02	0.286
		697.00	-1.614E-01	6.344E-01	1.045E+00	8.945E-02	-0.154
	*	720.70	2.911E-01	3.374E-01	5.711E-01	4.930E-02	0.510
		856.80	-1.120E+00	1.124E+00	1.652E+00	1.451E-01	-0.678
SB-127		252.40	7.286E+00	2.388E+01	3.841E+01	1.629E+01	0.190
		473.00	-3.685E-01	9.947E+00	1.627E+01	2.485E+00	-0.023
	*	685.70	1.330E+01	8.139E+00	1.493E+01	2.079E+00	0.891
		783.70	6.388E+00	2.264E+01	3.865E+01	5.751E+00	0.165
I-131		80.19	5.478E+00	9.421E+00	1.191E+01	1.174E+00	0.460
		284.31	1.562E+00	3.541E+00	6.160E+00	5.953E-01	0.254
	*	364.49	-2.228E-02	3.056E-01	5.074E-01	4.718E-02	-0.044
		636.99	3.210E+00	4.275E+00	7.424E+00	6.802E-01	0.432
TE-132		49.72	1.178E+00	2.505E+01	3.885E+01	5.618E+00	0.030
		111.76	-2.768E+01	2.076E+02	3.370E+02	5.117E+01	-0.082
		116.30	-5.707E+01	1.642E+02	2.666E+02	4.104E+01	-0.214
	*	228.16	1.467E+00	4.908E+00	7.991E+00	1.425E+00	0.184
BA-133		81.00	-3.193E-02	1.042E-01	1.221E-01	1.974E-02	-0.261
		276.40	2.018E-01	4.376E-01	7.485E-01	1.082E-01	0.270
		302.85	-2.609E-02	1.998E-01	2.943E-01	3.954E-02	-0.089
	*	356.01	1.722E-02	5.799E-02	8.796E-02	1.154E-02	0.196
		383.85	-1.707E-01	4.043E-01	6.507E-01	8.045E-02	-0.262
I-133	*	529.87	-1.180E+00	4.043E-01	Half-Life	too short	
		875.33	-7.930E+01	4.043E-01	Half-Life	too short	
		1298.22	-1.604E+02	4.043E-01	Half-Life	too short	
CS-134		563.25	2.100E-01	4.892E-01	8.268E-01	7.429E-02	0.254
		569.33	-4.045E-01	3.034E-01	4.220E-01	3.801E-02	-0.959
		604.72	2.857E-02	5.242E-02	7.932E-02	6.975E-03	0.360
	*	795.86	1.293E-01	8.343E-02	1.544E-01	1.364E-02	0.838
		801.95	-4.494E-02	5.881E-01	9.735E-01	8.593E-02	-0.046
		1365.19	1.306E+00	1.770E+00	3.285E+00	2.944E-01	0.398
CS-135	*	268.22	-1.668E-01	2.193E-01	3.266E-01	3.408E-02	-0.511
I-135		546.56	-4.006E+18	2.193E-01	Half-Life	too short	
		836.80	1.198E+19	2.193E-01	Half-Life	too short	
		1038.76	-1.468E+19	2.193E-01	Half-Life	too short	
		1131.51	1.093E+18	2.193E-01	Half-Life	too short	
	*	1260.41	-3.959E+18	2.193E-01	Half-Life	too short	
		1457.56	3.410E+20	2.193E-01	Half-Life	too short	
		1678.03	-2.099E+18	2.193E-01	Half-Life	too short	
		1791.20	-3.196E+18	2.193E-01	Half-Life	too short	
CS-136		153.25	1.376E+00	1.523E+00	2.595E+00	2.848E-01	0.530



---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	176.60			-4.000E-01	8.973E-01	1.416E+00	1.327E-01	-0.283
	273.65			-1.369E+00	1.062E+00	1.508E+00	1.489E-01	-0.908
	340.55			4.784E-01	3.216E-01	5.312E-01	4.949E-02	0.901
	818.51			2.961E-02	1.616E-01	2.746E-01	2.418E-02	0.108
	1048.07	*		-2.941E-02	2.669E-01	4.303E-01	3.866E-02	-0.068
	1235.36			-5.400E-01	1.640E+00	2.157E+00	2.494E-01	-0.250
CE-139	165.86	*		-8.684E-03	3.699E-02	5.939E-02	4.952E-03	-0.146
BA-140	162.66			1.677E+00	1.445E+00	2.493E+00	2.295E-01	0.673
	304.85			2.917E-01	2.908E+00	4.369E+00	1.286E+00	0.067
	423.72			-6.235E-01	3.909E+00	6.365E+00	2.094E+00	-0.098
	537.26	*		4.440E-01	6.452E-01	1.083E+00	3.682E-01	0.410
LA-140	328.76			4.992E-01	6.371E-01	1.116E+00	1.065E-01	0.447
	487.02			2.082E-02	3.025E-01	4.982E-01	4.687E-02	0.042
	815.77			2.118E-01	6.694E-01	1.156E+00	1.131E-01	0.183
	1596.21	*		-9.648E-02	2.055E-01	3.090E-01	2.667E-02	-0.312
CE-141	145.44	*		-5.024E-02	8.796E-02	1.396E-01	1.424E-02	-0.360
CE-143	57.36			-1.394E-02	8.796E-02	Half-Life	too short	
	293.27	*		3.050E-02	8.796E-02	Half-Life	too short	
	664.57			2.039E-01	8.796E-02	Half-Life	too short	
	721.93			2.097E-02	8.796E-02	Half-Life	too short	
CE-144	80.12			1.450E+00	2.612E+00	3.297E+00	3.211E-01	0.440
	133.52	*		-2.644E-01	2.324E-01	3.518E-01	5.877E-02	-0.751
PM-144	476.78			8.746E-02	9.515E-02	1.672E-01	1.604E-02	0.523
	618.01			2.049E-02	4.852E-02	8.132E-02	7.279E-03	0.252
	696.49	*		-4.728E-03	5.282E-02	8.833E-02	7.565E-03	-0.054
PR-144	696.51	*		-3.631E-01	3.969E+00	6.636E+00	5.678E-01	-0.055
	1489.16			-3.546E-01	1.313E+01	2.165E+01	1.871E+00	-0.016
PM-146	453.88	*		-5.331E-02	6.196E-02	9.419E-02	1.010E-02	-0.566
	633.25			-1.908E+00	2.270E+00	3.112E+00	1.189E+00	-0.613
	735.93			1.264E-01	1.909E-01	3.378E-01	9.472E-02	0.374
	747.24			5.340E-02	1.277E-01	2.235E-01	3.269E-02	0.239
ND-147	91.11	+		1.738E+00	5.726E-01	8.123E-01	8.560E-02	2.140
	319.41			-5.525E-02	6.994E+00	1.176E+01	1.073E+00	-0.005
	531.02	*		-6.927E-01	1.222E+00	1.859E+00	2.814E-01	-0.373
PM-149	285.90	*		8.747E-04	1.222E+00	Half-Life	too short	
EU-152	121.78			4.078E-03	7.631E-02	1.266E-01	1.603E-02	0.032
	244.70			-1.448E-01	4.218E-01	5.754E-01	5.216E-02	-0.252
	344.28	*		-4.809E-02	1.228E-01	1.924E-01	1.819E-02	-0.250
	778.90			1.320E-01	4.061E-01	6.996E-01	6.125E-02	0.189
	964.08			5.446E-01	4.721E-01	7.833E-01	6.845E-02	0.695
	1085.87			-2.717E-01	5.872E-01	8.976E-01	7.638E-02	-0.303
	1112.07			8.187E-02	4.480E-01	6.813E-01	5.738E-02	0.120
	1408.01			2.408E-01	2.595E-01	4.914E-01	4.228E-02	0.490
GD-153	69.67			6.653E-01	1.249E+00	2.062E+00	2.025E-01	0.323
	97.43	*		-7.546E-02	9.659E-02	1.373E-01	1.403E-02	-0.550
	103.18			-1.644E-01	1.199E-01	1.844E-01	1.943E-02	-0.892
EU-154	123.07			-2.275E-02	5.606E-02	9.049E-02	1.248E-02	-0.251
	723.31			-6.322E-02	2.721E-01	3.851E-01	3.663E-02	-0.164
	873.19			-7.093E-01	4.397E-01	5.698E-01	6.841E-02	-1.245

---- 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		-1.811E-01	5.566E-01	8.758E-01	1.534E-01	-0.207
		1004.73		-2.584E-01	3.409E-01	5.058E-01	5.914E-02	-0.511
		1274.44	*	1.199E-01	1.892E-01	3.292E-01	3.695E-02	0.364
		86.55		4.917E-01	1.280E-01	1.870E-01	1.839E-02	2.629
		105.31	*	1.633E-01	1.150E-01	2.013E-01	2.163E-02	0.811
TB-160	+	86.79		1.403E+00	3.649E-01	5.392E-01	5.259E-02	2.602
		197.04		-3.699E-01	7.915E-01	1.214E+00	1.055E-01	-0.305
		215.65		4.575E-01	9.667E-01	1.596E+00	1.414E-01	0.287
		298.57		2.394E-01	1.972E-01	2.567E-01	2.356E-02	0.933
		879.36	*	1.641E-01	2.214E-01	3.963E-01	3.475E-02	0.414
HO-166M		962.29		6.496E-01	1.003E+00	1.560E+00	1.364E-01	0.416
		966.15		6.339E-01	4.361E-01	7.247E-01	6.333E-02	0.875
		1177.93		-4.064E-01	6.562E-01	9.842E-01	8.052E-02	-0.413
		1271.85		-6.255E-01	1.298E+00	1.951E+00	1.641E-01	-0.321
		80.57		1.457E-01	2.836E-01	3.566E-01	3.473E-02	0.409
TA-182		184.41		5.811E-02	5.071E-02	8.024E-02	6.859E-03	0.724
		280.46		-1.089E-01	1.005E-01	1.576E-01	1.447E-02	-0.691
		410.95		1.892E-01	3.478E-01	5.978E-01	5.111E-02	0.317
		711.68	*	3.799E-02	8.404E-02	1.475E-01	1.270E-02	0.258
		752.31		-8.649E-02	3.710E-01	6.059E-01	5.277E-02	-0.143
IR-192	+	810.29		-2.888E-02	8.308E-02	1.329E-01	1.168E-02	-0.217
		67.75		-3.500E-03	7.886E-02	1.276E-01	1.257E-02	-0.027
		100.11		1.955E-01	1.886E-01	3.278E-01	3.398E-02	0.596
		152.43		-4.620E-02	4.335E-01	7.048E-01	6.700E-02	-0.066
		222.11		9.807E-02	4.498E-01	7.301E-01	6.507E-02	0.134
HG-203		1121.30		9.327E-01	4.555E-01	5.996E-01	5.030E-02	1.556
		1189.05		9.710E-02	5.017E-01	8.295E-01	6.812E-02	0.117
		1221.41	*	-1.208E-02	3.360E-01	5.396E-01	4.476E-02	-0.022
		1231.02		-4.402E-01	9.809E-01	1.265E+00	1.052E-01	-0.348
		295.96		1.330E+00	2.846E-01	4.047E-01	3.739E-02	3.288
BI-207	+	308.46		4.585E-02	1.262E-01	2.179E-01	2.004E-02	0.210
		316.51	*	1.999E-02	4.742E-02	8.199E-02	7.502E-03	0.244
		468.07		4.997E-03	1.102E-01	1.595E-01	1.507E-02	0.031
		70.83		-5.700E-03	1.130E+00	1.721E+00	2.878E-01	-0.003
		72.87		5.551E-02	7.023E-01	1.072E+00	1.737E-01	0.052
PB-211		279.20	*	-2.613E-02	5.135E-02	8.422E-02	7.907E-03	-0.310
		72.81		-2.624E-03	1.437E-01	2.184E-01	2.136E-02	-0.012
		74.97		8.055E-01	1.384E-01	2.059E-01	2.009E-02	3.913
		569.70		-6.281E-02	4.753E-02	6.641E-02	5.905E-03	-0.946
		1063.66	*	1.675E-02	7.879E-02	1.319E-01	1.131E-02	0.127
RN-219	+	1770.23		-2.314E+00	1.148E+00	1.181E+00	9.975E-02	-1.959
		404.85	*	8.184E-02	9.713E-01	1.619E+00	7.833E-01	0.051
		427.09		1.385E+00	2.178E+00	3.620E+00	1.675E+00	0.382
		832.01		4.802E-02	1.513E+00	2.525E+00	1.310E+00	0.019
		727.33	*	2.759E+00	1.312E+00	1.847E+00	2.306E-01	1.494
RN-219		785.37		-1.405E+00	4.997E+00	8.093E+00	7.092E-01	-0.174
		1620.50		4.537E+00	3.511E+00	7.084E+00	6.103E-01	0.640
		271.23		3.005E-01	3.226E-01	5.388E-01	5.775E-02	0.558
		401.81	*	-1.560E-01	5.454E-01	8.837E-01	1.308E-01	-0.177

## ---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	(pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-223		81.07		-8.295E-02	2.354E-01	2.750E-01	2.678E-02	-0.302
		83.79		2.938E-01	1.134E-01	1.997E-01	1.946E-02	1.471
		94.87		5.120E-01	4.454E-01	7.748E-01	7.818E-02	0.661
		144.24		-1.178E-01	8.415E-01	1.316E+00	1.451E-01	-0.089
		154.21		2.020E-01	4.652E-01	7.767E-01	7.863E-02	0.260
		269.46		4.138E-01	2.486E-01	4.310E-01	4.019E-02	0.960
		323.87	*	-3.482E-01	8.582E-01	1.348E+00	2.370E-01	-0.258
AC-227	+	338.28		6.162E+00	2.403E+00	3.156E+00	3.899E-01	1.952
		79.69		-2.398E-01	1.339E+00	1.590E+00	2.833E-01	-0.151
		235.96		-4.542E-02	1.983E-01	2.753E-01	2.938E-02	-0.165
		256.23	*	-6.264E-02	3.264E-01	5.104E-01	6.336E-02	-0.123
	+	299.98		3.160E+00	1.910E+00	2.157E+00	2.823E-01	1.465
		304.50		-6.284E-01	2.365E+00	3.436E+00	5.779E-01	-0.183
		334.37		-9.098E-01	2.585E+00	3.695E+00	5.846E-01	-0.246
TH-227		79.80		-3.898E-01	1.766E+00	2.089E+00	4.646E-01	-0.187
		235.96		-4.542E-02	1.983E-01	2.753E-01	2.782E-02	-0.165
		256.23	*	-6.264E-02	3.264E-01	5.104E-01	7.109E-02	-0.123
	+	299.98		3.160E+00	1.910E+00	2.157E+00	2.823E-01	1.465
		304.50		-6.284E-01	2.365E+00	3.436E+00	5.779E-01	-0.183
		334.37		-9.098E-01	2.585E+00	3.695E+00	5.846E-01	-0.246
		85.43		4.674E-01	1.897E-01	3.336E-01	3.252E-02	1.401
TH-229	+	88.47		6.232E-01	1.620E-01	2.438E-01	2.385E-02	2.556
		193.51	*	-2.723E-01	6.662E-01	1.049E+00	9.068E-02	-0.260
		210.85		2.172E+00	1.190E+00	1.922E+00	1.695E-01	1.130
PA-231		283.69	*	2.689E-01	1.726E+00	2.953E+00	4.407E-01	0.091
	+	301.36		2.030E+00	1.224E+00	1.417E+00	1.779E-01	1.433
TH-231		81.07		-8.295E-02	2.354E-01	2.750E-01	2.678E-02	-0.302
		83.79		2.938E-01	1.134E-01	1.997E-01	1.946E-02	1.471
		94.87		5.120E-01	4.454E-01	7.748E-01	7.818E-02	0.661
		144.24		-1.178E-01	8.415E-01	1.316E+00	1.451E-01	-0.089
		154.21		2.020E-01	4.652E-01	7.767E-01	7.863E-02	0.260
		269.46		4.138E-01	2.486E-01	4.310E-01	4.019E-02	0.960
		323.87	*	-3.482E-01	8.582E-01	1.348E+00	2.370E-01	-0.258
PA-233	+	338.28		6.162E+00	2.403E+00	3.156E+00	3.899E-01	1.952
	+	300.13		1.430E+00	8.710E-01	9.789E-01	1.484E-01	1.461
		311.90	*	-7.070E-02	7.656E-02	1.199E-01	1.124E-02	-0.590
PA-234		340.48		1.607E+00	9.907E-01	1.544E+00	3.738E-01	1.041
		94.67		3.246E-01	1.720E-01	2.992E-01	4.027E-02	1.085
		98.44		9.381E-02	1.139E-01	1.598E-01	8.961E-02	0.587
		111.00		1.257E-01	2.009E-01	3.423E-01	4.752E-02	0.367
		131.20		1.375E-01	1.265E-01	2.176E-01	2.416E-02	0.632
		569.50		-6.440E-01	4.254E-01	5.794E-01	5.152E-02	-1.112
		733.00		-7.528E-02	5.713E-01	8.178E-01	1.817E-01	-0.092
PA-234M		880.51		1.539E-01	4.230E-01	7.286E-01	6.387E-02	0.211
		883.24		-2.971E-01	4.798E-01	6.647E-01	4.469E-01	-0.447
		926.50		4.895E-02	2.663E-01	4.482E-01	1.135E-01	0.109
		946.00	*	-8.357E-03	4.666E-01	7.670E-01	1.444E-01	-0.011
		949.00		-2.499E-01	6.611E-01	1.038E+00	9.077E-02	-0.241
		766.42		1.165E+01	1.802E+01	3.020E+01	1.533E+01	0.386

## ---- 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	*		2.680E+00	6.878E+00	1.178E+01	1.182E+00	0.228
	99.53			2.278E-01	1.668E-01	2.927E-01	3.025E-02	0.778
	103.37			-1.583E-01	1.070E-01	1.633E-01	1.723E-02	-0.969
	106.12			1.158E-01	9.215E-02	1.606E-01	1.719E-02	0.721
	117.23	*		-3.849E-01	4.126E-01	6.442E-01	7.337E-02	-0.597
	228.18			7.889E-02	2.606E-01	4.248E-01	3.806E-02	0.186
AM-241	277.60			1.373E-01	2.185E-01	3.775E-01	3.465E-02	0.364
	59.54	*		3.050E-02	7.702E-02	1.191E-01	1.264E-02	0.256
CM-247	278.00			5.850E-01	8.895E-01	1.565E+00	1.436E-01	0.374
	287.50			5.232E-01	1.424E+00	2.468E+00	2.267E-01	0.212
CF-249	402.40	*		2.304E-02	4.882E-02	8.386E-02	7.123E-03	0.275
	252.80			1.310E+00	1.244E+00	2.108E+00	1.919E-01	0.621
	333.37			2.891E-02	2.661E-01	3.975E-01	3.595E-02	0.073
CF-251	388.16	*		1.663E-02	5.699E-02	9.664E-02	8.185E-03	0.172
	177.52	*		1.560E-02	1.537E-01	2.508E-01	2.124E-02	0.062
	227.38			-1.791E-01	4.368E-01	6.784E-01	6.074E-02	-0.264
	285.41			7.195E-01	2.602E+00	4.483E+00	4.117E-01	0.161

# 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]G248202002      *
* Acquisition date   : 18-MAR-2010 13:11:37 Detector SN#      :              *
* Detector ID        : GAM17          Sensitivity             : 5.000         *
* Geometry           : CAN            Energy tolerance        : 1.500         *
* Elapsed live time  : 0 02:00:00.00  Abundance limit        : 75.000        *
* Elapsed real time  : 0 02:00:09.74  Half life ratio        : 8.000         *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date        : 23-FEB-2010 12:00:00 Nuclide Library   : SOLID         *
* Sample ID          : G248202002    Analyst initials       : MXR1           *
* Batch Number       : 959279        Sample Quantity        : 1.0171E+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	2.626E+01	3.167E+00	7.431E-01	0.000E+00
CD-109	4.185E+00	1.066E+00	1.092E+00	0.000E+00
SN-126	4.042E-01	1.030E-01	1.053E-01	0.000E+00
BA-137M	7.252E-01	1.223E-01	8.514E-02	0.000E+00
CS-137	7.662E-01	1.292E-01	8.995E-02	0.000E+00
TL-208	5.434E-01	1.201E-01	8.196E-02	0.000E+00
PB-210	2.991E+00	9.306E-01	9.369E-01	0.000E+00
BI-211	4.272E+00	6.948E-01	4.187E-01	0.000E+00
PB-212	1.702E+00	2.211E-01	1.011E-01	0.000E+00
BI-214	1.264E+00	2.698E-01	1.700E-01	0.000E+00
PB-214	1.550E+00	2.657E-01	1.513E-01	0.000E+00
RA-224	5.706E+00	1.613E+00	1.085E+00	0.000E+00
RA-226	1.264E+00	2.698E-01	1.700E-01	0.000E+00
AC-228	1.595E+00	5.654E-01	3.135E-01	0.000E+00
RA-228	1.595E+00	5.654E-01	3.135E-01	0.000E+00
TH-228	1.702E+00	2.211E-01	1.011E-01	0.000E+00
TH-232	1.595E+00	5.654E-01	3.135E-01	0.000E+00
TH-234	3.049E+00	1.246E+00	1.212E+00	0.000E+00
U-235	1.185E-02	2.483E-01	4.005E-01	0.000E+00
NP-237	1.206E+00	3.948E-01	3.133E-01	0.000E+00
U-238	3.049E+00	1.246E+00	1.212E+00	0.000E+00
ANH-511	1.053E-01	9.308E-02	7.450E-02	0.000E+00

### ---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM )	K.L. Act error ) Ided	MDA (pCi/GRAM )	
BE-7	-1.159E-01	5.036E-01	8.221E-01	0.000E+00 NOT IDENT.
NA-22	1.737E-02	6.854E-02	1.151E-01	0.000E+00 NOT IDENT.
NA-24	0.000E+00	7.729E+09	0.000E+00	0.000E+00 SHORT HLIF
SC-46	1.088E-03	6.443E-02	1.083E-01	0.000E+00 FAIL ABUN
V-48	-1.329E-02	1.467E-01	2.415E-01	0.000E+00 NOT IDENT.

CR-51	1.233E-02	5.593E-01	9.587E-01	0.000E+00	NOT IDENT.
MN-54	3.160E-02	5.658E-02	1.004E-01	0.000E+00	NOT IDENT.
CO-56	-1.660E-02	5.828E-02	9.493E-02	0.000E+00	FAIL ABUN
CO-57	-1.688E-02	2.765E-02	4.505E-02	0.000E+00	NOT IDENT.
CO-58	-3.938E-02	5.707E-02	8.850E-02	0.000E+00	NOT IDENT.
FE-59	-3.882E-03	1.612E-01	2.649E-01	0.000E+00	NOT IDENT.
CO-60	1.771E-02	5.836E-02	1.003E-01	0.000E+00	NOT IDENT.
ZN-65	8.021E-02	1.411E-01	2.208E-01	0.000E+00	NOT IDENT.
SE-75	-1.879E-02	5.957E-02	9.375E-02	0.000E+00	NOT IDENT.
SR-85	3.623E-02	6.807E-02	1.043E-01	0.000E+00	NOT IDENT.
Y-88	3.229E-02	4.744E-02	9.169E-02	0.000E+00	NOT IDENT.
Y-91	-8.958E+00	3.676E+01	5.839E+01	0.000E+00	NOT IDENT.
NB-94	-4.493E-03	4.787E-02	8.114E-02	0.000E+00	NOT IDENT.
NB-95	-2.054E-03	6.490E-02	1.099E-01	0.000E+00	NOT IDENT.
NB-95M	-9.456E-02	1.733E-01	2.376E-01	0.000E+00	NOT IDENT.
ZR-95	2.888E-02	1.163E-01	2.022E-01	0.000E+00	NOT IDENT.
MO-99	0.000E+00	1.151E+02	0.000E+00	0.000E+00	SHORT HLIF
TC-99M	0.000E+00	1.554E+26	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-3.620E-02	6.876E-02	1.088E-01	0.000E+00	FAIL ABUN
RH-106	-3.446E-01	5.041E-01	7.641E-01	0.000E+00	NOT IDENT.
RU-106	-3.446E-01	5.030E-01	7.641E-01	0.000E+00	NOT IDENT.
AG-108M	2.057E-03	4.050E-02	6.820E-02	0.000E+00	NOT IDENT.
AG-110M	3.341E-02	5.119E-02	8.015E-02	0.000E+00	NOT IDENT.
SN-113	-1.871E-02	6.512E-02	1.077E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	1.634E+02	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	8.407E-03	9.361E-02	1.565E-01	0.000E+00	NOT IDENT.
TE-123M	-1.554E-02	3.443E-02	5.580E-02	0.000E+00	NOT IDENT.
SB-124	1.053E-01	1.500E-01	2.797E-01	0.000E+00	NOT IDENT.
SB-125	9.916E-02	1.243E-01	2.208E-01	0.000E+00	FAIL ABUN
TE-125M	-4.077E+00	1.149E+01	1.916E+01	0.000E+00	NOT IDENT.
I-126	1.898E-02	5.420E-01	7.709E-01	0.000E+00	NOT IDENT.
SB-126	2.911E-01	3.306E-01	5.678E-01	0.000E+00	NOT IDENT.
SB-127	1.330E+01	7.977E+00	1.485E+01	0.000E+00	NOT IDENT.
I-131	-2.228E-02	2.995E-01	5.057E-01	0.000E+00	NOT IDENT.
TE-132	1.467E+00	4.810E+00	7.976E+00	0.000E+00	NOT IDENT.
BA-133	1.722E-02	5.683E-02	8.767E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.418E+06	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.293E-01	8.176E-02	1.534E-01	0.000E+00	NOT IDENT.
CS-135	-1.668E-01	2.149E-01	3.258E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.456E+24	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.941E-02	2.615E-01	4.273E-01	0.000E+00	NOT IDENT.
CE-139	-8.684E-03	3.625E-02	5.935E-02	0.000E+00	NOT IDENT.
BA-140	4.440E-01	6.323E-01	1.078E+00	0.000E+00	NOT IDENT.
LA-140	-9.648E-02	2.014E-01	3.064E-01	0.000E+00	NOT IDENT.
CE-141	-5.024E-02	8.620E-02	1.395E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.200E+04	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.644E-01	2.277E-01	3.518E-01	0.000E+00	NOT IDENT.
PM-144	-4.728E-03	5.176E-02	8.783E-02	0.000E+00	NOT IDENT.
PR-144	-3.631E-01	3.889E+00	6.598E+00	0.000E+00	NOT IDENT.
PM-146	-5.331E-02	6.072E-02	9.380E-02	0.000E+00	NOT IDENT.
ND-147	-6.927E-01	1.197E+00	1.850E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	1.275E+03	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-4.809E-02	1.203E-01	1.917E-01	0.000E+00	NOT IDENT.
GD-153	-7.546E-02	9.466E-02	1.374E-01	0.000E+00	NOT IDENT.
EU-154	1.199E-01	1.854E-01	3.267E-01	0.000E+00	NOT IDENT.
EU-155	1.633E-01	1.127E-01	2.015E-01	0.000E+00	FAIL ABUN
TE-160	1.641E-01	2.170E-01	3.938E-01	0.000E+00	FAIL ABUN
HO-166M	3.799E-02	8.236E-02	1.467E-01	0.000E+00	NOT IDENT.
TA-182	-1.208E-02	3.293E-01	5.355E-01	0.000E+00	FAIL ABUN
IR-192	1.999E-02	4.647E-02	8.175E-02	0.000E+00	FAIL ABUN
HG-203	-2.613E-02	5.032E-02	8.401E-02	0.000E+00	NOT IDENT.
BI-207	1.675E-02	7.722E-02	1.310E-01	0.000E+00	FAIL ABUN
PB-211	8.184E-02	9.519E-01	1.613E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.286E+00	1.837E+00	0.000E+00	FAIL ABUN
RN-219	-1.560E-01	5.345E-01	8.804E-01	0.000E+00	NOT IDENT.
RA-223	-3.482E-01	8.411E-01	1.344E+00	0.000E+00	FAIL ABUN
AC-227	-6.264E-02	3.198E-01	5.093E-01	0.000E+00	FAIL ABUN
TH-227	-6.264E-02	3.198E-01	5.093E-01	0.000E+00	FAIL ABUN
TH-229	-2.723E-01	6.528E-01	1.047E+00	0.000E+00	FAIL ABUN
PA-231	2.689E-01	1.691E+00	2.945E+00	0.000E+00	FAIL ABUN
TH-231	-3.482E-01	8.411E-01	1.344E+00	0.000E+00	FAIL ABUN
PA-233	-7.070E-02	7.502E-02	1.195E-01	0.000E+00	FAIL ABUN
PA-234	-8.357E-03	4.573E-01	7.619E-01	0.000E+00	NOT IDENT.
PA-234M	2.680E+00	6.740E+00	1.170E+01	0.000E+00	NOT IDENT.
NP-239	-3.849E-01	4.043E-01	6.444E-01	0.000E+00	NOT IDENT.
AM-241	3.050E-02	7.548E-02	1.194E-01	0.000E+00	NOT IDENT.
CM-247	2.304E-02	4.784E-02	8.355E-02	0.000E+00	NOT IDENT.
CF-249	1.663E-02	5.585E-02	9.629E-02	0.000E+00	NOT IDENT.

CF-251	1.560E-02	1.506E-01	2.505E-01	0.000E+00 NOT IDENT.
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VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 15:12:16.43

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*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248202002.CNF;1
Sample date        : 23-FEB-2010 12:00:00 Acquisition date : 18-MAR-2010 13:11:37
Sample ID          : G248202002 Sample quantity   : 1.01710E+02 GRAM
Detector name      : GAM17 Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00 Elapsed real time: 0 02:00:09.74 0.1%
Energy tolerance   : 1.50000 keV Analyst Initials : MXR1
Abundance limit    : 75.00000 Sensitivity        : 5.00000
Batch ID           : 959279 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	590	10.66*	7.779E-01	2.626E+01	2.626E+01	12.31
CD-109	88.03	270	3.70*	6.673E+00	4.042E+00	4.185E+00	26.00
SN-126	64.28	207	9.60	6.777E+00	1.175E+00	1.175E+00	40.40
	86.94	270	8.90	6.673E+00	1.680E+00	1.680E+00	48.09
	87.57	270	37.00*	6.673E+00	4.042E-01	4.042E-01	26.00
BA-137M	661.66	283	89.90*	1.604E+00	7.242E-01	7.252E-01	17.20
CS-137	661.66	283	85.10*	1.604E+00	7.650E-01	7.662E-01	17.21
TL-208	277.37	-----	6.60	3.568E+00	-----	Line Not Found	-----
	583.19	227	85.00*	1.811E+00	5.434E-01	5.434E-01	22.56
	860.56	-----	12.50	1.246E+00	-----	Line Not Found	-----
PB-210	46.54	217	4.25*	6.317E+00	2.985E+00	2.991E+00	31.75
BI-211	72.87	-----	1.23	6.803E+00	-----	Line Not Found	-----
	351.06	435	12.92*	2.906E+00	4.272E+00	4.272E+00	16.60
PB-212	74.82	529	10.28	6.795E+00	2.793E+00	2.793E+00	19.75
	77.11	732	17.10	6.781E+00	2.330E+00	2.330E+00	14.69
	238.63	808	43.60*	4.020E+00	1.702E+00	1.702E+00	13.26
	300.09	86	3.30	3.339E+00	2.873E+00	2.873E+00	60.01
BI-214	609.32	270	45.49*	1.736E+00	1.264E+00	1.264E+00	21.78
	1120.29	75	14.92	9.772E-01	1.897E+00	1.897E+00	49.29
	1764.49	61	15.30	6.715E-01	2.177E+00	2.177E+00	29.73
PB-214	74.82	529	5.80	6.795E+00	4.951E+00	4.951E+00	18.93
	77.11	732	9.70	6.781E+00	4.108E+00	4.108E+00	16.85
	242.00	252	7.25	3.982E+00	3.227E+00	3.227E+00	29.42
	295.22	282	18.42	3.387E+00	1.670E+00	1.670E+00	22.34
	351.93	435	35.60*	2.906E+00	1.550E+00	1.550E+00	17.49
RA-224	240.99	252	4.10*	3.982E+00	5.706E+00	5.706E+00	28.85
RA-226	609.32	270	45.49*	1.736E+00	1.264E+00	1.264E+00	21.78
	1120.29	75	14.92	9.772E-01	1.897E+00	1.897E+00	49.29
	1764.49	61	15.30	6.715E-01	2.177E+00	2.177E+00	29.73
AC-228	338.32	143	11.27	3.011E+00	1.553E+00	1.553E+00	55.82
	911.20	132	25.80*	1.181E+00	1.595E+00	1.595E+00	36.17
	968.97	71	15.80	1.115E+00	1.493E+00	1.493E+00	49.85



Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	143	11.27	3.011E+00	1.553E+00	1.553E+00	55.82
	911.20	132	25.80*	1.181E+00	1.595E+00	1.595E+00	36.17
	968.97	71	15.80	1.115E+00	1.493E+00	1.493E+00	49.85
TH-228	74.82	529	10.28	6.795E+00	2.793E+00	2.793E+00	17.22
	77.11	732	17.10	6.781E+00	2.330E+00	2.330E+00	14.69
	238.63	808	43.60*	4.020E+00	1.702E+00	1.702E+00	13.26
TH-232	300.09	86	3.30	3.339E+00	2.873E+00	2.873E+00	85.07
	338.32	143	11.27	3.011E+00	1.553E+00	1.553E+00	38.08
	911.20	132	25.80*	1.181E+00	1.595E+00	1.595E+00	36.17
TH-234	968.97	71	15.80	1.115E+00	1.493E+00	1.493E+00	49.85
	63.29	207	3.70*	6.777E+00	3.049E+00	3.049E+00	41.70
	92.59	279	4.23	6.591E+00	3.693E+00	3.693E+00	34.50
U-235	89.96	203	3.47	6.637E+00	3.253E+00	3.253E+00	40.05
	93.35	279	5.60	6.591E+00	2.789E+00	2.789E+00	35.15
	143.76	-----	10.96*	5.592E+00	-----	Line Not Found	-----
	163.33	-----	5.08	5.211E+00	-----	Line Not Found	-----
	185.72	182	57.20	4.805E+00	2.440E-01	2.440E-01	36.54
	205.31	-----	5.01	4.493E+00	-----	Line Not Found	-----
NP-237	86.48	270	12.40*	6.673E+00	1.206E+00	1.206E+00	33.40
	95.86	-----	2.68	6.543E+00	-----	Line Not Found	-----
U-238	63.29	207	3.70*	6.777E+00	3.049E+00	3.049E+00	41.70
	92.59	279	4.23	6.591E+00	3.693E+00	3.693E+00	27.87
ANH-511	511.00	59	100.00*	2.056E+00	1.053E-01	1.053E-01	90.17

Flag: "\*" = Keyline

Summary of Nuclide Activity  
Sample ID : G248202002

Page : 3  
Acquisition date : 18-MAR-2010 13:11:37

Total number of lines in spectrum 28  
Number of unidentified lines 2  
Number of lines tentatively identified by NID 26 92.86%

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	2.626E+01	2.626E+01	0.323E+01	12.31	
CD-109	461.40D	1.04	4.042E+00	4.185E+00	1.088E+00	26.00	
SN-126	2.30E+05Y	1.00	4.042E-01	4.042E-01	1.051E-01	26.00	
BA-137M	30.08Y	1.00	7.242E-01	7.252E-01	1.247E-01	17.20	
CS-137	30.08Y	1.00	7.650E-01	7.662E-01	1.318E-01	17.21	
TL-208	1.41E+10Y	1.00	5.434E-01	5.434E-01	1.226E-01	22.56	
PB-210	22.20Y	1.00	2.985E+00	2.991E+00	0.950E+00	31.75	
BI-211	7.04E+08Y	1.00	4.272E+00	4.272E+00	0.709E+00	16.60	
PB-212	1.41E+10Y	1.00	1.702E+00	1.702E+00	0.226E+00	13.26	
BI-214	1600.00Y	1.00	1.264E+00	1.264E+00	0.275E+00	21.78	
PB-214	1600.00Y	1.00	1.550E+00	1.550E+00	0.271E+00	17.49	
RA-224	1.41E+10Y	1.00	5.706E+00	5.706E+00	1.646E+00	28.85	
RA-226	1600.00Y	1.00	1.264E+00	1.264E+00	0.275E+00	21.78	
AC-228	1.41E+10Y	1.00	1.595E+00	1.595E+00	0.577E+00	36.17	
RA-228	1.41E+10Y	1.00	1.595E+00	1.595E+00	0.577E+00	36.17	
TH-228	1.41E+10Y	1.00	1.702E+00	1.702E+00	0.226E+00	13.26	
TH-232	1.41E+10Y	1.00	1.595E+00	1.595E+00	0.577E+00	36.17	
TH-234	4.47E+09Y	1.00	3.049E+00	3.049E+00	1.272E+00	41.70	
U-235	7.04E+08Y	1.00	2.440E-01	2.440E-01	0.891E-01	36.54	K
NP-237	2.14E+06Y	1.00	1.206E+00	1.206E+00	0.403E+00	33.40	
U-238	4.47E+09Y	1.00	3.049E+00	3.049E+00	1.272E+00	41.70	
ANH-511	1.00E+09Y	1.00	1.053E-01	1.053E-01	0.950E-01	90.17	

Total Activity : 6.562E+01 6.577E+01

Grand Total Activity : 6.562E+01 6.577E+01

Flags: "K" = Keyline not found  
"E" = Manually edited

"M" = Manually accepted  
"A" = Nuclide specific abn. limit

Unidentified Energy Lines  
Sample ID : G248202002

Page : 4  
Acquisition date : 18-MAR-2010 13:11:37

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.27	87	120	1.25	418.28	415	7	1.20E-02	49.2	4.43E+00	
0	463.91	85	124	3.37	927.81	918	18	1.18E-02	66.9	2.25E+00	T
0	727.42	73	49	1.30	1455.12	1449	13	1.01E-02	45.9	1.46E+00	T
0	1237.91	29	30	0.70	2476.80	2470	13	4.05E-03	85.2	8.94E-01	T
0	1378.23	28	9	1.35	2757.68	2751	13	3.95E-03	58.3	8.16E-01	

Flags: "T" = Tentatively associated

```

*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
*                               DETECTOR DATA                               *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248202002.CNF;1
* Acquisition date   : 18-MAR-2010 13:11:37   Detector SN#      :
* Detector ID        : GAM17                  Sensitivity       : 5.00000
* Geometry           : CAN                    Energy tolerance: 1.50000
* Elapsed live time  : 0 02:00:00.00          Abundance limit  : 75.00000
* Elapsed real time  : 0 02:00:09.74          Half life ratio  : 8.00000
*****
*                               SAMPLE DATA                               *
*
* Sample date        : 23-FEB-2010 12:00:00   Nuclide Library : SOLID
* Sample ID          : G248202002             Analyst initials: MXR1
* Batch Number       : 959279                 Sample Quantity  : 1.01710E+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    :
*****

```

## Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.626E+01	3.232E+00	7.492E-01	6.652E-02	35.049
CD-109	4.185E+00	1.088E+00	1.091E+00	1.065E-01	3.837
SN-126	4.042E-01	1.051E-01	1.052E-01	1.027E-02	3.842
BA-137M	7.252E-01	1.247E-01	8.561E-02	7.212E-03	8.472
CS-137	7.662E-01	1.318E-01	9.044E-02	7.634E-03	8.472
TL-208	5.434E-01	1.226E-01	8.237E-02	7.782E-03	6.597
PB-210	2.991E+00	9.496E-01	9.336E-01	1.006E-01	3.204
BI-211	4.272E+00	7.090E-01	4.201E-01	3.921E-02	10.169
PB-212	1.702E+00	2.256E-01	1.013E-01	1.026E-02	16.791
BI-214	1.264E+00	2.753E-01	1.708E-01	1.746E-02	7.398
PB-214	1.550E+00	2.712E-01	1.518E-01	1.645E-02	10.210
RA-224	5.706E+00	1.646E+00	1.087E+00	9.831E-02	5.249
RA-226	1.264E+00	2.753E-01	1.708E-01	1.746E-02	7.398
AC-228	1.595E+00	5.769E-01	3.155E-01	3.688E-02	5.055
RA-228	1.595E+00	5.769E-01	3.155E-01	3.688E-02	5.055
TH-228	1.702E+00	2.256E-01	1.013E-01	1.026E-02	16.791
TH-232	1.595E+00	5.769E-01	3.155E-01	3.688E-02	5.055
TH-234	3.049E+00	1.272E+00	1.209E+00	2.300E-01	2.523

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	2.440E-01	8.914E-02	4.006E-01	7.133E-02	0.609
NP-237	1.206E+00	4.029E-01	3.129E-01	7.235E-02	3.855
U-238	3.049E+00	1.272E+00	1.209E+00	2.300E-01	2.523
ANH-511	1.053E-01	9.498E-02	7.484E-02	6.684E-03	1.408

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.159E-01		5.138E-01	8.257E-01	7.855E-02	-0.140
NA-22	1.737E-02		6.994E-02	1.160E-01	9.775E-03	0.150
NA-24	-9.209E+03		3.943E+03	Half-Life	too short	
SC-46	1.088E-03		6.574E-02	1.090E-01	9.544E-03	0.010
V-48	-1.329E-02		1.497E-01	2.432E-01	2.121E-02	-0.055
CR-51	1.233E-02		5.707E-01	9.616E-01	9.177E-02	0.013
MN-54	3.160E-02		5.773E-02	1.010E-01	8.884E-03	0.313
CO-56	-1.660E-02		5.947E-02	9.553E-02	8.397E-03	-0.174
CO-57	-1.688E-02		2.821E-02	4.503E-02	5.276E-03	-0.375
CO-58	-3.938E-02		5.823E-02	8.905E-02	7.842E-03	-0.442
FE-59	-3.882E-03		1.645E-01	2.668E-01	2.449E-02	-0.015
CO-60	1.771E-02		5.955E-02	1.011E-01	8.615E-03	0.175
ZN-65	8.021E-02		1.439E-01	2.224E-01	1.873E-02	0.361
SE-75	-1.879E-02		6.078E-02	9.398E-02	8.635E-03	-0.200
SR-85	3.623E-02		6.946E-02	1.048E-01	9.365E-03	0.346
Y-88	3.229E-02		4.841E-02	9.252E-02	7.715E-03	0.349
Y-91	-8.958E+00		3.751E+01	5.883E+01	4.856E+00	-0.152
NB-94	-4.493E-03		4.885E-02	8.160E-02	6.999E-03	-0.055
NB-95	-2.054E-03		6.622E-02	1.105E-01	9.655E-03	-0.019
NB-95M	-9.456E-02		1.768E-01	2.380E-01	2.435E-02	-0.397
ZR-95	2.888E-02		1.187E-01	2.034E-01	1.955E-02	0.142
MO-99	1.915E-06		5.872E-05	Half-Life	too short	
TC-99M	-1.411E+20		7.930E+19	Half-Life	too short	
RU-103	-3.620E-02		7.016E-02	1.093E-01	1.546E-02	-0.331
RH-106	-3.446E-01		5.144E-01	7.682E-01	1.022E-01	-0.449
RU-106	-3.446E-01		5.132E-01	7.682E-01	6.674E-02	-0.449
AG-108M	2.057E-03		4.133E-02	6.847E-02	6.137E-03	0.030
AG-110M	3.341E-02		5.223E-02	8.059E-02	7.024E-03	0.415
SN-113	-1.871E-02		6.645E-02	1.081E-01	9.394E-03	-0.173
CD-115	-2.937E-05		8.338E-05	Half-Life	too short	
SN-117M	8.407E-03		9.552E-02	1.566E-01	1.408E-02	0.054
TE-123M	-1.554E-02		3.513E-02	5.583E-02	5.025E-03	-0.278
SB-124	1.053E-01		1.531E-01	2.821E-01	2.516E-02	0.373
SB-125	9.916E-02		1.268E-01	2.217E-01	1.954E-02	0.447
TE-125M	-4.077E+00		1.173E+01	1.915E+01	2.382E+00	-0.213
I-126	1.898E-02		5.531E-01	7.751E-01	6.545E-02	0.024
SB-126	2.911E-01		3.374E-01	5.711E-01	4.930E-02	0.510
SB-127	1.330E+01		8.139E+00	1.493E+01	2.079E+00	0.891
I-131	-2.228E-02		3.056E-01	5.074E-01	4.718E-02	-0.044

----- Non-Identified Nuclides -----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-132	1.467E+00		4.908E+00	7.991E+00	1.425E+00	0.184
BA-133	1.722E-02		5.799E-02	8.796E-02	1.154E-02	0.196
I-133	-1.180E+00		2.254E+00	Half-Life too short		
CS-134	1.293E-01		8.343E-02	1.544E-01	1.364E-02	0.838
CS-135	-1.668E-01		2.193E-01	3.266E-01	3.408E-02	-0.511
I-135	-3.959E+18		2.784E+18	Half-Life too short		
CS-136	-2.941E-02		2.669E-01	4.303E-01	3.866E-02	-0.068
CE-139	-8.684E-03		3.699E-02	5.939E-02	4.952E-03	-0.146
BA-140	4.440E-01		6.452E-01	1.083E+00	3.682E-01	0.410
LA-140	-9.648E-02		2.055E-01	3.090E-01	2.667E-02	-0.312
CE-141	-5.024E-02		8.796E-02	1.396E-01	1.424E-02	-0.360
CE-143	3.050E-02		6.123E-03	Half-Life too short		
CE-144	-2.644E-01		2.324E-01	3.518E-01	5.877E-02	-0.751
PM-144	-4.728E-03		5.282E-02	8.833E-02	7.565E-03	-0.054
PR-144	-3.631E-01		3.969E+00	6.636E+00	5.678E-01	-0.055
PM-146	-5.331E-02		6.196E-02	9.419E-02	1.010E-02	-0.566
ND-147	-6.927E-01		1.222E+00	1.859E+00	2.814E-01	-0.373
PM-149	8.747E-04		6.505E-04	Half-Life too short		
EU-152	-4.809E-02		1.228E-01	1.924E-01	1.819E-02	-0.250
GD-153	-7.546E-02		9.659E-02	1.373E-01	1.403E-02	-0.550
EU-154	1.199E-01		1.892E-01	3.292E-01	3.695E-02	0.364
EU-155	1.633E-01		1.150E-01	2.013E-01	2.163E-02	0.811
TB-160	1.641E-01		2.214E-01	3.963E-01	3.475E-02	0.414
HO-166M	3.799E-02		8.404E-02	1.475E-01	1.270E-02	0.258
TA-182	-1.208E-02		3.360E-01	5.396E-01	4.476E-02	-0.022
IR-192	1.999E-02		4.742E-02	8.199E-02	7.502E-03	0.244
HG-203	-2.613E-02		5.135E-02	8.422E-02	7.907E-03	-0.310
BI-207	1.675E-02		7.879E-02	1.319E-01	1.131E-02	0.127
PB-211	8.184E-02		9.713E-01	1.619E+00	7.833E-01	0.051
BI-212	2.759E+00	+	1.312E+00	1.847E+00	2.306E-01	1.494
RN-219	-1.560E-01		5.454E-01	8.837E-01	1.308E-01	-0.177
RA-223	-3.482E-01		8.582E-01	1.348E+00	2.370E-01	-0.258
AC-227	-6.264E-02		3.264E-01	5.104E-01	6.336E-02	-0.123
TH-227	-6.264E-02		3.264E-01	5.104E-01	7.109E-02	-0.123
TH-229	-2.723E-01		6.662E-01	1.049E+00	9.068E-02	-0.260
PA-231	2.689E-01		1.726E+00	2.953E+00	4.407E-01	0.091
TH-231	-3.482E-01		8.582E-01	1.348E+00	2.370E-01	-0.258
PA-233	-7.070E-02		7.656E-02	1.199E-01	1.124E-02	-0.590
PA-234	-8.357E-03		4.666E-01	7.670E-01	1.444E-01	-0.011
PA-234M	2.680E+00		6.878E+00	1.178E+01	1.182E+00	0.228
NP-239	-3.849E-01		4.126E-01	6.442E-01	7.337E-02	-0.597
AM-241	3.050E-02		7.702E-02	1.191E-01	1.264E-02	0.256
CM-247	2.304E-02		4.882E-02	8.386E-02	7.123E-03	0.275
CF-249	1.663E-02		5.699E-02	9.664E-02	8.185E-03	0.172
CF-251	1.560E-02		1.537E-01	2.508E-01	2.124E-02	0.062

# VAX/VMS Nuclide Identification Report Generated

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248202002          *
* Acquisition date   : 18-MAR-2010 13:11:37 Detector SN#      :              *
* Detector ID        : GAM17                      Sensitivity   : 5.000        *
* Geometry           : CAN                      Energy tolerance: 1.500        *
* Elapsed live time  : 0 02:00:00.00           Abundance limit : 75.000        *
* Elapsed real time  : 0 02:00:09.74           Half life ratio : 8.000        *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 23-FEB-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID          : G248202002           Analyst initials: MXR1          *
* Batch Number       : 959279              Sample Quantity  : 1.0171E+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	2.626E+01	3.167E+00	3.718E-01	1.616E+00
CD-109	4.185E+00	1.066E+00	5.464E-01	5.441E-01
SN-126	4.042E-01	1.030E-01	5.271E-02	5.255E-02
BA-137M	7.252E-01	1.223E-01	4.260E-02	6.237E-02
CS-137	7.662E-01	1.292E-01	4.500E-02	6.592E-02
TL-208	5.434E-01	1.201E-01	4.100E-02	6.129E-02
PB-210	2.991E+00	9.306E-01	4.687E-01	4.748E-01
BI-211	4.272E+00	6.948E-01	2.095E-01	3.545E-01
PB-212	1.702E+00	2.211E-01	5.060E-02	1.128E-01
BI-214	1.264E+00	2.698E-01	8.503E-02	1.377E-01
PB-214	1.550E+00	2.657E-01	7.571E-02	1.356E-01
RA-224	5.706E+00	1.613E+00	5.428E-01	8.230E-01
RA-226	1.264E+00	2.698E-01	8.503E-02	1.377E-01
AC-228	1.595E+00	5.654E-01	1.568E-01	2.885E-01
RA-228	1.595E+00	5.654E-01	1.568E-01	2.885E-01
TH-228	1.702E+00	2.211E-01	5.060E-02	1.128E-01
TH-232	1.595E+00	5.654E-01	1.568E-01	2.885E-01
TH-234	3.049E+00	1.246E+00	6.063E-01	6.358E-01
U-235	1.185E-02	2.483E-01	2.004E-01	1.267E-01
NP-237	1.206E+00	3.948E-01	1.568E-01	2.014E-01
U-238	3.049E+00	1.246E+00	6.063E-01	6.358E-01
ANH-511	1.053E-01	9.308E-02	3.727E-02	4.749E-02

### ---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM )	K.L Act error	DLC (pCi/GRAM )	TPU
BE-7	-1.159E-01	5.036E-01	4.113E-01	2.569E-01 NOT IDENT.
NA-22	1.737E-02	6.854E-02	5.761E-02	3.497E-02 NOT IDENT.
NA-24	-9.209E+09	7.729E+09	0.000E+00	3.943E+09 SHORT HLIF
SC-46	1.088E-03	6.443E-02	5.419E-02	3.287E-02 FAIL ABUN
V-48	-1.329E-02	1.467E-01	1.208E-01	7.487E-02 NOT IDENT.

CR-51	1.233E-02	5.593E-01	4.796E-01	2.853E-01	NOT IDENT.
MN-54	3.160E-02	5.658E-02	5.024E-02	2.887E-02	NOT IDENT.
CO-56	-1.660E-02	5.828E-02	4.749E-02	2.973E-02	FAIL ABUN
CO-57	-1.688E-02	2.765E-02	2.254E-02	1.410E-02	NOT IDENT.
CO-58	-3.938E-02	5.707E-02	4.428E-02	2.912E-02	NOT IDENT.
FE-59	-3.882E-03	1.612E-01	1.325E-01	8.223E-02	NOT IDENT.
CO-60	1.771E-02	5.836E-02	5.017E-02	2.978E-02	NOT IDENT.
ZN-65	8.021E-02	1.411E-01	1.105E-01	7.197E-02	NOT IDENT.
SE-75	-1.879E-02	5.957E-02	4.691E-02	3.039E-02	NOT IDENT.
SR-85	3.623E-02	6.807E-02	5.220E-02	3.473E-02	NOT IDENT.
Y-88	3.229E-02	4.744E-02	4.587E-02	2.420E-02	NOT IDENT.
Y-91	-8.958E+00	3.676E+01	2.921E+01	1.876E+01	NOT IDENT.
NB-94	-4.493E-03	4.787E-02	4.059E-02	2.442E-02	NOT IDENT.
NB-95	-2.054E-03	6.490E-02	5.497E-02	3.311E-02	NOT IDENT.
NB-95M	-9.456E-02	1.733E-01	1.189E-01	8.842E-02	NOT IDENT.
ZR-95	2.888E-02	1.163E-01	1.012E-01	5.934E-02	NOT IDENT.
MO-99	1.915E+00	1.151E+02	0.000E+00	5.872E+01	SHORT HLIF
TC-99M	-1.411E+26	1.554E+26	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-3.620E-02	6.876E-02	5.443E-02	3.508E-02	FAIL ABUN
RH-106	-3.446E-01	5.041E-01	3.823E-01	2.572E-01	NOT IDENT.
RU-106	-3.446E-01	5.030E-01	3.823E-01	2.566E-01	NOT IDENT.
AG-108M	2.057E-03	4.050E-02	3.412E-02	2.066E-02	NOT IDENT.
AG-110M	3.341E-02	5.119E-02	4.010E-02	2.612E-02	NOT IDENT.
SN-113	-1.871E-02	6.512E-02	5.390E-02	3.322E-02	NOT IDENT.
CD-115	-2.937E+01	1.634E+02	0.000E+00	8.338E+01	SHORT HLIF
SN-117M	8.407E-03	9.361E-02	7.831E-02	4.776E-02	NOT IDENT.
TE-123M	-1.554E-02	3.443E-02	2.792E-02	1.756E-02	NOT IDENT.
SB-124	1.053E-01	1.500E-01	1.399E-01	7.653E-02	NOT IDENT.
SB-125	9.916E-02	1.243E-01	1.105E-01	6.340E-02	FAIL ABUN
TE-125M	-4.077E+00	1.149E+01	9.586E+00	5.863E+00	NOT IDENT.
I-126	1.898E-02	5.420E-01	3.857E-01	2.765E-01	NOT IDENT.
SB-126	2.911E-01	3.306E-01	2.841E-01	1.687E-01	NOT IDENT.
SB-127	1.330E+01	7.977E+00	7.428E+00	4.070E+00	NOT IDENT.
I-131	-2.228E-02	2.995E-01	2.530E-01	1.528E-01	NOT IDENT.
TE-132	1.467E+00	4.810E+00	3.991E+00	2.454E+00	NOT IDENT.
BA-133	1.722E-02	5.683E-02	4.386E-02	2.899E-02	NOT IDENT.
I-133	-1.180E+06	4.418E+06	0.000E+00	2.254E+06	SHORT HLIF
CS-134	1.293E-01	8.176E-02	7.677E-02	4.171E-02	NOT IDENT.
CS-135	-1.668E-01	2.149E-01	1.630E-01	1.096E-01	NOT IDENT.
I-135	-3.959E+24	5.456E+24	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.941E-02	2.615E-01	2.138E-01	1.334E-01	NOT IDENT.
CE-139	-8.684E-03	3.625E-02	2.969E-02	1.849E-02	NOT IDENT.
BA-140	4.440E-01	6.323E-01	5.392E-01	3.226E-01	NOT IDENT.
LA-140	-9.648E-02	2.014E-01	1.533E-01	1.028E-01	NOT IDENT.
CE-141	-5.024E-02	8.620E-02	6.981E-02	4.398E-02	NOT IDENT.
CE-143	3.050E+04	1.200E+04	0.000E+00	6.123E+03	SHORT HLIF
CE-144	-2.644E-01	2.277E-01	1.760E-01	1.162E-01	NOT IDENT.
PM-144	-4.728E-03	5.176E-02	4.394E-02	2.641E-02	NOT IDENT.
PR-144	-3.631E-01	3.889E+00	3.301E+00	1.984E+00	NOT IDENT.
PM-146	-5.331E-02	6.072E-02	4.693E-02	3.098E-02	NOT IDENT.
ND-147	-6.927E-01	1.197E+00	9.256E-01	6.108E-01	FAIL ABUN
PM-149	8.747E+02	1.275E+03	0.000E+00	6.505E+02	SHORT HLIF
EU-152	-4.809E-02	1.203E-01	9.593E-02	6.138E-02	NOT IDENT.
GD-153	-7.546E-02	9.466E-02	6.875E-02	4.830E-02	NOT IDENT.
EU-154	1.199E-01	1.854E-01	1.634E-01	9.460E-02	NOT IDENT.
EU-155	1.633E-01	1.127E-01	1.008E-01	5.748E-02	FAIL ABUN
TB-160	1.641E-01	2.170E-01	1.970E-01	1.107E-01	FAIL ABUN
HO-166M	3.799E-02	8.236E-02	7.338E-02	4.202E-02	NOT IDENT.
TA-182	-1.208E-02	3.293E-01	2.679E-01	1.680E-01	FAIL ABUN
IR-192	1.999E-02	4.647E-02	4.090E-02	2.371E-02	FAIL ABUN
HG-203	-2.613E-02	5.032E-02	4.203E-02	2.567E-02	NOT IDENT.
BI-207	1.675E-02	7.722E-02	6.555E-02	3.940E-02	FAIL ABUN
PB-211	8.184E-02	9.519E-01	8.070E-01	4.857E-01	NOT IDENT.
BI-212	2.759E+00	1.286E+00	9.189E-01	6.562E-01	FAIL ABUN
RN-219	-1.560E-01	5.345E-01	4.405E-01	2.727E-01	NOT IDENT.
RA-223	-3.482E-01	8.411E-01	6.725E-01	4.291E-01	FAIL ABUN
AC-227	-6.264E-02	3.198E-01	2.548E-01	1.632E-01	FAIL ABUN
TH-227	-6.264E-02	3.198E-01	2.548E-01	1.632E-01	FAIL ABUN
TH-229	-2.723E-01	6.528E-01	5.240E-01	3.331E-01	FAIL ABUN
PA-231	2.689E-01	1.691E+00	1.474E+00	8.630E-01	FAIL ABUN
TH-231	-3.482E-01	8.411E-01	6.725E-01	4.291E-01	FAIL ABUN
PA-233	-7.070E-02	7.502E-02	5.979E-02	3.828E-02	FAIL ABUN
PA-234	-8.357E-03	4.573E-01	3.812E-01	2.333E-01	NOT IDENT.
PA-234M	2.680E+00	6.740E+00	5.854E+00	3.439E+00	NOT IDENT.
NP-239	-3.849E-01	4.043E-01	3.224E-01	2.063E-01	NOT IDENT.
AM-241	3.050E-02	7.548E-02	5.973E-02	3.851E-02	NOT IDENT.
CM-247	2.304E-02	4.784E-02	4.180E-02	2.441E-02	NOT IDENT.
CF-249	1.663E-02	5.585E-02	4.817E-02	2.849E-02	NOT IDENT.



CF-251	1.560E-02	1.506E-01	1.253E-01	7.686E-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	212.2490
49.72	215.5165
57.36	0.0000
59.54	255.0327
63.29	311.9149
63.29	311.9149
64.28	313.1131
67.75	330.8011
69.67	315.3123
70.83	319.3506
72.81	343.5163
72.87	343.5634
72.87	343.5634
74.82	293.5964
74.82	293.5964
74.82	293.5964
74.97	293.6949
77.11	295.0762
77.11	295.0762
77.11	295.0762
79.69	284.9577
79.80	285.0233
80.12	244.4719
80.19	244.5076
80.57	250.1418
81.00	285.7475
81.07	285.7892
81.07	285.7892
83.79	227.1906
83.79	227.1906
85.43	227.9524
86.48	228.4374
86.55	228.4691
86.79	228.5780
86.94	228.6477
87.57	228.9364
88.03	229.1467
88.47	229.3468
89.96	230.0205
91.11	230.5373
92.59	231.1984
92.59	231.1984
93.35	231.5352
94.67	232.1166
94.87	232.2039
94.87	232.2039
95.86	231.2369
97.43	236.1321
98.44	194.3278
99.53	183.4294
100.11	187.3905
103.18	241.4568
103.37	244.3801
105.31	185.3416
106.12	192.2682
109.28	220.1219
111.00	191.9729
111.76	199.9089
116.30	171.4066
117.23	180.3975
121.12	157.1357
121.78	160.2322
122.06	185.7169
123.07	179.1614
131.20	184.4012
133.52	198.9746
136.00	150.7788

136.47	152.8817
140.51	0.0000
140.51	0.0000
143.76	178.7357
144.24	177.8459
144.24	177.8459
145.44	200.4150
152.43	183.9661
153.25	159.6150
154.21	176.2150
154.21	176.2150
156.02	192.0486
158.56	162.8154
159.00	176.3142
162.66	138.8282
163.33	145.1697
165.86	170.6115
176.60	163.4340
177.52	153.0610
181.07	0.0000
184.41	167.6418
185.72	175.8966
193.51	174.2723
197.04	174.9743
205.31	142.2585
210.85	118.4436
215.65	127.8709
222.11	130.9603
227.38	139.4844
228.16	121.7269
228.18	121.7291
235.69	138.4050
235.96	138.4426
235.96	138.4426
238.63	107.2103
238.63	107.2103
240.99	107.4587
242.00	107.5650
244.70	112.3881
252.40	121.2233
252.80	105.2520
256.23	121.6605
256.23	121.6605
260.90	0.0000
264.66	119.1398
268.22	142.7368
269.46	105.7186
269.46	105.7186
271.23	119.8502
273.65	152.7614
276.40	99.9466
277.37	96.5219
277.60	99.1750
278.00	102.7213
279.20	116.0136
279.54	116.0479
280.46	121.4196
283.69	100.5850
284.31	97.1085
285.41	98.0845
285.90	0.0000
287.50	89.4091
293.27	0.0000
295.22	71.2842
295.96	71.3293
298.57	71.4856
299.98	104.4902
299.98	104.4902
300.09	104.5009
300.09	104.5009
300.13	104.5044
301.36	104.6096
302.85	111.9136
304.50	114.9395
304.50	114.9395
304.85	102.0382
308.46	88.2846
311.90	99.3719

316.51	91.5806
319.41	97.2447
320.08	96.3860
323.87	103.9718
323.87	103.9718
328.76	110.7770
333.37	102.9031
334.37	113.2799
334.37	113.2799
338.28	102.3671
338.28	102.3671
338.32	102.3705
338.32	102.3705
338.32	102.3705
340.48	85.7256
340.55	85.7298
344.28	87.8763
351.06	84.9155
351.93	83.8518
356.01	74.7583
364.49	87.4415
366.42	0.0000
383.85	93.4063
388.16	89.8591
388.63	93.7128
391.69	95.8252
400.66	80.0162
401.81	83.9374
402.40	70.4581
404.85	81.2058
410.95	82.5033
414.70	84.6516
423.72	70.4652
427.09	65.7129
427.87	65.7456
433.94	73.8773
453.88	87.7556
463.37	75.2197
468.07	62.7580
473.00	72.6240
476.78	58.6319
477.60	71.8082
487.02	64.0651
492.35	0.0000
497.08	78.7506
511.00	80.3964
514.00	72.6833
527.90	0.0000
529.87	0.0000
531.02	54.1852
537.26	57.5026
546.56	0.0000
563.25	45.5694
569.33	77.6026
569.50	82.9250
569.70	79.7447
583.19	54.5953
600.60	62.6233
602.73	63.4076
604.72	46.7358
609.32	61.8028
609.32	61.8028
610.33	61.8323
614.28	62.6027
618.01	48.9949
621.93	67.6309
621.93	67.6309
633.25	60.3140
635.95	46.1169
636.99	35.1533
645.85	57.3590
657.76	31.9403
661.66	51.5500
661.66	51.5500
664.57	0.0000
666.33	46.3150
666.50	48.1003
677.62	38.0446

685.70	28.0731
695.00	48.7081
696.49	57.7641
696.51	57.7656
697.00	59.5837
702.65	53.3938
706.68	56.2057
711.68	39.9728
720.70	35.1748
721.93	0.0000
722.78	48.6797
722.91	48.6823
723.31	48.6901
724.19	39.5755
727.33	44.8094
733.00	39.7215
735.93	29.3680
739.50	0.0000
747.24	32.2716
752.31	40.6538
753.82	41.6030
756.73	45.3549
763.94	60.3392
765.81	49.2359
766.42	47.3904
777.92	0.0000
778.90	45.7581
783.70	43.0385
785.37	51.4927
795.86	39.4827
801.95	32.9800
810.29	39.7031
810.76	40.6558
815.77	29.3660
818.51	35.0868
832.01	43.8438
834.85	41.0274
836.80	0.0000
846.77	37.3766
856.80	51.9434
860.56	34.6764
871.09	43.5114
873.19	53.2208
875.33	0.0000
879.36	29.0940
880.51	33.9567
883.24	43.7014
884.68	43.7234
889.28	39.9029
898.04	36.1211
911.20	31.3844
911.20	31.3844
911.20	31.3844
926.50	34.5087
937.49	51.4630
944.13	26.7812
946.00	37.7161
949.00	37.7542
962.29	39.9180
964.08	31.6211
966.15	46.6313
968.97	28.3382
968.97	28.3382
968.97	28.3382
983.53	34.1693
996.26	39.3561
1001.03	32.3422
1004.73	45.5350
1037.84	33.7444
1038.76	0.0000
1048.07	40.0074
1050.41	28.7437
1050.41	28.7437
1063.66	30.9229
1085.87	36.3210
1099.45	37.5117
1112.07	25.4004
1115.54	26.1743

1120.29	32.5016
1120.29	32.5016
1120.55	32.5031
1121.30	33.2098
1131.51	0.0000
1173.23	36.1947
1177.93	50.1004
1189.05	36.3558
1204.77	42.9590
1221.41	45.3120
1231.02	54.0845
1235.36	52.3430
1238.28	30.7087
1260.41	0.0000
1271.85	39.3697
1274.44	24.0754
1274.54	29.5484
1291.59	16.4890
1298.22	0.0000
1312.11	28.5491
1332.49	16.6633
1365.19	13.0675
1368.63	0.0000
1384.29	12.8616
1408.01	12.2626
1457.56	0.0000
1460.82	13.1004
1489.16	6.7311
1505.03	14.4763
1596.21	17.7297
1620.50	5.9409
1678.03	0.0000
1690.97	10.0505
1764.49	10.4937
1764.49	10.4937
1770.23	38.8133
1771.35	10.2161
1791.20	0.0000
1836.06	4.1388

TOTAL URANIUM BY GAMMA SPEC REPORT  
Sample:G248202002

Total Uranium Activity	9.0777E+00	ug/g
Total Uranium Counting Unc.	3.7091E+00	ug/g
Total Uranium Tpu	1.8924E-06	ug/g
Total Uranium Mda	1.8061E+00	ug/g

```

*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON ,SC 29417               *
*               GROSS GAMMA REPORT                 *
*
*****
*
*  BATCH ID      : 959279                      SAMPLE ID   : G248202002
*  ANALYST       : MXR1                        DETECTOR    : GAM17
*  SAMPLE DATE   : 23-FEB-2010 12:00:00.00    COUNT TIME   : 0 02:00:00.00
*  ANALYSIS DATE : 18-MAR-2010 13:11:37.29    SAMPLE ALQT  : 101.710 GRAM
*
*****

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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 1.009E+01
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.338E+00
GROSS GAMMA MDA     (pCi/GRAM ) : 4.290E+00
GROSS GAMMA DLC     (pCi/GRAM ) : 2.073E+00

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VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 15:13:04.10

```

*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                          *
*                               Charleston, SC 29414                     *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057346.CNF;1
Sample date        : 4-MAR-2010 00:00:00. Acquisition date : 18-MAR-2010 13:12:25
Sample ID          : G1202057346      Sample quantity   : 1.28710E+02 GRAM
Detector name      : GAM18            Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00    Elapsed real time: 0 02:00:00.62  0.0%
Energy tolerance   : 1.50000 keV      Analyst Initials  : MXR1
Abundance limit    : 75.00000         Sensitivity       : 5.00000
Batch ID           : 959279           Detector SN#      :
Matrix Spike ID    :                  LCS ID            : 1032-A
*****

```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.34*	63	137	1.09	125.82	120	10	8.71E-03	39.0	
2	0	238.54*	52	91	1.67	476.09	470	11	7.25E-03	41.8	
3	0	1014.35	11	10	0.91	2027.30	2021	9	1.54E-03	61.2	

Flag: "\*" = Peak area was modified by background subtraction

## VMS Nuclide Identification Report V3.1 Generated 18-MAR-2010 15:13:06

```

Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057346.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 : 18-MAR-2010 13:12:25
Sample ID         : G1202057346           Sample quantity   : 128.71 GRAM
Sample type       : SOLID                 Sample geometry    :
Detector name     : GAMMA18              Detector geometry: CAN
Elapsed live time : 0 02:00:00.00         Elapsed real time: 0 02:00:00.62   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

## ---- 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	*	2.986E-02	1.471E-01	2.474E-01	1.792E-02	0.121	
NA-22	1274.54	*	4.157E-05	1.914E-02	3.144E-02	2.139E-03	0.001	
NA-24	1368.63	*	-1.057E-02	1.914E-02	Half-Life too short			
K-40	1460.82	*	-1.470E-01	2.158E-01	3.197E-01	2.426E-02	-0.460	
SC-46	889.28	*	2.770E-03	1.924E-02	3.199E-02	3.568E-03	0.087	
	1120.55		1.013E-02	1.885E-02	3.364E-02	2.324E-03	0.301	
V-48	944.13		2.218E-02	4.312E-01	7.054E-01	7.465E-02	0.031	
	983.53	*	1.858E-02	2.730E-02	4.879E-02	4.825E-03	0.381	
	1312.11		-6.201E-03	3.113E-02	4.913E-02	3.579E-03	-0.126	
CR-51	320.08	*	-1.443E-02	1.714E-01	2.739E-01	1.761E-02	-0.053	
MN-54	834.85	*	-2.402E-03	1.634E-02	2.637E-02	2.701E-03	-0.091	
CO-56	846.77	*	-1.504E-03	1.955E-02	3.180E-02	3.320E-03	-0.047	
	1037.84		-2.406E-02	1.199E-01	1.947E-01	1.802E-02	-0.124	
	1238.28		-2.944E-02	3.418E-02	4.866E-02	3.244E-03	-0.605	
	1771.35		-7.180E-02	9.635E-02	1.232E-01	7.446E-03	-0.583	
CO-57	122.06	*	6.359E-03	1.214E-02	2.025E-02	1.199E-03	0.314	
	136.47		-2.756E-02	9.698E-02	1.509E-01	9.855E-03	-0.183	
CO-58	810.76	*	-2.549E-03	1.857E-02	3.011E-02	2.972E-03	-0.085	
FE-59	1099.45	*	2.870E-03	4.044E-02	6.794E-02	5.589E-03	0.042	
	1291.59		-3.677E-03	4.872E-02	7.888E-02	6.630E-03	-0.047	
CO-60	1173.23		-5.868E-03	1.566E-02	2.429E-02	1.342E-03	-0.242	
	1332.49	*	4.434E-03	1.789E-02	3.042E-02	2.299E-03	0.146	
ZN-65	1115.54	*	-8.062E-03	3.730E-02	6.023E-02	4.243E-03	-0.134	
SE-75	121.12		-4.805E-03	6.131E-02	9.779E-02	8.972E-03	-0.049	
	136.00		-5.649E-03	1.824E-02	2.831E-02	1.613E-03	-0.200	
	264.66	*	-1.040E-02	2.185E-02	3.435E-02	1.965E-03	-0.303	
	279.54		-2.560E-02	4.863E-02	7.541E-02	4.665E-03	-0.339	
	400.66		-1.138E-01	1.169E-01	1.773E-01	1.609E-02	-0.642	
SR-85	514.00	*	-9.891E-02	3.176E-02	4.129E-02	2.736E-03	-2.395	
Y-88	898.04		-6.638E-03	2.030E-02	3.177E-02	3.601E-03	-0.209	
	1836.06	*	-5.613E-03	1.803E-02	2.746E-02	1.564E-03	-0.204	
Y-91	1204.77	*	6.139E-02	8.314E+00	1.374E+01	8.122E-01	0.004	
NB-94	702.65	*	6.617E-03	1.681E-02	2.909E-02	2.386E-03	0.227	
	871.09		4.652E-03	1.745E-02	2.944E-02	3.193E-03	0.158	

---- 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	*		1.221E-02	1.750E-02	3.123E-02	2.857E-03	0.391
NB-95M	235.69	*		1.272E-02	5.784E-02	8.571E-02	6.310E-03	0.148
ZR-95	724.19			-3.653E-03	4.216E-02	6.955E-02	6.437E-03	-0.053
	756.73	*		7.687E-03	2.984E-02	5.105E-02	5.041E-03	0.151
MO-99	140.51			-4.234E+00	1.060E+01	1.565E+01	3.570E+00	-0.271
	181.07			-4.794E+00	6.746E+00	1.068E+01	1.870E+00	-0.449
	366.42			3.896E+00	3.849E+01	6.539E+01	3.778E+00	0.060
	739.50	*		5.512E+00	5.284E+00	9.587E+00	1.517E+00	0.575
	777.92			-8.952E+00	1.232E+01	1.821E+01	1.700E+00	-0.492
TC-99M	140.51	*		-1.756E+09	1.232E+01	Half-Life too short		
RU-103	497.08	*		-9.413E-03	1.856E-02	2.883E-02	3.682E-03	-0.326
	610.33			-2.735E-01	4.705E-01	7.356E-01	1.154E-01	-0.372
RH-106	621.93	*		-5.557E-02	1.617E-01	2.506E-01	3.125E-02	-0.222
	1050.41			-2.376E-01	1.245E+00	2.034E+00	1.738E-01	-0.117
RU-106	621.93	*		-5.557E-02	1.616E-01	2.506E-01	1.844E-02	-0.222
	1050.41			-2.376E-01	1.245E+00	2.034E+00	1.738E-01	-0.117
AG-108M	433.94	*		5.559E-03	1.306E-02	2.260E-02	1.457E-03	0.246
	614.28			-2.947E-02	1.991E-02	2.712E-02	2.072E-03	-1.086
	722.91			-6.300E-03	1.680E-02	2.679E-02	2.353E-03	-0.235
CD-109	88.03	*		-3.936E-01	3.632E-01	5.452E-01	5.040E-02	-0.722
AG-110M	657.76	*		-6.148E-03	1.446E-02	2.306E-02	1.819E-03	-0.267
	677.62			-4.075E-02	1.452E-01	2.359E-01	1.915E-02	-0.173
	706.68			7.339E-03	1.101E-01	1.848E-01	1.575E-02	0.040
	763.94			4.526E-02	6.617E-02	1.183E-01	1.105E-02	0.383
	884.68			-2.372E-02	2.550E-02	3.659E-02	4.132E-03	-0.648
	937.49			1.346E-02	5.404E-02	9.058E-02	9.915E-03	0.149
	1384.29			-2.646E-02	6.976E-02	1.053E-01	8.152E-03	-0.251
	1505.03			-1.385E-02	1.273E-01	2.084E-01	1.496E-02	-0.066
SN-113	391.69	*		-1.523E-03	1.884E-02	3.133E-02	1.922E-03	-0.049
CD-115	260.90			-1.307E+01	5.619E+01	9.025E+01	5.095E+00	-0.145
	492.35			2.392E+00	1.485E+01	2.483E+01	1.607E+00	0.096
	527.90	*		-4.279E-01	3.841E+00	6.193E+00	4.163E-01	-0.069
SN-117M	156.02			3.711E-01	1.016E+00	1.762E+00	9.411E-02	0.211
	158.56	*		-1.538E-02	2.658E-02	4.067E-02	2.162E-03	-0.378
TE-123M	159.00	*		-1.063E-02	1.406E-02	2.119E-02	1.143E-03	-0.502
SB-124	602.73			-1.585E-02	2.639E-02	3.872E-02	2.800E-03	-0.409
	645.85			1.518E-01	2.595E-01	4.419E-01	3.571E-02	0.344
	722.78			-7.282E-02	1.665E-01	2.635E-01	2.292E-02	-0.276
	1690.97	*		1.335E-02	3.992E-02	7.031E-02	4.870E-03	0.190
SB-125	427.87	*		-7.166E-03	3.945E-02	6.446E-02	4.023E-03	-0.111
	463.37			1.763E-01	1.224E-01	2.279E-01	1.626E-02	0.774
	600.60			-3.508E-03	1.209E-01	1.858E-01	1.480E-02	-0.019
	635.95			-7.126E-02	1.375E-01	2.077E-01	1.714E-02	-0.343
TE-125M	109.28	*		2.132E-01	4.577E+00	7.424E+00	6.657E-01	0.029
I-126	388.63			-7.827E-03	6.748E-02	1.119E-01	6.431E-03	-0.070
	666.33	*		1.701E-01	9.755E-02	1.894E-01	1.456E-02	0.898
	753.82			2.623E-01	7.252E-01	1.256E+00	1.126E-01	0.209
SB-126	414.70			2.771E-02	3.500E-02	6.221E-02	3.679E-03	0.445
	666.50			5.640E-02	3.321E-02	6.432E-02	4.946E-03	0.877

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		695.00		1.894E-02	3.787E-02	6.616E-02	5.354E-03	0.286
		697.00		-3.513E-02	1.335E-01	2.175E-01	1.767E-02	-0.162
		720.70	*	-1.830E-02	6.548E-02	1.058E-01	8.955E-03	-0.173
SN-126	+	856.80		6.129E-02	2.268E-01	3.832E-01	4.064E-02	0.160
		64.28		6.165E-01	4.891E-01	5.050E-01	7.465E-02	1.221
		86.94		-1.321E-01	1.615E-01	2.337E-01	9.692E-02	-0.565
		87.57	*	-4.539E-02	3.620E-02	5.356E-02	4.935E-03	-0.847
SB-127		252.40		2.049E-01	1.757E+00	2.907E+00	1.191E+00	0.070
		473.00		3.349E-01	7.023E-01	1.210E+00	1.354E-01	0.277
		685.70	*	-4.249E-01	5.638E-01	8.629E-01	9.240E-02	-0.492
		783.70		-6.225E-01	1.501E+00	2.319E+00	2.965E-01	-0.268
I-131		80.19		-1.648E+00	1.983E+00	3.061E+00	2.668E-01	-0.538
		284.31		5.436E-02	6.508E-01	1.066E+00	6.771E-02	0.051
		364.49	*	2.638E-02	5.093E-02	8.944E-02	5.765E-03	0.295
		636.99		-4.700E-01	7.121E-01	1.050E+00	8.421E-02	-0.448
TE-132		49.72		4.006E+00	1.250E+01	2.152E+01	2.194E+00	0.186
		111.76		3.812E+00	1.363E+01	2.247E+01	2.083E+00	0.170
		116.30		3.611E+00	1.122E+01	1.854E+01	1.681E+00	0.195
		228.16	*	1.289E-01	2.939E-01	5.005E-01	7.130E-02	0.257
BA-133		81.00		7.019E-03	4.179E-02	6.956E-02	1.083E-02	0.101
		276.40		1.192E-02	1.535E-01	2.519E-01	3.158E-02	0.047
		302.85		1.953E-02	6.379E-02	1.059E-01	1.206E-02	0.184
		356.01	*	-2.243E-02	2.080E-02	2.938E-02	3.311E-03	-0.763
		383.85		1.551E-03	1.235E-01	2.076E-01	2.209E-02	0.007
I-133		529.87	*	-3.813E-04	1.235E-01	Half-Life	too short	
		875.33		-4.411E-02	1.235E-01	Half-Life	too short	
		1298.22		-6.686E-02	1.235E-01	Half-Life	too short	
CS-134		563.25		3.717E-02	1.583E-01	2.644E-01	1.868E-02	0.141
		569.33		-6.357E-02	1.007E-01	1.462E-01	1.045E-02	-0.435
		604.72		-1.110E-02	2.126E-02	3.288E-02	2.391E-03	-0.338
		795.86	*	-1.560E-02	2.205E-02	3.334E-02	3.225E-03	-0.468
		801.95		6.468E-02	2.384E-01	3.973E-01	3.876E-02	0.163
		1365.19		3.157E-02	6.097E-01	1.003E+00	7.984E-02	0.031
CS-135		268.22	*	4.492E-02	7.316E-02	1.251E-01	9.457E-03	0.359
I-135		546.56		5.619E+08	7.316E-02	Half-Life	too short	
		836.80		-4.243E+08	7.316E-02	Half-Life	too short	
		1038.76		-1.557E+09	7.316E-02	Half-Life	too short	
		1131.51		-5.150E+07	7.316E-02	Half-Life	too short	
		1260.41	*	-1.438E+08	7.316E-02	Half-Life	too short	
		1457.56		3.232E+09	7.316E-02	Half-Life	too short	
		1678.03		-1.570E+08	7.316E-02	Half-Life	too short	
		1791.20		-2.096E+09	7.316E-02	Half-Life	too short	
CS-136		153.25		-8.902E-02	3.646E-01	6.092E-01	4.716E-02	-0.146
		176.60		-1.866E-02	2.246E-01	3.758E-01	2.493E-02	-0.050
		273.65		-7.623E-02	2.179E-01	3.444E-01	2.321E-02	-0.221
		340.55		-2.282E-02	6.911E-02	1.075E-01	6.733E-03	-0.212
		818.51		-1.170E-02	3.104E-02	4.845E-02	4.838E-03	-0.241
		1048.07	*	3.398E-02	4.687E-02	8.513E-02	7.627E-03	0.399
		1235.36		-1.020E-02	2.082E-01	3.405E-01	3.468E-02	-0.030

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Activity Key	(pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-137M		661.66	*	-9.672E-03	1.542E-02	2.402E-02	1.831E-03	-0.403
CS-137		661.66	*	-1.022E-02	1.629E-02	2.538E-02	1.939E-03	-0.403
CE-139		165.86	*	-2.140E-03	1.232E-02	2.055E-02	1.079E-03	-0.104
BA-140		162.66		1.854E-01	3.347E-01	5.870E-01	3.627E-02	0.316
		304.85		-1.148E-01	6.169E-01	9.797E-01	2.798E-01	-0.117
		423.72		3.041E-01	8.060E-01	1.382E+00	4.465E-01	0.220
		537.26	*	4.938E-02	1.137E-01	1.929E-01	6.460E-02	0.256
LA-140		328.76		8.088E-02	1.410E-01	2.375E-01	1.542E-02	0.341
		487.02		4.885E-02	5.663E-02	1.017E-01	7.254E-03	0.480
		815.77		7.718E-02	1.478E-01	2.581E-01	2.794E-02	0.299
		1596.21	*	-1.190E-02	3.645E-02	5.644E-02	3.873E-03	-0.211
CE-141		145.44	*	-1.153E-02	3.126E-02	4.690E-02	2.678E-03	-0.246
CE-143		57.36		4.874E-05	3.126E-02	Half-Life	too short	
		293.27	*	2.916E-05	3.126E-02	Half-Life	too short	
		664.57		4.879E-04	3.126E-02	Half-Life	too short	
		721.93		-1.849E-04	3.126E-02	Half-Life	too short	
CE-144		80.12		-7.162E-01	1.117E+00	1.752E+00	1.517E-01	-0.409
		133.52	*	9.629E-03	8.793E-02	1.415E-01	1.957E-02	0.068
PM-144		476.78		2.800E-02	3.054E-02	5.461E-02	4.009E-03	0.513
		618.01		1.534E-02	1.659E-02	2.919E-02	2.223E-03	0.525
		696.49	*	9.074E-04	1.723E-02	2.893E-02	2.348E-03	0.031
PR-144		696.51	*	6.003E-02	1.288E+00	2.162E+00	1.754E-01	0.028
		1489.16		-3.083E+00	6.993E+00	1.039E+01	7.504E-01	-0.297
PM-146		453.88	*	1.913E-04	2.006E-02	3.325E-02	2.905E-03	0.006
		633.25		1.701E-01	7.384E-01	1.213E+00	4.603E-01	0.140
		735.93		-3.570E-02	6.984E-02	1.083E-01	3.036E-02	-0.330
		747.24		-1.055E-02	4.462E-02	7.202E-02	1.061E-02	-0.146
ND-147		91.11		6.960E-02	1.356E-01	2.280E-01	2.145E-02	0.305
		319.41		-5.219E-01	1.546E+00	2.411E+00	1.393E-01	-0.216
		531.02	*	6.150E-03	2.210E-01	3.624E-01	5.057E-02	0.017
PM-149		285.90	*	1.857E+01	3.420E+01	5.809E+01	8.214E+00	0.320
EU-152		121.78		1.976E-02	3.386E-02	5.679E-02	4.360E-03	0.348
		244.70		-1.190E-01	1.628E-01	2.428E-01	1.356E-02	-0.490
		344.28	*	-3.651E-02	4.917E-02	7.319E-02	4.772E-03	-0.499
		778.90		-4.054E-02	1.050E-01	1.644E-01	1.537E-02	-0.247
		964.08		-6.397E-02	1.295E-01	1.967E-01	2.015E-02	-0.325
		1085.87		3.192E-02	1.783E-01	3.038E-01	2.354E-02	0.105
		1112.07		8.643E-03	1.278E-01	2.145E-01	1.527E-02	0.040
		1408.01		2.875E-02	9.957E-02	1.679E-01	1.247E-02	0.171
GD-153		69.67		-8.695E-01	1.011E+00	1.438E+00	1.167E-01	-0.605
		97.43	*	-3.701E-03	4.231E-02	6.844E-02	5.351E-03	-0.054
		103.18		1.276E-02	5.077E-02	8.395E-02	6.054E-03	0.152
EU-154		123.07		4.101E-03	2.649E-02	4.296E-02	4.057E-03	0.095
		723.31		-1.651E-02	7.655E-02	1.244E-01	1.169E-02	-0.133
		873.19		-5.643E-02	1.524E-01	2.386E-01	3.251E-02	-0.236
		996.26		6.138E-02	1.624E-01	2.757E-01	4.963E-02	0.223
		1004.73		-9.342E-02	9.839E-02	1.351E-01	1.661E-02	-0.692
		1274.44	*	3.341E-03	5.353E-02	8.872E-02	8.930E-03	0.038
EU-155		86.55		7.173E-03	4.265E-02	7.075E-02	6.518E-03	0.101

## ----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TB-160	105.31	*		7.405E-03	4.755E-02	7.798E-02	5.572E-03	0.095
	86.79			-9.348E-02	1.180E-01	1.822E-01	1.667E-02	-0.513
	197.04			-2.803E-01	2.842E-01	4.237E-01	2.276E-02	-0.661
	215.65			3.293E-01	3.333E-01	5.910E-01	3.226E-02	0.557
	298.57			1.281E-02	5.205E-02	8.602E-02	4.941E-03	0.149
	879.36	*		4.474E-02	7.026E-02	1.231E-01	1.352E-02	0.363
	962.29			-1.047E-02	2.361E-01	3.809E-01	3.913E-02	-0.027
	966.15			-3.108E-02	1.080E-01	1.460E-01	1.490E-02	-0.213
	1177.93			1.159E-01	1.254E-01	2.362E-01	1.319E-02	0.491
	1271.85			-6.334E-03	3.024E-01	4.950E-01	3.345E-02	-0.013
HO-166M	80.57			-5.420E-02	1.218E-01	1.939E-01	1.685E-02	-0.279
	184.41			-1.096E-02	1.716E-02	2.796E-02	1.486E-03	-0.392
	280.46			1.405E-02	3.670E-02	6.176E-02	3.522E-03	0.228
	410.95			-3.118E-02	1.167E-01	1.903E-01	1.120E-02	-0.164
	711.68	*		2.209E-03	3.037E-02	5.100E-02	4.251E-03	0.043
	752.31			-2.487E-02	1.211E-01	1.960E-01	1.753E-02	-0.127
	810.29			-1.612E-02	2.905E-02	4.467E-02	4.398E-03	-0.361
	67.75			-3.346E-02	6.742E-02	9.786E-02	7.866E-03	-0.342
	100.11			-1.620E-04	8.510E-02	1.383E-01	1.039E-02	-0.001
	152.43			-2.918E-02	1.672E-01	2.606E-01	1.402E-02	-0.112
TA-182	222.11			-7.665E-03	1.468E-01	2.421E-01	1.329E-02	-0.032
	1121.30			1.828E-02	4.968E-02	8.701E-02	5.994E-03	0.210
	1189.05			9.572E-02	1.223E-01	2.233E-01	1.277E-02	0.429
	1221.41	*		-4.411E-02	7.447E-02	1.117E-01	6.834E-03	-0.395
	1231.02			-2.602E-02	1.884E-01	3.044E-01	1.899E-02	-0.085
	295.96			-3.663E-02	5.639E-02	8.156E-02	4.758E-03	-0.449
	308.46			-3.068E-02	4.591E-02	6.954E-02	4.052E-03	-0.441
	316.51	*		4.840E-03	1.646E-02	2.724E-02	1.580E-03	0.178
	468.07			-3.068E-02	2.988E-02	4.382E-02	3.127E-03	-0.700
	70.83			-1.463E-01	7.421E-01	1.107E+00	1.752E-01	-0.132
HG-203	72.87			5.927E-02	3.755E-01	6.278E-01	9.628E-02	0.094
	279.20	*		-6.151E-03	1.672E-02	2.631E-02	1.586E-03	-0.234
BI-207	72.81			1.632E-02	8.780E-02	1.471E-01	1.214E-02	0.111
	74.97			-2.947E-02	5.316E-02	8.011E-02	6.697E-03	-0.368
	569.70			-1.207E-02	1.576E-02	2.249E-02	1.576E-03	-0.536
	1063.66	*		1.094E-02	2.660E-02	4.642E-02	3.832E-03	0.236
TL-208	1770.23			-1.654E-01	1.974E-01	2.452E-01	1.483E-02	-0.675
	277.37			-1.309E-02	1.682E-01	2.721E-01	2.919E-02	-0.048
	583.19	*		8.335E-04	2.026E-02	3.332E-02	2.608E-03	0.025
	860.56			6.912E-02	1.483E-01	2.465E-01	2.757E-02	0.280
PB-210	46.54	*		-1.966E-02	3.330E+00	5.170E+00	3.963E-01	-0.004
BI-211	72.87			2.401E-01	1.521E+00	2.543E+00	2.100E-01	0.094
	351.06	*		-5.084E-02	1.107E-01	1.727E-01	1.109E-02	-0.294
PB-211	404.85	*		2.419E-01	3.456E-01	5.789E-01	2.777E-01	0.418
	427.09			-2.221E-01	6.897E-01	1.100E+00	5.041E-01	-0.202
	832.01			-2.160E-01	4.433E-01	6.576E-01	3.429E-01	-0.328
BI-212	727.33	*		1.714E-01	2.433E-01	4.317E-01	5.363E-02	0.397
	785.37			1.387E-01	1.446E+00	2.376E+00	2.245E-01	0.058
	1620.50			2.048E-01	1.068E+00	1.839E+00	1.243E-01	0.111

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PB-212		74.82		-9.402E-02	1.860E-01	2.811E-01	3.604E-02	-0.334
		77.11		3.074E-02	9.423E-02	1.589E-01	1.347E-02	0.194
	+	238.63	*	5.139E-02	4.314E-02	5.796E-02	4.179E-03	0.887
		300.09		1.272E-01	3.631E-01	6.052E-01	5.054E-02	0.210
BI-214		609.32	*	-2.437E-02	4.629E-02	7.294E-02	6.555E-03	-0.334
		1120.29		6.370E-02	1.126E-01	2.014E-01	1.939E-02	0.316
		1764.49		1.623E-02	1.319E-01	2.279E-01	1.386E-02	0.071
PB-214		74.82		-1.666E-01	3.295E-01	4.982E-01	5.738E-02	-0.334
		77.11		5.419E-02	1.662E-01	2.801E-01	3.312E-02	0.194
		242.00		-9.673E-02	1.908E-01	2.590E-01	2.082E-02	-0.373
		295.22		-2.534E-02	7.463E-02	1.106E-01	9.597E-03	-0.229
		351.93	*	-8.239E-03	3.860E-02	6.150E-02	5.206E-03	-0.134
RN-219		271.23		-1.835E-01	1.205E-01	1.641E-01	1.303E-02	-1.118
		401.81	*	-1.552E-01	1.901E-01	2.927E-01	3.936E-02	-0.530
RA-223		81.07		1.872E-02	9.481E-02	1.582E-01	1.379E-02	0.118
		83.79		-6.114E-03	6.129E-02	9.415E-02	8.393E-03	-0.065
		94.87		-5.701E-01	2.631E-01	3.648E-01	2.971E-02	-1.563
		144.24		1.337E-02	3.427E-01	5.319E-01	3.699E-02	0.025
		154.21		8.374E-02	1.757E-01	3.068E-01	2.026E-02	0.273
		269.46		5.150E-03	9.119E-02	1.442E-01	8.548E-03	0.036
		323.87	*	1.557E-02	2.944E-01	4.761E-01	7.669E-02	0.033
		338.28		-2.929E-01	5.218E-01	7.872E-01	8.062E-02	-0.372
RA-224		240.99	*	1.248E-01	3.463E-01	5.142E-01	2.864E-02	0.243
RA-226		609.32	*	-2.437E-02	4.629E-02	7.294E-02	6.555E-03	-0.334
		1120.29		6.370E-02	1.126E-01	2.014E-01	1.939E-02	0.316
		1764.49		1.623E-02	1.319E-01	2.279E-01	1.386E-02	0.071
AC-227		79.69		-1.207E-01	5.711E-01	9.262E-01	1.597E-01	-0.130
		235.96		2.126E-02	7.317E-02	1.091E-01	8.688E-03	0.195
		256.23	*	2.024E-02	1.207E-01	2.004E-01	2.030E-02	0.101
		299.98		1.291E-01	3.985E-01	6.627E-01	7.263E-02	0.195
		304.50		-2.996E-02	7.520E-01	1.212E+00	1.845E-01	-0.025
		334.37		-2.102E-01	8.709E-01	1.368E+00	1.945E-01	-0.154
TH-227		79.80		-2.729E-01	7.532E-01	1.205E+00	2.626E-01	-0.226
		235.96		2.126E-02	7.317E-02	1.091E-01	7.842E-03	0.195
		256.23	*	2.024E-02	1.207E-01	2.004E-01	2.393E-02	0.101
		299.98		1.291E-01	3.985E-01	6.627E-01	7.263E-02	0.195
		304.50		-2.996E-02	7.520E-01	1.212E+00	1.845E-01	-0.025
		334.37		-2.102E-01	8.709E-01	1.368E+00	1.945E-01	-0.154
AC-228		338.32		-7.419E-02	1.348E-01	1.983E-01	8.175E-02	-0.374
		911.20	*	4.339E-02	8.470E-02	1.416E-01	1.918E-02	0.306
		968.97		6.759E-02	1.132E-01	1.954E-01	4.874E-02	0.346
RA-228		338.32		-7.419E-02	1.348E-01	1.983E-01	8.175E-02	-0.374
		911.20	*	4.339E-02	8.470E-02	1.416E-01	1.918E-02	0.306
		968.97		6.759E-02	1.132E-01	1.954E-01	4.874E-02	0.346
TH-228		74.82		-9.402E-02	1.857E-01	2.811E-01	2.370E-02	-0.334
		77.11		3.074E-02	9.423E-02	1.589E-01	1.347E-02	0.194
	+	238.63	*	5.139E-02	4.314E-02	5.796E-02	4.179E-03	0.887
		300.09		1.272E-01	3.711E-01	6.052E-01	3.684E-01	0.210
TH-229		85.43		7.375E-02	9.122E-02	1.575E-01	1.424E-02	0.468

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	88.47			-1.911E-02	5.358E-02	8.544E-02	7.827E-03	-0.224
	193.51	*		1.178E-01	2.368E-01	4.092E-01	2.191E-02	0.288
	210.85			-2.070E-01	3.746E-01	5.965E-01	3.243E-02	-0.347
PA-231	283.69	*		-5.601E-02	6.593E-01	1.064E+00	1.392E-01	-0.053
	301.36			5.198E-02	2.617E-01	4.306E-01	4.442E-02	0.121
TH-231	81.07			1.872E-02	9.481E-02	1.582E-01	1.379E-02	0.118
	83.79			-6.114E-03	6.129E-02	9.415E-02	8.393E-03	-0.065
	94.87			-5.701E-01	2.631E-01	3.648E-01	2.971E-02	-1.563
	144.24			1.337E-02	3.427E-01	5.319E-01	3.699E-02	0.025
	154.21			8.374E-02	1.757E-01	3.068E-01	2.026E-02	0.273
	269.46			5.150E-03	9.119E-02	1.442E-01	8.548E-03	0.036
	323.87	*		1.557E-02	2.944E-01	4.761E-01	7.669E-02	0.033
	338.28			-2.929E-01	5.218E-01	7.872E-01	8.062E-02	-0.372
TH-232	338.32			-7.419E-02	1.313E-01	1.983E-01	1.147E-02	-0.374
	911.20	*		4.339E-02	8.470E-02	1.416E-01	1.918E-02	0.306
	968.97			6.759E-02	1.132E-01	1.954E-01	4.874E-02	0.346
PA-233	300.13			6.506E-02	1.810E-01	3.017E-01	4.032E-02	0.216
	311.90	*		1.190E-03	3.030E-02	4.908E-02	3.008E-03	0.024
	340.48			-2.702E-03	2.941E-01	4.710E-01	1.093E-01	-0.006
PA-234	94.67			-6.475E-02	8.895E-02	1.379E-01	1.668E-02	-0.470
	98.44			3.190E-02	4.775E-02	7.583E-02	4.220E-02	0.421
	111.00			7.440E-03	8.717E-02	1.417E-01	1.520E-02	0.053
	131.20			-3.475E-02	4.883E-02	7.337E-02	4.176E-03	-0.474
	569.50			-1.071E-01	1.399E-01	1.997E-01	1.399E-02	-0.536
	733.00			-7.132E-02	1.759E-01	2.781E-01	6.176E-02	-0.256
	880.51			4.895E-02	1.433E-01	2.436E-01	2.681E-02	0.201
	883.24			-3.185E-02	1.468E-01	2.312E-01	1.562E-01	-0.138
	926.50			-2.986E-02	8.621E-02	1.334E-01	3.487E-02	-0.224
	946.00	*		2.287E-02	1.429E-01	2.369E-01	4.673E-02	0.097
	949.00			-8.938E-02	2.098E-01	3.206E-01	3.367E-02	-0.279
PA-234M	766.42			3.480E+00	4.880E+00	8.204E+00	4.170E+00	0.424
	1001.03	*		-4.620E-01	2.271E+00	3.562E+00	3.843E-01	-0.130
TH-234	63.29	*		1.600E+00	1.280E+00	1.470E+00	2.647E-01	1.088
	92.59			-1.030E-01	4.151E-01	6.670E-01	1.469E-01	-0.154
U-235	89.96			-1.072E+00	5.140E-01	6.102E-01	1.508E-01	-1.757
	93.35			2.884E-02	3.067E-01	5.020E-01	1.154E-01	0.057
	143.76	*		-7.152E-02	1.079E-01	1.583E-01	2.469E-02	-0.452
	163.33			9.599E-02	1.849E-01	3.225E-01	5.355E-02	0.298
	185.72			3.901E-03	2.210E-02	3.773E-02	2.007E-03	0.103
	205.31			3.762E-02	2.103E-01	3.546E-01	5.978E-02	0.106
NP-237	86.48	*		2.232E-02	1.055E-01	1.754E-01	4.010E-02	0.127
	95.86			-8.664E-01	5.478E-01	7.345E-01	1.747E-01	-1.180
U-238	63.29	*		1.600E+00	1.280E+00	1.470E+00	2.647E-01	1.088
	92.59			-1.030E-01	4.145E-01	6.670E-01	5.648E-02	-0.154
NP-239	99.53			1.359E-02	7.887E-02	1.298E-01	9.841E-03	0.105
	103.37			1.325E-02	4.551E-02	7.549E-02	5.431E-03	0.175
	106.12			-1.157E-02	3.930E-02	6.216E-02	4.321E-03	-0.186
	117.23	*		-3.475E-02	1.748E-01	2.764E-01	1.707E-02	-0.126
	228.18			4.241E-02	9.820E-02	1.675E-01	9.237E-03	0.253



---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		277.60		-1.488E-02	7.616E-02	1.219E-01	6.943E-03	-0.122
AM-241		59.54	*	-5.624E-02	1.004E-01	1.427E-01	1.183E-02	-0.394
CM-247		278.00		-1.240E-01	3.261E-01	5.131E-01	2.923E-02	-0.242
		287.50		-8.112E-02	5.637E-01	9.039E-01	5.171E-02	-0.090
		402.40	*	-5.433E-03	1.722E-02	2.799E-02	1.630E-03	-0.194
CF-249		252.80		-4.854E-02	4.442E-01	7.223E-01	4.057E-02	-0.067
		333.37		-6.476E-02	9.278E-02	1.398E-01	8.085E-03	-0.463
		388.16	*	-7.922E-04	1.675E-02	2.796E-02	1.607E-03	-0.028
CF-251		177.52	*	7.515E-03	5.991E-02	1.016E-01	5.369E-03	0.074
		227.38		7.485E-02	1.591E-01	2.721E-01	1.500E-02	0.275
		285.41		1.121E-01	9.753E-01	1.602E+00	9.154E-02	0.070
ANH-511		511.00	*	-3.001E-02	2.922E-02	5.546E-02	3.663E-03	-0.541

# 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]G1202057346      *
* Acquisition date   : 18-MAR-2010 13:12:25 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 02:00:00.62 Half life ratio : 8.000                *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 4-MAR-2010 00:00:00 Nuclide Library : SOLID            *
* Sample ID          : G1202057346 Analyst initials: MXR1                  *
* Batch Number       : 959279 Sample Quantity : 1.2871E+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

---- 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	2.986E-02	1.441E-01	2.519E-01	0.000E+00 NOT IDENT.
NA-22	4.157E-05	1.876E-02	3.152E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	1.818E+05	0.000E+00	0.000E+00 SHORT HLIF
K-40	-1.470E-01	2.114E-01	3.197E-01	0.000E+00 NOT IDENT.
SC-46	2.770E-03	1.885E-02	3.226E-02	0.000E+00 NOT IDENT.
V-48	1.858E-02	2.675E-02	4.911E-02	0.000E+00 NOT IDENT.
CR-51	-1.443E-02	1.680E-01	2.806E-01	0.000E+00 NOT IDENT.
MN-54	-2.402E-03	1.602E-02	2.662E-02	0.000E+00 NOT IDENT.
CO-56	-1.504E-03	1.916E-02	3.209E-02	0.000E+00 NOT IDENT.
CO-57	6.359E-03	1.189E-02	2.105E-02	0.000E+00 NOT IDENT.
CO-58	-2.549E-03	1.820E-02	3.040E-02	0.000E+00 NOT IDENT.
FE-59	2.870E-03	3.963E-02	6.827E-02	0.000E+00 NOT IDENT.
CO-60	4.434E-03	1.753E-02	3.048E-02	0.000E+00 NOT IDENT.
ZN-65	-8.062E-03	3.656E-02	6.051E-02	0.000E+00 NOT IDENT.
SE-75	-1.040E-02	2.141E-02	3.529E-02	0.000E+00 NOT IDENT.
SR-85	-9.891E-02	3.113E-02	4.199E-02	0.000E+00 NOT IDENT.
Y-88	-5.613E-03	1.767E-02	2.736E-02	0.000E+00 NOT IDENT.
Y-91	6.139E-02	8.148E+00	1.379E+01	0.000E+00 NOT IDENT.
NB-94	6.617E-03	1.648E-02	2.944E-02	0.000E+00 NOT IDENT.
NB-95	1.221E-02	1.715E-02	3.157E-02	0.000E+00 NOT IDENT.
NB-95M	1.272E-02	5.668E-02	8.822E-02	0.000E+00 NOT IDENT.
ZR-95	7.687E-03	2.924E-02	5.160E-02	0.000E+00 NOT IDENT.
MO-99	5.512E+00	5.179E+00	9.694E+00	0.000E+00 NOT IDENT.
TC-99M	0.000E+00	4.315E+15	0.000E+00	0.000E+00 SHORT HLIF
RU-103	-9.413E-03	1.819E-02	2.933E-02	0.000E+00 NOT IDENT.
RH-106	-5.557E-02	1.584E-01	2.541E-01	0.000E+00 NOT IDENT.

RU-106	-5.557E-02	1.584E-01	2.541E-01	0.000E+00	NOT IDENT.
AG-108M	5.559E-03	1.280E-02	2.305E-02	0.000E+00	NOT IDENT.
CD-109	-3.936E-01	3.559E-01	5.695E-01	0.000E+00	NOT IDENT.
AG-110M	-6.148E-03	1.417E-02	2.336E-02	0.000E+00	NOT IDENT.
SN-113	-1.523E-03	1.846E-02	3.199E-02	0.000E+00	NOT IDENT.
CD-115	-4.279E-01	3.764E+00	6.296E+00	0.000E+00	NOT IDENT.
SN-117M	-1.538E-02	2.604E-02	4.211E-02	0.000E+00	NOT IDENT.
TE-123M	-1.063E-02	1.377E-02	2.194E-02	0.000E+00	NOT IDENT.
SB-124	1.335E-02	3.912E-02	7.016E-02	0.000E+00	NOT IDENT.
SB-125	-7.166E-03	3.866E-02	6.574E-02	0.000E+00	NOT IDENT.
TE-125M	2.132E-01	4.486E+00	7.730E+00	0.000E+00	NOT IDENT.
I-126	1.701E-01	9.560E-02	1.918E-01	0.000E+00	NOT IDENT.
SB-126	-1.830E-02	6.417E-02	1.070E-01	0.000E+00	NOT IDENT.
SN-126	-4.539E-02	3.548E-02	5.595E-02	0.000E+00	FAIL ABUN
SB-127	-4.249E-01	5.526E-01	8.736E-01	0.000E+00	NOT IDENT.
I-131	2.638E-02	4.992E-02	9.144E-02	0.000E+00	NOT IDENT.
TE-132	1.289E-01	2.880E-01	5.155E-01	0.000E+00	NOT IDENT.
BA-133	-2.243E-02	2.038E-02	3.005E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.535E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-1.560E-02	2.161E-02	3.368E-02	0.000E+00	NOT IDENT.
CS-135	4.492E-02	7.170E-02	1.285E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.857E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.398E-02	4.593E-02	8.561E-02	0.000E+00	NOT IDENT.
BA-137M	-9.672E-03	1.511E-02	2.433E-02	0.000E+00	NOT IDENT.
CS-137	-1.022E-02	1.596E-02	2.571E-02	0.000E+00	NOT IDENT.
CE-139	-2.140E-03	1.207E-02	2.127E-02	0.000E+00	NOT IDENT.
BA-140	4.938E-02	1.115E-01	1.960E-01	0.000E+00	NOT IDENT.
LA-140	-1.190E-02	3.572E-02	5.638E-02	0.000E+00	NOT IDENT.
CE-141	-1.153E-02	3.063E-02	4.863E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.449E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	9.629E-03	8.617E-02	1.469E-01	0.000E+00	NOT IDENT.
PM-144	9.074E-04	1.689E-02	2.928E-02	0.000E+00	NOT IDENT.
PR-144	6.003E-02	1.263E+00	2.188E+00	0.000E+00	NOT IDENT.
PM-146	1.913E-04	1.966E-02	3.388E-02	0.000E+00	NOT IDENT.
ND-147	6.150E-03	2.165E-01	3.684E-01	0.000E+00	NOT IDENT.
PM-149	1.857E+01	3.351E+01	5.962E+01	0.000E+00	NOT IDENT.
EU-152	-3.651E-02	4.819E-02	7.490E-02	0.000E+00	NOT IDENT.
GD-153	-3.701E-03	4.146E-02	7.138E-02	0.000E+00	NOT IDENT.
EU-154	3.341E-03	5.246E-02	8.894E-02	0.000E+00	NOT IDENT.
EU-155	7.405E-03	4.660E-02	8.124E-02	0.000E+00	NOT IDENT.
TB-160	4.474E-02	6.886E-02	1.242E-01	0.000E+00	NOT IDENT.
HO-166M	2.209E-03	2.976E-02	5.160E-02	0.000E+00	NOT IDENT.
TA-182	-4.411E-02	7.298E-02	1.121E-01	0.000E+00	NOT IDENT.
IR-192	4.840E-03	1.613E-02	2.791E-02	0.000E+00	NOT IDENT.
HG-203	-6.151E-03	1.638E-02	2.701E-02	0.000E+00	NOT IDENT.
BI-207	1.094E-02	2.607E-02	4.667E-02	0.000E+00	NOT IDENT.
TL-208	8.335E-04	1.985E-02	3.382E-02	0.000E+00	NOT IDENT.
PB-210	-1.966E-02	3.264E+00	5.451E+00	0.000E+00	NOT IDENT.
BI-211	-5.084E-02	1.085E-01	1.766E-01	0.000E+00	NOT IDENT.
PB-211	2.419E-01	3.387E-01	5.909E-01	0.000E+00	NOT IDENT.
BI-212	1.714E-01	2.385E-01	4.367E-01	0.000E+00	NOT IDENT.
PB-212	5.139E-02	4.228E-02	5.965E-02	0.000E+00	FAIL ABUN
BI-214	-2.437E-02	4.536E-02	7.398E-02	0.000E+00	NOT IDENT.
PB-214	-8.239E-03	3.783E-02	6.292E-02	0.000E+00	NOT IDENT.
RN-219	-1.552E-01	1.863E-01	2.988E-01	0.000E+00	NOT IDENT.
RA-223	1.557E-02	2.885E-01	4.876E-01	0.000E+00	NOT IDENT.
RA-224	1.248E-01	3.393E-01	5.291E-01	0.000E+00	NOT IDENT.
RA-226	-2.437E-02	4.536E-02	7.398E-02	0.000E+00	NOT IDENT.
AC-227	2.024E-02	1.183E-01	2.060E-01	0.000E+00	NOT IDENT.
TH-227	2.024E-02	1.183E-01	2.060E-01	0.000E+00	NOT IDENT.
AC-228	4.339E-02	8.301E-02	1.427E-01	0.000E+00	NOT IDENT.
RA-228	4.339E-02	8.301E-02	1.427E-01	0.000E+00	NOT IDENT.
TH-228	5.139E-02	4.228E-02	5.965E-02	0.000E+00	FAIL ABUN
TH-229	1.178E-01	2.320E-01	4.225E-01	0.000E+00	NOT IDENT.
PA-231	-5.601E-02	6.462E-01	1.092E+00	0.000E+00	NOT IDENT.
TH-231	1.557E-02	2.885E-01	4.876E-01	0.000E+00	NOT IDENT.
TH-232	4.339E-02	8.301E-02	1.427E-01	0.000E+00	NOT IDENT.
PA-233	1.190E-03	2.969E-02	5.030E-02	0.000E+00	NOT IDENT.
PA-234	2.287E-02	1.400E-01	2.386E-01	0.000E+00	NOT IDENT.
PA-234M	-4.620E-01	2.225E+00	3.585E+00	0.000E+00	NOT IDENT.
TH-234	0.000E+00	1.254E+00	1.543E+00	0.000E+00	FAIL ABUN
U-235	-7.152E-02	1.058E-01	1.642E-01	0.000E+00	NOT IDENT.
NP-237	2.232E-02	1.034E-01	1.833E-01	0.000E+00	NOT IDENT.
U-238	0.000E+00	1.254E+00	1.543E+00	0.000E+00	FAIL ABUN
NP-239	-3.475E-02	1.713E-01	2.875E-01	0.000E+00	NOT IDENT.
AM-241	-5.624E-02	9.841E-02	1.499E-01	0.000E+00	NOT IDENT.
CM-247	-5.433E-03	1.688E-02	2.858E-02	0.000E+00	NOT IDENT.
CF-249	-7.922E-04	1.641E-02	2.856E-02	0.000E+00	NOT IDENT.

CF-251	7.515E-03	5.871E-02	1.050E-01	0.000E+00 NOT IDENT.
ANH-511	-3.001E-02	2.863E-02	5.641E-02	0.000E+00 NOT IDENT.

```

*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057346.CNF;1
Sample date        : 4-MAR-2010 00:00:00. Acquisition date : 18-MAR-2010 13:12:25
Sample ID          : G1202057346      Sample quantity   : 1.28710E+02 GRAM
Detector name      : GAM18             Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00     Elapsed real time: 0 02:00:00.62  0.0%
Energy tolerance   : 1.50000 keV       Analyst Initials : MXR1
Abundance limit    : 75.00000          Sensitivity      : 5.00000
Batch ID           : 959279            Detector SN#     :
Matrix Spike ID    :                  LCS ID            : 1032-A
*****

```

# Nuclide Line Activity Report

Flag: "\*" = Keyline

Summary of Nuclide Activity  
Sample ID : G1202057346

Page : 2  
Acquisition date : 18-MAR-2010 13:12:25

Total number of lines in spectrum 3  
Number of unidentified lines 1  
Number of lines tentatively identified by NID 2 66.67%.  
\*\*\*\* There are no nuclides meeting summary criteria \*\*\*\*

Flags: "K" = Keyline not found "M" = Manually accepted  
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines  
Sample ID : G1202057346

Page : 3  
Acquisition date : 18-MAR-2010 13:12:25

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	63.34	63	137	1.09	125.82	120	10	8.71E-03	77.9	3.09E+00	T
0	238.54	52	91	1.67	476.09	470	11	7.25E-03	83.6	6.79E+00	T
0	1014.35	11	10	0.91	2027.30	2021	9	1.54E-03	****	2.54E+00	

Flags: "T" = Tentatively associated

```

*****
*                               GEL Laboratories LLC                               *
*                               2040 Savage Road                               *
*                               Charleston, SC 29414                           *
*****
*                               DETECTOR DATA                               *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057346.CNF;1
* Acquisition date   : 18-MAR-2010 13:12:25   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 02:00:00.62          Half life ratio     : 8.00000
*****
*                               SAMPLE DATA                               *
*
* Sample date        : 4-MAR-2010 00:00:00.   Nuclide Library   : SOLID
* Sample ID          : G1202057346           Analyst initials  : MXR1
* Batch Number       : 959279                Sample Quantity   : 1.28710E+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      :
*****

```

## 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	2.986E-02		1.471E-01	2.474E-01	1.792E-02	0.121
NA-22	4.157E-05		1.914E-02	3.144E-02	2.139E-03	0.001
NA-24	-1.057E-02		9.273E-02	Half-Life too short		
K-40	-1.470E-01		2.158E-01	3.197E-01	2.426E-02	-0.460
SC-46	2.770E-03		1.924E-02	3.199E-02	3.568E-03	0.087
V-48	1.858E-02		2.730E-02	4.879E-02	4.825E-03	0.381
CR-51	-1.443E-02		1.714E-01	2.739E-01	1.761E-02	-0.053
MN-54	-2.402E-03		1.634E-02	2.637E-02	2.701E-03	-0.091
CO-56	-1.504E-03		1.955E-02	3.180E-02	3.320E-03	-0.047
CO-57	6.359E-03		1.214E-02	2.025E-02	1.199E-03	0.314
CO-58	-2.549E-03		1.857E-02	3.011E-02	2.972E-03	-0.085
FE-59	2.870E-03		4.044E-02	6.794E-02	5.589E-03	0.042
CO-60	4.434E-03		1.789E-02	3.042E-02	2.299E-03	0.146
ZN-65	-8.062E-03		3.730E-02	6.023E-02	4.243E-03	-0.134
SE-75	-1.040E-02		2.185E-02	3.435E-02	1.965E-03	-0.303
SR-85	-9.891E-02		3.176E-02	4.129E-02	2.736E-03	-2.395
Y-88	-5.613E-03		1.803E-02	2.746E-02	1.564E-03	-0.204



---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	6.139E-02		8.314E+00	1.374E+01	8.122E-01	0.004
NB-94	6.617E-03		1.681E-02	2.909E-02	2.386E-03	0.227
NB-95	1.221E-02		1.750E-02	3.123E-02	2.857E-03	0.391
NB-95M	1.272E-02		5.784E-02	8.571E-02	6.310E-03	0.148
ZR-95	7.687E-03		2.984E-02	5.105E-02	5.041E-03	0.151
MO-99	5.512E+00		5.284E+00	9.587E+00	1.517E+00	0.575
TC-99M	-1.756E+09		2.202E+09	Half-Life too short		
RU-103	-9.413E-03		1.856E-02	2.883E-02	3.682E-03	-0.326
RH-106	-5.557E-02		1.617E-01	2.506E-01	3.125E-02	-0.222
RU-106	-5.557E-02		1.616E-01	2.506E-01	1.844E-02	-0.222
AG-108M	5.559E-03		1.306E-02	2.260E-02	1.457E-03	0.246
CD-109	-3.936E-01		3.632E-01	5.452E-01	5.040E-02	-0.722
AG-110M	-6.148E-03		1.446E-02	2.306E-02	1.819E-03	-0.267
SN-113	-1.523E-03		1.884E-02	3.133E-02	1.922E-03	-0.049
CD-115	-4.279E-01		3.841E+00	6.193E+00	4.163E-01	-0.069
SN-117M	-1.538E-02		2.658E-02	4.067E-02	2.162E-03	-0.378
TE-123M	-1.063E-02		1.406E-02	2.119E-02	1.143E-03	-0.502
SB-124	1.335E-02		3.992E-02	7.031E-02	4.870E-03	0.190
SB-125	-7.166E-03		3.945E-02	6.446E-02	4.023E-03	-0.111
TE-125M	2.132E-01		4.577E+00	7.424E+00	6.657E-01	0.029
I-126	1.701E-01		9.755E-02	1.894E-01	1.456E-02	0.898
SB-126	-1.830E-02		6.548E-02	1.058E-01	8.955E-03	-0.173
SN-126	-4.539E-02		3.620E-02	5.356E-02	4.935E-03	-0.847
SB-127	-4.249E-01		5.638E-01	8.629E-01	9.240E-02	-0.492
I-131	2.638E-02		5.093E-02	8.944E-02	5.765E-03	0.295
TE-132	1.289E-01		2.939E-01	5.005E-01	7.130E-02	0.257
BA-133	-2.243E-02		2.080E-02	2.938E-02	3.311E-03	-0.763
I-133	-3.813E-04		7.831E-04	Half-Life too short		
CS-134	-1.560E-02		2.205E-02	3.334E-02	3.225E-03	-0.468
CS-135	4.492E-02		7.316E-02	1.251E-01	9.457E-03	0.359
I-135	-1.438E+08		2.988E+08	Half-Life too short		
CS-136	3.398E-02		4.687E-02	8.513E-02	7.627E-03	0.399
BA-137M	-9.672E-03		1.542E-02	2.402E-02	1.831E-03	-0.403
CS-137	-1.022E-02		1.629E-02	2.538E-02	1.939E-03	-0.403
CE-139	-2.140E-03		1.232E-02	2.055E-02	1.079E-03	-0.104
BA-140	4.938E-02		1.137E-01	1.929E-01	6.460E-02	0.256
LA-140	-1.190E-02		3.645E-02	5.644E-02	3.873E-03	-0.211
CE-141	-1.153E-02		3.126E-02	4.690E-02	2.678E-03	-0.246
CE-143	2.916E-05		2.270E-05	Half-Life too short		
CE-144	9.629E-03		8.793E-02	1.415E-01	1.957E-02	0.068
PM-144	9.074E-04		1.723E-02	2.893E-02	2.348E-03	0.031
PR-144	6.003E-02		1.288E+00	2.162E+00	1.754E-01	0.028
PM-146	1.913E-04		2.006E-02	3.325E-02	2.905E-03	0.006
ND-147	6.150E-03		2.210E-01	3.624E-01	5.057E-02	0.017
PM-149	1.857E+01		3.420E+01	5.809E+01	8.214E+00	0.320
EU-152	-3.651E-02		4.917E-02	7.319E-02	4.772E-03	-0.499
GD-153	-3.701E-03		4.231E-02	6.844E-02	5.351E-03	-0.054
EU-154	3.341E-03		5.353E-02	8.872E-02	8.930E-03	0.038

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	7.405E-03		4.755E-02	7.798E-02	5.572E-03	0.095
TB-160	4.474E-02		7.026E-02	1.231E-01	1.352E-02	0.363
HO-166M	2.209E-03		3.037E-02	5.100E-02	4.251E-03	0.043
TA-182	-4.411E-02		7.447E-02	1.117E-01	6.834E-03	-0.395
IR-192	4.840E-03		1.646E-02	2.724E-02	1.580E-03	0.178
HG-203	-6.151E-03		1.672E-02	2.631E-02	1.586E-03	-0.234
BI-207	1.094E-02		2.660E-02	4.642E-02	3.832E-03	0.236
TL-208	8.335E-04		2.026E-02	3.332E-02	2.608E-03	0.025
PB-210	-1.966E-02		3.330E+00	5.170E+00	3.963E-01	-0.004
BI-211	-5.084E-02		1.107E-01	1.727E-01	1.109E-02	-0.294
PB-211	2.419E-01		3.456E-01	5.789E-01	2.777E-01	0.418
BI-212	1.714E-01		2.433E-01	4.317E-01	5.363E-02	0.397
PB-212	5.139E-02	+	4.314E-02	5.796E-02	4.179E-03	0.887
BI-214	-2.437E-02		4.629E-02	7.294E-02	6.555E-03	-0.334
PB-214	-8.239E-03		3.860E-02	6.150E-02	5.206E-03	-0.134
RN-219	-1.552E-01		1.901E-01	2.927E-01	3.936E-02	-0.530
RA-223	1.557E-02		2.944E-01	4.761E-01	7.669E-02	0.033
RA-224	1.248E-01		3.463E-01	5.142E-01	2.864E-02	0.243
RA-226	-2.437E-02		4.629E-02	7.294E-02	6.555E-03	-0.334
AC-227	2.024E-02		1.207E-01	2.004E-01	2.030E-02	0.101
TH-227	2.024E-02		1.207E-01	2.004E-01	2.393E-02	0.101
AC-228	4.339E-02		8.470E-02	1.416E-01	1.918E-02	0.306
RA-228	4.339E-02		8.470E-02	1.416E-01	1.918E-02	0.306
TH-228	5.139E-02	+	4.314E-02	5.796E-02	4.179E-03	0.887
TH-229	1.178E-01		2.368E-01	4.092E-01	2.191E-02	0.288
PA-231	-5.601E-02		6.593E-01	1.064E+00	1.392E-01	-0.053
TH-231	1.557E-02		2.944E-01	4.761E-01	7.669E-02	0.033
TH-232	4.339E-02		8.470E-02	1.416E-01	1.918E-02	0.306
PA-233	1.190E-03		3.030E-02	4.908E-02	3.008E-03	0.024
PA-234	2.287E-02		1.429E-01	2.369E-01	4.673E-02	0.097
PA-234M	-4.620E-01		2.271E+00	3.562E+00	3.843E-01	-0.130
TH-234	1.600E+00	+	1.280E+00	1.470E+00	2.647E-01	1.088
U-235	-7.152E-02		1.079E-01	1.583E-01	2.469E-02	-0.452
NP-237	2.232E-02		1.055E-01	1.754E-01	4.010E-02	0.127
U-238	1.600E+00	+	1.280E+00	1.470E+00	2.647E-01	1.088
NP-239	-3.475E-02		1.748E-01	2.764E-01	1.707E-02	-0.126
AM-241	-5.624E-02		1.004E-01	1.427E-01	1.183E-02	-0.394
CM-247	-5.433E-03		1.722E-02	2.799E-02	1.630E-03	-0.194
CF-249	-7.922E-04		1.675E-02	2.796E-02	1.607E-03	-0.028
CF-251	7.515E-03		5.991E-02	1.016E-01	5.369E-03	0.074
ANH-511	-3.001E-02		2.922E-02	5.546E-02	3.663E-03	-0.541

## VAX/VMS Nuclide Identification Report Generated

```
*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                    *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : SYSSYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202057346          *
* Acquisition date   : 18-MAR-2010 13:12:25 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 02:00:00.62             Half life ratio : 8.000        *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 4-MAR-2010 00:00:00 Nuclide Library : SOLID            *
* Sample ID          : G1202057346             Analyst initials: MXR1          *
* Batch Number       : 959279                  Sample Quantity : 1.2871E+02 GRAM  *
* Recovery           : 1.00000                  Carrier Weight  : 0.00000        *
*****
*                                     QC DATA                               *
*
* CALIB. DATE/TIME   : 23-APR-2009 11:59:23 MS Isotope      :              *
* MSD DPM             : 0.000                      MSD Isotope   :              *
* LCS DPM             : 0.000                      LCS Isotope   :              *
* LCSD DPM            : 0.000                      LCSD Isotope  :              *
*****
```

## Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM )	K.L Act Error	DLC (pCi/GRAM )	TPU
---------	-------------------------------------	---------------	--------------------	-----

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM )	K.L Act error	DLC (pCi/GRAM )	TPU
BE-7	2.986E-02	1.441E-01	1.260E-01	7.353E-02 NOT IDENT.
NA-22	4.157E-05	1.876E-02	1.577E-02	9.569E-03 NOT IDENT.
NA-24	-1.057E+04	1.818E+05	0.000E+00	9.273E+04 SHORT HLIF
K-40	-1.470E-01	2.114E-01	1.600E-01	1.079E-01 NOT IDENT.
SC-46	2.770E-03	1.885E-02	1.614E-02	9.619E-03 NOT IDENT.
V-48	1.858E-02	2.675E-02	2.457E-02	1.365E-02 NOT IDENT.
CR-51	-1.443E-02	1.680E-01	1.404E-01	8.571E-02 NOT IDENT.
MN-54	-2.402E-03	1.602E-02	1.332E-02	8.172E-03 NOT IDENT.
CO-56	-1.504E-03	1.916E-02	1.606E-02	9.774E-03 NOT IDENT.
CO-57	6.359E-03	1.189E-02	1.053E-02	6.069E-03 NOT IDENT.
CO-58	-2.549E-03	1.820E-02	1.521E-02	9.286E-03 NOT IDENT.
FE-59	2.870E-03	3.963E-02	3.416E-02	2.022E-02 NOT IDENT.
CO-60	4.434E-03	1.753E-02	1.525E-02	8.946E-03 NOT IDENT.
ZN-65	-8.062E-03	3.656E-02	3.027E-02	1.865E-02 NOT IDENT.
SE-75	-1.040E-02	2.141E-02	1.766E-02	1.093E-02 NOT IDENT.
SR-85	-9.891E-02	3.113E-02	2.101E-02	1.588E-02 NOT IDENT.
Y-88	-5.613E-03	1.767E-02	1.369E-02	9.017E-03 NOT IDENT.
Y-91	6.139E-02	8.148E+00	6.898E+00	4.157E+00 NOT IDENT.
NB-94	6.617E-03	1.648E-02	1.473E-02	8.407E-03 NOT IDENT.
NB-95	1.221E-02	1.715E-02	1.579E-02	8.748E-03 NOT IDENT.
NB-95M	1.272E-02	5.668E-02	4.414E-02	2.892E-02 NOT IDENT.
ZR-95	7.687E-03	2.924E-02	2.581E-02	1.492E-02 NOT IDENT.
MO-99	5.512E+00	5.179E+00	4.850E+00	2.642E+00 NOT IDENT.
TC-99M	-1.756E+15	4.315E+15	0.000E+00	2.202E+15 SHORT HLIF
RU-103	-9.413E-03	1.819E-02	1.468E-02	9.282E-03 NOT IDENT.
RH-106	-5.557E-02	1.584E-01	1.271E-01	8.084E-02 NOT IDENT.

RU-106	-5.557E-02	1.584E-01	1.271E-01	8.079E-02	NOT IDENT.
AG-108M	5.559E-03	1.280E-02	1.153E-02	6.532E-03	NOT IDENT.
CD-109	-3.936E-01	3.559E-01	2.849E-01	1.816E-01	NOT IDENT.
AG-110M	-6.148E-03	1.417E-02	1.169E-02	7.230E-03	NOT IDENT.
SN-113	-1.523E-03	1.846E-02	1.601E-02	9.418E-03	NOT IDENT.
CD-115	-4.279E-01	3.764E+00	3.150E+00	1.921E+00	NOT IDENT.
SN-117M	-1.538E-02	2.604E-02	2.107E-02	1.329E-02	NOT IDENT.
TE-123M	-1.063E-02	1.377E-02	1.098E-02	7.028E-03	NOT IDENT.
SB-124	1.335E-02	3.912E-02	3.510E-02	1.996E-02	NOT IDENT.
SB-125	-7.166E-03	3.866E-02	3.289E-02	1.972E-02	NOT IDENT.
TE-125M	2.132E-01	4.486E+00	3.867E+00	2.289E+00	NOT IDENT.
I-126	1.701E-01	9.560E-02	9.596E-02	4.878E-02	NOT IDENT.
SB-126	-1.830E-02	6.417E-02	5.352E-02	3.274E-02	NOT IDENT.
SN-126	-4.539E-02	3.548E-02	2.799E-02	1.810E-02	FAIL ABUN
SB-127	-4.249E-01	5.526E-01	4.370E-01	2.819E-01	NOT IDENT.
I-131	2.638E-02	4.992E-02	4.575E-02	2.547E-02	NOT IDENT.
TE-132	1.289E-01	2.880E-01	2.579E-01	1.469E-01	NOT IDENT.
BA-133	-2.243E-02	2.038E-02	1.504E-02	1.040E-02	NOT IDENT.
I-133	-3.813E+02	1.535E+03	0.000E+00	7.831E+02	SHORT HLIF
CS-134	-1.560E-02	2.161E-02	1.685E-02	1.102E-02	NOT IDENT.
CS-135	4.492E-02	7.170E-02	6.430E-02	3.658E-02	NOT IDENT.
I-135	-1.438E+14	5.857E+14	0.000E+00	2.988E+14	SHORT HLIF
CS-136	3.398E-02	4.593E-02	4.283E-02	2.344E-02	NOT IDENT.
BA-137M	-9.672E-03	1.511E-02	1.217E-02	7.710E-03	NOT IDENT.
CS-137	-1.022E-02	1.596E-02	1.286E-02	8.145E-03	NOT IDENT.
CE-139	-2.140E-03	1.207E-02	1.064E-02	6.161E-03	NOT IDENT.
BA-140	4.938E-02	1.115E-01	9.806E-02	5.687E-02	NOT IDENT.
LA-140	-1.190E-02	3.572E-02	2.821E-02	1.822E-02	NOT IDENT.
CE-141	-1.153E-02	3.063E-02	2.433E-02	1.563E-02	NOT IDENT.
CE-143	2.916E+01	4.449E+01	0.000E+00	2.270E+01	SHORT HLIF
CE-144	9.629E-03	8.617E-02	7.350E-02	4.396E-02	NOT IDENT.
PM-144	9.074E-04	1.689E-02	1.465E-02	8.615E-03	NOT IDENT.
PR-144	6.003E-02	1.263E+00	1.095E+00	6.442E-01	NOT IDENT.
PM-146	1.913E-04	1.966E-02	1.695E-02	1.003E-02	NOT IDENT.
ND-147	6.150E-03	2.165E-01	1.843E-01	1.105E-01	NOT IDENT.
PM-149	1.857E+01	3.351E+01	2.983E+01	1.710E+01	NOT IDENT.
EU-152	-3.651E-02	4.819E-02	3.747E-02	2.459E-02	NOT IDENT.
GD-153	-3.701E-03	4.146E-02	3.571E-02	2.115E-02	NOT IDENT.
EU-154	3.341E-03	5.246E-02	4.450E-02	2.677E-02	NOT IDENT.
EU-155	7.405E-03	4.660E-02	4.065E-02	2.377E-02	NOT IDENT.
TB-160	4.474E-02	6.886E-02	6.211E-02	3.513E-02	NOT IDENT.
HO-166M	2.209E-03	2.976E-02	2.582E-02	1.519E-02	NOT IDENT.
TA-182	-4.411E-02	7.298E-02	5.607E-02	3.723E-02	NOT IDENT.
IR-192	4.840E-03	1.613E-02	1.396E-02	8.232E-03	NOT IDENT.
HG-203	-6.151E-03	1.638E-02	1.351E-02	8.359E-03	NOT IDENT.
BI-207	1.094E-02	2.607E-02	2.335E-02	1.330E-02	NOT IDENT.
TL-208	8.335E-04	1.985E-02	1.692E-02	1.013E-02	NOT IDENT.
PB-210	-1.966E-02	3.264E+00	2.727E+00	1.665E+00	NOT IDENT.
BI-211	-5.084E-02	1.085E-01	8.837E-02	5.537E-02	NOT IDENT.
PB-211	2.419E-01	3.387E-01	2.956E-01	1.728E-01	NOT IDENT.
BI-212	1.714E-01	2.385E-01	2.185E-01	1.217E-01	NOT IDENT.
PB-212	5.139E-02	4.228E-02	2.984E-02	2.157E-02	FAIL ABUN
BI-214	-2.437E-02	4.536E-02	3.701E-02	2.314E-02	NOT IDENT.
PB-214	-8.239E-03	3.783E-02	3.148E-02	1.930E-02	NOT IDENT.
RN-219	-1.552E-01	1.863E-01	1.495E-01	9.507E-02	NOT IDENT.
RA-223	1.557E-02	2.885E-01	2.440E-01	1.472E-01	NOT IDENT.
RA-224	1.248E-01	3.393E-01	2.647E-01	1.731E-01	NOT IDENT.
RA-226	-2.437E-02	4.536E-02	3.701E-02	2.314E-02	NOT IDENT.
AC-227	2.024E-02	1.183E-01	1.031E-01	6.037E-02	NOT IDENT.
TH-227	2.024E-02	1.183E-01	1.031E-01	6.037E-02	NOT IDENT.
AC-228	4.339E-02	8.301E-02	7.138E-02	4.235E-02	NOT IDENT.
RA-228	4.339E-02	8.301E-02	7.138E-02	4.235E-02	NOT IDENT.
TH-228	5.139E-02	4.228E-02	2.984E-02	2.157E-02	FAIL ABUN
TH-229	1.178E-01	2.320E-01	2.114E-01	1.184E-01	NOT IDENT.
PA-231	-5.601E-02	6.462E-01	5.464E-01	3.297E-01	NOT IDENT.
TH-231	1.557E-02	2.885E-01	2.440E-01	1.472E-01	NOT IDENT.
TH-232	4.339E-02	8.301E-02	7.138E-02	4.235E-02	NOT IDENT.
PA-233	1.190E-03	2.969E-02	2.517E-02	1.515E-02	NOT IDENT.
PA-234	2.287E-02	1.400E-01	1.194E-01	7.143E-02	NOT IDENT.
PA-234M	-4.620E-01	2.225E+00	1.794E+00	1.135E+00	NOT IDENT.
TH-234	1.600E+00	1.254E+00	7.718E-01	6.398E-01	FAIL ABUN
U-235	-7.152E-02	1.058E-01	8.213E-02	5.396E-02	NOT IDENT.
NP-237	2.232E-02	1.034E-01	9.168E-02	5.276E-02	NOT IDENT.
U-238	1.600E+00	1.254E+00	7.718E-01	6.398E-01	FAIL ABUN
NP-239	-3.475E-02	1.713E-01	1.438E-01	8.740E-02	NOT IDENT.
AM-241	-5.624E-02	9.841E-02	7.499E-02	5.021E-02	NOT IDENT.
CM-247	-5.433E-03	1.688E-02	1.430E-02	8.611E-03	NOT IDENT.
CF-249	-7.922E-04	1.641E-02	1.429E-02	8.374E-03	NOT IDENT.

CF-251	7.515E-03	5.871E-02	5.254E-02	2.996E-02 NOT IDENT.
ANH-511	-3.001E-02	2.863E-02	2.822E-02	1.461E-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	101.0259
49.72	98.7543
57.36	0.0000
59.54	103.3791
63.29	99.0597
63.29	99.0597
64.28	115.0066
67.75	110.2852
69.67	115.5835
70.83	99.5680
72.81	108.9290
72.87	108.9489
72.87	108.9489
74.82	117.4182
74.82	117.4182
74.82	117.4182
74.97	117.4707
77.11	100.4820
77.11	100.4820
77.11	100.4820
79.69	107.1876
79.80	109.2066
80.12	109.3062
80.19	113.3030
80.57	107.4556
81.00	95.6318
81.07	95.6509
81.07	95.6509
83.79	93.3652
83.79	93.3652
85.43	90.7585
86.48	98.0948
86.55	98.1135
86.79	122.4666
86.94	122.5164
87.57	126.7796
88.03	121.8573
88.47	108.7824
89.96	194.9423
91.11	143.3169
92.59	122.2836
92.59	122.2836
93.35	110.1652
94.67	152.8870
94.87	197.4059
94.87	197.4059
95.86	165.7755
97.43	107.1334
98.44	88.6299
99.53	94.0924
100.11	96.3181
103.18	84.3701
103.37	81.2427
105.31	82.6719
106.12	95.5696
109.28	94.1222
111.00	93.4128
111.76	87.1176
116.30	76.0382
117.23	80.5442
121.12	88.8920
121.78	80.2228
122.06	86.8671
123.07	105.7813
131.20	103.0489
133.52	82.1384
136.00	93.8377

136.47	97.3169
140.51	115.1661
140.51	0.0000
143.76	110.1260
144.24	87.2596
144.24	87.2596
145.44	89.7527
152.43	103.6966
153.25	101.5124
154.21	96.4229
154.21	96.4229
156.02	101.1225
158.56	103.3301
159.00	104.2907
162.66	80.9247
163.33	80.1254
165.86	84.9312
176.60	102.7795
177.52	98.3735
181.07	103.4951
184.41	79.1684
185.72	71.0237
193.51	86.7781
197.04	112.5458
205.31	87.3008
210.85	93.7076
215.65	75.0686
222.11	75.7137
227.38	78.1879
228.16	80.2226
228.18	80.2245
235.69	77.4346
235.96	83.7843
235.96	83.7843
238.63	91.1998
238.63	91.1998
240.99	84.3070
242.00	89.1892
244.70	103.8643
252.40	72.5718
252.80	79.6654
256.23	79.9867
256.23	79.9867
260.90	85.5112
264.66	89.9698
268.22	72.8829
269.46	70.9278
269.46	70.9278
271.23	95.7885
273.65	76.4243
276.40	67.3338
277.37	70.5162
277.60	70.5338
278.00	73.6781
279.20	71.6964
279.54	75.8805
280.46	60.3497
283.69	69.9576
284.31	68.9598
285.41	64.8571
285.90	58.6113
287.50	70.2439
293.27	0.0000
295.22	72.9314
295.96	82.5084
298.57	74.2468
299.98	69.0437
299.98	69.0437
300.09	69.0516
300.09	69.0516
300.13	69.0536
301.36	73.3957
302.85	64.9856
304.50	69.3630
304.50	69.3630
304.85	73.6578
308.46	77.1416
311.90	65.5813

316.51	63.7219
319.41	71.4856
320.08	66.1128
323.87	63.0941
323.87	63.0941
328.76	68.8563
333.37	90.0153
334.37	82.4089
334.37	82.4089
338.28	84.9167
338.28	84.9167
338.32	84.9202
338.32	84.9202
338.32	84.9202
340.48	74.0408
340.55	82.8861
344.28	80.9543
351.06	65.8357
351.93	55.8365
356.01	78.4584
364.49	55.1100
366.42	57.0130
383.85	49.6046
388.16	49.7839
388.63	49.8037
391.69	50.8549
400.66	68.9279
401.81	68.9924
402.40	62.4960
404.85	49.5348
410.95	66.6830
414.70	51.8096
423.72	42.6901
427.09	54.2154
427.87	49.4889
433.94	43.9824
453.88	54.3471
463.37	36.1563
468.07	57.8491
473.00	47.2289
476.78	41.4355
477.60	46.3953
487.02	31.7961
492.35	44.8775
497.08	53.0265
511.00	74.7321
514.00	234.7598
527.90	33.6969
529.87	0.0000
531.02	33.7646
537.26	34.9272
546.56	0.0000
563.25	37.5855
569.33	45.0608
569.50	47.1610
569.70	47.1676
583.19	45.4366
600.60	71.5228
602.73	83.3682
604.72	94.1639
609.32	61.1539
609.32	61.1539
610.33	60.1166
614.28	80.6946
618.01	40.9715
621.93	51.8684
621.93	51.8684
633.25	45.6719
635.95	50.0958
636.99	45.7663
645.85	43.7988
657.76	37.6534
661.66	43.2535
661.66	43.2535
664.57	0.0000
666.33	24.9093
666.50	24.9115
677.62	43.6188



685.70	48.4622
695.00	44.9492
696.49	49.6692
696.51	49.6702
697.00	55.3065
702.65	46.0651
706.68	51.8109
711.68	46.2745
720.70	43.6369
721.93	0.0000
722.78	42.7332
722.91	42.7359
723.31	41.7943
724.19	43.7127
727.33	37.1179
733.00	42.9483
735.93	43.9654
739.50	31.5948
747.24	38.4399
752.31	35.6435
753.82	26.9928
756.73	27.9958
763.94	26.1541
765.81	28.1162
766.42	26.1848
777.92	31.2012
778.90	30.2400
783.70	36.1727
785.37	29.3518
795.86	46.2063
801.95	27.6029
810.29	42.5495
810.76	36.6206
815.77	28.7669
818.51	30.7881
832.01	33.9696
834.85	34.0118
836.80	0.0000
846.77	38.2103
856.80	36.3552
860.56	29.3334
871.09	34.5444
873.19	44.7439
875.33	0.0000
879.36	30.5859
880.51	33.6606
883.24	37.7836
884.68	44.9587
889.28	32.7598
898.04	36.9880
911.20	28.9234
911.20	28.9234
911.20	28.9234
926.50	35.3378
937.49	31.3165
944.13	33.4915
946.00	29.3267
949.00	33.5560
962.29	34.7832
964.08	40.0812
966.15	32.7243
968.97	26.4191
968.97	26.4191
968.97	26.4191
983.53	15.9396
996.26	24.5582
1001.03	25.6719
1004.73	35.3472
1037.84	22.3033
1038.76	0.0000
1048.07	22.3862
1050.41	34.5404
1050.41	34.5404
1063.66	31.8904
1085.87	27.4130
1099.45	27.5415
1112.07	24.7994
1115.54	28.6482

1120.29	19.1295
1120.29	19.1295
1120.55	19.1316
1121.30	18.1796
1131.51	0.0000
1173.23	20.4412
1177.93	12.6735
1189.05	18.5891
1204.77	23.5991
1221.41	27.6768
1231.02	27.7598
1235.36	25.8123
1238.28	27.8232
1260.41	0.0000
1271.85	22.0867
1274.44	22.1036
1274.54	23.1091
1291.59	18.1783
1298.22	0.0000
1312.11	17.2727
1332.49	17.3759
1365.19	18.5713
1368.63	0.0000
1384.29	17.6344
1408.01	14.6187
1457.56	0.0000
1460.82	22.2444
1489.16	20.2776
1505.03	15.0039
1596.21	13.4352
1620.50	10.6193
1678.03	0.0000
1690.97	9.8178
1764.49	5.9912
1764.49	5.9912
1770.23	10.9980
1771.35	10.0009
1791.20	0.0000
1836.06	12.1740

TOTAL URANIUM BY GAMMA SPEC REPORT  
Sample:G1202057346

Total Uranium Activity	4.7259E+00	ug/g
Total Uranium Counting Unc.	3.7312E+00	ug/g
Total Uranium Tpu	1.9037E-06	ug/g
Total Uranium Mda	2.2965E+00	ug/g

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*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON , SC 29417              *
*               GROSS GAMMA REPORT                 *
*
*****
*
*  BATCH ID      : 959279          SAMPLE ID   : G1202057346
*  ANALYST       : MXR1            DETECTOR    : GAM18
*  SAMPLE DATE   : 4-MAR-2010 00:00:00.00  COUNT TIME : 0 02:00:00.00
*  ANALYSIS DATE: 18-MAR-2010 13:12:25.58  SAMPLE ALQT: 128.710 GRAM
*
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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 9.437E-02
GROSS GAMMA ERROR   (pCi/GRAM ) : 4.015E-02
GROSS GAMMA MDA      (pCi/GRAM ) : 7.079E-02
GROSS GAMMA DLC      (pCi/GRAM ) : 3.200E-02

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VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 18:18:37.43

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*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057347.CNF;1
Sample date        : 23-FEB-2010 12:00:00 Acquisition date : 18-MAR-2010 16:18:09
Sample ID          : G1202057347      Sample quantity   : 1.26410E+02 GRAM
Detector name      : GAM15             Detector geometry: CAN
Elapsed live time  : 0 02:00:00.00     Elapsed real time: 0 02:00:01.44  0.0%
Energy tolerance   : 1.50000 keV       Analyst Initials : MXR1
Abundance limit    : 75.00000          Sensitivity       : 5.00000
Batch ID           : 959279             Detector SN#      :
Matrix Spike ID    :                    LCS ID           : 1032-A
*****

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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	74.82*	362	510	1.60	148.56	141	20	5.02E-02	14.1	4.81E+00
2	2	77.26*	756	499	1.61	153.44	141	20	1.05E-01	6.9	
3	2	87.31	189	560	1.34	173.54	168	24	2.62E-02	21.6	2.97E+00
4	2	90.03	141	599	1.63	178.99	168	24	1.95E-02	34.7	
5	2	93.01*	269	475	1.64	184.95	168	24	3.73E-02	18.6	
6	0	185.90*	200	514	1.72	370.72	364	13	2.78E-02	25.1	
7	0	209.41*	112	355	1.48	417.72	413	10	1.55E-02	33.5	
8	0	238.55*	1004	874	1.24	476.01	471	12	1.39E-01	6.7	
9	0	242.00	106	278	0.80	482.89	482	7	1.47E-02	30.1	
10	0	270.03	132	202	1.34	538.96	534	10	1.83E-02	22.0	
11	3	295.32*	374	192	1.48	589.53	582	23	5.19E-02	8.6	1.03E+00
12	0	338.36	266	297	1.58	675.62	668	14	3.69E-02	15.1	
13	0	351.92*	714	215	1.37	702.73	697	14	9.92E-02	5.8	
14	0	463.29	109	119	1.63	925.48	919	11	1.51E-02	21.7	
15	0	511.07*	178	156	1.95	1021.04	1013	19	2.48E-02	20.3	
16	0	583.05*	462	124	1.38	1165.02	1157	16	6.41E-02	7.3	
17	0	608.98*	457	140	1.55	1216.88	1210	16	6.34E-02	7.5	
18	0	661.14	65	56	0.94	1321.21	1316	11	8.96E-03	25.5	
19	0	726.80*	119	60	2.03	1452.54	1446	12	1.66E-02	16.5	
20	0	768.24	46	93	1.49	1535.42	1530	12	6.35E-03	44.7	
21	0	860.40	73	68	1.53	1719.78	1711	15	1.02E-02	27.0	
22	0	910.87*	277	73	1.72	1820.72	1811	17	3.84E-02	9.4	
23	1	964.80	104	70	2.20	1928.60	1921	39	1.45E-02	17.4	2.33E+00
24	1	968.86*	158	53	2.20	1936.72	1921	39	2.20E-02	13.2	
25	0	1120.06*	97	73	1.35	2239.18	2234	14	1.34E-02	21.6	
26	0	1377.36*	32	23	2.34	2753.92	2744	15	4.38E-03	39.0	
27	0	1460.41	1116	52	2.27	2920.07	2912	20	1.55E-01	3.4	
28	0	1763.96*	83	15	1.62	3527.40	3520	15	1.15E-02	15.6	

Flag: "\*" = Peak area was modified by background subtraction

## VMS Nuclide Identification Report V3.1 Generated 18-MAR-2010 18:18:41

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Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057347.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 23-FEB-2010 12:00:00 Acquisition date : 18-MAR-2010 16:18:09
Sample ID        : G1202057347 Sample quantity : 126.41 GRAM
Sample type      : SOLID Sample geometry :
Detector name    : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.44 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	*	3.217E+01	3.846E+00	6.663E-01	6.548E-02	48.277
CD-109	+	88.03	*	3.526E+00	1.583E+00	1.805E+00	2.241E-01	1.953
SN-126		64.28		6.426E-01	1.008E+00	1.652E+00	2.798E-01	0.389
	+	86.94		1.416E+00	8.556E-01	7.382E-01	3.121E-01	1.918
	+	87.57	*	3.406E-01	1.529E-01	1.757E-01	2.174E-02	1.939
BA-137M	+	661.66	*	1.076E-01	5.566E-02	8.095E-02	6.655E-03	1.329
CS-137	+	661.66	*	1.137E-01	5.880E-02	8.552E-02	7.045E-03	1.329
TL-208		277.37		8.870E-01	5.433E-01	9.443E-01	1.335E-01	0.939
	+	583.19	*	7.362E-01	1.263E-01	7.533E-02	6.890E-03	9.773
	+	860.56		1.107E+00	6.082E-01	5.204E-01	5.088E-02	2.127
BI-211		72.87		1.681E+01	5.559E+00	9.403E+00	1.077E+00	1.787
	+	351.06	*	5.224E+00	8.005E-01	4.441E-01	4.423E-02	11.762
PB-212	+	74.82		3.235E+00	1.034E+00	8.566E-01	1.290E-01	3.777
	+	77.11		3.749E+00	6.767E-01	4.778E-01	5.538E-02	7.846
	+	238.63	*	1.662E+00	2.993E-01	1.640E-01	1.959E-02	10.134
		300.09		1.566E+00	1.172E+00	2.006E+00	2.442E-01	0.781
BI-214	+	609.32	*	1.408E+00	2.545E-01	1.424E-01	1.419E-02	9.882
	+	1120.29		1.567E+00	6.977E-01	6.201E-01	6.715E-02	2.526
	+	1764.49		1.883E+00	6.118E-01	3.417E-01	2.996E-02	5.511
PB-214	+	74.82		5.735E+00	1.805E+00	1.518E+00	2.121E-01	3.777
	+	77.11		6.609E+00	1.312E+00	8.423E-01	1.198E-01	7.846
	+	242.00		1.063E+00	6.539E-01	2.213E+00	2.757E-01	0.480
	+	295.22		1.699E+00	3.615E-01	3.067E-01	3.823E-02	5.539
	+	351.93	*	1.896E+00	3.088E-01	1.563E-01	1.777E-02	12.127
RA-224	+	240.99	*	1.879E+00	1.151E+00	2.191E+00	2.417E-01	0.858
RA-226	+	609.32	*	1.408E+00	2.545E-01	1.424E-01	1.419E-02	9.882
	+	1120.29		1.567E+00	6.977E-01	6.201E-01	6.715E-02	2.526
	+	1764.49		1.883E+00	6.118E-01	3.417E-01	2.996E-02	5.511
AC-228	+	338.32		2.170E+00	1.122E+00	5.471E-01	2.297E-01	3.966
	+	911.20	*	2.131E+00	4.767E-01	2.847E-01	3.448E-02	7.486
	+	968.97		2.110E+00	7.618E-01	4.684E-01	1.151E-01	4.505
RA-228	+	338.32		2.170E+00	1.122E+00	5.471E-01	2.297E-01	3.966
	+	911.20	*	2.131E+00	4.767E-01	2.847E-01	3.448E-02	7.486
	+	968.97		2.110E+00	7.618E-01	4.684E-01	1.151E-01	4.505

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	74.82		3.235E+00	9.862E-01	8.566E-01	9.905E-02	3.777
	+	77.11		3.749E+00	6.767E-01	4.778E-01	5.538E-02	7.846
	+	238.63	*	1.662E+00	2.993E-01	1.640E-01	1.959E-02	10.134
		300.09		1.566E+00	1.506E+00	2.006E+00	1.234E+00	0.781
TH-232	+	338.32		2.170E+00	6.881E-01	5.471E-01	5.394E-02	3.966
	+	911.20	*	2.131E+00	4.767E-01	2.847E-01	3.448E-02	7.486
	+	968.97		2.110E+00	7.618E-01	4.684E-01	1.151E-01	4.505
U-235	+	89.96		2.591E+00	1.922E+00	1.804E+00	4.694E-01	1.436
	+	93.35		2.941E+00	1.307E+00	1.070E+00	2.602E-01	2.750
		143.76	*	2.911E-01	2.928E-01	4.780E-01	8.506E-02	0.609
		163.33		-5.039E-03	5.901E-01	9.495E-01	1.803E-01	-0.005
	+	185.72		2.138E-01	1.098E-01	9.251E-02	1.001E-02	2.311
		205.31		6.204E-02	8.252E-01	1.152E+00	2.232E-01	0.054
NP-237	+	86.48	*	1.016E+00	5.035E-01	5.342E-01	1.298E-01	1.902
		95.86		-6.728E-01	1.493E+00	2.080E+00	5.207E-01	-0.323
ANH-511	+	511.00	*	2.192E-01	9.098E-02	5.724E-02	4.946E-03	3.829

---- 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	*	-1.740E-01	4.580E-01	7.267E-01	6.754E-02	-0.239
NA-22		1274.54	*	-4.555E-03	6.100E-02	9.785E-02	8.889E-03	-0.047
NA-24		1368.63	*	-1.455E+03	6.100E-02	Half-Life too short		
SC-46		889.28	*	-6.815E-03	5.532E-02	8.401E-02	7.807E-03	-0.081
	+	1120.55		2.833E-01	1.247E-01	1.780E-01	1.514E-02	1.591
V-48		944.13		-6.281E-02	1.717E+00	2.818E+00	2.606E-01	-0.022
		983.53	*	2.646E-02	1.434E-01	2.072E-01	1.894E-02	0.128
		1312.11		-2.204E-03	1.442E-01	2.322E-01	2.188E-02	-0.009
CR-51		320.08	*	-3.079E-03	6.063E-01	1.006E+00	1.068E-01	-0.003
MN-54		834.85	*	1.599E-02	5.545E-02	9.366E-02	8.499E-03	0.171
CO-56		846.77	*	-4.404E-02	5.457E-02	8.397E-02	7.662E-03	-0.524
		1037.84		-9.070E-02	4.071E-01	6.515E-01	6.109E-02	-0.139
		1238.28		2.585E-01	1.389E-01	2.515E-01	2.260E-02	1.028
		1771.35		-1.478E+00	5.017E-01	4.389E-01	3.834E-02	-3.368
CO-57		122.06	*	2.442E-05	3.521E-02	5.723E-02	5.765E-03	0.000
		136.47		-1.259E-01	2.957E-01	4.706E-01	5.000E-02	-0.268
CO-58		810.76	*	7.060E-04	5.436E-02	8.808E-02	7.919E-03	0.008
FE-59		1099.45	*	-5.108E-02	1.465E-01	2.316E-01	2.160E-02	-0.221
		1291.59		7.865E-02	1.668E-01	2.836E-01	2.929E-02	0.277
CO-60		1173.23		-4.776E-02	6.467E-02	9.821E-02	7.994E-03	-0.486
		1332.49	*	8.640E-04	5.320E-02	8.588E-02	8.256E-03	0.010
ZN-65		1115.54	*	1.353E-02	1.366E-01	1.931E-01	1.650E-02	0.070
SE-75		121.12		-1.478E-01	1.945E-01	3.055E-01	3.742E-02	-0.484
		136.00		1.172E-03	5.814E-02	9.424E-02	9.541E-03	0.012
		264.66	*	-1.009E-01	7.683E-02	1.013E-01	1.111E-02	-0.996
		279.54		-8.169E-02	1.600E-01	2.606E-01	2.885E-02	-0.314
		400.66		5.447E-02	3.685E-01	6.107E-01	6.692E-02	0.089
SR-85		514.00	*	1.793E-01	6.301E-02	1.068E-01	9.225E-03	1.679

## ---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-88		898.04		3.002E-02	5.667E-02	9.753E-02	9.133E-03	0.308
		1836.06	*	4.856E-04	4.093E-02	6.728E-02	5.666E-03	0.007
Y-91		1204.77	*	-1.002E+01	3.296E+01	5.204E+01	4.387E+00	-0.193
NB-94		702.65	*	-3.785E-02	4.322E-02	6.766E-02	5.712E-03	-0.559
		871.09		-2.756E-02	3.959E-02	6.088E-02	5.615E-03	-0.453
NB-95		765.81	*	3.434E-02	7.494E-02	1.120E-01	9.812E-03	0.307
NB-95M		235.69	*	6.765E-01	2.400E-01	3.766E-01	4.538E-02	1.796
ZR-95		724.19		1.512E-01	1.622E-01	2.522E-01	2.342E-02	0.600
		756.73	*	-2.512E-02	1.122E-01	1.822E-01	1.751E-02	-0.138
MO-99		140.51		-1.790E-04	1.122E-01	Half-Life	too short	
		181.07		-1.241E-04	1.122E-01	Half-Life	too short	
		366.42		-6.329E-04	1.122E-01	Half-Life	too short	
		739.50	*	4.515E-05	1.122E-01	Half-Life	too short	
		777.92		-1.699E-04	1.122E-01	Half-Life	too short	
TC-99M		140.51	*	-1.910E+20	1.122E-01	Half-Life	too short	
RU-103		497.08	*	1.329E-02	5.989E-02	9.890E-02	1.383E-02	0.134
	+	610.33		1.675E+01	3.715E+00	4.069E+00	6.614E-01	4.117
RH-106		621.93	*	-1.265E-01	4.395E-01	6.911E-01	9.065E-02	-0.183
		1050.41		1.918E+00	3.193E+00	5.513E+00	4.899E-01	0.348
RU-106		621.93	*	-1.265E-01	4.393E-01	6.911E-01	5.808E-02	-0.183
		1050.41		1.918E+00	3.193E+00	5.513E+00	4.899E-01	0.348
AG-108M		433.94	*	-1.768E-03	4.220E-02	6.895E-02	6.094E-03	-0.026
		614.28		-2.174E-02	5.325E-02	7.050E-02	6.149E-03	-0.308
		722.91		6.735E-03	5.583E-02	8.138E-02	7.184E-03	0.083
AG-110M		657.76	*	1.487E-02	4.666E-02	7.000E-02	5.957E-03	0.212
		677.62		-2.397E-01	4.288E-01	6.906E-01	5.916E-02	-0.347
		706.68		-7.939E-02	2.674E-01	4.374E-01	3.812E-02	-0.182
		763.94		-4.870E-03	2.487E-01	3.561E-01	3.200E-02	-0.014
		884.68		5.951E-02	6.239E-02	1.111E-01	1.059E-02	0.536
		937.49		-1.229E-01	1.590E-01	2.444E-01	2.334E-02	-0.503
		1384.29		6.653E-02	2.261E-01	3.508E-01	3.453E-02	0.190
		1505.03		-1.431E-01	3.305E-01	5.136E-01	4.908E-02	-0.279
SN-113		391.69	*	2.877E-02	6.554E-02	1.104E-01	9.584E-03	0.261
CD-115		260.90		1.349E-03	6.554E-02	Half-Life	too short	
		492.35		-6.424E-05	6.554E-02	Half-Life	too short	
		527.90	*	1.142E-04	6.554E-02	Half-Life	too short	
SN-117M		156.02		3.523E+00	4.781E+00	7.904E+00	8.238E-01	0.446
		158.56	*	-1.049E-02	1.142E-01	1.834E-01	1.923E-02	-0.057
TE-123M		159.00	*	-1.100E-02	4.112E-02	6.551E-02	6.904E-03	-0.168
SB-124		602.73		7.361E-03	6.515E-02	9.150E-02	7.755E-03	0.080
		645.85		4.169E-01	6.900E-01	1.160E+00	1.022E-01	0.359
		722.78		6.403E-02	6.147E-01	8.946E-01	7.825E-02	0.072
		1690.97	*	-3.484E-03	1.040E-01	1.704E-01	1.605E-02	-0.020
SB-125		427.87	*	7.414E-02	1.304E-01	2.203E-01	1.917E-02	0.337
	+	463.37		1.200E+00	5.332E-01	7.465E-01	6.916E-02	1.608
		600.60		4.684E-03	2.610E-01	3.963E-01	3.617E-02	0.012
		635.95		9.545E-02	3.520E-01	5.776E-01	5.237E-02	0.165
TE-125M		109.28	*	7.824E+00	1.612E+01	2.667E+01	3.174E+00	0.293
I-126		388.63		1.706E-01	3.626E-01	6.115E-01	5.204E-02	0.279



---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-126	666.33	*		4.365E-01	4.719E-01	7.457E-01	6.150E-02	0.585
	753.82			1.396E+00	3.712E+00	6.348E+00	5.524E-01	0.220
	414.70			-1.541E-02	1.705E-01	2.785E-01	2.367E-02	-0.055
	666.50			1.510E-01	1.652E-01	2.608E-01	2.151E-02	0.579
	695.00			9.573E-03	1.605E-01	2.697E-01	2.266E-02	0.035
	697.00			4.982E-01	5.570E-01	9.835E-01	8.274E-02	0.507
SB-127	720.70	*		2.125E-01	3.334E-01	5.110E-01	4.362E-02	0.416
	856.80			-3.013E-01	1.139E+00	1.571E+00	1.440E-01	-0.192
	252.40			-8.102E+00	2.524E+01	4.131E+01	1.771E+01	-0.196
	473.00			-6.194E+00	8.947E+00	1.381E+01	2.097E+00	-0.449
	685.70	*		-1.088E+00	7.468E+00	1.238E+01	1.718E+00	-0.088
	783.70			2.603E+01	2.050E+01	3.643E+01	5.455E+00	0.715
I-131	80.19			2.065E+00	1.595E+01	2.313E+01	2.741E+00	0.089
	284.31			-5.331E-02	3.995E+00	6.659E+00	7.440E-01	-0.008
	364.49	*		4.719E-02	3.055E-01	5.087E-01	4.943E-02	0.093
	636.99			9.676E-01	3.972E+00	6.507E+00	5.806E-01	0.149
TE-132	49.72			1.050E+02	3.456E+02	5.802E+02	9.961E+01	0.181
	111.76			-1.039E+01	2.799E+02	4.555E+02	6.660E+01	-0.023
	116.30			-1.974E+00	2.363E+02	3.845E+02	5.597E+01	-0.005
	228.16	*		5.858E+00	6.184E+00	1.058E+01	2.010E+00	0.553
BA-133	81.00			-2.387E-01	2.029E-01	2.229E-01	3.899E-02	-1.071
	276.40			9.956E-01	5.426E-01	8.960E-01	1.395E-01	1.111
	302.85			1.186E-01	2.207E-01	3.294E-01	4.740E-02	0.360
	356.01	*		4.149E-02	6.394E-02	9.586E-02	1.295E-02	0.433
I-133	383.85			-1.432E-01	4.071E-01	6.569E-01	8.179E-02	-0.218
	529.87	*		4.168E-01	4.071E-01	Half-Life	too short	
	875.33			1.887E+01	4.071E-01	Half-Life	too short	
	1298.22			-6.577E+01	4.071E-01	Half-Life	too short	
CS-134	563.25			1.764E-01	5.016E-01	8.301E-01	7.191E-02	0.213
	569.33			-1.953E-01	2.783E-01	4.195E-01	3.643E-02	-0.466
	604.72			7.496E-03	5.001E-02	7.051E-02	5.986E-03	0.106
	795.86	*		9.128E-02	6.106E-02	1.112E-01	9.966E-03	0.821
CS-135	801.95			-1.460E-01	5.191E-01	8.251E-01	7.407E-02	-0.177
	1365.19			5.766E-01	1.429E+00	2.509E+00	2.506E-01	0.230
	268.22	*		4.430E-01	2.509E-01	3.946E-01	4.734E-02	1.123
	546.56			1.509E+17	2.509E-01	Half-Life	too short	
I-135	836.80			1.058E+19	2.509E-01	Half-Life	too short	
	1038.76			-4.490E+18	2.509E-01	Half-Life	too short	
	1131.51			5.175E+18	2.509E-01	Half-Life	too short	
	1260.41	*		-9.062E+17	2.509E-01	Half-Life	too short	
CS-136	1457.56			8.736E+20	2.509E-01	Half-Life	too short	
	1678.03			-7.565E+18	2.509E-01	Half-Life	too short	
	1791.20			-1.472E+18	2.509E-01	Half-Life	too short	
	153.25			8.092E-01	1.831E+00	3.000E+00	3.531E-01	0.270
	176.60			8.671E-01	1.080E+00	1.783E+00	2.048E-01	0.486
	273.65			-1.788E+00	1.308E+00	1.717E+00	1.968E-01	-1.041
	340.55			1.473E+00	4.161E-01	6.767E-01	6.839E-02	2.176
	818.51			-3.209E-02	1.331E-01	2.161E-01	1.949E-02	-0.149
	1048.07	*		-3.083E-02	2.043E-01	3.294E-01	3.049E-02	-0.094

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	(pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	1235.36			1.021E+00	1.296E+00	2.208E+00	2.615E-01	0.462
CE-139	165.86	*		9.036E-04	4.318E-02	6.953E-02	7.422E-03	0.013
BA-140	162.66			-6.722E-01	1.709E+00	2.704E+00	2.992E-01	-0.249
	304.85			-2.899E-01	3.238E+00	4.648E+00	1.389E+00	-0.062
	423.72			1.057E+00	4.297E+00	7.122E+00	2.341E+00	0.148
	537.26	*		3.824E-01	5.423E-01	8.983E-01	3.047E-01	0.426
LA-140	328.76			8.387E-01	6.624E-01	1.151E+00	1.207E-01	0.729
	487.02			1.675E-01	2.945E-01	4.964E-01	4.552E-02	0.337
	815.77			6.768E-03	5.996E-01	9.962E-01	9.928E-02	0.007
	1596.21	*		-7.085E-02	1.716E-01	2.672E-01	2.505E-02	-0.265
CE-141	145.44	*		3.705E-02	1.085E-01	1.756E-01	1.815E-02	0.211
CE-143	57.36			-1.245E-01	1.085E-01	Half-Life	too short	
	293.27	*		5.886E-02	1.085E-01	Half-Life	too short	
	664.57			9.893E-02	1.085E-01	Half-Life	too short	
	721.93			-1.975E-02	1.085E-01	Half-Life	too short	
CE-144	80.12			1.265E+00	4.409E+00	6.434E+00	7.563E-01	0.197
	133.52	*		-4.194E-01	2.975E-01	4.436E-01	7.158E-02	-0.945
PM-144	476.78			-4.519E-03	8.366E-02	1.359E-01	1.274E-02	-0.033
	618.01			-1.705E-03	4.588E-02	6.921E-02	6.000E-03	-0.025
	696.49	*		2.696E-02	4.603E-02	7.989E-02	6.725E-03	0.338
PR-144	696.51	*		2.732E+00	3.418E+00	6.008E+00	5.053E-01	0.455
	1489.16			-1.985E+00	1.444E+01	2.350E+01	2.251E+00	-0.084
PM-146	453.88	*		-6.547E-03	5.810E-02	9.429E-02	9.971E-03	-0.069
	633.25			-8.306E-01	1.925E+00	2.945E+00	1.123E+00	-0.282
	735.93			2.625E-02	1.945E-01	3.274E-01	9.176E-02	0.080
	747.24			2.523E-02	1.229E-01	2.079E-01	3.039E-02	0.121
ND-147	91.11	+		1.396E+00	9.854E-01	1.276E+00	1.580E-01	1.094
	319.41			-2.008E+00	7.526E+00	1.232E+01	1.262E+00	-0.163
	531.02	*		-4.916E-01	1.235E+00	1.942E+00	2.905E-01	-0.253
PM-149	285.90	*		3.342E-04	1.235E+00	Half-Life	too short	
EU-152	121.78			-2.128E-02	1.005E-01	1.620E-01	1.813E-02	-0.131
	244.70			3.752E-01	4.995E-01	7.590E-01	8.366E-02	0.494
	344.28	*		-1.168E-02	1.644E-01	2.213E-01	2.252E-02	-0.053
	778.90			1.687E-02	3.481E-01	5.813E-01	5.129E-02	0.029
	964.08	+		1.498E+00	5.395E-01	7.699E-01	7.081E-02	1.945
	1085.87			3.962E-01	5.132E-01	8.936E-01	7.781E-02	0.443
	1112.07			2.136E-01	4.258E-01	6.939E-01	5.937E-02	0.308
	1408.01			3.182E-01	2.485E-01	4.656E-01	4.486E-02	0.684
GD-153	69.67			-2.049E+00	3.408E+00	4.784E+00	5.461E-01	-0.428
	97.43	*		7.227E-02	1.371E-01	2.006E-01	2.214E-02	0.360
	103.18			-2.371E-01	1.663E-01	2.544E-01	2.690E-02	-0.932
EU-154	123.07			6.293E-03	7.049E-02	1.149E-01	1.434E-02	0.055
	723.31			5.244E-02	2.633E-01	3.865E-01	3.645E-02	0.136
	873.19			-1.031E-01	3.323E-01	5.331E-01	6.581E-02	-0.193
	996.26			-3.712E-01	4.928E-01	7.477E-01	1.324E-01	-0.496
	1004.73			-4.169E-01	2.881E-01	4.014E-01	4.807E-02	-1.039
	1274.44	*		2.147E-02	1.689E-01	2.763E-01	3.241E-02	0.078
EU-155	86.55	+		4.143E-01	1.861E-01	2.779E-01	3.428E-02	1.491
	105.31	*		6.080E-03	1.541E-01	2.519E-01	2.653E-02	0.024

----- 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		1.184E+00	5.314E-01	7.906E-01	9.720E-02	1.497
		197.04		1.212E+00	8.765E-01	1.464E+00	1.596E-01	0.828
		215.65		1.090E+00	1.161E+00	1.916E+00	2.107E-01	0.569
		298.57		3.850E-01	1.804E-01	3.184E-01	3.369E-02	1.209
		879.36	*	-4.717E-02	1.834E-01	2.960E-01	2.740E-02	-0.159
	+	962.29		1.050E+00	9.611E-01	1.481E+00	1.363E-01	0.709
		966.15		1.129E+00	4.067E-01	7.698E-01	7.076E-02	1.467
		1177.93		2.058E-01	5.575E-01	9.324E-01	7.630E-02	0.221
		1271.85		-7.994E-02	1.027E+00	1.647E+00	1.491E-01	-0.049
		80.57		-3.681E-01	5.070E-01	6.524E-01	7.687E-02	-0.564
HO-166M	+	184.41		1.698E-01	8.724E-02	9.437E-02	1.021E-02	1.799
		280.46		-1.354E-01	1.156E-01	1.810E-01	1.954E-02	-0.748
		410.95		1.508E-01	3.448E-01	5.792E-01	4.917E-02	0.260
	*	711.68		-8.807E-03	7.562E-02	1.253E-01	1.064E-02	-0.070
		752.31		1.303E-01	3.672E-01	6.271E-01	5.453E-02	0.208
		810.29		-1.721E-02	7.564E-02	1.200E-01	1.076E-02	-0.143
		67.75		-1.272E-01	2.323E-01	3.449E-01	3.936E-02	-0.369
TA-182		100.11		2.966E-01	2.749E-01	4.465E-01	4.819E-02	0.664
		152.43		-3.960E-02	5.162E-01	8.305E-01	8.588E-02	-0.048
		222.11		-4.349E-01	5.121E-01	8.303E-01	9.151E-02	-0.524
	+	1121.30		7.708E-01	3.394E-01	4.850E-01	4.122E-02	1.589
		1189.05		-9.395E-02	4.234E-01	6.731E-01	5.577E-02	-0.140
		1221.41	*	-6.948E-02	2.888E-01	4.585E-01	3.935E-02	-0.152
		1231.02		-5.227E-01	7.692E-01	1.180E+00	1.023E-01	-0.443
IR-192	+	295.96		1.355E+00	2.749E-01	4.081E-01	4.354E-02	3.320
		308.46		4.350E-02	1.428E-01	2.408E-01	2.521E-02	0.181
	*	316.51		1.726E-02	4.958E-02	8.374E-02	8.634E-03	0.206
		468.07		1.399E-01	1.003E-01	1.594E-01	1.474E-02	0.878
HG-203		70.83		1.418E-02	2.793E+00	4.044E+00	7.168E-01	0.004
		72.87		4.718E+00	1.675E+00	2.639E+00	4.558E-01	1.787
		279.20	*	-1.283E-02	6.098E-02	1.008E-01	1.108E-02	-0.127
BI-207		72.81		9.025E-01	3.161E-01	5.362E-01	6.141E-02	1.683
		74.97		9.329E-01	2.841E-01	3.778E-01	4.348E-02	2.469
	+	569.70		-3.229E-02	4.259E-02	6.385E-02	5.469E-03	-0.506
		1063.66	*	3.881E-03	6.986E-02	1.148E-01	1.012E-02	0.034
		1770.23		-5.068E-01	7.016E-01	7.814E-01	6.830E-02	-0.649
PB-210		46.54	*	-1.665E+01	1.425E+01	2.229E+01	2.745E+00	-0.747
PB-211	*	404.85		-4.712E-02	1.030E+00	1.688E+00	8.164E-01	-0.028
		427.09		3.774E-01	2.210E+00	3.645E+00	1.686E+00	0.104
		832.01		2.591E-01	1.413E+00	2.363E+00	1.227E+00	0.110
BI-212	+	727.33	*	2.897E+00	1.019E+00	1.530E+00	1.902E-01	1.893
		785.37		4.348E+00	4.144E+00	7.371E+00	6.526E-01	0.590
		1620.50		2.205E+00	2.881E+00	5.281E+00	4.916E-01	0.418
RN-219	+	271.23		9.617E-01	4.383E-01	6.052E-01	7.396E-02	1.589
		401.81	*	-6.264E-01	5.747E-01	8.734E-01	1.291E-01	-0.717
RA-223		81.07		-5.480E-01	4.533E-01	5.028E-01	5.941E-02	-1.090
		83.79		-1.718E-01	3.074E-01	3.045E-01	3.661E-02	-0.564
		94.87		1.650E+00	7.727E-01	1.179E+00	1.334E-01	1.400
		144.24		9.072E-01	9.750E-01	1.604E+00	1.772E-01	0.565

---- 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		1.643E-01	5.438E-01	8.867E-01	9.821E-02	0.185
	+	269.46		7.472E-01	3.383E-01	4.734E-01	5.224E-02	1.578
		323.87	*	-8.730E-01	9.314E-01	1.453E+00	2.637E-01	-0.601
	+	338.28		8.611E+00	2.826E+00	3.273E+00	4.250E-01	2.631
		79.69		5.044E+00	2.370E+00	3.433E+00	6.516E-01	1.469
		235.96		1.295E+00	3.113E-01	4.702E-01	5.843E-02	2.754
		256.23	*	6.537E-02	3.420E-01	5.772E-01	7.988E-02	0.113
		299.98		1.723E+00	1.295E+00	2.206E+00	3.109E-01	0.781
TH-227		304.50		-3.320E-02	2.525E+00	3.645E+00	6.408E-01	-0.009
		334.37		-2.524E-01	2.723E+00	3.889E+00	6.361E-01	-0.065
		79.80		2.883E+00	2.987E+00	4.376E+00	1.015E+00	0.659
		235.96		1.295E+00	3.081E-01	4.702E-01	5.616E-02	2.754
		256.23	*	6.537E-02	3.420E-01	5.772E-01	8.781E-02	0.113
		299.98		1.723E+00	1.295E+00	2.206E+00	3.109E-01	0.781
		304.50		-3.320E-02	2.525E+00	3.645E+00	6.408E-01	-0.009
		334.37		-2.524E-01	2.723E+00	3.889E+00	6.361E-01	-0.065
TH-229		85.43		7.750E-01	3.727E-01	5.638E-01	6.859E-02	1.375
	+	88.47		5.250E-01	2.357E-01	3.591E-01	4.426E-02	1.462
		193.51	*	-1.099E-01	7.603E-01	1.209E+00	1.315E-01	-0.091
PA-231	+	210.85		2.630E+00	1.786E+00	2.218E+00	2.436E-01	1.186
		283.69	*	-1.073E+00	1.929E+00	3.120E+00	4.975E-01	-0.344
TH-231		301.36		1.156E+00	9.219E-01	1.408E+00	1.912E-01	0.821
		81.07		-5.480E-01	4.533E-01	5.028E-01	5.941E-02	-1.090
PA-233		83.79		-1.718E-01	3.074E-01	3.045E-01	3.661E-02	-0.564
		94.87		1.650E+00	7.727E-01	1.179E+00	1.334E-01	1.400
		144.24		9.072E-01	9.750E-01	1.604E+00	1.772E-01	0.565
		154.21		1.643E-01	5.438E-01	8.867E-01	9.821E-02	0.185
	+	269.46		7.472E-01	3.383E-01	4.734E-01	5.224E-02	1.578
		323.87	*	-8.730E-01	9.314E-01	1.453E+00	2.637E-01	-0.601
	+	338.28		8.611E+00	2.826E+00	3.273E+00	4.250E-01	2.631
		300.13		7.798E-01	5.892E-01	9.987E-01	1.601E-01	0.781
		311.90	*	-1.476E-02	8.716E-02	1.436E-01	1.519E-02	-0.103
		340.48		4.345E+00	1.526E+00	1.916E+00	4.699E-01	2.267
		94.67		8.872E-01	2.986E-01	4.419E-01	6.377E-02	2.008
		98.44		1.388E-01	1.652E-01	2.178E-01	1.224E-01	0.637
		111.00		1.187E-01	2.691E-01	4.445E-01	5.901E-02	0.267
		131.20		1.302E-01	1.478E-01	2.465E-01	2.474E-02	0.528
		569.50		-2.293E-01	3.761E-01	5.708E-01	4.889E-02	-0.402
PA-234		733.00		-1.784E-01	5.645E-01	7.825E-01	1.736E-01	-0.228
		880.51		1.157E-01	3.471E-01	5.901E-01	5.465E-02	0.196
		883.24		4.846E-02	3.587E-01	5.973E-01	4.020E-01	0.081
		926.50		-1.114E-01	2.309E-01	3.555E-01	9.068E-02	-0.313
		946.00	*	1.620E-01	4.052E-01	6.871E-01	1.309E-01	0.236
		949.00		7.547E-02	5.866E-01	9.758E-01	9.011E-02	0.077
		766.42		1.637E+01	1.981E+01	2.796E+01	1.419E+01	0.586
		1001.03	*	8.127E+00	6.430E+00	1.139E+01	1.181E+00	0.714
	TH-234	63.29	*	6.703E-01	2.771E+00	4.511E+00	8.944E-01	0.149
	+	92.59		3.893E+00	1.711E+00	1.914E+00	4.483E-01	2.034
U-238		63.29	*	6.703E-01	2.771E+00	4.511E+00	8.944E-01	0.149

----- 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		3.893E+00	1.516E+00	1.914E+00	2.225E-01	2.034
		99.53		3.001E-01	2.503E-01	3.933E-01	4.264E-02	0.763
		103.37		-9.845E-02	1.435E-01	2.279E-01	2.407E-02	-0.432
		106.12		2.063E-02	1.234E-01	2.024E-01	2.107E-02	0.102
		117.23	*	9.073E-02	5.660E-01	9.263E-01	9.349E-02	0.098
		228.18		2.989E-01	3.158E-01	5.463E-01	6.026E-02	0.547
		277.60		3.575E-01	2.450E-01	4.288E-01	4.643E-02	0.834
AM-241		59.54	*	-2.825E-02	3.380E-01	5.580E-01	6.550E-02	-0.051
CM-247		278.00		1.092E+00	1.037E+00	1.797E+00	1.945E-01	0.607
		287.50		3.624E-02	1.870E+00	2.839E+00	3.045E-01	0.013
CF-249		402.40	*	-3.087E-02	5.199E-02	8.249E-02	6.976E-03	-0.374
		252.80		-7.496E-02	1.285E+00	2.148E+00	2.362E-01	-0.035
		333.37		-1.930E-01	2.991E-01	4.101E-01	4.087E-02	-0.471
CF-251		388.16	*	9.794E-03	5.666E-02	9.413E-02	8.024E-03	0.104
		177.52	*	8.019E-03	1.861E-01	2.993E-01	3.220E-02	0.027
		227.38		5.516E-01	5.165E-01	8.958E-01	9.881E-02	0.616
		285.41		9.841E-01	2.911E+00	4.929E+00	5.297E-01	0.200

# 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]G1202057347      *
* Acquisition date   : 18-MAR-2010 16:18:09 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 02:00:01.44           Half life ratio : 8.000        *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date        : 23-FEB-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID          : G1202057347           Analyst initials: MXR1          *
* Batch Number       : 959279                Sample Quantity : 1.2641E+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	3.217E+01	3.769E+00	6.660E-01	0.000E+00
CD-109	3.526E+00	1.552E+00	1.879E+00	0.000E+00
SN-126	3.406E-01	1.498E-01	1.829E-01	0.000E+00
BA-137M	1.076E-01	5.454E-02	8.188E-02	0.000E+00
CS-137	1.137E-01	5.762E-02	8.649E-02	0.000E+00
TL-208	7.362E-01	1.238E-01	7.633E-02	0.000E+00
BI-211	5.224E+00	7.845E-01	4.534E-01	0.000E+00
PB-212	1.662E+00	2.934E-01	1.683E-01	0.000E+00
BI-214	1.408E+00	2.494E-01	1.442E-01	0.000E+00
PB-214	1.896E+00	3.026E-01	1.596E-01	0.000E+00
RA-224	1.879E+00	1.128E+00	2.249E+00	0.000E+00
RA-226	1.408E+00	2.494E-01	1.442E-01	0.000E+00
AC-228	2.131E+00	4.672E-01	2.866E-01	0.000E+00
RA-228	2.131E+00	4.672E-01	2.866E-01	0.000E+00
TH-228	1.662E+00	2.934E-01	1.683E-01	0.000E+00
TH-232	2.131E+00	4.672E-01	2.866E-01	0.000E+00
U-235	2.911E-01	2.870E-01	4.942E-01	0.000E+00
NP-237	1.016E+00	4.935E-01	5.562E-01	0.000E+00
ANH-511	2.192E-01	8.916E-02	5.811E-02	0.000E+00

### ---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM )	K.L. Act error ) Ided	MDA (pCi/GRAM )	
BE-7	-1.740E-01	4.489E-01	7.385E-01	0.000E+00 NOT IDENT.
NA-22	-4.555E-03	5.978E-02	9.801E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	7.519E+09	0.000E+00	0.000E+00 SHORT HLIF
SC-46	-6.815E-03	5.421E-02	8.460E-02	0.000E+00 FAIL ABUN
V-48	2.646E-02	1.405E-01	2.083E-01	0.000E+00 NOT IDENT.
CR-51	-3.079E-03	5.941E-01	1.028E+00	0.000E+00 NOT IDENT.
MN-54	1.599E-02	5.435E-02	9.440E-02	0.000E+00 NOT IDENT.
CO-56	-4.404E-02	5.348E-02	8.462E-02	0.000E+00 NOT IDENT.

CO-57	2.442E-05	3.451E-02	5.930E-02	0.000E+00	NOT IDENT.
CO-58	7.060E-04	5.328E-02	8.882E-02	0.000E+00	NOT IDENT.
FE-59	-5.108E-02	1.435E-01	2.324E-01	0.000E+00	NOT IDENT.
CO-60	8.640E-04	5.214E-02	8.596E-02	0.000E+00	NOT IDENT.
ZN-65	1.353E-02	1.339E-01	1.938E-01	0.000E+00	NOT IDENT.
SE-75	-1.009E-01	7.529E-02	1.038E-01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	6.175E-02	1.084E-01	0.000E+00	NOT IDENT.
Y-88	4.856E-04	4.011E-02	6.702E-02	0.000E+00	NOT IDENT.
Y-91	-1.002E+01	3.230E+01	5.217E+01	0.000E+00	NOT IDENT.
NB-94	-3.785E-02	4.236E-02	6.837E-02	0.000E+00	NOT IDENT.
NB-95	3.434E-02	7.344E-02	1.130E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.352E-01	3.867E-01	0.000E+00	NOT IDENT.
ZR-95	-2.512E-02	1.100E-01	1.839E-01	0.000E+00	NOT IDENT.
MO-99	0.000E+00	1.204E+02	0.000E+00	0.000E+00	SHORT HLIF
TC-99M	0.000E+00	2.635E+26	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.329E-02	5.869E-02	1.004E-01	0.000E+00	FAIL ABUN
RH-106	-1.265E-01	4.307E-01	6.997E-01	0.000E+00	NOT IDENT.
RU-106	-1.265E-01	4.305E-01	6.997E-01	0.000E+00	NOT IDENT.
AG-108M	-1.768E-03	4.135E-02	7.017E-02	0.000E+00	NOT IDENT.
AG-110M	1.487E-02	4.573E-02	7.081E-02	0.000E+00	NOT IDENT.
SN-113	2.877E-02	6.423E-02	1.125E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	1.716E+02	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-1.049E-02	1.120E-01	1.894E-01	0.000E+00	NOT IDENT.
TE-123M	-1.100E-02	4.030E-02	6.764E-02	0.000E+00	NOT IDENT.
SB-124	-3.484E-03	1.019E-01	1.700E-01	0.000E+00	NOT IDENT.
SB-125	7.414E-02	1.278E-01	2.242E-01	0.000E+00	FAIL ABUN
TE-125M	7.824E+00	1.580E+01	2.768E+01	0.000E+00	NOT IDENT.
I-126	4.365E-01	4.625E-01	7.541E-01	0.000E+00	NOT IDENT.
SB-126	2.125E-01	3.267E-01	5.162E-01	0.000E+00	NOT IDENT.
SB-127	-1.088E+00	7.319E+00	1.252E+01	0.000E+00	NOT IDENT.
I-131	4.719E-02	2.994E-01	5.190E-01	0.000E+00	NOT IDENT.
TE-132	5.858E+00	6.060E+00	1.087E+01	0.000E+00	NOT IDENT.
BA-133	4.149E-02	6.266E-02	9.784E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.768E+06	0.000E+00	0.000E+00	SHORT HLIF
CS-134	9.128E-02	5.984E-02	1.121E-01	0.000E+00	NOT IDENT.
CS-135	0.000E+00	2.459E-01	4.043E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.802E+24	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.083E-02	2.003E-01	3.309E-01	0.000E+00	NOT IDENT.
CE-139	9.036E-04	4.232E-02	7.174E-02	0.000E+00	NOT IDENT.
BA-140	3.824E-01	5.315E-01	9.114E-01	0.000E+00	NOT IDENT.
LA-140	-7.085E-02	1.682E-01	2.667E-01	0.000E+00	NOT IDENT.
CE-141	3.705E-02	1.063E-01	1.815E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.974E+04	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-4.194E-01	2.915E-01	4.591E-01	0.000E+00	NOT IDENT.
PM-144	2.696E-02	4.511E-02	8.074E-02	0.000E+00	NOT IDENT.
PR-144	2.732E+00	3.350E+00	6.072E+00	0.000E+00	NOT IDENT.
PM-146	-6.547E-03	5.694E-02	9.589E-02	0.000E+00	NOT IDENT.
ND-147	-4.916E-01	1.211E+00	1.971E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	1.512E+03	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-1.168E-02	1.611E-01	2.260E-01	0.000E+00	FAIL ABUN
GD-153	7.227E-02	1.343E-01	2.085E-01	0.000E+00	NOT IDENT.
EU-154	2.147E-02	1.655E-01	2.768E-01	0.000E+00	NOT IDENT.
EU-155	6.080E-03	1.510E-01	2.616E-01	0.000E+00	FAIL ABUN
TB-160	-4.717E-02	1.798E-01	2.981E-01	0.000E+00	FAIL ABUN
HO-166M	-8.807E-03	7.410E-02	1.266E-01	0.000E+00	FAIL ABUN
TA-182	-6.948E-02	2.830E-01	4.595E-01	0.000E+00	FAIL ABUN
IR-192	1.726E-02	4.858E-02	8.561E-02	0.000E+00	FAIL ABUN
HG-203	-1.283E-02	5.977E-02	1.033E-01	0.000E+00	NOT IDENT.
BI-207	3.881E-03	6.846E-02	1.152E-01	0.000E+00	FAIL ABUN
PB-210	-1.665E+01	1.397E+01	2.341E+01	0.000E+00	NOT IDENT.
PB-211	-4.712E-02	1.009E+00	1.720E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	9.990E-01	1.546E+00	0.000E+00	FAIL ABUN
RN-219	-6.264E-01	5.632E-01	8.898E-01	0.000E+00	FAIL ABUN
RA-223	-8.730E-01	9.127E-01	1.485E+00	0.000E+00	FAIL ABUN
AC-227	6.537E-02	3.351E-01	5.919E-01	0.000E+00	NOT IDENT.
TH-227	6.537E-02	3.352E-01	5.919E-01	0.000E+00	NOT IDENT.
TH-229	-1.099E-01	7.451E-01	1.245E+00	0.000E+00	FAIL ABUN
PA-231	-1.073E+00	1.890E+00	3.195E+00	0.000E+00	NOT IDENT.
TH-231	-8.730E-01	9.127E-01	1.485E+00	0.000E+00	FAIL ABUN
PA-233	-1.476E-02	8.541E-02	1.468E-01	0.000E+00	NOT IDENT.
PA-234	1.620E-01	3.971E-01	6.913E-01	0.000E+00	NOT IDENT.
PA-234M	8.127E+00	6.301E+00	1.145E+01	0.000E+00	NOT IDENT.
TH-234	6.703E-01	2.716E+00	4.717E+00	0.000E+00	FAIL ABUN
U-238	6.703E-01	2.716E+00	4.717E+00	0.000E+00	FAIL ABUN
NP-239	9.073E-02	5.547E-01	9.604E-01	0.000E+00	NOT IDENT.
AM-241	-2.825E-02	3.312E-01	5.841E-01	0.000E+00	NOT IDENT.
CM-247	-3.087E-02	5.096E-02	8.404E-02	0.000E+00	NOT IDENT.
CF-249	9.794E-03	5.553E-02	9.595E-02	0.000E+00	NOT IDENT.

CF-251	8.019E-03	1.824E-01	3.085E-01	0.000E+00 NOT IDENT.
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## VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 18:18:38.58

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*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                          *
*                               Charleston, SC 29414                     *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057347.CNF;1
Sample date       : 23-FEB-2010 12:00:00 Acquisition date : 18-MAR-2010 16:18:09
Sample ID        : G1202057347 Sample quantity : 1.26410E+02 GRAM
Detector name    : GAM15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.44 0.0%
Energy tolerance : 1.50000 keV Analyst Initials : MXR1
Abundance limit  : 75.00000 Sensitivity : 5.00000
Batch ID        : 959279 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	1116	10.66*	9.663E-01	3.217E+01	3.217E+01	11.95
CD-109	88.03	189	3.70*	4.445E+00	3.406E+00	3.526E+00	44.90
SN-126	64.28	-----	9.60	1.941E+00	-----	Line Not Found	-----
	86.94	189	8.90	4.445E+00	1.416E+00	1.416E+00	60.43
	87.57	189	37.00*	4.445E+00	3.406E-01	3.406E-01	44.90
BA-137M	661.66	65	89.90*	1.983E+00	1.074E-01	1.076E-01	51.73
CS-137	661.66	65	85.10*	1.983E+00	1.135E-01	1.137E-01	51.73
TL-208	277.37	-----	6.60	3.705E+00	-----	Line Not Found	-----
	583.19	462	85.00*	2.191E+00	7.362E-01	7.362E-01	17.16
	860.56	73	12.50	1.576E+00	1.107E+00	1.107E+00	54.95
BI-211	72.87	-----	1.23	3.001E+00	-----	Line Not Found	-----
	351.06	714	12.92*	3.141E+00	5.224E+00	5.224E+00	15.32
PB-212	74.82	362	10.28	3.228E+00	3.235E+00	3.235E+00	31.97
	77.11	756	17.10	3.501E+00	3.749E+00	3.749E+00	18.05
	238.63	1004	43.60*	4.117E+00	1.662E+00	1.662E+00	18.01
	300.09	-----	3.30	3.507E+00	-----	Line Not Found	-----
BI-214	609.32	457	45.49*	2.118E+00	1.408E+00	1.408E+00	18.08
	1120.29	97	14.92	1.227E+00	1.566E+00	1.567E+00	44.54
	1764.49	83	15.30	8.555E-01	1.883E+00	1.883E+00	32.49
PB-214	74.82	362	5.80	3.228E+00	5.734E+00	5.735E+00	31.47
	77.11	756	9.70	3.501E+00	6.609E+00	6.609E+00	19.85
	242.00	106	7.25	4.076E+00	1.063E+00	1.063E+00	61.52
	295.22	374	18.42	3.546E+00	1.699E+00	1.699E+00	21.28
	351.93	714	35.60*	3.141E+00	1.896E+00	1.896E+00	16.29
RA-224	240.99	106	4.10*	4.076E+00	1.879E+00	1.879E+00	61.24
RA-226	609.32	457	45.49*	2.118E+00	1.408E+00	1.408E+00	18.08
	1120.29	97	14.92	1.227E+00	1.566E+00	1.567E+00	44.54
	1764.49	83	15.30	8.555E-01	1.883E+00	1.883E+00	32.49
AC-228	338.32	266	11.27	3.227E+00	2.170E+00	2.170E+00	51.69
	911.20	277	25.80*	1.495E+00	2.131E+00	2.131E+00	22.37
	968.97	158	15.80	1.410E+00	2.110E+00	2.110E+00	36.11
RA-228	338.32	266	11.27	3.227E+00	2.170E+00	2.170E+00	51.69

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	911.20	277	25.80*	1.495E+00	2.131E+00	2.131E+00	22.37
	968.97	158	15.80	1.410E+00	2.110E+00	2.110E+00	36.11
	74.82	362	10.28	3.228E+00	3.235E+00	3.235E+00	30.48
	77.11	756	17.10	3.501E+00	3.749E+00	3.749E+00	18.05
	238.63	1004	43.60*	4.117E+00	1.662E+00	1.662E+00	18.01
TH-232	300.09	-----	3.30	3.507E+00	-----	Line Not Found	-----
	338.32	266	11.27	3.227E+00	2.170E+00	2.170E+00	31.71
	911.20	277	25.80*	1.495E+00	2.131E+00	2.131E+00	22.37
U-235	968.97	158	15.80	1.410E+00	2.110E+00	2.110E+00	36.11
	89.96	141	3.47	4.647E+00	2.591E+00	2.591E+00	74.19
	93.35	269	5.60	4.842E+00	2.941E+00	2.941E+00	44.45
	143.76	-----	10.96*	5.506E+00	-----	Line Not Found	-----
	163.33	-----	5.08	5.224E+00	-----	Line Not Found	-----
NP-237	185.72	200	57.20	4.859E+00	2.138E-01	2.138E-01	51.37
	205.31	-----	5.01	4.560E+00	-----	Line Not Found	-----
	86.48	189	12.40*	4.445E+00	1.016E+00	1.016E+00	49.55
	95.86	-----	2.68	5.004E+00	-----	Line Not Found	-----
ANH-511	511.00	178	100.00*	2.418E+00	2.192E-01	2.192E-01	41.51

Flag: "\*" = Keyline

Total number of lines in spectrum 28  
Number of unidentified lines 2  
Number of lines tentatively identified by NID 26 92.86%

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	3.217E+01	3.217E+01	0.385E+01	11.95	
CD-109	461.40D	1.04	3.406E+00	3.526E+00	1.583E+00	44.90	
SN-126	2.30E+05Y	1.00	3.406E-01	3.406E-01	1.529E-01	44.90	
BA-137M	30.08Y	1.00	1.074E-01	1.076E-01	0.557E-01	51.73	
CS-137	30.08Y	1.00	1.135E-01	1.137E-01	0.588E-01	51.73	
TL-208	1.41E+10Y	1.00	7.362E-01	7.362E-01	1.263E-01	17.16	
BI-211	7.04E+08Y	1.00	5.224E+00	5.224E+00	0.801E+00	15.32	
PB-212	1.41E+10Y	1.00	1.662E+00	1.662E+00	0.299E+00	18.01	
BI-214	1600.00Y	1.00	1.408E+00	1.408E+00	0.254E+00	18.08	
PB-214	1600.00Y	1.00	1.896E+00	1.896E+00	0.309E+00	16.29	
RA-224	1.41E+10Y	1.00	1.879E+00	1.879E+00	1.151E+00	61.24	
RA-226	1600.00Y	1.00	1.408E+00	1.408E+00	0.254E+00	18.08	
AC-228	1.41E+10Y	1.00	2.131E+00	2.131E+00	0.477E+00	22.37	
RA-228	1.41E+10Y	1.00	2.131E+00	2.131E+00	0.477E+00	22.37	
TH-228	1.41E+10Y	1.00	1.662E+00	1.662E+00	0.299E+00	18.01	
TH-232	1.41E+10Y	1.00	2.131E+00	2.131E+00	0.477E+00	22.37	
U-235	7.04E+08Y	1.00	2.138E-01	2.138E-01	1.098E-01	51.37	K
NP-237	2.14E+06Y	1.00	1.016E+00	1.016E+00	0.504E+00	49.55	
ANH-511	1.00E+09Y	1.00	2.192E-01	2.192E-01	0.910E-01	41.51	

Total Activity : 5.985E+01 5.997E+01

Grand Total Activity : 5.985E+01 5.997E+01

Flags: "K" = Keyline not found  
"E" = Manually edited

"M" = Manually accepted  
"A" = Nuclide specific abn. limit

Unidentified Energy Lines  
Sample ID : G1202057347

Page : 4  
Acquisition date : 18-MAR-2010 16:18:09

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.41	112	355	1.48	417.72	413	10	1.55E-02	67.0	4.50E+00	T
0	270.03	132	202	1.34	538.96	534	10	1.83E-02	43.9	3.78E+00	T
0	463.29	109	119	1.63	925.48	919	11	1.51E-02	43.4	2.60E+00	T
0	726.80	119	60	2.03	1452.54	1446	12	1.66E-02	32.9	1.83E+00	T
0	768.24	46	93	1.49	1535.42	1530	12	6.35E-03	89.5	1.75E+00	
1	964.80	104	70	2.20	1928.60	1921	39	1.45E-02	34.8	1.42E+00	T
0	1377.36	32	23	2.34	2753.92	2744	15	4.38E-03	78.1	1.01E+00	

Flags: "T" = Tentatively associated

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*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
*                                     DETECTOR DATA                          *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057347.CNF;1 *
* Acquisition date   : 18-MAR-2010 16:18:09  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 02:00:01.44          Half life ratio   : 8.00000      *
*****
*                                     SAMPLE DATA                            *
*
* Sample date        : 23-FEB-2010 12:00:00  Nuclide Library   : SOLID        *
* Sample ID          : G1202057347          Analyst initials : MXR1         *
* Batch Number       : 959279              Sample Quantity  : 1.26410E+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	3.217E+01	3.846E+00	6.663E-01	6.548E-02	48.277
CD-109	3.526E+00	1.583E+00	1.805E+00	2.241E-01	1.953
SN-126	3.406E-01	1.529E-01	1.757E-01	2.174E-02	1.939
BA-137M	1.076E-01	5.566E-02	8.095E-02	6.655E-03	1.329
CS-137	1.137E-01	5.880E-02	8.552E-02	7.045E-03	1.329
TL-208	7.362E-01	1.263E-01	7.533E-02	6.890E-03	9.773
BI-211	5.224E+00	8.005E-01	4.441E-01	4.423E-02	11.762
PB-212	1.662E+00	2.993E-01	1.640E-01	1.959E-02	10.134
BI-214	1.408E+00	2.545E-01	1.424E-01	1.419E-02	9.882
PB-214	1.896E+00	3.088E-01	1.563E-01	1.777E-02	12.127
RA-224	1.879E+00	1.151E+00	2.191E+00	2.417E-01	0.858
RA-226	1.408E+00	2.545E-01	1.424E-01	1.419E-02	9.882
AC-228	2.131E+00	4.767E-01	2.847E-01	3.448E-02	7.486
RA-228	2.131E+00	4.767E-01	2.847E-01	3.448E-02	7.486
TH-228	1.662E+00	2.993E-01	1.640E-01	1.959E-02	10.134
TH-232	2.131E+00	4.767E-01	2.847E-01	3.448E-02	7.486
U-235	2.138E-01	1.098E-01	4.780E-01	8.506E-02	0.447
NP-237	1.016E+00	5.035E-01	5.342E-01	1.298E-01	1.902

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	2.192E-01	9.098E-02	5.724E-02	4.946E-03	3.829

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.740E-01		4.580E-01	7.267E-01	6.754E-02	-0.239
NA-22	-4.555E-03		6.100E-02	9.785E-02	8.889E-03	-0.047
NA-24	-1.455E+03		3.836E+03	Half-Life too short		
SC-46	-6.815E-03		5.532E-02	8.401E-02	7.807E-03	-0.081
V-48	2.646E-02		1.434E-01	2.072E-01	1.894E-02	0.128
CR-51	-3.079E-03		6.063E-01	1.006E+00	1.068E-01	-0.003
MN-54	1.599E-02		5.545E-02	9.366E-02	8.499E-03	0.171
CO-56	-4.404E-02		5.457E-02	8.397E-02	7.662E-03	-0.524
CO-57	2.442E-05		3.521E-02	5.723E-02	5.765E-03	0.000
CO-58	7.060E-04		5.436E-02	8.808E-02	7.919E-03	0.008
FE-59	-5.108E-02		1.465E-01	2.316E-01	2.160E-02	-0.221
CO-60	8.640E-04		5.320E-02	8.588E-02	8.256E-03	0.010
ZN-65	1.353E-02		1.366E-01	1.931E-01	1.650E-02	0.070
SE-75	-1.009E-01		7.683E-02	1.013E-01	1.111E-02	-0.996
SR-85	1.793E-01		6.301E-02	1.068E-01	9.225E-03	1.679
Y-88	4.856E-04		4.093E-02	6.728E-02	5.666E-03	0.007
Y-91	-1.002E+01		3.296E+01	5.204E+01	4.387E+00	-0.193
NB-94	-3.785E-02		4.322E-02	6.766E-02	5.712E-03	-0.559
NB-95	3.434E-02		7.494E-02	1.120E-01	9.812E-03	0.307
NB-95M	6.765E-01		2.400E-01	3.766E-01	4.538E-02	1.796
ZR-95	-2.512E-02		1.122E-01	1.822E-01	1.751E-02	-0.138
MO-99	4.515E-05		6.144E-05	Half-Life too short		
TC-99M	-1.910E+20		1.344E+20	Half-Life too short		
RU-103	1.329E-02		5.989E-02	9.890E-02	1.383E-02	0.134
RH-106	-1.265E-01		4.395E-01	6.911E-01	9.065E-02	-0.183
RU-106	-1.265E-01		4.393E-01	6.911E-01	5.808E-02	-0.183
AG-108M	-1.768E-03		4.220E-02	6.895E-02	6.094E-03	-0.026
AG-110M	1.487E-02		4.666E-02	7.000E-02	5.957E-03	0.212
SN-113	2.877E-02		6.554E-02	1.104E-01	9.584E-03	0.261
CD-115	1.142E-04		8.755E-05	Half-Life too short		
SN-117M	-1.049E-02		1.142E-01	1.834E-01	1.923E-02	-0.057
TE-123M	-1.100E-02		4.112E-02	6.551E-02	6.904E-03	-0.168
SB-124	-3.484E-03		1.040E-01	1.704E-01	1.605E-02	-0.020
SB-125	7.414E-02		1.304E-01	2.203E-01	1.917E-02	0.337
TE-125M	7.824E+00		1.612E+01	2.667E+01	3.174E+00	0.293
I-126	4.365E-01		4.719E-01	7.457E-01	6.150E-02	0.585
SB-126	2.125E-01		3.334E-01	5.110E-01	4.362E-02	0.416
SB-127	-1.088E+00		7.468E+00	1.238E+01	1.718E+00	-0.088
I-131	4.719E-02		3.055E-01	5.087E-01	4.943E-02	0.093
TE-132	5.858E+00		6.184E+00	1.058E+01	2.010E+00	0.553
BA-133	4.149E-02		6.394E-02	9.586E-02	1.295E-02	0.433
I-133	4.168E-01		2.433E+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	9.128E-02		6.106E-02	1.112E-01	9.966E-03	0.821
CS-135	4.430E-01		2.509E-01	3.946E-01	4.734E-02	1.123
I-135	-9.062E+17		2.960E+18	Half-Life too short		
CS-136	-3.083E-02		2.043E-01	3.294E-01	3.049E-02	-0.094
CE-139	9.036E-04		4.318E-02	6.953E-02	7.422E-03	0.013
BA-140	3.824E-01		5.423E-01	8.983E-01	3.047E-01	0.426
LA-140	-7.085E-02		1.716E-01	2.672E-01	2.505E-02	-0.265
CE-141	3.705E-02		1.085E-01	1.756E-01	1.815E-02	0.211
CE-143	5.886E-02		1.007E-02	Half-Life too short		
CE-144	-4.194E-01		2.975E-01	4.436E-01	7.158E-02	-0.945
PM-144	2.696E-02		4.603E-02	7.989E-02	6.725E-03	0.338
PR-144	2.732E+00		3.418E+00	6.008E+00	5.053E-01	0.455
PM-146	-6.547E-03		5.810E-02	9.429E-02	9.971E-03	-0.069
ND-147	-4.916E-01		1.235E+00	1.942E+00	2.905E-01	-0.253
PM-149	3.342E-04		7.714E-04	Half-Life too short		
EU-152	-1.168E-02		1.644E-01	2.213E-01	2.252E-02	-0.053
GD-153	7.227E-02		1.371E-01	2.006E-01	2.214E-02	0.360
EU-154	2.147E-02		1.689E-01	2.763E-01	3.241E-02	0.078
EU-155	6.080E-03		1.541E-01	2.519E-01	2.653E-02	0.024
TB-160	-4.717E-02		1.834E-01	2.960E-01	2.740E-02	-0.159
HO-166M	-8.807E-03		7.562E-02	1.253E-01	1.064E-02	-0.070
TA-182	-6.948E-02		2.888E-01	4.585E-01	3.935E-02	-0.152
IR-192	1.726E-02		4.958E-02	8.374E-02	8.634E-03	0.206
HG-203	-1.283E-02		6.098E-02	1.008E-01	1.108E-02	-0.127
BI-207	3.881E-03		6.986E-02	1.148E-01	1.012E-02	0.034
PB-210	-1.665E+01		1.425E+01	2.229E+01	2.745E+00	-0.747
PB-211	-4.712E-02		1.030E+00	1.688E+00	8.164E-01	-0.028
BI-212	2.897E+00	+	1.019E+00	1.530E+00	1.902E-01	1.893
RN-219	-6.264E-01		5.747E-01	8.734E-01	1.291E-01	-0.717
RA-223	-8.730E-01		9.314E-01	1.453E+00	2.637E-01	-0.601
AC-227	6.537E-02		3.420E-01	5.772E-01	7.988E-02	0.113
TH-227	6.537E-02		3.420E-01	5.772E-01	8.781E-02	0.113
TH-229	-1.099E-01		7.603E-01	1.209E+00	1.315E-01	-0.091
PA-231	-1.073E+00		1.929E+00	3.120E+00	4.975E-01	-0.344
TH-231	-8.730E-01		9.314E-01	1.453E+00	2.637E-01	-0.601
PA-233	-1.476E-02		8.716E-02	1.436E-01	1.519E-02	-0.103
PA-234	1.620E-01		4.052E-01	6.871E-01	1.309E-01	0.236
PA-234M	8.127E+00		6.430E+00	1.139E+01	1.181E+00	0.714
TH-234	6.703E-01		2.771E+00	4.511E+00	8.944E-01	0.149
U-238	6.703E-01		2.771E+00	4.511E+00	8.944E-01	0.149
NP-239	9.073E-02		5.660E-01	9.263E-01	9.349E-02	0.098
AM-241	-2.825E-02		3.380E-01	5.580E-01	6.550E-02	-0.051
CM-247	-3.087E-02		5.199E-02	8.249E-02	6.976E-03	-0.374
CF-249	9.794E-03		5.666E-02	9.413E-02	8.024E-03	0.104
CF-251	8.019E-03		1.861E-01	2.993E-01	3.220E-02	0.027

# 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]G1202057347          *
* Acquisition date   : 18-MAR-2010 16:18:09 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 02:00:01.44             Half life ratio : 8.000        *
*****
*
*                                     SAMPLE DATA                            *
*
* Sample date        : 23-FEB-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID          : G1202057347             Analyst initials: MXR1          *
* Batch Number       : 959279                  Sample Quantity : 1.2641E+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	3.217E+01	3.769E+00	3.332E-01	1.923E+00
CD-109	3.526E+00	1.552E+00	9.402E-01	7.916E-01
SN-126	3.406E-01	1.498E-01	9.150E-02	7.645E-02
BA-137M	1.076E-01	5.454E-02	4.096E-02	2.783E-02
CS-137	1.137E-01	5.762E-02	4.327E-02	2.940E-02
TL-208	7.362E-01	1.238E-01	3.819E-02	6.315E-02
BI-211	5.224E+00	7.845E-01	2.268E-01	4.003E-01
PB-212	1.662E+00	2.934E-01	8.421E-02	1.497E-01
BI-214	1.408E+00	2.494E-01	7.217E-02	1.272E-01
PB-214	1.896E+00	3.026E-01	7.984E-02	1.544E-01
RA-224	1.879E+00	1.128E+00	1.125E+00	5.755E-01
RA-226	1.408E+00	2.494E-01	7.217E-02	1.272E-01
AC-228	2.131E+00	4.672E-01	1.434E-01	2.384E-01
RA-228	2.131E+00	4.672E-01	1.434E-01	2.384E-01
TH-228	1.662E+00	2.934E-01	8.421E-02	1.497E-01
TH-232	2.131E+00	4.672E-01	1.434E-01	2.384E-01
U-235	2.911E-01	2.870E-01	2.473E-01	1.464E-01
NP-237	1.016E+00	4.935E-01	2.783E-01	2.518E-01
ANH-511	2.192E-01	8.916E-02	2.907E-02	4.549E-02

### ---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM )	K.L Act error	DLC (pCi/GRAM )	TPU
BE-7	-1.740E-01	4.489E-01	3.695E-01	2.290E-01 NOT IDENT.
NA-22	-4.555E-03	5.978E-02	4.903E-02	3.050E-02 NOT IDENT.
NA-24	-1.455E+09	7.519E+09	0.000E+00	3.836E+09 SHORT HLIF
SC-46	-6.815E-03	5.421E-02	4.233E-02	2.766E-02 FAIL ABUN
V-48	2.646E-02	1.405E-01	1.042E-01	7.169E-02 NOT IDENT.
CR-51	-3.079E-03	5.941E-01	5.145E-01	3.031E-01 NOT IDENT.
MN-54	1.599E-02	5.435E-02	4.723E-02	2.773E-02 NOT IDENT.
CO-56	-4.404E-02	5.348E-02	4.234E-02	2.728E-02 NOT IDENT.



CO-57	2.442E-05	3.451E-02	2.967E-02	1.761E-02	NOT IDENT.
CO-58	7.060E-04	5.328E-02	4.444E-02	2.718E-02	NOT IDENT.
FE-59	-5.108E-02	1.435E-01	1.163E-01	7.323E-02	NOT IDENT.
CO-60	8.640E-04	5.214E-02	4.301E-02	2.660E-02	NOT IDENT.
ZN-65	1.353E-02	1.339E-01	9.697E-02	6.830E-02	NOT IDENT.
SE-75	-1.009E-01	7.529E-02	5.195E-02	3.841E-02	NOT IDENT.
SR-85	1.793E-01	6.175E-02	5.423E-02	3.150E-02	NOT IDENT.
Y-88	4.856E-04	4.011E-02	3.353E-02	2.046E-02	NOT IDENT.
Y-91	-1.002E+01	3.230E+01	2.610E+01	1.648E+01	NOT IDENT.
NB-94	-3.785E-02	4.236E-02	3.420E-02	2.161E-02	NOT IDENT.
NB-95	3.434E-02	7.344E-02	5.655E-02	3.747E-02	NOT IDENT.
NB-95M	6.765E-01	2.352E-01	1.934E-01	1.200E-01	NOT IDENT.
ZR-95	-2.512E-02	1.100E-01	9.200E-02	5.611E-02	NOT IDENT.
MO-99	4.515E+01	1.204E+02	0.000E+00	6.144E+01	SHORT HLIF
TC-99M	-1.910E+26	2.635E+26	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.329E-02	5.869E-02	5.025E-02	2.995E-02	FAIL ABUN
RH-106	-1.265E-01	4.307E-01	3.500E-01	2.197E-01	NOT IDENT.
RU-106	-1.265E-01	4.305E-01	3.500E-01	2.197E-01	NOT IDENT.
AG-108M	-1.768E-03	4.135E-02	3.511E-02	2.110E-02	NOT IDENT.
AG-110M	1.487E-02	4.573E-02	3.542E-02	2.333E-02	NOT IDENT.
SN-113	2.877E-02	6.423E-02	5.627E-02	3.277E-02	NOT IDENT.
CD-115	1.142E+02	1.716E+02	0.000E+00	8.755E+01	SHORT HLIF
SN-117M	-1.049E-02	1.120E-01	9.473E-02	5.712E-02	NOT IDENT.
TE-123M	-1.100E-02	4.030E-02	3.384E-02	2.056E-02	NOT IDENT.
SB-124	-3.484E-03	1.019E-01	8.504E-02	5.198E-02	NOT IDENT.
SB-125	7.414E-02	1.278E-01	1.122E-01	6.518E-02	FAIL ABUN
TE-125M	7.824E+00	1.580E+01	1.385E+01	8.061E+00	NOT IDENT.
I-126	4.365E-01	4.625E-01	3.773E-01	2.360E-01	NOT IDENT.
SB-126	2.125E-01	3.267E-01	2.582E-01	1.667E-01	NOT IDENT.
SB-127	-1.088E+00	7.319E+00	6.263E+00	3.734E+00	NOT IDENT.
I-131	4.719E-02	2.994E-01	2.596E-01	1.527E-01	NOT IDENT.
TE-132	5.858E+00	6.060E+00	5.438E+00	3.092E+00	NOT IDENT.
BA-133	4.149E-02	6.266E-02	4.895E-02	3.197E-02	NOT IDENT.
I-133	4.168E+05	4.768E+06	0.000E+00	2.433E+06	SHORT HLIF
CS-134	9.128E-02	5.984E-02	5.611E-02	3.053E-02	NOT IDENT.
CS-135	4.430E-01	2.459E-01	2.023E-01	1.255E-01	NOT IDENT.
I-135	-9.062E+23	5.802E+24	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.083E-02	2.003E-01	1.655E-01	1.022E-01	NOT IDENT.
CE-139	9.036E-04	4.232E-02	3.589E-02	2.159E-02	NOT IDENT.
BA-140	3.824E-01	5.315E-01	4.560E-01	2.712E-01	NOT IDENT.
LA-140	-7.085E-02	1.682E-01	1.334E-01	8.579E-02	NOT IDENT.
CE-141	3.705E-02	1.063E-01	9.081E-02	5.425E-02	NOT IDENT.
CE-143	5.886E+04	1.974E+04	0.000E+00	1.007E+04	SHORT HLIF
CE-144	-4.194E-01	2.915E-01	2.297E-01	1.487E-01	NOT IDENT.
PM-144	2.696E-02	4.511E-02	4.040E-02	2.302E-02	NOT IDENT.
PR-144	2.732E+00	3.350E+00	3.038E+00	1.709E+00	NOT IDENT.
PM-146	-6.547E-03	5.694E-02	4.798E-02	2.905E-02	NOT IDENT.
ND-147	-4.916E-01	1.211E+00	9.860E-01	6.177E-01	FAIL ABUN
PM-149	3.342E+02	1.512E+03	0.000E+00	7.714E+02	SHORT HLIF
EU-152	-1.168E-02	1.611E-01	1.130E-01	8.219E-02	FAIL ABUN
GD-153	7.227E-02	1.343E-01	1.043E-01	6.854E-02	NOT IDENT.
EU-154	2.147E-02	1.655E-01	1.385E-01	8.445E-02	NOT IDENT.
EU-155	6.080E-03	1.510E-01	1.309E-01	7.706E-02	FAIL ABUN
TB-160	-4.717E-02	1.798E-01	1.492E-01	9.172E-02	FAIL ABUN
HO-166M	-8.807E-03	7.410E-02	6.335E-02	3.781E-02	FAIL ABUN
TA-182	-6.948E-02	2.830E-01	2.299E-01	1.444E-01	FAIL ABUN
IR-192	1.726E-02	4.858E-02	4.283E-02	2.479E-02	FAIL ABUN
HG-203	-1.283E-02	5.977E-02	5.167E-02	3.049E-02	NOT IDENT.
BI-207	3.881E-03	6.846E-02	5.766E-02	3.493E-02	FAIL ABUN
PB-210	-1.665E+01	1.397E+01	1.171E+01	7.127E+00	NOT IDENT.
PB-211	-4.712E-02	1.009E+00	8.603E-01	5.150E-01	NOT IDENT.
BI-212	2.897E+00	9.990E-01	7.733E-01	5.097E-01	FAIL ABUN
RN-219	-6.264E-01	5.632E-01	4.452E-01	2.873E-01	FAIL ABUN
RA-223	-8.730E-01	9.127E-01	7.430E-01	4.657E-01	FAIL ABUN
AC-227	6.537E-02	3.351E-01	2.961E-01	1.710E-01	NOT IDENT.
TH-227	6.537E-02	3.352E-01	2.961E-01	1.710E-01	NOT IDENT.
TH-229	-1.099E-01	7.451E-01	6.227E-01	3.801E-01	FAIL ABUN
PA-231	-1.073E+00	1.890E+00	1.598E+00	9.645E-01	NOT IDENT.
TH-231	-8.730E-01	9.127E-01	7.430E-01	4.657E-01	FAIL ABUN
PA-233	-1.476E-02	8.541E-02	7.346E-02	4.358E-02	NOT IDENT.
PA-234	1.620E-01	3.971E-01	3.458E-01	2.026E-01	NOT IDENT.
PA-234M	8.127E+00	6.301E+00	5.726E+00	3.215E+00	NOT IDENT.
TH-234	6.703E-01	2.716E+00	2.360E+00	1.386E+00	FAIL ABUN
U-238	6.703E-01	2.716E+00	2.360E+00	1.386E+00	FAIL ABUN
NP-239	9.073E-02	5.547E-01	4.805E-01	2.830E-01	NOT IDENT.
AM-241	-2.825E-02	3.312E-01	2.922E-01	1.690E-01	NOT IDENT.
CM-247	-3.087E-02	5.096E-02	4.204E-02	2.600E-02	NOT IDENT.
CF-249	9.794E-03	5.553E-02	4.800E-02	2.833E-02	NOT IDENT.

CF-251

8.019E-03

1.824E-01

1.543E-01

9.307E-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	370.9831
49.72	326.1428
57.36	0.0000
59.54	400.2542
63.29	444.4943
63.29	444.4943
64.28	433.3933
67.75	474.5340
69.67	460.5559
70.83	443.9093
72.81	422.7258
72.87	422.7592
72.87	422.7592
74.82	423.8563
74.82	423.8563
74.82	423.8563
74.97	423.9410
77.11	425.1268
77.11	425.1268
77.11	425.1268
79.69	439.5216
79.80	497.1292
80.12	497.3305
80.19	497.3741
80.57	530.0142
81.00	560.3183
81.07	560.3674
81.07	560.3674
83.79	570.3011
83.79	570.3011
85.43	499.0103
86.48	441.2197
86.55	441.2581
86.79	441.3835
86.94	441.4653
87.57	441.7995
88.03	442.0434
88.47	442.2757
89.96	443.0576
91.11	443.6575
92.59	444.4227
92.59	444.4227
93.35	444.8137
94.67	384.0575
94.87	421.5832
94.87	421.5832
95.86	438.3547
97.43	360.7747
98.44	354.6461
99.53	346.3496
100.11	354.3687
103.18	457.9486
103.37	420.0447
105.31	419.8955
106.12	425.4092
109.28	438.2027
111.00	414.1403
111.76	434.1540
116.30	399.7368
117.23	382.3985
121.12	393.2922
121.78	368.4275
122.06	354.9191
123.07	354.2202
131.20	368.5998
133.52	439.2531
136.00	376.6052

136.47	390.5648
140.51	0.0000
140.51	0.0000
143.76	362.1505
144.24	366.5781
144.24	366.5781
145.44	386.2231
152.43	385.3378
153.25	366.2175
154.21	368.6718
154.21	368.6718
156.02	348.7223
158.56	351.6279
159.00	353.9190
162.66	346.3045
163.33	333.4601
165.86	343.9398
176.60	319.4357
177.52	348.2231
181.07	0.0000
184.41	362.2109
185.72	347.0932
193.51	342.4324
197.04	304.3007
205.31	358.8037
210.85	324.1758
215.65	282.3334
222.11	327.5793
227.38	298.6794
228.16	302.4779
228.18	302.4819
235.69	294.5045
235.96	294.5555
235.96	294.5555
238.63	454.0562
238.63	454.0562
240.99	707.3717
242.00	2242.9861
244.70	245.5534
252.40	250.7428
252.80	238.7728
256.23	233.7114
256.23	233.7114
260.90	0.0000
264.66	262.5565
268.22	210.1794
269.46	221.2394
269.46	221.2394
271.23	246.4250
273.65	304.5645
276.40	206.4971
277.37	206.6125
277.60	211.3385
278.00	221.7196
279.20	251.0198
279.54	252.9493
280.46	249.3206
283.69	218.6753
284.31	210.2684
285.41	200.9641
285.90	0.0000
287.50	219.9608
293.27	0.0000
295.22	210.6127
295.96	210.6995
298.57	211.0057
299.98	211.1683
299.98	211.1683
300.09	211.1818
300.09	211.1818
300.13	211.1873
301.36	203.0781
302.85	204.8326
304.50	205.0164
304.50	205.0164
304.85	205.0557
308.46	193.0343
311.90	193.3918

316.51	172.7534
319.41	192.2437
320.08	183.6556
323.87	234.1218
323.87	234.1218
328.76	195.1154
333.37	230.7574
334.37	203.4298
334.37	203.4298
338.28	207.7174
338.28	207.7174
338.32	207.7226
338.32	207.7226
338.32	207.7226
340.48	184.6284
340.55	184.6342
344.28	186.9281
351.06	170.9540
351.93	160.2764
356.01	151.7853
364.49	148.4803
366.42	0.0000
383.85	169.6975
388.16	168.0490
388.63	160.1274
391.69	157.3655
400.66	157.0115
401.81	183.1072
402.40	173.1478
404.85	175.3439
410.95	159.7473
414.70	167.0578
423.72	152.5649
427.09	156.8353
427.87	144.7421
433.94	152.2247
453.88	138.1608
463.37	118.1544
468.07	84.0672
473.00	122.7434
476.78	111.5675
477.60	117.8032
487.02	116.1727
492.35	0.0000
497.08	107.2598
511.00	100.5100
514.00	85.6010
527.90	0.0000
529.87	0.0000
531.02	111.8228
537.26	88.8193
546.56	0.0000
563.25	111.0103
569.33	121.9488
569.50	117.6780
569.70	120.8957
583.19	103.1953
600.60	114.9036
602.73	108.2227
604.72	102.8811
609.32	98.7026
609.32	98.7026
610.33	98.7381
614.28	106.8367
618.01	97.9058
621.93	106.7473
621.93	106.7473
633.25	99.4957
635.95	83.1677
636.99	79.9133
645.85	76.8513
657.76	70.8493
661.66	108.7703
661.66	108.7703
664.57	0.0000
666.33	74.1997
666.50	74.2047
677.62	108.1331

685.70	98.2148
695.00	99.4265
696.49	92.9647
696.51	87.3868
697.00	88.3300
702.65	108.9734
706.68	90.4579
711.68	86.8583
720.70	80.2734
721.93	0.0000
722.78	93.1738
722.91	93.1779
723.31	99.6169
724.19	101.2500
727.33	75.6062
733.00	91.8477
735.93	88.4329
739.50	0.0000
747.24	77.4005
752.31	86.0234
753.82	85.1147
756.73	97.4929
763.94	92.6827
765.81	105.7474
766.42	97.6297
777.92	0.0000
778.90	86.6825
783.70	74.4009
785.37	73.4815
795.86	66.0422
801.95	72.8658
810.29	71.1124
810.76	68.2381
815.77	61.5951
818.51	62.6051
832.01	90.8693
834.85	100.6125
836.80	0.0000
846.77	81.5254
856.80	81.7441
860.56	55.1063
871.09	61.5388
873.19	59.6175
875.33	0.0000
879.36	62.6510
880.51	57.7732
883.24	60.7537
884.68	49.9935
889.28	60.8496
898.04	61.9695
911.20	63.1654
911.20	63.1654
911.20	63.1654
926.50	68.3627
937.49	87.4271
944.13	72.6436
946.00	64.7117
949.00	65.7570
962.29	82.2489
964.08	57.0000
966.15	57.0278
968.97	57.0673
968.97	57.0673
968.97	57.0673
983.53	53.3926
996.26	78.6046
1001.03	52.4623
1004.73	83.8105
1037.84	55.9668
1038.76	0.0000
1048.07	57.1188
1050.41	47.9658
1050.41	47.9658
1063.66	62.4396
1085.87	52.4651
1099.45	76.3547
1112.07	59.5992
1115.54	63.9040

1120.29	67.5232
1120.29	67.5232
1120.55	51.8311
1121.30	44.4336
1131.51	0.0000
1173.23	87.0122
1177.93	73.4578
1189.05	68.3695
1204.77	80.1995
1221.41	83.6514
1231.02	110.3392
1235.36	88.1368
1238.28	69.0625
1260.41	0.0000
1271.85	54.5527
1274.44	54.5797
1274.54	58.8627
1291.59	35.4358
1298.22	0.0000
1312.11	40.9688
1332.49	41.1296
1365.19	24.2707
1368.63	0.0000
1384.29	30.6022
1408.01	27.2866
1457.56	0.0000
1460.82	24.6987
1489.16	20.0493
1505.03	25.8493
1596.21	28.1989
1620.50	15.6205
1678.03	0.0000
1690.97	15.7997
1764.49	10.4890
1764.49	10.4890
1770.23	20.9963
1771.35	65.0000
1791.20	0.0000
1836.06	12.1184

TOTAL URANIUM BY GAMMA SPEC REPORT  
Sample:G1202057347

Total Uranium Activity	2.1289E+00	ug/g
Total Uranium Counting Unc.	8.0812E+00	ug/g
Total Uranium Tpu	4.1231E-06	ug/g
Total Uranium Mda	7.0218E+00	ug/g



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*****
*
*               GEL Laboratories LLC               *
*               2040 SAVAGE ROAD                   *
*               CHARLESTON ,SC 29417                *
*               GROSS GAMMA REPORT                  *
*
*****
*
*  BATCH ID      : 959279                          SAMPLE ID   : G1202057347
*  ANALYST       : MXR1                             DETECTOR    : GAM15
*  SAMPLE DATE   : 23-FEB-2010 12:00:00.00          COUNT TIME   : 0 02:00:00.00
*  ANALYSIS DATE : 18-MAR-2010 16:18:09.39          SAMPLE ALQT  : 126.410 GRAM
*
*****

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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 1.095E+01
GROSS GAMMA ERROR   (pCi/GRAM ) : 1.564E+00
GROSS GAMMA MDA     (pCi/GRAM ) : 4.067E+00
GROSS GAMMA DLC     (pCi/GRAM ) : 1.981E+00

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VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 16:39:51.80

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*****
*                                     GEL Laboratories LLC                      *
*                                     2040 Savage Road                        *
*                                     Charleston, SC 29414                     *
*****
Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057348.CNF;3
Sample date        : 4-MAR-2010 00:00:00. Acquisition date : 18-MAR-2010 15:39:11
Sample ID          : G1202057348      Sample quantity   : 1.51730E+02 GRAM
Detector name      : GAM21            Detector geometry: CAN
Elapsed live time  : 0 01:00:00.00    Elapsed real time: 0 01:00:14.04  0.4%
Energy tolerance   : 1.50000 keV      Analyst Initials : MXR1
Abundance limit    : 75.00000         Sensitivity       : 5.00000
Batch ID           : 959279           Detector SN#      :
Matrix Spike ID    :                  LCS ID            : 1032-A
*****

```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	49.11	134	1578	1.74	98.21	94	10	3.72E-02	56.0	
2	0	59.57	8184	1119	0.63	119.10	115	7	2.27E+00	1.3	
3	2	74.89*	272	327	0.82	149.73	147	12	7.55E-02	11.8	5.25E+00
4	2	77.05*	464	253	0.73	154.05	147	12	1.29E-01	6.6	
5	1	87.98	2171	235	0.78	175.90	171	12	6.03E-01	2.4	2.33E+01
6	1	90.02	102	206	0.78	179.97	171	12	2.82E-02	24.4	
7	0	92.94*	126	275	1.04	185.81	183	7	3.49E-02	23.9	
8	0	121.93	285	304	0.68	243.78	240	8	7.92E-02	12.1	
9	0	185.57*	126	355	1.13	370.99	365	12	3.49E-02	31.4	
10	0	208.85	73	233	0.95	417.53	413	9	2.04E-02	39.3	
11	0	238.46*	514	266	0.91	476.75	473	8	1.43E-01	7.1	
12	0	242.05	119	207	1.12	483.92	481	8	3.30E-02	23.5	
13	0	294.97*	132	181	1.01	589.72	585	9	3.67E-02	20.4	
14	0	338.00	50	168	0.94	675.75	673	8	1.39E-02	46.9	
15	0	352.07*	202	185	1.07	703.89	698	11	5.62E-02	14.9	
16	0	582.98*	178	102	1.15	1165.65	1160	13	4.95E-02	13.9	
17	0	609.16*	188	52	1.36	1218.01	1212	13	5.22E-02	11.0	
18	0	661.42	1719	101	1.26	1322.53	1316	14	4.77E-01	2.7	
19	0	911.49	100	115	1.66	1822.75	1815	16	2.78E-02	26.1	
20	0	1172.91	1300	45	1.51	2345.80	2337	18	3.61E-01	3.0	
21	0	1332.07	1115	7	1.92	2664.33	2657	14	3.10E-01	3.0	
22	0	1406.29	15	0	1.47	2812.87	2808	9	4.17E-03	25.8	

Flag: "\*" = Peak area was modified by background subtraction

## VMS Nuclide Identification Report V3.1 Generated 18-MAR-2010 16:39:54

```

Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057348.CNF;3
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 : 18-MAR-2010 15:39:11
Sample ID         : G1202057348           Sample quantity  : 151.73 GRAM
Sample type       : SOLID                 Sample geometry   :
Detector name     : GAMMA21              Detector geometry: CAN
Elapsed live time : 0 01:00:00.00         Elapsed real time: 0 01:00:14.04   0.4%
Peak Width (FWHM): 3.00                  Confidence level  : 5.00 %
Energy tolerance  : 1.50 keV              Half life ratio   : 8.00
Errors propagated : Yes                   Systematic Error  : 0.00 %
Efficiency type   : Empirical             Efficiencies at   : Peak Energy
Abundance limit   : 75.00                 WTM error limit   : 3.00

```

## Full Combined Activity-MDA Report

---- Identified Nuclides ----

	Line	Energy	Activity	Act error	MDA	MDA error	Act/MDA
Nuclide	Ided	(keV) Key	(pCi/GRAM)		(pCi/GRAM)		
CO-57	+	122.06 *	2.369E-01	6.353E-02	4.995E-02	5.738E-03	4.743
		136.47	1.564E-01	2.944E-01	4.741E-01	5.249E-02	0.330
CO-60	+	1173.23	7.283E+00	7.446E-01	1.223E-01	1.008E-02	59.560
	+	1332.49 *	7.047E+00	7.144E-01	8.261E-02	6.705E-03	85.305
CD-109	+	88.03 *	3.654E+01	3.866E+00	1.243E+00	1.170E-01	29.394
SN-126		64.28	1.718E-01	2.996E-01	5.052E-01	7.486E-02	0.340
	+	86.94	1.486E+01	6.212E+00	5.034E-01	2.090E-01	29.517
	+	87.57 *	3.574E+00	3.782E-01	1.214E-01	1.138E-02	29.446
BA-137M	+	661.66 *	6.060E+00	7.456E-01	1.351E-01	1.492E-02	44.858
CS-137	+	661.66 *	6.401E+00	7.884E-01	1.427E-01	1.578E-02	44.858
TL-208		277.37	1.142E-01	6.871E-01	1.137E+00	1.448E-01	0.100
	+	583.19 *	5.838E-01	1.747E-01	1.298E-01	1.413E-02	4.499
		860.56	4.223E-01	8.415E-01	1.459E+00	1.447E-01	0.289
BI-211		72.87	-2.425E-01	2.587E+00	3.909E+00	3.272E-01	-0.062
	+	351.06 *	2.589E+00	8.067E-01	6.155E-01	5.557E-02	4.207
PB-212	+	74.82	1.581E+00	4.247E-01	4.397E-01	5.675E-02	3.595
	+	77.11	1.625E+00	2.564E-01	2.658E-01	2.292E-02	6.116
	+	238.63 *	1.329E+00	2.302E-01	1.655E-01	1.653E-02	8.030
		300.09	9.910E-01	1.457E+00	2.462E+00	2.655E-01	0.403
PB-214	+	74.82	2.802E+00	7.361E-01	7.793E-01	9.051E-02	3.595
	+	77.11	2.865E+00	5.101E-01	4.685E-01	5.591E-02	6.116
	+	242.00	1.872E+00	9.019E-01	8.468E-01	8.986E-02	2.210
	+	295.22	9.913E-01	4.196E-01	4.159E-01	4.596E-02	2.384
	+	351.93 *	9.398E-01	2.973E-01	2.241E-01	2.368E-02	4.194
RA-224	+	240.99 *	3.309E+00	1.583E+00	1.903E+00	1.691E-01	1.739
TH-228	+	74.82	1.581E+00	3.964E-01	4.397E-01	3.766E-02	3.595
	+	77.11	1.625E+00	2.564E-01	2.658E-01	2.292E-02	6.116
	+	238.63 *	1.329E+00	2.302E-01	1.655E-01	1.653E-02	8.030
		300.09	9.910E-01	1.575E+00	2.462E+00	1.508E+00	0.403
U-235	+	89.96	1.792E+00	9.826E-01	1.306E+00	3.257E-01	1.372
	+	93.35	1.384E+00	7.364E-01	6.599E-01	1.551E-01	2.098
		143.76 *	-7.501E-02	2.757E-01	4.220E-01	7.471E-02	-0.178
		163.33	-8.944E-02	5.922E-01	1.005E+00	1.792E-01	-0.089
	+	185.72	1.994E-01	1.263E-01	9.318E-02	7.820E-03	2.140

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	205.31			4.557E-01	7.639E-01	1.194E+00	2.167E-01	0.382
NP-237	+	86.48	*	1.066E+01	2.505E+00	3.607E-01	8.271E-02	29.568
	95.86			-7.521E-02	9.103E-01	1.343E+00	3.283E-01	-0.056
AM-241	+	59.54	*	1.396E+01	1.238E+00	1.843E-01	1.564E-02	75.715

---- 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	*	-6.796E-02	7.837E-01	1.307E+00	1.280E-01	-0.052
NA-22		1274.54	*	2.700E-02	5.790E-02	1.026E-01	8.417E-03	0.263
NA-24		1368.63	*	1.409E-01	5.790E-02	Half-Life too short		
K-40		1460.82	*	7.291E-01	6.785E-01	1.349E+00	1.151E-01	0.541
SC-46		889.28	*	1.285E-02	1.184E-01	1.993E-01	1.772E-02	0.064
	1120.55			7.636E-02	1.388E-01	2.396E-01	2.024E-02	0.319
V-48		944.13		-1.542E+00	2.863E+00	4.559E+00	3.996E-01	-0.338
	983.53	*		2.521E-02	2.026E-01	3.386E-01	2.962E-02	0.074
	1312.11			4.688E-02	1.129E-01	1.978E-01	1.611E-02	0.237
CR-51		320.08	*	3.623E-01	7.208E-01	1.202E+00	1.117E-01	0.301
MN-54		834.85	*	1.777E-02	9.181E-02	1.567E-01	1.518E-02	0.113
CO-56		846.77	*	2.464E-02	1.066E-01	1.821E-01	1.735E-02	0.135
	1037.84			-5.902E-01	9.257E-01	1.434E+00	1.308E-01	-0.411
	1238.28			9.380E-02	1.432E-01	2.544E-01	2.158E-02	0.369
	1771.35			-1.411E-01	4.684E-01	6.974E-01	5.794E-02	-0.202
CO-58		810.76	*	-4.536E-02	9.706E-02	1.568E-01	1.569E-02	-0.289
FE-59		1099.45	*	3.225E-01	2.740E-01	4.893E-01	4.515E-02	0.659
	1291.59			-1.289E-02	2.191E-01	3.485E-01	3.274E-02	-0.037
ZN-65		1115.54	*	-1.882E-01	2.694E-01	4.127E-01	3.498E-02	-0.456
SE-75	+	121.12		1.236E+00	3.425E-01	4.112E-01	5.500E-02	3.007
	136.00			8.669E-02	5.453E-02	9.205E-02	9.784E-03	0.942
	264.66	*		8.306E-03	7.502E-02	1.243E-01	1.116E-02	0.067
	279.54			-5.170E-02	1.959E-01	3.157E-01	2.915E-02	-0.164
	400.66			-5.447E-01	5.969E-01	8.793E-01	9.388E-02	-0.619
SR-85		514.00	*	-1.400E-01	9.276E-02	1.378E-01	1.326E-02	-1.016
Y-88		898.04		4.033E-02	1.246E-01	2.129E-01	1.871E-02	0.189
	1836.06	*		-3.737E-03	7.856E-02	1.259E-01	1.039E-02	-0.030
Y-91		1204.77	*	-4.322E+01	3.593E+01	4.579E+01	3.772E+00	-0.944
NB-94		702.65	*	1.395E-02	7.497E-02	1.233E-01	1.343E-02	0.113
	871.09			-3.859E-02	9.554E-02	1.544E-01	1.418E-02	-0.250
NB-95		765.81	*	5.901E-02	1.101E-01	1.841E-01	1.924E-02	0.320
NB-95M		235.69	*	-1.271E-01	2.056E-01	2.913E-01	2.941E-02	-0.436
ZR-95		724.19		-1.385E-01	2.460E-01	3.771E-01	4.283E-02	-0.367
	756.73	*		2.695E-02	1.863E-01	3.029E-01	3.416E-02	0.089
MO-99		140.51		1.282E+01	2.739E+01	4.376E+01	1.067E+01	0.293
	181.07			1.116E+01	2.389E+01	3.747E+01	6.991E+00	0.298
	366.42			1.288E+02	1.762E+02	2.961E+02	2.483E+01	0.435
	739.50	*		-2.517E-01	2.834E+01	4.554E+01	7.725E+00	-0.006
	777.92			4.250E+01	7.627E+01	1.287E+02	1.330E+01	0.330
TC-99M		140.51	*	6.530E+09	7.627E+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	*	-5.620E-02	8.803E-02	1.395E-01	2.020E-02	-0.403
	+	610.33		1.231E+01	3.467E+00	4.285E+00	7.495E-01	2.872
RH-106		621.93	*	7.260E-01	6.604E-01	1.175E+00	1.729E-01	0.618
		1050.41		1.499E+00	7.314E+00	1.223E+01	1.058E+00	0.122
RU-106		621.93	*	7.260E-01	6.564E-01	1.175E+00	1.261E-01	0.618
		1050.41		1.499E+00	7.314E+00	1.223E+01	1.058E+00	0.122
AG-108M		433.94	*	1.301E-02	6.261E-02	1.073E-01	9.497E-03	0.121
		614.28		1.770E-02	7.903E-02	1.168E-01	1.272E-02	0.152
		722.91		-4.517E-02	9.768E-02	1.510E-01	1.661E-02	-0.299
AG-110M		657.76	*	1.827E-02	9.636E-02	1.403E-01	1.574E-02	0.130
		677.62		-5.453E-01	7.142E-01	1.067E+00	1.195E-01	-0.511
		706.68		-3.530E-01	5.303E-01	8.031E-01	8.889E-02	-0.439
		763.94		1.360E-01	4.254E-01	7.004E-01	7.468E-02	0.194
		884.68		-6.330E-02	1.526E-01	2.469E-01	2.279E-02	-0.256
		937.49		-1.590E-01	3.593E-01	5.770E-01	5.235E-02	-0.276
		1384.29		-6.649E-02	2.398E-01	3.762E-01	3.175E-02	-0.177
		1505.03		-7.098E-02	4.047E-01	6.392E-01	5.319E-02	-0.111
SN-113		391.69	*	1.858E-02	9.339E-02	1.505E-01	1.240E-02	0.123
CD-115		260.90		-5.637E+00	2.055E+02	3.380E+02	3.021E+01	-0.017
		492.35		2.808E+01	7.543E+01	1.293E+02	1.210E+01	0.217
		527.90	*	4.418E+00	2.188E+01	3.691E+01	3.612E+00	0.120
SN-117M		156.02		-2.107E-03	2.798E+00	4.797E+00	4.330E-01	0.000
		158.56	*	-1.764E-02	6.942E-02	1.174E-01	1.034E-02	-0.150
TE-123M		159.00	*	-9.409E-03	3.654E-02	6.177E-02	5.445E-03	-0.152
SB-124		602.73		-4.544E-03	8.532E-02	1.288E-01	1.361E-02	-0.035
		645.85		-8.047E-01	1.120E+00	1.716E+00	1.943E-01	-0.469
		722.78		-4.513E-01	9.757E-01	1.508E+00	1.649E-01	-0.299
		1690.97	*	-9.141E-02	1.576E-01	2.161E-01	1.885E-02	-0.423
SB-125		427.87	*	1.952E-01	2.041E-01	3.636E-01	3.145E-02	0.537
		463.37		5.172E-01	6.722E-01	1.176E+00	1.129E-01	0.440
		600.60		-3.465E-02	3.763E-01	6.128E-01	6.782E-02	-0.057
		635.95		-6.828E-02	6.180E-01	9.987E-01	1.140E-01	-0.068
TE-125M		109.28	*	3.261E+00	1.072E+01	1.738E+01	2.112E+00	0.188
I-126		388.63		-4.490E-02	3.549E-01	5.588E-01	4.475E-02	-0.080
		666.33	*	-1.600E-01	5.888E-01	8.115E-01	8.953E-02	-0.197
		753.82		6.184E-01	4.548E+00	7.390E+00	7.799E-01	0.084
SB-126		414.70		6.917E-04	1.528E-01	2.594E-01	2.151E-02	0.003
		666.50		-7.182E-02	2.007E-01	2.734E-01	3.016E-02	-0.263
		695.00		-9.805E-02	1.695E-01	2.581E-01	2.820E-02	-0.380
		697.00		2.519E-01	5.638E-01	9.506E-01	1.038E-01	0.265
		720.70	*	-3.050E-01	3.429E-01	5.029E-01	5.426E-02	-0.606
		856.80		-9.426E-01	1.339E+00	2.121E+00	1.991E-01	-0.444
SB-127		252.40		3.035E+00	6.841E+00	1.139E+01	4.734E+00	0.266
		473.00		2.941E+00	3.638E+00	6.371E+00	8.270E-01	0.462
		685.70	*	-4.642E-01	3.210E+00	5.138E+00	6.740E-01	-0.090
		783.70		1.755E+00	7.893E+00	1.289E+01	1.733E+00	0.136
I-131		80.19		-1.147E+00	3.923E+00	5.809E+00	5.159E-01	-0.197
		284.31		-1.965E+00	2.585E+00	4.015E+00	3.753E-01	-0.490
		364.49	*	-1.988E-01	2.303E-01	3.434E-01	3.052E-02	-0.579

----- 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		-4.968E+00	3.648E+00	5.138E+00	5.779E-01	-0.967
		49.72		1.406E+01	1.582E+01	1.332E+01	1.422E+00	1.056
		111.76		1.181E+01	3.307E+01	5.370E+01	6.781E+00	0.220
		116.30		5.144E+00	3.026E+01	4.848E+01	6.251E+00	0.106
BA-133	*	228.16		7.993E-02	1.069E+00	1.789E+00	2.832E-01	0.045
		81.00		-5.233E-02	8.778E-02	1.271E-01	1.991E-02	-0.412
		276.40		2.525E-02	6.189E-01	1.017E+00	1.454E-01	0.025
		302.85		-3.108E-01	2.650E-01	3.932E-01	5.215E-02	-0.790
		356.01		-6.093E-03	9.104E-02	1.290E-01	1.663E-02	-0.047
I-133	*	383.85		-1.287E-01	6.225E-01	9.749E-01	1.177E-01	-0.132
		529.87		-2.485E-03	6.225E-01	Half-Life	too short	
		875.33		-8.957E-02	6.225E-01	Half-Life	too short	
		1298.22		2.635E-02	6.225E-01	Half-Life	too short	
CS-134		563.25		5.494E-02	8.214E-01	1.365E+00	1.399E-01	0.040
		569.33		2.392E-01	4.341E-01	7.467E-01	7.717E-02	0.320
		604.72		1.721E-02	7.432E-02	1.100E-01	1.166E-02	0.156
		795.86		1.095E-01	1.228E-01	2.106E-01	2.150E-02	0.520
		801.95		1.904E-01	9.933E-01	1.711E+00	1.733E-01	0.111
CS-135	*	1365.19		3.939E-01	1.420E+00	2.556E+00	2.195E-01	0.154
		268.22		-3.543E-01	2.713E-01	4.064E-01	4.162E-02	-0.872
		546.56		-8.517E+09	2.713E-01	Half-Life	too short	
		836.80		2.250E+10	2.713E-01	Half-Life	too short	
		1038.76		-8.275E+09	2.713E-01	Half-Life	too short	
I-135		1131.51		2.228E+09	2.713E-01	Half-Life	too short	
		1260.41		-5.615E+08	2.713E-01	Half-Life	too short	
		1457.56		-1.566E+09	2.713E-01	Half-Life	too short	
		1678.03		-1.165E+09	2.713E-01	Half-Life	too short	
		1791.20		3.133E+09	2.713E-01	Half-Life	too short	
		153.25		5.591E-01	1.061E+00	1.863E+00	2.014E-01	0.300
		176.60		-9.370E-02	6.546E-01	1.104E+00	1.016E-01	-0.085
		273.65		4.800E-01	8.495E-01	1.438E+00	1.386E-01	0.334
		340.55		8.318E-02	3.008E-01	4.415E-01	3.983E-02	0.188
		818.51		-8.917E-02	1.917E-01	3.099E-01	3.069E-02	-0.288
CE-139	*	1048.07		6.687E-02	3.122E-01	5.224E-01	4.709E-02	0.128
		1235.36		3.977E-01	9.222E-01	1.580E+00	1.813E-01	0.252
		165.86		1.296E-02	4.098E-02	7.097E-02	5.769E-03	0.183
		162.66		1.048E+00	1.072E+00	1.907E+00	1.720E-01	0.549
		304.85		1.886E-01	2.241E+00	3.662E+00	1.075E+00	0.052
BA-140		423.72		-2.577E+00	4.322E+00	6.922E+00	2.273E+00	-0.372
		537.26		-8.889E-02	5.847E-01	9.573E-01	3.280E-01	-0.093
		328.76		3.316E-01	5.378E-01	9.022E-01	8.371E-02	0.368
		487.02		-1.019E-01	3.006E-01	4.908E-01	4.803E-02	-0.208
		815.77		3.769E-01	8.374E-01	1.459E+00	1.578E-01	0.258
LA-140	*	1596.21		6.926E-02	1.553E-01	2.798E-01	2.340E-02	0.247
		145.44		-5.305E-02	8.504E-02	1.269E-01	1.272E-02	-0.418
		57.36		2.982E-04	8.504E-02	Half-Life	too short	
		293.27		2.248E-04	8.504E-02	Half-Life	too short	
		664.57		4.937E-03	8.504E-02	Half-Life	too short	
CE-141		721.93		1.005E-03	8.504E-02	Half-Life	too short	

----- Non-Identified Nuclides -----

Nuclide	Line Ided	Energy (keV)	Activity Key	(pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-144		80.12		-6.005E-01	2.208E+00	3.274E+00	2.889E-01	-0.183
		133.52	*	-2.297E-02	2.665E-01	4.156E-01	6.891E-02	-0.055
PM-144		476.78		-1.737E-01	1.617E-01	2.514E-01	2.479E-02	-0.691
		618.01		-2.131E-02	6.805E-02	1.081E-01	1.177E-02	-0.197
		696.49	*	3.039E-02	7.454E-02	1.252E-01	1.368E-02	0.243
PR-144		696.51	*	2.295E+00	5.579E+00	9.377E+00	1.024E+00	0.245
		1489.16		-2.466E+01	2.025E+01	2.095E+01	1.741E+00	-1.177
PM-146		453.88	*	-6.242E-02	9.896E-02	1.598E-01	1.723E-02	-0.391
		633.25		2.797E+00	3.502E+00	5.825E+00	2.257E+00	0.480
		735.93		-2.080E-01	3.792E-01	5.711E-01	1.641E-01	-0.364
		747.24		-1.504E-01	2.341E-01	3.493E-01	5.533E-02	-0.431
ND-147	+	91.11		5.629E-01	2.807E-01	3.851E-01	3.930E-02	1.462
		319.41		1.963E+00	6.177E+00	1.020E+01	9.036E-01	0.192
		531.02	*	-3.510E-01	1.198E+00	1.941E+00	3.043E-01	-0.181
PM-149		285.90	*	-1.027E+02	1.448E+02	2.247E+02	3.531E+01	-0.457
EU-152	+	121.78		6.828E-01	1.861E-01	2.371E-01	2.954E-02	2.879
		244.70		5.518E-02	5.605E-01	8.380E-01	7.460E-02	0.066
		344.28	*	-4.602E-02	1.882E-01	2.972E-01	2.725E-02	-0.155
		778.90		-4.789E-02	6.149E-01	9.756E-01	1.008E-01	-0.049
		964.08		-7.529E-01	9.570E-01	1.500E+00	1.314E-01	-0.502
		1085.87		-3.411E-01	1.209E+00	1.931E+00	1.653E-01	-0.177
		1112.07		-2.048E-01	8.821E-01	1.410E+00	1.196E-01	-0.145
		1408.01		9.583E-03	3.905E-01	5.649E-01	4.648E-02	0.017
GD-153		69.67		4.021E-01	1.257E+00	2.095E+00	1.717E-01	0.192
		97.43	*	-8.128E-02	8.458E-02	1.275E-01	1.259E-02	-0.638
		103.18		-8.162E-02	1.192E-01	1.825E-01	1.863E-02	-0.447
EU-154	+	123.07		4.827E-01	1.342E-01	1.498E-01	2.038E-02	3.223
		723.31		-2.960E-01	4.574E-01	6.951E-01	7.982E-02	-0.426
		873.19		6.163E-01	7.910E-01	1.399E+00	1.718E-01	0.441
		996.26		2.611E-01	1.019E+00	1.719E+00	3.013E-01	0.152
		1004.73		1.521E-01	6.097E-01	1.027E+00	1.204E-01	0.148
		1274.44	*	5.431E-02	1.676E-01	2.885E-01	3.191E-02	0.188
EU-155	+	86.55		4.333E+00	4.616E-01	2.266E-01	2.125E-02	19.118
		105.31	*	1.170E-01	1.160E-01	1.951E-01	2.034E-02	0.600
TB-160	+	86.79		1.144E+01	1.211E+00	7.391E-01	6.883E-02	15.484
		197.04		2.555E-01	8.106E-01	1.387E+00	1.183E-01	0.184
		215.65		-1.841E-01	1.201E+00	1.995E+00	1.739E-01	-0.092
		298.57		2.823E-01	2.188E-01	3.492E-01	3.116E-02	0.808
		879.36	*	1.790E-01	4.160E-01	7.176E-01	6.495E-02	0.249
		962.29		1.275E+00	1.654E+00	2.876E+00	2.520E-01	0.443
		966.15		1.153E-01	6.526E-01	1.093E+00	9.579E-02	0.105
		1177.93		2.528E-01	7.639E-01	1.141E+00	9.400E-02	0.222
		1271.85		-5.560E-02	1.019E+00	1.622E+00	1.330E-01	-0.034
HO-166M	+	80.57		-1.474E-01	2.463E-01	3.577E-01	3.167E-02	-0.412
		184.41		1.584E-01	1.004E-01	8.462E-02	7.088E-03	1.872
		280.46		2.414E-02	1.533E-01	2.532E-01	2.259E-02	0.095
		410.95		2.004E-01	5.455E-01	8.848E-01	7.290E-02	0.226
		711.68	*	1.598E-02	1.530E-01	2.493E-01	2.703E-02	0.064
		752.31		2.409E-01	6.861E-01	1.137E+00	1.201E-01	0.212

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Activity Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TA-182		810.29		-2.775E-02	1.450E-01	2.404E-01	2.402E-02	-0.115
		67.75		-2.266E-02	7.592E-02	1.235E-01	1.001E-02	-0.183
		100.11		2.528E-01	1.883E-01	3.218E-01	3.227E-02	0.786
		152.43		1.616E-02	4.853E-01	7.541E-01	7.035E-02	0.021
		222.11		-1.985E-02	5.575E-01	9.291E-01	8.149E-02	-0.021
		1121.30		2.214E-01	3.832E-01	6.628E-01	5.599E-02	0.334
		1189.05		6.486E-01	5.829E-01	1.077E+00	8.875E-02	0.602
IR-192		1221.41	*	-7.958E-02	2.644E-01	4.024E-01	3.313E-02	-0.198
		1231.02		-2.608E-01	6.812E-01	1.024E+00	8.424E-02	-0.255
	+	295.96		7.297E-01	3.053E-01	4.013E-01	3.606E-02	1.818
		308.46		-6.614E-02	1.757E-01	2.778E-01	2.484E-02	-0.238
		316.51	*	-5.852E-02	6.727E-02	1.028E-01	9.133E-03	-0.569
		468.07		1.321E-01	1.668E-01	2.921E-01	2.817E-02	0.452
		70.83		-4.168E-02	9.989E-01	1.639E+00	2.600E-01	-0.025
HG-203		72.87		-5.994E-02	6.396E-01	9.661E-01	1.488E-01	-0.062
		279.20	*	-2.546E-02	6.926E-02	1.109E-01	1.013E-02	-0.230
BI-207		72.81		-1.733E-02	1.487E-01	2.244E-01	1.877E-02	-0.077
	+	74.97		4.555E-01	1.141E-01	1.834E-01	1.557E-02	2.484
		569.70		4.799E-02	6.707E-02	1.167E-01	1.195E-02	0.411
		1063.66	*	2.674E-02	1.472E-01	2.455E-01	2.116E-02	0.109
PB-210		1770.23		-9.055E-01	1.084E+00	1.377E+00	1.144E-01	-0.658
		46.54	*	5.268E-01	9.060E-01	1.451E+00	1.372E-01	0.363
PB-211		404.85	*	1.425E+00	1.747E+00	2.701E+00	1.305E+00	0.528
		427.09		3.517E+00	3.740E+00	6.050E+00	2.798E+00	0.581
BI-212		832.01		-2.973E+00	2.944E+00	3.773E+00	1.964E+00	-0.788
		727.33	*	9.909E-01	1.379E+00	2.338E+00	3.277E-01	0.424
		785.37		1.141E+01	8.170E+00	1.454E+01	1.493E+00	0.785
		1620.50		8.814E-01	4.590E+00	7.865E+00	6.578E-01	0.112
BI-214	+	609.32	*	1.203E+00	3.015E-01	4.375E-01	5.188E-02	2.749
		1120.29		2.472E-01	8.503E-01	1.435E+00	1.548E-01	0.172
		1764.49		6.450E-01	5.493E-01	1.090E+00	9.062E-02	0.592
RN-219		271.23		3.769E-01	4.198E-01	7.205E-01	7.580E-02	0.523
RA-223		401.81	*	-5.109E-01	9.248E-01	1.401E+00	2.042E-01	-0.365
		81.07		-1.136E-01	1.987E-01	2.890E-01	2.569E-02	-0.393
		83.79		1.934E-01	1.272E-01	2.044E-01	1.857E-02	0.946
		94.87		-1.348E-02	4.411E-01	6.542E-01	6.373E-02	-0.021
RA-226		144.24		3.943E-02	8.925E-01	1.394E+00	1.514E-01	0.028
		154.21		3.264E-02	4.917E-01	8.465E-01	8.430E-02	0.039
		269.46		2.767E-01	3.108E-01	5.351E-01	4.870E-02	0.517
		323.87	*	-9.170E-01	1.229E+00	1.869E+00	3.259E-01	-0.491
	+	338.28		2.790E+00	2.640E+00	3.639E+00	4.418E-01	0.767
	+	609.32	*	1.203E+00	3.015E-01	4.375E-01	5.188E-02	2.749
		1120.29		2.472E-01	8.503E-01	1.435E+00	1.548E-01	0.172
AC-227		1764.49		6.450E-01	5.493E-01	1.090E+00	9.062E-02	0.592
		79.69		9.989E-02	1.094E+00	1.657E+00	2.870E-01	0.060
		235.96		-3.127E-01	2.638E-01	3.556E-01	3.750E-02	-0.879
		256.23	*	-6.966E-02	4.251E-01	6.945E-01	8.526E-02	-0.100
		299.98		1.152E+00	1.609E+00	2.719E+00	3.510E-01	0.424
		304.50		1.652E+00	2.696E+00	4.547E+00	7.585E-01	0.363



---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-227		334.37		1.749E+00	3.317E+00	4.992E+00	7.818E-01	0.350
		79.80		-2.512E-01	1.454E+00	2.168E+00	4.737E-01	-0.116
		235.96		-3.127E-01	2.636E-01	3.556E-01	3.546E-02	-0.879
		256.23	*	-6.966E-02	4.251E-01	6.945E-01	9.588E-02	-0.100
		299.98		1.152E+00	1.609E+00	2.719E+00	3.510E-01	0.424
AC-228		304.50		1.652E+00	2.696E+00	4.547E+00	7.585E-01	0.363
		334.37		1.749E+00	3.317E+00	4.992E+00	7.818E-01	0.350
	+	338.32		7.032E-01	7.220E-01	9.172E-01	3.828E-01	0.767
	+	911.20	*	1.690E+00	9.025E-01	1.004E+00	1.174E-01	1.683
		968.97		1.139E+00	8.952E-01	1.530E+00	3.735E-01	0.744
RA-228	+	338.32		7.032E-01	7.220E-01	9.172E-01	3.828E-01	0.767
	+	911.20	*	1.690E+00	9.025E-01	1.004E+00	1.174E-01	1.683
TH-229		968.97		1.139E+00	8.952E-01	1.530E+00	3.735E-01	0.744
		85.43		-2.037E-01	2.229E-01	3.168E-01	2.917E-02	-0.643
	+	88.47		5.510E+00	5.830E-01	5.596E-01	5.277E-02	9.846
PA-231		193.51	*	-7.359E-01	7.778E-01	1.246E+00	1.058E-01	-0.591
		210.85		-8.318E-01	1.444E+00	2.082E+00	1.806E-01	-0.399
		283.69	*	-8.989E-01	2.531E+00	4.040E+00	5.965E-01	-0.223
TH-231		301.36		4.474E-01	9.719E-01	1.625E+00	2.010E-01	0.275
		81.07		-1.136E-01	1.987E-01	2.890E-01	2.569E-02	-0.393
		83.79		1.934E-01	1.272E-01	2.044E-01	1.857E-02	0.946
		94.87		-1.348E-02	4.411E-01	6.542E-01	6.373E-02	-0.021
		144.24		3.943E-02	8.925E-01	1.394E+00	1.514E-01	0.028
TH-232		154.21		3.264E-02	4.917E-01	8.465E-01	8.430E-02	0.039
		269.46		2.767E-01	3.108E-01	5.351E-01	4.870E-02	0.517
		323.87	*	-9.170E-01	1.229E+00	1.869E+00	3.259E-01	-0.491
	+	338.28		2.790E+00	2.640E+00	3.639E+00	4.418E-01	0.767
	+	338.32		7.032E-01	6.625E-01	9.172E-01	7.996E-02	0.767
PA-233	+	911.20	*	1.690E+00	9.025E-01	1.004E+00	1.174E-01	1.683
		968.97		1.139E+00	8.952E-01	1.530E+00	3.735E-01	0.744
PA-234		300.13		4.831E-01	7.266E-01	1.224E+00	1.836E-01	0.395
		311.90	*	-3.861E-03	1.201E-01	1.944E-01	1.775E-02	-0.020
PA-234M		340.48		3.938E-01	1.321E+00	1.939E+00	4.671E-01	0.203
		94.67		6.631E-02	1.593E-01	2.435E-01	3.213E-02	0.272
		98.44		-1.580E-02	9.278E-02	1.468E-01	8.222E-02	-0.108
		111.00		-1.218E-01	2.118E-01	3.242E-01	4.425E-02	-0.376
		131.20		-1.072E-01	1.418E-01	2.117E-01	2.308E-02	-0.506
TH-234		569.50		4.260E-01	5.953E-01	1.036E+00	1.060E-01	0.411
		733.00		-2.059E-02	9.597E-01	1.542E+00	3.560E-01	-0.013
		880.51		3.632E-01	8.120E-01	1.404E+00	1.268E-01	0.259
		883.24		-1.003E+00	1.105E+00	1.330E+00	8.950E-01	-0.754
		926.50		6.446E-01	5.871E-01	1.014E+00	2.569E-01	0.635
U-238		946.00	*	-1.446E-01	1.024E+00	1.683E+00	3.169E-01	-0.086
		949.00		3.806E-01	1.548E+00	2.611E+00	2.289E-01	0.146
		766.42		3.335E+01	3.325E+01	5.028E+01	2.568E+01	0.663
		1001.03	*	8.452E-01	1.268E+01	2.106E+01	2.119E+00	0.040
		63.29	*	4.666E-01	7.731E-01	1.304E+00	2.352E-01	0.358
U-238	+	92.59		1.833E+00	9.670E-01	1.167E+00	2.626E-01	1.570
		63.29	*	4.666E-01	7.731E-01	1.304E+00	2.352E-01	0.358

---- 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		1.833E+00	8.924E-01	1.167E+00	1.123E-01	1.570
		99.53		1.513E-01	1.722E-01	2.888E-01	2.887E-02	0.524
		103.37		-7.881E-02	1.086E-01	1.656E-01	1.692E-02	-0.476
		106.12		2.625E-02	9.533E-02	1.546E-01	1.606E-02	0.170
		117.23	*	2.835E-01	4.705E-01	7.716E-01	8.588E-02	0.367
		228.18		2.670E-02	3.520E-01	5.887E-01	5.189E-02	0.045
CM-247		277.60		1.480E-01	3.095E-01	5.208E-01	4.646E-02	0.284
		278.00		9.502E-01	1.314E+00	2.239E+00	1.997E-01	0.424
		287.50		2.053E+00	2.194E+00	3.778E+00	3.372E-01	0.543
CF-249		402.40	*	1.979E-02	8.434E-02	1.358E-01	1.101E-02	0.146
		252.80		9.269E-01	1.645E+00	2.800E+00	2.499E-01	0.331
		333.37		-2.079E-01	3.458E-01	5.037E-01	4.412E-02	-0.413
CF-251		388.16	*	-5.043E-03	8.526E-02	1.349E-01	1.082E-02	-0.037
		177.52	*	-8.453E-02	1.794E-01	2.974E-01	2.464E-02	-0.284
		227.38		-3.588E-02	5.860E-01	9.734E-01	8.574E-02	-0.037
ANH-511		285.41		-2.053E+00	3.777E+00	5.948E+00	5.309E-01	-0.345
		511.00	*	7.436E-02	7.971E-02	1.485E-01	1.424E-02	0.501

# 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]G1202057348
* Acquisition date   : 18-MAR-2010 15:39:11 Detector SN#      :
* Detector ID        : GAM21 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 01:00:14.04 Half life ratio : 8.000
*****
*
*                               SAMPLE DATA
*
* Sample date        : 4-MAR-2010 00:00:00 Nuclide Library : SOLID
* Sample ID          : G1202057348 Analyst initials: MXR1
* Batch Number       : 959279 Sample Quantity: 1.5173E+02 GRAM
* Recovery           : 1.00000 Carrier Weight : 0.00000
*****
*
*                               QC DATA
*
* Standard Weight    : 0.00000
* CALIB. DATE/TIME   : 28-JUL-2009 10:09:51 MS Isotope      :
* MSD DPM            : 0.000 MSD Isotope      :
* LCS DPM            : 0.000 LCS Isotope      :
* LCSD DPM           : 0.000 LCSD Isotope     :
*****

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## Combined Activity-MDA Report

### ---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM )	Act error	MDA (pCi/GRAM )	
CO-57	2.369E-01	6.226E-02	5.354E-02	0.000E+00
CO-60	7.047E+00	7.001E-01	8.342E-02	0.000E+00
CD-109	3.654E+01	3.789E+00	1.343E+00	0.000E+00
SN-126	3.574E+00	3.706E-01	1.311E-01	0.000E+00
BA-137M	6.060E+00	7.307E-01	1.389E-01	0.000E+00
CS-137	6.401E+00	7.726E-01	1.468E-01	0.000E+00
TL-208	5.838E-01	1.712E-01	1.339E-01	0.000E+00
BI-211	2.589E+00	7.906E-01	6.432E-01	0.000E+00
PB-212	1.329E+00	2.256E-01	1.745E-01	0.000E+00
PB-214	9.398E-01	2.914E-01	2.341E-01	0.000E+00
RA-224	3.309E+00	1.552E+00	2.007E+00	0.000E+00
TH-228	1.329E+00	2.256E-01	1.745E-01	0.000E+00
U-235	-7.501E-02	2.702E-01	4.506E-01	0.000E+00
NP-237	1.066E+01	2.455E+00	3.897E-01	0.000E+00
AM-241	1.396E+01	1.213E+00	2.009E-01	0.000E+00

### ---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM )	K.L. Act error ) Ided	MDA (pCi/GRAM )	
BE-7	-6.796E-02	7.680E-01	1.355E+00	0.000E+00 NOT IDENT.
NA-22	2.700E-02	5.674E-02	1.037E-01	0.000E+00 NOT IDENT.
NA-24	0.000E+00	4.448E+05	0.000E+00	0.000E+00 SHORT HLIF
K-40	7.291E-01	6.649E-01	1.359E+00	0.000E+00 NOT IDENT.
SC-46	1.285E-02	1.160E-01	2.034E-01	0.000E+00 NOT IDENT.
V-48	2.521E-02	1.986E-01	3.447E-01	0.000E+00 NOT IDENT.
CR-51	3.623E-01	7.064E-01	1.259E+00	0.000E+00 NOT IDENT.
MN-54	1.777E-02	8.997E-02	1.602E-01	0.000E+00 NOT IDENT.
CO-56	2.464E-02	1.044E-01	1.860E-01	0.000E+00 NOT IDENT.
CO-58	-4.536E-02	9.512E-02	1.604E-01	0.000E+00 NOT IDENT.
FE-59	3.225E-01	2.686E-01	4.966E-01	0.000E+00 NOT IDENT.
ZN-65	-1.882E-01	2.640E-01	4.187E-01	0.000E+00 NOT IDENT.

SE-75	8.306E-03	7.352E-02	1.308E-01	0.000E+00	FAIL ABUN
SR-85	-1.400E-01	9.091E-02	1.426E-01	0.000E+00	NOT IDENT.
Y-88	-3.737E-03	7.699E-02	1.260E-01	0.000E+00	NOT IDENT.
Y-91	-4.322E+01	3.521E+01	4.636E+01	0.000E+00	NOT IDENT.
NB-94	1.395E-02	7.347E-02	1.266E-01	0.000E+00	NOT IDENT.
NB-95	5.901E-02	1.079E-01	1.887E-01	0.000E+00	NOT IDENT.
NB-95M	-1.271E-01	2.015E-01	3.074E-01	0.000E+00	NOT IDENT.
ZR-95	2.695E-02	1.826E-01	3.104E-01	0.000E+00	NOT IDENT.
MO-99	-2.517E-01	2.777E+01	4.671E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.371E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-5.620E-02	8.627E-02	1.446E-01	0.000E+00	FAIL ABUN
RH-106	7.260E-01	6.472E-01	1.210E+00	0.000E+00	NOT IDENT.
RU-106	7.260E-01	6.432E-01	1.210E+00	0.000E+00	NOT IDENT.
AG-108M	1.301E-02	6.136E-02	1.115E-01	0.000E+00	NOT IDENT.
AG-110M	1.827E-02	9.443E-02	1.443E-01	0.000E+00	NOT IDENT.
SN-113	1.858E-02	9.153E-02	1.569E-01	0.000E+00	NOT IDENT.
CD-115	4.418E+00	2.144E+01	3.818E+01	0.000E+00	NOT IDENT.
SN-117M	-1.764E-02	6.803E-02	1.251E-01	0.000E+00	NOT IDENT.
TE-123M	-9.409E-03	3.581E-02	6.580E-02	0.000E+00	NOT IDENT.
SB-124	-9.141E-02	1.544E-01	2.168E-01	0.000E+00	NOT IDENT.
SB-125	1.952E-01	2.001E-01	3.781E-01	0.000E+00	NOT IDENT.
TE-125M	3.261E+00	1.050E+01	1.868E+01	0.000E+00	NOT IDENT.
I-126	-1.600E-01	5.771E-01	8.344E-01	0.000E+00	NOT IDENT.
SB-126	-3.050E-01	3.361E-01	5.161E-01	0.000E+00	NOT IDENT.
SB-127	-4.642E-01	3.145E+00	5.279E+00	0.000E+00	NOT IDENT.
I-131	-1.988E-01	2.257E-01	3.585E-01	0.000E+00	NOT IDENT.
TE-132	7.993E-02	1.048E+00	1.889E+00	0.000E+00	FAIL ABUN
BA-133	-6.093E-03	8.922E-02	1.347E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	8.88E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.095E-01	1.203E-01	2.156E-01	0.000E+00	NOT IDENT.
CS-135	-3.543E-01	2.659E-01	4.275E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.499E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	6.687E-02	3.059E-01	5.308E-01	0.000E+00	NOT IDENT.
CE-139	1.296E-02	4.016E-02	7.552E-02	0.000E+00	NOT IDENT.
BA-140	-8.889E-02	5.730E-01	9.898E-01	0.000E+00	NOT IDENT.
LA-140	6.926E-02	1.522E-01	2.812E-01	0.000E+00	NOT IDENT.
CE-141	-5.305E-02	8.333E-02	1.354E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.051E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.297E-02	2.612E-01	4.446E-01	0.000E+00	NOT IDENT.
PM-144	3.039E-02	7.305E-02	1.286E-01	0.000E+00	NOT IDENT.
PR-144	2.295E+00	5.468E+00	9.631E+00	0.000E+00	NOT IDENT.
PM-146	-6.242E-02	9.698E-02	1.659E-01	0.000E+00	NOT IDENT.
ND-147	-3.510E-01	1.174E+00	2.008E+00	0.000E+00	FAIL ABUN
PM-149	-1.027E+02	1.419E+02	2.360E+02	0.000E+00	NOT IDENT.
EU-152	-4.602E-02	1.845E-01	3.107E-01	0.000E+00	FAIL ABUN
GD-153	-8.128E-02	8.289E-02	1.374E-01	0.000E+00	NOT IDENT.
EU-154	5.431E-02	1.642E-01	2.917E-01	0.000E+00	FAIL ABUN
EU-155	1.170E-01	1.137E-01	2.099E-01	0.000E+00	FAIL ABUN
TB-160	1.790E-01	4.077E-01	7.326E-01	0.000E+00	FAIL ABUN
HO-166M	1.598E-02	1.499E-01	2.559E-01	0.000E+00	FAIL ABUN
TA-182	-7.958E-02	2.591E-01	4.073E-01	0.000E+00	NOT IDENT.
IR-192	-5.852E-02	6.592E-02	1.077E-01	0.000E+00	FAIL ABUN
HG-203	-2.546E-02	6.787E-02	1.166E-01	0.000E+00	NOT IDENT.
BI-207	2.674E-02	1.442E-01	2.494E-01	0.000E+00	FAIL ABUN
PB-210	5.268E-01	8.878E-01	1.590E+00	0.000E+00	NOT IDENT.
PB-211	1.425E+00	1.712E+00	2.812E+00	0.000E+00	NOT IDENT.
BI-212	9.909E-01	1.351E+00	2.399E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00	2.955E-01	4.509E-01	0.000E+00	FAIL ABUN
RN-219	-5.109E-01	9.063E-01	1.459E+00	0.000E+00	NOT IDENT.
RA-223	-9.170E-01	1.205E+00	1.957E+00	0.000E+00	FAIL ABUN
RA-226	0.000E+00	2.955E-01	4.509E-01	0.000E+00	FAIL ABUN
AC-227	-6.966E-02	4.166E-01	7.313E-01	0.000E+00	NOT IDENT.
TH-227	-6.966E-02	4.166E-01	7.313E-01	0.000E+00	NOT IDENT.
AC-228	0.000E+00	8.844E-01	1.024E+00	0.000E+00	FAIL ABUN
RA-228	0.000E+00	8.844E-01	1.024E+00	0.000E+00	FAIL ABUN
TH-229	-7.359E-01	7.623E-01	1.321E+00	0.000E+00	FAIL ABUN
PA-231	-8.989E-01	2.480E+00	4.244E+00	0.000E+00	NOT IDENT.
TH-231	-9.170E-01	1.205E+00	1.957E+00	0.000E+00	FAIL ABUN
TH-232	0.000E+00	8.844E-01	1.024E+00	0.000E+00	FAIL ABUN
PA-233	-3.861E-03	1.177E-01	2.038E-01	0.000E+00	NOT IDENT.
PA-234	-1.446E-01	1.004E+00	1.715E+00	0.000E+00	NOT IDENT.
PA-234M	8.452E-01	1.243E+01	2.143E+01	0.000E+00	NOT IDENT.
TH-234	4.666E-01	7.576E-01	1.419E+00	0.000E+00	FAIL ABUN
U-238	4.666E-01	7.576E-01	1.419E+00	0.000E+00	FAIL ABUN
NP-239	2.835E-01	4.611E-01	8.278E-01	0.000E+00	NOT IDENT.
CM-247	1.979E-02	8.265E-02	1.414E-01	0.000E+00	NOT IDENT.
CF-249	-5.043E-03	8.356E-02	1.406E-01	0.000E+00	NOT IDENT.
CF-251	-8.453E-02	1.759E-01	3.160E-01	0.000E+00	NOT IDENT.

ANH-511	7.436E-02	7.812E-02	1.537E-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]G1202057348.CNF;3
Sample date       : 4-MAR-2010 00:00:00. Acquisition date : 18-MAR-2010 15:39:11
Sample ID        : G1202057348      Sample quantity   : 1.51730E+02 GRAM
Detector name    : GAM21            Detector geometry: CAN
Elapsed live time: 0 01:00:00.00    Elapsed real time: 0 01:00:14.04  0.4%
Energy tolerance : 1.50000 keV      Analyst Initials  : MXR1
Abundance limit  : 75.00000         Sensitivity      : 5.00000
Batch ID        : 959279            Detector SN#     :
Matrix Spike ID  :                  LCS ID            : 1032-A
*****

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## Nuclide Line Activity Report

## Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	285	85.60*	7.220E+00	2.282E-01	2.369E-01	26.81
	136.47	-----	10.68	6.782E+00	-----	Line Not Found	-----
CO-60	1173.23	1300	99.85	8.894E-01	7.244E+00	7.283E+00	10.22
	1332.49	1115	99.98*	7.872E-01	7.010E+00	7.047E+00	10.14
CD-109	88.03	2171	3.70*	8.122E+00	3.574E+01	3.654E+01	10.58
SN-126	64.28	-----	9.60	8.201E+00	-----	Line Not Found	-----
	86.94	2171	8.90	8.122E+00	1.486E+01	1.486E+01	41.81
	87.57	2171	37.00*	8.122E+00	3.574E+00	3.574E+00	10.58
BA-137M	661.66	1719	89.90*	1.563E+00	6.054E+00	6.060E+00	12.30
CS-137	661.66	1719	85.10*	1.563E+00	6.395E+00	6.401E+00	12.32
TL-208	277.37	-----	6.60	3.801E+00	-----	Line Not Found	-----
	583.19	178	85.00*	1.778E+00	5.838E-01	5.838E-01	29.93
	860.56	-----	12.50	1.201E+00	-----	Line Not Found	-----
BI-211	72.87	-----	1.23	8.278E+00	-----	Line Not Found	-----
	351.06	202	12.92*	2.994E+00	2.589E+00	2.589E+00	31.15
PB-212	74.82	272	10.28	8.275E+00	1.581E+00	1.581E+00	26.87
	77.11	464	17.10	8.265E+00	1.625E+00	1.625E+00	15.78
	238.63	514	43.60*	4.388E+00	1.329E+00	1.329E+00	17.33
	300.09	-----	3.30	3.518E+00	-----	Line Not Found	-----
PB-214	74.82	272	5.80	8.275E+00	2.802E+00	2.802E+00	26.27
	77.11	464	9.70	8.265E+00	2.865E+00	2.865E+00	17.80
	242.00	119	7.25	4.327E+00	1.872E+00	1.872E+00	48.19
	295.22	132	18.42	3.579E+00	9.913E-01	9.913E-01	42.33
	351.93	202	35.60*	2.994E+00	9.398E-01	9.398E-01	31.64
RA-224	240.99	119	4.10*	4.327E+00	3.309E+00	3.309E+00	47.84
TH-228	74.82	272	10.28	8.275E+00	1.581E+00	1.581E+00	25.08
	77.11	464	17.10	8.265E+00	1.625E+00	1.625E+00	15.78
	238.63	514	43.60*	4.388E+00	1.329E+00	1.329E+00	17.33
	300.09	-----	3.30	3.518E+00	-----	Line Not Found	-----
U-235	89.96	102	3.47	8.083E+00	1.792E+00	1.792E+00	54.82
	93.35	126	5.60	8.021E+00	1.384E+00	1.384E+00	53.20
	143.76	-----	10.96*	6.567E+00	-----	Line Not Found	-----

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	163.33	-----	5.08	6.017E+00	-----	Line Not Found	-----
	185.72	126	57.20	5.455E+00	1.994E-01	1.994E-01	63.36
	205.31	-----	5.01	5.015E+00	-----	Line Not Found	-----
NP-237	86.48	2171	12.40*	8.122E+00	1.066E+01	1.066E+01	23.49
	95.86	-----	2.68	7.953E+00	-----	Line Not Found	-----
AM-241	59.54	8184	35.90*	8.083E+00	1.396E+01	1.396E+01	8.87

Flag: "\*" = Keyline

Total number of lines in spectrum 22  
Number of unidentified lines 2  
Number of lines tentatively identified by NID 20 90.91%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	271.74D	1.04	2.282E-01	2.369E-01	0.635E-01	26.81	
CO-60	5.27Y	1.01	7.010E+00	7.047E+00	0.714E+00	10.14	
CD-109	461.40D	1.02	3.574E+01	3.654E+01	0.387E+01	10.58	
SN-126	2.30E+05Y	1.00	3.574E+00	3.574E+00	0.378E+00	10.58	
BA-137M	30.08Y	1.00	6.054E+00	6.060E+00	0.746E+00	12.30	
CS-137	30.08Y	1.00	6.395E+00	6.401E+00	0.788E+00	12.32	
TL-208	1.41E+10Y	1.00	5.838E-01	5.838E-01	1.747E-01	29.93	
BI-211	7.04E+08Y	1.00	2.589E+00	2.589E+00	0.807E+00	31.15	
PB-212	1.41E+10Y	1.00	1.329E+00	1.329E+00	0.230E+00	17.33	
PB-214	1600.00Y	1.00	9.398E-01	9.398E-01	2.973E-01	31.64	
RA-224	1.41E+10Y	1.00	3.309E+00	3.309E+00	1.583E+00	47.84	
TH-228	1.41E+10Y	1.00	1.329E+00	1.329E+00	0.230E+00	17.33	
U-235	7.04E+08Y	1.00	1.994E-01	1.994E-01	1.263E-01	63.36	K
NP-237	2.14E+06Y	1.00	1.066E+01	1.066E+01	0.250E+01	23.49	
AM-241	432.60Y	1.00	1.396E+01	1.396E+01	0.124E+01	8.87	
Total Activity :			9.390E+01	9.475E+01			

Grand Total Activity : 9.390E+01 9.475E+01

Flags: "K" = Keyline not found  
"E" = Manually edited

"M" = Manually accepted  
"A" = Nuclide specific abn. limit



Unidentified Energy Lines  
Sample ID : G1202057348

Page : 4  
Acquisition date : 18-MAR-2010 15:39:11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	49.11	134	1578	1.74	98.21	94	10	3.72E-02	****	7.55E+00	T
0	208.85	73	233	0.95	417.53	413	9	2.04E-02	78.7	4.94E+00	
0	338.00	50	168	0.94	675.75	673	8	1.39E-02	93.8	3.12E+00	T
0	609.16	188	52	1.36	1218.01	1212	13	5.22E-02	22.1	1.70E+00	T
0	911.49	100	115	1.66	1822.75	1815	16	2.78E-02	52.1	1.14E+00	T
0	1406.29	15	0	1.47	2812.87	2808	9	4.17E-03	51.6	7.47E-01	

Flags: "T" = Tentatively associated

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*****
*                               GEL Laboratories LLC                      *
*                               2040 Savage Road                        *
*                               Charleston, SC 29414                    *
*****
*                               DETECTOR DATA                          *
*
* Configuration      : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202057348.CNF;3
* Acquisition date   : 18-MAR-2010 15:39:11   Detector SN#      :
* Detector ID        : GAM21                   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 01:00:14.04           Half life ratio  : 8.00000
*****
*                               SAMPLE DATA                            *
*
* Sample date        : 4-MAR-2010 00:00:00.   Nuclide Library : SOLID
* Sample ID          : G1202057348             Analyst initials: MXR1
* Batch Number       : 959279                  Sample Quantity : 1.51730E+02 GRAM
*****
*                               QC DATA                               *
*
* CALIB. DATE/TIME  : 28-JUL-2009 10:09:51.9MS Isotope      :
* MSD ID            :                               MSD Isotope :
* LCS ID            : 1032-A                         LCS Isotope  :
*****

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## Combined Activity-MDA Report

## ---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	2.369E-01	6.353E-02	4.995E-02	5.738E-03	4.743
CO-60	7.047E+00	7.144E-01	8.261E-02	6.705E-03	85.305
CD-109	3.654E+01	3.866E+00	1.243E+00	1.170E-01	29.394
SN-126	3.574E+00	3.782E-01	1.214E-01	1.138E-02	29.446
BA-137M	6.060E+00	7.456E-01	1.351E-01	1.492E-02	44.858
CS-137	6.401E+00	7.884E-01	1.427E-01	1.578E-02	44.858
TL-208	5.838E-01	1.747E-01	1.298E-01	1.413E-02	4.499
BI-211	2.589E+00	8.067E-01	6.155E-01	5.557E-02	4.207
PB-212	1.329E+00	2.302E-01	1.655E-01	1.653E-02	8.030
PB-214	9.398E-01	2.973E-01	2.241E-01	2.368E-02	4.194
RA-224	3.309E+00	1.583E+00	1.903E+00	1.691E-01	1.739
TH-228	1.329E+00	2.302E-01	1.655E-01	1.653E-02	8.030
U-235	1.994E-01	1.263E-01	4.220E-01	7.471E-02	0.472
NP-237	1.066E+01	2.505E+00	3.607E-01	8.271E-02	29.568
AM-241	1.396E+01	1.238E+00	1.843E-01	1.564E-02	75.715

## ---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.796E-02		7.837E-01	1.307E+00	1.280E-01	-0.052

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	2.700E-02		5.790E-02	1.026E-01	8.417E-03	0.263
NA-24	1.409E-01		2.270E-01	Half-Life too short		
K-40	7.291E-01		6.785E-01	1.349E+00	1.151E-01	0.541
SC-46	1.285E-02		1.184E-01	1.993E-01	1.772E-02	0.064
V-48	2.521E-02		2.026E-01	3.386E-01	2.962E-02	0.074
CR-51	3.623E-01		7.208E-01	1.202E+00	1.117E-01	0.301
MN-54	1.777E-02		9.181E-02	1.567E-01	1.518E-02	0.113
CO-56	2.464E-02		1.066E-01	1.821E-01	1.735E-02	0.135
CO-58	-4.536E-02		9.706E-02	1.568E-01	1.569E-02	-0.289
FE-59	3.225E-01		2.740E-01	4.893E-01	4.515E-02	0.659
ZN-65	-1.882E-01		2.694E-01	4.127E-01	3.498E-02	-0.456
SE-75	8.306E-03		7.502E-02	1.243E-01	1.116E-02	0.067
SR-85	-1.400E-01		9.276E-02	1.378E-01	1.326E-02	-1.016
Y-88	-3.737E-03		7.856E-02	1.259E-01	1.039E-02	-0.030
Y-91	-4.322E+01		3.593E+01	4.579E+01	3.772E+00	-0.944
NB-94	1.395E-02		7.497E-02	1.233E-01	1.343E-02	0.113
NB-95	5.901E-02		1.101E-01	1.841E-01	1.924E-02	0.320
NB-95M	-1.271E-01		2.056E-01	2.913E-01	2.941E-02	-0.436
ZR-95	2.695E-02		1.863E-01	3.029E-01	3.416E-02	0.089
MO-99	-2.517E-01		2.834E+01	4.554E+01	7.725E+00	-0.006
TC-99M	6.530E+09		6.994E+09	Half-Life too short		
RU-103	-5.620E-02		8.803E-02	1.395E-01	2.020E-02	-0.403
RH-106	7.260E-01		6.604E-01	1.175E+00	1.729E-01	0.618
RU-106	7.260E-01		6.564E-01	1.175E+00	1.261E-01	0.618
AG-108M	1.301E-02		6.261E-02	1.073E-01	9.497E-03	0.121
AG-110M	1.827E-02		9.636E-02	1.403E-01	1.574E-02	0.130
SN-113	1.858E-02		9.339E-02	1.505E-01	1.240E-02	0.123
CD-115	4.418E+00		2.188E+01	3.691E+01	3.612E+00	0.120
SN-117M	-1.764E-02		6.942E-02	1.174E-01	1.034E-02	-0.150
TE-123M	-9.409E-03		3.654E-02	6.177E-02	5.445E-03	-0.152
SB-124	-9.141E-02		1.576E-01	2.161E-01	1.885E-02	-0.423
SB-125	1.952E-01		2.041E-01	3.636E-01	3.145E-02	0.537
TE-125M	3.261E+00		1.072E+01	1.738E+01	2.112E+00	0.188
I-126	-1.600E-01		5.888E-01	8.115E-01	8.953E-02	-0.197
SB-126	-3.050E-01		3.429E-01	5.029E-01	5.426E-02	-0.606
SB-127	-4.642E-01		3.210E+00	5.138E+00	6.740E-01	-0.090
I-131	-1.988E-01		2.303E-01	3.434E-01	3.052E-02	-0.579
TE-132	7.993E-02		1.069E+00	1.789E+00	2.832E-01	0.045
BA-133	-6.093E-03		9.104E-02	1.290E-01	1.663E-02	-0.047
I-133	-2.485E-03		4.535E-03	Half-Life too short		
CS-134	1.095E-01		1.228E-01	2.106E-01	2.150E-02	0.520
CS-135	-3.543E-01		2.713E-01	4.064E-01	4.162E-02	-0.872
I-135	-5.615E+08		1.275E+09	Half-Life too short		
CS-136	6.687E-02		3.122E-01	5.224E-01	4.709E-02	0.128
CE-139	1.296E-02		4.098E-02	7.097E-02	5.769E-03	0.183
BA-140	-8.889E-02		5.847E-01	9.573E-01	3.280E-01	-0.093
LA-140	6.926E-02		1.553E-01	2.798E-01	2.340E-02	0.247
CE-141	-5.305E-02		8.504E-02	1.269E-01	1.272E-02	-0.418

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-143	2.248E-04		1.047E-04	Half-Life too short		
CE-144	-2.297E-02		2.665E-01	4.156E-01	6.891E-02	-0.055
PM-144	3.039E-02		7.454E-02	1.252E-01	1.368E-02	0.243
PR-144	2.295E+00		5.579E+00	9.377E+00	1.024E+00	0.245
PM-146	-6.242E-02		9.896E-02	1.598E-01	1.723E-02	-0.391
ND-147	-3.510E-01		1.198E+00	1.941E+00	3.043E-01	-0.181
PM-149	-1.027E+02		1.448E+02	2.247E+02	3.531E+01	-0.457
EU-152	-4.602E-02		1.882E-01	2.972E-01	2.725E-02	-0.155
GD-153	-8.128E-02		8.458E-02	1.275E-01	1.259E-02	-0.638
EU-154	5.431E-02		1.676E-01	2.885E-01	3.191E-02	0.188
EU-155	1.170E-01		1.160E-01	1.951E-01	2.034E-02	0.600
TB-160	1.790E-01		4.160E-01	7.176E-01	6.495E-02	0.249
HO-166M	1.598E-02		1.530E-01	2.493E-01	2.703E-02	0.064
TA-182	-7.958E-02		2.644E-01	4.024E-01	3.313E-02	-0.198
IR-192	-5.852E-02		6.727E-02	1.028E-01	9.133E-03	-0.569
HG-203	-2.546E-02		6.926E-02	1.109E-01	1.013E-02	-0.230
BI-207	2.674E-02		1.472E-01	2.455E-01	2.116E-02	0.109
PB-210	5.268E-01		9.060E-01	1.451E+00	1.372E-01	0.363
PB-211	1.425E+00		1.747E+00	2.701E+00	1.305E+00	0.528
BI-212	9.909E-01		1.379E+00	2.338E+00	3.277E-01	0.424
BI-214	1.203E+00	+	3.015E-01	4.375E-01	5.188E-02	2.749
RN-219	-5.109E-01		9.248E-01	1.401E+00	2.042E-01	-0.365
RA-223	-9.170E-01		1.229E+00	1.869E+00	3.259E-01	-0.491
RA-226	1.203E+00	+	3.015E-01	4.375E-01	5.188E-02	2.749
AC-227	-6.966E-02		4.251E-01	6.945E-01	8.526E-02	-0.100
TH-227	-6.966E-02		4.251E-01	6.945E-01	9.588E-02	-0.100
AC-228	1.690E+00	+	9.025E-01	1.004E+00	1.174E-01	1.683
RA-228	1.690E+00	+	9.025E-01	1.004E+00	1.174E-01	1.683
TH-229	-7.359E-01		7.778E-01	1.246E+00	1.058E-01	-0.591
PA-231	-8.989E-01		2.531E+00	4.040E+00	5.965E-01	-0.223
TH-231	-9.170E-01		1.229E+00	1.869E+00	3.259E-01	-0.491
TH-232	1.690E+00	+	9.025E-01	1.004E+00	1.174E-01	1.683
PA-233	-3.861E-03		1.201E-01	1.944E-01	1.775E-02	-0.020
PA-234	-1.446E-01		1.024E+00	1.683E+00	3.169E-01	-0.086
PA-234M	8.452E-01		1.268E+01	2.106E+01	2.119E+00	0.040
TH-234	4.666E-01		7.731E-01	1.304E+00	2.352E-01	0.358
U-238	4.666E-01		7.731E-01	1.304E+00	2.352E-01	0.358
NP-239	2.835E-01		4.705E-01	7.716E-01	8.588E-02	0.367
CM-247	1.979E-02		8.434E-02	1.358E-01	1.101E-02	0.146
CF-249	-5.043E-03		8.526E-02	1.349E-01	1.082E-02	-0.037
CF-251	-8.453E-02		1.794E-01	2.974E-01	2.464E-02	-0.284
ANH-511	7.436E-02		7.971E-02	1.485E-01	1.424E-02	0.501

# 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]G1202057348          *
* Acquisition date   : 18-MAR-2010 15:39:11 Detector SN# :                   *
* Detector ID        : GAM21 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 01:00:14.04 Half life ratio : 8.000              *
*****
*                                     SAMPLE DATA                            *
*                                     *                                       *
* Sample date       : 4-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID         : G1202057348 Analyst initials: MXR1                 *
* Batch Number      : 959279 Sample Quantity : 1.5173E+02 GRAM           *
* Recovery          : 1.00000 Carrier Weight : 0.00000                  *
*****
*                                     QC DATA                               *
*                                     *                                       *
* CALIB. DATE/TIME  : 28-JUL-2009 10:09:51 MS Isotope :                   *
* MSD DPM           : 0.000 MSD Isotope :                               *
* LCS DPM           : 0.000 LCS Isotope :                               *
* LCSD DPM          : 0.000 LCSD Isotope :                               *
*****

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## Combined Activity-MDA Report

### ---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM )	Act Error	DLC (pCi/GRAM )	TPU
CO-57	2.369E-01	6.226E-02	2.679E-02	3.176E-02
CO-60	7.047E+00	7.001E-01	4.174E-02	3.572E-01
CD-109	3.654E+01	3.789E+00	6.717E-01	1.933E+00
SN-126	3.574E+00	3.706E-01	6.559E-02	1.891E-01
BA-137M	6.060E+00	7.307E-01	6.950E-02	3.728E-01
CS-137	6.401E+00	7.726E-01	7.342E-02	3.942E-01
TL-208	5.838E-01	1.712E-01	6.699E-02	8.736E-02
BI-211	2.589E+00	7.906E-01	3.218E-01	4.033E-01
PB-212	1.329E+00	2.256E-01	8.732E-02	1.151E-01
PB-214	9.398E-01	2.914E-01	1.171E-01	1.487E-01
RA-224	3.309E+00	1.552E+00	1.004E+00	7.916E-01
TH-228	1.329E+00	2.256E-01	8.732E-02	1.151E-01
U-235	-7.501E-02	2.702E-01	2.254E-01	1.379E-01
NP-237	1.066E+01	2.455E+00	1.950E-01	1.252E+00
AM-241	1.396E+01	1.213E+00	1.005E-01	6.188E-01

### ---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM )	K.L Act error	DLC (pCi/GRAM )	TPU	
BE-7	-6.796E-02	7.680E-01	6.781E-01	3.918E-01	NOT IDENT.
NA-22	2.700E-02	5.674E-02	5.190E-02	2.895E-02	NOT IDENT.
NA-24	1.409E+05	4.448E+05	0.000E+00	2.270E+05	SHORT HLIF
K-40	7.291E-01	6.649E-01	6.797E-01	3.392E-01	NOT IDENT.
SC-46	1.285E-02	1.160E-01	1.018E-01	5.919E-02	NOT IDENT.
V-48	2.521E-02	1.986E-01	1.724E-01	1.013E-01	NOT IDENT.
CR-51	3.623E-01	7.064E-01	6.300E-01	3.604E-01	NOT IDENT.
MN-54	1.777E-02	8.997E-02	8.013E-02	4.590E-02	NOT IDENT.
CO-56	2.464E-02	1.044E-01	9.308E-02	5.328E-02	NOT IDENT.
CO-58	-4.536E-02	9.512E-02	8.026E-02	4.853E-02	NOT IDENT.
FE-59	3.225E-01	2.686E-01	2.485E-01	1.370E-01	NOT IDENT.
ZN-65	-1.882E-01	2.640E-01	2.095E-01	1.347E-01	NOT IDENT.

SE-75	8.306E-03	7.352E-02	6.542E-02	3.751E-02	FAIL ABUN
SR-85	-1.400E-01	9.091E-02	7.135E-02	4.638E-02	NOT IDENT.
Y-88	-3.737E-03	7.699E-02	6.306E-02	3.928E-02	NOT IDENT.
Y-91	-4.322E+01	3.521E+01	2.320E+01	1.796E+01	NOT IDENT.
NB-94	1.395E-02	7.347E-02	6.335E-02	3.749E-02	NOT IDENT.
NB-95	5.901E-02	1.079E-01	9.439E-02	5.504E-02	NOT IDENT.
NB-95M	-1.271E-01	2.015E-01	1.538E-01	1.028E-01	NOT IDENT.
ZR-95	2.695E-02	1.826E-01	1.553E-01	9.317E-02	NOT IDENT.
MO-99	-2.517E-01	2.777E+01	2.337E+01	1.417E+01	NOT IDENT.
TC-99M	6.530E+15	1.371E+16	0.000E+00	6.994E+15	SHORT HLIF
RU-103	-5.620E-02	8.627E-02	7.232E-02	4.401E-02	FAIL ABUN
RH-106	7.260E-01	6.472E-01	6.056E-01	3.302E-01	NOT IDENT.
RU-106	7.260E-01	6.432E-01	6.056E-01	3.282E-01	NOT IDENT.
AG-108M	1.301E-02	6.136E-02	5.578E-02	3.131E-02	NOT IDENT.
AG-110M	1.827E-02	9.443E-02	7.218E-02	4.818E-02	NOT IDENT.
SN-113	1.858E-02	9.153E-02	7.847E-02	4.670E-02	NOT IDENT.
CD-115	4.418E+00	2.144E+01	1.910E+01	1.094E+01	NOT IDENT.
SN-117M	-1.764E-02	6.803E-02	6.258E-02	3.471E-02	NOT IDENT.
TE-123M	-9.409E-03	3.581E-02	3.292E-02	1.827E-02	NOT IDENT.
SB-124	-9.141E-02	1.544E-01	1.085E-01	7.879E-02	NOT IDENT.
SB-125	1.952E-01	2.001E-01	1.892E-01	1.021E-01	NOT IDENT.
TE-125M	3.261E+00	1.050E+01	9.344E+00	5.360E+00	NOT IDENT.
I-126	-1.600E-01	5.771E-01	4.175E-01	2.944E-01	NOT IDENT.
SB-126	-3.050E-01	3.361E-01	2.582E-01	1.715E-01	NOT IDENT.
SB-127	-4.642E-01	3.145E+00	2.641E+00	1.605E+00	NOT IDENT.
I-131	-1.988E-01	2.257E-01	1.794E-01	1.152E-01	NOT IDENT.
TE-132	7.993E-02	1.048E+00	9.450E-01	5.347E-01	FAIL ABUN
BA-133	-6.093E-03	8.922E-02	6.740E-02	4.552E-02	NOT IDENT.
I-133	-2.485E+03	8.888E+03	0.000E+00	4.535E+03	SHORT HLIF
CS-134	1.095E-01	1.203E-01	1.079E-01	6.138E-02	NOT IDENT.
CS-135	-3.543E-01	2.659E-01	2.139E-01	1.357E-01	NOT IDENT.
I-135	-5.615E+14	2.499E+15	0.000E+00	1.275E+15	SHORT HLIF
CS-136	6.687E-02	3.059E-01	2.656E-01	1.561E-01	NOT IDENT.
CE-139	1.296E-02	4.016E-02	3.778E-02	2.049E-02	NOT IDENT.
BA-140	-8.889E-02	5.730E-01	4.952E-01	2.924E-01	NOT IDENT.
LA-140	6.926E-02	1.522E-01	1.407E-01	7.764E-02	NOT IDENT.
CE-141	-5.305E-02	8.333E-02	6.776E-02	4.252E-02	NOT IDENT.
CE-143	2.248E+02	2.051E+02	0.000E+00	1.047E+02	SHORT HLIF
CE-144	-2.297E-02	2.612E-01	2.224E-01	1.332E-01	NOT IDENT.
PM-144	3.039E-02	7.305E-02	6.436E-02	3.727E-02	NOT IDENT.
PR-144	2.295E+00	5.468E+00	4.818E+00	2.790E+00	NOT IDENT.
PM-146	-6.242E-02	9.698E-02	8.300E-02	4.948E-02	NOT IDENT.
ND-147	-3.510E-01	1.174E+00	1.004E+00	5.990E-01	FAIL ABUN
PM-149	-1.027E+02	1.419E+02	1.181E+02	7.240E+01	NOT IDENT.
EU-152	-4.602E-02	1.845E-01	1.555E-01	9.411E-02	FAIL ABUN
GD-153	-8.128E-02	8.289E-02	6.872E-02	4.229E-02	NOT IDENT.
EU-154	5.431E-02	1.642E-01	1.460E-01	8.379E-02	FAIL ABUN
EU-155	1.170E-01	1.137E-01	1.050E-01	5.801E-02	FAIL ABUN
TB-160	1.790E-01	4.077E-01	3.665E-01	2.080E-01	FAIL ABUN
HO-166M	1.598E-02	1.499E-01	1.280E-01	7.650E-02	FAIL ABUN
TA-182	-7.958E-02	2.591E-01	2.038E-01	1.322E-01	NOT IDENT.
IR-192	-5.852E-02	6.592E-02	5.387E-02	3.363E-02	FAIL ABUN
HG-203	-2.546E-02	6.787E-02	5.831E-02	3.463E-02	NOT IDENT.
BI-207	2.674E-02	1.442E-01	1.248E-01	7.358E-02	FAIL ABUN
PB-210	5.268E-01	8.878E-01	7.956E-01	4.530E-01	NOT IDENT.
PB-211	1.425E+00	1.712E+00	1.407E+00	8.735E-01	NOT IDENT.
BI-212	9.909E-01	1.351E+00	1.200E+00	6.895E-01	NOT IDENT.
BI-214	1.203E+00	2.955E-01	2.256E-01	1.508E-01	FAIL ABUN
RN-219	-5.109E-01	9.063E-01	7.299E-01	4.624E-01	NOT IDENT.
RA-223	-9.170E-01	1.205E+00	9.790E-01	6.147E-01	FAIL ABUN
RA-226	1.203E+00	2.955E-01	2.256E-01	1.508E-01	FAIL ABUN
AC-227	-6.966E-02	4.166E-01	3.659E-01	2.125E-01	NOT IDENT.
TH-227	-6.966E-02	4.166E-01	3.659E-01	2.126E-01	NOT IDENT.
AC-228	1.690E+00	8.844E-01	5.122E-01	4.512E-01	FAIL ABUN
RA-228	1.690E+00	8.844E-01	5.122E-01	4.512E-01	FAIL ABUN
TH-229	-7.359E-01	7.623E-01	6.608E-01	3.889E-01	FAIL ABUN
PA-231	-8.989E-01	2.480E+00	2.123E+00	1.265E+00	NOT IDENT.
TH-231	-9.170E-01	1.205E+00	9.790E-01	6.147E-01	FAIL ABUN
TH-232	1.690E+00	8.844E-01	5.122E-01	4.512E-01	FAIL ABUN
PA-233	-3.861E-03	1.177E-01	1.019E-01	6.006E-02	NOT IDENT.
PA-234	-1.446E-01	1.004E+00	8.579E-01	5.121E-01	NOT IDENT.
PA-234M	8.452E-01	1.243E+01	1.072E+01	6.341E+00	NOT IDENT.
TH-234	4.666E-01	7.576E-01	7.098E-01	3.865E-01	FAIL ABUN
U-238	4.666E-01	7.576E-01	7.098E-01	3.865E-01	FAIL ABUN
NP-239	2.835E-01	4.611E-01	4.142E-01	2.353E-01	NOT IDENT.
CM-247	1.979E-02	8.265E-02	7.075E-02	4.217E-02	NOT IDENT.
CF-249	-5.043E-03	8.356E-02	7.036E-02	4.263E-02	NOT IDENT.
CF-251	-8.453E-02	1.759E-01	1.581E-01	8.972E-02	NOT IDENT.

ANH-511

7.436E-02

7.812E-02

7.690E-02

3.986E-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	352.3204
49.72	568.9760
57.36	0.0000
59.54	540.2777
63.29	265.6148
63.29	265.6148
64.28	271.5607
67.75	293.1071
69.67	289.2765
70.83	307.5645
72.81	304.0956
72.87	304.1611
72.87	304.1611
74.82	264.2906
74.82	264.2906
74.82	264.2906
74.97	264.4334
77.11	266.4330
77.11	266.4330
77.11	266.4330
79.69	241.2392
79.80	249.6041
80.12	249.8748
80.19	249.9337
80.57	264.0822
81.00	268.6169
81.07	268.6801
81.07	268.6801
83.79	240.3668
83.79	240.3668
85.43	318.9209
86.48	250.9209
86.55	250.9770
86.79	251.1671
86.94	251.2903
87.57	251.7918
88.03	252.1576
88.47	252.5053
89.96	253.6804
91.11	173.7725
92.59	165.2177
92.59	165.2177
93.35	165.5968
94.67	159.0235
94.87	167.7979
94.87	167.7979
95.86	158.1334
97.43	184.7316
98.44	169.9245
99.53	157.2605
100.11	148.7089
103.18	181.1079
103.37	181.2037
105.31	149.7634
106.12	173.6170
109.28	157.0230
111.00	179.2990
111.76	148.9551
116.30	155.3038
117.23	146.4426
121.12	166.4904
121.78	166.7593
122.06	166.8733
123.07	179.3705
131.20	200.3280
133.52	179.8119
136.00	148.2697



136.47	184.6268
140.51	175.3176
140.51	0.0000
143.76	185.1303
144.24	166.9100
144.24	166.9100
145.44	185.7916
152.43	171.0284
153.25	164.2268
154.21	170.3922
154.21	170.3922
156.02	167.6595
158.56	173.5631
159.00	170.3389
162.66	160.5166
163.33	183.6848
165.86	174.3226
176.60	163.0049
177.52	176.3719
181.07	160.7970
184.41	159.0912
185.72	159.4537
193.51	193.0022
197.04	166.1454
205.31	146.8817
210.85	177.2520
215.65	186.0128
222.11	169.0540
227.38	176.0571
228.16	166.7814
228.18	166.7868
235.69	165.2476
235.96	192.6240
235.96	192.6240
238.63	189.0241
238.63	189.0241
240.99	217.1562
242.00	133.3773
244.70	136.7859
252.40	140.1867
252.80	140.2623
256.23	143.8613
256.23	143.8613
260.90	143.7580
264.66	131.5085
268.22	168.1401
269.46	129.3123
269.46	129.3123
271.23	140.6523
273.65	133.0205
276.40	143.5918
277.37	147.8119
277.60	137.7293
278.00	132.7297
279.20	155.2505
279.54	150.2402
280.46	142.2815
283.69	134.6802
284.31	150.0984
285.41	133.9397
285.90	150.3885
287.50	114.8027
293.27	0.0000
295.22	141.7244
295.96	128.9048
298.57	112.1638
299.98	131.0706
299.98	131.0706
300.09	131.0885
300.09	131.0885
300.13	131.0936
301.36	118.7778
302.85	158.6426
304.50	96.2039
304.50	96.2039
304.85	110.8868
308.46	126.0498
311.90	122.3225

316.51	139.9116
319.41	118.0301
320.08	123.4388
323.87	135.7049
323.87	135.7049
328.76	112.7908
333.37	121.7685
334.37	94.0164
334.37	94.0164
338.28	137.8081
338.28	137.8081
338.32	137.8133
338.32	137.8133
338.32	137.8133
340.48	123.9871
340.55	123.9963
344.28	117.9250
351.06	107.7498
351.93	107.8455
356.01	107.7376
364.49	124.8060
366.42	96.0151
383.85	113.5274
388.16	111.7055
388.63	117.4571
391.69	102.9236
400.66	141.8209
401.81	128.1179
402.40	115.4846
404.85	104.1650
410.95	109.3875
414.70	108.5833
423.72	129.7398
427.09	98.2513
427.87	101.8586
433.94	97.9352
453.88	125.8182
463.37	120.3984
468.07	114.4409
473.00	102.0199
476.78	136.4285
477.60	117.1440
487.02	96.6288
492.35	88.6262
497.08	96.4321
511.00	90.8130
514.00	145.9976
527.90	76.6064
529.87	0.0000
531.02	80.6162
537.26	81.9365
546.56	0.0000
563.25	76.5432
569.33	67.0039
569.50	64.0538
569.70	64.0617
583.19	72.5901
600.60	67.3762
602.73	64.4473
604.72	56.4614
609.32	55.6143
609.32	55.6143
610.33	55.6496
614.28	53.5557
618.01	63.0331
621.93	43.8228
621.93	43.8228
633.25	58.4960
635.95	64.7592
636.99	86.3994
645.85	68.2478
657.76	69.9788
661.66	67.8426
661.66	67.8426
664.57	0.0000
666.33	73.6785
666.50	73.6871
677.62	68.4714

685.70	81.4859
695.00	65.9564
696.49	52.1702
696.51	52.1717
697.00	51.1201
702.65	57.6914
706.68	80.3055
711.68	69.7885
720.70	75.5286
721.93	0.0000
722.78	84.2532
722.91	84.2604
723.31	91.8430
724.19	92.9655
727.33	73.6321
733.00	69.5117
735.93	73.9724
739.50	68.6621
747.24	64.5655
752.31	59.2504
753.82	65.8850
756.73	65.9857
763.94	71.7503
765.81	70.7148
766.42	59.6838
777.92	48.9172
778.90	54.5029
783.70	57.9795
785.37	50.2171
795.86	59.4552
801.95	60.3082
810.29	61.4590
810.76	65.9941
815.77	60.7171
818.51	71.6863
832.01	77.6331
834.85	62.1895
836.80	0.0000
846.77	66.2203
856.80	91.4783
860.56	77.7533
871.09	72.5499
873.19	58.6549
875.33	0.0000
879.36	71.8905
880.51	66.3233
883.24	94.4631
884.68	87.0377
889.28	76.9010
898.04	74.3788
911.20	85.2297
911.20	85.2297
911.20	85.2297
926.50	69.5924
937.49	93.8680
944.13	96.0547
946.00	96.1304
949.00	95.2923
962.29	89.0509
964.08	128.8308
966.15	109.5515
968.97	87.3567
968.97	87.3567
968.97	87.3567
983.53	64.4467
996.26	60.8557
1001.03	61.9572
1004.73	62.0495
1037.84	74.8425
1038.76	0.0000
1048.07	64.1219
1050.41	59.1642
1050.41	59.1642
1063.66	56.4430
1085.87	74.1977
1099.45	54.1413
1112.07	66.7107
1115.54	83.2386

1120.29	63.8225
1120.29	63.8225
1120.55	56.6221
1121.30	55.6084
1131.51	0.0000
1173.23	22.0295
1177.93	24.5171
1189.05	20.0409
1204.77	30.7544
1221.41	17.0641
1231.02	20.3285
1235.36	22.5012
1238.28	19.3052
1260.41	0.0000
1271.85	13.0131
1274.44	9.7677
1274.54	8.6828
1291.59	18.5522
1298.22	0.0000
1312.11	8.7879
1332.49	7.8966
1365.19	4.6527
1368.63	0.0000
1384.29	11.2314
1408.01	14.5428
1457.56	0.0000
1460.82	6.7001
1489.16	12.5435
1505.03	7.7533
1596.21	7.9469
1620.50	8.9974
1678.03	0.0000
1690.97	10.1782
1764.49	6.2178
1764.49	6.2178
1770.23	13.4904
1771.35	8.3040
1791.20	0.0000
1836.06	8.4316

TOTAL URANIUM BY GAMMA SPEC REPORT  
Sample:G1202057348

Total Uranium Activity	1.3535E+00	ug/g
Total Uranium Counting Unc.	2.2573E+00	ug/g
Total Uranium Tpu	1.1517E-06	ug/g
Total Uranium Mda	2.1142E+00	ug/g

```

*****
*
*                               GEL Laboratories LLC                               *
*                               2040 SAVAGE ROAD                               *
*                               CHARLESTON ,SC 29417                           *
*                               GROSS GAMMA REPORT                             *
*
*****
*
*  BATCH ID      : 959279                      SAMPLE ID   : G1202057348          *
*  ANALYST       : MXR1                        DETECTOR    : GAM21             *
*  SAMPLE DATE   : 4-MAR-2010 00:00:00.00      COUNT TIME   : 0 01:00:00.00        *
*  ANALYSIS DATE: 18-MAR-2010 15:39:11.16     SAMPLE ALQT: 151.730 GRAM          *
*
*****

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GROSS GAMMA ACTIVITY (pCi/GRAM ) : 2.996E+01
GROSS GAMMA ERROR   (pCi/GRAM ) : 2.663E+00
GROSS GAMMA MDA      (pCi/GRAM ) : 3.566E+00
GROSS GAMMA DLC      (pCi/GRAM ) : 1.723E+00

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## Radiochemistry Batch Checklist, Rev10

Batch#

961542

Product:

Tritium

Date:

3/11/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to 100 mg for GAB.			NA
Samples have been blank corrected (if required)			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.			NA
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 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:

Shirley Pace

Secondary Review Performed By:

Lynne Yon 3/17/10

LANL 3/24/10

# Tritium Que Sheet

Batch #: 961542

Analyst: KKK2

First Client Due Date 24-MAR-10

Internal Due Date: 13-MAR-10

Spike Isotope: Hydrogen-3

Spike Code: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

Vol: \_\_\_\_\_

LCS Isotope: Hydrogen-3

LCS Code: 0134-K

Expiration Date: 3/27/10

Vol: 0.1

Prep Date: 3/10/10

Initials: *KKK*

Pipet ID: 2910968

Witness: *gn* 3/11/10

*total*  
*100.00*  
*311.01*

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Vol (mL)
247911001-1	RE15-10-8019	SAMPLE		.25 pCi/mL SOIL		LANL010	18-FEB-10	10	22-2	1		450.37	376.96	73.41
247911002-1	RE15-10-8013	SAMPLE		.25 pCi/mL SOIL		LANL010	18-FEB-10	10	22-3	2		344.70	269.90	74.80
247911003-1	RE15-10-8026	SAMPLE		.25 pCi/mL SOIL		LANL010	18-FEB-10	10	22-4	3		351.99	325.41	32.58
247911004-1	RE15-10-8017	SAMPLE		.25 pCi/mL SOIL		LANL010	18-FEB-10	10	22-5	4		438.36	329.21	109.15
247911005-1	RE15-10-8025	SAMPLE		.25 pCi/mL SOIL		LANL010	18-FEB-10	10	22-6	5		309.59	209.90	99.69
247911006-1	RE15-10-8022	SAMPLE		.25 pCi/mL SOIL		LANL010	18-FEB-10	10	22-7	6		425.29	408.28	17.01
247911007-1	RE15-10-8014	SAMPLE		.25 pCi/mL SOIL		LANL010	18-FEB-10	10	22-8	7		406.15	381.78	24.37
247911008-1	RE15-10-8023	SAMPLE		.25 pCi/mL SOIL		LANL010	18-FEB-10	10	22-9	8		350.00	287.85	62.65
247911009-1	RE15-10-8020	SAMPLE		.25 pCi/mL SOIL		LANL010	18-FEB-10	10	22-10	9		506.78	475.87	30.91
247911010-1	RE15-10-8018	SAMPLE		.25 pCi/mL SOIL		LANL010	18-FEB-10	10	22-11	10		385.57	305.37	80.20
247911011-1	RE15-10-8015	SAMPLE		.25 pCi/mL SOIL		LANL010	18-FEB-10	10	22-12	11		136.70	85.11	50.99
247911012-1	RE15-10-8021	SAMPLE		.25 pCi/mL SOIL		LANL010	18-FEB-10	10	35-1	12		424.71	364.83	59.88
247911013-1	RE15-10-8024	SAMPLE		.25 pCi/mL SOIL		LANL010	18-FEB-10	10	35-2	13		352.26	306.47	45.79
247911014-1	RE15-10-8016	SAMPLE		.25 pCi/mL SOIL		LANL010	18-FEB-10	10	35-3	14		456.44	413.53	42.91
247911015-1	RE15-10-8065	SAMPLE		.25 pCi/mL SOIL		LANL010	18-FEB-10	10	35-4	15		335.07	304.24	30.83
247911016-1	RE15-10-8066	SAMPLE		.25 pCi/mL SOIL		LANL010	18-FEB-10	10	35-5	16		122.88	99.16	23.12
247911017-1	RE15-10-8033	SAMPLE		.25 pCi/mL SOIL		LANL010	18-FEB-10	10	35-6	17		320.01	242.25	77.76
248202001-1	RE36-10-8282	SAMPLE		.25 pCi/mL SOIL		LANL010	23-FEB-10	10	35-7	18		430.63	393.17	37.46
248202002-1	RE36-10-8281	SAMPLE		.25 pCi/mL SOIL		LANL010	23-FEB-10	10	35-8	19		368.91	269.67	99.24
1202062415-1	MB for batch 961542	MB		.25 pCi/mL SOIL		QC ACCOUNT		10	35-9	20		20.00	0.00	20.00
1202062416-1	RE15-10-8017(247911004DUP)	DUP		.25 pCi/mL SOIL		QC ACCOUNT	18-FEB-10	10	35-10	4		438.36	329.21	109.15
1202062417-1	LCS for batch 961542	LCS		.25 pCi/mL SOIL		QC ACCOUNT		10	46-1	21		20.00	0.00	20.00

Bkg Rack #: 22-1

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, Wallace (Yellow) 4140127, LS6000 (Brown) 7060655, Wallace (Pink) 2200082, Wallace (White) 4140299, Purple 7069123, Silver 7060656, Orange DG00095168

Calibration Used: Ecospin Ultra (10 mL sample/13 mL Ecospin Ultra)  
Data Reviewed By: *gn* 3/11/10

GEL Laboratories LLC, Radiochemistry Division

Page 1 of 1



DATE	3/11/2010	INITIALS	KXK2	BATCH NUMBER	961542	
Sample #	Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
247911001	450.37	0.163	73.41	376.96	10	
247911002	344.70	0.217	74.80	269.90	10	
247911003	357.99	0.091	32.58	325.41	10	
247911004	438.36	0.249	109.15	329.21	10	
247911005	309.59	0.322	99.69	209.90	10	
247911006	425.29	0.040	17.01	408.28	10	
247911007	406.15	0.060	24.37	381.78	10	
247911008	350.00	0.179	62.65	287.35	10	
247911009	506.78	0.061	30.91	475.87	10	
247911010	385.57	0.208	80.20	305.37	10	
247911011	136.70	0.373	50.99	85.71	10	
247911012	424.71	0.141	59.88	364.83	10	
247911013	352.26	0.130	45.79	306.47	10	
247911014	456.44	0.094	42.91	413.53	10	
247911015	335.07	0.092	30.83	304.24	10	
247911016	122.88	0.193	23.72	99.16	10	
247911017	320.01	0.243	77.76	242.25	10	
248202001	430.63	0.087	37.46	393.17	10	
248202002	368.91	0.269	99.24	269.67	10	
MB	20	1.000	20.00	0.00	10	
DUP	438.36	0.249	109.15	329.21	10	
LCS	20	1.000	20.00	0.00	10	

T961542

## Tritium Solid

Filename : H3VAC.XLS  
 File type : Excel  
 Version # : 1.2.6  
 Batch : 961542  
 Analyst : KKK2  
 Prep Date : 3/10/2010

Spike S/N :  
 Spike Exp Date :  
 Spike Activity (dpm/ml):  
 Spike Volume Added:

LCS S/N : 0134-K  
 LCS Exp Date : 3/27/2010  
 LCS Activity (dpm/ml): 2457.96  
 LCS Volume Added: 0.10

Procedure Code : LSC\_VH3S  
 Parameter : Tritium  
 Required MDC : 250 pCi/L  
 Half-life of Tritium : 12.32 years

H-3 Abundance : 1  
 Method Uncertainty : 0.0691  
 Geometry: 10mL DW/13mL  
 Eoscient Ultra

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stddev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	247911001.1	450.37	0.0734	0.0100	2.5729E-05	376.96	16.30%	1	2/18/2010 12:00
2	247911002.1	344.70	0.0748	0.0100	2.5729E-05	268.90	21.70%	2	2/18/2010 12:00
3	247911003.1	357.99	0.0326	0.0100	2.5729E-05	325.41	9.10%	3	2/18/2010 12:00
4	247911004.1	438.36	0.1092	0.0100	2.5729E-05	329.21	24.90%	4	2/18/2010 12:00
5	247911005.1	309.59	0.0997	0.0100	2.5729E-05	208.90	32.20%	5	2/18/2010 12:00
6	247911006.1	425.29	0.0170	0.0100	2.5729E-05	408.28	4.00%	6	2/18/2010 12:00
7	247911007.1	406.15	0.0244	0.0100	2.5729E-05	381.78	6.00%	7	2/18/2010 12:00
8	247911008.1	350.00	0.0627	0.0100	2.5729E-05	287.35	17.90%	8	2/18/2010 12:00
9	247911009.1	506.78	0.0309	0.0100	2.5729E-05	475.87	6.10%	9	2/18/2010 12:00
10	247911010.1	385.57	0.0802	0.0100	2.5729E-05	305.37	20.80%	10	2/18/2010 12:00
11	247911011.1	136.70	0.0510	0.0100	2.5729E-05	85.71	37.30%	11	2/18/2010 12:00
12	247911012.1	424.71	0.0599	0.0100	2.5729E-05	364.83	14.10%	12	2/18/2010 12:00
13	247911013.1	352.26	0.0458	0.0100	2.5729E-05	306.47	13.00%	13	2/18/2010 12:00
14	247911014.1	456.44	0.0429	0.0100	2.5729E-05	413.53	9.40%	14	2/18/2010 12:00
15	247911015.1	335.07	0.0308	0.0100	2.5729E-05	304.24	9.20%	15	2/18/2010 12:00
16	247911016.1	122.88	0.0237	0.0100	2.5729E-05	99.16	19.30%	16	2/18/2010 12:00
17	247911017.1	320.01	0.0778	0.0100	2.5729E-05	242.25	24.30%	17	2/18/2010 12:00
18	248202001.1	430.63	0.0375	0.0100	2.5729E-05	393.17	8.70%	18	2/23/2010 12:00
19	248202002.1	368.91	0.0992	0.0100	2.5729E-05	269.67	26.90%	19	2/23/2010 12:00
20	1202062415.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	20	3/10/2010 0:00
21	1202062416.1	438.36	0.1092	0.0100	2.5729E-05	329.21	24.90%	4	2/18/2010 12:00
22	1202062417.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	21	3/10/2010 0:00

Count raw Data				Background			Calibration Data			Detector			Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	22-2	95	109.4	6.49	95	3/13/2010 8:11	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2369	0.00792	22-1	3/13/2010 6:33
2	22-3	95	109.9	17.77	95	3/13/2010 9:49	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2366	0.00792	22-1	3/13/2010 6:33
3	22-4	95	110	4.72	95	3/13/2010 11:27	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2366	0.00792	22-1	3/13/2010 6:33
4	22-5	53	109.5	188.94	95	3/13/2010 13:04	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2368	0.00792	22-1	3/13/2010 6:33
5	22-6	95	108.8	4.89	95	3/13/2010 14:00	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2372	0.00792	22-1	3/13/2010 6:33
6	22-7	95	109.9	10.48	95	3/13/2010 15:38	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2366	0.00792	22-1	3/13/2010 6:33
7	22-8	95	109.7	9	95	3/13/2010 17:16	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2367	0.00792	22-1	3/13/2010 6:33
8	22-9	95	109.9	4.29	95	3/13/2010 18:54	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2366	0.00792	22-1	3/13/2010 6:33
9	22-10	95	109	4.43	95	3/13/2010 20:32	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2371	0.00792	22-1	3/13/2010 6:33
10	22-11	95	110.4	37.09	95	3/13/2010 22:11	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2364	0.00792	22-1	3/13/2010 6:33
11	22-12	95	110.6	8.87	95	3/13/2010 23:49	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2362	0.00792	22-1	3/13/2010 6:33
12	35-1	95	110.2	13.45	95	3/14/2010 1:27	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2365	0.00792	22-1	3/13/2010 6:33
13	35-2	95	109.6	4.02	95	3/14/2010 3:05	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2368	0.00792	22-1	3/13/2010 6:33
14	35-3	95	110.4	6.12	95	3/14/2010 4:43	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2364	0.00792	22-1	3/13/2010 6:33
15	35-4	95	110.5	5.93	95	3/14/2010 6:21	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2363	0.00792	22-1	3/13/2010 6:33
16	35-5	95	111.1	9.88	95	3/14/2010 7:59	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2360	0.00782	22-1	3/13/2010 6:33
17	35-6	95	109.9	4.27	95	3/14/2010 9:37	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2366	0.00792	22-1	3/13/2010 6:33
18	35-7	95	109.9	11.96	95	3/14/2010 11:15	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2366	0.00792	22-1	3/13/2010 6:33
19	35-8	95	110.8	4.74	95	3/14/2010 12:53	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2362	0.00792	22-1	3/13/2010 6:33
20	35-9	95	109	3.35	95	3/14/2010 14:31	0.999	LSCBROWN	9/9/2009	9/30/2010	0.2371	0.00792	22-1	3/13/2010 6:33
21	35-10	48.7	110.2	205.56	95	3/14/2010 16:08	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2365	0.00792	22-1	3/13/2010 6:33
22	46-1	15	109.2	33.07	95	3/14/2010 17:58	0.999	LSCBROWN	9/9/2009	9/30/2010	0.2370	0.00792	22-1	3/13/2010 6:33

## 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

Pos.	Results Decision Level	Critical Level	Required MDC	MDC pCi/L	Sample Act. Conc.	Sample Act. Error	Net Count Rate	Net Count Error	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	CPM	CPM	pCi/L	pCi/L						
1	119.8300	84.8010	250	175.2283	590.1237	0.107	3.040	0.323	61.7275	73.7752		SAMPLE				
2	119.9615	84.8939	250	175.4205	2735.6963	0.034	14.320	0.473	90.2889	210.8440		SAMPLE				
3	119.9696	84.7137	250	175.4616	242.6770	0.231	1.270	0.293	56.0369	58.5304		SAMPLE				
4	141.6279	99.9805	250	210.7853	35405.6614	0.013	185.490	1.898	362.2239	2492.3782		SAMPLE				
5	119.6866	84.4998	250	175.0185	274.4665	0.206	1.440	0.296	56.4739	59.6215		SAMPLE				
6	119.9660	84.6970	250	175.4271	1343.0582	0.055	7.030	0.383	73.1566	118.7507		SAMPLE				
7	119.9144	84.6606	250	175.3517	1059.8531	0.086	5.550	0.362	69.1314	101.1335		SAMPLE				
8	119.8685	84.5988	250	175.4308	180.4826	0.340	0.840	0.285	54.5327	55.6664		SAMPLE				
9	119.7399	84.5374	250	175.0865	186.8729	0.294	0.980	0.288	54.9189	56.4400		SAMPLE				
10	120.1075	84.7870	250	175.6341	6434.3937	0.021	33.640	0.653	124.9487	465.2324		SAMPLE				
11	120.1652	84.8376	250	175.7183	1037.1921	0.067	5.420	0.360	68.9134	98.8367		SAMPLE				
12	120.0547	84.7597	250	175.5588	1911.8796	0.043	10.000	0.422	80.6384	155.6712		SAMPLE				
13	119.8959	84.6475	250	175.3248	108.8330	0.492	0.570	0.280	53.5407	54.0746		SAMPLE				
14	120.1126	84.8005	250	175.6415	510.7179	0.119	2.670	0.317	60.7105	70.3634		SAMPLE				
15	120.1419	84.8212	250	175.6843	474.4905	0.127	2.490	0.314	60.1195	68.6037		SAMPLE				
16	120.3167	84.9446	250	175.9400	1232.0215	0.059	6.430	0.375	71.7729	111.8670		SAMPLE				
17	119.9798	84.7068	250	175.4473	166.6764	0.348	0.820	0.285	54.4674	55.5497		SAMPLE				
18	119.8887	84.6425	250	175.3141	1624.7600	0.048	8.510	0.403	76.8952	136.8144		SAMPLE				
19	120.0827	84.7794	250	175.5978	246.6900	0.228	1.290	0.294	56.1490	58.7189		SAMPLE				
20	119.3945	84.2836	250	174.5915	-19.0137	2.675	-0.100	0.268	50.8696	50.8696		SAMPLE				
21	145.8371	102.9622	250	217.7030	38644.5445	0.013	202.110	2.063	394.5168	2720.2567		MB				
22	228.7214	161.4793	250	361.0022	5634.2672	0.051	29.620	1.497	284.7552	484.8435	247911004.1	DUP	8.7%	0.3107	5535.9403	101.8%
											LCS					

PAGE: 1

## ID: TRITIUM

13 MAR 2010 06:41

USER:13

COMMENT: BROWN

PRESET TIME : 95.00

DATA CALC : CPM H# : YES SAMPLE REPEATS: 1 PRINTER : STD

COUNT BLANK : NO IC# : NO REPLICATES : 1 RS232 : EDIT

TWO PHASE : NO AQC : NO CYCLE REPEATS : 1 DISK : OFF

SCINTILLATOR: LIQUID LUMEX: YES LOW SAMPLE REJ: 0

LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

CHAN: 0.0 - 240.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

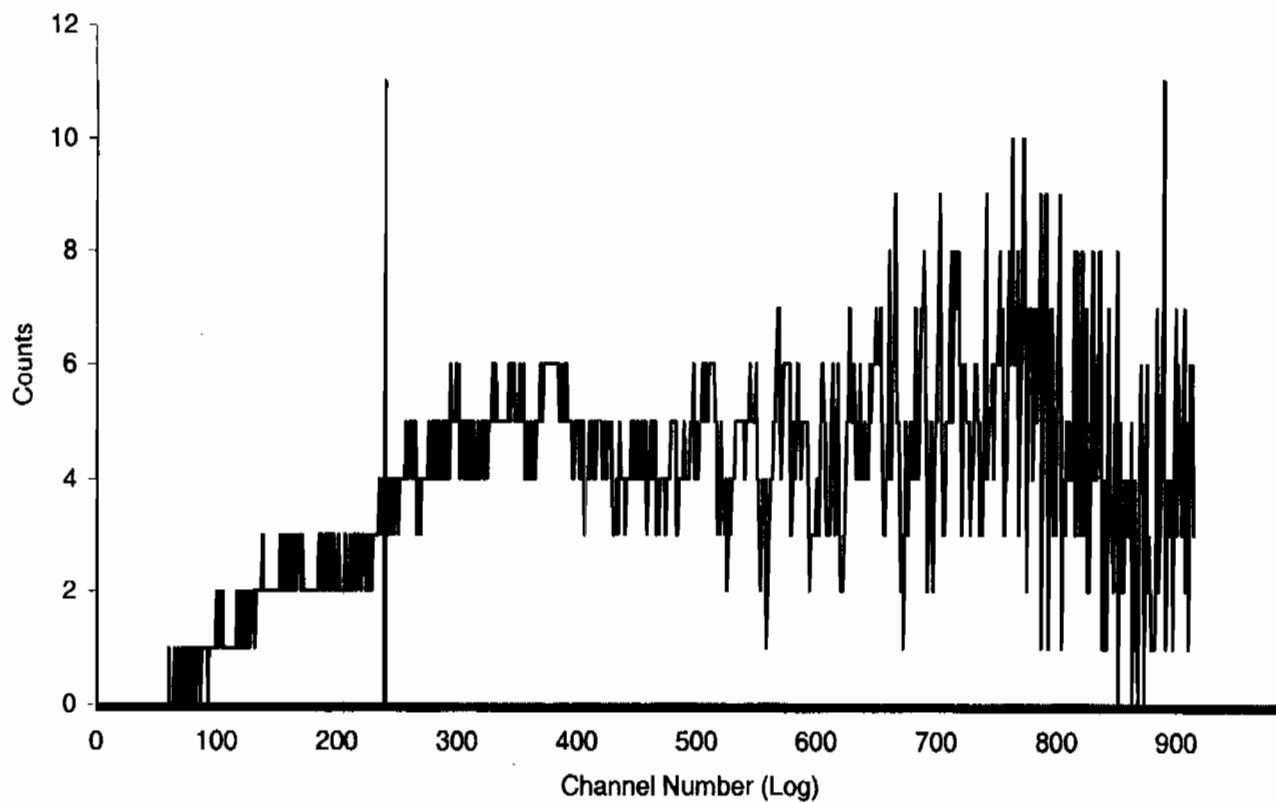
CHAN: 0.0 - 900.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1		LUMEX %	ELAPSED TIME
				CPM	%ERROR		
1	22-1	95.00	108.7	3.45	11.34	0.46	97.52
2	22-2	95.00	109.4	6.49	8.17	0.42	195.56
3	22-3	95.00	109.9	17.77	4.89	0.32	293.58
4	22-4	95.00	110.0	4.72	9.71	0.59	391.66
5	22-5	53.00	109.5	188.94	2.00	0.10	446.79
6	22-6	95.00	108.8	4.89	9.63	0.84	544.96
7	22-7	95.00	109.9	10.48	6.44	0.64	643.10
8	22-8	95.00	109.7	9.00	6.93	0.49	741.16
9	22-9	95.00	109.9	4.29	10.13	0.46	839.19
10	22-10	95.00	109.0	4.43	9.97	0.49	937.24
11	22-11	95.00	110.4	37.09	3.38	0.25	1035.28
12	22-12	95.00	110.6	8.87	6.96	0.39	1133.30
13	35-1	95.00	110.2	13.45	5.63	0.33	1231.41
14	35-2	95.00	109.6	4.02	10.43	0.37	1329.40
15	35-3	95.00	110.4	6.12	8.40	0.37	1427.40
16	35-4	95.00	110.5	5.93	8.53	0.34	1525.41
17	35-5	95.00	111.1	9.88	6.57	0.30	1623.41
18	35-6	95.00	109.9	4.27	10.06	0.32	1721.38
19	35-7	95.00	109.9	11.96	5.97	0.26	1819.38
20	35-8	95.00	110.6	4.74	9.57	0.35	1917.39
21	35-9	95.00	109.0	3.35	11.41	0.32	2015.36
22	35-10	48.70	110.2	205.56	2.00	0.08	2066.07

Sample Count Start Time:	13 Mar 2010 06:33:16		
Data Capture Date	13 Mar 2010 08:08:25		
User Filename	S13031322-1A.XLS		
	U13031322-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	22-1	95.00
H#, Total Counts:	108.7	3466	
Win1: Tritium - Start, End, Counts:	0	240	332
Win2: - Start, End, Counts:	0	990	3466

# SPECTRUM PLOT

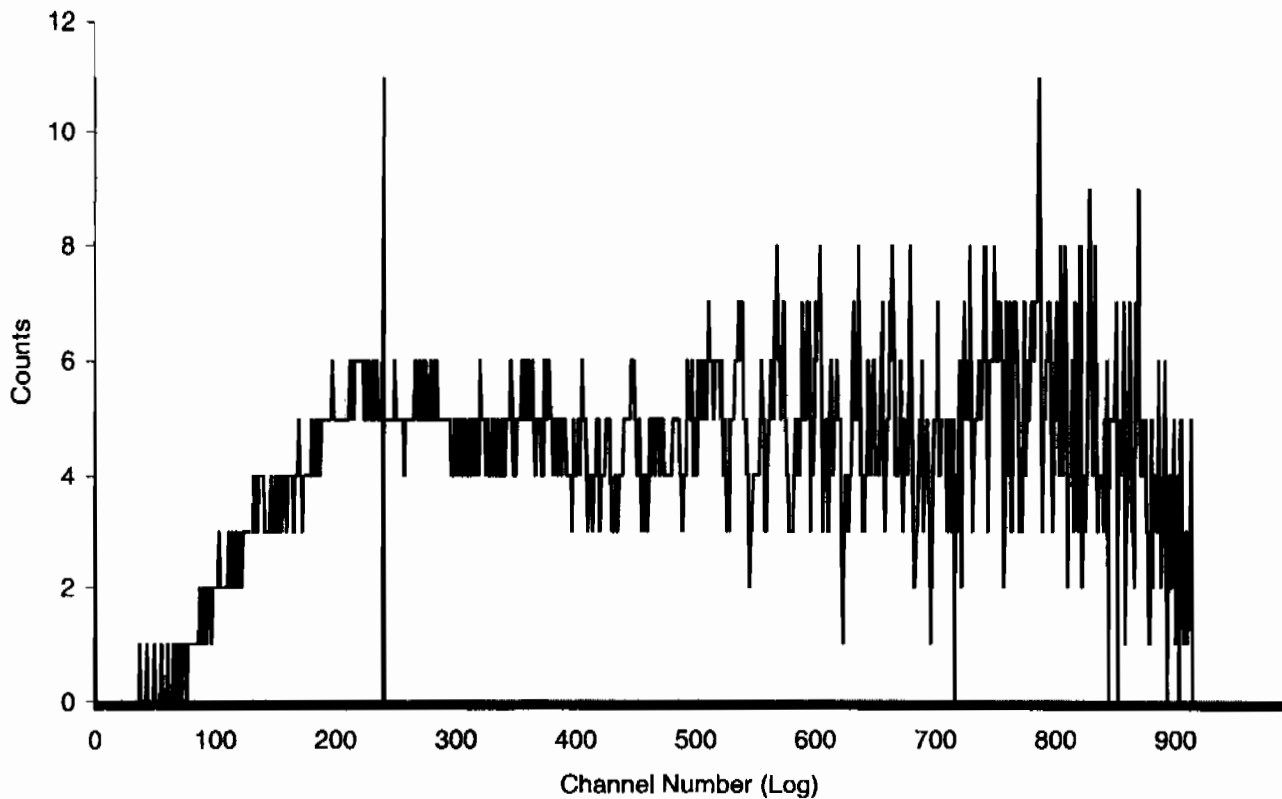
USER 13 - TRITIUM



Sample Count Start Time:	13 Mar 2010 08:11:19		
Data Capture Date	13 Mar 2010 09:46:27		
User Filename	S13031322-2A.XLS		
	U13031322-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	22-2	95.00
H#, Total Counts:	109.4	3814	
Win1: Tritium - Start, End, Counts:	0	240	622
Win2: - Start, End, Counts:	0	990	3814

### SPECTRUM PLOT

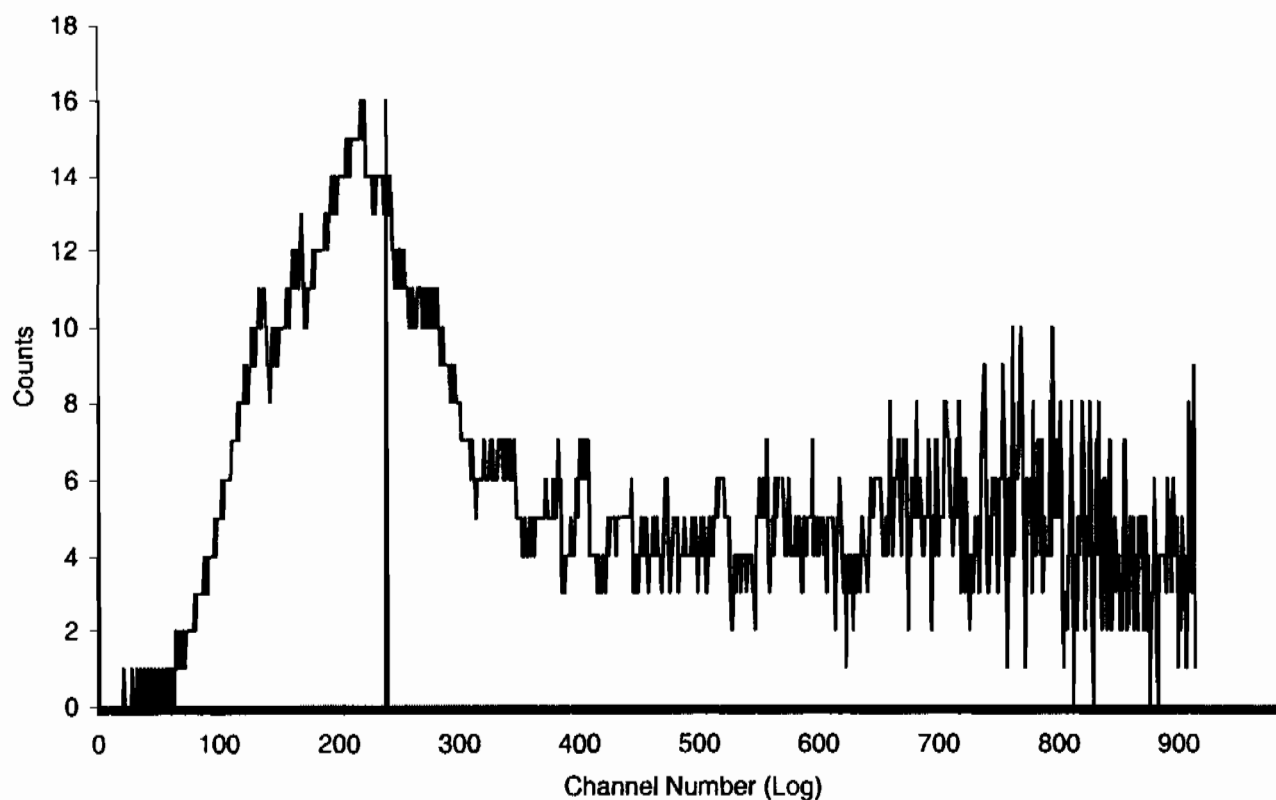
USER 13 - TRITIUM



Sample Count Start Time:	13 Mar 2010 09:49:20		
Data Capture Date	13 Mar 2010 11:24:29		
User Filename	S13031322-3A.XLS		
	U13031322-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	22-3	95.00
H#, Total Counts:	109.9	5252	
Win1: Tritium - Start, End, Counts:	0	240	1701
Win2: - Start, End, Counts:	0	990	5252

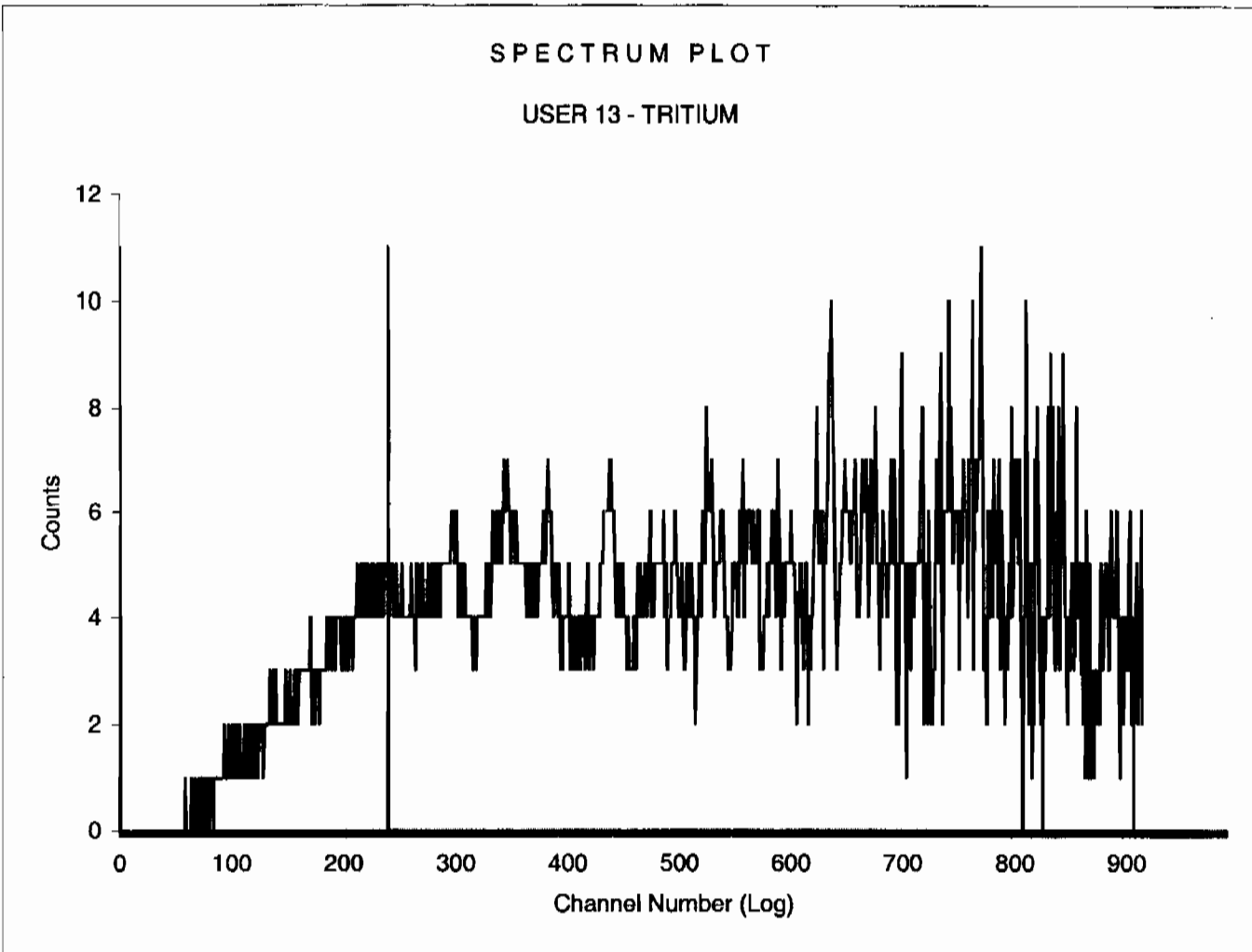
# SPECTRUM PLOT

USER 13 - TRITIUM





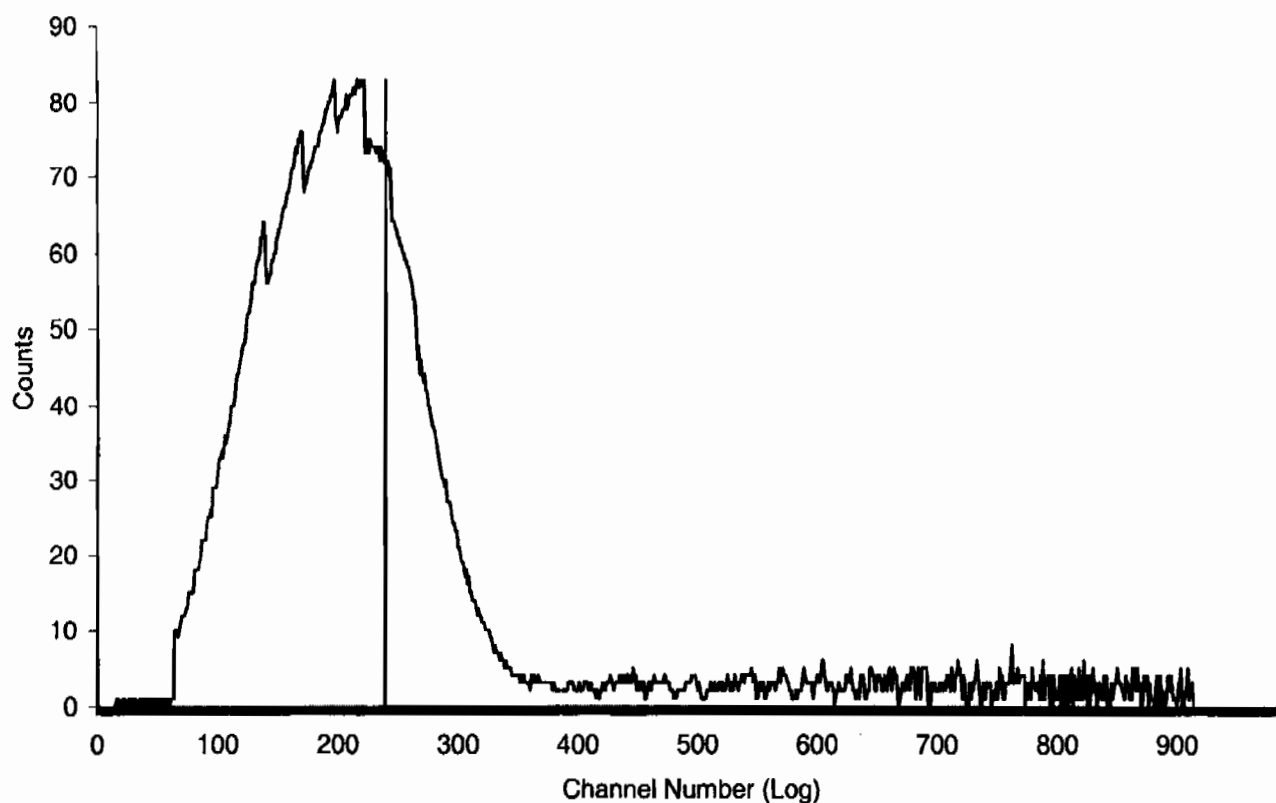
Sample Count Start Time:	13 Mar 2010 11:27:25		
Data Capture Date	13 Mar 2010 13:02:34		
User Filename	S13031322-4A.XLS		
	U13031322-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	22-4	95.00
H#, Total Counts:	110.0	3661	
Win1: Tritium - Start, End, Counts:	0	240	452
Win2: - Start, End, Counts:	0	990	3661



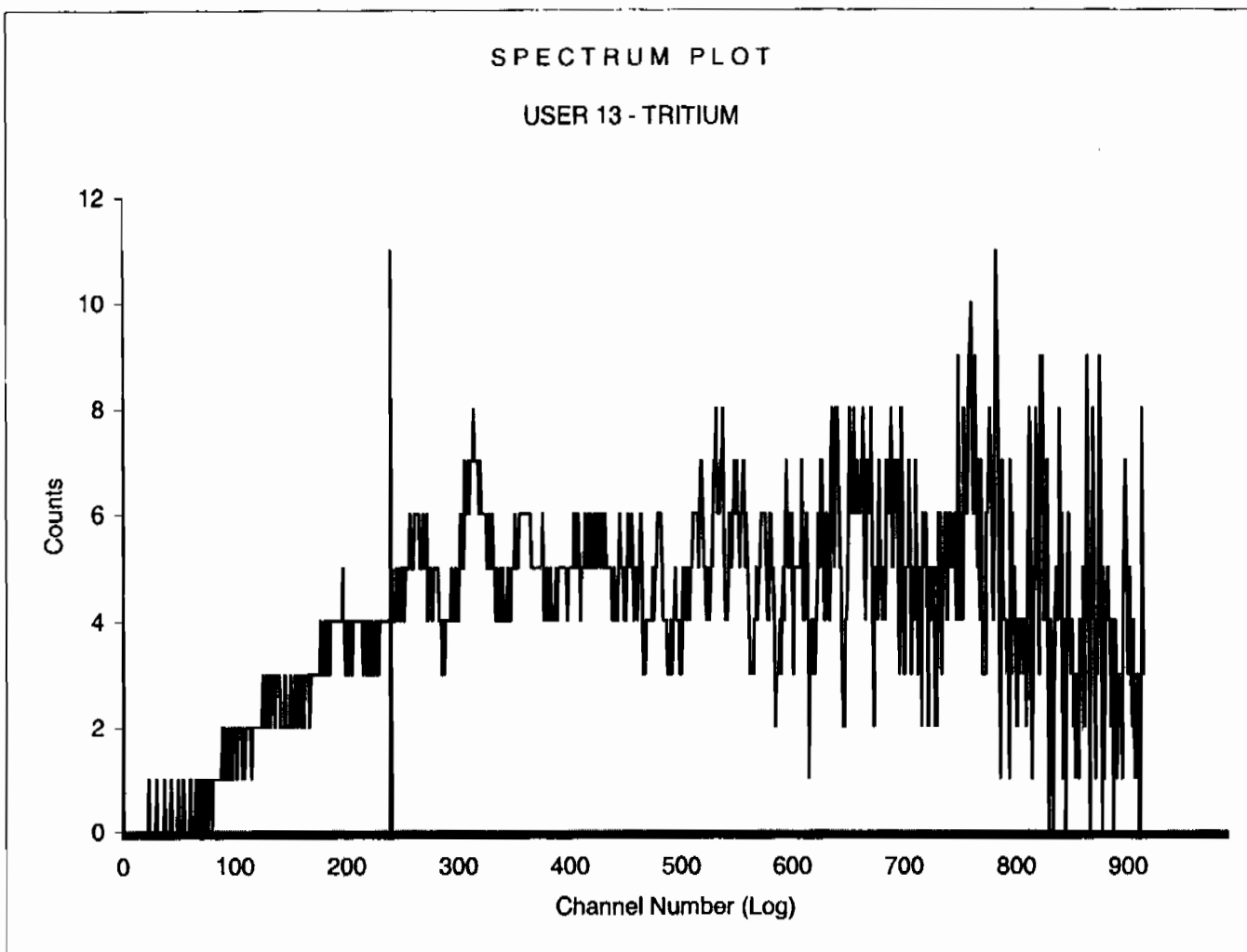
Sample Count Start Time:	13 Mar 2010 13:04:32		
Data Capture Date	13 Mar 2010 13:57:41		
User Filename	S13031322-5A.XLS		
	U13031322-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	22-5	53.00
H#, Total Counts:	109.5	14696	
Win1: Tritium - Start, End, Counts:	0	240	10022
Win2: - Start, End, Counts:	0	990	14696

# SPECTRUM PLOT

USER 13 - TRITIUM



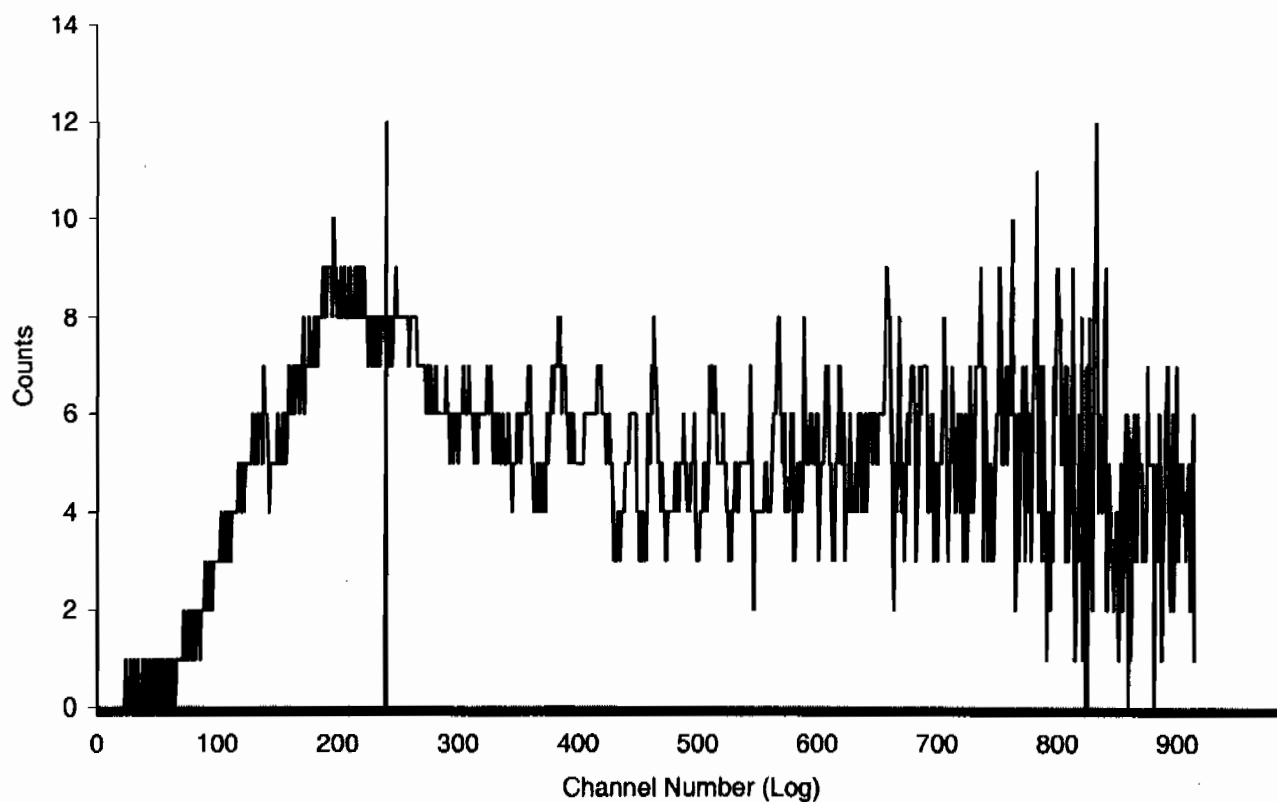
Sample Count Start Time:	13 Mar 2010 14:00:43		
Data Capture Date	13 Mar 2010 15:35:52		
User Filename	S13031322-6A.XLS		
	U13031322-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	22-6	95.00
H#, Total Counts:	108.8	3761	
Win1: Tritium - Start, End, Counts:	0	240	470
Win2: - Start, End, Counts:	0	990	3761



Sample Count Start Time:	13 Mar 2010 15:38:51		
Data Capture Date	13 Mar 2010 17:14:00		
User Filename	S13031322-7A.XLS		
	U13031322-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	22-7	95.00
H#, Total Counts:	109.9	4559	
Win1: Tritium - Start, End, Counts:	0	240	1003
Win2: - Start, End, Counts:	0	990	4558

### SPECTRUM PLOT

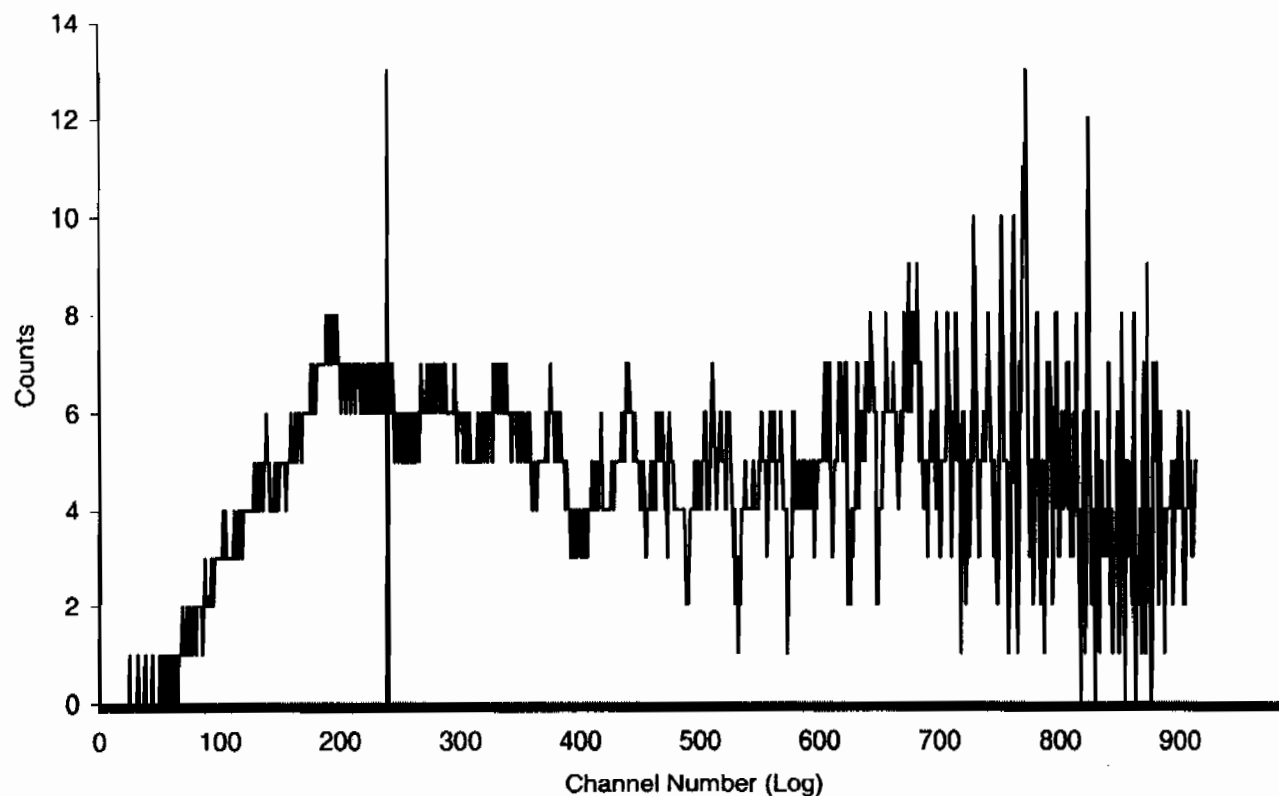
USER 13 - TRITIUM



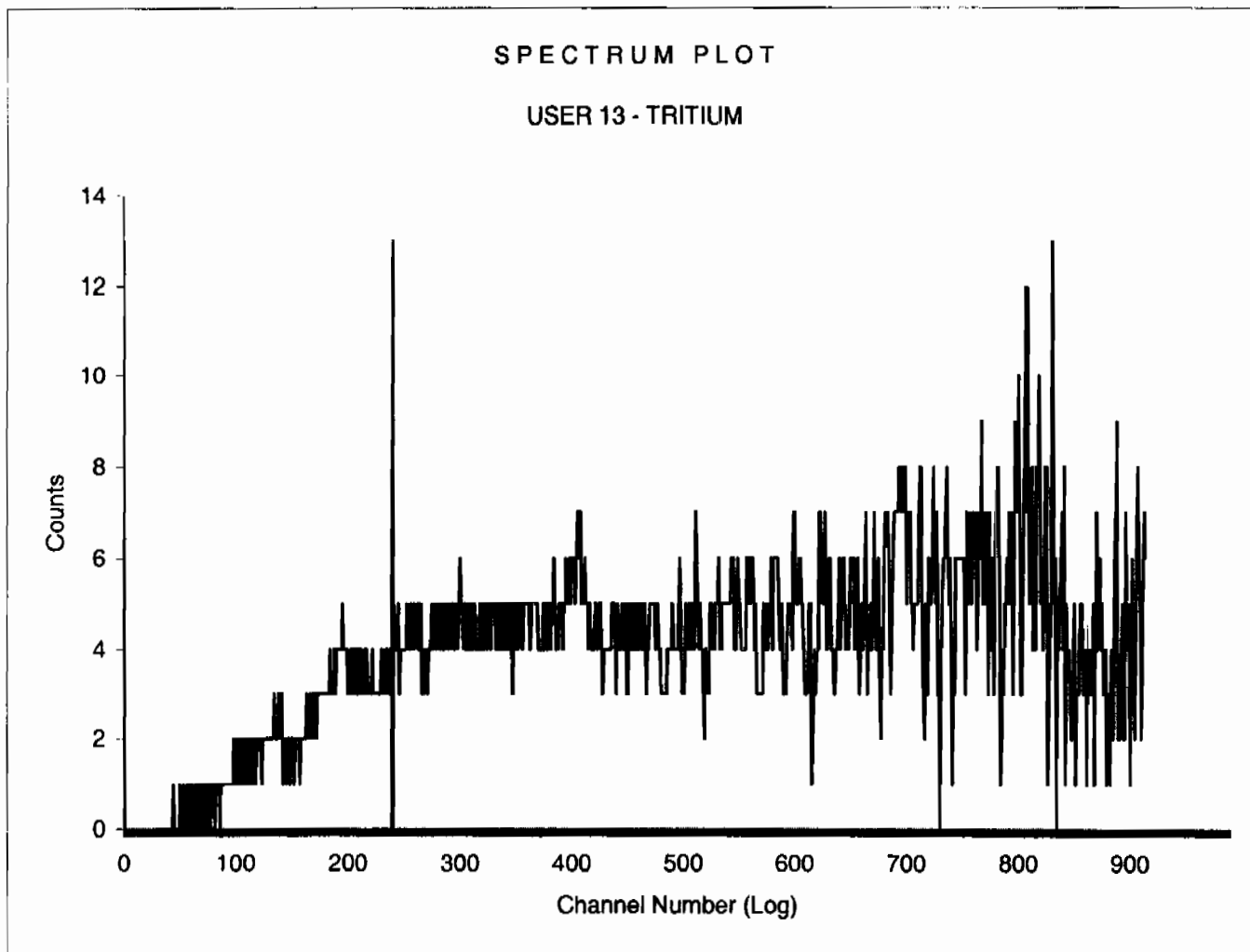
Sample Count Start Time:	13 Mar 2010 17:16:55		
Data Capture Date	13 Mar 2010 18:52:05		
User Filename	S13031322-8A.XLS		
	U13031322-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	22-8	95.00
H#, Total Counts:	109.7	4209	
Win1: Tritium - Start, End, Counts:	0	240	862
Win2: - Start, End, Counts:	0	990	4209

# SPECTRUM PLOT

USER 13 - TRITIUM



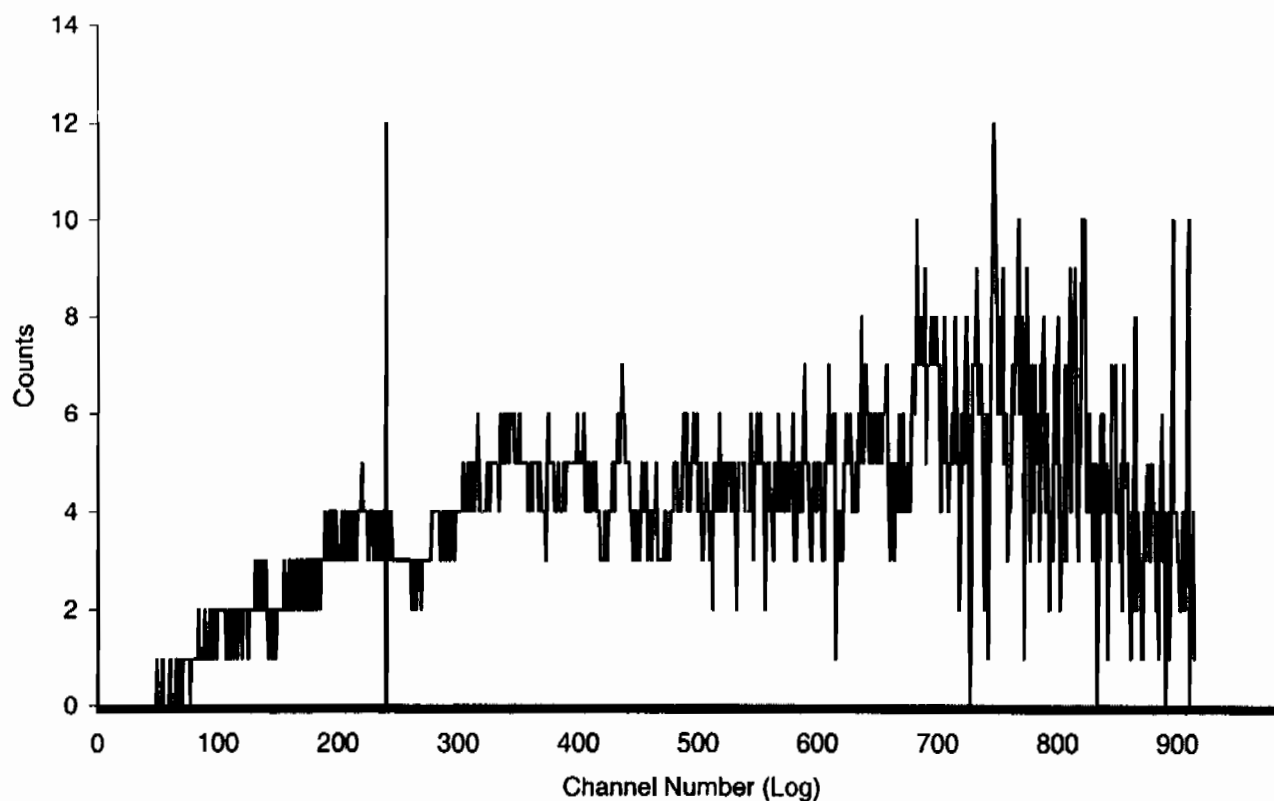
Sample Count Start Time:	13 Mar 2010 18:54:56		
Data Capture Date	13 Mar 2010 20:30:07		
User Filename	S13031322-9A.XLS		
	U13031322-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	9	22-9	95.00
H#, Total Counts:	109.9	3625	
Win1: Tritium - Start, End, Counts:	0	240	413
Win2: - Start, End, Counts:	0	990	3625



Sample Count Start Time:	13 Mar 2010 20:32:59		
Data Capture Date	13 Mar 2010 22:08:09		
User Filename	S13031322-10A.XLS		
	U13031322-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	10	22-10	95.00
H#, Total Counts:	109.0	3593	
Win1: Tritium - Start, End, Counts:	0	240	424
Win2: - Start, End, Counts:	0	990	3593

# SPECTRUM PLOT

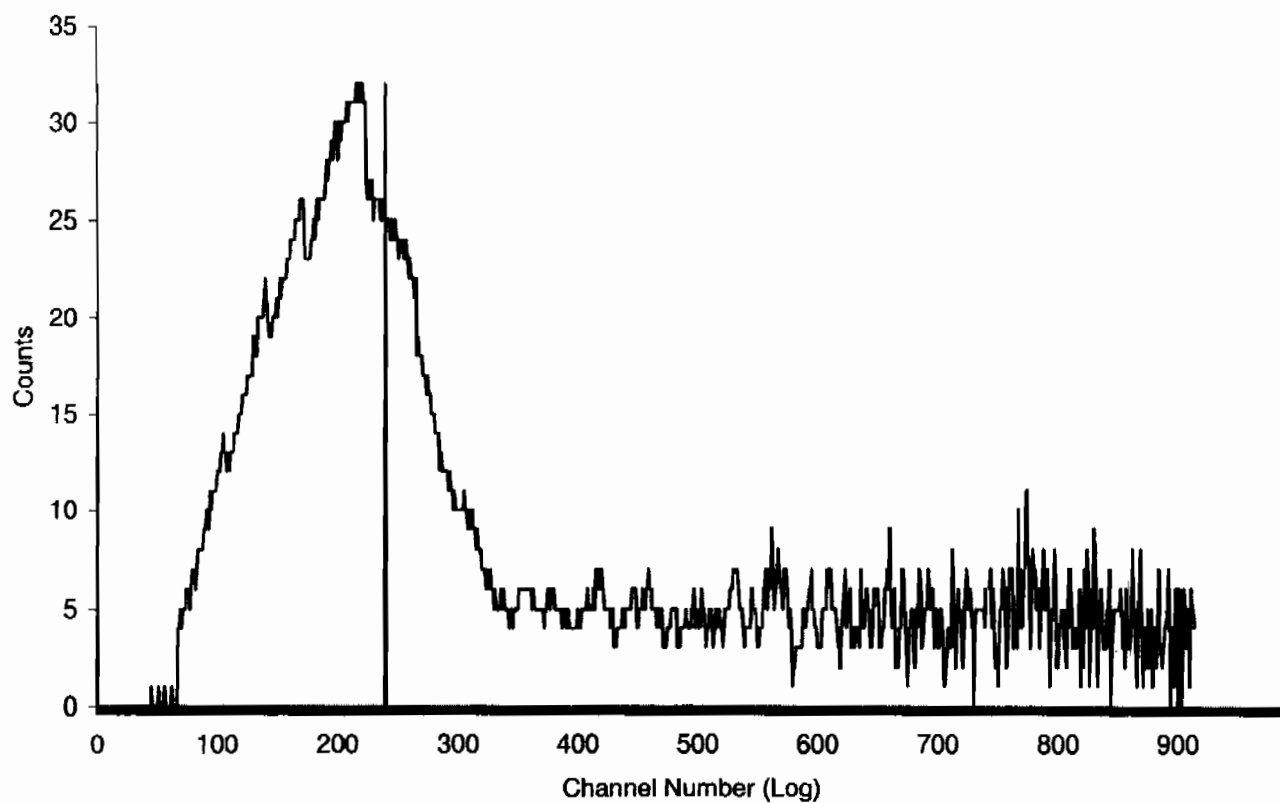
USER 13 - TRITIUM



Sample Count Start Time:	13 Mar 2010 22:11:02		
Data Capture Date	13 Mar 2010 23:46:12		
User Filename	S13031322-11A.XLS		
	U13031322-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	11	22-11	95.00
H#, Total Counts:	110.4	7574	
Win1: Tritium - Start, End, Counts:	0	240	3515
Win2: - Start, End, Counts:	0	990	7572

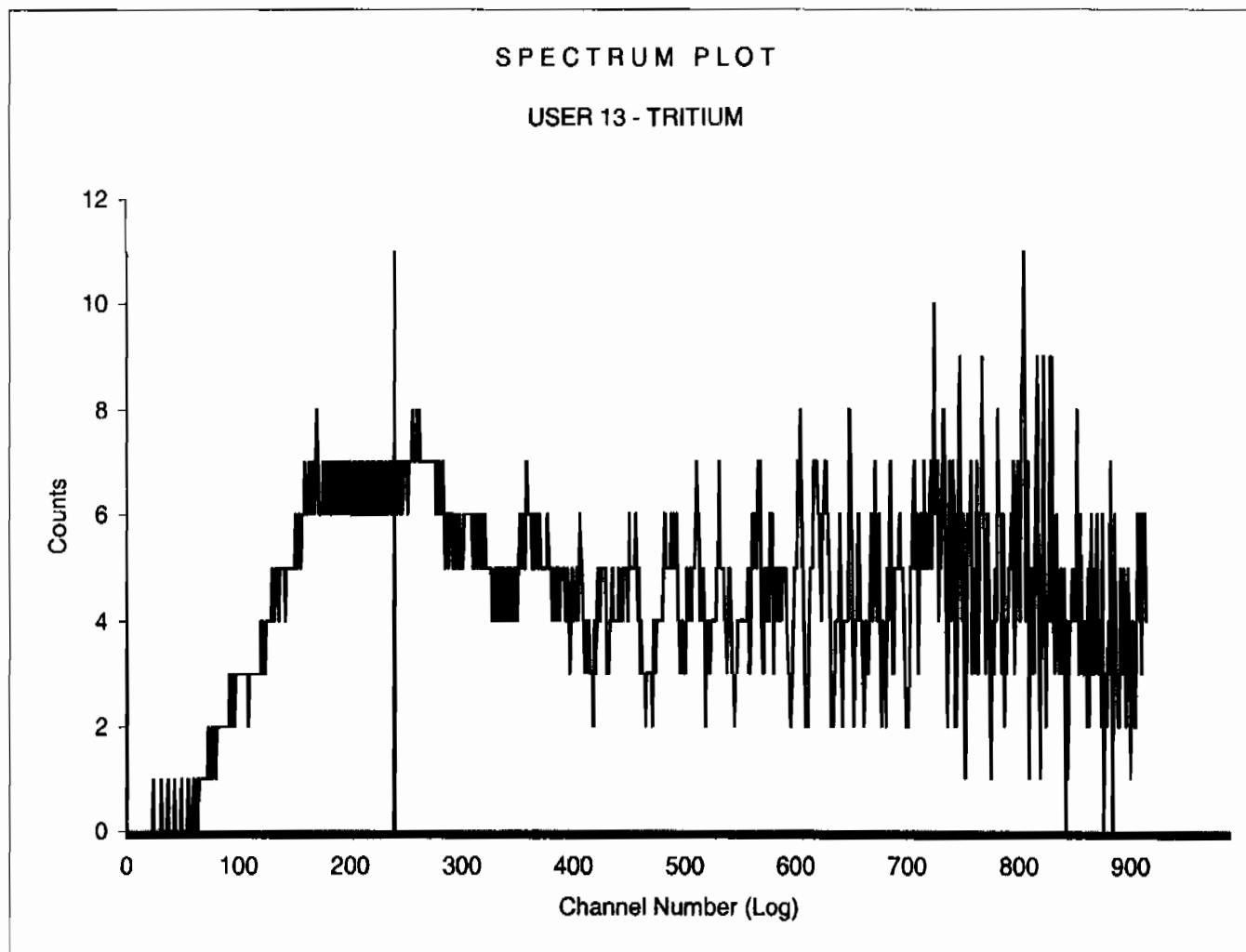
# SPECTRUM PLOT

USER 13 - TRITIUM





Sample Count Start Time:	13 Mar 2010 23:49:03		
Data Capture Date	14 Mar 2010 01:24:13		
User Filename	S13031422-12A.XLS		
	U13031322-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	12	22-12	95.00
H#, Total Counts:	110.6	4036	
Win1: Tritium - Start, End, Counts:	0	240	850
Win2: - Start, End, Counts:	0	990	4036

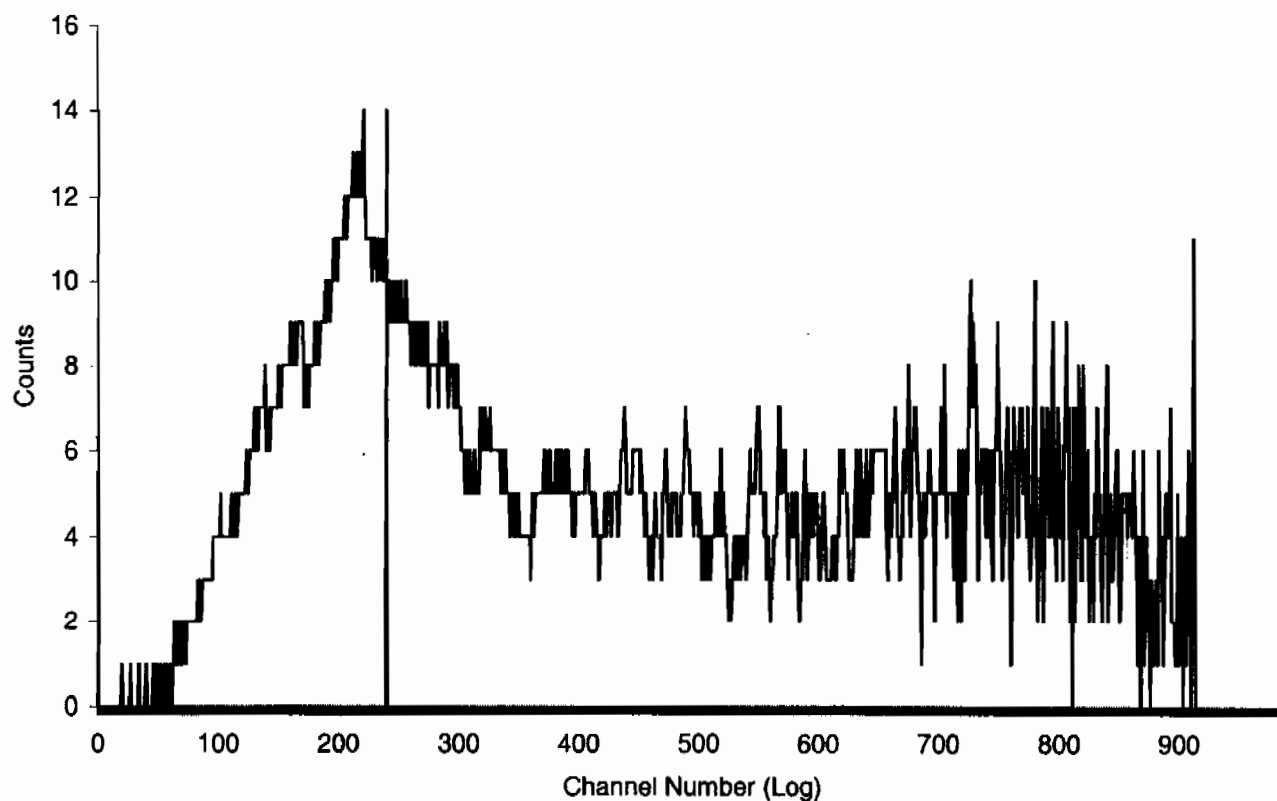


Sample Count Start Time: 14 Mar 2010 02:26:56  
Data Capture Date 14 Mar 2010 04:02:20  
User Filename S13031435-1A.XLS

Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	13	35-1	95.00
H#, Total Counts:	110.2	4684	
Win1: Tritium - Start, End, Counts:	0	240	1287
Win2: - Start, End, Counts:	0	990	4683

### SPECTRUM PLOT

USER 13 - TRITIUM

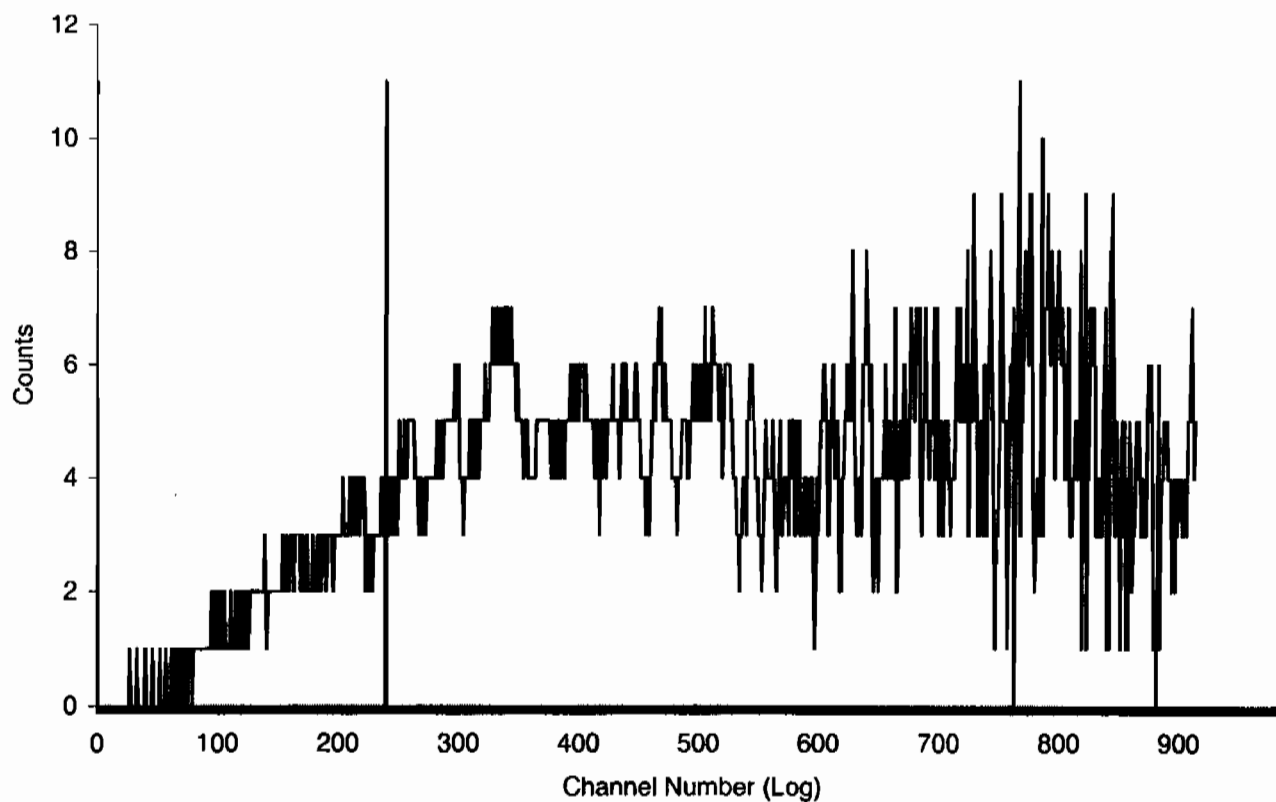


Sample Count Start Time: 14 Mar 2010 04:04:55  
Data Capture Date 14 Mar 2010 05:40:19  
User Filename S13031435-2A.XLS

Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	14	35-2	95.00
H#, Total Counts:	109.6	3557	
Win1: Tritium - Start, End, Counts:	0	240	385
Win2: - Start, End, Counts:	0	990	3557

### SPECTRUM PLOT

USER 13 - TRITIUM

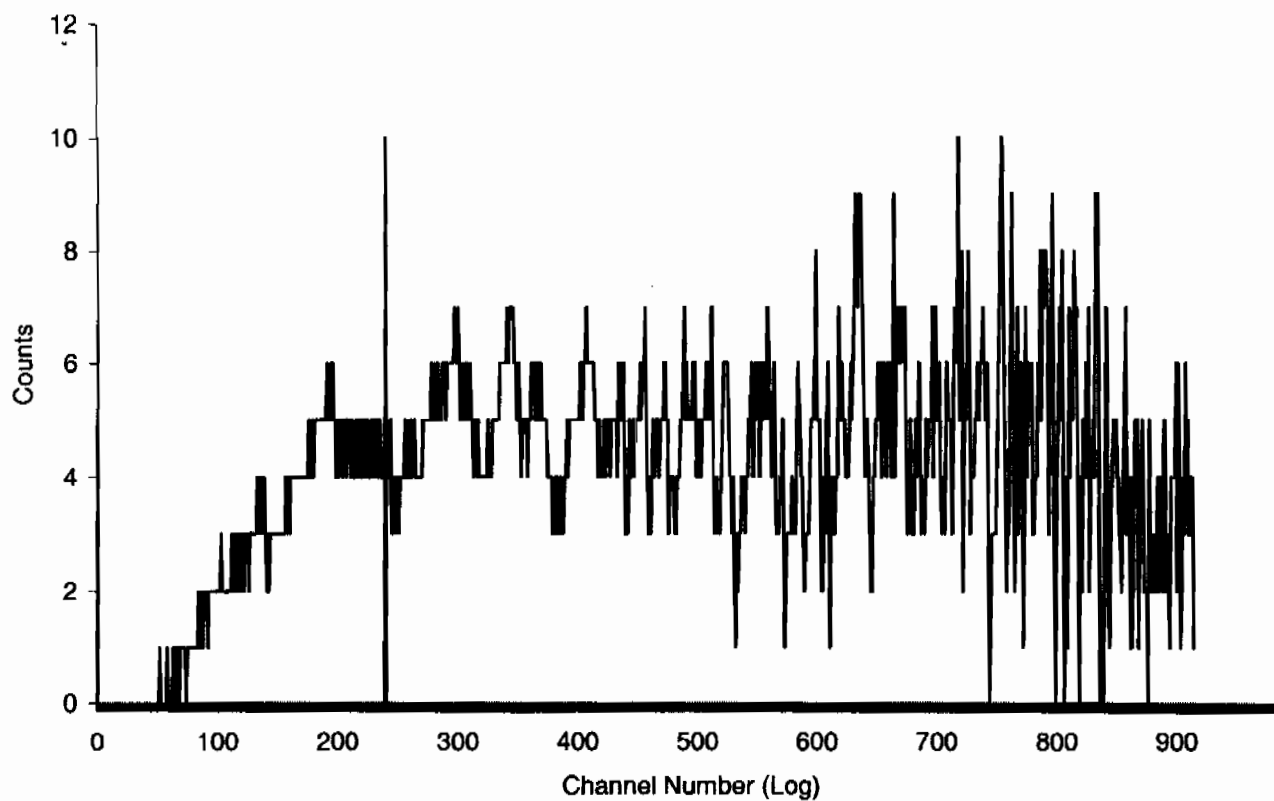


Sample Count Start Time: 14 Mar 2010 05:42:56  
Data Capture Date 14 Mar 2010 07:18:20  
User Filename S13031435-3A.XLS

Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	15	35-3	95.00
H#, Total Counts:	110.4	3727	
Win1: Tritium - Start, End, Counts:	0	240	586
Win2: - Start, End, Counts:	0	990	3727

### SPECTRUM PLOT

USER 13 - TRITIUM

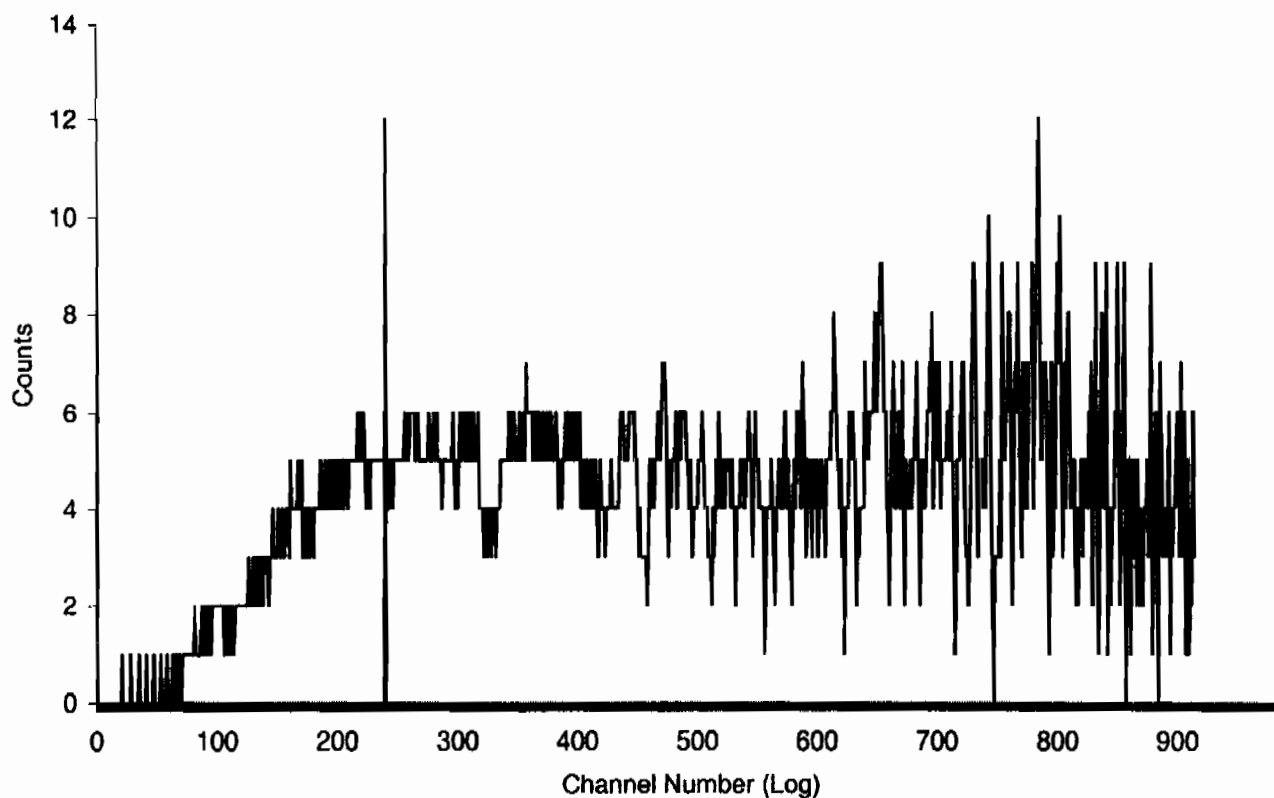


Sample Count Start Time: 14 Mar 2010 07:20:56  
Data Capture Date 14 Mar 2010 08:56:20  
User Filename S13031435-4A.XLS

Spectrum Type	Log Counts
User Number	13
User Id	TRITIUM
User Comment	BROWN
Scintillator	LIQUID
Sample, Rack-Pos, Time:	16 35-4 95.00
H#, Total Counts:	110.5 3826
Win1: Tritium - Start, End, Counts:	0 240 568
Win2: - Start, End, Counts:	0 990 3826

### SPECTRUM PLOT

USER 13 - TRITIUM

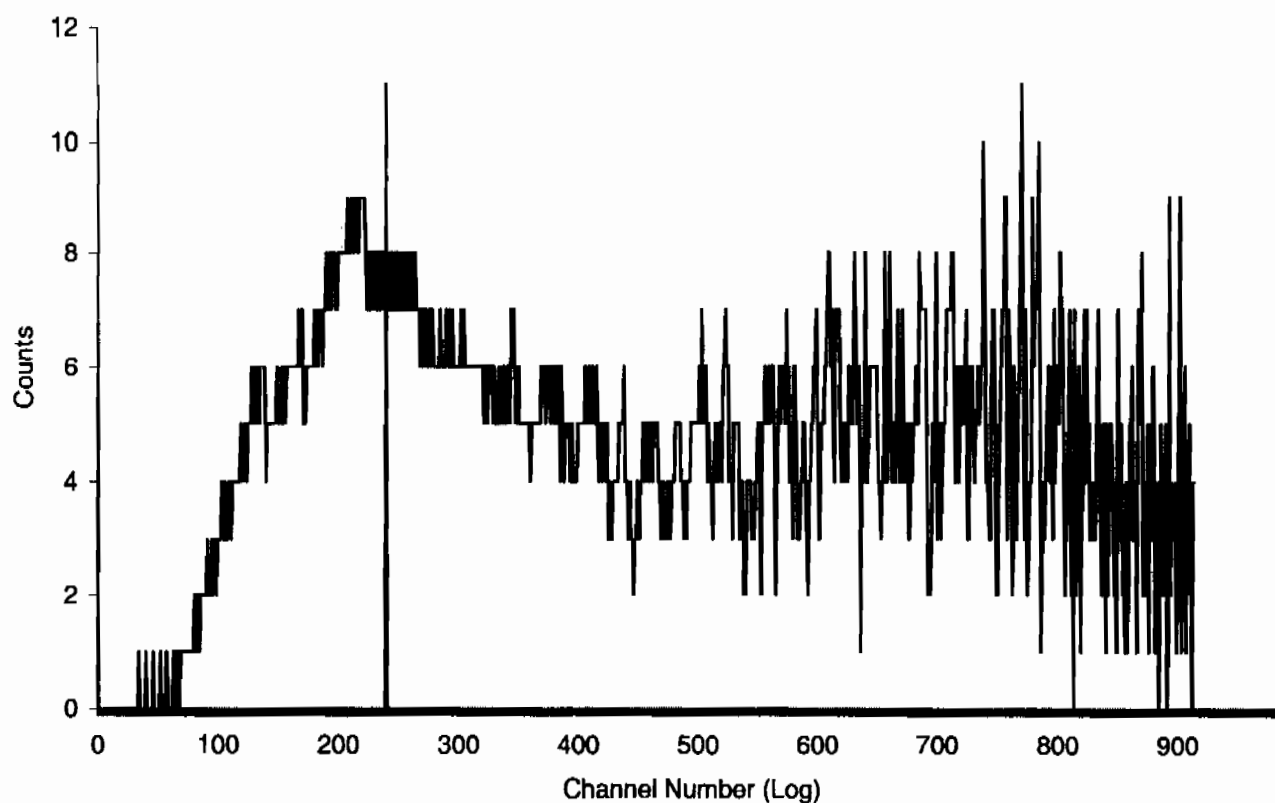


Sample Count Start Time: 14 Mar 2010 08:58:56  
Data Capture Date 14 Mar 2010 10:34:20  
User Filename S13031435-5A.XLS

Spectrum Type	Log Counts
User Number	13
User Id	TRITIUM
User Comment	BROWN
Scintillator	LIQUID
Sample, Rack-Pos, Time:	17 35-5 95.00
H#, Total Counts:	111.1 4279
Win1: Tritium - Start, End, Counts:	0 240 946
Win2: - Start, End, Counts:	0 990 4279

### SPECTRUM PLOT

USER 13 - TRITIUM

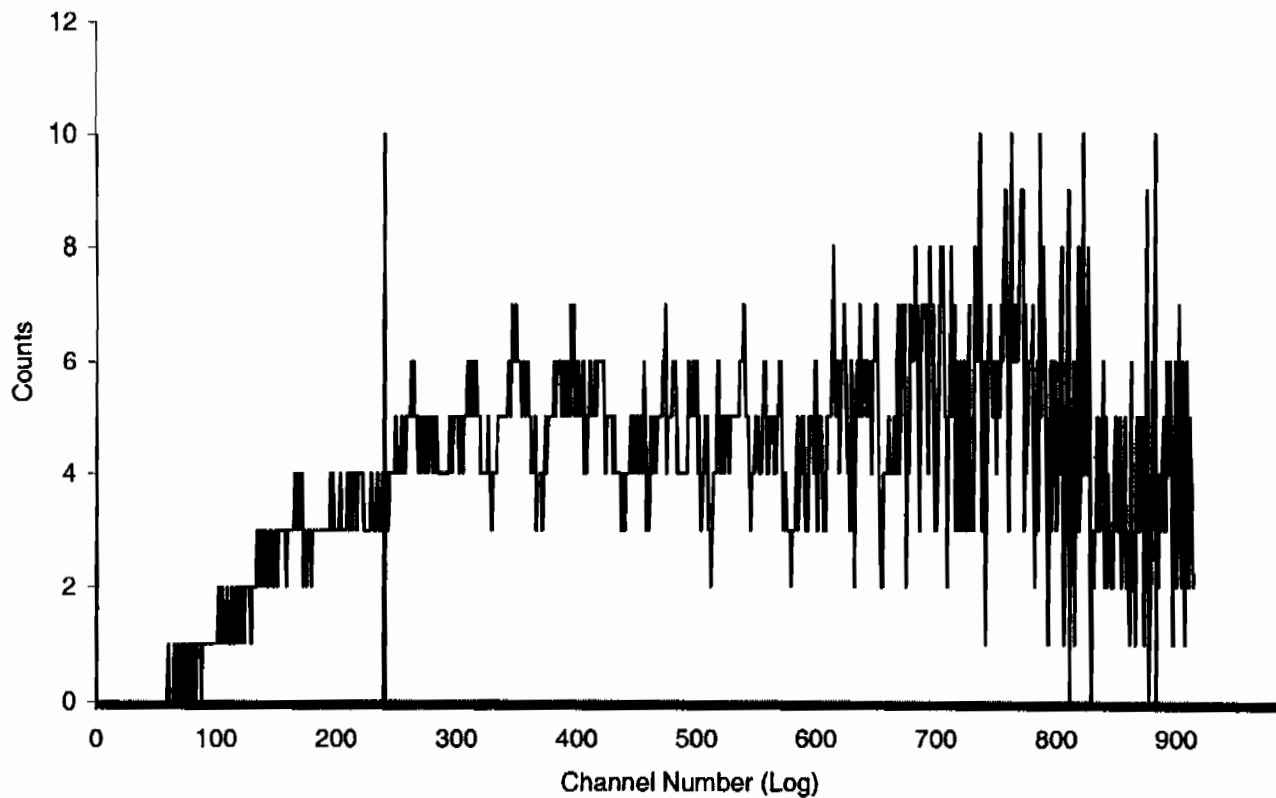


Sample Count Start Time: 14 Mar 2010 10:36:55  
Data Capture Date 14 Mar 2010 12:12:19  
User Filename S13031435-6A.XLS

Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	18	35-6	95.00
H#, Total Counts:	109.9	3627	
Win1: Tritium - Start, End, Counts:	0	240	410
Win2: - Start, End, Counts:	0	990	3627

### SPECTRUM PLOT

USER 13 - TRITIUM

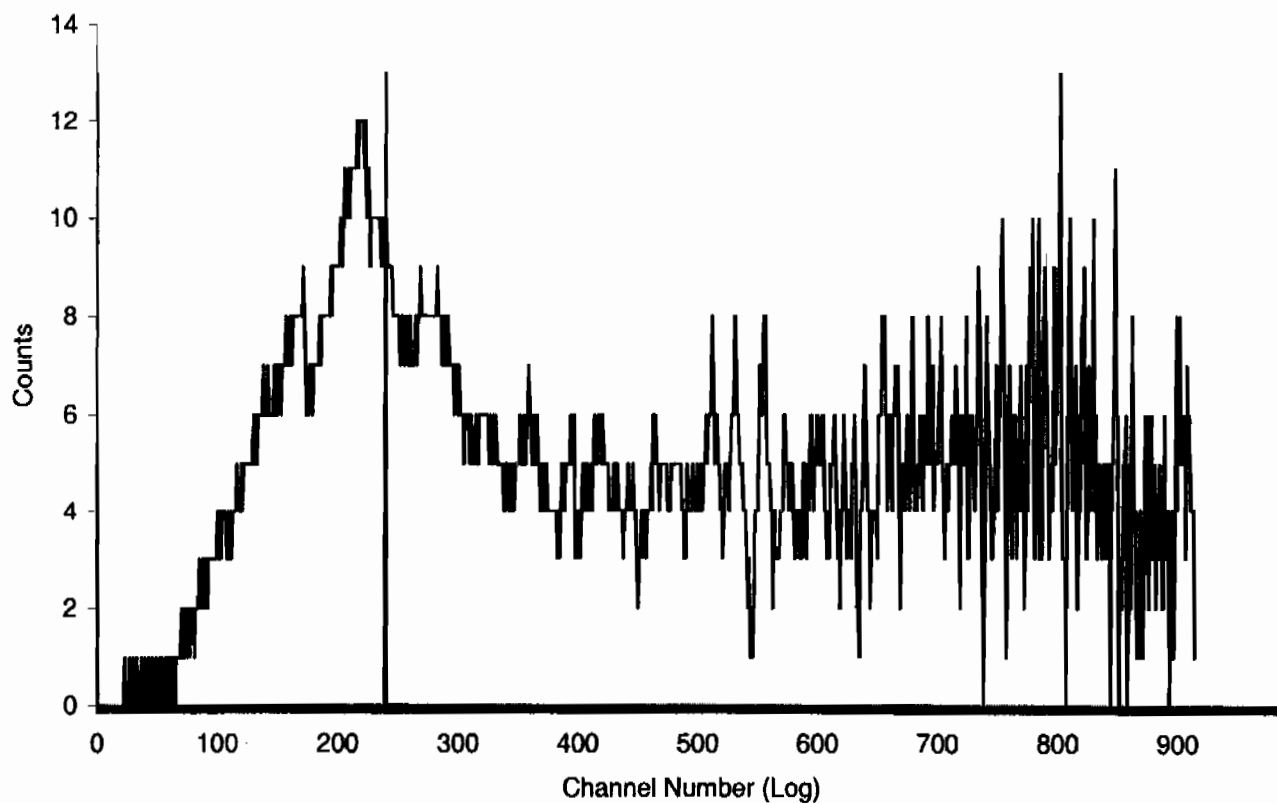


Sample Count Start Time: 14 Mar 2010 12:14:55  
Data Capture Date 14 Mar 2010 13:50:19  
User Filename S13031435-7A.XLS

Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	19	35-7	95.00
H#, Total Counts:	109.9	4540	
Win1: Tritium - Start, End, Counts:	0	240	1146
Win2: - Start, End, Counts:	0	990	4540

### SPECTRUM PLOT

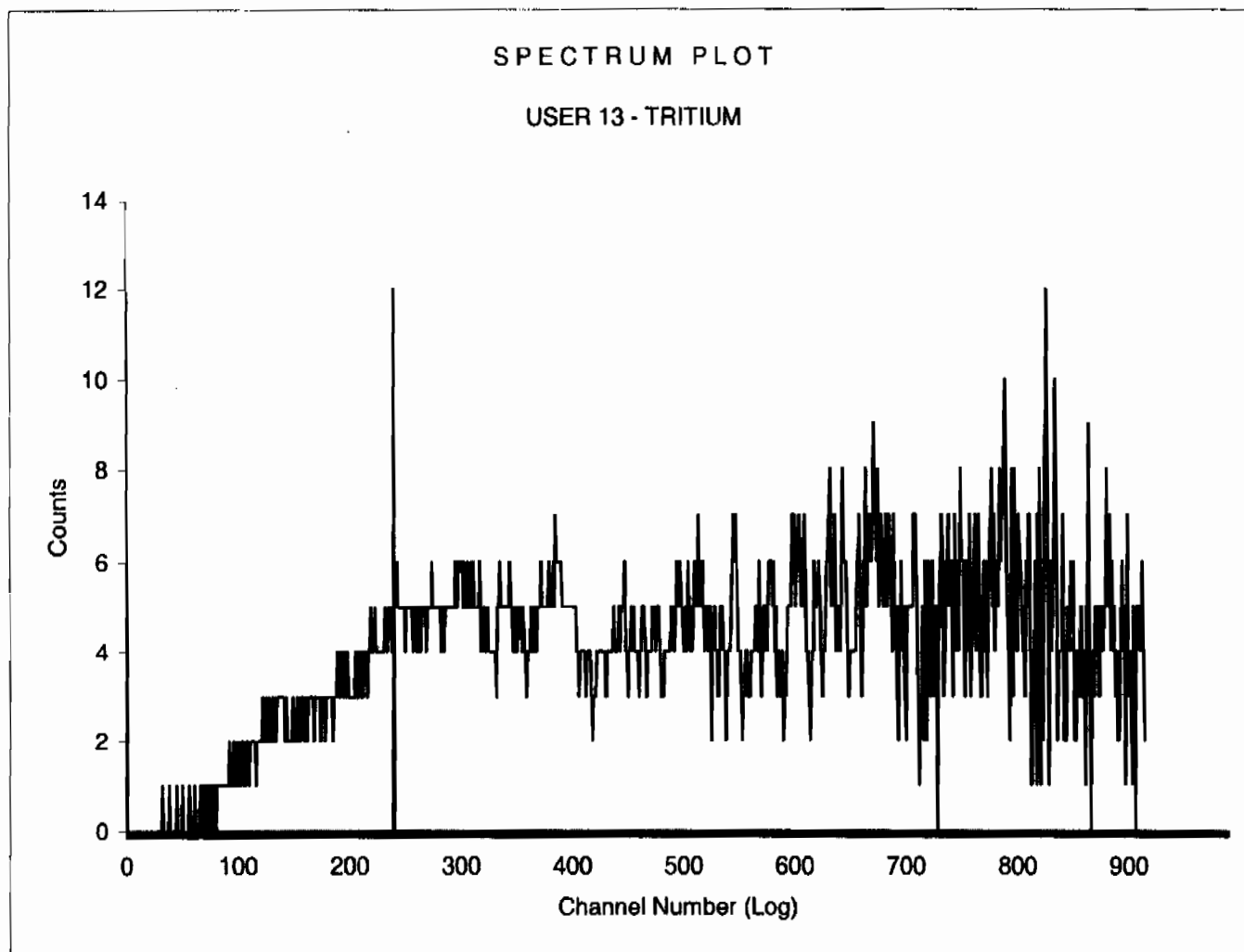
USER 13 - TRITIUM





Sample Count Start Time: 14 Mar 2010 13:52:55  
Data Capture Date 14 Mar 2010 15:28:19  
User Filename S13031435-8A.XLS

Spectrum Type	Log Counts
User Number	13
User Id	TRITIUM
User Comment	BROWN
Scintillator	LIQUID
Sample, Rack-Pos, Time:	20 35-8 95.00
H#, Total Counts:	110.6 3648
Win1: Tritium - Start, End, Counts:	0 240 456
Win2: - Start, End, Counts:	0 990 3648

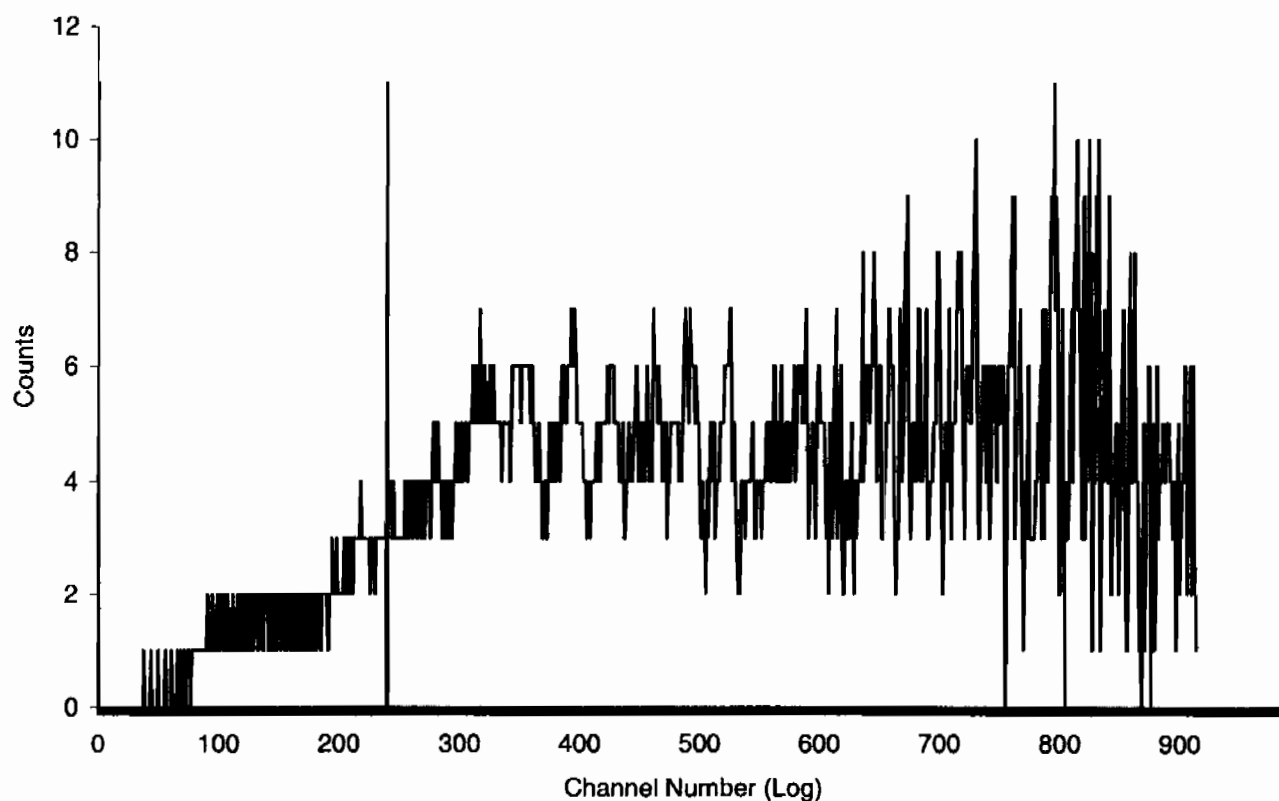


Sample Count Start Time: 14 Mar 2010 15:30:54  
Data Capture Date 14 Mar 2010 17:06:18  
User Filename S13031435-9A.XLS

Spectrum Type	Log Counts
User Number	13
User Id	TRITIUM
User Comment	BROWN
Scintillator	LIQUID
Sample, Rack-Pos, Time:	21 35-9 95.00
H#, Total Counts:	109.0 3496
Win1: Tritium - Start, End, Counts:	0 240 320
Win2: - Start, End, Counts:	0 990 3494

### SPECTRUM PLOT

USER 13 - TRITIUM

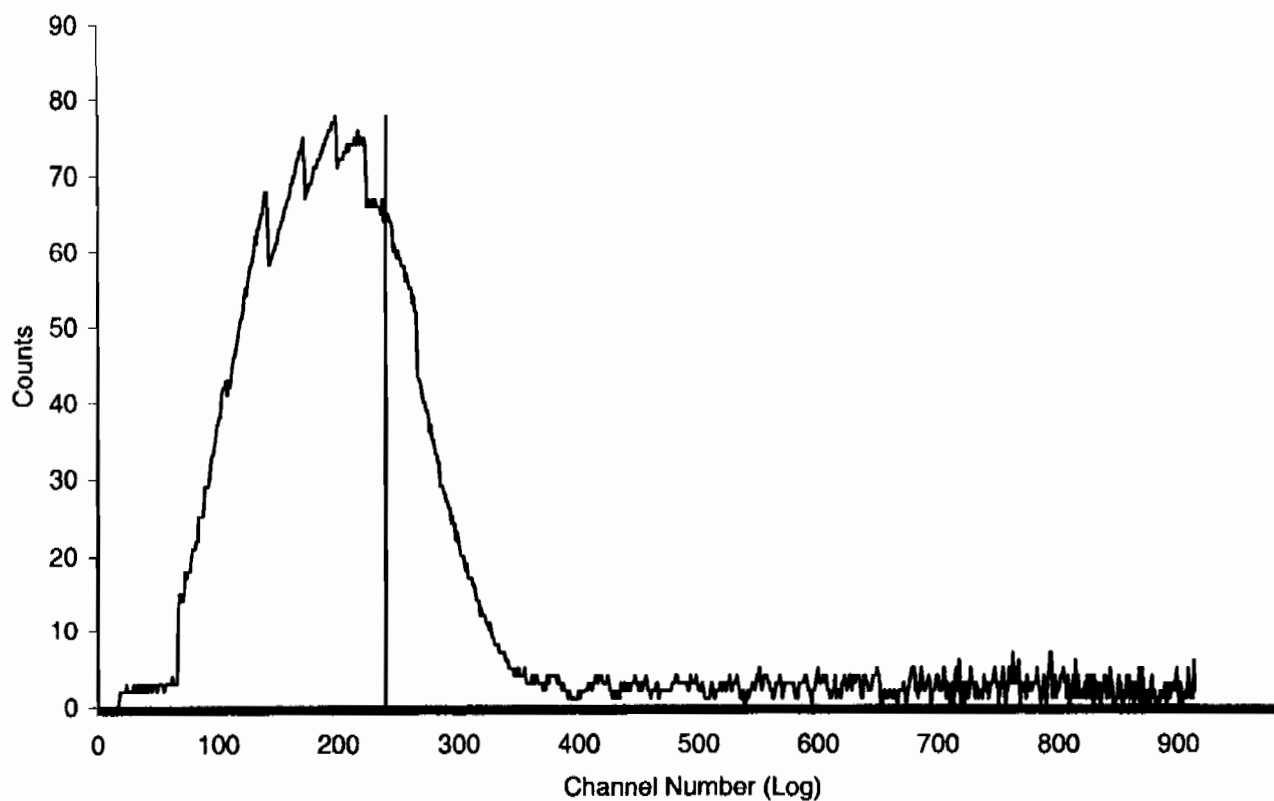


Sample Count Start Time: 14 Mar 2010 17:07:55  
Data Capture Date 14 Mar 2010 17:57:01  
User Filename S13031435-10A.XLS

Spectrum Type	Log Counts
User Number	13
User Id	TRITIUM
User Comment	BROWN
Scintillator	LIQUID
Sample, Rack-Pos, Time:	22 35-10 48.70
H#, Total Counts:	110.2 14565
Win1: Tritium - Start, End, Counts:	0 240 10073
Win2: - Start, End, Counts:	0 990 14563

### SPECTRUM PLOT

USER 13 - TRITIUM



PAGE: 1

14 MAR 2010 17:07

ID: TRITIUM

USER: 6

COMMENT: BROWN

PRESET TIME : 15.00

DATA CALC : CPM H# : YES SAMPLE REPEATS: 1 PRINTER : STD

COUNT BLANK : NO IC# : NO REPLICATES : 1 RS232 : EDIT

TWO PHASE : NO AGC : NO CYCLE REPEATS : 1 DISK : OFF

SCINTILLATOR: LIQUID LUMEX: YES LOW SAMPLE REJ: 0

LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

CHAN: 0.0 - 240.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

CHAN: 0.0 - 900.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

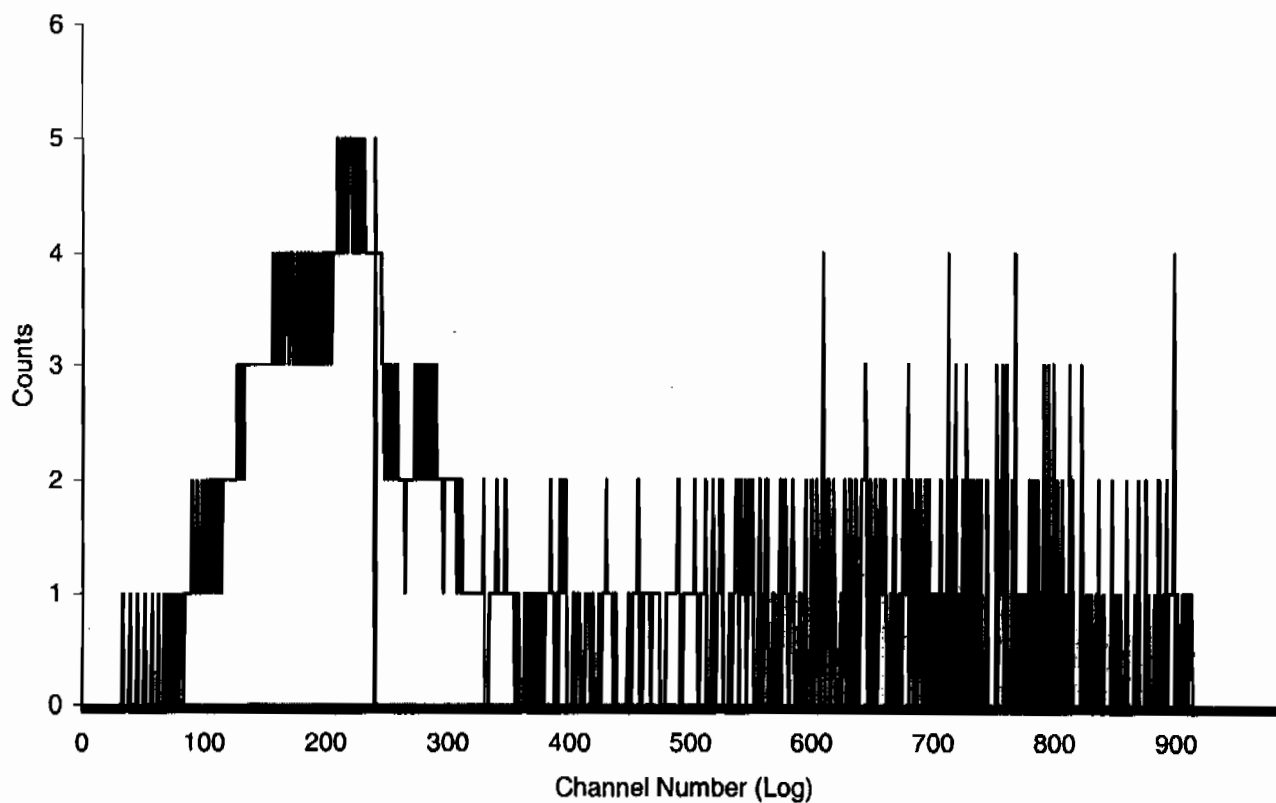
SAM	POS	TIME	H#	<u>WIND1</u>	LUMEX	ELAPSED
NO		MIN		CPM %ERROR	%	TIME
1	46-1	15.00	109.2	33.07 8.98	0.16	15.77

INSTRUMENT CALIBRATION: Mini 14 MAR 2010 18:37  
Calibration successful

Sample Count Start Time:	14 Mar 2010 17:58:24		
Data Capture Date	14 Mar 2010 18:13:27		
User Filename	S06031446-1A.XLS		
	U06031446-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	46-1	15.00
H#, Total Counts:	109.2	1115	
Win1: Tritium - Start, End, Counts:	0	240	500
Win2: - Start, End, Counts:	0	990	1115

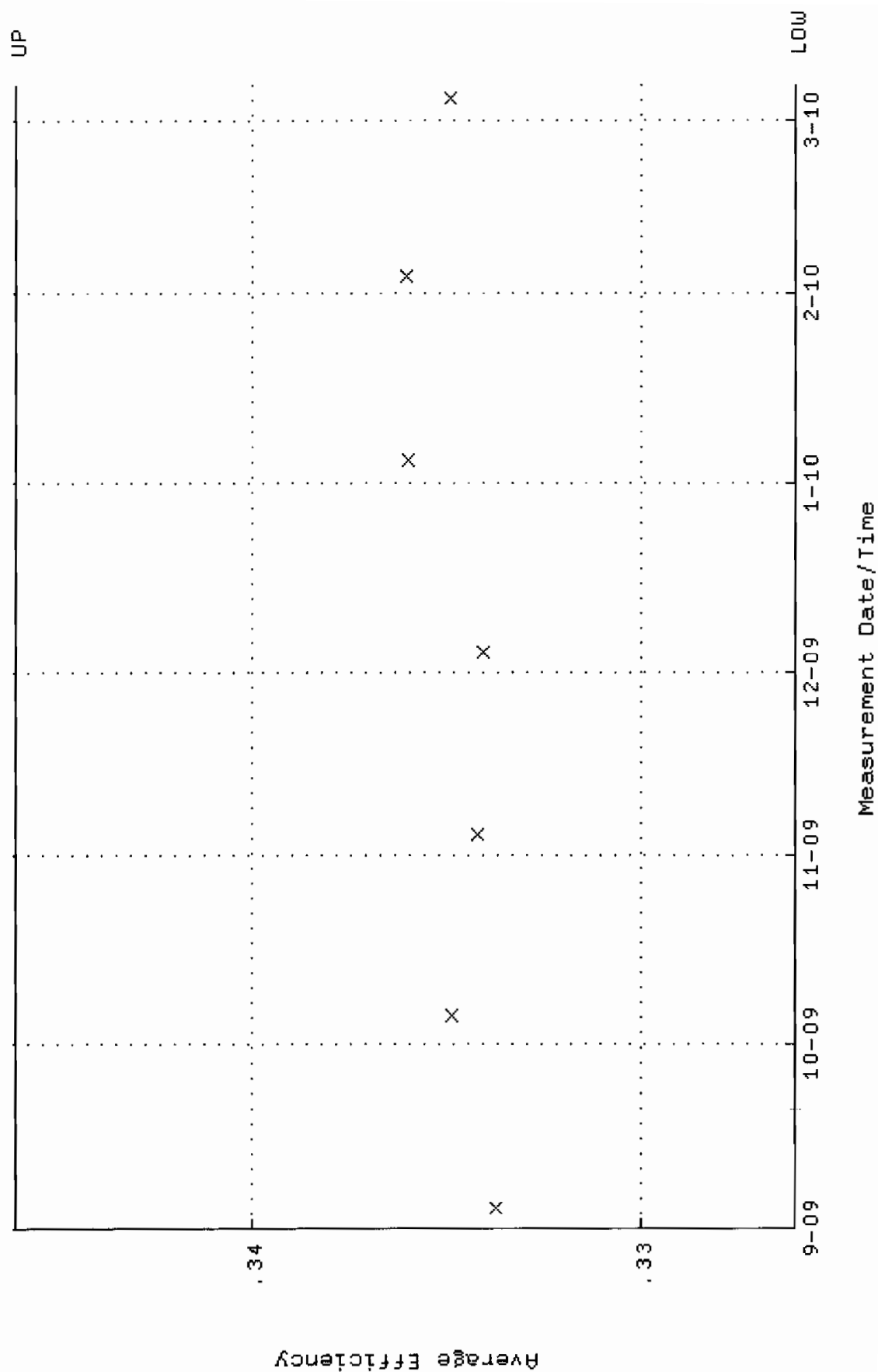
# SPECTRUM PLOT

USER 06 - TRITIUM

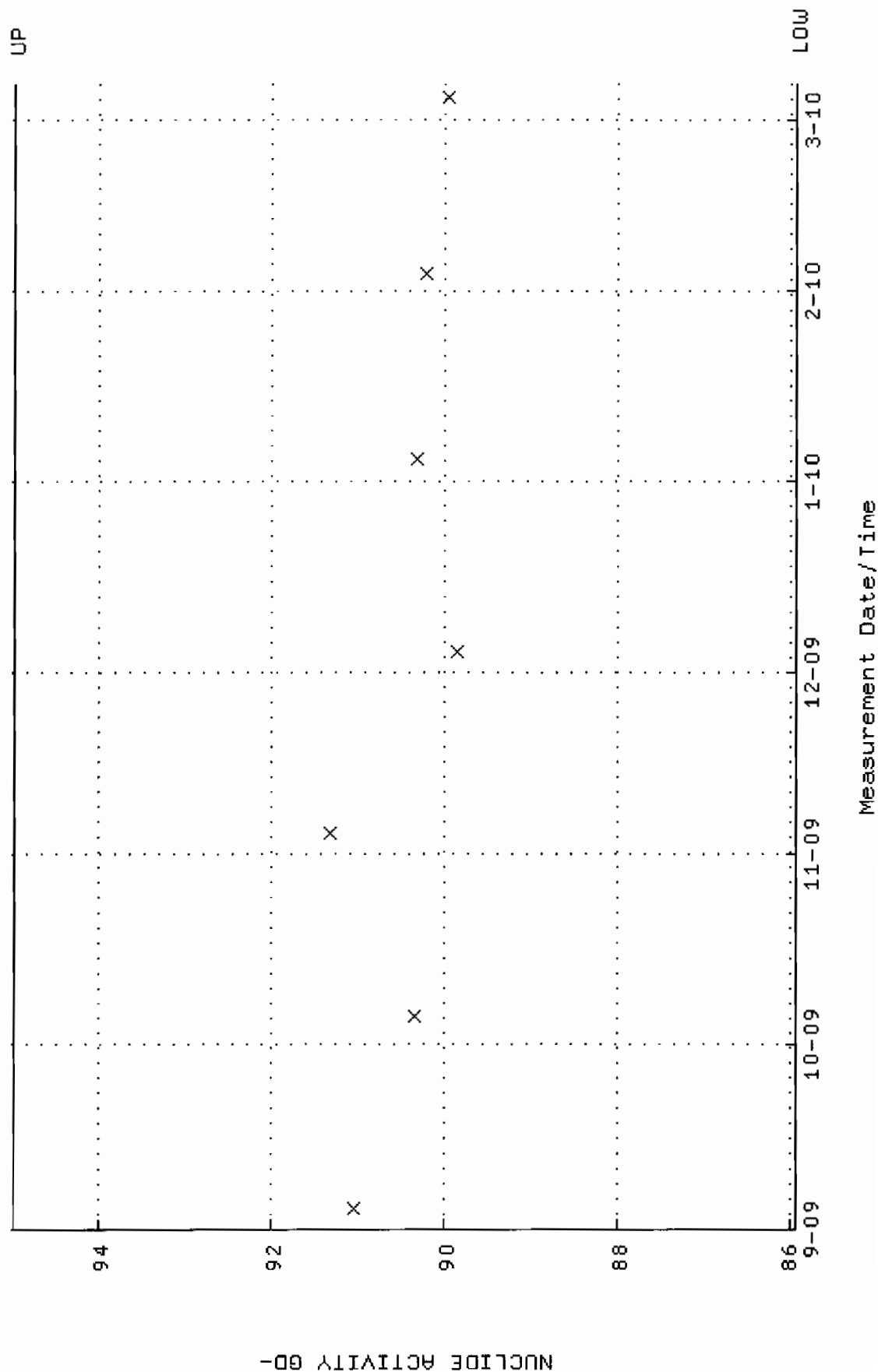


# BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV\_ALPHA.QA.W]W016.QAF;3  
 Parameter Name : AVRGEFF (Average Efficiency)  
 Start/End Dates : 4-SEP-2009 07:36:41 through 6-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.326058 through 0.346058

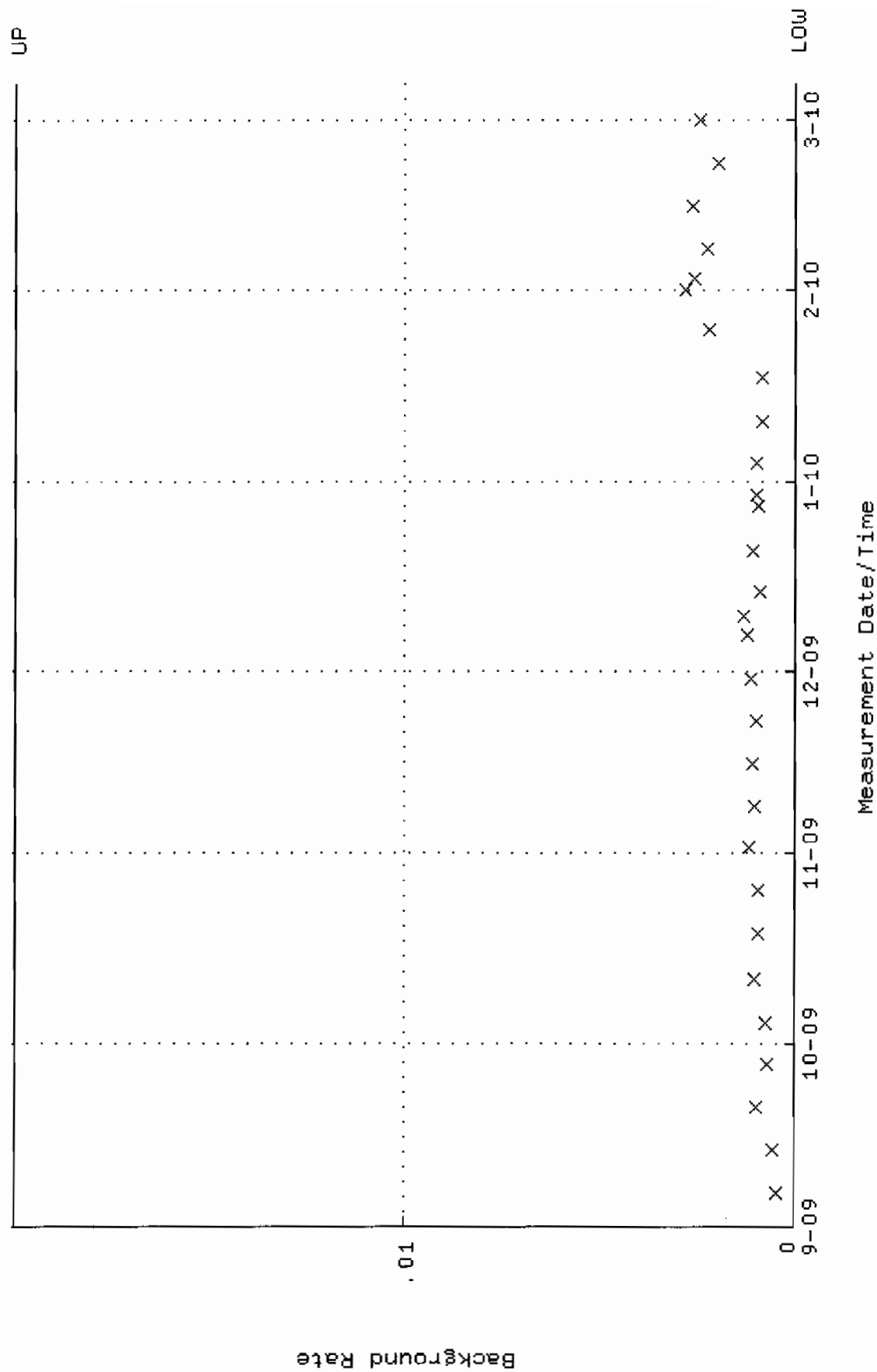


QA filename : DKA100:[ENV\_ALPHA.QA.W]W016.QAF;3  
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)  
 Start/End Dates : 4-SEP-2009 07:36:41 through 6-MAR-2010 12:00:00  
 Lower/Upper Lmts: 85.9280 through 94.9730

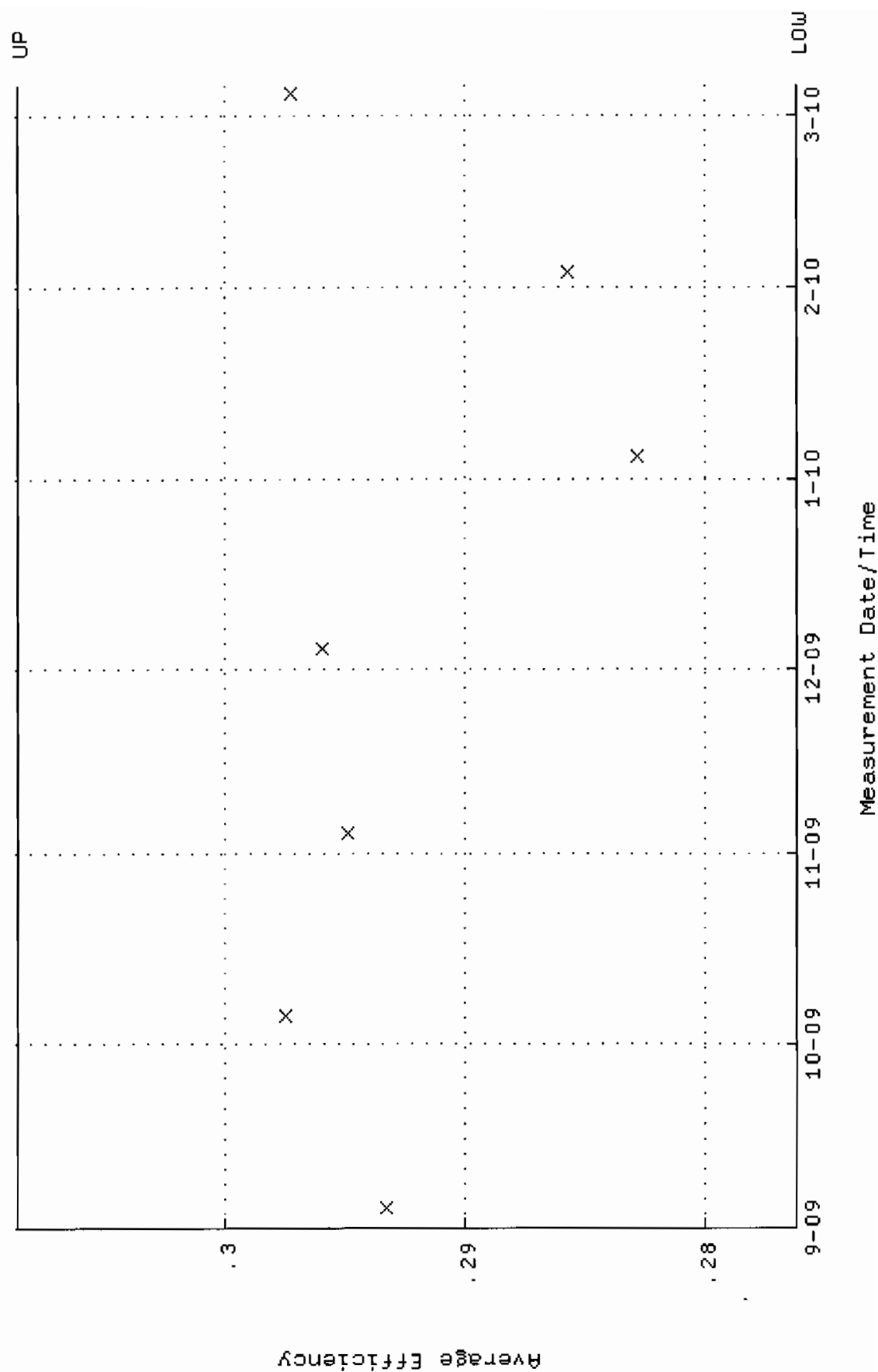




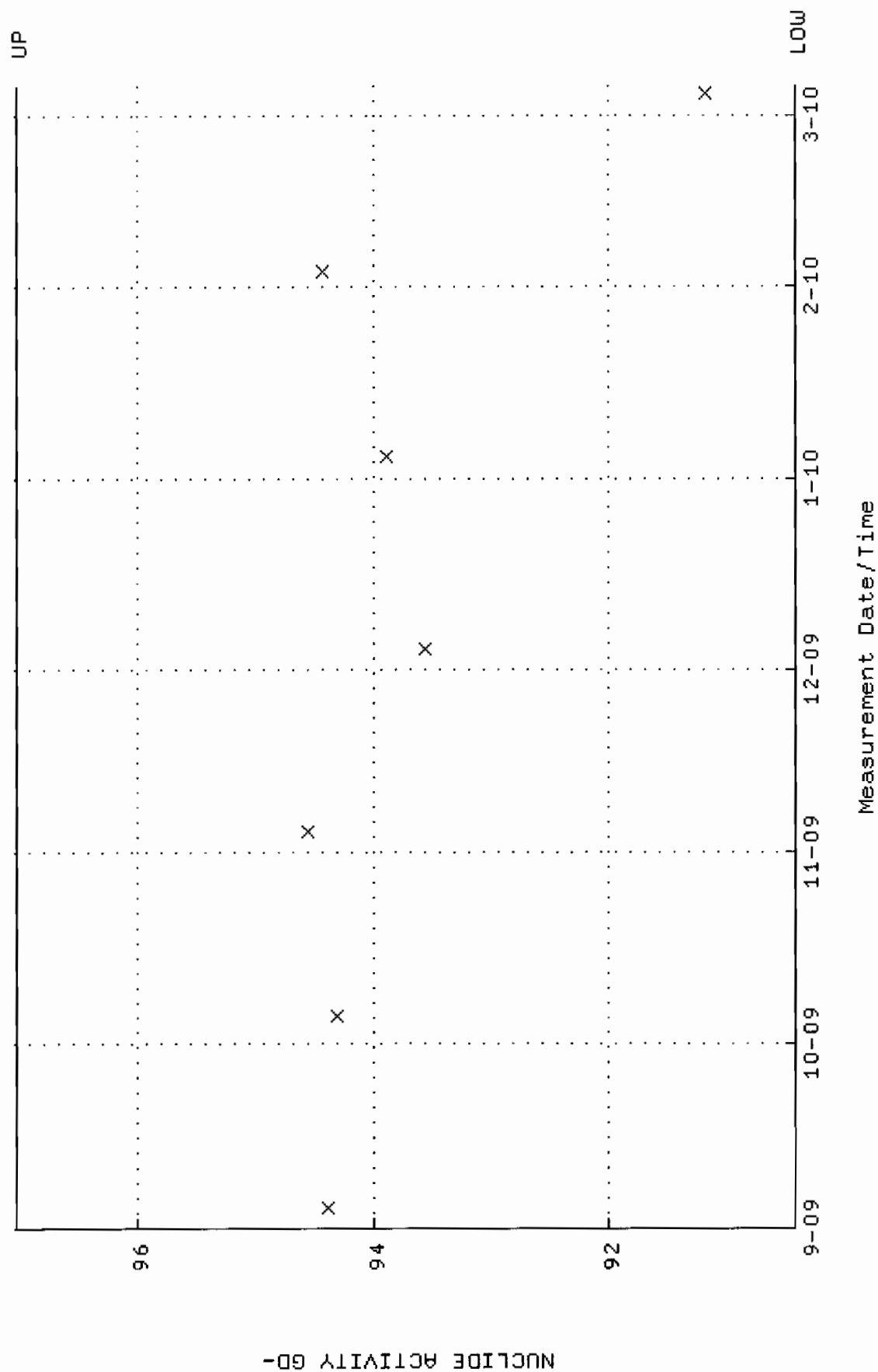
QA filename : DKA100:[ENV\_ALPHA.QA.B]B016.QAF;2  
 Parameter Name : BACKRATE (Background Rate)  
 Start/End Dates : 6-SEP-2009 14:27:02 through 6-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



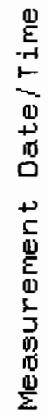
QA filename : DKA100:[ENV\_ALPHA.QA.W]W017.QAF;4  
 Parameter Name : AVRGEFF (Average Efficiency)  
 Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.276155 through 0.308631



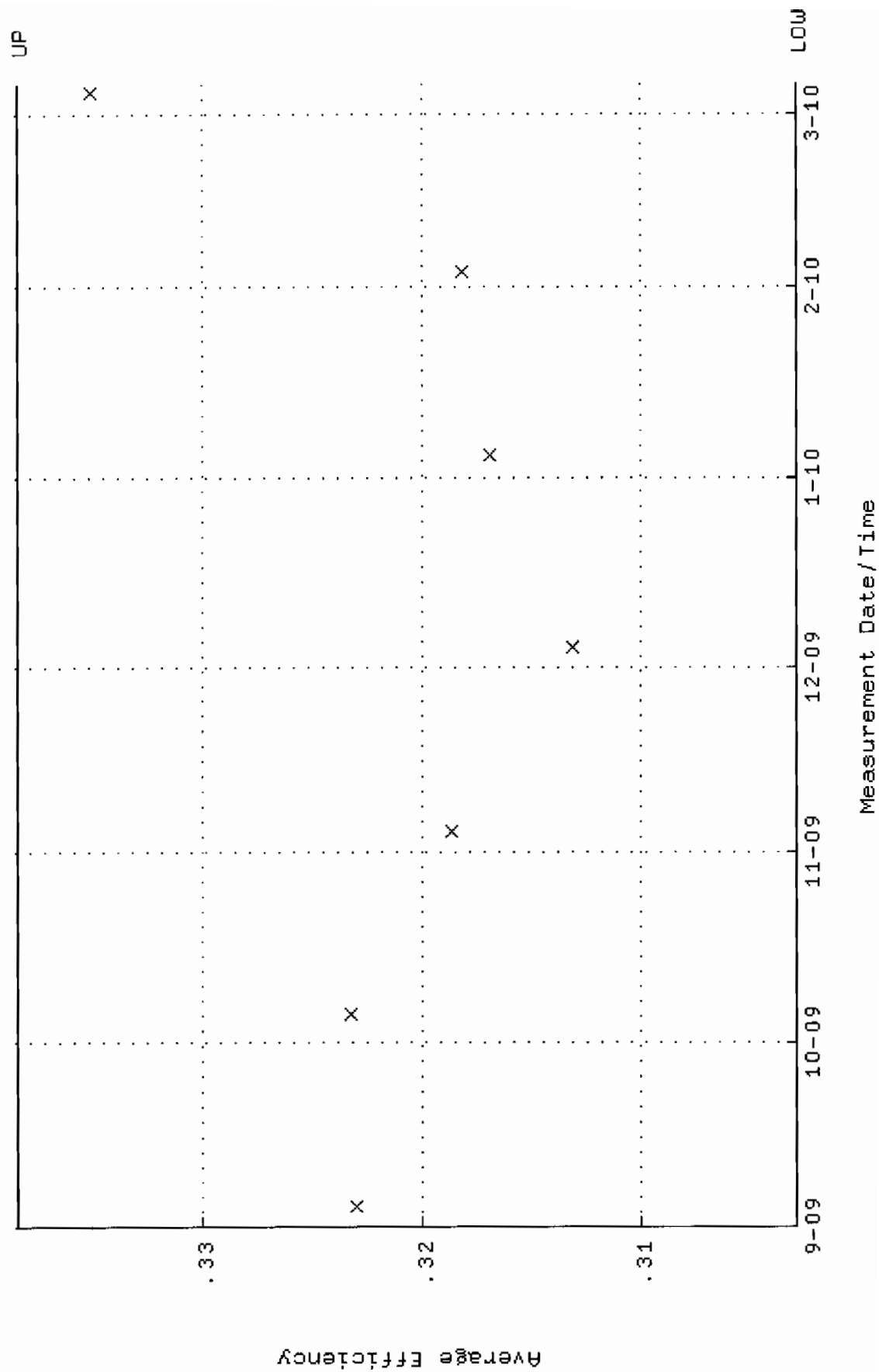
QA filename : DKA100:[ENV\_ALPHA.QA.W]W017.QAF;4  
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)  
 Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00  
 Lower/Upper Lmts: 90.4251 through 97.0169



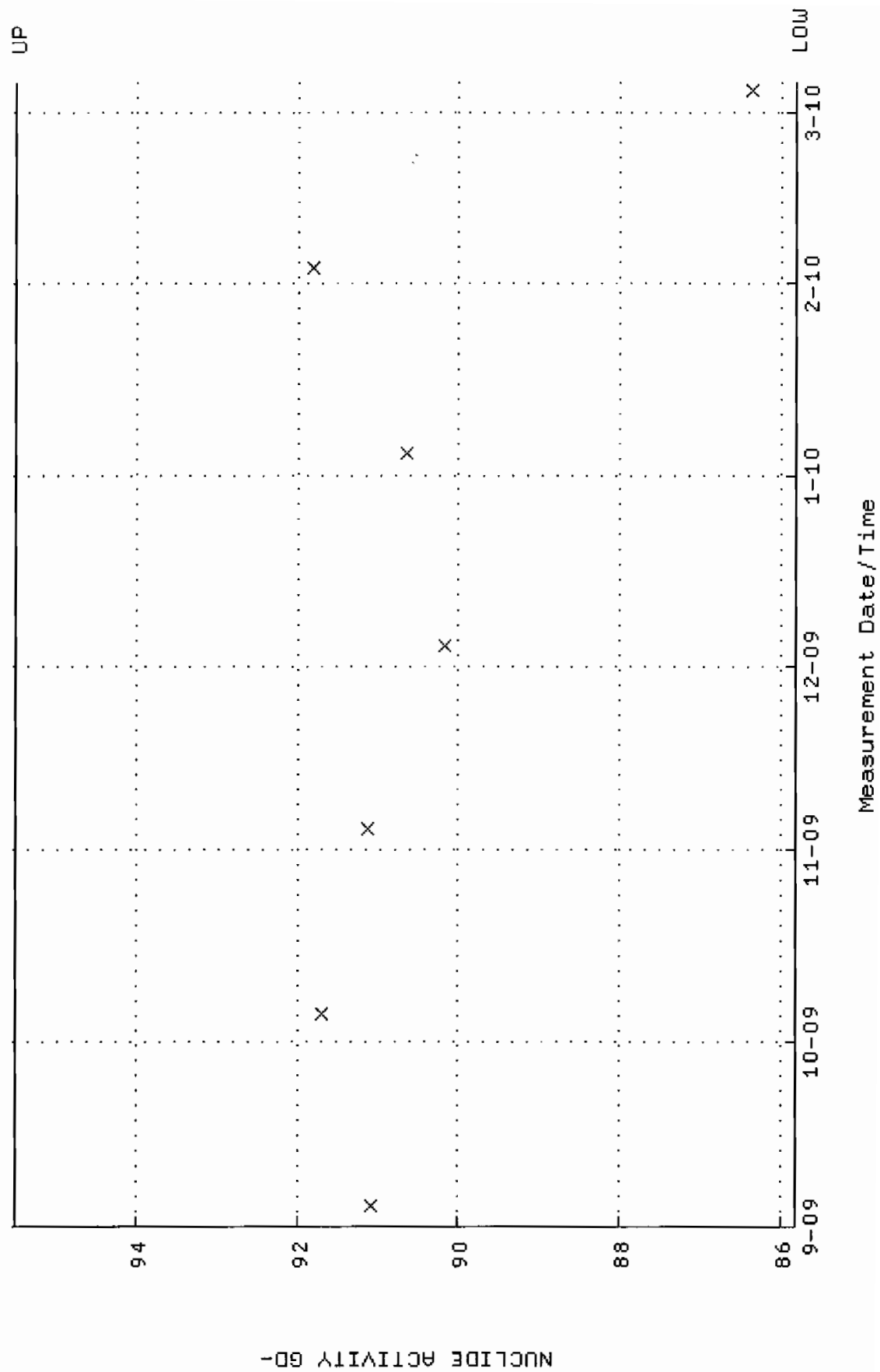
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



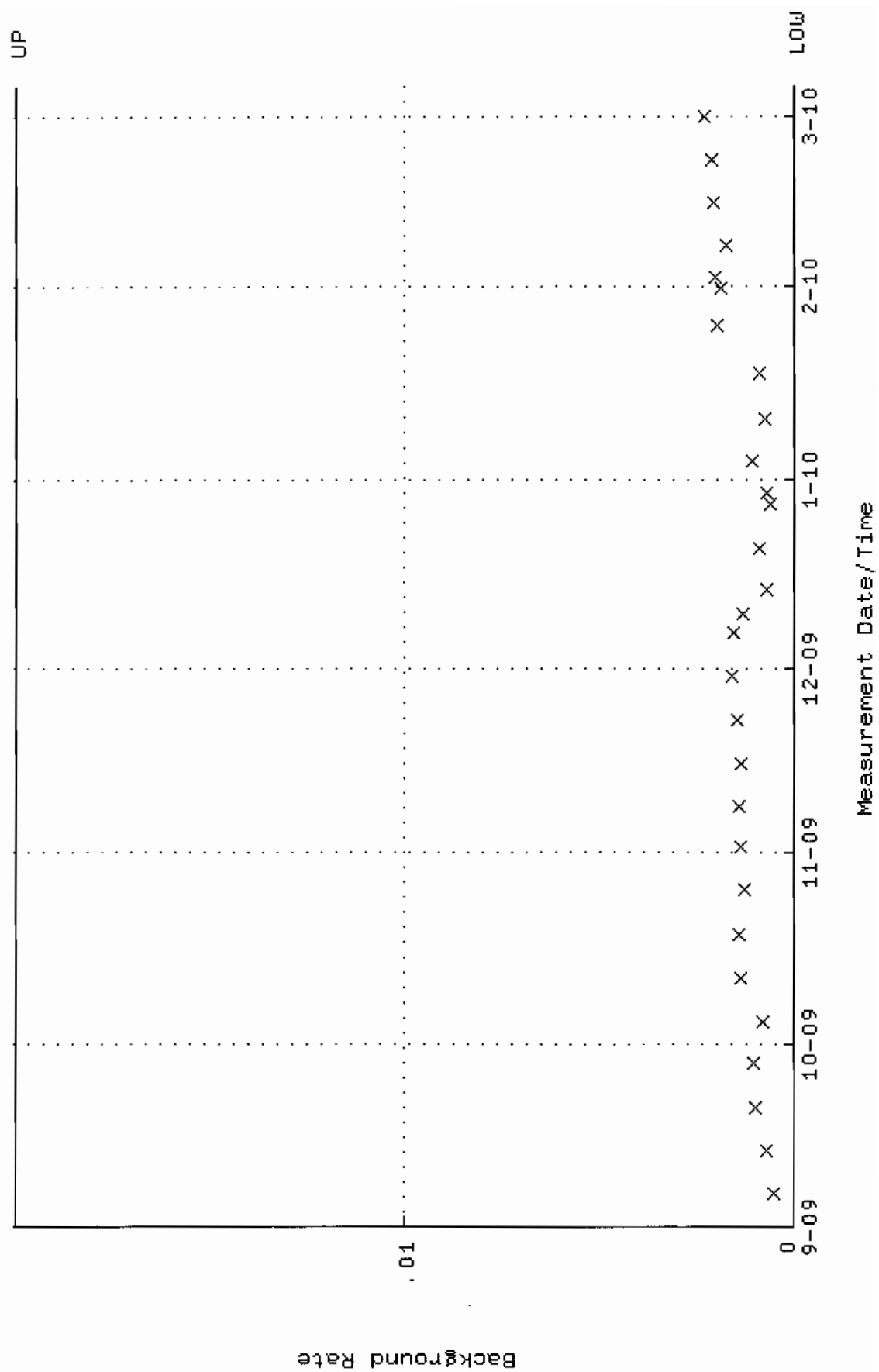
QA filename : DKA100:[ENV\_ALPHA.QA.W]W018.QAF;3  
Parameter Name : AVRGEFF (Average Efficiency)  
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00  
Lower/Upper Lmts: 0.302900 through 0.338496



QA filename : DKA100:[ENV\_ALPHA.QA.W]W018.QAF;3  
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)  
 Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00  
 Lower/Upper Lmts: 85.8111 through 95.5079



QA filename : DKA100:[ENV\_ALPHA.QA.B]B018.QAF;1  
 Parameter Name : BACKRATE (Background Rate)  
 Start/End Dates : 6-SEP-2009 14:27:02 through 5-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

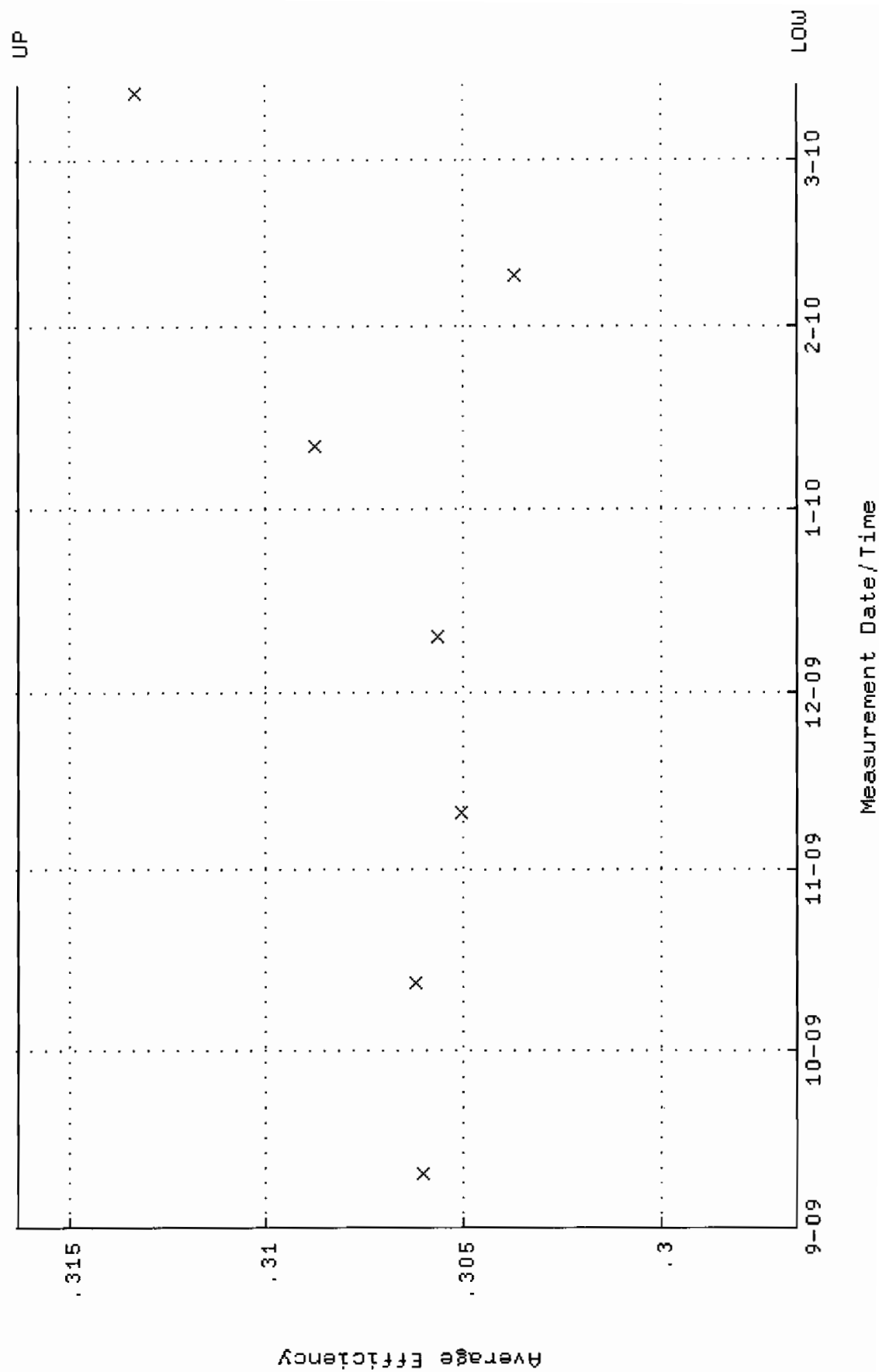


QA filename : DKA100:[ENV\_ALPHA.QA.W]W076.QAF;2

Parameter Name : AVRGEFF (Average Efficiency)

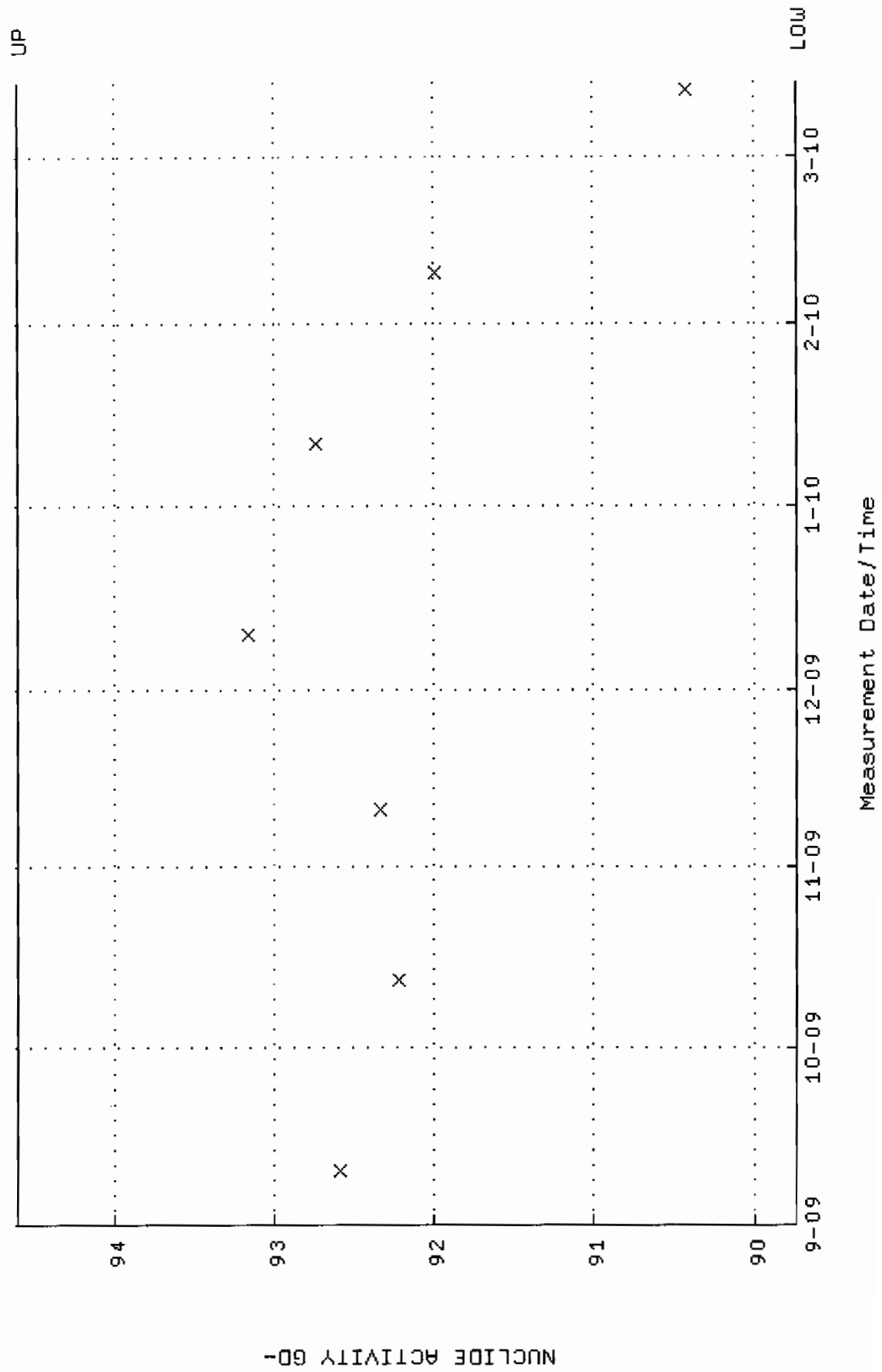
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00

Lower/Upper Lmts: 0.296554 through 0.316286

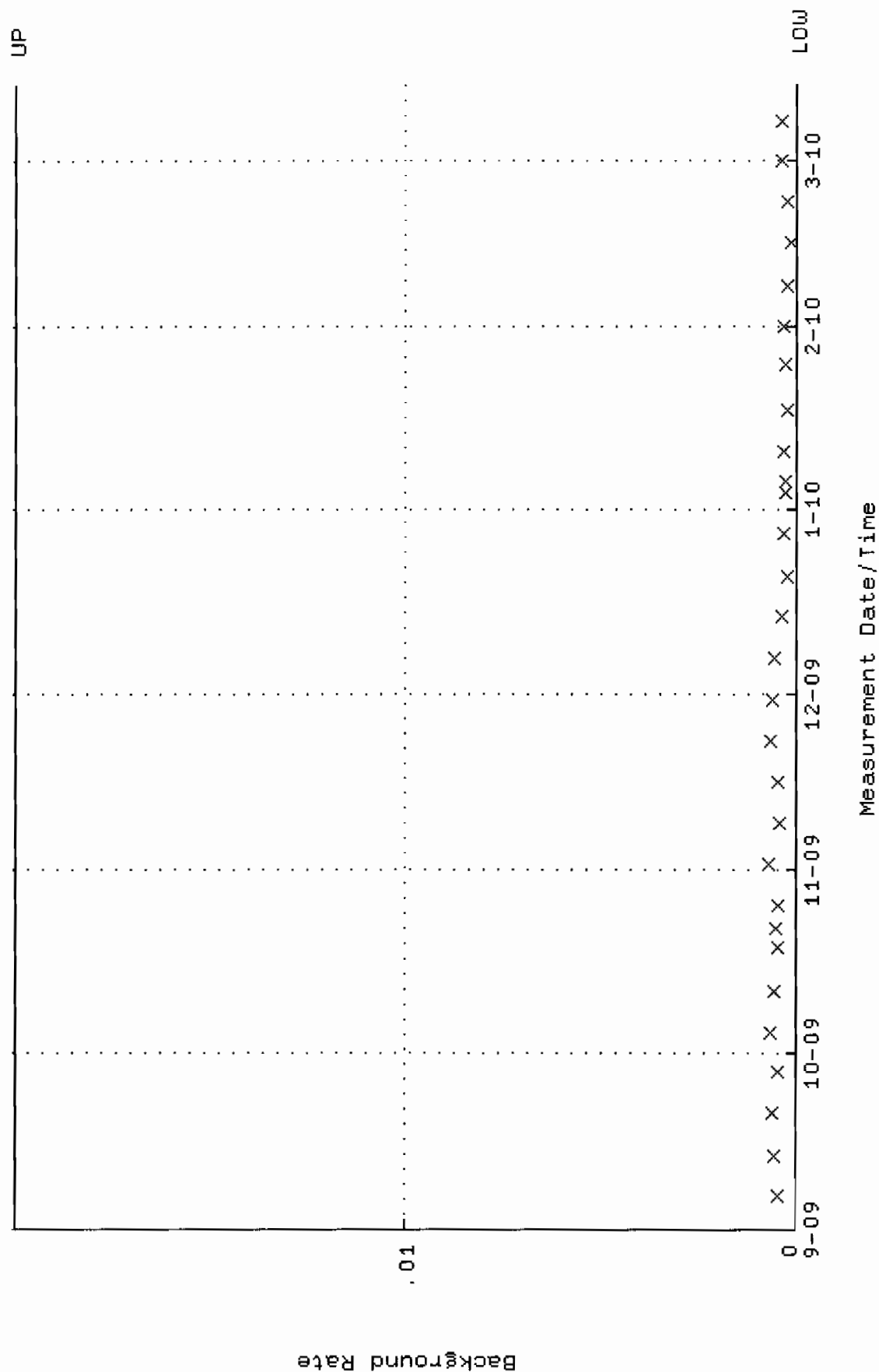




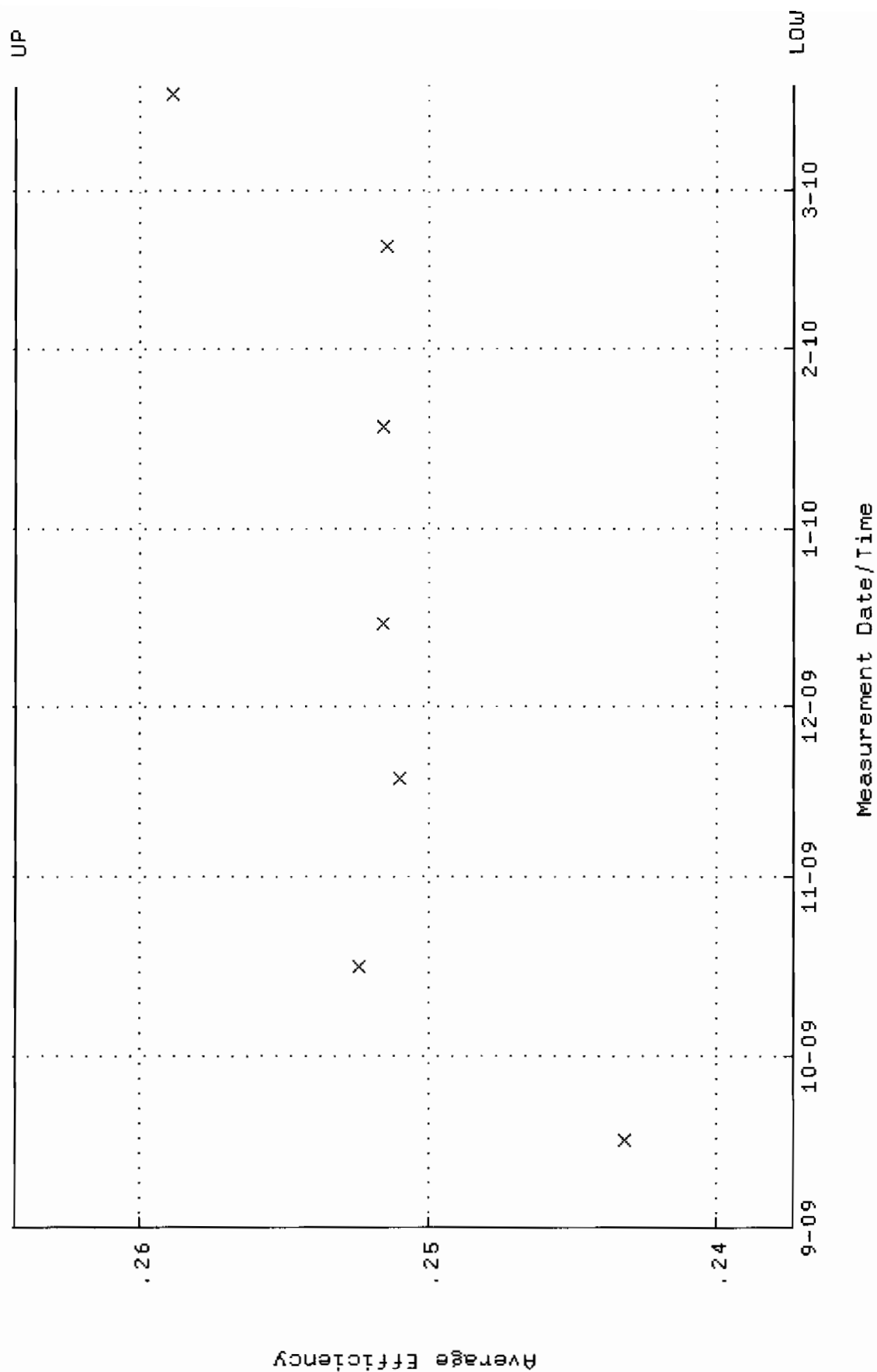
QA filename : DKR100:[ENV\_ALPHA.QA.W]W076.QAF;2  
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)  
 Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00  
 Lower/Upper Lmts: 89.7306 through 94.6123



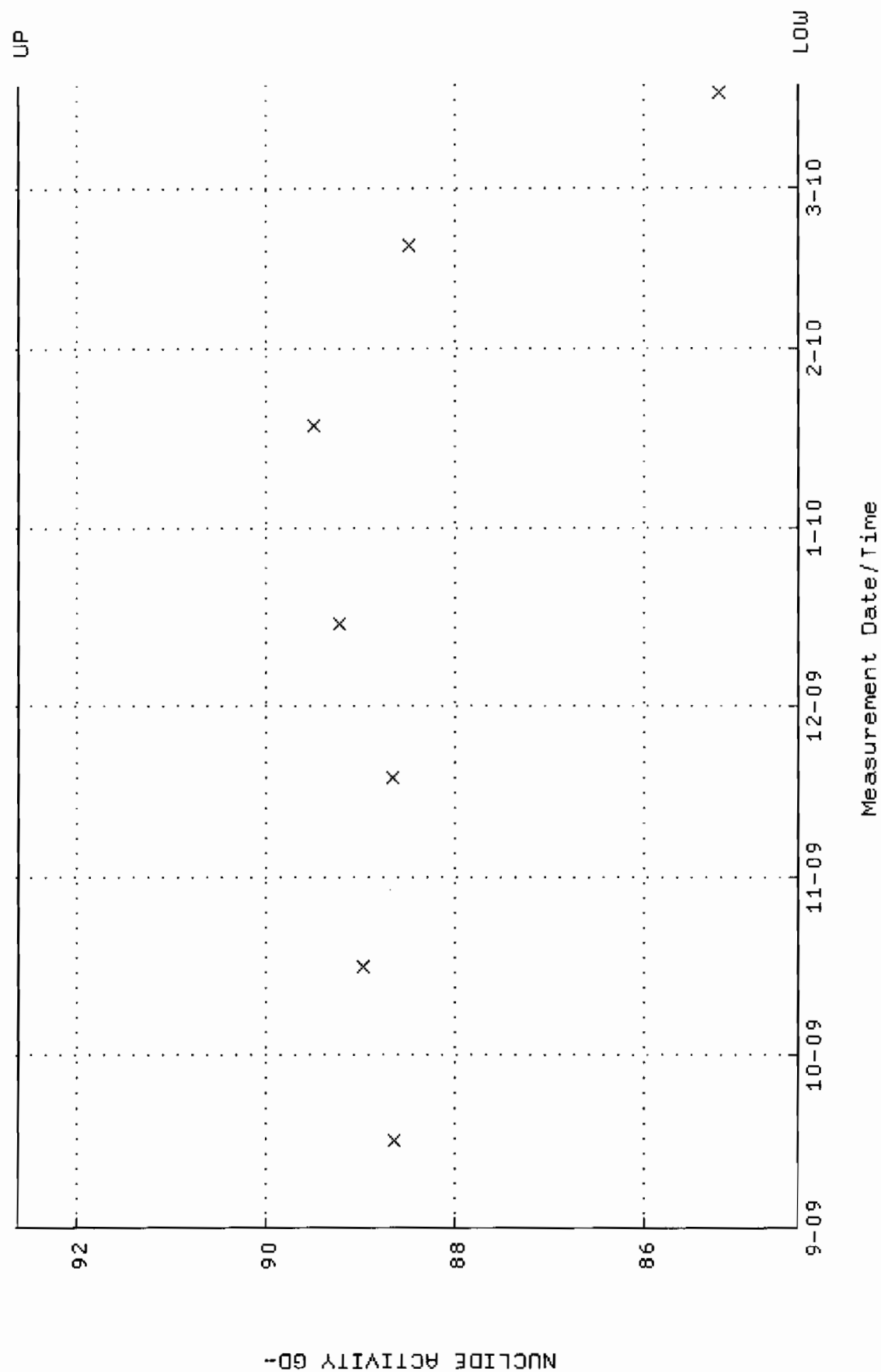
QA filename : DKA100:[ENV\_ALPHA.QA.B]B076.QAF;1  
 Parameter Name : BACKRATE (Background Rate)  
 Start/End Dates : 6-SEP-2009 14:27:07 through 13-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



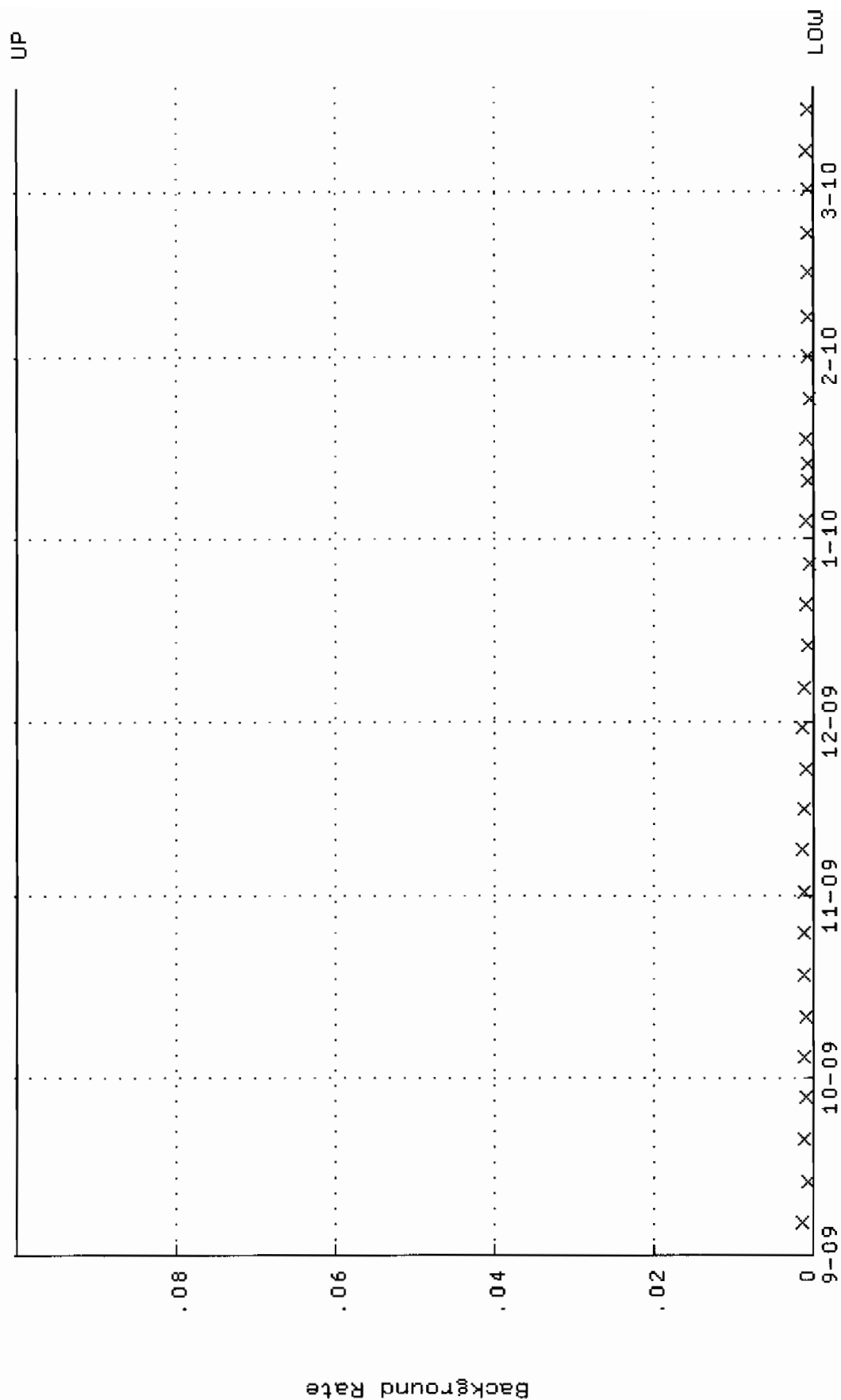
QA filename : DKA100:[ENV\_ALPHA.QA.W]w144.QAF;1  
 Parameter Name : AVRGEFF (Average Efficiency)  
 Start/End Dates : 16-SEP-2009 07:04:02 through 18-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.237368 through 0.264286



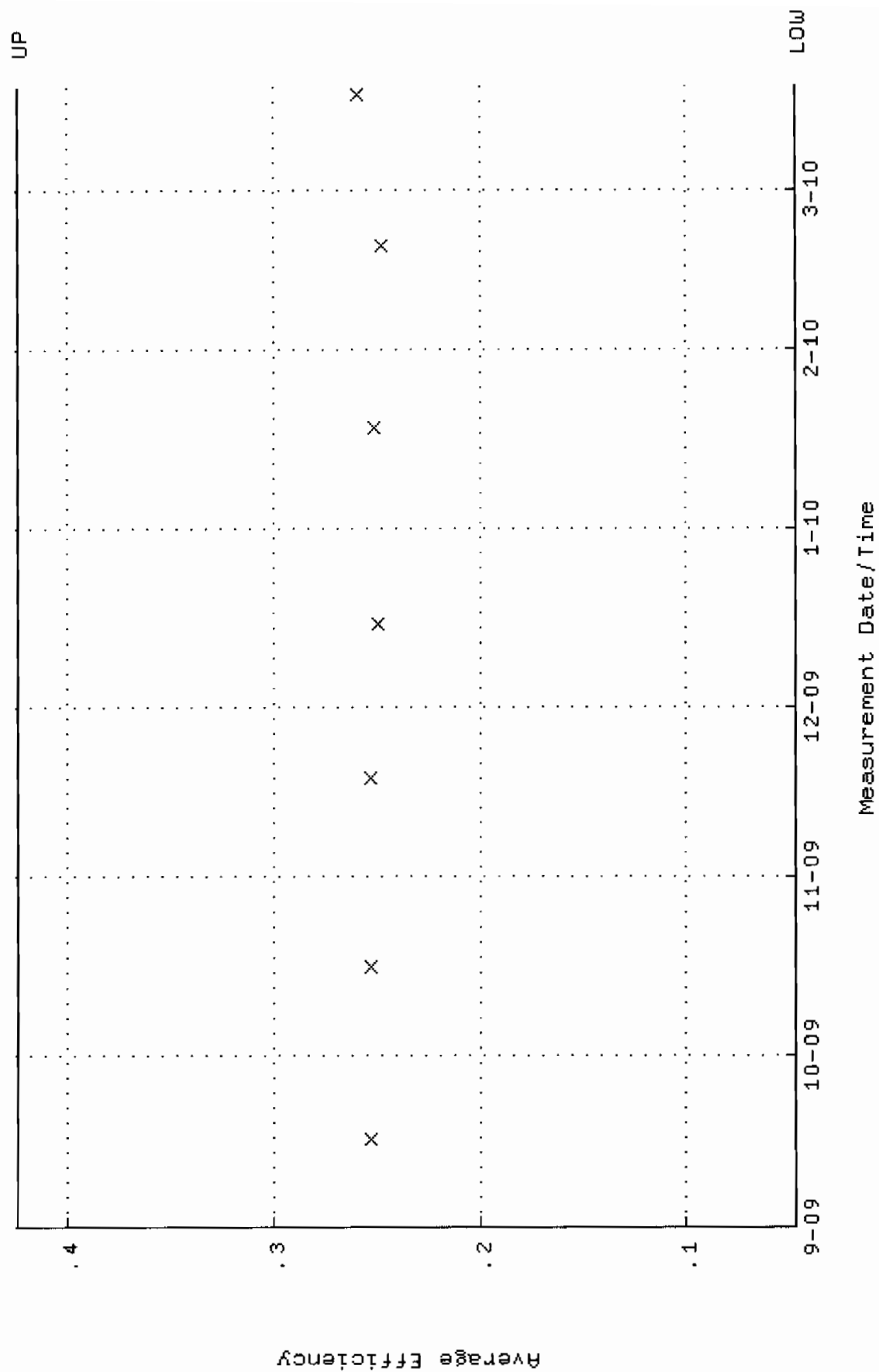
QA filename : DKA100:[ENV\_ALPHA.QA.W]W144.QAF;1  
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)  
 Start/End Dates : 16-SEP-2009 07:04:02 through 18-MAR-2010 12:00:00  
 Lower/Upper Lmts: 84.3705 through 92.6214



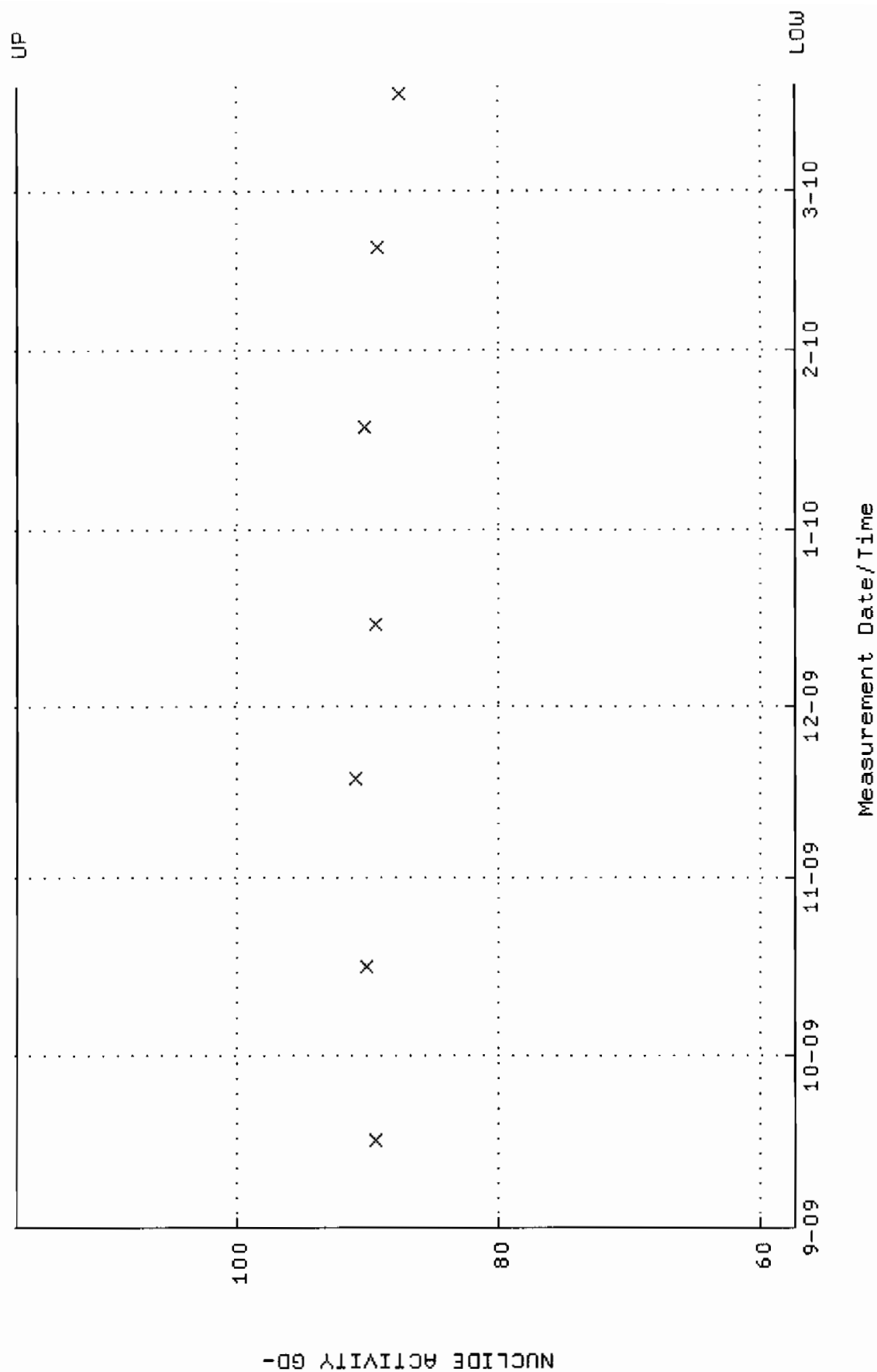
QA filename : DKA100:[ENV\_ALPHA.QA.B]B144.QAF;1  
 Parameter Name : BACKRATE (Background Rate)  
 Start/End Dates : 6-SEP-2009 15:42:22 through 18-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



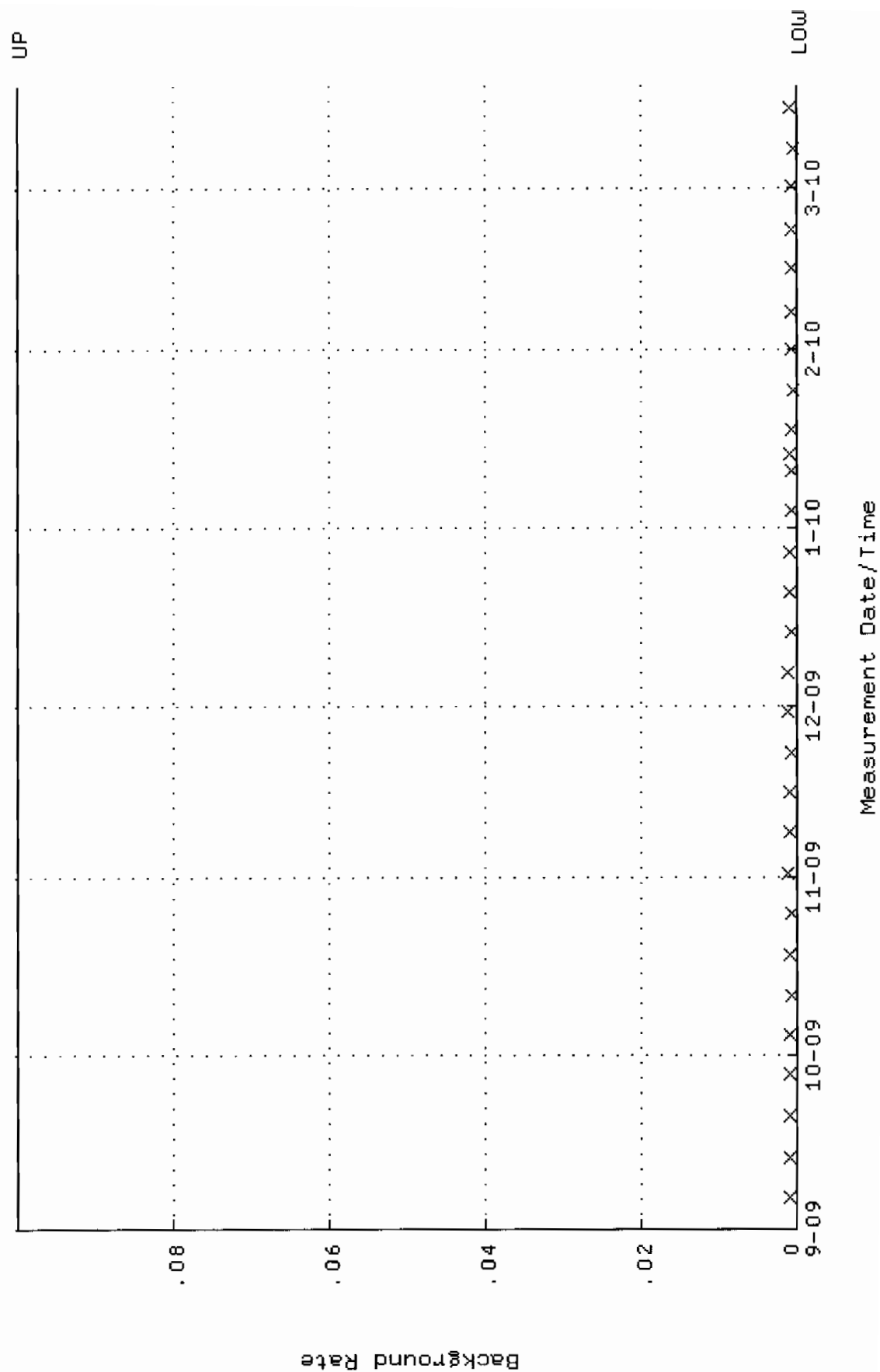
QA filename : DKA100:[ENV\_ALPHA.QA.W]U146.QAF;2  
 Parameter Name : AVRGEFF (Average Efficiency)  
 Start/End Dates : 16-SEP-2009 07:04:13 through 18-MAR-2010 12:00:00  
 Lower/Upper Lmts: 4.713000E-02 through 0.423864



QA filename : DKA100:[ENV\_ALPHA.QA.W]W146.QAF;2  
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)  
 Start/End Dates : 16-SEP-2009 07:04:13 through 18-MAR-2010 12:00:00  
 Lower/Upper Lmts: 57.4058 through 116.767

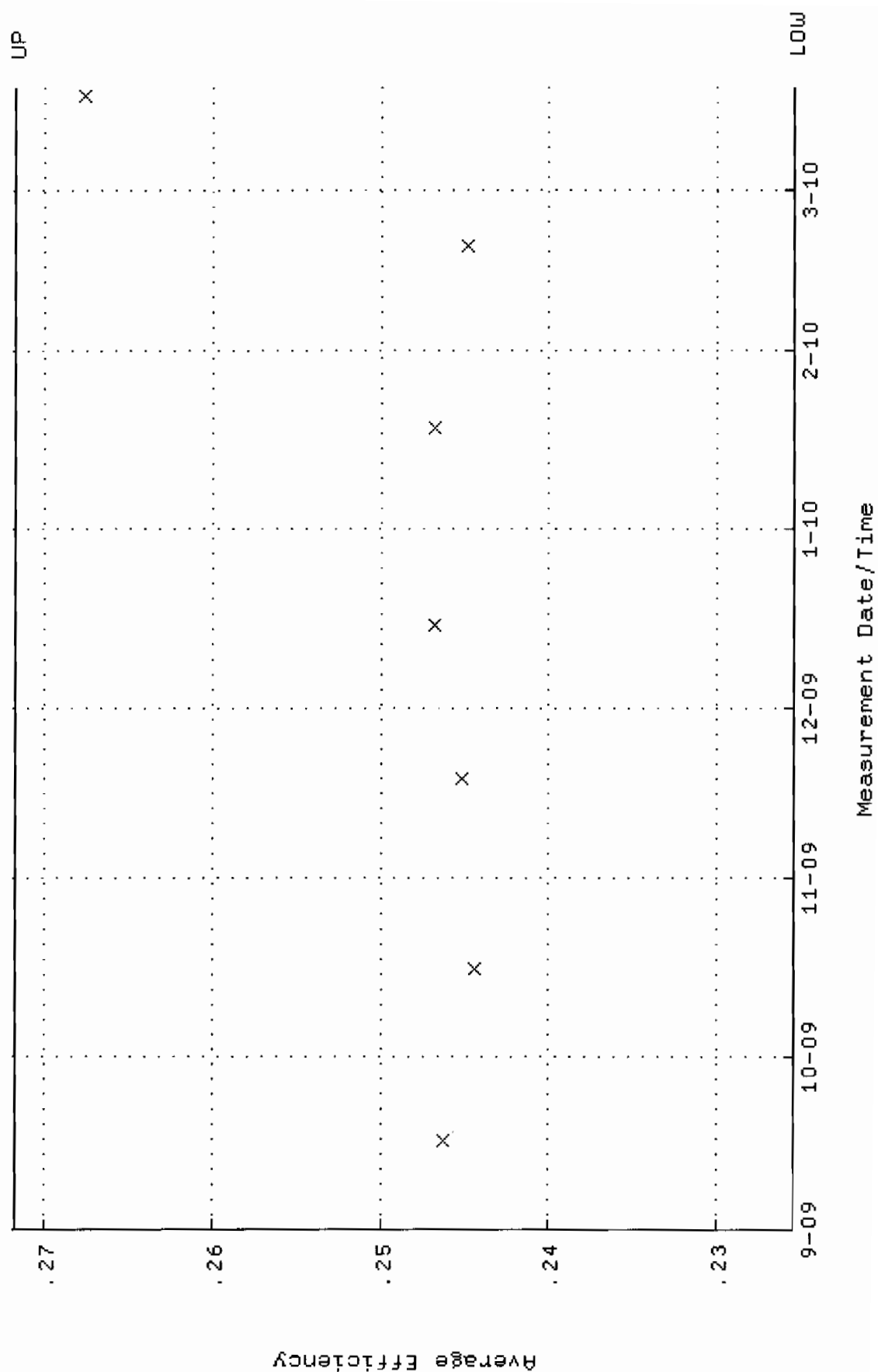


QA filename : DKA100:[ENV\_ALPHA.QA.B]B146.QAF;2  
 Parameter Name : BACKRATE (Background Rate)  
 Start/End Dates : 6-SEP-2009 15:42:30 through 18-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.000000E+00 through 0.100000

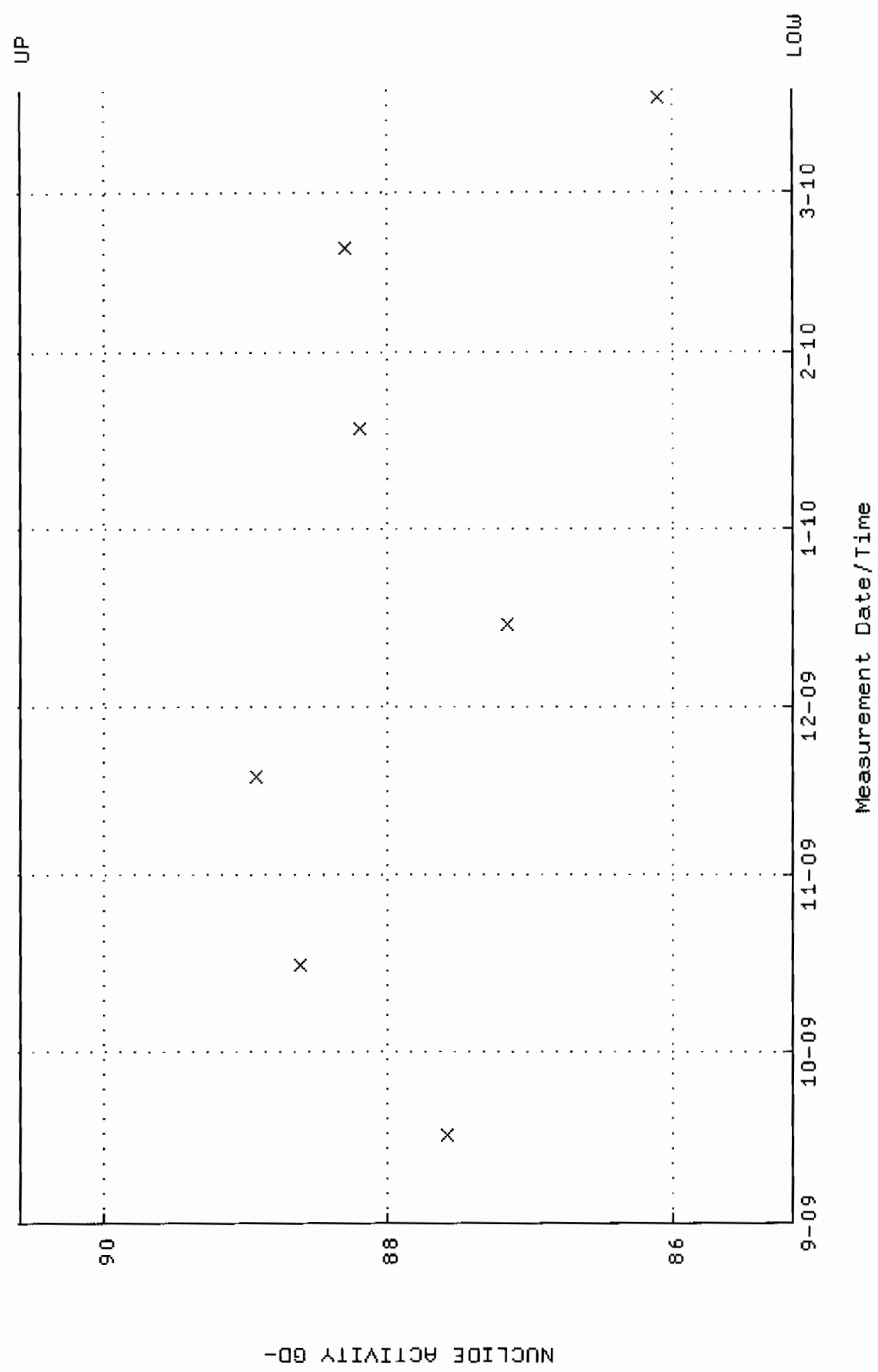




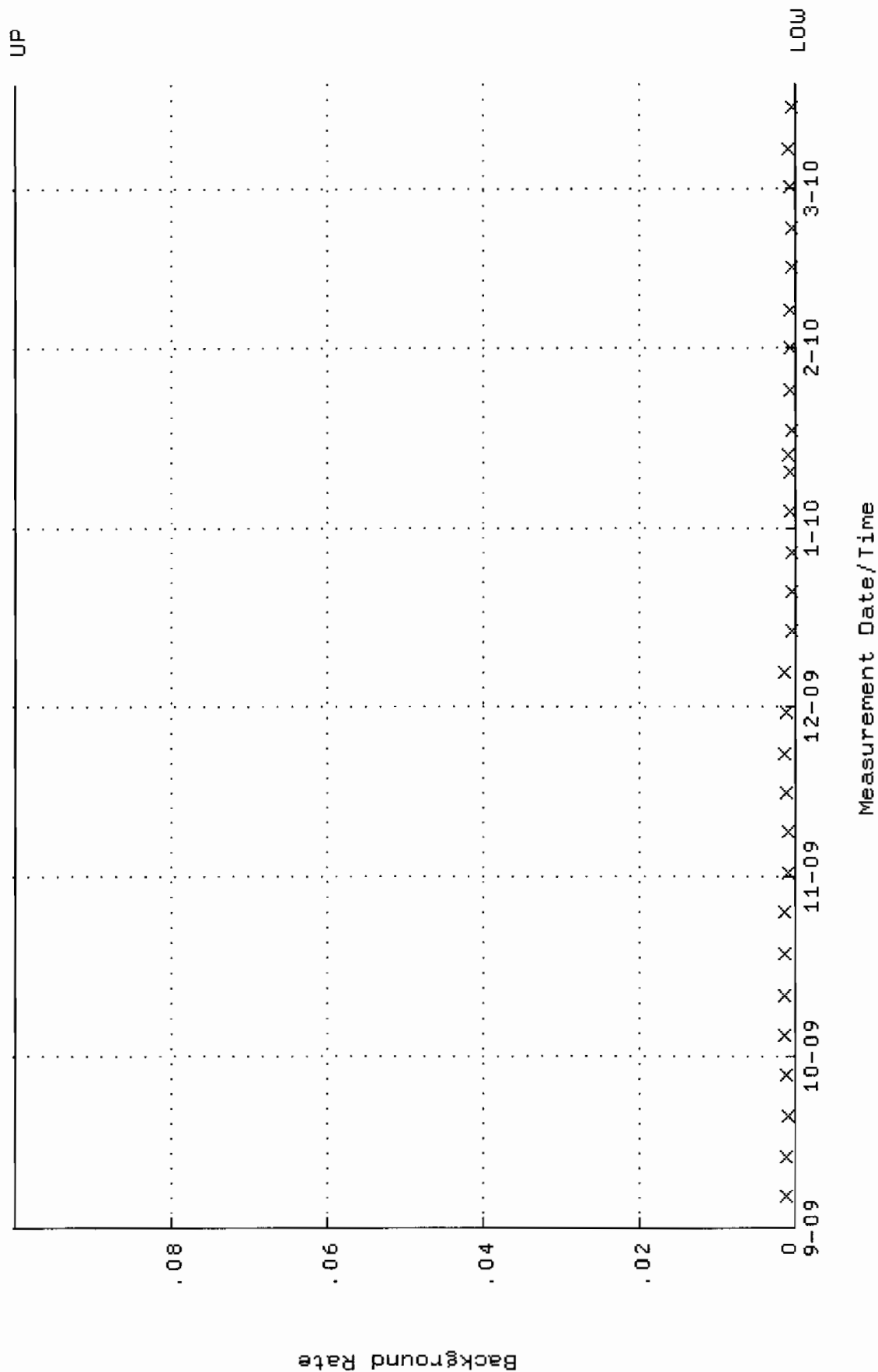
QA filename : DKA100:[ENV\_ALPHA.QA.W]w147.QAF;1  
 Parameter Name : AVRGEFF (Average Efficiency)  
 Start/End Dates : 16-SEP-2009 07:04:19 through 18-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.225419 through 0.271751



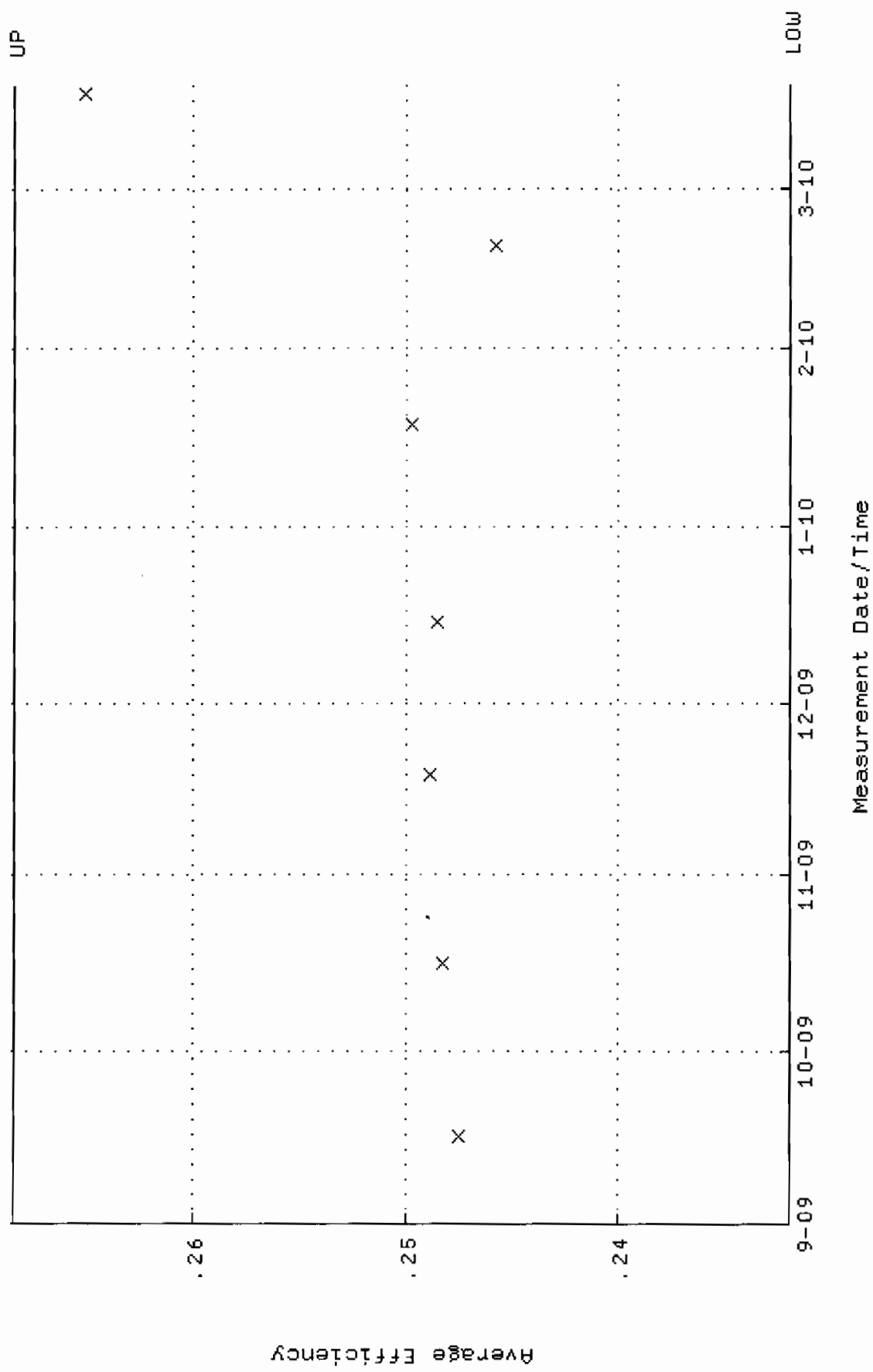
QA filename : DKA100:[ENV\_ALPHA.QA.W]w147.QAF;1  
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)  
 Start/End Dates : 16-SEP-2009 07:04:19 through 18-MAR-2010 12:00:00  
 Lower/Upper Lmts: 85.1511 through 90.5851



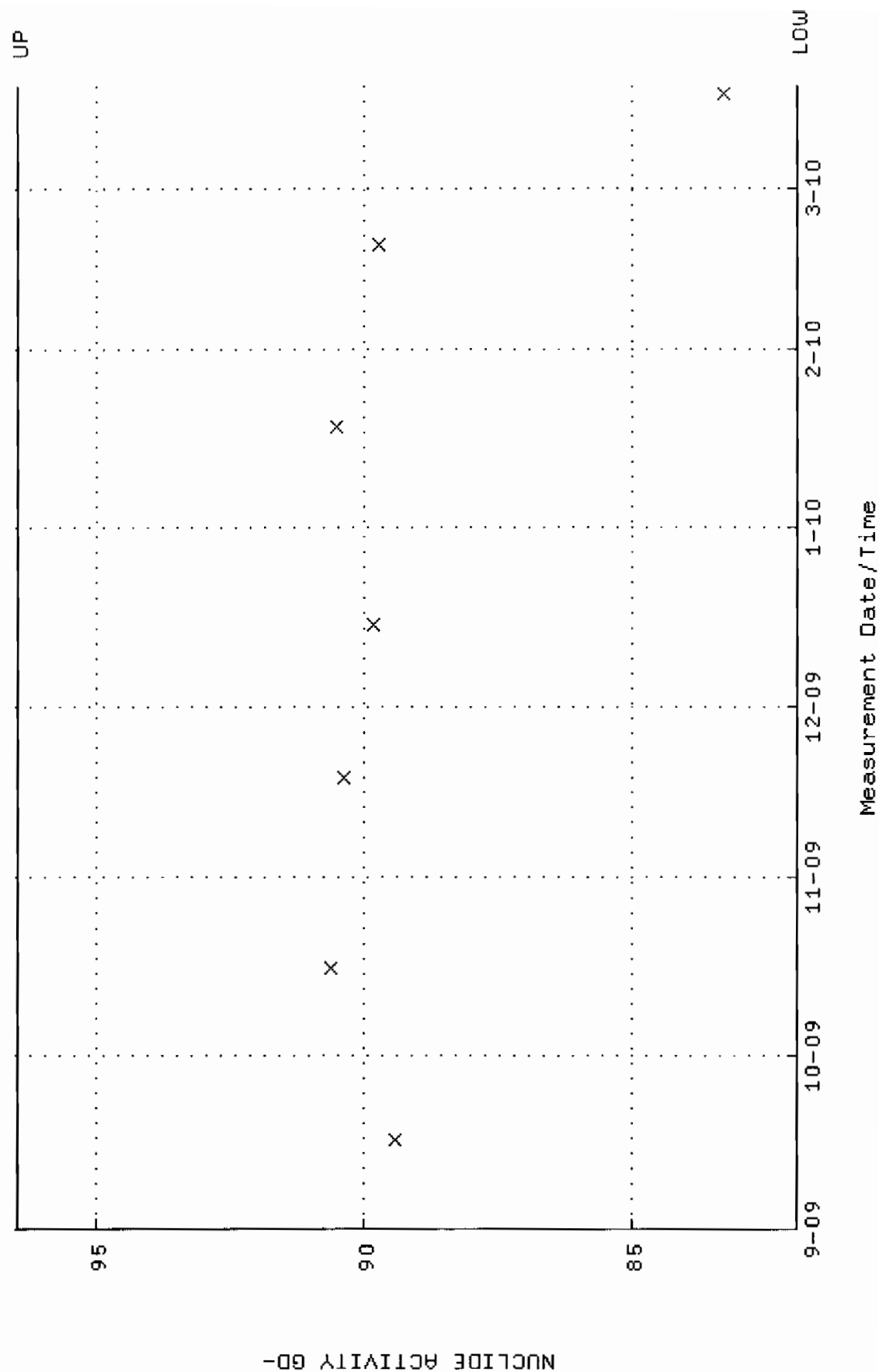
QA filename : DKA100:[ENV\_ALPHA.QA.B]B147.QAF;1  
 Parameter Name : BACKRATE (Background Rate)  
 Start/End Dates : 6-SEP-2009 15:42:34 through 18-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



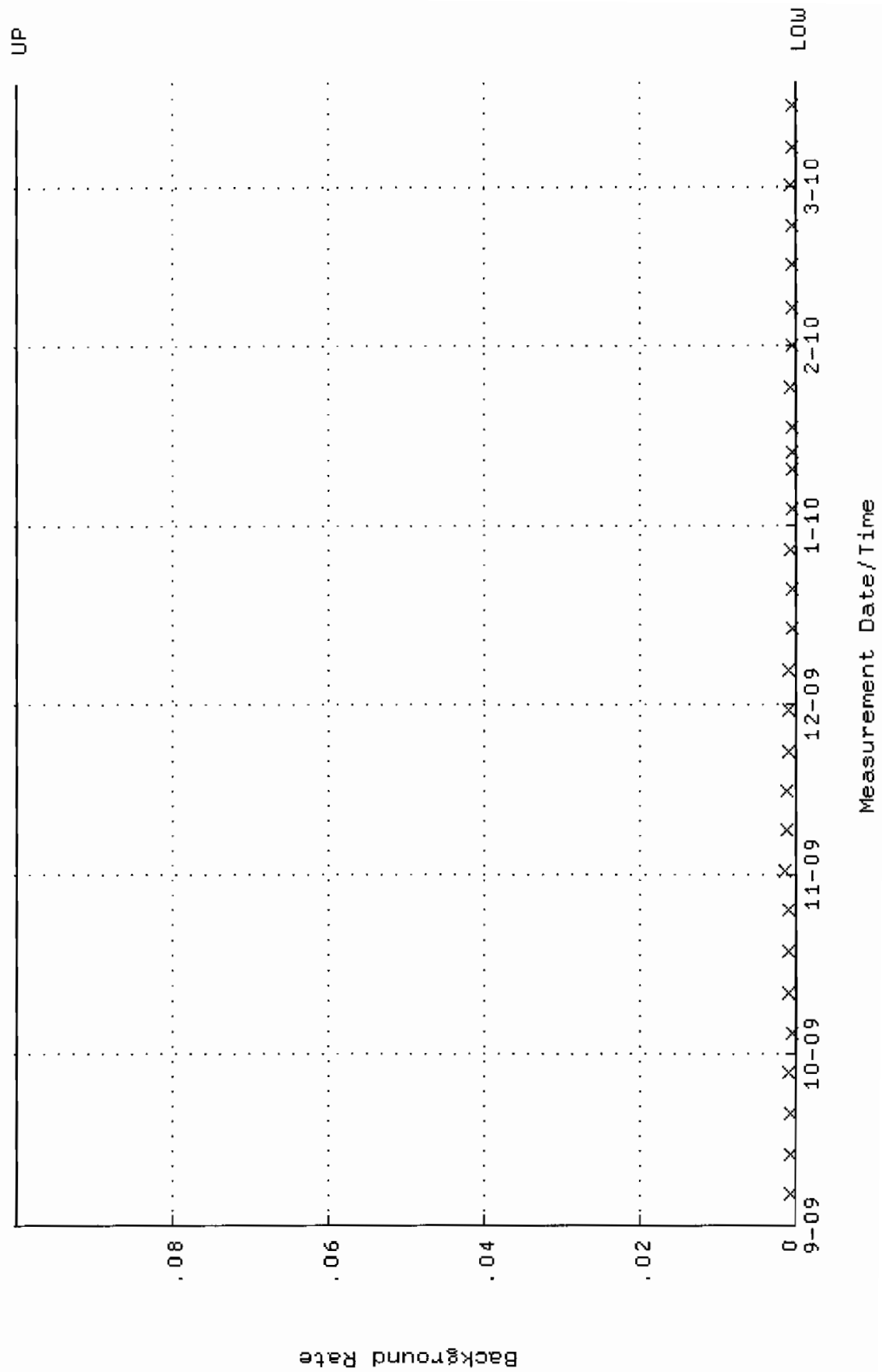
QA filename : DKA100:[ENV\_ALPHA.QA.W]U148.QAF;1  
 Parameter Name : AVRGEFF (Average Efficiency)  
 Start/End Dates : 16-SEP-2009 07:04:24 through 18-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.231959 through 0.268393



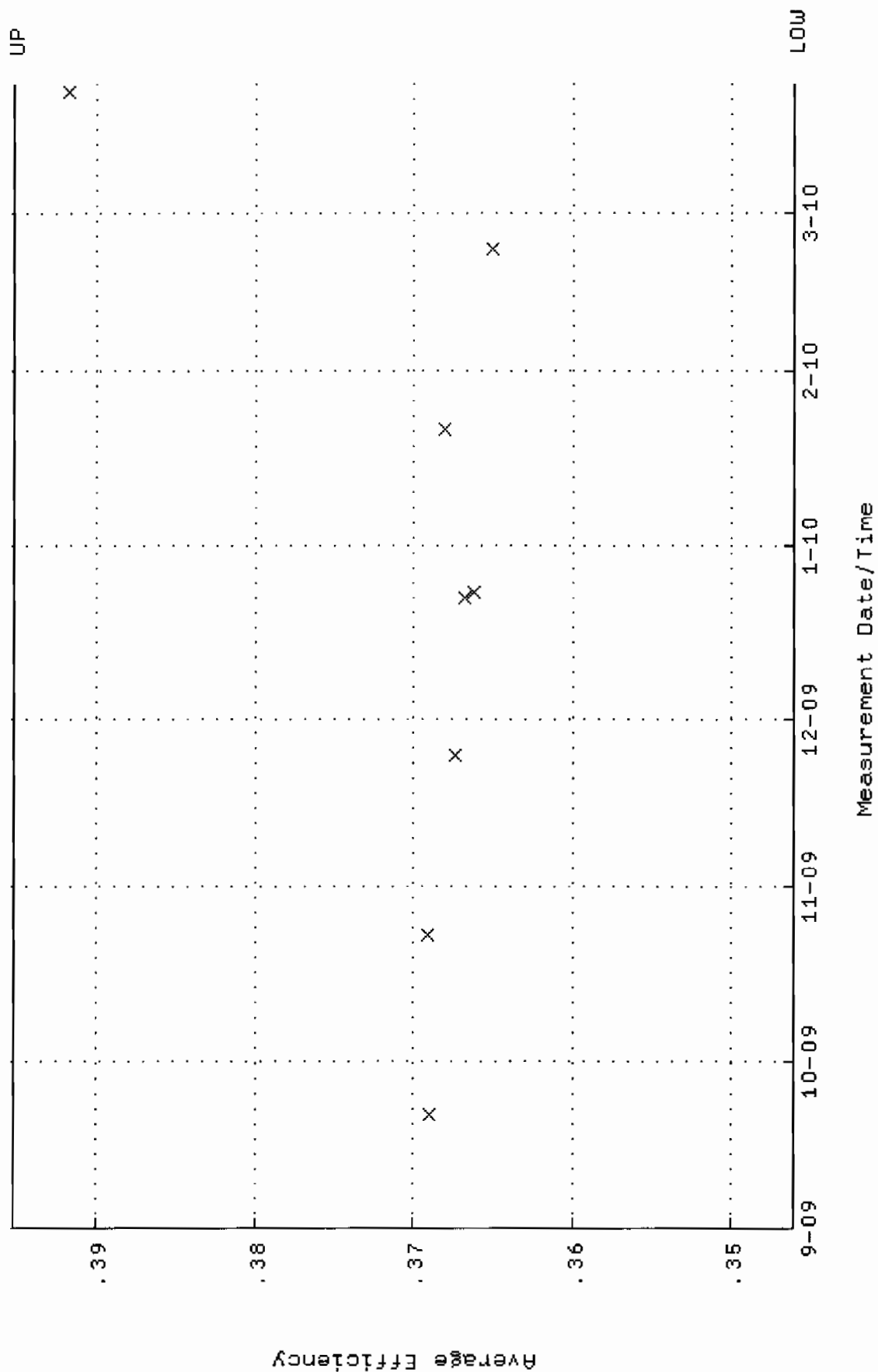
QA filename : DKA100:[ENV\_ALPHA.QA.W]u148.QAF;1  
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)  
 Start/End Dates : 16-SEP-2009 07:04:24 through 18-MAR-2010 12:00:00  
 Lower/Upper Lmts: 81.9014 through 96.4918



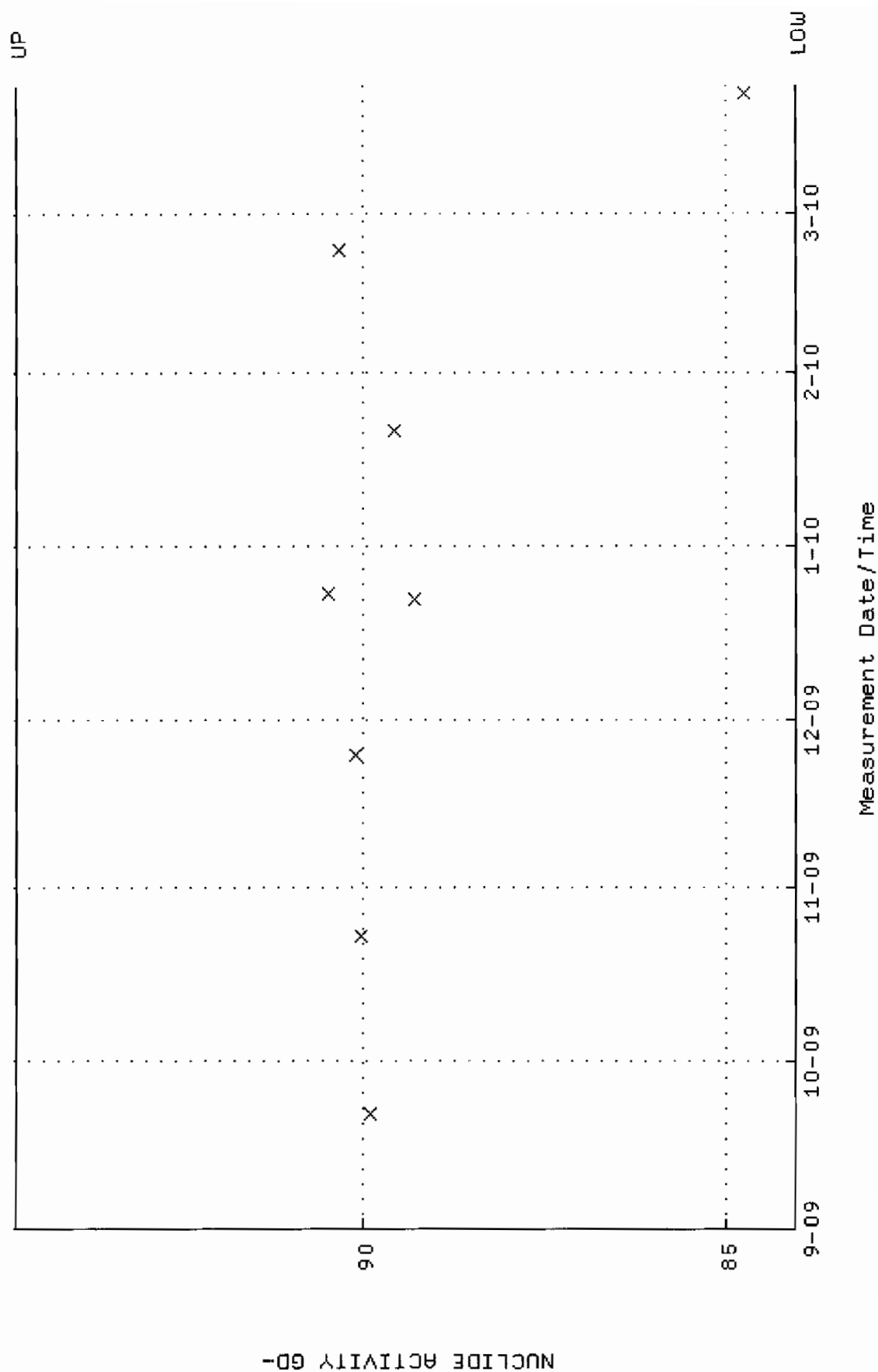
QA filename : DKA100:[ENV\_ALPHA.QA.B]B148.QAF;1  
 Parameter Name : BACKRATE (Background Rate)  
 Start/End Dates : 6-SEP-2009 15:42:38 through 18-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



QA filename : DKA100:[ENV\_ALPHA.QA.W]W161.QAF;1  
 Parameter Name : AVRGEFF (Average Efficiency)  
 Start/End Dates : 21-SEP-2009 09:28:18 through 23-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.346063 through 0.395257

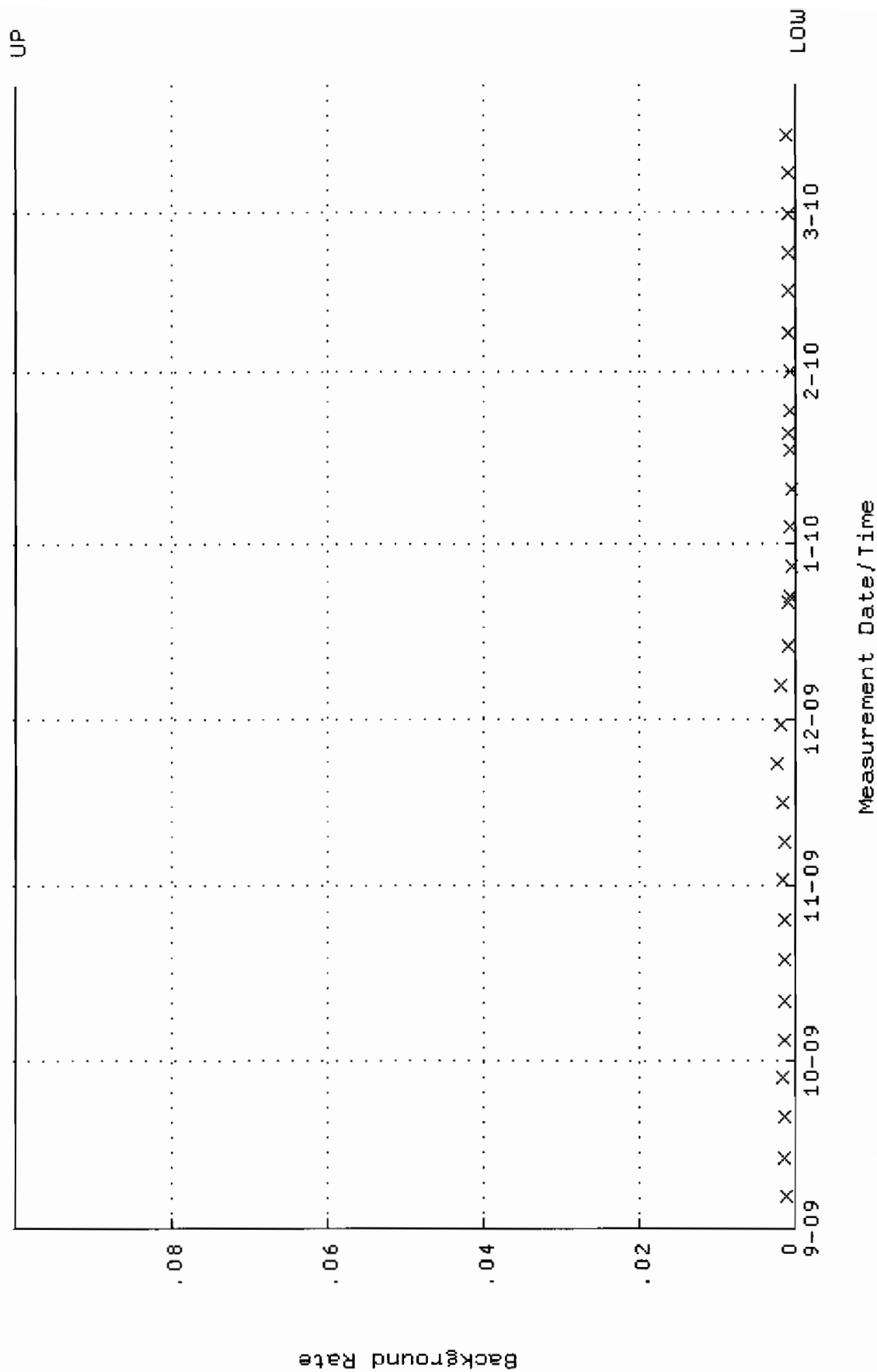


QA filename : DKA100:[ENV\_ALPHA.QA.W]w161.QAF;1  
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)  
 Start/End Dates : 21-SEP-2009 09:28:18 through 23-MAR-2010 12:00:00  
 Lower/Upper Lmts: 84.0330 through 94.7716

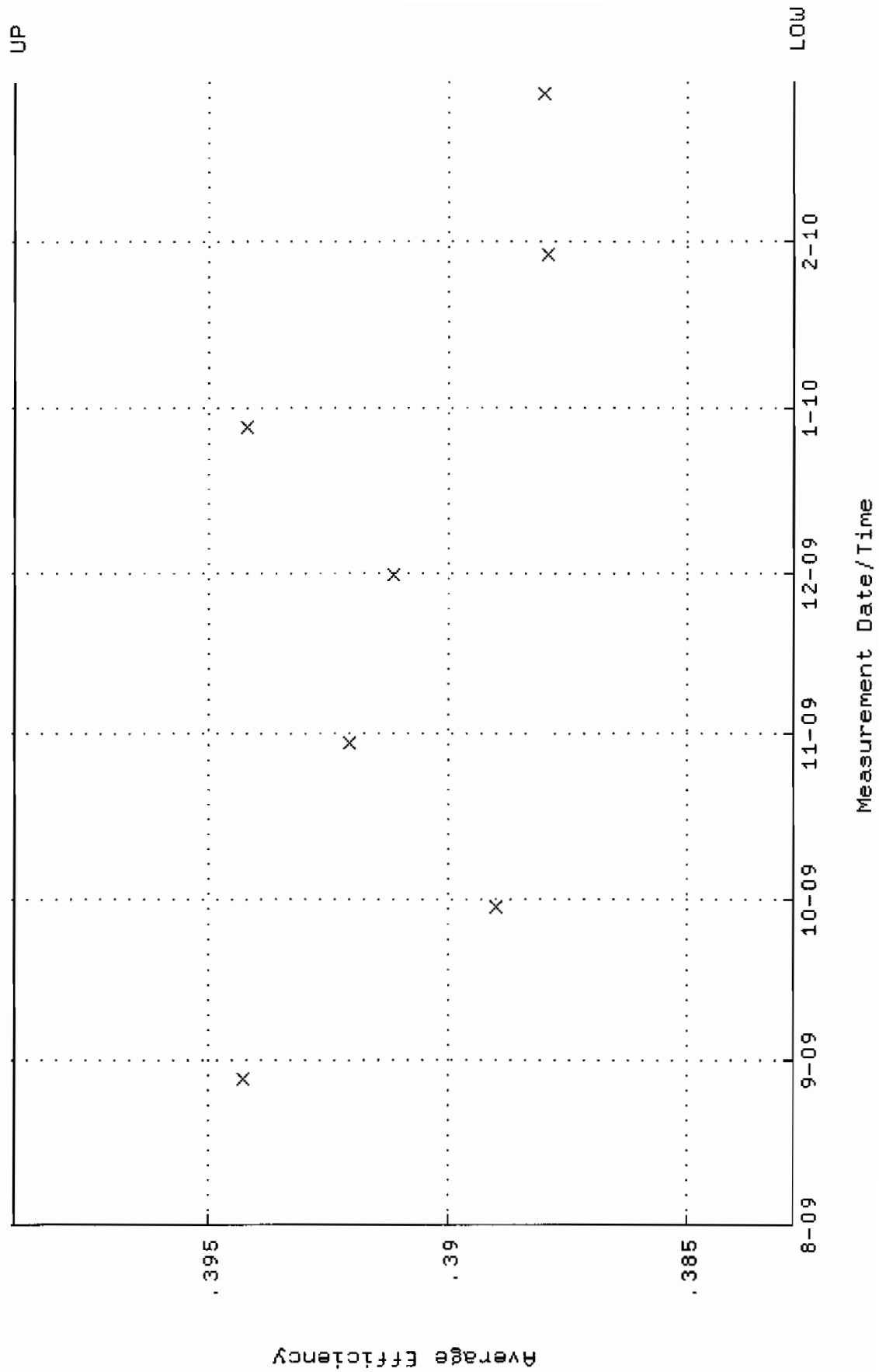




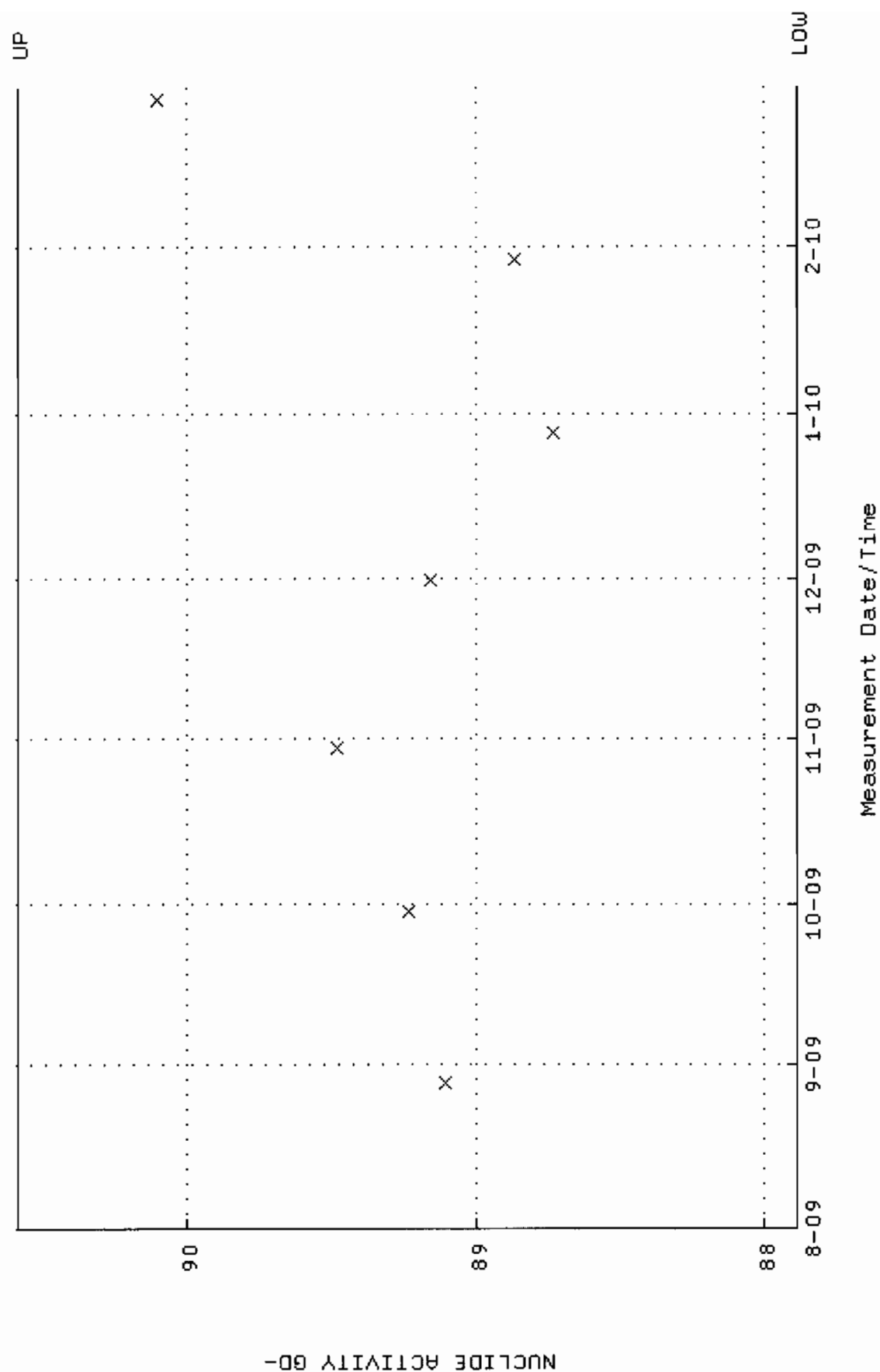
QA filename : DKA100:[ENV\_ALPHA.QA.B]B161.QAF;1  
 Parameter Name : BACKRATE (Background Rate)  
 Start/End Dates : 6-SEP-2009 15:44:12 through 23-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



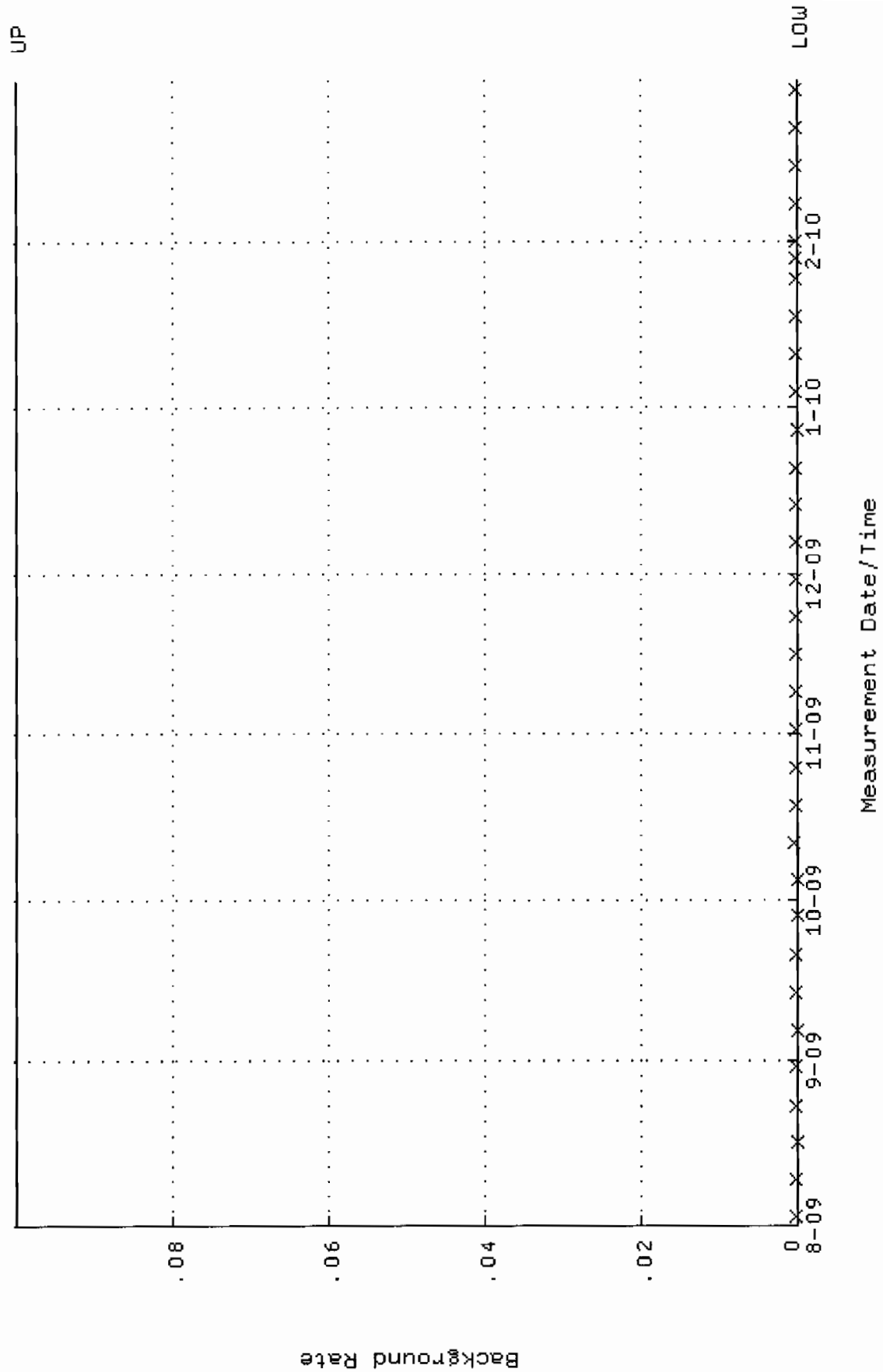
QA filename : DKA100:[ENV\_ALPHA.QA.W]W225.QAF;1  
 Parameter Name : AVRGEFF (Average Efficiency)  
 Start/End Dates : 28-AUG-2009 07:07:50 through 2-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.382792 through 0.399070



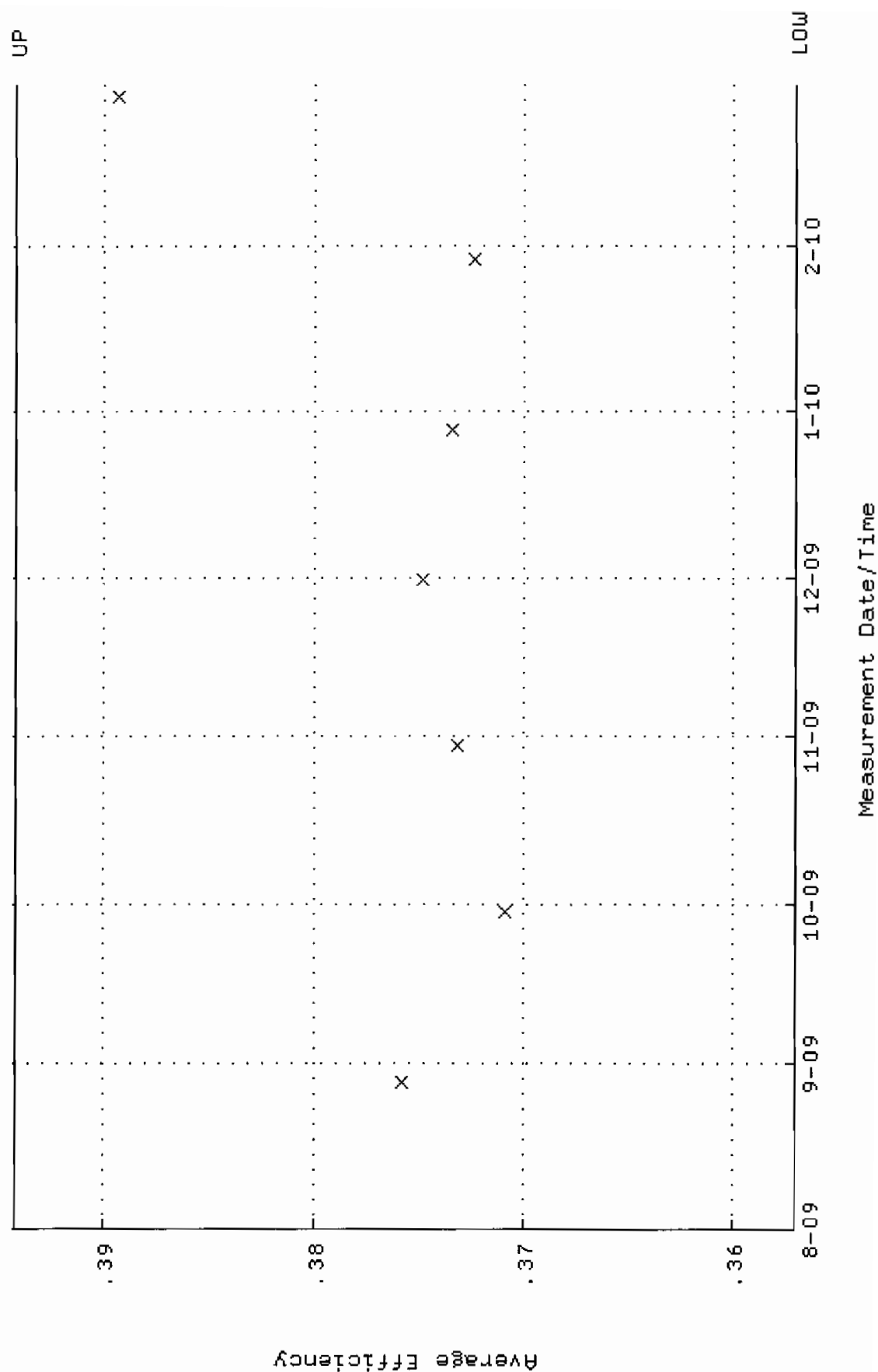
QA filename : DKA100:[ENV-ALPHA.QA.W]W225.QAF;1  
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)  
 Start/End Dates : 28-AUG-2009 07:07:50 through 2-MAR-2010 12:00:00  
 Lower/Upper Lmts: 87.8853 through 90.5875



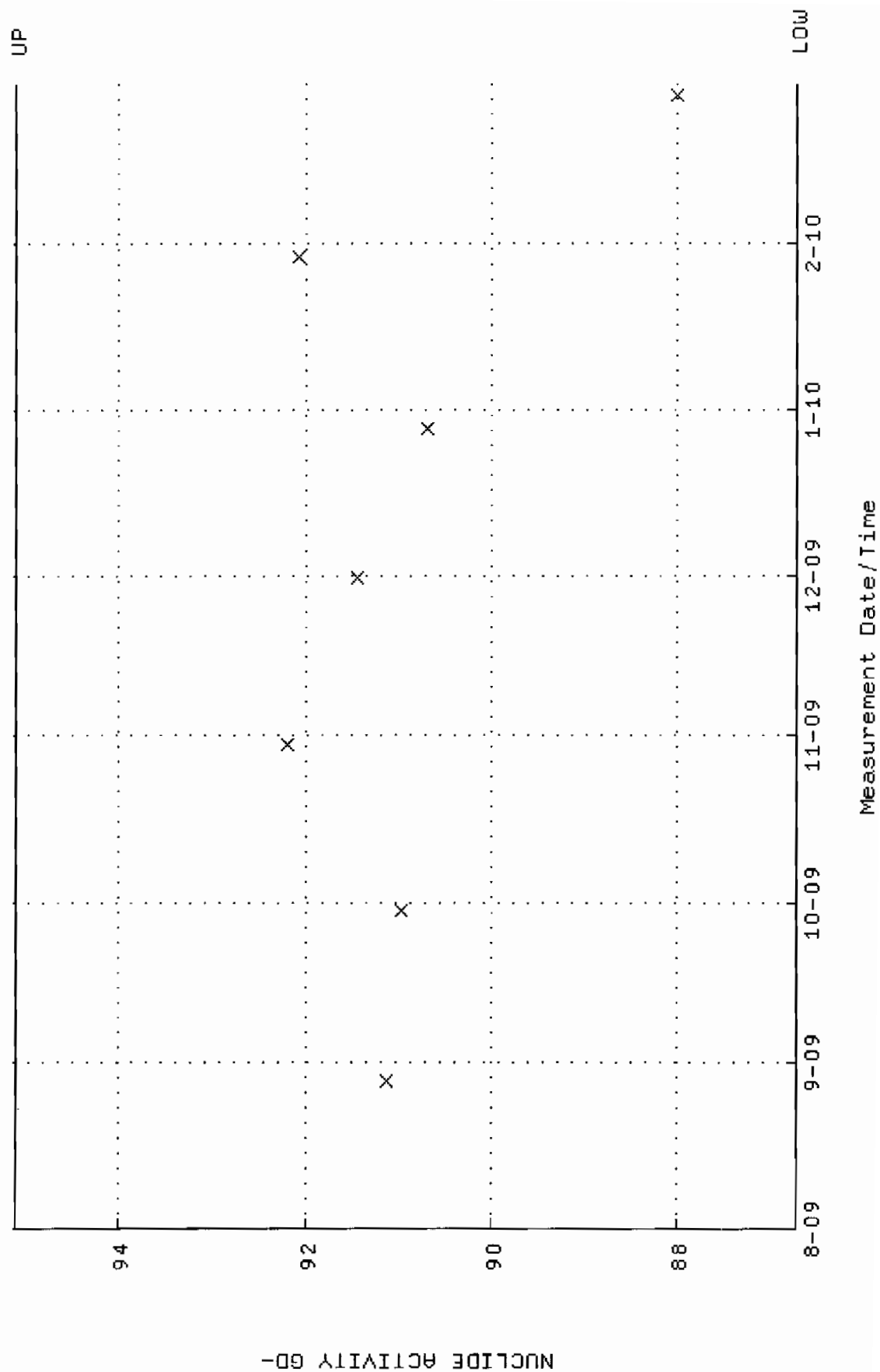
QA filename : DKA100:[ENV\_ALPHA.QA.B]B225.QAF;1  
 Parameter Name : BACKRATE (Background Rate)  
 Start/End Dates : 2-AUG-2009 17:26:16 through 2-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



QA filename : DKA100:[ENV\_ALPHA.QA.W]W226.QAF;1  
 Parameter Name : AVRGEFF (Average Efficiency)  
 Start/End Dates : 28-AUG-2009 07:07:57 through 2-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.357039 through 0.394215



QA filename : DKA100:[ENV\_ALPHA.QA.W]W226.QAF;1  
 Parameter Name : NLAIVITY-6D148 (NUCLIDE ACTIVITY 6D-148)  
 Start/End Dates : 28-AUG-2009 07:07:57 through 2-MAR-2010 12:00:00  
 Lower/Upper Lmts: 86.7273 through 95.1093

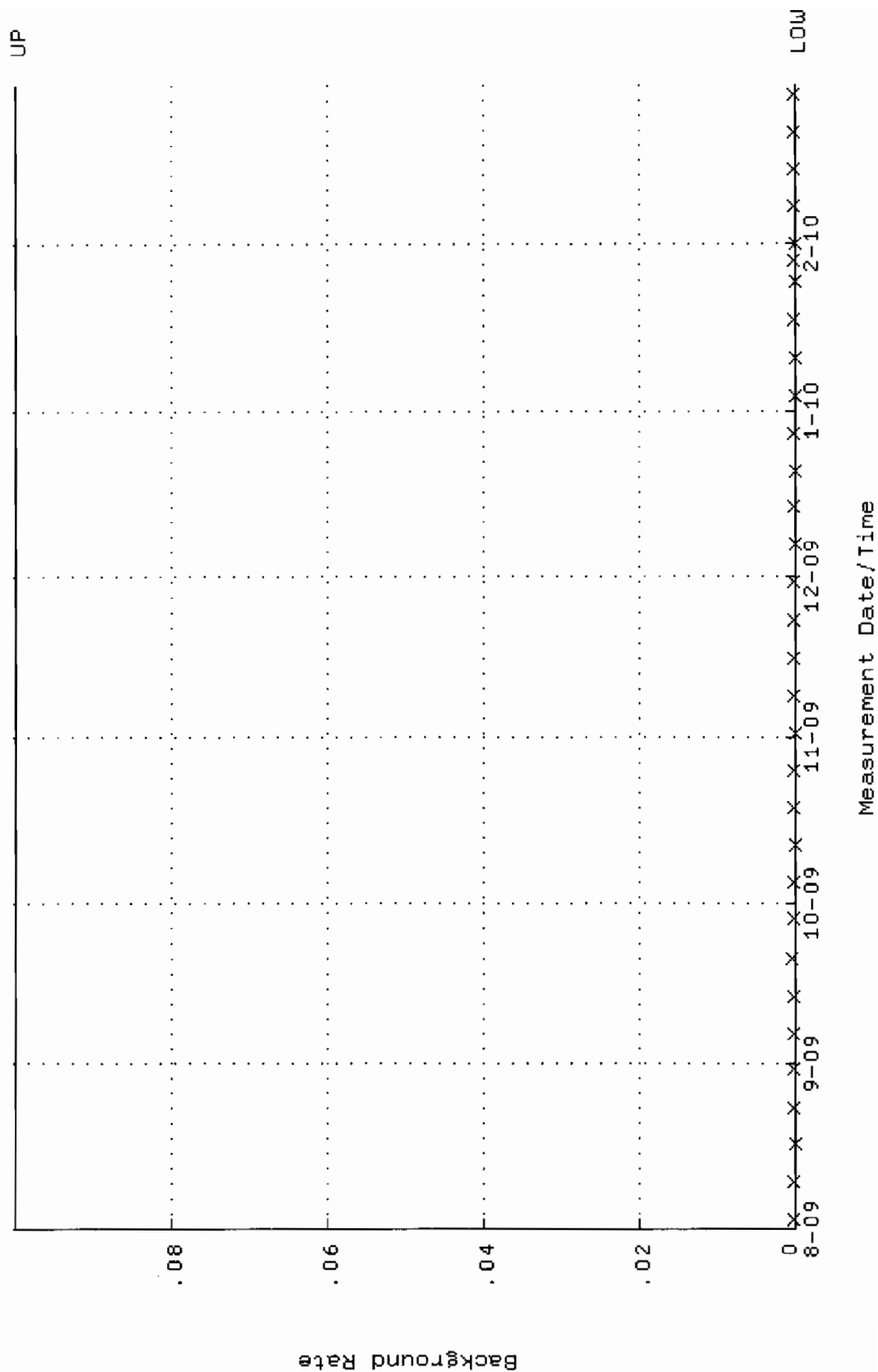


QA filename : DKA100:[ENV\_ALPHA.QA.B]B2226.QAF;1

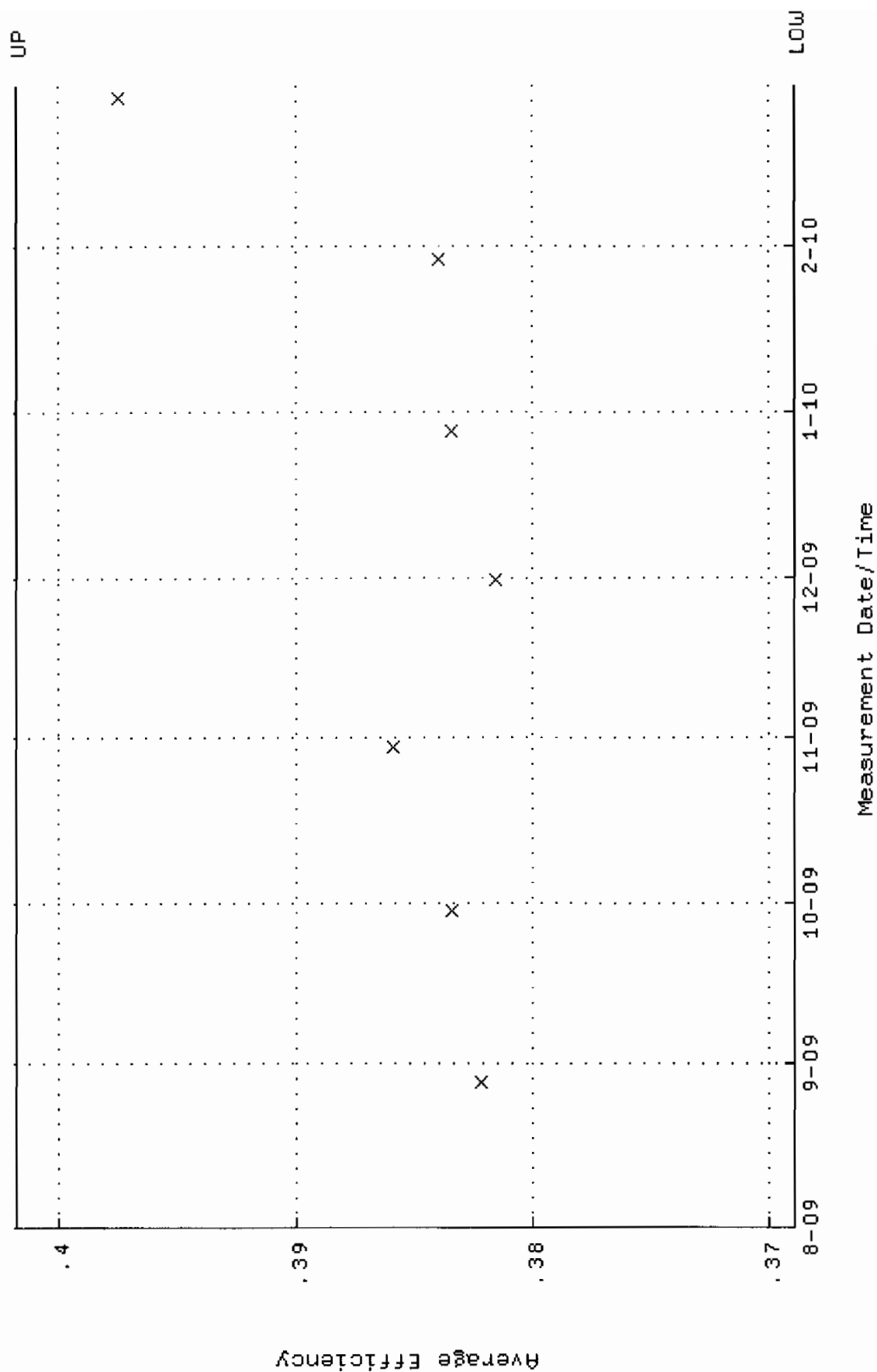
Parameter Name : BACKRATE (Background Rate)

Start/End Dates : 2-AUG-2009 17:26:20 through 2-MAR-2010 12:00:00

Lower/Upper Lmts: 0.000000E+00 through 0.100000

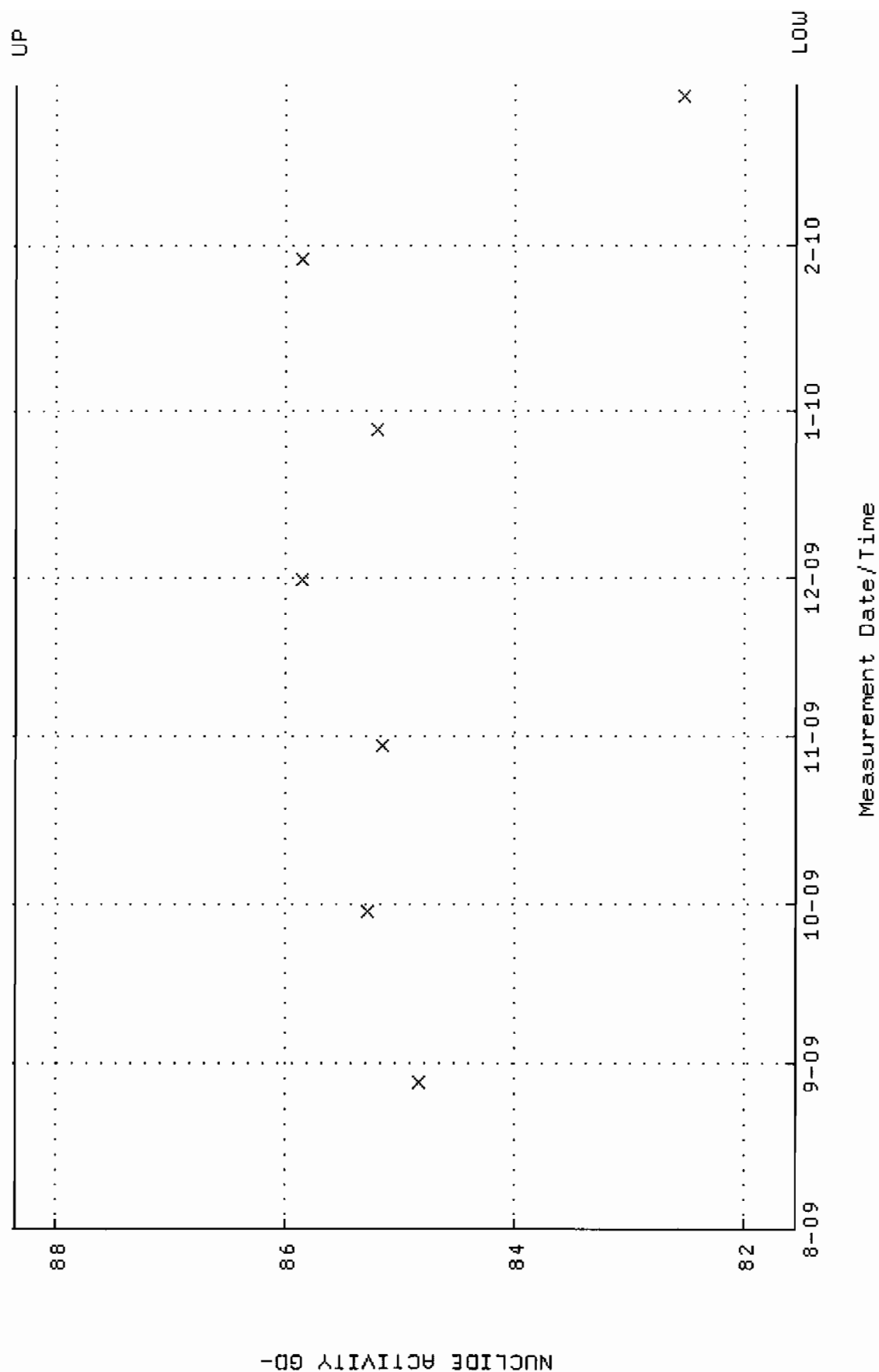


QA filename : DKA100:[ENV\_ALPHA.QA.W]W234.QAF;1  
 Parameter Name : AVRGEFF (Average Efficiency)  
 Start/End Dates : 28-AUG-2009 07:08:41 through 2-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.368938 through 0.401788

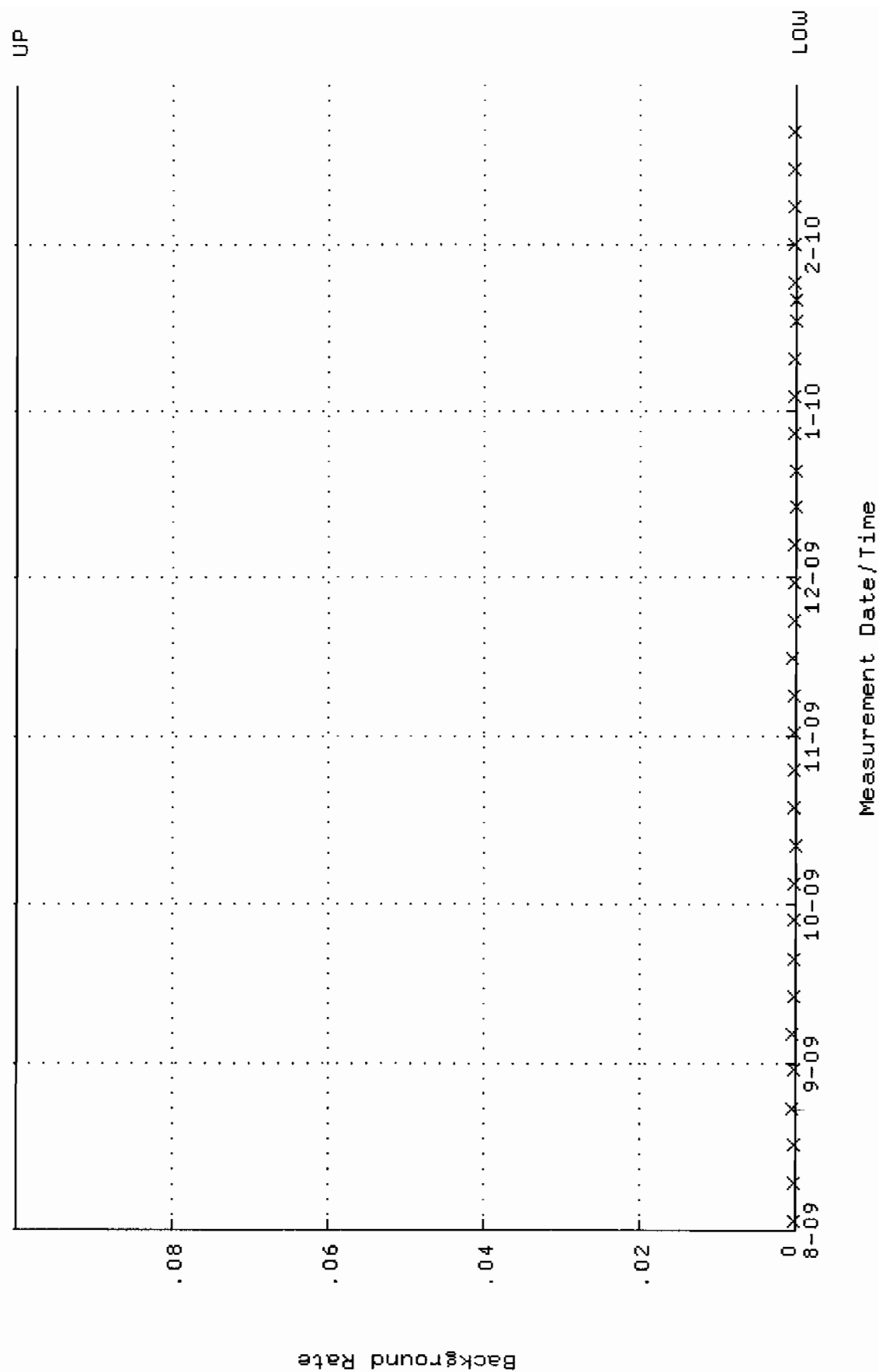




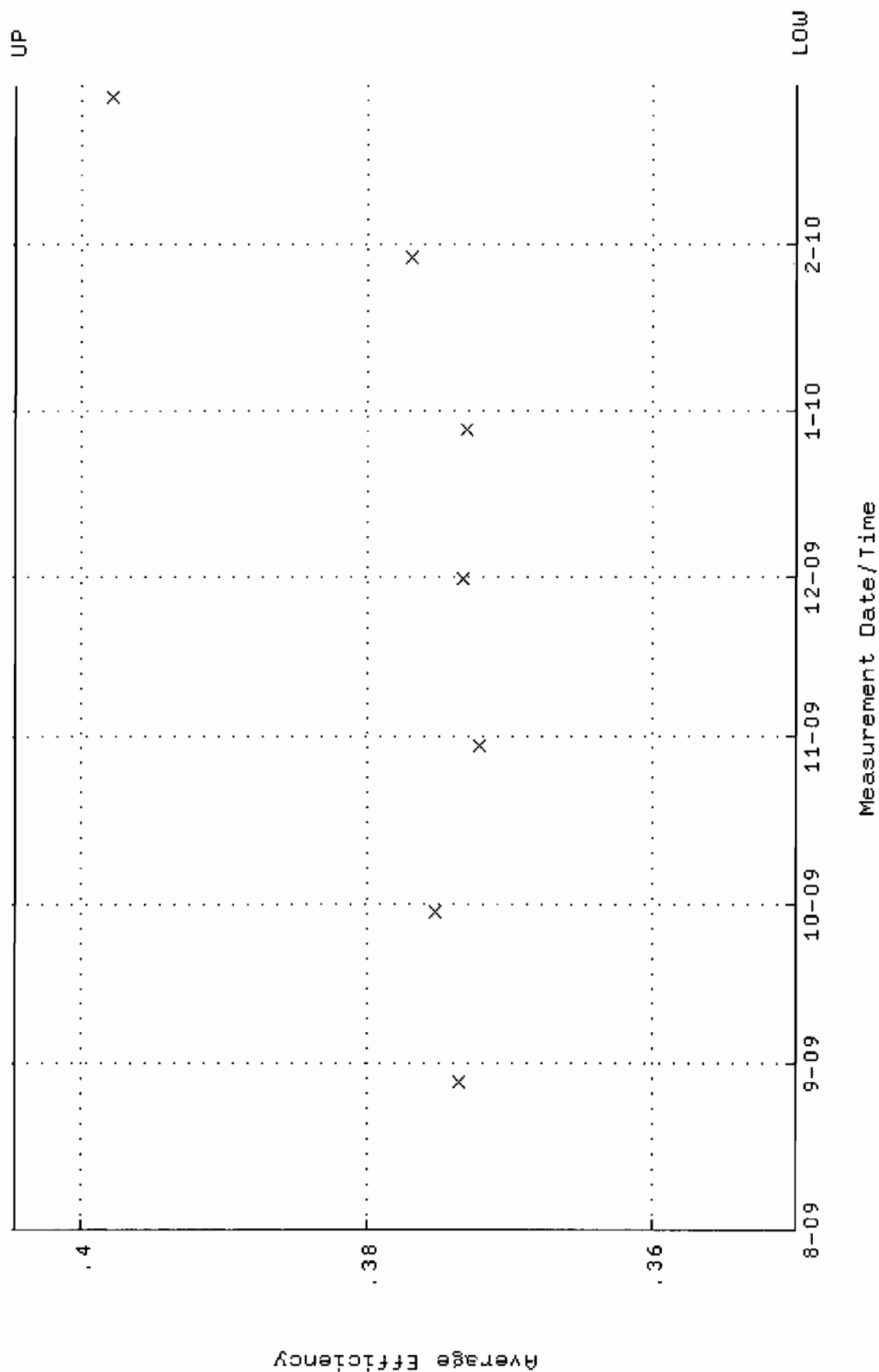
QA filename : DKA100:[ENV\_ALPHA.QA.W]W234.QAF;1  
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)  
 Start/End Dates : 28-AUG-2009 07:08:41 through 2-MAR-2010 12:00:00  
 Lower/Upper Lmts: 81.5490 through 88.3592



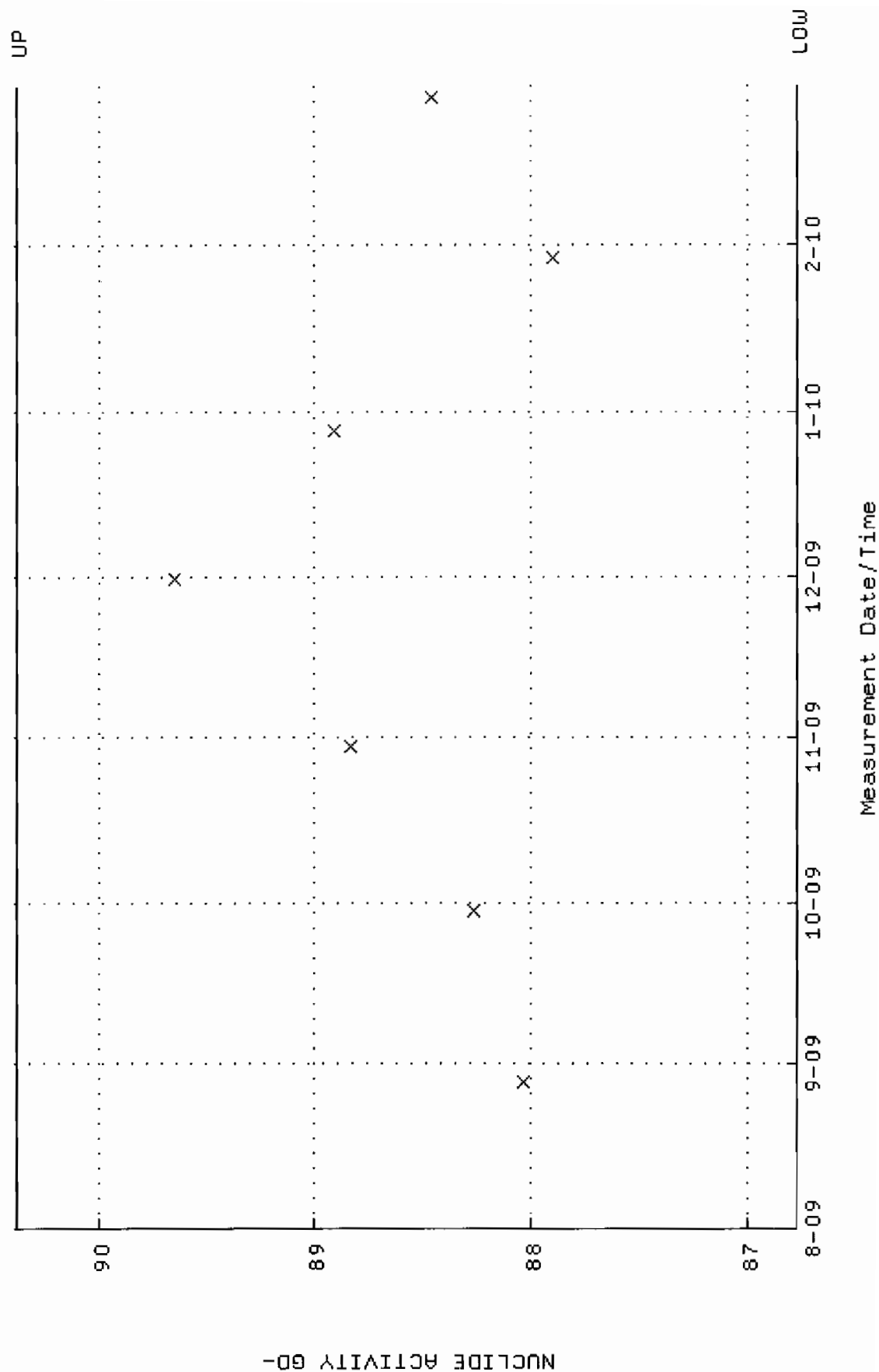
QA filename : DKA100:[ENV\_ALPHA.QA.B]B234.QAF;1  
 Parameter Name : BACKRATE (Background Rate)  
 Start/End Dates : 2-AUG-2009 17:26:56 through 2-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



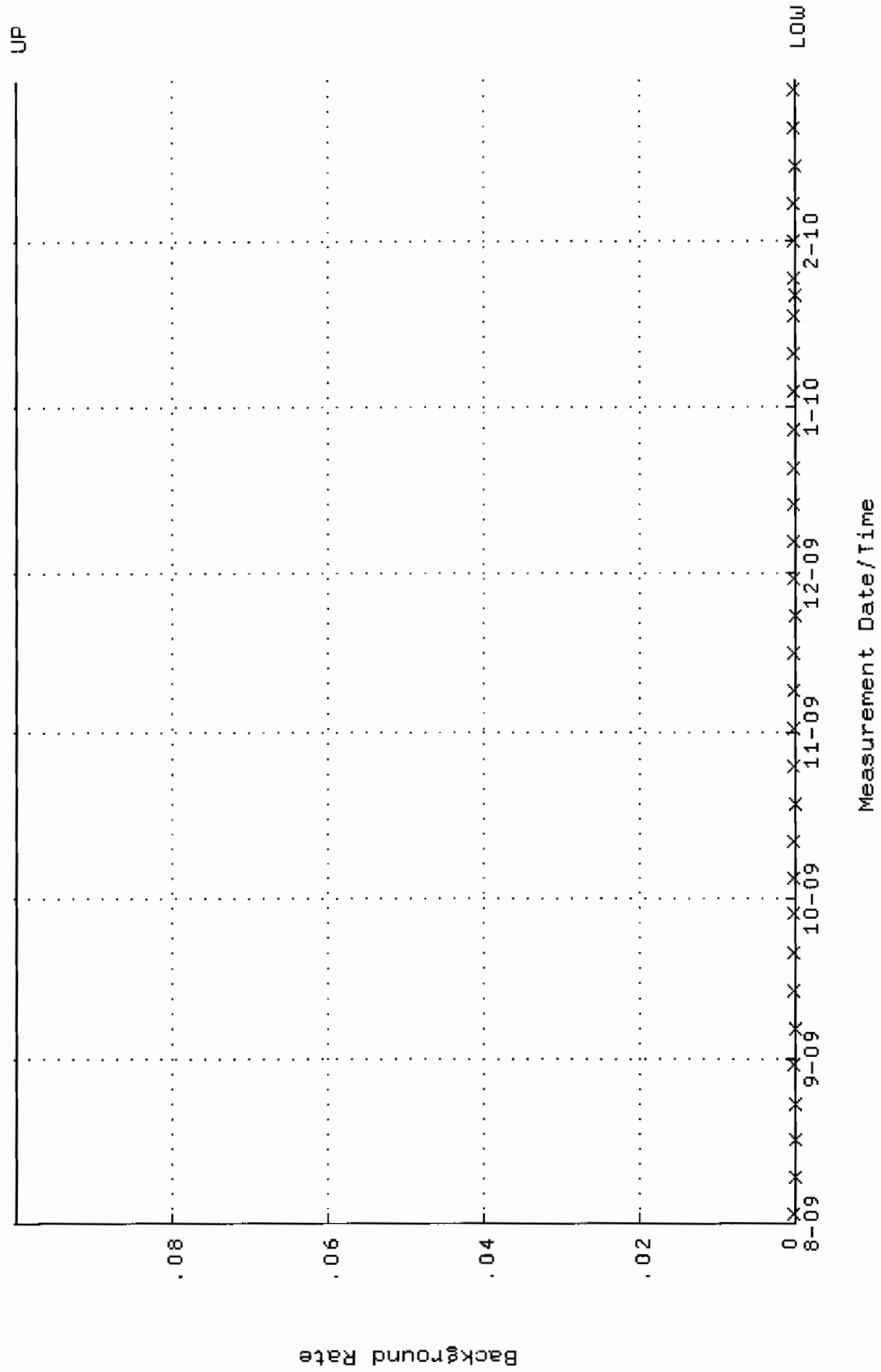
QA filename : DKA100:[ENV\_ALPHA.QA.W]W235.QAF;1  
 Parameter Name : AVRGEFF (Average Efficiency)  
 Start/End Dates : 28-AUG-2009 07:08:45 through 2-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.350020 through 0.404668



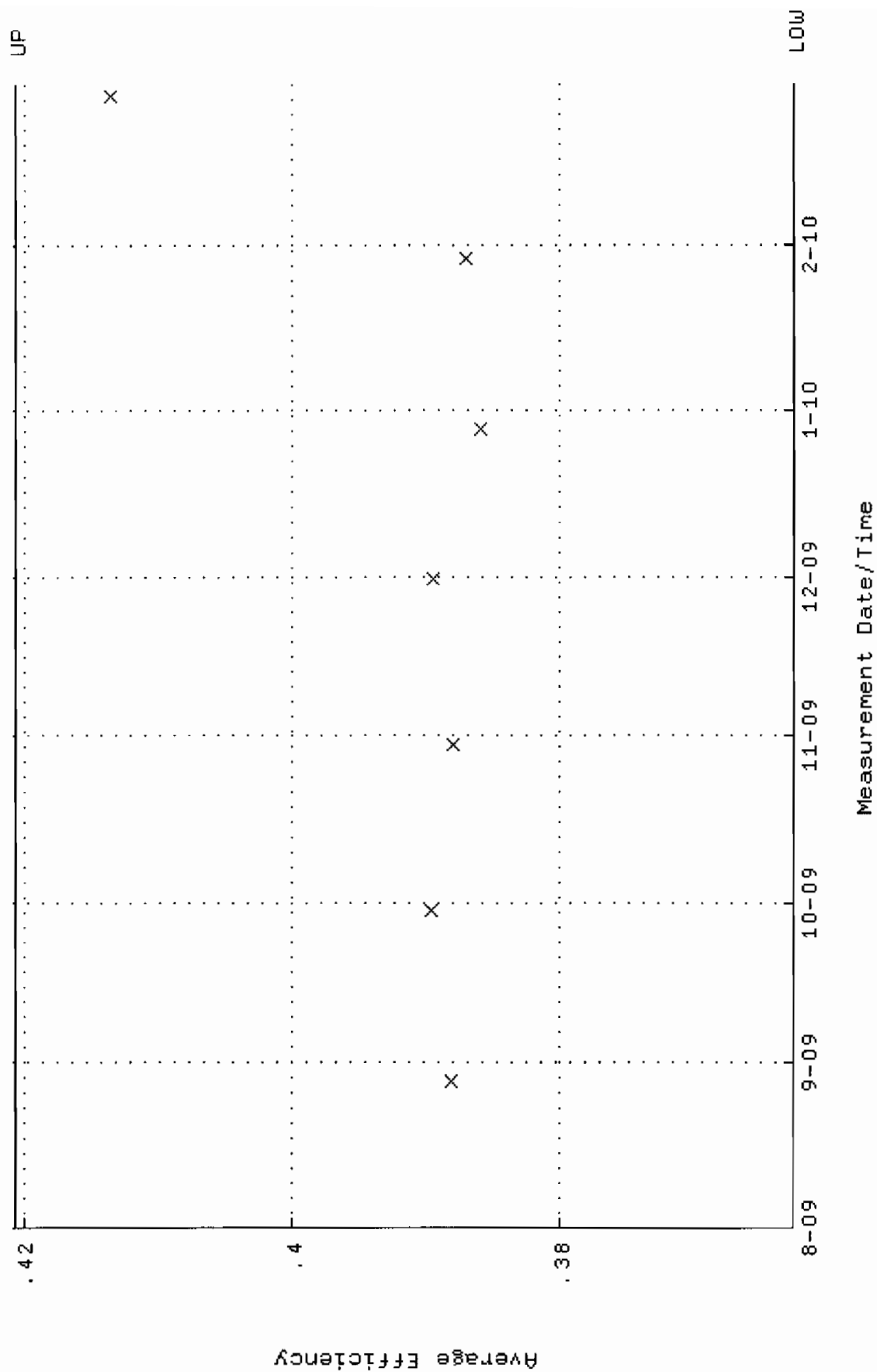
QA filename : DKA100:[ENV\_ALPHA.QA.W]W235.QAF;1  
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)  
 Start/End Dates : 28-AUG-2009 07:08:45 through 2-MAR-2010 12:00:00  
 Lower/Upper Lmts: 86.7703 through 90.3803



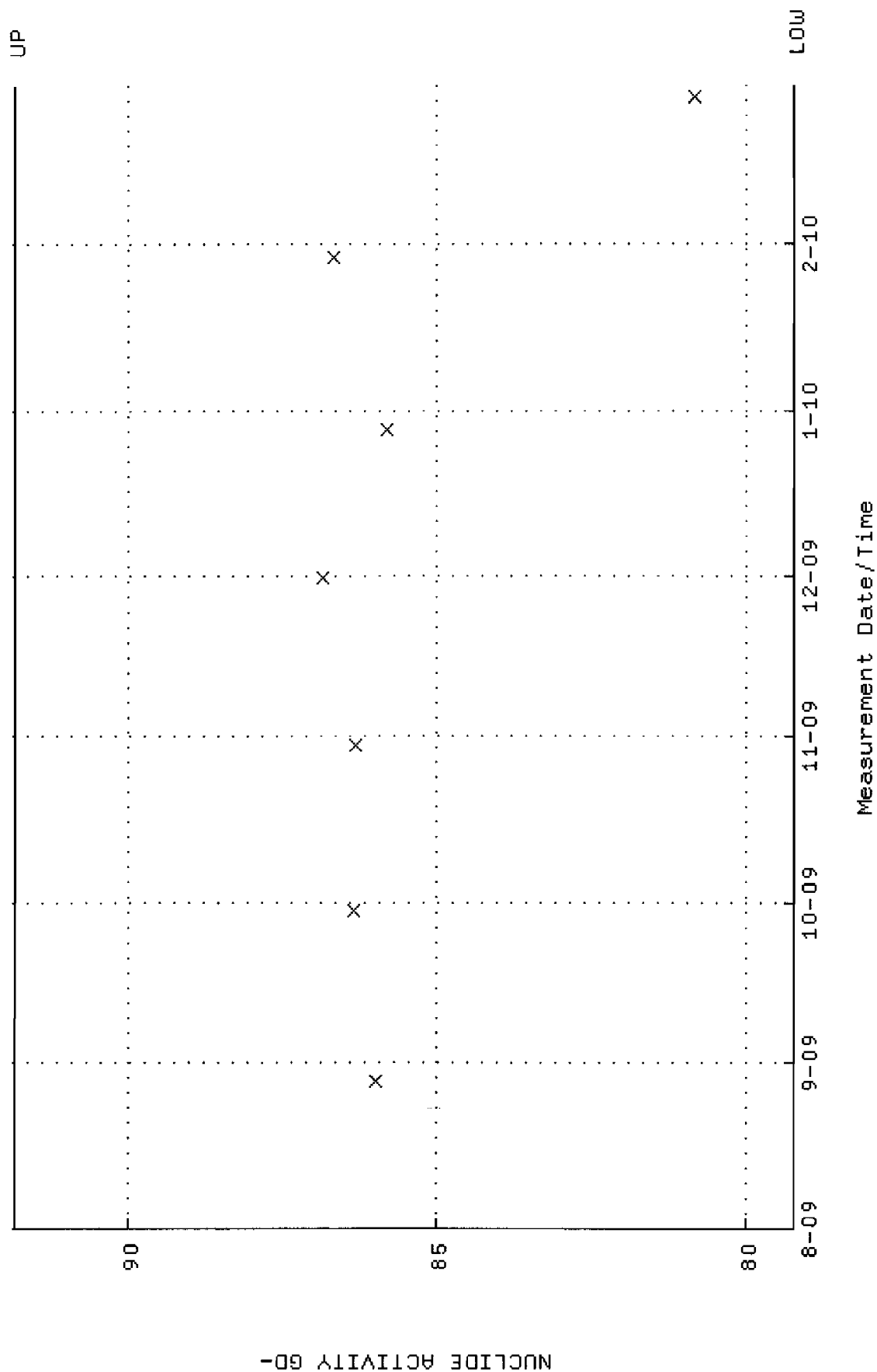
QA filename : DKA100:[ENV\_ALPHA.QA.B]B235.QAF;1  
 Parameter Name : BACKRATE (Background Rate)  
 Start/End Dates : 2-AUG-2009 17:27:00 through 2-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



QA filename : DKA100:[ENV\_ALPHA.QA.W]W236.QAF;1  
Parameter Name : AVRGEFF (Average Efficiency)  
Start/End Dates : 28-AUG-2009 07:08:51 through 2-MAR-2010 12:00:00  
Lower/Upper Lmts: 0.362418 through 0.420706



QA filename : DKA100:[ENV\_ALPHA.QA.W]W236.QAF;1  
 Parameter Name : NLAIVITY-GD148 (NUCLIDE ACTIVITY GD-148)  
 Start/End Dates : 28-AUG-2009 07:08:51 through 2-MAR-2010 12:00:00  
 Lower/Upper Lmts: 79.2135 through 91.8401

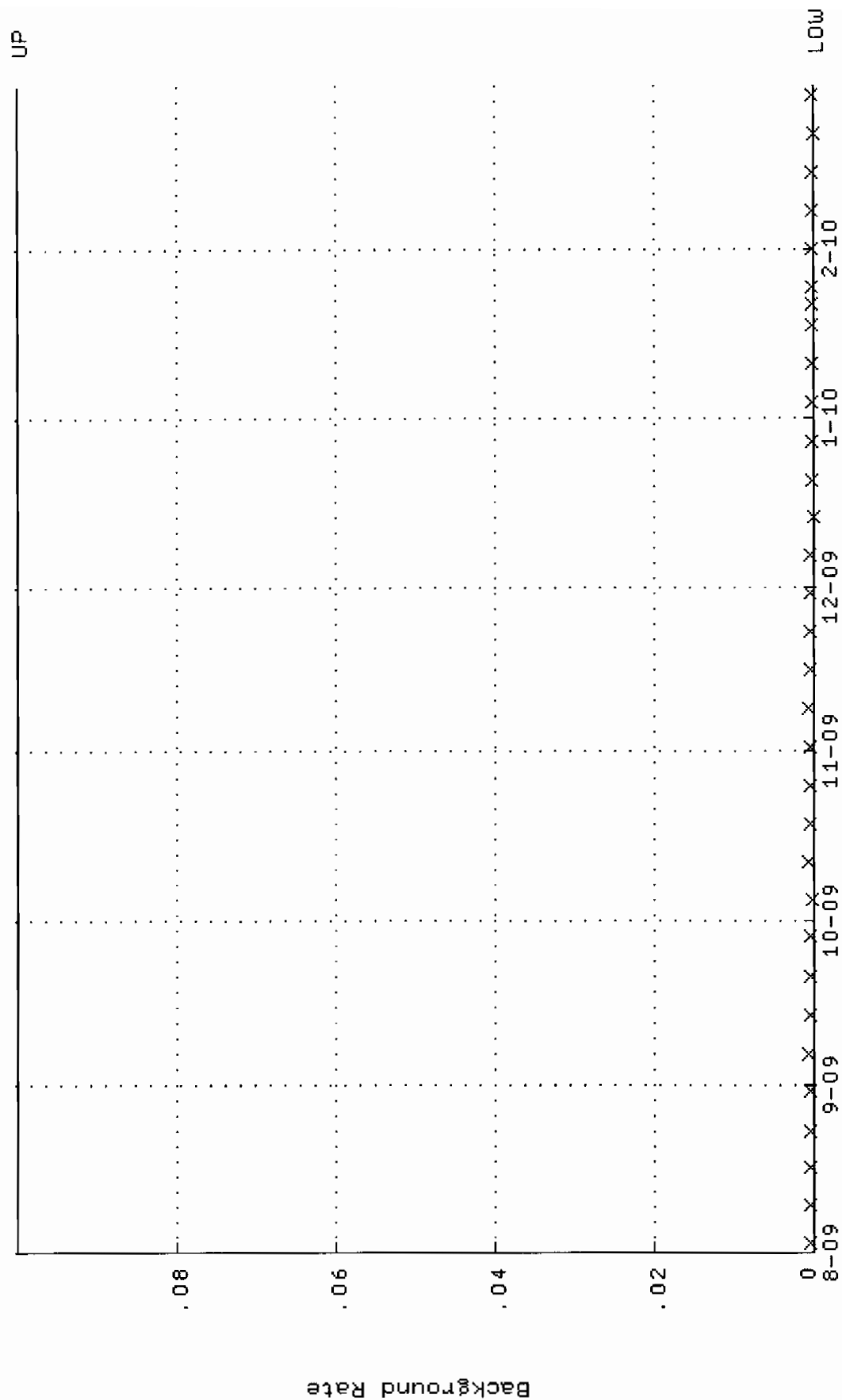


QA filename : DKA100:[ENV\_ALPHA.QA.B]B236.QAF;1

Parameter Name : BACKRATE (Background Rate)

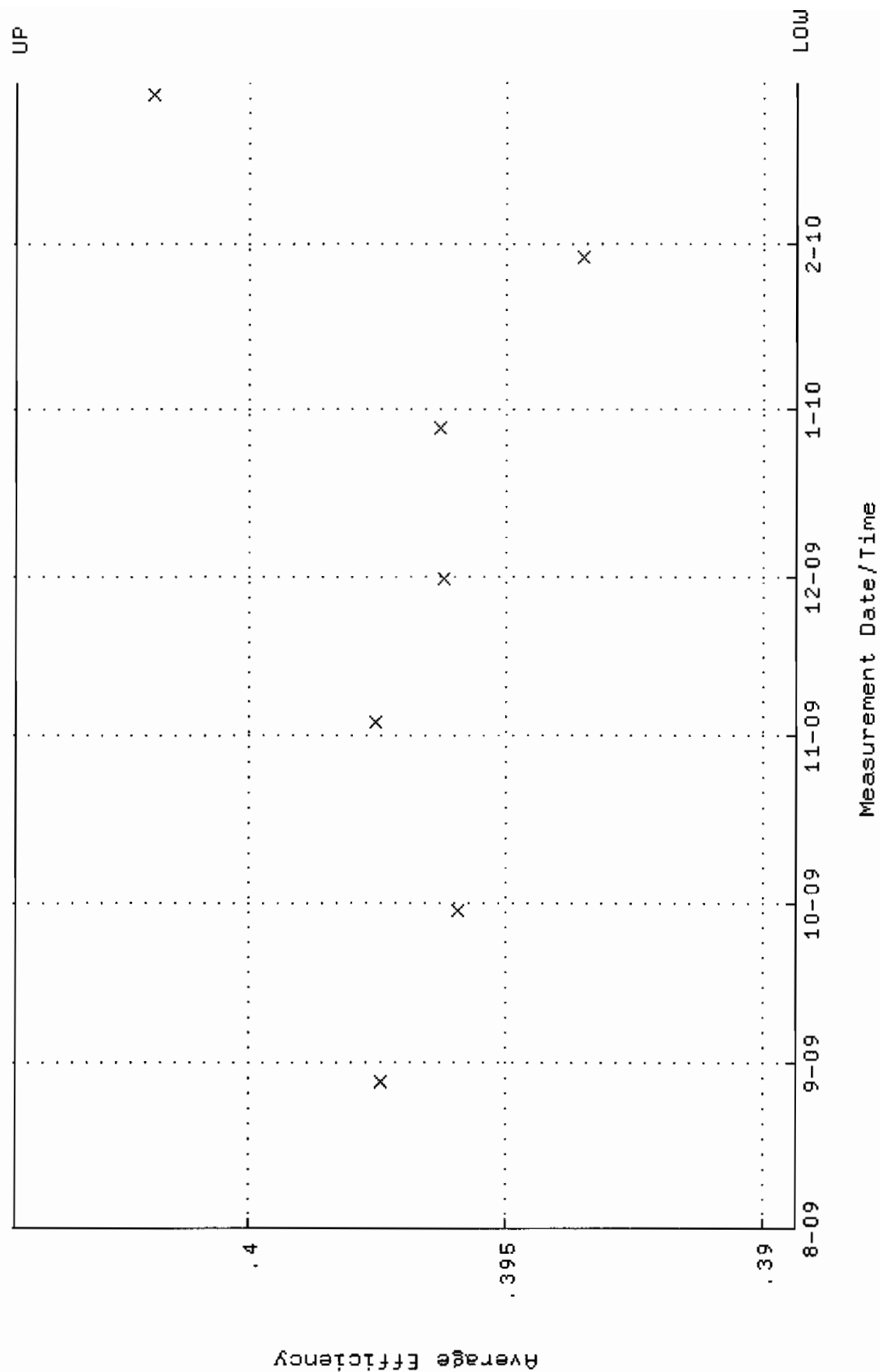
Start/End Dates : 2-AUG-2009 17:27:04 through 2-MAR-2010 12:00:00

Lower/Upper Lmts: 0.000000E+00 through 0.100000

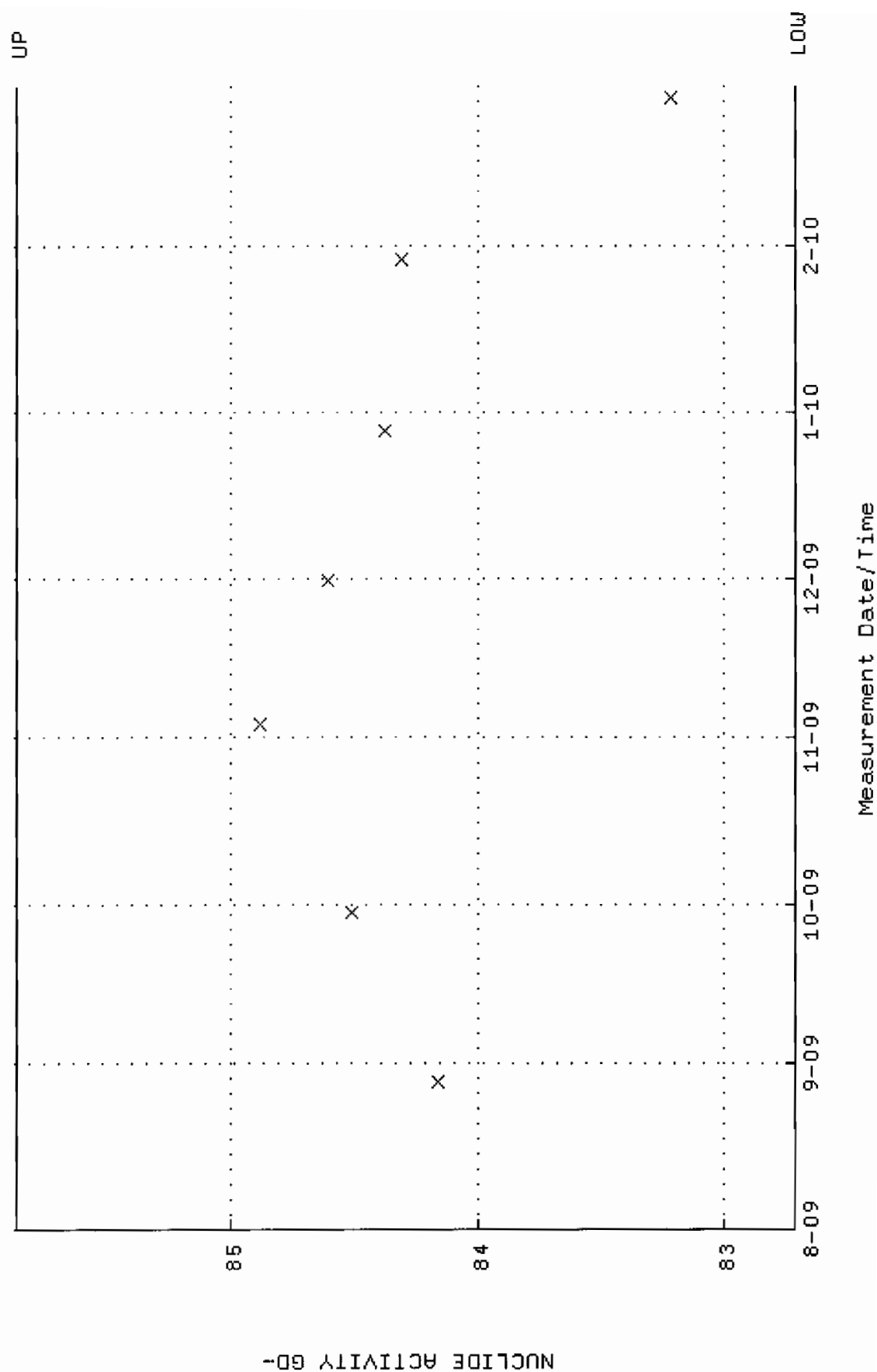




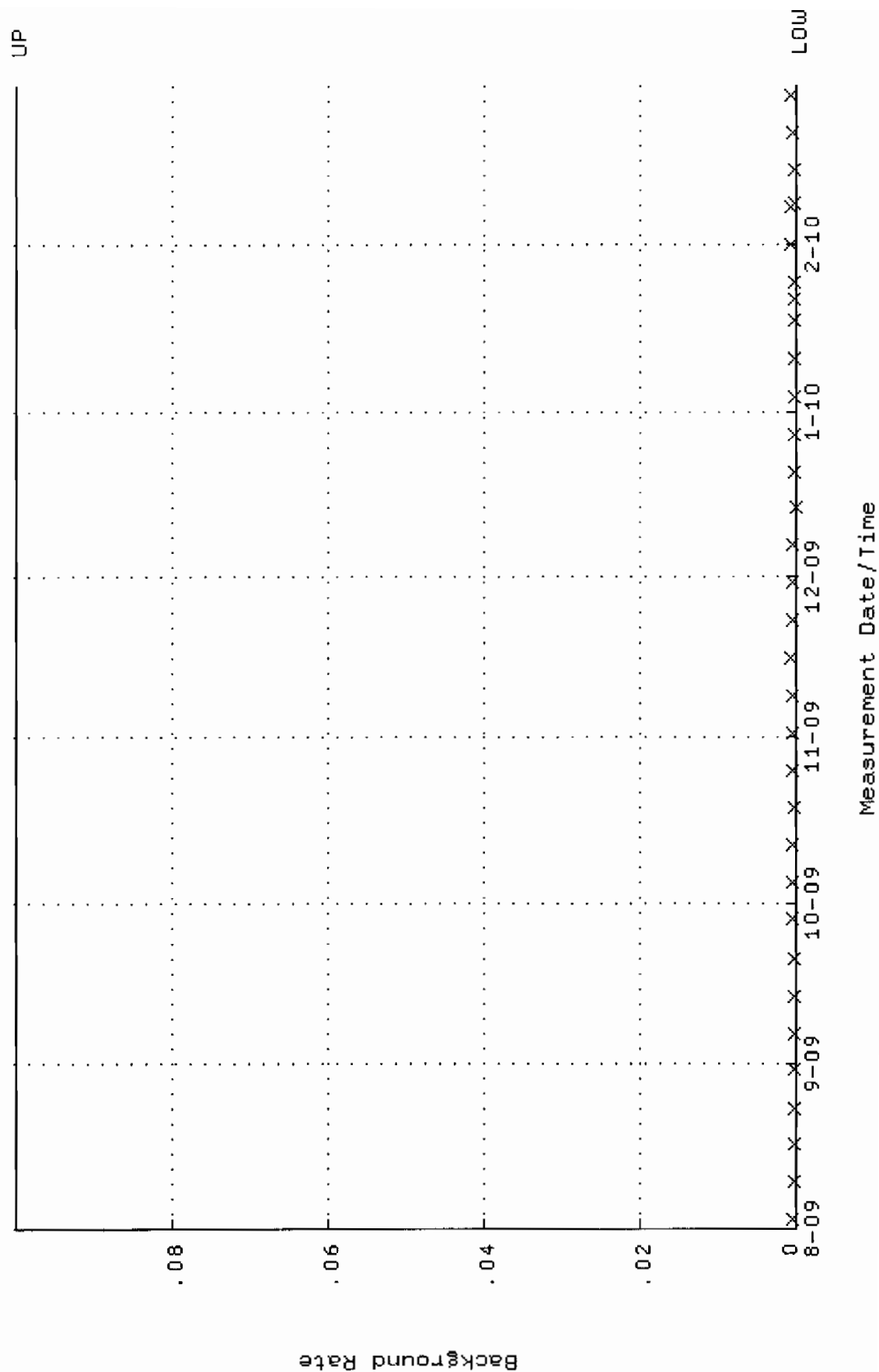
QA filename : DKA100:[ENV\_ALPHA.QA.W]W238.QAF;1  
 Parameter Name : AVRGEFF (Average Efficiency)  
 Start/End Dates : 28-AUG-2009 07:09:00 through 2-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.389351 through 0.404525



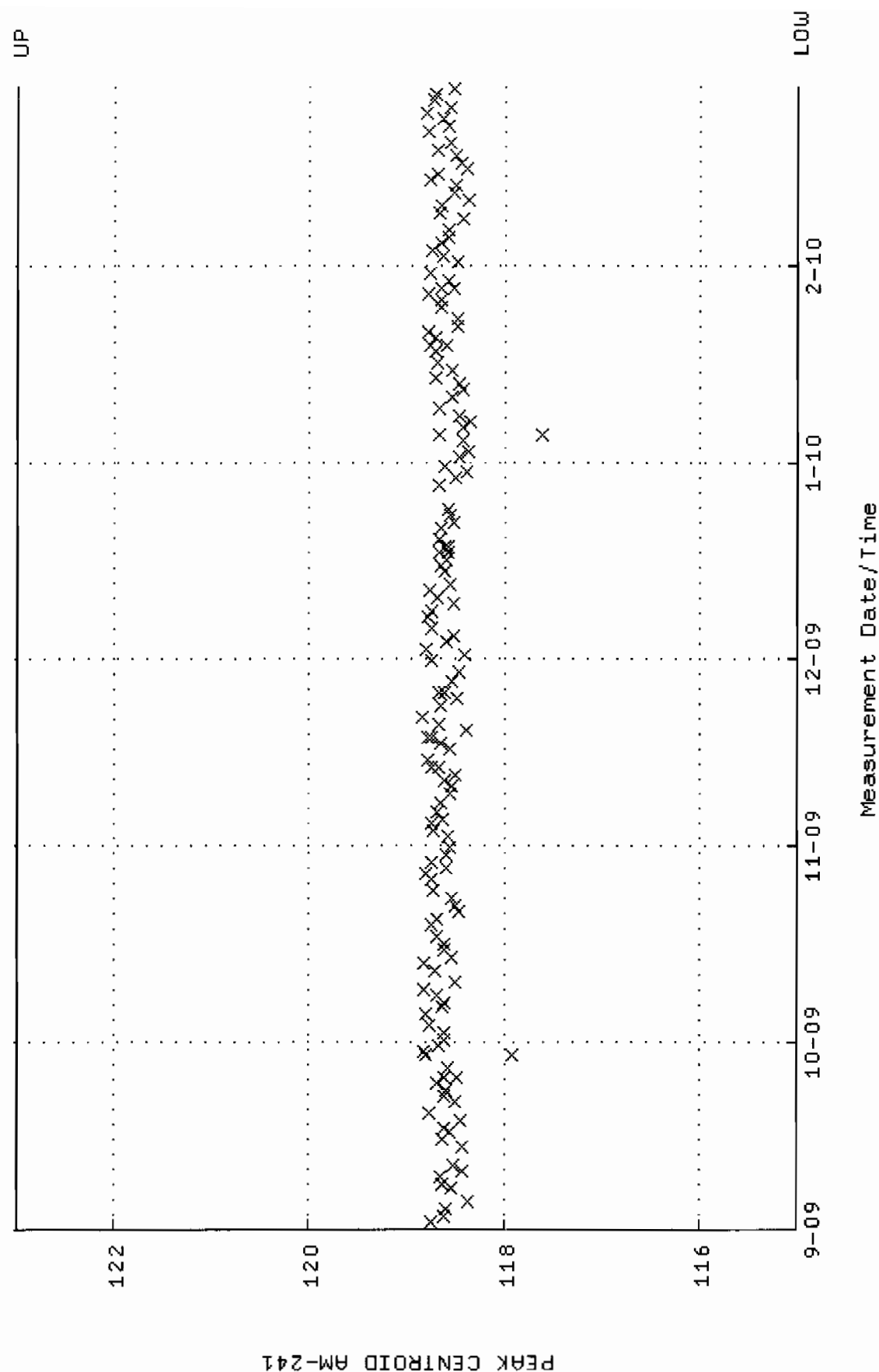
QA filename : DKA100:[ENV\_ALPHA.QA.W]w238.QAF;1  
 Parameter Name : NLACTIVITY-GD148 (NUCLIDE ACTIVITY GD-148)  
 Start/End Dates : 28-AUG-2009 07:09:00 through 2-MAR-2010 12:00:00  
 Lower/Upper Lmts: 82.7118 through 85.8726



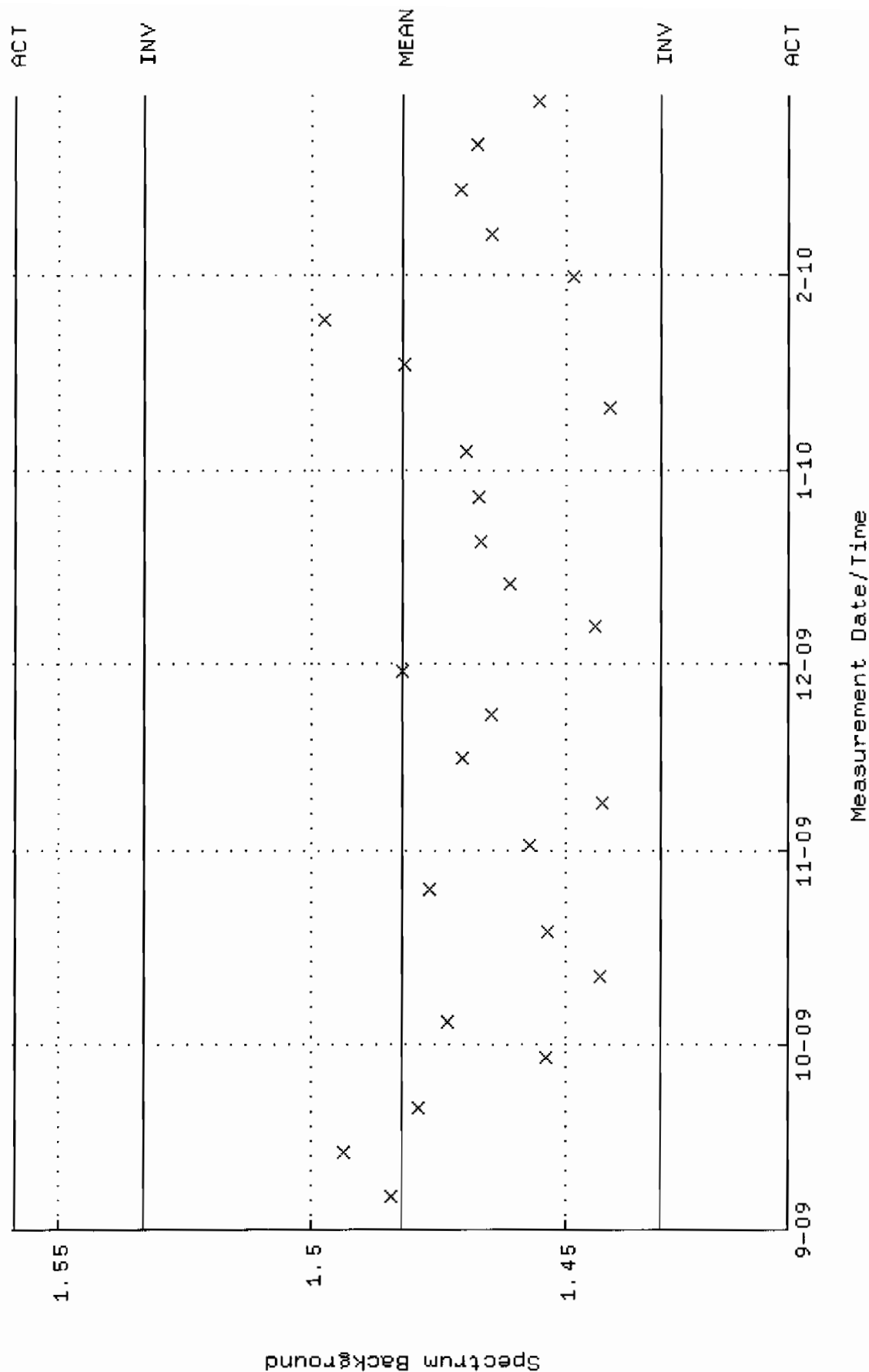
QA filename : DKA100:[ENV\_ALPHA.QA.B]B238.QAF;1  
 Parameter Name : BACKRATE (Background Rate)  
 Start/End Dates : 2-AUG-2009 17:27:12 through 2-MAR-2010 12:00:00  
 Lower/Upper Lmts: 0.000000E+00 through 0.100000



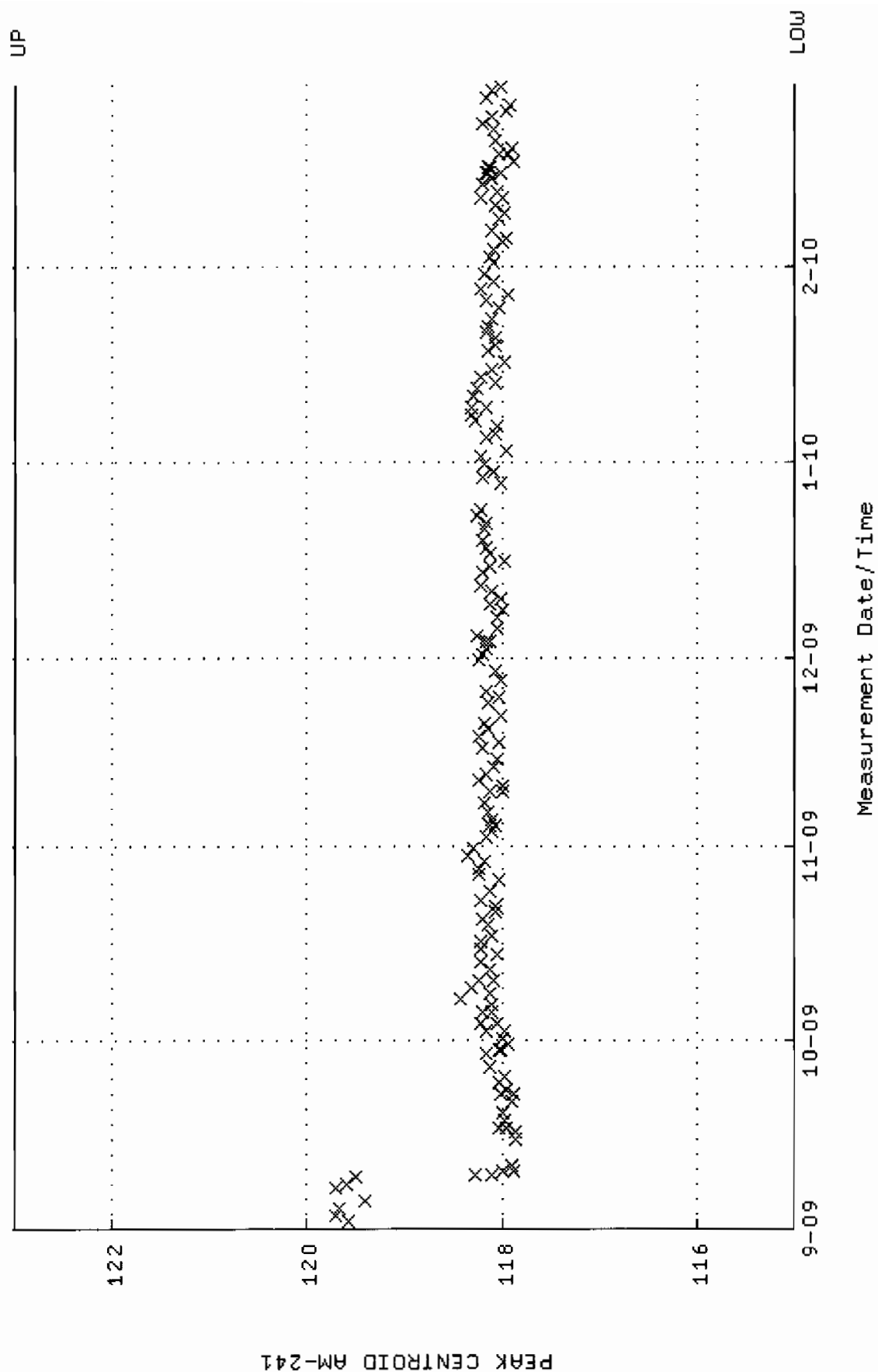
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC-GAM14-2LMB.QAF;1  
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)  
 Start/End Dates : 2-SEP-2009 04:40:36 through 1-MAR-2010 12:00:00  
 Lower/Upper Lmts: 115.000 through 123.000



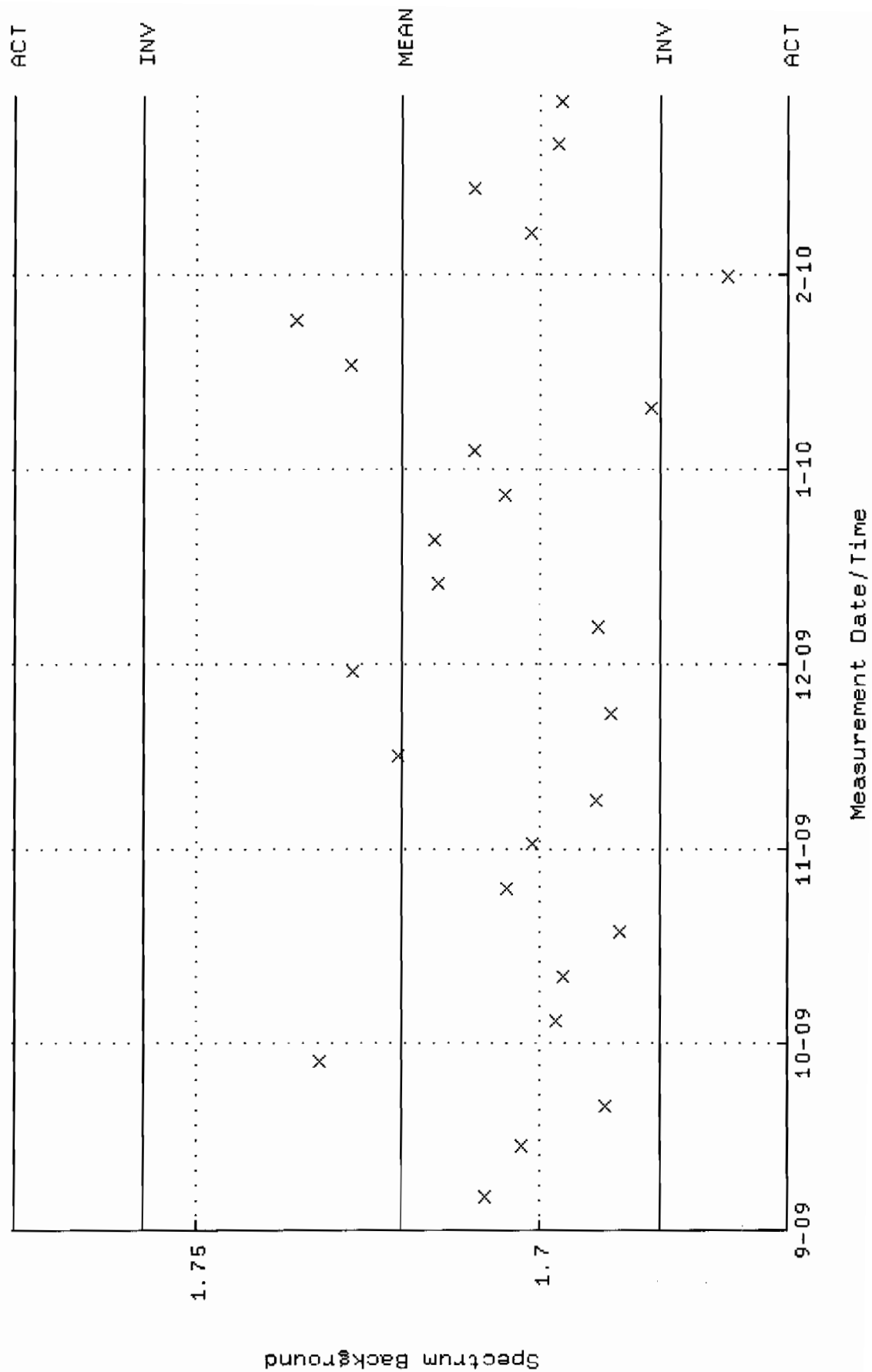
QA filename : OKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC\_GAM14.QAF;1  
 Parameter Name : BACKRATE (Spectrum Background Rate)  
 Start/End Dates : 6-SEP-2009 11:43:20 through 1-MAR-2010 12:00:00  
 Mean +- Std Dev : 1.48240 +- 2.535500E-02 (1.71 %)



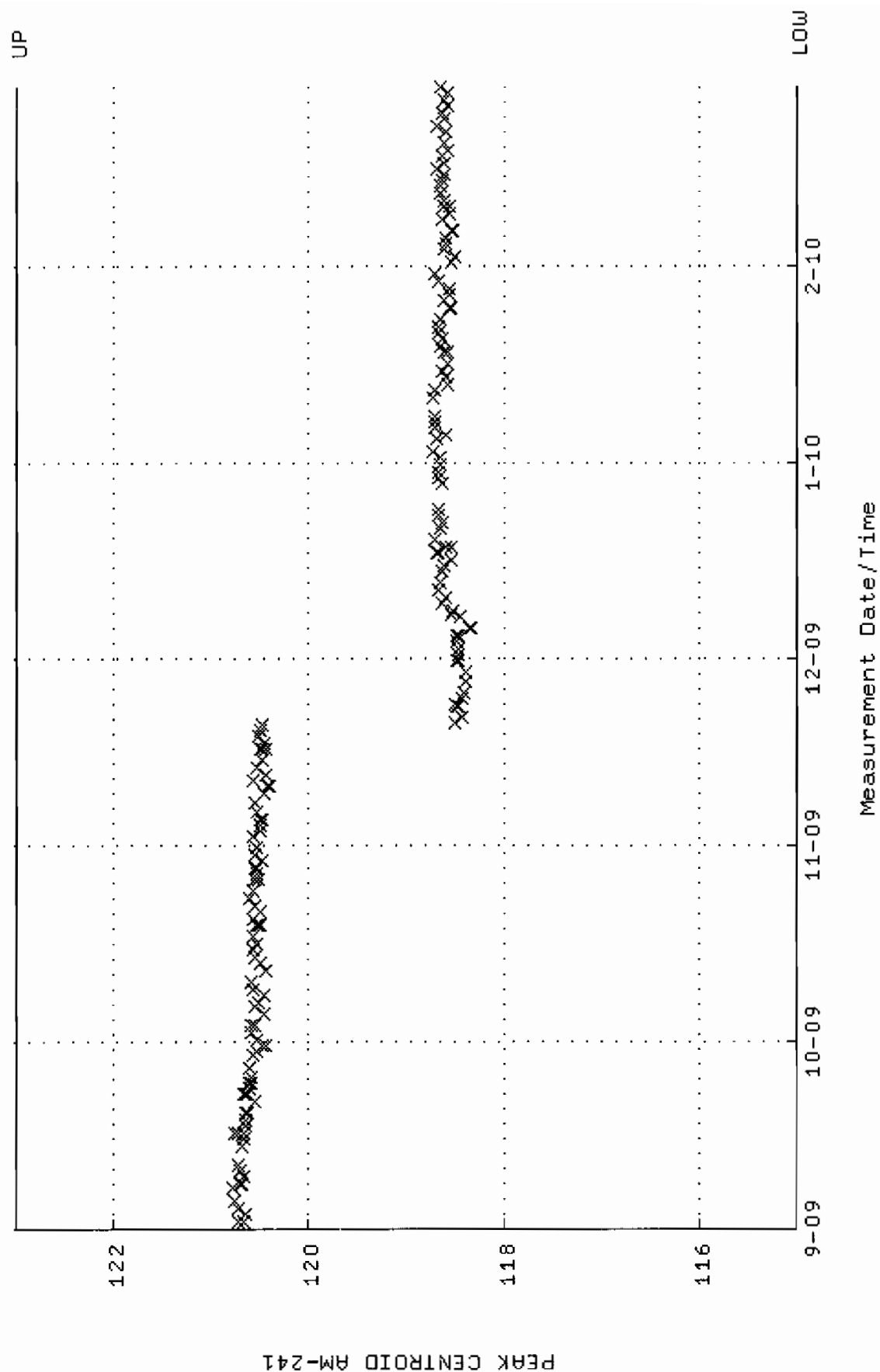
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC-GAM15-CAN.QAF;1  
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)  
 Start/End Dates : 2-SEP-2009 06:32:23 through 1-MAR-2010 12:00:00  
 Lower/Upper Lmts: 115.000 through 123.000



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 %)

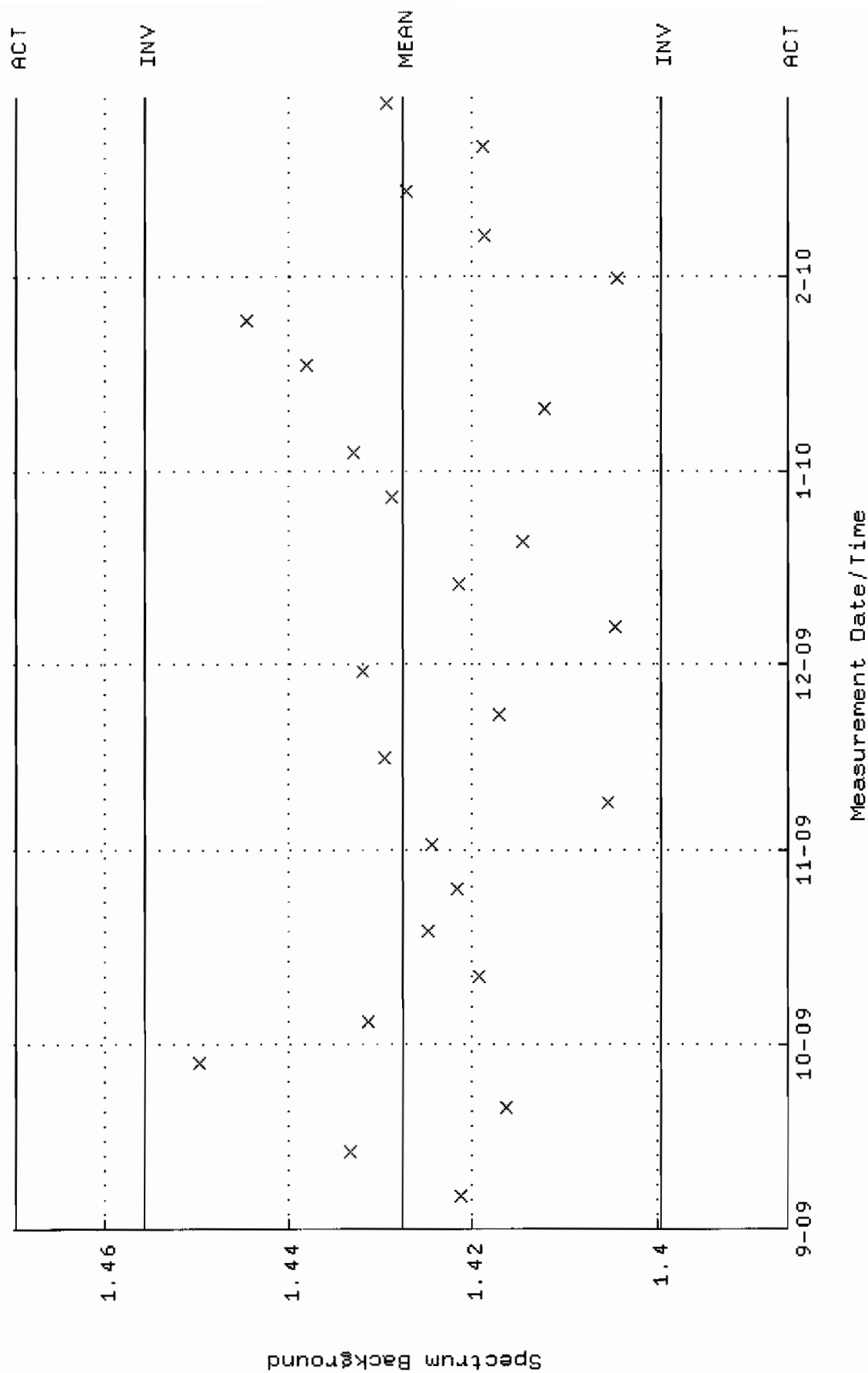


QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC-GAM17-CAN.QAF;1  
 Parameter Name : PSCENTRO-241 (PEAK CENTROID AM-241)  
 Start/End Dates : 2-SEP-2009 05:06:49 through 1-MAR-2010 12:00:00  
 Lower/Upper Lmts: 115.000 through 123.000

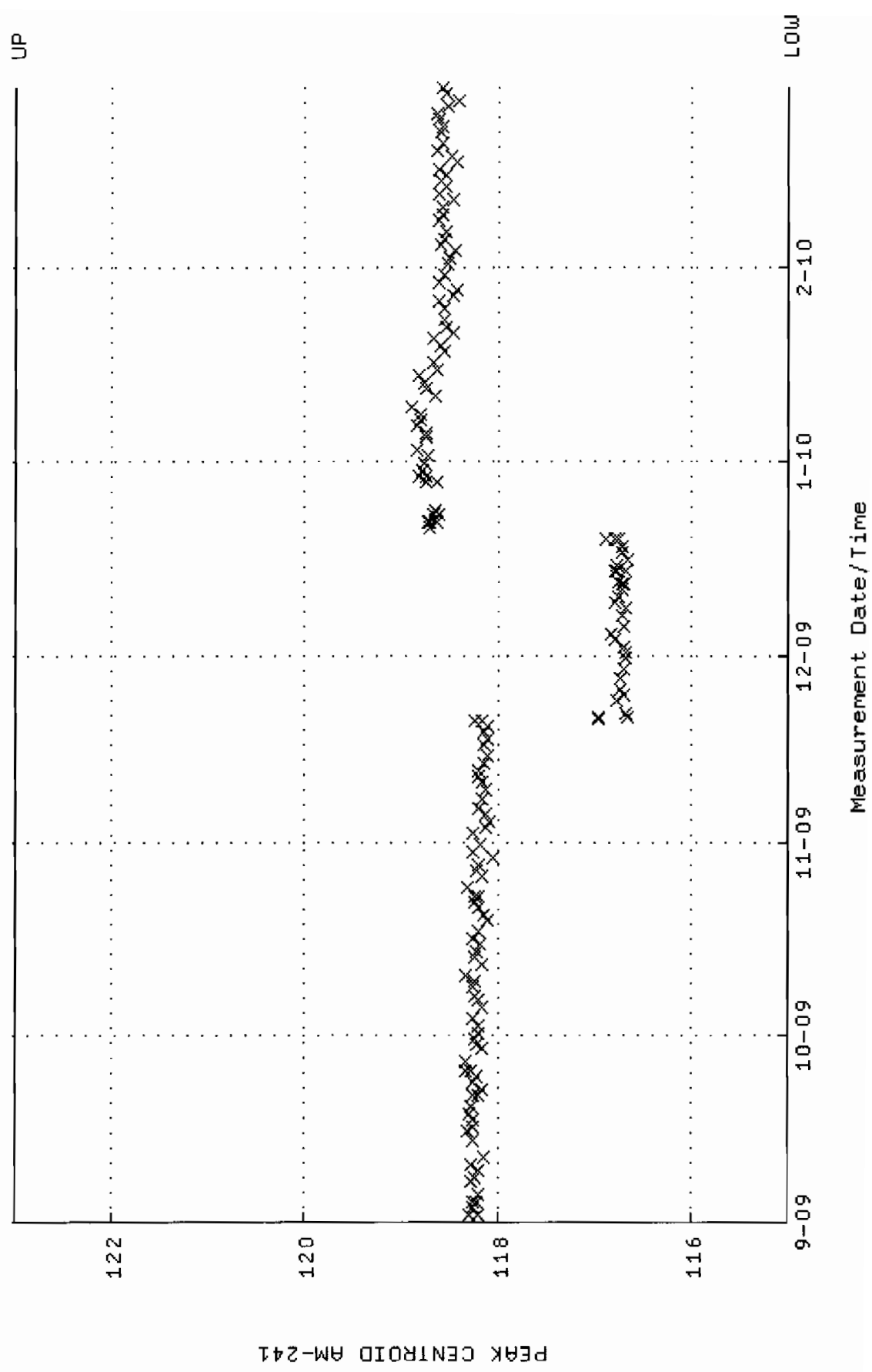




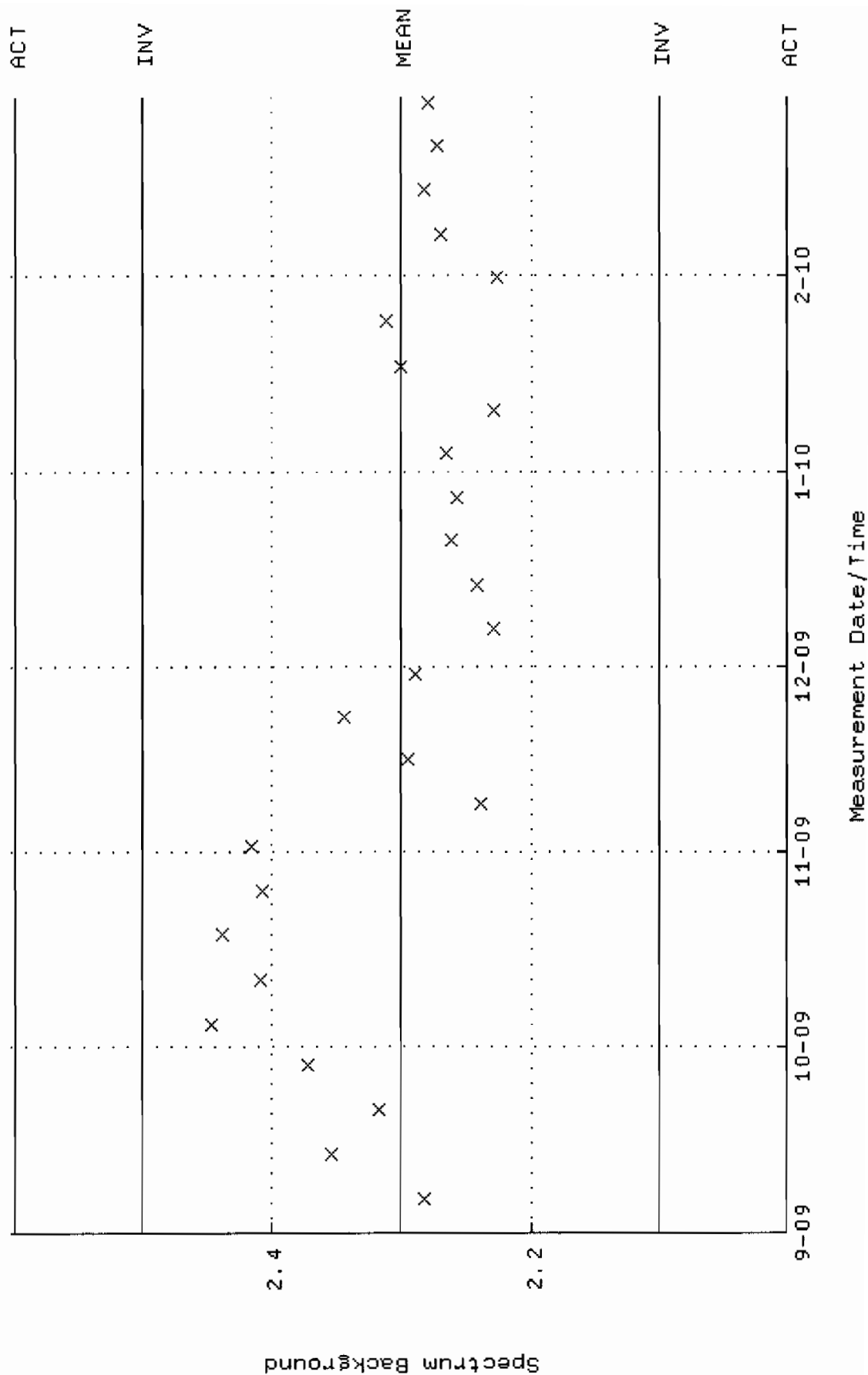
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC\_GAM17.QAF;1  
 Parameter Name : BACKRATE (Spectrum Background Rate)  
 Start/End Dates : 6-SEP-2009 11:44:33 through 1-MAR-2010 12:00:00  
 Mean +- Std Dev : 1.42766 +- 1.396974E-02 (0.98 %)



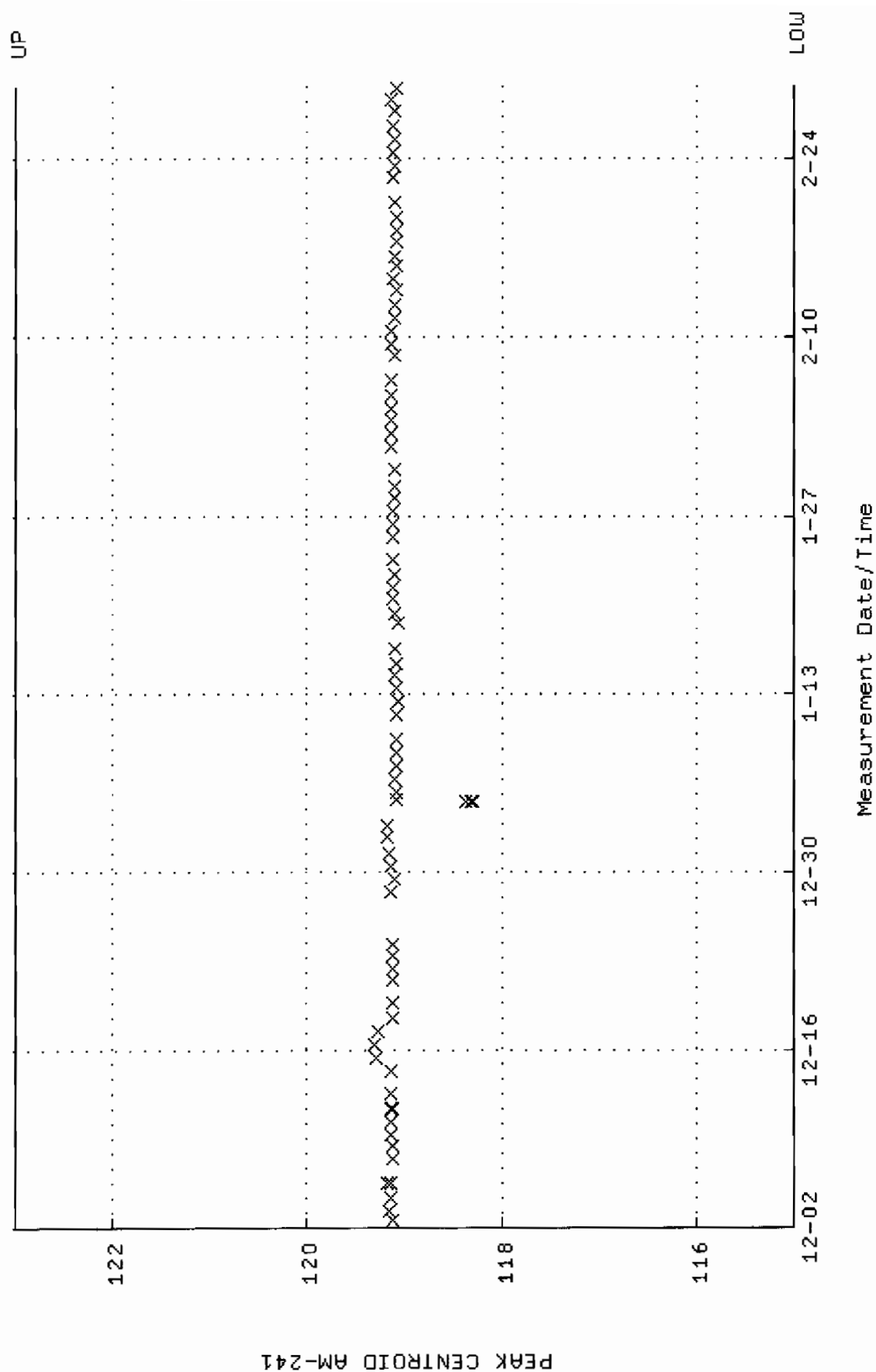
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC\_GAM18\_CAN.QAF;1  
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)  
 Start/End Dates : 2-SEP-2009 06:13:07 through 1-MAR-2010 12:00:00  
 Lower/Upper Lmts: 115.000 through 123.000



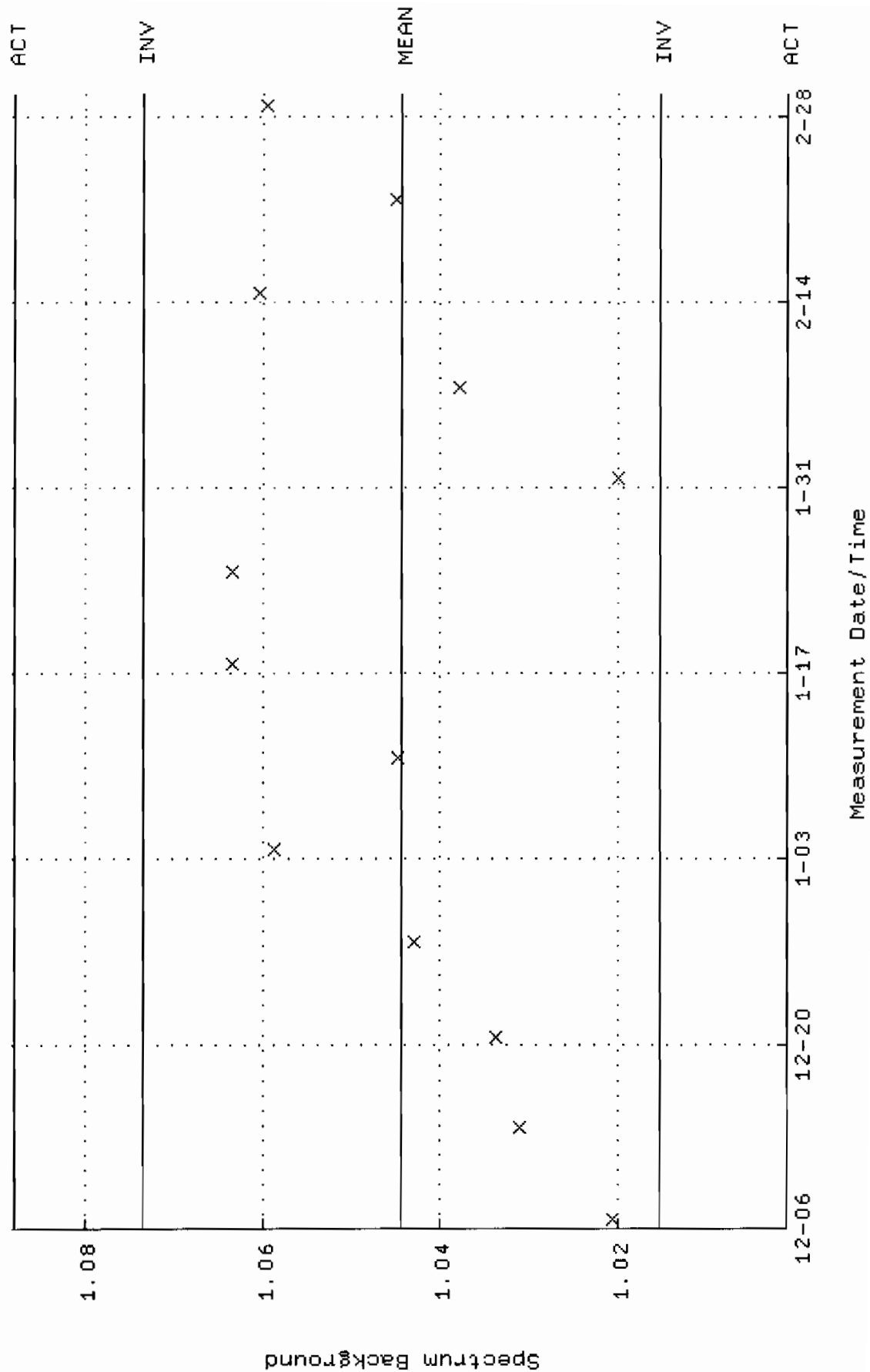
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC-GAM18.QAF;1  
 Parameter Name : BACKRATE (Spectrum Background Rate)  
 Start/End Dates : 6-SEP-2009 11:45:03 through 1-MAR-2010 12:00:00  
 Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)

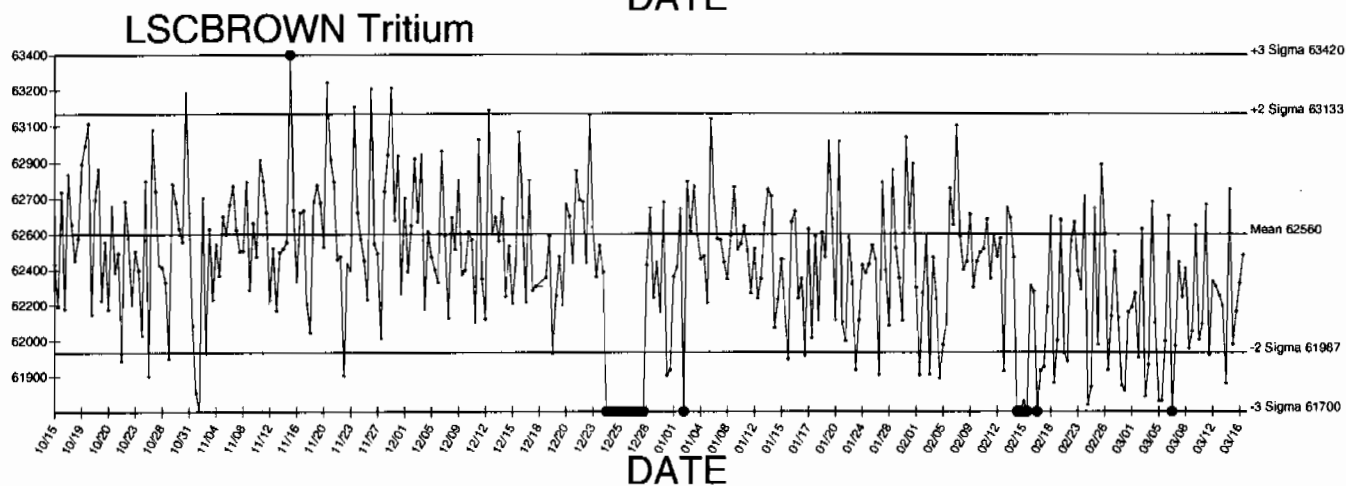
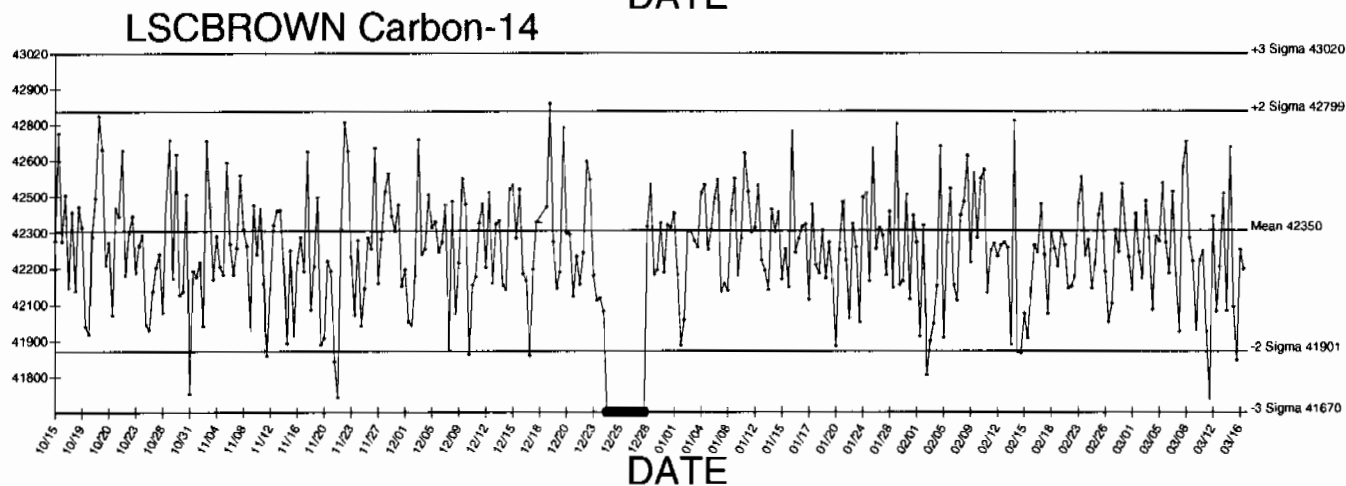
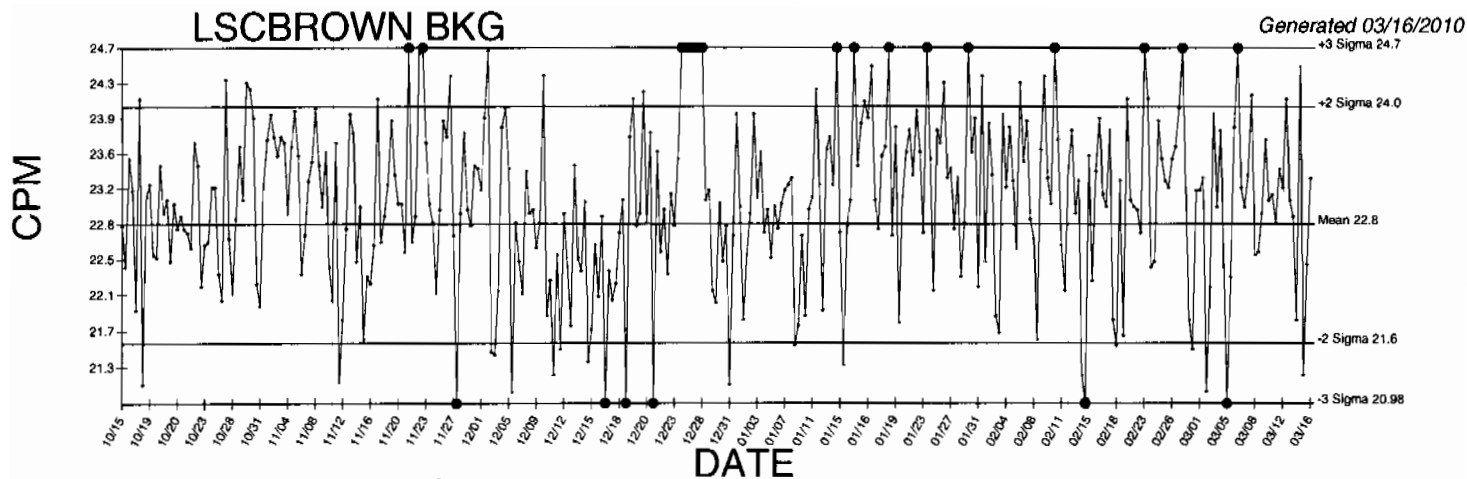


QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC-GAM21-CAN.QAF;1  
 Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)  
 Start/End Dates : 2-DEC-2009 13:07:42 through 1-MAR-2010 12:00:00  
 Lower/Upper Lmts: 115.000 through 123.000



QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC\_GAM21.QAF;1  
 Parameter Name : BACKRATE (Spectrum Background Rate)  
 Start/End Dates : 6-DEC-2009 15:25:38 through 1-MAR-2010 12:00:00  
 Mean +- Std Dev : 1.04443 +- 1.452671E-02 (1.39 %)





● 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:  $2.93 \times 10^7$  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:  $12.43 \pm 0.11$  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) =  $3.7 \times 10^{10}$  becquerels exactly.  
Useful conversion factors are:  
1 microcurie ( $\mu$ Ci) =  $3.7 \times 10^4$  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

*W. F. Case*

QC-5-023-061a



# Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
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	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	1.0000	2741.3089
	0134-K N2	1073.2000	54.0000	1019.2000	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	1.0000	2709.776428
					Average =	2709.776428

Mean Value (Counting) = 2709.776428  
 Stdev = 31.53347278

Certificate Value = 2581.86 dpm/mL  
 Lower Limit = 2646.709482 dpm/mL  
 Upper Limit = 2772.843373 dpm/mL  
 Rule 1 Pass/Fail = Fail  
 Two sigma = 63.06684556 dpm/mL  
 10 % of Mean = 270.9776428 dpm/mL  
 Rule 2 (Pass/Fail) = Pass

\*exception taken due to full recovery of standard

## 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 Ecosint 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 Ecosint 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

Handwritten signature: Amanda J. Dehn 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:

Wm. M. Jones 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/28/06  
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 <sup>1</sup>	Statistics <sup>2</sup>	Calibration <sup>2</sup>	Peak Fitting <sup>2</sup>	Geometry <sup>2</sup>	Impurities <sup>2</sup>	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertainty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

#### Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

#### Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)

HPGe (High Purity Germanium Gamma Ray Spectrometer)

IC (Gamma Ray Ionization Chamber)

<sup>2</sup>As Percent (%) from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

# Standard Traceability Log Rad

Source Material Info		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

$(\text{Mass of parent(g)}) * (\text{Parent Activity (dpm)}) * (\text{conversion dpm to dpm}) / (\text{Ampoule Mass(g)} * (\text{Dilution Vol})) = \text{Parent Activity (dpm/mL)}$
$(\text{Mass of parent(g)}) * (\text{Parent Activity (dpm)}) * (\text{conversion dpm to dpm}) / \text{Density} / (\text{Ampoule Mass (g)} * (\text{Dilution Vol})) = \text{Parent Activity (dpm/g)}$
$(5.2579 \text{ g}) * (218817 \text{ dpm}) * (1 \text{ dpm/dpm}) / (5.31725 \text{ g} * 100 \text{ mL}) = 2163.7461 \text{ dpm/mL}$
$(5.2579 \text{ g}) * (218817 \text{ dpm}) * (1 \text{ dpm/dpm}) / (1.0611 \text{ g/mL}) / (5.31725 \text{ g} * 100 \text{ mL}) = 2039.2400 \text{ dpm/g}$

## Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
-----------	----------	--------------	---------------	------	-------------	-------------------	-----------------

GEL Laboratories LLC  
Version 1.0 9/18/2000

# Verification for Mixed Gamma Standard 1032-A

M. Stamps  
12/2/2009

Am-241	Isotope	Result	pCi/L - Ver-1AR-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  
Rule 3 (Pass/Fail) Pass

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

Cs-137

Isotope	Result	pCi/L	VER. TAB. 1
Mixed Gamma N1	854.2		
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  
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. 1ae-5
Mixed Gamma N1	1572	pCi/L - Ver. 1ae-2
Mixed Gamma N2	1495	pCi/L - Ver. 1ae-3
Mixed Gamma N3	1501	

Mean Value (Counting) = 1522.67  
Stdev = 42.829  
98.50 Pass  
Rule 3 (Pass/Fail)

Certificate Value = 1545.8378  
Lower Limit = 1437.008431  
Upper Limit = 1608.324902  
Rule 1 (Pass/Fail) Pass  
Two sigma = 85.65823564  
10 % of Mean = 152.26666667  
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.

*U.S. Stamp issued 12/2/09*



### 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 NRM-1 through 6  
 7 " baghouse dirt

Use 1/4 gm x 10 samples with together  
 for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM-1	TRM-2	TRM-3	TRM-4
U-238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U-234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th-230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra-226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb-210	2119 ± 214	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. Fehr 4/30/04  
 Lott & 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	Customer:	GENERAL ENGINEERING LABS	
Half Life:	7380 $\pm$ 40 years	P.O.No.:	9290-RAD	
Catalog No.:	7243	Reference Date:	January 1 1994	12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 $\mu$ Ci	
		Contained Radioactivity:	(Am-243) 3750 kBq	

### Description of Solution

a. Mass of solution:	5.3739 g (in a 5 ml Flame Sealed Ampoule)
b. Chemical form:	Am(NO <sub>3</sub> ) <sub>3</sub> in 2N HNO <sub>3</sub>
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  $\mu$ Ci/g

### Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) integrated 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  $\mu\text{Ci}$  beta-gamma or 0.0001  $\mu\text{Ci}$  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  $\mu\text{Ci}$  beta-gamma or 0.0001  $\mu\text{Ci}$  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  $\mu\text{Ci}$  beta-gamma or 0.0001  $\mu\text{Ci}$  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  $\mu\text{Ci}$  beta-gamma or 0.0001  $\mu\text{Ci}$  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  $\mu\text{Ci}$  beta-gamma or 0.0001  $\mu\text{Ci}$  alpha at the time of shipment.



# Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

## Calculations Converting parent activity to dpm/mL|dpm/g

$(\text{Mass of parent(g)}) * (\text{Parm Activity (uCi/g)}) * (\text{conversion dpm to uCi}) / (\text{Dilution Vol}) = \text{Parent Activity (dpm/mL)}$
$(\text{Mass of parent(g)}) * (\text{Parm Activity (uCi/g)}) * (\text{conversion dpm to uCi}) / \text{Density (g/mL)} / (\text{Dilution Vol}) = \text{Parent Activity (dpm/g)}$
$(5.3419 \text{ g}) * (18.84 \text{ uCi/g}) * (2220000 \text{ dpm/uCi}) / (100 \text{ mL}) = 2234238.9912 \text{ dpm/mL}$
$(5.3419 \text{ g}) * (18.84 \text{ uCi/g}) * (2220000 \text{ dpm/uCi}) / (1.0785 \text{ g/mL}) / (100 \text{ mL}) = 2071617.0528 \text{ dpm/g}$

## Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC  
Version 1.0 9/18/2000

## Verification for Am-243 Standard 445-96-2-SS

M. Aders 5/15/2009	Isotope	Value	Uncertainty
	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590
Mean Value (Counting) =	1.340	101.99	Pass
Stdev =	0.043588989	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.

*Handwritten:* M. Aders 5/15/09  
Taheri 007509



# 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  $^{236}\text{Pu}$  also containing  $2 \text{ mol dm}^{-3}$  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  $^{236}\text{Pu}$

**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  $^{236}\text{Pu}$  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

Page 1 of 3  
(Authorised Signatory)  
for Managing Director

## RESULTS

Principal radionuclide:	$^{236}\text{Pu}$
Reference time:	2009-07-01 12:00 UTC
Activity concentration of principal radionuclide:	$170.8 \text{ Bq g}^{-1}$
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 $^{226}\text{Ra}$ :	$11.0 \text{ mBq g}^{-1}$
Expanded uncertainty:	$\pm 4.0 \text{ mBq g}^{-1} (\pm 36 \%)$
Activity concentration of $^{232}\text{U}$ :	$0.67 \text{ Bq g}^{-1}$
Expanded uncertainty:	$\pm 0.12 \text{ Bq g}^{-1} (\pm 18 \%)$
Activity concentration of $^{228}\text{Th}$ :	$11.38 \text{ mBq g}^{-1}$
Expanded uncertainty:	$\pm 0.46 \text{ mBq g}^{-1} (\pm 4 \%)$
Activity concentration of $^{237}\text{Np}$ :	$5.00 \text{ mBq g}^{-1}$
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  $^{236}\text{Pu}$  is 1044 (6) days and is taken from the evaluations published in *Nuclear Data Sheets*.
- [3]. The recommended half life of  $^{226}\text{Ra}$  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](http://www.nucleide.org/DDEP.htm).
- [4]. The recommended half life of  $^{232}\text{U}$  is 25800 (800) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example [www.nucleide.org/DDEP.htm](http://www.nucleide.org/DDEP.htm).
- [5]. The recommended half life of  $^{237}\text{Np}$  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](http://www.nucleide.org/DDEP.htm).
- [6]. The recommended half life of  $^{228}\text{Th}$  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](http://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 HNO <sub>3</sub>	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 =	0.282666667		
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  
*L* 3/5/10



**Eckert & Ziegler**  
Analytics

1380 Seaboard Industrial Blvd.  
Atlanta, Georgia 30318  
Tel 404-352-8677  
Fax 404-352-2837  
www.analytiscinc.com

**CERTIFICATE OF CALIBRATION**  
Standard Radionuclide Source

**78747-278**

1283

**U-232 5 mL Liquid in Flame Sealed Vial**

**Customer:** GEL Laboratories, LLC  
**P.O. No.:** 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.18, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

**Comments:**

Impurities: U-233 <0.3%, Am-241 <0.15%  
5.20453 grams 1M HNO<sub>3</sub> solution.

Source Prepared By: WLS  
W. Mao, Radiochemist

QA Approved: DM Montgomery  
D. M. Montgomery, QA Manager

Date: 12-11-08

# Standard Traceability Log Rad

Source Material Info		A Solution Material Info	
Parent Code:	1283	Isotope:	Uranium-232
Prepared By:	Daniel Roy	Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3	Prep Date:	12/16/2008
Reference Date:	12/09/2008	Verification Date:	12/30/2008
Ampoule Mass (g):	5.20453 g	Expiration Date:	12/30/2009
Uncertainty:	+/- 5 %	Primary Code:	1283-A
LogBook No:	RC-S-051-002	Dilution(mL):	100 mL
		Mass of Parent(g):	5.0245 g
		Density(g/mL):	1.0285
		Balance ID:	

## Calculations Converting parent activity to dpm/mL|dpm/g

$(\text{Mass of parent(g)} * (\text{Parm Activity (Bq)}) * (\text{conversion dpm to Bq}) / (\text{Ampoule Mass(g)} * (\text{Dilution Vol})) = \text{Parent Activity (dpm/mL)}$
$(\text{Mass of parent(g)} * (\text{Parm Activity (Bq)}) * (\text{conversion dpm to Bq}) / \text{Density} / (\text{Ampoule Mass (g)} * (\text{Dilution Vol})) = \text{Parent Activity (dpm/g)}$
$(5.0245 \text{ g}) * (3754 \text{ Bq}) * (60 \text{ dpm/Bq}) / (5.20453 \text{ g} * 100 \text{ mL}) = 2174.4872 \text{ dpm/mL}$
$(5.0245 \text{ g}) * (3754 \text{ Bq}) * (60 \text{ dpm/Bq}) / (1.0285 \text{ g/mL}) / (5.20453 \text{ g} * 100 \text{ mL}) = 2114.1700 \text{ dpm/g}$

## Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	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

<b>Analyst:</b> A. Drochter	<b>Serial #</b>	<b>Value</b>	<b>Uncertainty</b>					
<b>Date:</b> 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L			
	1283-H N2	2.000	pCi/L	0.234	pCi/L			
	1283-H N3	2.060	pCi/L	0.242	pCi/L			
<b>Mean Value (Counting) =</b>	2.027	pCi/L	<b>99.66904</b>	<b>Pass</b>				
<b>Stdev =</b>	0.030550505	pCi/L	<b>Rule 3 (Pass/Fail)</b>					
<b>Target =</b>	2.033	pCi/L						
<b>Lower Limit =</b>	1.965565657	pCi/L						
<b>Upper Limit =</b>	2.087767676	pCi/L						
<b>Rule 1 Pass/Fail</b>	<b>Pass</b>							
<b>Two sigma =</b>	0.061101009							
<b>10 % of Mean =</b>	0.202666667							
<b>Rule 2 (Pass/Fail)</b>	<b>Pass</b>							

**Rule 1 =** The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements

**Rule 2 =** The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.

**Rule 3 =** The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard 1283-H using 0.1 mL for each source. Each standard was combined with 0.1 mL of U-238 standard 1163-G and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

*A. Drochter*  
12/14/09

# RUNLOGS

# Instrument Run Log

**Instrument Type: GAMMA SPECTROMETER**

**Batch ID: 959279**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248201001	SAMPLE	MXR1	GAM22	18-MAR-10 10:35	DONE	CAN	02-DEC-09 00:00
248201002	SAMPLE	MXR1	GAM25	18-MAR-10 10:36	DONE	CAN	07-OCT-09 00:00
248201003	SAMPLE	MXR1	GAM01	18-MAR-10 10:37	DONE	CAN	12-JAN-10 00:00
248201004	SAMPLE	MXR1	GAM19	18-MAR-10 10:37	DONE	CAN	12-MAR-09 00:00
248201005	SAMPLE	MXR1	GAM14	18-MAR-10 10:38	DONE	CAN	06-MAR-09 00:00
248201006	SAMPLE	MXR1	GAM17	18-MAR-10 10:39	DONE	CAN	06-JAN-10 00:00
248201007	SAMPLE	MXR1	GAM18	18-MAR-10 10:40	DONE	CAN	23-APR-09 00:00
248201008	SAMPLE	MXR1	GAM21	18-MAR-10 10:40	DONE	CAN	28-JUL-09 00:00
248201009	SAMPLE	MXR1	GAM20	18-MAR-10 10:42	DONE	CAN	26-AUG-09 00:00
248201010	SAMPLE	MXR1	GAM29	18-MAR-10 10:42	DONE	CAN	23-FEB-10 00:00
248201011	SAMPLE	MXR1	GAM01	18-MAR-10 13:09	DONE	CAN	12-JAN-10 00:00
248201012	SAMPLE	MXR1	GAM19	18-MAR-10 13:09	DONE	CAN	12-MAR-09 00:00
248202001	SAMPLE	MXR1	GAM14	18-MAR-10 13:10	DONE	CAN	06-MAR-09 00:00
248202002	SAMPLE	MXR1	GAM17	18-MAR-10 13:11	DONE	CAN	06-JAN-10 00:00
1202057346	MB	MXR1	GAM18	18-MAR-10 13:12	DONE	CAN	23-APR-09 00:00
1202057348	LCS	MXR1	GAM21	18-MAR-10 15:39	DONE	CAN	28-JUL-09 00:00
1202057347	DUP	MXR1	GAM15	18-MAR-10 16:18	DONE	CAN	03-FEB-10 00:00

# Instrument Run Log

Instrument Type: ALPHA SPECTROMETER

Batch ID:961175

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248189001	SAMPLE	JXH2	1211	16-MAR-10 07:34	DONE		
248189002	SAMPLE	JXH2	1212	16-MAR-10 07:34	DONE		
248201001	SAMPLE	JXH2	1213	16-MAR-10 07:35	DONE		
248201002	SAMPLE	JXH2	1214	16-MAR-10 07:35	DONE		
248201003	SAMPLE	JXH2	1215	16-MAR-10 07:35	DONE		
248201004	SAMPLE	JXH2	1216	16-MAR-10 07:35	DONE		
248201005	SAMPLE	JXH2	1217	16-MAR-10 07:35	DONE		
248201006	SAMPLE	JXH2	1218	16-MAR-10 07:35	DONE		
248201007	SAMPLE	JXH2	1219	16-MAR-10 07:35	DONE		
248201008	SAMPLE	JXH2	1220	16-MAR-10 07:35	DONE		
248201009	SAMPLE	JXH2	1221	16-MAR-10 07:35	DONE		
248201010	SAMPLE	JXH2	1222	16-MAR-10 07:35	DONE		
248201011	SAMPLE	JXH2	1223	16-MAR-10 07:35	DONE		
248201012	SAMPLE	JXH2	1224	16-MAR-10 07:35	DUSE		
248202001	SAMPLE	JXH2	1225	16-MAR-10 07:35	DONE		
248202002	SAMPLE	JXH2	1226	16-MAR-10 07:35	DONE		
1202061665	MB	JXH2	1234	16-MAR-10 07:38	DONE		
1202061666	DUP	JXH2	1235	16-MAR-10 07:38	DONE		
1202061667	LCS	JXH2	1236	16-MAR-10 07:38	DONE		
248201012	SAMPLE	JXH2	1087	17-MAR-10 21:23	DONE		



# Instrument Run Log

**Instrument Type: ALPHA SPECTROMETER**

**Batch ID: 961176**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248189001	SAMPLE	JXH2	1220	13-MAR-10 15:38	DUSE		
248189002	SAMPLE	JXH2	1221	13-MAR-10 15:38	DUSE		
248201001	SAMPLE	JXH2	1222	13-MAR-10 15:38	DUSE		
248201002	SAMPLE	JXH2	1223	13-MAR-10 15:39	DUSE		
248201003	SAMPLE	JXH2	1224	13-MAR-10 15:39	DUSE		
248201004	SAMPLE	JXH2	1225	13-MAR-10 15:39	DUSE		
248201005	SAMPLE	JXH2	1226	13-MAR-10 15:39	DUSE		
248201006	SAMPLE	JXH2	1227	13-MAR-10 15:39	DUSE		
248201007	SAMPLE	JXH2	1228	13-MAR-10 15:39	DUSE		
248201008	SAMPLE	JXH2	1229	13-MAR-10 15:39	DUSE		
248201009	SAMPLE	JXH2	1230	13-MAR-10 15:39	DUSE		
248201010	SAMPLE	JXH2	1231	13-MAR-10 15:39	DUSE		
248201011	SAMPLE	JXH2	1232	13-MAR-10 15:39	DUSE		
248201012	SAMPLE	JXH2	1233	13-MAR-10 15:39	DUSE		
248202001	SAMPLE	JXH2	1234	13-MAR-10 15:39	DUSE		
248202002	SAMPLE	JXH2	1235	13-MAR-10 15:39	DUSE		
1202061669	MB	JXH2	1236	13-MAR-10 15:39	DUSE		
1202061670	DUP	JXH2	1237	13-MAR-10 15:39	DUSE		
1202061671	LCS	JXH2	1238	13-MAR-10 15:39	DONE		
248201001	SAMPLE	JXH2	1036	16-MAR-10 17:19	DONE		
248201002	SAMPLE	JXH2	1037	16-MAR-10 19:10	DONE		
248201003	SAMPLE	JXH2	1038	16-MAR-10 19:10	DONE		
248201004	SAMPLE	JXH2	1039	16-MAR-10 19:10	DONE		
248201005	SAMPLE	JXH2	1040	16-MAR-10 19:10	DONE		
248201006	SAMPLE	JXH2	1041	16-MAR-10 19:10	DONE		
248201007	SAMPLE	JXH2	1042	16-MAR-10 19:10	DONE		
248201008	SAMPLE	JXH2	1071	16-MAR-10 19:10	DONE		
248201009	SAMPLE	JXH2	1072	16-MAR-10 19:10	DONE		
248201010	SAMPLE	JXH2	1073	16-MAR-10 19:10	DONE		
248201011	SAMPLE	JXH2	1074	16-MAR-10 19:10	DONE		
248201012	SAMPLE	JXH2	1075	16-MAR-10 19:10	DONE		
248202001	SAMPLE	JXH2	1076	16-MAR-10 19:10	DONE		
248202002	SAMPLE	JXH2	1016	16-MAR-10 19:41	DONE		
1202061669	MB	JXH2	1017	16-MAR-10 19:41	DONE		
1202061670	DUP	JXH2	1018	16-MAR-10 19:41	DONE		

# Instrument Run Log

**Instrument Type: ALPHA SPECTROMETER**

**Batch ID: 961183**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248189001	SAMPLE	JXH2	1126	13-MAR-10 14:14	DONE		
248189002	SAMPLE	JXH2	1127	13-MAR-10 14:14	DONE		
248201001	SAMPLE	JXH2	1128	13-MAR-10 14:14	DONE		
248201002	SAMPLE	JXH2	1129	13-MAR-10 14:14	DONE		
248201003	SAMPLE	JXH2	1130	13-MAR-10 14:14	DONE		
248201004	SAMPLE	JXH2	1131	13-MAR-10 14:15	DONE		
248201005	SAMPLE	JXH2	1132	13-MAR-10 14:15	DONE		
248201006	SAMPLE	JXH2	1133	13-MAR-10 14:15	DONE		
248201007	SAMPLE	JXH2	1138	13-MAR-10 14:15	DONE		
248201008	SAMPLE	JXH2	1139	13-MAR-10 14:15	DONE		
248201009	SAMPLE	JXH2	1140	13-MAR-10 14:15	DONE		
248201010	SAMPLE	JXH2	1141	13-MAR-10 14:15	DONE		
248201011	SAMPLE	JXH2	1142	13-MAR-10 14:15	DONE		
248201012	SAMPLE	JXH2	1143	13-MAR-10 14:15	DONE		
248202001	SAMPLE	JXH2	1144	13-MAR-10 14:15	DONE		
248202002	SAMPLE	JXH2	1145	13-MAR-10 14:15	DUSE		
1202061682	MB	JXH2	1146	13-MAR-10 14:15	DONE		
1202061683	DUP	JXH2	1147	13-MAR-10 14:15	DONE		
1202061684	LCS	JXH2	1148	13-MAR-10 14:15	DONE		
248202002	SAMPLE	JXH2	1161	16-MAR-10 08:59	DONE		

# Instrument Run Log

**Instrument Type: LSC**

**Batch ID: 961542**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
247911001	SAMPLE	KXK2	LSCBROWN	13-MAR-10 08:11	DONE		
247911002	SAMPLE	KXK2	LSCBROWN	13-MAR-10 09:49	DONE		
247911003	SAMPLE	KXK2	LSCBROWN	13-MAR-10 11:27	DONE		
247911004	SAMPLE	KXK2	LSCBROWN	13-MAR-10 13:04	DONE		
247911005	SAMPLE	KXK2	LSCBROWN	13-MAR-10 14:00	DONE		
247911006	SAMPLE	KXK2	LSCBROWN	13-MAR-10 15:38	DONE		
247911007	SAMPLE	KXK2	LSCBROWN	13-MAR-10 17:16	DONE		
247911008	SAMPLE	KXK2	LSCBROWN	13-MAR-10 18:54	DONE		
247911009	SAMPLE	KXK2	LSCBROWN	13-MAR-10 20:32	DONE		
247911010	SAMPLE	KXK2	LSCBROWN	13-MAR-10 22:11	DONE		
247911011	SAMPLE	KXK2	LSCBROWN	13-MAR-10 23:49	DONE		
247911012	SAMPLE	KXK2	LSCBROWN	14-MAR-10 01:27	DONE		
247911013	SAMPLE	KXK2	LSCBROWN	14-MAR-10 03:05	DONE		
247911014	SAMPLE	KXK2	LSCBROWN	14-MAR-10 04:43	DONE		
247911015	SAMPLE	KXK2	LSCBROWN	14-MAR-10 06:21	DONE		
247911016	SAMPLE	KXK2	LSCBROWN	14-MAR-10 07:59	DONE		
247911017	SAMPLE	KXK2	LSCBROWN	14-MAR-10 09:37	DONE		
248202001	SAMPLE	KXK2	LSCBROWN	14-MAR-10 11:15	DONE		
248202002	SAMPLE	KXK2	LSCBROWN	14-MAR-10 12:53	DONE		
1202062415	MB	KXK2	LSCBROWN	14-MAR-10 14:31	DONE		
1202062416	DUP	KXK2	LSCBROWN	14-MAR-10 16:08	DONE		
1202062417	LCS	KXK2	LSCBROWN	14-MAR-10 17:58	DONE		