

Monday, February 15, 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: 10-1848
Per Agreement Number: 126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/15/2010
TURNAROUND/REPORT DUE: 3/17/2010
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:906.0						
		1	RE15-10-8198	R	2/11/2010	
		1	RE15-10-8199	R	2/11/2010	
		1	RE15-10-8200	R	2/11/2010	
		1	RE15-10-8201	R	2/11/2010	
SW-846:6010B						
		1	RE15-10-8198	R	2/11/2010	
		1	RE15-10-8199	R	2/11/2010	
		1	RE15-10-8200	R	2/11/2010	
		1	RE15-10-8201	R	2/11/2010	
SW-846:8082						
		1	RE15-10-8198	R	2/11/2010	

Monday, February 15, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:9012A	SW-846:8321A_MOD	1	RE15-10-8198	R	2/11/2010	
		1	RE15-10-8199	R	2/11/2010	
		1	RE15-10-8200	R	2/11/2010	
		1	RE15-10-8201	R	2/11/2010	
		1	RE15-10-8198	R	2/11/2010	
		1	RE15-10-8199	R	2/11/2010	
		1	RE15-10-8200	R	2/11/2010	
		1	RE15-10-8201	R	2/11/2010	

Final Page of REQUEST NUMBER 10-1848

Monday, February 15, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1848C

LOS ALAMOS

REQUEST NUMBER: 10-1848

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/17/2010

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
RE15-10-8198	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8198	1	POLY	H3	Ice	R
RE15-10-8198	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8200	1	POLY	H3	Ice	R
RE15-10-8200	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8199	1	POLY	H3	Ice	R
RE15-10-8199	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8201	1	POLY	H3	Ice	R
RE15-10-8201	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8201	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8199	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8200	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:

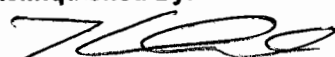
Date

Time

Received By:

Date

Time


 2/15/10 3:00

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503

EVENT NAME: 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8198

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/11/2010		MEDIA: OBT3		OK	
TIME COLLECTED(HH:MM)		14:45		SUB-MEDIA: TUFF 1		OK	
PRS ID:	15-007(c)	OK		SAMPLE TECH CODE: HA		CBS	
LOCATION ID:	15-610818	|		FIELD QC TYPE: NA		OK	
LOCATION TYPE:	GENERIC	|		FIELD PREP: NA		|	
TOP DEPTH:	0	4.0 ft		SAMPLE USAGE: INV		|	
BOTTOM DEPTH:	0	5.0 ft		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	OK		EXCAVATED: YES NO / NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES NO / NA			
BOREHOLE: YES NO / NA		BOREHOLE DECLINATION: -90°		BOREHOLE DIRECTION: N/A			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	|	H3	500 ML POLY	Ice	Y	
1	|	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	|	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light gray, non indurated, non welded, devitrified, ash flow tuff

SAMPLE COMMENTS:

NA

LOCATION DESC:

7c-27

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 14 dpm

Beta/Gamma = 330 dpm

HE Spot test Negative

COLLECTED BY (PRINT)

J. MARIN

PID ^{Ambient} Reading = ppm

REVIEWED BY (PRINT)

Riley WMS

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN	2/12/10	(Printed Name)	2/12/10
(Signature) Jon R. Marin	07:50	(Signature)	7:50
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503

EVENT NAME: 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8200

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/11/2010		MEDIA:	QBT3		OK
TIME COLLECTED (HH:MM)		15:35		SUB-MEDIA:	TUFF 1		OK
PRS ID:	15-007(c)	OK		SAMPLE TECH CODE:	HA		CB5
LOCATION ID:	15-610818			FIELD QC TYPE:	NA		OK
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		
TOP DEPTH:	0	34.0 ft		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	35.0 ft		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	OK		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		WATER FLOWING: YES/NO/NA
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:			BOREHOLE DIRECTION:

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	ARM 2/11/10 2082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

LF from 2/11/10 Light brownish gray, non indurated, nonwelded, devitrified, dig, ash flow tuff.

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-27

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 9 dpm
Beta/Gamma = 240 dpm

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

COLLECTED BY (PRINT)

REVIEWED BY (PRINT) J. MARIN

D. Byers

RELINQUISHED BY (Printed Name) Jon MARIN (Signature) J. R. Marin	Date/Time 2/12/10 07:50	RECEIVED BY (Printed Name) (Signature)	Date/Time 2/12/10 7:50
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503

EVENT NAME: 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8199

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/11/2010		MEDIA:		OBT3	
TIME COLLECTED(HH:MM)		15:05		SUB-MEDIA:		TUFF 1	
PRS ID:	15-007(c)	OK		SAMPLE TECH CODE:		HA	
LOCATION ID:	15-610818	1		FIELD QC TYPE:		NA	
LOCATION TYPE:	GENERIC	1		FIELD PREP:		NA	
TOP DEPTH:	0	19.0 ft		SAMPLE USAGE:		INV	
BOTTOM DEPTH:	0	20.0 ft		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	OK		EXCAVATED: YES/NO/NA		NO	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NO	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: -90°		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	2082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light gray nonindurated nonwelded, dehydrified, dry, ash flow tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 7c-27

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 28 dpm
Beta/Gamma = 212 dpm

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

COLLECTED BY (PRINT)

REVIEWED BY (PRINT)

RELINQUISHED BY (Printed Name) JON MARIN (Signature) Jon R. Marin	Date/Time 2/12/10 07:50	RECEIVED BY (Printed Name) [Signature] (Signature) [Signature]	Date/Time 2/12/10 7:50
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503

EVENT NAME: 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8201

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		6/11/2010		MEDIA:		OBT3	
TIME COLLECTED (HH:MM)		16:00		SUB-MEDIA:		TUFF 1	
PRS ID: 15-007(c)		OK		SAMPLE TECH CODE:		HA	
LOCATION ID: 15-610818		|		FIELD QC TYPE:		NA	
LOCATION TYPE: GENERIC		|		FIELD PREP:		NA	
TOP DEPTH: 0		49.0 ft		SAMPLE USAGE:		INV	
BOTTOM DEPTH: 0		50.0 ft		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		OK		EXCAVATED: YES <input checked="" type="radio"/> NO <input type="radio"/> NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES <input checked="" type="radio"/> NO <input type="radio"/> NA			
BOREHOLE: <input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> NA		BOREHOLE DECLINATION: -90°		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	2082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	|	H3	500 ML POLY	Ice	Y	
1	|	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	|	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light brownish gray, non indurated, non welded, devitrified, dry, ash flow tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 7c-27

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 24 dpm
Beta/Gamma = 215 dpm

^{12m}
2/11/10
PID $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

COLLECTED BY (PRINT)

D. Byers

REVIEWED BY (PRINT)

J. MARIN

RELINQUISHED BY (Printed Name) JON MARIN (Signature) Jon R. Marin	Date/Time 2/12/10 08:02	RECEIVED BY (Printed Name) [Signature] (Signature) [Signature]	Date/Time 2/12/10 8:02
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Rad Screening Data Release Form

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

RE 15-10-8201
" " 8198
" " 8200
" " 8199

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

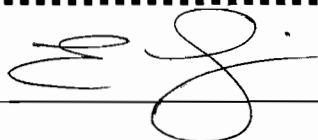
.....
The following samples do not require rad screening data for the reasons stated (list sample numbers):

Reason:

.....
Print Last Name

Lujan

Signature



Date

2/12/10



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

ARS Sample Delivery Group: ARS2-10-00060
Analysis Description: Gross Alpha and Gross Beta by GPC
Analysis Test Method:

Request or PO Number:
Date Received: 2/12/2010
Report Date: 2/12/2010 17:22

ARS Sample ID	Client Sample ID	Isotope	Analysis Results	Analysis Error +/- 2 s	NOC	DLC	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Trace/Count Recovery	Sample Matrix
ARS-1C-00060-001	RE15-10-8198	GROSS AL	50.7675	33.8430	35.6115	11.0947		PC/g	2/12/2010	ME		SO
ARS-1C-00060-001	RE15-10-8198	GROSS BE	49.1658	16.7699	18.3952	8.1374		PC/g	2/12/2010	ME		SO
ARS-1C-00060-002	RE15-10-8199	GROSS AL	12.2018	18.3299	30.7953	9.1448		PC/g	2/12/2010	ME		SO
ARS-1C-00060-002	RE15-10-8199	GROSS BE	29.2409	13.7155	17.7995	7.7348		PC/g	2/12/2010	ME		SO
ARS-1C-00060-003	RE15-10-8200	GROSS AL	6.4982	16.6792	34.1436	10.5480		PC/g	2/12/2010	ME		SO
ARS-1C-00060-003	RE15-10-8200	GROSS BE	39.0697	15.6086	19.3672	8.4363		PC/g	2/12/2010	ME		SO
ARS-1C-00060-004	RE15-10-8201	GROSS AL	56.3744	33.8506	33.0317	10.2910		PC/g	2/12/2010	ME		SO
ARS-1C-00060-004	RE15-10-8201	GROSS BE	13.7972	13.4649	18.0243	7.8461		PC/g	2/12/2010	ME		SO

NOTES:

M. J. Eda
American Radiation Services, Inc.

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

NE LAP Certificate # E87558

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only



Section I.

REQUEST NUMBER: 10-1848 VALIDATION DATE: 04/03/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Karen Germann 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
PESTICIDES/POLYCHLORINA
TED BIPHENYLS |
| <input type="checkbox"/> GENERAL CHEMISTRY | <input type="checkbox"/> RADIOCHEMISTRY | <input type="checkbox"/> LCMSMS HIGH
EXPLOSIVES | |
| <input type="checkbox"/> OTHER (DESCRIBE): _____ | | | |

Section II. Completeness Check

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

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

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

Reviewed by: Allison Felix Level: 1 Date: 4/5/10

VALIDATOR'S SIGNATURE: _____


A handwritten signature in cursive script, appearing to read "Karen F. Germann".

DATE: 04/03/10


Form 5121-1, Revision 0.0

LOS ALAMOS


Environmental Restoration Project

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

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>	9. The sample result is $\leq 5X$ the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99 .	UJ, R, PERC7a	J, PERC7a

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

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

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

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				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: 955702

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8198

Date Received: 16-FEB-10

GEL Job No (SDG): 10-1848

GEL Sample ID: 247123001

Date Filtered: 27-FEB-10

Injection Volume (uL): 20

%Solids: 99.55

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.502	2.01	0.502	ug/kg	U	1	07-MAR-10 17:04	per0307019a
	Perchlorate Isotope Ratio						1	07-MAR-10 17:04	per0307019a
14797-73-0	Perchlorate-101	.502	2.01	0.502	ug/kg	U	1	07-MAR-10 17:04	per0307019a
	Perchlorate-O(18)			5.21	ug/kg		1	07-MAR-10 17:04	per0307019a

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

KFG 04/03/10

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: 955702
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8200
 Date Received: 16-FEB-10
 GEL Job No (SDG): 10-1848
 GEL Sample ID: 247123002
 Date Filtered: 27-FEB-10
 Injection Volume (uL): 20
 %Solids: 28.6

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.507	2.03	0.507	ug/kg	U	1	07-MAR-10 17:13	per0307020a
	Perchlorate Isotope Ratio						1	07-MAR-10 17:13	per0307020a
14797-73-0	Perchlorate-101	.507	2.03	0.507	ug/kg	U	1	07-MAR-10 17:13	per0307020a
	Perchlorate-O(18)			5.31	ug/kg		1	07-MAR-10 17:13	per0307020a

[^] 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 I

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 955702

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8199

Date Received: 16-FEB-10

GEL Job No (SDG): 10-1848

GEL Sample ID: 247123003

Date Filtered: 27-FEB-10

Injection Volume (uL): 20

%Solids: 98

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.51	2.04	0.510	ug/kg	U	1	07-MAR-10 17:22	per0307021a
	Perchlorate Isotope Ratio						1	07-MAR-10 17:22	per0307021a
14797-73-0	Perchlorate-101	.51	2.04	0.510	ug/kg	U	1	07-MAR-10 17:22	per0307021a
	Perchlorate-O(18)			5.37	ug/kg		1	07-MAR-10 17:22	per0307021a

[^] 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

KFG 04/03/10

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: 955702
 Extraction Type: Solid Prep
 Client Sample No. RE15-10-8201
 Date Received: 16-FEB-10
 GEL Job No (SDG): 10-1848
 GEL Sample ID: 247123004
 Date Filtered: 27-FEB-10
 Injection Volume (uL): 20
 Sample Volume/Weight: 2.00 g
 % Solids: 98.6
 Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.507	2.03	0.507	ug/kg	U	1	07-MAR-10 17:58	per0307025a
	Perchlorate Isotope Ratio						1	07-MAR-10 17:58	per0307025a
14797-73-0	Perchlorate-101	.507	2.03	0.507	ug/kg	U	1	07-MAR-10 17:58	per0307025a
	Perchlorate-O(18)			5.46	ug/kg		1	07-MAR-10 17:58	per0307025a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
 Aliquot %Solids

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only



Section I.

REQUEST NUMBER: 10-1848 VALIDATION DATE: 04/03/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Karen Germann 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
PESTICIDES/POLYCHLORINATED
BIPHENYLS |
| <input type="checkbox"/> GENERAL CHEMISTRY | <input type="checkbox"/> RADIOCHEMISTRY | <input checked="" type="checkbox"/> LCMSMS HIGH
EXPLOSIVES | |
| <input type="checkbox"/> OTHER (DESCRIBE): _____ | | | |

Section II. Completeness Check

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

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


1. The CCV %D was >20% with a positive bias for RDX. All associated sample results were NDs and, thus, were not qualified.
2. The MSD %R for TATB was > the laboratory UAL. All associated sample results were NDs and, thus, were not qualified.

The MS/MSD RPD for TATB was >30%. All associated sample results were NDs and, thus, were qualified UJ,HE12g.


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

Reviewed by: Allison Felix Level: 1 Date: 4/5/10


VALIDATOR'S SIGNATURE: <u>Kenn F. Herman</u> DATE: <u>04/03/10</u>	
Form 5122-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

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


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

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

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

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

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
<input 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	
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 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: RE15-10-8198

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123001

Sample Amount 2

Moisture: 5

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304109a

Date Analyzed: 06-MAR-10 20:22

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: RE15-10-8198

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123001

Sample Amount 2

Moisture: 5

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260085.wiff

Date Analyzed: 27-FEB-10 12:53

Units: ug/kg

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

*Concentration =

Instrument Value	X	<u>Concentrated Extract Volume</u>	X	Dilution Factor
		Sample Amount		

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8200

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123002

Sample Amount 2

Moisture: 1.4

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304110a

Date Analyzed: 06-MAR-10 20:52

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	<u>Concentrated Extract Volume</u>	X	Dilution Factor
		Sample Amount		

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8200

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123002

Sample Amount 2

Moisture: 1.4

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260089.wiff

Date Analyzed: 27-FEB-10 13:56

Units: ug/kg

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

*Concentration =

Instrument Value	X	<u>Concentrated Extract Volume</u> Sample Amount	X	Dilution Factor
------------------	---	---	---	-----------------

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8199

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123003

Sample Amount 2

Moisture: 2.0

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304111a

Date Analyzed: 06-MAR-10 21:21

Units: ug/kg

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

*Concentration =

Instrument Value	X	<u>Concentrated Extract Volume</u>	X	Dilution Factor
		Sample Amount		

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8199

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123003

Sample Amount 2

Moisture: 2.0

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260090.wiff

Date Analyzed: 27-FEB-10 14:11

Units: ug/kg

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

*Concentration =

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

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8201

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123004

Sample Amount 2

Moisture: 1.4

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304112a

Date Analyzed: 06-MAR-10 21:51

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: RE15-10-8201

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123004

Sample Amount 2

Moisture: 1.4

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260091.wiff

Date Analyzed: 27-FEB-10 14:27

Units: ug/kg

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

*Concentration =

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

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only



Section I.

REQUEST NUMBER: 10-1848 VALIDATION DATE: 04/03/2010 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Karen Germann 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
PESTICIDES/POLYCHLORINATED
BIPHENYLS |
| <input type="checkbox"/> GENERAL CHEMISTRY | <input type="checkbox"/> RADIOCHEMISTRY | <input type="checkbox"/> LCMSMS HIGH
EXPLOSIVES | |
- ☐ OTHER (DESCRIBE): PCBs

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. None.

Reviewed by: Allison Felix Level: 1 Date: 4/5/10

VALIDATOR'S SIGNATURE: Karen F. Germann DATE: 04/03/2010

Form 5116-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

**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 (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				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 ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

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

5116-2

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

Records Use only



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


PCB
Certificate of Analysis
Sample Summary

SDG Number: 10-1848
Lab Sample ID: 247123001

Date Collected: 02/11/2010 12:00
Date Received: 02/16/2010 08:50
Client: LANL010
Method: SW846 8082
Inst: ECD1A.J
Analyst: YS1
Aliquot: 30.06 g
Column: 1 CLP1
2 CLP2

Matrix: R
%Moisture: .5
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	3.34	ug/kg	1.11	3.34	1
11104-28-2	Aroclor-1221	U	3.34	ug/kg	1.11	3.34	1
11141-16-5	Aroclor-1232	U	3.34	ug/kg	1.11	3.34	1
53469-21-9	Aroclor-1242	P	3.40	ug/kg	1.11	3.34	1
12672-29-6	Aroclor-1248	U	3.34	ug/kg	1.11	3.34	1
11097-69-1	Aroclor-1254	U	3.34	ug/kg	1.11	3.34	1
11096-82-5	Aroclor-1260	U	3.34	ug/kg	1.11	3.34	1

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

Section I.							
REQUEST NUMBER: <u>10-1848</u>		VALIDATION DATE: <u>04/03/10</u>		LAB CODE: <u>GEL</u>			
CONTRACT LABORATORY NAME: <u>GEL Laboratories LLC</u>							
VALIDATOR: <u>Karen Germann</u>				ORGANIZATION: <u>Analytical Quality Associates, Inc.</u>			
ANALYTICAL SUITE (CHECK ALL THAT APPLY):							
<input type="checkbox"/> TPH-GRO	<input type="checkbox"/> HIGH EXPLOSIVES	<input type="checkbox"/> DIOXIN FURANS	<input type="checkbox"/> LCMSMS PERCHLORATES				
<input type="checkbox"/> TPH-DRO	<input checked="" type="checkbox"/> METALS	<input type="checkbox"/> PCB CONGENERS	<input type="checkbox"/> ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS				
<input type="checkbox"/> GENERAL CHEMISTRY	<input type="checkbox"/> RADIOCHEMISTRY	<input type="checkbox"/> LCMSMS HIGH EXPLOSIVES					
<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):

- In the MB, Mg was detected. All associated sample results were detects at >5X but ≤50X the MB concentration and, thus, were qualified J,I4a.


In the ICB/CCBs, Mg and Tl were detected. The Tl result for sample RE15-10-8198 was a detect at ≤5X the greatest blank concentration and, thus, was qualified U,I4b. All other associated Tl results were NDs and, thus, were not qualified. All associated Mg results were detects at >5X the greatest blank concentration and, thus, were not qualified.

In the FR blanks, samples RE15-10-8236 and -8237, which were associated with all field samples, K and Na were detected. The K and Na results for sample RE15-10-8199, and the Na result for sample RE15-10-8201 were detects at >5X the greatest FR blank concentration and, thus, were not qualified. All other associated


DATA VALIDATION COVER SHEET	
5118-1	Records Use only
<p align="center">Data Validation Cover Sheet</p> <p align="right">  </p>	
<p>sample results were detects at $\leq 5X$ the greatest FR blank concentration and, thus, were qualified U_{14d}.</p> <p>2. The MS %Rs were $>$ the laboratory UAL for Al and Fe. The associated parent sample concentrations were $>4X$ the spike concentrations. Thus, no sample data were qualified, based on professional judgment.</p> <p>The MS %R for Mn was $<75\%$ but $\geq 10\%$. The associated parent sample concentration was $>4X$ the spike concentration. Thus, no sample data were qualified, based on professional judgment.</p> <p>It should be noted that for ICP and ICPMS, the QC sample analyses were performed on LANL samples from other RNs. No sample data were qualified.</p> <p>Reviewed by: Allison Felix Level: 1 Date: 4/5/10</p>	
<p>VALIDATOR'S SIGNATURE: <u>Karin F. Hermann</u> DATE: <u>04/03/10</u></p>	
Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

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


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

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

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

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

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

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

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

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1848

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247123001

BASIS: Dry Weight

DATE COLLECTED 11-FEB-10

CLIENT ID: RE15-10-8198

LEVEL: Low

DATE RECEIVED 16-FEB-10

MATRIX: SOIL

%SOLIDS: 99.55

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	411000	ug/kg		6140	18100	18100	1	P	HSC	03/17/10 01:19	031610-1	954660
7440-36-0	Antimony	903	ug/kg	U	298	903	903	1	P	HSC	03/17/10 01:19	031610-1	954660
7440-38-2	Arsenic	1070	ug/kg		189	946	946	2	MS	BAJ	03/14/10 14:15	100314-2	954662
7440-39-3	Barium	13200	ug/kg		90.3	452	452	1	P	HSC	03/17/10 01:19	031610-1	954660
7440-41-7	Beryllium	275	ug/kg		18.9	94.6	94.6	2	MS	BAJ	03/14/10 14:15	100314-2	954662
7440-43-9	Cadmium	452	ug/kg	U	90.3	452	452	1	P	HSC	03/17/10 01:19	031610-1	954660
7440-70-2	Calcium	207000	ug/kg		7230	22600	22600	1	P	HSC	03/17/10 01:19	031610-1	954660
7440-47-3	Chromium	2750	ug/kg		136	452	452	1	P	HSC	03/17/10 01:19	031610-1	954660
7440-48-4	Cobalt	363	ug/kg	J	136	452	452	1	P	HSC	03/17/10 01:19	031610-1	954660
7440-50-8	Copper	784	ug/kg	J	271	903	903	1	P	HSC	03/17/10 01:19	031610-1	954660
7439-89-6	Iron	6100000	ug/kg		7230	22600	22600	1	P	HSC	03/17/10 01:19	031610-1	954660
7439-92-1	Lead	25700	ug/kg		226	903	903	1	P	HSC	03/17/10 01:19	031610-1	954660
7439-95-4	Magnesium J,I4a	157000	ug/kg		7680	27100	27100	1	P	HSC	03/17/10 12:43	031610-1	954660
7439-96-5	Manganese	213000	ug/kg		181	903	903	1	P	HSC	03/17/10 01:19	031610-1	954660
7439-97-6	Mercury	11.4	ug/kg	U	3.89	11.4	11.4	1	AV	JXL1	03/03/10 11:36	030310S2-3	958623
7440-02-0	Nickel	2040	ug/kg		94.6	378	378	2	MS	BAJ	03/14/10 14:15	100314-2	954662
7440-09-7	Potassium U,I4d	143000	ug/kg		5780	22600	22600	1	P	HSC	03/17/10 01:19	031610-1	954660
7782-49-2	Selenium	946	ug/kg	U	473	946	946	2	MS	BAJ	03/14/10 14:15	100314-2	954662
7440-22-4	Silver	452	ug/kg	U	90.3	452	452	1	P	HSC	03/17/10 01:19	031610-1	954660
7440-23-5	Sodium U,I4d	50400	ug/kg		6320	22600	22600	1	P	HSC	03/17/10 12:43	031610-1	954660
7440-28-0	Thallium U,I4b	125	ug/kg	J	56.8	189	189	2	MS	BAJ	03/14/10 14:15	100314-2	954662
7440-62-2	Vanadium	2330	ug/kg		90.3	452	452	1	P	HSC	03/17/10 01:19	031610-1	954660
7440-66-6	Zinc	31200	ug/kg		298	903	903	1	P	HSC	03/17/10 01:19	031610-1	954660

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
954660	954659	SW846 3050B	0.556	g	50	mL	03/16/10	BCD1
954662	954661	SW846 3050B	0.531	g	50	mL	02/23/10	AXG2
958623	958622	SW846 7471A Prep	0.527	g	30	mL	03/02/10	TXB3

KFG 04/03/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1848

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247123002

BASIS: Dry Weight

DATE COLLECTED 11-FEB-10

CLIENT ID: RE15-10-8200

LEVEL: Low

DATE RECEIVED 16-FEB-10

MATRIX: SOIL

%SOLIDS: 98.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	256000	ug/kg		6190	18200	18200	1	P	HSC	03/17/10 01:26	031610-1	954660
7440-36-0	Antimony	910	ug/kg	U	300	910	910	1	P	HSC	03/17/10 01:26	031610-1	954660
7440-38-2	Arsenic	2290	ug/kg		198	988	988	2	MS	BAJ	03/14/10 14:18	100314-2	954662
7440-39-3	Barium	8430	ug/kg		91	455	455	1	P	HSC	03/17/10 01:26	031610-1	954660
7440-41-7	Beryllium	401	ug/kg		19.8	98.8	98.8	2	MS	BAJ	03/14/10 14:18	100314-2	954662
7440-43-9	Cadmium	455	ug/kg	U	91	455	455	1	P	HSC	03/17/10 01:26	031610-1	954660
7440-70-2	Calcium	205000	ug/kg		7280	22800	22800	1	P	HSC	03/17/10 01:26	031610-1	954660
7440-47-3	Chromium	3290	ug/kg		137	455	455	1	P	HSC	03/17/10 01:26	031610-1	954660
7440-48-4	Cobalt	315	ug/kg	J	137	455	455	1	P	HSC	03/17/10 01:26	031610-1	954660
7440-50-8	Copper	760	ug/kg	J	273	910	910	1	P	HSC	03/17/10 01:26	031610-1	954660
7439-89-6	Iron	6320000	ug/kg		7280	22800	22800	1	P	HSC	03/17/10 01:26	031610-1	954660
7439-92-1	Lead	9090	ug/kg		228	910	910	1	P	HSC	03/17/10 01:26	031610-1	954660
7439-95-4	Magnesium J,14a	130000	ug/kg		7740	27300	27300	1	P	HSC	03/17/10 12:50	031610-1	954660
7439-96-5	Manganese	177000	ug/kg		182	910	910	1	P	HSC	03/17/10 01:26	031610-1	954660
7439-97-6	Mercury	11.5	ug/kg	U	3.92	11.5	11.5	1	AV	JXL1	03/03/10 11:45	030310S2-3	958623
7440-02-0	Nickel	432	ug/kg		98.8	395	395	2	MS	BAJ	03/14/10 14:18	100314-2	954662
7440-09-7	Potassium U,14d	120000	ug/kg		5830	22800	22800	1	P	HSC	03/17/10 01:26	031610-1	954660
7782-49-2	Selenium	988	ug/kg	U	494	988	988	2	MS	BAJ	03/14/10 14:18	100314-2	954662
7440-22-4	Silver	102	ug/kg	J	91	455	455	1	P	HSC	03/17/10 01:26	031610-1	954660
7440-23-5	Sodium U,14d	94800	ug/kg		6370	22800	22800	1	P	HSC	03/17/10 12:50	031610-1	954660
7440-28-0	Thallium	198	ug/kg	U	59.3	198	198	2	MS	BAJ	03/14/10 14:18	100314-2	954662
7440-62-2	Vanadium	2170	ug/kg		91	455	455	1	P	HSC	03/17/10 01:26	031610-1	954660
7440-66-6	Zinc	37300	ug/kg		300	910	910	1	P	HSC	03/17/10 01:26	031610-1	954660

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
954660	954659	SW846 3050B	0.557	g	50	mL	03/16/10	BCD1
954662	954661	SW846 3050B	0.513	g	50	mL	02/23/10	AXG2
958623	958622	SW846 7471A Prep	0.528	g	30	mL	03/02/10	TXB3

KFG 04/03/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1848

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247123003

BASIS: Dry Weight

DATE COLLECTED 11-FEB-10

CLIENT ID: RE15-10-8199

LEVEL: Low

DATE RECEIVED 16-FEB-10

MATRIX: SOIL

%SOLIDS: 98

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	516000	ug/kg		6350	18700	18700	1	P	HSC	03/17/10 01:33	031610-1	954660
7440-36-0	Antimony	934	ug/kg	U	308	934	934	1	P	HSC	03/17/10 01:33	031610-1	954660
7440-38-2	Arsenic	1730	ug/kg		193	965	965	2	MS	BAJ	03/14/10 14:22	100314-2	954662
7440-39-3	Barium	11500	ug/kg		93.4	467	467	1	P	HSC	03/17/10 01:33	031610-1	954660
7440-41-7	Beryllium	326	ug/kg		19.3	96.5	96.5	2	MS	BAJ	03/14/10 14:22	100314-2	954662
7440-43-9	Cadmium	467	ug/kg	U	93.4	467	467	1	P	HSC	03/17/10 01:33	031610-1	954660
7440-70-2	Calcium	495000	ug/kg		7480	23400	23400	1	P	HSC	03/17/10 01:33	031610-1	954660
7440-47-3	Chromium	4630	ug/kg		140	467	467	1	P	HSC	03/17/10 01:33	031610-1	954660
7440-48-4	Cobalt	420	ug/kg	J	140	467	467	1	P	HSC	03/17/10 01:33	031610-1	954660
7440-50-8	Copper	1270	ug/kg		280	934	934	1	P	HSC	03/17/10 01:33	031610-1	954660
7439-89-6	Iron	7400000	ug/kg		7480	23400	23400	1	P	HSC	03/17/10 01:33	031610-1	954660
7439-92-1	Lead	17900	ug/kg		234	934	934	1	P	HSC	03/17/10 01:33	031610-1	954660
7439-95-4	Magnesium J,14a	220000	ug/kg		7940	28000	28000	1	P	HSC	03/17/10 12:57	031610-1	954660
7439-96-5	Manganesec	230000	ug/kg		187	934	934	1	P	HSC	03/17/10 01:33	031610-1	954660
7439-97-6	Mercury	12.1	ug/kg	U	4.1	12.1	12.1	1	AV	JXL1	03/03/10 11:47	030310S2-3	958623
7440-02-0	Nickel	986	ug/kg		96.5	386	386	2	MS	BAJ	03/14/10 14:22	100314-2	954662
7440-09-7	Potassium	192000	ug/kg		5980	23400	23400	1	P	HSC	03/17/10 01:33	031610-1	954660
7782-49-2	Selenium	965	ug/kg	U	482	965	965	2	MS	BAJ	03/14/10 14:22	100314-2	954662
7440-22-4	Silver	269	ug/kg	J	93.4	467	467	1	P	HSC	03/17/10 01:33	031610-1	954660
7440-23-5	Sodium	137000	ug/kg		6540	23400	23400	1	P	HSC	03/17/10 12:57	031610-1	954660
7440-28-0	Thallium	193	ug/kg	U	57.9	193	193	2	MS	BAJ	03/14/10 14:22	100314-2	954662
7440-62-2	Vanadium	2380	ug/kg		93.4	467	467	1	P	HSC	03/17/10 01:33	031610-1	954660
7440-66-6	Zinc	24400	ug/kg		308	934	934	1	P	HSC	03/17/10 01:33	031610-1	954660

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
954660	954659	SW846 3050B	0.546	g	50	mL	03/16/10	BCD1
954662	954661	SW846 3050B	0.529	g	50	mL	02/23/10	AXG2
958623	958622	SW846 7471A Prep	0.508	g	30	mL	03/02/10	TXB3

KFG 04/03/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1848

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247123004

BASIS: Dry Weight

DATE COLLECTED 11-FEB-10

CLIENT ID: RE15-10-8201

LEVEL: Low

DATE RECEIVED 16-FEB-10


MATRIX: SOIL

%SOLIDS: 98.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	353000	ug/kg		6360	18700	18700	1	P	HSC	03/17/10 01:40	031610-1	954660
7440-36-0	Antimony	936	ug/kg	U	309	936	936	1	P	HSC	03/17/10 01:40	031610-1	954660
7440-38-2	Arsenic	1020	ug/kg		198	990	990	2	MS	BAJ	03/14/10 14:26	100314-2	954662
7440-39-3	Barium	15000	ug/kg		93.6	468	468	1	P	HSC	03/17/10 01:40	031610-1	954660
7440-41-7	Beryllium	434	ug/kg		19.8	99	99	2	MS	BAJ	03/14/10 14:26	100314-2	954662
7440-43-9	Cadmium	468	ug/kg	U	93.6	468	468	1	P	HSC	03/17/10 01:40	031610-1	954660
7440-70-2	Calcium	293000	ug/kg		7480	23400	23400	1	P	HSC	03/17/10 01:40	031610-1	954660
7440-47-3	Chromium	2360	ug/kg		140	468	468	1	P	HSC	03/17/10 01:40	031610-1	954660
7440-48-4	Cobalt	308	ug/kg	J	140	468	468	1	P	HSC	03/17/10 01:40	031610-1	954660
7440-50-8	Copper	937	ug/kg		281	936	936	1	P	HSC	03/17/10 01:40	031610-1	954660
7439-89-6	Iron	6690000	ug/kg		7480	23400	23400	1	P	HSC	03/17/10 01:40	031610-1	954660
7439-92-1	Lead	2080	ug/kg		234	936	936	1	P	HSC	03/17/10 01:40	031610-1	954660
7439-95-4	Magnesium J,14a	182000	ug/kg		7950	28100	28100	1	P	HSC	03/17/10 13:04	031610-1	954660
7439-96-5	Manganese	195000	ug/kg		187	936	936	1	P	HSC	03/17/10 01:40	031610-1	954660
7439-97-6	Mercury	11.6	ug/kg	U	3.95	11.6	11.6	1	AV	JXL1	03/03/10 11:48	030310S2-3	958623
7440-02-0	Nickel	433	ug/kg		99	396	396	2	MS	BAJ	03/14/10 14:26	100314-2	954662
7440-09-7	Potassium U,14d	150000	ug/kg		5990	23400	23400	1	P	HSC	03/17/10 01:40	031610-1	954660
7782-49-2	Selenium	990	ug/kg	U	495	990	990	2	MS	BAJ	03/14/10 14:26	100314-2	954662
7440-22-4	Silver	99.1	ug/kg	J	93.6	468	468	1	P	HSC	03/17/10 01:40	031610-1	954660
7440-23-5	Sodium	138000	ug/kg		6550	23400	23400	1	P	HSC	03/17/10 13:04	031610-1	954660
7440-28-0	Thallium	198	ug/kg	U	59.4	198	198	2	MS	BAJ	03/14/10 14:26	100314-2	954662
7440-62-2	Vanadium	1970	ug/kg		93.6	468	468	1	P	HSC	03/17/10 01:40	031610-1	954660
7440-66-6	Zinc	36700	ug/kg		309	936	936	1	P	HSC	03/17/10 01:40	031610-1	954660


Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
954660	954659	SW846 3050B	0.542	g	50	mL	03/16/10	BCD1
954662	954661	SW846 3050B	0.512	g	50	mL	02/23/10	AXG2
958623	958622	SW846 7471A Prep	0.524	g	30	mL	03/02/10	TXB3


DATA VALIDATION COVER SHEET	
5120-1 Data Validation Cover Sheet	Records Use only 

Section I.							
REQUEST NUMBER: <u>10-1848</u>		VALIDATION DATE: <u>04/03/10</u>		LAB CODE: <u>GEL</u>			
CONTRACT LABORATORY NAME: <u>GEL Laboratories LLC</u>							
VALIDATOR: <u>Karen Germann</u>				ORGANIZATION: <u>Analytical Quality Associates, Inc.</u>			
ANALYTICAL SUITE (CHECK ALL THAT APPLY):							
<input type="checkbox"/> TPH-GRO	<input type="checkbox"/> HIGH EXPLOSIVES	<input type="checkbox"/> DIOXIN FURANS	<input type="checkbox"/> LCMSMS PERCHLORATES				
<input type="checkbox"/> TPH-DRO	<input type="checkbox"/> METALS	<input type="checkbox"/> PCB CONGENERS	<input type="checkbox"/> ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS				
<input checked="" type="checkbox"/> GENERAL CHEMISTRY	<input type="checkbox"/> RADIOCHEMISTRY	<input type="checkbox"/> LCMSMS HIGH EXPLOSIVES					
<input type="checkbox"/> OTHER (DESCRIBE): <u>total cyanide</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 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. None.							
Reviewed by: Allison Felix Level: 1 Date: 4/5/10							


VALIDATOR'S SIGNATURE: <u>Karin F. Hernandez</u> DATE: <u>04/03/10</u>	
Form 5120-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

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

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

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

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

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

Yes No N/A (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

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 9, 2010

Client SDG: 10-1848

Client Sample ID: RE15-10-8198
Sample ID: 247123001
Matrix: R
Collect Date: 11-FEB-10 12:00
Receive Date: 16-FEB-10
Collector: Client
Moisture: .451%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	68.3	251	ug/kg	1	AXC2	02/25/10	1249	954509	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/24/10	1530	954508

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

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

Report Date: March 9, 2010

Client SDG: 10-1848

Client Sample ID: RE15-10-8200
Sample ID: 247123002
Matrix: R
Collect Date: 11-FEB-10 12:00
Receive Date: 16-FEB-10
Collector: Client
Moisture: 1.39%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	67.6	249	ug/kg	1	AXC2	02/25/10	1256	954509	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/24/10	1530	954508

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory

Address : PO Box 1663

TA-03, SM271, Drop Pt. 02U, Rm111

Los Alamos, New Mexico 87545

Contact: Ms. Joylene Valdez

Project: LANL ER Project

Report Date: March 9, 2010

Client SDG: 10-1848

Client Sample ID: RE15-10-8199
Sample ID: 247123003
Matrix: R
Collect Date: 11-FEB-10 12:00
Receive Date: 16-FEB-10
Collector: Client
Moisture: 2.01%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	69.4	255	ug/kg	1	AXC2	02/25/10	1300	954509	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/24/10	1530	954508

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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 9, 2010

Client SDG: 10-1848

Client Sample ID: RE15-10-8201
Sample ID: 247123004
Matrix: R
Collect Date: 11-FEB-10 12:00
Receive Date: 16-FEB-10
Collector: Client
Moisture: 1.4%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total "Dry Weight Corrected"


Cyanide, Total	U	ND	61.6	226	ug/kg	1	AXC2	02/25/10	1301	954509	1
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The following Prep Methods were performed


Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/24/10	1530	954508

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

DATA VALIDATION COVER SHEET	
5119-1 Data Validation Cover Sheet	Records Use only 


Section I.							
REQUEST NUMBER: <u>10-1848</u>		VALIDATION DATE: <u>04/03/10</u>		LAB CODE: <u>GEL</u>			
CONTRACT LABORATORY NAME: <u>GEL Laboratories LLC</u>							
VALIDATOR: <u>Karen Germann</u>		ORGANIZATION: <u>Analytical Quality Associates, Inc.</u>					
ANALYTICAL SUITE (CHECK ALL THAT APPLY):							
<input type="checkbox"/> TPH-GRO	<input type="checkbox"/> HIGH EXPLOSIVES	<input type="checkbox"/> DIOXIN FURANS	<input type="checkbox"/> LCMSMS PERCHLORATES				
<input type="checkbox"/> TPH-DRO	<input type="checkbox"/> METALS	<input type="checkbox"/> PCB CONGENERS	<input type="checkbox"/> ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS				
<input type="checkbox"/> GENERAL CHEMISTRY	<input checked="" type="checkbox"/> RADIOCHEMISTRY	<input type="checkbox"/> LCMSMS HIGH EXPLOSIVES					
<input type="checkbox"/> OTHER (DESCRIBE): <u>tritium</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 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):							
None.							
Reviewed by: Allison Felix Level: 1 Date: 4/5/10							
VALIDATOR'S SIGNATURE: <u>Karen F. Germann</u>				DATE: <u>04/03/10</u>			
Form 5119-1, Revision 0.0				LOS ALAMOS Environmental Restoration Project			

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

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

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

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

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

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
<input type="checkbox"/>	<input checked="" 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

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 9, 2010

Client Sample ID: RE15-10-8198
Sample ID: 247123001
Matrix: R
Collect Date: 11-FEB-10
Receive Date: 16-FEB-10
Collector: Client
Moisture: .451%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium		7.45	4.61	+/-1.77	6.00	pCi/g		KXK2	03/04/10	0747	959453	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	EPA 906.0 Modified

Notes:

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

The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.

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 9, 2010

Client Sample ID: RE15-10-8200
Sample ID: 247123002
Matrix: R
Collect Date: 11-FEB-10
Receive Date: 16-FEB-10
Collector: Client
Moisture: 1.39%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Liquid Scintillation Analysis												
<i>LSC, Tritium Dist, Solid "As Received"</i>												
Tritium		180	4.63	+/-21.3	6.00	pCi/g		KXK2	03/04/10	0834	959453	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	EPA 906.0 Modified

Notes:

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

The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
 - < Result is less than value reported
 - > Result is greater than value reported
 - A The TIC is a suspected aldol-condensation product
 - B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
 - BD Results are either below the MDC or tracer recovery is low
 - C Analyte has been confirmed by GC/MS analysis
 - D Results are reported from a diluted aliquot of the sample
 - E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
 - E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
 - E Organics--Concentration of the target analyte exceeds the instrument calibration range
 - F Estimated Value
 - H Analytical holding time was exceeded
 - J Value is estimated
 - M M if above MDC and less than LLD
 - M Matrix Related Failure
 - N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).
- Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit

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 9, 2010

Client Sample ID: RE15-10-8199
Sample ID: 247123003
Matrix: R
Collect Date: 11-FEB-10
Receive Date: 16-FEB-10
Collector: Client
Moisture: 2.01%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Liquid Scintillation Analysis												
<i>LSC, Tritium Dist, Solid "As Received"</i>												
Tritium		476	4.63	+/-55.6	6.00	pCi/g		KXK2	03/04/10	0921	959453	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	EPA 906.0 Modified

Notes:

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

The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
 - < Result is less than value reported
 - > Result is greater than value reported
 - A The TIC is a suspected aldol-condensation product
 - B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
 - BD Results are either below the MDC or tracer recovery is low
 - C Analyte has been confirmed by GC/MS analysis
 - D Results are reported from a diluted aliquot of the sample
 - E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
 - E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
 - E Organics--Concentration of the target analyte exceeds the instrument calibration range
 - F Estimated Value
 - H Analytical holding time was exceeded
 - J Value is estimated
 - M M if above MDC and less than LLD
 - M Matrix Related Failure
 - N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).
- Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit

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 9, 2010

Client Sample ID: RE15-10-8201
Sample ID: 247123004
Matrix: R
Collect Date: 11-FEB-10
Receive Date: 16-FEB-10
Collector: Client
Moisture: 1.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Liquid Scintillation Analysis												
<i>LSC, Tritium Dist, Solid "As Received"</i>												
Tritium		80.6	4.65	+/-9.79	6.00	pCi/g		KXK2	03/04/10	1008	959453	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	EPA 906.0 Modified

Notes:

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

The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
 - < Result is less than value reported
 - > Result is greater than value reported
 - A The TIC is a suspected aldol-condensation product
 - B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
 - BD Results are either below the MDC or tracer recovery is low
 - C Analyte has been confirmed by GC/MS analysis
 - D Results are reported from a diluted aliquot of the sample
 - E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
 - E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
 - E Organics--Concentration of the target analyte exceeds the instrument calibration range
 - F Estimated Value
 - H Analytical holding time was exceeded
 - J Value is estimated
 - M M if above MDC and less than LLD
 - M Matrix Related Failure
 - N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).
- Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit

Monday, February 15, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1848C

LOS ALAMOS

REQUEST NUMBER: 10-1848

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/17/2010

General Engineering Laboratories, Inc.,
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

247123

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8198	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8198	1	POLY	H3	Ice	R
RE15-10-8198	1	POLY	Metals+CIO4+CN	Ice	R
RE15-10-8200	1	POLY	H3	Ice	R
RE15-10-8200	1	POLY	Metals+CIO4+CN	Ice	R
RE15-10-8199	1	POLY	H3	Ice	R
RE15-10-8199	1	POLY	Metals+CIO4+CN	Ice	R
RE15-10-8201	1	POLY	H3	Ice	R
RE15-10-8201	1	POLY	Metals+CIO4+CN	Ice	R
RE15-10-8201	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8199	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8200	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

Monday, February 15, 2010

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/15/2010

TURNAROUND/REPORT DUE: 3/17/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



These Samples are on:

LANL Request Number: 10-1848

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA-906.0	1	RE15-10-8198	R	2/11/2010	
		1	RE15-10-8199	R	2/11/2010	
		1	RE15-10-8200	R	2/11/2010	
		1	RE15-10-8201	R	2/11/2010	
	SW-846:8010B	1	RE15-10-8198	R	2/11/2010	
		1	RE15-10-8199	R	2/11/2010	
		1	RE15-10-8200	R	2/11/2010	
		1	RE15-10-8201	R	2/11/2010	
	SW-846:8082	1	RE15-10-8198	R	2/11/2010	

Monday, February 15, 2010

Page 2 of 2

REQUEST NUMBER: 10-1848

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-8198	R	2/11/2010	
		1	RE15-10-8199	R	2/11/2010	
		1	RE15-10-8200	R	2/11/2010	
		1	RE15-10-8201	R	2/11/2010	
	SW-846:9012A	1	RE15-10-8198	R	2/11/2010	
		1	RE15-10-8199	R	2/11/2010	
		1	RE15-10-8200	R	2/11/2010	
		1	RE15-10-8201	R	2/11/2010	

Final Page of REQUEST NUMBER 10-1848



February 19, 2010

www.gel.com

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

Re: LANL ER Project
Work Order: 247123
SDG: 10-1848

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 16, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Sincerely,

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1848
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 247123
SDG: 10-1848

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Case Narrative

**Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 247123
SDG # : 10-1848**

February 19, 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 16, 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 9-11C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
247123001	RE15-10-8198
247123002	RE15-10-8200
247123003	RE15-10-8199
247123004	RE15-10-8201

Case Narrative

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

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

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

Valerie Davis

Valerie Davis

Project Manager

List of current GEL Certifications as of 19 February 2010

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

Chain of Custody and Supporting Documentation

Monday, February 15, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1848C

LOS ALAMOS

REQUEST NUMBER: 10-1848

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/17/2010

General Engineering Laboratories, Inc.,
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

247123

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8198	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8198	1	POLY	H3	Ice	R
RE15-10-8198	1	POLY	Metals+CIO4+CN	Ice	R
RE15-10-8200	1	POLY	H3	Ice	R
RE15-10-8200	1	POLY	Metals+CIO4+CN	Ice	R
RE15-10-8199	1	POLY	H3	Ice	R
RE15-10-8199	1	POLY	Metals+CIO4+CN	Ice	R
RE15-10-8201	1	POLY	H3	Ice	R
RE15-10-8201	1	POLY	Metals+CIO4+CN	Ice	R
RE15-10-8201	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8199	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8200	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

Monday, February 15, 2010

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

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

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/15/2010


TURNAROUND/REPORT DUE: 3/17/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature: 

These Samples are on:
LANL Request Number: 10-1848
Per Agreement Number: 126310011
Project Cost Code: MR3A05529E00

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE15-10-8198	R	2/11/2010	
		1	RE15-10-8199	R	2/11/2010	
		1	RE15-10-8200	R	2/11/2010	
		1	RE15-10-8201	R	2/11/2010	
	SW-846:6010B	1	RE15-10-8198	R	2/11/2010	
		1	RE15-10-8199	R	2/11/2010	
		1	RE15-10-8200	R	2/11/2010	
		1	RE15-10-8201	R	2/11/2010	
	SW-846:8082	1	RE15-10-8198	R	2/11/2010	

Monday, February 15, 2010

REQUEST NUMBER: 10-1848

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-8198	R	2/11/2010	
		1	RE15-10-8199	R	2/11/2010	
		1	RE15-10-8200	R	2/11/2010	
		1	RE15-10-8201	R	2/11/2010	
	SW-846:9012A	1	RE15-10-8198	R	2/11/2010	
		1	RE15-10-8199	R	2/11/2010	
		1	RE15-10-8200	R	2/11/2010	
		1	RE15-10-8201	R	2/11/2010	

Final Page of REQUEST NUMBER 10-1848



Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL			SDG/ARCO/Work Order: 10-1848		
Received By: Patricia Dover-Dent			Date Received: February 16, 2009		
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*: 60 CPM		
Classified Radioactive II by RSO?		X			
COC/Samples marked containing PCBs?		X			
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:		
Samples identified as Foreign Soil?		X			

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

Comments: FEDEX#S

7209 7850 0680 1C	7209 7850 0706 4C	7209 7850 0647 9C
7209 7850 0831 1C	7209 7850 0750 3C	7209 7850 0809 6C
7209 7850 0740 2C	7209 7850 0739 4C	7209 7850 0670 10C
7209 7850 0783 1C	7209 7850 0717 4C	7209 7850 0636 9C
7209 7850 0820 2C	7209 7850 0772 5C	7209 7850 0658 11C
7209 7850 0794 2C	7209 7850 0728 4C	7209 7850 0669 11C
7209 7850 0842 3C	7209 7850 0691 5C	
7209 7850 0810 2C	7209 7850 0761 5C	

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

ORIGIN ID: SAFA (595) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0532VA00

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A05529E00

FedEx
Express



FedEx
Express



2 of 2
MPS# 7209 7850 0680
Mstr# 7209 7850 0670 0201

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

1 of 2
TRK# 7209 7850 0831
Mstr# MASTER M#

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

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: 15FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0532VA00

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A05529E00

FedEx
Express



FedEx
Express



2 of 2
MPS# 7209 7850 0740
Mstr# 7209 7850 0739 0201

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

1 of 3
MPS# 7209 7850 0783
Mstr# MASTER M#

TUE - 16FEB A1
PRIORITY OVERNIGHT

X CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

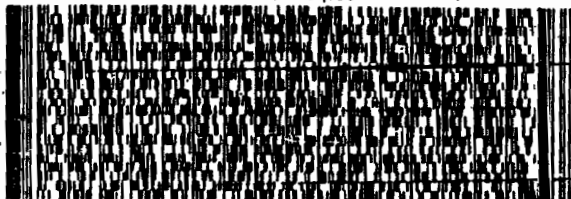
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171
REF: 6B010AMR3A05529E00

156148-434 NRTV 03 09 08



FedEx
Express



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: 15FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

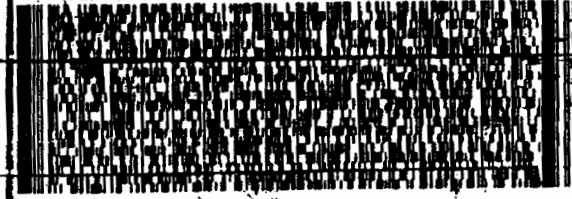
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VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171
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156148-434 NRTV 03 09 08



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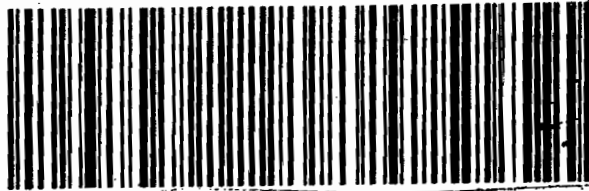


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TUE - 16FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
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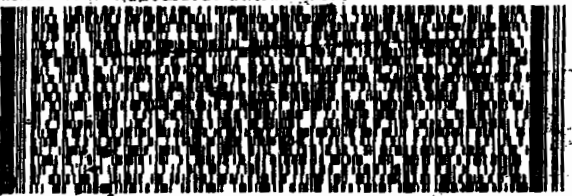
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VALERIE DAVIS
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CHARLESTON SC 29407

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REF: 6B010AMR3A05529E00

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Matr# 7209 7850 0831 0201

TUE - 16FEB A1
PRIORITY OVERNIGHT

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2 of 3
MPS# 7209 7850 0794
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TUE - 16FEB A1
PRIORITY OVERNIGHT

2940
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
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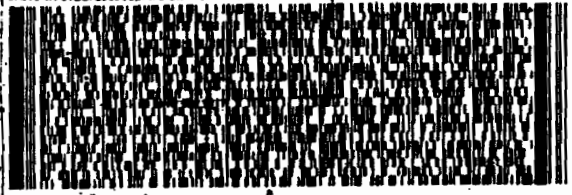
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CHARLESTON SC 29407

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156148-434 NRTV 03 09 08



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1 of 2
TRK# 7209 7850 0810
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TUE - 16FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 58.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0532VA00

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: 15FEB10
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
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2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0532VA00

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Matr# 7209 7850 0691 0201

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TUE - 16FEB A1
PRIORITY OVERNIGHT



1 of 3
TRKH# 0201 7209 7850 0750

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XX CHSA

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SC-US
CHS

TUE - 16FEB A1
PRIORITY OVERNIGHT



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: 15FEB10
ACTWGT: 58.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0532VA00

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: 15FEB10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0532VA00

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1 of 2
TRKH# 0201 7209 7850 0739

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TUE - 16FEB A1
PRIORITY OVERNIGHT



1 of 2
TRKH# 0201 7209 7850 0717

HH MASTER HH

XX CHSA

29407
SC-US
CHS

TUE - 16FEB A1
PRIORITY OVERNIGHT



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: 15FEB10
ACTWGT: 47.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

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

SHIP DATE: 15FEB10
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CAD: 0014176/CAFE2449
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VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

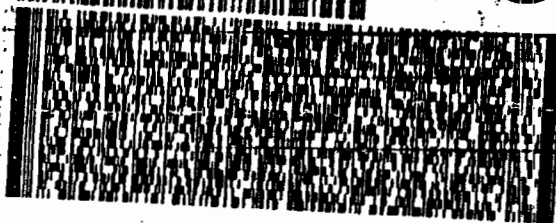
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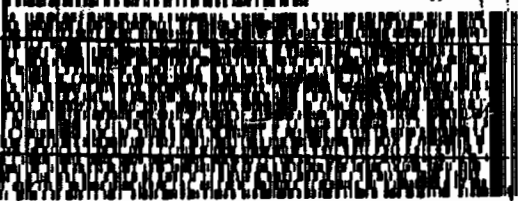
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TUE - 16FEB A1
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2 of 2
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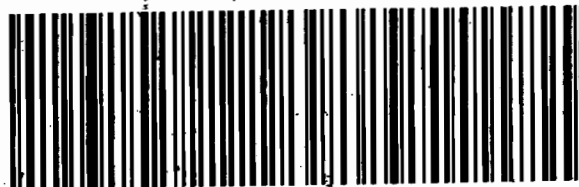
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
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CAD: 0014176/CAFE2449
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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: 15FEB10
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GENERAL ENGINEERING LAB
2040 SAVAGE RD

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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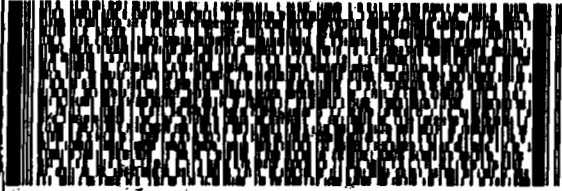
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TUE - 16FEB A1
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TUE - 16FEB A1
PRIORITY OVERNIGHT

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

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LOS ALAMOS, NM 87545
UNITED STATES US

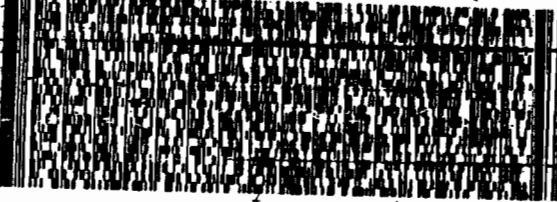
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VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171
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TUE - 16FEB A1
PRIORITY OVERNIGHT

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

SHIP DATE: 15FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171
REF: 6B010AMR3A0532VA00

120149-434 NRT V3 08-09



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TUE - 16FEB A1
PRIORITY OVERNIGHT

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29407
SC-US
CHS



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

SHIP DATE: 15FEB10
ACTWGT: 48.0 LB MAN
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LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

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REF: 6B010AMR3A05329E00

120149-434 NRT V3 08-09



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3 of 3

TUE - 16FEB A1
PRIORITY OVERNIGHT

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Matr# 7209 7850 0783 0281

XX CHSA

29407
SC-US
CHS



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

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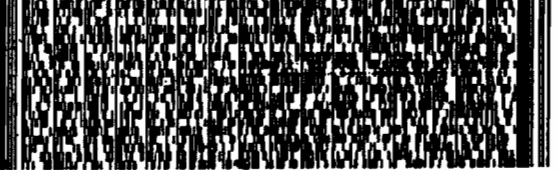
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GENERAL ENGINEERING LAB
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2 of 3

TUE - 16FEB A1
PRIORITY OVERNIGHT

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Matr# 7209 7850 0625 0281

XX CHSA

29407
SC-US
CHS



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

SHIP DATE: 15FEB10
ACTWGT: 60.0 LB MAN
CAD: 0014175/CAFE2449

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

° VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

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LOS ALAMOS, NM 87545
UNITED STATES US

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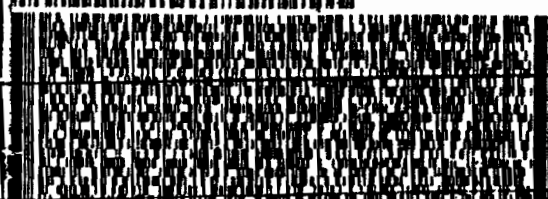
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GENERAL ENGINEERING LAB
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(843) 556-8171
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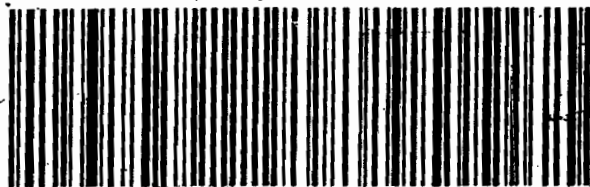


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2 of 2
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0263
Matr# 7209 7850 0658 0201

TUE - 16FEB A
PRIORITY OVERNIGHT

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CHS

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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier Explanation

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

LC/MS/MS PERCHLORATE ANALYSIS

**Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1848**

Method/Analysis Information

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

Analytical Method: SW846 6850 Modified

Prep Method: SW846 6850 Modified

Analytical Batch Number: 955703

Prep Batch Number: 955702

Sample Analysis

Sample ID	Client ID
247123001	RE15-10-8198
247123002	RE15-10-8200
247123003	RE15-10-8199
247123004	RE15-10-8201
1202049031	Interference Check Sample (ICS)
1202049027	Method Blank (MB)
1202049028	Laboratory Control Sample (LCS)
1202049029	247129001(RE16-10-3210) Matrix Spike (MS)
1202049030	247129001(RE16-10-3210) 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.

10-1848-PERLCMS

Page 1 of 4

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 247129001 (RE16-10-3210) from SDG 10-1850 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

The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis

The SDG was re-analyzed due to a CVS failing acceptance criteria. The re-analysis passed acceptance criteria and is reported.

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: Heather Mauer Date: 03/12/10

SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
Lab Code: GEL
Instrument: LCMSMS
Method: SW846 6850 Modified
Matrix: SOIL
Extraction Batch ID: 955702
Extraction Type: Solid Prep
Sample Volume/Weight: 2.00 g
Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8198
Date Received: 16-FEB-10
GEL Job No (SDG): 10-1848
GEL Sample ID: 247123001
Date Filtered: 27-FEB-10
Injection Volume (uL): 20
%Solids: 99.55

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.502	2.01	0.502	ug/kg	U	1	07-MAR-10 17:04	per0307019a
	Perchlorate Isotope Ratio						1	07-MAR-10 17:04	per0307019a
14797-73-0	Perchlorate-101	.502	2.01	0.502	ug/kg	U	1	07-MAR-10 17:04	per0307019a
	Perchlorate-O(18)			5.21	ug/kg		1	07-MAR-10 17:04	per0307019a

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

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
Lab Code: GEL
Instrument: LCMSMS
Method: SW846 6850 Modified
Matrix: SOIL
Extraction Batch ID: 955702
Extraction Type: Solid Prep
Sample Volume/Weight: 2.00 g
Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8200
Date Received: 16-FEB-10
GEL Job No (SDG): 10-1848
GEL Sample ID: 247123002
Date Filtered: 27-FEB-10
Injection Volume (uL): 20
%Solids: 98.6

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.507	2.03	0.507	ug/kg	U	1	07-MAR-10 17:13	per0307020a
	Perchlorate Isotope Ratio						1	07-MAR-10 17:13	per0307020a
14797-73-0	Perchlorate-101	.507	2.03	0.507	ug/kg	U	1	07-MAR-10 17:13	per0307020a
	Perchlorate-O(18)			5.31	ug/kg		1	07-MAR-10 17:13	per0307020a

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

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 955702

Extraction Type: Solid Prep

Client Sample No.

RE15-10-8199

Date Received: 16-FEB-10

GEL Job No (SDG): 10-1848

GEL Sample ID: 247123003

Date Filtered: 27-FEB-10

Injection Volume (uL): 20

%Solids: 98

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.51	2.04	0.510	ug/kg	U	1	07-MAR-10 17:22	per0307021a
	Perchlorate Isotope Ratio						1	07-MAR-10 17:22	per0307021a
14797-73-0	Perchlorate-101	.51	2.04	0.510	ug/kg	U	1	07-MAR-10 17:22	per0307021a
	Perchlorate-O(18)			5.37	ug/kg		1	07-MAR-10 17:22	per0307021a

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

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 955702

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8201

Date Received: 16-FEB-10

GEL Job No (SDG): 10-1848

GEL Sample ID: 247123004

Date Filtered: 27-FEB-10

Injection Volume (uL): 20

%Solids: 98.6

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.507	2.03	0.507	ug/kg	U	1	07-MAR-10 17:58	per0307025a
	Perchlorate Isotope Ratio						1	07-MAR-10 17:58	per0307025a
14797-73-0	Perchlorate-101	.507	2.03	0.507	ug/kg	U	1	07-MAR-10 17:58	per0307025a
	Perchlorate-O(18)			5.46	ug/kg		1	07-MAR-10 17:58	per0307025a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1848

Extract Batch Code: 955702

Date Filtered: 27-FEB-10

Matrix: SOIL

Sample ID: 1202049028

Analyte [^]	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.2	ug/kg	110		70 - 130
Perchlorate Isotope Ratio		3.11				-
Perchlorate-101	2.00	2.2	ug/kg	110		70 - 130
Perchlorate-O(18)		5.22	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): 10-1848

Extract Batch Code: 955702

Date Filtered: 27-FEB-10

Matrix: SOIL

Sample ID: 1202049031

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.36	ug/kg	118		70 - 130
Perchlorate Isotope Ratio		3.16				
Perchlorate-101	2.00	2.32	ug/kg	116		70 - 130
Perchlorate-O(18)		5.38	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.

Identify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

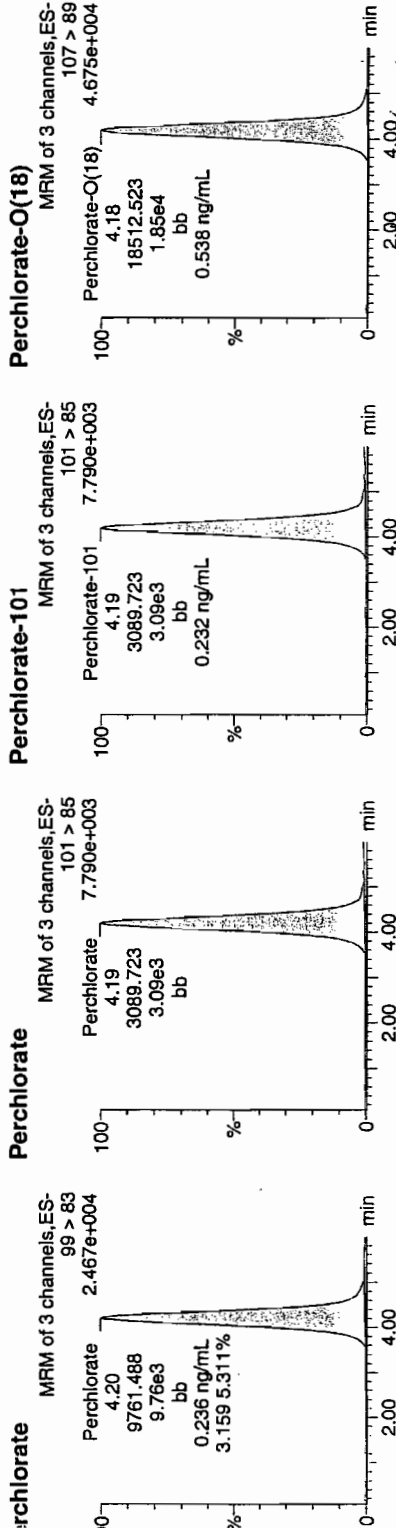
Dataset: C:\MassLynx\Perchlorate.PRO\per030710a.qld

Sample Name: per0307018a
Date: 07-Mar-2010
Time: 16:55:35
File: 1202049031
Acq: 1:4,C

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0308-10

Lawrence | 955703 | 3020 | 745 | 11



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
02049031	Perchlorate	99 > 83	4.20	9761.488	bb			0.2360	117.98	17.98	1642.1...	3.16
02049031	Perchlorate-101	101 > 85	4.19	3089.723	bb			0.2324	116.20	16.20	159.770	
02049031	Perchlorate-O(18)	107 > 89	4.18	18512.523	bb			0.5382	107.65	7.65	1637.7...	

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

Extract Batch Code: 955702

GEL MS/PS ID: 1202049029

GEL MSD/PSD ID: 1202049030

GEL Job No (SDG): 10-1848

Date Extracted: 27-FEB-10

Client ID: RE16-10-3210

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec	#	MSD Conc	MSD Rec	#	RPD	#	RPD Limit	Recovery Limit
Perchlorate	2.18	0.0837	ug/kg	2.49	110		2.55	113		2.41		30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3.19			3.17			0			-
Perchlorate-101	2.18	0.101	ug/kg	2.43	107		2.51	110		3.12		30	75 - 125
Perchlorate-O(18)	0	5.80	ug/kg	5.64			5.56			1.5			-

^ 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

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1848

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	07-MAR-10	per0307001a	IPB001
Perchlorate-101	0.00	0	NA	07-MAR-10	per0307001a	IPB001
Perchlorate	0.00	0	NA	07-MAR-10	per0307002a	IPB001
Perchlorate-101	0.00	0	NA	07-MAR-10	per0307002a	IPB001

Identify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030710a.qld

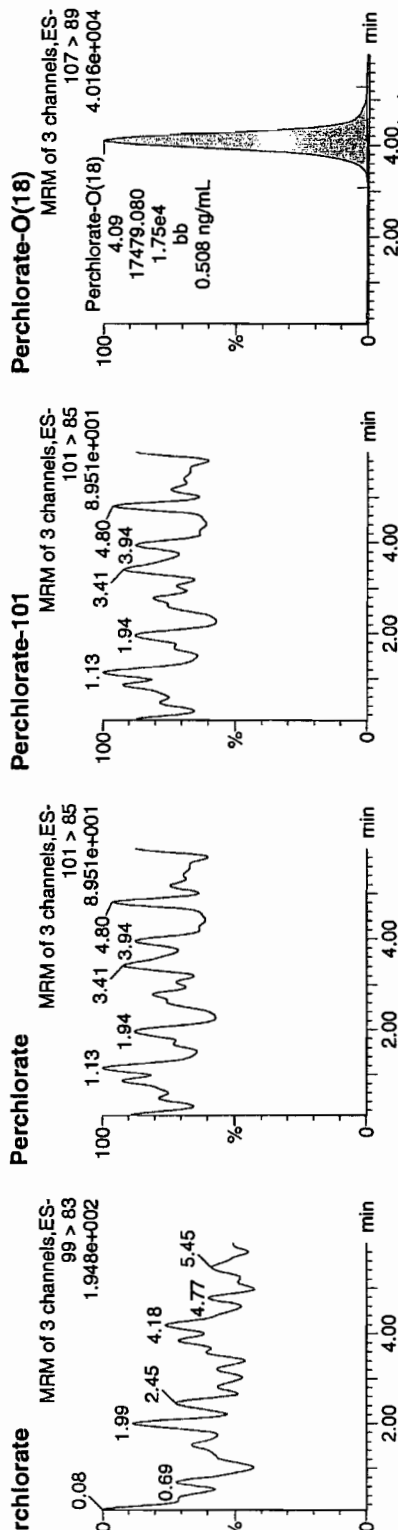
Start: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
 End: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

Page 33 of 1049

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per030710a.mdb 08 Mar 2010 08:56:17
 File: C:\MassLynx\Perchlorate.PRO\CurveDB\per030710a.cdb 08 Mar 2010 09:02:25

Sample: per0307001a
 Date: 07-Mar-2010
 Time: 14:21:49
 ID: IPB001
 Aliq: 1:1,A

03-08-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83											0.00
Perchlorate-101	101 > 85											
Perchlorate-O(18)	107 > 89	4.09	17479.080	17479.080	bb			0.5082	101.64	1.64	3828.4...	

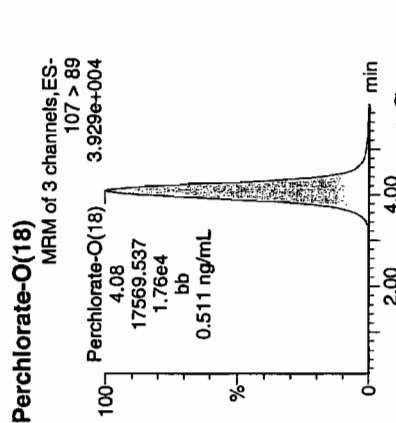
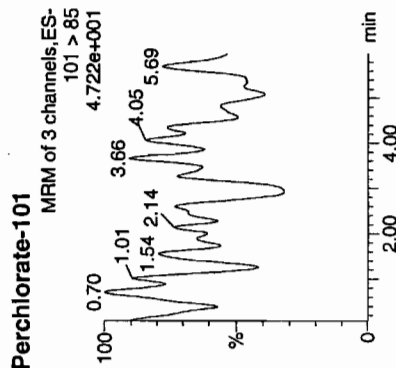
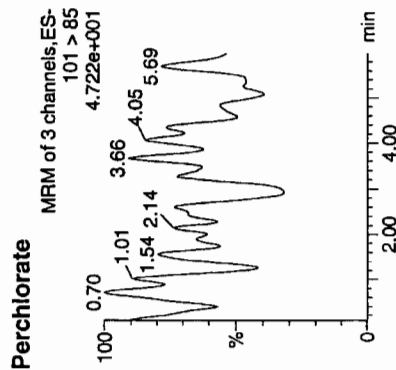
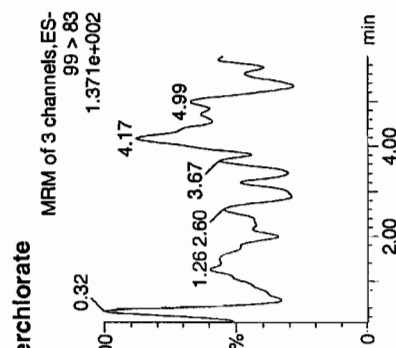
Identify Sample Report MassLynx 4.0 SP4
 ie GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030710a.qld

First Altered: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
 Entered: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

Sample Name: per0307002a
 Date: 07-Mar-2010
 Time: 14:31:01
 File: IPB001
 Label: 1:1,A

03-08-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	IS/N Ion Ratio
Perchlorate	99 > 83										0.00
Perchlorate-101	101 > 85										
Perchlorate-O(18)	107 > 89	4.08	17569.537	17569.537	bb			0.5108	102.17	2.17	1591.0...

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1848

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	07-MAR-10	per0307008a	IPB002
Perchlorate-101	0.00	0	NA	07-MAR-10	per0307008a	IPB002
Perchlorate	0.00	0	NA	07-MAR-10	per0307010a	IPB003
Perchlorate-101	0.00	0	NA	07-MAR-10	per0307010a	IPB003
Perchlorate	0.00	0	NA	07-MAR-10	per0307015a	IPB004
Perchlorate-101	0.00	0	NA	07-MAR-10	per0307015a	IPB004
Perchlorate	0.00	0	NA	07-MAR-10	per0307023a	IPB005
Perchlorate-101	0.00	0	NA	07-MAR-10	per0307023a	IPB005
Perchlorate	0.00	0	NA	07-MAR-10	per0307035a	IPB006
Perchlorate-101	0.00	0	NA	07-MAR-10	per0307035a	IPB006

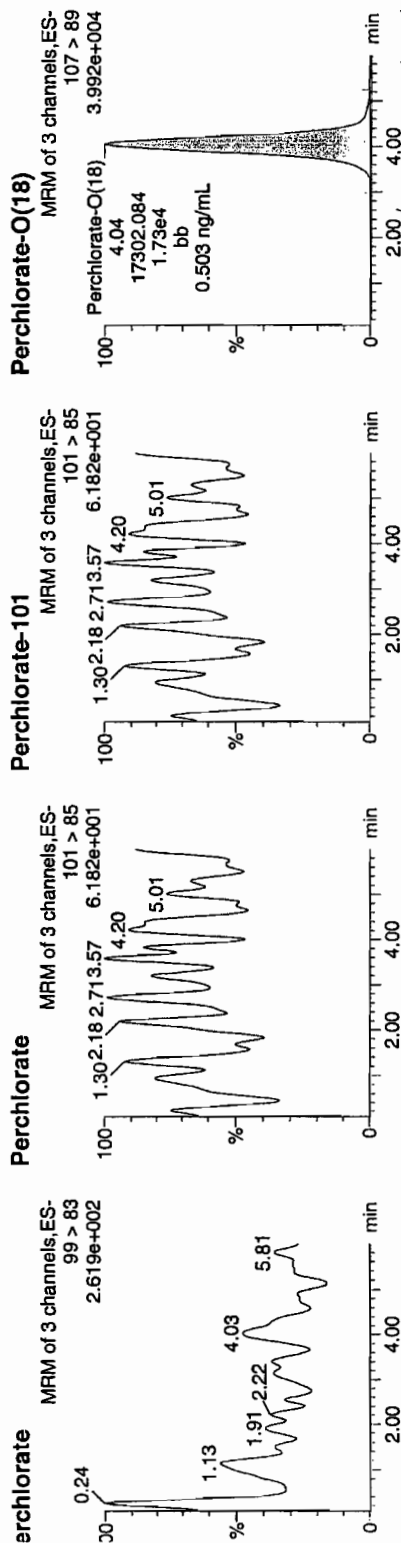
uantify Sample Report MassLynx 4.0 SP4
ne GEL Group, LLC Analyst: Charfers W. Wilson

atasset: C:\MassLynx\Perchlorate.PRO\per030710a.qld

3st Altered: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
rinted: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

ame: per0307008a
ate: 07-Mar-2010
ime: 15:25:09
i: IPB002
ial: 1:1,A

03-08-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B002	Perchlorate	99 > 83										0.00
B002	Perchlorate-101	101 > 85										
B002	Perchlorate-O(18)	107 > 89	4.04	17302.084	bb	17302.084		0.5031	100.61	0.61	2799.1...	

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

ataset: C:\MassLynx\Perchlorate.PRO\per030710a.qld

1st Altered: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
nted: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

ame: per0307010a

ate: 07-Mar-2010

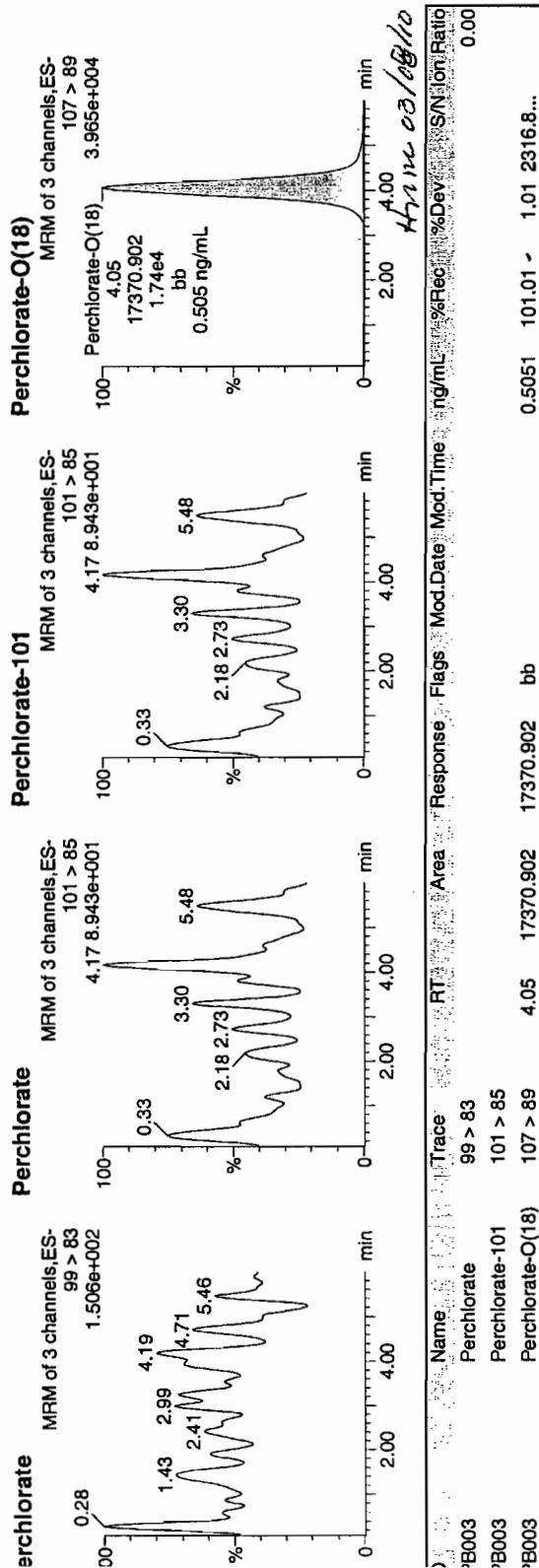
me: 15:43:13

i: IPB003

ial: 1:1,A

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02-08-10



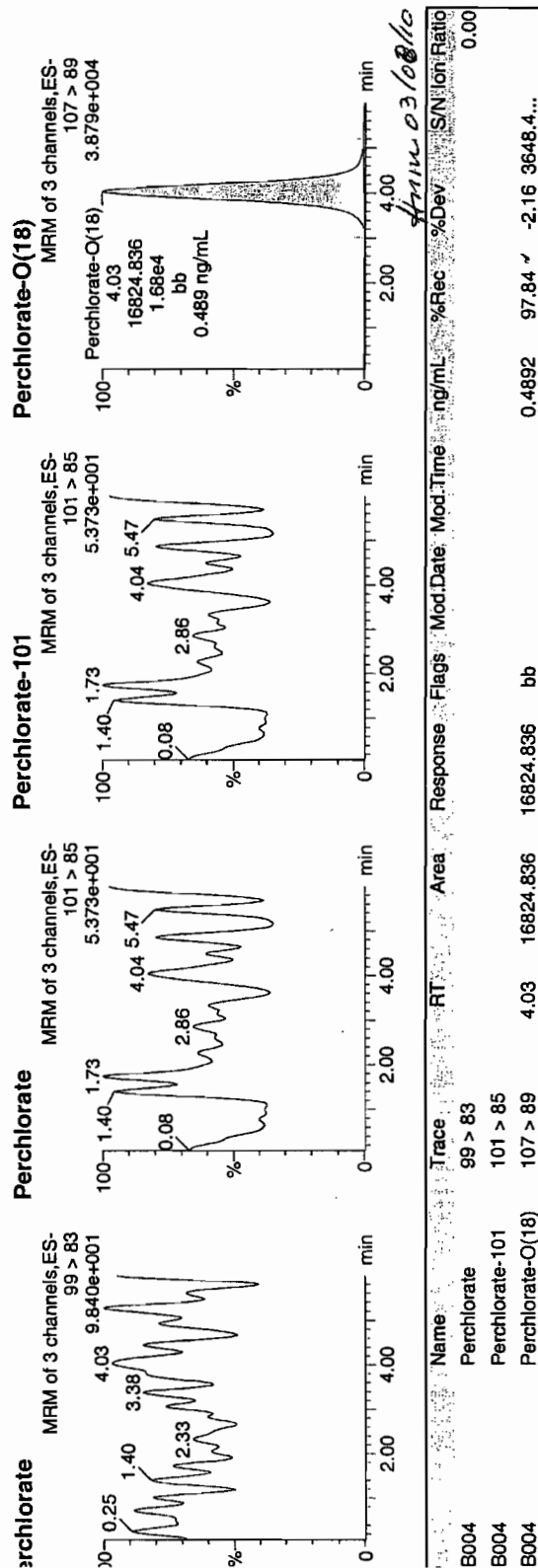
Identify Sample Report MassLynx 4.0 SP4
 the GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030710a.qld

First Altered: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
 First: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

Sample Name: per0307015a
 Date: 07-Mar-2010
 Time: 16:28:28
 File: IPB004
 Label: 1:1,A

0308-10



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

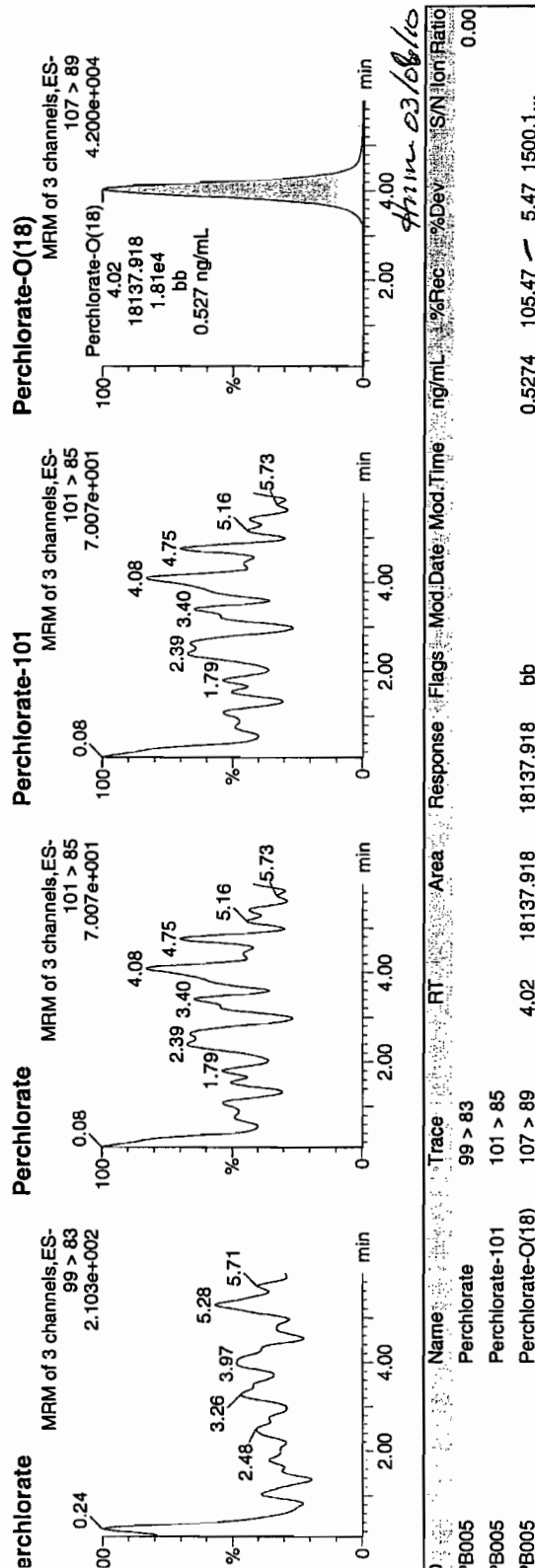
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First Altered: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
 Printed: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

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Sample Name: per0307023a
 Date: 07-Mar-2010
 Time: 17:40:47
 File: IPB005
 Label: 1:1,A

03-08-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B005	Perchlorate	99 > 83										
B005	Perchlorate-101	101 > 85										
B005	Perchlorate-O(18)	107 > 89	4.02	18137.918	bb			0.5274	105.47	5.47	1500.1...	0.00

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

atasset: C:\MassLynx\Perchlorate.PRO\per030710a.qld

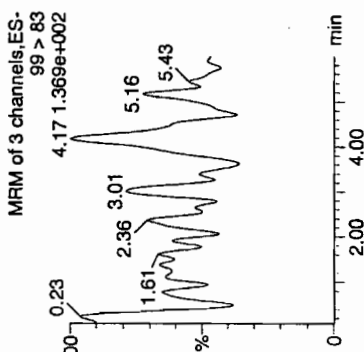
ist Altered: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
 inted: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

ame: per0307035a
 ate: 07-Mar-2010
 me: 19:29:22
 i: IPB006
 ial: 1:1,A

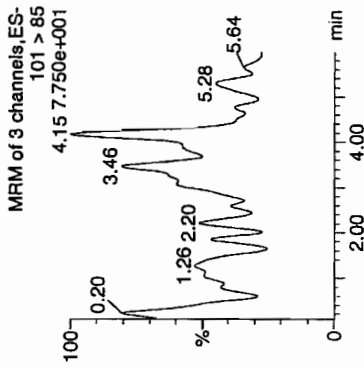
Page 40 of 1049

03-08-10

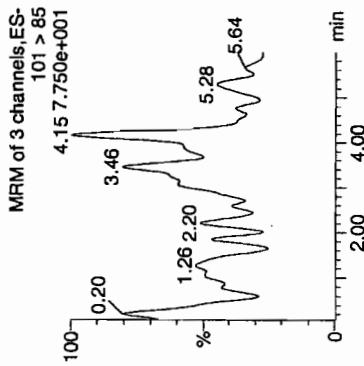
archlorate



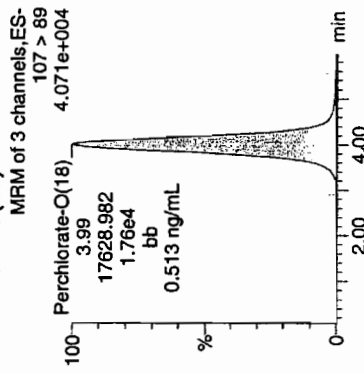
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B006	Perchlorate	99 > 83										0.00
B006	Perchlorate-101	101 > 85										
B006	Perchlorate-O(18)	107 > 89	3.99	17628.982	bb			0.5126	102.51	r	2.51	4059.0...

Nairb.ref

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

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

QUANTO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

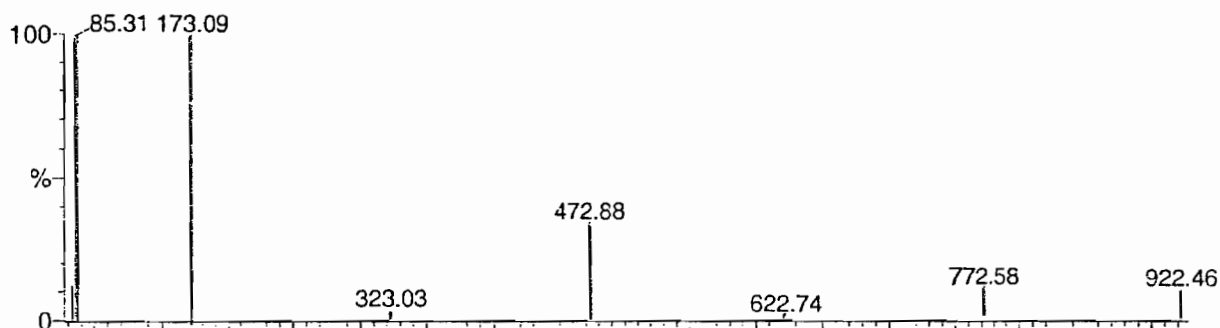
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

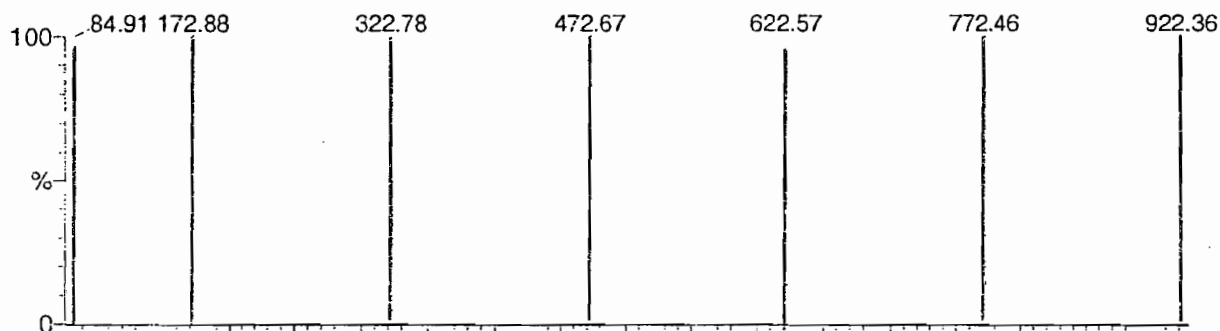
DATA HIGHLIGHTED BY CURS 01-07-08

Data file: STATMS1 - Uncalibrated

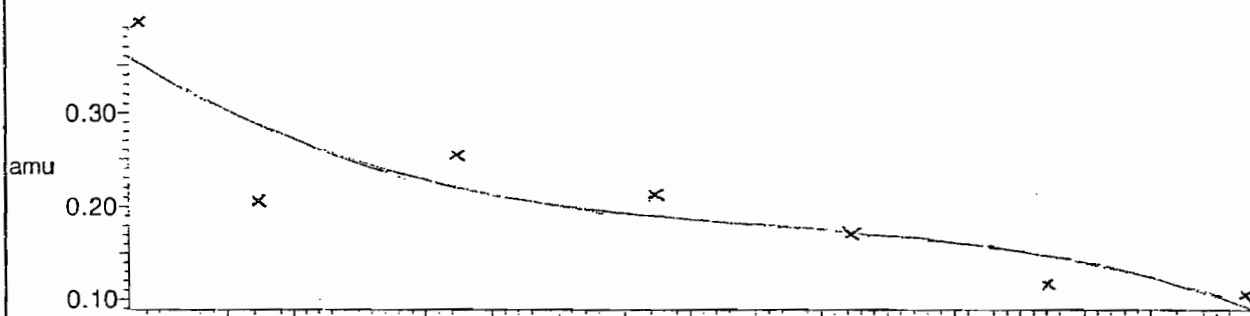
7 matches of 7 tested references



Reference file: Nairb

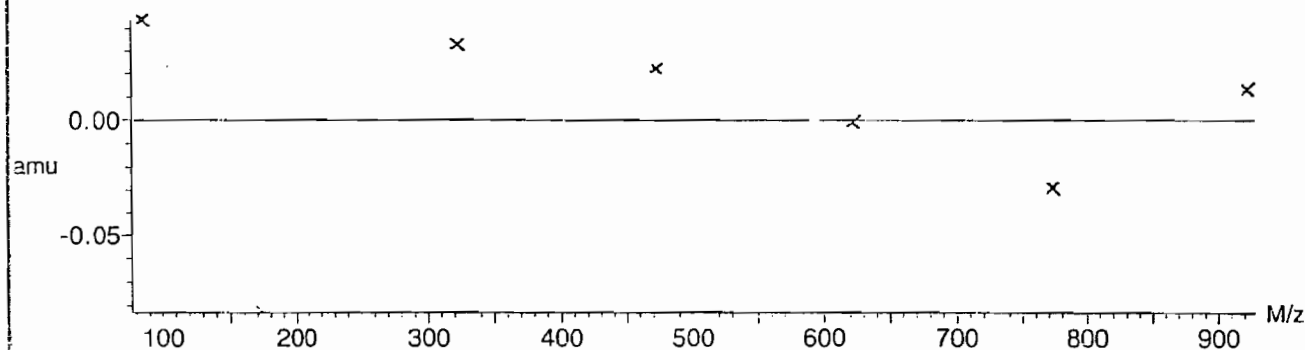


Mass difference (Raw - Ref mass)



Residuals

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

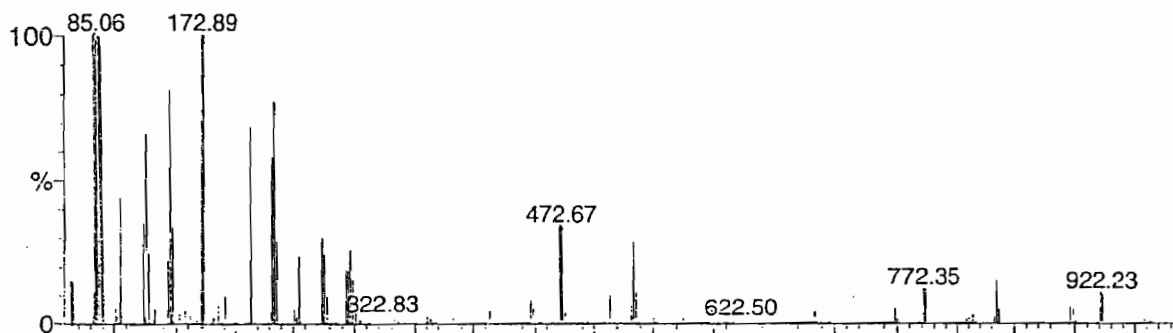


Calibration Report - MS1 Scanning

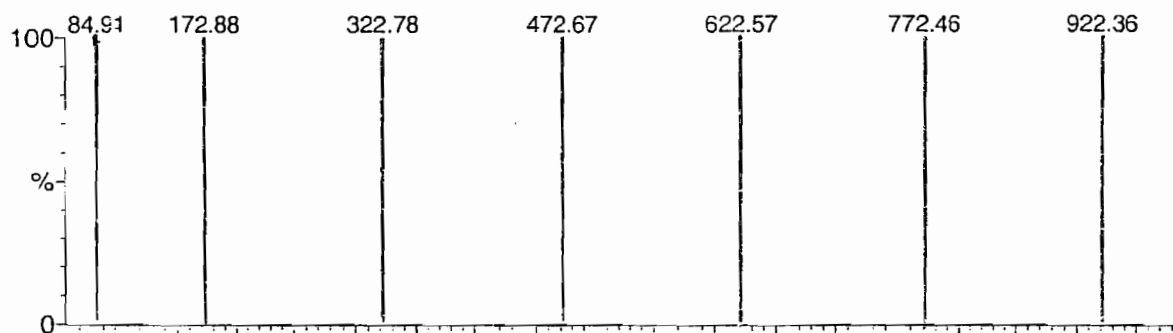
Page 1 of 1

Printed: Tue Jan 08 12:20:09 2008

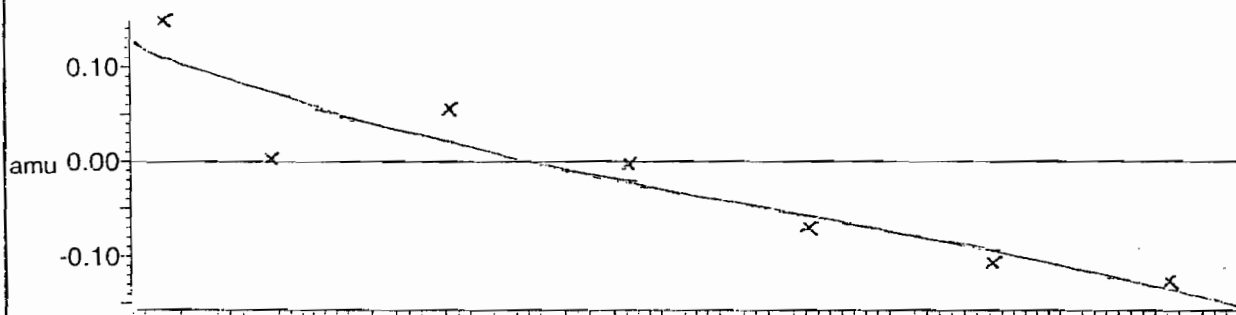
Data file: SCNMS1 - Uncalibrated 7 matches of 7 tested references



Reference file: Nairb

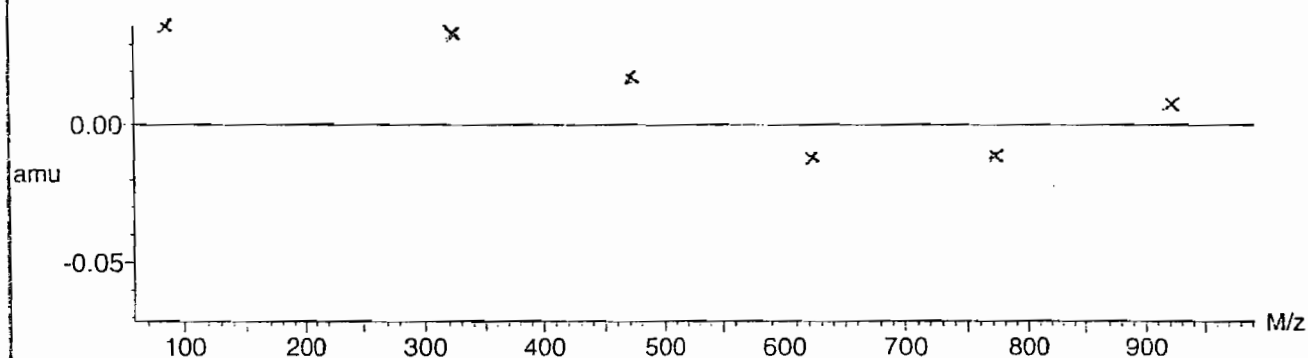


Mass difference (Raw - Ref mass)



Residuals

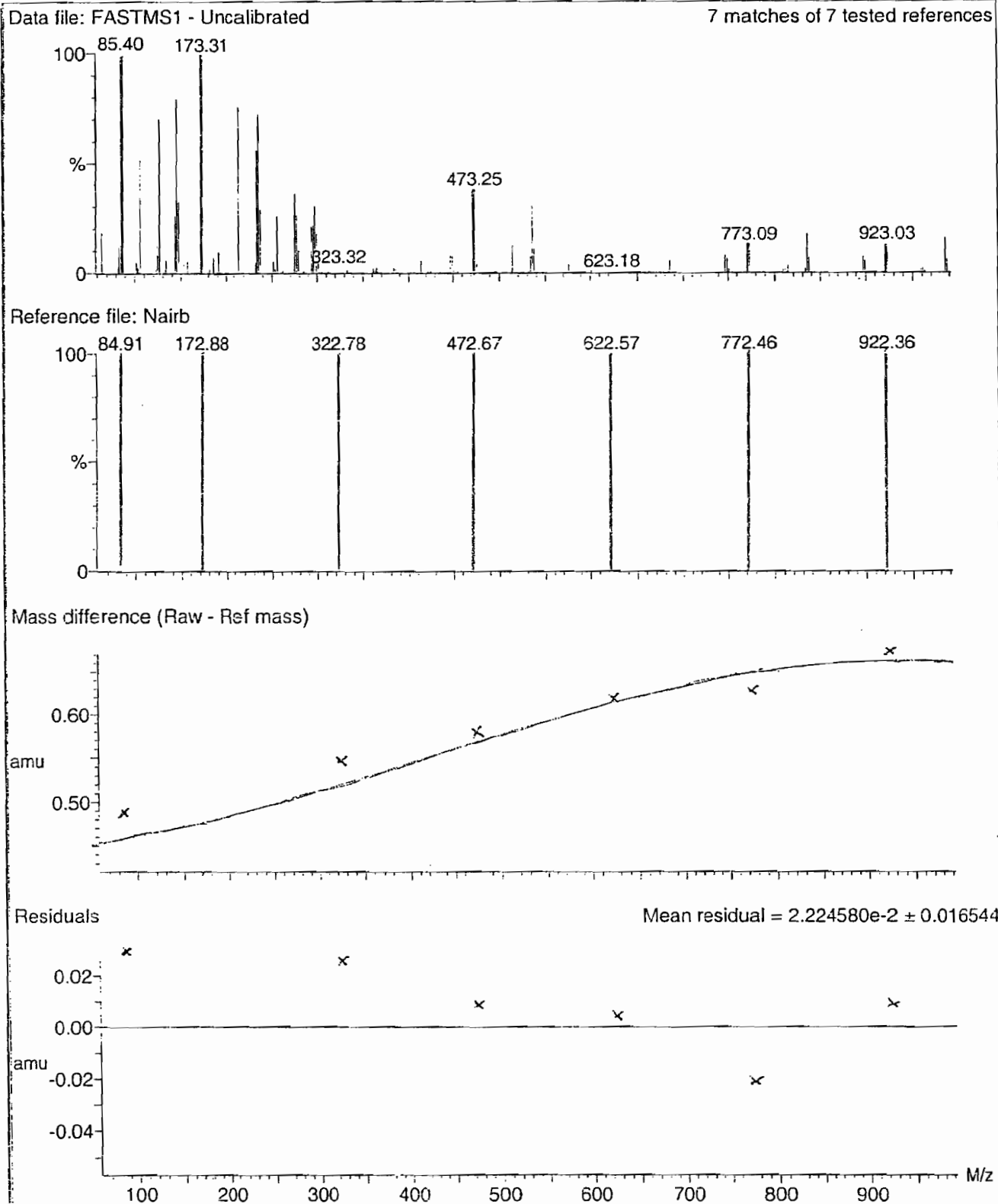
Mean residual = $2.732691 \times 10^{-2} \pm 0.020653$



Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

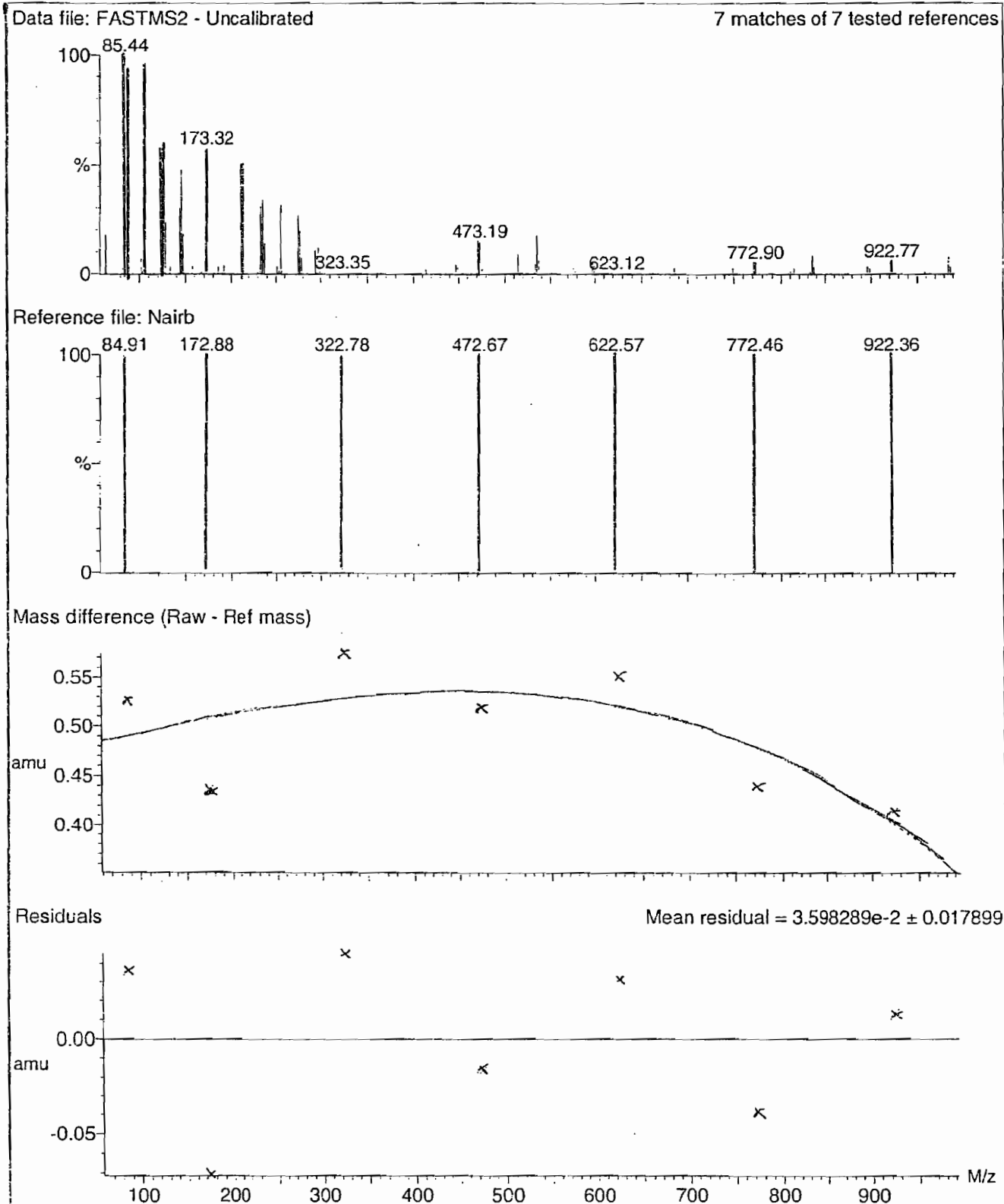
Printed: Tue Jan 08 12:21:04 2003



Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

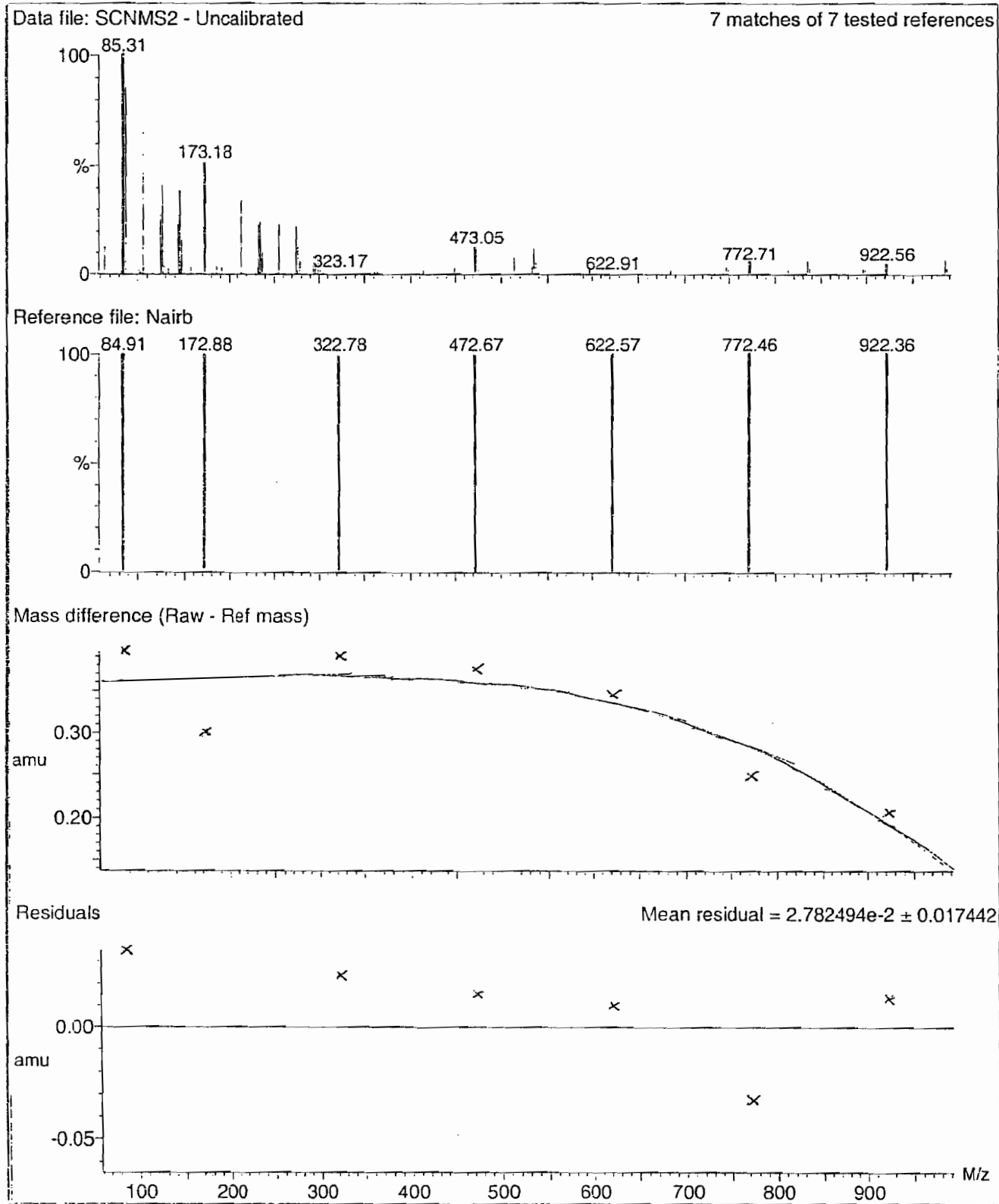
Printed: Tue Jan 08 12:23:51 2008



Calibration Report - MS2 Scanning

Page 1 of 1

Printed: Tue Jan 08 12:22:56 2008



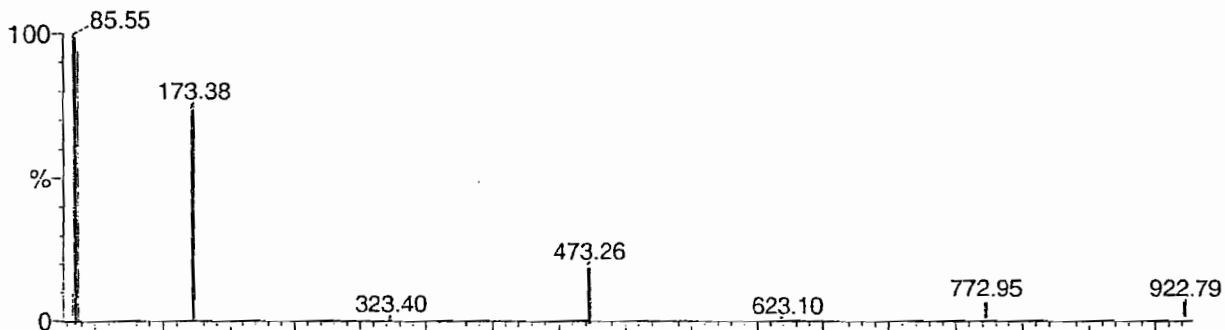
Calibration Report - MS2 Static

Page 1 of 1

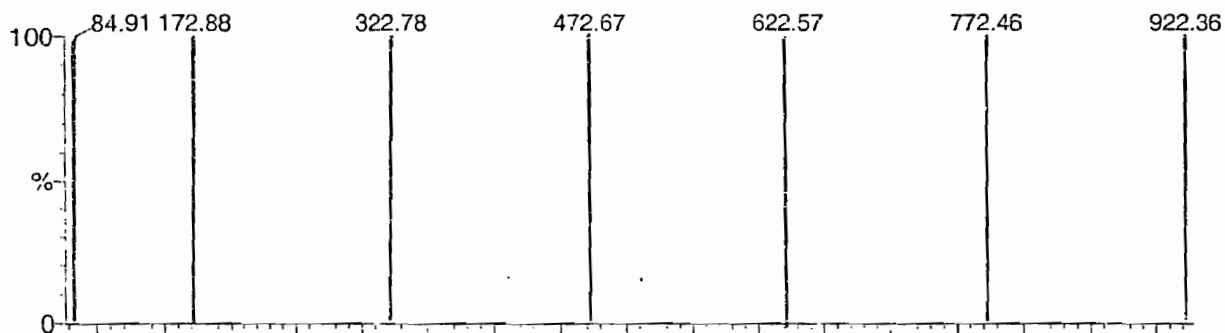
Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

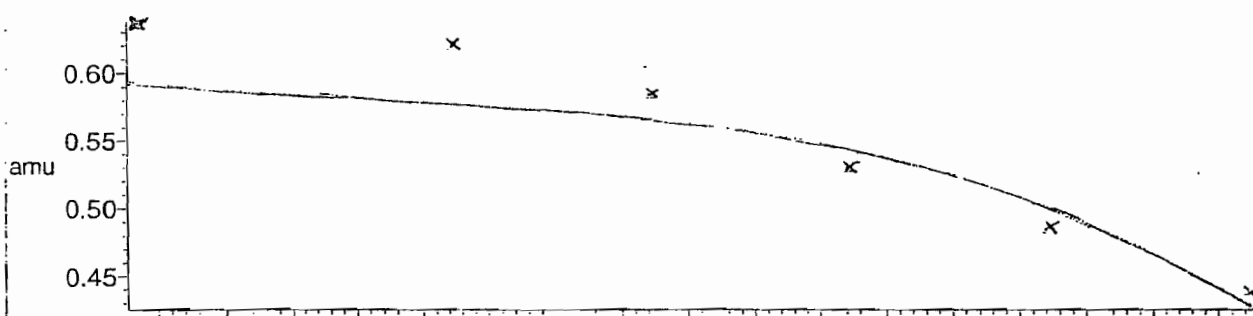
7 matches of 7 tested references



Reference file: Nairb

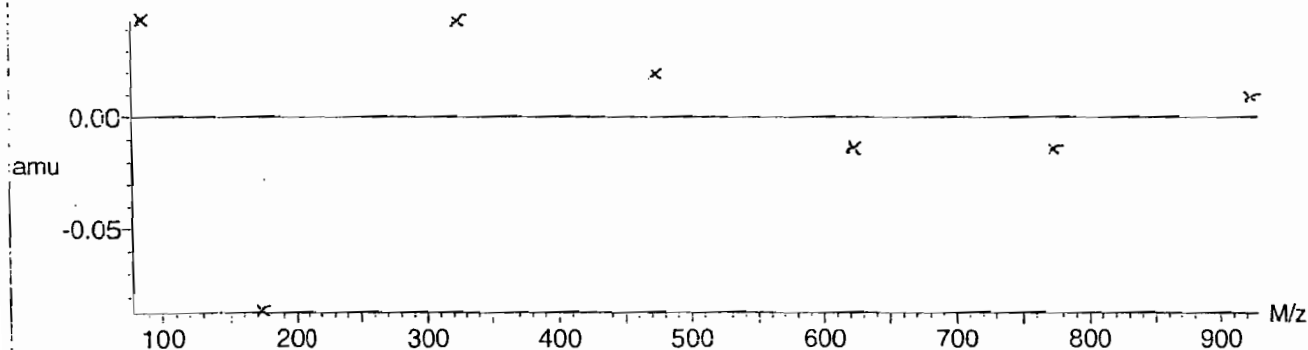


Mass difference (Raw - Ref mass)



Residuals

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



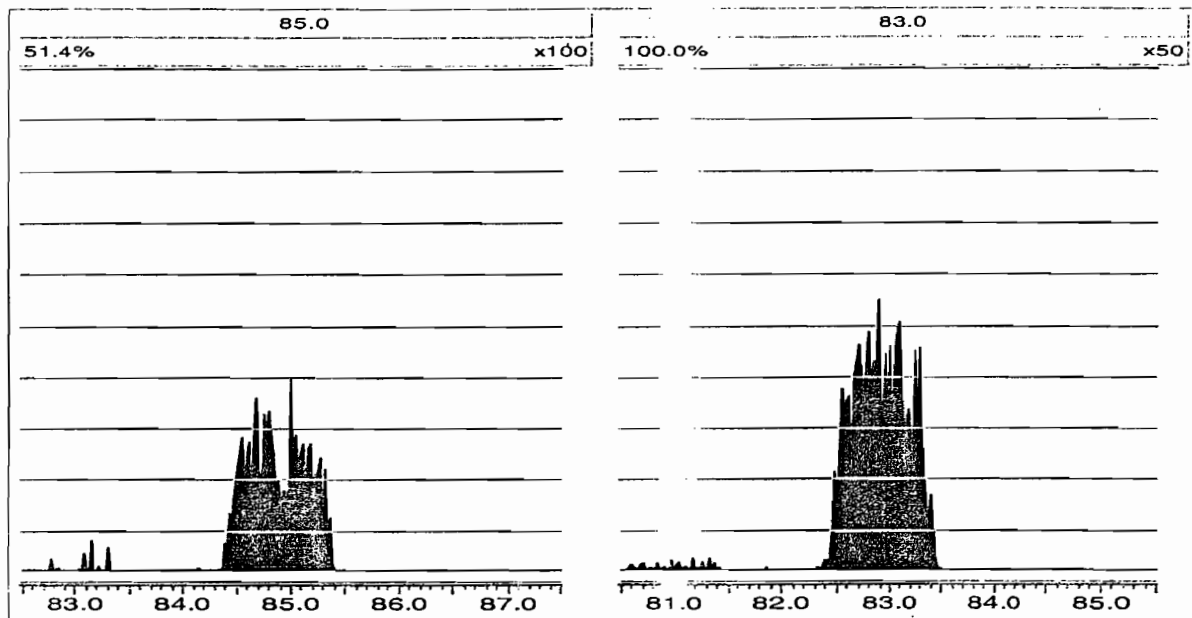
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

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

Printed: Sunday, March 07, 2010 12:31:20 Eastern Standard Time



Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1848

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	per0307006a	07-MAR-10	17446.9				
Lower Area Limit			8723.45				
Upper Area Limit			34893.8				
1202049027	per0307016a	07-MAR-10 16:37	17375.3	4.04	4.09155	1.013	
1202049028	per0307017a	07-MAR-10 16:46	17954.3	4.03	4.05428	1.006	
1202049031	per0307018a	07-MAR-10 16:55	18512.5	4.18	4.2033	1.006	
247123001	per0307019a	07-MAR-10 17:04	17825.7	4.02	4.05423	1.009	
247123002	per0307020a	07-MAR-10 17:13	17995	4.03	4.05422	1.006	
247123003	per0307021a	07-MAR-10 17:22	18087.4	4.02	4.00453	.996	
247123004	per0307025a	07-MAR-10 17:58	18533.3	4.02	4.02947	1.002	

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: 955702
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8198
 Date Received: 16-FEB-10
 GEL Job No (SDG): 10-1848
 GEL Sample ID: 247123001
 Date Filtered: 27-FEB-10
 Injection Volume (uL): 20
 %Solids: 99.55

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.502	2.01	0.502	ug/kg	U	1	07-MAR-10 17:04	per0307019a
	Perchlorate Isotope Ratio						1	07-MAR-10 17:04	per0307019a
14797-73-0	Perchlorate-101	.502	2.01	0.502	ug/kg	U	1	07-MAR-10 17:04	per0307019a
	Perchlorate-O(18)			5.21	ug/kg		1	07-MAR-10 17:04	per0307019a

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

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

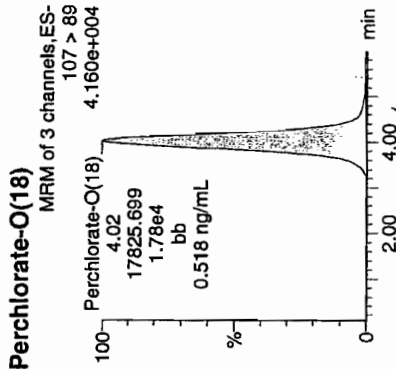
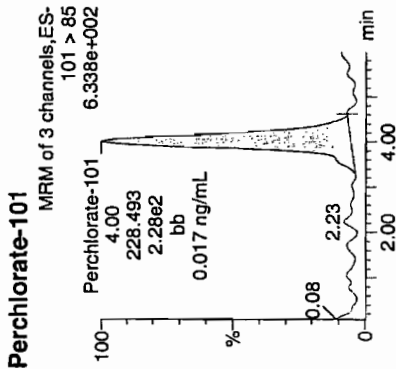
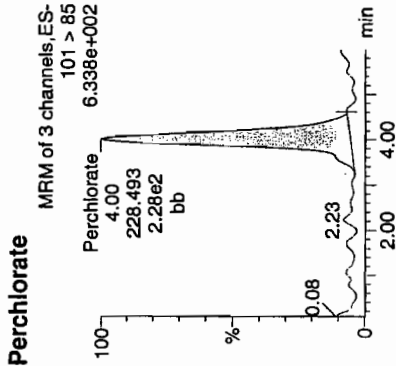
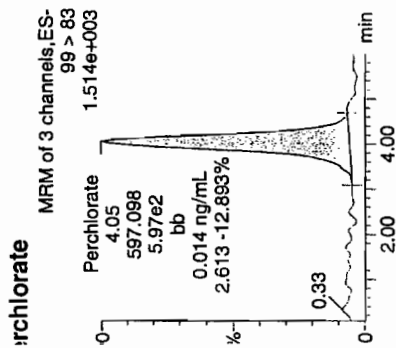
Quantify Sample Report MassLynx 4.0 SP4
 ie GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030710a.qld

Sample Name: per0307019a
 Date: 07-Mar-2010
 Time: 17:04:38
 File: 247123001
 Label: 1:4,D

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16222 | 955703 | 5020 | 11 |
 03-02-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
7123001	Perchlorate	99 > 83	4.05	597.098	bb			0.0144	-		94.235	2.61
7123001	Perchlorate-101	101 > 85	4.00	228.493	bb			0.0172			95.049	
7123001	Perchlorate-O(18)	107 > 89	4.02	17825.699	bb			0.5183	103.66	3.66	6605.2...	

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 955702

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8200

Date Received: 16-FEB-10

GEL Job No (SDG): 10-1848

GEL Sample ID: 247123002

Date Filtered: 27-FEB-10

Injection Volume (uL): 20

%Solids: 98.6

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.507	2.03	0.507	ug/kg	U	1	07-MAR-10 17:13	per0307020a
	Perchlorate Isotope Ratio						1	07-MAR-10 17:13	per0307020a
14797-73-0	Perchlorate-101	.507	2.03	0.507	ug/kg	U	1	07-MAR-10 17:13	per0307020a
	Perchlorate-O(18)			5.31	ug/kg		1	07-MAR-10 17:13	per0307020a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

Identify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

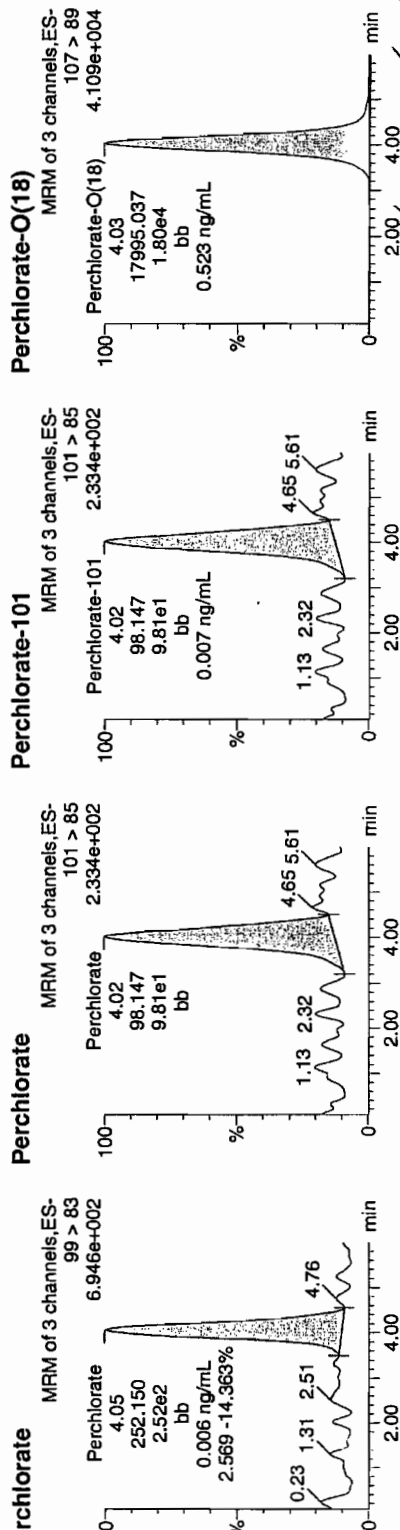
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Sample Name: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
Sample Date: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

Sample Name: per0307020a
Sample Date: 07-Mar-2010
Sample Time: 17:13:41
Sample ID: 247123002
Sample Ali: 1:4,E

623
03-08-10

1222/955703/5020/11



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83	4.05	252.150	252.150	bb			0.0061			36.015	2.57
Perchlorate-101	101 > 85	4.02	98.147	98.147	bb			0.0074			34.997	
Perchlorate-O(18)	107 > 89	4.03	17995.037	17995.037	bb			0.5232	104.64	4.64	3389.2...	

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 955702
 Extraction Type: Solid Prep
 Client Sample No. RE15-10-8199
 Date Received: 16-FEB-10
 GEL Job No (SDG): 10-1848
 GEL Sample ID: 247123003
 Date Filtered: 27-FEB-10
 Injection Volume (uL): 20
 %Solids: 98

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

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.51	2.04	0.510	ug/kg	U	1	07-MAR-10 17:22	per0307021a
	Perchlorate Isotope Ratio						1	07-MAR-10 17:22	per0307021a
14797-73-0	Perchlorate-101	.51	2.04	0.510	ug/kg	U	1	07-MAR-10 17:22	per0307021a
	Perchlorate-O(18)			5.37	ug/kg		1	07-MAR-10 17:22	per0307021a

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

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

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

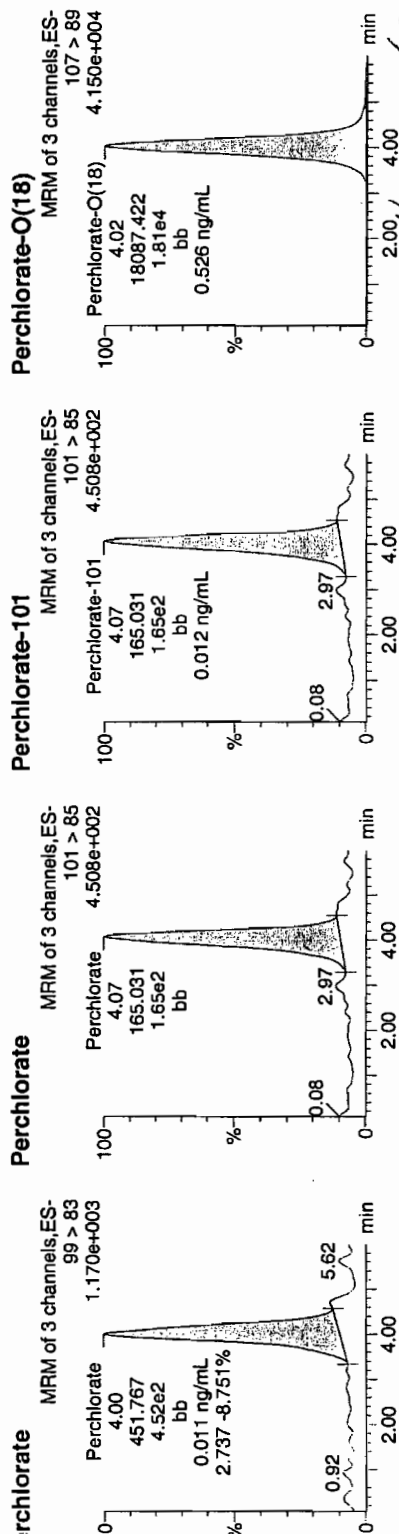
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Sample Name: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
Sample ID: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

File Name: per0307021a
Date: 07-Mar-2010
Time: 17:22:43
Sample: 247123003
Lot: 1:4,F

03-08-10

1000 | 955703 | 5000 | 11



Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
7123003	Perchlorate	99 > 83	4.00	451.767	bb			0.0109	24.161	2.74		
7123003	Perchlorate-101	101 > 85	4.07	165.031	bb			0.0124	63.286			
7123003	Perchlorate-O(18)	107 > 89	4.02	18087.422	bb			0.5259	105.18	5.18	2283.6...	

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 955702

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8201

Date Received: 16-FEB-10

GEL Job No (SDG): 10-1848

GEL Sample ID: 247123004

Date Filtered: 27-FEB-10

Injection Volume (uL): 20

%Solids: 98.6

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.507	2.03	0.507	ug/kg	U	1	07-MAR-10 17:58	per0307025a
	Perchlorate Isotope Ratio						1	07-MAR-10 17:58	per0307025a
14797-73-0	Perchlorate-101	.507	2.03	0.507	ug/kg	U	1	07-MAR-10 17:58	per0307025a
	Perchlorate-O(18)			5.46	ug/kg		1	07-MAR-10 17:58	per0307025a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

Identify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charles W. Wilson

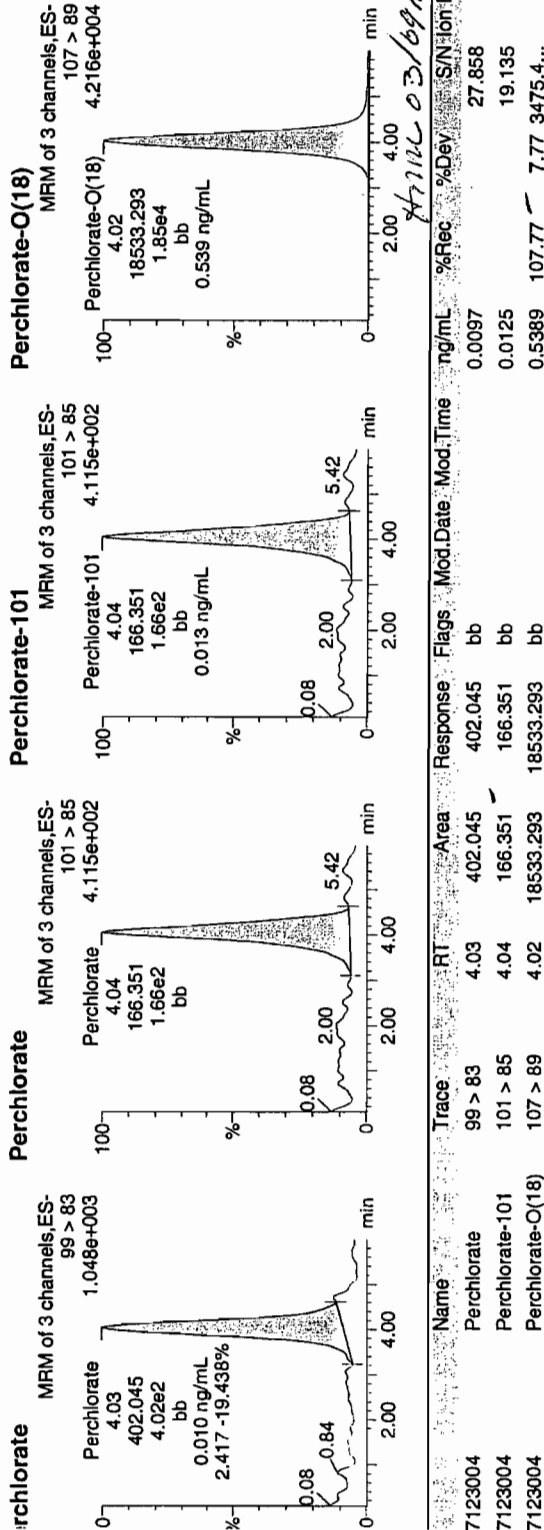
Dataset: C:\MassLynx\Perchlorate.PRO\per030710a.qld

Sample Name: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
Sample Date: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

Time: per0307025a
Date: 07-Mar-2010
Time: 17:58:52
Sample: 247123004
Label: 1:5A

623
030810

LAWL 1955703 | 5020 | 11



STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1848

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 07-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

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 41369.18

Response Type: External Standard

Curve Type: RF

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS

Date Analyzed: 07-MAR-10

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

GEL Job No.(SDG): 10-1848

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

Parmname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 13294.88

Response Type: External Standard

Curve Type: RF

Quantify Calibration Report MassLynx 4.0 SP4

ie GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030710a.qld

List Altered: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time

Intend: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per030710a.mdb 08 Mar 2010 08:56:17
 Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per030710a.cdb 08 Mar 2010 09:02:25

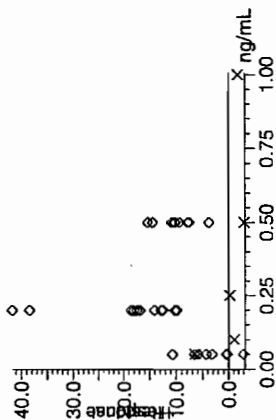
Compound name: Perchlorate

Response Factor: 41369.2

RF SD: 1545.5, % Relative SD: 3.73586

Response type: External Std, Area

Curve type: RF ✓



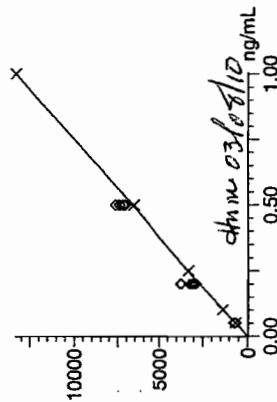
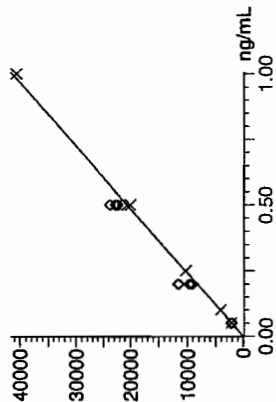
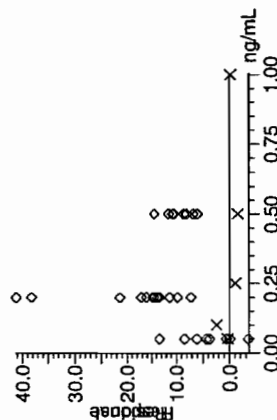
Compound name: Perchlorate-101

Response Factor: 13294.9

RF SD: 197.765, % Relative SD: 1.48753

Response type: External Std, Area

Curve type: RF ✓



03-08-10

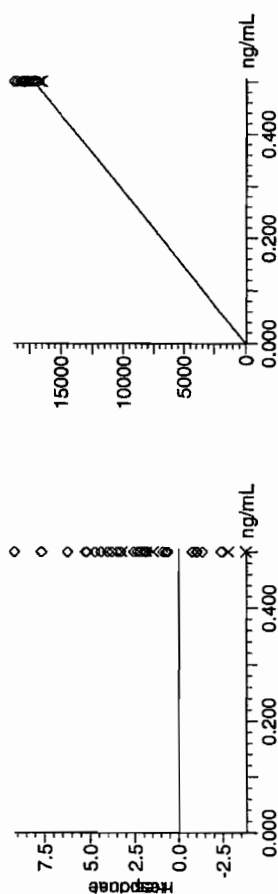
03/08/10

Quantify Calibration Report MassLynx 4.0 SP4
 the GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030710a.qld

List Altered: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
 List Deleted: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
 Response Factor: 34394
 RF SD: 1057.98, % Relative SD: 3.07606
 Response type: External Std, Area
 Curve type: RF



Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1848

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.52	103.74	07-MAR-10 15:34	per0307009a
Perchlorate Isotope Ratio		3.04		07-MAR-10 15:34	per0307009a
Perchlorate-101	.5	.53	106.02	07-MAR-10 15:34	per0307009a

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

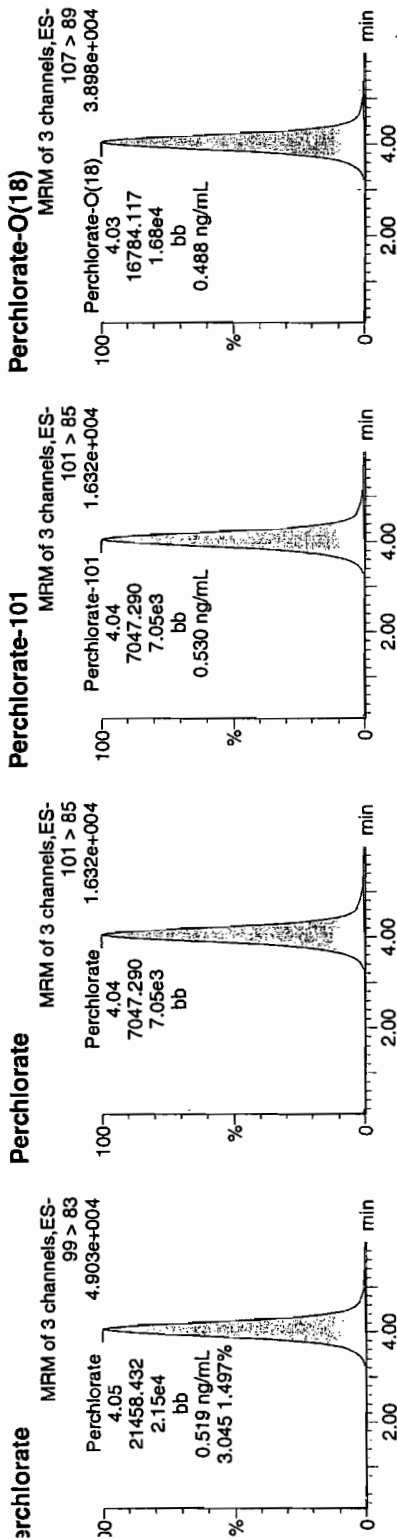
ataset: C:\MassLynx\Perchlorate.PRO\per030710a.qld

st Altered: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
nted: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

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ame: per0307009a
ate: 07-Mar-2010
me: 15:34:11
r: WCL100227-06ICV
al: 1:2,A

Res
WCL
030810



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100227-06ICV	Perchlorate	99 > 83	4.05	21458.432	bb			0.5187	103.74	3.74	2311.3...	3.04
CL100227-06ICV	Perchlorate-101	101 > 85	4.04	7047.290	bb			0.5301	106.02	6.02	1595.8...	
CL100227-06ICV	Perchlorate-O(18)	107 > 89	4.03	16784.117	bb			0.4880	97.60	-2.40	531.072	

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

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1848

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.55	109.36	07-MAR-10 17:31	per0307022a
Perchlorate Isotope Ratio		3.19		07-MAR-10 17:31	per0307022a
Perchlorate-101	.5	.53	106.78	07-MAR-10 17:31	per0307022a
Perchlorate	.5	.55	110.79	07-MAR-10 19:20	per0307034a
Perchlorate Isotope Ratio		3.19		07-MAR-10 19:20	per0307034a
Perchlorate-101	.5	.54	108.06	07-MAR-10 19:20	per0307034a

Quantify Sample Report MassLynx 4.0 SP4

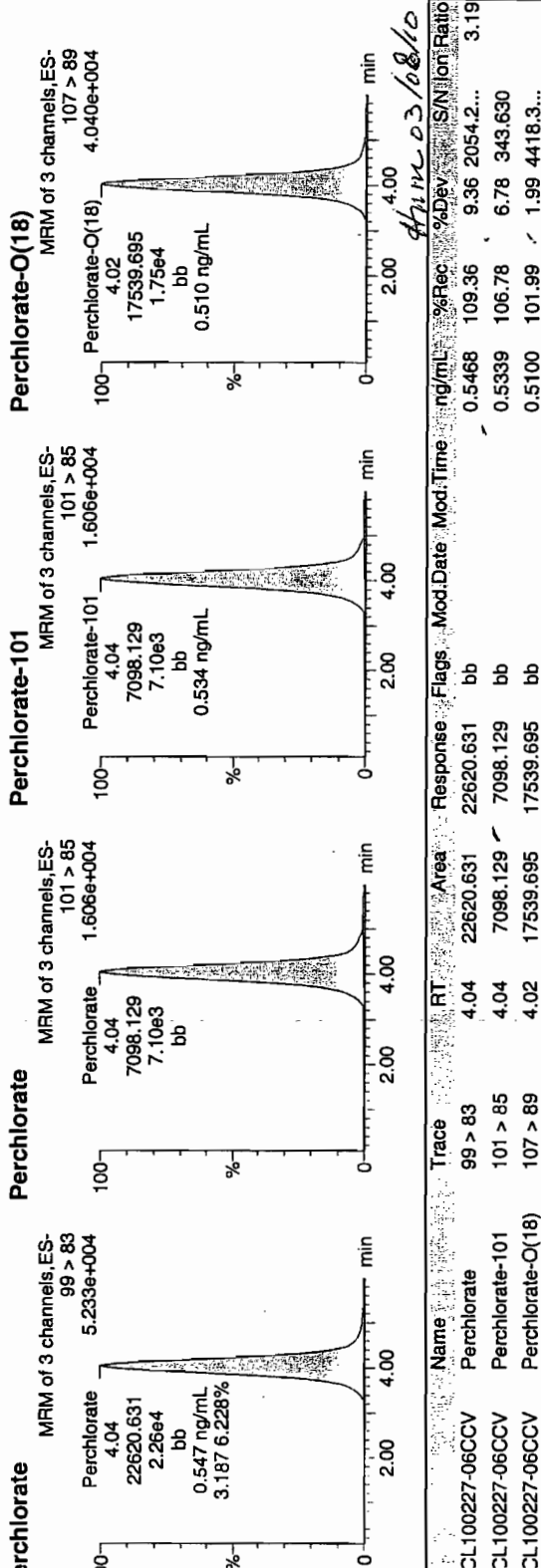
the GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030710a.qld

First Altered: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
 Intended: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

Sample Name: per0307022a
 Date: 07-Mar-2010
 Time: 17:31:44
 File: WCL100227-06CCV
 Label: 1:2,A

*Per
and
03-07-10*



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100227-06CCV	Perchlorate	99 > 83	4.04	22620.631	bb			0.5468	109.36	9.36	2054.2...	3.19
CL100227-06CCV	Perchlorate-101	101 > 85	4.04	7098.129	bb			0.5339	106.78	6.78	343.630	
CL100227-06CCV	Perchlorate-O(18)	107 > 89	4.02	17539.695	bb			0.5100	101.99	1.99	4418.3...	

Quantify Sample Report MassLynx 4.0 SP4

the GEL Group, LLC Analyst: Charlers W. Wilson

atlas: C:\MassLynx\Perchlorate.PRO\per030710a.qld

First Altered: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
 Initiated: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

Sample Name: per0307034a

Sample Date: 07-Mar-2010

Sample Time: 19:20:20

File: WCL100227-06CCV

Label: 1:2,A

Perchlorate

Perchlorate

MRM of 3 channels, ES-

99 > 83

5.315e+004

Perchlorate

4.03

22916.297

2.29e4

bb

0.554 ng/mL

3.190 6.337%

min

2.00

4.00

min

Perchlorate

MRM of 3 channels, ES-

101 > 85

1.704e+004

Perchlorate

4.03

7183.543

7.18e3

bb

0.540 ng/mL

min

2.00

4.00

min

Perchlorate-101

MRM of 3 channels, ES-

101 > 85

1.704e+004

Perchlorate-101

4.03

7183.543

7.18e3

bb

0.540 ng/mL

min

2.00

4.00

min

Perchlorate-O(18)

MRM of 3 channels, ES-

107 > 89

4.094e+004

Perchlorate-O(18)

4.00

17763.428

1.78e4

bb

0.516 ng/mL

min

2.00

4.00

min

Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100227-06CCV	Perchlorate	99 > 83	4.03	22916.297	bb			0.5539	110.79	10.79	1195.1...	3.19
CL100227-06CCV	Perchlorate-101	101 > 85	4.03	7183.543	bb			0.5403	108.06	8.06	2098.1...	
CL100227-06CCV	Perchlorate-O(18)	107 > 89	4.00	17763.428	bb			0.5165	103.29	3.29	2564.1...	

471111-03/08/10

Perchlorate MDL Verification

GEL Job No.(SDG): 10-1848

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	97.05	07-MAR-10 15:52	per0307011a
Perchlorate Isotope Ratio		2.9		07-MAR-10 15:52	per0307011a
Perchlorate-101	.05	.05	104.28	07-MAR-10 15:52	per0307011a
Perchlorate	.05	.05	105.91	07-MAR-10 17:49	per0307024a
Perchlorate Isotope Ratio		3.3		07-MAR-10 17:49	per0307024a
Perchlorate-101	.05	.05	99.98	07-MAR-10 17:49	per0307024a
Perchlorate	.05	.06	110.72	07-MAR-10 19:38	per0307036a
Perchlorate Isotope Ratio		3.04		07-MAR-10 19:38	per0307036a
Perchlorate-101	.05	.06	113.32	07-MAR-10 19:38	per0307036a

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

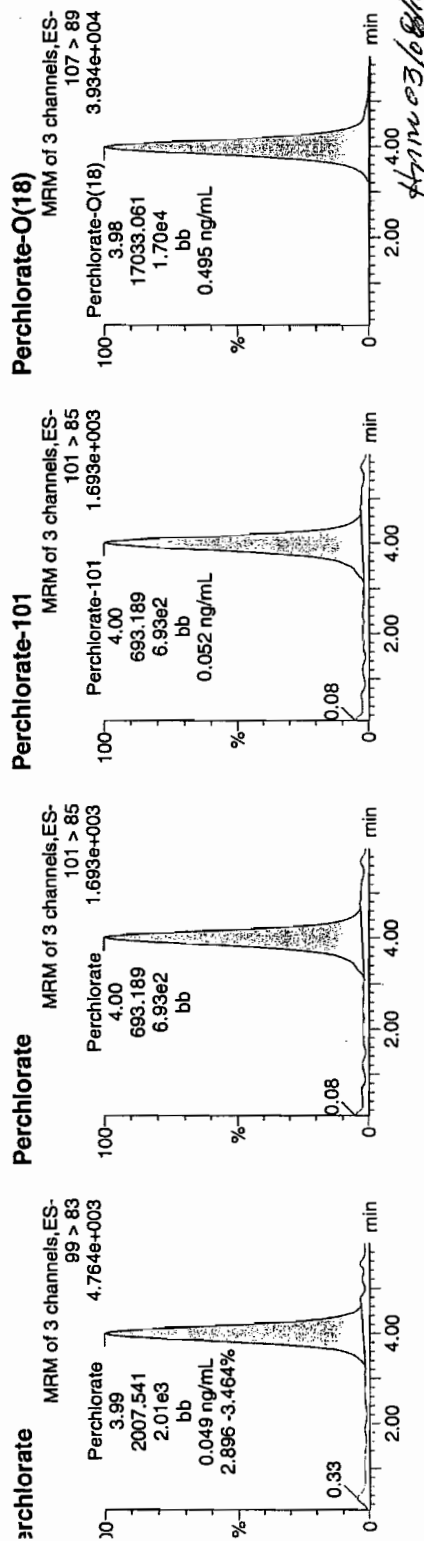
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inted: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

ame: per0307011a
ate: 07-Mar-2010
me: 15:52:16
i: WCL100227-07CRI
al: 1:2,B

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Run
03-08-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100227-07CRI	Perchlorate	99 > 83	3.99	2007.541	bb			0.0485	97.05	-2.95	91.305	2.90
CL100227-07CRI	Perchlorate-101	101 > 85	4.00	693.189	bb			0.0521	104.28	4.28	198.860	
CL100227-07CRI	Perchlorate-O(18)	107 > 89	3.98	17033.061	bb			0.4952	99.05	-0.95	1992.9...	

Identify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

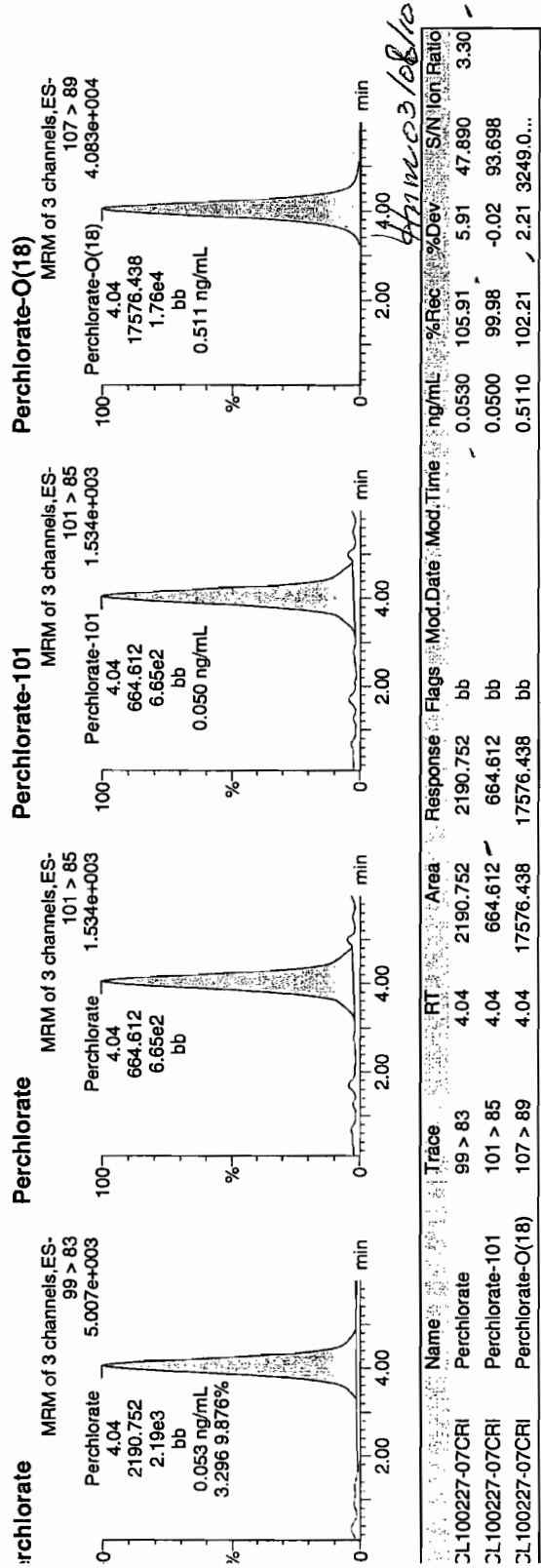
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st Altered: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
inted: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

ime: per0307024a
ite: 07-Mar-2010
ne: 17:49:50
.: WCL100227-07CRI
al: 1:2,B

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3/8/10



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

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

ataset: C:\MassLynx\Perchlorate.PRO\per030710a.qld

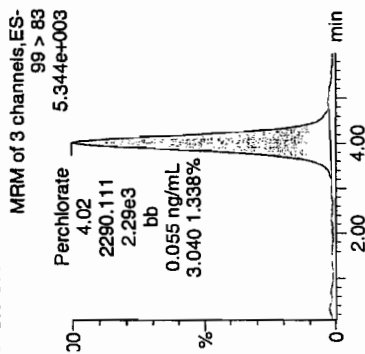
3st Altered: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
rinted: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

ame: per0307036a
ate: 07-Mar-2010
ime: 19:38:24
r: WCL100227-07CRI
ial: 1:2,B

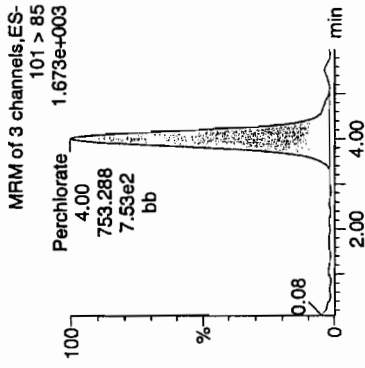
Page 72 of 1049

Per
03-10

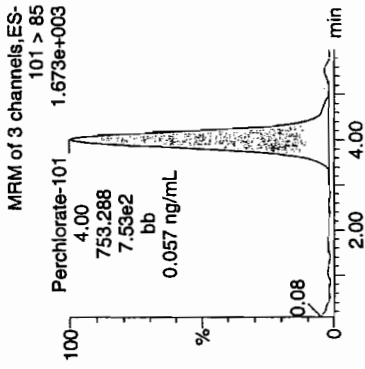
Perchlorate



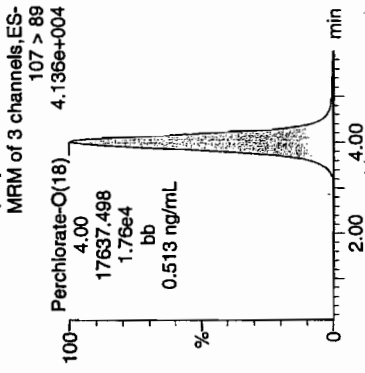
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100227-07CRI	Perchlorate	99 > 83	4.02	2290.111	bb			0.0554	110.72	10.72	277.602	3.04
CL100227-07CRI	Perchlorate-101	101 > 85	4.00	753.288	bb			0.0567	113.32	13.32	237.232	
CL100227-07CRI	Perchlorate-O(18)	107 > 89	4.00	17637.498	bb			0.5128	102.56	2.56	3035.6...	

QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 955702

Extraction Type: Solid Prep

Client Sample No.

MB

Date Received: 27-FEB-10

GEL Job No (SDG): 10-1848

GEL Sample ID: 1202049027

Date Filtered: 27-FEB-10

Injection Volume (uL): 20

%Solids: 100

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	07-MAR-10 16:37	per0307016a
	Perchlorate Isotope Ratio						1	07-MAR-10 16:37	per0307016a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	07-MAR-10 16:37	per0307016a
	Perchlorate-O(18)			5.05	ug/kg		1	07-MAR-10 16:37	per0307016a

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

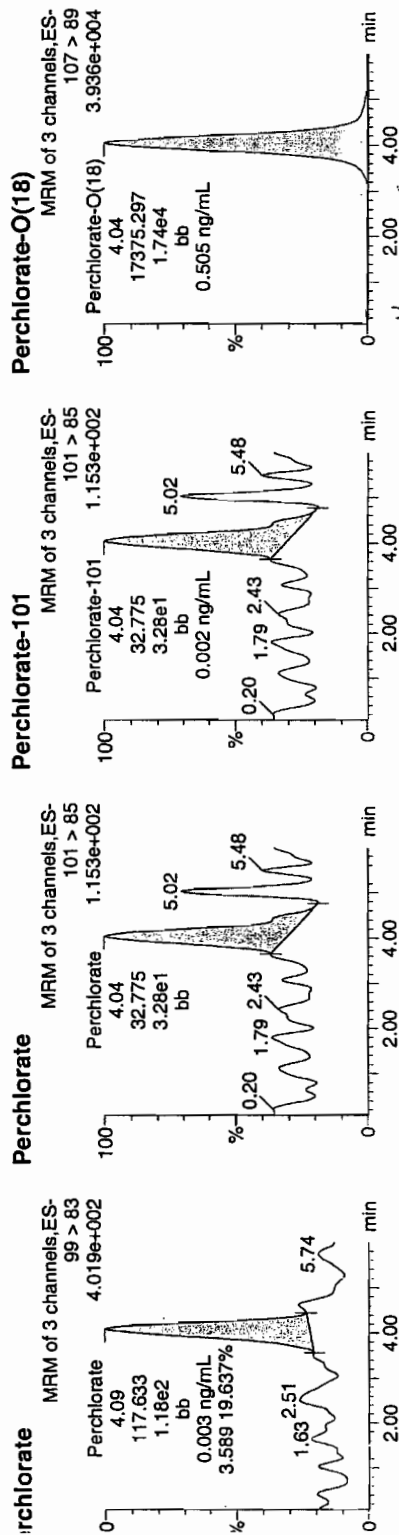
Identify Sample Report MassLynx 4.0 SP4
 ie GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030710a.qld

Sample Name: per0307016a
 Date: 07-Mar-2010
 Time: 16:37:30
 File: 1202049027
 Ali: 1:4,A

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03-08-10
 195703 | 3020 | MB | 11



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
2049027	Perchlorate	99 > 83	4.09	117.633	bb			0.0028	0.0028		24.480	3.59
2049027	Perchlorate-101	101 > 85	4.04	32.775	bb			0.0025	0.0025		38.036	
2049027	Perchlorate-O(18)	107 > 89	4.04	17375.297	bb			0.5052	101.04	1.04	3605.6...	

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

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 955702

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

LCS

Date Received: 27-FEB-10

GEL Job No (SDG): 10-1848

GEL Sample ID: 1202049028

Date Filtered: 27-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	2.20	ug/kg		1	07-MAR-10 16:46	per0307017a
	Perchlorate Isotope Ratio			3.11			1	07-MAR-10 16:46	per0307017a
14797-73-0	Perchlorate-101	.5	2	2.20	ug/kg		1	07-MAR-10 16:46	per0307017a
	Perchlorate-O(18)			5.22	ug/kg		1	07-MAR-10 16:46	per0307017a

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

*Concentration =

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

Dataset: C:\MassLynx\Perchlorate.PRO\per030710a.qld

Sample Name: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
 Sample ID: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

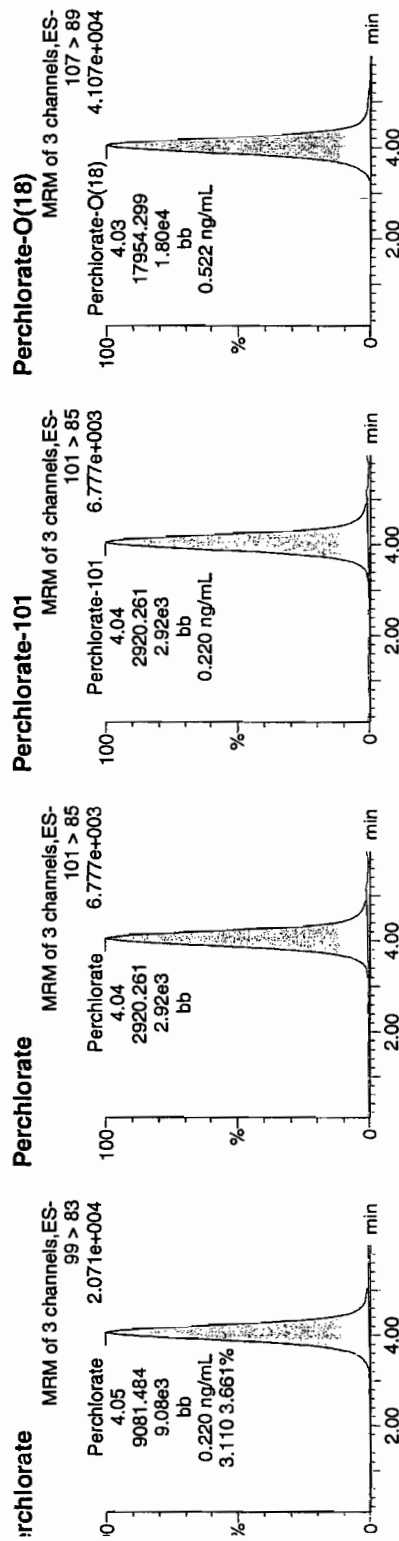
Sample Name: per0307017a
 Sample ID: 07-Mar-2010
 Sample Name: 16:46:33
 Sample ID: 1202049028
 Sample Name: 1:4,B

0.220
 0.220

0.220
 0.220

0.220
 0.220

0.220
 0.220



$$\frac{9081.484}{41369.2} = 0.2195$$

4/11/2010

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: 955702 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)
1202049027 MB	27-FEB-2010 13:51:00	2	20	10
1202049028 LCS	27-FEB-2010 13:51:00	2	20	10
247129001	27-FEB-2010 13:51:00	2	20	10
247129002	27-FEB-2010 13:51:00	2	20	10
247129003	27-FEB-2010 13:51:00	2	20	10
247129004	27-FEB-2010 13:51:00	2	20	10
247129001	27-FEB-2010 13:51:00	2	20	10
247129002	27-FEB-2010 13:51:00	2	20	10
247129003	27-FEB-2010 13:51:00	2	20	10
247129001	27-FEB-2010 13:51:00	2	20	10
1202049029 MS (247129001)	27-FEB-2010 13:51:00	2	20	10
1202049030 MSID (247129001)	27-FEB-2010 13:51:00	2	20	10
247129002	27-FEB-2010 13:51:00	2	20	10
247129003	27-FEB-2010 13:51:00	2	20	10
247129004	27-FEB-2010 13:51:00	2	20	10
247129005	27-FEB-2010 13:51:00	2	20	10
247129006	27-FEB-2010 13:51:00	2	20	10
247129007	27-FEB-2010 13:51:00	2	20	10
247129008	27-FEB-2010 13:51:00	2	20	10
247129001	27-FEB-2010 13:51:00	2	20	10
247129002	27-FEB-2010 13:51:00	2	20	10
247129001	27-FEB-2010 13:51:00	2	20	10
1202049031 LCS	27-FEB-2010 13:51:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202049031	10 ug/L ICV/CCV Second Source	UCL100210-02.2	.4	mL	Desalting cartridges used: 100217-1-H & 100209-1-Bu
LCS	1202049028	10 ug/L ICV/CCV Second Source	UCL100210-02.2	.4	mL	
MS	1202049029	10 ug/L ICV/CCV Second Source	UCL100210-02.2	.4	mL	
MSID	1202049030	10 ug/L ICV/CCV Second Source	UCL100210-02.2	.4	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/07/10
 Extr. Injection Volume: 20uL
 Sequence Number: per030710a
 Initial Calibration Date: 03/07/10

Method: EPA 6850-Modified
 Int. Std.: UCL100126-01
 Mobile Phase Lot#: 1278668, 1271949
 Standard-Samp Reagent Lot#: 1271949

Reviewed BY: *Anne*
 Date: *03/09/10*
 SOP: GL-OA-E-067 Rev.6
 Alt Check Std. ID: WCL100227-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0307001a	IPB001	CWW	3/7/2010 14:21			1		USE	B
per0307002a	IPB001	CWW	3/7/2010 14:31			1		USE	B
per0307003a	WCLICAL-01	CWW	3/7/2010 14:40			1		USE	I
per0307004a	WCLICAL-02	CWW	3/7/2010 14:49			1		USE	I
per0307005a	WCLICAL-03	CWW	3/7/2010 14:58			1		USE	I
per0307006a	WCLICAL-04	CWW	3/7/2010 15:07			1		USE	I
per0307007a	WCLICAL-05	CWW	3/7/2010 15:16			1		USE	I
per0307008a	IPB002	CWW	3/7/2010 15:25			1		USE	B
per0307009a	WCLICV	CWW	3/7/2010 15:34			1		USE	C
per0307010a	IPB003	CWW	3/7/2010 15:43			1		USE	B
per0307011a	WCLCRI	CWW	3/7/2010 15:52			1		USE	C
per0307012a	247339001	CWW	3/7/2010 16:01	955727	10-1909-1	1	LANL	USE	S
per0307013a	247339002	CWW	3/7/2010 16:10	955727	10-1909-1	1	LANL	USE	S
per0307014a	247350001	CWW	3/7/2010 16:19	955727	10-1912-1	1	LANL	USE	S
per0307015a	IPB004	CWW	3/7/2010 16:28			1		USE	B
per0307016a	1202049027	CWW	3/7/2010 16:37	955703	VARIOUS	1	LANL	USE	S
per0307017a	1202049028	CWW	3/7/2010 16:46	955703	VARIOUS	1	LANL	USE	S
per0307018a	1202049031	CWW	3/7/2010 16:55	955703	VARIOUS	1	LANL	USE	S
per0307019a	247123001	CWW	3/7/2010 17:04	955703	10-1848	1	LANL	USE	S
per0307020a	247123002	CWW	3/7/2010 17:13	955703	10-1848	1	LANL	USE	S
per0307021a	247123003	CWW	3/7/2010 17:22	955703	10-1848	1	LANL	USE	S
per0307022a	WCLCCV	CWW	3/7/2010 17:31			1		USE	C
per0307023a	IPB005	CWW	3/7/2010 17:40			1		USE	B
per0307024a	WCLCRI	CWW	3/7/2010 17:49			1		USE	C
per0307025a	247123004	CWW	3/7/2010 17:58	955703	10-1848	1	LANL	USE	S
per0307026a	247126001	CWW	3/7/2010 18:07	955703	10-1849	1	LANL	USE	S
per0307027a	247126002	CWW	3/7/2010 18:16	955703	10-1849	1	LANL	USE	S
per0307028a	247126003	CWW	3/7/2010 18:26	955703	10-1849	1	LANL	USE	S
per0307029a	247129001	CWW	3/7/2010 18:35	955703	10-1850	1	LANL	USE	S

per0307030a	1202049029	CWW	3/7/2010 18:44	955703	10-1850	1	LANL	USE	S
per0307031a	1202049030	CWW	3/7/2010 18:53	955703	10-1850	1	LANL	USE	S
per0307032a	247129002	CWW	3/7/2010 19:02	955703	10-1850	1	LANL	USE	S
per0307033a	247129003	CWW	3/7/2010 19:11	955703	10-1850	1	LANL	USE	S
per0307034a	WCLCCV	CWW	3/7/2010 19:20			1		USE	C
per0307035a	IPB006	CWW	3/7/2010 19:29			1		USE	B
per0307036a	WCLCRI	CWW	3/7/2010 19:38			1		USE	C
per0307037a	247129004	CWW	3/7/2010 19:47	955703	10-1850	1	LANL	USE	S
per0307038a	247129005	CWW	3/7/2010 19:56	955703	10-1850	1	LANL	USE	S
per0307039a	247129006	CWW	3/7/2010 20:05	955703	10-1850	1	LANL	USE	S
per0307040a	247129007	CWW	3/7/2010 20:14	955703	10-1850	1	LANL	USE	S
per0307041a	247129008	CWW	3/7/2010 20:23	955703	10-1850	1	LANL	USE	S
per0307042a	247136001	CWW	3/7/2010 20:32	955703	10-1853	1	LANL	USE	S
per0307043a	247136002	CWW	3/7/2010 20:41	955703	10-1853	1	LANL	USE	S
per0307044a	247138001	CWW	3/7/2010 20:50	955703	10-1854	1	LANL	USE	S
per0307045a	WCLCCV	CWW	3/7/2010 20:59			1		USE	C
per0307046a	IPB007	CWW	3/7/2010 21:08			1		USE	B
per0307047a	WCLCRI	CWW	3/7/2010 21:18			1		USE	C
per0307048a	1202042701	CWW	3/7/2010 21:27	953008	VARIOUS	1	LANL	USE	S
per0307049a	1202042702	CWW	3/7/2010 21:36	953008	VARIOUS	1	LANL	USE	S
per0307050a	1202042705	CWW	3/7/2010 21:45	953008	VARIOUS	1	LANL	USE	S
per0307051a	246881001	CWW	3/7/2010 21:54	953008	10-1767	1	LANL	USE	S
per0307052a	246881002	CWW	3/7/2010 22:03	953008	10-1767	1	LANL	USE	S
per0307053a	1202042703	CWW	3/7/2010 22:12	953008	10-1767	1	LANL	USE	S
per0307054a	1202042704	CWW	3/7/2010 22:21	953008	10-1767	1	LANL	USE	S
per0307055a	246881003	CWW	3/7/2010 22:30	953008	10-1767	1	LANL	USE	S
per0307056a	246881004	CWW	3/7/2010 22:39	953008	10-1767	1	LANL	USE	S
per0307057a	246881005	CWW	3/7/2010 22:48	953008	10-1767	1	LANL	USE	S
per0307058a	WCLCCV	CWW	3/7/2010 22:57			1		USE	C
per0307059a	IPB008	CWW	3/7/2010 23:06			1		USE	B
per0307060a	WCLCRI	CWW	3/7/2010 23:15			1		USE	C
per0307061a	246881006	CWW	3/7/2010 23:24	953008	10-1767	1	LANL	USE	S
per0307062a	246881007	CWW	3/7/2010 23:34	953008	10-1767	1	LANL	USE	S
per0307063a	246881008	CWW	3/7/2010 23:43	953008	10-1767	1	LANL	USE	S
per0307064a	246881009	CWW	3/7/2010 23:52	953008	10-1767	1	LANL	USE	S
per0307065a	246881010	CWW	3/8/2010 0:01	953008	10-1767	1	LANL	USE	S
per0307066a	246881011	CWW	3/8/2010 0:10	953008	10-1767	1	LANL	USE	S

per0307067a	246881012	CWW	3/8/2010 0:19	953008	10-1767	1	LANL	USE	S
per0307068a	246881013	CWW	3/8/2010 0:28	953008	10-1767	1	LANL	USE	S
per0307069a	246881014	CWW	3/8/2010 0:37	953008	10-1767	1	LANL	USE	S
per0307070a	246887001	CWW	3/8/2010 0:46	953008	10-1770-1	1	LANL	USE	S
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per0307073a	WCLCRI	CWW	3/8/2010 1:13			1		USE	C
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per0307075a	246887003	CWW	3/8/2010 1:31	953008	10-1770-1	1	LANL	USE	S
per0307076a	246887004	CWW	3/8/2010 1:41	953008	10-1770-1	1	LANL	USE	S
per0307077a	246887005	CWW	3/8/2010 1:50	953008	10-1770-1	1	LANL	USE	S
per0307078a	IPB010	CWW	3/8/2010 1:59			1		USE	B
per0307079a	1202048998	CWW	3/8/2010 2:08	955688	VARIOUS	1	LANL	USE	S
per0307080a	1202048999	CWW	3/8/2010 2:17	955688	VARIOUS	1	LANL	USE	S
per0307081a	1202049002	CWW	3/8/2010 2:26	955688	VARIOUS	1	LANL	USE	S
per0307082a	246870001	CWW	3/8/2010 2:35	955688	10-1782	1	LANL	USE	S
per0307083a	WCLCCV	CWW	3/8/2010 2:44			1		USE	C
per0307084a	IPB011	CWW	3/8/2010 2:54			1		USE	B
per0307085a	WCLCRI	CWW	3/8/2010 3:03			1		USE	C
per0307086a	246870002	CWW	3/8/2010 3:12	955688	10-1782	1	LANL	USE	S
per0307087a	1202049000	CWW	3/8/2010 3:21	955688	10-1782	1	LANL	USE	S
per0307088a	1202049001	CWW	3/8/2010 3:30	955688	10-1782	1	LANL	USE	S
per0307089a	246870003	CWW	3/8/2010 3:39	955688	10-1782	1	LANL	USE	S
per0307090a	246870004	CWW	3/8/2010 3:48	955688	10-1782	1	LANL	USE	S
per0307091a	246870005	CWW	3/8/2010 3:57	955688	10-1782	1	LANL	USE	S
per0307092a	246870006	CWW	3/8/2010 4:06	955688	10-1782	1	LANL	USE	S
per0307093a	246870007	CWW	3/8/2010 4:15	955688	10-1782	1	LANL	USE	S
per0307094a	246870008	CWW	3/8/2010 4:24	955688	10-1782	1	LANL	USE	S
per0307095a	WCLCCV	CWW	3/8/2010 4:33			1		USE	C
per0307096a	IPB012	CWW	3/8/2010 4:43			1		USE	B
per0307097a	WCLCRI	CWW	3/8/2010 4:52			1		USE	C
per0307098a	246870009	CWW	3/8/2010 5:01	955688	10-1782	1	LANL	DUSE-RA	S
per0307099a	246870010	CWW	3/8/2010 5:10	955688	10-1782	1	LANL	DUSE-RA	S
per0307100a	246982001	CWW	3/8/2010 5:19	955688	10-1812	1	LANL	DUSE-RA	S
per0307101a	246982002	CWW	3/8/2010 5:28	955688	10-1812	1	LANL	DUSE-RA	S
per0307102a	246982003	CWW	3/8/2010 5:37	955688	10-1812	1	LANL	DUSE-RA	S
per0307103a	246982004	CWW	3/8/2010 5:46	955688	10-1812	1	LANL	DUSE-RA	S

per0307104a	246982005	CWW	3/8/2010 5:55	955688	10-1812	1	LANL	DUSE-RA	S
per0307105a	246982006	CWW	3/8/2010 6:04	955688	10-1812	1	LANL	DUSE-RA	S
per0307106a	246982007	CWW	3/8/2010 6:13	955688	10-1812	1	LANL	DUSE-RA	S
per0307107a	WCLCCV	CWW	3/8/2010 6:22			1		DUSE	C
per0307108a	IPB013	CWW	3/8/2010 6:32			1		DUSE	B
per0307109a	WCLCRI	CWW	3/8/2010 6:41			1		DUSE	C

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

Dataset: C:\MassLynx\Perchlorate.PRO\per030710a.qld

Acquired: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
Printed: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

Sample: per0307030a

Date: 07-Mar-2010

Time: 18:44:07

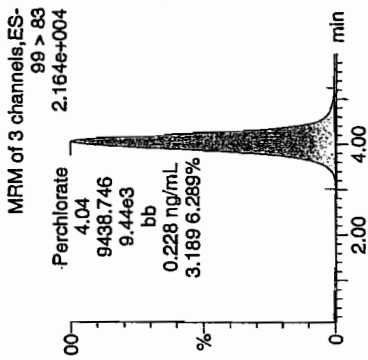
ID: 1202049029

Ratio: 1:5,F

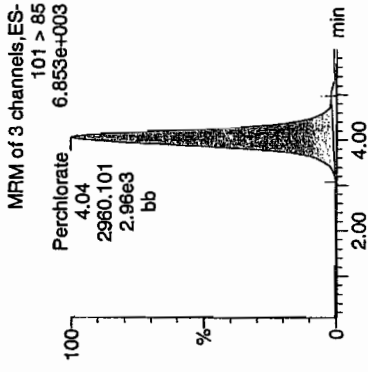
03-08-10

1202049029 | 50703 | MS | 1 |

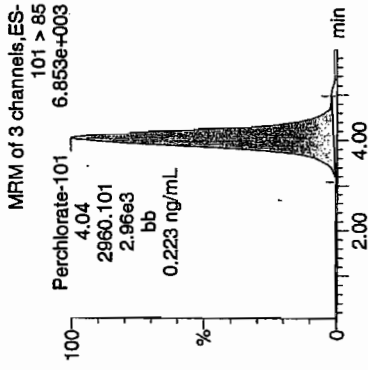
Perchlorate



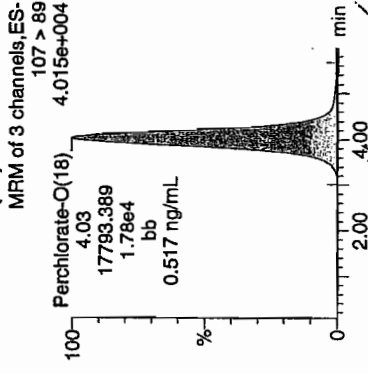
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Name	Trace	RT	Area	Response	Flags	Mod	Def	Acq	Time	nmL	% Rec	Dev	SN	Def
202049029	Perchlorate	99 > 83	4.04	9438.746		bb				0.2282	114.08	14.08	391.805	3.19
202049029	Perchlorate-101	101 > 85	4.04	2960.101		bb				0.2226	111.32	11.32	123.763	
202049029	Perchlorate-O(18)	107 > 89	4.03	17793.389		bb				0.5173	103.47	3.47	832.974	

$$\frac{9438.746}{41365.2} \times 100 = 2.29\%$$

Last Altered: Monday, March 08, 2010 9:02:25 AM Eastern Standard Time
 Printed: Monday, March 08, 2010 9:23:04 AM Eastern Standard Time

Parameter: per0307031a

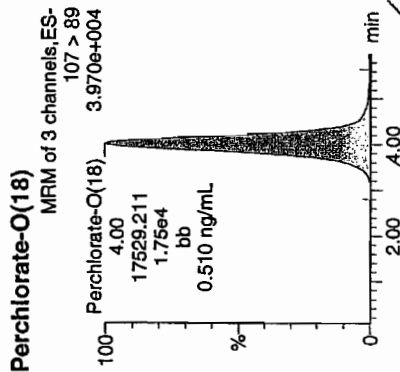
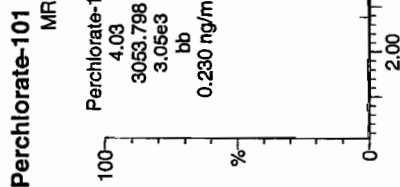
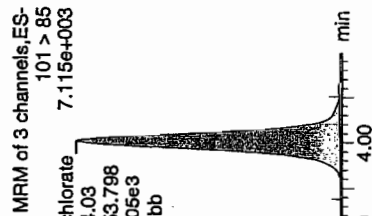
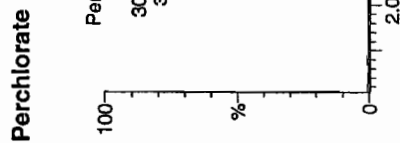
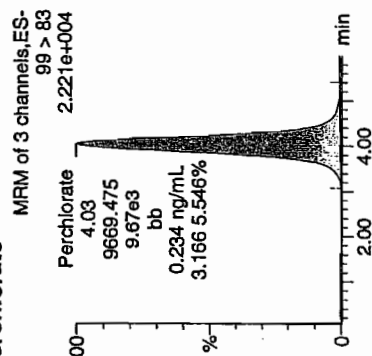
ate: 07-Mar-2010

Time: 18:53:09

50): 1202049030

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erchlorate



Name	Trace	RT	Area	Response	Flags	Moisture	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Pechlorate	99 > 83	4.03	9669.475	9669.475	bb		0.2337	116.87	16.87	2421.4...	3.17
Pechlorate-101	101 > 85	4.03	3053.798	3053.798	bb		0.2297	114.85	14.85	375.234	
Pechlorate-Q(18)	107 > 89	4.00	17529.211	17529.211	bb		0.5097	101.93	1.93	1232.2...	

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

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 10-1848**

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: 954338

Prep Batch Number: 954329

Sample Analysis

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

Sample ID	Client ID
247123001	RE15-10-8198
247123002	RE15-10-8200
247123003	RE15-10-8199
247123004	RE15-10-8201
1202045764	Method Blank (MB)
1202045765	Laboratory Control Sample (LCS)
1202045766	247083001(RE16-10-3877) Matrix Spike (MS)
1202045767	247083001(RE16-10-3877) 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.

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Primary Analyte Analysis

Calibration Information

Initial Calibration

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

Calibration Verification Standard Requirements

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

Calibration Blank Requirements

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

CRI Requirements

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

Quality Control (QC) Information

Method Blank (MB) Statement

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

Surrogate Recoveries

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

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation

Client sample 247083001 (RE16-10-3877) from SDG 10-1827 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 spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement

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

Internal Standard (ISTD) Acceptance

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

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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 spike recoveries were within the established acceptance limits.

QC Sample Designation

Client sample 247083001 (RE16-10-3877) from SDG 10-1827 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 TATB at 188%. The recovery limits are 29-155%. Since the LCS and MS met acceptance limits for the TATB, the non-conforming recovery may be attributed to vagaries in the extraction process. The data are reported. Please see data exception report 800488.

MS/MSD Relative Percent Difference (RPD) Statement

The MS/MSD RPD for TATB was 56.8%. The acceptance limits are 0-30%. Since all other 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 800488.

Internal Standard (ISTD) Acceptance

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

Technical Information

Holding Time Specifications

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

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

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

Sample Re-extraction/Re-analysis

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

Miscellaneous Information

Data Exception (DER) Documentation

Data exception report 800488 was generated for this SDG.

The MSD recovered TATB at 188%. The recovery limits are 29-155%. Since the LCS and MS met acceptance limits for the TATB, the non-conforming recovery may be attributed to vagaries in the extraction process. The data are reported.

The MS/MSD RPD for TATB was 56.8%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The data are reported.

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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: *Norbert M. Mauer* Date: *03/11/10*

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SAMPLE DATA SUMMARY

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8198

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123001

Sample Amount 2

Moisture: 5

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304109a

Date Analyzed: 06-MAR-10 20:22

Units: ug/kg

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

*Concentration =

Instrument Value	X	$\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$	X	Dilution Factor
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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8198

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123001

Sample Amount 2

Moisture: .5

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260085.wiff

Date Analyzed: 27-FEB-10 12:53

Units: ug/kg

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

*Concentration =

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

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8200

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123002

Sample Amount 2

Moisture: 1.4

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304110a

Date Analyzed: 06-MAR-10 20:52

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	<u>Concentrated Extract Volume</u>	X	Dilution Factor
		<u>Sample Amount</u>		

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8200

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123002

Sample Amount 2

Moisture: 1.4

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260089.wiff

Date Analyzed: 27-FEB-10 13:56

Units: ug/kg

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

*Concentration =

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

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8199

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123003

Sample Amount 2

Moisture: 2.0

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304111a

Date Analyzed: 06-MAR-10 21:21

Units: ug/kg

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

*Concentration =

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

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8199

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123003

Sample Amount 2

Moisture: 2.0

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260090.wiff

Date Analyzed: 27-FEB-10 14:11

Units: ug/kg

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

*Concentration =

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

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8201

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123004

Sample Amount 2

Moisture: 1.4

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304112a

Date Analyzed: 06-MAR-10 21:51

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	<u>Concentrated Extract Volume</u>	X	Dilution Factor
		<u>Sample Amount</u>		

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8201

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123004

Sample Amount 2

Moisture: 1.4

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260091.wiff

Date Analyzed: 27-FEB-10 14:27

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

QUALITY CONTROL SUMMARY

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
247123001	RE15-10-8198	105	70 - 144	
247123001	RE15-10-8198	96	70 - 144	
247123002	RE15-10-8200	100	70 - 144	
247123002	RE15-10-8200	94	70 - 144	
247123003	RE15-10-8199	105	70 - 144	
247123003	RE15-10-8199	96.4	70 - 144	
247123004	RE15-10-8201	108	70 - 144	
247123004	RE15-10-8201	95.6	70 - 144	
1202045764	MB for batch 954329	117	70 - 144	
1202045764	MB for batch 954329	101	70 - 144	
1202045765	LCS for batch 954329	111	70 - 144	
1202045765	LCS for batch 954329	97.6	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) 10-1848

Extract Batch Code: 954329

Date Extracted: 22-FEB-10

GEL LCS ID: 1202045765

GEL LCSDUP ID:

Analysis Date/Time: 06-MAR-10 08:34

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	3910	78.2					69 - 126
2,4,6-Trinitrotoluene	5000	5020	100					73 - 149
2,4-Dinitrotoluene	5000	5450	109					87 - 137
2,6-Dinitrotoluene	5000	4850	97					89 - 120
2-Amino-4,6-dinitrotoluene	5000	5320	106					90 - 130
4-Amino-2,6-dinitrotoluene	5000	5360	107					84 - 130
HMX	5000	4640	92.8					58 - 138
Nitrobenzene	5000	4620	92.4					71 - 122
PETN	5000	6170	123					64 - 137
RDX	5000	5240	105					81 - 137
Tetryl	5000	3060	61.3					51 - 112
m-Dinitrobenzene	5000	4760	95.1					83 - 122
m-Nitrotoluene	5000	4900	97.9					73 - 118
o-Nitrotoluene	5000	4720	94.4					72 - 119
p-Nitrotoluene	5000	5270	105					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) 10-1848

Extract Batch Code: 954329

Date Extracted: 22-FEB-10

GEL LCS ID: 1202045765

GEL LCSDUP ID:

Analysis Date/Time: 27-FEB-10 07:23

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	5500	110					52 - 114
2,6-Diamino-4-nitrotoluene	5000	5860	117					64 - 122
3,5-Dinitroaniline	5000	4930	98.6					70 - 127
tris(o-cresyl) phosphate	5000	5150	103					84 - 119
TATB	5000	5740	115					28 - 162

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

* Values outside of QC limits

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE16-10-3877

Lab Code: GEL

GEL Job No (SDG) 10-1848

Extract Batch Code: 954329

Date Extracted: 22-FEB-10

GEL Spike ID: 1202045766

GEL SpikeDup ID: 1202045767

Analysis Date/Time: 06-MAR-10 09:33

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,6-Dinitrotoluene	5000	0	4780	95.7	4820	96.4	.768	30	90 – 118
2-Amino-4,6-dinitrotoluene	5000	0	5720	114	5450	109	4.69	30	85 – 137
4-Amino-2,6-dinitrotoluene	5000	0	5360	107	5230	105	2.43	30	72 – 143
HMX	5000	0	4880	97.7	4380	87.6	10.8	30	51 – 144
Nitrobenzene	5000	0	5370	107	4600	92	15.5	30	70 – 122
2,4-Dinitrotoluene	5000	0	4430	88.6	4890	97.8	9.86	30	86 – 135
2,4,6-Trinitrotoluene	5000	0	5150	103	5070	101	1.57	30	76 – 144
1,3,5-Trinitrobenzene	5000	0	4770	95.4	4450	88.9	7.01	30	50 – 140
PETN	5000	0	6210	124	6250	125	.689	30	60 – 140
RDX	5000	0	5600	112	4880	97.6	13.8	30	59 – 152
Tetryl	5000	0	3750	75.1	3680	73.5	2.07	30	36 – 124
m-Dinitrobenzene	5000	0	5140	103	4810	96.3	6.59	30	85 – 118
m-Nitrotoluene	5000	0	4540	90.8	4470	89.4	1.59	30	70 – 120
o-Nitrotoluene	5000	0	4920	98.4	4820	96.3	2.08	30	69 – 123
p-Nitrotoluene	5000	0	5480	110	4730	94.7	14.5	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 LLC

Client ID: RE16-10-3877

Lab Code: GEL

GEL Job No (SDG) 10-1848

Extract Batch Code: 954329

Date Extracted: 22-FEB-10

GEL Spike ID: 1202045766

GEL SpikeDup ID: 1202045767

Analysis Date/Time: 27-FEB-10 07:55

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	5000	0	5590	112	5550	111	.718	26	34 - 135
2,6-Diamino-4-nitrotoluene	5000	0	5760	115	5770	115	.173	30	55 - 130
TATB	5000	0	5250	105	9410	188 *	56.8 *	30	29 - 155
tris(o-cresyl) phosphate	5000	0	5080	102	5020	100	1.19	30	72 - 127
3,5-Dinitroaniline	5000	0	4890	97.8	4860	97.2	.615	30	73 - 129

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

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 04-MAR-10 15:16

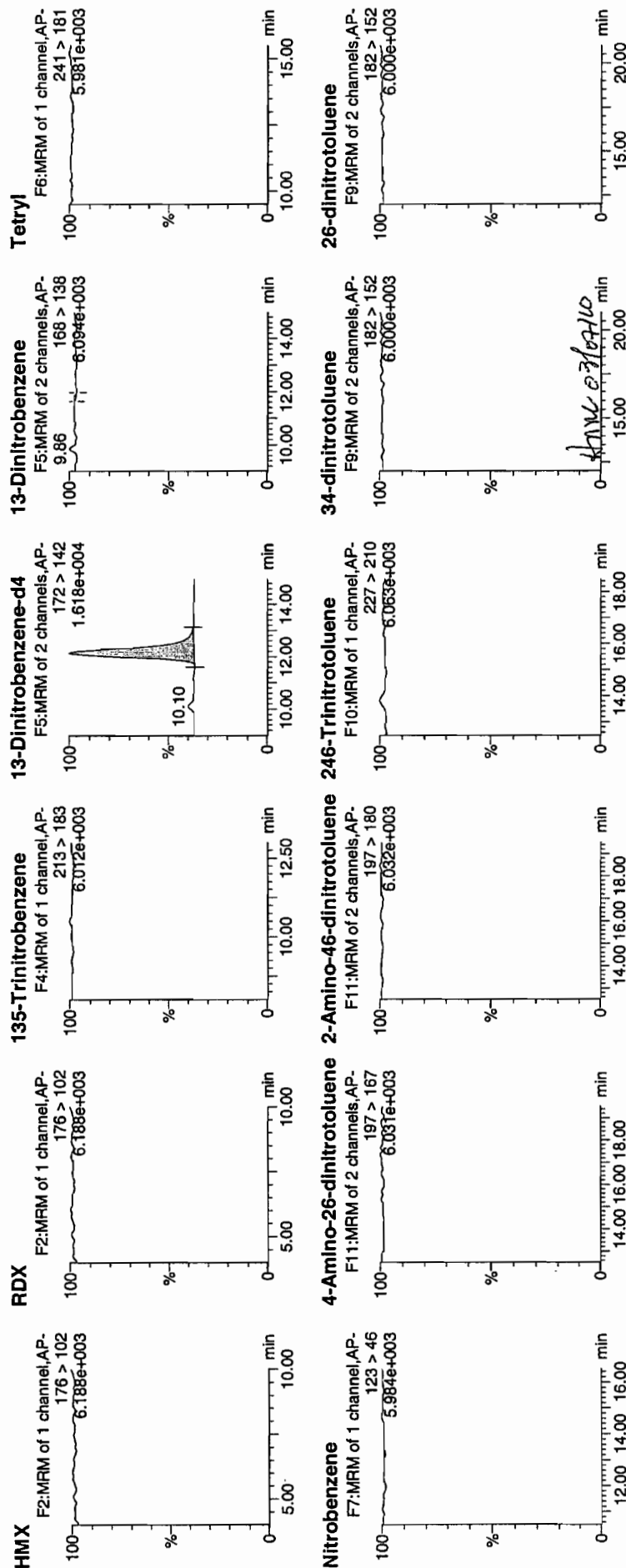
GEL Data File: EXP0304001a

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	607.958
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	536.234
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

W17
3/6/10

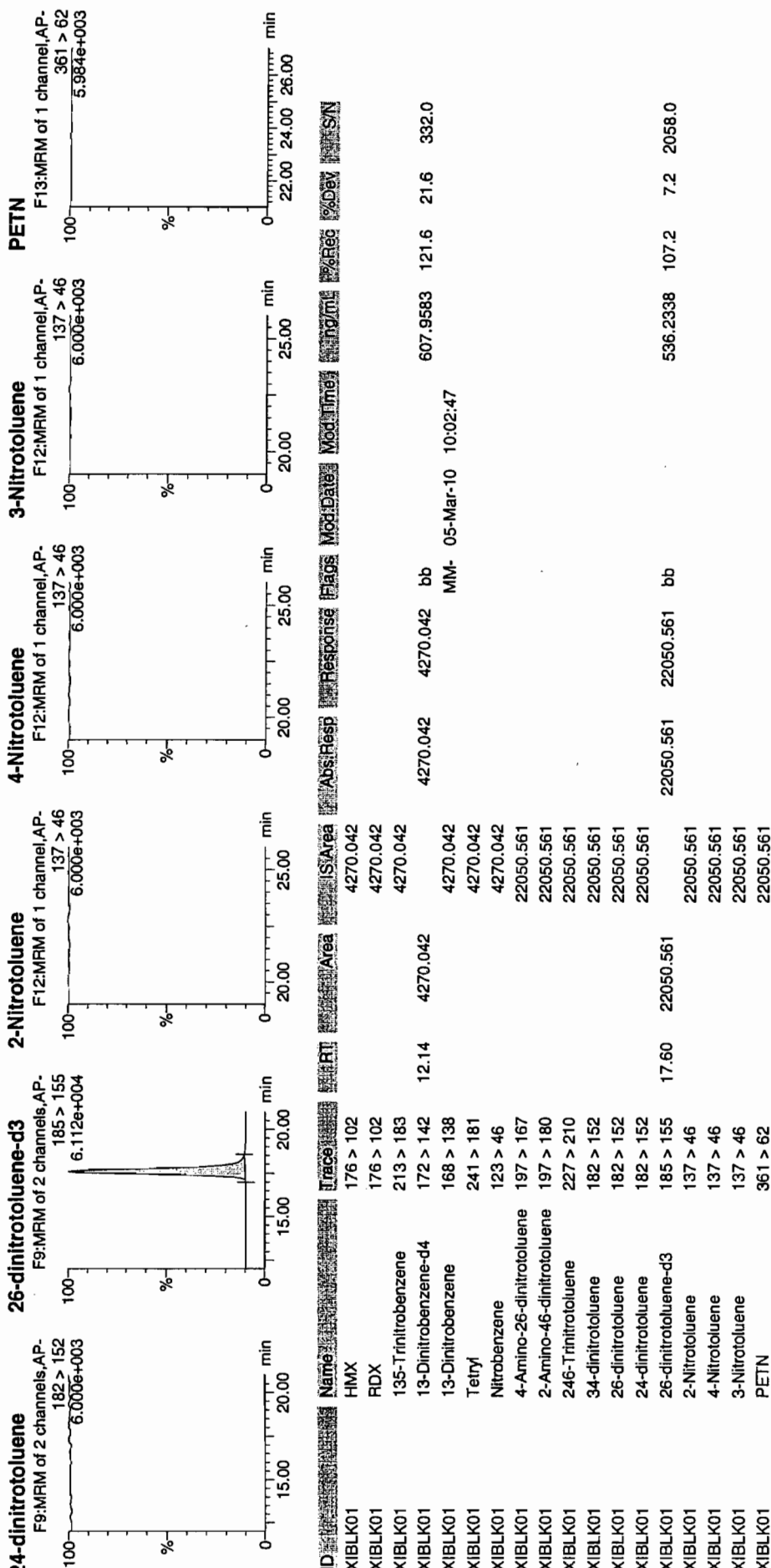


Quantify Sample Report

IEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Mar 05 10:25:00 2010, Page 2 of 77

Dataset: C:\MASSL\YNN\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 04-MAR-10 15:46

GEL Data File: EXP0304002a

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	579.131
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	573.881
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\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304002a

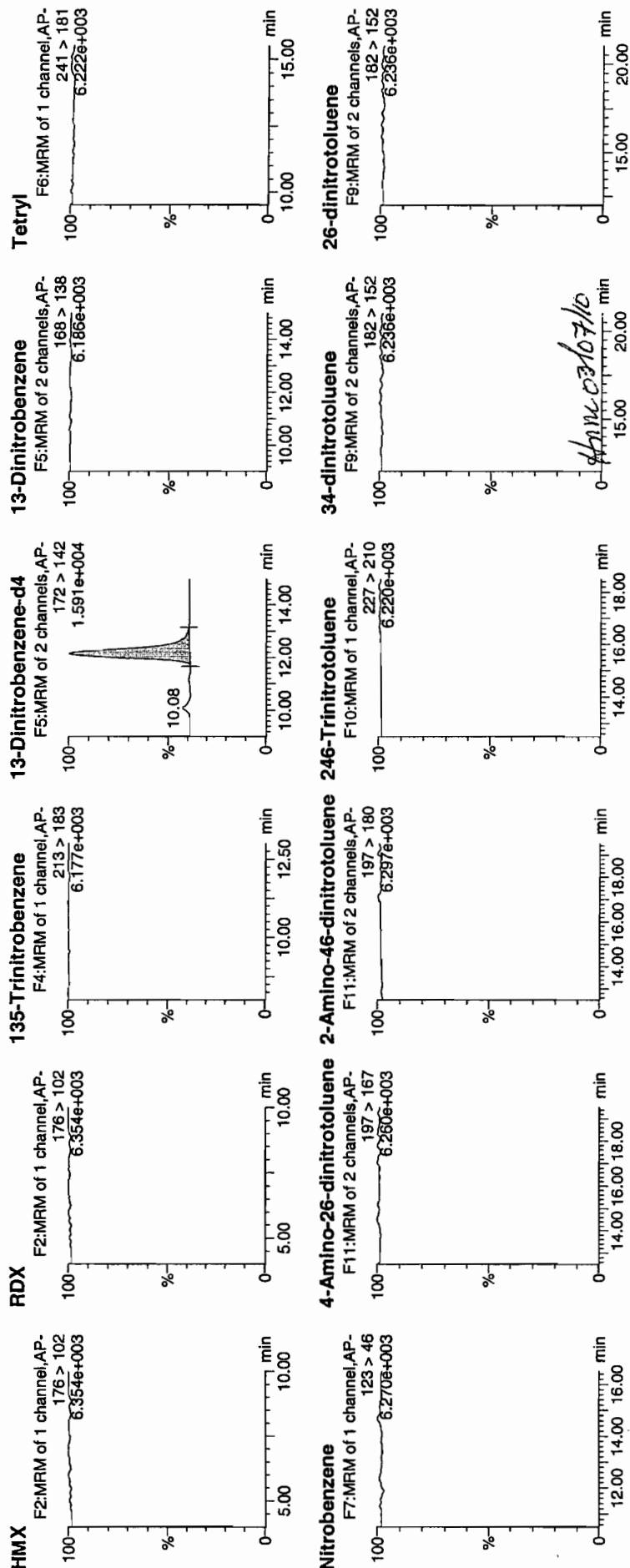
Date: 04-Mar-2010

Time: 15:46:08

ID: XIBLK01

Vial: 1:1,A

Page 112 of 1049

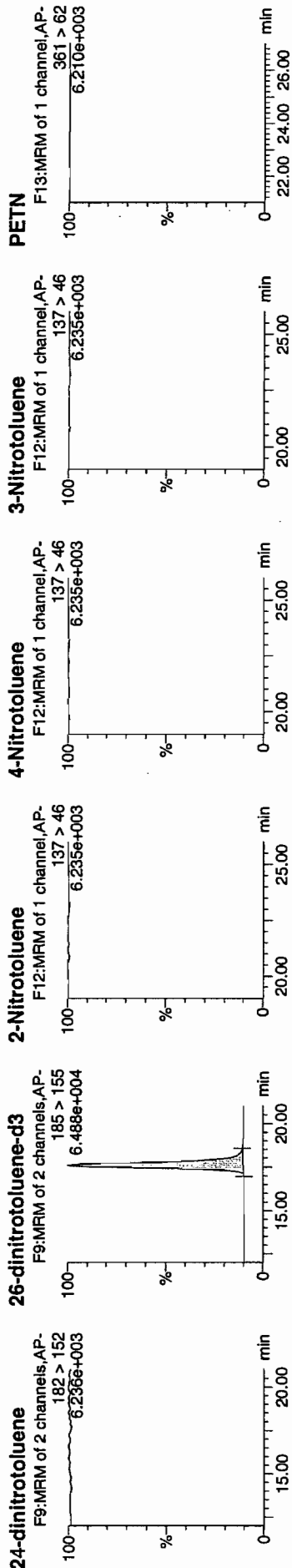


Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Mar 05 10:25:00 2010, Page 4 of 77

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	%Rec	%Day	SN
XIBLK01	HMX	176 > 102			4067.572								
XIBLK01	RDX	176 > 102			4067.572								
XIBLK01	135-Trinitrobenzene	213 > 183			4067.572								
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.14	4067.572		4067.572	4067.572	bb		579.1311	115.8	15.8	625.2
XIBLK01	13-Dinitrobenzene	168 > 138			4067.572								
XIBLK01	Tetryl	241 > 181			4067.572								
XIBLK01	Nitrobenzene	123 > 46			4067.572								
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			23598.654								
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			23598.654								
XIBLK01	246-Trinitrotoluene	227 > 210			23598.654								
XIBLK01	34-dinitrotoluene	182 > 152			23598.654								
XIBLK01	26-dinitrotoluene	182 > 152			23598.654								
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.60	23598.654		23598.654	23598.654	bb		573.8809	114.8	14.8	787.1
XIBLK01	2-Nitrotoluene	137 > 46			23598.654								
XIBLK01	4-Nitrotoluene	137 > 46			23598.654								
XIBLK01	3-Nitrotoluene	137 > 46			23598.654								
XIBLK01	PETN	361 > 62			23598.654								

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 26-FEB-10 14:53

GEL Data File: EXS02260001.wiff

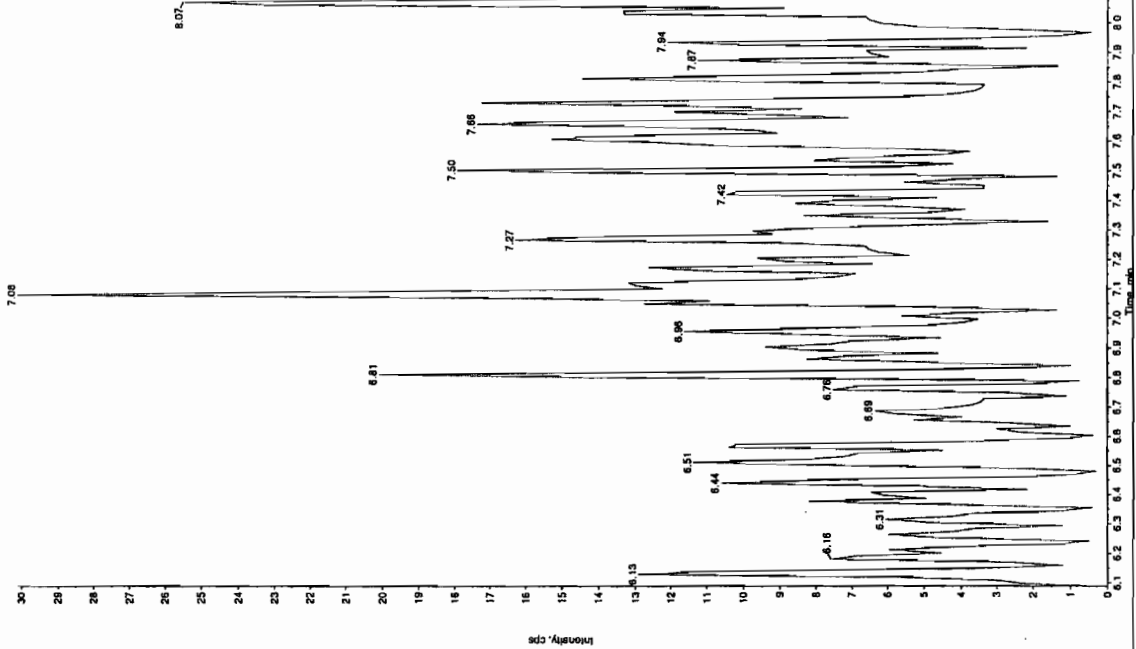
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
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
tris(o-cresyl) phosphate	0	0

Jan 3/1/10

Sample Name: "XIBLK01" Sample ID: "111ER" File: "EXS02260001.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: 2/26/2010
 Acq. Time: 2:53:58 PM
 Modified: No



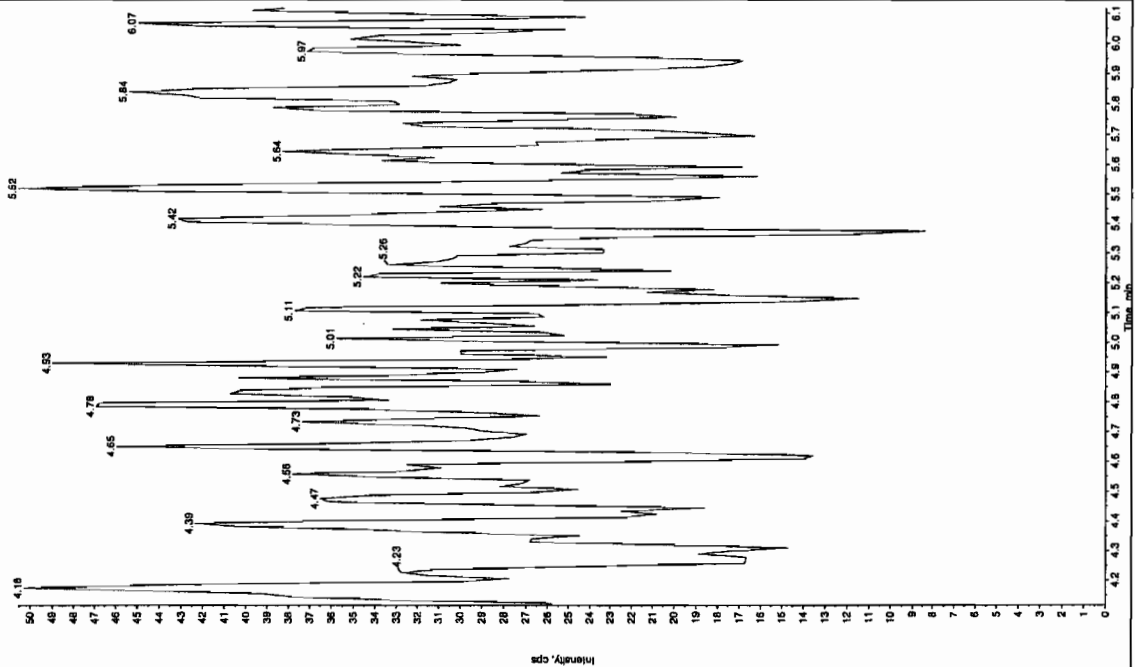
Sample Name: "TATB" Sample ID: "111ER" File: "EXS02260001.wif"
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"
 Comment: "LCMSEXP_B" Annotation: ""
 Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/26/2010
 Acq. Time: 2:53:58 PM
 Modified: No



Jan 02/01/10

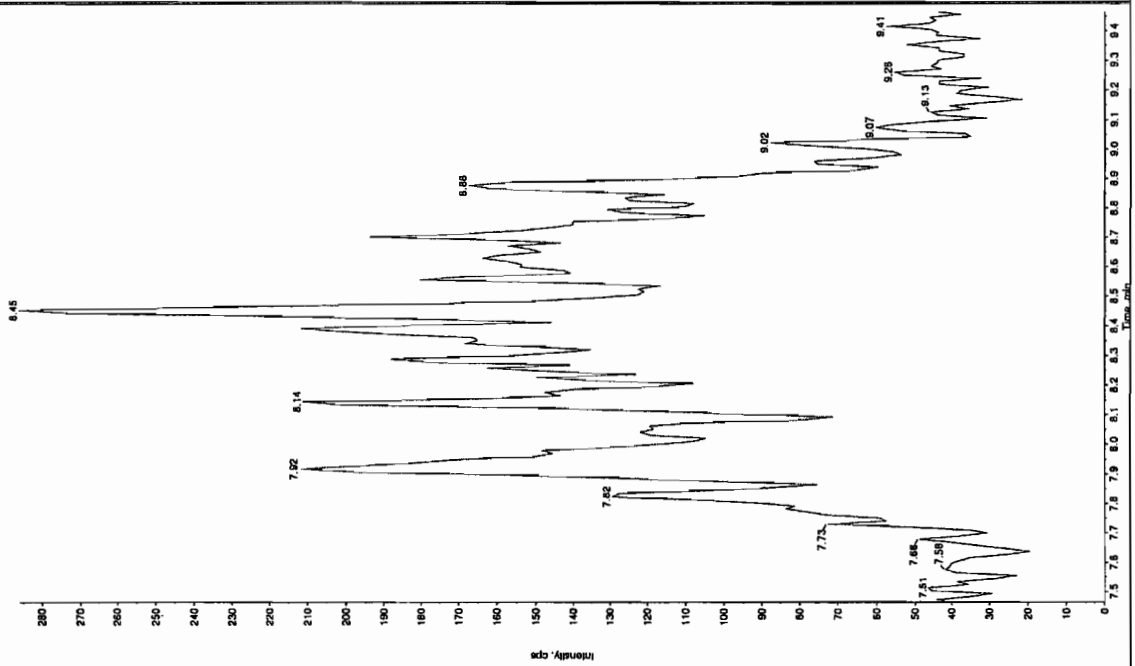
Sample Name: "XBLK01" Sample ID: "111ER" File: "EXS02260001.wiff"
 Peak Name: "28-Dinitro-4-nitrofluorene" Mass(es): "166.046.0 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/26/2010
 Acq. Time: 2:53:58 PM
 Modified: No



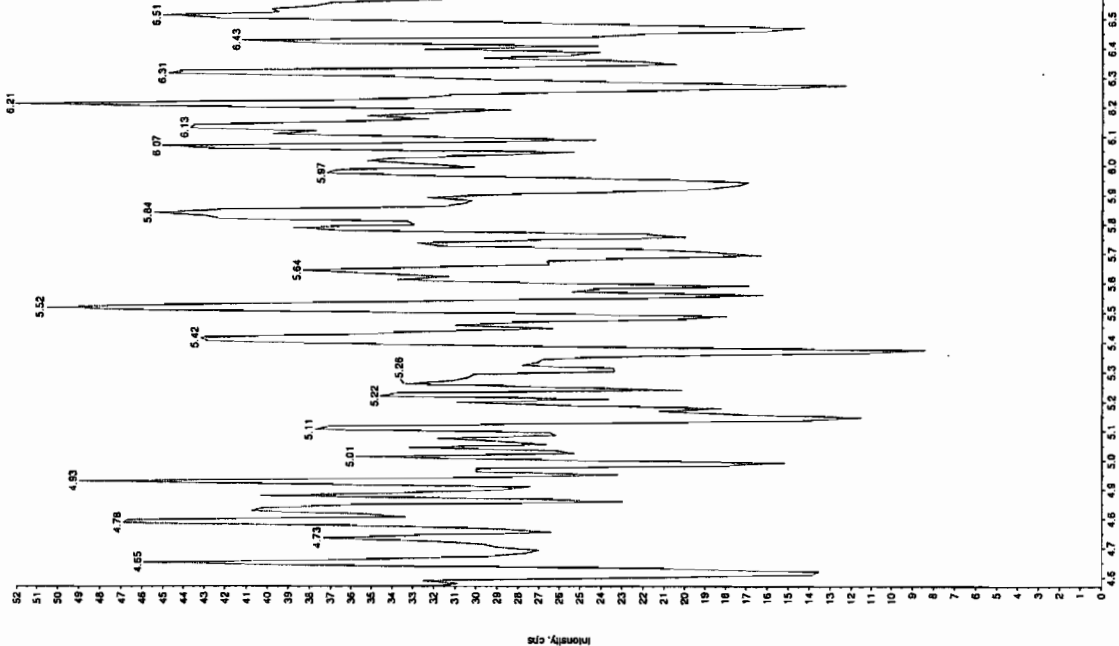
Sample Name: "XBLK01" Sample ID: "111ER" File: "EXS02260001.wiff"
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1151.9 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/26/2010
 Acq. Time: 2:53:58 PM
 Modified: No



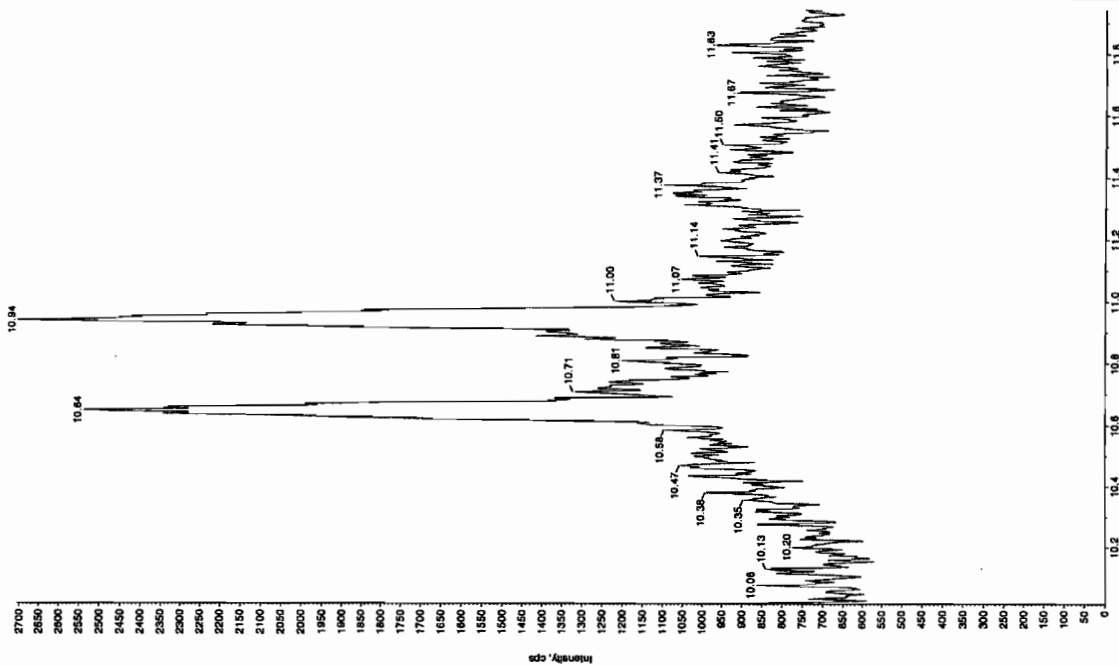
Sample Name: "XIBLK01" Sample ID: "11LER" File: "EXS0226001.wif"
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.046.0 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Date: 2/26/2010
 Time: 2:53:58 PM
 Modified: NO



Sample Name: "XIBLK01" Sample ID: "11LER" File: "EXS0226001.wif"
 Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.191.0 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Date: 2/26/2010
 Time: 2:53:58 PM
 Modified: NO



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 26-FEB-10 15:09

GEL Data File: EXS02260002.wiff

Instrument ID: LCMSMS

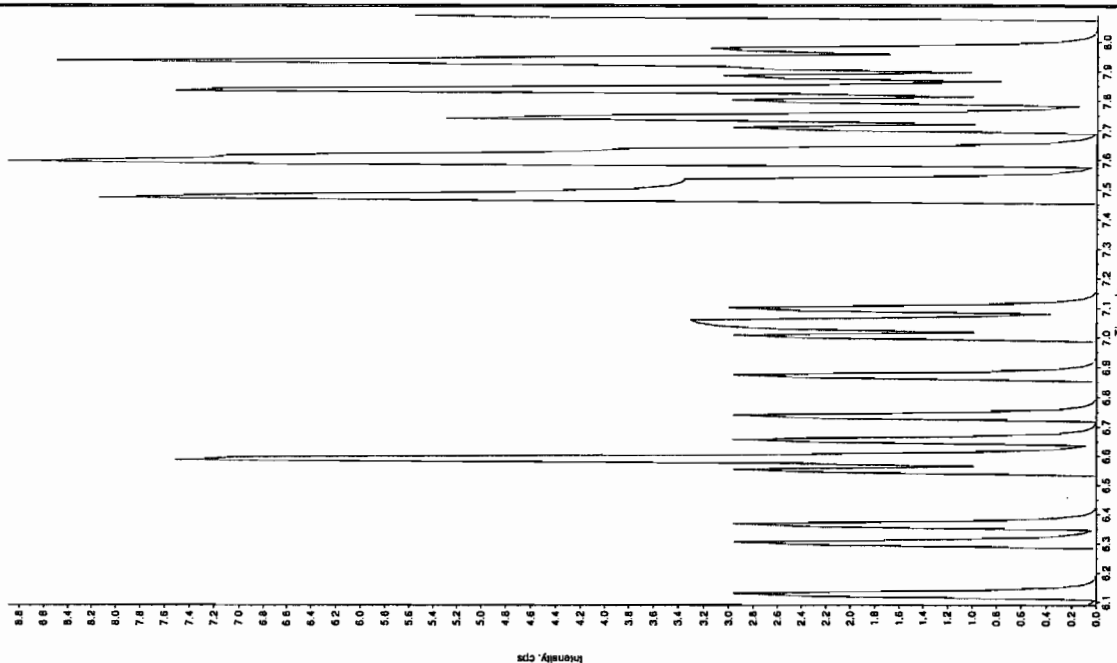
Column: Phenomenex Ultracarb 5u ODS(20)

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

for 3/1/10

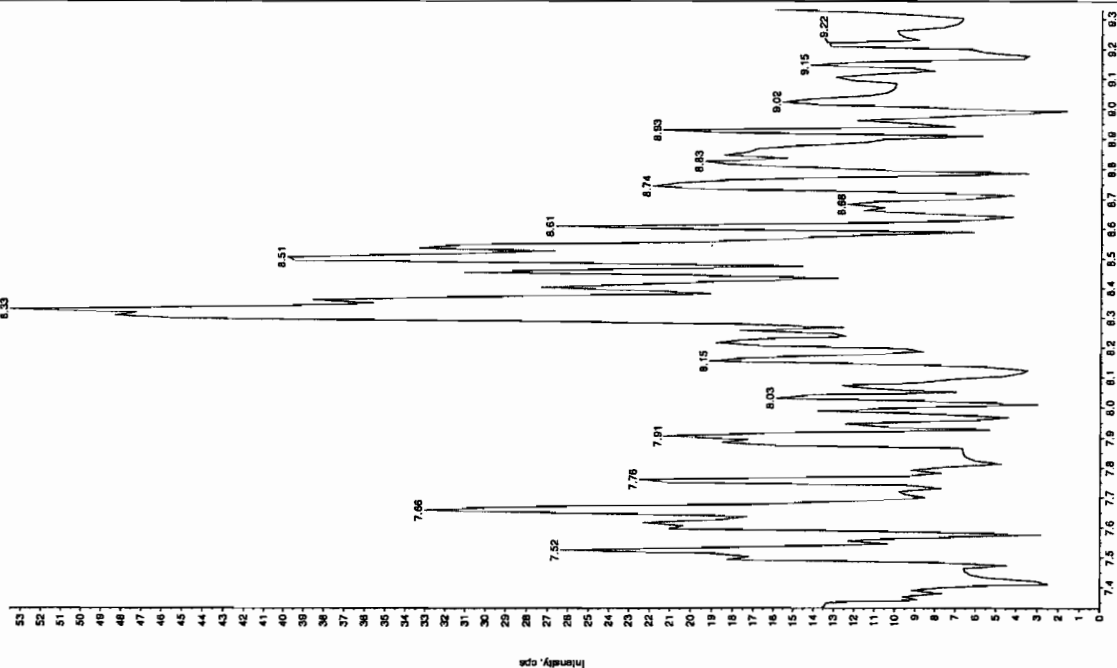
Sample Name: "XIBLX01" Sample ID: "11111" File: "EXS02260002.wif"
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"
 Comment: "LCMSXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Date: 2/26/2010
 Time: 3:09:45 PM
 Modified: No



Sample Name: "XIBLX01" Sample ID: "11111" File: "EXS02260002.wif"
 Peak Name: "35-Chloroaniline" Mass(es): "182.046.0 amu"
 Comment: "LCMSXP_B" Annotation: ""

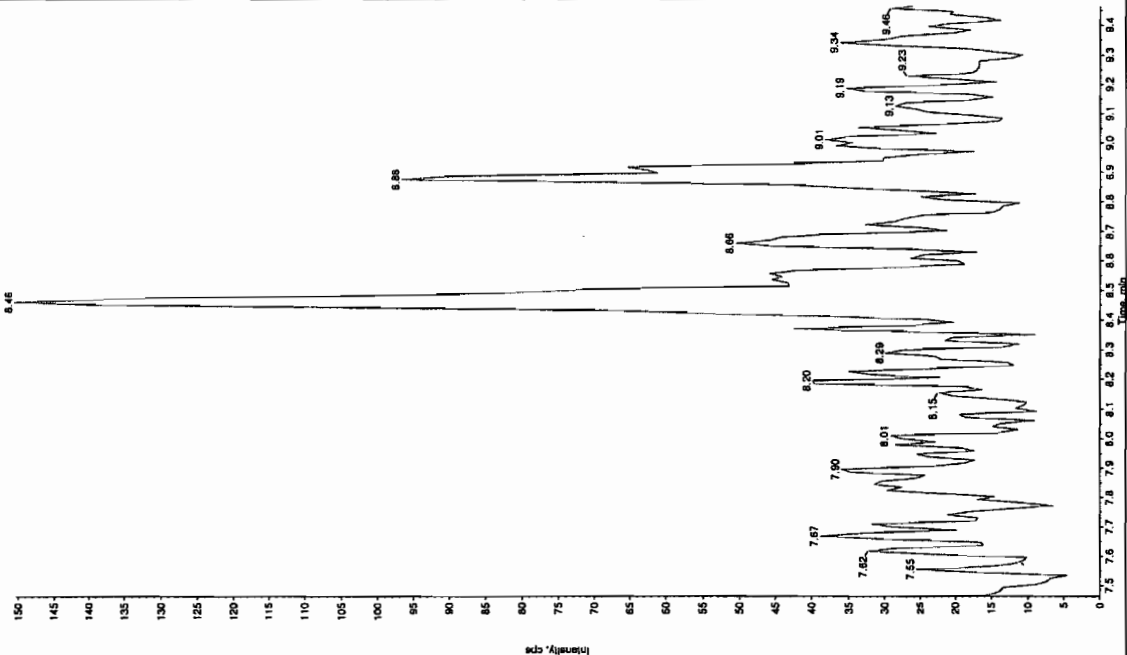
Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Date: 2/26/2010
 Time: 3:09:45 PM
 Modified: No



4/11/03 for 1/10

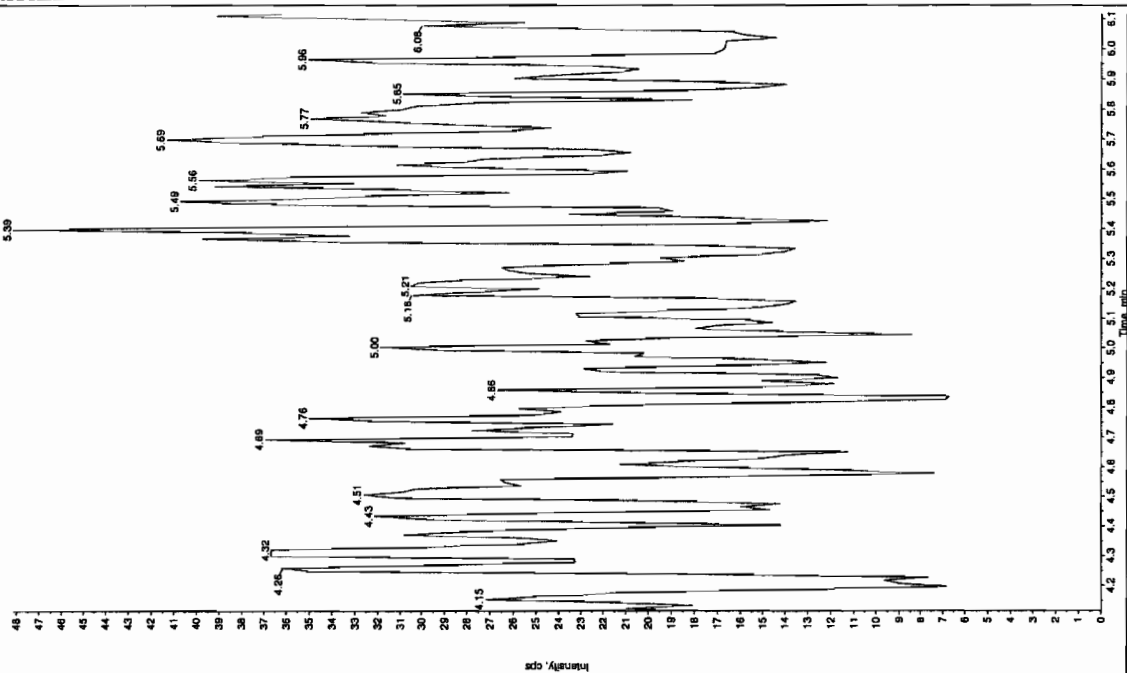
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 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/26/2010
 Acq. Time: 3:09:45 PM
 Modified: No



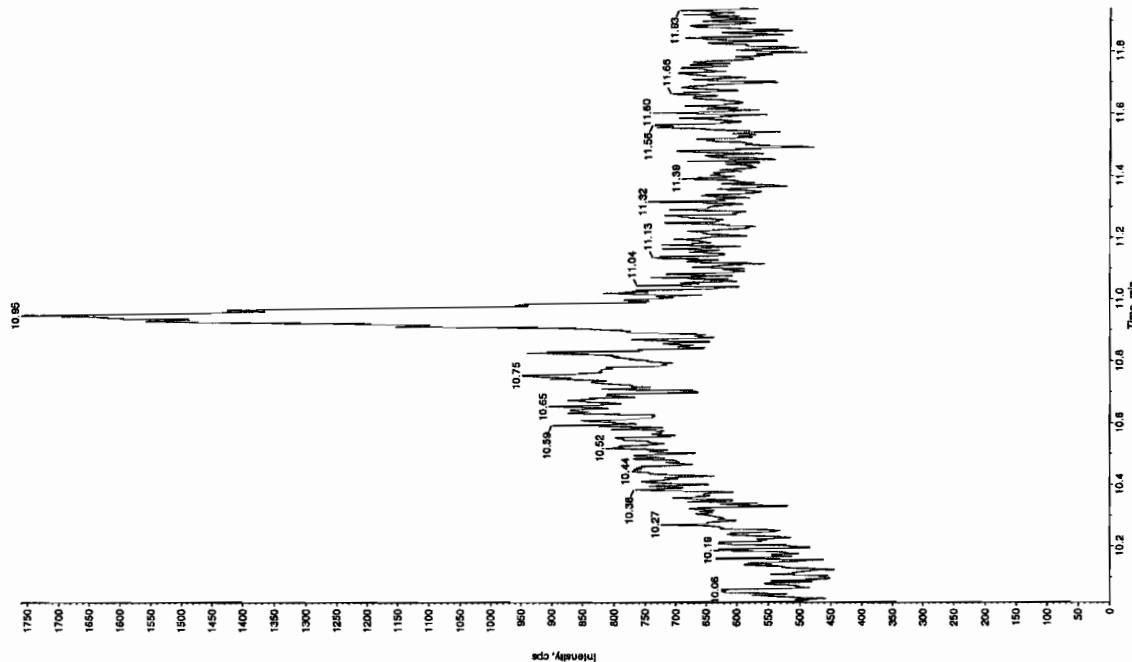
Sample Name: "XIBLK01" Sample ID: "111LER" File: "EXS02260002.wif"
 Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "166.0/165.0 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/26/2010
 Acq. Time: 3:09:45 PM
 Modified: No



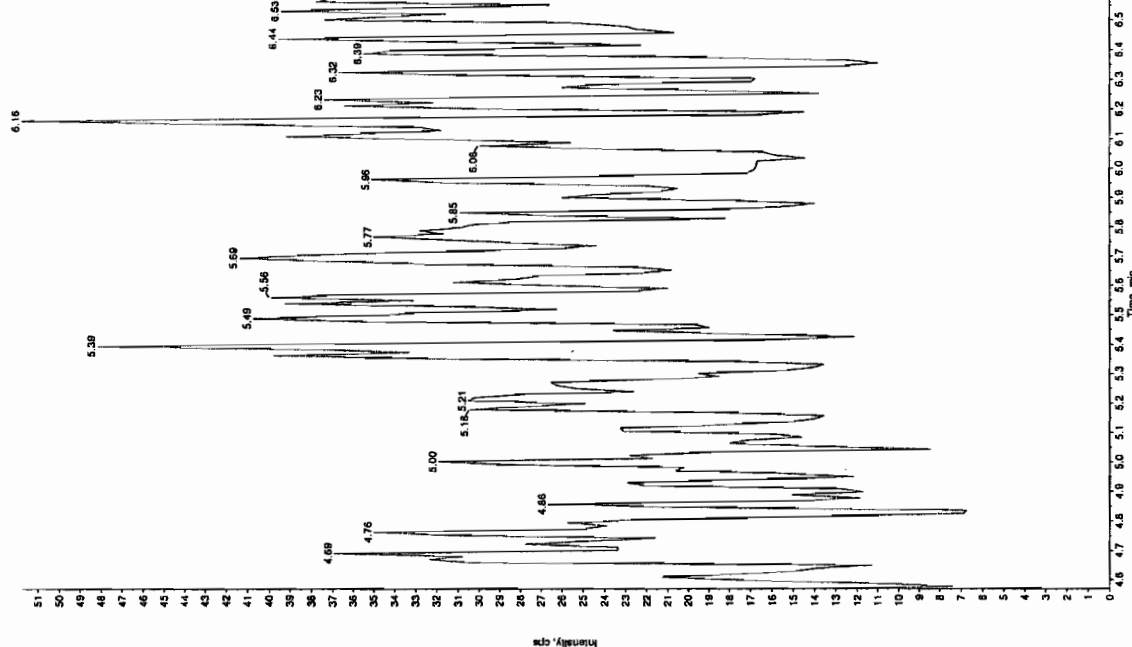
Sample Name: "XIBLK01" Sample ID: "111ER" File: "EXSD260002.wif"
 Peak Name: "tris(cresyl) phosphate" Mass(es): "369.191.0 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A ng/mL
 Calculated Conc: 0.00
 Acq. Date: 2/26/2010
 Acq. Time: 3:09:45 PM
 Modified: No



Sample Name: "XIBLK01" Sample ID: "111ER" File: "EXSD260002.wif"
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.046.0 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A ng/mL
 Calculated Conc: 0.00
 Acq. Date: 2/26/2010
 Acq. Time: 3:09:45 PM
 Modified: No



3L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 04-MAR-10 19:12

GEL Data File: EXP0304009a

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	522.148
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	519.283
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304009a

Date: 04-Mar-2010

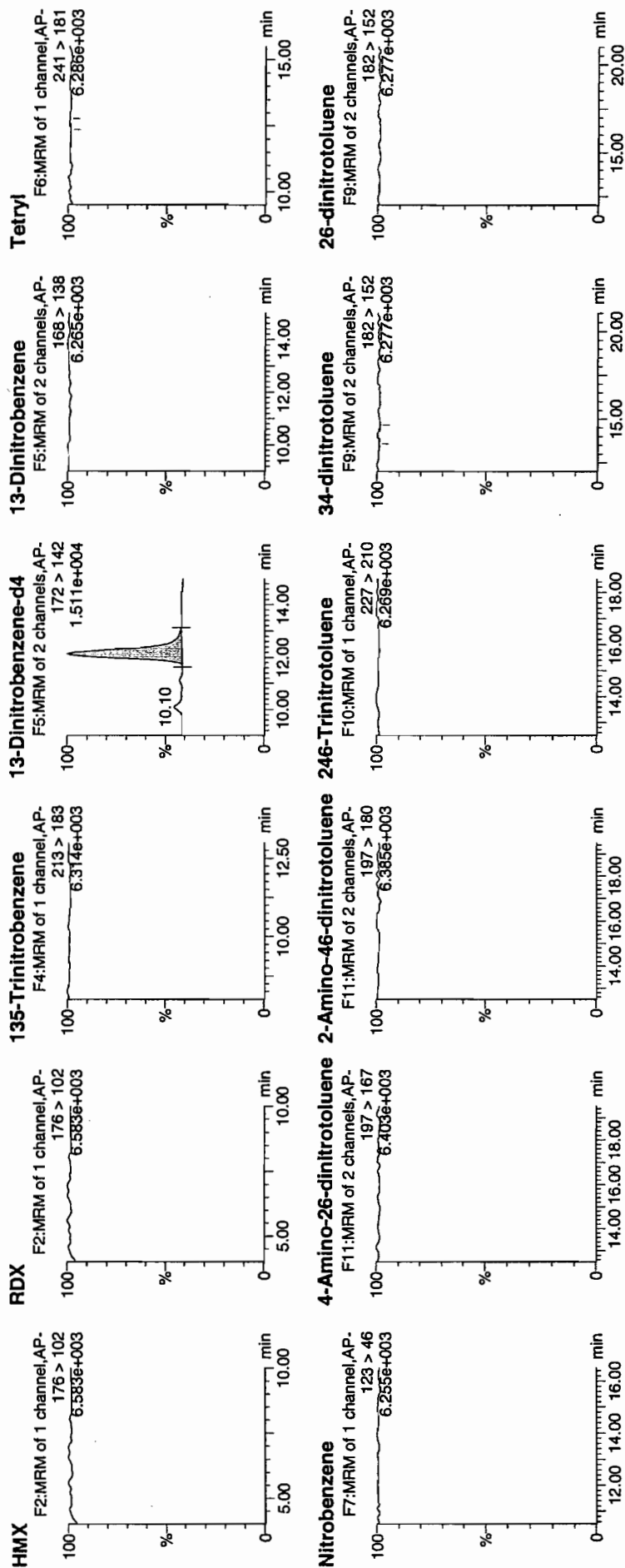
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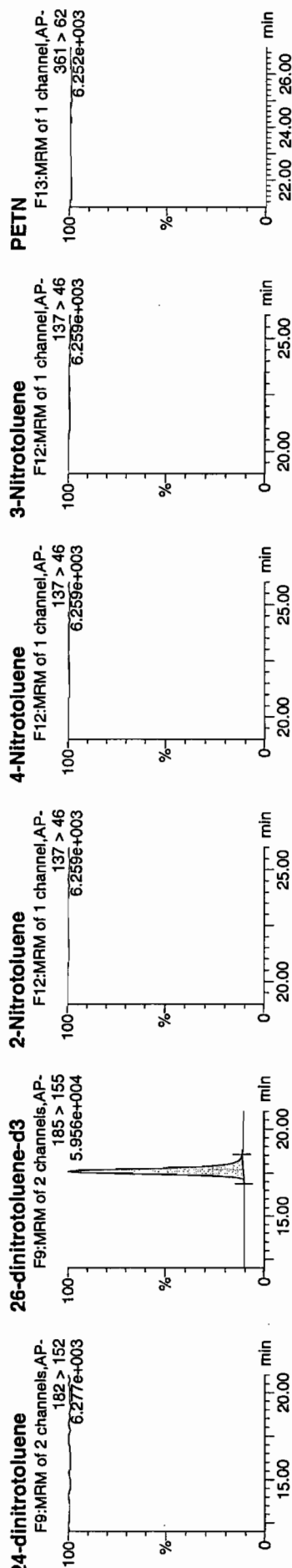
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10/10
7/10/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

[illegible]

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 04-MAR-10 20:11

GEL Data File: EXP0304011a

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	542.741
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	569.446
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

3EL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304011a

Date: 04-Mar-2010

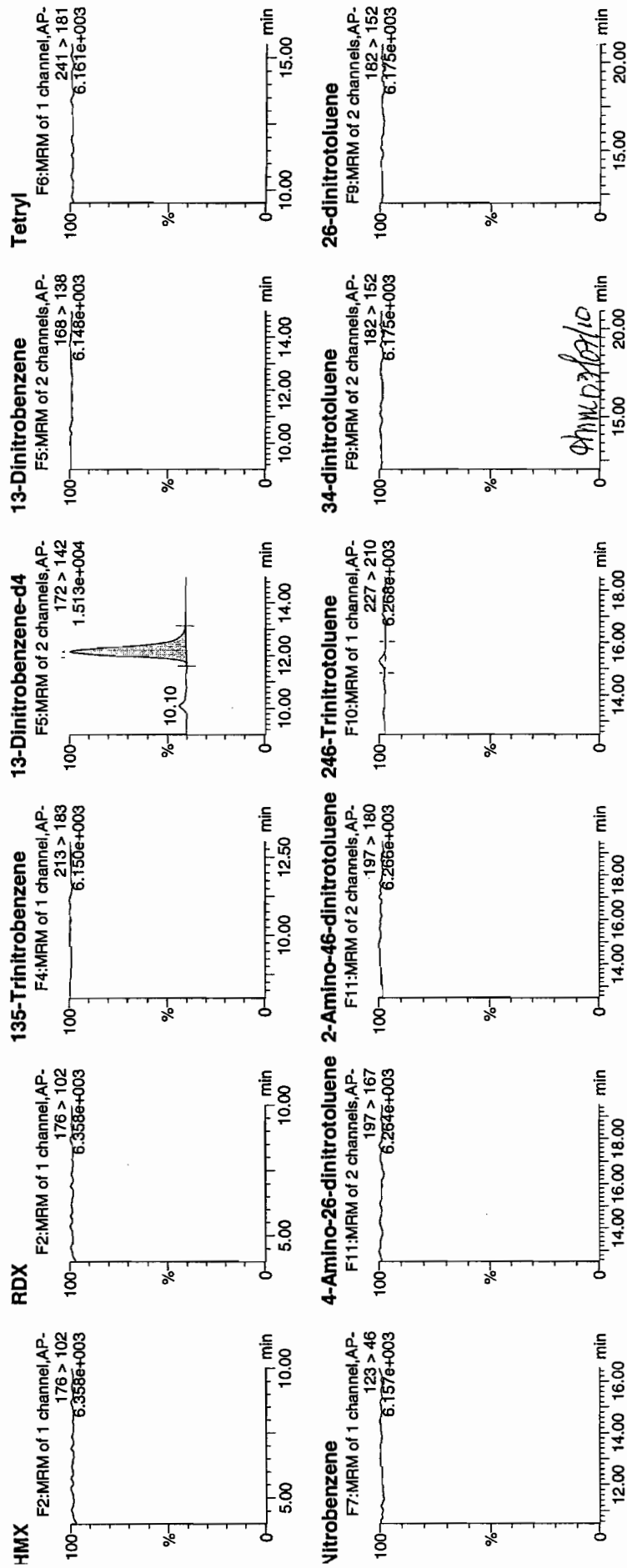
Time: 20:11:24

D: XIBLK03

Vial: 1:1,A

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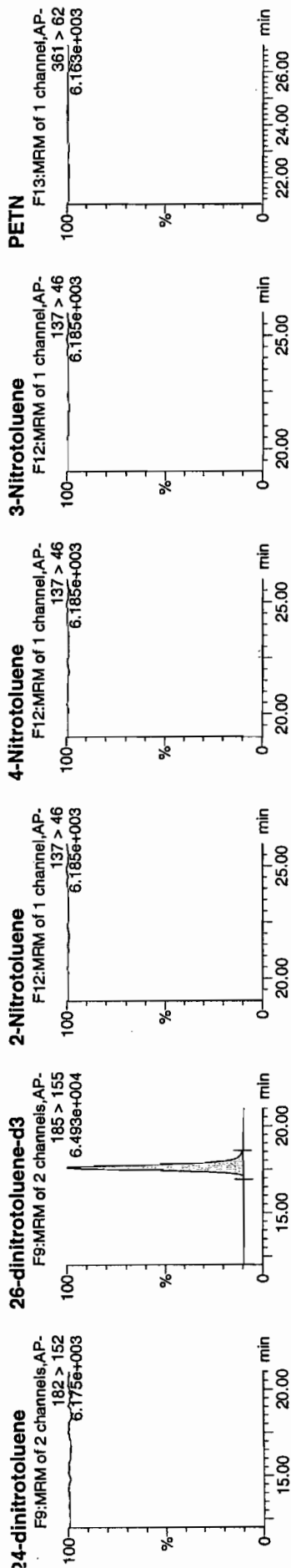


Quantify Sample Report

3EL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Mar 05 10:25:00 2010, Page 22 of 77

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010



ID	Name	Trace	RT	Area	SArea	Abs Resp	Response	Flag	Mod Date	Mod Time	Conc (ng/mL)	% Rec	Value	SN
XIBLK03	HMX	176 > 102			3811.982									
XIBLK03	RDX	176 > 102			3811.982									
XIBLK03	135-Trinitrobenzene	213 > 183			3811.982									
XIBLK03	13-Dinitrobenzene-d4	172 > 142	12.14	3811.982							542.7408	108.5	8.5	563.6
XIBLK03	13-Dinitrobenzene	168 > 138												
XIBLK03	Tetryl	241 > 181			3811.982									
XIBLK03	Nitrobenzene	123 > 46			3811.982									
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167			23416.273									
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180			23416.273					MM- 05-Mar-10 10:08:06				
XIBLK03	246-Trinitrotoluene	227 > 210			23416.273									
XIBLK03	34-dinitrotoluene	182 > 152			23416.273									
XIBLK03	26-dinitrotoluene	182 > 152			23416.273									
XIBLK03	24-dinitrotoluene	182 > 152			23416.273									
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.57	23416.273							569.4457	113.9	13.9	2213.1
XIBLK03	2-Nitrotoluene	137 > 46			23416.273									
XIBLK03	4-Nitrotoluene	137 > 46			23416.273									
XIBLK03	3-Nitrotoluene	137 > 46			23416.273									
XIBLK03	PETN	361 > 62			23416.273									

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 05-MAR-10 02:34

GEL Data File: EXP0304024a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	521.731
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	509.028
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: Fri Mar 05 10:25:00 2010, Page 47 of 77

Dataset: C:\MASSLYNX\New_Exp\PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP\PRO\data\EXP0304024a

Date: 05-Mar-2010

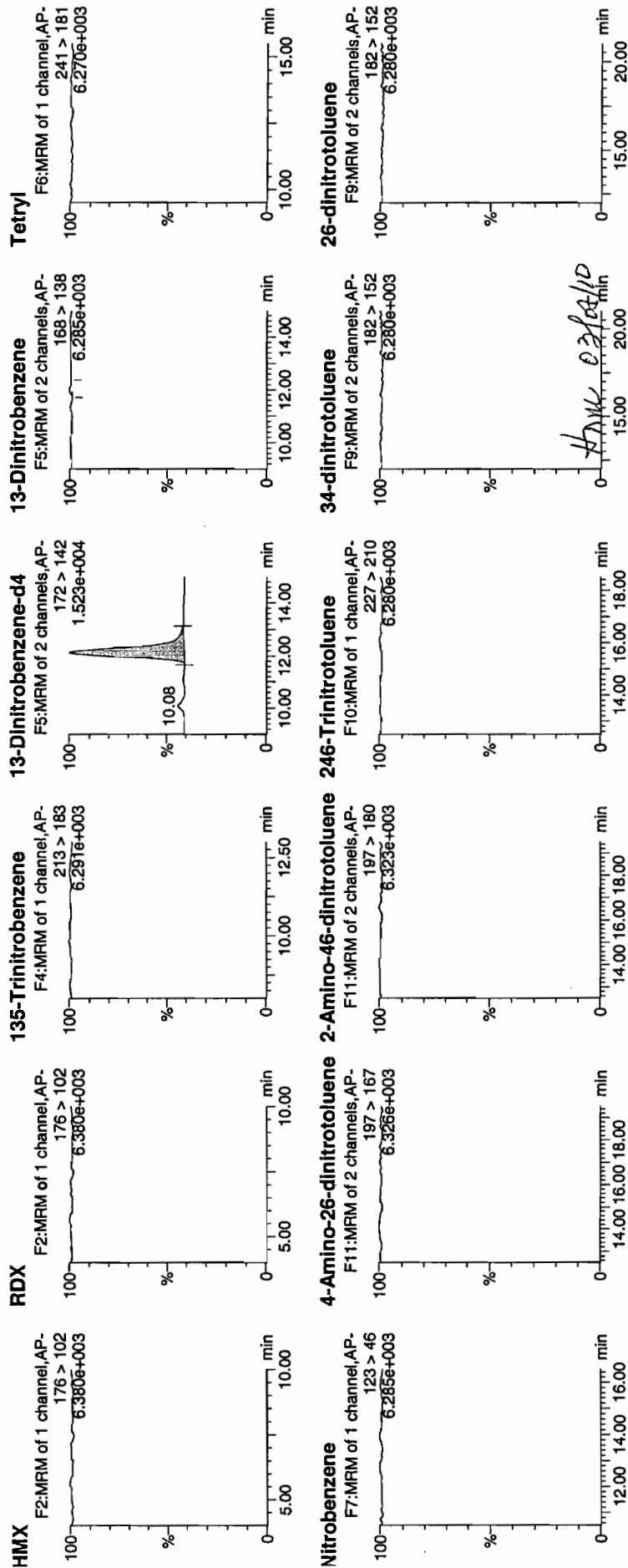
Time: 02:34:46

ID: XIBLK04

Vial: 1:1,A

Handwritten: 100% 3/6/10

Page 129 of 1049

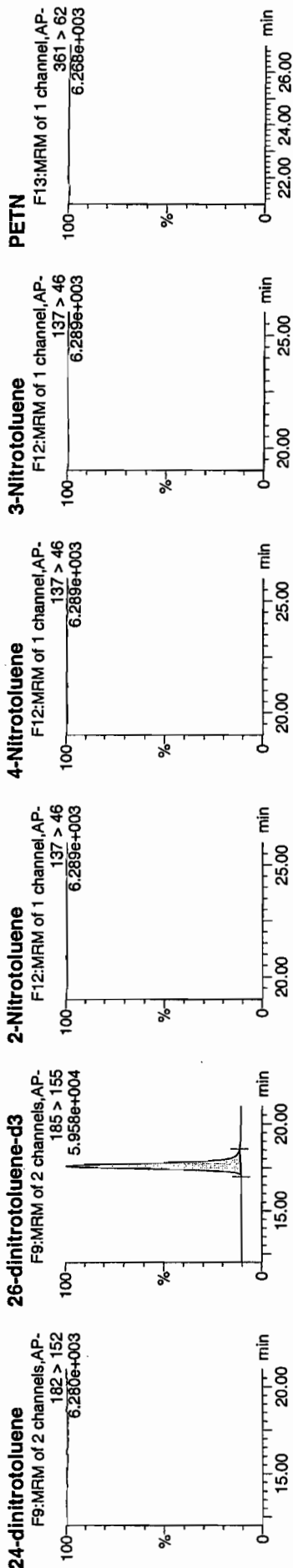


Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Mar 05 10:25:00 2010, Page 48 of 77

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010



ID	Name	Trace	RT	Area	ISArea	Abs.Resp	Mod	Time	Conc	%Dev	SN
XIBLK04	HMX	176 > 102		3664.416							
XIBLK04	RDX	176 > 102		3664.416							
XIBLK04	135-Trinitrobenzene	213 > 183		3664.416							
XIBLK04	13-Dinitrobenzene-d4	172 > 142	12.14	3664.416							
XIBLK04	13-Dinitrobenzene	168 > 138		3664.416							
XIBLK04	Tetryl	241 > 181		3664.416							
XIBLK04	Nitrobenzene	123 > 46		20931.807							
XIBLK04	4-Amino-26-dinitrotoluene	197 > 167		20931.807							
XIBLK04	2-Amino-46-dinitrotoluene	197 > 180		20931.807							
XIBLK04	246-Trinitrotoluene	227 > 210		20931.807							
XIBLK04	34-dinitrotoluene	182 > 152		20931.807							
XIBLK04	26-dinitrotoluene	182 > 152		20931.807							
XIBLK04	24-dinitrotoluene	182 > 152		20931.807							
XIBLK04	26-dinitrotoluene-d3	185 > 155	17.57	20931.807							
XIBLK04	2-Nitrotoluene	137 > 46		20931.807							
XIBLK04	4-Nitrotoluene	137 > 46		20931.807							
XIBLK04	3-Nitrotoluene	137 > 46		20931.807							
XIBLK04	PETN	361 > 62		20931.807							
						3664.416	3664.416	bb	521.7307	104.3	4.3
						20931.807	20931.807	bb	509.0276	101.8	1.8
											1779.3

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 05-MAR-10 08:58

GEL Data File: EXP0304037a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	520.666
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	533.265
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

Quantify Sample Report

SEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Mar 05 10:25:00 2010, Page 73 of 77

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304037a

Date: 05-Mar-2010

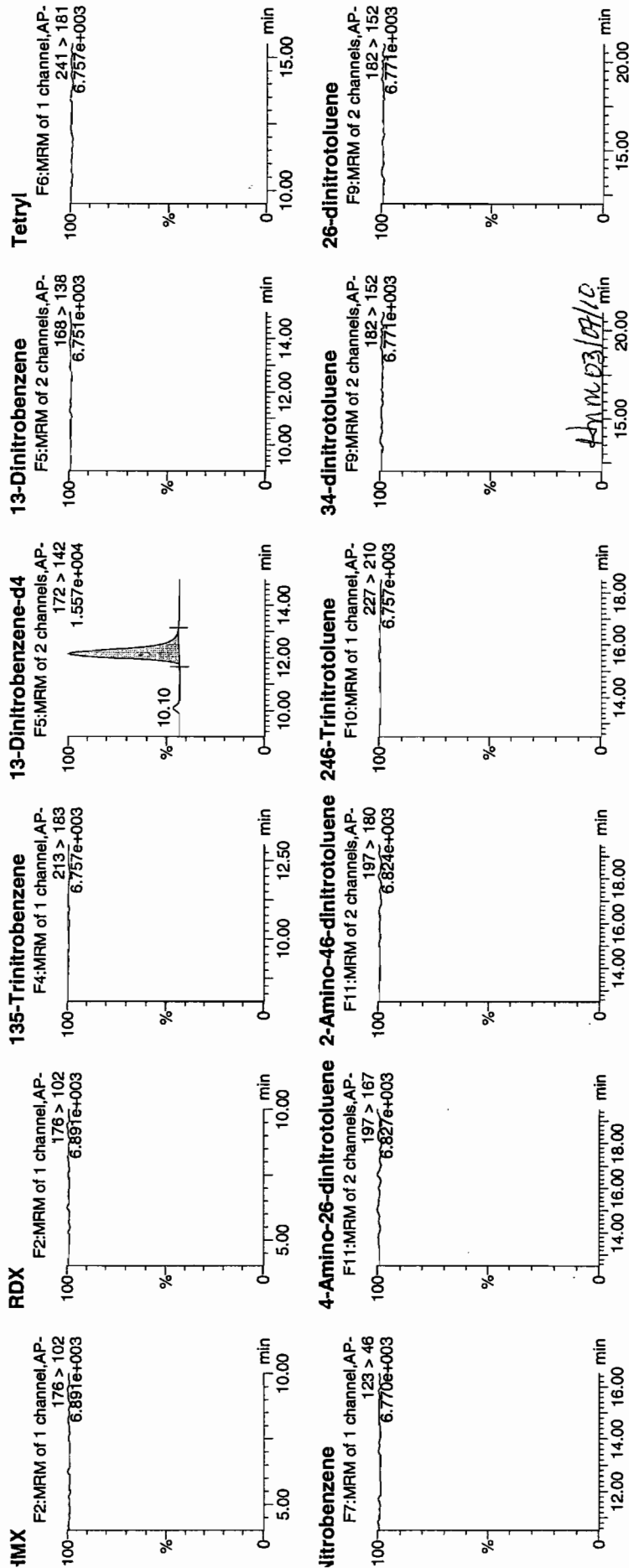
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D: XIBLK05

Ratio: 1:1,A

3/6/10

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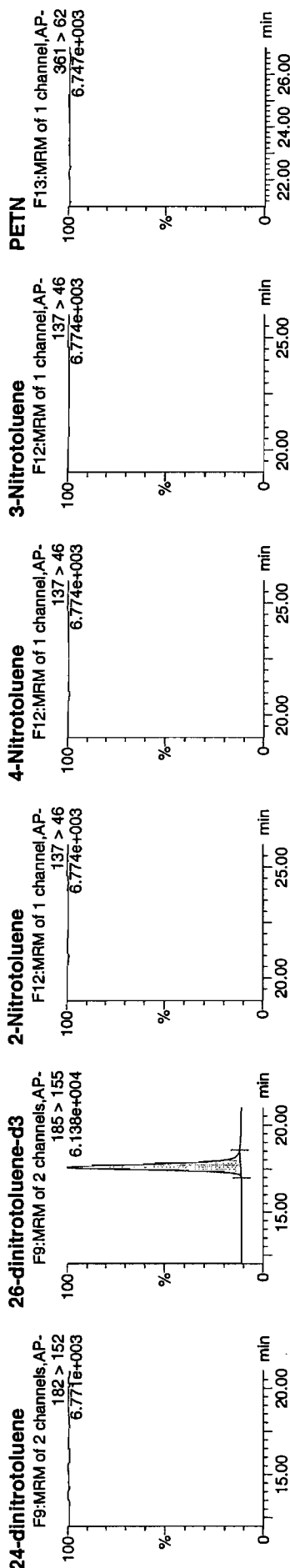


Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Mar 05 10:25:00 2010, Page 74 of 77

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010



ID	Name	Trace	Area	Area	Abs Resp	Response	Flags	Mod Data	Mod Time	mg/ml	%Rec	%Dev	S/N
XIBLK05	HMX	176 > 102		3656.936									
XIBLK05	RDX	176 > 102		3656.936									
XIBLK05	135-Trinitrobenzene	213 > 183		3656.936									
XIBLK05	13-Dinitrobenzene-d4	172 > 142	12.14	3656.936									
XIBLK05	13-Dinitrobenzene	168 > 138		3656.936									
XIBLK05	Tetryl	241 > 181		3656.936									
XIBLK05	Nitrobenzene	123 > 46		3656.936									
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167		21928.471									
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180		21928.471									
XIBLK05	246-Trinitrotoluene	227 > 210		21928.471									
XIBLK05	34-dinitrotoluene	182 > 152		21928.471									
XIBLK05	26-dinitrotoluene	182 > 152		21928.471									
XIBLK05	24-dinitrotoluene	182 > 152		21928.471									
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.60	21928.471									
XIBLK05	2-Nitrotoluene	137 > 46		21928.471									
XIBLK05	4-Nitrotoluene	137 > 46		21928.471									
XIBLK05	3-Nitrotoluene	137 > 46		21928.471									
XIBLK05	PETN	361 > 62		21928.471									
					21928.471	21928.471	bb			533.2648	106.7	6.7	2452.1
					3656.936	3656.936	bb			520.6657	104.1	4.1	660.6

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 05-MAR-10 15:21

GEL Data File: EXP0304050a

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	566.455
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	585.17
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

3EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sat Mar 06 12:20:52 2010, Page 23 of 107

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304050a

Date: 05-Mar-2010

Time: 15:21:48

ID: XIBLK06

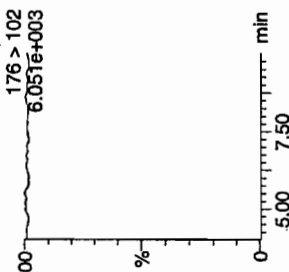
Vial: 1:1,A

100%
3/10

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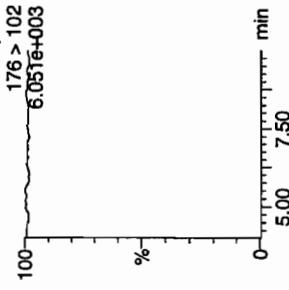
HMX

F2:MRM of 1 channel,AP-
176 > 102
6.051e+003



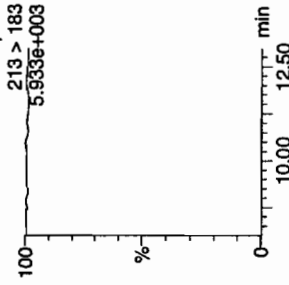
RDX

F2:MRM of 1 channel,AP-
176 > 102
6.051e+003



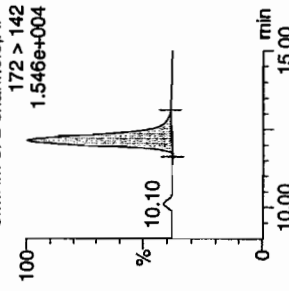
135-Trinitrobenzene

F4:MRM of 1 channel,AP-
213 > 183
5.933e+003



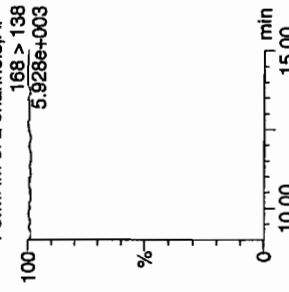
13-Dinitrobenzene-d4

F5:MRM of 2 channels,AP-
172 > 142
1.546e+004



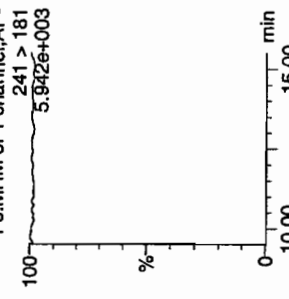
13-Dinitrobenzene

F5:MRM of 2 channels,AP-
168 > 138
5.928e+003



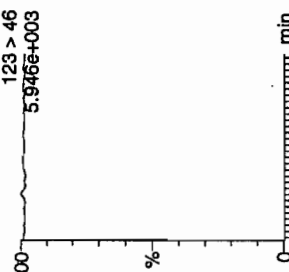
Tetryl

F6:MRM of 1 channel,AP-
241 > 181
5.942e+003



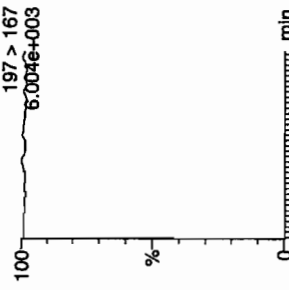
Vitrobenzene

F7:MRM of 1 channel,AP-
123 > 46
5.945e+003



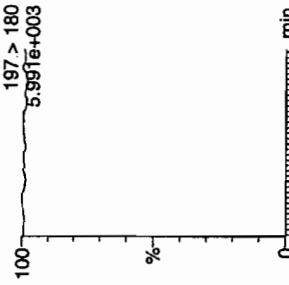
4-Amino-26-dinitrotoluene

F11:MRM of 2 channels,AP-
197 > 167
6.004e+003



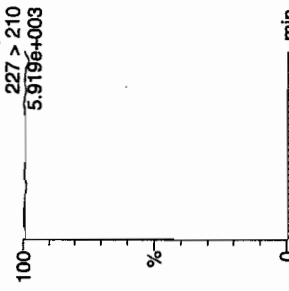
2-Amino-46-dinitrotoluene

F11:MRM of 2 channels,AP-
197 > 180
5.991e+003



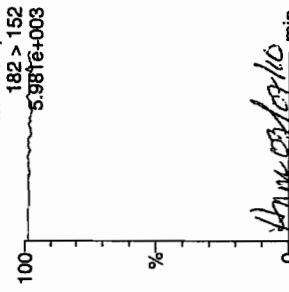
246-Trinitrotoluene

F10:MRM of 1 channel,AP-
227 > 210
5.919e+003



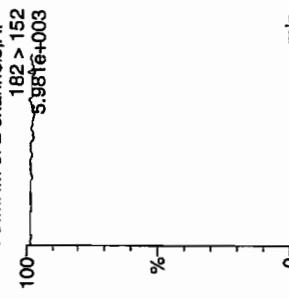
34-dinitrotoluene

F9:MRM of 2 channels,AP-
182 > 152
5.981e+003



26-dinitrotoluene

F9:MRM of 2 channels,AP-
182 > 152
5.981e+003

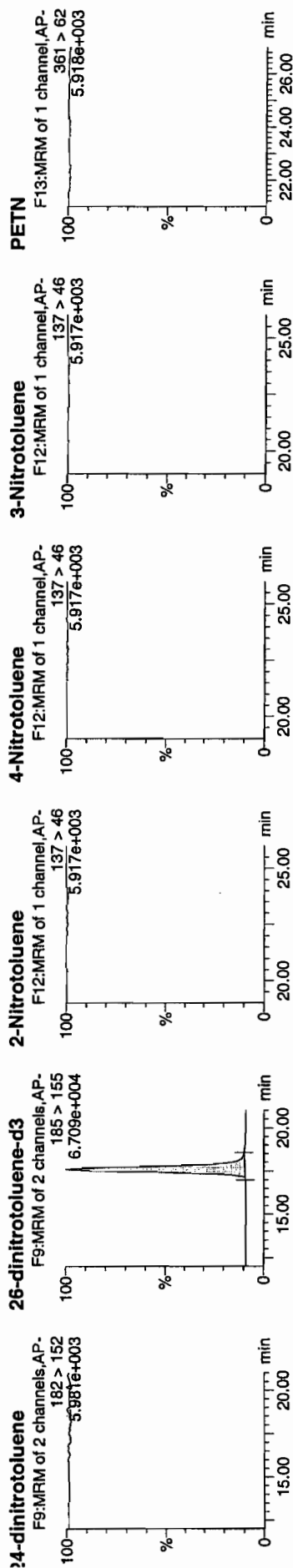


Quantify Sample Report

3EL Laboratories, LLC / Analyst : Michael A. Penny

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010



Library Name	Trace RT	Area	IS Area	Abst Resp	Response	Flags	Mod	Time	%Rec	%Dev	S/N
24-dinitrotoluene	176 > 102	3978.542	3978.542								
26-dinitrotoluene-d3	176 > 102	3978.542	3978.542								
2-Nitrotoluene	213 > 183	3978.542	3978.542								
4-Nitrotoluene	172 > 142	12.13	3978.542								
3-Nitrotoluene	168 > 138		3978.542								
PETN	241 > 181		3978.542								
	123 > 46		3978.542								
	197 > 167		24062.877								
	197 > 180		24062.877								
	227 > 210		24062.877								
	182 > 152		24062.877								
	182 > 152		24062.877								
	182 > 152		24062.877								
	185 > 155	17.59	24062.877								
	137 > 46		24062.877								
	137 > 46		24062.877								
	137 > 46		24062.877								
	361 > 62		24062.877								

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 05-MAR-10 17:19

GEL Data File: EXP0304054a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	550.421
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	589.463
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

Quantify Sample Report

3EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sat Mar 06 12:20:52 2010, Page 31 of 107

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304054a

Date: 05-Mar-2010

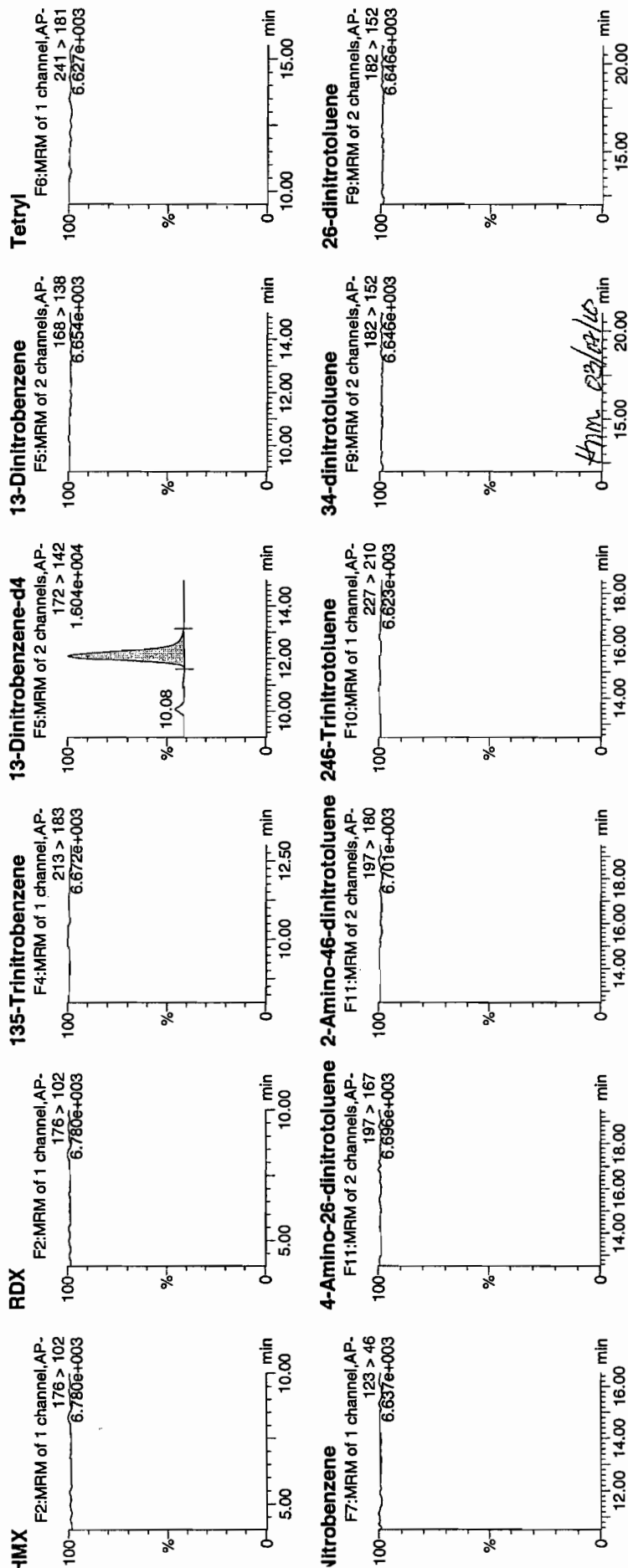
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D: XIBLK07

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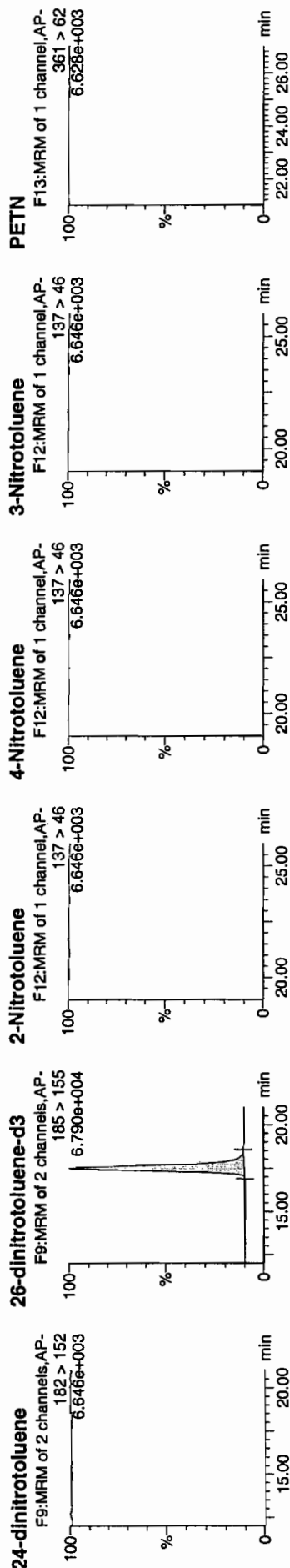
10/11
3/16/10

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3EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

Dataset: C:\MASSLYNX\New_Exp\PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010



ID	Name	Trace	RT	Area	IS:Area	Abs:Resp	Response	Flags	Mod:Time	%Rec	%Dev	S/N
XIBLK07	HMX	176 > 102		3865.926								
XIBLK07	RDX	176 > 102		3865.926								
XIBLK07	135-Trinitrobenzene	213 > 183		3865.926								
XIBLK07	13-Dinitrobenzene-d4	172 > 142	12.10	3865.926		3865.926	3865.926	bb	550.4212	110.1	10.1	286.5
XIBLK07	13-Dinitrobenzene	168 > 138		3865.926								
XIBLK07	Tetryl	241 > 181		3865.926								
XIBLK07	Nitrobenzene	123 > 46		3865.926								
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167		24239.424								
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180		24239.424								
XIBLK07	246-Trinitrotoluene	227 > 210		24239.424								
XIBLK07	34-dinitrotoluene	182 > 152		24239.424								
XIBLK07	26-dinitrotoluene	182 > 152		24239.424								
XIBLK07	24-dinitrotoluene	182 > 152		24239.424								
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.49	24239.424		24239.424	24239.424	bb	589.4634	117.9	17.9	2856.4
XIBLK07	2-Nitrotoluene	137 > 46		24239.424								
XIBLK07	4-Nitrotoluene	137 > 46		24239.424								
XIBLK07	3-Nitrotoluene	137 > 46		24239.424								
XIBLK07	PETN	361 > 62		24239.424								

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 05-MAR-10 22:44

GEL Data File: EXP0304065a

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	526.538
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	517.577
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304065a

Date: 05-Mar-2010

Time: 22:44:30

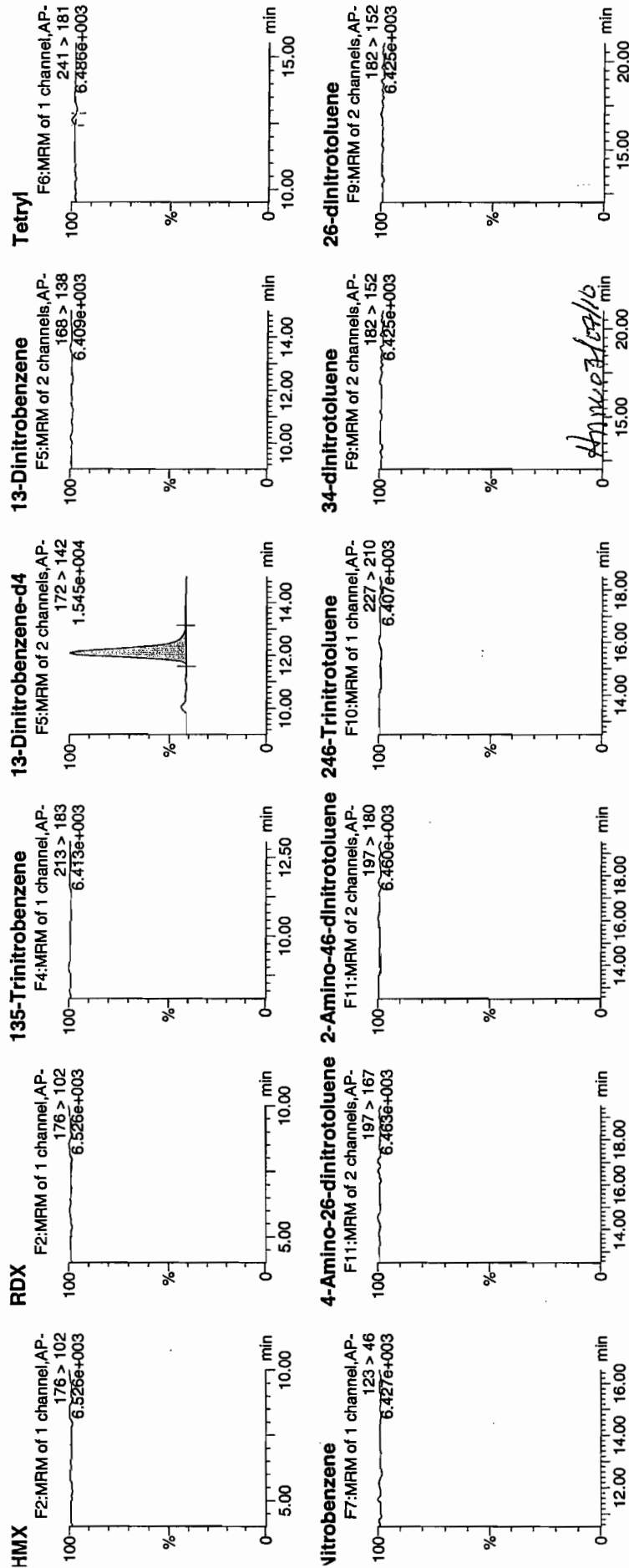
ID: XIBLK08

Vial: 1:1,A

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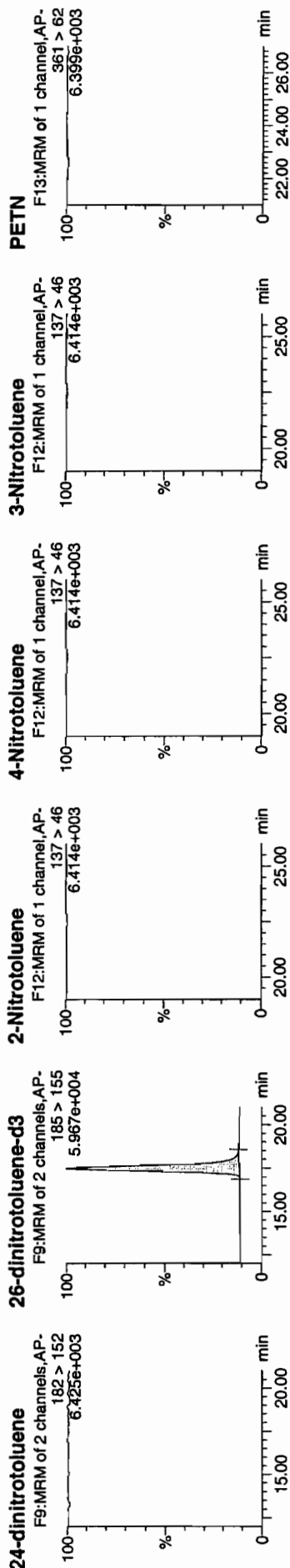
IEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sat Mar 06 12:20:52 2010, Page 54 of 107

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Rec	%Dev	S/N
XIBLK08	HMx	176 > 102			3698.178								
XIBLK08	RDX	176 > 102			3698.178								
XIBLK08	135-Trinitrobenzene	213 > 183			3698.178								
XIBLK08	13-Dinitrobenzene-d4	172 > 142	12.07	3698.178		3698.178	3698.178	bb	MM-	06-Mar-10	12:07:04	105.3	528.8
XIBLK08	13-Dinitrobenzene	168 > 138			3698.178								
XIBLK08	Tetryl	241 > 181			3698.178								
XIBLK08	Nitrobenzene	123 > 46			21283.357								
XIBLK08	4-Amino-26-dinitrotoluene	197 > 167			21283.357								
XIBLK08	2-Amino-46-dinitrotoluene	197 > 180			21283.357								
XIBLK08	246-Trinitrotoluene	227 > 210			21283.357								
XIBLK08	34-dinitrotoluene	182 > 152			21283.357								
XIBLK08	26-dinitrotoluene	182 > 152			21283.357								
XIBLK08	24-dinitrotoluene	182 > 152			21283.357								
XIBLK08	26-dinitrotoluene-d3	185 > 155	17.49	21283.357		21283.357	21283.357	bb				517.5767	1698.2
XIBLK08	2-Nitrotoluene	137 > 46			21283.357							103.5	3.5
XIBLK08	4-Nitrotoluene	137 > 46			21283.357								
XIBLK08	3-Nitrotoluene	137 > 46			21283.357								
XIBLK08	PETN	361 > 62			21283.357								

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 06-MAR-10 04:38

GEL Data File: EXP0304077a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
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	566.283
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	540.156
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

Quantify Sample Report
 3EL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304077a

Date: 06-Mar-2010

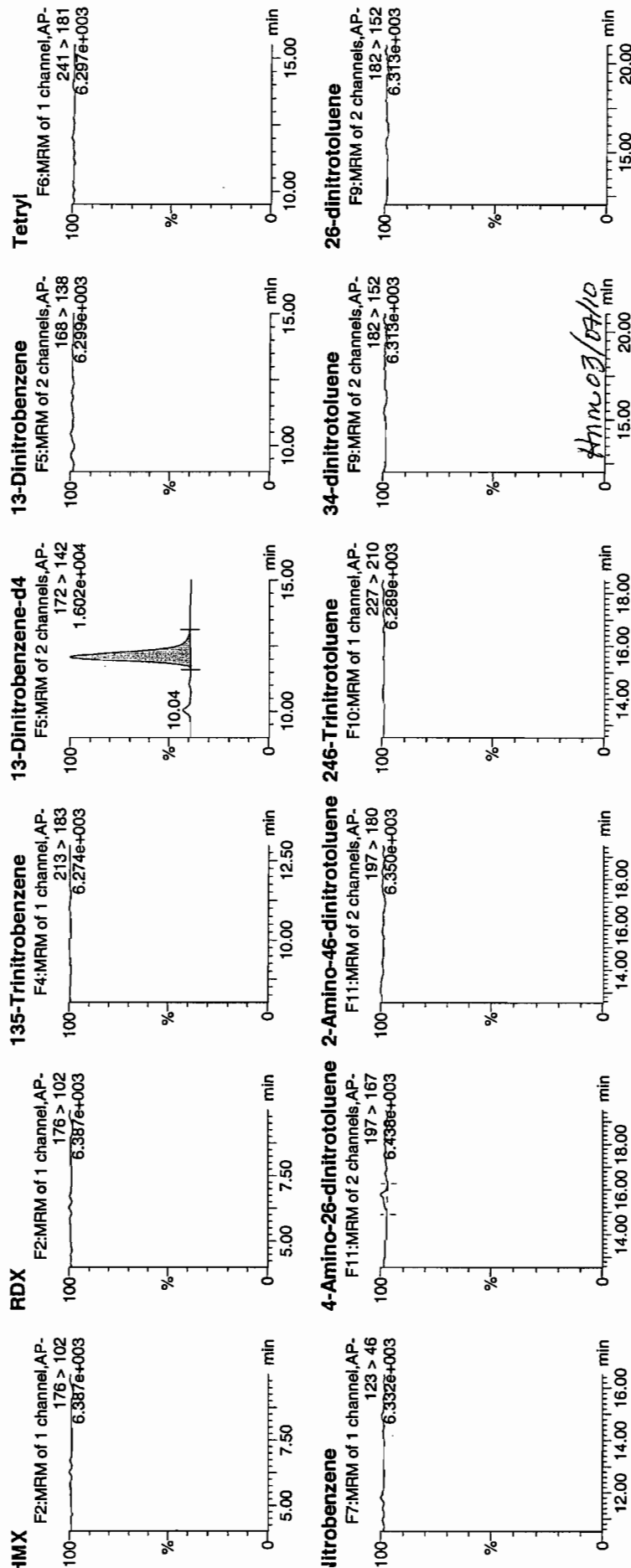
Time: 04:38:34

D: XIBLK09

/at: 1:1,A

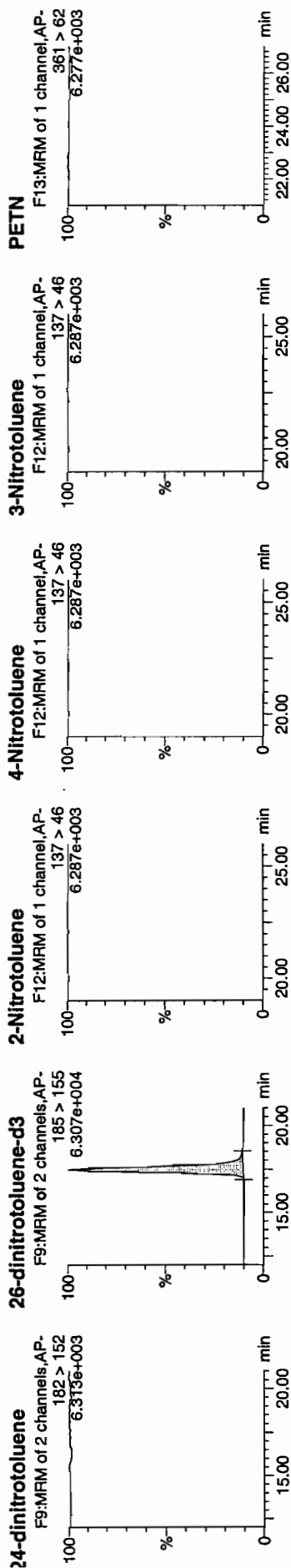
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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

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ID	Name	Trace	RT	Area	S Area	Abs. Resp	Response	Flags	Mod Date	Mod Time	Conc/mg	%Rec	%Dev	Pass/Fail
XIBLK09	HMX	176 > 102			3977.332									
XIBLK09	RDX	176 > 102			3977.332									
XIBLK09	135-Trinitrobenzene	213 > 183			3977.332									
XIBLK09	13-Dinitrobenzene-d4	172 > 142	12.06	3977.332		3977.332	3977.332	bb			566.2829	113.3	13.3	313.5
XIBLK09	13-Dinitrobenzene	168 > 138			3977.332									
XIBLK09	Tetryl	241 > 181			3977.332									
XIBLK09	Nitrobenzene	123 > 46			3977.332									
XIBLK09	4-Amino-26-dinitrotoluene	197 > 167			22211.859									
XIBLK09	2-Amino-46-dinitrotoluene	197 > 180			22211.859				MM-	06-Mar-10	12:09:02			
XIBLK09	246-Trinitrotoluene	227 > 210			22211.859									
XIBLK09	34-dinitrotoluene	182 > 152			22211.859									
XIBLK09	26-dinitrotoluene	182 > 152			22211.859									
XIBLK09	24-dinitrotoluene	182 > 152			22211.859									
XIBLK09	26-dinitrotoluene-d3	185 > 155	17.48	22211.859		22211.859	22211.859	bb			540.1563	108.0	8.0	2088.0
XIBLK09	2-Nitrotoluene	137 > 46			22211.859									
XIBLK09	4-Nitrotoluene	137 > 46			22211.859									
XIBLK09	3-Nitrotoluene	137 > 46			22211.859									
XIBLK09	PETN	361 > 62			22211.859									

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 06-MAR-10 07:35

GEL Data File: EXP0304083a

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	560.254
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	557.283
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304083a

Date: 06-Mar-2010

Time: 07:35:40

ID: XIBLK10

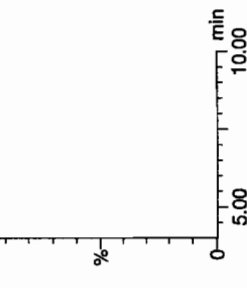
Vial: 1:1,A

WAT
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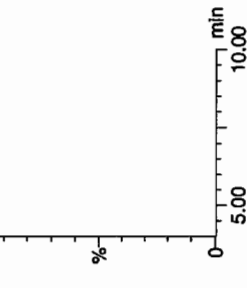
HMX

F2:MRM of 1 channel,AP-
176 > 102
6.356e+003



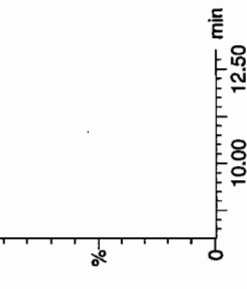
RDX

F2:MRM of 1 channel,AP-
176 > 102
6.356e+003



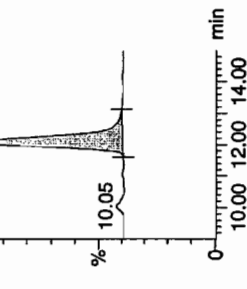
135-Trinitrobenzene

F4:MRM of 1 channel,AP-
213 > 183
6.306e+003



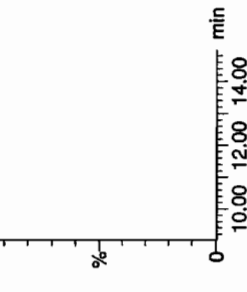
13-Dinitrobenzene-d4

F5:MRM of 2 channels,AP-
172 > 142
1.602e+004



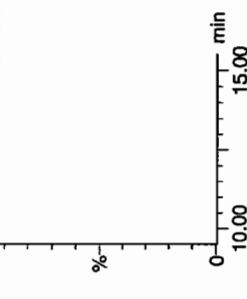
13-Dinitrobenzene

F5:MRM of 2 channels,AP-
168 > 138
6.328e+003



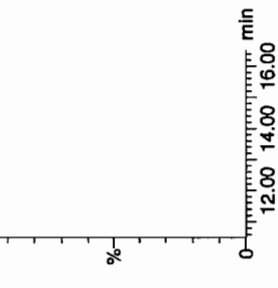
Tetryl

F6:MRM of 1 channel,AP-
241 > 181
6.312e+003



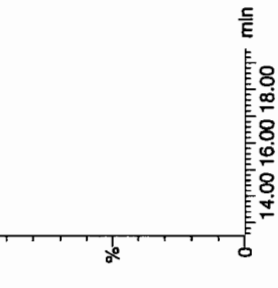
Nitrobenzene

F7:MRM of 1 channel,AP-
123 > 46
6.330e+003



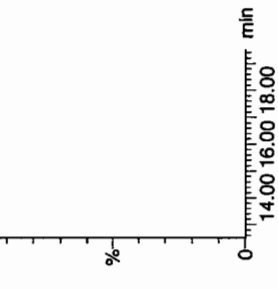
4-Amino-26-dinitrotoluene

F11:MRM of 2 channels,AP-
197 > 167
6.333e+003



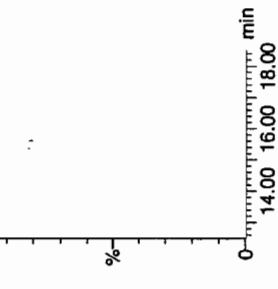
2-Amino-46-dinitrotoluene

F11:MRM of 2 channels,AP-
197 > 180
6.330e+003



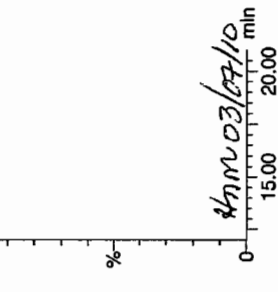
246-Trinitrotoluene

F10:MRM of 1 channel,AP-
227 > 210
6.320e+003



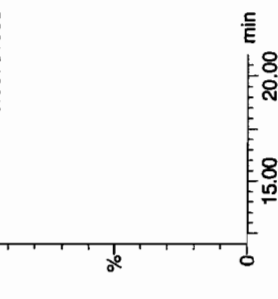
34-dinitrotoluene

F9:MRM of 2 channels,AP-
182 > 152
6.387e+003

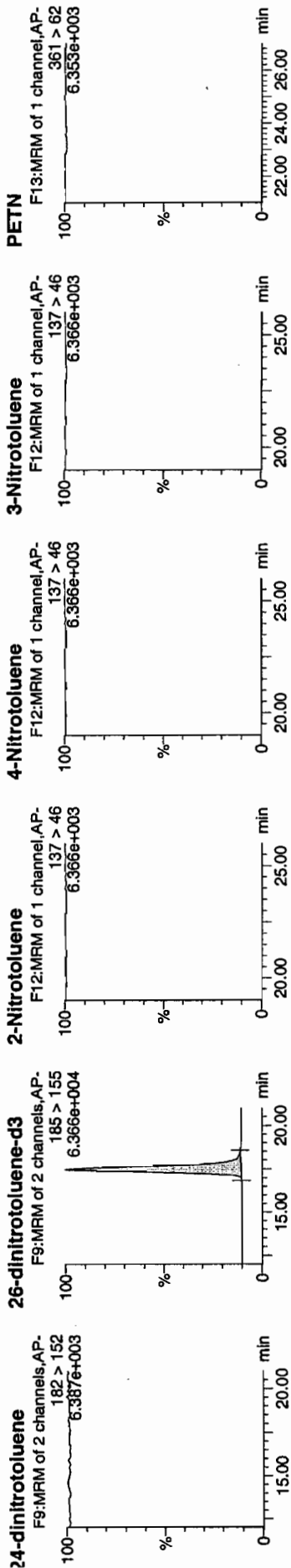


26-dinitrotoluene

F9:MRM of 2 channels,AP-
182 > 152
6.387e+003



Dataset: C:\MASSLYNX\New_Exp_PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010



ID	Name	Trace	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	% Rec	% Dev	SN
XIBLK10	HMX	176 > 102		3934.990								
XIBLK10	RDX	176 > 102		3934.990								
XIBLK10	135-Trinitrobenzene	213 > 183		3934.990								
XIBLK10	13-Dinitrobenzene-d4	172 > 142	12.07	3934.990								
XIBLK10	13-Dinitrobenzene	168 > 138		3934.990								
XIBLK10	Tetryl	241 > 181		3934.990								
XIBLK10	Nitrobenzene	123 > 46		3934.990								
XIBLK10	4-Amino-26-dinitrotoluene	197 > 167		22916.141								
XIBLK10	2-Amino-46-dinitrotoluene	197 > 180		22916.141								
XIBLK10	246-Trinitrotoluene	227 > 210		22916.141								
XIBLK10	34-dinitrotoluene	182 > 152		22916.141								
XIBLK10	26-dinitrotoluene	182 > 152		22916.141								
XIBLK10	24-dinitrotoluene	182 > 152		22916.141								
XIBLK10	26-dinitrotoluene-d3	185 > 155	17.49	22916.141								
XIBLK10	2-Nitrotoluene	137 > 46		22916.141								
XIBLK10	4-Nitrotoluene	137 > 46		22916.141								
XIBLK10	3-Nitrotoluene	137 > 46		22916.141								
XIBLK10	PETN	361 > 62		22916.141								
					22916.141	22916.141	bb			557.2833	111.5	11.5 1454.1
					3934.990	3934.990	bb			560.2544	112.1	12.1 500.1

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 06-MAR-10 11:02

GEL Data File: EXP0304090a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
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	529.903
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	527.941
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

Sample Name: C:\MASSLYNX\NEW_EXP\PRO\data\EXP0304090a

Plate: 06-Mar-2010

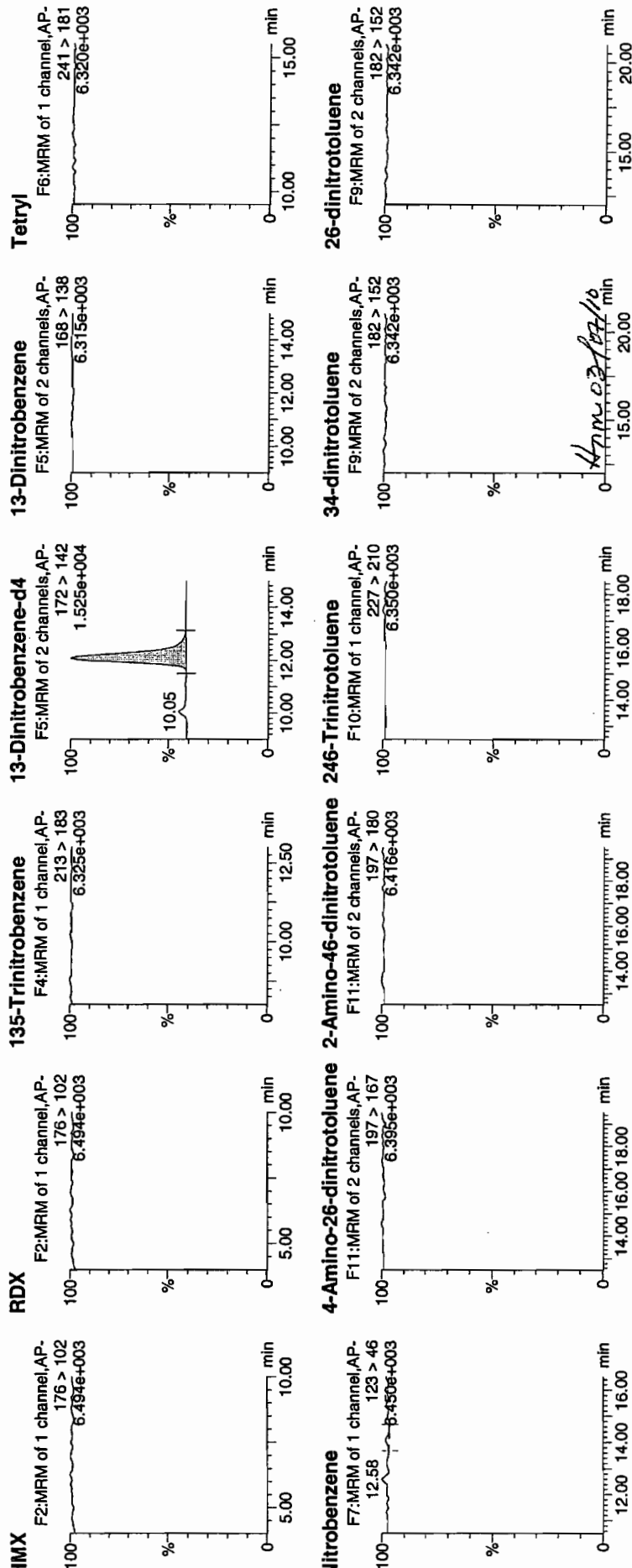
Time: 11:02:17

Job: XIBLK11

Label: 1:1,A

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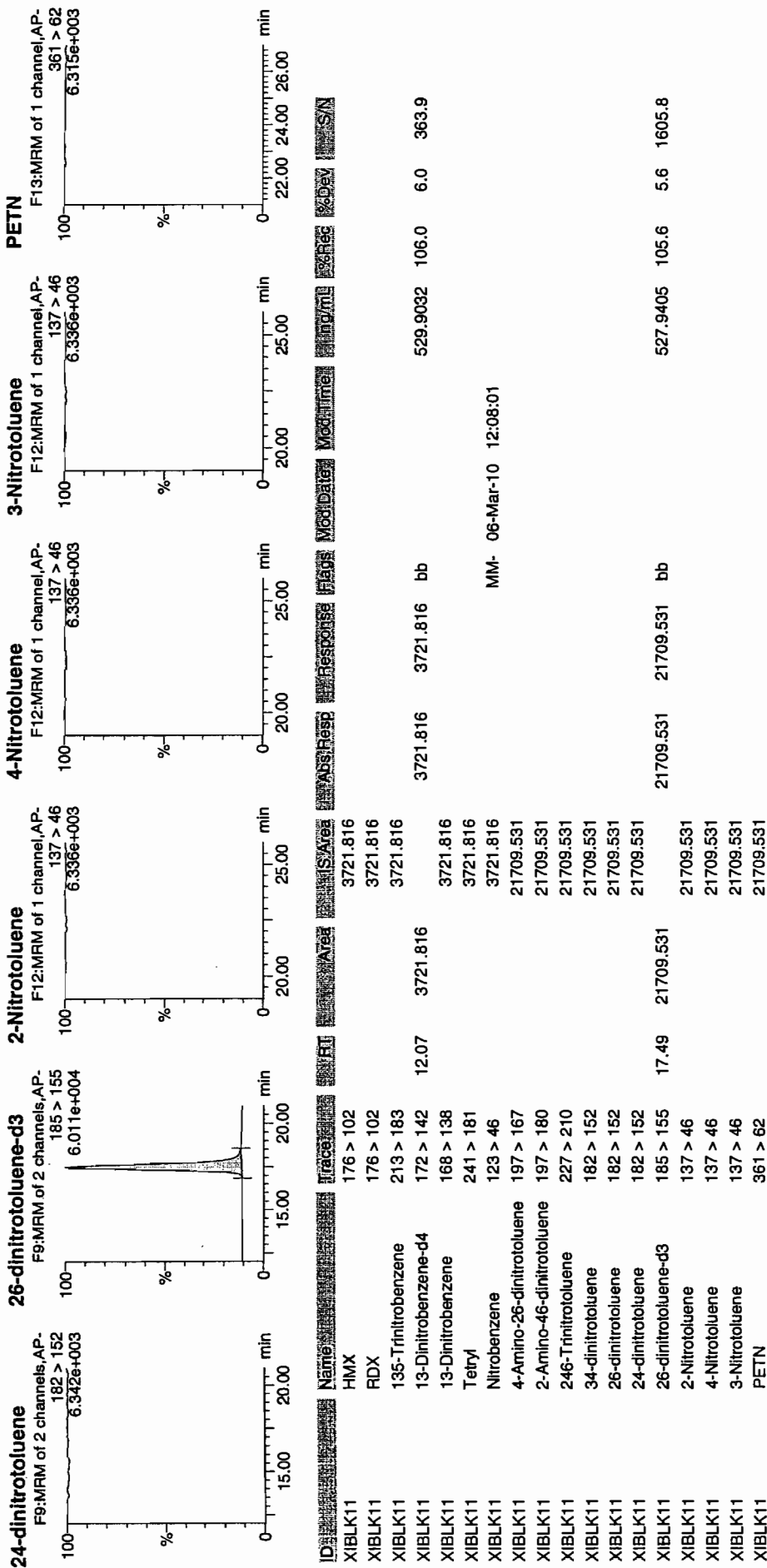


Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sat Mar 06 12:20:52 2010, Page 104 of 107

Dataset: C:\MASSLYNX\New_Exp_PROV030410expA1.qld, Time: Sat Mar 06 12:19:13 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 06-MAR-10 16:56

GEL Data File: EXP0304102a

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	576.214
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	562.132
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\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304102a

Date: 06-Mar-2010

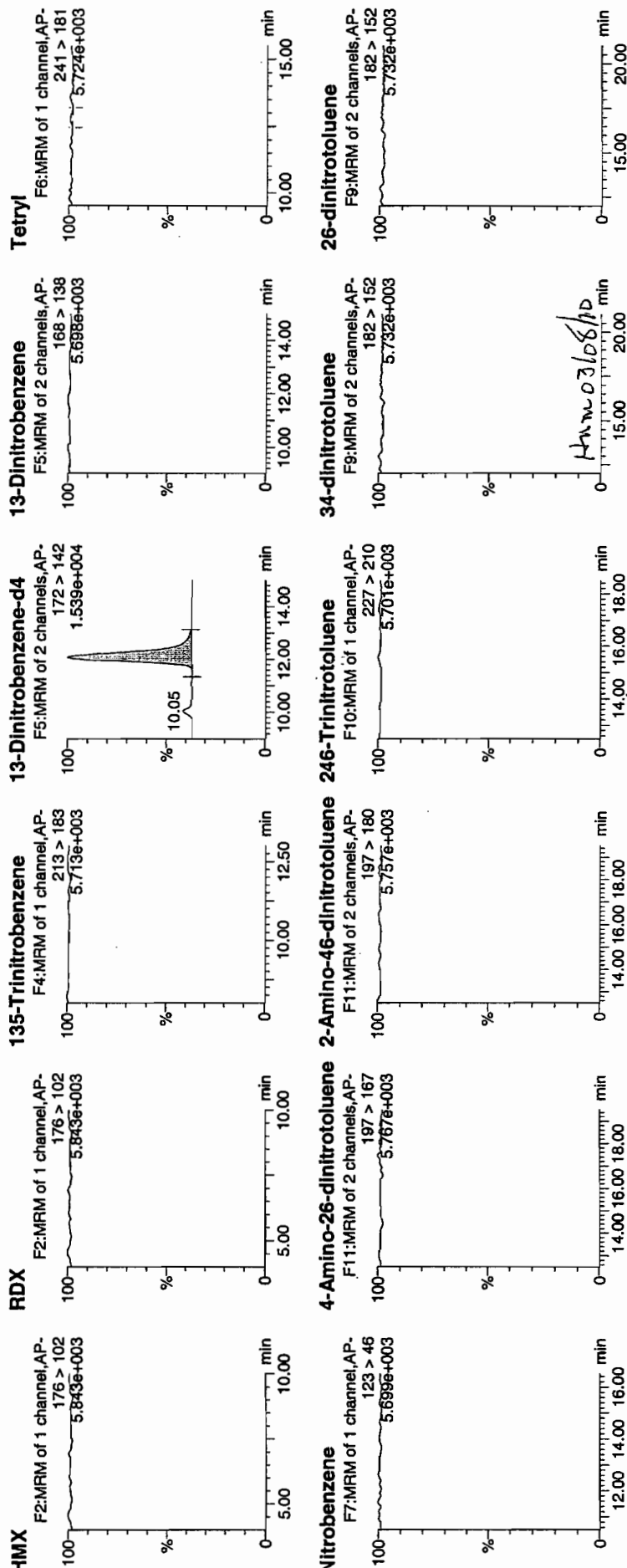
Time: 16:56:16

D: XIBLK12

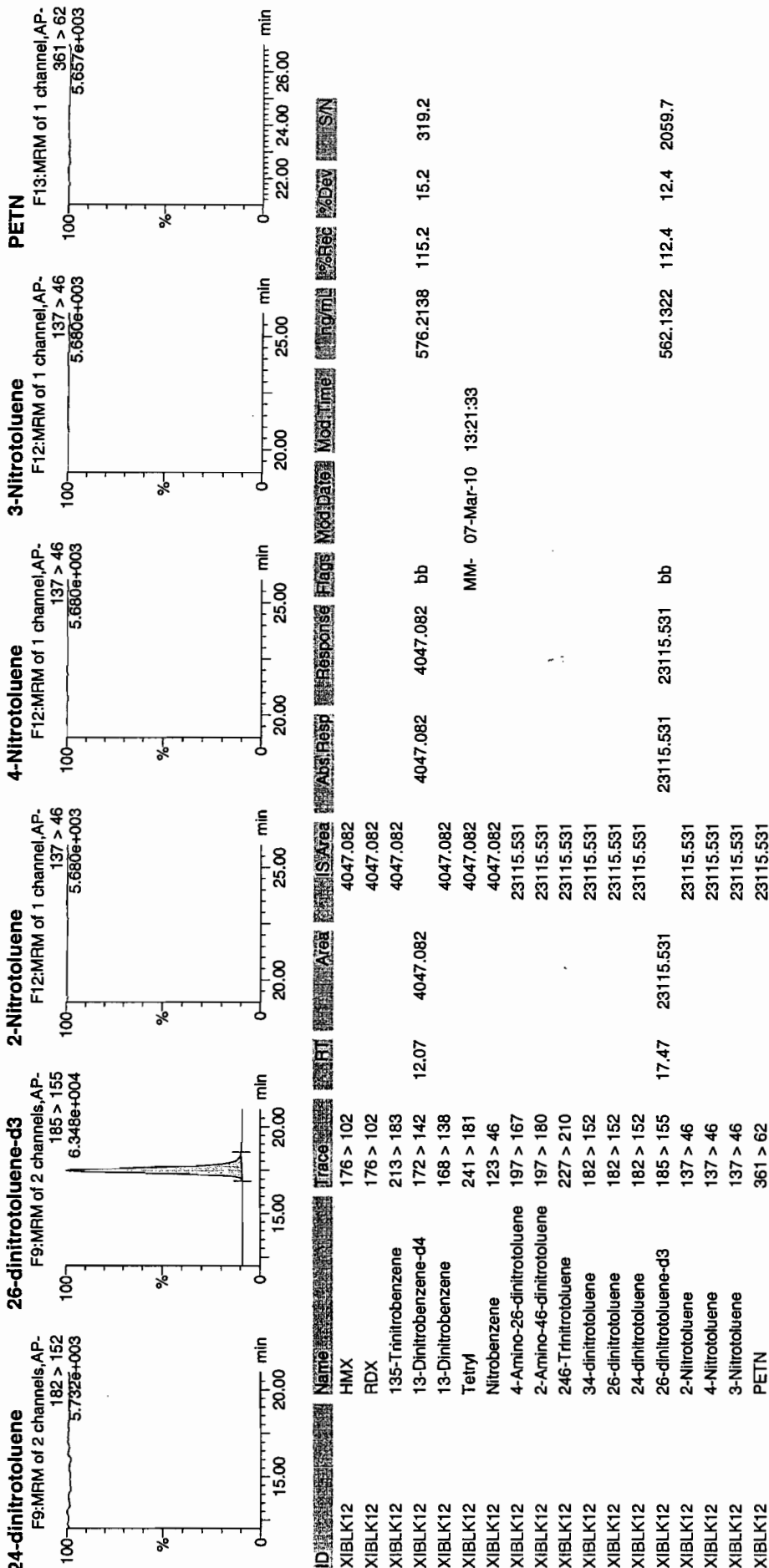
/Ial: 1:1,A

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MM 3/10/10



Dataset: C:\MASSLYNX\New_Exp\PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 06-MAR-10 22:50

GEL Data File: EXP0304114a

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	537.14
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	529.515
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report

IEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sun Mar 07 13:34:18 2010, Page 45 of 101

Dataset: C:\MASSLYNX\New_Exp_PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Sample Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0304114a

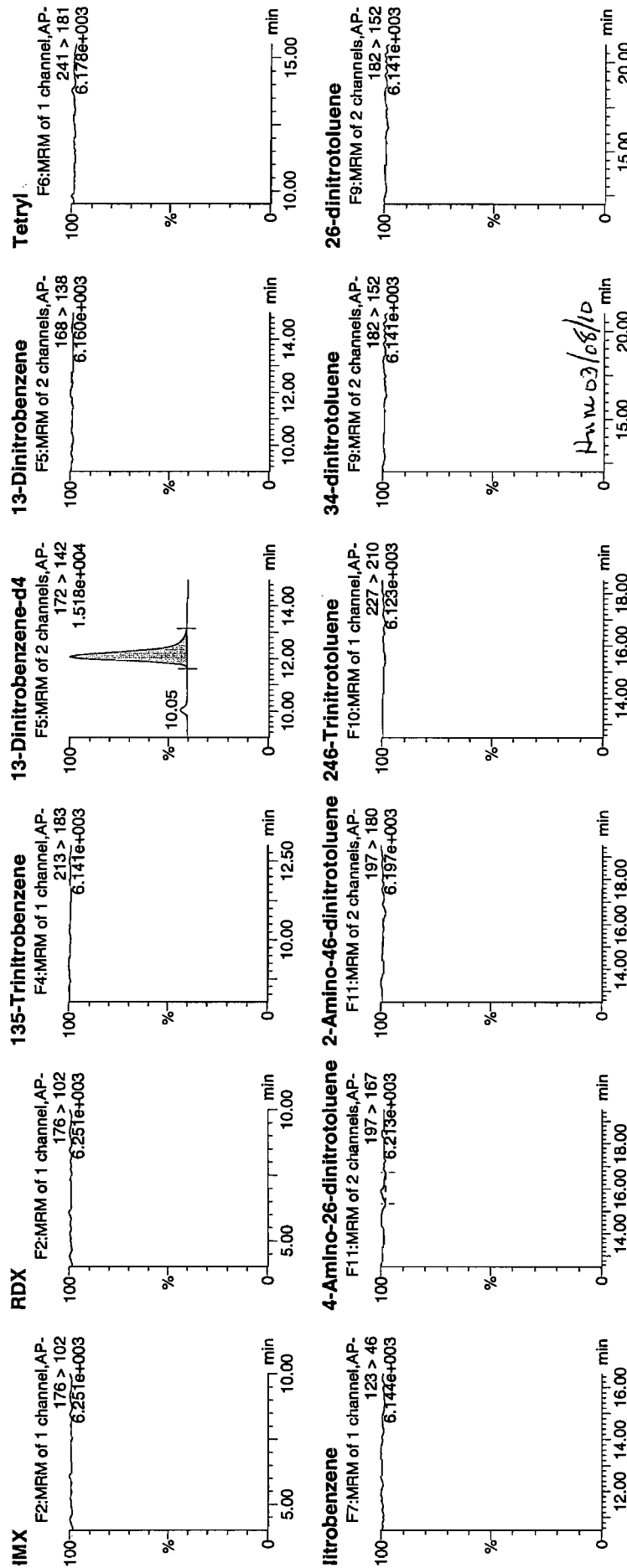
Date: 06-Mar-2010

Time: 22:50:11

File: D:\XIBLK13

Ratio: 1:1,A

3/11/10

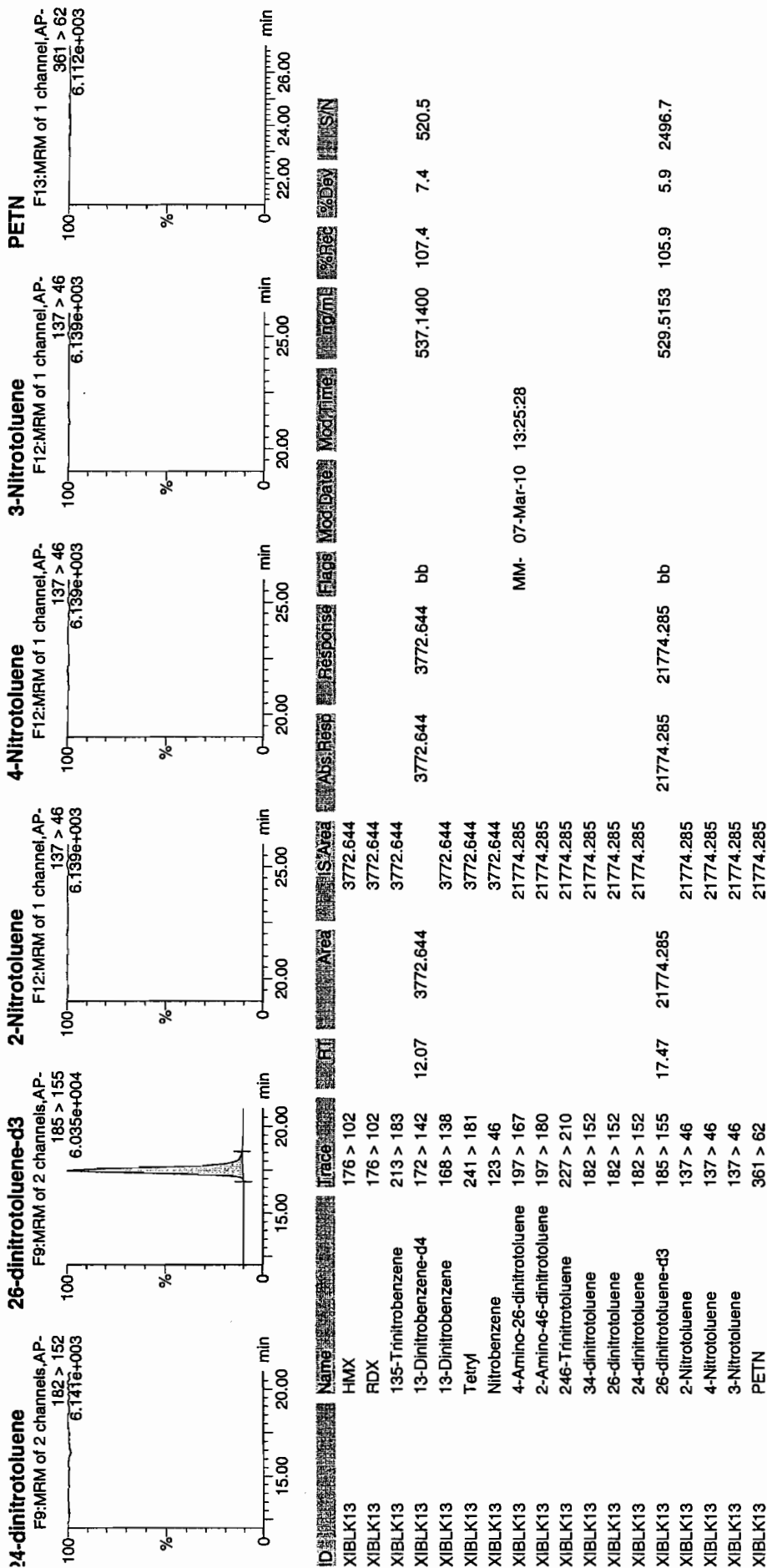


Quantify Sample Report

3EL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sun Mar 07 13:34:18 2010, Page 46 of 101

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 26-FEB-10 17:15

GEL Data File: EXS02260010.wiff

Instrument ID: LCMSMS

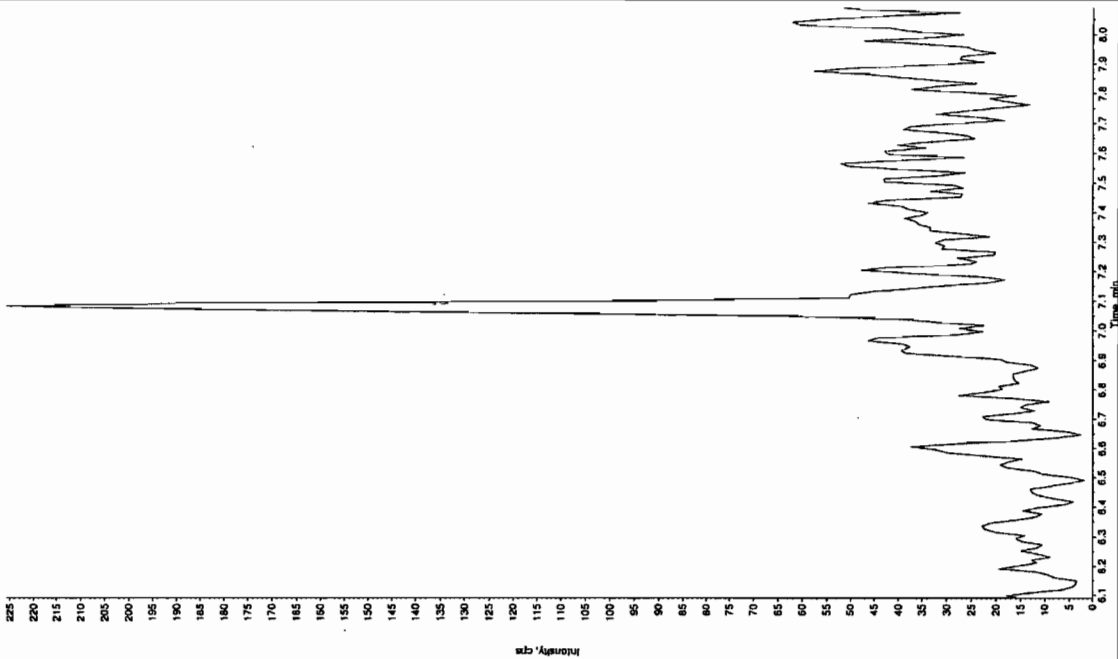
Column: Phenomenex Ultracarb 5u ODS(20)

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

See 3/1/10

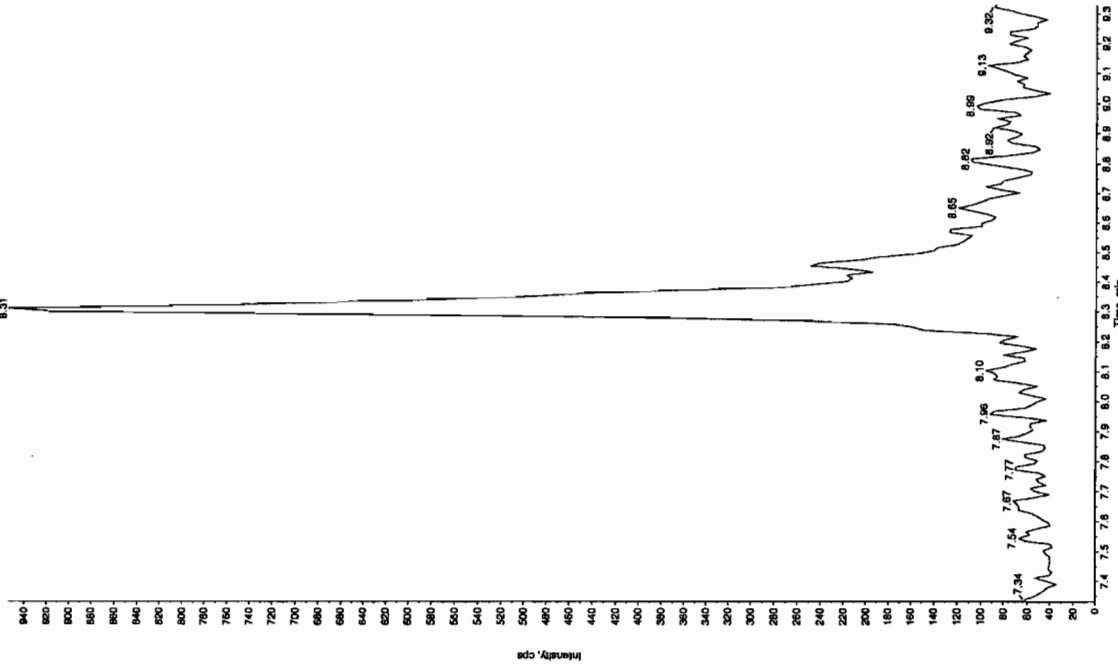
Sample Name: "XIBL K02" Sample ID: "1111ER" File: "EXS02260010.wiff"
 Peak Name: "TATB" Mass(es): "267.2204.9 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/26/2010
 Acq. Time: 5:15:22 PM
 Modified: No



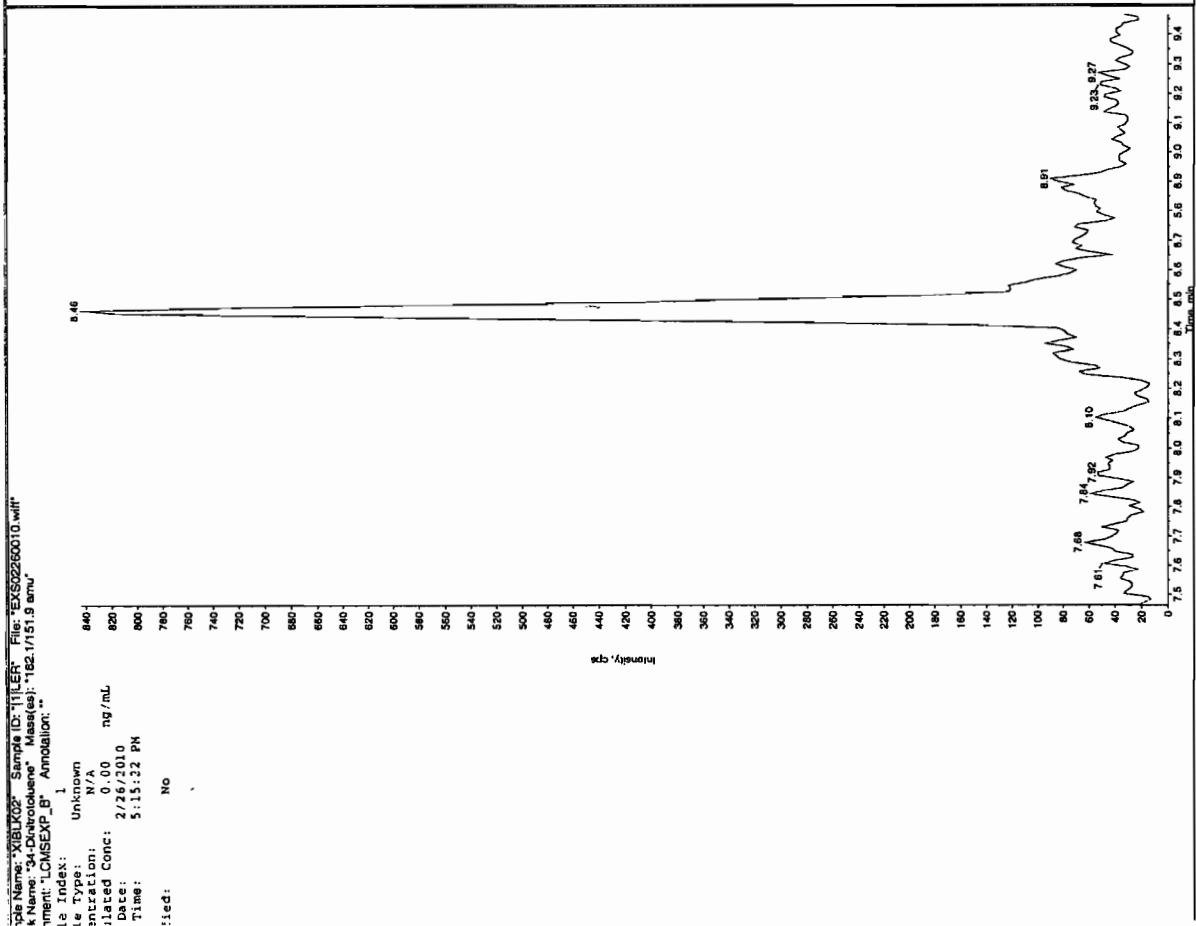
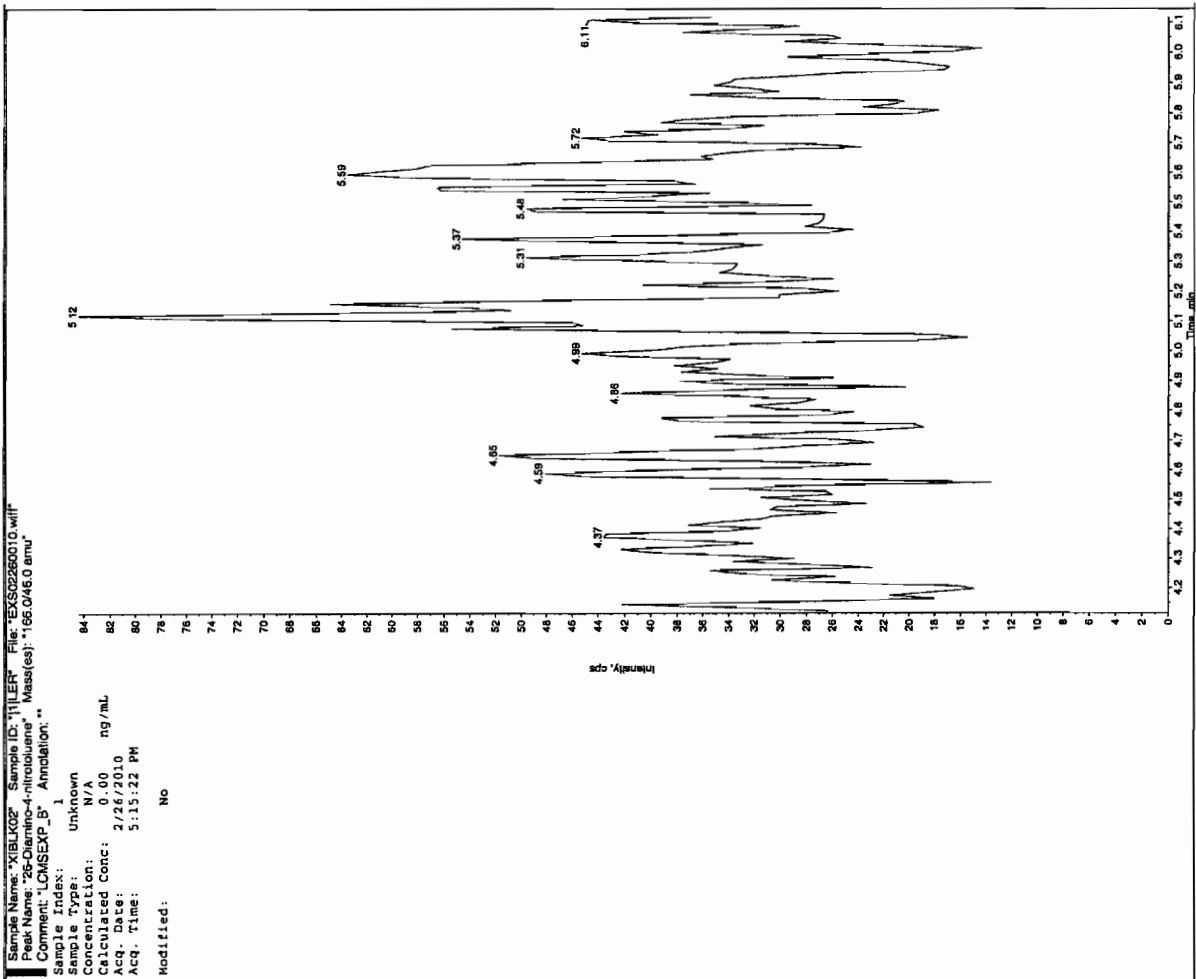
Sample Name: "XIBL K02" Sample ID: "1111ER" File: "EXS02260010.wiff"
 Peak Name: "35-Ornithine" Mass(es): "182.046.0 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/26/2010
 Acq. Time: 5:15:22 PM
 Modified: No

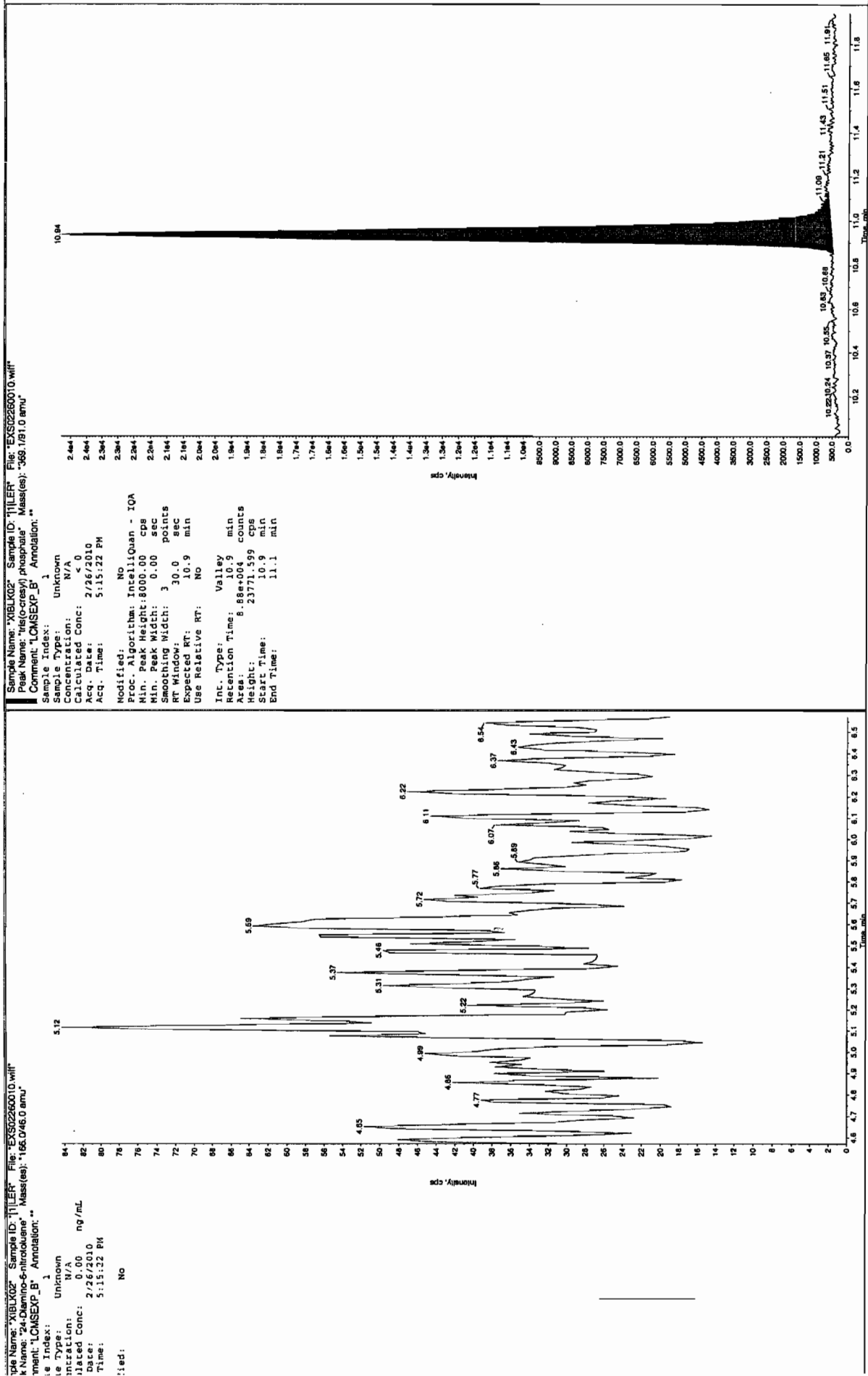


Run 03/01/10

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



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



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

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 26-FEB-10 17:46

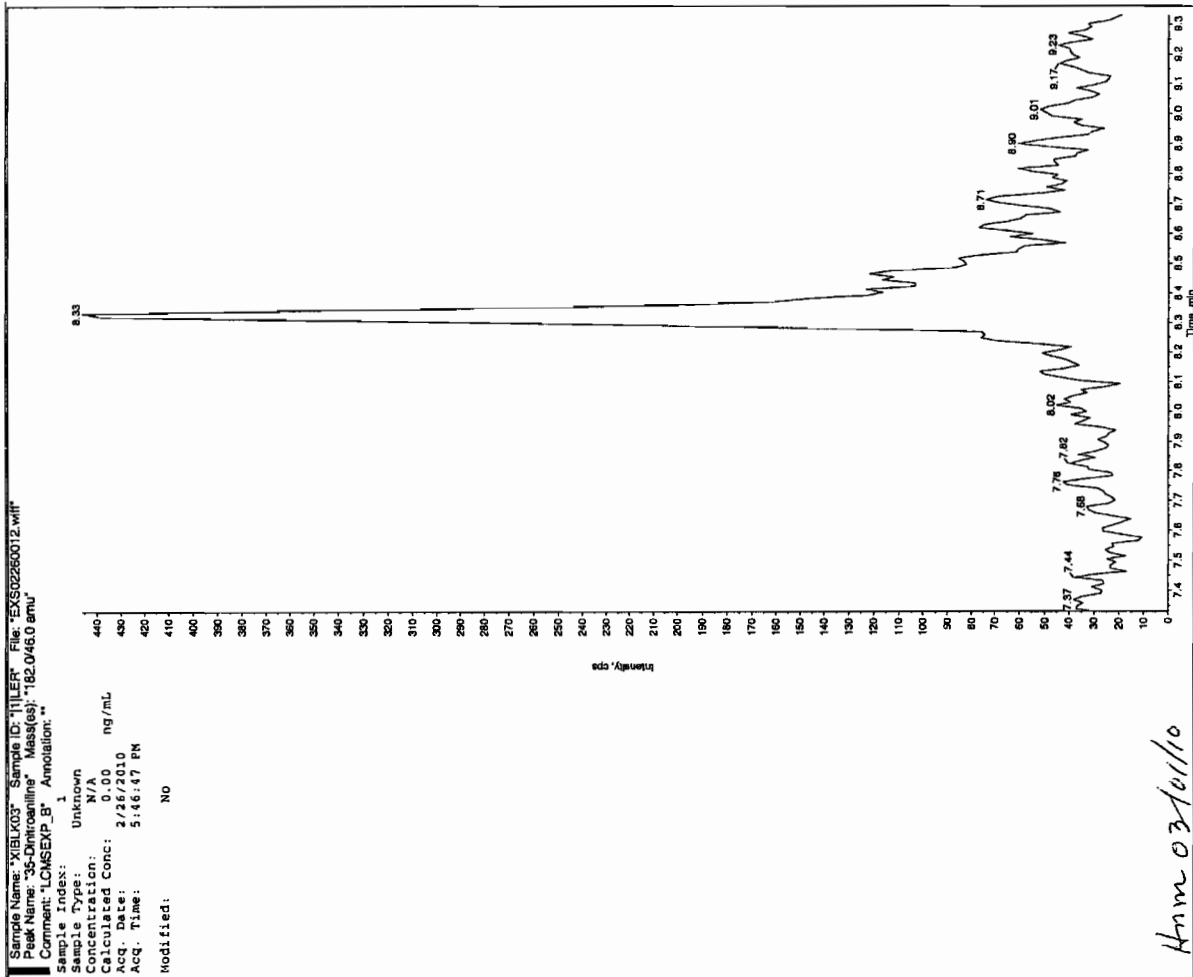
GEL Data File: EXS02260012.wiff

Instrument ID: LCMSMS

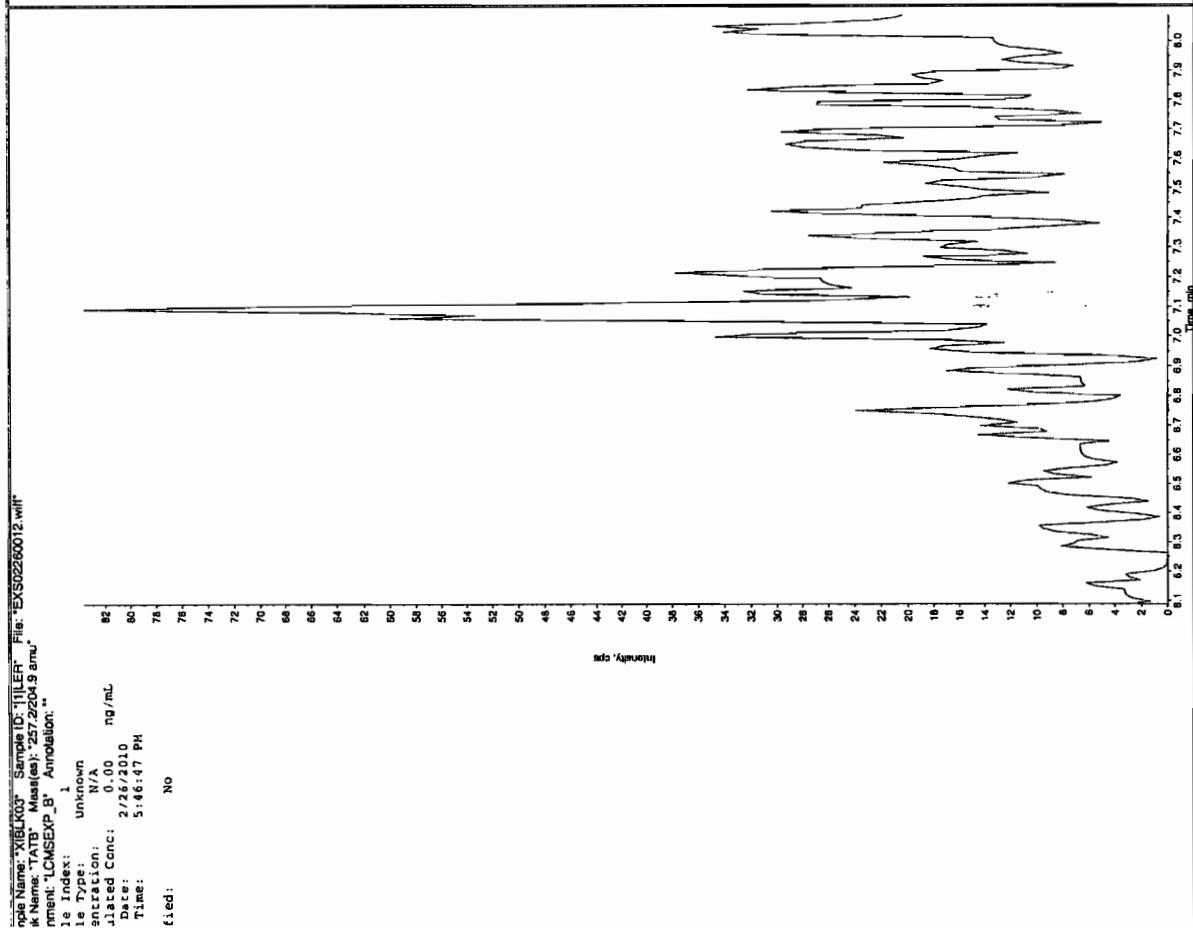
Column: Phenomenex Ultracarb 5u ODS(20)

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

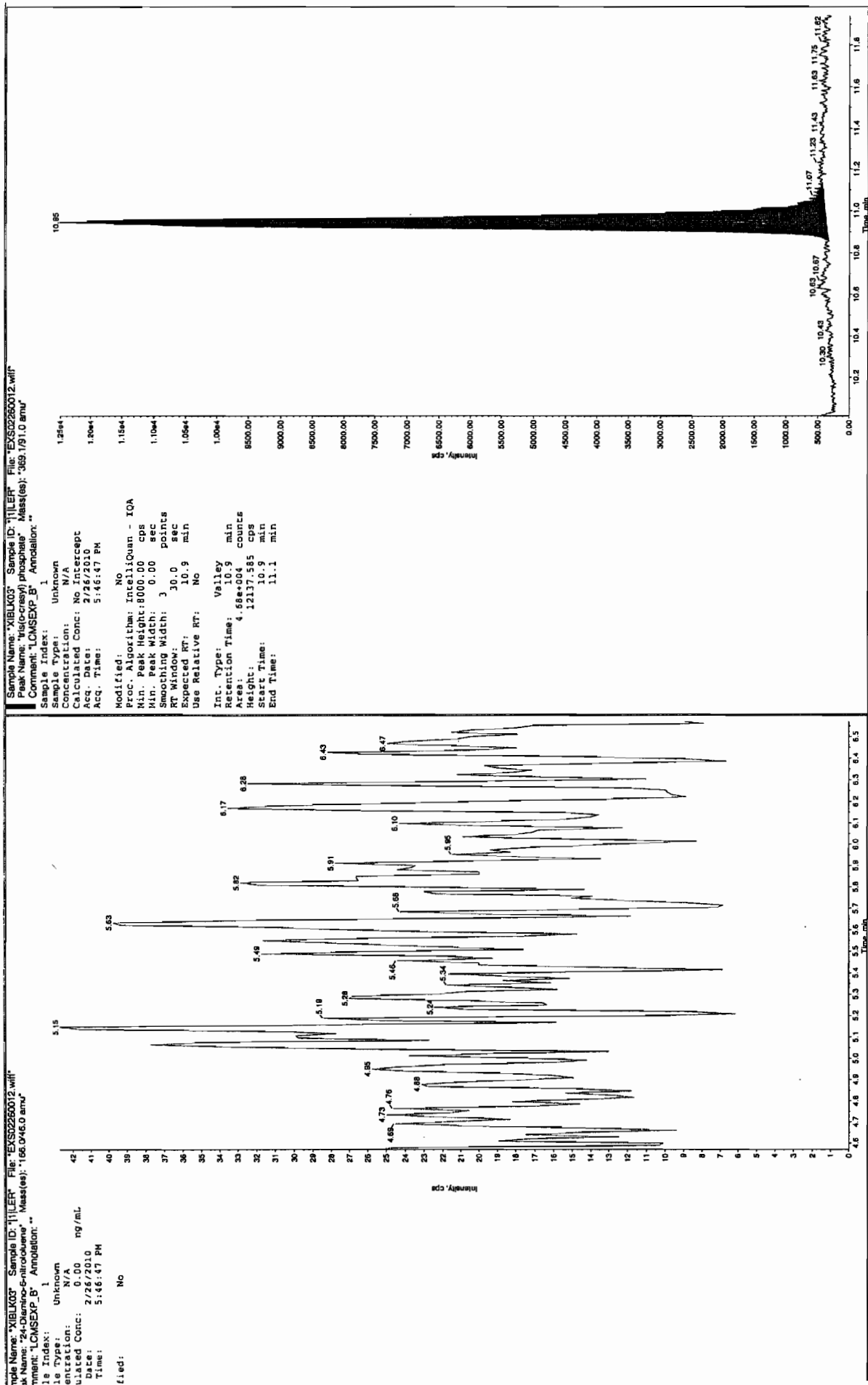
See 3/11/10



Ann 03/10/10



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



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

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 26-FEB-10 21:10

GEL Data File: EXS02260025.wiff

Instrument ID: LCMSMS

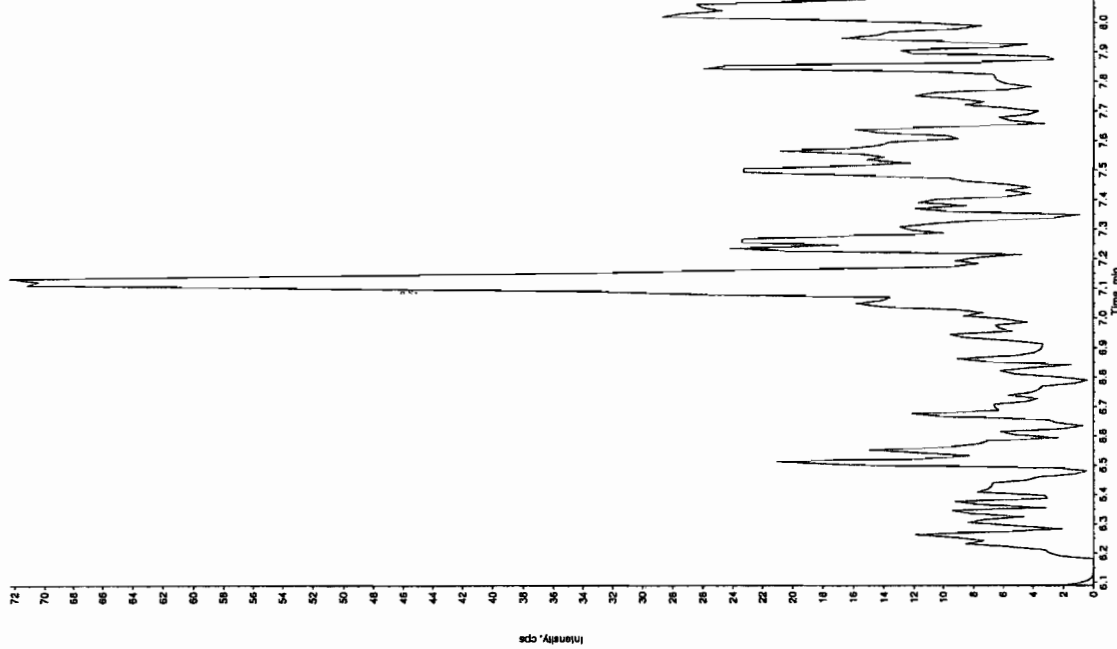
Column: Phenomenex Ultracarb 5u ODS(20)

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

Ken 3/1/10

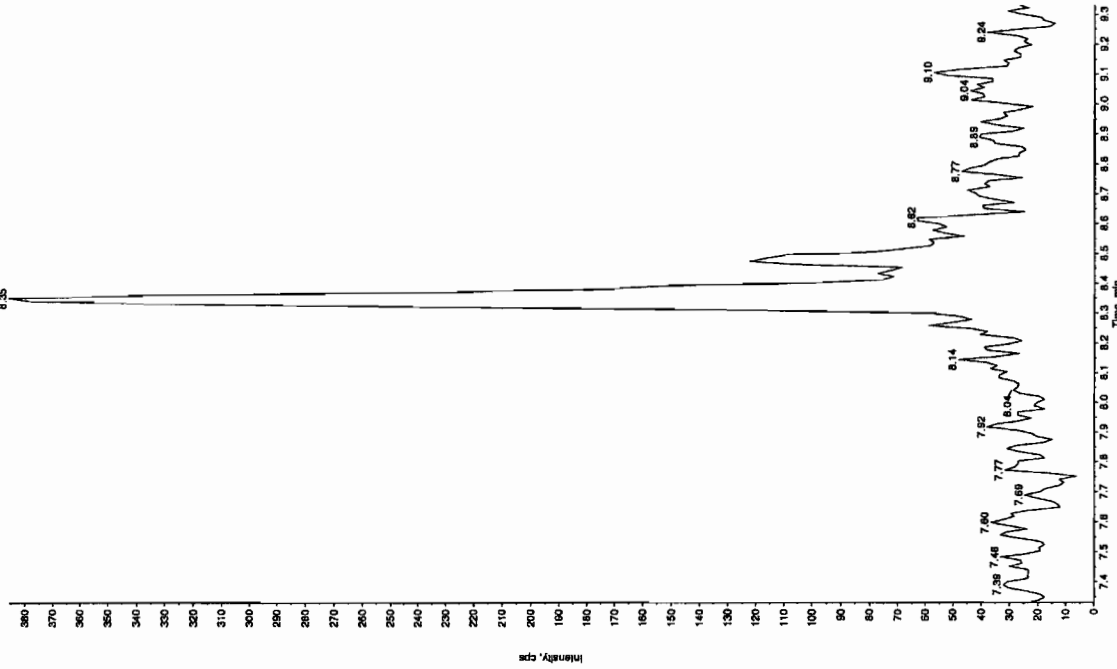
Sample Name: "XBLK04" Sample ID: "JTLER" File: "XS02260025.wif"
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Le Index: 1
 Le Type: Unknown
 Inactivation: N/A
 Calculated Conc: 0.00 ng/mL
 Date: 2/26/2010
 Time: 9:10:59 PM
 fied: No



Sample Name: "XBLK04" Sample ID: "JTLER" File: "XS02260025.wif"
 Peak Name: "3C-Dinitroaniline" Mass(es): "152.046.0 amu"
 Comment: "LCMSEXP_B" Annotation: ""

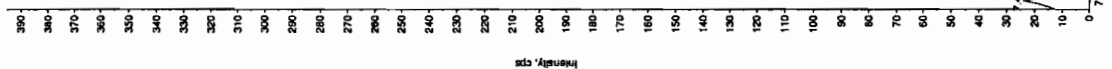
Le Index: 1
 Le Type: Unknown
 Inactivation: N/A
 Calculated Conc: 0.00 ng/mL
 Date: 2/26/2010
 Time: 9:10:59 PM
 Modified: No



Ken 03/01/10

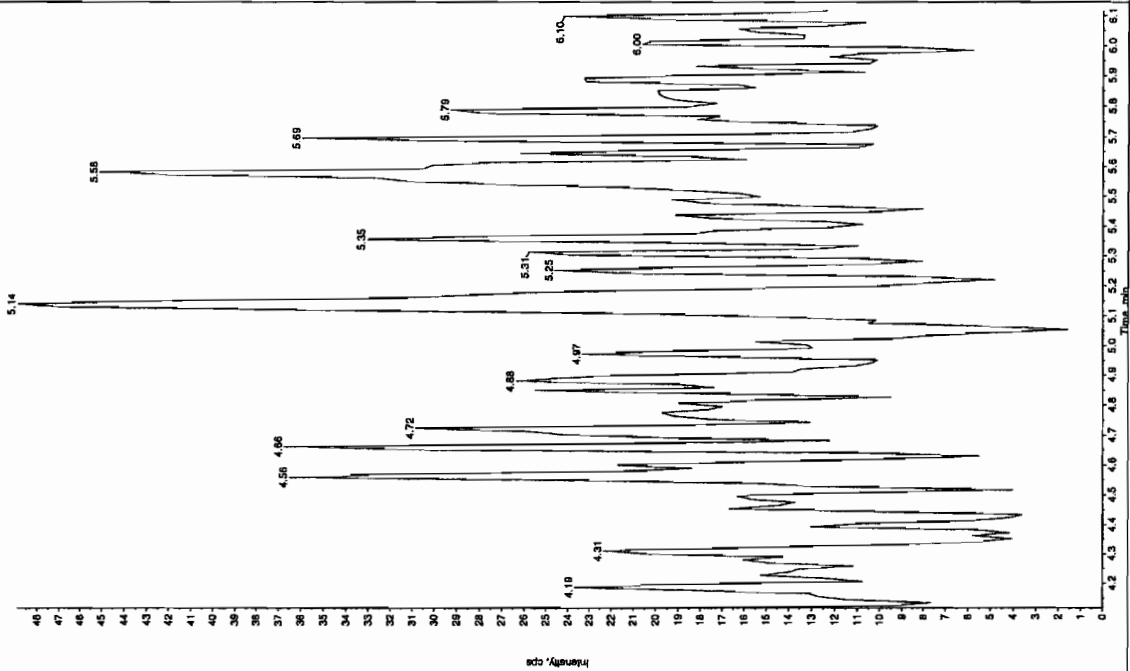
Sample Name: "XIBLXG4" Sample ID: "11LER" File: "EXS02260025.wif"
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"
 Comment: "LCMSEXP_B" Annotation: ""

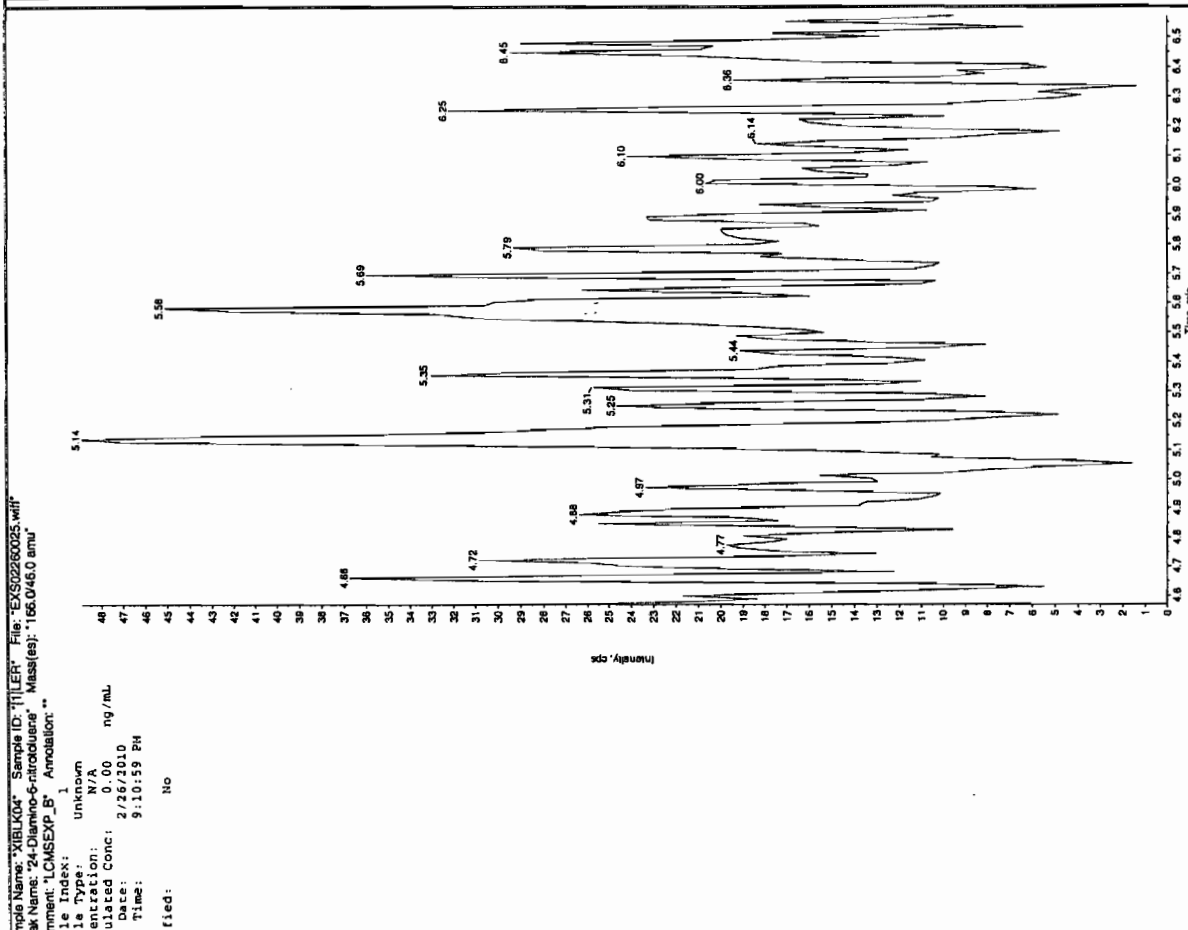
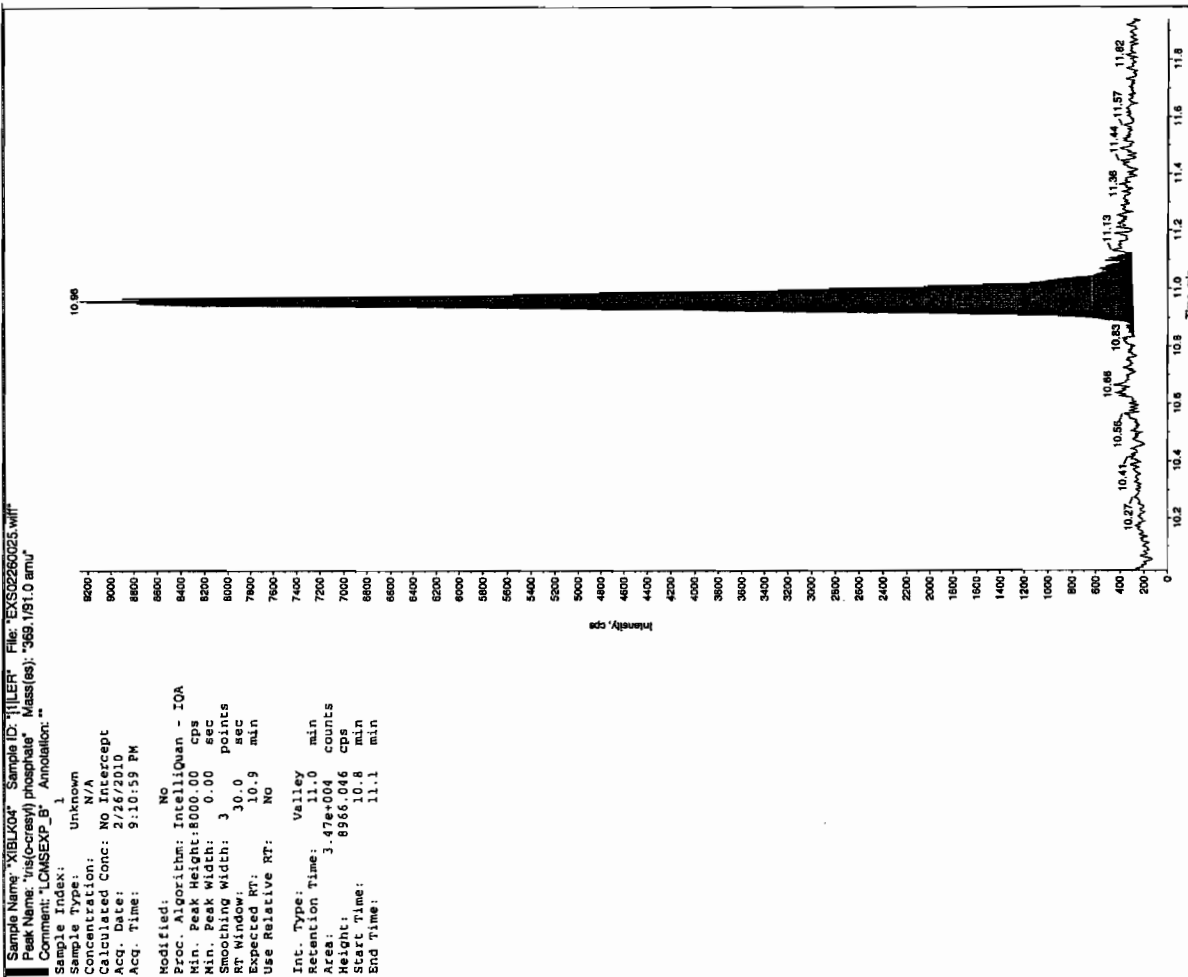
Sample Index: 1
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Calculated Conc: 2/26/2010
 Acq. Date: 9:10:59 PM
 Modified: No



Sample Name: "XIBLXG4" Sample ID: "11LER" File: "EXS02260025.wif"
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "186.0/146.0 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Calculated Conc: 2/26/2010
 Acq. Date: 9:10:59 PM
 Modified: No





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

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 26-FEB-10 22:13

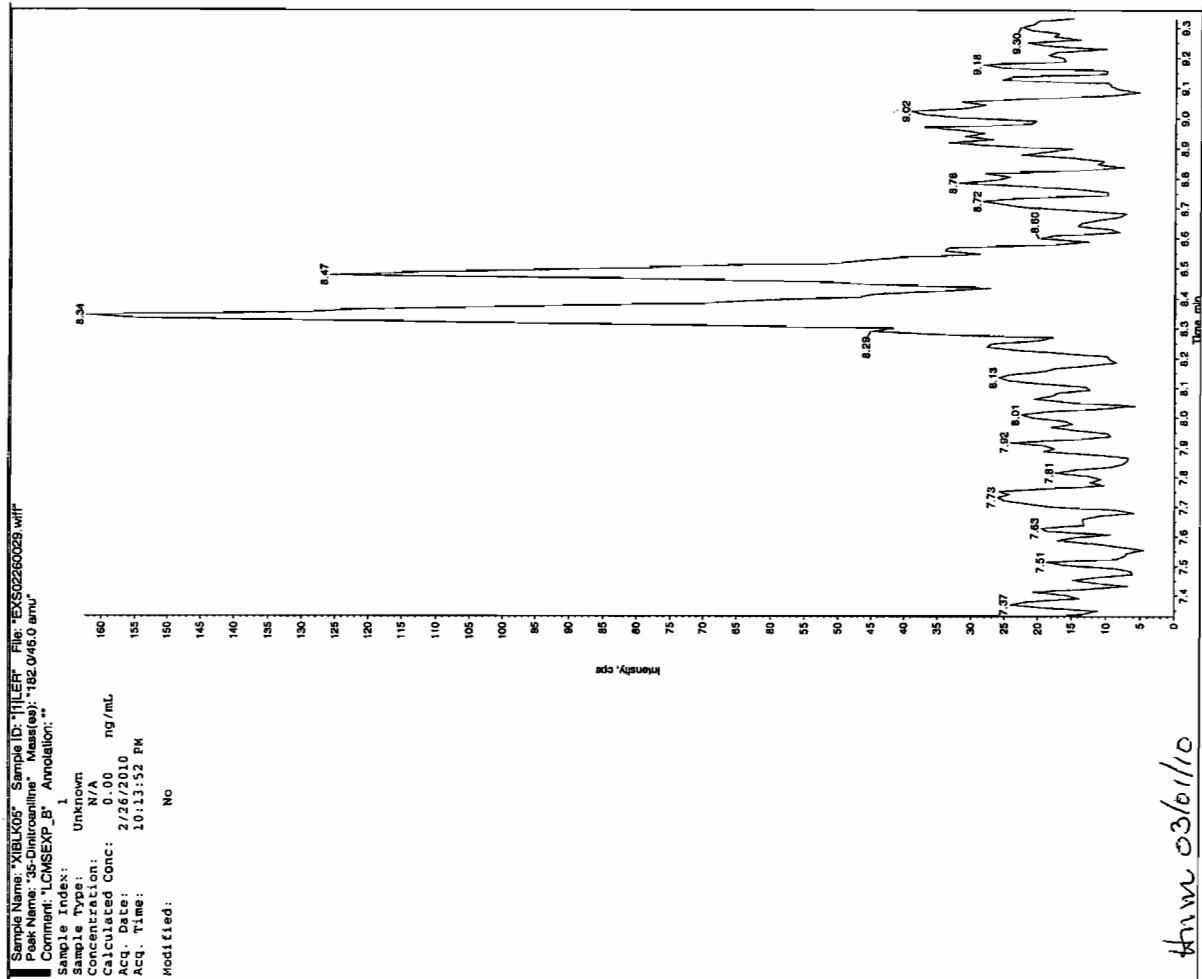
GEL Data File: EXS02260029.wiff

Instrument ID: LCMSMS

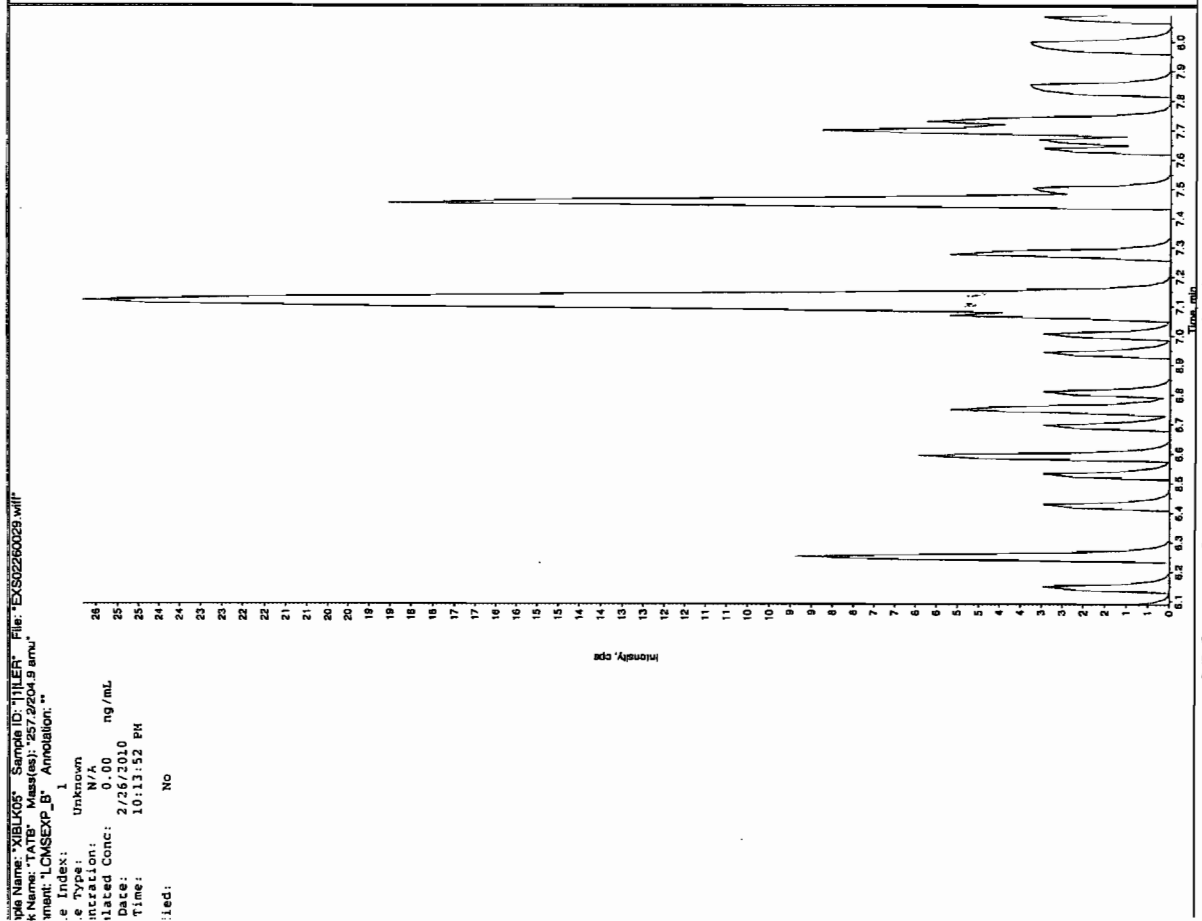
Column: Phenomenex Ultracarb 5u ODS(20)

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

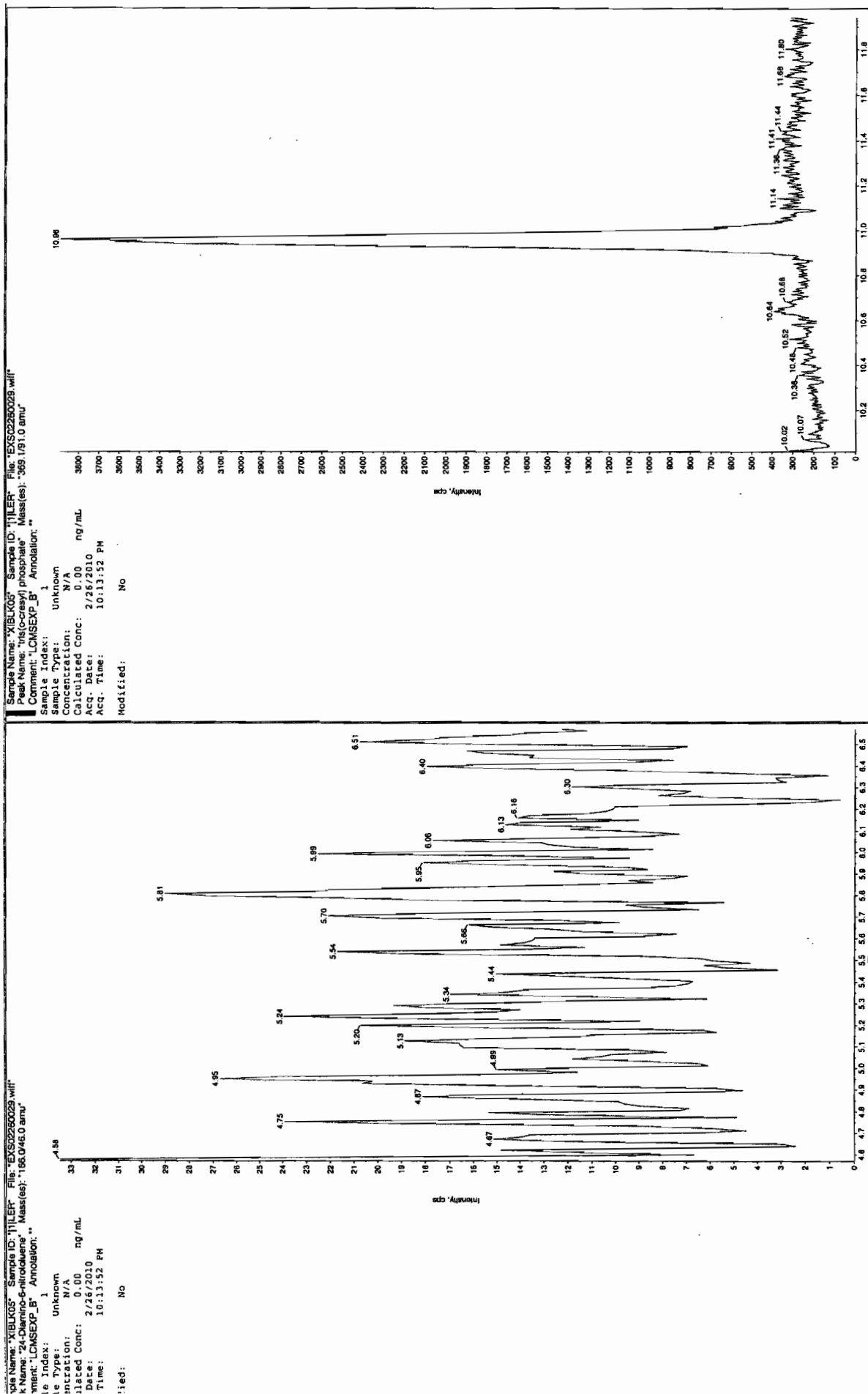
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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



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

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 27-FEB-10 00:35

GEL Data File: EXS02260038.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

for 3/1/10

Sample Name: "XBLK06" Sample ID: "11LER" File: "EX02260038.wif"

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

Comment: "LCMS-EXP-B" Annotation: "1"

Sample Index: 1

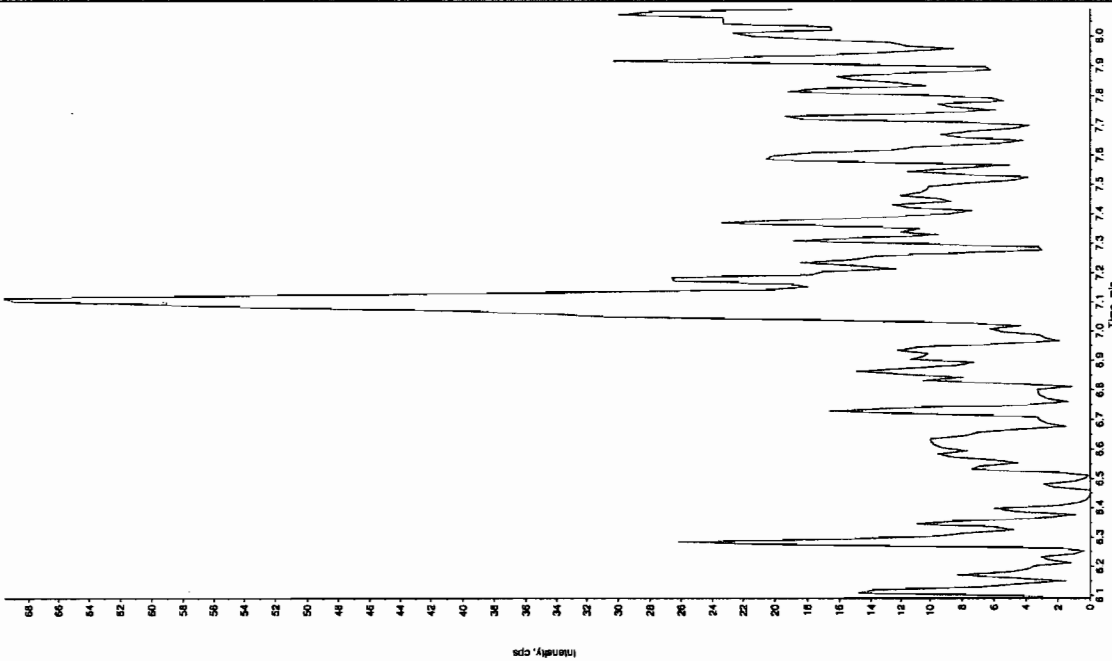
Sample Type: Unknown

Concentration: 0.00 ng/mL

Acq. Date: 2/27/2010

Acq. Time: 12:35:18 AM

Modified: No



Sample Name: "XBLK06" Sample ID: "11LER" File: "EX02260038.wif"

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

Comment: "LCMS-EXP-B" Annotation: "1"

Sample Index: 1

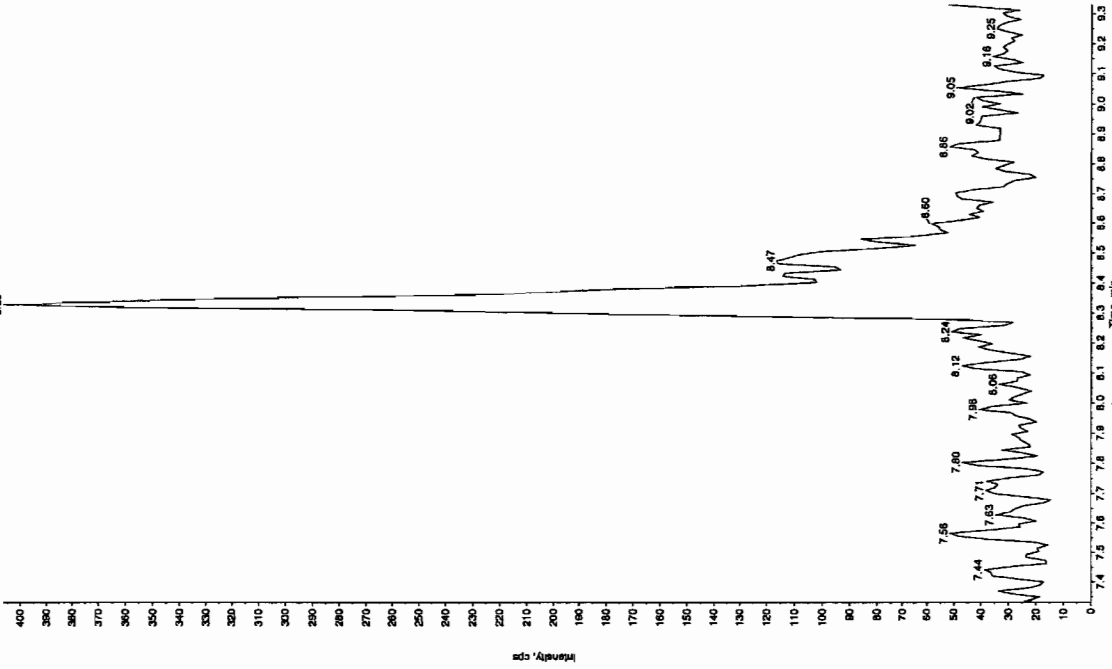
Sample Type: Unknown

Concentration: 0.00 ng/mL

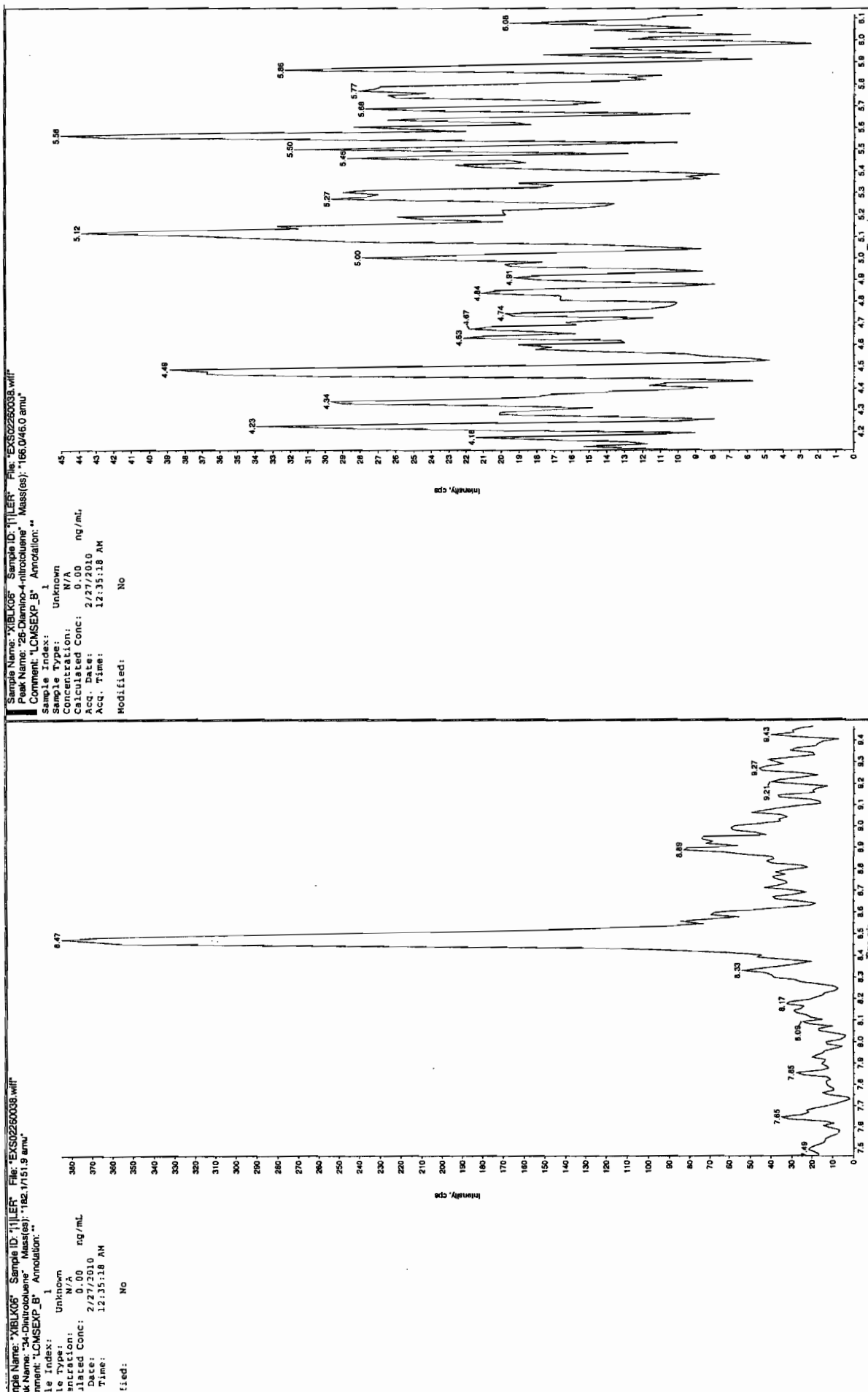
Acq. Date: 2/27/2010

Acq. Time: 12:35:18 AM

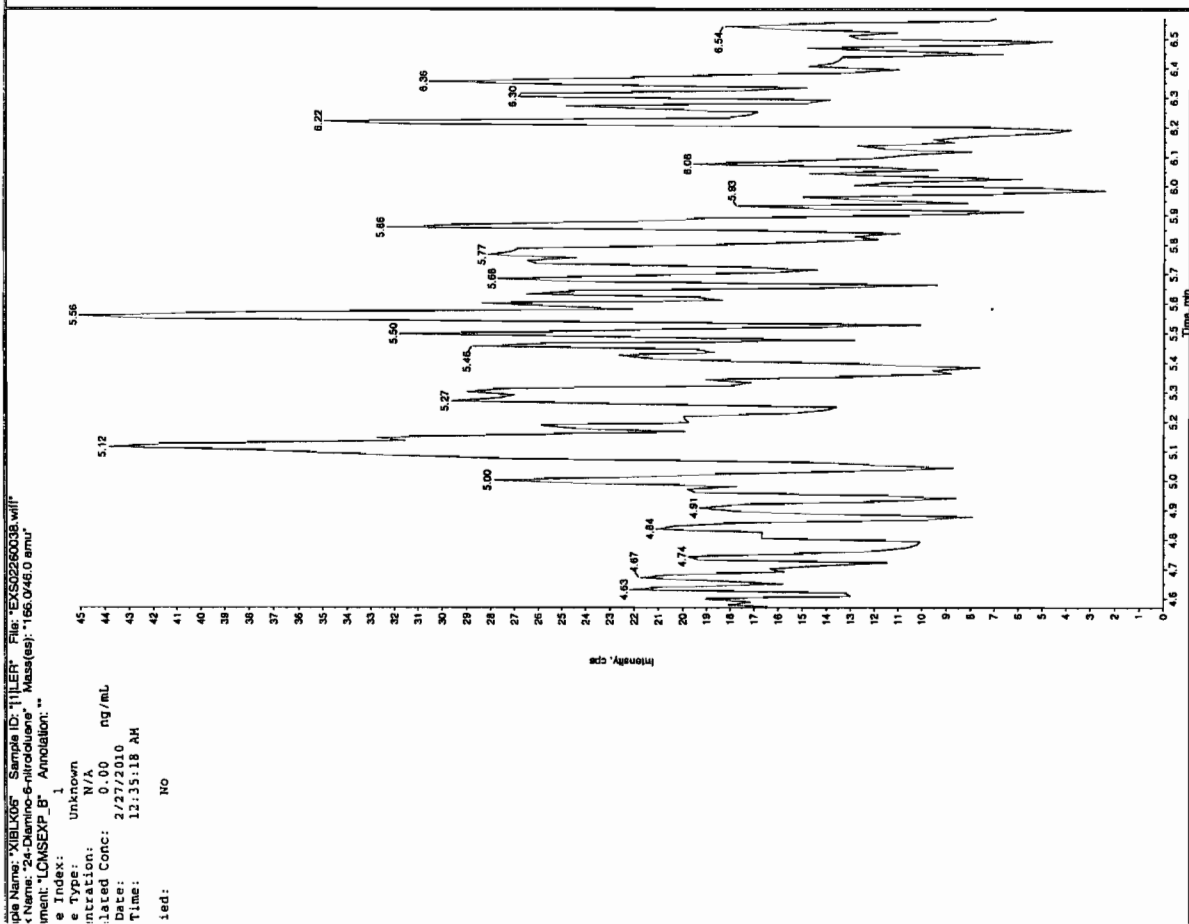
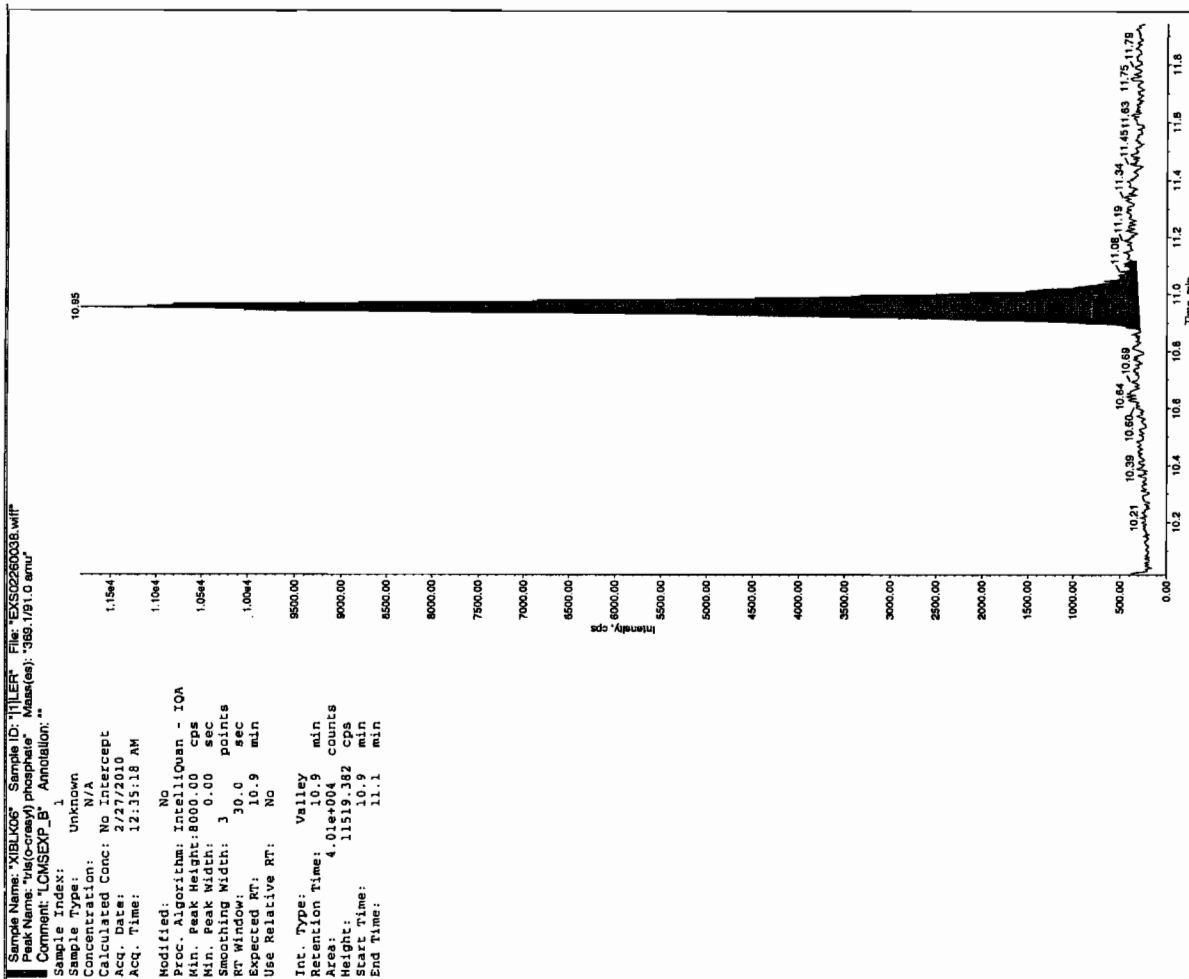
Modified: No



for 03/01/10



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



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

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 27-FEB-10 03:59

GEL Data File: EXS02260051.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

San 3/1/10

Sample Name: "XIBLK07" Sample ID: "111ER" File: "EXS02260051.wit"

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

Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

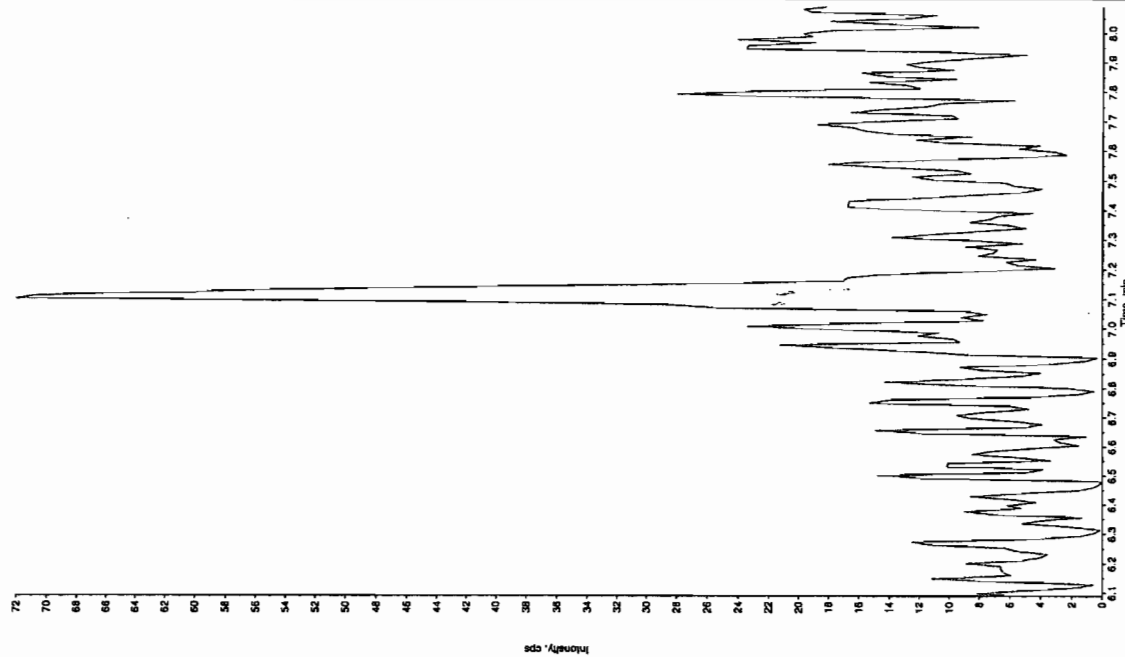
Concentration: 0.00 ng/mL

Calculated Conc: 2/27/2010

Acq. Date: 3:59:27 AM

Acq. Time: 3:59:27 AM

Modified: No



Sample Name: "XIBLK07" Sample ID: "111ER" File: "EXS02260051.wit"

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

Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

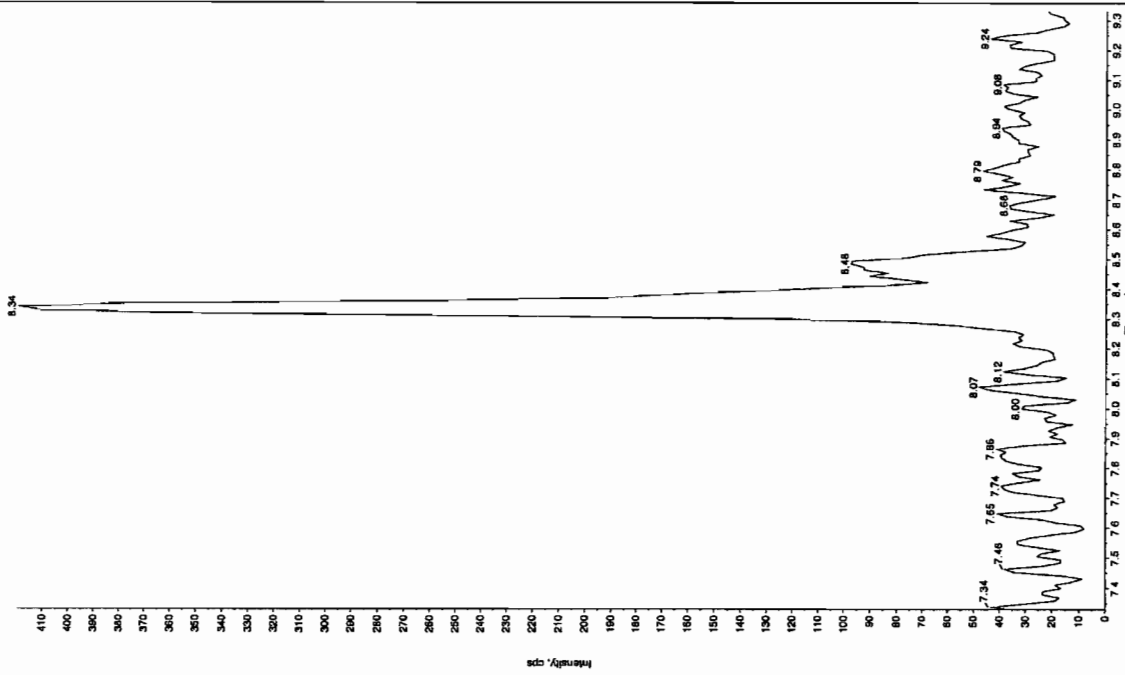
Concentration: 0.00 ng/mL

Calculated Conc: 2/27/2010

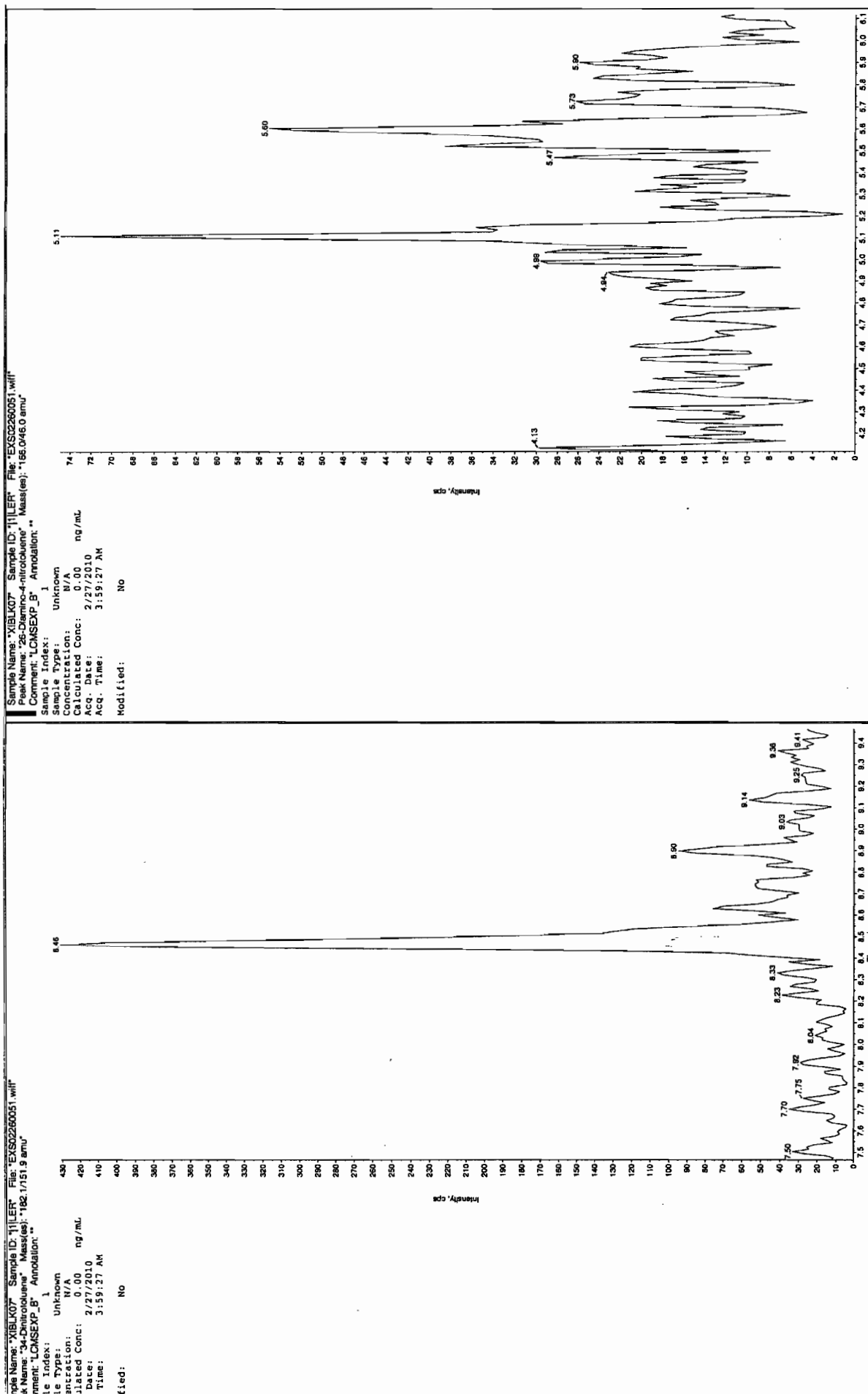
Acq. Date: 3:59:27 AM

Acq. Time: 3:59:27 AM

Modified: No

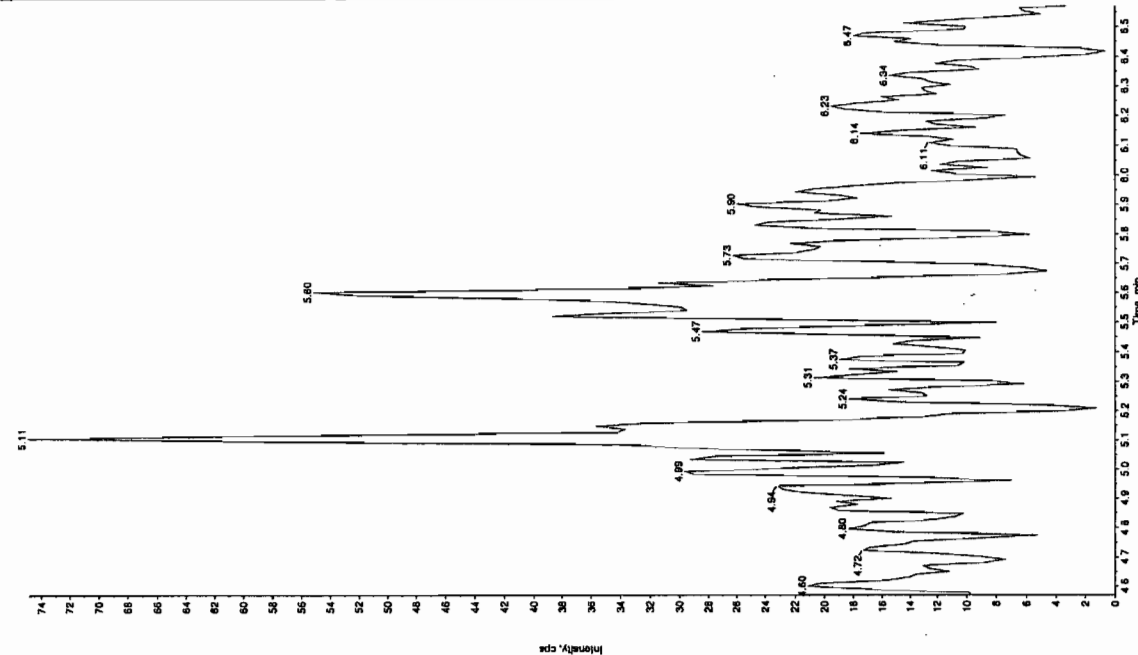


San 03/01/10



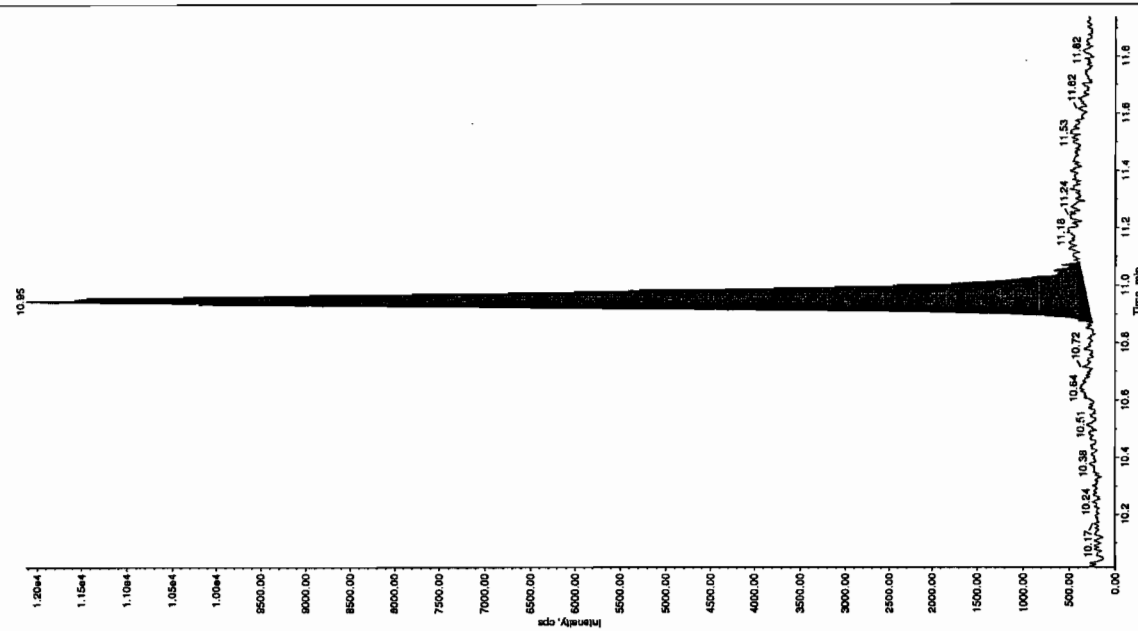
File Name: 'XBLK07' Sample ID: '111111' File: 'EXS02260051.wif'
 Peak Name: '1,4-Dichlorobenzene' Mass(es): '166.046.0 amu'
 Comment: 'LCMSEXP_B' Annotation: ''

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/27/2010
 Acq. Time: 3:59:27 AM
 Modified: No



File Name: 'XBLK07' Sample ID: '111111' File: 'EXS02260051.wif'
 Peak Name: 'Tri(o-cresyl) phosphate' Mass(es): '368.191.0 amu'
 Comment: 'LCMSEXP_B' Annotation: ''

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: No Intercept
 Acq. Date: 2/27/2010
 Acq. Time: 3:59:27 AM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 8000.00 cps
 Min. Peak Width: 3.00 sec
 Smoothing: 3.00 sec
 RT Window: 30.0 sec
 Expected RT: 10.9 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 10.9 min
 Area: 4.38e+004 counts
 Height: 11821.117 cps
 Start Time: 10.9 min
 End Time: 11.1 min



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 27-FEB-10 06:36

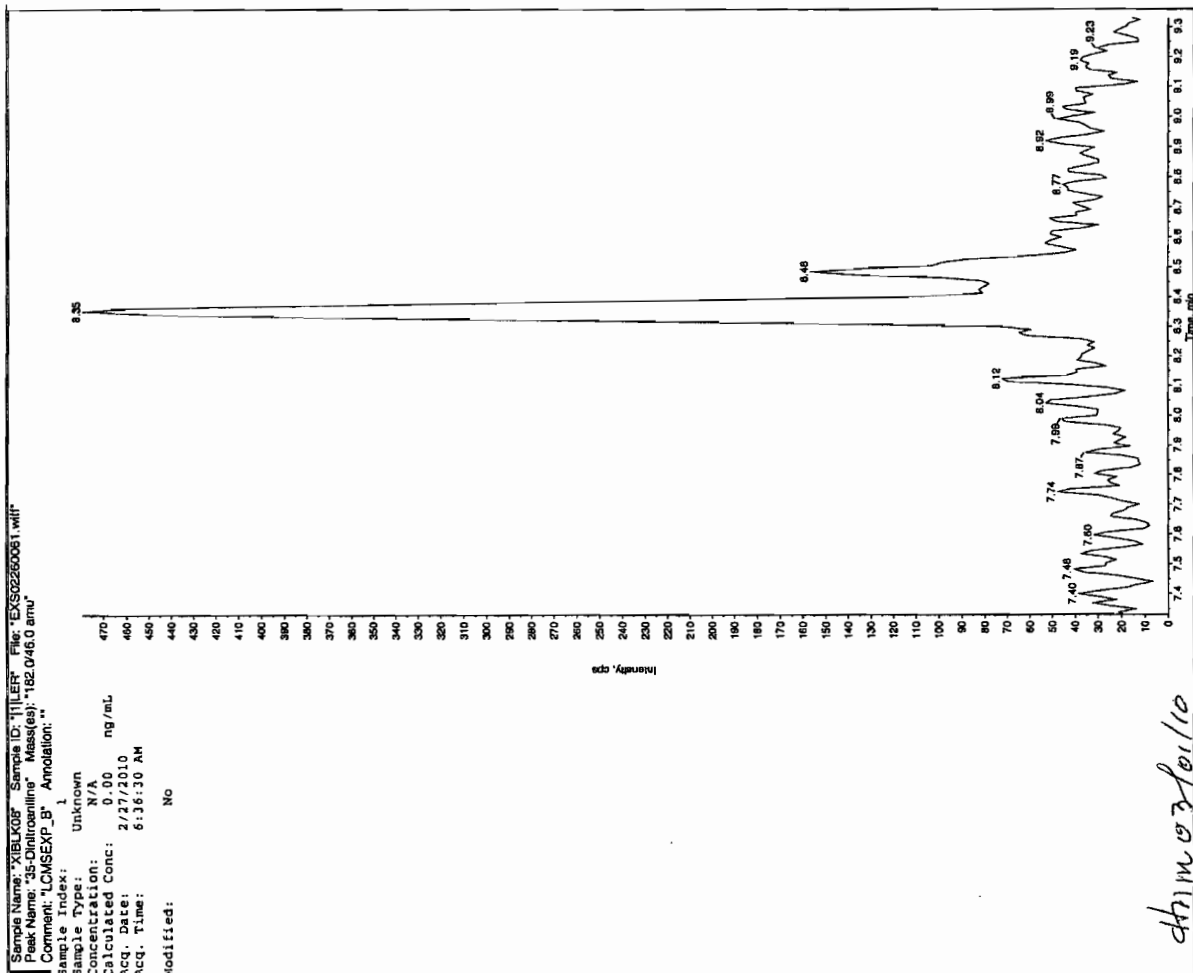
GEL Data File: EXS02260061.wiff

Instrument ID: LCMSMS

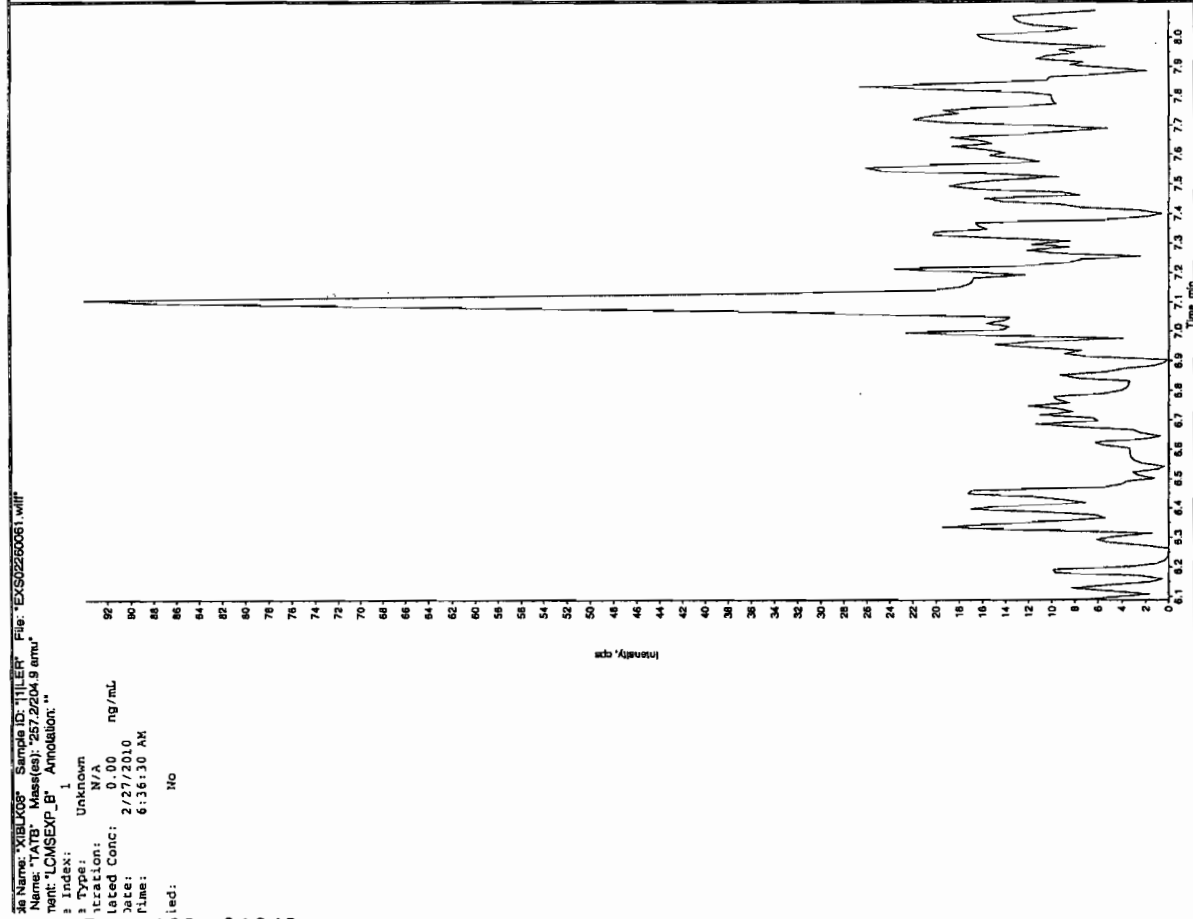
Column: Phenomenex Ultracarb 5u ODS(20)

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

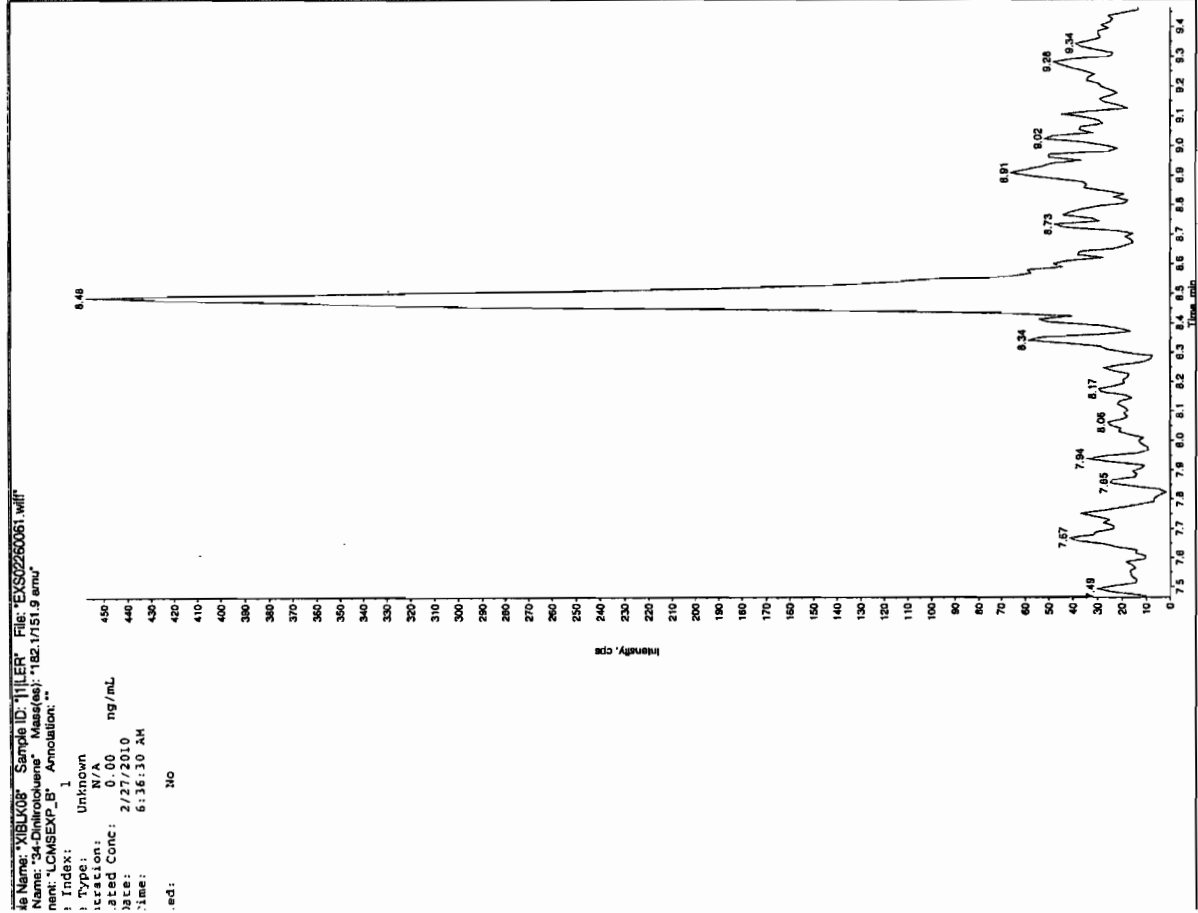
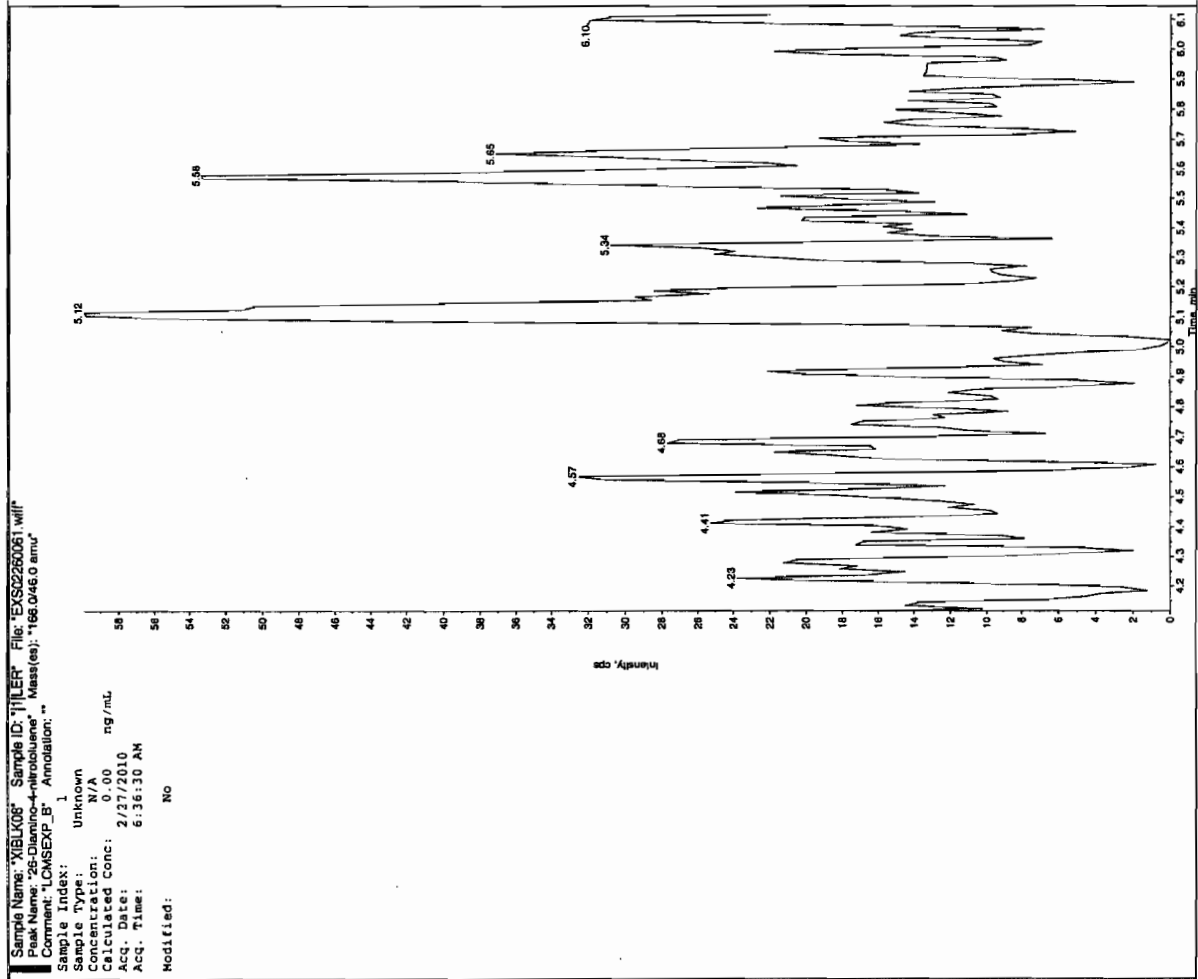
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SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



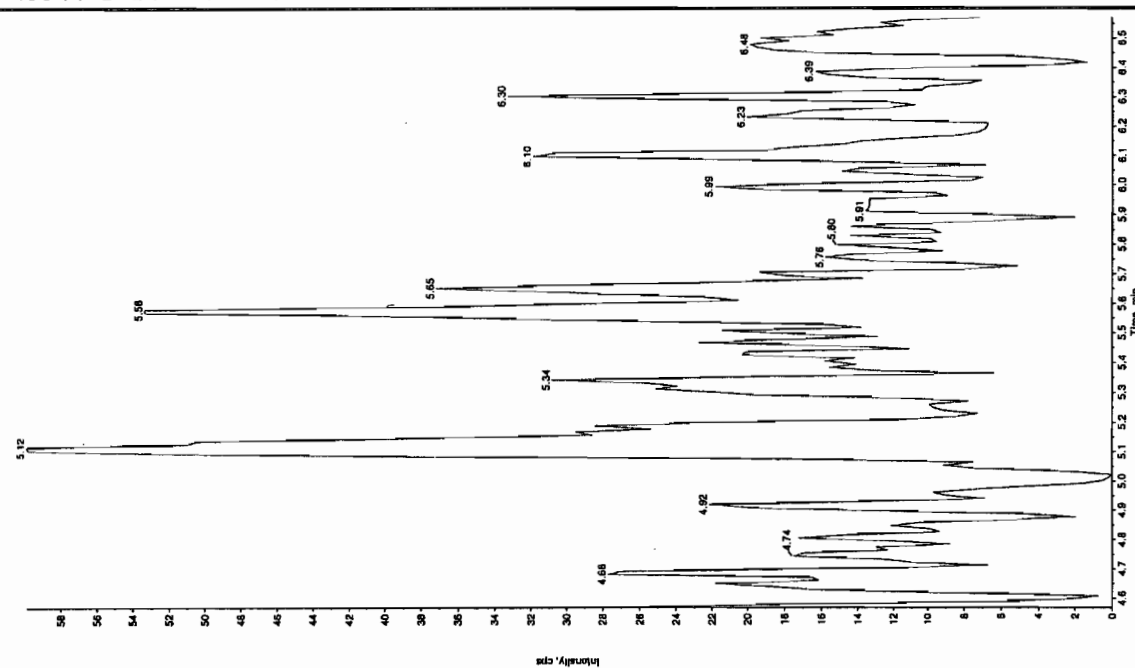
L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK08" Sample ID: "11LER" File: "EXS02260061.wif"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "358.191.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

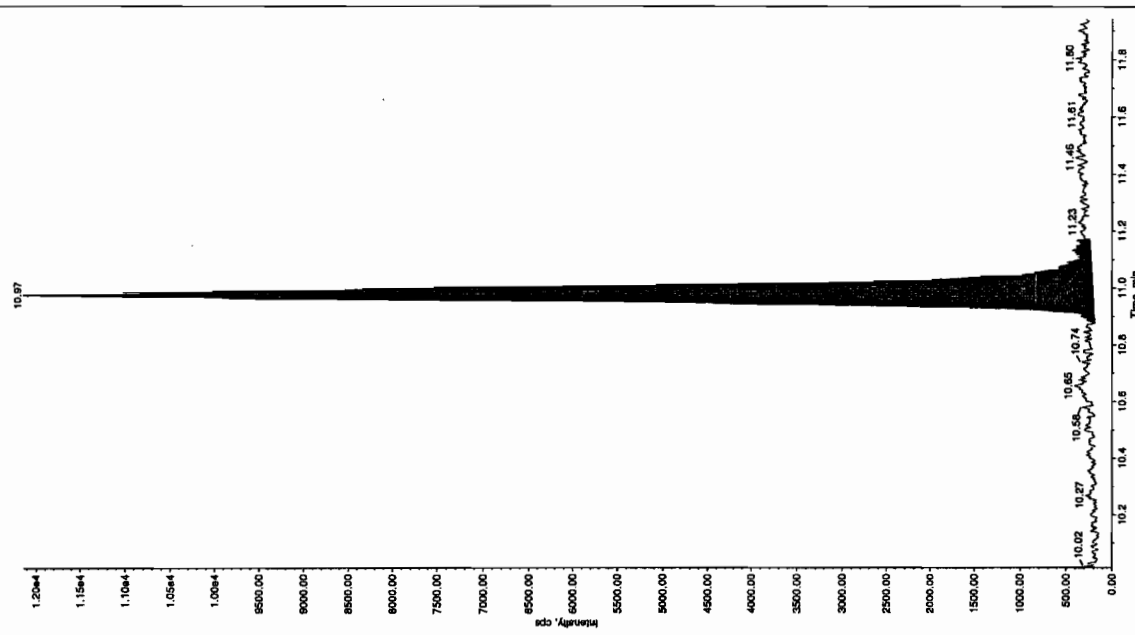
```

Name: "XIBLK08" Sample ID: "11EE"
Name: "24-Diamino-6-nitrotoluene" Material: "24-Diamino-6-nitrotoluene"
Reagent: "LCMSEXP_B" Annotation: ""

```



Sample Index:	1	Unknown
Sample Type:		
Sample Name:		
Calculated:	No	Accept
Calculated Conc:	No	Accept
Acq. Date:	2/7/2010	
Acq. Time:	6:36:30 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	
Smoothing Width:	3	points
Start Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	11.0	min
Area:	4.14e+004	counts
Height:	11941.468	cps
Start time:	10.9	min
End Time:	11.2	min



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 27-FEB-10 10:00

GEL Data File: EXS02260074.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

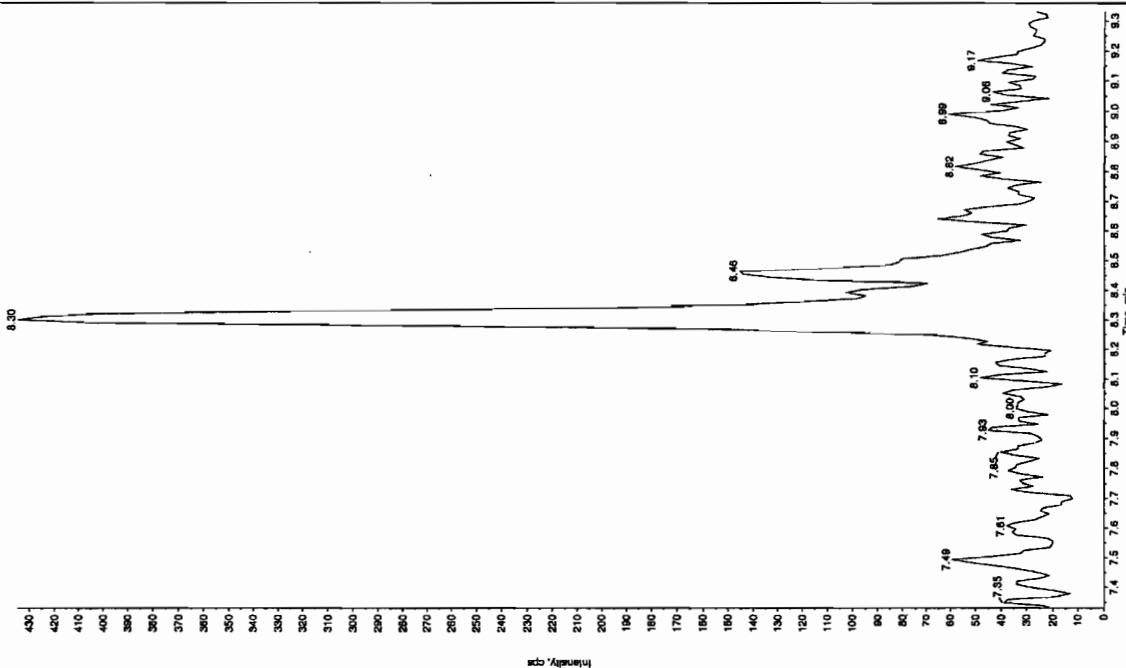
Run 3/1/10

Sample Name: "XIBLK09" Sample ID: "1111ER" File: "EXS02260074.wif"

Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"

Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:00:38 AM
Modified: No



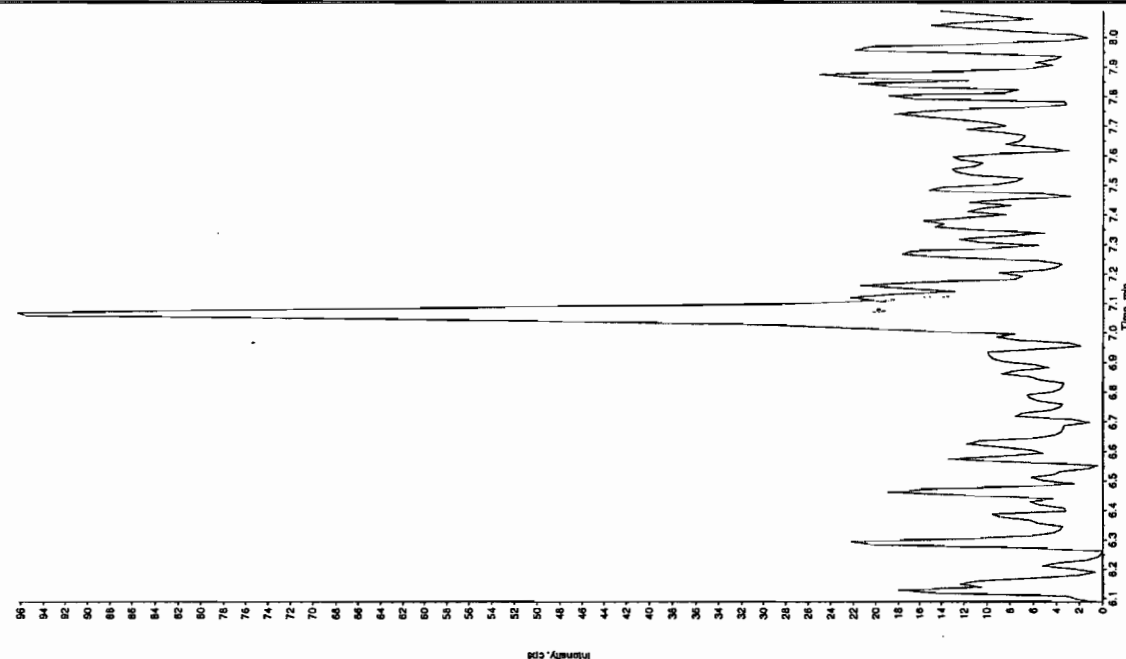
Run 03/01/10

Sample Name: "XIBLK09" Sample ID: "1111ER" File: "EXS02260074.wif"

Peak Name: "TATB" Mass(es): "257.2/204.9 amu"

Comment: "LCMSEXP_B" Annotation: ""

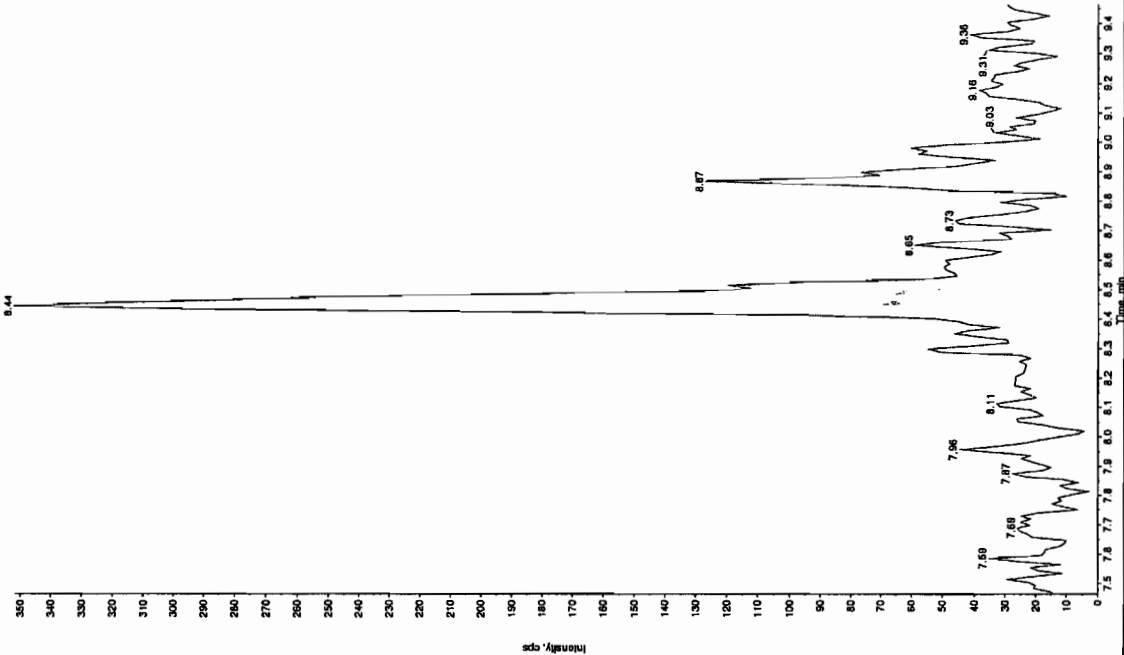
Sample Index: 1
Sample Type: Unknown
Concentration: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:00:38 AM
Modified: No



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

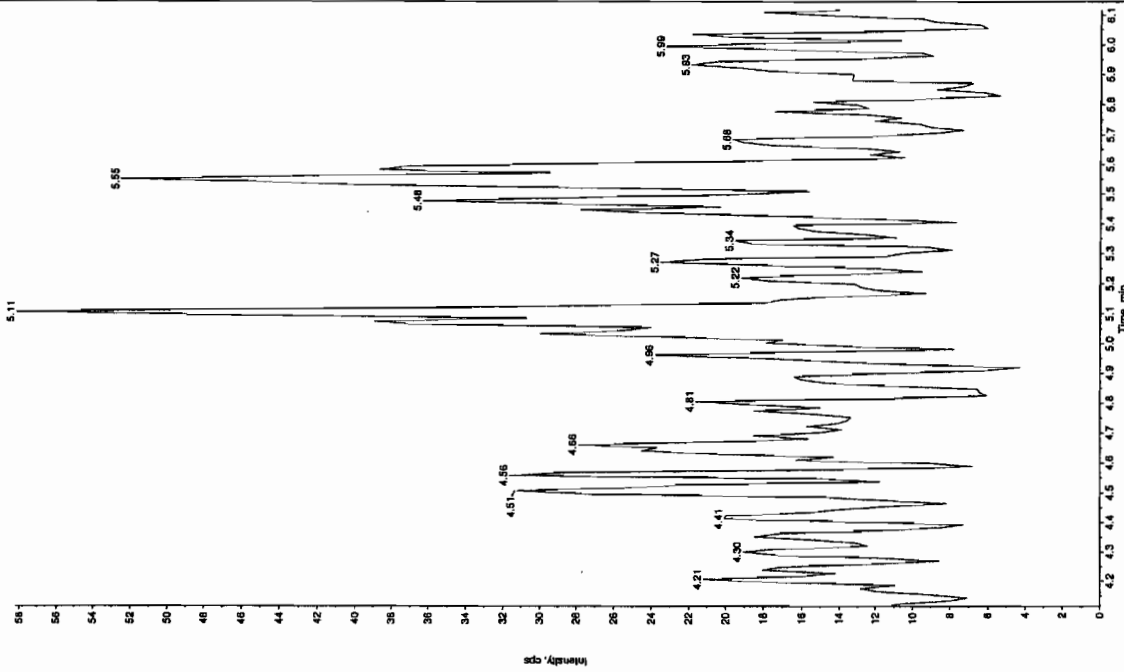
Sample Name: "XBLK09" Sample ID: "111ER" File: "EXS02260074.wif"
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"
 Comment: "LCMSEXP_B" Annotation: ""

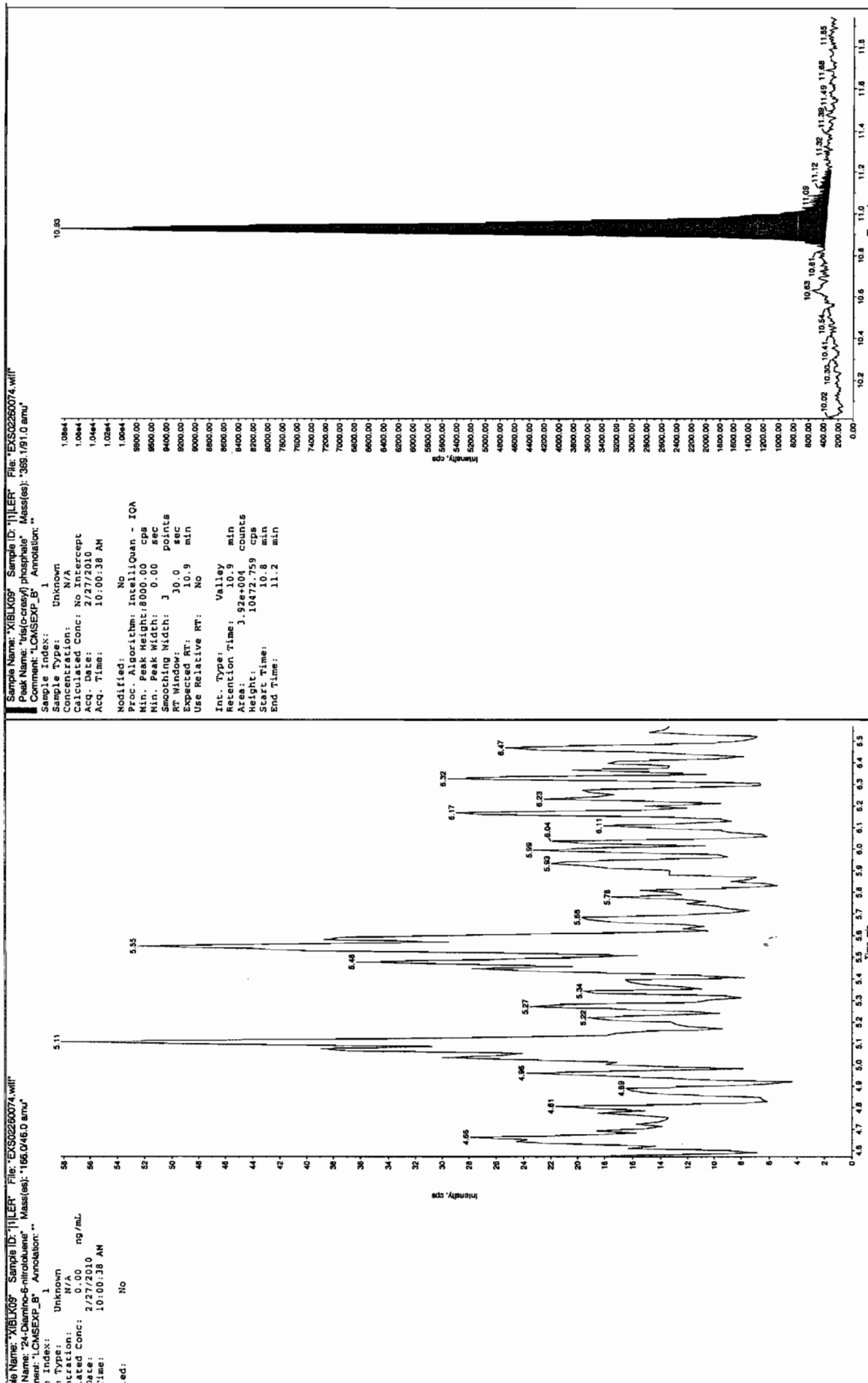
Sample Index: 1
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Date: 2/27/2010
 Time: 10:00:38 AM
 Modified: No



Sample Name: "XBLK09" Sample ID: "111ER" File: "EXS02260074.wif"
 Peak Name: "28-Diamino-4-nitrofluorene" Mass(es): "186.0/166.0 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Date: 2/27/2010
 Time: 10:00:38 AM
 Modified: No





4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 27-FEB-10 13:24

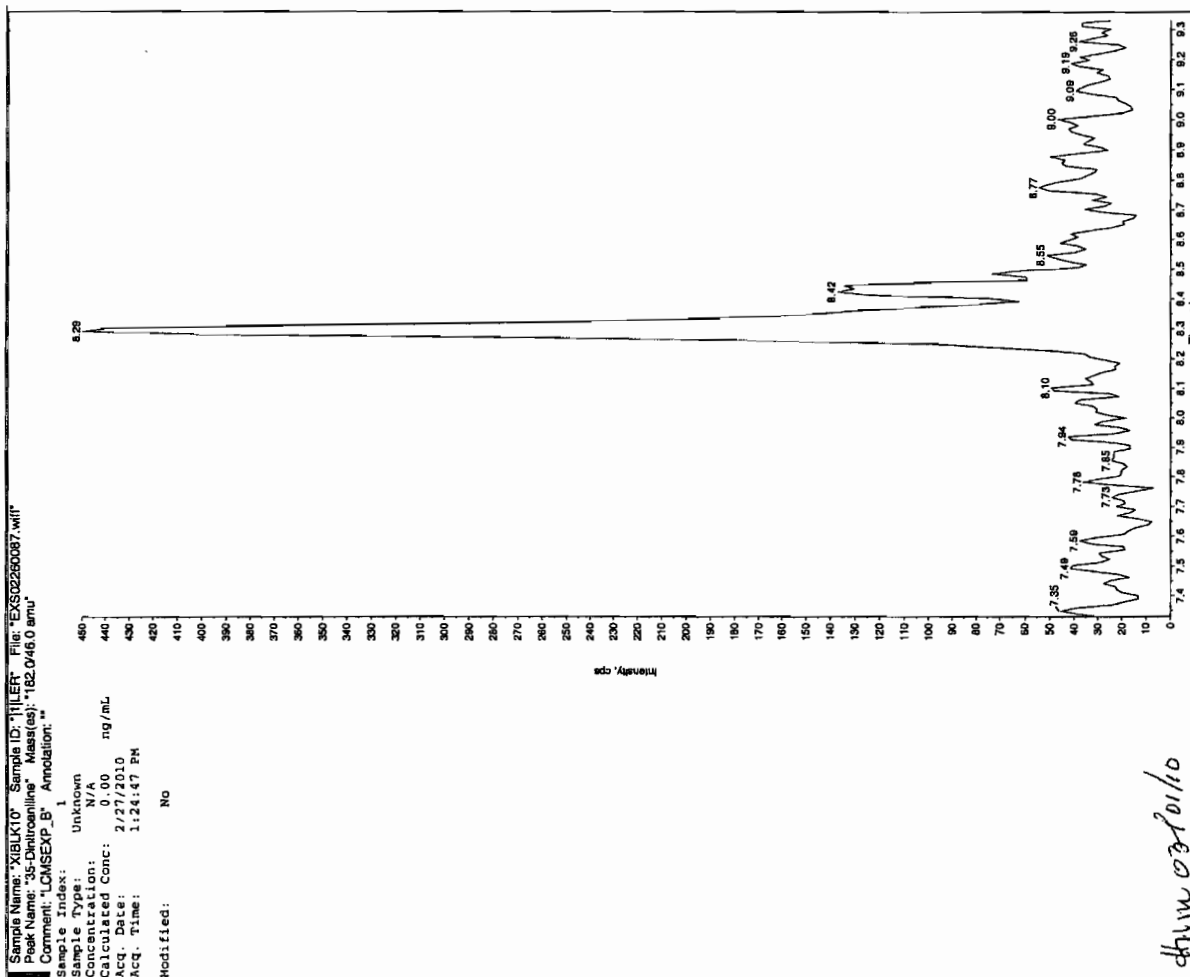
GEL Data File: EXS02260087.wiff

Instrument ID: LCMSMS

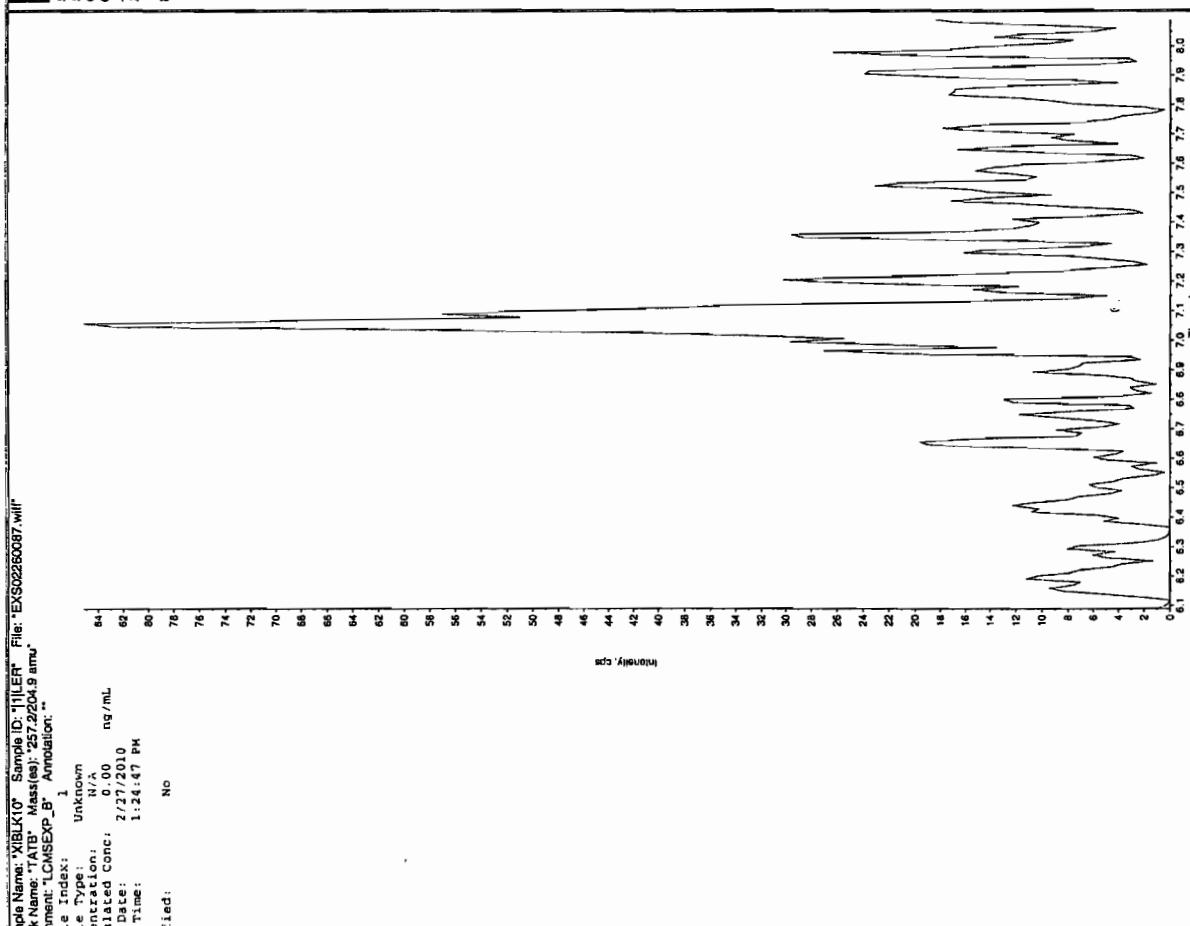
Column: Phenomenex Ultracarb 5u ODS(20)

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

Gen 3/1/10



dhm 03/01/10

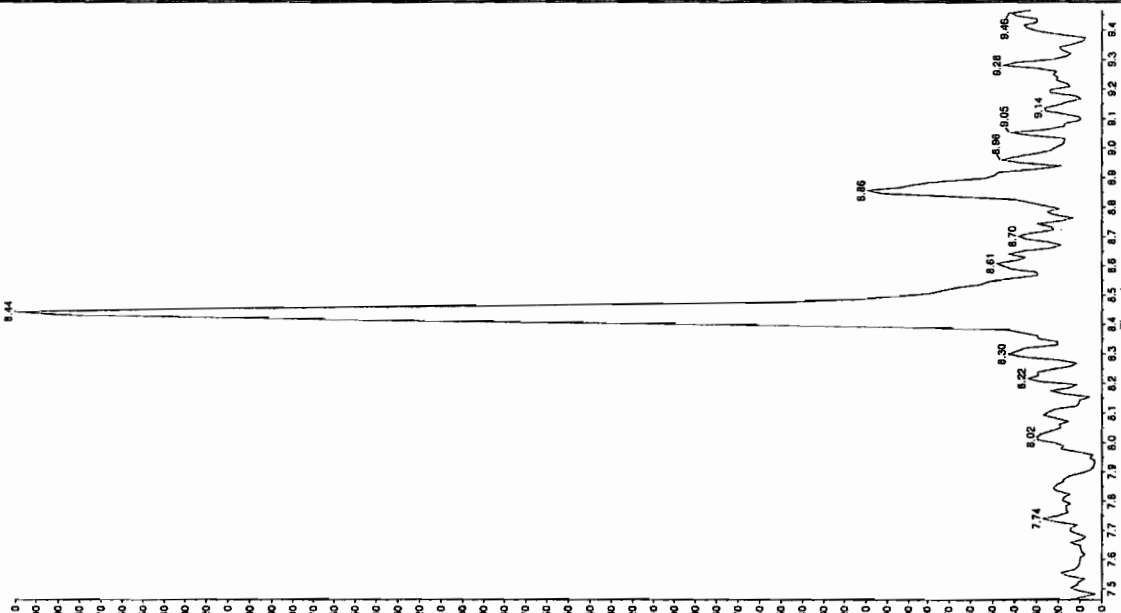


SOP GL-OA-E-056, Method 8321A-Modified LCMSSMS#4

File Name: "XIBLX10" Sample ID: "1111ER" File: "EXS02260087.will"
 Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Calculated Conc: 2/27/2010
 Acq. Date: 1:24:47 PM
 Modified: No

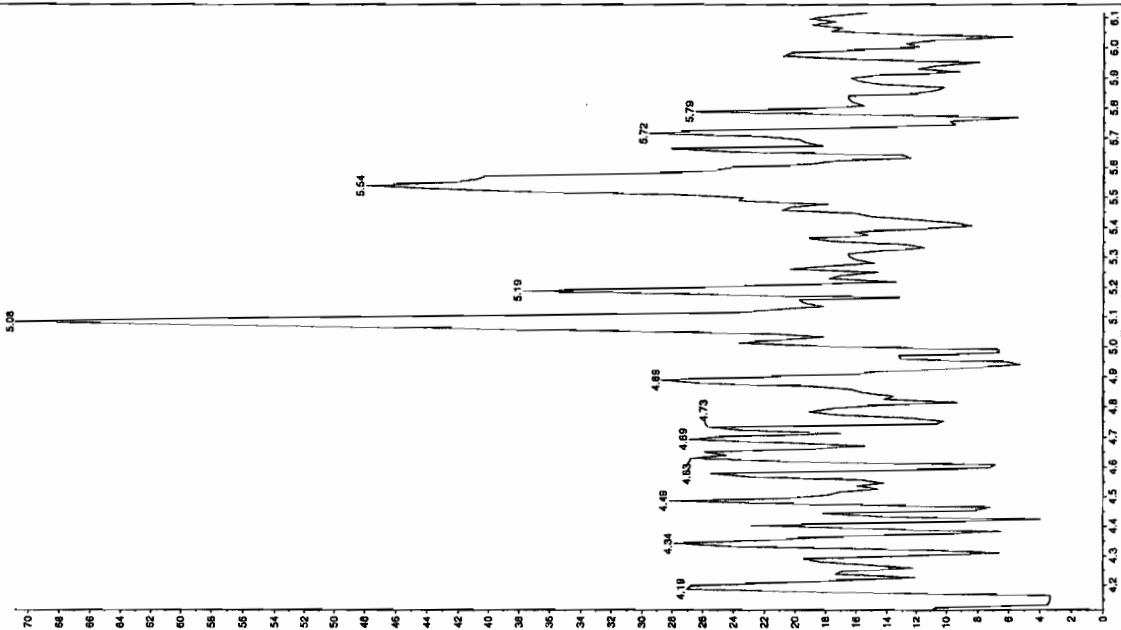
Intensity: cps



Sample Name: "XIBLX10" Sample ID: "1111ER" File: "EXS02260087.will"
 Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "166.0/166.0 amu"
 Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Calculated Conc: 2/27/2010
 Acq. Date: 1:24:47 PM
 Modified: No

Intensity: cps



Sample Name: "XBLK10" Sample ID: "1111" File: "EXS02260087.wit"

Peak Name: "bis(o-cresyl) phosphate" Mass(es): "369.191.0 amu"

Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

Calculated Conc: No. Intercept

Acq. Date: 2/27/2010

Acq. Time: 1:24:47 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

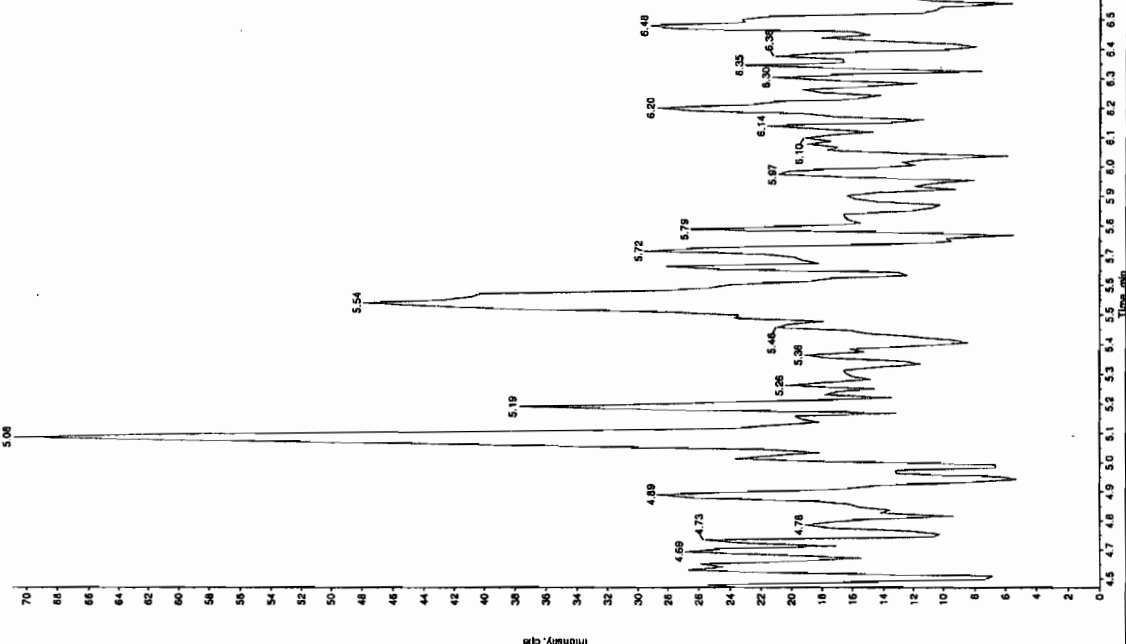
Retention Time: 10.9 min

Area: 4.23e+004 counts

Height: 11775.695 cps

Start Time: 0.8 min

End Time: 11.1 min



, SOP GL-OA-E-056, Method 8321A-Modified LCM SMS#4

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 27-FEB-10 14:43

GEL Data File: EXS02260092.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

Sen 3/1/10

Sample Name: "XIBLK11" Sample ID: "11111" File: "EXS02260092.wif"

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

Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1

Sample Type: Unknown

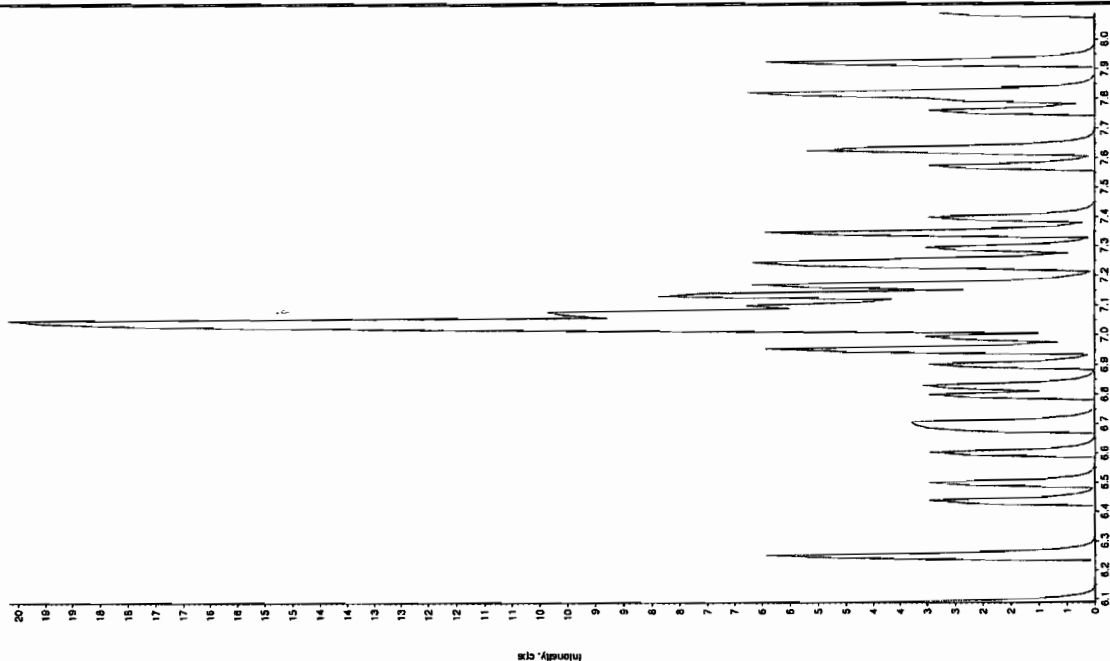
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 2/27/2010

Acq. Time: 2:43:18 PM

Modified: No



Sample Name: "XIBLK11" Sample ID: "11111" File: "EXS02260092.wif"

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

Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1

Sample Type: Unknown

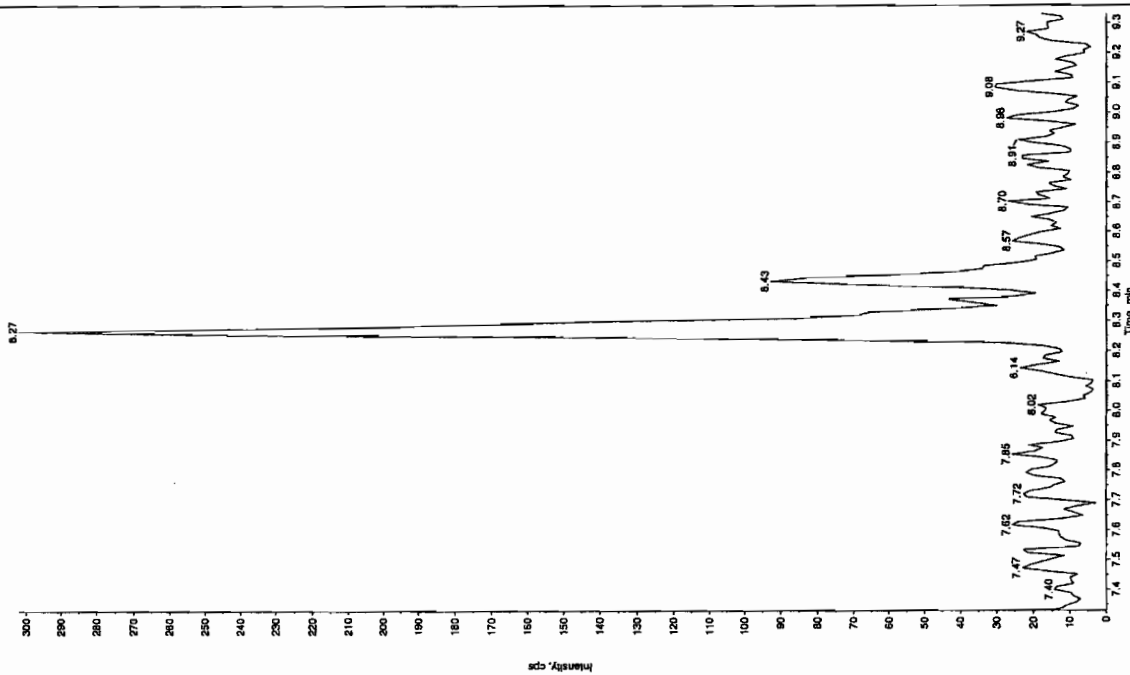
Concentration: N/A

Calculated Conc: 0.00 ng/mL

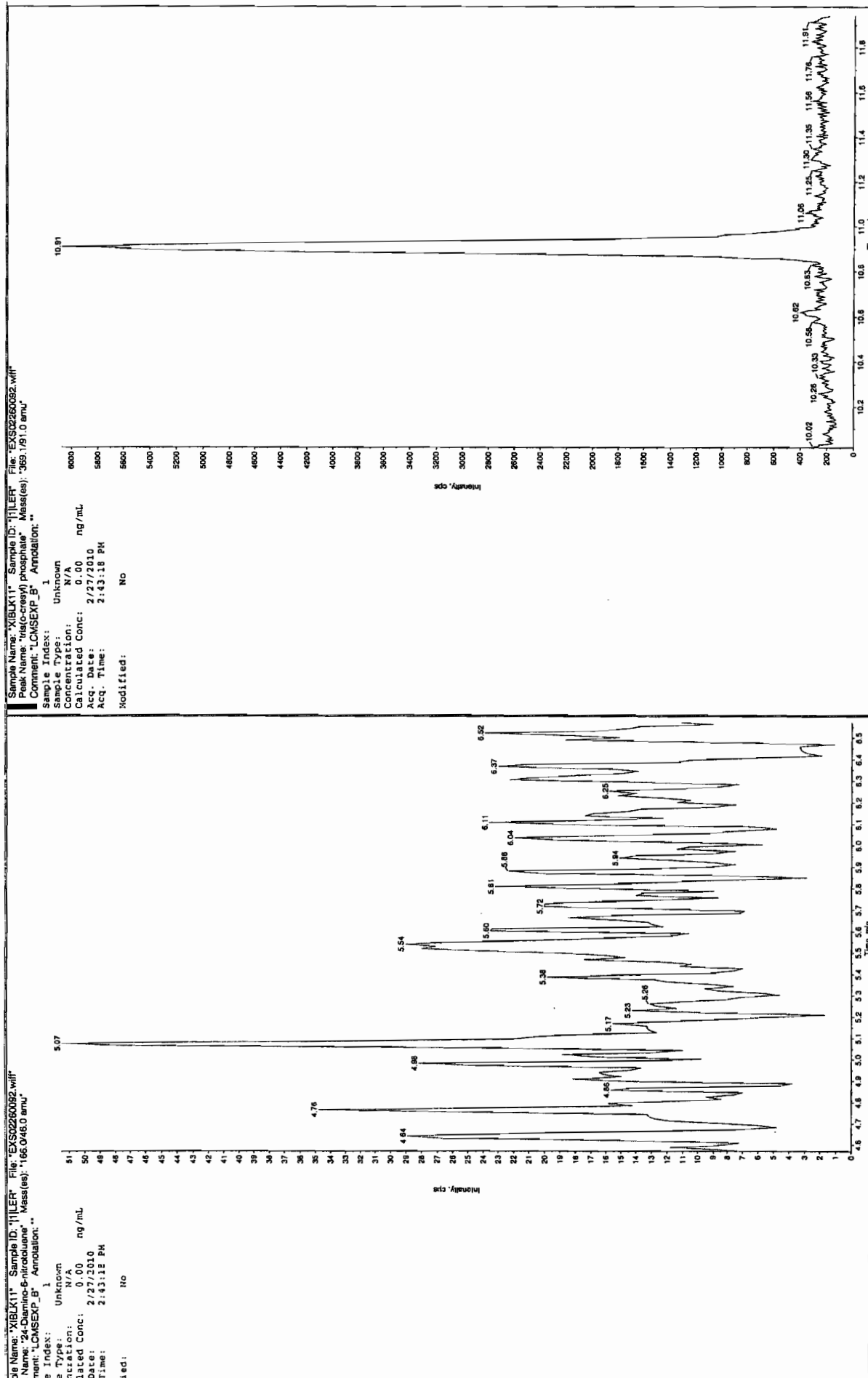
Acq. Date: 2/27/2010

Acq. Time: 2:43:18 PM

Modified: No



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

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1848

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 27-FEB-10 16:48

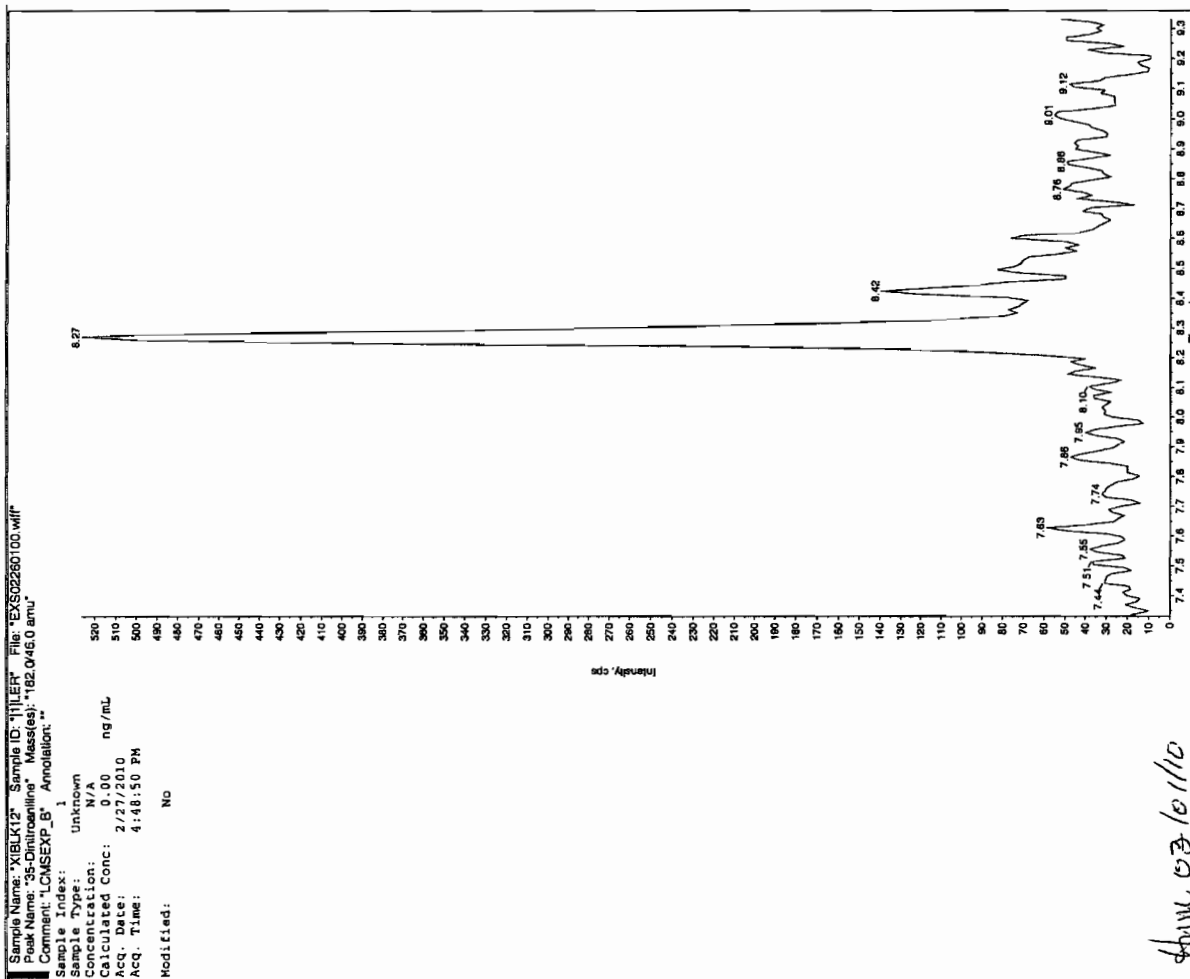
GEL Data File: EXS02260100.wiff

Instrument ID: LCMSMS

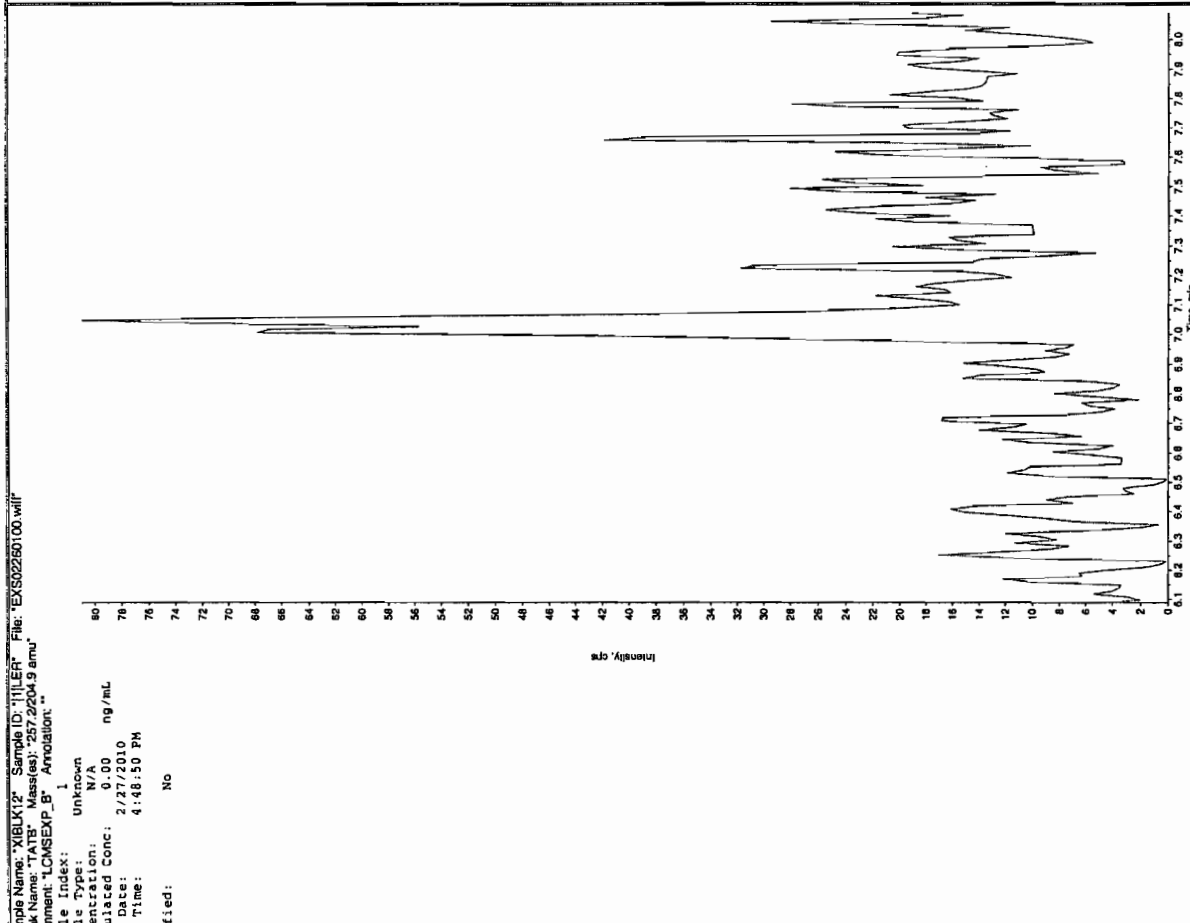
Column: Phenomenex Ultracarb 5u ODS(20)

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

See 3/1/10



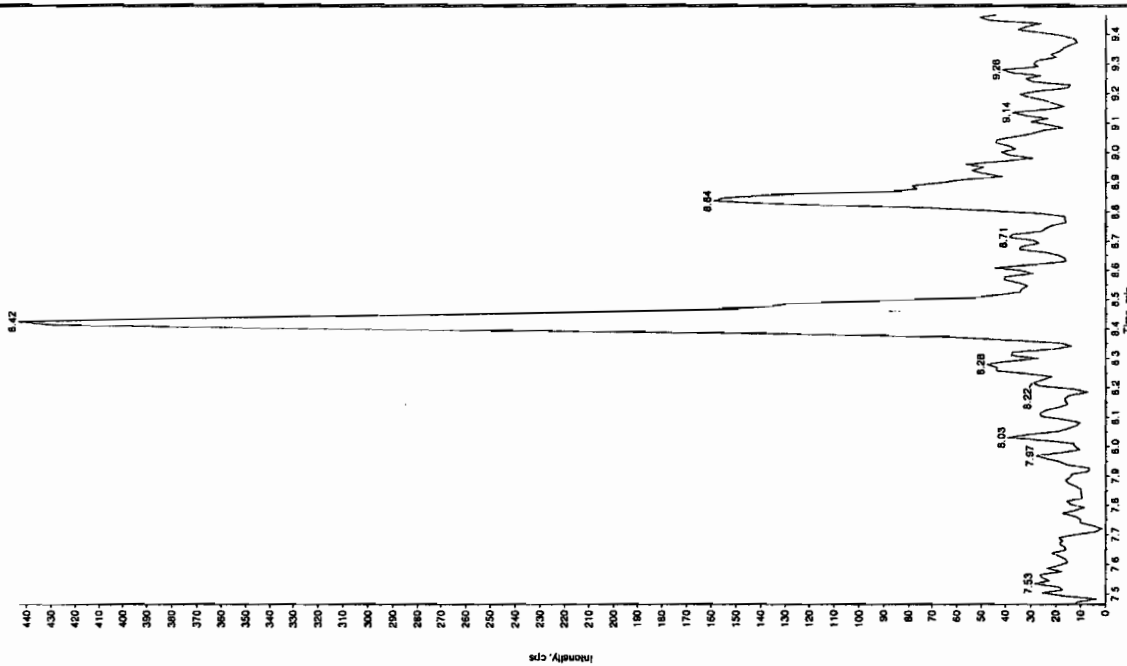
4/11/10 03:10/10



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

Sample Name: "XBLX12" Sample ID: "TJLER" File: "EX502260100.wif"
 Peak Name: "25-Diamino-4-nitrobenzene" Mass(es): "166.046.0 amu"
 Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Calculated Conc: 2/27/2010
 Acq. Date: 4:48:50 PM
 Acq. Time: 4:48:50 PM
 Modified: No

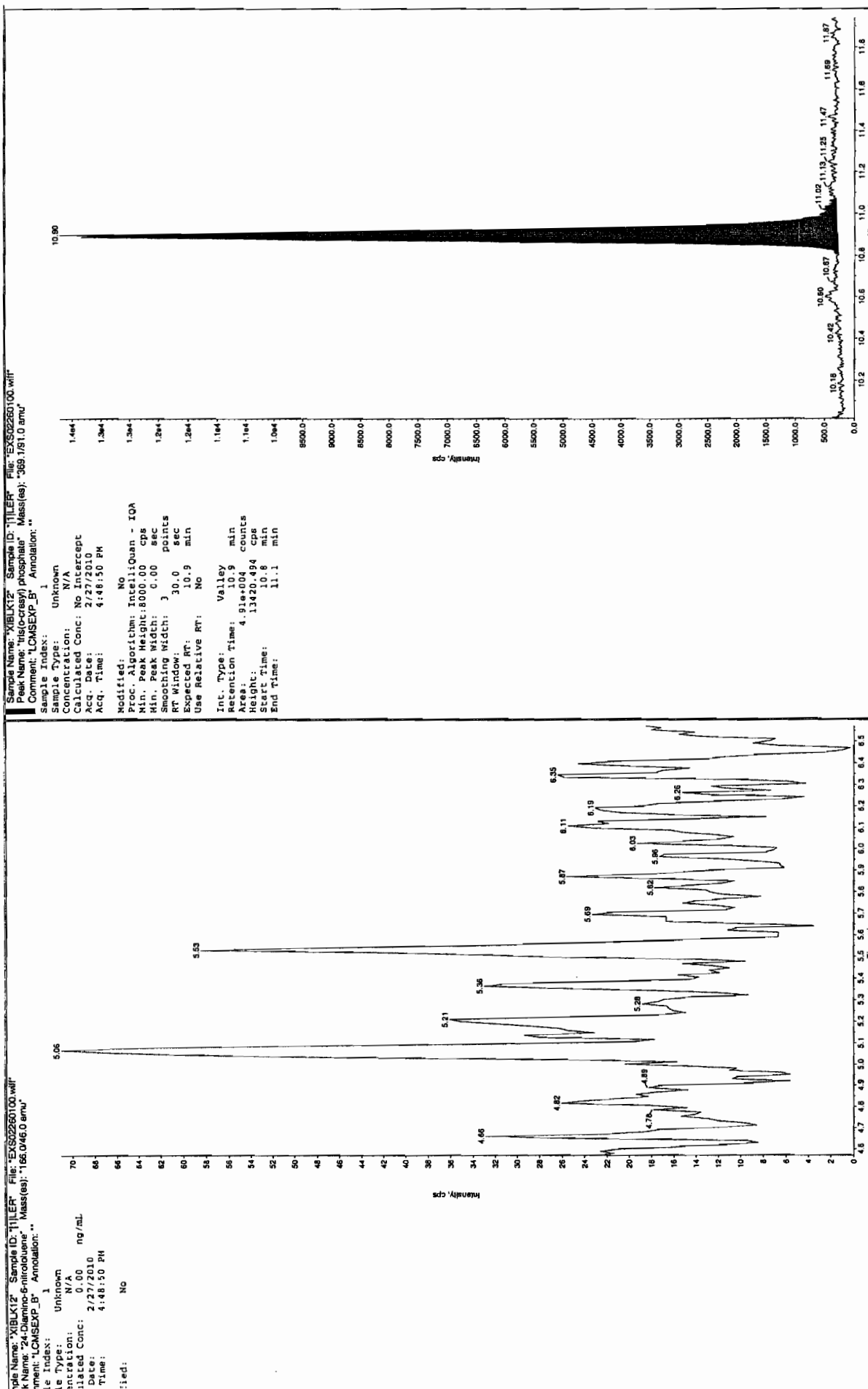


Sample Name: "XBLX12" Sample ID: "TJLER" File: "EX502260100.wif"
 Peak Name: "34-Dinitrobenzene" Mass(es): "182.1151.9 amu"
 Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Calculated Conc: 2/27/2010
 Acq. Date: 4:48:50 PM
 Acq. Time: 4:48:50 PM
 Modified: No



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



J, SOP GL-OA-E-056, Method 8321A-Modified LCMMS#4

Nairb.ref

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

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

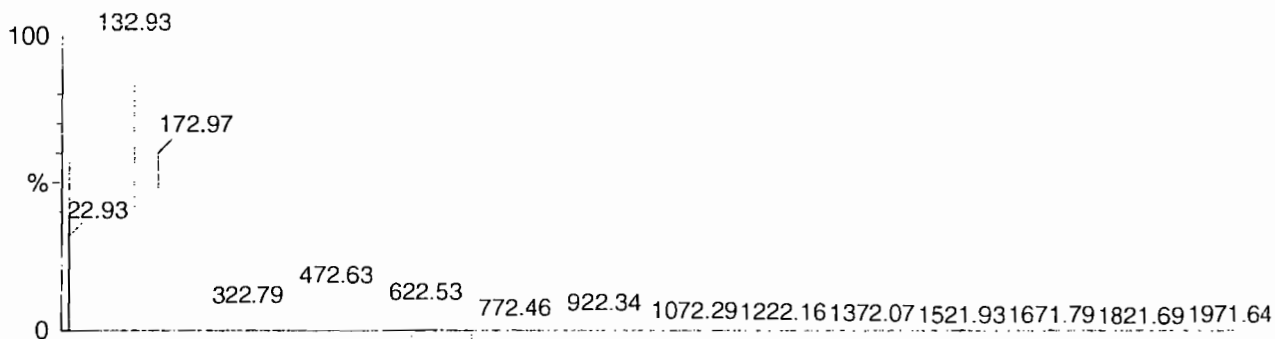
Calibration Report - MS1 Static

Page 1 of 1

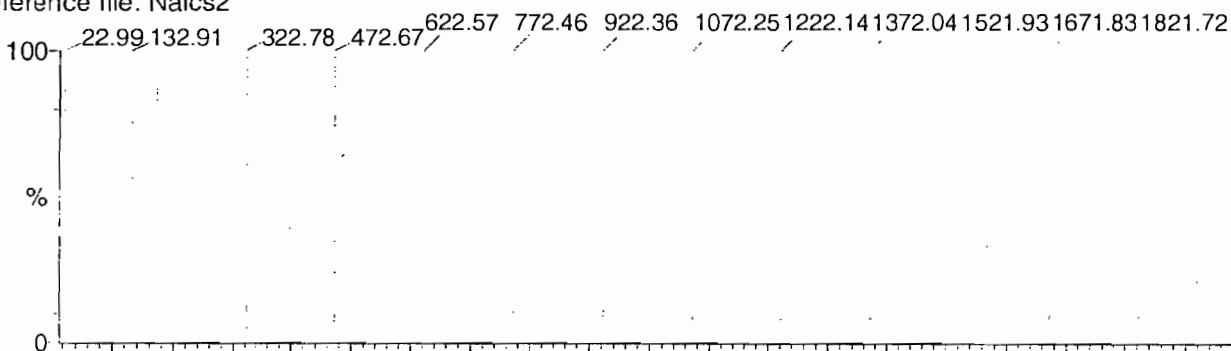
Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

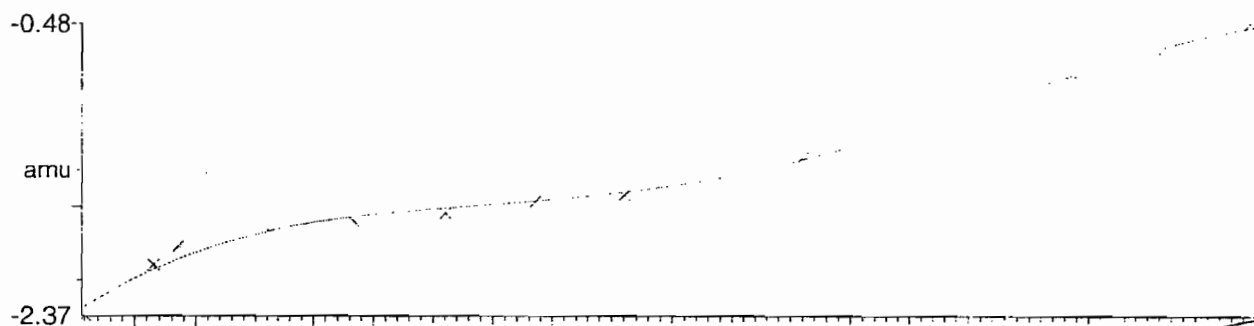
15 matches of 15 tested references



Reference file: Naics2

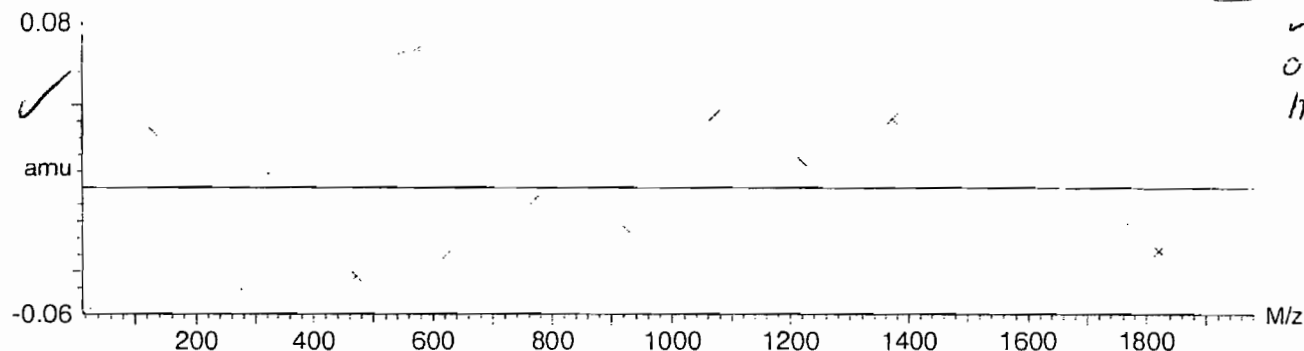


Mass difference (Raw - Ref mass)



Residuals

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



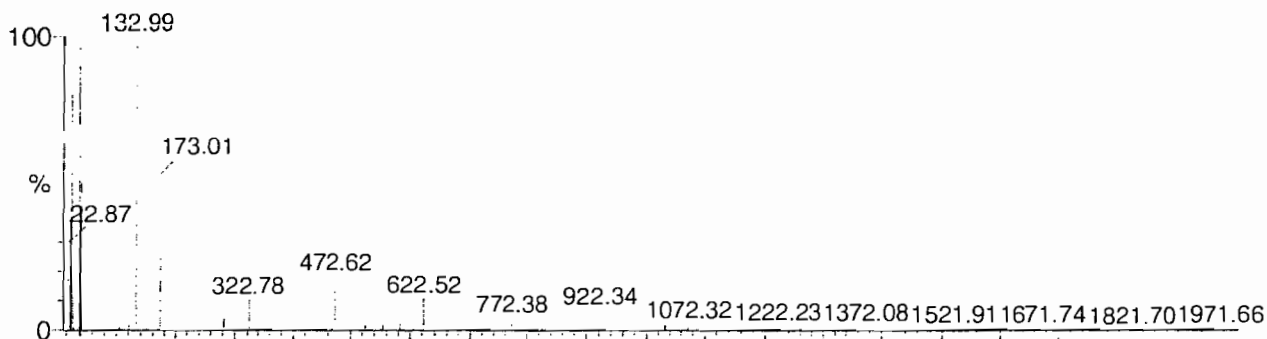
Calibration Report - MS1 Scanning

Page 1 of 1

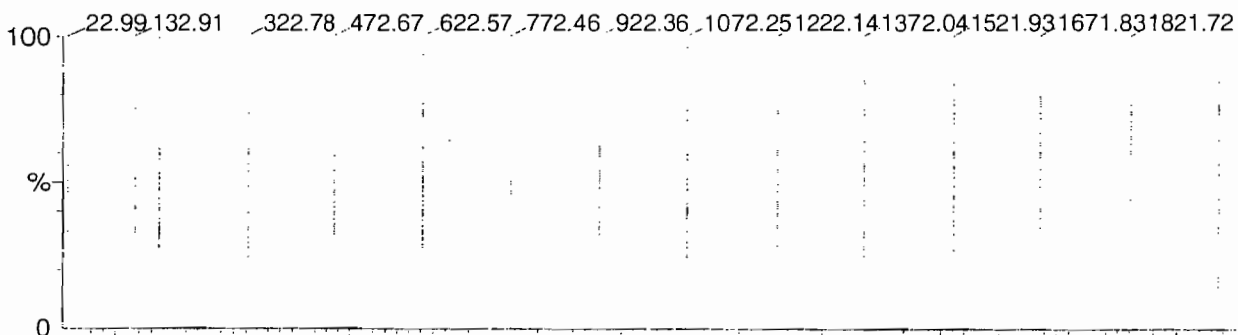
Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

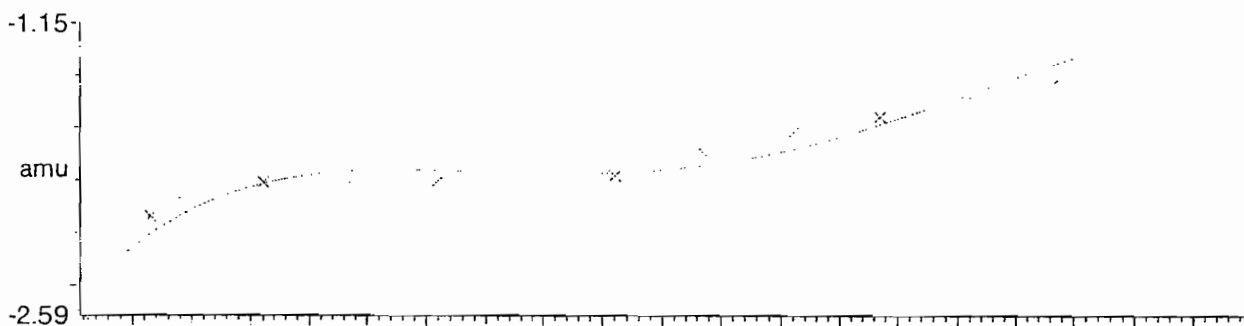
15 matches of 15 tested references



Reference file: Naics2

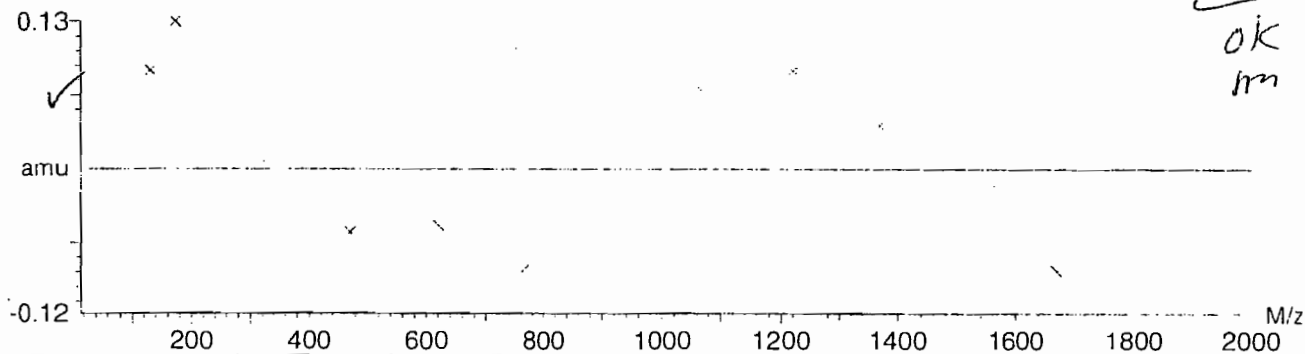


Mass difference (Raw - Ref mass)



Residuals

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



ok
m

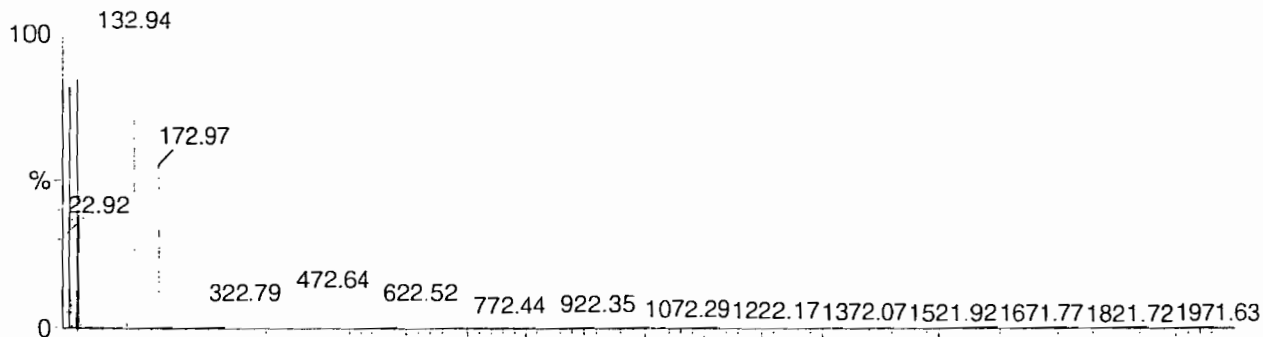
Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

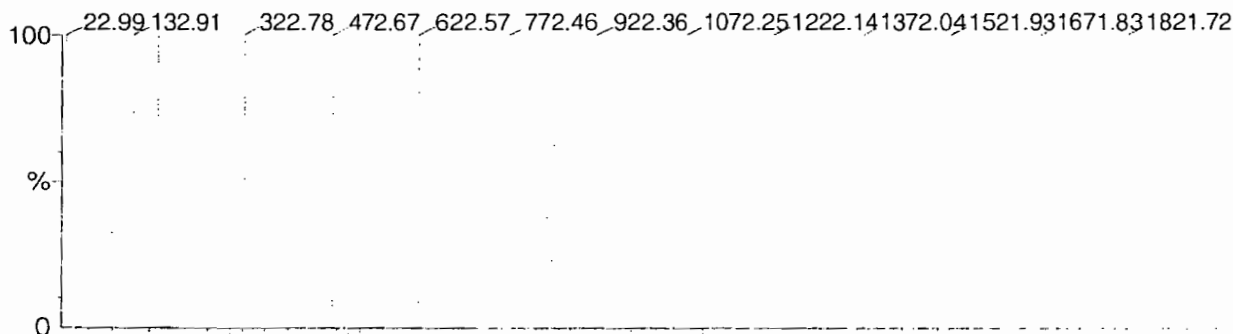
Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

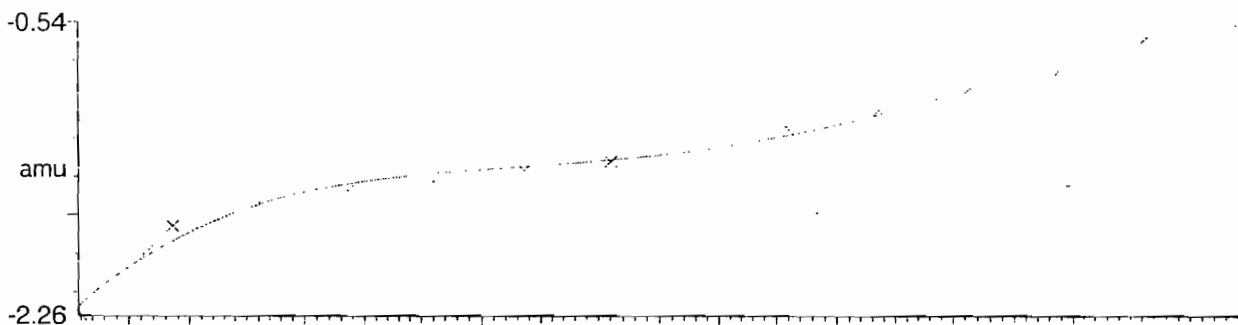
15 matches of 15 tested references



Reference file: Naics2

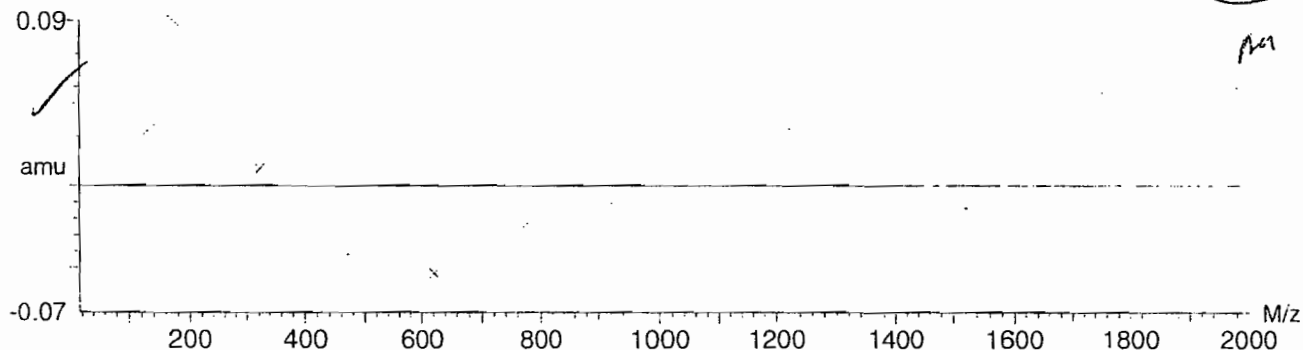


Mass difference (Raw - Ref mass)



Residuals

Mean residual = $3.486639 \times 10^{-9} \pm 0.040487$



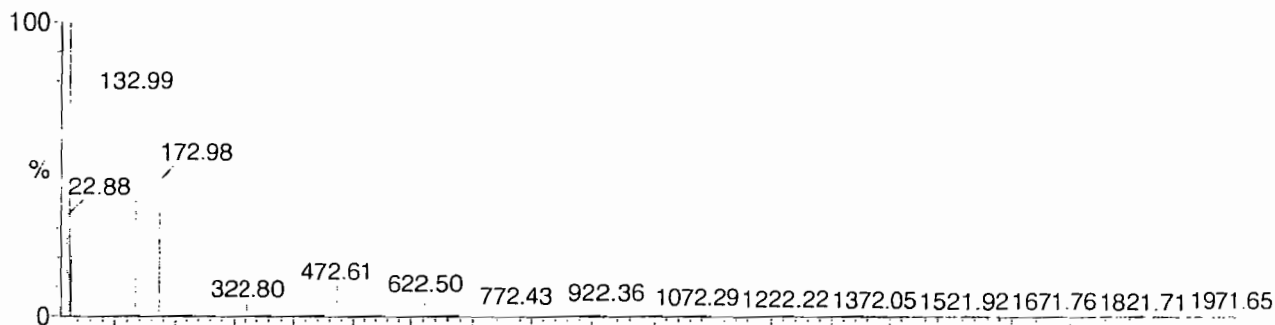
Calibration Report - MS2 Static

Page 1 of 1

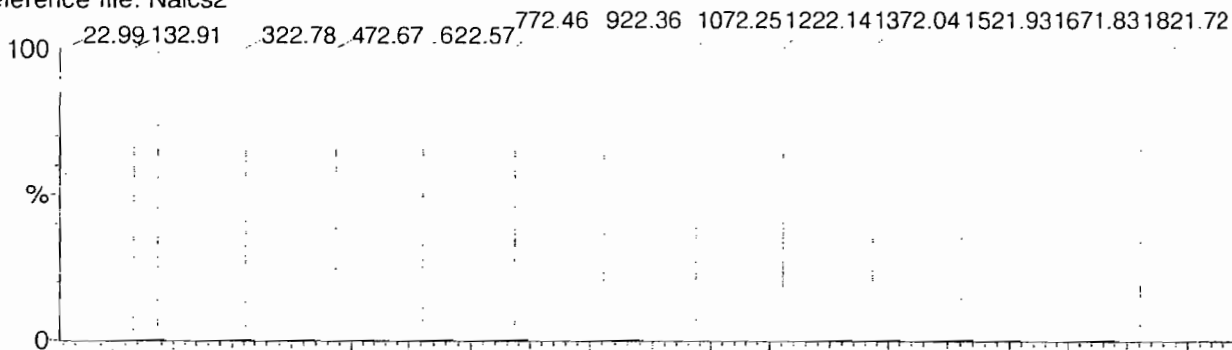
Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

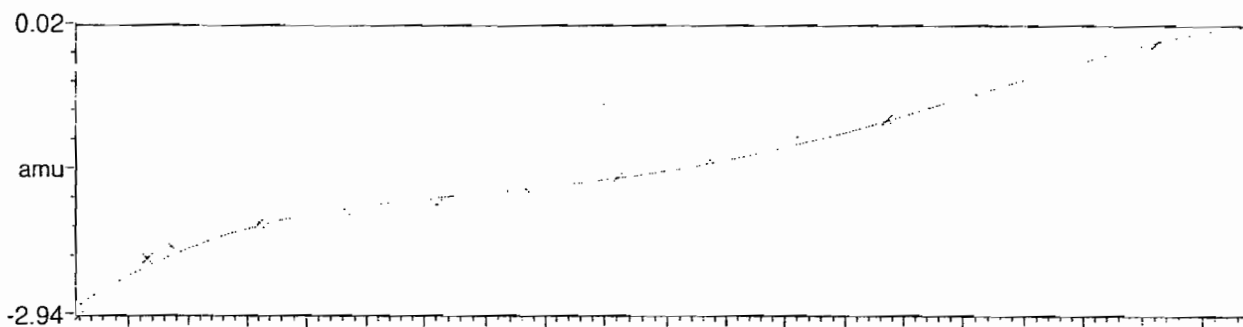
15 matches of 15 tested references



Reference file: Naics2

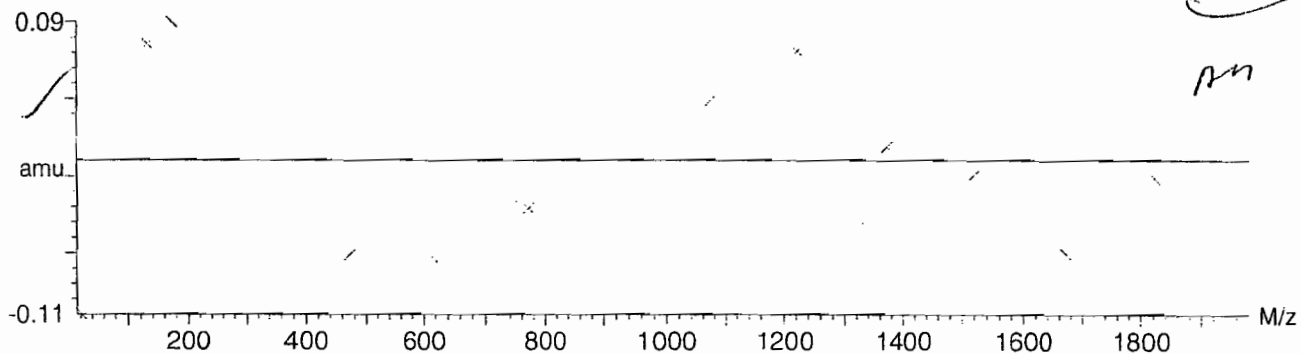


Mass difference (Raw - Ref mass)



Residuals

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



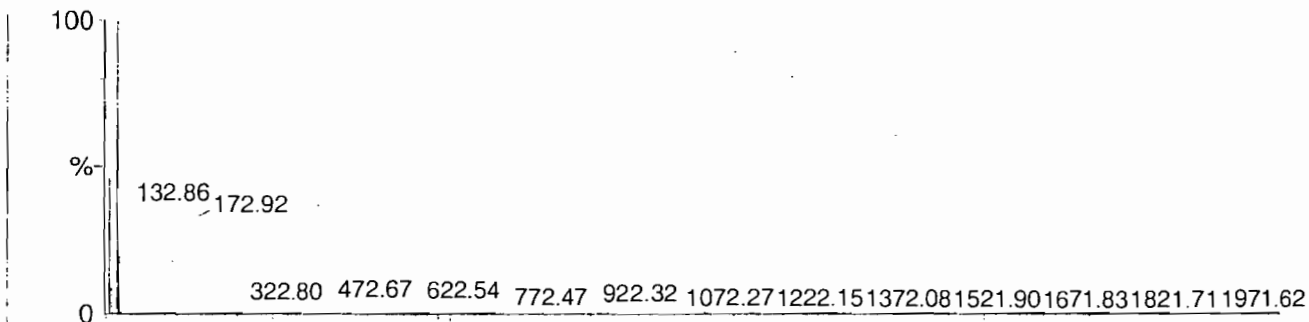
Calibration Report - MS2 Scanning

Page 1 of 1

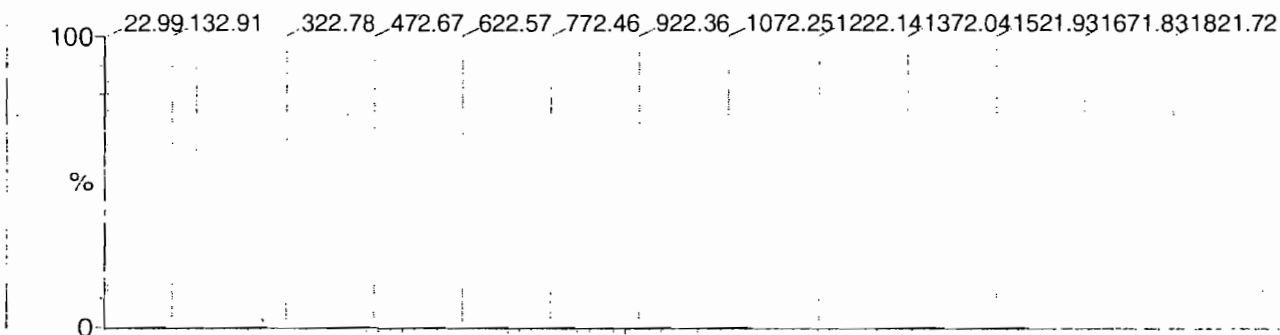
Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

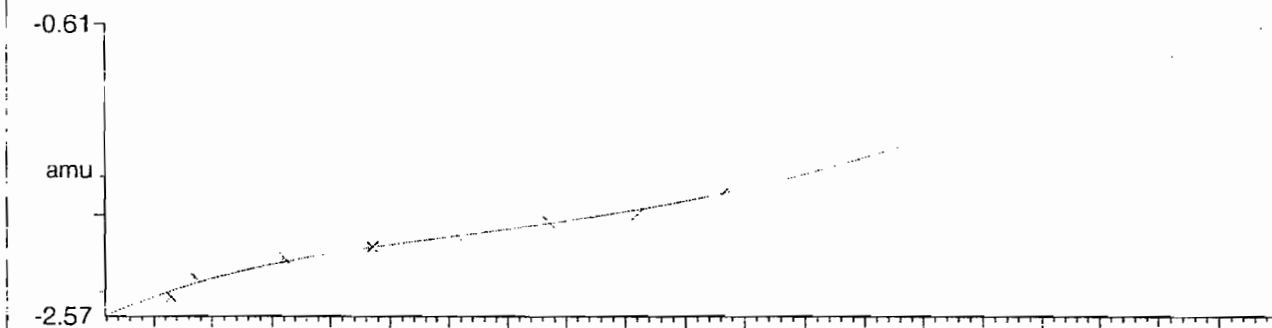
14 matches of 15 tested references



Reference file: Naics2

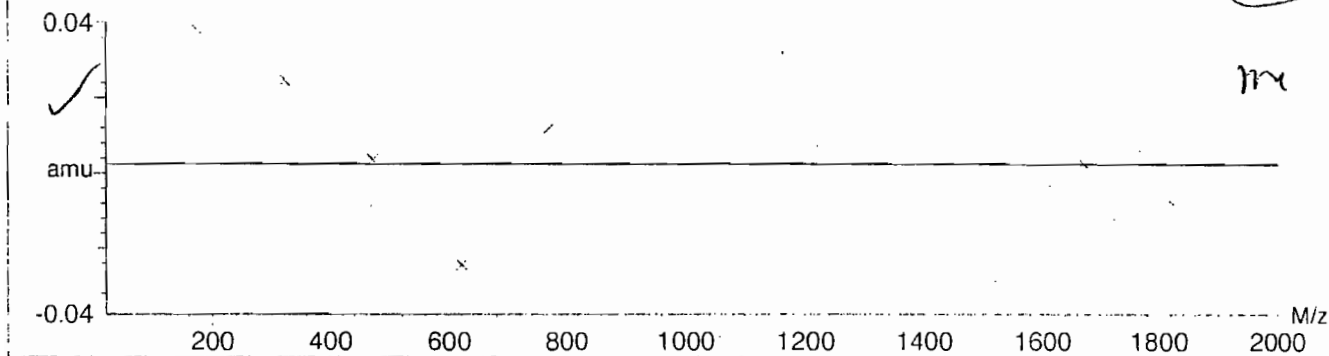


Mass difference (Raw - Ref mass)



Residuals

Mean residual = $-2.623502e-9 \pm 0.025622$



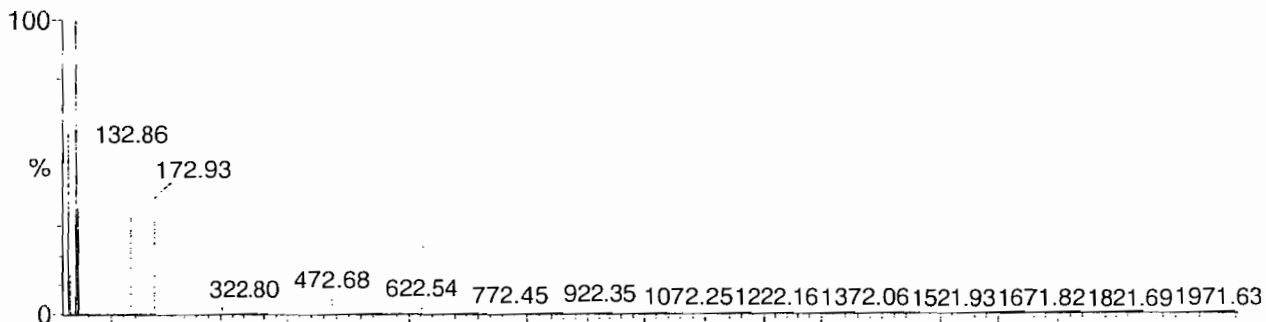
Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

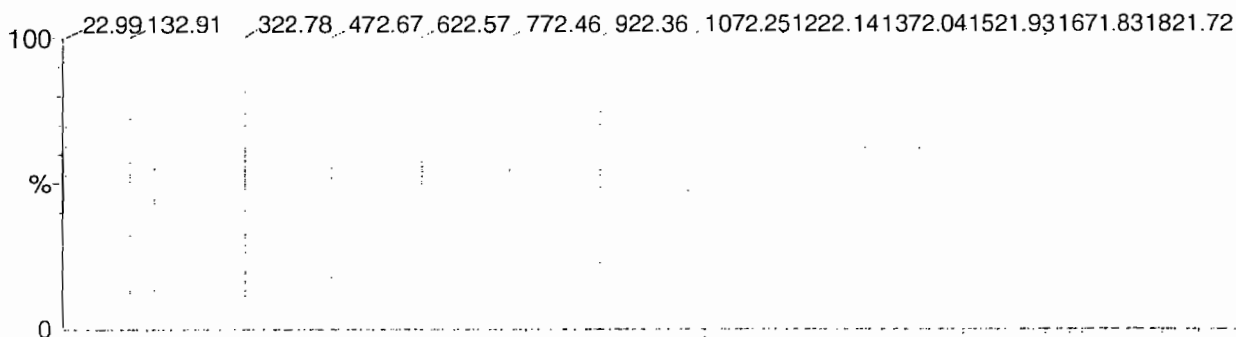
Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

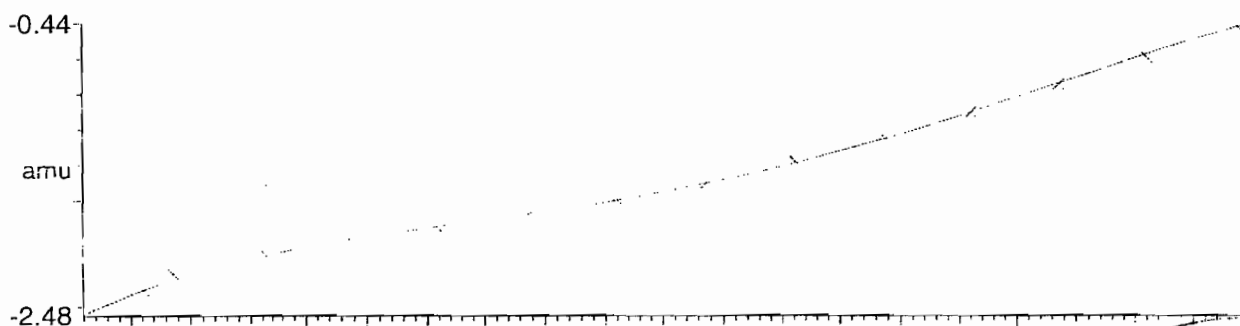
14 matches of 15 tested references



Reference file: Naics2

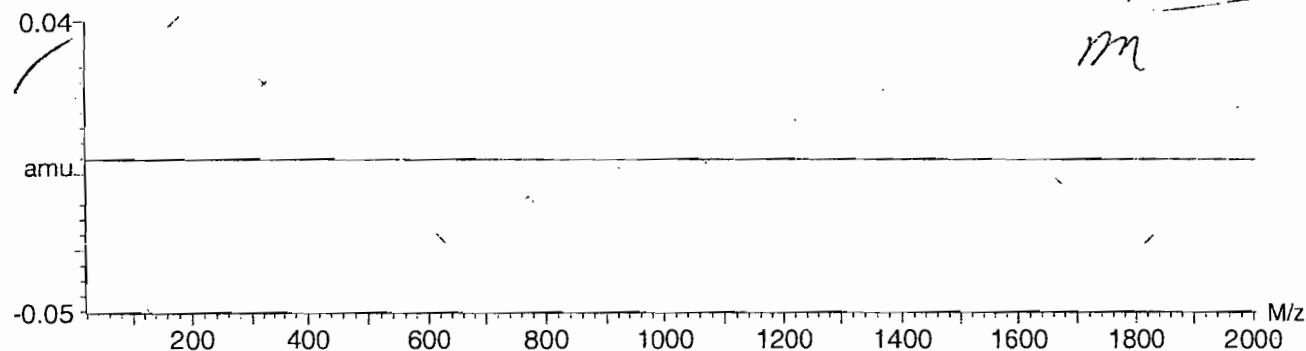


Mass difference (Raw - Ref mass)



Residuals

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

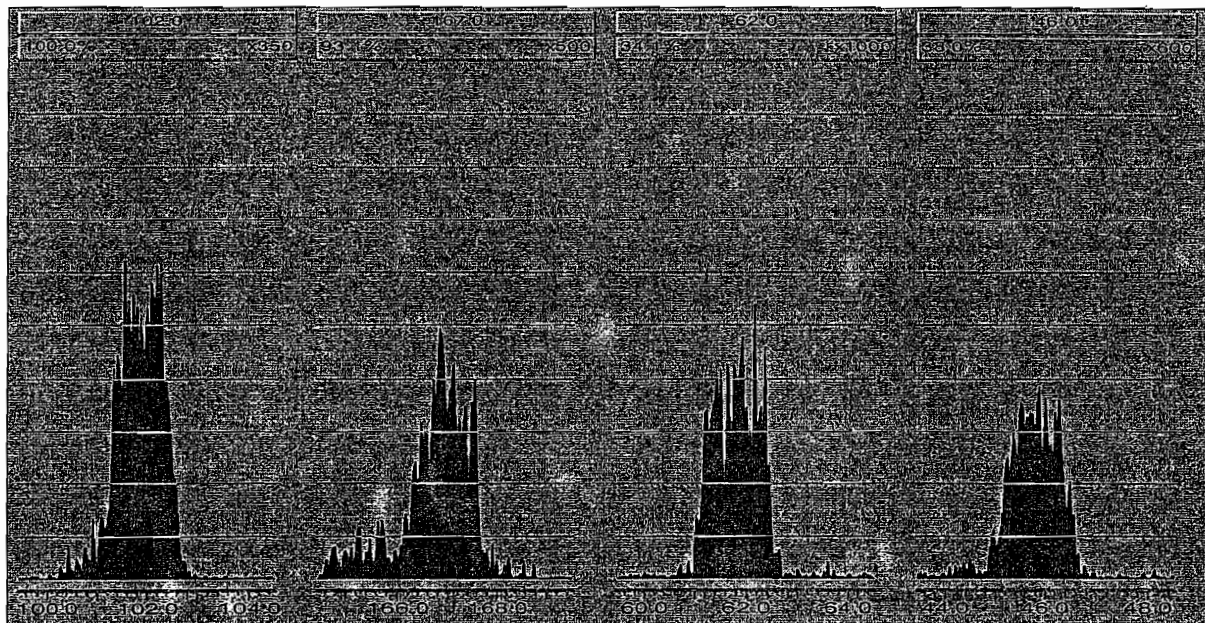


Quattro Micro Tune Parameters

Page 1

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Thu Mar 04 09:08:29 2010



High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			3511.79	12.136	20560.6	17.579
Upper Limit			4565.327	12.636	26728.78	18.079
Lower Limit			2458.253	11.636	14392.42	17.079
MB for batch 954329	06-mar-10 08:05	EXP0304084a	3843.17	12.067	19755.6	17.465
LCS for batch 954329	06-mar-10 08:34	EXP0304085a	3852.42	12.067	21556.8	17.465
RE15-10-8198	06-mar-10 20:22	EXP0304109a	3800.65	12.067	21007.1	17.466
RE15-10-8200	06-mar-10 20:52	EXP0304110a	3976.07	12.065	22244.8	17.477
RE15-10-8199	06-mar-10 21:21	EXP0304111a	3708.76	12.067	21265	17.465
RE15-10-8201	06-mar-10 21:51	EXP0304112a	3655.68	12.067	21031.4	17.465

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: RE15-10-8198

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123001

Sample Amount 2

Moisture: -5

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304109a

Date Analyzed: 06-MAR-10 20:22

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	Concentrated Extract Volume	X	Dilution Factor
		Sample Amount		

Identify Sample Report

IEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sun Mar 07 13:34:18 2010, Page 35 of 101

Dataset: C:\MASSLYNX\New_Exp_PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Sample Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0304109a

Date: 06-Mar-2010

Time: 20:22:41

ID: 247123001

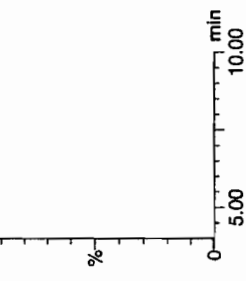
Label: 3:4,B

14717
3/7/10

Law/954338 / 2 /

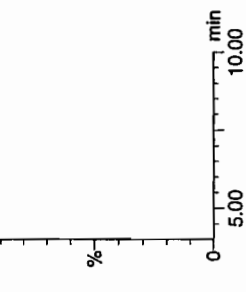
MX

F2:MRM of 1 channel,AP-
176 > 102
6.265e+003



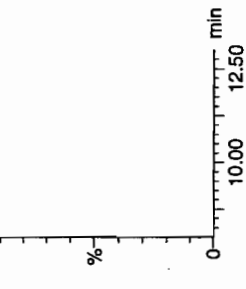
RDX

F2:MRM of 1 channel,AP-
176 > 102
6.265e+003



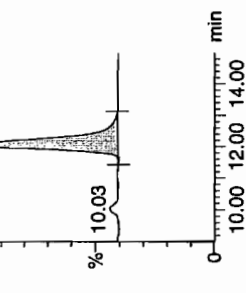
135-Trinitrobenzene

F4:MRM of 1 channel,AP-
213 > 183
6.251e+003



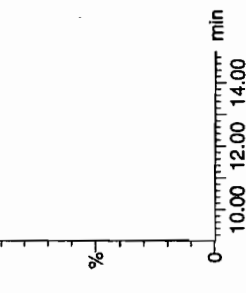
13-Dinitrobenzene-d4

F5:MRM of 2 channels,AP-
172 > 142
1.530e+004



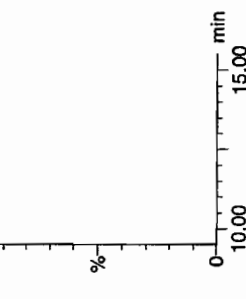
13-Dinitrobenzene

F5:MRM of 2 channels,AP-
168 > 138
6.232e+003



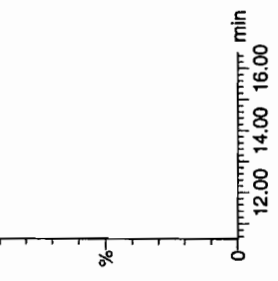
Tetryl

F6:MRM of 1 channel,AP-
241 > 181
6.252e+003



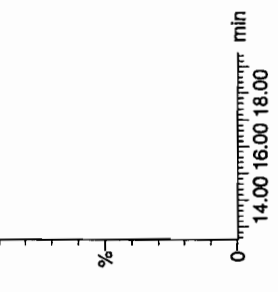
4-nitrobenzene

F7:MRM of 1 channel,AP-
123 > 46
6.253e+003



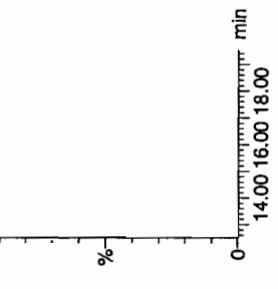
4-Amino-26-dinitrotoluene

F11:MRM of 2 channels,AP-
197 > 167
6.237e+003



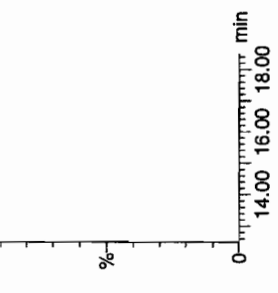
2-Amino-46-dinitrotoluene

F11:MRM of 2 channels,AP-
197 > 180
6.275e+003



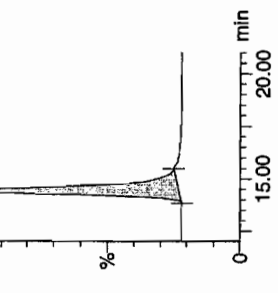
246-Trinitrotoluene

F10:MRM of 1 channel,AP-
227 > 210
6.252e+003



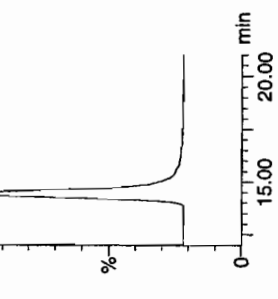
34-dinitrotoluene

F9:MRM of 2 channels,AP-
182 > 152
2.840e+004

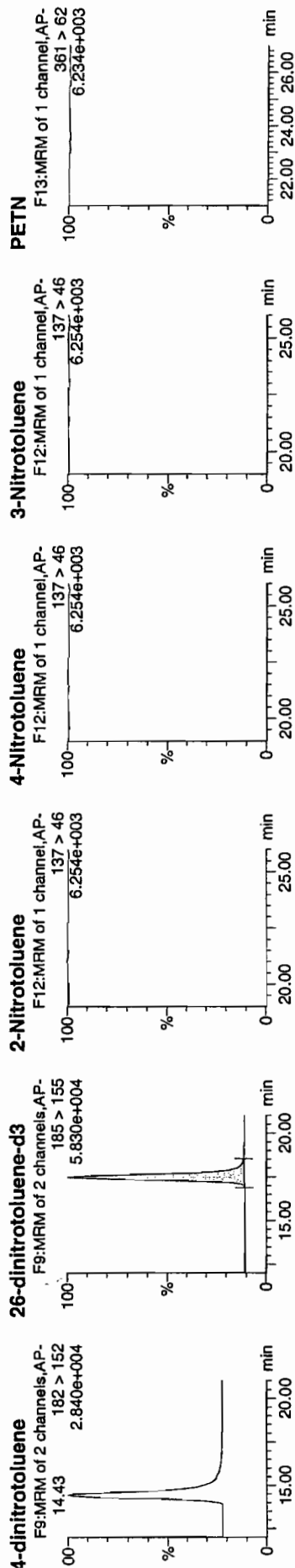


26-dinitrotoluene

F9:MRM of 2 channels,AP-
182 > 152
2.840e+004



Handwritten signature and date 3/7/10

[illegible]

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8198

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123001

Sample Amount 2

Moisture: .5

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260085.wiff

Date Analyzed: 27-FEB-10 12:53

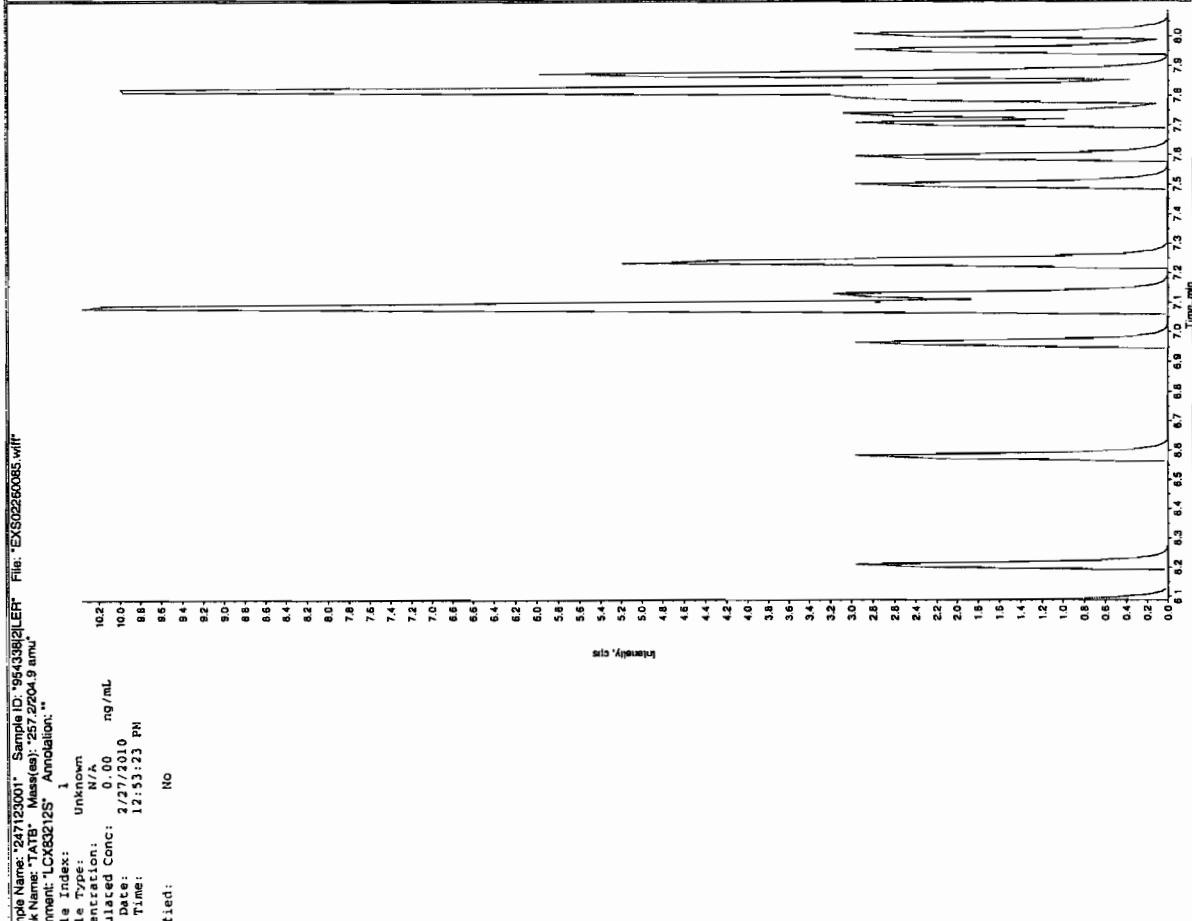
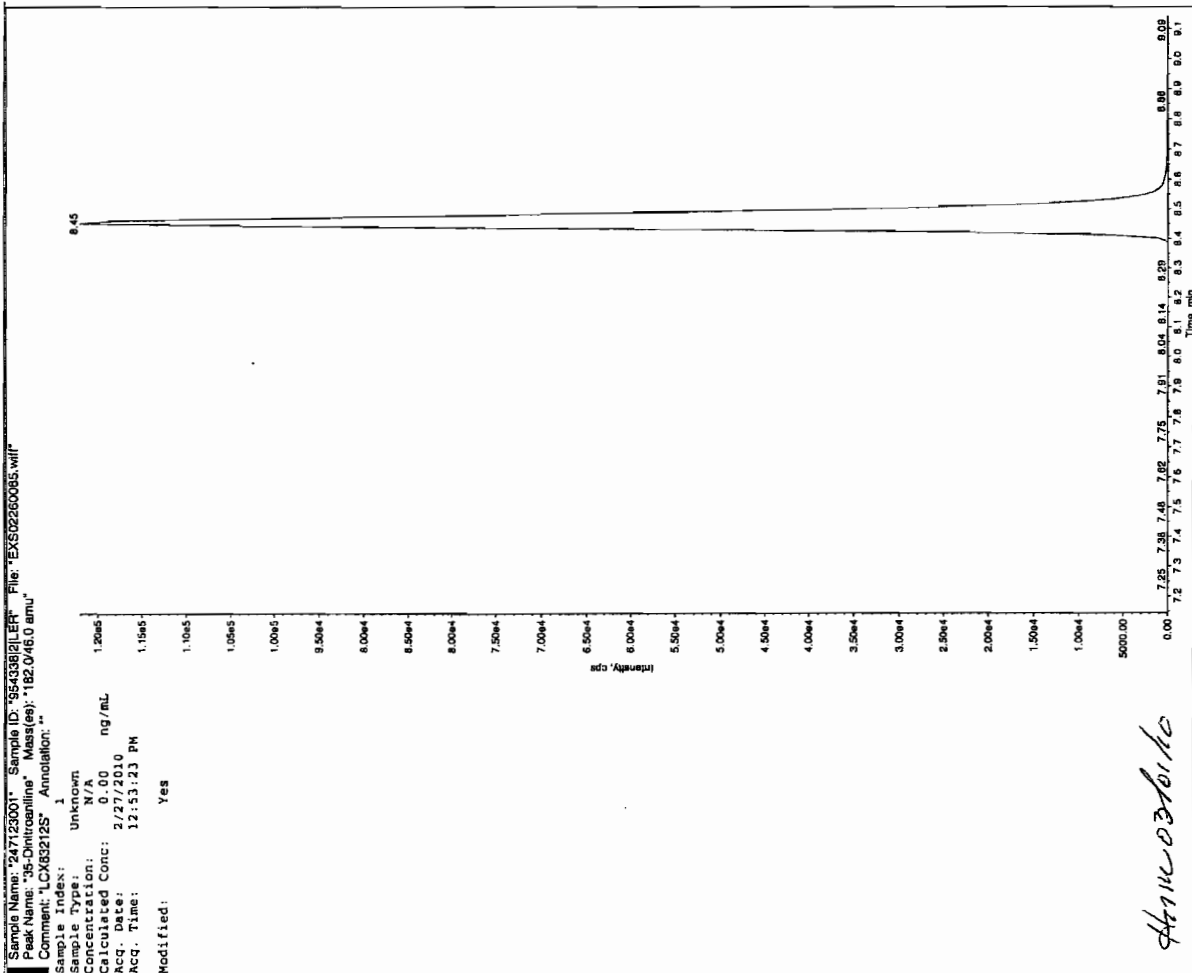
Units: ug/kg

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

*Concentration =

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

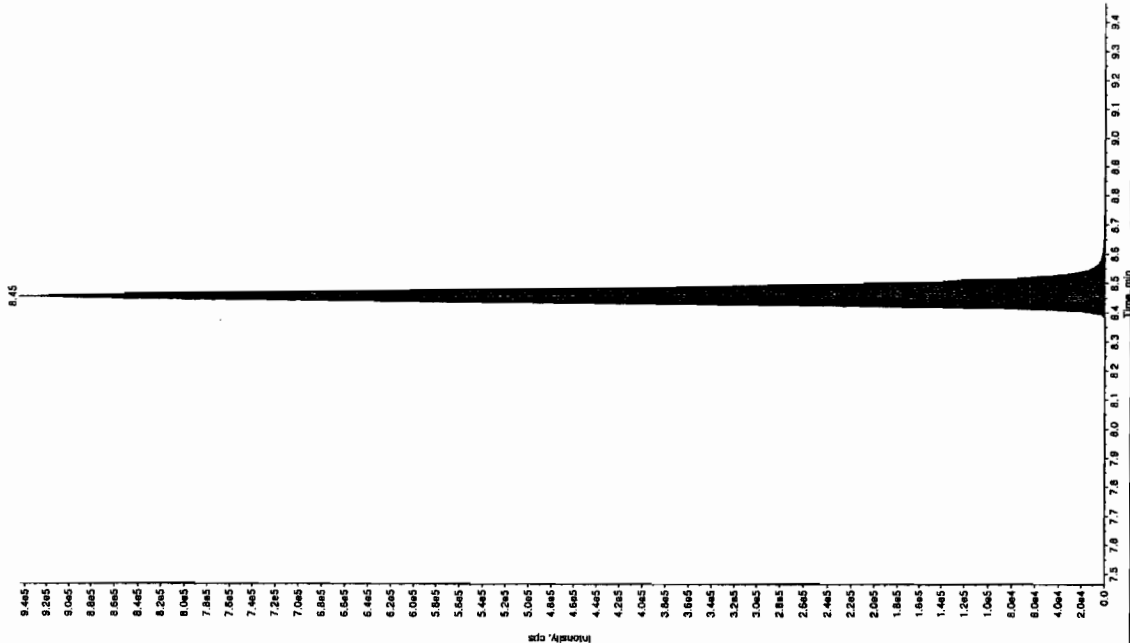
Ken 3/1/10



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

Sample Name: "247123001" Sample ID: "95433821LER" File: "EXS02260085.wif"
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.046.0 amu"
 Comment: "LCX832125" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/27/2010
 Acq. Time: 12:53:23 PM
 Modified: No



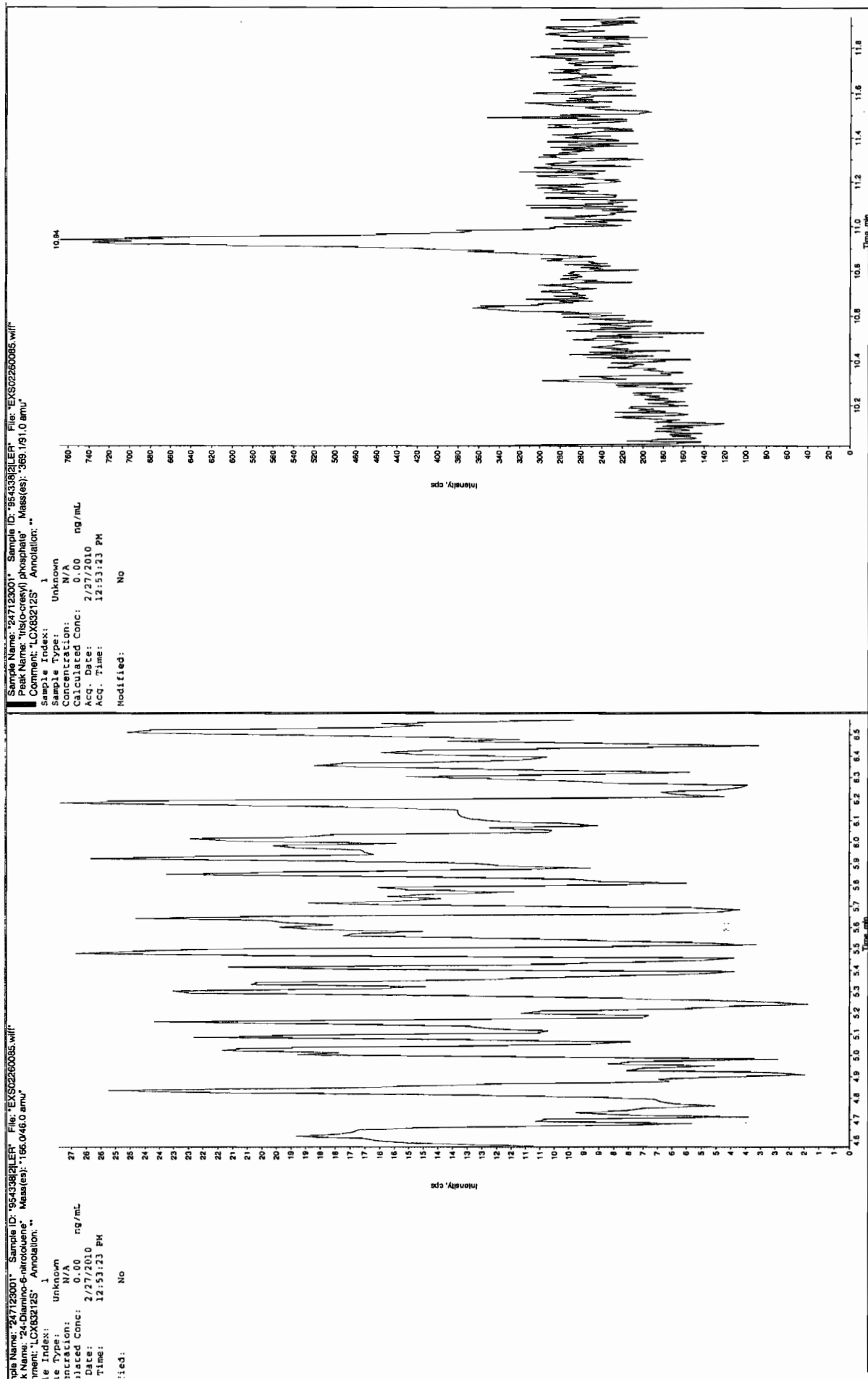
Sample Name: "247123001" Sample ID: "95433821LER" File: "EXS02260085.wif"
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1151.9 amu"
 Comment: "LCX832125" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 2/27/2010
 Acq. Date: 2/27/2010
 Acq. Time: 12:53:23 PM
 Modified: No

Algorithm: IntelliQuan - IQA
 Peak Height: 1460.00 cps
 Peak Width: 0.00 sec
 Window: 3 points
 Window: 15.0 sec
 Retention Time: 8.45 min
 Relative RT: No

Type: Valley
 Retention Time: 8.45 min
 Counts: 3146006
 Time: 394579163 cps
 Time: 8.32 min
 Time: 8.83 min

Intensity, cps



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

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8200

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123002

Sample Amount 2

Moisture: 1.4

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304110a

Date Analyzed: 06-MAR-10 20:52

Units: ug/kg

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

*Concentration =

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

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

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304110a

Date: 06-Mar-2010

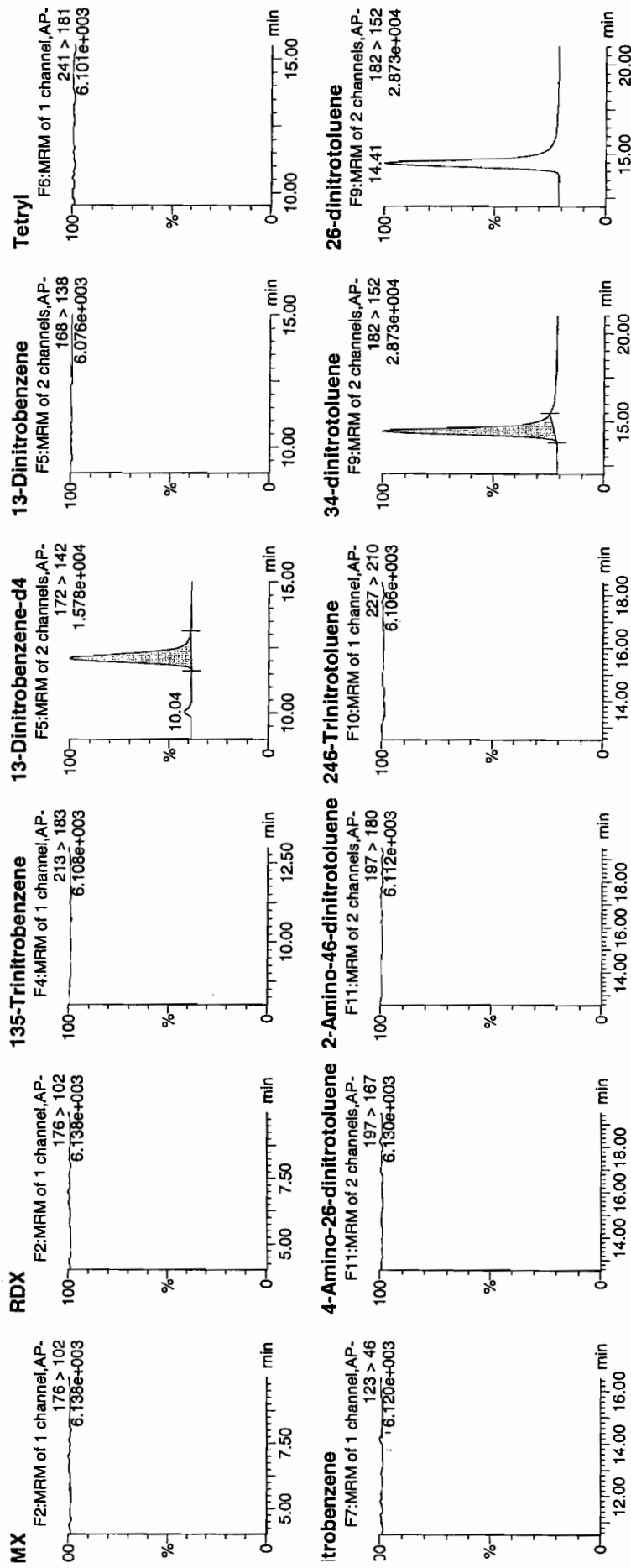
Time: 20:52:11

ID: 247123002

Label: 3:4,C

147
3/2/10

WAV/954333/8022/121



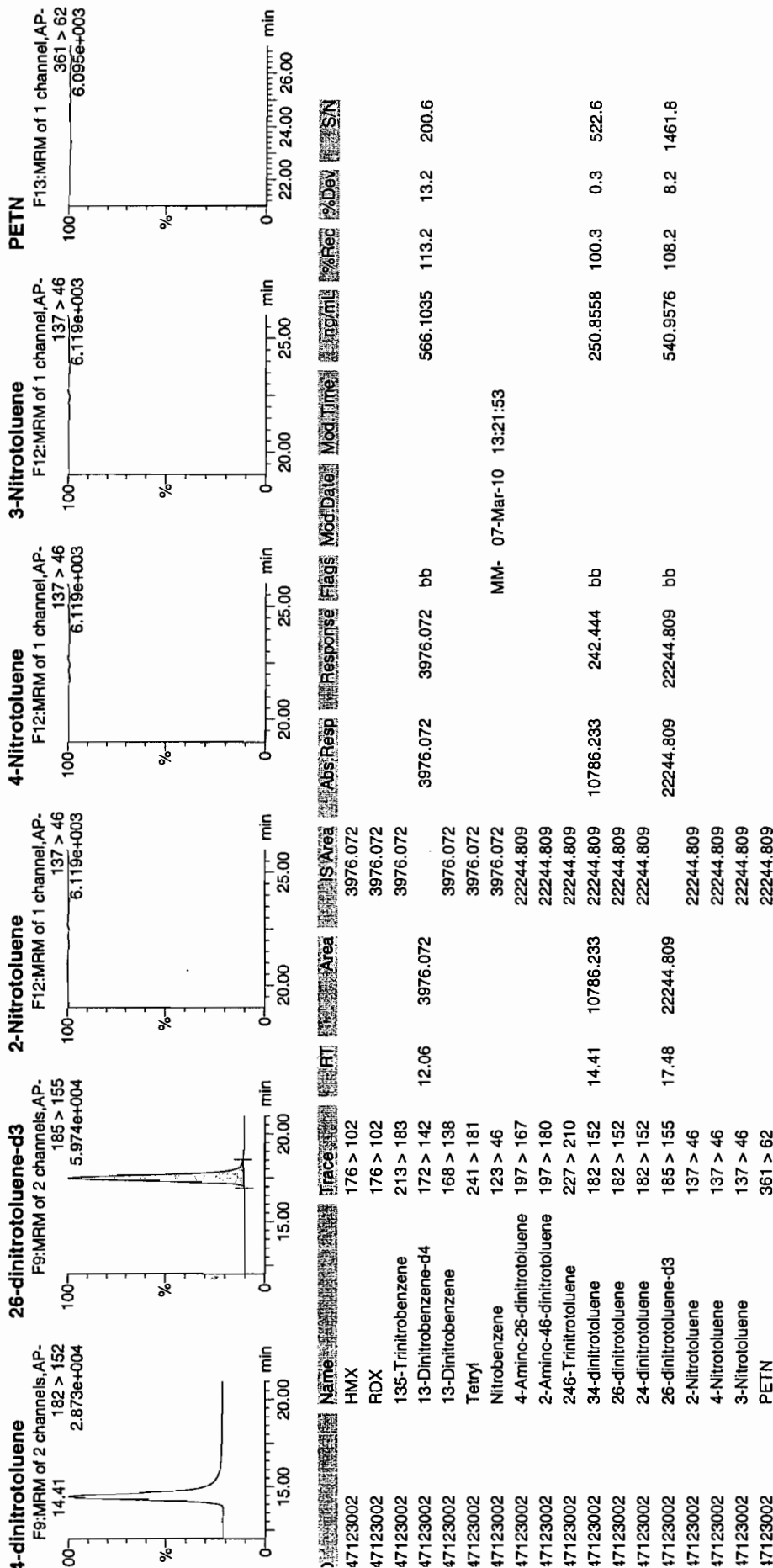
Handwritten signature/initials.

uantify Sample Report

EL Laboratories, LLC / Analyst : Michael A. Penny

atset: C:\MASSLYNX\New_Exp\PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

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1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8200

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123002

Sample Amount 2

Moisture: 1.4

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260089.wiff

Date Analyzed: 27-FEB-10 13:56

Units: ug/kg

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

*Concentration =

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

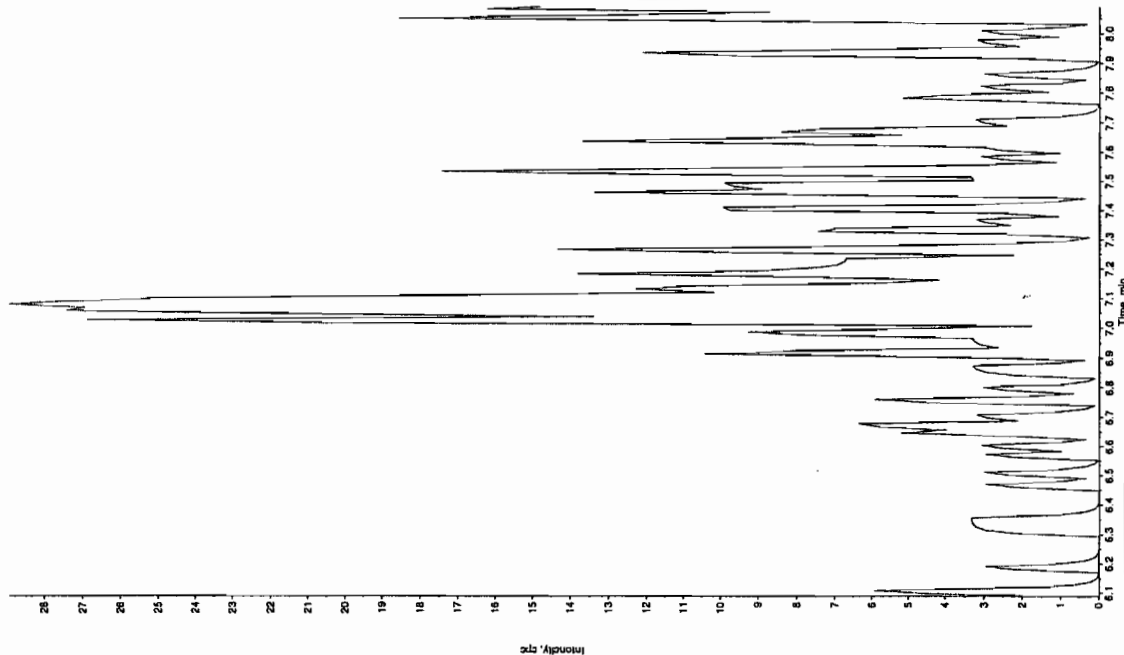
Jan 31/10

Sample Name: 247123022 Sample ID: 95433821ER File: EXS02260089.wif

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

Comment: LCX832125 Annotation:

Sample Index: 1
 Sample Type: Unknown
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/27/2010
 Acq. Time: 1:56:13 PM
 Modified: Yes



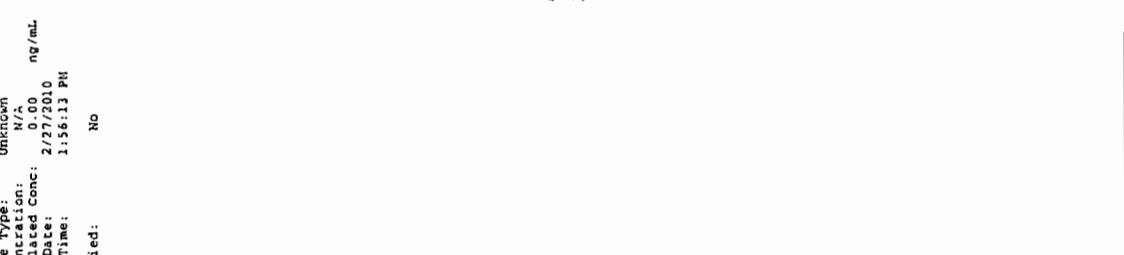
411102301/10

Sample Name: 247123022 Sample ID: 95433821ER File: EXS02260089.wif

Peak Name: 1A1B Mass(es): 257.2204.9 amu

Comment: LCX832125 Annotation:

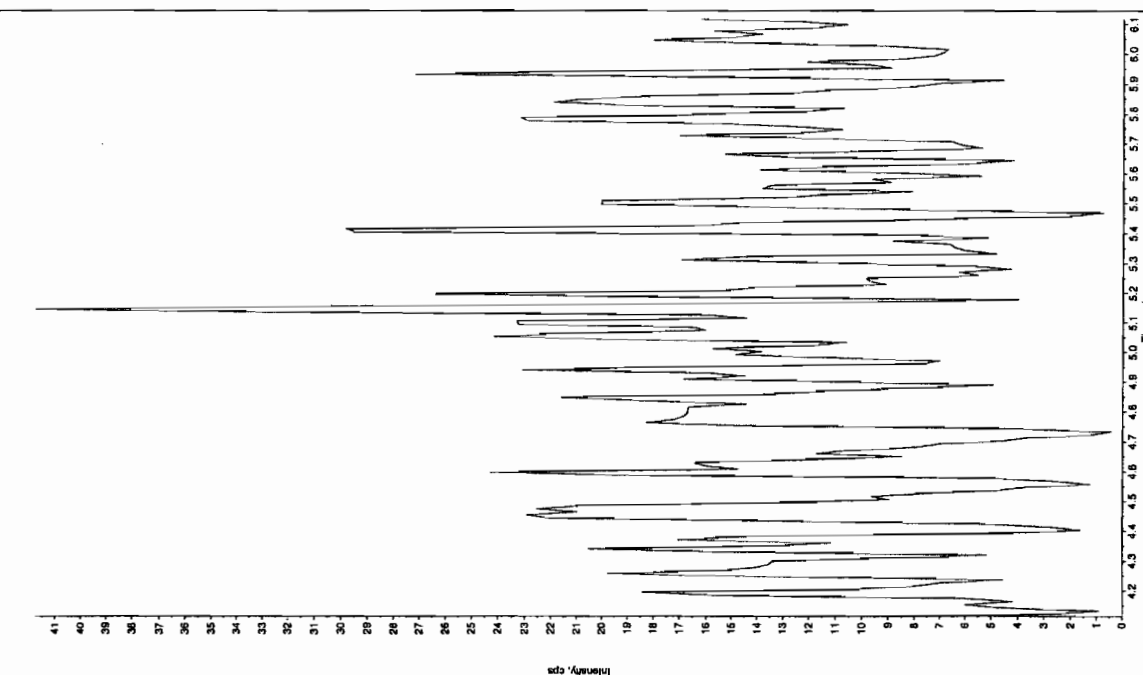
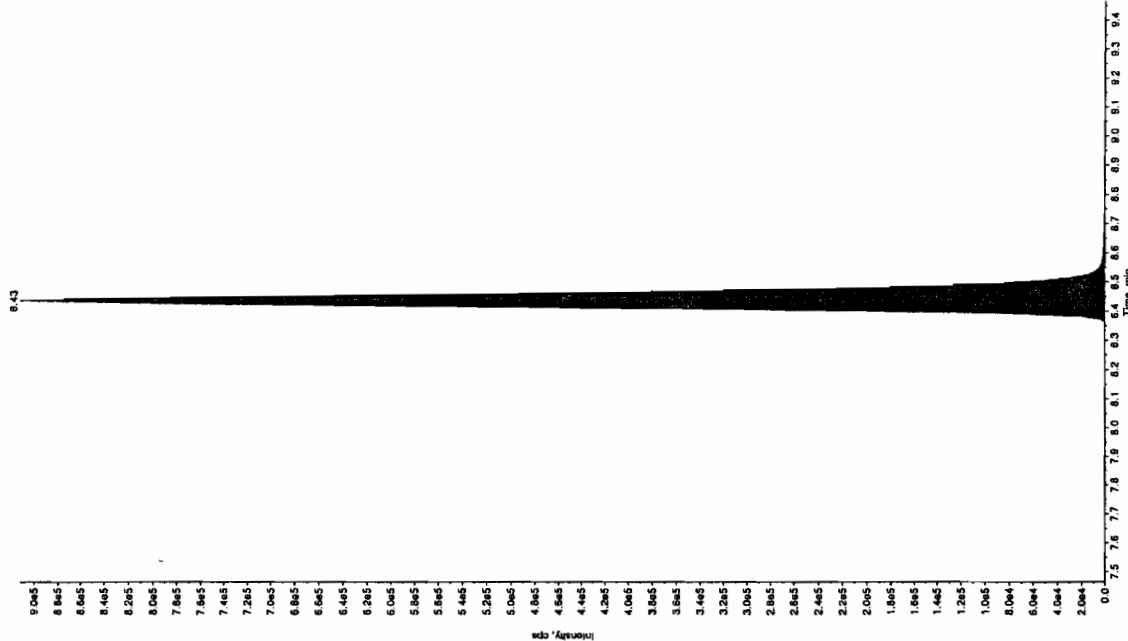
Sample Index: 1
 Sample Type: Unknown
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/27/2010
 Acq. Time: 1:56:13 PM
 Modified: No

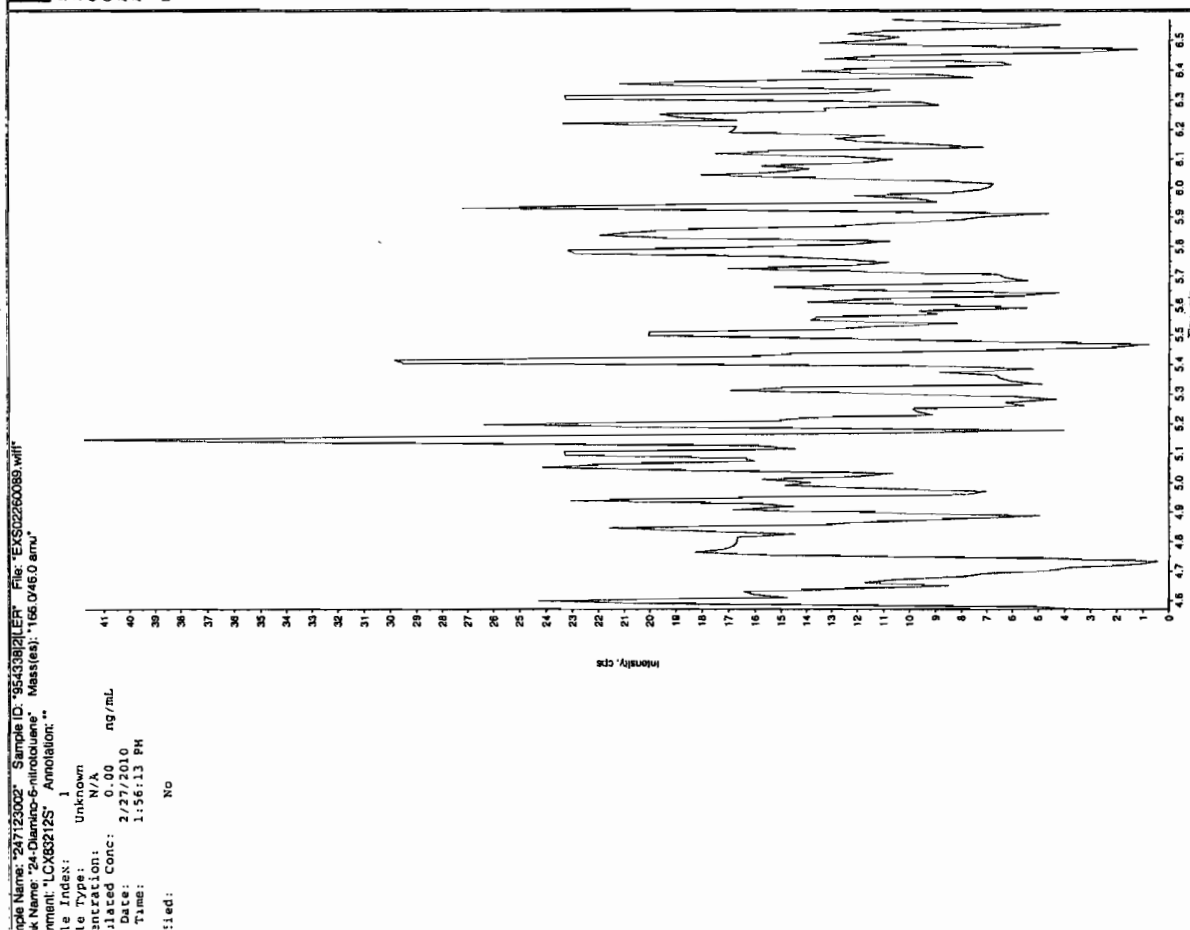
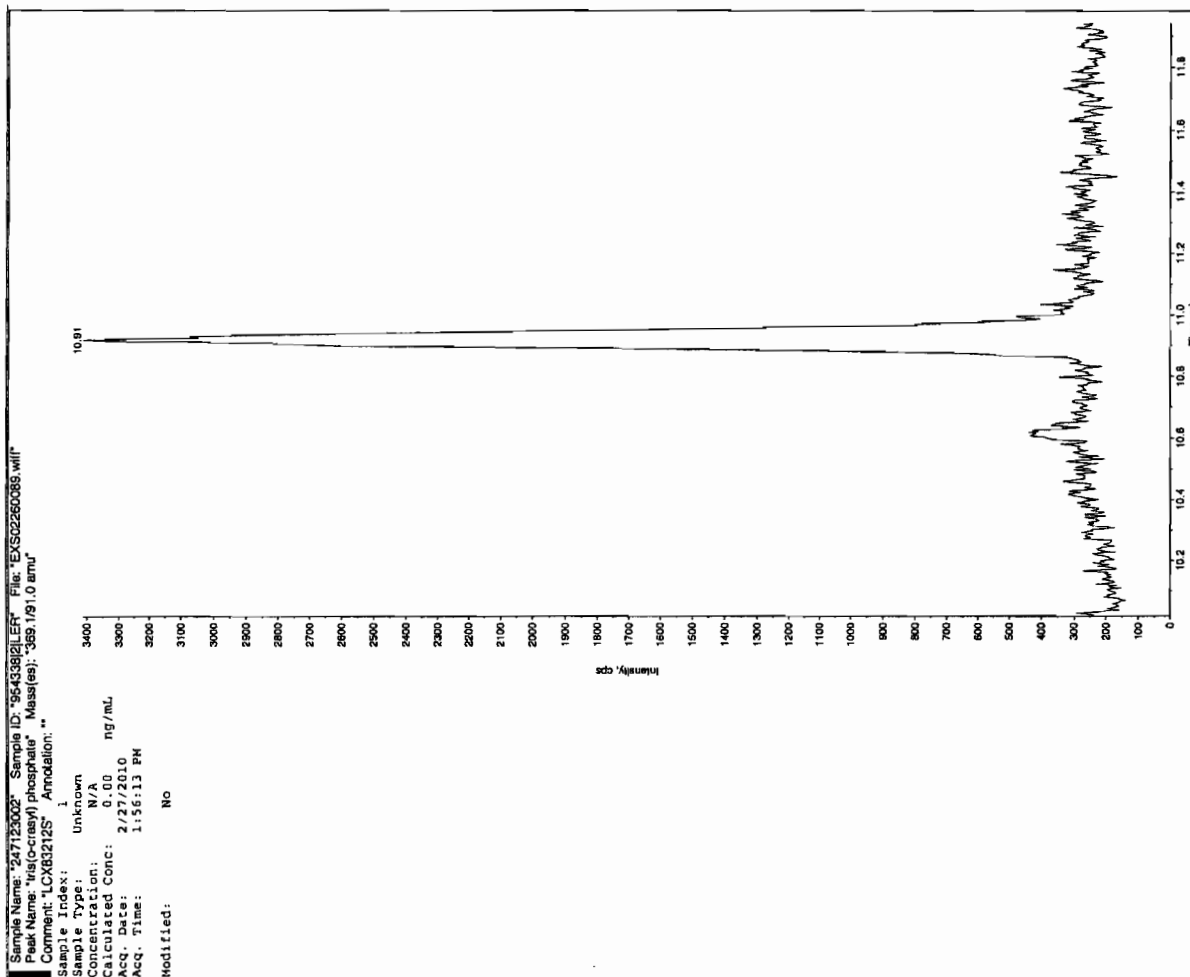


L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: '247123002' Sample ID: '9543382' LER: File: 'EXS02260069.wif'
Peak Name: '26-Diamino-4-nitrotoluene' Mass(es): '156.0/46.0 amu'
Comment: 'LCX83212S' Annotation: ''

Sample Name:	Unknown	ng/mL
Lot:	2375	
Expiration Date:	2/27/2010	
Time:	1:56:13 PM	
Method:	IntelliQuan - ICA	
Peak Height:	1460.00	CPS
Peak Width:	3.00	sec
Retaining Width:	15.0	points
Ret RT:	8.46	min
Relative RT:	No	
Types:	Valley	
Time:	8.32	min
Count:	3,240,005	counts
Time:	512398.565	CPS
Time:	8.32	min
Time:	8.77	min





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

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8199

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123003

Sample Amount 2

Moisture: 2.0

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304111a

Date Analyzed: 06-MAR-10 21:21

Units: ug/kg

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

*Concentration =

Instrument Value	X	<u>Concentrated Extract Volume</u>	X	Dilution Factor
		<u>Sample Amount</u>		

Quantify Sample Report

SEL Laboratories, LLC / Analyst: Michael A. Penny

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304111a

Date: 06-Mar-2010

Time: 21:21:40

ID: 247123003

Label: 3:4,D

100%
3/7/10

100%
954338 / 800000 / 21

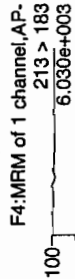
IMX



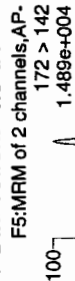
RDX



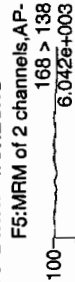
135-Trinitrobenzene



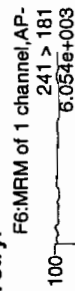
13-Dinitrobenzene-d4



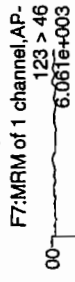
13-Dinitrobenzene



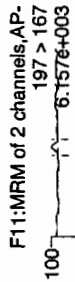
Tetryl



4-Amino-26-dinitrotoluene



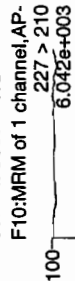
4-Amino-26-dinitrotoluene



2-Amino-46-dinitrotoluene



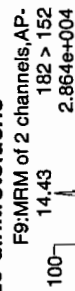
246-Trinitrotoluene



34-dinitrotoluene



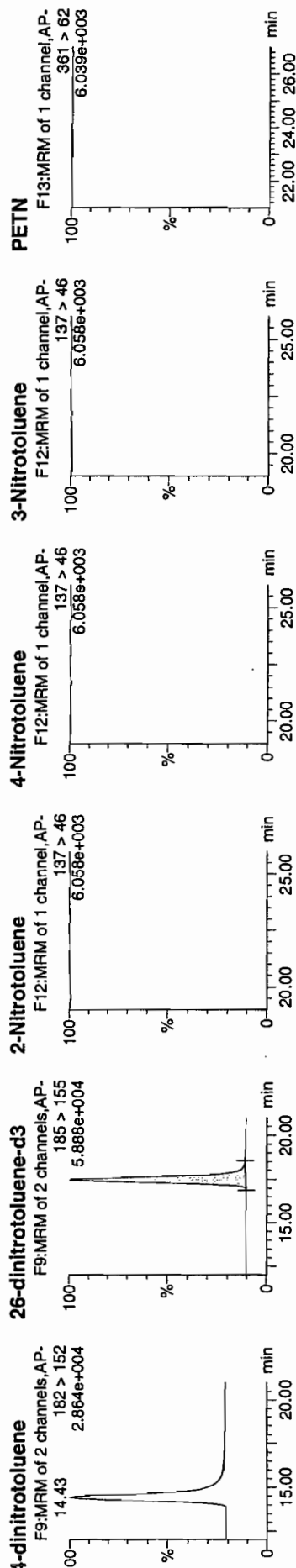
26-dinitrotoluene



Handwritten signature: Anne [unclear]

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[illegible]

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8199

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123003

Sample Amount 2

Moisture: 2.0

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260090.wiff

Date Analyzed: 27-FEB-10 14:11

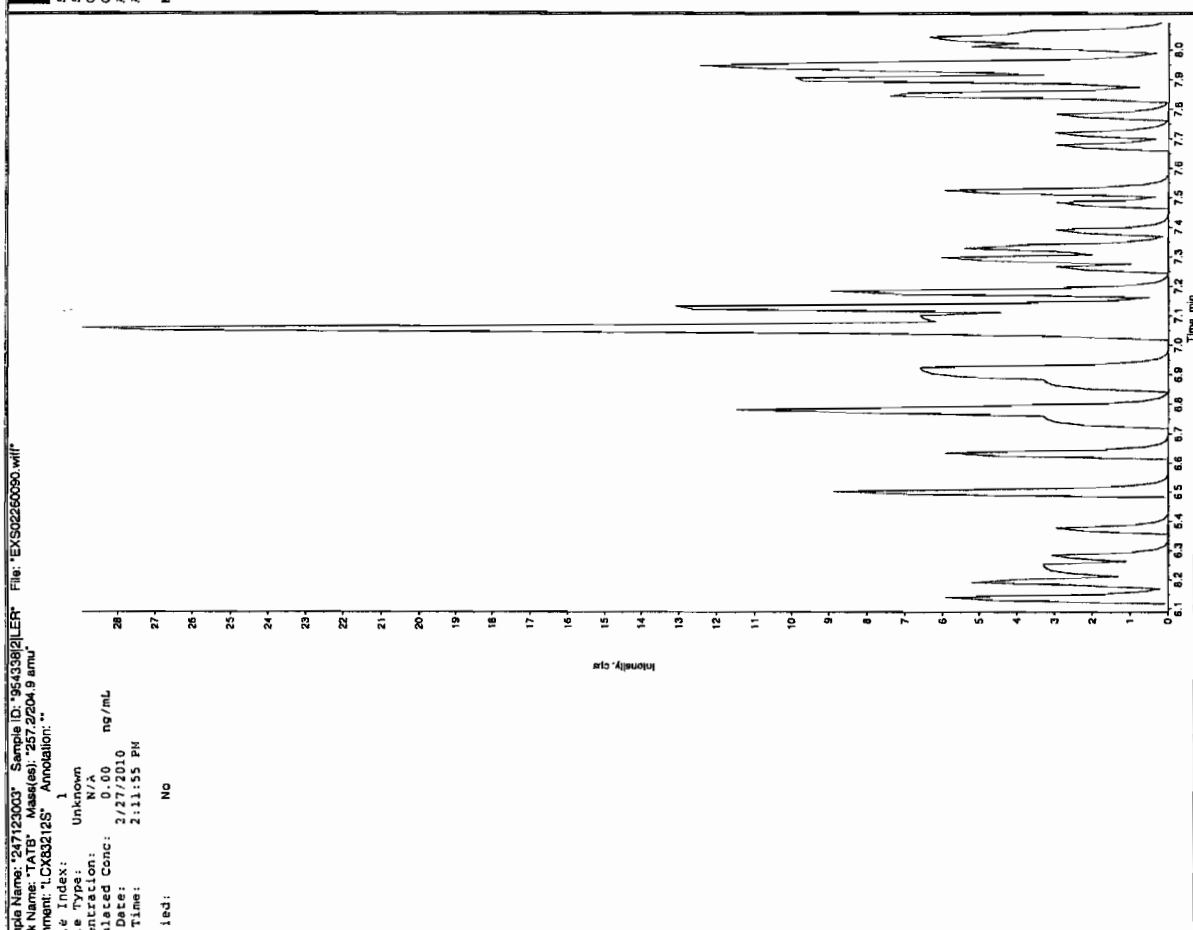
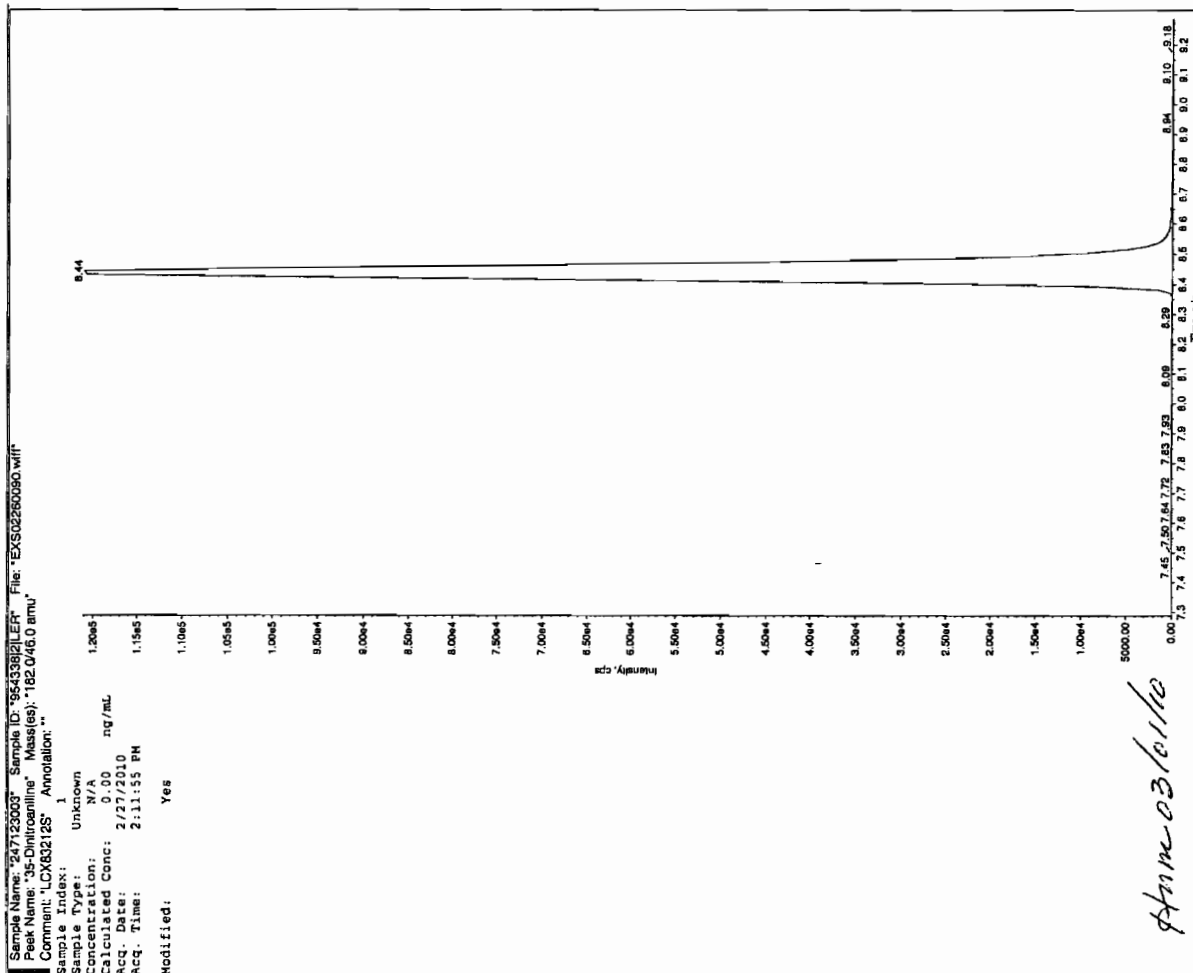
Units: ug/kg

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

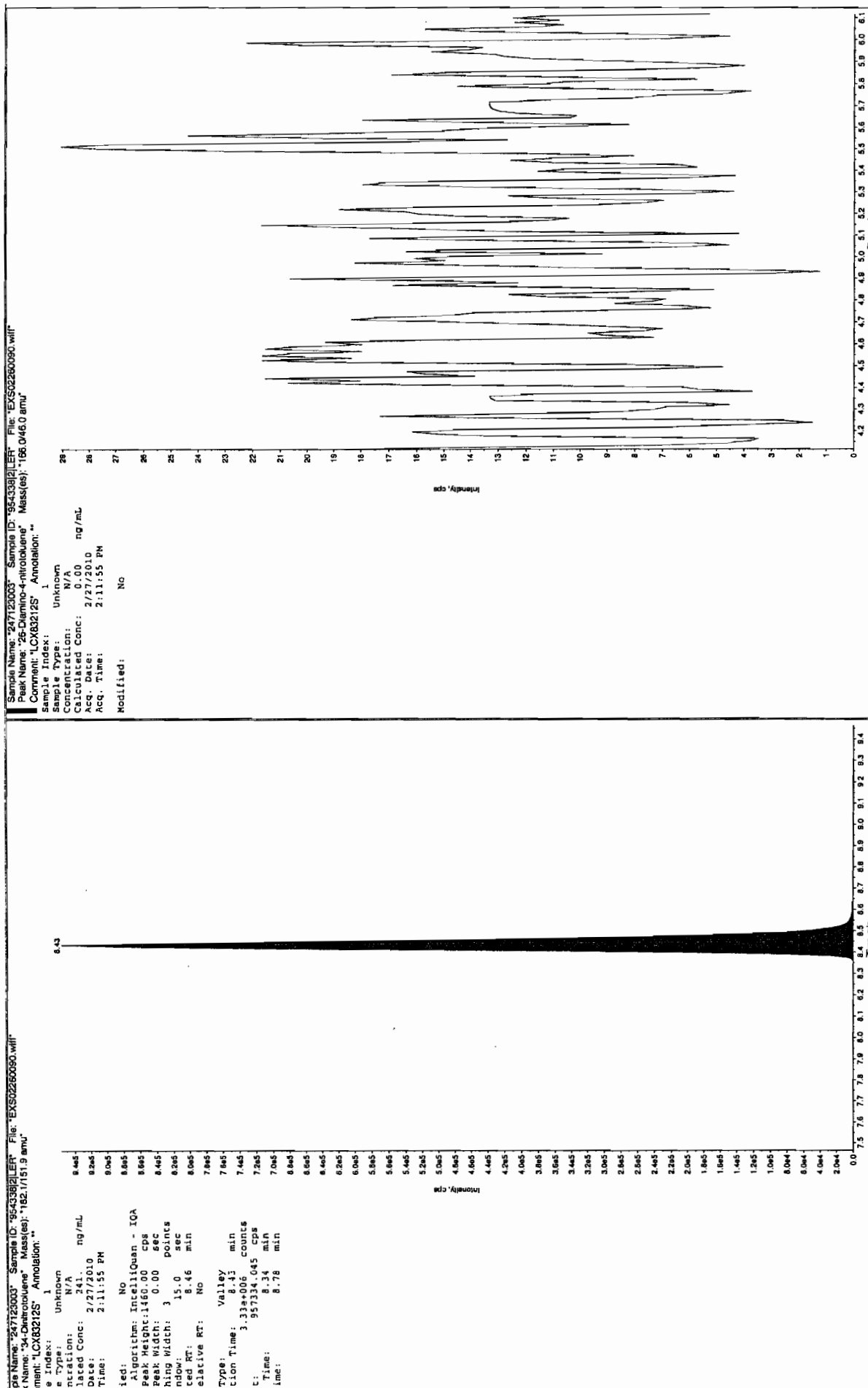
*Concentration =

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

See 3/1/10

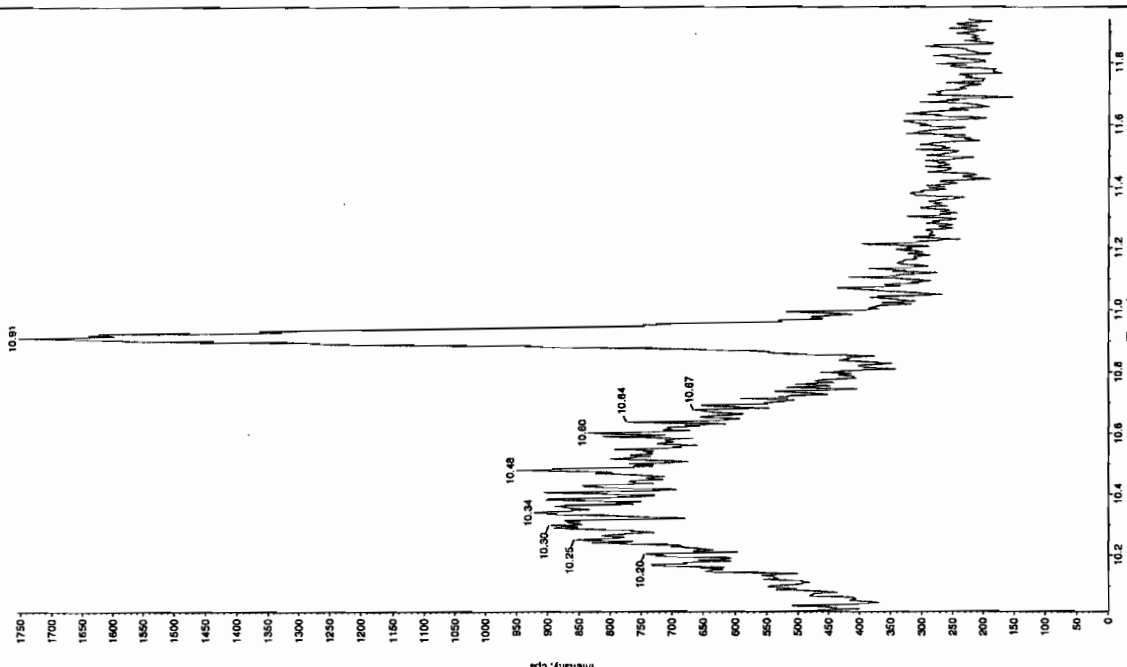


SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



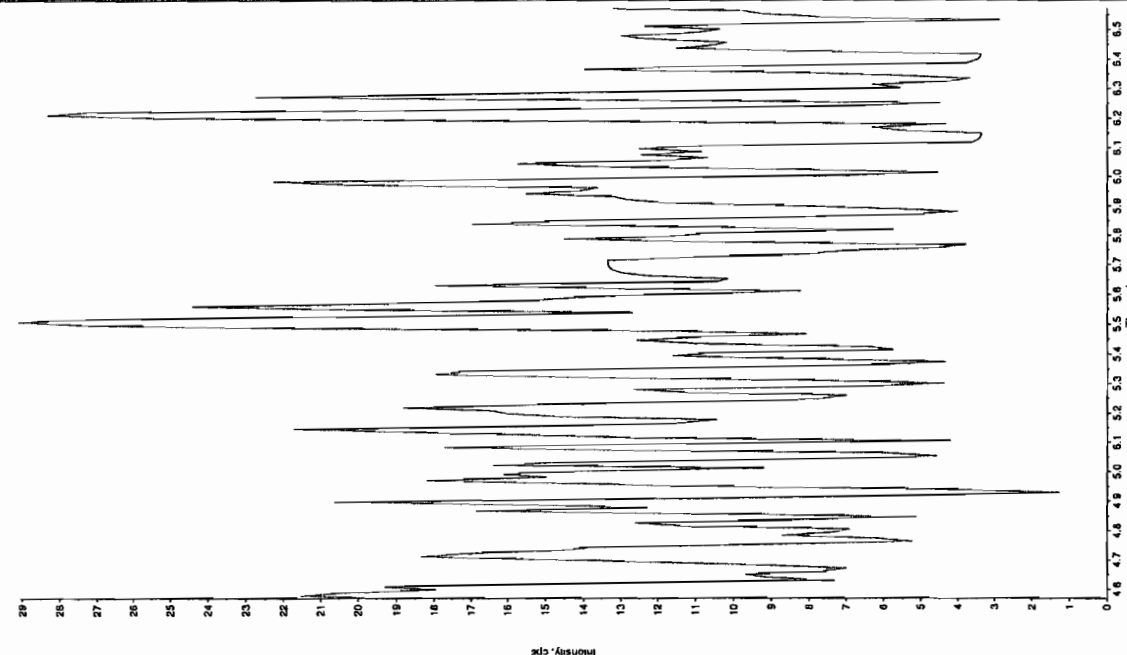
Sample Name: "247123003" Sample ID: "95433821ER" File: "EXS02260090.will"
 Peak Name: "tris(2-cresyl) phosphate" Mass(es): "365.179.10 amu"
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/27/2010
 Acq. Time: 2:11:55 PM
 Modified: No



Sample Name: "247123003" Sample ID: "95433821ER" File: "EXS02260090.will"
 Peak Name: "24-Diamino-B-nitrofluorene" Mass(es): "166.046.0 amu"
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 0.00 ng/mL
 Acq. Date: 2/27/2010
 Acq. Time: 2:11:55 PM
 Modified: No



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

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8201

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123004

Sample Amount 2

Moisture: 1.4

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304112a

Date Analyzed: 06-MAR-10 21:51

Units: ug/kg

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

*Concentration =

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

Quantify Sample Report

IEL Laboratories, LLC / Analyst: Michael A. Penny

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304112a

Sample Date: 06-Mar-2010

Sample Time: 21:51:09

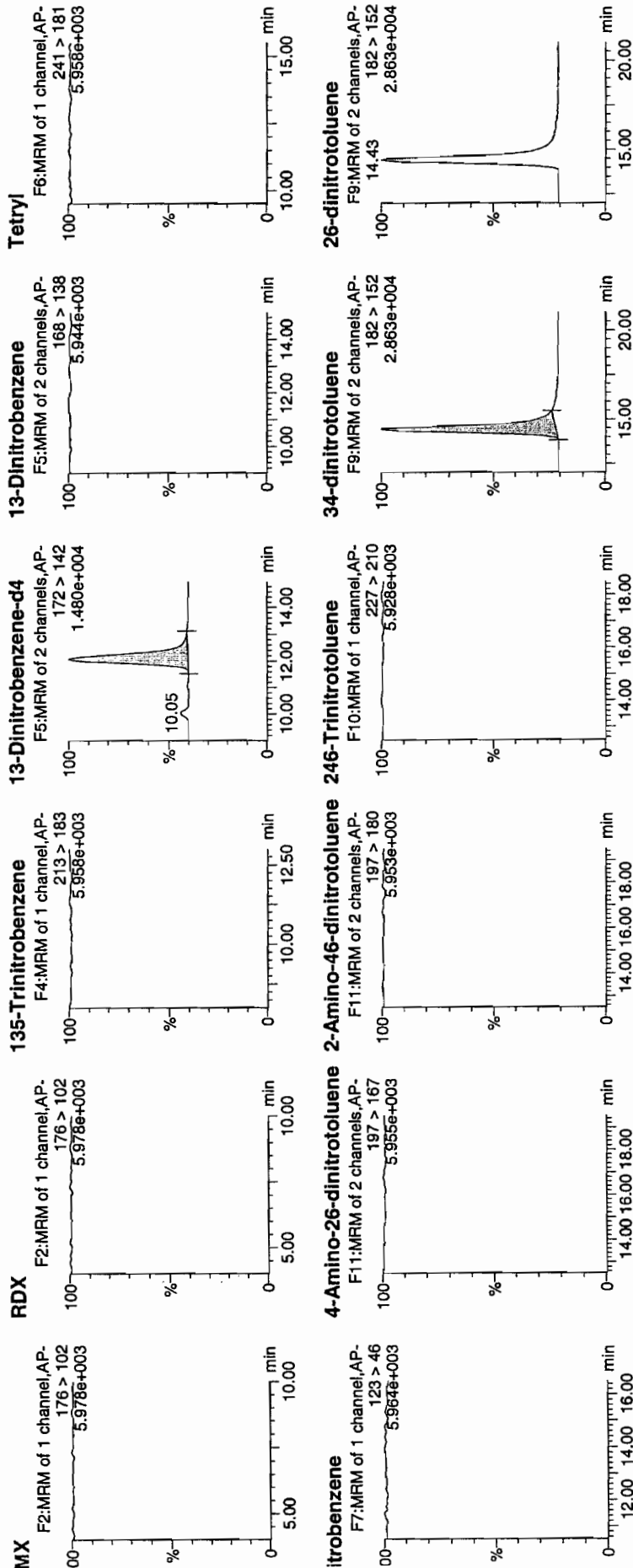
Sample ID: 247123004

Sample Label: 3:4,E

14077
3/4/10

14077
3/4/10
954338 / 21

Page 234 of 1049



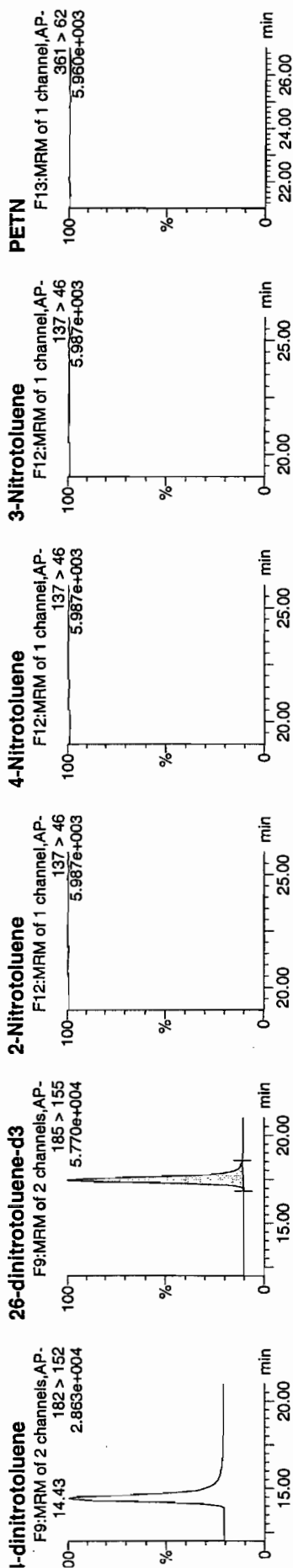
Handwritten signature: Anne R. R. R.

unafity Sample Report

EL Laboratories, LLC / Analyst : Michael A. Penny

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010



Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ppm/mL	%Req	%Dev	S/N
I7123004	HMZ	176 > 102		3655.676									
I7123004	RDX	176 > 102		3655.676									
I7123004	135-Trinitrobenzene	213 > 183		3655.676									
I7123004	13-Dinitrobenzene-d4	172 > 142	12.07	3655.676	3655.676	3655.676	bb			520.4863	104.1	4.1	264.0
I7123004	13-Dinitrobenzene	168 > 138		3655.676									
I7123004	Tetryl	241 > 181		3655.676									
I7123004	Nitrobenzene	123 > 46		3655.676									
I7123004	4-Amino-26-dinitrotoluene	197 > 167		21031.406									
I7123004	2-Amino-46-dinitrotoluene	197 > 180		21031.406									
I7123004	246-Trinitrotoluene	227 > 210		21031.406									
I7123004	34-dinitrotoluene	182 > 152	14.43	10956.811	10956.811	260.487	bb			269.5249	107.8	7.8	621.3
I7123004	26-dinitrotoluene	182 > 152		21031.406									
I7123004	24-dinitrotoluene	182 > 152		21031.406									
I7123004	26-dinitrotoluene-d3	185 > 155	17.47	21031.406	21031.406	21031.406	bb			511.4496	102.3	2.3	1869.1
I7123004	2-Nitrotoluene	137 > 46		21031.406									
I7123004	4-Nitrotoluene	137 > 46		21031.406									
I7123004	3-Nitrotoluene	137 > 46		21031.406									
I7123004	PETN	361 > 62		21031.406									

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8201

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 247123004

Sample Amount 2

Moisture: 1.4

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260091.wiff

Date Analyzed: 27-FEB-10 14:27

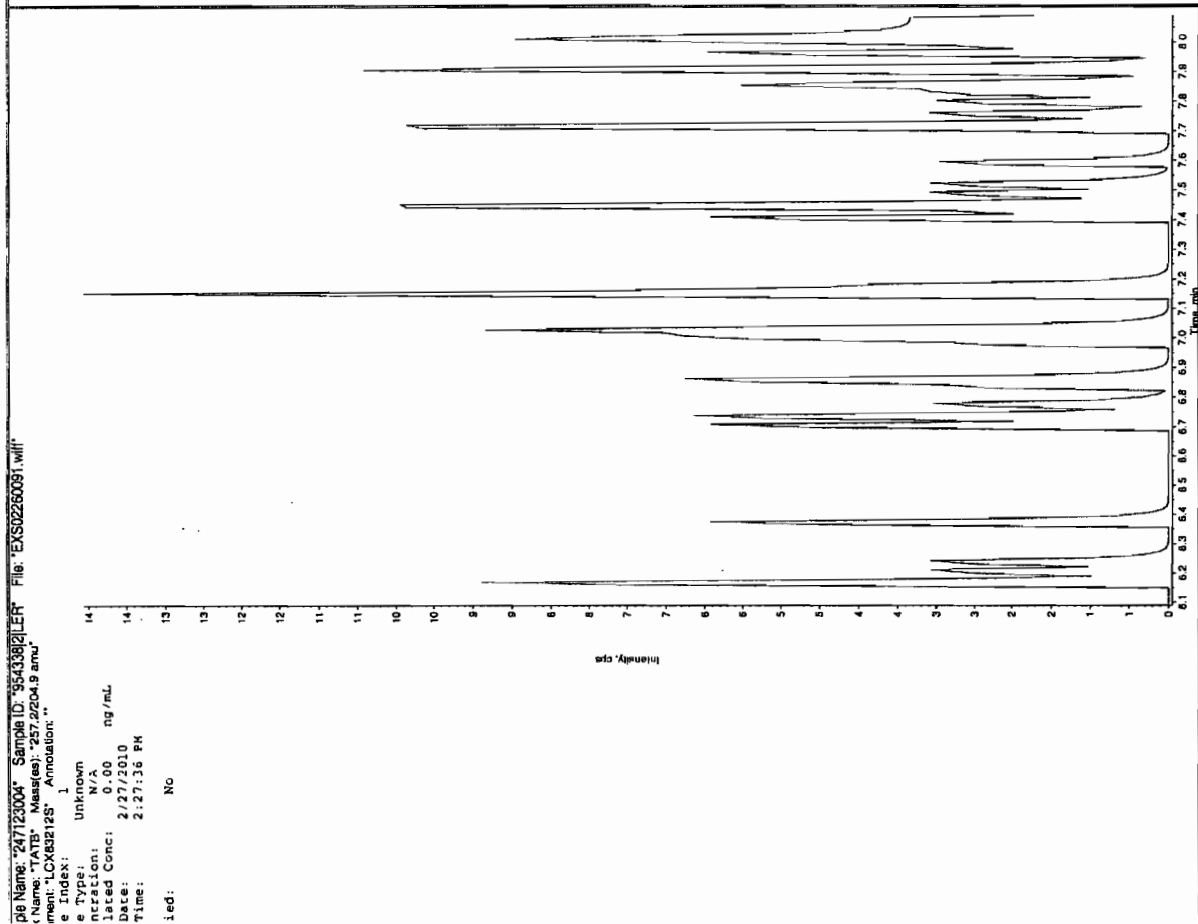
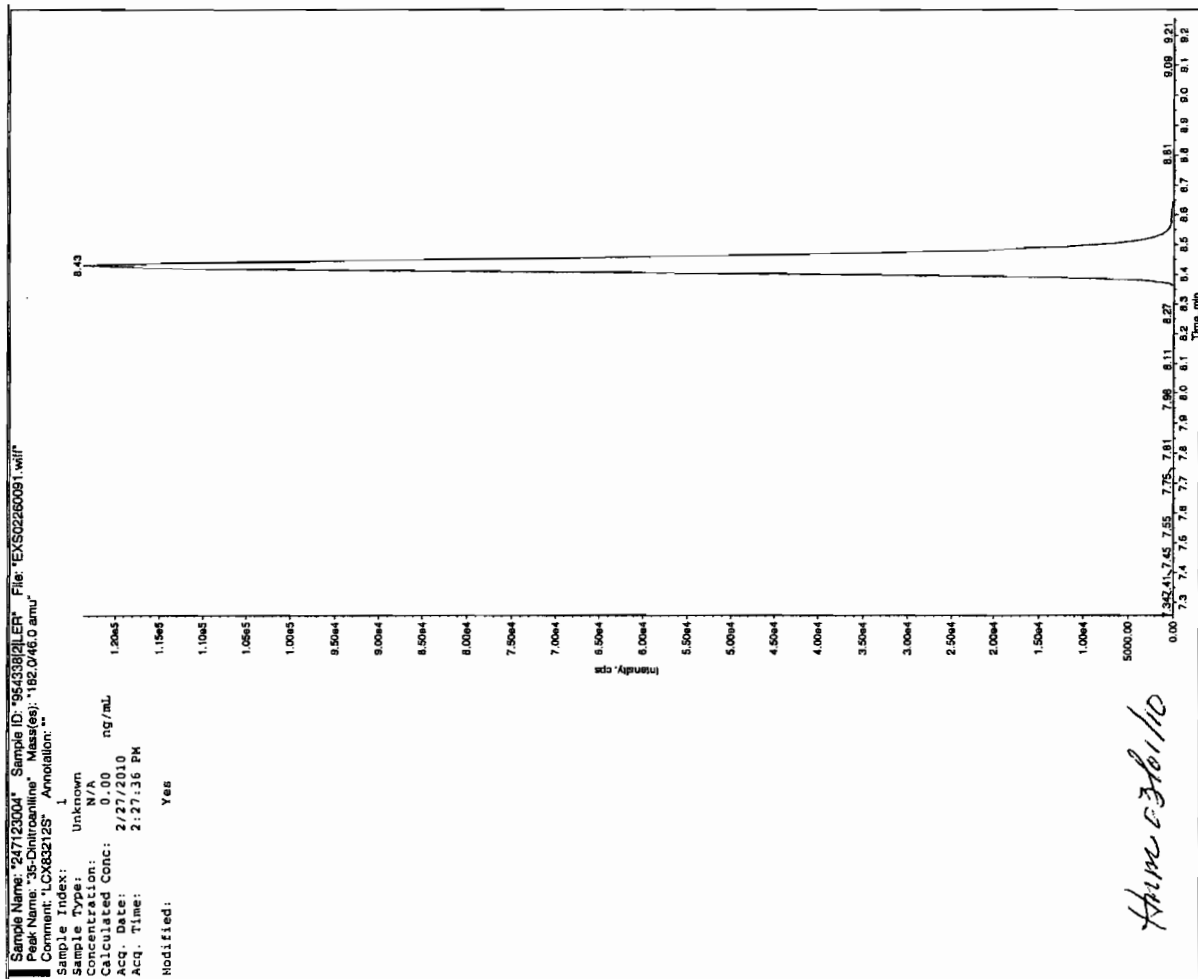
Units: ug/kg

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

See 3/1/10



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

File Name: "247123004" Sample ID: "95433821ER" File: "EXS02260091.wiff"

Peak Name: "34-Chlorotoluene" Mass(es): "182.1/151.9 amu"

Comment: "LCX83212S" Annotation: ""

Sample Index: 1

Sample Type: Unknown

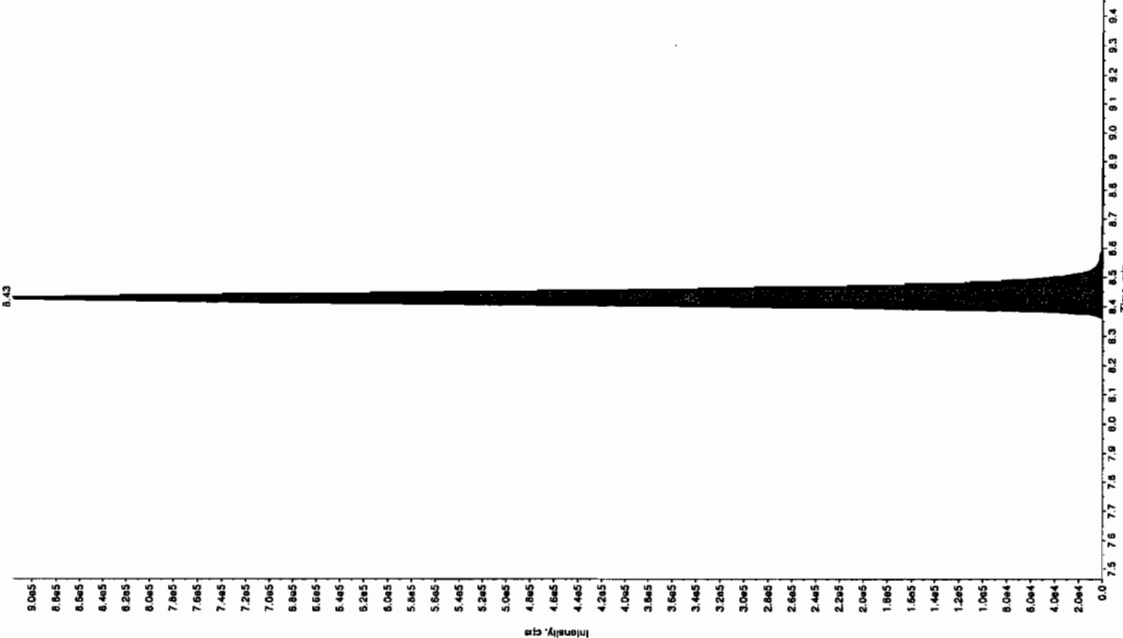
Concentration: N/A ng/mL

Calculated Conc: 2/27/2010

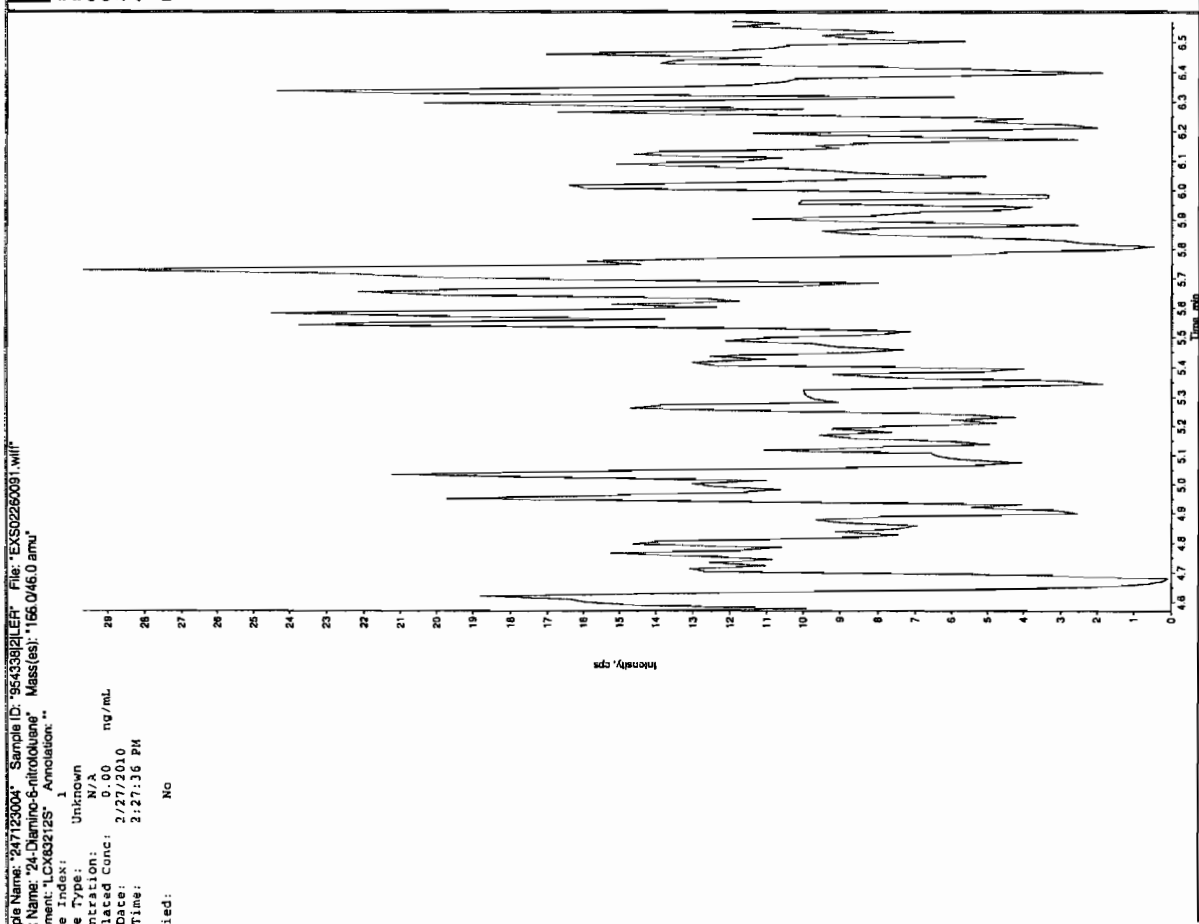
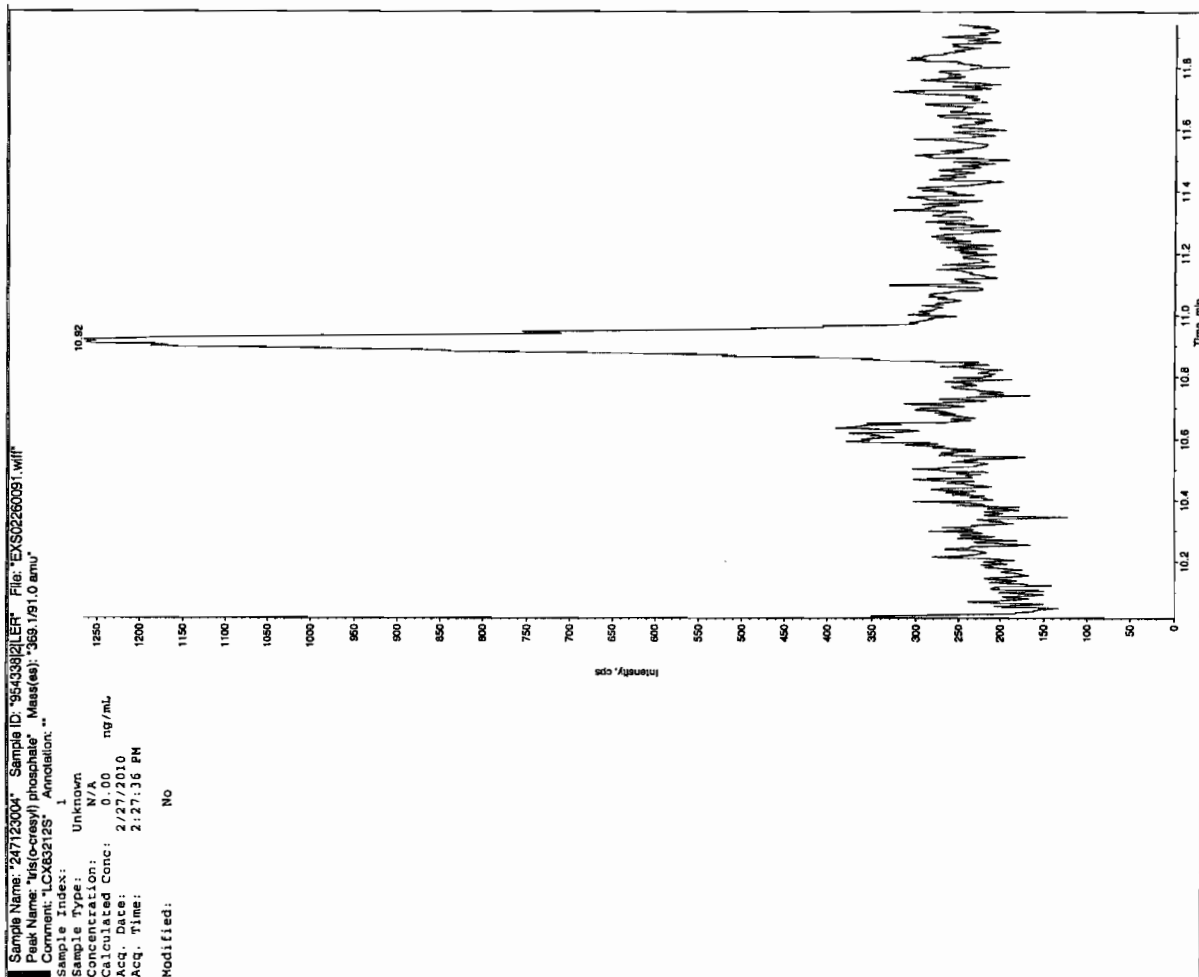
Acq. Date: 2:27:36 PM

Acq. Time: 8.46 min

Modified: No



Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
Window: 15.0 points
Acquired RT: 8.46 min
Relative RT: No
Type: Valley
Retention Time: 8.43 min
Counts: 3.10e+006 counts
Time: 8.34 min
Time: 8.75 min



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

STANDARDS DATA

**SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels**

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

Calibration Levels 8321A-Modified-EXPL.xls

Explosives Initial Calibration

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Lab Name: GEL Laboratories LLC

GEL Job No: 10-1848

Lab Code: GEL

Run Date: 04-MAR-10.26-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column:

Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0304003a	EXP0304004a	EXP0304005a	EXP0304006a	EXP0304007a	EXP0304008a			
Parname									
1,3,5-Trinitrobenzene	5.003	4.577	3.342	3.576	3.258	3.608	3.894	18.476	
1,3-Dinitrobenzene-d4	6.789	7.374	7.348	6.733	7.315	6.583	7.024	5.121	
2,4,6-Trinitrotoluene	.3	.336	.341	.337	.35	.308	0.329	6.027	
2,4-Dinitrotoluene	.281	.305	.251	.262	.282	.273	0.276	6.75	
2,6-Dinitrotoluene	1.138	1.111	1.096	1.102	1.137	1.11	1.116	1.607	
2,6-Dinitrotoluene-d3	43.655	42.215	41.583	39.474	40.005	39.795	41.121	4.004	
2-Amino-4,6-dinitrotoluene	.343	.423	.391	.415	.418	.441	0.405	8.534	
3,4-Dinitrotoluene	1.067	.913	.958	.95	1.085	.826	0.967	10.048	
4-Amino-2,6-dinitrotoluene	.248	.266	.292	.289	.283	.277	0.276	5.889	
HMX	5.7	4.915	4.501	4.556	4.433	3.881	4.664	13.011	
Nitrobenzene	.847	.822	.819	.885	.844	.737	0.826	5.999	
RDX	3.372	3.021	2.826	2.815	2.597	2.536	2.861	10.661	
Tetryl	1.148	1.088	.978	.967	.995	.93	1.018	8.121	
m-Dinitrobenzene	1.232	1.296	1.278	1.225	1.314	1.254	1.267	2.82	
m-Nitrotoluene	.108	.096	.087	.092	.093	.09	0.094	7.937	
o-Nitrotoluene	.162	.165	.148	.152	.152	.15	0.155	4.487	
p-Nitrotoluene	.078	.08	.073	.075	.076	.074	0.076	3.543	

Q column used to flag RSD values outside of Limit (>20%)

* Values outside of QC Limit

Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1848

Lab Code: GEL

Run Date: 04-MAR-10 26-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0304003a	EXP0304004a	EXP0304005a	EXP0304006a	EXP0304007a	EXP0304008a					
Parname:											
PETN	3472.76	5897.1	19825.4	32819.1	49655	58513.4	2.265	-0008626	37.152	.9967	

Quadratic Fit: $y = Ax^2 + Bx + C$
 where X^2 column above is coefficient A
 X column above is coefficient B
 intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)

* Values outside of QC Limit

Quantify Calibration Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

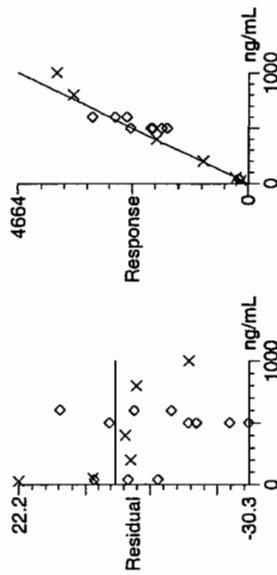
Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030410expa.mdb, Time: Fri Mar 05 09:18:46 2010

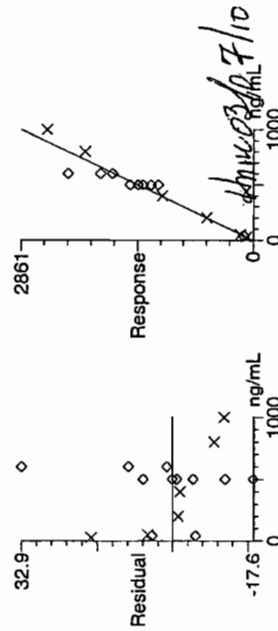
Calibration: Untitled, Time: Fri Mar 05 10:16:18 2010

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Compound name: HMX
 Response Factor: 4.66431
 RF SD: 0.606877, % Relative SD: 13.0111
 Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
 Curve type: RF



Compound name: RDX
 Response Factor: 2.8614
 RF SD: 0.305061, % Relative SD: 10.6612
 Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
 Curve type: RF

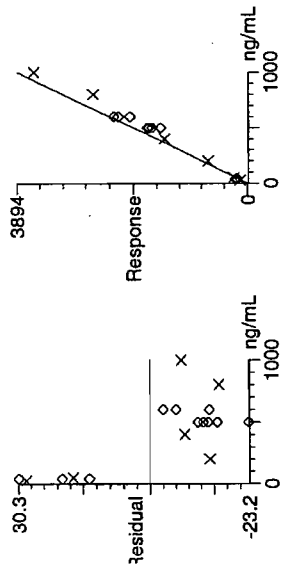


Quantify Calibration Report

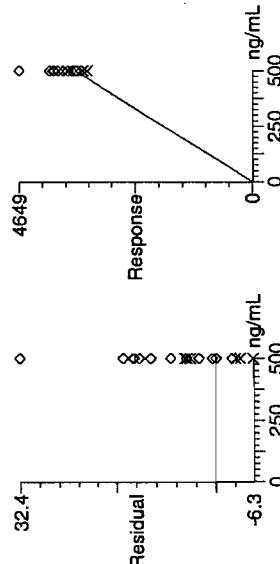
iEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp\PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 135-Trinitrobenzene
Response Factor: 3.89381
RF SD: 0.719425, % Relative SD: 18.4761
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF



Compound name: 13-Dinitrobenzene-d4
Response Factor: 7.02358
RF SD: 0.359695, % Relative SD: 5.12125
Response type: External Std, Area
Curve type: RF



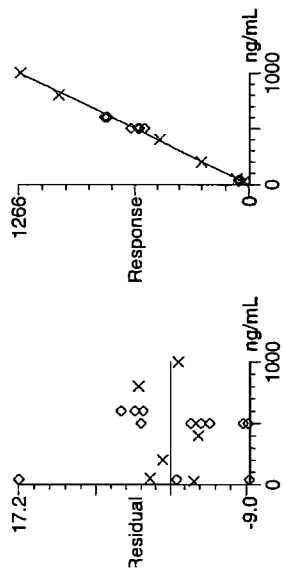
Quantify Calibration Report

IEL Laboratories, LLC / Analyst : Michael A. Penny

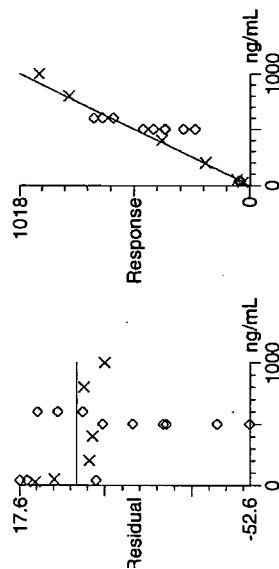
Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 13-Dinitrobenzene
 Response Factor: 1.26846
 RF SD: 0.0357173, % Relative SD: 2.82024
 Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
 Curve type: RF

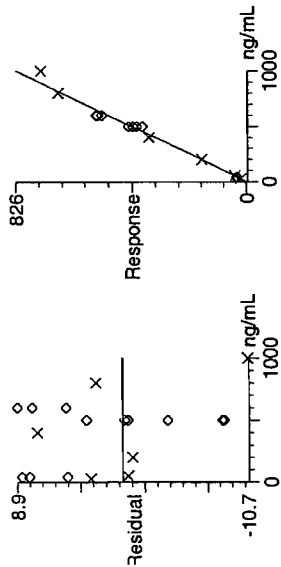
Page 246 of 1049



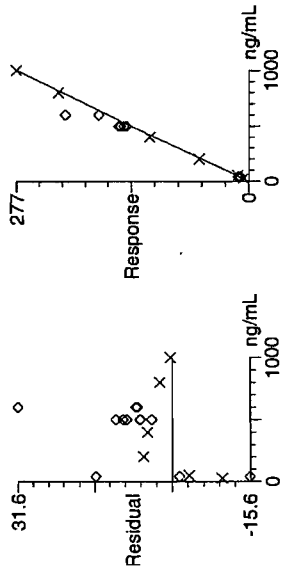
Compound name: Tetraol
 Response Factor: 1.01755
 RF SD: 0.0826324, % Relative SD: 8.1207
 Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
 Curve type: RF



Compound name: Nitrobenzene
Response Factor: 0.825734
RF SD: 0.0495369, % Relative SD: 5.99913
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF



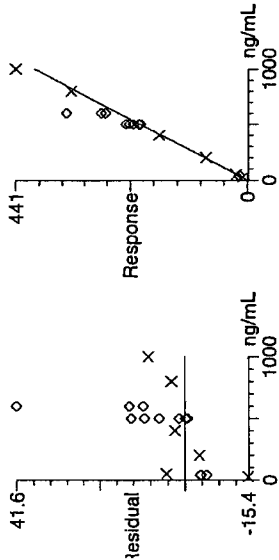
Compound name: 4-Amino-26-dinitrotoluene
Response Factor: 0.275828
RF SD: 0.0162429, % Relative SD: 5.88879
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



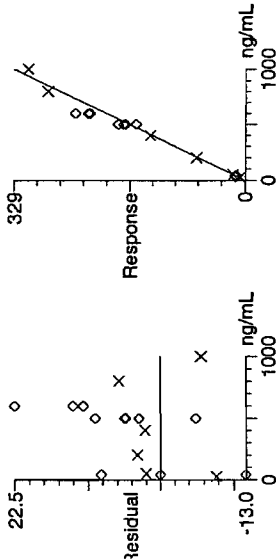
Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.405103
RF SD: 0.0345707, % Relative SD: 8.53382
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

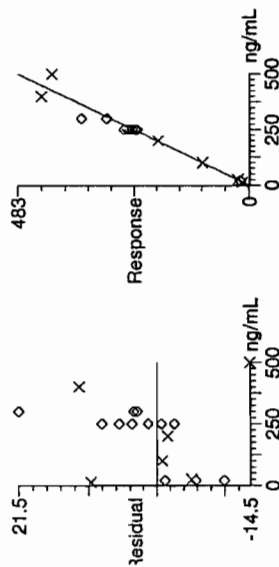
Page 248 of 1049



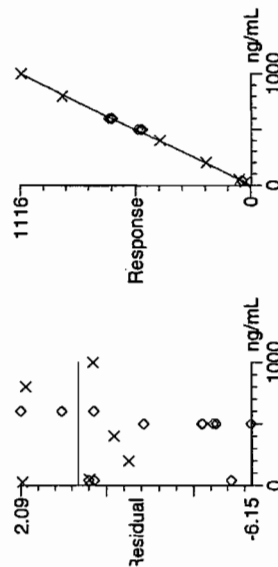
Compound name: 246-Trinitrotoluene
Response Factor: 0.328607
RF SD: 0.0198061, % Relative SD: 6.02729
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



Compound name: 34-dinitrotoluene
Response Factor: 0.966467
RF SD: 0.097114, % Relative SD: 10.0484
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



Compound name: 26-dinitrotoluene
Response Factor: 1.11554
RF SD: 0.0179296, % Relative SD: 1.60726
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

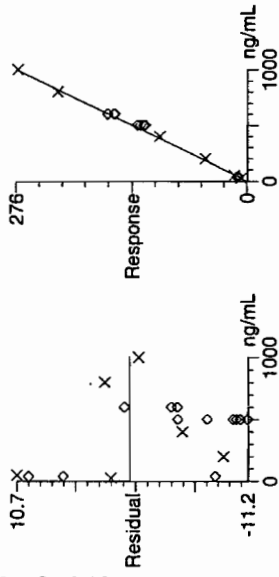


Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

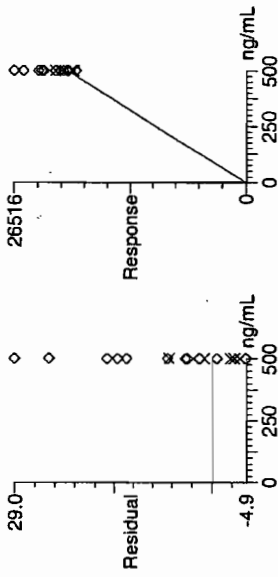
Dataset: C:\MASSLYN\New_Exp\PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 24-dinitrotoluene
Response Factor: 0.275647
RRF SD: 0.0186056, % Relative SD: 6.74978
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

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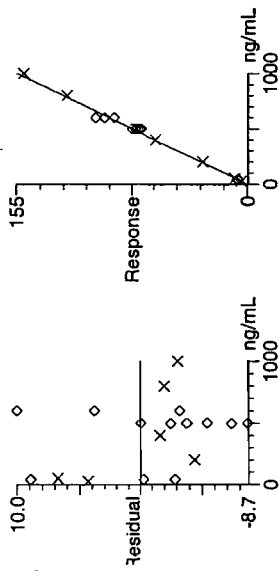


Compound name: 26-dinitrotoluene-d3
Response Factor: 41.1212
RRF SD: 1.6463, % Relative SD: 4.00354
Response type: External Std, Area
Curve type: RF

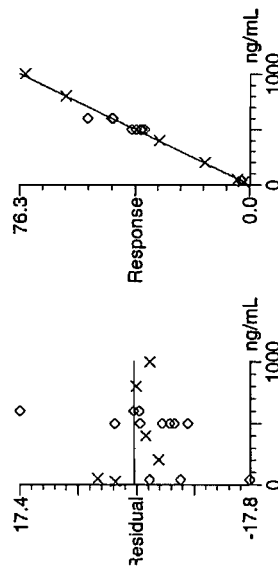


Dataset: C:\MASSLYNX\New_Exp\PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 2-Nitrotoluene
Response Factor: 0.154899
RF SD: 0.00695032, % Relative SD: 4.487
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



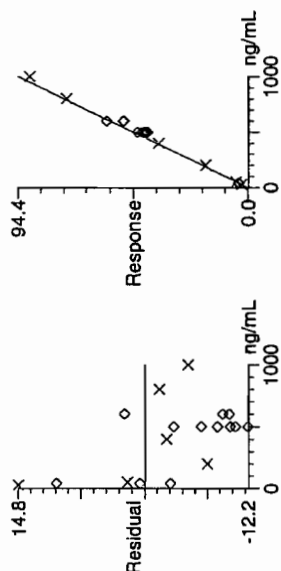
Compound name: 4-Nitrotoluene
Response Factor: 0.0762739
RF SD: 0.00270209, % Relative SD: 3.54261
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF



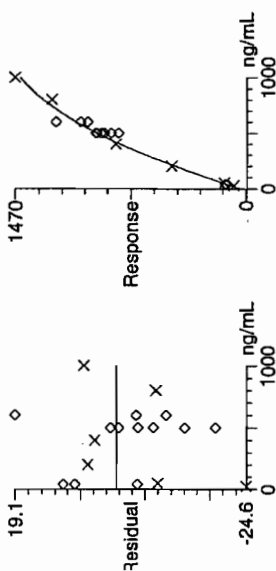
Quantify Calibration Report
 iEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp\PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 3-Nitrotoluene
 Response Factor: 0.0943545
 RF SD: 0.00748873, % Relative SD: 7.9368
 Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
 Curve type: RF



Compound name: PETN
 Coefficient of Determination: 0.996692
 Calibration curve: $-0.000862571 \cdot x^2 + 2.26503 \cdot x + 37.1516$
 Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
 Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None



Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0304010a

Analysis Date: 04-MAR-10 19:41

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	563.54	94	
1,3-Dinitrobenzene-d4	500	499.497	100	
2,4,6-Trinitrotoluene	600	681.185	114	
2,4-Dinitrotoluene	600	576.449	96	
2,6-Dinitrotoluene	600	596.772	99	
2,6-Dinitrotoluene-d3	500	517.678	104	
2-Amino-4,6-dinitrotoluene	600	660.901	110	
3,4-Dinitrotoluene	300	309.423	103	
4-Amino-2,6-dinitrotoluene	600	641.886	107	
HMX	600	573.556	96	
Nitrobenzene	600	645.754	108	
PETN	600	544.002	91	
RDX	600	658.987	110	
Tetryl	600	634.792	106	
m-Dinitrobenzene	600	625.108	104	
m-Nitrotoluene	600	544.846	91	
o-Nitrotoluene	600	580.638	97	
p-Nitrotoluene	600	595.264	99	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304010a

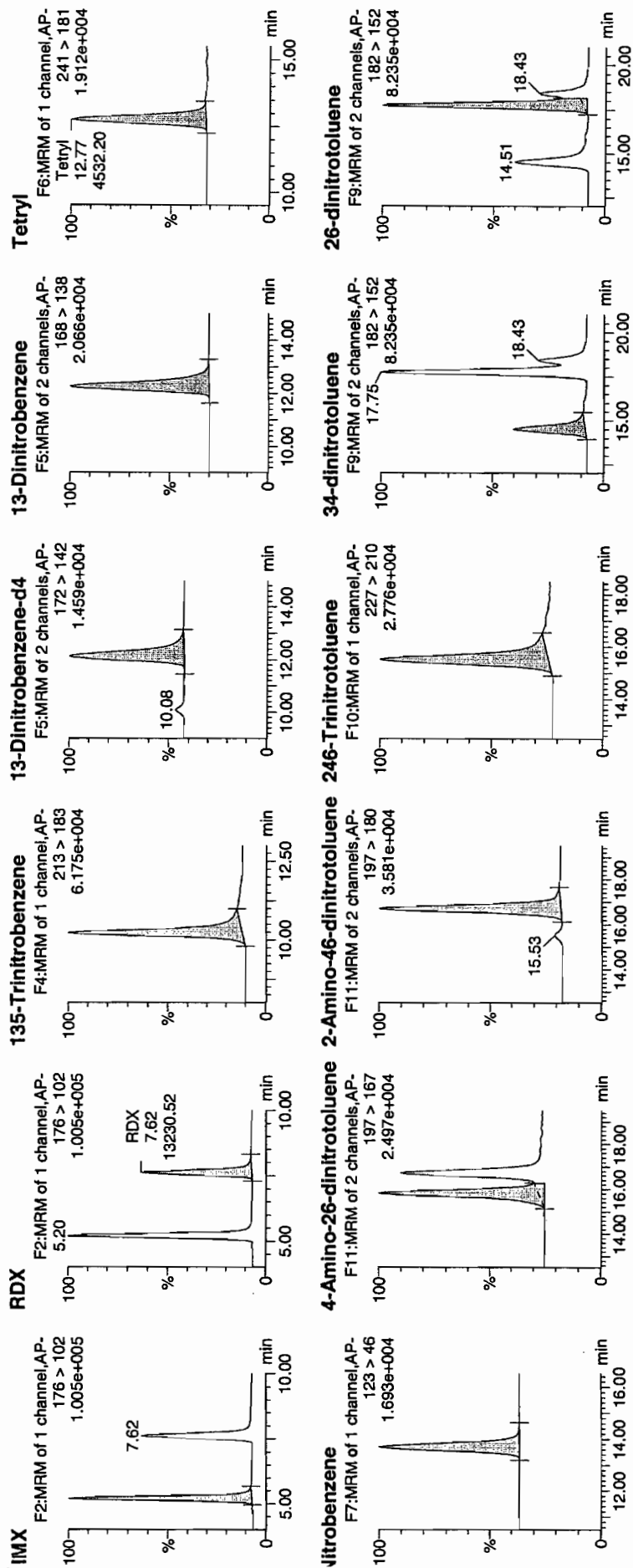
Plate: 04-Mar-2010

Time: 19:41:56

Job: WXX100304-07ICV

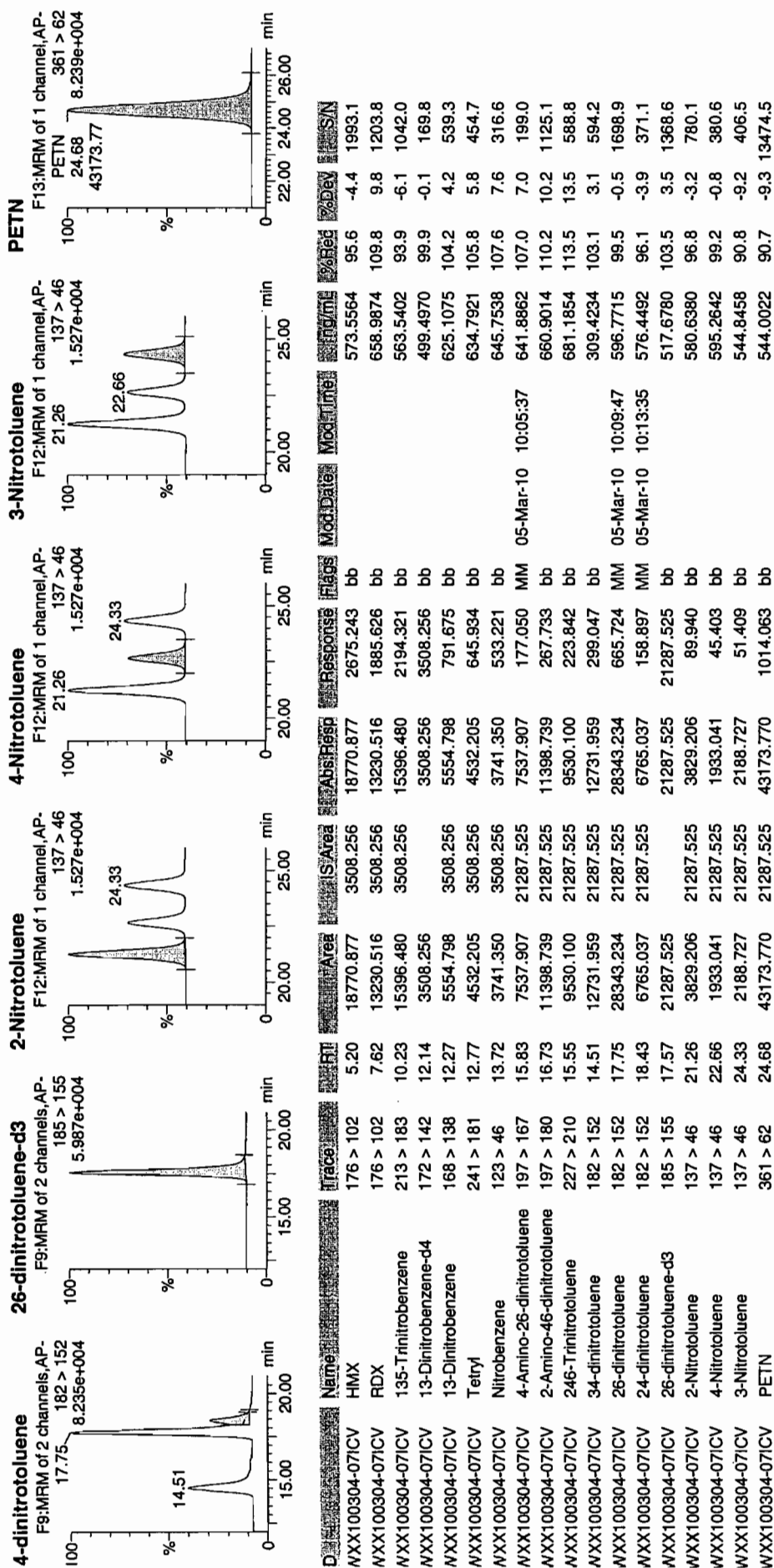
Ratio: 1:1,B

3/6/10



3/6/10

Dataset: C:\MASSLYNX\New_Exp\PRO030410expA.qld, Time: Fri Mar 05 10:16:18 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 03/04/10
 Time of Injection: 1941
 Standard Number: WXX100304-07ICV
 Data File: EXP0304010a

HMX	95.6
RDX	109.8
135-TNB	93.9
13-DNB	104.2
Tetryl	105.8
Nitrobenzene	107.6
4A-26-DNT	107.0
2A-46-DNT	110.2
246-TNT	113.5
34-DNT(surr)	103.1
26-DNT	99.5
24-DNT	96.1
2-NT	96.8
4-NT	99.2
3-NT	90.8
PETN	90.7

with
3/6/10

Total 1623.8

Average 101.5

WXX100304-07ICV

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: 10-1848

Lab Code: GEL

Run Date: 04-MAR-10.26-FEB-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:	EXS02260003.wif	EXS02260004.wif	EXS02260005.wif	EXS02260006.wif	EXS02260007.wif	EXS02260008.wif	EXS02260009.wif					
Parname:												
2,4-Diamino-6-nitrotoluene	80600	158000	383000	773000	1220000	1610000	3220000	-10100	1620	.001	.9999	
2,6-Diamino-4-nitrotoluene	113000	219000	551000	1070000	1680000	2170000	4260000	-5880	2240	-.055	.9999	
3,4-Dinitrotoluene	365000	719000	1740000	3170000	4890000	6230000	11300000	2650	14600	-3.26	.9979	
3,5-Dinitroaniline	531000	1010000	2370000	4530000	6700000	8310000	13900000	41000	9760	-1.41	.9999	
TATB	50800	103000	279000	574000	909000	1230000	2540000	-18200	1200	.04	.9999	
tris(o-cresyl) phosphate	893000	1730000	4120000	7610000	11100000	14100000	23200000	92000	16500	-2.46	1	

Quadratic Fit: $y = Ax^2 + Bx + C$
 where X^2 column above is coefficient A
 X column above is coefficient B
 intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)

* Values outside of QC Limit

022610ICAL

Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.82e+004			
a1	1.2e+003			
a2	0.0401			
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	4.1e+004			
a1	9.76e+003			
a2	-1.41			
Correlation coefficient 0.9999				
Use Area				

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	2.65e+003			
a1	1.46e+004			
a2	-3.26			
Correlation coefficient 0.9979				
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	-5.88e+003			
a1	2.24e+003			
a2	-0.055			
Correlation coefficient 0.9999				
Use Area				

Jan
3/1/10

HW
03/01/10

022610ICAL

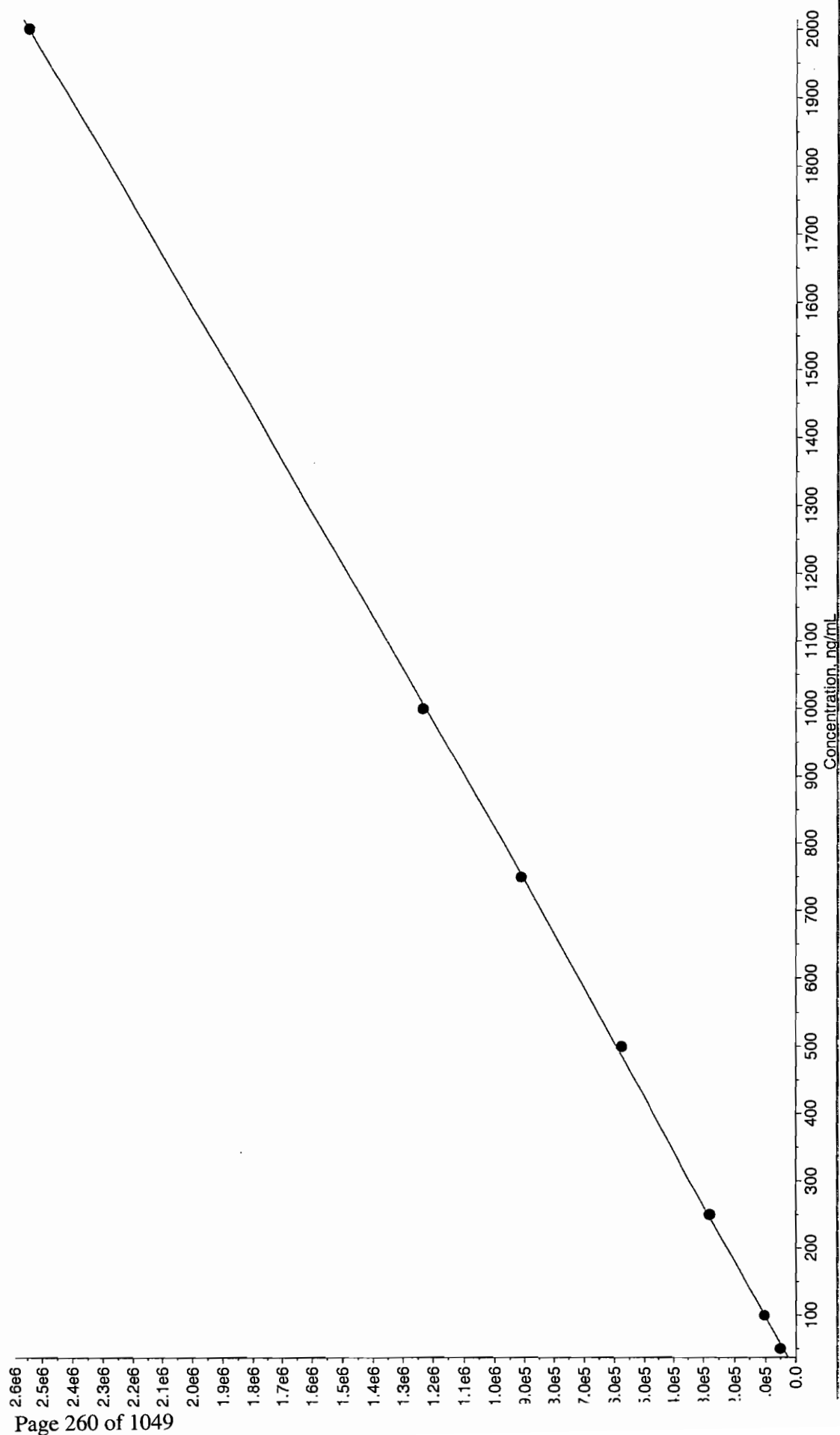
Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.01e+004			
a1	1.62e+003			
a2	0.000677			
Correlation coefficient 0.9999				
Use Area				

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

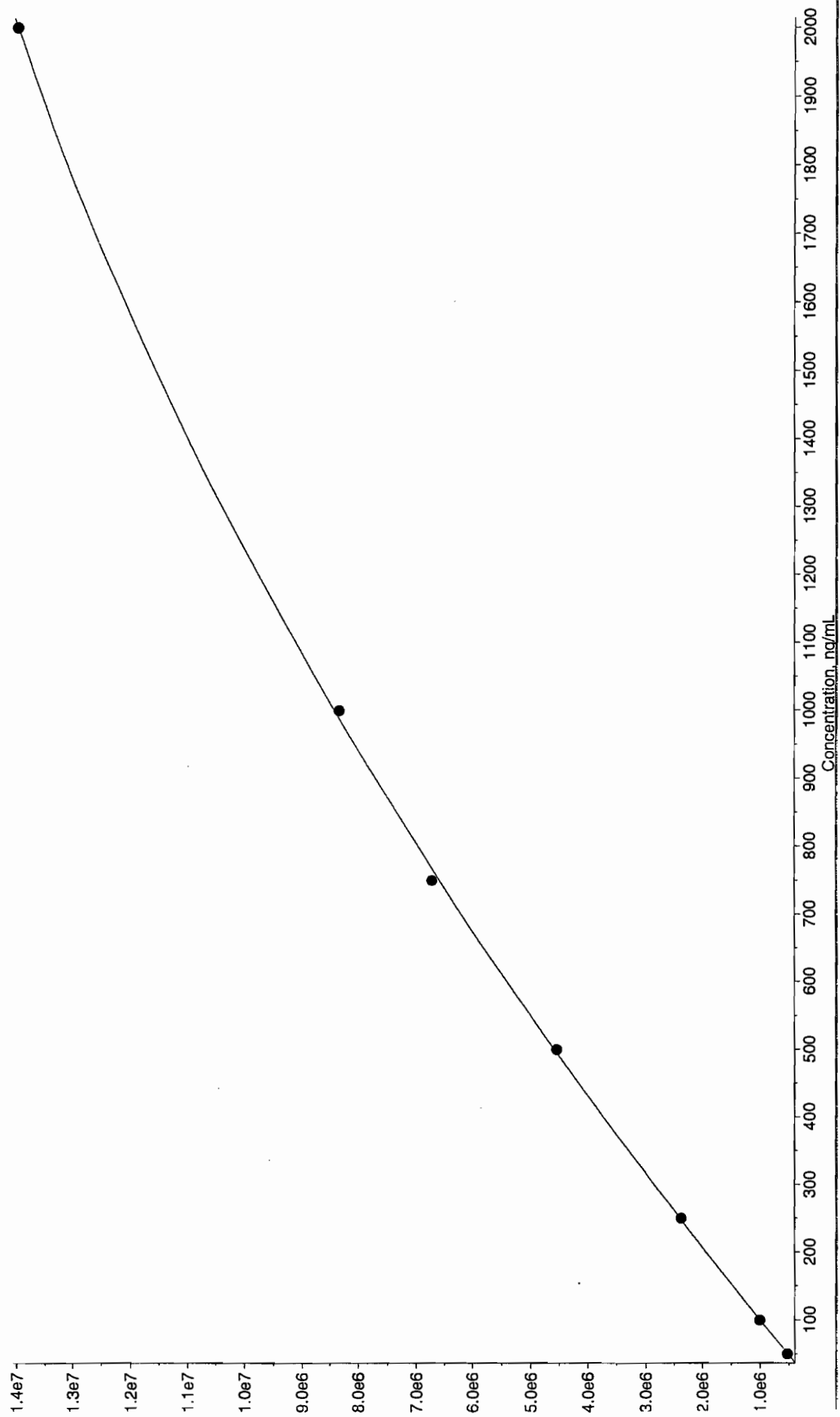
Fit	Quadratic	Weighting	None	Iterate No
a0	9.2e+004			
a1	1.65e+004			
a2	-2.46			
Correlation coefficient 1.0000				
Use Area				

J22610.rdb (TATB): "Quadratic" Regression ("No" weighting): $y = 0.0401 x^2 + 1.2e+003 x + -1.82e+004$ ($r = 0.9999$)



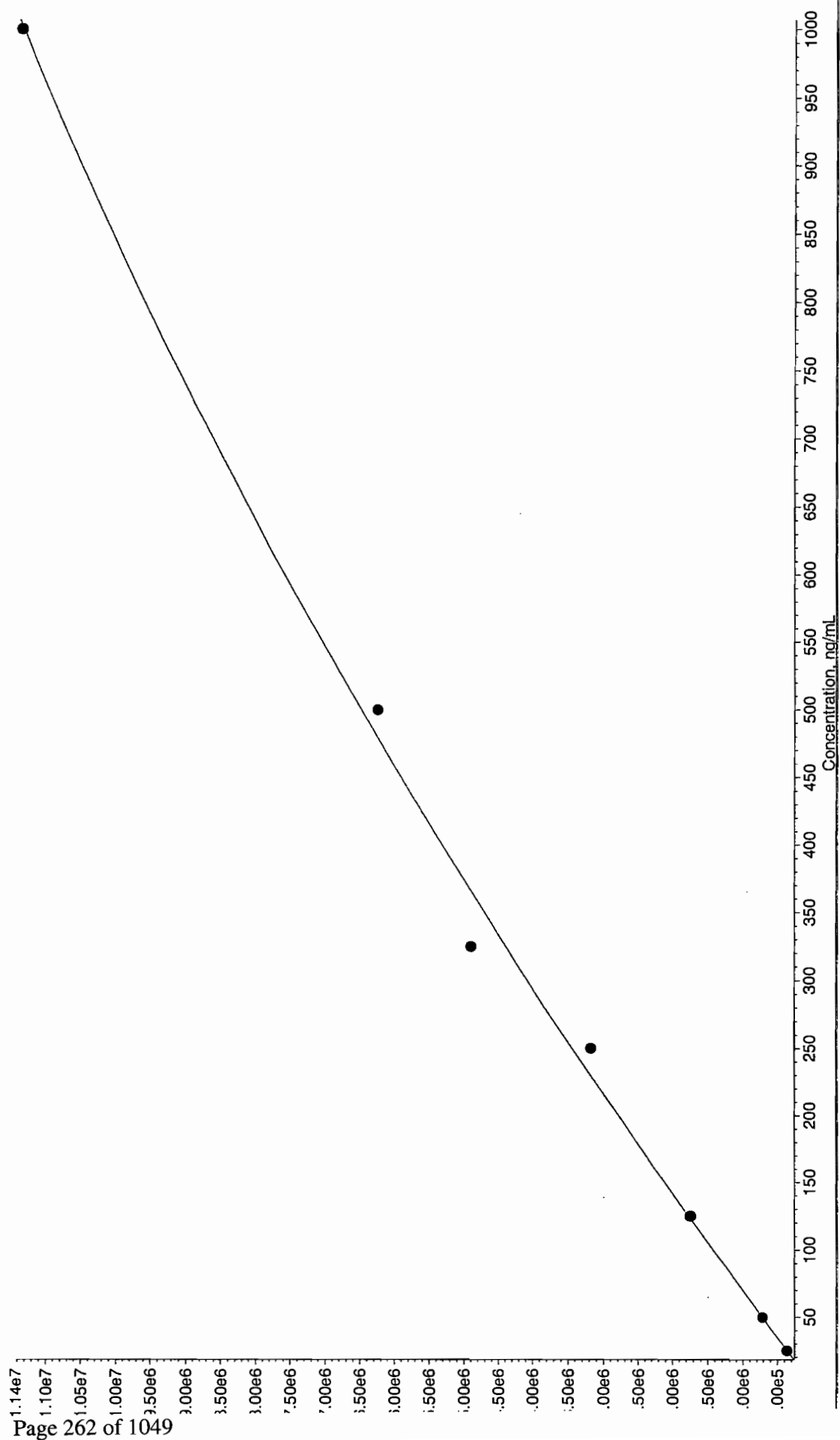
SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

322610.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting): $y = -1.41 x^2 + 9.76e+003 x + 4.1e+004$ ($r = 0.9999$)



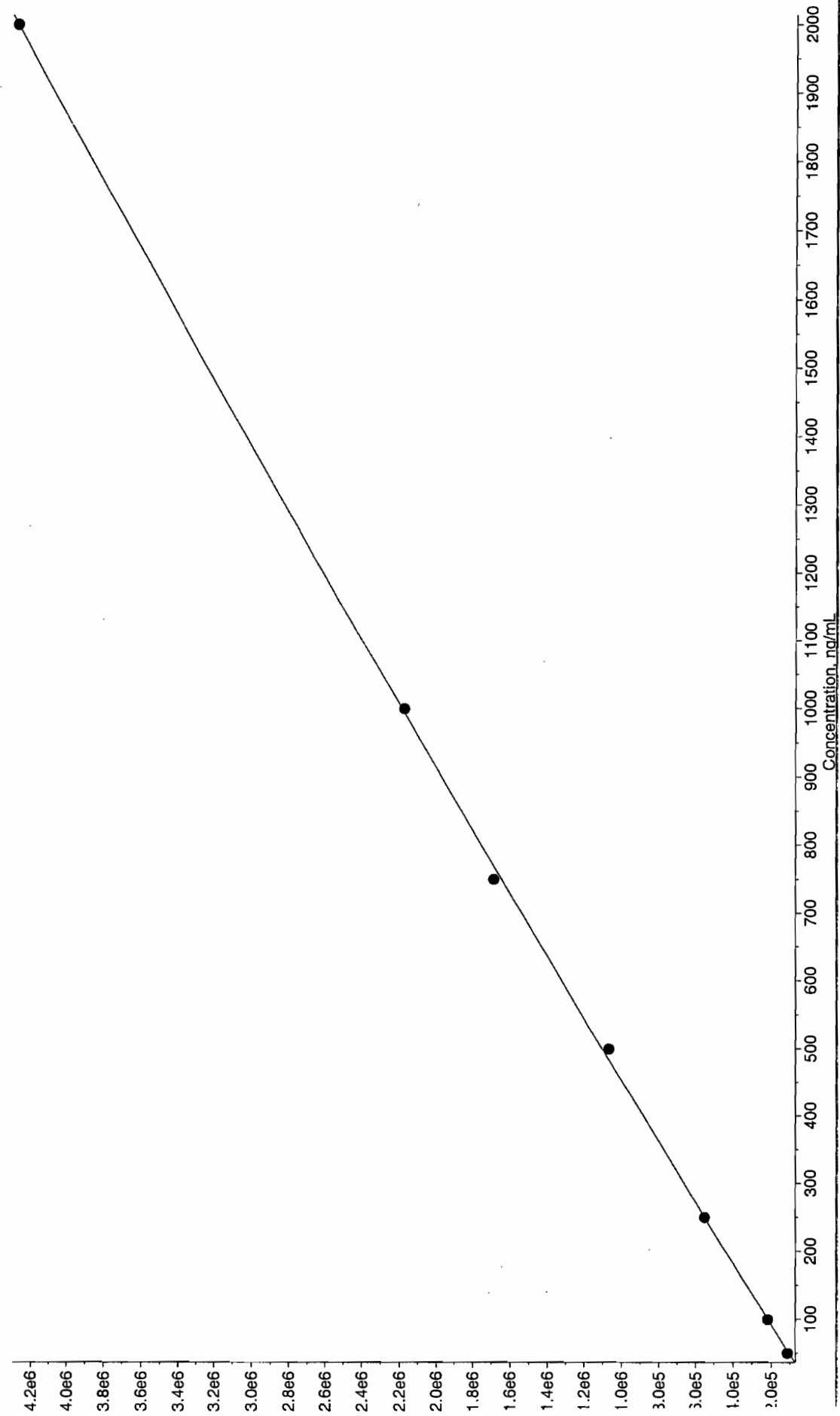
, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

022610.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting): $y = -3.26 x^2 + 1.46e+004 x + 2.65e+003$ ($r = 0.9979$)



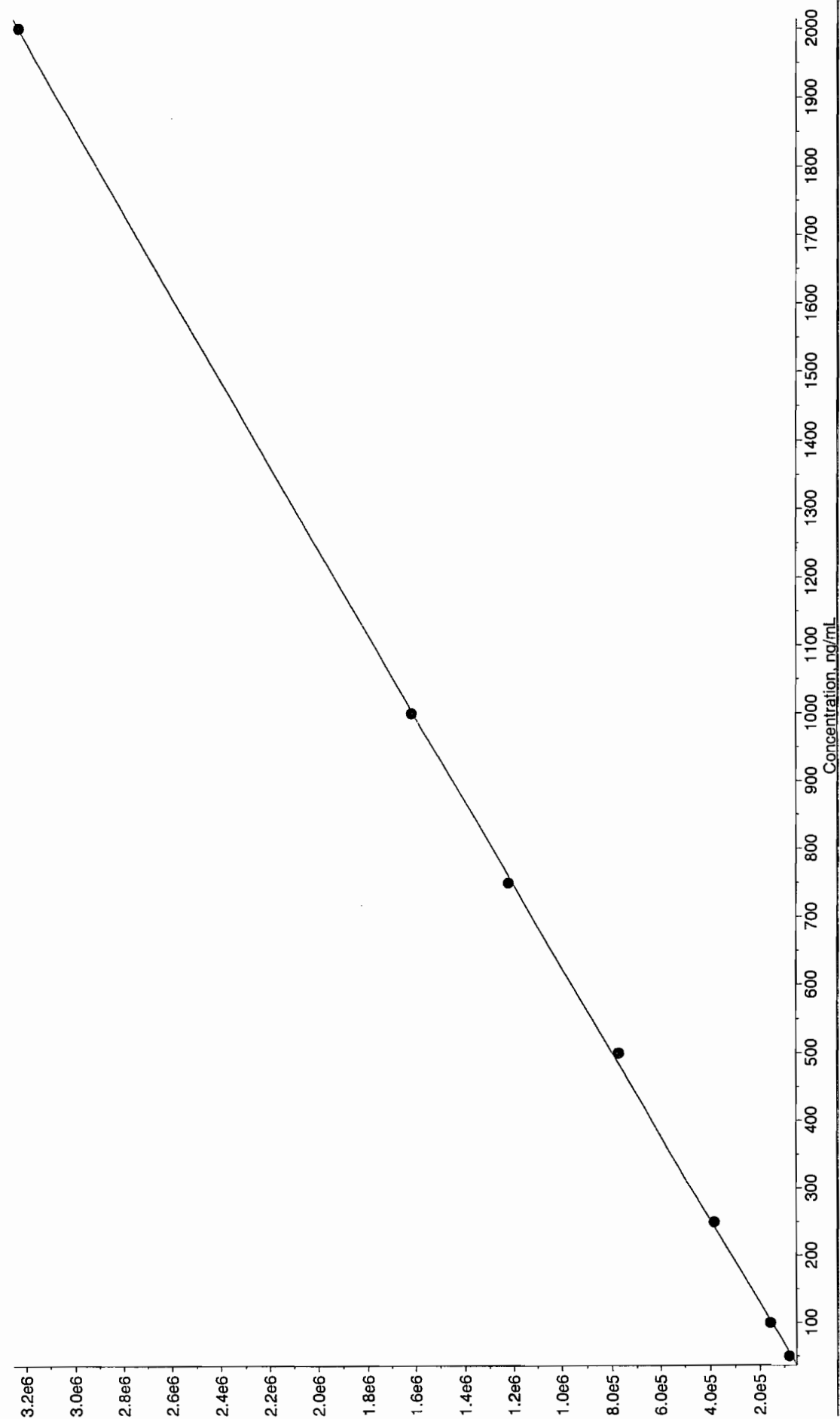
, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

022610.rdb (26-Diamino-4-nitrotoluene): "Quadratic" Regression ("No" weighting): $y = -0.055 x^2 + 2.24e+003 x + -5.88e+003$ ($r = 0.9999$)



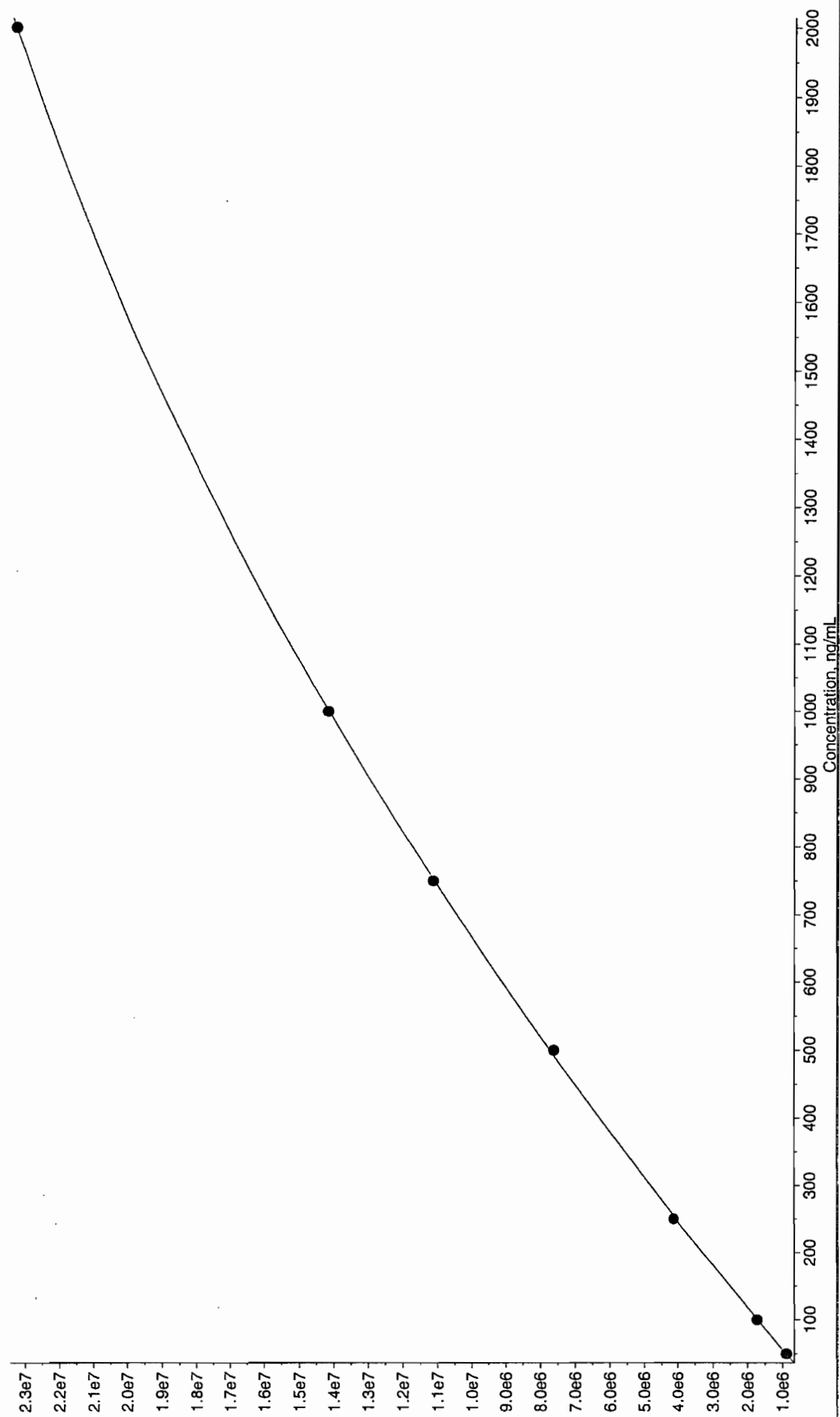
SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

022610.rdb (24-Diamino-6-nitrotoluene): "Quadratic" Regression ("No" weighting): $y = 0.000677 x^2 + 1.62e+003 x + -1.01e+004$ ($r = 0.9999$)



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

022610.rdb (tris(o-cresyl) phosphate): "Quadratic" Regression ("No" weighting): $y = -2.46 x^2 + 1.65e+004 x + 9.2e+004$ ($r = 1.0000$)



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

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS02260011.wiff

Analysis Date: 26-FEB-10 17:31

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	483	97	
2,6-Diamino-4-nitrotoluene	500	465	93	
3,4-Dinitrotoluene	250	226	90	
3,5-Dinitroaniline	500	474	95	
TATB	500	472	95	
tris(o-cresyl) phosphate	500	494	99	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

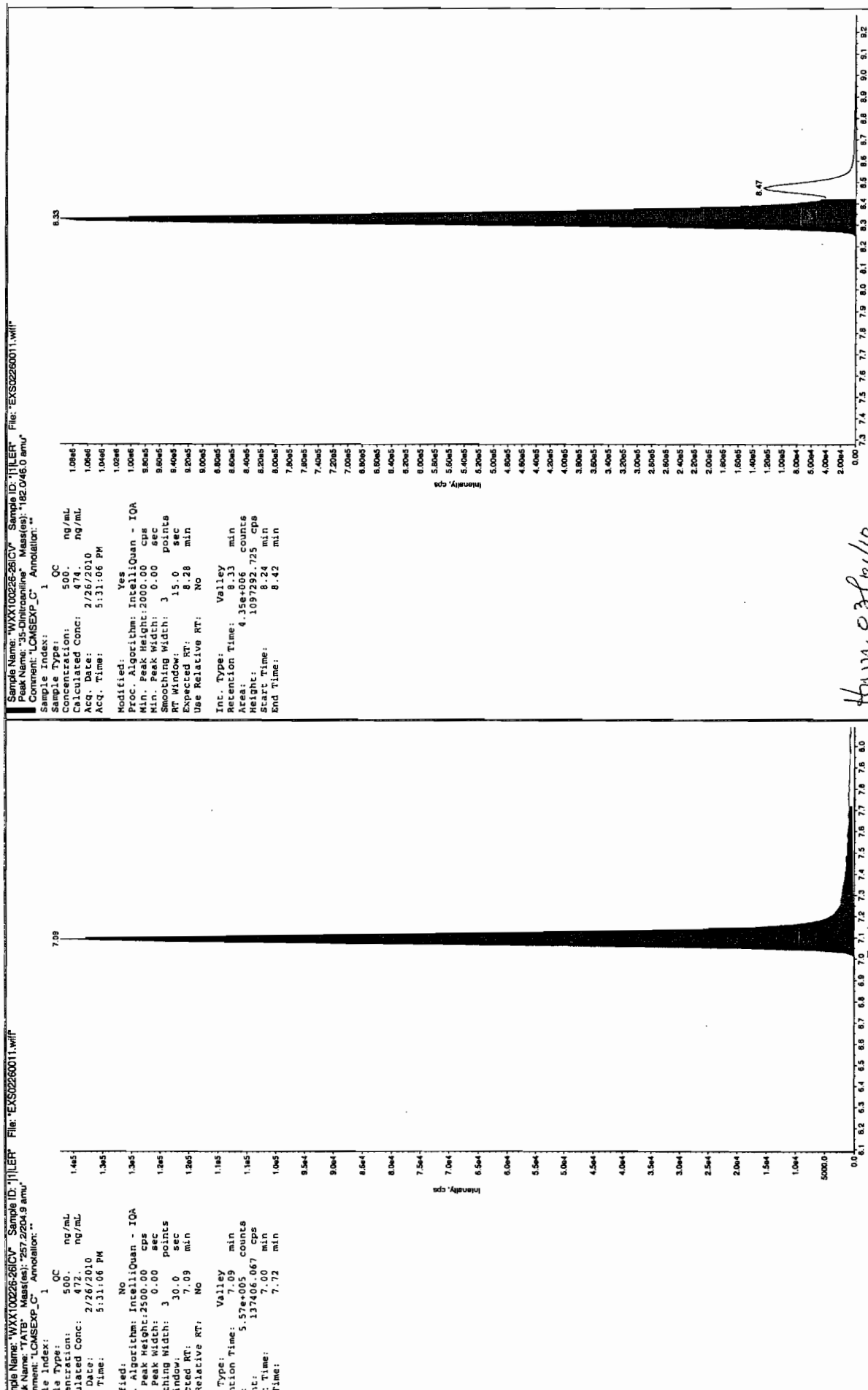
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

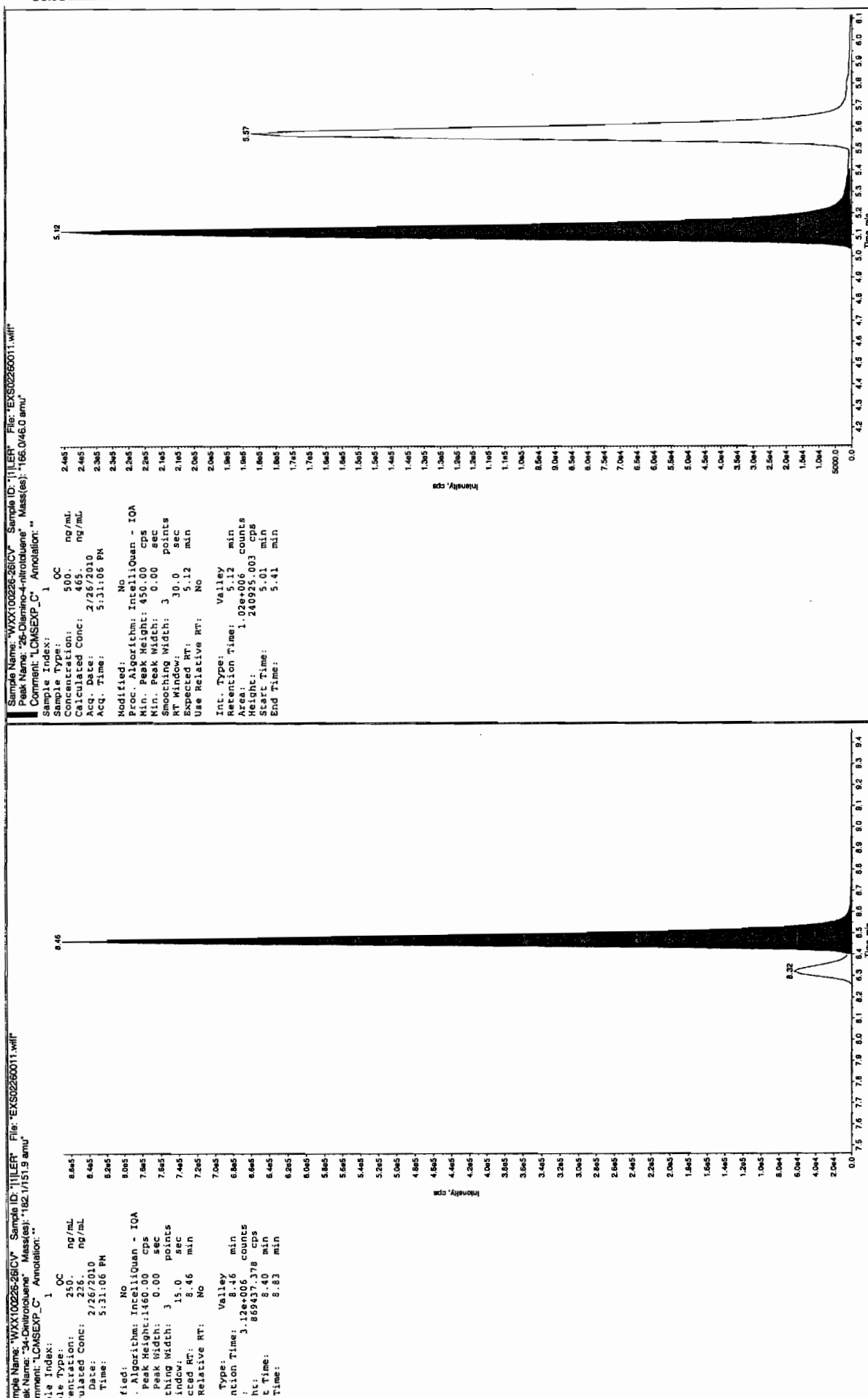
Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

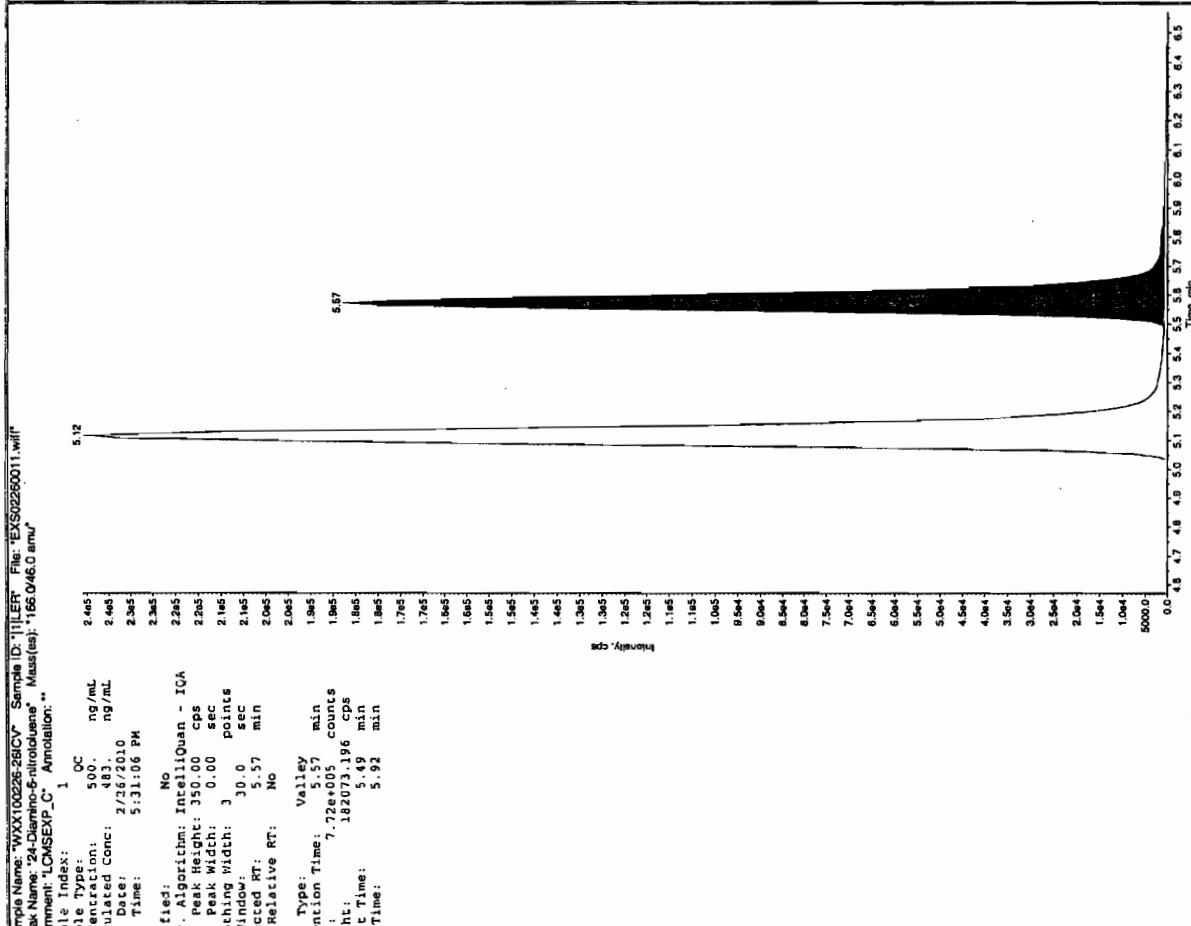
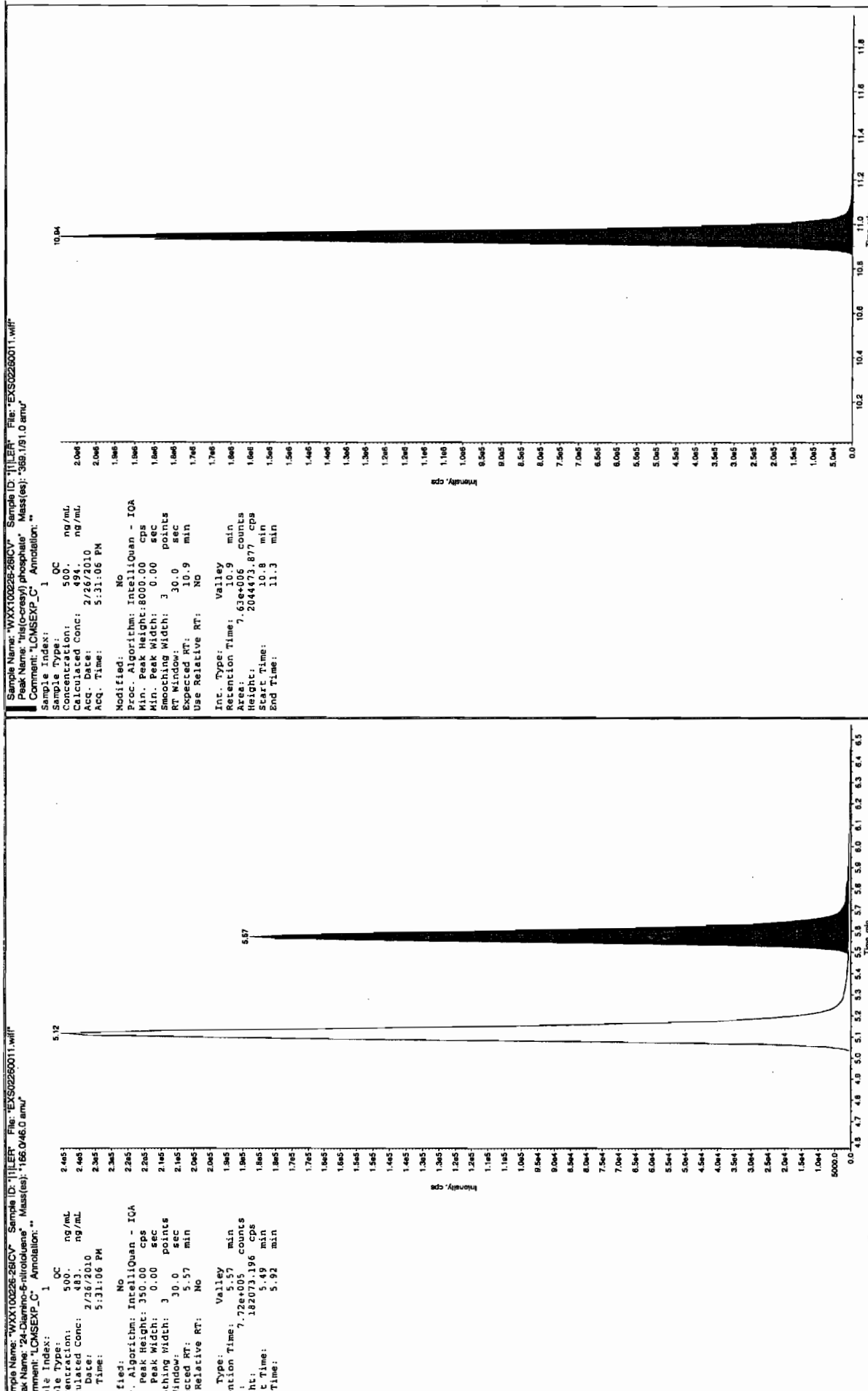
Jan 31/10



Jan 31/10



L SOP GL-OA-E-056, Method 8321A-Modified LCM SMS#4



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

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304012a

Analysis Date: 04-MAR-10 20:40

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	52.132	130	*
1,3-Dinitrobenzene-d4	500	502.653	101	
2,4,6-Trinitrotoluene	40	43.716	109	
2,4-Dinitrotoluene	40	42.515	106	
2,6-Dinitrotoluene	40	39.781	99	
2,6-Dinitrotoluene-d3	500	509.301	102	
2-Amino-4,6-dinitrotoluene	40	37.902	95	
3,4-Dinitrotoluene	20	19.742	99	
4-Amino-2,6-dinitrotoluene	40	33.746	84	
HMX	40	42.046	105	
Nitrobenzene	40	43.151	108	
PETN	40	43.178	108	
RDX	40	41.86	105	
Tetryl	40	46.154	115	
m-Dinitrobenzene	40	46.893	117	
m-Nitrotoluene	40	38.785	97	
o-Nitrotoluene	40	39.894	100	
p-Nitrotoluene	40	32.889	82	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report

3EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Mar 05 10:25:00 2010, Page 23 of 77

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

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Date: 04-Mar-2010

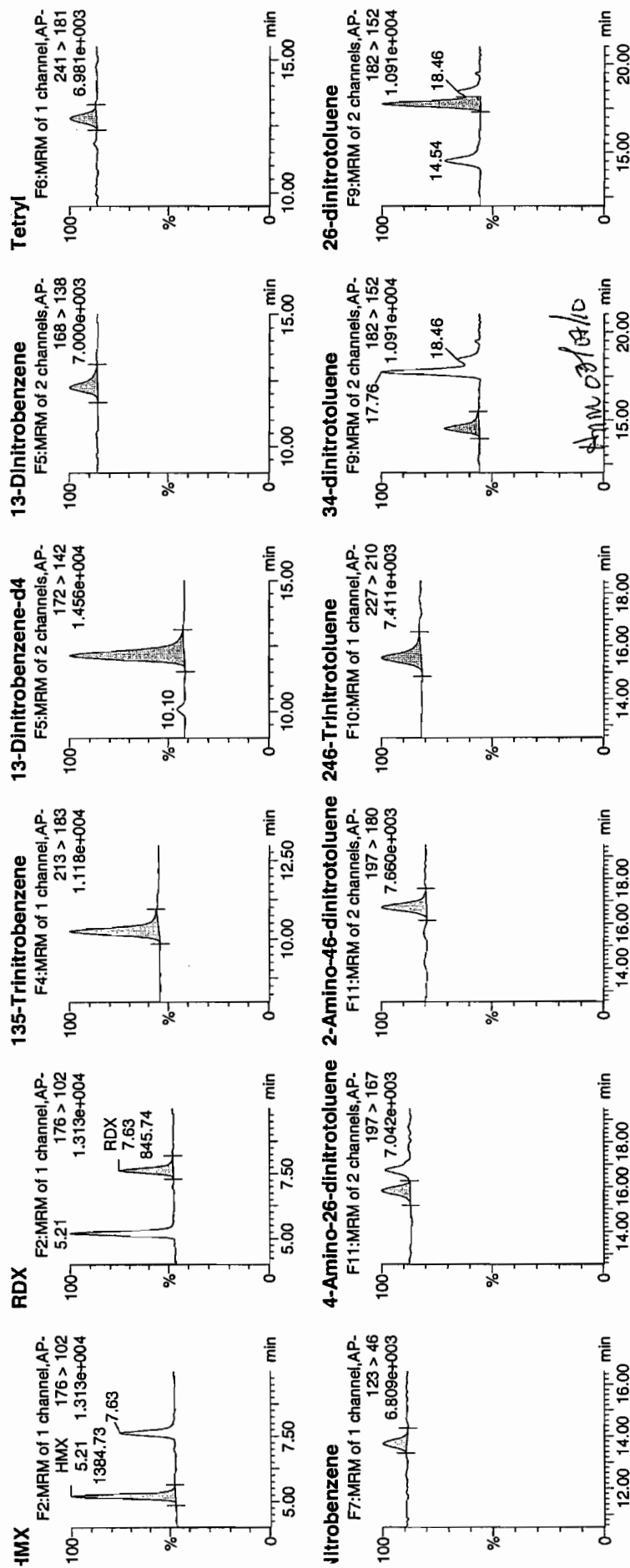
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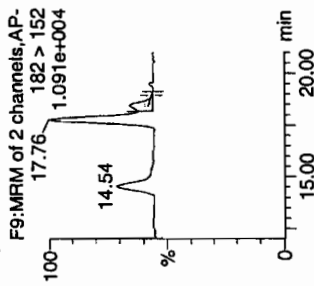
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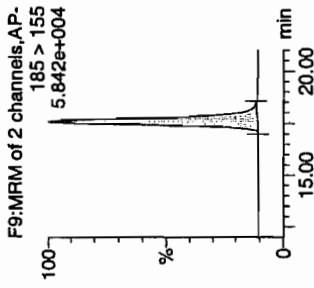


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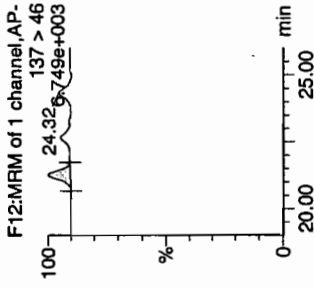
24-dinitrotoluene



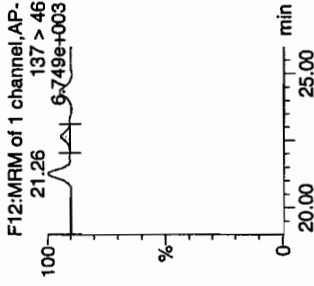
26-dinitrotoluene-d3



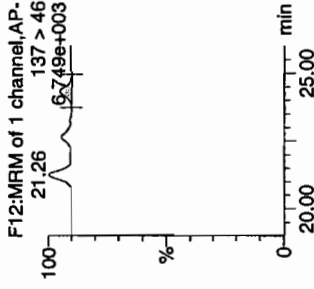
2-Nitrotoluene



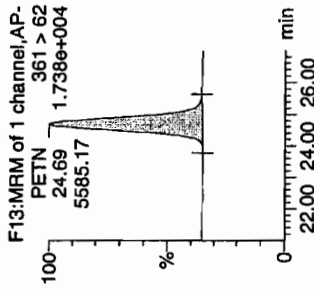
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Int Time	% Rec	% Dev	SN
WXX100304-08CRI	HMx	176 > 102	5.21	1384.730	3530.423	1384.730	196.114	bb			42.0457	105.1	5.1	144.1
WXX100304-08CRI	RDX	176 > 102	7.63	845.744	3530.423	845.744	119.779	bb			41.8604	104.7	4.7	75.2
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1433.303	3530.423	1433.303	202.993	bb			52.1322	130.3	30.3	167.6
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.13	3530.423	3530.423	3530.423	3530.423	bb			502.6531	100.5	0.5	557.7
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.24	419.332	3530.423	419.332	59.388	bb			46.8931	117.2	17.2	49.7
WXX100304-08CRI	Tetryl	241 > 181	12.80	331.609	3530.423	331.609	46.964	bb			46.1544	115.4	15.4	33.7
WXX100304-08CRI	Nitrobenzene	123 > 46	13.70	251.584	3530.423	251.584	35.631	bb			43.1505	107.9	7.9	26.0
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.85	389.877	20943.066	389.877	9.308	MM	05-Mar-10	10:05:44	33.7458	84.4	-15.6	20.6
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.72	643.123	20943.066	643.123	15.354	bb			37.9017	94.8	-5.2	59.0
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.54	601.715	20943.066	601.715	14.365	bb			43.7163	109.3	9.3	34.7
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.54	799.203	20943.066	799.203	19.080	bb			19.7424	98.7	-1.3	67.9
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.76	1858.792	20943.066	1858.792	44.377	MM	05-Mar-10	10:10:03	39.7809	99.5	-0.5	195.7
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.46	490.874	20943.066	490.874	11.719	MM	05-Mar-10	10:13:43	42.5154	106.3	6.3	42.9
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.59	20943.066	20943.066	20943.066	20943.066	bb			509.3014	101.9	1.9	2489.6
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.26	258.838	20943.066	258.838	6.180	bb			39.8942	99.7	-0.3	72.0
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.65	105.073	20943.066	105.073	2.509	bb			32.8885	82.2	-17.8	28.3
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.32	153.282	20943.066	153.282	3.659	bb			38.7845	97.0	-3.0	37.4
WXX100304-08CRI	PETN	361 > 62	24.69	5585.170	20943.066	5585.170	133.342	bb			43.1775	107.9	7.9	1559.5

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 03/04/10
 Time of Injection 2040
 Standard Number WXX100304-08CRI
 Data File EXP0304012a

HMX	105.1
RDX	104.7
135-TNB	130.3
13-DNB	117.2
Tetryl	115.4
Nitrobenzene	107.9
4A-26-DNT	84.4
2A-46-DNT	94.8
246-TNT	109.3
34-DNT(surr)	98.7
26-DNT	99.5
24-DNT	106.3
2-NT	99.7
4-NT	82.2
3-NT	97.0
PETN	107.9

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 107.9
 3/6/10

Total 1660.4

Average 103.8

Handwritten: HMM 03/04/10

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): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304023a

Analysis Date: 05-MAR-10 02:05

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	582.184	97	
1,3-Dinitrobenzene-d4	500	523.805	105	
2,4,6-Trinitrotoluene	600	735.028	123	*
2,4-Dinitrotoluene	600	602.974	100	
2,6-Dinitrotoluene	600	603.708	101	
2,6-Dinitrotoluene-d3	500	475.367	95	
2-Amino-4,6-dinitrotoluene	600	849.542	142	*
3,4-Dinitrotoluene	300	364.434	121	*
4-Amino-2,6-dinitrotoluene	600	789.715	132	*
HMX	600	677.366	113	
Nitrobenzene	600	653.257	109	
PETN	600	714.882	119	
RDX	600	797.625	133	*
Tetryl	600	672.594	112	
m-Dinitrobenzene	600	619.329	103	
m-Nitrotoluene	600	614.199	102	
o-Nitrotoluene	600	660.057	110	
p-Nitrotoluene	600	704.198	117	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Mar 05 10:25:00 2010, Page 45 of 77

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

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Date: 05-Mar-2010

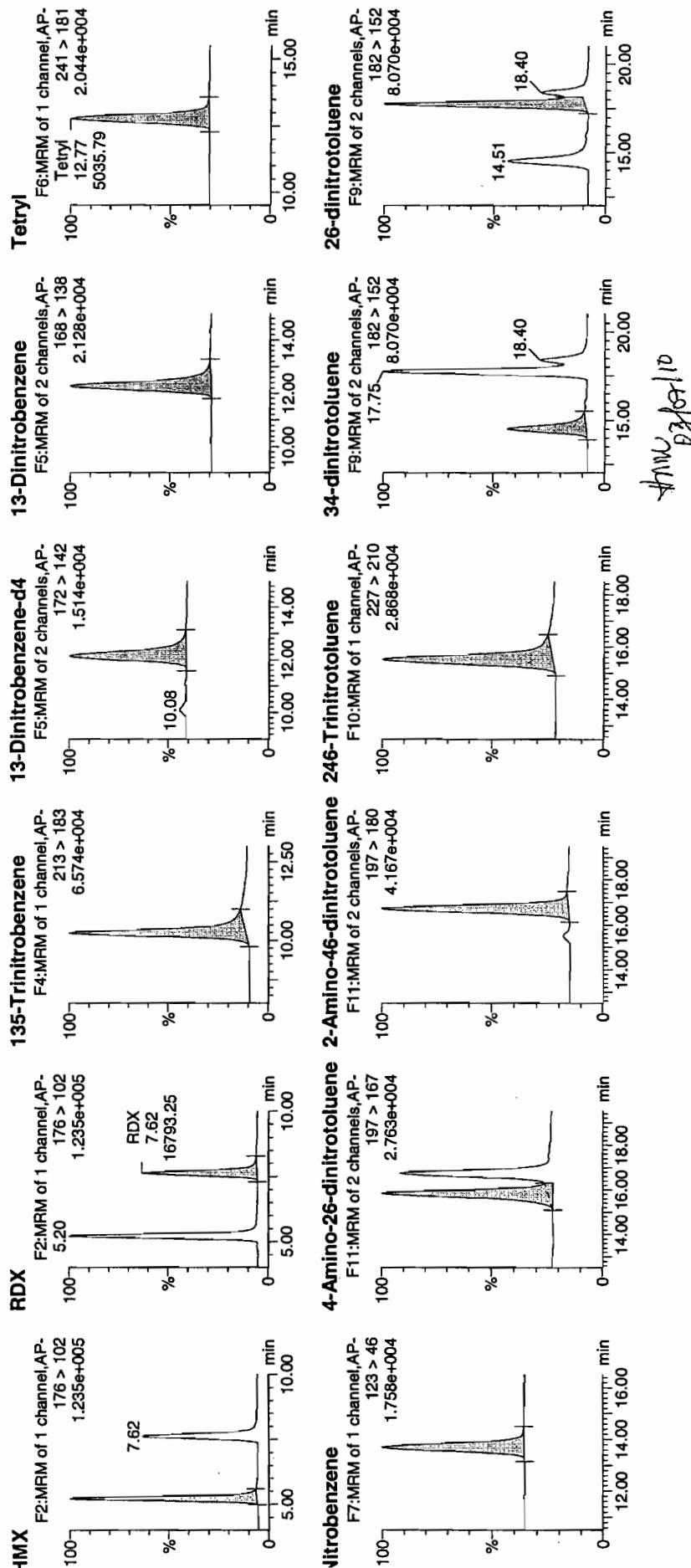
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D: WXX100304-07CCV

Vial: 1:1,B

3/6/10
MJP

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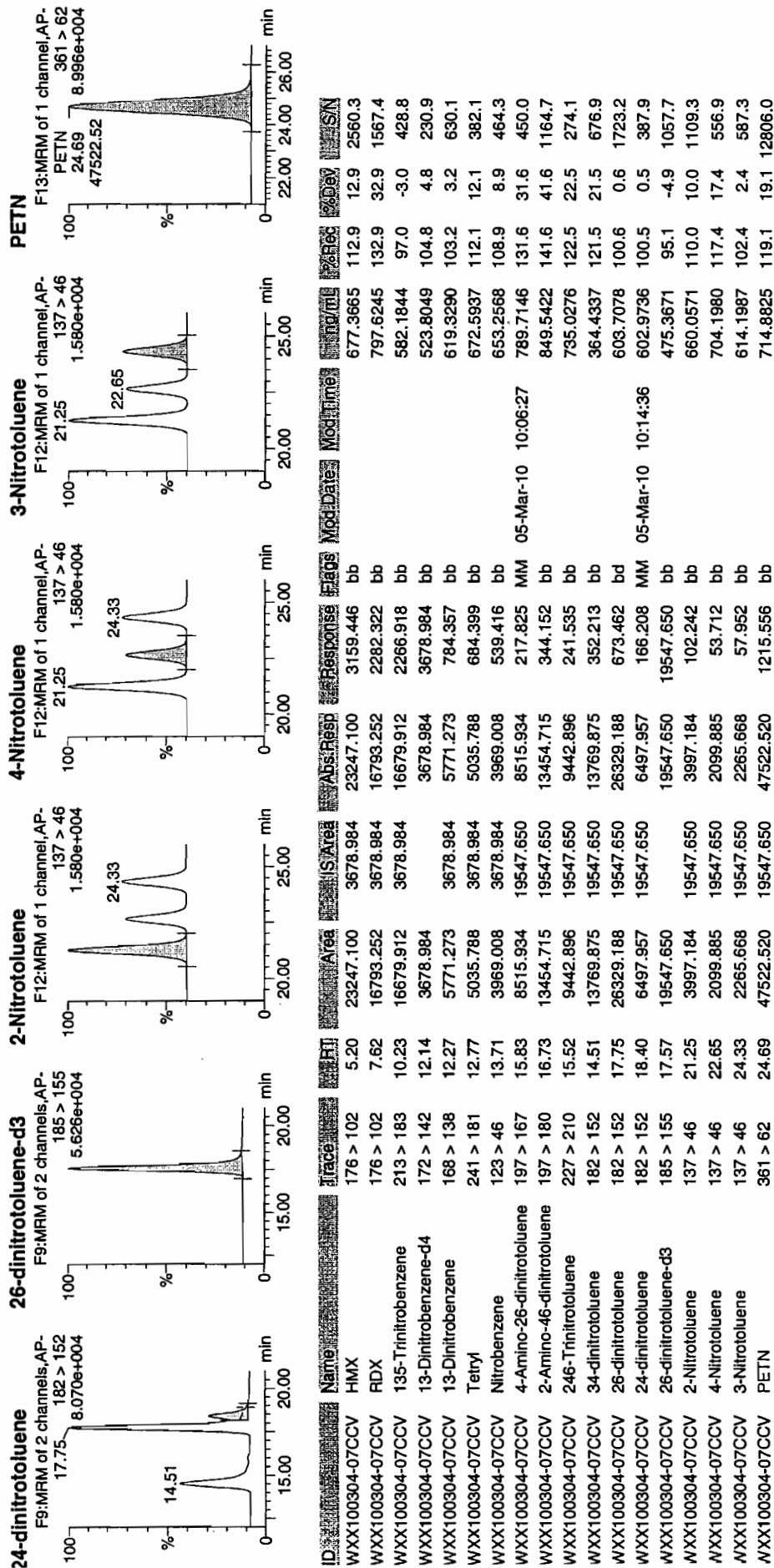


Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Mar 05 10:25:00 2010, Page 46 of 77

Dataset: C:\MASSLYNX\New_Exp\PRO030410expA.qld, Time: Fri Mar 05 10:16:18 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 03/05/10
 Time of Injection: 0205
 Standard Number: WXX100304-07CCV
 Data File: EXP0304023a

HMX	112.9
RDX	132.9
135-TNB	97.0
13-DNB	103.2
Tetryl	112.1
Nitrobenzene	108.9
4A-26-DNT	131.6
2A-46-DNT	141.6
246-TNT	122.5
34-DNT(surr)	121.5
26-DNT	100.6
24-DNT	100.5
2-NT	110.0
4-NT	117.4
3-NT	102.1
PETN	119.1

*not
3/6/10*

Total 1833.9

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Average 114.6

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): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304025a

Analysis Date: 05-MAR-10 03:04

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3-Dinitrobenzene-d4	500	486.162	97	
2,4,6-Trinitrotoluene	40	34.785	87	
2,4-Dinitrotoluene	40	43.839	110	
2,6-Dinitrotoluene	40	37.827	95	
2,6-Dinitrotoluene-d3	500	496.377	99	
2-Amino-4,6-dinitrotoluene	40	38.416	96	
3,4-Dinitrotoluene	20	18.756	94	
4-Amino-2,6-dinitrotoluene	40	39.423	99	
HMX	40	36.072	90	
Nitrobenzene	40	41.851	105	
PETN	40	44.092	110	
RDX	40	37.991	95	
Tetryl	40	37.595	94	
m-Dinitrobenzene	40	36.407	91	
m-Nitrotoluene	40	44.127	110	
o-Nitrotoluene	40	43.573	109	
p-Nitrotoluene	40	37.14	93	
1,3,5-Trinitrobenzene	40	45.531	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 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report

SEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Mar 05 10:25:00 2010, Page 49 of 77

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

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Date: 05-Mar-2010

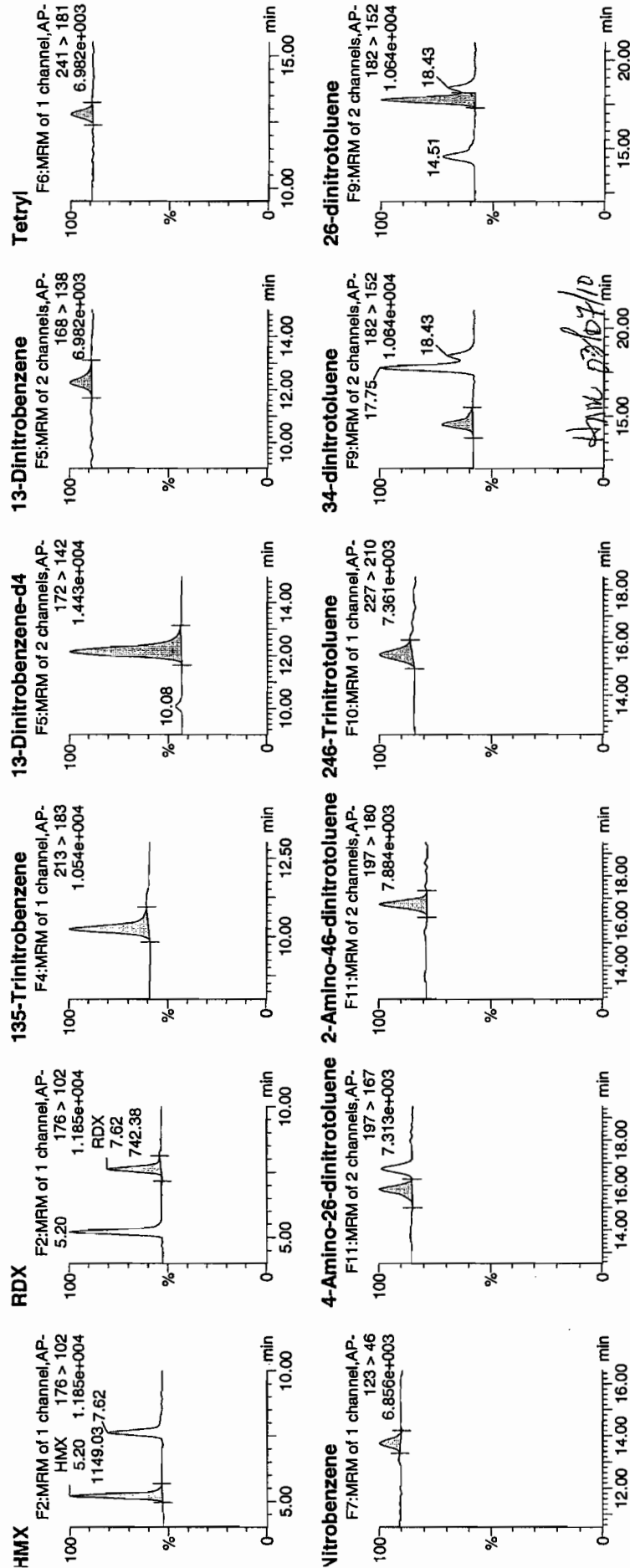
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Vial: 1:1,C

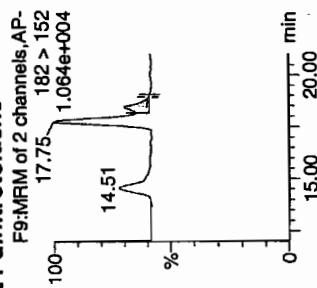
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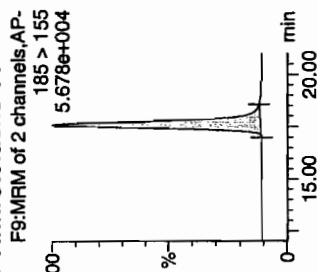


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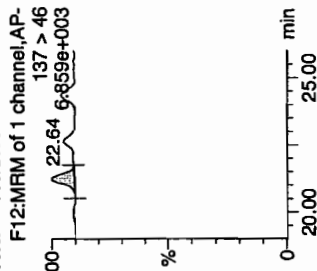
2,4-dinitrotoluene



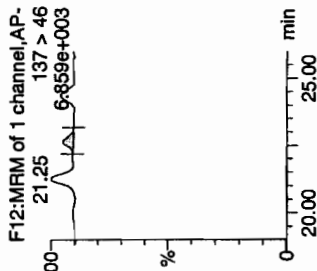
26-dinitrotoluene-d3



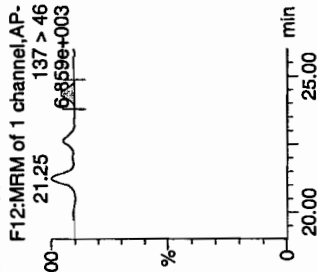
2-Nitrotoluene



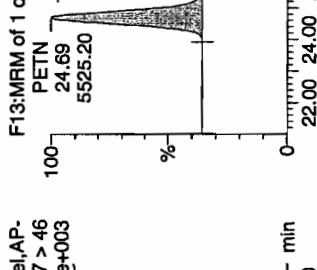
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	HT	Area	SArea	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ppm	%Rec	%Dev	SN
WXX100304-08CRI	HMX	176 > 102	5.20	1149.025	3414.594	1149.025	168.252	bb			36.0722	90.2	-9.8	165.6
WXX100304-08CRI	RDX	176 > 102	7.62	742.378	3414.594	742.378	108.707	bb			37.9907	95.0	-5.0	95.5
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1210.741	3414.594	1210.741	177.289	bb			45.5310	113.8	13.8	229.8
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.14	3414.594		3414.594	3414.594	bb			486.1617	97.2	-2.8	85.2
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.27	314.881	3414.594	314.881	46.108	bb			36.4070	91.0	-9.0	27.6
WXX100304-08CRI	Tetryl	241 > 181	12.77	261.250	3414.594	261.250	38.255	bb			37.5950	94.0	-6.0	25.8
WXX100304-08CRI	Nitrobenzene	123 > 46	13.72	236.004	3414.594	236.004	34.558	bb			41.8514	104.6	4.6	38.7
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.83	443.909	20411.605	443.909	10.874	bb			39.4230	98.6	-1.4	32.3
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.73	635.304	20411.605	635.304	15.562	bb			38.4158	96.0	-4.0	53.4
WXX100304-08CRI	246-Trinitrotoluene	182 > 210	15.55	466.627	20411.605	466.627	11.430	bb			34.7845	87.0	-13.0	48.2
WXX100304-08CRI	34-dinitrotoluene	287 > 152	14.51	740.008	20411.605	740.008	18.127	bb			18.7561	93.8	-6.2	47.1
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.75	1722.620	20411.605	1722.620	42.197	MM	05-Mar-10	10:11:23	37.8265	94.6	-5.4	142.3
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.43	493.310	20411.605	493.310	12.084	MM	05-Mar-10	10:14:45	43.8388	109.6	9.6	38.2
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.57	20411.605		20411.605	20411.605	bb			496.3771	99.3	-0.7	287.3
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.25	275.529	20411.605	275.529	6.749	bb			43.5725	108.9	8.9	54.8
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.64	115.645	20411.605	115.645	2.833	bb			37.1401	92.9	-7.1	23.6
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.36	169.971	20411.605	169.971	4.164	bb			44.1270	110.3	10.3	31.1
WXX100304-08CRI	PETN	361 > 62	24.69	5525.200	20411.605	5525.200	135.345	bb			44.0922	110.2	10.2	367.0

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 03/05/10
 Time of Injection 0304
 Standard Number WXX100304-08CRI
 Data File EXP0304025a

HMX	90.2
RDX	95.0
135-TNB	113.8
13-DNB	91.0
Tetryl	94.0
Nitrobenzene	104.6
4A-26-DNT	98.6
2A-46-DNT	96.0
246-TNT	87.0
34-DNT(surr)	93.8
26-DNT	94.6
24-DNT	109.6
2-NT	108.9
4-NT	92.9
3-NT	110.3
PETN	110.2

4/5/10
3/6/10

Total 1590.5

Average 99.4

4/5/10
3/6/10

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): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304036a

Analysis Date: 05-MAR-10 08:28

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	600	681.036	114	
3,4-Dinitrotoluene	300	311.088	104	
4-Amino-2,6-dinitrotoluene	600	643.868	107	
HMX	600	523.143	87	
Nitrobenzene	600	628.495	105	
PETN	600	577.567	96	
RDX	600	607.989	101	
Tetryl	600	588.724	98	
m-Dinitrobenzene	600	634.351	106	
m-Nitrotoluene	600	540.173	90	
o-Nitrotoluene	600	622.879	104	
p-Nitrotoluene	600	600.392	100	
1,3,5-Trinitrobenzene	600	515.274	86	
1,3-Dinitrobenzene-d4	500	536.623	107	
2,4,6-Trinitrotoluene	600	672.018	112	
2,4-Dinitrotoluene	600	572.889	95	
2,6-Dinitrotoluene	600	612.517	102	
2,6-Dinitrotoluene-d3	500	508.792	102	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

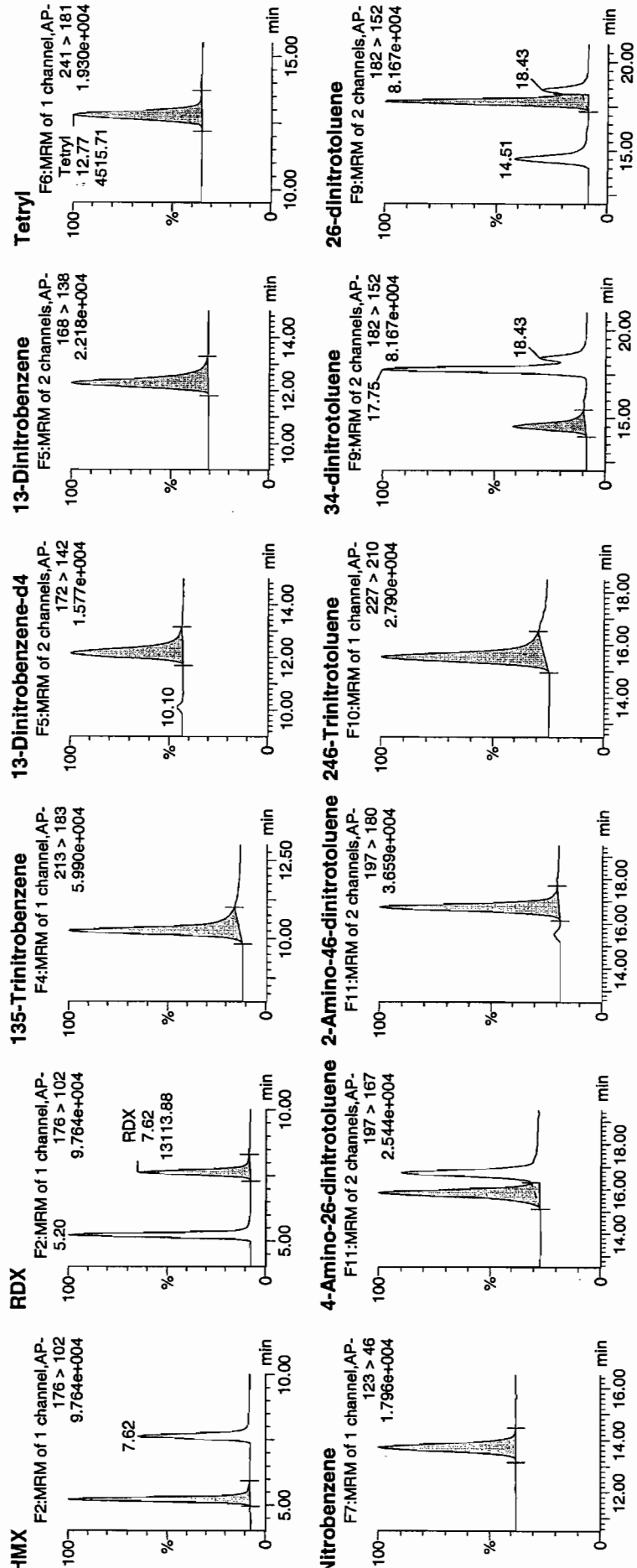
Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

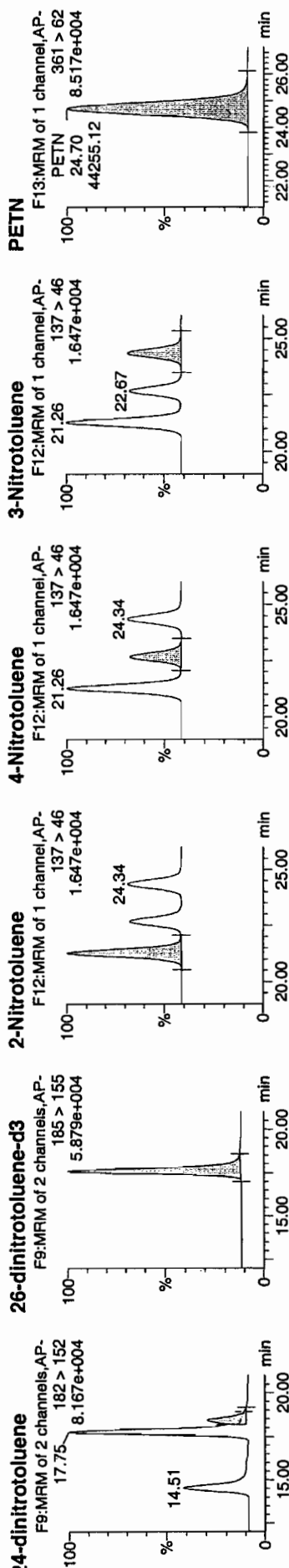
* Value outside of Recovery Limits

copy
2/6/10

03/07/10



Dataset: C:\MASSLYNX\New_Exp\PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010



Di	Name	Trace	RT	Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Area Norm	% Rec	% Dev	SN
NXX100304-07CCV	HMX	176 > 102	5.20	18393.506	18393.506	2440.098	db			523.1425	87.2	-12.8	1478.9
NXX100304-07CCV	RDX	176 > 102	7.62	13113.881	13113.881	1739.698	bb			607.9888	101.3	1.3	912.6
NXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.23	15124.150	15124.150	2006.382	bb			515.2742	85.9	-14.1	1681.4
NXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.14	3769.010	3769.010	3769.010	bb			536.6226	107.3	7.3	211.6
NXX100304-07CCV	13-Dinitrobenzene	188 > 138	12.27	6055.908	6055.908	803.382	bb			634.3511	105.7	5.7	341.1
NXX100304-07CCV	Tetryl	241 > 181	12.77	4515.707	4515.707	599.057	bb			588.7240	98.1	-1.9	461.6
NXX100304-07CCV	Nitrobenzene	123 > 46	13.72	3912.001	3912.001	518.969	bb			628.4946	104.7	4.7	410.3
NXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.83	7431.390	7431.390	177.597	MM	05-Mar-10	10:07:06	643.8684	107.3	7.3	244.6
NXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.73	11544.367	11544.367	275.889	bb			681.0355	113.5	13.5	719.9
NXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.55	9240.455	9240.455	220.830	bb			672.0182	112.0	12.0	377.4
NXX100304-07CCV	34-dinitrotoluene	182 > 152	14.51	12580.740	12580.740	300.657	bb			311.0885	103.7	3.7	401.3
NXX100304-07CCV	26-dinitrotoluene	182 > 152	17.75	28591.688	28591.688	683.289	MM	05-Mar-10	10:12:12	612.5172	102.1	2.1	1125.2
NXX100304-07CCV	24-dinitrotoluene	182 > 152	18.43	6607.849	6607.849	157.915	MM	05-Mar-10	10:15:32	572.8894	95.5	-4.5	244.0
NXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.57	20922.104	20922.104	20922.104	bb			508.7916	101.8	1.8	2012.4
NXX100304-07CCV	2-Nitrotoluene	137 > 46	21.26	4037.262	4037.262	96.483	bb			622.8787	103.8	3.8	781.2
NXX100304-07CCV	4-Nitrotoluene	137 > 46	22.67	1916.226	1916.226	45.794	bb			600.3925	100.1	0.1	346.0
NXX100304-07CCV	3-Nitrotoluene	137 > 46	24.34	2132.706	2132.706	50.968	bb			540.1729	90.0	-10.0	362.7
NXX100304-07CCV	PETN	361 > 62	24.70	44255.117	44255.117	1057.616	bb			577.5671	96.3	-3.7	1129.7

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 03/05/10
 Time of Injection: 0828
 Standard Number: WXX100304-07CCV
 Data File: EXP0304036a

HMX	87.2
RDX	101.3
135-TNB	85.9
13-DNB	105.7
Tetryl	98.1
Nitrobenzene	104.7
4A-26-DNT	107.3
2A-46-DNT	113.5
246-TNT	112.0
34-DNT(surr)	103.7
26-DNT	102.1
24-DNT	95.5
2-NT	103.8
4-NT	100.1
3-NT	90.0
PETN	96.3
Total	1607.2

MTT
3/6/10

Ann 03/04/10

Average

100.5

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): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304038a

Analysis Date: 05-MAR-10 09:27

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	40	38.4	96	
RDX	40	41.881	105	
Tetryl	40	47.052	118	
m-Dinitrobenzene	40	39.692	99	
m-Nitrotoluene	40	40.239	101	
o-Nitrotoluene	40	38.86	97	
p-Nitrotoluene	40	39.046	98	
1,3,5-Trinitrobenzene	40	48.063	120	
1,3-Dinitrobenzene-d4	500	567.712	114	
2,4,6-Trinitrotoluene	40	40.001	100	
2,4-Dinitrotoluene	40	36.759	92	
2,6-Dinitrotoluene	40	39.855	100	
2,6-Dinitrotoluene-d3	500	569.834	114	
2-Amino-4,6-dinitrotoluene	40	38.546	96	
3,4-Dinitrotoluene	20	17.879	89	
4-Amino-2,6-dinitrotoluene	40	46.263	116	
HMX	40	38.837	97	
Nitrobenzene	40	43.406	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 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report

EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Mar 05 10:25:00 2010, Page 75 of 77

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Sample Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304038a

Date: 05-Mar-2010

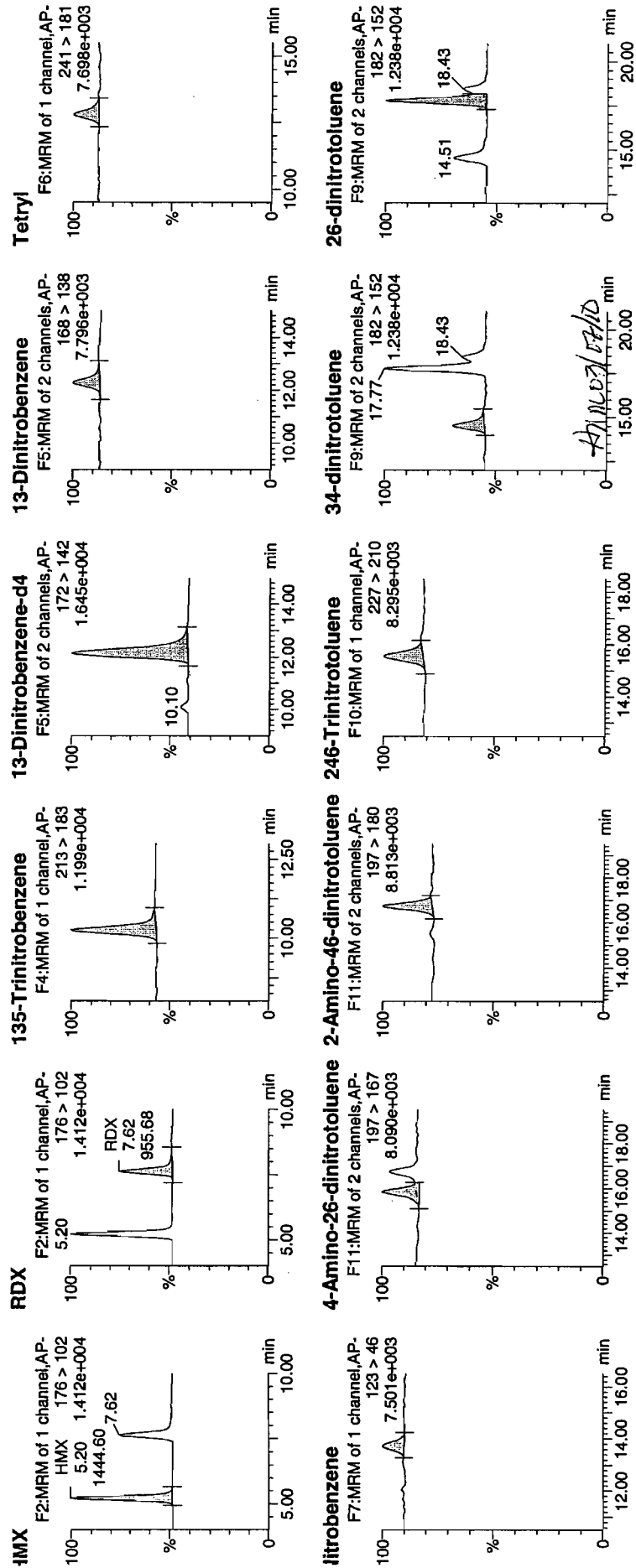
Time: 09:27:34

D: WXX100304-08CRI

Ratio: 1:1,C

10/16/10

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

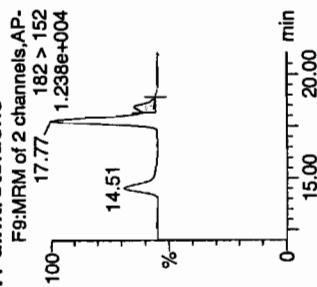
Quantify Sample Report

IEL Laboratories, LLC / Analyst: Michael A. Penny

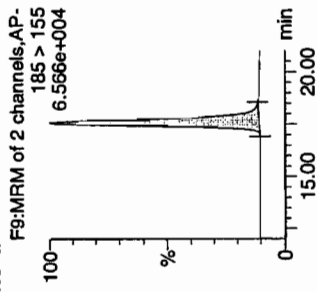
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Printed: Fri Mar 05 10:25:00 2010, Page 76 of 77

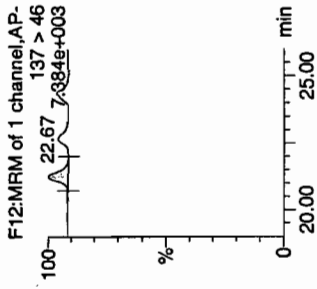
14-dinitrotoluene



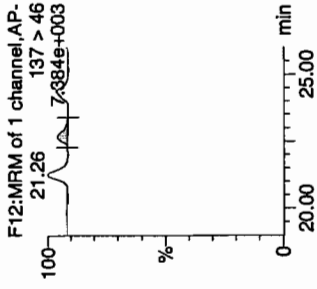
26-dinitrotoluene-d3



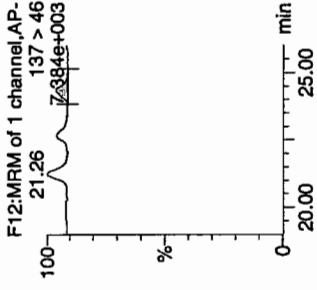
2-Nitrotoluene



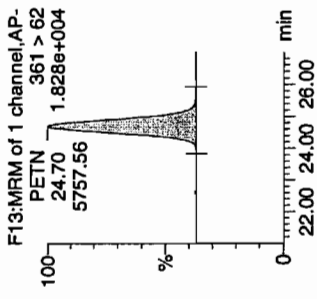
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Data	Mod Time	Conc	% Rec	% Dev	SN
WXX100304-08CRI	HMX	176 > 102	5.20	1444.595	3987.369	1444.595	181.146	bb			38.8367	97.1	-2.9	378.8
WXX100304-08CRI	RDX	176 > 102	7.62	955.681	3987.369	955.681	119.839	bb			41.8811	104.7	4.7	198.0
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1492.464	3987.369	1492.464	187.149	bb			48.0631	120.2	20.2	84.1
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.14	3987.369		3987.369	3987.369	bb			567.7120	113.5	13.5	417.0
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.27	400.882	3987.369	400.882	50.269	bb			39.6924	99.2	-0.8	24.5
WXX100304-08CRI	Tetryl	241 > 181	12.77	381.817	3987.369	381.817	47.878	bb			47.0524	117.6	17.6	25.7
WXX100304-08CRI	Nitrobenzene	123 > 46	13.72	285.830	3987.369	285.830	35.842	bb			43.4061	108.5	8.5	24.9
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.83	598.013	23432.250	598.013	12.760	MM	05-Mar-10	10:07:28	46.2625	115.7	15.7	34.2
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.73	731.783	23432.250	731.783	15.615	bb			38.5455	96.4	-3.6	66.3
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.55	616.013	23432.250	616.013	13.145	bb			40.0008	100.0	0.0	42.1
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.51	809.807	23432.250	809.807	17.280	bb			17.8793	89.4	-10.6	40.6
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.77	2083.575	23432.250	2083.575	44.460	MM	05-Mar-10	10:12:20	39.8547	99.6	-0.4	131.5
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.43	474.849	23432.250	474.849	10.132	MM	05-Mar-10	10:15:38	36.7585	91.9	-8.1	26.6
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.60	23432.250		23432.250	23432.250	bb			569.8343	114.0	14.0	2088.9
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.26	282.094	23432.250	282.094	6.019	bb			38.8599	97.1	-2.9	32.5
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.67	139.572	23432.250	139.572	2.978	bb			39.0461	97.6	-2.4	16.0
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.38	177.933	23432.250	177.933	3.797	bb			40.2392	100.6	0.6	18.9
WXX100304-08CRI	PETN	361 > 62	24.70	5757.563	23432.250	5757.563	122.856	bb			38.3995	96.0	-4.0	941.2

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 03/05/10
 Time of Injection 0927
 Standard Number WXX100304-08CRI
 Data File EXP0304038a

HMX	97.1
RDX	104.7
135-TNB	120.2
13-DNB	99.2
Tetryl	117.6
Nitrobenzene	108.5
4A-26-DNT	115.7
2A-46-DNT	96.4
246-TNT	100.0
34-DNT(surr)	89.4
26-DNT	99.6
24-DNT	91.9
2-NT	97.1
4-NT	97.6
3-NT	100.6
PETN	96.0

*MTA
3/6/10*

Total 1631.6

Average 102.0

Hym 03/07/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304049a

Analysis Date: 05-MAR-10 14:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	553.66	92	
1,3-Dinitrobenzene-d4	500	505.7	101	
2,4,6-Trinitrotoluene	600	658.826	110	
2,4-Dinitrotoluene	600	563.598	94	
2,6-Dinitrotoluene	600	590.275	98	
2,6-Dinitrotoluene-d3	500	516.322	103	
2-Amino-4,6-dinitrotoluene	600	640.403	107	
3,4-Dinitrotoluene	300	295.719	99	
4-Amino-2,6-dinitrotoluene	600	631.798	105	
HMX	600	537.583	90	
Nitrobenzene	600	626.896	104	
PETN	600	590.161	98	
RDX	600	630.1	105	
Tetryl	600	629.847	105	
m-Dinitrobenzene	600	598.536	100	
m-Nitrotoluene	600	561.186	94	
o-Nitrotoluene	600	596.576	99	
p-Nitrotoluene	600	615.575	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

3EL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sat Mar 06 12:20:52 2010, Page 21 of 107

Dataset: C:\MASSLYNX\New_Exp\PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

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Date: 05-Mar-2010

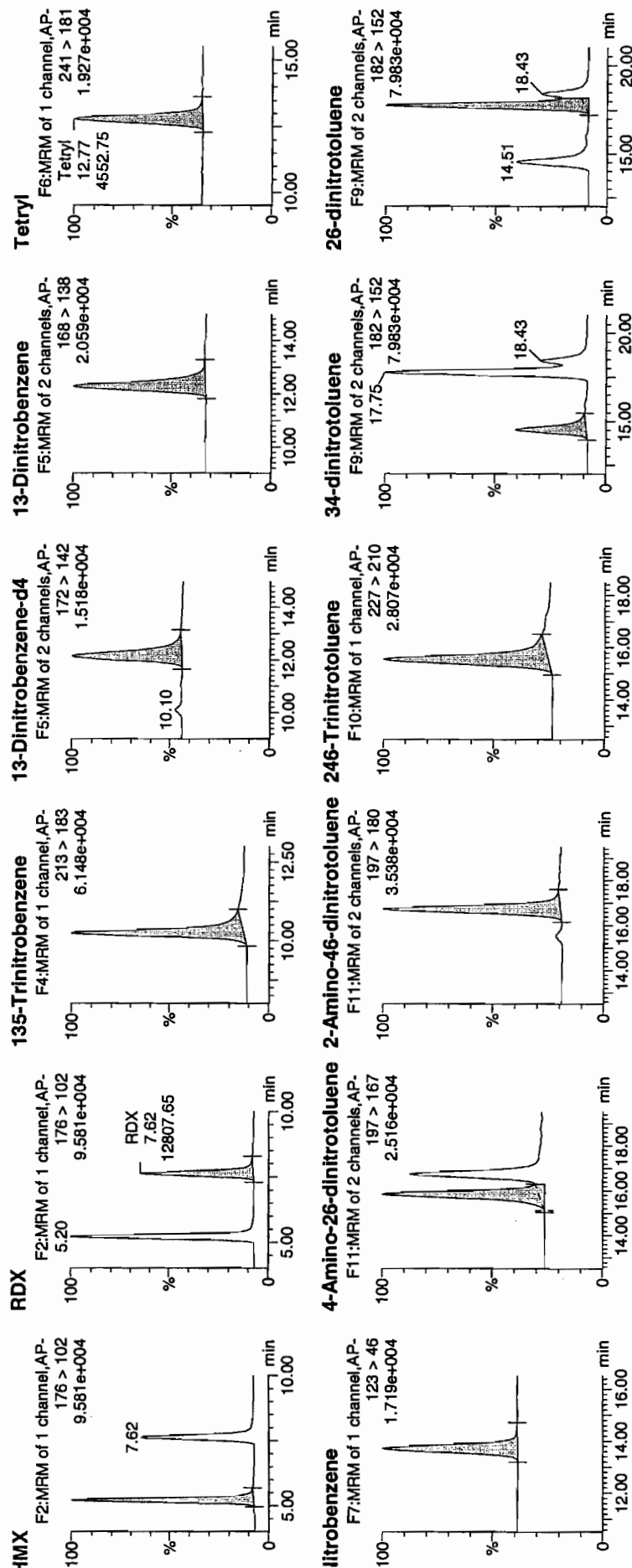
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D: WXX100304-07CCV

/ial: 1:1,B

1.67
3/6/10

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4/10/10

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 03/05/10
 Time of Injection: 1452
 Standard Number: WXX100304-07CCV
 Data File: EXP0304049a

HMX	89.6	✓
RDX	105.0	✓
135-TNB	92.3	✓
13-DNB	99.8	
Tetryl	105.0	
Nitrobenzene	104.5	
4A-26-DNT	105.3	
2A-46-DNT	106.7	
246-TNT	109.8	
34-DNT(surr)	98.6	
26-DNT	98.4	
24-DNT	93.9	
2-NT	99.4	
4-NT	102.6	
3-NT	93.5	
PETN	98.4	

*WTP
3/6/10*

Total 1602.8

Average 100.2

WTP 03/05/10

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): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304051a

Analysis Date: 05-MAR-10 15:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	51.153	128	
1,3-Dinitrobenzene-d4	500	505.962	101	
2,4,6-Trinitrotoluene	40	43.019	108	
2,4-Dinitrotoluene	40	36.168	90	
2,6-Dinitrotoluene	40	40.992	102	
2,6-Dinitrotoluene-d3	500	562.467	112	
2-Amino-4,6-dinitrotoluene	40	41.661	104	
3,4-Dinitrotoluene	20	18.026	90	
4-Amino-2,6-dinitrotoluene	40	34.434	86	
HMX	40	42.762	107	
Nitrobenzene	40	43.048	108	
PETN	40	41.201	103	
RDX	40	42.966	107	
Tetryl	40	50.733	127	
m-Dinitrobenzene	40	39.555	99	
m-Nitrotoluene	40	42.174	105	
o-Nitrotoluene	40	36.513	91	
p-Nitrotoluene	40	41.047	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 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: Sat Mar 06 12:20:52 2010, Page 25 of 107

Dataset: C:\MASSLYNX\New_Exp\PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

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Date: 05-Mar-2010

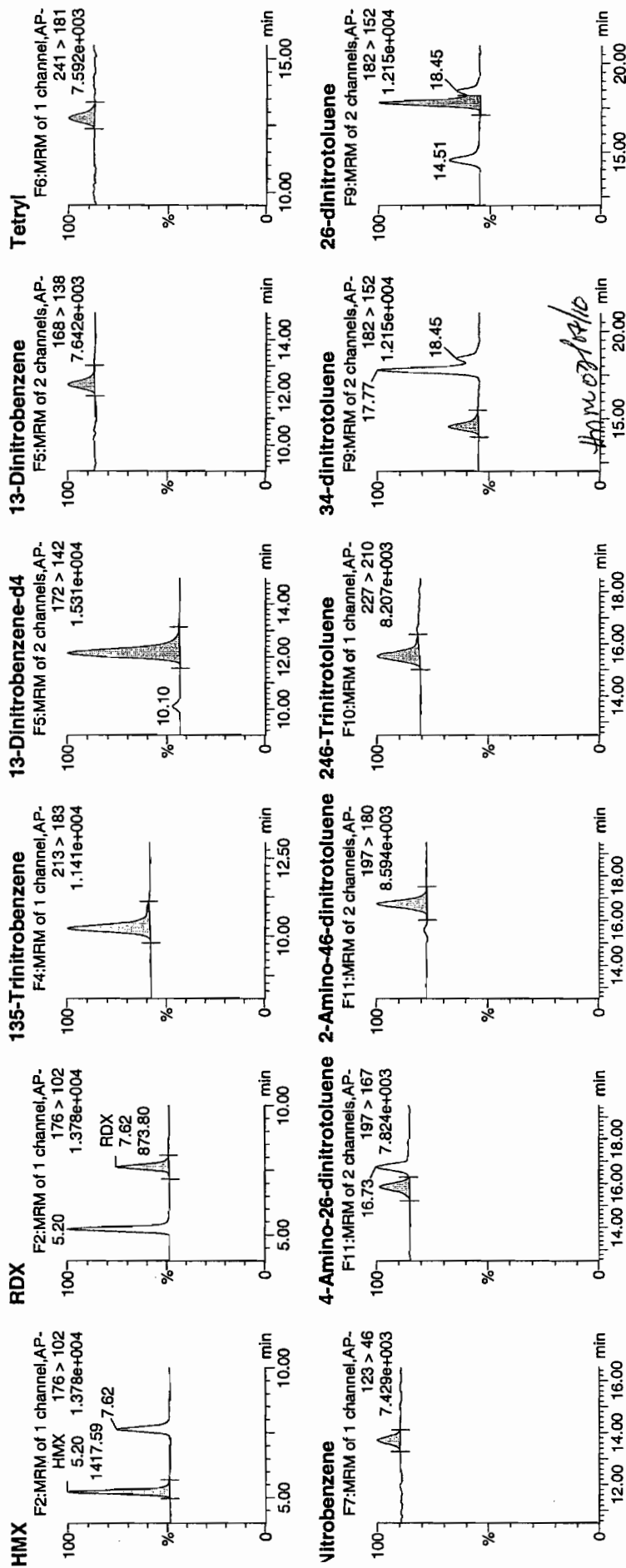
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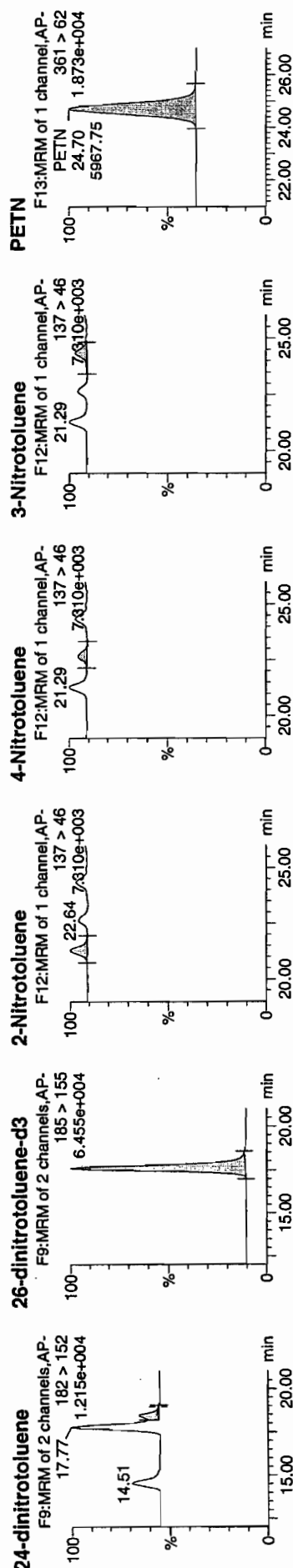
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Vial: 1:1,C

1077
3/6/10

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ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Ind/mL	% Rec	% Dev	SN
WX100304-08C1	HMX	176 > 102	5.20	1417.593	3553.665	1417.593	199.455	bb			42.7620	106.9	6.9	172.8
WX100304-08C1	RDX	176 > 102	7.62	873.798	3553.665	873.798	122.943	bb			42.9661	107.4	7.4	91.2
WX100304-08C1	135-Trinitrobenzene	213 > 183	10.23	1415.644	3553.665	1415.644	199.181	bb			51.1531	127.9	27.9	144.6
WX100304-08C1	13-Dinitrobenzene-d4	172 > 142	12.14	3553.665		3553.665	3553.665	bb			505.9623	101.2	1.2	134.1
WX100304-08C1	13-Dinitrobenzene	168 > 138	12.27	356.044	3553.665	356.044	50.095	bb			39.5553	98.9	-1.1	61.5
WX100304-08C1	Tetryl	241 > 181	12.77	366.905	3553.665	366.905	51.623	bb			50.7330	126.8	26.8	38.1
WX100304-08C1	Nitrobenzene	123 > 46	13.72	252.641	3553.665	252.641	35.547	bb			43.0484	107.6	7.6	26.8
WX100304-08C1	4-Amino-2,6-dinitrotoluene	197 > 167	15.83	439.361	23129.281	439.361	9.498	MM	06-Mar-10	12:10:49	34.4343	86.1	-13.9	41.3
WX100304-08C1	2-Amino-4,6-dinitrotoluene	197 > 180	16.73	780.703	23129.281	780.703	16.877	bb			41.6609	104.2	4.2	107.0
WX100304-08C1	246-Trinitrotoluene	227 > 210	15.52	653.919	23129.281	653.919	14.136	bb			43.0185	107.5	7.5	46.5
WX100304-08C1	34-dinitrotoluene	182 > 152	14.51	805.904	23129.281	805.904	17.422	bb			18.0282	90.1	-9.9	92.2
WX100304-08C1	26-dinitrotoluene	182 > 152	17.77	2115.341	23129.281	2115.341	45.729	MM	06-Mar-10	12:14:36	40.9923	102.5	2.5	301.7
WX100304-08C1	24-dinitrotoluene	182 > 152	18.45	461.181	23129.281	461.181	9.970	MM	06-Mar-10	12:15:17	36.1681	90.4	-9.6	64.8
WX100304-08C1	26-dinitrotoluene-d3	185 > 155	17.60	23129.281		23129.281	23129.281	bb			582.4666	112.5	12.5	1880.7
WX100304-08C1	2-Nitrotoluene	137 > 46	21.29	261.630	23129.281	261.630	5.656	bb			36.5130	91.3	-8.7	58.0
WX100304-08C1	4-Nitrotoluene	137 > 46	22.64	144.827	23129.281	144.827	3.131	bb			41.0470	102.6	2.6	29.7
WX100304-08C1	3-Nitrotoluene	137 > 46	24.34	184.075	23129.281	184.075	3.979	bb			42.1735	105.4	5.4	36.7
WX100304-08C1	PETN	361 > 62	24.70	5987.752	23129.281	5987.752	129.009	bb			41.2009	103.0	3.0	1834.7

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 03/05/10
 Time of Injection 1551
 Standard Number WXX100304-08CRI
 Data File EXP0304051a

HMX	106.9
RDX	107.4
135-TNB	127.9
13-DNB	98.9
Tetryl	126.8
Nitrobenzene	107.6
4A-26-DNT	86.1
2A-46-DNT	104.2
246-TNT	107.5
34-DNT(surr)	90.1
26-DNT	102.5
24-DNT	90.4
2-NT	91.3
4-NT	102.6
3-NT	105.4
PETN	103.0

✓
✓
✓

MTT
3/6/10

Total 1658.6

Average 103.7

Handwritten: 1658.6/10

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): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304064a

Analysis Date: 05-MAR-10 22:14

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene	600	602.144	100	
2,6-Dinitrotoluene-d3	500	514.259	103	
2-Amino-4,6-dinitrotoluene	600	681.738	114	
3,4-Dinitrotoluene	300	308.574	103	
4-Amino-2,6-dinitrotoluene	600	672.822	112	
HMX	600	559.79	93	
Nitrobenzene	600	614.548	102	
PETN	600	770.241	128	*
RDX	600	631.612	105	
Tetryl	600	585.793	98	
m-Dinitrobenzene	600	571.183	95	
m-Nitrotoluene	600	594.436	99	
o-Nitrotoluene	600	627.073	105	
p-Nitrotoluene	600	632.094	105	
1,3,5-Trinitrobenzene	600	563.548	94	
1,3-Dinitrobenzene-d4	500	511.802	102	
2,4,6-Trinitrotoluene	600	684.022	114	
2,4-Dinitrotoluene	600	572.807	95	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304064a

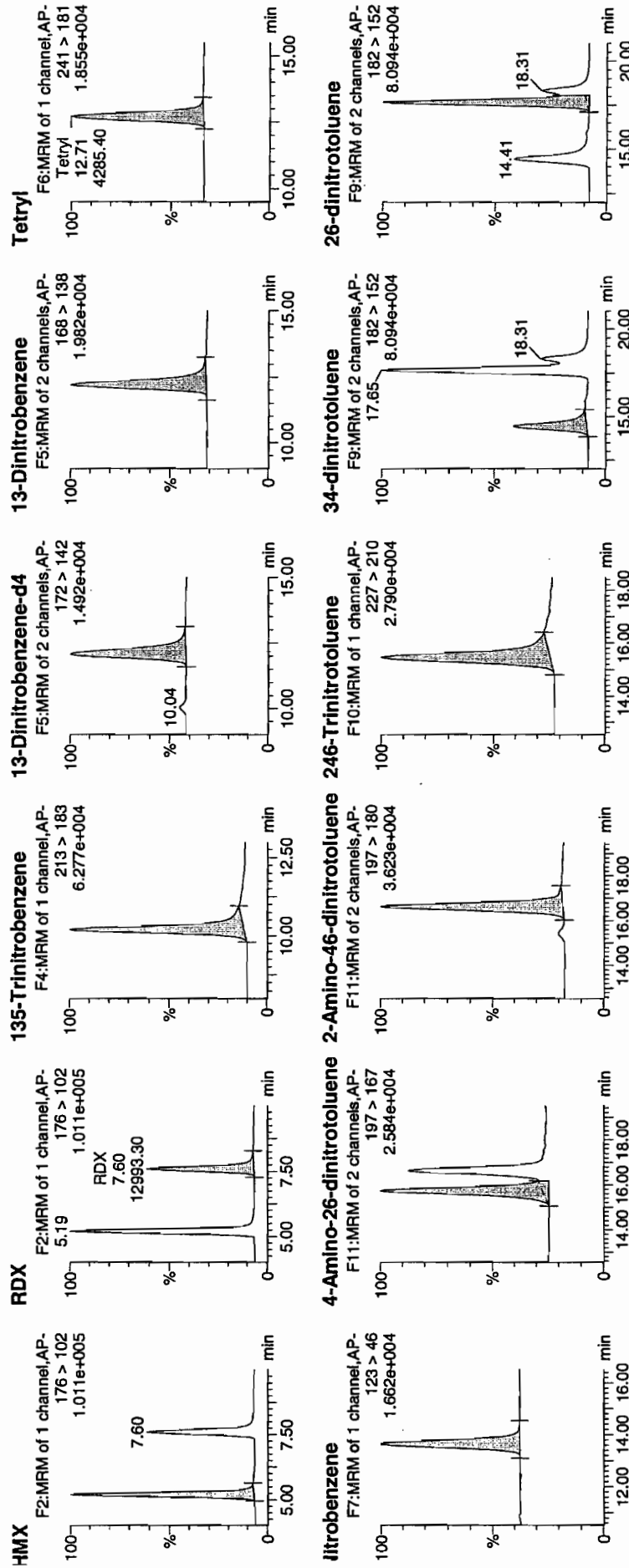
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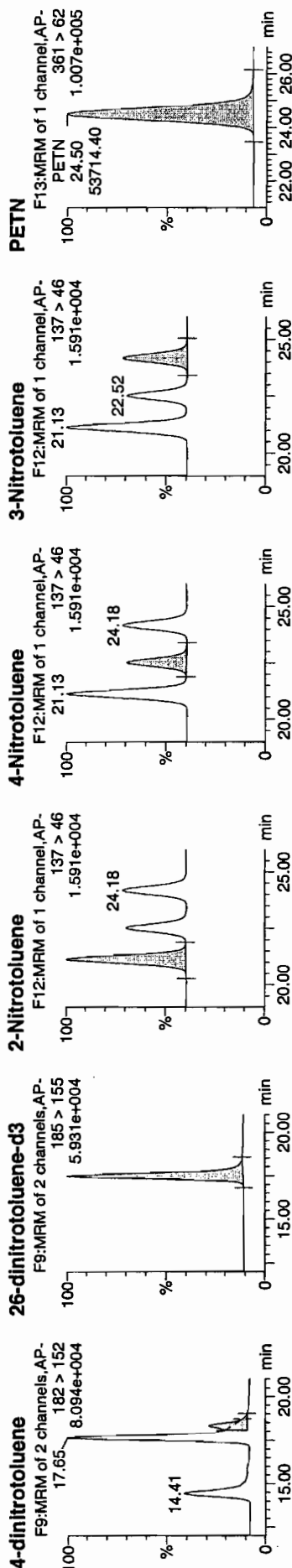
Vial: 1:1,B

1.47
3/6/10



HMX
3/6/10

Dataset: C:\MASSLYNX\New_Exp\PRO030410expA1.qld, Time: Sat Mar 06 12:19:13 2010



Di	Name	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Area	% Rec	% Dev	SN
VXX100304-07CCV	HMX	5.19	18771.666	3594.682	18771.666	2611.033	bb			559.7900	93.3	-6.7	1043.3
VXX100304-07CCV	RDX	7.60	12993.296	3594.682	12993.296	1807.294	bb			631.6121	105.3	5.3	610.6
VXX100304-07CCV	135-Trinitrobenzene	10.19	15775.996	3594.682	15775.996	2194.352	bb			583.5481	93.9	-6.1	3611.2
VXX100304-07CCV	13-Dinitrobenzene-d4	12.06	3594.682	3594.682	3594.682	3594.682	bb			511.8022	102.4	2.4	147.2
VXX100304-07CCV	13-Dinitrobenzene	12.20	5200.653	3594.682	5200.653	723.382	bb			571.1828	95.2	-4.8	212.5
VXX100304-07CCV	Tetryl	12.71	4285.402	3594.682	4285.402	586.075	bb			585.7932	97.6	-2.4	284.4
VXX100304-07CCV	Nitrobenzene	13.61	3648.266	3594.682	3648.266	507.453	bb			614.5481	102.4	2.4	254.9
VXX100304-07CCV	4-Amino-26-dinitrotoluene	15.73	7849.007	21146.920	7849.007	185.583	MM	06-Mar-10	12:09:33	672.8217	112.1	12.1	316.7
VXX100304-07CCV	2-Amino-46-dinitrotoluene	16.62	11680.449	21146.920	11680.449	276.174	bb			681.7379	113.6	13.6	1008.4
VXX100304-07CCV	246-Trinitrotoluene	15.44	9506.581	21146.920	9506.581	224.775	bb			684.0223	114.0	14.0	131.1
VXX100304-07CCV	34-dinitrotoluene	14.41	12613.161	21146.920	12613.161	298.227	bb			308.5744	102.9	2.9	354.8
VXX100304-07CCV	26-dinitrotoluene	17.65	28409.504	21146.920	28409.504	671.717	MM	06-Mar-10	12:13:32	602.1441	100.4	0.4	993.5
VXX100304-07CCV	24-dinitrotoluene	18.31	6677.896	21146.920	6677.896	157.893	MM	06-Mar-10	12:17:10	572.8073	95.5	-4.5	212.4
VXX100304-07CCV	26-dinitrotoluene-d3	18.5 > 155	21146.920	21146.920	21146.920	21146.920	bb			514.2588	102.9	2.9	1777.2
VXX100304-07CCV	2-Nitrotoluene	21.13	4108.123	21146.920	4108.123	97.133	bb			627.0731	104.5	4.5	746.4
VXX100304-07CCV	4-Nitrotoluene	22.52	2039.084	21146.920	2039.084	48.212	bb			632.0943	105.3	5.3	366.9
VXX100304-07CCV	3-Nitrotoluene	24.18	2372.165	21146.920	2372.165	56.088	bb			594.4358	99.1	-0.9	394.8
VXX100304-07CCV	PETN	24.50	53714.398	21146.920	53714.398	1270.029	bb			770.2412	128.4	28.4	6214.2

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 03/05/10
 Time of Injection: 2214
 Standard Number: WXX100304-07CCV
 Data File: EXP0304064a

HMX	93.3
RDX	105.3
135-TNB	93.9
13-DNB	95.2
Tetryl	97.6
Nitrobenzene	102.4
4A-26-DNT	112.1
2A-46-DNT	113.6
246-TNT	114.0
34-DNT(surr)	102.9
26-DNT	100.4
24-DNT	95.5
2-NT	104.5
4-NT	105.3
3-NT	99.1
PETN	128.4

*not
3/6/10*

Total 1663.5

Average 104.0

Hmm 03/05/10

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): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304066a

Analysis Date: 05-MAR-10 23:13

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene	40	38.64	97	
2,6-Dinitrotoluene-d3	500	550.381	110	
2-Amino-4,6-dinitrotoluene	40	44.961	112	
3,4-Dinitrotoluene	20	22.033	110	
4-Amino-2,6-dinitrotoluene	40	40.967	102	
HMX	40	40.601	102	
Nitrobenzene	40	46.373	116	
PETN	40	50.567	126	
RDX	40	39.862	100	
Tetryl	40	44.962	112	
m-Dinitrobenzene	40	38.965	97	
m-Nitrotoluene	40	40.333	101	
o-Nitrotoluene	40	39.738	99	
p-Nitrotoluene	40	41.622	104	
1,3,5-Trinitrobenzene	40	45.259	113	
1,3-Dinitrobenzene-d4	500	507.864	102	
2,4,6-Trinitrotoluene	40	36.863	92	
2,4-Dinitrotoluene	40	36.208	91	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sat Mar 06 12:20:52 2010, Page 55 of 107

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

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Date: 05-Mar-2010

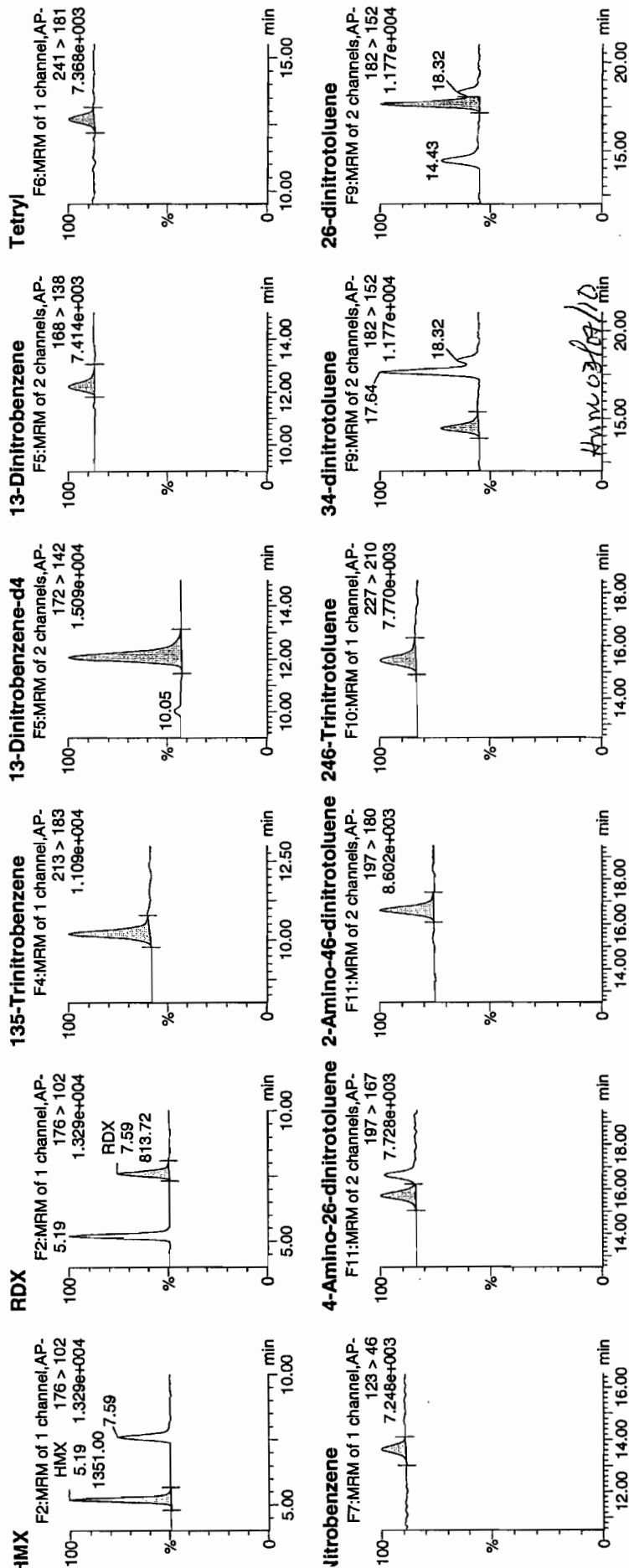
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D: WXX100304-08CRI

Vial: 1:1,C

MTI
3/6/10

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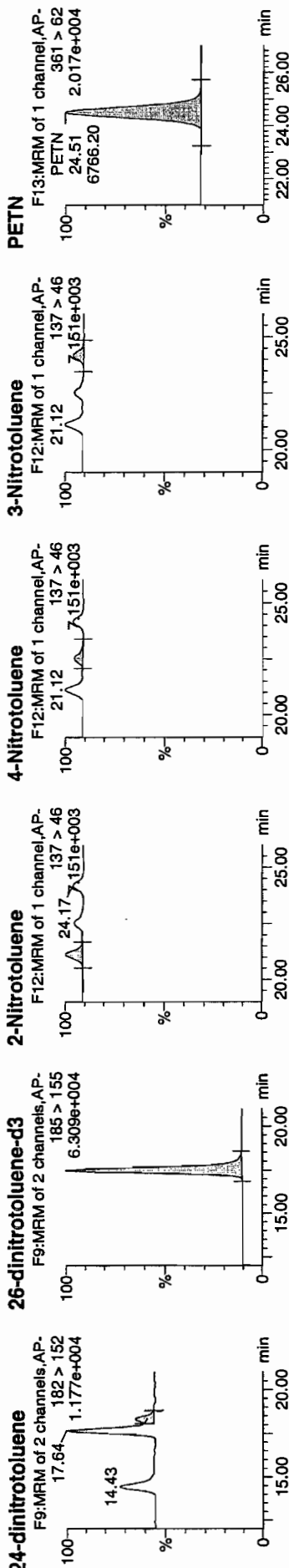


Quantify Sample Report

3EL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sat Mar 06 12:20:52 2010, Page 56 of 107

Dataset: C:\MASSL\YNNXNew_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc/mL	% Rec	% Dev	SN
NXX100304-08CRI	HMx	176 > 102	5.19	1351.002	3567.025	1351.002	189.374	bb			40.6006	101.5	1.5	260.1
NXX100304-08CRI	RDx	176 > 102	7.59	813.718	3567.025	813.718	114.061	bb			39.8620	99.7	-0.3	135.2
NXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1257.242	3567.025	1257.242	176.231	bb			45.2593	113.1	13.1	251.2
NXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3567.025		3567.025	3567.025	bb			507.8644	101.6	1.6	201.8
NXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	352.048	3567.025	352.048	49.348	bb			38.9649	97.4	-2.6	48.8
NXX100304-08CRI	Tetryl	241 > 181	12.68	326.391	3567.025	326.391	45.751	bb			44.9620	112.4	12.4	22.2
NXX100304-08CRI	Nitrobenzene	123 > 46	13.63	273.177	3567.025	273.177	38.292	bb			46.3733	115.9	15.9	20.5
NXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	511.486	22632.297	511.486	11.300	MM	06-Mar-10	12:09:24	40.9673	102.4	2.4	47.7
NXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	824.442	22632.297	824.442	18.214	bb			44.9611	112.4	12.4	109.3
NXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.45	548.303	22632.297	548.303	12.113	bb			36.8625	92.2	-7.8	78.8
NXX100304-08CRI	34-dinitrotoluene	182 > 152	14.43	963.852	22632.297	963.852	21.294	bb			22.0326	110.2	10.2	29.0
NXX100304-08CRI	26-dinitrotoluene	182 > 152	17.64	1951.119	22632.297	1951.119	43.105	MM	06-Mar-10	12:13:21	38.6402	96.6	-3.4	74.9
NXX100304-08CRI	24-dinitrotoluene	182 > 152	18.32	451.769	22632.297	451.769	9.981	MM	06-Mar-10	12:17:18	36.2079	90.5	-9.5	15.3
NXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.49	22632.297		22632.297	22632.297	bb			550.3807	110.1	10.1	2079.0
NXX100304-08CRI	2-Nitrotoluene	137 > 46	21.12	278.623	22632.297	278.623	6.155	bb			39.7384	99.3	-0.7	65.0
NXX100304-08CRI	4-Nitrotoluene	137 > 46	22.53	143.700	22632.297	143.700	3.175	bb			41.6219	104.1	4.1	31.0
NXX100304-08CRI	3-Nitrotoluene	137 > 46	24.17	172.257	22632.297	172.257	3.806	bb			40.3325	100.8	0.8	37.8
NXX100304-08CRI	PETN	361 > 62	24.51	6766.197	22632.297	6766.197	149.481	bb			50.5667	126.4	26.4	2009.1

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 03/05/10
 Time of Injection 2313
 Standard Number WXX100304-08CRI
 Data File EXP0304066a

HMX	101.5
RDX	99.7
135-TNB	113.1
13-DNB	97.4
Tetryl	112.4
Nitrobenzene	115.9
4A-26-DNT	102.4
2A-46-DNT	112.4
246-TNT	92.2
34-DNT(surr)	110.2
26-DNT	96.6
24-DNT	90.5
2-NT	99.3
4-NT	104.1
3-NT	100.8
PETN	126.4

*not
3/10/10*

Total 1674.9

Average 104.7

Home 03/05/10
 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): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304076a

Analysis Date: 06-MAR-10 04:08

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	600	593.851	99	
m-Nitrotoluene	600	569.058	95	
o-Nitrotoluene	600	606.407	101	
p-Nitrotoluene	600	588.238	98	
1,3,5-Trinitrobenzene	600	589.2	98	
1,3-Dinitrobenzene-d4	500	483.866	97	
2,4,6-Trinitrotoluene	600	655.326	109	
2,4-Dinitrotoluene	600	604.001	101	
2,6-Dinitrotoluene	600	599.969	100	
2,6-Dinitrotoluene-d3	500	511.697	102	
2-Amino-4,6-dinitrotoluene	600	680.408	113	
3,4-Dinitrotoluene	300	309.322	103	
4-Amino-2,6-dinitrotoluene	600	655.281	109	
HMX	600	622.243	104	
Nitrobenzene	600	610.192	102	
PETN	600	828.113	138	*
RDX	600	676.064	113	
Tetryl	600	623.054	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

Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sat Mar 06 12:20:52 2010, Page 75 of 107

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

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Date: 06-Mar-2010

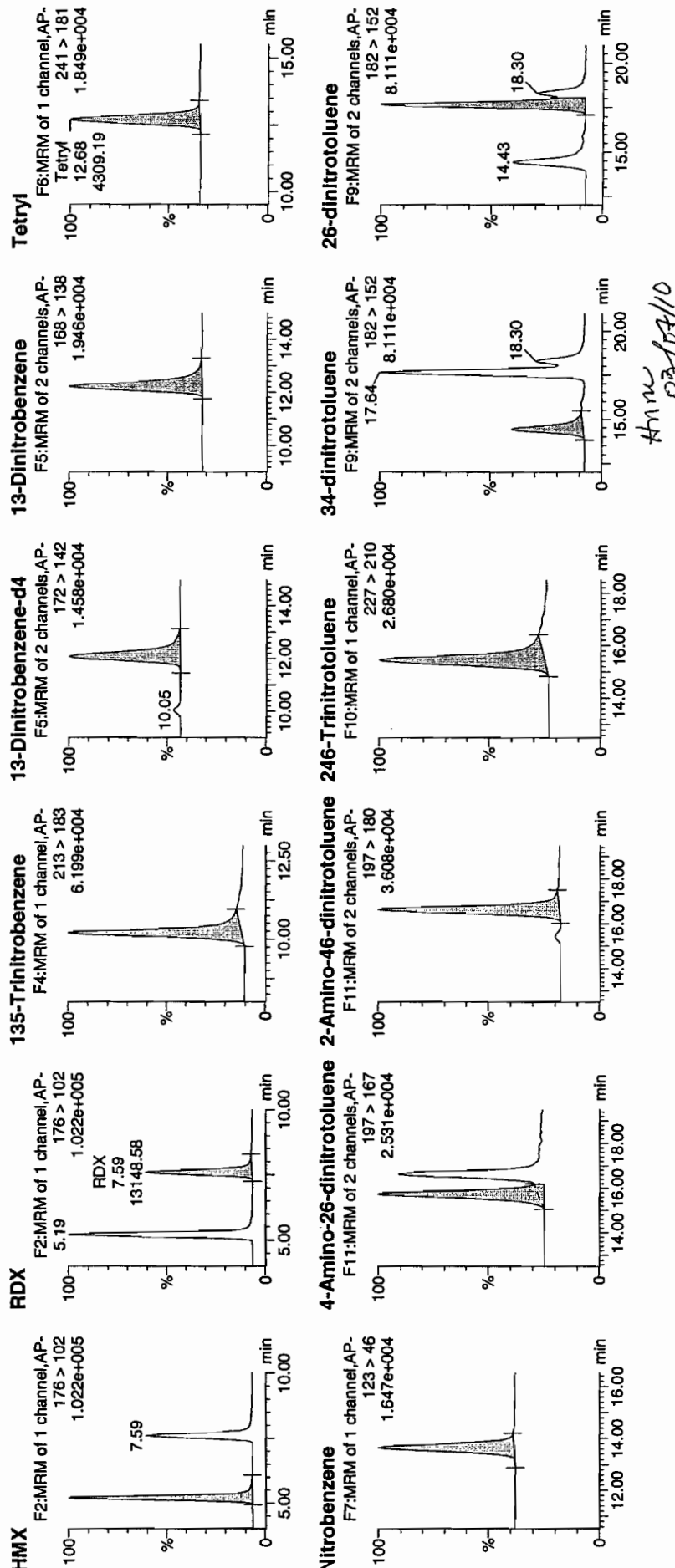
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ID: WXX100304-07CCV

Vial: 1:1,B

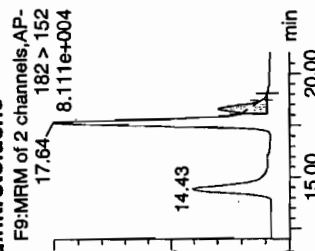
3/6/10

Page 307 of 1049

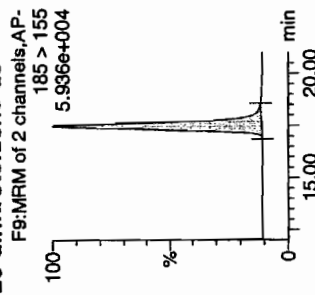


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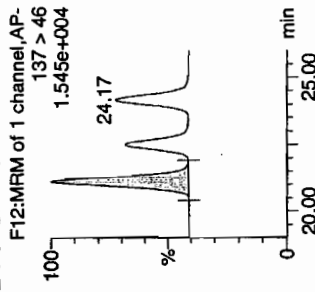
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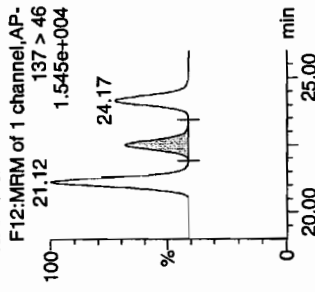
26-dinitrotoluene-d3



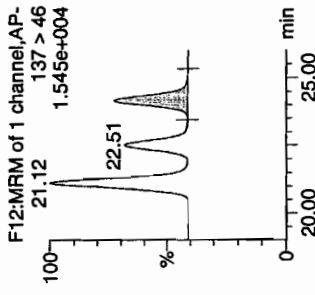
2-Nitrotoluene



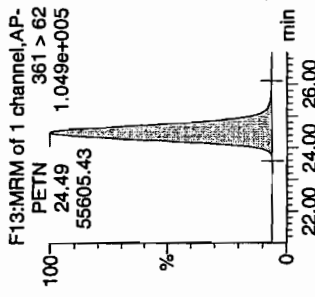
4-Nitrotoluene



3-Nitrotoluene



PETN



ID	Name	Trace	RT	Area	SA Area	Abs. Resp	Response	Flags	Mod. Date	Mod. Time	Conc. (ng/ml)	% Rec	% Dev	SN
WXX100304-07CCV	HMX	176 > 102	5.19	19726.965	3398.467	19726.965	2902.333	db			622.2430	103.7	3.7	4565.0
WXX100304-07CCV	RDX	176 > 102	7.59	13148.583	3398.467	13148.583	1934.487	bb			676.0635	112.7	12.7	2653.1
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.20	15593.780	3398.467	15593.780	2294.237	bb			589.2004	98.2	-1.8	1170.8
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3398.467		3398.467	3398.467	bb			483.8655	96.8	-3.2	717.3
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5111.909	3398.467	5111.909	752.090	bb			593.8514	99.0	-1.0	390.5
WXX100304-07CCV	Tetryl	241 > 181	12.68	4309.189	3398.467	4309.189	633.990	bb			623.0541	103.8	3.8	472.5
WXX100304-07CCV	Nitrobenzene	123 > 46	13.63	3424.676	3398.467	3424.676	503.856	bb			610.1917	101.7	1.7	484.4
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	7606.306	21041.582	7606.306	180.745	MM	06-Mar-10	12:09:12	655.2814	109.2	9.2	352.5
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	11599.599	21041.582	11599.599	275.635	bb			680.4083	113.4	13.4	146.4
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.45	9062.394	21041.582	9062.394	215.345	bb			655.3263	109.2	9.2	258.1
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.43	12580.745	21041.582	12580.745	298.950	bb			309.3222	103.1	3.1	551.3
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.64	28165.873	21041.582	28165.873	669.291	MM	06-Mar-10	12:13:13	599.9688	100.0	-0.0	1564.5
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.30	7006.479	21041.582	7006.479	166.491	MM	06-Mar-10	12:17:36	604.0007	100.7	0.7	350.7
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	21041.582		21041.582	21041.582	bb			511.6971	102.3	2.3	878.4
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.12	3952.942	21041.582	3952.942	93.932	bb			606.4066	101.1	1.1	552.8
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.51	1888.156	21041.582	1888.156	44.867	bb			588.2384	98.0	-2.0	258.2
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.17	2259.582	21041.582	2259.582	53.693	bb			569.0585	94.8	-5.2	298.2
WXX100304-07CCV	PETN	361 > 62	24.49	55605.426	21041.582	55605.426	1321.322	bb			828.1129	138.0	38.0	21170.4

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 03/06/10
 Time of Injection: 0408
 Standard Number: WXX100304-07CCV
 Data File: EXP0304076a

HMX	103.7
RDX	112.7
135-TNB	98.2
13-DNB	99.0
Tetryl	103.8
Nitrobenzene	101.7
4A-26-DNT	109.2
2A-46-DNT	113.4
246-TNT	109.2
34-DNT(surr)	103.1
26-DNT	100.0
24-DNT	100.7
2-NT	101.1
4-NT	98.0
3-NT	94.8
PETN	138.0

*WPP
3/6/10*

Total 1686.6

HMM 03/09/10

Average 105.4

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): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304078a

Analysis Date: 06-MAR-10 05:08

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Nitrotoluene	40	43.213	108	
o-Nitrotoluene	40	39.546	99	
p-Nitrotoluene	40	36.291	91	
1,3,5-Trinitrobenzene	40	48.824	122	
1,3-Dinitrobenzene-d4	500	497.56	100	
2,4,6-Trinitrotoluene	40	42.485	106	
2,4-Dinitrotoluene	40	37.142	93	
2,6-Dinitrotoluene	40	39.595	99	
2,6-Dinitrotoluene-d3	500	512.953	103	
2-Amino-4,6-dinitrotoluene	40	40.704	102	
3,4-Dinitrotoluene	20	18.958	95	
4-Amino-2,6-dinitrotoluene	40	44.438	111	
HMX	40	44.364	111	
Nitrobenzene	40	44.712	112	
PETN	40	54.239	136	*
RDX	40	46.673	117	
Tetryl	40	40.325	101	
m-Dinitrobenzene	40	38.944	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

Dataset: C:\MASSLYNX\New_Exp\PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Sample Name: C:\MASSLYNX\NEW_EXP\PRO\Data\EXP0304078a

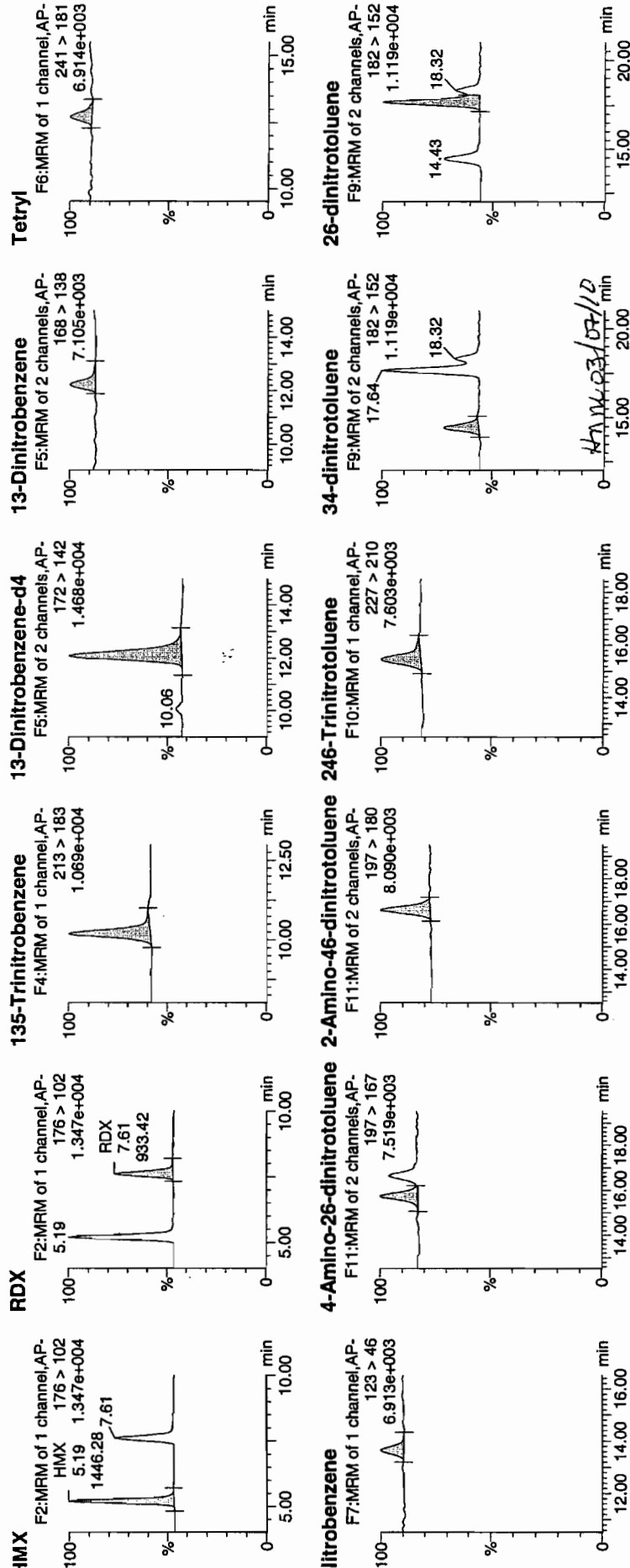
Date: 06-Mar-2010

Time: 05:08:03

D: WXX100304-08CRI

Ratio: 1:1,C

WAT
3/6/10

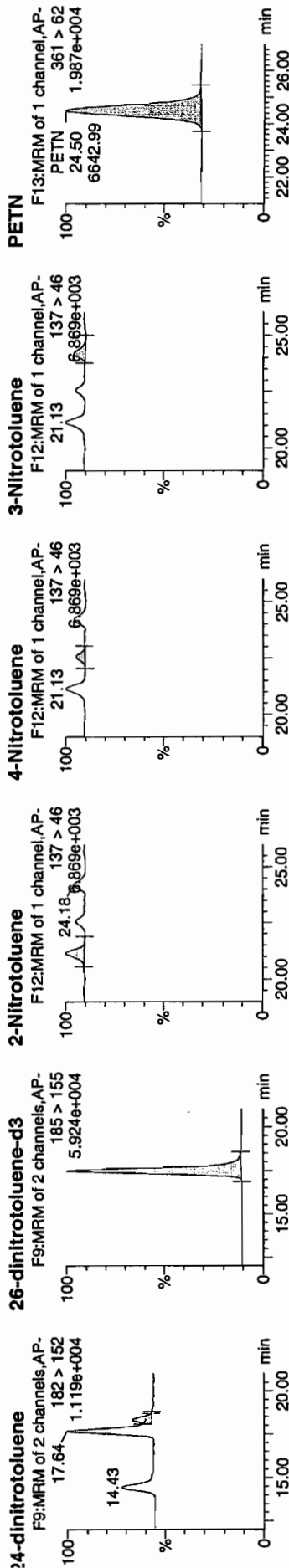


Quantify Sample Report

3EL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sat Mar 06 12:20:52 2010, Page 80 of 107

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010



DI	Name	Trace	RT	Area	IS Area	Abs. Resp	Response	Flags	Mod Date	Mod Time	Conc (ng/mL)	Rec	Std Dev	S/N
NXX100304-08CRI	HMX	176 > 102	5.19	1446.278	3494.653	1446.278	206.927	bb			44.3640	110.9	10.9	195.2
NXX100304-08CRI	RDX	176 > 102	7.61	933.425	3494.653	933.425	133.550	bb			46.6731	116.7	16.7	109.3
NXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1328.744	3494.653	1328.744	190.111	bb			48.8238	122.1	22.1	108.6
NXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3494.653		3494.653	3494.653	bb			497.5603	99.5	-0.5	251.0
NXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	344.722	3494.653	344.722	49.321	bb			38.9442	97.4	-2.6	30.0
NXX100304-08CRI	Tetryl	241 > 181	12.72	286.792	3494.653	286.792	41.033	bb			40.3252	100.8	0.8	21.0
NXX100304-08CRI	Nitrobenzene	123 > 46	13.63	258.047	3494.653	258.047	36.920	bb			44.7121	111.8	11.8	22.5
NXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	517.084	21093.240	517.084	12.257	MM	06-Mar-10	12:08:56	44.4376	111.1	11.1	51.3
NXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.63	695.617	21093.240	695.617	16.489	bb			40.7035	101.8	1.8	47.2
NXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.45	588.958	21093.240	588.958	13.961	bb			42.4848	106.2	6.2	69.7
NXX100304-08CRI	34-dinitrotoluene	182 > 152	14.43	772.950	21093.240	772.950	18.322	bb			18.9579	94.8	-5.2	60.5
NXX100304-08CRI	26-dinitrotoluene	182 > 152	17.64	1863.380	21093.240	1863.380	44.170	MM	06-Mar-10	12:13:06	39.5952	99.0	-1.0	165.7
NXX100304-08CRI	24-dinitrotoluene	182 > 152	18.32	431.908	21093.240	431.908	10.238	MM	06-Mar-10	12:17:44	37.1419	92.9	-7.1	38.4
NXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	21093.240		21093.240	21093.240	bb			512.9533	102.6	2.6	1620.2
NXX100304-08CRI	2-Nitrotoluene	137 > 46	21.13	258.417	21093.240	258.417	6.126	bb			39.5457	98.9	-1.1	64.0
NXX100304-08CRI	4-Nitrotoluene	137 > 46	22.55	116.773	21093.240	116.773	2.768	bb			36.2905	90.7	-9.3	29.5
NXX100304-08CRI	3-Nitrotoluene	137 > 46	24.18	172.009	21093.240	172.009	4.077	bb			43.2131	108.0	8.0	39.1
NXX100304-08CRI	PETN	361 > 62	24.50	6642.990	21093.240	6642.990	157.467	bb			54.2392	135.6	35.6	771.2

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 03/06/10
 Time of Injection 0508
 Standard Number WXX100304-08CRI
 Data File EXP0304078a

HMX	110.9
RDX	116.7
135-TNB	122.1
13-DNB	97.4
Tetryl	100.8
Nitrobenzene	111.8
4A-26-DNT	111.1
2A-46-DNT	101.8
246-TNT	106.2
34-DNT(surr)	94.8
26-DNT	99.0
24-DNT	92.9
2-NT	98.9
4-NT	90.7
3-NT	108.0
PETN	135.6

*not
3/6/10*

Total 1698.7

hmm 03/07/10

Average 106.2

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304089a

Analysis Date: 06-MAR-10 10:32

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	600	630.521	105	
Tetryl	600	603.367	101	
m-Dinitrobenzene	600	584.838	97	
m-Nitrotoluene	600	548.387	91	
o-Nitrotoluene	600	591.399	99	
p-Nitrotoluene	600	580.434	97	
1,3,5-Trinitrobenzene	600	553.473	92	
1,3-Dinitrobenzene-d4	500	503.069	101	
2,4,6-Trinitrotoluene	600	674.145	112	
2,4-Dinitrotoluene	600	580.325	97	
2,6-Dinitrotoluene	600	597.561	100	
2,6-Dinitrotoluene-d3	500	512.552	103	
2-Amino-4,6-dinitrotoluene	600	669.438	112	
3,4-Dinitrotoluene	300	311.876	104	
4-Amino-2,6-dinitrotoluene	600	656.337	109	
HMX	600	553.757	92	
Nitrobenzene	600	617.957	103	
PETN	600	732.772	122	*

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\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304089a

Date: 06-Mar-2010

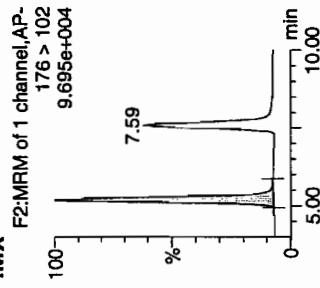
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ID: WXX100304-07CCV

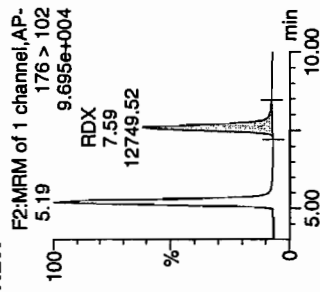
Vial: 1:1,B

10/11
3/10/10

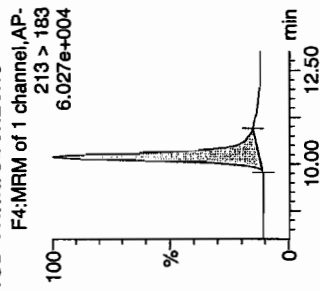
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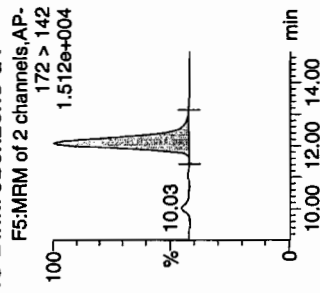
RDX



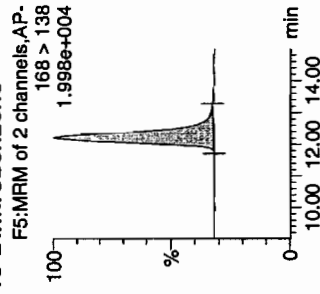
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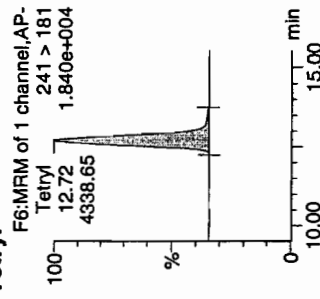
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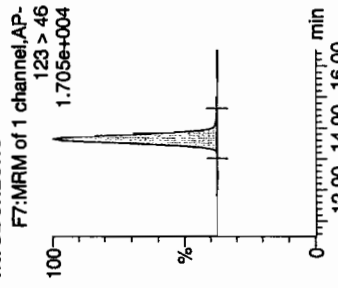
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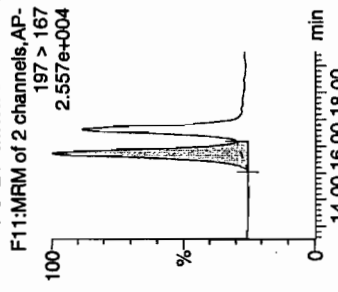
Tetryl



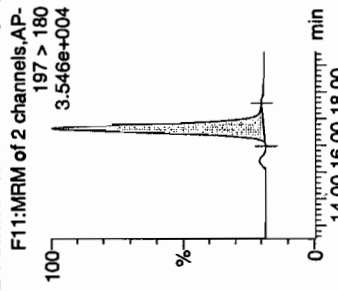
nitrobenzene



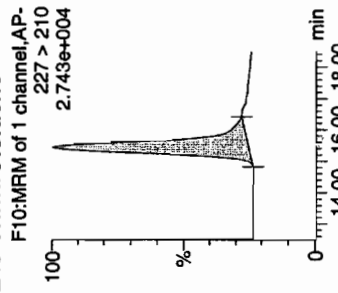
4-Amino-26-dinitrotoluene



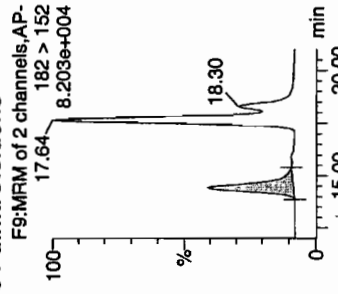
2-Amino-46-dinitrotoluene



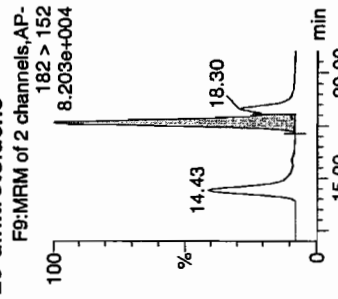
246-Trinitrotoluene



34-dinitrotoluene

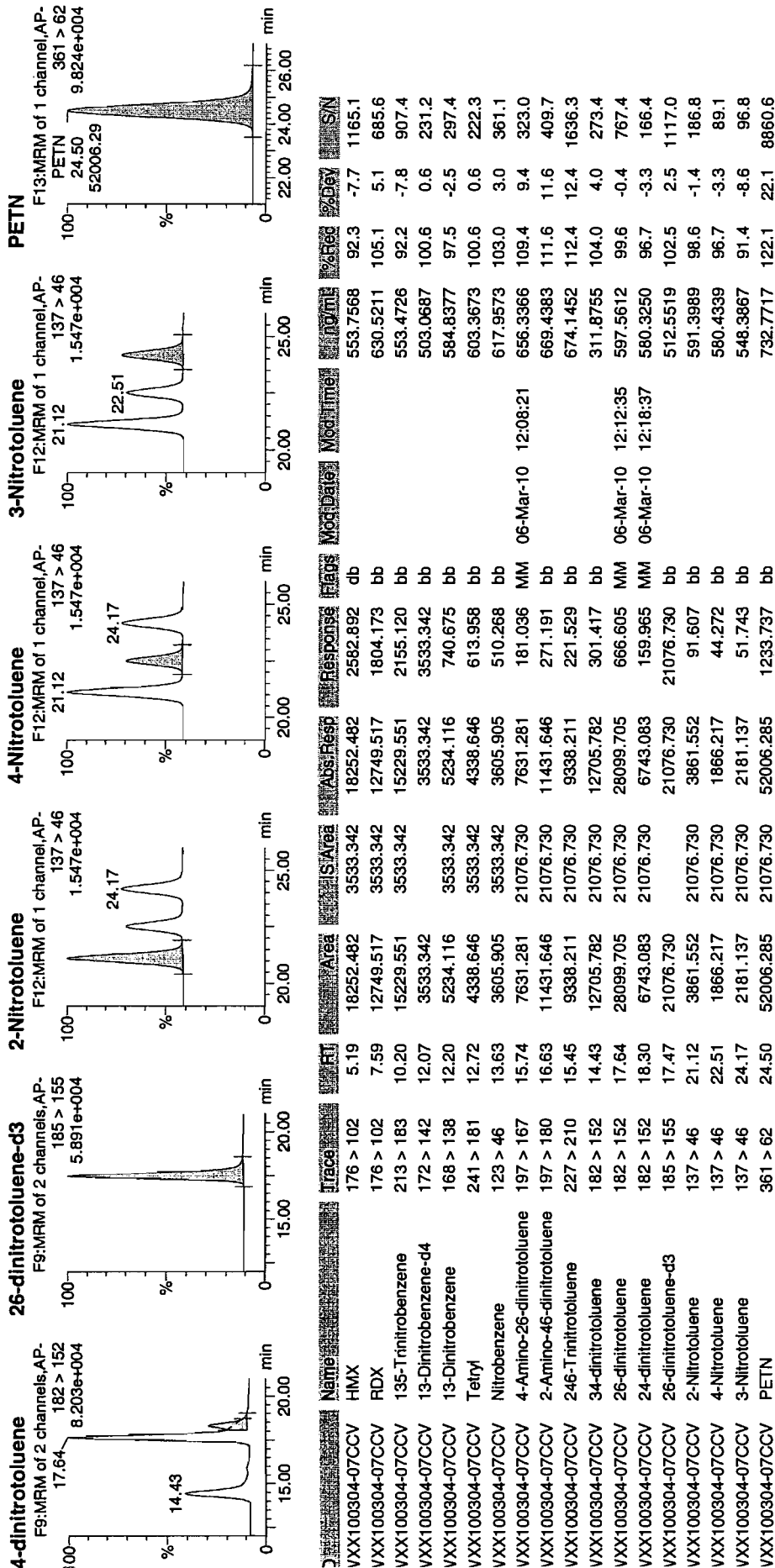


26-dinitrotoluene



Handwritten note: 03/07/10

Dataset: C:\MASSLYNX\New_Exp\PRO030410expA1.qld, Time: Sat Mar 06 12:19:13 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 03/06/10
 Time of Injection: 1032
 Standard Number: WXX100304-07CCV
 Data File: EXP0304089a

HMX	92.3
RDX	105.1
135-TNB	92.2
13-DNB	97.5
Tetryl	100.6
Nitrobenzene	103.0
4A-26-DNT	109.4
2A-46-DNT	111.6
246-TNT	112.4
34-DNT(surr)	104.0
26-DNT	99.6
24-DNT	96.7
2-NT	98.6
4-NT	96.7
3-NT	91.4
PETN	122.1

*MTT
3/6/10*

Total 1633.2

Average 102.1

Hmm 03/06/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304091a

Analysis Date: 06-MAR-10 11:31

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	47.447	119	
1,3-Dinitrobenzene-d4	500	555.149	111	
2,4,6-Trinitrotoluene	40	43.328	108	
2,4-Dinitrotoluene	40	38.335	96	
2,6-Dinitrotoluene	40	40.616	102	
2,6-Dinitrotoluene-d3	500	541.704	108	
2-Amino-4,6-dinitrotoluene	40	48.053	120	
3,4-Dinitrotoluene	20	20.798	104	
4-Amino-2,6-dinitrotoluene	40	45.468	114	
HMX	40	42.165	105	
Nitrobenzene	40	42.58	106	
PETN	40	51.168	128	
RDX	40	43.537	109	
Tetryl	40	43.891	110	
m-Dinitrobenzene	40	41.557	104	
m-Nitrotoluene	40	38.735	97	
o-Nitrotoluene	40	46.96	117	
p-Nitrotoluene	40	44.509	111	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304091a

Date: 06-Mar-2010

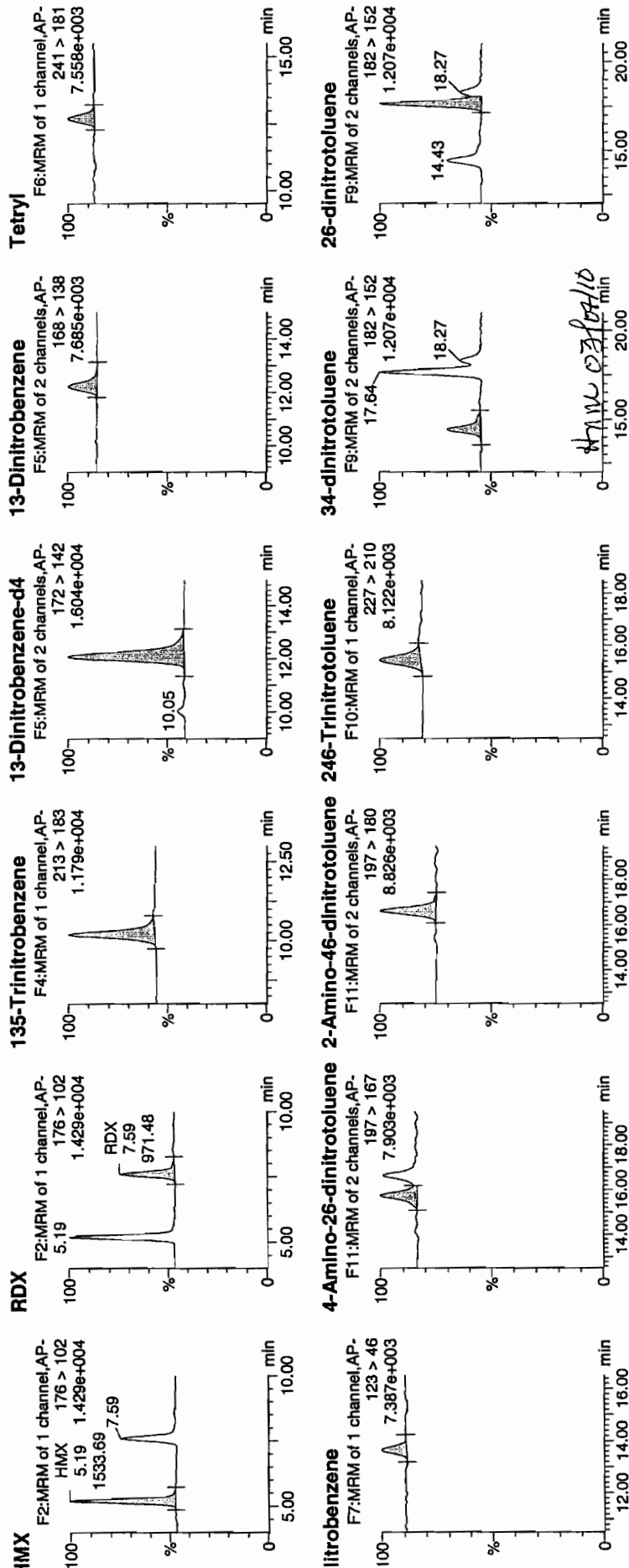
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D: WXX100304-08CRI

/lal: 1:1,C

WXX
3/6/10

Page 319 of 1049

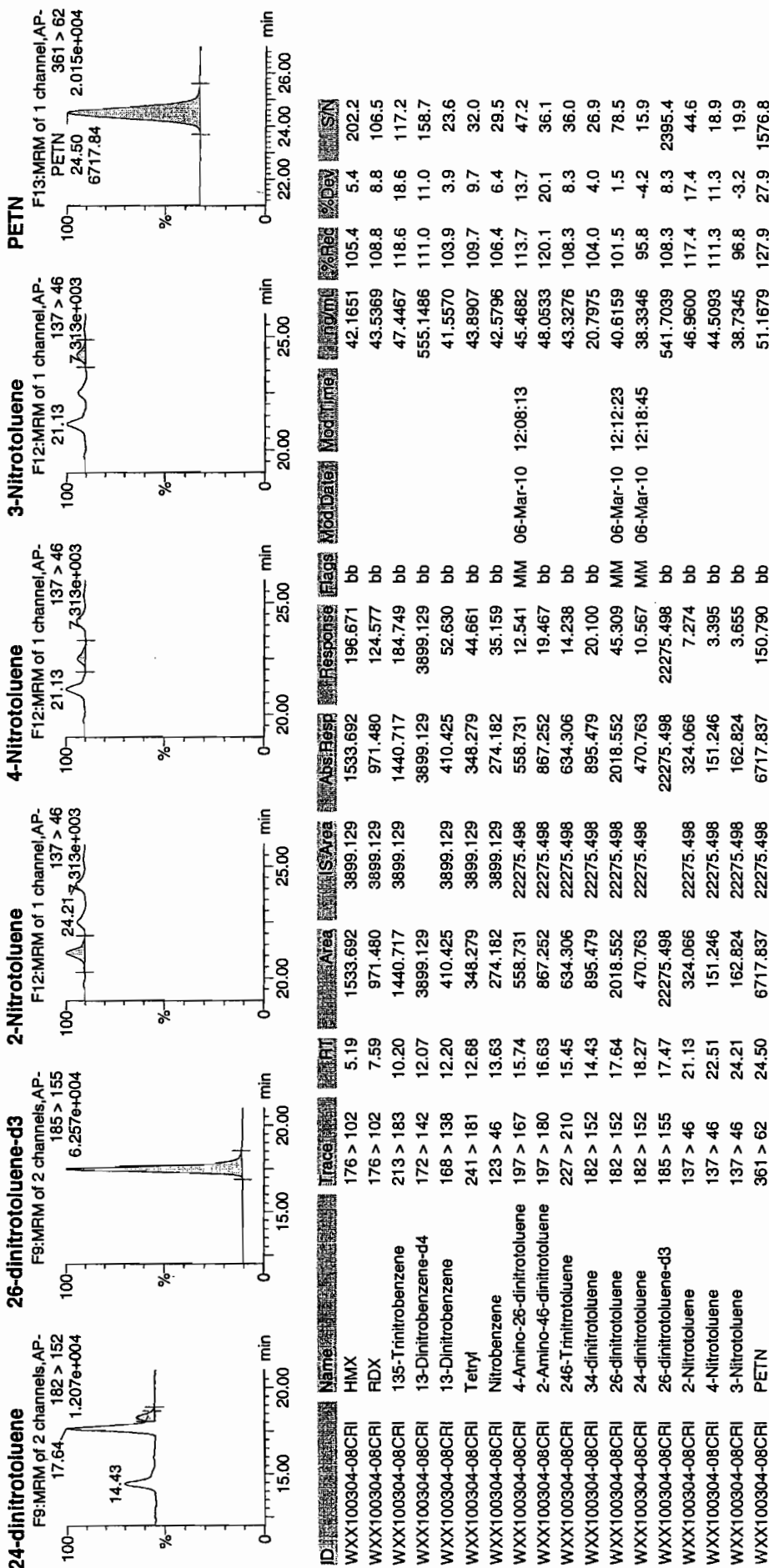


Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sat Mar 06 12:20:52 2010, Page 106 of 107

Dataset: C:\MASSLYNX\New_Exp\PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 03/06/10
 Time of Injection 1131
 Standard Number WXX100304-08CRI
 Data File EXP0304091a

HMX	105.4
RDX	108.8
135-TNB	118.6
13-DNB	103.9
Tetryl	109.7
Nitrobenzene	106.4
4A-26-DNT	113.7
2A-46-DNT	120.1
246-TNT	108.3
34-DNT(surr)	104.0
26-DNT	101.5
24-DNT	95.8
2-NT	117.4
4-NT	111.3
3-NT	96.8
PETN	127.9

*mtf
3/6/10*

Total 1749.6

Average 109.4

Hm pc 03/07/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304101a

Analysis Date: 06-MAR-10 16:26

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	587.261	98	
1,3-Dinitrobenzene-d4	500	465.389	93	
2,4,6-Trinitrotoluene	600	683.072	114	
2,4-Dinitrotoluene	600	521.302	87	
2,6-Dinitrotoluene	600	601.174	100	
2,6-Dinitrotoluene-d3	500	580.685	116	
2-Amino-4,6-dinitrotoluene	600	708.501	118	
3,4-Dinitrotoluene	300	324.528	108	
4-Amino-2,6-dinitrotoluene	600	649.296	108	
HMX	600	614.149	102	
Nitrobenzene	600	698.592	116	
PETN	600	592.689	99	
RDX	600	791.111	132	*
Tetryl	600	592.657	99	
m-Dinitrobenzene	600	614.282	102	
m-Nitrotoluene	600	534.445	89	
o-Nitrotoluene	600	583.716	97	
p-Nitrotoluene	600	549.111	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 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

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Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304101a

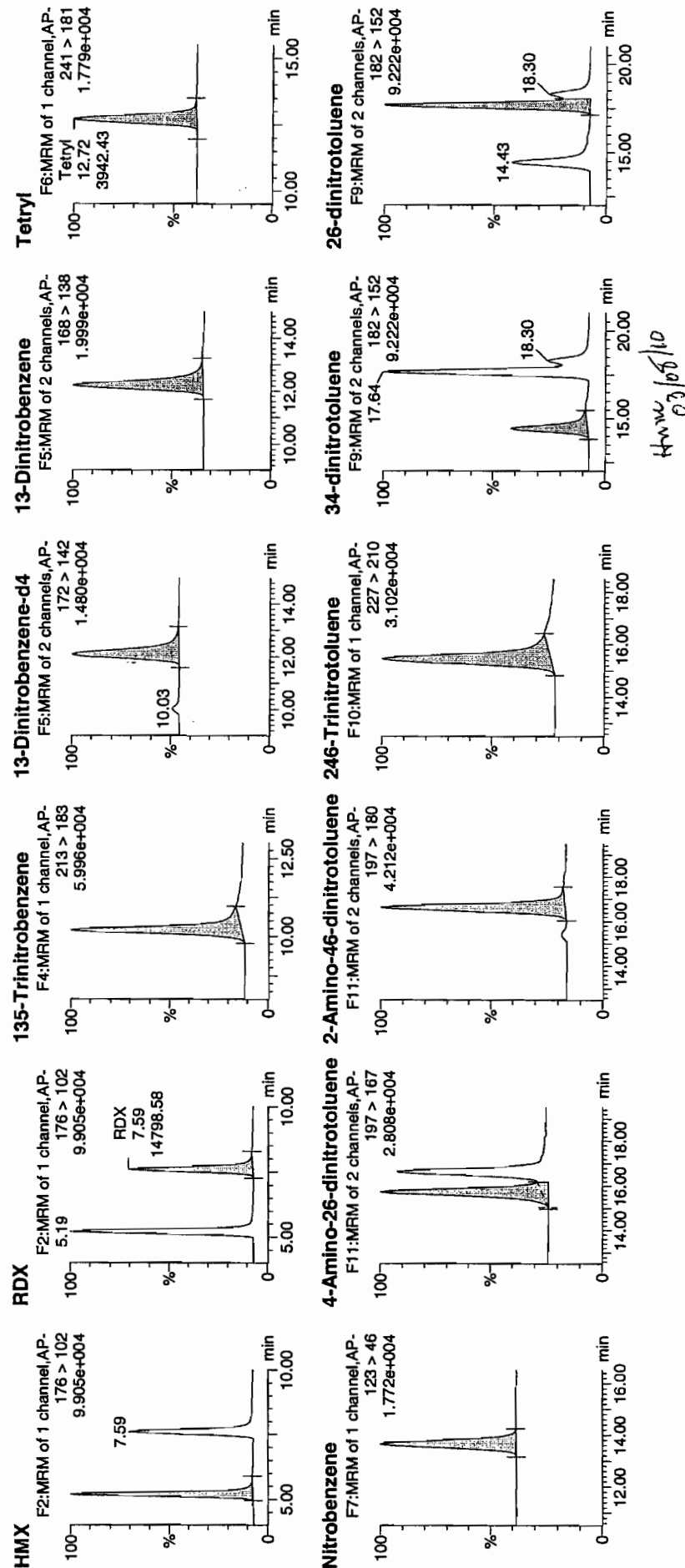
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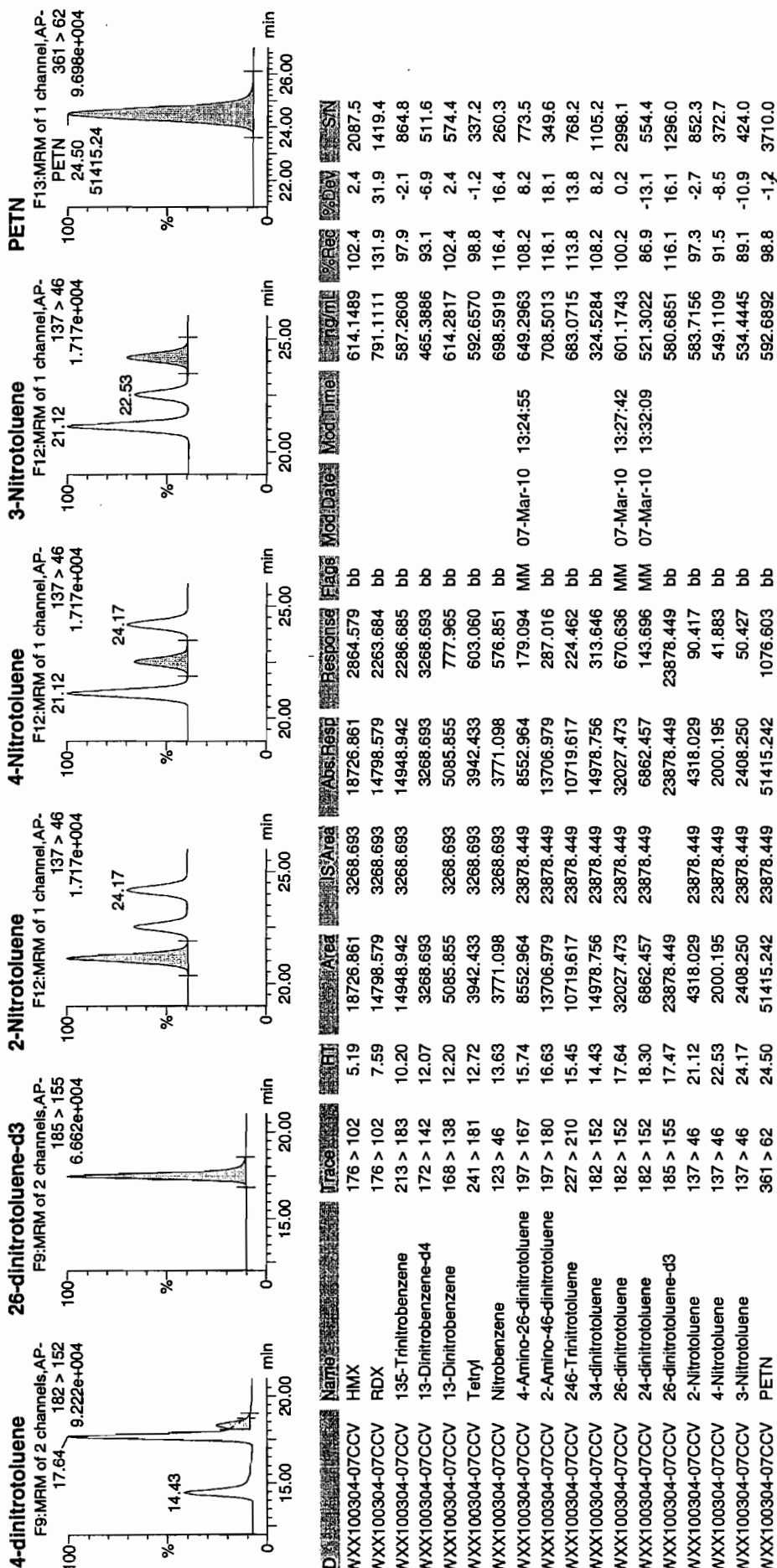
ID: WXX100304-07CCV

Vial: 1:1,B

MM
3/12/10



Dataset: C:\MASSLYNX\New_Exp\PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010



GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 03/06/10
 Time of Injection: 1626
 Standard Number: WXX100304-07CCV
 Data File: EXP0304101a

HMX	102.4	✓
RDX	131.9	✓
135-TNB	97.9	✓
13-DNB	102.4	
Tetryl	98.8	
Nitrobenzene	116.4	
4A-26-DNT	108.2	
2A-46-DNT	118.1	
246-TNT	113.8	
34-DNT(surr)	108.2	
26-DNT	100.2	
24-DNT	86.9	
2-NT	97.3	
4-NT	91.5	
3-NT	89.1	
PETN	98.8	

*not
3/7/10*

Total 1661.9

Average 103.9

Time 03/06/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304103a

Analysis Date: 06-MAR-10 17:25

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	20	23.339	117	
4-Amino-2,6-dinitrotoluene	40	46.12	115	
HMX	40	33.904	85	
Nitrobenzene	40	37.192	93	
PETN	40	49.668	124	
RDX	40	33.251	83	
Tetryl	40	40.4	101	
m-Dinitrobenzene	40	44.614	112	
m-Nitrotoluene	40	36.714	92	
o-Nitrotoluene	40	52.856	132	*
p-Nitrotoluene	40	50.186	125	
1,3,5-Trinitrobenzene	40	43.717	109	
1,3-Dinitrobenzene-d4	500	554.792	111	
2,4,6-Trinitrotoluene	40	39.922	100	
2,4-Dinitrotoluene	40	34.956	87	
2,6-Dinitrotoluene	40	40.043	100	
2,6-Dinitrotoluene-d3	500	520.302	104	
2-Amino-4,6-dinitrotoluene	40	41.209	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 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\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304103a

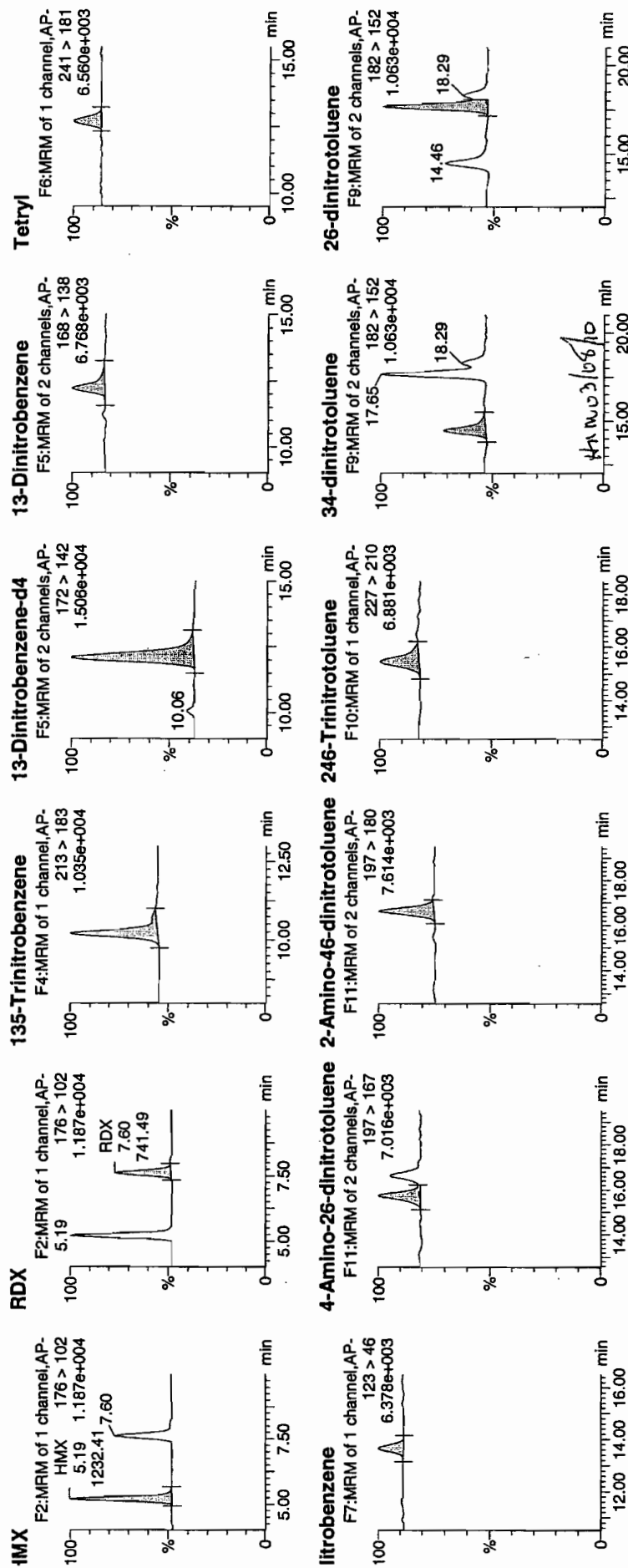
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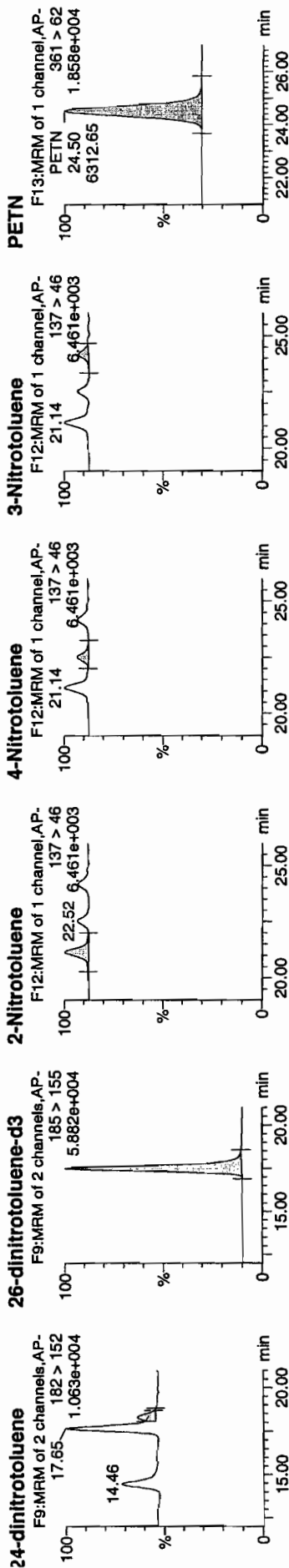
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Label: 1:1,C

MM
3/4/10



Dataset: C:\MASSLYNX\New_Exp_PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flag	Mod Date	Mod Time	Area (nm)	% Rec	Day	SN
WXX100304-08CRI	HMZ	176 > 102	5.19	1232.405	3896.626	1232.405	158.137	bb			33.9037	84.8	-15.2	190.0
WXX100304-08CRI	RDX	176 > 102	7.60	741.492	3896.626	741.492	95.145	bb			33.2514	83.1	-16.9	103.7
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.19	1326.625	3896.626	1326.625	170.227	bb			43.7174	109.3	9.3	195.5
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.10	3896.626		3896.626	3896.626	bb			554.7922	111.0	11.0	299.8
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	440.335	3896.626	440.335	56.502	bb			44.6141	111.5	11.5	30.7
WXX100304-08CRI	Tetryl	241 > 181	12.71	320.374	3896.626	320.374	41.109	bb			40.4000	101.0	1.0	45.4
WXX100304-08CRI	Nitrobenzene	123 > 46	13.66	239.336	3896.626	239.336	30.711	bb			37.1920	93.0	-7.0	19.2
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	544.347	21395.426	544.347	12.721	MM	07-Mar-10	13:25:01	46.1198	115.3	15.3	29.7
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	714.343	21395.426	714.343	16.694	bb			41.2089	103.0	3.0	73.9
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.44	561.354	21395.426	561.354	13.119	bb			39.9217	99.8	-0.2	62.9
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.46	965.184	21395.426	965.184	22.556	bb			23.3385	116.7	16.7	61.3
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.65	1911.469	21395.426	1911.469	44.670	MM	07-Mar-10	13:27:50	40.0433	100.1	0.1	155.0
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.29	412.308	21395.426	412.308	9.635	MM	07-Mar-10	13:31:56	34.9556	87.4	-12.6	31.2
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.48	21395.426		21395.426	21395.426	bb			520.3020	104.1	4.1	3319.8
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.14	350.345	21395.426	350.345	8.187	bb			52.8563	132.1	32.1	91.6
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.52	163.797	21395.426	163.797	3.828	bb			50.1856	125.5	25.5	43.3
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.17	148.233	21395.426	148.233	3.464	bb			36.7140	91.8	-8.2	37.5
WXX100304-08CRI	PETN	361 > 62	24.50	6312.647	21395.426	6312.647	147.523	bb			49.6681	124.2	24.2	2068.7

GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 03/06/10
 Time of Injection 1725
 Standard Number WXX100304-08CRI
 Data File EXP0304103a

HMX	84.8
RDX	83.1
135-TNB	109.3
13-DNB	111.5
Tetryl	101.0
Nitrobenzene	93.0
4A-26-DNT	115.3
2A-46-DNT	103.0
246-TNT	99.8
34-DNT(surr)	116.7
26-DNT	100.1
24-DNT	87.4
2-NT	132.1
4-NT	125.5
3-NT	91.8
PETN	124.2

Total 1678.6

Average 104.9

107
3/7/10

Handwritten: 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304113a

Analysis Date: 06-MAR-10 22:20

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6-Trinitrotoluene	600	652.208	109	
2,4-Dinitrotoluene	600	560.172	93	
2,6-Dinitrotoluene	600	593.564	99	
2,6-Dinitrotoluene-d3	500	529.569	106	
2-Amino-4,6-dinitrotoluene	600	630.466	105	
3,4-Dinitrotoluene	300	315.943	105	
4-Amino-2,6-dinitrotoluene	600	633.97	106	
HMX	600	558.17	93	
Nitrobenzene	600	582.752	97	
PETN	600	719.523	120	
RDX	600	605.837	101	
Tetryl	600	566.333	94	
m-Dinitrobenzene	600	588.821	98	
m-Nitrotoluene	600	526.711	88	
o-Nitrotoluene	600	548.289	91	
p-Nitrotoluene	600	549.39	92	
1,3,5-Trinitrobenzene	600	540.591	90	
1,3-Dinitrobenzene-d4	500	533.105	107	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

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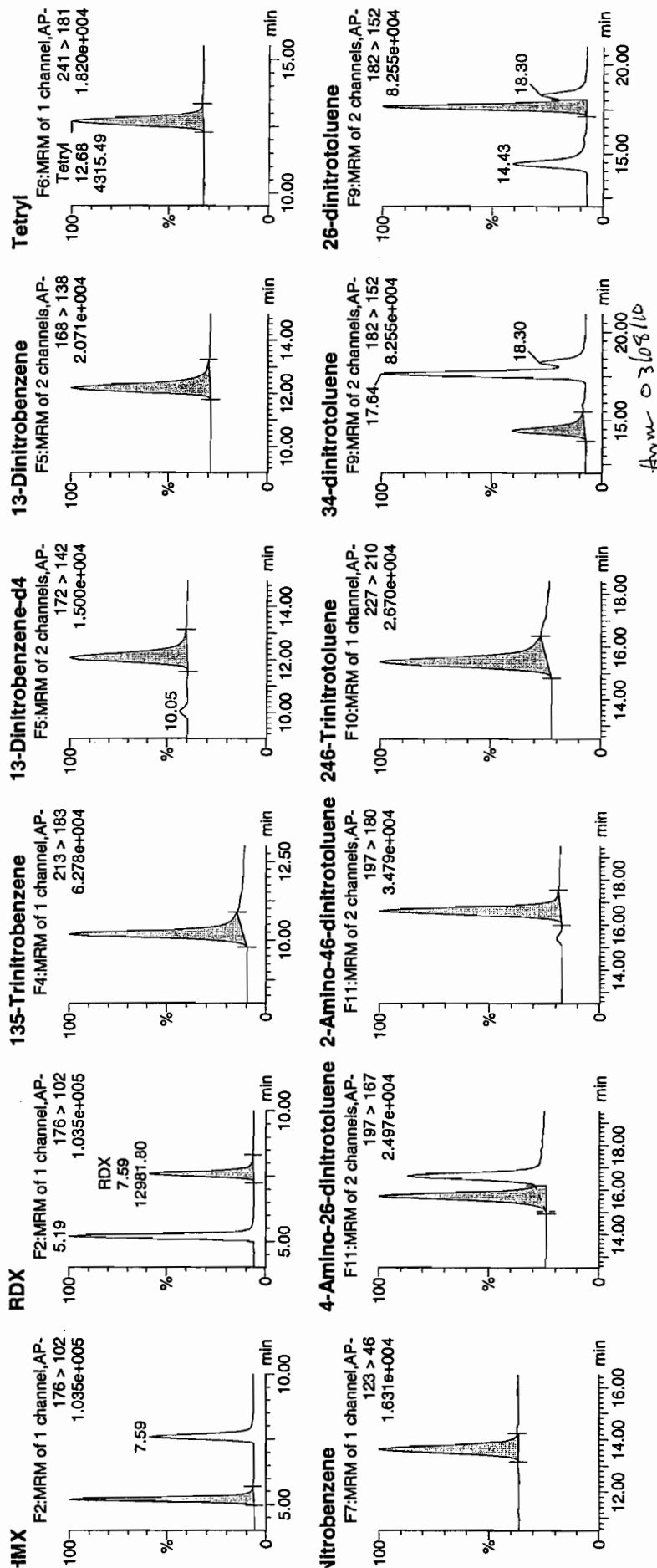
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Time: 22:20:37

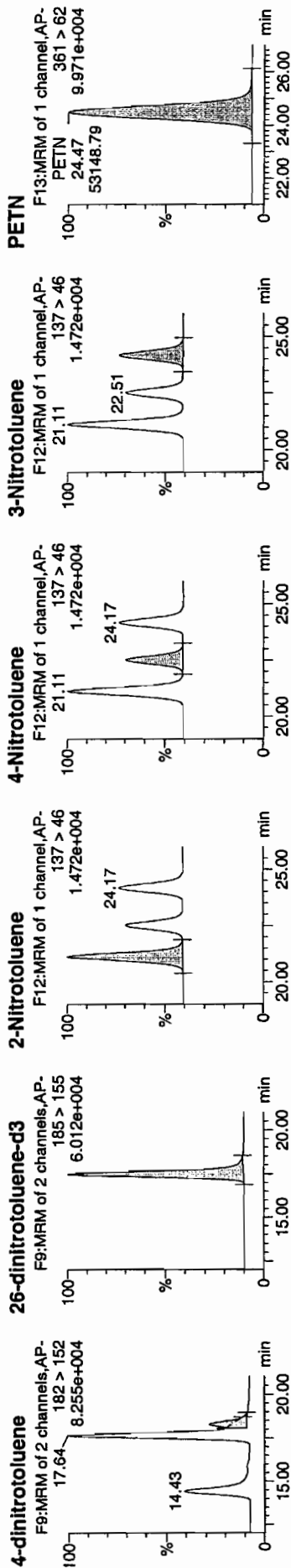
D: WXX100304-07CCV

/ial: 1:1,B

Handwritten: 100%



Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010



Di	Name	Trace	RT	Area	ISArea	AbsResp	Response	Flags	Mod Date	Mod Time	Conc (mg/ml)	%Rec	zDev	S/N
VXX100304-07CCV	HMX	176 > 102	5.19	19496.410	3744.302	19496.410	2603.477	bb			558.1701	93.0	-7.0	2424.3
VXX100304-07CCV	RDX	176 > 102	7.59	12981.799	3744.302	12981.799	1733.541	bb			605.8367	101.0	1.0	1357.5
VXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.18	15763.218	3744.302	15763.218	2104.961	bb			540.5909	90.1	-9.9	1483.8
VXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3744.302		3744.302	3744.302	bb			533.1047	106.6	6.6	316.8
VXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5584.403	3744.302	5584.403	745.720	bb			588.8214	98.1	-1.9	607.0
VXX100304-07CCV	Tetryl	241 > 181	12.68	4315.487	3744.302	4315.487	576.274	bb			566.3334	94.4	-5.6	461.0
VXX100304-07CCV	Nitrobenzene	123 > 46	13.63	3603.499	3744.302	3603.499	481.198	bd			582.7515	97.1	-2.9	252.5
VXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	7615.953	21776.480	7615.953	174.866	MM	07-Mar-10	13:25:24	633.9704	105.7	5.7	471.8
VXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	11123.577	21776.480	11123.577	255.403	bb			630.4662	105.1	5.1	242.8
VXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.45	9334.282	21776.480	9334.282	214.320	bb			652.2082	108.7	8.7	501.4
VXX100304-07CCV	34-dinitrotoluene	182 > 152	14.43	13298.813	21776.480	13298.813	305.348	bb			315.9427	105.3	5.3	492.9
VXX100304-07CCV	26-dinitrotoluene	182 > 152	17.64	28838.430	21776.480	28838.430	662.146	MM	07-Mar-10	13:28:01	593.5643	98.9	-1.1	1377.7
VXX100304-07CCV	24-dinitrotoluene	182 > 152	18.30	6725.012	21776.480	6725.012	154.410	MM	07-Mar-10	13:31:45	560.1720	93.4	-6.6	290.4
VXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	21776.480		21776.480	21776.480	bb			529.5686	105.9	5.9	2107.6
VXX100304-07CCV	2-Nitrotoluene	137 > 46	21.11	3698.925	21776.480	3698.925	84.929	bb			548.2893	91.4	-8.6	643.1
VXX100304-07CCV	4-Nitrotoluene	137 > 46	22.51	1825.049	21776.480	1825.049	41.904	bb			549.3899	91.6	-8.4	311.5
VXX100304-07CCV	3-Nitrotoluene	137 > 46	24.17	2164.477	21776.480	2164.477	49.698	bb			526.7111	87.8	-12.2	349.0
VXX100304-07CCV	PETN	361 > 62	24.47	53148.789	21776.480	53148.789	1220.326	bb			719.5234	119.9	19.9	10981.9

GRAND MEAN AVERAGE

Vendor: Restek
 Date of Analysis: 03/06/10
 Time of Injection: 2220
 Standard Number: WXX100304-07CCV
 Data File: EXP0304113a

HMX	93.0
RDX	101.0
135-TNB	90.1
13-DNB	98.1
Tetryl	94.4
Nitrobenzene	97.1
4A-26-DNT	105.7
2A-46-DNT	105.1
246-TNT	108.7
34-DNT(surr)	105.3
26-DNT	98.9
24-DNT	93.4
2-NT	91.4
4-NT	91.6
3-NT	87.8
PETN	119.9

*MTT
3/7/10*

Total 1581.5

Average 98.8

4/11/10 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304115a

Analysis Date: 06-MAR-10 23:19

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	43.572	109	
1,3-Dinitrobenzene-d4	500	549.103	110	
2,4,6-Trinitrotoluene	40	43.289	108	
2,4-Dinitrotoluene	40	32.71	82	
2,6-Dinitrotoluene	40	40.13	100	
2,6-Dinitrotoluene-d3	500	547.162	109	
2-Amino-4,6-dinitrotoluene	40	41.723	104	
3,4-Dinitrotoluene	20	21.531	108	
4-Amino-2,6-dinitrotoluene	40	42.41	106	
HMX	40	37.966	95	
Nitrobenzene	40	28.768	72	
PETN	40	49.806	125	
RDX	40	37.916	95	
Tetryl	40	44.352	111	
m-Dinitrobenzene	40	39.17	98	
m-Nitrotoluene	40	34.211	86	
o-Nitrotoluene	40	39.798	99	
p-Nitrotoluene	40	46.592	116	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

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Name: C:\MASSLYNX\NEW_EXP\PRO\Data\EXP0304115a

Date: 06-Mar-2010

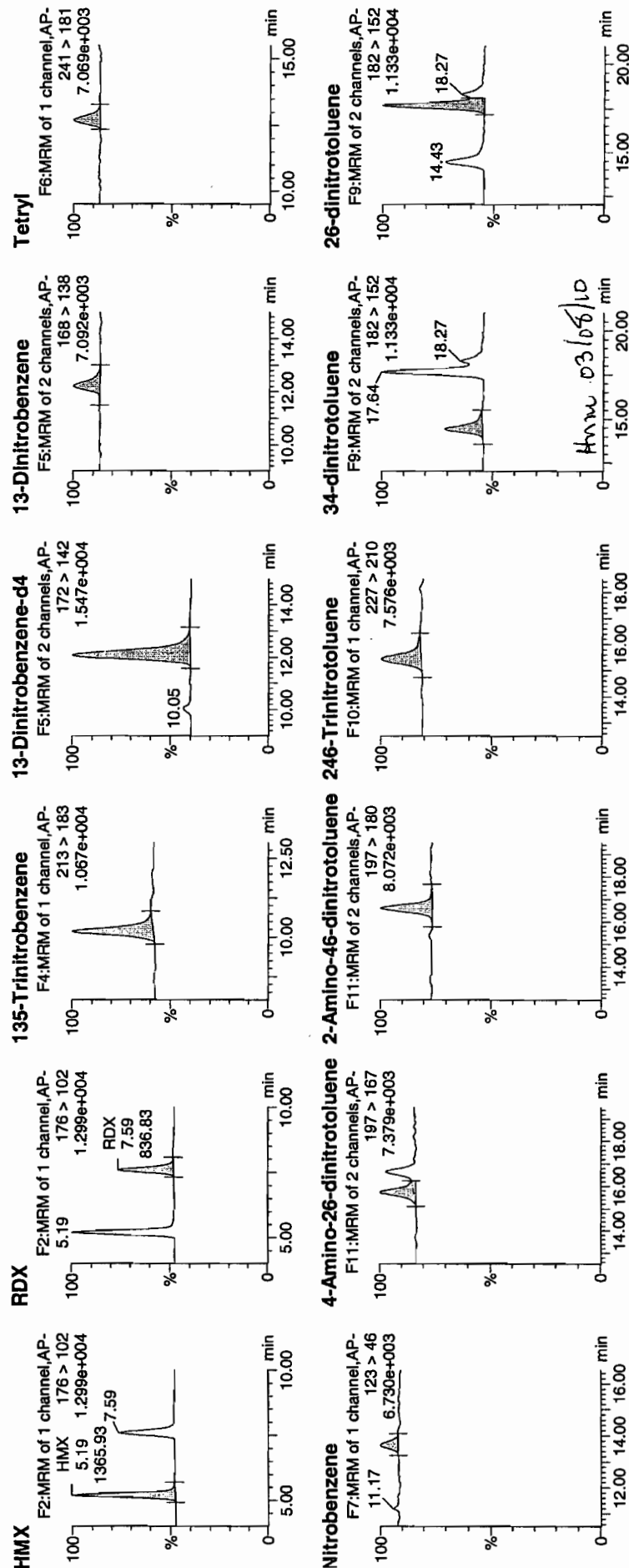
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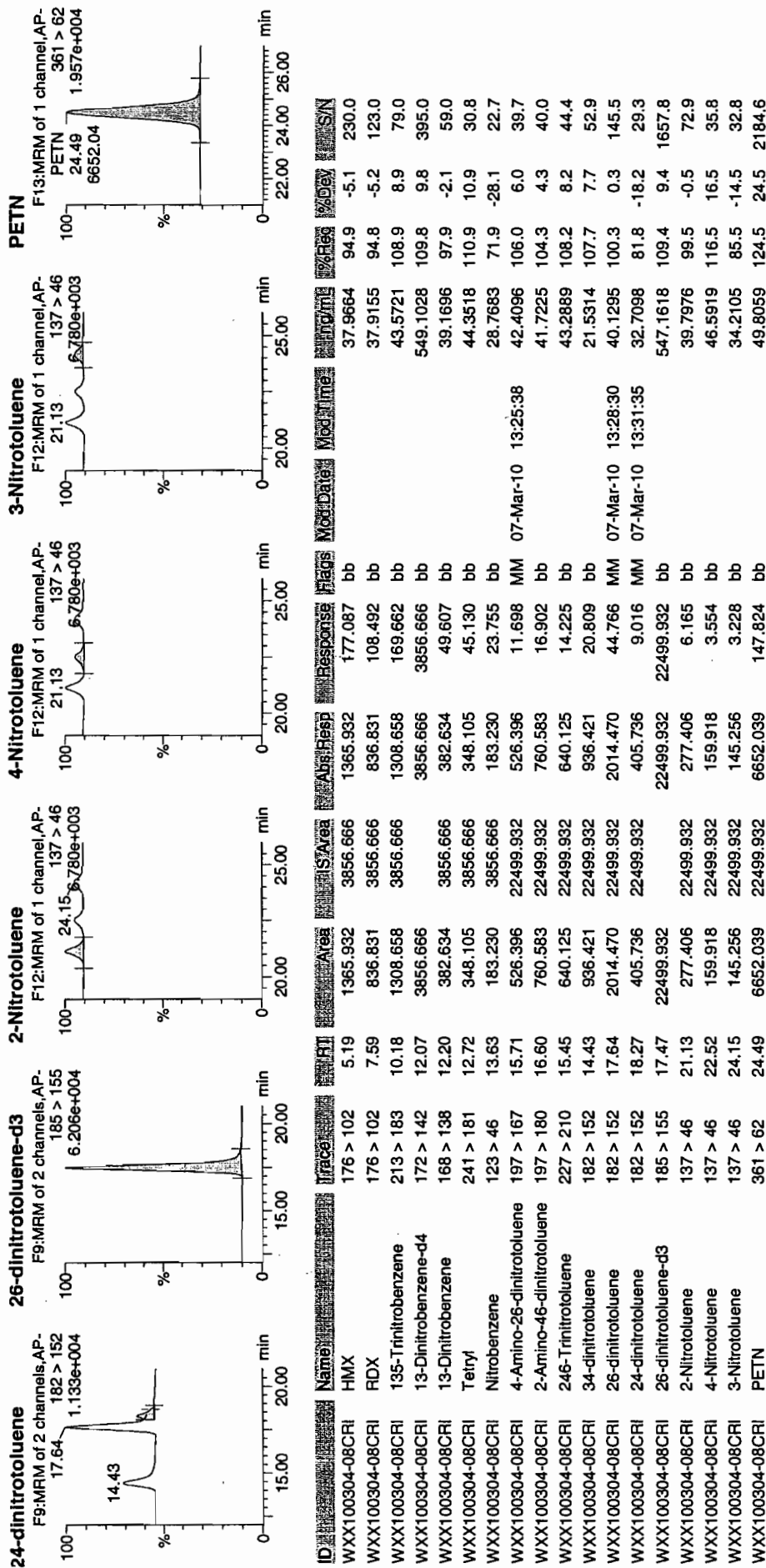
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3/10/10
MMP

Page 335 of 1049



Dataset: C:\MASSLYNX\New_Exp_PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific
 Date of Analysis 03/06/10
 Time of Injection 2319
 Standard Number WXX100304-08CRI
 Data File EXP0304115a

HMX	94.9
RDX	94.8
135-TNB	108.9
13-DNB	97.9
Tetryl	110.9
Nitrobenzene	71.9
4A-26-DNT	106.0
2A-46-DNT	104.3
246-TNT	108.2
34-DNT(surr)	107.7
26-DNT	100.3
24-DNT	81.8
2-NT	99.5
4-NT	116.5
3-NT	85.5
PETN	124.5
Total	1613.6

*MT
3/11/10*

Time 03/08/10

Average

100.9

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): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260013.wiff

Analysis Date: 26-FEB-10 18:02

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	110	110	
2,6-Diamino-4-nitrotoluene	100	104	104	
3,4-Dinitrotoluene	50	46.1	92	
3,5-Dinitroaniline	100	94.6	95	
TATB	100	105	105	
tris(o-cresyl) phosphate	100	103	103	

Recovery Limits:

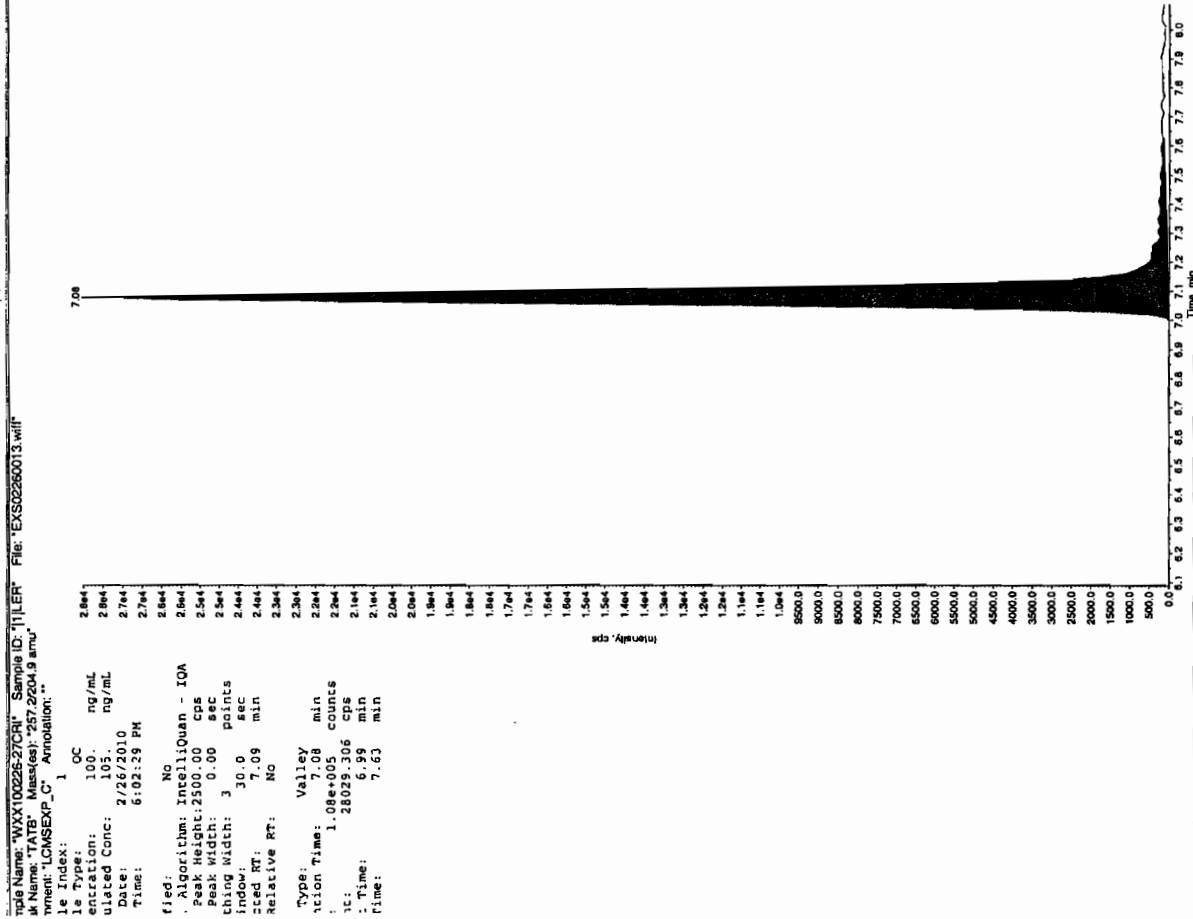
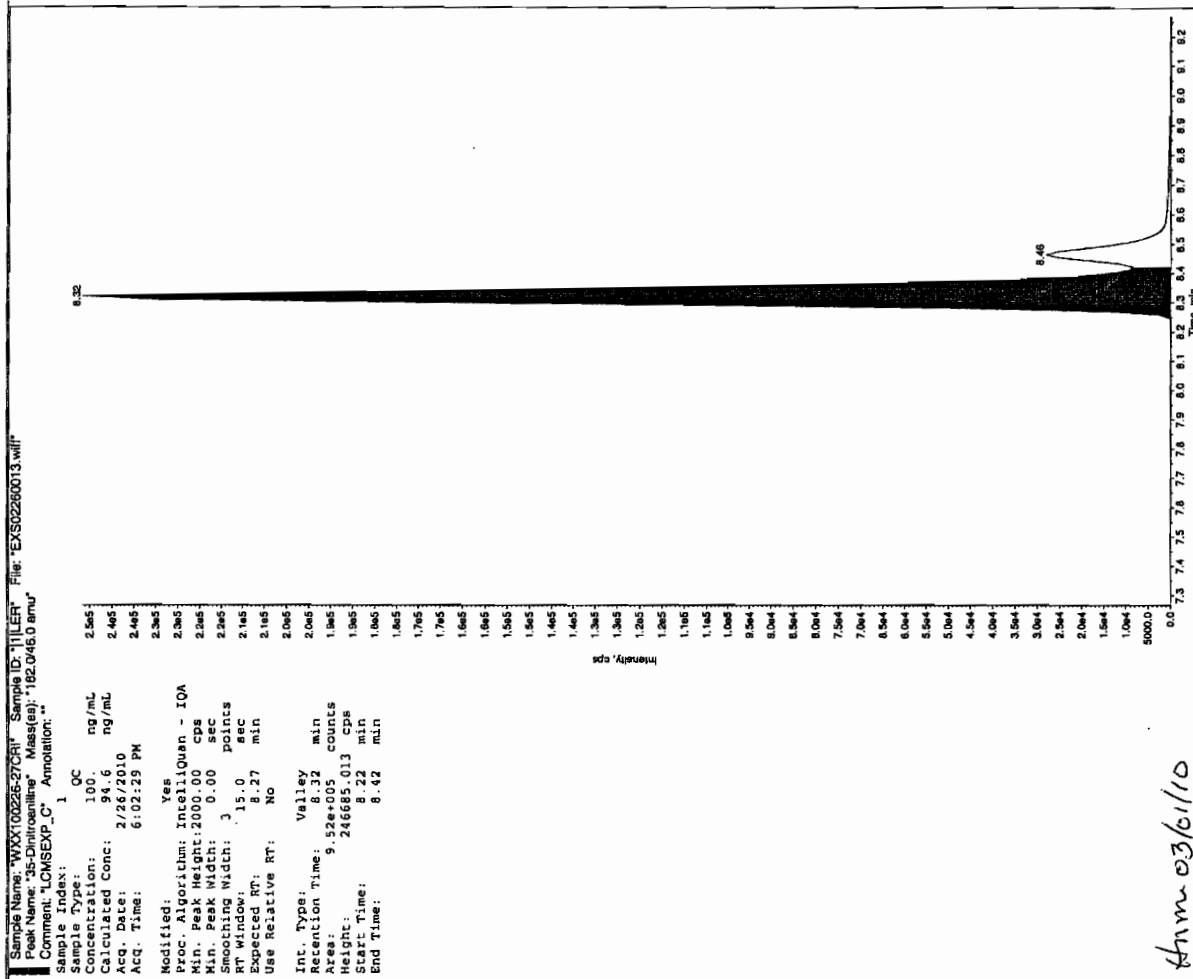
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

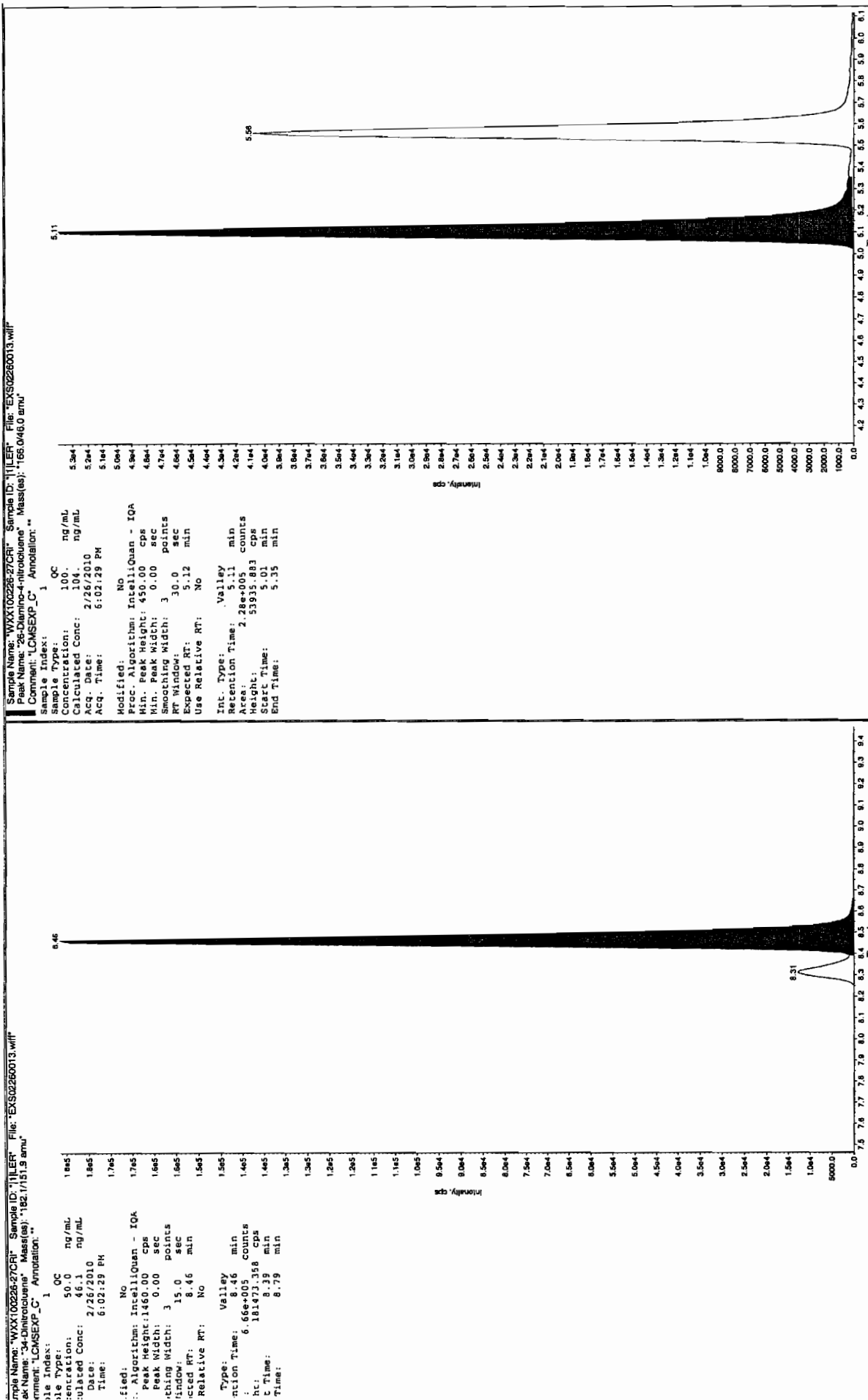
Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

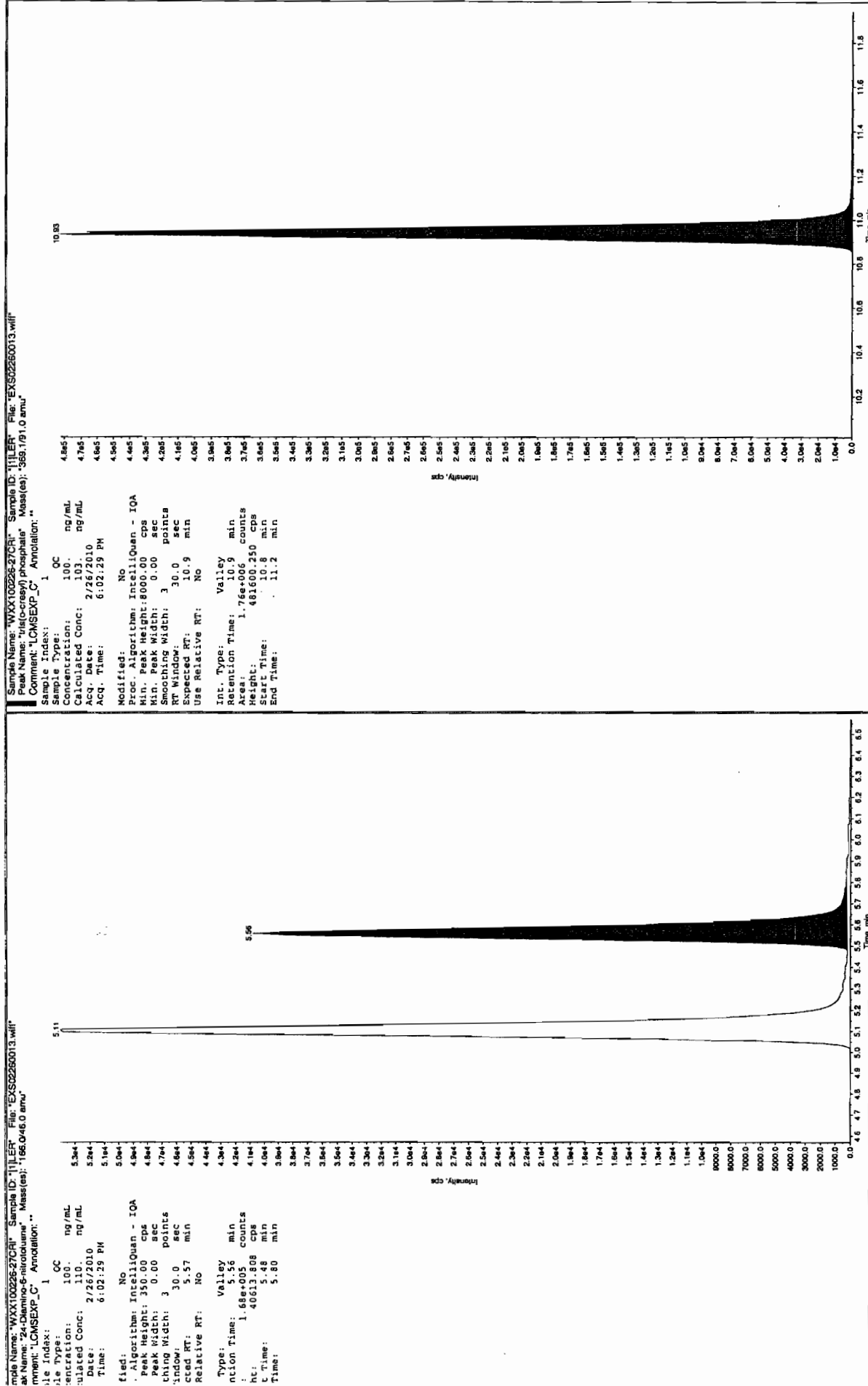
Run 31/10



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



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



L SOP GL-OA-E-056, Method 8321A-Modified LCM SMS#4

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260024.wiff

Analysis Date: 26-FEB-10 20:55

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	536	107	
2,6-Diamino-4-nitrotoluene	500	541	108	
3,4-Dinitrotoluene	250	219	88	
3,5-Dinitroaniline	500	464	93	
TATB	500	493	99	
tris(o-cresyl) phosphate	500	498	100	

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%

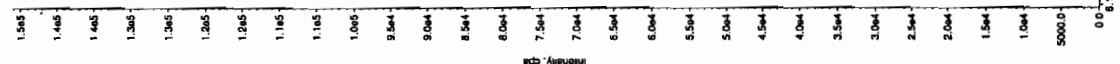
Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Before Jan 3/1/10

Sample Name: "WXX100226-280CV" Sample ID: "11111" File: "EXS02260024.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: 439 ng/mL
 Acq. Date: 2/26/2010
 Acq. Time: 8:55:16 PM
 Modified: No
 Proc. Algorithm: IntelliQuan - IOA
 Min. Peak Height: 2500.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 7.09 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 7.09 min
 Area: 3.82e+05 counts
 Height: 14609.626 cps
 Start Time: 6.59 min
 End Time: 7.71 min



Sample Name: "WXX100226-280CV" Sample ID: "11111" File: "EXS02260024.wif"
 Peak Name: "3S-Dinitroaniline" Mass(es): "182.046.0 amu"
 Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
 Sample Type: QC
 Concentration: 500 ng/mL
 Calculated Conc: 439 ng/mL
 Acq. Date: 2/26/2010
 Acq. Time: 8:55:16 PM
 Modified: Yes
 Proc. Algorithm: IntelliQuan - IOA
 Min. Peak Height: 2000.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 15.0 sec
 Expected RT: 8.27 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 8.32 min
 Area: 4.06e+06 counts
 Height: 1111148.438 cps
 Start Time: 8.26 min
 End Time: 8.42 min



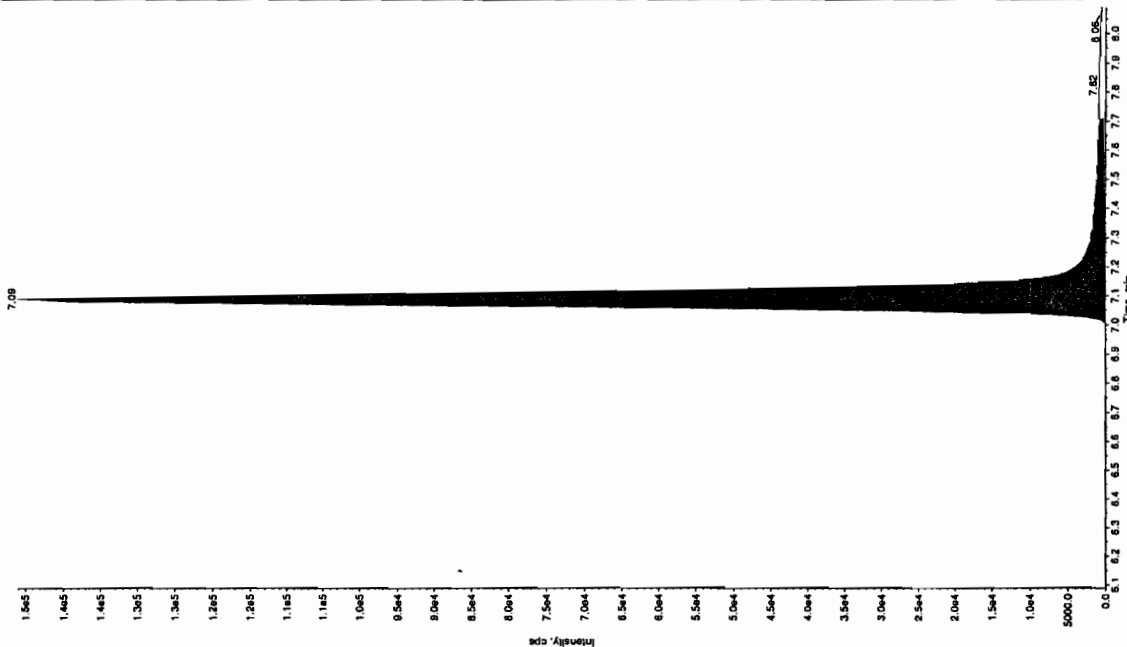
After Jan 3/1/10

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

after 3/1/10

Sample Name: "WXX100226-260CV" Sample ID: "J1LER" File: "EX02260024.wif"
 Peak Name: "TATB" Mass(es): 257.2204.9 amu
 Comment: "LCMSEXP_C" Annotation:

File Index: 1
 File Type: 1
 Concentration: 500. ng/mL
 Calculated Conc: 493. ng/mL
 Acq. Date: 2/26/2010
 Acq. Time: 8:55:16 PM
 Modified: No
 RT Window: 15.0 sec
 Expected RT: 8.27 min
 Use Relative RT: No
 Int. Type: Manual
 Retention Time: 8.32 min
 Area: 4.27e+006 counts
 Height: 1136132.036 cps
 Start Time: 8.26 min
 End Time: 8.42 min
 Type: Valley
 Retention Time: 7.09 min
 Area: 5.02e+005 counts
 Height: 14804.626 cps
 Start Time: 6.99 min
 End Time: 7.71 min

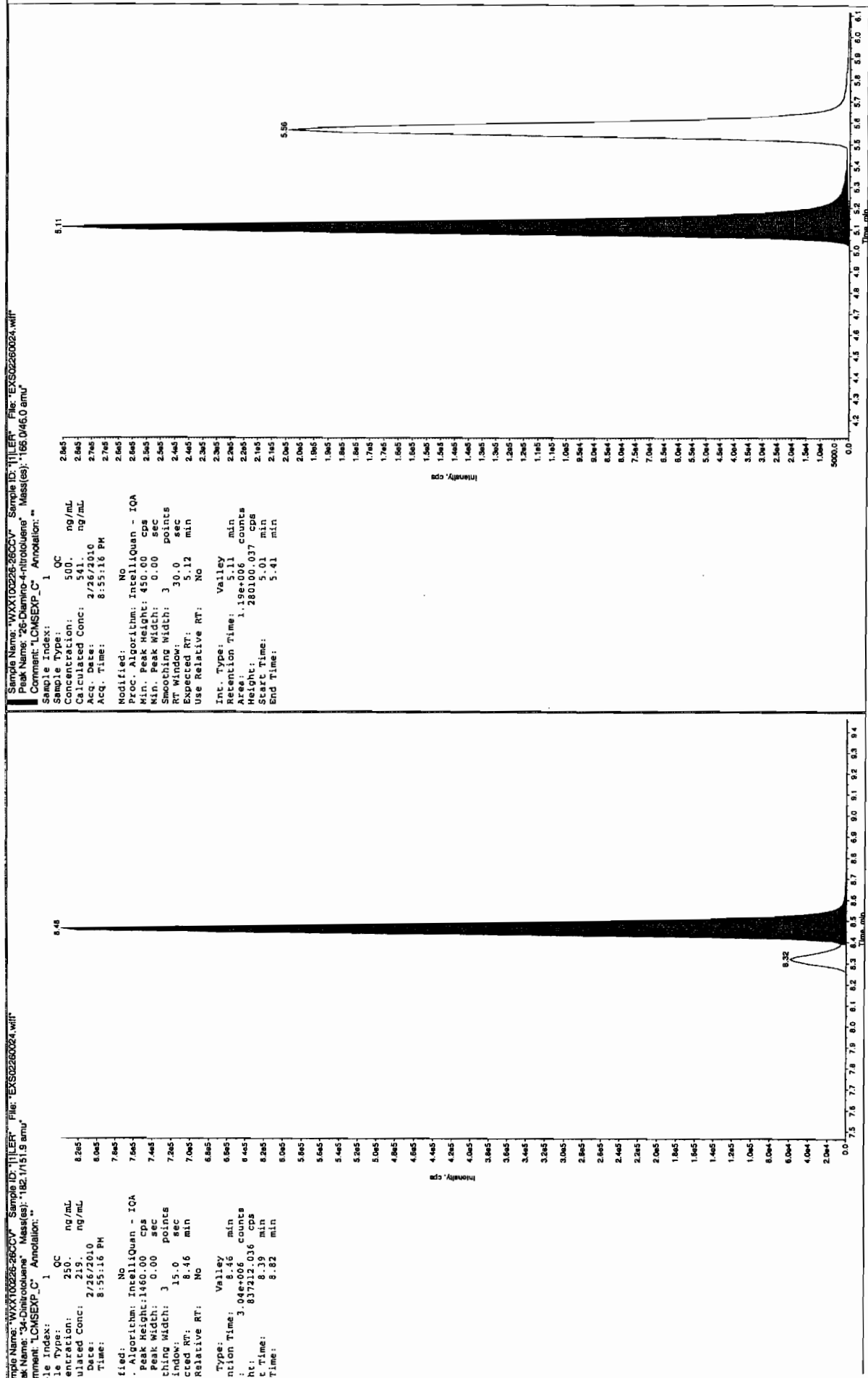


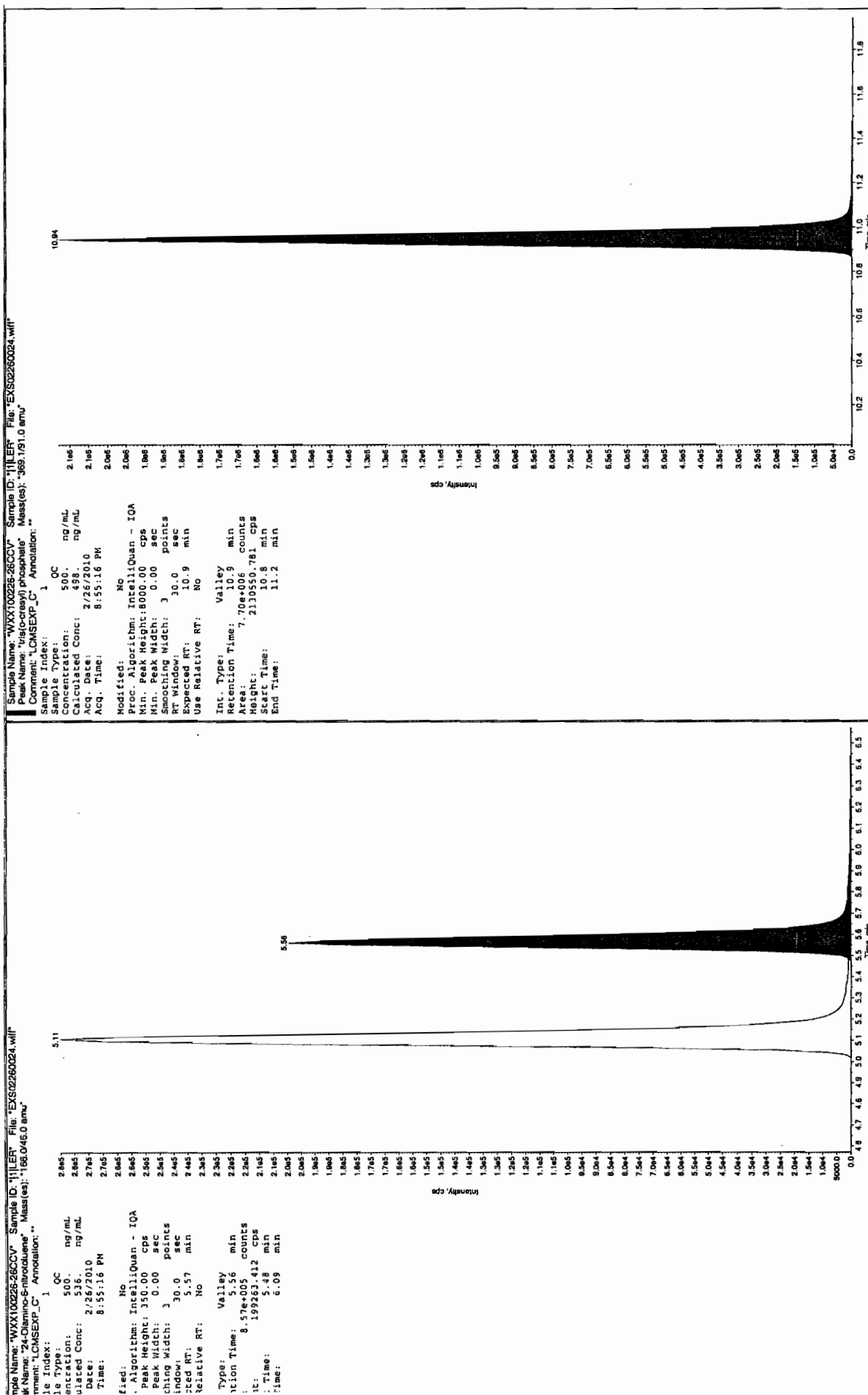
Sample Name: "WXX100226-260CV" Sample ID: "J1LER" File: "EX02260024.wif"
 Peak Name: "TATB" Mass(es): 257.2204.9 amu
 Comment: "LCMSEXP_C" Annotation:

File Index: 1
 File Type: 1
 Concentration: 500. ng/mL
 Calculated Conc: 484. ng/mL
 Acq. Date: 2/26/2010
 Acq. Time: 8:55:16 PM
 Modified: Yes
 RT Window: 15.0 sec
 Expected RT: 8.27 min
 Use Relative RT: No
 Int. Type: Manual
 Retention Time: 8.32 min
 Area: 4.27e+006 counts
 Height: 1136132.036 cps
 Start Time: 8.26 min
 End Time: 8.42 min



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





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

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260026.wiff

Analysis Date: 26-FEB-10 21:26

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,6-Diamino-4-nitrotoluene	100	109	109	
3,4-Dinitrotoluene	50	43.5	87	
3,5-Dinitroaniline	100	91.3	91	
TATB	100	105	105	
tris(o-cresyl) phosphate	100	104	104	
2,4-Diamino-6-nitrotoluene	100	104	104	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

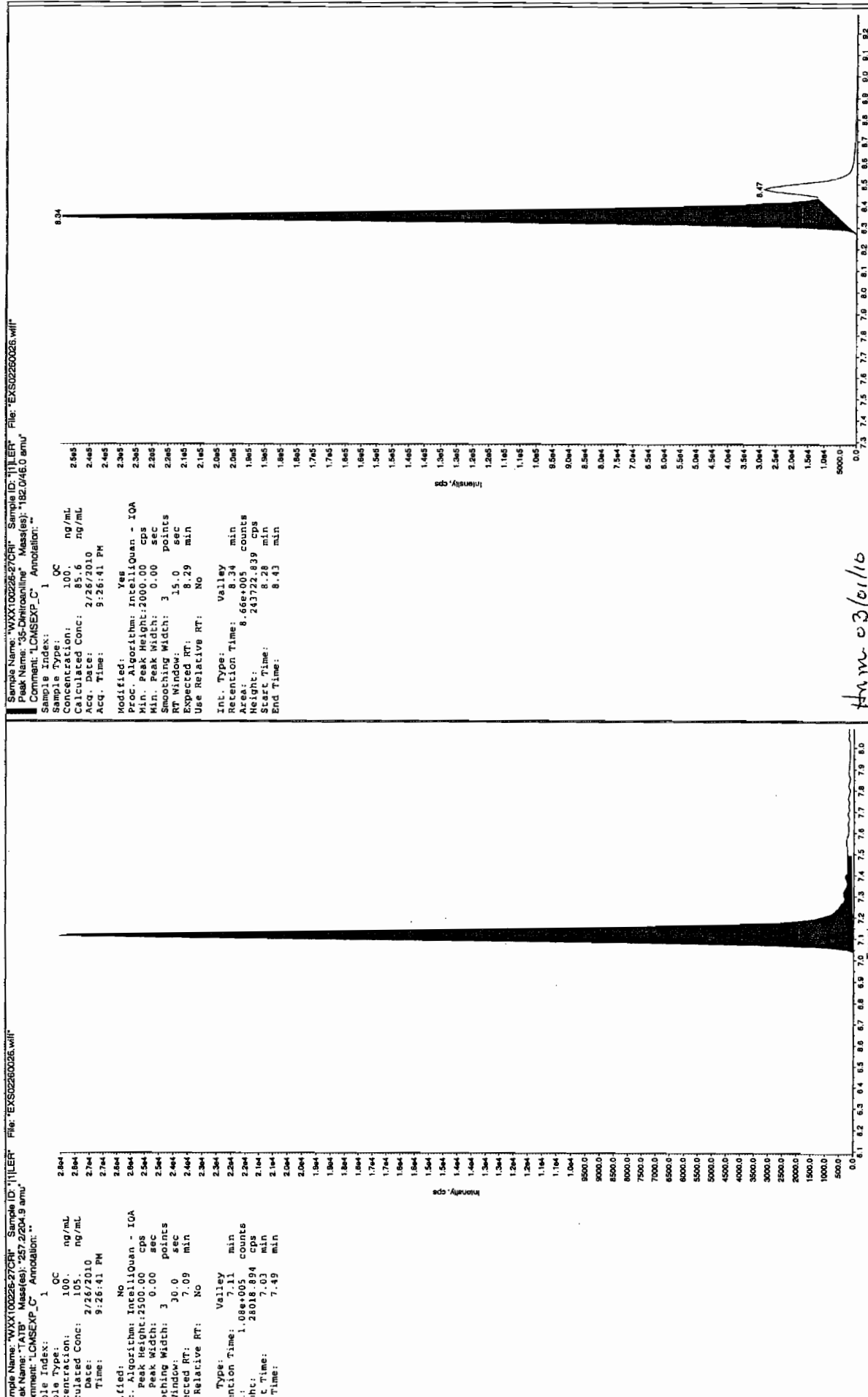
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

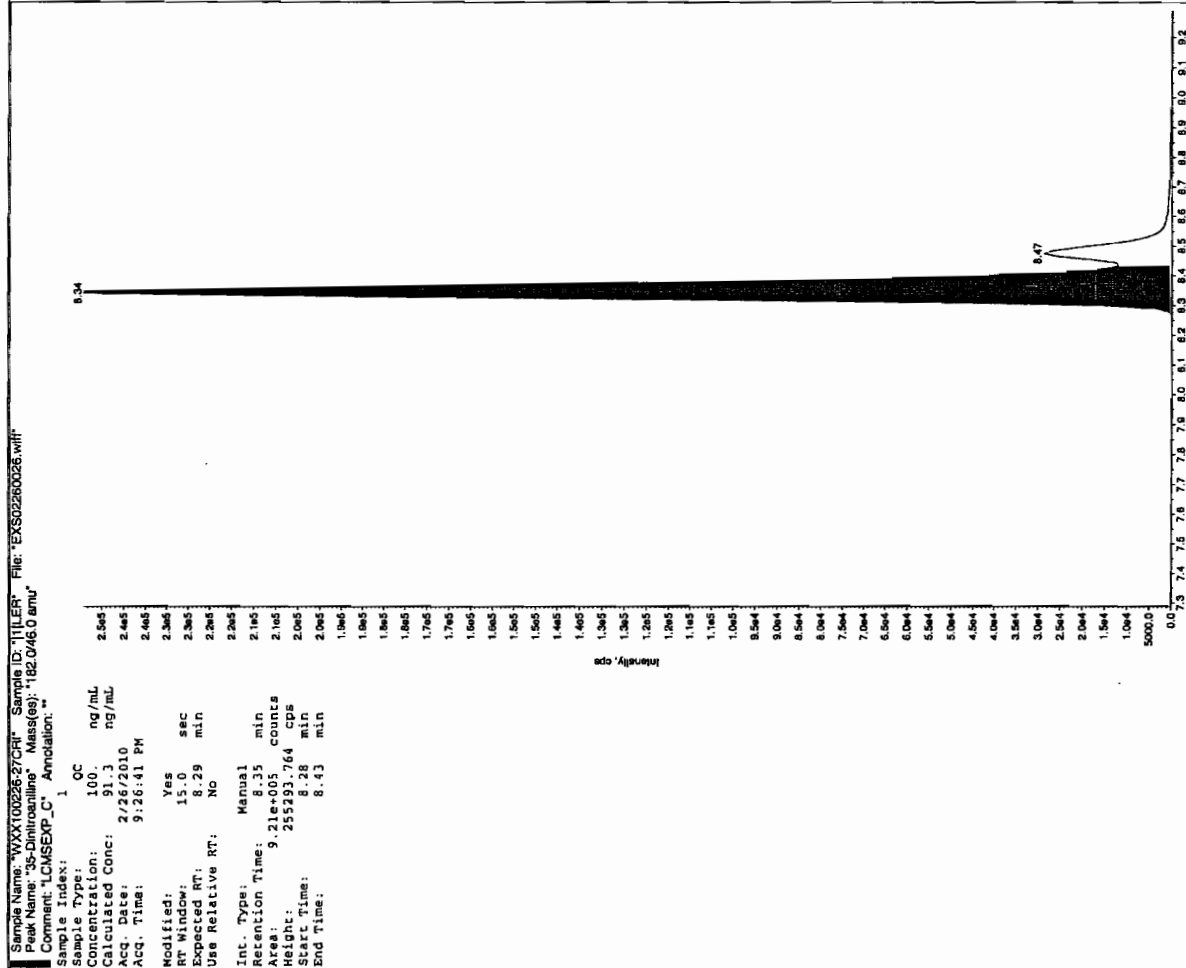
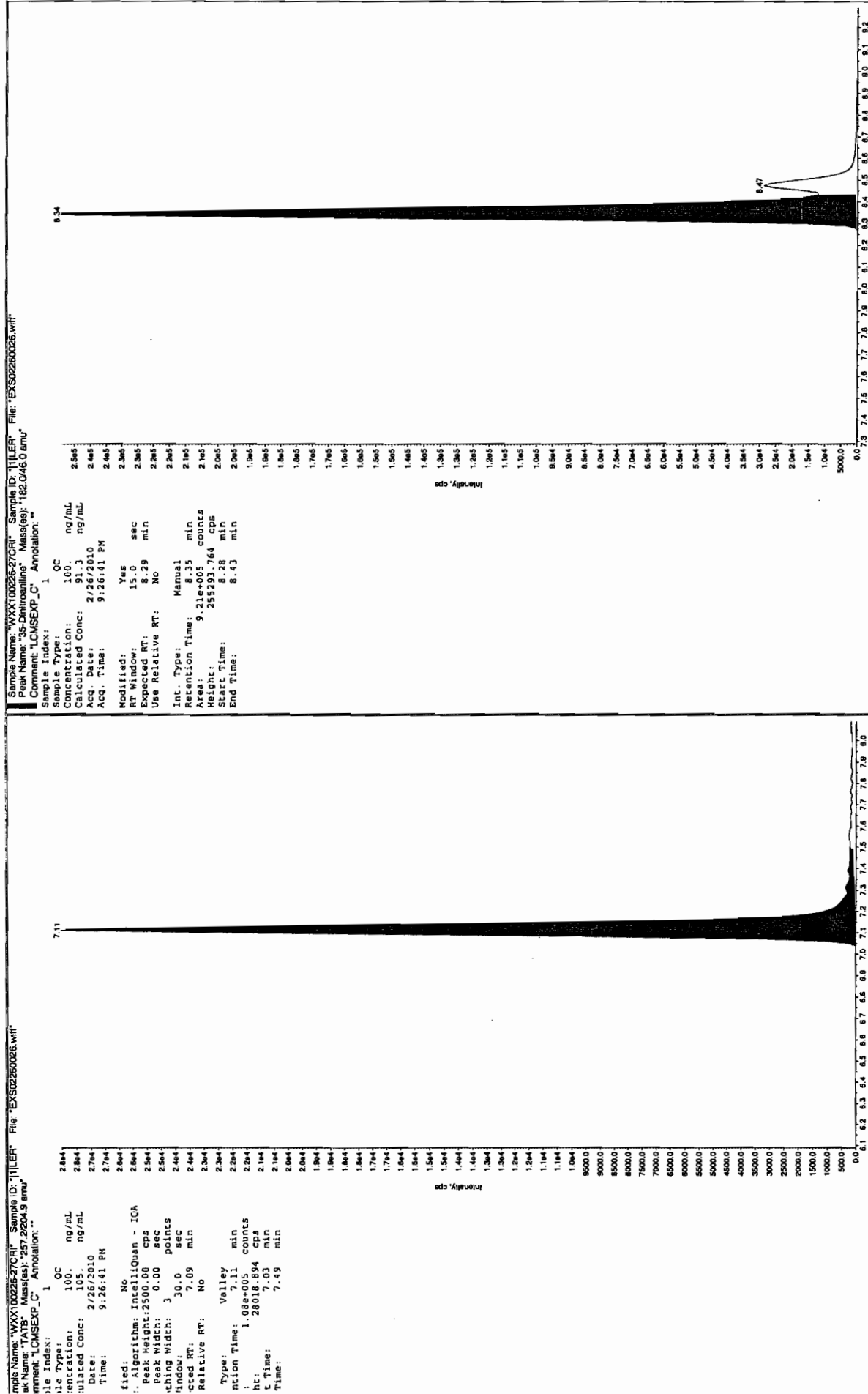
* Value outside of Recovery Limits

Before Dec 31/10



Am 03/01/10

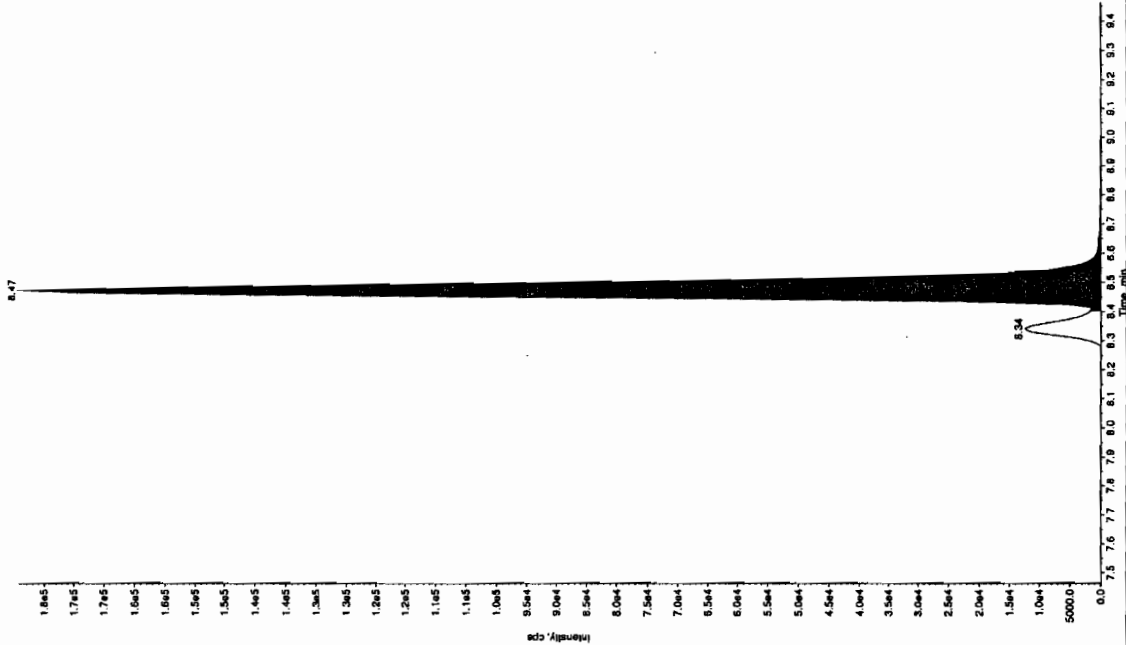
after Jan 31/10



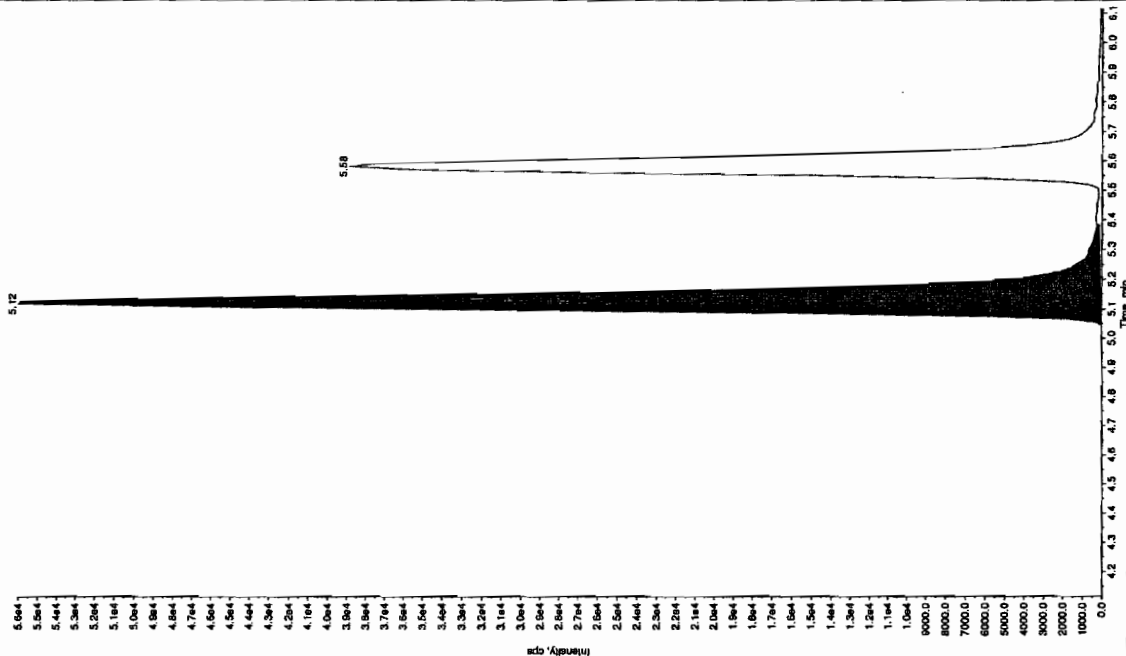
L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

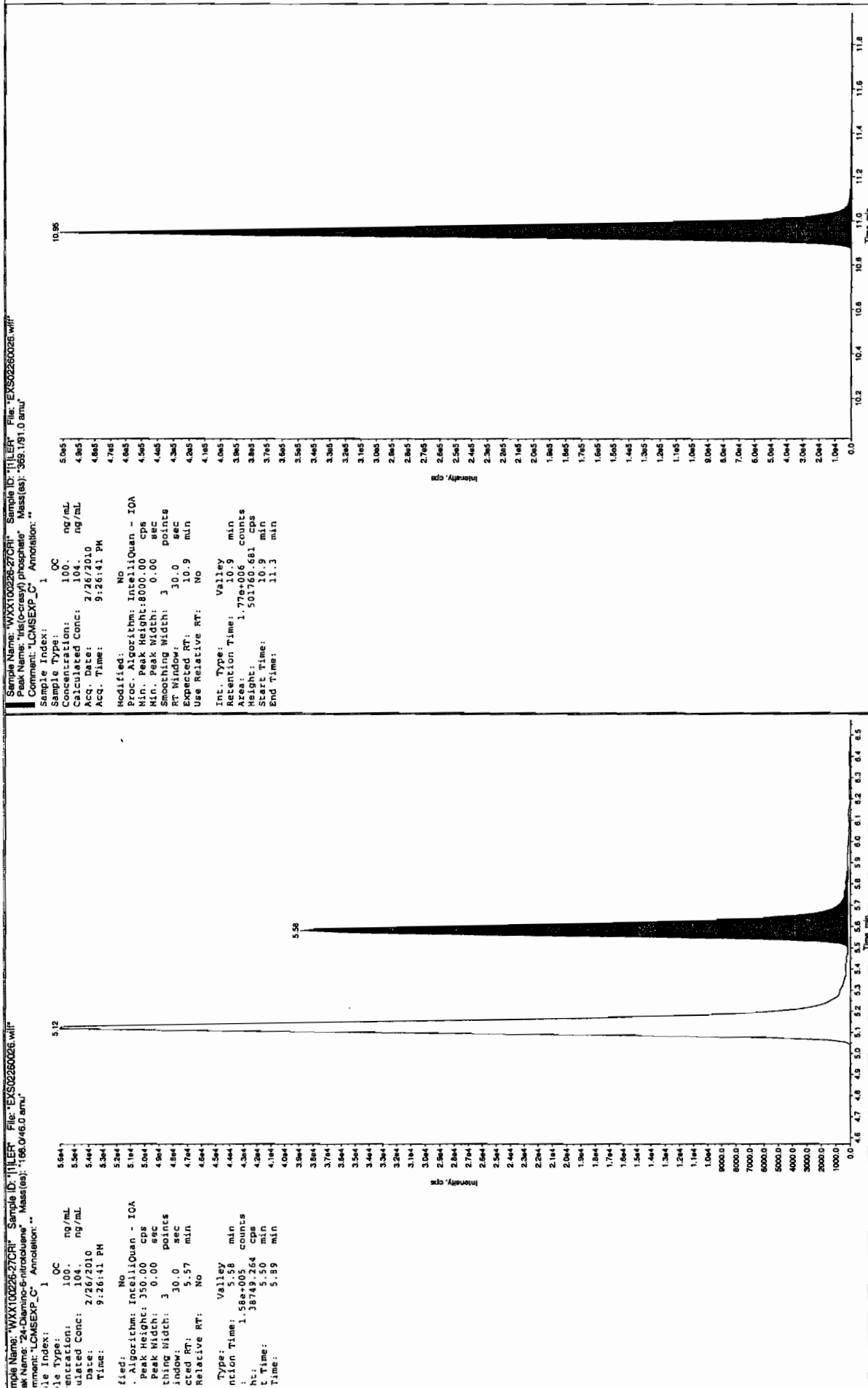
Sample Name: "WXX100226-27CR1" Sample ID: "11LRF" File: "EX502260026.wif"
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"
 Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
 Sample Type: QC
 Concentration: 50.0 ng/mL
 Calculated Conc: 43.5 ng/mL
 Acq. Date: 2/26/2010
 Acq. Time: 9:26:41 PM
 Modified: No
 Proc. Algorithm: IntelliQuan - ICA
 Min. Peak Height: 1460.00 cps
 Min. Peak Width: 3.00 sec
 Smoothing Width: 3.00 points
 RT Window: 15.0 sec
 Expected RT: 8.46 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 8.47 min
 Area: 6.30e+005 counts
 Height: 179327.957 cps
 Start Time: 8.40 min
 End Time: 8.51 min



Sample Index: 1
 Sample Type: QC
 Concentration: 100. ng/mL
 Calculated Conc: 109. ng/mL
 Acq. Date: 2/26/2010
 Acq. Time: 9:26:41 PM
 Modified: No
 Proc. Algorithm: IntelliQuan - ICA
 Min. Peak Height: 450.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3.00 points
 RT Window: 30.0 sec
 Expected RT: 5.12 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 5.12 min
 Area: 2.38e+005 counts
 Height: 56011.360 cps
 Start Time: 5.00 min
 End Time: 5.38 min





L SOP GL-OA-E-056, Method 8321A-Modified LCM SMS#4

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260037.wiff

Analysis Date: 27-FEB-10 00:19

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	482	96	
2,6-Diamino-4-nitrotoluene	500	477	96	
3,4-Dinitrotoluene	250	222	89	
3,5-Dinitroaniline	500	469	94	
TATB	500	487	97	
tris(o-cresyl) phosphate	500	491	98	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

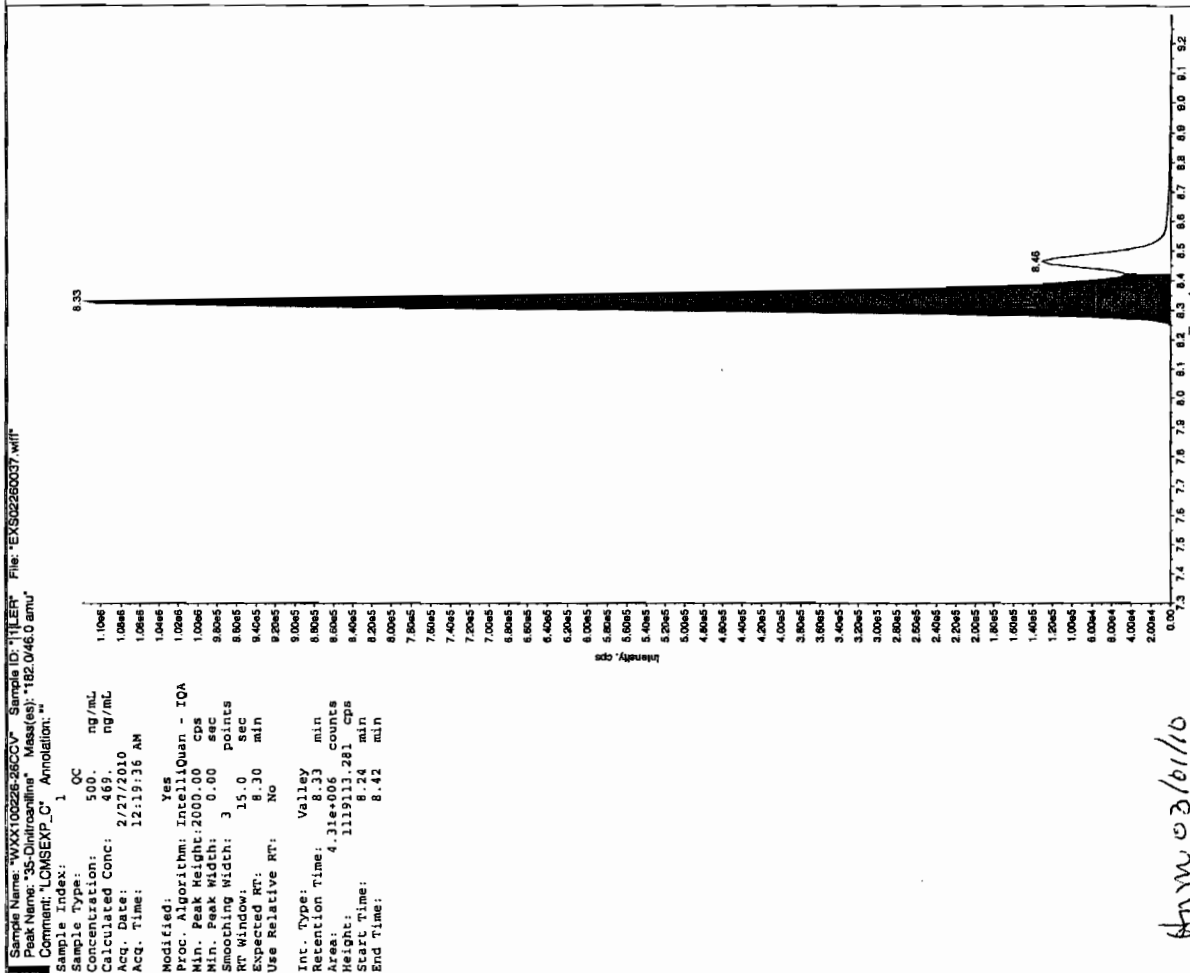
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

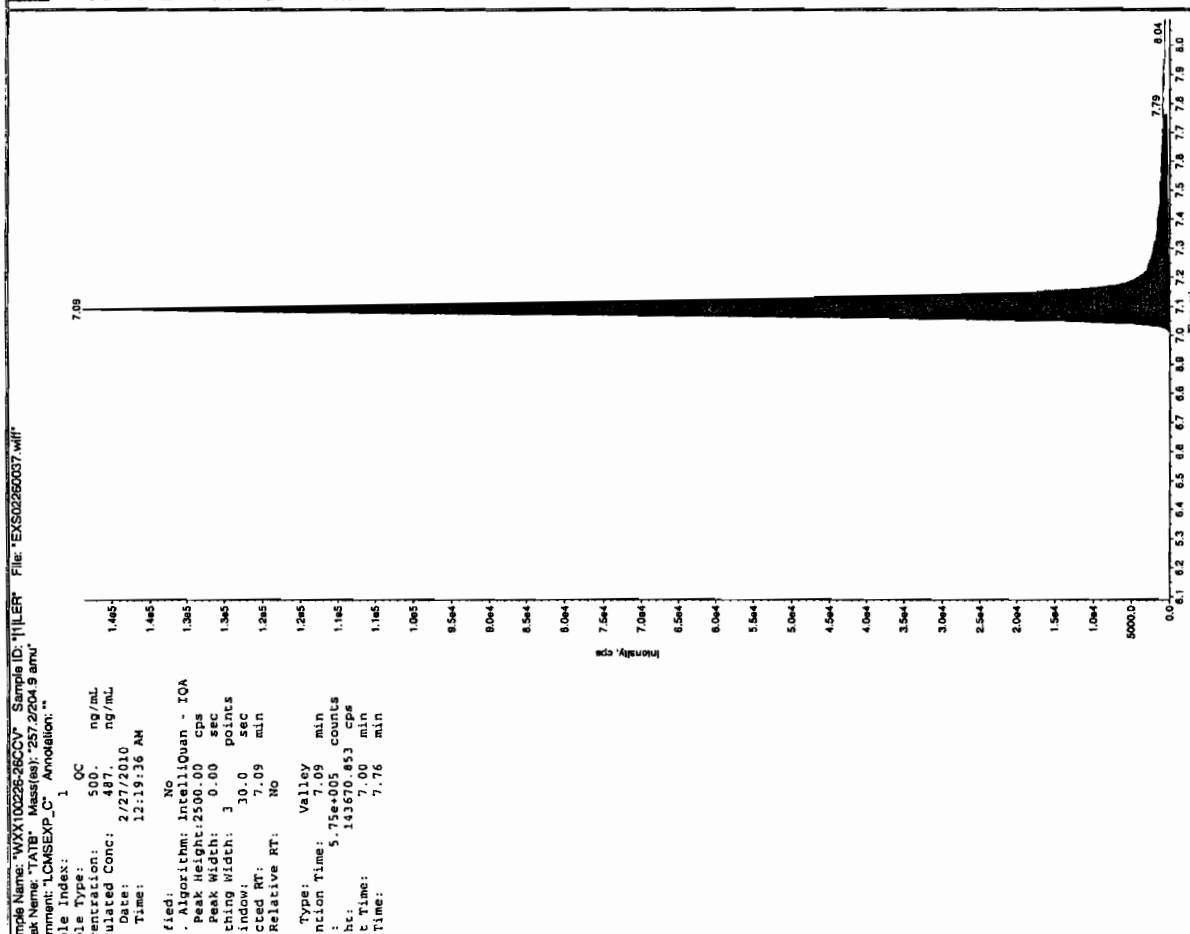
Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

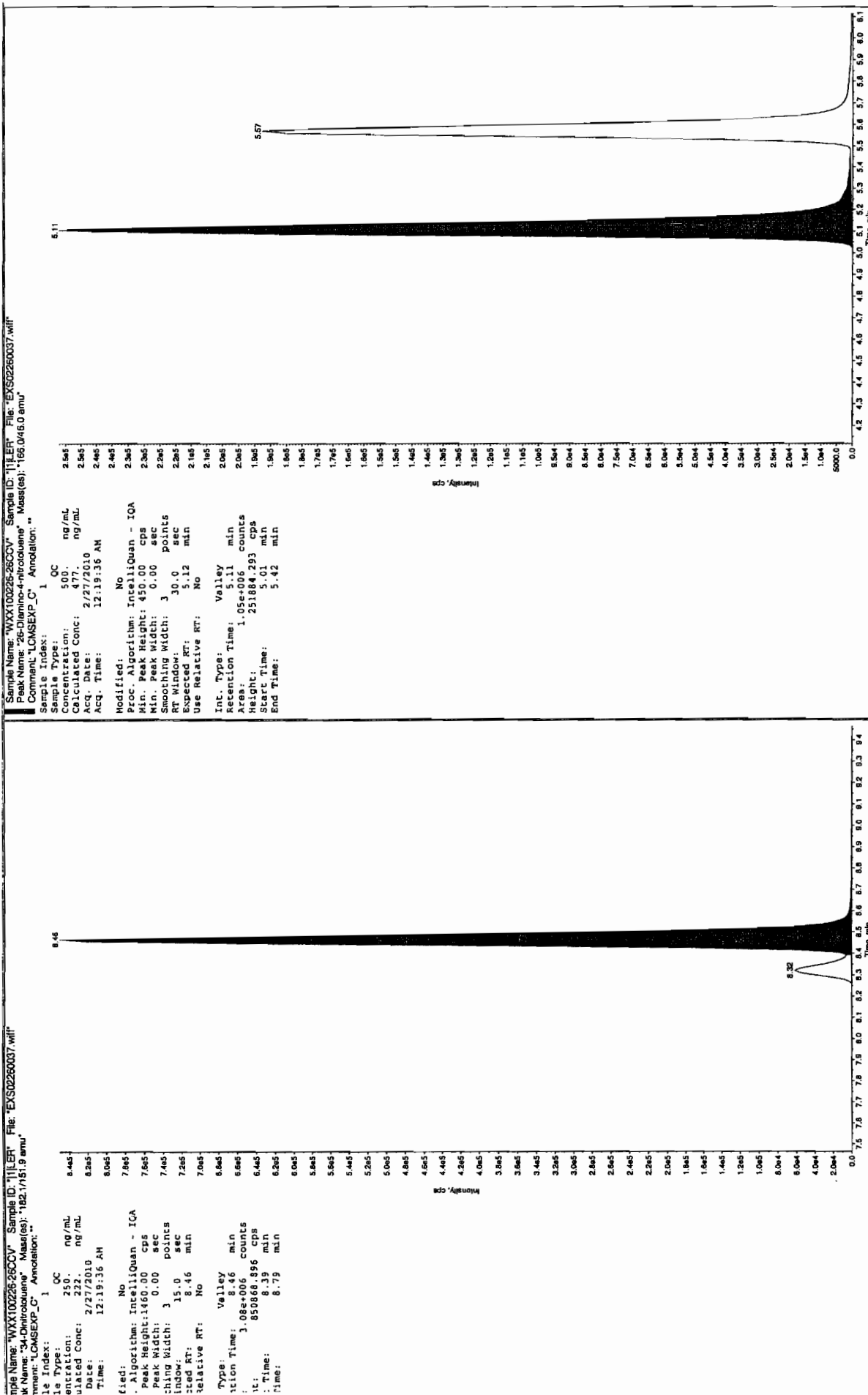
Run 3/1/10



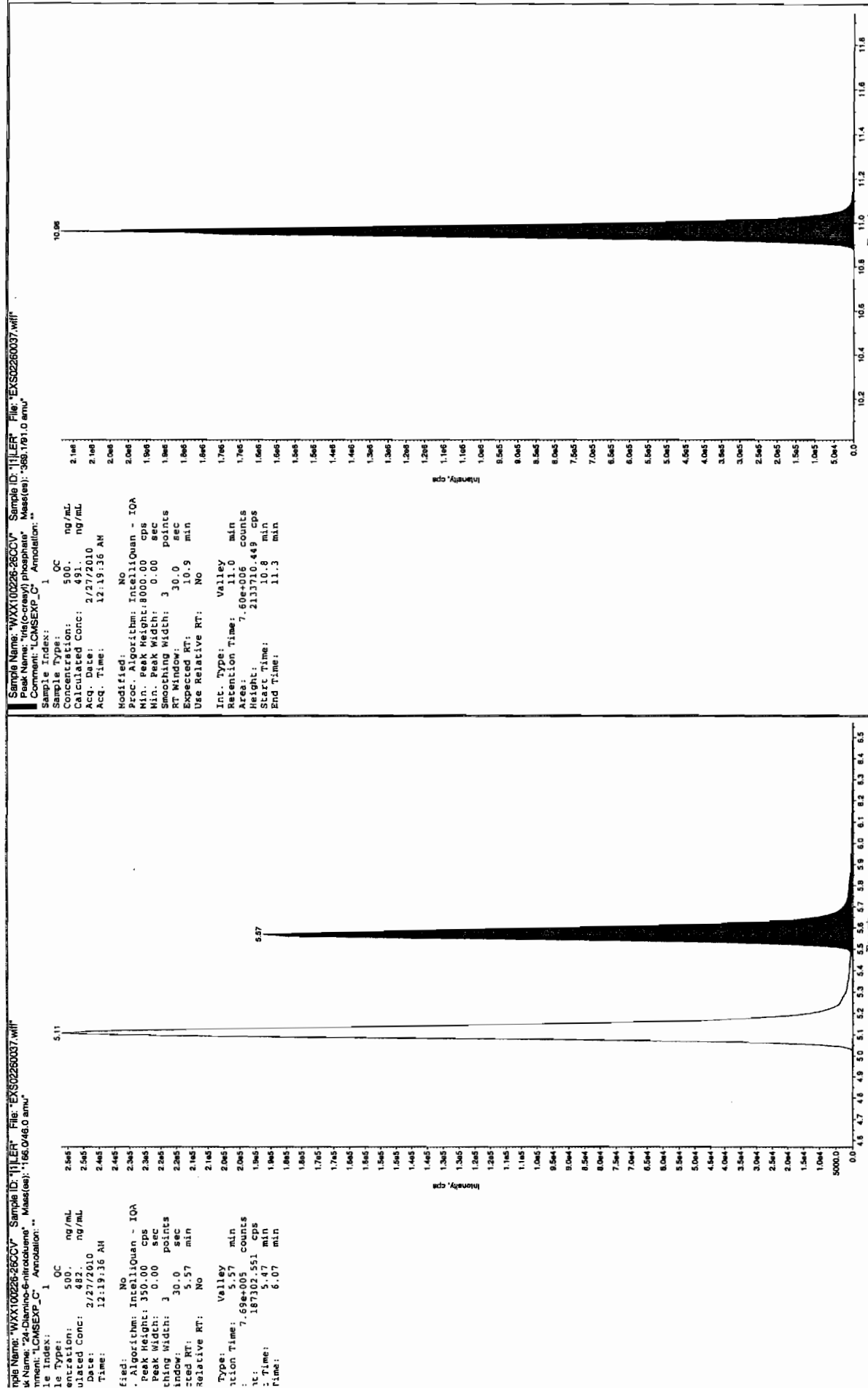
6mm 03/01/10



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



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



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

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260039.wiff

Analysis Date: 27-FEB-10 00:51

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	103	103	
2,6-Diamino-4-nitrotoluene	100	102	102	
3,4-Dinitrotoluene	50	43.9	88	
3,5-Dinitroaniline	100	91.6	92	
TATB	100	107	107	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:

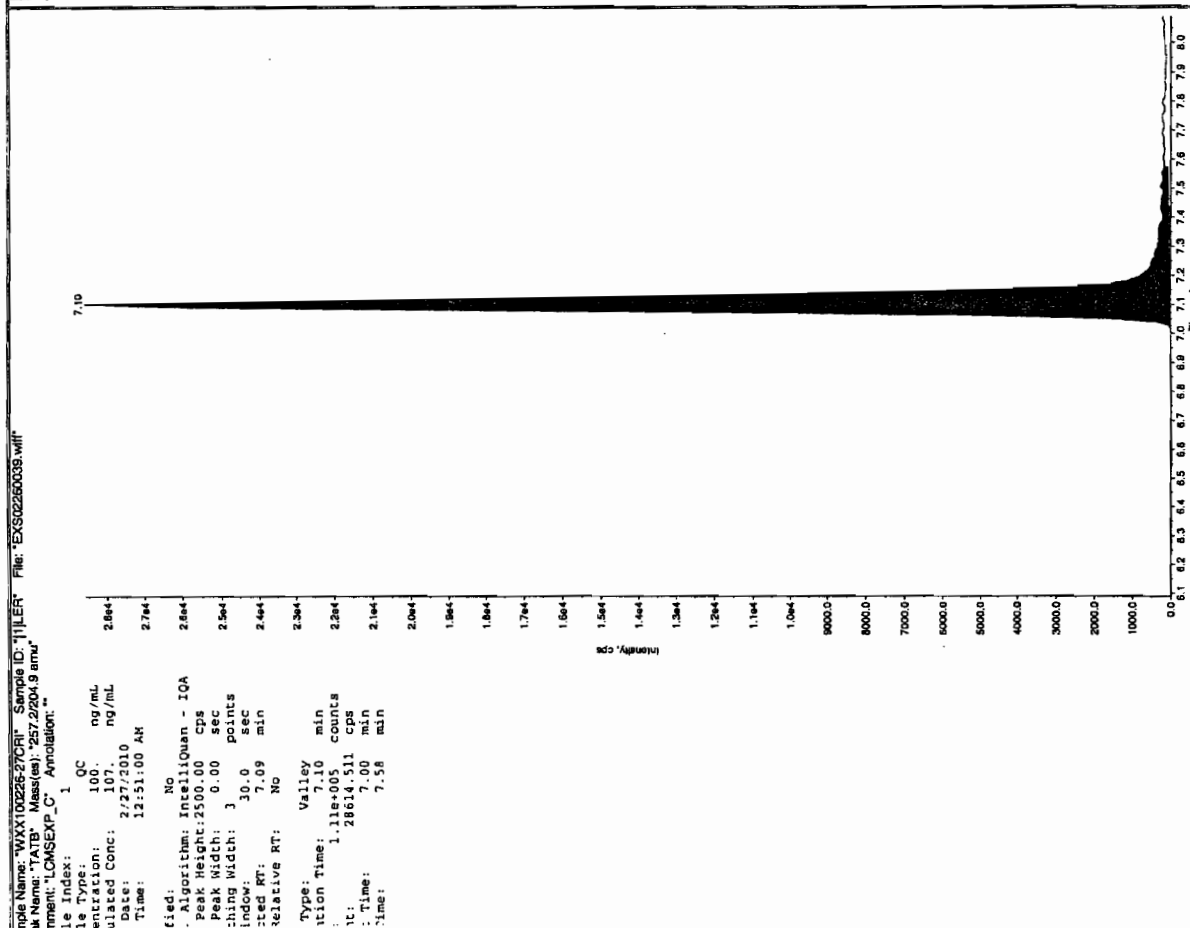
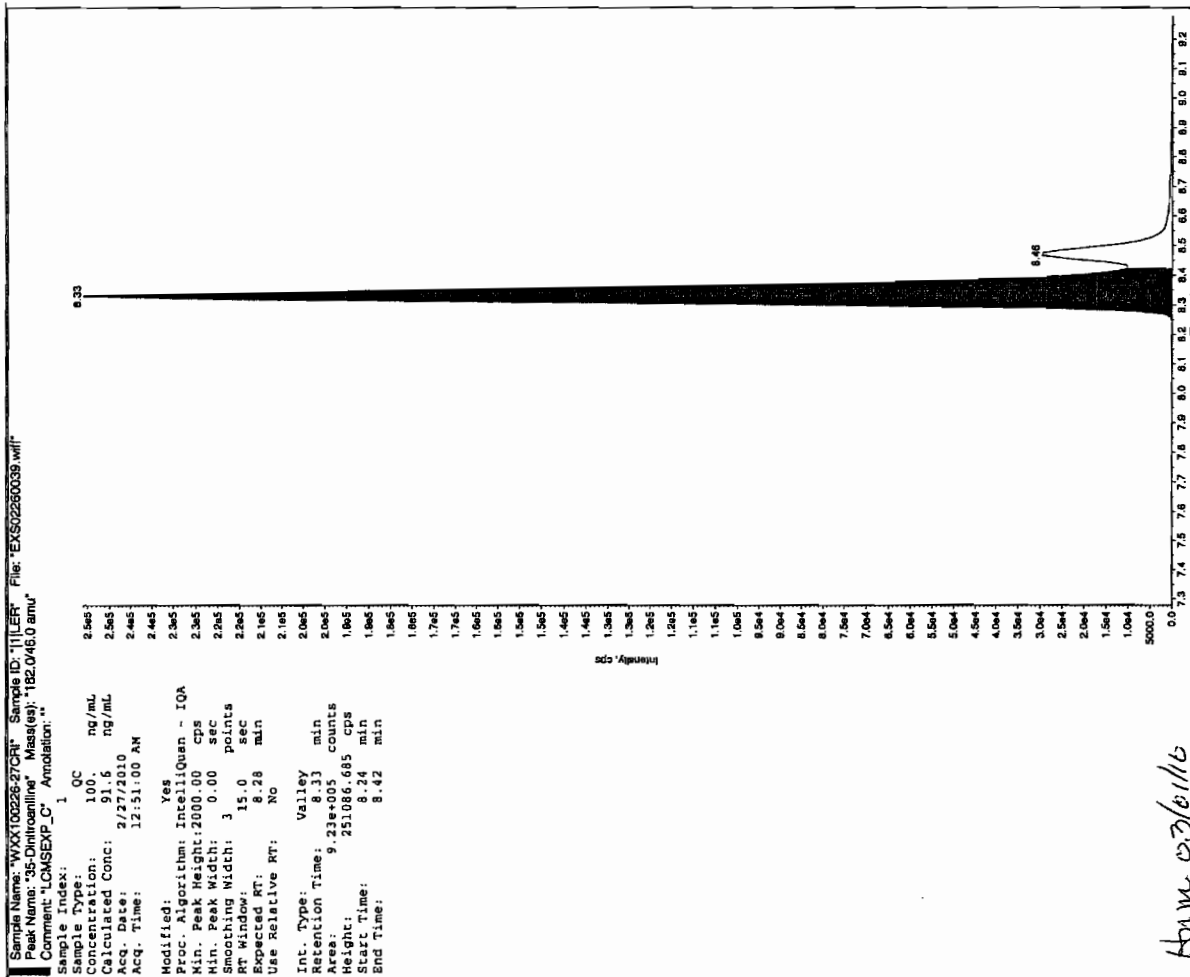
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Jan 31/10

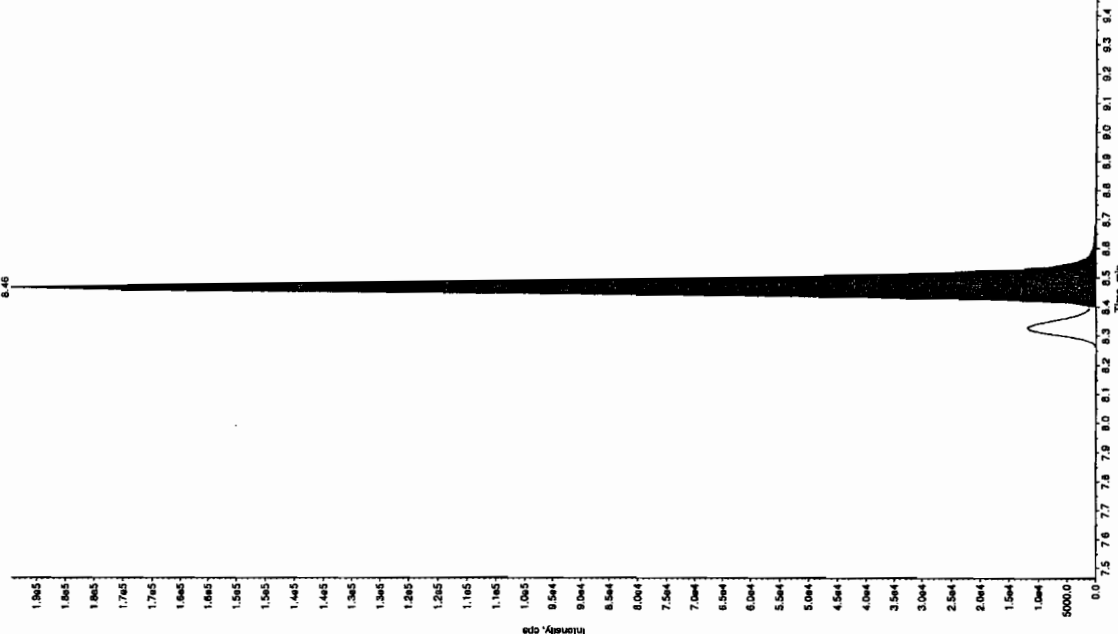


Sample Name: "WXX100226-27C1" Sample ID: "11LERY" File: "EXS02260039.wif"
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1151.9 amu"
 Comment: "LCMSEXP_C", Annotation: ""

Sample Index: 1
 Sample Type: GC
 Concentration: 50.0 ng/mL
 Calculated Conc: 43.9 ng/mL
 Date: 2/27/2010
 Time: 12:51:00 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: 8.46 min
 Use Relative RT: No

Int. Type: Valley
 Retention Time: 8.46 min
 Area: 6.35e+004 counts
 Height: 18557.891 cps
 Start Time: 8.40 min
 End Time: 8.76 min

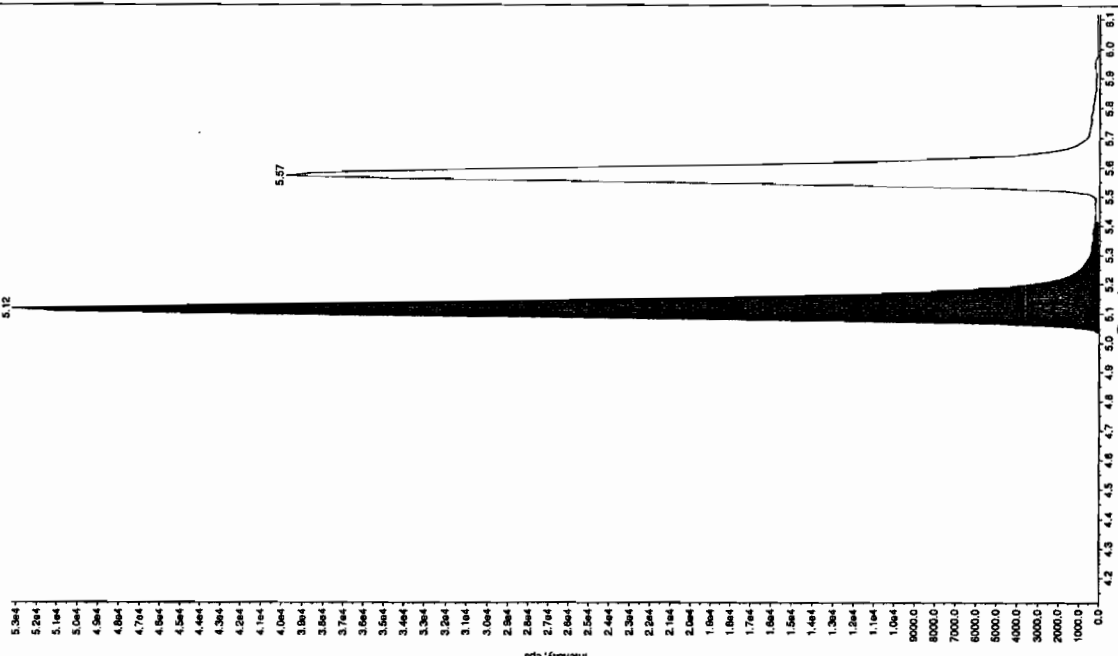


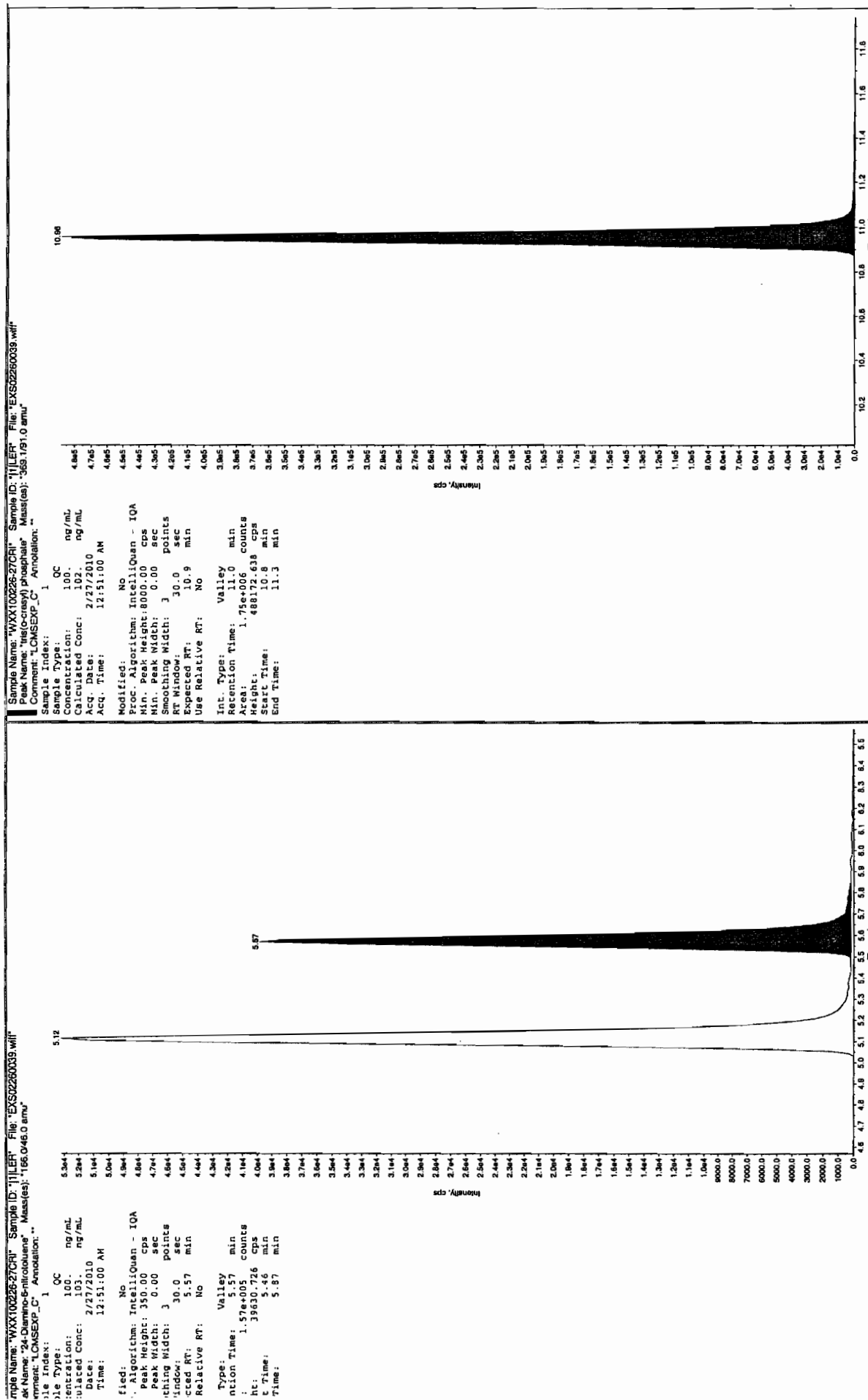
Sample Name: "WXX100226-27C1" Sample ID: "11LERY" File: "EXS02260039.wif"
 Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "186.0460 amu"
 Comment: "LCMSEXP_C", Annotation: ""

Sample Index: 1
 Sample Type: GC
 Concentration: 100. ng/mL
 Calculated Conc: 102. ng/mL
 Date: 2/27/2010
 Time: 12:51:00 AM

Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 450.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 5.12 min
 Use Relative RT: No

Int. Type: Valley
 Retention Time: 5.12 min
 Area: 2.21e+005 counts
 Height: 53184.658 cps
 Start Time: 4.97 min
 End Time: 5.42 min





7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260050.wiff

Analysis Date: 27-FEB-10 03:43

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	556	111	
2,6-Diamino-4-nitrotoluene	500	574	115	
3,4-Dinitrotoluene	250	226	91	
3,5-Dinitroaniline	500	482	96	
TATB	500	521	104	
tris(o-cresyl) phosphate	500	513	103	

Recovery Limits:

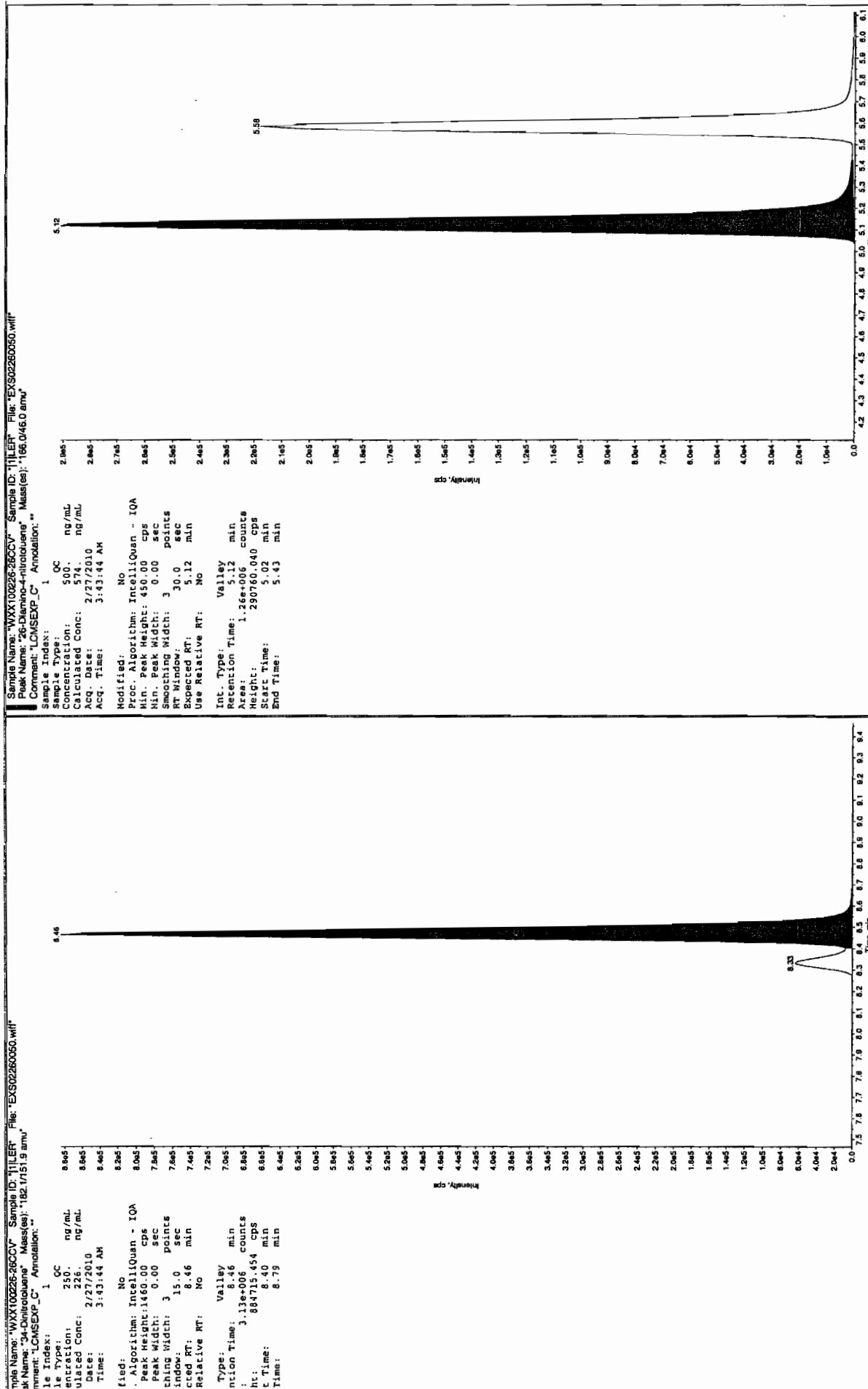
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 70-130%

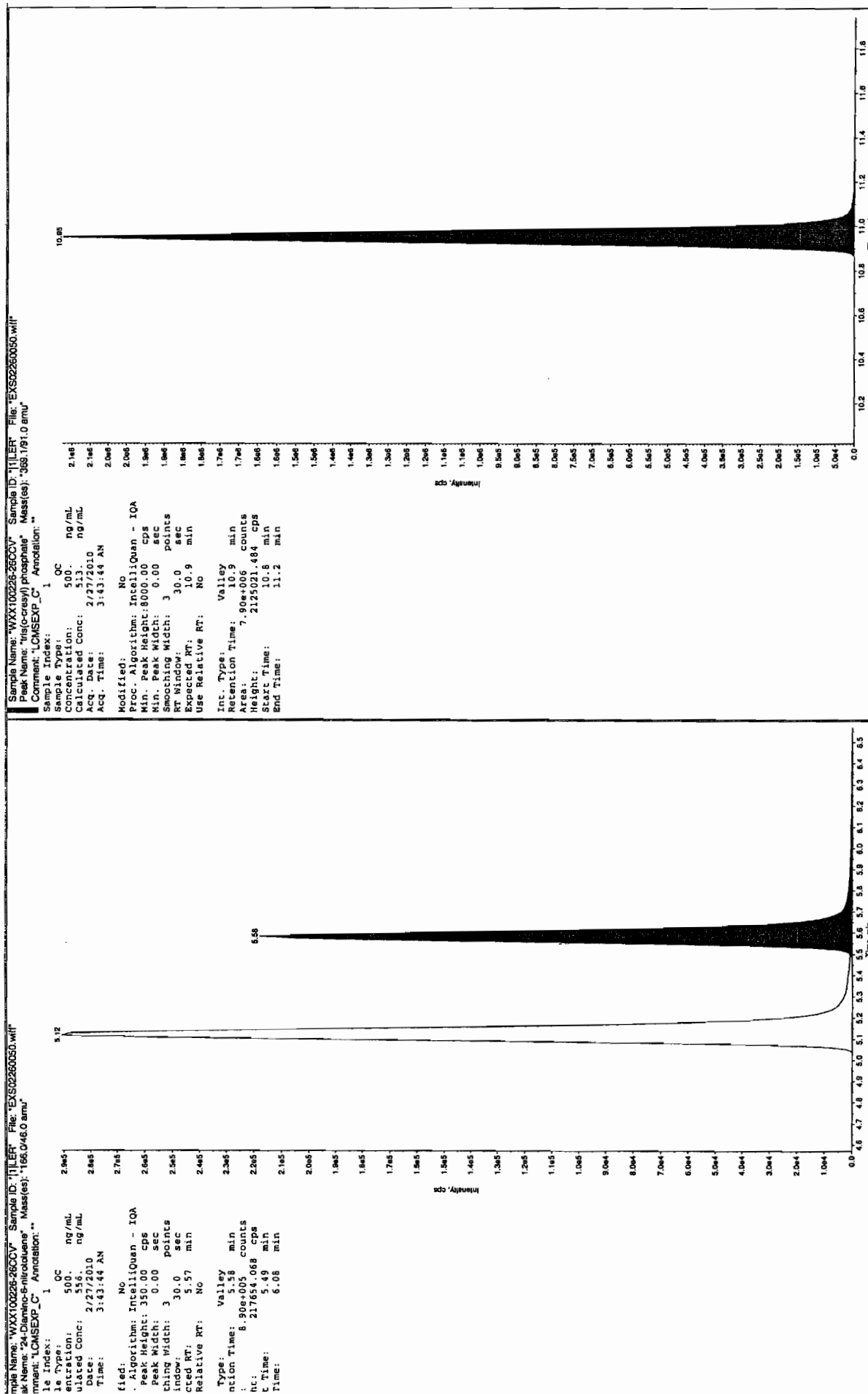
Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits



L SOP GL-OA-E-056, Method 8321A-Modified LCMSSMS#4



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

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260052.wiff

Analysis Date: 27-FEB-10 04:15

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	119	119	
2,6-Diamino-4-nitrotoluene	100	121	121	
3,4-Dinitrotoluene	50	46.3	93	
3,5-Dinitroaniline	100	92.4	92	
TATB	100	109	109	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:

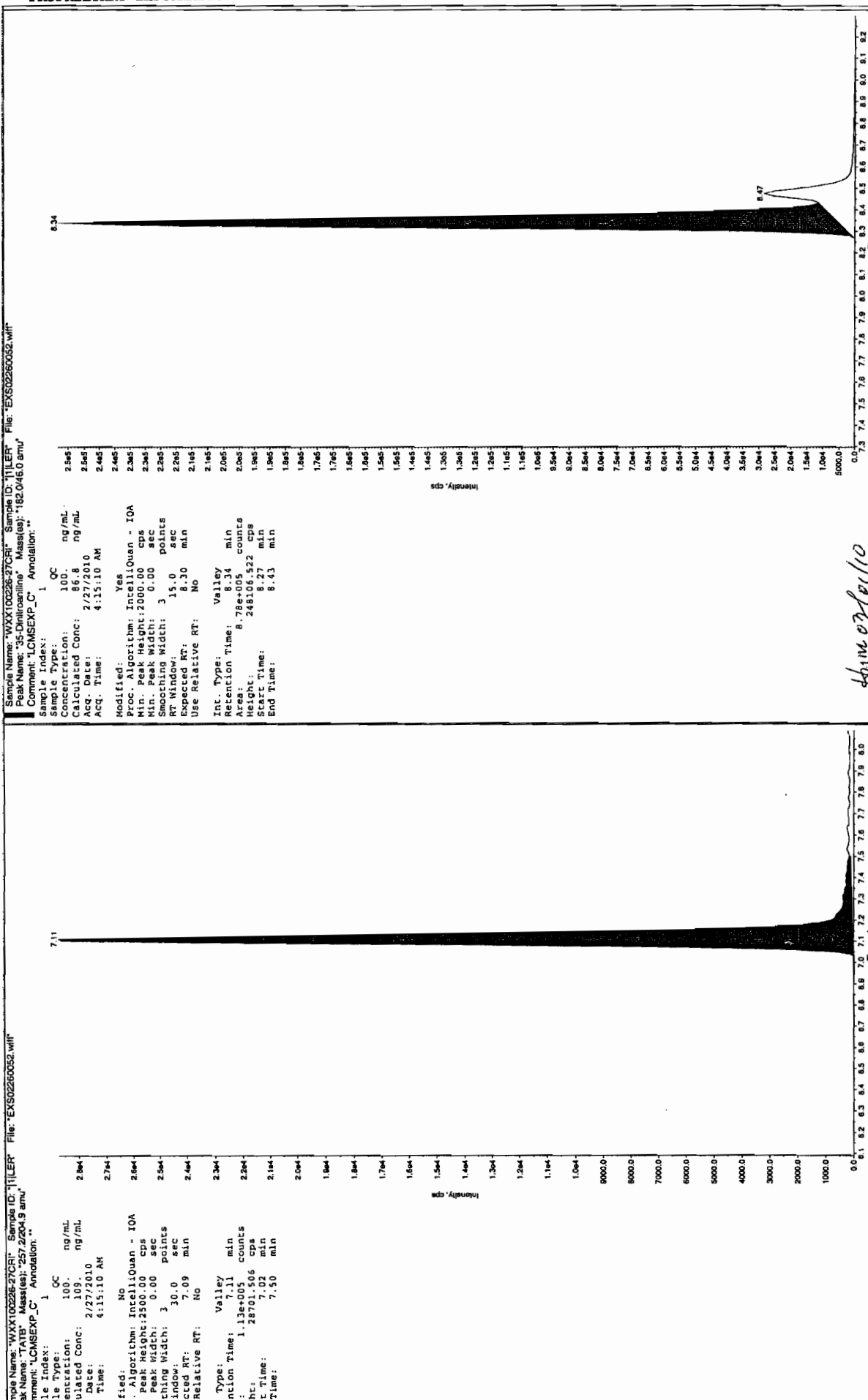
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

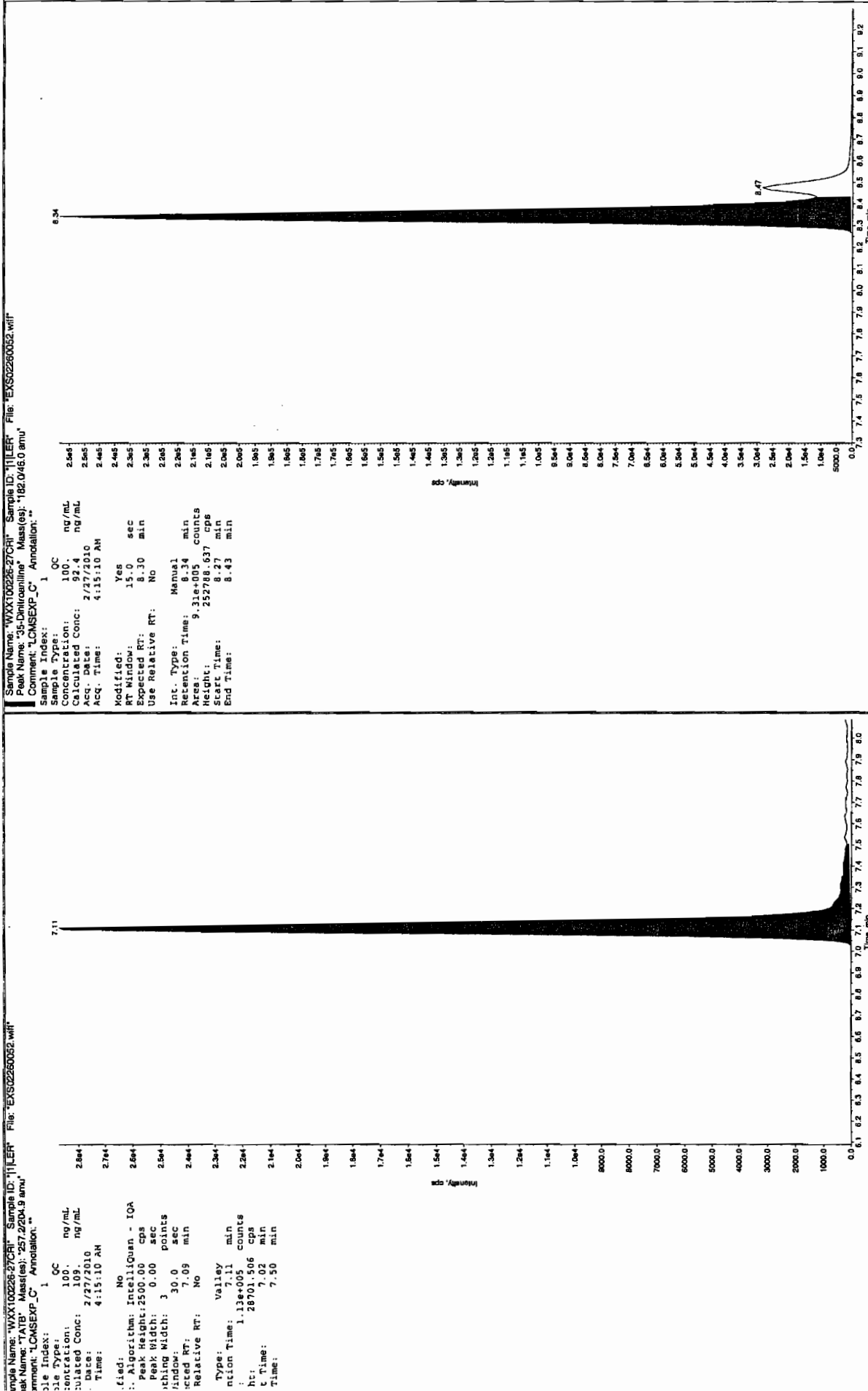
* Value outside of Recovery Limits

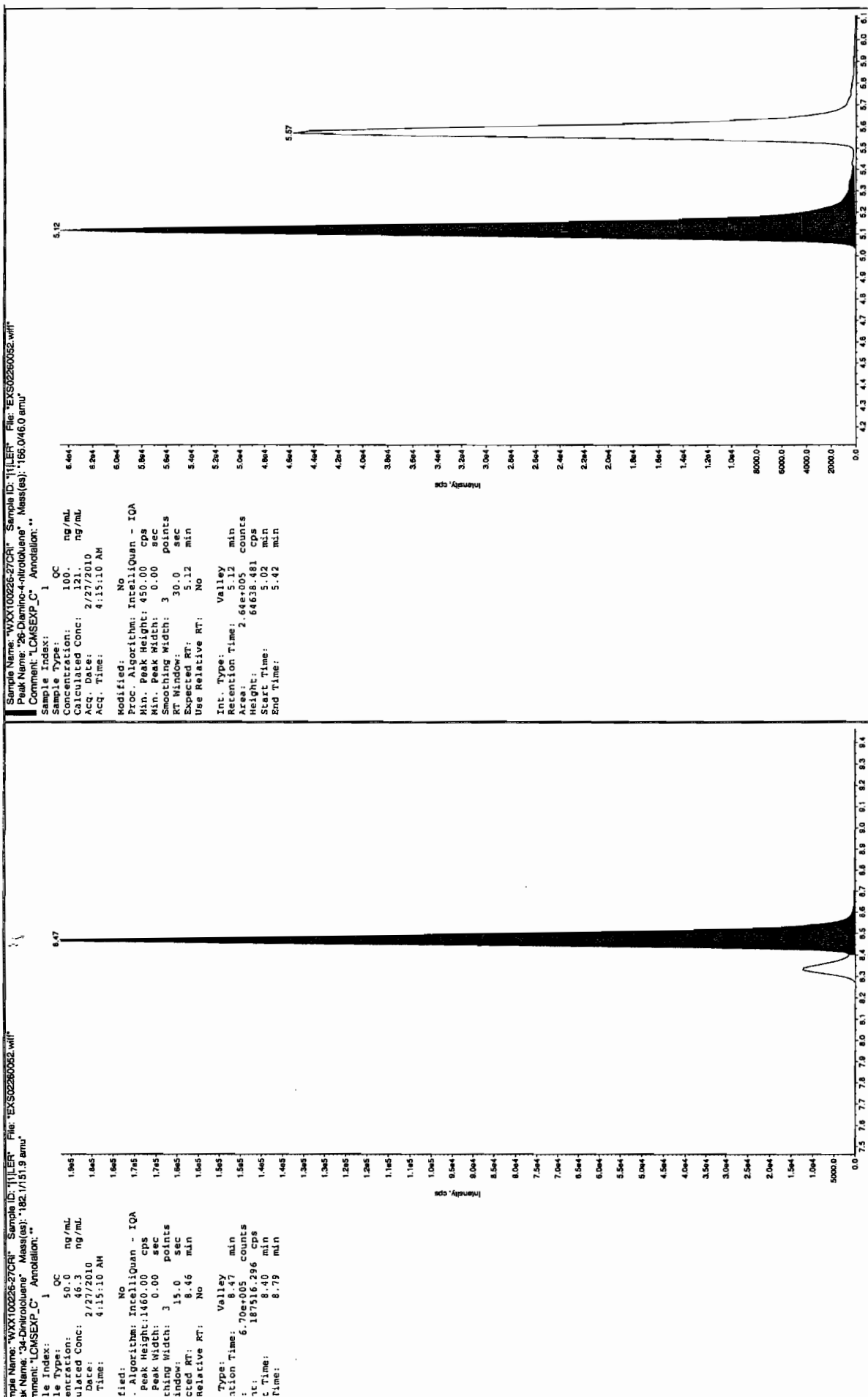
Before Scan 31110

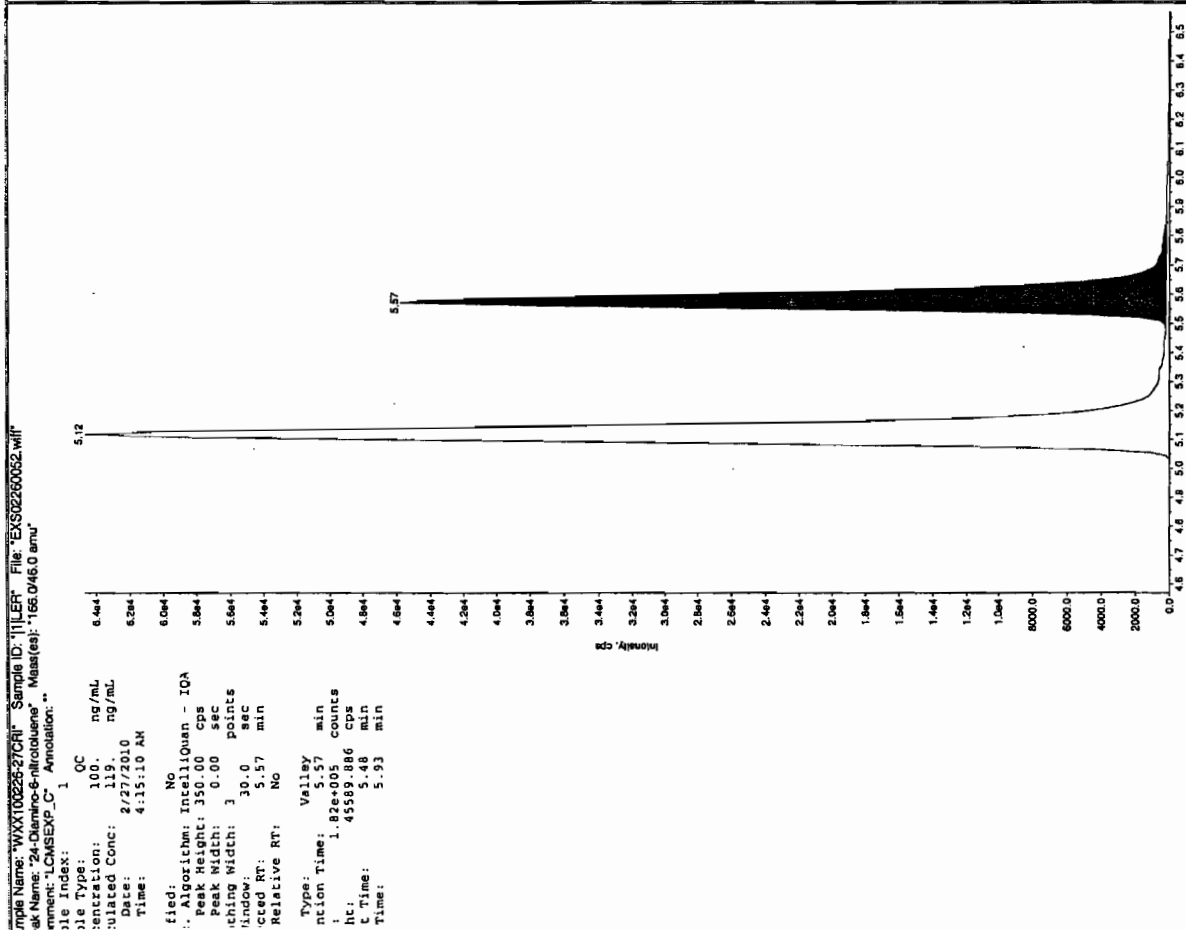
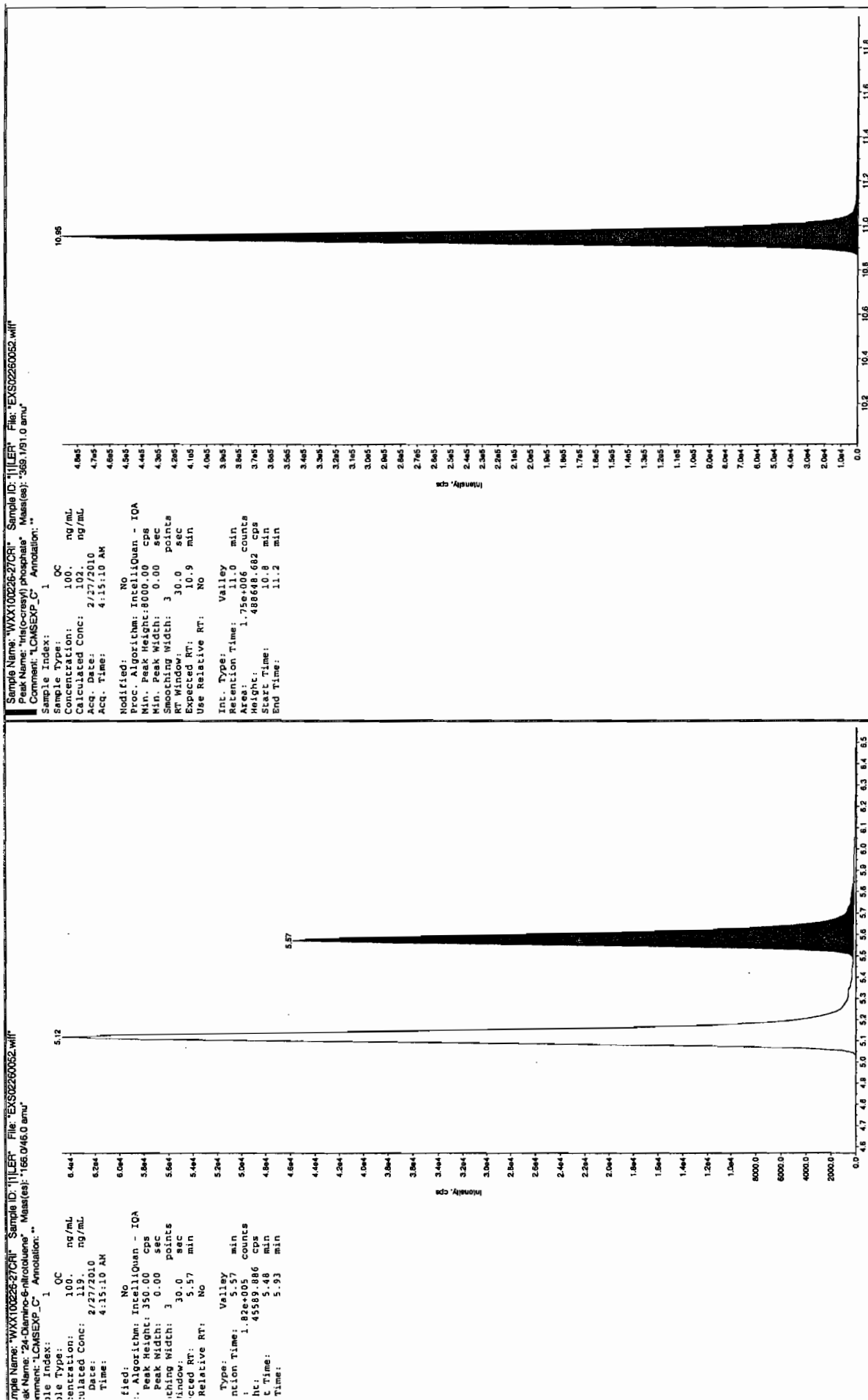


4:15:07 31110

after Jan 31/10







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

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260060.wiff

Analysis Date: 27-FEB-10 06:20

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	571	114	
2,6-Diamino-4-nitrotoluene	500	590	118	
3,4-Dinitrotoluene	250	232	93	
3,5-Dinitroaniline	500	480	96	
TATB	500	542	108	
tris(o-cresyl) phosphate	500	485	97	

Recovery Limits:

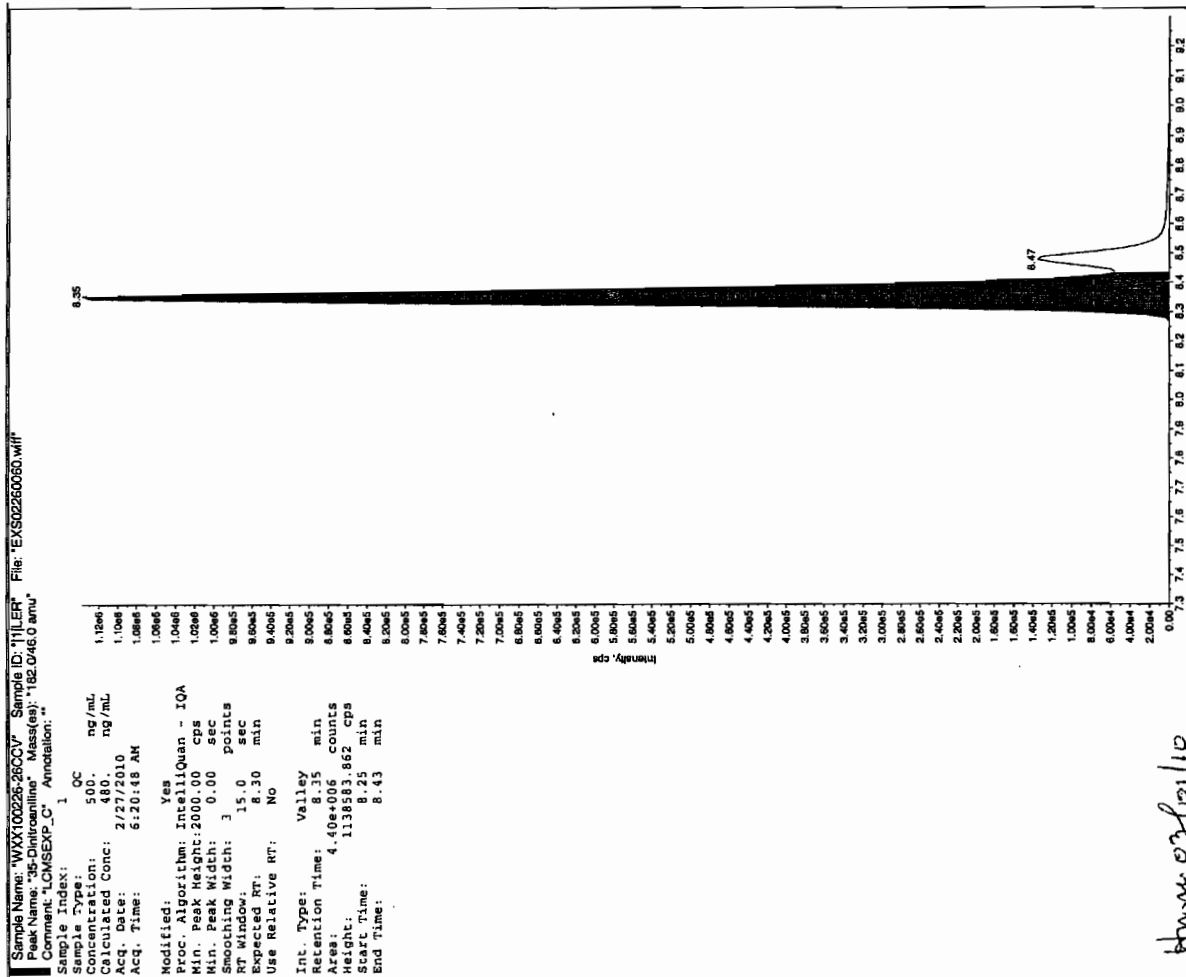
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

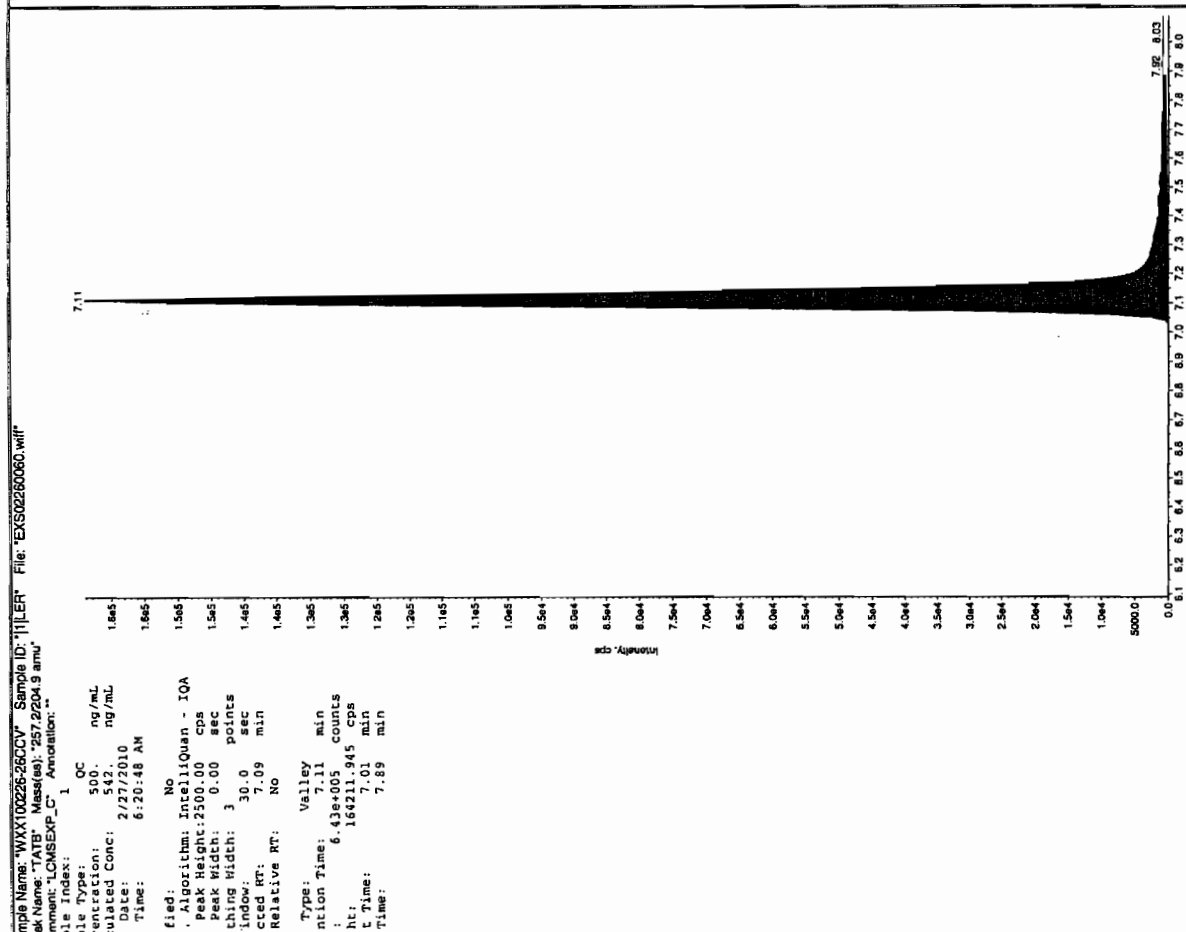
Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Jan 31/10



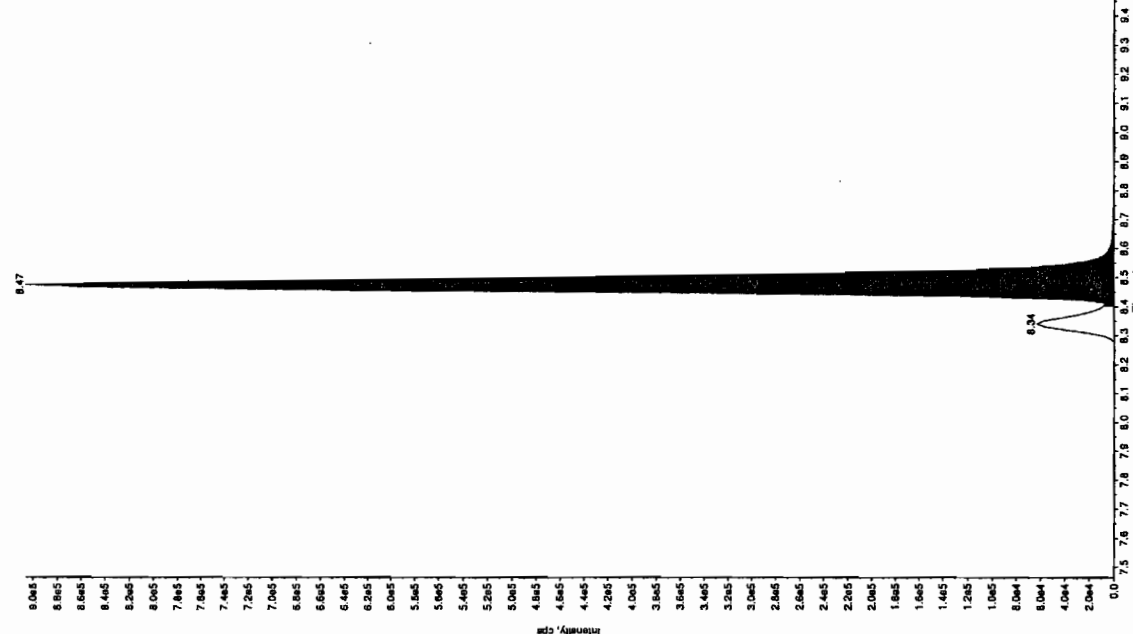
hmm 02/01/10



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

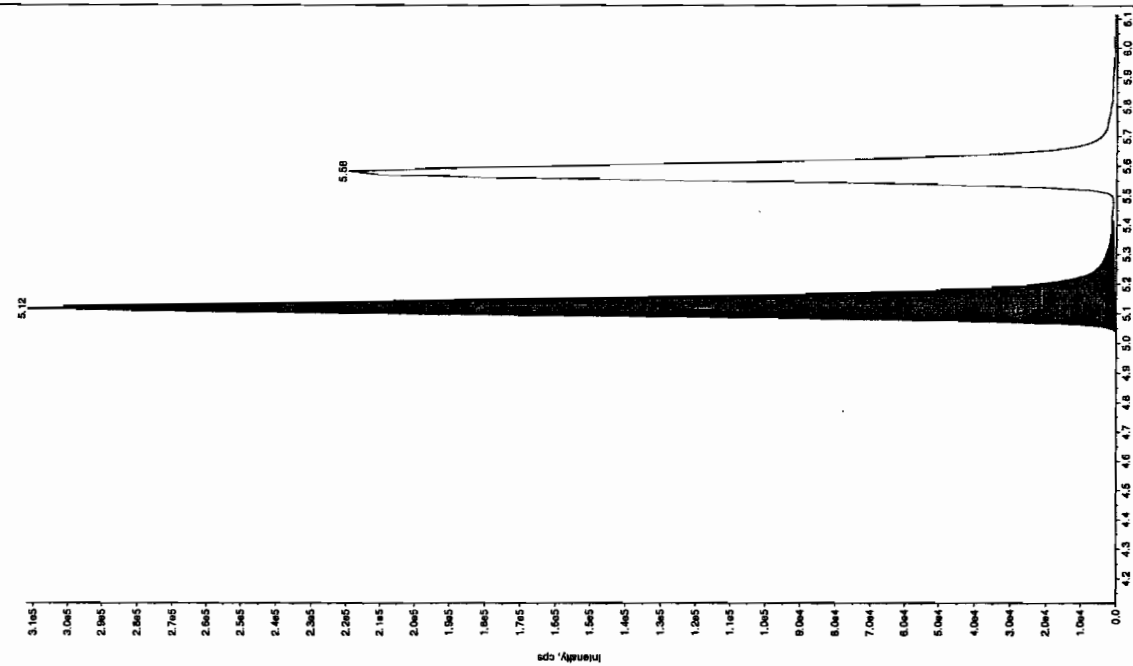
Sample Name: "WXX100226-26CCV" Sample ID: "111ER" File: "EXS02260060.wif"
 Peak Name: "34-Dinitrofluorene" Mass(es): "161.1751.9 amu"
 Comment: "LCMSEXP_C" Annotation: ""

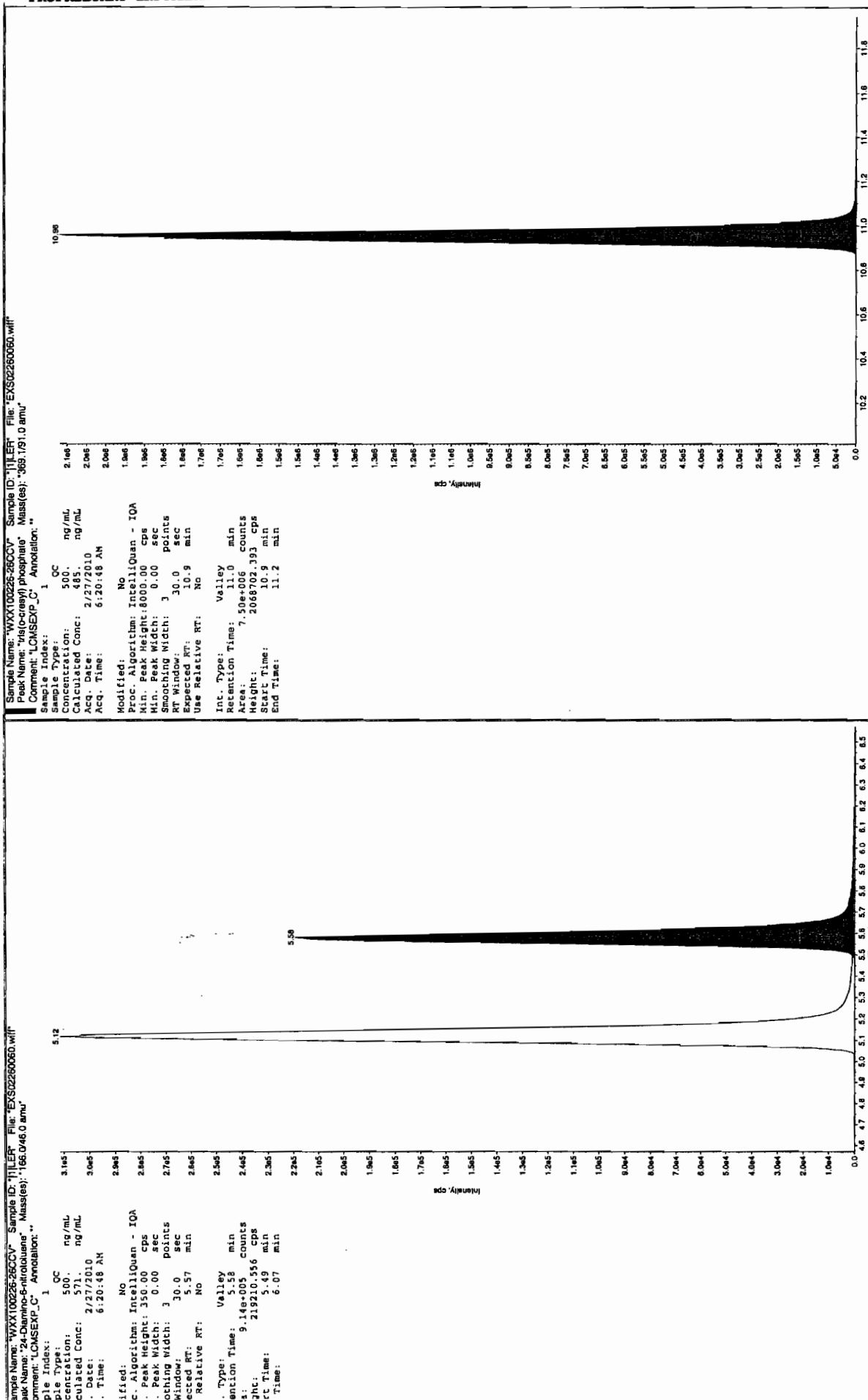
Sample Index: 1
 Sample Type: 1 OC
 Concentration: 250 ng/mL
 Calculated Conc: 232 ng/mL
 Date: 2/27/2010
 Time: 6:20:48 AM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 1460.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 Window: 15.0 sec
 Expected RT: 8.46 min
 Use Relative RT: No
 Type: Valley
 Retention Time: 8.47 min
 Area: 311600 counts
 Height: 905951 cps
 Start Time: 8.40 min
 End Time: 8.54 min



Sample Name: "WXX100226-26CCV" Sample ID: "111ER" File: "EXS02260060.wif"
 Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "166.0463.0 amu"
 Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
 Sample Type: 1 OC
 Concentration: 500 ng/mL
 Calculated Conc: 590 ng/mL
 Date: 2/27/2010
 Time: 6:20:48 AM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 450.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 Window: 30.0 sec
 Expected RT: 5.12 min
 Use Relative RT: No
 Type: Valley
 Retention Time: 5.12 min
 Area: 311600 counts
 Height: 311600 cps
 Start Time: 5.02 min
 End Time: 5.42 min





L SOP GL-OA-E-056, Method 8321A-Modified LCM SMS#4

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260062.wiff

Analysis Date: 27-FEB-10 06:52

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	115	115	
2,6-Diamino-4-nitrotoluene	100	115	115	
3,4-Dinitrotoluene	50	45.9	92	
3,5-Dinitroaniline	100	93	93	
TATB	100	117	117	
tris(o-cresyl) phosphate	100	96.2	96	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

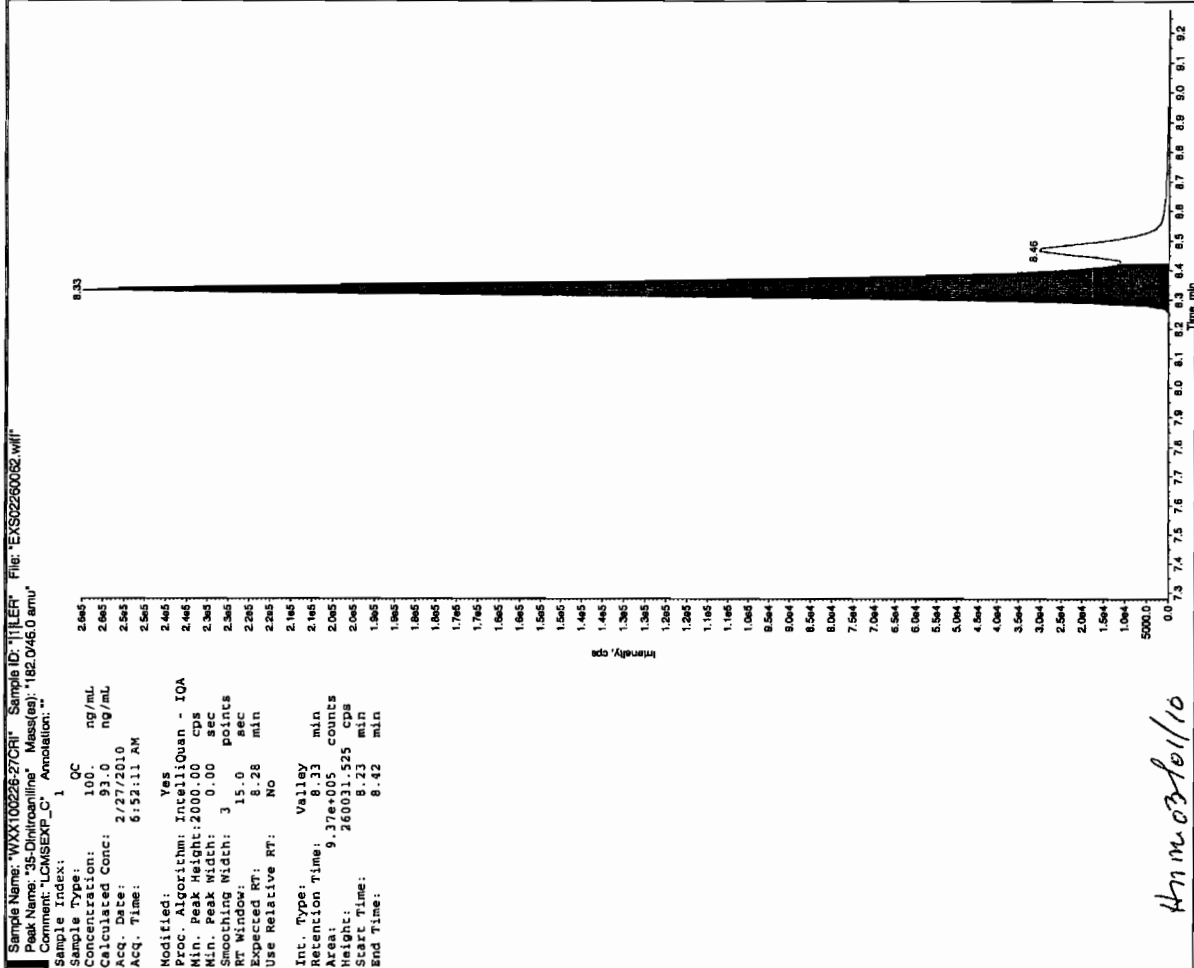
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

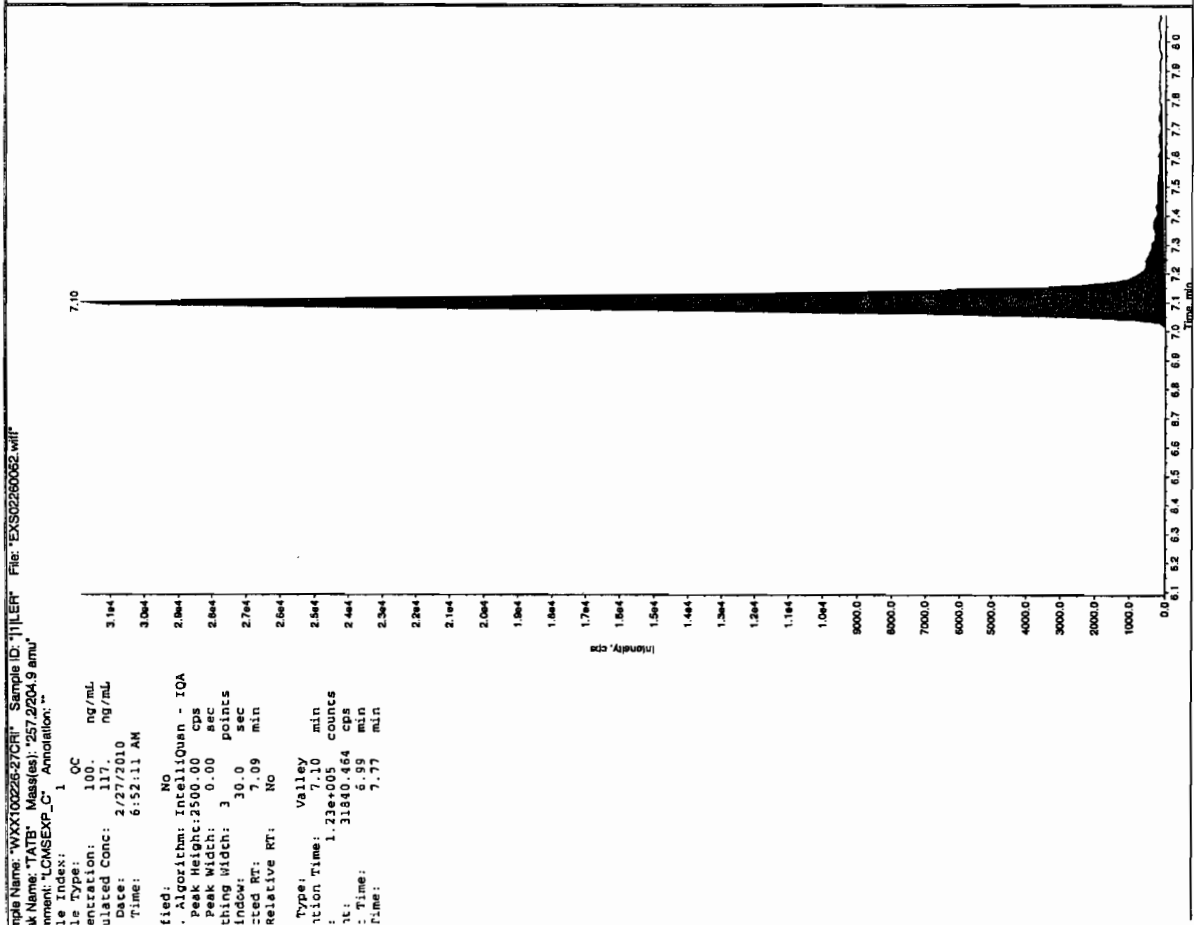
Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Run 31110



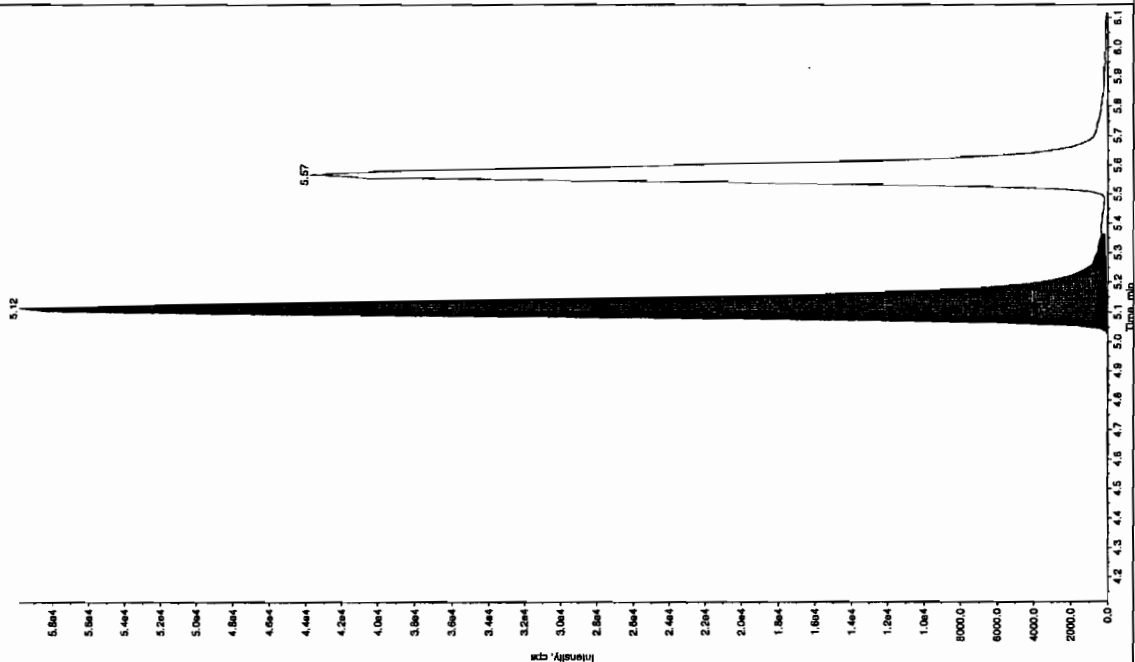
Run 0310110



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

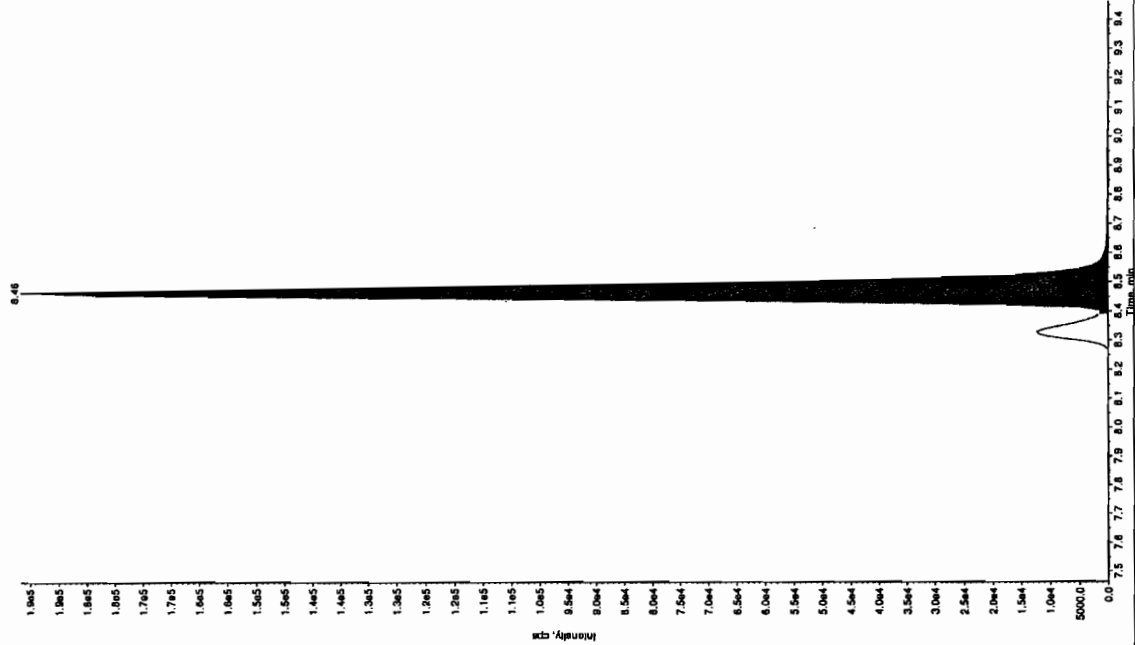
Sample Name: "WXX100226-27C1" Sample ID: "111ER" File: "EXS02260082.wif"
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/181.9 amu"
 Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
 Concentration: 100 ng/mL
 Calculated Conc: 115 ng/mL
 Acq. Date: 2/27/2010
 Acq. Time: 6:52:11 AM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 450.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 5.12 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 5.12 min
 Area: 2.52e+005 counts
 Height: 59789.192 cps
 Start Time: 5.00 min
 End Time: 5.36 min

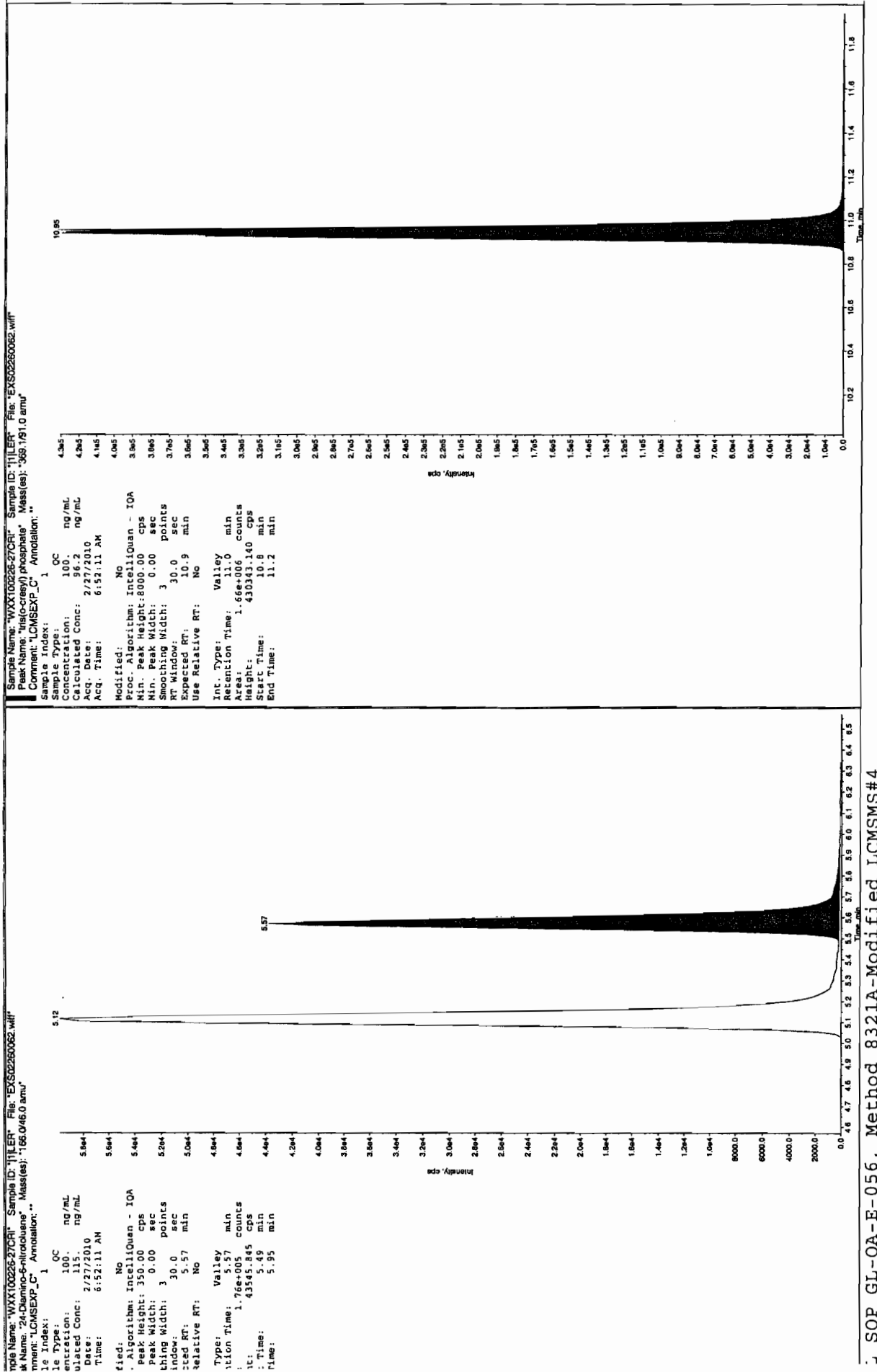


Sample Name: "WXX100226-27C1" Sample ID: "111ER" File: "EXS02260082.wif"
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/181.9 amu"
 Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
 Concentration: 50 ng/mL
 Calculated Conc: 45.9 ng/mL
 Acq. Date: 2/27/2010
 Acq. Time: 6:52:11 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: 8.46 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 8.46 min
 Area: 6.63e+005 counts
 Height: 13173.464 cps
 Start Time: 8.39 min
 End Time: 8.51 min



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



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

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260073.wiff

Analysis Date: 27-FEB-10 09:44

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	546	109	
2,6-Diamino-4-nitrotoluene	500	540	108	
3,4-Dinitrotoluene	250	227	91	
3,5-Dinitroaniline	500	497	99	
TATB	500	538	108	
tris(o-cresyl) phosphate	500	493	99	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

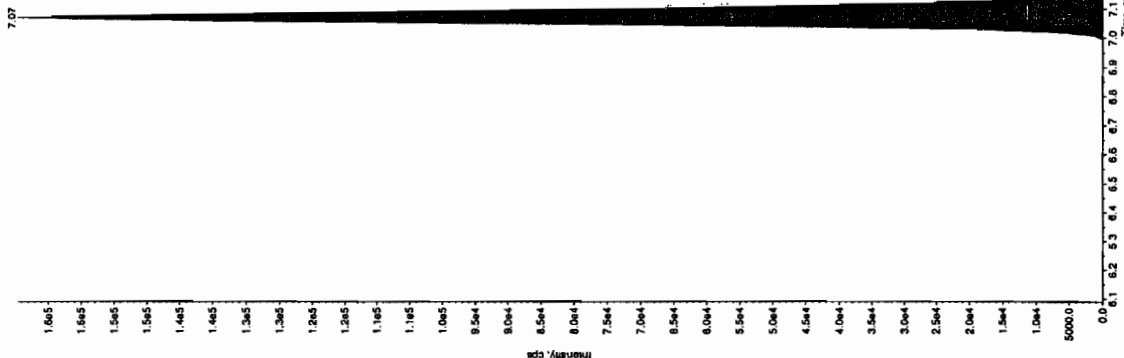
kan 3/1/10

Sample Name: "WXX100226-26CCV" Sample ID: "111ER" File: "EXS02260073.wif"
 Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
 Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
 Sample Type: QC
 Concentration: 500. ng/mL
 Calculated Conc: 2/27/2010 9:44:55 AM
 Acq. Date: 2/27/2010 9:44:55 AM
 Acq. Time: 9:44:55 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: 7.09 min
 Use Relative RT: No

Int. Type: Valley
 Retention Time: 7.07 min
 Peak Height: 6.38e+05 counts
 Peak Width: 16460.864 cps
 Start Time: 6.99 min
 End Time: 7.66 min

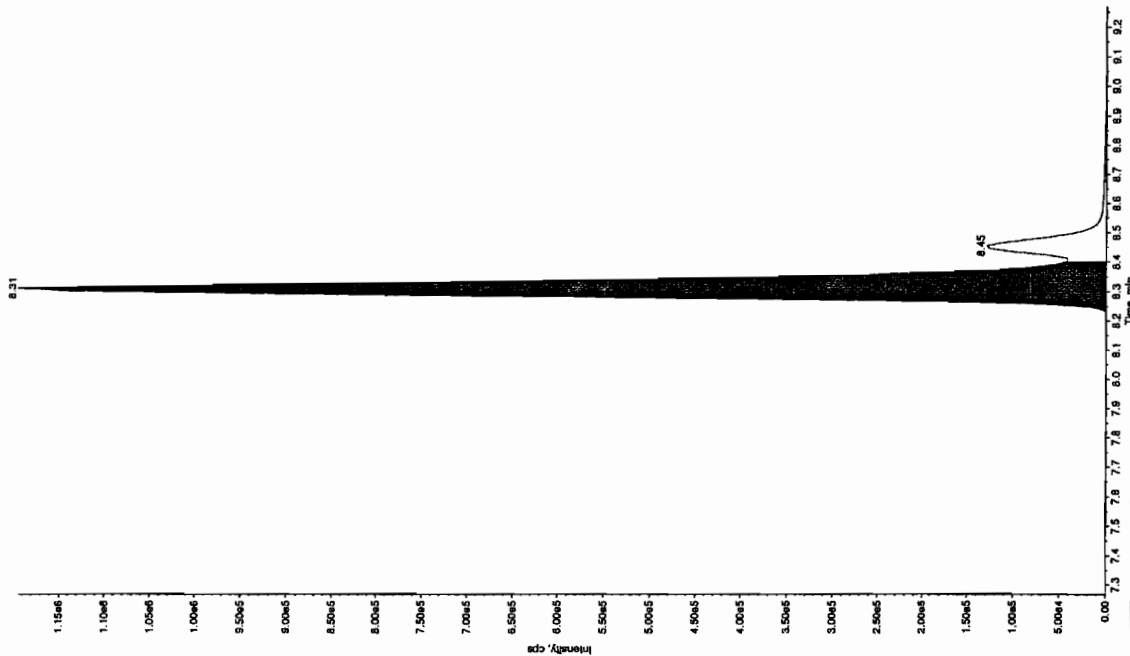


Sample Name: "WXX100226-26CCV" Sample ID: "111ER" File: "EXS02260073.wif"
 Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
 Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
 Sample Type: QC
 Concentration: 500. ng/mL
 Calculated Conc: 2/27/2010 9:44:55 AM
 Acq. Date: 2/27/2010 9:44:55 AM
 Acq. Time: 9:44:55 AM

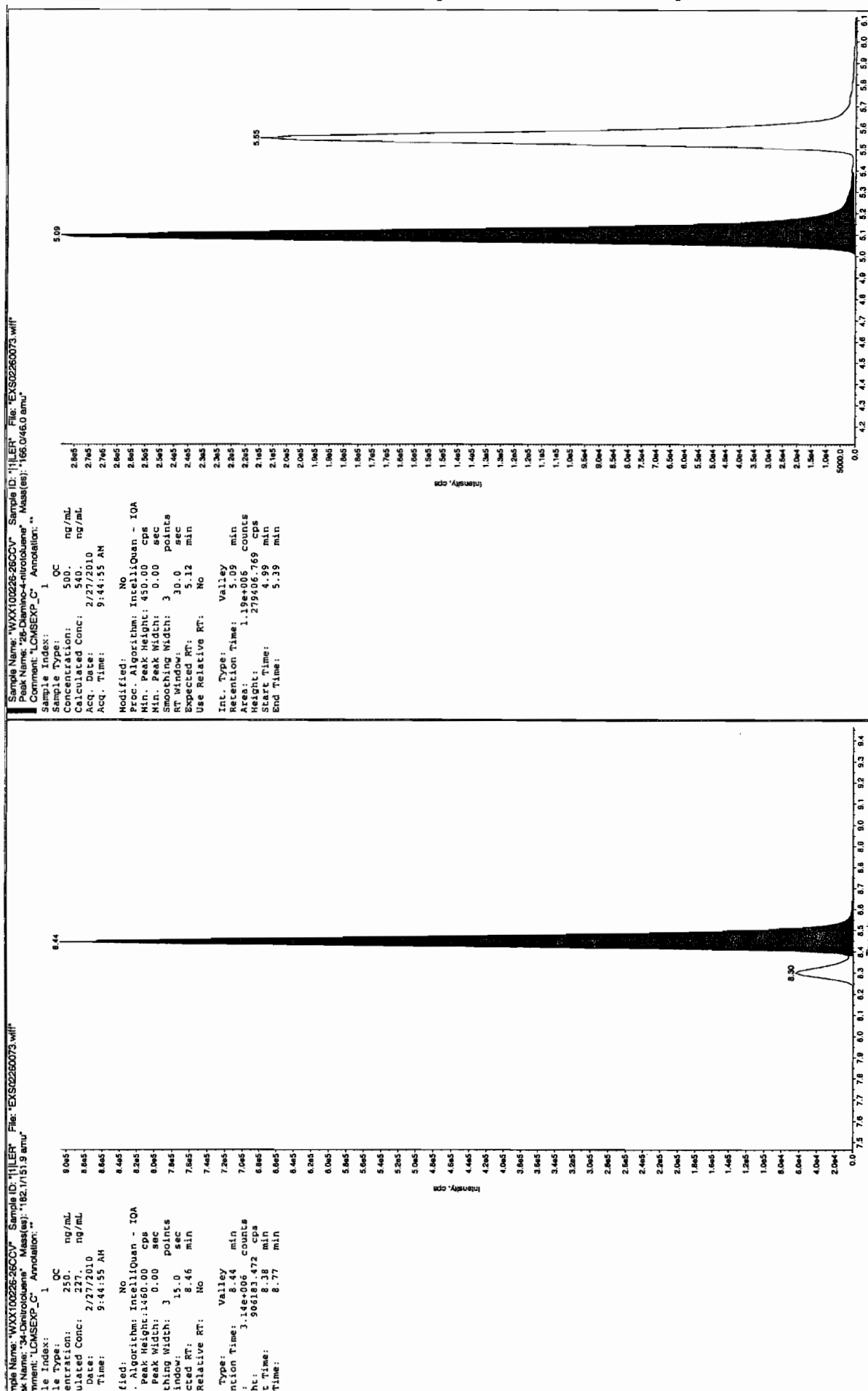
Modified: Yes
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 2000.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 15.0 sec
 Expected RT: 8.27 min
 Use Relative RT: No

Int. Type: Valley
 Retention Time: 8.21 min
 Peak Height: 4.54e+06 counts
 Peak Width: 119423.6 cps
 Start Time: 8.21 min
 End Time: 8.40 min

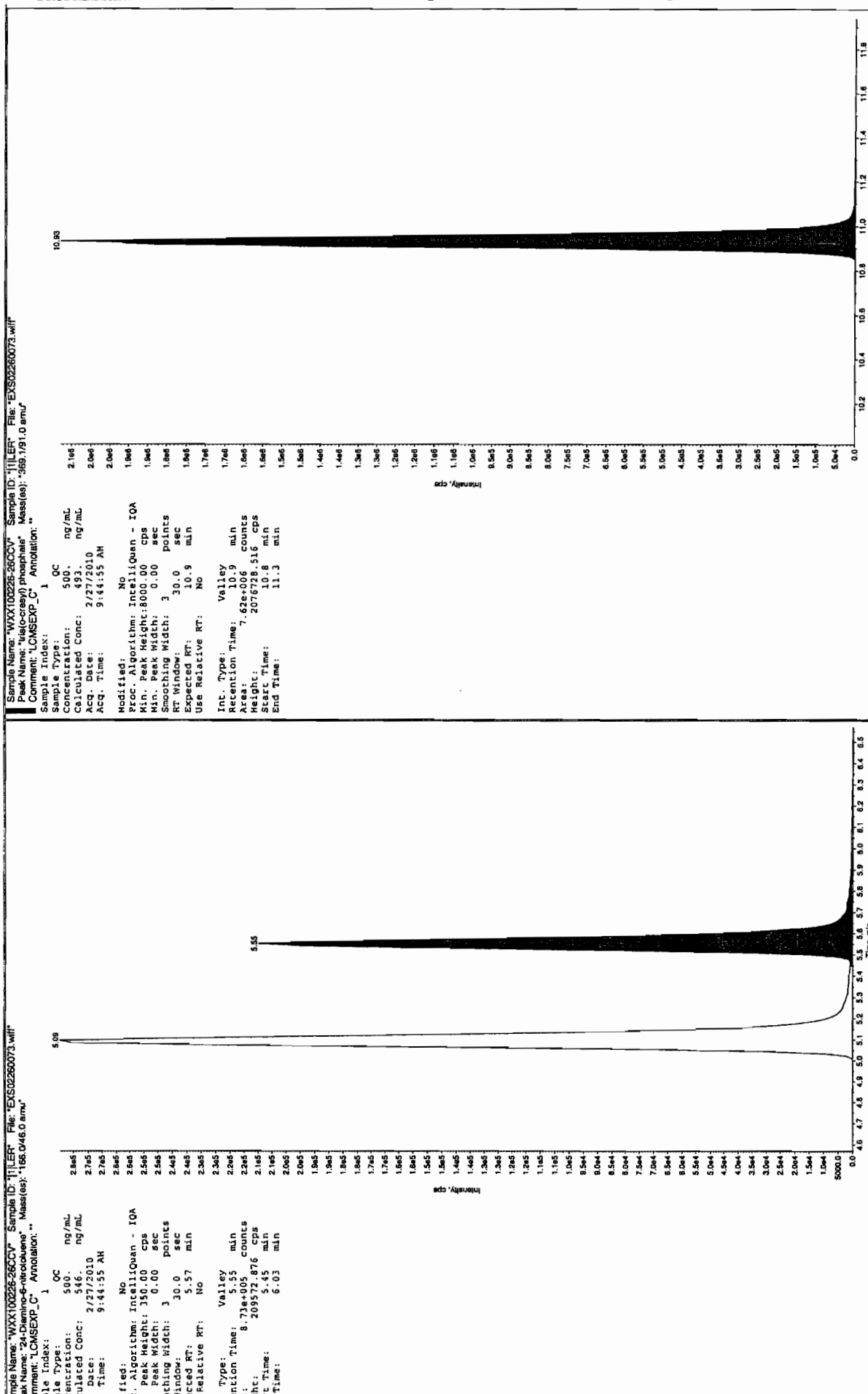


kan 3/1/10

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



IL SOP GL-OA-E-056, Method 8321A-Modified LCMSEMS#4



7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260075.wiff

Analysis Date: 27-FEB-10 10:16

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	115	115	
2,6-Diamino-4-nitrotoluene	100	117	117	
3,4-Dinitrotoluene	50	46.1	92	
3,5-Dinitroaniline	100	96.7	97	
TATB	100	109	109	
tris(o-cresyl) phosphate	100	103	103	

Recovery Limits:

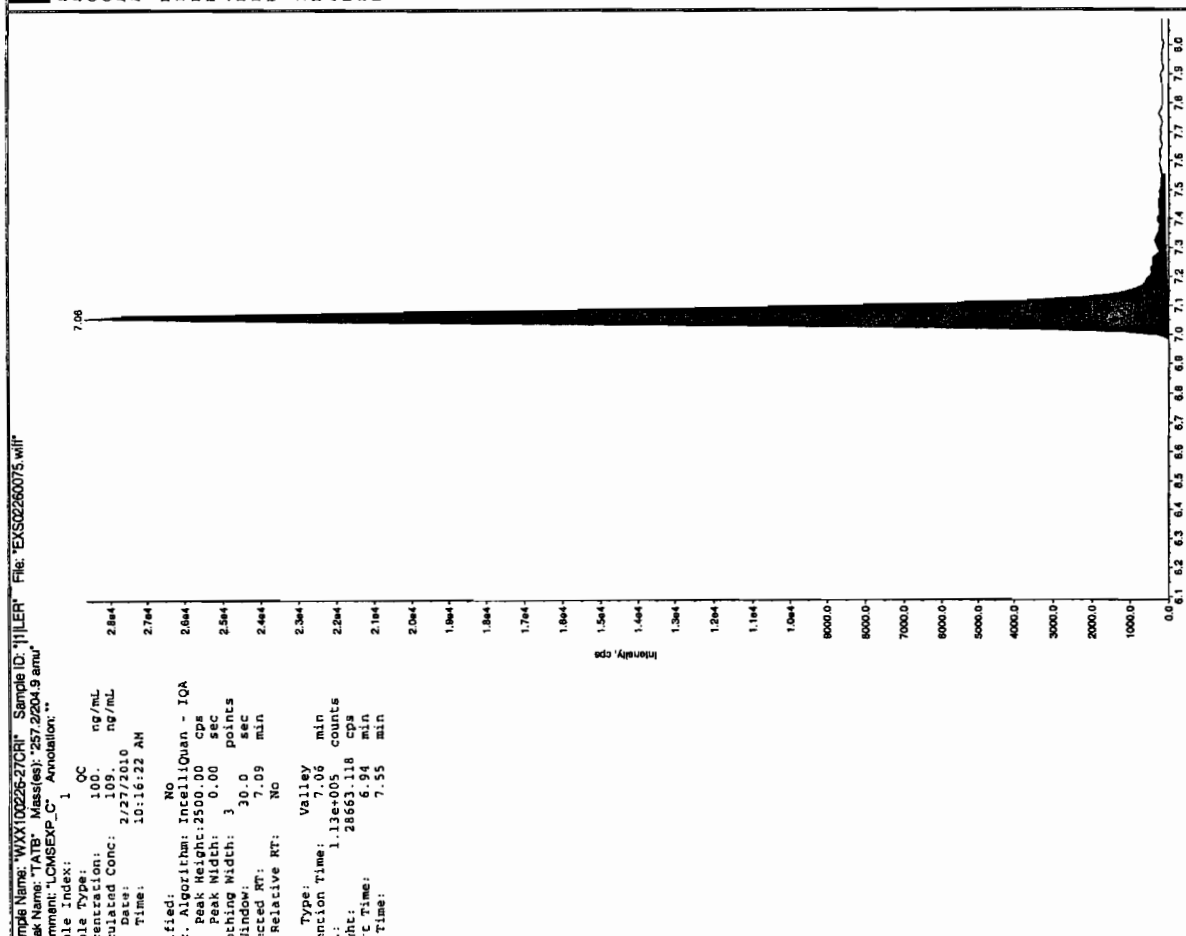
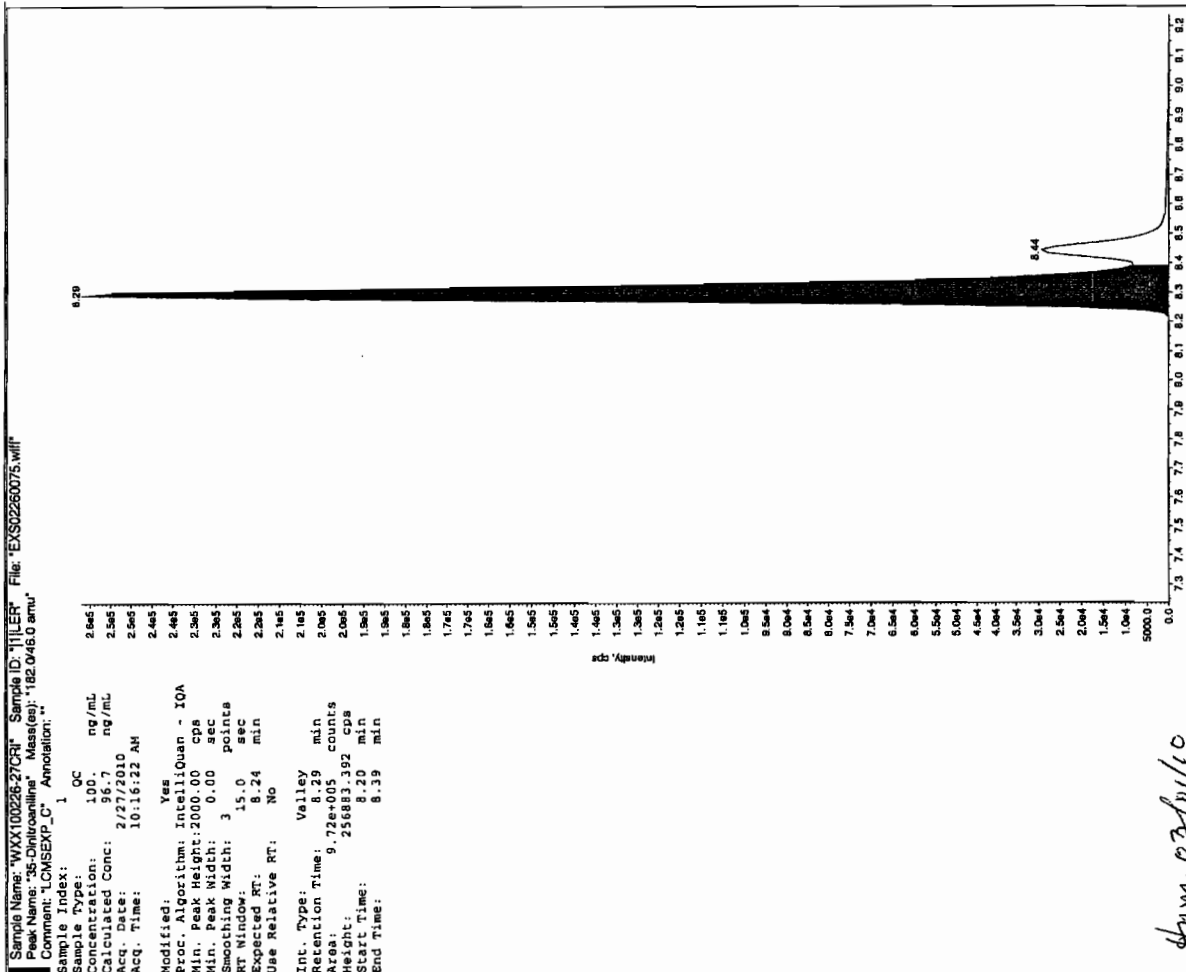
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

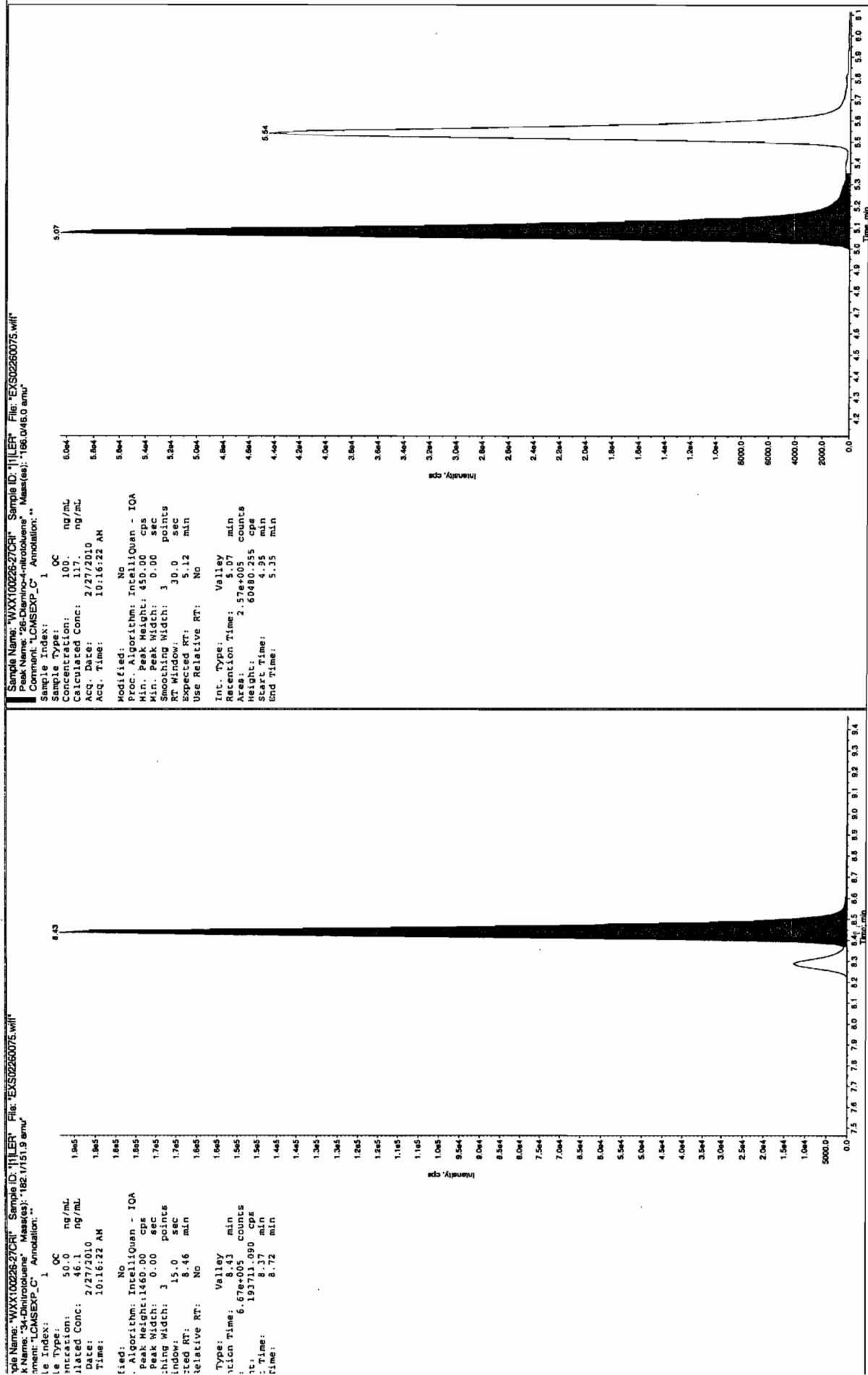
Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

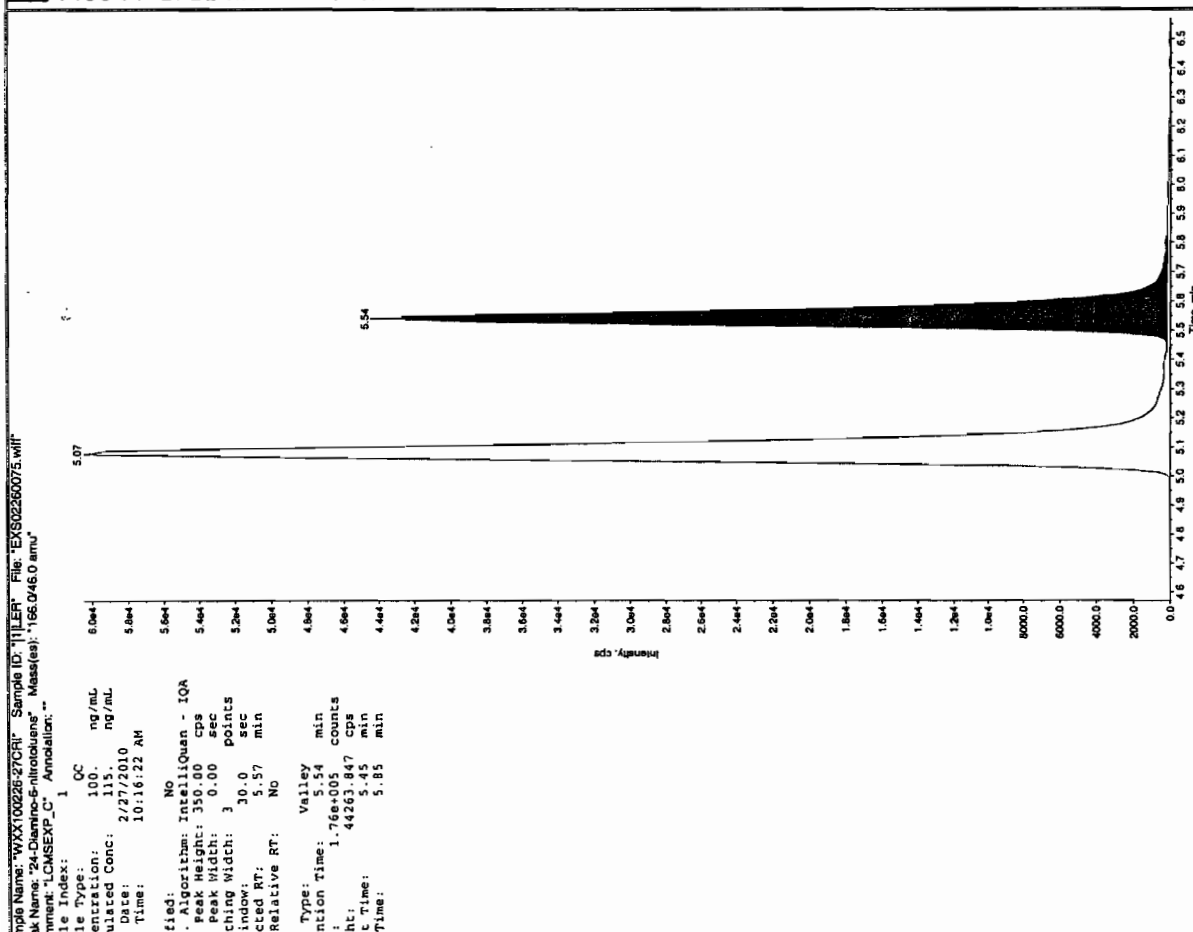
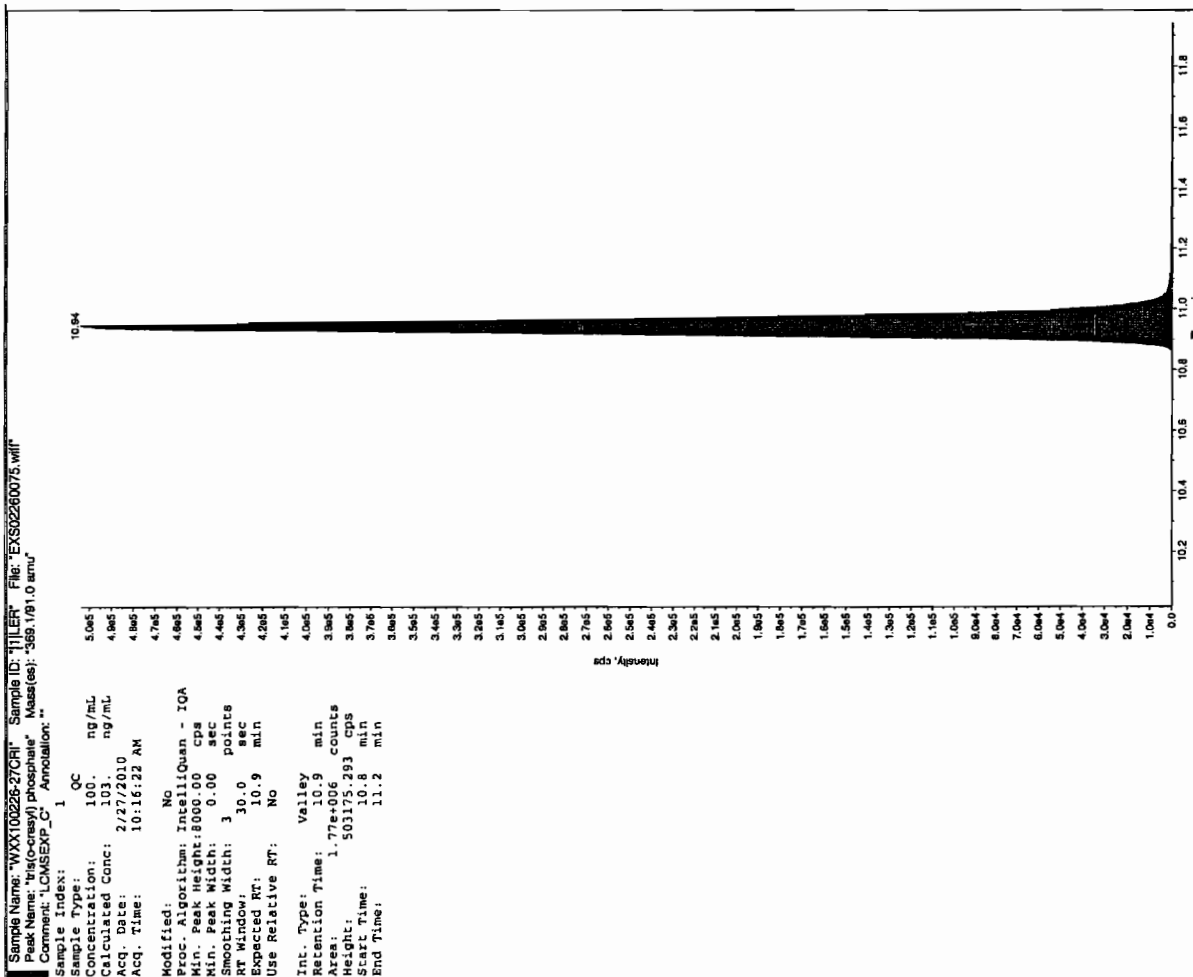
* Value outside of Recovery Limits

Run 31/1/10





IL SOP GL-OA-E-056, Method 8321A-Modified LCM SMS#4



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

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260086.wiff

Analysis Date: 27-FEB-10 13:09

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	445	89	
2,6-Diamino-4-nitrotoluene	500	442	89	
3,4-Dinitrotoluene	250	218	87	
3,5-Dinitroaniline	500	452	90	
TATB	500	487	97	
tris(o-cresyl) phosphate	500	491	98	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Before Jan 31/10

Sample Name: "WXX100226-26CCV" Sample ID: "1111ER" File: "EX502260086.wif"

Peak Name: "TATB" Mass(es): "257.2024.8 amu"

Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1

Sample Type: QC

Concentration: 500. ng/mL

Calculated Conc: 487. ng/mL

Acq. Date: 2/27/2010

Acq. Time: 1:09:06 PM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 2500.00 cps

Min. Peak Width: 3.00 sec

Min. Peak Area: 30.0 points

RT Window: 7.09 min

Expected RT: No

Use Relative RT: No

Int. Type: Valley

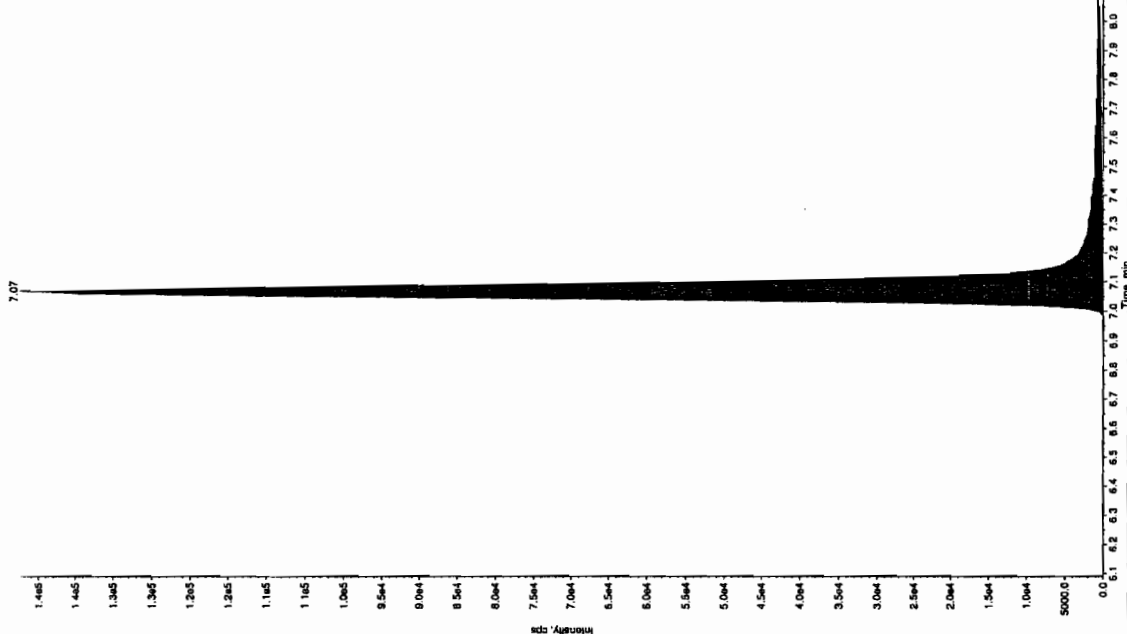
Retention Time: 7.07 min

Area: 5.75e+005 counts

Height: 142410.309 cps

Start Time: 6.97 min

End Time: 8.05 min



Sample Name: "WXX100226-26CCV" Sample ID: "1111ER" File: "EX502260086.wif"

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

Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1

Sample Type: QC

Concentration: 500. ng/mL

Calculated Conc: 432. ng/mL

Acq. Date: 2/27/2010

Acq. Time: 1:09:06 PM

Modified: Yes

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 2000.00 cps

Min. Peak Width: 3.00 sec

Min. Peak Area: 15.0 points

RT Window: 8.26 min

Expected RT: No

Use Relative RT: No

Int. Type: Valley

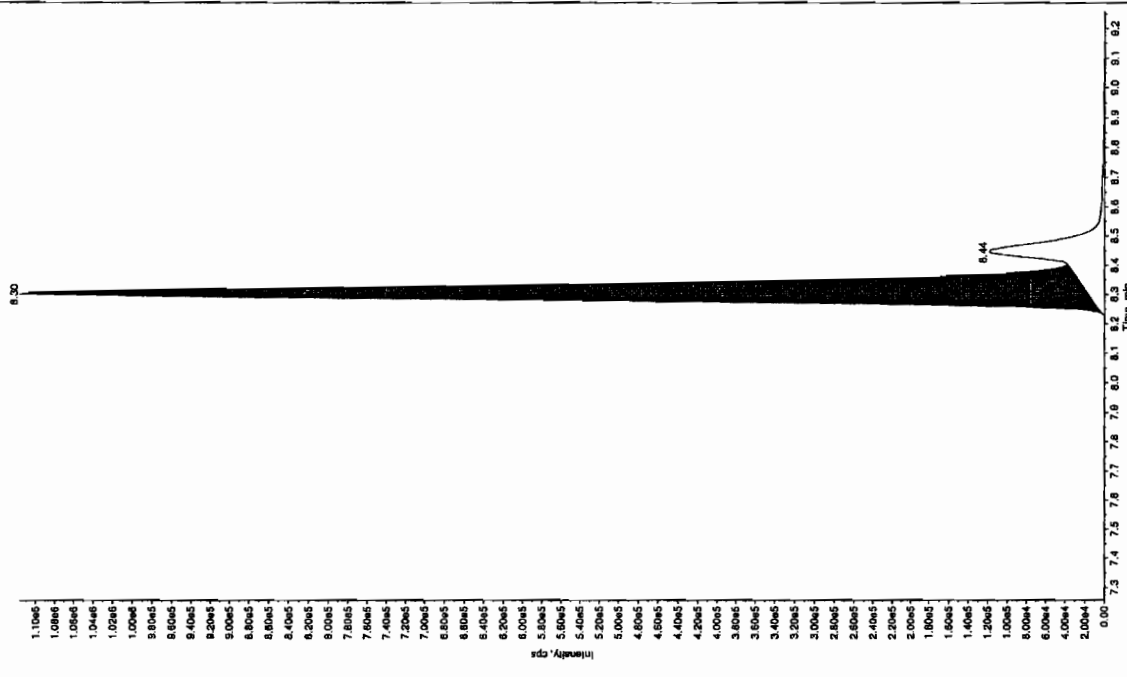
Retention Time: 8.30 min

Area: 3.99e+006 counts

Height: 1101794.312 cps

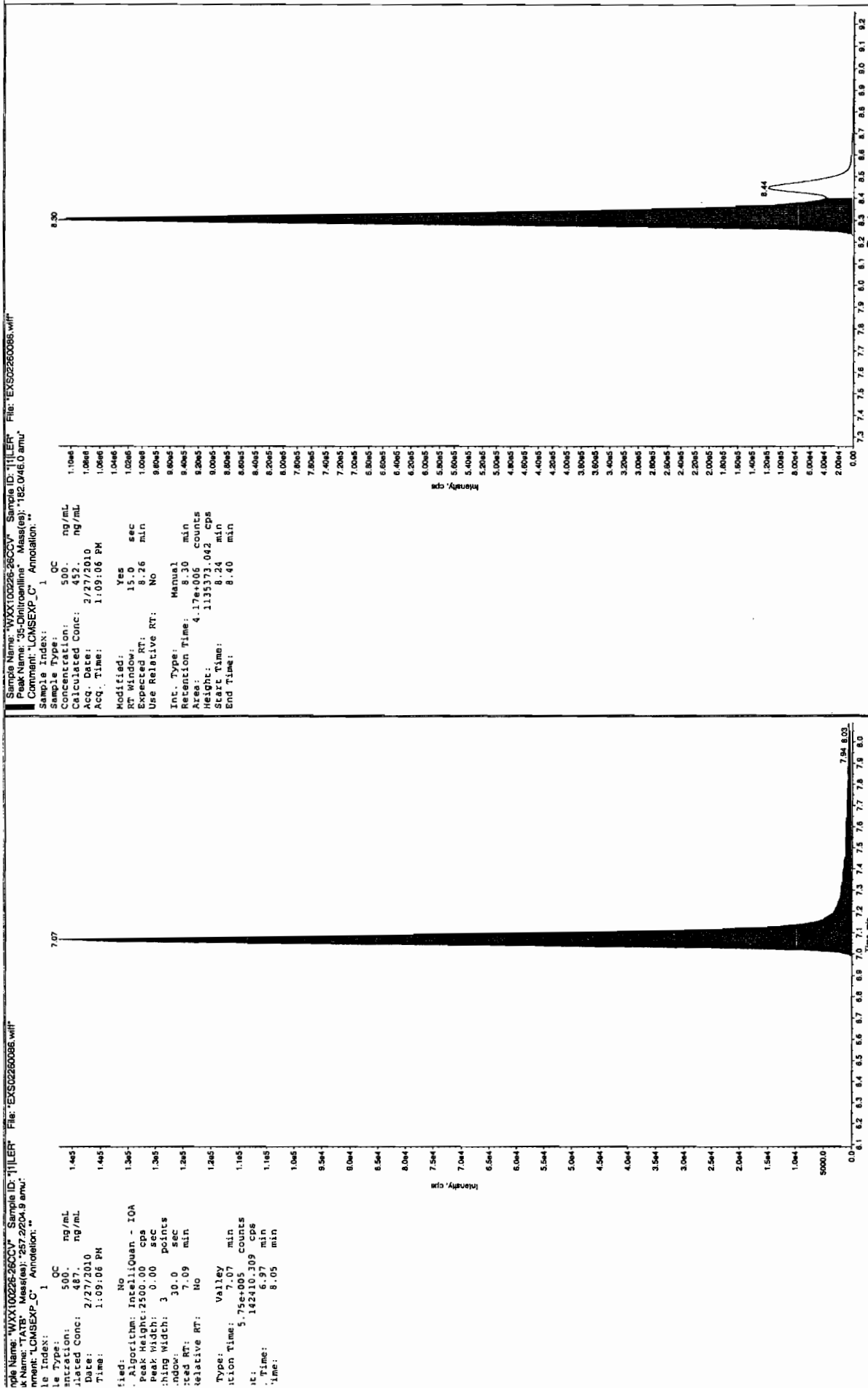
Start Time: 8.24 min

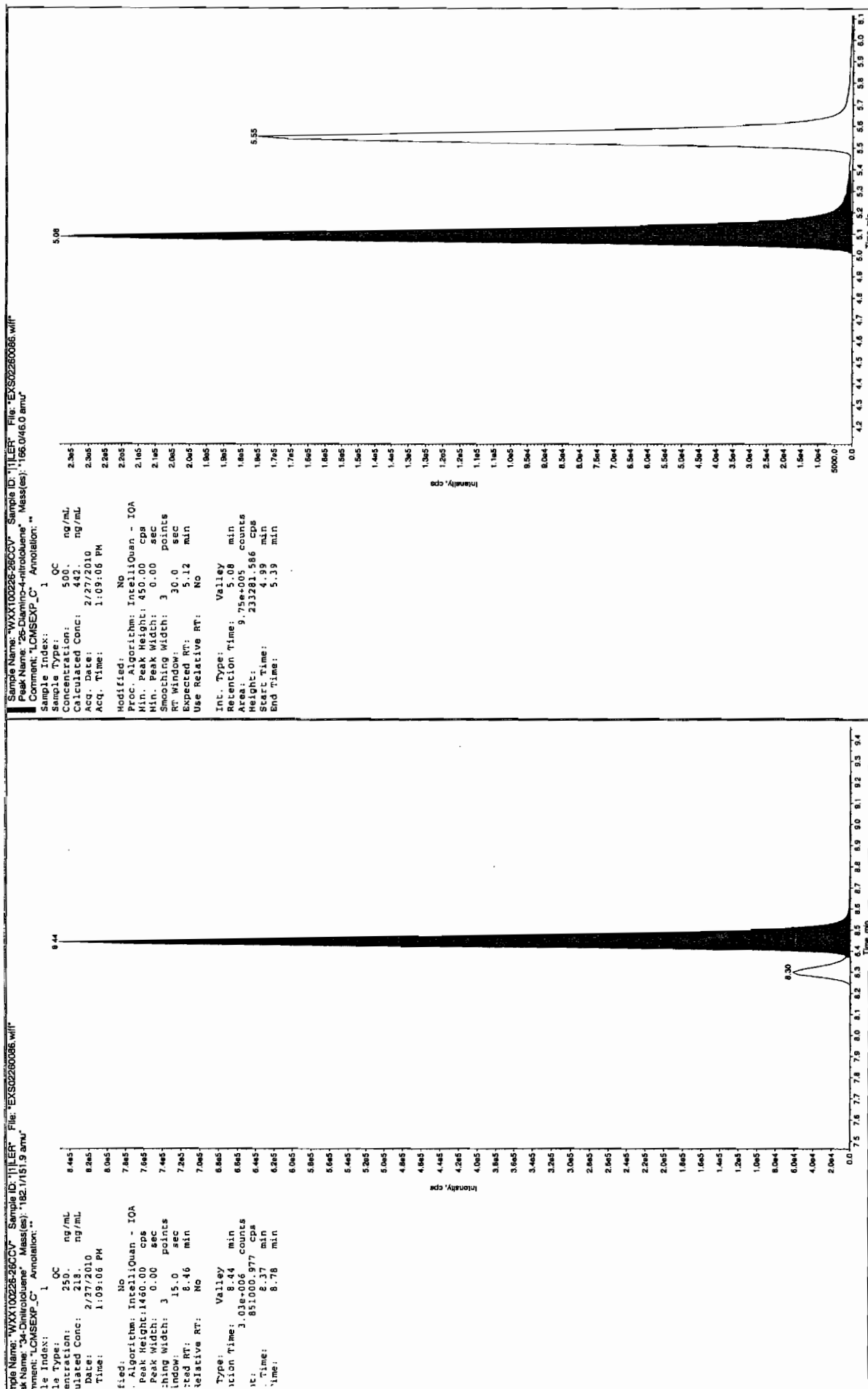
End Time: 8.40 min



After Jan 31/10

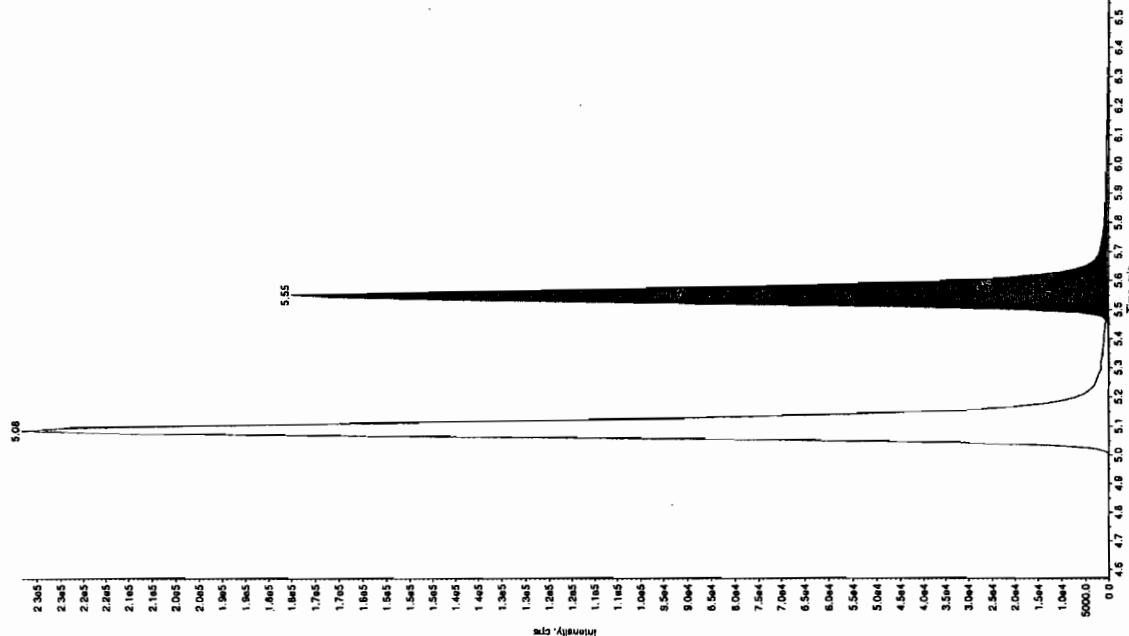
after Jan 31/10





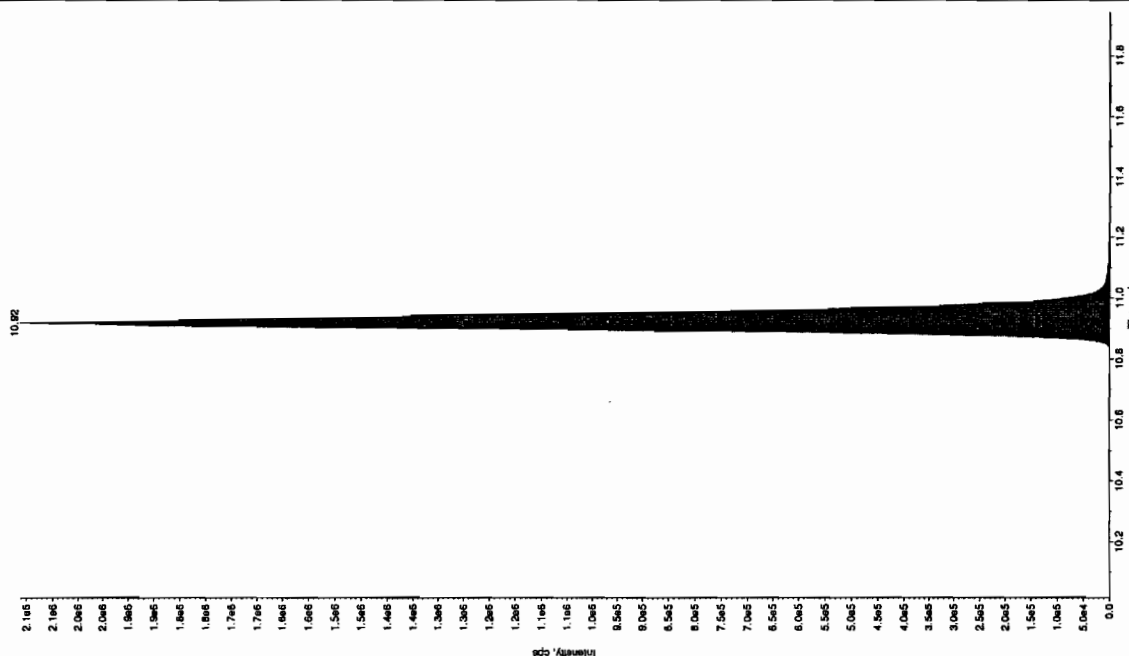
File Name: "WXX10026-26CCV" Sample ID: "11LER" File: "EXS0260086.wif"
 Peak Name: "24-Diamino-6-nitrocoucine" Mass(es): "166.046.0 amu"
 Comment: "LCMSXP_C" Annotation: ""

Sample Index: 1
 Sample Type: 1
 Concentration: 500 ng/mL
 Calculated Conc: 491 ng/mL
 Date: 2/27/2010
 Time: 1:09:06 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: 5.57 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 5.55 min
 Peak Height: 7.10e+005 counts
 Peak Area: 17484.727 cps
 Start Time: 5.46 min
 End Time: 6.01 min



Sample Name: "WXX10026-26CCV" Sample ID: "11LER" File: "EXS0260086.wif"
 Peak Name: "1-(5-(2-cyeyl)prospinal" Mass(es): "389.191.0 amu"
 Comment: "LCMSXP_C" Annotation: ""

Sample Index: 1
 Sample Type: 1
 Concentration: 500 ng/mL
 Calculated Conc: 491 ng/mL
 Date: 2/27/2010
 Time: 1:09:06 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
 Peak Height: 7.59e+006 counts
 Peak Area: 2110954.346 cps
 Start Time: 10.8 min
 End Time: 11.2 min



7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260088.wiff

Analysis Date: 27-FEB-10 13:40

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	50	43.9	88	
3,5-Dinitroaniline	100	89.2	89	
TATB	100	104	104	
tris(o-cresyl) phosphate	100	101	101	
2,4-Diamino-6-nitrotoluene	100	98.3	98	
2,6-Diamino-4-nitrotoluene	100	96.3	96	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Jan 31/10

File: "EXS02260088.wif"

Sample Name: "WXX100226-27C1" Sample ID: "11LER"

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

Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1

Sample Type: GC

Concentration: 100. ng/mL

Calculated Conc: 104. ng/mL

Acq. Date: 2/27/2010

Acq. Time: 1:40:30 PM

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: 7.09 min

Use Relative RT: No

Int. Type: Valley

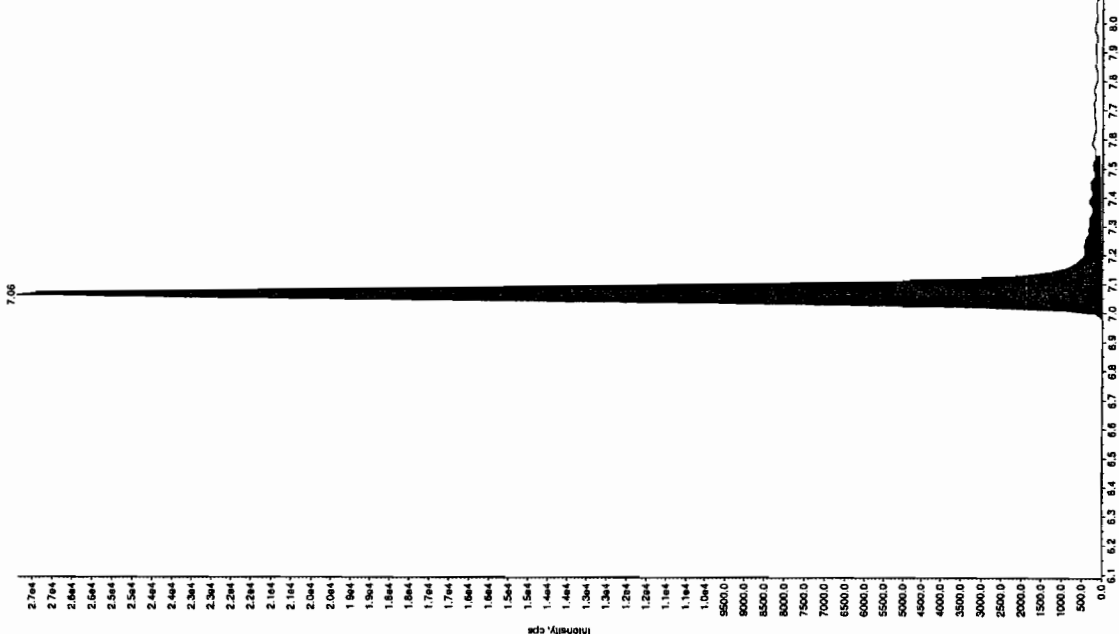
Retention Time: 7.06 min

Area: 1.07e+005 counts

Height: 27181.224 cps

Start Time: 6.96 min

End Time: 7.54 min



File: "EXS02260088.wif"

Sample Name: "WXX100226-27C1" Sample ID: "11LER"

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

Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1

Sample Type: GC

Concentration: 100. ng/mL

Calculated Conc: 89.2 ng/mL

Acq. Date: 2/27/2010

Acq. Time: 1:40:30 PM

Modified: Yes

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: 8.26 min

Use Relative RT: No

Int. Type: Valley

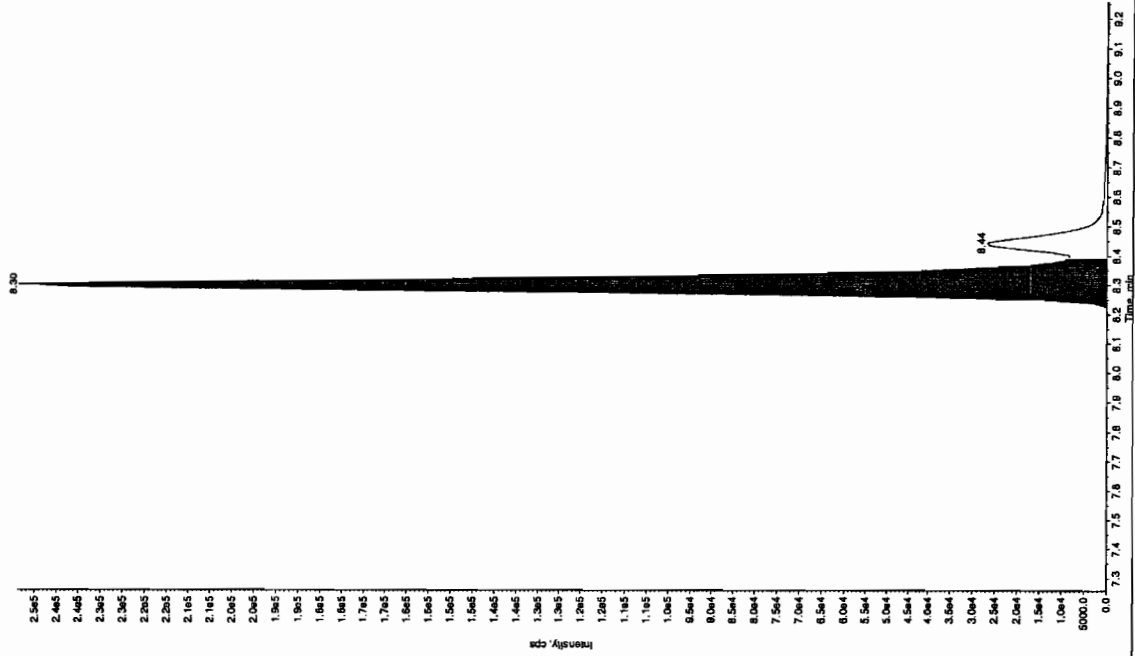
Retention Time: 8.30 min

Area: 9.01e+005 counts

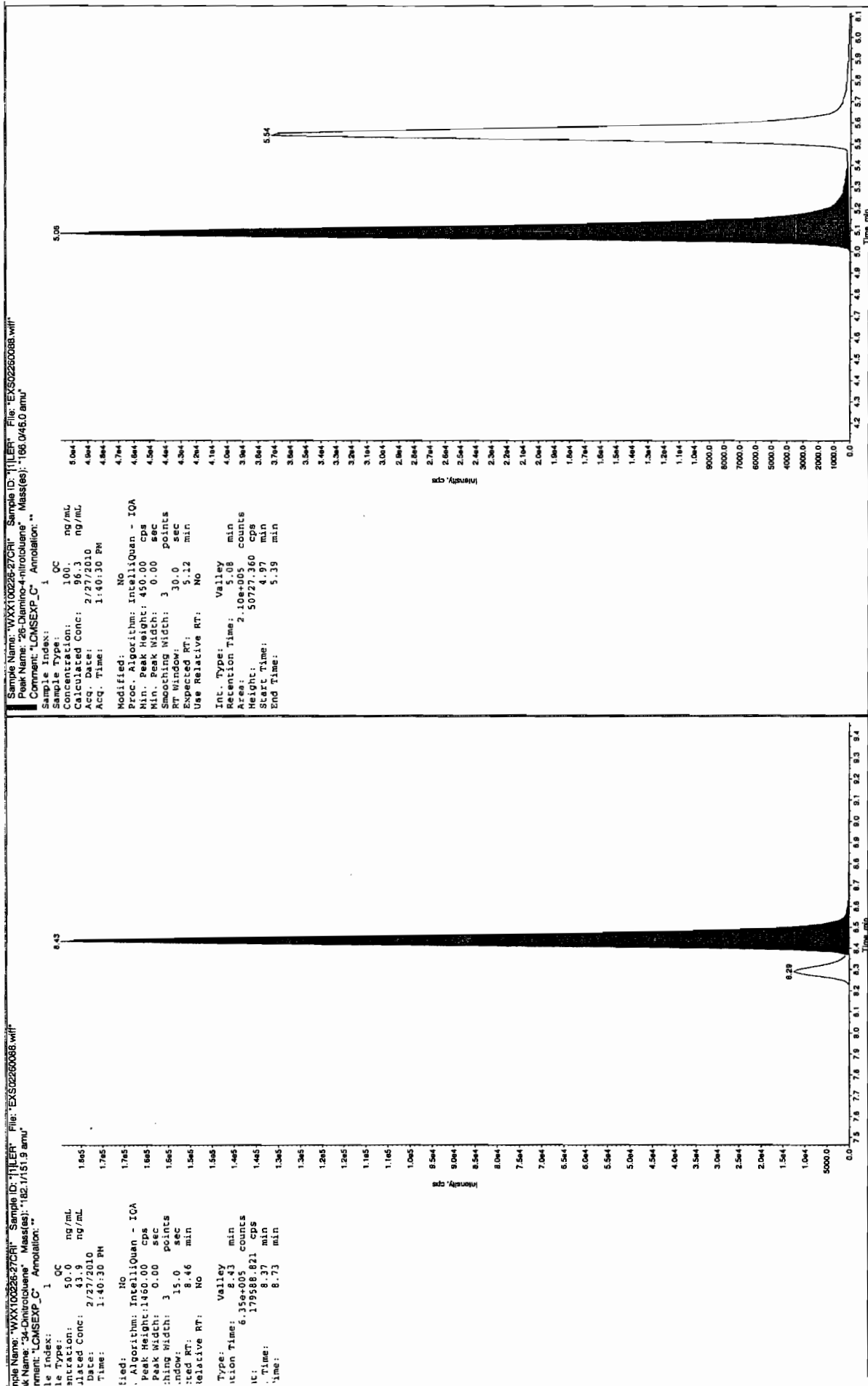
Height: 248924.591 cps

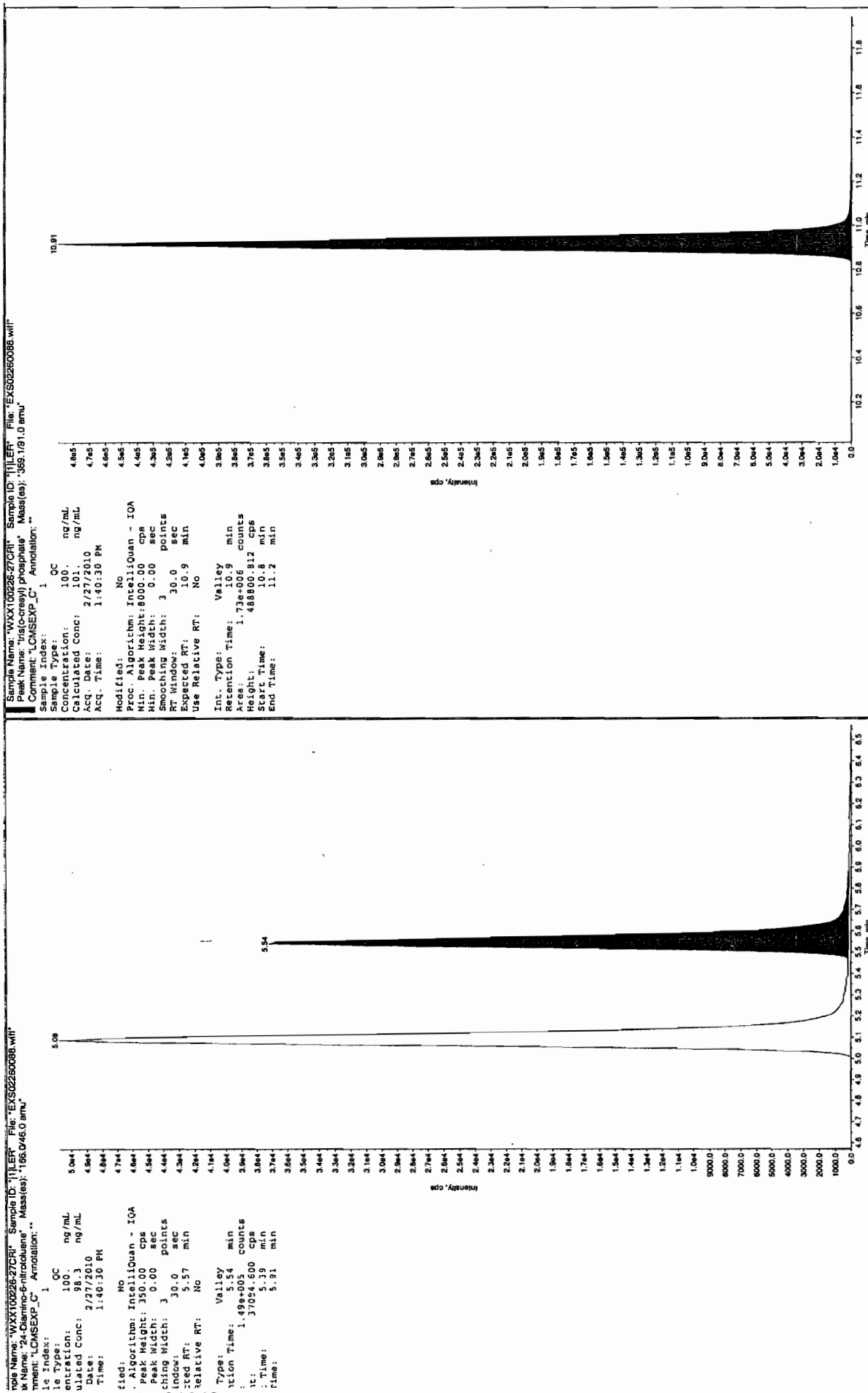
Start Time: 8.21 min

End Time: 8.39 min



Jan 31/10





7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXS02260099.wiff

Analysis Date: 27-FEB-10 16:33

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	504	101	
2,6-Diamino-4-nitrotoluene	500	480	96	
3,4-Dinitrotoluene	250	212	85	
3,5-Dinitroaniline	500	448	90	
TATB	500	481	96	
tris(o-cresyl) phosphate	500	488	98	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

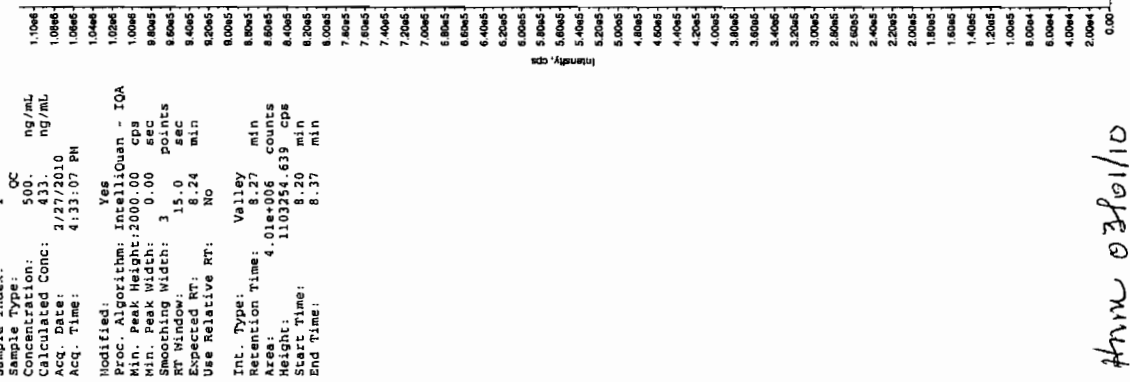
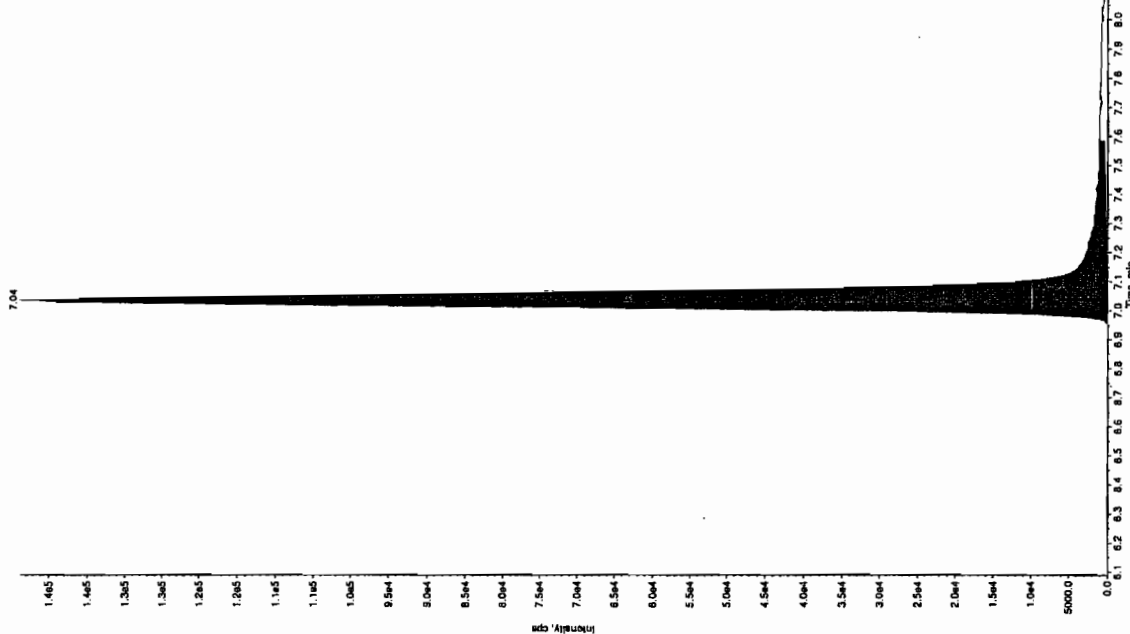
Before Jan 31/10

note Name: "WXX100226-2600V" Sample ID: "11LER" File: "EXS02260098.wif"
 Peak Name: "15-Dihydroquinoline" Mass(es): "182.046.0 amu"
 Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
 Sample Type: QC
 Concentration: 500. ng/mL
 Calculated Conc: 433. ng/mL
 Acq. Date: 2/27/2010
 Acq. Time: 4:33:07 PM

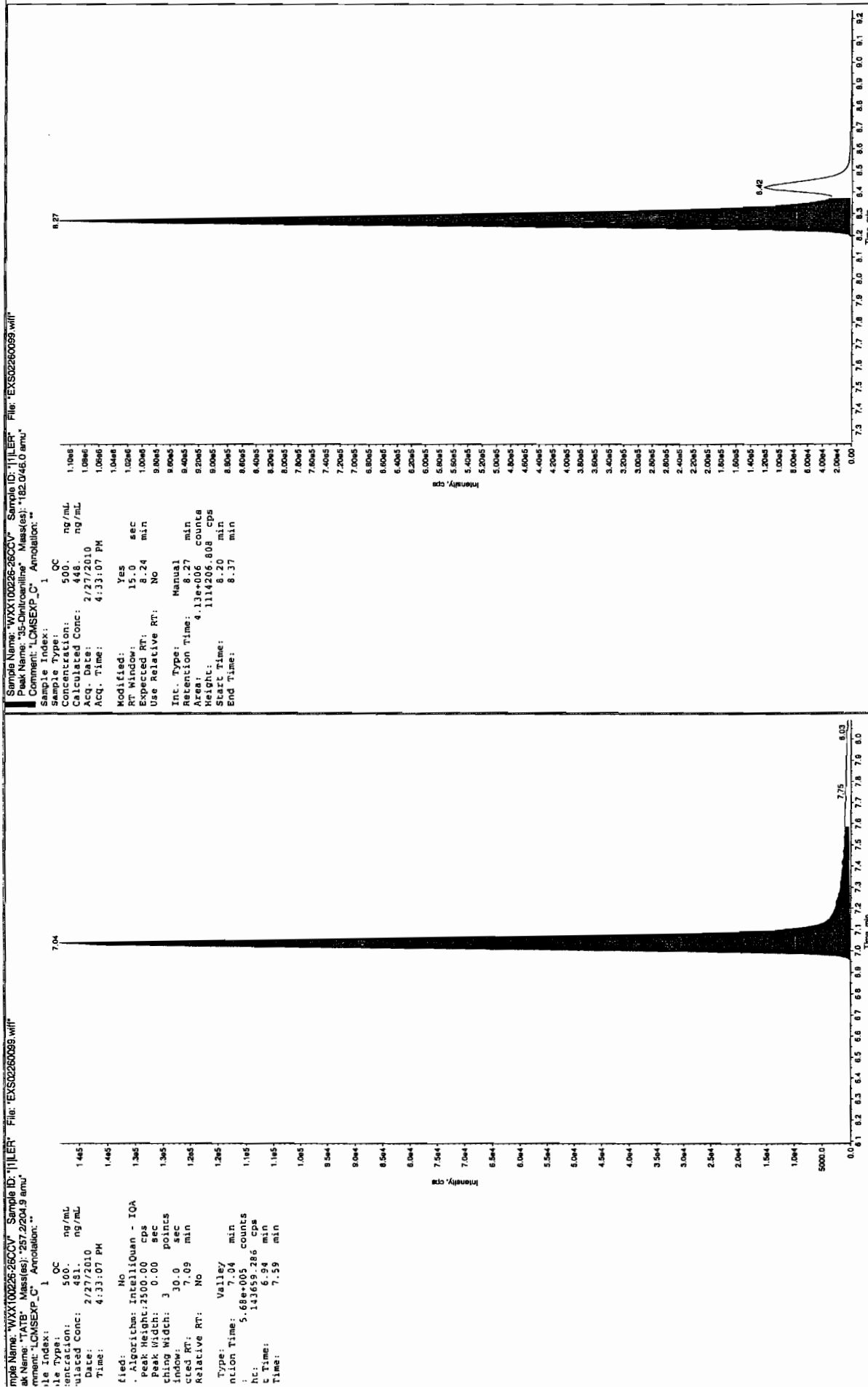
Modified: Yes
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 2000.00 cps
 Min. Peak Width: 0.00 sec
 Smoothing Width: 3 points
 RT Window: 30.0 sec
 Expected RT: 8.24 min
 Use Relative RT: No

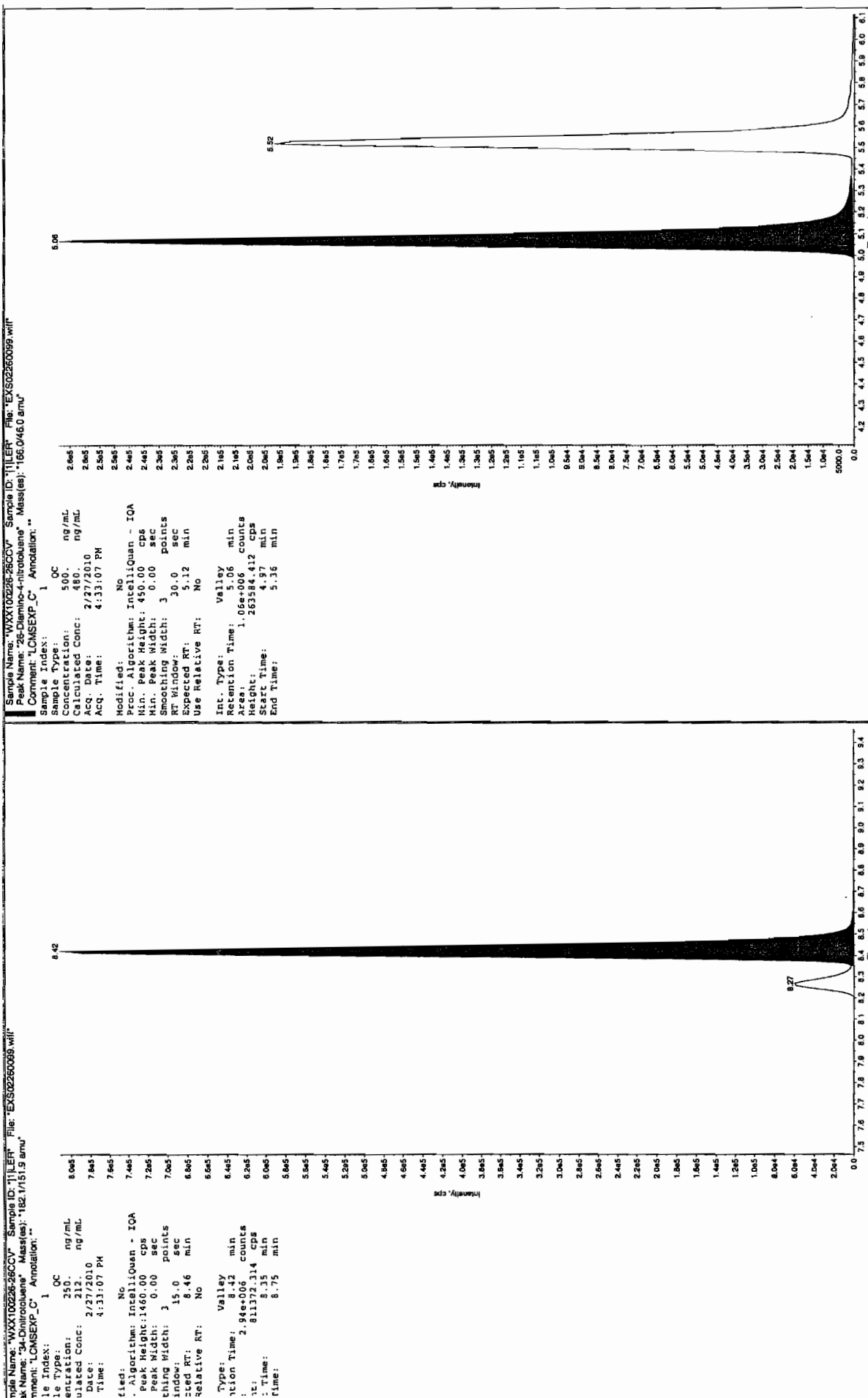
Int. Type: Valley
 Retention Time: 8.27 min
 Area: 4.01e+006 counts
 Height: 1103254.639 cps
 Start Time: 8.20 min
 End Time: 8.37 min

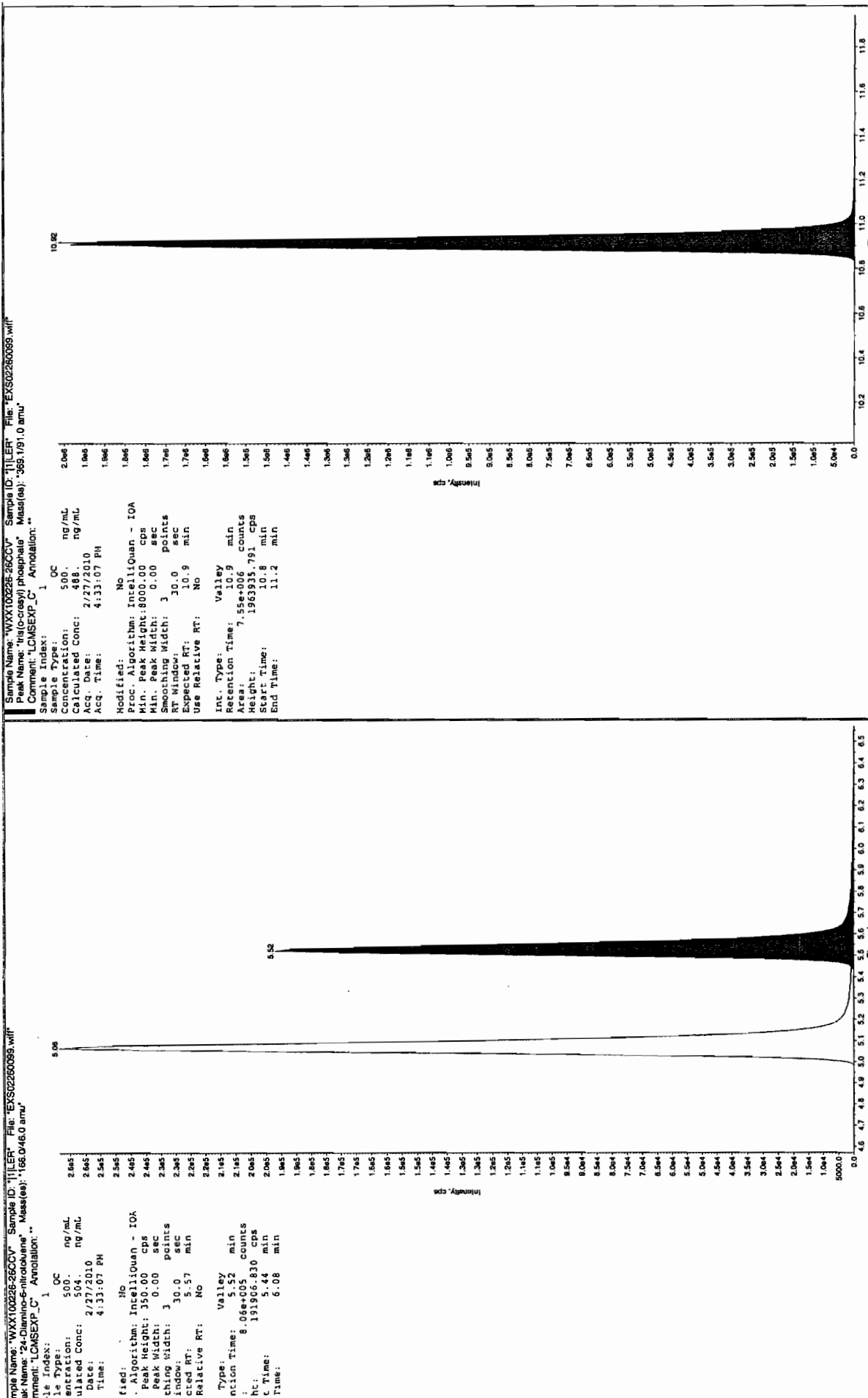


After 03/10/10

after Scan 31110







7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1848

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260101.wiff

Analysis Date: 27-FEB-10 17:04

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	109	109	
2,6-Diamino-4-nitrotoluene	100	101	101	
3,4-Dinitrotoluene	50	43.3	87	
3,5-Dinitroaniline	100	85.9	86	
TATB	100	99.7	100	
tris(o-cresyl) phosphate	100	101	101	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

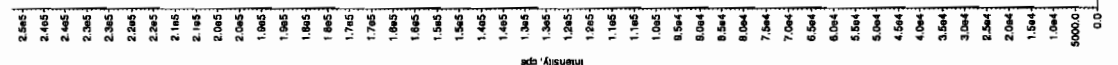
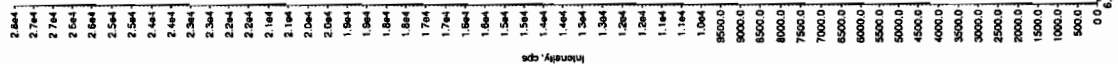
Column used to flag Recovery outside of Limits

* Value outside of Recovery Limits

Before Jan 31/10

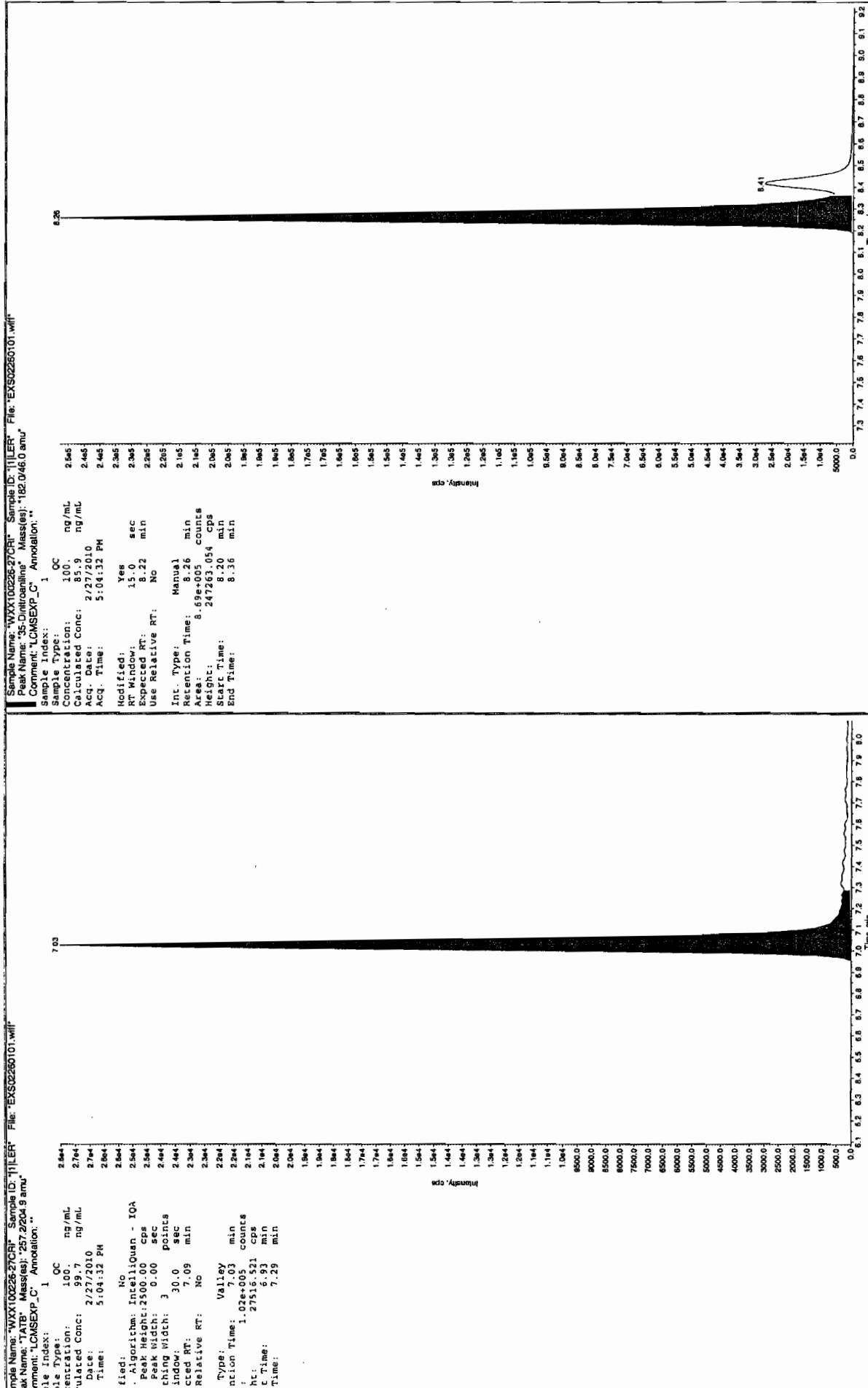
Sample Name: "WXX100226-27CR" Sample ID: "111ER" File: "EXS02260101.wif"
 Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"
 Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
 Sample Type: OC
 Concentration: 100. ng/mL
 Calculated Conc: 83.4 ng/mL
 Acq. Date: 2/27/2010
 Acq. Time: 5:04:32 PM
 Modified: Yes
 Proc. Algorithm: IntelliQuan - ICA
 Min. Peak Height: 2500.00 cps
 Min. Peak Width: 30.0 sec
 Smoothing Width: 30.0 points
 RT Window: 7.09 min
 Expected RT: 8.22 min
 Use Relative RT: No
 Int. Type: Valley
 Retention Time: 8.26 min
 Area: 8.45e+005 counts
 Height: 245172.485 cps
 Start Time: 8.19 min
 End Time: 8.37 min



4/11/10 03:01/10

after Jan 31/10



Sample Name: "WXX100226-2701" Sample ID: "JILLER" File: "EXS02260101.wif"

Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.046.0 amu"

Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1

Sample Type: QC

Concentration: 100. ng/mL

Calculated Conc: 101. ng/mL

Acq. Date: 2/27/2010

Acq. Time: 5:04:32 PM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 450.00 cps

Min. Peak Width: 3.00 sec

Smoothing Width: 3.00 points

RT Window: 30.0 sec

Expected RT: 5.12 min

Use Relative RT: No

Int. Type: Valley

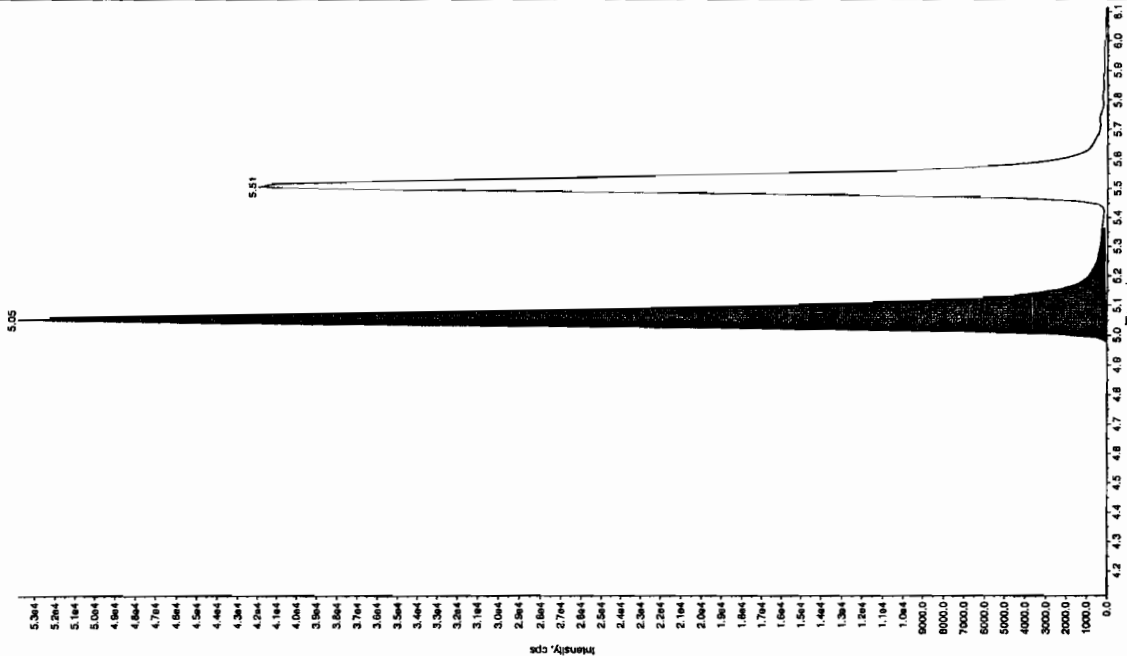
Retention Time: 5.05 min

Area: 2.21e+003 counts

Height: 53787.304 cps

Start Time: 4.95 min

End Time: 5.36 min



Sample Name: "WXX100226-2701" Sample ID: "JILLER" File: "EXS02260101.wif"

Peak Name: "34-Dinitrotoluene" Mass(es): "182.1151.9 amu"

Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1

Sample Type: QC

Concentration: 50.0 ng/mL

Calculated Conc: 43.3 ng/mL

Acq. Date: 2/27/2010

Acq. Time: 5:04:32 PM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 1460.00 cps

Min. Peak Width: 3.00 sec

Smoothing Width: 15.0 points

RT Window: 30.0 sec

Expected RT: 8.46 min

Use Relative RT: No

Int. Type: Valley

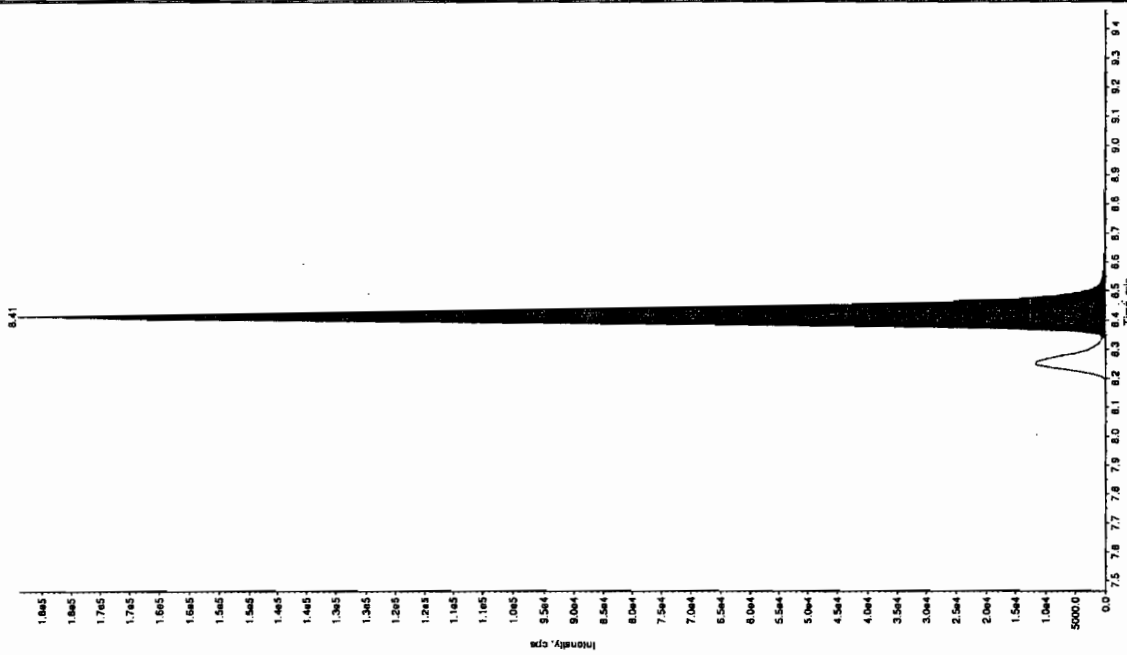
Retention Time: 8.41 min

Area: 6.27e+005 counts

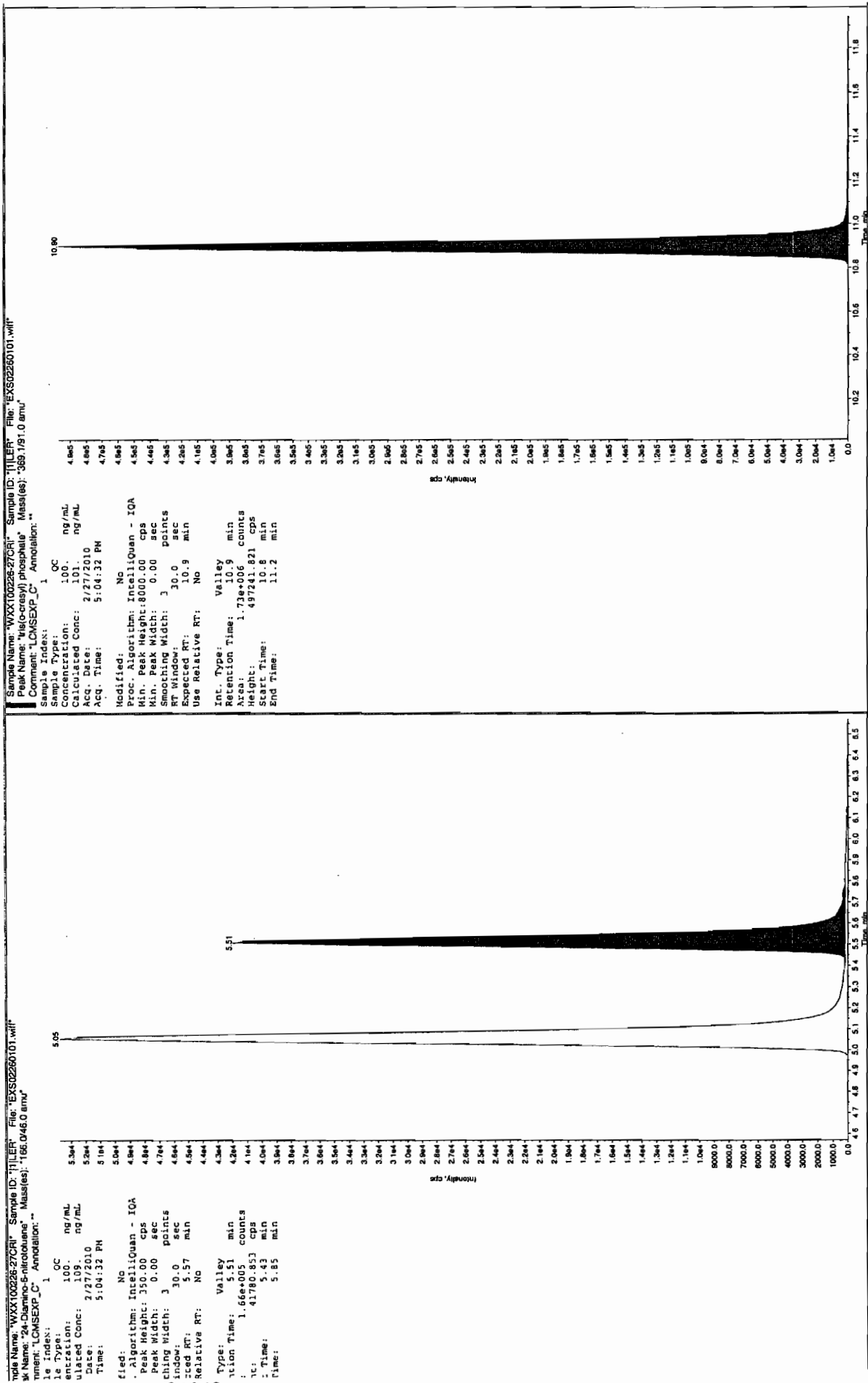
Height: 183851.471 cps

Start Time: 8.34 min

End Time: 8.73 min



L SOP GL-OA-E-056, Method 8321A-Modified LCM SMS#4



QUALITY CONTROL DATA

1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 954329

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 1202045764

Sample Amount 2

Moisture:

Amount Units g

Date Received: 17-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304084a

Date Analyzed: 06-MAR-10 08:05

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\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304084a

Date: 06-Mar-2010

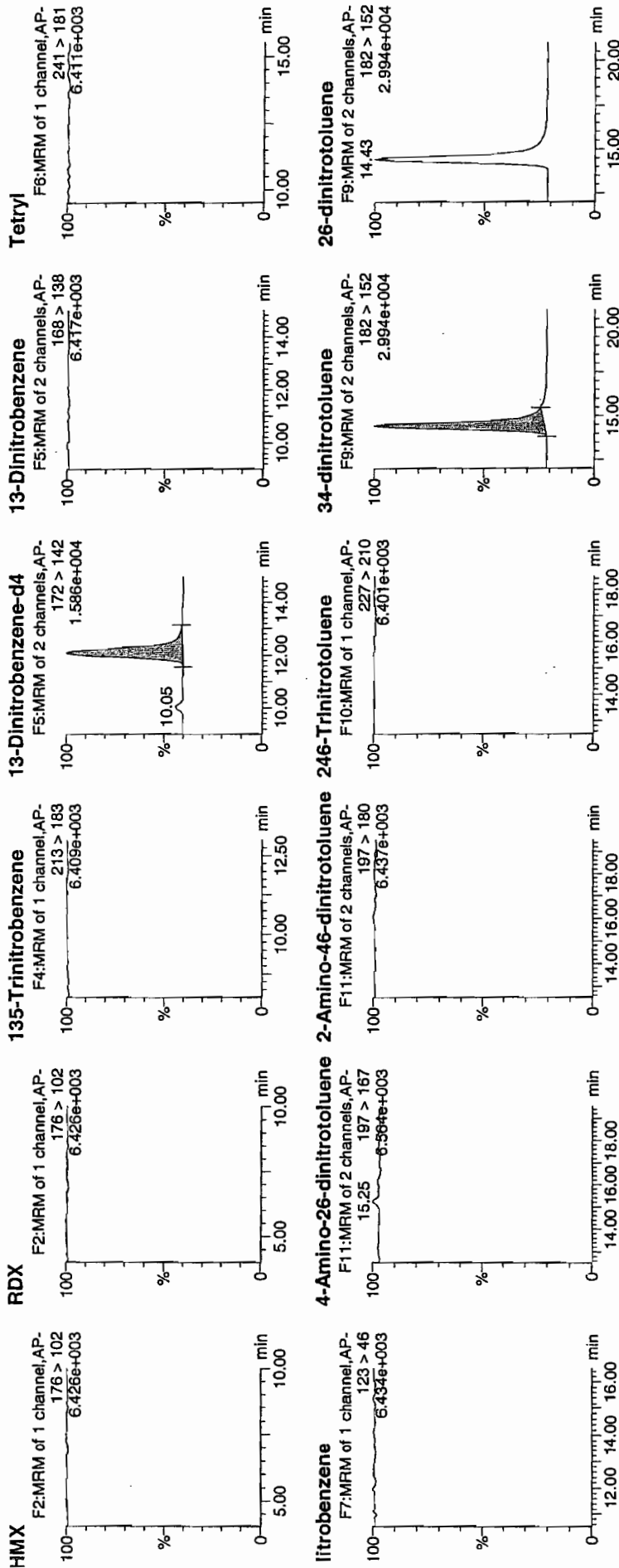
Time: 08:05:16

ID: 1202045764

Vial: 3:1,A

4477
3/6/10

LAU/954333/SQZ/MB/21



4477
3/6/10

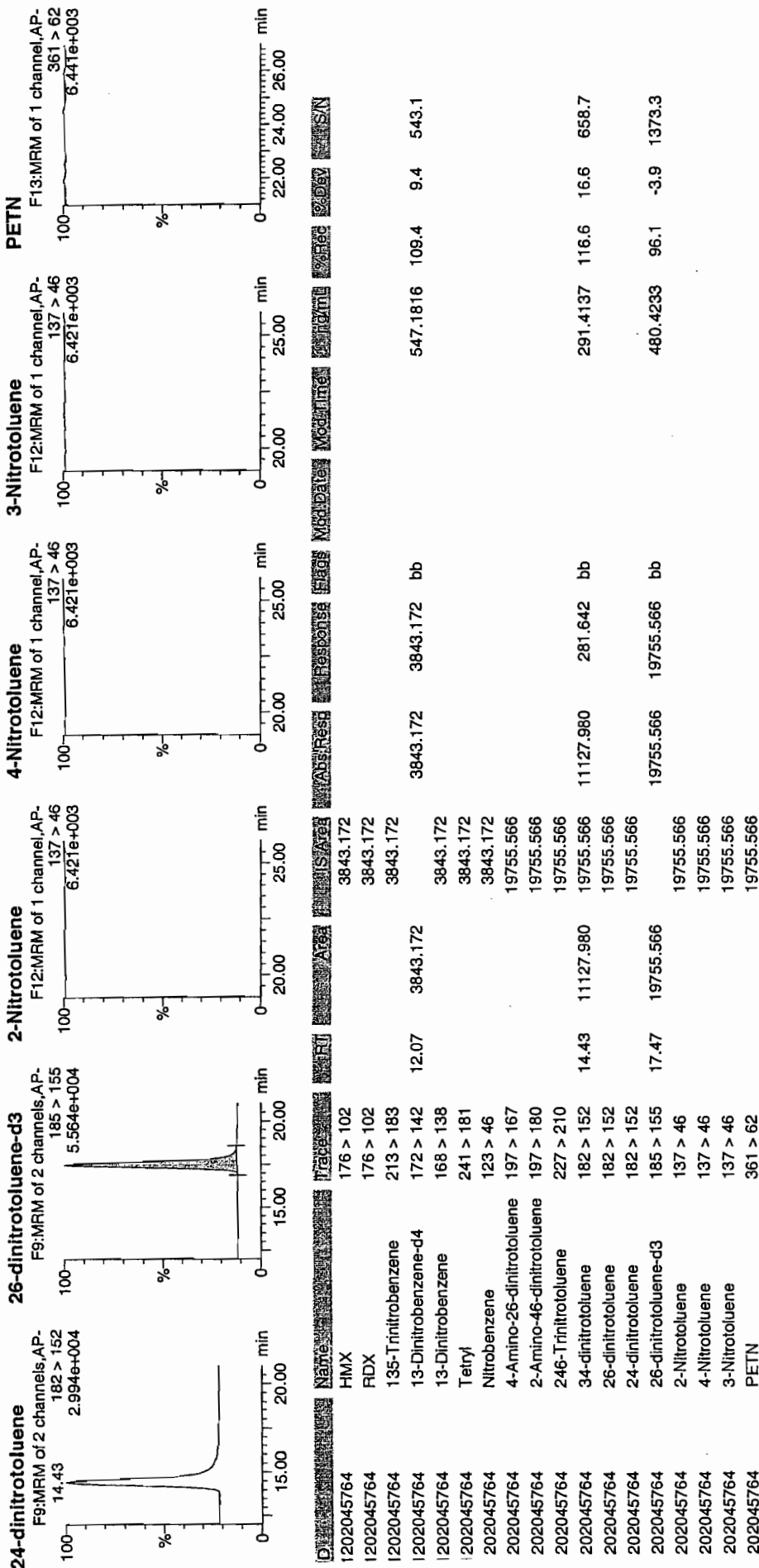
Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sat Mar 06 12:20:52 2010, Page 92 of 107

Dataset: C:\MASSLYNX\New_Exp\PRO030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

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1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 954329

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 1202045764

Sample Amount 2

Moisture:

Amount Units g

Date Received: 17-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260063.wiff

Date Analyzed: 27-FEB-10 07:07

Units: ug/kg

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

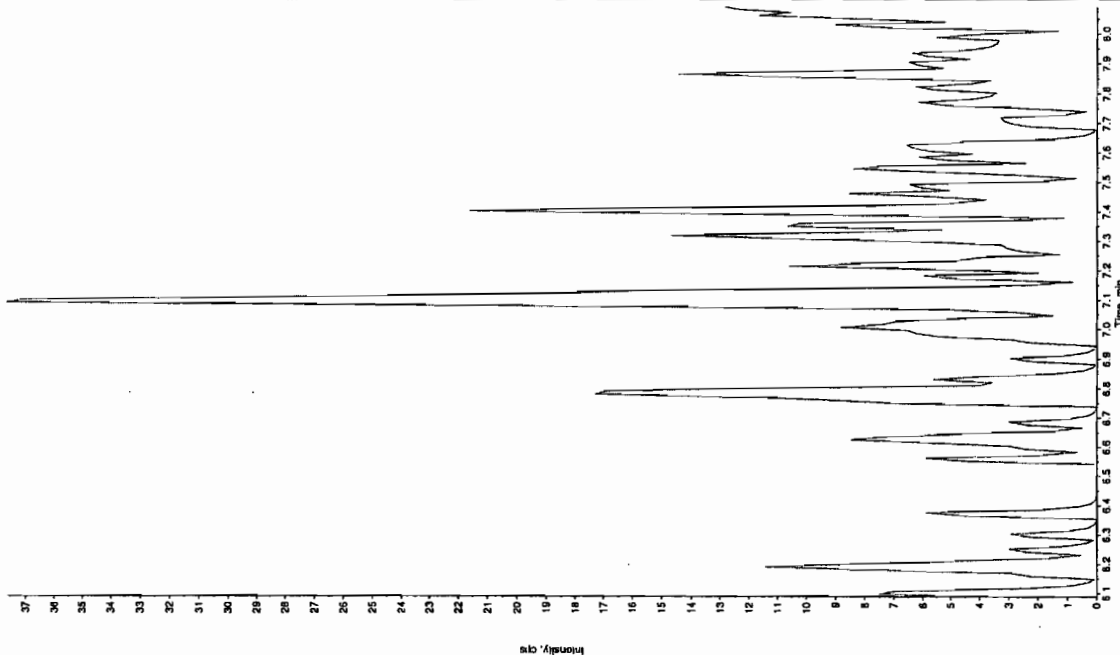
*Concentration =

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

See 3/1/10

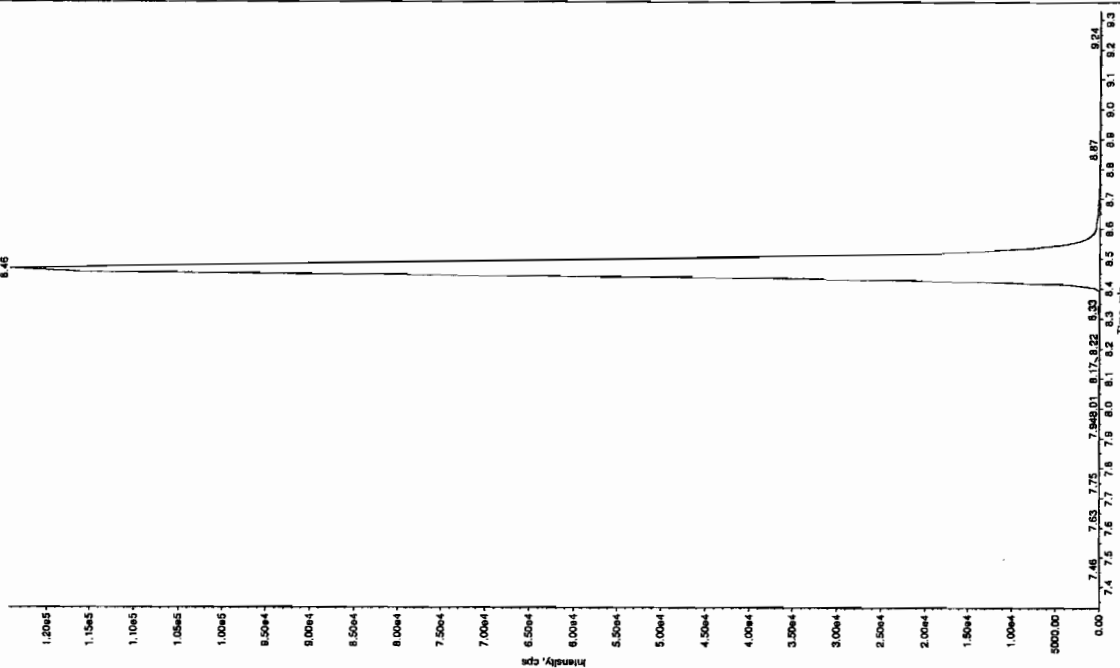
Sample Name: "1202045764" Sample ID: "9543382125" File: "EXS02260063.wif"
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"
 Comment: "LCX832125" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Acq. Date: 2/27/2010
 Acq. Time: 7:07:53 AM
 Modified: No



Sample Name: "1202045764" Sample ID: "9543382125" File: "EXS02260063.wif"
 Peak Name: "3S-Dinitrophenol" Mass(es): "182.046.0 amu"
 Comment: "LCX832125" Annotation: ""

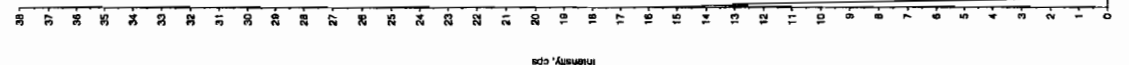
Sample Index: 1
 Sample Type: Unknown
 Concentration: 0.00 ng/mL
 Acq. Date: 2/27/2010
 Acq. Time: 7:07:52 AM
 Modified: No



See 3/1/10

Sample Name: "1202045764" Sample ID: "95433821ER" File: "EX50260063.wif"
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.046.0 amu"
 Comment: "LCX832125" Annotation: ""

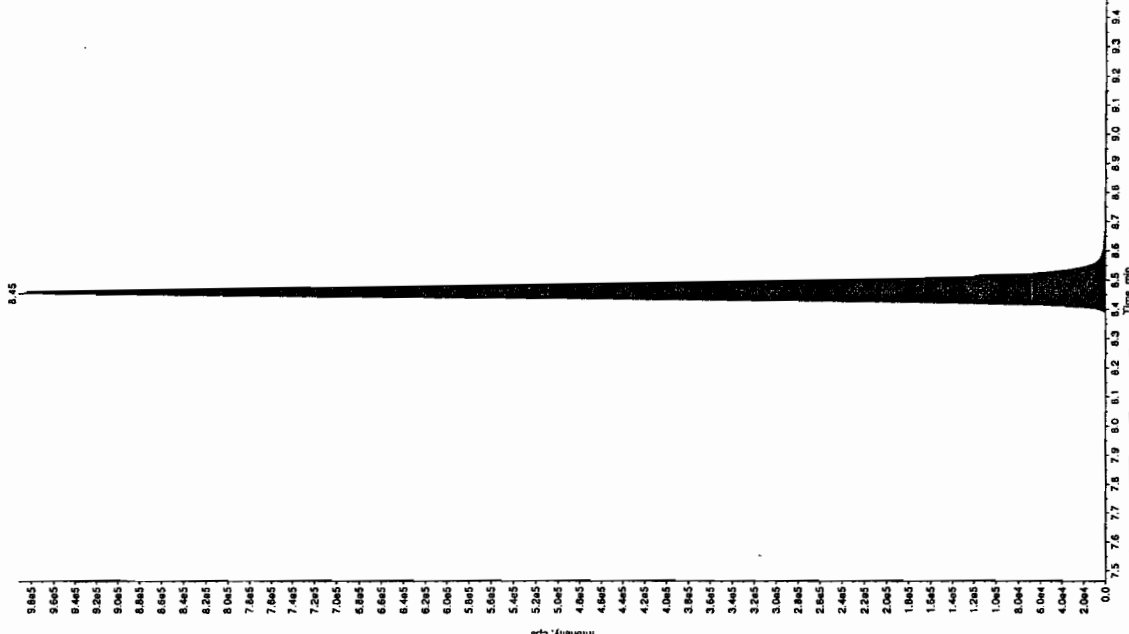
Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A ng/mL
 Calculated Conc: 2.772010
 Acq. Date: 7/27/2010
 Acq. Time: 7:07:52 AM
 Modified: No



Sample Name: "1202045764" Sample ID: "95433821ER" File: "EX50260063.wif"
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1151.9 amu"
 Comment: "LCX832125" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: N/A ng/mL
 Calculated Conc: 2.772010
 Acq. Date: 7/27/2010
 Acq. Time: 7:07:52 AM
 Modified: No

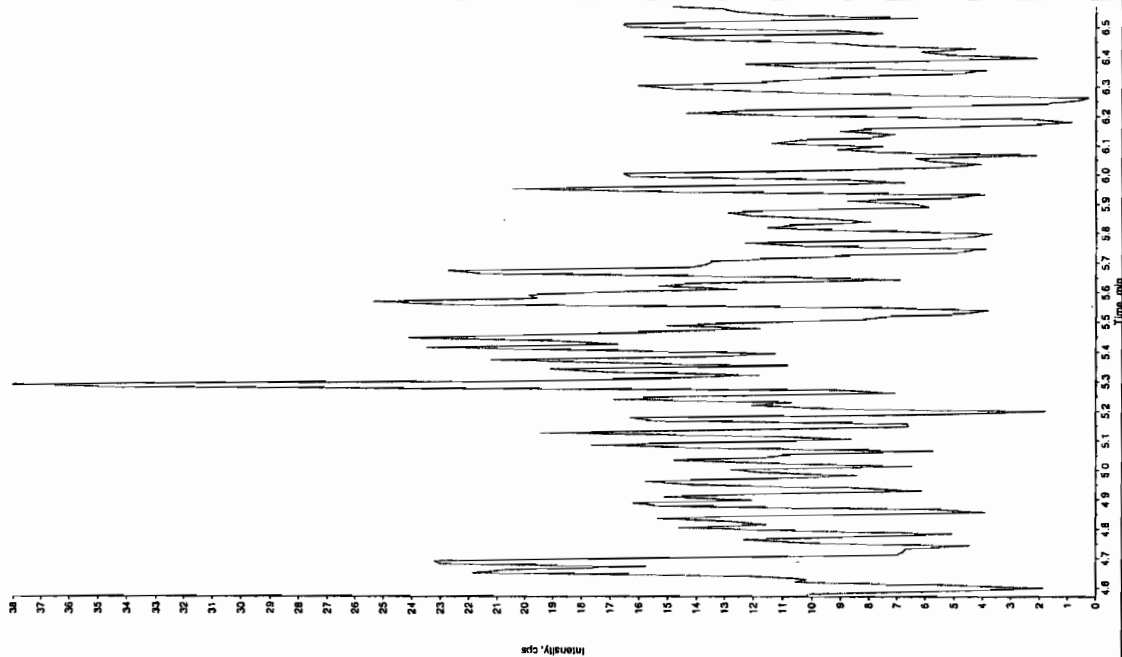
Algorithm: IntelliQuan - IOA
 Peak Height: 1460.00 cps
 Peak Width: 0.00 sec
 Window: 3 points
 Window: 15.0 sec
 Retention Time: 8.46 min
 Relative RT: No
 Type: Valley
 Retention Time: 8.45 min
 Ion Time: 3.46e+006 counts
 Count Rate: 592031.921 cps
 Count Rate Min: 8.13 min
 Count Rate Max: 8.77 min



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

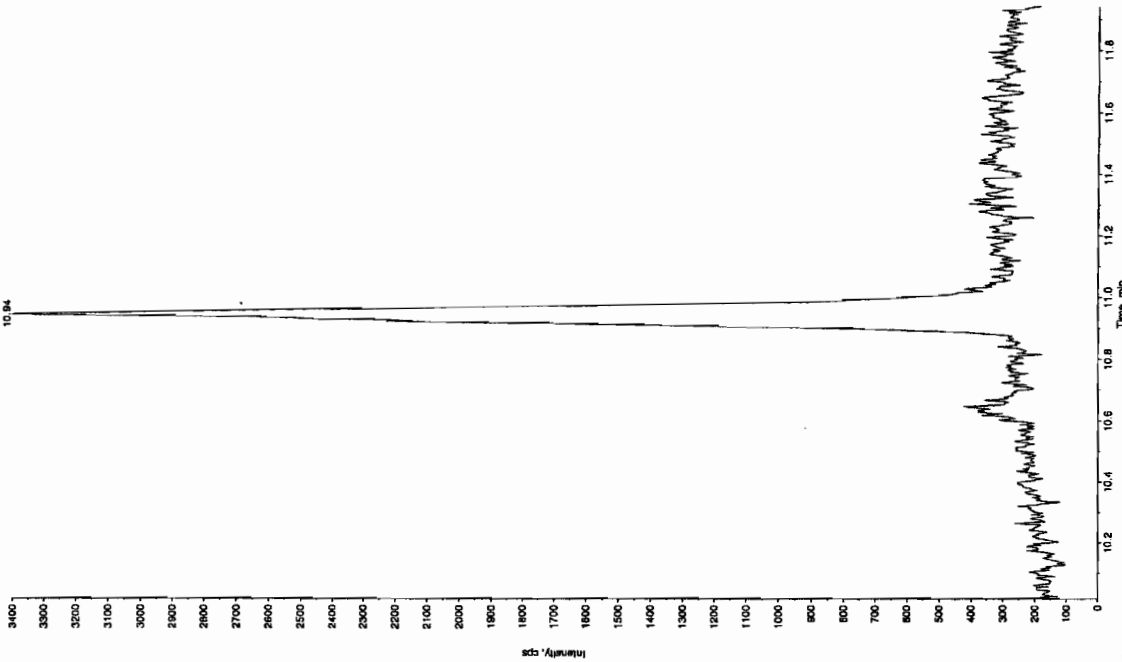
Sample Name: "1202045764" Sample ID: "95433821LER" File: "EXS02260063.wif"
 Peak Name: "24-Dinitro-6-nitrofluorene" Mass(es): "166.046.0 amu"
 Comment: "LCX832125" Annotation: ""

Sample Index: 1
 Sample ID: 1202045764
 Concentration: 0.00 ng/mL
 Date: 2/27/2010
 Time: 7:07:52 AM
 Modified: No



Sample Name: "1202045764" Sample ID: "95433821LER" File: "EXS02260063.wif"
 Peak Name: "bis(4-oxocresyl) phosphate" Mass(es): "369.191.0 amu"
 Comment: "LCX832125" Annotation: ""

Sample Index: 1
 Sample ID: 1202045764
 Concentration: 0.00 ng/mL
 Date: 2/27/2010
 Time: 7:07:52 AM
 Modified: No



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

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 954329

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 1202045765

Sample Amount 2

Moisture:

Amount Units g

Date Received: 17-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304085a

Date Analyzed: 06-MAR-10 08:34

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5020	
121-14-2	2,4-Dinitrotoluene	5450	
121-82-4	RDX	5240	
19406-51-0	4-Amino-2,6-dinitrotoluene	5360	
2691-41-0	HMX	4640	
35572-78-2	2-Amino-4,6-dinitrotoluene	5320	
479-45-8	Tetryl	3060	
606-20-2	2,6-Dinitrotoluene	4850	
78-11-5	PETN	6170	
88-72-2	o-Nitrotoluene	4720	
98-95-3	Nitrobenzene	4620	
99-08-1	m-Nitrotoluene	4900	
99-35-4	1,3,5-Trinitrobenzene	3910	
99-65-0	m-Dinitrobenzene	4760	
99-99-0	p-Nitrotoluene	5270	

*Concentration =

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

Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sat Mar 06 12:20:52 2010, Page 93 of 107

Dataset: C:\MASSLYNX\New_Exp_PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP_PRO\Data\EXP0304085a

Date: 06-Mar-2010

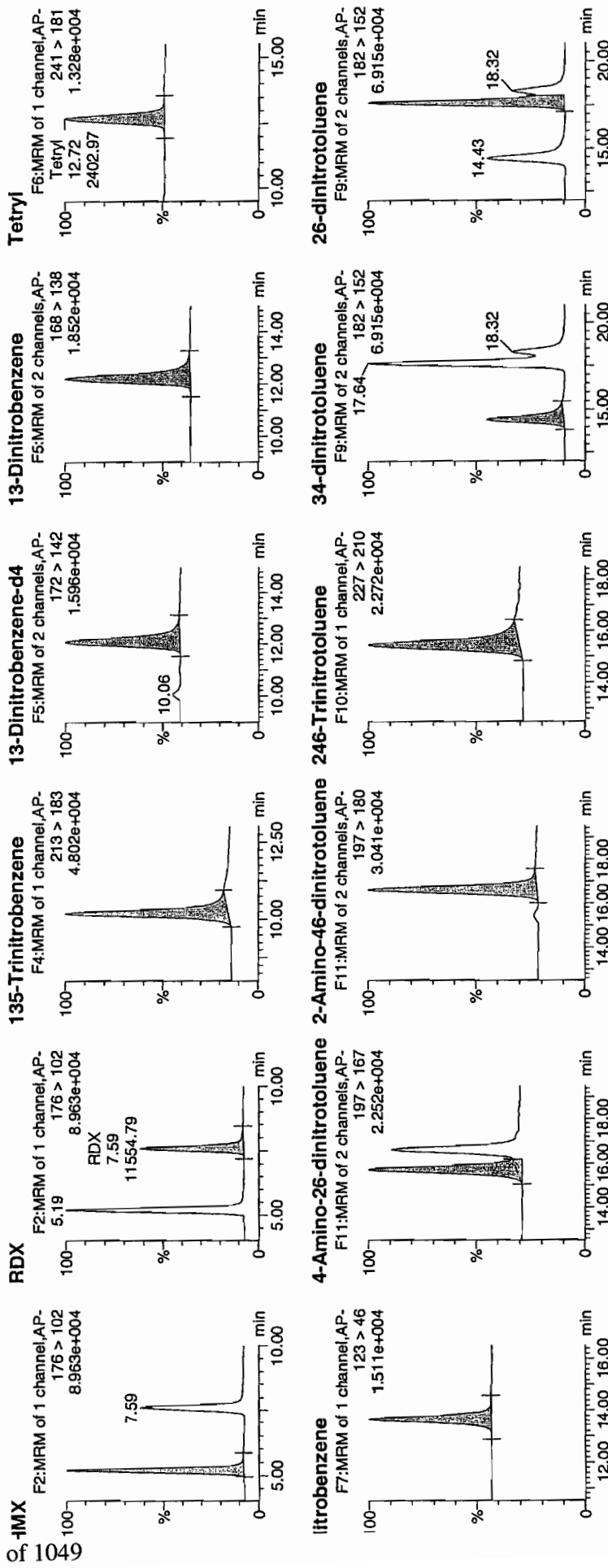
Time: 08:34:50

D: 1202045765

Vial: 3:1,B

1077
3/6/10

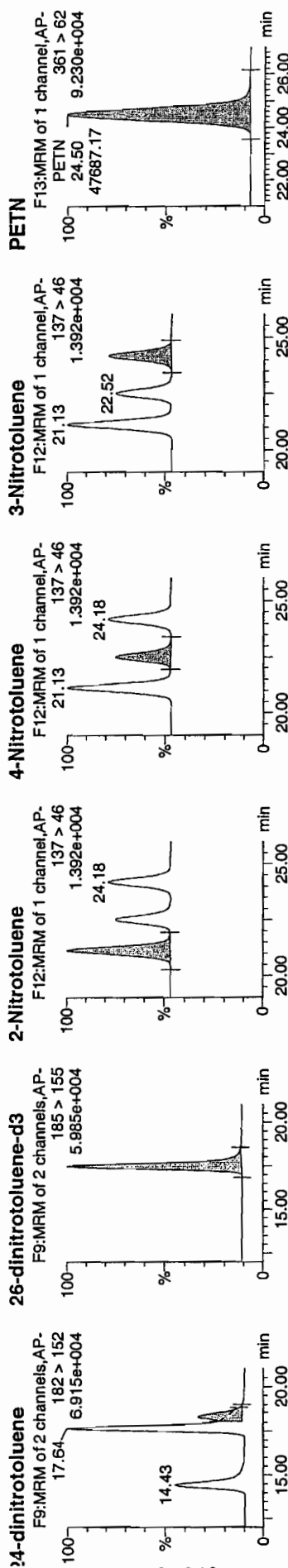
WAPU 954338 / 2010 / 21



amine
03/08/10

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

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ID	Name	Trace	RT	Area	SArea	AbsReso	Response	Flags	ModDate	ModTime	NumInj	%Rec	%Dev	ISN
202045765	HMX	176 > 102	5.19	16672.707	3852.421	16672.707	2163.926	bb			463.9329	92.8	-7.2	2379.0
202045765	RDX	176 > 102	7.59	11554.792	3852.421	11554.792	1499.679	bb			524.1070	104.8	4.8	1402.4
202045765	135-Trinitrobenzene	213 > 183	10.20	11722.909	3852.421	11722.909	1521.499	bb			390.7476	78.1	-21.9	1399.7
202045765	13-Dinitrobenzene-d4	172 > 142	12.07	3852.421		3852.421	3852.421	bb			548.4984	109.7	9.7	754.1
202045765	13-Dinitrobenzene	168 > 138	12.20	4641.120	3852.421	4641.120	602.364	bb			475.6273	95.1	-4.9	489.5
202045765	Tetryl	241 > 181	12.72	2402.969	3852.421	2402.969	311.878	bb			306.4980	61.3	-38.7	170.9
202045765	Nitrobenzene	123 > 46	13.63	2939.271	3852.421	2939.271	381.484	bb			461.9934	92.4	-7.6	222.4
202045765	4-Amino-26-dinitrotoluene	197 > 167	15.74	6373.409	21556.828	6373.409	147.828	MM	06-Mar-10	12:08:47	535.9439	107.2	7.2	359.6
202045765	2-Amino-46-dinitrotoluene	197 > 180	16.63	9290.428	21556.828	9290.428	215.487	bb			531.9317	106.4	6.4	651.3
202045765	246-Trinitrotoluene	227 > 210	15.45	7107.934	21556.828	7107.934	164.865	bb			501.7086	100.3	0.3	491.0
202045765	34-dinitrotoluene	182 > 152	14.43	11599.331	21556.828	11599.331	289.041	bb			278.3756	111.4	11.4	764.2
202045765	26-dinitrotoluene	182 > 152	17.64	23335.104	21556.828	23335.104	541.246	MM	06-Mar-10	12:12:58	485.1866	97.0	-3.0	1953.5
202045765	24-dinitrotoluene	182 > 152	18.32	6475.056	21556.828	6475.056	150.186	MM	06-Mar-10	12:17:56	544.8472	109.0	9.0	491.6
202045765	26-dinitrotoluene-d3	185 > 155	17.47	21556.828		21556.828	21556.828	bb			524.2271	104.8	4.8	2017.5
202045765	2-Nitrotoluene	137 > 46	21.13	3150.907	21556.828	3150.907	73.084	bb			471.8159	94.4	-5.6	715.7
202045765	4-Nitrotoluene	137 > 46	22.52	1733.849	21556.828	1733.849	40.216	bb			527.2545	105.5	5.5	375.6
202045765	3-Nitrotoluene	137 > 46	24.18	1992.243	21556.828	1992.243	46.209	bb			489.7389	97.9	-2.1	427.4
202045765	PETN	361 > 62	24.50	47687.168	21556.828	47687.168	1106.080	bb			616.8161	123.4	23.4	13708.4

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 954329

Lab Code: GEL

GEL Job No (SDG) 10-1848

Matrix: SOIL

GEL Sample ID: 1202045765

Sample Amount 2

Moisture:

Amount Units g

Date Received: 17-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954329

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260064.wiff

Date Analyzed: 27-FEB-10 07:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5740	
59229-75-3	2,6-Diamino-4-nitrotoluene	5860	
618-87-1	3,5-Dinitroaniline	4930	
6629-29-4	2,4-Diamino-6-nitrotoluene	5500	
78-30-8	tris(o-cresyl) phosphate	5150	

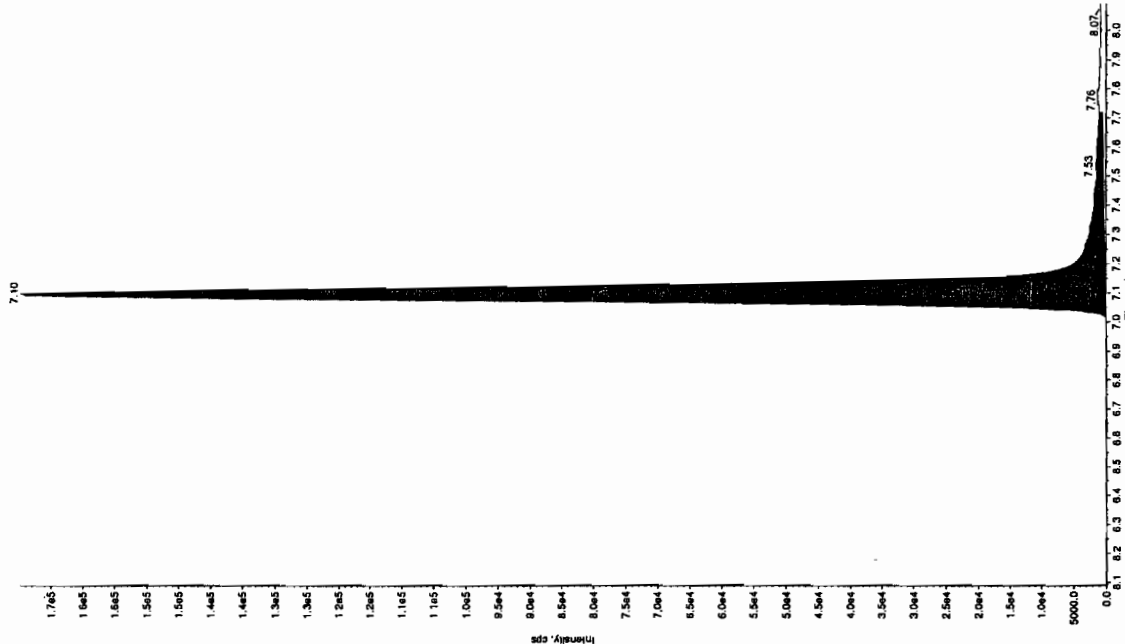
*Concentration =

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

See 31110

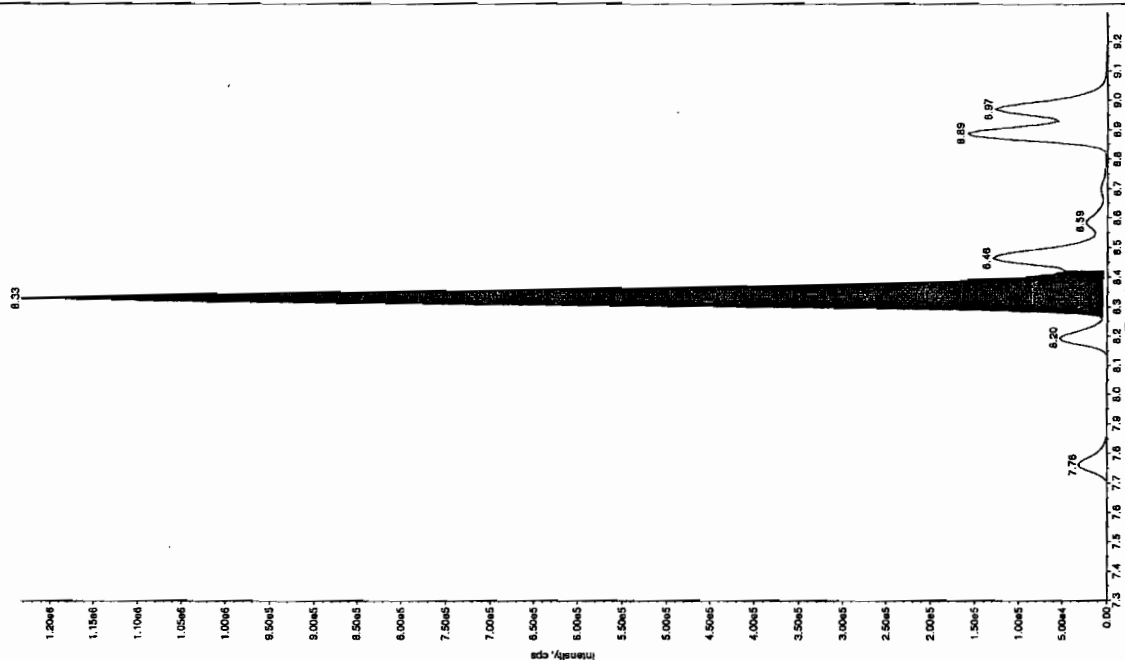
Sample Name: "1202045765" Sample ID: "95433821LER" File: "EXS02260064.wif"
 Peak Name: "TATB" Mass(es): "257.2004.9 amu"
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: 574. ng/mL
 Calculated Conc: 2/27/2010
 Acq. Date: 7:23:40 AM
 Acq. Time: 7:23:40 AM
 Modified: No
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 2500.00 cps
 Min. Peak Width: 3.00 sec
 Smoothing Width: 30.0 points
 RT Window: 7.03 min
 Expected RT: 7.03 min
 Use Relative RT: No
 Type: Valley
 Retention Time: 7.10 min
 Area: 6.83e+005 counts
 Height: 169832.352 cps
 Start Time: 7.00 min
 End Time: 7.72 min

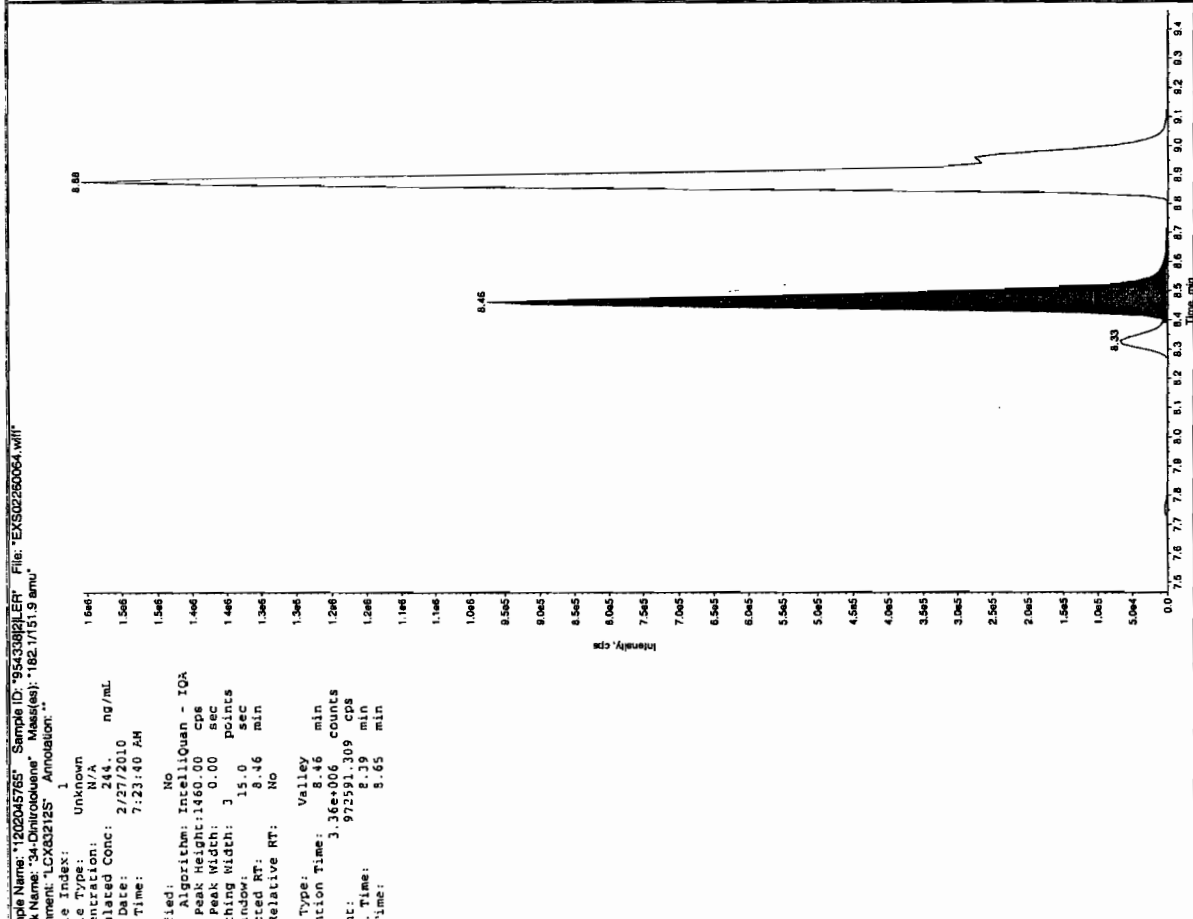
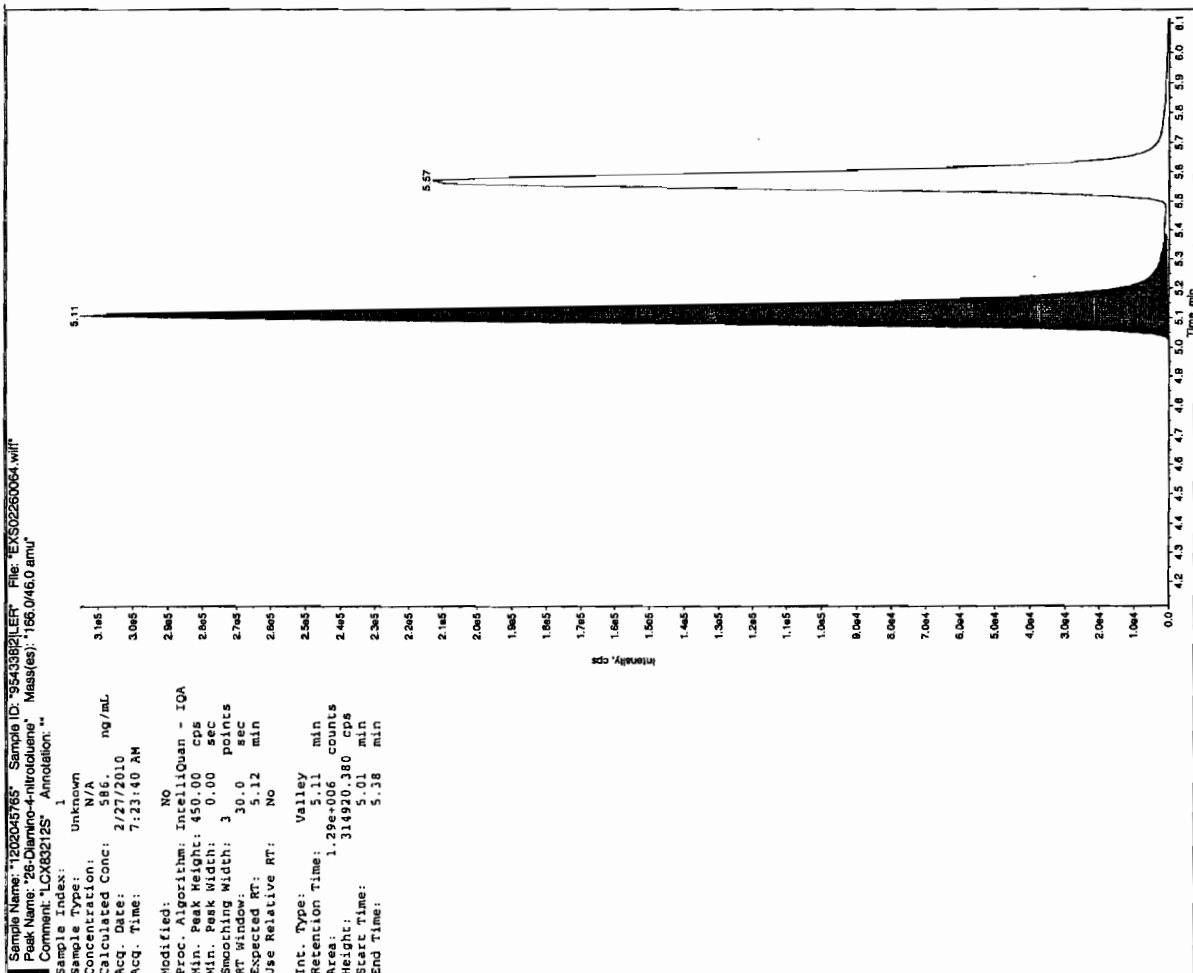


Sample Name: "1202045765" Sample ID: "95433821LER" File: "EXS02260064.wif"
 Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1
 Sample Type: Unknown
 Concentration: 493. ng/mL
 Calculated Conc: 2/27/2010
 Acq. Date: 7:23:40 AM
 Acq. Time: 7:23:40 AM
 Modified: Yes
 Proc. Algorithm: IntelliQuan - IQA
 Min. Peak Height: 2000.00 cps
 Min. Peak Width: 3.00 sec
 Smoothing Width: 15.0 points
 RT Window: 8.30 min
 Expected RT: 8.30 min
 Use Relative RT: No
 Type: Valley
 Retention Time: 8.33 min
 Area: 4.51e+006 counts
 Height: 1228455.811 cps
 Start Time: 8.26 min
 End Time: 8.42 min



See 31110



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

File Name: "1202045765" Sample ID: "95433821LER" File: "EXS02260064.wif"
 Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1

Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 2/23/2010 ng/mL
 Date: 2/23/2010
 Acq. Time: 7:23:40 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: 5.57 min

Use Relative RT: No

Type: Valley

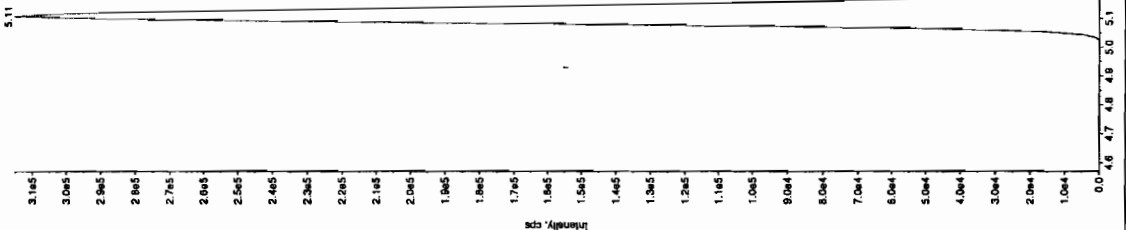
Retention Time: 5.57 min

Area: 8.79e+005 counts

Height: 212694.443 cps

Start Time: 5.47 min

End Time: 6.01 min



File Name: "1202045765" Sample ID: "95433821LER" File: "EXS02260064.wif"
 Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1

Sample Type: Unknown
 Concentration: N/A
 Calculated Conc: 2/23/2010 ng/mL
 Date: 2/23/2010
 Acq. Time: 7:23:40 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

Type: Valley

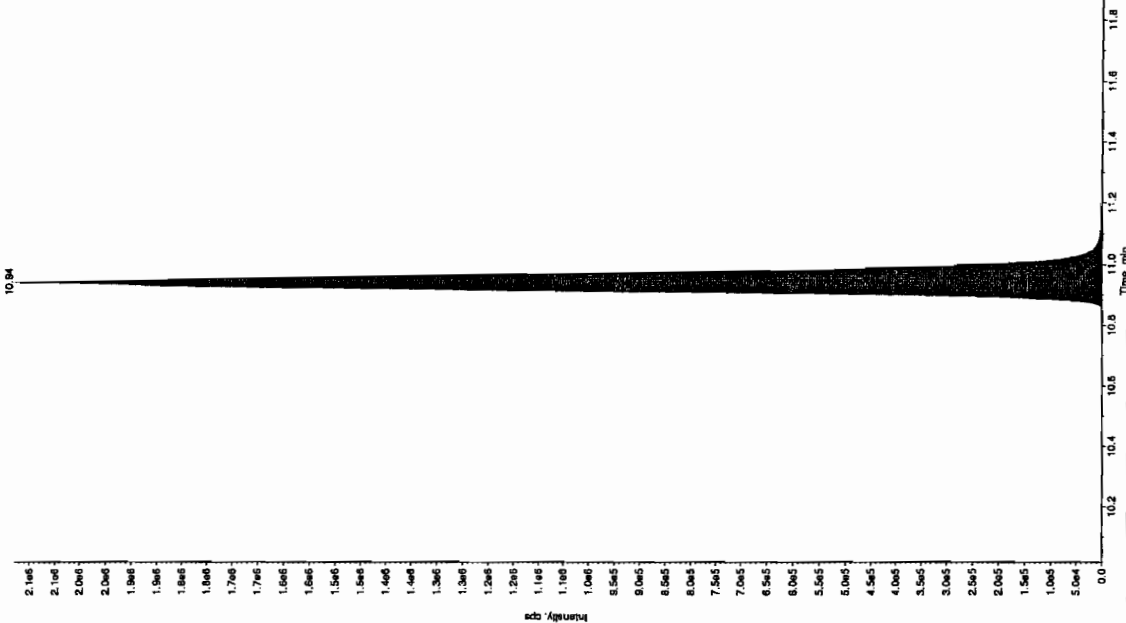
Retention Time: 10.9 min

Area: 7.91e+006 counts

Height: 2129202.393 cps

Start Time: 10.9 min

End Time: 11.3 min



MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 954329 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)
1202045764 MB	22-FEB-2010 16:22:00	2	10	5
1202045765 LCS	22-FEB-2010 16:22:00	2	10	5
247083001	22-FEB-2010 16:22:00	2	10	5
1202045766 MS (247083001)	22-FEB-2010 16:22:00	2	10	5
1202045767 MSD (247083001)	22-FEB-2010 16:22:00	2	10	5
247083002	22-FEB-2010 16:22:00	2	10	5
247083003	22-FEB-2010 16:22:00	2	10	5
247083004	22-FEB-2010 16:22:00	2	10	5
247084001	22-FEB-2010 16:22:00	2	10	5
247084002	22-FEB-2010 16:22:00	2	10	5
247086001	22-FEB-2010 16:22:00	2	10	5
247088001	22-FEB-2010 16:22:00	2	10	5
247088002	22-FEB-2010 16:22:00	2	10	5
247088003	22-FEB-2010 16:22:00	2	10	5
247091001	22-FEB-2010 16:22:00	2	10	5
247094001	22-FEB-2010 16:22:00	2	10	5
247094002	22-FEB-2010 16:22:00	2	10	5
247121002	22-FEB-2010 16:22:00	2	10	5
247123001	22-FEB-2010 16:22:00	2	10	5
247123002	22-FEB-2010 16:22:00	2	10	5
247123003	22-FEB-2010 16:22:00	2	10	5
247123004	22-FEB-2010 16:22:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202045765	8321 Explosives LCS	DX100208-03	.1	mL	Final Solvent: ACN
LCS	1202045765	8321 LANL Explosives Mix 10mg/L	UX100210-02.3	1	mL	
MS	1202045766	8321 Explosives LCS	DX100208-03	.1	mL	
MS	1202045766	8321 LANL Explosives Mix 10mg/L	UX100210-02.3	1	mL	
MSD	1202045767	8321 Explosives LCS	DX100208-03	.1	mL	
MSD	1202045767	8321 LANL Explosives Mix 10mg/L	UX100210-02.3	1	mL	
SURR	All	3,4-Dinitrotoluene (8330 Sur.) 100ppm	DX100218-02	.05	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 03/04/10
 Extr. Injection Volume: 50uL
 Sequence Number: 030410expA
 Initial Calibration Date: 03/04/10
 Method: SW846 8321A-Modified
 Int. Std.: UXX1000220-01
 Mobile Phase Lot#: 1277087, 1268566
 Standard-Samp Reagent Lot#: 1274562, 1271949
 Reviewed BY: *Handwritten signature*
 Date: *03/08/10*
 SOP: GL-OA-E-056 Rev.12
 Alt Check Std. ID: WXX100304-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0304001a	XIBLK01	MAP	3/4/10 15:16			1		USE	B
EXP0304002a	XIBLK01	MAP	3/4/10 15:46			1		USE	B
EXP0304003a	WXXICAL-01	MAP	3/4/10 16:15			1		USE	I
EXP0304004a	WXXICAL-02	MAP	3/4/10 16:45			1		USE	I
EXP0304005a	WXXICAL-03	MAP	3/4/10 17:14			1		USE	I
EXP0304006a	WXXICAL-04	MAP	3/4/10 17:44			1		USE	I
EXP0304007a	WXXICAL-05	MAP	3/4/10 18:13			1		USE	I
EXP0304008a	WXXICAL-06	MAP	3/4/10 18:43			1		USE	I
EXP0304009a	XIBLK02	MAP	3/4/10 19:12			1		USE	B
EXP0304010a	WXXICV	MAP	3/4/10 19:41			1		USE	C
EXP0304011a	XIBLK03	MAP	3/4/10 20:11			1		USE	B
EXP0304012a	WXXCRI	MAP	3/4/10 20:40			1		USE	C
EXP0304013a	1202038795	MAP	3/4/10 21:10	951357	Various	2	LANL	USE	S
EXP0304014a	1202038796	MAP	3/4/10 21:39	951357	Various	2	LANL	USE	S
EXP0304015a	246610001	MAP	3/4/10 22:09	951357	10-1701	2	LANL	USE	S
EXP0304016a	1202038797	MAP	3/4/10 22:38	951357	10-1701	2	LANL	USE	S
EXP0304017a	1202038798	MAP	3/4/10 23:08	951357	10-1701	2	LANL	DUSE-RA	S
EXP0304018a	246610002	MAP	3/4/10 23:37	951357	10-1701	2	LANL	USE	S
EXP0304019a	246610003	MAP	3/5/10 0:07	951357	10-1701	2	LANL	USE	S
EXP0304020a	246611001	MAP	3/5/10 0:36	951357	10-1702	2	LANL	USE	S
EXP0304021a	246611002	MAP	3/5/10 1:06	951357	10-1702	2	LANL	USE	S
EXP0304022a	246611003	MAP	3/5/10 1:35	951357	10-1702	2	LANL	USE	S
EXP0304023a	WXXCCV	MAP	3/5/10 2:05			1		USE	C
EXP0304024a	XIBLK04	MAP	3/5/10 2:34			1		USE	B
EXP0304025a	WXXCRI	MAP	3/5/10 3:04			1		USE	C
EXP0304026a	1202038789	MAP	3/5/10 3:33	951353	Various	2	LANL	USE	S
EXP0304027a	1202038790	MAP	3/5/10 4:03	951353	Various	2	LANL	USE	S
EXP0304028a	246588002	MAP	3/5/10 4:32	951353	10-1688	2	LANL	USE	S
EXP0304029a	1202038791	MAP	3/5/10 5:02	951353	10-1688	2	LANL	USE	S
EXP0304030a	1202038792	MAP	3/5/10 5:31	951353	10-1688	2	LANL	USE	S
EXP0304031a	246588003	MAP	3/5/10 6:01	951353	10-1688	2	LANL	USE	S

EXP0304032a	246588004	MAP	3/5/10 6:30	951353	10-1688	2	LANL	USE	S
EXP0304033a	246588005	MAP	3/5/10 7:00	951353	10-1688	2	LANL	USE	S
EXP0304034a	246588006	MAP	3/5/10 7:29	951353	10-1688	2	LANL	USE	S
EXP0304035a	246588007	MAP	3/5/10 7:59	951353	10-1688	2	LANL	USE	S
EXP0304036a	WXXCVC	MAP	3/5/10 8:28			1		USE	C
EXP0304037a	XIBLK05	MAP	3/5/10 8:58			1		USE	B
EXP0304038a	WXXCRI	MAP	3/5/10 9:27			1		USE	C
EXP0304039a	246588008	MAP	3/5/10 9:57	951353	10-1688	2	LANL	USE	S
EXP0304040a	246588009	MAP	3/5/10 10:26	951353	10-1688	2	LANL	USE	S
EXP0304041a	246588010	MAP	3/5/10 10:56	951353	10-1688	2	LANL	USE	S
EXP0304042a	246588011	MAP	3/5/10 11:25	951353	10-1688	2	LANL	USE	S
EXP0304043a	246588012	MAP	3/5/10 11:55	951353	10-1688	2	LANL	USE	S
EXP0304044a	246605001	MAP	3/5/10 12:24	951353	10-1698-1	2	LANL	USE	S
EXP0304045a	246605002	MAP	3/5/10 12:54	951353	10-1698-1	2	LANL	USE	S
EXP0304046a	246605003	MAP	3/5/10 13:23	951353	10-1698-1	2	LANL	USE	S
EXP0304047a	246605004	MAP	3/5/10 13:53	951353	10-1698-1	2	LANL	USE	S
EXP0304048a	246605005	MAP	3/5/10 14:22	951353	10-1698-1	2	LANL	USE	S
EXP0304049a	WXXCVC	MAP	3/5/10 14:52			1	LANL	USE	C
EXP0304050a	XIBLK06	MAP	3/5/10 15:21			1	LANL	USE	B
EXP0304051a	WXXCRI	MAP	3/5/10 15:51			1	LANL	USE	C
EXP0304052a	246605006	MAP	3/5/10 16:20	951353	10-1698-1	2	LANL	USE	S
EXP0304053a	1202038798	MAP	3/5/10 16:50	951357	10-1701	2	LANL	USE	S
EXP0304054a	XIBLK07	MAP	3/5/10 17:19			1	LANL	USE	B
EXP0304055a	1202041901	MAP	3/5/10 17:49	952679	Various	2	LANL	USE	S
EXP0304056a	1202041902	MAP	3/5/10 18:18	952679	Various	2	LANL	USE	S
EXP0304057a	246721001	MAP	3/5/10 18:48	952679	10-1709	2	LANL	USE	S
EXP0304058a	1202041903	MAP	3/5/10 19:17	952679	10-1709	2	LANL	USE	S
EXP0304059a	1202041904	MAP	3/5/10 19:47	952679	10-1709	2	LANL	USE	S
EXP0304060a	246721002	MAP	3/5/10 20:16	952679	10-1709	2	LANL	USE	S
EXP0304061a	246837001	MAP	3/5/10 20:46	952679	10-1747	2	LANL	USE	S
EXP0304062a	246837002	MAP	3/5/10 21:15	952679	10-1747	2	LANL	USE	S
EXP0304063a	246837003	MAP	3/5/10 21:45	952679	10-1747	2	LANL	USE	S
EXP0304064a	WXXCVC	MAP	3/5/10 22:14			1		USE	C
EXP0304065a	XIBLK08	MAP	3/5/10 22:44			1		USE	B
EXP0304066a	WXXCRI	MAP	3/5/10 23:13			1		USE	C
EXP0304067a	246837004	MAP	3/5/10 23:43	952679	10-1747	2	LANL	USE	S
EXP0304068a	246837005	MAP	3/6/10 0:13	952679	10-1747	2	LANL	USE	S
EXP0304069a	246837006	MAP	3/6/10 0:42	952679	10-1747	2	LANL	USE	S
EXP0304070a	246841001	MAP	3/6/10 1:11	952679	10-1748	2	LANL	USE	S

EXP0304071a	246841002	MAP	3/6/10 1:41	952679	10-1748	2	LANL	USE	S
EXP0304072a	246841003	MAP	3/6/10 2:11	952679	10-1748	2	LANL	USE	S
EXP0304073a	246843002	MAP	3/6/10 2:40	952679	10-1749	2	LANL	USE	S
EXP0304074a	246843003	MAP	3/6/10 3:10	952679	10-1749	2	LANL	USE	S
EXP0304075a	246843004	MAP	3/6/10 3:39	952679	10-1749	2	LANL	USE	S
EXP0304076a	WXXCCV	MAP	3/6/10 4:08			1		USE	C
EXP0304077a	XIBLK09	MAP	3/6/10 4:38			1		USE	B
EXP0304078a	WXXCRI	MAP	3/6/10 5:08			1		USE	C
EXP0304079a	246846001	MAP	3/6/10 5:37	952679	10-1750	2	LANL	USE	S
EXP0304080a	246846002	MAP	3/6/10 6:07	952679	10-1750	2	LANL	USE	S
EXP0304081a	246847001	MAP	3/6/10 6:36	952679	10-1751	2	LANL	USE	S
EXP0304082a	246847002	MAP	3/6/10 7:06	952679	10-1751	2	LANL	USE	S
EXP0304083a	XIBLK10	MAP	3/6/10 7:35			1		USE	B
EXP0304084a	1202045764	MAP	3/6/10 8:05	954338	Various	2	LANL	USE	S
EXP0304085a	1202045765	MAP	3/6/10 8:34	954338	Various	2	LANL	USE	S
EXP0304086a	247083001	MAP	3/6/10 9:04	954338	10-1827	2	LANL	USE	S
EXP0304087a	1202045766	MAP	3/6/10 9:33	954338	10-1827	2	LANL	USE	S
EXP0304088a	1202045767	MAP	3/6/10 10:03	954338	10-1827	2	LANL	USE	S
EXP0304089a	WXXCCV	MAP	3/6/10 10:32			1		USE	C
EXP0304090a	XIBLK11	MAP	3/6/10 11:02			1		USE	B
EXP0304091a	WXXCRI	MAP	3/6/10 11:31			1		USE	C
EXP0304092a	247083002	MAP	3/6/10 12:01	954338	10-1827	2	LANL	USE	S
EXP0304093a	247083003	MAP	3/6/10 12:30	954338	10-1827	2	LANL	USE	S
EXP0304094a	247083004	MAP	3/6/10 13:00	954338	10-1827	2	LANL	USE	S
EXP0304095a	247084001	MAP	3/6/10 13:29	954338	10-1828	2	LANL	USE	S
EXP0304096a	247084002	MAP	3/6/10 13:59	954338	10-1828	2	LANL	USE	S
EXP0304097a	247086001	MAP	3/6/10 14:28	954338	10-1829	2	LANL	USE	S
EXP0304098a	247088001	MAP	3/6/10 14:58	954338	10-1830	2	LANL	USE	S
EXP0304099a	247088002	MAP	3/6/10 15:27	954338	10-1830	2	LANL	USE	S
EXP0304100a	247088003	MAP	3/6/10 15:57	954338	10-1830	2	LANL	USE	S
EXP0304101a	WXXCCV	MAP	3/6/10 16:26			1		USE	C
EXP0304102a	XIBLK12	MAP	3/6/10 16:56			1		USE	B
EXP0304103a	WXXCRI	MAP	3/6/10 17:25			1		USE	C
EXP0304104a	247091001	MAP	3/6/10 17:55	954338	10-1831	2	LANL	USE	S
EXP0304105a	247091002	MAP	3/6/10 18:24	954338	10-1831	2	LANL	USE	S
EXP0304106a	247094001	MAP	3/6/10 18:54	954338	10-1832	2	LANL	USE	S
EXP0304107a	247094002	MAP	3/6/10 19:23	954338	10-1832	2	LANL	USE	S
EXP0304108a	247121002	MAP	3/6/10 19:53	954338	10-1846	2	LANL	USE	S
EXP0304109a	247123001	MAP	3/6/10 20:22	954338	10-1848	2	LANL	USE	S

EXP0304110a	247123002	MAP	3/6/10 20:52	954338	10-1848	2	LANL	USE	S
EXP0304111a	247123003	MAP	3/6/10 21:21	954338	10-1848	2	LANL	USE	S
EXP0304112a	247123004	MAP	3/6/10 21:51	954338	10-1848	2	LANL	USE	S
EXP0304113a	WXXCCV	MAP	3/6/10 22:20			1		USE	C
EXP0304114a	XIBLK13	MAP	3/6/10 22:50			1		USE	B
EXP0304115a	WXXCRI	MAP	3/6/10 23:19			1		USE	C
EXP0304116a	1202032878	MAP	3/6/10 23:49	948890	10-1544	2	LANL	USE	S
EXP0304117a	1202032879	MAP	3/7/10 0:18	948890	10-1544	2	LANL	USE	S
EXP0304118a	246070001	MAP	3/7/10 0:48	948890	10-1544	2	LANL	USE	S
EXP0304119a	1202032880	MAP	3/7/10 1:17	948890	10-1544	2	LANL	USE	S
EXP0304120a	1202032881	MAP	3/7/10 1:47	948890	10-1544	2	LANL	USE	S
EXP0304121a	246070002	MAP	3/7/10 2:16	948890	10-1544	2	LANL	USE	S
EXP0304122a	246070003	MAP	3/7/10 2:46	948890	10-1544	2	LANL	USE	S
EXP0304123a	246070004	MAP	3/7/10 3:15	948890	10-1544	2	LANL	USE	S
EXP0304124a	246070005	MAP	3/7/10 3:45	948890	10-1544	2	LANL	USE	S
EXP0304125a	246070006	MAP	3/7/10 4:14	948890	10-1544	2	LANL	USE	S
EXP0304126a	WXXCCV	MAP	3/7/10 4:44			1		USE	C
EXP0304127a	XIBLK14	MAP	3/7/10 5:13			1		USE	B
EXP0304128a	WXXCRI	MAP	3/7/10 5:43			1		USE	C
EXP0304129a	246070007	MAP	3/7/10 6:12	948890	10-1544	2	LANL	USE	S
EXP0304130a	246070008	MAP	3/7/10 6:42	948890	10-1544	2	LANL	USE	S
EXP0304131a	246070009	MAP	3/7/10 7:11	948890	10-1544	2	LANL	USE	S
EXP0304132a	246070010	MAP	3/7/10 7:41	948890	10-1544	2	LANL	USE	S
EXP0304133a	246070011	MAP	3/7/10 8:10	948890	10-1544	2	LANL	USE	S
EXP0304134a	246070012	MAP	3/7/10 8:40	948890	10-1544	2	LANL	USE	S
EXP0304135a	246070013	MAP	3/7/10 9:09	948890	10-1544	2	LANL	USE	S
EXP0304136a	246070014	MAP	3/7/10 9:39	948890	10-1544	2	LANL	USE	S
EXP0304137a	246070015	MAP	3/7/10 10:08	948890	10-1544	2	LANL	USE	S
EXP0304138a	246070016	MAP	3/7/10 10:38	948890	10-1544	2	LANL	USE	S
EXP0304139a	WXXCCV	MAP	3/7/10 11:07			1		USE	C
EXP0304140a	XIBLK15	MAP	3/7/10 11:37			1		USE	B
EXP0304141a	WXXCRI	MAP	3/7/10 12:06			1		USE	C

GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS4

Date: 02/26/10
 Extr. Injection Volume: 10ul
 Sequence Number: 022610
 Initial Calibration Date: 022610
 Method: 8321A-Modified
 Int. Std.: N/A
 Mobile Phase Lot#: 1268566, 1268568
 Standard-Samp Reagent Lot#: 1274562, 1261217
 Reviewed By: *HWL*
 Date: *02/26/10*
 SOP: GL-OA-E-056 Rev.12
 Alt Check Std. ID: WXX100226-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS02260001.wiff	XIBLK01	LER	2/26/2010 14:53			1		USE	B
EXS02260002.wiff	XIBLK01	LER	2/26/2010 15:09			1		USE	B
EXS02260003.wiff	WXXICAL-19	LER	2/26/2010 15:25			1		USE	I
EXS02260004.wiff	WXXICAL-20	LER	2/26/2010 15:41			1		USE	I
EXS02260005.wiff	WXXICAL-21	LER	2/26/2010 15:56			1		USE	I
EXS02260006.wiff	WXXICAL-22	LER	2/26/2010 16:12			1		USE	I
EXS02260007.wiff	WXXICAL-23	LER	2/26/2010 16:28			1		USE	I
EXS02260008.wiff	WXXICAL-24	LER	2/26/2010 16:43			1		USE	I
EXS02260009.wiff	WXXICAL-25	LER	2/26/2010 16:59			1		USE	I
EXS02260010.wiff	XIBLK02	LER	2/26/2010 17:15			1		USE	B
EXS02260011.wiff	WXXICV	LER	2/26/2010 17:31			1		USE	C
EXS02260012.wiff	XIBLK03	LER	2/26/2010 17:46			1		USE	B
EXS02260013.wiff	WXXCRI	LER	2/26/2010 18:02			1		USE	C
EXS02260014.wiff	246837005	LER	2/26/2010 18:18	952679	10-1747	2	LANL	USE	S
EXS02260015.wiff	246837006	LER	2/26/2010 18:33	952679	10-1747	2	LANL	USE	S
EXS02260016.wiff	246841001	LER	2/26/2010 18:49	952679	10-1748	2	LANL	USE	S
EXS02260017.wiff	246841002	LER	2/26/2010 19:05	952679	10-1748	2	LANL	USE	S
EXS02260018.wiff	246841003	LER	2/26/2010 19:21	952679	10-1748	2	LANL	USE	S
EXS02260019.wiff	246843002	LER	2/26/2010 19:36	952679	10-1749	2	LANL	USE	S
EXS02260020.wiff	246843003	LER	2/26/2010 19:52	952679	10-1749	2	LANL	USE	S
EXS02260021.wiff	246843004	LER	2/26/2010 20:08	952679	10-1749	2	LANL	USE	S
EXS02260022.wiff	246846001	LER	2/26/2010 20:23	952679	10-1750	2	LANL	USE	S
EXS02260023.wiff	246846002	LER	2/26/2010 20:39	952679	10-1750	2	LANL	USE	S
EXS02260024.wiff	WXXCCV	LER	2/26/2010 20:55			1		USE	C
EXS02260025.wiff	XIBLK04	LER	2/26/2010 21:10			1		USE	B
EXS02260026.wiff	WXXCRI	LER	2/26/2010 21:26			1		USE	C
EXS02260027.wiff	246847001	LER	2/26/2010 21:42	952679	10-1751	2	LANL	USE	S
EXS02260028.wiff	246847002	LER	2/26/2010 21:58	952679	10-1751	2	LANL	USE	S
EXS02260029.wiff	XIBLK05	LER	2/26/2010 22:13			1		USE	B
EXS02260030.wiff	1202032874	LER	2/26/2010 22:29	948888	10-1543	2	LANL	USE	S

EXS02260031.wiff	1202032875	LER	2/26/2010 22:45	948888	10-1543	2	LANL	USE	S
EXS02260032.wiff	246066001	LER	2/26/2010 23:01	948888	10-1543	2	LANL	USE	S
EXS02260033.wiff	1202032876	LER	2/26/2010 23:16	948888	10-1543	2	LANL	USE	S
EXS02260034.wiff	1202032877	LER	2/26/2010 23:32	948888	10-1543	2	LANL	USE	S
EXS02260035.wiff	246066002	LER	2/26/2010 23:48	948888	10-1543	2	LANL	USE	S
EXS02260036.wiff	246066003	LER	2/27/2010 0:03	948888	10-1543	2	LANL	USE	S
EXS02260037.wiff	WXXCCV	LER	2/27/2010 0:19			1		USE	C
EXS02260038.wiff	XIBLK06	LER	2/27/2010 0:35			1		USE	B
EXS02260039.wiff	WXXCRI	LER	2/27/2010 0:51			1		USE	C
EXS02260040.wiff	246066004	LER	2/27/2010 1:06	948888	10-1543	2	LANL	USE	S
EXS02260041.wiff	246066005	LER	2/27/2010 1:22	948888	10-1543	2	LANL	USE	S
EXS02260042.wiff	246066006	LER	2/27/2010 1:38	948888	10-1543	2	LANL	USE	S
EXS02260043.wiff	246066007	LER	2/27/2010 1:53	948888	10-1543	2	LANL	USE	S
EXS02260044.wiff	246066008	LER	2/27/2010 2:09	948888	10-1543	2	LANL	USE	S
EXS02260045.wiff	246066009	LER	2/27/2010 2:25	948888	10-1543	2	LANL	USE	S
EXS02260046.wiff	246066010	LER	2/27/2010 2:40	948888	10-1543	2	LANL	USE	S
EXS02260047.wiff	246066011	LER	2/27/2010 2:56	948888	10-1543	2	LANL	USE	S
EXS02260048.wiff	246066012	LER	2/27/2010 3:12	948888	10-1543	2	LANL	USE	S
EXS02260049.wiff	246066013	LER	2/27/2010 3:28	948888	10-1543	2	LANL	USE	S
EXS02260050.wiff	WXXCCV	LER	2/27/2010 3:43			1		USE	C
EXS02260051.wiff	XIBLK07	LER	2/27/2010 3:59			1		USE	B
EXS02260052.wiff	WXXCRI	LER	2/27/2010 4:15			1		USE	C
EXS02260053.wiff	246066014	LER	2/27/2010 4:30	948888	10-1543	2	LANL	USE	S
EXS02260054.wiff	246066015	LER	2/27/2010 4:46	948888	10-1543	2	LANL	USE	S
EXS02260055.wiff	246066016	LER	2/27/2010 5:02	948888	10-1543	2	LANL	USE	S
EXS02260056.wiff	246066017	LER	2/27/2010 5:18	948888	10-1543	2	LANL	USE	S
EXS02260057.wiff	246066018	LER	2/27/2010 5:33	948888	10-1543	2	LANL	USE	S
EXS02260058.wiff	246066019	LER	2/27/2010 5:49	948888	10-1543	2	LANL	USE	S
EXS02260059.wiff	246066020	LER	2/27/2010 6:05	948888	10-1543	2	LANL	USE	S
EXS02260060.wiff	WXXCCV	LER	2/27/2010 6:20			1		USE	C
EXS02260061.wiff	XIBLK08	LER	2/27/2010 6:36			1		USE	B
EXS02260062.wiff	WXXCRI	LER	2/27/2010 6:52			1		USE	C
EXS02260063.wiff	1202045764	LER	2/27/2010 7:07	954338	VARIOUS	2	LANL	USE	S
EXS02260064.wiff	1202045765	LER	2/27/2010 7:23	954338	VARIOUS	2	LANL	USE	S
EXS02260065.wiff	247083001	LER	2/27/2010 7:39	954338	10-1827	2	LANL	USE	S
EXS02260066.wiff	1202045766	LER	2/27/2010 7:55	954338	10-1827	2	LANL	USE	S
EXS02260067.wiff	1202045767	LER	2/27/2010 8:10	954338	10-1827	2	LANL	USE	S

EXS02260068.wiff	247083002	LER	2/27/2010 8:26	954338	10-1827	2	LANL	USE	S
EXS02260069.wiff	247083003	LER	2/27/2010 8:42	954338	10-1827	2	LANL	USE	S
EXS02260070.wiff	247083004	LER	2/27/2010 8:57	954338	10-1827	2	LANL	USE	S
EXS02260071.wiff	247084001	LER	2/27/2010 9:13	954338	10-1828	2	LANL	USE	S
EXS02260072.wiff	247084002	LER	2/27/2010 9:29	954338	10-1828	2	LANL	USE	S
EXS02260073.wiff	WXXCCV	LER	2/27/2010 9:44			1		USE	C
EXS02260074.wiff	XIBLK09	LER	2/27/2010 10:00			1		USE	B
EXS02260075.wiff	WXXCRI	LER	2/27/2010 10:16			1		USE	C
EXS02260076.wiff	247086001	LER	2/27/2010 10:32	954338	10-1829	2	LANL	USE	S
EXS02260077.wiff	247088001	LER	2/27/2010 10:47	954338	10-1830	2	LANL	USE	S
EXS02260078.wiff	247088002	LER	2/27/2010 11:03	954338	10-1830	2	LANL	USE	S
EXS02260079.wiff	247088003	LER	2/27/2010 11:19	954338	10-1830	2	LANL	USE	S
EXS02260080.wiff	247091001	LER	2/27/2010 11:34	954338	10-1831	2	LANL	USE	S
EXS02260081.wiff	247091002	LER	2/27/2010 11:50	954338	10-1831	2	LANL	USE	S
EXS02260082.wiff	247094001	LER	2/27/2010 12:06	954338	10-1832	2	LANL	USE	S
EXS02260083.wiff	247094002	LER	2/27/2010 12:21	954338	10-1832	2	LANL	USE	S
EXS02260084.wiff	247121002	LER	2/27/2010 12:37	954338	10-1846	2	LANL	USE	S
EXS02260085.wiff	247123001	LER	2/27/2010 12:53	954338	10-1848	2	LANL	USE	S
EXS02260086.wiff	WXXCCV	LER	2/27/2010 13:09			1		USE	C
EXS02260087.wiff	XIBLK10	LER	2/27/2010 13:24			1		USE	B
EXS02260088.wiff	WXXCRI	LER	2/27/2010 13:40			1		USE	C
EXS02260089.wiff	247123002	LER	2/27/2010 13:56	954338	10-1848	2	LANL	USE	S
EXS02260090.wiff	247123003	LER	2/27/2010 14:11	954338	10-1848	2	LANL	USE	S
EXS02260091.wiff	247123004	LER	2/27/2010 14:27	954338	10-1848	2	LANL	USE	S
EXS02260092.wiff	XIBLK11	LER	2/27/2010 14:43			1		USE	B
EXS02260093.wiff	1202032878	LER	2/27/2010 14:59	948890	10-1544	2	LANL	USE	S
EXS02260094.wiff	1202032879	LER	2/27/2010 15:14	948890	10-1544	2	LANL	USE	S
EXS02260095.wiff	246070001	LER	2/27/2010 15:30	948890	10-1544	2	LANL	USE	S
EXS02260096.wiff	1202032880	LER	2/27/2010 15:46	948890	10-1544	2	LANL	USE	S
EXS02260097.wiff	1202032881	LER	2/27/2010 16:01	948890	10-1544	2	LANL	USE	S
EXS02260098.wiff	246070002	LER	2/27/2010 16:17	948890	10-1544	2	LANL	USE	S
EXS02260099.wiff	WXXCCV	LER	2/27/2010 16:33			1		USE	C
EXS02260100.wiff	XIBLK12	LER	2/27/2010 16:48			1		USE	B
EXS02260101.wiff	WXXCRI	LER	2/27/2010 17:04			1		USE	C
EXS02260102.wiff	246070003	LER	2/27/2010 17:20	948890	10-1544	2	LANL	USE	S
EXS02260103.wiff	246070004	LER	2/27/2010 17:35	948890	10-1544	2	LANL	USE	S
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EXS02260105.wiff	246070006	LER	2/27/2010 18:07	948890	10-1544	2	LANL	USE	S
EXS02260106.wiff	246070007	LER	2/27/2010 18:23	948890	10-1544	2	LANL	USE	S
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EXS02260110.wiff	246070011	LER	2/27/2010 19:25	948890	10-1544	2	LANL	USE	S
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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

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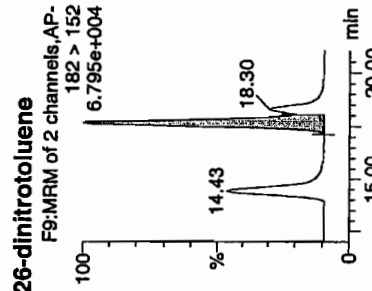
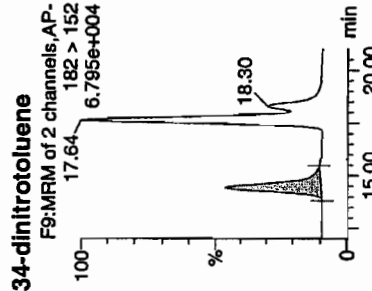
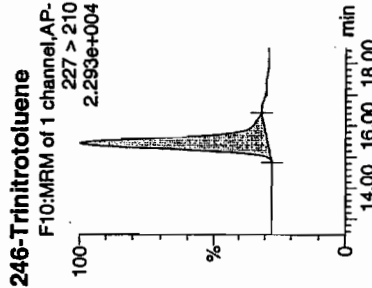
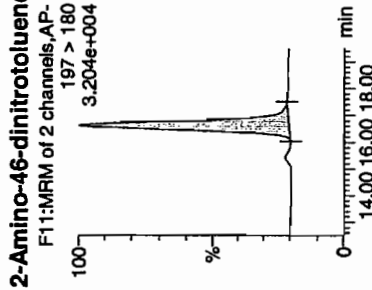
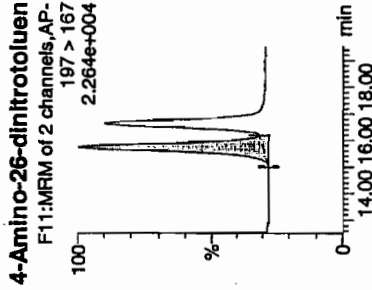
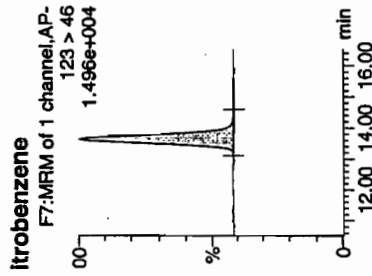
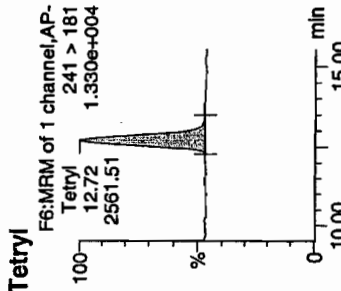
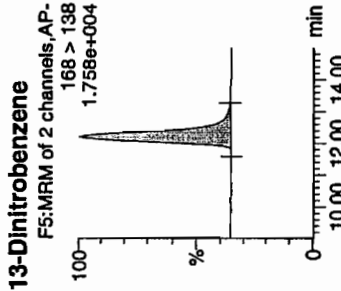
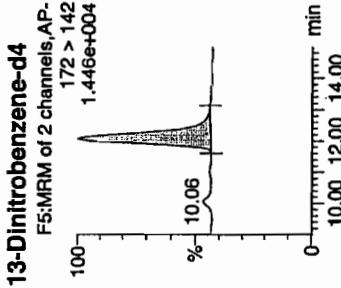
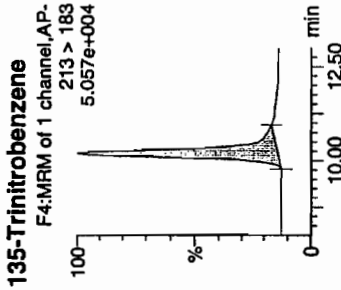
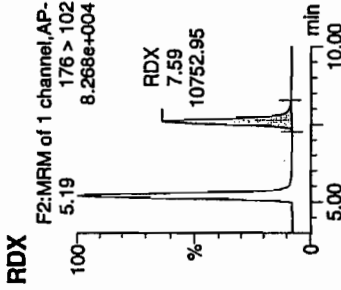
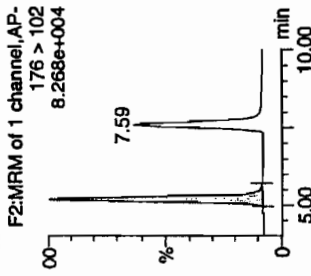
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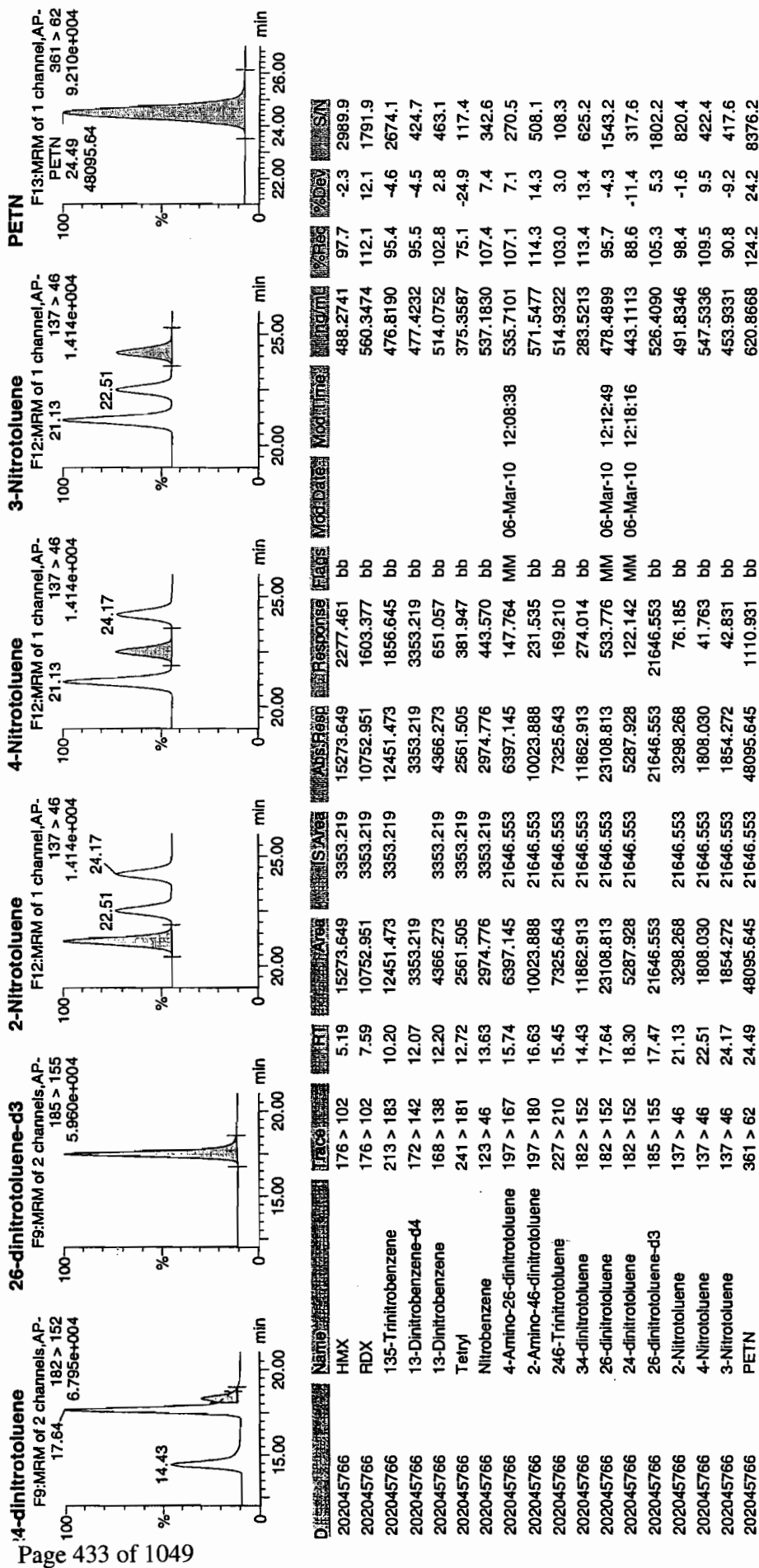
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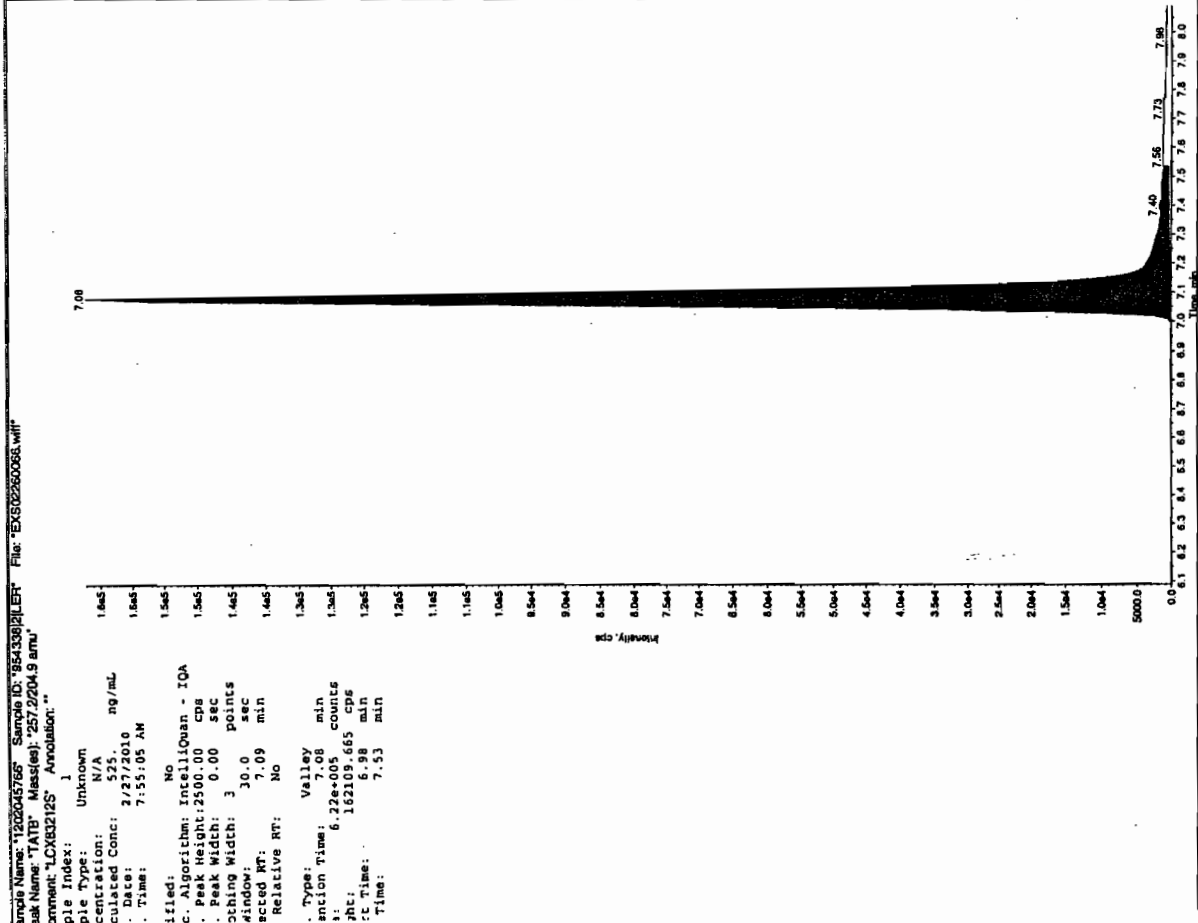
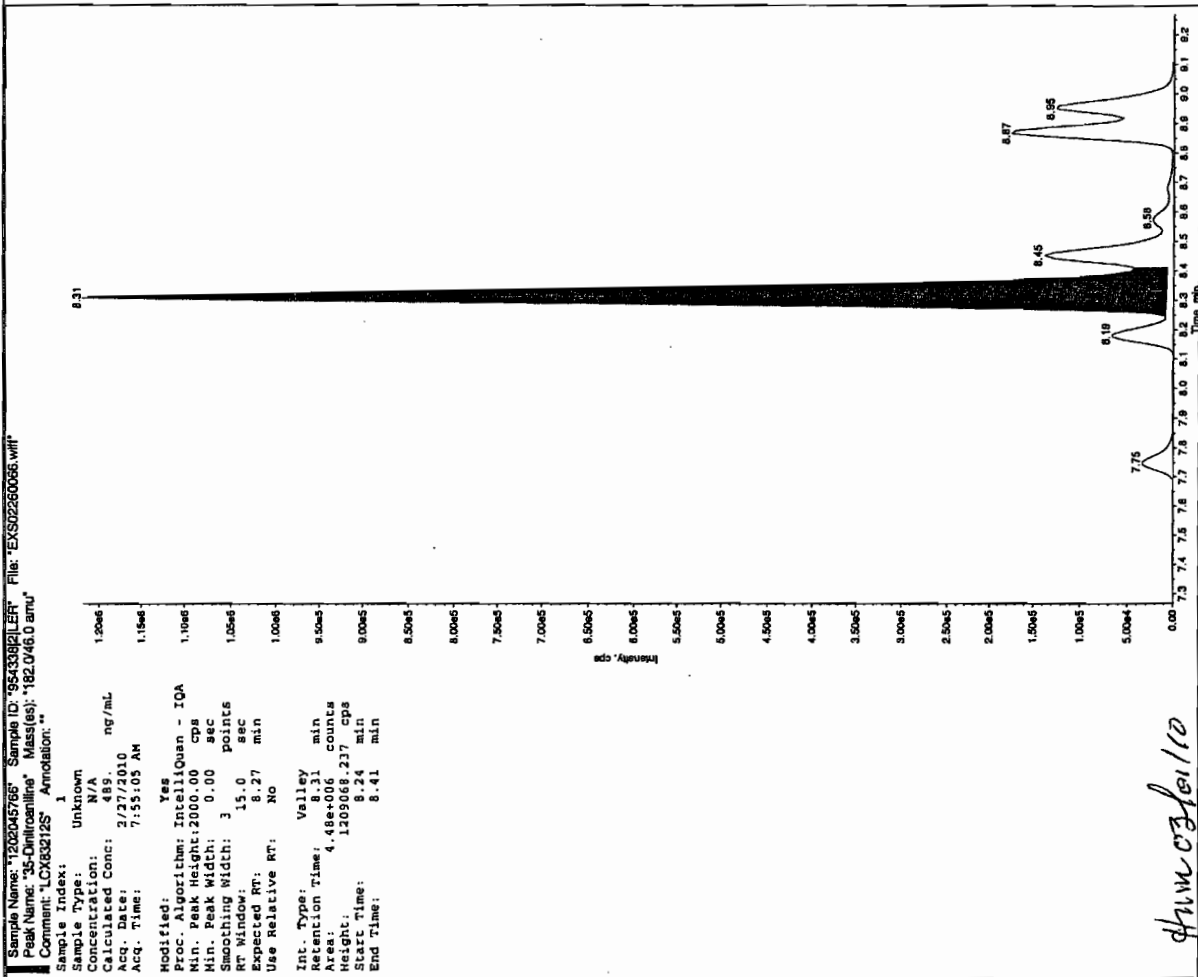


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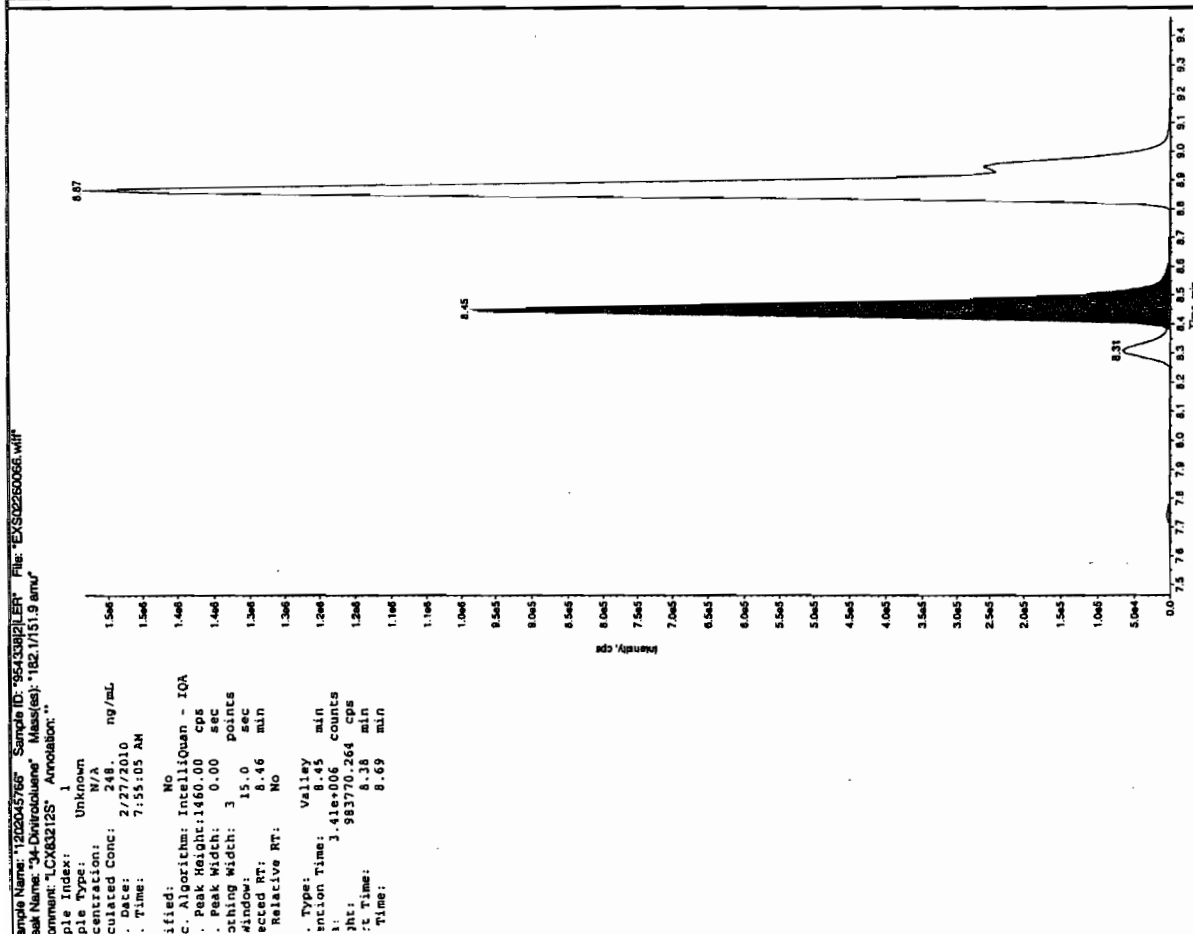
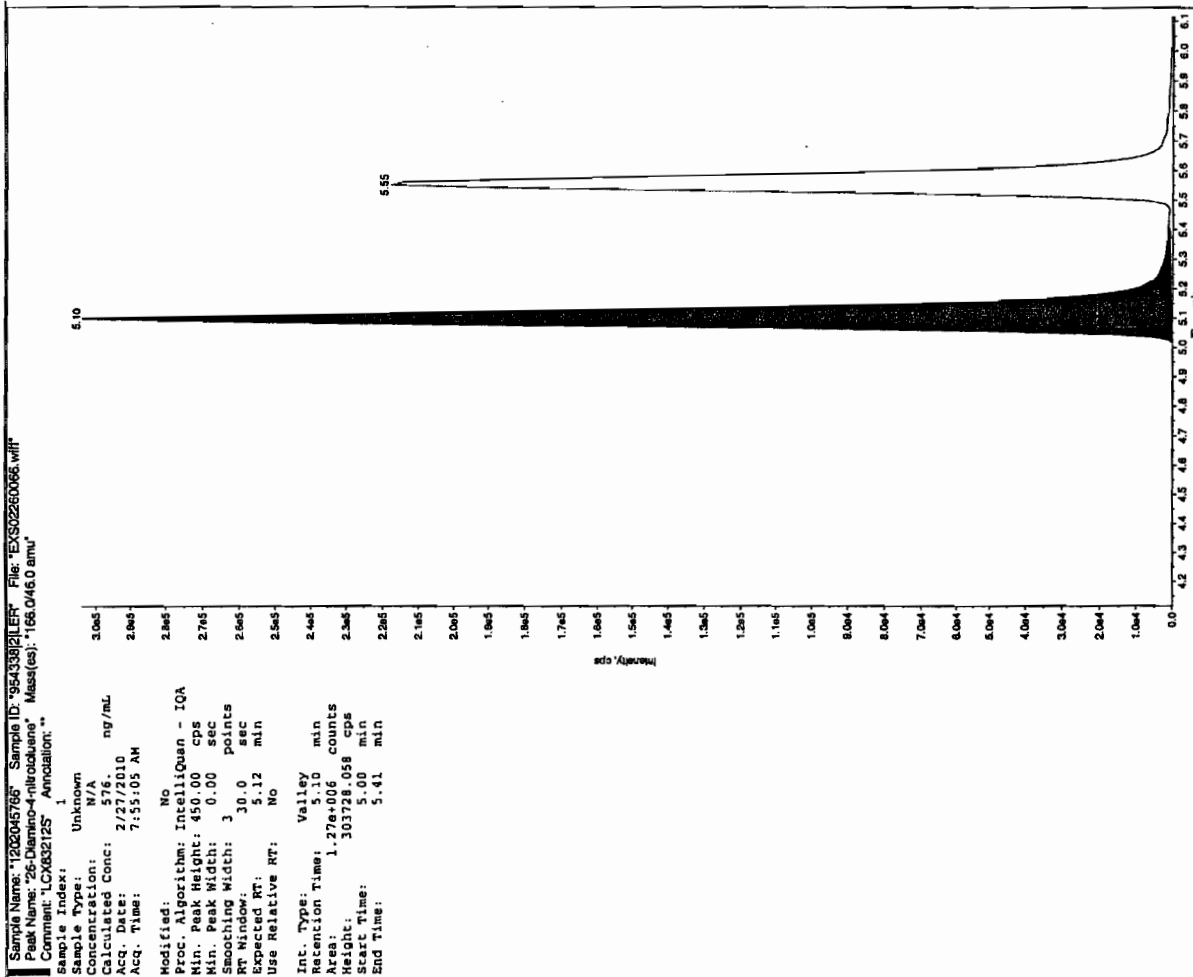


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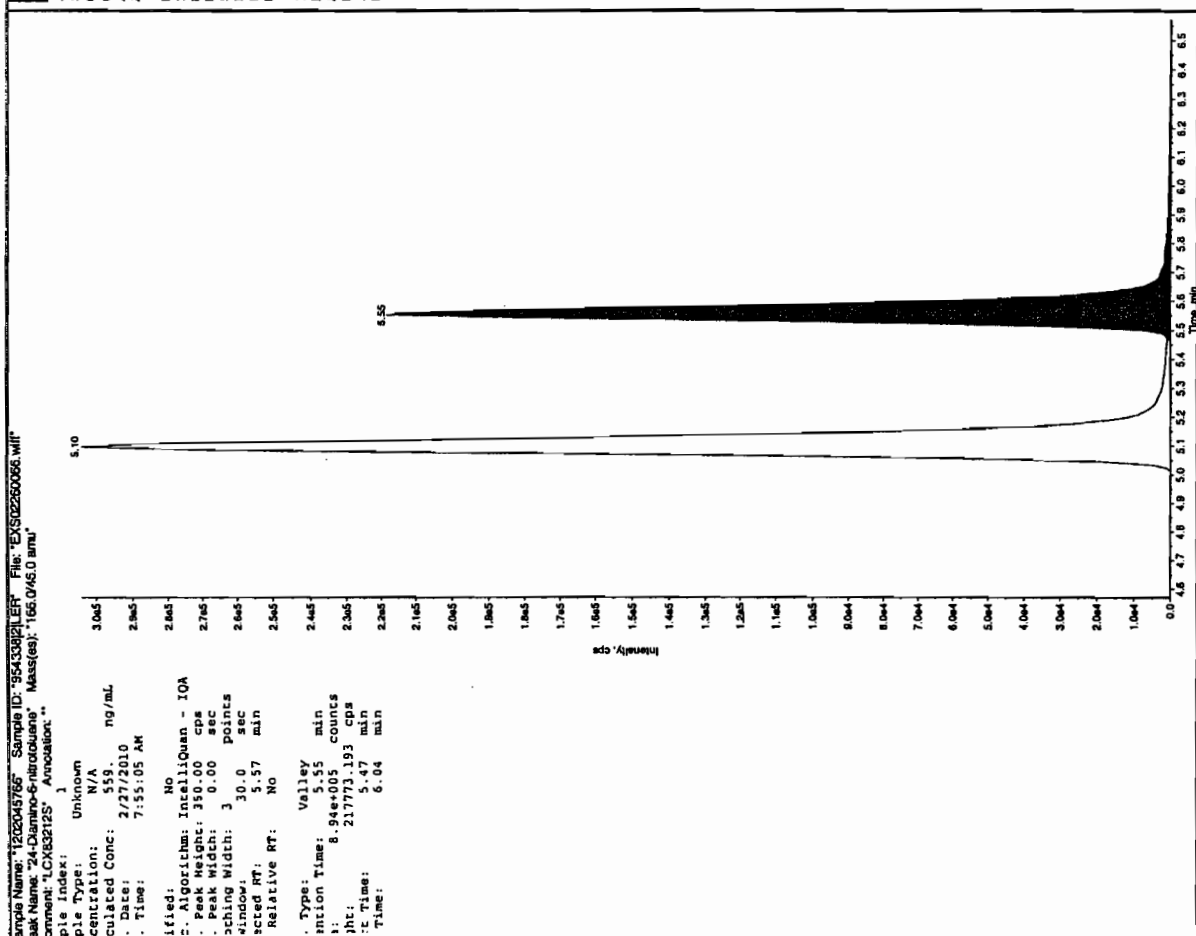
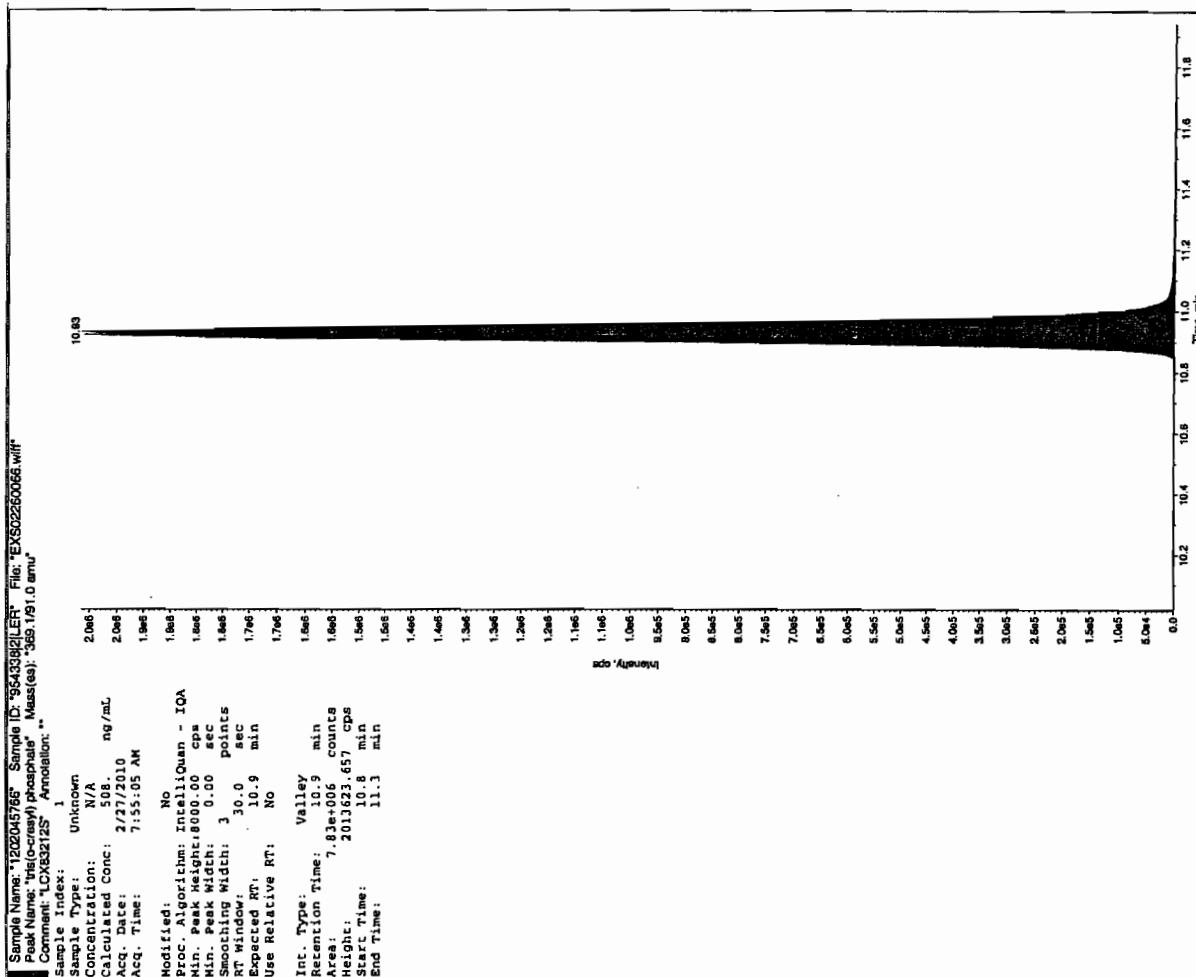


dhm 03/01/10

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



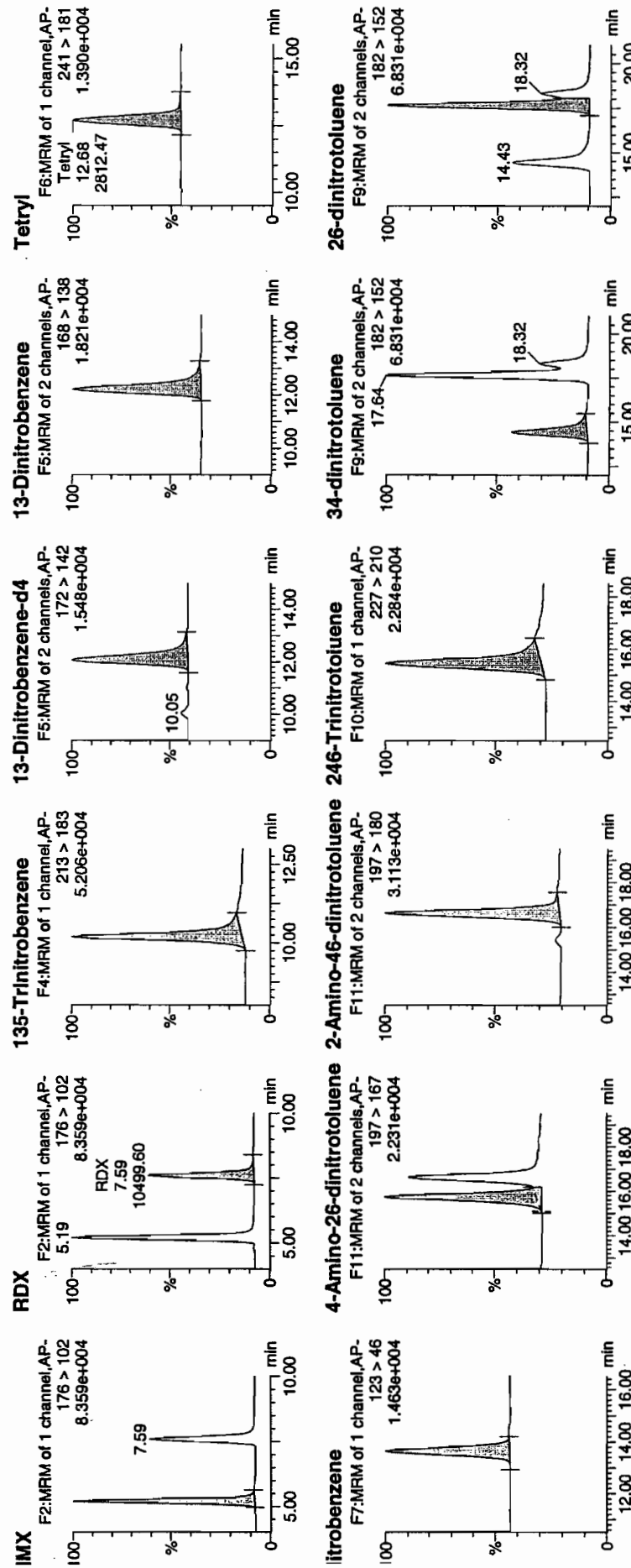
L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



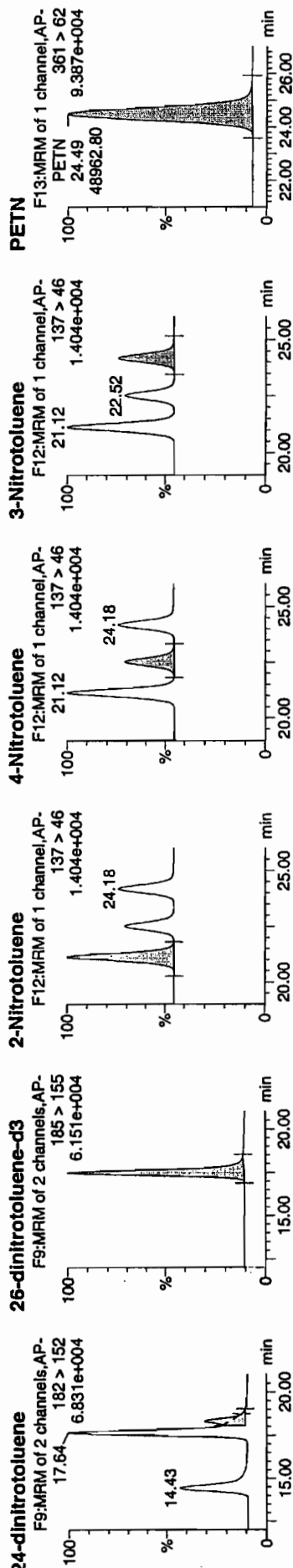
L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

4077
3/6/10

AW 954338 / 8022 / 24708300 / 1095 / 21

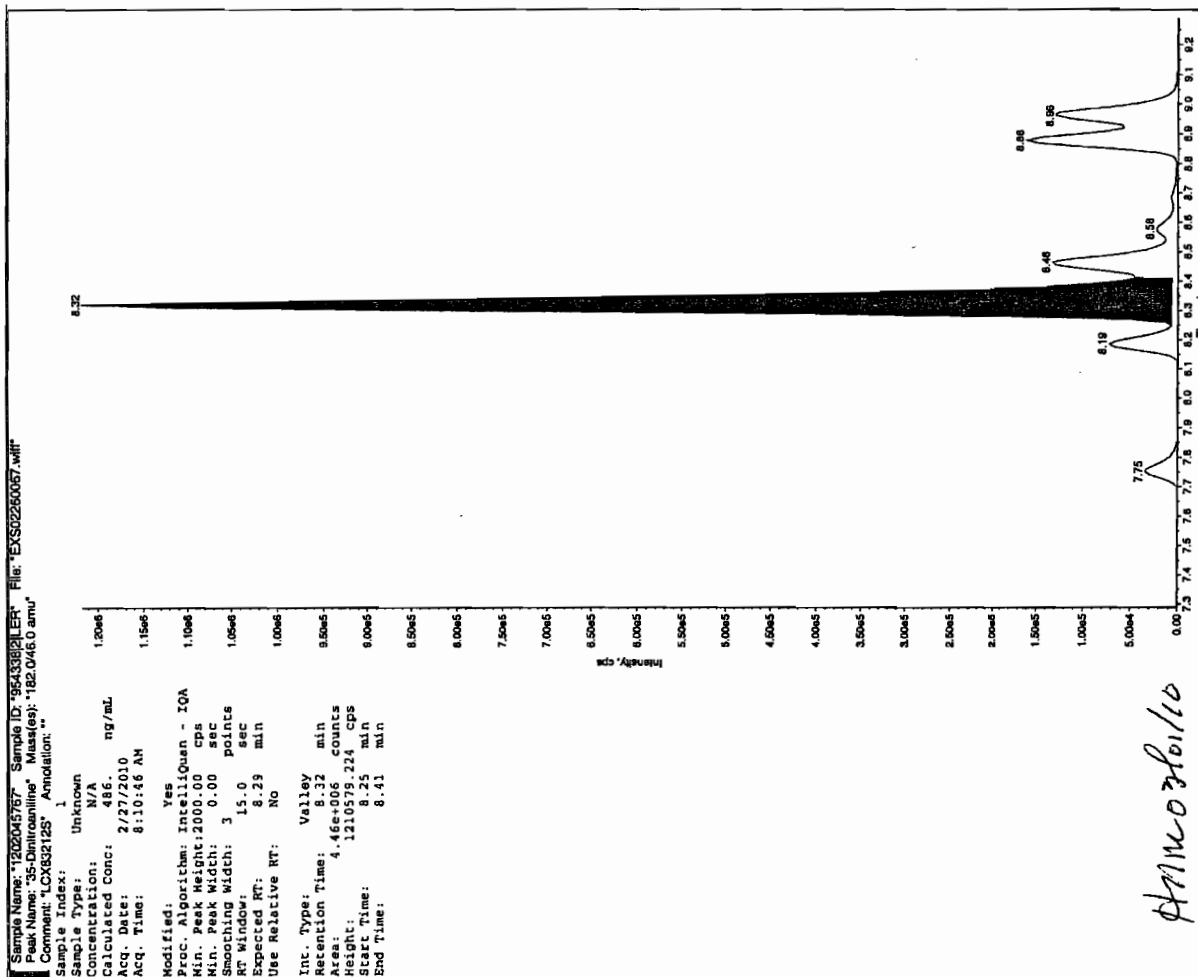


Handwritten signature and date: 3/6/10

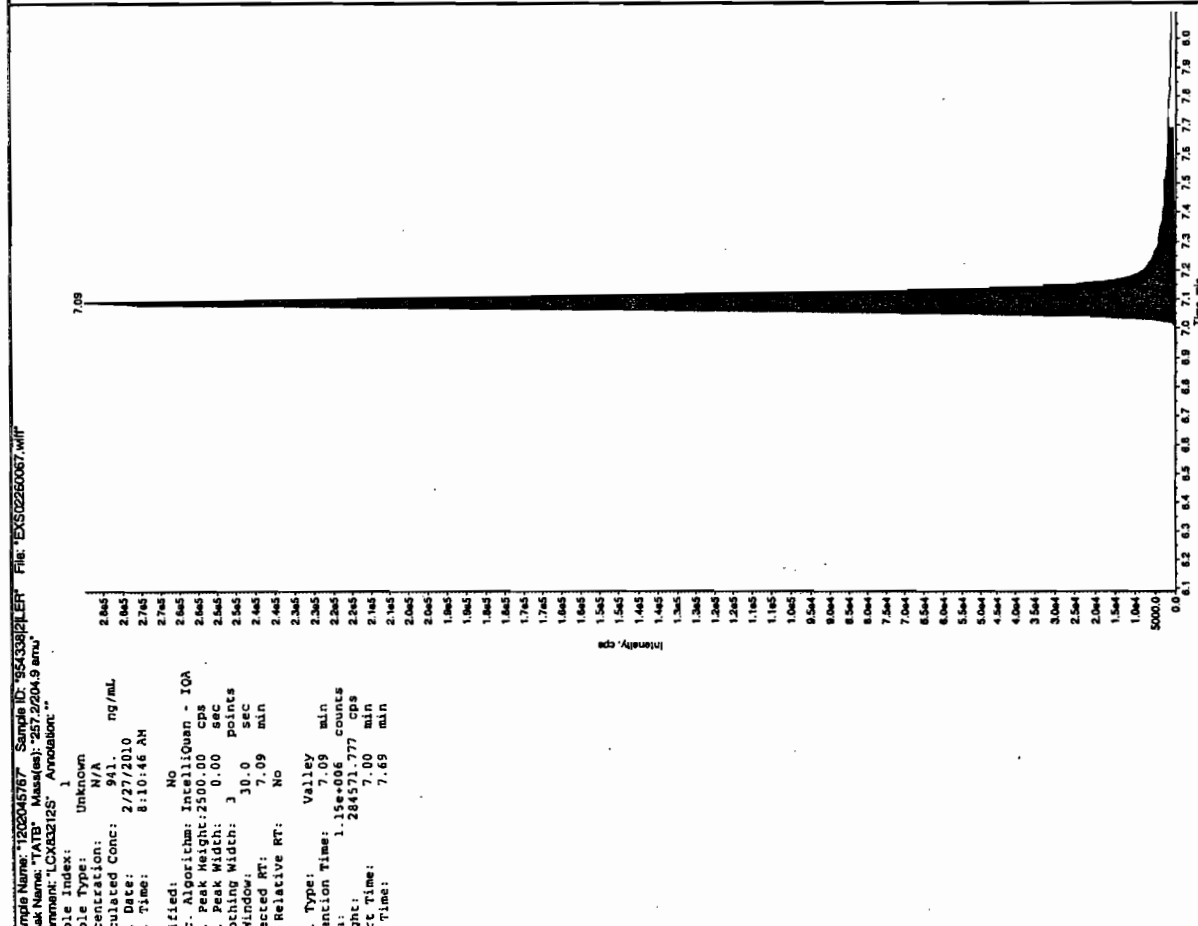


Name	Area	RT	Area	Area	Area	Response	Flags	ModDate	ModTime	IndMn	%Rec	%Dev	SIN
135-Trinitrobenzene	176 > 102	5.19	15360.264	3758.664	15360.264	2043.314	bb	06-Mar-10	12:08:28	438.0745	87.6	-12.4	1506.1
13-Dinitrobenzene-d4	176 > 102	7.59	10499.600	3758.664	10499.600	1396.720	bb	06-Mar-10	12:08:28	488.1248	97.6	-2.4	869.2
13-Dinitrobenzene	213 > 183	10.20	13012.036	3758.664	13012.036	1730.939	bb	06-Mar-10	12:08:28	444.5355	88.9	-11.1	649.9
13-Dinitrobenzene	172 > 142	12.07	3758.664	3758.664	3758.664	3758.664	bb	06-Mar-10	12:08:28	535.1495	107.0	7.0	108.4
13-Dinitrobenzene	168 > 138	12.20	4581.962	3758.664	4581.962	609.520	bb	06-Mar-10	12:08:28	481.2777	96.3	-3.7	448.2
Tetral	241 > 181	12.68	2812.470	3758.664	2812.470	374.132	bb	06-Mar-10	12:08:28	367.6780	73.5	-26.5	276.3
Nitrobenzene	123 > 46	13.63	2853.955	3758.664	2853.955	379.650	bb	06-Mar-10	12:08:28	459.7730	92.0	-8.0	218.2
4-Amino-2,6-dinitrotoluene	197 > 167	15.74	6327.146	21935.988	6327.146	144.218	MM	06-Mar-10	12:08:28	522.8572	104.6	4.6	247.1
2-Amino-4,6-dinitrotoluene	197 > 180	16.63	9692.628	21935.988	9692.628	220.930	bb	06-Mar-10	12:08:28	545.3676	109.1	9.1	506.9
246-Trinitrotoluene	227 > 210	15.45	7308.236	21935.988	7308.236	166.581	bb	06-Mar-10	12:08:28	506.9305	101.4	1.4	777.3
34-dinitrotoluene	182 > 152	14.43	11095.239	21935.988	11095.239	252.900	bb	06-Mar-10	12:08:28	281.6752	104.7	4.7	692.4
26-dinitrotoluene	182 > 152	17.64	23598.350	21935.988	23598.350	537.891	MM	06-Mar-10	12:08:28	482.1790	96.4	-3.6	1860.7
24-dinitrotoluene	182 > 152	18.32	5914.589	21935.988	5914.589	134.815	MM	06-Mar-10	12:08:28	489.0839	97.8	-2.2	419.6
26-dinitrotoluene-d3	185 > 155	17.47	21935.988	21935.988	21935.988	21935.988	bb	06-Mar-10	12:08:28	533.4476	106.7	6.7	1367.2
2-Nitrotoluene	137 > 46	21.12	3273.547	21935.988	3273.547	74.616	bb	06-Mar-10	12:08:28	481.7073	96.3	-3.7	267.8
4-Nitrotoluene	137 > 46	22.52	1584.114	21935.988	1584.114	36.108	bb	06-Mar-10	12:08:28	473.3944	94.7	-5.3	125.2
3-Nitrotoluene	137 > 46	24.18	1849.415	21935.988	1849.415	42.155	bb	06-Mar-10	12:08:28	446.7704	89.4	-10.6	140.6
PETN	361 > 62	24.49	48962.797	21935.988	48962.797	1116.038	bb	06-Mar-10	12:08:28	625.1578	125.0	25.0	8128.6

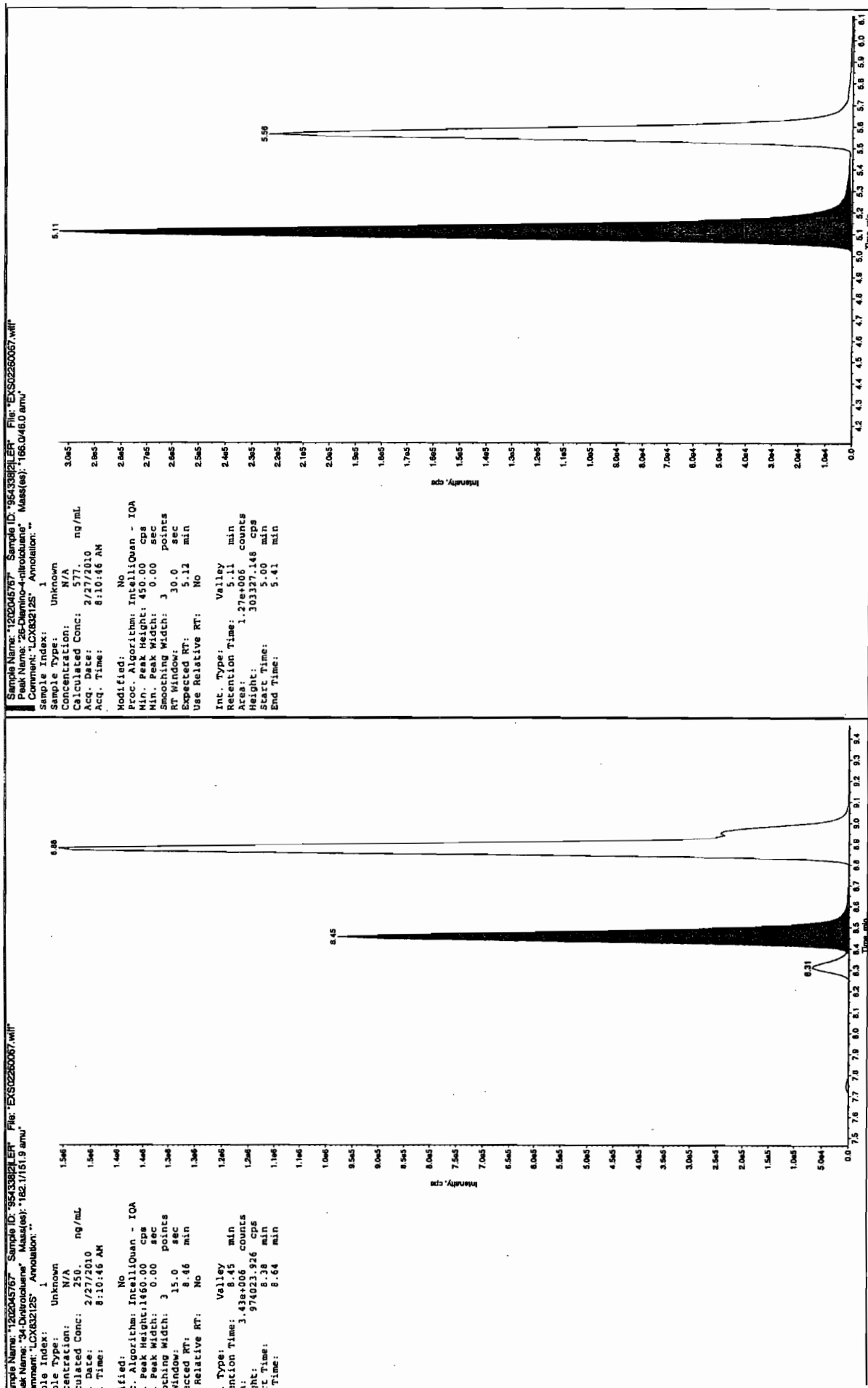
See 3/1/10



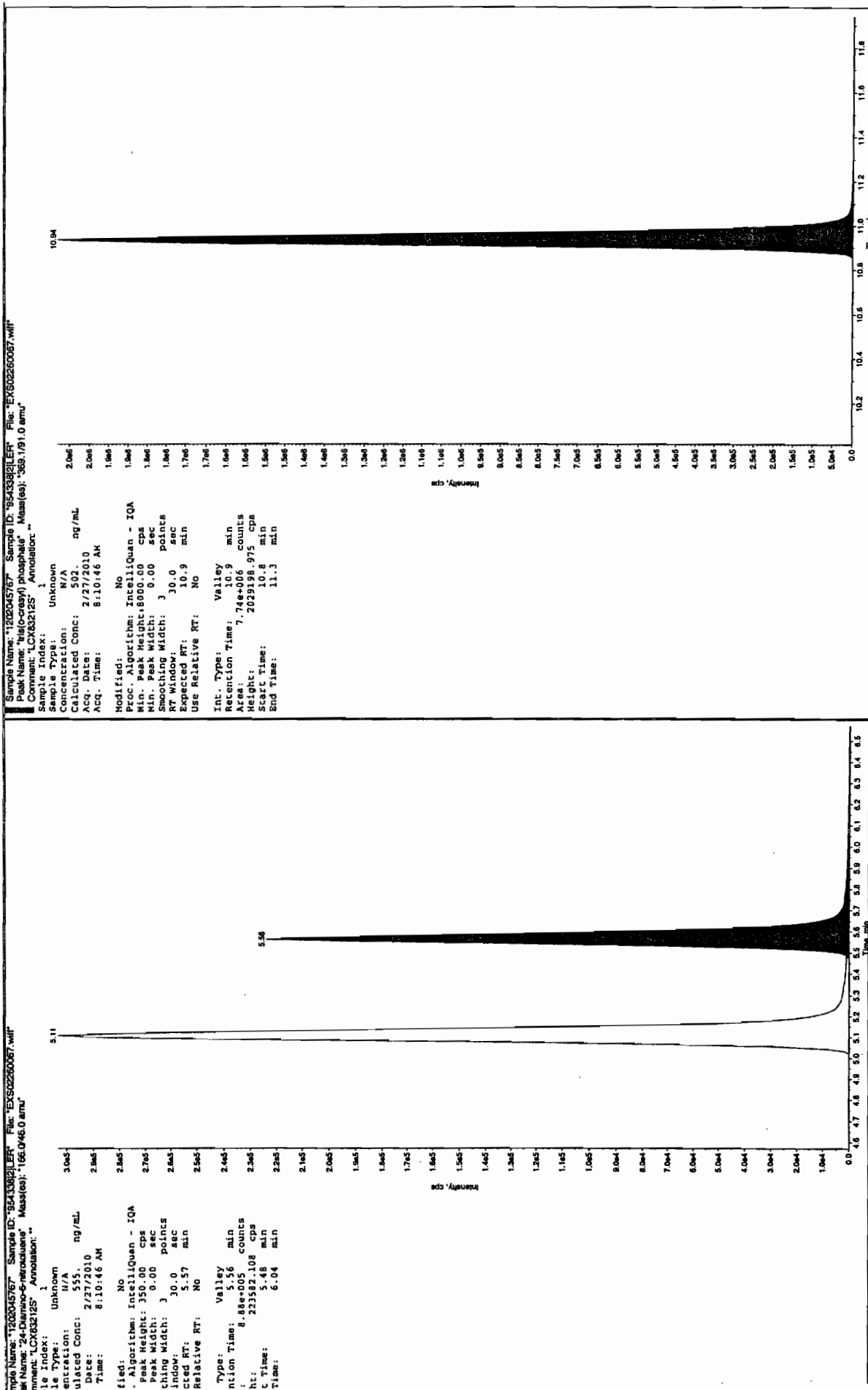
3/1/10



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



IL SOP GL-OA-E-056, Method 8321A-Modified LCMMS#4



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

GEL Laboratories LLC
Form GEL-DER

DER Report No.: 800488
Revision No.: 1

DATA EXCEPTION REPORT

Mo. Day Yr. 07-MAR-10	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: LC-MS/MS	Test / Method: SW846 8321A Modified	Matrix Type: Solid	Client Code: LANL
Batch ID: 954338	Sample Numbers: See Below		
<p>Potentially affected work order(s)(SDG): 247083(10-1827),247084(10-1828),247086(10-1829),247088(10-1830),247091(10-1831),247094(10-1832),247121(10-1846),247123(10-1848)</p> <p>Application Issues:</p> <p>Failed Recovery for MSD/PSD Failed RPD for MS/MSD, or PS/PSD</p>			
Specification and Requirements Exception Description:		DER Disposition:	
<p>1. The Matrix Spike Duplicate (1202045767) did not meet spike recovery limits for TATB at 188%. The recovery limits are 29-155%.</p> <p>2. The MS/MSD pair (1202045766/7) did not meet RPD acceptance limits for TATB at 56.8%. The acceptance limits are 0-30%.</p>		<p>1. Since the Laboratory Control Sample and Matrix Spike met acceptance limits for the TATB, the non-conforming recovery may be attributed to vagaries in the extraction process. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative.</p> <p>2. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative.</p>	

Originator's Name:

Michael Penny 07-MAR-10

Data Validator/Group Leader:

Herbert Maier 09-MAR-10

GC
SEMIVOLATILE
PCB
ANALYSIS

**PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1848**

Method/Analysis Information

Procedure: Analysis of Polychlorinated Biphenyls by ECD
Analytical Method: SW846 8082
Prep Method: SW846 3550B
Analytical Batch Number: 954781
Prep Batch Number: 954777

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
247123001	RE15-10-8198
1202046866	Method Blank (MB)
1202046867	Laboratory Control Sample (LCS)
1202046868	247123001(RE15-10-8198) Matrix Spike (MS)
1202046869	247123001(RE15-10-8198) 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.

One of the five quantified peaks did not meet the acceptance criteria in one of the Aroclor-1260 standards bracketing the samples in this SDG; however, the average concentration of the five quantitated peaks 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 247123001 (RE15-10-8198) 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.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis

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

Miscellaneous Information

Electronic Package Comment

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

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

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: 3/15/10

Roadmap for LANL 10-1848 PCB

This roadmap was analyzed by yip00818 on 02-23-2010, 11:04.

This roadmap was reviewed by jcb on 02-23-2010, 12:13.

This roadmap was packaged by yml on 03-13-2010, 07:19.

This roadmap was validated by jim01140 on 03-15-2010, 11:04.

Front Sample Column

exclude	manual	datafile	smplid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i/022210.b/063f6301.d	247123001	sample	22-FEB-2010	17:35	10-1848.sub	RE15-10-8198	1.00000	954781	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smplid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i/022210.b/063f6301.d	247123001	sample	22-FEB-2010	17:35	10-1848.sub	RE15-10-8198	1.00000	954781	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smplid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i/022210.b/039f3901-2.d	1202046866	mb	22-FEB-2010	12:40	10-1848.sub	PBLK01	1.00000	954781	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i/022210.b/040f4001-2.d	1202046867	lcs	22-FEB-2010	12:50	10-1848.sub	PBLK01LCS	1.00000	954781	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i/022210.b/064f6401.d	1202046868	ms	22-FEB-2010	17:48	10-1848.sub	RE15-10-8198MS	1.00000	954781	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i/022210.b/065f6501.d	1202046869	msd	22-FEB-2010	18:00	10-1848.sub	RE15-10-8198MSD	1.00000	954781	UPLOAD BOTH COLUMNS, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smplid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i/022210.b/039f3901-2.d	1202046866	mb	22-FEB-2010	12:40	10-1848.sub	PBLK01	1.00000	954781	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i/022210.b/040f4001-2.d	1202046867	lcs	22-FEB-2010	12:50	10-1848.sub	PBLK01LCS	1.00000	954781	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i/022210.b/064f6401.d	1202046868	ms	22-FEB-2010	17:48	10-1848.sub	RE15-10-8198MS	1.00000	954781	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i/022210.b/065f6501.d	1202046869	msd	22-FEB-2010	18:00	10-1848.sub	RE15-10-8198MSD	1.00000	954781	UPLOAD BOTH COLUMNS, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number: 10-1848
Lab Sample ID: 247123001

Date Collected: 02/11/2010 12:00
Date Received: 02/16/2010 08:50
Client: LANL010
Method: SW846 8082
Inst: ECD1A.1
Analyst: YS1
Aliquot: 30.06 g
Column: 1 CLP1
 2 CLP2

Matrix: R
%Moisture: .5
Project: LANL01004
SOP Ref: GL-OA-E-040
Dilution: 1
Inj. Vol: 1 uL
Final Volume: 1 mL
Level: LOW

Client ID: RE15-10-8198
Batch ID: 954781
Run Date: 02/22/2010 17:35
Prep Date: 02/18/2010 20:27
Data File: 063f6301.d
 063b6301.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.34	ug/kg	1.11	3.34	1
11104-28-2	Aroclor-1221	U	3.34	ug/kg	1.11	3.34	1
11141-16-5	Aroclor-1232	U	3.34	ug/kg	1.11	3.34	1
53469-21-9	Aroclor-1242	P	3.40	ug/kg	1.11	3.34	1
12672-29-6	Aroclor-1248	U	3.34	ug/kg	1.11	3.34	1
11097-69-1	Aroclor-1254	U	3.34	ug/kg	1.11	3.34	1
11096-82-5	Aroclor-1260	U	3.34	ug/kg	1.11	3.34	1

QUALITY CONTROL SUMMARY

PCB
Surrogate Recovery Report

Page 1 of 1

SDG Number: 10-1848

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 #
1202046866	MB for batch 954777	62	60	63	65
1202046867	LCS for batch 954777	60	58	61	61
247123001	RE15-10-8198	61	59	72	65
1202046868	RE15-10-8198MS	63	60	73	67
1202046869	RE15-10-8198MSD	54	52	65	59

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: 10-1848

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 954777

Matrix: SOIL

Lab Sample ID:1202046867

Instrument: ECD1A.I

Analysis Date: 02/22/2010 12:50

Dilution: 1

Analyst: YS1

Prep Batch II 954777

Inj. Vol: 1 uL

Batch ID: 954781

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS Aroclor-1016	33.3	0.0	20.9	63	39-102
11096-82-5	LCS Aroclor-1260	33.3	0.0	23.6	71	45-118

PCB

Page 1 of 2

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1848

Sample Type: Matrix Spike

Client ID: RE15-10-8198MS

Matrix: R

Lab Sample ID:1202046868

%Moisture: .5

Instrument: ECD1A.I

Analysis Date: 02/22/2010 17:48

Dilution: 1

Analyst: YS1

Pren Batch II 954777

Inj. Vol: 1 uL

Batch ID: 954781

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS Aroclor-1016	33.3	0.00 U	22.3	67	23-119
11096-82-5	MS Aroclor-1260	33.3	0.00 U	27.6	83	28-124

PCB

Page 2 of 2

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1848

Sample Type: Matrix Spike Duplicate

Client ID: RE15-10-8198MSD

Matrix: R

Lab Sample ID:1202046869

%Moisture: .5

Instrument: ECD1A.I

Analysis Date: 02/22/2010 18:00

Dilution: 1

Analyst: YS1

Prep Batch ID: 954777

Inj. Vol: 1 uL

Batch ID: 954781

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	33.4	0.00 U	19.7	59	23-119	12	0-28
11096-82-5	MSD Aroclor-1260	33.4	0.00 U	25.6	77	28-124	8	0-30

Method Blank Summary

Page 1 of 1

SDG Number:	10-1848	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 954777	Instrument ID:	ECD1AJ_2	Data File:	039b3901-1.d
Lab Sample ID:	1202046866		ECD1AJ_1		039f3901-1.d
Column:	CLP2	Prep Date:	02/18/2010 20:27	Analyzed:	02/22/10 12:40
	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 954777	1202046867	040f4001-1.d 040b4001-1.d	02/22/10	1250
02 RE15-10-8198	247123001	063f6301.d 063b6301.d	02/22/10	1735
03 RE15-10-8198MS	1202046868	064f6401.d 064b6401.d	02/22/10	1748
04 RE15-10-8198MSD	1202046869	065f6501.d 065b6501.d	02/22/10	1800

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number: 10-1848
Lab Sample ID: 247123001

Date Collected: 02/11/2010 12:00
Date Received: 02/16/2010 08:50
Client: LANL010
Method: SW846 8082
Inst: ECD1A.I
Analyst: YS1
Aliquot: 30.06 g
Column: 1 CLP1
2 CLP2

Matrix: R
%Moisture: .5
Project: LANL01004
SOP Ref: GL-OA-E-040
Dilution: 1
Inj. Vol: 1 uL
Final Volume: 1 mL
Level: LOW

Client ID: RE15-10-8198
Batch ID: 954781
Run Date: 02/22/2010 17:35
Prep Date: 02/18/2010 20:27
Data File: 063f6301.d
063b6301.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.34	ug/kg	1.11	3.34	1
11104-28-2	Aroclor-1221	U	3.34	ug/kg	1.11	3.34	1
11141-16-5	Aroclor-1232	U	3.34	ug/kg	1.11	3.34	1
53469-21-9	Aroclor-1242	P	3.40	ug/kg	1.11	3.34	1
12672-29-6	Aroclor-1248	U	3.34	ug/kg	1.11	3.34	1
11097-69-1	Aroclor-1254	U	3.34	ug/kg	1.11	3.34	1
11096-82-5	Aroclor-1260	U	3.34	ug/kg	1.11	3.34	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/022210.b/063f6301.d
Lab Smp Id: 247123001 Client Smp ID: RE15-10-8198
Inj Date : 22-FEB-2010 17:35
Operator : YSl Inst ID: ecd1a.i
Smp Info : |247123001|1|
Misc Info : |ECD82P_1S|954781|SVA|LANL|SOIL|RE15-10-8198|||
Comment :
Method : /chem/ecdl1a.i/022210.b/ECD1-F-8082-022210.m
Meth Date : 23-Feb-2010 06:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 63
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1848.sub
Target Version: 3.50 Sample Matrix: Soil
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	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	0.45080	% 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		
1.922	1.924	-0.002	52851789	122.729	4.1 80.00-	120.00	100.00
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.230	5.233	-0.003	44008944	143.217	4.8 80.00-	120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.375	2.376	-0.001	2596908	206.802	6.9 80.00-	120.00	100.00
2.663	2.665	-0.002	1385446	94.8179	3.2 101.08-	141.08	53.35
2.781	2.783	-0.002	466738	82.9134	2.8 26.64-	66.64	17.97
2.992	2.993	-0.001	593131	81.1357	2.7 38.45-	78.45	22.84

CONCENTRATIONS

RT	EXP RT	DLT RT	RESPONSE { ug/L)	ON-COL	FINAL	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====

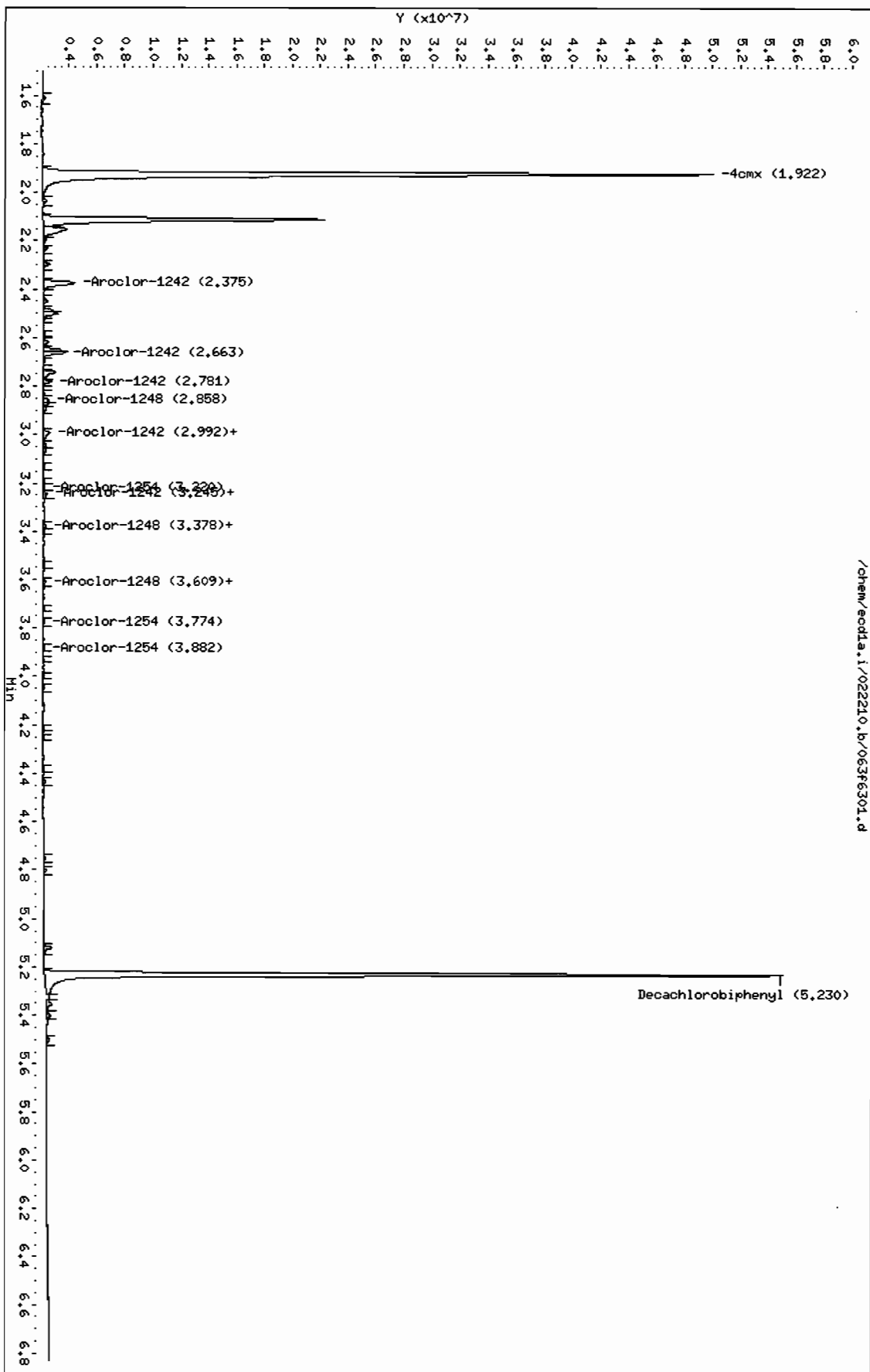
4 Aroclor-1242 (continued)

3.245	3.247	-0.002	300858	48.6581	1.6	32.15-	72.15	11.59
-------	-------	--------	--------	---------	-----	--------	-------	-------

Average of Peak Concentrations = 3.4

Data File: /chem/eod1a.i/022210.b/063f6301.d
Date: 22-FEB-2010 17:35
Client ID: REL5-10-0198
Sample Info: 124712300111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: eod1a.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/022210.b/063b6301.d

Lab Smp Id: 247123001

Client Smp ID: RE15-10-8198

Inj Date : 22-FEB-2010 17:35

Operator : YS1

Inst ID: ecdla.i

Smp Info : |247123001|1|

Misc Info : |ECD82P_1S|954781|SVA|LANL|SOIL|RE15-10-8198|||

Comment :

Method : /chem/ecdla.i/022210.b/ECD1-B-8082-022210.m

Meth Date : 23-Feb-2010 06:15 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 63

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-1848.sub

Target Version: 3.50

Sample Matrix: Soil

Processing Host: hpc1pl

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	0.45080	% 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		
2.288	2.289	-0.001	34972057	117.594	3.9 80.00- 120.00	100.00

\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.934	5.936	-0.002	27579446	130.400	4.4 80.00- 120.00	100.00

4 Aroclor-1242				CAS #: 53469-21-9		
3.183	3.185	-0.002	1072160	103.578	3.5 80.00- 120.00	100.00(a)
3.267	3.268	-0.001	780703	107.255	3.6 47.50- 87.50	72.82
3.557	3.559	-0.002	286605	49.6853	1.7 33.58- 73.58	26.73
3.791	3.793	-0.002	176765	30.5395	1.0 34.19- 74.19	16.49

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	
4 Aroclor-1242 (continued)								
3.818	3.820	-0.002	186068	28.0164	0.94	41.07-	81.07	17.35
Average of Peak Concentrations =					2.1			

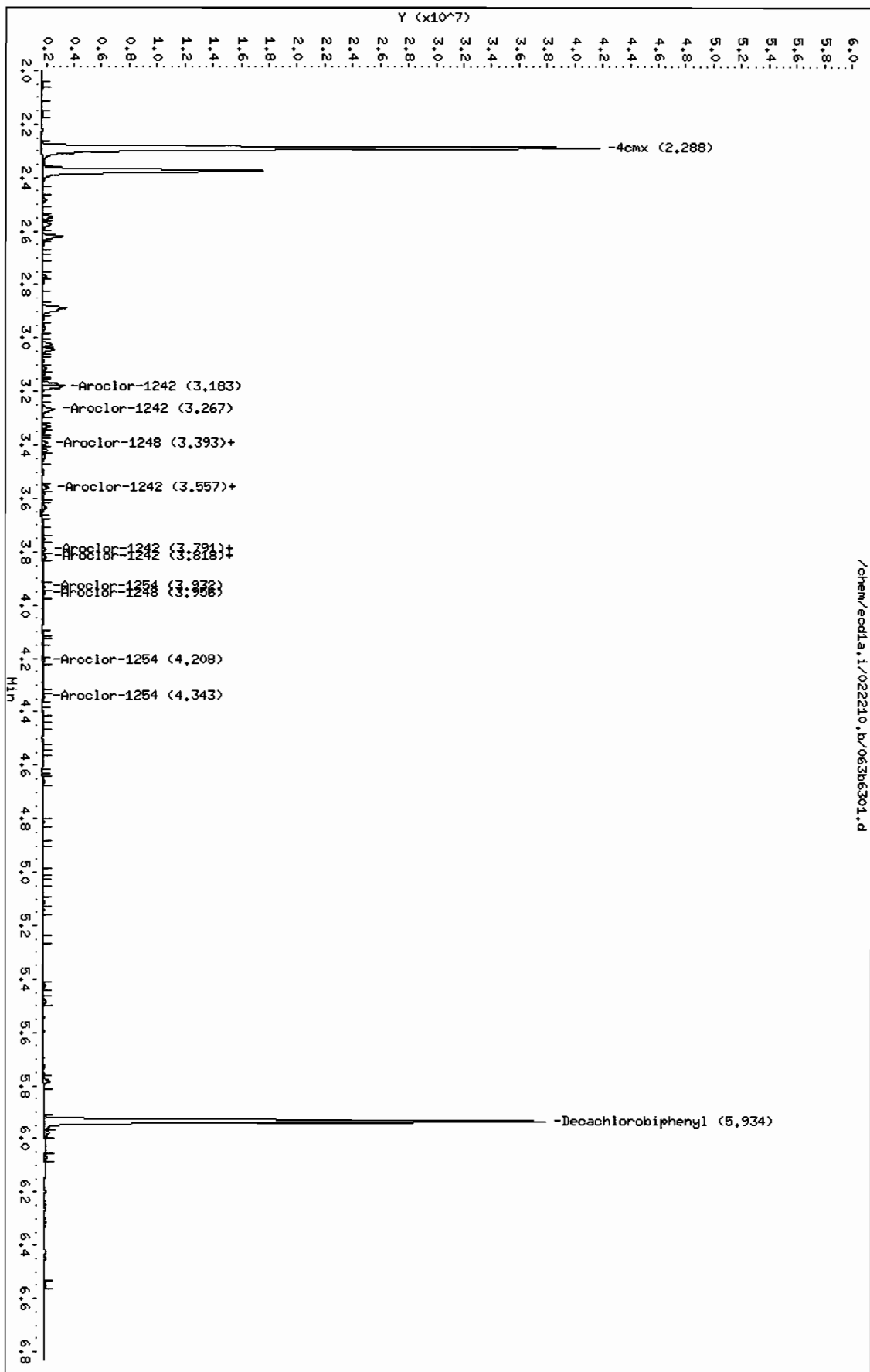
QC Flag Legend

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

Data File: /chem/ecdl1.i/022210.b/063b6301.d
Date: 22-FEB-2010 17:35
Client ID: RE15-10-8198
Sample Info: 1247123001.11
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecdl1.i
Operator: YSL
Column diameter: 0.25

Page 1



STANDARDS DATA

Report Date: 02-Mar-2010 17:51

Calibration History

Method : /chem/ecdl1a.i/022210.b/ECD1-F-8082-022210.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 22-FEB-2010 12:08

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecdl1a.i/022210.b/032f3201.d
22-FEB-2010 10:23	AR1248	/chem/ecdl1a.i/022210.b/026f2601.d
22-FEB-2010 09:20	AR1242	/chem/ecdl1a.i/022210.b/020f2001.d
22-FEB-2010 08:16	AR1254	/chem/ecdl1a.i/022210.b/014f1401.d
22-FEB-2010 07:13	AR1660	/chem/ecdl1a.i/022210.b/008f0801.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecdl1a.i/022210.b/033f3301.d
22-FEB-2010 10:33	AR1248	/chem/ecdl1a.i/022210.b/027f2701.d
22-FEB-2010 09:30	AR1242	/chem/ecdl1a.i/022210.b/021f2101.d
22-FEB-2010 08:27	AR1254	/chem/ecdl1a.i/022210.b/015f1501.d
22-FEB-2010 07:24	AR1660	/chem/ecdl1a.i/022210.b/009f0901.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecdl1a.i/022210.b/034f3401.d
22-FEB-2010 10:44	AR1248	/chem/ecdl1a.i/022210.b/028f2801.d
22-FEB-2010 09:41	AR1242	/chem/ecdl1a.i/022210.b/022f2201.d
22-FEB-2010 08:37	AR1254	/chem/ecdl1a.i/022210.b/016f1601.d
22-FEB-2010 07:34	AR1660	/chem/ecdl1a.i/022210.b/010f1001.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecdl1a.i/022210.b/035f3501.d
22-FEB-2010 11:05	AR1248	/chem/ecdl1a.i/022210.b/030f3001.d
22-FEB-2010 09:51	AR1242	/chem/ecdl1a.i/022210.b/023f2301.d
22-FEB-2010 08:48	AR1254	/chem/ecdl1a.i/022210.b/017f1701.d
22-FEB-2010 07:45	AR1660	/chem/ecdl1a.i/022210.b/011f1101.d
22-FEB-2010 07:03	AR1262	/chem/ecdl1a.i/022210.b/007f0701.d
22-FEB-2010 06:52	AR1221	/chem/ecdl1a.i/022210.b/006f0601.d
22-FEB-2010 06:41	AR1232	/chem/ecdl1a.i/022210.b/005f0501.d
22-FEB-2010 06:31	DDTANALOGSTD	/chem/ecdl1a.i/022210.b/004f0401.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecdl1a.i/022210.b/036f3601.d
22-FEB-2010 10:54	AR1248	/chem/ecdl1a.i/022210.b/029f2901.d
22-FEB-2010 10:02	AR1242	/chem/ecdl1a.i/022210.b/024f2401.d
22-FEB-2010 08:59	AR1254	/chem/ecdl1a.i/022210.b/018f1801.d
22-FEB-2010 07:55	AR1660	/chem/ecdl1a.i/022210.b/012f1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

+-----+-----+-----+		
| Ccal Level: 4 , Ccal Amount: 1000		|
+=====+		
| 22-FEB-2010 20:45 |AR1660	|/chem/ecdl1a.i/022210.b/078f7801.d	|
+-----+-----+-----+		
| Ccal Level: 4 , Ccal Amount: 1000		|
+=====+		
| 22-FEB-2010 23:17 |AR1660	|/chem/ecdl1a.i/022210.b/090f9001.d	|
+-----+-----+-----+		
| Ccal Level: 4 , Ccal Amount: 1000		|
+=====+		
| 22-FEB-2010 18:13 |AR1660	|/chem/ecdl1a.i/022210.b/066f6601.d	|
+-----+-----+-----+		
| Ccal Level: 4 , Ccal Amount: 1000		|
+=====+		
| 22-FEB-2010 17:10 |AR1660	|/chem/ecdl1a.i/022210.b/061f6101.d	|
+-----+-----+-----+		
| Ccal Level: 4 , Ccal Amount: 1000		|
+=====+		
| 22-FEB-2010 14:42 |AR1660	|/chem/ecdl1a.i/022210.b/049f4901.d	|
+-----+-----+-----+		
| Ccal Level: 4 , Ccal Amount: 1000		|
+=====+		
| 22-FEB-2010 12:19 |AR1268	|/chem/ecdl1a.i/022210.b/037f3701.d	|
+-----+-----+-----+		
| Ccal Level: 4 , Ccal Amount: 1000		|
+=====+		
| 22-FEB-2010 11:58 |AR1268	|/chem/ecdl1a.i/022210.b/035f3501.d	|
+-----+-----+-----+		
| Ccal Level: 4 , Ccal Amount: 1000		|
+=====+		
| 22-FEB-2010 11:16 |AR1248	|/chem/ecdl1a.i/022210.b/031f3101.d	|
+-----+-----+-----+		
| Ccal Level: 4 , Ccal Amount: 1000		|
+=====+		
| 22-FEB-2010 11:05 |AR1268	|/chem/ecdl1a.i/022210.b/030f3001.d	|
+-----+-----+-----+		
| Ccal Level: 4 , Ccal Amount: 1000		|
+=====+		
| 22-FEB-2010 10:12 |AR1242	|/chem/ecdl1a.i/022210.b/025f2501.d	|
+-----+-----+-----+		
| Ccal Level: 4 , Ccal Amount: 1000		|
+=====+		
| 22-FEB-2010 09:51 |AR1242	|/chem/ecdl1a.i/022210.b/023f2301.d	|
+-----+-----+-----+		
| Ccal Level: 4 , Ccal Amount: 1000		|
+=====+		
| 22-FEB-2010 09:09 |AR1254	|/chem/ecdl1a.i/022210.b/019f1901.d	|
+-----+-----+-----+		
| Ccal Level: 4 , Ccal Amount: 1000		|
+=====+		
| 22-FEB-2010 08:48 |AR1254	|/chem/ecdl1a.i/022210.b/017f1701.d	|
+-----+-----+-----+		
| Ccal Level: 4 , Ccal Amount: 1000		|
+=====+		
| 22-FEB-2010 08:06 |AR1660	|/chem/ecdl1a.i/022210.b/013f1301.d	|
+-----+-----+-----+		
| Ccal Level: 4 , Ccal Amount: 1000		|
+=====+		
| 22-FEB-2010 07:45 |AR1660	|/chem/ecdl1a.i/022210.b/011f1101.d	|
+-----+-----+-----+		
| Ccal Level: 4 , Ccal Amount: 1000		|
+=====+		
| 22-FEB-2010 07:03 |AR1262	|/chem/ecdl1a.i/022210.b/007f0701.d	|
+-----+-----+-----+		
| Ccal Level: 4 , Ccal Amount: 1000		|
+=====+		
| 22-FEB-2010 06:52 |AR1221	|/chem/ecdl1a.i/022210.b/006f0601.d	|
+-----+-----+-----+		

| Ccal Level: 4 , Ccal Amount: 1000	|
=====+	=====+
|22-FEB-2010 06:41 |AR1232	|/chem/ecd1a.i/022210.b/005f0501.d
-----+	-----+
| Ccal Level: 4 , Ccal Amount: 1000	|
=====+	=====+
|22-FEB-2010 06:10 |AR1660	|/chem/ecd1a.i/022210.b/002f0201.d
-----+	-----+
| Ccal Level: 4 , Ccal Amount: 1000	|
=====+	=====+
|22-FEB-2010 06:31 |DDTANALOGSTD	|/chem/ecd1a.i/022210.b/004f0401.d
-----+	-----+

Report Date: 02-Mar-2010 17:48

Calibration History

Method : /chem/ecdl1a.i/022210.b/ECD1-B-8082-022210.m

Start Cal Date: 22-FEB-2010 06:31

End Cal Date : 22-FEB-2010 12:08

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecdl1a.i/022210.b/032b3201.d
22-FEB-2010 10:23	AR1248	/chem/ecdl1a.i/022210.b/026b2601.d
22-FEB-2010 09:20	AR1242	/chem/ecdl1a.i/022210.b/020b2001.d
22-FEB-2010 08:16	AR1254	/chem/ecdl1a.i/022210.b/014b1401.d
22-FEB-2010 07:13	AR1660	/chem/ecdl1a.i/022210.b/008b0801.d

Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecdl1a.i/022210.b/033b3301.d
22-FEB-2010 10:33	AR1248	/chem/ecdl1a.i/022210.b/027b2701.d
22-FEB-2010 09:30	AR1242	/chem/ecdl1a.i/022210.b/021b2101.d
22-FEB-2010 08:27	AR1254	/chem/ecdl1a.i/022210.b/015b1501.d
22-FEB-2010 07:24	AR1660	/chem/ecdl1a.i/022210.b/009b0901.d

Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecdl1a.i/022210.b/034b3401.d
22-FEB-2010 10:44	AR1248	/chem/ecdl1a.i/022210.b/028b2801.d
22-FEB-2010 09:41	AR1242	/chem/ecdl1a.i/022210.b/022b2201.d
22-FEB-2010 08:37	AR1254	/chem/ecdl1a.i/022210.b/016b1601.d
22-FEB-2010 07:34	AR1660	/chem/ecdl1a.i/022210.b/010b1001.d

Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecdl1a.i/022210.b/035b3501.d
22-FEB-2010 11:05	AR1248	/chem/ecdl1a.i/022210.b/030b3001.d
22-FEB-2010 09:51	AR1242	/chem/ecdl1a.i/022210.b/023b2301.d
22-FEB-2010 08:48	AR1254	/chem/ecdl1a.i/022210.b/017b1701.d
22-FEB-2010 07:45	AR1660	/chem/ecdl1a.i/022210.b/011b1101.d
22-FEB-2010 07:03	AR1262	/chem/ecdl1a.i/022210.b/007b0701.d
22-FEB-2010 06:52	AR1221	/chem/ecdl1a.i/022210.b/006b0601.d
22-FEB-2010 06:41	AR1232	/chem/ecdl1a.i/022210.b/005b0501.d
22-FEB-2010 06:31	DDTANALOGSTD	/chem/ecdl1a.i/022210.b/004b0401.d

Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecdl1a.i/022210.b/036b3601.d
22-FEB-2010 10:54	AR1248	/chem/ecdl1a.i/022210.b/029b2901.d
22-FEB-2010 10:02	AR1242	/chem/ecdl1a.i/022210.b/024b2401.d
22-FEB-2010 08:59	AR1254	/chem/ecdl1a.i/022210.b/018b1801.d
22-FEB-2010 07:55	AR1660	/chem/ecdl1a.i/022210.b/012b1201.d

Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 23:17 | AR1660 | /chem/ecdla.i/022210.b/090b9001.d
| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 20:45 | AR1660 | /chem/ecdla.i/022210.b/078b7801.d
| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 18:13 | AR1660 | /chem/ecdla.i/022210.b/066b6601.d
| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 17:10 | AR1660 | /chem/ecdla.i/022210.b/061b6101.d
| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 14:42 | AR1660 | /chem/ecdla.i/022210.b/049b4901.d
| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 12:19 | AR1268 | /chem/ecdla.i/022210.b/037b3701.d
| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 11:58 | AR1268 | /chem/ecdla.i/022210.b/035b3501.d
| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 11:16 | AR1248 | /chem/ecdla.i/022210.b/031b3101.d
| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 11:05 | AR1248 | /chem/ecdla.i/022210.b/030b3001.d
| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 10:12 | AR1242 | /chem/ecdla.i/022210.b/025b2501.d
| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 09:51 | AR1242 | /chem/ecdla.i/022210.b/023b2301.d
| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 09:09 | AR1254 | /chem/ecdla.i/022210.b/019b1901.d
| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 08:48 | AR1254 | /chem/ecdla.i/022210.b/017b1701.d
| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 07:45 | AR1660 | /chem/ecdla.i/022210.b/011b1101.d
| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 06:10 | AR1660 | /chem/ecdla.i/022210.b/002b0201.d
| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 08:06 | AR1660 | /chem/ecdla.i/022210.b/013b1301.d
| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 07:03 | AR1262 | /chem/ecdla.i/022210.b/007b0701.d
| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 06:52 | AR1221 | /chem/ecdla.i/022210.b/006b0601.d
| Ccal Level: 4 , Ccal Amount: 1000
| 22-FEB-2010 06:41 | AR1232 | /chem/ecdla.i/022210.b/005b0501.d
| Ccal Level: 4 , Ccal Amount: 1000

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecdl1.i/022210.b/ECD1-F-8082-022210.m
Quant Method : ESTD Target Version : 3.50
Last Update : 03-Mar-2010 07:47 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	2.378	2.348-2.408	1.538e+04
	2.665	2.635-2.695	1.824e+04
	2.746	2.716-2.776	1.207e+04
	2.783	2.753-2.813	7.096e+03
	2.993	2.963-3.023	8.912e+03
63 4,4-DDD	3.900	3.880-3.920	3.060e+05
64 4,4-DDE	3.551	3.531-3.571	3.552e+05
62 4,4-DDT	4.064	4.044-4.084	2.080e+05
2 Aroclor-1221	2.038	2.008-2.068	4.398e+03
	2.129	2.099-2.159	2.431e+03
	2.155	2.125-2.185	1.042e+04
3 Aroclor-1232	2.378	2.348-2.408	6.218e+03
	2.665	2.635-2.695	7.488e+03
	2.745	2.715-2.775	4.887e+03
	2.860	2.830-2.890	2.191e+03
4 Aroclor-1242	3.247	3.217-3.277	2.731e+03
	2.376	2.346-2.406	1.256e+04
	2.665	2.635-2.695	1.461e+04
	2.783	2.753-2.813	5.629e+03
	2.993	2.963-3.023	7.310e+03
	3.247	3.217-3.277	6.183e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecdl1a.i/022210.b/ECD1-F-8082-022210.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.860	2.830-2.890	9.301e+03
	2.993	2.963-3.023	1.241e+04
	3.247	3.217-3.277	1.220e+04
	3.379	3.349-3.409	1.042e+04
6 Aroclor-1254	3.612	3.582-3.642	6.820e+03
	3.222	3.192-3.252	1.201e+04
	3.377	3.347-3.407	1.583e+04
	3.611	3.581-3.641	1.952e+04
7 Aroclor-1260	3.773	3.743-3.803	1.381e+04
	3.882	3.852-3.912	1.428e+04
	3.720	3.690-3.750	1.707e+04
	3.883	3.853-3.913	2.364e+04
8 Aroclor-1262	4.045	4.015-4.075	2.497e+04
	4.113	4.083-4.143	1.441e+04
	4.256	4.226-4.286	1.443e+04
	3.721	3.691-3.751	1.261e+04
9 Aroclor-1268	3.883	3.853-3.913	1.569e+04
	4.114	4.084-4.144	1.995e+04
	4.257	4.227-4.287	1.798e+04
	4.435	4.405-4.465	3.725e+04
M 10 Aroclor-Total	4.620	4.590-4.650	4.848e+04
	4.641	4.611-4.671	5.448e+04
	4.755	4.725-4.785	3.862e+04
	4.958	4.928-4.988	1.635e+04
\$ 11 4cmx	5.123	5.093-5.153	1.121e+05
\$ 12 Decachlorobiphenyl	1.000	0.980-1.020	
	1.924	1.894-1.954	4.306e+05
	5.233	5.203-5.263	3.073e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecdla.i/022210.b/ECD1-B-8082-022210.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Feb-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	3.186	3.156-3.216	1.279e+04
	3.268	3.238-3.298	8.918e+03
	3.332	3.302-3.362	5.406e+03
	3.559	3.529-3.589	6.916e+03
	3.635	3.605-3.665	6.425e+03
62 4,4-DDT	4.660	4.640-4.680	1.000e+05
63 4,4-DDE	4.128	4.108-4.148	2.505e+05
64 4,4-DDD	4.473	4.453-4.493	2.085e+05
2 Aroclor-1221	2.486	2.456-2.516	3.431e+03
	2.581	2.551-2.611	2.152e+03
	2.621	2.591-2.651	7.328e+03
3 Aroclor-1232	2.888	2.858-2.918	4.920e+03
	3.186	3.156-3.216	5.252e+03
	3.269	3.239-3.299	3.768e+03
	3.560	3.530-3.590	2.699e+03
4 Aroclor-1242	3.793	3.763-3.823	2.631e+03
	3.185	3.155-3.215	1.035e+04
	3.268	3.238-3.298	7.279e+03
	3.559	3.529-3.589	5.768e+03
	3.793	3.763-3.823	5.788e+03
	3.820	3.790-3.850	6.641e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecdla.i/022210.b/ECD1-B-8082-022210.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.394	3.364-3.424	7.602e+03
	3.559	3.529-3.589	9.360e+03
	3.792	3.762-3.822	1.065e+04
	3.820	3.790-3.850	1.210e+04
	3.957	3.927-3.987	1.150e+04
6 Aroclor-1254	3.393	3.363-3.423	6.068e+03
	3.816	3.786-3.846	1.074e+04
	3.932	3.902-3.962	1.164e+04
	4.208	4.178-4.238	1.590e+04
	4.344	4.314-4.374	1.198e+04
7 Aroclor-1260	4.326	4.296-4.356	1.321e+04
	4.451	4.421-4.481	1.557e+04
	4.717	4.687-4.747	1.184e+04
	4.891	4.861-4.921	1.220e+04
	5.038	5.008-5.068	2.653e+04
8 Aroclor-1262	4.451	4.421-4.481	1.126e+04
	4.717	4.687-4.747	1.550e+04
	4.891	4.861-4.921	1.407e+04
	5.037	5.007-5.067	2.845e+04
	5.252	5.222-5.282	1.972e+04
9 Aroclor-1268	5.249	5.219-5.279	3.730e+04
	5.276	5.246-5.306	3.492e+04
	5.426	5.396-5.456	2.658e+04
	5.591	5.561-5.621	1.223e+04
	5.785	5.755-5.815	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	2.289	2.259-2.319	2.974e+05
\$ 12 Decachlorobiphenyl	5.936	5.906-5.966	2.115e+05

GEL Laboratories LLC
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 22-FEB-2010 12:08
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecdla.i/022210.b/ECD1-F-8082-022210.m
Cal Date : 03-Mar-2010 07:47 jc
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)	18473	16312	15150	14238	12749	15384	14.060
(2)	20194	18537	17759	17625	17070	18237	6.651
(3)	14170	12473	11875	11163	10646	12065	11.317
(4)	8163	7198	6933	6624	6564	7096	9.135
(5)	10345	9178	8623	8273	8142	8912	10.051
63 4,4-DDD	++++	++++	++++	305990	++++	305990	0.000
64 4,4-DDE	++++	++++	++++	355239	++++	355239	0.000
62 4,4-DDT	++++	++++	++++	208015	++++	208015	0.000
2 Aroclor-1221(1)	++++	++++	++++	4398	++++	4398	0.000
(2)	++++	++++	++++	2431	++++	2431	0.000
(3)	++++	++++	++++	10418	++++	10418	0.000
3 Aroclor-1232(1)	++++	++++	++++	6218	++++	6218	0.000
(2)	++++	++++	++++	7488	++++	7488	0.000
(3)	++++	++++	++++	4887	++++	4887	0.000
(4)	++++	++++	++++	2191	++++	2191	0.000
(5)	++++	++++	++++	2731	++++	2731	0.000
4 Aroclor-1242(1)	14895	13406	12308	11554	10624	12557	13.200
(2)	15940	15326	14418	13613	13761	14612	6.870
(3)	6066	5934	5542	5337	5267	5629	6.326
(4)	8523	7616	7127	6725	6562	7310	10.814
(5)	6824	6256	5999	5817	6020	6183	6.317
5 Aroclor-1248(1)	10594	9810	9017	8885	8199	9301	9.911
(2)	14228	12736	11895	11712	11476	12409	9.043
(3)	12841	12156	11815	11785	12410	12201	3.615
(4)	11297	10503	10013	9956	10333	10420	5.179
(5)	7445	6917	6453	6460	6824	6820	5.977

GEL Laboratories LLC
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
 End Cal Date : 22-FEB-2010 12:08
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : Falcon
 Method file : /chem/ecdla.i/022210.b/ECD1-F-8082-022210.m
 Cal Date : 03-Mar-2010 07:47 jc
 Curve Type : Average

	100.000	250.000	500.000	1000.000	4000.000		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
=====	=====	=====	=====	=====	=====	=====	=====
6 Aroclor-1254(1)	13496	12213	11744	11466	11117	12007	7.694
(2)	16789	15969	15727	15423	15253	15832	3.802
(3)	20267	19353	19208	19481	19310	19524	2.185
(4)	14142	13669	13487	13772	13976	13809	1.858
(5)	15228	14234	13851	14228	13864	14281	3.932
7 Aroclor-1260(1)	19445	17307	16758	16208	15645	17072	8.574
(2)	25625	23757	23316	22992	22528	23643	5.056
(3)	27164	24948	24176	24127	24442	24971	5.079
(4)	16166	14596	13941	13551	13775	14406	7.345
(5)	15672	14437	13986	13647	14411	14431	5.316
8 Aroclor-1262(1)	++++	++++	++++	12612	++++	12612	0.000
(2)	++++	++++	++++	15693	++++	15693	0.000
(3)	++++	++++	++++	19946	++++	19946	0.000
(4)	++++	++++	++++	17981	++++	17981	0.000
(5)	++++	++++	++++	37250	++++	37250	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	457836	439032	431646	423676	400995	430637	4.841
\$ 12 Decachlorobiphenyl	331580	312081	303953	298909	289924	307289	5.135
=====	=====	=====	=====	=====	=====	=====	=====

GEL Laboratories LLC
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
 End Cal Date : 22-FEB-2010 12:08
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : Falcon
 Method file : /chem/ecdla.i/022210.b/ECD1-B-8082-022210.m
 Cal Date : 23-Feb-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	250.000	500.000	1000.000	4000.000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
1 Aroclor-1016(1)	14790	13406	12599	11956	11198	12790	10.807
(2)	11020	9550	8735	8081	7204	8918	16.336
(3)	6667	5702	5261	4923	4477	5406	15.464
(4)	8469	7466	6811	6206	5627	6916	15.991
(5)	7861	6755	6366	5845	5300	6425	15.123
62 4,4-DDT	++++	++++	++++	100019	++++	100019	0.000
63 4,4-DDE	++++	++++	++++	250510	++++	250510	0.000
64 4,4-DDD	++++	++++	++++	208527	++++	208527	0.000
2 Aroclor-1221(1)	++++	++++	++++	3431	++++	3431	0.000
(2)	++++	++++	++++	2152	++++	2152	0.000
(3)	++++	++++	++++	7328	++++	7328	0.000
3 Aroclor-1232(1)	++++	++++	++++	4920	++++	4920	0.000
(2)	++++	++++	++++	5252	++++	5252	0.000
(3)	++++	++++	++++	3768	++++	3768	0.000
(4)	++++	++++	++++	2699	++++	2699	0.000
(5)	++++	++++	++++	2631	++++	2631	0.000
4 Aroclor-1242(1)	12162	10602	10267	9852	8873	10351	11.615
(2)	8972	7860	7095	6551	5917	7279	16.286
(3)	7172	6222	5595	5138	4714	5768	16.707
(4)	7092	6149	5608	5215	4876	5788	15.018
(5)	8262	7049	6439	5944	5512	6641	16.138
5 Aroclor-1248(1)	9375	8130	7334	6873	6297	7602	15.743
(2)	11273	9902	9059	8609	7955	9360	13.704
(3)	12356	11118	10348	9982	9432	10647	10.657
(4)	14147	12783	11698	11327	10532	12097	11.596
(5)	13387	12032	11069	10719	10286	11499	10.750

GEL Laboratories LLC
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
 End Cal Date : 22-FEB-2010 12:08
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : Falcon
 Method file : /chem/ecdl1a.i/022210.b/ECD1-B-8082-022210.m
 Cal Date : 23-Feb-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)	7593	6474	5915	5463	4897	6068	16.986
(2)	13079	11278	10543	9836	8978	10743	14.511
(3)	14023	12144	11373	10769	9907	11643	13.419
(4)	18579	16173	15683	15087	13972	15899	10.745
(5)	14693	12059	11530	11303	10291	11975	13.772
7 Aroclor-1260(1)	16156	14478	12627	11898	10869	13206	15.988
(2)	18308	16389	15401	14483	13254	15567	12.332
(3)	14169	12468	11644	10875	10061	11844	13.319
(4)	14677	12787	11930	11182	10430	12201	13.416
(5)	30570	27429	26347	25126	23163	26527	10.405
8 Aroclor-1262(1)	++++	++++	++++	11265	++++	11265	0.000
(2)	++++	++++	++++	15504	++++	15504	0.000
(3)	++++	++++	++++	14070	++++	14070	0.000
(4)	++++	++++	++++	28448	++++	28448	0.000
(5)	++++	++++	++++	19723	++++	19723	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	335261	308362	295849	285028	262485	297397	9.098
\$ 12 Decachlorobiphenyl	252219	220293	206273	196840	181867	211498	12.633

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.: 10-1848
 Instrument ID: ECD1A Calibration Date: 02/22/10 Time: 0806
 Lab File ID: 013F1301 Init. Calib. Date(s): 02/22/10 02/22/10
 Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	13815.367	0.01	-10.2	15.0
(2)	18237.012	16432.192	0.01	-9.9	15.0
(3)	12065.482	10947.493	0.01	-9.3	15.0
(4)	7096.105	6411.793	0.01	-9.6	15.0
(5)	8912.192	8118.699	0.01	-8.9	15.0
Aroclor-1260	17072.421	17068.247	0.01	-0.0	15.0
(2)	23643.449	24515.904	0.01	3.7	15.0
(3)	24971.335	26294.212	0.01	5.3	15.0
(4)	14405.675	15097.023	0.01	4.8	15.0
(5)	14430.527	15433.518	0.01	7.0	15.0
4cmx	430636.91	414182.25	0.01	-3.8	15.0
Decachlorobiphenyl	307289.35	288165.97	0.01	-6.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1848
 Instrument ID: ECD1A Calibration Date: 02/22/10 Time: 0806
 Lab File ID: 013B1301 Init. Calib. Date(s): 02/22/10 02/22/10
 Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	11960.714	0.01	-6.5	15.0
(2)	8917.926	7888.529	0.01	-11.5	15.0
(3)	5406.011	4789.878	0.01	-11.4	15.0
(4)	6915.638	6232.193	0.01	-9.9	15.0
(5)	6425.213	5782.500	0.01	-10.0	15.0
Aroclor-1260	13205.642	12532.295	0.01	-5.1	15.0
(2)	15566.814	15280.735	0.01	-1.8	15.0
(3)	11843.501	11524.867	0.01	-2.7	15.0
(4)	12201.193	11821.406	0.01	-3.1	15.0
(5)	26527.172	26472.850	0.01	-0.2	15.0
4cmx	297396.93	277240.93	0.01	-6.8	15.0
Decachlorobiphenyl	211498.34	190303.77	0.01	-10.0	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.: 10-1848
 Instrument ID: ECD1A Calibration Date: 02/22/10 Time: 1012
 Lab File ID: 025F2501 Init. Calib. Date(s): 02/22/10 02/22/10
 Heated Purge: (Y/N) N Init. Calib. Times: 0920 1002
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Aroclor-1242	12557.447	11754.117	0.01	-6.4	15.0
(2)	14611.650	14231.948	0.01	-2.6	15.0
(3)	5629.225	5482.089	0.01	-2.6	15.0
(4)	7310.356	6870.545	0.01	-6.0	15.0
(5)	6183.099	6129.549	0.01	-0.9	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.: 10-1848
 Instrument ID: ECD1A Calibration Date: 02/22/10 Time: 1012
 Lab File ID: 025B2501 Init. Calib. Date(s): 02/22/10 02/22/10
 Heated Purge: (Y/N) N Init. Calib. Times: 0920 1002
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1242	10351.237	9884.590	0.01	-4.5	15.0
(2)	7278.919	6671.935	0.01	-8.3	15.0
(3)	5768.408	5296.372	0.01	-8.2	15.0
(4)	5788.073	5356.001	0.01	-7.5	15.0
(5)	6641.390	6036.202	0.01	-9.1	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.: 10-1848
 Instrument ID: ECD1A Calibration Date: 02/22/10 Time: 1442
 Lab File ID: 049F4901 Init. Calib. Date(s): 02/22/10 02/22/10
 Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	14721.109	0.01	-4.3	15.0
(2)	18237.012	18243.243	0.01	0.0	15.0
(3)	12065.482	11721.761	0.01	-2.8	15.0
(4)	7096.105	7055.329	0.01	-0.6	15.0
(5)	8912.192	8754.495	0.01	-1.8	15.0
Aroclor-1260	17072.421	18687.807	0.01	9.5	15.0
(2)	23643.449	26636.493	0.01	12.6	15.0
(3)	24971.335	28416.599	0.01	13.8	15.0
(4)	14405.675	16290.273	0.01	13.1	15.0
(5)	14430.527	16794.960	0.01	16.4	15.0
4cmx	430636.91	440058.09	0.01	2.2	15.0
Decachlorobiphenyl	307289.35	318026.33	0.01	3.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1848
 Instrument ID: ECD1A Calibration Date: 02/22/10 Time: 1442
 Lab File ID: 049B4901 Init. Calib. Date(s): 02/22/10 02/22/10
 Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	12326.926	0.01	-3.6	15.0
(2)	8917.926	8311.146	0.01	-6.8	15.0
(3)	5406.011	5098.145	0.01	-5.7	15.0
(4)	6915.638	6637.745	0.01	-4.0	15.0
(5)	6425.213	6051.052	0.01	-5.8	15.0
Aroclor-1260	13205.642	13235.741	0.01	0.2	15.0
(2)	15566.814	16206.789	0.01	4.1	15.0
(3)	11843.501	12167.303	0.01	2.7	15.0
(4)	12201.193	12612.989	0.01	3.4	15.0
(5)	26527.172	28261.077	0.01	6.5	15.0
4cmx	297396.93	290194.12	0.01	-2.4	15.0
Decachlorobiphenyl	211498.34	205715.26	0.01	-2.7	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.: 10-1848
 Instrument ID: ECD1A Calibration Date: 02/22/10 Time: 1710
 Lab File ID: 061F6101 Init. Calib. Date(s): 02/22/10 02/22/10
 Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Aroclor-1016	15384.345	15116.750	0.01	-1.7	15.0
(2)	18237.012	19212.065	0.01	5.3	15.0
(3)	12065.482	12041.845	0.01	-0.2	15.0
(4)	7096.105	7281.802	0.01	2.6	15.0
(5)	8912.192	9099.460	0.01	2.1	15.0
Aroclor-1260	17072.421	18275.380	0.01	7.0	15.0
(2)	23643.449	26160.084	0.01	10.6	15.0
(3)	24971.335	27796.549	0.01	11.3	15.0
(4)	14405.675	16058.433	0.01	11.5	15.0
(5)	14430.527	16476.720	0.01	14.2	15.0
=====	=====	=====	=====	=====	=====
4cmx	430636.91	450086.08	0.01	4.5	15.0
Decachlorobiphenyl	307289.35	287130.03	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.: 10-1848
 Instrument ID: ECD1A Calibration Date: 02/22/10 Time: 1710
 Lab File ID: 061B6101 Init. Calib. Date(s): 02/22/10 02/22/10
 Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	12968.422	0.01	1.4	15.0
(2)	8917.926	8372.548	0.01	-6.1	15.0
(3)	5406.011	5184.665	0.01	-4.1	15.0
(4)	6915.638	6469.272	0.01	-6.4	15.0
(5)	6425.213	6091.759	0.01	-5.2	15.0
Aroclor-1260	13205.642	12332.009	0.01	-6.6	15.0
(2)	15566.814	15110.560	0.01	-2.9	15.0
(3)	11843.501	11321.817	0.01	-4.4	15.0
(4)	12201.193	11694.339	0.01	-4.2	15.0
(5)	26527.172	26407.625	0.01	-0.4	15.0
4cmx	297396.93	294067.97	0.01	-1.1	15.0
Decachlorobiphenyl	211498.34	205542.49	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.: 10-1848
 Instrument ID: ECD1A Calibration Date: 02/22/10 Time: 1813
 Lab File ID: 066F6601 Init. Calib. Date(s): 02/22/10 02/22/10
 Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Aroclor-1016	15384.345	15187.098	0.01	-1.3	15.0
(2)	18237.012	18389.825	0.01	0.8	15.0
(3)	12065.482	12110.306	0.01	0.4	15.0
(4)	7096.105	7297.353	0.01	2.8	15.0
(5)	8912.192	9084.323	0.01	1.9	15.0
Aroclor-1260	17072.421	18136.564	0.01	6.2	15.0
(2)	23643.449	26169.936	0.01	10.7	15.0
(3)	24971.335	28107.548	0.01	12.6	15.0
(4)	14405.675	16116.982	0.01	11.9	15.0
(5)	14430.527	16519.136	0.01	14.5	15.0
=====	=====	=====	=====	=====	=====
4cmx	430636.91	452554.73	0.01	5.1	15.0
Decachlorobiphenyl	307289.35	330188.82	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.: 10-1848
 Instrument ID: ECD1A Calibration Date: 02/22/10 Time: 1813
 Lab File ID: 066B6601 Init. Calib. Date(s): 02/22/10 02/22/10
 Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	12660.692	0.01	-1.0	15.0
(2)	8917.926	8452.622	0.01	-5.2	15.0
(3)	5406.011	5231.232	0.01	-3.2	15.0
(4)	6915.638	6550.181	0.01	-5.3	15.0
(5)	6425.213	6188.242	0.01	-3.7	15.0
Aroclor-1260	13205.642	12596.190	0.01	-4.6	15.0
(2)	15566.814	15407.963	0.01	-1.0	15.0
(3)	11843.501	11580.197	0.01	-2.2	15.0
(4)	12201.193	12017.106	0.01	-1.5	15.0
(5)	26527.172	26858.550	0.01	1.2	15.0
4cmx	297396.93	297349.98	0.01	-0.0	15.0
Decachlorobiphenyl	211498.34	211147.55	0.01	-0.2	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/022210.b/005f0501.d

Lab Smp Id: WAR100104-32

Client Smp ID: AR123201

Inj Date : 22-FEB-2010 06:41

Operator : YS1

Inst ID: ecdla.i

Smp Info : |WAR100104-32

Misc Info :

Comment :

Method : /chem/ecdla.i/022210.b/ECD1-F-8082-022210.m

Meth Date : 23-Feb-2010 06:19 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: 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

2.378	2.378	0.000	6218467	1000.00	1000 80.00- 120.00	100.00
2.665	2.665	0.000	7487970	1000.00	1000 100.42- 140.42	120.42
2.745	2.745	0.000	4887446	1000.00	1000 58.60- 98.60	78.60
2.860	2.860	0.000	2191472	1000.00	1000 15.24- 55.24	35.24
3.247	3.247	0.000	2730900	1000.00	1000 23.92- 63.92	43.92

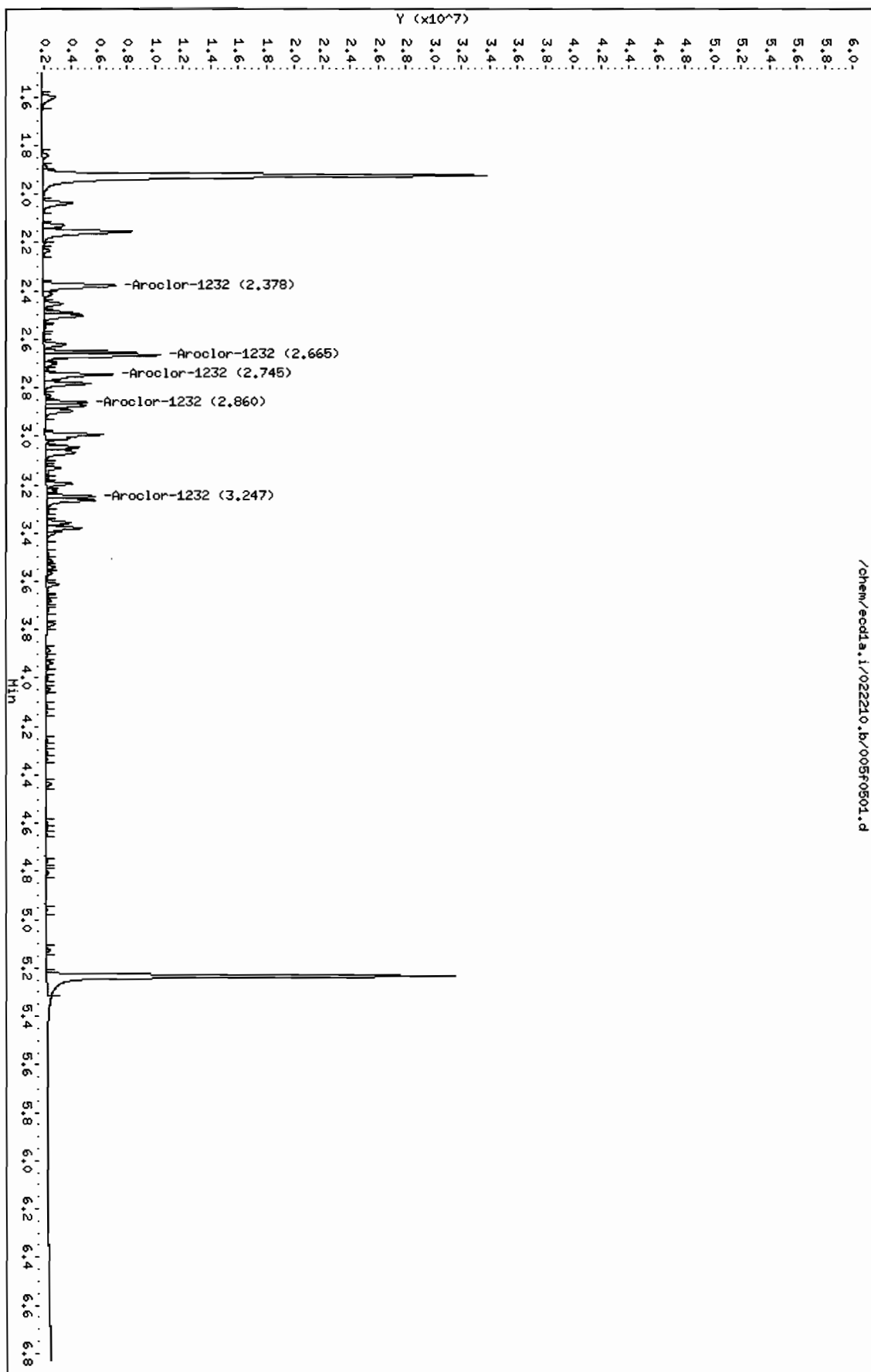
Average of Peak Amounts =

1e+03

Data File: /chem/ecdl1.i/022210.b/005f0501.d
Date : 22-FEB-2010 06:41
Client ID: AR123201
Sample Info: IWR100104-32
Column phase: CLP1

Instrument: ecdl1.i
Operator: YSL
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/022210.b/005b0501.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 22-FEB-2010 06:41
Operator : YS1 Inst ID: ecdla.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecdla.i/022210.b/ECD1-B-8082-022210.m
Meth Date : 22-Feb-2010 08:27 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 07:55 Cal File: 012b1201.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpc1p1

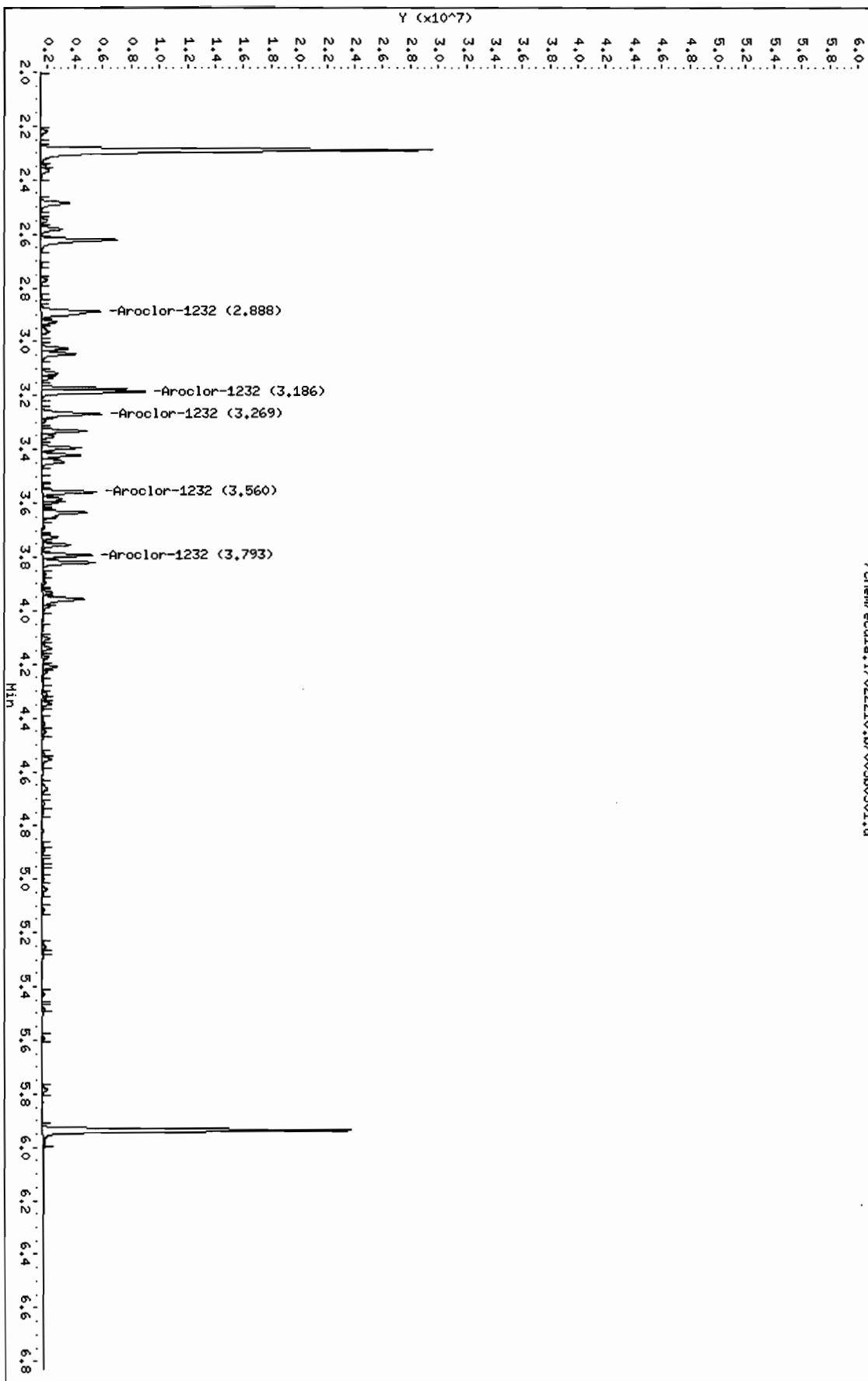
AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT	ON-COL	RESPONSE (ug/L)	(ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
3 Aroclor-1232			CAS #: 11141-16-5					
2.888	2.888	0.000	4920314	1000.00	1000	80.00-	120.00	100.00
3.186	3.186	0.000	5251574	1000.00	1000	86.73-	126.73	106.73
3.269	3.269	0.000	3767647	1000.00	1000	56.57-	96.57	76.57
3.560	3.560	0.000	2698776	1000.00	1000	34.85-	74.85	54.85
3.793	3.793	0.000	2631080	1000.00	1000	33.47-	73.47	53.47
Average of Peak Amounts =			1e+03					

Data File: /chem/ecdl1a.i/022210.b/005b0501.d
Date : 22-FEB-2010 06:41
Client ID: AR123201
Sample Info: 1HAR100104-32
Column phase: CLP2

Instrument: ecdl1a.i
Operator: YSI
Column diameter: 0.25

/chem/ecdl1a.i/022210.b/005b0501.d



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/022210.b/006f0601.d

Lab Smp Id: WAR100104-21

Client Smp ID: AR122101

Inj Date : 22-FEB-2010 06:52

Operator : YS1

Inst ID: ecdla.i

Smp Info : |WAR100104-21

Misc Info :

Comment :

Method : /chem/ecdla.i/022210.b/ECD1-F-8082-022210.m

Meth Date : 23-Feb-2010 06:20 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 6

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1221.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpclp1

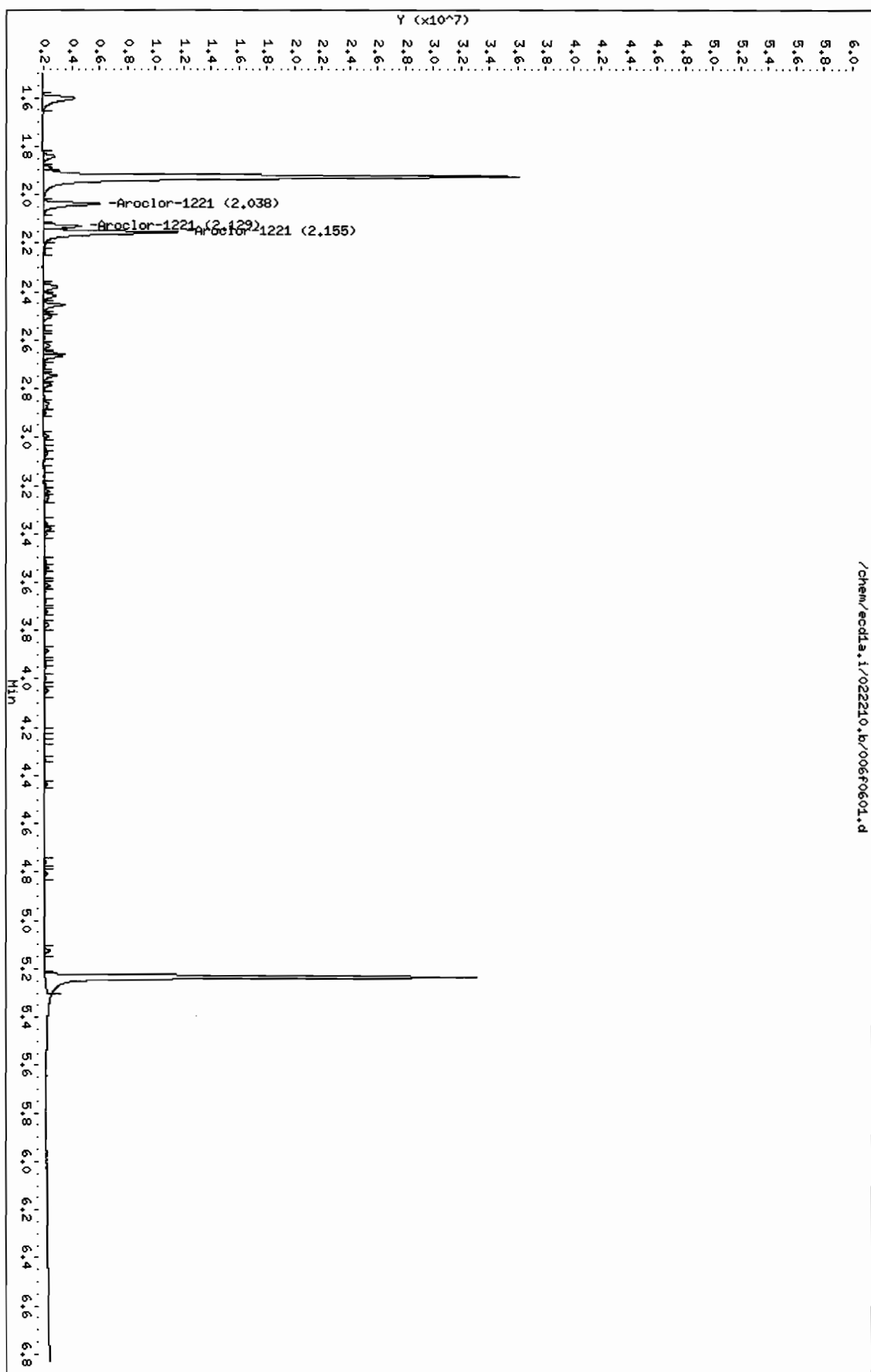
AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT	ON-COL	RESPONSE (ug/L)	(ug/L)	TARGET RANGE	RATIO
2.038	2.038	0.000	4397930	1000.00	1000	80.00- 120.00	100.00	
2.129	2.129	0.000	2431244	1000.00	1000	35.28- 75.28	55.28	
2.155	2.155	0.000	10417984	1000.00	1000	216.88- 256.88	236.88	
Average of Peak Amounts =			1e+03					

Data File: /chem/ecdl.a.i/022210.b/006f0601.d
Date: 22-FEB-2010 06:52
Client ID: AR122101
Sample Info: 1MAR100104-21
Column phase: CLP1

Instrument: ecdl.a.i
Operator: YSL
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/022210.b/006b0601.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 22-FEB-2010 06:52
Operator : YSl Inst ID: ecdla.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecdla.i/022210.b/ECD1-B-8082-022210.m
Meth Date : 22-Feb-2010 08:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 07:55 Cal File: 012b1201.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.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
==	=====	=====	=====	=====	=====	=====
2 Aroclor-1221				CAS #: 11104-28-2		
2.486	2.486	0.000	3431414 1000.00	1000	80.00- 120.00	100.00
2.581	2.581	0.000	2151577 1000.00	1000	42.70- 82.70	62.70
2.621	2.621	0.000	7328269 1000.00	1000	193.56- 233.56	213.56
Average of Peak Amounts =				1e+03		

Data File: /chem/ecdl1.i/022210.b/006b0601.d

Date: 22-FEB-2010 06:52

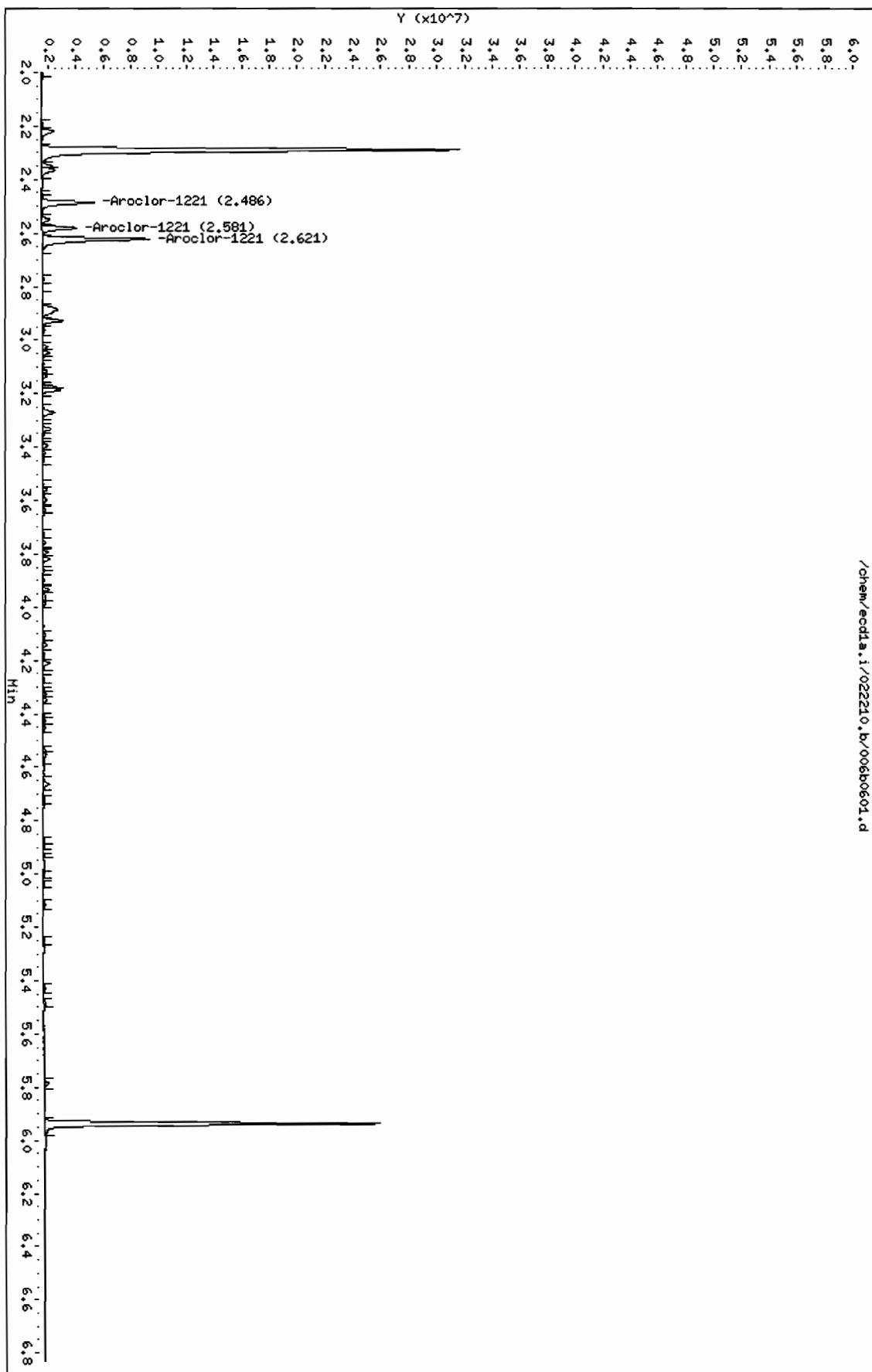
Client ID: AR122101

Sample Info: 1MAR100104-21

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Column phase: CLP2

Operator: YS1
Column diameter: 0.25



GEL Laboratories LLC

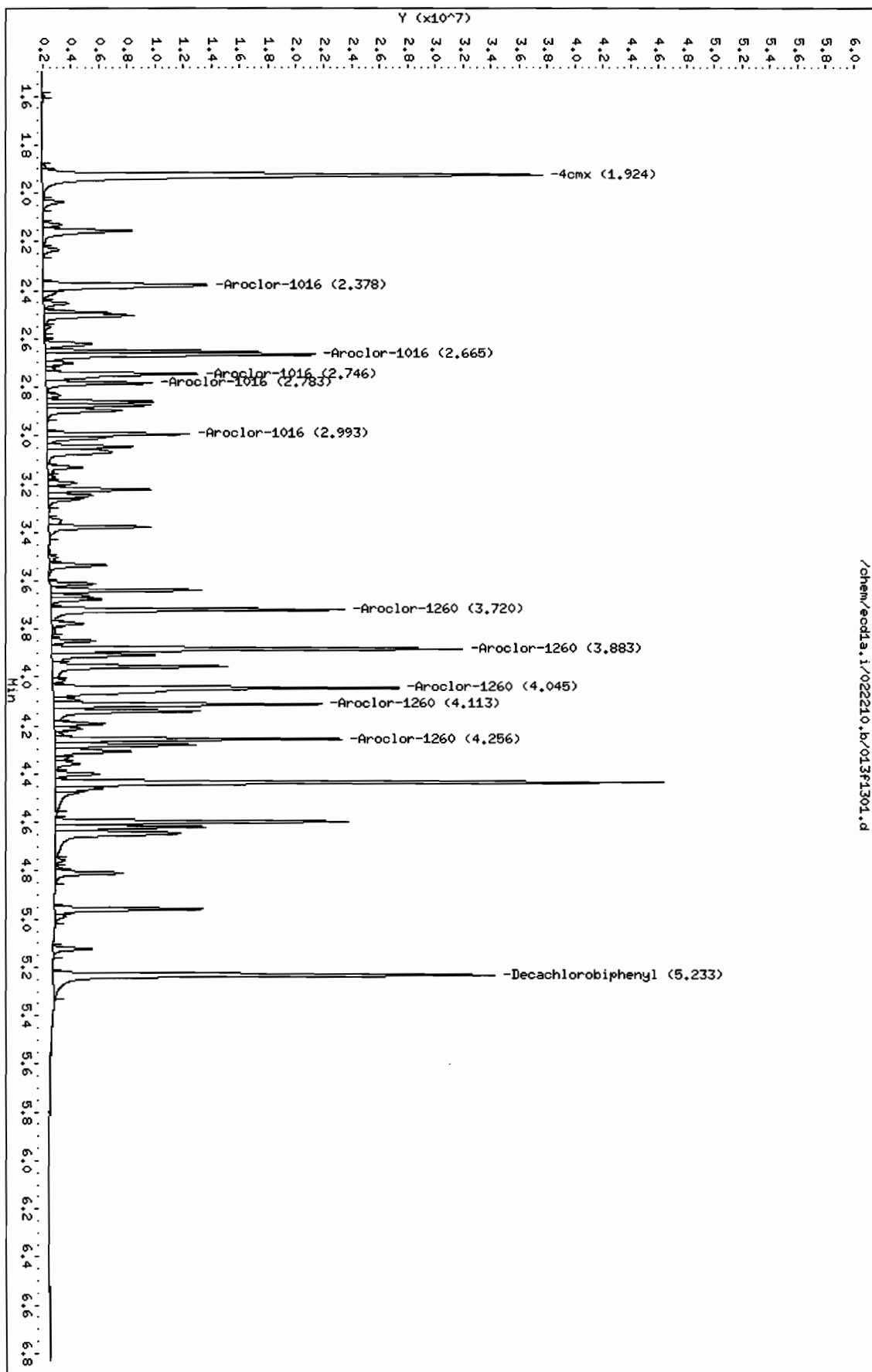
RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/022210.b/013f1301.d
 Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
 Inj Date : 22-FEB-2010 08:06
 Operator : YS1 Inst ID: ecd1a.i
 Smp Info : |WAR100203-60 01
 Misc Info :
 Comment :
 Method : /chem/ecdl1a.i/022210.b/ECD1-F-8082-022210.m
 Meth Date : 23-Feb-2010 06:20 yip00818 Quant Type: ESTD
 Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
 Als bottle: 13 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			
1.924	1.924	0.000	41418225	100.000	96.2	80.00- 120.00	100.00	
<hr/>								
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.233	5.233	0.000	28816597	100.000	93.8	80.00- 120.00	100.00	
<hr/>								
1 Aroclor-1016					CAS #: 12674-11-2			
2.378	2.378	0.000	13815367	1000.00	898	80.00- 120.00	100.00	
2.665	2.665	0.000	16432192	1000.00	901	98.94- 138.94	118.94	
2.746	2.746	0.000	10947493	1000.00	907	59.24- 99.24	79.24	
2.783	2.783	0.000	6411793	1000.00	904	26.41- 66.41	46.41	
2.993	2.993	0.000	8118699	1000.00	911	38.77- 78.77	58.77	
Average of Peak Amounts =					904			
<hr/>								
7 Aroclor-1260					CAS #: 11096-82-5			
3.720	3.720	0.000	17068247	1000.00	1000	80.00- 120.00	100.00	
3.883	3.883	0.000	24515904	1000.00	1040	123.63- 163.63	143.63	
4.045	4.045	0.000	26294212	1000.00	1050	134.05- 174.05	154.05	
4.113	4.113	0.000	15097023	1000.00	1050	68.45- 108.45	88.45	
4.256	4.256	0.000	15433518	1000.00	1070	70.42- 110.42	90.42	
Average of Peak Amounts =					1.04e+03			
<hr/>								

Data File: /chem/ecdl1a.i/022210.b/013f1301.d
Date: 22-FEB-2010 08:06
Client ID: AR166001
Sample Info: IWR100203-60 01
Column phase: CLP1

Instrument: ecdl1a.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/022210.b/013b1301.d

Lab Smp Id: WAR100203-60 01

Client Smp ID: AR166001

Inj Date : 22-FEB-2010 08:06

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100203-60 01

Misc Info :

Comment :

Method : /chem/ecdl1a.i/022210.b/ECD1-B-8082-022210.m

Meth Date : 22-Feb-2010 08:29 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 07:55

Cal File: 012b1201.d

Als bottle: 13

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.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	
==	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8			
2.289	2.289	0.000	27724093 100.000	93.2	80.00- 120.00	100.00	

\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.936	5.936	0.000	19030377 100.000	90.0	80.00- 120.00	100.00	

1 Aroclor-1016				CAS #: 12674-11-2			
3.185	3.185	0.000	11960714 1000.00	935	80.00- 120.00	100.00 (M)	
3.268	3.268	0.000	7888529 1000.00	884	45.95- 85.95	65.95	
3.332	3.332	0.000	4789878 1000.00	886	20.05- 60.05	40.05	
3.558	3.558	0.000	6232193 1000.00	901	32.11- 72.11	52.11	
3.634	3.634	0.000	5782500 1000.00	900	28.35- 68.35	48.35	
Average of Peak Amounts =				901			

7 Aroclor-1260				CAS #: 11096-82-5			
4.325	4.325	0.000	12532295 1000.00	949	80.00- 120.00	100.00	
4.450	4.450	0.000	15280735 1000.00	982	101.93- 141.93	121.93	
4.716	4.716	0.000	11524867 1000.00	973	71.96- 111.96	91.96	
4.890	4.890	0.000	11821406 1000.00	969	74.33- 114.33	94.33	
5.037	5.037	0.000	26472850 1000.00	998	191.24- 231.24	211.24	
Average of Peak Amounts =				974			

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdl1.i/022210.b/013b1301.d

Date: 22-FEB-2010 08:06

Client ID: AR166001

Sample Info: IWA100203-60 01

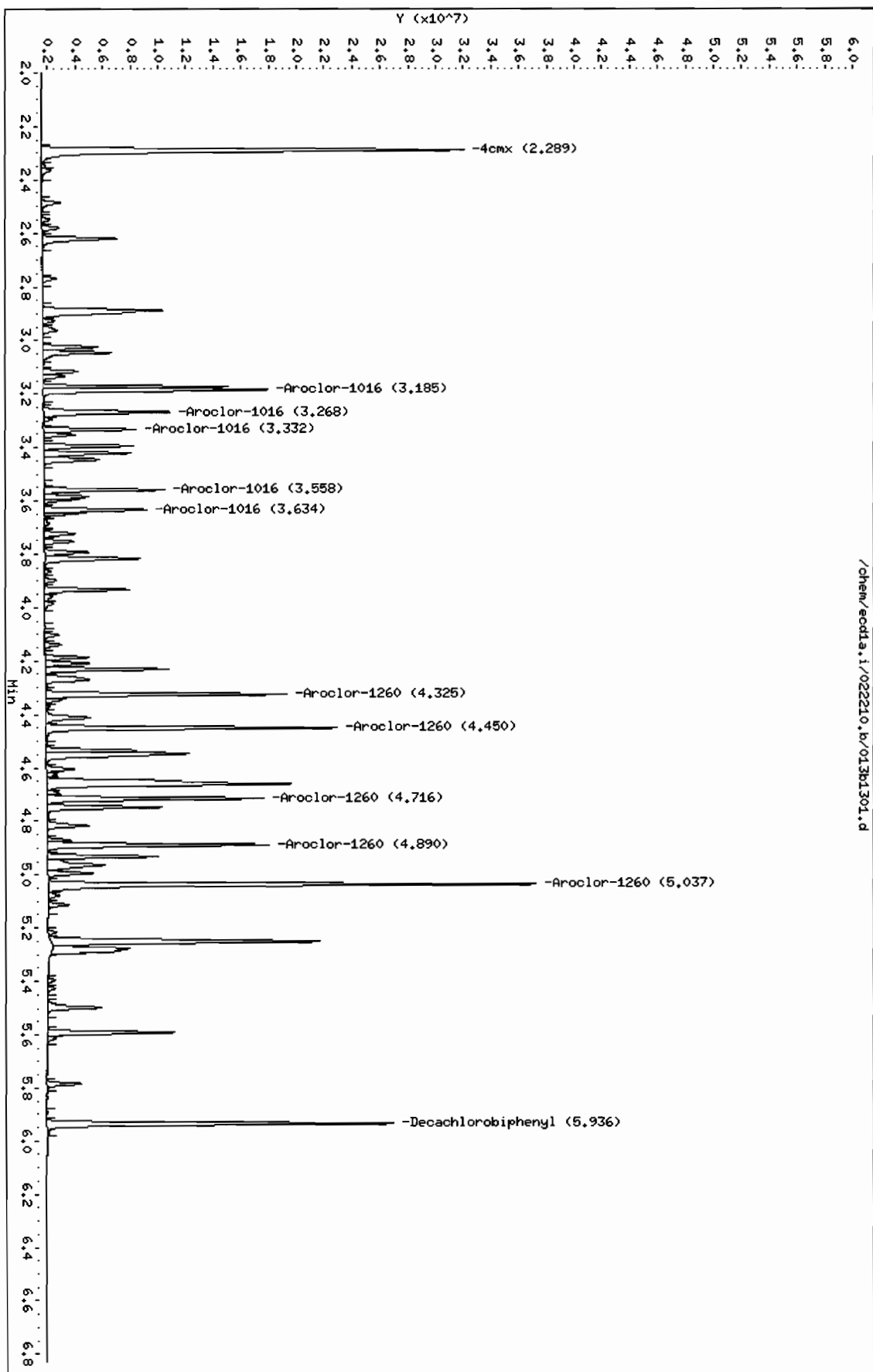
Page 1

Instrument: ecdl1.i

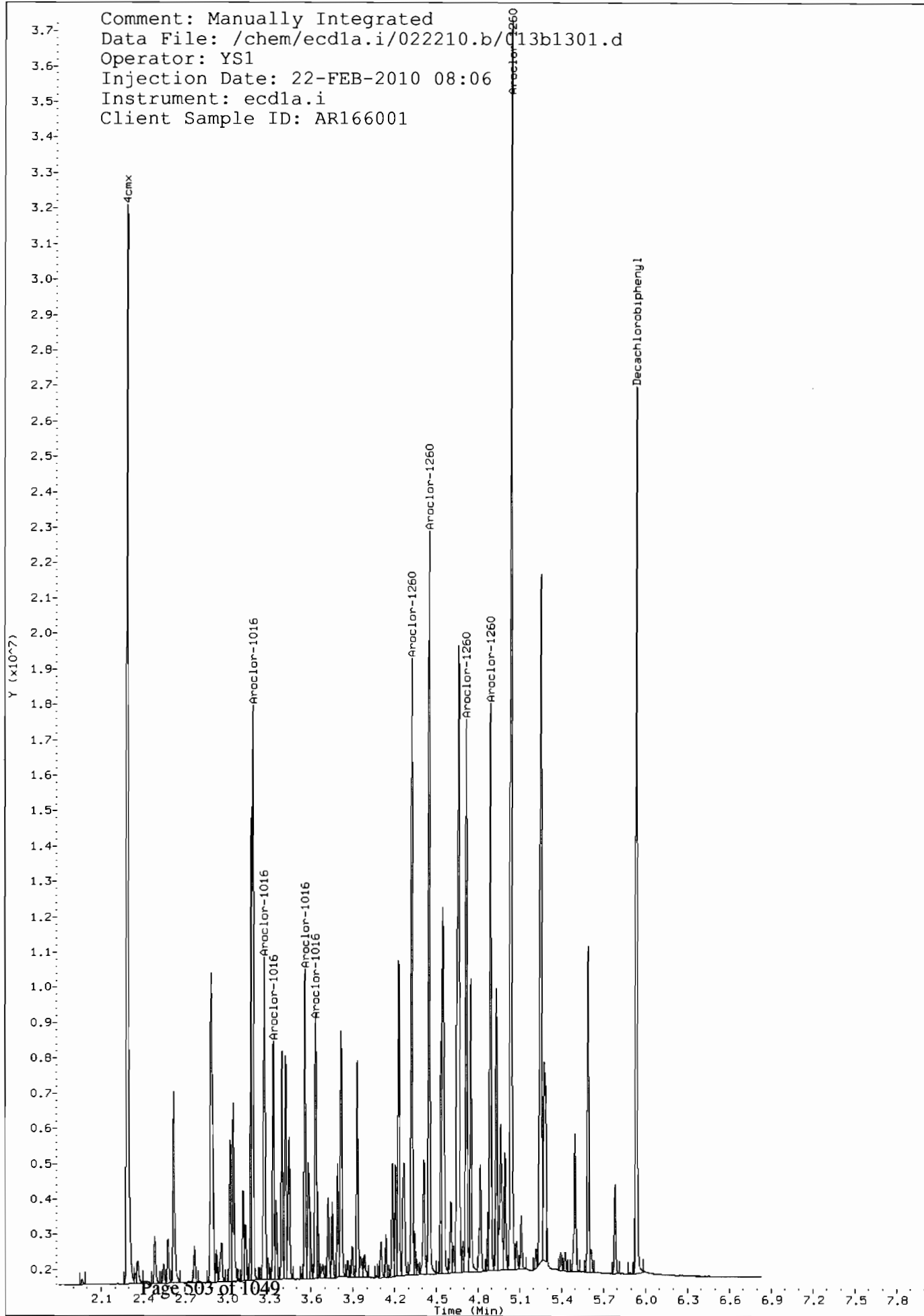
Operator: YS1

Column diameter: 0.25

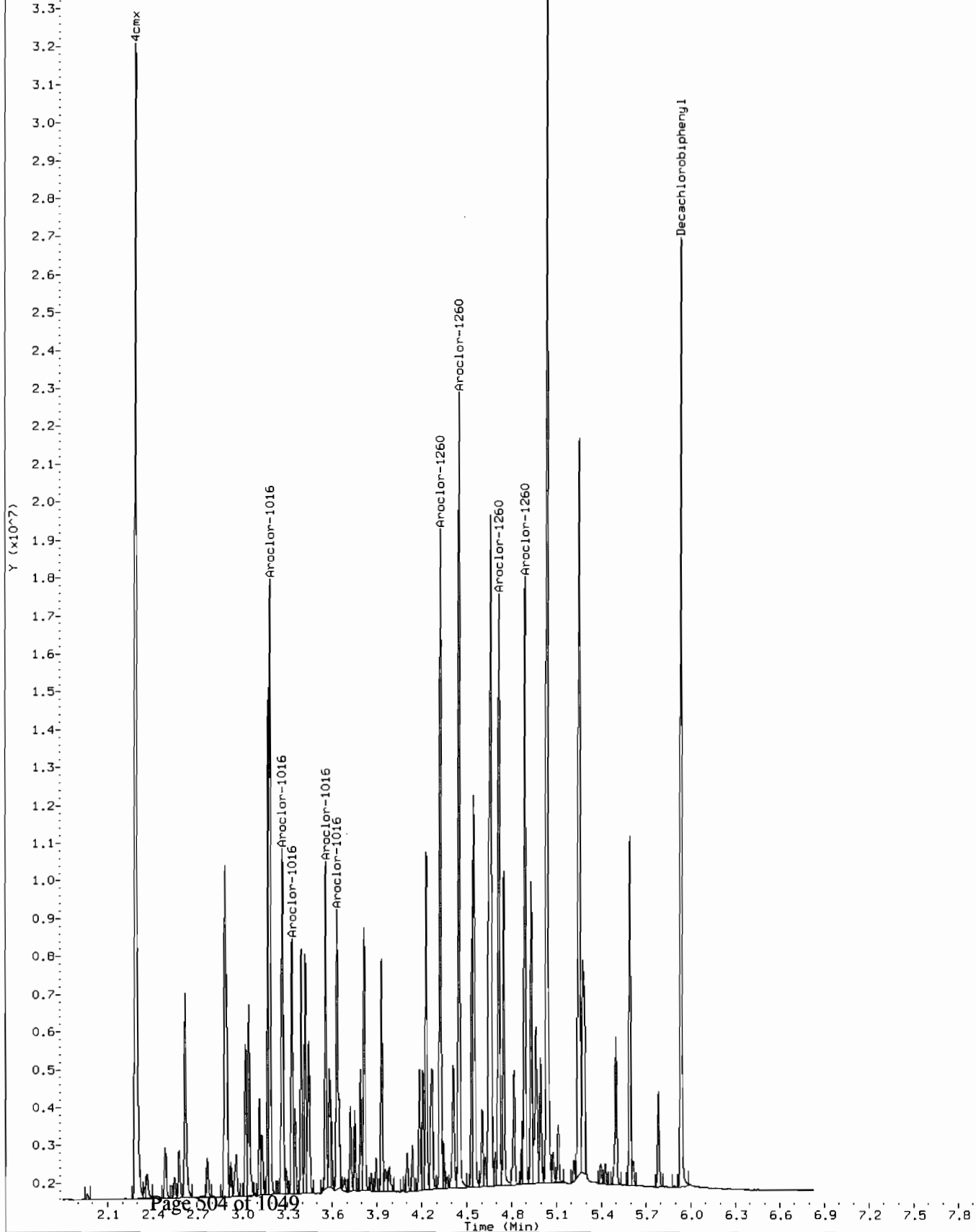
Column phase: CLP2



Comment: Manually Integrated
Data File: /chem/ecdl1a.i/022210.b/C13b1301.d
Operator: YS1
Injection Date: 22-FEB-2010 08:06
Instrument: ecd1a.i
Client Sample ID: AR166001



Comment: Before manual integration
Data File: /chem/ecdl1.i/022210.b/Orig-013b1301.d
Operator: YS1
Injection Date: 22-FEB-2010 08:06
Instrument: ecd1a.i
Client Sample ID: AR166001



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/022210.b/019f1901.d

Lab Smp Id: WAR100219-54

Client Smp ID: AR125401

Inj Date : 22-FEB-2010 09:09

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100219-54

Misc Info :

Comment :

Method : /chem/ecdl1a.i/022210.b/ECD1-F-8082-022210.m

Meth Date : 23-Feb-2010 06:20 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 19

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			
3.222	3.222	0.000	11301566 1000.00	941	80.00- 120.00	100.00 (M)
3.377	3.377	0.000	15319928 1000.00	968	115.56- 155.56	135.56
3.611	3.611	0.000	18958942 1000.00	971	147.75- 187.75	167.75
3.773	3.773	0.000	13346080 1000.00	966	98.09- 138.09	118.09
3.882	3.882	0.000	13437996 1000.00	941	98.90- 138.90	118.90

Average of Peak Amounts =

957

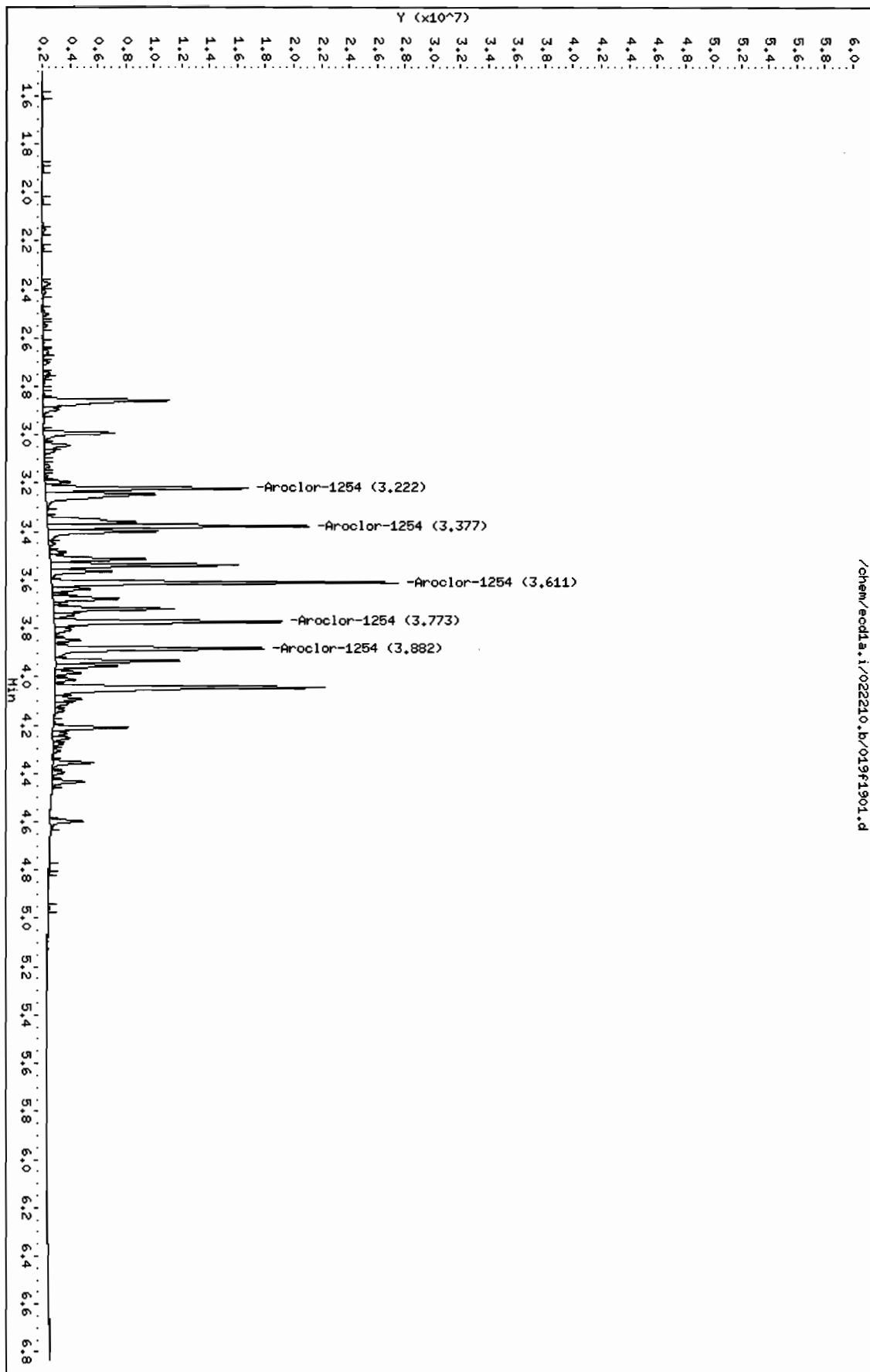
QC Flag Legend

M - Compound response manually integrated.

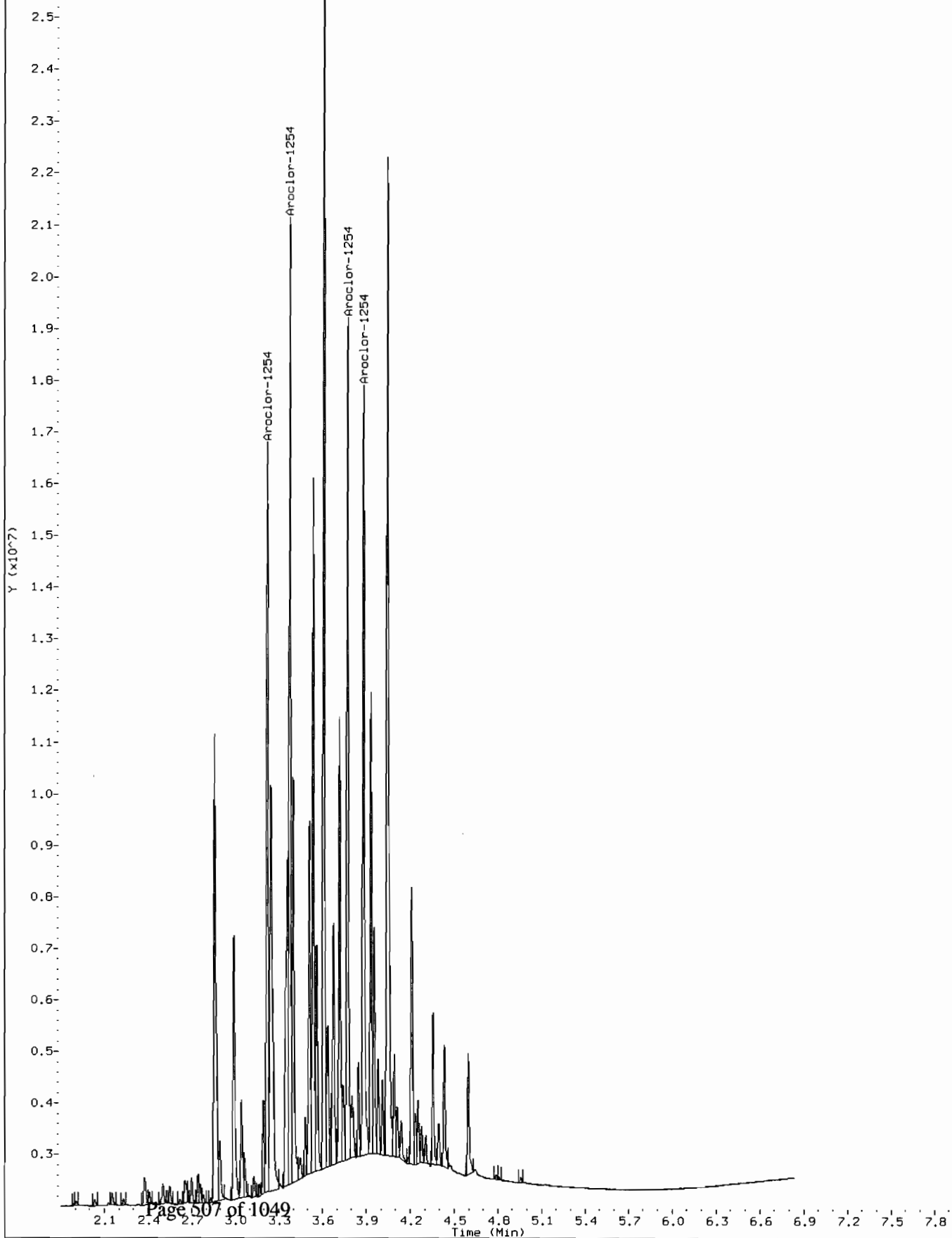
Data File: /chem/ecdl.a.i/022210.b/019f1901.d
Date : 22-FEB-2010 09:09
Client ID: AR125401
Sample Info: IWR100213-54
Column phase: CLP1

Instrument: ecdl.a.i
Operator: YSI
Column diameter: 0.25

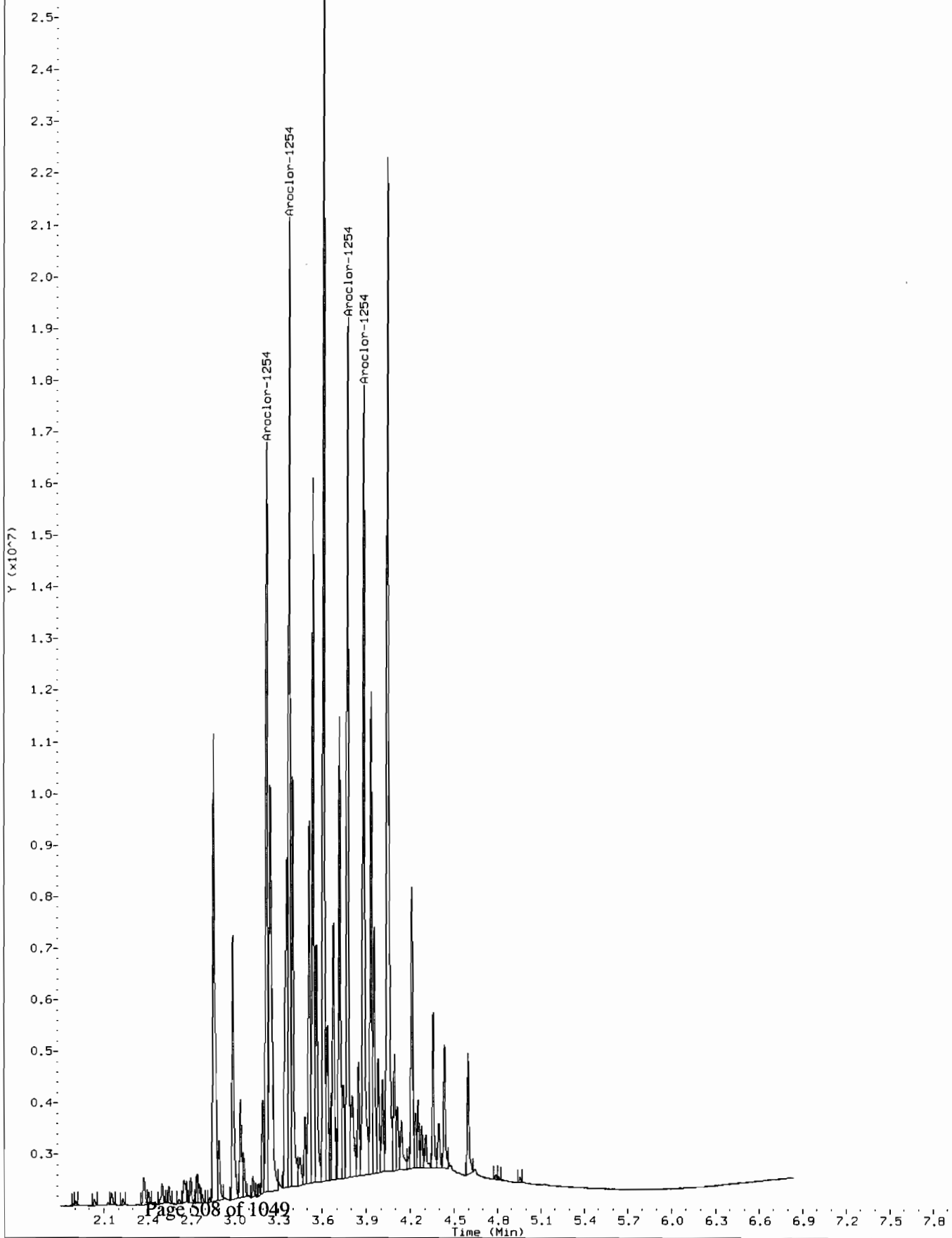
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Comment: Manually Integrated
Data File: /chem/ecdl1.i/022210.b/019f1901.d
Operator: YS1
Injection Date: 22 FEB-2010 09:09
Instrument: ecld1.i
Client Sample ID: AR125401



Comment: Before manual integration
Data File: /chem/ecdl.i/022210.b/orig-019f1901.d
Operator: YSl
Injection Date: 22 FEB-2010 09:09
Instrument: ecdl.i
Client Sample ID: AR125401



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/022210.b/019b1901.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 22-FEB-2010 09:09
Operator : YS1 Inst ID: ecdla.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecdla.i/022210.b/ECD1-B-8082-022210.m
Meth Date : 22-Feb-2010 09:22 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 08:59 Cal File: 018b1801.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.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
6 Aroclor-1254			CAS #: 11097-69-1			
3.393	3.393	0.000	5366761 1000.00	884	80.00- 120.00	100.00
3.816	3.816	0.000	9618321 1000.00	895	159.22- 199.22	179.22
3.932	3.932	0.000	10553728 1000.00	906	176.65- 216.65	196.65
4.208	4.208	0.000	14794670 1000.00	930	255.67- 295.67	275.67
4.344	4.344	0.000	11133265 1000.00	930	187.45- 227.45	207.45
Average of Peak Amounts =				909		

Data File: /chem/ecdl.a.i/022210.b/019b1901.d

Date : 22-FEB-2010 09:09

Client ID: AR125401

Sample Info: IWR100219-54

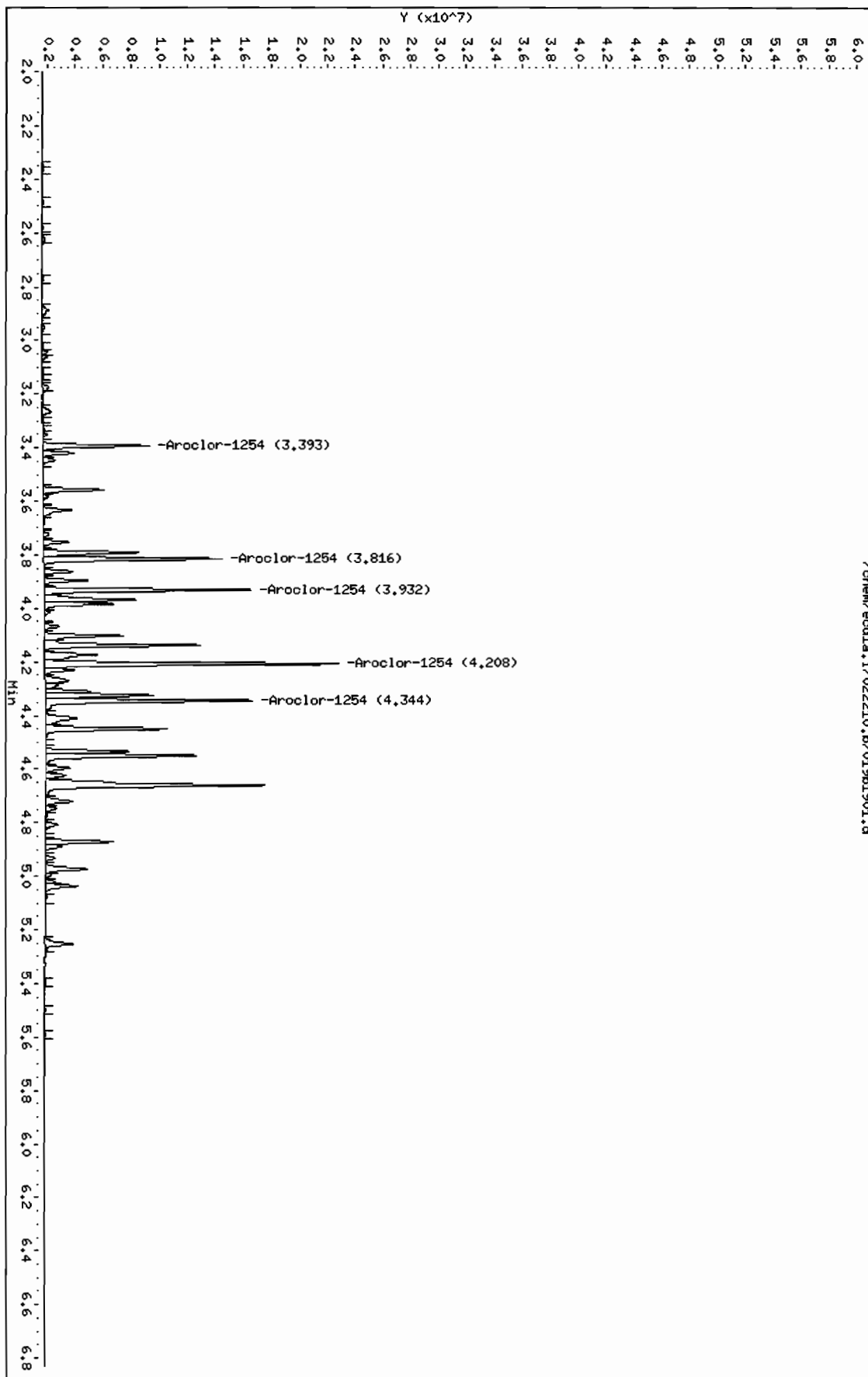
Column phase: CLP2

Instrument: ecdl.a.i

Operator: YSL

Column diameter: 0.25

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/022210.b/025f2501.d

Lab Smp Id: WAR100219-42

Client Smp ID: AR124201

Inj Date : 22-FEB-2010 10:12

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100219-42

Misc Info :

Comment :

Method : /chem/ecdl1a.i/022210.b/ECD1-F-8082-022210.m

Meth Date : 23-Feb-2010 06:21 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 25

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1242.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
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Aroclor-1242					CAS #: 53469-21-9			
2.376	2.376	0.000	11754117	1000.00	936	80.00- 120.00	100.00 (M)	
2.665	2.665	0.000	14231948	1000.00	974	101.08- 141.08	121.08	
2.783	2.783	0.000	5482089	1000.00	974	26.64- 66.64	46.64	
2.993	2.993	0.000	6870545	1000.00	940	38.45- 78.45	58.45	
3.247	3.247	0.000	6129549	1000.00	991	32.15- 72.15	52.15	
Average of Peak Amounts =					963			

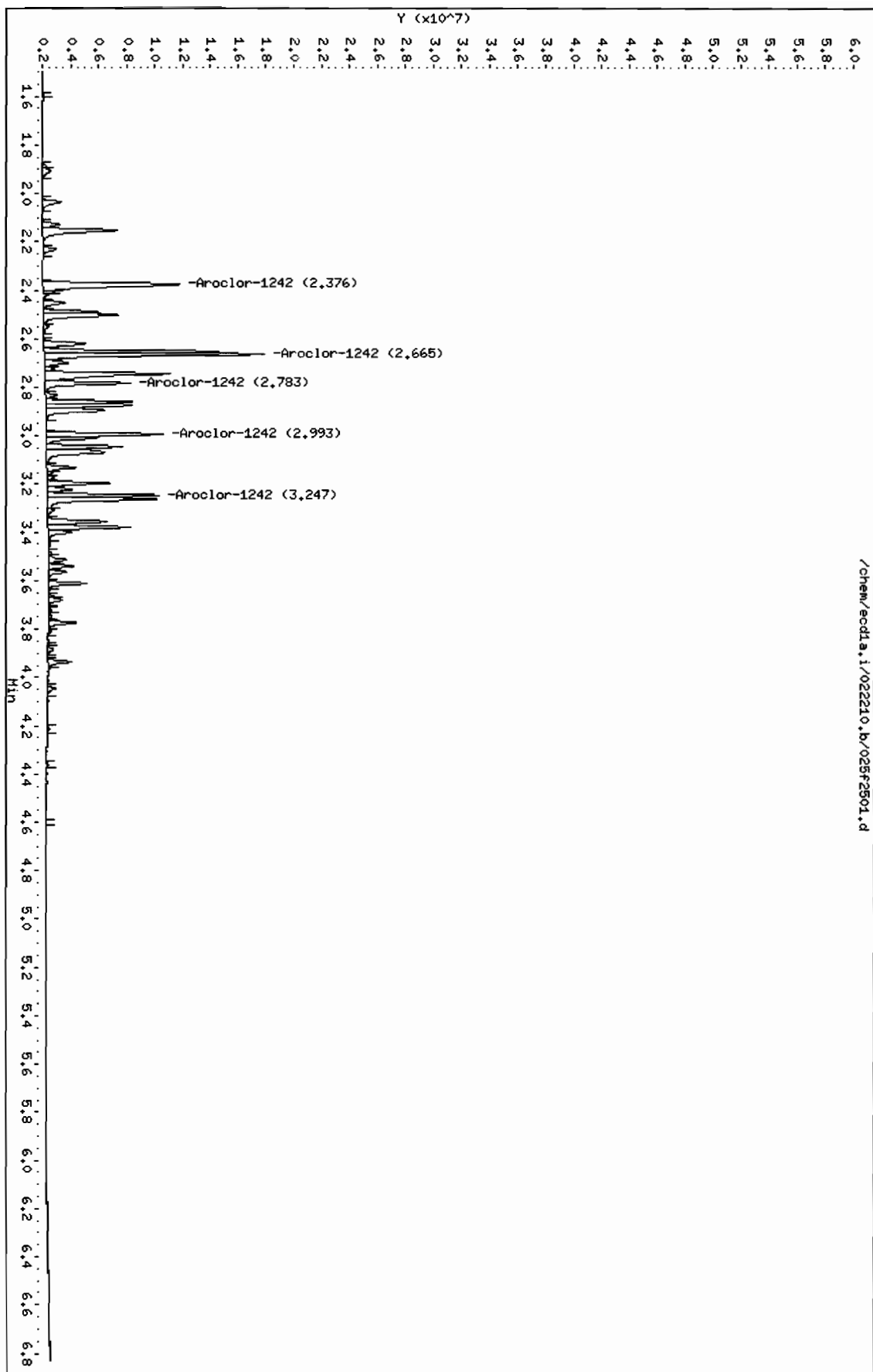
QC Flag Legend

M - Compound response manually integrated.

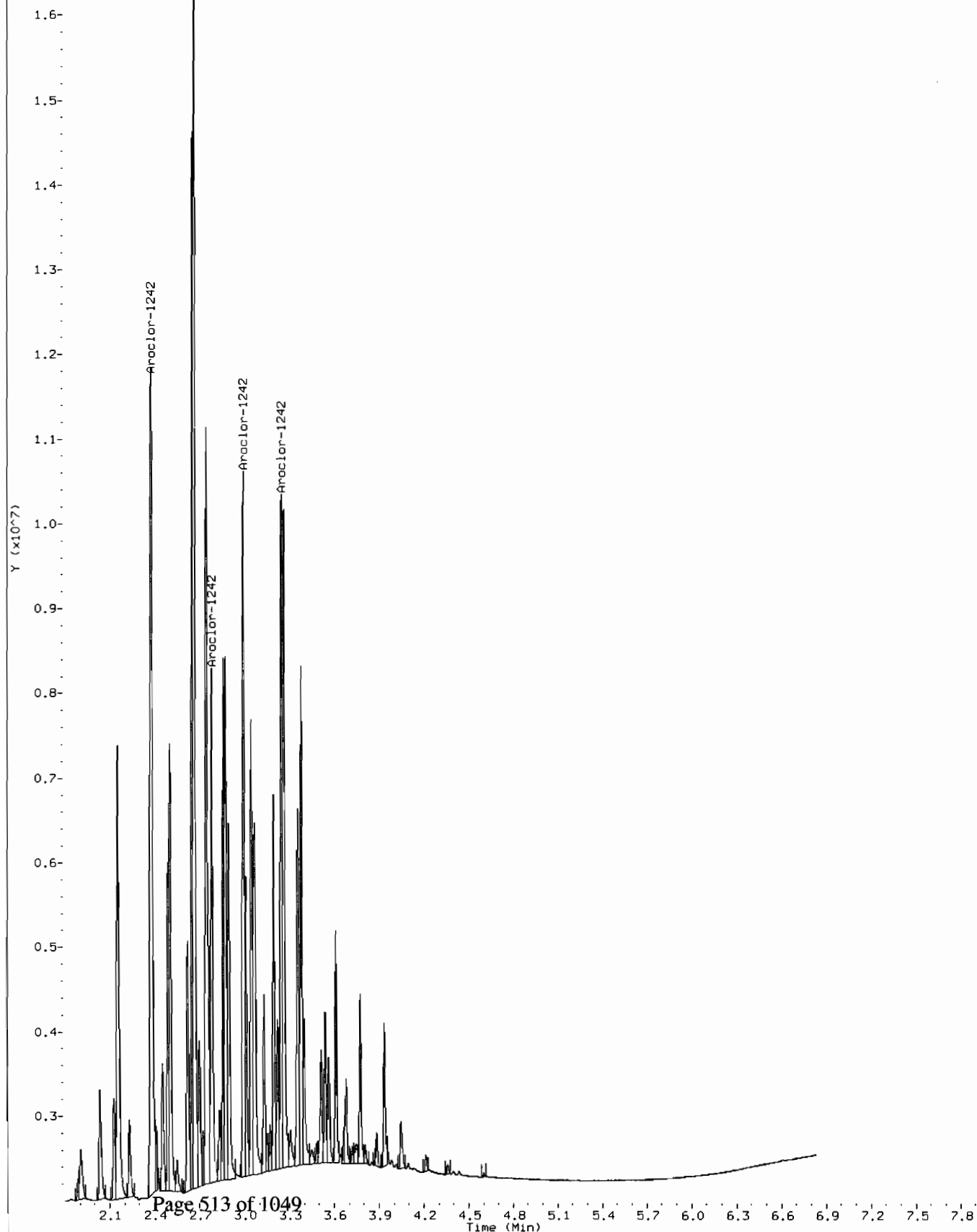
Data File: /chem/eod1a.i/022210.b/025f2501.d
Date: 22-FEB-2010 10:12
Client ID: AR124201
Sample Info: 14AR100219-42
Column phase: CLP1

Instrument: eod1a.i
Operator: YSL
Column diameter: 0.25

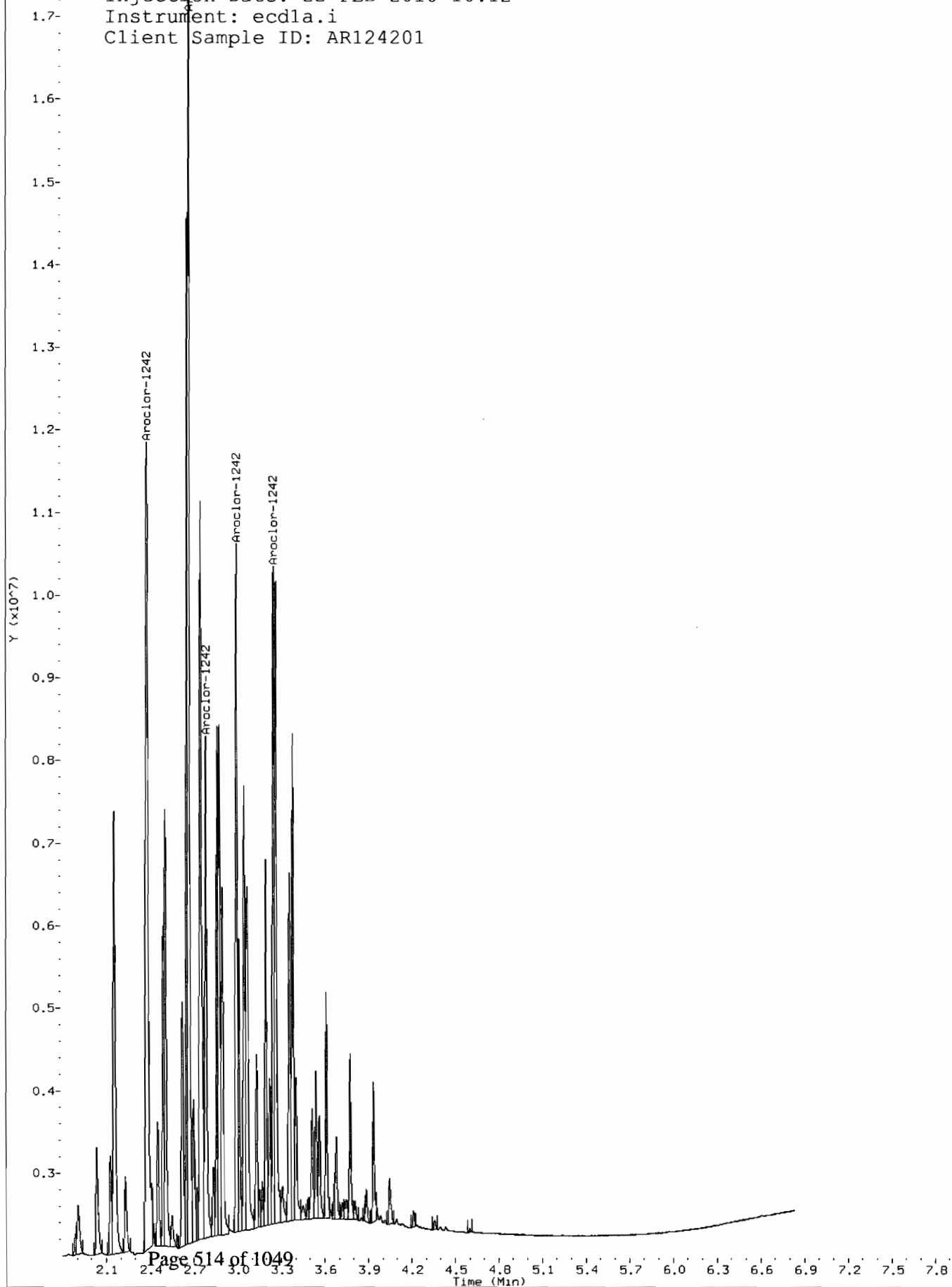
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Comments: Manually Integrated
Data File: /chem/ecdl.a.i/022210.b/025f2501.d
Operator: YS1
Injection Date: 22-FEB-2010 10:12
Instrument: ecdla.i
Client Sample ID: AR124201



Comments: Before manual integration
Data File: /chem/ecdl1.i/022210.b/orig-025f2501.d
Operator: YS1
Injection Date: 22-FEB-2010 10:12
Instrument: ecd1a.i
Client Sample ID: AR124201



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/022210.b/025b2501.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 22-FEB-2010 10:12
Operator : YS1 Inst ID: ecdla.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecdla.i/022210.b/ECD1-B-8082-022210.m
Meth Date : 22-Feb-2010 11:05 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 10:02 Cal File: 024b2401.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpc1pl

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			
3.185	3.185	0.000	9884590	1000.00	955	80.00-	120.00	100.00 (M)
3.268	3.268	0.000	6671935	1000.00	917	47.50-	87.50	67.50
3.559	3.559	0.000	5296372	1000.00	918	33.58-	73.58	53.58
3.793	3.793	0.000	5356001	1000.00	925	34.19-	74.19	54.19
3.820	3.820	0.000	6036202	1000.00	909	41.07-	81.07	61.07
Average of Peak Amounts =					925			

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdl1a.i/022210.b/025b2501.d

Date: 22-FEB-2010 10:12

Client ID: AR124201

Sample Info: 1HAR100219-42

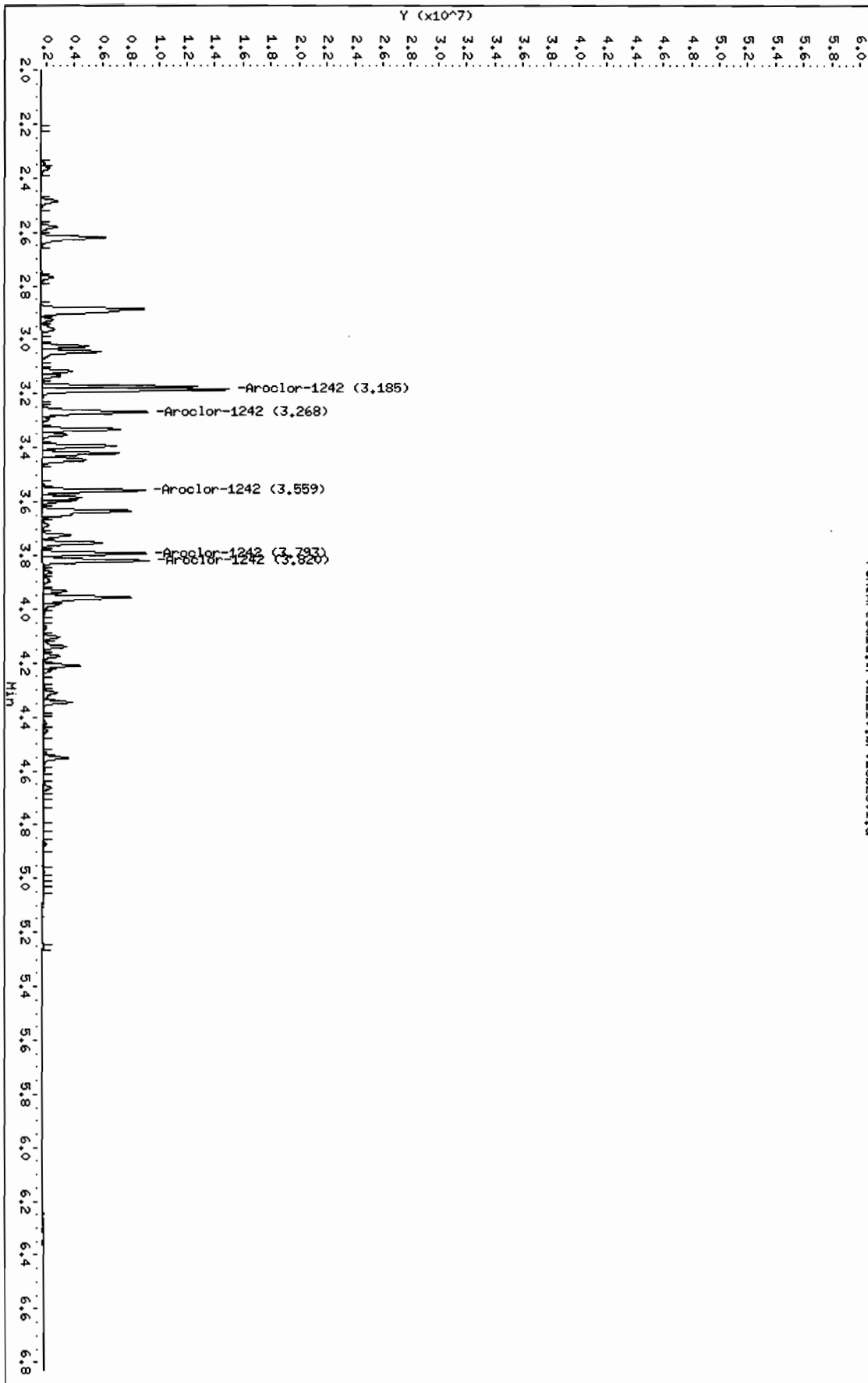
Column phase: CLP2

Instrument: ecdl1a.i

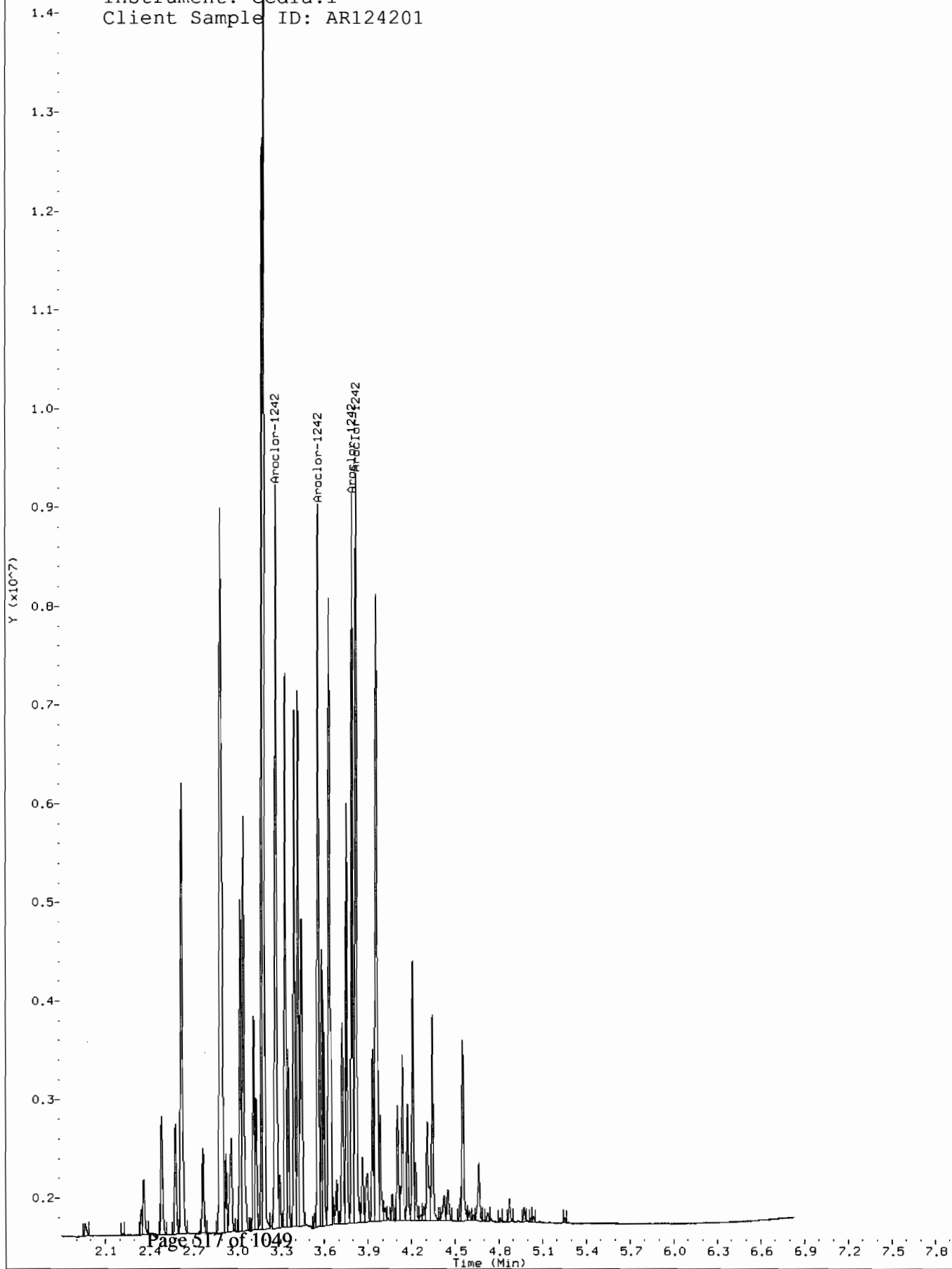
Operator: YSI

Column diameter: 0.25

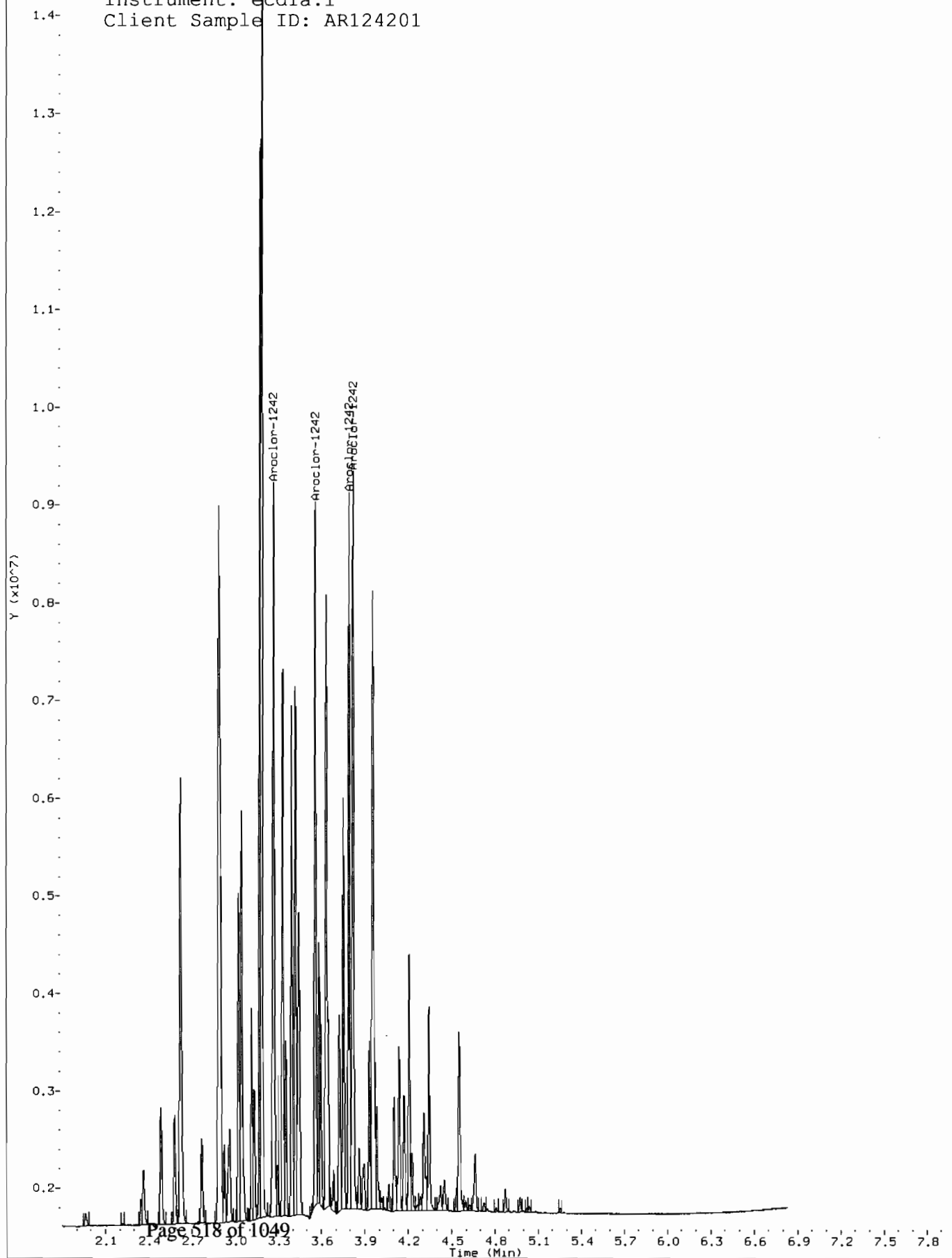
/chem/ecdl1a.i/022210.b/025b2501.d



Comment: Manually Integrated
Data File: /chem/ecdl1a.i/022210.b/025b2501.d
Operator: YSIP
Injection Date: 22-FEB-2010 10:12
Instrument: ecdl1a.i
Client Sample ID: AR124201



Comment: Before manual integration
Data File: /Chem/ecdl1.i/022210.b/orig-025b2501.d
Operator: YSL
Injection Date: 22-FEB-2010 10:12
Instrument: ecd1a.i
Client Sample ID: AR124201



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/022210.b/031f3101.d

Lab Smp Id: WAR091217-48

Client Smp ID: AR124801

Inj Date : 22-FEB-2010 11:16

Operator : YS1

Inst ID: ecdla.i

Smp Info : |WAR091217-48

Misc Info :

Comment :

Method : /chem/ecdla.i/022210.b/ECD1-F-8082-022210.m

Meth Date : 23-Feb-2010 06:21 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 11:05

Cal File: 030f3001.d

Als bottle: 31

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1248.sub

Target Version: 3.50

Sample Matrix: None

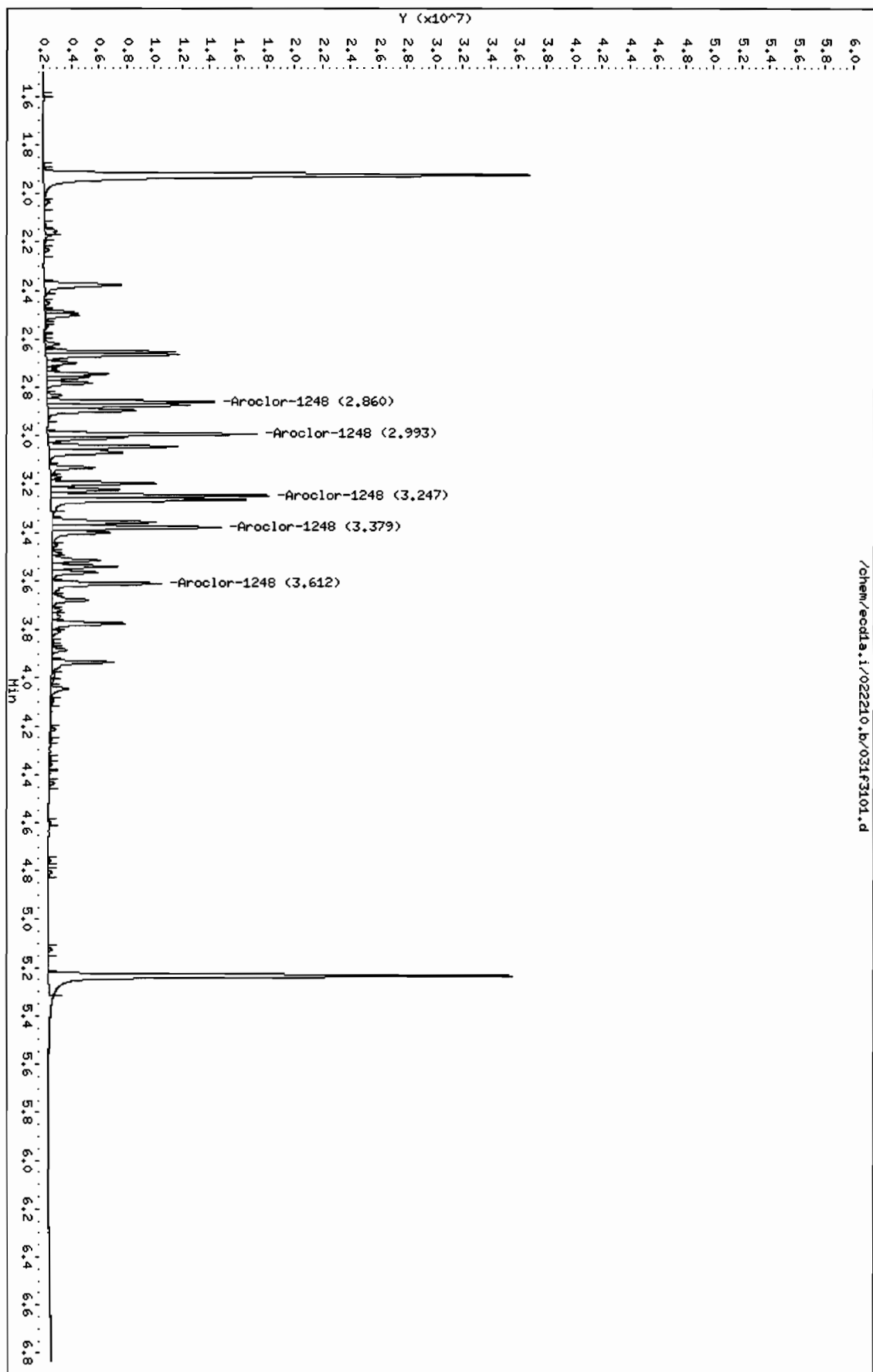
Processing Host: hpclpl

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			
2.860	2.860	0.000	9018896	1000.00	970	80.00- 120.00	100.00	
2.993	2.993	0.000	12032285	1000.00	970	113.41- 153.41	133.41	
3.247	3.247	0.000	12255669	1000.00	1000	115.89- 155.89	135.89	
3.379	3.379	0.000	10223372	1000.00	981	93.36- 133.36	113.36	
3.612	3.612	0.000	6983318	1000.00	1020	57.43- 97.43	77.43	
Average of Peak Amounts =					990			

Data File: /chem/ecdl1.i/022210.b/031f3101.d
Date : 22-FEB-2010 11:16
Client ID: AR124801
Sample Info: 1MAR091217-48
Column phase: CLP1

Instrument: ecdl1.i
Operator: YS1
Column diameter: 0.25



Data File: /chem/ecd1a.i/022210.b/031b3101.d
Report Date: 22-Feb-2010 11:37

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/031b3101.d

Lab Smp Id: WAR091217-48

Client Smp ID: AR124801

Inj Date : 22-FEB-2010 11:16

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR091217-48

Misc Info :

Comment :

Method : /chem/ecd1a.i/022210.b/ECD1-B-8082-022210.m

Meth Date : 22-Feb-2010 11:36 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 11:05

Cal File: 030b3001.d

Als bottle: 31

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1248.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpclpl

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

3.394	3.394	0.000	7104279 1000.00	934	80.00- 120.00	100.00
3.559	3.559	0.000	8891224 1000.00	950	105.15- 145.15	125.15
3.792	3.792	0.000	10088349 1000.00	947	122.00- 162.00	142.00
3.820	3.820	0.000	11425811 1000.00	944	140.83- 180.83	160.83
3.957	3.957	0.000	10815302 1000.00	940	132.24- 172.24	152.24

Average of Peak Amounts =

943

Data File: /chem/ecdl1.1/022210.b/031b3101.d

Date : 22-FEB-2010 11:16

Client ID: AR124801

Sample Info: 114R091217-48

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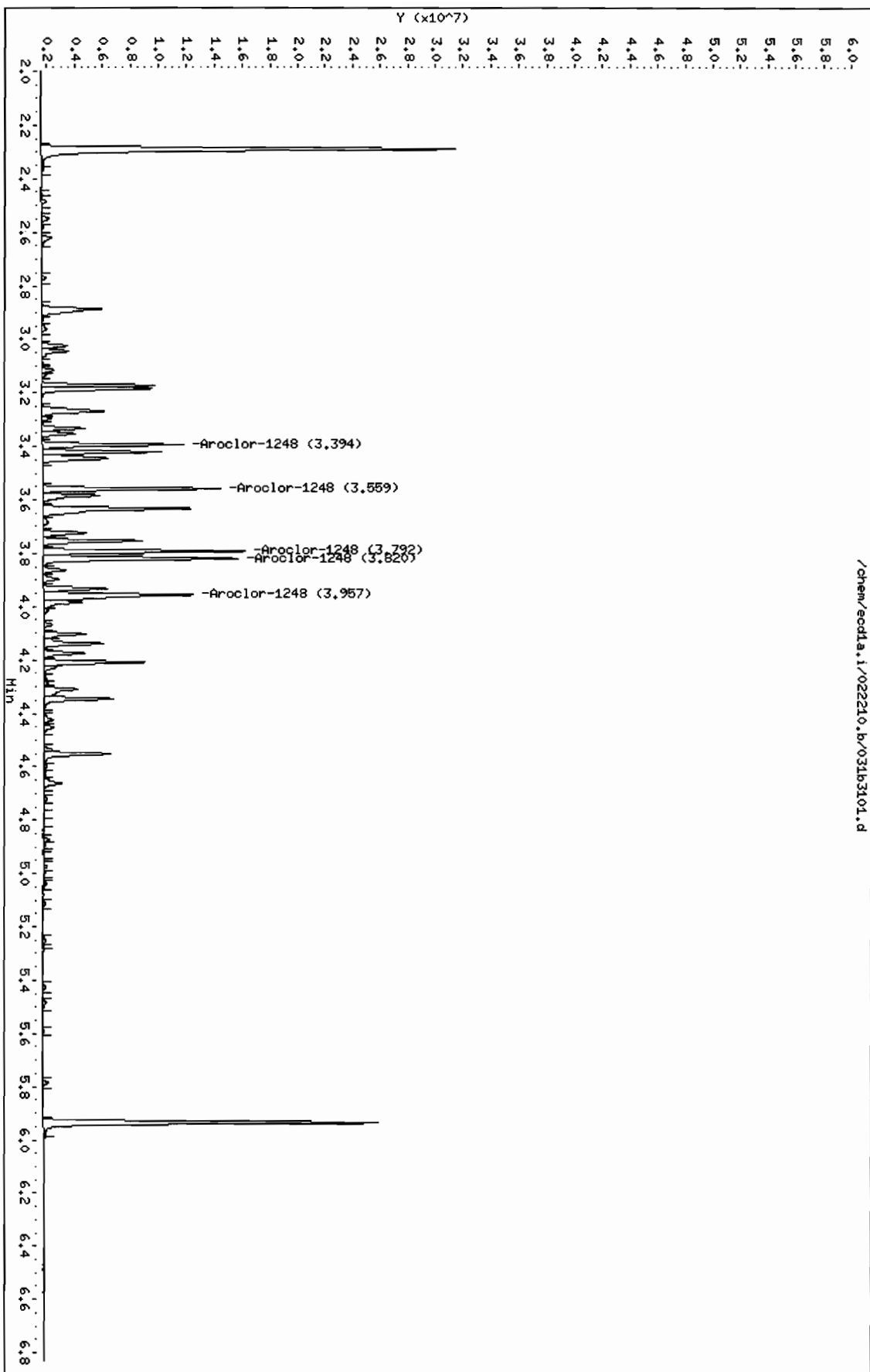
Instrument: ecdl1.1

Operator: YSL

Column diameter: 0.25

Column phase: CLP2

/chem/ecdl1.1/022210.b/031b3101.d



Data File: /chem/ecdl1a.i/022210.b/049f4901.d
Report Date: 23-Feb-2010 06:23

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/022210.b/049f4901.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 22-FEB-2010 14:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 02
Misc Info :
Comment :
Method : /chem/ecdl1a.i/022210.b/ECD1-F-8082-022210.m
Meth Date : 23-Feb-2010 06:23 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 49 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			
1.923	1.924	-0.001	44005809	100.000	102	80.00- 120.00	100.00	

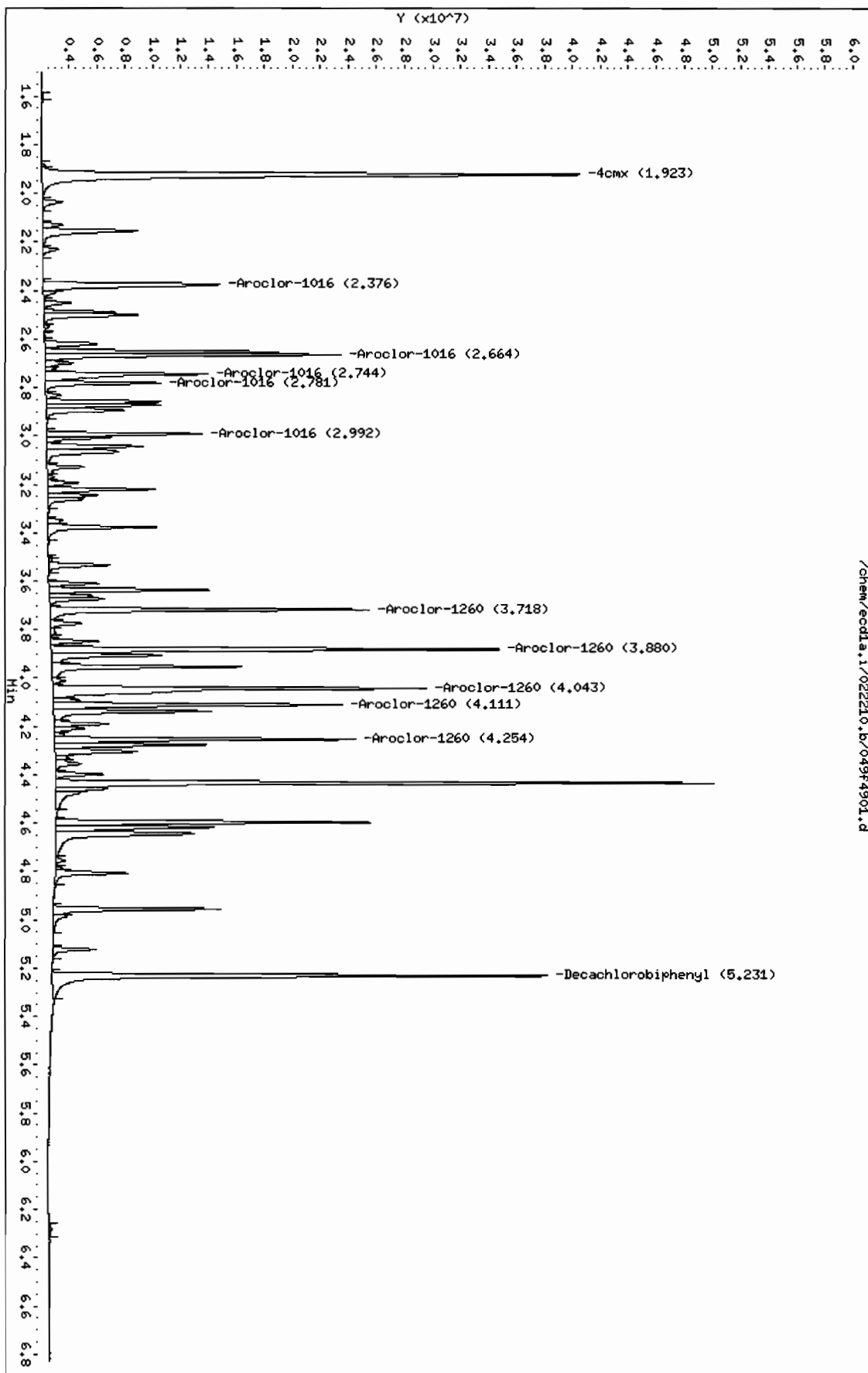
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.231	5.233	-0.002	31802633	100.000	103	80.00- 120.00	100.00	

1 Aroclor-1016					CAS #: 12674-11-2			
2.376	2.378	-0.002	14721109	1000.00	957	80.00- 120.00	100.00	
2.664	2.665	-0.001	18243243	1000.00	1000	103.93- 143.93	123.93	
2.744	2.746	-0.002	11721761	1000.00	972	59.63- 99.63	79.63	
2.781	2.783	-0.002	7055329	1000.00	994	27.93- 67.93	47.93	
2.992	2.993	-0.001	8754495	1000.00	982	39.47- 79.47	59.47	
Average of Peak Amounts =					981			

7 Aroclor-1260					CAS #: 11096-82-5			
3.718	3.720	-0.002	18687807	1000.00	1090	80.00- 120.00	100.00	
3.880	3.883	-0.003	26636493	1000.00	1130	122.53- 162.53	142.53	
4.043	4.045	-0.002	28416599	1000.00	1140	132.06- 172.06	152.06	
4.111	4.113	-0.002	16290273	1000.00	1130	67.17- 107.17	87.17	
4.254	4.256	-0.002	16794960	1000.00	1160	69.87- 109.87	89.87	
Average of Peak Amounts =					1.13e+03			

Data File: /chem/ecdl.a.i/022210.b/049f4901.d
Date: 22-FEB-2010 14:42
Client ID: AR166002
Sample Info: IWR100203-60 02
Column phase: CLP1

Instrument: ecdl.a.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/022210.b/049b4901.d

Lab Smp Id: WAR100203-60 02

Client Smp ID: AR166002

Inj Date : 22-FEB-2010 14:42

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100203-60 02

Misc Info :

Comment :

Method : /chem/ecdl1a.i/022210.b/ECD1-B-8082-022210.m

Meth Date : 22-Feb-2010 15:05 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 49

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		
2.289	2.289	0.000	29019412 100.000	97.6	80.00- 120.00	100.00

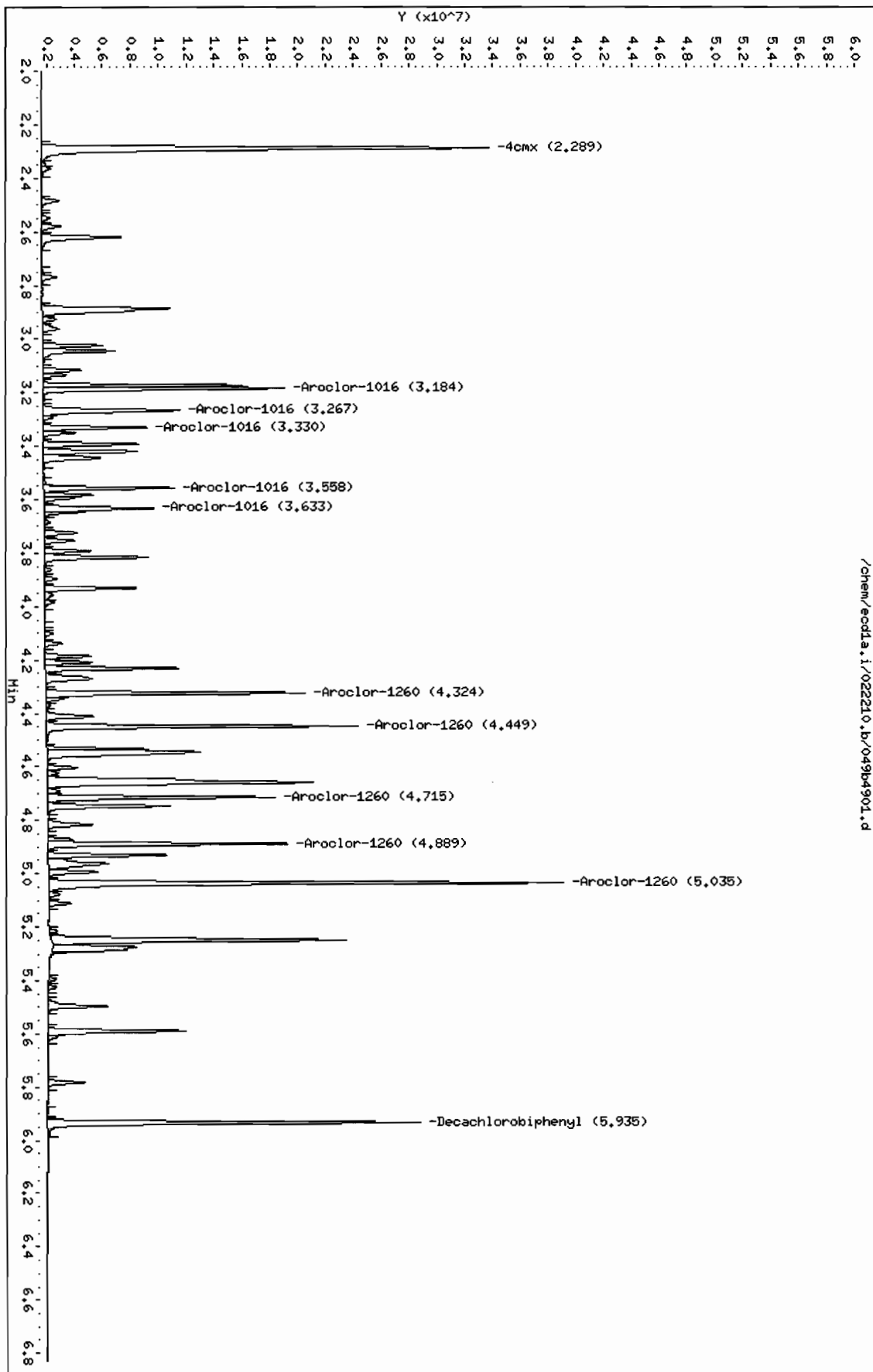
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.935	5.936	-0.001	20571526 100.000	97.3	80.00- 120.00	100.00

1 Aroclor-1016				CAS #: 12674-11-2		
3.184	3.186	-0.002	12326925 1000.00	964	80.00- 120.00	100.00
3.267	3.268	-0.001	8311145 1000.00	932	47.42- 87.42	67.42
3.330	3.332	-0.002	5098144 1000.00	943	21.36- 61.36	41.36
3.558	3.559	-0.001	6637744 1000.00	960	33.85- 73.85	53.85
3.633	3.635	-0.002	6051051 1000.00	942	29.09- 69.09	49.09
Average of Peak Amounts =				948		

7 Aroclor-1260				CAS #: 11096-82-5		
4.324	4.326	-0.002	13235741 1000.00	1000	80.00- 120.00	100.00
4.449	4.451	-0.002	16206788 1000.00	1040	102.45- 142.45	122.45
4.715	4.717	-0.002	12167303 1000.00	1030	71.93- 111.93	91.93
4.889	4.891	-0.002	12612988 1000.00	1030	75.29- 115.29	95.29
5.035	5.038	-0.003	28261077 1000.00	1060	193.52- 233.52	213.52
Average of Peak Amounts =				1.03e+03		

Data File: /chem/ecdl.a.i/022210.b/049b4901.d
Date: 22-FEB-2010 14:42
Client ID: AR166002
Sample Info: IWARL00203-60 02
Column phase: CLP2

Instrument: ecdl.a.i
Operator: YSI
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL
 Data file : /chem/ecdla.i/022210.b/061f6101.d
 Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
 Inj Date : 22-FEB-2010 17:10
 Operator : YS1 Inst ID: ecdla.i
 Smp Info : |WAR100203-60 03
 Misc Info :
 Comment :
 Method : /chem/ecdla.i/022210.b/ECD1-F-8082-022210.m
 Meth Date : 23-Feb-2010 06:24 yip00818 Quant Type: ESTD
 Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
 Als bottle: 61 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		
1.923	1.924	-0.001	45008608	100.000	104	80.00- 120.00	100.00

\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.232	5.233	-0.001	28713003	100.000	93.4	80.00- 120.00	100.00

1 Aroclor-1016					CAS #: 12674-11-2		
2.377	2.378	-0.001	15116750	1000.00	983	80.00- 120.00	100.00
2.663	2.665	-0.002	19212065	1000.00	1050	107.09- 147.09	127.09
2.744	2.746	-0.002	12041845	1000.00	998	59.66- 99.66	79.66
2.782	2.783	-0.001	7281802	1000.00	1030	28.17- 68.17	48.17
2.992	2.993	-0.001	9099460	1000.00	1020	40.19- 80.19	60.19
Average of Peak Amounts =					1.02e+03		

7 Aroclor-1260					CAS #: 11096-82-5		
3.718	3.720	-0.002	18275380	1000.00	1070	80.00- 120.00	100.00
3.881	3.883	-0.002	26160084	1000.00	1110	123.14- 163.14	143.14
4.043	4.045	-0.002	27796549	1000.00	1110	132.10- 172.10	152.10
4.112	4.113	-0.001	16058433	1000.00	1110	67.87- 107.87	87.87
4.254	4.256	-0.002	16476720	1000.00	1140	70.16- 110.16	90.16
Average of Peak Amounts =					1.11e+03		

Data File: /chem/ecdl1.i/022210.b/061f6101.d

Date: 22-FEB-2010 17:10

Client ID: AR166003

Sample Info: 14AR100203-60 03

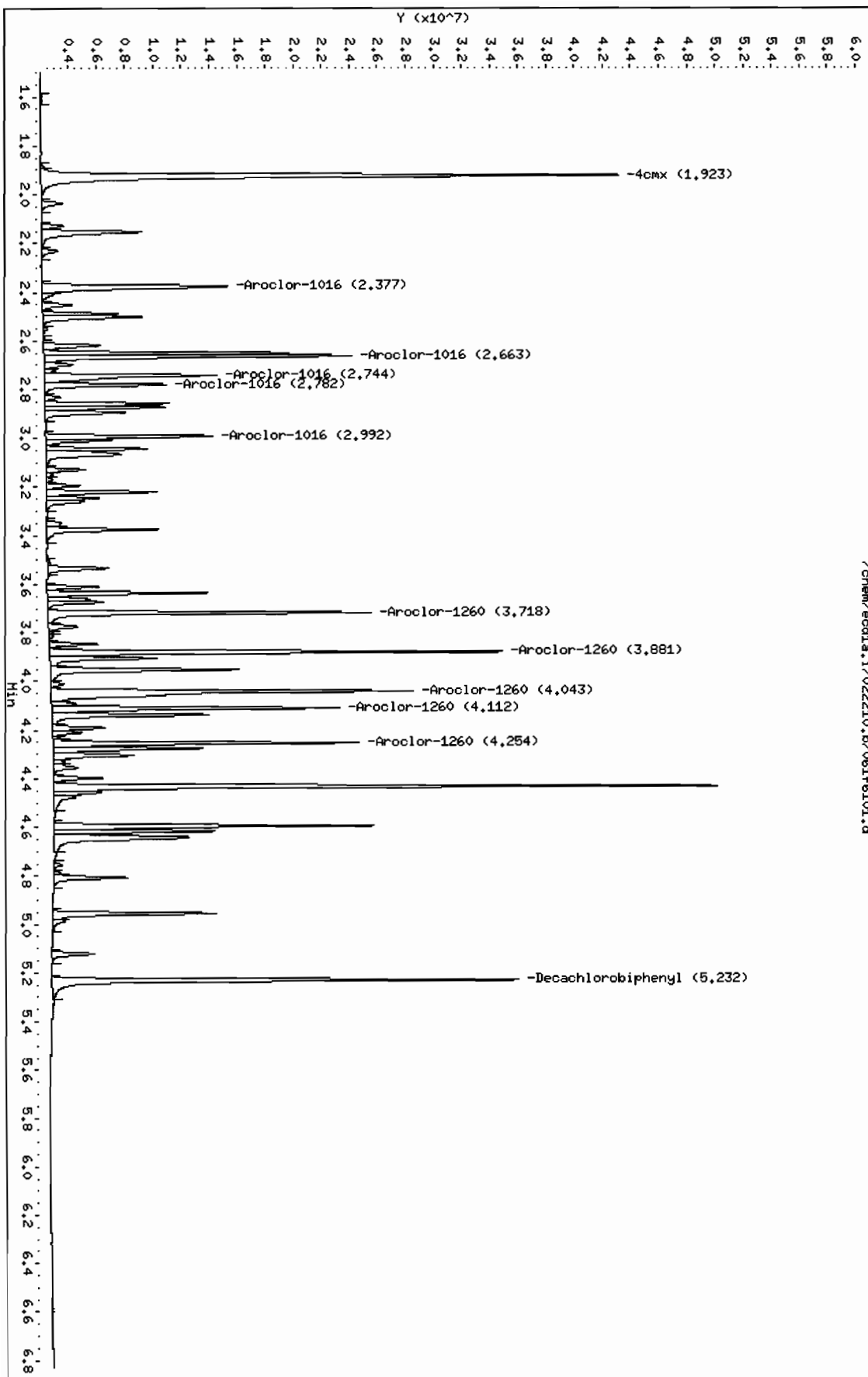
Page 1

Instrument: ecdl1.i

Operator: YS1

Column diameter: 0.25

Column phase: CLP1



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/022210.b/061b6101.d
 Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
 Inj Date : 22-FEB-2010 17:10
 Operator : YS1 Inst ID: ecd1a.i
 Smp Info : |WAR100203-60 03
 Misc Info :
 Comment :
 Method : /chem/ecdl1a.i/022210.b/ECD1-B-8082-022210.m
 Meth Date : 23-Feb-2010 06:15 yip00818 Quant Type: ESTD
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
 Als bottle: 61 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)		RATIO
==	=====	=====	=====	=====	=====	=====	=====

\$ 11 4cmx					CAS #:	877-09-8	
2.288	2.289	-0.001	29406797	100.000	98.9	80.00- 120.00	100.00

\$ 12 Decachlorobiphenyl					CAS #:	2051-24-3	
5.935	5.936	-0.001	20554249	100.000	97.2	80.00- 120.00	100.00

1 Aroclor-1016					CAS #:	12674-11-2	
3.184	3.186	-0.002	12968422	1000.00	1010	80.00- 120.00	100.00(M)
3.267	3.268	-0.001	8372548	1000.00	939	46.43- 86.43	64.56
3.331	3.332	-0.001	5184665	1000.00	959	21.13- 61.13	39.98
3.557	3.559	-0.002	6469272	1000.00	935	31.62- 71.62	49.88
3.633	3.635	-0.002	6091759	1000.00	948	38.10- 78.10	56.25
Average of Peak Amounts =					959		

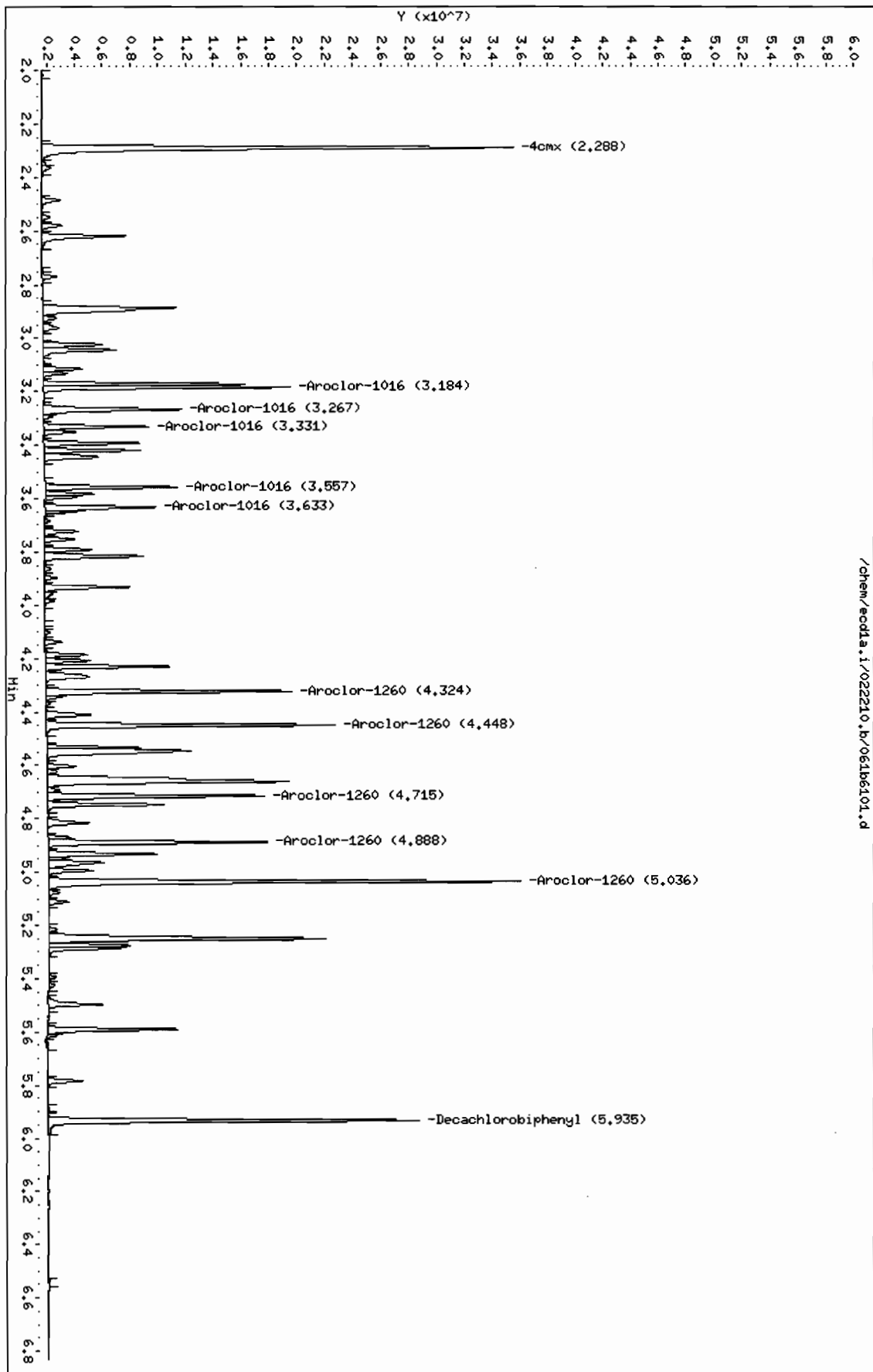
7 Aroclor-1260					CAS #:	11096-82-5	
4.324	4.326	-0.002	12332009	1000.00	934	80.00- 120.00	100.00
4.448	4.451	-0.003	15110560	1000.00	971	99.05- 139.05	122.53
4.715	4.717	-0.002	11321817	1000.00	956	67.60- 107.60	91.81
4.888	4.891	-0.003	11694339	1000.00	958	69.36- 109.36	94.83
5.036	5.038	-0.002	26407625	1000.00	995	181.83- 221.83	214.14
Average of Peak Amounts =					963		

QC Flag Legend

M - Compound response manually integrated.

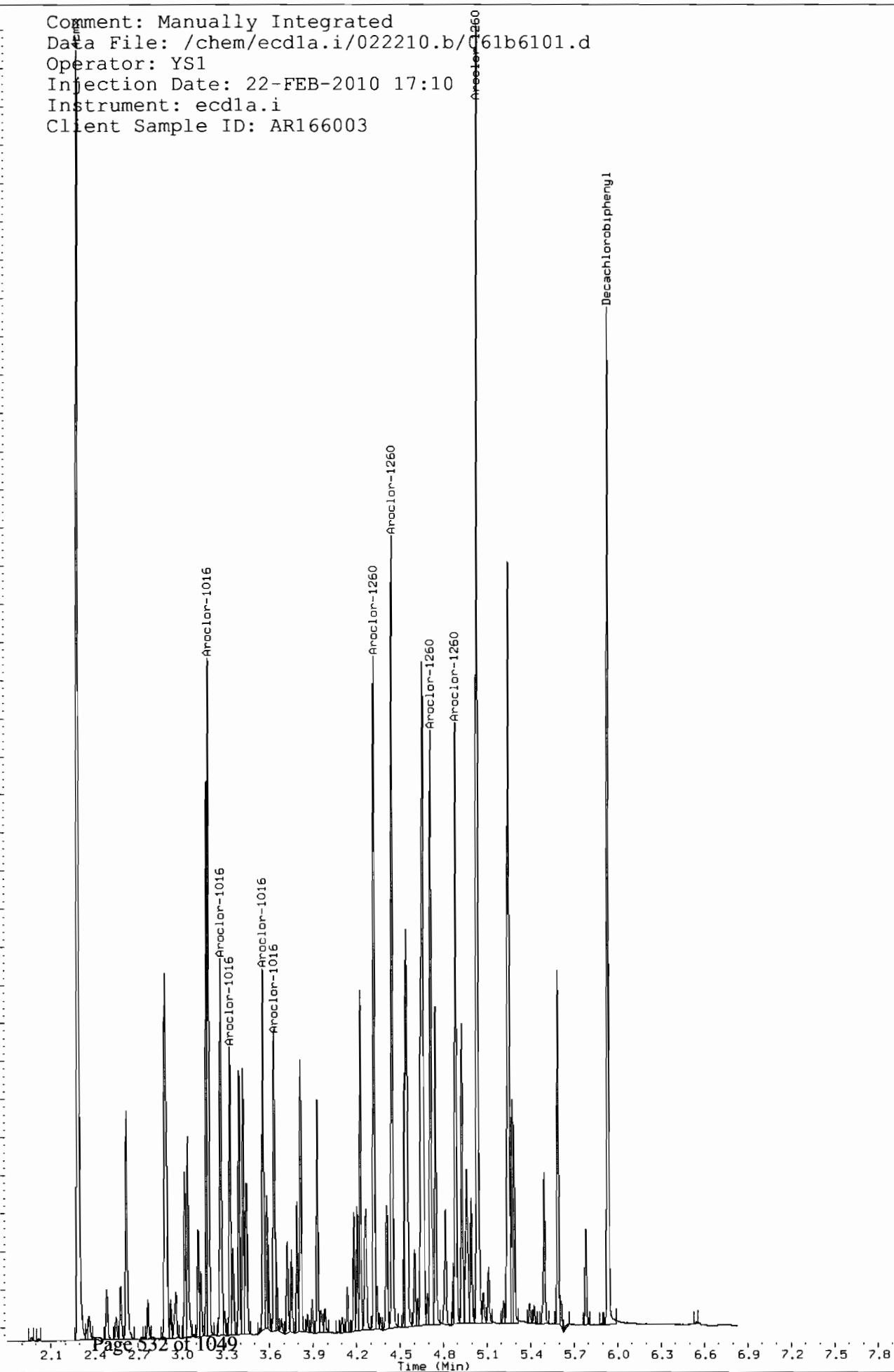
Data File: /chem/ecdl1a.i/022210.b/061b6101.d
Date : 22-FEB-2010 17:10
Client ID: AR166003
Sample Info: IAR100203-60 03
Column phase: CLP2

Instrument: ecdl1a.i
Operator: YS1
Column diameter: 0.25

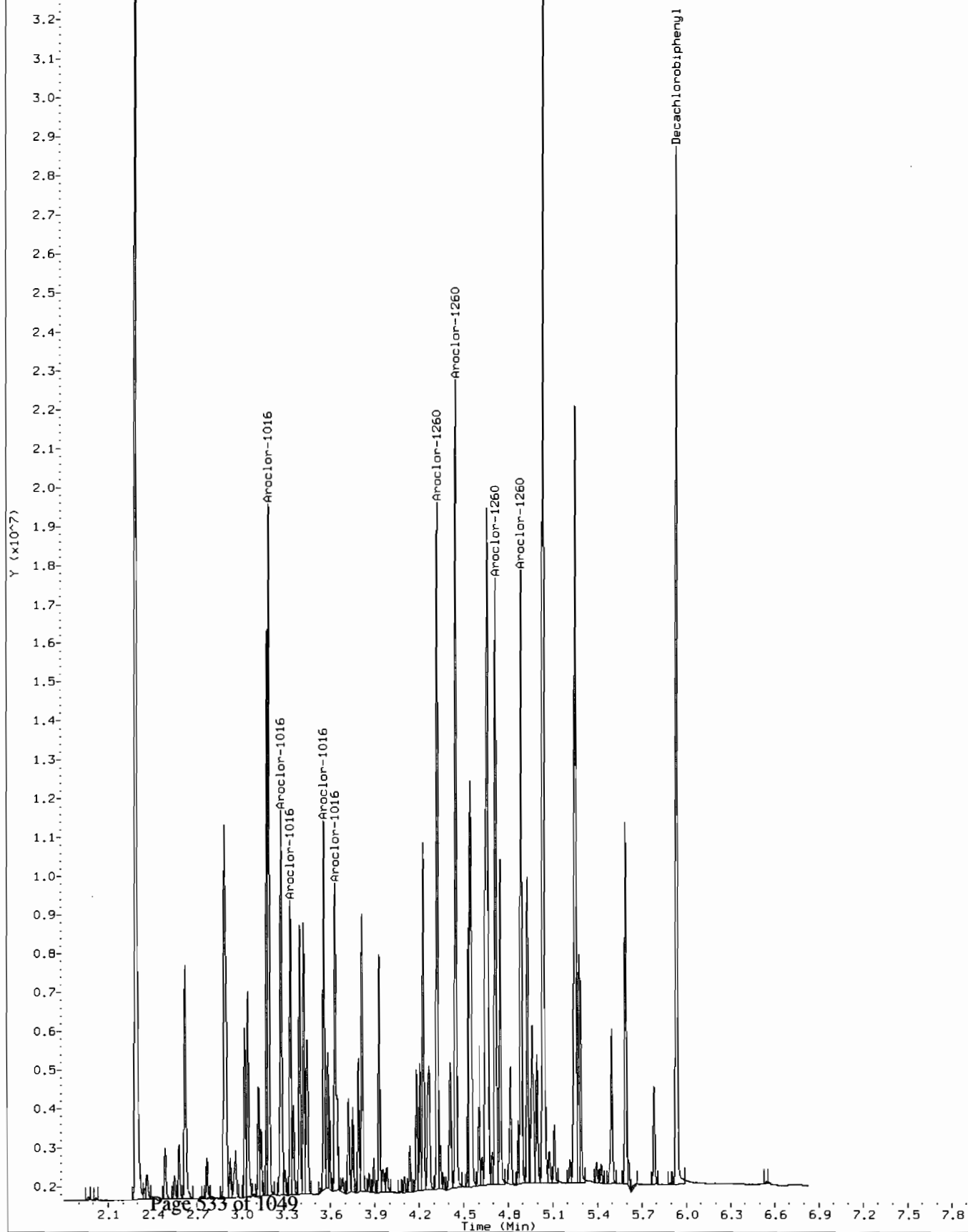


Comment: Manually Integrated
Data File: /chem/ecdl1a.i/022210.b/61b6101.d
Operator: YS1
Injection Date: 22-FEB-2010 17:10
Instrument: ecd1a.i
Client Sample ID: AR166003

Y (x10⁻⁷)



Comment: Before manual integration
Data File: /chem/ecdl1a.i/022210.b/Orig-061b6101.d
Operator: YS1
Injection Date: 22-FEB-2010 17:10
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/022210.b/066f6601.d

Lab Smp Id: WAR100203-60 04

Client Smp ID: AR166004

Inj Date : 22-FEB-2010 18:13

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100203-60 04

Misc Info :

Comment :

Method : /chem/ecdl1a.i/022210.b/ECD1-F-8082-022210.m

Meth Date : 23-Feb-2010 06:24 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 66

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

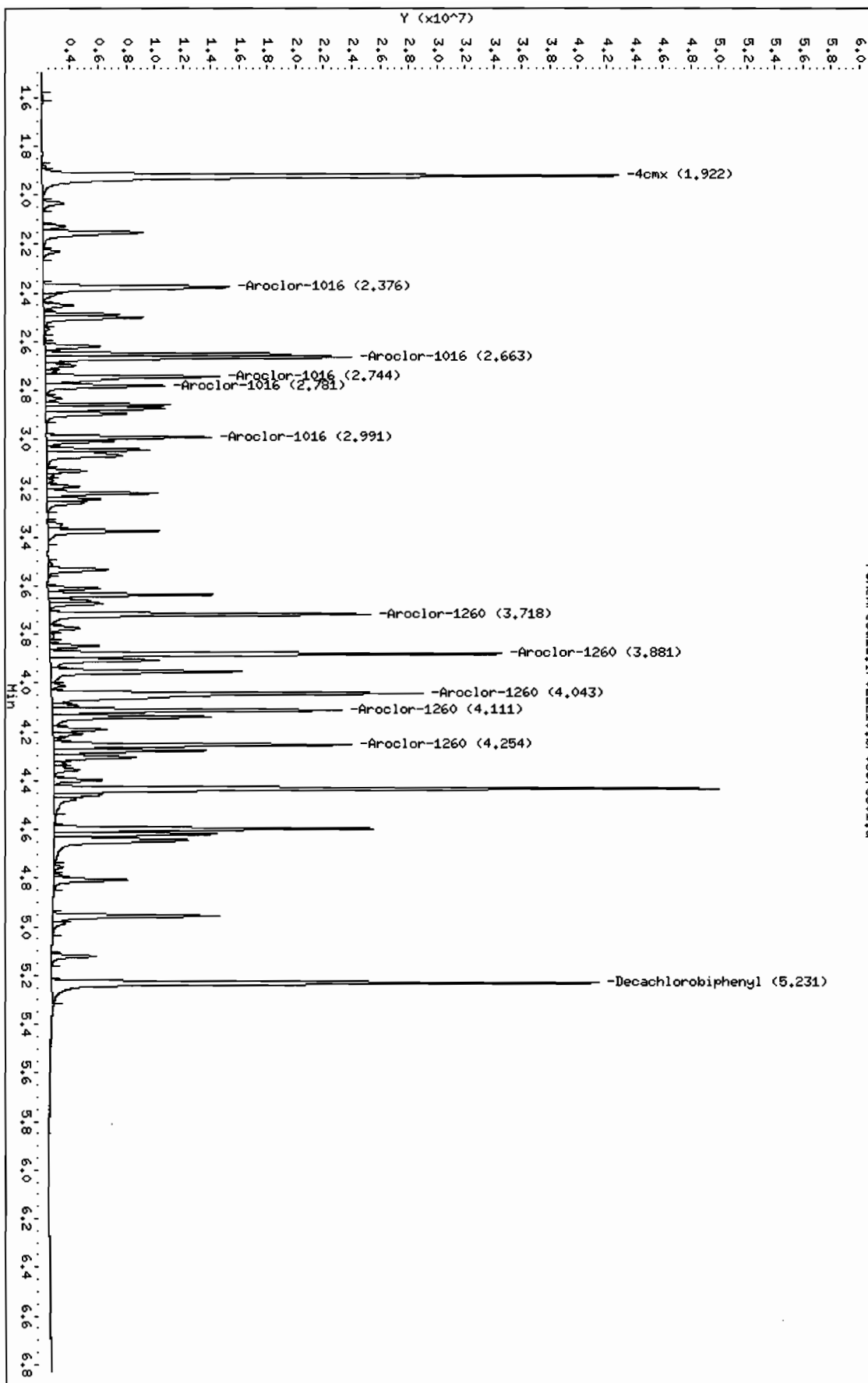
AMOUNTS

			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/L)	TARGET RANGE		RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
<hr/>								
\$ 11 4cmx					CAS #: 877-09-8			
1.922	1.924	-0.002	45255473	100.000	105	80.00-	120.00	100.00
<hr/>								
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.231	5.233	-0.002	33018882	100.000	107	80.00-	120.00	100.00
<hr/>								
1 Aroclor-1016					CAS #: 12674-11-2			
2.376	2.378	-0.002	15187098	1000.00	987	80.00-	120.00	100.00
2.663	2.665	-0.002	18389825	1000.00	1010	101.09-	141.09	121.09
2.744	2.746	-0.002	12110306	1000.00	1000	59.74-	99.74	79.74
2.781	2.783	-0.002	7297353	1000.00	1030	28.05-	68.05	48.05
2.991	2.993	-0.002	9084323	1000.00	1020	39.82-	79.82	59.82
Average of Peak Amounts =					1.01e+03			
<hr/>								
7 Aroclor-1260					CAS #: 11096-82-5			
3.718	3.720	-0.002	18136564	1000.00	1060	80.00-	120.00	100.00
3.881	3.883	-0.002	26169936	1000.00	1110	124.29-	164.29	144.29
4.043	4.045	-0.002	28107548	1000.00	1120	134.98-	174.98	154.98
4.111	4.113	-0.002	16116982	1000.00	1120	68.86-	108.86	88.86
4.254	4.256	-0.002	16519136	1000.00	1140	71.08-	111.08	91.08
Average of Peak Amounts =					1.11e+03			
<hr/>								

Data File: /chem/ecdl.a.i/022210.b/066f6601.d
Date: 22-FEB-2010 18:13
Client ID: AR166004
Sample Info: IWR100203-60 04
Column phase: CLP1

Instrument: ecdl.a.i
Operator: YSL
Column diameter: 0.25

/chem/ecdl.a.i/022210.b/066f6601.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/022210.b/066b6601.d
Lab Smp Id: WAR100203-60 04 Client Smp ID: PIBLK04
Inj Date : 22-FEB-2010 18:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 04
Misc Info :
Comment :
Method : /chem/ecdl1a.i/022210.b/ECD1-B-8082-022210.m
Meth Date : 23-Feb-2010 06:15 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 66 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		
2.287	2.289	-0.002	29734998	100.000	100	80.00- 120.00	100.00

\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.935	5.936	-0.001	21114755	100.000	99.8	80.00- 120.00	100.00

1 Aroclor-1016					CAS #: 12674-11-2		
3.184	3.186	-0.002	12660692	1000.00	990	80.00- 120.00	100.00(M)
3.266	3.268	-0.002	8452621	1000.00	948	44.56- 84.56	66.76
3.331	3.332	-0.001	5231232	1000.00	968	19.98- 59.98	41.32
3.557	3.559	-0.002	6550181	1000.00	947	29.88- 69.88	51.74
3.633	3.635	-0.002	6188242	1000.00	963	26.97- 66.97	58.29
Average of Peak Amounts =					963		

7 Aroclor-1260					CAS #: 11096-82-5		
4.324	4.326	-0.002	12596189	1000.00	954	80.00- 120.00	100.00
4.449	4.451	-0.002	15407963	1000.00	990	102.53- 142.53	122.32
4.715	4.717	-0.002	11580197	1000.00	978	71.81- 111.81	91.93
4.889	4.891	-0.002	12017105	1000.00	985	74.83- 114.83	95.40
5.036	5.038	-0.002	26858549	1000.00	1010	194.14- 234.14	213.23
Average of Peak Amounts =					984		

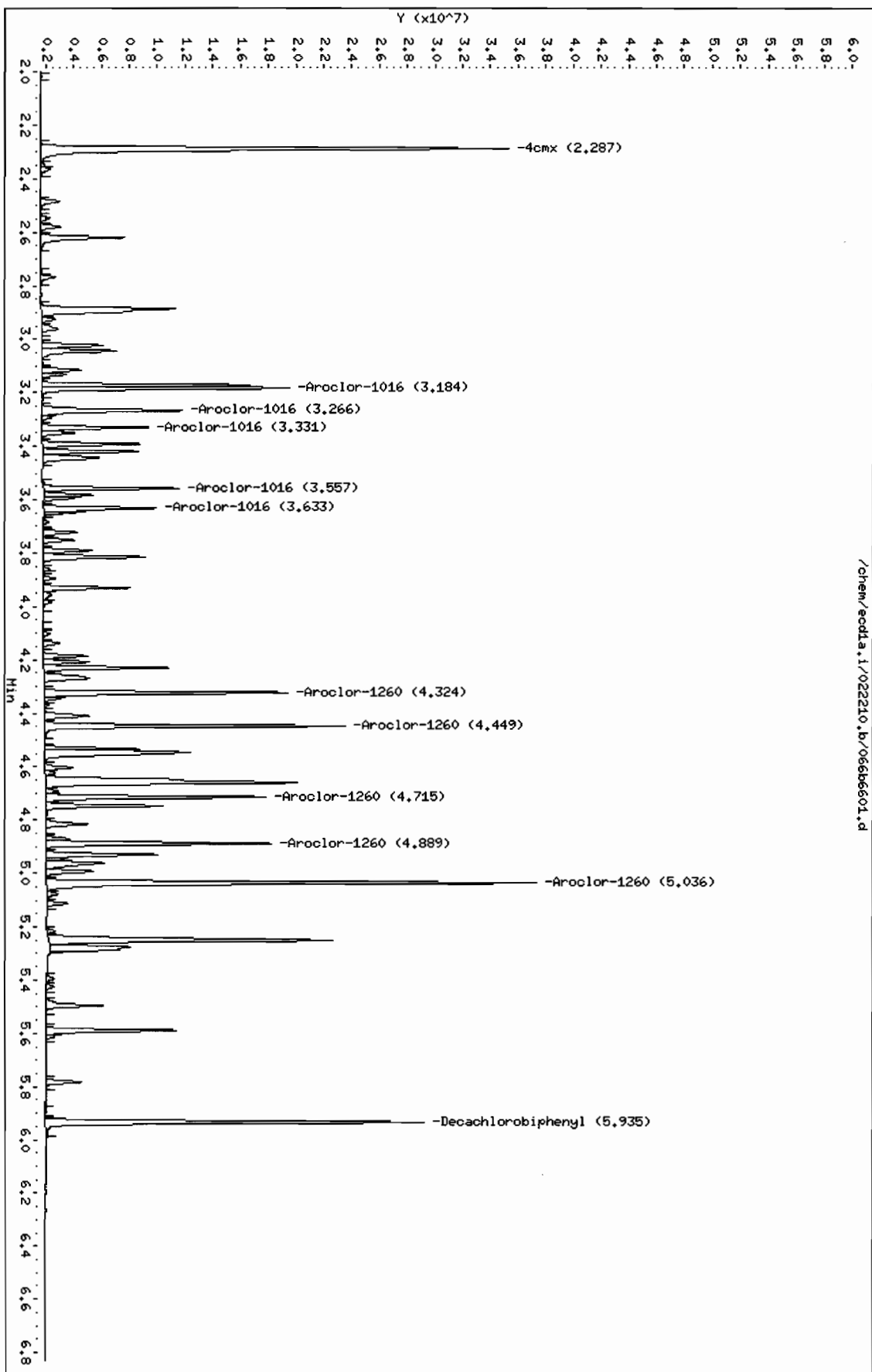
QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecda.i/022210.b/06b6601.d
Date : 22-FEB-2010 18:13
Client ID: PBLK04
Sample Info: IWR100203-60 04

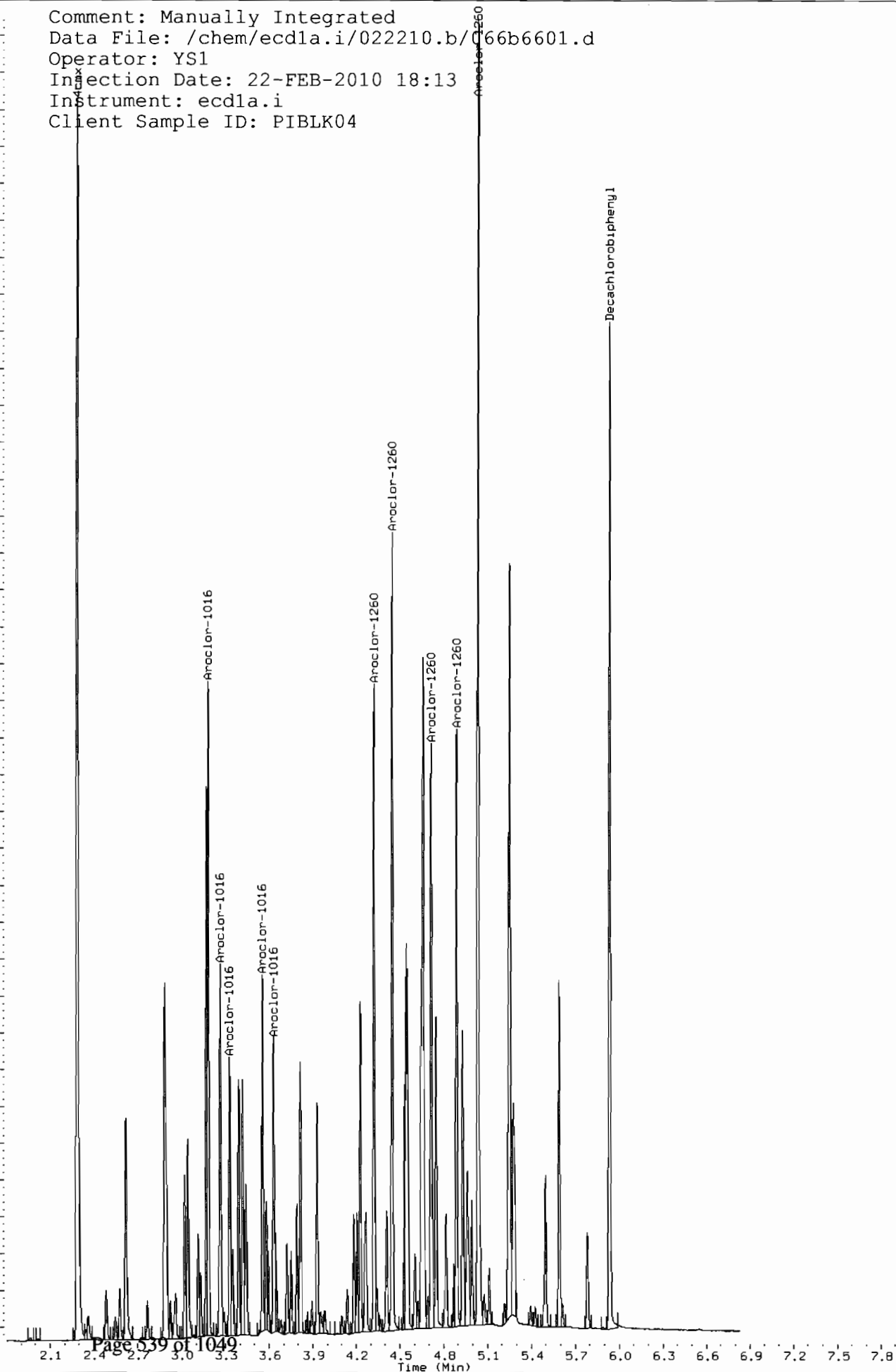
Column phase: CLP2

Instrument: ecda.i
Operator: YS1
Column diameter: 0.25

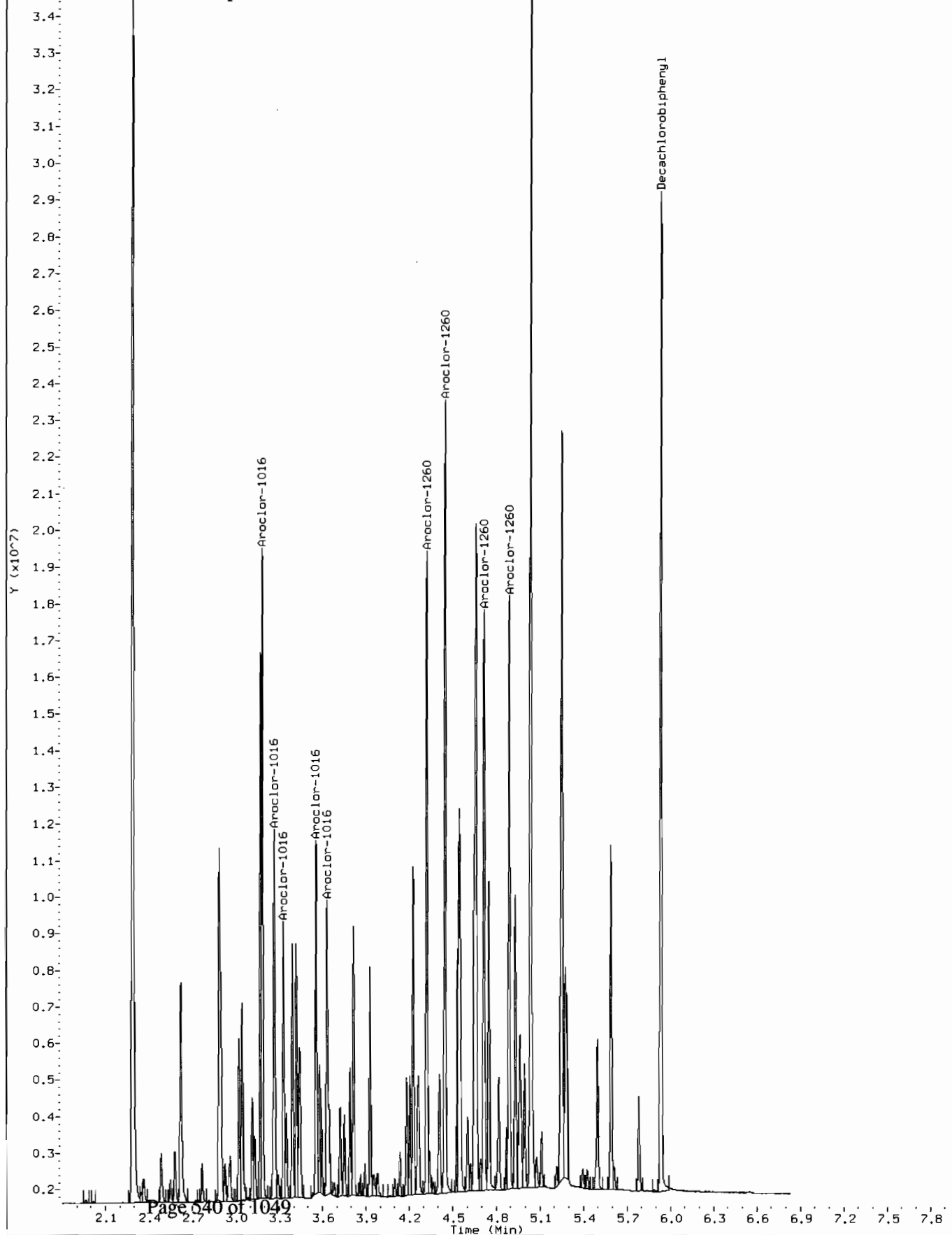


Comment: Manually Integrated
Data File: /chem/ecdl1a.i/022210.b/66b6601.d
Operator: YS1
Injection Date: 22-FEB-2010 18:13
Instrument: ecd1a.i
Client Sample ID: PIBLK04

Y (x10⁻⁷)



Comment: Before manual integration
Data File: /chem/ecdl1.i/022210.b/Orig-066b6601.d
Operator: YS1
Injection Date: 22-FEB-2010 18:13
Instrument: ecd1a.i
Client Sample ID: PIBLK04



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.: 10-1848

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

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: 5.23			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#	DCB RT
01	PIBLK01	WAR100219-99	02/22/10	0559		
02	ZZZZZ	ZZZZZ	02/22/10	0610	1.92	5.23
03	ZZZZZ	ZZZZZ	02/22/10	0620	1.92	5.23
04	DDTANALOGSTD	WAR091219-DD	02/22/10	0631		
05	AR123201	WAR100104-32	02/22/10	0641		
06	AR122101	WAR100104-21	02/22/10	0652		
07	AR126201	WAR100104-62	02/22/10	0703		
08	AR166001	WAR100222-01	02/22/10	0713	1.92	5.23
09	AR166002	WAR100222-02	02/22/10	0724	1.92	5.23
10	AR166003	WAR100222-03	02/22/10	0734	1.92	5.23
11	AR166004	WAR100222-04	02/22/10	0745	1.92	5.23
12	AR166005	IAR100104-01	02/22/10	0755	1.92	5.23
13	AR166001	WAR100203-60	02/22/10	0806	1.92	5.23
14	AR125401	WAR100222-05	02/22/10	0816		
15	AR125402	WAR100222-06	02/22/10	0827		
16	AR125403	WAR100222-07	02/22/10	0837		
17	AR125404	WAR100222-08	02/22/10	0848		
18	AR125405	IAR100219-02	02/22/10	0859		
19	AR125401	WAR100219-54	02/22/10	0909		
20	AR124201	WAR100222-09	02/22/10	0920		
21	AR124202	WAR100222-10	02/22/10	0930		
22	AR124203	WAR100222-11	02/22/10	0941		
23	AR124204	WAR100222-12	02/22/10	0951		
24	AR124205	IAR100219-01	02/22/10	1002		
25	AR124201	WAR100219-42	02/22/10	1012		
26	AR124801	WAR100222-13	02/22/10	1023		
27	AR124802	WAR100222-14	02/22/10	1033		
28	AR124803	WAR100222-15	02/22/10	1044		
29	AR124805	IAR100211-01	02/22/10	1054		
30	AR124804	WAR100222-16	02/22/10	1105		
31	AR124801	WAR091217-48	02/22/10	1116		
32	AR126801	WAR100222-17	02/22/10	1126		

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.: 10-1848

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

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: 5.23			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#	DCB RT
01	AR126802	WAR100222-18	02/22/10	1137			
02	AR126803	WAR100222-19	02/22/10	1147			
03	AR126804	WAR100222-20	02/22/10	1158			
04	AR126805	IAR100104-05	02/22/10	1208			
05	AR126801	WAR100107-68	02/22/10	1219			
06	PIBLK02	WAR100219-99	02/22/10	1229	1.92		5.23
07	PBLK01	1202046866	02/22/10	1240	1.92		5.23
08	PBLK01LCS	1202046867	02/22/10	1250	1.93		5.23
09	ZZZZZ	ZZZZZ	02/22/10	1301	1.92		5.23
10	ZZZZZ	ZZZZZ	02/22/10	1314	1.92		5.23
11	ZZZZZ	ZZZZZ	02/22/10	1326	1.92		5.23
12	ZZZZZ	ZZZZZ	02/22/10	1339	1.92		5.23
13	ZZZZZ	ZZZZZ	02/22/10	1351	1.92		5.23
14	ZZZZZ	ZZZZZ	02/22/10	1404	1.92		5.23
15	ZZZZZ	ZZZZZ	02/22/10	1417	1.92		5.23
16	ZZZZZ	ZZZZZ	02/22/10	1430	1.92		5.23
17	AR166002	WAR100203-60	02/22/10	1442	1.92		5.23
18	PIBLK03	WAR100219-99	02/22/10	1453	1.92		5.23
19	ZZZZZ	ZZZZZ	02/22/10	1503	1.92		5.23
20	ZZZZZ	ZZZZZ	02/22/10	1516	1.92		5.23
21	ZZZZZ	ZZZZZ	02/22/10	1528	1.92		5.23
22	ZZZZZ	ZZZZZ	02/22/10	1541	1.92		5.23
23	ZZZZZ	ZZZZZ	02/22/10	1554	1.92		5.23
24	ZZZZZ	ZZZZZ	02/22/10	1606	1.92		5.23
25	ZZZZZ	ZZZZZ	02/22/10	1619	1.92		5.23
26	ZZZZZ	ZZZZZ	02/22/10	1632	1.92		5.23
27	ZZZZZ	ZZZZZ	02/22/10	1644	1.92		5.23
28	ZZZZZ	ZZZZZ	02/22/10	1657	1.92		5.23
29	AR166003	WAR100203-60	02/22/10	1710	1.92		5.23
30	PIBLK04	WAR100219-99	02/22/10	1722	1.92		5.23
31	RE15-10-8198	247123001	02/22/10	1735	1.92		5.23
32	RE15-10-8198MS	1202046868	02/22/10	1748	1.92		5.23

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.: 10-1848

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

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: 5.23			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	RE15-10-8198MSD	1202046869	02/22/10	1800	1.92 5.23
02	AR166004	WAR100203-60	02/22/10	1813	1.92 5.23
03	PIBLK05	WAR100219-99	02/22/10	1826	1.92 5.23
04	ZZZZZ	ZZZZZ	02/22/10	1838	1.92 5.23
05	ZZZZZ	ZZZZZ	02/22/10	1851	1.92 5.23
06	ZZZZZ	ZZZZZ	02/22/10	1904	1.92 5.23
07	ZZZZZ	ZZZZZ	02/22/10	1916	1.92 5.23
08	ZZZZZ	ZZZZZ	02/22/10	1929	1.92 5.23
09	ZZZZZ	ZZZZZ	02/22/10	1942	1.92 5.23
10	ZZZZZ	ZZZZZ	02/22/10	1954	1.92 5.23
11	ZZZZZ	ZZZZZ	02/22/10	2007	1.92 5.23
12	ZZZZZ	ZZZZZ	02/22/10	2020	1.92 5.23
13	ZZZZZ	ZZZZZ	02/22/10	2032	1.92 5.23
14	AR166005	WAR100203-60	02/22/10	2045	1.92 5.23
15	PIBLK06	WAR100219-99	02/22/10	2058	1.92 5.23
16	ZZZZZ	ZZZZZ	02/22/10	2110	1.92 5.23
17	ZZZZZ	ZZZZZ	02/22/10	2123	1.92 5.23
18	ZZZZZ	ZZZZZ	02/22/10	2135	1.92 5.23
19	ZZZZZ	ZZZZZ	02/22/10	2148	1.92 5.23
20	ZZZZZ	ZZZZZ	02/22/10	2201	1.92 5.23
21	ZZZZZ	ZZZZZ	02/22/10	2213	1.92 5.23
22	ZZZZZ	ZZZZZ	02/22/10	2226	1.92 5.23
23	ZZZZZ	ZZZZZ	02/22/10	2239	1.92 5.23
24	ZZZZZ	ZZZZZ	02/22/10	2251	1.92 5.23
25	ZZZZZ	ZZZZZ	02/22/10	2304	1.92 5.23
26	AR166006	WAR100203-60	02/22/10	2317	1.92 5.23
27	PIBLK07	WAR100219-99	02/22/10	2329	1.92 5.23
28	ZZZZZ	ZZZZZ	02/22/10	2342	1.92 5.23
29	ZZZZZ	ZZZZZ	02/22/10	2355	1.92 5.23
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.: 10-1848

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 2.29			DCB: 5.94			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #	
01	PIBLK01	WAR100219-99	02/22/10	0559	2.29	5.93
02	ZZZZZ	ZZZZZ	02/22/10	0610	2.29	5.94
03	ZZZZZ	ZZZZZ	02/22/10	0620	2.29	5.94
04	DDTANALOGSTD	WAR091219-DD	02/22/10	0631		
05	AR123201	WAR100104-32	02/22/10	0641		
06	AR122101	WAR100104-21	02/22/10	0652		
07	AR126201	WAR100104-62	02/22/10	0703		
08	AR166001	WAR100222-01	02/22/10	0713	2.29	5.94
09	AR166002	WAR100222-02	02/22/10	0724	2.29	5.94
10	AR166003	WAR100222-03	02/22/10	0734	2.29	5.94
11	AR166004	WAR100222-04	02/22/10	0745	2.29	5.94
12	AR166005	IAR100104-01	02/22/10	0755	2.29	5.94
13	AR166001	WAR100203-60	02/22/10	0806	2.29	5.94
14	AR125401	WAR100222-05	02/22/10	0816		
15	AR125402	WAR100222-06	02/22/10	0827		
16	AR125403	WAR100222-07	02/22/10	0837		
17	AR125404	WAR100222-08	02/22/10	0848		
18	AR125405	IAR100219-02	02/22/10	0859		
19	AR125401	WAR100219-54	02/22/10	0909		
20	AR124201	WAR100222-09	02/22/10	0920		
21	AR124202	WAR100222-10	02/22/10	0930		
22	AR124203	WAR100222-11	02/22/10	0941		
23	AR124204	WAR100222-12	02/22/10	0951		
24	AR124205	IAR100219-01	02/22/10	1002		
25	AR124201	WAR100219-42	02/22/10	1012		
26	AR124801	WAR100222-13	02/22/10	1023		
27	AR124802	WAR100222-14	02/22/10	1033		
28	AR124803	WAR100222-15	02/22/10	1044		
29	AR124805	IAR100211-01	02/22/10	1054		
30	AR124804	WAR100222-16	02/22/10	1105		
31	AR124801	WAR091217-48	02/22/10	1116		
32	AR126801	WAR100222-17	02/22/10	1126		

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.: 10-1848

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 2.29			DCB: 5.94			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#	DCB RT
=====	=====	=====	=====	=====	=====	=====
01	AR126802	WAR100222-18	02/22/10	1137		
02	AR126803	WAR100222-19	02/22/10	1147		
03	AR126804	WAR100222-20	02/22/10	1158		
04	AR126805	IAR100104-05	02/22/10	1208		
05	AR126801	WAR100107-68	02/22/10	1219		
06	PIBLK02	WAR100219-99	02/22/10	1229	2.29	5.94
07	PBLK01	1202046866	02/22/10	1240	2.29	5.94
08	PBLK01LCS	1202046867	02/22/10	1250	2.29	5.94
09	ZZZZZ	ZZZZZ	02/22/10	1301	2.29	5.94
10	ZZZZZ	ZZZZZ	02/22/10	1314	2.29	5.94
11	ZZZZZ	ZZZZZ	02/22/10	1326	2.29	5.94
12	ZZZZZ	ZZZZZ	02/22/10	1339	2.29	5.93
13	ZZZZZ	ZZZZZ	02/22/10	1351	2.29	5.93
14	ZZZZZ	ZZZZZ	02/22/10	1404	2.29	5.94
15	ZZZZZ	ZZZZZ	02/22/10	1417	2.29	5.93
16	ZZZZZ	ZZZZZ	02/22/10	1430	2.29	5.93
17	AR166002	WAR100203-60	02/22/10	1442	2.29	5.94
18	PIBLK03	WAR100219-99	02/22/10	1453	2.29	5.94
19	ZZZZZ	ZZZZZ	02/22/10	1503	2.29	5.94
20	ZZZZZ	ZZZZZ	02/22/10	1516	2.29	5.93
21	ZZZZZ	ZZZZZ	02/22/10	1528	2.29	5.93
22	ZZZZZ	ZZZZZ	02/22/10	1541	2.29	5.94
23	ZZZZZ	ZZZZZ	02/22/10	1554	2.29	5.93
24	ZZZZZ	ZZZZZ	02/22/10	1606	2.29	5.93
25	ZZZZZ	ZZZZZ	02/22/10	1619	2.29	5.94
26	ZZZZZ	ZZZZZ	02/22/10	1632	2.29	5.93
27	ZZZZZ	ZZZZZ	02/22/10	1644	2.29	5.93
28	ZZZZZ	ZZZZZ	02/22/10	1657	2.29	5.93
29	AR166003	WAR100203-60	02/22/10	1710	2.29	5.93
30	PIBLK04	WAR100219-99	02/22/10	1722	2.29	5.93
31	RE15-10-8198	247123001	02/22/10	1735	2.29	5.93
32	RE15-10-8198MS	1202046868	02/22/10	1748	2.29	5.94

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.: 10-1848

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION							
S1 : 2.29				DCB: 5.94			
EPA	LAB	DATE	TIME	S1	DCB		
SAMPLE NO.	SAMPLE ID	ANALYZED	ANALYZED	RT	RT	#	#
01	RE15-10-8198MSD	1202046869	02/22/10	1800	2.29	5.93	
02	PIBLK04	WAR100203-60	02/22/10	1813	2.29	5.93	
03	PIBLK05	WAR100219-99	02/22/10	1826	2.29	5.93	
04	ZZZZZ	ZZZZZ	02/22/10	1838	2.29	5.93	
05	ZZZZZ	ZZZZZ	02/22/10	1851	2.29	5.93	
06	ZZZZZ	ZZZZZ	02/22/10	1904	2.29	5.93	
07	ZZZZZ	ZZZZZ	02/22/10	1916	2.29	5.94	
08	ZZZZZ	ZZZZZ	02/22/10	1929	2.29	5.93	
09	ZZZZZ	ZZZZZ	02/22/10	1942	2.29	5.94	
10	ZZZZZ	ZZZZZ	02/22/10	1954	2.29	5.93	
11	ZZZZZ	ZZZZZ	02/22/10	2007	2.29	5.93	
12	ZZZZZ	ZZZZZ	02/22/10	2020	2.29	5.94	
13	ZZZZZ	ZZZZZ	02/22/10	2032	2.29	5.93	
14	AR166005	WAR100203-60	02/22/10	2045	2.29	5.93	
15	PIBLK06	WAR100219-99	02/22/10	2058	2.29	5.93	
16	ZZZZZ	ZZZZZ	02/22/10	2110	2.29	5.93	
17	ZZZZZ	ZZZZZ	02/22/10	2123	2.29	5.93	
18	ZZZZZ	ZZZZZ	02/22/10	2135	2.29	5.93	
19	ZZZZZ	ZZZZZ	02/22/10	2148	2.29	5.93	
20	ZZZZZ	ZZZZZ	02/22/10	2201	2.29	5.93	
21	ZZZZZ	ZZZZZ	02/22/10	2213	2.29	5.93	
22	ZZZZZ	ZZZZZ	02/22/10	2226	2.29	5.93	
23	ZZZZZ	ZZZZZ	02/22/10	2239	2.29	5.93	
24	ZZZZZ	ZZZZZ	02/22/10	2251	2.29	5.93	
25	ZZZZZ	ZZZZZ	02/22/10	2304	2.29	5.93	
26	AR166006	WAR100203-60	02/22/10	2317	2.29	5.93	
27	PIBLK07	WAR100219-99	02/22/10	2329	2.29	5.93	
28	ZZZZZ	ZZZZZ	02/22/10	2342	2.29	5.93	
29	ZZZZZ	ZZZZZ	02/22/10	2355	2.29	5.93	
30							
31							
32							

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

Page 1 of 1

SDG Number: 10-1848

Client ID: LCS for batch 954777

Lab Sample ID: 1202046867

Data File: 040f4001.d

Data File: 040b4001.d

Inst: ECD1A.I_1

Inst: ECD1A.I_2

Column: CLP1

Column: CLP2

Analyzed: 22-FEB-10 12:50

Analyzed: 22-FEB-10 12:50

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							2.33
Column 1	1	2.38	2.35 - 2.41	20.6		ug/kg	
	2	2.67	2.64 - 2.7	20.9		ug/kg	
	3	2.75	2.72 - 2.78	22.1		ug/kg	
	4	2.78	2.75 - 2.81	20.4		ug/kg	
	5	2.99	2.96 - 3.02	20.5		ug/kg	
					20.9		
Column 2	1	3.19	3.16 - 3.22	21.5		ug/kg	
	2	3.27	3.24 - 3.3	20.3		ug/kg	
	3	3.33	3.3 - 3.36	19.7		ug/kg	
	4	3.56	3.53 - 3.59	20.4		ug/kg	
	5	3.63	3.6 - 3.66	20.3		ug/kg	
					20.4		
Aroclor-1260							4.94
Column 1	1	3.72	3.69 - 3.75	23.5		ug/kg	
	2	3.88	3.85 - 3.91	24.2		ug/kg	
	3	4.05	4.02 - 4.08	24		ug/kg	
	4	4.11	4.08 - 4.14	23.1		ug/kg	
	5	4.26	4.23 - 4.29	23.1		ug/kg	
					23.6		
Column 2	1	4.33	4.3 - 4.36	21.6		ug/kg	
	2	4.45	4.42 - 4.48	22.5		ug/kg	
	3	4.72	4.69 - 4.75	22.3		ug/kg	
	4	4.89	4.86 - 4.92	22.4		ug/kg	
	5	5.04	5.01 - 5.07	23.4		ug/kg	
					22.4		

Identification Summary

Page 1 of 2

SDG Number: 10-1848

Client ID: RE15-10-8198MS

Lab Sample ID: 1202046868

Data File: 064f6401.d

Data File: 064b6401.d

Inst: ECD1A.I_1

Inst: ECD1A.I_2

Column: CLP1

Column: CLP2

Analyzed: 22-FEB-10 17:48

Analyzed: 22-FEB-10 17:48

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							4.29
Column 1	1	2.38	2.35 - 2.41	22.1		ug/kg	
	2	2.66	2.64 - 2.7	22.7		ug/kg	
	3	2.74	2.72 - 2.78	21.9		ug/kg	
	4	2.78	2.75 - 2.81	22		ug/kg	
	5	2.99	2.96 - 3.02	22.8		ug/kg	
					22.3		
Column 2	1	3.18	3.16 - 3.22	22.3		ug/kg	
	2	3.27	3.24 - 3.3	21.3		ug/kg	
	3	3.33	3.3 - 3.36	20.7		ug/kg	
	4	3.56	3.53 - 3.59	21.3		ug/kg	
	5	3.63	3.6 - 3.66	21.1		ug/kg	
					21.3		
Aroclor-1242							10.9
Column 1	1	2.38	2.35 - 2.41	27		ug/kg	
	2	2.66	2.63 - 2.69	28.3		ug/kg	
	3	2.78	2.75 - 2.81	27.8		ug/kg	
	4	2.99	2.96 - 3.02	27.7		ug/kg	
	5	3.25	3.22 - 3.28	11.8		ug/kg	
					24.5		
Column 2	1	3.18	3.16 - 3.22	27.5		ug/kg	
	2	3.27	3.24 - 3.3	26.1		ug/kg	
	3	3.56	3.53 - 3.59	25.5		ug/kg	
	4	3.79	3.76 - 3.82	9.95		ug/kg	
	5	3.82	3.79 - 3.85	21		ug/kg	
					22		

Identification Summary

Page 2 of 2

SDG Number: 10-1848

Client ID: RE15-10-8198MS

Lab Sample ID: 1202046868

Data File: 064f6401.d

Data File: 064b6401.d

Inst: ECD1A.I_1

Inst: ECD1A.I_2

Column: CLP1

Column: CLP2

Analyzed: 22-FEB-10 17:48

Analyzed: 22-FEB-10 17:48

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1260							9.2
Column 1	1	3.72	3.69 – 3.75	26.5		ug/kg	
	2	3.88	3.85 – 3.91	28.3		ug/kg	
	3	4.04	4.02 – 4.08	28.2		ug/kg	
	4	4.11	4.08 – 4.14	27.7		ug/kg	
	5	4.25	4.23 – 4.29	27.3		ug/kg	
					27.6		
Column 2	1	4.32	4.3 – 4.36	24		ug/kg	
	2	4.45	4.42 – 4.48	25.2		ug/kg	
	3	4.72	4.69 – 4.75	25.1		ug/kg	
	4	4.89	4.86 – 4.92	25.1		ug/kg	
	5	5.04	5.01 – 5.07	26.4		ug/kg	
					25.2		

Identification Summary

Page 1 of 2

SDG Number: 10-1848

Client ID: RE15-10-8198MSD

Lab Sample ID: 1202046869

Data File: 065f6501.d

Data File: 065b6501.d

Inst: ECD1A.I_1

Inst: ECD1A.I_2

Column: CLP1

Column: CLP2

Analyzed: 22-FEB-10 18:00

Analyzed: 22-FEB-10 18:00

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							4.37
Column 1	1	2.38	2.35 – 2.41	19.5		ug/kg	
	2	2.66	2.64 – 2.7	20		ug/kg	
	3	2.74	2.72 – 2.78	19.4		ug/kg	
	4	2.78	2.75 – 2.81	19.6		ug/kg	
	5	2.99	2.96 – 3.02	20		ug/kg	
					19.7		
Column 2	1	3.18	3.16 – 3.22	19.5		ug/kg	
	2	3.27	3.24 – 3.3	18.6		ug/kg	
	3	3.33	3.3 – 3.36	18.3		ug/kg	
	4	3.56	3.53 – 3.59	18.7		ug/kg	
	5	3.63	3.6 – 3.66	19		ug/kg	
					18.8		
Aroclor-1242							10.9
Column 1	1	2.38	2.35 – 2.41	23.8		ug/kg	
	2	2.66	2.63 – 2.69	25		ug/kg	
	3	2.78	2.75 – 2.81	24.7		ug/kg	
	4	2.99	2.96 – 3.02	24.4		ug/kg	
	5	3.24	3.22 – 3.28	10.6		ug/kg	
					21.7		
Column 2	1	3.18	3.16 – 3.22	24.1		ug/kg	
	2	3.27	3.24 – 3.3	22.8		ug/kg	
	3	3.56	3.53 – 3.59	22.5		ug/kg	
	4	3.79	3.76 – 3.82	8.9		ug/kg	
	5	3.82	3.79 – 3.85	18.9		ug/kg	
					19.4		

Identification Summary

Page 2 of 2

SDG Number: 10-1848

Client ID: RE15-10-8198MSD

Lab Sample ID: 1202046869

Data File: 065f6501.d

Data File: 065b6501.d

Inst: ECD1A.I_1

Inst: ECD1A.I_2

Column: CLP1

Column: CLP2

Analyzed: 22-FEB-10 18:00

Analyzed: 22-FEB-10 18:00

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1260							12
Column 1	1	3.72	3.69 – 3.75	24		ug/kg	
	2	3.88	3.85 – 3.91	25.4		ug/kg	
	3	4.04	4.02 – 4.08	26.1		ug/kg	
	4	4.11	4.08 – 4.14	26		ug/kg	
	5	4.25	4.23 – 4.29	26.5		ug/kg	
					25.6		
Column 2	1	4.32	4.3 – 4.36	21.6		ug/kg	
	2	4.45	4.42 – 4.48	22.7		ug/kg	
	3	4.71	4.69 – 4.75	22.7		ug/kg	
	4	4.89	4.86 – 4.92	22.7		ug/kg	
	5	5.04	5.01 – 5.07	23.8		ug/kg	
					22.7		

Identification Summary

Page 1 of 1

SDG Number: 10-1848

Client ID: RE15-10-8198

Lab Sample ID: 247123001

Data File: 063f6301.d

Data File: 063b6301.d

Inst: ECD1A.I_1

Inst: ECD1A.I_2

Column: CLP1

Column: CLP2

Analyzed: 22-FEB-10 17:35

Analyzed: 22-FEB-10 17:35

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1242							46.9
Column 1	1	2.38	2.35 - 2.41	6.91		ug/kg	
	2	2.66	2.63 - 2.69	3.17		ug/kg	
	3	2.78	2.75 - 2.81	2.77		ug/kg	
	4	2.99	2.96 - 3.02	2.71		ug/kg	
	5	3.25	3.22 - 3.28	1.63		ug/kg	
					3.44		
Column 2	1	3.18	3.16 - 3.22	3.46		ug/kg	
	2	3.27	3.24 - 3.3	3.58		ug/kg	
	3	3.56	3.53 - 3.59	1.66		ug/kg	
	4	3.79	3.76 - 3.82	1.02		ug/kg	
	5	3.82	3.79 - 3.85	.936		ug/kg	
					2.13		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

Page 1 of 1

SDG Number: 10-1848

Matrix: SOIL

Lab Sample ID: 1202046866

Client Sample: QC for batch 954777

Client: LANL010

Project: QC

Client ID: MB for batch 954777

Method: SW846 8082

SOP Ref: GL-OA-E-040

Batch ID: 954781

Inst: ECD1A.I

Dilution: 1

Run Date: 02/22/2010 12:40

Analyst: YS1

Inj. Vol: 1 uL

Prep Date: 02/18/2010 20:27

Aliquot: 30 g

Final Volume: 1 mL

Data File: 039f3901-1.d

Column: 1 CLP1

Level: LOW

039b3901-1.d

2 CLP2

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/ecdla.i/022210.b/039f3901-2.d
Report Date: 23-Feb-2010 06:22

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/022210.b/039f3901-2.d
Lab Smp Id: 1202046866 Client Smp ID: PBLK01
Inj Date : 22-FEB-2010 12:40
Operator : YSl Inst ID: ecdla.i
Smp Info : |1202046866|1|
Misc Info : |ECD82P_1S|954781|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecdla.i/022210.b/ECD1-F-8082-022210.m
Meth Date : 23-Feb-2010 06:22 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 39 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1848.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

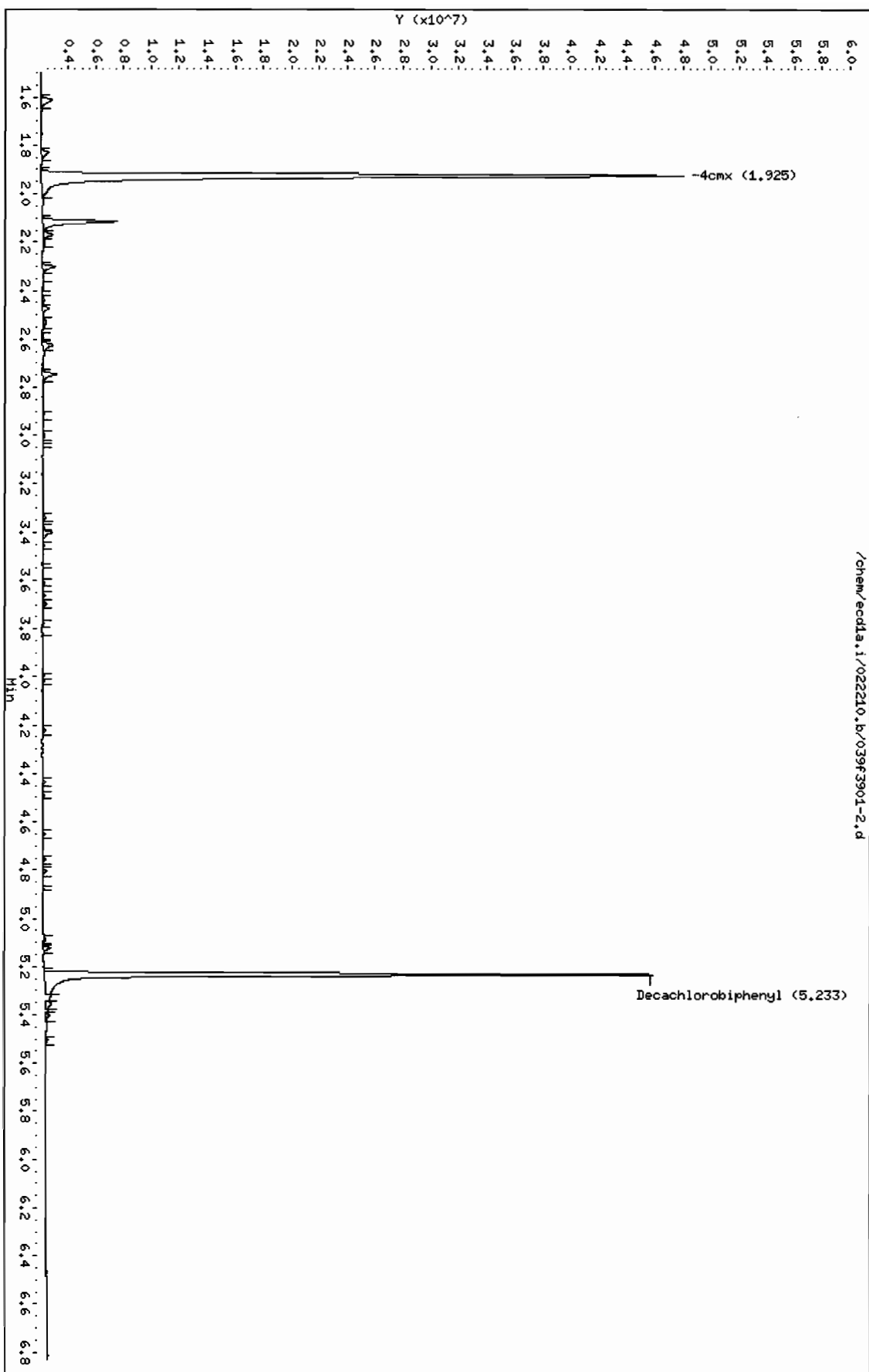
CONCENTRATIONS							
			ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE (ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	
\$ 11	4cmx				CAS #: 877-09-8		
1.925	1.924	0.001	53575491	124.410	4.1 80.00- 120.00	100.00	

\$ 12	Decachlorobiphenyl				CAS #: 2051-24-3		
5.233	5.233	0.000	38613573	125.659	4.2 80.00- 120.00	100.00	

Data File: /chem/ecdl1.i/022210.b/039f3901-2.d
Date: 22-FEB-2010 12:40
Client ID: PBLK01
Sample Info: 14202046866111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdl1.i
Operator: YSL
Column diameter: 0.25

Page 1



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL
 Data file : /chem/ecdla.i/022210.b/039b3901-2.d
 Lab Smp Id: 1202046866 Client Smp ID: PBLK01
 Inj Date : 22-FEB-2010 12:40
 Operator : YS1 Inst ID: ecdla.i
 Smp Info : |1202046866|1|
 Misc Info : |ECD82P_1S|954781|SVA|QC A|SOIL|MB|||
 Comment :
 Method : /chem/ecdla.i/022210.b/ECD1-B-8082-022210.m
 Meth Date : 22-Feb-2010 12:35 yip00818 Quant Type: ESTD
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
 Als bottle: 39 QC Sample: BLANK
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 10-1848.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

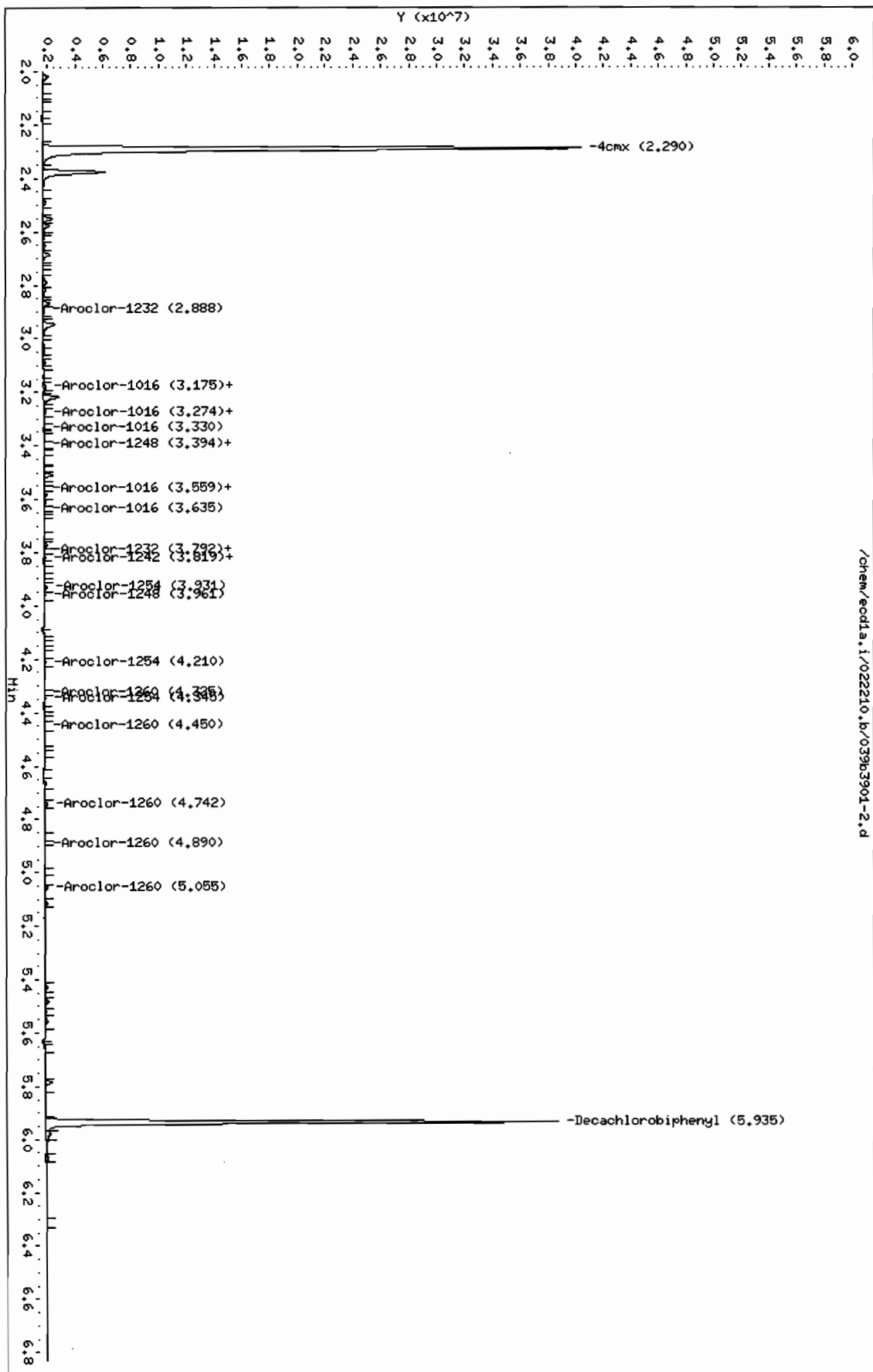
Cpnd Variable Local Compound Variable

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/Kg)	TARGET RANGE	RATIO	
---	-----	-----	-----	-----	-----	-----	-----	
\$ 11 4cmx					CAS #: 877-09-8			
2.290	2.289	0.001	35903124	120.725	4.0	80.00-	120.00	100.00

\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.935	5.936	-0.001	27535558	130.193	4.3	80.00-	120.00	100.00

Data File: /chem/ecdl1.i/022210.b/039b3901-2.d
Date: 22-FEB-2010 12:40
Client ID: PRLK01
Sample Info: 112020468611
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecdl1.i
Operator: YSL
Column diameter: 0.25



PCB
Certificate of Analysis
Sample Summary

Page 1 of 1

SDG Number: 10-1848

Matrix: SOIL

Lab Sample ID: 1202046867

Client Sample: QC for batch 954777

Client: LANL010

Project: QC

Client ID: LCS for batch 954777

Method: SW846 8082

SOP Ref: GL-OA-E-040

Batch ID: 954781

Inst: ECD1A.I

Dilution: 1

Run Date: 02/22/2010 12:50

Analyst: YS1

Inj. Vol: 1 uL

Prep Date: 02/18/2010 20:27

Aliquot: 30 g

Final Volume: 1 mL

Data File: 040f4001-1.d

Column: 1 CLP1

Level: LOW

040b4001-1.d

2 CLP2

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		20.9	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		23.6	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/040f4001-2.d

Lab Smp Id: 1202046867

Client Smp ID: PBLK01LCS

Inj Date : 22-FEB-2010 12:50

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |1202046867|1|

Misc Info : |ECD82P_1S|954781|SVA|QC A|SOIL|LCS|||

Comment :

Method : /chem/ecd1a.i/022210.b/ECD1-F-8082-022210.m

Meth Date : 23-Feb-2010 06:22 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 40

QC Sample: LCS

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-1848.sub

Target Version: 3.50

Sample Matrix: Soil

Processing Host: hpc1pl

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	
\$ 11 4cmx					CAS #: 877-09-8			
1.925	1.924	0.001	52007576	120.769	4.0	80.00- 120.00	100.00	

\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.233	5.233	0.000	37227163	121.147	4.0	80.00- 120.00	100.00	

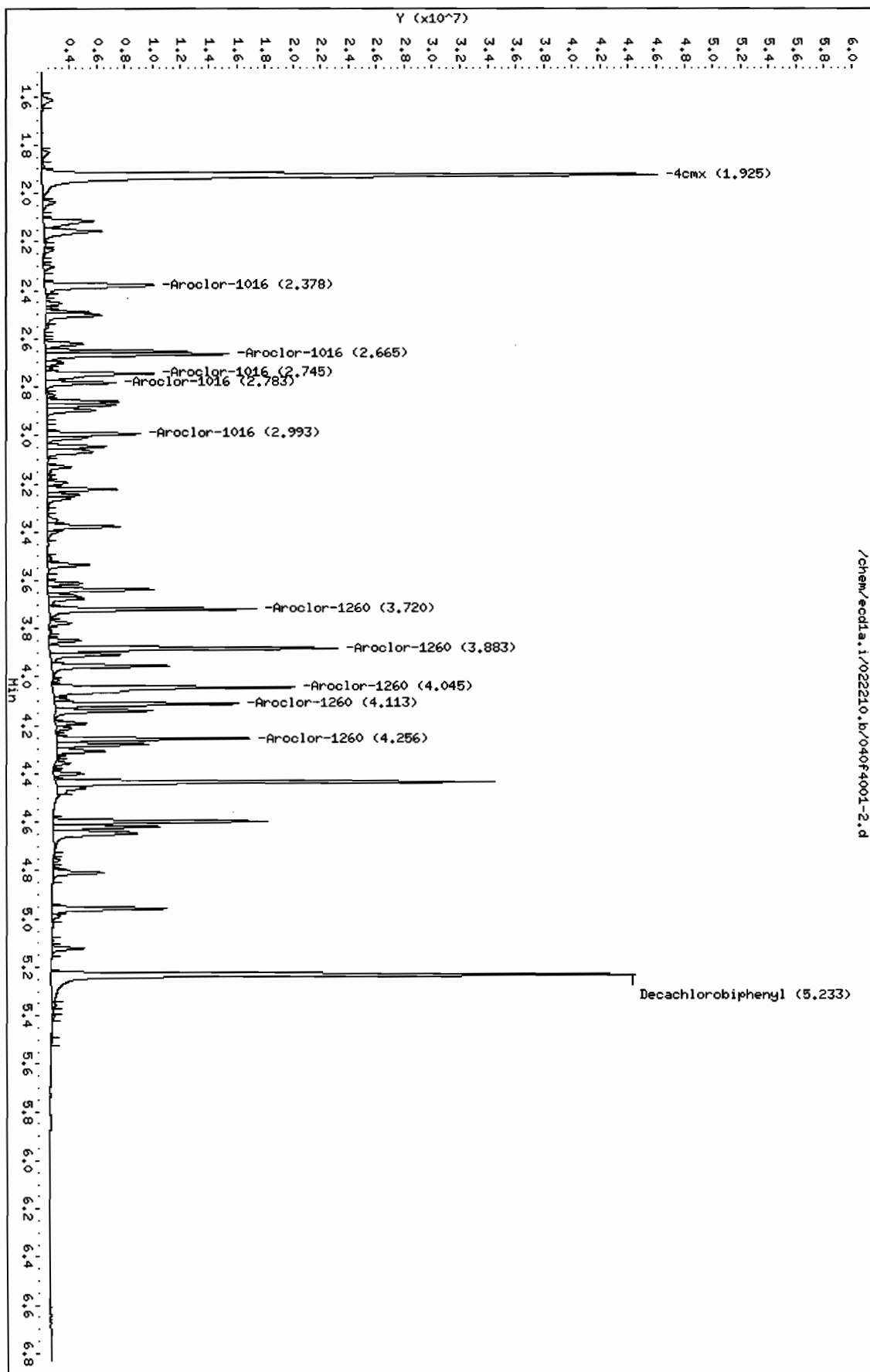
1 Aroclor-1016					CAS #: 12674-11-2			
2.378	2.378	0.000	9529287	619.415	20.6	80.00- 120.00	100.00	
2.665	2.665	0.000	11458733	628.323	20.9	98.94- 138.94	120.25	
2.745	2.746	-0.001	7990670	662.275	22.1	59.24- 99.24	83.85	
2.783	2.783	0.000	4337293	611.222	20.4	26.41- 66.41	45.52	

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/Kg)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)								
2.993	2.993	0.000	5476265	614.469	20.5	38.77-	78.77	57.47
Average of Peak Concentrations =					20.9			

7 Aroclor-1260					CAS #: 11096-82-5			
3.720	3.720	0.000	12034118	704.886	23.5	80.00-	120.00	100.00
3.883	3.883	0.000	17136678	724.796	24.2	123.63-	163.63	142.40
4.045	4.045	0.000	17967729	719.534	24.0	134.05-	174.05	149.31
4.113	4.113	0.000	9997011	693.963	23.1	68.45-	108.45	83.07
4.256	4.256	0.000	9992310	692.442	23.1	70.42-	110.42	83.03
Average of Peak Concentrations =					23.6			

Data File: /chem/ecdl1.i/022210.b/040f4001-2.d
Date: 22-FEB-2010 12:50
Client ID: PLK01LCS
Sample Info: 11202046867/11
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdl1.i
Operator: YSL
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL
Data file : /chem/ecd1a.i/022210.b/040b4001-2.d
Lab Smp Id: 1202046867
Inj Date : 22-FEB-2010 12:50
Operator : YS1
Smp Info : |1202046867|1|
Misc Info : |ECD82P_1S|954781|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/022210.b/ECD1-B-8082-022210.m
Meth Date : 22-Feb-2010 12:35 yip00818
Cal Date : 22-FEB-2010 12:08
Als bottle: 40
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.50
Processing Host: hpclp1

Client Smp ID: PBLK01LCS
Inst ID: ecd1a.i
Quant Type: ESTD
Cal File: 036b3601.d
QC Sample: LCS
Compound Sublist: 10-1848.sub
Sample Matrix: Soil

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	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
<hr/>								
\$ 11 4cmx					CAS #: 877-09-8			
2.289	2.289	0.000	34418987	115.734	3.8	80.00-	120.00	100.00
<hr/>								
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.936	5.936	0.000	25966162	122.772	4.1	80.00-	120.00	100.00
<hr/>								
1 Aroclor-1016					CAS #: 12674-11-2			
3.185	3.186	-0.001	8231983	643.637	21.4	80.00-	120.00	100.00 (M)
3.268	3.268	0.000	5431319	609.034	20.3	47.59-	87.59	65.98
3.332	3.332	0.000	3194247	590.870	19.7	21.18-	61.18	38.80
3.559	3.559	0.000	4230294	611.700	20.4	31.90-	71.90	51.39

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/Kg)	TARGET	RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
1 Aroclor-1016 (continued)									
3.634	3.635	-0.001	3908754	608.346	20.3	28.89-	68.89	47.48	
Average of Peak Concentrations =					20.4				

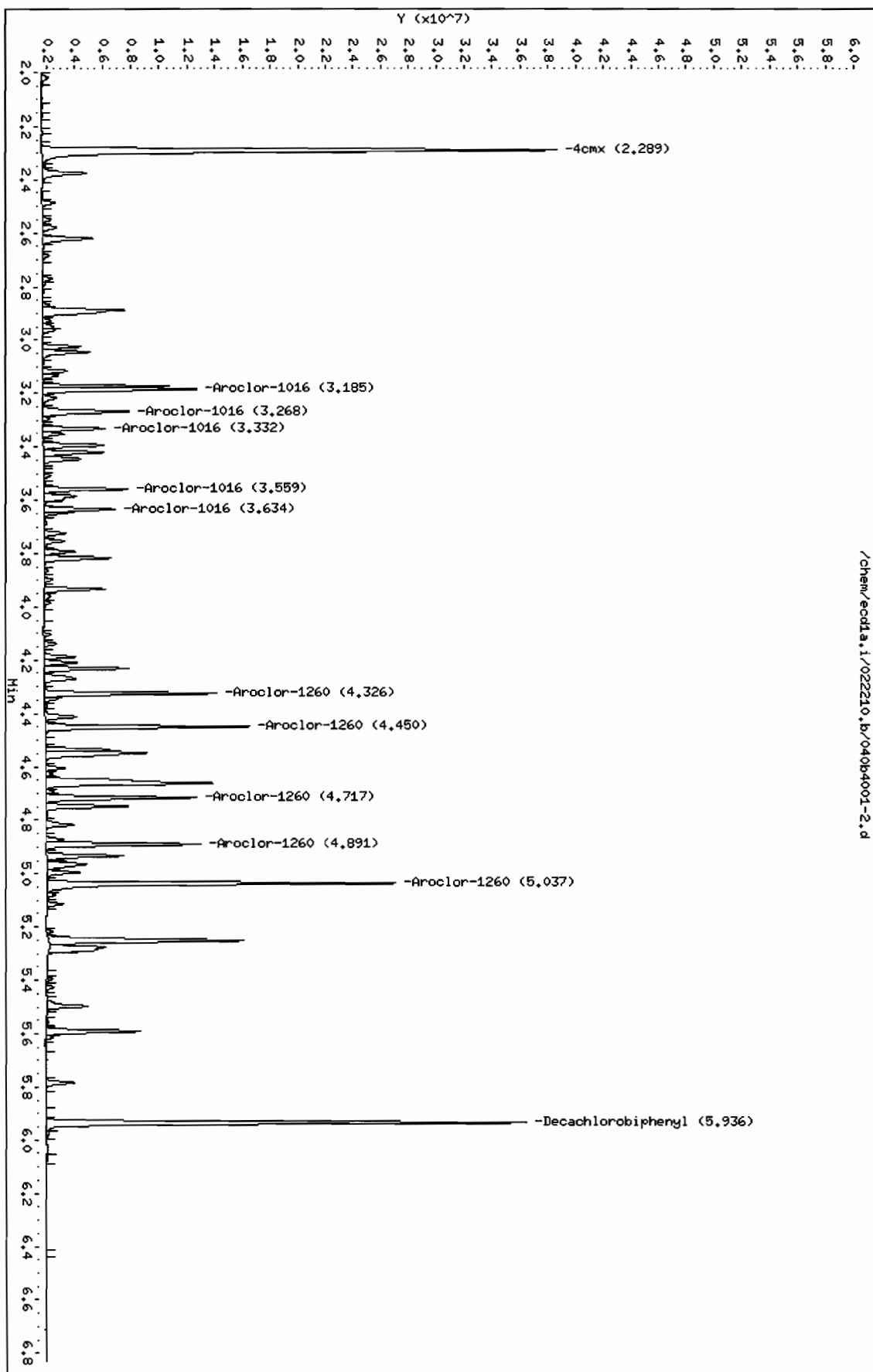
7 Aroclor-1260					CAS #: 11096-82-5				
4.326	4.326	0.000	8569810	648.951	21.6	80.00-	120.00	100.00	
4.450	4.451	-0.001	10505581	674.870	22.5	101.72-	141.72	122.59	
4.717	4.717	0.000	7928791	669.463	22.3	71.40-	111.40	92.52	
4.891	4.891	0.000	8187040	671.003	22.4	73.98-	113.98	95.53	
5.037	5.038	-0.001	18593032	700.905	23.4	191.17-	231.17	216.96	
Average of Peak Concentrations =					22.4				

QC Flag Legend

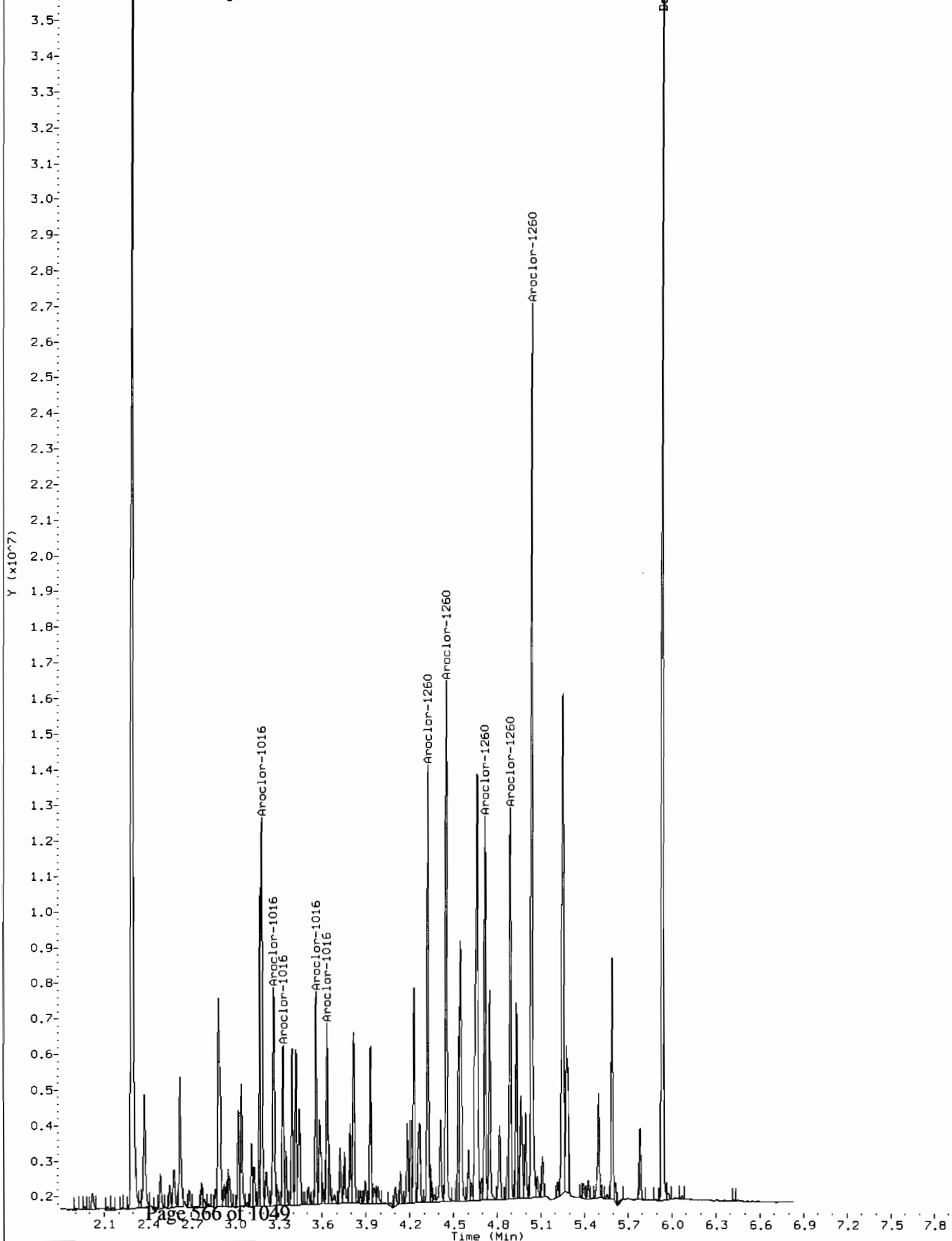
M - Compound response manually integrated.

Data File: /chem/ecdl1a.i/022210.b/040b4001-2.d
Date: 22-FEB-2010 12:50
Client ID: PRLK01LCS
Sample Info: 11202046867141
Volume Injected (uL): 1.0
Column phase: CLP2

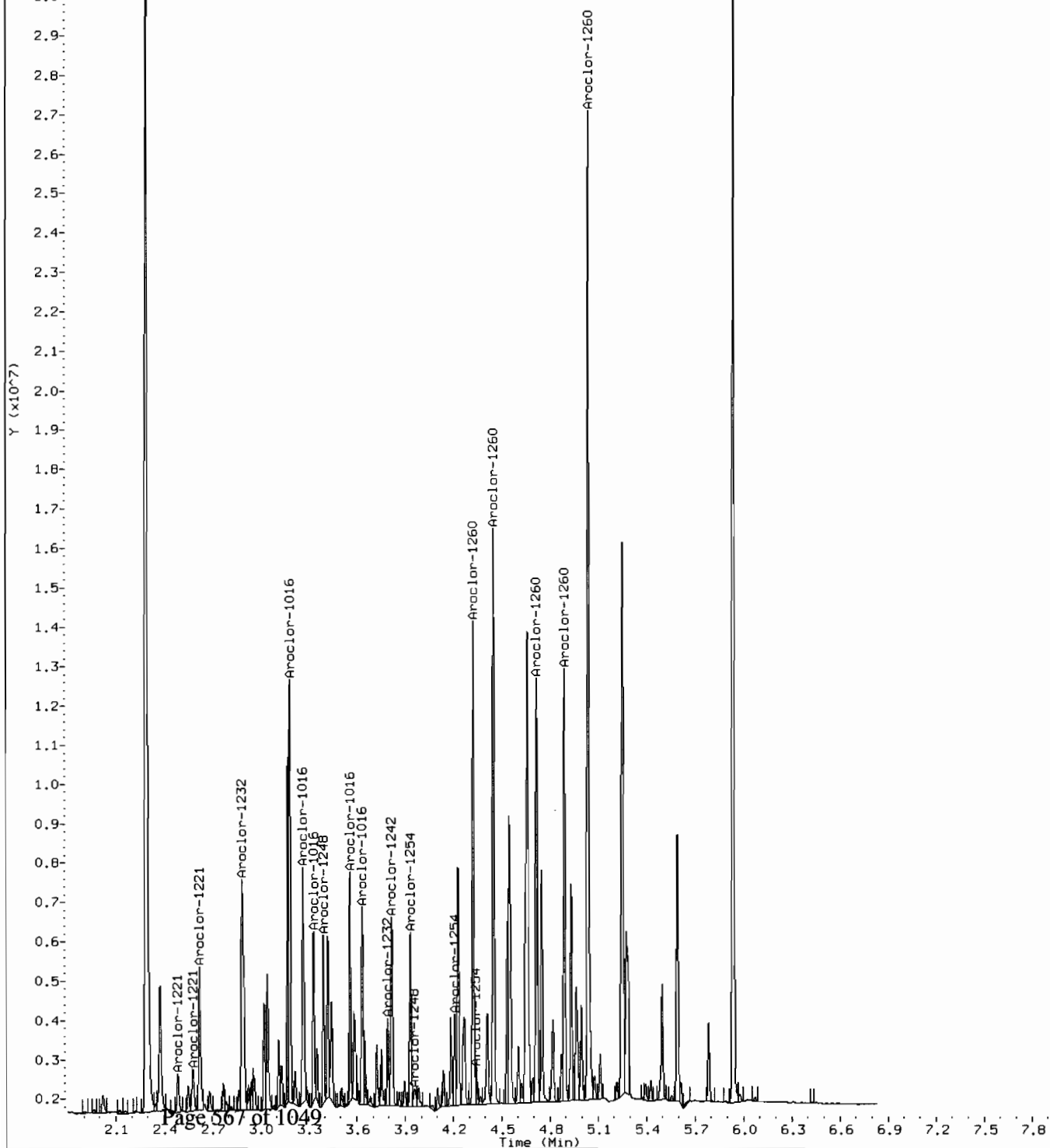
Instrument: ecdl1a.i
Operator: YS1
Column diameter: 0.25



Comment: Manually Integrated
Data File: /chem/ecdl1.i/022210.b/040b4001-2.
Operator: YS1
Injection Date: 22-FEB-2010 12:50
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS



Comment: Before manual integration
Data File: /chem/ecdl1.i/022210.b/orig-040b4001-2.d
Operator: YS1
Injection Date: 22-FEB-2010 12:50
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS



PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1848	Date Collected:	02/11/2010 12:00	Matrix:	R
Lab Sample ID:	1202046868	Date Received:	02/16/2010 08:50	%Moisture:	.5
Client Sample:	QC for batch 954777	Client:	LANL010	Project:	QC
Client ID:	RE15-10-8198MS	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Batch ID:	954781	Inst:	ECD1A.I	Dilution:	1
Run Date:	02/22/2010 17:48	Analyst:	YS1	Inj. Vol:	1 uL
Prep Date:	02/18/2010 20:27	Aliquot:	30.13 g	Final Volume:	1 mL
Data File:	064f6401.d	Column:	1 CLP1	Level:	LOW
	064b6401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		22.3	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		24.5	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		27.6	ug/kg	1.11	3.33	1

Data File: /chem/ecdla.i/022210.b/064f6401.d
Report Date: 23-Feb-2010 06:42

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/022210.b/064f6401.d
Lab Smp Id: 1202046868 Client Smp ID: RE15-10-8198MS
Inj Date : 22-FEB-2010 17:48
Operator : YS1 Inst ID: ecdla.i
Smp Info : |1202046868|1|
Misc Info : |ECD82P_1S|954781|SVA|QC A|SOIL|MS|
Comment :
Method : /chem/ecdla.i/022210.b/ECD1-F-8082-022210.m
Meth Date : 23-Feb-2010 06:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 64 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1848.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpc1pl

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.13000	Weight of sample extracted (g)
M	0.45080	% 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		
1.922	1.924	-0.002	54568137	126.715	4.2 80.00- 120.00	100.00	
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.231	5.233	-0.002	45040298	146.573	4.9 80.00- 120.00	100.00	
1 Aroclor-1016					CAS #: 12674-11-2		
2.375	2.378	-0.003	10181380	661.801	22.1 80.00- 120.00	100.00	
2.663	2.665	-0.002	12402747	680.087	22.7 106.16- 146.16	121.82	
2.743	2.746	-0.003	7921486	656.541	21.9 60.52- 100.52	77.80	
2.781	2.783	-0.002	4686557	660.441	22.0 28.58- 68.58	46.03	

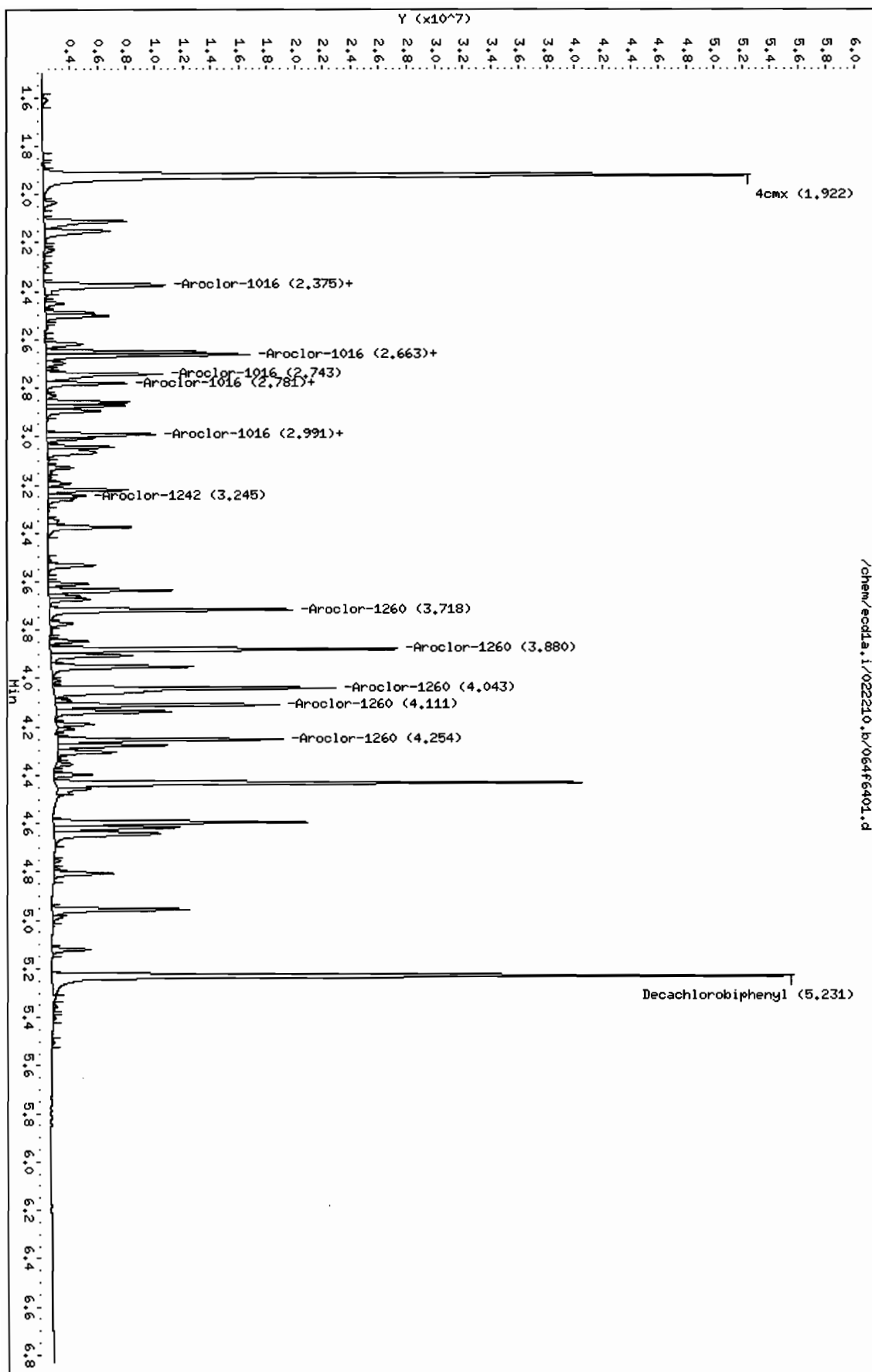
CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	
1 Aroclor-1016 (continued)								
2.991	2.993	-0.002	6082033	682.440	22.8	40.91-	80.91	59.74
Average of Peak Concentrations =					22.3			

4 Aroclor-1242					CAS #: 53469-21-9			
2.375	2.376	-0.001	10181380	810.784	27.0	80.00-	120.00	100.00
2.663	2.665	-0.002	12402747	848.826	28.3	101.08-	141.08	121.82
2.781	2.783	-0.002	4686557	832.540	27.8	26.64-	66.64	46.03
2.991	2.993	-0.002	6082033	831.975	27.7	38.45-	78.45	59.74
3.245	3.247	-0.002	2195277	355.045	11.8	32.15-	72.15	21.56
Average of Peak Concentrations =					24.5			

7 Aroclor-1260					CAS #: 11096-82-5			
3.718	3.720	-0.002	13569652	794.829	26.5	80.00-	120.00	100.00
3.880	3.883	-0.003	20044194	847.769	28.3	126.17-	166.17	147.71
4.043	4.045	-0.002	21139468	846.549	28.2	81.64-	121.64	155.78
4.111	4.113	-0.002	11951397	829.631	27.6	67.05-	107.05	88.07
4.254	4.256	-0.002	11828229	819.667	27.3	70.60-	110.60	87.17
Average of Peak Concentrations =					27.6			

Data File: /chem/ecdl1.i/022210.b/064f6401.d
Date: 22-FEB-2010 17:48
Client ID: RE15-10-8138MS
Sample Info: 1120204686811
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdl1.i
Operator: YS1
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/022210.b/064b6401.d
 Lab Smp Id: 1202046868 Client Smp ID: RE15-10-8198MS
 Inj Date : 22-FEB-2010 17:48
 Operator : YS1 Inst ID: ecdla.i
 Smp Info : |1202046868|1|
 Misc Info : |ECD82P_1S|954781|SVA|QC A|SOIL|MS|||
 Comment :
 Method : /chem/ecdla.i/022210.b/ECD1-B-8082-022210.m
 Meth Date : 23-Feb-2010 06:15 yip00818 Quant Type: ESTD
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
 Als bottle: 64 QC Sample: MS
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 10-1848.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	30.13000	Weight of sample extracted (g)
M	0.45080	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS							
RT	EXP RT	DLT RT	RESPONSE (ug/L)	ON-COL	FINAL	TARGET RANGE	RATIO

\$ 11 4cmx						CAS #: 877-09-8	
2.287	2.289	-0.002	35952478 120.891	4.0	80.00- 120.00	100.00	

\$ 12 Decachlorobiphenyl						CAS #: 2051-24-3	
5.935	5.936	-0.001	28438196 134.461	4.5	80.00- 120.00	100.00	

1 Aroclor-1016						CAS #: 12674-11-2	
3.184	3.186	-0.002	8552751 668.718	22.3	80.00- 120.00	100.00 (M)	
3.267	3.268	-0.001	5690651 638.114	21.3	44.56- 84.56	66.54	
3.330	3.332	-0.002	3361750 621.854	20.7	19.98- 59.98	39.31	
3.557	3.559	-0.002	4412834 638.095	21.3	29.88- 69.88	51.60	

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/Kg)	TARGET RANGE		RATIO	
==	=====	=====	=====	=====	=====	=====		=====	
1 Aroclor-1016 (continued)									
3.633	3.635	-0.002	4075184	634.249	21.1	26.97-	66.97	58.48	
Average of Peak Concentrations =					21.3				

4 Aroclor-1242					CAS #: 53469-21-9				
3.184	3.185	-0.001	8552751	826.254	27.5	80.00-	120.00	100.00	
3.267	3.268	-0.001	5690651	781.799	26.1	47.50-	87.50	66.54	
3.557	3.559	-0.002	4412834	765.000	25.5	33.58-	73.58	51.60	
3.791	3.793	-0.002	1727822	298.514	10.0	34.19-	74.19	20.20	
3.815	3.820	-0.005	4176714	628.892	21.0	41.07-	81.07	48.83	
Average of Peak Concentrations =					22.0				

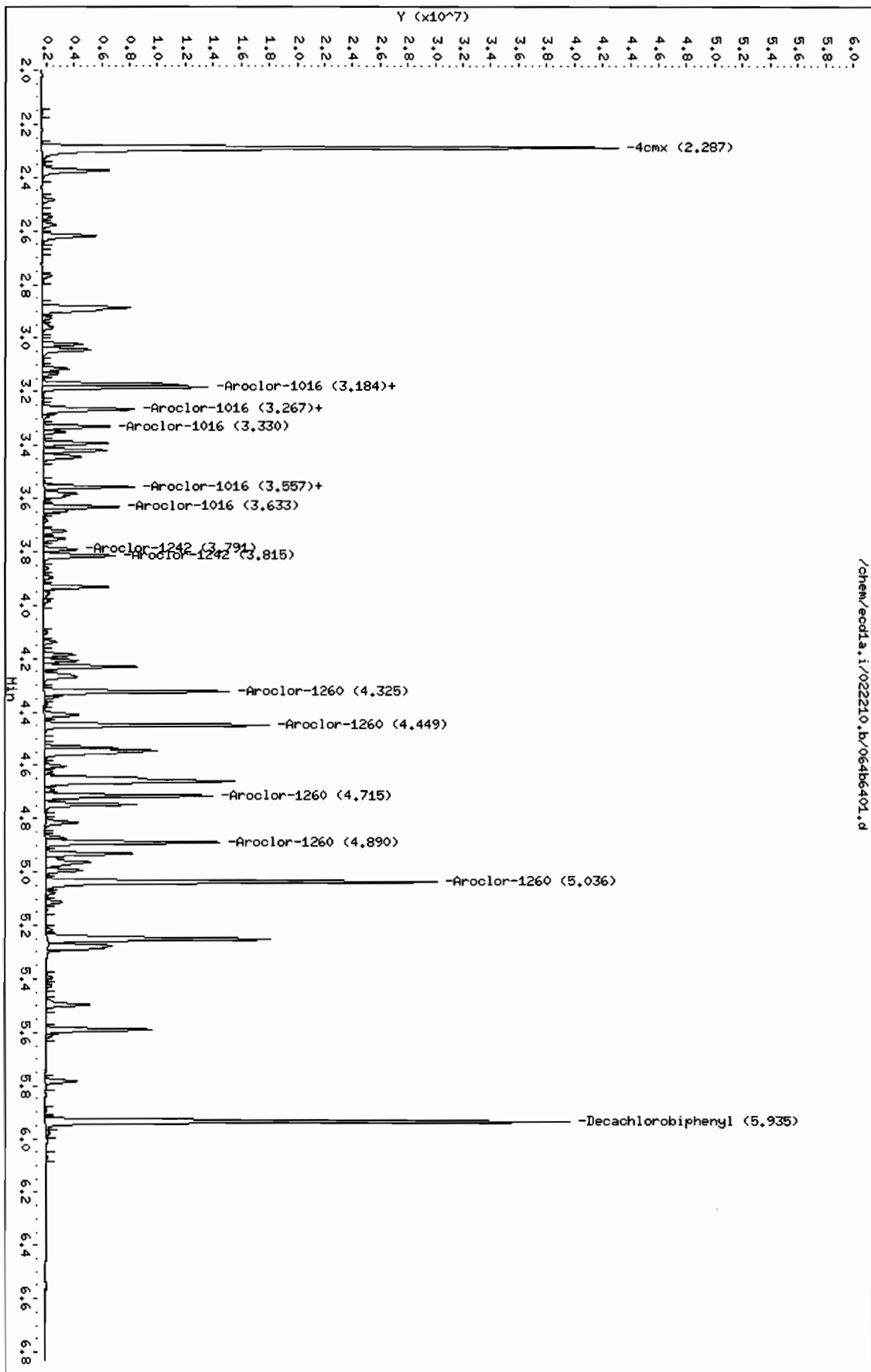
7 Aroclor-1260					CAS #: 11096-82-5				
4.325	4.326	-0.001	9500005	719.390	24.0	80.00-	120.00	100.00	
4.449	4.451	-0.002	11786396	757.149	25.2	102.53-	142.53	124.07	
4.715	4.717	-0.002	8932714	754.229	25.1	71.81-	111.81	94.03	
4.890	4.891	-0.001	9167860	751.390	25.0	74.83-	114.83	96.50	
5.036	5.038	-0.002	21021840	792.464	26.4	194.14-	234.14	221.28	
Average of Peak Concentrations =					25.1				

QC Flag Legend

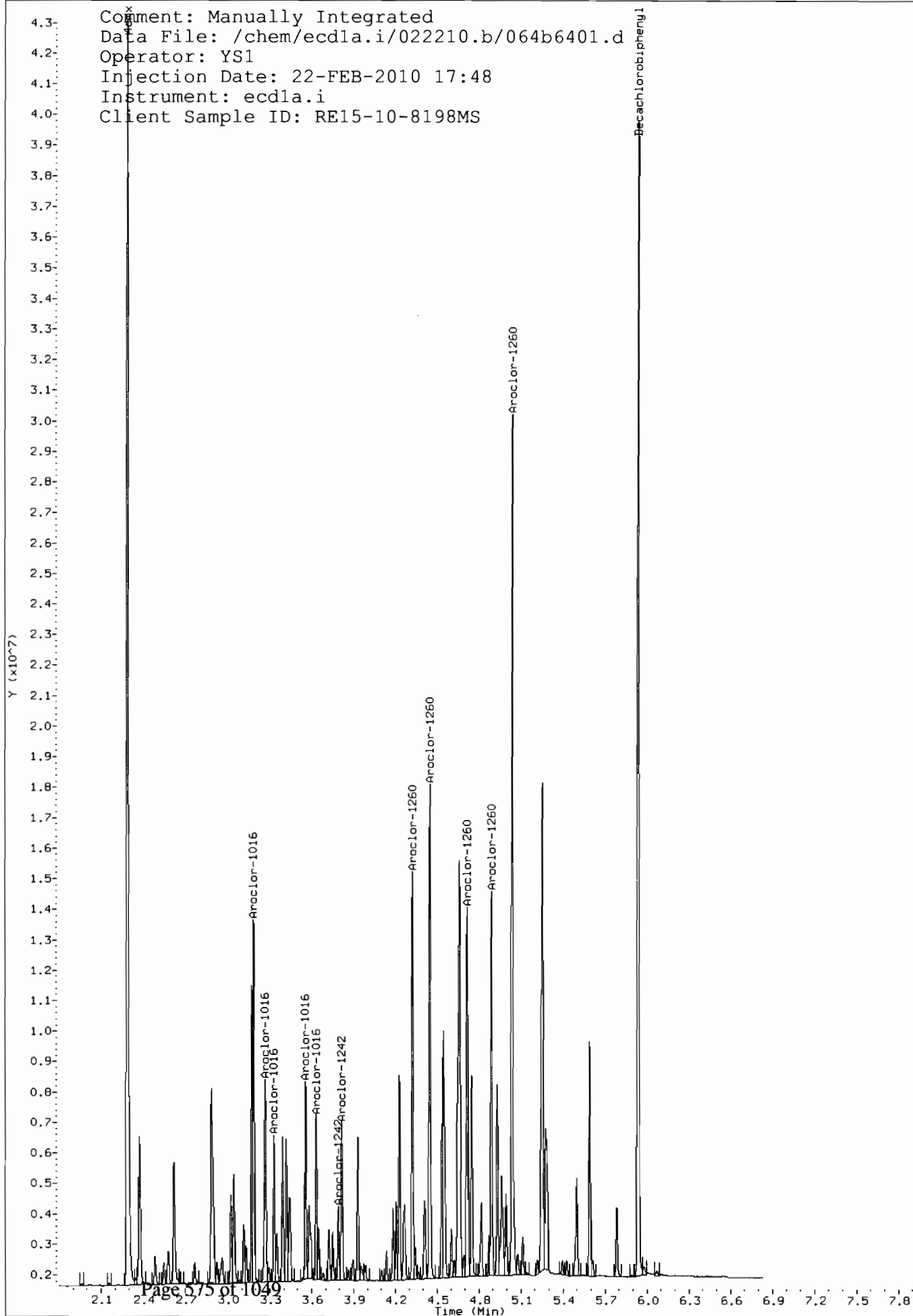
M - Compound response manually integrated.

Data File: /chem/eod1a.i/022210.b/064b6401.d
Date: 22-FEB-2010 17:48
Client ID: RE15-10-8198MS
Sample Info: 1120204686811
Volume Injected (uL): 1.0
Column phase: CLP2

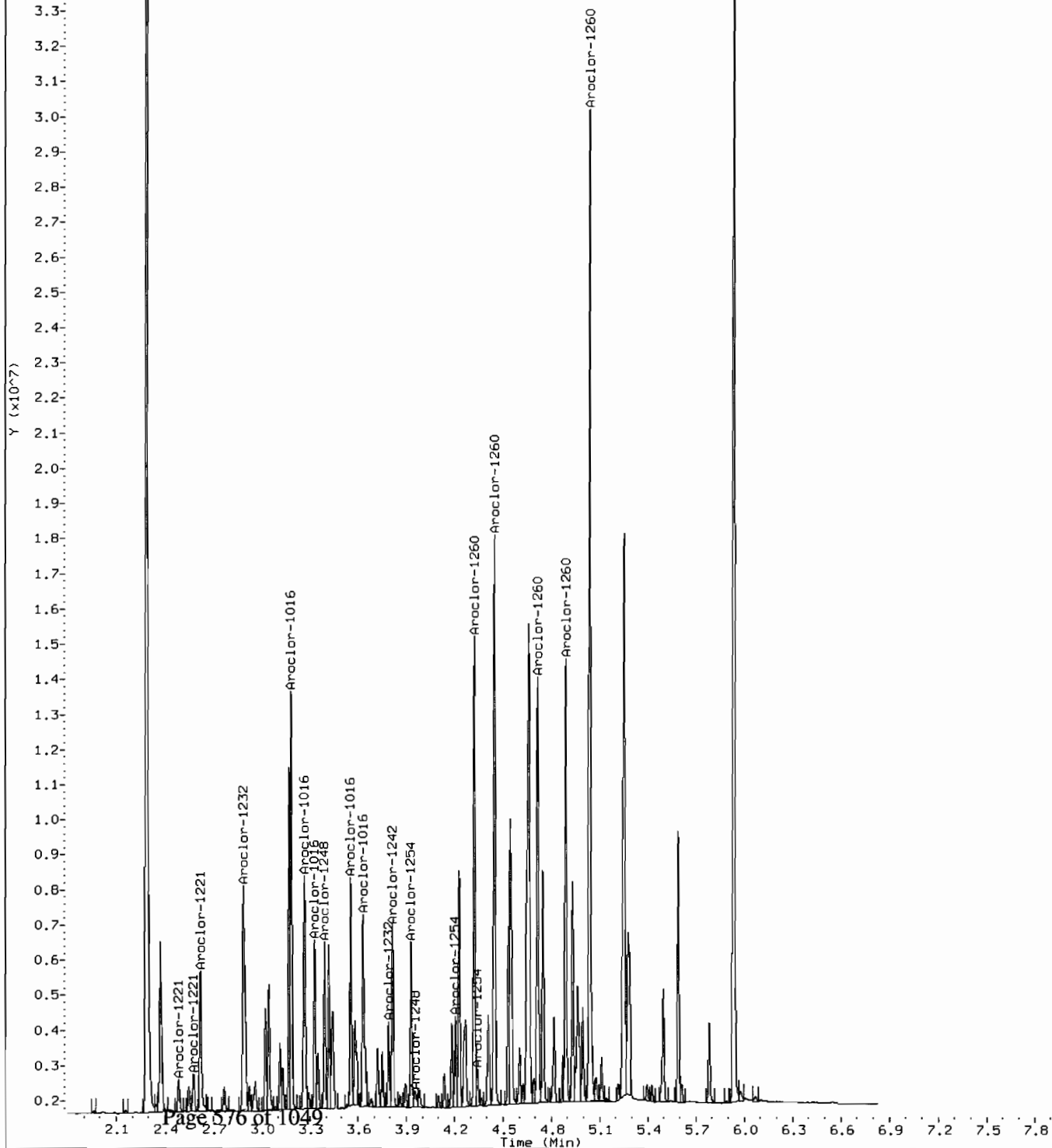
Instrument: eod1a.i
Operator: YSL
Column diameter: 0.25



Comment: Manually Integrated
Data File: /chem/ecdl1.i/022210.b/064b6401.d
Operator: YS1
Injection Date: 22-FEB-2010 17:48
Instrument: ecd1a.i
Client Sample ID: RE15-10-8198MS



Comment: Before manual integration
Data File: /chem/ecdl1.i/022210.b/orig-064b64011.d
Operator: YS1
Injection Date: 22-FEB-2010 17:48
Instrument: ecd1a.i
Client Sample ID: RE15-10-8198MS



PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1848	Date Collected:	02/11/2010 12:00	Matrix:	R
Lab Sample ID:	1202046869	Date Received:	02/16/2010 08:50	%Moisture:	.5
Client Sample:	QC for batch 954777	Client:	LANL010	Project:	QC
Client ID:	RE15-10-8198MSD	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Batch ID:	954781	Inst:	ECD1A.I	Dilution:	1
Run Date:	02/22/2010 18:00	Analyst:	YS1	Inj. Vol:	1 uL
Prep Date:	02/18/2010 20:27	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	065f6501.d	Column:	1 CLP1	Level:	LOW
	065b6501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		19.7	ug/kg	1.11	3.34	1
11104-28-2	Aroclor-1221	U	3.34	ug/kg	1.11	3.34	1
11141-16-5	Aroclor-1232	U	3.34	ug/kg	1.11	3.34	1
53469-21-9	Aroclor-1242		21.7	ug/kg	1.11	3.34	1
12672-29-6	Aroclor-1248	U	3.34	ug/kg	1.11	3.34	1
11097-69-1	Aroclor-1254	U	3.34	ug/kg	1.11	3.34	1
11096-82-5	Aroclor-1260		25.6	ug/kg	1.11	3.34	1

Data File: /chem/ecdla.i/022210.b/065f6501.d
Report Date: 23-Feb-2010 06:43

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/022210.b/065f6501.d

Lab Smp Id: 1202046869

Client Smp ID: RE15-10-8198MSD

Inj Date : 22-FEB-2010 18:00

Operator : YS1

Inst ID: ecdla.i

Smp Info : |1202046869|1|

Misc Info : |ECD82P_1S|954781|SVA|QC A|SOIL|MSD|

Comment :

Method : /chem/ecdla.i/022210.b/ECD1-F-8082-022210.m

Meth Date : 23-Feb-2010 06:25 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 65

QC Sample: MSD

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-1848.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	30.06000	Weight of sample extracted (g)
M	0.45080	% 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							
1.922	1.924	-0.002	46585014	108.177	3.6 80.00- 120.00	100.00	

\$ 12 Decachlorobiphenyl CAS #: 2051-24-3							
5.230	5.233	-0.003	40187013	130.779	4.4 80.00- 120.00	100.00	

1 Aroclor-1016 CAS #: 12674-11-2							
2.376	2.378	-0.002	8961358	582.498	19.5 80.00- 120.00	100.00	
2.663	2.665	-0.002	10921821	598.882	20.0 106.16- 146.16	121.88	
2.743	2.746	-0.003	7002663	580.388	19.4 60.52- 100.52	78.14	
2.780	2.783	-0.003	4156420	585.733	19.6 28.58- 68.58	46.38	

CONCENTRATIONS

ON-COL FINAL

RT	EXP RT	DLT RT	RESPONSE (ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====

1 Aroclor-1016 (continued)

2.991	2.993	-0.002	5330698	598.135	20.0 40.91- 80.91	59.49
Average of Peak Concentrations =					19.7	

4 Aroclor-1242

CAS #: 53469-21-9

2.376	2.376	0.000	8961358	713.629	23.8 80.00- 120.00	100.00
2.663	2.665	-0.002	10921821	747.474	25.0 101.08- 141.08	121.88
2.780	2.783	-0.003	4156420	738.364	24.7 26.64- 66.64	46.38
2.991	2.993	-0.002	5330698	729.198	24.4 38.45- 78.45	59.49
3.244	3.247	-0.003	1956356	316.404	10.6 32.15- 72.15	21.83
Average of Peak Concentrations =					21.7	

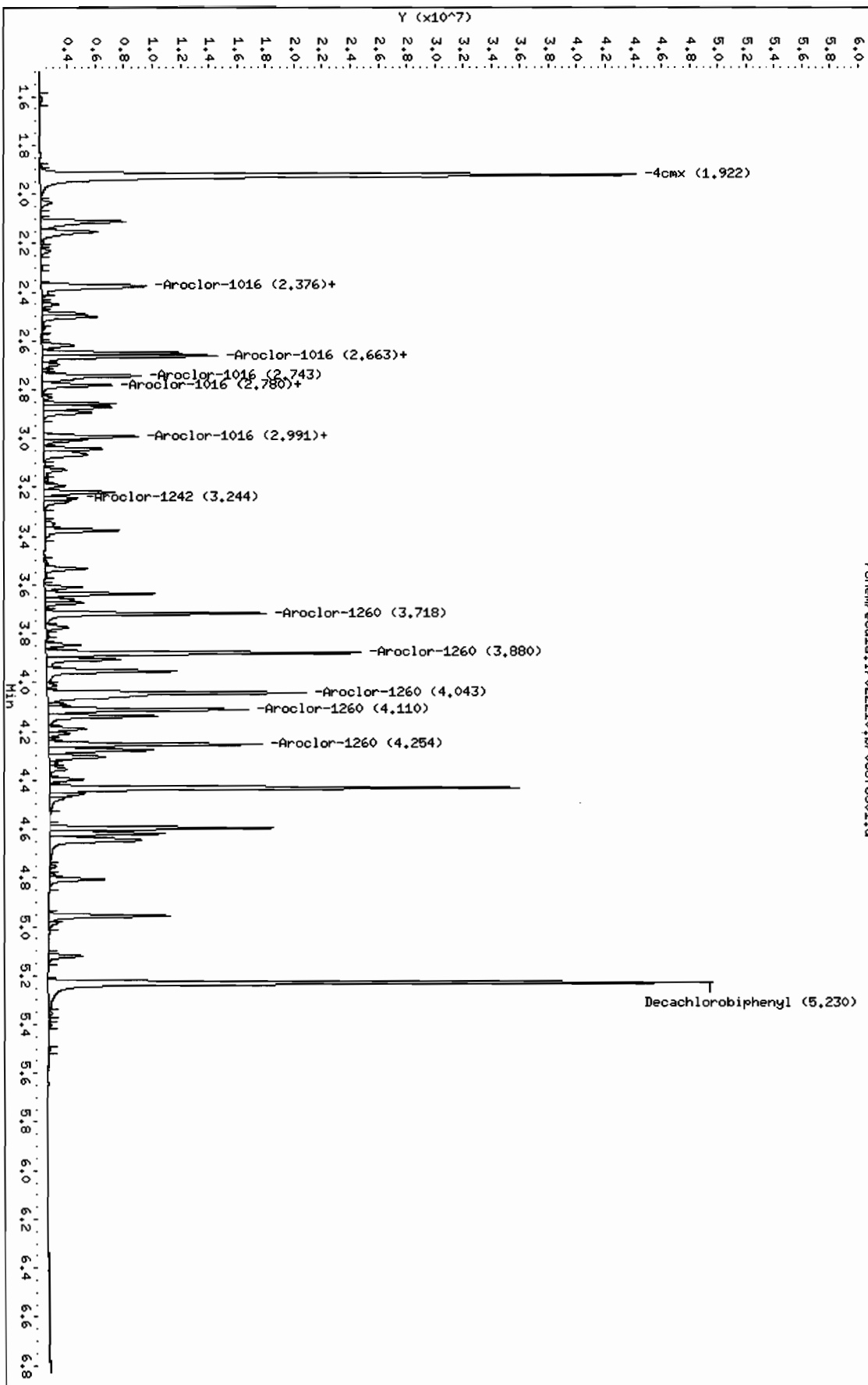
7 Aroclor-1260

CAS #: 11096-82-5

3.718	3.720	-0.002	12252875	717.700	24.0 80.00- 120.00	100.00
3.880	3.883	-0.003	17991680	760.958	25.4 126.17- 166.17	146.84
4.043	4.045	-0.002	19464984	779.493	26.0 81.64- 121.64	158.86
4.110	4.113	-0.003	11205940	777.884	26.0 67.05- 107.05	91.46
4.254	4.256	-0.002	11461623	794.262	26.5 70.60- 110.60	93.54
Average of Peak Concentrations =					25.6	

Data File: /chem/ecdl1a.i/022210.b/065f6501.d
Date: 22-FEB-2010 18:00
Client ID: REL5-10-8198MSD
Sample Info: 1120204686911
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdl1a.i
Operator: YS1
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL
 Data file : /chem/ecdla.i/022210.b/065b6501.d
 Lab Smp Id: 1202046869 Client Smp ID: RE15-10-8198MSD
 Inj Date : 22-FEB-2010 18:00
 Operator : YS1 Inst ID: ecdla.i
 Smp Info : |1202046869|1|
 Misc Info : |ECD82P_1S|954781|SVA|QC A|SOIL|MSD|||
 Comment :
 Method : /chem/ecdla.i/022210.b/ECD1-B-8082-022210.m
 Meth Date : 23-Feb-2010 06:15 yip00818 Quant Type: ESTD
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
 Als bottle: 65 QC Sample: MSD
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 10-1848.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	30.06000	Weight of sample extracted (g)
M	0.45080	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
			ON-COL	FINAL				
RT	EXP RT	DLT RT	RESPONSE (ug/L)	(ug/Kg)	TARGET RANGE	RATIO		
==	==	=====	=====	=====	=====	=====	=====	
5 11 4cmx					CAS #: 877-09-8			
2.288	2.289	-0.001	30820759	103.635	3.5	80.00-	120.00	100.00

5 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.934	5.936	-0.002	24858975	117.537	3.9	80.00-	120.00	100.00

1 Aroclor-1016					CAS #: 12674-11-2			
3.184	3.186	-0.002	7472158	584.229	19.5	80.00-	120.00	100.00 (M)
3.266	3.268	-0.002	4975501	557.921	18.6	44.56-	84.56	66.59
3.330	3.332	-0.002	2962312	547.966	18.3	19.98-	59.98	39.64
3.557	3.559	-0.002	3874879	560.307	18.7	29.88-	69.88	51.86

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE (ug/L)		(ug/Kg)	TARGET RANGE		RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)									
3.633	3.635	-0.002	3657849	569.296	19.0	26.97-	66.97	58.97	
Average of Peak Concentrations =					18.8				

4 Aroclor-1242					CAS #: 53469-21-9				
3.184	3.185	-0.001	7472158	721.861	24.1	80.00-	120.00	100.00	
3.266	3.268	-0.002	4975501	683.549	22.8	47.50-	87.50	66.59	
3.557	3.559	-0.002	3874879	671.741	22.4	33.58-	73.58	51.86	
3.791	3.793	-0.002	1540809	266.204	8.9	34.19-	74.19	20.62	
3.815	3.820	-0.005	3752135	564.962	18.9	41.07-	81.07	50.21	
Average of Peak Concentrations =					19.4				

7 Aroclor-1260					CAS #: 11096-82-5				
4.324	4.326	-0.002	8524090	645.489	21.6	80.00-	120.00	100.00	
4.449	4.451	-0.002	10569597	678.983	22.7	102.53-	142.53	124.00	
4.714	4.717	-0.003	8048365	679.560	22.7	71.81-	111.81	94.42	
4.889	4.891	-0.002	8299506	680.221	22.7	74.83-	114.83	97.37	
5.036	5.038	-0.002	18876318	711.584	23.8	194.14-	234.14	221.45	
Average of Peak Concentrations =					22.7				

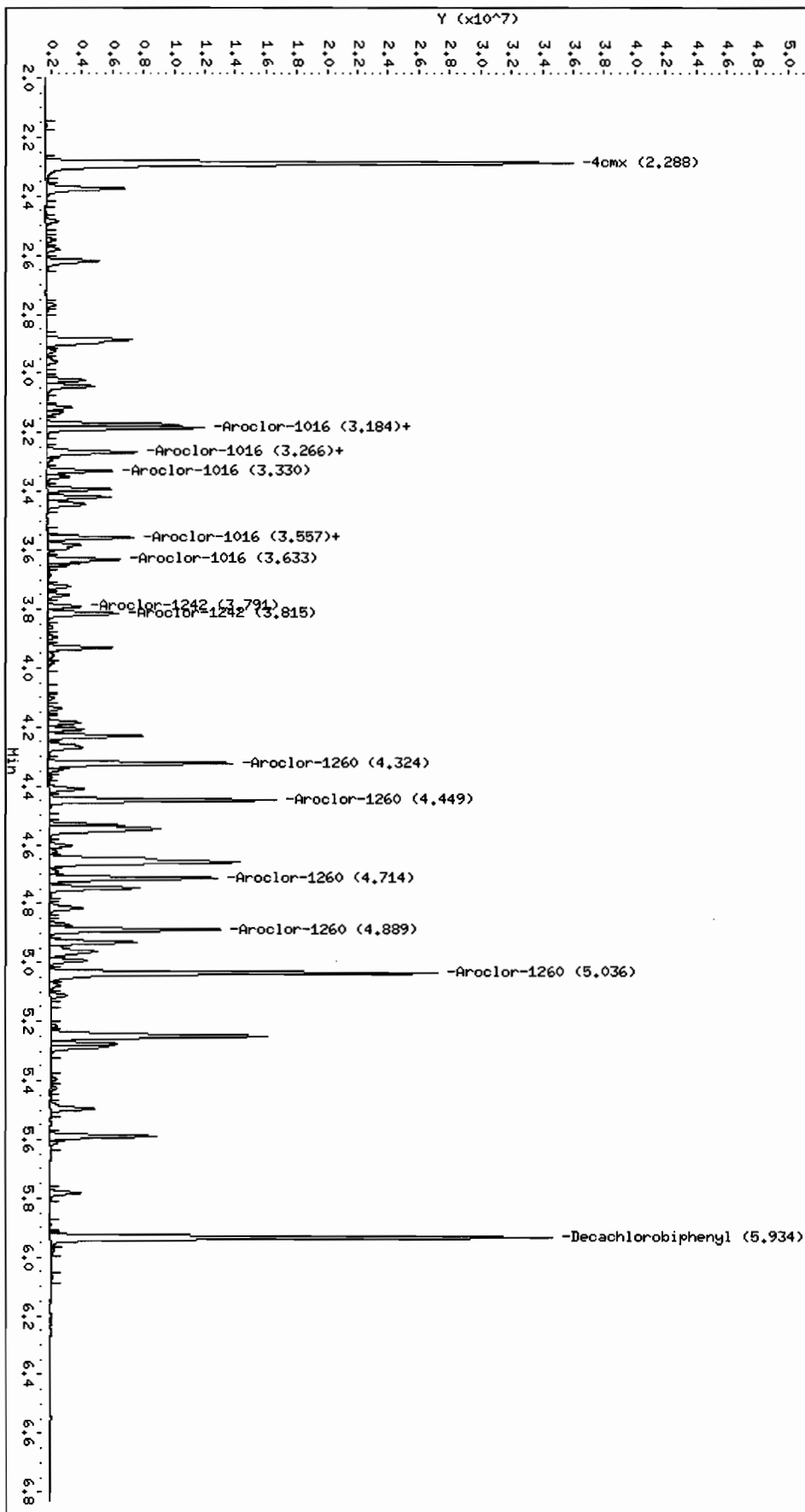
QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdl.a.i/022210.b/065b6501.d
Date: 22-FEB-2010 18:00
Client ID: REL5-10-8198MSD
Sample Info: 11202046869111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecdl.a.i
Operator: YSL
Column diameter: 0.25

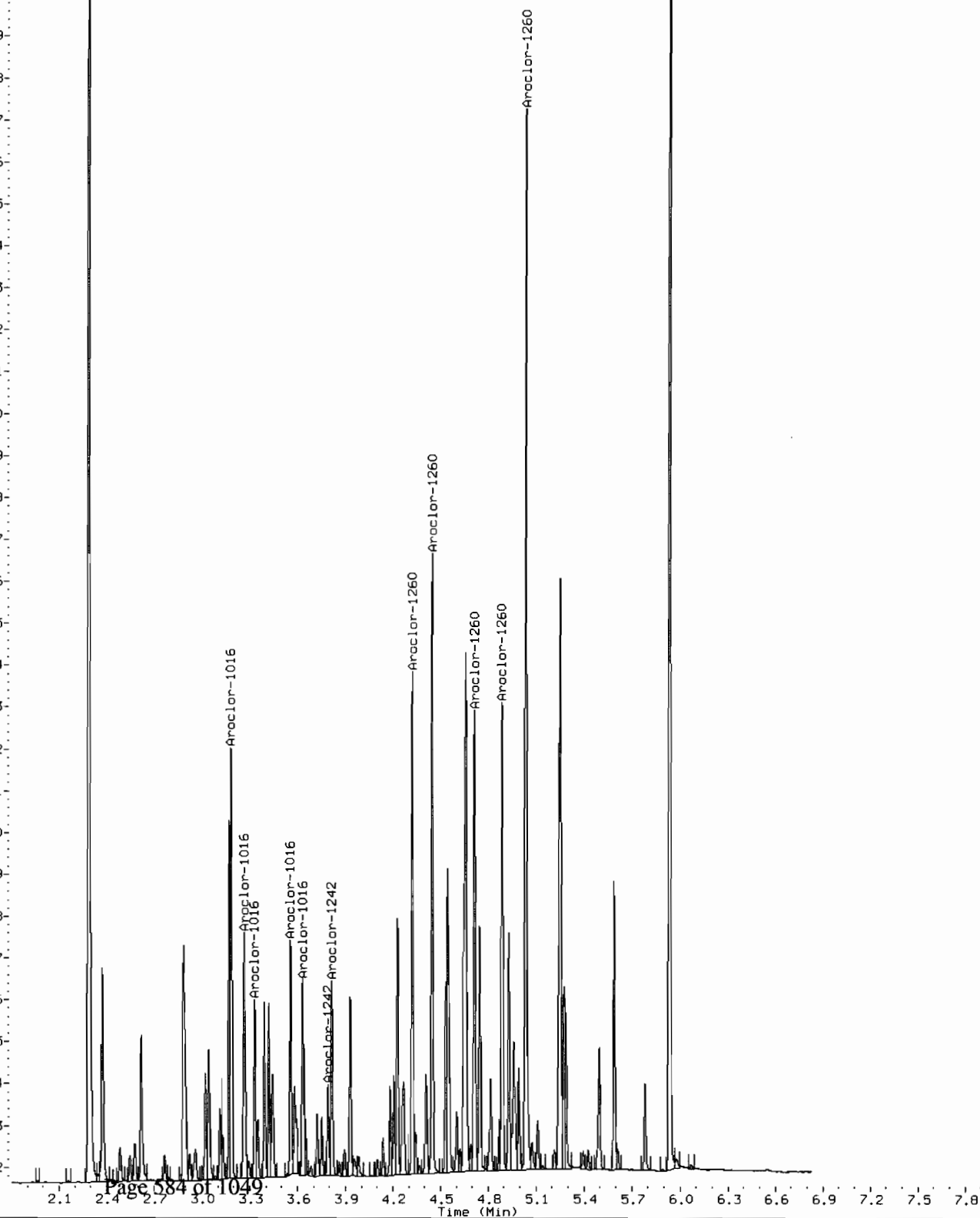
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Comment: Manually Integrated
Data File: /chem/ecdl1a.i/022210.b/065b6501.d
Operator: YS1
Injection Date: 22-FEB-2010 18:00
Instrument: ecd1a.i
Client Sample ID: RE15-10-8198MSD

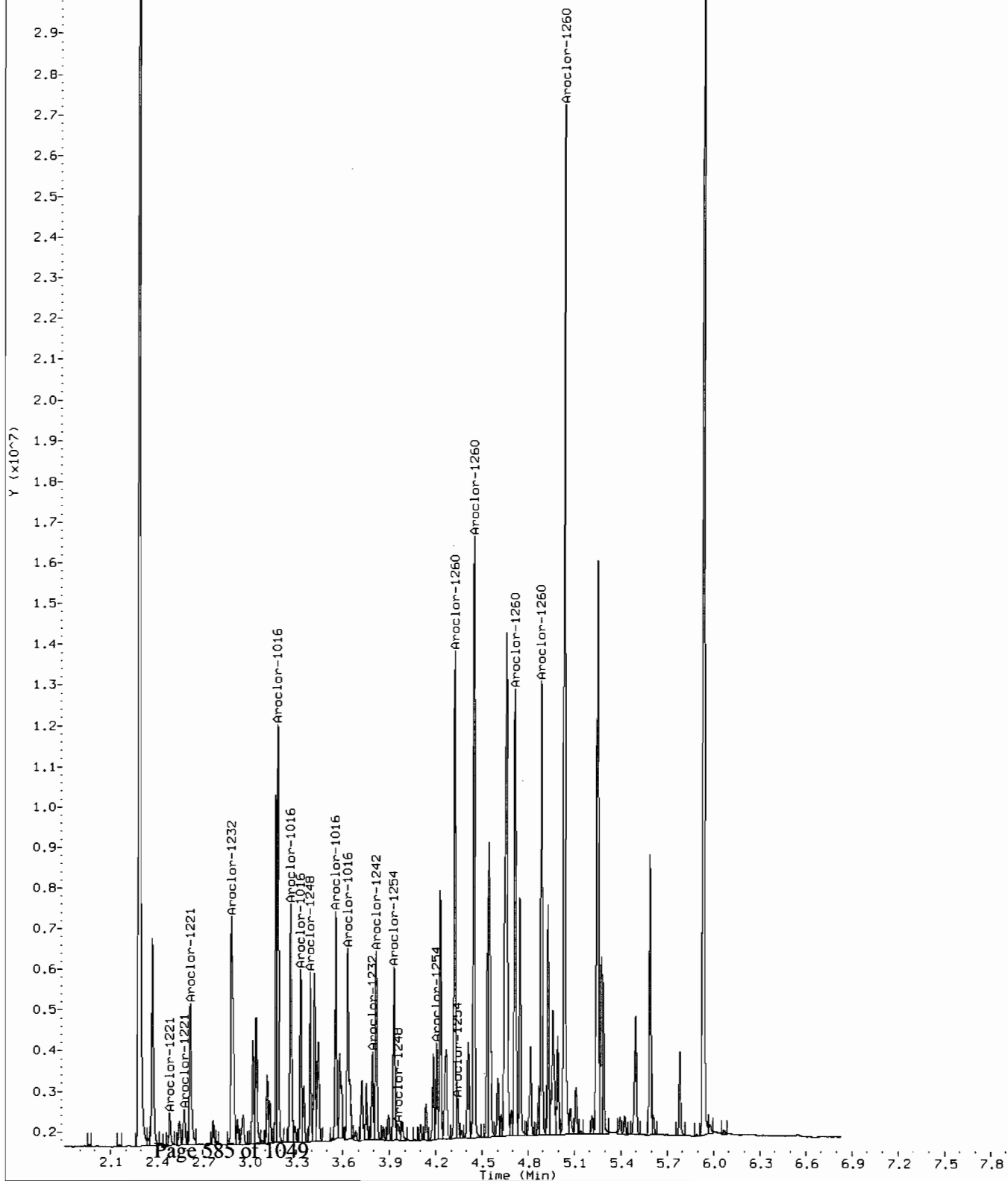
Bis(4-chlorobiphenyl)

Y (x10⁻⁷)



Comment: Before manual integration
Data File: /chem/ecdl1.i/022210.b/orig-065b6511.d
Operator: YS1
Injection Date: 22-FEB-2010 18:00
Instrument: ecd1a.i
Client Sample ID: RE15-10-8198MSD

Y (x10⁻⁷)



MISCELLANEOUS DATA

GEL ORGANIC RUN LOG

INSTRUMENT ID: ECD1

DATE: 02/23/2010 METHOD: ECD1-F-8082-022210.m OPERATOR:YS1 REVIEWED BY: _____
 HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
 ALUMINA LOT 1240553-A
 COPPER LOT 236547-A
 Calibration & 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/ecdl1a.i/022210.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	122-FEB-2010 05:59		022210	1.01	CLEAN	
002f0201.d	WAR100203-60 01	YS1	122-FEB-2010 06:10		022210	1.01	DOSE RE-ICAL	
003f0301.d	AR1660-4	YS1	122-FEB-2010 06:20		022210	1.01	DOSE SCREEN	
004f0401.d	WAR091219-DDT	YS1	122-FEB-2010 06:31		022210	1.01	DDT ANALOG STANDARD	
005f0501.d	WAR100104-32	YS1	122-FEB-2010 06:41		022210	1.01	PATTERN ONLY	
006f0601.d	WAR100104-21	YS1	122-FEB-2010 06:52		022210	1.01	PATTERN ONLY	
007f0701.d	WAR100104-62	YS1	122-FEB-2010 07:03		022210	1.01	PATTERN ONLY	
008f0801.d	WAR100222-01 60	YS1	122-FEB-2010 07:13		022210	1.01	AR1660 I-CAL LEVEL 1	
009f0901.d	WAR100222-02 60	YS1	122-FEB-2010 07:24		022210	1.01	AR1660 I-CAL LEVEL 2	
010f1001.d	WAR100222-03 60	YS1	122-FEB-2010 07:34		022210	1.01	AR1660 I-CAL LEVEL 3	
011f1101.d	WAR100222-04 60	YS1	122-FEB-2010 07:45		022210	1.01	AR1660 I-CAL LEVEL 4	
012f1201.d	AR100104-01	YS1	122-FEB-2010 07:55		022210	1.01	AR1660 I-CAL LEVEL 5	
013f1301.d	WAR100203-60 01	YS1	122-FEB-2010 08:06		022210	1.01	PASSED ON BOTH COLUMNS	
014f1401.d	WAR100222-05 54	YS1	122-FEB-2010 08:16		022210	1.01	AR1254 I-CAL LEVEL 1	
015f1501.d	WAR100222-06 54	YS1	122-FEB-2010 08:27		022210	1.01	AR1254 I-CAL LEVEL 2	

Instrument Batch: /chem/ecdl1a.i/022210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
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016f1601.d	WAR100222-07 54	YS1	22-FEB-2010 08:37		022210		1.0	AR1254 I-CAL LEVEL 3
|017f1701.d	|WAR100222-08 54	|YS1	|22-FEB-2010 08:48	|	|022210	|	1.0|	|AR1254 I-CAL LEVEL 4
|018f1801.d	|IAR100219-02	|YS1	|22-FEB-2010 08:59	|	|022210	|	1.0|	|AR1254 I-CAL LEVEL 5
|019f1901.d	|WAR100219-54	|YS1	|22-FEB-2010 09:09	|	|022210	|	1.0|	|PASSED ON BOTH COLUMNS
|020f2001.d	|WAR100222-09 42	|YS1	|22-FEB-2010 09:20	|	|022210	|	1.0|	|AR1242 I-CAL LEVEL 1
|021f2101.d	|WAR100222-10 42	|YS1	|22-FEB-2010 09:30	|	|022210	|	1.0|	|AR1242 I-CAL LEVEL 2
|022f2201.d	|WAR100222-11 42	|YS1	|22-FEB-2010 09:41	|	|022210	|	1.0|	|AR1242 I-CAL LEVEL 3
|023f2301.d	|WAR100222-12 42	|YS1	|22-FEB-2010 09:51	|	|022210	|	1.0|	|AR1242 I-CAL LEVEL 4
|024f2401.d	|IAR100219-01	|YS1	|22-FEB-2010 10:02	|	|022210	|	1.0|	|AR1242 I-CAL LEVEL 5
|025f2501.d	|WAR100219-42	|YS1	|22-FEB-2010 10:12	|	|022210	|	1.0|	|PASSED ON BOTH COLUMNS
|026f2601.d	|WAR100222-13 48	|YS1	|22-FEB-2010 10:23	|	|022210	|	1.0|	|AR1248 I-CAL LEVEL 1
|027f2701.d	|WAR100222-14 48	|YS1	|22-FEB-2010 10:33	|	|022210	|	1.0|	|AR1248 I-CAL LEVEL 2
|028f2801.d	|WAR100222-15 48	|YS1	|22-FEB-2010 10:44	|	|022210	|	1.0|	|AR1248 I-CAL LEVEL 3
|029f2901.d	|IAR100211-01	|YS1	|22-FEB-2010 10:54	|	|022210	|	1.0|	|AR1248 I-CAL LEVEL 5
|030f3001.d	|WAR100222-16	|YS1	|22-FEB-2010 11:05	|	|022210	|	1.0|	|AR1248 I-CAL LEVEL 4
|031f3101.d	|WAR091217-48	|YS1	|22-FEB-2010 11:16	|	|022210	|	1.0|	|PASSED ON BOTH COLUMNS
|032f3201.d	|WAR100222-17 68	|YS1	|22-FEB-2010 11:26	|	|022210	|	1.0|	|AR1268 I-CAL LEVEL 1
|033f3301.d	|WAR100222-18 68	|YS1	|22-FEB-2010 11:37	|	|022210	|	1.0|	|AR1268 I-CAL LEVEL 2
|034f3401.d	|WAR100222-19 68	|YS1	|22-FEB-2010 11:47	|	|022210	|	1.0|	|AR1268 I-CAL LEVEL 3
|035f3501.d	|WAR100222-20 68	|YS1	|22-FEB-2010 11:58	|	|022210	|	1.0|	|AR1268 I-CAL LEVEL 4

Instrument Batch: /chem/ecdl1.i/022210.b

Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
|036f3601.d	|IAR100104-05	|YS1	|22-FEB-2010 12:08	|	|022210	|	1.0|	|AR1268 I-CAL LEVEL 5
|037f3701.d	|WAR100107-68	|YS1	|22-FEB-2010 12:19	|	|022210	|	1.0|	|PASSED ON BOTH COLUMNS
|038f3801.d	|WAR100219-99 02	|YS1	|22-FEB-2010 12:29	|	|022210	|	1.0|	|CLEAN
|039f3901-1.d	|1202046866	|YS1	|22-FEB-2010 12:40	|954781	|10-1846	|	1.0|QC A	|UPLOAD BOTH COLUMNS, USE HIGHER
|039f3901-2.d	|1202046866	|YS1	|22-FEB-2010 12:40	|954781	|10-1848	|	1.0|QC A	|UPLOAD BOTH COLUMNS, USE HIGHER

|039f3901.d	|1202046866	|YS1	|22-FEB-2010 12:40	|954781	|10-1808	|	1.0|QC A	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|040f4001-1.d	|1202046867	|YS1	|22-FEB-2010 12:50	|954781	|10-1846	|	1.0|QC A	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|040f4001-2.d	|1202046867	|YS1	|22-FEB-2010 12:50	|954781	|10-1848	|	1.0|QC A	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|040f4001.d	|1202046867	|YS1	|22-FEB-2010 12:50	|954781	|10-1808	|	1.0|QC A	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|041f4101.d	|246968001	|YS1	|22-FEB-2010 13:01	|954781	|10-1808	|	1.0|LANL	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|042f4201.d	|246968002	|YS1	|22-FEB-2010 13:14	|954781	|10-1808	|	1.0|LANL	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|043f4301.d	|246968003	|YS1	|22-FEB-2010 13:26	|954781	|10-1808	|	1.0|LANL	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|044f4401.d	|246968004	|YS1	|22-FEB-2010 13:39	|954781	|10-1808	|	1.0|LANL	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|045f4501.d	|246968005	|YS1	|22-FEB-2010 13:51	|954781	|10-1808	|	1.0|LANL	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|046f4601.d	|246968006	|YS1	|22-FEB-2010 14:04	|954781	|10-1808	|	1.0|LANL	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|047f4701.d	|246968007	|YS1	|22-FEB-2010 14:17	|954781	|10-1808	|	1.0|LANL	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|048f4801.d	|246968008	|YS1	|22-FEB-2010 14:30	|954781	|10-1808	|	1.0|LANL	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|049f4901.d	|WAR100203-60 02	|YS1	|22-FEB-2010 14:42	|	|022210	|	1.0|	|	PASSED ON BOTH COLUMNS	|
|050f5001.d	|WAR100219-99 03	|YS1	|22-FEB-2010 14:53	|	|022210	|	1.0|	|	CLEAN	|
051f5101.d	246968009	YS1	22-FEB-2010 15:03	954781	10-1808		1.0 LANL		UPLOAD BOTH COLUMNS, USE HIGHER	

Instrument Batch: /chem/ecd1a.i/022210.b

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052f5201.d	246968010	YS1	22-FEB-2010 15:16	954781	10-1808		1.0 LANL		UPLOAD BOTH COLUMNS, USE HIGHER	
|053f5301.d	|246968011	|YS1	|22-FEB-2010 15:28	|954781	|10-1808	|	1.0|LANL	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|054f5401.d	|246968012	|YS1	|22-FEB-2010 15:41	|954781	|10-1808	|	1.0|LANL	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|055f5501.d	|246968013	|YS1	|22-FEB-2010 15:54	|954781	|10-1808	|	1.0|LANL	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|056f5601.d	|246968014	|YS1	|22-FEB-2010 16:06	|954781	|10-1808	|	1.0|LANL	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|057f5701.d	|246968015	|YS1	|22-FEB-2010 16:19	|954781	|10-1808	|	1.0|LANL	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|058f5801.d	|246968016	|YS1	|22-FEB-2010 16:32	|954781	|10-1808	|	1.0|LANL	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|059f5901.d	|246968017	|YS1	|22-FEB-2010 16:44	|954781	|10-1808	|	1.0|LANL	|	UPLOAD BOTH COLUMNS, USE HIGHER	|
|060f6001.d	|247121002	|YS1	|22-FEB-2010 16:57	|954781	|10-1846	|	1.0|LANL	|	UPLOAD BOTH COLUMNS, USE HIGHER	|

|061f6101.d |WAR100203-60 03	|YS1	|22-FEB-2010 17:10	|	|022210	|	1.0|	|PASSED ON BOTH COLUMNS	|
|062f6201.d |WAR100219-99 04	|YS1	|22-FEB-2010 17:22	|	|022210	|	1.0|	|CLEAN	|
|063f6301.d |247123001	|YS1	|22-FEB-2010 17:35	|954781	|10-1848	|	1.0|LANL	|UPLOAD BOTH COLUMNS, USE HIGHER	|
|064f6401.d |1202046868	|YS1	|22-FEB-2010 17:48	|954781	|10-1848	|	1.0|QC A	|UPLOAD BOTH COLUMNS, USE HIGHER	|
|065f6501.d |1202046869	|YS1	|22-FEB-2010 18:00	|954781	|10-1848	|	1.0|QC A	|UPLOAD BOTH COLUMNS, USE HIGHER	|
|066f6601.d |WAR100203-60 04	|YS1	|22-FEB-2010 18:13	|	|022210	|	1.0|	|PASSED ON BOTH COLUMNS	|
|067f6701.d |WAR100219-99 05	|YS1	|22-FEB-2010 18:26	|	|022210	|	1.0|	|CLEAN	|
|068f6801.d |1202048527	|YS1	|22-FEB-2010 18:38	|955479	|10-1818	|	1.0|QC A	|UPLOAD BOTH COLUMNS, USE HIGHER	|
|069f6901.d |1202048528	|YS1	|22-FEB-2010 18:51	|955479	|10-1818	|	1.0|QC A	|UPLOAD BOTH COLUMNS, USE HIGHER	|
|070f7001.d |247043003	|YS1	|22-FEB-2010 19:04	|955479	|10-1818	|	1.0|LANL	|UPLOAD BOTH COLUMNS, USE HIGHER	|
071f7101.d 1202048529	YS1	22-FEB-2010 19:16	955479	10-1818		1.0 QC A	UPLOAD BOTH COLUMNS, USE HIGHER	

Instrument Batch: /chem/ecdl1a.i/022210.b

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Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
072f7201.d	1202048530	YS1	22-FEB-2010 19:29	955479	10-1818	1.0	QC A	IUPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	247043004	YS1	22-FEB-2010 19:42	955479	10-1818	1.0	LANL	IUPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	247043005	YS1	22-FEB-2010 19:54	955479	10-1818	1.0	LANL	IUPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	247043006	YS1	22-FEB-2010 20:07	955479	10-1818	1.0	LANL	IUPLOAD BOTH COLUMNS, USE HIGHER
076f7601.d	247043007	YS1	22-FEB-2010 20:20	955479	10-1818	1.0	LANL	IUPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	247043008	YS1	22-FEB-2010 20:32	955479	10-1818	1.0	LANL	IUPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	WAR100203-60 05	YS1	22-FEB-2010 20:45		022210	1.0		I PASSED ON BOTH COLUMNS
079f7901.d	WAR100219-99 06	YS1	22-FEB-2010 20:58		022210	1.0		I CLEAN
080f8001.d	247043009	YS1	22-FEB-2010 21:10	955479	10-1818	1.0	LANL	IUPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	247043010	YS1	22-FEB-2010 21:23	955479	10-1818	1.0	LANL	IUPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	247043011	YS1	22-FEB-2010 21:35	955479	10-1818	1.0	LANL	IUPLOAD BOTH COLUMNS, USE HIGHER
083f8301.d	247043012	YS1	22-FEB-2010 21:48	955479	10-1818	1.0	LANL	IUPLOAD BOTH COLUMNS, USE HIGHER
084f8401.d	247043013	YS1	22-FEB-2010 22:01	955479	10-1818	1.0	LANL	IUPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	247043014	YS1	22-FEB-2010 22:13	955479	10-1818	1.0	LANL	IUPLOAD BOTH COLUMNS, USE HIGHER

1086f8601.d	247043015	YS1	122-FEB-2010 22:26	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1087f8701.d	247043016	YS1	122-FEB-2010 22:39	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1088f8801.d	247043017	YS1	122-FEB-2010 22:51	955479	10-1818	1.0	LANL	SURROGATE LOW RE
1089f8901.d	247043018	YS1	122-FEB-2010 23:04	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1090f9001.d	WAR100203-60 06	YS1	122-FEB-2010 23:17		022210	1.0		PASSED ON BOTH COLUMNS
1091f9101.d	WAR100219-99 07	YS1	122-FEB-2010 23:29		022210	1.0		CLEAN

Instrument Batch: /chem/ecdl1a.i/022210.b

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Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
1092f9201.d	1660	YS1	122-FEB-2010 23:42		022210	1.0		DUSE SCREEN
1093f9301.d	1660-4	YS1	122-FEB-2010 23:55		022210	1.0		DUSE SCREEN

Prep Logbook Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 954777 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)
1202046866 MB	18-FEB-2010 20:27:00	30	H2SO4/KM2	2	9	1	0.03333	
1202046867 LCS	18-FEB-2010 20:27:00	30	H2SO4/KM2	2	9	1	0.03333	
246968001	18-FEB-2010 20:27:00	30.04	H2SO4/KM2	2	9	1	0.03329	
246968002	18-FEB-2010 20:27:00	30.12	H2SO4/KM2	2	9	1	0.0332	
246968003	18-FEB-2010 20:27:00	30.08	H2SO4/KM2	2	9	1	0.03324	
246968004	18-FEB-2010 20:27:00	30.01	H2SO4/KM2	2	9	1	0.03332	
246968005	18-FEB-2010 20:27:00	30.02	H2SO4/KM2	2	9	1	0.03331	
246968006	18-FEB-2010 20:27:00	30.15	H2SO4/KM2	2	9	1	0.03317	
246968007	18-FEB-2010 20:27:00	30.02	H2SO4/KM2	2	9	1	0.03331	
246968008	18-FEB-2010 20:27:00	30.01	H2SO4/KM2	2	9	1	0.03332	
246968009	18-FEB-2010 20:27:00	30.14	H2SO4/KM2	2	9	1	0.03318	
246968010	18-FEB-2010 20:27:00	30.02	H2SO4/KM2	2	9	1	0.03331	
246968011	18-FEB-2010 20:27:00	30.12	H2SO4/KM2	2	9	1	0.0332	
246968012	18-FEB-2010 20:27:00	30.17	H2SO4/KM2	2	9	1	0.03315	
246968013	18-FEB-2010 20:27:00	30.08	H2SO4/KM2	2	9	1	0.03324	
246968014	18-FEB-2010 20:27:00	30.02	H2SO4/KM2	2	9	1	0.03331	
246968015	18-FEB-2010 20:27:00	30.18	H2SO4/KM2	2	9	1	0.03313	
246968016	18-FEB-2010 20:27:00	30.01	H2SO4/KM2	2	9	1	0.03332	
246968017	18-FEB-2010 20:27:00	30.02	H2SO4/KM2	2	9	1	0.03331	
247121002	18-FEB-2010 20:27:00	30.04	H2SO4/KM2	2	9	1	0.03329	
247123001	18-FEB-2010 20:27:00	30.06	H2SO4/KM2	2	9	1	0.03327	
1202046868 MS (247123001)	18-FEB-2010 20:27:00	30.13	H2SO4/KM2	2	9	1	0.03319	
1202046869 MSD (247123001)	18-FEB-2010 20:27:00	30.06	H2SO4/KM2	2	9	1	0.03327	
Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:		
LCS	1202046867	PCB Laboratory Control	WE100210-07	1	mL	Clean up Date: 2/18/10		
MS	1202046868	PCB Laboratory Control	WE100210-07	1	mL	Clean up Initials: AIS		
MSD	1202046869	PCB Laboratory Control	WE100210-07	1	mL	Verified By: AAW		
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100203-15	1	mL	Final Solvent: Hexane		
REGNT	All	Acetone	100211-B1	150	mL	Clean Up SOP: GL-OA-E-037		
REGNT	All	Hexane	100211-B2	150	mL			
REGNT	All	1:1 sulfuric acid	1260695a	5	mL			
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL			
SOURC	All	SODIUM SULFATE	1269268	30	g			

Metals Analysis

Case Narrative

**Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1848**

Sample Analysis

Sample ID	Client ID
247123001	RE15-10-8198
247123002	RE15-10-8200
247123003	RE15-10-8199
247123004	RE15-10-8201
1202046541	Method Blank (MB) ICP
1202046546	Laboratory Control Sample (LCS)
1202046543	247097001(RE46-10-12990L) Serial Dilution (SD)
1202046542	247097001(RE46-10-12990D) Sample Duplicate (DUP)
1202046544	247097001(RE46-10-12990S) Matrix Spike (MS)
1202046545	247097001(RE46-10-12990SD) Matrix Spike Duplicate (MSD)
1202046547	Method Blank (MB) ICP-MS
1202046552	Laboratory Control Sample (LCS)
1202046549	247097001(RE46-10-12990L) Serial Dilution (SD)
1202046548	247097001(RE46-10-12990D) Sample Duplicate (DUP)
1202046550	247097001(RE46-10-12990S) Matrix Spike (MS)
1202046551	247097001(RE46-10-12990SD) Matrix Spike Duplicate (MSD)
1202055908	Method Blank (MB) CVAA
1202055909	Laboratory Control Sample (LCS)
1202055912	247123001(RE15-10-8198L) Serial Dilution (SD)
1202055910	247123001(RE15-10-8198D) Sample Duplicate (DUP)
1202055911	247123001(RE15-10-8198S) Matrix Spike (MS)
1202055913	247123001(RE15-10-8198SD) Matrix Spike Duplicate (MSD)

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

Method/Analysis Information

Analytical Batch: 954660, 954662 and 958623

Prep Batch : 954659, 954661 and 958622
Standard Operating Procedures: GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method: SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method : SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/- 7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements

All CRDL standard(s) met the referenced advisory control limits with the exceptions of potassium and magnesium that recovered outside of the advisory control limits of 70-130% in the initial calibration. All other standards ran during the analysis was not required by the method being reported.

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 verification (CCV) bracketing this SDG met the established acceptance criteria for all.

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: 247097001 (RE46-10-12990)-ICP and ICP-MS and 247123001 (RE15-10-8198)-CVAA.

Matrix Spike (MS) Recovery Statement

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

Matrix Spike Duplicate (MSD) Recovery Statement

The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

MS/MSD Relative Percent Difference (RPD) Statement

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

Duplicate Relative Percent Difference (RPD) Statement

The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement

The serial dilution is used to assess matrix suppression or enhancement. Raw element

concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D) with the exception of iron as indicated by the "E" qualifier.

Technical Information

Holding Time Specifications

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

Sample Dilutions

Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information

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

Miscellaneous Information

Electronic Packaging Comment

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

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER ID 803894. A copy is included in the Miscellaneous Data section of this package.

Additional Comments

Additional comments were not required for this SDG.

Certification Statement

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

Review Validation:

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

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

Reviewer: Nick Cole A. Elmore Date: 3.18.10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1848

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247123001

BASIS: Dry Weight

DATE COLLECTED 11-FEB-10

CLIENT ID: RE15-10-8198

LEVEL: Low

DATE RECEIVED 16-FEB-10

MATRIX: SOIL

%SOLIDS: 99.55

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	411000	ug/kg		6140	18100	18100	1	P	HSC	03/17/10 01:19	031610-1	954660
7440-36-0	Antimony	903	ug/kg	U	298	903	903	1	P	HSC	03/17/10 01:19	031610-1	954660
7440-38-2	Arsenic	1070	ug/kg		189	946	946	2	MS	BAJ	03/14/10 14:15	100314-2	954662
7440-39-3	Barium	13200	ug/kg		90.3	452	452	1	P	HSC	03/17/10 01:19	031610-1	954660
7440-41-7	Beryllium	275	ug/kg		18.9	94.6	94.6	2	MS	BAJ	03/14/10 14:15	100314-2	954662
7440-43-9	Cadmium	452	ug/kg	U	90.3	452	452	1	P	HSC	03/17/10 01:19	031610-1	954660
7440-70-2	Calcium	207000	ug/kg		7230	22600	22600	1	P	HSC	03/17/10 01:19	031610-1	954660
7440-47-3	Chromium	2750	ug/kg		136	452	452	1	P	HSC	03/17/10 01:19	031610-1	954660
7440-48-4	Cobalt	363	ug/kg	J	136	452	452	1	P	HSC	03/17/10 01:19	031610-1	954660
7440-50-8	Copper	784	ug/kg	J	271	903	903	1	P	HSC	03/17/10 01:19	031610-1	954660
7439-89-6	Iron	6100000	ug/kg		7230	22600	22600	1	P	HSC	03/17/10 01:19	031610-1	954660
7439-92-1	Lead	25700	ug/kg		226	903	903	1	P	HSC	03/17/10 01:19	031610-1	954660
7439-95-4	Magnesium	157000	ug/kg		7680	27100	27100	1	P	HSC	03/17/10 12:43	031610-1	954660
7439-96-5	Manganese	213000	ug/kg		181	903	903	1	P	HSC	03/17/10 01:19	031610-1	954660
7439-97-6	Mercury	11.4	ug/kg	U	3.89	11.4	11.4	1	AV	JXL1	03/03/10 11:36	030310S2-3	958623
7440-02-0	Nickel	2040	ug/kg		94.6	378	378	2	MS	BAJ	03/14/10 14:15	100314-2	954662
7440-09-7	Potassium	143000	ug/kg		5780	22600	22600	1	P	HSC	03/17/10 01:19	031610-1	954660
7782-49-2	Selenium	946	ug/kg	U	473	946	946	2	MS	BAJ	03/14/10 14:15	100314-2	954662
7440-22-4	Silver	452	ug/kg	U	90.3	452	452	1	P	HSC	03/17/10 01:19	031610-1	954660
7440-23-5	Sodium	50400	ug/kg		6320	22600	22600	1	P	HSC	03/17/10 12:43	031610-1	954660
7440-28-0	Thallium	125	ug/kg	J	56.8	189	189	2	MS	BAJ	03/14/10 14:15	100314-2	954662
7440-62-2	Vanadium	2330	ug/kg		90.3	452	452	1	P	HSC	03/17/10 01:19	031610-1	954660
7440-66-6	Zinc	31200	ug/kg		298	903	903	1	P	HSC	03/17/10 01:19	031610-1	954660

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
954660	954659	SW846 3050B	0.556	g	50	mL	03/16/10	BCD1
954662	954661	SW846 3050B	0.531	g	50	mL	02/23/10	AXG2
958623	958622	SW846 7471A Prep	0.527	g	30	mL	03/02/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1848

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247123002

BASIS: Dry Weight

DATE COLLECTED 11-FEB-10

CLIENT ID: RE15-10-8200

LEVEL: Low

DATE RECEIVED 16-FEB-10

MATRIX: SOIL

%SOLIDS: 98.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	256000	ug/kg		6190	18200	18200	1	P	HSC	03/17/10 01:26	031610-1	954660
7440-36-0	Antimony	910	ug/kg	U	300	910	910	1	P	HSC	03/17/10 01:26	031610-1	954660
7440-38-2	Arsenic	2290	ug/kg		198	988	988	2	MS	BAJ	03/14/10 14:18	100314-2	954662
7440-39-3	Barium	8430	ug/kg		91	455	455	1	P	HSC	03/17/10 01:26	031610-1	954660
7440-41-7	Beryllium	401	ug/kg		19.8	98.8	98.8	2	MS	BAJ	03/14/10 14:18	100314-2	954662
7440-43-9	Cadmium	455	ug/kg	U	91	455	455	1	P	HSC	03/17/10 01:26	031610-1	954660
7440-70-2	Calcium	205000	ug/kg		7280	22800	22800	1	P	HSC	03/17/10 01:26	031610-1	954660
7440-47-3	Chromium	3290	ug/kg		137	455	455	1	P	HSC	03/17/10 01:26	031610-1	954660
7440-48-4	Cobalt	315	ug/kg	J	137	455	455	1	P	HSC	03/17/10 01:26	031610-1	954660
7440-50-8	Copper	760	ug/kg	J	273	910	910	1	P	HSC	03/17/10 01:26	031610-1	954660
7439-89-6	Iron	6320000	ug/kg		7280	22800	22800	1	P	HSC	03/17/10 01:26	031610-1	954660
7439-92-1	Lead	9090	ug/kg		228	910	910	1	P	HSC	03/17/10 01:26	031610-1	954660
7439-95-4	Magnesium	130000	ug/kg		7740	27300	27300	1	P	HSC	03/17/10 12:50	031610-1	954660
7439-96-5	Manganese	177000	ug/kg		182	910	910	1	P	HSC	03/17/10 01:26	031610-1	954660
7439-97-6	Mercury	11.5	ug/kg	U	3.92	11.5	11.5	1	AV	JXL1	03/03/10 11:45	030310S2-3	958623
7440-02-0	Nickel	432	ug/kg		98.8	395	395	2	MS	BAJ	03/14/10 14:18	100314-2	954662
7440-09-7	Potassium	120000	ug/kg		5830	22800	22800	1	P	HSC	03/17/10 01:26	031610-1	954660
7782-49-2	Selenium	988	ug/kg	U	494	988	988	2	MS	BAJ	03/14/10 14:18	100314-2	954662
7440-22-4	Silver	102	ug/kg	J	91	455	455	1	P	HSC	03/17/10 01:26	031610-1	954660
7440-23-5	Sodium	94800	ug/kg		6370	22800	22800	1	P	HSC	03/17/10 12:50	031610-1	954660
7440-28-0	Thallium	198	ug/kg	U	59.3	198	198	2	MS	BAJ	03/14/10 14:18	100314-2	954662
7440-62-2	Vanadium	2170	ug/kg		91	455	455	1	P	HSC	03/17/10 01:26	031610-1	954660
7440-66-6	Zinc	37300	ug/kg		300	910	910	1	P	HSC	03/17/10 01:26	031610-1	954660

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
954660	954659	SW846 3050B	0.557	g	50	mL	03/16/10	BCD1
954662	954661	SW846 3050B	0.513	g	50	mL	02/23/10	AXG2
958623	958622	SW846 7471A Prep	0.528	g	30	mL	03/02/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1848

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247123003

BASIS: Dry Weight

DATE COLLECTED 11-FEB-10

CLIENT ID: RE15-10-8199

LEVEL: Low

DATE RECEIVED 16-FEB-10

MATRIX: SOIL

%SOLIDS: 98

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	516000	ug/kg		6350	18700	18700	1	P	HSC	03/17/10 01:33	031610-1	954660
7440-36-0	Antimony	934	ug/kg	U	308	934	934	1	P	HSC	03/17/10 01:33	031610-1	954660
7440-38-2	Arsenic	1730	ug/kg		193	965	965	2	MS	BAJ	03/14/10 14:22	100314-2	954662
7440-39-3	Barium	11500	ug/kg		93.4	467	467	1	P	HSC	03/17/10 01:33	031610-1	954660
7440-41-7	Beryllium	326	ug/kg		19.3	96.5	96.5	2	MS	BAJ	03/14/10 14:22	100314-2	954662
7440-43-9	Cadmium	467	ug/kg	U	93.4	467	467	1	P	HSC	03/17/10 01:33	031610-1	954660
7440-70-2	Calcium	495000	ug/kg		7480	23400	23400	1	P	HSC	03/17/10 01:33	031610-1	954660
7440-47-3	Chromium	4630	ug/kg		140	467	467	1	P	HSC	03/17/10 01:33	031610-1	954660
7440-48-4	Cobalt	420	ug/kg	J	140	467	467	1	P	HSC	03/17/10 01:33	031610-1	954660
7440-50-8	Copper	1270	ug/kg		280	934	934	1	P	HSC	03/17/10 01:33	031610-1	954660
7439-89-6	Iron	7400000	ug/kg		7480	23400	23400	1	P	HSC	03/17/10 01:33	031610-1	954660
7439-92-1	Lead	17900	ug/kg		234	934	934	1	P	HSC	03/17/10 01:33	031610-1	954660
7439-95-4	Magnesium	220000	ug/kg		7940	28000	28000	1	P	HSC	03/17/10 12:57	031610-1	954660
7439-96-5	Manganese	230000	ug/kg		187	934	934	1	P	HSC	03/17/10 01:33	031610-1	954660
7439-97-6	Mercury	12.1	ug/kg	U	4.1	12.1	12.1	1	AV	JXL1	03/03/10 11:47	030310S2-3	958623
7440-02-0	Nickel	986	ug/kg		96.5	386	386	2	MS	BAJ	03/14/10 14:22	100314-2	954662
7440-09-7	Potassium	192000	ug/kg		5980	23400	23400	1	P	HSC	03/17/10 01:33	031610-1	954660
7782-49-2	Selenium	965	ug/kg	U	482	965	965	2	MS	BAJ	03/14/10 14:22	100314-2	954662
7440-22-4	Silver	269	ug/kg	J	93.4	467	467	1	P	HSC	03/17/10 01:33	031610-1	954660
7440-23-5	Sodium	137000	ug/kg		6540	23400	23400	1	P	HSC	03/17/10 12:57	031610-1	954660
7440-28-0	Thallium	193	ug/kg	U	57.9	193	193	2	MS	BAJ	03/14/10 14:22	100314-2	954662
7440-62-2	Vanadium	2380	ug/kg		93.4	467	467	1	P	HSC	03/17/10 01:33	031610-1	954660
7440-66-6	Zinc	24400	ug/kg		308	934	934	1	P	HSC	03/17/10 01:33	031610-1	954660

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
954660	954659	SW846 3050B	0.546	g	50	mL	03/16/10	BCD1
954662	954661	SW846 3050B	0.529	g	50	mL	02/23/10	AXG2
958623	958622	SW846 7471A Prep	0.508	g	30	mL	03/02/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1848

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247123004

BASIS: Dry Weight

DATE COLLECTED 11-FEB-10

CLIENT ID: RE15-10-8201

LEVEL: Low

DATE RECEIVED 16-FEB-10

MATRIX: SOIL

%SOLIDS: 98.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	353000	ug/kg		6360	18700	18700	1	P	HSC	03/17/10 01:40	031610-1	954660
7440-36-0	Antimony	936	ug/kg	U	309	936	936	1	P	HSC	03/17/10 01:40	031610-1	954660
7440-38-2	Arsenic	1020	ug/kg		198	990	990	2	MS	BAJ	03/14/10 14:26	100314-2	954662
7440-39-3	Barium	15000	ug/kg		93.6	468	468	1	P	HSC	03/17/10 01:40	031610-1	954660
7440-41-7	Beryllium	434	ug/kg		19.8	99	99	2	MS	BAJ	03/14/10 14:26	100314-2	954662
7440-43-9	Cadmium	468	ug/kg	U	93.6	468	468	1	P	HSC	03/17/10 01:40	031610-1	954660
7440-70-2	Calcium	293000	ug/kg		7480	23400	23400	1	P	HSC	03/17/10 01:40	031610-1	954660
7440-47-3	Chromium	2360	ug/kg		140	468	468	1	P	HSC	03/17/10 01:40	031610-1	954660
7440-48-4	Cobalt	308	ug/kg	J	140	468	468	1	P	HSC	03/17/10 01:40	031610-1	954660
7440-50-8	Copper	937	ug/kg		281	936	936	1	P	HSC	03/17/10 01:40	031610-1	954660
7439-89-6	Iron	6690000	ug/kg		7480	23400	23400	1	P	HSC	03/17/10 01:40	031610-1	954660
7439-92-1	Lead	2080	ug/kg		234	936	936	1	P	HSC	03/17/10 01:40	031610-1	954660
7439-95-4	Magnesium	182000	ug/kg		7950	28100	28100	1	P	HSC	03/17/10 13:04	031610-1	954660
7439-96-5	Manganese	195000	ug/kg		187	936	936	1	P	HSC	03/17/10 01:40	031610-1	954660
7439-97-6	Mercury	11.6	ug/kg	U	3.95	11.6	11.6	1	AV	JXL1	03/03/10 11:48	030310S2-3	958623
7440-02-0	Nickel	433	ug/kg		99	396	396	2	MS	BAJ	03/14/10 14:26	100314-2	954662
7440-09-7	Potassium	150000	ug/kg		5990	23400	23400	1	P	HSC	03/17/10 01:40	031610-1	954660
7782-49-2	Selenium	990	ug/kg	U	495	990	990	2	MS	BAJ	03/14/10 14:26	100314-2	954662
7440-22-4	Silver	99.1	ug/kg	J	93.6	468	468	1	P	HSC	03/17/10 01:40	031610-1	954660
7440-23-5	Sodium	138000	ug/kg		6550	23400	23400	1	P	HSC	03/17/10 13:04	031610-1	954660
7440-28-0	Thallium	198	ug/kg	U	59.4	198	198	2	MS	BAJ	03/14/10 14:26	100314-2	954662
7440-62-2	Vanadium	1970	ug/kg		93.6	468	468	1	P	HSC	03/17/10 01:40	031610-1	954660
7440-66-6	Zinc	36700	ug/kg		309	936	936	1	P	HSC	03/17/10 01:40	031610-1	954660

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
954660	954659	SW846 3050B	0.542	g	50	mL	03/16/10	BCD1
954662	954661	SW846 3050B	0.512	g	50	mL	02/23/10	AXG2
958623	958622	SW846 7471A Prep	0.524	g	30	mL	03/02/10	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICV01										
	Mercury	5.23	ug/L	5	ug/L	104.7	90.0 – 110.0	AV	03-MAR-10 10:25	030310S2-3
	Arsenic	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	14-MAR-10 12:14	100314-2
	Beryllium	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	14-MAR-10 12:14	100314-2
	Nickel	51.8	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	14-MAR-10 12:14	100314-2
	Selenium	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	14-MAR-10 12:14	100314-2
	Thallium	51.2	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	14-MAR-10 12:14	100314-2
	Aluminum	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	16-MAR-10 15:22	031610-1
	Antimony	527	ug/L	500	ug/L	105.4	90.0 – 110.0	P	16-MAR-10 15:22	031610-1
	Barium	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	16-MAR-10 15:22	031610-1
	Cadmium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	16-MAR-10 15:22	031610-1
	Calcium	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	16-MAR-10 15:22	031610-1
	Chromium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	16-MAR-10 15:22	031610-1
	Cobalt	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	16-MAR-10 15:22	031610-1
	Copper	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	16-MAR-10 15:22	031610-1
	Iron	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	16-MAR-10 15:22	031610-1
	Lead	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	16-MAR-10 15:22	031610-1
	Magnesium	5400	ug/L	5000	ug/L	108	90.0 – 110.0	P	16-MAR-10 15:22	031610-1
	Manganese	520	ug/L	500	ug/L	104	90.0 – 110.0	P	16-MAR-10 15:22	031610-1
	Potassium	2480	ug/L	2500	ug/L	99.4	90.0 – 110.0	P	16-MAR-10 15:22	031610-1
	Silver	259	ug/L	250	ug/L	103.5	90.0 – 110.0	P	16-MAR-10 15:22	031610-1
	Sodium	2550	ug/L	2500	ug/L	101.8	90.0 – 110.0	P	16-MAR-10 15:22	031610-1
	Vanadium	522	ug/L	500	ug/L	104.4	90.0 – 110.0	P	16-MAR-10 15:22	031610-1
	Zinc	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	16-MAR-10 15:22	031610-1
CCV01										
	Mercury	5.2	ug/L	5	ug/L	103.9	80.0 – 120.0	AV	03-MAR-10 10:30	030310S2-3
	Arsenic	47.3	ug/L	50	ug/L	94.7	90.0 – 110.0	MS	14-MAR-10 12:32	100314-2
	Beryllium	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	14-MAR-10 12:32	100314-2
	Nickel	47.3	ug/L	50	ug/L	94.7	90.0 – 110.0	MS	14-MAR-10 12:32	100314-2
	Selenium	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	14-MAR-10 12:32	100314-2
	Thallium	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	14-MAR-10 12:32	100314-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Aluminum	5040	ug/L	5000	ug/L	100.7	90.0 - 110.0	P	16-MAR-10 16:17	031610-1
	Antimony	520	ug/L	500	ug/L	104	90.0 - 110.0	P	16-MAR-10 16:17	031610-1
	Barium	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	16-MAR-10 16:17	031610-1
	Cadmium	511	ug/L	500	ug/L	102.1	90.0 - 110.0	P	16-MAR-10 16:17	031610-1
	Calcium	5150	ug/L	5000	ug/L	102.9	90.0 - 110.0	P	16-MAR-10 16:17	031610-1
	Chromium	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	16-MAR-10 16:17	031610-1
	Cobalt	519	ug/L	500	ug/L	103.8	90.0 - 110.0	P	16-MAR-10 16:17	031610-1
	Copper	505	ug/L	500	ug/L	101	90.0 - 110.0	P	16-MAR-10 16:17	031610-1
	Iron	5210	ug/L	5000	ug/L	104.2	90.0 - 110.0	P	16-MAR-10 16:17	031610-1
	Lead	510	ug/L	500	ug/L	102	90.0 - 110.0	P	16-MAR-10 16:17	031610-1
	Magnesium	5360	ug/L	5000	ug/L	107.2	90.0 - 110.0	P	16-MAR-10 16:17	031610-1
	Manganese	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	16-MAR-10 16:17	031610-1
	Potassium	5280	ug/L	5000	ug/L	105.5	90.0 - 110.0	P	16-MAR-10 16:17	031610-1
	Silver	510	ug/L	500	ug/L	102	90.0 - 110.0	P	16-MAR-10 16:17	031610-1
	Sodium	10600	ug/L	10000	ug/L	106	90.0 - 110.0	P	16-MAR-10 16:17	031610-1
	Vanadium	514	ug/L	500	ug/L	102.9	90.0 - 110.0	P	16-MAR-10 16:17	031610-1
	Zinc	515	ug/L	500	ug/L	102.9	90.0 - 110.0	P	16-MAR-10 16:17	031610-1
CCV02	Mercury	5.37	ug/L	5	ug/L	107.3	80.0 - 120.0	AV	03-MAR-10 10:50	030310S2-3
	Arsenic	47.6	ug/L	50	ug/L	95.1	90.0 - 110.0	MS	14-MAR-10 12:54	100314-2
	Beryllium	49.7	ug/L	50	ug/L	99.3	90.0 - 110.0	MS	14-MAR-10 12:54	100314-2
	Nickel	47.3	ug/L	50	ug/L	94.6	90.0 - 110.0	MS	14-MAR-10 12:54	100314-2
	Selenium	50.3	ug/L	50	ug/L	100.6	90.0 - 110.0	MS	14-MAR-10 12:54	100314-2
	Thallium	46.9	ug/L	50	ug/L	93.8	90.0 - 110.0	MS	14-MAR-10 12:54	100314-2
	Aluminum	4970	ug/L	5000	ug/L	99.3	90.0 - 110.0	P	16-MAR-10 16:37	031610-1
	Antimony	504	ug/L	500	ug/L	100.7	90.0 - 110.0	P	16-MAR-10 16:37	031610-1
	Barium	500	ug/L	500	ug/L	100.1	90.0 - 110.0	P	16-MAR-10 16:37	031610-1
	Cadmium	499	ug/L	500	ug/L	99.7	90.0 - 110.0	P	16-MAR-10 16:37	031610-1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 - 110.0	P	16-MAR-10 16:37	031610-1
	Chromium	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	16-MAR-10 16:37	031610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	16-MAR-10 16:37	031610-1
	Copper	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	16-MAR-10 16:37	031610-1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	16-MAR-10 16:37	031610-1
	Lead	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	16-MAR-10 16:37	031610-1
	Magnesium	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	16-MAR-10 16:37	031610-1
	Manganese	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	16-MAR-10 16:37	031610-1
	Potassium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	16-MAR-10 16:37	031610-1
	Silver	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	16-MAR-10 16:37	031610-1
	Sodium	10100	ug/L	10000	ug/L	101.4	90.0 – 110.0	P	16-MAR-10 16:37	031610-1
	Vanadium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	16-MAR-10 16:37	031610-1
	Zinc	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	16-MAR-10 16:37	031610-1
CCV03										
	Mercury	5.25	ug/L	5	ug/L	105	80.0 – 120.0	AV	03-MAR-10 11:10	030310S2-3
	Arsenic	48.7	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	14-MAR-10 13:27	100314-2
	Beryllium	50.5	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	14-MAR-10 13:27	100314-2
	Nickel	46.9	ug/L	50	ug/L	93.8	90.0 – 110.0	MS	14-MAR-10 13:27	100314-2
	Selenium	51.2	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	14-MAR-10 13:27	100314-2
	Thallium	47.4	ug/L	50	ug/L	94.8	90.0 – 110.0	MS	14-MAR-10 13:27	100314-2
	Aluminum	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	16-MAR-10 17:06	031610-1
	Antimony	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	16-MAR-10 17:06	031610-1
	Barium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	16-MAR-10 17:06	031610-1
	Cadmium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	16-MAR-10 17:06	031610-1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	16-MAR-10 17:06	031610-1
	Chromium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	16-MAR-10 17:06	031610-1
	Cobalt	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	16-MAR-10 17:06	031610-1
	Copper	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	16-MAR-10 17:06	031610-1
	Iron	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	16-MAR-10 17:06	031610-1
	Lead	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	16-MAR-10 17:06	031610-1
	Magnesium	5310	ug/L	5000	ug/L	106.3	90.0 – 110.0	P	16-MAR-10 17:06	031610-1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	16-MAR-10 17:06	031610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Potassium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	16-MAR-10 17:06	031610-1
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	16-MAR-10 17:06	031610-1
	Sodium	10500	ug/L	10000	ug/L	104.5	90.0 – 110.0	P	16-MAR-10 17:06	031610-1
	Vanadium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	16-MAR-10 17:06	031610-1
	Zinc	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	16-MAR-10 17:06	031610-1
CCV04										
	Mercury	5.32	ug/L	5	ug/L	106.5	80.0 – 120.0	AV	03-MAR-10 11:30	030310S2-3
	Arsenic	48.5	ug/L	50	ug/L	97.1	90.0 – 110.0	MS	14-MAR-10 14:07	100314-2
	Beryllium	54.5	ug/L	50	ug/L	109	90.0 – 110.0	MS	14-MAR-10 14:07	100314-2
	Nickel	47.5	ug/L	50	ug/L	95	90.0 – 110.0	MS	14-MAR-10 14:07	100314-2
	Selenium	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	14-MAR-10 14:07	100314-2
	Thallium	48.7	ug/L	50	ug/L	97.5	90.0 – 110.0	MS	14-MAR-10 14:07	100314-2
	Aluminum	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	16-MAR-10 18:29	031610-1
	Antimony	529	ug/L	500	ug/L	105.7	90.0 – 110.0	P	16-MAR-10 18:29	031610-1
	Barium	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	16-MAR-10 18:29	031610-1
	Cadmium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	16-MAR-10 18:29	031610-1
	Calcium	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	16-MAR-10 18:29	031610-1
	Chromium	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	16-MAR-10 18:29	031610-1
	Cobalt	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	16-MAR-10 18:29	031610-1
	Copper	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	16-MAR-10 18:29	031610-1
	Iron	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	16-MAR-10 18:29	031610-1
	Lead	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	16-MAR-10 18:29	031610-1
	Magnesium	5400	ug/L	5000	ug/L	107.9	90.0 – 110.0	P	16-MAR-10 18:29	031610-1
	Manganese	522	ug/L	500	ug/L	104.3	90.0 – 110.0	P	16-MAR-10 18:29	031610-1
	Potassium	5360	ug/L	5000	ug/L	107.2	90.0 – 110.0	P	16-MAR-10 18:29	031610-1
	Silver	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	16-MAR-10 18:29	031610-1
	Sodium	11200	ug/L	10000	ug/L	111.5	90.0 – 110.0	P	16-MAR-10 18:29	031610-1
	Vanadium	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	16-MAR-10 18:29	031610-1
	Zinc	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	16-MAR-10 18:29	031610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV05										
	Mercury	5.44	ug/L	5	ug/L	108.7	80.0 – 120.0	AV	03-MAR-10 11:50	030310S2-3
	Arsenic	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	14-MAR-10 14:33	100314-2
	Beryllium	52.8	ug/L	50	ug/L	105.6	90.0 – 110.0	MS	14-MAR-10 14:33	100314-2
	Nickel	46.2	ug/L	50	ug/L	92.5	90.0 – 110.0	MS	14-MAR-10 14:33	100314-2
	Selenium	51.6	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	14-MAR-10 14:33	100314-2
	Thallium	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	14-MAR-10 14:33	100314-2
	Aluminum	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	16-MAR-10 18:49	031610-1
	Antimony	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	16-MAR-10 18:49	031610-1
	Barium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	16-MAR-10 18:49	031610-1
	Cadmium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	16-MAR-10 18:49	031610-1
	Calcium	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	16-MAR-10 18:49	031610-1
	Chromium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	16-MAR-10 18:49	031610-1
	Cobalt	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	16-MAR-10 18:49	031610-1
	Copper	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	16-MAR-10 18:49	031610-1
	Iron	5350	ug/L	5000	ug/L	107	90.0 – 110.0	P	16-MAR-10 18:49	031610-1
	Lead	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	16-MAR-10 18:49	031610-1
	Magnesium	5400	ug/L	5000	ug/L	108	90.0 – 110.0	P	16-MAR-10 18:49	031610-1
	Manganese	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	16-MAR-10 18:49	031610-1
	Potassium	5270	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	16-MAR-10 18:49	031610-1
	Silver	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	16-MAR-10 18:49	031610-1
	Sodium	11100	ug/L	10000	ug/L	111	90.0 – 110.0	P	16-MAR-10 18:49	031610-1
	Vanadium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	16-MAR-10 18:49	031610-1
	Zinc	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	16-MAR-10 18:49	031610-1
CCV06										
	Aluminum	5200	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	16-MAR-10 19:47	031610-1
	Antimony	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	16-MAR-10 19:47	031610-1
	Barium	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	16-MAR-10 19:47	031610-1
	Cadmium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	16-MAR-10 19:47	031610-1
	Calcium	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	16-MAR-10 19:47	031610-1
	Chromium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	16-MAR-10 19:47	031610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cobalt	518	ug/L	500	ug/L	103.5	90.0 – 110.0	P	16-MAR-10 19:47	031610-1
	Copper	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	16-MAR-10 19:47	031610-1
	Iron	5320	ug/L	5000	ug/L	106.4	90.0 – 110.0	P	16-MAR-10 19:47	031610-1
	Lead	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	16-MAR-10 19:47	031610-1
	Magnesium	5450	ug/L	5000	ug/L	109.1	90.0 – 110.0	P	16-MAR-10 19:47	031610-1
	Manganese	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	16-MAR-10 19:47	031610-1
	Potassium	5340	ug/L	5000	ug/L	106.8	90.0 – 110.0	P	16-MAR-10 19:47	031610-1
	Silver	510	ug/L	500	ug/L	102	90.0 – 110.0	P	16-MAR-10 19:47	031610-1
	Sodium	11000	ug/L	10000	ug/L	110.2	90.0 – 110.0	P	16-MAR-10 19:47	031610-1
	Vanadium	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	16-MAR-10 19:47	031610-1
	Zinc	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	16-MAR-10 19:47	031610-1
CCV07	Aluminum	5240	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	16-MAR-10 20:57	031610-1
	Antimony	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	16-MAR-10 20:57	031610-1
	Barium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	16-MAR-10 20:57	031610-1
	Cadmium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	16-MAR-10 20:57	031610-1
	Calcium	5230	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	16-MAR-10 20:57	031610-1
	Chromium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	16-MAR-10 20:57	031610-1
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	16-MAR-10 20:57	031610-1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	16-MAR-10 20:57	031610-1
	Iron	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	16-MAR-10 20:57	031610-1
	Lead	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	16-MAR-10 20:57	031610-1
	Magnesium	5370	ug/L	5000	ug/L	107.5	90.0 – 110.0	P	16-MAR-10 20:57	031610-1
	Manganese	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	16-MAR-10 20:57	031610-1
	Potassium	5330	ug/L	5000	ug/L	106.7	90.0 – 110.0	P	16-MAR-10 20:57	031610-1
	Silver	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	16-MAR-10 20:57	031610-1
	Sodium	10400	ug/L	10000	ug/L	104.1	90.0 – 110.0	P	16-MAR-10 20:57	031610-1
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	16-MAR-10 20:57	031610-1
	Zinc	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	16-MAR-10 20:57	031610-1

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV08										
	Aluminum	5180	ug/L	5000	ug/L	103.5	90.0 - 110.0	P	16-MAR-10 22:01	031610-1
	Antimony	515	ug/L	500	ug/L	102.9	90.0 - 110.0	P	16-MAR-10 22:01	031610-1
	Barium	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	16-MAR-10 22:01	031610-1
	Cadmium	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	16-MAR-10 22:01	031610-1
	Calcium	5300	ug/L	5000	ug/L	106.1	90.0 - 110.0	P	16-MAR-10 22:01	031610-1
	Chromium	510	ug/L	500	ug/L	102.1	90.0 - 110.0	P	16-MAR-10 22:01	031610-1
	Cobalt	516	ug/L	500	ug/L	103.2	90.0 - 110.0	P	16-MAR-10 22:01	031610-1
	Copper	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	16-MAR-10 22:01	031610-1
	Iron	5310	ug/L	5000	ug/L	106.2	90.0 - 110.0	P	16-MAR-10 22:01	031610-1
	Lead	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	16-MAR-10 22:01	031610-1
	Magnesium	5510	ug/L	5000	ug/L	110.3	90.0 - 110.0	P	16-MAR-10 22:01	031610-1
	Manganese	509	ug/L	500	ug/L	101.9	90.0 - 110.0	P	16-MAR-10 22:01	031610-1
	Potassium	5240	ug/L	5000	ug/L	104.8	90.0 - 110.0	P	16-MAR-10 22:01	031610-1
	Silver	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	16-MAR-10 22:01	031610-1
	Sodium	10400	ug/L	10000	ug/L	104.5	90.0 - 110.0	P	16-MAR-10 22:01	031610-1
	Vanadium	514	ug/L	500	ug/L	102.8	90.0 - 110.0	P	16-MAR-10 22:01	031610-1
	Zinc	513	ug/L	500	ug/L	102.5	90.0 - 110.0	P	16-MAR-10 22:01	031610-1
CCV09										
	Aluminum	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	16-MAR-10 22:50	031610-1
	Antimony	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	16-MAR-10 22:50	031610-1
	Barium	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	16-MAR-10 22:50	031610-1
	Cadmium	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	16-MAR-10 22:50	031610-1
	Calcium	5110	ug/L	5000	ug/L	102.1	90.0 - 110.0	P	16-MAR-10 22:50	031610-1
	Chromium	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	16-MAR-10 22:50	031610-1
	Cobalt	515	ug/L	500	ug/L	103.1	90.0 - 110.0	P	16-MAR-10 22:50	031610-1
	Copper	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	16-MAR-10 22:50	031610-1
	Iron	5080	ug/L	5000	ug/L	101.6	90.0 - 110.0	P	16-MAR-10 22:50	031610-1
	Lead	507	ug/L	500	ug/L	101.5	90.0 - 110.0	P	16-MAR-10 22:50	031610-1
	Magnesium	5240	ug/L	5000	ug/L	104.8	90.0 - 110.0	P	16-MAR-10 22:50	031610-1
	Manganese	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	16-MAR-10 22:50	031610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Potassium	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	16-MAR-10 22:50	031610-1
	Silver	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	16-MAR-10 22:50	031610-1
	Sodium	9870	ug/L	10000	ug/L	98.7	90.0 – 110.0	P	16-MAR-10 22:50	031610-1
	Vanadium	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	16-MAR-10 22:50	031610-1
	Zinc	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	16-MAR-10 22:50	031610-1
CCV10	Aluminum	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	16-MAR-10 23:53	031610-1
	Antimony	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	16-MAR-10 23:53	031610-1
	Barium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	16-MAR-10 23:53	031610-1
	Cadmium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	16-MAR-10 23:53	031610-1
	Calcium	5280	ug/L	5000	ug/L	105.6	90.0 – 110.0	P	16-MAR-10 23:53	031610-1
	Chromium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	16-MAR-10 23:53	031610-1
	Cobalt	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	16-MAR-10 23:53	031610-1
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	16-MAR-10 23:53	031610-1
	Iron	5290	ug/L	5000	ug/L	105.8	90.0 – 110.0	P	16-MAR-10 23:53	031610-1
	Lead	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	16-MAR-10 23:53	031610-1
	Magnesium	5520	ug/L	5000	ug/L	110.4	90.0 – 110.0	P	16-MAR-10 23:53	031610-1
	Manganese	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	16-MAR-10 23:53	031610-1
	Potassium	5320	ug/L	5000	ug/L	106.4	90.0 – 110.0	P	16-MAR-10 23:53	031610-1
	Silver	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	16-MAR-10 23:53	031610-1
	Sodium	10900	ug/L	10000	ug/L	108.9	90.0 – 110.0	P	16-MAR-10 23:53	031610-1
	Vanadium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	16-MAR-10 23:53	031610-1
	Zinc	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	16-MAR-10 23:53	031610-1
CCV11	Aluminum	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	17-MAR-10 00:50	031610-1
	Antimony	515	ug/L	500	ug/L	103	90.0 – 110.0	P	17-MAR-10 00:50	031610-1
	Barium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	17-MAR-10 00:50	031610-1
	Cadmium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	17-MAR-10 00:50	031610-1
	Calcium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	17-MAR-10 00:50	031610-1
	Chromium	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	17-MAR-10 00:50	031610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cobalt	519	ug/L	500	ug/L	103.9	90.0 – 110.0	P	17-MAR-10 00:50	031610-1
	Copper	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	17-MAR-10 00:50	031610-1
	Iron	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	17-MAR-10 00:50	031610-1
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	17-MAR-10 00:50	031610-1
	Magnesium	5220	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	17-MAR-10 00:50	031610-1
	Manganese	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	17-MAR-10 00:50	031610-1
	Potassium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	17-MAR-10 00:50	031610-1
	Silver	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	17-MAR-10 00:50	031610-1
	Sodium	10300	ug/L	10000	ug/L	102.9	90.0 – 110.0	P	17-MAR-10 00:50	031610-1
	Vanadium	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	17-MAR-10 00:50	031610-1
	Zinc	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	17-MAR-10 00:50	031610-1
CCV12	Aluminum	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	17-MAR-10 01:47	031610-1
	Antimony	515	ug/L	500	ug/L	103	90.0 – 110.0	P	17-MAR-10 01:47	031610-1
	Barium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	17-MAR-10 01:47	031610-1
	Cadmium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	17-MAR-10 01:47	031610-1
	Calcium	5350	ug/L	5000	ug/L	107	90.0 – 110.0	P	17-MAR-10 01:47	031610-1
	Chromium	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	17-MAR-10 01:47	031610-1
	Cobalt	520	ug/L	500	ug/L	104	90.0 – 110.0	P	17-MAR-10 01:47	031610-1
	Copper	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	17-MAR-10 01:47	031610-1
	Iron	5490	ug/L	5000	ug/L	109.7	90.0 – 110.0	P	17-MAR-10 01:47	031610-1
	Lead	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	17-MAR-10 01:47	031610-1
	Magnesium	5660	ug/L	5000	ug/L	113.1	90.0 – 110.0	P	17-MAR-10 01:47	031610-1
	Manganese	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	17-MAR-10 01:47	031610-1
	Potassium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	17-MAR-10 01:47	031610-1
	Silver	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	17-MAR-10 01:47	031610-1
	Sodium	11600	ug/L	10000	ug/L	115.7	90.0 – 110.0	P	17-MAR-10 01:47	031610-1
	Vanadium	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	17-MAR-10 01:47	031610-1
	Zinc	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	17-MAR-10 01:47	031610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV13										
	Aluminum	5720	ug/L	5000	ug/L	114.5	90.0 – 110.0	P	17-MAR-10 03:04	031610-1
	Antimony	551	ug/L	500	ug/L	110.1	90.0 – 110.0	P	17-MAR-10 03:04	031610-1
	Barium	550	ug/L	500	ug/L	110	90.0 – 110.0	P	17-MAR-10 03:04	031610-1
	Cadmium	550	ug/L	500	ug/L	110	90.0 – 110.0	P	17-MAR-10 03:04	031610-1
	Calcium	5710	ug/L	5000	ug/L	114.3	90.0 – 110.0	P	17-MAR-10 03:04	031610-1
	Chromium	553	ug/L	500	ug/L	110.6	90.0 – 110.0	P	17-MAR-10 03:04	031610-1
	Cobalt	558	ug/L	500	ug/L	111.6	90.0 – 110.0	P	17-MAR-10 03:04	031610-1
	Copper	546	ug/L	500	ug/L	109.2	90.0 – 110.0	P	17-MAR-10 03:04	031610-1
	Iron	5710	ug/L	5000	ug/L	114.1	90.0 – 110.0	P	17-MAR-10 03:04	031610-1
	Lead	542	ug/L	500	ug/L	108.4	90.0 – 110.0	P	17-MAR-10 03:04	031610-1
	Magnesium	5870	ug/L	5000	ug/L	117.5	90.0 – 110.0	P	17-MAR-10 03:04	031610-1
	Manganese	539	ug/L	500	ug/L	107.8	90.0 – 110.0	P	17-MAR-10 03:04	031610-1
	Potassium	5820	ug/L	5000	ug/L	116.3	90.0 – 110.0	P	17-MAR-10 03:04	031610-1
	Silver	550	ug/L	500	ug/L	109.9	90.0 – 110.0	P	17-MAR-10 03:04	031610-1
	Sodium	11800	ug/L	10000	ug/L	117.7	90.0 – 110.0	P	17-MAR-10 03:04	031610-1
	Vanadium	555	ug/L	500	ug/L	111	90.0 – 110.0	P	17-MAR-10 03:04	031610-1
	Zinc	554	ug/L	500	ug/L	110.7	90.0 – 110.0	P	17-MAR-10 03:04	031610-1
CCV14										
	Aluminum	5410	ug/L	5000	ug/L	108.2	90.0 – 110.0	P	17-MAR-10 04:15	031610-1
	Antimony	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	17-MAR-10 04:15	031610-1
	Barium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	17-MAR-10 04:15	031610-1
	Cadmium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	17-MAR-10 04:15	031610-1
	Calcium	5310	ug/L	5000	ug/L	106.2	90.0 – 110.0	P	17-MAR-10 04:15	031610-1
	Chromium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	17-MAR-10 04:15	031610-1
	Cobalt	515	ug/L	500	ug/L	103	90.0 – 110.0	P	17-MAR-10 04:15	031610-1
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	17-MAR-10 04:15	031610-1
	Iron	5250	ug/L	5000	ug/L	105.1	90.0 – 110.0	P	17-MAR-10 04:15	031610-1
	Lead	510	ug/L	500	ug/L	102	90.0 – 110.0	P	17-MAR-10 04:15	031610-1
	Magnesium	5490	ug/L	5000	ug/L	109.7	90.0 – 110.0	P	17-MAR-10 04:15	031610-1
	Manganese	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	17-MAR-10 04:15	031610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Potassium	5480	ug/L	5000	ug/L	109.7	90.0 – 110.0	P	17-MAR-10 04:15	031610-1
	Silver	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	17-MAR-10 04:15	031610-1
	Sodium	10800	ug/L	10000	ug/L	108.5	90.0 – 110.0	P	17-MAR-10 04:15	031610-1
	Vanadium	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	17-MAR-10 04:15	031610-1
	Zinc	510	ug/L	500	ug/L	102	90.0 – 110.0	P	17-MAR-10 04:15	031610-1
CCV15	Aluminum	5230	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	17-MAR-10 05:32	031610-1
	Antimony	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	17-MAR-10 05:32	031610-1
	Barium	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	17-MAR-10 05:32	031610-1
	Cadmium	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	17-MAR-10 05:32	031610-1
	Calcium	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	17-MAR-10 05:32	031610-1
	Chromium	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	17-MAR-10 05:32	031610-1
	Cobalt	522	ug/L	500	ug/L	104.4	90.0 – 110.0	P	17-MAR-10 05:32	031610-1
	Copper	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	17-MAR-10 05:32	031610-1
	Iron	5310	ug/L	5000	ug/L	106.2	90.0 – 110.0	P	17-MAR-10 05:32	031610-1
	Lead	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	17-MAR-10 05:32	031610-1
	Magnesium	5520	ug/L	5000	ug/L	110.3	90.0 – 110.0	P	17-MAR-10 05:32	031610-1
	Manganese	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	17-MAR-10 05:32	031610-1
	Potassium	5340	ug/L	5000	ug/L	106.8	90.0 – 110.0	P	17-MAR-10 05:32	031610-1
	Silver	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	17-MAR-10 05:32	031610-1
	Sodium	11200	ug/L	10000	ug/L	112.1	90.0 – 110.0	P	17-MAR-10 05:32	031610-1
	Vanadium	520	ug/L	500	ug/L	104	90.0 – 110.0	P	17-MAR-10 05:32	031610-1
	Zinc	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	17-MAR-10 05:32	031610-1
CCV16	Aluminum	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	17-MAR-10 06:43	031610-1
	Antimony	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	17-MAR-10 06:43	031610-1
	Barium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	17-MAR-10 06:43	031610-1
	Cadmium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	17-MAR-10 06:43	031610-1
	Calcium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	17-MAR-10 06:43	031610-1
	Chromium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	17-MAR-10 06:43	031610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cobalt	515	ug/L	500	ug/L	103	90.0 – 110.0	P	17-MAR-10 06:43	031610-1
	Copper	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	17-MAR-10 06:43	031610-1
	Iron	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	17-MAR-10 06:43	031610-1
	Lead	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	17-MAR-10 06:43	031610-1
	Magnesium	5240	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	17-MAR-10 06:43	031610-1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	17-MAR-10 06:43	031610-1
	Potassium	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	17-MAR-10 06:43	031610-1
	Silver	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	17-MAR-10 06:43	031610-1
	Sodium	10300	ug/L	10000	ug/L	102.5	90.0 – 110.0	P	17-MAR-10 06:43	031610-1
	Vanadium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	17-MAR-10 06:43	031610-1
	Zinc	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	17-MAR-10 06:43	031610-1
CCV17	Aluminum	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	17-MAR-10 08:08	031610-1
	Antimony	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	17-MAR-10 08:08	031610-1
	Barium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	17-MAR-10 08:08	031610-1
	Cadmium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	17-MAR-10 08:08	031610-1
	Calcium	5390	ug/L	5000	ug/L	107.8	90.0 – 110.0	P	17-MAR-10 08:08	031610-1
	Chromium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	17-MAR-10 08:08	031610-1
	Cobalt	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	17-MAR-10 08:08	031610-1
	Copper	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	17-MAR-10 08:08	031610-1
	Iron	5320	ug/L	5000	ug/L	106.3	90.0 – 110.0	P	17-MAR-10 08:08	031610-1
	Lead	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	17-MAR-10 08:08	031610-1
	Magnesium	5610	ug/L	5000	ug/L	112.1	90.0 – 110.0	P	17-MAR-10 08:08	031610-1
	Manganese	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	17-MAR-10 08:08	031610-1
	Potassium	5420	ug/L	5000	ug/L	108.5	90.0 – 110.0	P	17-MAR-10 08:08	031610-1
	Silver	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	17-MAR-10 08:08	031610-1
	Sodium	10700	ug/L	10000	ug/L	107.4	90.0 – 110.0	P	17-MAR-10 08:08	031610-1
	Vanadium	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	17-MAR-10 08:08	031610-1
	Zinc	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	17-MAR-10 08:08	031610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV18										
	Aluminum	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	17-MAR-10 09:25	031610-1
	Antimony	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	17-MAR-10 09:25	031610-1
	Barium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	17-MAR-10 09:25	031610-1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	17-MAR-10 09:25	031610-1
	Calcium	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	17-MAR-10 09:25	031610-1
	Chromium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	17-MAR-10 09:25	031610-1
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	17-MAR-10 09:25	031610-1
	Copper	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	17-MAR-10 09:25	031610-1
	Iron	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	17-MAR-10 09:25	031610-1
	Lead	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	17-MAR-10 09:25	031610-1
	Magnesium	5390	ug/L	5000	ug/L	107.9	90.0 – 110.0	P	17-MAR-10 09:25	031610-1
	Manganese	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	17-MAR-10 09:25	031610-1
	Potassium	5320	ug/L	5000	ug/L	106.4	90.0 – 110.0	P	17-MAR-10 09:25	031610-1
	Silver	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	17-MAR-10 09:25	031610-1
	Sodium	10400	ug/L	10000	ug/L	104.5	90.0 – 110.0	P	17-MAR-10 09:25	031610-1
	Vanadium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	17-MAR-10 09:25	031610-1
	Zinc	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	17-MAR-10 09:25	031610-1
CCV19										
	Aluminum	5230	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	17-MAR-10 10:35	031610-1
	Antimony	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	17-MAR-10 10:35	031610-1
	Barium	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	17-MAR-10 10:35	031610-1
	Cadmium	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	17-MAR-10 10:35	031610-1
	Calcium	5270	ug/L	5000	ug/L	105.4	90.0 – 110.0	P	17-MAR-10 10:35	031610-1
	Chromium	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	17-MAR-10 10:35	031610-1
	Cobalt	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	17-MAR-10 10:35	031610-1
	Copper	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	17-MAR-10 10:35	031610-1
	Iron	5220	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	17-MAR-10 10:35	031610-1
	Lead	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	17-MAR-10 10:35	031610-1
	Magnesium	5430	ug/L	5000	ug/L	108.6	90.0 – 110.0	P	17-MAR-10 10:35	031610-1
	Manganese	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	17-MAR-10 10:35	031610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV20	Potassium	5320	ug/L	5000	ug/L	106.4	90.0 – 110.0	P	17-MAR-10 10:35	031610-1
	Silver	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	17-MAR-10 10:35	031610-1
	Sodium	10700	ug/L	10000	ug/L	107	90.0 – 110.0	P	17-MAR-10 10:35	031610-1
	Vanadium	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	17-MAR-10 10:35	031610-1
	Zinc	515	ug/L	500	ug/L	103	90.0 – 110.0	P	17-MAR-10 10:35	031610-1
CCV20	Aluminum	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	17-MAR-10 11:53	031610-1
	Antimony	550	ug/L	500	ug/L	110.1	90.0 – 110.0	P	17-MAR-10 11:53	031610-1
	Barium	547	ug/L	500	ug/L	109.3	90.0 – 110.0	P	17-MAR-10 11:53	031610-1
	Cadmium	545	ug/L	500	ug/L	109	90.0 – 110.0	P	17-MAR-10 11:53	031610-1
	Calcium	5220	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	17-MAR-10 11:53	031610-1
	Chromium	549	ug/L	500	ug/L	109.7	90.0 – 110.0	P	17-MAR-10 11:53	031610-1
	Cobalt	554	ug/L	500	ug/L	110.9	90.0 – 110.0	P	17-MAR-10 11:53	031610-1
	Copper	544	ug/L	500	ug/L	108.8	90.0 – 110.0	P	17-MAR-10 11:53	031610-1
	Iron	5210	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	17-MAR-10 11:53	031610-1
	Lead	543	ug/L	500	ug/L	108.7	90.0 – 110.0	P	17-MAR-10 11:53	031610-1
	Magnesium	5450	ug/L	5000	ug/L	109.1	90.0 – 110.0	P	17-MAR-10 11:53	031610-1
	Manganese	537	ug/L	500	ug/L	107.3	90.0 – 110.0	P	17-MAR-10 11:53	031610-1
	Potassium	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	17-MAR-10 11:53	031610-1
	Silver	545	ug/L	500	ug/L	109	90.0 – 110.0	P	17-MAR-10 11:53	031610-1
	Sodium	10800	ug/L	10000	ug/L	108.1	90.0 – 110.0	P	17-MAR-10 11:53	031610-1
	Vanadium	551	ug/L	500	ug/L	110.3	90.0 – 110.0	P	17-MAR-10 11:53	031610-1
	Zinc	540	ug/L	500	ug/L	107.9	90.0 – 110.0	P	17-MAR-10 11:53	031610-1
CCV21	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	17-MAR-10 12:15	031610-1
	Antimony	523	ug/L	500	ug/L	104.7	90.0 – 110.0	P	17-MAR-10 12:15	031610-1
	Barium	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	17-MAR-10 12:15	031610-1
	Cadmium	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	17-MAR-10 12:15	031610-1
	Calcium	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	17-MAR-10 12:15	031610-1
	Chromium	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	17-MAR-10 12:15	031610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cobalt	525	ug/L	500	ug/L	105	90.0 – 110.0	P	17-MAR-10 12:15	031610-1
	Copper	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	17-MAR-10 12:15	031610-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	17-MAR-10 12:15	031610-1
	Lead	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	17-MAR-10 12:15	031610-1
	Magnesium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	17-MAR-10 12:15	031610-1
	Manganese	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	17-MAR-10 12:15	031610-1
	Potassium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	17-MAR-10 12:15	031610-1
	Silver	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	17-MAR-10 12:15	031610-1
	Sodium	9960	ug/L	10000	ug/L	99.6	90.0 – 110.0	P	17-MAR-10 12:15	031610-1
	Vanadium	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	17-MAR-10 12:15	031610-1
	Zinc	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	17-MAR-10 12:15	031610-1
CCV22	Aluminum	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	17-MAR-10 13:12	031610-1
	Antimony	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	17-MAR-10 13:12	031610-1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	17-MAR-10 13:12	031610-1
	Cadmium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	17-MAR-10 13:12	031610-1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	17-MAR-10 13:12	031610-1
	Chromium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	17-MAR-10 13:12	031610-1
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	17-MAR-10 13:12	031610-1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	17-MAR-10 13:12	031610-1
	Iron	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	17-MAR-10 13:12	031610-1
	Lead	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	17-MAR-10 13:12	031610-1
	Magnesium	5210	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	17-MAR-10 13:12	031610-1
	Manganese	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	17-MAR-10 13:12	031610-1
	Potassium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	17-MAR-10 13:12	031610-1
	Silver	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	17-MAR-10 13:12	031610-1
	Sodium	9930	ug/L	10000	ug/L	99.3	90.0 – 110.0	P	17-MAR-10 13:12	031610-1
	Vanadium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	17-MAR-10 13:12	031610-1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	17-MAR-10 13:12	031610-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (% R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CRDL01										
	Mercury	.182	ug/L	.2	ug/L	91	70.0 – 130.0	AV	03-MAR-10 10:28	030310S2-3
	Nickel	1.99	ug/L	2	ug/L	99.3	70.0 – 130.0	MS	14-MAR-10 12:22	100314-2
	Thallium	1.24	ug/L	1	ug/L	124.4	70.0 – 130.0	MS	14-MAR-10 12:22	100314-2
	Beryllium	.486	ug/L	.5	ug/L	97.2	70.0 – 130.0	MS	14-MAR-10 12:22	100314-2
	Selenium	5.38	ug/L	5	ug/L	107.5	70.0 – 130.0	MS	14-MAR-10 12:22	100314-2
	Arsenic	5.64	ug/L	5	ug/L	112.7	70.0 – 130.0	MS	14-MAR-10 12:22	100314-2
PQL01										
	Aluminum	226	ug/L	200	ug/L	113	70.0 – 130.0	P	16-MAR-10 15:37	031610-1
	Iron	127	ug/L	100	ug/L	127.1	70.0 – 130.0	P	16-MAR-10 15:37	031610-1
	Lead	9.35	ug/L	10	ug/L	93.5	70.0 – 130.0	P	16-MAR-10 15:37	031610-1
	Chromium	4.9	ug/L	5	ug/L	98	70.0 – 130.0	P	16-MAR-10 15:37	031610-1
	Cadmium	5.13	ug/L	5	ug/L	102.6	70.0 – 130.0	P	16-MAR-10 15:37	031610-1
	Barium	5.09	ug/L	5	ug/L	101.8	70.0 – 130.0	P	16-MAR-10 15:37	031610-1
	Antimony	10.9	ug/L	10	ug/L	108.7	70.0 – 130.0	P	16-MAR-10 15:37	031610-1
	Sodium	277	ug/L	300	ug/L	92.2	70.0 – 130.0	P	16-MAR-10 15:37	031610-1
	Silver	4.82	ug/L	5	ug/L	96.4	70.0 – 130.0	P	16-MAR-10 15:37	031610-1
	Potassium	198	ug/L	150	ug/L	131.7	70.0 – 130.0	P	16-MAR-10 15:37	031610-1
	Manganese	10.4	ug/L	10	ug/L	103.8	70.0 – 130.0	P	16-MAR-10 15:37	031610-1
	Magnesium	405	ug/L	300	ug/L	134.8	70.0 – 130.0	P	16-MAR-10 15:37	031610-1
	Calcium	211	ug/L	200	ug/L	105.4	70.0 – 130.0	P	16-MAR-10 15:37	031610-1
	Zinc	12.7	ug/L	10	ug/L	126.8	70.0 – 130.0	P	16-MAR-10 15:37	031610-1
	Vanadium	5.3	ug/L	5	ug/L	105.9	70.0 – 130.0	P	16-MAR-10 15:37	031610-1
	Copper	9.7	ug/L	10	ug/L	97	70.0 – 130.0	P	16-MAR-10 15:37	031610-1
	Cobalt	4.91	ug/L	5	ug/L	98.3	70.0 – 130.0	P	16-MAR-10 15:37	031610-1
PQL02										
	Lead	11.3	ug/L	10	ug/L	113.3	70.0 – 130.0	P	16-MAR-10 17:13	031610-1
	Magnesium	414	ug/L	300	ug/L	138	70.0 – 130.0	P	16-MAR-10 17:13	031610-1
	Manganese	10.5	ug/L	10	ug/L	105.1	70.0 – 130.0	P	16-MAR-10 17:13	031610-1
	Potassium	228	ug/L	150	ug/L	151.8	70.0 – 130.0	P	16-MAR-10 17:13	031610-1
	Silver	5.07	ug/L	5	ug/L	101.5	70.0 – 130.0	P	16-MAR-10 17:13	031610-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Sodium	313	ug/L	300	ug/L	104.2	70.0 – 130.0	P	16-MAR-10 17:13	031610-1
	Antimony	11.7	ug/L	10	ug/L	117.2	70.0 – 130.0	P	16-MAR-10 17:13	031610-1
	Barium	5.29	ug/L	5	ug/L	105.9	70.0 – 130.0	P	16-MAR-10 17:13	031610-1
	Iron	112	ug/L	100	ug/L	111.6	70.0 – 130.0	P	16-MAR-10 17:13	031610-1
	Aluminum	209	ug/L	200	ug/L	104.7	70.0 – 130.0	P	16-MAR-10 17:13	031610-1
	Cadmium	5.4	ug/L	5	ug/L	108	70.0 – 130.0	P	16-MAR-10 17:13	031610-1
	Chromium	5.16	ug/L	5	ug/L	103.3	70.0 – 130.0	P	16-MAR-10 17:13	031610-1
	Cobalt	4.96	ug/L	5	ug/L	99.3	70.0 – 130.0	P	16-MAR-10 17:13	031610-1
	Copper	10.1	ug/L	10	ug/L	101.4	70.0 – 130.0	P	16-MAR-10 17:13	031610-1
	Vanadium	4.91	ug/L	5	ug/L	98.3	70.0 – 130.0	P	16-MAR-10 17:13	031610-1
	Zinc	14	ug/L	10	ug/L	140.3	70.0 – 130.0	P	16-MAR-10 17:13	031610-1
	Calcium	208	ug/L	200	ug/L	104.1	70.0 – 130.0	P	16-MAR-10 17:13	031610-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1848

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ug/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run</u>
ICB01	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	03-MAR-10 10:26	030310S2-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	14-MAR-10 12:18	100314-2
	Beryllium	0.1	+/- .5	U	0.1	0.5	SOL	MS	14-MAR-10 12:18	100314-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	14-MAR-10 12:18	100314-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	14-MAR-10 12:18	100314-2
	Thallium	0.338	+/-1	J	0.3	1.0	SOL	MS	14-MAR-10 12:18	100314-2
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-MAR-10 15:29	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	16-MAR-10 15:29	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 15:29	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 15:29	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 15:29	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 15:29	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 15:29	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	16-MAR-10 15:29	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 15:29	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	16-MAR-10 15:29	031610-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	16-MAR-10 15:29	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	16-MAR-10 15:29	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	16-MAR-10 15:29	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 15:29	031610-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	16-MAR-10 15:29	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 15:29	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-MAR-10 15:29	031610-1
CCB01	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	03-MAR-10 10:31	030310S2-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	14-MAR-10 12:36	100314-2
	Beryllium	0.1	+/- .5	U	0.1	0.5	SOL	MS	14-MAR-10 12:36	100314-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	14-MAR-10 12:36	100314-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	14-MAR-10 12:36	100314-2
	Thallium	0.342	+/-1	J	0.3	1.0	SOL	MS	14-MAR-10 12:36	100314-2
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-MAR-10 16:24	031610-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1848

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>
	Antimony	4.61	+/-10	J	3.3	10.0	SOL	P	16-MAR-10 16:24	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 16:24	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 16:24	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 16:24	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 16:24	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 16:24	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	16-MAR-10 16:24	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 16:24	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	16-MAR-10 16:24	031610-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	16-MAR-10 16:24	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	16-MAR-10 16:24	031610-1
	Potassium	83.14	+/-250	J	64.0	250	SOL	P	16-MAR-10 16:24	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 16:24	031610-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	16-MAR-10 16:24	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 16:24	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-MAR-10 16:24	031610-1
CCB02	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	03-MAR-10 10:51	030310S2-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	14-MAR-10 12:58	100314-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	14-MAR-10 12:58	100314-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	14-MAR-10 12:58	100314-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	14-MAR-10 12:58	100314-2
	Thallium	0.452	+/-1	J	0.3	1.0	SOL	MS	14-MAR-10 12:58	100314-2
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-MAR-10 16:44	031610-1
	Antimony	4.0	+/-10	J	3.3	10.0	SOL	P	16-MAR-10 16:44	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 16:44	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 16:44	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 16:44	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 16:44	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 16:44	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	16-MAR-10 16:44	031610-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1848

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>
	Iron	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 16:44	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	16-MAR-10 16:44	031610-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	16-MAR-10 16:44	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	16-MAR-10 16:44	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	16-MAR-10 16:44	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 16:44	031610-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	16-MAR-10 16:44	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 16:44	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-MAR-10 16:44	031610-1
CCB03	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	03-MAR-10 11:11	030310S2-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	14-MAR-10 13:31	100314-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	14-MAR-10 13:31	100314-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	14-MAR-10 13:31	100314-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	14-MAR-10 13:31	100314-2
	Thallium	0.39	+/-1	J	0.3	1.0	SOL	MS	14-MAR-10 13:31	100314-2
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-MAR-10 17:19	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	16-MAR-10 17:19	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 17:19	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 17:19	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 17:19	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 17:19	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 17:19	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	16-MAR-10 17:19	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 17:19	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	16-MAR-10 17:19	031610-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	16-MAR-10 17:19	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	16-MAR-10 17:19	031610-1
	Potassium	78.47	+/-250	J	64.0	250	SOL	P	16-MAR-10 17:19	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 17:19	031610-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	16-MAR-10 17:19	031610-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1848

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>
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 17:19	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-MAR-10 17:19	031610-1
CCB04	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	03-MAR-10 11:31	030310S2-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	14-MAR-10 14:11	100314-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	14-MAR-10 14:11	100314-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	14-MAR-10 14:11	100314-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	14-MAR-10 14:11	100314-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	14-MAR-10 14:11	100314-2
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-MAR-10 18:36	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	16-MAR-10 18:36	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 18:36	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 18:36	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 18:36	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 18:36	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 18:36	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	16-MAR-10 18:36	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 18:36	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	16-MAR-10 18:36	031610-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	16-MAR-10 18:36	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	16-MAR-10 18:36	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	16-MAR-10 18:36	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 18:36	031610-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	16-MAR-10 18:36	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 18:36	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-MAR-10 18:36	031610-1
CCB05	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	03-MAR-10 11:52	030310S2-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	14-MAR-10 14:37	100314-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	14-MAR-10 14:37	100314-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	14-MAR-10 14:37	100314-2

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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1848

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ug/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run</u>
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	14-MAR-10 14:37	100314-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	14-MAR-10 14:37	100314-2
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-MAR-10 18:56	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	16-MAR-10 18:56	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 18:56	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 18:56	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 18:56	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 18:56	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 18:56	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	16-MAR-10 18:56	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 18:56	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	16-MAR-10 18:56	031610-1
	Magnesium	112.92	+/-300	J	85.0	300	SOL	P	16-MAR-10 18:56	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	16-MAR-10 18:56	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	16-MAR-10 18:56	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 18:56	031610-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	16-MAR-10 18:56	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 18:56	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-MAR-10 18:56	031610-1
CCB06	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-MAR-10 19:54	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	16-MAR-10 19:54	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 19:54	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 19:54	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 19:54	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 19:54	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 19:54	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	16-MAR-10 19:54	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 19:54	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	16-MAR-10 19:54	031610-1
	Magnesium	137.73	+/-300	J	85.0	300	SOL	P	16-MAR-10 19:54	031610-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1848

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	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	16-MAR-10 19:54	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	16-MAR-10 19:54	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 19:54	031610-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	16-MAR-10 19:54	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 19:54	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-MAR-10 19:54	031610-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-MAR-10 21:04	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	16-MAR-10 21:04	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 21:04	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 21:04	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 21:04	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 21:04	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 21:04	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	16-MAR-10 21:04	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 21:04	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	16-MAR-10 21:04	031610-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	16-MAR-10 21:04	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	16-MAR-10 21:04	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	16-MAR-10 21:04	031610-1
CCB08	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 21:04	031610-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	16-MAR-10 21:04	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 21:04	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-MAR-10 21:04	031610-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-MAR-10 22:08	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	16-MAR-10 22:08	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 22:08	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 22:08	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 22:08	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 22:08	031610-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1848

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 22:08	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	16-MAR-10 22:08	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 22:08	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	16-MAR-10 22:08	031610-1
	Magnesium	145.11	+/-300	J	85.0	300	SOL	P	16-MAR-10 22:08	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	16-MAR-10 22:08	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	16-MAR-10 22:08	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 22:08	031610-1
	Sodium	-73.14	+/-250	J	70.0	250	SOL	P	16-MAR-10 22:08	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 22:08	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-MAR-10 22:08	031610-1
CCB09	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-MAR-10 22:57	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	16-MAR-10 22:57	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 22:57	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 22:57	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 22:57	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 22:57	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	16-MAR-10 22:57	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	16-MAR-10 22:57	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	16-MAR-10 22:57	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	16-MAR-10 22:57	031610-1
	Magnesium	90.64	+/-300	J	85.0	300	SOL	P	16-MAR-10 22:57	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	16-MAR-10 22:57	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	16-MAR-10 22:57	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 22:57	031610-1
	Sodium	-73.29	+/-250	J	70.0	250	SOL	P	16-MAR-10 22:57	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-MAR-10 22:57	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-MAR-10 22:57	031610-1
CCB10	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-MAR-10 00:00	031610-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1848

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>
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 00:00	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 00:00	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 00:00	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 00:00	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 00:00	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 00:00	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-MAR-10 00:00	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 00:00	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	17-MAR-10 00:00	031610-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	17-MAR-10 00:00	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-MAR-10 00:00	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-MAR-10 00:00	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 00:00	031610-1
	Sodium	-73.32	+/-250	J	70.0	250	SOL	P	17-MAR-10 00:00	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 00:00	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 00:00	031610-1
CCB11	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-MAR-10 00:57	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 00:57	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 00:57	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 00:57	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 00:57	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 00:57	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 00:57	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-MAR-10 00:57	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 00:57	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	17-MAR-10 00:57	031610-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	17-MAR-10 00:57	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-MAR-10 00:57	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-MAR-10 00:57	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 00:57	031610-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1848

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB12	Sodium	-85.25	+/-250	J	70.0	250	SOL	P	17-MAR-10 00:57	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 00:57	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 00:57	031610-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-MAR-10 01:54	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 01:54	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 01:54	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 01:54	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 01:54	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 01:54	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 01:54	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-MAR-10 01:54	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 01:54	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	17-MAR-10 01:54	031610-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	17-MAR-10 01:54	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-MAR-10 01:54	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-MAR-10 01:54	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 01:54	031610-1
	Sodium	-92.08	+/-250	J	70.0	250	SOL	P	17-MAR-10 01:54	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 01:54	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 01:54	031610-1
CCB13	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-MAR-10 03:11	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 03:11	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 03:11	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 03:11	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 03:11	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 03:11	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 03:11	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-MAR-10 03:11	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 03:11	031610-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1848

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>
CCB14	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	17-MAR-10 03:11	031610-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	17-MAR-10 03:11	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-MAR-10 03:11	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-MAR-10 03:11	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 03:11	031610-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	17-MAR-10 03:11	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 03:11	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 03:11	031610-1
CCB15	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-MAR-10 04:22	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 04:22	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 04:22	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 04:22	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 04:22	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 04:22	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 04:22	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-MAR-10 04:22	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 04:22	031610-1
	Lead	-2.6	+/-10	J	2.5	10.0	SOL	P	17-MAR-10 04:22	031610-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	17-MAR-10 04:22	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-MAR-10 04:22	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-MAR-10 04:22	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 04:22	031610-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	17-MAR-10 04:22	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 04:22	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 04:22	031610-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-MAR-10 05:39	031610-1
	Antimony	3.69	+/-10	J	3.3	10.0	SOL	P	17-MAR-10 05:39	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 05:39	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 05:39	031610-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1848

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ug/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run</u>
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 05:39	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 05:39	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 05:39	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-MAR-10 05:39	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 05:39	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	17-MAR-10 05:39	031610-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	17-MAR-10 05:39	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-MAR-10 05:39	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-MAR-10 05:39	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 05:39	031610-1
	Sodium	-82.12	+/-250	J	70.0	250	SOL	P	17-MAR-10 05:39	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 05:39	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 05:39	031610-1
CCB16	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-MAR-10 06:50	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 06:50	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 06:50	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 06:50	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 06:50	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 06:50	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 06:50	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-MAR-10 06:50	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 06:50	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	17-MAR-10 06:50	031610-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	17-MAR-10 06:50	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-MAR-10 06:50	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-MAR-10 06:50	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 06:50	031610-1
	Sodium	-74.74	+/-250	J	70.0	250	SOL	P	17-MAR-10 06:50	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 06:50	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 06:50	031610-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1848

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>
CCB17	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-MAR-10 08:15	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 08:15	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 08:15	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 08:15	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 08:15	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 08:15	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 08:15	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-MAR-10 08:15	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 08:15	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	17-MAR-10 08:15	031610-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	17-MAR-10 08:15	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-MAR-10 08:15	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-MAR-10 08:15	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 08:15	031610-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	17-MAR-10 08:15	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 08:15	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 08:15	031610-1
CCB18	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-MAR-10 09:32	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 09:32	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 09:32	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 09:32	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 09:32	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 09:32	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 09:32	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-MAR-10 09:32	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 09:32	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	17-MAR-10 09:32	031610-1
	Magnesium	100.37	+/-300	J	85.0	300	SOL	P	17-MAR-10 09:32	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-MAR-10 09:32	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-MAR-10 09:32	031610-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1848

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ug/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run</u>
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 09:32	031610-1
	Sodium	-70.1	+/-250	J	70.0	250	SOL	P	17-MAR-10 09:32	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 09:32	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 09:32	031610-1
CCB19										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-MAR-10 10:42	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 10:42	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 10:42	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 10:42	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 10:42	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 10:42	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 10:42	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-MAR-10 10:42	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 10:42	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	17-MAR-10 10:42	031610-1
	Magnesium	106.19	+/-300	J	85.0	300	SOL	P	17-MAR-10 10:42	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-MAR-10 10:42	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-MAR-10 10:42	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 10:42	031610-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	17-MAR-10 10:42	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 10:42	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 10:42	031610-1
CCB20										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-MAR-10 12:00	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 12:00	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 12:00	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 12:00	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 12:00	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 12:00	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 12:00	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-MAR-10 12:00	031610-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1848

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>
	Iron	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 12:00	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	17-MAR-10 12:00	031610-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	17-MAR-10 12:00	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-MAR-10 12:00	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-MAR-10 12:00	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 12:00	031610-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	17-MAR-10 12:00	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 12:00	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 12:00	031610-1
CCB21	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-MAR-10 12:22	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 12:22	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 12:22	031610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 12:22	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 12:22	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 12:22	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 12:22	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-MAR-10 12:22	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 12:22	031610-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	17-MAR-10 12:22	031610-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	17-MAR-10 12:22	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-MAR-10 12:22	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-MAR-10 12:22	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 12:22	031610-1
	Sodium	70.2	+/-250	J	70.0	250	SOL	P	17-MAR-10 12:22	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 12:22	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 12:22	031610-1
CCB22	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-MAR-10 13:19	031610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 13:19	031610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 13:19	031610-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1848

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	17-MAR-10 13:19	031610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 13:19	031610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 13:19	031610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-MAR-10 13:19	031610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-MAR-10 13:19	031610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	17-MAR-10 13:19	031610-1
	Lead	-2.61	+/-10	J	2.5	10.0	SOL	P	17-MAR-10 13:19	031610-1
	Magnesium	106.8	+/-300	J	85.0	300	SOL	P	17-MAR-10 13:19	031610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-MAR-10 13:19	031610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-MAR-10 13:19	031610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 13:19	031610-1
	Sodium	-78.29	+/-250	J	70.0	250	SOL	P	17-MAR-10 13:19	031610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	17-MAR-10 13:19	031610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	17-MAR-10 13:19	031610-1

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-1848
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>
1202046541	Antimony	315	ug/kg	+/-956	U	P	315	956
	Barium	95.6	ug/kg	+/-478	U	P	95.6	478
	Calcium	7650	ug/kg	+/-23900	U	P	7650	23900
	Chromium	143	ug/kg	+/-478	U	P	143	478
	Cadmium	95.6	ug/kg	+/-478	U	P	95.6	478
	Cobalt	143	ug/kg	+/-478	U	P	143	478
	Iron	7650	ug/kg	+/-23900	U	P	7650	23900
	Magnesium	10500	ug/kg	+/-28700	J	P	8130	28700
	Potassium	6120	ug/kg	+/-23900	U	P	6120	23900
	Aluminum	6500	ug/kg	+/-19100	U	P	6500	19100
	Zinc	315	ug/kg	+/-956	U	P	315	956
	Vanadium	95.6	ug/kg	+/-478	U	P	95.6	478
	Sodium	-7450	ug/kg	+/-23900	J	P	6690	23900
	Silver	95.6	ug/kg	+/-478	U	P	95.6	478
	Manganese	191	ug/kg	+/-956	U	P	191	956
	Lead	239	ug/kg	+/-956	U	P	239	956
	Copper	287	ug/kg	+/-956	U	P	287	956
1202046547	Nickel	99	ug/kg	+/-396	U	MS	99	396
	Selenium	495	ug/kg	+/-990	U	MS	495	990
	Arsenic	198	ug/kg	+/-990	U	MS	198	990
	Beryllium	19.8	ug/kg	+/-99	U	MS	19.8	99
	Thallium	59.4	ug/kg	+/-198	U	MS	59.4	198
1202055908	Mercury	3.54	ug/kg	+/-10.4	U	AV	3.54	10.4

METALS
-4-
Interference Check Sample

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Aluminum	523000	ug/L	500000	ug/L	105	80.0 – 120.0	16-MAR-10 15:44	031610-1
	Antimony	3.94	ug/L					16-MAR-10 15:44	031610-1
	Barium	0.433	ug/L					16-MAR-10 15:44	031610-1
	Cadmium	1.16	ug/L					16-MAR-10 15:44	031610-1
	Calcium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	16-MAR-10 15:44	031610-1
	Chromium	0.242	ug/L					16-MAR-10 15:44	031610-1
	Cobalt	-1.49	ug/L					16-MAR-10 15:44	031610-1
	Copper	2.91	ug/L					16-MAR-10 15:44	031610-1
	Iron	187000	ug/L	200000	ug/L	93.3	80.0 – 120.0	16-MAR-10 15:44	031610-1
	Lead	-9.77	ug/L					16-MAR-10 15:44	031610-1
	Magnesium	489000	ug/L	500000	ug/L	97.9	80.0 – 120.0	16-MAR-10 15:44	031610-1
	Manganese	-2.58	ug/L					16-MAR-10 15:44	031610-1
	Potassium	-170.0	ug/L					16-MAR-10 15:44	031610-1
	Silver	-1.16	ug/L					16-MAR-10 15:44	031610-1
	Sodium	-6.07	ug/L					16-MAR-10 15:44	031610-1
	Vanadium	-2.55	ug/L					16-MAR-10 15:44	031610-1
	Zinc	0.843	ug/L					16-MAR-10 15:44	031610-1
ICSAB01									
	Aluminum	521000	ug/L	500000	ug/L	104	80.0 – 120.0	16-MAR-10 15:50	031610-1
	Antimony	549	ug/L	500	ug/L	110	80.0 – 120.0	16-MAR-10 15:50	031610-1
	Barium	500	ug/L	500	ug/L	100	80.0 – 120.0	16-MAR-10 15:50	031610-1
	Cadmium	469	ug/L	500	ug/L	93.9	80.0 – 120.0	16-MAR-10 15:50	031610-1
	Calcium	481000	ug/L	500000	ug/L	96.2	80.0 – 120.0	16-MAR-10 15:50	031610-1
	Chromium	495	ug/L	500	ug/L	98.9	80.0 – 120.0	16-MAR-10 15:50	031610-1
	Cobalt	452	ug/L	500	ug/L	90.5	80.0 – 120.0	16-MAR-10 15:50	031610-1
	Copper	558	ug/L	500	ug/L	112	80.0 – 120.0	16-MAR-10 15:50	031610-1
	Iron	186000	ug/L	200000	ug/L	93.2	80.0 – 120.0	16-MAR-10 15:50	031610-1
	Lead	462	ug/L	500	ug/L	92.3	80.0 – 120.0	16-MAR-10 15:50	031610-1
	Magnesium	495000	ug/L	500000	ug/L	98.9	80.0 – 120.0	16-MAR-10 15:50	031610-1

METALS
-4-
Interference Check Sample

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

ICS:

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Manganese	484	ug/L	500	ug/L	96.8	80.0 – 120.0	16-MAR-10 15:50	031610-1
	Potassium	5350	ug/L	5000	ug/L	107	80.0 – 120.0	16-MAR-10 15:50	031610-1
	Silver	276	ug/L	250	ug/L	110	80.0 – 120.0	16-MAR-10 15:50	031610-1
	Sodium	5560	ug/L	5000	ug/L	111	80.0 – 120.0	16-MAR-10 15:50	031610-1
	Vanadium	520	ug/L	500	ug/L	104	80.0 – 120.0	16-MAR-10 15:50	031610-1
	Zinc	499	ug/L	500	ug/L	99.8	80.0 – 120.0	16-MAR-10 15:50	031610-1

METALS
-4-
Interference Check Sample

SDG No: 10-1848

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS5

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Arsenic	0.275	ug/L					14-MAR-10 12:25	100314-2
	Beryllium	0.099	ug/L					14-MAR-10 12:25	100314-2
	Nickel	3.29	ug/L					14-MAR-10 12:25	100314-2
	Selenium	-1.4	ug/L					14-MAR-10 12:25	100314-2
	Thallium	0.076	ug/L					14-MAR-10 12:25	100314-2
ICSAB01									
	Arsenic	20.7	ug/L	20	ug/L	103	80.0 – 120.0	14-MAR-10 12:29	100314-2
	Beryllium	20.6	ug/L	20	ug/L	103	80.0 – 120.0	14-MAR-10 12:29	100314-2
	Nickel	21.4	ug/L	23.31	ug/L	91.8	80.0 – 120.0	14-MAR-10 12:29	100314-2
	Selenium	19.5	ug/L	20	ug/L	97.7	80.0 – 120.0	14-MAR-10 12:29	100314-2
	Thallium	21.0	ug/L	20	ug/L	105	80.0 – 120.0	14-MAR-10 12:29	100314-2

METALS

-5a-

Matrix Spike Summary

SDG NO.	10-1848	Client ID	RE46-10-12990S
Contract:	LANL01004	Level:	Low
Matrix:	SOIL	% Solids:	93.3
Sample ID:	247097001	Spike ID:	1202046544

<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>
Aluminum	ug/kg		3720000		2290000		493000	290	N/A	P
Antimony	ug/kg	75-125	49500		345	U	49300	100		P
Barium	ug/kg	75-125	63200		13300		49300	101		P
Cadmium	ug/kg	75-125	48400		104	U	49300	98.1		P
Calcium	ug/kg	75-125	765000		228000		493000	109		P
Chromium	ug/kg	75-125	51200		2170		49300	99.4		P
Cobalt	ug/kg	75-125	49100		282	J	49300	98.9		P
Copper	ug/kg	75-125	53600		1670		49300	105		P
Iron	ug/kg		7890000		7200000		493000	138	N/A	P
Lead	ug/kg	75-125	56700		5620		49300	104		P
Magnesium	ug/kg	75-125	703000		135000		493000	115		P
Manganese	ug/kg		390000		354000		49300	71.4	N/A	P
Potassium	ug/kg	75-125	843000		310000		493000	108		P
Silver	ug/kg	75-125	49100		106	J	49300	99.4		P
Sodium	ug/kg	75-125	662000		184000		493000	96.9		P
Vanadium	ug/kg	75-125	51400		2190		49300	99.8		P
Zinc	ug/kg	75-125	96300		48200		49300	97.4		P

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1848 Client ID RE46-10-12990SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 93.3

Sample ID: 247097001 Spike ID: 1202046545

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		3910000		2290000		520000	312	N/A	P
Antimony	ug/kg	75-125	51500		345	U	52000	98.9		P
Barium	ug/kg	75-125	66100		13300		52000	102		P
Cadmium	ug/kg	75-125	50600		104	U	52000	97.3		P
Calcium	ug/kg	75-125	786000		228000		520000	107		P
Chromium	ug/kg	75-125	53600		2170		52000	98.9		P
Cobalt	ug/kg	75-125	51300		282	J	52000	98		P
Copper	ug/kg	75-125	55900		1670		52000	104		P
Iron	ug/kg		8000000		7200000		520000	154	N/A	P
Lead	ug/kg	75-125	59100		5620		52000	103		P
Magnesium	ug/kg	75-125	723000		135000		520000	113		P
Manganese	ug/kg		394000		354000		52000	75.9	N/A	P
Potassium	ug/kg	75-125	849000		310000		520000	104		P
Silver	ug/kg	75-125	51300		106	J	52000	98.4		P
Sodium	ug/kg	75-125	673000		184000		520000	94		P
Vanadium	ug/kg	75-125	53700		2190		52000	99		P
Zinc	ug/kg	75-125	101000		48200		52000	102		P

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-1848 Client ID RE46-10-12990S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 93.3

Sample ID: 247097001 Spike ID: 1202046550

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M</u>
Arsenic	ug/kg	75-125	8080		853	J	8240	87.7		MS
Beryllium	ug/kg	75-125	5280		893		5150	85.1		MS
Nickel	ug/kg	75-125	5180		1320		5150	74.8	N	MS
Selenium	ug/kg	75-125	2050		528	U	2060	86.5		MS
Thallium	ug/kg	75-125	8560		63.4	U	10300	82.6		MS

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1848 **Client ID** RE46-10-12990SD**Contract:** LANL01004 **Level:** Low**Matrix:** SOIL **% Solids:** 93.3**Sample ID:** 247097001 **Spike ID:** 1202046551

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75-125	8660		853	J	8490	92		MS
Beryllium	ug/kg	75-125	5600		893		5300	88.8		MS
Nickel	ug/kg	75-125	5930		1320		5300	86.9		MS
Selenium	ug/kg	75-125	2200		528	U	2120	91.1		MS
Thallium	ug/kg	75-125	9190		63.4	U	10600	86.2		MS

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-1848 Client ID RE15-10-8198S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 99.55

Sample ID: 247123001 Spike ID: 1202055911

<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	139		3.89	U	120	115		AV

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1848 **Client ID** RE15-10-8198SD**Contract:** LANL01004 **Level:** Low**Matrix:** SOIL **% Solids:** 99.55**Sample ID:** 247123001 **Spike ID:** 1202055913

<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	134		3.89	U	115	117		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10-1848

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE46-10-12990D

Sample ID: 247097001

Duplicate ID: 1202046542

Percent Solids for Dup: 93.3

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/-20%	2290000		2560000		11.1		P
Antimony	ug/kg		345 U		345 U				P
Barium	ug/kg	+/-20%	13300		13900		4.65		P
Cadmium	ug/kg		104 U		104 U				P
Calcium	ug/kg	+/-20%	228000		271000		17.2		P
Chromium	ug/kg	+/-522	2170		2020		7.03		P
Cobalt	ug/kg	+/-522	282 J		309 J		9.24		P
Copper	ug/kg	+/-1040	1670		1770		5.56		P
Iron	ug/kg	+/-20%	7200000		7430000		3.11		P
Lead	ug/kg	+/-20%	5620		5590		.494		P
Magnesium	ug/kg	+/-31300	135000		157000		15.5		P
Manganese	ug/kg	+/-20%	354000		358000		1.06		P
Potassium	ug/kg	+/-20%	310000		322000		3.88		P
Silver	ug/kg	+/-522	106 J		262 J		84.4		P
Sodium	ug/kg	+/-20%	184000		182000		1.28		P
Vanadium	ug/kg	+/-522	2190		2250		2.55		P
Zinc	ug/kg	+/-20%	48200		45900		4.92		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10-1848

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE46-10-12990SD

Sample ID: 1202046544

Duplicate ID: 1202046545

Percent Solids for Dup: 93.3

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/-20	3720000		3910000		5.03		P
Antimony	ug/kg	+/-20	49500		51500		3.89		P
Barium	ug/kg	+/-20	63200		66100		4.59		P
Cadmium	ug/kg	+/-20	48400		50600		4.44		P
Calcium	ug/kg	+/-20	765000		786000		2.69		P
Chromium	ug/kg	+/-20	51200		53600		4.64		P
Cobalt	ug/kg	+/-20	49100		51300		4.38		P
Copper	ug/kg	+/-20	53600		55900		4.24		P
Iron	ug/kg	+/-20	7890000		8000000		1.48		P
Lead	ug/kg	+/-20	56700		59100		4.23		P
Magnesium	ug/kg	+/-20	703000		723000		2.68		P
Manganese	ug/kg	+/-20	390000		394000		1.09		P
Potassium	ug/kg	+/-20	843000		849000		.738		P
Silver	ug/kg	+/-20	49100		51300		4.34		P
Sodium	ug/kg	+/-20	662000		673000		1.6		P
Vanadium	ug/kg	+/-20	51400		53700		4.36		P
Zinc	ug/kg	+/-20	96300		101000		4.99		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1848

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE46-10-12990D

Sample ID: 247097001

Duplicate ID: 1202046548

Percent Solids for Dup: 93.3

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/-1070	853 J		933 J		8.97		MS
Beryllium	ug/kg	+/-20%	893		953		6.53		MS
Nickel	ug/kg	+/-429	1320		1130		15.5		MS
Selenium	ug/kg		528 U		536 U				MS
Thallium	ug/kg		63.4 U		64.3 U				MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1848**Contract:** LANL01004**Lab Code:** GEL**Matrix:** SOLID**Level:** Low**Client ID:** RE46-10-12990SD**Sample ID:** 1202046550**Duplicate ID:** 1202046551**Percent Solids for Dup:** 93.3

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/-20	8080		8660		6.91		MS
Beryllium	ug/kg	+/-20	5280		5600		5.97		MS
Nickel	ug/kg	+/-20	5180		5930		13.6		MS
Selenium	ug/kg	+/-20	2050		2200		7.09		MS
Thallium	ug/kg	+/-20	8560		9190		7.09		MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1848

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-8198D

Sample ID: 247123001

Duplicate ID: 1202055910

Percent Solids for Dup: 99.55

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg		3.89 U		3.75 U				AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1848

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-8198SD

Sample ID: 1202055911

Duplicate ID: 1202055913

Percent Solids for Dup: 99.55

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	139		134		3.44		AV

METALS

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Laboratory Control Sample Summary

SDG NO. 10-1848

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>
1202046546								
	Aluminum	ug/kg	10500000	8480000		80.8	56-144	P
	Antimony	ug/kg	173000	216000		125	71-130	P
	Barium	ug/kg	198000	183000		92.3	80-120	P
	Cadmium	ug/kg	60700	64600		106	81-120	P
	Calcium	ug/kg	9870000	9890000		100	83-117	P
	Chromium	ug/kg	236000	268000		113	80-120	P
	Cobalt	ug/kg	91200	97900		107	81-120	P
	Copper	ug/kg	174000	191000		110	81-118	P
	Iron	ug/kg	18000000	16800000		93.4	51-149	P
	Lead	ug/kg	86000	78600		91.4	79-121	P
	Magnesium	ug/kg	4000000	3670000		91.8	79-122	P
	Manganese	ug/kg	558000	546000		97.9	81-119	P
	Potassium	ug/kg	4300000	3990000		92.8	74-127	P
	Silver	ug/kg	30100	31000		103	66-134	P
	Sodium	ug/kg	1020000	1030000		101	74-127	P
	Vanadium	ug/kg	115000	127000		110	79-121	P
	Zinc	ug/kg	594000	601000		101	80-121	P

METALS

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Laboratory Control Sample Summary

SDG NO. 10-1848

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>
1202046552								
	Arsenic	ug/kg	104000	118000		114	78-123	MS
	Beryllium	ug/kg	77600	85100		110	84-116	MS
	Nickel	ug/kg	134000	143000		107	78-123	MS
	Selenium	ug/kg	286000	334000		117	77-123	MS
	Thallium	ug/kg	121000	142000		118	78-122	MS

METALS

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Laboratory Control Sample Summary

SDG NO. 10-1848

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>
1202055909	Mercury	ug/kg	5150	5580		108	71.6-128.3	AV

METALS

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Serial Dilution Sample Summary

SDG NO. 10-1848 Client ID RE46-10-12990L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 247097001 Serial Dilution ID: 1202046543

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	21900		23900		8.9		10	P
Antimony	3.3	U	16.5	U				P
Barium	127		127		0		10	P
Cadmium	1	U	5	U				P
Calcium	2180		2330		6.65			P
Chromium	20.8		21.2	J	1.92			P
Cobalt	2.7	J	7.5	U	100			P
Copper	16		15	U	100			P
Iron	69000		76000		10.1	E	10	P
Lead	53.8		53.5		.558			P
Magnesium	1290		1600		24			P
Manganese	3390		3600		6.19		10	P
Potassium	2970		3590		20.9			P
Silver	1.02	J	5	U	100			P
Sodium	1760		1630		7.67			P
Vanadium	21		20	J	5			P
Zinc	462		472		2.06		10	P

METALS

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Serial Dilution Sample Summary

SDG NO. 10-1848 **Client ID** RE46-10-12990L**Contract:** LANL01004**Matrix:** SOLID **Level:** Low**Sample ID:** 247097001 **Serial Dilution ID:** 1202046549

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	4.04	J	6.4	J	58.4			MS
Beryllium	4.22		4.95		17.2			MS
Nickel	6.26		7.05	J	12.6			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.3	U	1.5	U				MS

METALS

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Serial Dilution Sample Summary

SDG NO. 10-1848 Client ID RE15-10-8198L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 247123001 Serial Dilution ID: 1202055912

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.068	U	.34	U				AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1848

Method Type: P

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number	954659						
1202046541	MB for batch 954659	MB	S	16-MAR-10	.523g	50mL	
1202046546	LCS for batch 954659	LCS	S	16-MAR-10	.523g	50mL	
1202046544	RE46-10-12990S	MS	S	16-MAR-10	.543g	50mL	
1202046545	RE46-10-12990SD	MSD	S	16-MAR-10	.515g	50mL	
1202046542	RE46-10-12990D	DUP	S	16-MAR-10	.513g	50mL	
247123001	RE15-10-8198	SAMPLE	S	16-MAR-10	.556g	50mL	
247123002	RE15-10-8200	SAMPLE	S	16-MAR-10	.557g	50mL	
247123003	RE15-10-8199	SAMPLE	S	16-MAR-10	.546g	50mL	
247123004	RE15-10-8201	SAMPLE	S	16-MAR-10	.542g	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1848**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 954661							
1202046547	MB for batch 954661	MB	S	23-FEB-10	.505g	50mL	
1202046552	LCS for batch 954661	LCS	S	23-FEB-10	.503g	50mL	
1202046550	RE46-10-12990S	MS	S	23-FEB-10	.52g	50mL	
1202046551	RE46-10-12990SD	MSD	S	23-FEB-10	.505g	50mL	
1202046548	RE46-10-12990D	DUP	S	23-FEB-10	.5g	50mL	
247123001	RE15-10-8198	SAMPLE	S	23-FEB-10	.531g	50mL	
247123002	RE15-10-8200	SAMPLE	S	23-FEB-10	.513g	50mL	
247123003	RE15-10-8199	SAMPLE	S	23-FEB-10	.529g	50mL	
247123004	RE15-10-8201	SAMPLE	S	23-FEB-10	.512g	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1848

Method Type: AV

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number	958622						
1202055908	MB for batch 958622	MB	S	02-MAR-10	.576g	30mL	
1202055909	LCS for batch 958622	LCS	S	02-MAR-10	.203g	30mL	
1202055911	RE15-10-8198S	MS	S	02-MAR-10	.501g	30mL	
1202055913	RE15-10-8198SD	MSD	S	02-MAR-10	.523g	30mL	
1202055910	RE15-10-8198D	DUP	S	02-MAR-10	.547g	30mL	
247123001	RE15-10-8198	SAMPLE	S	02-MAR-10	.527g	30mL	
247123002	RE15-10-8200	SAMPLE	S	02-MAR-10	.528g	30mL	
247123003	RE15-10-8199	SAMPLE	S	02-MAR-10	.508g	30mL	
247123004	RE15-10-8201	SAMPLE	S	02-MAR-10	.524g	30mL	

SW846

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 14-MAR-10

End Date: 14-MAR-10

Client Sdg: 10-1848

Method MS

Data File: 100314-2

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	V	Zn
S0.0	1	12:03			X		X											X	X			X			
S10	1	12:07			X		X											X	X			X			
S100	1	12:11			X		X											X	X			X			
ICV01	1	12:14			X		X											X	X			X			
ICB01	1	12:18			X		X											X	X			X			
CRDL01	1	12:22			X		X											X	X			X			
ICSA01	1	12:25			X		X											X	X			X			
ICSAB01	1	12:29			X		X											X	X			X			
CCV01	1	12:32			X		X											X	X			X			
CCB01	1	12:36			X		X											X	X			X			
ZZZZZZ	1	12:40																							
ZZZZZZ	1	12:43																							
ZZZZZZ	1	12:47																							
ZZZZZZ	1	12:50																							
CCV02	1	12:54			X		X											X	X			X			
CCB02	1	12:58			X		X											X	X			X			
1202046547	2	13:01			X		X											X	X			X			
1202046552	40	13:05			X		X											X	X			X			
ZZZZZZ	2	13:09																							
1202046548	2	13:12			X		X											X	X			X			
1202046550	2	13:16			X		X											X	X			X			
1202046551	2	13:20			X		X											X	X			X			
1202046549	10	13:23			X		X											X	X			X			
CCV03	1	13:27			X		X											X	X			X			
CCB03	1	13:31			X		X											X	X			X			
ZZZZZZ	2	13:34																							
ZZZZZZ	2	13:38																							
ZZZZZZ	2	13:42																							
ZZZZZZ	2	13:45																							
ZZZZZZ	2	13:49																							
ZZZZZZ	2	13:53																							
ZZZZZZ	2	13:56																							
ZZZZZZ	2	14:00																							
ZZZZZZ	2	14:04																							
CCV04	1	14:07			X		X											X	X			X			
CCB04	1	14:11			X		X											X	X			X			
247123001	2	14:15			X		X											X	X			X			
247123002	2	14:18			X		X											X	X			X			
247123003	2	14:22			X		X											X	X			X			
247123004	2	14:26			X		X											X	X			X			

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																		
ZZZZZZ	10	14:29																		
CCV05	1	14:33		X	X								X	X				X		
CCB05	1	14:37		X	X								X	X				X		

Metals
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Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA3

Start Date: 16-MAR-10

End Date: 17-MAR-10

Client Sdg: 10-1848

Method P

Data File: 031610-1

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	V	Zn
S0.0	1	14:49	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
S0.1	1	14:57		X		X		X		X	X	X		X		X			X		X			X	X
S0.5	1	15:03	X	X		X		X	X	X	X	X		X	X	X			X		X			X	X
SCAL	1	15:10	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
S10	1	15:17	X					X					X		X							X			
ICV01	1	15:22	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICB01	1	15:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
PQL01	1	15:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICSA01	1	15:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICSAB01	1	15:50	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR01	1	15:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR02	1	16:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	16:10																							
CCV01	1	16:17	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB01	1	16:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR03	1	16:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV02	1	16:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB02	1	16:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	16:52																							
ZZZZZZ	5	16:59																							
CCV03	1	17:06	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
PQL02	1	17:13	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB03	1	17:19	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	17:39																							
ZZZZZZ	1	17:47																							
ZZZZZZ	1	17:54																							
ZZZZZZ	1	18:01																							
ZZZZZZ	1	18:08																							
ZZZZZZ	5	18:15																							
ZZZZZZ	1	18:22																							
CCV04	1	18:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB04	1	18:36	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV05	1	18:49	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB05	1	18:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:04																							
ZZZZZZ	1	19:11																							
ZZZZZZ	1	19:18																							
ZZZZZZ	1	19:25																							
ZZZZZZ	1	19:32																							
ZZZZZZ	1	19:40																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																												
CCV06	1	19:47	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X		X	X		X	X	
CCB06	1	19:54	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X		X	X		X	X	
ZZZZZZ	1	20:02																												
ZZZZZZ	1	20:08																												
ZZZZZZ	1	20:16																												
ZZZZZZ	1	20:23																												
ZZZZZZ	1	20:30																												
ZZZZZZ	1	20:37																												
ZZZZZZ	5	20:44																												
ZZZZZZ	1	20:50																												
CCV07	1	20:57	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X		X	X		X	X	
CCB07	1	21:04	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X		X	X		X	X	
ZZZZZZ	1	21:12																												
ZZZZZZ	1	21:19																												
ZZZZZZ	1	21:26																												
ZZZZZZ	1	21:33																												
ZZZZZZ	1	21:40																												
ZZZZZZ	1	21:47																												
ZZZZZZ	5	21:54																												
CCV08	1	22:01	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X		X	X		X	X	
CCB08	1	22:08	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X		X	X		X	X	
ZZZZZZ	1	22:15																												
ZZZZZZ	1	22:22																												
ZZZZZZ	1	22:29																												
ZZZZZZ	1	22:36																												
ZZZZZZ	1	22:43																												
CCV09	1	22:50	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X		X	X		X	X	
CCB09	1	22:57	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X		X	X		X	X	
1202046541	1	23:04	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X		X	X		X	X	
1202046546	1	23:10	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X		X	X		X	X	
ZZZZZZ	1	23:18																												
1202046542	1	23:25	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X		X	X		X	X	
1202046544	1	23:32	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X		X	X		X	X	
1202046545	1	23:39	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X		X	X		X	X	
1202046543	5	23:46	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X		X	X		X	X	
CCV10	1	23:53	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X		X	X		X	X	
CCB10	1	00:00	X	X		X		X	X	X	X	X	X	X	X	X	X			X		X	X		X	X		X	X	
ZZZZZZ	1	00:07																												
ZZZZZZ	1	00:14																												
ZZZZZZ	1	00:21																												

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	00:29																							
ZZZZZZ	1	00:36																							
ZZZZZZ	1	00:43																							
CCV11	1	00:50	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB11	1	00:57	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	01:04																							
ZZZZZZ	1	01:11																							
247123001	1	01:19	X	X		X		X	X	X	X	X	X	X		X			X		X			X	X
247123002	1	01:26	X	X		X		X	X	X	X	X	X	X		X			X		X			X	X
247123003	1	01:33	X	X		X		X	X	X	X	X	X	X		X			X		X			X	X
247123004	1	01:40	X	X		X		X	X	X	X	X	X	X		X			X		X			X	X
CCV12	1	01:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB12	1	01:54	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	02:01																							
ZZZZZZ	1	02:07																							
ZZZZZZ	1	02:15																							
ZZZZZZ	1	02:22																							
ZZZZZZ	1	02:29																							
ZZZZZZ	1	02:36																							
ZZZZZZ	5	02:43																							
ZZZZZZ	1	02:50																							
ZZZZZZ	1	02:57																							
CCV13	1	03:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB13	1	03:11	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	03:18																							
ZZZZZZ	1	03:25																							
ZZZZZZ	1	03:32																							
ZZZZZZ	1	03:40																							
ZZZZZZ	1	03:47																							
ZZZZZZ	1	03:54																							
ZZZZZZ	1	04:01																							
ZZZZZZ	1	04:08																							
CCV14	1	04:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB14	1	04:22	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	04:29																							
ZZZZZZ	1	04:36																							
ZZZZZZ	1	04:43																							
ZZZZZZ	1	04:50																							
ZZZZZZ	1	04:57																							
ZZZZZZ	1	05:04																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																		
ZZZZZZ	5	05:11																		
ZZZZZZ	1	05:18																		
ZZZZZZ	1	05:25																		
CCV15	1	05:32	X	X		X		X	X	X	X	X	X	X	X	X		X	X	X
CCB15	1	05:39	X	X		X		X	X	X	X	X	X	X	X	X		X	X	X
ZZZZZZ	1	05:47																		
ZZZZZZ	1	05:54																		
ZZZZZZ	1	06:01																		
ZZZZZZ	1	06:08																		
ZZZZZZ	1	06:15																		
ZZZZZZ	1	06:22																		
ZZZZZZ	1	06:29																		
ZZZZZZ	1	06:36																		
CCV16	1	06:43	X	X		X		X	X	X	X	X	X	X	X	X		X	X	X
CCB16	1	06:50	X	X		X		X	X	X	X	X	X	X	X	X		X	X	X
ZZZZZZ	1	07:06																		
ZZZZZZ	1	07:13																		
ZZZZZZ	1	07:20																		
ZZZZZZ	1	07:27																		
ZZZZZZ	1	07:34																		
ZZZZZZ	1	07:41																		
ZZZZZZ	5	07:47																		
ZZZZZZ	1	07:54																		
ZZZZZZ	1	08:01																		
CCV17	1	08:08	X	X		X		X	X	X	X	X	X	X	X	X		X	X	X
CCB17	1	08:15	X	X		X		X	X	X	X	X	X	X	X	X		X	X	X
ZZZZZZ	1	08:23																		
ZZZZZZ	1	08:29																		
ZZZZZZ	1	08:36																		
ZZZZZZ	1	08:43																		
ZZZZZZ	1	08:50																		
ZZZZZZ	1	08:57																		
ZZZZZZ	1	09:04																		
ZZZZZZ	1	09:11																		
ZZZZZZ	1	09:18																		
CCV18	1	09:25	X	X		X		X	X	X	X	X	X	X	X	X		X	X	X
CCB18	1	09:32	X	X		X		X	X	X	X	X	X	X	X	X		X	X	X
ZZZZZZ	1	09:39																		
ZZZZZZ	1	09:46																		
ZZZZZZ	1	09:53																		

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	V	Zn
ZZZZZZ	1	10:00																							
ZZZZZZ	1	10:07																							
ZZZZZZ	1	10:14																							
ZZZZZZ	1	10:21																							
ZZZZZZ	1	10:28																							
CCV19	1	10:35	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB19	1	10:42	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	10:50																							
ZZZZZZ	1	10:57																							
ZZZZZZ	1	11:04																							
ZZZZZZ	1	11:11																							
ZZZZZZ	1	11:18																							
ZZZZZZ	1	11:25																							
ZZZZZZ	5	11:32																							
ZZZZZZ	1	11:39																							
ZZZZZZ	1	11:46																							
CCV20	1	11:53	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB20	1	12:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV21	1	12:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB21	1	12:22	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	12:29																							
ZZZZZZ	1	12:36																							
247123001	1	12:43													X							X			
247123002	1	12:50													X							X			
247123003	1	12:57													X							X			
247123004	1	13:04													X							X			
CCV22	1	13:12	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB22	1	13:19	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X

Metals
-14-
Analysis Run Log

Contract: LANL01004**Client Sdg:** 10-1848**Lab Code:** GEL**Method:** AV**Inst Name:** HG3**Data File:** 030310S2-3**Start Date:** 03-MAR-10**End Date:** 03-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	V	Zn
S0.0	1	10:15															X								
S0.2	1	10:16															X								
S0.5	1	10:18															X								
S2.0	1	10:20															X								
S5.0	1	10:21															X								
S10.0	1	10:23															X								
ICV01	1	10:25															X								
ICB01	1	10:26															X								
CRDL01	1	10:28															X								
CCV01	1	10:30															X								
CCB01	1	10:31															X								
ZZZZZZ	1	10:33																							
ZZZZZZ	1	10:35																							
ZZZZZZ	1	10:36																							
ZZZZZZ	1	10:38																							
ZZZZZZ	1	10:40																							
ZZZZZZ	1	10:41																							
ZZZZZZ	5	10:43																							
ZZZZZZ	1	10:45																							
ZZZZZZ	1	10:46																							
ZZZZZZ	1	10:48																							
CCV02	1	10:50															X								
CCB02	1	10:51															X								
ZZZZZZ	1	10:53																							
ZZZZZZ	1	10:55																							
ZZZZZZ	1	10:56																							
ZZZZZZ	1	10:58																							
ZZZZZZ	1	11:00																							
ZZZZZZ	1	11:01																							
ZZZZZZ	1	11:03																							
ZZZZZZ	1	11:05																							
ZZZZZZ	1	11:06																							
ZZZZZZ	1	11:08																							
CCV03	1	11:10															X								
CCB03	1	11:11															X								
ZZZZZZ	1	11:13																							
ZZZZZZ	1	11:15																							
ZZZZZZ	1	11:16																							
ZZZZZZ	1	11:18																							
ZZZZZZ	1	11:20																							

Samp No.	D/F	Run Time
ZZZZZZ	1	11:21
ZZZZZZ	1	11:23
ZZZZZZ	1	11:25
ZZZZZZ	1	11:26
ZZZZZZ	5	11:28
CCV04	1	11:30
CCB04	1	11:31
1202055908	1	11:33
1202055909	10	11:35
247123001	1	11:36
1202055910	1	11:38
1202055911	1	11:40
1202055913	1	11:42
1202055912	5	11:43
247123002	1	11:45
247123003	1	11:47
247123004	1	11:48
CCV05	1	11:50
CCB05	1	11:52

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1848

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP/MS	<u>Analyte</u>	<u>Wavelength</u>	<u>MDL</u>	<u>RDL</u>
		<u>(nm)</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
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1848

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. 10-1848

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP	<u>Analyte</u>	<u>Wavelength</u>	<u>MDL</u>	<u>RDL</u>
		<u>(nm)</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
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-1848

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Aluminum	Antimony	Arsenic	Barium	Beryllium
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02697	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	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.21356	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05186	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.18741	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: GEL

GEL Job No: 10-1848

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Boron	Cadmium	Chromium	Cobalt	Copper
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	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	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.57616
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	198.62
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
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.37985	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.36818	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.35273

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-1848**

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Iron	Lead	Magnesium	Manganese	Molybdenum
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02515	0.00000	0.00000	0.00000	-20.5057
Arsenic	188.979	-0.23424	0.00000	0.00000	0.00000	2.41902
Barium	233.527	-0.03042	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.16240	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.10329	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01944	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.05293	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09554	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	1.04597	0.00000	0.00000	0.00000	-10.4683
Manganese	257.61	-0.09877	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.07763	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80543	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-3.27508	0.00000	0.00000	0.00000	-3.07287
Silica	251.611	0.00000	0.00000	0.00000	0.00000	27.2377
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.32385	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	-4.77918	0.00000
Tin	189.927	-0.01682	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.08168	0.00000	0.00000
Uranium	409.014	0.11400	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.14564	0.00000	-0.01931	0.00000	-14.1293
Zinc	213.857	0.09701	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-1848**

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Nickel	Phosphorous	Potassium	Selenium	Silica
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-0.84443	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	-0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.37026	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-1848

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-1848

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Tin	Titanium	Uranium	Vanadium	Zinc
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-15.4932	3.30431	0.00000	-2.81282	0.00000
Arsenic	188.979	0.00000	-8.66313	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.20293	0.00000
Beryllium	313.107	0.00000	-2.27027	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	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	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
Silica	251.611	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	0.81635	-4.04400	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	-8.29801	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-1848

Contract: LANL01004

Lab Code: GEL

Instrument ID ICPMS5

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

METALS
-12-
Linear Ranges

SDG NO. 10-1848

Contract: LANL01004

Lab Code: GEL

Instrument ID OPTIMA3

<u>Analyte</u>	<u>Integration Time (sec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Aluminum	20	500000	ug/L	01-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
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10

Raw Data

=====
Analysis Begun

Start Time: 3/16/2010 14:49:42

Plasma On Time: 3/15/2010 06:51:19

Logged In Analyst: Optima3

Technique: ICP Continuous

Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\031610.sif

Batch ID:

Results Data Set: 031610

Results Library: C:\pe\Optima3\Results\Results.mdb
=====

Method Loaded

Method Name: General Eng.2AX

Method Last Saved: 3/15/2010 08:46:50

IEC File: 011110.iec

MSF File:

Method Description:

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

Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 3/16/2010 14:49:49

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:
=====

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc Radial	4550.6	4550.6	0.000 %	14:51:42
1	Y RADIAL	4905.6	4905.6	0.000 %	14:51:42
1	Al 396.153Radial†	-84.5	-85.2	[0.00] ug/L	14:52:02

1	Ca 317.933Radial†	28.5	28.8	[0.00]	ug/L	14:52:02
1	Fe 238.204 Radial†	7.0	7.1	[0.00]	ug/L	14:52:02
1	K 766.490 Radial†	2578.0	2598.9	[0.00]	ug/L	14:51:42
1	Mg 279.077 IEC†	0.1	0.1	[0.00]	ug/L	14:52:02
1	Na 589.592 Radial†	-789.8	-796.2	[0.00]	ug/L	14:51:42
1	Sr 421.552†	26.4	26.6	[0.00]	ug/L	14:51:42
1	Sc 361.383	812544.2	812544.2	0.0000	%	14:52:59
1	Y 371.029	690661.6	690661.6	0.0000	%	14:52:59
1	Ag 328.068†	208.4	208.5	[0.00]	ug/L	14:52:59
1	As 188.979†	-12.9	-12.9	[0.00]	ug/L	14:53:19
1	B 249.677†	-424.3	-424.5	[0.00]	ug/L	14:53:19
1	Ba 233.527†	18.3	18.3	[0.00]	ug/L	14:53:19
1	Be 313.107†	-3782.6	-3784.4	[0.00]	ug/L	14:52:59
1	Cd 226.502†	-163.4	-163.5	[0.00]	ug/L	14:53:19
1	Co 228.616†	-33.7	-33.7	[0.00]	ug/L	14:53:19
1	Cr 267.716†	73.8	73.8	[0.00]	ug/L	14:53:19
1	Cu 324.752†	5434.2	5436.7	[0.00]	ug/L	14:52:59
1	Mn 257.610†	559.2	559.4	[0.00]	ug/L	14:53:19
1	Mo 202.031†	6.4	6.4	[0.00]	ug/L	14:53:19
1	Ni 231.604†	81.3	81.4	[0.00]	ug/L	14:53:19
1	P 214.914†	176.8	176.9	[0.00]	ug/L	14:53:19
1	Pb 220.353†	-50.8	-50.8	[0.00]	ug/L	14:53:19
1	S 181.975 Axial†	31.1	31.1	[0.00]	ug/L	14:53:19
1	Sb 206.836†	16.4	16.4	[0.00]	ug/L	14:53:19
1	Se 196.026†	-20.9	-20.9	[0.00]	ug/L	14:53:19
1	Si 251.611†	501.0	501.2	[0.00]	ug/L	14:53:19
1	Sn 189.927†	10.8	10.8	[0.00]	ug/L	14:53:19
1	Ti 334.940†	-1118.0	-1118.5	[0.00]	ug/L	14:52:59
1	Tl 190.801†	-32.9	-32.9	[0.00]	ug/L	14:53:19
1	U 409.014†	-2102.3	-2103.3	[0.00]	ug/L	14:52:59
1	V 292.402†	-1326.2	-1326.9	[0.00]	ug/L	14:52:59
1	Zn 213.857†	612.9	613.2	[0.00]	ug/L	14:53:19
1	SiO2†	495.9	496.1	[0.00]	ug/L	14:54:30
2	Sc Radial	4629.6	4629.6	0.000	%	14:52:07
2	Y RADIAL	4972.6	4972.6	0.000	%	14:52:07
2	Al 396.153Radial†	-87.9	-87.1	[0.00]	ug/L	14:52:27
2	Ca 317.933Radial†	25.8	25.6	[0.00]	ug/L	14:52:27
2	Fe 238.204 Radial†	8.0	7.9	[0.00]	ug/L	14:52:27
2	K 766.490 Radial†	2566.7	2543.3	[0.00]	ug/L	14:52:07
2	Mg 279.077 IEC†	-1.4	-1.4	[0.00]	ug/L	14:52:27
2	Na 589.592 Radial†	-802.0	-794.7	[0.00]	ug/L	14:52:07
2	Sr 421.552†	26.6	26.4	[0.00]	ug/L	14:52:07
2	Sc 361.383	813378.1	813378.1	0.0000	%	14:53:24
2	Y 371.029	688892.5	688892.5	0.0000	%	14:53:24
2	Ag 328.068†	207.0	206.9	[0.00]	ug/L	14:53:24
2	As 188.979†	-17.0	-17.0	[0.00]	ug/L	14:53:44
2	B 249.677†	-416.7	-416.5	[0.00]	ug/L	14:53:44
2	Ba 233.527†	13.6	13.6	[0.00]	ug/L	14:53:44
2	Be 313.107†	-3741.6	-3739.5	[0.00]	ug/L	14:53:24
2	Cd 226.502†	-185.2	-185.1	[0.00]	ug/L	14:53:44
2	Co 228.616†	-40.4	-40.4	[0.00]	ug/L	14:53:44
2	Cr 267.716†	72.7	72.7	[0.00]	ug/L	14:53:44
2	Cu 324.752†	5474.4	5471.4	[0.00]	ug/L	14:53:24
2	Mn 257.610†	548.8	548.5	[0.00]	ug/L	14:53:44
2	Mo 202.031†	12.9	12.9	[0.00]	ug/L	14:53:44
2	Ni 231.604†	76.3	76.3	[0.00]	ug/L	14:53:44
2	P 214.914†	191.8	191.7	[0.00]	ug/L	14:53:44
2	Pb 220.353†	-38.1	-38.1	[0.00]	ug/L	14:53:44
2	S 181.975 Axial†	33.8	33.8	[0.00]	ug/L	14:53:44
2	Sb 206.836†	29.5	29.5	[0.00]	ug/L	14:53:44
2	Se 196.026†	-25.1	-25.1	[0.00]	ug/L	14:53:44
2	Si 251.611†	502.2	501.9	[0.00]	ug/L	14:53:44
2	Sn 189.927†	6.4	6.4	[0.00]	ug/L	14:53:44
2	Ti 334.940†	-1067.2	-1066.6	[0.00]	ug/L	14:53:24
2	Tl 190.801†	-31.6	-31.6	[0.00]	ug/L	14:53:44
2	U 409.014†	-2083.2	-2082.0	[0.00]	ug/L	14:53:24
2	V 292.402†	-1348.4	-1347.6	[0.00]	ug/L	14:53:24
2	Zn 213.857†	625.5	625.1	[0.00]	ug/L	14:53:44
2	SiO2†	490.3	490.0	[0.00]	ug/L	14:54:50
3	Sc Radial	4582.5	4582.5	0.000	%	14:52:32
3	Y RADIAL	4924.6	4924.6	0.000	%	14:52:32

3	Al 396.153Radial†	-85.0	-85.1	[0.00]	ug/L	14:52:52
3	Ca 317.933Radial†	29.2	29.2	[0.00]	ug/L	14:52:52
3	Fe 238.204 Radial†	8.5	8.5	[0.00]	ug/L	14:52:52
3	K 766.490 Radial†	2522.1	2524.9	[0.00]	ug/L	14:52:32
3	Mg 279.077 IEC†	1.5	1.5	[0.00]	ug/L	14:52:52
3	Na 589.592 Radial†	-823.5	-824.4	[0.00]	ug/L	14:52:32
3	Sr 421.552†	24.2	24.3	[0.00]	ug/L	14:52:32
3	Sc 361.383	812863.5	812863.5	0.0000	%	14:53:49
3	Y 371.029	688754.4	688754.4	0.0000	%	14:53:49
3	Ag 328.068†	216.4	216.4	[0.00]	ug/L	14:53:49
3	As 188.979†	-21.2	-21.2	[0.00]	ug/L	14:54:09
3	B 249.677†	-405.1	-405.1	[0.00]	ug/L	14:54:09
3	Ba 233.527†	5.6	5.6	[0.00]	ug/L	14:54:09
3	Be 313.107†	-3662.9	-3663.1	[0.00]	ug/L	14:53:49
3	Cd 226.502†	-180.4	-180.4	[0.00]	ug/L	14:54:09
3	Co 228.616†	-45.5	-45.5	[0.00]	ug/L	14:54:09
3	Cr 267.716†	92.1	92.1	[0.00]	ug/L	14:54:09
3	Cu 324.752†	5490.2	5490.6	[0.00]	ug/L	14:53:49
3	Mn 257.610†	544.8	544.9	[0.00]	ug/L	14:54:09
3	Mo 202.031†	19.2	19.2	[0.00]	ug/L	14:54:09
3	Ni 231.604†	86.6	86.6	[0.00]	ug/L	14:54:09
3	P 214.914†	183.2	183.2	[0.00]	ug/L	14:54:09
3	Pb 220.353†	-39.4	-39.4	[0.00]	ug/L	14:54:09
3	S 181.975 Axial†	25.5	25.6	[0.00]	ug/L	14:54:09
3	Sb 206.836†	27.6	27.6	[0.00]	ug/L	14:54:09
3	Se 196.026†	-10.4	-10.4	[0.00]	ug/L	14:54:09
3	Si 251.611†	491.5	491.5	[0.00]	ug/L	14:54:09
3	Sn 189.927†	6.7	6.7	[0.00]	ug/L	14:54:09
3	Ti 334.940†	-1076.8	-1076.9	[0.00]	ug/L	14:53:49
3	Tl 190.801†	-30.8	-30.8	[0.00]	ug/L	14:54:09
3	U 409.014†	-2057.5	-2057.7	[0.00]	ug/L	14:53:49
3	V 292.402†	-1278.6	-1278.7	[0.00]	ug/L	14:53:49
3	Zn 213.857†	613.0	613.1	[0.00]	ug/L	14:54:09
3	SiO2†	499.8	499.8	[0.00]	ug/L	14:55:10

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	812928.6	420.71	0.05%	0.0000 %
Sc Radial	4587.6	39.75	0.87%	0.000 %
Y 371.029	689436.1	1063.49	0.15%	0.0000 %
Y RADIAL	4934.3	34.53	0.70%	0.000 %
Ag 328.068†	210.6	5.07	2.41%	[0.00] ug/L
Al 396.153Radial†	-85.8	1.10	1.29%	[0.00] ug/L
As 188.979†	-17.0	4.16	24.42%	[0.00] ug/L
B 249.677†	-415.4	9.71	2.34%	[0.00] ug/L
Ba 233.527†	12.5	6.42	51.36%	[0.00] ug/L
Be 313.107†	-3729.0	61.29	1.64%	[0.00] ug/L
Ca 317.933Radial†	27.9	2.00	7.17%	[0.00] ug/L
Cd 226.502†	-176.3	11.38	6.45%	[0.00] ug/L
Co 228.616†	-39.8	5.90	14.81%	[0.00] ug/L
Cr 267.716†	79.5	10.87	13.67%	[0.00] ug/L
Cu 324.752†	5466.2	27.31	0.50%	[0.00] ug/L
Fe 238.204 Radial†	7.9	0.72	9.15%	[0.00] ug/L
K 766.490 Radial†	2555.7	38.51	1.51%	[0.00] ug/L
Mg 279.077 IEC†	0.1	1.47	>999.9%	[0.00] ug/L
Mn 257.610†	550.9	7.58	1.38%	[0.00] ug/L
Mo 202.031†	12.8	6.40	49.88%	[0.00] ug/L
Na 589.592 Radial†	-805.1	16.73	2.08%	[0.00] ug/L
Ni 231.604†	81.4	5.15	6.32%	[0.00] ug/L
P 214.914†	183.9	7.44	4.04%	[0.00] ug/L
Pb 220.353†	-42.8	6.99	16.34%	[0.00] ug/L
S 181.975 Axial†	30.2	4.21	13.96%	[0.00] ug/L
Sb 206.836†	24.5	7.06	28.80%	[0.00] ug/L
Se 196.026†	-18.8	7.59	40.38%	[0.00] ug/L
Si 251.611†	498.2	5.82	1.17%	[0.00] ug/L
Sn 189.927†	8.0	2.49	31.12%	[0.00] ug/L
Sr 421.552†	25.8	1.31	5.07%	[0.00] ug/L
Ti 334.940†	-1087.3	27.50	2.53%	[0.00] ug/L
Tl 190.801†	-31.8	1.07	3.38%	[0.00] ug/L

U 409.014†	-2081.0	22.83	1.10%	[0.00] ug/L
V 292.402†	-1317.7	35.38	2.68%	[0.00] ug/L
Zn 213.857†	617.1	6.92	1.12%	[0.00] ug/L
SiO2†	495.3	4.95	1.00%	[0.00] ug/L

Sequence No.: 2

Sample ID: S0.1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 2

Date Collected: 3/16/2010 14:57:20

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	4559.6	4559.6	99.4 %	14:59:18
1	Y RADIAL	4882.5	4882.5	98.95 %	14:59:18
1	K 766.490 Radial†	8107.8	5601.9	[1000] ug/L	14:59:13
1	Sr 421.552†	13708.8	13767.3	[100] ug/L	14:59:18
1	Sc 361.383	807698.8	807698.8	99.357 %	14:59:45
1	Y 371.029	683212.9	683212.9	99.097 %	14:59:45
1	Ag 328.068†	20948.4	20873.4	[100] ug/L	14:59:45
1	As 188.979†	168.6	186.7	[100] ug/L	15:00:05
1	B 249.677†	3219.7	3656.0	[100] ug/L	14:59:45
1	Ba 233.527†	11503.7	11565.7	[100] ug/L	14:59:45
1	Be 313.107†	246383.8	251708.1	[100] ug/L	14:59:45
1	Cd 226.502†	7029.0	7250.8	[100] ug/L	15:00:05
1	Co 228.616†	4114.6	4181.1	[100] ug/L	15:00:05
1	Cr 267.716†	8045.9	8018.5	[100] ug/L	14:59:45
1	Cu 324.752†	37328.2	32103.7	[100] ug/L	14:59:45
1	Mn 257.610†	82603.8	82587.7	[100] ug/L	14:59:45
1	Mo 202.031†	1223.5	1218.6	[100] ug/L	15:00:05
1	Ni 231.604†	3466.1	3407.1	[100] ug/L	15:00:05
1	P 214.914†	892.0	713.9	[500] ug/L	15:00:05
1	Pb 220.353†	663.9	711.0	[100] ug/L	15:00:05
1	S 181.975 Axial†	153.3	124.1	[200] ug/L	15:00:05
1	Sb 206.836†	279.3	256.6	[100] ug/L	15:00:05
1	Se 196.026†	115.6	135.1	[100] ug/L	15:00:05
1	Si 251.611†	14528.9	14124.7	[500] ug/L	14:59:45
1	Sn 189.927†	470.0	465.1	[100] ug/L	15:00:05
1	Ti 334.940†	60260.7	61738.2	[100] ug/L	14:59:45
1	Tl 190.801†	245.6	279.0	[100] ug/L	15:00:05
1	U 409.014†	1405.3	3495.4	[100] ug/L	14:59:45
1	V 292.402†	11916.1	13311.0	[100] ug/L	14:59:45
1	Zn 213.857†	9578.0	9022.9	[100] ug/L	14:59:45
1	SiO2†	14699.6	14299.5	[1069.5] ug/L	15:01:01
2	Sc Radial	4716.8	4716.8	103 %	14:59:28
2	Y RADIAL	5073.0	5073.0	102.8 %	14:59:28
2	K 766.490 Radial†	8018.1	5242.7	[1000] ug/L	14:59:23
2	Sr 421.552†	14317.9	13900.0	[100] ug/L	14:59:28
2	Sc 361.383	807921.9	807921.9	99.384 %	15:00:10
2	Y 371.029	681525.8	681525.8	98.853 %	15:00:10
2	Ag 328.068†	21011.0	20930.6	[100] ug/L	15:00:10
2	As 188.979†	175.1	193.2	[100] ug/L	15:00:30
2	B 249.677†	3301.8	3737.6	[100] ug/L	15:00:10
2	Ba 233.527†	11552.4	11611.5	[100] ug/L	15:00:10
2	Be 313.107†	246189.4	251444.1	[100] ug/L	15:00:10
2	Cd 226.502†	7109.1	7329.5	[100] ug/L	15:00:30
2	Co 228.616†	4140.5	4206.0	[100] ug/L	15:00:30
2	Cr 267.716†	8078.6	8049.1	[100] ug/L	15:00:10
2	Cu 324.752†	37385.0	32150.4	[100] ug/L	15:00:10
2	Mn 257.610†	83145.2	83109.5	[100] ug/L	15:00:10
2	Mo 202.031†	1222.9	1217.6	[100] ug/L	15:00:30
2	Ni 231.604†	3488.0	3428.2	[100] ug/L	15:00:30
2	P 214.914†	881.0	702.6	[500] ug/L	15:00:30
2	Pb 220.353†	660.5	707.4	[100] ug/L	15:00:30
2	S 181.975 Axial†	143.9	114.6	[200] ug/L	15:00:30
2	Sb 206.836†	282.0	259.2	[100] ug/L	15:00:30
2	Se 196.026†	109.4	128.8	[100] ug/L	15:00:30
2	Si 251.611†	14588.8	14181.0	[500] ug/L	15:00:10
2	Sn 189.927†	484.6	479.6	[100] ug/L	15:00:30
2	Ti 334.940†	60552.2	62014.7	[100] ug/L	15:00:10
2	Tl 190.801†	257.1	290.5	[100] ug/L	15:00:30
2	U 409.014†	1471.5	3561.7	[100] ug/L	15:00:10

2	V 292.402†	11988.7	13380.7	[100] ug/L	15:00:10
2	Zn 213.857†	9586.0	9028.2	[100] ug/L	15:00:10
2	SiO2†	14849.2	14445.9	[1069.5] ug/L	15:01:06
3	Sc Radial	4692.5	4692.5	102 %	14:59:38
3	Y RADIAL	5028.4	5028.4	101.9 %	14:59:38
3	K 766.490 Radial†	8038.8	5303.3	[1000] ug/L	14:59:33
3	Sr 421.552†	14152.5	13810.3	[100] ug/L	14:59:38
3	Sc 361.383	820359.1	820359.1	100.91 %	15:00:36
3	Y 371.029	693189.2	693189.2	100.54 %	15:00:36
3	Ag 328.068†	21431.1	21026.3	[100] ug/L	15:00:36
3	As 188.979†	167.3	182.8	[100] ug/L	15:00:56
3	B 249.677†	3317.1	3702.4	[100] ug/L	15:00:36
3	Ba 233.527†	11758.9	11639.9	[100] ug/L	15:00:36
3	Be 313.107†	249967.0	251431.9	[100] ug/L	15:00:36
3	Cd 226.502†	7111.0	7223.0	[100] ug/L	15:00:56
3	Co 228.616†	4146.5	4148.8	[100] ug/L	15:00:56
3	Cr 267.716†	8249.3	8095.1	[100] ug/L	15:00:36
3	Cu 324.752†	38040.9	32230.1	[100] ug/L	15:00:36
3	Mn 257.610†	84391.0	83075.7	[100] ug/L	15:00:36
3	Mo 202.031†	1221.8	1197.9	[100] ug/L	15:00:56
3	Ni 231.604†	3480.9	3368.0	[100] ug/L	15:00:56
3	P 214.914†	889.6	697.6	[500] ug/L	15:00:56
3	Pb 220.353†	660.9	697.7	[100] ug/L	15:00:56
3	S 181.975 Axial†	147.4	116.0	[200] ug/L	15:00:56
3	Sb 206.836†	285.8	258.7	[100] ug/L	15:00:56
3	Se 196.026†	112.5	130.3	[100] ug/L	15:00:56
3	Si 251.611†	14800.1	14167.9	[500] ug/L	15:00:36
3	Sn 189.927†	481.9	469.5	[100] ug/L	15:00:56
3	Ti 334.940†	61658.9	62187.7	[100] ug/L	15:00:36
3	Tl 190.801†	249.4	278.9	[100] ug/L	15:00:56
3	U 409.014†	1476.8	3544.4	[100] ug/L	15:00:36
3	V 292.402†	12155.0	13362.7	[100] ug/L	15:00:36
3	Zn 213.857†	9741.2	9035.9	[100] ug/L	15:00:36
3	SiO2†	14671.1	14042.8	[1069.5] ug/L	15:01:11

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	811993.3	7245.86	0.89%	99.885 %
Sc Radial	4656.3	84.63	1.82%	101 %
Y 371.029	685976.0	6303.53	0.92%	99.498 %
Y RADIAL	4994.6	99.64	1.99%	101.2 %
Ag 328.068†	20943.5	77.26	0.37%	[100] ug/L
As 188.979†	187.6	5.26	2.81%	[100] ug/L
B 249.677†	3698.6	40.94	1.11%	[100] ug/L
Ba 233.527†	11605.7	37.41	0.32%	[100] ug/L
Be 313.107†	251528.0	156.04	0.06%	[100] ug/L
Cd 226.502†	7267.8	55.24	0.76%	[100] ug/L
Co 228.616†	4178.6	28.71	0.69%	[100] ug/L
Cr 267.716†	8054.2	38.55	0.48%	[100] ug/L
Cu 324.752†	32161.4	63.92	0.20%	[100] ug/L
K 766.490 Radial†	5382.6	192.27	3.57%	[1000] ug/L
Mn 257.610†	82924.3	291.98	0.35%	[100] ug/L
Mo 202.031†	1211.4	11.69	0.96%	[100] ug/L
Ni 231.604†	3401.1	30.56	0.90%	[100] ug/L
P 214.914†	704.7	8.35	1.18%	[500] ug/L
Pb 220.353†	705.4	6.89	0.98%	[100] ug/L
S 181.975 Axial†	118.2	5.16	4.36%	[200] ug/L
Sb 206.836†	258.1	1.37	0.53%	[100] ug/L
Se 196.026†	131.4	3.29	2.50%	[100] ug/L
Si 251.611†	14157.9	29.45	0.21%	[500] ug/L
Sn 189.927†	471.4	7.43	1.58%	[100] ug/L
Sr 421.552†	13825.9	67.69	0.49%	[100] ug/L
Ti 334.940†	61980.2	226.71	0.37%	[100] ug/L
Tl 190.801†	282.8	6.67	2.36%	[100] ug/L
U 409.014†	3533.8	34.38	0.97%	[100] ug/L
V 292.402†	13351.5	36.19	0.27%	[100] ug/L
Zn 213.857†	9029.0	6.54	0.07%	[100] ug/L
SiO2†	14262.7	204.03	1.43%	[1069.5] ug/L

Sequence No.: 3

Sample ID: S0.5

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 3/16/2010 15:03:22

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	4424.1	4424.1	96.4 %	15:05:15
1	Y RADIAL	4738.7	4738.7	96.04 %	15:05:15
1	Al 396.153Radial†	5103.5	5377.9	[5000] ug/L	15:05:15
1	Ca 317.933Radial†	2841.6	2918.8	[5000] ug/L	15:05:35
1	K 766.490 Radial†	28275.5	26765.0	[5000] ug/L	15:05:15
1	Mg 279.077 IEC†	135.6	140.6	[5000] ug/L	15:05:35
1	Sr 421.552†	63930.2	66267.6	[500] ug/L	15:05:15
1	Sc 361.383	811747.2	811747.2	99.855 %	15:06:32
1	Y 371.029	677144.2	677144.2	98.217 %	15:06:32
1	Ag 328.068†	98624.7	98557.7	[500] ug/L	15:06:37
1	As 188.979†	899.0	917.4	[500] ug/L	15:06:57
1	B 249.677†	17528.0	17968.8	[500] ug/L	15:06:37
1	Ba 233.527†	54355.7	54422.3	[500] ug/L	15:06:37
1	Be 313.107†	1186305.8	1191761.4	[500] ug/L	15:06:32
1	Cd 226.502†	34911.7	35138.9	[500] ug/L	15:06:37
1	Co 228.616†	19828.1	19896.8	[500] ug/L	15:06:37
1	Cr 267.716†	37886.5	37862.1	[500] ug/L	15:06:37
1	Cu 324.752†	157591.5	152354.6	[500] ug/L	15:06:37
1	Mn 257.610†	383812.4	383820.1	[500] ug/L	15:06:32
1	Mo 202.031†	5767.0	5762.6	[500] ug/L	15:06:57
1	Ni 231.604†	16279.9	16222.1	[500] ug/L	15:06:37
1	P 214.914†	3547.4	3368.7	[2500] ug/L	15:06:57
1	Pb 220.353†	3274.4	3322.0	[500] ug/L	15:06:57
1	S 181.975 Axial†	596.4	567.1	[1000] ug/L	15:06:57
1	Sb 206.836†	1234.6	1211.9	[500] ug/L	15:06:57
1	Se 196.026†	590.5	610.1	[500] ug/L	15:06:57
1	Si 251.611†	68068.8	67669.6	[2500] ug/L	15:06:37
1	Sn 189.927†	2250.7	2246.0	[500] ug/L	15:06:57
1	Ti 334.940†	286010.3	287513.9	[500] ug/L	15:06:37
1	Tl 190.801†	1295.7	1329.4	[500] ug/L	15:06:57
1	U 409.014†	14969.6	17072.4	[500] ug/L	15:06:37
1	V 292.402†	62008.4	63416.4	[500] ug/L	15:06:37
1	Zn 213.857†	43350.4	42796.4	[500] ug/L	15:06:37
1	SiO2†	68511.4	68115.8	[5347.5] ug/L	15:08:05
2	Sc Radial	4490.7	4490.7	97.9 %	15:05:40
2	Y RADIAL	4795.4	4795.4	97.19 %	15:05:40
2	Al 396.153Radial†	5137.4	5334.0	[5000] ug/L	15:05:40
2	Ca 317.933Radial†	2847.9	2881.5	[5000] ug/L	15:06:00
2	K 766.490 Radial†	28370.9	26427.2	[5000] ug/L	15:05:40
2	Mg 279.077 IEC†	135.7	138.5	[5000] ug/L	15:06:00
2	Sr 421.552†	64470.6	65835.6	[500] ug/L	15:05:40
2	Sc 361.383	819125.5	819125.5	100.76 %	15:07:03
2	Y 371.029	682127.0	682127.0	98.940 %	15:07:03
2	Ag 328.068†	98678.6	97721.5	[500] ug/L	15:07:08
2	As 188.979†	909.3	919.5	[500] ug/L	15:07:28
2	B 249.677†	17569.1	17851.6	[500] ug/L	15:07:08
2	Ba 233.527†	54438.0	54013.7	[500] ug/L	15:07:08
2	Be 313.107†	1196382.0	1191060.0	[500] ug/L	15:07:03
2	Cd 226.502†	35080.8	34991.8	[500] ug/L	15:07:08
2	Co 228.616†	19915.8	19805.0	[500] ug/L	15:07:08
2	Cr 267.716†	37973.1	37606.3	[500] ug/L	15:07:08
2	Cu 324.752†	157572.7	150914.4	[500] ug/L	15:07:08
2	Mn 257.610†	387972.8	384486.8	[500] ug/L	15:07:03
2	Mo 202.031†	5826.2	5769.2	[500] ug/L	15:07:28
2	Ni 231.604†	16353.4	16148.3	[500] ug/L	15:07:08
2	P 214.914†	3604.2	3393.0	[2500] ug/L	15:07:28
2	Pb 220.353†	3289.5	3307.4	[500] ug/L	15:07:28
2	S 181.975 Axial†	600.8	566.1	[1000] ug/L	15:07:28
2	Sb 206.836†	1257.9	1223.9	[500] ug/L	15:07:28

2	Se 196.026†	605.6	619.8	[500] ug/L	15:07:28
2	Si 251.611†	68317.7	67302.6	[2500] ug/L	15:07:08
2	Sn 189.927†	2268.4	2243.2	[500] ug/L	15:07:28
2	Ti 334.940†	285957.6	284881.6	[500] ug/L	15:07:08
2	Tl 190.801†	1318.6	1340.4	[500] ug/L	15:07:28
2	U 409.014†	14939.0	16907.0	[500] ug/L	15:07:08
2	V 292.402†	62172.3	63019.7	[500] ug/L	15:07:08
2	Zn 213.857†	43470.0	42524.0	[500] ug/L	15:07:08
2	SiO2†	69384.6	68364.4	[5347.5] ug/L	15:08:10
3	Sc Radial	4520.4	4520.4	98.5 %	15:06:05
3	Y RADIAL	4824.7	4824.7	97.78 %	15:06:05
3	Al 396.153Radial†	5172.1	5334.9	[5000] ug/L	15:06:05
3	Ca 317.933Radial†	2854.2	2868.7	[5000] ug/L	15:06:25
3	K 766.490 Radial†	28510.0	26378.3	[5000] ug/L	15:06:05
3	Mg 279.077 IEC†	136.8	138.7	[5000] ug/L	15:06:25
3	Sr 421.552†	64559.0	65493.4	[500] ug/L	15:06:05
3	Sc 361.383	834641.8	834641.8	102.67 %	15:07:34
3	Y 371.029	694468.1	694468.1	100.73 %	15:07:34
3	Ag 328.068†	99953.3	97142.4	[500] ug/L	15:07:39
3	As 188.979†	896.3	890.0	[500] ug/L	15:07:59
3	B 249.677†	17860.0	17810.7	[500] ug/L	15:07:39
3	Ba 233.527†	54899.7	53459.0	[500] ug/L	15:07:39
3	Be 313.107†	1217368.2	1189427.4	[500] ug/L	15:07:34
3	Cd 226.502†	35315.0	34572.7	[500] ug/L	15:07:39
3	Co 228.616†	20045.7	19564.1	[500] ug/L	15:07:39
3	Cr 267.716†	38383.9	37305.9	[500] ug/L	15:07:39
3	Cu 324.752†	159693.5	150072.8	[500] ug/L	15:07:39
3	Mn 257.610†	395095.8	384266.4	[500] ug/L	15:07:34
3	Mo 202.031†	5755.1	5592.5	[500] ug/L	15:07:59
3	Ni 231.604†	16464.5	15954.8	[500] ug/L	15:07:39
3	P 214.914†	3536.0	3260.1	[2500] ug/L	15:07:59
3	Pb 220.353†	3251.7	3209.9	[500] ug/L	15:07:59
3	S 181.975 Axial†	594.6	549.0	[1000] ug/L	15:07:59
3	Sb 206.836†	1242.7	1185.9	[500] ug/L	15:07:59
3	Se 196.026†	590.8	594.2	[500] ug/L	15:07:59
3	Si 251.611†	68952.8	66660.8	[2500] ug/L	15:07:39
3	Sn 189.927†	2262.2	2195.4	[500] ug/L	15:07:59
3	Ti 334.940†	289436.8	282994.4	[500] ug/L	15:07:39
3	Tl 190.801†	1300.3	1298.3	[500] ug/L	15:07:59
3	U 409.014†	15144.6	16831.6	[500] ug/L	15:07:39
3	V 292.402†	62842.1	62525.0	[500] ug/L	15:07:39
3	Zn 213.857†	43861.0	42102.8	[500] ug/L	15:07:39
3	SiO2†	68736.5	66452.9	[5347.5] ug/L	15:08:15

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	821838.2	11685.89	1.42%	101.10 %
Sc Radial	4478.4	49.32	1.10%	97.6 %
Y 371.029	684579.8	8918.61	1.30%	99.296 %
Y RADIAL	4786.3	43.73	0.91%	97.00 %
Ag 328.068†	97807.2	711.51	0.73%	[500] ug/L
Al 396.153Radial†	5348.9	25.10	0.47%	[5000] ug/L
As 188.979†	908.9	16.44	1.81%	[500] ug/L
B 249.677†	17877.1	82.08	0.46%	[500] ug/L
Ba 233.527†	53965.0	483.50	0.90%	[500] ug/L
Be 313.107†	1190749.6	1197.59	0.10%	[500] ug/L
Ca 317.933Radial†	2889.7	26.00	0.90%	[5000] ug/L
Cd 226.502†	34901.1	293.80	0.84%	[500] ug/L
Co 228.616†	19755.3	171.84	0.87%	[500] ug/L
Cr 267.716†	37591.4	278.43	0.74%	[500] ug/L
Cu 324.752†	151113.9	1153.94	0.76%	[500] ug/L
K 766.490 Radial†	26523.5	210.56	0.79%	[5000] ug/L
Mg 279.077 IEC†	139.3	1.12	0.80%	[5000] ug/L
Mn 257.610†	384191.1	339.66	0.09%	[500] ug/L
Mo 202.031†	5708.1	100.17	1.75%	[500] ug/L
Ni 231.604†	16108.4	138.06	0.86%	[500] ug/L
P 214.914†	3340.6	70.77	2.12%	[2500] ug/L
Pb 220.353†	3279.8	60.96	1.86%	[500] ug/L
S 181.975 Axial†	560.7	10.19	1.82%	[1000] ug/L

Sb 206.836†	1207.2	19.44	1.61%	[500]	ug/L
Se 196.026†	608.0	12.95	2.13%	[500]	ug/L
Si 251.611†	67211.0	510.60	0.76%	[2500]	ug/L
Sn 189.927†	2228.2	28.45	1.28%	[500]	ug/L
Sr 421.552†	65865.5	387.96	0.59%	[500]	ug/L
Ti 334.940†	285129.9	2269.95	0.80%	[500]	ug/L
Tl 190.801†	1322.7	21.84	1.65%	[500]	ug/L
U 409.014†	16937.0	123.18	0.73%	[500]	ug/L
V 292.402†	62987.0	446.60	0.71%	[500]	ug/L
Zn 213.857†	42474.4	349.41	0.82%	[500]	ug/L
SiO2†	67644.4	1039.26	1.54%	[5347.5]	ug/L

Sequence No.: 4

Sample ID: SCAL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/16/2010 15:10:26

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	4476.0	4476.0	97.6	%	15:12:19
1	Y RADIAL	4771.9	4771.9	96.71	%	15:12:19
1	Al 396.153Radial†	10203.0	10543.2	[10000]	ug/L	15:12:19
1	Ca 317.933Radial†	5637.9	5750.6	[10000]	ug/L	15:12:19
1	Fe 238.204 Radial†	948.9	964.7	[10000]	ug/L	15:12:39
1	K 766.490 Radial†	53581.7	52361.9	[10000]	ug/L	15:12:19
1	Mg 279.077 IEC†	267.7	274.3	[10000]	ug/L	15:12:39
1	Na 589.592 Radial†	26813.9	28287.5	[10000]	ug/L	15:12:19
1	Sr 421.552†	128339.1	131513.2	[1000]	ug/L	15:12:19
1	Sc 361.383	810472.5	810472.5	99.698	%	15:13:38
1	Y 371.029	674237.0	674237.0	97.795	%	15:13:38
1	Ag 328.068†	193754.1	194130.6	[1000]	ug/L	15:13:38
1	As 188.979†	1781.1	1803.5	[1000]	ug/L	15:13:58
1	B 249.677†	35007.2	35528.7	[1000]	ug/L	15:13:38
1	Ba 233.527†	106207.2	106516.6	[1000]	ug/L	15:13:38
1	Be 313.107†	2319643.5	2330402.0	[1000]	ug/L	15:13:38
1	Cd 226.502†	68232.0	68615.1	[1000]	ug/L	15:13:38
1	Co 228.616†	38363.2	38519.3	[1000]	ug/L	15:13:58
1	Cr 267.716†	74056.0	74200.9	[1000]	ug/L	15:13:38
1	Cu 324.752†	305928.0	301388.8	[1000]	ug/L	15:13:38
1	Mn 257.610†	754063.1	755797.3	[1000]	ug/L	15:13:38
1	Mo 202.031†	11412.4	11434.1	[1000]	ug/L	15:13:58
1	Ni 231.604†	31401.1	31414.8	[1000]	ug/L	15:13:58
1	P 214.914†	6841.0	6677.8	[5000]	ug/L	15:13:58
1	Pb 220.353†	6444.3	6506.6	[1000]	ug/L	15:13:58
1	S 181.975 Axial†	1162.4	1135.7	[2000]	ug/L	15:13:58
1	Sb 206.836†	2456.9	2439.8	[1000]	ug/L	15:13:58
1	Se 196.026†	1185.3	1207.7	[1000]	ug/L	15:13:58
1	Si 251.611†	132142.0	132044.3	[5000]	ug/L	15:13:38
1	Sn 189.927†	4466.5	4472.0	[1000]	ug/L	15:13:58
1	Ti 334.940†	577056.2	579892.3	[1000]	ug/L	15:13:38
1	Tl 190.801†	2563.0	2602.5	[1000]	ug/L	15:13:58
1	U 409.014†	30525.0	32698.5	[1000]	ug/L	15:13:38
1	V 292.402†	123186.5	124877.5	[1000]	ug/L	15:13:38
1	Zn 213.857†	82416.1	82048.7	[1000]	ug/L	15:13:38
1	SiO2†	133865.1	133775.5	[10695]	ug/L	15:14:58
2	Sc Radial	4537.7	4537.7	98.9	%	15:12:44
2	Y RADIAL	4830.9	4830.9	97.90	%	15:12:44
2	Al 396.153Radial†	10159.4	10356.9	[10000]	ug/L	15:12:44
2	Ca 317.933Radial†	5599.0	5632.7	[10000]	ug/L	15:12:44
2	Fe 238.204 Radial†	946.9	949.4	[10000]	ug/L	15:13:04
2	K 766.490 Radial†	53228.7	51257.7	[10000]	ug/L	15:12:44
2	Mg 279.077 IEC†	266.1	269.0	[10000]	ug/L	15:13:04
2	Na 589.592 Radial†	26598.5	27695.8	[10000]	ug/L	15:12:44
2	Sr 421.552†	127710.0	129087.2	[1000]	ug/L	15:12:44
2	Sc 361.383	821377.0	821377.0	101.04	%	15:14:05
2	Y 371.029	682748.7	682748.7	99.030	%	15:14:05
2	Ag 328.068†	196646.0	194412.8	[1000]	ug/L	15:14:05
2	As 188.979†	1781.7	1780.4	[1000]	ug/L	15:14:26
2	B 249.677†	35697.2	35745.4	[1000]	ug/L	15:14:05
2	Ba 233.527†	107563.2	106444.4	[1000]	ug/L	15:14:05
2	Be 313.107†	2349684.6	2329245.5	[1000]	ug/L	15:14:05
2	Cd 226.502†	69286.8	68750.5	[1000]	ug/L	15:14:05
2	Co 228.616†	38431.6	38076.1	[1000]	ug/L	15:14:26
2	Cr 267.716†	75022.8	74171.6	[1000]	ug/L	15:14:05
2	Cu 324.752†	310557.0	301896.5	[1000]	ug/L	15:14:05
2	Mn 257.610†	764916.7	756498.1	[1000]	ug/L	15:14:05
2	Mo 202.031†	11473.4	11342.6	[1000]	ug/L	15:14:26
2	Ni 231.604†	31470.1	31064.9	[1000]	ug/L	15:14:26

2	P 214.914†	6885.2	6630.4	[5000]	ug/L	15:14:26
2	Pb 220.353†	6467.9	6444.2	[1000]	ug/L	15:14:26
2	S 181.975 Axial†	1155.6	1113.6	[2000]	ug/L	15:14:26
2	Sb 206.836†	2450.5	2400.8	[1000]	ug/L	15:14:26
2	Se 196.026†	1192.7	1199.2	[1000]	ug/L	15:14:26
2	Si 251.611†	134384.6	132504.1	[5000]	ug/L	15:14:05
2	Sn 189.927†	4474.0	4420.0	[1000]	ug/L	15:14:26
2	Ti 334.940†	585007.8	580077.9	[1000]	ug/L	15:14:05
2	Tl 190.801†	2589.8	2594.9	[1000]	ug/L	15:14:26
2	U 409.014†	31218.3	32978.2	[1000]	ug/L	15:14:05
2	V 292.402†	124750.0	124784.6	[1000]	ug/L	15:14:05
2	Zn 213.857†	83577.5	82100.7	[1000]	ug/L	15:14:05
2	SiO2†	134959.2	133075.7	[10695]	ug/L	15:15:03
3	Sc Radial	4447.2	4447.2	96.9	%	15:13:09
3	Y RADIAL	4758.1	4758.1	96.43	%	15:13:09
3	Al 396.153Radial†	10118.3	10523.4	[10000]	ug/L	15:13:09
3	Ca 317.933Radial†	5609.8	5759.0	[10000]	ug/L	15:13:09
3	Fe 238.204 Radial†	942.6	964.5	[10000]	ug/L	15:13:29
3	K 766.490 Radial†	53165.1	52287.3	[10000]	ug/L	15:13:09
3	Mg 279.077 IEC†	263.9	272.1	[10000]	ug/L	15:13:29
3	Na 589.592 Radial†	26432.4	28071.7	[10000]	ug/L	15:13:09
3	Sr 421.552†	127270.7	131261.6	[1000]	ug/L	15:13:09
3	Sc 361.383	819570.1	819570.1	100.82	%	15:14:33
3	Y 371.029	681188.0	681188.0	98.804	%	15:14:33
3	Ag 328.068†	196568.0	194764.5	[1000]	ug/L	15:14:33
3	As 188.979†	1785.9	1788.4	[1000]	ug/L	15:14:53
3	B 249.677†	35746.8	35872.5	[1000]	ug/L	15:14:33
3	Ba 233.527†	107464.6	106581.2	[1000]	ug/L	15:14:33
3	Be 313.107†	2349370.3	2334060.9	[1000]	ug/L	15:14:33
3	Cd 226.502†	69379.9	68994.0	[1000]	ug/L	15:14:33
3	Co 228.616†	38282.5	38012.1	[1000]	ug/L	15:14:53
3	Cr 267.716†	75036.6	74349.1	[1000]	ug/L	15:14:33
3	Cu 324.752†	310370.9	302389.6	[1000]	ug/L	15:14:33
3	Mn 257.610†	764263.9	757519.7	[1000]	ug/L	15:14:33
3	Mo 202.031†	11387.2	11282.1	[1000]	ug/L	15:14:53
3	Ni 231.604†	31395.5	31059.7	[1000]	ug/L	15:14:53
3	P 214.914†	6805.9	6566.8	[5000]	ug/L	15:14:53
3	Pb 220.353†	6428.1	6418.8	[1000]	ug/L	15:14:53
3	S 181.975 Axial†	1147.7	1108.3	[2000]	ug/L	15:14:53
3	Sb 206.836†	2444.0	2399.7	[1000]	ug/L	15:14:53
3	Se 196.026†	1187.5	1196.6	[1000]	ug/L	15:14:53
3	Si 251.611†	134192.4	132606.8	[5000]	ug/L	15:14:33
3	Sn 189.927†	4456.7	4412.6	[1000]	ug/L	15:14:53
3	Ti 334.940†	584709.8	581058.8	[1000]	ug/L	15:14:33
3	Tl 190.801†	2539.6	2550.8	[1000]	ug/L	15:14:53
3	U 409.014†	31189.9	33018.2	[1000]	ug/L	15:14:33
3	V 292.402†	124684.6	124991.9	[1000]	ug/L	15:14:33
3	Zn 213.857†	83616.9	82322.2	[1000]	ug/L	15:14:33
3	SiO2†	133802.4	132222.7	[10695]	ug/L	15:15:09

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	817139.9	5844.35	0.72%	100.52	%
Sc Radial	4487.0	46.25	1.03%	97.8	%
Y 371.029	679391.3	4531.41	0.67%	98.543	%
Y RADIAL	4786.9	38.66	0.81%	97.01	%
Ag 328.068†	194435.9	317.55	0.16%	[1000]	ug/L
Al 396.153Radial†	10474.5	102.34	0.98%	[10000]	ug/L
As 188.979†	1790.8	11.75	0.66%	[1000]	ug/L
B 249.677†	35715.5	173.86	0.49%	[1000]	ug/L
Ba 233.527†	106514.0	68.45	0.06%	[1000]	ug/L
Be 313.107†	2331236.1	2513.70	0.11%	[1000]	ug/L
Ca 317.933Radial†	5714.1	70.65	1.24%	[10000]	ug/L
Cd 226.502†	68786.6	192.01	0.28%	[1000]	ug/L
Co 228.616†	38202.5	276.21	0.72%	[1000]	ug/L
Cr 267.716†	74240.5	95.12	0.13%	[1000]	ug/L
Cu 324.752†	301891.6	500.40	0.17%	[1000]	ug/L
Fe 238.204 Radial†	959.6	8.77	0.91%	[10000]	ug/L
K 766.490 Radial†	51969.0	617.08	1.19%	[10000]	ug/L

Mg 279.077 IEC†	271.8	2.69	0.99%	[10000]	ug/L
Mn 257.610†	756605.0	866.13	0.11%	[1000]	ug/L
Mo 202.031†	11352.9	76.55	0.67%	[1000]	ug/L
Na 589.592 Radial†	28018.3	299.42	1.07%	[10000]	ug/L
Ni 231.604†	31179.8	203.54	0.65%	[1000]	ug/L
P 214.914†	6625.0	55.69	0.84%	[5000]	ug/L
Pb 220.353†	6456.5	45.20	0.70%	[1000]	ug/L
S 181.975 Axial†	1119.2	14.56	1.30%	[2000]	ug/L
Sb 206.836†	2413.4	22.86	0.95%	[1000]	ug/L
Se 196.026†	1201.2	5.77	0.48%	[1000]	ug/L
Si 251.611†	132385.1	299.57	0.23%	[5000]	ug/L
Sn 189.927†	4434.9	32.38	0.73%	[1000]	ug/L
Sr 421.552†	130620.7	1333.97	1.02%	[1000]	ug/L
Ti 334.940†	580343.0	626.84	0.11%	[1000]	ug/L
Tl 190.801†	2582.8	27.91	1.08%	[1000]	ug/L
U 409.014†	32898.3	174.17	0.53%	[1000]	ug/L
V 292.402†	124884.7	103.85	0.08%	[1000]	ug/L
Zn 213.857†	82157.2	145.23	0.18%	[1000]	ug/L
SiO2†	133024.7	777.63	0.58%	[10695]	ug/L

Sequence No.: 5

Sample ID: S10

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 3/16/2010 15:17:25

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	4382.5	4382.5	95.5 %	15:19:39
1	Y RADIAL	4661.4	4661.4	94.47 %	15:19:39
1	Al 396.153Radial†	50629.9	53085.4	[50000] ug/L	15:19:18
1	Ca 317.933Radial†	26980.9	28215.8	[50000] ug/L	15:19:18
1	Fe 238.204 Radial†	1827.4	1905.1	[20000] ug/L	15:19:39
1	Mg 279.077 IEC†	1251.9	1310.4	[50000] ug/L	15:19:39
1	Na 589.592 Radial†	54090.9	57427.6	[20000] ug/L	15:19:18
1	Sc 361.383	801030.0	801030.0	98.536 %	15:20:36
1	Y 371.029	663754.4	663754.4	96.275 %	15:20:36
2	Sc Radial	4397.1	4397.1	95.8 %	15:20:04
2	Y RADIAL	4678.7	4678.7	94.82 %	15:20:04
2	Al 396.153Radial†	50492.7	52766.4	[50000] ug/L	15:19:44
2	Ca 317.933Radial†	26897.0	28034.6	[50000] ug/L	15:19:44
2	Fe 238.204 Radial†	1836.5	1908.3	[20000] ug/L	15:20:04
2	Mg 279.077 IEC†	1257.2	1311.6	[50000] ug/L	15:20:04
2	Na 589.592 Radial†	53666.4	56796.9	[20000] ug/L	15:19:44
2	Sc 361.383	792948.9	792948.9	97.542 %	15:20:41
2	Y 371.029	656739.7	656739.7	95.258 %	15:20:41
3	Sc Radial	4396.7	4396.7	95.8 %	15:20:29
3	Y RADIAL	4692.4	4692.4	95.10 %	15:20:29
3	Al 396.153Radial†	51471.4	53792.1	[50000] ug/L	15:20:09
3	Ca 317.933Radial†	27395.8	28557.5	[50000] ug/L	15:20:09
3	Fe 238.204 Radial†	1833.9	1905.6	[20000] ug/L	15:20:29
3	Mg 279.077 IEC†	1257.4	1312.0	[50000] ug/L	15:20:29
3	Na 589.592 Radial†	54620.6	57797.3	[20000] ug/L	15:20:09
3	Sc 361.383	800989.6	800989.6	98.531 %	15:20:47
3	Y 371.029	663470.5	663470.5	96.234 %	15:20:47

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	798322.8	4654.04	0.58%	98.203 %
Sc Radial	4392.1	8.32	0.19%	95.7 %
Y 371.029	661321.5	3970.54	0.60%	95.922 %
Y RADIAL	4677.5	15.53	0.33%	94.80 %
Al 396.153Radial†	53214.6	524.89	0.99%	[50000] ug/L
Ca 317.933Radial†	28269.3	265.52	0.94%	[50000] ug/L
Fe 238.204 Radial†	1906.3	1.71	0.09%	[20000] ug/L
Mg 279.077 IEC†	1311.3	0.80	0.06%	[50000] ug/L
Na 589.592 Radial†	57340.6	505.86	0.88%	[20000] ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	194.8	0.00000	0.999974	
Al 396.153Radial	3	Lin Thru 0	0.0	1.064	0.00000	0.999995	
As 188.979	3	Lin Thru 0	0.0	1.797	0.00000	0.999974	
B 249.677	3	Lin Thru 0	0.0	35.73	0.00000	0.999995	
Ba 233.527	3	Lin Thru 0	0.0	106.9	0.00000	0.999957	
Be 313.107	3	Lin Thru 0	0.0	2343	0.00000	0.999942	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5657	0.00000	0.999996	
Cd 226.502	3	Lin Thru 0	0.0	69.02	0.00000	0.999972	
Co 228.616	3	Lin Thru 0	0.0	38.49	0.00000	0.999879	
Cr 267.716	3	Lin Thru 0	0.0	74.48	0.00000	0.999961	
Cu 324.752	3	Lin Thru 0	0.0	302.1	0.00000	0.999983	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0954	0.00000	0.999996	
K 766.490 Radial	3	Lin Thru 0	0.0	5.220	0.00000	0.999962	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0263	0.00000	0.999959
Mn 257.610	3	Lin Thru 0	0.0	759.5	0.00000	0.999947
Mo 202.031	3	Lin Thru 0	0.0	11.37	0.00000	0.999981
Na 589.592 Radia	2	Lin Thru 0	0.0	2.854	0.00000	0.999958
Ni 231.604	3	Lin Thru 0	0.0	31.41	0.00000	0.999886
P 214.914	3	Lin Thru 0	0.0	1.328	0.00000	0.999979
Pb 220.353	3	Lin Thru 0	0.0	6.482	0.00000	0.999949
S 181.975 Axial	3	Lin Thru 0	0.0	0.5601	0.00000	0.999987
Sb 206.836	3	Lin Thru 0	0.0	2.415	0.00000	0.999981
Se 196.026	3	Lin Thru 0	0.0	1.205	0.00000	0.999955
Si 251.611	3	Lin Thru 0	0.0	26.57	0.00000	0.999964
Sn 189.927	3	Lin Thru 0	0.0	4.441	0.00000	0.999983
Sr 421.552	3	Lin Thru 0	0.0	130.9	0.00000	0.999982
Ti 334.940	3	Lin Thru 0	0.0	578.7	0.00000	0.999956
Tl 190.801	3	Lin Thru 0	0.0	2.597	0.00000	0.999922
U 409.014	3	Lin Thru 0	0.0	33.11	0.00000	0.999913
V 292.402	3	Lin Thru 0	0.0	125.2	0.00000	0.999976
Zn 213.857	3	Lin Thru 0	0.0	82.78	0.00000	0.999877
SiO2	3	Lin Thru 0	0.0	12.49	0.00000	0.999959

Sequence No.: 6

Sample ID: ICV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 3/16/2010 15:22:58

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	4533.5	4533.5	98.8 %		15:24:51
1	Y RADIAL	4824.0	4824.0	97.77 %		15:24:51
1	Al 396.153Radial†	5145.8	5292.9	4949.5 ug/L	4949.5 ppb	15:24:51
1	Ca 317.933Radial†	2836.7	2842.7	5024.8 ug/L	5024.8 ppb	15:25:11
1	Fe 238.204 Radial†	497.6	495.7	5209.2 ug/L	5209.2 ppb	15:25:11
1	K 766.490 Radial†	15357.9	12985.3	2484.2 ug/L	2484.2 ppb	15:24:51
1	Mg 279.077 IEC†	140.9	142.5	5424.1 ug/L	5424.1 ppb	15:25:11
1	Na 589.592 Radial†	6415.6	7297.2	2556.8 ug/L	2556.8 ppb	15:24:51
1	Sr 421.552†	69256.5	70056.6	535.15 ug/L	535.15 ppb	15:24:51
1	Sc 361.383	818220.5	818220.5	100.65 %		15:26:08
1	Y 371.029	683712.4	683712.4	99.170 %		15:26:08
1	Ag 328.068†	50326.2	49790.1	258.81 ug/L	258.81 ppb	15:26:08
1	As 188.979†	859.6	871.1	489.02 ug/L	489.02 ppb	15:26:28
1	B 249.677†	18223.3	18520.8	515.99 ug/L	515.99 ppb	15:26:08
1	Ba 233.527†	54927.9	54560.2	511.82 ug/L	511.82 ppb	15:26:08
1	Be 313.107†	618720.3	618447.7	265.13 ug/L	265.13 ppb	15:26:08
1	Cd 226.502†	34603.8	34556.3	500.57 ug/L	500.57 ppb	15:26:08
1	Co 228.616†	19943.2	19854.0	515.99 ug/L	515.99 ppb	15:26:08
1	Cr 267.716†	36833.3	36515.5	491.36 ug/L	491.36 ppb	15:26:08
1	Cu 324.752†	160410.1	153906.4	509.42 ug/L	509.42 ppb	15:26:08
1	Mn 257.610†	397880.0	394755.7	520.04 ug/L	520.04 ppb	15:26:08
1	Mo 202.031†	6251.1	6197.8	545.49 ug/L	545.49 ppb	15:26:28
1	Ni 231.604†	16556.4	16367.9	520.83 ug/L	520.83 ppb	15:26:08
1	P 214.914†	3572.3	3365.3	2435.3 ppb	2435.3 ppb	15:26:28
1	Pb 220.353†	3242.7	3264.5	505.15 ug/L	505.15 ppb	15:26:28
1	S 181.975 Axial†	1457.7	1418.2	2531.2 ug/L	2531.2 ppb	15:26:28
1	Sb 206.836†	1268.6	1235.9	531.45 ug/L	531.45 ppb	15:26:28
1	Se 196.026†	3134.8	3133.3	2618.4 ug/L	2618.4 ppb	15:26:28
1	Si 251.611†	132803.4	131446.2	4940.0 ug/L	4940.0 ppb	15:26:08
1	Sn 189.927†	2453.7	2429.8	547.68 ug/L	547.68 ppb	15:26:28
1	Ti 334.940†	290898.5	290104.4	501.17 ug/L	501.17 ppb	15:26:08
1	Tl 190.801†	1389.2	1412.0	547.10 ug/L	547.10 ppb	15:26:28
1	U 409.014†	14812.0	16797.2	505.61 ug/L	505.61 ppb	15:26:08
1	V 292.402†	63463.3	64370.6	521.58 ug/L	521.58 ppb	15:26:08
1	Zn 213.857†	43839.9	42939.2	513.96 ug/L	513.96 ppb	15:26:08
1	SiO2†	132321.0	130969.9	10474 ug/L	10474 ppb	15:27:26
2	Sc Radial	4542.7	4542.7	99.0 %		15:25:16
2	Y RADIAL	4866.3	4866.3	98.62 %		15:25:16
2	Al 396.153Radial†	5195.5	5332.7	4987.3 ug/L	4987.3 ppb	15:25:16
2	Ca 317.933Radial†	2809.5	2809.4	4966.0 ug/L	4966.0 ppb	15:25:36
2	Fe 238.204 Radial†	491.2	488.2	5130.1 ug/L	5130.1 ppb	15:25:36
2	K 766.490 Radial†	15436.6	13033.4	2493.4 ug/L	2493.4 ppb	15:25:16
2	Mg 279.077 IEC†	143.5	144.8	5511.8 ug/L	5511.8 ppb	15:25:36
2	Na 589.592 Radial†	6401.8	7270.1	2547.4 ug/L	2547.4 ppb	15:25:16
2	Sr 421.552†	69644.9	70307.3	537.06 ug/L	537.06 ppb	15:25:16
2	Sc 361.383	824607.9	824607.9	101.44 %		15:26:34
2	Y 371.029	688870.1	688870.1	99.918 %		15:26:34
2	Ag 328.068†	50777.4	49847.6	259.09 ug/L	259.09 ppb	15:26:34
2	As 188.979†	853.4	858.4	481.97 ug/L	481.97 ppb	15:26:54
2	B 249.677†	18391.3	18546.2	516.70 ug/L	516.70 ppb	15:26:34
2	Ba 233.527†	55621.1	54820.8	514.25 ug/L	514.25 ppb	15:26:34
2	Be 313.107†	624368.7	619254.5	265.48 ug/L	265.48 ppb	15:26:34
2	Cd 226.502†	34967.8	34648.8	501.92 ug/L	501.92 ppb	15:26:34
2	Co 228.616†	20246.6	19999.7	519.75 ug/L	519.75 ppb	15:26:34
2	Cr 267.716†	37115.8	36510.6	491.29 ug/L	491.29 ppb	15:26:34
2	Cu 324.752†	161774.7	154017.1	509.79 ug/L	509.79 ppb	15:26:34
2	Mn 257.610†	401655.2	395415.4	520.89 ug/L	520.89 ppb	15:26:34
2	Mo 202.031†	6209.0	6108.2	537.61 ug/L	537.61 ppb	15:26:54
2	Ni 231.604†	16745.6	16427.0	522.71 ug/L	522.71 ppb	15:26:34

2	P 214.914†	3559.7	3325.4	2405.2 ug/L	2405.2 ppb	15:26:54
2	Pb 220.353†	3234.4	3231.3	500.03 ug/L	500.03 ppb	15:26:54
2	S 181.975 Axial†	1446.2	1395.6	2490.8 ug/L	2490.8 ppb	15:26:54
2	Sb 206.836†	1274.7	1232.1	529.59 ug/L	529.59 ppb	15:26:54
2	Se 196.026†	3109.9	3084.6	2577.8 ug/L	2577.8 ppb	15:26:54
2	Si 251.611†	134259.5	131859.7	4955.7 ug/L	4955.7 ppb	15:26:34
2	Sn 189.927†	2435.2	2392.7	539.32 ug/L	539.32 ppb	15:26:54
2	Ti 334.940†	293824.1	290749.8	502.28 ug/L	502.28 ppb	15:26:34
2	Tl 190.801†	1383.3	1395.5	540.72 ug/L	540.72 ppb	15:26:54
2	U 409.014†	14763.9	16635.8	500.74 ug/L	500.74 ppb	15:26:34
2	V 292.402†	64083.7	64493.8	522.45 ug/L	522.45 ppb	15:26:34
2	Zn 213.857†	44278.6	43034.4	515.10 ug/L	515.10 ppb	15:26:34
2	SiO2†	134353.7	131955.5	10553 ug/L	10553 ppb	15:27:31
3	Sc Radial	4613.4	4613.4	101 %		15:25:41
3	Y RADIAL	4940.4	4940.4	100.1 %		15:25:41
3	Al 396.153Radial†	5207.2	5263.9	4922.7 ug/L	4922.7 ppb	15:25:41
3	Ca 317.933Radial†	2838.9	2795.2	4940.8 ug/L	4940.8 ppb	15:26:01
3	Fe 238.204 Radial†	490.6	480.0	5044.3 ug/L	5044.3 ppb	15:26:01
3	K 766.490 Radial†	15587.2	12944.3	2476.4 ug/L	2476.4 ppb	15:25:41
3	Mg 279.077 IEC†	139.3	138.5	5269.9 ug/L	5269.9 ppb	15:26:01
3	Na 589.592 Radial†	6455.2	7224.2	2531.3 ug/L	2531.3 ppb	15:25:41
3	Sr 421.552†	70552.0	70131.7	535.72 ug/L	535.72 ppb	15:25:41
3	Sc 361.383	828696.0	828696.0	101.94 %		15:27:01
3	Y 371.029	693691.2	693691.2	100.62 %		15:27:01
3	Ag 328.068†	50949.4	49769.4	258.66 ug/L	258.66 ppb	15:27:01
3	As 188.979†	846.4	847.3	475.79 ug/L	475.79 ppb	15:27:21
3	B 249.677†	18475.4	18539.3	516.54 ug/L	516.54 ppb	15:27:01
3	Ba 233.527†	55623.0	54552.2	511.74 ug/L	511.74 ppb	15:27:01
3	Be 313.107†	626248.8	618062.3	264.97 ug/L	264.97 ppb	15:27:01
3	Cd 226.502†	34844.4	34357.7	497.71 ug/L	497.71 ppb	15:27:01
3	Co 228.616†	20142.1	19798.7	514.53 ug/L	514.53 ppb	15:27:01
3	Cr 267.716†	37119.9	36334.1	488.91 ug/L	488.91 ppb	15:27:01
3	Cu 324.752†	162161.2	153609.6	508.43 ug/L	508.43 ppb	15:27:01
3	Mn 257.610†	402017.7	393817.7	518.79 ug/L	518.79 ppb	15:27:01
3	Mo 202.031†	6207.8	6076.9	534.84 ug/L	534.84 ppb	15:27:21
3	Ni 231.604†	16718.7	16319.2	519.28 ug/L	519.28 ppb	15:27:01
3	P 214.914†	3559.5	3307.8	2392.2 ug/L	2392.2 ppb	15:27:21
3	Pb 220.353†	3250.8	3231.7	500.08 ug/L	500.08 ppb	15:27:21
3	S 181.975 Axial†	1444.1	1386.5	2474.6 ug/L	2474.6 ppb	15:27:21
3	Sb 206.836†	1256.5	1208.1	519.53 ug/L	519.53 ppb	15:27:21
3	Se 196.026†	3106.5	3066.2	2562.2 ug/L	2562.2 ppb	15:27:21
3	Si 251.611†	134172.3	131121.3	4927.9 ug/L	4927.9 ppb	15:27:01
3	Sn 189.927†	2424.7	2370.6	534.34 ug/L	534.34 ppb	15:27:21
3	Ti 334.940†	294607.2	290089.0	501.15 ug/L	501.15 ppb	15:27:01
3	Tl 190.801†	1371.9	1377.6	533.84 ug/L	533.84 ppb	15:27:21
3	U 409.014†	14945.8	16742.5	503.98 ug/L	503.98 ppb	15:27:01
3	V 292.402†	64317.5	64411.4	521.77 ug/L	521.77 ppb	15:27:01
3	Zn 213.857†	44344.2	42883.4	513.32 ug/L	513.32 ppb	15:27:01
3	SiO2†	133820.4	130778.9	10459 ug/L	10459 ppb	15:27:36

Mean Data: ICV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	823841.5	101.34 %		0.649			0.64%
Sc Radial	4563.2	99.5 %		0.95			0.96%
Y 371.029	688757.9	99.902 %		0.7238			0.72%
Y RADIAL	4876.9	98.84 %		1.194			1.21%
Ag 328.068†	49802.4	258.86 ug/L		0.220	258.86 ppb	0.220	0.08%
QC value within limits for Ag 328.068 Recovery = 103.54%							
Al 396.153Radial†	5296.5	4953.2 ug/L		32.43	4953.2 ppb	32.43	0.65%
QC value within limits for Al 396.153Radial Recovery = 99.06%							
As 188.979†	858.9	482.26 ug/L		6.623	482.26 ppb	6.623	1.37%
QC value within limits for As 188.979 Recovery = 96.45%							
B 249.677†	18535.4	516.41 ug/L		0.373	516.41 ppb	0.373	0.07%
QC value within limits for B 249.677 Recovery = 103.28%							
Ba 233.527†	54644.4	512.60 ug/L		1.432	512.60 ppb	1.432	0.28%
QC value within limits for Ba 233.527 Recovery = 102.52%							
Be 313.107†	618588.2	265.19 ug/L		0.261	265.19 ppb	0.261	0.10%
QC value within limits for Be 313.107 Recovery = 106.08%							
Ca 317.933Radial†	2815.8	4977.2 ug/L		43.09	4977.2 ppb	43.09	0.87%

QC value within limits for Ca 317.933 Radial Recovery = 99.54%

Cd 226.502†	34521.0	500.07 ug/L	2.150	500.07 ppb	2.150	0.43%
QC value within limits for Cd 226.502 Recovery = 100.01%						
Co 228.616†	19884.1	516.76 ug/L	2.695	516.76 ppb	2.695	0.52%
QC value within limits for Co 228.616 Recovery = 103.35%						
Cr 267.716†	36453.4	490.52 ug/L	1.395	490.52 ppb	1.395	0.28%
QC value within limits for Cr 267.716 Recovery = 98.10%						
Cu 324.752†	153844.4	509.22 ug/L	0.701	509.22 ppb	0.701	0.14%
QC value within limits for Cu 324.752 Recovery = 101.84%						
Fe 238.204 Radial†	488.0	5127.9 ug/L	82.47	5127.9 ppb	82.47	1.61%
QC value within limits for Fe 238.204 Radial Recovery = 102.56%						
K 766.490 Radial†	12987.7	2484.7 ug/L	8.53	2484.7 ppb	8.53	0.34%
QC value within limits for K 766.490 Radial Recovery = 99.39%						
Mg 279.077 IEC†	141.9	5401.9 ug/L	122.43	5401.9 ppb	122.43	2.27%
QC value within limits for Mg 279.077 IEC Recovery = 108.04%						
Mn 257.610†	394663.0	519.91 ug/L	1.057	519.91 ppb	1.057	0.20%
QC value within limits for Mn 257.610 Recovery = 103.98%						
Mo 202.031†	6127.6	539.31 ug/L	5.527	539.31 ppb	5.527	1.02%
QC value within limits for Mo 202.031 Recovery = 107.86%						
Na 589.592 Radial†	7263.8	2545.1 ug/L	12.93	2545.1 ppb	12.93	0.51%
QC value within limits for Na 589.592 Radial Recovery = 101.81%						
Ni 231.604†	16371.4	520.94 ug/L	1.717	520.94 ppb	1.717	0.33%
QC value within limits for Ni 231.604 Recovery = 104.19%						
P 214.914†	3332.9	2410.9 ug/L	22.11	2410.9 ppb	22.11	0.92%
QC value within limits for P 214.914 Recovery = 96.44%						
Pb 220.353†	3242.5	501.75 ug/L	2.941	501.75 ppb	2.941	0.59%
QC value within limits for Pb 220.353 Recovery = 100.35%						
S 181.975 Axial†	1400.1	2498.9 ug/L	29.12	2498.9 ppb	29.12	1.17%
QC value within limits for S 181.975 Axial Recovery = 99.96%						
Sb 206.836†	1225.4	526.85 ug/L	6.415	526.85 ppb	6.415	1.22%
QC value within limits for Sb 206.836 Recovery = 105.37%						
Se 196.026†	3094.7	2586.1 ug/L	29.03	2586.1 ppb	29.03	1.12%
QC value within limits for Se 196.026 Recovery = 103.45%						
Si 251.611†	131475.7	4941.2 ug/L	13.92	4941.2 ppb	13.92	0.28%
QC value within limits for Si 251.611 Recovery = 98.82%						
Sn 189.927†	2397.7	540.45 ug/L	6.741	540.45 ppb	6.741	1.25%
QC value within limits for Sn 189.927 Recovery = 108.09%						
Sr 421.552†	70165.2	535.98 ug/L	0.983	535.98 ppb	0.983	0.18%
QC value within limits for Sr 421.552 Recovery = 107.20%						
Ti 334.940†	290314.4	501.53 ug/L	0.643	501.53 ppb	0.643	0.13%
QC value within limits for Ti 334.940 Recovery = 100.31%						
Tl 190.801†	1395.0	540.55 ug/L	6.629	540.55 ppb	6.629	1.23%
QC value within limits for Tl 190.801 Recovery = 108.11%						
U 409.014†	16725.2	503.44 ug/L	2.476	503.44 ppb	2.476	0.49%
QC value within limits for U 409.014 Recovery = 100.69%						
V 292.402†	64425.3	521.93 ug/L	0.460	521.93 ppb	0.460	0.09%
QC value within limits for V 292.402 Recovery = 104.39%						
Zn 213.857†	42952.3	514.13 ug/L	0.906	514.13 ppb	0.906	0.18%
QC value within limits for Zn 213.857 Recovery = 102.83%						
SiO2†	131234.7	10495 ug/L	50.6	10495 ppb	50.6	0.48%
QC value within limits for SiO2 Recovery = 98.13%						

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 3/16/2010 15:29:47

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	4346.6	4346.6	94.7 %		15:32:00
1	Y RADIAL	4767.4	4767.4	96.62 %		15:31:40
1	Al 396.153Radial†	-74.7	7.0	6.6025 ug/L	6.6025 ppb	15:32:00
1	Ca 317.933Radial†	21.0	-5.7	-10.025 ug/L	-10.025 ppb	15:32:00
1	Fe 238.204 Radial†	9.4	2.0	21.153 ug/L	21.153 ppb	15:32:00
1	K 766.490 Radial†	2521.3	105.3	20.189 ug/L	20.189 ppb	15:31:40
1	Mg 279.077 IEC†	0.4	0.3	11.753 ug/L	11.753 ppb	15:32:00
1	Na 589.592 Radial†	-835.5	-76.7	-26.888 ug/L	-26.888 ppb	15:31:40
1	Sr 421.552†	27.5	3.3	0.0250 ug/L	0.0250 ppb	15:31:40
1	Sc 361.383	811254.7	811254.7	99.794 %		15:32:57
1	Y 371.029	685428.7	685428.7	99.419 %		15:32:57
1	Ag 328.068†	144.0	-66.3	-0.3339 ug/L	-0.3339 ppb	15:32:57
1	As 188.979†	-16.7	0.3	0.1866 ug/L	0.1866 ppb	15:33:17
1	B 249.677†	-130.4	284.7	7.9650 ug/L	7.9650 ppb	15:33:17
1	Ba 233.527†	4.7	-7.8	-0.0727 ug/L	-0.0727 ppb	15:33:17
1	Be 313.107†	-3969.7	-248.9	-0.1065 ug/L	-0.1065 ppb	15:32:57
1	Cd 226.502†	-172.9	3.1	0.0430 ug/L	0.0430 ppb	15:33:17
1	Co 228.616†	-43.6	-3.9	-0.1013 ug/L	-0.1013 ppb	15:33:17
1	Cr 267.716†	66.6	-12.8	-0.1701 ug/L	-0.1701 ppb	15:33:17
1	Cu 324.752†	5379.5	-75.6	-0.2491 ug/L	-0.2491 ppb	15:32:57
1	Mn 257.610†	423.8	-126.2	-0.1646 ug/L	-0.1646 ppb	15:33:17
1	Mo 202.031†	11.4	-1.5	-0.1273 ug/L	-0.1273 ppb	15:33:17
1	Ni 231.604†	92.0	10.7	0.3418 ug/L	0.3418 ppb	15:33:17
1	P 214.914†	191.0	7.5	5.7024 ug/L	5.7024 ppb	15:33:17
1	Pb 220.353†	-48.3	-5.6	-0.8653 ug/L	-0.8653 ppb	15:33:17
1	S 181.975 Axial†	25.2	-4.9	-8.7887 ug/L	-8.7887 ppb	15:33:17
1	Sb 206.836†	27.9	3.4	1.4489 ug/L	1.4489 ppb	15:33:17
1	Se 196.026†	-11.6	7.2	6.0050 ug/L	6.0050 ppb	15:33:17
1	Si 251.611†	542.1	45.0	1.6957 ug/L	1.6957 ppb	15:33:17
1	Sn 189.927†	17.2	9.3	2.0804 ug/L	2.0804 ppb	15:33:17
1	Ti 334.940†	-1160.3	-75.4	-0.1324 ug/L	-0.1324 ppb	15:32:57
1	Tl 190.801†	-24.1	7.7	2.9604 ug/L	2.9604 ppb	15:33:17
1	U 409.014†	-2086.9	-10.2	-0.3091 ug/L	-0.3091 ppb	15:32:57
1	V 292.402†	-1332.9	-18.0	-0.1487 ug/L	-0.1487 ppb	15:32:57
1	Zn 213.857†	673.5	57.8	0.6930 ug/L	0.6930 ppb	15:33:17
1	SiO2†	503.6	9.3	0.7473 ug/L	0.7473 ppb	15:34:28
2	Sc Radial	4369.0	4369.0	95.2 %		15:32:25
2	Y RADIAL	4930.3	4930.3	99.92 %		15:32:05
2	Al 396.153Radial†	-74.6	7.5	7.0298 ug/L	7.0298 ppb	15:32:25
2	Ca 317.933Radial†	22.8	-3.9	-6.8180 ug/L	-6.8180 ppb	15:32:25
2	Fe 238.204 Radial†	7.3	-0.2	-2.0698 ug/L	-2.0698 ppb	15:32:25
2	K 766.490 Radial†	2469.6	37.4	7.1773 ug/L	7.1773 ppb	15:32:05
2	Mg 279.077 IEC†	1.0	1.0	38.703 ug/L	38.703 ppb	15:32:25
2	Na 589.592 Radial†	-854.9	-92.5	-32.427 ug/L	-32.427 ppb	15:32:05
2	Sr 421.552†	38.8	15.0	0.1145 ug/L	0.1145 ppb	15:32:05
2	Sc 361.383	803882.5	803882.5	98.887 %		15:33:22
2	Y 371.029	677768.4	677768.4	98.308 %		15:33:22
2	Ag 328.068†	114.6	-94.7	-0.4855 ug/L	-0.4855 ppb	15:33:22
2	As 188.979†	-14.5	2.4	1.3338 ug/L	1.3338 ppb	15:33:42
2	B 249.677†	-117.8	296.2	8.2909 ug/L	8.2909 ppb	15:33:42
2	Ba 233.527†	4.6	-7.8	-0.0726 ug/L	-0.0726 ppb	15:33:42
2	Be 313.107†	-3902.4	-217.3	-0.0928 ug/L	-0.0928 ppb	15:33:22
2	Cd 226.502†	-156.9	17.6	0.2557 ug/L	0.2557 ppb	15:33:42
2	Co 228.616†	-51.5	-12.3	-0.3197 ug/L	-0.3197 ppb	15:33:42
2	Cr 267.716†	84.3	5.8	0.0777 ug/L	0.0777 ppb	15:33:42
2	Cu 324.752†	5313.1	-93.3	-0.3088 ug/L	-0.3088 ppb	15:33:22
2	Mn 257.610†	436.2	-109.8	-0.1463 ug/L	-0.1463 ppb	15:33:42
2	Mo 202.031†	10.5	-2.2	-0.1979 ug/L	-0.1979 ppb	15:33:42
2	Ni 231.604†	89.3	8.9	0.2837 ug/L	0.2837 ppb	15:33:42

2	P 214.914†	195.0	13.3	10.042 ug/L	10.042 ppb	15:33:42
2	Pb 220.353†	-42.9	-0.6	-0.0915 ug/L	-0.0915 ppb	15:33:42
2	S 181.975 Axial†	24.8	-5.1	-9.0431 ug/L	-9.0431 ppb	15:33:42
2	Sb 206.836†	35.4	11.3	4.6753 ug/L	4.6753 ppb	15:33:42
2	Se 196.026†	-14.8	3.8	3.1602 ug/L	3.1602 ppb	15:33:42
2	Si 251.611†	517.3	24.9	0.9403 ug/L	0.9403 ppb	15:33:42
2	Sn 189.927†	6.0	-1.9	-0.4294 ug/L	-0.4294 ppb	15:33:42
2	Ti 334.940†	-1077.9	-2.7	-0.0087 ug/L	-0.0087 ppb	15:33:22
2	Tl 190.801†	-25.5	6.0	2.2967 ug/L	2.2967 ppb	15:33:42
2	U 409.014†	-2065.4	-7.7	-0.2315 ug/L	-0.2315 ppb	15:33:22
2	V 292.402†	-1275.1	28.2	0.2234 ug/L	0.2234 ppb	15:33:22
2	Zn 213.857†	674.8	65.3	0.7873 ug/L	0.7873 ppb	15:33:42
2	SiO2†	517.3	27.8	2.2295 ug/L	2.2295 ppb	15:34:48
3	Sc Radial	4361.4	4361.4	95.1 %		15:32:50
3	Y RADIAL	4779.0	4779.0	96.85 %		15:32:30
3	Al 396.153Radial†	-82.2	-0.7	-0.6477 ug/L	-0.6477 ppb	15:32:50
3	Ca 317.933Radial†	22.2	-4.5	-7.9023 ug/L	-7.9023 ppb	15:32:50
3	Fe 238.204 Radial†	7.6	0.1	1.2445 ug/L	1.2445 ppb	15:32:50
3	K 766.490 Radial†	2469.1	41.4	7.9561 ug/L	7.9561 ppb	15:32:30
3	Mg 279.077 IEC†	2.9	3.0	112.65 ug/L	112.65 ppb	15:32:50
3	Na 589.592 Radial†	-866.3	-106.1	-37.189 ug/L	-37.189 ppb	15:32:30
3	Sr 421.552†	23.7	-0.8	-0.0060 ug/L	-0.0060 ppb	15:32:30
3	Sc 361.383	807937.3	807937.3	99.386 %		15:33:48
3	Y 371.029	682559.5	682559.5	99.003 %		15:33:48
3	Ag 328.068†	223.2	14.0	0.0705 ug/L	0.0705 ppb	15:33:48
3	As 188.979†	-20.6	-3.7	-2.0499 ug/L	-2.0499 ppb	15:34:08
3	B 249.677†	-163.2	251.2	7.0295 ug/L	7.0295 ppb	15:34:08
3	Ba 233.527†	10.9	-1.5	-0.0150 ug/L	-0.0150 ppb	15:34:08
3	Be 313.107†	-3821.2	-115.8	-0.0496 ug/L	-0.0496 ppb	15:33:48
3	Cd 226.502†	-179.9	-4.6	-0.0673 ug/L	-0.0673 ppb	15:34:08
3	Co 228.616†	-51.7	-12.2	-0.3159 ug/L	-0.3159 ppb	15:34:08
3	Cr 267.716†	102.2	23.4	0.3131 ug/L	0.3131 ppb	15:34:08
3	Cu 324.752†	5250.8	-183.0	-0.6057 ug/L	-0.6057 ppb	15:33:48
3	Mn 257.610†	454.9	-93.2	-0.1272 ug/L	-0.1272 ppb	15:34:08
3	Mo 202.031†	14.4	1.7	0.1477 ug/L	0.1477 ppb	15:34:08
3	Ni 231.604†	87.3	6.5	0.2058 ug/L	0.2058 ppb	15:34:08
3	P 214.914†	194.8	12.1	9.2431 ug/L	9.2431 ppb	15:34:08
3	Pb 220.353†	-47.0	-4.5	-0.6895 ug/L	-0.6895 ppb	15:34:08
3	S 181.975 Axial†	26.8	-3.2	-5.6531 ug/L	-5.6531 ppb	15:34:08
3	Sb 206.836†	29.7	5.3	2.2447 ug/L	2.2447 ppb	15:34:08
3	Se 196.026†	-20.8	-2.1	-1.7572 ug/L	-1.7572 ppb	15:34:08
3	Si 251.611†	517.8	22.8	0.8550 ug/L	0.8550 ppb	15:34:08
3	Sn 189.927†	17.4	9.5	2.1314 ug/L	2.1314 ppb	15:34:08
3	Ti 334.940†	-1128.8	-48.4	-0.0941 ug/L	-0.0941 ppb	15:33:48
3	Tl 190.801†	-36.1	-4.6	-1.7555 ug/L	-1.7555 ppb	15:34:08
3	U 409.014†	-2069.2	-1.0	-0.0313 ug/L	-0.0313 ppb	15:33:48
3	V 292.402†	-1366.0	-56.7	-0.4492 ug/L	-0.4492 ppb	15:33:48
3	Zn 213.857†	671.9	58.9	0.7112 ug/L	0.7112 ppb	15:34:08
3	SiO2†	517.6	25.4	2.0331 ug/L	2.0331 ppb	15:35:08

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	807691.5	99.356 %		0.4542				0.46%
Sc Radial	4359.0	95.0 %		0.25				0.26%
Y 371.029	681918.9	98.910 %		0.5613				0.57%
Y RADIAL	4825.6	97.80 %		1.842				1.88%
Ag 328.068†	-49.0	-0.2496 ug/L		0.28739	-0.2496 ppb		0.28739	115.13%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.6	4.3282 ug/L		4.31456	4.3282 ppb		4.31456	99.68%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.3	-0.1765 ug/L		1.72083	-0.1765 ppb		1.72083	975.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	277.4	7.7618 ug/L		0.65483	7.7618 ppb		0.65483	8.44%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.7	-0.0534 ug/L		0.03330	-0.0534 ppb		0.03330	62.34%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-194.0	-0.0830 ug/L		0.02969	-0.0830 ppb		0.02969	35.78%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-4.7	-8.2485 ug/L		1.63139	-8.2485 ppb		1.63139	19.78%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd	226.502†	5.4	0.0772 ug/L	0.16420	0.0772 ppb	0.16420	212.82%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	-9.4	-0.2456 ug/L	0.12500	-0.2456 ppb	0.12500	50.89%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	5.4	0.0736 ug/L	0.24162	0.0736 ppb	0.24162	328.41%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-117.3	-0.3879 ug/L	0.19100	-0.3879 ppb	0.19100	49.25%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	0.6	6.7759 ug/L	12.56075	6.7759 ppb	12.56075	185.37%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	61.4	11.774 ug/L	7.2976	11.774 ppb	7.2976	61.98%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	1.4	54.369 ug/L	52.2413	54.369 ppb	52.2413	96.09%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	-109.8	-0.1461 ug/L	0.01868	-0.1461 ppb	0.01868	12.79%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	-0.7	-0.0592 ug/L	0.18260	-0.0592 ppb	0.18260	308.58%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	-91.8	-32.168 ug/L	5.1556	-32.168 ppb	5.1556	16.03%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	8.7	0.2771 ug/L	0.06824	0.2771 ppb	0.06824	24.63%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	10.9	8.3292 ug/L	2.30972	8.3292 ppb	2.30972	27.73%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-3.6	-0.5487 ug/L	0.40563	-0.5487 ppb	0.40563	73.92%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-4.4	-7.8283 ug/L	1.88804	-7.8283 ppb	1.88804	24.12%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	6.7	2.7896 ug/L	1.68082	2.7896 ppb	1.68082	60.25%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	3.0	2.4693 ug/L	3.92697	2.4693 ppb	3.92697	159.03%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	30.9	1.1637 ug/L	0.46268	1.1637 ppb	0.46268	39.76%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	5.6	1.2608 ug/L	1.46400	1.2608 ppb	1.46400	116.12%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	5.8	0.0445 ug/L	0.06255	0.0445 ppb	0.06255	140.60%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-42.2	-0.0784 ug/L	0.06333	-0.0784 ppb	0.06333	80.77%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	3.0	1.1672 ug/L	2.55279	1.1672 ppb	2.55279	218.71%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-6.3	-0.1907 ug/L	0.14334	-0.1907 ppb	0.14334	75.18%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-15.5	-0.1248 ug/L	0.33691	-0.1248 ppb	0.33691	269.90%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	60.7	0.7305 ug/L	0.05002	0.7305 ppb	0.05002	6.85%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		20.8	1.6700 ug/L	0.80508	1.6700 ppb	0.80508	48.21%
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 8

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 11

Date Collected: 3/16/2010 15:37:19

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	4070.7	4070.7	88.7 %		15:39:32
1	Y RADIAL	5315.4	5315.4	107.7 %		15:39:12
1	Al 396.153Radial†	152.0	257.1	241.24 ug/L	241.24 ppb	15:39:32
1	Ca 317.933Radial†	138.9	128.7	227.56 ug/L	227.56 ppb	15:39:32
1	Fe 238.204 Radial†	17.6	12.0	126.03 ug/L	126.03 ppb	15:39:32
1	K 766.490 Radial†	3286.9	1148.6	219.85 ug/L	219.85 ppb	15:39:12
1	Mg 279.077 IEC†	7.4	8.3	316.42 ug/L	316.42 ppb	15:39:32
1	Na 589.592 Radial†	-19.1	783.6	274.57 ug/L	274.57 ppb	15:39:12
1	Sr 421.552†	656.5	714.1	5.4537 ug/L	5.4537 ppb	15:39:12
1	Sc 361.383	822604.4	822604.4	101.19 %		15:40:29
1	Y 371.029	694677.7	694677.7	100.76 %		15:40:29
1	Ag 328.068†	1134.4	910.5	4.6912 ug/L	4.6912 ppb	15:40:29
1	As 188.979†	30.5	47.1	26.289 ug/L	26.289 ppb	15:40:49
1	B 249.677†	1467.8	1865.9	52.182 ug/L	52.182 ppb	15:40:29
1	Ba 233.527†	571.1	551.9	5.1796 ug/L	5.1796 ppb	15:40:49
1	Be 313.107†	8161.2	11794.2	5.0462 ug/L	5.0462 ppb	15:40:29
1	Cd 226.502†	172.0	346.3	5.0177 ug/L	5.0177 ppb	15:40:49
1	Co 228.616†	153.8	191.8	4.9943 ug/L	4.9943 ppb	15:40:49
1	Cr 267.716†	456.0	371.2	4.9848 ug/L	4.9848 ppb	15:40:49
1	Cu 324.752†	8486.5	2920.5	9.6463 ug/L	9.6463 ppb	15:40:29
1	Mn 257.610†	8532.5	7881.2	10.376 ug/L	10.376 ppb	15:40:29
1	Mo 202.031†	124.0	109.7	9.6555 ug/L	9.6555 ppb	15:40:49
1	Ni 231.604†	251.8	167.4	5.3260 ug/L	5.3260 ppb	15:40:49
1	P 214.914†	390.5	202.0	150.25 ug/L	150.25 ppb	15:40:49
1	Pb 220.353†	11.7	54.3	8.4405 ug/L	8.4405 ppb	15:40:49
1	S 181.975 Axial†	83.5	52.4	93.510 ug/L	93.510 ppb	15:40:49
1	Sb 206.836†	54.7	29.6	12.604 ug/L	12.604 ppb	15:40:49
1	Se 196.026†	14.5	33.1	27.912 ug/L	27.912 ppb	15:40:49
1	Si 251.611†	3111.6	2576.8	96.854 ug/L	96.854 ppb	15:40:49
1	Sn 189.927†	58.4	49.7	11.222 ug/L	11.222 ppb	15:40:49
1	Ti 334.940†	1916.5	2981.3	5.1334 ug/L	5.1334 ppb	15:40:29
1	Tl 190.801†	36.1	67.5	26.033 ug/L	26.033 ppb	15:40:49
1	U 409.014†	-464.6	1621.9	48.957 ug/L	48.957 ppb	15:40:29
1	V 292.402†	-670.4	655.2	5.4452 ug/L	5.4452 ppb	15:40:29
1	Zn 213.857†	1684.0	1047.1	12.584 ug/L	12.584 ppb	15:40:49
1	SiO2†	3243.2	2709.7	216.74 ug/L	216.74 ppb	15:41:45
2	Sc Radial	4397.3	4397.3	95.9 %		15:39:57
2	Y RADIAL	4946.8	4946.8	100.3 %		15:39:37
2	Al 396.153Radial†	141.3	233.2	218.79 ug/L	218.79 ppb	15:39:57
2	Ca 317.933Radial†	139.5	117.7	208.10 ug/L	208.10 ppb	15:39:57
2	Fe 238.204 Radial†	20.3	13.3	139.33 ug/L	139.33 ppb	15:39:57
2	K 766.490 Radial†	3351.9	941.1	180.11 ug/L	180.11 ppb	15:39:37
2	Mg 279.077 IEC†	11.6	12.0	457.28 ug/L	457.28 ppb	15:39:57
2	Na 589.592 Radial†	-6.5	798.3	279.71 ug/L	279.71 ppb	15:39:37
2	Sr 421.552†	679.0	682.6	5.2132 ug/L	5.2132 ppb	15:39:37
2	Sc 361.383	821706.8	821706.8	101.08 %		15:40:55
2	Y 371.029	694526.9	694526.9	100.74 %		15:40:55
2	Ag 328.068†	1127.9	905.3	4.6653 ug/L	4.6653 ppb	15:40:55
2	As 188.979†	29.3	46.0	25.679 ug/L	25.679 ppb	15:41:15
2	B 249.677†	1469.9	1869.6	52.283 ug/L	52.283 ppb	15:40:55
2	Ba 233.527†	549.2	530.9	4.9826 ug/L	4.9826 ppb	15:41:15
2	Be 313.107†	8151.2	11793.2	5.0453 ug/L	5.0453 ppb	15:40:55
2	Cd 226.502†	190.8	365.1	5.2897 ug/L	5.2897 ppb	15:41:15
2	Co 228.616†	158.3	196.5	5.1146 ug/L	5.1146 ppb	15:41:15
2	Cr 267.716†	454.9	370.5	4.9759 ug/L	4.9759 ppb	15:41:15
2	Cu 324.752†	8535.0	2977.6	9.8342 ug/L	9.8342 ppb	15:40:55
2	Mn 257.610†	8491.7	7850.0	10.331 ug/L	10.331 ppb	15:40:55
2	Mo 202.031†	123.4	109.3	9.6238 ug/L	9.6238 ppb	15:41:15
2	Ni 231.604†	253.5	169.4	5.3894 ug/L	5.3894 ppb	15:41:15

2	P 214.914†	399.1	210.9	156.91 ug/L	156.91 ppb	15:41:15
2	Pb 220.353†	15.1	57.7	8.9568 ug/L	8.9568 ppb	15:41:15
2	S 181.975 Axial†	80.2	49.2	87.860 ug/L	87.860 ppb	15:41:15
2	Sb 206.836†	49.7	24.7	10.543 ug/L	10.543 ppb	15:41:15
2	Se 196.026†	15.6	34.2	28.911 ug/L	28.911 ppb	15:41:15
2	Si 251.611†	3099.6	2568.3	96.535 ug/L	96.535 ppb	15:41:15
2	Sn 189.927†	49.5	40.9	9.2463 ug/L	9.2463 ppb	15:41:15
2	Ti 334.940†	1796.4	2864.5	4.9162 ug/L	4.9162 ppb	15:40:55
2	Tl 190.801†	16.6	48.3	18.640 ug/L	18.640 ppb	15:41:15
2	U 409.014†	-358.2	1726.6	52.119 ug/L	52.119 ppb	15:40:55
2	V 292.402†	-698.3	626.9	5.2256 ug/L	5.2256 ppb	15:40:55
2	Zn 213.857†	1705.8	1070.4	12.863 ug/L	12.863 ppb	15:41:15
2	SiO2†	3200.1	2670.6	213.60 ug/L	213.60 ppb	15:41:50
3	Sc Radial	4388.6	4388.6	95.7 %		15:40:23
3	Y RADIAL	4819.5	4819.5	97.67 %		15:40:02
3	Al 396.153Radial†	140.3	232.5	218.13 ug/L	218.13 ppb	15:40:23
3	Ca 317.933Radial†	133.1	111.3	196.78 ug/L	196.78 ppb	15:40:23
3	Fe 238.204 Radial†	18.1	11.1	115.95 ug/L	115.95 ppb	15:40:23
3	K 766.490 Radial†	3408.9	1007.7	192.86 ug/L	192.86 ppb	15:40:02
3	Mg 279.077 IEC†	11.1	11.6	439.86 ug/L	439.86 ppb	15:40:23
3	Na 589.592 Radial†	-17.9	786.3	275.52 ug/L	275.52 ppb	15:40:02
3	Sr 421.552†	657.9	661.9	5.0551 ug/L	5.0551 ppb	15:40:02
3	Sc 361.383	825707.9	825707.9	101.57 %		15:41:20
3	Y 371.029	698806.2	698806.2	101.36 %		15:41:20
3	Ag 328.068†	1221.0	991.5	5.1000 ug/L	5.1000 ppb	15:41:20
3	As 188.979†	23.7	40.4	22.534 ug/L	22.534 ppb	15:41:40
3	B 249.677†	1541.7	1933.2	54.069 ug/L	54.069 ppb	15:41:20
3	Ba 233.527†	565.2	544.0	5.1044 ug/L	5.1044 ppb	15:41:40
3	Be 313.107†	8282.3	11883.1	5.0839 ug/L	5.0839 ppb	15:41:20
3	Cd 226.502†	176.9	350.5	5.0807 ug/L	5.0807 ppb	15:41:40
3	Co 228.616†	140.4	178.0	4.6356 ug/L	4.6356 ppb	15:41:40
3	Cr 267.716†	439.5	353.1	4.7399 ug/L	4.7399 ppb	15:41:40
3	Cu 324.752†	8508.3	2910.4	9.6102 ug/L	9.6102 ppb	15:41:20
3	Mn 257.610†	8608.4	7924.2	10.427 ug/L	10.427 ppb	15:41:20
3	Mo 202.031†	122.6	107.9	9.4986 ug/L	9.4986 ppb	15:41:40
3	Ni 231.604†	248.6	163.3	5.1965 ug/L	5.1965 ppb	15:41:40
3	P 214.914†	391.2	201.3	149.72 ug/L	149.72 ppb	15:41:40
3	Pb 220.353†	26.3	68.7	10.648 ug/L	10.648 ppb	15:41:40
3	S 181.975 Axial†	88.1	56.6	101.02 ug/L	101.02 ppb	15:41:40
3	Sb 206.836†	47.2	22.0	9.4692 ug/L	9.4692 ppb	15:41:40
3	Se 196.026†	20.8	39.2	33.003 ug/L	33.003 ppb	15:41:40
3	Si 251.611†	3107.1	2560.8	96.252 ug/L	96.252 ppb	15:41:40
3	Sn 189.927†	59.8	50.8	11.476 ug/L	11.476 ppb	15:41:40
3	Ti 334.940†	1853.5	2912.1	4.9980 ug/L	4.9980 ppb	15:41:20
3	Tl 190.801†	31.3	62.6	24.154 ug/L	24.154 ppb	15:41:40
3	U 409.014†	-326.6	1759.4	53.113 ug/L	53.113 ppb	15:41:20
3	V 292.402†	-703.2	625.4	5.2170 ug/L	5.2170 ppb	15:41:20
3	Zn 213.857†	1692.0	1048.7	12.606 ug/L	12.606 ppb	15:41:40
3	SiO2†	3283.7	2737.5	218.97 ug/L	218.97 ppb	15:41:55

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	823339.7	101.28 %		0.258			0.25%
Sc Radial	4285.5	93.4 %		4.06			4.34%
Y 371.029	696003.6	100.95 %		0.352			0.35%
Y RADIAL	5027.2	101.9 %		5.22			5.12%
Ag 328.068†	935.7	4.8188 ug/L		0.24384	4.8188 ppb	0.24384	5.06%
QC value within limits for Ag 328.068 Recovery = 96.38%							
Al 396.153Radial†	240.9	226.05 ug/L		13.156	226.05 ppb	13.156	5.82%
QC value within limits for Al 396.153Radial Recovery = 113.02%							
As 188.979†	44.5	24.834 ug/L		2.0149	24.834 ppb	2.0149	8.11%
QC value within limits for As 188.979 Recovery = 82.78%							
B 249.677†	1889.6	52.845 ug/L		1.0617	52.845 ppb	1.0617	2.01%
QC value within limits for B 249.677 Recovery = 105.69%							
Ba 233.527†	542.2	5.0888 ug/L		0.09939	5.0888 ppb	0.09939	1.95%
QC value within limits for Ba 233.527 Recovery = 101.78%							
Be 313.107†	11823.5	5.0585 ug/L		0.02201	5.0585 ppb	0.02201	0.44%
QC value within limits for Be 313.107 Recovery = 101.17%							
Ca 317.933Radial†	119.3	210.81 ug/L		15.573	210.81 ppb	15.573	7.39%

QC value within limits for Ca 317.933 Radial Recovery = 105.41%

Cd 226.502†	354.0	5.1293 ug/L	0.14236	5.1293 ppb	0.14236	2.78%
QC value within limits for Cd 226.502 Recovery = 102.59%						
Co 228.616†	188.8	4.9148 ug/L	0.24919	4.9148 ppb	0.24919	5.07%
QC value within limits for Co 228.616 Recovery = 98.30%						
Cr 267.716†	364.9	4.9002 ug/L	0.13887	4.9002 ppb	0.13887	2.83%
QC value within limits for Cr 267.716 Recovery = 98.00%						
Cu 324.752†	2936.2	9.6969 ug/L	0.12027	9.6969 ppb	0.12027	1.24%
QC value within limits for Cu 324.752 Recovery = 96.97%						
Fe 238.204 Radial†	12.1	127.10 ug/L	11.724	127.10 ppb	11.724	9.22%
QC value within limits for Fe 238.204 Radial Recovery = 127.10%						
K 766.490 Radial†	1032.5	197.61 ug/L	20.289	197.61 ppb	20.289	10.27%
QC value greater than the upper limit for K 766.490 Radial Recovery = 131.74%						
Mg 279.077 IEC†	10.6	404.52 ug/L	76.789	404.52 ppb	76.789	18.98%
QC value greater than the upper limit for Mg 279.077 IEC Recovery = 134.84%						
Mn 257.610†	7885.2	10.378 ug/L	0.0481	10.378 ppb	0.0481	0.46%
QC value within limits for Mn 257.610 Recovery = 103.78%						
Mo 202.031†	108.9	9.5927 ug/L	0.08297	9.5927 ppb	0.08297	0.86%
QC value within limits for Mo 202.031 Recovery = 95.93%						
Na 589.592 Radial†	789.4	276.60 ug/L	2.734	276.60 ppb	2.734	0.99%
QC value within limits for Na 589.592 Radial Recovery = 92.20%						
Ni 231.604†	166.7	5.3040 ug/L	0.09832	5.3040 ppb	0.09832	1.85%
QC value within limits for Ni 231.604 Recovery = 106.08%						
P 214.914†	204.7	152.29 ug/L	4.005	152.29 ppb	4.005	2.63%
QC value within limits for P 214.914 Recovery = 101.53%						
Pb 220.353†	60.2	9.3486 ug/L	1.15490	9.3486 ppb	1.15490	12.35%
QC value within limits for Pb 220.353 Recovery = 93.49%						
S 181.975 Axial†	52.7	94.131 ug/L	6.6031	94.131 ppb	6.6031	7.01%
QC value within limits for S 181.975 Axial Recovery = 94.13%						
Sb 206.836†	25.4	10.872 ug/L	1.5931	10.872 ppb	1.5931	14.65%
QC value within limits for Sb 206.836 Recovery = 108.72%						
Se 196.026†	35.5	29.942 ug/L	2.6974	29.942 ppb	2.6974	9.01%
QC value within limits for Se 196.026 Recovery = 99.81%						
Si 251.611†	2568.6	96.547 ug/L	0.3011	96.547 ppb	0.3011	0.31%
QC value within limits for Si 251.611 Recovery = 96.55%						
Sn 189.927†	47.2	10.648 ug/L	1.2205	10.648 ppb	1.2205	11.46%
QC value within limits for Sn 189.927 Recovery = 106.48%						
Sr 421.552†	686.2	5.2407 ug/L	0.20072	5.2407 ppb	0.20072	3.83%
QC value within limits for Sr 421.552 Recovery = 104.81%						
Ti 334.940†	2919.3	5.0159 ug/L	0.10973	5.0159 ppb	0.10973	2.19%
QC value within limits for Ti 334.940 Recovery = 100.32%						
Tl 190.801†	59.4	22.942 ug/L	3.8426	22.942 ppb	3.8426	16.75%
QC value within limits for Tl 190.801 Recovery = 114.71%						
U 409.014†	1702.6	51.396 ug/L	2.1699	51.396 ppb	2.1699	4.22%
QC value within limits for U 409.014 Recovery = 102.79%						
V 292.402†	635.9	5.2959 ug/L	0.12933	5.2959 ppb	0.12933	2.44%
QC value within limits for V 292.402 Recovery = 105.92%						
Zn 213.857†	1055.4	12.684 ug/L	0.1554	12.684 ppb	0.1554	1.23%
QC value within limits for Zn 213.857 Recovery = 126.84%						
SiO2†	2705.9	216.44 ug/L	2.697	216.44 ppb	2.697	1.25%
QC value within limits for SiO2 Recovery = 101.61%						

QC Failed. Continue with analysis.

Sequence No.: 9

Sample ID: ICSEA

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 13

Date Collected: 3/16/2010 15:44:07

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: ICSEA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4059.4	4059.4	88.5 %		15:46:05
1	Y RADIAL	4338.0	4338.0	87.92 %		15:46:05
1	Al 396.153Radial†	493213.6	557467.5	524080 ug/L	524080 ppb	15:46:00
1	Ca 317.933Radial†	243383.1	275019.9	486130 ug/L	486130 ppb	15:46:00
1	Fe 238.204 Radial†	15734.4	17773.6	186220 ug/L	186220 ppb	15:46:05
1	K 766.490 Radial†	2270.9	10.6	-160.54 ug/L	-160.54 ppb	15:46:05
1	Mg 279.077 IEC†	11357.1	12834.6	488220 ug/L	488220 ppb	15:46:05
1	Na 589.592 Radial†	-749.6	-42.0	-14.728 ug/L	-14.728 ppb	15:46:05
1	Sr 421.552†	453.5	486.7	0.0882 ug/L	0.0882 ppb	15:46:05
1	Sc 361.383	701153.6	701153.6	86.250 %		15:46:32
1	Y 371.029	579484.6	579484.6	84.052 %		15:46:32
1	Ag 328.068†	-8589.0	-10168.8	-1.1942 ug/L	-1.1942 ppb	15:46:32
1	As 188.979†	-65.5	-58.9	10.673 ug/L	10.673 ppb	15:46:52
1	B 249.677†	267.8	725.9	-9.9315 ug/L	-9.9315 ppb	15:46:32
1	Ba 233.527†	-480.9	-570.1	0.3652 ug/L	0.3652 ppb	15:46:52
1	Be 313.107†	-4145.5	-1077.3	-0.5198 ug/L	-0.5198 ppb	15:46:32
1	Cd 226.502†	1065.1	1411.3	1.2236 ug/L	1.2236 ppb	15:46:52
1	Co 228.616†	4.1	44.6	-1.5256 ug/L	-1.5256 ppb	15:46:52
1	Cr 267.716†	-1197.1	-1467.4	0.0332 ug/L	0.0332 ppb	15:46:52
1	Cu 324.752†	2817.8	-2199.3	2.5558 ug/L	2.5558 ppb	15:46:32
1	Mn 257.610†	-127.7	-699.0	-2.4977 ug/L	-2.4977 ppb	15:46:32
1	Mo 202.031†	-221.8	-270.0	-3.4997 ug/L	-3.4997 ppb	15:46:52
1	Ni 231.604†	237.1	193.5	6.1602 ug/L	6.1602 ppb	15:46:52
1	P 214.914†	156.4	-2.6	-20.670 ug/L	-20.670 ppb	15:46:52
1	Pb 220.353†	-601.3	-654.3	-4.7426 ug/L	-4.7426 ppb	15:46:52
1	S 181.975 Axial†	47.4	24.8	-53.872 ug/L	-53.872 ppb	15:46:52
1	Sb 206.836†	70.2	56.9	5.6102 ug/L	5.6102 ppb	15:46:52
1	Se 196.026†	-756.1	-857.8	-9.6599 ug/L	-9.6599 ppb	15:46:52
1	Si 251.611†	414.9	-17.1	-0.3524 ug/L	-0.3524 ppb	15:46:52
1	Sn 189.927†	-338.6	-400.6	-14.520 ug/L	-14.520 ppb	15:46:52
1	Ti 334.940†	-14105.8	-15267.2	-1.0838 ug/L	-1.0838 ppb	15:46:32
1	Tl 190.801†	-57.8	-35.2	-13.825 ug/L	-13.825 ppb	15:46:52
1	U 409.014†	-691.0	1279.8	17.466 ug/L	17.466 ppb	15:46:32
1	V 292.402†	523.4	1924.5	-2.5399 ug/L	-2.5399 ppb	15:46:52
1	Zn 213.857†	2594.5	2391.0	0.9876 ug/L	0.9876 ppb	15:46:52
1	SiO2†	399.1	-32.6	-1.9632 ug/L	-1.9632 ppb	15:47:49
2	Sc Radial	4126.3	4126.3	89.9 %		15:46:15
2	Y RADIAL	4414.2	4414.2	89.46 %		15:46:15
2	Al 396.153Radial†	498476.5	554290.1	521100 ug/L	521100 ppb	15:46:10
2	Ca 317.933Radial†	245772.3	273220.9	482950 ug/L	482950 ppb	15:46:10
2	Fe 238.204 Radial†	16066.6	17854.9	187070 ug/L	187070 ppb	15:46:15
2	K 766.490 Radial†	2221.7	-85.6	-177.93 ug/L	-177.93 ppb	15:46:15
2	Mg 279.077 IEC†	11600.8	12897.6	490610 ug/L	490610 ppb	15:46:15
2	Na 589.592 Radial†	-754.2	-33.5	-11.724 ug/L	-11.724 ppb	15:46:15
2	Sr 421.552†	481.5	509.6	0.2868 ug/L	0.2868 ppb	15:46:15
2	Sc 361.383	704610.5	704610.5	86.676 %		15:46:58
2	Y 371.029	581977.8	581977.8	84.414 %		15:46:58
2	Ag 328.068†	-8594.2	-10126.0	-0.6650 ug/L	-0.6650 ppb	15:46:58
2	As 188.979†	-72.2	-66.2	6.7990 ug/L	6.7990 ppb	15:47:18
2	B 249.677†	220.5	669.7	-11.640 ug/L	-11.640 ppb	15:46:58
2	Ba 233.527†	-468.5	-553.0	0.5514 ug/L	0.5514 ppb	15:47:18
2	Be 313.107†	-4160.6	-1071.2	-0.5160 ug/L	-0.5160 ppb	15:46:58
2	Cd 226.502†	1081.8	1424.4	1.3250 ug/L	1.3250 ppb	15:47:18
2	Co 228.616†	-7.6	31.1	-1.8859 ug/L	-1.8859 ppb	15:47:18
2	Cr 267.716†	-1172.9	-1432.7	0.5909 ug/L	0.5909 ppb	15:47:18
2	Cu 324.752†	2970.8	-2038.8	3.1334 ug/L	3.1334 ppb	15:46:58
2	Mn 257.610†	-149.7	-723.6	-2.5440 ug/L	-2.5440 ppb	15:46:58
2	Mo 202.031†	-205.6	-250.0	-1.7162 ug/L	-1.7162 ppb	15:47:18
2	Ni 231.604†	222.9	175.8	5.5957 ug/L	5.5957 ppb	15:47:18

2	P 214.914†	155.7	-4.2	-23.461 ug/L	-23.461 ppb	15:47:18
2	Pb 220.353†	-651.7	-709.1	-14.023 ug/L	-14.023 ppb	15:47:18
2	S 181.975 Axial†	29.8	4.2	-90.149 ug/L	-90.149 ppb	15:47:18
2	Sb 206.836†	70.2	56.5	5.5061 ug/L	5.5061 ppb	15:47:18
2	Se 196.026†	-750.5	-847.1	0.7430 ug/L	0.7430 ppb	15:47:18
2	Si 251.611†	410.4	-24.7	-0.6584 ug/L	-0.6584 ppb	15:47:18
2	Sn 189.927†	-344.7	-405.7	-16.290 ug/L	-16.290 ppb	15:47:18
2	Ti 334.940†	-13930.6	-14984.8	-1.2171 ug/L	-1.2171 ppb	15:46:58
2	Tl 190.801†	-65.3	-43.5	-17.013 ug/L	-17.013 ppb	15:47:18
2	U 409.014†	-761.1	1202.9	15.046 ug/L	15.046 ppb	15:46:58
2	V 292.402†	553.6	1956.5	-2.3429 ug/L	-2.3429 ppb	15:47:18
2	Zn 213.857†	2599.4	2381.8	0.7526 ug/L	0.7526 ppb	15:47:18
2	SiO2†	411.3	-20.8	-1.0655 ug/L	-1.0655 ppb	15:47:54
3	Sc Radial	4128.3	4128.3	90.0 %		15:46:26
3	Y RADIAL	4429.7	4429.7	89.77 %		15:46:26
3	Al 396.153Radial†	500050.4	555770.2	522490 ug/L	522490 ppb	15:46:20
3	Ca 317.933Radial†	245872.1	273199.2	482910 ug/L	482910 ppb	15:46:20
3	Fe 238.204 Radial†	16035.6	17811.8	186620 ug/L	186620 ppb	15:46:26
3	K 766.490 Radial†	2254.9	-49.9	-171.08 ug/L	-171.08 ppb	15:46:26
3	Mg 279.077 IEC†	11564.8	12851.4	488850 ug/L	488850 ppb	15:46:26
3	Na 589.592 Radial†	-703.3	23.6	8.2545 ug/L	8.2545 ppb	15:46:26
3	Sr 421.552†	458.2	483.4	0.0867 ug/L	0.0867 ppb	15:46:26
3	Sc 361.383	699261.6	699261.6	86.018 %		15:47:23
3	Y 371.029	577938.5	577938.5	83.828 %		15:47:23
3	Ag 328.068†	-8666.3	-10285.6	-1.6232 ug/L	-1.6232 ppb	15:47:23
3	As 188.979†	-71.5	-66.1	6.7590 ug/L	6.7590 ppb	15:47:43
3	B 249.677†	127.8	563.9	-14.529 ug/L	-14.529 ppb	15:47:23
3	Ba 233.527†	-479.2	-569.6	0.3817 ug/L	0.3817 ppb	15:47:43
3	Be 313.107†	-4131.2	-1073.7	-0.5185 ug/L	-0.5185 ppb	15:47:23
3	Cd 226.502†	1046.8	1393.3	0.9205 ug/L	0.9205 ppb	15:47:43
3	Co 228.616†	19.4	62.4	-1.0660 ug/L	-1.0660 ppb	15:47:43
3	Cr 267.716†	-1192.2	-1465.5	0.1027 ug/L	0.1027 ppb	15:47:43
3	Cu 324.752†	2931.8	-2057.8	3.0478 ug/L	3.0478 ppb	15:47:23
3	Mn 257.610†	-267.2	-861.6	-2.6983 ug/L	-2.6983 ppb	15:47:23
3	Mo 202.031†	-211.5	-258.7	-2.5162 ug/L	-2.5162 ppb	15:47:43
3	Ni 231.604†	234.7	191.4	6.0924 ug/L	6.0924 ppb	15:47:43
3	P 214.914†	159.7	1.7	-18.196 ug/L	-18.196 ppb	15:47:43
3	Pb 220.353†	-629.5	-689.0	-10.546 ug/L	-10.546 ppb	15:47:43
3	S 181.975 Axial†	41.9	18.5	-64.824 ug/L	-64.824 ppb	15:47:43
3	Sb 206.836†	59.6	44.8	0.7020 ug/L	0.7020 ppb	15:47:43
3	Se 196.026†	-743.3	-845.3	1.3600 ug/L	1.3600 ppb	15:47:43
3	Si 251.611†	385.7	-49.9	-1.5965 ug/L	-1.5965 ppb	15:47:43
3	Sn 189.927†	-325.6	-386.5	-11.956 ug/L	-11.956 ppb	15:47:43
3	Ti 334.940†	-14118.4	-15326.1	-1.6671 ug/L	-1.6671 ppb	15:47:23
3	Tl 190.801†	-68.3	-47.6	-18.588 ug/L	-18.588 ppb	15:47:43
3	U 409.014†	-827.8	1118.7	12.555 ug/L	12.555 ppb	15:47:23
3	V 292.402†	503.3	1902.8	-2.7545 ug/L	-2.7545 ppb	15:47:43
3	Zn 213.857†	2577.5	2379.4	0.7873 ug/L	0.7873 ppb	15:47:43
3	SiO2†	341.0	-98.9	-7.3007 ug/L	-7.3007 ppb	15:47:59

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	701675.2	86.314 %		0.3337			0.39%
Sc Radial	4104.7	89.5 %		0.85			0.95%
Y 371.029	579800.3	84.098 %		0.2956			0.35%
Y RADIAL	4394.0	89.05 %		0.994			1.12%
Ag 328.068†	-10193.5	-1.1608 ug/L		0.48000	-1.1608 ppb	0.48000	41.35%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	555842.6	522560 ug/L		1494.7	522560 ppb	1494.7	0.29%
QC value within limits for Al 396.153Radial Recovery = 104.51%							
As 188.979†	-63.7	8.0771 ug/L		2.24859	8.0771 ppb	2.24859	27.84%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	653.2	-12.033 ug/L		2.3238	-12.033 ppb	2.3238	19.31%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-564.2	0.4328 ug/L		0.10307	0.4328 ppb	0.10307	23.82%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-1074.1	-0.5181 ug/L		0.00189	-0.5181 ppb	0.00189	0.36%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	273813.3	484000 ug/L		1847.1	484000 ppb	1847.1	0.38%

QC value within limits for Ca 317.933 Radial Recovery = 96.80%

Cd 226.502†	1409.6	1.1564 ug/L	0.21043	1.1564 ppb	0.21043	18.20%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	46.0	-1.4925 ug/L	0.41098	-1.4925 ppb	0.41098	27.54%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-1455.2	0.2423 ug/L	0.30392	0.2423 ppb	0.30392	125.45%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-2098.6	2.9123 ug/L	0.31174	2.9123 ppb	0.31174	10.70%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	17813.4	186640 ug/L	426.0	186640 ppb	426.0	0.23%
QC value within limits for Fe 238.204 Radial Recovery = 93.32%						
K 766.490 Radial†	-41.6	-169.85 ug/L	8.758	-169.85 ppb	8.758	5.16%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	12861.2	489230 ug/L	1240.8	489230 ppb	1240.8	0.25%
QC value within limits for Mg 279.077 IEC Recovery = 97.85%						
Mn 257.610†	-761.4	-2.5800 ug/L	0.10501	-2.5800 ppb	0.10501	4.07%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-259.5	-2.5774 ug/L	0.89332	-2.5774 ppb	0.89332	34.66%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-17.3	-6.0657 ug/L	12.49227	-6.0657 ppb	12.49227	205.95%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	186.9	5.9494 ug/L	0.30821	5.9494 ppb	0.30821	5.18%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-1.7	-20.776 ug/L	2.6338	-20.776 ppb	2.6338	12.68%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-684.2	-9.7705 ug/L	4.68849	-9.7705 ppb	4.68849	47.99%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	15.9	-69.615 ug/L	18.6068	-69.615 ppb	18.6068	26.73%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	52.7	3.9395 ug/L	2.80419	3.9395 ppb	2.80419	71.18%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-850.1	-2.5190 ug/L	6.19192	-2.5190 ppb	6.19192	245.81%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	-30.6	-0.8691 ug/L	0.64828	-0.8691 ppb	0.64828	74.59%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-397.6	-14.255 ug/L	2.1793	-14.255 ppb	2.1793	15.29%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	493.2	0.1539 ug/L	0.11514	0.1539 ppb	0.11514	74.81%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-15192.7	-1.3227 ug/L	0.30563	-1.3227 ppb	0.30563	23.11%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-42.1	-16.475 ug/L	2.4262	-16.475 ppb	2.4262	14.73%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	1200.5	15.022 ug/L	2.4556	15.022 ppb	2.4556	16.35%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	1927.9	-2.5458 ug/L	0.20585	-2.5458 ppb	0.20585	8.09%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	2384.1	0.8425 ug/L	0.12684	0.8425 ppb	0.12684	15.06%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	-50.8	-3.4432 ug/L	3.37079	-3.4432 ppb	3.37079	97.90%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 14

Sample ID: ICSAB

Date Collected: 3/16/2010 15:50:10

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4113.8	4113.8	89.7 %		15:52:22
1	Y RADIAL	4411.2	4411.2	89.40 %		15:52:22
1	Al 396.153Radial†	500130.7	557817.6	524390 ug/L	524390 ppb	15:52:02
1	Ca 317.933Radial†	245814.3	274097.4	484500 ug/L	484500 ppb	15:52:02
1	Fe 238.204 Radial†	16002.2	17837.4	186900 ug/L	186900 ppb	15:52:22
1	K 766.490 Radial†	28373.2	29085.2	5407.1 ug/L	5407.1 ppb	15:52:02
1	Mg 279.077 IEC†	11688.8	13034.9	495840 ug/L	495840 ppb	15:52:22
1	Na 589.592 Radial†	13723.6	16109.3	5644.5 ug/L	5644.5 ppb	15:52:02
1	Sr 421.552†	61877.8	68978.6	523.33 ug/L	523.33 ppb	15:52:02
1	Sc 361.383	723552.7	723552.7	89.006 %		15:53:20
1	Y 371.029	596200.2	596200.2	86.476 %		15:53:20
1	Ag 328.068†	38936.2	43535.2	276.41 ug/L	276.41 ppb	15:53:20
1	As 188.979†	771.9	884.3	539.05 ug/L	539.05 ppb	15:53:40
1	B 249.677†	17133.5	19665.2	518.69 ug/L	518.69 ppb	15:53:20
1	Ba 233.527†	47013.1	52807.9	500.98 ug/L	500.98 ppb	15:53:20
1	Be 313.107†	520282.7	588279.0	252.23 ug/L	252.23 ppb	15:53:20
1	Cd 226.502†	29696.1	33540.7	467.05 ug/L	467.05 ppb	15:53:40
1	Co 228.616†	15443.6	17391.1	449.22 ug/L	449.22 ppb	15:53:40
1	Cr 267.716†	31503.2	35315.1	494.51 ug/L	494.51 ppb	15:53:20
1	Cu 324.752†	152535.2	165910.6	558.75 ug/L	558.75 ppb	15:53:20
1	Mn 257.610†	328995.0	369082.8	484.12 ug/L	484.12 ppb	15:53:20
1	Mo 202.031†	4756.8	5331.5	489.12 ug/L	489.12 ppb	15:53:40
1	Ni 231.604†	12817.5	14319.3	455.64 ug/L	455.64 ppb	15:53:40
1	P 214.914†	3157.4	3363.5	2408.0 ug/L	2408.0 ppb	15:53:40
1	Pb 220.353†	2052.9	2349.3	459.51 ug/L	459.51 ppb	15:53:40
1	S 181.975 Axial†	1359.8	1497.6	2575.7 ug/L	2575.7 ppb	15:53:40
1	Sb 206.836†	1184.2	1306.0	540.75 ug/L	540.75 ppb	15:53:40
1	Se 196.026†	1982.8	2246.6	2570.1 ug/L	2570.1 ppb	15:53:40
1	Si 251.611†	125651.0	140673.7	5288.2 ug/L	5288.2 ppb	15:53:20
1	Sn 189.927†	1622.4	1814.8	483.96 ug/L	483.96 ppb	15:53:40
1	Ti 334.940†	252426.8	284694.8	516.05 ug/L	516.05 ppb	15:53:20
1	Tl 190.801†	971.0	1122.8	435.74 ug/L	435.74 ppb	15:53:40
1	U 409.014†	14199.9	18034.9	522.31 ug/L	522.31 ppb	15:53:20
1	V 292.402†	57989.7	66470.5	520.38 ug/L	520.38 ppb	15:53:20
1	Zn 213.857†	39747.9	44040.6	500.43 ug/L	500.43 ppb	15:53:20
1	SiO2†	124317.9	139178.8	11133 ug/L	11133 ppb	15:54:38
2	Sc Radial	4132.8	4132.8	90.1 %		15:52:48
2	Y RADIAL	4431.0	4431.0	89.80 %		15:52:48
2	Al 396.153Radial†	495042.5	549610.3	516670 ug/L	516670 ppb	15:52:28
2	Ca 317.933Radial†	243710.0	270503.7	478150 ug/L	478150 ppb	15:52:28
2	Fe 238.204 Radial†	16008.2	17762.1	186110 ug/L	186110 ppb	15:52:48
2	K 766.490 Radial†	28106.3	28643.8	5324.7 ug/L	5324.7 ppb	15:52:28
2	Mg 279.077 IEC†	11675.1	12960.0	492990 ug/L	492990 ppb	15:52:48
2	Na 589.592 Radial†	13440.4	15724.7	5509.7 ug/L	5509.7 ppb	15:52:28
2	Sr 421.552†	61153.5	67858.0	514.82 ug/L	514.82 ppb	15:52:28
2	Sc 361.383	713071.2	713071.2	87.716 %		15:53:46
2	Y 371.029	587827.1	587827.1	85.262 %		15:53:46
2	Ag 328.068†	38221.8	43363.7	275.37 ug/L	275.37 ppb	15:53:46
2	As 188.979†	735.7	855.8	522.97 ug/L	522.97 ppb	15:54:06
2	B 249.677†	16846.4	19620.9	517.57 ug/L	517.57 ppb	15:53:46
2	Ba 233.527†	46300.1	52771.5	500.62 ug/L	500.62 ppb	15:53:46
2	Be 313.107†	511474.6	586829.8	251.61 ug/L	251.61 ppb	15:53:46
2	Cd 226.502†	29407.5	33702.0	469.48 ug/L	469.48 ppb	15:54:06
2	Co 228.616†	15349.2	17538.5	453.07 ug/L	453.07 ppb	15:54:06
2	Cr 267.716†	31148.5	35431.0	495.98 ug/L	495.98 ppb	15:53:46
2	Cu 324.752†	149743.6	165247.2	556.52 ug/L	556.52 ppb	15:53:46
2	Mn 257.610†	323911.4	368720.5	483.68 ug/L	483.68 ppb	15:53:46
2	Mo 202.031†	4739.2	5390.0	494.13 ug/L	494.13 ppb	15:54:06
2	Ni 231.604†	12709.9	14408.4	458.47 ug/L	458.47 ppb	15:54:06

2	P 214.914†	3110.6	3362.2	2406.2 ug/L	2406.2 ppb	15:54:06
2	Pb 220.353†	2050.4	2380.3	462.63 ug/L	462.63 ppb	15:54:06
2	S 181.975 Axial†	1349.0	1507.8	2595.3 ug/L	2595.3 ppb	15:54:06
2	Sb 206.836†	1192.3	1334.8	553.06 ug/L	553.06 ppb	15:54:06
2	Se 196.026†	1938.7	2228.9	2550.8 ug/L	2550.8 ppb	15:54:06
2	Si 251.611†	123706.8	140532.3	5282.8 ug/L	5282.8 ppb	15:53:46
2	Sn 189.927†	1609.8	1827.3	485.69 ug/L	485.69 ppb	15:54:06
2	Ti 334.940†	248631.7	284537.0	515.16 ug/L	515.16 ppb	15:53:46
2	Tl 190.801†	966.6	1133.8	439.95 ug/L	439.95 ppb	15:54:06
2	U 409.014†	13890.1	17916.2	518.81 ug/L	518.81 ppb	15:53:46
2	V 292.402†	57029.9	66334.0	519.41 ug/L	519.41 ppb	15:53:46
2	Zn 213.857†	39034.8	43884.0	498.64 ug/L	498.64 ppb	15:53:46
2	SiO2†	123611.3	140426.3	11233 ug/L	11233 ppb	15:54:43
3	Sc Radial	4150.5	4150.5	90.5 %		15:53:13
3	Y RADIAL	4446.2	4446.2	90.11 %		15:53:13
3	Al 396.153Radial†	501050.0	553895.4	520700 ug/L	520700 ppb	15:52:53
3	Ca 317.933Radial†	246195.4	272091.5	480950 ug/L	480950 ppb	15:52:53
3	Fe 238.204 Radial†	16100.8	17788.3	186390 ug/L	186390 ppb	15:53:13
3	K 766.490 Radial†	28150.7	28559.2	5307.6 ug/L	5307.6 ppb	15:52:53
3	Mg 279.077 IEC†	11765.7	13004.5	494690 ug/L	494690 ppb	15:53:13
3	Na 589.592 Radial†	13514.0	15742.1	5515.8 ug/L	5515.8 ppb	15:52:53
3	Sr 421.552†	61699.8	68170.9	517.19 ug/L	517.19 ppb	15:52:53
3	Sc 361.383	714565.0	714565.0	87.900 %		15:54:12
3	Y 371.029	588870.0	588870.0	85.413 %		15:54:12
3	Ag 328.068†	38539.5	43634.1	276.80 ug/L	276.80 ppb	15:54:12
3	As 188.979†	748.5	868.5	530.14 ug/L	530.14 ppb	15:54:32
3	B 249.677†	17009.4	19766.2	521.59 ug/L	521.59 ppb	15:54:12
3	Ba 233.527†	46267.4	52623.8	499.24 ug/L	499.24 ppb	15:54:12
3	Be 313.107†	512413.5	586678.9	251.55 ug/L	251.55 ppb	15:54:12
3	Cd 226.502†	29599.2	33850.0	471.59 ug/L	471.59 ppb	15:54:32
3	Co 228.616†	15446.3	17612.3	454.99 ug/L	454.99 ppb	15:54:32
3	Cr 267.716†	31047.0	35241.2	493.46 ug/L	493.46 ppb	15:54:12
3	Cu 324.752†	150554.5	165812.8	558.40 ug/L	558.40 ppb	15:54:12
3	Mn 257.610†	324431.5	368540.2	483.40 ug/L	483.40 ppb	15:54:12
3	Mo 202.031†	4765.6	5408.8	495.83 ug/L	495.83 ppb	15:54:32
3	Ni 231.604†	12832.1	14517.1	461.93 ug/L	461.93 ppb	15:54:32
3	P 214.914†	3154.4	3404.7	2438.5 ug/L	2438.5 ppb	15:54:32
3	Pb 220.353†	2051.7	2376.9	463.01 ug/L	463.01 ppb	15:54:32
3	S 181.975 Axial†	1362.2	1519.5	2615.5 ug/L	2615.5 ppb	15:54:32
3	Sb 206.836†	1195.1	1335.1	553.14 ug/L	553.14 ppb	15:54:32
3	Se 196.026†	1972.7	2263.0	2581.1 ug/L	2581.1 ppb	15:54:32
3	Si 251.611†	123907.2	140465.4	5280.3 ug/L	5280.3 ppb	15:54:12
3	Sn 189.927†	1617.9	1832.6	487.36 ug/L	487.36 ppb	15:54:32
3	Ti 334.940†	248943.8	284299.5	514.99 ug/L	514.99 ppb	15:54:12
3	Tl 190.801†	982.7	1149.8	446.09 ug/L	446.09 ppb	15:54:32
3	U 409.014†	14010.4	18020.0	521.92 ug/L	521.92 ppb	15:54:12
3	V 292.402†	57099.1	66276.8	518.98 ug/L	518.98 ppb	15:54:12
3	Zn 213.857†	39095.8	43860.5	498.29 ug/L	498.29 ppb	15:54:12
3	SiO2†	123775.4	140318.4	11224 ug/L	11224 ppb	15:54:48

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	717062.9	88.207 %		0.6974			0.79%
Sc Radial	4132.4	90.1 %		0.40			0.44%
Y 371.029	590965.8	85.717 %		0.6618			0.77%
Y RADIAL	4429.5	89.77 %		0.355			0.40%
Ag 328.068†	43511.0	276.19 ug/L		0.739	276.19 ppb	0.739	0.27%
QC value within limits for Ag 328.068 Recovery = 110.48%							
Al 396.153Radial†	553774.4	520590 ug/L		3859.3	520590 ppb	3859.3	0.74%
QC value within limits for Al 396.153Radial Recovery = 104.12%							
As 188.979†	869.5	530.72 ug/L		8.056	530.72 ppb	8.056	1.52%
QC value within limits for As 188.979 Recovery = 106.14%							
B 249.677†	19684.1	519.28 ug/L		2.072	519.28 ppb	2.072	0.40%
QC value within limits for B 249.677 Recovery = 103.86%							
Ba 233.527†	52734.4	500.28 ug/L		0.918	500.28 ppb	0.918	0.18%
QC value within limits for Ba 233.527 Recovery = 100.06%							
Be 313.107†	587262.6	251.80 ug/L		0.378	251.80 ppb	0.378	0.15%
QC value within limits for Be 313.107 Recovery = 100.72%							
Ca 317.933Radial†	272230.8	481200 ug/L		3183.3	481200 ppb	3183.3	0.66%

QC value within limits for Ca 317.933 Radial Recovery = 96.24%

Cd 226.502†	33697.6	469.37 ug/L	2.271	469.37 ppb	2.271	0.48%
QC value within limits for Cd 226.502 Recovery = 93.87%						
Co 228.616†	17514.0	452.43 ug/L	2.940	452.43 ppb	2.940	0.65%
QC value within limits for Co 228.616 Recovery = 90.49%						
Cr 267.716†	35329.1	494.65 ug/L	1.266	494.65 ppb	1.266	0.26%
QC value within limits for Cr 267.716 Recovery = 98.93%						
Cu 324.752†	165656.9	557.89 ug/L	1.202	557.89 ppb	1.202	0.22%
QC value within limits for Cu 324.752 Recovery = 111.58%						
Fe 238.204 Radial†	17795.9	186470 ug/L	400.1	186470 ppb	400.1	0.21%
QC value within limits for Fe 238.204 Radial Recovery = 93.23%						
K 766.490 Radial†	28762.7	5346.5 ug/L	53.22	5346.5 ppb	53.22	1.00%
QC value within limits for K 766.490 Radial Recovery = 106.93%						
Mg 279.077 IEC†	12999.8	494510 ug/L	1434.3	494510 ppb	1434.3	0.29%
QC value within limits for Mg 279.077 IEC Recovery = 98.90%						
Mn 257.610†	368781.2	483.73 ug/L	0.362	483.73 ppb	0.362	0.07%
QC value within limits for Mn 257.610 Recovery = 96.75%						
Mo 202.031†	5376.8	493.03 ug/L	3.489	493.03 ppb	3.489	0.71%
QC value within limits for Mo 202.031 Recovery = 98.61%						
Na 589.592 Radial†	15858.7	5556.7 ug/L	76.10	5556.7 ppb	76.10	1.37%
QC value within limits for Na 589.592 Radial Recovery = 111.13%						
Ni 231.604†	14414.9	458.68 ug/L	3.152	458.68 ppb	3.152	0.69%
QC value within limits for Ni 231.604 Recovery = 91.74%						
P 214.914†	3376.8	2417.6 ug/L	18.21	2417.6 ppb	18.21	0.75%
QC value within limits for P 214.914 Recovery = 96.70%						
Pb 220.353†	2368.8	461.71 ug/L	1.917	461.71 ppb	1.917	0.42%
QC value within limits for Pb 220.353 Recovery = 92.34%						
S 181.975 Axial†	1508.3	2595.5 ug/L	19.90	2595.5 ppb	19.90	0.77%
QC value within limits for S 181.975 Axial Recovery = 103.82%						
Sb 206.836†	1325.3	548.98 ug/L	7.131	548.98 ppb	7.131	1.30%
QC value within limits for Sb 206.836 Recovery = 109.80%						
Se 196.026†	2246.2	2567.3 ug/L	15.38	2567.3 ppb	15.38	0.60%
QC value within limits for Se 196.026 Recovery = 102.69%						
Si 251.611†	140557.2	5283.8 ug/L	4.05	5283.8 ppb	4.05	0.08%
QC value within limits for Si 251.611 Recovery = 105.68%						
Sn 189.927†	1824.9	485.67 ug/L	1.700	485.67 ppb	1.700	0.35%
QC value within limits for Sn 189.927 Recovery = 97.13%						
Sr 421.552†	68335.9	518.45 ug/L	4.394	518.45 ppb	4.394	0.85%
QC value within limits for Sr 421.552 Recovery = 103.69%						
Ti 334.940†	284510.4	515.40 ug/L	0.571	515.40 ppb	0.571	0.11%
QC value within limits for Ti 334.940 Recovery = 103.08%						
Tl 190.801†	1135.4	440.59 ug/L	5.206	440.59 ppb	5.206	1.18%
QC value within limits for Tl 190.801 Recovery = 88.12%						
U 409.014†	17990.4	521.01 ug/L	1.917	521.01 ppb	1.917	0.37%
QC value within limits for U 409.014 Recovery = 104.20%						
V 292.402†	66360.5	519.59 ug/L	0.716	519.59 ppb	0.716	0.14%
QC value within limits for V 292.402 Recovery = 103.92%						
Zn 213.857†	43928.4	499.12 ug/L	1.147	499.12 ppb	1.147	0.23%
QC value within limits for Zn 213.857 Recovery = 99.82%						
SiO2†	139974.5	11197 ug/L	55.3	11197 ppb	55.3	0.49%
QC value within limits for SiO2 Recovery = 104.69%						

All analyte(s) passed QC.

Sequence No.: 11

Sample ID: LR1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 15

Date Collected: 3/16/2010 15:56:58

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	3922.8	3922.8	85.5 %		15:59:11
1	Y RADIAL	4231.7	4231.7	85.76 %		15:59:11
1	Al 396.153Radial†	468774.9	548301.6	515470 ug/L	515470 ppb	15:58:51
1	Ca 317.933Radial†	231360.2	270539.8	478210 ug/L	478210 ppb	15:58:51
1	Fe 238.204 Radial†	34873.2	40775.2	427220 ug/L	427220 ppb	15:59:11
1	K 766.490 Radial†	2564.1	442.9	-279.20 ug/L	-279.20 ppb	15:58:51
1	Mg 279.077 IEC†	11042.3	12913.5	490970 ug/L	490970 ppb	15:59:11
1	Na 589.592 Radial†	1276475.4	1493598.3	523340 ug/L	523340 ppb	15:58:51
1	Sr 421.552†	1438.8	1656.9	9.0869 ug/L	9.0869 ppb	15:59:11
1	Sc 361.383	686146.2	686146.2	84.404 %		16:00:09
1	Y 371.029	568220.1	568220.1	82.418 %		16:00:09
1	Ag 328.068†	-19678.6	-23525.3	-7.4421 ug/L	-7.4421 ppb	16:00:09
1	As 188.979†	-166.1	-179.7	-0.0348 ug/L	-0.0348 ppb	16:00:29
1	B 249.677†	1032.0	1638.0	-23.558 ug/L	-23.558 ppb	16:00:09
1	Ba 233.527†	-1344.6	-1605.6	-1.9760 ug/L	-1.9760 ppb	16:00:29
1	Be 313.107†	-9786.5	-7865.8	-3.4088 ug/L	-3.4088 ppb	16:00:09
1	Cd 226.502†	2628.4	3290.4	6.5010 ug/L	6.5010 ppb	16:00:29
1	Co 228.616†	199.4	276.1	0.9499 ug/L	0.9499 ppb	16:00:29
1	Cr 267.716†	-931.7	-1183.3	23.396 ug/L	23.396 ppb	16:00:29
1	Cu 324.752†	527.7	-4841.1	-1.8030 ug/L	-1.8030 ppb	16:00:09
1	Mn 257.610†	-19426.7	-23567.2	-8.9271 ug/L	-8.9271 ppb	16:00:09
1	Mo 202.031†	-397.2	-483.5	-3.6599 ug/L	-3.6599 ppb	16:00:29
1	Ni 231.604†	230.8	192.0	6.1091 ug/L	6.1091 ppb	16:00:29
1	P 214.914†	454.8	354.9	53.977 ug/L	53.977 ppb	16:00:29
1	Pb 220.353†	-451.0	-491.5	-15.975 ug/L	-15.975 ppb	16:00:29
1	S 181.975 Axial†	51.3	30.6	-42.030 ug/L	-42.030 ppb	16:00:29
1	Sb 206.836†	74.3	63.5	5.4190 ug/L	5.4190 ppb	16:00:29
1	Se 196.026†	-1748.4	-2052.7	-311.18 ug/L	-311.18 ppb	16:00:29
1	Si 251.611†	-433.1	-1011.3	-37.536 ug/L	-37.536 ppb	16:00:29
1	Sn 189.927†	-353.1	-426.4	-35.570 ug/L	-35.570 ppb	16:00:29
1	Ti 334.940†	-11921.1	-13036.5	-5.1774 ug/L	-5.1774 ppb	16:00:09
1	Tl 190.801†	-90.7	-75.7	-29.562 ug/L	-29.562 ppb	16:00:29
1	U 409.014†	421878.6	501912.1	15110 ug/L	15110 ppb	16:00:09
1	V 292.402†	1274.4	2827.6	-1.7007 ug/L	-1.7007 ppb	16:00:29
1	Zn 213.857†	4556.7	4781.5	-6.1854 ug/L	-6.1854 ppb	16:00:29
1	SiO2†	-481.0	-1065.2	-84.148 ug/L	-84.148 ppb	16:01:26
2	Sc Radial	3913.6	3913.6	85.3 %		15:59:37
2	Y RADIAL	4227.4	4227.4	85.67 %		15:59:37
2	Al 396.153Radial†	478777.1	561312.9	527700 ug/L	527700 ppb	15:59:17
2	Ca 317.933Radial†	235551.9	276088.3	488020 ug/L	488020 ppb	15:59:17
2	Fe 238.204 Radial†	34813.1	40800.4	427480 ug/L	427480 ppb	15:59:37
2	K 766.490 Radial†	2442.1	306.9	-313.04 ug/L	-313.04 ppb	15:59:17
2	Mg 279.077 IEC†	11023.1	12921.4	491270 ug/L	491270 ppb	15:59:37
2	Na 589.592 Radial†	1301627.0	1526584.6	534890 ug/L	534890 ppb	15:59:17
2	Sr 421.552†	1446.6	1670.0	9.1135 ug/L	9.1135 ppb	15:59:37
2	Sc 361.383	683895.2	683895.2	84.127 %		16:00:35
2	Y 371.029	566721.5	566721.5	82.201 %		16:00:35
2	Ag 328.068†	-19570.4	-23473.5	-7.2435 ug/L	-7.2435 ppb	16:00:35
2	As 188.979†	-151.6	-163.2	9.2306 ug/L	9.2306 ppb	16:00:55
2	B 249.677†	1100.8	1723.8	-21.200 ug/L	-21.200 ppb	16:00:35
2	Ba 233.527†	-1333.6	-1597.7	-1.8919 ug/L	-1.8919 ppb	16:00:55
2	Be 313.107†	-9893.9	-8031.6	-3.4794 ug/L	-3.4794 ppb	16:00:35
2	Cd 226.502†	2689.6	3373.4	7.6819 ug/L	7.6819 ppb	16:00:55
2	Co 228.616†	200.4	278.0	0.9926 ug/L	0.9926 ppb	16:00:55
2	Cr 267.716†	-1028.3	-1301.9	21.824 ug/L	21.824 ppb	16:00:55
2	Cu 324.752†	512.5	-4857.0	-1.8553 ug/L	-1.8553 ppb	16:00:35
2	Mn 257.610†	-19247.4	-23429.9	-8.7323 ug/L	-8.7323 ppb	16:00:35
2	Mo 202.031†	-415.7	-506.9	-5.5887 ug/L	-5.5887 ppb	16:00:55
2	Ni 231.604†	237.7	201.1	6.3985 ug/L	6.3985 ppb	16:00:55

2	P 214.914†	466.8	371.0	68.984 ug/L	68.984 ppb	16:00:55
2	Pb 220.353†	-456.7	-500.1	-14.501 ug/L	-14.501 ppb	16:00:55
2	S 181.975 Axial†	48.3	27.2	-50.248 ug/L	-50.248 ppb	16:00:55
2	Sb 206.836†	71.2	60.1	3.7022 ug/L	3.7022 ppb	16:00:55
2	Se 196.026†	-1760.9	-2074.3	-324.47 ug/L	-324.47 ppb	16:00:55
2	Si 251.611†	-437.4	-1018.1	-37.767 ug/L	-37.767 ppb	16:00:55
2	Sn 189.927†	-335.3	-406.5	-29.369 ug/L	-29.369 ppb	16:00:55
2	Ti 334.940†	-11859.0	-13009.2	-3.8494 ug/L	-3.8494 ppb	16:00:35
2	Tl 190.801†	-94.0	-79.9	-31.181 ug/L	-31.181 ppb	16:00:55
2	U 409.014†	421181.3	502728.4	15134 ug/L	15134 ppb	16:00:35
2	V 292.402†	1378.6	2956.4	-0.6859 ug/L	-0.6859 ppb	16:00:55
2	Zn 213.857†	4565.9	4810.2	-5.8803 ug/L	-5.8803 ppb	16:00:55
2	SiO2†	-530.0	-1125.3	-88.902 ug/L	-88.902 ppb	16:01:31
3	Sc Radial	3934.9	3934.9	85.8 %		16:00:02
3	Y RADIAL	4243.0	4243.0	85.99 %		16:00:02
3	Al 396.153Radial†	471581.4	549891.2	516960 ug/L	516960 ppb	15:59:42
3	Ca 317.933Radial†	232060.8	270526.2	478190 ug/L	478190 ppb	15:59:42
3	Fe 238.204 Radial†	34802.3	40567.3	425040 ug/L	425040 ppb	16:00:02
3	K 766.490 Radial†	2414.6	259.3	-313.37 ug/L	-313.37 ppb	15:59:42
3	Mg 279.077 IEC†	11031.6	12861.4	488990 ug/L	488990 ppb	16:00:02
3	Na 589.592 Radial†	1274215.8	1486382.7	520810 ug/L	520810 ppb	15:59:42
3	Sr 421.552†	1441.7	1655.0	9.0728 ug/L	9.0728 ppb	16:00:02
3	Sc 361.383	682833.4	682833.4	83.997 %		16:01:01
3	Y 371.029	564299.4	564299.4	81.849 %		16:01:01
3	Ag 328.068†	-19690.6	-23652.6	-8.7741 ug/L	-8.7741 ppb	16:01:01
3	As 188.979†	-144.4	-154.8	13.296 ug/L	13.296 ppb	16:01:21
3	B 249.677†	1089.9	1712.9	-21.111 ug/L	-21.111 ppb	16:01:01
3	Ba 233.527†	-1307.1	-1568.7	-1.6963 ug/L	-1.6963 ppb	16:01:21
3	Be 313.107†	-9909.8	-8068.8	-3.4953 ug/L	-3.4953 ppb	16:01:01
3	Cd 226.502†	2670.2	3355.2	7.6673 ug/L	7.6673 ppb	16:01:21
3	Co 228.616†	203.9	282.6	1.1537 ug/L	1.1537 ppb	16:01:21
3	Cr 267.716†	-951.6	-1212.4	22.772 ug/L	22.772 ppb	16:01:21
3	Cu 324.752†	491.5	-4881.1	-2.0545 ug/L	-2.0545 ppb	16:01:01
3	Mn 257.610†	-19018.4	-23192.8	-8.5682 ug/L	-8.5682 ppb	16:01:01
3	Mo 202.031†	-381.0	-466.4	-2.3311 ug/L	-2.3311 ppb	16:01:21
3	Ni 231.604†	247.1	212.8	6.7712 ug/L	6.7712 ppb	16:01:21
3	P 214.914†	485.1	393.6	85.316 ug/L	85.316 ppb	16:01:21
3	Pb 220.353†	-445.3	-487.3	-14.687 ug/L	-14.687 ppb	16:01:21
3	S 181.975 Axial†	52.2	32.0	-39.746 ug/L	-39.746 ppb	16:01:21
3	Sb 206.836†	29.6	10.8	-16.341 ug/L	-16.341 ppb	16:01:21
3	Se 196.026†	-1766.1	-2083.8	-342.73 ug/L	-342.73 ppb	16:01:21
3	Si 251.611†	-465.3	-1052.2	-39.091 ug/L	-39.091 ppb	16:01:21
3	Sn 189.927†	-336.7	-408.9	-31.508 ug/L	-31.508 ppb	16:01:21
3	Ti 334.940†	-11840.0	-13008.4	-4.9730 ug/L	-4.9730 ppb	16:01:01
3	Tl 190.801†	-93.6	-79.6	-31.053 ug/L	-31.053 ppb	16:01:21
3	U 409.014†	420026.3	502131.9	15117 ug/L	15117 ppb	16:01:01
3	V 292.402†	1280.7	2842.4	-1.2694 ug/L	-1.2694 ppb	16:01:21
3	Zn 213.857†	4619.9	4883.0	-4.6373 ug/L	-4.6373 ppb	16:01:21
3	SiO2†	-441.0	-1020.4	-80.596 ug/L	-80.596 ppb	16:01:36

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	684291.6	84.176 %		0.2081				0.25%
Sc Radial	3923.8	85.5 %		0.23				0.27%
Y 371.029	566413.7	82.156 %		0.2870				0.35%
Y RADIAL	4234.0	85.81 %		0.163				0.19%
Ag 328.068†	-23550.5	-7.8199 ug/L		0.83230	-7.8199 ppb		0.83230	10.64%
Al 396.153Radial†	553168.6	520040 ug/L		6672.9	520040 ppb		6672.9	1.28%
QC value within limits for Al 396.153Radial Recovery = 104.01%								
As 188.979†	-165.9	7.4972 ug/L		6.83226	7.4972 ppb		6.83226	91.13%
B 249.677†	1691.6	-21.956 ug/L		1.3880	-21.956 ppb		1.3880	6.32%
Ba 233.527†	-1590.7	-1.8547 ug/L		0.14349	-1.8547 ppb		0.14349	7.74%
Be 313.107†	-7988.7	-3.4612 ug/L		0.04606	-3.4612 ppb		0.04606	1.33%
Ca 317.933Radial†	272384.8	481470 ug/L		5669.3	481470 ppb		5669.3	1.18%
QC value within limits for Ca 317.933Radial Recovery = 96.29%								
Cd 226.502†	3339.7	7.2834 ug/L		0.67762	7.2834 ppb		0.67762	9.30%
Co 228.616†	278.9	1.0321 ug/L		0.10750	1.0321 ppb		0.10750	10.42%
Cr 267.716†	-1232.6	22.664 ug/L		0.7917	22.664 ppb		0.7917	3.49%
Cu 324.752†	-4859.7	-1.9043 ug/L		0.13273	-1.9043 ppb		0.13273	6.97%

Fe 238.204 Radial†	40714.3	426580 ug/L	1340.5	426580 ppb	1340.5	0.31%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 85.32%						
K 766.490 Radial†	336.4	-301.87 ug/L	19.633	-301.87 ppb	19.633	6.50%
Mg 279.077 IEC†	12898.8	490410 ug/L	1238.0	490410 ppb	1238.0	0.25%
QC value within limits for Mg 279.077 IEC Recovery = 98.08%						
Mn 257.610†	-23396.6	-8.7425 ug/L	0.17965	-8.7425 ppb	0.17965	2.05%
Mo 202.031†	-485.6	-3.8599 ug/L	1.63798	-3.8599 ppb	1.63798	42.44%
Na 589.592 Radial†	1502188.5	526350 ug/L	7510.0	526350 ppb	7510.0	1.43%
QC value within limits for Na 589.592 Radial Recovery = 105.27%						
Ni 231.604†	202.0	6.4263 ug/L	0.33194	6.4263 ppb	0.33194	5.17%
P 214.914†	373.2	69.426 ug/L	15.6744	69.426 ppb	15.6744	22.58%
Pb 220.353†	-493.0	-15.054 ug/L	0.8027	-15.054 ppb	0.8027	5.33%
S 181.975 Axial†	29.9	-44.008 ug/L	5.5234	-44.008 ppb	5.5234	12.55%
Sb 206.836†	44.8	-2.4067 ug/L	12.09823	-2.4067 ppb	12.09823	502.69%
Se 196.026†	-2070.3	-326.13 ug/L	15.841	-326.13 ppb	15.841	4.86%
Si 251.611†	-1027.2	-38.132 ug/L	0.8388	-38.132 ppb	0.8388	2.20%
Sn 189.927†	-413.9	-32.149 ug/L	3.1499	-32.149 ppb	3.1499	9.80%
Sr 421.552†	1660.6	9.0911 ug/L	0.02065	9.0911 ppb	0.02065	0.23%
Ti 334.940†	-13018.1	-4.6666 ug/L	0.71504	-4.6666 ppb	0.71504	15.32%
Tl 190.801†	-78.4	-30.599 ug/L	0.9002	-30.599 ppb	0.9002	2.94%
U 409.014†	502257.5	15120 ug/L	12.7	15120 ppb	12.7	0.08%
QC value within limits for U 409.014 Recovery = 100.80%						
V 292.402†	2875.5	-1.2187 ug/L	0.50933	-1.2187 ppb	0.50933	41.79%
Zn 213.857†	4824.9	-5.5677 ug/L	0.82002	-5.5677 ppb	0.82002	14.73%
SiO2†	-1070.3	-84.549 ug/L	4.1674	-84.549 ppb	4.1674	4.93%
QC Failed. Continue with analysis.						

Sequence No.: 12

Sample ID: LR2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 16

Date Collected: 3/16/2010 16:03:47

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	4480.9	4480.9	97.7 %		16:05:44
1	Y RADIAL	4757.3	4757.3	96.41 %		16:05:44
1	Al 396.153Radial†	418.0	513.8	11.798 ug/L	11.798 ppb	16:05:44
1	Ca 317.933Radial†	32.6	5.5	9.7331 ug/L	9.7331 ppb	16:06:04
1	Fe 238.204 Radial†	-18.8	-27.1	10.466 ug/L	10.466 ppb	16:06:04
1	K 766.490 Radial†	1523862.7	1557593.0	298390 ug/L	298390 ppb	16:05:39
1	Mg 279.077 IEC†	-2.8	-3.0	-11.281 ug/L	-11.281 ppb	16:06:04
1	Na 589.592 Radial†	-265.3	533.4	186.91 ug/L	186.91 ppb	16:05:44
1	Sr 421.552†	1244641.7	1274253.1	9734.4 ug/L	9734.4 ppb	16:05:39
1	Sc 361.383	781308.1	781308.1	96.110 %		16:07:22
1	Y 371.029	644485.3	644485.3	93.480 %		16:07:22
1	Ag 328.068†	-6474.4	-6947.1	5.6652 ug/L	5.6652 ppb	16:07:27
1	As 188.979†	17196.3	17909.3	10029 ug/L	10029 ppb	16:07:27
1	B 249.677†	174931.1	182426.1	5077.1 ug/L	5077.1 ppb	16:07:22
1	Ba 233.527†	1434600.3	1492647.9	13989 ug/L	13989 ppb	16:07:22
1	Be 313.107†	6571188.8	6840862.3	2942.6 ug/L	2942.6 ppb	16:07:15
1	Cd 226.502†	655948.6	682672.1	9897.5 ug/L	9897.5 ppb	16:07:22
1	Co 228.616†	364291.3	379074.5	9846.2 ug/L	9846.2 ppb	16:07:22
1	Cr 267.716†	1763290.5	1834573.6	24647 ug/L	24647 ppb	16:07:22
1	Cu 324.752†	5912643.8	6146469.8	20345 ug/L	20345 ppb	16:07:15
1	Mn 257.610†	6971470.1	7253063.6	9549.5 ug/L	9549.5 ppb	16:07:15
1	Mo 202.031†	106203.8	110489.2	9716.3 ug/L	9716.3 ppb	16:07:27
1	Ni 231.604†	305183.5	317453.3	10101 ug/L	10101 ppb	16:07:22
1	P 214.914†	23223.9	23979.8	14114 ug/L	14114 ppb	16:07:27
1	Pb 220.353†	153613.7	159873.5	24678 ug/L	24678 ppb	16:07:22
1	S 181.975 Axial†	27836.6	28933.0	51660 ug/L	51660 ppb	16:07:27
1	Sb 206.836†	24144.9	25097.6	10754 ug/L	10754 ppb	16:07:27
1	Se 196.026†	11645.7	12135.8	10100 ug/L	10100 ppb	16:07:27
1	Si 251.611†	1221809.2	1270759.2	47703 ug/L	47703 ppb	16:07:22
1	Sn 189.927†	43557.6	45312.4	10202 ug/L	10202 ppb	16:07:27
1	Ti 334.940†	5509498.8	5733562.6	9899.5 ug/L	9899.5 ppb	16:07:15
1	Tl 190.801†	24057.4	25062.8	9715.5 ug/L	9715.5 ppb	16:07:27
1	U 409.014†	-1186.7	846.3	-29.533 ug/L	-29.533 ppb	16:07:22
1	V 292.402†	1231447.4	1282603.3	10365 ug/L	10365 ppb	16:07:22
1	Zn 213.857†	1142518.8	1188140.9	14262 ug/L	14262 ppb	16:07:22
1	SiO2†	1205104.6	1253381.5	100110 ug/L	100110 ppb	16:08:13
2	Sc Radial	4458.1	4458.1	97.2 %		16:06:15
2	Y RADIAL	4769.3	4769.3	96.66 %		16:06:15
2	Al 396.153Radial†	397.9	495.2	-4.7881 ug/L	-4.7881 ppb	16:06:15
2	Ca 317.933Radial†	34.3	7.5	13.202 ug/L	13.202 ppb	16:06:35
2	Fe 238.204 Radial†	-15.6	-23.9	43.560 ug/L	43.560 ppb	16:06:35
2	K 766.490 Radial†	1518865.6	1560426.0	298930 ug/L	298930 ppb	16:06:10
2	Mg 279.077 IEC†	-5.6	-5.9	-121.21 ug/L	-121.21 ppb	16:06:35
2	Na 589.592 Radial†	-271.0	526.3	184.40 ug/L	184.40 ppb	16:06:15
2	Sr 421.552†	1237766.6	1273692.3	9730.1 ug/L	9730.1 ppb	16:06:10
2	Sc 361.383	779036.4	779036.4	95.831 %		16:07:42
2	Y 371.029	642700.6	642700.6	93.221 %		16:07:42
2	Ag 328.068†	-6377.4	-6865.4	6.0514 ug/L	6.0514 ppb	16:07:47
2	As 188.979†	17149.9	17913.1	10031 ug/L	10031 ppb	16:07:47
2	B 249.677†	174494.8	182501.6	5079.3 ug/L	5079.3 ppb	16:07:42
2	Ba 233.527†	1429098.3	1491259.2	13976 ug/L	13976 ppb	16:07:42
2	Be 313.107†	6499500.1	6785992.0	2919.1 ug/L	2919.1 ppb	16:07:35
2	Cd 226.502†	653425.8	682029.7	9888.2 ug/L	9888.2 ppb	16:07:42
2	Co 228.616†	362857.0	378683.1	9836.1 ug/L	9836.1 ppb	16:07:42
2	Cr 267.716†	1756841.4	1833193.9	24628 ug/L	24628 ppb	16:07:42
2	Cu 324.752†	5855774.6	6105065.8	20208 ug/L	20208 ppb	16:07:35
2	Mn 257.610†	6913450.6	7213671.6	9497.7 ug/L	9497.7 ppb	16:07:35
2	Mo 202.031†	105707.9	110293.9	9699.1 ug/L	9699.1 ppb	16:07:47
2	Ni 231.604†	303925.4	317066.3	10089 ug/L	10089 ppb	16:07:42

2	P 214.914†	23072.0	23891.8	14074 ug/L	14074 ppb	16:07:47
2	Pb 220.353†	153016.7	159716.5	24654 ug/L	24654 ppb	16:07:42
2	S 181.975 Axial†	27687.5	28861.9	51533 ug/L	51533 ppb	16:07:47
2	Sb 206.836†	24056.7	25078.7	10746 ug/L	10746 ppb	16:07:47
2	Se 196.026†	11650.7	12176.3	10134 ug/L	10134 ppb	16:07:47
2	Si 251.611†	1219167.7	1271709.7	47739 ug/L	47739 ppb	16:07:42
2	Sn 189.927†	43257.1	45131.0	10162 ug/L	10162 ppb	16:07:47
2	Ti 334.940†	5460836.3	5699499.1	9840.7 ug/L	9840.7 ppb	16:07:35
2	Tl 190.801†	23936.4	25009.6	9694.4 ug/L	9694.4 ppb	16:07:47
2	U 409.014†	-1419.7	599.6	-36.946 ug/L	-36.946 ppb	16:07:42
2	V 292.402†	1226403.4	1281076.3	10352 ug/L	10352 ppb	16:07:42
2	Zn 213.857†	1138533.4	1187448.6	14254 ug/L	14254 ppb	16:07:42
2	SiO2†	1189114.2	1240351.7	99066 ug/L	99066 ppb	16:08:19
3	Sc Radial	4257.7	4257.7	92.8 %		16:06:45
3	Y RADIAL	4576.2	4576.2	92.74 %		16:06:45
3	Al 396.153Radial†	397.5	514.1	12.051 ug/L	12.051 ppb	16:06:45
3	Ca 317.933Radial†	31.9	6.5	11.526 ug/L	11.526 ppb	16:07:05
3	Fe 238.204 Radial†	-16.9	-26.0	22.757 ug/L	22.757 ppb	16:07:05
3	K 766.490 Radial†	1476676.9	1588542.6	304320 ug/L	304320 ppb	16:06:40
3	Mg 279.077 IEC†	-5.0	-5.4	-105.37 ug/L	-105.37 ppb	16:07:05
3	Na 589.592 Radial†	-366.1	410.6	143.87 ug/L	143.87 ppb	16:06:45
3	Sr 421.552†	1204386.7	1297683.7	9913.4 ug/L	9913.4 ppb	16:06:40
3	Sc 361.383	775849.2	775849.2	95.439 %		16:08:02
3	Y 371.029	640172.2	640172.2	92.854 %		16:08:02
3	Ag 328.068†	-6256.4	-6766.0	6.6607 ug/L	6.6607 ppb	16:08:07
3	As 188.979†	17105.9	17940.5	10046 ug/L	10046 ppb	16:08:07
3	B 249.677†	173656.9	182371.7	5075.5 ug/L	5075.5 ppb	16:08:02
3	Ba 233.527†	1427778.9	1496002.9	14021 ug/L	14021 ppb	16:08:02
3	Be 313.107†	6445018.8	6756768.3	2906.5 ug/L	2906.5 ppb	16:07:55
3	Cd 226.502†	652973.8	684357.1	9922.0 ug/L	9922.0 ppb	16:08:02
3	Co 228.616†	363060.8	380452.1	9882.2 ug/L	9882.2 ppb	16:08:02
3	Cr 267.716†	1754648.9	1838427.6	24699 ug/L	24699 ppb	16:08:02
3	Cu 324.752†	5815557.9	6088028.9	20151 ug/L	20151 ppb	16:07:55
3	Mn 257.610†	6859598.7	7186881.9	9462.4 ug/L	9462.4 ppb	16:07:55
3	Mo 202.031†	105478.8	110507.1	9717.9 ug/L	9717.9 ppb	16:08:07
3	Ni 231.604†	303827.9	318267.0	10127 ug/L	10127 ppb	16:08:02
3	P 214.914†	23088.7	24008.2	14173 ug/L	14173 ppb	16:08:07
3	Pb 220.353†	152925.4	160276.8	24740 ug/L	24740 ppb	16:08:02
3	S 181.975 Axial†	27633.2	28923.7	51643 ug/L	51643 ppb	16:08:07
3	Sb 206.836†	24030.7	25154.7	10779 ug/L	10779 ppb	16:08:07
3	Se 196.026†	11617.7	12191.7	10147 ug/L	10147 ppb	16:08:07
3	Si 251.611†	1215370.6	1272957.4	47786 ug/L	47786 ppb	16:08:02
3	Sn 189.927†	43294.2	45355.4	10212 ug/L	10212 ppb	16:08:07
3	Ti 334.940†	5418595.2	5678648.2	9804.6 ug/L	9804.6 ppb	16:07:55
3	Tl 190.801†	23976.5	25154.2	9749.3 ug/L	9749.3 ppb	16:08:07
3	U 409.014†	-1326.8	690.8	-34.345 ug/L	-34.345 ppb	16:08:02
3	V 292.402†	1224571.1	1284413.5	10379 ug/L	10379 ppb	16:08:02
3	Zn 213.857†	1137209.3	1190941.7	14296 ug/L	14296 ppb	16:08:02
3	SiO2†	1214824.2	1272387.8	101630 ug/L	101630 ppb	16:08:25

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	778731.2	95.793 %	0.3373			0.35%
Sc Radial	4398.9	95.9 %	2.68			2.79%
Y 371.029	642452.7	93.185 %	0.3143			0.34%
Y RADIAL	4701.0	95.27 %	2.193			2.30%
Ag 328.068†	-6859.5	6.1258 ug/L	0.50188	6.1258 ppb	0.50188	8.19%
Al 396.153Radial†	507.7	6.3536 ug/L	9.64978	6.3536 ppb	9.64978	151.88%
As 188.979†	17921.0	10035 ug/L	9.1	10035 ppb	9.1	0.09%
QC value within limits for As 188.979 Recovery = 100.35%						
B 249.677†	182433.2	5077.3 ug/L	1.89	5077.3 ppb	1.89	0.04%
QC value within limits for B 249.677 Recovery = 101.55%						
Ba 233.527†	1493303.4	13996 ug/L	22.8	13996 ppb	22.8	0.16%
QC value within limits for Ba 233.527 Recovery = 93.30%						
Be 313.107†	6794540.9	2922.7 ug/L	18.33	2922.7 ppb	18.33	0.63%
QC value within limits for Be 313.107 Recovery = 97.42%						
Ca 317.933Radial†	6.5	11.487 ug/L	1.7346	11.487 ppb	1.7346	15.10%
Cd 226.502†	683019.6	9902.6 ug/L	17.43	9902.6 ppb	17.43	0.18%
QC value within limits for Cd 226.502 Recovery = 99.03%						

Co 228.616†	379403.2	9854.8 ug/L	24.22	9854.8 ppb	24.22	0.25%
QC value within limits for Co 228.616 Recovery = 98.55%						
Cr 267.716†	1835398.3	24658 ug/L	36.4	24658 ppb	36.4	0.15%
QC value within limits for Cr 267.716 Recovery = 98.63%						
Cu 324.752†	6113188.2	20235 ug/L	99.5	20235 ppb	99.5	0.49%
QC value within limits for Cu 324.752 Recovery = 101.17%						
Fe 238.204 Radial†	-25.7	25.594 ug/L	16.7285	25.594 ppb	16.7285	65.36%
K 766.490 Radial†	1568853.9	300550 ug/L	3277.9	300550 ppb	3277.9	1.09%
QC value within limits for K 766.490 Radial Recovery = 100.18%						
Mg 279.077 IEC†	-4.8	-79.289 ug/L	59.4268	-79.289 ppb	59.4268	74.95%
Mn 257.610†	7217872.4	9503.2 ug/L	43.83	9503.2 ppb	43.83	0.46%
QC value within limits for Mn 257.610 Recovery = 95.03%						
Mo 202.031†	110430.1	9711.1 ug/L	10.40	9711.1 ppb	10.40	0.11%
QC value within limits for Mo 202.031 Recovery = 97.11%						
Na 589.592 Radial†	490.1	171.73 ug/L	24.152	171.73 ppb	24.152	14.06%
Ni 231.604†	317595.5	10106 ug/L	19.5	10106 ppb	19.5	0.19%
QC value within limits for Ni 231.604 Recovery = 101.06%						
P 214.914†	23959.9	14120 ug/L	50.0	14120 ppb	50.0	0.35%
QC value within limits for P 214.914 Recovery = 94.14%						
Pb 220.353†	159955.6	24691 ug/L	44.6	24691 ppb	44.6	0.18%
QC value within limits for Pb 220.353 Recovery = 98.76%						
S 181.975 Axial†	28906.2	51612 ug/L	69.0	51612 ppb	69.0	0.13%
QC value within limits for S 181.975 Axial Recovery = 103.22%						
Sb 206.836†	25110.3	10760 ug/L	17.0	10760 ppb	17.0	0.16%
QC value within limits for Sb 206.836 Recovery = 107.60%						
Se 196.026†	12167.9	10127 ug/L	24.0	10127 ppb	24.0	0.24%
QC value within limits for Se 196.026 Recovery = 101.27%						
Si 251.611†	1271808.8	47742 ug/L	41.5	47742 ppb	41.5	0.09%
QC value within limits for Si 251.611 Recovery = 95.48%						
Sn 189.927†	45266.2	10192 ug/L	26.8	10192 ppb	26.8	0.26%
QC value within limits for Sn 189.927 Recovery = 101.92%						
Sr 421.552†	1281876.4	9792.7 ug/L	104.60	9792.7 ppb	104.60	1.07%
QC value within limits for Sr 421.552 Recovery = 97.93%						
Ti 334.940†	5703903.3	9848.3 ug/L	47.91	9848.3 ppb	47.91	0.49%
QC value within limits for Ti 334.940 Recovery = 98.48%						
Tl 190.801†	25075.5	9719.7 ug/L	27.72	9719.7 ppb	27.72	0.29%
QC value within limits for Tl 190.801 Recovery = 97.20%						
U 409.014†	712.2	-33.608 ug/L	3.7613	-33.608 ppb	3.7613	11.19%
V 292.402†	1282697.7	10365 ug/L	13.5	10365 ppb	13.5	0.13%
QC value within limits for V 292.402 Recovery = 103.65%						
Zn 213.857†	1188843.7	14270 ug/L	22.3	14270 ppb	22.3	0.16%
QC value within limits for Zn 213.857 Recovery = 95.14%						
SiO2†	1255373.6	100270 ug/L	1289.9	100270 ppb	1289.9	1.29%
QC value within limits for SiO2 Recovery = 93.71%						

All analyte(s) passed QC.

User canceled analysis.

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Analysis Begun

Start Time: 3/16/2010 16:17:19

Plasma On Time: 3/15/2010 06:51:19

Logged In Analyst: Optima3

Technique: ICP Continuous

Spectrometer Model: Optima 5300 DV, S/N 077C7090601 Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\031610.sif

Batch ID:

Results Data Set: 031610

Results Library: C:\pe\Optima3\Results\Results.mdb

Sequence No.: 13

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/16/2010 16:17:20

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	4343.1	4343.1	94.7 %		16:19:12
1	Y RADIAL	4667.4	4667.4	94.59 %		16:19:12
1	Al 396.153Radial†	5020.2	5388.5	5041.5 ug/L	5041.5 ppb	16:19:12
1	Ca 317.933Radial†	2796.8	2926.3	5172.6 ug/L	5172.6 ppb	16:19:32
1	Fe 238.204 Radial†	476.8	495.8	5209.6 ug/L	5209.6 ppb	16:19:32
1	K 766.490 Radial†	28584.9	27638.0	5288.2 ug/L	5288.2 ppb	16:19:12
1	Mg 279.077 IEC†	135.1	142.6	5426.9 ug/L	5426.9 ppb	16:19:32
1	Na 589.592 Radial†	27865.8	30239.3	10595 ug/L	10595 ppb	16:19:12
1	Sr 421.552†	64758.6	68377.8	522.32 ug/L	522.32 ppb	16:19:12
1	Sc 361.383	801728.6	801728.6	98.622 %		16:20:30
1	Y 371.029	668731.2	668731.2	96.997 %		16:20:30
1	Ag 328.068†	97247.0	98394.9	508.29 ug/L	508.29 ppb	16:20:35
1	As 188.979†	902.1	931.7	522.82 ug/L	522.82 ppb	16:20:55
1	B 249.677†	18102.9	18771.1	523.00 ug/L	523.00 ppb	16:20:35
1	Ba 233.527†	53314.7	54047.0	506.99 ug/L	506.99 ppb	16:20:35
1	Be 313.107†	1175567.6	1195719.1	511.53 ug/L	511.53 ppb	16:20:30
1	Cd 226.502†	34282.8	34938.1	506.10 ug/L	506.10 ppb	16:20:35
1	Co 228.616†	19502.7	19814.9	514.88 ug/L	514.88 ppb	16:20:35
1	Cr 267.716†	37257.1	37698.1	507.23 ug/L	507.23 ppb	16:20:35
1	Cu 324.752†	155590.7	152298.1	504.09 ug/L	504.09 ppb	16:20:35
1	Mn 257.610†	373031.4	377691.6	497.57 ug/L	497.57 ppb	16:20:35
1	Mo 202.031†	5650.7	5716.8	503.19 ug/L	503.19 ppb	16:20:55
1	Ni 231.604†	16033.9	16176.4	514.73 ug/L	514.73 ppb	16:20:35
1	P 214.914†	3481.1	3345.9	2421.3 ug/L	2421.3 ppb	16:20:55
1	Pb 220.353†	3199.3	3286.8	508.50 ug/L	508.50 ppb	16:20:55
1	S 181.975 Axial†	585.8	563.8	1005.8 ug/L	1005.8 ppb	16:20:55
1	Sb 206.836†	1216.8	1209.2	518.83 ug/L	518.83 ppb	16:20:55
1	Se 196.026†	583.5	610.4	524.67 ug/L	524.67 ppb	16:20:55
1	Si 251.611†	67236.5	67677.6	2540.7 ug/L	2540.7 ppb	16:20:35
1	Sn 189.927†	2206.7	2229.5	502.61 ug/L	502.61 ppb	16:20:55
1	Ti 334.940†	281528.0	286548.2	495.04 ug/L	495.04 ppb	16:20:35
1	Tl 190.801†	1264.3	1313.7	509.11 ug/L	509.11 ppb	16:20:55
1	U 409.014†	14865.8	17154.4	516.36 ug/L	516.36 ppb	16:20:35
1	V 292.402†	61041.0	63211.4	511.74 ug/L	511.74 ppb	16:20:35
1	Zn 213.857†	42805.4	42786.2	512.15 ug/L	512.15 ppb	16:20:35
1	SiO2†	66827.4	67265.7	5373.1 ug/L	5373.1 ppb	16:22:02
2	Sc Radial	4264.4	4264.4	93.0 %		16:19:37
2	Y RADIAL	4570.7	4570.7	92.63 %		16:19:37
2	Al 396.153Radial†	4921.6	5380.4	5033.8 ug/L	5033.8 ppb	16:19:37
2	Ca 317.933Radial†	2780.8	2963.8	5238.8 ug/L	5238.8 ppb	16:19:58
2	Fe 238.204 Radial†	479.3	507.8	5335.8 ug/L	5335.8 ppb	16:19:58
2	K 766.490 Radial†	28189.9	27770.7	5313.6 ug/L	5313.6 ppb	16:19:37
2	Mg 279.077 IEC†	133.5	143.6	5463.6 ug/L	5463.6 ppb	16:19:58
2	Na 589.592 Radial†	27392.6	30273.8	10608 ug/L	10608 ppb	16:19:37
2	Sr 421.552†	63432.6	68214.5	521.07 ug/L	521.07 ppb	16:19:37
2	Sc 361.383	799128.2	799128.2	98.302 %		16:21:00

2	Y 371.029	666294.2	666294.2	96.643 %		16:21:00
2	Ag 328.068†	98225.5	99711.2	515.12 ug/L	515.12 ppb	16:21:06
2	As 188.979†	896.9	929.4	521.64 ug/L	521.64 ppb	16:21:26
2	B 249.677†	18287.8	19019.0	529.89 ug/L	529.89 ppb	16:21:06
2	Ba 233.527†	54141.0	55063.5	516.53 ug/L	516.53 ppb	16:21:06
2	Be 313.107†	1170272.5	1194211.3	510.91 ug/L	510.91 ppb	16:21:00
2	Cd 226.502†	34890.8	35669.7	516.70 ug/L	516.70 ppb	16:21:06
2	Co 228.616†	19824.0	20206.1	525.03 ug/L	525.03 ppb	16:21:06
2	Cr 267.716†	37881.3	38456.0	517.42 ug/L	517.42 ppb	16:21:06
2	Cu 324.752†	156749.2	153989.9	509.70 ug/L	509.70 ppb	16:21:06
2	Mn 257.610†	378562.7	384549.3	506.61 ug/L	506.61 ppb	16:21:06
2	Mo 202.031†	5635.1	5719.6	503.45 ug/L	503.45 ppb	16:21:26
2	Ni 231.604†	16293.7	16493.7	524.82 ug/L	524.82 ppb	16:21:06
2	P 214.914†	3466.3	3342.3	2417.4 ug/L	2417.4 ppb	16:21:26
2	Pb 220.353†	3231.6	3330.2	515.18 ug/L	515.18 ppb	16:21:26
2	S 181.975 Axial†	582.5	562.4	1003.3 ug/L	1003.3 ppb	16:21:26
2	Sb 206.836†	1217.5	1214.0	520.88 ug/L	520.88 ppb	16:21:26
2	Se 196.026†	575.2	603.9	519.63 ug/L	519.63 ppb	16:21:26
2	Si 251.611†	68118.6	68796.8	2582.8 ug/L	2582.8 ppb	16:21:06
2	Sn 189.927†	2213.4	2243.6	505.80 ug/L	505.80 ppb	16:21:26
2	Ti 334.940†	284648.4	290651.4	502.13 ug/L	502.13 ppb	16:21:06
2	Tl 190.801†	1263.4	1317.0	510.40 ug/L	510.40 ppb	16:21:26
2	U 409.014†	15018.5	17358.8	522.50 ug/L	522.50 ppb	16:21:06
2	V 292.402†	61921.3	64308.4	520.49 ug/L	520.49 ppb	16:21:06
2	Zn 213.857†	43332.6	43463.8	520.25 ug/L	520.25 ppb	16:21:06
2	SiO2†	67694.4	68368.1	5461.4 ug/L	5461.4 ppb	16:22:07
3	Sc Radial	4478.7	4478.7	97.6 %		16:20:03
3	Y RADIAL	4774.3	4774.3	96.76 %		16:20:03
3	Al 396.153Radial†	5169.4	5380.8	5034.3 ug/L	5034.3 ppb	16:20:03
3	Ca 317.933Radial†	2804.6	2844.9	5028.7 ug/L	5028.7 ppb	16:20:23
3	Fe 238.204 Radial†	479.6	483.4	5079.9 ug/L	5079.9 ppb	16:20:23
3	K 766.490 Radial†	29165.1	27318.2	5227.0 ug/L	5227.0 ppb	16:20:03
3	Mg 279.077 IEC†	133.4	136.5	5195.3 ug/L	5195.3 ppb	16:20:23
3	Na 589.592 Radial†	28716.0	30219.0	10588 ug/L	10588 ppb	16:20:03
3	Sr 421.552†	66660.6	68254.9	521.38 ug/L	521.38 ppb	16:20:03
3	Sc 361.383	803091.7	803091.7	98.790 %		16:21:31
3	Y 371.029	668158.6	668158.6	96.914 %		16:21:31
3	Ag 328.068†	97205.9	98186.0	507.18 ug/L	507.18 ppb	16:21:36
3	As 188.979†	899.9	927.9	520.69 ug/L	520.69 ppb	16:21:56
3	B 249.677†	17936.5	18571.5	517.43 ug/L	517.43 ppb	16:21:36
3	Ba 233.527†	53594.2	54238.2	508.78 ug/L	508.78 ppb	16:21:36
3	Be 313.107†	1171475.8	1189554.0	508.90 ug/L	508.90 ppb	16:21:31
3	Cd 226.502†	34559.4	35159.0	509.32 ug/L	509.32 ppb	16:21:36
3	Co 228.616†	19593.9	19873.8	516.41 ug/L	516.41 ppb	16:21:36
3	Cr 267.716†	37400.3	37778.8	508.30 ug/L	508.30 ppb	16:21:36
3	Cu 324.752†	154781.1	151210.7	500.49 ug/L	500.49 ppb	16:21:36
3	Mn 257.610†	373954.1	377983.6	497.95 ug/L	497.95 ppb	16:21:36
3	Mo 202.031†	5637.0	5693.2	501.11 ug/L	501.11 ppb	16:21:56
3	Ni 231.604†	16066.6	16182.0	514.91 ug/L	514.91 ppb	16:21:36
3	P 214.914†	3459.4	3317.9	2401.1 ug/L	2401.1 ppb	16:21:56
3	Pb 220.353†	3194.5	3276.4	506.92 ug/L	506.92 ppb	16:21:56
3	S 181.975 Axial†	575.6	552.5	985.49 ug/L	985.49 ppb	16:21:56
3	Sb 206.836†	1221.5	1211.9	519.89 ug/L	519.89 ppb	16:21:56
3	Se 196.026†	578.8	604.7	519.55 ug/L	519.55 ppb	16:21:56
3	Si 251.611†	67179.4	67504.1	2534.2 ug/L	2534.2 ppb	16:21:36
3	Sn 189.927†	2206.4	2225.4	501.66 ug/L	501.66 ppb	16:21:56
3	Ti 334.940†	281584.9	286121.3	494.30 ug/L	494.30 ppb	16:21:36
3	Tl 190.801†	1264.4	1311.6	508.30 ug/L	508.30 ppb	16:21:56
3	U 409.014†	14736.1	16997.6	511.64 ug/L	511.64 ppb	16:21:36
3	V 292.402†	61051.5	63117.1	510.96 ug/L	510.96 ppb	16:21:36
3	Zn 213.857†	42816.2	42723.5	511.42 ug/L	511.42 ppb	16:21:36
3	SiO2†	67251.3	67579.7	5398.3 ug/L	5398.3 ppb	16:22:12

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	801316.2	98.572 %	0.2477			0.25%
Sc Radial	4362.1	95.1 %	2.36			2.49%
Y 371.029	667728.0	96.851 %	0.1848			0.19%
Y RADIAL	4670.8	94.66 %	2.064			2.18%

Ag 328.068†	98764.0	510.20 ug/L	4.297	510.20 ppb	4.297	0.84%
QC value within limits for Ag 328.068 Recovery = 102.04%						
Al 396.153Radial†	5383.3	5036.5 ug/L	4.29	5036.5 ppb	4.29	0.09%
QC value within limits for Al 396.153Radial Recovery = 100.73%						
As 188.979†	929.7	521.72 ug/L	1.067	521.72 ppb	1.067	0.20%
QC value within limits for As 188.979 Recovery = 104.34%						
B 249.677†	18787.2	523.44 ug/L	6.240	523.44 ppb	6.240	1.19%
QC value within limits for B 249.677 Recovery = 104.69%						
Ba 233.527†	54449.6	510.77 ug/L	5.069	510.77 ppb	5.069	0.99%
QC value within limits for Ba 233.527 Recovery = 102.15%						
Be 313.107†	1193161.5	510.45 ug/L	1.375	510.45 ppb	1.375	0.27%
QC value within limits for Be 313.107 Recovery = 102.09%						
Ca 317.933Radial†	2911.7	5146.7 ug/L	107.43	5146.7 ppb	107.43	2.09%
QC value within limits for Ca 317.933Radial Recovery = 102.93%						
Cd 226.502†	35255.6	510.70 ug/L	5.432	510.70 ppb	5.432	1.06%
QC value within limits for Cd 226.502 Recovery = 102.14%						
Co 228.616†	19964.9	518.77 ug/L	5.471	518.77 ppb	5.471	1.05%
QC value within limits for Co 228.616 Recovery = 103.75%						
Cr 267.716†	37977.6	510.98 ug/L	5.605	510.98 ppb	5.605	1.10%
QC value within limits for Cr 267.716 Recovery = 102.20%						
Cu 324.752†	152499.6	504.76 ug/L	4.639	504.76 ppb	4.639	0.92%
QC value within limits for Cu 324.752 Recovery = 100.95%						
Fe 238.204 Radial†	495.6	5208.4 ug/L	127.96	5208.4 ppb	127.96	2.46%
QC value within limits for Fe 238.204 Radial Recovery = 104.17%						
K 766.490 Radial†	27575.7	5276.3 ug/L	44.53	5276.3 ppb	44.53	0.84%
QC value within limits for K 766.490 Radial Recovery = 105.53%						
Mg 279.077 IEC†	140.9	5361.9 ug/L	145.51	5361.9 ppb	145.51	2.71%
QC value within limits for Mg 279.077 IEC Recovery = 107.24%						
Mn 257.610†	380074.9	500.71 ug/L	5.113	500.71 ppb	5.113	1.02%
QC value within limits for Mn 257.610 Recovery = 100.14%						
Mo 202.031†	5709.9	502.58 ug/L	1.284	502.58 ppb	1.284	0.26%
QC value within limits for Mo 202.031 Recovery = 100.52%						
Na 589.592 Radial†	30244.1	10597 ug/L	9.7	10597 ppb	9.7	0.09%
QC value within limits for Na 589.592 Radial Recovery = 105.97%						
Ni 231.604†	16284.0	518.15 ug/L	5.778	518.15 ppb	5.778	1.12%
QC value within limits for Ni 231.604 Recovery = 103.63%						
P 214.914†	3335.3	2413.3 ug/L	10.75	2413.3 ppb	10.75	0.45%
QC value within limits for P 214.914 Recovery = 96.53%						
Pb 220.353†	3297.8	510.20 ug/L	4.388	510.20 ppb	4.388	0.86%
QC value within limits for Pb 220.353 Recovery = 102.04%						
S 181.975 Axial†	559.6	998.18 ug/L	11.067	998.18 ppb	11.067	1.11%
QC value within limits for S 181.975 Axial Recovery = 99.82%						
Sb 206.836†	1211.7	519.87 ug/L	1.023	519.87 ppb	1.023	0.20%
QC value within limits for Sb 206.836 Recovery = 103.97%						
Se 196.026†	606.4	521.28 ug/L	2.933	521.28 ppb	2.933	0.56%
QC value within limits for Se 196.026 Recovery = 104.26%						
Si 251.611†	67992.8	2552.6 ug/L	26.39	2552.6 ppb	26.39	1.03%
QC value within limits for Si 251.611 Recovery = 102.10%						
Sn 189.927†	2232.8	503.36 ug/L	2.166	503.36 ppb	2.166	0.43%
QC value within limits for Sn 189.927 Recovery = 100.67%						
Sr 421.552†	68282.4	521.59 ug/L	0.650	521.59 ppb	0.650	0.12%
QC value within limits for Sr 421.552 Recovery = 104.32%						
Ti 334.940†	287773.6	497.15 ug/L	4.322	497.15 ppb	4.322	0.87%
QC value within limits for Ti 334.940 Recovery = 99.43%						
Tl 190.801†	1314.1	509.27 ug/L	1.059	509.27 ppb	1.059	0.21%
QC value within limits for Tl 190.801 Recovery = 101.85%						
U 409.014†	17170.3	516.83 ug/L	5.445	516.83 ppb	5.445	1.05%
QC value within limits for U 409.014 Recovery = 103.37%						
V 292.402†	63545.6	514.40 ug/L	5.291	514.40 ppb	5.291	1.03%
QC value within limits for V 292.402 Recovery = 102.88%						
Zn 213.857†	42991.2	514.61 ug/L	4.899	514.61 ppb	4.899	0.95%
QC value within limits for Zn 213.857 Recovery = 102.92%						
SiO2†	67737.8	5410.9 ug/L	45.47	5410.9 ppb	45.47	0.84%
QC value within limits for SiO2 Recovery = 101.19%						

All analyte(s) passed QC.

Sequence No.: 14

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/16/2010 16:24:22

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	4371.9	4371.9	95.3	%		16:26:15
1	Y RADIAL	4746.6	4746.6	96.20	%		16:26:15
1	Al 396.153Radial†	-85.9	-4.3	-4.0396	ug/L	-4.0396 ppb	16:26:35
1	Ca 317.933Radial†	33.7	7.5	13.220	ug/L	13.220 ppb	16:26:35
1	Fe 238.204 Radial†	8.6	1.2	12.506	ug/L	12.506 ppb	16:26:35
1	K 766.490 Radial†	2867.5	453.2	86.808	ug/L	86.808 ppb	16:26:15
1	Mg 279.077 IEC†	1.8	1.9	70.436	ug/L	70.436 ppb	16:26:35
1	Na 589.592 Radial†	-715.9	53.9	18.879	ug/L	18.879 ppb	16:26:15
1	Sr 421.552†	36.2	12.2	0.0929	ug/L	0.0929 ppb	16:26:15
1	Sc 361.383	787326.6	787326.6	96.851	%		16:27:32
1	Y 371.029	666916.4	666916.4	96.734	%		16:27:32
1	Ag 328.068†	101.6	-105.7	-0.5389	ug/L	-0.5389 ppb	16:27:32
1	As 188.979†	-13.3	3.3	1.8405	ug/L	1.8405 ppb	16:27:52
1	B 249.677†	204.0	626.0	17.517	ug/L	17.517 ppb	16:27:52
1	Ba 233.527†	28.9	17.3	0.1621	ug/L	0.1621 ppb	16:27:52
1	Be 313.107†	-3550.2	63.3	0.0269	ug/L	0.0269 ppb	16:27:32
1	Cd 226.502†	-102.7	70.3	1.0182	ug/L	1.0182 ppb	16:27:52
1	Co 228.616†	-37.1	1.6	0.0415	ug/L	0.0415 ppb	16:27:52
1	Cr 267.716†	92.8	16.3	0.2209	ug/L	0.2209 ppb	16:27:52
1	Cu 324.752†	5277.9	-16.7	-0.0539	ug/L	-0.0539 ppb	16:27:32
1	Mn 257.610†	544.4	11.2	0.0131	ug/L	0.0131 ppb	16:27:52
1	Mo 202.031†	16.8	4.5	0.3979	ug/L	0.3979 ppb	16:27:52
1	Ni 231.604†	105.1	27.0	0.8611	ug/L	0.8611 ppb	16:27:52
1	P 214.914†	188.9	11.1	8.3668	ug/L	8.3668 ppb	16:27:52
1	Pb 220.353†	-25.7	16.2	2.4986	ug/L	2.4986 ppb	16:27:52
1	S 181.975 Axial†	27.6	-1.7	-2.9863	ug/L	-2.9863 ppb	16:27:52
1	Sb 206.836†	37.4	14.1	5.8614	ug/L	5.8614 ppb	16:27:52
1	Se 196.026†	-24.7	-6.7	-5.5157	ug/L	-5.5157 ppb	16:27:52
1	Si 251.611†	549.0	68.7	2.5789	ug/L	2.5789 ppb	16:27:52
1	Sn 189.927†	11.6	3.9	0.8903	ug/L	0.8903 ppb	16:27:52
1	Ti 334.940†	-1083.1	-31.0	-0.0571	ug/L	-0.0571 ppb	16:27:32
1	Tl 190.801†	-24.7	6.3	2.4378	ug/L	2.4378 ppb	16:27:52
1	U 409.014†	-2059.7	-45.7	-1.3813	ug/L	-1.3813 ppb	16:27:32
1	V 292.402†	-1307.6	-32.4	-0.2568	ug/L	-0.2568 ppb	16:27:32
1	Zn 213.857†	727.4	134.0	1.6113	ug/L	1.6113 ppb	16:27:52
1	SiO2†	563.9	86.9	6.9473	ug/L	6.9473 ppb	16:29:03
2	Sc Radial	4415.2	4415.2	96.2	%		16:26:40
2	Y RADIAL	4775.2	4775.2	96.78	%		16:26:40
2	Al 396.153Radial†	-89.9	-7.6	-7.2116	ug/L	-7.2116 ppb	16:27:00
2	Ca 317.933Radial†	29.0	2.2	3.9596	ug/L	3.9596 ppb	16:27:00
2	Fe 238.204 Radial†	7.7	0.1	1.5514	ug/L	1.5514 ppb	16:27:00
2	K 766.490 Radial†	2875.7	432.2	82.806	ug/L	82.806 ppb	16:26:40
2	Mg 279.077 IEC†	1.3	1.2	47.470	ug/L	47.470 ppb	16:27:00
2	Na 589.592 Radial†	-771.3	3.7	1.2838	ug/L	1.2838 ppb	16:26:40
2	Sr 421.552†	48.0	24.2	0.1845	ug/L	0.1845 ppb	16:26:40
2	Sc 361.383	788692.8	788692.8	97.019	%		16:27:57
2	Y 371.029	667249.3	667249.3	96.782	%		16:27:57
2	Ag 328.068†	169.6	-35.8	-0.1832	ug/L	-0.1832 ppb	16:27:57
2	As 188.979†	-18.3	-1.8	-1.0102	ug/L	-1.0102 ppb	16:28:17
2	B 249.677†	208.5	630.3	17.638	ug/L	17.638 ppb	16:28:17
2	Ba 233.527†	30.0	18.4	0.1724	ug/L	0.1724 ppb	16:28:17
2	Be 313.107†	-3734.5	-120.2	-0.0515	ug/L	-0.0515 ppb	16:27:57
2	Cd 226.502†	-113.5	59.4	0.8600	ug/L	0.8600 ppb	16:28:17
2	Co 228.616†	-48.2	-9.9	-0.2548	ug/L	-0.2548 ppb	16:28:17
2	Cr 267.716†	78.3	1.2	0.0159	ug/L	0.0159 ppb	16:28:17
2	Cu 324.752†	5476.9	178.9	0.5924	ug/L	0.5924 ppb	16:27:57
2	Mn 257.610†	547.4	13.3	0.0157	ug/L	0.0157 ppb	16:28:17
2	Mo 202.031†	18.5	6.2	0.5495	ug/L	0.5495 ppb	16:28:17
2	Ni 231.604†	88.5	9.8	0.3118	ug/L	0.3118 ppb	16:28:17

2	P 214.914†	190.2	12.1	9.0413 ug/L	9.0413 ppb	16:28:17
2	Pb 220.353†	-41.2	0.3	0.0418 ug/L	0.0418 ppb	16:28:17
2	S 181.975 Axial†	30.6	1.4	2.4851 ug/L	2.4851 ppb	16:28:17
2	Sb 206.836†	41.0	17.8	7.3939 ug/L	7.3939 ppb	16:28:17
2	Se 196.026†	-17.6	0.6	0.5421 ug/L	0.5421 ppb	16:28:17
2	Si 251.611†	543.1	61.6	2.3110 ug/L	2.3110 ppb	16:28:17
2	Sn 189.927†	14.3	6.7	1.5178 ug/L	1.5178 ppb	16:28:17
2	Ti 334.940†	-1089.5	-35.7	-0.0651 ug/L	-0.0651 ppb	16:27:57
2	Tl 190.801†	-23.6	7.5	2.8713 ug/L	2.8713 ppb	16:28:17
2	U 409.014†	-2019.7	-0.8	-0.0230 ug/L	-0.0230 ppb	16:27:57
2	V 292.402†	-1273.3	5.3	0.0505 ug/L	0.0505 ppb	16:27:57
2	Zn 213.857†	720.8	125.8	1.5166 ug/L	1.5166 ppb	16:28:17
2	SiO2†	536.5	57.7	4.6059 ug/L	4.6059 ppb	16:29:23
3	Sc Radial	4316.8	4316.8	94.1 %		16:27:05
3	Y RADIAL	4662.5	4662.5	94.49 %		16:27:05
3	Al 396.153Radial†	-76.3	4.8	4.4700 ug/L	4.4700 ppb	16:27:25
3	Ca 317.933Radial†	30.5	4.5	7.9905 ug/L	7.9905 ppb	16:27:25
3	Fe 238.204 Radial†	9.3	2.0	20.846 ug/L	20.846 ppb	16:27:25
3	K 766.490 Radial†	2796.8	416.5	79.797 ug/L	79.797 ppb	16:27:05
3	Mg 279.077 IEC†	-0.8	-0.9	-35.942 ug/L	-35.942 ppb	16:27:25
3	Na 589.592 Radial†	-752.1	5.8	2.0443 ug/L	2.0443 ppb	16:27:05
3	Sr 421.552†	43.8	20.8	0.1588 ug/L	0.1588 ppb	16:27:05
3	Sc 361.383	793987.8	793987.8	97.670 %		16:28:22
3	Y 371.029	670892.2	670892.2	97.310 %		16:28:22
3	Ag 328.068†	154.4	-52.5	-0.2614 ug/L	-0.2614 ppb	16:28:22
3	As 188.979†	-10.9	5.9	3.2669 ug/L	3.2669 ppb	16:28:42
3	B 249.677†	205.8	626.1	17.518 ug/L	17.518 ppb	16:28:42
3	Ba 233.527†	29.0	17.2	0.1611 ug/L	0.1611 ppb	16:28:42
3	Be 313.107†	-3687.1	-46.1	-0.0195 ug/L	-0.0195 ppb	16:28:22
3	Cd 226.502†	-102.3	71.6	1.0340 ug/L	1.0340 ppb	16:28:42
3	Co 228.616†	-49.4	-10.8	-0.2802 ug/L	-0.2802 ppb	16:28:42
3	Cr 267.716†	69.3	-8.6	-0.1115 ug/L	-0.1115 ppb	16:28:42
3	Cu 324.752†	5399.0	61.6	0.2072 ug/L	0.2072 ppb	16:28:22
3	Mn 257.610†	532.4	-5.8	-0.0041 ug/L	-0.0041 ppb	16:28:42
3	Mo 202.031†	14.8	2.3	0.2024 ug/L	0.2024 ppb	16:28:42
3	Ni 231.604†	81.3	1.8	0.0576 ug/L	0.0576 ppb	16:28:42
3	P 214.914†	199.4	20.2	15.156 ug/L	15.156 ppb	16:28:42
3	Pb 220.353†	-45.6	-3.9	-0.5985 ug/L	-0.5985 ppb	16:28:42
3	S 181.975 Axial†	33.8	4.5	7.9707 ug/L	7.9707 ppb	16:28:42
3	Sb 206.836†	25.3	1.4	0.5872 ug/L	0.5872 ppb	16:28:42
3	Se 196.026†	-10.0	8.5	7.1357 ug/L	7.1357 ppb	16:28:42
3	Si 251.611†	522.2	36.4	1.3687 ug/L	1.3687 ppb	16:28:42
3	Sn 189.927†	7.5	-0.3	-0.0734 ug/L	-0.0734 ppb	16:28:42
3	Ti 334.940†	-1022.9	40.0	0.0749 ug/L	0.0749 ppb	16:28:22
3	Tl 190.801†	-20.9	10.4	4.0094 ug/L	4.0094 ppb	16:28:42
3	U 409.014†	-2162.2	-132.8	-4.0135 ug/L	-4.0135 ppb	16:28:22
3	V 292.402†	-1328.0	-42.0	-0.3439 ug/L	-0.3439 ppb	16:28:22
3	Zn 213.857†	722.9	123.1	1.4830 ug/L	1.4830 ppb	16:28:42
3	SiO2†	538.1	55.6	4.4503 ug/L	4.4503 ppb	16:29:43

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	790002.4	97.180 %	0.4328			0.45%
Sc Radial	4368.0	95.2 %	1.07			1.13%
Y 371.029	668352.7	96.942 %	0.3199			0.33%
Y RADIAL	4728.1	95.82 %	1.187			1.24%
Ag 328.068†	-64.7	-0.3279 ug/L	0.18691	-0.3279 ppb	0.18691	57.01%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-2.4	-2.2604 ug/L	6.04060	-2.2604 ppb	6.04060	267.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	2.5	1.3657 ug/L	2.17775	1.3657 ppb	2.17775	159.46%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	627.5	17.558 ug/L	0.0695	17.558 ppb	0.0695	0.40%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	17.7	0.1652 ug/L	0.00623	0.1652 ppb	0.00623	3.77%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-34.3	-0.0147 ug/L	0.03941	-0.0147 ppb	0.03941	268.36%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	4.7	8.3902 ug/L	4.64331	8.3902 ppb	4.64331	55.34%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	67.1	0.9707 ug/L	0.09621	0.9707 ppb	0.09621	9.91%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-6.4	-0.1645 ug/L	0.17887	-0.1645 ppb	0.17887	108.76%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	3.0	0.0418 ug/L	0.16771	0.0418 ppb	0.16771	401.70%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	74.6	0.2486 ug/L	0.32512	0.2486 ppb	0.32512	130.79%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	1.1	11.635 ug/L	9.6768	11.635 ppb	9.6768	83.17%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	434.0	83.137 ug/L	3.5173	83.137 ppb	3.5173	4.23%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	0.7	27.321 ug/L	55.9783	27.321 ppb	55.9783	204.89%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	6.2	0.0082 ug/L	0.01077	0.0082 ppb	0.01077	131.03%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	4.3	0.3833 ug/L	0.17402	0.3833 ppb	0.17402	45.40%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	21.1	7.4025 ug/L	9.94649	7.4025 ppb	9.94649	134.37%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	12.9	0.4102 ug/L	0.41069	0.4102 ppb	0.41069	100.12%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	14.5	10.855 ug/L	3.7405	10.855 ppb	3.7405	34.46%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	4.2	0.6473 ug/L	1.63496	0.6473 ppb	1.63496	252.58%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	1.4	2.4899 ug/L	5.47851	2.4899 ppb	5.47851	220.03%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	11.1	4.6142 ug/L	3.57069	4.6142 ppb	3.57069	77.39%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	0.8	0.7207 ug/L	6.32757	0.7207 ppb	6.32757	877.95%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	55.6	2.0862 ug/L	0.63563	2.0862 ppb	0.63563	30.47%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	3.5	0.7783 ug/L	0.80147	0.7783 ppb	0.80147	102.98%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	19.0	0.1454 ug/L	0.04725	0.1454 ppb	0.04725	32.50%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-8.9	-0.0157 ug/L	0.07859	-0.0157 ppb	0.07859	499.33%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	8.1	3.1062 ug/L	0.81173	3.1062 ppb	0.81173	26.13%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-59.8	-1.8059 ug/L	2.02889	-1.8059 ppb	2.02889	112.34%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-23.1	-0.1834 ug/L	0.20722	-0.1834 ppb	0.20722	113.00%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	127.6	1.5370 ug/L	0.06652	1.5370 ppb	0.06652	4.33%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	66.7	5.3345 ug/L	1.39889	5.3345 ppb	1.39889	26.22%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

=====
Analysis Begun

Start Time: 3/16/2010 16:30:36

Plasma On Time: 3/15/2010 06:51:19

Logged In Analyst: Optima3

Technique: ICP Continuous

Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\031610.sif

Batch ID:

Results Data Set: 031610

Results Library: C:\pe\Optima3\Results\Results.mdb
=====

Method Loaded

Method Name: General Eng.2AX

Method Last Saved: 3/15/2010 08:46:50

IEC File: 011110.iec

MSF File:

Method Description:

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

Sequence No.: 1

Autosampler Location: 35

Sample ID: LR1

Date Collected: 3/16/2010 16:30:38

Analyst: HSC

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4178.0	4178.0	91.1 %		16:32:51
1	Y RADIAL	4673.3	4673.3	94.71 %		16:32:31
1	Al 396.153Radial†	-102.3	-26.5	-23.594 ug/L	-23.594 ppb	16:32:51

1	Ca 317.933Radial†	19.3	-6.7	-11.798 ug/L	-11.798 ppb	16:32:51
1	Fe 238.204 Radial†	33758.8	37060.8	388300 ug/L	388300 ppb	16:32:31
1	K 766.490 Radial†	2362.6	38.5	7.4411 ug/L	7.4411 ppb	16:32:31
1	Mg 279.077 IEC†	6.5	7.0	-139.40 ug/L	-139.40 ppb	16:32:51
1	Na 589.592 Radial†	-779.9	-51.3	-17.977 ug/L	-17.977 ppb	16:32:31
1	Sr 421.552†	87.2	70.0	0.5348 ug/L	0.5348 ppb	16:32:31
1	Sc 361.383	764780.4	764780.4	94.077 %		16:33:48
1	Y 371.029	642331.2	642331.2	93.168 %		16:33:48
1	Ag 328.068†	-21658.0	-23232.1	0.9837 ug/L	0.9837 ppb	16:33:48
1	As 188.979†	-158.8	-151.8	6.5554 ug/L	6.5554 ppb	16:34:08
1	B 249.677†	1692.3	2214.2	-1.1446 ug/L	-1.1446 ppb	16:33:48
1	Ba 233.527†	-1588.7	-1701.2	-3.9853 ug/L	-3.9853 ppb	16:33:48
1	Be 313.107†	-3659.4	-160.8	-0.0691 ug/L	-0.0691 ppb	16:33:48
1	Cd 226.502†	2527.2	2862.6	1.3801 ug/L	1.3801 ppb	16:33:48
1	Co 228.616†	617.5	696.3	12.414 ug/L	12.414 ppb	16:34:08
1	Cr 267.716†	-453.6	-561.7	33.650 ug/L	33.650 ppb	16:34:08
1	Cu 324.752†	-1160.1	-6699.4	-1.6549 ug/L	-1.6549 ppb	16:33:48
1	Mn 257.610†	-29841.1	-32270.7	-4.1484 ug/L	-4.1484 ppb	16:33:48
1	Mo 202.031†	-275.5	-305.7	3.2627 ug/L	3.2627 ppb	16:33:48
1	Ni 231.604†	146.4	74.2	2.3514 ug/L	2.3514 ppb	16:34:08
1	P 214.914†	599.1	452.9	32.637 ug/L	32.637 ppb	16:34:08
1	Pb 220.353†	183.3	237.6	-18.650 ug/L	-18.650 ppb	16:34:08
1	S 181.975 Axial†	41.2	13.6	24.338 ug/L	24.338 ppb	16:34:08
1	Sb 206.836†	27.2	4.4	-2.9939 ug/L	-2.9939 ppb	16:34:08
1	Se 196.026†	-1541.1	-1619.3	-227.53 ug/L	-227.53 ppb	16:34:08
1	Si 251.611†	-393.0	-916.0	-34.140 ug/L	-34.140 ppb	16:33:48
1	Sn 189.927†	-13.5	-22.3	-27.322 ug/L	-27.322 ppb	16:34:08
1	Ti 334.940†	-1126.4	-110.0	-0.2367 ug/L	-0.2367 ppb	16:33:48
1	Tl 190.801†	-33.7	-4.0	-1.9193 ug/L	-1.9193 ppb	16:34:08
1	U 409.014†	-111.7	1962.2	15.012 ug/L	15.012 ppb	16:33:48
1	V 292.402†	5142.6	6784.1	-2.6119 ug/L	-2.6119 ppb	16:33:48
1	Zn 213.857†	3645.6	3258.0	-18.735 ug/L	-18.735 ppb	16:34:08
1	SiO2†	-444.1	-967.4	-76.741 ug/L	-76.741 ppb	16:35:05
2	Sc Radial	4172.9	4172.9	91.0 %		16:33:16
2	Y RADIAL	4662.2	4662.2	94.49 %		16:32:56
2	Al 396.153Radial†	-89.5	-12.5	-10.503 ug/L	-10.503 ppb	16:33:16
2	Ca 317.933Radial†	19.3	-6.7	-11.776 ug/L	-11.776 ppb	16:33:16
2	Fe 238.204 Radial†	33500.5	36821.7	385800 ug/L	385800 ppb	16:32:56
2	K 766.490 Radial†	2258.6	-72.7	-13.881 ug/L	-13.881 ppb	16:32:56
2	Mg 279.077 IEC†	11.8	12.9	86.864 ug/L	86.864 ppb	16:33:16
2	Na 589.592 Radial†	-737.8	-6.1	-2.1238 ug/L	-2.1238 ppb	16:32:56
2	Sr 421.552†	98.1	82.1	0.6276 ug/L	0.6276 ppb	16:32:56
2	Sc 361.383	783031.3	783031.3	96.322 %		16:34:14
2	Y 371.029	657998.2	657998.2	95.440 %		16:34:14
2	Ag 328.068†	-22196.5	-23254.6	0.0883 ug/L	0.0883 ppb	16:34:14
2	As 188.979†	-157.0	-145.9	9.2238 ug/L	9.2238 ppb	16:34:34
2	B 249.677†	1716.1	2196.9	-1.2203 ug/L	-1.2203 ppb	16:34:14
2	Ba 233.527†	-1551.7	-1623.4	-3.3346 ug/L	-3.3346 ppb	16:34:14
2	Be 313.107†	-3723.3	-136.4	-0.0588 ug/L	-0.0588 ppb	16:34:14
2	Cd 226.502†	2555.9	2829.9	1.1656 ug/L	1.1656 ppb	16:34:14
2	Co 228.616†	618.5	681.9	12.080 ug/L	12.080 ppb	16:34:34
2	Cr 267.716†	-478.4	-576.2	33.188 ug/L	33.188 ppb	16:34:34
2	Cu 324.752†	-1234.5	-6747.9	-1.9503 ug/L	-1.9503 ppb	16:34:14
2	Mn 257.610†	-30914.3	-32645.6	-4.8985 ug/L	-4.8985 ppb	16:34:14
2	Mo 202.031†	-279.3	-302.8	3.3239 ug/L	3.3239 ppb	16:34:14
2	Ni 231.604†	175.0	100.3	3.1822 ug/L	3.1822 ppb	16:34:34
2	P 214.914†	591.7	430.4	17.797 ug/L	17.797 ppb	16:34:34
2	Pb 220.353†	155.7	204.5	-23.407 ug/L	-23.407 ppb	16:34:34
2	S 181.975 Axial†	38.7	10.0	17.932 ug/L	17.932 ppb	16:34:34
2	Sb 206.836†	14.3	-9.7	-8.7838 ug/L	-8.7838 ppb	16:34:34
2	Se 196.026†	-1549.6	-1590.0	-210.41 ug/L	-210.41 ppb	16:34:34
2	Si 251.611†	-430.9	-945.6	-35.257 ug/L	-35.257 ppb	16:34:14
2	Sn 189.927†	-13.1	-21.6	-27.013 ug/L	-27.013 ppb	16:34:34
2	Ti 334.940†	-1185.8	-143.8	-0.3151 ug/L	-0.3151 ppb	16:34:14
2	Tl 190.801†	-31.9	-1.3	-0.8870 ug/L	-0.8870 ppb	16:34:34
2	U 409.014†	15.4	2097.0	19.368 ug/L	19.368 ppb	16:34:14
2	V 292.402†	5197.3	6713.5	-2.7956 ug/L	-2.7956 ppb	16:34:14
2	Zn 213.857†	3629.1	3150.5	-19.663 ug/L	-19.663 ppb	16:34:34
2	SiO2†	-403.4	-914.1	-72.480 ug/L	-72.480 ppb	16:35:10
3	Sc Radial	4104.7	4104.7	89.5 %		16:33:41
3	Y RADIAL	4660.7	4660.7	94.46 %		16:33:21

3	Al 396.153Radial†	-105.0	-31.6	-28.511 ug/L	-28.511 ppb	16:33:41
3	Ca 317.933Radial†	20.5	-4.9	-8.6467 ug/L	-8.6467 ppb	16:33:41
3	Fe 238.204 Radial†	33559.2	37499.5	392900 ug/L	392900 ppb	16:33:21
3	K 766.490 Radial†	2342.2	62.0	11.942 ug/L	11.942 ppb	16:33:21
3	Mg 279.077 IEC†	10.3	11.5	25.641 ug/L	25.641 ppb	16:33:41
3	Na 589.592 Radial†	-784.4	-71.6	-25.101 ug/L	-25.101 ppb	16:33:21
3	Sr 421.552†	66.7	48.7	0.3723 ug/L	0.3723 ppb	16:33:21
3	Sc 361.383	785853.1	785853.1	96.669 %		16:34:40
3	Y 371.029	661029.2	661029.2	95.880 %		16:34:40
3	Ag 328.068†	-22125.7	-23098.6	3.0871 ug/L	3.0871 ppb	16:34:40
3	As 188.979†	-160.5	-149.0	9.1814 ug/L	9.1814 ppb	16:35:00
3	B 249.677†	1620.9	2092.1	-5.3085 ug/L	-5.3085 ppb	16:34:40
3	Ba 233.527†	-1600.3	-1668.0	-3.5346 ug/L	-3.5346 ppb	16:34:40
3	Be 313.107†	-3747.1	-147.2	-0.0630 ug/L	-0.0630 ppb	16:34:40
3	Cd 226.502†	2533.2	2796.8	-0.0473 ug/L	-0.0473 ppb	16:34:40
3	Co 228.616†	621.3	682.5	11.998 ug/L	11.998 ppb	16:35:00
3	Cr 267.716†	-442.2	-536.9	34.468 ug/L	34.468 ppb	16:35:00
3	Cu 324.752†	-1423.8	-6939.1	-2.2069 ug/L	-2.2069 ppb	16:34:40
3	Mn 257.610†	-30998.2	-32617.1	-4.1575 ug/L	-4.1575 ppb	16:34:40
3	Mo 202.031†	-248.4	-269.8	6.7716 ug/L	6.7716 ppb	16:34:40
3	Ni 231.604†	178.9	103.6	3.2886 ug/L	3.2886 ppb	16:35:00
3	P 214.914†	607.7	444.7	22.974 ug/L	22.974 ppb	16:35:00
3	Pb 220.353†	172.2	220.9	-21.879 ug/L	-21.879 ppb	16:35:00
3	S 181.975 Axial†	39.8	11.0	19.628 ug/L	19.628 ppb	16:35:00
3	Sb 206.836†	15.5	-8.5	-8.2826 ug/L	-8.2826 ppb	16:35:00
3	Se 196.026†	-1553.6	-1588.4	-188.62 ug/L	-188.62 ppb	16:35:00
3	Si 251.611†	-458.3	-972.3	-36.298 ug/L	-36.298 ppb	16:34:40
3	Sn 189.927†	-11.8	-20.2	-27.109 ug/L	-27.109 ppb	16:35:00
3	Ti 334.940†	-1097.1	-47.6	-0.1438 ug/L	-0.1438 ppb	16:34:40
3	Tl 190.801†	-26.2	4.7	1.4145 ug/L	1.4145 ppb	16:35:00
3	U 409.014†	-16.4	2064.1	17.562 ug/L	17.562 ppb	16:34:40
3	V 292.402†	5258.1	6757.0	-3.4443 ug/L	-3.4443 ppb	16:34:40
3	Zn 213.857†	3619.6	3127.2	-21.008 ug/L	-21.008 ppb	16:35:00
3	SiO2†	-364.6	-872.5	-69.227 ug/L	-69.227 ppb	16:35:15

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	777888.3	95.690 %		1.4071			1.47%
Sc Radial	4151.8	90.5 %		0.89			0.99%
Y 371.029	653786.2	94.829 %		1.4556			1.53%
Y RADIAL	4665.4	94.55 %		0.139			0.15%
Ag 328.068†	-23195.1	1.3864 ug/L		1.53941	1.3864 ppb	1.53941	111.04%
Al 396.153Radial†	-23.5	-20.869 ug/L		9.3079	-20.869 ppb	9.3079	44.60%
As 188.979†	-148.9	8.3202 ug/L		1.52849	8.3202 ppb	1.52849	18.37%
B 249.677†	2167.7	-2.5578 ug/L		2.38247	-2.5578 ppb	2.38247	93.15%
Ba 233.527†	-1664.2	-3.6182 ug/L		0.33328	-3.6182 ppb	0.33328	9.21%
Be 313.107†	-148.1	-0.0636 ug/L		0.00516	-0.0636 ppb	0.00516	8.12%
Ca 317.933Radial†	-6.1	-10.740 ug/L		1.8133	-10.740 ppb	1.8133	16.88%
Cd 226.502†	2829.7	0.8328 ug/L		0.76968	0.8328 ppb	0.76968	92.42%
Co 228.616†	686.9	12.164 ug/L		0.2206	12.164 ppb	0.2206	1.81%
Cr 267.716†	-558.3	33.769 ug/L		0.6484	33.769 ppb	0.6484	1.92%
Cu 324.752†	-6795.5	-1.9374 ug/L		0.27623	-1.9374 ppb	0.27623	14.26%
Fe 238.204 Radial†	37127.3	389000 ug/L		3601.3	389000 ppb	3601.3	0.93%
K 766.490 Radial†	9.3	1.8342 ug/L		13.79430	1.8342 ppb	13.79430	752.07%
Mg 279.077 IEC†	10.5	-8.9642 ug/L		117.03310	-8.9642 ppb	117.03310	>999.9%
Mn 257.610†	-32511.1	-4.4015 ug/L		0.43044	-4.4015 ppb	0.43044	9.78%
Mo 202.031†	-292.8	4.4527 ug/L		2.00843	4.4527 ppb	2.00843	45.11%
Na 589.592 Radial†	-43.0	-15.067 ug/L		11.7617	-15.067 ppb	11.7617	78.06%
Ni 231.604†	92.7	2.9407 ug/L		0.51311	2.9407 ppb	0.51311	17.45%
P 214.914†	442.7	24.469 ug/L		7.5320	24.469 ppb	7.5320	30.78%
Pb 220.353†	221.0	-21.312 ug/L		2.4287	-21.312 ppb	2.4287	11.40%
S 181.975 Axial†	11.6	20.633 ug/L		3.3194	20.633 ppb	3.3194	16.09%
Sb 206.836†	-4.6	-6.6867 ug/L		3.20791	-6.6867 ppb	3.20791	47.97%
Se 196.026†	-1599.2	-208.86 ug/L		19.500	-208.86 ppb	19.500	9.34%
Si 251.611†	-944.6	-35.231 ug/L		1.0792	-35.231 ppb	1.0792	3.06%
Sn 189.927†	-21.4	-27.148 ug/L		0.1584	-27.148 ppb	0.1584	0.58%
Sr 421.552†	67.0	0.5116 ug/L		0.12919	0.5116 ppb	0.12919	25.25%
Ti 334.940†	-100.4	-0.2319 ug/L		0.08576	-0.2319 ppb	0.08576	36.98%
Tl 190.801†	-0.2	-0.4639 ug/L		1.70669	-0.4639 ppb	1.70669	367.90%

U 409.014†	2041.1	17.314 ug/L	2.1885	17.314 ppb	2.1885	12.64%
V 292.402†	6751.5	-2.9506 ug/L	0.43730	-2.9506 ppb	0.43730	14.82%
Zn 213.857†	3178.6	-19.802 ug/L	1.1425	-19.802 ppb	1.1425	5.77%
SiO2†	-918.0	-72.816 ug/L	3.7681	-72.816 ppb	3.7681	5.17%

Sequence No.: 2

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/16/2010 16:37:27

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	4315.2	4315.2	94.1 %		16:39:19
1	Y RADIAL	4632.6	4632.6	93.88 %		16:39:19
1	Al 396.153Radial†	4927.8	5324.7	4981.8 ug/L	4981.8 ppb	16:39:19
1	Ca 317.933Radial†	2725.2	2869.4	5071.9 ug/L	5071.9 ppb	16:39:39
1	Fe 238.204 Radial†	463.1	484.5	5091.4 ug/L	5091.4 ppb	16:39:39
1	K 766.490 Radial†	27434.8	26611.1	5091.7 ug/L	5091.7 ppb	16:39:19
1	Mg 279.077 IEC†	129.3	137.3	5226.0 ug/L	5226.0 ppb	16:39:39
1	Na 589.592 Radial†	26481.5	28958.5	10147 ug/L	10147 ppb	16:39:19
1	Sr 421.552†	62652.8	66582.5	508.61 ug/L	508.61 ppb	16:39:19
1	Sc 361.383	801745.1	801745.1	98.624 %		16:40:36
1	Y 371.029	667993.0	667993.0	96.890 %		16:40:36
1	Ag 328.068†	96168.2	97299.1	502.61 ug/L	502.61 ppb	16:40:41
1	As 188.979†	868.3	897.5	503.71 ug/L	503.71 ppb	16:41:01
1	B 249.677†	17206.6	17862.0	497.59 ug/L	497.59 ppb	16:40:41
1	Ba 233.527†	52747.2	53470.5	501.58 ug/L	501.58 ppb	16:40:41
1	Be 313.107†	1161545.8	1181477.2	505.44 ug/L	505.44 ppb	16:40:36
1	Cd 226.502†	33881.3	34530.2	500.20 ug/L	500.20 ppb	16:40:41
1	Co 228.616†	19296.5	19605.5	509.43 ug/L	509.43 ppb	16:40:41
1	Cr 267.716†	36883.4	37318.3	502.11 ug/L	502.11 ppb	16:40:41
1	Cu 324.752†	153095.3	149764.5	495.71 ug/L	495.71 ppb	16:40:41
1	Mn 257.610†	368709.7	373301.9	491.79 ug/L	491.79 ppb	16:40:41
1	Mo 202.031†	5567.3	5632.1	495.74 ug/L	495.74 ppb	16:41:01
1	Ni 231.604†	15807.7	15946.8	507.42 ug/L	507.42 ppb	16:40:41
1	P 214.914†	3421.5	3285.3	2377.4 ug/L	2377.4 ppb	16:41:01
1	Pb 220.353†	3144.4	3231.0	499.88 ug/L	499.88 ppb	16:41:01
1	S 181.975 Axial†	567.3	545.1	972.34 ug/L	972.34 ppb	16:41:01
1	Sb 206.836†	1186.0	1178.0	505.59 ug/L	505.59 ppb	16:41:01
1	Se 196.026†	578.2	605.0	519.78 ug/L	519.78 ppb	16:41:01
1	Si 251.611†	66187.1	66612.1	2500.7 ug/L	2500.7 ppb	16:40:41
1	Sn 189.927†	2163.4	2185.6	492.72 ug/L	492.72 ppb	16:41:01
1	Ti 334.940†	277617.5	282577.3	488.18 ug/L	488.18 ppb	16:40:41
1	Tl 190.801†	1247.7	1296.9	502.58 ug/L	502.58 ppb	16:41:01
1	U 409.014†	14548.0	16831.9	506.64 ug/L	506.64 ppb	16:40:41
1	V 292.402†	60211.4	62369.0	504.91 ug/L	504.91 ppb	16:40:41
1	Zn 213.857†	42023.6	41992.6	502.64 ug/L	502.64 ppb	16:40:41
1	SiO2†	65516.6	65935.2	5266.7 ug/L	5266.7 ppb	16:42:08
2	Sc Radial	4370.0	4370.0	95.3 %		16:39:44
2	Y RADIAL	4678.0	4678.0	94.81 %		16:39:44
2	Al 396.153Radial†	4955.6	5288.2	4947.7 ug/L	4947.7 ppb	16:39:44
2	Ca 317.933Radial†	2742.6	2851.4	5040.1 ug/L	5040.1 ppb	16:40:04
2	Fe 238.204 Radial†	459.9	474.9	4990.8 ug/L	4990.8 ppb	16:40:04
2	K 766.490 Radial†	27720.6	26545.3	5079.1 ug/L	5079.1 ppb	16:39:44
2	Mg 279.077 IEC†	127.4	133.6	5085.7 ug/L	5085.7 ppb	16:40:04
2	Na 589.592 Radial†	26677.7	28811.2	10095 ug/L	10095 ppb	16:39:44
2	Sr 421.552†	63286.9	66412.6	507.31 ug/L	507.31 ppb	16:39:44
2	Sc 361.383	809268.5	809268.5	99.550 %		16:41:07
2	Y 371.029	674590.1	674590.1	97.847 %		16:41:07
2	Ag 328.068†	95983.0	96206.5	496.95 ug/L	496.95 ppb	16:41:12
2	As 188.979†	863.9	884.9	496.61 ug/L	496.61 ppb	16:41:32
2	B 249.677†	17126.9	17619.7	490.84 ug/L	490.84 ppb	16:41:12
2	Ba 233.527†	52564.3	52789.6	495.19 ug/L	495.19 ppb	16:41:12
2	Be 313.107†	1169968.8	1178989.2	504.36 ug/L	504.36 ppb	16:41:07
2	Cd 226.502†	33737.4	34066.3	493.48 ug/L	493.48 ppb	16:41:12
2	Co 228.616†	19233.6	19360.4	503.07 ug/L	503.07 ppb	16:41:12
2	Cr 267.716†	36758.6	36845.4	495.74 ug/L	495.74 ppb	16:41:12
2	Cu 324.752†	152629.8	147853.9	489.38 ug/L	489.38 ppb	16:41:12
2	Mn 257.610†	367263.0	368373.1	485.29 ug/L	485.29 ppb	16:41:12
2	Mo 202.031†	5567.7	5580.0	491.15 ug/L	491.15 ppb	16:41:32
2	Ni 231.604†	15822.5	15812.7	503.16 ug/L	503.16 ppb	16:41:12

2	P 214.914†	3423.8	3255.4	2356.1 ug/L	2356.1 ppb	16:41:32
2	Pb 220.353†	3147.0	3204.1	495.73 ug/L	495.73 ppb	16:41:32
2	S 181.975 Axial†	569.1	541.6	966.02 ug/L	966.02 ppb	16:41:32
2	Sb 206.836†	1181.6	1162.4	499.03 ug/L	499.03 ppb	16:41:32
2	Se 196.026†	569.5	590.8	507.70 ug/L	507.70 ppb	16:41:32
2	Si 251.611†	66069.2	65869.8	2472.8 ug/L	2472.8 ppb	16:41:12
2	Sn 189.927†	2175.3	2177.1	490.81 ug/L	490.81 ppb	16:41:32
2	Ti 334.940†	276699.2	279037.9	482.08 ug/L	482.08 ppb	16:41:12
2	Tl 190.801†	1261.8	1299.3	503.48 ug/L	503.48 ppb	16:41:32
2	U 409.014†	14441.7	16588.1	499.31 ug/L	499.31 ppb	16:41:12
2	V 292.402†	60031.5	61620.7	498.87 ug/L	498.87 ppb	16:41:12
2	Zn 213.857†	41955.8	41528.4	497.08 ug/L	497.08 ppb	16:41:12
2	SiO2†	65960.1	65763.1	5253.1 ug/L	5253.1 ppb	16:42:13
3	Sc Radial	4337.2	4337.2	94.5 %		16:40:09
3	Y RADIAL	4644.1	4644.1	94.12 %		16:40:09
3	Al 396.153Radial†	4936.7	5307.4	4965.6 ug/L	4965.6 ppb	16:40:09
3	Ca 317.933Radial†	2749.3	2880.1	5090.9 ug/L	5090.9 ppb	16:40:29
3	Fe 238.204 Radial†	466.5	485.5	5102.7 ug/L	5102.7 ppb	16:40:29
3	K 766.490 Radial†	27628.7	26667.7	5102.5 ug/L	5102.5 ppb	16:40:09
3	Mg 279.077 IEC†	129.1	136.5	5195.0 ug/L	5195.0 ppb	16:40:29
3	Na 589.592 Radial†	26738.1	29086.5	10192 ug/L	10192 ppb	16:40:09
3	Sr 421.552†	63022.6	66634.4	509.00 ug/L	509.00 ppb	16:40:09
3	Sc 361.383	802959.7	802959.7	98.774 %		16:41:38
3	Y 371.029	670274.4	670274.4	97.221 %		16:41:38
3	Ag 328.068†	96345.5	97331.0	502.79 ug/L	502.79 ppb	16:41:43
3	As 188.979†	870.7	898.6	504.33 ug/L	504.33 ppb	16:42:03
3	B 249.677†	17355.7	17986.5	501.06 ug/L	501.06 ppb	16:41:43
3	Ba 233.527†	53076.5	53723.0	503.95 ug/L	503.95 ppb	16:41:43
3	Be 313.107†	1163258.5	1181429.7	505.42 ug/L	505.42 ppb	16:41:38
3	Cd 226.502†	34072.8	34672.1	502.26 ug/L	502.26 ppb	16:41:43
3	Co 228.616†	19499.0	19781.0	513.99 ug/L	513.99 ppb	16:41:43
3	Cr 267.716†	37061.9	37442.5	503.78 ug/L	503.78 ppb	16:41:43
3	Cu 324.752†	153412.4	149850.8	496.00 ug/L	496.00 ppb	16:41:43
3	Mn 257.610†	370844.8	374898.0	493.89 ug/L	493.89 ppb	16:41:43
3	Mo 202.031†	5565.2	5621.5	494.80 ug/L	494.80 ppb	16:42:03
3	Ni 231.604†	15975.6	16092.5	512.06 ug/L	512.06 ppb	16:41:43
3	P 214.914†	3423.0	3281.6	2374.5 ug/L	2374.5 ppb	16:42:03
3	Pb 220.353†	3133.4	3215.0	497.41 ug/L	497.41 ppb	16:42:03
3	S 181.975 Axial†	567.9	544.8	971.79 ug/L	971.79 ppb	16:42:03
3	Sb 206.836†	1188.8	1179.1	506.01 ug/L	506.01 ppb	16:42:03
3	Se 196.026†	577.8	603.8	518.81 ug/L	518.81 ppb	16:42:03
3	Si 251.611†	66589.6	66918.1	2512.2 ug/L	2512.2 ppb	16:41:43
3	Sn 189.927†	2161.7	2180.6	491.58 ug/L	491.58 ppb	16:42:03
3	Ti 334.940†	279058.1	283610.0	489.97 ug/L	489.97 ppb	16:41:43
3	Tl 190.801†	1243.7	1290.9	500.29 ug/L	500.29 ppb	16:42:03
3	U 409.014†	14494.5	16755.5	504.33 ug/L	504.33 ppb	16:41:43
3	V 292.402†	60590.3	62660.2	507.21 ug/L	507.21 ppb	16:41:43
3	Zn 213.857†	42324.8	42233.1	505.52 ug/L	505.52 ppb	16:41:43
3	SiO2†	66350.3	66678.7	5326.3 ug/L	5326.3 ppb	16:42:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	804657.8	98.983 %		0.4968			0.50%
Sc Radial	4340.8	94.6 %		0.60			0.64%
Y 371.029	670952.5	97.319 %		0.4860			0.50%
Y RADIAL	4651.6	94.27 %		0.479			0.51%
Ag 328.068†	96945.6	500.79 ug/L		3.319	500.79 ppb	3.319	0.66%
QC value within limits for Ag 328.068 Recovery = 100.16%							
Al 396.153Radial†	5306.8	4965.0 ug/L		17.07	4965.0 ppb	17.07	0.34%
QC value within limits for Al 396.153Radial Recovery = 99.30%							
As 188.979†	893.6	501.55 ug/L		4.285	501.55 ppb	4.285	0.85%
QC value within limits for As 188.979 Recovery = 100.31%							
B 249.677†	17822.7	496.50 ug/L		5.195	496.50 ppb	5.195	1.05%
QC value within limits for B 249.677 Recovery = 99.30%							
Ba 233.527†	53327.7	500.24 ug/L		4.529	500.24 ppb	4.529	0.91%
QC value within limits for Ba 233.527 Recovery = 100.05%							
Be 313.107†	1180632.0	505.07 ug/L		0.617	505.07 ppb	0.617	0.12%
QC value within limits for Be 313.107 Recovery = 101.01%							
Ca 317.933Radial†	2866.9	5067.6 ug/L		25.67	5067.6 ppb	25.67	0.51%

QC value within limits for Ca 317.933 Radial Recovery = 101.35%

Cd 226.502†	34422.9	498.65 ug/L	4.588	498.65 ppb	4.588	0.92%
QC value within limits for Cd 226.502 Recovery = 99.73%						
Co 228.616†	19582.3	508.83 ug/L	5.484	508.83 ppb	5.484	1.08%
QC value within limits for Co 228.616 Recovery = 101.77%						
Cr 267.716†	37202.1	500.54 ug/L	4.242	500.54 ppb	4.242	0.85%
QC value within limits for Cr 267.716 Recovery = 100.11%						
Cu 324.752†	149156.4	493.70 ug/L	3.738	493.70 ppb	3.738	0.76%
QC value within limits for Cu 324.752 Recovery = 98.74%						
Fe 238.204 Radial†	481.6	5061.6 ug/L	61.61	5061.6 ppb	61.61	1.22%
QC value within limits for Fe 238.204 Radial Recovery = 101.23%						
K 766.490 Radial†	26608.0	5091.1 ug/L	11.71	5091.1 ppb	11.71	0.23%
QC value within limits for K 766.490 Radial Recovery = 101.82%						
Mg 279.077 IEC†	135.8	5168.9 ug/L	73.72	5168.9 ppb	73.72	1.43%
QC value within limits for Mg 279.077 IEC Recovery = 103.38%						
Mn 257.610†	372191.0	490.32 ug/L	4.482	490.32 ppb	4.482	0.91%
QC value within limits for Mn 257.610 Recovery = 98.06%						
Mo 202.031†	5611.2	493.90 ug/L	2.426	493.90 ppb	2.426	0.49%
QC value within limits for Mo 202.031 Recovery = 98.78%						
Na 589.592 Radial†	28952.1	10144 ug/L	48.3	10144 ppb	48.3	0.48%
QC value within limits for Na 589.592 Radial Recovery = 101.44%						
Ni 231.604†	15950.7	507.55 ug/L	4.454	507.55 ppb	4.454	0.88%
QC value within limits for Ni 231.604 Recovery = 101.51%						
P 214.914†	3274.1	2369.3 ug/L	11.52	2369.3 ppb	11.52	0.49%
QC value within limits for P 214.914 Recovery = 94.77%						
Pb 220.353†	3216.7	497.67 ug/L	2.092	497.67 ppb	2.092	0.42%
QC value within limits for Pb 220.353 Recovery = 99.53%						
S 181.975 Axial†	543.8	970.05 ug/L	3.502	970.05 ppb	3.502	0.36%
QC value within limits for S 181.975 Axial Recovery = 97.01%						
Sb 206.836†	1173.2	503.54 ug/L	3.913	503.54 ppb	3.913	0.78%
QC value within limits for Sb 206.836 Recovery = 100.71%						
Se 196.026†	599.9	515.43 ug/L	6.714	515.43 ppb	6.714	1.30%
QC value within limits for Se 196.026 Recovery = 103.09%						
Si 251.611†	66466.7	2495.3 ug/L	20.26	2495.3 ppb	20.26	0.81%
QC value within limits for Si 251.611 Recovery = 99.81%						
Sn 189.927†	2181.1	491.70 ug/L	0.961	491.70 ppb	0.961	0.20%
QC value within limits for Sn 189.927 Recovery = 98.34%						
Sr 421.552†	66543.2	508.31 ug/L	0.886	508.31 ppb	0.886	0.17%
QC value within limits for Sr 421.552 Recovery = 101.66%						
Ti 334.940†	281741.8	486.75 ug/L	4.139	486.75 ppb	4.139	0.85%
QC value within limits for Ti 334.940 Recovery = 97.35%						
Tl 190.801†	1295.7	502.11 ug/L	1.643	502.11 ppb	1.643	0.33%
QC value within limits for Tl 190.801 Recovery = 100.42%						
U 409.014†	16725.2	503.43 ug/L	3.752	503.43 ppb	3.752	0.75%
QC value within limits for U 409.014 Recovery = 100.69%						
V 292.402†	62216.6	503.66 ug/L	4.307	503.66 ppb	4.307	0.86%
QC value within limits for V 292.402 Recovery = 100.73%						
Zn 213.857†	41918.0	501.75 ug/L	4.286	501.75 ppb	4.286	0.85%
QC value within limits for Zn 213.857 Recovery = 100.35%						
SiO2†	66125.6	5282.1 ug/L	38.94	5282.1 ppb	38.94	0.74%
QC value within limits for SiO2 Recovery = 98.78%						

All analyte(s) passed QC.

Sequence No.: 3

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/16/2010 16:44:29

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4387.0	4387.0	95.6 %		16:46:22
1	Y RADIAL	4715.2	4715.2	95.56 %		16:46:22
1	Al 396.153Radial†	-63.7	19.2	18.038 ug/L	18.038 ppb	16:46:42
1	Ca 317.933Radial†	32.9	6.5	11.549 ug/L	11.549 ppb	16:46:42
1	Fe 238.204 Radial†	8.7	1.2	13.058 ug/L	13.058 ppb	16:46:42
1	K 766.490 Radial†	2648.5	213.9	40.977 ug/L	40.977 ppb	16:46:22
1	Mg 279.077 IEC†	1.9	1.9	71.985 ug/L	71.985 ppb	16:46:42
1	Na 589.592 Radial†	-843.2	-76.7	-26.871 ug/L	-26.871 ppb	16:46:22
1	Sr 421.552†	43.8	20.0	0.1530 ug/L	0.1530 ppb	16:46:22
1	Sc 361.383	788216.0	788216.0	96.960 %		16:47:39
1	Y 371.029	665925.8	665925.8	96.590 %		16:47:39
1	Ag 328.068†	95.6	-112.0	-0.5679 ug/L	-0.5679 ppb	16:47:39
1	As 188.979†	-17.1	-0.6	-0.3326 ug/L	-0.3326 ppb	16:47:59
1	B 249.677†	-50.6	363.2	10.161 ug/L	10.161 ppb	16:47:59
1	Ba 233.527†	29.0	17.4	0.1637 ug/L	0.1637 ppb	16:47:59
1	Be 313.107†	-3693.8	-80.6	-0.0347 ug/L	-0.0347 ppb	16:47:39
1	Cd 226.502†	-145.4	26.4	0.3809 ug/L	0.3809 ppb	16:47:59
1	Co 228.616†	-33.6	5.2	0.1345 ug/L	0.1345 ppb	16:47:59
1	Cr 267.716†	61.4	-16.2	-0.2154 ug/L	-0.2154 ppb	16:47:59
1	Cu 324.752†	5376.1	78.4	0.2614 ug/L	0.2614 ppb	16:47:39
1	Mn 257.610†	522.4	-12.2	-0.0177 ug/L	-0.0177 ppb	16:47:59
1	Mo 202.031†	10.9	-1.6	-0.1390 ug/L	-0.1390 ppb	16:47:59
1	Ni 231.604†	69.7	-9.6	-0.3046 ug/L	-0.3046 ppb	16:47:59
1	P 214.914†	186.3	8.2	6.1310 ug/L	6.1310 ppb	16:47:59
1	Pb 220.353†	-40.6	0.9	0.1480 ug/L	0.1480 ppb	16:47:59
1	S 181.975 Axial†	33.4	4.3	7.6688 ug/L	7.6688 ppb	16:47:59
1	Sb 206.836†	28.0	4.3	1.8083 ug/L	1.8083 ppb	16:47:59
1	Se 196.026†	-22.2	-4.1	-3.3885 ug/L	-3.3885 ppb	16:47:59
1	Si 251.611†	515.0	33.0	1.2423 ug/L	1.2423 ppb	16:47:59
1	Sn 189.927†	11.1	3.5	0.7907 ug/L	0.7907 ppb	16:47:59
1	Ti 334.940†	-1124.9	-72.9	-0.1292 ug/L	-0.1292 ppb	16:47:39
1	Tl 190.801†	-20.5	10.7	4.1124 ug/L	4.1124 ppb	16:47:59
1	U 409.014†	-2091.8	-76.4	-2.3074 ug/L	-2.3074 ppb	16:47:39
1	V 292.402†	-1246.4	32.2	0.2508 ug/L	0.2508 ppb	16:47:39
1	Zn 213.857†	666.7	70.5	0.8516 ug/L	0.8516 ppb	16:47:59
1	SiO2†	520.5	41.5	3.3296 ug/L	3.3296 ppb	16:49:10
2	Sc Radial	4377.6	4377.6	95.4 %		16:46:47
2	Y RADIAL	4720.4	4720.4	95.66 %		16:46:47
2	Al 396.153Radial†	-79.9	2.1	1.9430 ug/L	1.9430 ppb	16:47:07
2	Ca 317.933Radial†	29.2	2.7	4.8267 ug/L	4.8267 ppb	16:47:07
2	Fe 238.204 Radial†	6.6	-0.9	-9.4197 ug/L	-9.4197 ppb	16:47:07
2	K 766.490 Radial†	2782.9	360.7	69.111 ug/L	69.111 ppb	16:46:47
2	Mg 279.077 IEC†	2.9	2.9	112.10 ug/L	112.10 ppb	16:47:07
2	Na 589.592 Radial†	-849.1	-84.8	-29.702 ug/L	-29.702 ppb	16:46:47
2	Sr 421.552†	13.7	-11.4	-0.0870 ug/L	-0.0870 ppb	16:46:47
2	Sc 361.383	786625.0	786625.0	96.764 %		16:48:04
2	Y 371.029	664837.3	664837.3	96.432 %		16:48:04
2	Ag 328.068†	100.3	-107.0	-0.5472 ug/L	-0.5472 ppb	16:48:04
2	As 188.979†	-14.0	2.6	1.4529 ug/L	1.4529 ppb	16:48:24
2	B 249.677†	-87.3	325.1	9.1001 ug/L	9.1001 ppb	16:48:24
2	Ba 233.527†	20.3	8.5	0.0789 ug/L	0.0789 ppb	16:48:24
2	Be 313.107†	-3657.3	-50.6	-0.0218 ug/L	-0.0218 ppb	16:48:04
2	Cd 226.502†	-131.6	40.3	0.5842 ug/L	0.5842 ppb	16:48:24
2	Co 228.616†	-42.2	-3.8	-0.0988 ug/L	-0.0988 ppb	16:48:24
2	Cr 267.716†	64.9	-12.5	-0.1660 ug/L	-0.1660 ppb	16:48:24
2	Cu 324.752†	5368.6	81.9	0.2741 ug/L	0.2741 ppb	16:48:04
2	Mn 257.610†	519.6	-14.0	-0.0239 ug/L	-0.0239 ppb	16:48:24
2	Mo 202.031†	10.9	-1.5	-0.1361 ug/L	-0.1361 ppb	16:48:24
2	Ni 231.604†	89.1	10.7	0.3409 ug/L	0.3409 ppb	16:48:24

2	P 214.914†	185.7	8.0	5.9713 ug/L	5.9713 ppb	16:48:24
2	Pb 220.353†	-31.4	10.3	1.5968 ug/L	1.5968 ppb	16:48:24
2	S 181.975 Axial†	26.0	-3.3	-5.8602 ug/L	-5.8602 ppb	16:48:24
2	Sb 206.836†	33.5	10.1	4.2006 ug/L	4.2006 ppb	16:48:24
2	Se 196.026†	-11.3	7.1	5.9034 ug/L	5.9034 ppb	16:48:24
2	Si 251.611†	502.6	21.2	0.8008 ug/L	0.8008 ppb	16:48:24
2	Sn 189.927†	8.0	0.3	0.0702 ug/L	0.0702 ppb	16:48:24
2	Ti 334.940†	-1111.3	-61.2	-0.1113 ug/L	-0.1113 ppb	16:48:04
2	Tl 190.801†	-21.2	9.9	3.8130 ug/L	3.8130 ppb	16:48:24
2	U 409.014†	-2222.6	-215.9	-6.5201 ug/L	-6.5201 ppb	16:48:04
2	V 292.402†	-1290.6	-16.0	-0.1388 ug/L	-0.1388 ppb	16:48:04
2	Zn 213.857†	668.9	74.2	0.8948 ug/L	0.8948 ppb	16:48:24
2	SiO2†	531.1	53.5	4.2890 ug/L	4.2890 ppb	16:49:30
3	Sc Radial	4420.1	4420.1	96.3 %		16:47:12
3	Y RADIAL	4763.4	4763.4	96.54 %		16:47:12
3	Al 396.153Radial†	-73.2	9.8	9.2108 ug/L	9.2108 ppb	16:47:32
3	Ca 317.933Radial†	33.3	6.7	11.929 ug/L	11.929 ppb	16:47:32
3	Fe 238.204 Radial†	8.3	0.8	8.1641 ug/L	8.1641 ppb	16:47:32
3	K 766.490 Radial†	2543.0	83.7	16.029 ug/L	16.029 ppb	16:47:12
3	Mg 279.077 IEC†	0.7	0.6	24.008 ug/L	24.008 ppb	16:47:32
3	Na 589.592 Radial†	-821.5	-47.5	-16.649 ug/L	-16.649 ppb	16:47:12
3	Sr 421.552†	48.0	24.1	0.1838 ug/L	0.1838 ppb	16:47:12
3	Sc 361.383	791550.2	791550.2	97.370 %		16:48:29
3	Y 371.029	669772.0	669772.0	97.148 %		16:48:29
3	Ag 328.068†	158.7	-47.6	-0.2362 ug/L	-0.2362 ppb	16:48:29
3	As 188.979†	-18.3	-1.8	-0.9848 ug/L	-0.9848 ppb	16:48:50
3	B 249.677†	-101.4	311.2	8.7068 ug/L	8.7068 ppb	16:48:50
3	Ba 233.527†	13.5	1.4	0.0125 ug/L	0.0125 ppb	16:48:50
3	Be 313.107†	-3761.2	-133.7	-0.0568 ug/L	-0.0568 ppb	16:48:29
3	Cd 226.502†	-140.0	32.6	0.4695 ug/L	0.4695 ppb	16:48:50
3	Co 228.616†	-30.5	8.6	0.2227 ug/L	0.2227 ppb	16:48:50
3	Cr 267.716†	88.3	11.1	0.1533 ug/L	0.1533 ppb	16:48:50
3	Cu 324.752†	5453.5	134.5	0.4506 ug/L	0.4506 ppb	16:48:29
3	Mn 257.610†	531.9	-4.6	-0.0063 ug/L	-0.0063 ppb	16:48:50
3	Mo 202.031†	15.1	2.7	0.2370 ug/L	0.2370 ppb	16:48:50
3	Ni 231.604†	80.7	1.5	0.0466 ug/L	0.0466 ppb	16:48:50
3	P 214.914†	183.2	4.3	3.1330 ug/L	3.1330 ppb	16:48:50
3	Pb 220.353†	-37.1	4.7	0.7236 ug/L	0.7236 ppb	16:48:50
3	S 181.975 Axial†	31.2	1.8	3.2952 ug/L	3.2952 ppb	16:48:50
3	Sb 206.836†	38.0	14.5	5.9992 ug/L	5.9992 ppb	16:48:50
3	Se 196.026†	-22.1	-3.9	-3.2267 ug/L	-3.2267 ppb	16:48:50
3	Si 251.611†	505.5	21.0	0.7870 ug/L	0.7870 ppb	16:48:50
3	Sn 189.927†	9.7	2.0	0.4476 ug/L	0.4476 ppb	16:48:50
3	Ti 334.940†	-999.7	60.6	0.1082 ug/L	0.1082 ppb	16:48:29
3	Tl 190.801†	-34.3	-3.4	-1.3201 ug/L	-1.3201 ppb	16:48:50
3	U 409.014†	-2315.5	-297.0	-8.9724 ug/L	-8.9724 ppb	16:48:29
3	V 292.402†	-1328.0	-46.2	-0.3835 ug/L	-0.3835 ppb	16:48:29
3	Zn 213.857†	679.8	81.1	0.9771 ug/L	0.9771 ppb	16:48:50
3	SiO2†	537.4	56.6	4.5246 ug/L	4.5246 ppb	16:49:50

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	788797.1	97.032 %		0.3092				0.32%
Sc Radial	4394.9	95.8 %		0.49				0.51%
Y 371.029	666845.0	96.723 %		0.3760				0.39%
Y RADIAL	4733.0	95.92 %		0.537				0.56%
Ag 328.068†	-88.8	-0.4504 ug/L		0.18585	-0.4504 ppb		0.18585	41.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.3	9.7304 ug/L		8.05984	9.7304 ppb		8.05984	82.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.1	0.0452 ug/L		1.26202	0.0452 ppb		1.26202	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	333.2	9.3226 ug/L		0.75203	9.3226 ppb		0.75203	8.07%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.1	0.0851 ug/L		0.07580	0.0851 ppb		0.07580	89.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-88.3	-0.0378 ug/L		0.01771	-0.0378 ppb		0.01771	46.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.3	9.4347 ug/L		3.99516	9.4347 ppb		3.99516	42.35%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd	226.502†	33.1	0.4782 ug/L	0.10193	0.4782 ppb	0.10193	21.31%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	3.3	0.0861 ug/L	0.16614	0.0861 ppb	0.16614	192.92%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	-5.9	-0.0760 ug/L	0.20012	-0.0760 ppb	0.20012	263.28%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	98.3	0.3287 ug/L	0.10576	0.3287 ppb	0.10576	32.17%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	0.4	3.9342 ug/L	11.82078	3.9342 ppb	11.82078	300.47%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	219.4	42.039 ug/L	26.5572	42.039 ppb	26.5572	63.17%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	1.8	69.365 ug/L	44.1060	69.365 ppb	44.1060	63.59%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	-10.3	-0.0160 ug/L	0.00893	-0.0160 ppb	0.00893	55.96%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	-0.1	-0.0127 ug/L	0.21627	-0.0127 ppb	0.21627	>999.9%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	-69.7	-24.407 ug/L	6.8664	-24.407 ppb	6.8664	28.13%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	0.9	0.0276 ug/L	0.32317	0.0276 ppb	0.32317	>999.9%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	6.8	5.0784 ug/L	1.68671	5.0784 ppb	1.68671	33.21%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	5.3	0.8228 ug/L	0.72946	0.8228 ppb	0.72946	88.66%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	1.0	1.7013 ug/L	6.90389	1.7013 ppb	6.90389	405.81%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	9.7	4.0027 ug/L	2.10244	4.0027 ppb	2.10244	52.53%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	-0.3	-0.2373 ug/L	5.31857	-0.2373 ppb	5.31857	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	25.1	0.9434 ug/L	0.25897	0.9434 ppb	0.25897	27.45%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	1.9	0.4362 ug/L	0.36038	0.4362 ppb	0.36038	82.62%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	10.9	0.0833 ug/L	0.14827	0.0833 ppb	0.14827	178.10%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-24.5	-0.0441 ug/L	0.13220	-0.0441 ppb	0.13220	299.77%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	5.7	2.2018 ug/L	3.05368	2.2018 ppb	3.05368	138.69%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-196.5	-5.9333 ug/L	3.37103	-5.9333 ppb	3.37103	56.82%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-10.0	-0.0905 ug/L	0.31987	-0.0905 ppb	0.31987	353.45%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	75.2	0.9078 ug/L	0.06377	0.9078 ppb	0.06377	7.02%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		50.5	4.0477 ug/L	0.63299	4.0477 ppb	0.63299	15.64%
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 6

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/16/2010 17:06:01

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	4387.0	4387.0	95.6 %		17:07:53
1	Y RADIAL	4674.3	4674.3	94.73 %		17:07:53
1	Al 396.153Radial†	5005.1	5319.7	4976.7 ug/L	4976.7 ppb	17:07:53
1	Ca 317.933Radial†	2764.5	2863.1	5060.8 ug/L	5060.8 ppb	17:08:13
1	Fe 238.204 Radial†	467.7	481.2	5057.5 ug/L	5057.5 ppb	17:08:13
1	K 766.490 Radial†	28267.5	27004.2	5166.9 ug/L	5166.9 ppb	17:07:53
1	Mg 279.077 IEC†	134.3	140.4	5341.1 ug/L	5341.1 ppb	17:08:13
1	Na 589.592 Radial†	27781.2	29856.6	10461 ug/L	10461 ppb	17:07:53
1	Sr 421.552†	64305.2	67219.8	513.48 ug/L	513.48 ppb	17:07:53
1	Sc 361.383	799642.2	799642.2	98.366 %		17:09:10
1	Y 371.029	667318.0	667318.0	96.792 %		17:09:10
1	Ag 328.068†	96816.1	98214.2	507.32 ug/L	507.32 ppb	17:09:15
1	As 188.979†	877.1	908.7	509.94 ug/L	509.94 ppb	17:09:35
1	B 249.677†	17318.8	18021.9	502.06 ug/L	502.06 ppb	17:09:15
1	Ba 233.527†	53191.1	54062.4	507.13 ug/L	507.13 ppb	17:09:15
1	Be 313.107†	1165588.6	1188684.5	508.53 ug/L	508.53 ppb	17:09:10
1	Cd 226.502†	34217.6	34962.5	506.47 ug/L	506.47 ppb	17:09:15
1	Co 228.616†	19451.0	19814.1	514.86 ug/L	514.86 ppb	17:09:15
1	Cr 267.716†	37182.0	37720.3	507.51 ug/L	507.51 ppb	17:09:15
1	Cu 324.752†	154406.8	151506.1	501.47 ug/L	501.47 ppb	17:09:15
1	Mn 257.610†	371373.7	376993.4	496.64 ug/L	496.64 ppb	17:09:15
1	Mo 202.031†	5643.8	5724.8	503.88 ug/L	503.88 ppb	17:09:35
1	Ni 231.604†	15945.7	16129.3	513.23 ug/L	513.23 ppb	17:09:15
1	P 214.914†	3468.1	3341.8	2418.9 ug/L	2418.9 ppb	17:09:35
1	Pb 220.353†	3192.4	3288.2	508.73 ug/L	508.73 ppb	17:09:35
1	S 181.975 Axial†	597.4	577.1	1029.6 ug/L	1029.6 ppb	17:09:35
1	Sb 206.836†	1215.3	1211.0	519.62 ug/L	519.62 ppb	17:09:35
1	Se 196.026†	585.5	614.0	527.20 ug/L	527.20 ppb	17:09:35
1	Si 251.611†	66837.1	67449.4	2532.1 ug/L	2532.1 ppb	17:09:15
1	Sn 189.927†	2211.4	2240.2	505.00 ug/L	505.00 ppb	17:09:35
1	Ti 334.940†	279573.5	285306.0	492.88 ug/L	492.88 ppb	17:09:15
1	Tl 190.801†	1277.2	1330.2	515.44 ug/L	515.44 ppb	17:09:35
1	U 409.014†	14670.6	16995.4	511.57 ug/L	511.57 ppb	17:09:15
1	V 292.402†	60820.8	63149.1	511.26 ug/L	511.26 ppb	17:09:15
1	Zn 213.857†	42581.5	42671.9	510.81 ug/L	510.81 ppb	17:09:15
1	SiO2†	66084.0	66686.7	5326.7 ug/L	5326.7 ppb	17:10:42
2	Sc Radial	4319.4	4319.4	94.2 %		17:08:18
2	Y RADIAL	4620.9	4620.9	93.65 %		17:08:18
2	Al 396.153Radial†	4900.2	5290.3	4949.5 ug/L	4949.5 ppb	17:08:18
2	Ca 317.933Radial†	2760.2	2903.7	5132.6 ug/L	5132.6 ppb	17:08:38
2	Fe 238.204 Radial†	470.6	492.0	5169.9 ug/L	5169.9 ppb	17:08:38
2	K 766.490 Radial†	28079.0	27266.7	5217.2 ug/L	5217.2 ppb	17:08:18
2	Mg 279.077 IEC†	133.1	141.2	5374.4 ug/L	5374.4 ppb	17:08:38
2	Na 589.592 Radial†	27304.4	29804.8	10443 ug/L	10443 ppb	17:08:18
2	Sr 421.552†	63403.3	67314.3	514.20 ug/L	514.20 ppb	17:08:18
2	Sc 361.383	808758.9	808758.9	99.487 %		17:09:41
2	Y 371.029	673856.3	673856.3	97.740 %		17:09:41
2	Ag 328.068†	97333.5	97624.7	504.32 ug/L	504.32 ppb	17:09:46
2	As 188.979†	863.5	885.0	496.78 ug/L	496.78 ppb	17:10:06
2	B 249.677†	17423.6	17928.8	499.44 ug/L	499.44 ppb	17:09:46
2	Ba 233.527†	53602.5	53866.3	505.30 ug/L	505.30 ppb	17:09:46
2	Be 313.107†	1176744.4	1186540.3	507.61 ug/L	507.61 ppb	17:09:41
2	Cd 226.502†	34596.1	34950.8	506.29 ug/L	506.29 ppb	17:09:46
2	Co 228.616†	19599.2	19740.1	512.92 ug/L	512.92 ppb	17:09:46
2	Cr 267.716†	37475.8	37589.5	505.76 ug/L	505.76 ppb	17:09:46
2	Cu 324.752†	155177.3	150511.1	498.18 ug/L	498.18 ppb	17:09:46
2	Mn 257.610†	374676.1	376056.9	495.41 ug/L	495.41 ppb	17:09:46
2	Mo 202.031†	5614.5	5630.6	495.61 ug/L	495.61 ppb	17:10:06
2	Ni 231.604†	16096.8	16098.3	512.25 ug/L	512.25 ppb	17:09:46

2	P 214.914†	3466.4	3300.4	2388.2 ug/L	2388.2 ppb	17:10:06
2	Pb 220.353†	3185.5	3244.7	501.97 ug/L	501.97 ppb	17:10:06
2	S 181.975 Axial†	588.8	561.7	1002.0 ug/L	1002.0 ppb	17:10:06
2	Sb 206.836†	1196.1	1177.7	505.57 ug/L	505.57 ppb	17:10:06
2	Se 196.026†	581.5	603.2	518.53 ug/L	518.53 ppb	17:10:06
2	Si 251.611†	67233.3	67081.7	2518.4 ug/L	2518.4 ppb	17:09:46
2	Sn 189.927†	2205.5	2208.9	497.95 ug/L	497.95 ppb	17:10:06
2	Ti 334.940†	281831.1	284371.5	491.28 ug/L	491.28 ppb	17:09:46
2	Tl 190.801†	1248.4	1286.6	498.64 ug/L	498.64 ppb	17:10:06
2	U 409.014†	14855.0	17012.6	512.08 ug/L	512.08 ppb	17:09:46
2	V 292.402†	61234.6	62868.0	508.89 ug/L	508.89 ppb	17:09:46
2	Zn 213.857†	42921.0	42525.1	509.03 ug/L	509.03 ppb	17:09:46
2	SiO2†	66194.3	66040.3	5275.2 ug/L	5275.2 ppb	17:10:47
3	Sc Radial	4427.5	4427.5	96.5 %		17:08:43
3	Y RADIAL	4754.7	4754.7	96.36 %		17:08:43
3	Al 396.153Radial†	5069.8	5339.0	4995.2 ug/L	4995.2 ppb	17:08:43
3	Ca 317.933Radial†	2765.0	2837.2	5015.0 ug/L	5015.0 ppb	17:09:03
3	Fe 238.204 Radial†	469.3	478.4	5027.5 ug/L	5027.5 ppb	17:09:03
3	K 766.490 Radial†	28641.2	27121.2	5189.3 ug/L	5189.3 ppb	17:08:43
3	Mg 279.077 IEC†	132.6	137.3	5225.8 ug/L	5225.8 ppb	17:09:03
3	Na 589.592 Radial†	28011.2	29829.3	10452 ug/L	10452 ppb	17:08:43
3	Sr 421.552†	65275.1	67610.0	516.46 ug/L	516.46 ppb	17:08:43
3	Sc 361.383	802839.7	802839.7	98.759 %		17:10:12
3	Y 371.029	669426.8	669426.8	97.098 %		17:10:12
3	Ag 328.068†	96378.4	97378.9	503.01 ug/L	503.01 ppb	17:10:17
3	As 188.979†	867.4	895.4	502.50 ug/L	502.50 ppb	17:10:37
3	B 249.677†	17236.0	17867.9	497.76 ug/L	497.76 ppb	17:10:17
3	Ba 233.527†	52937.9	53590.7	502.71 ug/L	502.71 ppb	17:10:17
3	Be 313.107†	1166701.1	1185091.5	506.98 ug/L	506.98 ppb	17:10:12
3	Cd 226.502†	34089.7	34694.4	502.58 ug/L	502.58 ppb	17:10:17
3	Co 228.616†	19384.4	19667.8	511.06 ug/L	511.06 ppb	17:10:17
3	Cr 267.716†	37071.2	37457.5	503.97 ug/L	503.97 ppb	17:10:17
3	Cu 324.752†	153259.4	149719.1	495.55 ug/L	495.55 ppb	17:10:17
3	Mn 257.610†	370097.9	374197.8	492.96 ug/L	492.96 ppb	17:10:17
3	Mo 202.031†	5593.0	5650.4	497.34 ug/L	497.34 ppb	17:10:37
3	Ni 231.604†	15902.1	16020.5	509.77 ug/L	509.77 ppb	17:10:17
3	P 214.914†	3439.3	3298.6	2387.5 ug/L	2387.5 ppb	17:10:37
3	Pb 220.353†	3170.9	3253.5	503.37 ug/L	503.37 ppb	17:10:37
3	S 181.975 Axial†	589.9	567.2	1011.7 ug/L	1011.7 ppb	17:10:37
3	Sb 206.836†	1201.7	1192.3	511.61 ug/L	511.61 ppb	17:10:37
3	Se 196.026†	559.9	585.7	503.59 ug/L	503.59 ppb	17:10:37
3	Si 251.611†	66364.3	66700.0	2504.0 ug/L	2504.0 ppb	17:10:17
3	Sn 189.927†	2178.9	2198.3	495.57 ug/L	495.57 ppb	17:10:37
3	Ti 334.940†	278575.3	283163.4	489.19 ug/L	489.19 ppb	17:10:17
3	Tl 190.801†	1252.9	1300.5	503.96 ug/L	503.96 ppb	17:10:37
3	U 409.014†	14535.0	16798.6	505.64 ug/L	505.64 ppb	17:10:17
3	V 292.402†	60502.0	62580.0	506.62 ug/L	506.62 ppb	17:10:17
3	Zn 213.857†	42302.0	42216.4	505.34 ug/L	505.34 ppb	17:10:17
3	SiO2†	64811.9	65131.0	5202.3 ug/L	5202.3 ppb	17:10:52

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	803746.9	98.871 %		0.5690			0.58%
Sc Radial	4377.9	95.4 %		1.19			1.25%
Y 371.029	670200.4	97.210 %		0.4840			0.50%
Y RADIAL	4683.3	94.91 %		1.366			1.44%
Ag 328.068†	97739.3	504.88 ug/L		2.210	504.88 ppb	2.210	0.44%
QC value within limits for Ag 328.068 Recovery = 100.98%							
Al 396.153Radial†	5316.3	4973.8 ug/L		22.99	4973.8 ppb	22.99	0.46%
QC value within limits for Al 396.153Radial Recovery = 99.48%							
As 188.979†	896.3	503.07 ug/L		6.599	503.07 ppb	6.599	1.31%
QC value within limits for As 188.979 Recovery = 100.61%							
B 249.677†	17939.5	499.75 ug/L		2.163	499.75 ppb	2.163	0.43%
QC value within limits for B 249.677 Recovery = 99.95%							
Ba 233.527†	53839.8	505.04 ug/L		2.223	505.04 ppb	2.223	0.44%
QC value within limits for Ba 233.527 Recovery = 101.01%							
Be 313.107†	1186772.1	507.70 ug/L		0.776	507.70 ppb	0.776	0.15%
QC value within limits for Be 313.107 Recovery = 101.54%							
Ca 317.933Radial†	2868.0	5069.5 ug/L		59.30	5069.5 ppb	59.30	1.17%

QC value within limits for Ca 317.933 Radial Recovery = 101.39%							
Cd 226.502†	34869.2	505.11 ug/L	2.192	505.11 ppb	2.192	0.43%	
QC value within limits for Cd 226.502 Recovery = 101.02%							
Co 228.616†	19740.6	512.95 ug/L	1.904	512.95 ppb	1.904	0.37%	
QC value within limits for Co 228.616 Recovery = 102.59%							
Cr 267.716†	37589.1	505.75 ug/L	1.768	505.75 ppb	1.768	0.35%	
QC value within limits for Cr 267.716 Recovery = 101.15%							
Cu 324.752†	150578.8	498.40 ug/L	2.963	498.40 ppb	2.963	0.59%	
QC value within limits for Cu 324.752 Recovery = 99.68%							
Fe 238.204 Radial†	483.9	5085.0 ug/L	75.08	5085.0 ppb	75.08	1.48%	
QC value within limits for Fe 238.204 Radial Recovery = 101.70%							
K 766.490 Radial†	27130.7	5191.1 ug/L	25.19	5191.1 ppb	25.19	0.49%	
QC value within limits for K 766.490 Radial Recovery = 103.82%							
Mg 279.077 IEC†	139.6	5313.8 ug/L	77.98	5313.8 ppb	77.98	1.47%	
QC value within limits for Mg 279.077 IEC Recovery = 106.28%							
Mn 257.610†	375749.4	495.00 ug/L	1.874	495.00 ppb	1.874	0.38%	
QC value within limits for Mn 257.610 Recovery = 99.00%							
Mo 202.031†	5668.6	498.95 ug/L	4.361	498.95 ppb	4.361	0.87%	
QC value within limits for Mo 202.031 Recovery = 99.79%							
Na 589.592 Radial†	29830.2	10452 ug/L	9.1	10452 ppb	9.1	0.09%	
QC value within limits for Na 589.592 Radial Recovery = 104.52%							
Ni 231.604†	16082.7	511.75 ug/L	1.784	511.75 ppb	1.784	0.35%	
QC value within limits for Ni 231.604 Recovery = 102.35%							
P 214.914†	3313.6	2398.2 ug/L	17.94	2398.2 ppb	17.94	0.75%	
QC value within limits for P 214.914 Recovery = 95.93%							
Pb 220.353†	3262.1	504.69 ug/L	3.568	504.69 ppb	3.568	0.71%	
QC value within limits for Pb 220.353 Recovery = 100.94%							
S 181.975 Axial†	568.7	1014.4 ug/L	13.99	1014.4 ppb	13.99	1.38%	
QC value within limits for S 181.975 Axial Recovery = 101.44%							
Sb 206.836†	1193.7	512.27 ug/L	7.047	512.27 ppb	7.047	1.38%	
QC value within limits for Sb 206.836 Recovery = 102.45%							
Se 196.026†	601.0	516.44 ug/L	11.940	516.44 ppb	11.940	2.31%	
QC value within limits for Se 196.026 Recovery = 103.29%							
Si 251.611†	67077.0	2518.2 ug/L	14.06	2518.2 ppb	14.06	0.56%	
QC value within limits for Si 251.611 Recovery = 100.73%							
Sn 189.927†	2215.8	499.51 ug/L	4.903	499.51 ppb	4.903	0.98%	
QC value within limits for Sn 189.927 Recovery = 99.90%							
Sr 421.552†	67381.4	514.71 ug/L	1.555	514.71 ppb	1.555	0.30%	
QC value within limits for Sr 421.552 Recovery = 102.94%							
Ti 334.940†	284280.3	491.12 ug/L	1.853	491.12 ppb	1.853	0.38%	
QC value within limits for Ti 334.940 Recovery = 98.22%							
Tl 190.801†	1305.8	506.01 ug/L	8.585	506.01 ppb	8.585	1.70%	
QC value within limits for Tl 190.801 Recovery = 101.20%							
U 409.014†	16935.5	509.77 ug/L	3.581	509.77 ppb	3.581	0.70%	
QC value within limits for U 409.014 Recovery = 101.95%							
V 292.402†	62865.7	508.93 ug/L	2.321	508.93 ppb	2.321	0.46%	
QC value within limits for V 292.402 Recovery = 101.79%							
Zn 213.857†	42471.1	508.39 ug/L	2.789	508.39 ppb	2.789	0.55%	
QC value within limits for Zn 213.857 Recovery = 101.68%							
SiO2†	65952.7	5268.1 ug/L	62.51	5268.1 ppb	62.51	1.19%	
QC value within limits for SiO2 Recovery = 98.51%							
All analyte(s) passed QC.							

Sequence No.: 7

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 11

Date Collected: 3/16/2010 17:13:03

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	4384.4	4384.4	95.6 %		17:14:56
1	Y RADIAL	4732.5	4732.5	95.91 %		17:14:56
1	Al 396.153Radial†	129.7	221.6	207.83 ug/L	207.83 ppb	17:15:16
1	Ca 317.933Radial†	142.0	120.8	213.49 ug/L	213.49 ppb	17:15:16
1	Fe 238.204 Radial†	16.3	9.2	96.515 ug/L	96.515 ppb	17:15:16
1	K 766.490 Radial†	3625.2	1237.5	236.88 ug/L	236.88 ppb	17:14:56
1	Mg 279.077 IEC†	10.4	10.8	412.43 ug/L	412.43 ppb	17:15:16
1	Na 589.592 Radial†	66.8	875.0	306.58 ug/L	306.58 ppb	17:14:56
1	Sr 421.552†	690.0	696.2	5.3170 ug/L	5.3170 ppb	17:14:56
1	Sc 361.383	783381.6	783381.6	96.365 %		17:16:13
1	Y 371.029	662615.7	662615.7	96.110 %		17:16:13
1	Ag 328.068†	1199.7	1034.3	5.3187 ug/L	5.3187 ppb	17:16:13
1	As 188.979†	32.3	50.5	28.169 ug/L	28.169 ppb	17:16:33
1	B 249.677†	1594.3	2069.8	57.893 ug/L	57.893 ppb	17:16:13
1	Ba 233.527†	565.1	573.9	5.3834 ug/L	5.3834 ppb	17:16:33
1	Be 313.107†	7718.7	11738.8	5.0223 ug/L	5.0223 ppb	17:16:13
1	Cd 226.502†	184.6	367.9	5.3326 ug/L	5.3326 ppb	17:16:33
1	Co 228.616†	143.9	189.1	4.9249 ug/L	4.9249 ppb	17:16:33
1	Cr 267.716†	449.2	386.6	5.1901 ug/L	5.1901 ppb	17:16:33
1	Cu 324.752†	8253.4	3098.5	10.236 ug/L	10.236 ppb	17:16:13
1	Mn 257.610†	8257.8	8018.4	10.550 ug/L	10.550 ppb	17:16:13
1	Mo 202.031†	119.1	110.8	9.7495 ug/L	9.7495 ppb	17:16:33
1	Ni 231.604†	249.1	177.0	5.6339 ug/L	5.6339 ppb	17:16:33
1	P 214.914†	379.6	210.0	156.16 ug/L	156.16 ppb	17:16:33
1	Pb 220.353†	21.3	64.9	10.064 ug/L	10.064 ppb	17:16:33
1	S 181.975 Axial†	95.7	69.1	123.40 ug/L	123.40 ppb	17:16:33
1	Sb 206.836†	48.0	25.3	10.798 ug/L	10.798 ppb	17:16:33
1	Se 196.026†	17.4	36.8	30.937 ug/L	30.937 ppb	17:16:33
1	Si 251.611†	3024.9	2640.8	99.259 ug/L	99.259 ppb	17:16:33
1	Sn 189.927†	46.9	40.7	9.1969 ug/L	9.1969 ppb	17:16:33
1	Ti 334.940†	1767.9	2921.9	5.0227 ug/L	5.0227 ppb	17:16:13
1	Tl 190.801†	28.8	61.6	23.797 ug/L	23.797 ppb	17:16:33
1	U 409.014†	-564.9	1494.8	45.123 ug/L	45.123 ppb	17:16:13
1	V 292.402†	-711.8	579.1	4.8369 ug/L	4.8369 ppb	17:16:13
1	Zn 213.857†	1734.8	1183.1	14.229 ug/L	14.229 ppb	17:16:33
1	SiO2†	3120.4	2742.7	219.38 ug/L	219.38 ppb	17:17:29
2	Sc Radial	4325.7	4325.7	94.3 %		17:15:21
2	Y RADIAL	4679.5	4679.5	94.84 %		17:15:21
2	Al 396.153Radial†	132.8	226.6	212.55 ug/L	212.55 ppb	17:15:41
2	Ca 317.933Radial†	133.9	114.2	201.81 ug/L	201.81 ppb	17:15:41
2	Fe 238.204 Radial†	17.5	10.7	112.12 ug/L	112.12 ppb	17:15:41
2	K 766.490 Radial†	3502.5	1158.8	221.80 ug/L	221.80 ppb	17:15:21
2	Mg 279.077 IEC†	7.5	7.8	298.69 ug/L	298.69 ppb	17:15:41
2	Na 589.592 Radial†	78.0	887.8	311.07 ug/L	311.07 ppb	17:15:21
2	Sr 421.552†	638.3	651.2	4.9734 ug/L	4.9734 ppb	17:15:21
2	Sc 361.383	788805.9	788805.9	97.033 %		17:16:39
2	Y 371.029	667358.2	667358.2	96.798 %		17:16:39
2	Ag 328.068†	1091.3	914.0	4.7054 ug/L	4.7054 ppb	17:16:39
2	As 188.979†	29.3	47.2	26.313 ug/L	26.313 ppb	17:16:59
2	B 249.677†	1635.9	2101.2	58.771 ug/L	58.771 ppb	17:16:39
2	Ba 233.527†	557.9	562.5	5.2774 ug/L	5.2774 ppb	17:16:59
2	Be 313.107†	7848.2	11817.2	5.0554 ug/L	5.0554 ppb	17:16:39
2	Cd 226.502†	199.3	381.7	5.5313 ug/L	5.5313 ppb	17:16:59
2	Co 228.616†	146.4	190.8	4.9683 ug/L	4.9683 ppb	17:16:59
2	Cr 267.716†	454.2	388.6	5.2174 ug/L	5.2174 ppb	17:16:59
2	Cu 324.752†	8327.3	3115.8	10.293 ug/L	10.293 ppb	17:16:39
2	Mn 257.610†	8263.2	7965.0	10.486 ug/L	10.486 ppb	17:16:39
2	Mo 202.031†	126.1	117.1	10.309 ug/L	10.309 ppb	17:16:59
2	Ni 231.604†	253.3	179.6	5.7161 ug/L	5.7161 ppb	17:16:59

2	P 214.914†	388.2	216.2	160.81 ug/L	160.81 ppb	17:16:59
2	Pb 220.353†	41.1	85.1	13.184 ug/L	13.184 ppb	17:16:59
2	S 181.975 Axial†	100.5	73.4	131.07 ug/L	131.07 ppb	17:16:59
2	Sb 206.836†	53.7	30.8	13.094 ug/L	13.094 ppb	17:16:59
2	Se 196.026†	22.5	42.0	35.294 ug/L	35.294 ppb	17:16:59
2	Si 251.611†	3066.3	2661.9	100.05 ug/L	100.05 ppb	17:16:59
2	Sn 189.927†	47.9	41.4	9.3524 ug/L	9.3524 ppb	17:16:59
2	Ti 334.940†	1671.3	2809.8	4.8358 ug/L	4.8358 ppb	17:16:39
2	Tl 190.801†	23.4	55.9	21.588 ug/L	21.588 ppb	17:16:59
2	U 409.014†	-511.8	1553.5	46.894 ug/L	46.894 ppb	17:16:39
2	V 292.402†	-698.6	597.7	4.9932 ug/L	4.9932 ppb	17:16:39
2	Zn 213.857†	1745.0	1181.3	14.204 ug/L	14.204 ppb	17:16:59
2	SiO2†	3172.5	2774.2	221.88 ug/L	221.88 ppb	17:17:34
3	Sc Radial	4425.5	4425.5	96.5 %		17:15:46
3	Y RADIAL	4804.3	4804.3	97.37 %		17:15:46
3	Al 396.153Radial†	130.8	221.4	207.65 ug/L	207.65 ppb	17:16:06
3	Ca 317.933Radial†	141.0	118.3	209.15 ug/L	209.15 ppb	17:16:06
3	Fe 238.204 Radial†	19.2	12.0	126.12 ug/L	126.12 ppb	17:16:06
3	K 766.490 Radial†	3596.7	1172.7	224.45 ug/L	224.45 ppb	17:15:46
3	Mg 279.077 IEC†	13.5	14.0	530.86 ug/L	530.86 ppb	17:16:06
3	Na 589.592 Radial†	105.8	914.8	320.54 ug/L	320.54 ppb	17:15:46
3	Sr 421.552†	679.2	678.3	5.1799 ug/L	5.1799 ppb	17:15:46
3	Sc 361.383	793549.4	793549.4	97.616 %		17:17:04
3	Y 371.029	670214.8	670214.8	97.212 %		17:17:04
3	Ag 328.068†	1191.6	1010.1	5.1961 ug/L	5.1961 ppb	17:17:04
3	As 188.979†	21.8	39.4	21.986 ug/L	21.986 ppb	17:17:24
3	B 249.677†	1566.1	2019.7	56.486 ug/L	56.486 ppb	17:17:04
3	Ba 233.527†	555.5	556.6	5.2225 ug/L	5.2225 ppb	17:17:24
3	Be 313.107†	7846.2	11766.8	5.0340 ug/L	5.0340 ppb	17:17:04
3	Cd 226.502†	187.1	368.0	5.3334 ug/L	5.3334 ppb	17:17:24
3	Co 228.616†	148.4	191.9	4.9978 ug/L	4.9978 ppb	17:17:24
3	Cr 267.716†	447.2	378.6	5.0821 ug/L	5.0821 ppb	17:17:24
3	Cu 324.752†	8257.7	2993.1	9.8836 ug/L	9.8836 ppb	17:17:04
3	Mn 257.610†	8325.7	7978.1	10.495 ug/L	10.495 ppb	17:17:04
3	Mo 202.031†	126.0	116.3	10.237 ug/L	10.237 ppb	17:17:24
3	Ni 231.604†	262.1	187.1	5.9540 ug/L	5.9540 ppb	17:17:24
3	P 214.914†	387.1	212.6	158.21 ug/L	158.21 ppb	17:17:24
3	Pb 220.353†	25.9	69.3	10.743 ug/L	10.743 ppb	17:17:24
3	S 181.975 Axial†	92.0	64.1	114.48 ug/L	114.48 ppb	17:17:24
3	Sb 206.836†	49.6	26.3	11.271 ug/L	11.271 ppb	17:17:24
3	Se 196.026†	22.9	42.2	35.495 ug/L	35.495 ppb	17:17:24
3	Si 251.611†	3034.6	2610.5	98.114 ug/L	98.114 ppb	17:17:24
3	Sn 189.927†	56.6	50.0	11.292 ug/L	11.292 ppb	17:17:24
3	Ti 334.940†	1720.4	2849.7	4.8835 ug/L	4.8835 ppb	17:17:04
3	Tl 190.801†	18.4	50.6	19.546 ug/L	19.546 ppb	17:17:24
3	U 409.014†	-264.8	1809.7	54.631 ug/L	54.631 ppb	17:17:04
3	V 292.402†	-715.0	585.2	4.9093 ug/L	4.9093 ppb	17:17:04
3	Zn 213.857†	1712.6	1137.3	13.669 ug/L	13.669 ppb	17:17:24
3	SiO2†	3096.5	2676.8	214.09 ug/L	214.09 ppb	17:17:39

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	788579.0	97.005 %		0.6258			0.65%
Sc Radial	4378.5	95.4 %		1.09			1.15%
Y 371.029	666729.6	96.706 %		0.5567			0.58%
Y RADIAL	4738.8	96.04 %		1.269			1.32%
Ag 328.068†	986.2	5.0734 ug/L		0.32455	5.0734 ppb	0.32455	6.40%
QC value within limits for Ag 328.068 Recovery = 101.47%							
Al 396.153Radial†	223.2	209.34 ug/L		2.782	209.34 ppb	2.782	1.33%
QC value within limits for Al 396.153Radial Recovery = 104.67%							
As 188.979†	45.7	25.489 ug/L		3.1731	25.489 ppb	3.1731	12.45%
QC value within limits for As 188.979 Recovery = 84.96%							
B 249.677†	2063.6	57.717 ug/L		1.1530	57.717 ppb	1.1530	2.00%
QC value within limits for B 249.677 Recovery = 115.43%							
Ba 233.527†	564.3	5.2944 ug/L		0.08181	5.2944 ppb	0.08181	1.55%
QC value within limits for Ba 233.527 Recovery = 105.89%							
Be 313.107†	11774.3	5.0372 ug/L		0.01675	5.0372 ppb	0.01675	0.33%
QC value within limits for Be 313.107 Recovery = 100.74%							
Ca 317.933Radial†	117.8	208.15 ug/L		5.906	208.15 ppb	5.906	2.84%

QC value within limits for Ca 317.933 Radial Recovery = 104.08%							
Cd 226.502†	372.5	5.3991 ug/L	0.11452	5.3991 ppb	0.11452	2.12%	
QC value within limits for Cd 226.502 Recovery = 107.98%							
Co 228.616†	190.6	4.9636 ug/L	0.03668	4.9636 ppb	0.03668	0.74%	
QC value within limits for Co 228.616 Recovery = 99.27%							
Cr 267.716†	384.6	5.1632 ug/L	0.07154	5.1632 ppb	0.07154	1.39%	
QC value within limits for Cr 267.716 Recovery = 103.26%							
Cu 324.752†	3069.1	10.138 ug/L	0.2218	10.138 ppb	0.2218	2.19%	
QC value within limits for Cu 324.752 Recovery = 101.38%							
Fe 238.204 Radial†	10.6	111.59 ug/L	14.811	111.59 ppb	14.811	13.27%	
QC value within limits for Fe 238.204 Radial Recovery = 111.59%							
K 766.490 Radial†	1189.7	227.71 ug/L	8.051	227.71 ppb	8.051	3.54%	
QC value greater than the upper limit for K 766.490 Radial Recovery = 151.81%							
Mg 279.077 IEC†	10.9	413.99 ug/L	116.097	413.99 ppb	116.097	28.04%	
QC value greater than the upper limit for Mg 279.077 IEC Recovery = 138.00%							
Mn 257.610†	7987.1	10.510 ug/L	0.0347	10.510 ppb	0.0347	0.33%	
QC value within limits for Mn 257.610 Recovery = 105.10%							
Mo 202.031†	114.7	10.099 ug/L	0.3044	10.099 ppb	0.3044	3.01%	
QC value within limits for Mo 202.031 Recovery = 100.99%							
Na 589.592 Radial†	892.5	312.73 ug/L	7.124	312.73 ppb	7.124	2.28%	
QC value within limits for Na 589.592 Radial Recovery = 104.24%							
Ni 231.604†	181.3	5.7680 ug/L	0.16621	5.7680 ppb	0.16621	2.88%	
QC value within limits for Ni 231.604 Recovery = 115.36%							
P 214.914†	212.9	158.39 ug/L	2.329	158.39 ppb	2.329	1.47%	
QC value within limits for P 214.914 Recovery = 105.60%							
Pb 220.353†	73.1	11.330 ug/L	1.6411	11.330 ppb	1.6411	14.48%	
QC value within limits for Pb 220.353 Recovery = 113.30%							
S 181.975 Axial†	68.9	122.98 ug/L	8.305	122.98 ppb	8.305	6.75%	
QC value within limits for S 181.975 Axial Recovery = 122.98%							
Sb 206.836†	27.4	11.721 ug/L	1.2125	11.721 ppb	1.2125	10.34%	
QC value within limits for Sb 206.836 Recovery = 117.21%							
Se 196.026†	40.4	33.909 ug/L	2.5758	33.909 ppb	2.5758	7.60%	
QC value within limits for Se 196.026 Recovery = 113.03%							
Si 251.611†	2637.7	99.140 ug/L	0.9722	99.140 ppb	0.9722	0.98%	
QC value within limits for Si 251.611 Recovery = 99.14%							
Sn 189.927†	44.0	9.9473 ug/L	1.16759	9.9473 ppb	1.16759	11.74%	
QC value within limits for Sn 189.927 Recovery = 99.47%							
Sr 421.552†	675.2	5.1568 ug/L	0.17292	5.1568 ppb	0.17292	3.35%	
QC value within limits for Sr 421.552 Recovery = 103.14%							
Ti 334.940†	2860.4	4.9140 ug/L	0.09709	4.9140 ppb	0.09709	1.98%	
QC value within limits for Ti 334.940 Recovery = 98.28%							
Tl 190.801†	56.1	21.643 ug/L	2.1260	21.643 ppb	2.1260	9.82%	
QC value within limits for Tl 190.801 Recovery = 108.22%							
U 409.014†	1619.4	48.883 ug/L	5.0563	48.883 ppb	5.0563	10.34%	
QC value within limits for U 409.014 Recovery = 97.77%							
V 292.402†	587.3	4.9131 ug/L	0.07820	4.9131 ppb	0.07820	1.59%	
QC value within limits for V 292.402 Recovery = 98.26%							
Zn 213.857†	1167.2	14.034 ug/L	0.3159	14.034 ppb	0.3159	2.25%	
QC value greater than the upper limit for Zn 213.857 Recovery = 140.34%							
SiO2†	2731.2	218.45 ug/L	3.981	218.45 ppb	3.981	1.82%	
QC value within limits for SiO2 Recovery = 102.56%							
QC Failed. Continue with analysis.							

Sequence No.: 8

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/16/2010 17:19:50

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4286.8	4286.8	93.4 %		17:22:03
1	Y RADIAL	4717.4	4717.4	95.60 %		17:21:43
1	Al 396.153Radial†	-82.6	-2.6	-2.4024 ug/L	-2.4024 ppb	17:22:03
1	Ca 317.933Radial†	31.5	5.9	10.342 ug/L	10.342 ppb	17:22:03
1	Fe 238.204 Radial†	10.1	2.9	30.374 ug/L	30.374 ppb	17:22:03
1	K 766.490 Radial†	2798.7	439.4	84.178 ug/L	84.178 ppb	17:21:43
1	Mg 279.077 IEC†	0.3	0.3	11.127 ug/L	11.127 ppb	17:22:03
1	Na 589.592 Radial†	-802.2	-53.4	-18.700 ug/L	-18.700 ppb	17:21:43
1	Sr 421.552†	7.2	-18.0	-0.1379 ug/L	-0.1379 ppb	17:21:43
1	Sc 361.383	793206.0	793206.0	97.574 %		17:23:00
1	Y 371.029	672267.0	672267.0	97.510 %		17:23:00
1	Ag 328.068†	216.7	11.5	0.0671 ug/L	0.0671 ppb	17:23:00
1	As 188.979†	-21.8	-5.3	-2.9255 ug/L	-2.9255 ppb	17:23:20
1	B 249.677†	-218.6	191.3	5.3485 ug/L	5.3485 ppb	17:23:20
1	Ba 233.527†	24.0	12.1	0.1146 ug/L	0.1146 ppb	17:23:20
1	Be 313.107†	-3753.8	-118.1	-0.0504 ug/L	-0.0504 ppb	17:23:00
1	Cd 226.502†	-154.2	18.3	0.2626 ug/L	0.2626 ppb	17:23:20
1	Co 228.616†	-37.3	1.6	0.0400 ug/L	0.0400 ppb	17:23:20
1	Cr 267.716†	70.7	-7.1	-0.0929 ug/L	-0.0929 ppb	17:23:20
1	Cu 324.752†	5334.4	0.8	0.0030 ug/L	0.0030 ppb	17:23:00
1	Mn 257.610†	563.3	26.4	0.0373 ug/L	0.0373 ppb	17:23:20
1	Mo 202.031†	11.3	-1.3	-0.1085 ug/L	-0.1085 ppb	17:23:20
1	Ni 231.604†	82.1	2.7	0.0855 ug/L	0.0855 ppb	17:23:20
1	P 214.914†	186.4	7.2	5.3703 ug/L	5.3703 ppb	17:23:20
1	Pb 220.353†	-36.9	4.9	0.7541 ug/L	0.7541 ppb	17:23:20
1	S 181.975 Axial†	40.4	11.3	20.173 ug/L	20.173 ppb	17:23:20
1	Sb 206.836†	23.7	-0.3	-0.0905 ug/L	-0.0905 ppb	17:23:20
1	Se 196.026†	-15.0	3.4	2.9464 ug/L	2.9464 ppb	17:23:20
1	Si 251.611†	526.0	40.9	1.5400 ug/L	1.5400 ppb	17:23:20
1	Sn 189.927†	12.9	5.2	1.1768 ug/L	1.1768 ppb	17:23:20
1	Ti 334.940†	-1054.7	6.3	0.0105 ug/L	0.0105 ppb	17:23:00
1	Tl 190.801†	-25.4	5.7	2.2087 ug/L	2.2087 ppb	17:23:20
1	U 409.014†	-1962.9	69.3	2.0899 ug/L	2.0899 ppb	17:23:00
1	V 292.402†	-1268.0	18.2	0.1437 ug/L	0.1437 ppb	17:23:00
1	Zn 213.857†	681.5	81.4	0.9778 ug/L	0.9778 ppb	17:23:20
1	SiO2†	503.9	21.1	1.6954 ug/L	1.6954 ppb	17:24:31
2	Sc Radial	4236.8	4236.8	92.4 %		17:22:28
2	Y RADIAL	4670.1	4670.1	94.65 %		17:22:08
2	Al 396.153Radial†	-66.0	14.3	13.506 ug/L	13.506 ppb	17:22:28
2	Ca 317.933Radial†	25.8	0.1	0.1057 ug/L	0.1057 ppb	17:22:28
2	Fe 238.204 Radial†	8.7	1.6	16.856 ug/L	16.856 ppb	17:22:28
2	K 766.490 Radial†	2761.4	434.3	83.205 ug/L	83.205 ppb	17:22:08
2	Mg 279.077 IEC†	0.4	0.4	13.805 ug/L	13.805 ppb	17:22:28
2	Na 589.592 Radial†	-729.4	15.3	5.3599 ug/L	5.3599 ppb	17:22:08
2	Sr 421.552†	40.3	17.8	0.1362 ug/L	0.1362 ppb	17:22:08
2	Sc 361.383	777169.7	777169.7	95.601 %		17:23:25
2	Y 371.029	657325.1	657325.1	95.342 %		17:23:25
2	Ag 328.068†	69.6	-137.8	-0.6983 ug/L	-0.6983 ppb	17:23:25
2	As 188.979†	-13.9	2.5	1.3698 ug/L	1.3698 ppb	17:23:45
2	B 249.677†	-219.9	185.3	5.1837 ug/L	5.1837 ppb	17:23:45
2	Ba 233.527†	18.4	6.8	0.0627 ug/L	0.0627 ppb	17:23:45
2	Be 313.107†	-3702.1	-143.5	-0.0618 ug/L	-0.0618 ppb	17:23:25
2	Cd 226.502†	-144.2	25.5	0.3671 ug/L	0.3671 ppb	17:23:45
2	Co 228.616†	-35.8	2.4	0.0620 ug/L	0.0620 ppb	17:23:45
2	Cr 267.716†	48.4	-28.9	-0.3835 ug/L	-0.3835 ppb	17:23:45
2	Cu 324.752†	5289.4	66.5	0.2250 ug/L	0.2250 ppb	17:23:25
2	Mn 257.610†	560.4	35.3	0.0475 ug/L	0.0475 ppb	17:23:45
2	Mo 202.031†	6.0	-6.5	-0.5735 ug/L	-0.5735 ppb	17:23:45
2	Ni 231.604†	84.3	6.7	0.2146 ug/L	0.2146 ppb	17:23:45

2	P 214.914†	197.7	22.9	17.160 ug/L	17.160 ppb	17:23:45
2	Pb 220.353†	-39.6	1.4	0.2118 ug/L	0.2118 ppb	17:23:45
2	S 181.975 Axial†	41.3	13.0	23.287 ug/L	23.287 ppb	17:23:45
2	Sb 206.836†	24.4	1.0	0.3859 ug/L	0.3859 ppb	17:23:45
2	Se 196.026†	-17.4	0.6	0.5749 ug/L	0.5749 ppb	17:23:45
2	Si 251.611†	503.5	28.4	1.0773 ug/L	1.0773 ppb	17:23:45
2	Sn 189.927†	8.5	0.9	0.2104 ug/L	0.2104 ppb	17:23:45
2	Ti 334.940†	-1176.2	-143.0	-0.2450 ug/L	-0.2450 ppb	17:23:25
2	Tl 190.801†	-27.7	2.8	1.0873 ug/L	1.0873 ppb	17:23:45
2	U 409.014†	-2214.5	-235.4	-7.1111 ug/L	-7.1111 ppb	17:23:25
2	V 292.402†	-1315.9	-58.8	-0.4931 ug/L	-0.4931 ppb	17:23:25
2	Zn 213.857†	683.3	97.6	1.1751 ug/L	1.1751 ppb	17:23:45
2	SiO2†	519.8	48.4	3.8936 ug/L	3.8936 ppb	17:24:51
3	Sc Radial	4234.6	4234.6	92.3 %		17:22:53
3	Y RADIAL	4735.9	4735.9	95.98 %		17:22:33
3	Al 396.153Radial†	-79.3	-0.1	-0.0667 ug/L	-0.0667 ppb	17:22:53
3	Ca 317.933Radial†	29.9	4.6	8.0854 ug/L	8.0854 ppb	17:22:53
3	Fe 238.204 Radial†	8.6	1.4	14.759 ug/L	14.759 ppb	17:22:53
3	K 766.490 Radial†	2686.8	355.0	68.015 ug/L	68.015 ppb	17:22:33
3	Mg 279.077 IEC†	3.1	3.3	124.47 ug/L	124.47 ppb	17:22:53
3	Na 589.592 Radial†	-817.8	-80.9	-28.351 ug/L	-28.351 ppb	17:22:33
3	Sr 421.552†	43.8	21.7	0.1656 ug/L	0.1656 ppb	17:22:33
3	Sc 361.383	786092.2	786092.2	96.699 %		17:23:50
3	Y 371.029	664621.0	664621.0	96.401 %		17:23:50
3	Ag 328.068†	150.4	-55.0	-0.2754 ug/L	-0.2754 ppb	17:23:50
3	As 188.979†	-17.8	-1.4	-0.7690 ug/L	-0.7690 ppb	17:24:11
3	B 249.677†	-221.1	186.7	5.2238 ug/L	5.2238 ppb	17:24:11
3	Ba 233.527†	34.6	23.3	0.2164 ug/L	0.2164 ppb	17:24:11
3	Be 313.107†	-3734.4	-132.9	-0.0569 ug/L	-0.0569 ppb	17:23:50
3	Cd 226.502†	-150.0	21.2	0.3043 ug/L	0.3043 ppb	17:24:11
3	Co 228.616†	-46.7	-8.5	-0.2212 ug/L	-0.2212 ppb	17:24:11
3	Cr 267.716†	78.3	1.4	0.0224 ug/L	0.0224 ppb	17:24:11
3	Cu 324.752†	5231.9	-55.7	-0.1799 ug/L	-0.1799 ppb	17:23:50
3	Mn 257.610†	548.9	16.7	0.0184 ug/L	0.0184 ppb	17:24:11
3	Mo 202.031†	10.0	-2.5	-0.2211 ug/L	-0.2211 ppb	17:24:11
3	Ni 231.604†	92.1	13.9	0.4416 ug/L	0.4416 ppb	17:24:11
3	P 214.914†	194.9	17.7	13.357 ug/L	13.357 ppb	17:24:11
3	Pb 220.353†	-51.3	-10.3	-1.5862 ug/L	-1.5862 ppb	17:24:11
3	S 181.975 Axial†	38.9	10.1	18.005 ug/L	18.005 ppb	17:24:11
3	Sb 206.836†	24.2	0.5	0.2178 ug/L	0.2178 ppb	17:24:11
3	Se 196.026†	-12.1	6.3	5.2626 ug/L	5.2626 ppb	17:24:11
3	Si 251.611†	493.9	12.5	0.4746 ug/L	0.4746 ppb	17:24:11
3	Sn 189.927†	13.8	6.3	1.4135 ug/L	1.4135 ppb	17:24:11
3	Ti 334.940†	-1081.8	-31.4	-0.0603 ug/L	-0.0603 ppb	17:23:50
3	Tl 190.801†	-20.3	10.8	4.1709 ug/L	4.1709 ppb	17:24:11
3	U 409.014†	-2230.8	-226.0	-6.8261 ug/L	-6.8261 ppb	17:23:50
3	V 292.402†	-1363.9	-92.8	-0.7572 ug/L	-0.7572 ppb	17:23:50
3	Zn 213.857†	688.4	94.8	1.1406 ug/L	1.1406 ppb	17:24:11
3	SiO2†	505.1	27.0	2.1662 ug/L	2.1662 ppb	17:25:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	785489.3	96.625 %	0.9884			1.02%
Sc Radial	4252.8	92.7 %	0.64			0.69%
Y 371.029	664737.7	96.418 %	1.0837			1.12%
Y RADIAL	4707.8	95.41 %	0.688			0.72%
Ag 328.068†	-60.4	-0.3022 ug/L	0.38337	-0.3022 ppb	0.38337	126.86%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	3.9	3.6789 ug/L	8.59008	3.6789 ppb	8.59008	233.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.4	-0.7749 ug/L	2.14763	-0.7749 ppb	2.14763	277.14%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	187.8	5.2520 ug/L	0.08591	5.2520 ppb	0.08591	1.64%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	14.0	0.1312 ug/L	0.07820	0.1312 ppb	0.07820	59.59%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-131.5	-0.0564 ug/L	0.00571	-0.0564 ppb	0.00571	10.14%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	3.5	6.1776 ug/L	5.37813	6.1776 ppb	5.37813	87.06%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	21.7	0.3113 ug/L	0.05264	0.3113 ppb	0.05264	16.91%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-1.5	-0.0397 ug/L	0.15752	-0.0397 ppb	0.15752	396.58%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-11.5	-0.1514 ug/L	0.20918	-0.1514 ppb	0.20918	138.20%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	3.9	0.0160 ug/L	0.20278	0.0160 ppb	0.20278	>999.9%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	2.0	20.663 ug/L	8.4754	20.663 ppb	8.4754	41.02%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	409.6	78.466 ug/L	9.0642	78.466 ppb	9.0642	11.55%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	1.3	49.802 ug/L	64.6816	49.802 ppb	64.6816	129.88%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	26.1	0.0344 ug/L	0.01481	0.0344 ppb	0.01481	43.05%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-3.4	-0.3010 ug/L	0.24262	-0.3010 ppb	0.24262	80.60%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-39.7	-13.897 ug/L	17.3610	-13.897 ppb	17.3610	124.93%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	7.8	0.2472 ug/L	0.18029	0.2472 ppb	0.18029	72.92%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	15.9	11.962 ug/L	6.0173	11.962 ppb	6.0173	50.30%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-1.3	-0.2068 ug/L	1.22503	-0.2068 ppb	1.22503	592.44%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	11.5	20.488 ug/L	2.6552	20.488 ppb	2.6552	12.96%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	0.4	0.1711 ug/L	0.24164	0.1711 ppb	0.24164	141.26%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	3.5	2.9280 ug/L	2.34390	2.9280 ppb	2.34390	80.05%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	27.3	1.0306 ug/L	0.53421	1.0306 ppb	0.53421	51.83%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	4.1	0.9336 ug/L	0.63737	0.9336 ppb	0.63737	68.27%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	7.2	0.0546 ug/L	0.16739	0.0546 ppb	0.16739	306.48%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-56.0	-0.0982 ug/L	0.13190	-0.0982 ppb	0.13190	134.25%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	6.5	2.4890 ug/L	1.56078	2.4890 ppb	1.56078	62.71%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-130.7	-3.9491 ug/L	5.23186	-3.9491 ppb	5.23186	132.48%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-44.5	-0.3689 ug/L	0.46313	-0.3689 ppb	0.46313	125.56%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	91.3	1.0978 ug/L	0.10540	1.0978 ppb	0.10540	9.60%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	32.2	2.5851 ug/L	1.15741	2.5851 ppb	1.15741	44.77%	
QC value within limits for SiO2 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 8

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/16/2010 18:29:30

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	4235.2	4235.2	92.3 %		18:31:42
1	Y RADIAL	4603.5	4603.5	93.30 %		18:31:22
1	Al 396.153Radial†	4972.8	5472.3	5118.6 ug/L	5118.6 ppb	18:31:22
1	Ca 317.933Radial†	2765.7	2968.0	5246.2 ug/L	5246.2 ppb	18:31:42
1	Fe 238.204 Radial†	471.4	502.8	5284.6 ug/L	5284.6 ppb	18:31:42
1	K 766.490 Radial†	27719.8	27470.1	5255.8 ug/L	5255.8 ppb	18:31:22
1	Mg 279.077 IEC†	130.5	141.3	5375.8 ug/L	5375.8 ppb	18:31:42
1	Na 589.592 Radial†	28173.9	31322.8	10975 ug/L	10975 ppb	18:31:22
1	Sr 421.552†	64529.8	69872.3	533.74 ug/L	533.74 ppb	18:31:22
1	Sc 361.383	742939.3	742939.3	91.390 %		18:32:39
1	Y 371.029	619371.4	619371.4	89.837 %		18:32:39
1	Ag 328.068†	97366.9	106328.9	549.18 ug/L	549.18 ppb	18:32:45
1	As 188.979†	864.8	963.3	540.70 ug/L	540.70 ppb	18:33:05
1	B 249.677†	17080.2	19104.6	532.20 ug/L	532.20 ppb	18:32:45
1	Ba 233.527†	53386.7	58403.6	547.85 ug/L	547.85 ppb	18:32:45
1	Be 313.107†	1198484.8	1315118.2	562.59 ug/L	562.59 ppb	18:32:39
1	Cd 226.502†	34312.6	37721.4	546.46 ug/L	546.46 ppb	18:32:45
1	Co 228.616†	19479.2	21354.1	554.86 ug/L	554.86 ppb	18:32:45
1	Cr 267.716†	37358.3	40798.1	548.90 ug/L	548.90 ppb	18:32:45
1	Cu 324.752†	155366.4	164536.6	544.58 ug/L	544.58 ppb	18:32:45
1	Mn 257.610†	389700.0	425861.2	561.00 ug/L	561.00 ppb	18:32:39
1	Mo 202.031†	5567.9	6079.6	535.10 ug/L	535.10 ppb	18:33:05
1	Ni 231.604†	16038.7	17468.2	555.84 ug/L	555.84 ppb	18:32:45
1	P 214.914†	3413.4	3551.0	2568.0 ug/L	2568.0 ppb	18:33:05
1	Pb 220.353†	3136.9	3475.2	537.64 ug/L	537.64 ppb	18:33:05
1	S 181.975 Axial†	562.8	585.7	1044.8 ug/L	1044.8 ppb	18:33:05
1	Sb 206.836†	1189.8	1277.4	548.23 ug/L	548.23 ppb	18:33:05
1	Se 196.026†	565.2	637.2	547.21 ug/L	547.21 ppb	18:33:05
1	Si 251.611†	67105.7	72929.3	2738.0 ug/L	2738.0 ppb	18:32:45
1	Sn 189.927†	2174.0	2370.9	534.44 ug/L	534.44 ppb	18:33:05
1	Ti 334.940†	281417.6	309016.2	533.84 ug/L	533.84 ppb	18:32:45
1	Tl 190.801†	1245.6	1394.8	540.69 ug/L	540.69 ppb	18:33:05
1	U 409.014†	15091.1	18593.8	559.73 ug/L	559.73 ppb	18:32:45
1	V 292.402†	61325.7	68420.6	553.82 ug/L	553.82 ppb	18:32:45
1	Zn 213.857†	42563.8	45956.5	550.12 ug/L	550.12 ppb	18:32:45
1	SiO2†	66850.3	72652.7	5803.6 ug/L	5803.6 ppb	18:34:12
2	Sc Radial	4188.0	4188.0	91.3 %		18:32:07
2	Y RADIAL	4796.3	4796.3	97.20 %		18:31:47
2	Al 396.153Radial†	5102.4	5675.0	5311.0 ug/L	5311.0 ppb	18:31:47
2	Ca 317.933Radial†	2745.2	2979.3	5266.3 ug/L	5266.3 ppb	18:32:07
2	Fe 238.204 Radial†	469.3	506.3	5319.4 ug/L	5319.4 ppb	18:32:07
2	K 766.490 Radial†	28418.7	28574.3	5467.3 ug/L	5467.3 ppb	18:31:47
2	Mg 279.077 IEC†	130.5	142.9	5438.4 ug/L	5438.4 ppb	18:32:07
2	Na 589.592 Radial†	28825.8	32381.0	11346 ug/L	11346 ppb	18:31:47
2	Sr 421.552†	66413.6	72724.1	555.52 ug/L	555.52 ppb	18:31:47
2	Sc 361.383	808148.4	808148.4	99.412 %		18:33:11
2	Y 371.029	674321.9	674321.9	97.808 %		18:33:11
2	Ag 328.068†	96018.4	96375.8	497.93 ug/L	497.93 ppb	18:33:16
2	As 188.979†	883.3	905.6	508.20 ug/L	508.20 ppb	18:33:36
2	B 249.677†	16913.6	17429.0	485.45 ug/L	485.45 ppb	18:33:16
2	Ba 233.527†	52615.6	52914.3	496.38 ug/L	496.38 ppb	18:33:16
2	Be 313.107†	1167339.0	1177972.8	503.93 ug/L	503.93 ppb	18:33:11
2	Cd 226.502†	33844.1	34220.7	495.69 ug/L	495.69 ppb	18:33:16
2	Co 228.616†	19229.2	19382.8	503.66 ug/L	503.66 ppb	18:33:16
2	Cr 267.716†	36868.2	37006.8	497.95 ug/L	497.95 ppb	18:33:16
2	Cu 324.752†	152992.1	148430.8	491.31 ug/L	491.31 ppb	18:33:16
2	Mn 257.610†	378718.9	380408.1	501.16 ug/L	501.16 ppb	18:33:11
2	Mo 202.031†	5631.8	5652.2	497.53 ug/L	497.53 ppb	18:33:36
2	Ni 231.604†	15800.8	15812.9	503.16 ug/L	503.16 ppb	18:33:16

2	P 214.914†	3461.4	3298.0	2387.7 ug/L	2387.7 ppb	18:33:36
2	Pb 220.353†	3174.1	3235.7	500.65 ug/L	500.65 ppb	18:33:36
2	S 181.975 Axial†	577.6	550.8	982.48 ug/L	982.48 ppb	18:33:36
2	Sb 206.836†	1229.4	1212.1	519.86 ug/L	519.86 ppb	18:33:36
2	Se 196.026†	582.4	604.6	520.22 ug/L	520.22 ppb	18:33:36
2	Si 251.611†	66188.1	66081.4	2480.7 ug/L	2480.7 ppb	18:33:16
2	Sn 189.927†	2210.1	2215.2	499.39 ug/L	499.39 ppb	18:33:36
2	Ti 334.940†	277347.3	280075.1	483.87 ug/L	483.87 ppb	18:33:16
2	Tl 190.801†	1271.2	1310.6	507.88 ug/L	507.88 ppb	18:33:36
2	U 409.014†	14608.0	16775.4	504.92 ug/L	504.92 ppb	18:33:16
2	V 292.402†	60353.6	62028.3	502.18 ug/L	502.18 ppb	18:33:16
2	Zn 213.857†	42002.4	41633.8	498.31 ug/L	498.31 ppb	18:33:16
2	SiO2†	67871.8	67777.9	5414.3 ug/L	5414.3 ppb	18:34:17
3	Sc Radial	4217.6	4217.6	91.9 %		18:32:32
3	Y RADIAL	4669.2	4669.2	94.63 %		18:32:12
3	Al 396.153Radial†	5028.0	5554.8	5197.8 ug/L	5197.8 ppb	18:32:12
3	Ca 317.933Radial†	2733.5	2945.4	5206.3 ug/L	5206.3 ppb	18:32:32
3	Fe 238.204 Radial†	470.3	503.7	5292.9 ug/L	5292.9 ppb	18:32:32
3	K 766.490 Radial†	28121.0	28032.0	5363.5 ug/L	5363.5 ppb	18:32:12
3	Mg 279.077 IEC†	129.9	141.2	5372.2 ug/L	5372.2 ppb	18:32:32
3	Na 589.592 Radial†	28483.4	31787.0	11138 ug/L	11138 ppb	18:32:12
3	Sr 421.552†	65639.3	71371.3	545.19 ug/L	545.19 ppb	18:32:12
3	Sc 361.383	794311.8	794311.8	97.710 %		18:33:42
3	Y 371.029	663445.7	663445.7	96.230 %		18:33:42
3	Ag 328.068†	95679.6	97711.5	504.80 ug/L	504.80 ppb	18:33:47
3	As 188.979†	859.3	896.5	503.21 ug/L	503.21 ppb	18:34:07
3	B 249.677†	16826.2	17635.9	491.23 ug/L	491.23 ppb	18:33:47
3	Ba 233.527†	52389.6	53605.0	502.85 ug/L	502.85 ppb	18:33:47
3	Be 313.107†	1150254.1	1180942.4	505.21 ug/L	505.21 ppb	18:33:42
3	Cd 226.502†	33741.8	34709.0	502.77 ug/L	502.77 ppb	18:33:47
3	Co 228.616†	19148.0	19636.6	510.25 ug/L	510.25 ppb	18:33:47
3	Cr 267.716†	36686.3	37466.6	504.12 ug/L	504.12 ppb	18:33:47
3	Cu 324.752†	152133.8	150233.3	497.27 ug/L	497.27 ppb	18:33:47
3	Mn 257.610†	373296.8	381495.1	502.59 ug/L	502.59 ppb	18:33:42
3	Mo 202.031†	5585.7	5703.8	502.06 ug/L	502.06 ppb	18:34:07
3	Ni 231.604†	15651.5	15936.9	507.11 ug/L	507.11 ppb	18:33:47
3	P 214.914†	3436.7	3333.3	2413.2 ug/L	2413.2 ppb	18:34:07
3	Pb 220.353†	3134.2	3250.5	502.92 ug/L	502.92 ppb	18:34:07
3	S 181.975 Axial†	565.3	548.4	978.14 ug/L	978.14 ppb	18:34:07
3	Sb 206.836†	1202.4	1206.1	517.50 ug/L	517.50 ppb	18:34:07
3	Se 196.026†	568.0	600.1	516.36 ug/L	516.36 ppb	18:34:07
3	Si 251.611†	65832.9	66877.7	2510.6 ug/L	2510.6 ppb	18:33:47
3	Sn 189.927†	2185.1	2228.4	502.35 ug/L	502.35 ppb	18:34:07
3	Ti 334.940†	275641.6	283189.3	489.25 ug/L	489.25 ppb	18:33:47
3	Tl 190.801†	1256.5	1317.7	510.66 ug/L	510.66 ppb	18:34:07
3	U 409.014†	14485.8	16906.3	508.86 ug/L	508.86 ppb	18:33:47
3	V 292.402†	59984.7	62708.4	507.68 ug/L	507.68 ppb	18:33:47
3	Zn 213.857†	41870.6	42234.8	505.54 ug/L	505.54 ppb	18:33:47
3	SiO2†	66708.3	67776.5	5414.0 ug/L	5414.0 ppb	18:34:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	781799.8	96.171 %	4.2264			4.39%
Sc Radial	4213.6	91.8 %	0.52			0.57%
Y 371.029	652379.7	94.625 %	4.2206			4.46%
Y RADIAL	4689.7	95.04 %	1.986			2.09%
Ag 328.068†	100138.7	517.30 ug/L	27.818	517.30 ppb	27.818	5.38%
QC value within limits for Ag 328.068 Recovery = 103.46%						
Al 396.153Radial†	5567.4	5209.2 ug/L	96.69	5209.2 ppb	96.69	1.86%
QC value within limits for Al 396.153Radial Recovery = 104.18%						
As 188.979†	921.8	517.37 ug/L	20.359	517.37 ppb	20.359	3.94%
QC value within limits for As 188.979 Recovery = 103.47%						
B 249.677†	18056.5	502.96 ug/L	25.488	502.96 ppb	25.488	5.07%
QC value within limits for B 249.677 Recovery = 100.59%						
Ba 233.527†	54974.3	515.69 ug/L	28.038	515.69 ppb	28.038	5.44%
QC value within limits for Ba 233.527 Recovery = 103.14%						
Be 313.107†	1224677.8	523.91 ug/L	33.502	523.91 ppb	33.502	6.39%
QC value within limits for Be 313.107 Recovery = 104.78%						
Ca 317.933Radial†	2964.2	5239.6 ug/L	30.52	5239.6 ppb	30.52	0.58%

QC value within limits for Ca 317.933 Radial Recovery = 104.79%							
Cd 226.502†	35550.4	514.97 ug/L	27.497	514.97 ppb	27.497	5.34%	
QC value within limits for Cd 226.502 Recovery = 102.99%							
Co 228.616†	20124.5	522.92 ug/L	27.853	522.92 ppb	27.853	5.33%	
QC value within limits for Co 228.616 Recovery = 104.58%							
Cr 267.716†	38423.8	516.99 ug/L	27.806	516.99 ppb	27.806	5.38%	
QC value within limits for Cr 267.716 Recovery = 103.40%							
Cu 324.752†	154400.2	511.05 ug/L	29.191	511.05 ppb	29.191	5.71%	
QC value within limits for Cu 324.752 Recovery = 102.21%							
Fe 238.204 Radial†	504.3	5299.0 ug/L	18.17	5299.0 ppb	18.17	0.34%	
QC value within limits for Fe 238.204 Radial Recovery = 105.98%							
K 766.490 Radial†	28025.5	5362.2 ug/L	105.74	5362.2 ppb	105.74	1.97%	
QC value within limits for K 766.490 Radial Recovery = 107.24%							
Mg 279.077 IEC†	141.8	5395.5 ug/L	37.21	5395.5 ppb	37.21	0.69%	
QC value within limits for Mg 279.077 IEC Recovery = 107.91%							
Mn 257.610†	395921.5	521.58 ug/L	34.145	521.58 ppb	34.145	6.55%	
QC value within limits for Mn 257.610 Recovery = 104.32%							
Mo 202.031†	5811.9	511.56 ug/L	20.513	511.56 ppb	20.513	4.01%	
QC value within limits for Mo 202.031 Recovery = 102.31%							
Na 589.592 Radial†	31830.3	11153 ug/L	185.9	11153 ppb	185.9	1.67%	
QC value greater than the upper limit for Na 589.592 Radial Recovery = 111.53%							
Ni 231.604†	16406.0	522.03 ug/L	29.338	522.03 ppb	29.338	5.62%	
QC value within limits for Ni 231.604 Recovery = 104.41%							
P 214.914†	3394.1	2456.3 ug/L	97.57	2456.3 ppb	97.57	3.97%	
QC value within limits for P 214.914 Recovery = 98.25%							
Pb 220.353†	3320.5	513.74 ug/L	20.729	513.74 ppb	20.729	4.03%	
QC value within limits for Pb 220.353 Recovery = 102.75%							
S 181.975 Axial†	561.6	1001.8 ug/L	37.31	1001.8 ppb	37.31	3.72%	
QC value within limits for S 181.975 Axial Recovery = 100.18%							
Sb 206.836†	1231.9	528.53 ug/L	17.102	528.53 ppb	17.102	3.24%	
QC value within limits for Sb 206.836 Recovery = 105.71%							
Se 196.026†	614.0	527.93 ug/L	16.807	527.93 ppb	16.807	3.18%	
QC value within limits for Se 196.026 Recovery = 105.59%							
Si 251.611†	68629.4	2576.4 ug/L	140.68	2576.4 ppb	140.68	5.46%	
QC value within limits for Si 251.611 Recovery = 103.06%							
Sn 189.927†	2271.5	512.06 ug/L	19.441	512.06 ppb	19.441	3.80%	
QC value within limits for Sn 189.927 Recovery = 102.41%							
Sr 421.552†	71322.6	544.82 ug/L	10.898	544.82 ppb	10.898	2.00%	
QC value within limits for Sr 421.552 Recovery = 108.96%							
Ti 334.940†	290760.2	502.32 ug/L	27.433	502.32 ppb	27.433	5.46%	
QC value within limits for Ti 334.940 Recovery = 100.46%							
Tl 190.801†	1341.0	519.74 ug/L	18.191	519.74 ppb	18.191	3.50%	
QC value within limits for Tl 190.801 Recovery = 103.95%							
U 409.014†	17425.2	524.50 ug/L	30.569	524.50 ppb	30.569	5.83%	
QC value within limits for U 409.014 Recovery = 104.90%							
V 292.402†	64385.8	521.23 ug/L	28.359	521.23 ppb	28.359	5.44%	
QC value within limits for V 292.402 Recovery = 104.25%							
Zn 213.857†	43275.0	517.99 ug/L	28.064	517.99 ppb	28.064	5.42%	
QC value within limits for Zn 213.857 Recovery = 103.60%							
SiO2†	69402.3	5544.0 ug/L	224.87	5544.0 ppb	224.87	4.06%	
QC value within limits for SiO2 Recovery = 103.67%							
QC Failed. Continue with analysis.							

Sequence No.: 9

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/16/2010 18:36:33

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4174.4	4174.4	91.0 %		18:38:45
1	Y RADIAL	4757.7	4757.7	96.42 %		18:38:25
1	Al 396.153Radial†	-86.3	-9.1	-8.5640 ug/L	-8.5640 ppb	18:38:45
1	Ca 317.933Radial†	25.7	0.4	0.7636 ug/L	0.7636 ppb	18:38:45
1	Fe 238.204 Radial†	9.0	2.0	21.144 ug/L	21.144 ppb	18:38:45
1	K 766.490 Radial†	2542.6	238.5	45.698 ug/L	45.698 ppb	18:38:25
1	Mg 279.077 IEC†	-0.7	-0.8	-31.865 ug/L	-31.865 ppb	18:38:45
1	Na 589.592 Radial†	-786.8	-59.6	-20.894 ug/L	-20.894 ppb	18:38:25
1	Sr 421.552†	24.6	1.3	0.0097 ug/L	0.0097 ppb	18:38:25
1	Sc 361.383	786282.5	786282.5	96.722 %		18:39:42
1	Y 371.029	664770.7	664770.7	96.422 %		18:39:42
1	Ag 328.068†	148.9	-56.7	-0.2825 ug/L	-0.2825 ppb	18:39:42
1	As 188.979†	-17.5	-1.1	-0.6057 ug/L	-0.6057 ppb	18:40:02
1	B 249.677†	-232.4	175.1	4.8971 ug/L	4.8971 ppb	18:40:02
1	Ba 233.527†	19.5	7.7	0.0723 ug/L	0.0723 ppb	18:40:02
1	Be 313.107†	-3667.8	-63.1	-0.0269 ug/L	-0.0269 ppb	18:39:42
1	Cd 226.502†	-165.1	5.6	0.0792 ug/L	0.0792 ppb	18:40:02
1	Co 228.616†	-43.8	-5.4	-0.1397 ug/L	-0.1397 ppb	18:40:02
1	Cr 267.716†	87.4	10.8	0.1486 ug/L	0.1486 ppb	18:40:02
1	Cu 324.752†	5347.5	62.5	0.2093 ug/L	0.2093 ppb	18:39:42
1	Mn 257.610†	549.3	16.9	0.0257 ug/L	0.0257 ppb	18:40:02
1	Mo 202.031†	18.7	6.5	0.5760 ug/L	0.5760 ppb	18:40:02
1	Ni 231.604†	98.0	19.9	0.6325 ug/L	0.6325 ppb	18:40:02
1	P 214.914†	191.9	14.5	10.894 ug/L	10.894 ppb	18:40:02
1	Pb 220.353†	-44.4	-3.1	-0.4818 ug/L	-0.4818 ppb	18:40:02
1	S 181.975 Axial†	32.2	3.1	5.5336 ug/L	5.5336 ppb	18:40:02
1	Sb 206.836†	29.8	6.3	2.6392 ug/L	2.6392 ppb	18:40:02
1	Se 196.026†	-23.6	-5.6	-4.5907 ug/L	-4.5907 ppb	18:40:02
1	Si 251.611†	537.5	57.5	2.1576 ug/L	2.1576 ppb	18:40:02
1	Sn 189.927†	14.6	7.1	1.5948 ug/L	1.5948 ppb	18:40:02
1	Ti 334.940†	-1050.3	1.4	0.0061 ug/L	0.0061 ppb	18:39:42
1	Tl 190.801†	-24.3	6.7	2.5714 ug/L	2.5714 ppb	18:40:02
1	U 409.014†	-2096.0	-86.0	-2.6002 ug/L	-2.6002 ppb	18:39:42
1	V 292.402†	-1280.8	-6.5	-0.0522 ug/L	-0.0522 ppb	18:39:42
1	Zn 213.857†	646.5	51.3	0.6119 ug/L	0.6119 ppb	18:40:02
1	SiO2†	530.9	53.6	4.2739 ug/L	4.2739 ppb	18:41:13
2	Sc Radial	4188.3	4188.3	91.3 %		18:39:11
2	Y RADIAL	4372.4	4372.4	88.61 %		18:38:51
2	Al 396.153Radial†	-79.7	-1.5	-1.4389 ug/L	-1.4389 ppb	18:39:11
2	Ca 317.933Radial†	25.5	0.1	0.1531 ug/L	0.1531 ppb	18:39:11
2	Fe 238.204 Radial†	7.6	0.5	5.0780 ug/L	5.0780 ppb	18:39:11
2	K 766.490 Radial†	2516.8	201.0	38.515 ug/L	38.515 ppb	18:38:51
2	Mg 279.077 IEC†	2.9	3.1	117.65 ug/L	117.65 ppb	18:39:11
2	Na 589.592 Radial†	-792.4	-62.9	-22.042 ug/L	-22.042 ppb	18:38:51
2	Sr 421.552†	-5.1	-31.3	-0.2394 ug/L	-0.2394 ppb	18:38:51
2	Sc 361.383	780067.4	780067.4	95.958 %		18:40:08
2	Y 371.029	660414.6	660414.6	95.791 %		18:40:08
2	Ag 328.068†	171.7	-31.7	-0.1566 ug/L	-0.1566 ppb	18:40:08
2	As 188.979†	-17.6	-1.3	-0.7468 ug/L	-0.7468 ppb	18:40:28
2	B 249.677†	-235.8	169.6	4.7451 ug/L	4.7451 ppb	18:40:28
2	Ba 233.527†	8.9	-3.2	-0.0306 ug/L	-0.0306 ppb	18:40:28
2	Be 313.107†	-3663.1	-88.3	-0.0380 ug/L	-0.0380 ppb	18:40:08
2	Cd 226.502†	-169.2	0.0	-0.0011 ug/L	-0.0011 ppb	18:40:28
2	Co 228.616†	-41.3	-3.2	-0.0820 ug/L	-0.0820 ppb	18:40:28
2	Cr 267.716†	54.4	-22.9	-0.3044 ug/L	-0.3044 ppb	18:40:28
2	Cu 324.752†	5263.2	18.7	0.0656 ug/L	0.0656 ppb	18:40:08
2	Mn 257.610†	518.3	-10.8	-0.0186 ug/L	-0.0186 ppb	18:40:28
2	Mo 202.031†	14.2	2.0	0.1749 ug/L	0.1749 ppb	18:40:28
2	Ni 231.604†	104.1	27.0	0.8609 ug/L	0.8609 ppb	18:40:28

2	P 214.914†	180.7	4.4	3.3200 ug/L	3.3200 ppb	18:40:28
2	Pb 220.353†	-34.1	7.3	1.1226 ug/L	1.1226 ppb	18:40:28
2	S 181.975 Axial†	34.4	5.7	10.220 ug/L	10.220 ppb	18:40:28
2	Sb 206.836†	29.0	5.8	2.4064 ug/L	2.4064 ppb	18:40:28
2	Se 196.026†	-17.4	0.6	0.5538 ug/L	0.5538 ppb	18:40:28
2	Si 251.611†	551.7	76.7	2.8849 ug/L	2.8849 ppb	18:40:28
2	Sn 189.927†	13.5	6.1	1.3718 ug/L	1.3718 ppb	18:40:28
2	Ti 334.940†	-1118.7	-78.5	-0.1423 ug/L	-0.1423 ppb	18:40:08
2	Tl 190.801†	-23.5	7.3	2.8040 ug/L	2.8040 ppb	18:40:28
2	U 409.014†	-2204.8	-216.7	-6.5453 ug/L	-6.5453 ppb	18:40:08
2	V 292.402†	-1289.7	-26.3	-0.2183 ug/L	-0.2183 ppb	18:40:08
2	Zn 213.857†	660.2	70.9	0.8500 ug/L	0.8500 ppb	18:40:28
2	SiO2†	527.1	54.0	4.3192 ug/L	4.3192 ppb	18:41:33
3	Sc Radial	4221.5	4221.5	92.0 %		18:39:36
3	Y RADIAL	4718.4	4718.4	95.63 %		18:39:16
3	Al 396.153Radial†	-78.4	0.6	0.4991 ug/L	0.4991 ppb	18:39:36
3	Ca 317.933Radial†	25.0	-0.7	-1.2858 ug/L	-1.2858 ppb	18:39:36
3	Fe 238.204 Radial†	8.2	1.1	11.251 ug/L	11.251 ppb	18:39:36
3	K 766.490 Radial†	2560.8	227.1	43.523 ug/L	43.523 ppb	18:39:16
3	Mg 279.077 IEC†	1.0	1.1	39.974 ug/L	39.974 ppb	18:39:36
3	Na 589.592 Radial†	-838.7	-106.3	-37.258 ug/L	-37.258 ppb	18:39:16
3	Sr 421.552†	14.9	-9.5	-0.0729 ug/L	-0.0729 ppb	18:39:16
3	Sc 361.383	782250.0	782250.0	96.226 %		18:40:33
3	Y 371.029	662461.1	662461.1	96.087 %		18:40:33
3	Ag 328.068†	186.8	-16.4	-0.0747 ug/L	-0.0747 ppb	18:40:33
3	As 188.979†	-26.0	-10.0	-5.5601 ug/L	-5.5601 ppb	18:40:53
3	B 249.677†	-263.9	141.1	3.9478 ug/L	3.9478 ppb	18:40:53
3	Ba 233.527†	6.1	-6.2	-0.0581 ug/L	-0.0581 ppb	18:40:53
3	Be 313.107†	-3584.5	3.9	0.0018 ug/L	0.0018 ppb	18:40:33
3	Cd 226.502†	-160.8	9.3	0.1316 ug/L	0.1316 ppb	18:40:53
3	Co 228.616†	-38.6	-0.3	-0.0042 ug/L	-0.0042 ppb	18:40:53
3	Cr 267.716†	88.0	11.9	0.1643 ug/L	0.1643 ppb	18:40:53
3	Cu 324.752†	5363.0	107.1	0.3600 ug/L	0.3600 ppb	18:40:33
3	Mn 257.610†	533.9	3.9	0.0046 ug/L	0.0046 ppb	18:40:53
3	Mo 202.031†	27.2	15.4	1.3587 ug/L	1.3587 ppb	18:40:53
3	Ni 231.604†	86.1	8.1	0.2573 ug/L	0.2573 ppb	18:40:53
3	P 214.914†	194.9	18.6	13.943 ug/L	13.943 ppb	18:40:53
3	Pb 220.353†	-40.8	0.4	0.0664 ug/L	0.0664 ppb	18:40:53
3	S 181.975 Axial†	33.6	4.8	8.5061 ug/L	8.5061 ppb	18:40:53
3	Sb 206.836†	21.8	-1.8	-0.7261 ug/L	-0.7261 ppb	18:40:53
3	Se 196.026†	-23.7	-5.8	-4.7867 ug/L	-4.7867 ppb	18:40:53
3	Si 251.611†	525.9	48.3	1.8009 ug/L	1.8009 ppb	18:40:53
3	Sn 189.927†	10.4	2.8	0.6270 ug/L	0.6270 ppb	18:40:53
3	Ti 334.940†	-1027.5	19.5	0.0342 ug/L	0.0342 ppb	18:40:33
3	Tl 190.801†	-30.9	-0.3	-0.1150 ug/L	-0.1150 ppb	18:40:53
3	U 409.014†	-2290.4	-299.3	-9.0400 ug/L	-9.0400 ppb	18:40:33
3	V 292.402†	-1304.2	-37.6	-0.2999 ug/L	-0.2999 ppb	18:40:33
3	Zn 213.857†	649.3	57.7	0.6930 ug/L	0.6930 ppb	18:40:53
3	SiO2†	516.8	41.7	3.3051 ug/L	3.3051 ppb	18:41:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	782866.6	96.302 %		0.3879			0.40%
Sc Radial	4194.7	91.4 %		0.53			0.58%
Y 371.029	662548.8	96.100 %		0.3161			0.33%
Y RADIAL	4616.2	93.55 %		4.297			4.59%
Ag 328.068†	-34.9	-0.1713 ug/L		0.10467	-0.1713 ppb	0.10467	61.12%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-3.3	-3.1679 ug/L		4.77253	-3.1679 ppb	4.77253	150.65%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-4.1	-2.3042 ug/L		2.82058	-2.3042 ppb	2.82058	122.41%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	161.9	4.5300 ug/L		0.50993	4.5300 ppb	0.50993	11.26%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-0.6	-0.0055 ug/L		0.06874	-0.0055 ppb	0.06874	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-49.2	-0.0211 ug/L		0.02053	-0.0211 ppb	0.02053	97.43%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-0.1	-0.1230 ug/L		1.05227	-0.1230 ppb	1.05227	855.29%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	5.0	0.0699 ug/L	0.06682	0.0699 ppb	0.06682	95.59%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-3.0	-0.0753 ug/L	0.06799	-0.0753 ppb	0.06799	90.29%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-0.0	0.0028 ug/L	0.26619	0.0028 ppb	0.26619	>999.9%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	62.7	0.2117 ug/L	0.14721	0.2117 ppb	0.14721	69.55%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	1.2	12.491 ug/L	8.1043	12.491 ppb	8.1043	64.88%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	222.2	42.579 ug/L	3.6829	42.579 ppb	3.6829	8.65%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	1.1	41.920 ug/L	74.7765	41.920 ppb	74.7765	178.38%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	3.3	0.0039 ug/L	0.02215	0.0039 ppb	0.02215	564.72%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	8.0	0.7032 ug/L	0.60203	0.7032 ppb	0.60203	85.61%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-76.3	-26.731 ug/L	9.1342	-26.731 ppb	9.1342	34.17%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	18.3	0.5835 ug/L	0.30477	0.5835 ppb	0.30477	52.23%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	12.5	9.3857 ug/L	5.46984	9.3857 ppb	5.46984	58.28%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	1.5	0.2357 ug/L	0.81552	0.2357 ppb	0.81552	345.95%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	4.5	8.0866 ug/L	2.37129	8.0866 ppb	2.37129	29.32%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	3.4	1.4398 ug/L	1.87939	1.4398 ppb	1.87939	130.53%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-3.6	-2.9412 ug/L	3.02834	-2.9412 ppb	3.02834	102.96%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	60.8	2.2811 ug/L	0.55246	2.2811 ppb	0.55246	24.22%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	5.3	1.1979 ug/L	0.50679	1.1979 ppb	0.50679	42.31%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-13.2	-0.1009 ug/L	0.12691	-0.1009 ppb	0.12691	125.82%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-19.2	-0.0340 ug/L	0.09482	-0.0340 ppb	0.09482	278.94%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	4.6	1.7535 ug/L	1.62232	1.7535 ppb	1.62232	92.52%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-200.7	-6.0619 ug/L	3.24701	-6.0619 ppb	3.24701	53.56%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-23.5	-0.1901 ug/L	0.12618	-0.1901 ppb	0.12618	66.37%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	59.9	0.7183 ug/L	0.12102	0.7183 ppb	0.12102	16.85%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	49.8	3.9661 ug/L	0.57287	3.9661 ppb	0.57287	14.44%	
QC value within limits for SiO2 Recovery = Not calculated							
All analyte(s) passed QC.							

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Analysis Begun

Start Time: 3/16/2010 18:49:45

Plasma On Time: 3/15/2010 06:51:19

Logged In Analyst: Optima3

Technique: ICP Continuous

Spectrometer Model: Optima 5300 DV, S/N 077C7090601A
Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\031610.sif

Batch ID:

Results Data Set: 031610

Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1

Autosampler Location: 1

Sample ID: CCV

Date Collected: 3/16/2010 18:49:46

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	4203.9	4203.9	91.6 %		18:51:58
1	Y RADIAL	4595.6	4595.6	93.14 %		18:51:38
1	Al 396.153Radial†	4882.6	5414.0	5065.4 ug/L	5065.4 ppb	18:51:38
1	Ca 317.933Radial†	2752.9	2976.3	5260.9 ug/L	5260.9 ppb	18:51:58
1	Fe 238.204 Radial†	474.5	510.0	5358.5 ug/L	5358.5 ppb	18:51:58
1	K 766.490 Radial†	27512.8	27467.8	5255.4 ug/L	5255.4 ppb	18:51:38
1	Mg 279.077 IEC†	133.0	145.0	5518.3 ug/L	5518.3 ppb	18:51:58
1	Na 589.592 Radial†	28208.9	31588.2	11068 ug/L	11068 ppb	18:51:38
1	Sr 421.552†	64323.3	70167.5	535.99 ug/L	535.99 ppb	18:51:38
1	Sc 361.383	790063.9	790063.9	97.187 %		18:52:55
1	Y 371.029	660033.7	660033.7	95.735 %		18:52:55
1	Ag 328.068†	95768.3	98329.2	508.01 ug/L	508.01 ppb	18:53:00
1	As 188.979†	864.1	906.1	508.60 ug/L	508.60 ppb	18:53:21
1	B 249.677†	16965.6	17871.9	497.80 ug/L	497.80 ppb	18:53:00
1	Ba 233.527†	52890.8	54409.0	510.39 ug/L	510.39 ppb	18:53:00
1	Be 313.107†	1155476.1	1192645.1	510.22 ug/L	510.22 ppb	18:52:55
1	Cd 226.502†	33962.6	35121.8	508.75 ug/L	508.75 ppb	18:53:00
1	Co 228.616†	19290.3	19888.4	516.79 ug/L	516.79 ppb	18:53:00
1	Cr 267.716†	36916.2	37905.0	510.03 ug/L	510.03 ppb	18:53:00
1	Cu 324.752†	152393.5	151337.6	500.93 ug/L	500.93 ppb	18:53:00
1	Mn 257.610†	368559.9	378675.2	498.87 ug/L	498.87 ppb	18:53:00
1	Mo 202.031†	5571.7	5720.1	503.50 ug/L	503.50 ppb	18:53:21
1	Ni 231.604†	15796.2	16172.0	514.59 ug/L	514.59 ppb	18:53:00
1	P 214.914†	3419.5	3334.6	2413.3 ug/L	2413.3 ppb	18:53:21
1	Pb 220.353†	3154.2	3288.2	508.71 ug/L	508.71 ppb	18:53:21
1	S 181.975 Axial†	575.2	561.7	1002.0 ug/L	1002.0 ppb	18:53:21
1	Sb 206.836†	1192.1	1202.1	515.91 ug/L	515.91 ppb	18:53:21
1	Se 196.026†	577.4	612.9	527.17 ug/L	527.17 ppb	18:53:21
1	Si 251.611†	66043.3	67456.4	2532.4 ug/L	2532.4 ppb	18:53:00
1	Sn 189.927†	2184.9	2240.2	505.02 ug/L	505.02 ppb	18:53:21
1	Ti 334.940†	277161.1	286269.6	494.56 ug/L	494.56 ppb	18:53:00
1	Tl 190.801†	1248.5	1316.5	510.16 ug/L	510.16 ppb	18:53:21
1	U 409.014†	14449.1	16948.2	510.11 ug/L	510.11 ppb	18:53:00
1	V 292.402†	60452.3	63519.5	514.17 ug/L	514.17 ppb	18:53:00
1	Zn 213.857†	42148.9	42751.5	511.72 ug/L	511.72 ppb	18:53:00
1	SiO2†	67169.7	68618.3	5481.4 ug/L	5481.4 ppb	18:54:28
2	Sc Radial	4201.8	4201.8	91.6 %		18:52:23
2	Y RADIAL	4646.9	4646.9	94.18 %		18:52:03
2	Al 396.153Radial†	4960.5	5501.8	5148.3 ug/L	5148.3 ppb	18:52:03
2	Ca 317.933Radial†	2742.3	2966.2	5243.1 ug/L	5243.1 ppb	18:52:23
2	Fe 238.204 Radial†	474.6	510.3	5361.9 ug/L	5361.9 ppb	18:52:23
2	K 766.490 Radial†	27699.7	27686.9	5297.3 ug/L	5297.3 ppb	18:52:03
2	Mg 279.077 IEC†	129.2	140.9	5363.3 ug/L	5363.3 ppb	18:52:23
2	Na 589.592 Radial†	28503.5	31925.3	11186 ug/L	11186 ppb	18:52:03
2	Sr 421.552†	65111.4	71063.1	542.84 ug/L	542.84 ppb	18:52:03
2	Sc 361.383	798633.8	798633.8	98.242 %		18:53:26
2	Y 371.029	666424.0	666424.0	96.662 %		18:53:26

2	Ag 328.068†	96473.2	97989.4	506.25 ug/L	506.25 ppb	18:53:31
2	As 188.979†	858.8	891.2	500.28 ug/L	500.28 ppb	18:53:51
2	B 249.677†	17134.6	17856.7	497.39 ug/L	497.39 ppb	18:53:31
2	Ba 233.527†	52962.7	53898.2	505.60 ug/L	505.60 ppb	18:53:31
2	Be 313.107†	1163998.0	1188561.4	508.47 ug/L	508.47 ppb	18:53:26
2	Cd 226.502†	34028.0	34813.4	504.28 ug/L	504.28 ppb	18:53:31
2	Co 228.616†	19381.0	19767.7	513.64 ug/L	513.64 ppb	18:53:31
2	Cr 267.716†	37127.4	37712.5	507.43 ug/L	507.43 ppb	18:53:31
2	Cu 324.752†	153666.9	150951.2	499.64 ug/L	499.64 ppb	18:53:31
2	Mn 257.610†	370024.2	376096.4	495.49 ug/L	495.49 ppb	18:53:31
2	Mo 202.031†	5537.7	5624.0	495.04 ug/L	495.04 ppb	18:53:51
2	Ni 231.604†	15872.6	16075.3	511.51 ug/L	511.51 ppb	18:53:31
2	P 214.914†	3406.1	3283.2	2374.9 ug/L	2374.9 ppb	18:53:51
2	Pb 220.353†	3120.3	3219.0	498.02 ug/L	498.02 ppb	18:53:51
2	S 181.975 Axial†	565.5	545.4	972.90 ug/L	972.90 ppb	18:53:51
2	Sb 206.836†	1198.4	1195.3	512.86 ug/L	512.86 ppb	18:53:51
2	Se 196.026†	571.9	601.0	517.26 ug/L	517.26 ppb	18:53:51
2	Si 251.611†	66404.4	67094.7	2518.9 ug/L	2518.9 ppb	18:53:31
2	Sn 189.927†	2182.6	2213.7	499.05 ug/L	499.05 ppb	18:53:51
2	Ti 334.940†	278549.6	284622.7	491.72 ug/L	491.72 ppb	18:53:31
2	Tl 190.801†	1246.3	1300.4	503.96 ug/L	503.96 ppb	18:53:51
2	U 409.014†	14849.4	17196.2	517.60 ug/L	517.60 ppb	18:53:31
2	V 292.402†	60580.5	62982.5	509.78 ug/L	509.78 ppb	18:53:31
2	Zn 213.857†	42272.5	42412.0	507.64 ug/L	507.64 ppb	18:53:31
2	SiO2†	66072.8	66760.1	5332.8 ug/L	5332.8 ppb	18:54:33
3	Sc Radial	4218.4	4218.4	92.0 %		18:52:48
3	Y RADIAL	4646.3	4646.3	94.16 %		18:52:28
3	Al 396.153Radial†	4956.8	5476.3	5124.2 ug/L	5124.2 ppb	18:52:28
3	Ca 317.933Radial†	2741.3	2953.3	5220.3 ug/L	5220.3 ppb	18:52:48
3	Fe 238.204 Radial†	473.7	507.3	5330.8 ug/L	5330.8 ppb	18:52:48
3	K 766.490 Radial†	27656.5	27521.0	5265.6 ug/L	5265.6 ppb	18:52:28
3	Mg 279.077 IEC†	128.6	139.8	5318.3 ug/L	5318.3 ppb	18:52:48
3	Na 589.592 Radial†	28207.6	31481.1	11031 ug/L	11031 ppb	18:52:28
3	Sr 421.552†	64702.5	70338.7	537.30 ug/L	537.30 ppb	18:52:28
3	Sc 361.383	802615.4	802615.4	98.731 %		18:53:57
3	Y 371.029	669803.5	669803.5	97.152 %		18:53:57
3	Ag 328.068†	97102.2	98139.4	507.02 ug/L	507.02 ppb	18:54:02
3	As 188.979†	866.9	895.1	502.44 ug/L	502.44 ppb	18:54:22
3	B 249.677†	17254.1	17891.1	498.36 ug/L	498.36 ppb	18:54:02
3	Ba 233.527†	53223.7	53895.1	505.58 ug/L	505.58 ppb	18:54:02
3	Be 313.107†	1171548.4	1190331.2	509.23 ug/L	509.23 ppb	18:53:57
3	Cd 226.502†	34163.7	34779.1	503.78 ug/L	503.78 ppb	18:54:02
3	Co 228.616†	19453.8	19743.6	513.02 ug/L	513.02 ppb	18:54:02
3	Cr 267.716†	37362.8	37763.3	508.11 ug/L	508.11 ppb	18:54:02
3	Cu 324.752†	154721.1	151242.9	500.61 ug/L	500.61 ppb	18:54:02
3	Mn 257.610†	371972.7	376201.5	495.62 ug/L	495.62 ppb	18:54:02
3	Mo 202.031†	5611.6	5670.9	499.17 ug/L	499.17 ppb	18:54:22
3	Ni 231.604†	16002.6	16126.8	513.15 ug/L	513.15 ppb	18:54:02
3	P 214.914†	3425.6	3285.7	2376.6 ug/L	2376.6 ppb	18:54:22
3	Pb 220.353†	3170.8	3254.4	503.49 ug/L	503.49 ppb	18:54:22
3	S 181.975 Axial†	568.0	545.2	972.40 ug/L	972.40 ppb	18:54:22
3	Sb 206.836†	1198.9	1189.8	510.65 ug/L	510.65 ppb	18:54:22
3	Se 196.026†	578.3	604.6	520.15 ug/L	520.15 ppb	18:54:22
3	Si 251.611†	66868.1	67229.1	2523.9 ug/L	2523.9 ppb	18:54:02
3	Sn 189.927†	2194.2	2214.4	499.20 ug/L	499.20 ppb	18:54:22
3	Ti 334.940†	280499.8	285191.4	492.71 ug/L	492.71 ppb	18:54:02
3	Tl 190.801†	1253.3	1301.2	504.29 ug/L	504.29 ppb	18:54:22
3	U 409.014†	14855.0	17126.9	515.51 ug/L	515.51 ppb	18:54:02
3	V 292.402†	61084.8	63187.4	511.47 ug/L	511.47 ppb	18:54:02
3	Zn 213.857†	42428.1	42356.2	506.96 ug/L	506.96 ppb	18:54:02
3	SiO2†	66880.6	67244.6	5371.5 ug/L	5371.5 ppb	18:54:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	797104.4	98.053 %		0.7890			0.80%
Sc Radial	4208.1	91.7 %		0.20			0.21%
Y 371.029	665420.4	96.517 %		0.7197			0.75%
Y RADIAL	4629.6	93.83 %		0.597			0.64%
Ag 328.068†	98152.7	507.09 ug/L		0.886	507.09 ppb	0.886	0.17%

QC value within limits for Ag 328.068 Recovery = 101.42%							
Al	396.153Radial†	5464.0	5112.6 ug/L	42.64	5112.6 ppb	42.64	0.83%
QC value within limits for Al 396.153Radial Recovery = 102.25%							
As	188.979†	897.4	503.77 ug/L	4.321	503.77 ppb	4.321	0.86%
QC value within limits for As 188.979 Recovery = 100.75%							
B	249.677†	17873.3	497.85 ug/L	0.487	497.85 ppb	0.487	0.10%
QC value within limits for B 249.677 Recovery = 99.57%							
Ba	233.527†	54067.4	507.19 ug/L	2.773	507.19 ppb	2.773	0.55%
QC value within limits for Ba 233.527 Recovery = 101.44%							
Be	313.107†	1190512.6	509.31 ug/L	0.877	509.31 ppb	0.877	0.17%
QC value within limits for Be 313.107 Recovery = 101.86%							
Ca	317.933Radial†	2965.3	5241.4 ug/L	20.38	5241.4 ppb	20.38	0.39%
QC value within limits for Ca 317.933Radial Recovery = 104.83%							
Cd	226.502†	34904.8	505.60 ug/L	2.734	505.60 ppb	2.734	0.54%
QC value within limits for Cd 226.502 Recovery = 101.12%							
Co	228.616†	19799.9	514.48 ug/L	2.021	514.48 ppb	2.021	0.39%
QC value within limits for Co 228.616 Recovery = 102.90%							
Cr	267.716†	37793.6	508.52 ug/L	1.345	508.52 ppb	1.345	0.26%
QC value within limits for Cr 267.716 Recovery = 101.70%							
Cu	324.752†	151177.2	500.39 ug/L	0.668	500.39 ppb	0.668	0.13%
QC value within limits for Cu 324.752 Recovery = 100.08%							
Fe	238.204 Radial†	509.2	5350.4 ug/L	17.07	5350.4 ppb	17.07	0.32%
QC value within limits for Fe 238.204 Radial Recovery = 107.01%							
K	766.490 Radial†	27558.6	5272.8 ug/L	21.87	5272.8 ppb	21.87	0.41%
QC value within limits for K 766.490 Radial Recovery = 105.46%							
Mg	279.077 IEC†	141.9	5399.9 ug/L	104.92	5399.9 ppb	104.92	1.94%
QC value within limits for Mg 279.077 IEC Recovery = 108.00%							
Mn	257.610†	376991.0	496.66 ug/L	1.918	496.66 ppb	1.918	0.39%
QC value within limits for Mn 257.610 Recovery = 99.33%							
Mo	202.031†	5671.7	499.24 ug/L	4.228	499.24 ppb	4.228	0.85%
QC value within limits for Mo 202.031 Recovery = 99.85%							
Na	589.592 Radial†	31664.9	11095 ug/L	81.2	11095 ppb	81.2	0.73%
QC value greater than the upper limit for Na 589.592 Radial Recovery = 110.95%							
Ni	231.604†	16124.7	513.08 ug/L	1.539	513.08 ppb	1.539	0.30%
QC value within limits for Ni 231.604 Recovery = 102.62%							
P	214.914†	3301.1	2388.3 ug/L	21.74	2388.3 ppb	21.74	0.91%
QC value within limits for P 214.914 Recovery = 95.53%							
Pb	220.353†	3253.9	503.41 ug/L	5.344	503.41 ppb	5.344	1.06%
QC value within limits for Pb 220.353 Recovery = 100.68%							
S	181.975 Axial†	550.8	982.43 ug/L	16.945	982.43 ppb	16.945	1.72%
QC value within limits for S 181.975 Axial Recovery = 98.24%							
Sb	206.836†	1195.7	513.14 ug/L	2.644	513.14 ppb	2.644	0.52%
QC value within limits for Sb 206.836 Recovery = 102.63%							
Se	196.026†	606.2	521.53 ug/L	5.099	521.53 ppb	5.099	0.98%
QC value within limits for Se 196.026 Recovery = 104.31%							
Si	251.611†	67260.1	2525.1 ug/L	6.83	2525.1 ppb	6.83	0.27%
QC value within limits for Si 251.611 Recovery = 101.00%							
Sn	189.927†	2222.8	501.09 ug/L	3.403	501.09 ppb	3.403	0.68%
QC value within limits for Sn 189.927 Recovery = 100.22%							
Sr	421.552†	70523.1	538.71 ug/L	3.632	538.71 ppb	3.632	0.67%
QC value within limits for Sr 421.552 Recovery = 107.74%							
Ti	334.940†	285361.2	493.00 ug/L	1.441	493.00 ppb	1.441	0.29%
QC value within limits for Ti 334.940 Recovery = 98.60%							
Tl	190.801†	1306.0	506.14 ug/L	3.488	506.14 ppb	3.488	0.69%
QC value within limits for Tl 190.801 Recovery = 101.23%							
U	409.014†	17090.5	514.41 ug/L	3.868	514.41 ppb	3.868	0.75%
QC value within limits for U 409.014 Recovery = 102.88%							
V	292.402†	63229.8	511.81 ug/L	2.217	511.81 ppb	2.217	0.43%
QC value within limits for V 292.402 Recovery = 102.36%							
Zn	213.857†	42506.6	508.77 ug/L	2.575	508.77 ppb	2.575	0.51%
QC value within limits for Zn 213.857 Recovery = 101.75%							
SiO2†		67541.0	5395.3 ug/L	77.08	5395.3 ppb	77.08	1.43%
QC value within limits for SiO2 Recovery = 100.89%							
QC Failed. Continue with analysis.							

Sequence No.: 2

Autosampler Location: 6

Sample ID: CCB

Date Collected: 3/16/2010 18:56:47

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4249.7	4249.7	92.6 %		18:58:39
1	Y RADIAL	4590.4	4590.4	93.03 %		18:58:39
1	Al 396.153Radial†	-74.5	5.3	5.0024 ug/L	5.0024 ppb	18:58:59
1	Ca 317.933Radial†	17.5	-8.9	-15.800 ug/L	-15.800 ppb	18:58:59
1	Fe 238.204 Radial†	5.6	-1.8	-18.934 ug/L	-18.934 ppb	18:58:59
1	K 766.490 Radial†	2490.9	133.2	25.531 ug/L	25.531 ppb	18:58:39
1	Mg 279.077 IEC†	3.1	3.3	125.61 ug/L	125.61 ppb	18:58:59
1	Na 589.592 Radial†	-801.5	-60.2	-21.085 ug/L	-21.085 ppb	18:58:39
1	Sr 421.552†	29.0	5.6	0.0426 ug/L	0.0426 ppb	18:58:39
1	Sc 361.383	786688.9	786688.9	96.772 %		18:59:56
1	Y 371.029	665779.0	665779.0	96.569 %		18:59:56
1	Ag 328.068†	192.0	-12.2	-0.0641 ug/L	-0.0641 ppb	18:59:56
1	As 188.979†	-15.1	1.4	0.7762 ug/L	0.7762 ppb	19:00:16
1	B 249.677†	-207.8	200.6	5.6166 ug/L	5.6166 ppb	19:00:16
1	Ba 233.527†	19.2	7.3	0.0675 ug/L	0.0675 ppb	19:00:16
1	Be 313.107†	-3740.1	-135.8	-0.0584 ug/L	-0.0584 ppb	18:59:56
1	Cd 226.502†	-171.0	-0.4	-0.0051 ug/L	-0.0051 ppb	19:00:16
1	Co 228.616†	-37.2	1.4	0.0391 ug/L	0.0391 ppb	19:00:16
1	Cr 267.716†	76.6	-0.4	-0.0049 ug/L	-0.0049 ppb	19:00:16
1	Cu 324.752†	5128.5	-166.6	-0.5495 ug/L	-0.5495 ppb	18:59:56
1	Mn 257.610†	423.9	-112.9	-0.1557 ug/L	-0.1557 ppb	19:00:16
1	Mo 202.031†	16.3	4.0	0.3471 ug/L	0.3471 ppb	19:00:16
1	Ni 231.604†	75.3	-3.6	-0.1148 ug/L	-0.1148 ppb	19:00:16
1	P 214.914†	192.4	14.9	11.365 ug/L	11.365 ppb	19:00:16
1	Pb 220.353†	-50.5	-9.4	-1.4460 ug/L	-1.4460 ppb	19:00:16
1	S 181.975 Axial†	28.1	-1.1	-1.9672 ug/L	-1.9672 ppb	19:00:16
1	Sb 206.836†	25.5	1.8	0.7780 ug/L	0.7780 ppb	19:00:16
1	Se 196.026†	-23.4	-5.4	-4.5517 ug/L	-4.5517 ppb	19:00:16
1	Si 251.611†	591.0	112.5	4.2291 ug/L	4.2291 ppb	19:00:16
1	Sn 189.927†	10.6	3.0	0.6687 ug/L	0.6687 ppb	19:00:16
1	Ti 334.940†	-1146.5	-97.4	-0.1783 ug/L	-0.1783 ppb	18:59:56
1	Tl 190.801†	-24.3	6.7	2.5717 ug/L	2.5717 ppb	19:00:16
1	U 409.014†	-2194.3	-186.5	-5.6291 ug/L	-5.6291 ppb	18:59:56
1	V 292.402†	-1283.4	-8.5	-0.0687 ug/L	-0.0687 ppb	18:59:56
1	Zn 213.857†	638.4	42.6	0.5188 ug/L	0.5188 ppb	19:00:16
1	SiO2†	578.5	102.5	8.1993 ug/L	8.1993 ppb	19:01:27
2	Sc Radial	4385.7	4385.7	95.6 %		18:59:04
2	Y RADIAL	4729.6	4729.6	95.85 %		18:59:04
2	Al 396.153Radial†	-76.6	5.7	5.3074 ug/L	5.3074 ppb	18:59:24
2	Ca 317.933Radial†	20.8	-6.1	-10.811 ug/L	-10.811 ppb	18:59:24
2	Fe 238.204 Radial†	8.7	1.2	12.751 ug/L	12.751 ppb	18:59:24
2	K 766.490 Radial†	2457.8	15.2	2.9270 ug/L	2.9270 ppb	18:59:04
2	Mg 279.077 IEC†	3.9	4.0	153.34 ug/L	153.34 ppb	18:59:24
2	Na 589.592 Radial†	-898.5	-134.8	-47.229 ug/L	-47.229 ppb	18:59:04
2	Sr 421.552†	47.0	23.4	0.1792 ug/L	0.1792 ppb	18:59:04
2	Sc 361.383	784294.9	784294.9	96.478 %		19:00:21
2	Y 371.029	663651.0	663651.0	96.260 %		19:00:21
2	Ag 328.068†	151.8	-53.2	-0.2643 ug/L	-0.2643 ppb	19:00:21
2	As 188.979†	-18.3	-1.9	-1.0435 ug/L	-1.0435 ppb	19:00:41
2	B 249.677†	-222.2	185.0	5.1755 ug/L	5.1755 ppb	19:00:41
2	Ba 233.527†	6.7	-5.6	-0.0523 ug/L	-0.0523 ppb	19:00:41
2	Be 313.107†	-3660.2	-64.8	-0.0280 ug/L	-0.0280 ppb	19:00:21
2	Cd 226.502†	-159.5	11.0	0.1571 ug/L	0.1571 ppb	19:00:41
2	Co 228.616†	-37.1	1.4	0.0368 ug/L	0.0368 ppb	19:00:41
2	Cr 267.716†	65.4	-11.8	-0.1545 ug/L	-0.1545 ppb	19:00:41
2	Cu 324.752†	5165.5	-112.1	-0.3669 ug/L	-0.3669 ppb	19:00:21
2	Mn 257.610†	420.9	-114.7	-0.1560 ug/L	-0.1560 ppb	19:00:41
2	Mo 202.031†	15.0	2.7	0.2354 ug/L	0.2354 ppb	19:00:41
2	Ni 231.604†	79.5	1.0	0.0320 ug/L	0.0320 ppb	19:00:41

2	P 214.914†	177.7	0.2	0.2494 ug/L	0.2494 ppb	19:00:41
2	Pb 220.353†	-50.8	-9.8	-1.5149 ug/L	-1.5149 ppb	19:00:41
2	S 181.975 Axial†	30.6	1.6	2.8518 ug/L	2.8518 ppb	19:00:41
2	Sb 206.836†	37.4	14.3	5.9304 ug/L	5.9304 ppb	19:00:41
2	Se 196.026†	-20.9	-2.9	-2.3460 ug/L	-2.3460 ppb	19:00:41
2	Si 251.611†	599.3	122.9	4.6240 ug/L	4.6240 ppb	19:00:41
2	Sn 189.927†	11.0	3.4	0.7584 ug/L	0.7584 ppb	19:00:41
2	Ti 334.940†	-1124.8	-78.5	-0.1467 ug/L	-0.1467 ppb	19:00:21
2	Tl 190.801†	-24.1	6.9	2.6392 ug/L	2.6392 ppb	19:00:41
2	U 409.014†	-2215.7	-215.6	-6.5126 ug/L	-6.5126 ppb	19:00:21
2	V 292.402†	-1286.0	-15.2	-0.1294 ug/L	-0.1294 ppb	19:00:21
2	Zn 213.857†	629.2	35.1	0.4220 ug/L	0.4220 ppb	19:00:41
2	SiO2†	583.6	109.5	8.7659 ug/L	8.7659 ppb	19:01:47
3	Sc Radial	4325.8	4325.8	94.3 %		18:59:29
3	Y RADIAL	4674.4	4674.4	94.73 %		18:59:29
3	Al 396.153Radial†	-76.6	4.6	4.3584 ug/L	4.3584 ppb	18:59:49
3	Ca 317.933Radial†	19.6	-7.1	-12.495 ug/L	-12.495 ppb	18:59:49
3	Fe 238.204 Radial†	7.8	0.4	3.7585 ug/L	3.7585 ppb	18:59:49
3	K 766.490 Radial†	2467.6	61.2	11.741 ug/L	11.741 ppb	18:59:29
3	Mg 279.077 IEC†	1.6	1.6	59.798 ug/L	59.798 ppb	18:59:49
3	Na 589.592 Radial†	-859.4	-106.3	-37.249 ug/L	-37.249 ppb	18:59:29
3	Sr 421.552†	28.7	4.6	0.0356 ug/L	0.0356 ppb	18:59:29
3	Sc 361.383	771768.0	771768.0	94.937 %		19:00:46
3	Y 371.029	653624.8	653624.8	94.806 %		19:00:46
3	Ag 328.068†	211.4	12.1	0.0624 ug/L	0.0624 ppb	19:00:46
3	As 188.979†	-16.7	-0.6	-0.3345 ug/L	-0.3345 ppb	19:01:06
3	B 249.677†	-213.7	190.2	5.3248 ug/L	5.3248 ppb	19:01:06
3	Ba 233.527†	23.0	11.8	0.1091 ug/L	0.1091 ppb	19:01:06
3	Be 313.107†	-3647.0	-112.5	-0.0485 ug/L	-0.0485 ppb	19:00:46
3	Cd 226.502†	-172.1	-4.9	-0.0716 ug/L	-0.0716 ppb	19:01:06
3	Co 228.616†	-53.9	-17.0	-0.4406 ug/L	-0.4406 ppb	19:01:06
3	Cr 267.716†	51.8	-25.0	-0.3349 ug/L	-0.3349 ppb	19:01:06
3	Cu 324.752†	5132.9	-59.6	-0.1963 ug/L	-0.1963 ppb	19:00:46
3	Mn 257.610†	432.6	-95.2	-0.1274 ug/L	-0.1274 ppb	19:01:06
3	Mo 202.031†	9.8	-2.6	-0.2250 ug/L	-0.2250 ppb	19:01:06
3	Ni 231.604†	89.2	12.6	0.4003 ug/L	0.4003 ppb	19:01:06
3	P 214.914†	181.0	6.7	5.1244 ug/L	5.1244 ppb	19:01:06
3	Pb 220.353†	-50.3	-10.2	-1.5700 ug/L	-1.5700 ppb	19:01:06
3	S 181.975 Axial†	28.1	-0.6	-1.0698 ug/L	-1.0698 ppb	19:01:06
3	Sb 206.836†	30.0	7.0	2.9341 ug/L	2.9341 ppb	19:01:06
3	Se 196.026†	-18.9	-1.1	-0.8981 ug/L	-0.8981 ppb	19:01:06
3	Si 251.611†	573.5	105.9	3.9872 ug/L	3.9872 ppb	19:01:06
3	Sn 189.927†	13.1	5.8	1.3128 ug/L	1.3128 ppb	19:01:06
3	Ti 334.940†	-1144.3	-118.1	-0.2098 ug/L	-0.2098 ppb	19:00:46
3	Tl 190.801†	-26.6	3.8	1.4609 ug/L	1.4609 ppb	19:01:06
3	U 409.014†	-2021.1	-47.9	-1.4463 ug/L	-1.4463 ppb	19:00:46
3	V 292.402†	-1315.8	-68.3	-0.5503 ug/L	-0.5503 ppb	19:00:46
3	Zn 213.857†	627.9	44.2	0.5316 ug/L	0.5316 ppb	19:01:06
3	SiO2†	603.2	140.0	11.221 ug/L	11.221 ppb	19:02:07

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	780917.3	96.062 %		0.9857			1.03%
Sc Radial	4320.4	94.2 %		1.49			1.58%
Y 371.029	661018.3	95.878 %		0.9415			0.98%
Y RADIAL	4664.8	94.54 %		1.421			1.50%
Ag 328.068†	-17.8	-0.0887 ug/L		0.16473	-0.0887 ppb	0.16473	185.80%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	5.2	4.8894 ug/L		0.48447	4.8894 ppb	0.48447	9.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-0.4	-0.2006 ug/L		0.91722	-0.2006 ppb	0.91722	457.17%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	192.0	5.3723 ug/L		0.22434	5.3723 ppb	0.22434	4.18%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	4.5	0.0415 ug/L		0.08378	0.0415 ppb	0.08378	202.12%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-104.4	-0.0449 ug/L		0.01551	-0.0449 ppb	0.01551	34.51%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-7.4	-13.035 ug/L		2.5379	-13.035 ppb	2.5379	19.47%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	1.9	0.0268 ug/L	0.11764	0.0268 ppb	0.11764	439.45%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-4.7	-0.1216 ug/L	0.27632	-0.1216 ppb	0.27632	227.28%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-12.4	-0.1648 ug/L	0.16520	-0.1648 ppb	0.16520	100.26%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-112.8	-0.3709 ug/L	0.17663	-0.3709 ppb	0.17663	47.63%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-0.1	-0.8080 ug/L	16.32874	-0.8080 ppb	16.32874	>999.9%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	69.8	13.400 ug/L	11.3930	13.400 ppb	11.3930	85.03%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	3.0	112.92 ug/L	48.046	112.92 ppb	48.046	42.55%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	-107.6	-0.1464 ug/L	0.01639	-0.1464 ppb	0.01639	11.20%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	1.4	0.1191 ug/L	0.30325	0.1191 ppb	0.30325	254.54%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-100.4	-35.187 ug/L	13.1932	-35.187 ppb	13.1932	37.49%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	3.3	0.1058 ug/L	0.26534	0.1058 ppb	0.26534	250.74%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	7.3	5.5795 ug/L	5.57164	5.5795 ppb	5.57164	99.86%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-9.8	-1.5103 ug/L	0.06213	-1.5103 ppb	0.06213	4.11%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-0.0	-0.0618 ug/L	2.56278	-0.0618 ppb	2.56278	>999.9%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	7.7	3.2142 ug/L	2.58762	3.2142 ppb	2.58762	80.51%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-3.1	-2.5986 ug/L	1.83986	-2.5986 ppb	1.83986	70.80%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	113.8	4.2801 ug/L	0.32140	4.2801 ppb	0.32140	7.51%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	4.1	0.9133 ug/L	0.34884	0.9133 ppb	0.34884	38.19%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	11.2	0.0858 ug/L	0.08098	0.0858 ppb	0.08098	94.40%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-98.0	-0.1783 ug/L	0.03154	-0.1783 ppb	0.03154	17.69%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	5.8	2.2239 ug/L	0.66165	2.2239 ppb	0.66165	29.75%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-150.0	-4.5293 ug/L	2.70625	-4.5293 ppb	2.70625	59.75%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-30.7	-0.2495 ug/L	0.26230	-0.2495 ppb	0.26230	105.15%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	40.6	0.4908 ug/L	0.05991	0.4908 ppb	0.05991	12.21%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	117.4	9.3953 ug/L	1.60611	9.3953 ppb	1.60611	17.09%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/16/2010 19:47:32

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	4126.9	4126.9	90.0 %		19:49:44
1	Y RADIAL	4529.0	4529.0	91.79 %		19:49:24
1	Al 396.153Radial†	4894.7	5526.9	5171.3 ug/L	5171.3 ppb	19:49:24
1	Ca 317.933Radial†	2693.9	2966.8	5244.1 ug/L	5244.1 ppb	19:49:44
1	Fe 238.204 Radial†	460.7	504.3	5298.8 ug/L	5298.8 ppb	19:49:44
1	K 766.490 Radial†	27265.5	27753.2	5310.1 ug/L	5310.1 ppb	19:49:24
1	Mg 279.077 IEC†	129.5	143.9	5476.1 ug/L	5476.1 ppb	19:49:44
1	Na 589.592 Radial†	27499.1	31373.7	10993 ug/L	10993 ppb	19:49:24
1	Sr 421.552†	63250.3	70284.6	536.89 ug/L	536.89 ppb	19:49:24
1	Sc 361.383	784481.5	784481.5	96.501 %		19:50:42
1	Y 371.029	655253.4	655253.4	95.042 %		19:50:42
1	Ag 328.068†	94729.5	97954.0	506.05 ug/L	506.05 ppb	19:50:47
1	As 188.979†	859.2	907.4	509.28 ug/L	509.28 ppb	19:51:07
1	B 249.677†	16727.8	17749.8	494.41 ug/L	494.41 ppb	19:50:47
1	Ba 233.527†	52038.0	53912.6	505.73 ug/L	505.73 ppb	19:50:47
1	Be 313.107†	1145310.4	1190571.1	509.33 ug/L	509.33 ppb	19:50:42
1	Cd 226.502†	33496.0	34887.0	505.35 ug/L	505.35 ppb	19:50:47
1	Co 228.616†	19007.6	19736.7	512.86 ug/L	512.86 ppb	19:50:47
1	Cr 267.716†	36639.4	37888.6	509.79 ug/L	509.79 ppb	19:50:47
1	Cu 324.752†	150689.8	150688.0	498.78 ug/L	498.78 ppb	19:50:47
1	Mn 257.610†	371852.0	384785.3	506.92 ug/L	506.92 ppb	19:50:42
1	Mo 202.031†	5577.1	5766.4	507.57 ug/L	507.57 ppb	19:51:07
1	Ni 231.604†	15650.8	16136.9	513.47 ug/L	513.47 ppb	19:50:47
1	P 214.914†	3428.6	3369.0	2439.9 ug/L	2439.9 ppb	19:51:07
1	Pb 220.353†	3158.4	3315.7	512.99 ug/L	512.99 ppb	19:51:07
1	S 181.975 Axial†	572.2	562.8	1003.9 ug/L	1003.9 ppb	19:51:07
1	Sb 206.836†	1177.8	1196.0	513.59 ug/L	513.59 ppb	19:51:07
1	Se 196.026†	565.7	605.0	520.47 ug/L	520.47 ppb	19:51:07
1	Si 251.611†	65191.0	67056.8	2517.3 ug/L	2517.3 ppb	19:50:47
1	Sn 189.927†	2201.3	2273.1	512.43 ug/L	512.43 ppb	19:51:07
1	Ti 334.940†	273667.8	284678.9	491.82 ug/L	491.82 ppb	19:50:47
1	Tl 190.801†	1240.9	1317.7	510.67 ug/L	510.67 ppb	19:51:07
1	U 409.014†	14205.5	16801.6	505.69 ug/L	505.69 ppb	19:50:47
1	V 292.402†	59460.1	62934.0	509.55 ug/L	509.55 ppb	19:50:47
1	Zn 213.857†	41561.1	42451.1	508.11 ug/L	508.11 ppb	19:50:47
1	SiO2†	66218.6	68124.5	5441.8 ug/L	5441.8 ppb	19:52:14
2	Sc Radial	4156.3	4156.3	90.6 %		19:50:09
2	Y RADIAL	4650.2	4650.2	94.24 %		19:49:49
2	Al 396.153Radial†	4999.6	5604.2	5244.4 ug/L	5244.4 ppb	19:49:49
2	Ca 317.933Radial†	2723.3	2978.0	5264.0 ug/L	5264.0 ppb	19:50:09
2	Fe 238.204 Radial†	470.4	511.4	5373.5 ug/L	5373.5 ppb	19:50:09
2	K 766.490 Radial†	27893.7	28232.7	5401.9 ug/L	5401.9 ppb	19:49:49
2	Mg 279.077 IEC†	130.3	143.8	5471.4 ug/L	5471.4 ppb	19:50:09
2	Na 589.592 Radial†	28025.2	31738.7	11121 ug/L	11121 ppb	19:49:49
2	Sr 421.552†	64631.9	71313.4	544.75 ug/L	544.75 ppb	19:49:49
2	Sc 361.383	790757.4	790757.4	97.273 %		19:51:13
2	Y 371.029	659611.9	659611.9	95.674 %		19:51:13
2	Ag 328.068†	96613.5	99111.7	512.04 ug/L	512.04 ppb	19:51:18
2	As 188.979†	852.6	893.6	501.66 ug/L	501.66 ppb	19:51:38
2	B 249.677†	17143.9	18040.0	502.50 ug/L	502.50 ppb	19:51:18
2	Ba 233.527†	53051.5	54526.5	511.49 ug/L	511.49 ppb	19:51:18
2	Be 313.107†	1155920.5	1192059.1	509.98 ug/L	509.98 ppb	19:51:13
2	Cd 226.502†	34167.9	35302.3	511.36 ug/L	511.36 ppb	19:51:18
2	Co 228.616†	19438.4	20023.3	520.27 ug/L	520.27 ppb	19:51:18
2	Cr 267.716†	37208.3	38172.0	513.61 ug/L	513.61 ppb	19:51:18
2	Cu 324.752†	153740.3	152584.6	505.05 ug/L	505.05 ppb	19:51:18
2	Mn 257.610†	375871.0	385858.7	508.34 ug/L	508.34 ppb	19:51:13
2	Mo 202.031†	5523.8	5665.9	498.73 ug/L	498.73 ppb	19:51:38
2	Ni 231.604†	15949.8	16315.6	519.16 ug/L	519.16 ppb	19:51:18

2	P 214.914†	3383.3	3294.2	2382.1 ug/L	2382.1 ppb	19:51:38
2	Pb 220.353†	3151.2	3282.3	507.82 ug/L	507.82 ppb	19:51:38
2	S 181.975 Axial†	565.1	550.8	982.37 ug/L	982.37 ppb	19:51:38
2	Sb 206.836†	1171.8	1180.1	506.63 ug/L	506.63 ppb	19:51:38
2	Se 196.026†	571.2	606.0	521.55 ug/L	521.55 ppb	19:51:38
2	Si 251.611†	66624.4	67994.2	2552.7 ug/L	2552.7 ppb	19:51:18
2	Sn 189.927†	2160.7	2213.3	498.97 ug/L	498.97 ppb	19:51:38
2	Ti 334.940†	279038.1	287949.0	497.46 ug/L	497.46 ppb	19:51:18
2	Tl 190.801†	1235.9	1302.3	504.77 ug/L	504.77 ppb	19:51:38
2	U 409.014†	14609.6	17100.2	514.69 ug/L	514.69 ppb	19:51:18
2	V 292.402†	60684.9	63704.1	515.58 ug/L	515.58 ppb	19:51:18
2	Zn 213.857†	42435.5	43008.2	514.78 ug/L	514.78 ppb	19:51:18
2	SiO2†	66294.0	67657.4	5404.6 ug/L	5404.6 ppb	19:52:19
3	Sc Radial	4147.0	4147.0	90.4 %		19:50:34
3	Y RADIAL	4569.1	4569.1	92.60 %		19:50:14
3	Al 396.153Radial†	4920.0	5528.5	5172.8 ug/L	5172.8 ppb	19:50:14
3	Ca 317.933Radial†	2708.4	2968.4	5246.9 ug/L	5246.9 ppb	19:50:34
3	Fe 238.204 Radial†	462.2	503.4	5290.0 ug/L	5290.0 ppb	19:50:34
3	K 766.490 Radial†	27410.0	27766.4	5312.7 ug/L	5312.7 ppb	19:50:14
3	Mg 279.077 IEC†	128.7	142.3	5413.4 ug/L	5413.4 ppb	19:50:34
3	Na 589.592 Radial†	27484.0	31209.1	10935 ug/L	10935 ppb	19:50:14
3	Sr 421.552†	63477.6	70195.9	536.21 ug/L	536.21 ppb	19:50:14
3	Sc 361.383	784687.5	784687.5	96.526 %		19:51:44
3	Y 371.029	654328.8	654328.8	94.908 %		19:51:44
3	Ag 328.068†	95701.7	98935.5	511.11 ug/L	511.11 ppb	19:51:49
3	As 188.979†	858.4	906.4	508.73 ug/L	508.73 ppb	19:52:09
3	B 249.677†	16987.0	18013.7	501.78 ug/L	501.78 ppb	19:51:49
3	Ba 233.527†	52545.5	54424.1	510.53 ug/L	510.53 ppb	19:51:49
3	Be 313.107†	1146884.4	1191890.1	509.90 ug/L	509.90 ppb	19:51:44
3	Cd 226.502†	33806.8	35199.8	509.89 ug/L	509.89 ppb	19:51:49
3	Co 228.616†	19258.3	19991.3	519.46 ug/L	519.46 ppb	19:51:49
3	Cr 267.716†	36852.2	38099.0	512.62 ug/L	512.62 ppb	19:51:49
3	Cu 324.752†	152656.5	152684.4	505.38 ug/L	505.38 ppb	19:51:49
3	Mn 257.610†	373080.1	385956.4	508.46 ug/L	508.46 ppb	19:51:44
3	Mo 202.031†	5582.6	5770.7	507.94 ug/L	507.94 ppb	19:52:09
3	Ni 231.604†	15778.4	16264.8	517.54 ug/L	517.54 ppb	19:51:49
3	P 214.914†	3426.6	3366.0	2436.3 ug/L	2436.3 ppb	19:52:09
3	Pb 220.353†	3177.0	3334.1	515.83 ug/L	515.83 ppb	19:52:09
3	S 181.975 Axial†	567.1	557.3	994.13 ug/L	994.13 ppb	19:52:09
3	Sb 206.836†	1183.0	1201.0	515.61 ug/L	515.61 ppb	19:52:09
3	Se 196.026†	571.0	610.3	524.87 ug/L	524.87 ppb	19:52:09
3	Si 251.611†	65875.3	67747.9	2543.3 ug/L	2543.3 ppb	19:51:49
3	Sn 189.927†	2182.7	2253.2	507.96 ug/L	507.96 ppb	19:52:09
3	Ti 334.940†	276756.1	287803.9	497.22 ug/L	497.22 ppb	19:51:49
3	Tl 190.801†	1240.4	1316.9	510.36 ug/L	510.36 ppb	19:52:09
3	U 409.014†	14456.7	17058.0	513.43 ug/L	513.43 ppb	19:51:49
3	V 292.402†	60130.0	63611.8	514.98 ug/L	514.98 ppb	19:51:49
3	Zn 213.857†	41975.3	42868.8	513.12 ug/L	513.12 ppb	19:51:49
3	SiO2†	66162.3	68048.1	5435.6 ug/L	5435.6 ppb	19:52:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	786642.1	96.766 %	0.4386			0.45%
Sc Radial	4143.4	90.3 %	0.33			0.36%
Y 371.029	656398.0	95.208 %	0.4092			0.43%
Y RADIAL	4582.8	92.88 %	1.251			1.35%
Ag 328.068†	98667.1	509.73 ug/L	3.219	509.73 ppb	3.219	0.63%
QC value within limits for Ag 328.068 Recovery = 101.95%						
Al 396.153Radial†	5553.2	5196.2 ug/L	41.80	5196.2 ppb	41.80	0.80%
QC value within limits for Al 396.153Radial Recovery = 103.92%						
As 188.979†	902.4	506.55 ug/L	4.251	506.55 ppb	4.251	0.84%
QC value within limits for As 188.979 Recovery = 101.31%						
B 249.677†	17934.5	499.56 ug/L	4.476	499.56 ppb	4.476	0.90%
QC value within limits for B 249.677 Recovery = 99.91%						
Ba 233.527†	54287.7	509.25 ug/L	3.086	509.25 ppb	3.086	0.61%
QC value within limits for Ba 233.527 Recovery = 101.85%						
Be 313.107†	1191506.8	509.74 ug/L	0.355	509.74 ppb	0.355	0.07%
QC value within limits for Be 313.107 Recovery = 101.95%						
Ca 317.933Radial†	2971.1	5251.7 ug/L	10.78	5251.7 ppb	10.78	0.21%

QC value within limits for Ca 317.933 Radial Recovery = 105.03%

Cd 226.502†	35129.7	508.87 ug/L	3.134	508.87 ppb	3.134	0.62%
QC value within limits for Cd 226.502 Recovery = 101.77%						
Co 228.616†	19917.1	517.53 ug/L	4.066	517.53 ppb	4.066	0.79%
QC value within limits for Co 228.616 Recovery = 103.51%						
Cr 267.716†	38053.2	512.01 ug/L	1.982	512.01 ppb	1.982	0.39%
QC value within limits for Cr 267.716 Recovery = 102.40%						
Cu 324.752†	151985.7	503.07 ug/L	3.722	503.07 ppb	3.722	0.74%
QC value within limits for Cu 324.752 Recovery = 100.61%						
Fe 238.204 Radial†	506.4	5320.8 ug/L	45.92	5320.8 ppb	45.92	0.86%
QC value within limits for Fe 238.204 Radial Recovery = 106.42%						
K 766.490 Radial†	27917.4	5341.6 ug/L	52.29	5341.6 ppb	52.29	0.98%
QC value within limits for K 766.490 Radial Recovery = 106.83%						
Mg 279.077 IEC†	143.3	5453.6 ug/L	34.93	5453.6 ppb	34.93	0.64%
QC value within limits for Mg 279.077 IEC Recovery = 109.07%						
Mn 257.610†	385533.5	507.90 ug/L	0.858	507.90 ppb	0.858	0.17%
QC value within limits for Mn 257.610 Recovery = 101.58%						
Mo 202.031†	5734.3	504.75 ug/L	5.214	504.75 ppb	5.214	1.03%
QC value within limits for Mo 202.031 Recovery = 100.95%						
Na 589.592 Radial†	31440.5	11016 ug/L	95.0	11016 ppb	95.0	0.86%
QC value greater than the upper limit for Na 589.592 Radial Recovery = 110.16%						
Ni 231.604†	16239.1	516.72 ug/L	2.930	516.72 ppb	2.930	0.57%
QC value within limits for Ni 231.604 Recovery = 103.34%						
P 214.914†	3343.1	2419.4 ug/L	32.36	2419.4 ppb	32.36	1.34%
QC value within limits for P 214.914 Recovery = 96.78%						
Pb 220.353†	3310.7	512.21 ug/L	4.058	512.21 ppb	4.058	0.79%
QC value within limits for Pb 220.353 Recovery = 102.44%						
S 181.975 Axial†	557.0	993.47 ug/L	10.778	993.47 ppb	10.778	1.08%
QC value within limits for S 181.975 Axial Recovery = 99.35%						
Sb 206.836†	1192.4	511.95 ug/L	4.715	511.95 ppb	4.715	0.92%
QC value within limits for Sb 206.836 Recovery = 102.39%						
Se 196.026†	607.1	522.29 ug/L	2.297	522.29 ppb	2.297	0.44%
QC value within limits for Se 196.026 Recovery = 104.46%						
Si 251.611†	67599.6	2537.8 ug/L	18.33	2537.8 ppb	18.33	0.72%
QC value within limits for Si 251.611 Recovery = 101.51%						
Sn 189.927†	2246.5	506.45 ug/L	6.859	506.45 ppb	6.859	1.35%
QC value within limits for Sn 189.927 Recovery = 101.29%						
Sr 421.552†	70598.0	539.28 ug/L	4.745	539.28 ppb	4.745	0.88%
QC value within limits for Sr 421.552 Recovery = 107.86%						
Ti 334.940†	286810.6	495.50 ug/L	3.192	495.50 ppb	3.192	0.64%
QC value within limits for Ti 334.940 Recovery = 99.10%						
Tl 190.801†	1312.3	508.60 ug/L	3.322	508.60 ppb	3.322	0.65%
QC value within limits for Tl 190.801 Recovery = 101.72%						
U 409.014†	16986.6	511.27 ug/L	4.873	511.27 ppb	4.873	0.95%
QC value within limits for U 409.014 Recovery = 102.25%						
V 292.402†	63416.6	513.37 ug/L	3.320	513.37 ppb	3.320	0.65%
QC value within limits for V 292.402 Recovery = 102.67%						
Zn 213.857†	42776.0	512.00 ug/L	3.474	512.00 ppb	3.474	0.68%
QC value within limits for Zn 213.857 Recovery = 102.40%						
SiO2†	67943.4	5427.3 ug/L	19.93	5427.3 ppb	19.93	0.37%
QC value within limits for SiO2 Recovery = 101.49%						

QC Failed. Continue with analysis.

Sequence No.: 10

Autosampler Location: 6

Sample ID: CCB

Date Collected: 3/16/2010 19:54:34

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4234.4	4234.4	92.3	%		19:56:46
1	Y RADIAL	4582.5	4582.5	92.87	%		19:56:26
1	Al 396.153Radial†	-76.3	3.1	2.8993	ug/L	2.8993 ppb	19:56:46
1	Ca 317.933Radial†	17.2	-9.2	-16.292	ug/L	-16.292 ppb	19:56:46
1	Fe 238.204 Radial†	9.1	2.0	21.388	ug/L	21.388 ppb	19:56:46
1	K 766.490 Radial†	2629.1	292.6	56.087	ug/L	56.087 ppb	19:56:26
1	Mg 279.077 IEC†	2.7	2.8	108.27	ug/L	108.27 ppb	19:56:46
1	Na 589.592 Radial†	-922.6	-194.5	-68.154	ug/L	-68.154 ppb	19:56:26
1	Sr 421.552†	13.6	-11.0	-0.0841	ug/L	-0.0841 ppb	19:56:26
1	Sc 361.383	773209.4	773209.4	95.114	%		19:57:43
1	Y 371.029	654176.9	654176.9	94.886	%		19:57:43
1	Ag 328.068†	95.7	-110.0	-0.5541	ug/L	-0.5541 ppb	19:57:43
1	As 188.979†	-21.2	-5.3	-2.9383	ug/L	-2.9383 ppb	19:58:03
1	B 249.677†	-163.7	243.3	6.8050	ug/L	6.8050 ppb	19:58:03
1	Ba 233.527†	13.8	2.0	0.0183	ug/L	0.0183 ppb	19:58:03
1	Be 313.107†	-3659.4	-118.3	-0.0508	ug/L	-0.0508 ppb	19:57:43
1	Cd 226.502†	-171.4	-3.8	-0.0590	ug/L	-0.0590 ppb	19:58:03
1	Co 228.616†	-41.5	-3.8	-0.0967	ug/L	-0.0967 ppb	19:58:03
1	Cr 267.716†	160.6	89.3	1.2034	ug/L	1.2034 ppb	19:58:03
1	Cu 324.752†	5186.2	-13.6	-0.0403	ug/L	-0.0403 ppb	19:57:43
1	Mn 257.610†	395.5	-135.1	-0.1802	ug/L	-0.1802 ppb	19:58:03
1	Mo 202.031†	21.3	9.6	0.8419	ug/L	0.8419 ppb	19:58:03
1	Ni 231.604†	82.8	5.6	0.1778	ug/L	0.1778 ppb	19:58:03
1	P 214.914†	189.5	15.3	11.525	ug/L	11.525 ppb	19:58:03
1	Pb 220.353†	-31.2	10.0	1.5435	ug/L	1.5435 ppb	19:58:03
1	S 181.975 Axial†	34.6	6.3	11.170	ug/L	11.170 ppb	19:58:03
1	Sb 206.836†	23.0	-0.4	-0.1056	ug/L	-0.1056 ppb	19:58:03
1	Se 196.026†	-18.9	-1.0	-0.8059	ug/L	-0.8059 ppb	19:58:03
1	Si 251.611†	573.2	104.4	3.9187	ug/L	3.9187 ppb	19:58:03
1	Sn 189.927†	15.8	8.7	1.9439	ug/L	1.9439 ppb	19:58:03
1	Ti 334.940†	-1115.9	-85.9	-0.1570	ug/L	-0.1570 ppb	19:57:43
1	Tl 190.801†	-18.8	12.0	4.6147	ug/L	4.6147 ppb	19:58:03
1	U 409.014†	-2187.5	-218.8	-6.6141	ug/L	-6.6141 ppb	19:57:43
1	V 292.402†	-1303.0	-52.2	-0.4192	ug/L	-0.4192 ppb	19:57:43
1	Zn 213.857†	671.2	88.5	1.0651	ug/L	1.0651 ppb	19:58:03
1	SiO2†	576.3	110.6	8.8324	ug/L	8.8324 ppb	19:59:14
2	Sc Radial	4260.6	4260.6	92.9	%		19:57:11
2	Y RADIAL	4758.2	4758.2	96.43	%		19:56:51
2	Al 396.153Radial†	-79.9	-0.3	-0.2649	ug/L	-0.2649 ppb	19:57:11
2	Ca 317.933Radial†	15.4	-11.2	-19.835	ug/L	-19.835 ppb	19:57:11
2	Fe 238.204 Radial†	8.3	1.1	11.466	ug/L	11.466 ppb	19:57:11
2	K 766.490 Radial†	2556.6	197.0	37.770	ug/L	37.770 ppb	19:56:51
2	Mg 279.077 IEC†	4.3	4.6	173.14	ug/L	173.14 ppb	19:57:11
2	Na 589.592 Radial†	-907.4	-171.9	-60.245	ug/L	-60.245 ppb	19:56:51
2	Sr 421.552†	45.3	23.0	0.1762	ug/L	0.1762 ppb	19:56:51
2	Sc 361.383	785082.1	785082.1	96.575	%		19:58:08
2	Y 371.029	662874.0	662874.0	96.147	%		19:58:08
2	Ag 328.068†	173.4	-31.1	-0.1515	ug/L	-0.1515 ppb	19:58:08
2	As 188.979†	-18.8	-2.5	-1.3690	ug/L	-1.3690 ppb	19:58:28
2	B 249.677†	-195.8	212.6	5.9478	ug/L	5.9478 ppb	19:58:28
2	Ba 233.527†	5.4	-6.9	-0.0648	ug/L	-0.0648 ppb	19:58:28
2	Be 313.107†	-3752.5	-156.6	-0.0669	ug/L	-0.0669 ppb	19:58:08
2	Cd 226.502†	-168.6	1.7	0.0230	ug/L	0.0230 ppb	19:58:28
2	Co 228.616†	-44.9	-6.6	-0.1719	ug/L	-0.1719 ppb	19:58:28
2	Cr 267.716†	166.3	92.7	1.2482	ug/L	1.2482 ppb	19:58:28
2	Cu 324.752†	5247.6	-32.5	-0.1038	ug/L	-0.1038 ppb	19:58:08
2	Mn 257.610†	413.9	-122.3	-0.1670	ug/L	-0.1670 ppb	19:58:28
2	Mo 202.031†	16.0	3.7	0.3293	ug/L	0.3293 ppb	19:58:28
2	Ni 231.604†	78.3	-0.4	-0.0118	ug/L	-0.0118 ppb	19:58:28

2	P 214.914†	188.7	11.5	8.6740 ug/L	8.6740 ppb	19:58:28
2	Pb 220.353†	-43.4	-2.1	-0.3269 ug/L	-0.3269 ppb	19:58:28
2	S 181.975 Axial†	36.4	7.6	13.495 ug/L	13.495 ppb	19:58:28
2	Sb 206.836†	28.9	5.4	2.2429 ug/L	2.2429 ppb	19:58:28
2	Se 196.026†	-20.1	-2.1	-1.6819 ug/L	-1.6819 ppb	19:58:28
2	Si 251.611†	583.6	106.1	3.9871 ug/L	3.9871 ppb	19:58:28
2	Sn 189.927†	3.9	-3.9	-0.8884 ug/L	-0.8884 ppb	19:58:28
2	Ti 334.940†	-1065.3	-15.8	-0.0421 ug/L	-0.0421 ppb	19:58:08
2	Tl 190.801†	-31.1	-0.5	-0.1743 ug/L	-0.1743 ppb	19:58:28
2	U 409.014†	-2187.4	-184.0	-5.5604 ug/L	-5.5604 ppb	19:58:08
2	V 292.402†	-1282.7	-10.5	-0.0889 ug/L	-0.0889 ppb	19:58:08
2	Zn 213.857†	674.5	81.3	0.9811 ug/L	0.9811 ppb	19:58:28
2	SiO2†	582.2	107.5	8.6027 ug/L	8.6027 ppb	19:59:34
3	Sc Radial	4235.7	4235.7	92.3 %		19:57:36
3	Y RADIAL	4675.8	4675.8	94.76 %		19:57:16
3	Al 396.153Radial†	-81.0	-1.9	-1.8431 ug/L	-1.8431 ppb	19:57:36
3	Ca 317.933Radial†	23.1	-2.8	-5.0096 ug/L	-5.0096 ppb	19:57:36
3	Fe 238.204 Radial†	12.2	5.3	55.616 ug/L	55.616 ppb	19:57:36
3	K 766.490 Radial†	2608.8	269.8	51.722 ug/L	51.722 ppb	19:57:16
3	Mg 279.077 IEC†	3.3	3.5	131.78 ug/L	131.78 ppb	19:57:36
3	Na 589.592 Radial†	-922.2	-193.7	-67.880 ug/L	-67.880 ppb	19:57:16
3	Sr 421.552†	11.2	-13.7	-0.1044 ug/L	-0.1044 ppb	19:57:16
3	Sc 361.383	793626.3	793626.3	97.626 %		19:58:34
3	Y 371.029	669658.7	669658.7	97.131 %		19:58:34
3	Ag 328.068†	132.1	-75.3	-0.3679 ug/L	-0.3679 ppb	19:58:34
3	As 188.979†	-22.7	-6.2	-3.4649 ug/L	-3.4649 ppb	19:58:54
3	B 249.677†	-208.8	201.5	5.6294 ug/L	5.6294 ppb	19:58:54
3	Ba 233.527†	6.3	-6.0	-0.0550 ug/L	-0.0550 ppb	19:58:54
3	Be 313.107†	-3806.4	-170.0	-0.0728 ug/L	-0.0728 ppb	19:58:34
3	Cd 226.502†	-173.1	-1.0	-0.0203 ug/L	-0.0203 ppb	19:58:54
3	Co 228.616†	-42.1	-3.3	-0.0854 ug/L	-0.0854 ppb	19:58:54
3	Cr 267.716†	150.2	74.4	1.0050 ug/L	1.0050 ppb	19:58:54
3	Cu 324.752†	5200.5	-139.3	-0.4567 ug/L	-0.4567 ppb	19:58:34
3	Mn 257.610†	397.4	-143.8	-0.1893 ug/L	-0.1893 ppb	19:58:54
3	Mo 202.031†	15.8	3.4	0.2991 ug/L	0.2991 ppb	19:58:54
3	Ni 231.604†	78.6	-0.9	-0.0299 ug/L	-0.0299 ppb	19:58:54
3	P 214.914†	188.7	9.4	7.1581 ug/L	7.1581 ppb	19:58:54
3	Pb 220.353†	-26.6	15.6	2.3953 ug/L	2.3953 ppb	19:58:54
3	S 181.975 Axial†	31.5	2.1	3.8302 ug/L	3.8302 ppb	19:58:54
3	Sb 206.836†	30.6	6.9	2.8774 ug/L	2.8774 ppb	19:58:54
3	Se 196.026†	-15.6	2.8	2.5157 ug/L	2.5157 ppb	19:58:54
3	Si 251.611†	558.6	73.9	2.7788 ug/L	2.7788 ppb	19:58:54
3	Sn 189.927†	15.2	7.6	1.7146 ug/L	1.7146 ppb	19:58:54
3	Ti 334.940†	-1122.4	-62.4	-0.1186 ug/L	-0.1186 ppb	19:58:34
3	Tl 190.801†	-35.0	-4.1	-1.5678 ug/L	-1.5678 ppb	19:58:54
3	U 409.014†	-2110.4	-80.8	-2.4474 ug/L	-2.4474 ppb	19:58:34
3	V 292.402†	-1305.3	-19.3	-0.1607 ug/L	-0.1607 ppb	19:58:34
3	Zn 213.857†	670.0	69.2	0.8284 ug/L	0.8284 ppb	19:58:54
3	SiO2†	582.3	101.1	8.0878 ug/L	8.0878 ppb	19:59:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	783972.6	96.438 %	1.2613			1.31%
Sc Radial	4243.6	92.5 %	0.32			0.35%
Y 371.029	662236.6	96.055 %	1.1256			1.17%
Y RADIAL	4672.2	94.69 %	1.781			1.88%
Ag 328.068†	-72.1	-0.3578 ug/L	0.20150	-0.3578 ppb	0.20150	56.31%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	0.3	0.2638 ug/L	2.41501	0.2638 ppb	2.41501	915.57%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-4.7	-2.5907 ug/L	1.09031	-2.5907 ppb	1.09031	42.09%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	219.1	6.1274 ug/L	0.60808	6.1274 ppb	0.60808	9.92%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-3.7	-0.0339 ug/L	0.04540	-0.0339 ppb	0.04540	134.11%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-148.3	-0.0635 ug/L	0.01136	-0.0635 ppb	0.01136	17.89%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-7.8	-13.712 ug/L	7.7423	-13.712 ppb	7.7423	56.46%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd	226.502†	-1.0	-0.0188 ug/L	0.04102	-0.0188 ppb	0.04102	218.50%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	-4.6	-0.1180 ug/L	0.04700	-0.1180 ppb	0.04700	39.82%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	85.5	1.1522 ug/L	0.12942	1.1522 ppb	0.12942	11.23%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-61.8	-0.2003 ug/L	0.22429	-0.2003 ppb	0.22429	111.99%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	2.8	29.490 ug/L	23.1631	29.490 ppb	23.1631	78.55%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	253.1	48.526 ug/L	9.5672	48.526 ppb	9.5672	19.72%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	3.6	137.73 ug/L	32.842	137.73 ppb	32.842	23.85%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	-133.8	-0.1788 ug/L	0.01121	-0.1788 ppb	0.01121	6.27%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	5.5	0.4901 ug/L	0.30506	0.4901 ppb	0.30506	62.25%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	-186.7	-65.427 ug/L	4.4893	-65.427 ppb	4.4893	6.86%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	1.4	0.0454 ug/L	0.11504	0.0454 ppb	0.11504	253.58%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	12.1	9.1190 ug/L	2.21717	9.1190 ppb	2.21717	24.31%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	7.8	1.2040 ug/L	1.39250	1.2040 ppb	1.39250	115.66%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	5.3	9.4983 ug/L	5.04455	9.4983 ppb	5.04455	53.11%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	4.0	1.6715 ug/L	1.57142	1.6715 ppb	1.57142	94.01%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	-0.1	0.0093 ug/L	2.21434	0.0093 ppb	2.21434	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	94.8	3.5615 ug/L	0.67874	3.5615 ppb	0.67874	19.06%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	4.1	0.9234 ug/L	1.57326	0.9234 ppb	1.57326	170.38%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-0.6	-0.0041 ug/L	0.15648	-0.0041 ppb	0.15648	>999.9%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-54.7	-0.1059 ug/L	0.05849	-0.1059 ppb	0.05849	55.22%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	2.5	0.9575 ug/L	3.24291	0.9575 ppb	3.24291	338.67%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-161.2	-4.8740 ug/L	2.16650	-4.8740 ppb	2.16650	44.45%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-27.4	-0.2229 ug/L	0.17371	-0.2229 ppb	0.17371	77.92%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	79.7	0.9582 ug/L	0.12002	0.9582 ppb	0.12002	12.53%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		106.4	8.5076 ug/L	0.38126	8.5076 ppb	0.38126	4.48%
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 19

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/16/2010 20:57:55

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4320.3	4320.3	94.2 %		21:00:07
1	Y RADIAL	4482.8	4482.8	90.85 %		20:59:47
1	Al 396.153Radial†	5198.3	5605.7	5245.2 ug/L	5245.2 ppb	20:59:47
1	Ca 317.933Radial†	2789.2	2933.9	5186.0 ug/L	5186.0 ppb	21:00:07
1	Fe 238.204 Radial†	467.5	488.6	5134.6 ug/L	5134.6 ppb	21:00:07
1	K 766.490 Radial†	28713.4	27934.3	5345.0 ug/L	5345.0 ppb	20:59:47
1	Mg 279.077 IEC†	135.9	144.2	5488.7 ug/L	5488.7 ppb	21:00:07
1	Na 589.592 Radial†	27411.9	29913.0	10481 ug/L	10481 ppb	20:59:47
1	Sr 421.552†	65778.2	69822.3	533.36 ug/L	533.36 ppb	20:59:47
1	Sc 361.383	797651.1	797651.1	98.121 %		21:01:04
1	Y 371.029	665146.1	665146.1	96.477 %		21:01:04
1	Ag 328.068†	98376.3	100049.9	516.80 ug/L	516.80 ppb	21:01:10
1	As 188.979†	891.1	925.2	519.21 ug/L	519.21 ppb	21:01:30
1	B 249.677†	17459.1	18208.8	507.25 ug/L	507.25 ppb	21:01:10
1	Ba 233.527†	54369.6	55398.5	519.66 ug/L	519.66 ppb	21:01:10
1	Be 313.107†	1169027.0	1195146.5	511.31 ug/L	511.31 ppb	21:01:04
1	Cd 226.502†	35082.6	35930.9	520.50 ug/L	520.50 ppb	21:01:10
1	Co 228.616†	19794.4	20213.4	525.23 ug/L	525.23 ppb	21:01:10
1	Cr 267.716†	38063.6	38713.1	520.86 ug/L	520.86 ppb	21:01:10
1	Cu 324.752†	156796.5	154333.4	510.82 ug/L	510.82 ppb	21:01:10
1	Mn 257.610†	379294.0	386007.8	508.51 ug/L	508.51 ppb	21:01:04
1	Mo 202.031†	5710.8	5807.3	511.15 ug/L	511.15 ppb	21:01:30
1	Ni 231.604†	16326.0	16557.3	526.85 ug/L	526.85 ppb	21:01:10
1	P 214.914†	3517.2	3400.6	2461.4 ug/L	2461.4 ppb	21:01:30
1	Pb 220.353†	3199.6	3303.7	511.18 ug/L	511.18 ppb	21:01:30
1	S 181.975 Axial†	593.9	575.1	1025.9 ug/L	1025.9 ppb	21:01:30
1	Sb 206.836†	1213.0	1211.7	520.13 ug/L	520.13 ppb	21:01:30
1	Se 196.026†	584.0	614.0	527.51 ug/L	527.51 ppb	21:01:30
1	Si 251.611†	68170.2	68977.7	2589.6 ug/L	2589.6 ppb	21:01:10
1	Sn 189.927†	2227.9	2262.6	510.06 ug/L	510.06 ppb	21:01:30
1	Ti 334.940†	285459.5	292014.3	504.47 ug/L	504.47 ppb	21:01:10
1	Tl 190.801†	1274.8	1331.0	515.83 ug/L	515.83 ppb	21:01:30
1	U 409.014†	15136.6	17507.5	527.00 ug/L	527.00 ppb	21:01:10
1	V 292.402†	62152.4	64660.5	523.45 ug/L	523.45 ppb	21:01:10
1	Zn 213.857†	43528.0	43744.6	523.66 ug/L	523.66 ppb	21:01:10
1	SiO2†	68866.2	69689.9	5567.0 ug/L	5567.0 ppb	21:02:37
2	Sc Radial	4243.1	4243.1	92.5 %		21:00:32
2	Y RADIAL	4641.9	4641.9	94.07 %		21:00:12
2	Al 396.153Radial†	5152.4	5656.6	5293.4 ug/L	5293.4 ppb	21:00:12
2	Ca 317.933Radial†	2758.2	2954.3	5222.1 ug/L	5222.1 ppb	21:00:32
2	Fe 238.204 Radial†	466.0	496.0	5212.4 ug/L	5212.4 ppb	21:00:32
2	K 766.490 Radial†	28424.3	28176.5	5391.4 ug/L	5391.4 ppb	21:00:12
2	Mg 279.077 IEC†	127.9	138.2	5257.3 ug/L	5257.3 ppb	21:00:32
2	Na 589.592 Radial†	27025.0	30024.4	10520 ug/L	10520 ppb	21:00:12
2	Sr 421.552†	64938.6	70185.6	536.13 ug/L	536.13 ppb	21:00:12
2	Sc 361.383	803419.7	803419.7	98.830 %		21:01:35
2	Y 371.029	668867.6	668867.6	97.017 %		21:01:35
2	Ag 328.068†	98254.4	99206.6	512.47 ug/L	512.47 ppb	21:01:41
2	As 188.979†	891.4	919.0	515.77 ug/L	515.77 ppb	21:02:01
2	B 249.677†	17498.6	18121.1	504.79 ug/L	504.79 ppb	21:01:41
2	Ba 233.527†	53999.3	54626.0	512.42 ug/L	512.42 ppb	21:01:41
2	Be 313.107†	1181319.5	1199030.1	512.95 ug/L	512.95 ppb	21:01:35
2	Cd 226.502†	34811.8	35400.2	512.80 ug/L	512.80 ppb	21:01:41
2	Co 228.616†	19773.4	20047.3	520.91 ug/L	520.91 ppb	21:01:41
2	Cr 267.716†	37844.3	38212.7	514.14 ug/L	514.14 ppb	21:01:41
2	Cu 324.752†	156894.4	153285.0	507.36 ug/L	507.36 ppb	21:01:41
2	Mn 257.610†	383060.2	387043.0	509.89 ug/L	509.89 ppb	21:01:35
2	Mo 202.031†	5667.2	5721.5	503.60 ug/L	503.60 ppb	21:02:01
2	Ni 231.604†	16226.8	16337.4	519.85 ug/L	519.85 ppb	21:01:41

2	P 214.914†	3505.3	3362.9	2433.5 ug/L	2433.5 ppb	21:02:01
2	Pb 220.353†	3196.1	3276.8	507.01 ug/L	507.01 ppb	21:02:01
2	S 181.975 Axial†	572.3	548.9	979.14 ug/L	979.14 ppb	21:02:01
2	Sb 206.836†	1213.5	1203.4	516.38 ug/L	516.38 ppb	21:02:01
2	Se 196.026†	582.4	608.1	522.79 ug/L	522.79 ppb	21:02:01
2	Si 251.611†	68102.4	68410.2	2568.3 ug/L	2568.3 ppb	21:01:41
2	Sn 189.927†	2204.3	2222.4	501.02 ug/L	501.02 ppb	21:02:01
2	Ti 334.940†	284182.4	288633.2	498.65 ug/L	498.65 ppb	21:01:41
2	Tl 190.801†	1263.3	1310.1	507.76 ug/L	507.76 ppb	21:02:01
2	U 409.014†	15142.7	17402.9	523.85 ug/L	523.85 ppb	21:01:41
2	V 292.402†	61759.4	63808.0	516.52 ug/L	516.52 ppb	21:01:41
2	Zn 213.857†	43325.5	43221.2	517.37 ug/L	517.37 ppb	21:01:41
2	SiO2†	68756.2	69074.6	5518.0 ug/L	5518.0 ppb	21:02:42
3	Sc Radial	4264.0	4264.0	92.9 %		21:00:57
3	Y RADIAL	4641.8	4641.8	94.07 %		21:00:37
3	Al 396.153Radial†	5076.2	5547.2	5192.2 ug/L	5192.2 ppb	21:00:37
3	Ca 317.933Radial†	2810.3	2995.7	5295.2 ug/L	5295.2 ppb	21:00:57
3	Fe 238.204 Radial†	477.0	505.3	5309.0 ug/L	5309.0 ppb	21:00:57
3	K 766.490 Radial†	27962.8	27528.9	5267.5 ug/L	5267.5 ppb	21:00:37
3	Mg 279.077 IEC†	131.4	141.3	5377.6 ug/L	5377.6 ppb	21:00:57
3	Na 589.592 Radial†	26417.5	29227.1	10241 ug/L	10241 ppb	21:00:37
3	Sr 421.552†	63732.7	68542.8	523.58 ug/L	523.58 ppb	21:00:37
3	Sc 361.383	861160.3	861160.3	105.93 %		21:02:06
3	Y 371.029	716873.3	716873.3	103.98 %		21:02:06
3	Ag 328.068†	98627.4	92892.9	479.99 ug/L	479.99 ppb	21:02:12
3	As 188.979†	880.7	848.4	476.29 ug/L	476.29 ppb	21:02:32
3	B 249.677†	17502.5	16937.6	471.75 ug/L	471.75 ppb	21:02:12
3	Ba 233.527†	54272.8	51220.6	480.49 ug/L	480.49 ppb	21:02:12
3	Be 313.107†	1153218.1	1092358.0	467.35 ug/L	467.35 ppb	21:02:06
3	Cd 226.502†	34902.9	33124.4	479.79 ug/L	479.79 ppb	21:02:12
3	Co 228.616†	19825.6	18755.1	487.32 ug/L	487.32 ppb	21:02:12
3	Cr 267.716†	37879.5	35678.5	480.09 ug/L	480.09 ppb	21:02:12
3	Cu 324.752†	157230.8	142958.4	473.20 ug/L	473.20 ppb	21:02:12
3	Mn 257.610†	375005.4	353451.2	465.67 ug/L	465.67 ppb	21:02:06
3	Mo 202.031†	5659.8	5330.0	469.19 ug/L	469.19 ppb	21:02:32
3	Ni 231.604†	16240.0	15249.0	485.22 ug/L	485.22 ppb	21:02:12
3	P 214.914†	3496.5	3116.8	2254.6 ug/L	2254.6 ppb	21:02:32
3	Pb 220.353†	3196.1	3059.8	473.44 ug/L	473.44 ppb	21:02:32
3	S 181.975 Axial†	584.3	521.4	930.02 ug/L	930.02 ppb	21:02:32
3	Sb 206.836†	1209.0	1116.8	479.30 ug/L	479.30 ppb	21:02:32
3	Se 196.026†	582.3	568.4	490.04 ug/L	490.04 ppb	21:02:32
3	Si 251.611†	68274.1	63952.0	2400.9 ug/L	2400.9 ppb	21:02:12
3	Sn 189.927†	2205.8	2074.2	467.66 ug/L	467.66 ppb	21:02:32
3	Ti 334.940†	285078.9	270199.5	466.83 ug/L	466.83 ppb	21:02:12
3	Tl 190.801†	1267.9	1228.7	476.17 ug/L	476.17 ppb	21:02:32
3	U 409.014†	14980.6	16222.5	488.26 ug/L	488.26 ppb	21:02:12
3	V 292.402†	61937.4	59786.1	483.86 ug/L	483.86 ppb	21:02:12
3	Zn 213.857†	43426.3	40377.0	483.26 ug/L	483.26 ppb	21:02:12
3	SiO2†	69098.6	64733.2	5171.2 ug/L	5171.2 ppb	21:02:47

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	820743.7	100.96 %	4.320			4.28%
Sc Radial	4275.8	93.2 %	0.87			0.93%
Y 371.029	683629.0	99.158 %	4.1847			4.22%
Y RADIAL	4588.8	93.00 %	1.861			2.00%
Ag 328.068†	97383.1	503.09 ug/L	20.122	503.09 ppb	20.122	4.00%
QC value within limits for Ag 328.068 Recovery = 100.62%						
Al 396.153Radial†	5603.1	5243.6 ug/L	50.61	5243.6 ppb	50.61	0.97%
QC value within limits for Al 396.153Radial Recovery = 104.87%						
As 188.979†	897.5	503.76 ug/L	23.849	503.76 ppb	23.849	4.73%
QC value within limits for As 188.979 Recovery = 100.75%						
B 249.677†	17755.8	494.59 ug/L	19.823	494.59 ppb	19.823	4.01%
QC value within limits for B 249.677 Recovery = 98.92%						
Ba 233.527†	53748.3	504.19 ug/L	20.843	504.19 ppb	20.843	4.13%
QC value within limits for Ba 233.527 Recovery = 100.84%						
Be 313.107†	1162178.2	497.20 ug/L	25.869	497.20 ppb	25.869	5.20%
QC value within limits for Be 313.107 Recovery = 99.44%						
Ca 317.933Radial†	2961.3	5234.4 ug/L	55.63	5234.4 ppb	55.63	1.06%

QC value within limits for Ca 317.933 Radial Recovery = 104.69%							
Cd 226.502†	34818.5	504.36 ug/L	21.629	504.36 ppb	21.629	4.29%	
QC value within limits for Cd 226.502 Recovery = 100.87%							
Co 228.616†	19671.9	511.15 ug/L	20.753	511.15 ppb	20.753	4.06%	
QC value within limits for Co 228.616 Recovery = 102.23%							
Cr 267.716†	37534.7	505.03 ug/L	21.857	505.03 ppb	21.857	4.33%	
QC value within limits for Cr 267.716 Recovery = 101.01%							
Cu 324.752†	150192.3	497.13 ug/L	20.792	497.13 ppb	20.792	4.18%	
QC value within limits for Cu 324.752 Recovery = 99.43%							
Fe 238.204 Radial†	496.6	5218.6 ug/L	87.39	5218.6 ppb	87.39	1.67%	
QC value within limits for Fe 238.204 Radial Recovery = 104.37%							
K 766.490 Radial†	27879.9	5334.6 ug/L	62.62	5334.6 ppb	62.62	1.17%	
QC value within limits for K 766.490 Radial Recovery = 106.69%							
Mg 279.077 IEC†	141.2	5374.6 ug/L	115.69	5374.6 ppb	115.69	2.15%	
QC value within limits for Mg 279.077 IEC Recovery = 107.49%							
Mn 257.610†	375500.7	494.69 ug/L	25.143	494.69 ppb	25.143	5.08%	
QC value within limits for Mn 257.610 Recovery = 98.94%							
Mo 202.031†	5619.6	494.65 ug/L	22.369	494.65 ppb	22.369	4.52%	
QC value within limits for Mo 202.031 Recovery = 98.93%							
Na 589.592 Radial†	29721.5	10414 ug/L	151.3	10414 ppb	151.3	1.45%	
QC value within limits for Na 589.592 Radial Recovery = 104.14%							
Ni 231.604†	16047.9	510.64 ug/L	22.293	510.64 ppb	22.293	4.37%	
QC value within limits for Ni 231.604 Recovery = 102.13%							
P 214.914†	3293.4	2383.2 ug/L	112.23	2383.2 ppb	112.23	4.71%	
QC value within limits for P 214.914 Recovery = 95.33%							
Pb 220.353†	3213.4	497.21 ug/L	20.689	497.21 ppb	20.689	4.16%	
QC value within limits for Pb 220.353 Recovery = 99.44%							
S 181.975 Axial†	548.5	978.35 ug/L	47.934	978.35 ppb	47.934	4.90%	
QC value within limits for S 181.975 Axial Recovery = 97.83%							
Sb 206.836†	1177.3	505.27 ug/L	22.571	505.27 ppb	22.571	4.47%	
QC value within limits for Sb 206.836 Recovery = 101.05%							
Se 196.026†	596.8	513.45 ug/L	20.407	513.45 ppb	20.407	3.97%	
QC value within limits for Se 196.026 Recovery = 102.69%							
Si 251.611†	67113.3	2519.6 ug/L	103.31	2519.6 ppb	103.31	4.10%	
QC value within limits for Si 251.611 Recovery = 100.78%							
Sn 189.927†	2186.4	492.92 ug/L	22.332	492.92 ppb	22.332	4.53%	
QC value within limits for Sn 189.927 Recovery = 98.58%							
Sr 421.552†	69516.9	531.02 ug/L	6.592	531.02 ppb	6.592	1.24%	
QC value within limits for Sr 421.552 Recovery = 106.20%							
Ti 334.940†	283615.7	489.98 ug/L	20.264	489.98 ppb	20.264	4.14%	
QC value within limits for Ti 334.940 Recovery = 98.00%							
Tl 190.801†	1289.9	499.92 ug/L	20.962	499.92 ppb	20.962	4.19%	
QC value within limits for Tl 190.801 Recovery = 99.98%							
U 409.014†	17044.3	513.04 ug/L	21.513	513.04 ppb	21.513	4.19%	
QC value within limits for U 409.014 Recovery = 102.61%							
V 292.402†	62751.5	507.94 ug/L	21.138	507.94 ppb	21.138	4.16%	
QC value within limits for V 292.402 Recovery = 101.59%							
Zn 213.857†	42447.6	508.10 ug/L	21.735	508.10 ppb	21.735	4.28%	
QC value within limits for Zn 213.857 Recovery = 101.62%							
SiO2†	67832.6	5418.7 ug/L	215.75	5418.7 ppb	215.75	3.98%	
QC value within limits for SiO2 Recovery = 101.33%							
All analyte(s) passed QC.							

Sequence No.: 20

Autosampler Location: 6

Sample ID: CCB

Date Collected: 3/16/2010 21:04:57

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4374.4	4374.4	95.4 %		21:06:49
1	Y RADIAL	4730.7	4730.7	95.87 %		21:06:49
1	Al 396.153Radial†	-78.7	3.3	3.0808 ug/L	3.0808 ppb	21:07:09
1	Ca 317.933Radial†	19.0	-7.9	-13.921 ug/L	-13.921 ppb	21:07:09
1	Fe 238.204 Radial†	10.1	2.7	28.716 ug/L	28.716 ppb	21:07:09
1	K 766.490 Radial†	2530.0	97.6	18.720 ug/L	18.720 ppb	21:06:49
1	Mg 279.077 IEC†	1.9	1.9	73.056 ug/L	73.056 ppb	21:07:09
1	Na 589.592 Radial†	-928.0	-168.1	-58.915 ug/L	-58.915 ppb	21:06:49
1	Sr 421.552†	3.0	-22.6	-0.1729 ug/L	-0.1729 ppb	21:06:49
1	Sc 361.383	792653.8	792653.8	97.506 %		21:08:06
1	Y 371.029	669478.7	669478.7	97.105 %		21:08:06
1	Ag 328.068†	130.5	-76.7	-0.3838 ug/L	-0.3838 ppb	21:08:06
1	As 188.979†	-24.1	-7.7	-4.2630 ug/L	-4.2630 ppb	21:08:26
1	B 249.677†	-217.0	192.9	5.3923 ug/L	5.3923 ppb	21:08:26
1	Ba 233.527†	5.2	-7.2	-0.0670 ug/L	-0.0670 ppb	21:08:26
1	Be 313.107†	-3750.6	-117.5	-0.0506 ug/L	-0.0506 ppb	21:08:06
1	Cd 226.502†	-164.3	7.8	0.1098 ug/L	0.1098 ppb	21:08:26
1	Co 228.616†	-39.0	-0.2	-0.0063 ug/L	-0.0063 ppb	21:08:26
1	Cr 267.716†	72.1	-5.6	-0.0720 ug/L	-0.0720 ppb	21:08:26
1	Cu 324.752†	5272.5	-58.8	-0.1920 ug/L	-0.1920 ppb	21:08:06
1	Mn 257.610†	439.5	-100.2	-0.1321 ug/L	-0.1321 ppb	21:08:26
1	Mo 202.031†	8.1	-4.5	-0.3928 ug/L	-0.3928 ppb	21:08:26
1	Ni 231.604†	86.0	6.8	0.2152 ug/L	0.2152 ppb	21:08:26
1	P 214.914†	186.5	7.3	5.5362 ug/L	5.5362 ppb	21:08:26
1	Pb 220.353†	-38.3	3.6	0.5433 ug/L	0.5433 ppb	21:08:26
1	S 181.975 Axial†	32.9	3.6	6.4210 ug/L	6.4210 ppb	21:08:26
1	Sb 206.836†	32.0	8.3	3.4445 ug/L	3.4445 ppb	21:08:26
1	Se 196.026†	-16.1	2.3	1.9554 ug/L	1.9554 ppb	21:08:26
1	Si 251.611†	635.2	153.3	5.7732 ug/L	5.7732 ppb	21:08:26
1	Sn 189.927†	9.2	1.5	0.3307 ug/L	0.3307 ppb	21:08:26
1	Ti 334.940†	-1159.7	-102.0	-0.1832 ug/L	-0.1832 ppb	21:08:06
1	Tl 190.801†	-27.7	3.3	1.2878 ug/L	1.2878 ppb	21:08:26
1	U 409.014†	-2097.3	-70.0	-2.1163 ug/L	-2.1163 ppb	21:08:06
1	V 292.402†	-1307.7	-23.5	-0.1998 ug/L	-0.1998 ppb	21:08:06
1	Zn 213.857†	713.8	114.9	1.3827 ug/L	1.3827 ppb	21:08:26
1	SiO2†	629.8	150.6	12.071 ug/L	12.071 ppb	21:09:37
2	Sc Radial	4595.1	4595.1	100 %		21:07:14
2	Y RADIAL	4933.0	4933.0	99.97 %		21:07:14
2	Al 396.153Radial†	-69.7	16.2	15.247 ug/L	15.247 ppb	21:07:34
2	Ca 317.933Radial†	20.6	-7.3	-12.877 ug/L	-12.877 ppb	21:07:34
2	Fe 238.204 Radial†	9.8	1.9	20.304 ug/L	20.304 ppb	21:07:34
2	K 766.490 Radial†	2625.1	65.1	12.496 ug/L	12.496 ppb	21:07:14
2	Mg 279.077 IEC†	-1.1	-1.2	-45.806 ug/L	-45.806 ppb	21:07:34
2	Na 589.592 Radial†	-926.7	-120.1	-42.079 ug/L	-42.079 ppb	21:07:14
2	Sr 421.552†	38.5	12.7	0.0969 ug/L	0.0969 ppb	21:07:14
2	Sc 361.383	787840.1	787840.1	96.914 %		21:08:31
2	Y 371.029	665274.3	665274.3	96.495 %		21:08:31
2	Ag 328.068†	262.4	60.2	0.3192 ug/L	0.3192 ppb	21:08:31
2	As 188.979†	-30.4	-14.3	-7.9507 ug/L	-7.9507 ppb	21:08:51
2	B 249.677†	-229.9	178.1	4.9813 ug/L	4.9813 ppb	21:08:51
2	Ba 233.527†	5.8	-6.5	-0.0603 ug/L	-0.0603 ppb	21:08:51
2	Be 313.107†	-3739.2	-129.3	-0.0557 ug/L	-0.0557 ppb	21:08:31
2	Cd 226.502†	-173.5	-2.7	-0.0424 ug/L	-0.0424 ppb	21:08:51
2	Co 228.616†	-43.8	-5.3	-0.1377 ug/L	-0.1377 ppb	21:08:51
2	Cr 267.716†	71.8	-5.5	-0.0696 ug/L	-0.0696 ppb	21:08:51
2	Cu 324.752†	5289.5	-8.3	-0.0235 ug/L	-0.0235 ppb	21:08:31
2	Mn 257.610†	447.7	-89.0	-0.1133 ug/L	-0.1133 ppb	21:08:51
2	Mo 202.031†	13.3	0.9	0.0834 ug/L	0.0834 ppb	21:08:51
2	Ni 231.604†	93.5	15.1	0.4809 ug/L	0.4809 ppb	21:08:51

2	P 214.914†	193.5	15.7	11.852 ug/L	11.852 ppb	21:08:51
2	Pb 220.353†	-34.6	7.1	1.0946 ug/L	1.0946 ppb	21:08:51
2	S 181.975 Axial†	33.5	4.4	7.7895 ug/L	7.7895 ppb	21:08:51
2	Sb 206.836†	28.6	5.0	2.0827 ug/L	2.0827 ppb	21:08:51
2	Se 196.026†	-19.9	-1.8	-1.4105 ug/L	-1.4105 ppb	21:08:51
2	Si 251.611†	606.6	127.7	4.8059 ug/L	4.8059 ppb	21:08:51
2	Sn 189.927†	9.2	1.5	0.3349 ug/L	0.3349 ppb	21:08:51
2	Ti 334.940†	-1171.9	-121.9	-0.2064 ug/L	-0.2064 ppb	21:08:31
2	Tl 190.801†	-25.6	5.4	2.0780 ug/L	2.0780 ppb	21:08:51
2	U 409.014†	-2182.9	-171.5	-5.1802 ug/L	-5.1802 ppb	21:08:31
2	V 292.402†	-1289.3	-12.7	-0.1135 ug/L	-0.1135 ppb	21:08:31
2	Zn 213.857†	712.6	118.1	1.4211 ug/L	1.4211 ppb	21:08:51
2	SiO2†	609.5	133.6	10.697 ug/L	10.697 ppb	21:09:57
3	Sc Radial	4518.7	4518.7	98.5 %		21:07:39
3	Y RADIAL	4847.8	4847.8	98.25 %		21:07:39
3	Al 396.153Radial†	-75.6	9.1	8.5825 ug/L	8.5825 ppb	21:07:59
3	Ca 317.933Radial†	22.0	-5.5	-9.6929 ug/L	-9.6929 ppb	21:07:59
3	Fe 238.204 Radial†	6.5	-1.2	-12.892 ug/L	-12.892 ppb	21:07:59
3	K 766.490 Radial†	2591.2	74.9	14.370 ug/L	14.370 ppb	21:07:39
3	Mg 279.077 IEC†	-1.4	-1.5	-55.600 ug/L	-55.600 ppb	21:07:59
3	Na 589.592 Radial†	-908.4	-117.1	-41.040 ug/L	-41.040 ppb	21:07:39
3	Sr 421.552†	5.8	-19.9	-0.1517 ug/L	-0.1517 ppb	21:07:39
3	Sc 361.383	789171.1	789171.1	97.078 %		21:08:56
3	Y 371.029	665630.5	665630.5	96.547 %		21:08:56
3	Ag 328.068†	228.6	24.9	0.1252 ug/L	0.1252 ppb	21:08:56
3	As 188.979†	-20.5	-4.0	-2.2471 ug/L	-2.2471 ppb	21:09:16
3	B 249.677†	-228.7	179.8	5.0341 ug/L	5.0341 ppb	21:09:16
3	Ba 233.527†	7.4	-4.9	-0.0472 ug/L	-0.0472 ppb	21:09:16
3	Be 313.107†	-3758.5	-142.6	-0.0609 ug/L	-0.0609 ppb	21:08:56
3	Cd 226.502†	-152.7	19.0	0.2768 ug/L	0.2768 ppb	21:09:16
3	Co 228.616†	-42.2	-3.6	-0.0958 ug/L	-0.0958 ppb	21:09:16
3	Cr 267.716†	75.7	-1.5	-0.0208 ug/L	-0.0208 ppb	21:09:16
3	Cu 324.752†	5254.3	-53.8	-0.1767 ug/L	-0.1767 ppb	21:08:56
3	Mn 257.610†	446.7	-90.8	-0.1186 ug/L	-0.1186 ppb	21:09:16
3	Mo 202.031†	5.3	-7.4	-0.6488 ug/L	-0.6488 ppb	21:09:16
3	Ni 231.604†	92.7	14.0	0.4467 ug/L	0.4467 ppb	21:09:16
3	P 214.914†	190.4	12.3	9.2737 ug/L	9.2737 ppb	21:09:16
3	Pb 220.353†	-56.5	-15.4	-2.3797 ug/L	-2.3797 ppb	21:09:16
3	S 181.975 Axial†	32.0	2.8	4.9605 ug/L	4.9605 ppb	21:09:16
3	Sb 206.836†	27.4	3.7	1.4865 ug/L	1.4865 ppb	21:09:16
3	Se 196.026†	-18.8	-0.6	-0.5163 ug/L	-0.5163 ppb	21:09:16
3	Si 251.611†	604.2	124.2	4.6804 ug/L	4.6804 ppb	21:09:16
3	Sn 189.927†	2.5	-5.4	-1.2197 ug/L	-1.2197 ppb	21:09:16
3	Ti 334.940†	-1059.0	-3.5	-0.0013 ug/L	-0.0013 ppb	21:08:56
3	Tl 190.801†	-24.6	6.4	2.4792 ug/L	2.4792 ppb	21:09:16
3	U 409.014†	-2136.6	-119.9	-3.6187 ug/L	-3.6187 ppb	21:08:56
3	V 292.402†	-1331.2	-53.6	-0.4432 ug/L	-0.4432 ppb	21:08:56
3	Zn 213.857†	692.4	96.2	1.1609 ug/L	1.1609 ppb	21:09:16
3	SiO2†	625.9	149.4	11.984 ug/L	11.984 ppb	21:10:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	789888.3	97.166 %		0.3058			0.31%
Sc Radial	4496.1	98.0 %		2.44			2.49%
Y 371.029	666794.5	96.716 %		0.3382			0.35%
Y RADIAL	4837.2	98.03 %		2.059			2.10%
Ag 328.068†	2.8	0.0202 ug/L		0.36310	0.0202 ppb	0.36310	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	9.5	8.9699 ug/L		6.09212	8.9699 ppb	6.09212	67.92%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-8.7	-4.8203 ug/L		2.89231	-4.8203 ppb	2.89231	60.00%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	183.6	5.1359 ug/L		0.22365	5.1359 ppb	0.22365	4.35%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-6.2	-0.0582 ug/L		0.01008	-0.0582 ppb	0.01008	17.33%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-129.8	-0.0557 ug/L		0.00516	-0.0557 ppb	0.00516	9.26%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-6.9	-12.164 ug/L		2.2025	-12.164 ppb	2.2025	18.11%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd	226.502†	8.0	0.1147 ug/L	0.15963	0.1147 ppb	0.15963	139.15%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	-3.1	-0.0799 ug/L	0.06711	-0.0799 ppb	0.06711	83.99%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	-4.2	-0.0541 ug/L	0.02889	-0.0541 ppb	0.02889	53.38%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-40.3	-0.1307 ug/L	0.09318	-0.1307 ppb	0.09318	71.27%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	1.1	12.043 ug/L	22.0001	12.043 ppb	22.0001	182.69%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	79.2	15.195 ug/L	3.1931	15.195 ppb	3.1931	21.01%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-0.2	-9.4498 ug/L	71.61966	-9.4498 ppb	71.61966	757.90%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	-93.3	-0.1213 ug/L	0.00970	-0.1213 ppb	0.00970	7.99%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	-3.6	-0.3194 ug/L	0.37159	-0.3194 ppb	0.37159	116.34%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	-135.1	-47.345 ug/L	10.0335	-47.345 ppb	10.0335	21.19%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	12.0	0.3809 ug/L	0.14451	0.3809 ppb	0.14451	37.94%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	11.8	8.8872 ug/L	3.17538	8.8872 ppb	3.17538	35.73%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-1.6	-0.2473 ug/L	1.86721	-0.2473 ppb	1.86721	755.17%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	3.6	6.3904 ug/L	1.41475	6.3904 ppb	1.41475	22.14%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	5.7	2.3379 ug/L	1.00362	2.3379 ppb	1.00362	42.93%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	-0.0	0.0095 ug/L	1.74345	0.0095 ppb	1.74345	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	135.1	5.0865 ug/L	0.59797	5.0865 ppb	0.59797	11.76%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	-0.8	-0.1847 ug/L	0.89635	-0.1847 ppb	0.89635	485.27%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-9.9	-0.0759 ug/L	0.14999	-0.0759 ppb	0.14999	197.63%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-75.8	-0.1303 ug/L	0.11231	-0.1303 ppb	0.11231	86.20%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	5.1	1.9483 ug/L	0.60617	1.9483 ppb	0.60617	31.11%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-120.4	-3.6384 ug/L	1.53206	-3.6384 ppb	1.53206	42.11%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-29.9	-0.2522 ug/L	0.17098	-0.2522 ppb	0.17098	67.80%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	109.7	1.3216 ug/L	0.14044	1.3216 ppb	0.14044	10.63%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		144.5	11.584 ug/L	0.7695	11.584 ppb	0.7695	6.64%
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 28

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/16/2010 22:01:08

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	4248.7	4248.7	92.6 %		22:03:20
1	Y RADIAL	4542.0	4542.0	92.05 %		22:03:00
1	Al 396.153Radial†	4945.6	5425.8	5076.8 ug/L	5076.8 ppb	22:03:00
1	Ca 317.933Radial†	2793.2	2988.1	5281.9 ug/L	5281.9 ppb	22:03:20
1	Fe 238.204 Radial†	471.3	501.1	5265.4 ug/L	5265.4 ppb	22:03:20
1	K 766.490 Radial†	27149.9	26759.6	5120.1 ug/L	5120.1 ppb	22:03:00
1	Mg 279.077 IEC†	132.9	143.4	5457.9 ug/L	5457.9 ppb	22:03:20
1	Na 589.592 Radial†	26228.0	29125.0	10205 ug/L	10205 ppb	22:03:00
1	Sr 421.552†	62450.2	67405.2	514.89 ug/L	514.89 ppb	22:03:00
1	Sc 361.383	810425.1	810425.1	99.692 %		22:04:17
1	Y 371.029	675223.8	675223.8	97.939 %		22:04:17
1	Ag 328.068†	97685.7	97776.9	505.13 ug/L	505.13 ppb	22:04:23
1	As 188.979†	877.9	897.7	503.86 ug/L	503.86 ppb	22:04:43
1	B 249.677†	17345.5	17814.4	496.22 ug/L	496.22 ppb	22:04:23
1	Ba 233.527†	53605.3	53758.4	504.29 ug/L	504.29 ppb	22:04:23
1	Be 313.107†	1187997.2	1195396.0	511.39 ug/L	511.39 ppb	22:04:17
1	Cd 226.502†	34536.3	34819.4	504.37 ug/L	504.37 ppb	22:04:23
1	Co 228.616†	19647.2	19747.7	513.12 ug/L	513.12 ppb	22:04:23
1	Cr 267.716†	37628.9	37665.6	506.80 ug/L	506.80 ppb	22:04:23
1	Cu 324.752†	155882.1	150897.4	499.46 ug/L	499.46 ppb	22:04:23
1	Mn 257.610†	384460.3	385097.0	507.32 ug/L	507.32 ppb	22:04:17
1	Mo 202.031†	5647.2	5651.8	497.49 ug/L	497.49 ppb	22:04:43
1	Ni 231.604†	16174.4	16143.0	513.67 ug/L	513.67 ppb	22:04:23
1	P 214.914†	3478.3	3305.2	2391.5 ug/L	2391.5 ppb	22:04:43
1	Pb 220.353†	3193.0	3245.6	502.14 ug/L	502.14 ppb	22:04:43
1	S 181.975 Axial†	571.1	542.7	967.97 ug/L	967.97 ppb	22:04:43
1	Sb 206.836†	1208.1	1187.3	509.55 ug/L	509.55 ppb	22:04:43
1	Se 196.026†	579.5	600.1	516.23 ug/L	516.23 ppb	22:04:43
1	Si 251.611†	67403.1	67113.1	2519.5 ug/L	2519.5 ppb	22:04:23
1	Sn 189.927†	2205.8	2204.6	497.03 ug/L	497.03 ppb	22:04:43
1	Ti 334.940†	282421.3	284381.0	491.31 ug/L	491.31 ppb	22:04:23
1	Tl 190.801†	1268.5	1304.2	505.48 ug/L	505.48 ppb	22:04:43
1	U 409.014†	14883.3	17010.2	512.00 ug/L	512.00 ppb	22:04:23
1	V 292.402†	61580.2	63088.2	510.66 ug/L	510.66 ppb	22:04:23
1	Zn 213.857†	43042.6	42558.4	509.41 ug/L	509.41 ppb	22:04:23
1	SiO2†	67905.8	67620.3	5401.6 ug/L	5401.6 ppb	22:05:50
2	Sc Radial	4166.8	4166.8	90.8 %		22:03:45
2	Y RADIAL	4318.0	4318.0	87.51 %		22:03:25
2	Al 396.153Radial†	5095.3	5695.7	5329.9 ug/L	5329.9 ppb	22:03:25
2	Ca 317.933Radial†	2792.8	3047.0	5385.9 ug/L	5385.9 ppb	22:03:45
2	Fe 238.204 Radial†	470.9	510.6	5365.0 ug/L	5365.0 ppb	22:03:45
2	K 766.490 Radial†	27927.2	28191.8	5394.2 ug/L	5394.2 ppb	22:03:25
2	Mg 279.077 IEC†	135.6	149.2	5679.2 ug/L	5679.2 ppb	22:03:45
2	Na 589.592 Radial†	27223.9	30778.3	10784 ug/L	10784 ppb	22:03:25
2	Sr 421.552†	64540.9	71033.0	542.60 ug/L	542.60 ppb	22:03:25
2	Sc 361.383	796250.6	796250.6	97.948 %		22:04:48
2	Y 371.029	663818.9	663818.9	96.284 %		22:04:48
2	Ag 328.068†	97722.0	99558.3	514.34 ug/L	514.34 ppb	22:04:54
2	As 188.979†	880.5	916.0	514.11 ug/L	514.11 ppb	22:05:14
2	B 249.677†	17436.1	18216.7	507.44 ug/L	507.44 ppb	22:04:54
2	Ba 233.527†	53609.2	54719.6	513.31 ug/L	513.31 ppb	22:04:54
2	Be 313.107†	1170502.4	1198748.4	512.84 ug/L	512.84 ppb	22:04:48
2	Cd 226.502†	34530.6	35430.2	513.22 ug/L	513.22 ppb	22:04:54
2	Co 228.616†	19602.8	20053.2	521.07 ug/L	521.07 ppb	22:04:54
2	Cr 267.716†	37588.3	38296.1	515.28 ug/L	515.28 ppb	22:04:54
2	Cu 324.752†	155906.9	153706.2	508.76 ug/L	508.76 ppb	22:04:54
2	Mn 257.610†	379752.4	387155.6	510.03 ug/L	510.03 ppb	22:04:48
2	Mo 202.031†	5665.9	5771.7	508.04 ug/L	508.04 ppb	22:05:14
2	Ni 231.604†	16141.9	16398.6	521.80 ug/L	521.80 ppb	22:04:54

2	P 214.914†	3477.0	3365.9	2435.5 ug/L	2435.5 ppb	22:05:14
2	Pb 220.353†	3208.3	3318.3	513.42 ug/L	513.42 ppb	22:05:14
2	S 181.975 Axial†	580.5	562.5	1003.4 ug/L	1003.4 ppb	22:05:14
2	Sb 206.836†	1204.1	1204.8	517.19 ug/L	517.19 ppb	22:05:14
2	Se 196.026†	564.2	594.8	512.22 ug/L	512.22 ppb	22:05:14
2	Si 251.611†	67394.6	68308.1	2564.4 ug/L	2564.4 ppb	22:04:54
2	Sn 189.927†	2215.8	2254.3	508.21 ug/L	508.21 ppb	22:05:14
2	Ti 334.940†	281953.2	288946.2	499.19 ug/L	499.19 ppb	22:04:54
2	Tl 190.801†	1266.5	1324.8	513.45 ug/L	513.45 ppb	22:05:14
2	U 409.014†	14759.7	17149.9	516.19 ug/L	516.19 ppb	22:04:54
2	V 292.402†	61530.4	64136.9	519.18 ug/L	519.18 ppb	22:04:54
2	Zn 213.857†	42931.1	43213.3	517.24 ug/L	517.24 ppb	22:04:54
2	SiO2†	66499.8	67397.4	5383.5 ug/L	5383.5 ppb	22:05:55
3	Sc Radial	4310.7	4310.7	94.0 %		22:04:10
3	Y RADIAL	4680.9	4680.9	94.87 %		22:03:50
3	Al 396.153Radial†	5062.8	5473.9	5121.6 ug/L	5121.6 ppb	22:03:50
3	Ca 317.933Radial†	2815.1	2968.1	5246.5 ug/L	5246.5 ppb	22:04:10
3	Fe 238.204 Radial†	480.9	503.9	5295.0 ug/L	5295.0 ppb	22:04:10
3	K 766.490 Radial†	27933.5	27172.3	5199.1 ug/L	5199.1 ppb	22:03:50
3	Mg 279.077 IEC†	133.5	142.0	5403.7 ug/L	5403.7 ppb	22:04:10
3	Na 589.592 Radial†	27009.0	29549.2	10354 ug/L	10354 ppb	22:03:50
3	Sr 421.552†	64210.1	68309.4	521.80 ug/L	521.80 ppb	22:03:50
3	Sc 361.383	801169.1	801169.1	98.553 %		22:05:19
3	Y 371.029	667176.4	667176.4	96.771 %		22:05:19
3	Ag 328.068†	97112.5	98327.3	507.97 ug/L	507.97 ppb	22:05:25
3	As 188.979†	873.1	903.0	506.82 ug/L	506.82 ppb	22:05:45
3	B 249.677†	17337.1	18007.0	501.60 ug/L	501.60 ppb	22:05:25
3	Ba 233.527†	53253.1	54022.2	506.76 ug/L	506.76 ppb	22:05:25
3	Be 313.107†	1180236.3	1201288.7	513.91 ug/L	513.91 ppb	22:05:19
3	Cd 226.502†	34288.5	34968.2	506.53 ug/L	506.53 ppb	22:05:25
3	Co 228.616†	19470.3	19795.9	514.39 ug/L	514.39 ppb	22:05:25
3	Cr 267.716†	37386.3	37855.6	509.35 ug/L	509.35 ppb	22:05:25
3	Cu 324.752†	154833.0	151639.4	501.92 ug/L	501.92 ppb	22:05:25
3	Mn 257.610†	382379.1	387440.7	510.41 ug/L	510.41 ppb	22:05:19
3	Mo 202.031†	5675.2	5745.7	505.74 ug/L	505.74 ppb	22:05:45
3	Ni 231.604†	16068.2	16222.7	516.20 ug/L	516.20 ppb	22:05:25
3	P 214.914†	3496.4	3363.8	2435.2 ug/L	2435.2 ppb	22:05:45
3	Pb 220.353†	3198.4	3288.1	508.72 ug/L	508.72 ppb	22:05:45
3	S 181.975 Axial†	586.5	564.9	1007.7 ug/L	1007.7 ppb	22:05:45
3	Sb 206.836†	1211.6	1204.9	517.12 ug/L	517.12 ppb	22:05:45
3	Se 196.026†	586.2	613.6	527.55 ug/L	527.55 ppb	22:05:45
3	Si 251.611†	66993.0	67478.1	2533.2 ug/L	2533.2 ppb	22:05:25
3	Sn 189.927†	2215.3	2239.8	504.94 ug/L	504.94 ppb	22:05:45
3	Ti 334.940†	280487.8	285692.1	493.57 ug/L	493.57 ppb	22:05:25
3	Tl 190.801†	1262.6	1313.0	508.87 ug/L	508.87 ppb	22:05:45
3	U 409.014†	14682.5	16979.0	511.05 ug/L	511.05 ppb	22:05:25
3	V 292.402†	60982.3	63195.2	511.62 ug/L	511.62 ppb	22:05:25
3	Zn 213.857†	42697.1	42706.7	511.17 ug/L	511.17 ppb	22:05:25
3	SiO2†	67991.6	68494.3	5471.4 ug/L	5471.4 ppb	22:06:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	802615.0	98.731 %		0.8853			0.90%
Sc Radial	4242.1	92.5 %		1.57			1.70%
Y 371.029	668739.7	96.998 %		0.8501			0.88%
Y RADIAL	4513.6	91.47 %		3.712			4.06%
Ag 328.068†	98554.2	509.15 ug/L		4.714	509.15 ppb	4.714	0.93%
QC value within limits for Ag 328.068 Recovery = 101.83%							
Al 396.153Radial†	5531.8	5176.1 ug/L		135.11	5176.1 ppb	135.11	2.61%
QC value within limits for Al 396.153Radial Recovery = 103.52%							
As 188.979†	905.5	508.26 ug/L		5.275	508.26 ppb	5.275	1.04%
QC value within limits for As 188.979 Recovery = 101.65%							
B 249.677†	18012.7	501.75 ug/L		5.610	501.75 ppb	5.610	1.12%
QC value within limits for B 249.677 Recovery = 100.35%							
Ba 233.527†	54166.8	508.12 ug/L		4.658	508.12 ppb	4.658	0.92%
QC value within limits for Ba 233.527 Recovery = 101.62%							
Be 313.107†	1198477.7	512.71 ug/L		1.265	512.71 ppb	1.265	0.25%
QC value within limits for Be 313.107 Recovery = 102.54%							
Ca 317.933Radial†	3001.1	5304.8 ug/L		72.45	5304.8 ppb	72.45	1.37%

QC value within limits for Ca 317.933 Radial Recovery = 106.10%

Cd 226.502†	35072.6	508.04 ug/L	4.613	508.04 ppb	4.613	0.91%
QC value within limits for Cd 226.502 Recovery = 101.61%						
Co 228.616†	19865.6	516.19 ug/L	4.268	516.19 ppb	4.268	0.83%
QC value within limits for Co 228.616 Recovery = 103.24%						
Cr 267.716†	37939.1	510.48 ug/L	4.353	510.48 ppb	4.353	0.85%
QC value within limits for Cr 267.716 Recovery = 102.10%						
Cu 324.752†	152081.0	503.38 ug/L	4.819	503.38 ppb	4.819	0.96%
QC value within limits for Cu 324.752 Recovery = 100.68%						
Fe 238.204 Radial†	505.2	5308.5 ug/L	51.16	5308.5 ppb	51.16	0.96%
QC value within limits for Fe 238.204 Radial Recovery = 106.17%						
K 766.490 Radial†	27374.6	5237.8 ug/L	141.10	5237.8 ppb	141.10	2.69%
QC value within limits for K 766.490 Radial Recovery = 104.76%						
Mg 279.077 IEC†	144.9	5513.6 ug/L	145.98	5513.6 ppb	145.98	2.65%
QC value greater than the upper limit for Mg 279.077 IEC Recovery = 110.27%						
Mn 257.610†	386564.4	509.26 ug/L	1.686	509.26 ppb	1.686	0.33%
QC value within limits for Mn 257.610 Recovery = 101.85%						
Mo 202.031†	5723.1	503.76 ug/L	5.548	503.76 ppb	5.548	1.10%
QC value within limits for Mo 202.031 Recovery = 100.75%						
Na 589.592 Radial†	29817.5	10448 ug/L	300.9	10448 ppb	300.9	2.88%
QC value within limits for Na 589.592 Radial Recovery = 104.48%						
Ni 231.604†	16254.7	517.22 ug/L	4.162	517.22 ppb	4.162	0.80%
QC value within limits for Ni 231.604 Recovery = 103.44%						
P 214.914†	3345.0	2420.8 ug/L	25.33	2420.8 ppb	25.33	1.05%
QC value within limits for P 214.914 Recovery = 96.83%						
Pb 220.353†	3284.0	508.09 ug/L	5.665	508.09 ppb	5.665	1.11%
QC value within limits for Pb 220.353 Recovery = 101.62%						
S 181.975 Axial†	556.7	993.05 ug/L	21.821	993.05 ppb	21.821	2.20%
QC value within limits for S 181.975 Axial Recovery = 99.30%						
Sb 206.836†	1199.0	514.62 ug/L	4.388	514.62 ppb	4.388	0.85%
QC value within limits for Sb 206.836 Recovery = 102.92%						
Se 196.026†	602.8	518.67 ug/L	7.951	518.67 ppb	7.951	1.53%
QC value within limits for Se 196.026 Recovery = 103.73%						
Si 251.611†	67633.1	2539.0 ug/L	22.99	2539.0 ppb	22.99	0.91%
QC value within limits for Si 251.611 Recovery = 101.56%						
Sn 189.927†	2232.9	503.39 ug/L	5.751	503.39 ppb	5.751	1.14%
QC value within limits for Sn 189.927 Recovery = 100.68%						
Sr 421.552†	68915.9	526.43 ug/L	14.426	526.43 ppb	14.426	2.74%
QC value within limits for Sr 421.552 Recovery = 105.29%						
Ti 334.940†	286339.8	494.69 ug/L	4.057	494.69 ppb	4.057	0.82%
QC value within limits for Ti 334.940 Recovery = 98.94%						
Tl 190.801†	1314.0	509.26 ug/L	4.000	509.26 ppb	4.000	0.79%
QC value within limits for Tl 190.801 Recovery = 101.85%						
U 409.014†	17046.4	513.08 ug/L	2.734	513.08 ppb	2.734	0.53%
QC value within limits for U 409.014 Recovery = 102.62%						
V 292.402†	63473.4	513.82 ug/L	4.663	513.82 ppb	4.663	0.91%
QC value within limits for V 292.402 Recovery = 102.76%						
Zn 213.857†	42826.1	512.61 ug/L	4.107	512.61 ppb	4.107	0.80%
QC value within limits for Zn 213.857 Recovery = 102.52%						
SiO2†	67837.3	5418.9 ug/L	46.41	5418.9 ppb	46.41	0.86%
QC value within limits for SiO2 Recovery = 101.33%						

QC Failed. Continue with analysis.

Sequence No.: 29

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/16/2010 22:08:13

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	4438.0	4438.0	96.7 %		22:10:05
1	Y RADIAL	4767.4	4767.4	96.62 %		22:10:05
1	Al 396.153Radial†	-84.3	-1.3	-1.2275 ug/L	-1.2275 ppb	22:10:25
1	Ca 317.933Radial†	19.3	-7.9	-14.008 ug/L	-14.008 ppb	22:10:25
1	Fe 238.204 Radial†	5.8	-1.8	-19.105 ug/L	-19.105 ppb	22:10:25
1	K 766.490 Radial†	2730.2	266.5	51.088 ug/L	51.088 ppb	22:10:05
1	Mg 279.077 IEC†	3.3	3.4	128.63 ug/L	128.63 ppb	22:10:25
1	Na 589.592 Radial†	-941.8	-168.4	-59.010 ug/L	-59.010 ppb	22:10:05
1	Sr 421.552†	10.9	-14.5	-0.1105 ug/L	-0.1105 ppb	22:10:05
1	Sc 361.383	796201.6	796201.6	97.942 %		22:11:22
1	Y 371.029	673643.0	673643.0	97.709 %		22:11:22
1	Ag 328.068†	191.8	-14.8	-0.0806 ug/L	-0.0806 ppb	22:11:22
1	As 188.979†	-22.6	-6.0	-3.3387 ug/L	-3.3387 ppb	22:11:42
1	B 249.677†	-174.8	236.9	6.6315 ug/L	6.6315 ppb	22:11:42
1	Ba 233.527†	-6.8	-19.5	-0.1834 ug/L	-0.1834 ppb	22:11:42
1	Be 313.107†	-3668.4	-16.5	-0.0070 ug/L	-0.0070 ppb	22:11:22
1	Cd 226.502†	-166.0	6.8	0.1003 ug/L	0.1003 ppb	22:11:42
1	Co 228.616†	-35.8	3.3	0.0842 ug/L	0.0842 ppb	22:11:42
1	Cr 267.716†	70.2	-7.8	-0.1064 ug/L	-0.1064 ppb	22:11:42
1	Cu 324.752†	5300.3	-54.6	-0.1803 ug/L	-0.1803 ppb	22:11:22
1	Mn 257.610†	443.2	-98.4	-0.1367 ug/L	-0.1367 ppb	22:11:42
1	Mo 202.031†	6.2	-6.5	-0.5708 ug/L	-0.5708 ppb	22:11:42
1	Ni 231.604†	86.0	6.4	0.2046 ug/L	0.2046 ppb	22:11:42
1	P 214.914†	174.5	-5.7	-4.2523 ug/L	-4.2523 ppb	22:11:42
1	Pb 220.353†	-49.1	-7.3	-1.1261 ug/L	-1.1261 ppb	22:11:42
1	S 181.975 Axial†	31.3	1.8	3.2210 ug/L	3.2210 ppb	22:11:42
1	Sb 206.836†	31.7	7.9	3.2767 ug/L	3.2767 ppb	22:11:42
1	Se 196.026†	-19.4	-1.0	-0.8949 ug/L	-0.8949 ppb	22:11:42
1	Si 251.611†	606.9	121.5	4.5779 ug/L	4.5779 ppb	22:11:42
1	Sn 189.927†	13.9	6.2	1.4027 ug/L	1.4027 ppb	22:11:42
1	Ti 334.940†	-1052.9	12.3	0.0100 ug/L	0.0100 ppb	22:11:22
1	Tl 190.801†	-31.6	-0.4	-0.1715 ug/L	-0.1715 ppb	22:11:42
1	U 409.014†	-2118.5	-82.0	-2.4728 ug/L	-2.4728 ppb	22:11:22
1	V 292.402†	-1320.3	-30.3	-0.2499 ug/L	-0.2499 ppb	22:11:22
1	Zn 213.857†	686.7	84.0	1.0163 ug/L	1.0163 ppb	22:11:42
1	SiO2†	613.2	130.8	10.488 ug/L	10.488 ppb	22:12:53
2	Sc Radial	4327.8	4327.8	94.3 %		22:10:30
2	Y RADIAL	4677.2	4677.2	94.79 %		22:10:30
2	Al 396.153Radial†	-82.5	-1.7	-1.5854 ug/L	-1.5854 ppb	22:10:50
2	Ca 317.933Radial†	19.9	-6.7	-11.903 ug/L	-11.903 ppb	22:10:50
2	Fe 238.204 Radial†	9.5	2.2	22.804 ug/L	22.804 ppb	22:10:50
2	K 766.490 Radial†	2615.7	217.0	41.603 ug/L	41.603 ppb	22:10:30
2	Mg 279.077 IEC†	3.0	3.1	117.39 ug/L	117.39 ppb	22:10:50
2	Na 589.592 Radial†	-984.7	-238.7	-83.651 ug/L	-83.651 ppb	22:10:30
2	Sr 421.552†	32.7	8.9	0.0682 ug/L	0.0682 ppb	22:10:30
2	Sc 361.383	784772.5	784772.5	96.536 %		22:11:47
2	Y 371.029	663858.4	663858.4	96.290 %		22:11:47
2	Ag 328.068†	256.4	55.0	0.2915 ug/L	0.2915 ppb	22:11:47
2	As 188.979†	-24.4	-8.2	-4.5804 ug/L	-4.5804 ppb	22:12:07
2	B 249.677†	-195.0	213.4	5.9685 ug/L	5.9685 ppb	22:12:07
2	Ba 233.527†	-4.9	-17.5	-0.1643 ug/L	-0.1643 ppb	22:12:07
2	Be 313.107†	-3679.0	-81.9	-0.0349 ug/L	-0.0349 ppb	22:11:47
2	Cd 226.502†	-170.4	-0.2	-0.0061 ug/L	-0.0061 ppb	22:12:07
2	Co 228.616†	-47.8	-9.7	-0.2512 ug/L	-0.2512 ppb	22:12:07
2	Cr 267.716†	65.6	-11.6	-0.1516 ug/L	-0.1516 ppb	22:12:07
2	Cu 324.752†	5272.5	-4.6	-0.0115 ug/L	-0.0115 ppb	22:11:47
2	Mn 257.610†	464.8	-69.5	-0.0940 ug/L	-0.0940 ppb	22:12:07
2	Mo 202.031†	13.7	1.3	0.1172 ug/L	0.1172 ppb	22:12:07
2	Ni 231.604†	65.4	-13.6	-0.4338 ug/L	-0.4338 ppb	22:12:07

2	P 214.914†	182.9	5.5	4.1244 ug/L	4.1244 ppb	22:12:07
2	Pb 220.353†	-53.0	-12.1	-1.8717 ug/L	-1.8717 ppb	22:12:07
2	S 181.975 Axial†	33.9	5.0	8.8407 ug/L	8.8407 ppb	22:12:07
2	Sb 206.836†	21.5	-2.3	-0.9661 ug/L	-0.9661 ppb	22:12:07
2	Se 196.026†	-19.1	-1.0	-0.7438 ug/L	-0.7438 ppb	22:12:07
2	Si 251.611†	595.0	118.2	4.4461 ug/L	4.4461 ppb	22:12:07
2	Sn 189.927†	1.9	-6.0	-1.3534 ug/L	-1.3534 ppb	22:12:07
2	Ti 334.940†	-1041.1	8.9	0.0062 ug/L	0.0062 ppb	22:11:47
2	Tl 190.801†	-25.0	5.9	2.2877 ug/L	2.2877 ppb	22:12:07
2	U 409.014†	-2158.6	-155.0	-4.6838 ug/L	-4.6838 ppb	22:11:47
2	V 292.402†	-1323.8	-53.6	-0.4366 ug/L	-0.4366 ppb	22:11:47
2	Zn 213.857†	680.6	87.9	1.0615 ug/L	1.0615 ppb	22:12:07
2	SiO2†	609.4	135.9	10.881 ug/L	10.881 ppb	22:13:13
3	Sc Radial	4366.6	4366.6	95.2 %		22:10:55
3	Y RADIAL	4702.8	4702.8	95.31 %		22:10:55
3	Al 396.153Radial†	-76.8	5.1	4.8211 ug/L	4.8211 ppb	22:11:15
3	Ca 317.933Radial†	19.9	-6.9	-12.251 ug/L	-12.251 ppb	22:11:15
3	Fe 238.204 Radial†	8.4	1.0	10.406 ug/L	10.406 ppb	22:11:15
3	K 766.490 Radial†	2593.3	168.8	32.368 ug/L	32.368 ppb	22:10:55
3	Mg 279.077 IEC†	4.8	5.0	189.30 ug/L	189.30 ppb	22:11:15
3	Na 589.592 Radial†	-974.8	-219.1	-76.767 ug/L	-76.767 ppb	22:10:55
3	Sr 421.552†	34.7	10.6	0.0814 ug/L	0.0814 ppb	22:10:55
3	Sc 361.383	793694.5	793694.5	97.634 %		22:12:13
3	Y 371.029	669721.3	669721.3	97.140 %		22:12:13
3	Ag 328.068†	196.8	-9.0	-0.0398 ug/L	-0.0398 ppb	22:12:13
3	As 188.979†	-22.8	-6.3	-3.4929 ug/L	-3.4929 ppb	22:12:33
3	B 249.677†	-183.9	227.0	6.3502 ug/L	6.3502 ppb	22:12:33
3	Ba 233.527†	15.5	3.3	0.0320 ug/L	0.0320 ppb	22:12:33
3	Be 313.107†	-3762.3	-124.4	-0.0529 ug/L	-0.0529 ppb	22:12:13
3	Cd 226.502†	-162.8	9.6	0.1366 ug/L	0.1366 ppb	22:12:33
3	Co 228.616†	-42.5	-3.7	-0.0967 ug/L	-0.0967 ppb	22:12:33
3	Cr 267.716†	69.1	-8.8	-0.1151 ug/L	-0.1151 ppb	22:12:33
3	Cu 324.752†	5213.1	-126.8	-0.4176 ug/L	-0.4176 ppb	22:12:13
3	Mn 257.610†	448.8	-91.2	-0.1269 ug/L	-0.1269 ppb	22:12:33
3	Mo 202.031†	7.3	-5.3	-0.4686 ug/L	-0.4686 ppb	22:12:33
3	Ni 231.604†	68.8	-11.0	-0.3487 ug/L	-0.3487 ppb	22:12:33
3	P 214.914†	188.5	9.2	6.9983 ug/L	6.9983 ppb	22:12:33
3	Pb 220.353†	-59.2	-17.8	-2.7500 ug/L	-2.7500 ppb	22:12:33
3	S 181.975 Axial†	23.3	-6.2	-11.144 ug/L	-11.144 ppb	22:12:33
3	Sb 206.836†	31.1	7.3	3.0413 ug/L	3.0413 ppb	22:12:33
3	Se 196.026†	-26.0	-7.8	-6.4646 ug/L	-6.4646 ppb	22:12:33
3	Si 251.611†	602.7	119.1	4.4880 ug/L	4.4880 ppb	22:12:33
3	Sn 189.927†	10.5	2.8	0.6253 ug/L	0.6253 ppb	22:12:33
3	Ti 334.940†	-1017.0	45.6	0.0630 ug/L	0.0630 ppb	22:12:13
3	Tl 190.801†	-28.5	2.6	1.0100 ug/L	1.0100 ppb	22:12:33
3	U 409.014†	-2121.1	-91.5	-2.7633 ug/L	-2.7633 ppb	22:12:13
3	V 292.402†	-1267.0	20.0	0.1498 ug/L	0.1498 ppb	22:12:13
3	Zn 213.857†	691.7	91.4	1.1049 ug/L	1.1049 ppb	22:12:33
3	SiO2†	589.3	108.2	8.6813 ug/L	8.6813 ppb	22:13:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	791556.2	97.371 %	0.7389			0.76%
Sc Radial	4377.5	95.4 %	1.22			1.28%
Y 371.029	669074.2	97.047 %	0.7142			0.74%
Y RADIAL	4715.8	95.57 %	0.942			0.99%
Ag 328.068†	10.4	0.0570 ug/L	0.20407	0.0570 ppb	0.20407	357.90%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	0.7	0.6694 ug/L	3.59996	0.6694 ppb	3.59996	537.80%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-6.8	-3.8040 ug/L	0.67677	-3.8040 ppb	0.67677	17.79%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	225.7	6.3167 ug/L	0.33272	6.3167 ppb	0.33272	5.27%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-11.2	-0.1052 ug/L	0.11923	-0.1052 ppb	0.11923	113.31%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-74.3	-0.0316 ug/L	0.02315	-0.0316 ppb	0.02315	73.20%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-7.2	-12.721 ug/L	1.1282	-12.721 ppb	1.1282	8.87%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	5.4	0.0769 ug/L	0.07415	0.0769 ppb	0.07415	96.42%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-3.4	-0.0879 ug/L	0.16788	-0.0879 ppb	0.16788	190.92%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-9.4	-0.1244 ug/L	0.02400	-0.1244 ppb	0.02400	19.29%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-62.0	-0.2031 ug/L	0.20404	-0.2031 ppb	0.20404	100.45%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.4	4.7015 ug/L	21.52871	4.7015 ppb	21.52871	457.91%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	217.4	41.687 ug/L	9.3604	41.687 ppb	9.3604	22.45%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	3.8	145.11 ug/L	38.686	145.11 ppb	38.686	26.66%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-86.4	-0.1192 ug/L	0.02236	-0.1192 ppb	0.02236	18.76%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-3.5	-0.3074 ug/L	0.37126	-0.3074 ppb	0.37126	120.77%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-208.7	-73.143 ug/L	12.7137	-73.143 ppb	12.7137	17.38%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-6.1	-0.1926 ug/L	0.34665	-0.1926 ppb	0.34665	179.96%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	3.0	2.2901 ug/L	5.84528	2.2901 ppb	5.84528	255.24%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-12.4	-1.9159 ug/L	0.81287	-1.9159 ppb	0.81287	42.43%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	0.2	0.3058 ug/L	10.30661	0.3058 ppb	10.30661	>999.9%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	4.3	1.7840 ug/L	2.38453	1.7840 ppb	2.38453	133.66%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-3.3	-2.7011 ug/L	3.26019	-2.7011 ppb	3.26019	120.70%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	119.6	4.5040 ug/L	0.06733	4.5040 ppb	0.06733	1.49%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	1.0	0.2249 ug/L	1.42101	0.2249 ppb	1.42101	631.96%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	1.7	0.0130 ug/L	0.10719	0.0130 ppb	0.10719	822.46%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	22.3	0.0264 ug/L	0.03176	0.0264 ppb	0.03176	120.28%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	2.7	1.0421 ug/L	1.22992	1.0421 ppb	1.22992	118.03%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-109.5	-3.3067 ug/L	1.20149	-3.3067 ppb	1.20149	36.34%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-21.3	-0.1789 ug/L	0.29957	-0.1789 ppb	0.29957	167.45%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	87.8	1.0609 ug/L	0.04431	1.0609 ppb	0.04431	4.18%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	125.0	10.017 ug/L	1.1732	10.017 ppb	1.1732	11.71%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 35

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/16/2010 22:50:17

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	4379.1	4379.1	95.5 %		22:52:09
1	Y RADIAL	4741.7	4741.7	96.10 %		22:52:09
1	Al 396.153Radial†	5061.7	5388.6	5041.6 ug/L	5041.6 ppb	22:52:09
1	Ca 317.933Radial†	2768.3	2872.3	5077.0 ug/L	5077.0 ppb	22:52:29
1	Fe 238.204 Radial†	467.5	481.9	5064.2 ug/L	5064.2 ppb	22:52:29
1	K 766.490 Radial†	27814.3	26582.8	5086.4 ug/L	5086.4 ppb	22:52:09
1	Mg 279.077 IEC†	131.4	137.6	5235.5 ug/L	5235.5 ppb	22:52:29
1	Na 589.592 Radial†	26175.8	28227.2	9890.4 ug/L	9890.4 ppb	22:52:09
1	Sr 421.552†	63459.6	66455.2	507.64 ug/L	507.64 ppb	22:52:09
1	Sc 361.383	812190.8	812190.8	99.909 %		22:53:27
1	Y 371.029	676921.1	676921.1	98.185 %		22:53:27
1	Ag 328.068†	98643.3	98522.3	508.91 ug/L	508.91 ppb	22:53:32
1	As 188.979†	884.4	902.2	506.37 ug/L	506.37 ppb	22:53:52
1	B 249.677†	17332.6	17763.7	494.83 ug/L	494.83 ppb	22:53:32
1	Ba 233.527†	54198.4	54235.1	508.75 ug/L	508.75 ppb	22:53:32
1	Be 313.107†	1188182.6	1192990.9	510.37 ug/L	510.37 ppb	22:53:27
1	Cd 226.502†	34988.2	35196.3	509.86 ug/L	509.86 ppb	22:53:32
1	Co 228.616†	19800.1	19857.9	515.99 ug/L	515.99 ppb	22:53:32
1	Cr 267.716†	37967.2	37922.1	510.22 ug/L	510.22 ppb	22:53:32
1	Cu 324.752†	157503.3	152180.1	503.69 ug/L	503.69 ppb	22:53:32
1	Mn 257.610†	383803.0	383600.7	505.34 ug/L	505.34 ppb	22:53:27
1	Mo 202.031†	5691.4	5683.8	500.28 ug/L	500.28 ppb	22:53:52
1	Ni 231.604†	16298.8	16232.2	516.51 ug/L	516.51 ppb	22:53:32
1	P 214.914†	3507.9	3327.2	2407.4 ug/L	2407.4 ppb	22:53:52
1	Pb 220.353†	3217.0	3262.7	504.79 ug/L	504.79 ppb	22:53:52
1	S 181.975 Axial†	582.1	552.5	985.48 ug/L	985.48 ppb	22:53:52
1	Sb 206.836†	1205.2	1181.8	507.36 ug/L	507.36 ppb	22:53:52
1	Se 196.026†	578.7	598.0	513.93 ug/L	513.93 ppb	22:53:52
1	Si 251.611†	68139.3	67703.0	2541.7 ug/L	2541.7 ppb	22:53:32
1	Sn 189.927†	2217.4	2211.4	498.53 ug/L	498.53 ppb	22:53:52
1	Ti 334.940†	285111.5	286457.8	494.88 ug/L	494.88 ppb	22:53:32
1	Tl 190.801†	1278.3	1311.2	508.18 ug/L	508.18 ppb	22:53:52
1	U 409.014†	15147.6	17242.4	519.03 ug/L	519.03 ppb	22:53:32
1	V 292.402†	62097.8	63471.9	513.80 ug/L	513.80 ppb	22:53:32
1	Zn 213.857†	43427.0	42849.4	512.93 ug/L	512.93 ppb	22:53:32
1	SiO2†	68680.6	68247.7	5451.8 ug/L	5451.8 ppb	22:54:59
2	Sc Radial	4371.8	4371.8	95.3 %		22:52:34
2	Y RADIAL	4714.0	4714.0	95.54 %		22:52:34
2	Al 396.153Radial†	5102.3	5439.9	5089.3 ug/L	5089.3 ppb	22:52:34
2	Ca 317.933Radial†	2778.7	2888.0	5104.9 ug/L	5104.9 ppb	22:52:54
2	Fe 238.204 Radial†	467.4	482.6	5072.0 ug/L	5072.0 ppb	22:52:54
2	K 766.490 Radial†	27948.1	26771.6	5122.5 ug/L	5122.5 ppb	22:52:34
2	Mg 279.077 IEC†	131.6	138.0	5253.3 ug/L	5253.3 ppb	22:52:54
2	Na 589.592 Radial†	26106.2	28199.6	9880.8 ug/L	9880.8 ppb	22:52:34
2	Sr 421.552†	63307.2	66405.5	507.26 ug/L	507.26 ppb	22:52:34
2	Sc 361.383	793663.0	793663.0	97.630 %		22:53:58
2	Y 371.029	662720.0	662720.0	96.125 %		22:53:58
2	Ag 328.068†	98311.7	100487.6	519.03 ug/L	519.03 ppb	22:54:03
2	As 188.979†	882.7	921.2	516.99 ug/L	516.99 ppb	22:54:23
2	B 249.677†	17309.9	18145.5	505.49 ug/L	505.49 ppb	22:54:03
2	Ba 233.527†	53943.7	55240.6	518.18 ug/L	518.18 ppb	22:54:03
2	Be 313.107†	1161901.1	1193834.5	510.75 ug/L	510.75 ppb	22:53:58
2	Cd 226.502†	34616.7	35633.4	516.20 ug/L	516.20 ppb	22:54:03
2	Co 228.616†	19637.1	20153.6	523.68 ug/L	523.68 ppb	22:54:03
2	Cr 267.716†	37853.1	38692.4	520.58 ug/L	520.58 ppb	22:54:03
2	Cu 324.752†	156872.5	155214.3	513.74 ug/L	513.74 ppb	22:54:03
2	Mn 257.610†	374869.0	383417.8	505.10 ug/L	505.10 ppb	22:53:58
2	Mo 202.031†	5684.8	5810.0	511.38 ug/L	511.38 ppb	22:54:23
2	Ni 231.604†	16221.0	16533.3	526.09 ug/L	526.09 ppb	22:54:03

2	P 214.914†	3484.5	3385.2	2449.2 ug/L	2449.2 ppb	22:54:23
2	Pb 220.353†	3199.5	3320.0	513.67 ug/L	513.67 ppb	22:54:23
2	S 181.975 Axial†	578.3	562.2	1002.8 ug/L	1002.8 ppb	22:54:23
2	Sb 206.836†	1206.0	1210.8	519.71 ug/L	519.71 ppb	22:54:23
2	Se 196.026†	592.5	625.6	536.92 ug/L	536.92 ppb	22:54:23
2	Si 251.611†	67813.2	68961.1	2588.9 ug/L	2588.9 ppb	22:54:03
2	Sn 189.927†	2199.8	2245.3	506.15 ug/L	506.15 ppb	22:54:23
2	Ti 334.940†	283661.5	291634.5	503.82 ug/L	503.82 ppb	22:54:03
2	Tl 190.801†	1277.1	1339.9	519.23 ug/L	519.23 ppb	22:54:23
2	U 409.014†	14892.5	17335.0	521.80 ug/L	521.80 ppb	22:54:03
2	V 292.402†	61755.5	64572.3	522.74 ug/L	522.74 ppb	22:54:03
2	Zn 213.857†	43168.7	43599.5	521.91 ug/L	521.91 ppb	22:54:03
2	SiO2†	67587.3	68732.6	5490.3 ug/L	5490.3 ppb	22:55:04
3	Sc Radial	4367.7	4367.7	95.2 %		22:52:59
3	Y RADIAL	4691.9	4691.9	95.09 %		22:52:59
3	Al 396.153Radial†	5056.6	5397.0	5049.6 ug/L	5049.6 ppb	22:52:59
3	Ca 317.933Radial†	2791.3	2903.9	5133.1 ug/L	5133.1 ppb	22:53:19
3	Fe 238.204 Radial†	469.5	485.2	5099.1 ug/L	5099.1 ppb	22:53:19
3	K 766.490 Radial†	27719.3	26559.2	5081.9 ug/L	5081.9 ppb	22:52:59
3	Mg 279.077 IEC†	130.9	137.4	5230.4 ug/L	5230.4 ppb	22:53:19
3	Na 589.592 Radial†	25976.5	28089.4	9842.2 ug/L	9842.2 ppb	22:52:59
3	Sr 421.552†	63100.9	66252.1	506.08 ug/L	506.08 ppb	22:52:59
3	Sc 361.383	814208.1	814208.1	100.16 %		22:54:29
3	Y 371.029	679070.8	679070.8	98.497 %		22:54:29
3	Ag 328.068†	97107.5	96744.3	499.77 ug/L	499.77 ppb	22:54:34
3	As 188.979†	888.4	904.1	507.35 ug/L	507.35 ppb	22:54:54
3	B 249.677†	17085.9	17474.4	486.75 ug/L	486.75 ppb	22:54:34
3	Ba 233.527†	53365.1	53268.7	499.69 ug/L	499.69 ppb	22:54:34
3	Be 313.107†	1192793.1	1194647.6	511.05 ug/L	511.05 ppb	22:54:29
3	Cd 226.502†	34424.7	34547.0	500.44 ug/L	500.44 ppb	22:54:34
3	Co 228.616†	19468.6	19477.9	506.13 ug/L	506.13 ppb	22:54:34
3	Cr 267.716†	37438.1	37299.8	501.86 ug/L	501.86 ppb	22:54:34
3	Cu 324.752†	154511.3	148802.2	492.53 ug/L	492.53 ppb	22:54:34
3	Mn 257.610†	385214.1	384057.9	505.95 ug/L	505.95 ppb	22:54:29
3	Mo 202.031†	5680.2	5658.5	498.06 ug/L	498.06 ppb	22:54:54
3	Ni 231.604†	16061.9	15955.3	507.69 ug/L	507.69 ppb	22:54:34
3	P 214.914†	3502.1	3312.6	2398.6 ug/L	2398.6 ppb	22:54:54
3	Pb 220.353†	3216.2	3253.9	503.44 ug/L	503.44 ppb	22:54:54
3	S 181.975 Axial†	587.9	556.8	993.25 ug/L	993.25 ppb	22:54:54
3	Sb 206.836†	1220.5	1194.1	512.36 ug/L	512.36 ppb	22:54:54
3	Se 196.026†	589.9	607.8	522.16 ug/L	522.16 ppb	22:54:54
3	Si 251.611†	66961.7	66358.2	2491.1 ug/L	2491.1 ppb	22:54:34
3	Sn 189.927†	2207.4	2196.0	495.06 ug/L	495.06 ppb	22:54:54
3	Ti 334.940†	280501.1	281147.6	485.72 ug/L	485.72 ppb	22:54:34
3	Tl 190.801†	1264.4	1294.3	501.63 ug/L	501.63 ppb	22:54:54
3	U 409.014†	14569.2	16627.3	500.46 ug/L	500.46 ppb	22:54:34
3	V 292.402†	61187.7	62409.3	505.25 ug/L	505.25 ppb	22:54:34
3	Zn 213.857†	42822.2	42137.8	504.40 ug/L	504.40 ppb	22:54:34
3	SiO2†	67979.9	67377.8	5382.2 ug/L	5382.2 ppb	22:55:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	806687.3	99.232 %		1.3930			1.40%
Sc Radial	4372.9	95.3 %		0.13			0.13%
Y 371.029	672904.0	97.602 %		1.2887			1.32%
Y RADIAL	4715.9	95.57 %		0.506			0.53%
Ag 328.068†	98584.7	509.24 ug/L		9.635	509.24 ppb	9.635	1.89%
QC value within limits for Ag 328.068 Recovery = 101.85%							
Al 396.153Radial†	5408.5	5060.2 ug/L		25.56	5060.2 ppb	25.56	0.51%
QC value within limits for Al 396.153Radial Recovery = 101.20%							
As 188.979†	909.2	510.24 ug/L		5.872	510.24 ppb	5.872	1.15%
QC value within limits for As 188.979 Recovery = 102.05%							
B 249.677†	17794.5	495.69 ug/L		9.397	495.69 ppb	9.397	1.90%
QC value within limits for B 249.677 Recovery = 99.14%							
Ba 233.527†	54248.2	508.88 ug/L		9.245	508.88 ppb	9.245	1.82%
QC value within limits for Ba 233.527 Recovery = 101.78%							
Be 313.107†	1193824.3	510.72 ug/L		0.344	510.72 ppb	0.344	0.07%
QC value within limits for Be 313.107 Recovery = 102.14%							
Ca 317.933Radial†	2888.1	5105.0 ug/L		28.00	5105.0 ppb	28.00	0.55%

QC value within limits for Ca 317.933 Radial Recovery = 102.10%

Cd 226.502†	35125.5	508.83 ug/L	7.930	508.83 ppb	7.930	1.56%
QC value within limits for Cd 226.502 Recovery = 101.77%						
Co 228.616†	19829.8	515.27 ug/L	8.797	515.27 ppb	8.797	1.71%
QC value within limits for Co 228.616 Recovery = 103.05%						
Cr 267.716†	37971.4	510.89 ug/L	9.374	510.89 ppb	9.374	1.83%
QC value within limits for Cr 267.716 Recovery = 102.18%						
Cu 324.752†	152065.5	503.32 ug/L	10.610	503.32 ppb	10.610	2.11%
QC value within limits for Cu 324.752 Recovery = 100.66%						
Fe 238.204 Radial†	483.2	5078.4 ug/L	18.32	5078.4 ppb	18.32	0.36%
QC value within limits for Fe 238.204 Radial Recovery = 101.57%						
K 766.490 Radial†	26637.9	5096.9 ug/L	22.29	5096.9 ppb	22.29	0.44%
QC value within limits for K 766.490 Radial Recovery = 101.94%						
Mg 279.077 IEC†	137.7	5239.7 ug/L	12.04	5239.7 ppb	12.04	0.23%
QC value within limits for Mg 279.077 IEC Recovery = 104.79%						
Mn 257.610†	383692.1	505.46 ug/L	0.436	505.46 ppb	0.436	0.09%
QC value within limits for Mn 257.610 Recovery = 101.09%						
Mo 202.031†	5717.4	503.24 ug/L	7.138	503.24 ppb	7.138	1.42%
QC value within limits for Mo 202.031 Recovery = 100.65%						
Na 589.592 Radial†	28172.1	9871.1 ug/L	25.53	9871.1 ppb	25.53	0.26%
QC value within limits for Na 589.592 Radial Recovery = 98.71%						
Ni 231.604†	16240.3	516.76 ug/L	9.200	516.76 ppb	9.200	1.78%
QC value within limits for Ni 231.604 Recovery = 103.35%						
P 214.914†	3341.7	2418.4 ug/L	27.01	2418.4 ppb	27.01	1.12%
QC value within limits for P 214.914 Recovery = 96.74%						
Pb 220.353†	3278.9	507.30 ug/L	5.558	507.30 ppb	5.558	1.10%
QC value within limits for Pb 220.353 Recovery = 101.46%						
S 181.975 Axial†	557.2	993.84 ug/L	8.669	993.84 ppb	8.669	0.87%
QC value within limits for S 181.975 Axial Recovery = 99.38%						
Sb 206.836†	1195.6	513.14 ug/L	6.211	513.14 ppb	6.211	1.21%
QC value within limits for Sb 206.836 Recovery = 102.63%						
Se 196.026†	610.5	524.34 ug/L	11.652	524.34 ppb	11.652	2.22%
QC value within limits for Se 196.026 Recovery = 104.87%						
Si 251.611†	67674.1	2540.6 ug/L	48.90	2540.6 ppb	48.90	1.92%
QC value within limits for Si 251.611 Recovery = 101.62%						
Sn 189.927†	2217.6	499.91 ug/L	5.674	499.91 ppb	5.674	1.13%
QC value within limits for Sn 189.927 Recovery = 99.98%						
Sr 421.552†	66371.0	506.99 ug/L	0.809	506.99 ppb	0.809	0.16%
QC value within limits for Sr 421.552 Recovery = 101.40%						
Ti 334.940†	286413.3	494.81 ug/L	9.051	494.81 ppb	9.051	1.83%
QC value within limits for Ti 334.940 Recovery = 98.96%						
Tl 190.801†	1315.1	509.68 ug/L	8.895	509.68 ppb	8.895	1.75%
QC value within limits for Tl 190.801 Recovery = 101.94%						
U 409.014†	17068.2	513.76 ug/L	11.600	513.76 ppb	11.600	2.26%
QC value within limits for U 409.014 Recovery = 102.75%						
V 292.402†	63484.5	513.93 ug/L	8.745	513.93 ppb	8.745	1.70%
QC value within limits for V 292.402 Recovery = 102.79%						
Zn 213.857†	42862.2	513.08 ug/L	8.759	513.08 ppb	8.759	1.71%
QC value within limits for Zn 213.857 Recovery = 102.62%						
SiO2†	68119.3	5441.5 ug/L	54.81	5441.5 ppb	54.81	1.01%
QC value within limits for SiO2 Recovery = 101.76%						

All analyte(s) passed QC.

Sequence No.: 36

Autosampler Location: 6

Sample ID: CCB

Date Collected: 3/16/2010 22:57:22

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4417.2	4417.2	96.3 %		22:59:14
1	Y RADIAL	4789.5	4789.5	97.07 %		22:59:14
1	Al 396.153Radial†	-75.8	7.1	6.7118 ug/L	6.7118 ppb	22:59:34
1	Ca 317.933Radial†	22.9	-4.1	-7.2614 ug/L	-7.2614 ppb	22:59:34
1	Fe 238.204 Radial†	8.1	0.5	5.3833 ug/L	5.3833 ppb	22:59:34
1	K 766.490 Radial†	2622.6	168.1	32.234 ug/L	32.234 ppb	22:59:14
1	Mg 279.077 IEC†	3.6	3.7	139.07 ug/L	139.07 ppb	22:59:34
1	Na 589.592 Radial†	-1005.4	-239.1	-83.767 ug/L	-83.767 ppb	22:59:14
1	Sr 421.552†	39.0	14.7	0.1126 ug/L	0.1126 ppb	22:59:14
1	Sc 361.383	801502.5	801502.5	98.594 %		23:00:31
1	Y 371.029	676700.9	676700.9	98.153 %		23:00:31
1	Ag 328.068†	191.5	-16.4	-0.0771 ug/L	-0.0771 ppb	23:00:31
1	As 188.979†	-24.3	-7.6	-4.2444 ug/L	-4.2444 ppb	23:00:51
1	B 249.677†	-318.0	92.9	2.5980 ug/L	2.5980 ppb	23:00:51
1	Ba 233.527†	19.5	7.3	0.0669 ug/L	0.0669 ppb	23:00:51
1	Be 313.107†	-3670.5	6.2	0.0026 ug/L	0.0026 ppb	23:00:31
1	Cd 226.502†	-168.3	5.6	0.0788 ug/L	0.0788 ppb	23:00:51
1	Co 228.616†	-37.1	2.2	0.0559 ug/L	0.0559 ppb	23:00:51
1	Cr 267.716†	60.2	-18.5	-0.2445 ug/L	-0.2445 ppb	23:00:51
1	Cu 324.752†	5208.8	-183.1	-0.6010 ug/L	-0.6010 ppb	23:00:31
1	Mn 257.610†	445.5	-99.0	-0.1355 ug/L	-0.1355 ppb	23:00:51
1	Mo 202.031†	10.9	-1.8	-0.1592 ug/L	-0.1592 ppb	23:00:51
1	Ni 231.604†	84.1	3.9	0.1236 ug/L	0.1236 ppb	23:00:51
1	P 214.914†	179.2	-2.2	-1.5239 ug/L	-1.5239 ppb	23:00:51
1	Pb 220.353†	-46.5	-4.3	-0.6675 ug/L	-0.6675 ppb	23:00:51
1	S 181.975 Axial†	30.3	0.5	0.9613 ug/L	0.9613 ppb	23:00:51
1	Sb 206.836†	34.6	10.5	4.3676 ug/L	4.3676 ppb	23:00:51
1	Se 196.026†	-16.3	2.3	1.9206 ug/L	1.9206 ppb	23:00:51
1	Si 251.611†	603.5	113.8	4.2862 ug/L	4.2862 ppb	23:00:51
1	Sn 189.927†	9.6	1.8	0.4023 ug/L	0.4023 ppb	23:00:51
1	Ti 334.940†	-1086.7	-14.9	-0.0340 ug/L	-0.0340 ppb	23:00:31
1	Tl 190.801†	-24.5	6.9	2.6684 ug/L	2.6684 ppb	23:00:51
1	U 409.014†	-2342.3	-294.6	-8.8986 ug/L	-8.8986 ppb	23:00:31
1	V 292.402†	-1364.2	-65.9	-0.5437 ug/L	-0.5437 ppb	23:00:31
1	Zn 213.857†	655.2	47.4	0.5716 ug/L	0.5716 ppb	23:00:51
1	SiO2†	597.9	111.1	8.9044 ug/L	8.9044 ppb	23:01:47
2	Sc Radial	4448.5	4448.5	97.0 %		22:59:39
2	Y RADIAL	4802.5	4802.5	97.33 %		22:59:39
2	Al 396.153Radial†	-83.3	-0.1	-0.0681 ug/L	-0.0681 ppb	22:59:59
2	Ca 317.933Radial†	17.8	-9.5	-16.715 ug/L	-16.715 ppb	22:59:59
2	Fe 238.204 Radial†	6.8	-0.8	-8.8084 ug/L	-8.8084 ppb	22:59:59
2	K 766.490 Radial†	2561.8	86.2	16.540 ug/L	16.540 ppb	22:59:39
2	Mg 279.077 IEC†	1.5	1.5	57.009 ug/L	57.009 ppb	22:59:59
2	Na 589.592 Radial†	-970.1	-195.3	-68.437 ug/L	-68.437 ppb	22:59:39
2	Sr 421.552†	19.8	-5.3	-0.0404 ug/L	-0.0404 ppb	22:59:39
2	Sc 361.383	805105.2	805105.2	99.038 %		23:00:56
2	Y 371.029	680440.0	680440.0	98.695 %		23:00:56
2	Ag 328.068†	243.7	35.5	0.1796 ug/L	0.1796 ppb	23:00:56
2	As 188.979†	-16.4	0.5	0.2565 ug/L	0.2565 ppb	23:01:16
2	B 249.677†	-297.6	114.9	3.2183 ug/L	3.2183 ppb	23:01:16
2	Ba 233.527†	19.4	7.1	0.0657 ug/L	0.0657 ppb	23:01:16
2	Be 313.107†	-3704.7	-11.7	-0.0048 ug/L	-0.0048 ppb	23:00:56
2	Cd 226.502†	-176.1	-1.5	-0.0204 ug/L	-0.0204 ppb	23:01:16
2	Co 228.616†	-54.4	-15.1	-0.3941 ug/L	-0.3941 ppb	23:01:16
2	Cr 267.716†	82.6	3.9	0.0508 ug/L	0.0508 ppb	23:01:16
2	Cu 324.752†	5300.5	-114.3	-0.3787 ug/L	-0.3787 ppb	23:00:56
2	Mn 257.610†	453.1	-93.4	-0.1262 ug/L	-0.1262 ppb	23:01:16
2	Mo 202.031†	-0.4	-13.2	-1.1654 ug/L	-1.1654 ppb	23:01:16
2	Ni 231.604†	91.9	11.3	0.3612 ug/L	0.3612 ppb	23:01:16

2	P 214.914†	187.6	5.5	4.2257 ug/L	4.2257 ppb	23:01:16
2	Pb 220.353†	-47.3	-4.9	-0.7634 ug/L	-0.7634 ppb	23:01:16
2	S 181.975 Axial†	28.7	-1.2	-2.1437 ug/L	-2.1437 ppb	23:01:16
2	Sb 206.836†	35.0	10.8	4.4508 ug/L	4.4508 ppb	23:01:16
2	Se 196.026†	-20.9	-2.3	-1.9174 ug/L	-1.9174 ppb	23:01:16
2	Si 251.611†	591.8	99.3	3.7518 ug/L	3.7518 ppb	23:01:16
2	Sn 189.927†	11.5	3.6	0.8037 ug/L	0.8037 ppb	23:01:16
2	Ti 334.940†	-1040.2	37.0	0.0570 ug/L	0.0570 ppb	23:00:56
2	Tl 190.801†	-37.1	-5.7	-2.1981 ug/L	-2.1981 ppb	23:01:16
2	U 409.014†	-2060.4	0.6	0.0194 ug/L	0.0194 ppb	23:00:56
2	V 292.402†	-1304.7	0.4	-0.0111 ug/L	-0.0111 ppb	23:00:56
2	Zn 213.857†	655.3	44.6	0.5377 ug/L	0.5377 ppb	23:01:16
2	SiO2†	577.7	88.0	7.0752 ug/L	7.0752 ppb	23:01:52
3	Sc Radial	4506.3	4506.3	98.2 %		23:00:04
3	Y RADIAL	4852.5	4852.5	98.34 %		23:00:04
3	Al 396.153Radial†	-67.7	16.9	15.835 ug/L	15.835 ppb	23:00:24
3	Ca 317.933Radial†	20.7	-6.8	-11.936 ug/L	-11.936 ppb	23:00:24
3	Fe 238.204 Radial†	11.2	3.6	37.361 ug/L	37.361 ppb	23:00:24
3	K 766.490 Radial†	2679.9	172.5	33.086 ug/L	33.086 ppb	23:00:04
3	Mg 279.077 IEC†	2.0	2.0	75.852 ug/L	75.852 ppb	23:00:24
3	Na 589.592 Radial†	-980.5	-193.1	-67.667 ug/L	-67.667 ppb	23:00:04
3	Sr 421.552†	29.0	3.7	0.0286 ug/L	0.0286 ppb	23:00:04
3	Sc 361.383	797957.4	797957.4	98.158 %		23:01:21
3	Y 371.029	675088.6	675088.6	97.919 %		23:01:21
3	Ag 328.068†	186.1	-21.0	-0.0896 ug/L	-0.0896 ppb	23:01:21
3	As 188.979†	-20.3	-3.7	-2.0266 ug/L	-2.0266 ppb	23:01:41
3	B 249.677†	-301.3	108.4	3.0263 ug/L	3.0263 ppb	23:01:41
3	Ba 233.527†	3.2	-9.2	-0.0855 ug/L	-0.0855 ppb	23:01:41
3	Be 313.107†	-3673.3	-13.2	-0.0052 ug/L	-0.0052 ppb	23:01:21
3	Cd 226.502†	-171.6	1.5	0.0171 ug/L	0.0171 ppb	23:01:41
3	Co 228.616†	-29.5	9.8	0.2553 ug/L	0.2553 ppb	23:01:41
3	Cr 267.716†	67.0	-11.3	-0.1441 ug/L	-0.1441 ppb	23:01:41
3	Cu 324.752†	5224.4	-143.8	-0.4691 ug/L	-0.4691 ppb	23:01:21
3	Mn 257.610†	459.0	-83.3	-0.1091 ug/L	-0.1091 ppb	23:01:41
3	Mo 202.031†	22.2	9.8	0.8665 ug/L	0.8665 ppb	23:01:41
3	Ni 231.604†	98.1	18.5	0.5880 ug/L	0.5880 ppb	23:01:41
3	P 214.914†	181.0	0.4	0.4010 ug/L	0.4010 ppb	23:01:41
3	Pb 220.353†	-39.6	2.5	0.3813 ug/L	0.3813 ppb	23:01:41
3	S 181.975 Axial†	24.4	-5.3	-9.4312 ug/L	-9.4312 ppb	23:01:41
3	Sb 206.836†	25.0	1.0	0.4317 ug/L	0.4317 ppb	23:01:41
3	Se 196.026†	-19.4	-1.0	-0.7096 ug/L	-0.7096 ppb	23:01:41
3	Si 251.611†	602.6	115.6	4.3414 ug/L	4.3414 ppb	23:01:41
3	Sn 189.927†	10.2	2.5	0.5474 ug/L	0.5474 ppb	23:01:41
3	Ti 334.940†	-958.1	111.3	0.1883 ug/L	0.1883 ppb	23:01:21
3	Tl 190.801†	-23.5	7.9	3.0273 ug/L	3.0273 ppb	23:01:41
3	U 409.014†	-2325.2	-287.8	-8.6969 ug/L	-8.6969 ppb	23:01:21
3	V 292.402†	-1314.1	-21.0	-0.1767 ug/L	-0.1767 ppb	23:01:21
3	Zn 213.857†	638.4	33.3	0.3938 ug/L	0.3938 ppb	23:01:41
3	SiO2†	587.8	103.5	8.2689 ug/L	8.2689 ppb	23:01:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	801521.7	98.597 %		0.4396				0.45%
Sc Radial	4457.3	97.2 %		0.98				1.01%
Y 371.029	677409.8	98.256 %		0.3982				0.41%
Y RADIAL	4814.8	97.58 %		0.674				0.69%
Ag 328.068†	-0.6	0.0043 ug/L		0.15193	0.0043 ppb		0.15193	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.0	7.4928 ug/L		7.98017	7.4928 ppb		7.98017	106.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.6	-2.0048 ug/L		2.25057	-2.0048 ppb		2.25057	112.26%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	105.4	2.9475 ug/L		0.31759	2.9475 ppb		0.31759	10.77%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.7	0.0157 ug/L		0.08766	0.0157 ppb		0.08766	557.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-6.2	-0.0025 ug/L		0.00439	-0.0025 ppb		0.00439	176.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-6.8	-11.971 ug/L		4.7270	-11.971 ppb		4.7270	39.49%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd	226.502†	1.9	0.0252 ug/L	0.05009	0.0252 ppb	0.05009 198.95%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co	228.616†	-1.0	-0.0276 ug/L	0.33270	-0.0276 ppb	0.33270 >999.9%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr	267.716†	-8.6	-0.1126 ug/L	0.15012	-0.1126 ppb	0.15012 133.33%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu	324.752†	-147.1	-0.4829 ug/L	0.11180	-0.4829 ppb	0.11180 23.15%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe	238.204 Radial†	1.1	11.312 ug/L	23.6490	11.312 ppb	23.6490 209.06%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K	766.490 Radial†	142.3	27.287 ug/L	9.3167	27.287 ppb	9.3167 34.14%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg	279.077 IEC†	2.4	90.643 ug/L	42.9815	90.643 ppb	42.9815 47.42%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn	257.610†	-91.9	-0.1236 ug/L	0.01342	-0.1236 ppb	0.01342 10.86%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo	202.031†	-1.7	-0.1527 ug/L	1.01598	-0.1527 ppb	1.01598 665.33%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na	589.592 Radial†	-209.2	-73.291 ug/L	9.0814	-73.291 ppb	9.0814 12.39%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni	231.604†	11.2	0.3576 ug/L	0.23222	0.3576 ppb	0.23222 64.93%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P	214.914†	1.2	1.0342 ug/L	2.92664	1.0342 ppb	2.92664 282.98%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb	220.353†	-2.3	-0.3499 ug/L	0.63501	-0.3499 ppb	0.63501 181.49%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S	181.975 Axial†	-2.0	-3.5379 ug/L	5.33471	-3.5379 ppb	5.33471 150.79%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb	206.836†	7.4	3.0834 ug/L	2.29678	3.0834 ppb	2.29678 74.49%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se	196.026†	-0.3	-0.2355 ug/L	1.96249	-0.2355 ppb	1.96249 833.40%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si	251.611†	109.6	4.1265 ug/L	0.32563	4.1265 ppb	0.32563 7.89%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn	189.927†	2.6	0.5845 ug/L	0.20323	0.5845 ppb	0.20323 34.77%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr	421.552†	4.4	0.0336 ug/L	0.07664	0.0336 ppb	0.07664 228.04%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti	334.940†	44.5	0.0704 ug/L	0.11178	0.0704 ppb	0.11178 158.69%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl	190.801†	3.0	1.1659 ug/L	2.91879	1.1659 ppb	2.91879 250.35%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U	409.014†	-194.0	-5.8587 ug/L	5.09161	-5.8587 ppb	5.09161 86.91%
QC value within limits for U 409.014 Recovery = Not calculated						
V	292.402†	-28.9	-0.2438 ug/L	0.27255	-0.2438 ppb	0.27255 111.78%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn	213.857†	41.7	0.5010 ug/L	0.09442	0.5010 ppb	0.09442 18.84%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†		100.9	8.0828 ug/L	0.92868	8.0828 ppb	0.92868 11.49%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 37

Sample ID: 1202046541|954660|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 64

Date Collected: 3/16/2010 23:04:09

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202046541|954660|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4313.7	4313.7	94.0 %		23:06:22
1	Y RADIAL	4789.6	4789.6	97.07 %		23:06:02
1	Al 396.153Radial†	-73.1	8.1	7.6193 ug/L	7.6193 ppb	23:06:22
1	Ca 317.933Radial†	25.3	-1.0	-1.7148 ug/L	-1.7148 ppb	23:06:22
1	Fe 238.204 Radial†	10.1	2.9	30.195 ug/L	30.195 ppb	23:06:22
1	K 766.490 Radial†	2615.5	225.8	43.286 ug/L	43.286 ppb	23:06:02
1	Mg 279.077 IEC†	3.8	4.0	151.22 ug/L	151.22 ppb	23:06:22
1	Na 589.592 Radial†	-960.7	-216.6	-75.908 ug/L	-75.908 ppb	23:06:02
1	Sr 421.552†	30.5	6.6	0.0508 ug/L	0.0508 ppb	23:06:02
1	Sc 361.383	798754.5	798754.5	98.256 %		23:07:19
1	Y 371.029	674417.5	674417.5	97.822 %		23:07:19
1	Ag 328.068†	190.6	-16.6	-0.0732 ug/L	-0.0732 ppb	23:07:19
1	As 188.979†	-22.6	-6.0	-3.3181 ug/L	-3.3181 ppb	23:07:39
1	B 249.677†	-344.3	65.0	1.8147 ug/L	1.8147 ppb	23:07:39
1	Ba 233.527†	12.6	0.3	0.0041 ug/L	0.0041 ppb	23:07:39
1	Be 313.107†	-3730.1	-67.2	-0.0285 ug/L	-0.0285 ppb	23:07:19
1	Cd 226.502†	-163.2	10.3	0.1452 ug/L	0.1452 ppb	23:07:39
1	Co 228.616†	-49.0	-10.1	-0.2625 ug/L	-0.2625 ppb	23:07:39
1	Cr 267.716†	92.6	14.7	0.2017 ug/L	0.2017 ppb	23:07:39
1	Cu 324.752†	5400.4	30.0	0.1019 ug/L	0.1019 ppb	23:07:19
1	Mn 257.610†	688.1	149.4	0.1934 ug/L	0.1934 ppb	23:07:39
1	Mo 202.031†	12.6	-0.0	0.0004 ug/L	0.0004 ppb	23:07:39
1	Ni 231.604†	78.8	-1.3	-0.0403 ug/L	-0.0403 ppb	23:07:39
1	P 214.914†	183.9	3.2	2.3847 ug/L	2.3847 ppb	23:07:39
1	Pb 220.353†	-47.3	-5.3	-0.8240 ug/L	-0.8240 ppb	23:07:39
1	S 181.975 Axial†	30.0	0.4	0.7401 ug/L	0.7401 ppb	23:07:39
1	Sb 206.836†	18.4	-5.8	-2.4132 ug/L	-2.4132 ppb	23:07:39
1	Se 196.026†	-21.5	-3.1	-2.4766 ug/L	-2.4766 ppb	23:07:39
1	Si 251.611†	1048.6	569.0	21.414 ug/L	21.414 ppb	23:07:39
1	Sn 189.927†	7.6	-0.3	-0.0680 ug/L	-0.0680 ppb	23:07:39
1	Ti 334.940†	-1009.4	60.0	0.0920 ug/L	0.0920 ppb	23:07:19
1	Tl 190.801†	-24.7	6.7	2.5711 ug/L	2.5711 ppb	23:07:39
1	U 409.014†	-2112.2	-68.7	-2.0790 ug/L	-2.0790 ppb	23:07:19
1	V 292.402†	-1267.6	27.6	0.2151 ug/L	0.2151 ppb	23:07:19
1	Zn 213.857†	682.7	77.7	0.9346 ug/L	0.9346 ppb	23:07:39
1	SiO2†	1030.4	553.4	44.314 ug/L	44.314 ppb	23:08:35
2	Sc Radial	4263.2	4263.2	92.9 %		23:06:47
2	Y RADIAL	4772.2	4772.2	96.72 %		23:06:27
2	Al 396.153Radial†	-77.5	2.4	2.2358 ug/L	2.2358 ppb	23:06:47
2	Ca 317.933Radial†	23.1	-3.0	-5.3503 ug/L	-5.3503 ppb	23:06:47
2	Fe 238.204 Radial†	11.2	4.2	43.897 ug/L	43.897 ppb	23:06:47
2	K 766.490 Radial†	2567.8	207.4	39.770 ug/L	39.770 ppb	23:06:27
2	Mg 279.077 IEC†	3.1	3.3	124.93 ug/L	124.93 ppb	23:06:47
2	Na 589.592 Radial†	-946.8	-213.8	-74.904 ug/L	-74.904 ppb	23:06:27
2	Sr 421.552†	10.3	-14.7	-0.1121 ug/L	-0.1121 ppb	23:06:27
2	Sc 361.383	798576.4	798576.4	98.234 %		23:07:44
2	Y 371.029	674544.6	674544.6	97.840 %		23:07:44
2	Ag 328.068†	210.2	3.4	0.0345 ug/L	0.0345 ppb	23:07:44
2	As 188.979†	-29.6	-13.1	-7.2712 ug/L	-7.2712 ppb	23:08:04
2	B 249.677†	-330.4	79.0	2.2046 ug/L	2.2046 ppb	23:08:04
2	Ba 233.527†	1.8	-10.6	-0.0989 ug/L	-0.0989 ppb	23:08:04
2	Be 313.107†	-3733.7	-71.8	-0.0303 ug/L	-0.0303 ppb	23:07:44
2	Cd 226.502†	-174.7	-1.5	-0.0272 ug/L	-0.0272 ppb	23:08:04
2	Co 228.616†	-37.1	2.1	0.0530 ug/L	0.0530 ppb	23:08:04
2	Cr 267.716†	99.7	21.9	0.3009 ug/L	0.3009 ppb	23:08:04
2	Cu 324.752†	5359.3	-10.6	-0.0296 ug/L	-0.0296 ppb	23:07:44
2	Mn 257.610†	714.5	176.4	0.2315 ug/L	0.2315 ppb	23:08:04
2	Mo 202.031†	14.9	2.3	0.2092 ug/L	0.2092 ppb	23:08:04
2	Ni 231.604†	88.2	8.3	0.2646 ug/L	0.2646 ppb	23:08:04

2	P 214.914†	189.5	9.0	6.7396 ug/L	6.7396 ppb	23:08:04
2	Pb 220.353†	-45.6	-3.7	-0.5722 ug/L	-0.5722 ppb	23:08:04
2	S 181.975 Axial†	33.4	3.9	6.9342 ug/L	6.9342 ppb	23:08:04
2	Sb 206.836†	25.9	1.8	0.7556 ug/L	0.7556 ppb	23:08:04
2	Se 196.026†	-17.1	1.4	1.2571 ug/L	1.2571 ppb	23:08:04
2	Si 251.611†	1057.6	578.4	21.764 ug/L	21.764 ppb	23:08:04
2	Sn 189.927†	10.7	2.9	0.6517 ug/L	0.6517 ppb	23:08:04
2	Ti 334.940†	-971.5	98.3	0.1615 ug/L	0.1615 ppb	23:07:44
2	Tl 190.801†	-27.6	3.7	1.4101 ug/L	1.4101 ppb	23:08:04
2	U 409.014†	-2234.8	-193.9	-5.8626 ug/L	-5.8626 ppb	23:07:44
2	V 292.402†	-1338.3	-44.6	-0.3692 ug/L	-0.3692 ppb	23:07:44
2	Zn 213.857†	688.3	83.5	1.0009 ug/L	1.0009 ppb	23:08:04
2	SiO2†	1071.8	595.7	47.701 ug/L	47.701 ppb	23:08:40
3	Sc Radial	4257.6	4257.6	92.8 %		23:07:12
3	Y RADIAL	4835.9	4835.9	98.01 %		23:06:52
3	Al 396.153Radial†	-79.5	0.1	0.1669 ug/L	0.1669 ppb	23:07:12
3	Ca 317.933Radial†	22.6	-3.5	-6.2403 ug/L	-6.2403 ppb	23:07:12
3	Fe 238.204 Radial†	8.5	1.3	13.710 ug/L	13.710 ppb	23:07:12
3	K 766.490 Radial†	2443.5	77.2	14.821 ug/L	14.821 ppb	23:06:52
3	Mg 279.077 IEC†	1.4	1.4	53.181 ug/L	53.181 ppb	23:07:12
3	Na 589.592 Radial†	-966.7	-236.6	-82.888 ug/L	-82.888 ppb	23:06:52
3	Sr 421.552†	5.5	-19.9	-0.1517 ug/L	-0.1517 ppb	23:06:52
3	Sc 361.383	804500.4	804500.4	98.963 %		23:08:10
3	Y 371.029	679929.4	679929.4	98.621 %		23:08:10
3	Ag 328.068†	307.1	99.7	0.5188 ug/L	0.5188 ppb	23:08:10
3	As 188.979†	-22.6	-5.8	-3.2231 ug/L	-3.2231 ppb	23:08:30
3	B 249.677†	-348.0	63.7	1.7798 ug/L	1.7798 ppb	23:08:30
3	Ba 233.527†	12.2	-0.2	-0.0001 ug/L	-0.0001 ppb	23:08:30
3	Be 313.107†	-3684.7	5.7	0.0032 ug/L	0.0032 ppb	23:08:10
3	Cd 226.502†	-178.4	-4.0	-0.0586 ug/L	-0.0586 ppb	23:08:30
3	Co 228.616†	-39.2	0.2	0.0027 ug/L	0.0027 ppb	23:08:30
3	Cr 267.716†	85.0	6.4	0.0878 ug/L	0.0878 ppb	23:08:30
3	Cu 324.752†	5367.5	-42.5	-0.1400 ug/L	-0.1400 ppb	23:08:10
3	Mn 257.610†	700.0	156.4	0.2052 ug/L	0.2052 ppb	23:08:30
3	Mo 202.031†	6.1	-6.6	-0.5826 ug/L	-0.5826 ppb	23:08:30
3	Ni 231.604†	99.1	18.7	0.5945 ug/L	0.5945 ppb	23:08:30
3	P 214.914†	186.1	4.1	3.1125 ug/L	3.1125 ppb	23:08:30
3	Pb 220.353†	-53.2	-11.0	-1.6939 ug/L	-1.6939 ppb	23:08:30
3	S 181.975 Axial†	28.1	-1.7	-3.0795 ug/L	-3.0795 ppb	23:08:30
3	Sb 206.836†	22.1	-2.2	-0.8892 ug/L	-0.8892 ppb	23:08:30
3	Se 196.026†	-13.5	5.1	4.2776 ug/L	4.2776 ppb	23:08:30
3	Si 251.611†	1024.9	537.4	20.232 ug/L	20.232 ppb	23:08:30
3	Sn 189.927†	15.2	7.4	1.6692 ug/L	1.6692 ppb	23:08:30
3	Ti 334.940†	-888.3	189.7	0.3225 ug/L	0.3225 ppb	23:08:10
3	Tl 190.801†	-30.0	1.4	0.5549 ug/L	0.5549 ppb	23:08:30
3	U 409.014†	-2053.6	5.9	0.1766 ug/L	0.1766 ppb	23:08:10
3	V 292.402†	-1217.4	87.6	0.6904 ug/L	0.6904 ppb	23:08:10
3	Zn 213.857†	678.2	68.2	0.8186 ug/L	0.8186 ppb	23:08:30
3	SiO2†	1066.0	581.9	46.614 ug/L	46.614 ppb	23:08:45

Mean Data: 1202046541|954660|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	800610.4	98.485	%	0.4146				0.42%
Sc Radial	4278.2	93.3	%	0.67				0.72%
Y 371.029	676297.2	98.094	%	0.4563				0.47%
Y RADIAL	4799.3	97.26	%	0.668				0.69%
Ag 328.068†	28.8	0.1600	ug/L	0.31536	0.1600	ppb	0.31536	197.04%
Al 396.153Radial†	3.5	3.3407	ug/L	3.84712	3.3407	ppb	3.84712	115.16%
As 188.979†	-8.3	-4.6041	ug/L	2.31024	-4.6041	ppb	2.31024	50.18%
B 249.677†	69.2	1.9330	ug/L	0.23583	1.9330	ppb	0.23583	12.20%
Ba 233.527†	-3.5	-0.0316	ug/L	0.05828	-0.0316	ppb	0.05828	184.30%
Be 313.107†	-44.4	-0.0185	ug/L	0.01881	-0.0185	ppb	0.01881	101.60%
Ca 317.933Radial†	-2.5	-4.4351	ug/L	2.39756	-4.4351	ppb	2.39756	54.06%
Cd 226.502†	1.6	0.0198	ug/L	0.10974	0.0198	ppb	0.10974	554.25%
Co 228.616†	-2.6	-0.0689	ug/L	0.16952	-0.0689	ppb	0.16952	245.96%
Cr 267.716†	14.3	0.1968	ug/L	0.10664	0.1968	ppb	0.10664	54.18%
Cu 324.752†	-7.7	-0.0226	ug/L	0.12114	-0.0226	ppb	0.12114	536.61%
Fe 238.204 Radial†	2.8	29.268	ug/L	15.1150	29.268	ppb	15.1150	51.64%
K 766.490 Radial†	170.1	32.625	ug/L	15.5189	32.625	ppb	15.5189	47.57%

Mg 279.077 IEC†	2.9	109.78 ug/L	50.746	109.78 ppb	50.746	46.23%
Mn 257.610†	160.7	0.2100 ug/L	0.01949	0.2100 ppb	0.01949	9.28%
Mo 202.031†	-1.4	-0.1243 ug/L	0.41040	-0.1243 ppb	0.41040	330.13%
Na 589.592 Radial†	-222.3	-77.900 ug/L	4.3486	-77.900 ppb	4.3486	5.58%
Ni 231.604†	8.6	0.2729 ug/L	0.31749	0.2729 ppb	0.31749	116.33%
P 214.914†	5.4	4.0790 ug/L	2.33275	4.0790 ppb	2.33275	57.19%
Pb 220.353†	-6.7	-1.0300 ug/L	0.58855	-1.0300 ppb	0.58855	57.14%
S 181.975 Axial†	0.9	1.5316 ug/L	5.05352	1.5316 ppb	5.05352	329.95%
Sb 206.836†	-2.1	-0.8489 ug/L	1.58482	-0.8489 ppb	1.58482	186.68%
Se 196.026†	1.1	1.0193 ug/L	3.38336	1.0193 ppb	3.38336	331.92%
Si 251.611†	561.6	21.137 ug/L	0.8024	21.137 ppb	0.8024	3.80%
Sn 189.927†	3.3	0.7510 ug/L	0.87282	0.7510 ppb	0.87282	116.23%
Sr 421.552†	-9.3	-0.0710 ug/L	0.10731	-0.0710 ppb	0.10731	151.11%
Ti 334.940†	116.0	0.1920 ug/L	0.11822	0.1920 ppb	0.11822	61.57%
Tl 190.801†	3.9	1.5121 ug/L	1.01198	1.5121 ppb	1.01198	66.93%
U 409.014†	-85.6	-2.5883 ug/L	3.05168	-2.5883 ppb	3.05168	117.90%
V 292.402†	23.5	0.1788 ug/L	0.53071	0.1788 ppb	0.53071	296.89%
Zn 213.857†	76.5	0.9181 ug/L	0.09227	0.9181 ppb	0.09227	10.05%
SiO2†	577.0	46.210 ug/L	1.7293	46.210 ppb	1.7293	3.74%

Sequence No.: 38

Sample ID: 1202046546|954660|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 65

Date Collected: 3/16/2010 23:10:57

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202046546|954660|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4553.7	4553.7	99.3 %		23:13:10
1	Y RADIAL	5343.4	5343.4	108.3 %		23:13:10
1	Al 396.153Radial†	94236.4	95023.8	89304 ug/L	89304 ppb	23:12:50
1	Ca 317.933Radial†	58598.4	59006.9	104300 ug/L	104300 ppb	23:12:50
1	Fe 238.204 Radial†	16785.9	16903.0	177130 ug/L	177130 ppb	23:12:50
1	K 766.490 Radial†	220869.4	219958.1	42097 ug/L	42097 ppb	23:12:50
1	Mg 279.077 IEC†	1004.8	1012.2	38338 ug/L	38338 ppb	23:13:10
1	Na 589.592 Radial†	29924.3	30952.2	10845 ug/L	10845 ppb	23:12:50
1	Sr 421.552†	326438.5	328843.1	2511.4 ug/L	2511.4 ppb	23:12:50
1	Sc 361.383	794635.9	794635.9	97.750 %		23:14:14
1	Y 371.029	740207.3	740207.3	107.36 %		23:14:08
1	Ag 328.068†	50927.3	51889.1	325.33 ug/L	325.33 ppb	23:14:14
1	As 188.979†	1899.4	1960.2	1183.1 ug/L	1183.1 ppb	23:14:34
1	B 249.677†	58548.7	60311.9	1656.1 ug/L	1656.1 ppb	23:14:14
1	Ba 233.527†	198769.1	203332.3	1911.0 ug/L	1911.0 ppb	23:14:14
1	Be 313.107†	1993702.5	2043327.0	885.89 ug/L	885.89 ppb	23:14:08
1	Cd 226.502†	46596.3	47845.3	675.89 ug/L	675.89 ppb	23:14:14
1	Co 228.616†	38995.1	39932.6	1023.4 ug/L	1023.4 ppb	23:14:34
1	Cr 267.716†	202127.1	206700.6	2796.1 ug/L	2796.1 ppb	23:14:14
1	Cu 324.752†	593119.5	601306.9	1999.8 ug/L	1999.8 ppb	23:14:14
1	Mn 257.610†	4233803.4	4330715.4	5717.8 ug/L	5717.8 ppb	23:14:08
1	Mo 202.031†	6694.2	6835.4	616.09 ug/L	616.09 ppb	23:14:34
1	Ni 231.604†	48106.9	49132.9	1563.7 ug/L	1563.7 ppb	23:14:14
1	P 214.914†	11285.7	11361.6	8050.1 ug/L	8050.1 ppb	23:14:34
1	Pb 220.353†	5184.2	5346.3	821.20 ug/L	821.20 ppb	23:14:34
1	S 181.975 Axial†	2427.1	2452.9	4362.8 ug/L	4362.8 ppb	23:14:34
1	Sb 206.836†	5316.6	5414.5	2251.3 ug/L	2251.3 ppb	23:14:34
1	Se 196.026†	3105.6	3195.9	3191.6 ug/L	3191.6 ppb	23:14:34
1	Si 251.611†	134073.3	136661.5	5135.6 ug/L	5135.6 ppb	23:14:14
1	Sn 189.927†	4521.7	4617.8	1048.1 ug/L	1048.1 ppb	23:14:34
1	Ti 334.940†	3404614.1	3484076.3	6030.9 ug/L	6030.9 ppb	23:14:08
1	Tl 190.801†	2919.3	3018.3	1232.3 ug/L	1232.3 ppb	23:14:34
1	U 409.014†	-7177.0	-5261.2	-185.30 ug/L	-185.30 ppb	23:14:14
1	V 292.402†	164123.2	169219.0	1327.7 ug/L	1327.7 ppb	23:14:14
1	Zn 213.857†	512376.8	523554.7	6285.8 ug/L	6285.8 ppb	23:14:14
1	SiO2†	135075.7	137689.8	11010 ug/L	11010 ppb	23:15:44
2	Sc Radial	4605.1	4605.1	100 %		23:13:35
2	Y RADIAL	5408.2	5408.2	109.6 %		23:13:35
2	Al 396.153Radial†	94238.6	93966.2	88309 ug/L	88309 ppb	23:13:15
2	Ca 317.933Radial†	58468.9	58218.8	102910 ug/L	102910 ppb	23:13:15
2	Fe 238.204 Radial†	16758.4	16686.9	174870 ug/L	174870 ppb	23:13:15
2	K 766.490 Radial†	220269.7	216876.8	41508 ug/L	41508 ppb	23:13:15
2	Mg 279.077 IEC†	1018.3	1014.3	38422 ug/L	38422 ppb	23:13:35
2	Na 589.592 Radial†	29671.3	30363.6	10639 ug/L	10639 ppb	23:13:15
2	Sr 421.552†	325188.3	323926.6	2473.8 ug/L	2473.8 ppb	23:13:15
2	Sc 361.383	787059.2	787059.2	96.818 %		23:14:46
2	Y 371.029	742685.5	742685.5	107.72 %		23:14:40
2	Ag 328.068†	50371.5	51816.5	324.29 ug/L	324.29 ppb	23:14:46
2	As 188.979†	1905.6	1985.3	1197.1 ug/L	1197.1 ppb	23:15:06
2	B 249.677†	57884.8	60202.7	1653.4 ug/L	1653.4 ppb	23:14:46
2	Ba 233.527†	196698.0	203150.7	1909.2 ug/L	1909.2 ppb	23:14:46
2	Be 313.107†	2002563.1	2072113.4	898.33 ug/L	898.33 ppb	23:14:40
2	Cd 226.502†	46072.6	47763.3	674.93 ug/L	674.93 ppb	23:14:46
2	Co 228.616†	38964.9	40285.4	1032.4 ug/L	1032.4 ppb	23:15:06
2	Cr 267.716†	200604.5	207118.5	2801.5 ug/L	2801.5 ppb	23:14:46
2	Cu 324.752†	586320.0	600125.3	1995.8 ug/L	1995.8 ppb	23:14:46
2	Mn 257.610†	4243015.2	4381925.9	5785.0 ug/L	5785.0 ppb	23:14:40
2	Mo 202.031†	6697.6	6904.9	622.01 ug/L	622.01 ppb	23:15:06
2	Ni 231.604†	47580.2	49062.7	1561.5 ug/L	1561.5 ppb	23:14:46

2	P 214.914†	11289.9	11477.1	8139.5 ug/L	8139.5 ppb	23:15:06
2	Pb 220.353†	5179.1	5392.1	828.36 ug/L	828.36 ppb	23:15:06
2	S 181.975 Axial†	2429.3	2479.0	4409.6 ug/L	4409.6 ppb	23:15:06
2	Sb 206.836†	5335.5	5486.4	2281.2 ug/L	2281.2 ppb	23:15:06
2	Se 196.026†	3074.3	3194.1	3183.3 ug/L	3183.3 ppb	23:15:06
2	Si 251.611†	132654.4	136516.3	5130.0 ug/L	5130.0 ppb	23:14:46
2	Sn 189.927†	4513.5	4653.9	1056.1 ug/L	1056.1 ppb	23:15:06
2	Ti 334.940†	3410572.6	3523760.3	6099.3 ug/L	6099.3 ppb	23:14:40
2	Tl 190.801†	2930.2	3058.3	1248.5 ug/L	1248.5 ppb	23:15:06
2	U 409.014†	-7136.6	-5290.2	-185.92 ug/L	-185.92 ppb	23:14:46
2	V 292.402†	162726.9	169393.2	1329.4 ug/L	1329.4 ppb	23:14:46
2	Zn 213.857†	507110.6	523161.4	6281.4 ug/L	6281.4 ppb	23:14:46
2	SiO2†	133279.8	137165.2	10968 ug/L	10968 ppb	23:15:49
3	Sc Radial	4556.9	4556.9	99.3 %		23:14:00
3	Y RADIAL	5337.6	5337.6	108.2 %		23:14:00
3	Al 396.153Radial†	93471.2	94187.2	88518 ug/L	88518 ppb	23:13:40
3	Ca 317.933Radial†	58040.1	58403.6	103230 ug/L	103230 ppb	23:13:40
3	Fe 238.204 Radial†	16642.8	16747.1	175500 ug/L	175500 ppb	23:13:40
3	K 766.490 Radial†	218634.4	217552.7	41637 ug/L	41637 ppb	23:13:40
3	Mg 279.077 IEC†	1009.8	1016.5	38506 ug/L	38506 ppb	23:14:00
3	Na 589.592 Radial†	29633.6	30638.4	10735 ug/L	10735 ppb	23:13:40
3	Sr 421.552†	323140.7	325293.6	2484.3 ug/L	2484.3 ppb	23:13:40
3	Sc 361.383	803237.7	803237.7	98.808 %		23:15:18
3	Y 371.029	738369.7	738369.7	107.10 %		23:15:13
3	Ag 328.068†	51385.0	51794.4	324.36 ug/L	324.36 ppb	23:15:18
3	As 188.979†	1911.6	1951.7	1177.2 ug/L	1177.2 ppb	23:15:38
3	B 249.677†	59450.0	60582.6	1664.0 ug/L	1664.0 ppb	23:15:18
3	Ba 233.527†	201078.4	203491.8	1912.4 ug/L	1912.4 ppb	23:15:18
3	Be 313.107†	1987346.1	2015052.0	873.62 ug/L	873.62 ppb	23:15:13
3	Cd 226.502†	47166.5	47911.9	677.02 ug/L	677.02 ppb	23:15:18
3	Co 228.616†	39131.0	39643.0	1016.1 ug/L	1016.1 ppb	23:15:38
3	Cr 267.716†	204817.2	207208.8	2802.7 ug/L	2802.7 ppb	23:15:18
3	Cu 324.752†	599259.9	601023.6	1998.8 ug/L	1998.8 ppb	23:15:18
3	Mn 257.610†	4214944.8	4265246.3	5631.5 ug/L	5631.5 ppb	23:15:13
3	Mo 202.031†	6727.3	6795.6	612.45 ug/L	612.45 ppb	23:15:38
3	Ni 231.604†	48640.4	49145.9	1564.1 ug/L	1564.1 ppb	23:15:18
3	P 214.914†	11331.6	11284.4	7993.3 ug/L	7993.3 ppb	23:15:38
3	Pb 220.353†	5215.1	5320.8	817.30 ug/L	817.30 ppb	23:15:38
3	S 181.975 Axial†	2418.9	2417.9	4300.5 ug/L	4300.5 ppb	23:15:38
3	Sb 206.836†	5335.5	5375.3	2235.3 ug/L	2235.3 ppb	23:15:38
3	Se 196.026†	3139.4	3196.1	3186.8 ug/L	3186.8 ppb	23:15:38
3	Si 251.611†	135413.9	136549.4	5131.4 ug/L	5131.4 ppb	23:15:18
3	Sn 189.927†	4546.9	4593.8	1042.6 ug/L	1042.6 ppb	23:15:38
3	Ti 334.940†	3389582.2	3431564.1	5940.0 ug/L	5940.0 ppb	23:15:13
3	Tl 190.801†	2948.5	3015.9	1230.2 ug/L	1230.2 ppb	23:15:38
3	U 409.014†	-7163.2	-5168.6	-182.33 ug/L	-182.33 ppb	23:15:18
3	V 292.402†	166178.8	169501.4	1330.2 ug/L	1330.2 ppb	23:15:18
3	Zn 213.857†	518441.8	524079.5	6292.4 ug/L	6292.4 ppb	23:15:18
3	SiO2†	134985.2	136118.4	10884 ug/L	10884 ppb	23:15:54

Mean Data: 1202046546|954660|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc. Sample Units	Std.Dev.	RSD
Sc 361.383	794977.6	97.792	%	0.9957			1.02%
Sc Radial	4571.9	99.7	%	0.63			0.63%
Y 371.029	740420.9	107.40	%	0.314			0.29%
Y RADIAL	5363.1	108.7	%	0.79			0.73%
Ag 328.068†	51833.3	324.66	ug/L	0.584	324.66 ppb	0.584	0.18%
Al 396.153Radial†	94392.4	88710	ug/L	524.5	88710 ppb	524.5	0.59%
As 188.979†	1965.7	1185.8	ug/L	10.22	1185.8 ppb	10.22	0.86%
B 249.677†	60365.7	1657.8	ug/L	5.49	1657.8 ppb	5.49	0.33%
Ba 233.527†	203324.9	1910.9	ug/L	1.61	1910.9 ppb	1.61	0.08%
Be 313.107†	2043497.5	885.95	ug/L	12.360	885.95 ppb	12.360	1.40%
Ca 317.933Radial†	58543.1	103480	ug/L	728.5	103480 ppb	728.5	0.70%
Cd 226.502†	47840.1	675.95	ug/L	1.046	675.95 ppb	1.046	0.15%
Co 228.616†	39953.7	1024.0	ug/L	8.21	1024.0 ppb	8.21	0.80%
Cr 267.716†	207009.3	2800.1	ug/L	3.53	2800.1 ppb	3.53	0.13%
Cu 324.752†	600818.6	1998.1	ug/L	2.09	1998.1 ppb	2.09	0.10%
Fe 238.204 Radial†	16779.0	175830	ug/L	1168.4	175830 ppb	1168.4	0.66%
K 766.490 Radial†	218129.2	41747	ug/L	310.0	41747 ppb	310.0	0.74%

Mg 279.077 IEC†	1014.3	38422 ug/L	83.8	38422 ppb	83.8	0.22%
Mn 257.610†	4325962.5	5711.5 ug/L	76.98	5711.5 ppb	76.98	1.35%
Mo 202.031†	6845.3	616.85 ug/L	4.827	616.85 ppb	4.827	0.78%
Na 589.592 Radial†	30651.4	10740 ug/L	103.2	10740 ppb	103.2	0.96%
Ni 231.604†	49113.8	1563.1 ug/L	1.43	1563.1 ppb	1.43	0.09%
P 214.914†	11374.4	8061.0 ug/L	73.74	8061.0 ppb	73.74	0.91%
Pb 220.353†	5353.1	822.29 ug/L	5.611	822.29 ppb	5.611	0.68%
S 181.975 Axial†	2449.9	4357.7 ug/L	54.74	4357.7 ppb	54.74	1.26%
Sb 206.836†	5425.4	2255.9 ug/L	23.28	2255.9 ppb	23.28	1.03%
Se 196.026†	3195.4	3187.2 ug/L	4.16	3187.2 ppb	4.16	0.13%
Si 251.611†	136575.7	5132.3 ug/L	2.89	5132.3 ppb	2.89	0.06%
Sn 189.927†	4621.8	1048.9 ug/L	6.79	1048.9 ppb	6.79	0.65%
Sr 421.552†	326021.1	2489.8 ug/L	19.38	2489.8 ppb	19.38	0.78%
Ti 334.940†	3479800.2	6023.4 ug/L	79.91	6023.4 ppb	79.91	1.33%
Tl 190.801†	3030.8	1237.0 ug/L	10.04	1237.0 ppb	10.04	0.81%
U 409.014†	-5240.0	-184.52 ug/L	1.921	-184.52 ppb	1.921	1.04%
V 292.402†	169371.2	1329.1 ug/L	1.30	1329.1 ppb	1.30	0.10%
Zn 213.857†	523598.6	6286.6 ug/L	5.52	6286.6 ppb	5.52	0.09%
SiO2†	136991.1	10954 ug/L	64.0	10954 ppb	64.0	0.58%

Sequence No.: 40
 Sample ID: 1202046542|954660|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 67
 Date Collected: 3/16/2010 23:25:15
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 1202046542|954660|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4374.2	4374.2	95.3 %		23:27:28
1	Y RADIAL	7163.5	7163.5	145.2 %		23:27:08
1	Al 396.153Radial†	24930.9	26232.8	24662 ug/L	24662 ppb	23:27:08
1	Ca 317.933Radial†	1429.5	1471.4	2600.8 ug/L	2600.8 ppb	23:27:28
1	Fe 238.204 Radial†	6491.7	6800.4	71251 ug/L	71251 ppb	23:27:08
1	K 766.490 Radial†	18211.9	16544.5	3166.7 ug/L	3166.7 ppb	23:27:08
1	Mg 279.077 IEC†	37.9	39.7	1437.1 ug/L	1437.1 ppb	23:27:28
1	Na 589.592 Radial†	4146.6	5154.0	1805.9 ug/L	1805.9 ppb	23:27:08
1	Sr 421.552†	2354.3	2443.4	18.647 ug/L	18.647 ppb	23:27:08
1	Sc 361.383	816829.5	816829.5	100.48 %		23:28:25
1	Y 371.029	1002124.9	1002124.9	145.35 %		23:28:25
1	Ag 328.068†	-3725.2	-3918.0	2.3352 ug/L	2.3352 ppb	23:28:31
1	As 188.979†	-24.6	-7.4	29.306 ug/L	29.306 ppb	23:28:51
1	B 249.677†	146.4	561.1	4.1067 ug/L	4.1067 ppb	23:28:31
1	Ba 233.527†	14269.5	14188.8	135.01 ug/L	135.01 ppb	23:28:31
1	Be 313.107†	814.0	4539.2	6.3298 ug/L	6.3298 ppb	23:28:31
1	Cd 226.502†	313.9	488.7	-0.3419 ug/L	-0.3419 ppb	23:28:51
1	Co 228.616†	290.1	328.5	3.5131 ug/L	3.5131 ppb	23:28:51
1	Cr 267.716†	983.5	899.3	19.823 ug/L	19.823 ppb	23:28:31
1	Cu 324.752†	9577.4	4065.5	17.437 ug/L	17.437 ppb	23:28:31
1	Mn 257.610†	2635339.8	2622203.5	3459.4 ug/L	3459.4 ppb	23:28:25
1	Mo 202.031†	20.8	7.9	6.2559 ug/L	6.2559 ppb	23:28:51
1	Ni 231.604†	581.9	497.6	15.839 ug/L	15.839 ppb	23:28:51
1	P 214.914†	753.7	566.2	372.44 ug/L	372.44 ppb	23:28:51
1	Pb 220.353†	347.9	389.0	55.364 ug/L	55.364 ppb	23:28:51
1	S 181.975 Axial†	42.8	12.5	17.670 ug/L	17.670 ppb	23:28:51
1	Sb 206.836†	34.6	10.0	-3.6357 ug/L	-3.6357 ppb	23:28:51
1	Se 196.026†	-306.8	-286.6	-25.126 ug/L	-25.126 ppb	23:28:51
1	Si 251.611†	208011.6	206520.0	7772.0 ug/L	7772.0 ppb	23:28:25
1	Sn 189.927†	-1.7	-9.7	-5.8144 ug/L	-5.8144 ppb	23:28:51
1	Ti 334.940†	1123783.2	1119503.7	1935.1 ug/L	1935.1 ppb	23:28:25
1	Tl 190.801†	-132.2	-99.7	-5.9516 ug/L	-5.9516 ppb	23:28:51
1	U 409.014†	-14646.3	-12495.4	-385.53 ug/L	-385.53 ppb	23:28:25
1	V 292.402†	3107.0	4409.9	22.117 ug/L	22.117 ppb	23:28:31
1	Zn 213.857†	38623.9	37822.3	446.14 ug/L	446.14 ppb	23:28:31
1	SiO2†	215343.7	213820.0	17123 ug/L	17123 ppb	23:29:58
2	Sc Radial	4369.1	4369.1	95.2 %		23:27:53
2	Y RADIAL	7195.6	7195.6	145.8 %		23:27:33
2	Al 396.153Radial†	24862.5	26191.6	24623 ug/L	24623 ppb	23:27:33
2	Ca 317.933Radial†	1421.1	1464.3	2588.3 ug/L	2588.3 ppb	23:27:53
2	Fe 238.204 Radial†	6522.1	6840.4	71670 ug/L	71670 ppb	23:27:33
2	K 766.490 Radial†	17808.8	16143.7	3089.9 ug/L	3089.9 ppb	23:27:33
2	Mg 279.077 IEC†	40.1	42.0	1523.2 ug/L	1523.2 ppb	23:27:53
2	Na 589.592 Radial†	3938.1	4940.2	1731.0 ug/L	1731.0 ppb	23:27:33
2	Sr 421.552†	2344.0	2435.4	18.586 ug/L	18.586 ppb	23:27:33
2	Sc 361.383	821269.5	821269.5	101.03 %		23:28:57
2	Y 371.029	1007031.5	1007031.5	146.07 %		23:28:57
2	Ag 328.068†	-3801.1	-3973.1	2.1826 ug/L	2.1826 ppb	23:29:02
2	As 188.979†	-15.7	1.5	34.372 ug/L	34.372 ppb	23:29:22
2	B 249.677†	177.5	591.1	4.8796 ug/L	4.8796 ppb	23:29:02
2	Ba 233.527†	14291.7	14134.1	134.51 ug/L	134.51 ppb	23:29:02
2	Be 313.107†	738.2	4459.7	6.2889 ug/L	6.2889 ppb	23:29:02
2	Cd 226.502†	306.9	480.1	-0.5112 ug/L	-0.5112 ppb	23:29:22
2	Co 228.616†	268.3	305.4	2.9117 ug/L	2.9117 ppb	23:29:22
2	Cr 267.716†	964.6	875.2	19.545 ug/L	19.545 ppb	23:29:02
2	Cu 324.752†	9604.1	4040.3	17.378 ug/L	17.378 ppb	23:29:02
2	Mn 257.610†	2648480.3	2621031.2	3457.9 ug/L	3457.9 ppb	23:28:57
2	Mo 202.031†	11.2	-1.8	5.4385 ug/L	5.4385 ppb	23:29:22
2	Ni 231.604†	557.6	470.5	14.975 ug/L	14.975 ppb	23:29:22

2	P 214.914†	757.1	565.5	371.58 ug/L	371.58 ppb	23:29:22
2	Pb 220.353†	335.5	374.9	53.122 ug/L	53.122 ppb	23:29:22
2	S 181.975 Axial†	61.1	30.3	49.492 ug/L	49.492 ppb	23:29:22
2	Sb 206.836†	31.1	6.2	-5.1940 ug/L	-5.1940 ppb	23:29:22
2	Se 196.026†	-294.6	-272.9	-12.537 ug/L	-12.537 ppb	23:29:22
2	Si 251.611†	208830.1	206211.0	7760.3 ug/L	7760.3 ppb	23:28:57
2	Sn 189.927†	-2.6	-10.5	-6.0232 ug/L	-6.0232 ppb	23:29:22
2	Ti 334.940†	1128103.2	1117733.4	1932.0 ug/L	1932.0 ppb	23:28:57
2	Tl 190.801†	-127.6	-94.5	-3.9675 ug/L	-3.9675 ppb	23:29:22
2	U 409.014†	-14868.9	-12636.8	-389.84 ug/L	-389.84 ppb	23:28:57
2	V 292.402†	3029.8	4316.8	21.297 ug/L	21.297 ppb	23:29:02
2	Zn 213.857†	38722.6	37712.3	444.76 ug/L	444.76 ppb	23:29:02
2	SiO2†	216737.0	214040.4	17141 ug/L	17141 ppb	23:30:04
3	Sc Radial	4335.7	4335.7	94.5 %		23:28:18
3	Y RADIAL	7036.3	7036.3	142.6 %		23:27:58
3	Al 396.153Radial†	24207.4	25699.4	24160 ug/L	24160 ppb	23:27:58
3	Ca 317.933Radial†	1411.0	1465.1	2589.7 ug/L	2589.7 ppb	23:28:18
3	Fe 238.204 Radial†	6371.1	6733.3	70548 ug/L	70548 ppb	23:27:58
3	K 766.490 Radial†	17257.5	15704.3	3005.8 ug/L	3005.8 ppb	23:27:58
3	Mg 279.077 IEC†	40.5	42.8	1553.8 ug/L	1553.8 ppb	23:28:18
3	Na 589.592 Radial†	3786.7	4811.8	1686.0 ug/L	1686.0 ppb	23:27:58
3	Sr 421.552†	2281.2	2388.0	18.223 ug/L	18.223 ppb	23:27:58
3	Sc 361.383	837657.2	837657.2	103.04 %		23:29:28
3	Y 371.029	1018179.1	1018179.1	147.68 %		23:29:28
3	Ag 328.068†	-3640.3	-3743.4	3.0040 ug/L	3.0040 ppb	23:29:33
3	As 188.979†	-20.0	-2.3	31.558 ug/L	31.558 ppb	23:29:53
3	B 249.677†	133.9	545.3	3.7820 ug/L	3.7820 ppb	23:29:33
3	Ba 233.527†	14067.5	13639.7	129.85 ug/L	129.85 ppb	23:29:33
3	Be 313.107†	841.2	4545.4	6.2217 ug/L	6.2217 ppb	23:29:33
3	Cd 226.502†	311.7	478.8	-0.4120 ug/L	-0.4120 ppb	23:29:53
3	Co 228.616†	250.9	283.4	2.4488 ug/L	2.4488 ppb	23:29:53
3	Cr 267.716†	925.4	818.5	18.659 ug/L	18.659 ppb	23:29:33
3	Cu 324.752†	9381.5	3638.3	15.982 ug/L	15.982 ppb	23:29:33
3	Mn 257.610†	2632351.8	2554091.0	3369.7 ug/L	3369.7 ppb	23:29:28
3	Mo 202.031†	15.8	2.5	5.7261 ug/L	5.7261 ppb	23:29:53
3	Ni 231.604†	557.0	459.1	14.613 ug/L	14.613 ppb	23:29:53
3	P 214.914†	756.4	550.2	361.11 ug/L	361.11 ppb	23:29:53
3	Pb 220.353†	335.5	368.4	52.169 ug/L	52.169 ppb	23:29:53
3	S 181.975 Axial†	51.2	19.6	30.434 ug/L	30.434 ppb	23:29:53
3	Sb 206.836†	29.5	4.1	-5.8629 ug/L	-5.8629 ppb	23:29:53
3	Se 196.026†	-302.1	-274.4	-17.161 ug/L	-17.161 ppb	23:29:53
3	Si 251.611†	211032.0	204303.9	7688.6 ug/L	7688.6 ppb	23:29:28
3	Sn 189.927†	2.1	-6.0	-4.9384 ug/L	-4.9384 ppb	23:29:53
3	Ti 334.940†	1123353.8	1091278.4	1886.3 ug/L	1886.3 ppb	23:29:28
3	Tl 190.801†	-130.0	-94.4	-4.7122 ug/L	-4.7122 ppb	23:29:53
3	U 409.014†	-14772.5	-12255.4	-378.19 ug/L	-378.19 ppb	23:29:28
3	V 292.402†	3043.6	4271.5	21.175 ug/L	21.175 ppb	23:29:33
3	Zn 213.857†	37978.0	36239.7	427.14 ug/L	427.14 ppb	23:29:33
3	SiO2†	205520.2	198957.7	15933 ug/L	15933 ppb	23:30:09

Mean Data: 1202046542|954660|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	825252.0	101.52 %		1.349				1.33%
Sc Radial	4359.7	95.0 %		0.46				0.48%
Y 371.029	1009111.8	146.37 %		1.193				0.82%
Y RADIAL	7131.8	144.5 %		1.71				1.18%
Ag 328.068†	-3878.2	2.5073 ug/L		0.43688	2.5073 ppb		0.43688	17.42%
Al 396.153Radial†	26041.3	24482 ug/L		279.0	24482 ppb		279.0	1.14%
As 188.979†	-2.8	31.745 ug/L		2.5383	31.745 ppb		2.5383	8.00%
B 249.677†	565.8	4.2561 ug/L		0.56381	4.2561 ppb		0.56381	13.25%
Ba 233.527†	13987.5	133.12 ug/L		2.847	133.12 ppb		2.847	2.14%
Be 313.107†	4514.8	6.2802 ug/L		0.05457	6.2802 ppb		0.05457	0.87%
Ca 317.933Radial†	1466.9	2592.9 ug/L		6.86	2592.9 ppb		6.86	0.26%
Cd 226.502†	482.6	-0.4217 ug/L		0.08508	-0.4217 ppb		0.08508	20.18%
Co 228.616†	305.8	2.9579 ug/L		0.53363	2.9579 ppb		0.53363	18.04%
Cr 267.716†	864.3	19.342 ug/L		0.6075	19.342 ppb		0.6075	3.14%
Cu 324.752†	3914.7	16.932 ug/L		0.8237	16.932 ppb		0.8237	4.86%
Fe 238.204 Radial†	6791.4	71156 ug/L		567.1	71156 ppb		567.1	0.80%
K 766.490 Radial†	16130.8	3087.4 ug/L		80.47	3087.4 ppb		80.47	2.61%

Mg 279.077 IEC†	41.5	1504.7 ug/L	60.52	1504.7 ppb	60.52	4.02%
Mn 257.610†	2599108.6	3429.0 ug/L	51.39	3429.0 ppb	51.39	1.50%
Mo 202.031†	2.9	5.8068 ug/L	0.41463	5.8068 ppb	0.41463	7.14%
Na 589.592 Radial†	4968.6	1740.9 ug/L	60.57	1740.9 ppb	60.57	3.48%
Ni 231.604†	475.8	15.143 ug/L	0.6301	15.143 ppb	0.6301	4.16%
P 214.914†	560.6	368.38 ug/L	6.310	368.38 ppb	6.310	1.71%
Pb 220.353†	377.4	53.552 ug/L	1.6400	53.552 ppb	1.6400	3.06%
S 181.975 Axial†	20.8	32.532 ug/L	16.0141	32.532 ppb	16.0141	49.23%
Sb 206.836†	6.8	-4.8975 ug/L	1.14279	-4.8975 ppb	1.14279	23.33%
Se 196.026†	-277.9	-18.275 ug/L	6.3681	-18.275 ppb	6.3681	34.85%
Si 251.611†	205678.3	7740.3 ug/L	45.17	7740.3 ppb	45.17	0.58%
Sn 189.927†	-8.7	-5.5920 ug/L	0.57560	-5.5920 ppb	0.57560	10.29%
Sr 421.552†	2422.3	18.485 ug/L	0.2290	18.485 ppb	0.2290	1.24%
Ti 334.940†	1109505.2	1917.8 ug/L	27.33	1917.8 ppb	27.33	1.42%
Tl 190.801†	-96.2	-4.8771 ug/L	1.00231	-4.8771 ppb	1.00231	20.55%
U 409.014†	-12462.5	-384.52 ug/L	5.890	-384.52 ppb	5.890	1.53%
V 292.402†	4332.7	21.529 ug/L	0.5122	21.529 ppb	0.5122	2.38%
Zn 213.857†	37258.1	439.35 ug/L	10.594	439.35 ppb	10.594	2.41%
SiO2†	208939.4	16732 ug/L	692.3	16732 ppb	692.3	4.14%

Sequence No.: 41
 Sample ID: 1202046544|954660|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 68
 Date Collected: 3/16/2010 23:32:19
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 1202046544|954660|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4328.2	4328.2	94.3 %		23:34:32
1	Y RADIAL	7586.4	7586.4	153.7 %		23:34:12
1	Al 396.153Radial†	37391.4	39718.4	37316 ug/L	37316 ppb	23:34:12
1	Ca 317.933Radial†	4122.5	4341.8	7674.6 ug/L	7674.6 ppb	23:34:12
1	Fe 238.204 Radial†	7143.6	7563.9	79265 ug/L	79265 ppb	23:34:12
1	K 766.490 Radial†	43996.7	44078.1	8437.2 ug/L	8437.2 ppb	23:34:12
1	Mg 279.077 IEC†	177.0	187.5	7057.3 ug/L	7057.3 ppb	23:34:32
1	Na 589.592 Radial†	17091.7	18921.2	6629.7 ug/L	6629.7 ppb	23:34:12
1	Sr 421.552†	66064.3	69998.3	534.68 ug/L	534.68 ppb	23:34:12
1	Sc 361.383	820979.5	820979.5	100.99 %		23:35:31
1	Y 371.029	1085157.7	1085157.7	157.40 %		23:35:31
1	Ag 328.068†	92722.3	91602.4	496.70 ug/L	496.70 ppb	23:35:31
1	As 188.979†	884.9	893.3	539.98 ug/L	539.98 ppb	23:35:51
1	B 249.677†	17986.0	18225.0	495.73 ug/L	495.73 ppb	23:35:31
1	Ba 233.527†	68517.6	67833.2	638.30 ug/L	638.30 ppb	23:35:31
1	Be 313.107†	1199338.9	1191306.6	515.19 ug/L	515.19 ppb	23:35:31
1	Cd 226.502†	34374.7	34214.0	487.89 ug/L	487.89 ppb	23:35:51
1	Co 228.616†	19371.3	19221.2	493.29 ug/L	493.29 ppb	23:35:51
1	Cr 267.716†	38348.6	37893.1	517.88 ug/L	517.88 ppb	23:35:31
1	Cu 324.752†	169934.2	162801.5	543.00 ug/L	543.00 ppb	23:35:31
1	Mn 257.610†	3017928.4	2987782.2	3941.3 ug/L	3941.3 ppb	23:35:31
1	Mo 202.031†	5583.1	5515.5	491.27 ug/L	491.27 ppb	23:35:51
1	Ni 231.604†	16557.3	16313.5	519.10 ug/L	519.10 ppb	23:35:51
1	P 214.914†	1508.7	1310.0	829.51 ug/L	829.51 ppb	23:35:51
1	Pb 220.353†	3704.8	3711.3	570.57 ug/L	570.57 ppb	23:35:51
1	S 181.975 Axial†	2866.1	2807.9	5006.4 ug/L	5006.4 ppb	23:35:51
1	Sb 206.836†	1213.6	1177.2	495.24 ug/L	495.24 ppb	23:35:51
1	Se 196.026†	281.4	297.4	488.04 ug/L	488.04 ppb	23:35:51
1	Si 251.611†	288289.7	284964.4	10718 ug/L	10718 ppb	23:35:31
1	Sn 189.927†	2185.3	2155.9	482.22 ug/L	482.22 ppb	23:35:51
1	Ti 334.940†	1715419.1	1699684.2	2937.5 ug/L	2937.5 ppb	23:35:31
1	Tl 190.801†	1150.3	1170.8	490.79 ug/L	490.79 ppb	23:35:51
1	U 409.014†	2207.6	4267.0	118.69 ug/L	118.69 ppb	23:35:31
1	V 292.402†	65488.0	66163.5	520.99 ug/L	520.99 ppb	23:35:31
1	Zn 213.857†	83386.5	81951.6	974.15 ug/L	974.15 ppb	23:35:31
1	SiO2†	295303.7	291912.5	23364 ug/L	23364 ppb	23:36:51
2	Sc Radial	4335.3	4335.3	94.5 %		23:34:57
2	Y RADIAL	7651.8	7651.8	155.1 %		23:34:37
2	Al 396.153Radial†	37816.0	40102.3	37677 ug/L	37677 ppb	23:34:37
2	Ca 317.933Radial†	4157.5	4371.6	7727.3 ug/L	7727.3 ppb	23:34:37
2	Fe 238.204 Radial†	7204.1	7615.5	79805 ug/L	79805 ppb	23:34:37
2	K 766.490 Radial†	44726.9	44773.8	8570.4 ug/L	8570.4 ppb	23:34:37
2	Mg 279.077 IEC†	181.4	191.9	7224.4 ug/L	7224.4 ppb	23:34:57
2	Na 589.592 Radial†	17425.6	19244.7	6743.1 ug/L	6743.1 ppb	23:34:37
2	Sr 421.552†	67076.2	70953.5	541.98 ug/L	541.98 ppb	23:34:37
2	Sc 361.383	817487.4	817487.4	100.56 %		23:35:58
2	Y 371.029	1079379.3	1079379.3	156.56 %		23:35:58
2	Ag 328.068†	92569.0	91842.2	498.11 ug/L	498.11 ppb	23:35:58
2	As 188.979†	871.7	883.9	534.92 ug/L	534.92 ppb	23:36:18
2	B 249.677†	17911.2	18226.7	495.69 ug/L	495.69 ppb	23:35:58
2	Ba 233.527†	68665.0	68269.6	642.40 ug/L	642.40 ppb	23:35:58
2	Be 313.107†	1196768.5	1193823.7	516.28 ug/L	516.28 ppb	23:35:58
2	Cd 226.502†	34166.0	34151.8	486.93 ug/L	486.93 ppb	23:36:18
2	Co 228.616†	19302.7	19234.9	493.63 ug/L	493.63 ppb	23:36:18
2	Cr 267.716†	38352.5	38059.1	520.17 ug/L	520.17 ppb	23:35:58
2	Cu 324.752†	169083.8	162674.7	542.61 ug/L	542.61 ppb	23:35:58
2	Mn 257.610†	3016925.6	2999550.6	3956.9 ug/L	3956.9 ppb	23:35:58
2	Mo 202.031†	5568.8	5524.9	492.14 ug/L	492.14 ppb	23:36:18
2	Ni 231.604†	16498.8	16325.4	519.48 ug/L	519.48 ppb	23:36:18

2	P 214.914†	1515.8	1323.4	839.36 ug/L	839.36 ppb	23:36:18
2	Pb 220.353†	3698.8	3720.9	572.06 ug/L	572.06 ppb	23:36:18
2	S 181.975 Axial†	2845.5	2799.5	4991.4 ug/L	4991.4 ppb	23:36:18
2	Sb 206.836†	1215.1	1183.8	497.95 ug/L	497.95 ppb	23:36:18
2	Se 196.026†	267.3	284.6	479.11 ug/L	479.11 ppb	23:36:18
2	Si 251.611†	287526.7	285425.0	10735 ug/L	10735 ppb	23:35:58
2	Sn 189.927†	2169.9	2149.8	480.83 ug/L	480.83 ppb	23:36:18
2	Ti 334.940†	1710684.2	1702231.8	2941.9 ug/L	2941.9 ppb	23:35:58
2	Tl 190.801†	1161.5	1186.8	497.06 ug/L	497.06 ppb	23:36:18
2	U 409.014†	2017.9	4087.6	113.21 ug/L	113.21 ppb	23:35:58
2	V 292.402†	65298.9	66252.5	521.62 ug/L	521.62 ppb	23:35:58
2	Zn 213.857†	83394.9	82312.7	978.43 ug/L	978.43 ppb	23:35:58
2	SiO2†	294972.4	292832.2	23437 ug/L	23437 ppb	23:36:57
3	Sc Radial	4294.2	4294.2	93.6 %		23:35:22
3	Y RADIAL	7690.4	7690.4	155.9 %		23:35:02
3	Al 396.153Radial†	37862.0	40534.3	38083 ug/L	38083 ppb	23:35:02
3	Ca 317.933Radial†	4190.9	4449.4	7864.8 ug/L	7864.8 ppb	23:35:02
3	Fe 238.204 Radial†	7215.3	7700.4	80695 ug/L	80695 ppb	23:35:02
3	K 766.490 Radial†	44591.3	45081.7	8629.3 ug/L	8629.3 ppb	23:35:02
3	Mg 279.077 IEC†	176.9	188.9	7107.9 ug/L	7107.9 ppb	23:35:22
3	Na 589.592 Radial†	17311.3	19298.9	6762.1 ug/L	6762.1 ppb	23:35:02
3	Sr 421.552†	67284.6	71855.2	548.87 ug/L	548.87 ppb	23:35:02
3	Sc 361.383	804488.5	804488.5	98.962 %		23:36:26
3	Y 371.029	1062203.9	1062203.9	154.07 %		23:36:26
3	Ag 328.068†	91210.2	91956.5	498.97 ug/L	498.97 ppb	23:36:26
3	As 188.979†	886.2	912.5	551.01 ug/L	551.01 ppb	23:36:46
3	B 249.677†	17626.6	18226.9	495.52 ug/L	495.52 ppb	23:36:26
3	Ba 233.527†	67272.1	67965.3	639.58 ug/L	639.58 ppb	23:36:26
3	Be 313.107†	1172519.9	1188550.1	514.02 ug/L	514.02 ppb	23:36:26
3	Cd 226.502†	34358.6	34895.4	497.62 ug/L	497.62 ppb	23:36:46
3	Co 228.616†	19430.9	19674.6	505.06 ug/L	505.06 ppb	23:36:46
3	Cr 267.716†	37611.7	37926.8	518.48 ug/L	518.48 ppb	23:36:26
3	Cu 324.752†	166638.8	162920.8	543.47 ug/L	543.47 ppb	23:36:26
3	Mn 257.610†	2960829.3	2991341.2	3946.1 ug/L	3946.1 ppb	23:36:26
3	Mo 202.031†	5577.5	5623.2	500.85 ug/L	500.85 ppb	23:36:46
3	Ni 231.604†	16562.8	16655.2	529.98 ug/L	529.98 ppb	23:36:46
3	P 214.914†	1506.3	1338.2	849.79 ug/L	849.79 ppb	23:36:46
3	Pb 220.353†	3696.5	3778.0	580.86 ug/L	580.86 ppb	23:36:46
3	S 181.975 Axial†	2867.7	2867.6	5113.0 ug/L	5113.0 ppb	23:36:46
3	Sb 206.836†	1228.6	1217.0	512.02 ug/L	512.02 ppb	23:36:46
3	Se 196.026†	275.5	297.1	492.19 ug/L	492.19 ppb	23:36:46
3	Si 251.611†	279817.7	282255.1	10616 ug/L	10616 ppb	23:36:26
3	Sn 189.927†	2176.1	2190.9	490.06 ug/L	490.06 ppb	23:36:46
3	Ti 334.940†	1682841.5	1701583.9	2940.8 ug/L	2940.8 ppb	23:36:26
3	Tl 190.801†	1165.8	1209.8	505.81 ug/L	505.81 ppb	23:36:46
3	U 409.014†	1815.7	3915.7	107.92 ug/L	107.92 ppb	23:36:26
3	V 292.402†	64116.4	66106.7	520.44 ug/L	520.44 ppb	23:36:26
3	Zn 213.857†	81736.3	81976.7	974.17 ug/L	974.17 ppb	23:36:26
3	SiO2†	298352.1	300986.9	24090 ug/L	24090 ppb	23:37:02

Mean Data: 1202046544|954660|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	814318.5	100.17 %	1.069			1.07%
Sc Radial	4319.2	94.2 %	0.48			0.51%
Y 371.029	1075580.3	156.01 %	1.732			1.11%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 156.0%						
Y RADIAL	7642.9	154.9 %	1.07			0.69%
Ag 328.068†	91800.4	497.92 ug/L	1.143	497.92 ppb	1.143	0.23%
Al 396.153Radial†	40118.3	37692 ug/L	383.5	37692 ppb	383.5	1.02%
As 188.979†	896.6	541.97 ug/L	8.225	541.97 ppb	8.225	1.52%
B 249.677†	18226.2	495.65 ug/L	0.113	495.65 ppb	0.113	0.02%
Ba 233.527†	68022.7	640.09 ug/L	2.099	640.09 ppb	2.099	0.33%
Be 313.107†	1191226.8	515.17 ug/L	1.127	515.17 ppb	1.127	0.22%
Ca 317.933Radial†	4387.6	7755.5 ug/L	98.21	7755.5 ppb	98.21	1.27%
Cd 226.502†	34420.4	490.81 ug/L	5.914	490.81 ppb	5.914	1.20%
Co 228.616†	19376.9	497.33 ug/L	6.702	497.33 ppb	6.702	1.35%
Cr 267.716†	37959.6	518.84 ug/L	1.186	518.84 ppb	1.186	0.23%
Cu 324.752†	162799.0	543.03 ug/L	0.433	543.03 ppb	0.433	0.08%
Fe 238.204 Radial†	7626.6	79922 ug/L	722.0	79922 ppb	722.0	0.90%

K 766.490 Radial†	44644.5	8545.6 ug/L	98.44	8545.6 ppb	98.44	1.15%
Mg 279.077 IEC†	189.4	7129.9 ug/L	85.73	7129.9 ppb	85.73	1.20%
Mn 257.610†	2992891.3	3948.1 ug/L	7.95	3948.1 ppb	7.95	0.20%
Mo 202.031†	5554.5	494.75 ug/L	5.301	494.75 ppb	5.301	1.07%
Na 589.592 Radial†	19155.0	6711.6 ug/L	71.55	6711.6 ppb	71.55	1.07%
Ni 231.604†	16431.3	522.85 ug/L	6.170	522.85 ppb	6.170	1.18%
P 214.914†	1323.9	839.55 ug/L	10.141	839.55 ppb	10.141	1.21%
Pb 220.353†	3736.8	574.50 ug/L	5.561	574.50 ppb	5.561	0.97%
S 181.975 Axial†	2825.0	5036.9 ug/L	66.32	5036.9 ppb	66.32	1.32%
Sb 206.836†	1192.7	501.74 ug/L	9.007	501.74 ppb	9.007	1.80%
Se 196.026†	293.1	486.45 ug/L	6.684	486.45 ppb	6.684	1.37%
Si 251.611†	284214.8	10690 ug/L	64.5	10690 ppb	64.5	0.60%
Sn 189.927†	2165.5	484.37 ug/L	4.979	484.37 ppb	4.979	1.03%
Sr 421.552†	70935.7	541.84 ug/L	7.093	541.84 ppb	7.093	1.31%
Ti 334.940†	1701166.6	2940.1 ug/L	2.29	2940.1 ppb	2.29	0.08%
Tl 190.801†	1189.1	497.89 ug/L	7.543	497.89 ppb	7.543	1.52%
U 409.014†	4090.1	113.28 ug/L	5.386	113.28 ppb	5.386	4.76%
V 292.402†	66174.2	521.01 ug/L	0.591	521.01 ppb	0.591	0.11%
Zn 213.857†	82080.3	975.58 ug/L	2.465	975.58 ppb	2.465	0.25%
SiO2†	295243.9	23631 ug/L	399.9	23631 ppb	399.9	1.69%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 42
 Sample ID: 1202046545|954660|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 69
 Date Collected: 3/16/2010 23:39:13
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 1202046545|954660|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4527.0	4527.0	98.7 %		23:41:06
1	Y RADIAL	7759.1	7759.1	157.2 %		23:41:06
1	Al 396.153Radial†	39973.0	40593.9	38139 ug/L	38139 ppb	23:41:06
1	Ca 317.933Radial†	4313.5	4343.4	7677.4 ug/L	7677.4 ppb	23:41:06
1	Fe 238.204 Radial†	7345.9	7436.4	77929 ug/L	77929 ppb	23:41:06
1	K 766.490 Radial†	45186.9	43236.0	8276.0 ug/L	8276.0 ppb	23:41:06
1	Mg 279.077 IEC†	181.2	183.6	6909.7 ug/L	6909.7 ppb	23:41:26
1	Na 589.592 Radial†	17665.5	18707.0	6554.7 ug/L	6554.7 ppb	23:41:06
1	Sr 421.552†	68021.9	68906.6	526.34 ug/L	526.34 ppb	23:41:06
1	Sc 361.383	812430.0	812430.0	99.939 %		23:42:25
1	Y 371.029	1079152.8	1079152.8	156.53 %		23:42:25
1	Ag 328.068†	91057.8	90903.1	492.67 ug/L	492.67 ppb	23:42:25
1	As 188.979†	878.2	895.8	540.73 ug/L	540.73 ppb	23:42:45
1	B 249.677†	17639.1	18065.3	491.47 ug/L	491.47 ppb	23:42:25
1	Ba 233.527†	67338.1	67366.9	633.88 ug/L	633.88 ppb	23:42:25
1	Be 313.107†	1175909.3	1180360.1	510.44 ug/L	510.44 ppb	23:42:25
1	Cd 226.502†	34267.8	34465.2	491.67 ug/L	491.67 ppb	23:42:45
1	Co 228.616†	19319.1	19370.8	497.27 ug/L	497.27 ppb	23:42:45
1	Cr 267.716†	37697.1	37640.7	514.34 ug/L	514.34 ppb	23:42:25
1	Cu 324.752†	166094.5	160730.2	536.07 ug/L	536.07 ppb	23:42:25
1	Mn 257.610†	2860818.0	2862023.0	3775.6 ug/L	3775.6 ppb	23:42:25
1	Mo 202.031†	5538.5	5529.0	492.36 ug/L	492.36 ppb	23:42:45
1	Ni 231.604†	16464.1	16392.8	521.63 ug/L	521.63 ppb	23:42:45
1	P 214.914†	1525.1	1342.1	856.35 ug/L	856.35 ppb	23:42:45
1	Pb 220.353†	3706.4	3751.5	577.15 ug/L	577.15 ppb	23:42:45
1	S 181.975 Axial†	2858.0	2829.6	5045.0 ug/L	5045.0 ppb	23:42:45
1	Sb 206.836†	1206.9	1183.1	497.89 ug/L	497.89 ppb	23:42:45
1	Se 196.026†	286.5	305.5	491.14 ug/L	491.14 ppb	23:42:45
1	Si 251.611†	266857.1	266522.6	10024 ug/L	10024 ppb	23:42:25
1	Sn 189.927†	2177.8	2171.1	485.73 ug/L	485.73 ppb	23:42:45
1	Ti 334.940†	1675916.1	1678032.1	2900.1 ug/L	2900.1 ppb	23:42:25
1	Tl 190.801†	1152.8	1185.3	495.27 ug/L	495.27 ppb	23:42:45
1	U 409.014†	2134.5	4216.8	117.34 ug/L	117.34 ppb	23:42:25
1	V 292.402†	64020.8	65377.8	514.96 ug/L	514.96 ppb	23:42:25
1	Zn 213.857†	82106.6	81539.8	969.37 ug/L	969.37 ppb	23:42:25
1	SiO2†	268919.4	268589.2	21496 ug/L	21496 ppb	23:43:46
2	Sc Radial	4562.8	4562.8	99.5 %		23:41:31
2	Y RADIAL	7768.6	7768.6	157.4 %		23:41:31
2	Al 396.153Radial†	39217.7	39516.1	37126 ug/L	37126 ppb	23:41:31
2	Ca 317.933Radial†	4229.3	4224.3	7467.0 ug/L	7467.0 ppb	23:41:31
2	Fe 238.204 Radial†	7231.1	7262.4	76106 ug/L	76106 ppb	23:41:31
2	K 766.490 Radial†	44451.9	42137.1	8065.6 ug/L	8065.6 ppb	23:41:31
2	Mg 279.077 IEC†	183.8	184.7	6954.5 ug/L	6954.5 ppb	23:41:51
2	Na 589.592 Radial†	17374.7	18274.0	6403.0 ug/L	6403.0 ppb	23:41:31
2	Sr 421.552†	66962.9	67300.1	514.07 ug/L	514.07 ppb	23:41:31
2	Sc 361.383	821632.4	821632.4	101.07 %		23:42:52
2	Y 371.029	1089723.1	1089723.1	158.06 %		23:42:52
2	Ag 328.068†	92436.9	91247.1	493.89 ug/L	493.89 ppb	23:42:52
2	As 188.979†	872.9	880.7	532.00 ug/L	532.00 ppb	23:43:13
2	B 249.677†	17925.2	18150.6	494.17 ug/L	494.17 ppb	23:42:52
2	Ba 233.527†	68398.9	67661.8	636.59 ug/L	636.59 ppb	23:42:52
2	Be 313.107†	1192895.6	1183987.9	512.01 ug/L	512.01 ppb	23:42:52
2	Cd 226.502†	34245.7	34059.3	485.97 ug/L	485.97 ppb	23:43:13
2	Co 228.616†	19360.7	19195.5	492.71 ug/L	492.71 ppb	23:43:13
2	Cr 267.716†	38284.4	37799.3	516.28 ug/L	516.28 ppb	23:42:52
2	Cu 324.752†	168574.7	161322.7	537.94 ug/L	537.94 ppb	23:42:52
2	Mn 257.610†	2905687.4	2874355.8	3791.7 ug/L	3791.7 ppb	23:42:52
2	Mo 202.031†	5547.1	5475.5	487.51 ug/L	487.51 ppb	23:43:13
2	Ni 231.604†	16456.3	16200.5	515.51 ug/L	515.51 ppb	23:43:13

2	P 214.914†	1509.6	1309.7	832.71 ug/L	832.71 ppb	23:43:13
2	Pb 220.353†	3677.6	3681.5	566.37 ug/L	566.37 ppb	23:43:13
2	S 181.975 Axial†	2851.9	2791.6	4977.4 ug/L	4977.4 ppb	23:43:13
2	Sb 206.836†	1221.1	1183.6	497.89 ug/L	497.89 ppb	23:43:13
2	Se 196.026†	265.0	281.0	465.25 ug/L	465.25 ppb	23:43:13
2	Si 251.611†	270115.3	266755.7	10033 ug/L	10033 ppb	23:42:52
2	Sn 189.927†	2163.8	2132.9	477.19 ug/L	477.19 ppb	23:43:13
2	Ti 334.940†	1700972.6	1684041.1	2910.5 ug/L	2910.5 ppb	23:42:52
2	Tl 190.801†	1158.4	1177.9	492.62 ug/L	492.62 ppb	23:43:13
2	U 409.014†	1935.5	3996.0	110.88 ug/L	110.88 ppb	23:42:52
2	V 292.402†	65014.9	65643.9	517.26 ug/L	517.26 ppb	23:42:52
2	Zn 213.857†	83487.5	81986.0	975.06 ug/L	975.06 ppb	23:42:52
2	SiO2†	269239.6	265892.2	21280 ug/L	21280 ppb	23:43:51
3	Sc Radial	4523.7	4523.7	98.6 %		23:41:56
3	Y RADIAL	7683.3	7683.3	155.7 %		23:41:56
3	Al 396.153Radial†	39289.2	39930.1	37516 ug/L	37516 ppb	23:41:56
3	Ca 317.933Radial†	4225.3	4257.1	7525.0 ug/L	7525.0 ppb	23:41:56
3	Fe 238.204 Radial†	7230.7	7325.0	76761 ug/L	76761 ppb	23:41:56
3	K 766.490 Radial†	44523.6	42597.0	8153.6 ug/L	8153.6 ppb	23:41:56
3	Mg 279.077 IEC†	182.7	185.2	6972.9 ug/L	6972.9 ppb	23:42:16
3	Na 589.592 Radial†	17350.2	18400.5	6447.3 ug/L	6447.3 ppb	23:41:56
3	Sr 421.552†	66885.4	67804.8	517.93 ug/L	517.93 ppb	23:41:56
3	Sc 361.383	826718.6	826718.6	101.70 %		23:43:20
3	Y 371.029	1094132.0	1094132.0	158.70 %		23:43:20
3	Ag 328.068†	92804.2	91045.6	493.06 ug/L	493.06 ppb	23:43:20
3	As 188.979†	883.4	885.7	534.98 ug/L	534.98 ppb	23:43:40
3	B 249.677†	18035.7	18150.2	494.06 ug/L	494.06 ppb	23:43:20
3	Ba 233.527†	68796.6	67636.5	636.37 ug/L	636.37 ppb	23:43:20
3	Be 313.107†	1196642.4	1180411.0	510.48 ug/L	510.48 ppb	23:43:20
3	Cd 226.502†	34207.0	33812.7	482.33 ug/L	482.33 ppb	23:43:40
3	Co 228.616†	19313.6	19031.3	488.43 ug/L	488.43 ppb	23:43:40
3	Cr 267.716†	38475.1	37753.8	515.74 ug/L	515.74 ppb	23:43:20
3	Cu 324.752†	169619.1	161323.6	537.98 ug/L	537.98 ppb	23:43:20
3	Mn 257.610†	2922107.0	2872814.2	3789.7 ug/L	3789.7 ppb	23:43:20
3	Mo 202.031†	5539.6	5434.3	483.94 ug/L	483.94 ppb	23:43:40
3	Ni 231.604†	16444.2	16088.4	511.94 ug/L	511.94 ppb	23:43:40
3	P 214.914†	1508.9	1299.8	824.81 ug/L	824.81 ppb	23:43:40
3	Pb 220.353†	3669.8	3651.4	561.72 ug/L	561.72 ppb	23:43:40
3	S 181.975 Axial†	2845.8	2768.2	4935.5 ug/L	4935.5 ppb	23:43:40
3	Sb 206.836†	1205.8	1161.1	488.41 ug/L	488.41 ppb	23:43:40
3	Se 196.026†	274.6	288.8	473.77 ug/L	473.77 ppb	23:43:40
3	Si 251.611†	269162.8	264174.8	9935.8 ug/L	9935.8 ppb	23:43:20
3	Sn 189.927†	2159.0	2115.0	473.13 ug/L	473.13 ppb	23:43:40
3	Ti 334.940†	1712383.0	1684907.1	2912.0 ug/L	2912.0 ppb	23:43:20
3	Tl 190.801†	1168.5	1180.8	493.73 ug/L	493.73 ppb	23:43:40
3	U 409.014†	2014.0	4061.4	112.78 ug/L	112.78 ppb	23:43:20
3	V 292.402†	65308.9	65537.2	516.26 ug/L	516.26 ppb	23:43:20
3	Zn 213.857†	83884.1	81867.7	973.56 ug/L	973.56 ppb	23:43:20
3	SiO2†	270297.1	265293.2	21232 ug/L	21232 ppb	23:43:56

Mean Data: 1202046545|954660|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	820260.3	100.90 %	0.891			0.88%
Sc Radial	4537.8	98.9 %	0.47			0.48%
Y 371.029	1087669.3	157.76 %	1.117			0.71%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 157.8%						
Y RADIAL	7737.0	156.8 %	0.95			0.60%
Ag 328.068†	91065.3	493.21 ug/L	0.624	493.21 ppb	0.624	0.13%
Al 396.153Radial†	40013.4	37594 ug/L	511.0	37594 ppb	511.0	1.36%
As 188.979†	887.4	535.90 ug/L	4.440	535.90 ppb	4.440	0.83%
B 249.677†	18122.1	493.23 ug/L	1.527	493.23 ppb	1.527	0.31%
Ba 233.527†	67555.1	635.61 ug/L	1.505	635.61 ppb	1.505	0.24%
Be 313.107†	1181586.3	510.98 ug/L	0.894	510.98 ppb	0.894	0.17%
Ca 317.933Radial†	4275.0	7556.5 ug/L	108.70	7556.5 ppb	108.70	1.44%
Cd 226.502†	34112.4	486.65 ug/L	4.708	486.65 ppb	4.708	0.97%
Co 228.616†	19199.2	492.80 ug/L	4.425	492.80 ppb	4.425	0.90%
Cr 267.716†	37731.3	515.45 ug/L	1.002	515.45 ppb	1.002	0.19%
Cu 324.752†	161125.5	537.33 ug/L	1.089	537.33 ppb	1.089	0.20%
Fe 238.204 Radial†	7341.3	76932 ug/L	923.4	76932 ppb	923.4	1.20%

K 766.490 Radial†	42656.7	8165.0 ug/L	105.66	8165.0 ppb	105.66	1.29%
Mg 279.077 IEC†	184.5	6945.7 ug/L	32.52	6945.7 ppb	32.52	0.47%
Mn 257.610†	2869731.0	3785.7 ug/L	8.76	3785.7 ppb	8.76	0.23%
Mo 202.031†	5479.6	487.93 ug/L	4.225	487.93 ppb	4.225	0.87%
Na 589.592 Radial†	18460.5	6468.3 ug/L	78.02	6468.3 ppb	78.02	1.21%
Ni 231.604†	16227.3	516.36 ug/L	4.898	516.36 ppb	4.898	0.95%
P 214.914†	1317.2	837.96 ug/L	16.413	837.96 ppb	16.413	1.96%
Pb 220.353†	3694.8	568.41 ug/L	7.918	568.41 ppb	7.918	1.39%
S 181.975 Axial†	2796.4	4986.0 ug/L	55.26	4986.0 ppb	55.26	1.11%
Sb 206.836†	1176.0	494.73 ug/L	5.475	494.73 ppb	5.475	1.11%
Se 196.026†	291.8	476.72 ug/L	13.194	476.72 ppb	13.194	2.77%
Si 251.611†	265817.7	9997.6 ug/L	53.68	9997.6 ppb	53.68	0.54%
Sn 189.927†	2139.7	478.68 ug/L	6.433	478.68 ppb	6.433	1.34%
Sr 421.552†	68003.8	519.45 ug/L	6.275	519.45 ppb	6.275	1.21%
Ti 334.940†	1682326.8	2907.5 ug/L	6.46	2907.5 ppb	6.46	0.22%
Tl 190.801†	1181.4	493.87 ug/L	1.335	493.87 ppb	1.335	0.27%
U 409.014†	4091.4	113.66 ug/L	3.322	113.66 ppb	3.322	2.92%
V 292.402†	65519.6	516.16 ug/L	1.154	516.16 ppb	1.154	0.22%
Zn 213.857†	81797.9	972.66 ug/L	2.953	972.66 ppb	2.953	0.30%
SiO2†	266591.5	21336 ug/L	140.5	21336 ppb	140.5	0.66%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 43
 Sample ID: 1202046543|954660|5
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 70
 Date Collected: 3/16/2010 23:46:07
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 1202046543|954660|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4132.6	4132.6	90.1 %		23:48:20
1	Y RADIAL	4975.8	4975.8	100.8 %		23:48:00
1	Al 396.153Radial†	4655.7	5254.1	4939.4 ug/L	4939.4 ppb	23:48:00
1	Ca 317.933Radial†	266.5	267.9	473.62 ug/L	473.62 ppb	23:48:20
1	Fe 238.204 Radial†	1345.1	1485.3	15562 ug/L	15562 ppb	23:48:20
1	K 766.490 Radial†	5852.8	3941.4	754.52 ug/L	754.52 ppb	23:48:00
1	Mg 279.077 IEC†	8.8	9.7	351.14 ug/L	351.14 ppb	23:48:20
1	Na 589.592 Radial†	164.6	987.8	346.10 ug/L	346.10 ppb	23:48:00
1	Sr 421.552†	436.8	459.1	3.5035 ug/L	3.5035 ppb	23:48:00
1	Sc 361.383	811051.5	811051.5	99.769 %		23:49:17
1	Y 371.029	745950.9	745950.9	108.20 %		23:49:17
1	Ag 328.068†	-644.2	-856.3	0.4954 ug/L	0.4954 ppb	23:49:23
1	As 188.979†	-24.8	-7.9	3.1142 ug/L	3.1142 ppb	23:49:43
1	B 249.677†	-1.6	413.7	9.0470 ug/L	9.0470 ppb	23:49:23
1	Ba 233.527†	2688.3	2682.0	25.584 ug/L	25.584 ppb	23:49:43
1	Be 313.107†	-3883.7	-163.7	0.9364 ug/L	0.9364 ppb	23:49:23
1	Cd 226.502†	-61.5	114.7	0.0418 ug/L	0.0418 ppb	23:49:43
1	Co 228.616†	15.9	55.8	0.3084 ug/L	0.3084 ppb	23:49:43
1	Cr 267.716†	255.6	176.7	4.0589 ug/L	4.0589 ppb	23:49:43
1	Cu 324.752†	6110.9	658.8	3.0437 ug/L	3.0437 ppb	23:49:23
1	Mn 257.610†	545303.9	546015.0	720.42 ug/L	720.42 ppb	23:49:17
1	Mo 202.031†	15.2	2.4	1.4239 ug/L	1.4239 ppb	23:49:43
1	Ni 231.604†	172.6	91.5	2.9134 ug/L	2.9134 ppb	23:49:43
1	P 214.914†	302.7	119.5	78.216 ug/L	78.216 ppb	23:49:43
1	Pb 220.353†	37.4	80.3	11.270 ug/L	11.270 ppb	23:49:43
1	S 181.975 Axial†	28.7	-1.4	-3.4046 ug/L	-3.4046 ppb	23:49:43
1	Sb 206.836†	33.0	8.5	1.7771 ug/L	1.7771 ppb	23:49:43
1	Se 196.026†	-80.3	-61.7	-4.8949 ug/L	-4.8949 ppb	23:49:43
1	Si 251.611†	52466.9	52090.2	1960.3 ug/L	1960.3 ppb	23:49:23
1	Sn 189.927†	4.9	-3.1	-1.5056 ug/L	-1.5056 ppb	23:49:43
1	Ti 334.940†	254792.9	256469.9	443.28 ug/L	443.28 ppb	23:49:17
1	Tl 190.801†	-48.0	-16.3	0.8180 ug/L	0.8180 ppb	23:49:43
1	U 409.014†	-4421.6	-2350.8	-72.777 ug/L	-72.777 ppb	23:49:17
1	V 292.402†	-470.2	846.5	3.8998 ug/L	3.8998 ppb	23:49:23
1	Zn 213.857†	8700.3	8103.3	95.545 ug/L	95.545 ppb	23:49:23
1	SiO2†	55116.5	54748.8	4384.4 ug/L	4384.4 ppb	23:50:49
2	Sc Radial	4305.8	4305.8	93.9 %		23:48:46
2	Y RADIAL	5262.8	5262.8	106.7 %		23:48:26
2	Al 396.153Radial†	4566.1	4950.8	4654.3 ug/L	4654.3 ppb	23:48:26
2	Ca 317.933Radial†	271.4	261.3	461.82 ug/L	461.82 ppb	23:48:46
2	Fe 238.204 Radial†	1362.3	1443.6	15126 ug/L	15126 ppb	23:48:46
2	K 766.490 Radial†	5870.2	3698.7	708.03 ug/L	708.03 ppb	23:48:26
2	Mg 279.077 IEC†	9.0	9.5	345.26 ug/L	345.26 ppb	23:48:46
2	Na 589.592 Radial†	103.8	915.7	320.86 ug/L	320.86 ppb	23:48:26
2	Sr 421.552†	412.8	414.0	3.1596 ug/L	3.1596 ppb	23:48:26
2	Sc 361.383	818756.5	818756.5	100.72 %		23:49:48
2	Y 371.029	751595.5	751595.5	109.02 %		23:49:48
2	Ag 328.068†	-542.7	-749.4	0.9098 ug/L	0.9098 ppb	23:49:53
2	As 188.979†	-20.8	-3.6	5.3839 ug/L	5.3839 ppb	23:50:13
2	B 249.677†	-166.6	250.0	4.5355 ug/L	4.5355 ppb	23:49:53
2	Ba 233.527†	2682.1	2650.5	25.276 ug/L	25.276 ppb	23:50:13
2	Be 313.107†	-3845.8	-89.4	0.9685 ug/L	0.9685 ppb	23:49:53
2	Cd 226.502†	-66.6	110.3	0.0234 ug/L	0.0234 ppb	23:50:13
2	Co 228.616†	14.4	54.1	0.2710 ug/L	0.2710 ppb	23:50:13
2	Cr 267.716†	272.8	191.4	4.2099 ug/L	4.2099 ppb	23:50:13
2	Cu 324.752†	6030.0	520.9	2.5639 ug/L	2.5639 ppb	23:49:53
2	Mn 257.610†	550468.3	545999.2	720.35 ug/L	720.35 ppb	23:49:48
2	Mo 202.031†	17.6	4.6	1.5841 ug/L	1.5841 ppb	23:50:13
2	Ni 231.604†	184.5	101.7	3.2380 ug/L	3.2380 ppb	23:50:13

2	P 214.914†	298.5	112.5	73.332 ug/L	73.332 ppb	23:50:13
2	Pb 220.353†	32.7	75.2	10.493 ug/L	10.493 ppb	23:50:13
2	S 181.975 Axial†	29.9	-0.4	-1.6753 ug/L	-1.6753 ppb	23:50:13
2	Sb 206.836†	28.6	3.8	-0.1300 ug/L	-0.1300 ppb	23:50:13
2	Se 196.026†	-79.6	-60.2	-5.0074 ug/L	-5.0074 ppb	23:50:13
2	Si 251.611†	50947.8	50087.0	1884.9 ug/L	1884.9 ppb	23:49:53
2	Sn 189.927†	10.0	2.0	-0.3422 ug/L	-0.3422 ppb	23:50:13
2	Ti 334.940†	257333.5	256589.1	443.49 ug/L	443.49 ppb	23:49:48
2	Tl 190.801†	-44.9	-12.8	2.1770 ug/L	2.1770 ppb	23:50:13
2	U 409.014†	-4457.2	-2344.5	-72.536 ug/L	-72.536 ppb	23:49:48
2	V 292.402†	-449.7	871.2	4.1636 ug/L	4.1636 ppb	23:49:53
2	Zn 213.857†	8623.3	7944.8	93.693 ug/L	93.693 ppb	23:49:53
2	SiO2†	53454.2	52578.3	4210.6 ug/L	4210.6 ppb	23:50:54
3	Sc Radial	4296.1	4296.1	93.6 %		23:49:11
3	Y RADIAL	5291.1	5291.1	107.2 %		23:48:51
3	Al 396.153Radial†	4626.0	5025.7	4724.7 ug/L	4724.7 ppb	23:48:51
3	Ca 317.933Radial†	269.5	259.9	459.37 ug/L	459.37 ppb	23:49:11
3	Fe 238.204 Radial†	1343.6	1426.9	14951 ug/L	14951 ppb	23:49:11
3	K 766.490 Radial†	5780.2	3616.6	692.31 ug/L	692.31 ppb	23:48:51
3	Mg 279.077 IEC†	7.0	7.3	263.90 ug/L	263.90 ppb	23:49:11
3	Na 589.592 Radial†	72.2	882.2	309.10 ug/L	309.10 ppb	23:48:51
3	Sr 421.552†	438.2	442.1	3.3741 ug/L	3.3741 ppb	23:48:51
3	Sc 361.383	819639.3	819639.3	100.83 %		23:50:19
3	Y 371.029	752440.3	752440.3	109.14 %		23:50:19
3	Ag 328.068†	-667.3	-872.5	0.2249 ug/L	0.2249 ppb	23:50:24
3	As 188.979†	-23.1	-5.8	4.0840 ug/L	4.0840 ppb	23:50:44
3	B 249.677†	-145.8	270.7	5.1436 ug/L	5.1436 ppb	23:50:24
3	Ba 233.527†	2703.6	2668.9	25.443 ug/L	25.443 ppb	23:50:44
3	Be 313.107†	-3917.6	-156.5	0.9388 ug/L	0.9388 ppb	23:50:24
3	Cd 226.502†	-51.0	125.7	0.2652 ug/L	0.2652 ppb	23:50:44
3	Co 228.616†	19.8	59.4	0.4113 ug/L	0.4113 ppb	23:50:44
3	Cr 267.716†	292.5	210.6	4.4498 ug/L	4.4498 ppb	23:50:44
3	Cu 324.752†	6106.2	589.9	2.7845 ug/L	2.7845 ppb	23:50:24
3	Mn 257.610†	551109.8	546046.7	720.40 ug/L	720.40 ppb	23:50:19
3	Mo 202.031†	14.5	1.5	1.3011 ug/L	1.3011 ppb	23:50:44
3	Ni 231.604†	192.2	109.2	3.4747 ug/L	3.4747 ppb	23:50:44
3	P 214.914†	295.4	109.1	70.898 ug/L	70.898 ppb	23:50:44
3	Pb 220.353†	31.3	73.9	10.321 ug/L	10.321 ppb	23:50:44
3	S 181.975 Axial†	35.8	5.4	8.7543 ug/L	8.7543 ppb	23:50:44
3	Sb 206.836†	28.6	3.8	-0.1746 ug/L	-0.1746 ppb	23:50:44
3	Se 196.026†	-79.9	-60.4	-5.6585 ug/L	-5.6585 ppb	23:50:44
3	Si 251.611†	51427.2	50507.9	1900.8 ug/L	1900.8 ppb	23:50:24
3	Sn 189.927†	0.1	-7.9	-2.5597 ug/L	-2.5597 ppb	23:50:44
3	Ti 334.940†	257336.6	256317.0	443.02 ug/L	443.02 ppb	23:50:19
3	Tl 190.801†	-52.8	-20.6	-0.8337 ug/L	-0.8337 ppb	23:50:44
3	U 409.014†	-4538.8	-2420.7	-74.818 ug/L	-74.818 ppb	23:50:19
3	V 292.402†	-485.3	836.4	3.9018 ug/L	3.9018 ppb	23:50:24
3	Zn 213.857†	8615.6	7928.0	93.514 ug/L	93.514 ppb	23:50:24
3	SiO2†	55165.4	54218.4	4341.9 ug/L	4341.9 ppb	23:50:59

Mean Data: 1202046543|954660|5

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	816482.5	100.44 %		0.581			0.58%
Sc Radial	4244.8	92.5 %		2.12			2.29%
Y 371.029	749995.5	108.78 %		0.512			0.47%
Y RADIAL	5176.6	104.9 %		3.53			3.37%
Ag 328.068†	-826.1	0.5434 ug/L		0.34497	0.5434 ppb	0.34497	63.49%
Al 396.153Radial†	5076.8	4772.8 ug/L		148.51	4772.8 ppb	148.51	3.11%
As 188.979†	-5.8	4.1940 ug/L		1.13886	4.1940 ppb	1.13886	27.15%
B 249.677†	311.5	6.2420 ug/L		2.44811	6.2420 ppb	2.44811	39.22%
Ba 233.527†	2667.1	25.434 ug/L		0.1541	25.434 ppb	0.1541	0.61%
Be 313.107†	-136.5	0.9479 ug/L		0.01790	0.9479 ppb	0.01790	1.89%
Ca 317.933Radial†	263.0	464.94 ug/L		7.619	464.94 ppb	7.619	1.64%
Cd 226.502†	116.9	0.1101 ug/L		0.13464	0.1101 ppb	0.13464	122.24%
Co 228.616†	56.5	0.3302 ug/L		0.07264	0.3302 ppb	0.07264	22.00%
Cr 267.716†	192.9	4.2395 ug/L		0.19714	4.2395 ppb	0.19714	4.65%
Cu 324.752†	589.9	2.7974 ug/L		0.24019	2.7974 ppb	0.24019	8.59%
Fe 238.204 Radial†	1452.0	15213 ug/L		314.9	15213 ppb	314.9	2.07%
K 766.490 Radial†	3752.3	718.29 ug/L		32.346	718.29 ppb	32.346	4.50%

Mg 279.077 IEC†	8.8	320.10 ug/L	48.756	320.10 ppb	48.756	15.23%
Mn 257.610†	546020.3	720.39 ug/L	0.033	720.39 ppb	0.033	0.00%
Mo 202.031†	2.8	1.4364 ug/L	0.14191	1.4364 ppb	0.14191	9.88%
Na 589.592 Radial†	928.6	325.35 ug/L	18.909	325.35 ppb	18.909	5.81%
Ni 231.604†	100.8	3.2087 ug/L	0.28181	3.2087 ppb	0.28181	8.78%
P 214.914†	113.7	74.149 ug/L	3.7266	74.149 ppb	3.7266	5.03%
Pb 220.353†	76.5	10.695 ug/L	0.5059	10.695 ppb	0.5059	4.73%
S 181.975 Axial†	1.2	1.2248 ug/L	6.57781	1.2248 ppb	6.57781	537.07%
Sb 206.836†	5.4	0.4908 ug/L	1.11418	0.4908 ppb	1.11418	227.01%
Se 196.026†	-60.8	-5.1869 ug/L	0.41224	-5.1869 ppb	0.41224	7.95%
Si 251.611†	50895.0	1915.3 ug/L	39.75	1915.3 ppb	39.75	2.08%
Sn 189.927†	-3.0	-1.4692 ug/L	1.10919	-1.4692 ppb	1.10919	75.50%
Sr 421.552†	438.4	3.3457 ug/L	0.17374	3.3457 ppb	0.17374	5.19%
Ti 334.940†	256458.7	443.26 ug/L	0.232	443.26 ppb	0.232	0.05%
Tl 190.801†	-16.6	0.7204 ug/L	1.50773	0.7204 ppb	1.50773	209.28%
U 409.014†	-2372.0	-73.377 ug/L	1.2540	-73.377 ppb	1.2540	1.71%
V 292.402†	851.4	3.9884 ug/L	0.15174	3.9884 ppb	0.15174	3.80%
Zn 213.857†	7992.0	94.251 ug/L	1.1240	94.251 ppb	1.1240	1.19%
SiO2†	53848.5	4312.3 ug/L	90.62	4312.3 ppb	90.62	2.10%

Sequence No.: 44

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/16/2010 23:53:10

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	4261.2	4261.2	92.9 %		23:55:22
1	Y RADIAL	4666.4	4666.4	94.57 %		23:55:02
1	Al 396.153Radial†	5007.0	5476.3	5123.9 ug/L	5123.9 ppb	23:55:02
1	Ca 317.933Radial†	2786.5	2972.1	5253.5 ug/L	5253.5 ppb	23:55:22
1	Fe 238.204 Radial†	475.7	504.3	5298.6 ug/L	5298.6 ppb	23:55:22
1	K 766.490 Radial†	27765.6	27336.7	5230.4 ug/L	5230.4 ppb	23:55:02
1	Mg 279.077 IEC†	134.2	144.4	5493.3 ug/L	5493.3 ppb	23:55:22
1	Na 589.592 Radial†	27562.8	30479.2	10679 ug/L	10679 ppb	23:55:02
1	Sr 421.552†	64349.0	69252.4	529.00 ug/L	529.00 ppb	23:55:02
1	Sc 361.383	809274.1	809274.1	99.550 %		23:56:19
1	Y 371.029	674710.2	674710.2	97.864 %		23:56:19
1	Ag 328.068†	97521.7	97751.5	505.01 ug/L	505.01 ppb	23:56:24
1	As 188.979†	894.4	915.4	513.75 ug/L	513.75 ppb	23:56:45
1	B 249.677†	17331.8	17825.4	496.52 ug/L	496.52 ppb	23:56:24
1	Ba 233.527†	53695.5	53925.5	505.85 ug/L	505.85 ppb	23:56:24
1	Be 313.107†	1187597.7	1196689.6	511.94 ug/L	511.94 ppb	23:56:19
1	Cd 226.502†	34626.8	34959.6	506.40 ug/L	506.40 ppb	23:56:24
1	Co 228.616†	19669.3	19797.9	514.45 ug/L	514.45 ppb	23:56:24
1	Cr 267.716†	37564.6	37654.7	506.65 ug/L	506.65 ppb	23:56:24
1	Cu 324.752†	155576.9	150813.2	499.19 ug/L	499.19 ppb	23:56:24
1	Mn 257.610†	375164.5	376307.7	495.75 ug/L	495.75 ppb	23:56:24
1	Mo 202.031†	5723.2	5736.2	504.91 ug/L	504.91 ppb	23:56:45
1	Ni 231.604†	16088.9	16080.1	511.66 ug/L	511.66 ppb	23:56:24
1	P 214.914†	3511.9	3343.9	2420.7 ug/L	2420.7 ppb	23:56:45
1	Pb 220.353†	3233.9	3291.3	509.21 ug/L	509.21 ppb	23:56:45
1	S 181.975 Axial†	583.5	556.0	991.80 ug/L	991.80 ppb	23:56:45
1	Sb 206.836†	1217.5	1198.5	514.39 ug/L	514.39 ppb	23:56:45
1	Se 196.026†	589.1	610.5	525.03 ug/L	525.03 ppb	23:56:45
1	Si 251.611†	67603.2	67410.3	2530.6 ug/L	2530.6 ppb	23:56:24
1	Sn 189.927†	2220.4	2222.5	501.03 ug/L	501.03 ppb	23:56:45
1	Ti 334.940†	282069.0	284430.1	491.38 ug/L	491.38 ppb	23:56:24
1	Tl 190.801†	1290.5	1328.1	514.61 ug/L	514.61 ppb	23:56:45
1	U 409.014†	14833.1	16981.1	511.12 ug/L	511.12 ppb	23:56:24
1	V 292.402†	61336.0	62930.7	509.50 ug/L	509.50 ppb	23:56:24
1	Zn 213.857†	42903.0	42479.7	508.46 ug/L	508.46 ppb	23:56:24
1	SiO2†	68612.3	68426.8	5466.0 ug/L	5466.0 ppb	23:57:52
2	Sc Radial	4271.5	4271.5	93.1 %		23:55:47
2	Y RADIAL	4866.7	4866.7	98.63 %		23:55:27
2	Al 396.153Radial†	5213.6	5685.3	5320.4 ug/L	5320.4 ppb	23:55:27
2	Ca 317.933Radial†	2818.3	2999.1	5301.2 ug/L	5301.2 ppb	23:55:47
2	Fe 238.204 Radial†	473.6	500.7	5262.0 ug/L	5262.0 ppb	23:55:47
2	K 766.490 Radial†	28706.4	28275.2	5410.0 ug/L	5410.0 ppb	23:55:27
2	Mg 279.077 IEC†	135.8	145.8	5546.9 ug/L	5546.9 ppb	23:55:47
2	Na 589.592 Radial†	28801.7	31738.4	11121 ug/L	11121 ppb	23:55:27
2	Sr 421.552†	67368.9	72328.9	552.50 ug/L	552.50 ppb	23:55:27
2	Sc 361.383	802380.2	802380.2	98.702 %		23:56:50
2	Y 371.029	669233.8	669233.8	97.070 %		23:56:50
2	Ag 328.068†	97722.2	98796.3	510.39 ug/L	510.39 ppb	23:56:55
2	As 188.979†	874.7	903.2	506.98 ug/L	506.98 ppb	23:57:15
2	B 249.677†	17449.0	18093.7	504.02 ug/L	504.02 ppb	23:56:55
2	Ba 233.527†	53814.8	54509.8	511.33 ug/L	511.33 ppb	23:56:55
2	Be 313.107†	1179121.2	1198351.4	512.66 ug/L	512.66 ppb	23:56:50
2	Cd 226.502†	34653.8	35285.7	511.13 ug/L	511.13 ppb	23:56:55
2	Co 228.616†	19683.2	19981.8	519.21 ug/L	519.21 ppb	23:56:55
2	Cr 267.716†	37754.6	38171.4	513.59 ug/L	513.59 ppb	23:56:55
2	Cu 324.752†	155896.2	152479.5	504.70 ug/L	504.70 ppb	23:56:55
2	Mn 257.610†	376346.9	380743.5	501.59 ug/L	501.59 ppb	23:56:55
2	Mo 202.031†	5654.7	5716.2	503.14 ug/L	503.14 ppb	23:57:15
2	Ni 231.604†	16201.6	16333.1	519.72 ug/L	519.72 ppb	23:56:55

2	P 214.914†	3489.3	3351.2	2425.3 ug/L	2425.3 ppb	23:57:15
2	Pb 220.353†	3214.6	3299.7	510.55 ug/L	510.55 ppb	23:57:15
2	S 181.975 Axial†	577.9	555.3	990.54 ug/L	990.54 ppb	23:57:15
2	Sb 206.836†	1212.0	1203.4	516.39 ug/L	516.39 ppb	23:57:15
2	Se 196.026†	581.4	607.9	522.77 ug/L	522.77 ppb	23:57:15
2	Si 251.611†	67767.5	68160.2	2558.9 ug/L	2558.9 ppb	23:56:55
2	Sn 189.927†	2200.2	2221.2	500.75 ug/L	500.75 ppb	23:57:15
2	Ti 334.940†	282648.4	287451.5	496.60 ug/L	496.60 ppb	23:56:55
2	Tl 190.801†	1268.3	1316.8	510.30 ug/L	510.30 ppb	23:57:15
2	U 409.014†	14783.1	17058.5	513.44 ug/L	513.44 ppb	23:56:55
2	V 292.402†	61590.8	63718.2	515.77 ug/L	515.77 ppb	23:56:55
2	Zn 213.857†	43202.2	43153.1	516.54 ug/L	516.54 ppb	23:56:55
2	SiO2†	67828.0	68224.4	5449.9 ug/L	5449.9 ppb	23:57:57
3	Sc Radial	4277.4	4277.4	93.2 %		23:56:12
3	Y RADIAL	4807.3	4807.3	97.43 %		23:55:52
3	Al 396.153Radial†	5148.1	5607.3	5247.2 ug/L	5247.2 ppb	23:55:52
3	Ca 317.933Radial†	2811.2	2987.2	5280.2 ug/L	5280.2 ppb	23:56:12
3	Fe 238.204 Radial†	478.4	505.2	5308.5 ug/L	5308.5 ppb	23:56:12
3	K 766.490 Radial†	28293.6	27789.8	5317.2 ug/L	5317.2 ppb	23:55:52
3	Mg 279.077 IEC†	135.4	145.2	5524.9 ug/L	5524.9 ppb	23:56:12
3	Na 589.592 Radial†	28160.3	31007.7	10865 ug/L	10865 ppb	23:55:52
3	Sr 421.552†	66276.3	71057.1	542.79 ug/L	542.79 ppb	23:55:52
3	Sc 361.383	808440.4	808440.4	99.448 %		23:57:21
3	Y 371.029	673382.4	673382.4	97.671 %		23:57:21
3	Ag 328.068†	97946.1	98279.2	507.74 ug/L	507.74 ppb	23:57:26
3	As 188.979†	889.2	911.2	511.40 ug/L	511.40 ppb	23:57:46
3	B 249.677†	17413.8	17925.9	499.32 ug/L	499.32 ppb	23:57:26
3	Ba 233.527†	53973.7	54260.9	509.00 ug/L	509.00 ppb	23:57:26
3	Be 313.107†	1184378.2	1194682.6	511.09 ug/L	511.09 ppb	23:57:21
3	Cd 226.502†	34696.8	35065.8	507.94 ug/L	507.94 ppb	23:57:26
3	Co 228.616†	19757.1	19906.6	517.26 ug/L	517.26 ppb	23:57:26
3	Cr 267.716†	37763.0	37893.1	509.86 ug/L	509.86 ppb	23:57:26
3	Cu 324.752†	156213.9	151615.0	501.84 ug/L	501.84 ppb	23:57:26
3	Mn 257.610†	377171.1	378714.1	498.92 ug/L	498.92 ppb	23:57:26
3	Mo 202.031†	5680.7	5699.4	501.67 ug/L	501.67 ppb	23:57:46
3	Ni 231.604†	16201.8	16210.3	515.81 ug/L	515.81 ppb	23:57:26
3	P 214.914†	3490.3	3325.8	2406.6 ug/L	2406.6 ppb	23:57:46
3	Pb 220.353†	3192.9	3253.4	503.38 ug/L	503.38 ppb	23:57:46
3	S 181.975 Axial†	577.4	550.5	981.86 ug/L	981.86 ppb	23:57:46
3	Sb 206.836†	1199.0	1181.1	507.11 ug/L	507.11 ppb	23:57:46
3	Se 196.026†	583.1	605.1	520.57 ug/L	520.57 ppb	23:57:46
3	Si 251.611†	67806.8	67685.0	2541.0 ug/L	2541.0 ppb	23:57:26
3	Sn 189.927†	2210.1	2214.3	499.21 ug/L	499.21 ppb	23:57:46
3	Ti 334.940†	283451.9	286112.8	494.29 ug/L	494.29 ppb	23:57:26
3	Tl 190.801†	1276.4	1315.2	509.68 ug/L	509.68 ppb	23:57:46
3	U 409.014†	14907.0	17070.8	513.82 ug/L	513.82 ppb	23:57:26
3	V 292.402†	61749.2	63409.8	513.28 ug/L	513.28 ppb	23:57:26
3	Zn 213.857†	43131.7	42754.0	511.75 ug/L	511.75 ppb	23:57:26
3	SiO2†	67594.9	67474.9	5389.9 ug/L	5389.9 ppb	23:58:02

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	806698.2	99.234 %	0.4629			0.47%
Sc Radial	4270.0	93.1 %	0.18			0.19%
Y 371.029	672442.2	97.535 %	0.4144			0.42%
Y RADIAL	4780.1	96.88 %	2.085			2.15%
Ag 328.068†	98275.7	507.71 ug/L	2.688	507.71 ppb	2.688	0.53%
QC value within limits for Ag 328.068 Recovery = 101.54%						
Al 396.153Radial†	5589.6	5230.5 ug/L	99.34	5230.5 ppb	99.34	1.90%
QC value within limits for Al 396.153Radial Recovery = 104.61%						
As 188.979†	909.9	510.71 ug/L	3.433	510.71 ppb	3.433	0.67%
QC value within limits for As 188.979 Recovery = 102.14%						
B 249.677†	17948.4	499.95 ug/L	3.791	499.95 ppb	3.791	0.76%
QC value within limits for B 249.677 Recovery = 99.99%						
Ba 233.527†	54232.0	508.73 ug/L	2.750	508.73 ppb	2.750	0.54%
QC value within limits for Ba 233.527 Recovery = 101.75%						
Be 313.107†	1196574.5	511.90 ug/L	0.787	511.90 ppb	0.787	0.15%
QC value within limits for Be 313.107 Recovery = 102.38%						
Ca 317.933Radial†	2986.1	5278.3 ug/L	23.91	5278.3 ppb	23.91	0.45%

QC value within limits for Ca 317.933 Radial Recovery = 105.57%							
Cd	226.502†	35103.7	508.49 ug/L	2.415	508.49 ppb	2.415	0.47%
QC value within limits for Cd 226.502 Recovery = 101.70%							
Co	228.616†	19895.5	516.97 ug/L	2.394	516.97 ppb	2.394	0.46%
QC value within limits for Co 228.616 Recovery = 103.39%							
Cr	267.716†	37906.4	510.03 ug/L	3.475	510.03 ppb	3.475	0.68%
QC value within limits for Cr 267.716 Recovery = 102.01%							
Cu	324.752†	151635.9	501.91 ug/L	2.757	501.91 ppb	2.757	0.55%
QC value within limits for Cu 324.752 Recovery = 100.38%							
Fe	238.204 Radial†	503.4	5289.7 ug/L	24.49	5289.7 ppb	24.49	0.46%
QC value within limits for Fe 238.204 Radial Recovery = 105.79%							
K	766.490 Radial†	27800.6	5319.2 ug/L	89.82	5319.2 ppb	89.82	1.69%
QC value within limits for K 766.490 Radial Recovery = 106.38%							
Mg	279.077 IEC†	145.1	5521.7 ug/L	26.96	5521.7 ppb	26.96	0.49%
QC value greater than the upper limit for Mg 279.077 IEC Recovery = 110.43%							
Mn	257.610†	378588.5	498.75 ug/L	2.921	498.75 ppb	2.921	0.59%
QC value within limits for Mn 257.610 Recovery = 99.75%							
Mo	202.031†	5717.2	503.24 ug/L	1.620	503.24 ppb	1.620	0.32%
QC value within limits for Mo 202.031 Recovery = 100.65%							
Na	589.592 Radial†	31075.1	10888 ug/L	221.5	10888 ppb	221.5	2.03%
QC value within limits for Na 589.592 Radial Recovery = 108.88%							
Ni	231.604†	16207.8	515.73 ug/L	4.027	515.73 ppb	4.027	0.78%
QC value within limits for Ni 231.604 Recovery = 103.15%							
P	214.914†	3340.3	2417.5 ug/L	9.73	2417.5 ppb	9.73	0.40%
QC value within limits for P 214.914 Recovery = 96.70%							
Pb	220.353†	3281.4	507.71 ug/L	3.809	507.71 ppb	3.809	0.75%
QC value within limits for Pb 220.353 Recovery = 101.54%							
S	181.975 Axial†	553.9	988.06 ug/L	5.413	988.06 ppb	5.413	0.55%
QC value within limits for S 181.975 Axial Recovery = 98.81%							
Sb	206.836†	1194.3	512.63 ug/L	4.884	512.63 ppb	4.884	0.95%
QC value within limits for Sb 206.836 Recovery = 102.53%							
Se	196.026†	607.8	522.79 ug/L	2.231	522.79 ppb	2.231	0.43%
QC value within limits for Se 196.026 Recovery = 104.56%							
Si	251.611†	67751.8	2543.5 ug/L	14.29	2543.5 ppb	14.29	0.56%
QC value within limits for Si 251.611 Recovery = 101.74%							
Sn	189.927†	2219.3	500.33 ug/L	0.982	500.33 ppb	0.982	0.20%
QC value within limits for Sn 189.927 Recovery = 100.07%							
Sr	421.552†	70879.5	541.43 ug/L	11.810	541.43 ppb	11.810	2.18%
QC value within limits for Sr 421.552 Recovery = 108.29%							
Ti	334.940†	285998.1	494.09 ug/L	2.616	494.09 ppb	2.616	0.53%
QC value within limits for Ti 334.940 Recovery = 98.82%							
Tl	190.801†	1320.0	511.53 ug/L	2.683	511.53 ppb	2.683	0.52%
QC value within limits for Tl 190.801 Recovery = 102.31%							
U	409.014†	17036.8	512.79 ug/L	1.463	512.79 ppb	1.463	0.29%
QC value within limits for U 409.014 Recovery = 102.56%							
V	292.402†	63352.9	512.85 ug/L	3.157	512.85 ppb	3.157	0.62%
QC value within limits for V 292.402 Recovery = 102.57%							
Zn	213.857†	42795.6	512.25 ug/L	4.065	512.25 ppb	4.065	0.79%
QC value within limits for Zn 213.857 Recovery = 102.45%							
SiO2†		68042.0	5435.3 ug/L	40.12	5435.3 ppb	40.12	0.74%
QC value within limits for SiO2 Recovery = 101.64%							
QC Failed. Continue with analysis.							

Sequence No.: 45

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/17/2010 00:00:11

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4428.6	4428.6	96.5 %		00:02:03
1	Y RADIAL	4765.1	4765.1	96.57 %		00:02:03
1	Al 396.153Radial†	-79.0	3.9	3.7099 ug/L	3.7099 ppb	00:02:23
1	Ca 317.933Radial†	16.5	-10.7	-18.930 ug/L	-18.930 ppb	00:02:23
1	Fe 238.204 Radial†	7.7	0.2	1.7483 ug/L	1.7483 ppb	00:02:23
1	K 766.490 Radial†	2636.2	175.1	33.572 ug/L	33.572 ppb	00:02:03
1	Mg 279.077 IEC†	1.7	1.7	65.878 ug/L	65.878 ppb	00:02:23
1	Na 589.592 Radial†	-972.1	-201.9	-70.744 ug/L	-70.744 ppb	00:02:03
1	Sr 421.552†	67.6	44.3	0.3383 ug/L	0.3383 ppb	00:02:03
1	Sc 361.383	766893.4	766893.4	94.337 %		00:03:20
1	Y 371.029	648717.3	648717.3	94.094 %		00:03:20
1	Ag 328.068†	184.6	-14.9	-0.0696 ug/L	-0.0696 ppb	00:03:20
1	As 188.979†	-22.1	-6.4	-3.5703 ug/L	-3.5703 ppb	00:03:40
1	B 249.677†	-156.3	249.6	6.9865 ug/L	6.9865 ppb	00:03:40
1	Ba 233.527†	16.3	4.7	0.0441 ug/L	0.0441 ppb	00:03:40
1	Be 313.107†	-3748.1	-244.1	-0.1045 ug/L	-0.1045 ppb	00:03:20
1	Cd 226.502†	-168.1	-1.9	-0.0290 ug/L	-0.0290 ppb	00:03:40
1	Co 228.616†	-50.5	-13.7	-0.3566 ug/L	-0.3566 ppb	00:03:40
1	Cr 267.716†	52.0	-24.4	-0.3241 ug/L	-0.3241 ppb	00:03:40
1	Cu 324.752†	5209.9	56.4	0.1915 ug/L	0.1915 ppb	00:03:20
1	Mn 257.610†	475.2	-47.2	-0.0646 ug/L	-0.0646 ppb	00:03:40
1	Mo 202.031†	9.7	-2.6	-0.2292 ug/L	-0.2292 ppb	00:03:40
1	Ni 231.604†	77.5	0.7	0.0238 ug/L	0.0238 ppb	00:03:40
1	P 214.914†	190.7	18.2	13.716 ug/L	13.716 ppb	00:03:40
1	Pb 220.353†	-68.1	-29.4	-4.5324 ug/L	-4.5324 ppb	00:03:40
1	S 181.975 Axial†	25.7	-2.9	-5.1173 ug/L	-5.1173 ppb	00:03:40
1	Sb 206.836†	37.2	14.9	6.1920 ug/L	6.1920 ppb	00:03:40
1	Se 196.026†	-12.1	6.0	4.9761 ug/L	4.9761 ppb	00:03:40
1	Si 251.611†	667.4	209.2	7.8763 ug/L	7.8763 ppb	00:03:40
1	Sn 189.927†	16.8	9.9	2.2158 ug/L	2.2158 ppb	00:03:40
1	Ti 334.940†	-1106.3	-85.4	-0.1516 ug/L	-0.1516 ppb	00:03:20
1	Tl 190.801†	-27.6	2.6	0.9964 ug/L	0.9964 ppb	00:03:40
1	U 409.014†	-2226.9	-279.6	-8.4433 ug/L	-8.4433 ppb	00:03:20
1	V 292.402†	-1263.3	-21.4	-0.1894 ug/L	-0.1894 ppb	00:03:20
1	Zn 213.857†	683.2	107.1	1.2931 ug/L	1.2931 ppb	00:03:40
1	SiO2†	647.3	190.8	15.287 ug/L	15.287 ppb	00:04:51
2	Sc Radial	4306.0	4306.0	93.9 %		00:02:28
2	Y RADIAL	4632.3	4632.3	93.88 %		00:02:28
2	Al 396.153Radial†	-76.5	4.3	4.0295 ug/L	4.0295 ppb	00:02:48
2	Ca 317.933Radial†	16.7	-10.1	-17.802 ug/L	-17.802 ppb	00:02:48
2	Fe 238.204 Radial†	7.8	0.4	4.1842 ug/L	4.1842 ppb	00:02:48
2	K 766.490 Radial†	2600.9	215.2	41.270 ug/L	41.270 ppb	00:02:28
2	Mg 279.077 IEC†	0.0	-0.0	-1.0070 ug/L	-1.0070 ppb	00:02:48
2	Na 589.592 Radial†	-977.8	-236.6	-82.905 ug/L	-82.905 ppb	00:02:28
2	Sr 421.552†	8.8	-16.4	-0.1253 ug/L	-0.1253 ppb	00:02:28
2	Sc 361.383	767699.8	767699.8	94.436 %		00:03:45
2	Y 371.029	649552.3	649552.3	94.215 %		00:03:45
2	Ag 328.068†	246.6	50.5	0.2614 ug/L	0.2614 ppb	00:03:45
2	As 188.979†	-20.3	-4.5	-2.4808 ug/L	-2.4808 ppb	00:04:05
2	B 249.677†	-189.3	214.9	6.0139 ug/L	6.0139 ppb	00:04:05
2	Ba 233.527†	11.1	-0.7	-0.0071 ug/L	-0.0071 ppb	00:04:05
2	Be 313.107†	-3685.9	-174.0	-0.0747 ug/L	-0.0747 ppb	00:03:45
2	Cd 226.502†	-176.4	-10.4	-0.1516 ug/L	-0.1516 ppb	00:04:05
2	Co 228.616†	-34.8	2.9	0.0786 ug/L	0.0786 ppb	00:04:05
2	Cr 267.716†	72.1	-3.2	-0.0417 ug/L	-0.0417 ppb	00:04:05
2	Cu 324.752†	5265.9	109.9	0.3650 ug/L	0.3650 ppb	00:03:45
2	Mn 257.610†	470.4	-52.8	-0.0690 ug/L	-0.0690 ppb	00:04:05
2	Mo 202.031†	20.4	8.8	0.7726 ug/L	0.7726 ppb	00:04:05
2	Ni 231.604†	76.0	-0.9	-0.0289 ug/L	-0.0289 ppb	00:04:05

2	P 214.914†	188.4	15.6	11.671 ug/L	11.671 ppb	00:04:05
2	Pb 220.353†	-32.4	8.5	1.3124 ug/L	1.3124 ppb	00:04:05
2	S 181.975 Axial†	25.9	-2.7	-4.8828 ug/L	-4.8828 ppb	00:04:05
2	Sb 206.836†	25.6	2.6	1.0676 ug/L	1.0676 ppb	00:04:05
2	Se 196.026†	-15.9	1.9	1.6180 ug/L	1.6180 ppb	00:04:05
2	Si 251.611†	656.1	196.5	7.3851 ug/L	7.3851 ppb	00:04:05
2	Sn 189.927†	2.2	-5.6	-1.2729 ug/L	-1.2729 ppb	00:04:05
2	Ti 334.940†	-1120.2	-98.9	-0.1723 ug/L	-0.1723 ppb	00:03:45
2	Tl 190.801†	-34.1	-4.4	-1.6828 ug/L	-1.6828 ppb	00:04:05
2	U 409.014†	-2029.5	-68.1	-2.0571 ug/L	-2.0571 ppb	00:03:45
2	V 292.402†	-1275.9	-33.4	-0.2602 ug/L	-0.2602 ppb	00:03:45
2	Zn 213.857†	667.8	90.1	1.0872 ug/L	1.0872 ppb	00:04:05
2	SiO2†	667.7	211.8	16.937 ug/L	16.937 ppb	00:05:11
3	Sc Radial	4484.4	4484.4	97.8 %		00:02:53
3	Y RADIAL	4827.6	4827.6	97.84 %		00:02:53
3	Al 396.153Radial†	-79.8	4.2	3.8978 ug/L	3.8978 ppb	00:03:13
3	Ca 317.933Radial†	17.6	-9.9	-17.427 ug/L	-17.427 ppb	00:03:13
3	Fe 238.204 Radial†	7.4	-0.2	-2.5497 ug/L	-2.5497 ppb	00:03:13
3	K 766.490 Radial†	2550.7	53.7	10.321 ug/L	10.321 ppb	00:02:53
3	Mg 279.077 IEC†	3.9	3.9	148.03 ug/L	148.03 ppb	00:03:13
3	Na 589.592 Radial†	-971.9	-189.2	-66.301 ug/L	-66.301 ppb	00:02:53
3	Sr 421.552†	27.0	1.9	0.0145 ug/L	0.0145 ppb	00:02:53
3	Sc 361.383	793124.5	793124.5	97.564 %		00:04:10
3	Y 371.029	671576.7	671576.7	97.410 %		00:04:10
3	Ag 328.068†	249.2	44.9	0.2321 ug/L	0.2321 ppb	00:04:10
3	As 188.979†	-17.0	-0.4	-0.2397 ug/L	-0.2397 ppb	00:04:30
3	B 249.677†	-195.7	214.7	6.0106 ug/L	6.0106 ppb	00:04:30
3	Ba 233.527†	5.6	-6.8	-0.0649 ug/L	-0.0649 ppb	00:04:30
3	Be 313.107†	-3750.9	-115.5	-0.0496 ug/L	-0.0496 ppb	00:04:10
3	Cd 226.502†	-158.5	13.9	0.2004 ug/L	0.2004 ppb	00:04:30
3	Co 228.616†	-47.0	-8.3	-0.2157 ug/L	-0.2157 ppb	00:04:30
3	Cr 267.716†	71.3	-6.4	-0.0852 ug/L	-0.0852 ppb	00:04:30
3	Cu 324.752†	5263.3	-71.5	-0.2334 ug/L	-0.2334 ppb	00:04:10
3	Mn 257.610†	448.6	-91.1	-0.1262 ug/L	-0.1262 ppb	00:04:30
3	Mo 202.031†	15.0	2.5	0.2230 ug/L	0.2230 ppb	00:04:30
3	Ni 231.604†	81.7	2.3	0.0735 ug/L	0.0735 ppb	00:04:30
3	P 214.914†	191.1	12.0	9.0539 ug/L	9.0539 ppb	00:04:30
3	Pb 220.353†	-54.3	-12.9	-1.9840 ug/L	-1.9840 ppb	00:04:30
3	S 181.975 Axial†	25.0	-4.5	-8.0867 ug/L	-8.0867 ppb	00:04:30
3	Sb 206.836†	25.6	1.7	0.7122 ug/L	0.7122 ppb	00:04:30
3	Se 196.026†	-13.9	4.6	3.7892 ug/L	3.7892 ppb	00:04:30
3	Si 251.611†	638.9	156.6	5.8916 ug/L	5.8916 ppb	00:04:30
3	Sn 189.927†	6.8	-1.0	-0.2359 ug/L	-0.2359 ppb	00:04:30
3	Ti 334.940†	-1120.6	-61.2	-0.1175 ug/L	-0.1175 ppb	00:04:10
3	Tl 190.801†	-19.3	12.0	4.6300 ug/L	4.6300 ppb	00:04:30
3	U 409.014†	-2230.9	-205.6	-6.2096 ug/L	-6.2096 ppb	00:04:10
3	V 292.402†	-1369.1	-85.6	-0.6889 ug/L	-0.6889 ppb	00:04:10
3	Zn 213.857†	665.8	65.3	0.7896 ug/L	0.7896 ppb	00:04:30
3	SiO2†	659.3	180.5	14.446 ug/L	14.446 ppb	00:05:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	775905.9	95.446 %	1.8350			1.92%
Sc Radial	4406.3	96.0 %	1.99			2.07%
Y 371.029	656615.5	95.239 %	1.8803			1.97%
Y RADIAL	4741.6	96.10 %	2.021			2.10%
Ag 328.068†	26.8	0.1413 ug/L	0.18326	0.1413 ppb	0.18326	129.68%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	4.1	3.8791 ug/L	0.16064	3.8791 ppb	0.16064	4.14%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-3.8	-2.0969 ug/L	1.69817	-2.0969 ppb	1.69817	80.98%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	226.4	6.3370 ug/L	0.56251	6.3370 ppb	0.56251	8.88%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-0.9	-0.0093 ug/L	0.05456	-0.0093 ppb	0.05456	585.91%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-177.9	-0.0763 ug/L	0.02753	-0.0763 ppb	0.02753	36.10%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-10.2	-18.053 ug/L	0.7821	-18.053 ppb	0.7821	4.33%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	0.5	0.0066 ug/L	0.17864	0.0066 ppb	0.17864	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-6.4	-0.1646 ug/L	0.22208	-0.1646 ppb	0.22208	134.95%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-11.3	-0.1504 ug/L	0.15207	-0.1504 ppb	0.15207	101.14%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	31.6	0.1077 ug/L	0.30788	0.1077 ppb	0.30788	285.82%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	0.1	1.1276 ug/L	3.40958	1.1276 ppb	3.40958	302.38%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	148.0	28.388 ug/L	16.1129	28.388 ppb	16.1129	56.76%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	1.9	70.965 ug/L	74.6461	70.965 ppb	74.6461	105.19%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	-63.7	-0.0866 ug/L	0.03437	-0.0866 ppb	0.03437	39.67%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	2.9	0.2555 ug/L	0.50170	0.2555 ppb	0.50170	196.39%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-209.2	-73.317 ug/L	8.5955	-73.317 ppb	8.5955	11.72%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	0.7	0.0228 ug/L	0.05122	0.0228 ppb	0.05122	224.53%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	15.3	11.481 ug/L	2.3371	11.481 ppb	2.3371	20.36%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-11.3	-1.7347 ug/L	2.93035	-1.7347 ppb	2.93035	168.93%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-3.4	-6.0289 ug/L	1.78592	-6.0289 ppb	1.78592	29.62%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	6.4	2.6572 ug/L	3.06635	2.6572 ppb	3.06635	115.40%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	4.2	3.4611 ug/L	1.70291	3.4611 ppb	1.70291	49.20%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	187.4	7.0510 ug/L	1.03365	7.0510 ppb	1.03365	14.66%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	1.1	0.2357 ug/L	1.79152	0.2357 ppb	1.79152	760.16%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	9.9	0.0758 ug/L	0.23783	0.0758 ppb	0.23783	313.65%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-81.8	-0.1471 ug/L	0.02767	-0.1471 ppb	0.02767	18.81%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	3.4	1.3145 ug/L	3.16837	1.3145 ppb	3.16837	241.03%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-184.4	-5.5700 ug/L	3.24078	-5.5700 ppb	3.24078	58.18%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-46.8	-0.3795 ug/L	0.27032	-0.3795 ppb	0.27032	71.23%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	87.5	1.0566 ug/L	0.25314	1.0566 ppb	0.25314	23.96%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	194.3	15.557 ug/L	1.2673	15.557 ppb	1.2673	8.15%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 52

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/17/2010 00:50:17

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	4379.7	4379.7	95.5 %		00:52:09
1	Y RADIAL	4686.5	4686.5	94.98 %		00:52:09
1	Al 396.153Radial†	5215.9	5549.3	5192.5 ug/L	5192.5 ppb	00:52:09
1	Ca 317.933Radial†	2803.1	2908.3	5140.7 ug/L	5140.7 ppb	00:52:29
1	Fe 238.204 Radial†	472.8	487.4	5122.0 ug/L	5122.0 ppb	00:52:29
1	K 766.490 Radial†	28532.8	27331.4	5229.5 ug/L	5229.5 ppb	00:52:09
1	Mg 279.077 IEC†	129.9	136.0	5175.6 ug/L	5175.6 ppb	00:52:29
1	Na 589.592 Radial†	27796.6	29921.1	10484 ug/L	10484 ppb	00:52:09
1	Sr 421.552†	65988.2	69094.9	527.80 ug/L	527.80 ppb	00:52:09
1	Sc 361.383	813805.4	813805.4	100.11 %		00:53:27
1	Y 371.029	678726.0	678726.0	98.447 %		00:53:27
1	Ag 328.068†	99313.2	98995.6	511.36 ug/L	511.36 ppb	00:53:32
1	As 188.979†	892.6	908.7	509.98 ug/L	509.98 ppb	00:53:52
1	B 249.677†	17486.8	17883.3	498.15 ug/L	498.15 ppb	00:53:32
1	Ba 233.527†	54555.0	54483.8	511.09 ug/L	511.09 ppb	00:53:32
1	Be 313.107†	1201405.9	1203840.6	515.00 ug/L	515.00 ppb	00:53:27
1	Cd 226.502†	35140.1	35278.6	511.05 ug/L	511.05 ppb	00:53:32
1	Co 228.616†	19966.7	19985.0	519.30 ug/L	519.30 ppb	00:53:32
1	Cr 267.716†	38151.6	38030.9	511.69 ug/L	511.69 ppb	00:53:32
1	Cu 324.752†	158182.4	152545.7	504.91 ug/L	504.91 ppb	00:53:32
1	Mn 257.610†	388301.0	387331.7	510.26 ug/L	510.26 ppb	00:53:27
1	Mo 202.031†	5760.0	5740.9	505.31 ug/L	505.31 ppb	00:53:52
1	Ni 231.604†	16384.7	16285.7	518.21 ug/L	518.21 ppb	00:53:32
1	P 214.914†	3541.1	3353.4	2426.9 ug/L	2426.9 ppb	00:53:52
1	Pb 220.353†	3244.3	3283.6	508.06 ug/L	508.06 ppb	00:53:52
1	S 181.975 Axial†	580.2	549.4	980.01 ug/L	980.01 ppb	00:53:52
1	Sb 206.836†	1223.4	1197.6	514.02 ug/L	514.02 ppb	00:53:52
1	Se 196.026†	599.7	617.8	530.59 ug/L	530.59 ppb	00:53:52
1	Si 251.611†	68496.2	67924.2	2550.0 ug/L	2550.0 ppb	00:53:32
1	Sn 189.927†	2227.8	2217.4	499.89 ug/L	499.89 ppb	00:53:52
1	Ti 334.940†	286515.9	287294.5	496.34 ug/L	496.34 ppb	00:53:32
1	Tl 190.801†	1283.5	1313.9	509.22 ug/L	509.22 ppb	00:53:52
1	U 409.014†	15231.2	17295.8	520.63 ug/L	520.63 ppb	00:53:32
1	V 292.402†	62527.6	63777.9	516.31 ug/L	516.31 ppb	00:53:32
1	Zn 213.857†	43627.6	42963.4	514.28 ug/L	514.28 ppb	00:53:32
1	SiO2†	69233.6	68663.7	5485.0 ug/L	5485.0 ppb	00:54:59
2	Sc Radial	4445.8	4445.8	96.9 %		00:52:34
2	Y RADIAL	4728.0	4728.0	95.82 %		00:52:34
2	Al 396.153Radial†	5119.1	5368.1	5022.3 ug/L	5022.3 ppb	00:52:34
2	Ca 317.933Radial†	2800.5	2861.9	5058.7 ug/L	5058.7 ppb	00:52:54
2	Fe 238.204 Radial†	469.5	476.6	5009.2 ug/L	5009.2 ppb	00:52:54
2	K 766.490 Radial†	28183.5	26526.4	5075.5 ug/L	5075.5 ppb	00:52:34
2	Mg 279.077 IEC†	133.6	137.8	5243.5 ug/L	5243.5 ppb	00:52:54
2	Na 589.592 Radial†	27280.7	28955.6	10146 ug/L	10146 ppb	00:52:34
2	Sr 421.552†	65144.3	67195.6	513.29 ug/L	513.29 ppb	00:52:34
2	Sc 361.383	814195.6	814195.6	100.16 %		00:53:58
2	Y 371.029	677931.1	677931.1	98.331 %		00:53:58
2	Ag 328.068†	99388.4	99023.1	511.47 ug/L	511.47 ppb	00:54:03
2	As 188.979†	887.0	902.6	506.60 ug/L	506.60 ppb	00:54:23
2	B 249.677†	17574.2	17962.2	500.38 ug/L	500.38 ppb	00:54:03
2	Ba 233.527†	54635.0	54537.5	511.59 ug/L	511.59 ppb	00:54:03
2	Be 313.107†	1196150.7	1198018.4	512.52 ug/L	512.52 ppb	00:53:58
2	Cd 226.502†	35108.2	35229.9	510.35 ug/L	510.35 ppb	00:54:03
2	Co 228.616†	19986.5	19995.2	519.56 ug/L	519.56 ppb	00:54:03
2	Cr 267.716†	38196.5	38057.5	512.04 ug/L	512.04 ppb	00:54:03
2	Cu 324.752†	158813.1	153099.7	506.74 ug/L	506.74 ppb	00:54:03
2	Mn 257.610†	387824.4	386670.0	509.38 ug/L	509.38 ppb	00:53:58
2	Mo 202.031†	5719.3	5697.5	501.48 ug/L	501.48 ppb	00:54:23
2	Ni 231.604†	16404.5	16297.5	518.58 ug/L	518.58 ppb	00:54:03

2	P 214.914†	3501.8	3312.5	2395.7 ug/L	2395.7 ppb	00:54:23
2	Pb 220.353†	3224.4	3262.2	504.72 ug/L	504.72 ppb	00:54:23
2	S 181.975 Axial†	586.9	555.8	991.48 ug/L	991.48 ppb	00:54:23
2	Sb 206.836†	1224.7	1198.3	514.18 ug/L	514.18 ppb	00:54:23
2	Se 196.026†	595.3	613.1	526.30 ug/L	526.30 ppb	00:54:23
2	Si 251.611†	68598.1	67993.1	2552.6 ug/L	2552.6 ppb	00:54:03
2	Sn 189.927†	2211.4	2200.0	495.95 ug/L	495.95 ppb	00:54:23
2	Ti 334.940†	287537.0	288176.8	497.85 ug/L	497.85 ppb	00:54:03
2	Tl 190.801†	1289.8	1319.6	511.41 ug/L	511.41 ppb	00:54:23
2	U 409.014†	15223.5	17280.8	520.19 ug/L	520.19 ppb	00:54:03
2	V 292.402†	62582.1	63802.5	516.47 ug/L	516.47 ppb	00:54:03
2	Zn 213.857†	43601.3	42916.3	513.73 ug/L	513.73 ppb	00:54:03
2	SiO2†	67749.1	67148.4	5363.7 ug/L	5363.7 ppb	00:55:04
3	Sc Radial	4517.3	4517.3	98.5 %		00:53:00
3	Y RADIAL	4844.7	4844.7	98.18 %		00:53:00
3	Al 396.153Radial†	5233.5	5400.7	5052.7 ug/L	5052.7 ppb	00:53:00
3	Ca 317.933Radial†	2813.5	2829.4	5001.2 ug/L	5001.2 ppb	00:53:20
3	Fe 238.204 Radial†	479.2	478.8	5032.3 ug/L	5032.3 ppb	00:53:20
3	K 766.490 Radial†	28694.4	26585.0	5086.7 ug/L	5086.7 ppb	00:53:00
3	Mg 279.077 IEC†	135.5	137.5	5231.9 ug/L	5231.9 ppb	00:53:20
3	Na 589.592 Radial†	27994.1	29234.6	10243 ug/L	10243 ppb	00:53:00
3	Sr 421.552†	66592.2	67602.3	516.40 ug/L	516.40 ppb	00:53:00
3	Sc 361.383	810882.7	810882.7	99.748 %		00:54:29
3	Y 371.029	677623.1	677623.1	98.287 %		00:54:29
3	Ag 328.068†	99361.1	99401.2	513.43 ug/L	513.43 ppb	00:54:34
3	As 188.979†	893.7	913.0	512.40 ug/L	512.40 ppb	00:54:54
3	B 249.677†	17515.1	17974.6	500.72 ug/L	500.72 ppb	00:54:34
3	Ba 233.527†	54519.0	54644.1	512.59 ug/L	512.59 ppb	00:54:34
3	Be 313.107†	1194134.5	1200876.5	513.74 ug/L	513.74 ppb	00:54:29
3	Cd 226.502†	35098.6	35363.5	512.29 ug/L	512.29 ppb	00:54:34
3	Co 228.616†	19907.1	19997.1	519.61 ug/L	519.61 ppb	00:54:34
3	Cr 267.716†	38173.1	38189.9	513.82 ug/L	513.82 ppb	00:54:34
3	Cu 324.752†	158279.6	153212.7	507.11 ug/L	507.11 ppb	00:54:34
3	Mn 257.610†	385290.0	385711.3	508.12 ug/L	508.12 ppb	00:54:29
3	Mo 202.031†	5758.0	5759.7	506.95 ug/L	506.95 ppb	00:54:54
3	Ni 231.604†	16356.1	16316.0	519.17 ug/L	519.17 ppb	00:54:34
3	P 214.914†	3516.2	3341.1	2417.3 ug/L	2417.3 ppb	00:54:54
3	Pb 220.353†	3231.9	3282.9	507.93 ug/L	507.93 ppb	00:54:54
3	S 181.975 Axial†	585.8	557.1	993.71 ug/L	993.71 ppb	00:54:54
3	Sb 206.836†	1227.3	1205.9	517.47 ug/L	517.47 ppb	00:54:54
3	Se 196.026†	588.6	608.8	522.84 ug/L	522.84 ppb	00:54:54
3	Si 251.611†	68432.7	68107.2	2556.8 ug/L	2556.8 ppb	00:54:34
3	Sn 189.927†	2208.7	2206.3	497.36 ug/L	497.36 ppb	00:54:54
3	Ti 334.940†	286923.5	288734.8	498.81 ug/L	498.81 ppb	00:54:34
3	Tl 190.801†	1277.8	1312.8	508.82 ug/L	508.82 ppb	00:54:54
3	U 409.014†	15091.0	17210.1	518.05 ug/L	518.05 ppb	00:54:34
3	V 292.402†	62616.5	64092.2	518.85 ug/L	518.85 ppb	00:54:34
3	Zn 213.857†	43576.7	43069.6	515.57 ug/L	515.57 ppb	00:54:34
3	SiO2†	67890.1	67566.1	5397.0 ug/L	5397.0 ppb	00:55:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	812961.2	100.00 %	0.223			0.22%
Sc Radial	4447.6	96.9 %	1.50			1.55%
Y 371.029	678093.4	98.355 %	0.0825			0.08%
Y RADIAL	4753.1	96.33 %	1.663			1.73%
Ag 328.068†	99140.0	512.09 ug/L	1.164	512.09 ppb	1.164	0.23%
QC value within limits for Ag 328.068 Recovery = 102.42%						
Al 396.153Radial†	5439.4	5089.2 ug/L	90.74	5089.2 ppb	90.74	1.78%
QC value within limits for Al 396.153Radial Recovery = 101.78%						
As 188.979†	908.1	509.66 ug/L	2.913	509.66 ppb	2.913	0.57%
QC value within limits for As 188.979 Recovery = 101.93%						
B 249.677†	17940.1	499.75 ug/L	1.395	499.75 ppb	1.395	0.28%
QC value within limits for B 249.677 Recovery = 99.95%						
Ba 233.527†	54555.1	511.76 ug/L	0.765	511.76 ppb	0.765	0.15%
QC value within limits for Ba 233.527 Recovery = 102.35%						
Be 313.107†	1200911.8	513.76 ug/L	1.241	513.76 ppb	1.241	0.24%
QC value within limits for Be 313.107 Recovery = 102.75%						
Ca 317.933Radial†	2866.5	5066.9 ug/L	70.08	5066.9 ppb	70.08	1.38%

QC value within limits for Ca 317.933 Radial Recovery = 101.34%							
Cd	226.502†	35290.7	511.23 ug/L	0.979	511.23 ppb	0.979	0.19%
QC value within limits for Cd 226.502 Recovery = 102.25%							
Co	228.616†	19992.5	519.49 ug/L	0.167	519.49 ppb	0.167	0.03%
QC value within limits for Co 228.616 Recovery = 103.90%							
Cr	267.716†	38092.8	512.52 ug/L	1.143	512.52 ppb	1.143	0.22%
QC value within limits for Cr 267.716 Recovery = 102.50%							
Cu	324.752†	152952.7	506.25 ug/L	1.179	506.25 ppb	1.179	0.23%
QC value within limits for Cu 324.752 Recovery = 101.25%							
Fe	238.204 Radial†	480.9	5054.5 ug/L	59.55	5054.5 ppb	59.55	1.18%
QC value within limits for Fe 238.204 Radial Recovery = 101.09%							
K	766.490 Radial†	26814.3	5130.6 ug/L	85.90	5130.6 ppb	85.90	1.67%
QC value within limits for K 766.490 Radial Recovery = 102.61%							
Mg	279.077 IEC†	137.1	5217.0 ug/L	36.32	5217.0 ppb	36.32	0.70%
QC value within limits for Mg 279.077 IEC Recovery = 104.34%							
Mn	257.610†	386571.0	509.25 ug/L	1.078	509.25 ppb	1.078	0.21%
QC value within limits for Mn 257.610 Recovery = 101.85%							
Mo	202.031†	5732.7	504.58 ug/L	2.807	504.58 ppb	2.807	0.56%
QC value within limits for Mo 202.031 Recovery = 100.92%							
Na	589.592 Radial†	29370.4	10291 ug/L	174.1	10291 ppb	174.1	1.69%
QC value within limits for Na 589.592 Radial Recovery = 102.91%							
Ni	231.604†	16299.7	518.65 ug/L	0.486	518.65 ppb	0.486	0.09%
QC value within limits for Ni 231.604 Recovery = 103.73%							
P	214.914†	3335.7	2413.3 ug/L	15.96	2413.3 ppb	15.96	0.66%
QC value within limits for P 214.914 Recovery = 96.53%							
Pb	220.353†	3276.2	506.90 ug/L	1.894	506.90 ppb	1.894	0.37%
QC value within limits for Pb 220.353 Recovery = 101.38%							
S	181.975 Axial†	554.1	988.40 ug/L	7.352	988.40 ppb	7.352	0.74%
QC value within limits for S 181.975 Axial Recovery = 98.84%							
Sb	206.836†	1200.6	515.22 ug/L	1.952	515.22 ppb	1.952	0.38%
QC value within limits for Sb 206.836 Recovery = 103.04%							
Se	196.026†	613.3	526.58 ug/L	3.881	526.58 ppb	3.881	0.74%
QC value within limits for Se 196.026 Recovery = 105.32%							
Si	251.611†	68008.2	2553.1 ug/L	3.46	2553.1 ppb	3.46	0.14%
QC value within limits for Si 251.611 Recovery = 102.13%							
Sn	189.927†	2207.9	497.73 ug/L	1.998	497.73 ppb	1.998	0.40%
QC value within limits for Sn 189.927 Recovery = 99.55%							
Sr	421.552†	67964.2	519.16 ug/L	7.639	519.16 ppb	7.639	1.47%
QC value within limits for Sr 421.552 Recovery = 103.83%							
Ti	334.940†	288068.7	497.66 ug/L	1.243	497.66 ppb	1.243	0.25%
QC value within limits for Ti 334.940 Recovery = 99.53%							
Tl	190.801†	1315.4	509.82 ug/L	1.395	509.82 ppb	1.395	0.27%
QC value within limits for Tl 190.801 Recovery = 101.96%							
U	409.014†	17262.2	519.62 ug/L	1.382	519.62 ppb	1.382	0.27%
QC value within limits for U 409.014 Recovery = 103.92%							
V	292.402†	63890.9	517.21 ug/L	1.423	517.21 ppb	1.423	0.28%
QC value within limits for V 292.402 Recovery = 103.44%							
Zn	213.857†	42983.1	514.53 ug/L	0.946	514.53 ppb	0.946	0.18%
QC value within limits for Zn 213.857 Recovery = 102.91%							
SiO2†		67792.7	5415.3 ug/L	62.64	5415.3 ppb	62.64	1.16%
QC value within limits for SiO2 Recovery = 101.27%							
All analyte(s) passed QC.							

Sequence No.: 53

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/17/2010 00:57:19

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4278.1	4278.1	93.3 %		00:59:32
1	Y RADIAL	4796.6	4796.6	97.21 %		00:59:12
1	Al 396.153Radial†	-88.5	-9.1	-8.5899 ug/L	-8.5899 ppb	00:59:32
1	Ca 317.933Radial†	24.3	-1.8	-3.1020 ug/L	-3.1020 ppb	00:59:32
1	Fe 238.204 Radial†	9.2	2.0	21.127 ug/L	21.127 ppb	00:59:32
1	K 766.490 Radial†	2490.5	114.9	22.050 ug/L	22.050 ppb	00:59:12
1	Mg 279.077 IEC†	2.8	2.9	110.09 ug/L	110.09 ppb	00:59:32
1	Na 589.592 Radial†	-949.8	-213.4	-74.764 ug/L	-74.764 ppb	00:59:12
1	Sr 421.552†	25.3	1.4	0.0106 ug/L	0.0106 ppb	00:59:12
1	Sc 361.383	791728.0	791728.0	97.392 %		01:00:29
1	Y 371.029	670224.9	670224.9	97.213 %		01:00:29
1	Ag 328.068†	160.4	-45.9	-0.2271 ug/L	-0.2271 ppb	01:00:29
1	As 188.979†	-20.6	-4.1	-2.2645 ug/L	-2.2645 ppb	01:00:49
1	B 249.677†	-295.6	111.8	3.1263 ug/L	3.1263 ppb	01:00:49
1	Ba 233.527†	11.0	-1.2	-0.0107 ug/L	-0.0107 ppb	01:00:49
1	Be 313.107†	-3778.8	-151.0	-0.0642 ug/L	-0.0642 ppb	01:00:29
1	Cd 226.502†	-175.7	-4.1	-0.0625 ug/L	-0.0625 ppb	01:00:49
1	Co 228.616†	-42.3	-3.5	-0.0921 ug/L	-0.0921 ppb	01:00:49
1	Cr 267.716†	89.1	12.0	0.1638 ug/L	0.1638 ppb	01:00:49
1	Cu 324.752†	5137.2	-191.5	-0.6311 ug/L	-0.6311 ppb	01:00:29
1	Mn 257.610†	508.0	-29.3	-0.0410 ug/L	-0.0410 ppb	01:00:49
1	Mo 202.031†	15.4	2.9	0.2600 ug/L	0.2600 ppb	01:00:49
1	Ni 231.604†	69.4	-10.2	-0.3237 ug/L	-0.3237 ppb	01:00:49
1	P 214.914†	166.5	-13.0	-9.6449 ug/L	-9.6449 ppb	01:00:49
1	Pb 220.353†	-42.0	-0.4	-0.0591 ug/L	-0.0591 ppb	01:00:49
1	S 181.975 Axial†	24.5	-5.0	-8.8843 ug/L	-8.8843 ppb	01:00:49
1	Sb 206.836†	34.9	11.3	4.6970 ug/L	4.6970 ppb	01:00:49
1	Se 196.026†	-17.2	1.1	1.0004 ug/L	1.0004 ppb	01:00:49
1	Si 251.611†	622.5	140.9	5.3010 ug/L	5.3010 ppb	01:00:49
1	Sn 189.927†	14.7	7.1	1.5871 ug/L	1.5871 ppb	01:00:49
1	Ti 334.940†	-1002.3	58.2	0.0924 ug/L	0.0924 ppb	01:00:29
1	Tl 190.801†	-32.4	-1.5	-0.5657 ug/L	-0.5657 ppb	01:00:49
1	U 409.014†	-2123.8	-99.7	-3.0138 ug/L	-3.0138 ppb	01:00:29
1	V 292.402†	-1298.7	-15.7	-0.1290 ug/L	-0.1290 ppb	01:00:29
1	Zn 213.857†	661.0	61.6	0.7438 ug/L	0.7438 ppb	01:00:49
1	SiO2†	622.2	143.5	11.488 ug/L	11.488 ppb	01:02:00
2	Sc Radial	4313.2	4313.2	94.0 %		00:59:57
2	Y RADIAL	4859.2	4859.2	98.48 %		00:59:37
2	Al 396.153Radial†	-81.7	-1.1	-1.0209 ug/L	-1.0209 ppb	00:59:57
2	Ca 317.933Radial†	17.8	-8.9	-15.722 ug/L	-15.722 ppb	00:59:57
2	Fe 238.204 Radial†	8.7	1.4	15.000 ug/L	15.000 ppb	00:59:57
2	K 766.490 Radial†	2493.4	96.3	18.487 ug/L	18.487 ppb	00:59:37
2	Mg 279.077 IEC†	0.7	0.7	25.753 ug/L	25.753 ppb	00:59:57
2	Na 589.592 Radial†	-1010.6	-269.8	-94.546 ug/L	-94.546 ppb	00:59:37
2	Sr 421.552†	18.9	-5.7	-0.0435 ug/L	-0.0435 ppb	00:59:37
2	Sc 361.383	782420.0	782420.0	96.247 %		01:00:54
2	Y 371.029	661607.4	661607.4	95.964 %		01:00:54
2	Ag 328.068†	224.6	22.8	0.1263 ug/L	0.1263 ppb	01:00:54
2	As 188.979†	-22.4	-6.2	-3.4731 ug/L	-3.4731 ppb	01:01:14
2	B 249.677†	-321.4	81.4	2.2764 ug/L	2.2764 ppb	01:01:14
2	Ba 233.527†	10.9	-1.2	-0.0117 ug/L	-0.0117 ppb	01:01:14
2	Be 313.107†	-3656.7	-70.3	-0.0299 ug/L	-0.0299 ppb	01:00:54
2	Cd 226.502†	-170.7	-1.0	-0.0176 ug/L	-0.0176 ppb	01:01:14
2	Co 228.616†	-51.2	-13.3	-0.3474 ug/L	-0.3474 ppb	01:01:14
2	Cr 267.716†	57.2	-20.1	-0.2663 ug/L	-0.2663 ppb	01:01:14
2	Cu 324.752†	5159.0	-106.0	-0.3456 ug/L	-0.3456 ppb	01:00:54
2	Mn 257.610†	481.2	-51.0	-0.0667 ug/L	-0.0667 ppb	01:01:14
2	Mo 202.031†	8.0	-4.6	-0.4013 ug/L	-0.4013 ppb	01:01:14
2	Ni 231.604†	89.6	11.7	0.3728 ug/L	0.3728 ppb	01:01:14

2	P 214.914†	187.0	10.4	7.8641 ug/L	7.8641 ppb	01:01:14
2	Pb 220.353†	-51.0	-10.2	-1.5719 ug/L	-1.5719 ppb	01:01:14
2	S 181.975 Axial†	25.7	-3.5	-6.2021 ug/L	-6.2021 ppb	01:01:14
2	Sb 206.836†	26.7	3.3	1.3598 ug/L	1.3598 ppb	01:01:14
2	Se 196.026†	-20.8	-2.8	-2.2876 ug/L	-2.2876 ppb	01:01:14
2	Si 251.611†	609.8	135.4	5.0992 ug/L	5.0992 ppb	01:01:14
2	Sn 189.927†	12.4	4.9	1.0892 ug/L	1.0892 ppb	01:01:14
2	Ti 334.940†	-1019.7	27.9	0.0477 ug/L	0.0477 ppb	01:00:54
2	Tl 190.801†	-27.9	2.8	1.0814 ug/L	1.0814 ppb	01:01:14
2	U 409.014†	-2266.5	-273.9	-8.2729 ug/L	-8.2729 ppb	01:00:54
2	V 292.402†	-1336.1	-70.5	-0.5860 ug/L	-0.5860 ppb	01:00:54
2	Zn 213.857†	662.5	71.3	0.8568 ug/L	0.8568 ppb	01:01:14
2	SiO2†	604.5	132.8	10.646 ug/L	10.646 ppb	01:02:20
3	Sc Radial	4275.7	4275.7	93.2 %		01:00:22
3	Y RADIAL	4804.7	4804.7	97.37 %		01:00:02
3	Al 396.153Radial†	-91.6	-12.4	-11.702 ug/L	-11.702 ppb	01:00:22
3	Ca 317.933Radial†	17.5	-9.1	-16.109 ug/L	-16.109 ppb	01:00:22
3	Fe 238.204 Radial†	8.3	1.1	11.023 ug/L	11.023 ppb	01:00:22
3	K 766.490 Radial†	2585.2	218.1	41.816 ug/L	41.816 ppb	01:00:02
3	Mg 279.077 IEC†	2.4	2.5	96.970 ug/L	96.970 ppb	01:00:22
3	Na 589.592 Radial†	-980.2	-246.7	-86.427 ug/L	-86.427 ppb	01:00:02
3	Sr 421.552†	8.3	-16.8	-0.1283 ug/L	-0.1283 ppb	01:00:02
3	Sc 361.383	796829.1	796829.1	98.020 %		01:01:19
3	Y 371.029	675424.4	675424.4	97.968 %		01:01:19
3	Ag 328.068†	242.7	37.0	0.1938 ug/L	0.1938 ppb	01:01:19
3	As 188.979†	-23.9	-7.3	-4.0813 ug/L	-4.0813 ppb	01:01:39
3	B 249.677†	-337.5	71.1	1.9879 ug/L	1.9879 ppb	01:01:39
3	Ba 233.527†	-1.6	-14.1	-0.1321 ug/L	-0.1321 ppb	01:01:39
3	Be 313.107†	-3700.1	-45.8	-0.0196 ug/L	-0.0196 ppb	01:01:19
3	Cd 226.502†	-162.8	10.2	0.1474 ug/L	0.1474 ppb	01:01:39
3	Co 228.616†	-49.1	-10.2	-0.2661 ug/L	-0.2661 ppb	01:01:39
3	Cr 267.716†	78.2	0.3	0.0052 ug/L	0.0052 ppb	01:01:39
3	Cu 324.752†	5277.7	-81.9	-0.2702 ug/L	-0.2702 ppb	01:01:19
3	Mn 257.610†	486.1	-55.0	-0.0753 ug/L	-0.0753 ppb	01:01:39
3	Mo 202.031†	12.5	-0.1	-0.0049 ug/L	-0.0049 ppb	01:01:39
3	Ni 231.604†	92.3	12.7	0.4044 ug/L	0.4044 ppb	01:01:39
3	P 214.914†	181.9	1.7	1.3341 ug/L	1.3341 ppb	01:01:39
3	Pb 220.353†	-57.5	-15.9	-2.4504 ug/L	-2.4504 ppb	01:01:39
3	S 181.975 Axial†	20.2	-9.5	-17.047 ug/L	-17.047 ppb	01:01:39
3	Sb 206.836†	21.0	-3.1	-1.2743 ug/L	-1.2743 ppb	01:01:39
3	Se 196.026†	-12.9	5.7	4.7277 ug/L	4.7277 ppb	01:01:39
3	Si 251.611†	604.4	118.4	4.4572 ug/L	4.4572 ppb	01:01:39
3	Sn 189.927†	11.5	3.8	0.8463 ug/L	0.8463 ppb	01:01:39
3	Ti 334.940†	-1074.6	-9.0	-0.0253 ug/L	-0.0253 ppb	01:01:19
3	Tl 190.801†	-26.4	4.8	1.8655 ug/L	1.8655 ppb	01:01:39
3	U 409.014†	-2062.2	-22.8	-0.6907 ug/L	-0.6907 ppb	01:01:19
3	V 292.402†	-1306.8	-15.5	-0.1251 ug/L	-0.1251 ppb	01:01:19
3	Zn 213.857†	658.6	54.8	0.6585 ug/L	0.6585 ppb	01:01:39
3	SiO2†	606.9	123.9	9.9204 ug/L	9.9204 ppb	01:02:40

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	790325.7	97.220 %		0.8988				0.92%
Sc Radial	4289.0	93.5 %		0.46				0.49%
Y 371.029	669085.5	97.048 %		1.0122				1.04%
Y RADIAL	4820.2	97.69 %		0.690				0.71%
Ag 328.068†	4.6	0.0310 ug/L		0.22604	0.0310 ppb		0.22604	729.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.6	-7.1043 ug/L		5.49330	-7.1043 ppb		5.49330	77.32%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.9	-3.2729 ug/L		0.92478	-3.2729 ppb		0.92478	28.26%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	88.1	2.4636 ug/L		0.59182	2.4636 ppb		0.59182	24.02%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.5	-0.0515 ug/L		0.06979	-0.0515 ppb		0.06979	135.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-89.0	-0.0379 ug/L		0.02336	-0.0379 ppb		0.02336	61.64%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-6.6	-11.644 ug/L		7.4003	-11.644 ppb		7.4003	63.55%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd	226.502†	1.7	0.0224 ug/L	0.11050	0.0224 ppb	0.11050	492.45%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	-9.0	-0.2352 ug/L	0.13046	-0.2352 ppb	0.13046	55.47%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	-2.6	-0.0324 ug/L	0.21748	-0.0324 ppb	0.21748	670.42%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-126.5	-0.4156 ug/L	0.19038	-0.4156 ppb	0.19038	45.81%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	1.5	15.716 ug/L	5.0901	15.716 ppb	5.0901	32.39%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	143.1	27.451 ug/L	12.5671	27.451 ppb	12.5671	45.78%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	2.0	77.606 ug/L	45.3823	77.606 ppb	45.3823	58.48%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	-45.1	-0.0610 ug/L	0.01782	-0.0610 ppb	0.01782	29.21%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	-0.6	-0.0487 ug/L	0.33281	-0.0487 ppb	0.33281	683.20%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	-243.3	-85.246 ug/L	9.9441	-85.246 ppb	9.9441	11.67%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	4.7	0.1512 ug/L	0.41158	0.1512 ppb	0.41158	272.24%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-0.3	-0.1489 ug/L	8.84820	-0.1489 ppb	8.84820	>999.9%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-8.8	-1.3605 ug/L	1.20955	-1.3605 ppb	1.20955	88.91%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-6.0	-10.711 ug/L	5.6485	-10.711 ppb	5.6485	52.74%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	3.8	1.5942 ug/L	2.99253	1.5942 ppb	2.99253	187.71%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	1.3	1.1468 ug/L	3.50994	1.1468 ppb	3.50994	306.05%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	131.6	4.9525 ug/L	0.44065	4.9525 ppb	0.44065	8.90%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	5.2	1.1742 ug/L	0.37767	1.1742 ppb	0.37767	32.16%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-7.0	-0.0537 ug/L	0.07003	-0.0537 ppb	0.07003	130.34%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	25.7	0.0383 ug/L	0.05944	0.0383 ppb	0.05944	155.32%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	2.1	0.7937 ug/L	1.24090	0.7937 ppb	1.24090	156.34%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-132.1	-3.9925 ug/L	3.88469	-3.9925 ppb	3.88469	97.30%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-33.9	-0.2800 ug/L	0.26498	-0.2800 ppb	0.26498	94.62%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	62.6	0.7530 ug/L	0.09947	0.7530 ppb	0.09947	13.21%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		133.4	10.685 ug/L	0.7847	10.685 ppb	0.7847	7.34%
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 56

Sample ID: 247123001|954660|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 79

Date Collected: 3/17/2010 01:19:00

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247123001|954660|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4508.6	4508.6	98.3 %		01:20:53
1	Y RADIAL	5744.1	5744.1	116.4 %		01:20:53
1	Al 396.153Radial†	4697.1	4865.2	4573.6 ug/L	4573.6 ppb	01:20:53
1	Ca 317.933Radial†	1295.9	1290.7	2281.5 ug/L	2281.5 ppb	01:21:13
1	Fe 238.204 Radial†	6341.3	6444.5	67522 ug/L	67522 ppb	01:20:53
1	K 766.490 Radial†	10794.2	8427.6	1612.5 ug/L	1612.5 ppb	01:20:53
1	Mg 279.077 IEC†	45.4	46.1	1683.8 ug/L	1683.8 ppb	01:21:13
1	Na 589.592 Radial†	1695.4	2530.2	886.55 ug/L	886.55 ppb	01:20:53
1	Sr 421.552†	2744.5	2766.8	21.120 ug/L	21.120 ppb	01:20:53
1	Sc 361.383	814728.3	814728.3	100.22 %		01:22:10
1	Y 371.029	810638.6	810638.6	117.58 %		01:22:10
1	Ag 328.068†	-3815.0	-4017.1	0.6000 ug/L	0.6000 ppb	01:22:15
1	As 188.979†	-23.7	-6.6	29.625 ug/L	29.625 ppb	01:22:35
1	B 249.677†	-53.7	361.7	-0.8679 ug/L	-0.8679 ppb	01:22:15
1	Ba 233.527†	15528.8	15482.0	147.01 ug/L	147.01 ppb	01:22:15
1	Be 313.107†	-17624.1	-13856.2	-1.3296 ug/L	-1.3296 ppb	01:22:15
1	Cd 226.502†	331.5	507.1	0.3331 ug/L	0.3331 ppb	01:22:35
1	Co 228.616†	313.4	352.6	4.0240 ug/L	4.0240 ppb	01:22:35
1	Cr 267.716†	1823.5	1739.9	30.676 ug/L	30.676 ppb	01:22:15
1	Cu 324.752†	6987.9	1506.2	8.7069 ug/L	8.7069 ppb	01:22:15
1	Mn 257.610†	1788812.8	1784310.6	2355.9 ug/L	2355.9 ppb	01:22:10
1	Mo 202.031†	65.1	52.1	9.8508 ug/L	9.8508 ppb	01:22:35
1	Ni 231.604†	705.5	622.5	19.815 ug/L	19.815 ppb	01:22:35
1	P 214.914†	834.8	649.0	434.59 ug/L	434.59 ppb	01:22:35
1	Pb 220.353†	1887.5	1926.1	288.60 ug/L	288.60 ppb	01:22:35
1	S 181.975 Axial†	56.6	26.3	46.050 ug/L	46.050 ppb	01:22:35
1	Sb 206.836†	47.1	22.5	2.1117 ug/L	2.1117 ppb	01:22:35
1	Se 196.026†	-308.9	-289.4	-44.582 ug/L	-44.582 ppb	01:22:35
1	Si 251.611†	146234.0	145412.8	5472.3 ug/L	5472.3 ppb	01:22:15
1	Sn 189.927†	43.9	35.8	4.5863 ug/L	4.5863 ppb	01:22:35
1	Ti 334.940†	1170182.9	1168685.4	2019.9 ug/L	2019.9 ppb	01:22:10
1	Tl 190.801†	-113.5	-81.5	-3.5004 ug/L	-3.5004 ppb	01:22:35
1	U 409.014†	-10926.8	-8821.7	-274.18 ug/L	-274.18 ppb	01:22:10
1	V 292.402†	3508.0	4817.9	26.098 ug/L	26.098 ppb	01:22:15
1	Zn 213.857†	30327.5	29643.4	347.88 ug/L	347.88 ppb	01:22:15
1	SiO2†	167991.6	167125.2	13384 ug/L	13384 ppb	01:23:43
2	Sc Radial	4409.3	4409.3	96.1 %		01:21:18
2	Y RADIAL	5644.9	5644.9	114.4 %		01:21:18
2	Al 396.153Radial†	4602.0	4873.9	4581.8 ug/L	4581.8 ppb	01:21:18
2	Ca 317.933Radial†	1300.3	1325.0	2342.2 ug/L	2342.2 ppb	01:21:38
2	Fe 238.204 Radial†	6228.4	6472.4	67814 ug/L	67814 ppb	01:21:18
2	K 766.490 Radial†	10471.7	8339.3	1595.6 ug/L	1595.6 ppb	01:21:18
2	Mg 279.077 IEC†	47.2	49.0	1794.0 ug/L	1794.0 ppb	01:21:38
2	Na 589.592 Radial†	1553.1	2420.9	848.27 ug/L	848.27 ppb	01:21:18
2	Sr 421.552†	2694.3	2777.4	21.200 ug/L	21.200 ppb	01:21:18
2	Sc 361.383	819736.9	819736.9	100.84 %		01:22:41
2	Y 371.029	814283.8	814283.8	118.11 %		01:22:41
2	Ag 328.068†	-3767.0	-3946.3	1.0466 ug/L	1.0466 ppb	01:22:46
2	As 188.979†	-31.5	-14.2	25.514 ug/L	25.514 ppb	01:23:06
2	B 249.677†	-61.7	354.2	-1.1262 ug/L	-1.1262 ppb	01:22:46
2	Ba 233.527†	15355.3	15215.3	144.52 ug/L	144.52 ppb	01:22:46
2	Be 313.107†	-17384.5	-13511.1	-1.1774 ug/L	-1.1774 ppb	01:22:46
2	Cd 226.502†	337.5	511.0	0.3603 ug/L	0.3603 ppb	01:23:06
2	Co 228.616†	304.5	341.8	3.7321 ug/L	3.7321 ppb	01:23:06
2	Cr 267.716†	1804.4	1709.9	30.300 ug/L	30.300 ppb	01:22:46
2	Cu 324.752†	6994.8	1470.5	8.6018 ug/L	8.6018 ppb	01:22:46
2	Mn 257.610†	1801595.1	1786081.0	2358.2 ug/L	2358.2 ppb	01:22:41
2	Mo 202.031†	53.9	40.7	8.8676 ug/L	8.8676 ppb	01:23:06
2	Ni 231.604†	697.3	610.1	19.418 ug/L	19.418 ppb	01:23:06

2	P 214.914†	833.9	643.0	429.88 ug/L	429.88 ppb	01:23:06
2	Pb 220.353†	1865.1	1892.4	283.37 ug/L	283.37 ppb	01:23:06
2	S 181.975 Axial†	52.6	22.0	38.400 ug/L	38.400 ppb	01:23:06
2	Sb 206.836†	34.4	9.6	-3.2685 ug/L	-3.2685 ppb	01:23:06
2	Se 196.026†	-294.9	-273.7	-30.674 ug/L	-30.674 ppb	01:23:06
2	Si 251.611†	152545.3	150780.1	5674.3 ug/L	5674.3 ppb	01:22:46
2	Sn 189.927†	46.9	38.5	5.1878 ug/L	5.1878 ppb	01:23:06
2	Ti 334.940†	1178621.9	1169920.1	2022.1 ug/L	2022.1 ppb	01:22:41
2	Tl 190.801†	-103.5	-70.8	0.6283 ug/L	0.6283 ppb	01:23:06
2	U 409.014†	-10844.4	-8673.3	-269.73 ug/L	-269.73 ppb	01:22:41
2	V 292.402†	3440.5	4729.6	25.344 ug/L	25.344 ppb	01:22:46
2	Zn 213.857†	29894.1	29028.7	340.41 ug/L	340.41 ppb	01:22:46
2	SiO2†	166803.2	164922.5	13207 ug/L	13207 ppb	01:23:48
3	Sc Radial	4518.6	4518.6	98.5 %		01:21:43
3	Y RADIAL	5799.0	5799.0	117.5 %		01:21:43
3	Al 396.153Radial†	4620.6	4776.9	4490.6 ug/L	4490.6 ppb	01:21:43
3	Ca 317.933Radial†	1276.3	1268.0	2241.3 ug/L	2241.3 ppb	01:22:03
3	Fe 238.204 Radial†	6317.0	6405.5	67113 ug/L	67113 ppb	01:21:43
3	K 766.490 Radial†	10505.2	8109.7	1551.7 ug/L	1551.7 ppb	01:21:43
3	Mg 279.077 IEC†	45.8	46.4	1695.6 ug/L	1695.6 ppb	01:22:03
3	Na 589.592 Radial†	1498.4	2326.3	815.11 ug/L	815.11 ppb	01:21:43
3	Sr 421.552†	2701.9	2717.4	20.742 ug/L	20.742 ppb	01:21:43
3	Sc 361.383	815937.9	815937.9	100.37 %		01:23:12
3	Y 371.029	810798.8	810798.8	117.60 %		01:23:12
3	Ag 328.068†	-3812.5	-4009.1	0.5172 ug/L	0.5172 ppb	01:23:17
3	As 188.979†	-38.7	-21.5	21.254 ug/L	21.254 ppb	01:23:37
3	B 249.677†	-124.1	291.7	-2.7625 ug/L	-2.7625 ppb	01:23:17
3	Ba 233.527†	15491.9	15422.3	146.43 ug/L	146.43 ppb	01:23:17
3	Be 313.107†	-17635.3	-13841.2	-1.3225 ug/L	-1.3225 ppb	01:23:17
3	Cd 226.502†	329.6	504.7	0.3403 ug/L	0.3403 ppb	01:23:37
3	Co 228.616†	324.5	363.1	4.3004 ug/L	4.3004 ppb	01:23:37
3	Cr 267.716†	1811.6	1725.4	30.439 ug/L	30.439 ppb	01:23:17
3	Cu 324.752†	7013.5	1521.4	8.7376 ug/L	8.7376 ppb	01:23:17
3	Mn 257.610†	1790393.5	1783239.3	2354.4 ug/L	2354.4 ppb	01:23:12
3	Mo 202.031†	54.6	41.5	8.8900 ug/L	8.8900 ppb	01:23:37
3	Ni 231.604†	704.8	620.7	19.758 ug/L	19.758 ppb	01:23:37
3	P 214.914†	827.4	640.5	428.44 ug/L	428.44 ppb	01:23:37
3	Pb 220.353†	1850.7	1886.7	282.56 ug/L	282.56 ppb	01:23:37
3	S 181.975 Axial†	46.8	16.5	28.530 ug/L	28.530 ppb	01:23:37
3	Sb 206.836†	41.9	17.3	-0.0846 ug/L	-0.0846 ppb	01:23:37
3	Se 196.026†	-304.0	-284.1	-41.386 ug/L	-41.386 ppb	01:23:37
3	Si 251.611†	158850.8	157766.7	5937.2 ug/L	5937.2 ppb	01:23:17
3	Sn 189.927†	39.0	30.9	3.5033 ug/L	3.5033 ppb	01:23:37
3	Ti 334.940†	1172090.3	1168854.7	2020.2 ug/L	2020.2 ppb	01:23:12
3	Tl 190.801†	-104.2	-72.0	0.1429 ug/L	0.1429 ppb	01:23:37
3	U 409.014†	-11064.4	-8942.6	-277.78 ug/L	-277.78 ppb	01:23:12
3	V 292.402†	3471.5	4776.4	25.806 ug/L	25.806 ppb	01:23:17
3	Zn 213.857†	30252.3	29523.6	346.49 ug/L	346.49 ppb	01:23:17
3	SiO2†	167427.0	166314.2	13319 ug/L	13319 ppb	01:23:53

Mean Data: 247123001|954660|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	816801.1	100.48 %	0.321			0.32%
Sc Radial	4478.9	97.6 %	1.32			1.35%
Y 371.029	811907.1	117.76 %	0.299			0.25%
Y RADIAL	5729.3	116.1 %	1.58			1.36%
Ag 328.068†	-3990.8	0.7213 ug/L	0.28479	0.7213 ppb	0.28479	39.49%
Al 396.153Radial†	4838.7	4548.7 ug/L	50.44	4548.7 ppb	50.44	1.11%
As 188.979†	-14.1	25.464 ug/L	4.1858	25.464 ppb	4.1858	16.44%
B 249.677†	335.9	-1.5855 ug/L	1.02745	-1.5855 ppb	1.02745	64.80%
Ba 233.527†	15373.2	145.99 ug/L	1.304	145.99 ppb	1.304	0.89%
Be 313.107†	-13736.2	-1.2765 ug/L	0.08587	-1.2765 ppb	0.08587	6.73%
Ca 317.933Radial†	1294.6	2288.3 ug/L	50.81	2288.3 ppb	50.81	2.22%
Cd 226.502†	507.6	0.3446 ug/L	0.01408	0.3446 ppb	0.01408	4.09%
Co 228.616†	352.5	4.0188 ug/L	0.28416	4.0188 ppb	0.28416	7.07%
Cr 267.716†	1725.1	30.471 ug/L	0.1900	30.471 ppb	0.1900	0.62%
Cu 324.752†	1499.4	8.6821 ug/L	0.07122	8.6821 ppb	0.07122	0.82%
Fe 238.204 Radial†	6440.8	67483 ug/L	352.1	67483 ppb	352.1	0.52%
K 766.490 Radial†	8292.2	1586.6 ug/L	31.41	1586.6 ppb	31.41	1.98%

Mg 279.077 IEC†	47.2	1724.5 ug/L	60.49	1724.5 ppb	60.49	3.51%
Mn 257.610†	1784543.6	2356.2 ug/L	1.92	2356.2 ppb	1.92	0.08%
Mo 202.031†	44.8	9.2028 ug/L	0.56128	9.2028 ppb	0.56128	6.10%
Na 589.592 Radial†	2425.8	849.98 ug/L	35.750	849.98 ppb	35.750	4.21%
Ni 231.604†	617.8	19.664 ug/L	0.2144	19.664 ppb	0.2144	1.09%
P 214.914†	644.2	430.97 ug/L	3.215	430.97 ppb	3.215	0.75%
Pb 220.353†	1901.7	284.84 ug/L	3.280	284.84 ppb	3.280	1.15%
S 181.975 Axial†	21.6	37.660 ug/L	8.7832	37.660 ppb	8.7832	23.32%
Sb 206.836†	16.4	-0.4138 ug/L	2.70517	-0.4138 ppb	2.70517	653.70%
Se 196.026†	-282.4	-38.880 ug/L	7.2847	-38.880 ppb	7.2847	18.74%
Si 251.611†	151319.9	5694.6 ug/L	233.13	5694.6 ppb	233.13	4.09%
Sn 189.927†	35.1	4.4258 ug/L	0.85364	4.4258 ppb	0.85364	19.29%
Sr 421.552†	2753.9	21.021 ug/L	0.2446	21.021 ppb	0.2446	1.16%
Ti 334.940†	1169153.4	2020.7 ug/L	1.16	2020.7 ppb	1.16	0.06%
Tl 190.801†	-74.8	-0.9097 ug/L	2.25668	-0.9097 ppb	2.25668	248.07%
U 409.014†	-8812.5	-273.89 ug/L	4.034	-273.89 ppb	4.034	1.47%
V 292.402†	4774.7	25.749 ug/L	0.3801	25.749 ppb	0.3801	1.48%
Zn 213.857†	29398.6	344.93 ug/L	3.972	344.93 ppb	3.972	1.15%
SiO2†	166120.6	13303 ug/L	89.2	13303 ppb	89.2	0.67%

Sequence No.: 57

Sample ID: 247123002|954660|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 80

Date Collected: 3/17/2010 01:26:05

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247123002|954660|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4238.8	4238.8	92.4 %		01:28:18
1	Y RADIAL	6395.1	6395.1	129.6 %		01:27:58
1	Al 396.153Radial†	2713.4	3022.5	2839.8 ug/L	2839.8 ppb	01:27:58
1	Ca 317.933Radial†	1197.5	1268.2	2241.8 ug/L	2241.8 ppb	01:28:18
1	Fe 238.204 Radial†	6122.1	6618.0	69340 ug/L	69340 ppb	01:27:58
1	K 766.490 Radial†	8882.6	7057.9	1350.1 ug/L	1350.1 ppb	01:27:58
1	Mg 279.077 IEC†	35.6	38.5	1391.9 ug/L	1391.9 ppb	01:28:18
1	Na 589.592 Radial†	2484.6	3494.2	1224.3 ug/L	1224.3 ppb	01:27:58
1	Sr 421.552†	1457.6	1551.8	11.838 ug/L	11.838 ppb	01:27:58
1	Sc 361.383	820010.3	820010.3	100.87 %		01:29:15
1	Y 371.029	928904.0	928904.0	134.73 %		01:29:15
1	Ag 328.068†	-3845.1	-4022.5	1.1446 ug/L	1.1446 ppb	01:29:21
1	As 188.979†	-9.7	7.4	47.991 ug/L	47.991 ppb	01:29:41
1	B 249.677†	-80.7	335.3	-1.9072 ug/L	-1.9072 ppb	01:29:21
1	Ba 233.527†	9756.9	9660.1	92.583 ug/L	92.583 ppb	01:29:21
1	Be 313.107†	-19428.7	-15531.9	0.6364 ug/L	0.6364 ppb	01:29:21
1	Cd 226.502†	357.9	531.1	0.4841 ug/L	0.4841 ppb	01:29:41
1	Co 228.616†	381.3	417.8	3.2595 ug/L	3.2595 ppb	01:29:41
1	Cr 267.716†	2194.7	2096.2	35.657 ug/L	35.657 ppb	01:29:21
1	Cu 324.752†	6823.7	1298.5	8.1248 ug/L	8.1248 ppb	01:29:21
1	Mn 257.610†	1485238.6	1471861.0	1944.7 ug/L	1944.7 ppb	01:29:15
1	Mo 202.031†	409.9	393.5	40.016 ug/L	40.016 ppb	01:29:41
1	Ni 231.604†	376.4	291.8	9.2827 ug/L	9.2827 ppb	01:29:41
1	P 214.914†	1037.6	844.7	580.33 ug/L	580.33 ppb	01:29:41
1	Pb 220.353†	669.3	706.3	99.850 ug/L	99.850 ppb	01:29:41
1	S 181.975 Axial†	65.7	35.0	61.987 ug/L	61.987 ppb	01:29:41
1	Sb 206.836†	43.8	18.9	-2.4486 ug/L	-2.4486 ppb	01:29:41
1	Se 196.026†	-303.9	-282.5	-34.040 ug/L	-34.040 ppb	01:29:41
1	Si 251.611†	102658.6	101273.9	3810.8 ug/L	3810.8 ppb	01:29:21
1	Sn 189.927†	97.8	88.9	16.445 ug/L	16.445 ppb	01:29:41
1	Ti 334.940†	1867125.6	1852088.2	3201.0 ug/L	3201.0 ppb	01:29:15
1	Tl 190.801†	-122.9	-90.0	1.0497 ug/L	1.0497 ppb	01:29:41
1	U 409.014†	-11548.5	-9367.7	-290.88 ug/L	-290.88 ppb	01:29:15
1	V 292.402†	3401.3	4689.6	23.942 ug/L	23.942 ppb	01:29:21
1	Zn 213.857†	35597.2	34672.6	408.43 ug/L	408.43 ppb	01:29:21
1	SiO2†	121062.0	119521.2	9570.6 ug/L	9570.6 ppb	01:30:48
2	Sc Radial	4301.7	4301.7	93.8 %		01:28:43
2	Y RADIAL	6591.9	6591.9	133.6 %		01:28:23
2	Al 396.153Radial†	2694.5	2959.4	2780.4 ug/L	2780.4 ppb	01:28:23
2	Ca 317.933Radial†	1220.7	1274.0	2251.9 ug/L	2251.9 ppb	01:28:43
2	Fe 238.204 Radial†	6189.6	6593.1	69079 ug/L	69079 ppb	01:28:23
2	K 766.490 Radial†	8727.2	6751.4	1291.4 ug/L	1291.4 ppb	01:28:23
2	Mg 279.077 IEC†	35.7	37.9	1372.1 ug/L	1372.1 ppb	01:28:43
2	Na 589.592 Radial†	2418.3	3384.1	1185.8 ug/L	1185.8 ppb	01:28:23
2	Sr 421.552†	1469.0	1540.9	11.754 ug/L	11.754 ppb	01:28:23
2	Sc 361.383	815933.6	815933.6	100.37 %		01:29:46
2	Y 371.029	923553.0	923553.0	133.96 %		01:29:46
2	Ag 328.068†	-3875.1	-4071.4	0.8187 ug/L	0.8187 ppb	01:29:51
2	As 188.979†	-17.9	-0.8	43.394 ug/L	43.394 ppb	01:30:11
2	B 249.677†	-140.0	275.8	-3.5307 ug/L	-3.5307 ppb	01:29:51
2	Ba 233.527†	9742.2	9693.8	92.891 ug/L	92.891 ppb	01:29:51
2	Be 313.107†	-19511.6	-15710.7	0.5643 ug/L	0.5643 ppb	01:29:51
2	Cd 226.502†	362.4	537.4	0.5995 ug/L	0.5995 ppb	01:30:11
2	Co 228.616†	396.8	435.1	3.7109 ug/L	3.7109 ppb	01:30:11
2	Cr 267.716†	2261.1	2173.2	36.666 ug/L	36.666 ppb	01:29:51
2	Cu 324.752†	6930.6	1438.8	8.5790 ug/L	8.5790 ppb	01:29:51
2	Mn 257.610†	1480818.7	1474814.1	1948.5 ug/L	1948.5 ppb	01:29:46
2	Mo 202.031†	415.0	400.7	40.624 ug/L	40.624 ppb	01:30:11
2	Ni 231.604†	349.9	267.2	8.4995 ug/L	8.4995 ppb	01:30:11

2	P 214.914†	1041.9	854.1	587.52 ug/L	587.52 ppb	01:30:11
2	Pb 220.353†	678.1	718.4	101.74 ug/L	101.74 ppb	01:30:11
2	S 181.975 Axial†	69.3	38.9	68.941 ug/L	68.941 ppb	01:30:11
2	Sb 206.836†	43.1	18.4	-2.6257 ug/L	-2.6257 ppb	01:30:11
2	Se 196.026†	-308.0	-288.1	-39.458 ug/L	-39.458 ppb	01:30:11
2	Si 251.611†	107613.3	106718.8	4015.7 ug/L	4015.7 ppb	01:29:51
2	Sn 189.927†	104.0	95.6	17.970 ug/L	17.970 ppb	01:30:11
2	Ti 334.940†	1858927.6	1853168.8	3202.8 ug/L	3202.8 ppb	01:29:46
2	Tl 190.801†	-126.3	-94.0	-0.4561 ug/L	-0.4561 ppb	01:30:11
2	U 409.014†	-11703.5	-9579.4	-297.25 ug/L	-297.25 ppb	01:29:46
2	V 292.402†	3419.6	4724.8	24.255 ug/L	24.255 ppb	01:29:51
2	Zn 213.857†	35760.0	35011.1	412.57 ug/L	412.57 ppb	01:29:51
2	SiO2†	121580.4	120637.3	9660.0 ug/L	9660.0 ppb	01:30:53
3	Sc Radial	4283.9	4283.9	93.4 %		01:29:08
3	Y RADIAL	6577.6	6577.6	133.3 %		01:28:48
3	Al 396.153Radial†	2721.0	2999.7	2818.4 ug/L	2818.4 ppb	01:28:48
3	Ca 317.933Radial†	1217.4	1275.8	2255.1 ug/L	2255.1 ppb	01:29:08
3	Fe 238.204 Radial†	6238.3	6672.7	69912 ug/L	69912 ppb	01:28:48
3	K 766.490 Radial†	8844.4	6915.6	1322.9 ug/L	1322.9 ppb	01:28:48
3	Mg 279.077 IEC†	38.9	41.5	1508.3 ug/L	1508.3 ppb	01:29:08
3	Na 589.592 Radial†	2401.0	3376.3	1183.0 ug/L	1183.0 ppb	01:28:48
3	Sr 421.552†	1452.2	1529.4	11.667 ug/L	11.667 ppb	01:28:48
3	Sc 361.383	822205.3	822205.3	101.14 %		01:30:17
3	Y 371.029	930722.3	930722.3	135.00 %		01:30:17
3	Ag 328.068†	-3837.4	-4004.7	1.4112 ug/L	1.4112 ppb	01:30:22
3	As 188.979†	-13.9	3.3	45.808 ug/L	45.808 ppb	01:30:42
3	B 249.677†	-91.0	325.4	-2.2798 ug/L	-2.2798 ppb	01:30:22
3	Ba 233.527†	9745.2	9622.8	92.250 ug/L	92.250 ppb	01:30:22
3	Be 313.107†	-19659.4	-15708.6	0.5498 ug/L	0.5498 ppb	01:30:22
3	Cd 226.502†	368.7	540.9	0.5657 ug/L	0.5657 ppb	01:30:42
3	Co 228.616†	388.3	423.7	3.4132 ug/L	3.4132 ppb	01:30:42
3	Cr 267.716†	2237.1	2132.3	36.202 ug/L	36.202 ppb	01:30:22
3	Cu 324.752†	6902.2	1358.1	8.3529 ug/L	8.3529 ppb	01:30:22
3	Mn 257.610†	1486016.0	1468698.7	1940.6 ug/L	1940.6 ppb	01:30:17
3	Mo 202.031†	400.2	382.9	39.123 ug/L	39.123 ppb	01:30:42
3	Ni 231.604†	370.0	284.4	9.0483 ug/L	9.0483 ppb	01:30:42
3	P 214.914†	1040.5	844.8	579.90 ug/L	579.90 ppb	01:30:42
3	Pb 220.353†	659.0	694.4	97.920 ug/L	97.920 ppb	01:30:42
3	S 181.975 Axial†	59.0	28.2	49.773 ug/L	49.773 ppb	01:30:42
3	Sb 206.836†	47.4	22.3	-1.0559 ug/L	-1.0559 ppb	01:30:42
3	Se 196.026†	-310.7	-288.4	-37.368 ug/L	-37.368 ppb	01:30:42
3	Si 251.611†	109441.2	107708.2	4053.0 ug/L	4053.0 ppb	01:30:22
3	Sn 189.927†	98.5	89.4	16.507 ug/L	16.507 ppb	01:30:42
3	Ti 334.940†	1869250.3	1849247.4	3196.1 ug/L	3196.1 ppb	01:30:17
3	Tl 190.801†	-122.8	-89.7	1.1225 ug/L	1.1225 ppb	01:30:42
3	U 409.014†	-11616.4	-9404.3	-292.06 ug/L	-292.06 ppb	01:30:17
3	V 292.402†	3336.1	4616.2	23.264 ug/L	23.264 ppb	01:30:22
3	Zn 213.857†	35603.0	34584.2	407.28 ug/L	407.28 ppb	01:30:22
3	SiO2†	124894.6	122990.1	9848.4 ug/L	9848.4 ppb	01:30:58

Mean Data: 247123002|954660|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Conc.	Sample	Std.Dev.	RSD
Sc 361.383	819383.1	100.79	%	0.391				0.39%
Sc Radial	4274.8	93.2	%	0.71				0.76%
Y 371.029	927726.4	134.56	%	0.541				0.40%
Y RADIAL	6521.5	132.2	%	2.22				1.68%
Ag 328.068†	-4032.9	1.1248	ug/L	0.29674	1.1248	ppb	0.29674	26.38%
Al 396.153Radial†	2993.8	2812.9	ug/L	30.08	2812.9	ppb	30.08	1.07%
As 188.979†	3.3	45.731	ug/L	2.2997	45.731	ppb	2.2997	5.03%
B 249.677†	312.2	-2.5726	ug/L	0.85040	-2.5726	ppb	0.85040	33.06%
Ba 233.527†	9658.9	92.574	ug/L	0.3206	92.574	ppb	0.3206	0.35%
Be 313.107†	-15650.4	0.5835	ug/L	0.04637	0.5835	ppb	0.04637	7.95%
Ca 317.933Radial†	1272.7	2249.6	ug/L	6.97	2249.6	ppb	6.97	0.31%
Cd 226.502†	536.5	0.5498	ug/L	0.05934	0.5498	ppb	0.05934	10.79%
Co 228.616†	425.6	3.4612	ug/L	0.22949	3.4612	ppb	0.22949	6.63%
Cr 267.716†	2133.9	36.175	ug/L	0.5053	36.175	ppb	0.5053	1.40%
Cu 324.752†	1365.1	8.3522	ug/L	0.22709	8.3522	ppb	0.22709	2.72%
Fe 238.204 Radial†	6627.9	69443	ug/L	426.5	69443	ppb	426.5	0.61%
K 766.490 Radial†	6908.3	1321.5	ug/L	29.38	1321.5	ppb	29.38	2.22%

Mg 279.077 IEC†	39.3	1424.1 ug/L	73.56	1424.1 ppb	73.56	5.17%
Mn 257.610†	1471791.3	1944.6 ug/L	3.99	1944.6 ppb	3.99	0.21%
Mo 202.031†	392.4	39.921 ug/L	0.7552	39.921 ppb	0.7552	1.89%
Na 589.592 Radial†	3418.2	1197.7 ug/L	23.09	1197.7 ppb	23.09	1.93%
Ni 231.604†	281.1	8.9435 ug/L	0.40198	8.9435 ppb	0.40198	4.49%
P 214.914†	847.9	582.58 ug/L	4.282	582.58 ppb	4.282	0.74%
Pb 220.353†	706.4	99.836 ug/L	1.9085	99.836 ppb	1.9085	1.91%
S 181.975 Axial†	34.0	60.233 ug/L	9.7036	60.233 ppb	9.7036	16.11%
Sb 206.836†	19.9	-2.0434 ug/L	0.85979	-2.0434 ppb	0.85979	42.08%
Se 196.026†	-286.3	-36.955 ug/L	2.7324	-36.955 ppb	2.7324	7.39%
Si 251.611†	105233.6	3959.8 ug/L	130.39	3959.8 ppb	130.39	3.29%
Sn 189.927†	91.3	16.974 ug/L	0.8633	16.974 ppb	0.8633	5.09%
Sr 421.552†	1540.7	11.753 ug/L	0.0855	11.753 ppb	0.0855	0.73%
Ti 334.940†	1851501.5	3200.0 ug/L	3.51	3200.0 ppb	3.51	0.11%
Tl 190.801†	-91.2	0.5720 ug/L	0.89112	0.5720 ppb	0.89112	155.78%
U 409.014†	-9450.5	-293.40 ug/L	3.389	-293.40 ppb	3.389	1.15%
V 292.402†	4676.9	23.820 ug/L	0.5065	23.820 ppb	0.5065	2.13%
Zn 213.857†	34756.0	409.43 ug/L	2.780	409.43 ppb	2.780	0.68%
SiO2†	121049.5	9693.0 ug/L	141.83	9693.0 ppb	141.83	1.46%

Sequence No.: 58

Autosampler Location: 81

Sample ID: 247123003|954660|1

Date Collected: 3/17/2010 01:33:10

Analyst: HSC

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: 247123003|954660|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4382.6	4382.6	95.5 %		01:35:23
1	Y RADIAL	6246.0	6246.0	126.6 %		01:35:03
1	Al 396.153Radial†	5658.3	6008.7	5648.4 ug/L	5648.4 ppb	01:35:03
1	Ca 317.933Radial†	2873.6	2980.2	5267.8 ug/L	5267.8 ppb	01:35:23
1	Fe 238.204 Radial†	7373.2	7710.2	80782 ug/L	80782 ppb	01:35:03
1	K 766.490 Radial†	12956.5	11006.7	2105.2 ug/L	2105.2 ppb	01:35:03
1	Mg 279.077 IEC†	63.8	66.7	2452.4 ug/L	2452.4 ppb	01:35:23
1	Na 589.592 Radial†	4245.9	5249.5	1839.3 ug/L	1839.3 ppb	01:35:03
1	Sr 421.552†	2809.9	2915.6	22.234 ug/L	22.234 ppb	01:35:03
1	Sc 361.383	826066.3	826066.3	101.62 %		01:36:20
1	Y 371.029	913446.5	913446.5	132.49 %		01:36:20
1	Ag 328.068†	-4114.5	-4259.7	3.4652 ug/L	3.4652 ppb	01:36:25
1	As 188.979†	-13.9	3.4	41.862 ug/L	41.862 ppb	01:36:45
1	B 249.677†	-36.6	379.3	-2.5346 ug/L	-2.5346 ppb	01:36:25
1	Ba 233.527†	13120.6	12899.5	123.25 ug/L	123.25 ppb	01:36:25
1	Be 313.107†	-15020.1	-11052.2	0.8075 ug/L	0.8075 ppb	01:36:25
1	Cd 226.502†	393.7	563.8	-0.2297 ug/L	-0.2297 ppb	01:36:45
1	Co 228.616†	378.7	412.5	4.5137 ug/L	4.5137 ppb	01:36:45
1	Cr 267.716†	3201.4	3071.0	49.976 ug/L	49.976 ppb	01:36:25
1	Cu 324.752†	8321.4	2722.9	13.465 ug/L	13.465 ppb	01:36:25
1	Mn 257.610†	1900429.3	1869654.0	2469.5 ug/L	2469.5 ppb	01:36:20
1	Mo 202.031†	124.9	110.1	16.013 ug/L	16.013 ppb	01:36:45
1	Ni 231.604†	484.4	395.3	12.578 ug/L	12.578 ppb	01:36:45
1	P 214.914†	1320.4	1115.5	774.70 ug/L	774.70 ppb	01:36:45
1	Pb 220.353†	1285.5	1307.8	191.62 ug/L	191.62 ppb	01:36:45
1	S 181.975 Axial†	66.2	35.0	61.352 ug/L	61.352 ppb	01:36:45
1	Sb 206.836†	49.0	23.7	1.1751 ug/L	1.1751 ppb	01:36:45
1	Se 196.026†	-325.3	-301.4	-16.028 ug/L	-16.028 ppb	01:36:45
1	Si 251.611†	123617.8	121153.6	4559.3 ug/L	4559.3 ppb	01:36:25
1	Sn 189.927†	51.4	42.6	5.8970 ug/L	5.8970 ppb	01:36:45
1	Ti 334.940†	1429957.5	1408302.9	2434.4 ug/L	2434.4 ppb	01:36:20
1	Tl 190.801†	-120.6	-86.9	-1.6120 ug/L	-1.6120 ppb	01:36:45
1	U 409.014†	-12857.5	-10572.0	-328.59 ug/L	-328.59 ppb	01:36:20
1	V 292.402†	3770.6	5028.4	25.388 ug/L	25.388 ppb	01:36:25
1	Zn 213.857†	23616.2	22623.5	261.13 ug/L	261.13 ppb	01:36:25
1	SiO2†	146972.1	144139.4	11543 ug/L	11543 ppb	01:37:53
2	Sc Radial	4373.0	4373.0	95.3 %		01:35:48
2	Y RADIAL	6520.5	6520.5	132.1 %		01:35:28
2	Al 396.153Radial†	5417.1	5768.7	5422.8 ug/L	5422.8 ppb	01:35:28
2	Ca 317.933Radial†	2877.0	2990.3	5285.6 ug/L	5285.6 ppb	01:35:48
2	Fe 238.204 Radial†	7076.7	7416.1	77701 ug/L	77701 ppb	01:35:28
2	K 766.490 Radial†	12504.4	10562.2	2020.1 ug/L	2020.1 ppb	01:35:28
2	Mg 279.077 IEC†	64.7	67.8	2497.4 ug/L	2497.4 ppb	01:35:48
2	Na 589.592 Radial†	4002.8	5004.3	1753.4 ug/L	1753.4 ppb	01:35:28
2	Sr 421.552†	2649.0	2753.3	20.994 ug/L	20.994 ppb	01:35:28
2	Sc 361.383	819435.5	819435.5	100.80 %		01:36:51
2	Y 371.029	905744.2	905744.2	131.37 %		01:36:51
2	Ag 328.068†	-4068.2	-4246.5	2.5833 ug/L	2.5833 ppb	01:36:56
2	As 188.979†	-23.0	-5.8	36.026 ug/L	36.026 ppb	01:37:16
2	B 249.677†	-73.3	342.6	-3.0600 ug/L	-3.0600 ppb	01:36:56
2	Ba 233.527†	13094.7	12978.2	123.89 ug/L	123.89 ppb	01:36:56
2	Be 313.107†	-15022.4	-11174.1	0.7512 ug/L	0.7512 ppb	01:36:56
2	Cd 226.502†	417.4	590.5	0.4744 ug/L	0.4744 ppb	01:37:16
2	Co 228.616†	374.5	411.4	4.5323 ug/L	4.5323 ppb	01:37:16
2	Cr 267.716†	3194.4	3089.5	49.899 ug/L	49.899 ppb	01:36:56
2	Cu 324.752†	8368.5	2835.8	13.678 ug/L	13.678 ppb	01:36:56
2	Mn 257.610†	1882818.7	1867316.8	2466.1 ug/L	2466.1 ppb	01:36:51
2	Mo 202.031†	115.1	101.4	15.010 ug/L	15.010 ppb	01:37:16
2	Ni 231.604†	487.2	401.9	12.791 ug/L	12.791 ppb	01:37:16

2	P 214.914†	1299.1	1104.9	769.09 ug/L	769.09 ppb	01:37:16
2	Pb 220.353†	1262.1	1294.8	190.00 ug/L	190.00 ppb	01:37:16
2	S 181.975 Axial†	68.7	38.0	66.764 ug/L	66.764 ppb	01:37:16
2	Sb 206.836†	46.5	21.6	0.4145 ug/L	0.4145 ppb	01:37:16
2	Se 196.026†	-334.6	-313.1	-34.714 ug/L	-34.714 ppb	01:37:16
2	Si 251.611†	130097.6	128566.3	4838.2 ug/L	4838.2 ppb	01:36:56
2	Sn 189.927†	63.6	55.1	8.8862 ug/L	8.8862 ppb	01:37:16
2	Ti 334.940†	1417390.4	1407222.6	2432.5 ug/L	2432.5 ppb	01:36:51
2	Tl 190.801†	-111.4	-78.7	1.4938 ug/L	1.4938 ppb	01:37:16
2	U 409.014†	-12896.4	-10713.0	-332.50 ug/L	-332.50 ppb	01:36:51
2	V 292.402†	3742.7	5030.7	25.839 ug/L	25.839 ppb	01:36:56
2	Zn 213.857†	23546.2	22742.1	263.02 ug/L	263.02 ppb	01:36:56
2	SiO2†	143197.1	141564.7	11337 ug/L	11337 ppb	01:37:58
3	Sc Radial	4361.5	4361.5	95.1 %		01:36:13
3	Y RADIAL	6378.7	6378.7	129.3 %		01:35:53
3	Al 396.153Radial†	5482.4	5852.3	5501.4 ug/L	5501.4 ppb	01:35:53
3	Ca 317.933Radial†	2896.5	3018.8	5336.0 ug/L	5336.0 ppb	01:36:13
3	Fe 238.204 Radial†	7188.9	7553.7	79143 ug/L	79143 ppb	01:35:53
3	K 766.490 Radial†	12556.6	10651.7	2037.2 ug/L	2037.2 ppb	01:35:53
3	Mg 279.077 IEC†	64.4	67.7	2492.8 ug/L	2492.8 ppb	01:36:13
3	Na 589.592 Radial†	4060.9	5076.5	1778.7 ug/L	1778.7 ppb	01:35:53
3	Sr 421.552†	2687.9	2801.4	21.361 ug/L	21.361 ppb	01:35:53
3	Sc 361.383	825224.3	825224.3	101.51 %		01:37:22
3	Y 371.029	913687.1	913687.1	132.53 %		01:37:22
3	Ag 328.068†	-4181.0	-4329.3	2.5916 ug/L	2.5916 ppb	01:37:27
3	As 188.979†	-11.2	6.0	42.913 ug/L	42.913 ppb	01:37:47
3	B 249.677†	-65.8	350.5	-3.0733 ug/L	-3.0733 ppb	01:37:27
3	Ba 233.527†	12989.3	12783.2	122.11 ug/L	122.11 ppb	01:37:27
3	Be 313.107†	-15027.8	-11074.8	0.7891 ug/L	0.7891 ppb	01:37:27
3	Cd 226.502†	395.6	566.0	-0.0265 ug/L	-0.0265 ppb	01:37:47
3	Co 228.616†	374.5	408.7	4.4457 ug/L	4.4457 ppb	01:37:47
3	Cr 267.716†	3126.0	2999.9	48.844 ug/L	48.844 ppb	01:37:27
3	Cu 324.752†	8347.4	2756.8	13.487 ug/L	13.487 ppb	01:37:27
3	Mn 257.610†	1890928.3	1862202.9	2459.5 ug/L	2459.5 ppb	01:37:22
3	Mo 202.031†	115.1	100.6	15.051 ug/L	15.051 ppb	01:37:47
3	Ni 231.604†	482.4	393.8	12.531 ug/L	12.531 ppb	01:37:47
3	P 214.914†	1296.3	1093.1	759.10 ug/L	759.10 ppb	01:37:47
3	Pb 220.353†	1283.4	1307.0	191.69 ug/L	191.69 ppb	01:37:47
3	S 181.975 Axial†	70.6	39.4	69.254 ug/L	69.254 ppb	01:37:47
3	Sb 206.836†	45.7	20.5	-0.0825 ug/L	-0.0825 ppb	01:37:47
3	Se 196.026†	-327.8	-304.1	-23.058 ug/L	-23.058 ppb	01:37:47
3	Si 251.611†	135487.9	132970.9	5004.0 ug/L	5004.0 ppb	01:37:27
3	Sn 189.927†	58.7	49.8	7.6245 ug/L	7.6245 ppb	01:37:47
3	Ti 334.940†	1426240.1	1406076.7	2430.5 ug/L	2430.5 ppb	01:37:22
3	Tl 190.801†	-119.4	-85.8	-1.2928 ug/L	-1.2928 ppb	01:37:47
3	U 409.014†	-12591.5	-10322.9	-320.88 ug/L	-320.88 ppb	01:37:22
3	V 292.402†	3710.2	4972.6	25.189 ug/L	25.189 ppb	01:37:27
3	Zn 213.857†	23376.2	22410.8	258.81 ug/L	258.81 ppb	01:37:27
3	SiO2†	144629.9	141979.6	11370 ug/L	11370 ppb	01:38:03

Mean Data: 247123003|954660|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	823575.4	101.31 %		0.444			0.44%
Sc Radial	4372.4	95.3 %		0.23			0.24%
Y 371.029	910959.3	132.13 %		0.655			0.50%
Y RADIAL	6381.7	129.3 %		2.78			2.15%
Ag 328.068†	-4278.5	2.8800 ug/L		0.50677	2.8800 ppb	0.50677	17.60%
Al 396.153Radial†	5876.6	5524.2 ug/L		114.49	5524.2 ppb	114.49	2.07%
As 188.979†	1.2	40.267 ug/L		3.7106	40.267 ppb	3.7106	9.21%
B 249.677†	357.5	-2.8893 ug/L		0.30723	-2.8893 ppb	0.30723	10.63%
Ba 233.527†	12887.0	123.08 ug/L		0.902	123.08 ppb	0.902	0.73%
Be 313.107†	-11100.4	0.7826 ug/L		0.02869	0.7826 ppb	0.02869	3.67%
Ca 317.933Radial†	2996.4	5296.5 ug/L		35.37	5296.5 ppb	35.37	0.67%
Cd 226.502†	573.4	0.0727 ug/L		0.36238	0.0727 ppb	0.36238	498.19%
Co 228.616†	410.9	4.4973 ug/L		0.04557	4.4973 ppb	0.04557	1.01%
Cr 267.716†	3053.4	49.573 ug/L		0.6327	49.573 ppb	0.6327	1.28%
Cu 324.752†	2771.8	13.543 ug/L		0.1173	13.543 ppb	0.1173	0.87%
Fe 238.204 Radial†	7560.0	79209 ug/L		1541.6	79209 ppb	1541.6	1.95%
K 766.490 Radial†	10740.2	2054.2 ug/L		45.03	2054.2 ppb	45.03	2.19%

Mg 279.077 IEC†	67.4	2480.9 ug/L	24.77	2480.9 ppb	24.77	1.00%
Mn 257.610†	1866391.2	2465.1 ug/L	5.07	2465.1 ppb	5.07	0.21%
Mo 202.031†	104.0	15.358 ug/L	0.5678	15.358 ppb	0.5678	3.70%
Na 589.592 Radial†	5110.1	1790.5 ug/L	44.15	1790.5 ppb	44.15	2.47%
Ni 231.604†	397.0	12.633 ug/L	0.1384	12.633 ppb	0.1384	1.10%
P 214.914†	1104.5	767.63 ug/L	7.901	767.63 ppb	7.901	1.03%
Pb 220.353†	1303.2	191.10 ug/L	0.957	191.10 ppb	0.957	0.50%
S 181.975 Axial†	37.4	65.790 ug/L	4.0402	65.790 ppb	4.0402	6.14%
Sb 206.836†	21.9	0.5024 ug/L	0.63341	0.5024 ppb	0.63341	126.08%
Se 196.026†	-306.2	-24.600 ug/L	9.4379	-24.600 ppb	9.4379	38.37%
Si 251.611†	127563.6	4800.5 ug/L	224.76	4800.5 ppb	224.76	4.68%
Sn 189.927†	49.2	7.4693 ug/L	1.50064	7.4693 ppb	1.50064	20.09%
Sr 421.552†	2823.4	21.529 ug/L	0.6369	21.529 ppb	0.6369	2.96%
Ti 334.940†	1407200.7	2432.5 ug/L	1.92	2432.5 ppb	1.92	0.08%
Tl 190.801†	-83.8	-0.4703 ug/L	1.70845	-0.4703 ppb	1.70845	363.26%
U 409.014†	-10536.0	-327.32 ug/L	5.913	-327.32 ppb	5.913	1.81%
V 292.402†	5010.6	25.472 ug/L	0.3332	25.472 ppb	0.3332	1.31%
Zn 213.857†	22592.1	260.99 ug/L	2.112	260.99 ppb	2.112	0.81%
SiO2†	142561.2	11416 ug/L	110.7	11416 ppb	110.7	0.97%

Sequence No.: 59

Sample ID: 247123004|954660|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 82

Date Collected: 3/17/2010 01:40:15

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247123004|954660|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4509.5	4509.5	98.3 %		01:42:08
1	Y RADIAL	6182.5	6182.5	125.3 %		01:42:08
1	Al 396.153Radial†	3864.6	4017.3	3776.5 ug/L	3776.5 ppb	01:42:08
1	Ca 317.933Radial†	1792.3	1795.4	3173.6 ug/L	3173.6 ppb	01:42:28
1	Fe 238.204 Radial†	6678.8	6786.6	71106 ug/L	71106 ppb	01:42:08
1	K 766.490 Radial†	10821.3	8452.9	1616.8 ug/L	1616.8 ppb	01:42:08
1	Mg 279.077 IEC†	47.3	48.1	1755.5 ug/L	1755.5 ppb	01:42:28
1	Na 589.592 Radial†	4356.7	5237.3	1835.1 ug/L	1835.1 ppb	01:42:08
1	Sr 421.552†	1741.5	1745.8	13.313 ug/L	13.313 ppb	01:42:08
1	Sc 361.383	832362.9	832362.9	102.39 %		01:43:25
1	Y 371.029	890564.5	890564.5	129.17 %		01:43:25
1	Ag 328.068†	-4028.2	-4144.7	1.0395 ug/L	1.0395 ppb	01:43:30
1	As 188.979†	-43.1	-25.0	34.746 ug/L	34.746 ppb	01:43:50
1	B 249.677†	-123.4	294.9	-3.3282 ug/L	-3.3282 ppb	01:43:30
1	Ba 233.527†	17249.6	16834.4	159.76 ug/L	159.76 ppb	01:43:30
1	Be 313.107†	-19714.6	-15525.3	1.7699 ug/L	1.7699 ppb	01:43:30
1	Cd 226.502†	379.9	547.3	0.5370 ug/L	0.5370 ppb	01:43:50
1	Co 228.616†	418.1	448.2	2.9480 ug/L	2.9480 ppb	01:43:50
1	Cr 267.716†	1405.1	1292.7	25.051 ug/L	25.051 ppb	01:43:30
1	Cu 324.752†	7466.5	1825.9	9.9610 ug/L	9.9610 ppb	01:43:30
1	Mn 257.610†	1617174.8	1578865.4	2085.7 ug/L	2085.7 ppb	01:43:25
1	Mo 202.031†	74.5	59.9	10.823 ug/L	10.823 ppb	01:43:50
1	Ni 231.604†	357.9	268.2	8.5308 ug/L	8.5308 ppb	01:43:50
1	P 214.914†	1102.1	892.4	614.64 ug/L	614.64 ppb	01:43:50
1	Pb 220.353†	175.6	214.3	23.831 ug/L	23.831 ppb	01:43:50
1	S 181.975 Axial†	59.1	27.6	48.483 ug/L	48.483 ppb	01:43:50
1	Sb 206.836†	58.2	32.3	0.6315 ug/L	0.6315 ppb	01:43:50
1	Se 196.026†	-315.9	-289.8	-34.832 ug/L	-34.832 ppb	01:43:50
1	Si 251.611†	143135.2	139295.0	5242.0 ug/L	5242.0 ppb	01:43:30
1	Sn 189.927†	51.8	42.6	6.0776 ug/L	6.0776 ppb	01:43:50
1	Ti 334.940†	2190327.6	2140274.3	3699.1 ug/L	3699.1 ppb	01:43:25
1	Tl 190.801†	-138.3	-103.3	0.7380 ug/L	0.7380 ppb	01:43:50
1	U 409.014†	-11539.6	-9189.2	-285.67 ug/L	-285.67 ppb	01:43:25
1	V 292.402†	3248.3	4490.1	21.170 ug/L	21.170 ppb	01:43:30
1	Zn 213.857†	34839.2	33408.6	392.90 ug/L	392.90 ppb	01:43:30
1	SiO2†	173901.0	169345.4	13561 ug/L	13561 ppb	01:44:58
2	Sc Radial	4552.6	4552.6	99.2 %		01:42:33
2	Y RADIAL	6316.0	6316.0	128.0 %		01:42:33
2	Al 396.153Radial†	3914.9	4030.8	3789.1 ug/L	3789.1 ppb	01:42:33
2	Ca 317.933Radial†	1772.5	1758.2	3107.9 ug/L	3107.9 ppb	01:42:53
2	Fe 238.204 Radial†	6818.3	6862.8	71905 ug/L	71905 ppb	01:42:33
2	K 766.490 Radial†	10894.4	8422.3	1611.0 ug/L	1611.0 ppb	01:42:33
2	Mg 279.077 IEC†	53.5	53.9	1974.2 ug/L	1974.2 ppb	01:42:53
2	Na 589.592 Radial†	4456.3	5295.6	1855.5 ug/L	1855.5 ppb	01:42:33
2	Sr 421.552†	1750.9	1738.5	13.258 ug/L	13.258 ppb	01:42:33
2	Sc 361.383	829921.9	829921.9	102.09 %		01:43:56
2	Y 371.029	888779.1	888779.1	128.91 %		01:43:56
2	Ag 328.068†	-4026.9	-4155.1	1.2348 ug/L	1.2348 ppb	01:44:01
2	As 188.979†	-41.0	-23.1	36.014 ug/L	36.014 ppb	01:44:21
2	B 249.677†	-157.0	261.6	-4.3904 ug/L	-4.3904 ppb	01:44:01
2	Ba 233.527†	17181.2	16816.9	159.62 ug/L	159.62 ppb	01:44:01
2	Be 313.107†	-19710.5	-15577.9	1.7519 ug/L	1.7519 ppb	01:44:01
2	Cd 226.502†	387.2	555.6	0.5745 ug/L	0.5745 ppb	01:44:21
2	Co 228.616†	440.5	471.3	3.5365 ug/L	3.5365 ppb	01:44:21
2	Cr 267.716†	1392.4	1284.4	25.024 ug/L	25.024 ppb	01:44:01
2	Cu 324.752†	7364.7	1747.7	9.7451 ug/L	9.7451 ppb	01:44:01
2	Mn 257.610†	1611034.1	1577495.9	2084.0 ug/L	2084.0 ppb	01:43:56
2	Mo 202.031†	82.7	68.2	11.615 ug/L	11.615 ppb	01:44:21
2	Ni 231.604†	359.9	271.1	8.6249 ug/L	8.6249 ppb	01:44:21

2	P 214.914†	1099.5	893.0	614.50 ug/L	614.50 ppb	01:44:21
2	Pb 220.353†	155.3	194.9	20.733 ug/L	20.733 ppb	01:44:21
2	S 181.975 Axial†	68.3	36.7	64.814 ug/L	64.814 ppb	01:44:21
2	Sb 206.836†	46.7	21.2	-3.9599 ug/L	-3.9599 ppb	01:44:21
2	Se 196.026†	-323.8	-298.3	-39.626 ug/L	-39.626 ppb	01:44:21
2	Si 251.611†	152625.1	149001.7	5607.3 ug/L	5607.3 ppb	01:44:01
2	Sn 189.927†	57.7	48.5	7.3518 ug/L	7.3518 ppb	01:44:21
2	Ti 334.940†	2185075.3	2141421.3	3701.0 ug/L	3701.0 ppb	01:43:56
2	Tl 190.801†	-135.3	-100.7	1.7435 ug/L	1.7435 ppb	01:44:21
2	U 409.014†	-11546.8	-9229.3	-286.97 ug/L	-286.97 ppb	01:43:56
2	V 292.402†	3215.9	4467.8	20.885 ug/L	20.885 ppb	01:44:01
2	Zn 213.857†	34451.4	33128.8	389.40 ug/L	389.40 ppb	01:44:01
2	SiO2†	170290.4	166308.2	13318 ug/L	13318 ppb	01:45:03
3	Sc Radial	4555.9	4555.9	99.3 %		01:42:58
3	Y RADIAL	6282.5	6282.5	127.3 %		01:42:58
3	Al 396.153Radial†	3886.6	3999.4	3759.7 ug/L	3759.7 ppb	01:42:58
3	Ca 317.933Radial†	1778.4	1762.9	3116.2 ug/L	3116.2 ppb	01:43:18
3	Fe 238.204 Radial†	6795.5	6834.9	7161.2 ug/L	7161.2 ppb	01:42:58
3	K 766.490 Radial†	10764.8	8284.0	1584.5 ug/L	1584.5 ppb	01:42:58
3	Mg 279.077 IEC†	53.5	53.8	1970.6 ug/L	1970.6 ppb	01:43:18
3	Na 589.592 Radial†	4366.5	5202.0	1822.7 ug/L	1822.7 ppb	01:42:58
3	Sr 421.552†	1706.4	1692.5	12.906 ug/L	12.906 ppb	01:42:58
3	Sc 361.383	820346.3	820346.3	100.91 %		01:44:27
3	Y 371.029	879355.2	879355.2	127.55 %		01:44:27
3	Ag 328.068†	-4027.6	-4201.8	0.9024 ug/L	0.9024 ppb	01:44:32
3	As 188.979†	-50.6	-33.1	30.351 ug/L	30.351 ppb	01:44:52
3	B 249.677†	-166.3	250.6	-4.6507 ug/L	-4.6507 ppb	01:44:32
3	Ba 233.527†	17170.4	17002.6	161.35 ug/L	161.35 ppb	01:44:32
3	Be 313.107†	-19880.5	-15971.7	1.5709 ug/L	1.5709 ppb	01:44:32
3	Cd 226.502†	387.0	559.9	0.6664 ug/L	0.6664 ppb	01:44:52
3	Co 228.616†	429.6	465.5	3.3977 ug/L	3.3977 ppb	01:44:52
3	Cr 267.716†	1414.3	1321.9	25.496 ug/L	25.496 ppb	01:44:32
3	Cu 324.752†	7468.3	1934.5	10.346 ug/L	10.346 ppb	01:44:32
3	Mn 257.610†	1591714.1	1576770.6	2083.0 ug/L	2083.0 ppb	01:44:27
3	Mo 202.031†	62.2	48.8	9.8874 ug/L	9.8874 ppb	01:44:52
3	Ni 231.604†	355.1	270.4	8.6032 ug/L	8.6032 ppb	01:44:52
3	P 214.914†	1088.5	894.7	615.88 ug/L	615.88 ppb	01:44:52
3	Pb 220.353†	161.8	203.1	22.030 ug/L	22.030 ppb	01:44:52
3	S 181.975 Axial†	50.6	20.0	35.055 ug/L	35.055 ppb	01:44:52
3	Sb 206.836†	56.3	31.3	0.2365 ug/L	0.2365 ppb	01:44:52
3	Se 196.026†	-317.9	-296.2	-38.728 ug/L	-38.728 ppb	01:44:52
3	Si 251.611†	162154.7	160190.3	6028.4 ug/L	6028.4 ppb	01:44:32
3	Sn 189.927†	61.0	52.4	8.2464 ug/L	8.2464 ppb	01:44:52
3	Ti 334.940†	2156550.7	2138138.1	3695.4 ug/L	3695.4 ppb	01:44:27
3	Tl 190.801†	-138.6	-105.6	-0.1982 ug/L	-0.1982 ppb	01:44:52
3	U 409.014†	-11321.6	-9138.3	-284.19 ug/L	-284.19 ppb	01:44:27
3	V 292.402†	3192.3	4481.1	21.021 ug/L	21.021 ppb	01:44:32
3	Zn 213.857†	34581.2	33651.4	395.76 ug/L	395.76 ppb	01:44:32
3	SiO2†	173900.5	171832.7	13761 ug/L	13761 ppb	01:45:08

Mean Data: 247123004|954660|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	827543.7	101.80 %	0.781			0.77%
Sc Radial	4539.3	98.9 %	0.56			0.57%
Y 371.029	886232.9	128.54 %	0.874			0.68%
Y RADIAL	6260.3	126.9 %	1.41			1.11%
Ag 328.068†	-4167.2	1.0589 ug/L	0.16707	1.0589 ppb	0.16707	15.78%
Al 396.153Radial†	4015.8	3775.1 ug/L	14.76	3775.1 ppb	14.76	0.39%
As 188.979†	-27.1	33.704 ug/L	2.9722	33.704 ppb	2.9722	8.82%
B 249.677†	269.0	-4.1231 ug/L	0.70058	-4.1231 ppb	0.70058	16.99%
Ba 233.527†	16884.7	160.25 ug/L	0.961	160.25 ppb	0.961	0.60%
Be 313.107†	-15691.6	1.6976 ug/L	0.11004	1.6976 ppb	0.11004	6.48%
Ca 317.933Radial†	1772.2	3132.6 ug/L	35.80	3132.6 ppb	35.80	1.14%
Cd 226.502†	554.3	0.5926 ug/L	0.06654	0.5926 ppb	0.06654	11.23%
Co 228.616†	461.7	3.2941 ug/L	0.30765	3.2941 ppb	0.30765	9.34%
Cr 267.716†	1299.7	25.191 ug/L	0.2653	25.191 ppb	0.2653	1.05%
Cu 324.752†	1836.0	10.018 ug/L	0.3046	10.018 ppb	0.3046	3.04%
Fe 238.204 Radial†	6828.1	71541 ug/L	404.3	71541 ppb	404.3	0.57%
K 766.490 Radial†	8386.4	1604.1 ug/L	17.23	1604.1 ppb	17.23	1.07%

Mg 279.077 IEC†	51.9	1900.1 ug/L	125.26	1900.1 ppb	125.26	6.59%
Mn 257.610†	1577710.7	2084.2 ug/L	1.38	2084.2 ppb	1.38	0.07%
Mo 202.031†	59.0	10.775 ug/L	0.8650	10.775 ppb	0.8650	8.03%
Na 589.592 Radial†	5244.9	1837.8 ug/L	16.57	1837.8 ppb	16.57	0.90%
Ni 231.604†	269.9	8.5863 ug/L	0.04931	8.5863 ppb	0.04931	0.57%
P 214.914†	893.4	615.00 ug/L	0.759	615.00 ppb	0.759	0.12%
Pb 220.353†	204.1	22.198 ug/L	1.5559	22.198 ppb	1.5559	7.01%
S 181.975 Axial†	28.1	49.450 ug/L	14.9030	49.450 ppb	14.9030	30.14%
Sb 206.836†	28.3	-1.0306 ug/L	2.54448	-1.0306 ppb	2.54448	246.89%
Se 196.026†	-294.8	-37.729 ug/L	2.5483	-37.729 ppb	2.5483	6.75%
Si 251.611†	149495.7	5625.9 ug/L	393.51	5625.9 ppb	393.51	6.99%
Sn 189.927†	47.9	7.2253 ug/L	1.08989	7.2253 ppb	1.08989	15.08%
Sr 421.552†	1725.6	13.159 ug/L	0.2208	13.159 ppb	0.2208	1.68%
Ti 334.940†	2139944.6	3698.5 ug/L	2.88	3698.5 ppb	2.88	0.08%
Tl 190.801†	-103.2	0.7611 ug/L	0.97105	0.7611 ppb	0.97105	127.59%
U 409.014†	-9185.6	-285.61 ug/L	1.392	-285.61 ppb	1.392	0.49%
V 292.402†	4479.7	21.026 ug/L	0.1425	21.026 ppb	0.1425	0.68%
Zn 213.857†	33396.3	392.69 ug/L	3.184	392.69 ppb	3.184	0.81%
SiO2†	169162.1	13547 ug/L	221.6	13547 ppb	221.6	1.64%

Sequence No.: 60

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/17/2010 01:47:22

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4308.9	4308.9	93.9 %		01:49:34
1	Y RADIAL	4774.3	4774.3	96.76 %		01:49:14
1	Al 396.153Radial†	5190.8	5612.3	5251.8 ug/L	5251.8 ppb	01:49:14
1	Ca 317.933Radial†	2869.3	3027.0	5350.6 ug/L	5350.6 ppb	01:49:34
1	Fe 238.204 Radial†	497.4	521.8	5482.4 ug/L	5482.4 ppb	01:49:34
1	K 766.490 Radial†	28805.2	28112.3	5378.6 ug/L	5378.6 ppb	01:49:14
1	Mg 279.077 IEC†	137.9	146.8	5585.4 ug/L	5585.4 ppb	01:49:34
1	Na 589.592 Radial†	30414.0	33185.9	11628 ug/L	11628 ppb	01:49:14
1	Sr 421.552†	68831.9	73257.5	559.60 ug/L	559.60 ppb	01:49:14
1	Sc 361.383	814857.9	814857.9	100.24 %		01:50:31
1	Y 371.029	679047.4	679047.4	98.493 %		01:50:31
1	Ag 328.068†	100618.9	100170.1	517.53 ug/L	517.53 ppb	01:50:36
1	As 188.979†	901.1	916.0	514.23 ug/L	514.23 ppb	01:50:56
1	B 249.677†	17668.9	18042.5	502.53 ug/L	502.53 ppb	01:50:36
1	Ba 233.527†	55419.0	55275.3	518.52 ug/L	518.52 ppb	01:50:36
1	Be 313.107†	1208329.3	1209197.4	517.31 ug/L	517.31 ppb	01:50:31
1	Cd 226.502†	35696.9	35788.7	518.41 ug/L	518.41 ppb	01:50:36
1	Co 228.616†	20226.1	20218.1	525.33 ug/L	525.33 ppb	01:50:36
1	Cr 267.716†	38794.3	38622.9	519.69 ug/L	519.69 ppb	01:50:36
1	Cu 324.752†	160703.2	154856.4	512.57 ug/L	512.57 ppb	01:50:36
1	Mn 257.610†	387075.2	385607.8	508.01 ug/L	508.01 ppb	01:50:36
1	Mo 202.031†	5745.4	5718.9	503.40 ug/L	503.40 ppb	01:50:56
1	Ni 231.604†	16647.7	16526.9	525.88 ug/L	525.88 ppb	01:50:36
1	P 214.914†	3531.4	3339.2	2414.4 ug/L	2414.4 ppb	01:50:56
1	Pb 220.353†	3232.7	3267.8	505.58 ug/L	505.58 ppb	01:50:56
1	S 181.975 Axial†	582.4	550.8	982.52 ug/L	982.52 ppb	01:50:56
1	Sb 206.836†	1227.0	1199.6	514.76 ug/L	514.76 ppb	01:50:56
1	Se 196.026†	582.2	599.6	516.53 ug/L	516.53 ppb	01:50:56
1	Si 251.611†	69682.0	69018.8	2591.2 ug/L	2591.2 ppb	01:50:36
1	Sn 189.927†	2214.7	2201.4	496.30 ug/L	496.30 ppb	01:50:56
1	Ti 334.940†	291391.3	291788.7	504.10 ug/L	504.10 ppb	01:50:36
1	Tl 190.801†	1291.9	1320.7	511.84 ug/L	511.84 ppb	01:50:56
1	U 409.014†	15411.3	17455.9	525.40 ug/L	525.40 ppb	01:50:36
1	V 292.402†	63516.1	64683.5	523.47 ug/L	523.47 ppb	01:50:36
1	Zn 213.857†	44262.9	43540.9	521.15 ug/L	521.15 ppb	01:50:36
1	SiO2†	68812.5	68154.3	5444.3 ug/L	5444.3 ppb	01:52:03
2	Sc Radial	4305.9	4305.9	93.9 %		01:49:59
2	Y RADIAL	4742.1	4742.1	96.10 %		01:49:39
2	Al 396.153Radial†	5158.5	5581.8	5222.8 ug/L	5222.8 ppb	01:49:39
2	Ca 317.933Radial†	2873.9	3034.1	5363.0 ug/L	5363.0 ppb	01:49:59
2	Fe 238.204 Radial†	495.1	519.7	5460.2 ug/L	5460.2 ppb	01:49:59
2	K 766.490 Radial†	28403.9	27706.5	5300.9 ug/L	5300.9 ppb	01:49:39
2	Mg 279.077 IEC†	141.6	150.8	5737.2 ug/L	5737.2 ppb	01:49:59
2	Na 589.592 Radial†	29978.8	32745.3	11473 ug/L	11473 ppb	01:49:39
2	Sr 421.552†	67825.2	72236.9	551.80 ug/L	551.80 ppb	01:49:39
2	Sc 361.383	805009.9	805009.9	99.026 %		01:51:02
2	Y 371.029	671958.6	671958.6	97.465 %		01:51:02
2	Ag 328.068†	98978.2	99741.3	515.31 ug/L	515.31 ppb	01:51:07
2	As 188.979†	888.0	913.8	512.94 ug/L	512.94 ppb	01:51:27
2	B 249.677†	17405.8	17992.4	501.14 ug/L	501.14 ppb	01:51:07
2	Ba 233.527†	54247.8	54768.9	513.77 ug/L	513.77 ppb	01:51:07
2	Be 313.107†	1192761.4	1208223.3	516.88 ug/L	516.88 ppb	01:51:02
2	Cd 226.502†	34906.5	35426.2	513.15 ug/L	513.15 ppb	01:51:07
2	Co 228.616†	19859.6	20094.8	522.15 ug/L	522.15 ppb	01:51:07
2	Cr 267.716†	38110.5	38405.8	516.76 ug/L	516.76 ppb	01:51:07
2	Cu 324.752†	157620.0	153704.3	508.76 ug/L	508.76 ppb	01:51:07
2	Mn 257.610†	379141.1	382319.7	503.67 ug/L	503.67 ppb	01:51:07
2	Mo 202.031†	5762.8	5806.7	511.12 ug/L	511.12 ppb	01:51:27
2	Ni 231.604†	16287.4	16366.2	520.77 ug/L	520.77 ppb	01:51:07

2	P 214.914†	3549.4	3400.4	2461.3 ug/L	2461.3 ppb	01:51:27
2	Pb 220.353†	3238.2	3312.8	512.54 ug/L	512.54 ppb	01:51:27
2	S 181.975 Axial†	585.3	560.9	1000.4 ug/L	1000.4 ppb	01:51:27
2	Sb 206.836†	1226.4	1213.9	520.97 ug/L	520.97 ppb	01:51:27
2	Se 196.026†	581.7	606.2	521.94 ug/L	521.94 ppb	01:51:27
2	Si 251.611†	68123.4	68295.3	2563.9 ug/L	2563.9 ppb	01:51:07
2	Sn 189.927†	2221.5	2235.3	503.94 ug/L	503.94 ppb	01:51:27
2	Ti 334.940†	285542.1	289438.2	500.02 ug/L	500.02 ppb	01:51:07
2	Tl 190.801†	1283.8	1328.2	514.70 ug/L	514.70 ppb	01:51:27
2	U 409.014†	15135.0	17364.9	522.67 ug/L	522.67 ppb	01:51:07
2	V 292.402†	62319.2	64249.9	520.12 ug/L	520.12 ppb	01:51:07
2	Zn 213.857†	43358.1	43167.5	516.68 ug/L	516.68 ppb	01:51:07
2	SiO2†	68107.6	68282.2	5454.3 ug/L	5454.3 ppb	01:52:08
3	Sc Radial	4305.3	4305.3	93.8 %		01:50:24
3	Y RADIAL	4791.9	4791.9	97.11 %		01:50:04
3	Al 396.153Radial†	5177.3	5602.6	5242.8 ug/L	5242.8 ppb	01:50:04
3	Ca 317.933Radial†	2859.9	3019.6	5337.4 ug/L	5337.4 ppb	01:50:24
3	Fe 238.204 Radial†	499.8	524.7	5512.5 ug/L	5512.5 ppb	01:50:24
3	K 766.490 Radial†	28421.2	27729.2	5305.3 ug/L	5305.3 ppb	01:50:04
3	Mg 279.077 IEC†	139.4	148.4	5648.5 ug/L	5648.5 ppb	01:50:24
3	Na 589.592 Radial†	30352.9	33148.4	11615 ug/L	11615 ppb	01:50:04
3	Sr 421.552†	68169.2	72613.8	554.68 ug/L	554.68 ppb	01:50:04
3	Sc 361.383	821794.5	821794.5	101.09 %		01:51:33
3	Y 371.029	685960.1	685960.1	99.496 %		01:51:33
3	Ag 328.068†	99113.8	97833.9	505.50 ug/L	505.50 ppb	01:51:38
3	As 188.979†	890.8	898.2	504.23 ug/L	504.23 ppb	01:51:58
3	B 249.677†	17446.9	17674.1	492.26 ug/L	492.26 ppb	01:51:38
3	Ba 233.527†	54362.3	53763.3	504.34 ug/L	504.34 ppb	01:51:38
3	Be 313.107†	1218917.2	1209496.0	517.40 ug/L	517.40 ppb	01:51:33
3	Cd 226.502†	35037.5	34835.8	504.59 ug/L	504.59 ppb	01:51:38
3	Co 228.616†	19888.4	19713.7	512.24 ug/L	512.24 ppb	01:51:38
3	Cr 267.716†	38152.9	37661.8	506.77 ug/L	506.77 ppb	01:51:38
3	Cu 324.752†	158130.5	150958.3	499.68 ug/L	499.68 ppb	01:51:38
3	Mn 257.610†	380320.8	375666.8	494.92 ug/L	494.92 ppb	01:51:38
3	Mo 202.031†	5756.6	5681.6	500.13 ug/L	500.13 ppb	01:51:58
3	Ni 231.604†	16367.8	16109.7	512.61 ug/L	512.61 ppb	01:51:38
3	P 214.914†	3543.7	3321.5	2403.6 ug/L	2403.6 ppb	01:51:58
3	Pb 220.353†	3255.5	3263.2	504.86 ug/L	504.86 ppb	01:51:58
3	S 181.975 Axial†	590.2	553.7	987.64 ug/L	987.64 ppb	01:51:58
3	Sb 206.836†	1225.2	1187.4	509.64 ug/L	509.64 ppb	01:51:58
3	Se 196.026†	596.2	608.6	524.05 ug/L	524.05 ppb	01:51:58
3	Si 251.611†	68320.2	67084.9	2518.5 ug/L	2518.5 ppb	01:51:38
3	Sn 189.927†	2229.4	2197.3	495.38 ug/L	495.38 ppb	01:51:58
3	Ti 334.940†	286268.2	284267.1	491.10 ug/L	491.10 ppb	01:51:38
3	Tl 190.801†	1282.7	1300.7	504.05 ug/L	504.05 ppb	01:51:58
3	U 409.014†	15167.7	17085.1	514.23 ug/L	514.23 ppb	01:51:38
3	V 292.402†	62331.2	62976.4	509.78 ug/L	509.78 ppb	01:51:38
3	Zn 213.857†	43570.3	42483.2	508.47 ug/L	508.47 ppb	01:51:38
3	SiO2†	67997.1	66768.2	5333.3 ug/L	5333.3 ppb	01:52:13

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	813887.5	100.12 %		1.038			1.04%
Sc Radial	4306.7	93.9 %		0.04			0.05%
Y 371.029	678988.7	98.485 %		1.0155			1.03%
Y RADIAL	4769.4	96.66 %		0.512			0.53%
Ag 328.068†	99248.4	512.78 ug/L		6.401	512.78 ppb	6.401	1.25%
QC value within limits for Ag 328.068 Recovery = 102.56%							
Al 396.153Radial†	5598.9	5239.1 ug/L		14.86	5239.1 ppb	14.86	0.28%
QC value within limits for Al 396.153Radial Recovery = 104.78%							
As 188.979†	909.4	510.47 ug/L		5.438	510.47 ppb	5.438	1.07%
QC value within limits for As 188.979 Recovery = 102.09%							
B 249.677†	17903.0	498.64 ug/L		5.576	498.64 ppb	5.576	1.12%
QC value within limits for B 249.677 Recovery = 99.73%							
Ba 233.527†	54602.5	512.21 ug/L		7.216	512.21 ppb	7.216	1.41%
QC value within limits for Ba 233.527 Recovery = 102.44%							
Be 313.107†	1208972.2	517.20 ug/L		0.278	517.20 ppb	0.278	0.05%
QC value within limits for Be 313.107 Recovery = 103.44%							
Ca 317.933Radial†	3026.9	5350.3 ug/L		12.82	5350.3 ppb	12.82	0.24%

QC value within limits for Ca 317.933Radial Recovery = 107.01%							
Cd	226.502†	35350.2	512.05 ug/L	6.976	512.05 ppb	6.976	1.36%
QC value within limits for Cd 226.502 Recovery = 102.41%							
Co	228.616†	20008.9	519.91 ug/L	6.826	519.91 ppb	6.826	1.31%
QC value within limits for Co 228.616 Recovery = 103.98%							
Cr	267.716†	38230.2	514.41 ug/L	6.774	514.41 ppb	6.774	1.32%
QC value within limits for Cr 267.716 Recovery = 102.88%							
Cu	324.752†	153173.0	507.00 ug/L	6.624	507.00 ppb	6.624	1.31%
QC value within limits for Cu 324.752 Recovery = 101.40%							
Fe	238.204 Radial†	522.0	5485.0 ug/L	26.23	5485.0 ppb	26.23	0.48%
QC value within limits for Fe 238.204 Radial Recovery = 109.70%							
K	766.490 Radial†	27849.3	5328.3 ug/L	43.66	5328.3 ppb	43.66	0.82%
QC value within limits for K 766.490 Radial Recovery = 106.57%							
Mg	279.077 IEC†	148.7	5657.0 ug/L	76.27	5657.0 ppb	76.27	1.35%
QC value greater than the upper limit for Mg 279.077 IEC Recovery = 113.14%							
Mn	257.610†	381198.1	502.20 ug/L	6.667	502.20 ppb	6.667	1.33%
QC value within limits for Mn 257.610 Recovery = 100.44%							
Mo	202.031†	5735.7	504.88 ug/L	5.644	504.88 ppb	5.644	1.12%
QC value within limits for Mo 202.031 Recovery = 100.98%							
Na	589.592 Radial†	33026.5	11572 ug/L	85.6	11572 ppb	85.6	0.74%
QC value greater than the upper limit for Na 589.592 Radial Recovery = 115.72%							
Ni	231.604†	16334.3	519.75 ug/L	6.695	519.75 ppb	6.695	1.29%
QC value within limits for Ni 231.604 Recovery = 103.95%							
P	214.914†	3353.7	2426.4 ug/L	30.69	2426.4 ppb	30.69	1.26%
QC value within limits for P 214.914 Recovery = 97.06%							
Pb	220.353†	3281.3	507.66 ug/L	4.244	507.66 ppb	4.244	0.84%
QC value within limits for Pb 220.353 Recovery = 101.53%							
S	181.975 Axial†	555.1	990.19 ug/L	9.220	990.19 ppb	9.220	0.93%
QC value within limits for S 181.975 Axial Recovery = 99.02%							
Sb	206.836†	1200.3	515.12 ug/L	5.678	515.12 ppb	5.678	1.10%
QC value within limits for Sb 206.836 Recovery = 103.02%							
Se	196.026†	604.8	520.84 ug/L	3.880	520.84 ppb	3.880	0.75%
QC value within limits for Se 196.026 Recovery = 104.17%							
Si	251.611†	68133.0	2557.8 ug/L	36.74	2557.8 ppb	36.74	1.44%
QC value within limits for Si 251.611 Recovery = 102.31%							
Sn	189.927†	2211.4	498.54 ug/L	4.701	498.54 ppb	4.701	0.94%
QC value within limits for Sn 189.927 Recovery = 99.71%							
Sr	421.552†	72702.7	555.36 ug/L	3.942	555.36 ppb	3.942	0.71%
QC value greater than the upper limit for Sr 421.552 Recovery = 111.07%							
Ti	334.940†	288498.0	498.41 ug/L	6.647	498.41 ppb	6.647	1.33%
QC value within limits for Ti 334.940 Recovery = 99.68%							
Tl	190.801†	1316.5	510.20 ug/L	5.511	510.20 ppb	5.511	1.08%
QC value within limits for Tl 190.801 Recovery = 102.04%							
U	409.014†	17301.9	520.77 ug/L	5.824	520.77 ppb	5.824	1.12%
QC value within limits for U 409.014 Recovery = 104.15%							
V	292.402†	63969.9	517.79 ug/L	7.137	517.79 ppb	7.137	1.38%
QC value within limits for V 292.402 Recovery = 103.56%							
Zn	213.857†	43063.9	515.43 ug/L	6.432	515.43 ppb	6.432	1.25%
QC value within limits for Zn 213.857 Recovery = 103.09%							
SiO2†		67734.9	5410.6 ug/L	67.12	5410.6 ppb	67.12	1.24%
QC value within limits for SiO2 Recovery = 101.18%							
QC Failed. Continue with analysis.							

Sequence No.: 61

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/17/2010 01:54:24

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4307.1	4307.1	93.9 %		01:56:36
1	Y RADIAL	4832.5	4832.5	97.94 %		01:56:16
1	Al 396.153Radial†	-73.4	7.6	7.1622 ug/L	7.1622 ppb	01:56:36
1	Ca 317.933Radial†	18.1	-8.6	-15.167 ug/L	-15.167 ppb	01:56:36
1	Fe 238.204 Radial†	7.7	0.3	3.4923 ug/L	3.4923 ppb	01:56:36
1	K 766.490 Radial†	2590.5	203.4	39.011 ug/L	39.011 ppb	01:56:16
1	Mg 279.077 IEC†	2.3	2.4	91.197 ug/L	91.197 ppb	01:56:36
1	Na 589.592 Radial†	-1014.5	-275.5	-96.537 ug/L	-96.537 ppb	01:56:16
1	Sr 421.552†	15.3	-9.4	-0.0718 ug/L	-0.0718 ppb	01:56:16
1	Sc 361.383	792147.7	792147.7	97.444 %		01:57:33
1	Y 371.029	670101.6	670101.6	97.196 %		01:57:33
1	Ag 328.068†	213.4	8.4	0.0484 ug/L	0.0484 ppb	01:57:33
1	As 188.979†	-19.8	-3.2	-1.7950 ug/L	-1.7950 ppb	01:57:53
1	B 249.677†	-311.9	95.3	2.6662 ug/L	2.6662 ppb	01:57:53
1	Ba 233.527†	5.2	-7.2	-0.0665 ug/L	-0.0665 ppb	01:57:53
1	Be 313.107†	-3688.6	-56.3	-0.0240 ug/L	-0.0240 ppb	01:57:33
1	Cd 226.502†	-159.8	12.3	0.1781 ug/L	0.1781 ppb	01:57:53
1	Co 228.616†	-41.6	-2.9	-0.0758 ug/L	-0.0758 ppb	01:57:53
1	Cr 267.716†	67.5	-10.3	-0.1356 ug/L	-0.1356 ppb	01:57:53
1	Cu 324.752†	5200.3	-129.5	-0.4266 ug/L	-0.4266 ppb	01:57:33
1	Mn 257.610†	455.2	-83.8	-0.1137 ug/L	-0.1137 ppb	01:57:53
1	Mo 202.031†	9.9	-2.7	-0.2338 ug/L	-0.2338 ppb	01:57:53
1	Ni 231.604†	95.6	16.7	0.5304 ug/L	0.5304 ppb	01:57:53
1	P 214.914†	173.9	-5.5	-4.0378 ug/L	-4.0378 ppb	01:57:53
1	Pb 220.353†	-58.7	-17.4	-2.6890 ug/L	-2.6890 ppb	01:57:53
1	S 181.975 Axial†	26.4	-3.1	-5.4821 ug/L	-5.4821 ppb	01:57:53
1	Sb 206.836†	33.4	9.8	4.0323 ug/L	4.0323 ppb	01:57:53
1	Se 196.026†	-21.0	-2.8	-2.2733 ug/L	-2.2733 ppb	01:57:53
1	Si 251.611†	593.1	110.4	4.1578 ug/L	4.1578 ppb	01:57:53
1	Sn 189.927†	3.0	-4.9	-1.0981 ug/L	-1.0981 ppb	01:57:53
1	Ti 334.940†	-1056.3	3.3	-0.0023 ug/L	-0.0023 ppb	01:57:33
1	Tl 190.801†	-23.4	7.8	3.0143 ug/L	3.0143 ppb	01:57:53
1	U 409.014†	-2138.5	-113.6	-3.4318 ug/L	-3.4318 ppb	01:57:33
1	V 292.402†	-1243.3	41.8	0.3251 ug/L	0.3251 ppb	01:57:33
1	Zn 213.857†	661.2	61.4	0.7386 ug/L	0.7386 ppb	01:57:53
1	SiO2†	619.1	140.1	11.222 ug/L	11.222 ppb	01:58:49
2	Sc Radial	4259.0	4259.0	92.8 %		01:57:01
2	Y RADIAL	4700.1	4700.1	95.25 %		01:56:41
2	Al 396.153Radial†	-84.1	-4.8	-4.5356 ug/L	-4.5356 ppb	01:57:01
2	Ca 317.933Radial†	16.6	-10.0	-17.637 ug/L	-17.637 ppb	01:57:01
2	Fe 238.204 Radial†	9.2	2.1	21.527 ug/L	21.527 ppb	01:57:01
2	K 766.490 Radial†	2609.9	255.5	48.993 ug/L	48.993 ppb	01:56:41
2	Mg 279.077 IEC†	1.0	1.0	36.532 ug/L	36.532 ppb	01:57:01
2	Na 589.592 Radial†	-982.2	-252.9	-88.598 ug/L	-88.598 ppb	01:56:41
2	Sr 421.552†	27.9	4.2	0.0325 ug/L	0.0325 ppb	01:56:41
2	Sc 361.383	798102.1	798102.1	98.176 %		01:57:58
2	Y 371.029	674976.8	674976.8	97.903 %		01:57:58
2	Ag 328.068†	201.8	-5.0	-0.0195 ug/L	-0.0195 ppb	01:57:58
2	As 188.979†	-21.4	-4.7	-2.6353 ug/L	-2.6353 ppb	01:58:18
2	B 249.677†	-292.4	117.5	3.2858 ug/L	3.2858 ppb	01:58:18
2	Ba 233.527†	15.8	3.6	0.0330 ug/L	0.0330 ppb	01:58:18
2	Be 313.107†	-3662.1	-1.1	-0.0005 ug/L	-0.0005 ppb	01:57:58
2	Cd 226.502†	-167.1	6.2	0.0871 ug/L	0.0871 ppb	01:58:18
2	Co 228.616†	-42.7	-3.6	-0.0936 ug/L	-0.0936 ppb	01:58:18
2	Cr 267.716†	83.1	5.1	0.0705 ug/L	0.0705 ppb	01:58:18
2	Cu 324.752†	5247.2	-121.6	-0.4003 ug/L	-0.4003 ppb	01:57:58
2	Mn 257.610†	473.2	-68.9	-0.0901 ug/L	-0.0901 ppb	01:58:18
2	Mo 202.031†	16.7	4.2	0.3710 ug/L	0.3710 ppb	01:58:18
2	Ni 231.604†	90.5	10.7	0.3421 ug/L	0.3421 ppb	01:58:18

2	P 214.914†	181.7	1.2	0.9814 ug/L	0.9814 ppb	01:58:18
2	Pb 220.353†	-50.2	-8.4	-1.2953 ug/L	-1.2953 ppb	01:58:18
2	S 181.975 Axial†	25.8	-3.9	-6.8741 ug/L	-6.8741 ppb	01:58:18
2	Sb 206.836†	29.4	5.4	2.2751 ug/L	2.2751 ppb	01:58:18
2	Se 196.026†	-26.6	-8.3	-6.8129 ug/L	-6.8129 ppb	01:58:18
2	Si 251.611†	603.7	116.7	4.3872 ug/L	4.3872 ppb	01:58:18
2	Sn 189.927†	13.3	5.5	1.2401 ug/L	1.2401 ppb	01:58:18
2	Ti 334.940†	-1073.5	-6.1	-0.0152 ug/L	-0.0152 ppb	01:57:58
2	Tl 190.801†	-23.2	8.2	3.1598 ug/L	3.1598 ppb	01:58:18
2	U 409.014†	-2095.7	-53.6	-1.6209 ug/L	-1.6209 ppb	01:57:58
2	V 292.402†	-1356.9	-64.4	-0.5146 ug/L	-0.5146 ppb	01:57:58
2	Zn 213.857†	657.1	52.2	0.6258 ug/L	0.6258 ppb	01:58:18
2	SiO2†	622.3	138.5	11.085 ug/L	11.085 ppb	01:58:54
3	Sc Radial	4234.9	4234.9	92.3 %		01:57:26
3	Y RADIAL	4748.1	4748.1	96.23 %		01:57:06
3	Al 396.153Radial†	-86.6	-8.0	-7.4706 ug/L	-7.4706 ppb	01:57:26
3	Ca 317.933Radial†	17.8	-8.6	-15.185 ug/L	-15.185 ppb	01:57:26
3	Fe 238.204 Radial†	8.3	1.2	12.371 ug/L	12.371 ppb	01:57:26
3	K 766.490 Radial†	2616.7	278.9	53.463 ug/L	53.463 ppb	01:57:06
3	Mg 279.077 IEC†	-0.7	-0.8	-30.270 ug/L	-30.270 ppb	01:57:26
3	Na 589.592 Radial†	-983.2	-260.1	-91.119 ug/L	-91.119 ppb	01:57:06
3	Sr 421.552†	8.8	-16.2	-0.1238 ug/L	-0.1238 ppb	01:57:06
3	Sc 361.383	792873.0	792873.0	97.533 %		01:58:24
3	Y 371.029	671218.0	671218.0	97.358 %		01:58:24
3	Ag 328.068†	196.8	-8.8	-0.0399 ug/L	-0.0399 ppb	01:58:24
3	As 188.979†	-18.8	-2.2	-1.2244 ug/L	-1.2244 ppb	01:58:44
3	B 249.677†	-315.3	92.1	2.5754 ug/L	2.5754 ppb	01:58:44
3	Ba 233.527†	-13.5	-26.4	-0.2474 ug/L	-0.2474 ppb	01:58:44
3	Be 313.107†	-3679.7	-43.7	-0.0186 ug/L	-0.0186 ppb	01:58:24
3	Cd 226.502†	-165.4	6.8	0.0966 ug/L	0.0966 ppb	01:58:44
3	Co 228.616†	-42.4	-3.6	-0.0947 ug/L	-0.0947 ppb	01:58:44
3	Cr 267.716†	92.7	15.5	0.2101 ug/L	0.2101 ppb	01:58:44
3	Cu 324.752†	5244.2	-89.4	-0.2930 ug/L	-0.2930 ppb	01:58:24
3	Mn 257.610†	478.7	-60.1	-0.0766 ug/L	-0.0766 ppb	01:58:44
3	Mo 202.031†	10.4	-2.2	-0.1917 ug/L	-0.1917 ppb	01:58:44
3	Ni 231.604†	96.6	17.6	0.5598 ug/L	0.5598 ppb	01:58:44
3	P 214.914†	176.6	-2.9	-2.1099 ug/L	-2.1099 ppb	01:58:44
3	Pb 220.353†	-31.1	10.9	1.6735 ug/L	1.6735 ppb	01:58:44
3	S 181.975 Axial†	29.7	0.3	0.5483 ug/L	0.5483 ppb	01:58:44
3	Sb 206.836†	27.0	3.2	1.3099 ug/L	1.3099 ppb	01:58:44
3	Se 196.026†	-18.0	0.3	0.3173 ug/L	0.3173 ppb	01:58:44
3	Si 251.611†	610.8	128.1	4.8226 ug/L	4.8226 ppb	01:58:44
3	Sn 189.927†	7.2	-0.6	-0.1387 ug/L	-0.1387 ppb	01:58:44
3	Ti 334.940†	-1032.6	28.6	0.0516 ug/L	0.0516 ppb	01:58:24
3	Tl 190.801†	-32.7	-1.7	-0.6552 ug/L	-0.6552 ppb	01:58:44
3	U 409.014†	-2161.9	-135.6	-4.0961 ug/L	-4.0961 ppb	01:58:24
3	V 292.402†	-1349.3	-65.7	-0.5379 ug/L	-0.5379 ppb	01:58:24
3	Zn 213.857†	649.9	49.2	0.5892 ug/L	0.5892 ppb	01:58:44
3	SiO2†	597.5	117.3	9.4022 ug/L	9.4022 ppb	01:58:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	794374.3	97.718 %		0.3996			0.41%
Sc Radial	4267.0	93.0 %		0.80			0.86%
Y 371.029	672098.8	97.485 %		0.3705			0.38%
Y RADIAL	4760.2	96.47 %		1.359			1.41%
Ag 328.068†	-1.8	-0.0037 ug/L		0.04624	-0.0037 ppb	0.04624	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-1.7	-1.6147 ug/L		7.74133	-1.6147 ppb	7.74133	479.44%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-3.4	-1.8849 ug/L		0.70973	-1.8849 ppb	0.70973	37.65%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	101.6	2.8425 ug/L		0.38658	2.8425 ppb	0.38658	13.60%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-10.0	-0.0936 ug/L		0.14214	-0.0936 ppb	0.14214	151.79%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-33.7	-0.0144 ug/L		0.01231	-0.0144 ppb	0.01231	85.73%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-9.0	-15.996 ug/L		1.4206	-15.996 ppb	1.4206	8.88%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	8.4	0.1206 ug/L	0.05003	0.1206 ppb	0.05003	41.48%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-3.4	-0.0880 ug/L	0.01058	-0.0880 ppb	0.01058	12.02%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	3.4	0.0483 ug/L	0.17392	0.0483 ppb	0.17392	359.78%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-113.5	-0.3733 ug/L	0.07076	-0.3733 ppb	0.07076	18.95%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	1.2	12.463 ug/L	9.0179	12.463 ppb	9.0179	72.36%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	245.9	47.156 ug/L	7.3991	47.156 ppb	7.3991	15.69%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	0.9	32.486 ug/L	60.8344	32.486 ppb	60.8344	187.26%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-70.9	-0.0935 ug/L	0.01879	-0.0935 ppb	0.01879	20.10%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-0.2	-0.0182 ug/L	0.33773	-0.0182 ppb	0.33773	>999.9%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-262.8	-92.084 ug/L	4.0568	-92.084 ppb	4.0568	4.41%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	15.0	0.4774 ug/L	0.11812	0.4774 ppb	0.11812	24.74%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-2.4	-1.7221 ug/L	2.53193	-1.7221 ppb	2.53193	147.03%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-5.0	-0.7702 ug/L	2.22814	-0.7702 ppb	2.22814	289.28%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-2.2	-3.9360 ug/L	3.94537	-3.9360 ppb	3.94537	100.24%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	6.1	2.5391 ug/L	1.38023	2.5391 ppb	1.38023	54.36%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-3.6	-2.9230 ug/L	3.60924	-2.9230 ppb	3.60924	123.48%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	118.4	4.4559 ug/L	0.33767	4.4559 ppb	0.33767	7.58%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	0.0	0.0011 ug/L	1.17536	0.0011 ppb	1.17536	>999.9%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-7.1	-0.0544 ug/L	0.07962	-0.0544 ppb	0.07962	146.43%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	8.6	0.0114 ug/L	0.03540	0.0114 ppb	0.03540	311.65%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	4.8	1.8397 ug/L	2.16183	1.8397 ppb	2.16183	117.51%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-100.9	-3.0496 ug/L	1.28109	-3.0496 ppb	1.28109	42.01%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-29.4	-0.2425 ug/L	0.49164	-0.2425 ppb	0.49164	202.76%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	54.3	0.6512 ug/L	0.07785	0.6512 ppb	0.07785	11.95%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	132.0	10.570 ug/L	1.0136	10.570 ppb	1.0136	9.59%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 71

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/17/2010 03:04:14

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	3956.2	3956.2	86.2 %		03:06:26
1	Y RADIAL	4169.7	4169.7	84.50 %		03:06:26
1	Al 396.153Radial†	5383.7	6328.7	5925.5 ug/L	5925.5 ppb	03:06:06
1	Ca 317.933Radial†	2803.5	3223.0	5697.0 ug/L	5697.0 ppb	03:06:26
1	Fe 238.204 Radial†	474.5	542.3	5698.1 ug/L	5698.1 ppb	03:06:26
1	K 766.490 Radial†	29124.6	31216.6	5973.0 ug/L	5973.0 ppb	03:06:06
1	Mg 279.077 IEC†	134.7	156.2	5941.5 ug/L	5941.5 ppb	03:06:26
1	Na 589.592 Radial†	29170.9	34631.1	12134 ug/L	12134 ppb	03:06:06
1	Sr 421.552†	68850.4	79812.0	609.67 ug/L	609.67 ppb	03:06:06
1	Sc 361.383	814675.3	814675.3	100.21 %		03:07:23
1	Y 371.029	679530.5	679530.5	98.563 %		03:07:23
1	Ag 328.068†	100531.9	100105.7	517.25 ug/L	517.25 ppb	03:07:28
1	As 188.979†	891.6	906.8	509.13 ug/L	509.13 ppb	03:07:49
1	B 249.677†	17812.0	18189.2	506.60 ug/L	506.60 ppb	03:07:28
1	Ba 233.527†	55408.3	55277.0	518.54 ug/L	518.54 ppb	03:07:28
1	Be 313.107†	1203317.8	1204466.9	515.29 ug/L	515.29 ppb	03:07:23
1	Cd 226.502†	35718.0	35817.8	518.81 ug/L	518.81 ppb	03:07:28
1	Co 228.616†	20244.8	20241.3	525.92 ug/L	525.92 ppb	03:07:28
1	Cr 267.716†	38715.7	38553.2	518.77 ug/L	518.77 ppb	03:07:28
1	Cu 324.752†	160319.8	154509.9	511.44 ug/L	511.44 ppb	03:07:28
1	Mn 257.610†	386694.0	385313.9	507.63 ug/L	507.63 ppb	03:07:28
1	Mo 202.031†	5695.8	5670.7	499.19 ug/L	499.19 ppb	03:07:49
1	Ni 231.604†	16640.0	16522.8	525.75 ug/L	525.75 ppb	03:07:28
1	P 214.914†	3509.6	3318.2	2398.8 ug/L	2398.8 ppb	03:07:49
1	Pb 220.353†	3216.0	3251.9	503.24 ug/L	503.24 ppb	03:07:49
1	S 181.975 Axial†	585.8	554.4	988.82 ug/L	988.82 ppb	03:07:49
1	Sb 206.836†	1213.9	1186.8	509.34 ug/L	509.34 ppb	03:07:49
1	Se 196.026†	590.0	607.5	523.89 ug/L	523.89 ppb	03:07:49
1	Si 251.611†	69621.6	68974.2	2589.6 ug/L	2589.6 ppb	03:07:28
1	Sn 189.927†	2214.2	2201.5	496.36 ug/L	496.36 ppb	03:07:49
1	Ti 334.940†	290756.9	291220.8	503.13 ug/L	503.13 ppb	03:07:28
1	Tl 190.801†	1278.2	1307.2	506.66 ug/L	506.66 ppb	03:07:49
1	U 409.014†	15316.8	17365.0	522.64 ug/L	522.64 ppb	03:07:28
1	V 292.402†	63274.1	64456.2	521.56 ug/L	521.56 ppb	03:07:28
1	Zn 213.857†	44227.7	43515.7	520.81 ug/L	520.81 ppb	03:07:28
1	SiO2†	69051.1	68407.7	5464.7 ug/L	5464.7 ppb	03:08:56
2	Sc Radial	4032.9	4032.9	87.9 %		03:06:51
2	Y RADIAL	4307.7	4307.7	87.30 %		03:06:51
2	Al 396.153Radial†	5185.8	5984.8	5597.1 ug/L	5597.1 ppb	03:06:31
2	Ca 317.933Radial†	2886.4	3255.5	5754.5 ug/L	5754.5 ppb	03:06:51
2	Fe 238.204 Radial†	484.4	543.2	5709.4 ug/L	5709.4 ppb	03:06:51
2	K 766.490 Radial†	28439.8	29795.3	5700.8 ug/L	5700.8 ppb	03:06:31
2	Mg 279.077 IEC†	134.9	153.4	5836.7 ug/L	5836.7 ppb	03:06:51
2	Na 589.592 Radial†	28315.2	33014.4	11568 ug/L	11568 ppb	03:06:31
2	Sr 421.552†	66359.5	75460.1	576.42 ug/L	576.42 ppb	03:06:31
2	Sc 361.383	685277.6	685277.6	84.297 %		03:07:54
2	Y 371.029	570688.0	570688.0	82.776 %		03:07:54
2	Ag 328.068†	100294.4	118766.3	613.37 ug/L	613.37 ppb	03:07:59
2	As 188.979†	900.4	1085.2	609.01 ug/L	609.01 ppb	03:08:19
2	B 249.677†	17701.0	21413.6	596.56 ug/L	596.56 ppb	03:07:59
2	Ba 233.527†	55296.9	65584.9	615.21 ug/L	615.21 ppb	03:07:59
2	Be 313.107†	1258690.7	1496884.0	640.33 ug/L	640.33 ppb	03:07:54
2	Cd 226.502†	35594.4	42401.2	614.27 ug/L	614.27 ppb	03:07:59
2	Co 228.616†	20189.8	23990.5	623.37 ug/L	623.37 ppb	03:07:59
2	Cr 267.716†	38955.3	46132.3	620.64 ug/L	620.64 ppb	03:07:59
2	Cu 324.752†	160698.9	185167.0	612.86 ug/L	612.86 ppb	03:07:59
2	Mn 257.610†	386640.2	458111.2	603.48 ug/L	603.48 ppb	03:07:59
2	Mo 202.031†	5794.9	6861.5	603.90 ug/L	603.90 ppb	03:08:19
2	Ni 231.604†	16605.4	19617.2	624.21 ug/L	624.21 ppb	03:07:59

2	P 214.914†	3556.6	4035.2	2919.5 ug/L	2919.5 ppb	03:08:19
2	Pb 220.353†	3271.6	3923.8	607.03 ug/L	607.03 ppb	03:08:19
2	S 181.975 Axial†	592.7	672.9	1200.4 ug/L	1200.4 ppb	03:08:19
2	Sb 206.836†	1239.7	1446.1	620.52 ug/L	620.52 ppb	03:08:19
2	Se 196.026†	593.9	723.3	620.28 ug/L	620.28 ppb	03:08:19
2	Si 251.611†	69474.7	81918.0	3075.4 ug/L	3075.4 ppb	03:07:59
2	Sn 189.927†	2251.1	2662.4	600.16 ug/L	600.16 ppb	03:08:19
2	Ti 334.940†	291732.0	347162.1	599.75 ug/L	599.75 ppb	03:07:59
2	Tl 190.801†	1304.8	1579.7	612.21 ug/L	612.21 ppb	03:08:19
2	U 409.014†	15447.1	20405.5	614.24 ug/L	614.24 ppb	03:07:59
2	V 292.402†	63551.2	76707.0	620.95 ug/L	620.95 ppb	03:07:59
2	Zn 213.857†	44243.8	51868.3	620.95 ug/L	620.95 ppb	03:07:59
2	SiO2†	68599.7	80882.8	6460.8 ug/L	6460.8 ppb	03:09:01
3	Sc Radial	4005.8	4005.8	87.3 %		03:07:16
3	Y RADIAL	4257.7	4257.7	86.29 %		03:07:16
3	Al 396.153Radial†	5197.0	6037.5	5651.2 ug/L	5651.2 ppb	03:06:56
3	Ca 317.933Radial†	2833.2	3216.8	5686.0 ug/L	5686.0 ppb	03:07:16
3	Fe 238.204 Radial†	481.4	543.5	5709.8 ug/L	5709.8 ppb	03:07:16
3	K 766.490 Radial†	28572.2	30165.8	5771.9 ug/L	5771.9 ppb	03:06:56
3	Mg 279.077 IEC†	134.1	153.5	5839.7 ug/L	5839.7 ppb	03:07:16
3	Na 589.592 Radial†	28205.8	33107.0	11600 ug/L	11600 ppb	03:06:56
3	Sr 421.552†	66434.9	76056.9	580.98 ug/L	580.98 ppb	03:06:56
3	Sc 361.383	810920.0	810920.0	99.753 %		03:08:25
3	Y 371.029	676521.3	676521.3	98.127 %		03:08:25
3	Ag 328.068†	100292.2	100330.1	518.41 ug/L	518.41 ppb	03:08:30
3	As 188.979†	904.6	923.9	518.64 ug/L	518.64 ppb	03:08:50
3	B 249.677†	17859.9	18319.5	510.25 ug/L	510.25 ppb	03:08:30
3	Ba 233.527†	54893.3	55016.8	516.11 ug/L	516.11 ppb	03:08:30
3	Be 313.107†	1199712.6	1206413.2	516.12 ug/L	516.12 ppb	03:08:25
3	Cd 226.502†	35378.7	35642.7	516.27 ug/L	516.27 ppb	03:08:30
3	Co 228.616†	20107.7	20197.4	524.80 ug/L	524.80 ppb	03:08:30
3	Cr 267.716†	38548.3	38564.2	518.92 ug/L	518.92 ppb	03:08:30
3	Cu 324.752†	160188.5	155119.1	513.45 ug/L	513.45 ppb	03:08:30
3	Mn 257.610†	383896.6	384296.6	506.30 ug/L	506.30 ppb	03:08:30
3	Mo 202.031†	5785.4	5786.9	509.41 ug/L	509.41 ppb	03:08:50
3	Ni 231.604†	16435.5	16394.8	521.68 ug/L	521.68 ppb	03:08:30
3	P 214.914†	3560.4	3385.3	2449.0 ug/L	2449.0 ppb	03:08:50
3	Pb 220.353†	3285.2	3336.2	516.20 ug/L	516.20 ppb	03:08:50
3	S 181.975 Axial†	587.1	558.4	995.94 ug/L	995.94 ppb	03:08:50
3	Sb 206.836†	1238.5	1217.0	522.22 ug/L	522.22 ppb	03:08:50
3	Se 196.026†	594.2	614.4	529.63 ug/L	529.63 ppb	03:08:50
3	Si 251.611†	69192.4	68865.6	2585.4 ug/L	2585.4 ppb	03:08:30
3	Sn 189.927†	2243.3	2240.9	505.23 ug/L	505.23 ppb	03:08:50
3	Ti 334.940†	289475.8	291280.1	503.24 ug/L	503.24 ppb	03:08:30
3	Tl 190.801†	1288.6	1323.6	512.97 ug/L	512.97 ppb	03:08:50
3	U 409.014†	15399.4	17518.5	527.27 ug/L	527.27 ppb	03:08:30
3	V 292.402†	63022.4	64496.2	522.03 ug/L	522.03 ppb	03:08:30
3	Zn 213.857†	43883.8	43375.4	519.14 ug/L	519.14 ppb	03:08:30
3	SiO2†	68829.4	68504.6	5472.1 ug/L	5472.1 ppb	03:09:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	770291.0	94.755 %		9.0595			9.56%
Sc Radial	3998.3	87.2 %		0.85			0.97%
Y 371.029	642246.6	93.155 %		8.9914			9.65%
Y RADIAL	4245.0	86.03 %		1.416			1.65%
Ag 328.068†	106400.7	549.68 ug/L		55.166	549.68 ppb	55.166	10.04%
QC value within limits for Ag 328.068 Recovery = 109.94%							
Al 396.153Radial†	6117.0	5724.6 ug/L		176.04	5724.6 ppb	176.04	3.08%
QC value greater than the upper limit for Al 396.153Radial Recovery = 114.49%							
As 188.979†	972.0	545.60 ug/L		55.127	545.60 ppb	55.127	10.10%
QC value within limits for As 188.979 Recovery = 109.12%							
B 249.677†	19307.4	537.80 ug/L		50.916	537.80 ppb	50.916	9.47%
QC value within limits for B 249.677 Recovery = 107.56%							
Ba 233.527†	58626.2	549.95 ug/L		56.527	549.95 ppb	56.527	10.28%
QC value within limits for Ba 233.527 Recovery = 109.99%							
Be 313.107†	1302588.0	557.24 ug/L		71.954	557.24 ppb	71.954	12.91%
QC value greater than the upper limit for Be 313.107 Recovery = 111.45%							
Ca 317.933Radial†	3231.8	5712.5 ug/L		36.76	5712.5 ppb	36.76	0.64%

QC value greater than the upper limit for Ca 317.933 Radial Recovery = 114.25%							
Cd 226.502†	37953.9	549.78 ug/L	55.864	549.78 ppb	55.864	10.16%	
QC value within limits for Cd 226.502 Recovery = 109.96%							
Co 228.616†	21476.4	558.03 ug/L	56.588	558.03 ppb	56.588	10.14%	
QC value greater than the upper limit for Co 228.616 Recovery = 111.61%							
Cr 267.716†	41083.2	552.77 ug/L	58.770	552.77 ppb	58.770	10.63%	
QC value greater than the upper limit for Cr 267.716 Recovery = 110.55%							
Cu 324.752†	164932.0	545.92 ug/L	57.985	545.92 ppb	57.985	10.62%	
QC value within limits for Cu 324.752 Recovery = 109.18%							
Fe 238.204 Radial†	543.0	5705.8 ug/L	6.67	5705.8 ppb	6.67	0.12%	
QC value greater than the upper limit for Fe 238.204 Radial Recovery = 114.12%							
K 766.490 Radial†	30392.6	5815.3 ug/L	141.20	5815.3 ppb	141.20	2.43%	
QC value greater than the upper limit for K 766.490 Radial Recovery = 116.31%							
Mg 279.077 IEC†	154.3	5872.6 ug/L	59.69	5872.6 ppb	59.69	1.02%	
QC value greater than the upper limit for Mg 279.077 IEC Recovery = 117.45%							
Mn 257.610†	409240.6	539.14 ug/L	55.729	539.14 ppb	55.729	10.34%	
QC value within limits for Mn 257.610 Recovery = 107.83%							
Mo 202.031†	6106.4	537.50 ug/L	57.734	537.50 ppb	57.734	10.74%	
QC value within limits for Mo 202.031 Recovery = 107.50%							
Na 589.592 Radial†	33584.2	11767 ug/L	318.1	11767 ppb	318.1	2.70%	
QC value greater than the upper limit for Na 589.592 Radial Recovery = 117.67%							
Ni 231.604†	17511.6	557.22 ug/L	58.059	557.22 ppb	58.059	10.42%	
QC value greater than the upper limit for Ni 231.604 Recovery = 111.44%							
P 214.914†	3579.6	2589.1 ug/L	287.25	2589.1 ppb	287.25	11.09%	
QC value within limits for P 214.914 Recovery = 103.56%							
Pb 220.353†	3504.0	542.16 ug/L	56.553	542.16 ppb	56.553	10.43%	
QC value within limits for Pb 220.353 Recovery = 108.43%							
S 181.975 Axial†	595.2	1061.7 ug/L	120.17	1061.7 ppb	120.17	11.32%	
QC value within limits for S 181.975 Axial Recovery = 106.17%							
Sb 206.836†	1283.3	550.69 ug/L	60.812	550.69 ppb	60.812	11.04%	
QC value greater than the upper limit for Sb 206.836 Recovery = 110.14%							
Se 196.026†	648.4	557.93 ug/L	54.068	557.93 ppb	54.068	9.69%	
QC value greater than the upper limit for Se 196.026 Recovery = 111.59%							
Si 251.611†	73252.6	2750.1 ug/L	281.72	2750.1 ppb	281.72	10.24%	
QC value greater than the upper limit for Si 251.611 Recovery = 110.00%							
Sn 189.927†	2368.3	533.92 ug/L	57.540	533.92 ppb	57.540	10.78%	
QC value within limits for Sn 189.927 Recovery = 106.78%							
Sr 421.552†	77109.6	589.02 ug/L	18.023	589.02 ppb	18.023	3.06%	
QC value greater than the upper limit for Sr 421.552 Recovery = 117.80%							
Ti 334.940†	309887.7	535.37 ug/L	55.749	535.37 ppb	55.749	10.41%	
QC value within limits for Ti 334.940 Recovery = 107.07%							
Tl 190.801†	1403.5	543.95 ug/L	59.203	543.95 ppb	59.203	10.88%	
QC value within limits for Tl 190.801 Recovery = 108.79%							
U 409.014†	18429.7	554.72 ug/L	51.599	554.72 ppb	51.599	9.30%	
QC value greater than the upper limit for U 409.014 Recovery = 110.94%							
V 292.402†	68553.1	554.85 ug/L	57.246	554.85 ppb	57.246	10.32%	
QC value greater than the upper limit for V 292.402 Recovery = 110.97%							
Zn 213.857†	46253.1	553.64 ug/L	58.305	553.64 ppb	58.305	10.53%	
QC value greater than the upper limit for Zn 213.857 Recovery = 110.73%							
SiO2†	72598.4	5799.2 ug/L	573.00	5799.2 ppb	573.00	9.88%	
QC value within limits for SiO2 Recovery = 108.45%							
QC Failed. Continue with analysis.							

Sequence No.: 72

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/17/2010 03:11:15

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4283.6	4283.6	93.4 %		03:13:28
1	Y RADIAL	4827.3	4827.3	97.83 %		03:13:08
1	Al 396.153Radial†	-81.8	-1.8	-1.7455 ug/L	-1.7455 ppb	03:13:28
1	Ca 317.933Radial†	17.6	-9.1	-16.003 ug/L	-16.003 ppb	03:13:28
1	Fe 238.204 Radial†	6.0	-1.4	-15.017 ug/L	-15.017 ppb	03:13:28
1	K 766.490 Radial†	2669.4	303.0	58.087 ug/L	58.087 ppb	03:13:08
1	Mg 279.077 IEC†	-0.5	-0.7	-25.266 ug/L	-25.266 ppb	03:13:28
1	Na 589.592 Radial†	-917.6	-177.6	-62.222 ug/L	-62.222 ppb	03:13:08
1	Sr 421.552†	12.7	-12.1	-0.0927 ug/L	-0.0927 ppb	03:13:08
1	Sc 361.383	796579.9	796579.9	97.989 %		03:14:25
1	Y 371.029	673041.9	673041.9	97.622 %		03:14:25
1	Ag 328.068†	210.0	3.7	0.0153 ug/L	0.0153 ppb	03:14:25
1	As 188.979†	-20.7	-4.1	-2.2948 ug/L	-2.2948 ppb	03:14:45
1	B 249.677†	-281.0	128.6	3.6025 ug/L	3.6025 ppb	03:14:45
1	Ba 233.527†	13.5	1.3	0.0110 ug/L	0.0110 ppb	03:14:45
1	Be 313.107†	-3731.2	-78.8	-0.0338 ug/L	-0.0338 ppb	03:14:25
1	Cd 226.502†	-172.1	0.7	0.0118 ug/L	0.0118 ppb	03:14:45
1	Co 228.616†	-41.7	-2.7	-0.0692 ug/L	-0.0692 ppb	03:14:45
1	Cr 267.716†	65.2	-13.0	-0.1755 ug/L	-0.1755 ppb	03:14:45
1	Cu 324.752†	5255.9	-102.4	-0.3382 ug/L	-0.3382 ppb	03:14:25
1	Mn 257.610†	498.7	-42.0	-0.0558 ug/L	-0.0558 ppb	03:14:45
1	Mo 202.031†	18.7	6.3	0.5503 ug/L	0.5503 ppb	03:14:45
1	Ni 231.604†	94.0	14.5	0.4631 ug/L	0.4631 ppb	03:14:45
1	P 214.914†	187.7	7.6	5.8206 ug/L	5.8206 ppb	03:14:45
1	Pb 220.353†	-49.2	-7.4	-1.1409 ug/L	-1.1409 ppb	03:14:45
1	S 181.975 Axial†	27.0	-2.6	-4.6849 ug/L	-4.6849 ppb	03:14:45
1	Sb 206.836†	36.5	12.7	5.2741 ug/L	5.2741 ppb	03:14:45
1	Se 196.026†	-26.0	-7.8	-6.5004 ug/L	-6.5004 ppb	03:14:45
1	Si 251.611†	620.1	134.6	5.0578 ug/L	5.0578 ppb	03:14:45
1	Sn 189.927†	5.3	-2.5	-0.5736 ug/L	-0.5736 ppb	03:14:45
1	Ti 334.940†	-1099.2	-34.5	-0.0583 ug/L	-0.0583 ppb	03:14:25
1	Tl 190.801†	-24.1	7.2	2.7761 ug/L	2.7761 ppb	03:14:45
1	U 409.014†	-2138.8	-101.7	-3.0705 ug/L	-3.0705 ppb	03:14:25
1	V 292.402†	-1340.8	-50.6	-0.4004 ug/L	-0.4004 ppb	03:14:25
1	Zn 213.857†	657.6	54.0	0.6515 ug/L	0.6515 ppb	03:14:45
1	SiO2†	631.3	148.9	11.910 ug/L	11.910 ppb	03:15:56
2	Sc Radial	4292.7	4292.7	93.6 %		03:13:53
2	Y RADIAL	4836.8	4836.8	98.02 %		03:13:33
2	Al 396.153Radial†	-76.4	4.2	3.9144 ug/L	3.9144 ppb	03:13:53
2	Ca 317.933Radial†	20.7	-5.7	-10.061 ug/L	-10.061 ppb	03:13:53
2	Fe 238.204 Radial†	8.3	1.0	10.986 ug/L	10.986 ppb	03:13:53
2	K 766.490 Radial†	2661.6	288.7	55.336 ug/L	55.336 ppb	03:13:33
2	Mg 279.077 IEC†	0.5	0.4	16.557 ug/L	16.557 ppb	03:13:53
2	Na 589.592 Radial†	-951.5	-211.8	-74.205 ug/L	-74.205 ppb	03:13:33
2	Sr 421.552†	9.7	-15.4	-0.1179 ug/L	-0.1179 ppb	03:13:33
2	Sc 361.383	797158.0	797158.0	98.060 %		03:14:50
2	Y 371.029	673728.7	673728.7	97.722 %		03:14:50
2	Ag 328.068†	233.2	27.3	0.1472 ug/L	0.1472 ppb	03:14:50
2	As 188.979†	-12.8	4.0	2.2023 ug/L	2.2023 ppb	03:15:10
2	B 249.677†	-245.1	165.4	4.6280 ug/L	4.6280 ppb	03:15:10
2	Ba 233.527†	29.3	17.4	0.1637 ug/L	0.1637 ppb	03:15:10
2	Be 313.107†	-3728.0	-72.8	-0.0312 ug/L	-0.0312 ppb	03:14:50
2	Cd 226.502†	-177.2	-4.3	-0.0646 ug/L	-0.0646 ppb	03:15:10
2	Co 228.616†	-40.9	-1.8	-0.0463 ug/L	-0.0463 ppb	03:15:10
2	Cr 267.716†	49.8	-28.8	-0.3833 ug/L	-0.3833 ppb	03:15:10
2	Cu 324.752†	5189.3	-174.2	-0.5742 ug/L	-0.5742 ppb	03:14:50
2	Mn 257.610†	503.6	-37.3	-0.0487 ug/L	-0.0487 ppb	03:15:10
2	Mo 202.031†	17.5	5.0	0.4414 ug/L	0.4414 ppb	03:15:10
2	Ni 231.604†	84.4	4.6	0.1479 ug/L	0.1479 ppb	03:15:10

2	P 214.914†	193.4	13.3	10.113 ug/L	10.113 ppb	03:15:10
2	Pb 220.353†	-39.4	2.6	0.4024 ug/L	0.4024 ppb	03:15:10
2	S 181.975 Axial†	27.4	-2.2	-3.9738 ug/L	-3.9738 ppb	03:15:10
2	Sb 206.836†	26.6	2.6	1.1042 ug/L	1.1042 ppb	03:15:10
2	Se 196.026†	-18.3	0.1	0.1504 ug/L	0.1504 ppb	03:15:10
2	Si 251.611†	619.9	134.0	5.0367 ug/L	5.0367 ppb	03:15:10
2	Sn 189.927†	7.6	-0.3	-0.0624 ug/L	-0.0624 ppb	03:15:10
2	Ti 334.940†	-1099.9	-34.4	-0.0605 ug/L	-0.0605 ppb	03:14:50
2	Tl 190.801†	-30.9	0.2	0.0914 ug/L	0.0914 ppb	03:15:10
2	U 409.014†	-2150.9	-112.4	-3.3958 ug/L	-3.3958 ppb	03:14:50
2	V 292.402†	-1264.6	28.1	0.2234 ug/L	0.2234 ppb	03:14:50
2	Zn 213.857†	656.3	52.2	0.6283 ug/L	0.6283 ppb	03:15:10
2	SiO2†	637.6	154.9	12.392 ug/L	12.392 ppb	03:16:16
3	Sc Radial	4293.3	4293.3	93.6 %		03:14:18
3	Y RADIAL	4812.5	4812.5	97.53 %		03:13:58
3	Al 396.153Radial†	-77.0	3.6	3.3146 ug/L	3.3146 ppb	03:14:18
3	Ca 317.933Radial†	17.9	-8.8	-15.475 ug/L	-15.475 ppb	03:14:18
3	Fe 238.204 Radial†	6.9	-0.4	-4.6907 ug/L	-4.6907 ppb	03:14:18
3	K 766.490 Radial†	2613.7	237.2	45.469 ug/L	45.469 ppb	03:13:58
3	Mg 279.077 IEC†	-0.3	-0.4	-16.731 ug/L	-16.731 ppb	03:14:18
3	Na 589.592 Radial†	-947.8	-207.7	-72.764 ug/L	-72.764 ppb	03:13:58
3	Sr 421.552†	26.9	3.0	0.0233 ug/L	0.0233 ppb	03:13:58
3	Sc 361.383	795960.6	795960.6	97.913 %		03:15:16
3	Y 371.029	672611.2	672611.2	97.560 %		03:15:16
3	Ag 328.068†	106.7	-101.6	-0.5211 ug/L	-0.5211 ppb	03:15:16
3	As 188.979†	-19.9	-3.3	-1.8438 ug/L	-1.8438 ppb	03:15:36
3	B 249.677†	-236.5	173.8	4.8654 ug/L	4.8654 ppb	03:15:36
3	Ba 233.527†	8.3	-4.0	-0.0390 ug/L	-0.0390 ppb	03:15:36
3	Be 313.107†	-3656.3	-5.3	-0.0024 ug/L	-0.0024 ppb	03:15:16
3	Cd 226.502†	-164.2	8.7	0.1255 ug/L	0.1255 ppb	03:15:36
3	Co 228.616†	-39.9	-0.9	-0.0203 ug/L	-0.0203 ppb	03:15:36
3	Cr 267.716†	76.3	-1.6	-0.0206 ug/L	-0.0206 ppb	03:15:36
3	Cu 324.752†	5229.0	-125.7	-0.4138 ug/L	-0.4138 ppb	03:15:16
3	Mn 257.610†	481.2	-59.5	-0.0781 ug/L	-0.0781 ppb	03:15:36
3	Mo 202.031†	23.3	11.0	0.9672 ug/L	0.9672 ppb	03:15:36
3	Ni 231.604†	87.3	7.8	0.2474 ug/L	0.2474 ppb	03:15:36
3	P 214.914†	172.5	-7.7	-5.7160 ug/L	-5.7160 ppb	03:15:36
3	Pb 220.353†	-45.6	-3.8	-0.5751 ug/L	-0.5751 ppb	03:15:36
3	S 181.975 Axial†	28.7	-0.8	-1.5024 ug/L	-1.5024 ppb	03:15:36
3	Sb 206.836†	27.2	3.3	1.3708 ug/L	1.3708 ppb	03:15:36
3	Se 196.026†	-17.6	0.8	0.6896 ug/L	0.6896 ppb	03:15:36
3	Si 251.611†	621.6	136.7	5.1314 ug/L	5.1314 ppb	03:15:36
3	Sn 189.927†	6.3	-1.6	-0.3635 ug/L	-0.3635 ppb	03:15:36
3	Ti 334.940†	-1095.4	-31.5	-0.0530 ug/L	-0.0530 ppb	03:15:16
3	Tl 190.801†	-27.4	3.8	1.4514 ug/L	1.4514 ppb	03:15:36
3	U 409.014†	-2192.1	-157.9	-4.7670 ug/L	-4.7670 ppb	03:15:16
3	V 292.402†	-1355.8	-67.0	-0.5305 ug/L	-0.5305 ppb	03:15:16
3	Zn 213.857†	648.5	45.2	0.5456 ug/L	0.5456 ppb	03:15:36
3	SiO2†	637.2	155.4	12.420 ug/L	12.420 ppb	03:16:36

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	796566.1	97.987 %	0.0737			0.08%
Sc Radial	4289.9	93.5 %	0.12			0.13%
Y 371.029	673127.3	97.634 %	0.0818			0.08%
Y RADIAL	4825.5	97.80 %	0.248			0.25%
Ag 328.068†	-23.6	-0.1195 ug/L	0.35394	-0.1195 ppb	0.35394	296.13%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	2.0	1.8278 ug/L	3.10907	1.8278 ppb	3.10907	170.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.2	-0.6455 ug/L	2.47652	-0.6455 ppb	2.47652	383.69%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	156.0	4.3653 ug/L	0.67118	4.3653 ppb	0.67118	15.38%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	4.9	0.0452 ug/L	0.10561	0.0452 ppb	0.10561	233.65%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-52.3	-0.0224 ug/L	0.01743	-0.0224 ppb	0.01743	77.68%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-7.8	-13.846 ug/L	3.2886	-13.846 ppb	3.2886	23.75%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	1.7	0.0242 ug/L	0.09569	0.0242 ppb	0.09569	394.71%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-1.8	-0.0453 ug/L	0.02448	-0.0453 ppb	0.02448	54.10%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-14.4	-0.1931 ug/L	0.18199	-0.1931 ppb	0.18199	94.24%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-134.1	-0.4421 ug/L	0.12055	-0.4421 ppb	0.12055	27.27%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-0.3	-2.9073 ug/L	13.09311	-2.9073 ppb	13.09311	450.35%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	276.3	52.964 ug/L	6.6351	52.964 ppb	6.6351	12.53%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-0.2	-8.4802 ug/L	22.09857	-8.4802 ppb	22.09857	260.59%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	-46.3	-0.0609 ug/L	0.01531	-0.0609 ppb	0.01531	25.16%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	7.4	0.6530 ug/L	0.27754	0.6530 ppb	0.27754	42.50%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-199.0	-69.730 ug/L	6.5422	-69.730 ppb	6.5422	9.38%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	9.0	0.2861 ug/L	0.16110	0.2861 ppb	0.16110	56.30%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	4.4	3.4060 ug/L	8.18622	3.4060 ppb	8.18622	240.35%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-2.9	-0.4379 ug/L	0.78073	-0.4379 ppb	0.78073	178.30%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-1.9	-3.3870 ug/L	1.67044	-3.3870 ppb	1.67044	49.32%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	6.2	2.5830 ug/L	2.33435	2.5830 ppb	2.33435	90.37%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-2.3	-1.8868 ug/L	4.00461	-1.8868 ppb	4.00461	212.24%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	135.1	5.0753 ug/L	0.04974	5.0753 ppb	0.04974	0.98%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-1.5	-0.3332 ug/L	0.25692	-0.3332 ppb	0.25692	77.11%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-8.2	-0.0624 ug/L	0.07530	-0.0624 ppb	0.07530	120.59%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-33.4	-0.0573 ug/L	0.00382	-0.0573 ppb	0.00382	6.67%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	3.7	1.4396 ug/L	1.34243	1.4396 ppb	1.34243	93.25%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-124.0	-3.7444 ug/L	0.90036	-3.7444 ppb	0.90036	24.05%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-29.8	-0.2358 ug/L	0.40298	-0.2358 ppb	0.40298	170.87%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	50.4	0.6085 ug/L	0.05569	0.6085 ppb	0.05569	9.15%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	153.1	12.241 ug/L	0.2864	12.241 ppb	0.2864	2.34%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 81

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/17/2010 04:15:40

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	4265.3	4265.3	93.0 %		04:17:52
1	Y RADIAL	4907.8	4907.8	99.46 %		04:17:32
1	Al 396.153Radial†	5338.8	5828.0	5454.2 ug/L	5454.2 ppb	04:17:32
1	Ca 317.933Radial†	2816.0	3000.9	5304.4 ug/L	5304.4 ppb	04:17:52
1	Fe 238.204 Radial†	470.8	498.5	5238.2 ug/L	5238.2 ppb	04:17:52
1	K 766.490 Radial†	29206.7	28857.8	5521.7 ug/L	5521.7 ppb	04:17:32
1	Mg 279.077 IEC†	133.5	143.5	5460.2 ug/L	5460.2 ppb	04:17:52
1	Na 589.592 Radial†	28229.1	31167.2	10921 ug/L	10921 ppb	04:17:32
1	Sr 421.552†	67452.1	72523.0	553.99 ug/L	553.99 ppb	04:17:32
1	Sc 361.383	810263.2	810263.2	99.672 %		04:18:50
1	Y 371.029	676175.4	676175.4	98.077 %		04:18:50
1	Ag 328.068†	99727.7	99845.2	515.77 ug/L	515.77 ppb	04:18:55
1	As 188.979†	909.0	929.0	521.35 ug/L	521.35 ppb	04:19:15
1	B 249.677†	17407.1	17879.7	498.03 ug/L	498.03 ppb	04:18:55
1	Ba 233.527†	54643.8	54811.1	514.16 ug/L	514.16 ppb	04:18:55
1	Be 313.107†	1199056.1	1206729.6	516.24 ug/L	516.24 ppb	04:18:50
1	Cd 226.502†	35160.9	35452.9	513.56 ug/L	513.56 ppb	04:18:55
1	Co 228.616†	19927.4	20032.8	520.55 ug/L	520.55 ppb	04:18:55
1	Cr 267.716†	38299.0	38345.5	515.93 ug/L	515.93 ppb	04:18:55
1	Cu 324.752†	158800.9	153857.0	509.25 ug/L	509.25 ppb	04:18:55
1	Mn 257.610†	387662.9	388387.3	511.65 ug/L	511.65 ppb	04:18:50
1	Mo 202.031†	5805.6	5811.9	511.56 ug/L	511.56 ppb	04:19:15
1	Ni 231.604†	16400.5	16373.1	520.99 ug/L	520.99 ppb	04:18:55
1	P 214.914†	3566.5	3394.4	2457.0 ug/L	2457.0 ppb	04:19:15
1	Pb 220.353†	3290.7	3344.3	517.49 ug/L	517.49 ppb	04:19:15
1	S 181.975 Axial†	597.9	569.7	1016.1 ug/L	1016.1 ppb	04:19:15
1	Sb 206.836†	1237.4	1217.0	522.32 ug/L	522.32 ppb	04:19:15
1	Se 196.026†	595.8	616.5	529.96 ug/L	529.96 ppb	04:19:15
1	Si 251.611†	68625.3	68352.9	2566.0 ug/L	2566.0 ppb	04:18:55
1	Sn 189.927†	2261.7	2261.2	509.76 ug/L	509.76 ppb	04:19:15
1	Ti 334.940†	287578.4	289611.7	500.34 ug/L	500.34 ppb	04:18:55
1	Tl 190.801†	1295.7	1331.8	516.14 ug/L	516.14 ppb	04:19:15
1	U 409.014†	15154.6	17285.4	520.29 ug/L	520.29 ppb	04:18:55
1	V 292.402†	62723.8	64247.8	520.13 ug/L	520.13 ppb	04:18:55
1	Zn 213.857†	43688.0	43214.6	517.28 ug/L	517.28 ppb	04:18:55
1	SiO2†	69115.1	68847.2	5499.5 ug/L	5499.5 ppb	04:20:22
2	Sc Radial	4290.6	4290.6	93.5 %		04:18:18
2	Y RADIAL	4798.3	4798.3	97.24 %		04:17:58
2	Al 396.153Radial†	5257.9	5707.6	5341.7 ug/L	5341.7 ppb	04:17:58
2	Ca 317.933Radial†	2838.6	3007.2	5315.6 ug/L	5315.6 ppb	04:18:18
2	Fe 238.204 Radial†	477.1	502.3	5278.2 ug/L	5278.2 ppb	04:18:18
2	K 766.490 Radial†	28844.3	28285.1	5412.1 ug/L	5412.1 ppb	04:17:58
2	Mg 279.077 IEC†	137.3	146.7	5582.4 ug/L	5582.4 ppb	04:18:18
2	Na 589.592 Radial†	27770.0	30497.2	10686 ug/L	10686 ppb	04:17:58
2	Sr 421.552†	66243.5	70802.8	540.85 ug/L	540.85 ppb	04:17:58
2	Sc 361.383	829166.3	829166.3	102.00 %		04:19:21
2	Y 371.029	691157.7	691157.7	100.25 %		04:19:21
2	Ag 328.068†	99555.5	97395.3	503.17 ug/L	503.17 ppb	04:19:26
2	As 188.979†	911.0	910.2	510.84 ug/L	510.84 ppb	04:19:46
2	B 249.677†	17497.2	17569.9	489.39 ug/L	489.39 ppb	04:19:26
2	Ba 233.527†	54484.4	53404.9	500.98 ug/L	500.98 ppb	04:19:26
2	Be 313.107†	1229884.7	1209528.7	517.41 ug/L	517.41 ppb	04:19:21
2	Cd 226.502†	35244.2	34730.4	503.08 ug/L	503.08 ppb	04:19:26
2	Co 228.616†	19970.9	19619.6	509.80 ug/L	509.80 ppb	04:19:26
2	Cr 267.716†	38280.2	37451.0	503.91 ug/L	503.91 ppb	04:19:26
2	Cu 324.752†	158566.7	149995.2	496.48 ug/L	496.48 ppb	04:19:26
2	Mn 257.610†	397535.1	389199.2	512.72 ug/L	512.72 ppb	04:19:21
2	Mo 202.031†	5793.6	5667.3	498.84 ug/L	498.84 ppb	04:19:46
2	Ni 231.604†	16393.3	15990.9	508.83 ug/L	508.83 ppb	04:19:26

2	P 214.914†	3574.8	3320.9	2404.0 ug/L	2404.0 ppb	04:19:46
2	Pb 220.353†	3290.8	3269.1	505.83 ug/L	505.83 ppb	04:19:46
2	S 181.975 Axial†	598.2	556.3	992.26 ug/L	992.26 ppb	04:19:46
2	Sb 206.836†	1243.2	1194.3	512.50 ug/L	512.50 ppb	04:19:46
2	Se 196.026†	600.6	607.6	522.62 ug/L	522.62 ppb	04:19:46
2	Si 251.611†	68663.6	66820.8	2508.5 ug/L	2508.5 ppb	04:19:26
2	Sn 189.927†	2261.6	2209.3	498.08 ug/L	498.08 ppb	04:19:46
2	Ti 334.940†	287311.8	282772.6	488.52 ug/L	488.52 ppb	04:19:26
2	Tl 190.801†	1309.2	1315.3	509.79 ug/L	509.79 ppb	04:19:46
2	U 409.014†	14987.6	16775.1	504.90 ug/L	504.90 ppb	04:19:26
2	V 292.402†	62610.2	62701.9	507.59 ug/L	507.59 ppb	04:19:26
2	Zn 213.857†	43598.9	42127.9	504.24 ug/L	504.24 ppb	04:19:26
2	SiO2†	69188.6	67338.4	5379.0 ug/L	5379.0 ppb	04:20:28
3	Sc Radial	4292.3	4292.3	93.6 %		04:18:43
3	Y RADIAL	4877.8	4877.8	98.86 %		04:18:23
3	Al 396.153Radial†	5353.8	5807.9	5435.7 ug/L	5435.7 ppb	04:18:23
3	Ca 317.933Radial†	2835.2	3002.4	5307.1 ug/L	5307.1 ppb	04:18:43
3	Fe 238.204 Radial†	474.4	499.1	5245.1 ug/L	5245.1 ppb	04:18:43
3	K 766.490 Radial†	29364.1	28828.3	5516.1 ug/L	5516.1 ppb	04:18:23
3	Mg 279.077 IEC†	133.2	142.3	5415.0 ug/L	5415.0 ppb	04:18:43
3	Na 589.592 Radial†	28426.5	31187.0	10928 ug/L	10928 ppb	04:18:23
3	Sr 421.552†	67811.1	72450.1	553.43 ug/L	553.43 ppb	04:18:23
3	Sc 361.383	821004.5	821004.5	100.99 %		04:19:52
3	Y 371.029	683793.2	683793.2	99.182 %		04:19:52
3	Ag 328.068†	99198.9	98012.5	506.33 ug/L	506.33 ppb	04:19:57
3	As 188.979†	889.6	897.9	503.97 ug/L	503.97 ppb	04:20:17
3	B 249.677†	17415.9	17659.9	491.90 ug/L	491.90 ppb	04:19:57
3	Ba 233.527†	54548.3	53999.2	506.54 ug/L	506.54 ppb	04:19:57
3	Be 313.107†	1215021.8	1206799.1	516.26 ug/L	516.26 ppb	04:19:52
3	Cd 226.502†	35140.6	34971.3	506.58 ug/L	506.58 ppb	04:19:57
3	Co 228.616†	19936.8	19780.5	513.99 ug/L	513.99 ppb	04:19:57
3	Cr 267.716†	38165.1	37710.1	507.39 ug/L	507.39 ppb	04:19:57
3	Cu 324.752†	157963.6	150943.6	499.61 ug/L	499.61 ppb	04:19:57
3	Mn 257.610†	393852.9	389427.8	513.03 ug/L	513.03 ppb	04:19:52
3	Mo 202.031†	5772.3	5702.7	501.96 ug/L	501.96 ppb	04:20:17
3	Ni 231.604†	16387.1	16144.5	513.71 ug/L	513.71 ppb	04:19:57
3	P 214.914†	3537.5	3318.8	2401.9 ug/L	2401.9 ppb	04:20:17
3	Pb 220.353†	3262.1	3272.8	506.43 ug/L	506.43 ppb	04:20:17
3	S 181.975 Axial†	586.2	550.3	981.47 ug/L	981.47 ppb	04:20:17
3	Sb 206.836†	1232.6	1196.0	513.24 ug/L	513.24 ppb	04:20:17
3	Se 196.026†	589.8	602.8	518.56 ug/L	518.56 ppb	04:20:17
3	Si 251.611†	68531.2	67358.8	2528.7 ug/L	2528.7 ppb	04:19:57
3	Sn 189.927†	2236.9	2206.9	497.54 ug/L	497.54 ppb	04:20:17
3	Ti 334.940†	286678.0	284945.4	492.29 ug/L	492.29 ppb	04:19:57
3	Tl 190.801†	1293.5	1312.6	508.72 ug/L	508.72 ppb	04:20:17
3	U 409.014†	15137.5	17069.6	513.79 ug/L	513.79 ppb	04:19:57
3	V 292.402†	62310.7	63015.5	510.15 ug/L	510.15 ppb	04:19:57
3	Zn 213.857†	43553.6	42508.0	508.80 ug/L	508.80 ppb	04:19:57
3	SiO2†	69014.0	67839.8	5419.1 ug/L	5419.1 ppb	04:20:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	820144.7	100.89 %	1.166			1.16%
Sc Radial	4282.7	93.4 %	0.33			0.35%
Y 371.029	683708.7	99.169 %	1.0866			1.10%
Y RADIAL	4861.3	98.52 %	1.147			1.16%
Ag 328.068†	98417.7	508.43 ug/L	6.557	508.43 ppb	6.557	1.29%
QC value within limits for Ag 328.068 Recovery = 101.69%						
Al 396.153Radial†	5781.2	5410.5 ug/L	60.34	5410.5 ppb	60.34	1.12%
QC value within limits for Al 396.153Radial Recovery = 108.21%						
As 188.979†	912.4	512.06 ug/L	8.754	512.06 ppb	8.754	1.71%
QC value within limits for As 188.979 Recovery = 102.41%						
B 249.677†	17703.2	493.11 ug/L	4.448	493.11 ppb	4.448	0.90%
QC value within limits for B 249.677 Recovery = 98.62%						
Ba 233.527†	54071.7	507.23 ug/L	6.619	507.23 ppb	6.619	1.30%
QC value within limits for Ba 233.527 Recovery = 101.45%						
Be 313.107†	1207685.8	516.64 ug/L	0.671	516.64 ppb	0.671	0.13%
QC value within limits for Be 313.107 Recovery = 103.33%						
Ca 317.933Radial†	3003.5	5309.1 ug/L	5.85	5309.1 ppb	5.85	0.11%

QC value within limits for Ca 317.933 Radial Recovery = 106.18%

Cd 226.502†	35051.5	507.74 ug/L	5.337	507.74 ppb	5.337	1.05%
QC value within limits for Cd 226.502 Recovery = 101.55%						
Co 228.616†	19811.0	514.78 ug/L	5.414	514.78 ppb	5.414	1.05%
QC value within limits for Co 228.616 Recovery = 102.96%						
Cr 267.716†	37835.5	509.08 ug/L	6.184	509.08 ppb	6.184	1.21%
QC value within limits for Cr 267.716 Recovery = 101.82%						
Cu 324.752†	151598.6	501.78 ug/L	6.657	501.78 ppb	6.657	1.33%
QC value within limits for Cu 324.752 Recovery = 100.36%						
Fe 238.204 Radial†	500.0	5253.8 ug/L	21.37	5253.8 ppb	21.37	0.41%
QC value within limits for Fe 238.204 Radial Recovery = 105.08%						
K 766.490 Radial†	28657.1	5483.3 ug/L	61.73	5483.3 ppb	61.73	1.13%
QC value within limits for K 766.490 Radial Recovery = 109.67%						
Mg 279.077 IEC†	144.2	5485.9 ug/L	86.62	5485.9 ppb	86.62	1.58%
QC value within limits for Mg 279.077 IEC Recovery = 109.72%						
Mn 257.610†	389004.7	512.47 ug/L	0.721	512.47 ppb	0.721	0.14%
QC value within limits for Mn 257.610 Recovery = 102.49%						
Mo 202.031†	5727.3	504.12 ug/L	6.628	504.12 ppb	6.628	1.31%
QC value within limits for Mo 202.031 Recovery = 100.82%						
Na 589.592 Radial†	30950.5	10845 ug/L	137.6	10845 ppb	137.6	1.27%
QC value within limits for Na 589.592 Radial Recovery = 108.45%						
Ni 231.604†	16169.5	514.51 ug/L	6.120	514.51 ppb	6.120	1.19%
QC value within limits for Ni 231.604 Recovery = 102.90%						
P 214.914†	3344.7	2420.9 ug/L	31.22	2420.9 ppb	31.22	1.29%
QC value within limits for P 214.914 Recovery = 96.84%						
Pb 220.353†	3295.4	509.91 ug/L	6.566	509.91 ppb	6.566	1.29%
QC value within limits for Pb 220.353 Recovery = 101.98%						
S 181.975 Axial†	558.7	996.61 ug/L	17.735	996.61 ppb	17.735	1.78%
QC value within limits for S 181.975 Axial Recovery = 99.66%						
Sb 206.836†	1202.4	516.02 ug/L	5.468	516.02 ppb	5.468	1.06%
QC value within limits for Sb 206.836 Recovery = 103.20%						
Se 196.026†	609.0	523.71 ug/L	5.778	523.71 ppb	5.778	1.10%
QC value within limits for Se 196.026 Recovery = 104.74%						
Si 251.611†	67510.8	2534.4 ug/L	29.17	2534.4 ppb	29.17	1.15%
QC value within limits for Si 251.611 Recovery = 101.38%						
Sn 189.927†	2225.8	501.79 ug/L	6.900	501.79 ppb	6.900	1.38%
QC value within limits for Sn 189.927 Recovery = 100.36%						
Sr 421.552†	71925.3	549.42 ug/L	7.432	549.42 ppb	7.432	1.35%
QC value within limits for Sr 421.552 Recovery = 109.88%						
Ti 334.940†	285776.6	493.72 ug/L	6.037	493.72 ppb	6.037	1.22%
QC value within limits for Ti 334.940 Recovery = 98.74%						
Tl 190.801†	1319.9	511.55 ug/L	4.009	511.55 ppb	4.009	0.78%
QC value within limits for Tl 190.801 Recovery = 102.31%						
U 409.014†	17043.4	513.00 ug/L	7.726	513.00 ppb	7.726	1.51%
QC value within limits for U 409.014 Recovery = 102.60%						
V 292.402†	63321.7	512.62 ug/L	6.629	512.62 ppb	6.629	1.29%
QC value within limits for V 292.402 Recovery = 102.52%						
Zn 213.857†	42616.8	510.11 ug/L	6.617	510.11 ppb	6.617	1.30%
QC value within limits for Zn 213.857 Recovery = 102.02%						
SiO2†	68008.5	5432.6 ug/L	61.36	5432.6 ppb	61.36	1.13%
QC value within limits for SiO2 Recovery = 101.59%						

All analyte(s) passed QC.

Sequence No.: 82

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/17/2010 04:22:42

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4506.0	4506.0	98.2 %		04:24:35
1	Y RADIAL	4835.5	4835.5	98.00 %		04:24:35
1	Al 396.153Radial†	-71.3	13.2	12.472 ug/L	12.472 ppb	04:24:55
1	Ca 317.933Radial†	20.1	-7.3	-12.974 ug/L	-12.974 ppb	04:24:55
1	Fe 238.204 Radial†	9.7	2.0	21.231 ug/L	21.231 ppb	04:24:55
1	K 766.490 Radial†	2542.4	32.7	6.2895 ug/L	6.2895 ppb	04:24:35
1	Mg 279.077 IEC†	3.7	3.7	139.41 ug/L	139.41 ppb	04:24:55
1	Na 589.592 Radial†	-918.9	-130.4	-45.704 ug/L	-45.704 ppb	04:24:35
1	Sr 421.552†	30.1	4.9	0.0374 ug/L	0.0374 ppb	04:24:35
1	Sc 361.383	796727.7	796727.7	98.007 %		04:25:52
1	Y 371.029	673892.3	673892.3	97.745 %		04:25:52
1	Ag 328.068†	148.3	-59.3	-0.2924 ug/L	-0.2924 ppb	04:25:52
1	As 188.979†	-14.3	2.5	1.3934 ug/L	1.3934 ppb	04:26:12
1	B 249.677†	-316.9	92.0	2.5720 ug/L	2.5720 ppb	04:26:12
1	Ba 233.527†	14.0	1.8	0.0169 ug/L	0.0169 ppb	04:26:12
1	Be 313.107†	-3679.6	-25.4	-0.0107 ug/L	-0.0107 ppb	04:25:52
1	Cd 226.502†	-179.9	-7.2	-0.1074 ug/L	-0.1074 ppb	04:26:12
1	Co 228.616†	-44.8	-5.8	-0.1529 ug/L	-0.1529 ppb	04:26:12
1	Cr 267.716†	54.5	-23.9	-0.3166 ug/L	-0.3166 ppb	04:26:12
1	Cu 324.752†	5216.8	-143.3	-0.4693 ug/L	-0.4693 ppb	04:25:52
1	Mn 257.610†	465.4	-76.1	-0.1037 ug/L	-0.1037 ppb	04:26:12
1	Mo 202.031†	8.8	-3.8	-0.3341 ug/L	-0.3341 ppb	04:26:12
1	Ni 231.604†	92.0	12.5	0.3969 ug/L	0.3969 ppb	04:26:12
1	P 214.914†	188.1	8.0	6.1041 ug/L	6.1041 ppb	04:26:12
1	Pb 220.353†	-49.2	-7.4	-1.1492 ug/L	-1.1492 ppb	04:26:12
1	S 181.975 Axial†	27.1	-2.5	-4.4026 ug/L	-4.4026 ppb	04:26:12
1	Sb 206.836†	30.6	6.7	2.7735 ug/L	2.7735 ppb	04:26:12
1	Se 196.026†	-14.1	4.4	3.7269 ug/L	3.7269 ppb	04:26:12
1	Si 251.611†	654.8	169.9	6.3978 ug/L	6.3978 ppb	04:26:12
1	Sn 189.927†	5.7	-2.2	-0.4917 ug/L	-0.4917 ppb	04:26:12
1	Ti 334.940†	-1043.0	23.1	0.0300 ug/L	0.0300 ppb	04:25:52
1	Tl 190.801†	-33.5	-2.4	-0.9336 ug/L	-0.9336 ppb	04:26:12
1	U 409.014†	-2274.0	-239.3	-7.2279 ug/L	-7.2279 ppb	04:25:52
1	V 292.402†	-1316.1	-25.2	-0.2198 ug/L	-0.2198 ppb	04:25:52
1	Zn 213.857†	649.2	45.3	0.5420 ug/L	0.5420 ppb	04:26:12
1	SiO2†	635.3	152.9	12.255 ug/L	12.255 ppb	04:27:08
2	Sc Radial	4528.6	4528.6	98.7 %		04:25:00
2	Y RADIAL	4877.9	4877.9	98.86 %		04:25:00
2	Al 396.153Radial†	-72.1	12.7	11.975 ug/L	11.975 ppb	04:25:20
2	Ca 317.933Radial†	19.8	-7.8	-13.747 ug/L	-13.747 ppb	04:25:20
2	Fe 238.204 Radial†	8.1	0.4	3.6851 ug/L	3.6851 ppb	04:25:20
2	K 766.490 Radial†	2746.9	227.0	43.503 ug/L	43.503 ppb	04:25:00
2	Mg 279.077 IEC†	2.0	2.0	75.830 ug/L	75.830 ppb	04:25:20
2	Na 589.592 Radial†	-906.2	-112.9	-39.566 ug/L	-39.566 ppb	04:25:00
2	Sr 421.552†	30.7	5.4	0.0412 ug/L	0.0412 ppb	04:25:00
2	Sc 361.383	802527.6	802527.6	98.721 %		04:26:17
2	Y 371.029	678498.3	678498.3	98.414 %		04:26:17
2	Ag 328.068†	280.9	74.0	0.3762 ug/L	0.3762 ppb	04:26:17
2	As 188.979†	-19.6	-2.9	-1.5896 ug/L	-1.5896 ppb	04:26:37
2	B 249.677†	-329.5	81.6	2.2832 ug/L	2.2832 ppb	04:26:37
2	Ba 233.527†	-2.3	-14.8	-0.1402 ug/L	-0.1402 ppb	04:26:37
2	Be 313.107†	-3794.2	-114.4	-0.0489 ug/L	-0.0489 ppb	04:26:17
2	Cd 226.502†	-164.8	9.4	0.1365 ug/L	0.1365 ppb	04:26:37
2	Co 228.616†	-45.7	-6.4	-0.1678 ug/L	-0.1678 ppb	04:26:37
2	Cr 267.716†	79.9	1.4	0.0174 ug/L	0.0174 ppb	04:26:37
2	Cu 324.752†	5261.1	-136.9	-0.4542 ug/L	-0.4542 ppb	04:26:17
2	Mn 257.610†	470.1	-74.8	-0.1012 ug/L	-0.1012 ppb	04:26:37
2	Mo 202.031†	10.5	-2.2	-0.1969 ug/L	-0.1969 ppb	04:26:37
2	Ni 231.604†	83.3	2.9	0.0937 ug/L	0.0937 ppb	04:26:37

2	P 214.914†	182.8	1.2	1.0210 ug/L	1.0210 ppb	04:26:37
2	Pb 220.353†	-64.0	-22.0	-3.3996 ug/L	-3.3996 ppb	04:26:37
2	S 181.975 Axial†	29.4	-0.4	-0.6368 ug/L	-0.6368 ppb	04:26:37
2	Sb 206.836†	23.3	-0.9	-0.3695 ug/L	-0.3695 ppb	04:26:37
2	Se 196.026†	-25.2	-6.8	-5.6036 ug/L	-5.6036 ppb	04:26:37
2	Si 251.611†	607.9	117.5	4.4248 ug/L	4.4248 ppb	04:26:37
2	Sn 189.927†	7.8	-0.0	-0.0111 ug/L	-0.0111 ppb	04:26:37
2	Ti 334.940†	-1080.6	-7.3	-0.0217 ug/L	-0.0217 ppb	04:26:17
2	Tl 190.801†	-25.5	5.9	2.2865 ug/L	2.2865 ppb	04:26:37
2	U 409.014†	-1982.2	73.2	2.2089 ug/L	2.2089 ppb	04:26:17
2	V 292.402†	-1392.7	-93.0	-0.7409 ug/L	-0.7409 ppb	04:26:17
2	Zn 213.857†	666.8	58.4	0.7044 ug/L	0.7044 ppb	04:26:37
2	SiO2†	605.8	118.3	9.4790 ug/L	9.4790 ppb	04:27:13
3	Sc Radial	4448.5	4448.5	97.0 %		04:25:25
3	Y RADIAL	4804.1	4804.1	97.36 %		04:25:25
3	Al 396.153Radial†	-78.9	4.5	4.2264 ug/L	4.2264 ppb	04:25:45
3	Ca 317.933Radial†	21.6	-5.5	-9.7920 ug/L	-9.7920 ppb	04:25:45
3	Fe 238.204 Radial†	9.3	1.7	18.016 ug/L	18.016 ppb	04:25:45
3	K 766.490 Radial†	2545.2	69.0	13.250 ug/L	13.250 ppb	04:25:25
3	Mg 279.077 IEC†	0.2	0.1	5.5952 ug/L	5.5952 ppb	04:25:45
3	Na 589.592 Radial†	-931.9	-155.9	-54.632 ug/L	-54.632 ppb	04:25:25
3	Sr 421.552†	55.8	31.8	0.2430 ug/L	0.2430 ppb	04:25:25
3	Sc 361.383	790747.6	790747.6	97.271 %		04:26:42
3	Y 371.029	667055.5	667055.5	96.754 %		04:26:42
3	Ag 328.068†	171.2	-34.6	-0.1693 ug/L	-0.1693 ppb	04:26:42
3	As 188.979†	-23.4	-7.0	-3.9116 ug/L	-3.9116 ppb	04:27:02
3	B 249.677†	-322.9	83.4	2.3307 ug/L	2.3307 ppb	04:27:02
3	Ba 233.527†	10.3	-1.9	-0.0185 ug/L	-0.0185 ppb	04:27:02
3	Be 313.107†	-3625.0	2.3	0.0008 ug/L	0.0008 ppb	04:26:42
3	Cd 226.502†	-168.3	3.3	0.0457 ug/L	0.0457 ppb	04:27:02
3	Co 228.616†	-44.9	-6.4	-0.1667 ug/L	-0.1667 ppb	04:27:02
3	Cr 267.716†	66.4	-11.3	-0.1479 ug/L	-0.1479 ppb	04:27:02
3	Cu 324.752†	5260.4	-58.2	-0.1887 ug/L	-0.1887 ppb	04:26:42
3	Mn 257.610†	497.5	-39.5	-0.0505 ug/L	-0.0505 ppb	04:27:02
3	Mo 202.031†	5.9	-6.8	-0.5983 ug/L	-0.5983 ppb	04:27:02
3	Ni 231.604†	84.6	5.6	0.1776 ug/L	0.1776 ppb	04:27:02
3	P 214.914†	198.7	20.3	15.361 ug/L	15.361 ppb	04:27:02
3	Pb 220.353†	-62.0	-21.0	-3.2376 ug/L	-3.2376 ppb	04:27:02
3	S 181.975 Axial†	29.2	-0.1	-0.1747 ug/L	-0.1747 ppb	04:27:02
3	Sb 206.836†	34.4	10.9	4.5177 ug/L	4.5177 ppb	04:27:02
3	Se 196.026†	-20.9	-2.7	-2.1662 ug/L	-2.1662 ppb	04:27:02
3	Si 251.611†	628.6	148.0	5.5780 ug/L	5.5780 ppb	04:27:02
3	Sn 189.927†	15.1	7.5	1.6961 ug/L	1.6961 ppb	04:27:02
3	Ti 334.940†	-1102.7	-46.3	-0.0793 ug/L	-0.0793 ppb	04:26:42
3	Tl 190.801†	-25.7	5.4	2.0657 ug/L	2.0657 ppb	04:27:02
3	U 409.014†	-2204.1	-184.9	-5.5865 ug/L	-5.5865 ppb	04:26:42
3	V 292.402†	-1341.2	-61.2	-0.5101 ug/L	-0.5101 ppb	04:26:42
3	Zn 213.857†	642.7	43.6	0.5234 ug/L	0.5234 ppb	04:27:02
3	SiO2†	600.8	122.3	9.8132 ug/L	9.8132 ppb	04:27:18

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	796667.6	98.000 %		0.7246				0.74%
Sc Radial	4494.4	98.0 %		0.90				0.92%
Y 371.029	673148.7	97.638 %		0.8351				0.86%
Y RADIAL	4839.2	98.07 %		0.750				0.77%
Ag 328.068†	-6.6	-0.0285 ug/L		0.35581	-0.0285 ppb		0.35581	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.1	9.5576 ug/L		4.62367	9.5576 ppb		4.62367	48.38%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.5	-1.3693 ug/L		2.65939	-1.3693 ppb		2.65939	194.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	85.7	2.3953 ug/L		0.15483	2.3953 ppb		0.15483	6.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.0	-0.0472 ug/L		0.08240	-0.0472 ppb		0.08240	174.48%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-45.8	-0.0196 ug/L		0.02599	-0.0196 ppb		0.02599	132.60%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-6.9	-12.171 ug/L		2.0963	-12.171 ppb		2.0963	17.22%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	1.9	0.0249 ug/L	0.12328	0.0249 ppb	0.12328	494.27%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-6.2	-0.1625 ug/L	0.00831	-0.1625 ppb	0.00831	5.12%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-11.3	-0.1490 ug/L	0.16700	-0.1490 ppb	0.16700	112.05%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-112.8	-0.3707 ug/L	0.15780	-0.3707 ppb	0.15780	42.56%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	1.4	14.311 ug/L	9.3414	14.311 ppb	9.3414	65.28%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	109.6	21.014 ug/L	19.7844	21.014 ppb	19.7844	94.15%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	1.9	73.611 ug/L	66.9342	73.611 ppb	66.9342	90.93%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	-63.4	-0.0851 ug/L	0.03005	-0.0851 ppb	0.03005	35.30%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-4.3	-0.3765 ug/L	0.20403	-0.3765 ppb	0.20403	54.20%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-133.1	-46.634 ug/L	7.5759	-46.634 ppb	7.5759	16.25%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	7.0	0.2227 ug/L	0.15654	0.2227 ppb	0.15654	70.28%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	9.9	7.4953 ug/L	7.27050	7.4953 ppb	7.27050	97.00%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-16.8	-2.5955 ug/L	1.25508	-2.5955 ppb	1.25508	48.36%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-1.0	-1.7380 ug/L	2.31914	-1.7380 ppb	2.31914	133.43%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	5.6	2.3072 ug/L	2.47675	2.3072 ppb	2.47675	107.35%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-1.7	-1.3476 ug/L	4.71881	-1.3476 ppb	4.71881	350.15%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	145.1	5.4669 ug/L	0.99118	5.4669 ppb	0.99118	18.13%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	1.8	0.3978 ug/L	1.14980	0.3978 ppb	1.14980	289.06%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	14.0	0.1072 ug/L	0.11761	0.1072 ppb	0.11761	109.72%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-10.2	-0.0236 ug/L	0.05470	-0.0236 ppb	0.05470	231.33%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	3.0	1.1395 ug/L	1.79878	1.1395 ppb	1.79878	157.85%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-117.0	-3.5351 ug/L	5.04177	-3.5351 ppb	5.04177	142.62%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-59.8	-0.4903 ug/L	0.26109	-0.4903 ppb	0.26109	53.25%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	49.1	0.5899 ug/L	0.09956	0.5899 ppb	0.09956	16.88%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	131.2	10.516 ug/L	1.5157	10.516 ppb	1.5157	14.41%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 92

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/17/2010 05:32:44

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	4328.7	4328.7	94.4 %		05:34:56
1	Y RADIAL	4823.3	4823.3	97.75 %		05:34:36
1	Al 396.153Radial†	5240.4	5639.7	5277.6 ug/L	5277.6 ppb	05:34:36
1	Ca 317.933Radial†	2857.8	3000.9	5304.4 ug/L	5304.4 ppb	05:34:56
1	Fe 238.204 Radial†	485.1	506.2	5319.4 ug/L	5319.4 ppb	05:34:56
1	K 766.490 Radial†	28923.4	28097.7	5376.0 ug/L	5376.0 ppb	05:34:36
1	Mg 279.077 IEC†	137.5	145.7	5543.7 ug/L	5543.7 ppb	05:34:56
1	Na 589.592 Radial†	29747.4	32331.9	11329 ug/L	11329 ppb	05:34:36
1	Sr 421.552†	68414.6	72481.1	553.67 ug/L	553.67 ppb	05:34:36
1	Sc 361.383	818134.8	818134.8	100.64 %		05:35:53
1	Y 371.029	680933.4	680933.4	98.767 %		05:35:53
1	Ag 328.068†	100809.4	99957.3	516.37 ug/L	516.37 ppb	05:35:59
1	As 188.979†	906.8	918.0	515.29 ug/L	515.29 ppb	05:36:19
1	B 249.677†	17835.6	18137.5	505.23 ug/L	505.23 ppb	05:35:59
1	Ba 233.527†	55226.2	54862.2	514.64 ug/L	514.64 ppb	05:35:59
1	Be 313.107†	1208320.2	1204360.1	515.24 ug/L	515.24 ppb	05:35:53
1	Cd 226.502†	35531.6	35481.8	513.97 ug/L	513.97 ppb	05:35:59
1	Co 228.616†	20167.5	20079.0	521.72 ug/L	521.72 ppb	05:35:59
1	Cr 267.716†	38631.7	38306.4	515.41 ug/L	515.41 ppb	05:35:59
1	Cu 324.752†	160925.8	154435.5	511.17 ug/L	511.17 ppb	05:35:59
1	Mn 257.610†	385740.7	382735.1	504.22 ug/L	504.22 ppb	05:35:59
1	Mo 202.031†	5771.8	5722.3	503.69 ug/L	503.69 ppb	05:36:19
1	Ni 231.604†	16597.2	16410.2	522.17 ug/L	522.17 ppb	05:35:59
1	P 214.914†	3544.3	3337.8	2413.8 ug/L	2413.8 ppb	05:36:19
1	Pb 220.353†	3252.0	3274.1	506.58 ug/L	506.58 ppb	05:36:19
1	S 181.975 Axial†	589.7	555.8	991.34 ug/L	991.34 ppb	05:36:19
1	Sb 206.836†	1227.5	1195.2	512.97 ug/L	512.97 ppb	05:36:19
1	Se 196.026†	587.7	602.8	518.70 ug/L	518.70 ppb	05:36:19
1	Si 251.611†	69488.4	68548.0	2573.5 ug/L	2573.5 ppb	05:35:59
1	Sn 189.927†	2235.5	2213.3	498.98 ug/L	498.98 ppb	05:36:19
1	Ti 334.940†	291224.5	290458.6	501.79 ug/L	501.79 ppb	05:35:59
1	Tl 190.801†	1297.4	1321.0	511.94 ug/L	511.94 ppb	05:36:19
1	U 409.014†	15553.5	17535.5	527.84 ug/L	527.84 ppb	05:35:59
1	V 292.402†	63406.3	64320.6	520.61 ug/L	520.61 ppb	05:35:59
1	Zn 213.857†	44056.9	43159.5	516.59 ug/L	516.59 ppb	05:35:59
1	SiO2†	67971.4	67043.5	5355.3 ug/L	5355.3 ppb	05:37:26
2	Sc Radial	4314.1	4314.1	94.0 %		05:35:21
2	Y RADIAL	4815.2	4815.2	97.59 %		05:35:01
2	Al 396.153Radial†	5225.3	5642.3	5279.6 ug/L	5279.6 ppb	05:35:01
2	Ca 317.933Radial†	2839.2	2991.4	5287.6 ug/L	5287.6 ppb	05:35:21
2	Fe 238.204 Radial†	481.1	503.7	5293.2 ug/L	5293.2 ppb	05:35:21
2	K 766.490 Radial†	28865.9	28139.8	5384.0 ug/L	5384.0 ppb	05:35:01
2	Mg 279.077 IEC†	136.0	144.5	5499.9 ug/L	5499.9 ppb	05:35:21
2	Na 589.592 Radial†	29514.8	32190.8	11279 ug/L	11279 ppb	05:35:01
2	Sr 421.552†	67903.7	72182.1	551.38 ug/L	551.38 ppb	05:35:01
2	Sc 361.383	811868.1	811868.1	99.870 %		05:36:24
2	Y 371.029	677717.5	677717.5	98.300 %		05:36:24
2	Ag 328.068†	100332.2	100252.6	517.89 ug/L	517.89 ppb	05:36:29
2	As 188.979†	893.8	912.0	511.92 ug/L	511.92 ppb	05:36:50
2	B 249.677†	17734.3	18172.8	506.22 ug/L	506.22 ppb	05:36:29
2	Ba 233.527†	55047.4	55106.9	516.94 ug/L	516.94 ppb	05:36:29
2	Be 313.107†	1201886.3	1207185.3	516.45 ug/L	516.45 ppb	05:36:24
2	Cd 226.502†	35379.7	35602.2	515.72 ug/L	515.72 ppb	05:36:29
2	Co 228.616†	20105.0	20171.1	524.13 ug/L	524.13 ppb	05:36:29
2	Cr 267.716†	38529.7	38500.5	518.02 ug/L	518.02 ppb	05:36:29
2	Cu 324.752†	160031.2	154774.0	512.29 ug/L	512.29 ppb	05:36:29
2	Mn 257.610†	384204.5	384155.4	506.08 ug/L	506.08 ppb	05:36:29
2	Mo 202.031†	5811.2	5805.9	511.04 ug/L	511.04 ppb	05:36:50
2	Ni 231.604†	16543.4	16483.6	524.51 ug/L	524.51 ppb	05:36:29

2	P 214.914†	3553.7	3374.4	2441.2 ug/L	2441.2 ppb	05:36:50
2	Pb 220.353†	3264.9	3311.9	512.44 ug/L	512.44 ppb	05:36:50
2	S 181.975 Axial†	603.4	574.0	1023.9 ug/L	1023.9 ppb	05:36:50
2	Sb 206.836†	1222.3	1199.4	514.96 ug/L	514.96 ppb	05:36:50
2	Se 196.026†	591.4	610.9	525.43 ug/L	525.43 ppb	05:36:50
2	Si 251.611†	69390.0	68982.4	2589.7 ug/L	2589.7 ppb	05:36:29
2	Sn 189.927†	2247.4	2242.3	505.51 ug/L	505.51 ppb	05:36:50
2	Ti 334.940†	289762.5	291228.3	503.13 ug/L	503.13 ppb	05:36:29
2	Tl 190.801†	1307.7	1341.2	519.73 ug/L	519.73 ppb	05:36:50
2	U 409.014†	15355.8	17456.9	525.46 ug/L	525.46 ppb	05:36:29
2	V 292.402†	63087.5	64487.6	522.04 ug/L	522.04 ppb	05:36:29
2	Zn 213.857†	44000.8	43441.2	519.98 ug/L	519.98 ppb	05:36:29
2	SiO2†	69262.1	68857.2	5500.3 ug/L	5500.3 ppb	05:37:31
3	Sc Radial	4329.1	4329.1	94.4 %		05:35:47
3	Y RADIAL	4711.0	4711.0	95.47 %		05:35:26
3	Al 396.153Radial†	5086.1	5475.5	5123.3 ug/L	5123.3 ppb	05:35:26
3	Ca 317.933Radial†	2857.6	3000.3	5303.4 ug/L	5303.4 ppb	05:35:47
3	Fe 238.204 Radial†	484.6	505.6	5313.2 ug/L	5313.2 ppb	05:35:47
3	K 766.490 Radial†	28318.1	27452.9	5252.5 ug/L	5252.5 ppb	05:35:26
3	Mg 279.077 IEC†	136.6	144.7	5505.7 ug/L	5505.7 ppb	05:35:47
3	Na 589.592 Radial†	28923.1	31454.8	11021 ug/L	11021 ppb	05:35:26
3	Sr 421.552†	66428.5	70368.3	537.53 ug/L	537.53 ppb	05:35:26
3	Sc 361.383	823358.2	823358.2	101.28 %		05:36:55
3	Y 371.029	686661.7	686661.7	99.598 %		05:36:55
3	Ag 328.068†	100854.2	99366.1	513.33 ug/L	513.33 ppb	05:37:00
3	As 188.979†	895.1	900.8	505.70 ug/L	505.70 ppb	05:37:20
3	B 249.677†	17815.2	18004.9	501.52 ug/L	501.52 ppb	05:37:00
3	Ba 233.527†	55350.9	54637.3	512.53 ug/L	512.53 ppb	05:37:00
3	Be 313.107†	1218641.2	1206933.6	516.33 ug/L	516.33 ppb	05:36:55
3	Cd 226.502†	35513.9	35240.4	510.47 ug/L	510.47 ppb	05:37:00
3	Co 228.616†	20218.9	20002.6	519.74 ug/L	519.74 ppb	05:37:00
3	Cr 267.716†	38644.9	38075.8	512.32 ug/L	512.32 ppb	05:37:00
3	Cu 324.752†	160896.0	153391.7	507.72 ug/L	507.72 ppb	05:37:00
3	Mn 257.610†	386014.6	380574.0	501.37 ug/L	501.37 ppb	05:37:00
3	Mo 202.031†	5774.6	5688.6	500.73 ug/L	500.73 ppb	05:37:20
3	Ni 231.604†	16573.2	16281.8	518.08 ug/L	518.08 ppb	05:37:00
3	P 214.914†	3545.7	3316.9	2398.7 ug/L	2398.7 ppb	05:37:20
3	Pb 220.353†	3259.6	3261.1	504.53 ug/L	504.53 ppb	05:37:20
3	S 181.975 Axial†	589.2	551.6	983.88 ug/L	983.88 ppb	05:37:20
3	Sb 206.836†	1239.7	1199.5	514.66 ug/L	514.66 ppb	05:37:20
3	Se 196.026†	594.4	605.6	520.98 ug/L	520.98 ppb	05:37:20
3	Si 251.611†	69619.7	68239.6	2561.9 ug/L	2561.9 ppb	05:37:00
3	Sn 189.927†	2243.7	2207.3	497.62 ug/L	497.62 ppb	05:37:20
3	Ti 334.940†	291018.1	288419.0	498.28 ug/L	498.28 ppb	05:37:00
3	Tl 190.801†	1287.2	1302.7	504.86 ug/L	504.86 ppb	05:37:20
3	U 409.014†	15318.3	17205.2	517.87 ug/L	517.87 ppb	05:37:00
3	V 292.402†	63406.5	63921.0	517.36 ug/L	517.36 ppb	05:37:00
3	Zn 213.857†	44185.4	43008.6	514.80 ug/L	514.80 ppb	05:37:00
3	SiO2†	69417.8	68043.1	5435.4 ug/L	5435.4 ppb	05:37:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	817787.0	100.60 %		0.708			0.70%
Sc Radial	4324.0	94.3 %		0.19			0.20%
Y 371.029	681770.9	98.888 %		0.6571			0.66%
Y RADIAL	4783.2	96.94 %		1.270			1.31%
Ag 328.068†	99858.7	515.86 ug/L		2.321	515.86 ppb	2.321	0.45%
QC value within limits for Ag 328.068 Recovery = 103.17%							
Al 396.153Radial†	5585.8	5226.8 ug/L		89.65	5226.8 ppb	89.65	1.72%
QC value within limits for Al 396.153Radial Recovery = 104.54%							
As 188.979†	910.3	510.97 ug/L		4.865	510.97 ppb	4.865	0.95%
QC value within limits for As 188.979 Recovery = 102.19%							
B 249.677†	18105.1	504.32 ug/L		2.473	504.32 ppb	2.473	0.49%
QC value within limits for B 249.677 Recovery = 100.86%							
Ba 233.527†	54868.8	514.70 ug/L		2.202	514.70 ppb	2.202	0.43%
QC value within limits for Ba 233.527 Recovery = 102.94%							
Be 313.107†	1206159.6	516.00 ug/L		0.666	516.00 ppb	0.666	0.13%
QC value within limits for Be 313.107 Recovery = 103.20%							
Ca 317.933Radial†	2997.5	5298.5 ug/L		9.47	5298.5 ppb	9.47	0.18%

QC value within limits for Ca 317.933 Radial Recovery = 105.97%							
Cd 226.502†	35441.5	513.39 ug/L	2.673	513.39 ppb	2.673	0.52%	
QC value within limits for Cd 226.502 Recovery = 102.68%							
Co 228.616†	20084.2	521.87 ug/L	2.199	521.87 ppb	2.199	0.42%	
QC value within limits for Co 228.616 Recovery = 104.37%							
Cr 267.716†	38294.2	515.25 ug/L	2.855	515.25 ppb	2.855	0.55%	
QC value within limits for Cr 267.716 Recovery = 103.05%							
Cu 324.752†	154200.4	510.39 ug/L	2.382	510.39 ppb	2.382	0.47%	
QC value within limits for Cu 324.752 Recovery = 102.08%							
Fe 238.204 Radial†	505.2	5308.6 ug/L	13.68	5308.6 ppb	13.68	0.26%	
QC value within limits for Fe 238.204 Radial Recovery = 106.17%							
K 766.490 Radial†	27896.8	5337.5 ug/L	73.70	5337.5 ppb	73.70	1.38%	
QC value within limits for K 766.490 Radial Recovery = 106.75%							
Mg 279.077 IEC†	145.0	5516.5 ug/L	23.80	5516.5 ppb	23.80	0.43%	
QC value greater than the upper limit for Mg 279.077 IEC Recovery = 110.33%							
Mn 257.610†	382488.2	503.89 ug/L	2.374	503.89 ppb	2.374	0.47%	
QC value within limits for Mn 257.610 Recovery = 100.78%							
Mo 202.031†	5738.9	505.15 ug/L	5.311	505.15 ppb	5.311	1.05%	
QC value within limits for Mo 202.031 Recovery = 101.03%							
Na 589.592 Radial†	31992.5	11210 ug/L	165.0	11210 ppb	165.0	1.47%	
QC value greater than the upper limit for Na 589.592 Radial Recovery = 112.10%							
Ni 231.604†	16391.9	521.59 ug/L	3.250	521.59 ppb	3.250	0.62%	
QC value within limits for Ni 231.604 Recovery = 104.32%							
P 214.914†	3343.1	2417.9 ug/L	21.56	2417.9 ppb	21.56	0.89%	
QC value within limits for P 214.914 Recovery = 96.72%							
Pb 220.353†	3282.4	507.85 ug/L	4.107	507.85 ppb	4.107	0.81%	
QC value within limits for Pb 220.353 Recovery = 101.57%							
S 181.975 Axial†	560.5	999.70 ug/L	21.265	999.70 ppb	21.265	2.13%	
QC value within limits for S 181.975 Axial Recovery = 99.97%							
Sb 206.836†	1198.0	514.20 ug/L	1.074	514.20 ppb	1.074	0.21%	
QC value within limits for Sb 206.836 Recovery = 102.84%							
Se 196.026†	606.4	521.71 ug/L	3.422	521.71 ppb	3.422	0.66%	
QC value within limits for Se 196.026 Recovery = 104.34%							
Si 251.611†	68590.0	2575.0 ug/L	13.98	2575.0 ppb	13.98	0.54%	
QC value within limits for Si 251.611 Recovery = 103.00%							
Sn 189.927†	2221.0	500.70 ug/L	4.215	500.70 ppb	4.215	0.84%	
QC value within limits for Sn 189.927 Recovery = 100.14%							
Sr 421.552†	71677.2	547.53 ug/L	8.734	547.53 ppb	8.734	1.60%	
QC value within limits for Sr 421.552 Recovery = 109.51%							
Ti 334.940†	290035.3	501.07 ug/L	2.505	501.07 ppb	2.505	0.50%	
QC value within limits for Ti 334.940 Recovery = 100.21%							
Tl 190.801†	1321.6	512.18 ug/L	7.437	512.18 ppb	7.437	1.45%	
QC value within limits for Tl 190.801 Recovery = 102.44%							
U 409.014†	17399.2	523.72 ug/L	5.206	523.72 ppb	5.206	0.99%	
QC value within limits for U 409.014 Recovery = 104.74%							
V 292.402†	64243.1	520.00 ug/L	2.399	520.00 ppb	2.399	0.46%	
QC value within limits for V 292.402 Recovery = 104.00%							
Zn 213.857†	43203.1	517.12 ug/L	2.632	517.12 ppb	2.632	0.51%	
QC value within limits for Zn 213.857 Recovery = 103.42%							
SiO2†	67981.3	5430.4 ug/L	72.66	5430.4 ppb	72.66	1.34%	
QC value within limits for SiO2 Recovery = 101.55%							
QC Failed. Continue with analysis.							

Sequence No.: 93

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/17/2010 05:39:46

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	4339.4	4339.4	94.6 %		05:41:59
1	Y RADIAL	4891.8	4891.8	99.14 %		05:41:39
1	Al 396.153Radial†	-78.1	3.3	3.1101 ug/L	3.1101 ppb	05:41:59
1	Ca 317.933Radial†	20.8	-5.9	-10.344 ug/L	-10.344 ppb	05:41:59
1	Fe 238.204 Radial†	7.6	0.2	1.8898 ug/L	1.8898 ppb	05:41:59
1	K 766.490 Radial†	2618.4	212.4	40.732 ug/L	40.732 ppb	05:41:39
1	Mg 279.077 IEC†	0.6	0.5	20.100 ug/L	20.100 ppb	05:41:59
1	Na 589.592 Radial†	-973.1	-223.6	-78.357 ug/L	-78.357 ppb	05:41:39
1	Sr 421.552†	11.8	-13.3	-0.1012 ug/L	-0.1012 ppb	05:41:39
1	Sc 361.383	802935.0	802935.0	98.771 %		05:42:56
1	Y 371.029	681557.5	681557.5	98.857 %		05:42:56
1	Ag 328.068†	249.6	42.1	0.2202 ug/L	0.2202 ppb	05:42:56
1	As 188.979†	-15.4	1.4	0.7972 ug/L	0.7972 ppb	05:43:16
1	B 249.677†	-245.7	166.6	4.6613 ug/L	4.6613 ppb	05:43:16
1	Ba 233.527†	23.6	11.4	0.1072 ug/L	0.1072 ppb	05:43:16
1	Be 313.107†	-3735.6	-53.1	-0.0225 ug/L	-0.0225 ppb	05:42:56
1	Cd 226.502†	-161.0	13.4	0.1928 ug/L	0.1928 ppb	05:43:16
1	Co 228.616†	-32.6	6.8	0.1756 ug/L	0.1756 ppb	05:43:16
1	Cr 267.716†	74.1	-4.5	-0.0584 ug/L	-0.0584 ppb	05:43:16
1	Cu 324.752†	5288.6	-111.8	-0.3681 ug/L	-0.3681 ppb	05:42:56
1	Mn 257.610†	463.2	-81.9	-0.1085 ug/L	-0.1085 ppb	05:43:16
1	Mo 202.031†	7.9	-4.9	-0.4298 ug/L	-0.4298 ppb	05:43:16
1	Ni 231.604†	92.2	12.0	0.3808 ug/L	0.3808 ppb	05:43:16
1	P 214.914†	182.8	1.2	0.9372 ug/L	0.9372 ppb	05:43:16
1	Pb 220.353†	-39.5	2.8	0.4263 ug/L	0.4263 ppb	05:43:16
1	S 181.975 Axial†	30.4	0.7	1.1622 ug/L	1.1622 ppb	05:43:16
1	Sb 206.836†	32.5	8.3	3.4308 ug/L	3.4308 ppb	05:43:16
1	Se 196.026†	-19.9	-1.4	-1.1459 ug/L	-1.1459 ppb	05:43:16
1	Si 251.611†	531.8	40.2	1.5186 ug/L	1.5186 ppb	05:43:16
1	Sn 189.927†	3.5	-4.4	-0.9962 ug/L	-0.9962 ppb	05:43:16
1	Ti 334.940†	-1043.5	30.9	0.0519 ug/L	0.0519 ppb	05:42:56
1	Tl 190.801†	-28.2	3.2	1.2444 ug/L	1.2444 ppb	05:43:16
1	U 409.014†	-2171.2	-117.3	-3.5413 ug/L	-3.5413 ppb	05:42:56
1	V 292.402†	-1285.2	16.5	0.1192 ug/L	0.1192 ppb	05:42:56
1	Zn 213.857†	651.7	42.7	0.5132 ug/L	0.5132 ppb	05:43:16
1	SiO2†	532.7	44.0	3.5387 ug/L	3.5387 ppb	05:44:27
2	Sc Radial	4300.5	4300.5	93.7 %		05:42:24
2	Y RADIAL	4836.6	4836.6	98.02 %		05:42:04
2	Al 396.153Radial†	-82.7	-2.4	-2.2262 ug/L	-2.2262 ppb	05:42:24
2	Ca 317.933Radial†	20.8	-5.7	-10.025 ug/L	-10.025 ppb	05:42:24
2	Fe 238.204 Radial†	7.4	0.1	0.8436 ug/L	0.8436 ppb	05:42:24
2	K 766.490 Radial†	2666.4	288.6	55.332 ug/L	55.332 ppb	05:42:04
2	Mg 279.077 IEC†	4.1	4.3	165.03 ug/L	165.03 ppb	05:42:24
2	Na 589.592 Radial†	-991.3	-252.4	-88.421 ug/L	-88.421 ppb	05:42:04
2	Sr 421.552†	48.5	25.9	0.1982 ug/L	0.1982 ppb	05:42:04
2	Sc 361.383	801007.3	801007.3	98.534 %		05:43:21
2	Y 371.029	679698.7	679698.7	98.588 %		05:43:21
2	Ag 328.068†	158.9	-49.4	-0.2527 ug/L	-0.2527 ppb	05:43:21
2	As 188.979†	-21.7	-4.9	-2.7519 ug/L	-2.7519 ppb	05:43:41
2	B 249.677†	-267.6	143.8	4.0241 ug/L	4.0241 ppb	05:43:41
2	Ba 233.527†	12.5	0.2	0.0012 ug/L	0.0012 ppb	05:43:41
2	Be 313.107†	-3797.7	-125.2	-0.0535 ug/L	-0.0535 ppb	05:43:21
2	Cd 226.502†	-167.3	6.5	0.0942 ug/L	0.0942 ppb	05:43:41
2	Co 228.616†	-47.9	-8.7	-0.2276 ug/L	-0.2276 ppb	05:43:41
2	Cr 267.716†	83.1	4.8	0.0647 ug/L	0.0647 ppb	05:43:41
2	Cu 324.752†	5306.2	-81.1	-0.2674 ug/L	-0.2674 ppb	05:43:21
2	Mn 257.610†	450.2	-94.0	-0.1305 ug/L	-0.1305 ppb	05:43:41
2	Mo 202.031†	8.7	-4.0	-0.3548 ug/L	-0.3548 ppb	05:43:41
2	Ni 231.604†	70.8	-9.6	-0.3053 ug/L	-0.3053 ppb	05:43:41

2	P 214.914†	175.4	-6.0	-4.4385 ug/L	-4.4385 ppb	05:43:41
2	Pb 220.353†	-42.8	-0.6	-0.0987 ug/L	-0.0987 ppb	05:43:41
2	S 181.975 Axial†	27.9	-1.9	-3.3683 ug/L	-3.3683 ppb	05:43:41
2	Sb 206.836†	32.0	8.0	3.2870 ug/L	3.2870 ppb	05:43:41
2	Se 196.026†	-23.9	-5.4	-4.5061 ug/L	-4.5061 ppb	05:43:41
2	Si 251.611†	527.3	36.9	1.3930 ug/L	1.3930 ppb	05:43:41
2	Sn 189.927†	4.4	-3.5	-0.7979 ug/L	-0.7979 ppb	05:43:41
2	Ti 334.940†	-1080.2	-8.9	-0.0295 ug/L	-0.0295 ppb	05:43:21
2	Tl 190.801†	-29.5	1.9	0.7167 ug/L	0.7167 ppb	05:43:41
2	U 409.014†	-2105.9	-56.3	-1.6995 ug/L	-1.6995 ppb	05:43:21
2	V 292.402†	-1332.9	-35.1	-0.2853 ug/L	-0.2853 ppb	05:43:21
2	Zn 213.857†	655.9	48.5	0.5884 ug/L	0.5884 ppb	05:43:41
2	SiO2†	555.7	68.6	5.5040 ug/L	5.5040 ppb	05:44:47
3	Sc Radial	4323.3	4323.3	94.2 %		05:42:49
3	Y RADIAL	4734.4	4734.4	95.95 %		05:42:29
3	Al 396.153Radial†	-79.5	1.4	1.3546 ug/L	1.3546 ppb	05:42:49
3	Ca 317.933Radial†	21.6	-5.0	-8.7522 ug/L	-8.7522 ppb	05:42:49
3	Fe 238.204 Radial†	9.8	2.5	26.119 ug/L	26.119 ppb	05:42:49
3	K 766.490 Radial†	2620.9	225.4	43.214 ug/L	43.214 ppb	05:42:29
3	Mg 279.077 IEC†	1.7	1.7	65.223 ug/L	65.223 ppb	05:42:49
3	Na 589.592 Radial†	-972.7	-227.1	-79.567 ug/L	-79.567 ppb	05:42:29
3	Sr 421.552†	19.1	-5.5	-0.0418 ug/L	-0.0418 ppb	05:42:29
3	Sc 361.383	798324.2	798324.2	98.203 %		05:43:46
3	Y 371.029	676482.9	676482.9	98.121 %		05:43:46
3	Ag 328.068†	154.4	-53.4	-0.2703 ug/L	-0.2703 ppb	05:43:46
3	As 188.979†	-17.9	-1.2	-0.6582 ug/L	-0.6582 ppb	05:44:07
3	B 249.677†	-270.0	140.4	3.9269 ug/L	3.9269 ppb	05:44:07
3	Ba 233.527†	3.9	-8.5	-0.0795 ug/L	-0.0795 ppb	05:44:07
3	Be 313.107†	-3760.4	-100.1	-0.0426 ug/L	-0.0426 ppb	05:43:46
3	Cd 226.502†	-172.1	1.1	0.0144 ug/L	0.0144 ppb	05:44:07
3	Co 228.616†	-52.5	-13.6	-0.3561 ug/L	-0.3561 ppb	05:44:07
3	Cr 267.716†	62.8	-15.6	-0.2087 ug/L	-0.2087 ppb	05:44:07
3	Cu 324.752†	5290.4	-79.1	-0.2629 ug/L	-0.2629 ppb	05:43:46
3	Mn 257.610†	446.3	-96.5	-0.1271 ug/L	-0.1271 ppb	05:44:07
3	Mo 202.031†	5.5	-7.2	-0.6320 ug/L	-0.6320 ppb	05:44:07
3	Ni 231.604†	75.3	-4.8	-0.1512 ug/L	-0.1512 ppb	05:44:07
3	P 214.914†	183.3	2.7	2.0879 ug/L	2.0879 ppb	05:44:07
3	Pb 220.353†	-50.8	-9.0	-1.3859 ug/L	-1.3859 ppb	05:44:07
3	S 181.975 Axial†	24.2	-5.5	-9.7848 ug/L	-9.7848 ppb	05:44:07
3	Sb 206.836†	34.5	10.6	4.3464 ug/L	4.3464 ppb	05:44:07
3	Se 196.026†	-18.3	0.1	0.1889 ug/L	0.1889 ppb	05:44:07
3	Si 251.611†	514.9	26.1	0.9905 ug/L	0.9905 ppb	05:44:07
3	Sn 189.927†	4.5	-3.4	-0.7727 ug/L	-0.7727 ppb	05:44:07
3	Ti 334.940†	-1043.3	25.0	0.0347 ug/L	0.0347 ppb	05:43:46
3	Tl 190.801†	-29.3	1.9	0.7420 ug/L	0.7420 ppb	05:44:07
3	U 409.014†	-1897.2	149.1	4.4998 ug/L	4.4998 ppb	05:43:46
3	V 292.402†	-1313.2	-19.5	-0.1584 ug/L	-0.1584 ppb	05:43:46
3	Zn 213.857†	646.4	41.2	0.4945 ug/L	0.4945 ppb	05:44:07
3	SiO2†	533.6	48.0	3.8612 ug/L	3.8612 ppb	05:45:07

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	800755.5	98.503 %		0.2849				0.29%
Sc Radial	4321.1	94.2 %		0.43				0.45%
Y 371.029	679246.4	98.522 %		0.3724				0.38%
Y RADIAL	4820.9	97.70 %		1.619				1.66%
Ag 328.068†	-20.2	-0.1009 ug/L		0.27826	-0.1009 ppb		0.27826	275.66%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.8	0.7461 ug/L		2.71969	0.7461 ppb		2.71969	364.51%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.6	-0.8709 ug/L		1.78409	-0.8709 ppb		1.78409	204.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	150.3	4.2041 ug/L		0.39895	4.2041 ppb		0.39895	9.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.0	0.0096 ug/L		0.09367	0.0096 ppb		0.09367	971.72%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-92.8	-0.0396 ug/L		0.01571	-0.0396 ppb		0.01571	39.71%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-5.5	-9.7070 ug/L		0.84210	-9.7070 ppb		0.84210	8.68%

QC value within limits for Ca 317.933 Radial	Recovery = Not calculated		
Cd 226.502†	7.0 0.1005 ug/L	0.08939 0.1005 ppb	0.08939 88.98%
QC value within limits for Cd 226.502	Recovery = Not calculated		
Co 228.616†	-5.2 -0.1360 ug/L	0.27747 -0.1360 ppb	0.27747 203.98%
QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	-5.1 -0.0674 ug/L	0.13692 -0.0674 ppb	0.13692 203.01%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	-90.7 -0.2995 ug/L	0.05945 -0.2995 ppb	0.05945 19.85%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	0.9 9.6175 ug/L	14.30032 9.6175 ppb	14.30032 148.69%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	242.1 46.426 ug/L	7.8121 46.426 ppb	7.8121 16.83%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	2.2 83.450 ug/L	74.1625 83.450 ppb	74.1625 88.87%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	-90.8 -0.1220 ug/L	0.01184 -0.1220 ppb	0.01184 9.70%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	-5.4 -0.4722 ug/L	0.14335 -0.4722 ppb	0.14335 30.36%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	-234.4 -82.115 ug/L	5.4948 -82.115 ppb	5.4948 6.69%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	-0.8 -0.0252 ug/L	0.35997 -0.0252 ppb	0.35997 >999.9%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-0.7 -0.4711 ug/L	3.48371 -0.4711 ppb	3.48371 739.42%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-2.3 -0.3527 ug/L	0.93240 -0.3527 ppb	0.93240 264.33%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-2.2 -3.9970 ug/L	5.50050 -3.9970 ppb	5.50050 137.62%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	9.0 3.6881 ug/L	0.57467 3.6881 ppb	0.57467 15.58%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	-2.2 -1.8210 ug/L	2.41923 -1.8210 ppb	2.41923 132.85%
QC value within limits for Se 196.026	Recovery = Not calculated		
Si 251.611†	34.4 1.3007 ug/L	0.27588 1.3007 ppb	0.27588 21.21%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	-3.8 -0.8556 ug/L	0.12245 -0.8556 ppb	0.12245 14.31%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	2.4 0.0184 ug/L	0.15852 0.0184 ppb	0.15852 862.68%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	15.6 0.0190 ug/L	0.04292 0.0190 ppb	0.04292 225.49%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	2.3 0.9010 ug/L	0.29765 0.9010 ppb	0.29765 33.03%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	-8.1 -0.2470 ug/L	4.21276 -0.2470 ppb	4.21276 >999.9%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	-12.7 -0.1082 ug/L	0.20687 -0.1082 ppb	0.20687 191.25%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	44.1 0.5320 ug/L	0.04967 0.5320 ppb	0.04967 9.34%
QC value within limits for Zn 213.857	Recovery = Not calculated		
SiO2†	53.6 4.3013 ug/L	1.05400 4.3013 ppb	1.05400 24.50%
QC value within limits for SiO2	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 102

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/17/2010 06:43:34

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	4319.3	4319.3	94.2 %		06:45:27
1	Y RADIAL	4669.3	4669.3	94.63 %		06:45:27
1	Al 396.153Radial†	5178.5	5586.1	5227.1 ug/L	5227.1 ppb	06:45:27
1	Ca 317.933Radial†	2800.6	2946.8	5208.8 ug/L	5208.8 ppb	06:45:47
1	Fe 238.204 Radial†	469.0	490.2	5151.8 ug/L	5151.8 ppb	06:45:47
1	K 766.490 Radial†	28379.2	27586.5	5278.4 ug/L	5278.4 ppb	06:45:27
1	Mg 279.077 IEC†	132.4	140.5	5346.5 ug/L	5346.5 ppb	06:45:47
1	Na 589.592 Radial†	27544.5	30060.7	10533 ug/L	10533 ppb	06:45:27
1	Sr 421.552†	65400.3	69437.4	530.42 ug/L	530.42 ppb	06:45:27
1	Sc 361.383	809814.2	809814.2	99.617 %		06:46:44
1	Y 371.029	675893.2	675893.2	98.036 %		06:46:44
1	Ag 328.068†	98585.3	98753.9	510.13 ug/L	510.13 ppb	06:46:49
1	As 188.979†	885.6	906.1	508.53 ug/L	508.53 ppb	06:47:09
1	B 249.677†	17334.3	17816.3	496.29 ug/L	496.29 ppb	06:46:49
1	Ba 233.527†	53820.3	54014.7	506.70 ug/L	506.70 ppb	06:46:49
1	Be 313.107†	1178740.2	1187002.5	507.81 ug/L	507.81 ppb	06:46:44
1	Cd 226.502†	34641.5	34951.1	506.29 ug/L	506.29 ppb	06:46:49
1	Co 228.616†	19648.9	19764.3	513.57 ug/L	513.57 ppb	06:46:49
1	Cr 267.716†	37818.3	37884.2	509.72 ug/L	509.72 ppb	06:46:49
1	Cu 324.752†	157211.4	152349.8	504.26 ug/L	504.26 ppb	06:46:49
1	Mn 257.610†	381157.5	382072.4	503.33 ug/L	503.33 ppb	06:46:44
1	Mo 202.031†	5717.1	5726.3	504.02 ug/L	504.02 ppb	06:47:09
1	Ni 231.604†	16176.8	16157.6	514.13 ug/L	514.13 ppb	06:46:49
1	P 214.914†	3514.0	3343.6	2419.7 ug/L	2419.7 ppb	06:47:09
1	Pb 220.353†	3226.4	3281.5	507.74 ug/L	507.74 ppb	06:47:09
1	S 181.975 Axial†	593.9	566.0	1009.6 ug/L	1009.6 ppb	06:47:09
1	Sb 206.836†	1215.5	1195.7	513.22 ug/L	513.22 ppb	06:47:09
1	Se 196.026†	591.4	612.5	526.25 ug/L	526.25 ppb	06:47:09
1	Si 251.611†	67791.0	67553.5	2536.0 ug/L	2536.0 ppb	06:46:49
1	Sn 189.927†	2224.8	2225.4	501.69 ug/L	501.69 ppb	06:47:09
1	Ti 334.940†	284127.4	286307.4	494.63 ug/L	494.63 ppb	06:46:49
1	Tl 190.801†	1280.3	1317.0	510.41 ug/L	510.41 ppb	06:47:09
1	U 409.014†	14931.5	17070.0	513.81 ug/L	513.81 ppb	06:46:49
1	V 292.402†	61950.5	63506.4	514.11 ug/L	514.11 ppb	06:46:49
1	Zn 213.857†	43097.0	42645.6	510.47 ug/L	510.47 ppb	06:46:49
1	SiO2†	67925.7	67691.6	5407.2 ug/L	5407.2 ppb	06:48:17
2	Sc Radial	4428.9	4428.9	96.5 %		06:45:52
2	Y RADIAL	4790.6	4790.6	97.09 %		06:45:52
2	Al 396.153Radial†	5125.7	5395.1	5047.7 ug/L	5047.7 ppb	06:45:52
2	Ca 317.933Radial†	2804.6	2877.2	5085.8 ug/L	5085.8 ppb	06:46:12
2	Fe 238.204 Radial†	465.8	474.6	4987.8 ug/L	4987.8 ppb	06:46:12
2	K 766.490 Radial†	28101.0	26552.0	5080.4 ug/L	5080.4 ppb	06:45:52
2	Mg 279.077 IEC†	132.6	137.3	5224.5 ug/L	5224.5 ppb	06:46:12
2	Na 589.592 Radial†	27161.0	28939.3	10140 ug/L	10140 ppb	06:45:52
2	Sr 421.552†	64614.6	66903.9	511.06 ug/L	511.06 ppb	06:45:52
2	Sc 361.383	806800.4	806800.4	99.246 %		06:47:15
2	Y 371.029	672677.3	672677.3	97.569 %		06:47:15
2	Ag 328.068†	97934.9	98468.2	508.61 ug/L	508.61 ppb	06:47:20
2	As 188.979†	880.5	904.3	507.50 ug/L	507.50 ppb	06:47:40
2	B 249.677†	17188.8	17734.7	494.03 ug/L	494.03 ppb	06:47:20
2	Ba 233.527†	53836.4	54232.9	508.73 ug/L	508.73 ppb	06:47:20
2	Be 313.107†	1171450.7	1184077.6	506.56 ug/L	506.56 ppb	06:47:15
2	Cd 226.502†	34614.1	35053.4	507.79 ug/L	507.79 ppb	06:47:20
2	Co 228.616†	19673.6	19862.8	516.12 ug/L	516.12 ppb	06:47:20
2	Cr 267.716†	37615.9	37822.0	508.87 ug/L	508.87 ppb	06:47:20
2	Cu 324.752†	156106.9	151826.4	502.52 ug/L	502.52 ppb	06:47:20
2	Mn 257.610†	379676.6	382009.5	503.24 ug/L	503.24 ppb	06:47:15
2	Mo 202.031†	5671.9	5702.2	501.89 ug/L	501.89 ppb	06:47:40
2	Ni 231.604†	16118.9	16159.9	514.20 ug/L	514.20 ppb	06:47:20

2	P 214.914†	3485.7	3328.3	2408.6 ug/L	2408.6 ppb	06:47:40
2	Pb 220.353†	3195.7	3262.7	504.82 ug/L	504.82 ppb	06:47:40
2	S 181.975 Axial†	580.2	554.5	989.10 ug/L	989.10 ppb	06:47:40
2	Sb 206.836†	1221.1	1205.8	517.36 ug/L	517.36 ppb	06:47:40
2	Se 196.026†	585.0	608.2	522.19 ug/L	522.19 ppb	06:47:40
2	Si 251.611†	67699.0	67715.0	2542.1 ug/L	2542.1 ppb	06:47:20
2	Sn 189.927†	2209.9	2218.7	500.17 ug/L	500.17 ppb	06:47:40
2	Ti 334.940†	283187.5	286425.8	494.83 ug/L	494.83 ppb	06:47:20
2	Tl 190.801†	1274.9	1316.4	510.15 ug/L	510.15 ppb	06:47:40
2	U 409.014†	14904.9	17099.1	514.71 ug/L	514.71 ppb	06:47:20
2	V 292.402†	61584.1	63369.6	513.01 ug/L	513.01 ppb	06:47:20
2	Zn 213.857†	43084.2	42794.3	512.29 ug/L	512.29 ppb	06:47:20
2	SiO2†	67772.6	67792.1	5415.3 ug/L	5415.3 ppb	06:48:22
3	Sc Radial	4493.6	4493.6	98.0 %		06:46:17
3	Y RADIAL	4860.6	4860.6	98.51 %		06:46:17
3	Al 396.153Radial†	5193.7	5388.1	5041.2 ug/L	5041.2 ppb	06:46:17
3	Ca 317.933Radial†	2805.6	2836.4	5013.7 ug/L	5013.7 ppb	06:46:37
3	Fe 238.204 Radial†	470.2	472.2	4962.6 ug/L	4962.6 ppb	06:46:37
3	K 766.490 Radial†	28547.8	26589.0	5087.5 ug/L	5087.5 ppb	06:46:17
3	Mg 279.077 IEC†	132.3	134.9	5135.0 ug/L	5135.0 ppb	06:46:37
3	Na 589.592 Radial†	27411.5	28789.8	10088 ug/L	10088 ppb	06:46:17
3	Sr 421.552†	65657.6	67004.8	511.83 ug/L	511.83 ppb	06:46:17
3	Sc 361.383	808355.1	808355.1	99.437 %		06:47:46
3	Y 371.029	673485.4	673485.4	97.686 %		06:47:46
3	Ag 328.068†	98130.0	98474.6	508.63 ug/L	508.63 ppb	06:47:51
3	As 188.979†	881.4	903.4	507.00 ug/L	507.00 ppb	06:48:11
3	B 249.677†	17232.0	17744.9	494.32 ug/L	494.32 ppb	06:47:51
3	Ba 233.527†	53858.2	54150.4	507.95 ug/L	507.95 ppb	06:47:51
3	Be 313.107†	1171515.0	1181872.2	505.62 ug/L	505.62 ppb	06:47:46
3	Cd 226.502†	34655.6	35028.0	507.43 ug/L	507.43 ppb	06:47:51
3	Co 228.616†	19664.4	19815.5	514.89 ug/L	514.89 ppb	06:47:51
3	Cr 267.716†	37691.4	37825.2	508.91 ug/L	508.91 ppb	06:47:51
3	Cu 324.752†	156435.3	151854.2	502.61 ug/L	502.61 ppb	06:47:51
3	Mn 257.610†	380074.7	381674.1	502.80 ug/L	502.80 ppb	06:47:46
3	Mo 202.031†	5670.1	5689.3	500.75 ug/L	500.75 ppb	06:48:11
3	Ni 231.604†	16147.4	16157.3	514.12 ug/L	514.12 ppb	06:47:51
3	P 214.914†	3496.5	3332.4	2411.6 ug/L	2411.6 ppb	06:48:11
3	Pb 220.353†	3210.2	3271.1	506.11 ug/L	506.11 ppb	06:48:11
3	S 181.975 Axial†	581.3	554.4	988.95 ug/L	988.95 ppb	06:48:11
3	Sb 206.836†	1218.5	1200.9	515.27 ug/L	515.27 ppb	06:48:11
3	Se 196.026†	578.8	600.9	516.00 ug/L	516.00 ppb	06:48:11
3	Si 251.611†	67762.7	67647.8	2539.6 ug/L	2539.6 ppb	06:47:51
3	Sn 189.927†	2202.4	2206.9	497.51 ug/L	497.51 ppb	06:48:11
3	Ti 334.940†	283483.6	286174.8	494.39 ug/L	494.39 ppb	06:47:51
3	Tl 190.801†	1275.1	1314.1	509.27 ug/L	509.27 ppb	06:48:11
3	U 409.014†	15018.9	17184.9	517.30 ug/L	517.30 ppb	06:47:51
3	V 292.402†	61619.4	63285.8	512.33 ug/L	512.33 ppb	06:47:51
3	Zn 213.857†	43024.3	42650.6	510.56 ug/L	510.56 ppb	06:47:51
3	SiO2†	67368.3	67254.1	5372.2 ug/L	5372.2 ppb	06:48:27

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	808323.3	99.433 %		0.1854			0.19%
Sc Radial	4413.9	96.2 %		1.92			2.00%
Y 371.029	674018.6	97.764 %		0.2427			0.25%
Y RADIAL	4773.5	96.74 %		1.962			2.03%
Ag 328.068†	98565.6	509.12 ug/L		0.872	509.12 ppb	0.872	0.17%
QC value within limits for Ag 328.068 Recovery = 101.82%							
Al 396.153Radial†	5456.4	5105.3 ug/L		105.52	5105.3 ppb	105.52	2.07%
QC value within limits for Al 396.153Radial Recovery = 102.11%							
As 188.979†	904.6	507.68 ug/L		0.780	507.68 ppb	0.780	0.15%
QC value within limits for As 188.979 Recovery = 101.54%							
B 249.677†	17765.3	494.88 ug/L		1.231	494.88 ppb	1.231	0.25%
QC value within limits for B 249.677 Recovery = 98.98%							
Ba 233.527†	54132.7	507.79 ug/L		1.026	507.79 ppb	1.026	0.20%
QC value within limits for Ba 233.527 Recovery = 101.56%							
Be 313.107†	1184317.4	506.67 ug/L		1.099	506.67 ppb	1.099	0.22%
QC value within limits for Be 313.107 Recovery = 101.33%							
Ca 317.933Radial†	2886.8	5102.8 ug/L		98.61	5102.8 ppb	98.61	1.93%

QC value within limits for Ca 317.933 Radial Recovery = 102.06%							
Cd 226.502†	35010.8	507.17 ug/L	0.782	507.17 ppb	0.782	0.15%	
QC value within limits for Cd 226.502 Recovery = 101.43%							
Co 228.616†	19814.2	514.86 ug/L	1.279	514.86 ppb	1.279	0.25%	
QC value within limits for Co 228.616 Recovery = 102.97%							
Cr 267.716†	37843.8	509.17 ug/L	0.482	509.17 ppb	0.482	0.09%	
QC value within limits for Cr 267.716 Recovery = 101.83%							
Cu 324.752†	152010.1	503.13 ug/L	0.981	503.13 ppb	0.981	0.19%	
QC value within limits for Cu 324.752 Recovery = 100.63%							
Fe 238.204 Radial†	479.0	5034.1 ug/L	102.75	5034.1 ppb	102.75	2.04%	
QC value within limits for Fe 238.204 Radial Recovery = 100.68%							
K 766.490 Radial†	26909.2	5148.8 ug/L	112.31	5148.8 ppb	112.31	2.18%	
QC value within limits for K 766.490 Radial Recovery = 102.98%							
Mg 279.077 IEC†	137.6	5235.3 ug/L	106.18	5235.3 ppb	106.18	2.03%	
QC value within limits for Mg 279.077 IEC Recovery = 104.71%							
Mn 257.610†	381918.7	503.12 ug/L	0.285	503.12 ppb	0.285	0.06%	
QC value within limits for Mn 257.610 Recovery = 100.62%							
Mo 202.031†	5705.9	502.22 ug/L	1.659	502.22 ppb	1.659	0.33%	
QC value within limits for Mo 202.031 Recovery = 100.44%							
Na 589.592 Radial†	29263.2	10253 ug/L	243.4	10253 ppb	243.4	2.37%	
QC value within limits for Na 589.592 Radial Recovery = 102.53%							
Ni 231.604†	16158.3	514.15 ug/L	0.044	514.15 ppb	0.044	0.01%	
QC value within limits for Ni 231.604 Recovery = 102.83%							
P 214.914†	3334.8	2413.3 ug/L	5.74	2413.3 ppb	5.74	0.24%	
QC value within limits for P 214.914 Recovery = 96.53%							
Pb 220.353†	3271.8	506.23 ug/L	1.465	506.23 ppb	1.465	0.29%	
QC value within limits for Pb 220.353 Recovery = 101.25%							
S 181.975 Axial†	558.3	995.87 ug/L	11.864	995.87 ppb	11.864	1.19%	
QC value within limits for S 181.975 Axial Recovery = 99.59%							
Sb 206.836†	1200.8	515.28 ug/L	2.069	515.28 ppb	2.069	0.40%	
QC value within limits for Sb 206.836 Recovery = 103.06%							
Se 196.026†	607.2	521.48 ug/L	5.160	521.48 ppb	5.160	0.99%	
QC value within limits for Se 196.026 Recovery = 104.30%							
Si 251.611†	67638.8	2539.3 ug/L	3.07	2539.3 ppb	3.07	0.12%	
QC value within limits for Si 251.611 Recovery = 101.57%							
Sn 189.927†	2217.0	499.79 ug/L	2.117	499.79 ppb	2.117	0.42%	
QC value within limits for Sn 189.927 Recovery = 99.96%							
Sr 421.552†	67782.1	517.77 ug/L	10.958	517.77 ppb	10.958	2.12%	
QC value within limits for Sr 421.552 Recovery = 103.55%							
Ti 334.940†	286302.7	494.62 ug/L	0.219	494.62 ppb	0.219	0.04%	
QC value within limits for Ti 334.940 Recovery = 98.92%							
Tl 190.801†	1315.8	509.94 ug/L	0.600	509.94 ppb	0.600	0.12%	
QC value within limits for Tl 190.801 Recovery = 101.99%							
U 409.014†	17118.0	515.27 ug/L	1.815	515.27 ppb	1.815	0.35%	
QC value within limits for U 409.014 Recovery = 103.05%							
V 292.402†	63387.2	513.15 ug/L	0.897	513.15 ppb	0.897	0.17%	
QC value within limits for V 292.402 Recovery = 102.63%							
Zn 213.857†	42696.8	511.10 ug/L	1.027	511.10 ppb	1.027	0.20%	
QC value within limits for Zn 213.857 Recovery = 102.22%							
SiO2†	67579.3	5398.2 ug/L	22.88	5398.2 ppb	22.88	0.42%	
QC value within limits for SiO2 Recovery = 100.95%							
All analyte(s) passed QC.							

Sequence No.: 103
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 3/17/2010 06:50:37
 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	4292.6	4292.6	93.6 %		06:52:50
1	Y RADIAL	4681.0	4681.0	94.87 %		06:52:30
1	Al 396.153Radial†	-78.5	1.9	1.7882 ug/L	1.7882 ppb	06:52:50
1	Ca 317.933Radial†	18.6	-8.0	-14.105 ug/L	-14.105 ppb	06:52:50
1	Fe 238.204 Radial†	9.9	2.7	28.669 ug/L	28.669 ppb	06:52:50
1	K 766.490 Radial†	2634.3	259.6	49.777 ug/L	49.777 ppb	06:52:30
1	Mg 279.077 IEC†	-2.1	-2.3	-88.465 ug/L	-88.465 ppb	06:52:50
1	Na 589.592 Radial†	-961.1	-222.1	-77.811 ug/L	-77.811 ppb	06:52:30
1	Sr 421.552†	5.1	-20.3	-0.1552 ug/L	-0.1552 ppb	06:52:30
1	Sc 361.383	796848.2	796848.2	98.022 %		06:53:47
1	Y 371.029	672849.1	672849.1	97.594 %		06:53:47
1	Ag 328.068†	168.1	-39.1	-0.1859 ug/L	-0.1859 ppb	06:53:47
1	As 188.979†	-13.1	3.7	2.0587 ug/L	2.0587 ppb	06:54:07
1	B 249.677†	-316.4	92.6	2.5868 ug/L	2.5868 ppb	06:54:07
1	Ba 233.527†	23.3	11.3	0.1065 ug/L	0.1065 ppb	06:54:07
1	Be 313.107†	-3740.1	-86.6	-0.0370 ug/L	-0.0370 ppb	06:53:47
1	Cd 226.502†	-167.9	5.1	0.0694 ug/L	0.0694 ppb	06:54:07
1	Co 228.616†	-53.4	-14.7	-0.3828 ug/L	-0.3828 ppb	06:54:07
1	Cr 267.716†	86.1	8.3	0.1172 ug/L	0.1172 ppb	06:54:07
1	Cu 324.752†	5327.9	-30.8	-0.0966 ug/L	-0.0966 ppb	06:53:47
1	Mn 257.610†	475.9	-65.5	-0.0797 ug/L	-0.0797 ppb	06:54:07
1	Mo 202.031†	6.3	-6.4	-0.5579 ug/L	-0.5579 ppb	06:54:07
1	Ni 231.604†	81.6	1.9	0.0597 ug/L	0.0597 ppb	06:54:07
1	P 214.914†	194.7	14.8	11.122 ug/L	11.122 ppb	06:54:07
1	Pb 220.353†	-58.3	-16.7	-2.5765 ug/L	-2.5765 ppb	06:54:07
1	S 181.975 Axial†	33.7	4.2	7.4608 ug/L	7.4608 ppb	06:54:07
1	Sb 206.836†	25.3	1.3	0.5388 ug/L	0.5388 ppb	06:54:07
1	Se 196.026†	-31.1	-13.0	-10.681 ug/L	-10.681 ppb	06:54:07
1	Si 251.611†	541.9	54.6	2.0625 ug/L	2.0625 ppb	06:54:07
1	Sn 189.927†	13.0	5.2	1.1779 ug/L	1.1779 ppb	06:54:07
1	Ti 334.940†	-1081.1	-15.7	-0.0187 ug/L	-0.0187 ppb	06:53:47
1	Tl 190.801†	-29.2	2.0	0.7731 ug/L	0.7731 ppb	06:54:07
1	U 409.014†	-2268.5	-233.3	-7.0503 ug/L	-7.0503 ppb	06:53:47
1	V 292.402†	-1296.4	-4.8	-0.0658 ug/L	-0.0658 ppb	06:53:47
1	Zn 213.857†	675.3	71.8	0.8627 ug/L	0.8627 ppb	06:54:07
1	SiO2†	537.3	52.8	4.2436 ug/L	4.2436 ppb	06:55:18
2	Sc Radial	4309.4	4309.4	93.9 %		06:53:15
2	Y RADIAL	4794.7	4794.7	97.17 %		06:52:55
2	Al 396.153Radial†	-88.4	-8.3	-7.8120 ug/L	-7.8120 ppb	06:53:15
2	Ca 317.933Radial†	20.6	-5.9	-10.424 ug/L	-10.424 ppb	06:53:15
2	Fe 238.204 Radial†	8.3	1.0	10.681 ug/L	10.681 ppb	06:53:15
2	K 766.490 Radial†	2555.6	164.8	31.601 ug/L	31.601 ppb	06:52:55
2	Mg 279.077 IEC†	2.1	2.1	80.157 ug/L	80.157 ppb	06:53:15
2	Na 589.592 Radial†	-928.1	-182.9	-64.093 ug/L	-64.093 ppb	06:52:55
2	Sr 421.552†	56.9	34.8	0.2656 ug/L	0.2656 ppb	06:52:55
2	Sc 361.383	806042.7	806042.7	99.153 %		06:54:12
2	Y 371.029	680256.2	680256.2	98.668 %		06:54:12
2	Ag 328.068†	204.1	-4.8	-0.0197 ug/L	-0.0197 ppb	06:54:12
2	As 188.979†	-21.7	-4.9	-2.7127 ug/L	-2.7127 ppb	06:54:32
2	B 249.677†	-352.2	60.2	1.6808 ug/L	1.6808 ppb	06:54:32
2	Ba 233.527†	14.8	2.5	0.0225 ug/L	0.0225 ppb	06:54:32
2	Be 313.107†	-3765.2	-68.4	-0.0292 ug/L	-0.0292 ppb	06:54:12
2	Cd 226.502†	-164.1	10.8	0.1550 ug/L	0.1550 ppb	06:54:32
2	Co 228.616†	-29.0	10.6	0.2757 ug/L	0.2757 ppb	06:54:32
2	Cr 267.716†	64.5	-14.5	-0.1923 ug/L	-0.1923 ppb	06:54:32
2	Cu 324.752†	5263.7	-157.6	-0.5191 ug/L	-0.5191 ppb	06:54:12
2	Mn 257.610†	474.7	-72.2	-0.0973 ug/L	-0.0973 ppb	06:54:32
2	Mo 202.031†	17.6	4.9	0.4345 ug/L	0.4345 ppb	06:54:32
2	Ni 231.604†	75.0	-5.8	-0.1840 ug/L	-0.1840 ppb	06:54:32

2	P 214.914†	191.4	9.1	6.9376 ug/L	6.9376 ppb	06:54:32
2	Pb 220.353†	-46.1	-3.7	-0.5719 ug/L	-0.5719 ppb	06:54:32
2	S 181.975 Axial†	32.5	2.7	4.7730 ug/L	4.7730 ppb	06:54:32
2	Sb 206.836†	30.4	6.2	2.5901 ug/L	2.5901 ppb	06:54:32
2	Se 196.026†	-22.4	-3.8	-3.1292 ug/L	-3.1292 ppb	06:54:32
2	Si 251.611†	534.8	41.2	1.5448 ug/L	1.5448 ppb	06:54:32
2	Sn 189.927†	13.7	5.9	1.3170 ug/L	1.3170 ppb	06:54:32
2	Ti 334.940†	-1088.2	-10.2	-0.0239 ug/L	-0.0239 ppb	06:54:12
2	Tl 190.801†	-28.9	2.6	1.0038 ug/L	1.0038 ppb	06:54:32
2	U 409.014†	-2185.0	-122.7	-3.7054 ug/L	-3.7054 ppb	06:54:12
2	V 292.402†	-1359.4	-53.3	-0.4264 ug/L	-0.4264 ppb	06:54:12
2	Zn 213.857†	660.7	49.3	0.5954 ug/L	0.5954 ppb	06:54:32
2	SiO2†	575.0	84.6	6.7627 ug/L	6.7627 ppb	06:55:38
3	Sc Radial	4272.5	4272.5	93.1 %		06:53:40
3	Y RADIAL	4800.7	4800.7	97.29 %		06:53:20
3	Al 396.153Radial†	-72.9	7.6	7.0927 ug/L	7.0927 ppb	06:53:40
3	Ca 317.933Radial†	24.7	-1.4	-2.3918 ug/L	-2.3918 ppb	06:53:40
3	Fe 238.204 Radial†	8.2	1.0	10.192 ug/L	10.192 ppb	06:53:40
3	K 766.490 Radial†	2723.8	368.9	70.711 ug/L	70.711 ppb	06:53:20
3	Mg 279.077 IEC†	4.1	4.3	162.80 ug/L	162.80 ppb	06:53:40
3	Na 589.592 Radial†	-968.6	-234.9	-82.320 ug/L	-82.320 ppb	06:53:20
3	Sr 421.552†	20.0	-4.3	-0.0331 ug/L	-0.0331 ppb	06:53:20
3	Sc 361.383	809573.7	809573.7	99.587 %		06:54:38
3	Y 371.029	683798.2	683798.2	99.182 %		06:54:38
3	Ag 328.068†	142.8	-67.2	-0.3354 ug/L	-0.3354 ppb	06:54:38
3	As 188.979†	-18.9	-2.0	-1.0944 ug/L	-1.0944 ppb	06:54:58
3	B 249.677†	-340.1	73.8	2.0646 ug/L	2.0646 ppb	06:54:58
3	Ba 233.527†	10.9	-1.5	-0.0132 ug/L	-0.0132 ppb	06:54:58
3	Be 313.107†	-3851.8	-138.7	-0.0592 ug/L	-0.0592 ppb	06:54:38
3	Cd 226.502†	-159.4	16.2	0.2333 ug/L	0.2333 ppb	06:54:58
3	Co 228.616†	-39.4	0.3	0.0095 ug/L	0.0095 ppb	06:54:58
3	Cr 267.716†	64.2	-15.0	-0.1978 ug/L	-0.1978 ppb	06:54:58
3	Cu 324.752†	5429.4	-14.3	-0.0436 ug/L	-0.0436 ppb	06:54:38
3	Mn 257.610†	444.8	-104.3	-0.1429 ug/L	-0.1429 ppb	06:54:58
3	Mo 202.031†	19.4	6.7	0.5861 ug/L	0.5861 ppb	06:54:58
3	Ni 231.604†	94.2	13.1	0.4177 ug/L	0.4177 ppb	06:54:58
3	P 214.914†	195.3	12.2	9.2101 ug/L	9.2101 ppb	06:54:58
3	Pb 220.353†	-51.2	-8.6	-1.3282 ug/L	-1.3282 ppb	06:54:58
3	S 181.975 Axial†	25.3	-4.7	-8.4105 ug/L	-8.4105 ppb	06:54:58
3	Sb 206.836†	25.3	0.9	0.3534 ug/L	0.3534 ppb	06:54:58
3	Se 196.026†	-17.0	1.7	1.4797 ug/L	1.4797 ppb	06:54:58
3	Si 251.611†	536.4	40.4	1.5132 ug/L	1.5132 ppb	06:54:58
3	Sn 189.927†	2.6	-5.3	-1.2045 ug/L	-1.2045 ppb	06:54:58
3	Ti 334.940†	-1067.2	15.7	0.0161 ug/L	0.0161 ppb	06:54:38
3	Tl 190.801†	-34.9	-3.3	-1.2591 ug/L	-1.2591 ppb	06:54:58
3	U 409.014†	-2261.8	-190.2	-5.7447 ug/L	-5.7447 ppb	06:54:38
3	V 292.402†	-1265.6	46.8	0.3731 ug/L	0.3731 ppb	06:54:38
3	Zn 213.857†	661.5	47.1	0.5647 ug/L	0.5647 ppb	06:54:58
3	SiO2†	544.6	51.6	4.1124 ug/L	4.1124 ppb	06:55:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	804154.9	98.921 %		0.8081			0.82%
Sc Radial	4291.5	93.5 %		0.40			0.43%
Y 371.029	678967.8	98.482 %		0.8104			0.82%
Y RADIAL	4758.8	96.44 %		1.367			1.42%
Ag 328.068†	-37.0	-0.1803 ug/L		0.15791	-0.1803 ppb	0.15791	87.57%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	0.4	0.3563 ug/L		7.55485	0.3563 ppb	7.55485	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-1.1	-0.5828 ug/L		2.42650	-0.5828 ppb	2.42650	416.36%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	75.5	2.1107 ug/L		0.45473	2.1107 ppb	0.45473	21.54%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	4.1	0.0386 ug/L		0.06144	0.0386 ppb	0.06144	159.17%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-97.9	-0.0418 ug/L		0.01552	-0.0418 ppb	0.01552	37.13%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-5.1	-8.9737 ug/L		5.98986	-8.9737 ppb	5.98986	66.75%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated

Cd	226.502†	10.7	0.1525 ug/L	0.08201	0.1525 ppb	0.08201	53.76%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	-1.3	-0.0325 ug/L	0.33122	-0.0325 ppb	0.33122	>999.9%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	-7.1	-0.0910 ug/L	0.18032	-0.0910 ppb	0.18032	198.25%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-67.6	-0.2198 ug/L	0.26056	-0.2198 ppb	0.26056	118.57%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	1.6	16.514 ug/L	10.5293	16.514 ppb	10.5293	63.76%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	264.5	50.696 ug/L	19.5708	50.696 ppb	19.5708	38.60%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	1.4	51.496 ug/L	128.0589	51.496 ppb	128.0589	248.68%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	-80.6	-0.1066 ug/L	0.03263	-0.1066 ppb	0.03263	30.60%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	1.7	0.1542 ug/L	0.62136	0.1542 ppb	0.62136	402.85%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	-213.3	-74.742 ug/L	9.4934	-74.742 ppb	9.4934	12.70%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	3.1	0.0978 ug/L	0.30265	0.0978 ppb	0.30265	309.46%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	12.0	9.0899 ug/L	2.09485	9.0899 ppb	2.09485	23.05%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-9.7	-1.4922 ug/L	1.01231	-1.4922 ppb	1.01231	67.84%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	0.7	1.2744 ug/L	8.49439	1.2744 ppb	8.49439	666.53%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	2.8	1.1608 ug/L	1.24132	1.1608 ppb	1.24132	106.94%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	-5.0	-4.1102 ug/L	6.13939	-4.1102 ppb	6.13939	149.37%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	45.4	1.7069 ug/L	0.30838	1.7069 ppb	0.30838	18.07%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	1.9	0.4301 ug/L	1.41732	0.4301 ppb	1.41732	329.51%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	3.4	0.0258 ug/L	0.21650	0.0258 ppb	0.21650	840.05%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-3.4	-0.0088 ug/L	0.02175	-0.0088 ppb	0.02175	245.85%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	0.4	0.1726 ug/L	1.24524	0.1726 ppb	1.24524	721.59%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-182.1	-5.5001 ug/L	1.68579	-5.5001 ppb	1.68579	30.65%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-3.8	-0.0397 ug/L	0.40036	-0.0397 ppb	0.40036	>999.9%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	56.0	0.6742 ug/L	0.16390	0.6742 ppb	0.16390	24.31%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		63.0	5.0396 ug/L	1.49369	5.0396 ppb	1.49369	29.64%
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 10

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/17/2010 08:08:34

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	4134.0	4134.0	90.1 %		08:10:46
1	Y RADIAL	5691.7	5691.7	115.3 %		08:10:26
1	Al 396.153Radial†	4991.8	5625.3	5264.4 ug/L	5264.4 ppb	08:10:26
1	Ca 317.933Radial†	2792.3	3070.9	5428.1 ug/L	5428.1 ppb	08:10:46
1	Fe 238.204 Radial†	464.4	507.5	5332.4 ug/L	5332.4 ppb	08:10:46
1	K 766.490 Radial†	28075.4	28600.2	5472.4 ug/L	5472.4 ppb	08:10:26
1	Mg 279.077 IEC†	134.6	149.3	5681.3 ug/L	5681.3 ppb	08:10:46
1	Na 589.592 Radial†	27078.7	30855.1	10811 ug/L	10811 ppb	08:10:26
1	Sr 421.552†	63584.2	70535.3	538.80 ug/L	538.80 ppb	08:10:26
1	Sc 361.383	814409.4	814409.4	100.18 %		08:11:44
1	Y 371.029	680376.7	680376.7	98.686 %		08:11:44
1	Ag 328.068†	98284.3	97895.0	505.76 ug/L	505.76 ppb	08:11:49
1	As 188.979†	894.2	909.6	510.52 ug/L	510.52 ppb	08:12:09
1	B 249.677†	17273.7	17657.6	491.83 ug/L	491.83 ppb	08:11:49
1	Ba 233.527†	53848.6	53738.2	504.10 ug/L	504.10 ppb	08:11:49
1	Be 313.107†	1185944.8	1187517.5	508.02 ug/L	508.02 ppb	08:11:44
1	Cd 226.502†	34695.2	34808.5	504.21 ug/L	504.21 ppb	08:11:49
1	Co 228.616†	19663.9	19668.0	511.05 ug/L	511.05 ppb	08:11:49
1	Cr 267.716†	37756.1	37607.9	506.03 ug/L	506.03 ppb	08:11:49
1	Cu 324.752†	156323.9	150573.5	498.40 ug/L	498.40 ppb	08:11:49
1	Mn 257.610†	382498.0	381251.6	502.26 ug/L	502.26 ppb	08:11:44
1	Mo 202.031†	5653.2	5630.1	495.58 ug/L	495.58 ppb	08:12:09
1	Ni 231.604†	16195.1	16084.3	511.80 ug/L	511.80 ppb	08:11:49
1	P 214.914†	3484.8	3294.6	2383.7 ug/L	2383.7 ppb	08:12:09
1	Pb 220.353†	3199.2	3236.1	500.70 ug/L	500.70 ppb	08:12:09
1	S 181.975 Axial†	586.8	555.6	990.99 ug/L	990.99 ppb	08:12:09
1	Sb 206.836†	1205.3	1178.6	505.83 ug/L	505.83 ppb	08:12:09
1	Se 196.026†	576.0	593.8	511.24 ug/L	511.24 ppb	08:12:09
1	Si 251.611†	67650.5	67029.3	2516.4 ug/L	2516.4 ppb	08:11:49
1	Sn 189.927†	2189.6	2177.7	490.97 ug/L	490.97 ppb	08:12:09
1	Ti 334.940†	283280.9	283853.2	490.40 ug/L	490.40 ppb	08:11:49
1	Tl 190.801†	1268.8	1298.3	503.16 ug/L	503.16 ppb	08:12:09
1	U 409.014†	14708.3	16762.6	504.51 ug/L	504.51 ppb	08:11:49
1	V 292.402†	61769.7	62975.1	509.71 ug/L	509.71 ppb	08:11:49
1	Zn 213.857†	43034.7	42339.4	506.76 ug/L	506.76 ppb	08:11:49
1	SiO2†	67221.6	66604.0	5320.3 ug/L	5320.3 ppb	08:13:16
2	Sc Radial	4132.8	4132.8	90.1 %		08:11:11
2	Y RADIAL	5324.5	5324.5	107.9 %		08:10:51
2	Al 396.153Radial†	4974.7	5608.0	5248.1 ug/L	5248.1 ppb	08:10:51
2	Ca 317.933Radial†	2819.9	3102.4	5483.8 ug/L	5483.8 ppb	08:11:11
2	Fe 238.204 Radial†	474.3	518.7	5449.3 ug/L	5449.3 ppb	08:11:11
2	K 766.490 Radial†	27912.4	28428.4	5439.5 ug/L	5439.5 ppb	08:10:51
2	Mg 279.077 IEC†	134.5	149.2	5676.7 ug/L	5676.7 ppb	08:11:11
2	Na 589.592 Radial†	26936.9	30706.3	10759 ug/L	10759 ppb	08:10:51
2	Sr 421.552†	63339.1	70283.7	536.88 ug/L	536.88 ppb	08:10:51
2	Sc 361.383	812153.9	812153.9	99.905 %		08:12:15
2	Y 371.029	678163.8	678163.8	98.365 %		08:12:15
2	Ag 328.068†	97761.1	97643.7	504.50 ug/L	504.50 ppb	08:12:20
2	As 188.979†	875.7	893.6	501.61 ug/L	501.61 ppb	08:12:40
2	B 249.677†	17241.8	17673.6	492.27 ug/L	492.27 ppb	08:12:20
2	Ba 233.527†	53486.8	53525.3	502.11 ug/L	502.11 ppb	08:12:20
2	Be 313.107†	1178101.0	1182953.8	506.07 ug/L	506.07 ppb	08:12:15
2	Cd 226.502†	34421.5	34630.7	501.62 ug/L	501.62 ppb	08:12:20
2	Co 228.616†	19451.7	19510.1	506.95 ug/L	506.95 ppb	08:12:20
2	Cr 267.716†	37473.6	37429.8	503.65 ug/L	503.65 ppb	08:12:20
2	Cu 324.752†	155411.6	150093.6	496.82 ug/L	496.82 ppb	08:12:20
2	Mn 257.610†	380425.2	380237.1	500.93 ug/L	500.93 ppb	08:12:15
2	Mo 202.031†	5649.8	5642.4	496.67 ug/L	496.67 ppb	08:12:40
2	Ni 231.604†	16040.4	15974.3	508.30 ug/L	508.30 ppb	08:12:20

2	P 214.914†	3466.1	3285.5	2377.1 ug/L	2377.1 ppb	08:12:40
2	Pb 220.353†	3202.4	3248.3	502.56 ug/L	502.56 ppb	08:12:40
2	S 181.975 Axial†	575.5	545.9	973.68 ug/L	973.68 ppb	08:12:40
2	Sb 206.836†	1201.5	1178.1	505.65 ug/L	505.65 ppb	08:12:40
2	Se 196.026†	578.6	598.0	515.04 ug/L	515.04 ppb	08:12:40
2	Si 251.611†	67192.6	66758.5	2506.2 ug/L	2506.2 ppb	08:12:20
2	Sn 189.927†	2189.0	2183.1	492.21 ug/L	492.21 ppb	08:12:40
2	Ti 334.940†	281609.5	282965.4	488.87 ug/L	488.87 ppb	08:12:20
2	Tl 190.801†	1259.8	1292.8	501.07 ug/L	501.07 ppb	08:12:40
2	U 409.014†	14740.5	16835.6	506.71 ug/L	506.71 ppb	08:12:20
2	V 292.402†	61440.1	62816.4	508.45 ug/L	508.45 ppb	08:12:20
2	Zn 213.857†	42698.9	42122.5	504.15 ug/L	504.15 ppb	08:12:20
2	SiO2†	67847.2	67416.6	5385.4 ug/L	5385.4 ppb	08:13:21
3	Sc Radial	4308.0	4308.0	93.9 %		08:11:37
3	Y RADIAL	4851.2	4851.2	98.32 %		08:11:16
3	Al 396.153Radial†	5178.2	5600.0	5240.2 ug/L	5240.2 ppb	08:11:16
3	Ca 317.933Radial†	2820.3	2975.5	5259.5 ug/L	5259.5 ppb	08:11:37
3	Fe 238.204 Radial†	469.3	491.9	5169.2 ug/L	5169.2 ppb	08:11:37
3	K 766.490 Radial†	28684.0	27989.6	5355.5 ug/L	5355.5 ppb	08:11:16
3	Mg 279.077 IEC†	134.8	143.5	5460.8 ug/L	5460.8 ppb	08:11:37
3	Na 589.592 Radial†	27816.8	30426.9	10661 ug/L	10661 ppb	08:11:16
3	Sr 421.552†	66031.6	70290.5	536.93 ug/L	536.93 ppb	08:11:16
3	Sc 361.383	810051.1	810051.1	99.646 %		08:12:46
3	Y 371.029	676705.6	676705.6	98.153 %		08:12:46
3	Ag 328.068†	99349.2	99491.5	513.94 ug/L	513.94 ppb	08:12:51
3	As 188.979†	878.8	898.9	504.60 ug/L	504.60 ppb	08:13:11
3	B 249.677†	17603.4	18081.3	503.69 ug/L	503.69 ppb	08:12:51
3	Ba 233.527†	54264.2	54444.5	510.73 ug/L	510.73 ppb	08:12:51
3	Be 313.107†	1180212.0	1188133.5	508.30 ug/L	508.30 ppb	08:12:46
3	Cd 226.502†	34981.5	35282.1	511.09 ug/L	511.09 ppb	08:12:51
3	Co 228.616†	19841.2	19951.5	518.42 ug/L	518.42 ppb	08:12:51
3	Cr 267.716†	38109.7	38165.5	513.51 ug/L	513.51 ppb	08:12:51
3	Cu 324.752†	158528.8	153625.7	508.49 ug/L	508.49 ppb	08:12:51
3	Mn 257.610†	380749.2	381550.8	502.64 ug/L	502.64 ppb	08:12:46
3	Mo 202.031†	5718.2	5725.6	503.97 ug/L	503.97 ppb	08:13:11
3	Ni 231.604†	16315.4	16291.9	518.40 ug/L	518.40 ppb	08:12:51
3	P 214.914†	3493.1	3321.6	2402.2 ug/L	2402.2 ppb	08:13:11
3	Pb 220.353†	3218.5	3272.7	506.38 ug/L	506.38 ppb	08:13:11
3	S 181.975 Axial†	589.9	561.9	1002.2 ug/L	1002.2 ppb	08:13:11
3	Sb 206.836†	1216.1	1195.9	513.34 ug/L	513.34 ppb	08:13:11
3	Se 196.026†	586.8	607.7	522.36 ug/L	522.36 ppb	08:13:11
3	Si 251.611†	68530.3	68275.5	2563.2 ug/L	2563.2 ppb	08:12:51
3	Sn 189.927†	2225.9	2225.9	501.80 ug/L	501.80 ppb	08:13:11
3	Ti 334.940†	286513.3	288618.4	498.62 ug/L	498.62 ppb	08:12:51
3	Tl 190.801†	1270.9	1307.2	506.63 ug/L	506.63 ppb	08:13:11
3	U 409.014†	15074.5	17209.0	518.00 ug/L	518.00 ppb	08:12:51
3	V 292.402†	62641.8	64182.0	519.51 ug/L	519.51 ppb	08:12:51
3	Zn 213.857†	43581.2	43118.9	516.15 ug/L	516.15 ppb	08:12:51
3	SiO2†	67198.1	66941.5	5347.1 ug/L	5347.1 ppb	08:13:27

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	812204.8	99.911 %		0.2681			0.27%
Sc Radial	4191.6	91.4 %		2.20			2.41%
Y 371.029	678415.4	98.401 %		0.2681			0.27%
Y RADIAL	5289.1	107.2 %		8.54			7.97%
Ag 328.068†	98343.4	508.07 ug/L		5.124	508.07 ppb	5.124	1.01%
QC value within limits for Ag 328.068 Recovery = 101.61%							
Al 396.153Radial†	5611.1	5250.9 ug/L		12.36	5250.9 ppb	12.36	0.24%
QC value within limits for Al 396.153Radial Recovery = 105.02%							
As 188.979†	900.7	505.58 ug/L		4.536	505.58 ppb	4.536	0.90%
QC value within limits for As 188.979 Recovery = 101.12%							
B 249.677†	17804.2	495.93 ug/L		6.726	495.93 ppb	6.726	1.36%
QC value within limits for B 249.677 Recovery = 99.19%							
Ba 233.527†	53902.7	505.65 ug/L		4.511	505.65 ppb	4.511	0.89%
QC value within limits for Ba 233.527 Recovery = 101.13%							
Be 313.107†	1186201.6	507.46 ug/L		1.216	507.46 ppb	1.216	0.24%
QC value within limits for Be 313.107 Recovery = 101.49%							
Ca 317.933Radial†	3049.6	5390.5 ug/L		116.82	5390.5 ppb	116.82	2.17%

QC value within limits for Ca 317.933 Radial Recovery = 107.81%							
Cd 226.502†	34907.1	505.64 ug/L	4.897	505.64 ppb	4.897	0.97%	
QC value within limits for Cd 226.502 Recovery = 101.13%							
Co 228.616†	19709.9	512.14 ug/L	5.811	512.14 ppb	5.811	1.13%	
QC value within limits for Co 228.616 Recovery = 102.43%							
Cr 267.716†	37734.4	507.73 ug/L	5.144	507.73 ppb	5.144	1.01%	
QC value within limits for Cr 267.716 Recovery = 101.55%							
Cu 324.752†	151430.9	501.23 ug/L	6.330	501.23 ppb	6.330	1.26%	
QC value within limits for Cu 324.752 Recovery = 100.25%							
Fe 238.204 Radial†	506.0	5317.0 ug/L	140.72	5317.0 ppb	140.72	2.65%	
QC value within limits for Fe 238.204 Radial Recovery = 106.34%							
K 766.490 Radial†	28339.4	5422.5 ug/L	60.27	5422.5 ppb	60.27	1.11%	
QC value within limits for K 766.490 Radial Recovery = 108.45%							
Mg 279.077 IEC†	147.3	5606.3 ug/L	126.00	5606.3 ppb	126.00	2.25%	
QC value greater than the upper limit for Mg 279.077 IEC Recovery = 112.13%							
Mn 257.610†	381013.2	501.95 ug/L	0.897	501.95 ppb	0.897	0.18%	
QC value within limits for Mn 257.610 Recovery = 100.39%							
Mo 202.031†	5666.0	498.74 ug/L	4.561	498.74 ppb	4.561	0.91%	
QC value within limits for Mo 202.031 Recovery = 99.75%							
Na 589.592 Radial†	30662.8	10744 ug/L	76.2	10744 ppb	76.2	0.71%	
QC value within limits for Na 589.592 Radial Recovery = 107.44%							
Ni 231.604†	16116.8	512.83 ug/L	5.132	512.83 ppb	5.132	1.00%	
QC value within limits for Ni 231.604 Recovery = 102.57%							
P 214.914†	3300.6	2387.7 ug/L	13.03	2387.7 ppb	13.03	0.55%	
QC value within limits for P 214.914 Recovery = 95.51%							
Pb 220.353†	3252.4	503.22 ug/L	2.895	503.22 ppb	2.895	0.58%	
QC value within limits for Pb 220.353 Recovery = 100.64%							
S 181.975 Axial†	554.4	988.97 ug/L	14.388	988.97 ppb	14.388	1.45%	
QC value within limits for S 181.975 Axial Recovery = 98.90%							
Sb 206.836†	1184.2	508.27 ug/L	4.392	508.27 ppb	4.392	0.86%	
QC value within limits for Sb 206.836 Recovery = 101.65%							
Se 196.026†	599.8	516.21 ug/L	5.654	516.21 ppb	5.654	1.10%	
QC value within limits for Se 196.026 Recovery = 103.24%							
Si 251.611†	67354.4	2528.6 ug/L	30.39	2528.6 ppb	30.39	1.20%	
QC value within limits for Si 251.611 Recovery = 101.14%							
Sn 189.927†	2195.5	495.00 ug/L	5.929	495.00 ppb	5.929	1.20%	
QC value within limits for Sn 189.927 Recovery = 99.00%							
Sr 421.552†	70369.8	537.54 ug/L	1.095	537.54 ppb	1.095	0.20%	
QC value within limits for Sr 421.552 Recovery = 107.51%							
Ti 334.940†	285145.7	492.63 ug/L	5.243	492.63 ppb	5.243	1.06%	
QC value within limits for Ti 334.940 Recovery = 98.53%							
Tl 190.801†	1299.4	503.62 ug/L	2.808	503.62 ppb	2.808	0.56%	
QC value within limits for Tl 190.801 Recovery = 100.72%							
U 409.014†	16935.7	509.74 ug/L	7.236	509.74 ppb	7.236	1.42%	
QC value within limits for U 409.014 Recovery = 101.95%							
V 292.402†	63324.5	512.56 ug/L	6.053	512.56 ppb	6.053	1.18%	
QC value within limits for V 292.402 Recovery = 102.51%							
Zn 213.857†	42526.9	509.02 ug/L	6.310	509.02 ppb	6.310	1.24%	
QC value within limits for Zn 213.857 Recovery = 101.80%							
SiO2†	66987.4	5350.9 ug/L	32.69	5350.9 ppb	32.69	0.61%	
QC value within limits for SiO2 Recovery = 100.06%							
QC Failed. Continue with analysis.							

Sequence No.: 11

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/17/2010 08:15:36

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4491.0	4491.0	97.9 %		08:17:29
1	Y RADIAL	4883.1	4883.1	98.96 %		08:17:29
1	Al 396.153Radial†	-74.6	9.6	9.0704 ug/L	9.0704 ppb	08:17:49
1	Ca 317.933Radial†	17.5	-10.0	-17.649 ug/L	-17.649 ppb	08:17:49
1	Fe 238.204 Radial†	8.2	0.6	5.7721 ug/L	5.7721 ppb	08:17:49
1	K 766.490 Radial†	2560.8	60.1	11.547 ug/L	11.547 ppb	08:17:29
1	Mg 279.077 IEC†	0.5	0.4	14.921 ug/L	14.921 ppb	08:17:49
1	Na 589.592 Radial†	-930.7	-145.7	-51.035 ug/L	-51.035 ppb	08:17:29
1	Sr 421.552†	29.0	3.9	0.0296 ug/L	0.0296 ppb	08:17:29
1	Sc 361.383	800963.0	800963.0	98.528 %		08:18:46
1	Y 371.029	677127.1	677127.1	98.215 %		08:18:46
1	Ag 328.068†	197.1	-10.6	-0.0533 ug/L	-0.0533 ppb	08:18:46
1	As 188.979†	-18.7	-2.0	-1.0956 ug/L	-1.0956 ppb	08:19:06
1	B 249.677†	-246.5	165.2	4.6222 ug/L	4.6222 ppb	08:19:06
1	Ba 233.527†	17.7	5.4	0.0501 ug/L	0.0501 ppb	08:19:06
1	Be 313.107†	-3703.3	-29.7	-0.0127 ug/L	-0.0127 ppb	08:18:46
1	Cd 226.502†	-160.5	13.5	0.1942 ug/L	0.1942 ppb	08:19:06
1	Co 228.616†	-45.3	-6.2	-0.1600 ug/L	-0.1600 ppb	08:19:06
1	Cr 267.716†	65.4	-13.1	-0.1762 ug/L	-0.1762 ppb	08:19:06
1	Cu 324.752†	5273.0	-114.4	-0.3782 ug/L	-0.3782 ppb	08:18:46
1	Mn 257.610†	437.4	-107.0	-0.1409 ug/L	-0.1409 ppb	08:19:06
1	Mo 202.031†	12.5	-0.1	-0.0113 ug/L	-0.0113 ppb	08:19:06
1	Ni 231.604†	71.7	-8.7	-0.2755 ug/L	-0.2755 ppb	08:19:06
1	P 214.914†	183.8	2.6	2.0615 ug/L	2.0615 ppb	08:19:06
1	Pb 220.353†	-50.0	-7.9	-1.2204 ug/L	-1.2204 ppb	08:19:06
1	S 181.975 Axial†	27.4	-2.4	-4.2023 ug/L	-4.2023 ppb	08:19:06
1	Sb 206.836†	25.5	1.4	0.5667 ug/L	0.5667 ppb	08:19:06
1	Se 196.026†	-12.7	5.9	4.8926 ug/L	4.8926 ppb	08:19:06
1	Si 251.611†	533.8	43.6	1.6403 ug/L	1.6403 ppb	08:19:06
1	Sn 189.927†	8.6	0.7	0.1578 ug/L	0.1578 ppb	08:19:06
1	Ti 334.940†	-1081.3	-10.1	-0.0208 ug/L	-0.0208 ppb	08:18:46
1	Tl 190.801†	-36.4	-5.2	-2.0010 ug/L	-2.0010 ppb	08:19:06
1	U 409.014†	-2063.8	-13.7	-0.4131 ug/L	-0.4131 ppb	08:18:46
1	V 292.402†	-1344.7	-47.0	-0.3772 ug/L	-0.3772 ppb	08:18:46
1	Zn 213.857†	667.5	60.4	0.7311 ug/L	0.7311 ppb	08:19:06
1	SiO2†	548.9	61.8	4.9487 ug/L	4.9487 ppb	08:20:17
2	Sc Radial	4401.2	4401.2	95.9 %		08:17:54
2	Y RADIAL	4751.6	4751.6	96.30 %		08:17:54
2	Al 396.153Radial†	-75.0	7.7	7.1723 ug/L	7.1723 ppb	08:18:14
2	Ca 317.933Radial†	23.5	-3.3	-5.8463 ug/L	-5.8463 ppb	08:18:14
2	Fe 238.204 Radial†	9.1	1.6	16.784 ug/L	16.784 ppb	08:18:14
2	K 766.490 Radial†	2664.2	221.2	42.413 ug/L	42.413 ppb	08:17:54
2	Mg 279.077 IEC†	2.7	2.8	105.81 ug/L	105.81 ppb	08:18:14
2	Na 589.592 Radial†	-953.0	-188.3	-65.982 ug/L	-65.982 ppb	08:17:54
2	Sr 421.552†	26.6	2.0	0.0154 ug/L	0.0154 ppb	08:17:54
2	Sc 361.383	808483.0	808483.0	99.453 %		08:19:11
2	Y 371.029	684451.3	684451.3	99.277 %		08:19:11
2	Ag 328.068†	188.4	-21.2	-0.1018 ug/L	-0.1018 ppb	08:19:11
2	As 188.979†	-21.0	-4.1	-2.2760 ug/L	-2.2760 ppb	08:19:31
2	B 249.677†	-260.3	153.6	4.2950 ug/L	4.2950 ppb	08:19:31
2	Ba 233.527†	7.2	-5.2	-0.0485 ug/L	-0.0485 ppb	08:19:31
2	Be 313.107†	-3726.1	-17.5	-0.0077 ug/L	-0.0077 ppb	08:19:11
2	Cd 226.502†	-188.3	-13.0	-0.1910 ug/L	-0.1910 ppb	08:19:31
2	Co 228.616†	-31.0	8.7	0.2277 ug/L	0.2277 ppb	08:19:31
2	Cr 267.716†	53.0	-26.2	-0.3492 ug/L	-0.3492 ppb	08:19:31
2	Cu 324.752†	5332.9	-104.0	-0.3420 ug/L	-0.3420 ppb	08:19:11
2	Mn 257.610†	442.9	-105.6	-0.1416 ug/L	-0.1416 ppb	08:19:31
2	Mo 202.031†	23.9	11.2	0.9860 ug/L	0.9860 ppb	08:19:31
2	Ni 231.604†	93.1	12.2	0.3884 ug/L	0.3884 ppb	08:19:31

2	P 214.914†	184.4	1.5	1.1432 ug/L	1.1432 ppb	08:19:31
2	Pb 220.353†	-53.9	-11.4	-1.7538 ug/L	-1.7538 ppb	08:19:31
2	S 181.975 Axial†	31.3	1.3	2.3891 ug/L	2.3891 ppb	08:19:31
2	Sb 206.836†	25.2	0.8	0.3513 ug/L	0.3513 ppb	08:19:31
2	Se 196.026†	-20.5	-1.8	-1.4582 ug/L	-1.4582 ppb	08:19:31
2	Si 251.611†	534.2	38.9	1.4533 ug/L	1.4533 ppb	08:19:31
2	Sn 189.927†	3.3	-4.7	-1.0532 ug/L	-1.0532 ppb	08:19:31
2	Ti 334.940†	-1133.3	-52.2	-0.0984 ug/L	-0.0984 ppb	08:19:11
2	Tl 190.801†	-23.2	8.5	3.2528 ug/L	3.2528 ppb	08:19:31
2	U 409.014†	-2152.5	-83.4	-2.5184 ug/L	-2.5184 ppb	08:19:11
2	V 292.402†	-1320.6	-10.1	-0.0721 ug/L	-0.0721 ppb	08:19:11
2	Zn 213.857†	668.4	54.9	0.6589 ug/L	0.6589 ppb	08:19:31
2	SiO2†	543.2	50.8	4.0442 ug/L	4.0442 ppb	08:20:37
3	Sc Radial	5450.2	5450.2	119 %		08:18:19
3	Y RADIAL	5853.0	5853.0	118.6 %		08:18:19
3	Al 396.153Radial†	-77.0	21.0	19.768 ug/L	19.768 ppb	08:18:39
3	Ca 317.933Radial†	21.8	-9.5	-16.830 ug/L	-16.830 ppb	08:18:39
3	Fe 238.204 Radial†	11.4	1.7	17.998 ug/L	17.998 ppb	08:18:39
3	K 766.490 Radial†	2650.5	-324.8	-62.208 ug/L	-62.208 ppb	08:18:19
3	Mg 279.077 IEC†	1.9	1.5	57.290 ug/L	57.290 ppb	08:18:39
3	Na 589.592 Radial†	-971.1	-12.3	-4.3091 ug/L	-4.3091 ppb	08:18:19
3	Sr 421.552†	52.3	18.3	0.1396 ug/L	0.1396 ppb	08:18:19
3	Sc 361.383	797250.0	797250.0	98.071 %		08:19:36
3	Y 371.029	675053.0	675053.0	97.914 %		08:19:36
3	Ag 328.068†	247.7	42.0	0.2265 ug/L	0.2265 ppb	08:19:36
3	As 188.979†	-25.0	-8.4	-4.6936 ug/L	-4.6936 ppb	08:19:56
3	B 249.677†	-307.5	101.8	2.8458 ug/L	2.8458 ppb	08:19:56
3	Ba 233.527†	8.8	-3.5	-0.0321 ug/L	-0.0321 ppb	08:19:56
3	Be 313.107†	-3721.8	-66.0	-0.0283 ug/L	-0.0283 ppb	08:19:36
3	Cd 226.502†	-161.9	11.3	0.1610 ug/L	0.1610 ppb	08:19:56
3	Co 228.616†	-47.6	-8.7	-0.2265 ug/L	-0.2265 ppb	08:19:56
3	Cr 267.716†	60.3	-18.0	-0.2378 ug/L	-0.2378 ppb	08:19:56
3	Cu 324.752†	5338.3	-23.0	-0.0723 ug/L	-0.0723 ppb	08:19:36
3	Mn 257.610†	425.7	-116.8	-0.1544 ug/L	-0.1544 ppb	08:19:56
3	Mo 202.031†	12.3	-0.3	-0.0246 ug/L	-0.0246 ppb	08:19:56
3	Ni 231.604†	83.1	3.3	0.1039 ug/L	0.1039 ppb	08:19:56
3	P 214.914†	177.7	-2.8	-2.0778 ug/L	-2.0778 ppb	08:19:56
3	Pb 220.353†	-57.7	-16.0	-2.4738 ug/L	-2.4738 ppb	08:19:56
3	S 181.975 Axial†	27.4	-2.2	-3.9134 ug/L	-3.9134 ppb	08:19:56
3	Sb 206.836†	24.2	0.2	0.0806 ug/L	0.0806 ppb	08:19:56
3	Se 196.026†	-27.0	-8.7	-7.1640 ug/L	-7.1640 ppb	08:19:56
3	Si 251.611†	544.5	57.0	2.1459 ug/L	2.1459 ppb	08:19:56
3	Sn 189.927†	8.1	0.3	0.0597 ug/L	0.0597 ppb	08:19:56
3	Ti 334.940†	-1101.3	-35.7	-0.0663 ug/L	-0.0663 ppb	08:19:36
3	Tl 190.801†	-27.9	3.3	1.2768 ug/L	1.2768 ppb	08:19:56
3	U 409.014†	-2200.9	-163.2	-4.9290 ug/L	-4.9290 ppb	08:19:36
3	V 292.402†	-1263.1	29.8	0.2266 ug/L	0.2266 ppb	08:19:36
3	Zn 213.857†	667.3	63.3	0.7613 ug/L	0.7613 ppb	08:19:56
3	SiO2†	539.8	55.1	4.4150 ug/L	4.4150 ppb	08:20:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	802232.0	98.684 %		0.7040				0.71%
Sc Radial	4780.8	104 %		12.7				12.16%
Y 371.029	678877.1	98.468 %		0.7162				0.73%
Y RADIAL	5162.6	104.6 %		12.19				11.65%
Ag 328.068†	3.4	0.0238 ug/L		0.17723	0.0238 ppb		0.17723	745.46%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.8	12.003 ug/L		6.7906	12.003 ppb		6.7906	56.57%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.8	-2.6884 ug/L		1.83411	-2.6884 ppb		1.83411	68.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	140.2	3.9210 ug/L		0.94542	3.9210 ppb		0.94542	24.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.1	-0.0102 ug/L		0.05283	-0.0102 ppb		0.05283	518.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-37.7	-0.0162 ug/L		0.01075	-0.0162 ppb		0.01075	66.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-7.6	-13.442 ug/L		6.5906	-13.442 ppb		6.5906	49.03%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd	226.502†	3.9	0.0547 ug/L	0.21344	0.0547 ppb	0.21344 390.00%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co	228.616†	-2.1	-0.0530 ug/L	0.24530	-0.0530 ppb	0.24530 463.04%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr	267.716†	-19.1	-0.2544 ug/L	0.08771	-0.2544 ppb	0.08771 34.48%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu	324.752†	-80.5	-0.2642 ug/L	0.16716	-0.2642 ppb	0.16716 63.28%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe	238.204 Radial†	1.3	13.518 ug/L	6.7357	13.518 ppb	6.7357 49.83%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K	766.490 Radial†	-14.5	-2.7493 ug/L	53.75594	-2.7493 ppb	53.75594 >999.9%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg	279.077 IEC†	1.6	59.342 ug/L	45.4812	59.342 ppb	45.4812 76.64%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn	257.610†	-109.8	-0.1456 ug/L	0.00756	-0.1456 ppb	0.00756 5.19%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo	202.031†	3.6	0.3167 ug/L	0.57965	0.3167 ppb	0.57965 183.04%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na	589.592 Radial†	-115.4	-40.442 ug/L	32.1722	-40.442 ppb	32.1722 79.55%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni	231.604†	2.3	0.0723 ug/L	0.33305	0.0723 ppb	0.33305 460.80%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P	214.914†	0.4	0.3756 ug/L	2.17381	0.3756 ppb	2.17381 578.72%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb	220.353†	-11.8	-1.8160 ug/L	0.62904	-1.8160 ppb	0.62904 34.64%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S	181.975 Axial†	-1.1	-1.9089 ug/L	3.72494	-1.9089 ppb	3.72494 195.14%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb	206.836†	0.8	0.3329 ug/L	0.24357	0.3329 ppb	0.24357 73.17%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se	196.026†	-1.6	-1.2432 ug/L	6.03117	-1.2432 ppb	6.03117 485.14%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si	251.611†	46.5	1.7465 ug/L	0.35834	1.7465 ppb	0.35834 20.52%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn	189.927†	-1.2	-0.2786 ug/L	0.67266	-0.2786 ppb	0.67266 241.48%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr	421.552†	8.0	0.0615 ug/L	0.06798	0.0615 ppb	0.06798 110.51%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti	334.940†	-32.7	-0.0618 ug/L	0.03897	-0.0618 ppb	0.03897 63.00%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl	190.801†	2.2	0.8429 ug/L	2.65362	0.8429 ppb	2.65362 314.83%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U	409.014†	-86.7	-2.6202 ug/L	2.25969	-2.6202 ppb	2.25969 86.24%
QC value within limits for U 409.014 Recovery = Not calculated						
V	292.402†	-9.1	-0.0742 ug/L	0.30190	-0.0742 ppb	0.30190 406.75%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn	213.857†	59.5	0.7171 ug/L	0.05262	0.7171 ppb	0.05262 7.34%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†		55.9	4.4693 ug/L	0.45473	4.4693 ppb	0.45473 10.17%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 21

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/17/2010 09:25:43

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4286.7	4286.7	93.4 %		09:27:56
1	Y RADIAL	4813.0	4813.0	97.54 %		09:27:36
1	Al 396.153Radial†	5217.0	5668.9	5305.3 ug/L	5305.3 ppb	09:27:36
1	Ca 317.933Radial†	2786.5	2954.2	5221.8 ug/L	5221.8 ppb	09:27:56
1	Fe 238.204 Radial†	469.0	494.1	5192.1 ug/L	5192.1 ppb	09:27:56
1	K 766.490 Radial†	28496.5	27940.6	5346.2 ug/L	5346.2 ppb	09:27:36
1	Mg 279.077 IEC†	133.3	142.5	5424.4 ug/L	5424.4 ppb	09:27:56
1	Na 589.592 Radial†	27327.3	30050.2	10529 ug/L	10529 ppb	09:27:36
1	Sr 421.552†	65278.2	69833.6	533.44 ug/L	533.44 ppb	09:27:36
1	Sc 361.383	817018.2	817018.2	100.50 %		09:28:53
1	Y 371.029	679634.6	679634.6	98.578 %		09:28:53
1	Ag 328.068†	98004.7	97303.6	502.67 ug/L	502.67 ppb	09:28:59
1	As 188.979†	888.0	900.6	505.46 ug/L	505.46 ppb	09:29:19
1	B 249.677†	17300.2	17628.9	491.05 ug/L	491.05 ppb	09:28:59
1	Ba 233.527†	53877.7	53595.5	502.76 ug/L	502.76 ppb	09:28:59
1	Be 313.107†	1189174.4	1186950.9	507.78 ug/L	507.78 ppb	09:28:53
1	Cd 226.502†	34704.8	34707.4	502.76 ug/L	502.76 ppb	09:28:59
1	Co 228.616†	19689.2	19630.5	510.08 ug/L	510.08 ppb	09:28:59
1	Cr 267.716†	37654.6	37386.6	503.04 ug/L	503.04 ppb	09:28:59
1	Cu 324.752†	156236.2	149987.9	496.45 ug/L	496.45 ppb	09:28:59
1	Mn 257.610†	385787.0	383305.1	504.96 ug/L	504.96 ppb	09:28:53
1	Mo 202.031†	5683.9	5642.6	496.67 ug/L	496.67 ppb	09:29:19
1	Ni 231.604†	16213.0	16050.4	510.72 ug/L	510.72 ppb	09:28:59
1	P 214.914†	3513.9	3312.4	2397.6 ug/L	2397.6 ppb	09:29:19
1	Pb 220.353†	3220.1	3246.8	502.38 ug/L	502.38 ppb	09:29:19
1	S 181.975 Axial†	584.9	551.8	984.21 ug/L	984.21 ppb	09:29:19
1	Sb 206.836†	1221.4	1190.8	510.90 ug/L	510.90 ppb	09:29:19
1	Se 196.026†	584.0	599.8	515.88 ug/L	515.88 ppb	09:29:19
1	Si 251.611†	67727.9	66890.6	2511.2 ug/L	2511.2 ppb	09:28:59
1	Sn 189.927†	2201.3	2182.3	491.99 ug/L	491.99 ppb	09:29:19
1	Ti 334.940†	283420.9	283089.5	489.07 ug/L	489.07 ppb	09:28:59
1	Tl 190.801†	1278.3	1303.7	505.28 ug/L	505.28 ppb	09:29:19
1	U 409.014†	14934.5	16940.7	509.92 ug/L	509.92 ppb	09:28:59
1	V 292.402†	61572.6	62582.1	506.62 ug/L	506.62 ppb	09:28:59
1	Zn 213.857†	42950.9	42118.8	504.13 ug/L	504.13 ppb	09:28:59
1	SiO2†	68041.5	67205.6	5368.5 ug/L	5368.5 ppb	09:30:26
2	Sc Radial	4279.8	4279.8	93.3 %		09:28:21
2	Y RADIAL	4819.7	4819.7	97.68 %		09:28:01
2	Al 396.153Radial†	5209.9	5670.4	5306.7 ug/L	5306.7 ppb	09:28:01
2	Ca 317.933Radial†	2787.9	2960.5	5233.1 ug/L	5233.1 ppb	09:28:21
2	Fe 238.204 Radial†	462.9	488.3	5131.9 ug/L	5131.9 ppb	09:28:21
2	K 766.490 Radial†	28638.3	28142.1	5384.8 ug/L	5384.8 ppb	09:28:01
2	Mg 279.077 IEC†	130.9	140.2	5336.5 ug/L	5336.5 ppb	09:28:21
2	Na 589.592 Radial†	27496.0	30278.4	10609 ug/L	10609 ppb	09:28:01
2	Sr 421.552†	65653.2	70348.7	537.38 ug/L	537.38 ppb	09:28:01
2	Sc 361.383	812329.3	812329.3	99.926 %		09:29:24
2	Y 371.029	676088.7	676088.7	98.064 %		09:29:24
2	Ag 328.068†	97945.8	97807.5	505.24 ug/L	505.24 ppb	09:29:30
2	As 188.979†	886.2	903.8	507.28 ug/L	507.28 ppb	09:29:50
2	B 249.677†	17229.6	17657.6	491.86 ug/L	491.86 ppb	09:29:30
2	Ba 233.527†	53837.2	53864.5	505.28 ug/L	505.28 ppb	09:29:30
2	Be 313.107†	1184775.5	1189378.5	508.82 ug/L	508.82 ppb	09:29:24
2	Cd 226.502†	34677.9	34879.8	505.26 ug/L	505.26 ppb	09:29:30
2	Co 228.616†	19640.1	19694.4	511.74 ug/L	511.74 ppb	09:29:30
2	Cr 267.716†	37598.0	37546.2	505.18 ug/L	505.18 ppb	09:29:30
2	Cu 324.752†	156543.2	151192.4	500.43 ug/L	500.43 ppb	09:29:30
2	Mn 257.610†	383813.2	383545.4	505.27 ug/L	505.27 ppb	09:29:24
2	Mo 202.031†	5650.5	5641.9	496.60 ug/L	496.60 ppb	09:29:50
2	Ni 231.604†	16163.0	16093.5	512.09 ug/L	512.09 ppb	09:29:30

2	P 214.914†	3490.4	3309.0	2394.4 ug/L	2394.4 ppb	09:29:50
2	Pb 220.353†	3182.4	3227.6	499.42 ug/L	499.42 ppb	09:29:50
2	S 181.975 Axial†	580.4	550.7	982.19 ug/L	982.19 ppb	09:29:50
2	Sb 206.836†	1217.2	1193.6	512.12 ug/L	512.12 ppb	09:29:50
2	Se 196.026†	582.3	601.6	517.13 ug/L	517.13 ppb	09:29:50
2	Si 251.611†	67760.8	67312.6	2527.1 ug/L	2527.1 ppb	09:29:30
2	Sn 189.927†	2212.4	2206.0	497.34 ug/L	497.34 ppb	09:29:50
2	Ti 334.940†	283442.6	284739.0	491.93 ug/L	491.93 ppb	09:29:30
2	Tl 190.801†	1265.2	1298.0	503.08 ug/L	503.08 ppb	09:29:50
2	U 409.014†	14830.0	16922.0	509.35 ug/L	509.35 ppb	09:29:30
2	V 292.402†	61421.0	62784.0	508.23 ug/L	508.23 ppb	09:29:30
2	Zn 213.857†	43068.3	42483.0	508.52 ug/L	508.52 ppb	09:29:30
2	SiO2†	68288.6	67843.7	5419.6 ug/L	5419.6 ppb	09:30:31
3	Sc Radial	4287.3	4287.3	93.5 %		09:28:46
3	Y RADIAL	4676.8	4676.8	94.78 %		09:28:26
3	Al 396.153Radial†	5025.1	5462.8	5111.7 ug/L	5111.7 ppb	09:28:26
3	Ca 317.933Radial†	2778.2	2944.9	5205.4 ug/L	5205.4 ppb	09:28:46
3	Fe 238.204 Radial†	468.2	493.1	5181.5 ug/L	5181.5 ppb	09:28:46
3	K 766.490 Radial†	27902.4	27300.7	5223.8 ug/L	5223.8 ppb	09:28:26
3	Mg 279.077 IEC†	133.2	142.5	5420.8 ug/L	5420.8 ppb	09:28:46
3	Na 589.592 Radial†	26462.7	29121.0	10204 ug/L	10204 ppb	09:28:26
3	Sr 421.552†	63469.8	67888.9	518.59 ug/L	518.59 ppb	09:28:26
3	Sc 361.383	818582.6	818582.6	100.70 %		09:29:56
3	Y 371.029	680501.9	680501.9	98.704 %		09:29:56
3	Ag 328.068†	98450.6	97560.0	503.99 ug/L	503.99 ppb	09:30:01
3	As 188.979†	884.0	894.9	502.30 ug/L	502.30 ppb	09:30:21
3	B 249.677†	17333.1	17628.7	491.04 ug/L	491.04 ppb	09:30:01
3	Ba 233.527†	54118.1	53731.8	504.04 ug/L	504.04 ppb	09:30:01
3	Be 313.107†	1197405.9	1192864.3	510.30 ug/L	510.30 ppb	09:29:56
3	Cd 226.502†	34868.4	34803.9	504.15 ug/L	504.15 ppb	09:30:01
3	Co 228.616†	19767.4	19670.7	511.12 ug/L	511.12 ppb	09:30:01
3	Cr 267.716†	37834.2	37493.3	504.47 ug/L	504.47 ppb	09:30:01
3	Cu 324.752†	157093.3	150542.0	498.29 ug/L	498.29 ppb	09:30:01
3	Mn 257.610†	388253.1	385020.4	507.22 ug/L	507.22 ppb	09:29:56
3	Mo 202.031†	5678.7	5626.6	495.26 ug/L	495.26 ppb	09:30:21
3	Ni 231.604†	16227.0	16033.5	510.18 ug/L	510.18 ppb	09:30:01
3	P 214.914†	3517.7	3309.5	2395.0 ug/L	2395.0 ppb	09:30:21
3	Pb 220.353†	3209.3	3229.9	499.73 ug/L	499.73 ppb	09:30:21
3	S 181.975 Axial†	582.8	548.6	978.54 ug/L	978.54 ppb	09:30:21
3	Sb 206.836†	1224.1	1191.1	511.00 ug/L	511.00 ppb	09:30:21
3	Se 196.026†	588.4	603.1	518.50 ug/L	518.50 ppb	09:30:21
3	Si 251.611†	68016.6	67048.6	2517.1 ug/L	2517.1 ppb	09:30:01
3	Sn 189.927†	2203.0	2179.8	491.43 ug/L	491.43 ppb	09:30:21
3	Ti 334.940†	284612.5	283733.9	490.18 ug/L	490.18 ppb	09:30:01
3	Tl 190.801†	1272.3	1295.3	502.04 ug/L	502.04 ppb	09:30:21
3	U 409.014†	14821.7	16800.3	505.67 ug/L	505.67 ppb	09:30:01
3	V 292.402†	61855.3	62745.7	507.90 ug/L	507.90 ppb	09:30:01
3	Zn 213.857†	43280.2	42364.1	507.10 ug/L	507.10 ppb	09:30:01
3	SiO2†	67917.7	66953.2	5348.3 ug/L	5348.3 ppb	09:30:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	815976.7	100.37 %	0.400			0.40%
Sc Radial	4284.6	93.4 %	0.09			0.10%
Y 371.029	678741.7	98.449 %	0.3391			0.34%
Y RADIAL	4769.8	96.67 %	1.634			1.69%
Ag 328.068†	97557.0	503.97 ug/L	1.288	503.97 ppb	1.288	0.26%
QC value within limits for Ag 328.068 Recovery = 100.79%						
Al 396.153Radial†	5600.7	5241.2 ug/L	112.22	5241.2 ppb	112.22	2.14%
QC value within limits for Al 396.153Radial Recovery = 104.82%						
As 188.979†	899.8	505.01 ug/L	2.519	505.01 ppb	2.519	0.50%
QC value within limits for As 188.979 Recovery = 101.00%						
B 249.677†	17638.4	491.32 ug/L	0.469	491.32 ppb	0.469	0.10%
QC value within limits for B 249.677 Recovery = 98.26%						
Ba 233.527†	53730.6	504.02 ug/L	1.259	504.02 ppb	1.259	0.25%
QC value within limits for Ba 233.527 Recovery = 100.80%						
Be 313.107†	1189731.3	508.97 ug/L	1.270	508.97 ppb	1.270	0.25%
QC value within limits for Be 313.107 Recovery = 101.79%						
Ca 317.933Radial†	2953.2	5220.1 ug/L	13.91	5220.1 ppb	13.91	0.27%

QC value within limits for Ca 317.933 Radial Recovery = 104.40%

Cd	226.502†	34797.0	504.06 ug/L	1.255	504.06 ppb	1.255	0.25%
QC value within limits for Cd 226.502 Recovery = 100.81%							
Co	228.616†	19665.2	510.98 ug/L	0.836	510.98 ppb	0.836	0.16%
QC value within limits for Co 228.616 Recovery = 102.20%							
Cr	267.716†	37475.4	504.23 ug/L	1.090	504.23 ppb	1.090	0.22%
QC value within limits for Cr 267.716 Recovery = 100.85%							
Cu	324.752†	150574.1	498.39 ug/L	1.994	498.39 ppb	1.994	0.40%
QC value within limits for Cu 324.752 Recovery = 99.68%							
Fe	238.204 Radial†	491.8	5168.5 ug/L	32.16	5168.5 ppb	32.16	0.62%
QC value within limits for Fe 238.204 Radial Recovery = 103.37%							
K	766.490 Radial†	27794.5	5318.2 ug/L	84.08	5318.2 ppb	84.08	1.58%
QC value within limits for K 766.490 Radial Recovery = 106.36%							
Mg	279.077 IEC†	141.7	5393.9 ug/L	49.73	5393.9 ppb	49.73	0.92%
QC value within limits for Mg 279.077 IEC Recovery = 107.88%							
Mn	257.610†	383957.0	505.82 ug/L	1.223	505.82 ppb	1.223	0.24%
QC value within limits for Mn 257.610 Recovery = 101.16%							
Mo	202.031†	5637.0	496.18 ug/L	0.791	496.18 ppb	0.791	0.16%
QC value within limits for Mo 202.031 Recovery = 99.24%							
Na	589.592 Radial†	29816.5	10447 ug/L	214.8	10447 ppb	214.8	2.06%
QC value within limits for Na 589.592 Radial Recovery = 104.47%							
Ni	231.604†	16059.1	511.00 ug/L	0.985	511.00 ppb	0.985	0.19%
QC value within limits for Ni 231.604 Recovery = 102.20%							
P	214.914†	3310.3	2395.7 ug/L	1.70	2395.7 ppb	1.70	0.07%
QC value within limits for P 214.914 Recovery = 95.83%							
Pb	220.353†	3234.8	500.51 ug/L	1.624	500.51 ppb	1.624	0.32%
QC value within limits for Pb 220.353 Recovery = 100.10%							
S	181.975 Axial†	550.3	981.65 ug/L	2.873	981.65 ppb	2.873	0.29%
QC value within limits for S 181.975 Axial Recovery = 98.16%							
Sb	206.836†	1191.8	511.34 ug/L	0.678	511.34 ppb	0.678	0.13%
QC value within limits for Sb 206.836 Recovery = 102.27%							
Se	196.026†	601.5	517.17 ug/L	1.309	517.17 ppb	1.309	0.25%
QC value within limits for Se 196.026 Recovery = 103.43%							
Si	251.611†	67083.9	2518.5 ug/L	8.02	2518.5 ppb	8.02	0.32%
QC value within limits for Si 251.611 Recovery = 100.74%							
Sn	189.927†	2189.4	493.59 ug/L	3.264	493.59 ppb	3.264	0.66%
QC value within limits for Sn 189.927 Recovery = 98.72%							
Sr	421.552†	69357.1	529.80 ug/L	9.910	529.80 ppb	9.910	1.87%
QC value within limits for Sr 421.552 Recovery = 105.96%							
Ti	334.940†	283854.1	490.39 ug/L	1.441	490.39 ppb	1.441	0.29%
QC value within limits for Ti 334.940 Recovery = 98.08%							
Tl	190.801†	1299.0	503.47 ug/L	1.658	503.47 ppb	1.658	0.33%
QC value within limits for Tl 190.801 Recovery = 100.69%							
U	409.014†	16887.7	508.31 ug/L	2.304	508.31 ppb	2.304	0.45%
QC value within limits for U 409.014 Recovery = 101.66%							
V	292.402†	62703.9	507.58 ug/L	0.852	507.58 ppb	0.852	0.17%
QC value within limits for V 292.402 Recovery = 101.52%							
Zn	213.857†	42322.0	506.58 ug/L	2.241	506.58 ppb	2.241	0.44%
QC value within limits for Zn 213.857 Recovery = 101.32%							
SiO2†		67334.2	5378.8 ug/L	36.74	5378.8 ppb	36.74	0.68%
QC value within limits for SiO2 Recovery = 100.58%							

All analyte(s) passed QC.

Sequence No.: 22

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/17/2010 09:32:47

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4817.8	4817.8	105 %		09:34:40
1	Y RADIAL	5221.4	5221.4	105.8 %		09:34:40
1	Al 396.153Radial†	-68.9	20.2	19.006 ug/L	19.006 ppb	09:35:00
1	Ca 317.933Radial†	15.3	-13.3	-23.441 ug/L	-23.441 ppb	09:35:00
1	Fe 238.204 Radial†	8.3	0.1	0.5522 ug/L	0.5522 ppb	09:35:00
1	K 766.490 Radial†	2658.2	-24.6	-4.6935 ug/L	-4.6935 ppb	09:34:40
1	Mg 279.077 IEC†	0.9	0.8	30.756 ug/L	30.756 ppb	09:35:00
1	Na 589.592 Radial†	-911.9	-63.2	-22.143 ug/L	-22.143 ppb	09:34:40
1	Sr 421.552†	22.9	-4.0	-0.0304 ug/L	-0.0304 ppb	09:34:40
1	Sc 361.383	806237.9	806237.9	99.177 %		09:35:56
1	Y 371.029	680258.9	680258.9	98.669 %		09:35:56
1	Ag 328.068†	250.4	41.9	0.2172 ug/L	0.2172 ppb	09:35:56
1	As 188.979†	-22.2	-5.3	-2.9760 ug/L	-2.9760 ppb	09:36:16
1	B 249.677†	-311.8	101.0	2.8266 ug/L	2.8266 ppb	09:36:16
1	Ba 233.527†	17.6	5.3	0.0494 ug/L	0.0494 ppb	09:36:16
1	Be 313.107†	-3722.5	-24.4	-0.0103 ug/L	-0.0103 ppb	09:35:56
1	Cd 226.502†	-185.4	-10.6	-0.1544 ug/L	-0.1544 ppb	09:36:16
1	Co 228.616†	-51.2	-11.8	-0.3052 ug/L	-0.3052 ppb	09:36:16
1	Cr 267.716†	75.4	-3.5	-0.0455 ug/L	-0.0455 ppb	09:36:16
1	Cu 324.752†	5321.0	-101.1	-0.3333 ug/L	-0.3333 ppb	09:35:56
1	Mn 257.610†	430.2	-117.2	-0.1555 ug/L	-0.1555 ppb	09:36:16
1	Mo 202.031†	16.8	4.1	0.3576 ug/L	0.3576 ppb	09:36:16
1	Ni 231.604†	78.7	-2.0	-0.0646 ug/L	-0.0646 ppb	09:36:16
1	P 214.914†	183.3	0.9	0.7401 ug/L	0.7401 ppb	09:36:16
1	Pb 220.353†	-40.5	1.9	0.3047 ug/L	0.3047 ppb	09:36:16
1	S 181.975 Axial†	33.7	3.9	6.8799 ug/L	6.8799 ppb	09:36:16
1	Sb 206.836†	28.3	4.0	1.6653 ug/L	1.6653 ppb	09:36:16
1	Se 196.026†	-22.8	-4.2	-3.4999 ug/L	-3.4999 ppb	09:36:16
1	Si 251.611†	528.0	34.2	1.2811 ug/L	1.2811 ppb	09:36:16
1	Sn 189.927†	3.8	-4.2	-0.9467 ug/L	-0.9467 ppb	09:36:16
1	Ti 334.940†	-1054.7	23.9	0.0367 ug/L	0.0367 ppb	09:35:56
1	Tl 190.801†	-28.3	3.2	1.2403 ug/L	1.2403 ppb	09:36:16
1	U 409.014†	-2145.0	-81.9	-2.4719 ug/L	-2.4719 ppb	09:35:56
1	V 292.402†	-1313.6	-6.8	-0.0538 ug/L	-0.0538 ppb	09:35:56
1	Zn 213.857†	658.2	46.5	0.5629 ug/L	0.5629 ppb	09:36:16
1	SiO2†	576.6	86.0	6.8808 ug/L	6.8808 ppb	09:37:12
2	Sc Radial	3996.0	3996.0	87.1 %		09:35:05
2	Y RADIAL	4323.0	4323.0	87.61 %		09:35:05
2	Al 396.153Radial†	-87.2	-14.3	-13.458 ug/L	-13.458 ppb	09:35:25
2	Ca 317.933Radial†	19.0	-6.0	-10.633 ug/L	-10.633 ppb	09:35:25
2	Fe 238.204 Radial†	9.2	2.7	28.574 ug/L	28.574 ppb	09:35:25
2	K 766.490 Radial†	2544.1	365.0	69.967 ug/L	69.967 ppb	09:35:05
2	Mg 279.077 IEC†	3.1	3.5	133.87 ug/L	133.87 ppb	09:35:25
2	Na 589.592 Radial†	-941.0	-275.2	-96.416 ug/L	-96.416 ppb	09:35:05
2	Sr 421.552†	12.3	-11.7	-0.0892 ug/L	-0.0892 ppb	09:35:05
2	Sc 361.383	811330.0	811330.0	99.803 %		09:36:22
2	Y 371.029	684252.4	684252.4	99.248 %		09:36:22
2	Ag 328.068†	171.5	-38.7	-0.1862 ug/L	-0.1862 ppb	09:36:22
2	As 188.979†	-21.9	-4.9	-2.7428 ug/L	-2.7428 ppb	09:36:42
2	B 249.677†	-329.1	85.6	2.3906 ug/L	2.3906 ppb	09:36:42
2	Ba 233.527†	24.0	11.6	0.1089 ug/L	0.1089 ppb	09:36:42
2	Be 313.107†	-3749.1	-27.4	-0.0119 ug/L	-0.0119 ppb	09:36:22
2	Cd 226.502†	-170.9	5.1	0.0698 ug/L	0.0698 ppb	09:36:42
2	Co 228.616†	-31.1	8.7	0.2241 ug/L	0.2241 ppb	09:36:42
2	Cr 267.716†	91.5	12.1	0.1679 ug/L	0.1679 ppb	09:36:42
2	Cu 324.752†	5277.5	-178.3	-0.5859 ug/L	-0.5859 ppb	09:36:22
2	Mn 257.610†	409.9	-140.3	-0.1873 ug/L	-0.1873 ppb	09:36:42
2	Mo 202.031†	9.7	-3.1	-0.2701 ug/L	-0.2701 ppb	09:36:42
2	Ni 231.604†	83.1	1.8	0.0571 ug/L	0.0571 ppb	09:36:42

2	P 214.914†	188.9	5.3	4.0947 ug/L	4.0947 ppb	09:36:42
2	Pb 220.353†	-48.7	-6.0	-0.9372 ug/L	-0.9372 ppb	09:36:42
2	S 181.975 Axial†	27.8	-2.3	-4.1901 ug/L	-4.1901 ppb	09:36:42
2	Sb 206.836†	20.0	-4.5	-1.8937 ug/L	-1.8937 ppb	09:36:42
2	Se 196.026†	-13.5	5.2	4.4076 ug/L	4.4076 ppb	09:36:42
2	Si 251.611†	513.3	16.1	0.6100 ug/L	0.6100 ppb	09:36:42
2	Sn 189.927†	0.3	-7.7	-1.7415 ug/L	-1.7415 ppb	09:36:42
2	Ti 334.940†	-1141.0	-56.0	-0.1068 ug/L	-0.1068 ppb	09:36:22
2	Tl 190.801†	-22.1	9.6	3.7131 ug/L	3.7131 ppb	09:36:42
2	U 409.014†	-2249.3	-172.8	-5.2212 ug/L	-5.2212 ppb	09:36:22
2	V 292.402†	-1334.0	-18.9	-0.1661 ug/L	-0.1661 ppb	09:36:22
2	Zn 213.857†	651.4	35.6	0.4265 ug/L	0.4265 ppb	09:36:42
2	SiO2†	588.8	94.6	7.5839 ug/L	7.5839 ppb	09:37:17
3	Sc Radial	4344.4	4344.4	94.7 %		09:35:30
3	Y RADIAL	4693.4	4693.4	95.12 %		09:35:30
3	Al 396.153Radial†	-94.3	-13.7	-12.871 ug/L	-12.871 ppb	09:35:50
3	Ca 317.933Radial†	22.8	-3.8	-6.7472 ug/L	-6.7472 ppb	09:35:50
3	Fe 238.204 Radial†	4.8	-2.8	-28.963 ug/L	-28.963 ppb	09:35:50
3	K 766.490 Radial†	2626.9	218.2	41.836 ug/L	41.836 ppb	09:35:30
3	Mg 279.077 IEC†	3.5	3.6	136.49 ug/L	136.49 ppb	09:35:50
3	Na 589.592 Radial†	-1010.3	-261.8	-91.729 ug/L	-91.729 ppb	09:35:30
3	Sr 421.552†	39.8	16.2	0.1239 ug/L	0.1239 ppb	09:35:30
3	Sc 361.383	814393.5	814393.5	100.18 %		09:36:47
3	Y 371.029	686784.5	686784.5	99.615 %		09:36:47
3	Ag 328.068†	233.8	22.8	0.1102 ug/L	0.1102 ppb	09:36:47
3	As 188.979†	-22.7	-5.7	-3.1525 ug/L	-3.1525 ppb	09:37:07
3	B 249.677†	-343.4	72.6	2.0358 ug/L	2.0358 ppb	09:37:07
3	Ba 233.527†	10.1	-2.4	-0.0232 ug/L	-0.0232 ppb	09:37:07
3	Be 313.107†	-3788.1	-52.3	-0.0223 ug/L	-0.0223 ppb	09:36:47
3	Cd 226.502†	-173.0	3.7	0.0561 ug/L	0.0561 ppb	09:37:07
3	Co 228.616†	-45.9	-5.9	-0.1549 ug/L	-0.1549 ppb	09:37:07
3	Cr 267.716†	80.7	1.0	0.0110 ug/L	0.0110 ppb	09:37:07
3	Cu 324.752†	5363.4	-112.4	-0.3729 ug/L	-0.3729 ppb	09:36:47
3	Mn 257.610†	434.4	-117.3	-0.1628 ug/L	-0.1628 ppb	09:37:07
3	Mo 202.031†	7.6	-5.2	-0.4620 ug/L	-0.4620 ppb	09:37:07
3	Ni 231.604†	94.1	12.5	0.3978 ug/L	0.3978 ppb	09:37:07
3	P 214.914†	192.9	8.6	6.5860 ug/L	6.5860 ppb	09:37:07
3	Pb 220.353†	-60.1	-17.2	-2.6610 ug/L	-2.6610 ppb	09:37:07
3	S 181.975 Axial†	31.2	1.0	1.7922 ug/L	1.7922 ppb	09:37:07
3	Sb 206.836†	31.6	7.0	2.8871 ug/L	2.8871 ppb	09:37:07
3	Se 196.026†	-12.2	6.6	5.4227 ug/L	5.4227 ppb	09:37:07
3	Si 251.611†	533.4	34.2	1.2944 ug/L	1.2944 ppb	09:37:07
3	Sn 189.927†	7.1	-0.9	-0.1977 ug/L	-0.1977 ppb	09:37:07
3	Ti 334.940†	-1086.1	3.1	-0.0060 ug/L	-0.0060 ppb	09:36:47
3	Tl 190.801†	-34.7	-2.8	-1.0875 ug/L	-1.0875 ppb	09:37:07
3	U 409.014†	-2131.7	-46.9	-1.4132 ug/L	-1.4132 ppb	09:36:47
3	V 292.402†	-1292.0	28.0	0.2213 ug/L	0.2213 ppb	09:36:47
3	Zn 213.857†	654.2	35.9	0.4357 ug/L	0.4357 ppb	09:37:07
3	SiO2†	527.0	30.8	2.4772 ug/L	2.4772 ppb	09:37:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	810653.8	99.720 %		0.5068			0.51%
Sc Radial	4386.1	95.6 %		8.99			9.40%
Y 371.029	683765.3	99.177 %		0.4772			0.48%
Y RADIAL	4746.0	96.18 %		9.150			9.51%
Ag 328.068†	8.6	0.0471 ug/L		0.20896	0.0471 ppb	0.20896	443.81%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-2.6	-2.4408 ug/L		18.57620	-2.4408 ppb	18.57620	761.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-5.3	-2.9571 ug/L		0.20548	-2.9571 ppb	0.20548	6.95%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	86.4	2.4176 ug/L		0.39610	2.4176 ppb	0.39610	16.38%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	4.8	0.0450 ug/L		0.06614	0.0450 ppb	0.06614	146.84%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-34.7	-0.0148 ug/L		0.00651	-0.0148 ppb	0.00651	43.84%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-7.7	-13.607 ug/L		8.7352	-13.607 ppb	8.7352	64.20%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	-0.6	-0.0095 ug/L	0.12565	-0.0095 ppb	0.12565	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-3.0	-0.0787 ug/L	0.27278	-0.0787 ppb	0.27278	346.77%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	3.2	0.0445 ug/L	0.11055	0.0445 ppb	0.11055	248.55%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-130.6	-0.4307 ug/L	0.13585	-0.4307 ppb	0.13585	31.54%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	0.0	0.0545 ug/L	28.77200	0.0545 ppb	28.77200	>999.9%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	186.2	35.703 ug/L	37.7063	35.703 ppb	37.7063	105.61%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	2.6	100.37 ug/L	60.305	100.37 ppb	60.305	60.08%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	-124.9	-0.1685 ug/L	0.01667	-0.1685 ppb	0.01667	9.89%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-1.4	-0.1248 ug/L	0.42866	-0.1248 ppb	0.42866	343.34%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-200.1	-70.096 ug/L	41.5948	-70.096 ppb	41.5948	59.34%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	4.1	0.1301 ug/L	0.23967	0.1301 ppb	0.23967	184.20%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	5.0	3.8069 ug/L	2.93355	3.8069 ppb	2.93355	77.06%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-7.1	-1.0978 ug/L	1.48936	-1.0978 ppb	1.48936	135.66%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	0.8	1.4940 ug/L	5.54103	1.4940 ppb	5.54103	370.89%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	2.2	0.8862 ug/L	2.48380	0.8862 ppb	2.48380	280.28%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	2.5	2.1101 ug/L	4.88486	2.1101 ppb	4.88486	231.50%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	28.2	1.0618 ug/L	0.39137	1.0618 ppb	0.39137	36.86%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-4.3	-0.9620 ug/L	0.77201	-0.9620 ppb	0.77201	80.25%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	0.2	0.0014 ug/L	0.11007	0.0014 ppb	0.11007	>999.9%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-9.7	-0.0254 ug/L	0.07368	-0.0254 ppb	0.07368	290.15%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	3.3	1.2887 ug/L	2.40063	1.2887 ppb	2.40063	186.29%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-100.5	-3.0355 ug/L	1.96554	-3.0355 ppb	1.96554	64.75%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	0.8	0.0005 ug/L	0.19935	0.0005 ppb	0.19935	>999.9%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	39.3	0.4750 ug/L	0.07626	0.4750 ppb	0.07626	16.05%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	70.5	5.6473 ug/L	2.76783	5.6473 ppb	2.76783	49.01%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 31

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/17/2010 10:35:23

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	4283.5	4283.5	93.4 %		10:37:36
1	Y RADIAL	4741.9	4741.9	96.10 %		10:37:16
1	Al 396.153Radial†	5103.4	5551.5	5194.8 ug/L	5194.8 ppb	10:37:16
1	Ca 317.933Radial†	2802.1	2973.2	5255.5 ug/L	5255.5 ppb	10:37:36
1	Fe 238.204 Radial†	468.9	494.3	5194.8 ug/L	5194.8 ppb	10:37:36
1	K 766.490 Radial†	28230.1	27678.6	5295.9 ug/L	5295.9 ppb	10:37:16
1	Mg 279.077 IEC†	133.7	143.1	5446.4 ug/L	5446.4 ppb	10:37:36
1	Na 589.592 Radial†	27703.4	30475.3	10678 ug/L	10678 ppb	10:37:16
1	Sr 421.552†	65249.5	69856.2	533.62 ug/L	533.62 ppb	10:37:16
1	Sc 361.383	819544.9	819544.9	100.81 %		10:38:33
1	Y 371.029	682589.1	682589.1	99.007 %		10:38:33
1	Ag 328.068†	99838.4	98821.8	510.49 ug/L	510.49 ppb	10:38:38
1	As 188.979†	887.6	897.5	503.78 ug/L	503.78 ppb	10:38:58
1	B 249.677†	17542.7	17816.5	496.28 ug/L	496.28 ppb	10:38:38
1	Ba 233.527†	54714.0	54259.8	508.99 ug/L	508.99 ppb	10:38:38
1	Be 313.107†	1197393.9	1191456.1	509.71 ug/L	509.71 ppb	10:38:33
1	Cd 226.502†	35243.4	35135.2	508.96 ug/L	508.96 ppb	10:38:38
1	Co 228.616†	19984.9	19863.4	516.13 ug/L	516.13 ppb	10:38:38
1	Cr 267.716†	38316.3	37927.4	510.31 ug/L	510.31 ppb	10:38:38
1	Cu 324.752†	159492.4	152738.6	505.55 ug/L	505.55 ppb	10:38:38
1	Mn 257.610†	382454.5	378816.0	499.05 ug/L	499.05 ppb	10:38:38
1	Mo 202.031†	5734.1	5675.0	499.52 ug/L	499.52 ppb	10:38:58
1	Ni 231.604†	16409.4	16195.5	515.34 ug/L	515.34 ppb	10:38:38
1	P 214.914†	3535.5	3323.1	2403.8 ug/L	2403.8 ppb	10:38:58
1	Pb 220.353†	3217.1	3233.9	500.37 ug/L	500.37 ppb	10:38:58
1	S 181.975 Axial†	586.2	551.4	983.47 ug/L	983.47 ppb	10:38:58
1	Sb 206.836†	1226.7	1192.3	511.65 ug/L	511.65 ppb	10:38:58
1	Se 196.026†	589.4	603.5	518.88 ug/L	518.88 ppb	10:38:58
1	Si 251.611†	68829.3	67775.4	2544.4 ug/L	2544.4 ppb	10:38:38
1	Sn 189.927†	2224.6	2198.6	495.67 ug/L	495.67 ppb	10:38:58
1	Ti 334.940†	288135.9	286897.1	495.65 ug/L	495.65 ppb	10:38:38
1	Tl 190.801†	1290.5	1311.8	508.39 ug/L	508.39 ppb	10:38:58
1	U 409.014†	15287.8	17245.4	519.10 ug/L	519.10 ppb	10:38:38
1	V 292.402†	62786.8	63597.7	514.78 ug/L	514.78 ppb	10:38:38
1	Zn 213.857†	43760.2	42789.8	512.19 ug/L	512.19 ppb	10:38:38
1	SiO2†	69117.4	68064.1	5437.1 ug/L	5437.1 ppb	10:40:05
2	Sc Radial	4291.0	4291.0	93.5 %		10:38:01
2	Y RADIAL	4753.8	4753.8	96.34 %		10:37:41
2	Al 396.153Radial†	5079.3	5516.1	5161.4 ug/L	5161.4 ppb	10:37:41
2	Ca 317.933Radial†	2817.2	2984.0	5274.6 ug/L	5274.6 ppb	10:38:01
2	Fe 238.204 Radial†	473.9	498.8	5241.5 ug/L	5241.5 ppb	10:38:01
2	K 766.490 Radial†	28061.2	27444.7	5251.2 ug/L	5251.2 ppb	10:37:41
2	Mg 279.077 IEC†	133.1	142.2	5412.1 ug/L	5412.1 ppb	10:38:01
2	Na 589.592 Radial†	27463.1	30166.2	10570 ug/L	10570 ppb	10:37:41
2	Sr 421.552†	65014.6	69481.9	530.76 ug/L	530.76 ppb	10:37:41
2	Sc 361.383	807117.2	807117.2	99.285 %		10:39:04
2	Y 371.029	673668.8	673668.8	97.713 %		10:39:04
2	Ag 328.068†	98621.6	99121.1	512.05 ug/L	512.05 ppb	10:39:09
2	As 188.979†	901.3	924.8	519.01 ug/L	519.01 ppb	10:39:29
2	B 249.677†	17302.3	17842.2	496.99 ug/L	496.99 ppb	10:39:09
2	Ba 233.527†	54103.9	54481.0	511.07 ug/L	511.07 ppb	10:39:09
2	Be 313.107†	1181044.7	1193277.5	510.50 ug/L	510.50 ppb	10:39:04
2	Cd 226.502†	34872.7	35300.1	511.35 ug/L	511.35 ppb	10:39:09
2	Co 228.616†	19782.2	19964.5	518.76 ug/L	518.76 ppb	10:39:09
2	Cr 267.716†	37920.8	38114.3	512.82 ug/L	512.82 ppb	10:39:09
2	Cu 324.752†	157036.4	152700.9	505.43 ug/L	505.43 ppb	10:39:09
2	Mn 257.610†	378359.3	380532.7	501.31 ug/L	501.31 ppb	10:39:09
2	Mo 202.031†	5695.8	5724.0	503.83 ug/L	503.83 ppb	10:39:29
2	Ni 231.604†	16233.2	16268.7	517.67 ug/L	517.67 ppb	10:39:09

2	P 214.914†	3503.5	3344.8	2420.3 ug/L	2420.3 ppb	10:39:29
2	Pb 220.353†	3230.0	3296.0	509.95 ug/L	509.95 ppb	10:39:29
2	S 181.975 Axial†	581.1	555.1	990.18 ug/L	990.18 ppb	10:39:29
2	Sb 206.836†	1212.4	1196.6	513.61 ug/L	513.61 ppb	10:39:29
2	Se 196.026†	588.8	611.8	525.92 ug/L	525.92 ppb	10:39:29
2	Si 251.611†	67932.4	67923.4	2550.0 ug/L	2550.0 ppb	10:39:09
2	Sn 189.927†	2220.9	2228.9	502.48 ug/L	502.48 ppb	10:39:29
2	Ti 334.940†	284576.0	287712.4	497.06 ug/L	497.06 ppb	10:39:09
2	Tl 190.801†	1281.9	1322.9	512.65 ug/L	512.65 ppb	10:39:29
2	U 409.014†	14964.5	17153.2	516.31 ug/L	516.31 ppb	10:39:09
2	V 292.402†	62073.6	63838.2	516.75 ug/L	516.75 ppb	10:39:09
2	Zn 213.857†	43246.4	42940.7	513.99 ug/L	513.99 ppb	10:39:09
2	SiO2†	67460.7	67451.1	5387.9 ug/L	5387.9 ppb	10:40:10
3	Sc Radial	4267.3	4267.3	93.0 %		10:38:26
3	Y RADIAL	4876.4	4876.4	98.83 %		10:38:06
3	Al 396.153Radial†	5208.0	5684.6	5319.9 ug/L	5319.9 ppb	10:38:06
3	Ca 317.933Radial†	2802.7	2985.2	5276.6 ug/L	5276.6 ppb	10:38:26
3	Fe 238.204 Radial†	468.8	496.2	5214.0 ug/L	5214.0 ppb	10:38:26
3	K 766.490 Radial†	28712.4	28311.4	5417.1 ug/L	5417.1 ppb	10:38:06
3	Mg 279.077 IEC†	132.7	142.6	5425.4 ug/L	5425.4 ppb	10:38:26
3	Na 589.592 Radial†	28088.7	31001.7	10863 ug/L	10863 ppb	10:38:06
3	Sr 421.552†	66395.3	71352.1	545.04 ug/L	545.04 ppb	10:38:06
3	Sc 361.383	808424.7	808424.7	99.446 %		10:39:35
3	Y 371.029	675143.2	675143.2	97.927 %		10:39:35
3	Ag 328.068†	99757.1	100102.3	517.10 ug/L	517.10 ppb	10:39:40
3	As 188.979†	891.0	913.0	512.50 ug/L	512.50 ppb	10:40:00
3	B 249.677†	17510.4	18023.3	502.05 ug/L	502.05 ppb	10:39:40
3	Ba 233.527†	54584.2	54875.8	514.77 ug/L	514.77 ppb	10:39:40
3	Be 313.107†	1183042.4	1193362.4	510.54 ug/L	510.54 ppb	10:39:35
3	Cd 226.502†	35146.6	35518.8	514.52 ug/L	514.52 ppb	10:39:40
3	Co 228.616†	19948.7	20099.7	522.26 ug/L	522.26 ppb	10:39:40
3	Cr 267.716†	38299.4	38433.3	517.11 ug/L	517.11 ppb	10:39:40
3	Cu 324.752†	159348.7	154770.2	512.28 ug/L	512.28 ppb	10:39:40
3	Mn 257.610†	382046.9	383624.4	505.38 ug/L	505.38 ppb	10:39:40
3	Mo 202.031†	5686.4	5705.2	502.18 ug/L	502.18 ppb	10:40:00
3	Ni 231.604†	16433.6	16443.7	523.24 ug/L	523.24 ppb	10:39:40
3	P 214.914†	3494.0	3329.6	2407.5 ug/L	2407.5 ppb	10:40:00
3	Pb 220.353†	3213.5	3274.2	506.61 ug/L	506.61 ppb	10:40:00
3	S 181.975 Axial†	574.5	547.6	976.68 ug/L	976.68 ppb	10:40:00
3	Sb 206.836†	1221.6	1203.9	516.54 ug/L	516.54 ppb	10:40:00
3	Se 196.026†	586.4	608.5	523.14 ug/L	523.14 ppb	10:40:00
3	Si 251.611†	68702.1	68586.7	2574.9 ug/L	2574.9 ppb	10:39:40
3	Sn 189.927†	2212.3	2216.7	499.73 ug/L	499.73 ppb	10:40:00
3	Ti 334.940†	288346.9	291040.6	502.81 ug/L	502.81 ppb	10:39:40
3	Tl 190.801†	1274.4	1313.3	509.00 ug/L	509.00 ppb	10:40:00
3	U 409.014†	15076.8	17241.8	518.98 ug/L	518.98 ppb	10:39:40
3	V 292.402†	62821.0	64488.7	521.92 ug/L	521.92 ppb	10:39:40
3	Zn 213.857†	43684.8	43311.0	518.43 ug/L	518.43 ppb	10:39:40
3	SiO2†	67622.8	67504.3	5392.2 ug/L	5392.2 ppb	10:40:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	811695.6	99.848 %	0.8401			0.84%
Sc Radial	4280.6	93.3 %	0.26			0.28%
Y 371.029	677133.7	98.216 %	0.6936			0.71%
Y RADIAL	4790.7	97.09 %	1.509			1.55%
Ag 328.068†	99348.4	513.21 ug/L	3.454	513.21 ppb	3.454	0.67%
QC value within limits for Ag 328.068 Recovery = 102.64%						
Al 396.153Radial†	5584.1	5225.4 ug/L	83.54	5225.4 ppb	83.54	1.60%
QC value within limits for Al 396.153Radial Recovery = 104.51%						
As 188.979†	911.8	511.76 ug/L	7.641	511.76 ppb	7.641	1.49%
QC value within limits for As 188.979 Recovery = 102.35%						
B 249.677†	17894.0	498.44 ug/L	3.146	498.44 ppb	3.146	0.63%
QC value within limits for B 249.677 Recovery = 99.69%						
Ba 233.527†	54538.9	511.61 ug/L	2.928	511.61 ppb	2.928	0.57%
QC value within limits for Ba 233.527 Recovery = 102.32%						
Be 313.107†	1192698.7	510.25 ug/L	0.466	510.25 ppb	0.466	0.09%
QC value within limits for Be 313.107 Recovery = 102.05%						
Ca 317.933Radial†	2980.8	5268.9 ug/L	11.65	5268.9 ppb	11.65	0.22%

QC value within limits for Ca 317.933 Radial Recovery = 105.38%

Cd	226.502†	35318.0	511.61 ug/L	2.789	511.61 ppb	2.789	0.55%
QC value within limits for Cd 226.502 Recovery = 102.32%							
Co	228.616†	19975.9	519.05 ug/L	3.075	519.05 ppb	3.075	0.59%
QC value within limits for Co 228.616 Recovery = 103.81%							
Cr	267.716†	38158.3	513.41 ug/L	3.440	513.41 ppb	3.440	0.67%
QC value within limits for Cr 267.716 Recovery = 102.68%							
Cu	324.752†	153403.2	507.75 ug/L	3.918	507.75 ppb	3.918	0.77%
QC value within limits for Cu 324.752 Recovery = 101.55%							
Fe	238.204 Radial†	496.4	5216.8 ug/L	23.46	5216.8 ppb	23.46	0.45%
QC value within limits for Fe 238.204 Radial Recovery = 104.34%							
K	766.490 Radial†	27811.6	5321.4 ug/L	85.84	5321.4 ppb	85.84	1.61%
QC value within limits for K 766.490 Radial Recovery = 106.43%							
Mg	279.077 IEC†	142.6	5428.0 ug/L	17.28	5428.0 ppb	17.28	0.32%
QC value within limits for Mg 279.077 IEC Recovery = 108.56%							
Mn	257.610†	380991.0	501.91 ug/L	3.209	501.91 ppb	3.209	0.64%
QC value within limits for Mn 257.610 Recovery = 100.38%							
Mo	202.031†	5701.4	501.84 ug/L	2.175	501.84 ppb	2.175	0.43%
QC value within limits for Mo 202.031 Recovery = 100.37%							
Na	589.592 Radial†	30547.7	10704 ug/L	148.0	10704 ppb	148.0	1.38%
QC value within limits for Na 589.592 Radial Recovery = 107.04%							
Ni	231.604†	16302.6	518.75 ug/L	4.059	518.75 ppb	4.059	0.78%
QC value within limits for Ni 231.604 Recovery = 103.75%							
P	214.914†	3332.5	2410.5 ug/L	8.62	2410.5 ppb	8.62	0.36%
QC value within limits for P 214.914 Recovery = 96.42%							
Pb	220.353†	3268.0	505.64 ug/L	4.863	505.64 ppb	4.863	0.96%
QC value within limits for Pb 220.353 Recovery = 101.13%							
S	181.975 Axial†	551.3	983.44 ug/L	6.752	983.44 ppb	6.752	0.69%
QC value within limits for S 181.975 Axial Recovery = 98.34%							
Sb	206.836†	1197.6	513.93 ug/L	2.466	513.93 ppb	2.466	0.48%
QC value within limits for Sb 206.836 Recovery = 102.79%							
Se	196.026†	607.9	522.65 ug/L	3.544	522.65 ppb	3.544	0.68%
QC value within limits for Se 196.026 Recovery = 104.53%							
Si	251.611†	68095.1	2556.5 ug/L	16.25	2556.5 ppb	16.25	0.64%
QC value within limits for Si 251.611 Recovery = 102.26%							
Sn	189.927†	2214.7	499.30 ug/L	3.428	499.30 ppb	3.428	0.69%
QC value within limits for Sn 189.927 Recovery = 99.86%							
Sr	421.552†	70230.1	536.47 ug/L	7.560	536.47 ppb	7.560	1.41%
QC value within limits for Sr 421.552 Recovery = 107.29%							
Ti	334.940†	288550.0	498.51 ug/L	3.794	498.51 ppb	3.794	0.76%
QC value within limits for Ti 334.940 Recovery = 99.70%							
Tl	190.801†	1316.0	510.01 ug/L	2.303	510.01 ppb	2.303	0.45%
QC value within limits for Tl 190.801 Recovery = 102.00%							
U	409.014†	17213.5	518.13 ug/L	1.578	518.13 ppb	1.578	0.30%
QC value within limits for U 409.014 Recovery = 103.63%							
V	292.402†	63974.9	517.82 ug/L	3.689	517.82 ppb	3.689	0.71%
QC value within limits for V 292.402 Recovery = 103.56%							
Zn	213.857†	43013.8	514.87 ug/L	3.208	514.87 ppb	3.208	0.62%
QC value within limits for Zn 213.857 Recovery = 102.97%							
SiO2†		67673.2	5405.8 ug/L	27.25	5405.8 ppb	27.25	0.50%
QC value within limits for SiO2 Recovery = 101.09%							

All analyte(s) passed QC.

Sequence No.: 32

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/17/2010 10:42:26

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	5341.6	5341.6	116 %		10:44:18
1	Y RADIAL	5778.6	5778.6	117.1 %		10:44:18
1	Al 396.153Radial†	-84.4	13.3	12.512 ug/L	12.512 ppb	10:44:38
1	Ca 317.933Radial†	21.5	-9.3	-16.521 ug/L	-16.521 ppb	10:44:38
1	Fe 238.204 Radial†	8.6	-0.5	-5.1864 ug/L	-5.1864 ppb	10:44:38
1	K 766.490 Radial†	2626.1	-300.3	-57.525 ug/L	-57.525 ppb	10:44:18
1	Mg 279.077 IEC†	1.6	1.3	49.480 ug/L	49.480 ppb	10:44:38
1	Na 589.592 Radial†	-948.9	-9.9	-3.4630 ug/L	-3.4630 ppb	10:44:18
1	Sr 421.552†	28.4	-1.4	-0.0104 ug/L	-0.0104 ppb	10:44:18
1	Sc 361.383	801351.9	801351.9	98.576 %		10:45:35
1	Y 371.029	676847.0	676847.0	98.174 %		10:45:35
1	Ag 328.068†	209.8	2.2	0.0120 ug/L	0.0120 ppb	10:45:35
1	As 188.979†	-24.6	-7.9	-4.4176 ug/L	-4.4176 ppb	10:45:55
1	B 249.677†	-341.5	68.9	1.9298 ug/L	1.9298 ppb	10:45:55
1	Ba 233.527†	4.5	-7.9	-0.0741 ug/L	-0.0741 ppb	10:45:55
1	Be 313.107†	-3722.1	-46.9	-0.0200 ug/L	-0.0200 ppb	10:45:35
1	Cd 226.502†	-183.1	-9.4	-0.1359 ug/L	-0.1359 ppb	10:45:55
1	Co 228.616†	-44.5	-5.3	-0.1378 ug/L	-0.1378 ppb	10:45:55
1	Cr 267.716†	72.8	-5.7	-0.0762 ug/L	-0.0762 ppb	10:45:55
1	Cu 324.752†	5296.1	-93.6	-0.3087 ug/L	-0.3087 ppb	10:45:35
1	Mn 257.610†	432.6	-112.0	-0.1500 ug/L	-0.1500 ppb	10:45:55
1	Mo 202.031†	16.7	4.1	0.3588 ug/L	0.3588 ppb	10:45:55
1	Ni 231.604†	93.4	13.3	0.4249 ug/L	0.4249 ppb	10:45:55
1	P 214.914†	186.8	5.6	4.3148 ug/L	4.3148 ppb	10:45:55
1	Pb 220.353†	-64.0	-22.1	-3.4101 ug/L	-3.4101 ppb	10:45:55
1	S 181.975 Axial†	25.3	-4.4	-7.9315 ug/L	-7.9315 ppb	10:45:55
1	Sb 206.836†	15.2	-9.1	-3.7600 ug/L	-3.7600 ppb	10:45:55
1	Se 196.026†	-12.8	5.8	4.7771 ug/L	4.7771 ppb	10:45:55
1	Si 251.611†	555.8	65.6	2.4649 ug/L	2.4649 ppb	10:45:55
1	Sn 189.927†	9.8	1.9	0.4316 ug/L	0.4316 ppb	10:45:55
1	Ti 334.940†	-1067.1	4.8	0.0032 ug/L	0.0032 ppb	10:45:35
1	Tl 190.801†	-25.7	5.7	2.1975 ug/L	2.1975 ppb	10:45:55
1	U 409.014†	-2137.9	-87.7	-2.6490 ug/L	-2.6490 ppb	10:45:35
1	V 292.402†	-1306.6	-7.8	-0.0603 ug/L	-0.0603 ppb	10:45:35
1	Zn 213.857†	663.2	55.6	0.6705 ug/L	0.6705 ppb	10:45:55
1	SiO2†	539.3	51.7	4.1344 ug/L	4.1344 ppb	10:47:06
2	Sc Radial	4267.6	4267.6	93.0 %		10:44:43
2	Y RADIAL	4591.7	4591.7	93.06 %		10:44:43
2	Al 396.153Radial†	-68.6	12.1	11.342 ug/L	11.342 ppb	10:45:03
2	Ca 317.933Radial†	17.9	-8.6	-15.181 ug/L	-15.181 ppb	10:45:03
2	Fe 238.204 Radial†	7.8	0.5	5.1754 ug/L	5.1754 ppb	10:45:03
2	K 766.490 Radial†	2574.8	212.1	40.676 ug/L	40.676 ppb	10:44:43
2	Mg 279.077 IEC†	3.1	3.2	123.03 ug/L	123.03 ppb	10:45:03
2	Na 589.592 Radial†	-972.3	-240.1	-84.118 ug/L	-84.118 ppb	10:44:43
2	Sr 421.552†	42.5	19.9	0.1521 ug/L	0.1521 ppb	10:44:43
2	Sc 361.383	800127.4	800127.4	98.425 %		10:46:00
2	Y 371.029	676610.2	676610.2	98.140 %		10:46:00
2	Ag 328.068†	227.4	20.4	0.1078 ug/L	0.1078 ppb	10:46:00
2	As 188.979†	-21.7	-5.0	-2.7755 ug/L	-2.7755 ppb	10:46:20
2	B 249.677†	-348.1	61.7	1.7253 ug/L	1.7253 ppb	10:46:20
2	Ba 233.527†	12.1	-0.2	-0.0024 ug/L	-0.0024 ppb	10:46:20
2	Be 313.107†	-3731.4	-62.1	-0.0265 ug/L	-0.0265 ppb	10:46:00
2	Cd 226.502†	-163.4	10.4	0.1493 ug/L	0.1493 ppb	10:46:20
2	Co 228.616†	-42.9	-3.7	-0.0966 ug/L	-0.0966 ppb	10:46:20
2	Cr 267.716†	80.4	2.2	0.0302 ug/L	0.0302 ppb	10:46:20
2	Cu 324.752†	5300.7	-80.7	-0.2649 ug/L	-0.2649 ppb	10:46:00
2	Mn 257.610†	466.7	-76.8	-0.1056 ug/L	-0.1056 ppb	10:46:20
2	Mo 202.031†	15.2	2.6	0.2272 ug/L	0.2272 ppb	10:46:20
2	Ni 231.604†	100.5	20.7	0.6581 ug/L	0.6581 ppb	10:46:20

2	P 214.914†	178.9	-2.2	-1.5840 ug/L	-1.5840 ppb	10:46:20
2	Pb 220.353†	-42.4	-0.3	-0.0430 ug/L	-0.0430 ppb	10:46:20
2	S 181.975 Axial†	28.2	-1.5	-2.6255 ug/L	-2.6255 ppb	10:46:20
2	Sb 206.836†	22.8	-1.4	-0.5751 ug/L	-0.5751 ppb	10:46:20
2	Se 196.026†	-20.7	-2.2	-1.8328 ug/L	-1.8328 ppb	10:46:20
2	Si 251.611†	541.7	52.2	1.9603 ug/L	1.9603 ppb	10:46:20
2	Sn 189.927†	6.7	-1.2	-0.2628 ug/L	-0.2628 ppb	10:46:20
2	Ti 334.940†	-1075.9	-5.8	-0.0205 ug/L	-0.0205 ppb	10:46:00
2	Tl 190.801†	-31.4	-0.1	-0.0313 ug/L	-0.0313 ppb	10:46:20
2	U 409.014†	-2169.6	-123.3	-3.7257 ug/L	-3.7257 ppb	10:46:00
2	V 292.402†	-1354.9	-58.8	-0.4723 ug/L	-0.4723 ppb	10:46:00
2	Zn 213.857†	671.2	64.9	0.7789 ug/L	0.7789 ppb	10:46:20
2	SiO2†	531.1	44.3	3.5394 ug/L	3.5394 ppb	10:47:26
3	Sc Radial	4399.8	4399.8	95.9 %		10:45:08
3	Y RADIAL	4781.4	4781.4	96.90 %		10:45:08
3	Al 396.153Radial†	-80.4	2.0	1.8846 ug/L	1.8846 ppb	10:45:28
3	Ca 317.933Radial†	19.6	-7.5	-13.185 ug/L	-13.185 ppb	10:45:28
3	Fe 238.204 Radial†	10.6	3.1	32.985 ug/L	32.985 ppb	10:45:28
3	K 766.490 Radial†	2564.9	118.7	22.767 ug/L	22.767 ppb	10:45:08
3	Mg 279.077 IEC†	3.8	3.8	146.08 ug/L	146.08 ppb	10:45:28
3	Na 589.592 Radial†	-978.2	-214.8	-75.266 ug/L	-75.266 ppb	10:45:08
3	Sr 421.552†	39.0	14.9	0.1137 ug/L	0.1137 ppb	10:45:08
3	Sc 361.383	797770.0	797770.0	98.135 %		10:46:26
3	Y 371.029	675020.3	675020.3	97.909 %		10:46:26
3	Ag 328.068†	172.3	-35.0	-0.1696 ug/L	-0.1696 ppb	10:46:26
3	As 188.979†	-16.5	0.3	0.1483 ug/L	0.1483 ppb	10:46:46
3	B 249.677†	-347.6	61.2	1.7073 ug/L	1.7073 ppb	10:46:46
3	Ba 233.527†	14.1	1.8	0.0176 ug/L	0.0176 ppb	10:46:46
3	Be 313.107†	-3674.7	-15.5	-0.0067 ug/L	-0.0067 ppb	10:46:26
3	Cd 226.502†	-170.8	2.2	0.0291 ug/L	0.0291 ppb	10:46:46
3	Co 228.616†	-42.9	-3.8	-0.0994 ug/L	-0.0994 ppb	10:46:46
3	Cr 267.716†	70.1	-8.1	-0.1056 ug/L	-0.1056 ppb	10:46:46
3	Cu 324.752†	5301.9	-63.6	-0.2080 ug/L	-0.2080 ppb	10:46:26
3	Mn 257.610†	435.9	-106.7	-0.1432 ug/L	-0.1432 ppb	10:46:46
3	Mo 202.031†	16.8	4.3	0.3812 ug/L	0.3812 ppb	10:46:46
3	Ni 231.604†	88.7	9.0	0.2856 ug/L	0.2856 ppb	10:46:46
3	P 214.914†	175.4	-5.2	-3.9086 ug/L	-3.9086 ppb	10:46:46
3	Pb 220.353†	-60.8	-19.1	-2.9576 ug/L	-2.9576 ppb	10:46:46
3	S 181.975 Axial†	27.9	-1.7	-2.9919 ug/L	-2.9919 ppb	10:46:46
3	Sb 206.836†	31.8	7.9	3.2255 ug/L	3.2255 ppb	10:46:46
3	Se 196.026†	-17.3	1.2	1.0955 ug/L	1.0955 ppb	10:46:46
3	Si 251.611†	547.2	59.3	2.2286 ug/L	2.2286 ppb	10:46:46
3	Sn 189.927†	-4.7	-12.8	-2.8789 ug/L	-2.8789 ppb	10:46:46
3	Ti 334.940†	-1093.2	-26.7	-0.0592 ug/L	-0.0592 ppb	10:46:26
3	Tl 190.801†	-34.1	-2.9	-1.1287 ug/L	-1.1287 ppb	10:46:46
3	U 409.014†	-2081.2	-39.8	-1.2041 ug/L	-1.2041 ppb	10:46:26
3	V 292.402†	-1326.2	-33.7	-0.2681 ug/L	-0.2681 ppb	10:46:26
3	Zn 213.857†	643.2	38.3	0.4559 ug/L	0.4559 ppb	10:46:46
3	SiO2†	540.2	55.2	4.4076 ug/L	4.4076 ppb	10:47:46

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	799749.7	98.379 %	0.2240			0.23%
Sc Radial	4669.7	102 %	12.8			12.54%
Y 371.029	676159.2	98.074 %	0.1441			0.15%
Y RADIAL	5050.6	102.4 %	12.92			12.62%
Ag 328.068†	-4.1	-0.0166 ug/L	0.14092	-0.0166 ppb	0.14092	848.81%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	9.1	8.5796 ug/L	5.82744	8.5796 ppb	5.82744	67.92%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-4.2	-2.3483 ug/L	2.31273	-2.3483 ppb	2.31273	98.49%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	63.9	1.7875 ug/L	0.12361	1.7875 ppb	0.12361	6.92%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-2.1	-0.0196 ug/L	0.04824	-0.0196 ppb	0.04824	245.86%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-41.5	-0.0178 ug/L	0.01008	-0.0178 ppb	0.01008	56.78%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-8.5	-14.962 ug/L	1.6786	-14.962 ppb	1.6786	11.22%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	1.1	0.0142 ug/L	0.14318	0.0142 ppb	0.14318	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-4.3	-0.1113 ug/L	0.02301	-0.1113 ppb	0.02301	20.68%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-3.9	-0.0505 ug/L	0.07146	-0.0505 ppb	0.07146	141.44%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-79.3	-0.2606 ug/L	0.05048	-0.2606 ppb	0.05048	19.37%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	1.0	10.991 ug/L	19.7391	10.991 ppb	19.7391	179.59%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	10.2	1.9728 ug/L	52.29864	1.9728 ppb	52.29864	>999.9%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	2.8	106.19 ug/L	50.450	106.19 ppb	50.450	47.51%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	-98.5	-0.1329 ug/L	0.02395	-0.1329 ppb	0.02395	18.02%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	3.7	0.3224 ug/L	0.08322	0.3224 ppb	0.08322	25.81%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-154.9	-54.282 ug/L	44.2328	-54.282 ppb	44.2328	81.49%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	14.3	0.4562 ug/L	0.18820	0.4562 ppb	0.18820	41.25%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-0.6	-0.3926 ug/L	4.23918	-0.3926 ppb	4.23918	>999.9%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-13.9	-2.1369 ug/L	1.82740	-2.1369 ppb	1.82740	85.52%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-2.5	-4.5163 ug/L	2.96333	-4.5163 ppb	2.96333	65.61%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-0.9	-0.3699 ug/L	3.49725	-0.3699 ppb	3.49725	945.46%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	1.6	1.3466 ug/L	3.31206	1.3466 ppb	3.31206	245.96%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	59.0	2.2179 ug/L	0.25245	2.2179 ppb	0.25245	11.38%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-4.0	-0.9034 ug/L	1.74575	-0.9034 ppb	1.74575	193.25%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	11.1	0.0851 ug/L	0.08489	0.0851 ppb	0.08489	99.73%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-9.2	-0.0255 ug/L	0.03148	-0.0255 ppb	0.03148	123.48%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	0.9	0.3459 ug/L	1.69486	0.3459 ppb	1.69486	490.03%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-83.6	-2.5263 ug/L	1.26527	-2.5263 ppb	1.26527	50.08%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-33.4	-0.2669 ug/L	0.20600	-0.2669 ppb	0.20600	77.19%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	52.9	0.6351 ug/L	0.16441	0.6351 ppb	0.16441	25.89%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	50.4	4.0271 ug/L	0.44390	4.0271 ppb	0.44390	11.02%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 10

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/17/2010 11:53:28

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3946.6	3946.6	86.0 %		11:55:20
1	Y RADIAL	4238.5	4238.5	85.90 %		11:55:20
1	Al 396.153Radial†	5071.5	5981.1	5596.7 ug/L	5596.7 ppb	11:55:20
1	Ca 317.933Radial†	2799.0	3225.8	5701.9 ug/L	5701.9 ppb	11:55:40
1	Fe 238.204 Radial†	473.5	542.6	5702.0 ug/L	5702.0 ppb	11:55:40
1	K 766.490 Radial†	27868.7	29839.7	5709.4 ug/L	5709.4 ppb	11:55:20
1	Mg 279.077 IEC†	132.4	153.9	5854.4 ug/L	5854.4 ppb	11:55:40
1	Na 589.592 Radial†	27820.5	33144.4	11613 ug/L	11613 ppb	11:55:20
1	Sr 421.552†	65176.3	75737.0	578.54 ug/L	578.54 ppb	11:55:20
1	Sc 361.383	739782.7	739782.7	91.002 %		11:56:37
1	Y 371.029	616192.7	616192.7	89.376 %		11:56:37
1	Ag 328.068†	98247.7	107751.3	556.64 ug/L	556.64 ppb	11:56:42
1	As 188.979†	859.9	962.0	540.11 ug/L	540.11 ppb	11:57:02
1	B 249.677†	17412.1	19549.0	544.54 ug/L	544.54 ppb	11:56:42
1	Ba 233.527†	54121.1	59459.8	557.77 ug/L	557.77 ppb	11:56:42
1	Be 313.107†	1210884.1	1334339.0	570.82 ug/L	570.82 ppb	11:56:37
1	Cd 226.502†	34781.8	38397.2	556.21 ug/L	556.21 ppb	11:56:42
1	Co 228.616†	19798.5	21795.9	566.32 ug/L	566.32 ppb	11:56:42
1	Cr 267.716†	37947.6	41620.2	559.99 ug/L	559.99 ppb	11:56:42
1	Cu 324.752†	157766.9	167899.8	555.74 ug/L	555.74 ppb	11:56:42
1	Mn 257.610†	379193.6	416135.4	548.22 ug/L	548.22 ppb	11:56:42
1	Mo 202.031†	5604.8	6146.2	541.00 ug/L	541.00 ppb	11:57:02
1	Ni 231.604†	16235.4	17759.2	565.09 ug/L	565.09 ppb	11:56:42
1	P 214.914†	3472.7	3632.2	2626.7 ug/L	2626.7 ppb	11:57:02
1	Pb 220.353†	3174.7	3531.3	546.36 ug/L	546.36 ppb	11:57:02
1	S 181.975 Axial†	577.3	604.2	1077.7 ug/L	1077.7 ppb	11:57:02
1	Sb 206.836†	1199.4	1293.5	555.03 ug/L	555.03 ppb	11:57:02
1	Se 196.026†	575.6	651.3	560.25 ug/L	560.25 ppb	11:57:02
1	Si 251.611†	67415.7	73583.2	2762.5 ug/L	2762.5 ppb	11:56:42
1	Sn 189.927†	2173.2	2380.1	536.58 ug/L	536.58 ppb	11:57:02
1	Ti 334.940†	286276.5	315669.3	545.36 ug/L	545.36 ppb	11:56:42
1	Tl 190.801†	1263.0	1419.7	550.26 ug/L	550.26 ppb	11:57:02
1	U 409.014†	14990.4	18553.5	558.44 ug/L	558.44 ppb	11:56:42
1	V 292.402†	62053.8	69507.1	562.51 ug/L	562.51 ppb	11:56:42
1	Zn 213.857†	42542.5	46131.7	552.11 ug/L	552.11 ppb	11:56:42
1	SiO2†	66980.8	73108.2	5840.0 ug/L	5840.0 ppb	11:58:09
2	Sc Radial	4499.8	4499.8	98.1 %		11:55:45
2	Y RADIAL	4867.2	4867.2	98.64 %		11:55:45
2	Al 396.153Radial†	5089.6	5274.7	4930.8 ug/L	4930.8 ppb	11:55:45
2	Ca 317.933Radial†	2803.6	2830.4	5003.0 ug/L	5003.0 ppb	11:56:05
2	Fe 238.204 Radial†	475.0	476.4	5009.0 ug/L	5009.0 ppb	11:56:05
2	K 766.490 Radial†	28198.6	26192.7	5011.4 ug/L	5011.4 ppb	11:55:45
2	Mg 279.077 IEC†	136.8	139.4	5306.6 ug/L	5306.6 ppb	11:56:05
2	Na 589.592 Radial†	28169.3	29523.6	10345 ug/L	10345 ppb	11:55:45
2	Sr 421.552†	65349.5	66598.0	508.73 ug/L	508.73 ppb	11:55:45
2	Sc 361.383	703013.9	703013.9	86.479 %		11:57:08
2	Y 371.029	585465.1	585465.1	84.919 %		11:57:08
2	Ag 328.068†	97421.9	112443.1	580.61 ug/L	580.61 ppb	11:57:13
2	As 188.979†	894.9	1051.8	590.09 ug/L	590.09 ppb	11:57:33
2	B 249.677†	17235.6	20345.7	566.88 ug/L	566.88 ppb	11:57:13
2	Ba 233.527†	53856.8	62264.7	584.05 ug/L	584.05 ppb	11:57:13
2	Be 313.107†	1209182.5	1401964.6	599.74 ug/L	599.74 ppb	11:57:08
2	Cd 226.502†	34518.6	40091.9	580.86 ug/L	580.86 ppb	11:57:13
2	Co 228.616†	19648.2	22759.9	591.41 ug/L	591.41 ppb	11:57:13
2	Cr 267.716†	37788.8	43617.5	586.76 ug/L	586.76 ppb	11:57:13
2	Cu 324.752†	156634.9	175658.2	581.37 ug/L	581.37 ppb	11:57:13
2	Mn 257.610†	376428.1	434730.9	572.65 ug/L	572.65 ppb	11:57:13
2	Mo 202.031†	5690.6	6567.4	577.98 ug/L	577.98 ppb	11:57:33
2	Ni 231.604†	16167.6	18614.0	592.29 ug/L	592.29 ppb	11:57:13

2	P 214.914†	3529.3	3897.2	2822.0 ug/L	2822.0 ppb	11:57:33
2	Pb 220.353†	3230.3	3778.1	584.45 ug/L	584.45 ppb	11:57:33
2	S 181.975 Axial†	582.7	643.7	1148.4 ug/L	1148.4 ppb	11:57:33
2	Sb 206.836†	1210.2	1374.9	590.16 ug/L	590.16 ppb	11:57:33
2	Se 196.026†	578.1	687.3	588.04 ug/L	588.04 ppb	11:57:33
2	Si 251.611†	66847.0	76800.1	2883.1 ug/L	2883.1 ppb	11:57:13
2	Sn 189.927†	2225.3	2565.3	578.19 ug/L	578.19 ppb	11:57:33
2	Ti 334.940†	284306.8	329844.9	569.79 ug/L	569.79 ppb	11:57:13
2	Tl 190.801†	1271.6	1502.2	582.18 ug/L	582.18 ppb	11:57:33
2	U 409.014†	14936.7	19353.1	582.61 ug/L	582.61 ppb	11:57:13
2	V 292.402†	61828.4	72812.9	589.55 ug/L	589.55 ppb	11:57:13
2	Zn 213.857†	42038.0	47993.4	574.49 ug/L	574.49 ppb	11:57:13
2	SiO2†	66004.2	75828.5	6056.8 ug/L	6056.8 ppb	11:58:14
3	Sc Radial	4484.7	4484.7	97.8 %		11:56:10
3	Y RADIAL	4811.2	4811.2	97.50 %		11:56:10
3	Al 396.153Radial†	5043.5	5245.0	4907.0 ug/L	4907.0 ppb	11:56:10
3	Ca 317.933Radial†	2772.7	2808.5	4964.3 ug/L	4964.3 ppb	11:56:30
3	Fe 238.204 Radial†	464.4	467.2	4910.6 ug/L	4910.6 ppb	11:56:30
3	K 766.490 Radial†	28188.3	26279.5	5028.1 ug/L	5028.1 ppb	11:56:10
3	Mg 279.077 IEC†	133.6	136.6	5197.7 ug/L	5197.7 ppb	11:56:30
3	Na 589.592 Radial†	28453.5	29911.6	10481 ug/L	10481 ppb	11:56:10
3	Sr 421.552†	65648.4	67129.2	512.78 ug/L	512.78 ppb	11:56:10
3	Sc 361.383	820997.7	820997.7	100.99 %		11:57:39
3	Y 371.029	683517.1	683517.1	99.141 %		11:57:39
3	Ag 328.068†	97640.5	96470.2	498.29 ug/L	498.29 ppb	11:57:44
3	As 188.979†	891.6	899.9	504.98 ug/L	504.98 ppb	11:58:04
3	B 249.677†	17403.4	17647.7	491.64 ug/L	491.64 ppb	11:57:44
3	Ba 233.527†	53632.3	53092.6	498.03 ug/L	498.03 ppb	11:57:44
3	Be 313.107†	1195417.0	1187396.9	507.96 ug/L	507.96 ppb	11:57:39
3	Cd 226.502†	34502.0	34339.2	497.45 ug/L	497.45 ppb	11:57:44
3	Co 228.616†	19588.8	19436.1	505.04 ug/L	505.04 ppb	11:57:44
3	Cr 267.716†	37529.2	37080.8	498.90 ug/L	498.90 ppb	11:57:44
3	Cu 324.752†	156543.1	149538.3	494.95 ug/L	494.95 ppb	11:57:44
3	Mn 257.610†	375155.8	370917.7	488.63 ug/L	488.63 ppb	11:57:44
3	Mo 202.031†	5683.0	5614.3	494.16 ug/L	494.16 ppb	11:58:04
3	Ni 231.604†	16105.8	15866.1	504.86 ug/L	504.86 ppb	11:57:44
3	P 214.914†	3510.1	3291.6	2382.4 ug/L	2382.4 ppb	11:58:04
3	Pb 220.353†	3217.6	3228.7	499.54 ug/L	499.54 ppb	11:58:04
3	S 181.975 Axial†	587.5	551.5	983.85 ug/L	983.85 ppb	11:58:04
3	Sb 206.836†	1214.5	1178.0	505.56 ug/L	505.56 ppb	11:58:04
3	Se 196.026†	577.7	590.8	507.44 ug/L	507.44 ppb	11:58:04
3	Si 251.611†	66841.4	65686.3	2465.9 ug/L	2465.9 ppb	11:57:44
3	Sn 189.927†	2213.9	2184.2	492.39 ug/L	492.39 ppb	11:58:04
3	Ti 334.940†	282960.7	281267.0	485.91 ug/L	485.91 ppb	11:57:44
3	Tl 190.801†	1275.8	1295.0	501.85 ug/L	501.85 ppb	11:58:04
3	U 409.014†	14899.2	16833.8	506.73 ug/L	506.73 ppb	11:57:44
3	V 292.402†	61333.7	62048.6	502.36 ug/L	502.36 ppb	11:57:44
3	Zn 213.857†	42181.8	41150.1	492.51 ug/L	492.51 ppb	11:57:44
3	SiO2†	66621.6	65471.4	5229.7 ug/L	5229.7 ppb	11:58:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	754598.1	92.825 %		7.4264			8.00%
Sc Radial	4310.4	94.0 %		6.87			7.31%
Y 371.029	628391.6	91.146 %		7.2743			7.98%
Y RADIAL	4639.0	94.02 %		7.051			7.50%
Ag 328.068†	105554.9	545.18 ug/L		42.337	545.18 ppb	42.337	7.77%
QC value within limits for Ag 328.068 Recovery = 109.04%							
Al 396.153Radial†	5500.3	5144.8 ug/L		391.52	5144.8 ppb	391.52	7.61%
QC value within limits for Al 396.153Radial Recovery = 102.90%							
As 188.979†	971.2	545.06 ug/L		42.772	545.06 ppb	42.772	7.85%
QC value within limits for As 188.979 Recovery = 109.01%							
B 249.677†	19180.8	534.35 ug/L		38.641	534.35 ppb	38.641	7.23%
QC value within limits for B 249.677 Recovery = 106.87%							
Ba 233.527†	58272.4	546.62 ug/L		44.079	546.62 ppb	44.079	8.06%
QC value within limits for Ba 233.527 Recovery = 109.32%							
Be 313.107†	1307900.2	559.51 ug/L		46.925	559.51 ppb	46.925	8.39%
QC value greater than the upper limit for Be 313.107 Recovery = 111.90%							
Ca 317.933Radial†	2954.9	5223.1 ug/L		415.17	5223.1 ppb	415.17	7.95%

QC value within limits for Ca 317.933 Radial Recovery = 104.46%							
Cd 226.502†	37609.4	544.84 ug/L	42.852	544.84 ppb	42.852	7.87%	
QC value within limits for Cd 226.502 Recovery = 108.97%							
Co 228.616†	21330.6	554.26 ug/L	44.433	554.26 ppb	44.433	8.02%	
QC value greater than the upper limit for Co 228.616 Recovery = 110.85%							
Cr 267.716†	40772.8	548.55 ug/L	45.038	548.55 ppb	45.038	8.21%	
QC value within limits for Cr 267.716 Recovery = 109.71%							
Cu 324.752†	164365.4	544.02 ug/L	44.386	544.02 ppb	44.386	8.16%	
QC value within limits for Cu 324.752 Recovery = 108.80%							
Fe 238.204 Radial†	495.4	5207.2 ug/L	431.33	5207.2 ppb	431.33	8.28%	
QC value within limits for Fe 238.204 Radial Recovery = 104.14%							
K 766.490 Radial†	27437.3	5249.6 ug/L	398.26	5249.6 ppb	398.26	7.59%	
QC value within limits for K 766.490 Radial Recovery = 104.99%							
Mg 279.077 IEC†	143.3	5452.9 ug/L	351.94	5452.9 ppb	351.94	6.45%	
QC value within limits for Mg 279.077 IEC Recovery = 109.06%							
Mn 257.610†	407261.4	536.50 ug/L	43.219	536.50 ppb	43.219	8.06%	
QC value within limits for Mn 257.610 Recovery = 107.30%							
Mo 202.031†	6109.3	537.71 ug/L	42.008	537.71 ppb	42.008	7.81%	
QC value within limits for Mo 202.031 Recovery = 107.54%							
Na 589.592 Radial†	30859.9	10813 ug/L	696.6	10813 ppb	696.6	6.44%	
QC value within limits for Na 589.592 Radial Recovery = 108.13%							
Ni 231.604†	17413.1	554.08 ug/L	44.746	554.08 ppb	44.746	8.08%	
QC value greater than the upper limit for Ni 231.604 Recovery = 110.82%							
P 214.914†	3607.0	2610.4 ug/L	220.23	2610.4 ppb	220.23	8.44%	
QC value within limits for P 214.914 Recovery = 104.42%							
Pb 220.353†	3512.7	543.45 ug/L	42.533	543.45 ppb	42.533	7.83%	
QC value within limits for Pb 220.353 Recovery = 108.69%							
S 181.975 Axial†	599.8	1070.0 ug/L	82.54	1070.0 ppb	82.54	7.71%	
QC value within limits for S 181.975 Axial Recovery = 107.00%							
Sb 206.836†	1282.1	550.25 ug/L	42.502	550.25 ppb	42.502	7.72%	
QC value greater than the upper limit for Sb 206.836 Recovery = 110.05%							
Se 196.026†	643.1	551.91 ug/L	40.946	551.91 ppb	40.946	7.42%	
QC value greater than the upper limit for Se 196.026 Recovery = 110.38%							
Si 251.611†	72023.2	2703.8 ug/L	214.71	2703.8 ppb	214.71	7.94%	
QC value within limits for Si 251.611 Recovery = 108.15%							
Sn 189.927†	2376.5	535.72 ug/L	42.908	535.72 ppb	42.908	8.01%	
QC value within limits for Sn 189.927 Recovery = 107.14%							
Sr 421.552†	69821.4	533.35 ug/L	39.186	533.35 ppb	39.186	7.35%	
QC value within limits for Sr 421.552 Recovery = 106.67%							
Ti 334.940†	308927.0	533.69 ug/L	43.142	533.69 ppb	43.142	8.08%	
QC value within limits for Ti 334.940 Recovery = 106.74%							
Tl 190.801†	1405.6	544.77 ug/L	40.446	544.77 ppb	40.446	7.42%	
QC value within limits for Tl 190.801 Recovery = 108.95%							
U 409.014†	18246.8	549.26 ug/L	38.763	549.26 ppb	38.763	7.06%	
QC value within limits for U 409.014 Recovery = 109.85%							
V 292.402†	68122.8	551.47 ug/L	44.634	551.47 ppb	44.634	8.09%	
QC value greater than the upper limit for V 292.402 Recovery = 110.29%							
Zn 213.857†	45091.8	539.70 ug/L	42.376	539.70 ppb	42.376	7.85%	
QC value within limits for Zn 213.857 Recovery = 107.94%							
SiO2†	71469.4	5708.8 ug/L	428.88	5708.8 ppb	428.88	7.51%	
QC value within limits for SiO2 Recovery = 106.76%							
QC Failed. Continue with analysis.							

Sequence No.: 11

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/17/2010 12:00:30

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	4538.6	4538.6	98.9 %		12:02:23
1	Y RADIAL	4907.5	4907.5	99.46 %		12:02:23
1	Al 396.153Radial†	-80.5	4.5	4.1957 ug/L	4.1957 ppb	12:02:43
1	Ca 317.933Radial†	16.1	-11.6	-20.550 ug/L	-20.550 ppb	12:02:43
1	Fe 238.204 Radial†	6.3	-1.5	-15.286 ug/L	-15.286 ppb	12:02:43
1	K 766.490 Radial†	2668.8	141.9	27.214 ug/L	27.214 ppb	12:02:23
1	Mg 279.077 IEC†	2.1	2.0	77.250 ug/L	77.250 ppb	12:02:43
1	Na 589.592 Radial†	-953.6	-158.8	-55.657 ug/L	-55.657 ppb	12:02:23
1	Sr 421.552†	43.3	18.0	0.1377 ug/L	0.1377 ppb	12:02:23
1	Sc 361.383	798331.1	798331.1	98.204 %		12:03:39
1	Y 371.029	674317.2	674317.2	97.807 %		12:03:39
1	Ag 328.068†	151.5	-56.4	-0.2896 ug/L	-0.2896 ppb	12:03:39
1	As 188.979†	-27.0	-10.4	-5.8066 ug/L	-5.8066 ppb	12:03:59
1	B 249.677†	-270.0	140.4	3.9330 ug/L	3.9330 ppb	12:03:59
1	Ba 233.527†	-7.9	-20.6	-0.1930 ug/L	-0.1930 ppb	12:03:59
1	Be 313.107†	-3786.1	-126.3	-0.0544 ug/L	-0.0544 ppb	12:03:39
1	Cd 226.502†	-178.8	-5.7	-0.0823 ug/L	-0.0823 ppb	12:03:59
1	Co 228.616†	-46.7	-7.7	-0.1988 ug/L	-0.1988 ppb	12:03:59
1	Cr 267.716†	70.9	-7.3	-0.0975 ug/L	-0.0975 ppb	12:03:59
1	Cu 324.752†	5261.8	-108.2	-0.3562 ug/L	-0.3562 ppb	12:03:39
1	Mn 257.610†	421.2	-122.1	-0.1654 ug/L	-0.1654 ppb	12:03:59
1	Mo 202.031†	17.4	4.9	0.4311 ug/L	0.4311 ppb	12:03:59
1	Ni 231.604†	73.4	-6.7	-0.2134 ug/L	-0.2134 ppb	12:03:59
1	P 214.914†	184.3	3.8	2.9114 ug/L	2.9114 ppb	12:03:59
1	Pb 220.353†	-54.0	-12.2	-1.8739 ug/L	-1.8739 ppb	12:03:59
1	S 181.975 Axial†	27.3	-2.3	-4.1635 ug/L	-4.1635 ppb	12:03:59
1	Sb 206.836†	26.4	2.3	0.9717 ug/L	0.9717 ppb	12:03:59
1	Se 196.026†	-27.2	-8.9	-7.4600 ug/L	-7.4600 ppb	12:03:59
1	Si 251.611†	519.0	30.3	1.1344 ug/L	1.1344 ppb	12:03:59
1	Sn 189.927†	4.9	-3.0	-0.6818 ug/L	-0.6818 ppb	12:03:59
1	Ti 334.940†	-1201.7	-136.4	-0.2426 ug/L	-0.2426 ppb	12:03:39
1	Tl 190.801†	-26.4	5.0	1.9061 ug/L	1.9061 ppb	12:03:59
1	U 409.014†	-2203.8	-163.1	-4.9242 ug/L	-4.9242 ppb	12:03:39
1	V 292.402†	-1290.5	3.6	0.0298 ug/L	0.0298 ppb	12:03:39
1	Zn 213.857†	611.6	5.6	0.0723 ug/L	0.0723 ppb	12:03:59
1	SiO2†	533.0	47.4	3.7843 ug/L	3.7843 ppb	12:05:10
2	Sc Radial	4553.4	4553.4	99.3 %		12:02:48
2	Y RADIAL	4913.2	4913.2	99.57 %		12:02:48
2	Al 396.153Radial†	-72.1	13.2	12.357 ug/L	12.357 ppb	12:03:08
2	Ca 317.933Radial†	17.9	-9.8	-17.289 ug/L	-17.289 ppb	12:03:08
2	Fe 238.204 Radial†	8.7	0.9	9.1582 ug/L	9.1582 ppb	12:03:08
2	K 766.490 Radial†	2631.9	95.9	18.394 ug/L	18.394 ppb	12:02:48
2	Mg 279.077 IEC†	0.9	0.8	29.743 ug/L	29.743 ppb	12:03:08
2	Na 589.592 Radial†	-961.9	-164.1	-57.486 ug/L	-57.486 ppb	12:02:48
2	Sr 421.552†	34.3	8.8	0.0676 ug/L	0.0676 ppb	12:02:48
2	Sc 361.383	807622.2	807622.2	99.347 %		12:04:05
2	Y 371.029	682071.1	682071.1	98.932 %		12:04:05
2	Ag 328.068†	161.7	-47.8	-0.2426 ug/L	-0.2426 ppb	12:04:05
2	As 188.979†	-23.1	-6.2	-3.4461 ug/L	-3.4461 ppb	12:04:25
2	B 249.677†	-297.1	116.3	3.2553 ug/L	3.2553 ppb	12:04:25
2	Ba 233.527†	11.2	-1.2	-0.0124 ug/L	-0.0124 ppb	12:04:25
2	Be 313.107†	-3759.1	-54.8	-0.0232 ug/L	-0.0232 ppb	12:04:05
2	Cd 226.502†	-166.5	8.8	0.1255 ug/L	0.1255 ppb	12:04:25
2	Co 228.616†	-57.8	-18.4	-0.4771 ug/L	-0.4771 ppb	12:04:25
2	Cr 267.716†	75.4	-3.7	-0.0480 ug/L	-0.0480 ppb	12:04:25
2	Cu 324.752†	5294.6	-136.8	-0.4506 ug/L	-0.4506 ppb	12:04:05
2	Mn 257.610†	423.9	-124.2	-0.1639 ug/L	-0.1639 ppb	12:04:25
2	Mo 202.031†	14.8	2.1	0.1858 ug/L	0.1858 ppb	12:04:25
2	Ni 231.604†	76.9	-4.0	-0.1280 ug/L	-0.1280 ppb	12:04:25

2	P 214.914†	175.4	-7.3	-5.4564 ug/L	-5.4564 ppb	12:04:25
2	Pb 220.353†	-52.0	-9.6	-1.4800 ug/L	-1.4800 ppb	12:04:25
2	S 181.975 Axial†	27.8	-2.2	-3.8797 ug/L	-3.8797 ppb	12:04:25
2	Sb 206.836†	29.0	4.7	1.9190 ug/L	1.9190 ppb	12:04:25
2	Se 196.026†	-15.5	3.2	2.6608 ug/L	2.6608 ppb	12:04:25
2	Si 251.611†	509.6	14.8	0.5531 ug/L	0.5531 ppb	12:04:25
2	Sn 189.927†	3.5	-4.5	-1.0132 ug/L	-1.0132 ppb	12:04:25
2	Ti 334.940†	-1020.4	60.2	0.1008 ug/L	0.1008 ppb	12:04:05
2	Tl 190.801†	-22.4	9.2	3.5610 ug/L	3.5610 ppb	12:04:25
2	U 409.014†	-2172.8	-106.1	-3.2055 ug/L	-3.2055 ppb	12:04:05
2	V 292.402†	-1390.0	-81.4	-0.6549 ug/L	-0.6549 ppb	12:04:05
2	Zn 213.857†	594.5	-18.8	-0.2265 ug/L	-0.2265 ppb	12:04:25
2	SiO2†	526.4	34.5	2.7574 ug/L	2.7574 ppb	12:05:31
3	Sc Radial	4384.0	4384.0	95.6 %		12:03:13
3	Y RADIAL	4760.4	4760.4	96.48 %		12:03:13
3	Al 396.153Radial†	-77.6	4.6	4.2740 ug/L	4.2740 ppb	12:03:33
3	Ca 317.933Radial†	17.6	-9.4	-16.621 ug/L	-16.621 ppb	12:03:33
3	Fe 238.204 Radial†	8.3	0.9	9.0921 ug/L	9.0921 ppb	12:03:33
3	K 766.490 Radial†	2581.8	146.0	28.014 ug/L	28.014 ppb	12:03:13
3	Mg 279.077 IEC†	1.2	1.2	44.993 ug/L	44.993 ppb	12:03:33
3	Na 589.592 Radial†	-990.0	-230.9	-80.897 ug/L	-80.897 ppb	12:03:13
3	Sr 421.552†	-3.7	-29.7	-0.2266 ug/L	-0.2266 ppb	12:03:13
3	Sc 361.383	800717.2	800717.2	98.498 %		12:04:30
3	Y 371.029	675299.9	675299.9	97.950 %		12:04:30
3	Ag 328.068†	166.4	-41.7	-0.2087 ug/L	-0.2087 ppb	12:04:30
3	As 188.979†	-24.9	-8.2	-4.5732 ug/L	-4.5732 ppb	12:04:50
3	B 249.677†	-261.3	150.0	4.1977 ug/L	4.1977 ppb	12:04:50
3	Ba 233.527†	7.4	-5.0	-0.0472 ug/L	-0.0472 ppb	12:04:50
3	Be 313.107†	-3767.0	-95.5	-0.0407 ug/L	-0.0407 ppb	12:04:30
3	Cd 226.502†	-158.8	15.1	0.2175 ug/L	0.2175 ppb	12:04:50
3	Co 228.616†	-40.9	-1.7	-0.0439 ug/L	-0.0439 ppb	12:04:50
3	Cr 267.716†	83.9	5.6	0.0776 ug/L	0.0776 ppb	12:04:50
3	Cu 324.752†	5236.3	-150.1	-0.4937 ug/L	-0.4937 ppb	12:04:30
3	Mn 257.610†	438.5	-105.7	-0.1401 ug/L	-0.1401 ppb	12:04:50
3	Mo 202.031†	15.1	2.5	0.2168 ug/L	0.2168 ppb	12:04:50
3	Ni 231.604†	90.5	10.5	0.3331 ug/L	0.3331 ppb	12:04:50
3	P 214.914†	176.3	-4.9	-3.5918 ug/L	-3.5918 ppb	12:04:50
3	Pb 220.353†	-40.9	1.3	0.1982 ug/L	0.1982 ppb	12:04:50
3	S 181.975 Axial†	27.4	-2.4	-4.1995 ug/L	-4.1995 ppb	12:04:50
3	Sb 206.836†	21.6	-2.6	-1.0658 ug/L	-1.0658 ppb	12:04:50
3	Se 196.026†	-25.1	-6.6	-5.4878 ug/L	-5.4878 ppb	12:04:50
3	Si 251.611†	511.4	21.0	0.7862 ug/L	0.7862 ppb	12:04:50
3	Sn 189.927†	7.9	-0.0	-0.0058 ug/L	-0.0058 ppb	12:04:50
3	Ti 334.940†	-1061.9	9.2	0.0122 ug/L	0.0122 ppb	12:04:30
3	Tl 190.801†	-29.0	2.3	0.9015 ug/L	0.9015 ppb	12:04:50
3	U 409.014†	-2208.7	-161.4	-4.8760 ug/L	-4.8760 ppb	12:04:30
3	V 292.402†	-1354.8	-57.7	-0.4681 ug/L	-0.4681 ppb	12:04:30
3	Zn 213.857†	610.6	2.8	0.0304 ug/L	0.0304 ppb	12:04:50
3	SiO2†	523.0	35.6	2.8489 ug/L	2.8489 ppb	12:05:51

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	802223.5	98.683 %	0.5936			0.60%
Sc Radial	4492.0	97.9 %	2.05			2.09%
Y 371.029	677229.4	98.229 %	0.6123			0.62%
Y RADIAL	4860.4	98.50 %	1.756			1.78%
Ag 328.068†	-48.6	-0.2469 ug/L	0.04064	-0.2469 ppb	0.04064	16.46%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	7.4	6.9422 ug/L	4.68948	6.9422 ppb	4.68948	67.55%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-8.3	-4.6086 ug/L	1.18062	-4.6086 ppb	1.18062	25.62%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	135.6	3.7953 ug/L	0.48606	3.7953 ppb	0.48606	12.81%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-8.9	-0.0842 ug/L	0.09580	-0.0842 ppb	0.09580	113.76%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-92.2	-0.0394 ug/L	0.01569	-0.0394 ppb	0.01569	39.78%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-10.3	-18.154 ug/L	2.1023	-18.154 ppb	2.1023	11.58%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	6.1	0.0869 ug/L	0.15357	0.0869 ppb	0.15357	176.71%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-9.3	-0.2399 ug/L	0.21949	-0.2399 ppb	0.21949	91.49%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-1.8	-0.0226 ug/L	0.09029	-0.0226 ppb	0.09029	398.76%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-131.7	-0.4335 ug/L	0.07034	-0.4335 ppb	0.07034	16.23%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.1	0.9880 ug/L	14.09403	0.9880 ppb	14.09403	>999.9%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	127.9	24.541 ug/L	5.3383	24.541 ppb	5.3383	21.75%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	1.3	50.662 ug/L	24.2554	50.662 ppb	24.2554	47.88%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-117.3	-0.1565 ug/L	0.01416	-0.1565 ppb	0.01416	9.05%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	3.2	0.2779 ug/L	0.13361	0.2779 ppb	0.13361	48.08%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-184.6	-64.680 ug/L	14.0740	-64.680 ppb	14.0740	21.76%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-0.1	-0.0028 ug/L	0.29396	-0.0028 ppb	0.29396	>999.9%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-2.8	-2.0456 ug/L	4.39295	-2.0456 ppb	4.39295	214.75%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-6.8	-1.0519 ug/L	1.10040	-1.0519 ppb	1.10040	104.61%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-2.3	-4.0809 ug/L	0.17516	-4.0809 ppb	0.17516	4.29%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	1.5	0.6083 ug/L	1.52526	0.6083 ppb	1.52526	250.74%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-4.1	-3.4290 ug/L	5.36528	-3.4290 ppb	5.36528	156.47%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	22.0	0.8246 ug/L	0.29258	0.8246 ppb	0.29258	35.48%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-2.5	-0.5669 ug/L	0.51340	-0.5669 ppb	0.51340	90.56%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-0.9	-0.0071 ug/L	0.19329	-0.0071 ppb	0.19329	>999.9%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-22.3	-0.0432 ug/L	0.17825	-0.0432 ppb	0.17825	412.35%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	5.5	2.1229 ug/L	1.34296	2.1229 ppb	1.34296	63.26%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-143.5	-4.3352 ug/L	0.97869	-4.3352 ppb	0.97869	22.58%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-45.2	-0.3644 ug/L	0.35393	-0.3644 ppb	0.35393	97.12%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-3.5	-0.0413 ug/L	0.16180	-0.0413 ppb	0.16180	392.24%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	39.2	3.1302 ug/L	0.56833	3.1302 ppb	0.56833	18.16%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

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Analysis Begun

Start Time: 3/17/2010 12:15:05

Plasma On Time: 3/15/2010 06:51:19

Logged In Analyst: Optima3

Technique: ICP Continuous

Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\031610.sif

Batch ID:

Results Data Set: 031610

Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/17/2010 12:15:06

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	4510.3	4510.3	98.3 %		12:16:58
1	Y RADIAL	4836.6	4836.6	98.02 %		12:16:58
1	Al 396.153Radial†	5128.6	5302.3	4960.8 ug/L	4960.8 ppb	12:16:58
1	Ca 317.933Radial†	2793.0	2813.0	4972.3 ug/L	4972.3 ppb	12:17:18
1	Fe 238.204 Radial†	466.6	466.8	4905.7 ug/L	4905.7 ppb	12:17:18
1	K 766.490 Radial†	28361.0	26291.4	5030.5 ug/L	5030.5 ppb	12:16:58
1	Mg 279.077 IEC†	134.4	136.6	5199.2 ug/L	5199.2 ppb	12:17:18
1	Na 589.592 Radial†	27407.9	28682.7	10050 ug/L	10050 ppb	12:16:58
1	Sr 421.552†	65023.9	66112.6	505.02 ug/L	505.02 ppb	12:16:58
1	Sc 361.383	817254.8	817254.8	100.53 %		12:18:15
1	Y 371.029	680530.2	680530.2	98.708 %		12:18:15
1	Ag 328.068†	96979.6	96255.6	497.19 ug/L	497.19 ppb	12:18:21
1	As 188.979†	878.3	890.7	499.86 ug/L	499.86 ppb	12:18:41
1	B 249.677†	17134.7	17459.3	486.36 ug/L	486.36 ppb	12:18:21
1	Ba 233.527†	53531.0	53235.1	499.37 ug/L	499.37 ppb	12:18:21
1	Be 313.107†	1179399.5	1176885.4	503.47 ug/L	503.47 ppb	12:18:15
1	Cd 226.502†	34548.6	34542.1	500.39 ug/L	500.39 ppb	12:18:21
1	Co 228.616†	19615.3	19551.3	508.04 ug/L	508.04 ppb	12:18:21
1	Cr 267.716†	37454.3	37176.6	500.18 ug/L	500.18 ppb	12:18:21
1	Cu 324.752†	154679.3	148394.3	491.16 ug/L	491.16 ppb	12:18:21
1	Mn 257.610†	374338.5	371806.0	489.80 ug/L	489.80 ppb	12:18:21
1	Mo 202.031†	5667.2	5624.4	495.04 ug/L	495.04 ppb	12:18:41
1	Ni 231.604†	16138.0	15971.1	508.20 ug/L	508.20 ppb	12:18:21
1	P 214.914†	3508.8	3306.3	2394.3 ug/L	2394.3 ppb	12:18:41
1	Pb 220.353†	3201.4	3227.3	499.33 ug/L	499.33 ppb	12:18:41
1	S 181.975 Axial†	582.5	549.2	979.69 ug/L	979.69 ppb	12:18:41
1	Sb 206.836†	1222.8	1191.8	511.33 ug/L	511.33 ppb	12:18:41
1	Se 196.026†	583.7	599.4	514.60 ug/L	514.60 ppb	12:18:41
1	Si 251.611†	67068.7	66215.5	2485.8 ug/L	2485.8 ppb	12:18:21
1	Sn 189.927†	2213.8	2194.1	494.62 ug/L	494.62 ppb	12:18:41
1	Ti 334.940†	280979.2	280579.1	484.72 ug/L	484.72 ppb	12:18:21
1	Tl 190.801†	1265.2	1290.3	500.03 ug/L	500.03 ppb	12:18:41
1	U 409.014†	14728.9	16732.0	503.65 ug/L	503.65 ppb	12:18:21
1	V 292.402†	61153.0	62147.0	503.15 ug/L	503.15 ppb	12:18:21
1	Zn 213.857†	42862.6	42018.6	502.98 ug/L	502.98 ppb	12:18:21
1	SiO2†	70144.9	69278.3	5534.5 ug/L	5534.5 ppb	12:19:48
2	Sc Radial	4333.0	4333.0	94.4 %		12:17:23
2	Y RADIAL	4638.6	4638.6	94.01 %		12:17:23
2	Al 396.153Radial†	5164.0	5553.2	5196.8 ug/L	5196.8 ppb	12:17:23
2	Ca 317.933Radial†	2832.3	2970.9	5251.5 ug/L	5251.5 ppb	12:17:43
2	Fe 238.204 Radial†	468.5	488.2	5130.1 ug/L	5130.1 ppb	12:17:43
2	K 766.490 Radial†	28491.7	27610.3	5283.0 ug/L	5283.0 ppb	12:17:23
2	Mg 279.077 IEC†	136.4	144.3	5491.3 ug/L	5491.3 ppb	12:17:43
2	Na 589.592 Radial†	27401.4	29816.7	10447 ug/L	10447 ppb	12:17:23
2	Sr 421.552†	65112.2	68912.6	526.41 ug/L	526.41 ppb	12:17:23
2	Sc 361.383	813107.9	813107.9	100.02 %		12:18:46
2	Y 371.029	676265.8	676265.8	98.090 %		12:18:46

2	Ag 328.068†	97607.4	97375.2	503.02 ug/L	503.02 ppb	12:18:51
2	As 188.979†	877.7	894.5	502.10 ug/L	502.10 ppb	12:19:12
2	B 249.677†	17388.6	17800.2	495.85 ug/L	495.85 ppb	12:18:51
2	Ba 233.527†	53814.6	53790.2	504.58 ug/L	504.58 ppb	12:18:51
2	Be 313.107†	1170627.6	1174098.5	502.29 ug/L	502.29 ppb	12:18:46
2	Cd 226.502†	34559.0	34727.8	503.06 ug/L	503.06 ppb	12:18:51
2	Co 228.616†	19628.8	19664.3	510.95 ug/L	510.95 ppb	12:18:51
2	Cr 267.716†	37596.1	37508.3	504.67 ug/L	504.67 ppb	12:18:51
2	Cu 324.752†	156131.5	150630.9	498.58 ug/L	498.58 ppb	12:18:51
2	Mn 257.610†	376194.4	375560.5	494.75 ug/L	494.75 ppb	12:18:51
2	Mo 202.031†	5597.6	5583.6	491.47 ug/L	491.47 ppb	12:19:12
2	Ni 231.604†	16188.5	16103.5	512.41 ug/L	512.41 ppb	12:18:51
2	P 214.914†	3462.3	3277.6	2371.0 ug/L	2371.0 ppb	12:19:12
2	Pb 220.353†	3162.0	3204.1	495.76 ug/L	495.76 ppb	12:19:12
2	S 181.975 Axial†	579.3	549.0	979.33 ug/L	979.33 ppb	12:19:12
2	Sb 206.836†	1205.9	1181.1	506.73 ug/L	506.73 ppb	12:19:12
2	Se 196.026†	584.6	603.3	518.49 ug/L	518.49 ppb	12:19:12
2	Si 251.611†	67642.4	67129.3	2520.2 ug/L	2520.2 ppb	12:18:51
2	Sn 189.927†	2179.7	2171.3	489.51 ug/L	489.51 ppb	12:19:12
2	Ti 334.940†	283124.3	284149.2	490.90 ug/L	490.90 ppb	12:18:51
2	Tl 190.801†	1259.4	1291.0	500.32 ug/L	500.32 ppb	12:19:12
2	U 409.014†	14877.1	16954.8	510.35 ug/L	510.35 ppb	12:18:51
2	V 292.402†	61490.5	62794.7	508.25 ug/L	508.25 ppb	12:18:51
2	Zn 213.857†	42937.2	42310.6	506.44 ug/L	506.44 ppb	12:18:51
2	SiO2†	68215.0	67704.7	5408.6 ug/L	5408.6 ppb	12:19:53
3	Sc Radial	4747.1	4747.1	103 %		12:17:48
3	Y RADIAL	5117.4	5117.4	103.7 %		12:17:48
3	Al 396.153Radial†	5065.3	4980.9	4656.7 ug/L	4656.7 ppb	12:17:48
3	Ca 317.933Radial†	2796.0	2674.2	4726.9 ug/L	4726.9 ppb	12:18:08
3	Fe 238.204 Radial†	466.4	442.9	4656.6 ug/L	4656.6 ppb	12:18:08
3	K 766.490 Radial†	28058.8	24560.2	4699.1 ug/L	4699.1 ppb	12:17:48
3	Mg 279.077 IEC†	133.4	128.8	4902.8 ug/L	4902.8 ppb	12:18:08
3	Na 589.592 Radial†	26878.0	26779.9	9383.3 ug/L	9383.3 ppb	12:17:48
3	Sr 421.552†	63971.6	61796.1	472.05 ug/L	472.05 ppb	12:17:48
3	Sc 361.383	749350.9	749350.9	92.179 %		12:19:17
3	Y 371.029	624204.1	624204.1	90.538 %		12:19:17
3	Ag 328.068†	97690.0	105767.8	546.11 ug/L	546.11 ppb	12:19:22
3	As 188.979†	883.1	975.0	547.04 ug/L	547.04 ppb	12:19:42
3	B 249.677†	17357.7	19245.8	536.25 ug/L	536.25 ppb	12:19:22
3	Ba 233.527†	53766.2	58315.4	547.00 ug/L	547.00 ppb	12:19:22
3	Be 313.107†	1209195.9	1315517.6	562.76 ug/L	562.76 ppb	12:19:17
3	Cd 226.502†	34563.7	37672.5	545.81 ug/L	545.81 ppb	12:19:22
3	Co 228.616†	19671.6	21380.5	555.55 ug/L	555.55 ppb	12:19:22
3	Cr 267.716†	37709.6	40829.5	549.25 ug/L	549.25 ppb	12:19:22
3	Cu 324.752†	156333.4	164131.1	543.21 ug/L	543.21 ppb	12:19:22
3	Mn 257.610†	376429.3	407816.1	537.20 ug/L	537.20 ppb	12:19:22
3	Mo 202.031†	5609.6	6072.7	534.45 ug/L	534.45 ppb	12:19:42
3	Ni 231.604†	16183.1	17474.7	556.04 ug/L	556.04 ppb	12:19:22
3	P 214.914†	3481.8	3593.3	2600.6 ug/L	2600.6 ppb	12:19:42
3	Pb 220.353†	3204.1	3518.7	544.32 ug/L	544.32 ppb	12:19:42
3	S 181.975 Axial†	579.9	599.0	1068.6 ug/L	1068.6 ppb	12:19:42
3	Sb 206.836†	1207.9	1285.9	551.78 ug/L	551.78 ppb	12:19:42
3	Se 196.026†	579.5	647.5	553.79 ug/L	553.79 ppb	12:19:42
3	Si 251.611†	67564.4	72798.6	2733.1 ug/L	2733.1 ppb	12:19:22
3	Sn 189.927†	2203.2	2382.1	536.92 ug/L	536.92 ppb	12:19:42
3	Ti 334.940†	283500.8	308641.3	533.17 ug/L	533.17 ppb	12:19:22
3	Tl 190.801†	1273.4	1413.3	547.70 ug/L	547.70 ppb	12:19:42
3	U 409.014†	14941.0	18289.7	550.61 ug/L	550.61 ppb	12:19:22
3	V 292.402†	61548.6	68088.4	551.22 ug/L	551.22 ppb	12:19:22
3	Zn 213.857†	43059.6	46095.8	551.90 ug/L	551.90 ppb	12:19:22
3	SiO2†	67682.2	72929.3	5825.8 ug/L	5825.8 ppb	12:19:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	793237.9	97.578 %	4.6823			4.80%
Sc Radial	4530.1	98.7 %	4.53			4.59%
Y 371.029	660333.4	95.779 %	4.5489			4.75%
Y RADIAL	4864.2	98.58 %	4.877			4.95%
Ag 328.068†	99799.5	515.44 ug/L	26.716	515.44 ppb	26.716	5.18%

QC value within limits for Ag 328.068 Recovery = 103.09%							
Al 396.153Radial†	5278.8	4938.1 ug/L	270.78	4938.1 ppb	270.78	5.48%	
QC value within limits for Al 396.153Radial Recovery = 98.76%							
As 188.979†	920.1	516.33 ug/L	26.618	516.33 ppb	26.618	5.16%	
QC value within limits for As 188.979 Recovery = 103.27%							
B 249.677†	18168.4	506.15 ug/L	26.497	506.15 ppb	26.497	5.23%	
QC value within limits for B 249.677 Recovery = 101.23%							
Ba 233.527†	55113.6	516.98 ug/L	26.127	516.98 ppb	26.127	5.05%	
QC value within limits for Ba 233.527 Recovery = 103.40%							
Be 313.107†	1222167.1	522.84 ug/L	34.574	522.84 ppb	34.574	6.61%	
QC value within limits for Be 313.107 Recovery = 104.57%							
Ca 317.933Radial†	2819.4	4983.6 ug/L	262.44	4983.6 ppb	262.44	5.27%	
QC value within limits for Ca 317.933Radial Recovery = 99.67%							
Cd 226.502†	35647.4	516.42 ug/L	25.488	516.42 ppb	25.488	4.94%	
QC value within limits for Cd 226.502 Recovery = 103.28%							
Co 228.616†	20198.7	524.85 ug/L	26.634	524.85 ppb	26.634	5.07%	
QC value within limits for Co 228.616 Recovery = 104.97%							
Cr 267.716†	38504.8	518.03 ug/L	27.129	518.03 ppb	27.129	5.24%	
QC value within limits for Cr 267.716 Recovery = 103.61%							
Cu 324.752†	154385.4	510.98 ug/L	28.156	510.98 ppb	28.156	5.51%	
QC value within limits for Cu 324.752 Recovery = 102.20%							
Fe 238.204 Radial†	465.9	4897.5 ug/L	236.85	4897.5 ppb	236.85	4.84%	
QC value within limits for Fe 238.204 Radial Recovery = 97.95%							
K 766.490 Radial†	26153.9	5004.2 ug/L	292.80	5004.2 ppb	292.80	5.85%	
QC value within limits for K 766.490 Radial Recovery = 100.08%							
Mg 279.077 IEC†	136.6	5197.8 ug/L	294.28	5197.8 ppb	294.28	5.66%	
QC value within limits for Mg 279.077 IEC Recovery = 103.96%							
Mn 257.610†	385060.8	507.25 ug/L	26.054	507.25 ppb	26.054	5.14%	
QC value within limits for Mn 257.610 Recovery = 101.45%							
Mo 202.031†	5760.2	506.99 ug/L	23.849	506.99 ppb	23.849	4.70%	
QC value within limits for Mo 202.031 Recovery = 101.40%							
Na 589.592 Radial†	28426.4	9960.2 ug/L	537.69	9960.2 ppb	537.69	5.40%	
QC value within limits for Na 589.592 Radial Recovery = 99.60%							
Ni 231.604†	16516.4	525.55 ug/L	26.491	525.55 ppb	26.491	5.04%	
QC value within limits for Ni 231.604 Recovery = 105.11%							
P 214.914†	3392.4	2455.3 ug/L	126.37	2455.3 ppb	126.37	5.15%	
QC value within limits for P 214.914 Recovery = 98.21%							
Pb 220.353†	3316.7	513.14 ug/L	27.067	513.14 ppb	27.067	5.27%	
QC value within limits for Pb 220.353 Recovery = 102.63%							
S 181.975 Axial†	565.7	1009.2 ug/L	51.43	1009.2 ppb	51.43	5.10%	
QC value within limits for S 181.975 Axial Recovery = 100.92%							
Sb 206.836†	1219.6	523.28 ug/L	24.791	523.28 ppb	24.791	4.74%	
QC value within limits for Sb 206.836 Recovery = 104.66%							
Se 196.026†	616.7	528.96 ug/L	21.587	528.96 ppb	21.587	4.08%	
QC value within limits for Se 196.026 Recovery = 105.79%							
Si 251.611†	68714.5	2579.7 ug/L	133.93	2579.7 ppb	133.93	5.19%	
QC value within limits for Si 251.611 Recovery = 103.19%							
Sn 189.927†	2249.1	507.02 ug/L	26.021	507.02 ppb	26.021	5.13%	
QC value within limits for Sn 189.927 Recovery = 101.40%							
Sr 421.552†	65607.1	501.16 ug/L	27.386	501.16 ppb	27.386	5.46%	
QC value within limits for Sr 421.552 Recovery = 100.23%							
Ti 334.940†	291123.2	502.93 ug/L	26.370	502.93 ppb	26.370	5.24%	
QC value within limits for Ti 334.940 Recovery = 100.59%							
Tl 190.801†	1331.5	516.02 ug/L	27.439	516.02 ppb	27.439	5.32%	
QC value within limits for Tl 190.801 Recovery = 103.20%							
U 409.014†	17325.5	521.54 ug/L	25.403	521.54 ppb	25.403	4.87%	
QC value within limits for U 409.014 Recovery = 104.31%							
V 292.402†	64343.3	520.87 ug/L	26.407	520.87 ppb	26.407	5.07%	
QC value within limits for V 292.402 Recovery = 104.17%							
Zn 213.857†	43475.0	520.44 ug/L	27.299	520.44 ppb	27.299	5.25%	
QC value within limits for Zn 213.857 Recovery = 104.09%							
SiO2†	69970.7	5589.6 ug/L	214.01	5589.6 ppb	214.01	3.83%	
QC value within limits for SiO2 Recovery = 104.53%							
All analyte(s) passed QC.							

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/17/2010 12:22:08

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	4285.6	4285.6	93.4 %		12:24:21
1	Y RADIAL	4867.9	4867.9	98.65 %		12:24:01
1	Al 396.153Radial†	-84.6	-4.7	-4.4750 ug/L	-4.4750 ppb	12:24:21
1	Ca 317.933Radial†	20.1	-6.3	-11.155 ug/L	-11.155 ppb	12:24:21
1	Fe 238.204 Radial†	8.5	1.2	12.775 ug/L	12.775 ppb	12:24:21
1	K 766.490 Radial†	2524.0	146.2	28.030 ug/L	28.030 ppb	12:24:01
1	Mg 279.077 IEC†	2.7	2.9	108.98 ug/L	108.98 ppb	12:24:21
1	Na 589.592 Radial†	-920.0	-179.7	-62.967 ug/L	-62.967 ppb	12:24:01
1	Sr 421.552†	16.6	-7.9	-0.0606 ug/L	-0.0606 ppb	12:24:01
1	Sc 361.383	802412.1	802412.1	98.706 %		12:25:18
1	Y 371.029	677328.3	677328.3	98.244 %		12:25:18
1	Ag 328.068†	260.2	53.0	0.2758 ug/L	0.2758 ppb	12:25:18
1	As 188.979†	-28.0	-11.4	-6.3190 ug/L	-6.3190 ppb	12:25:38
1	B 249.677†	-223.7	188.8	5.2816 ug/L	5.2816 ppb	12:25:38
1	Ba 233.527†	8.2	-4.2	-0.0409 ug/L	-0.0409 ppb	12:25:38
1	Be 313.107†	-3718.5	-38.3	-0.0161 ug/L	-0.0161 ppb	12:25:18
1	Cd 226.502†	-180.3	-6.3	-0.0938 ug/L	-0.0938 ppb	12:25:38
1	Co 228.616†	-49.4	-10.3	-0.2656 ug/L	-0.2656 ppb	12:25:38
1	Cr 267.716†	99.1	20.8	0.2813 ug/L	0.2813 ppb	12:25:38
1	Cu 324.752†	5263.1	-134.2	-0.4415 ug/L	-0.4415 ppb	12:25:18
1	Mn 257.610†	429.9	-115.4	-0.1552 ug/L	-0.1552 ppb	12:25:38
1	Mo 202.031†	18.9	6.4	0.5595 ug/L	0.5595 ppb	12:25:38
1	Ni 231.604†	88.4	8.1	0.2586 ug/L	0.2586 ppb	12:25:38
1	P 214.914†	188.8	7.4	5.6359 ug/L	5.6359 ppb	12:25:38
1	Pb 220.353†	-54.3	-12.2	-1.8896 ug/L	-1.8896 ppb	12:25:38
1	S 181.975 Axial†	26.1	-3.7	-6.6600 ug/L	-6.6600 ppb	12:25:38
1	Sb 206.836†	17.8	-6.5	-2.6592 ug/L	-2.6592 ppb	12:25:38
1	Se 196.026†	-21.4	-2.9	-2.3401 ug/L	-2.3401 ppb	12:25:38
1	Si 251.611†	498.9	7.2	0.2645 ug/L	0.2645 ppb	12:25:38
1	Sn 189.927†	16.9	9.1	2.0513 ug/L	2.0513 ppb	12:25:38
1	Ti 334.940†	-1011.7	62.3	0.0989 ug/L	0.0989 ppb	12:25:18
1	Tl 190.801†	-21.0	10.5	4.0579 ug/L	4.0579 ppb	12:25:38
1	U 409.014†	-2176.4	-123.9	-3.7443 ug/L	-3.7443 ppb	12:25:18
1	V 292.402†	-1406.7	-107.4	-0.8574 ug/L	-0.8574 ppb	12:25:18
1	Zn 213.857†	602.9	-6.3	-0.0793 ug/L	-0.0793 ppb	12:25:38
1	SiO2†	495.8	7.0	0.5468 ug/L	0.5468 ppb	12:26:49
2	Sc Radial	4266.9	4266.9	93.0 %		12:24:46
2	Y RADIAL	4770.8	4770.8	96.69 %		12:24:26
2	Al 396.153Radial†	-74.4	5.8	5.4489 ug/L	5.4489 ppb	12:24:46
2	Ca 317.933Radial†	16.2	-10.4	-18.451 ug/L	-18.451 ppb	12:24:46
2	Fe 238.204 Radial†	7.5	0.2	1.9079 ug/L	1.9079 ppb	12:24:46
2	K 766.490 Radial†	2568.9	206.2	39.546 ug/L	39.546 ppb	12:24:26
2	Mg 279.077 IEC†	-0.5	-0.6	-23.258 ug/L	-23.258 ppb	12:24:46
2	Na 589.592 Radial†	-938.5	-204.0	-71.477 ug/L	-71.477 ppb	12:24:26
2	Sr 421.552†	19.7	-4.6	-0.0350 ug/L	-0.0350 ppb	12:24:26
2	Sc 361.383	807187.8	807187.8	99.294 %		12:25:43
2	Y 371.029	681289.6	681289.6	98.818 %		12:25:43
2	Ag 328.068†	187.5	-21.8	-0.1115 ug/L	-0.1115 ppb	12:25:43
2	As 188.979†	-16.0	0.9	0.5167 ug/L	0.5167 ppb	12:26:03
2	B 249.677†	-247.0	166.6	4.6622 ug/L	4.6622 ppb	12:26:03
2	Ba 233.527†	-5.0	-17.5	-0.1650 ug/L	-0.1650 ppb	12:26:03
2	Be 313.107†	-3793.5	-91.5	-0.0390 ug/L	-0.0390 ppb	12:25:43
2	Cd 226.502†	-161.3	13.9	0.2004 ug/L	0.2004 ppb	12:26:03
2	Co 228.616†	-42.7	-3.2	-0.0830 ug/L	-0.0830 ppb	12:26:03
2	Cr 267.716†	79.3	0.3	0.0047 ug/L	0.0047 ppb	12:26:03
2	Cu 324.752†	5251.3	-177.6	-0.5864 ug/L	-0.5864 ppb	12:25:43
2	Mn 257.610†	438.6	-109.2	-0.1426 ug/L	-0.1426 ppb	12:26:03
2	Mo 202.031†	15.0	2.3	0.1993 ug/L	0.1993 ppb	12:26:03
2	Ni 231.604†	67.9	-13.1	-0.4163 ug/L	-0.4163 ppb	12:26:03

2	P 214.914†	187.7	5.1	3.9585 ug/L	3.9585 ppb	12:26:03
2	Pb 220.353†	-55.1	-12.7	-1.9529 ug/L	-1.9529 ppb	12:26:03
2	S 181.975 Axial†	25.7	-4.3	-7.6052 ug/L	-7.6052 ppb	12:26:03
2	Sb 206.836†	22.9	-1.5	-0.6113 ug/L	-0.6113 ppb	12:26:03
2	Se 196.026†	-23.0	-4.4	-3.6283 ug/L	-3.6283 ppb	12:26:03
2	Si 251.611†	505.9	11.3	0.4229 ug/L	0.4229 ppb	12:26:03
2	Sn 189.927†	4.9	-3.1	-0.6927 ug/L	-0.6927 ppb	12:26:03
2	Ti 334.940†	-1072.5	7.2	0.0128 ug/L	0.0128 ppb	12:25:43
2	Tl 190.801†	-22.1	9.5	3.6753 ug/L	3.6753 ppb	12:26:03
2	U 409.014†	-2140.3	-74.5	-2.2511 ug/L	-2.2511 ppb	12:25:43
2	V 292.402†	-1381.8	-73.9	-0.5928 ug/L	-0.5928 ppb	12:25:43
2	Zn 213.857†	593.4	-19.5	-0.2320 ug/L	-0.2320 ppb	12:26:03
2	SiO2†	502.1	10.3	0.8225 ug/L	0.8225 ppb	12:27:09
3	Sc Radial	4328.0	4328.0	94.3 %		12:25:11
3	Y RADIAL	4747.9	4747.9	96.22 %		12:24:51
3	Al 396.153Radial†	-76.2	5.0	4.7510 ug/L	4.7510 ppb	12:25:11
3	Ca 317.933Radial†	18.8	-7.9	-13.939 ug/L	-13.939 ppb	12:25:11
3	Fe 238.204 Radial†	6.5	-0.9	-9.8316 ug/L	-9.8316 ppb	12:25:11
3	K 766.490 Radial†	2531.3	127.4	24.441 ug/L	24.441 ppb	12:24:51
3	Mg 279.077 IEC†	2.6	2.7	101.87 ug/L	101.87 ppb	12:25:11
3	Na 589.592 Radial†	-964.6	-217.4	-76.157 ug/L	-76.157 ppb	12:24:51
3	Sr 421.552†	17.3	-7.4	-0.0566 ug/L	-0.0566 ppb	12:24:51
3	Sc 361.383	794142.0	794142.0	97.689 %		12:26:08
3	Y 371.029	670241.8	670241.8	97.216 %		12:26:08
3	Ag 328.068†	128.2	-79.3	-0.4073 ug/L	-0.4073 ppb	12:26:08
3	As 188.979†	-14.3	2.4	1.3430 ug/L	1.3430 ppb	12:26:28
3	B 249.677†	-254.9	154.4	4.3243 ug/L	4.3243 ppb	12:26:28
3	Ba 233.527†	6.9	-5.5	-0.0516 ug/L	-0.0516 ppb	12:26:28
3	Be 313.107†	-3814.8	-176.1	-0.0755 ug/L	-0.0755 ppb	12:26:08
3	Cd 226.502†	-157.2	15.4	0.2244 ug/L	0.2244 ppb	12:26:28
3	Co 228.616†	-53.5	-14.9	-0.3885 ug/L	-0.3885 ppb	12:26:28
3	Cr 267.716†	81.7	4.1	0.0553 ug/L	0.0553 ppb	12:26:28
3	Cu 324.752†	5301.1	-39.8	-0.1303 ug/L	-0.1303 ppb	12:26:08
3	Mn 257.610†	397.6	-143.9	-0.1946 ug/L	-0.1946 ppb	12:26:28
3	Mo 202.031†	10.3	-2.3	-0.2023 ug/L	-0.2023 ppb	12:26:28
3	Ni 231.604†	87.6	8.3	0.2642 ug/L	0.2642 ppb	12:26:28
3	P 214.914†	179.1	-0.5	-0.3792 ug/L	-0.3792 ppb	12:26:28
3	Pb 220.353†	-62.0	-20.7	-3.1952 ug/L	-3.1952 ppb	12:26:28
3	S 181.975 Axial†	29.2	-0.3	-0.5554 ug/L	-0.5554 ppb	12:26:28
3	Sb 206.836†	21.1	-2.9	-1.2116 ug/L	-1.2116 ppb	12:26:28
3	Se 196.026†	-16.1	2.3	1.8641 ug/L	1.8641 ppb	12:26:28
3	Si 251.611†	504.0	17.7	0.6681 ug/L	0.6681 ppb	12:26:28
3	Sn 189.927†	7.4	-0.4	-0.1006 ug/L	-0.1006 ppb	12:26:28
3	Ti 334.940†	-1140.4	-80.1	-0.1472 ug/L	-0.1472 ppb	12:26:08
3	Tl 190.801†	-27.5	3.7	1.4059 ug/L	1.4059 ppb	12:26:28
3	U 409.014†	-2139.1	-108.7	-3.2819 ug/L	-3.2819 ppb	12:26:08
3	V 292.402†	-1285.5	1.8	0.0085 ug/L	0.0085 ppb	12:26:08
3	Zn 213.857†	594.4	-8.7	-0.1049 ug/L	-0.1049 ppb	12:26:28
3	SiO2†	512.7	29.5	2.3676 ug/L	2.3676 ppb	12:27:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	801247.3	98.563 %	0.8119			0.82%
Sc Radial	4293.5	93.6 %	0.68			0.73%
Y 371.029	676286.6	98.093 %	0.8118			0.83%
Y RADIAL	4795.5	97.19 %	1.291			1.33%
Ag 328.068†	-16.0	-0.0810 ug/L	0.34260	-0.0810 ppb	0.34260	423.01%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	2.0	1.9083 ug/L	5.53910	1.9083 ppb	5.53910	290.27%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.7	-1.4864 ug/L	4.20548	-1.4864 ppb	4.20548	282.93%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	169.9	4.7560 ug/L	0.48547	4.7560 ppb	0.48547	10.21%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-9.1	-0.0858 ug/L	0.06879	-0.0858 ppb	0.06879	80.14%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-101.9	-0.0435 ug/L	0.02995	-0.0435 ppb	0.02995	68.80%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-8.2	-14.515 ug/L	3.6815	-14.515 ppb	3.6815	25.36%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	7.7	0.1103 ug/L	0.17715	0.1103 ppb	0.17715	160.56%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-9.5	-0.2457 ug/L	0.15369	-0.2457 ppb	0.15369	62.55%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	8.4	0.1138 ug/L	0.14729	0.1138 ppb	0.14729	129.49%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-117.2	-0.3861 ug/L	0.23304	-0.3861 ppb	0.23304	60.36%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.2	1.6171 ug/L	11.30607	1.6171 ppb	11.30607	699.17%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	159.9	30.673 ug/L	7.8915	30.673 ppb	7.8915	25.73%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	1.6	62.531 ug/L	74.3802	62.531 ppb	74.3802	118.95%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-122.8	-0.1641 ug/L	0.02712	-0.1641 ppb	0.02712	16.53%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	2.1	0.1855 ug/L	0.38109	0.1855 ppb	0.38109	205.41%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-200.4	-70.200 ug/L	6.6869	-70.200 ppb	6.6869	9.53%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	1.1	0.0355 ug/L	0.39129	0.0355 ppb	0.39129	>999.9%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	4.0	3.0718 ug/L	3.10405	3.0718 ppb	3.10405	101.05%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-15.2	-2.3459 ug/L	0.73620	-2.3459 ppb	0.73620	31.38%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-2.8	-4.9402 ug/L	3.82667	-4.9402 ppb	3.82667	77.46%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-3.6	-1.4941 ug/L	1.05277	-1.4941 ppb	1.05277	70.46%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-1.7	-1.3681 ug/L	2.87231	-1.3681 ppb	2.87231	209.95%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	12.1	0.4518 ug/L	0.20332	0.4518 ppb	0.20332	45.00%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	1.9	0.4193 ug/L	1.44400	0.4193 ppb	1.44400	344.36%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-6.7	-0.0507 ug/L	0.01375	-0.0507 ppb	0.01375	27.10%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-3.5	-0.0118 ug/L	0.12485	-0.0118 ppb	0.12485	>999.9%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	7.9	3.0464 ug/L	1.43354	3.0464 ppb	1.43354	47.06%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-102.4	-3.0924 ug/L	0.76445	-3.0924 ppb	0.76445	24.72%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-59.9	-0.4806 ug/L	0.44373	-0.4806 ppb	0.44373	92.33%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-11.5	-0.1388 ug/L	0.08178	-0.1388 ppb	0.08178	58.93%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	15.6	1.2456 ug/L	0.98135	1.2456 ppb	0.98135	78.78%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 5

Sample ID: 247123001|954660|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 40

Date Collected: 3/17/2010 12:43:47

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247123001|954660|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4481.3	4481.3	97.7 %		12:45:40
1	Y RADIAL	5714.6	5714.6	115.8 %		12:45:40
1	Al 396.153Radial†	4102.1	4285.2	4028.4 ug/L	4028.4 ppb	12:45:40
1	Ca 317.933Radial†	1274.2	1276.5	2256.4 ug/L	2256.4 ppb	12:46:00
1	Fe 238.204 Radial†	6130.7	6268.3	65676 ug/L	65676 ppb	12:45:40
1	K 766.490 Radial†	9481.2	7150.4	1368.0 ug/L	1368.0 ppb	12:45:40
1	Mg 279.077 IEC†	46.6	47.6	1742.0 ug/L	1742.0 ppb	12:46:00
1	Na 589.592 Radial†	756.3	1579.3	553.37 ug/L	553.37 ppb	12:45:40
1	Sr 421.552†	2641.1	2678.0	20.441 ug/L	20.441 ppb	12:45:40
1	Sc 361.383	815347.6	815347.6	100.30 %		12:46:57
1	Y 371.029	807778.7	807778.7	117.17 %		12:46:57
1	Ag 328.068†	-3904.5	-4103.5	-0.4171 ug/L	-0.4171 ppb	12:47:02
1	As 188.979†	-29.2	-12.0	26.086 ug/L	26.086 ppb	12:47:22
1	B 249.677†	-136.8	279.0	-2.8835 ug/L	-2.8835 ppb	12:47:02
1	Ba 233.527†	15084.4	15027.2	142.69 ug/L	142.69 ppb	12:47:02
1	Be 313.107†	-16688.4	-12909.9	-0.9483 ug/L	-0.9483 ppb	12:47:02
1	Cd 226.502†	342.8	518.1	0.6839 ug/L	0.6839 ppb	12:47:22
1	Co 228.616†	302.4	341.3	3.7765 ug/L	3.7765 ppb	12:47:22
1	Cr 267.716†	1823.1	1738.2	30.455 ug/L	30.455 ppb	12:47:02
1	Cu 324.752†	6881.6	1394.9	8.2406 ug/L	8.2406 ppb	12:47:02
1	Mn 257.610†	1783093.6	1777252.7	2346.4 ug/L	2346.4 ppb	12:46:57
1	Mo 202.031†	62.4	49.3	9.4648 ug/L	9.4648 ppb	12:47:22
1	Ni 231.604†	688.8	605.4	19.269 ug/L	19.269 ppb	12:47:22
1	P 214.914†	840.0	653.6	439.45 ug/L	439.45 ppb	12:47:22
1	Pb 220.353†	1856.0	1893.3	283.68 ug/L	283.68 ppb	12:47:22
1	S 181.975 Axial†	59.4	29.1	51.221 ug/L	51.221 ppb	12:47:22
1	Sb 206.836†	46.2	21.6	1.8084 ug/L	1.8084 ppb	12:47:22
1	Se 196.026†	-297.5	-277.8	-40.412 ug/L	-40.412 ppb	12:47:22
1	Si 251.611†	122569.2	121707.3	4580.2 ug/L	4580.2 ppb	12:47:02
1	Sn 189.927†	47.7	39.5	5.5318 ug/L	5.5318 ppb	12:47:22
1	Ti 334.940†	1165260.5	1162890.8	2009.9 ug/L	2009.9 ppb	12:46:57
1	Tl 190.801†	-99.4	-67.3	1.8453 ug/L	1.8453 ppb	12:47:22
1	U 409.014†	-10915.3	-8801.9	-273.37 ug/L	-273.37 ppb	12:46:57
1	V 292.402†	3423.0	4730.6	25.678 ug/L	25.678 ppb	12:47:02
1	Zn 213.857†	30015.1	29308.9	344.12 ug/L	344.12 ppb	12:47:02
1	SiO2†	127400.9	126527.7	10133 ug/L	10133 ppb	12:48:30
2	Sc Radial	4406.1	4406.1	96.0 %		12:46:05
2	Y RADIAL	5644.8	5644.8	114.4 %		12:46:05
2	Al 396.153Radial†	4090.8	4345.1	4084.7 ug/L	4084.7 ppb	12:46:05
2	Ca 317.933Radial†	1247.0	1270.5	2245.8 ug/L	2245.8 ppb	12:46:25
2	Fe 238.204 Radial†	6047.9	6289.1	65893 ug/L	65893 ppb	12:46:05
2	K 766.490 Radial†	9411.6	7243.4	1385.8 ug/L	1385.8 ppb	12:46:05
2	Mg 279.077 IEC†	46.1	48.0	1756.1 ug/L	1756.1 ppb	12:46:25
2	Na 589.592 Radial†	717.4	1552.0	543.81 ug/L	543.81 ppb	12:46:05
2	Sr 421.552†	2637.4	2720.2	20.764 ug/L	20.764 ppb	12:46:05
2	Sc 361.383	828176.7	828176.7	101.88 %		12:47:28
2	Y 371.029	819135.8	819135.8	118.81 %		12:47:28
2	Ag 328.068†	-3776.2	-3917.2	0.6015 ug/L	0.6015 ppb	12:47:33
2	As 188.979†	-33.5	-15.9	24.036 ug/L	24.036 ppb	12:47:53
2	B 249.677†	-93.1	324.0	-1.6596 ug/L	-1.6596 ppb	12:47:33
2	Ba 233.527†	15143.8	14852.4	141.06 ug/L	141.06 ppb	12:47:33
2	Be 313.107†	-16515.3	-12482.2	-0.7570 ug/L	-0.7570 ppb	12:47:33
2	Cd 226.502†	332.5	502.7	0.4386 ug/L	0.4386 ppb	12:47:53
2	Co 228.616†	304.8	339.0	3.7016 ug/L	3.7016 ppb	12:47:53
2	Cr 267.716†	1822.8	1709.7	30.094 ug/L	30.094 ppb	12:47:33
2	Cu 324.752†	6992.8	1397.8	8.2591 ug/L	8.2591 ppb	12:47:33
2	Mn 257.610†	1811374.6	1777473.3	2346.7 ug/L	2346.7 ppb	12:47:28
2	Mo 202.031†	48.1	34.4	8.1645 ug/L	8.1645 ppb	12:47:53
2	Ni 231.604†	704.7	610.3	19.426 ug/L	19.426 ppb	12:47:53

2	P 214.914†	820.4	621.3	415.01 ug/L	415.01 ppb	12:47:53
2	Pb 220.353†	1868.7	1877.1	281.16 ug/L	281.16 ppb	12:47:53
2	S 181.975 Axial†	53.0	21.9	38.346 ug/L	38.346 ppb	12:47:53
2	Sb 206.836†	41.8	16.5	-0.3452 ug/L	-0.3452 ppb	12:47:53
2	Se 196.026†	-303.2	-278.9	-40.657 ug/L	-40.657 ppb	12:47:53
2	Si 251.611†	123532.7	120760.0	4544.5 ug/L	4544.5 ppb	12:47:33
2	Sn 189.927†	43.6	34.8	4.4592 ug/L	4.4592 ppb	12:47:53
2	Ti 334.940†	1185882.8	1165136.0	2013.8 ug/L	2013.8 ppb	12:47:28
2	Tl 190.801†	-117.0	-83.1	-4.1944 ug/L	-4.1944 ppb	12:47:53
2	U 409.014†	-10934.6	-8652.3	-268.87 ug/L	-268.87 ppb	12:47:28
2	V 292.402†	3435.2	4689.7	25.306 ug/L	25.306 ppb	12:47:33
2	Zn 213.857†	30073.4	28902.6	339.18 ug/L	339.18 ppb	12:47:33
2	SiO2†	125012.0	122215.0	9787.2 ug/L	9787.2 ppb	12:48:35
3	Sc Radial	4497.2	4497.2	98.0 %		12:46:30
3	Y RADIAL	5723.3	5723.3	116.0 %		12:46:30
3	Al 396.153Radial†	4148.7	4317.9	4059.1 ug/L	4059.1 ppb	12:46:30
3	Ca 317.933Radial†	1277.5	1275.3	2254.3 ug/L	2254.3 ppb	12:46:50
3	Fe 238.204 Radial†	6149.5	6265.2	65643 ug/L	65643 ppb	12:46:30
3	K 766.490 Radial†	9552.1	7188.3	1375.2 ug/L	1375.2 ppb	12:46:30
3	Mg 279.077 IEC†	46.0	46.9	1714.4 ug/L	1714.4 ppb	12:46:50
3	Na 589.592 Radial†	824.7	1646.3	576.86 ug/L	576.86 ppb	12:46:30
3	Sr 421.552†	2661.1	2688.8	20.524 ug/L	20.524 ppb	12:46:30
3	Sc 361.383	822022.7	822022.7	101.12 %		12:47:59
3	Y 371.029	813114.5	813114.5	117.94 %		12:47:59
3	Ag 328.068†	-3752.9	-3922.0	0.5002 ug/L	0.5002 ppb	12:48:04
3	As 188.979†	-27.6	-10.3	27.061 ug/L	27.061 ppb	12:48:24
3	B 249.677†	-75.5	340.7	-1.1511 ug/L	-1.1511 ppb	12:48:04
3	Ba 233.527†	15068.2	14889.0	141.40 ug/L	141.40 ppb	12:48:04
3	Be 313.107†	-16624.8	-12711.8	-0.8612 ug/L	-0.8612 ppb	12:48:04
3	Cd 226.502†	334.9	507.5	0.5348 ug/L	0.5348 ppb	12:48:24
3	Co 228.616†	310.1	346.5	3.9089 ug/L	3.9089 ppb	12:48:24
3	Cr 267.716†	1822.1	1722.4	30.238 ug/L	30.238 ppb	12:48:04
3	Cu 324.752†	7035.9	1491.8	8.5559 ug/L	8.5559 ppb	12:48:04
3	Mn 257.610†	1796734.1	1776305.9	2345.1 ug/L	2345.1 ppb	12:47:59
3	Mo 202.031†	66.2	52.7	9.7548 ug/L	9.7548 ppb	12:48:24
3	Ni 231.604†	694.8	605.7	19.279 ug/L	19.279 ppb	12:48:24
3	P 214.914†	819.6	626.6	419.11 ug/L	419.11 ppb	12:48:24
3	Pb 220.353†	1855.3	1877.6	281.27 ug/L	281.27 ppb	12:48:24
3	S 181.975 Axial†	49.9	19.2	33.450 ug/L	33.450 ppb	12:48:24
3	Sb 206.836†	34.0	9.1	-3.3600 ug/L	-3.3600 ppb	12:48:24
3	Se 196.026†	-299.5	-277.4	-40.159 ug/L	-40.159 ppb	12:48:24
3	Si 251.611†	122563.1	120709.0	4542.6 ug/L	4542.6 ppb	12:48:04
3	Sn 189.927†	42.5	34.0	4.2931 ug/L	4.2931 ppb	12:48:24
3	Ti 334.940†	1175472.1	1163555.1	2011.1 ug/L	2011.1 ppb	12:47:59
3	Tl 190.801†	-108.3	-75.3	-1.2571 ug/L	-1.2571 ppb	12:48:24
3	U 409.014†	-10777.7	-8577.4	-266.58 ug/L	-266.58 ppb	12:47:59
3	V 292.402†	3485.8	4764.9	25.973 ug/L	25.973 ppb	12:48:04
3	Zn 213.857†	29929.1	28980.9	340.16 ug/L	340.16 ppb	12:48:04
3	SiO2†	125671.3	123785.7	9912.9 ug/L	9912.9 ppb	12:48:40

Mean Data: 247123001|954660|1

	Mean Corrected	Calib.		Sample		
Analyte	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.	RSD
Sc 361.383	821849.0	101.10 %	0.789			0.78%
Sc Radial	4461.5	97.3 %	1.06			1.09%
Y 371.029	813343.0	117.97 %	0.824			0.70%
Y RADIAL	5694.2	115.4 %	0.87			0.76%
Ag 328.068†	-3980.9	0.2282 ug/L	0.56115	0.2282 ppb	0.56115	245.93%
Al 396.153Radial†	4316.1	4057.4 ug/L	28.19	4057.4 ppb	28.19	0.69%
As 188.979†	-12.7	25.727 ug/L	1.5441	25.727 ppb	1.5441	6.00%
B 249.677†	314.5	-1.8981 ug/L	0.89048	-1.8981 ppb	0.89048	46.92%
Ba 233.527†	14922.9	141.72 ug/L	0.860	141.72 ppb	0.860	0.61%
Be 313.107†	-12701.3	-0.8555 ug/L	0.09581	-0.8555 ppb	0.09581	11.20%
Ca 317.933Radial†	1274.1	2252.2 ug/L	5.61	2252.2 ppb	5.61	0.25%
Cd 226.502†	509.5	0.5524 ug/L	0.12362	0.5524 ppb	0.12362	22.38%
Co 228.616†	342.3	3.7957 ug/L	0.10497	3.7957 ppb	0.10497	2.77%
Cr 267.716†	1723.4	30.262 ug/L	0.1820	30.262 ppb	0.1820	0.60%
Cu 324.752†	1428.2	8.3519 ug/L	0.17695	8.3519 ppb	0.17695	2.12%
Fe 238.204 Radial†	6274.2	65737 ug/L	135.9	65737 ppb	135.9	0.21%
K 766.490 Radial†	7194.0	1376.3 ug/L	8.96	1376.3 ppb	8.96	0.65%

Mg 279.077 IEC†	47.5	1737.5 ug/L	21.23	1737.5 ppb	21.23	1.22%
Mn 257.610†	1777010.6	2346.1 ug/L	0.83	2346.1 ppb	0.83	0.04%
Mo 202.031†	45.5	9.1281 ug/L	0.84694	9.1281 ppb	0.84694	9.28%
Na 589.592 Radial†	1592.6	558.01 ug/L	17.008	558.01 ppb	17.008	3.05%
Ni 231.604†	607.1	19.325 ug/L	0.0878	19.325 ppb	0.0878	0.45%
P 214.914†	633.8	424.53 ug/L	13.091	424.53 ppb	13.091	3.08%
Pb 220.353†	1882.6	282.04 ug/L	1.425	282.04 ppb	1.425	0.51%
S 181.975 Axial†	23.4	41.006 ug/L	9.1790	41.006 ppb	9.1790	22.38%
Sb 206.836†	15.8	-0.6323 ug/L	2.59616	-0.6323 ppb	2.59616	410.62%
Se 196.026†	-278.0	-40.409 ug/L	0.2490	-40.409 ppb	0.2490	0.62%
Si 251.611†	121058.8	4555.8 ug/L	21.16	4555.8 ppb	21.16	0.46%
Sn 189.927†	36.1	4.7614 ug/L	0.67236	4.7614 ppb	0.67236	14.12%
Sr 421.552†	2695.7	20.576 ug/L	0.1676	20.576 ppb	0.1676	0.81%
Ti 334.940†	1163860.6	2011.6 ug/L	1.99	2011.6 ppb	1.99	0.10%
Tl 190.801†	-75.2	-1.2021 ug/L	3.02026	-1.2021 ppb	3.02026	251.26%
U 409.014†	-8677.2	-269.61 ug/L	3.451	-269.61 ppb	3.451	1.28%
V 292.402†	4728.4	25.652 ug/L	0.3340	25.652 ppb	0.3340	1.30%
Zn 213.857†	29064.1	341.15 ug/L	2.616	341.15 ppb	2.616	0.77%
SiO2†	124176.1	9944.2 ug/L	174.78	9944.2 ppb	174.78	1.76%

Sequence No.: 6

Autosampler Location: 41

Sample ID: 247123002|954660|1

Date Collected: 3/17/2010 12:50:51

Analyst: HSC

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: 247123002|954660|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4355.0	4355.0	94.9 %		12:53:04
1	Y RADIAL	6582.4	6582.4	133.4 %		12:52:44
1	Al 396.153Radial†	2312.7	2522.1	2369.4 ug/L	2369.4 ppb	12:52:44
1	Ca 317.933Radial†	1230.0	1267.8	2241.0 ug/L	2241.0 ppb	12:53:04
1	Fe 238.204 Radial†	6254.8	6581.0	68952 ug/L	68952 ppb	12:52:44
1	K 766.490 Radial†	8099.5	5976.3	1143.0 ug/L	1143.0 ppb	12:52:44
1	Mg 279.077 IEC†	38.8	40.8	1480.8 ug/L	1480.8 ppb	12:53:04
1	Na 589.592 Radial†	2091.3	3008.1	1054.0 ug/L	1054.0 ppb	12:52:44
1	Sr 421.552†	1514.0	1569.1	11.970 ug/L	11.970 ppb	12:52:44
1	Sc 361.383	829802.9	829802.9	102.08 %		12:54:01
1	Y 371.029	934336.0	934336.0	135.52 %		12:54:01
1	Ag 328.068†	-3818.8	-3951.8	1.3837 ug/L	1.3837 ppb	12:54:06
1	As 188.979†	-17.3	0.1	43.647 ug/L	43.647 ppb	12:54:27
1	B 249.677†	-97.8	319.5	-2.2854 ug/L	-2.2854 ppb	12:54:06
1	Ba 233.527†	9639.0	9430.5	90.421 ug/L	90.421 ppb	12:54:06
1	Be 313.107†	-18370.1	-14267.5	1.1173 ug/L	1.1173 ppb	12:54:06
1	Cd 226.502†	353.2	522.3	0.3969 ug/L	0.3969 ppb	12:54:27
1	Co 228.616†	371.6	403.9	2.9566 ug/L	2.9566 ppb	12:54:27
1	Cr 267.716†	2183.6	2059.7	35.124 ug/L	35.124 ppb	12:54:06
1	Cu 324.752†	6731.1	1128.0	7.5383 ug/L	7.5383 ppb	12:54:06
1	Mn 257.610†	1491654.1	1460769.9	1930.0 ug/L	1930.0 ppb	12:54:01
1	Mo 202.031†	413.0	391.8	39.830 ug/L	39.830 ppb	12:54:27
1	Ni 231.604†	361.5	272.7	8.6766 ug/L	8.6766 ppb	12:54:27
1	P 214.914†	1022.8	818.0	560.54 ug/L	560.54 ppb	12:54:27
1	Pb 220.353†	635.5	665.4	93.487 ug/L	93.487 ppb	12:54:27
1	S 181.975 Axial†	69.9	38.3	67.977 ug/L	67.977 ppb	12:54:27
1	Sb 206.836†	48.1	22.6	-0.8212 ug/L	-0.8212 ppb	12:54:27
1	Se 196.026†	-312.3	-287.2	-39.237 ug/L	-39.237 ppb	12:54:27
1	Si 251.611†	78047.8	75962.5	2858.3 ug/L	2858.3 ppb	12:54:06
1	Sn 189.927†	99.8	89.8	16.658 ug/L	16.658 ppb	12:54:27
1	Ti 334.940†	1874138.6	1837114.7	3175.1 ug/L	3175.1 ppb	12:54:01
1	Tl 190.801†	-126.3	-91.9	0.0235 ug/L	0.0235 ppb	12:54:27
1	U 409.014†	-11585.3	-9268.7	-287.85 ug/L	-287.85 ppb	12:54:01
1	V 292.402†	3388.3	4637.2	23.612 ug/L	23.612 ppb	12:54:06
1	Zn 213.857†	34832.1	33506.6	394.41 ug/L	394.41 ppb	12:54:06
1	SiO2†	80120.0	77995.4	6245.1 ug/L	6245.1 ppb	12:55:34
2	Sc Radial	4357.0	4357.0	95.0 %		12:53:29
2	Y RADIAL	6589.9	6589.9	133.6 %		12:53:09
2	Al 396.153Radial†	2355.9	2566.4	2411.0 ug/L	2411.0 ppb	12:53:09
2	Ca 317.933Radial†	1227.5	1264.6	2235.3 ug/L	2235.3 ppb	12:53:29
2	Fe 238.204 Radial†	6288.9	6613.8	69296 ug/L	69296 ppb	12:53:09
2	K 766.490 Radial†	8087.2	5959.4	1139.7 ug/L	1139.7 ppb	12:53:09
2	Mg 279.077 IEC†	37.8	39.8	1440.6 ug/L	1440.6 ppb	12:53:29
2	Na 589.592 Radial†	2063.2	2977.4	1043.3 ug/L	1043.3 ppb	12:53:09
2	Sr 421.552†	1500.9	1554.5	11.859 ug/L	11.859 ppb	12:53:09
2	Sc 361.383	829181.4	829181.4	102.00 %		12:54:32
2	Y 371.029	933801.2	933801.2	135.44 %		12:54:32
2	Ag 328.068†	-3899.7	-4033.8	1.0728 ug/L	1.0728 ppb	12:54:37
2	As 188.979†	-17.0	0.4	43.870 ug/L	43.870 ppb	12:54:57
2	B 249.677†	-140.1	278.0	-3.5041 ug/L	-3.5041 ppb	12:54:37
2	Ba 233.527†	9805.9	9601.2	92.031 ug/L	92.031 ppb	12:54:37
2	Be 313.107†	-18596.5	-14503.0	1.0129 ug/L	1.0129 ppb	12:54:37
2	Cd 226.502†	366.0	535.1	0.5461 ug/L	0.5461 ppb	12:54:57
2	Co 228.616†	371.8	404.4	2.9705 ug/L	2.9705 ppb	12:54:57
2	Cr 267.716†	2215.0	2092.0	35.596 ug/L	35.596 ppb	12:54:37
2	Cu 324.752†	6955.8	1353.2	8.3035 ug/L	8.3035 ppb	12:54:37
2	Mn 257.610†	1490546.0	1460778.9	1930.1 ug/L	1930.1 ppb	12:54:32
2	Mo 202.031†	423.1	402.0	40.755 ug/L	40.755 ppb	12:54:57
2	Ni 231.604†	367.5	278.9	8.8727 ug/L	8.8727 ppb	12:54:57

2	P 214.914†	1022.0	818.1	560.16 ug/L	560.16 ppb	12:54:57
2	Pb 220.353†	638.4	668.7	93.961 ug/L	93.961 ppb	12:54:57
2	S 181.975 Axial†	65.0	33.6	59.452 ug/L	59.452 ppb	12:54:57
2	Sb 206.836†	44.1	18.7	-2.4192 ug/L	-2.4192 ppb	12:54:57
2	Se 196.026†	-307.2	-282.4	-34.261 ug/L	-34.261 ppb	12:54:57
2	Si 251.611†	79639.0	77579.8	2919.1 ug/L	2919.1 ppb	12:54:37
2	Sn 189.927†	96.3	86.4	15.874 ug/L	15.874 ppb	12:54:57
2	Ti 334.940†	1871709.3	1836109.3	3173.4 ug/L	3173.4 ppb	12:54:32
2	Tl 190.801†	-111.3	-77.3	5.6461 ug/L	5.6461 ppb	12:54:57
2	U 409.014†	-11668.9	-9359.2	-290.62 ug/L	-290.62 ppb	12:54:32
2	V 292.402†	3446.5	4696.6	24.045 ug/L	24.045 ppb	12:54:37
2	Zn 213.857†	35652.2	34336.3	404.38 ug/L	404.38 ppb	12:54:37
2	SiO2†	79182.0	77134.6	6176.2 ug/L	6176.2 ppb	12:55:39
3	Sc Radial	4332.8	4332.8	94.4 %		12:53:54
3	Y RADIAL	6587.7	6587.7	133.5 %		12:53:34
3	Al 396.153Radial†	2327.7	2550.4	2396.0 ug/L	2396.0 ppb	12:53:34
3	Ca 317.933Radial†	1213.8	1257.3	2222.4 ug/L	2222.4 ppb	12:53:54
3	Fe 238.204 Radial†	6247.1	6606.5	69219 ug/L	69219 ppb	12:53:34
3	K 766.490 Radial†	8049.8	5967.3	1141.3 ug/L	1141.3 ppb	12:53:34
3	Mg 279.077 IEC†	35.5	37.5	1355.3 ug/L	1355.3 ppb	12:53:54
3	Na 589.592 Radial†	2005.4	2928.4	1026.1 ug/L	1026.1 ppb	12:53:34
3	Sr 421.552†	1490.2	1552.0	11.840 ug/L	11.840 ppb	12:53:34
3	Sc 361.383	824609.1	824609.1	101.44 %		12:55:03
3	Y 371.029	927970.8	927970.8	134.60 %		12:55:03
3	Ag 328.068†	-3833.9	-3990.2	1.2734 ug/L	1.2734 ppb	12:55:08
3	As 188.979†	-19.6	-2.3	42.379 ug/L	42.379 ppb	12:55:28
3	B 249.677†	-63.9	352.3	-1.4108 ug/L	-1.4108 ppb	12:55:08
3	Ba 233.527†	9741.8	9591.3	91.936 ug/L	91.936 ppb	12:55:08
3	Be 313.107†	-18483.0	-14492.1	1.0249 ug/L	1.0249 ppb	12:55:08
3	Cd 226.502†	363.8	535.0	0.5523 ug/L	0.5523 ppb	12:55:28
3	Co 228.616†	371.0	405.6	2.9934 ug/L	2.9934 ppb	12:55:28
3	Cr 267.716†	2198.8	2088.2	35.536 ug/L	35.536 ppb	12:55:08
3	Cu 324.752†	6850.7	1287.4	8.0810 ug/L	8.0810 ppb	12:55:08
3	Mn 257.610†	1482988.7	1461431.5	1930.9 ug/L	1930.9 ppb	12:55:03
3	Mo 202.031†	409.8	391.2	39.800 ug/L	39.800 ppb	12:55:28
3	Ni 231.604†	372.4	285.7	9.0888 ug/L	9.0888 ppb	12:55:28
3	P 214.914†	1025.6	827.2	567.12 ug/L	567.12 ppb	12:55:28
3	Pb 220.353†	633.3	667.1	93.721 ug/L	93.721 ppb	12:55:28
3	S 181.975 Axial†	62.6	31.6	55.921 ug/L	55.921 ppb	12:55:28
3	Sb 206.836†	51.3	26.0	0.5786 ug/L	0.5786 ppb	12:55:28
3	Se 196.026†	-303.3	-280.2	-32.686 ug/L	-32.686 ppb	12:55:28
3	Si 251.611†	79200.2	77580.1	2919.1 ug/L	2919.1 ppb	12:55:08
3	Sn 189.927†	101.1	91.7	17.075 ug/L	17.075 ppb	12:55:28
3	Ti 334.940†	1863293.0	1837987.0	3176.6 ug/L	3176.6 ppb	12:55:03
3	Tl 190.801†	-120.9	-87.4	1.7774 ug/L	1.7774 ppb	12:55:28
3	U 409.014†	-11573.3	-9328.3	-289.68 ug/L	-289.68 ppb	12:55:03
3	V 292.402†	3458.7	4727.4	24.286 ug/L	24.286 ppb	12:55:08
3	Zn 213.857†	35237.8	34121.5	401.79 ug/L	401.79 ppb	12:55:08
3	SiO2†	78916.3	77303.1	6189.7 ug/L	6189.7 ppb	12:55:44

Mean Data: 247123002|954660|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	827864.5	101.84 %	0.349			0.34%
Sc Radial	4348.3	94.8 %	0.29			0.31%
Y 371.029	932036.0	135.19 %	0.512			0.38%
Y RADIAL	6586.7	133.5 %	0.08			0.06%
Ag 328.068†	-3991.9	1.2433 ug/L	0.15761	1.2433 ppb	0.15761	12.68%
Al 396.153Radial†	2546.3	2392.1 ug/L	21.07	2392.1 ppb	21.07	0.88%
As 188.979†	-0.6	43.298 ug/L	0.8041	43.298 ppb	0.8041	1.86%
B 249.677†	316.6	-2.4001 ug/L	1.05139	-2.4001 ppb	1.05139	43.81%
Ba 233.527†	9541.0	91.463 ug/L	0.9031	91.463 ppb	0.9031	0.99%
Be 313.107†	-14420.9	1.0517 ug/L	0.05716	1.0517 ppb	0.05716	5.43%
Ca 317.933Radial†	1263.2	2232.9 ug/L	9.51	2232.9 ppb	9.51	0.43%
Cd 226.502†	530.8	0.4984 ug/L	0.08796	0.4984 ppb	0.08796	17.65%
Co 228.616†	404.6	2.9735 ug/L	0.01860	2.9735 ppb	0.01860	0.63%
Cr 267.716†	2080.0	35.419 ug/L	0.2570	35.419 ppb	0.2570	0.73%
Cu 324.752†	1256.2	7.9743 ug/L	0.39359	7.9743 ppb	0.39359	4.94%
Fe 238.204 Radial†	6600.5	69156 ug/L	180.3	69156 ppb	180.3	0.26%
K 766.490 Radial†	5967.7	1141.3 ug/L	1.62	1141.3 ppb	1.62	0.14%

Mg 279.077 IEC†	39.4	1425.6 ug/L	64.09	1425.6 ppb	64.09	4.50%
Mn 257.610†	1460993.4	1930.3 ug/L	0.51	1930.3 ppb	0.51	0.03%
Mo 202.031†	395.0	40.128 ug/L	0.5429	40.128 ppb	0.5429	1.35%
Na 589.592 Radial†	2971.3	1041.1 ug/L	14.08	1041.1 ppb	14.08	1.35%
Ni 231.604†	279.1	8.8794 ug/L	0.20615	8.8794 ppb	0.20615	2.32%
P 214.914†	821.1	562.61 ug/L	3.913	562.61 ppb	3.913	0.70%
Pb 220.353†	667.1	93.723 ug/L	0.2367	93.723 ppb	0.2367	0.25%
S 181.975 Axial†	34.5	61.117 ug/L	6.1980	61.117 ppb	6.1980	10.14%
Sb 206.836†	22.5	-0.8873 ug/L	1.50003	-0.8873 ppb	1.50003	169.07%
Se 196.026†	-283.3	-35.394 ug/L	3.4194	-35.394 ppb	3.4194	9.66%
Si 251.611†	77040.8	2898.8 ug/L	35.14	2898.8 ppb	35.14	1.21%
Sn 189.927†	89.3	16.535 ug/L	0.6095	16.535 ppb	0.6095	3.69%
Sr 421.552†	1558.6	11.890 ug/L	0.0703	11.890 ppb	0.0703	0.59%
Ti 334.940†	1837070.3	3175.0 ug/L	1.63	3175.0 ppb	1.63	0.05%
Tl 190.801†	-85.5	2.4823 ug/L	2.87683	2.4823 ppb	2.87683	115.89%
U 409.014†	-9318.8	-289.38 ug/L	1.410	-289.38 ppb	1.410	0.49%
V 292.402†	4687.1	23.981 ug/L	0.3414	23.981 ppb	0.3414	1.42%
Zn 213.857†	33988.1	400.19 ug/L	5.174	400.19 ppb	5.174	1.29%
SiO2†	77477.7	6203.6 ug/L	36.54	6203.6 ppb	36.54	0.59%

Sequence No.: 7

Sample ID: 247123003|954660|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 42

Date Collected: 3/17/2010 12:57:55

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247123003|954660|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4522.0	4522.0	98.6 %		12:59:48
1	Y RADIAL	6388.0	6388.0	129.5 %		12:59:48
1	Al 396.153Radial†	5145.9	5306.4	4988.2 ug/L	4988.2 ppb	12:59:48
1	Ca 317.933Radial†	2819.7	2832.8	5007.3 ug/L	5007.3 ppb	13:00:08
1	Fe 238.204 Radial†	6777.1	6867.6	71955 ug/L	71955 ppb	12:59:48
1	K 766.490 Radial†	11952.7	9570.4	1830.3 ug/L	1830.3 ppb	12:59:48
1	Mg 279.077 IEC†	61.7	62.5	2302.8 ug/L	2302.8 ppb	13:00:08
1	Na 589.592 Radial†	3298.3	4151.2	1454.5 ug/L	1454.5 ppb	12:59:48
1	Sr 421.552†	2612.8	2625.0	20.016 ug/L	20.016 ppb	12:59:48
1	Sc 361.383	828531.5	828531.5	101.92 %		13:01:06
1	Y 371.029	911699.3	911699.3	132.24 %		13:01:06
1	Ag 328.068†	-4130.4	-4263.2	0.7221 ug/L	0.7221 ppb	13:01:11
1	As 188.979†	-6.7	10.5	43.746 ug/L	43.746 ppb	13:01:31
1	B 249.677†	-65.2	351.4	-1.8819 ug/L	-1.8819 ppb	13:01:11
1	Ba 233.527†	13051.7	12793.5	121.99 ug/L	121.99 ppb	13:01:11
1	Be 313.107†	-14198.3	-10201.9	1.1655 ug/L	1.1655 ppb	13:01:11
1	Cd 226.502†	391.3	560.2	0.6307 ug/L	0.6307 ppb	13:01:31
1	Co 228.616†	373.1	406.0	4.4728 ug/L	4.4728 ppb	13:01:31
1	Cr 267.716†	3226.4	3086.1	49.244 ug/L	49.244 ppb	13:01:11
1	Cu 324.752†	8336.7	2713.4	12.966 ug/L	12.966 ppb	13:01:11
1	Mn 257.610†	1896463.5	1860198.5	2456.2 ug/L	2456.2 ppb	13:01:06
1	Mo 202.031†	112.9	98.0	14.260 ug/L	14.260 ppb	13:01:31
1	Ni 231.604†	485.1	394.6	12.556 ug/L	12.556 ppb	13:01:31
1	P 214.914†	1314.7	1106.0	774.53 ug/L	774.53 ppb	13:01:31
1	Pb 220.353†	1262.7	1281.7	188.69 ug/L	188.69 ppb	13:01:31
1	S 181.975 Axial†	72.2	40.7	71.748 ug/L	71.748 ppb	13:01:31
1	Sb 206.836†	36.0	10.8	-4.0313 ug/L	-4.0313 ppb	13:01:31
1	Se 196.026†	-325.3	-300.4	-40.788 ug/L	-40.788 ppb	13:01:31
1	Si 251.611†	117752.9	115037.1	4329.1 ug/L	4329.1 ppb	13:01:11
1	Sn 189.927†	58.1	49.1	7.8037 ug/L	7.8037 ppb	13:01:31
1	Ti 334.940†	1432934.4	1407036.7	2432.2 ug/L	2432.2 ppb	13:01:06
1	Tl 190.801†	-128.4	-94.2	-4.5102 ug/L	-4.5102 ppb	13:01:31
1	U 409.014†	-12858.3	-10535.1	-326.47 ug/L	-326.47 ppb	13:01:06
1	V 292.402†	3862.7	5107.6	27.293 ug/L	27.293 ppb	13:01:11
1	Zn 213.857†	23597.6	22536.1	261.40 ug/L	261.40 ppb	13:01:11
1	SiO2†	118113.8	115394.1	9240.8 ug/L	9240.8 ppb	13:02:38
2	Sc Radial	4564.7	4564.7	99.5 %		13:00:13
2	Y RADIAL	6511.4	6511.4	132.0 %		13:00:13
2	Al 396.153Radial†	5185.0	5296.7	4979.1 ug/L	4979.1 ppb	13:00:13
2	Ca 317.933Radial†	2844.6	2831.0	5004.2 ug/L	5004.2 ppb	13:00:33
2	Fe 238.204 Radial†	6857.4	6883.9	72125 ug/L	72125 ppb	13:00:13
2	K 766.490 Radial†	11897.2	9401.0	1797.8 ug/L	1797.8 ppb	13:00:13
2	Mg 279.077 IEC†	64.1	64.3	2371.4 ug/L	2371.4 ppb	13:00:33
2	Na 589.592 Radial†	3395.7	4217.8	1477.9 ug/L	1477.9 ppb	13:00:13
2	Sr 421.552†	2595.4	2582.7	19.692 ug/L	19.692 ppb	13:00:13
2	Sc 361.383	821410.5	821410.5	101.04 %		13:01:36
2	Y 371.029	904095.4	904095.4	131.14 %		13:01:36
2	Ag 328.068†	-4024.6	-4193.6	1.1305 ug/L	1.1305 ppb	13:01:42
2	As 188.979†	-21.2	-3.9	35.740 ug/L	35.740 ppb	13:02:02
2	B 249.677†	-61.2	354.8	-1.8143 ug/L	-1.8143 ppb	13:01:42
2	Ba 233.527†	13117.9	12970.0	123.64 ug/L	123.64 ppb	13:01:42
2	Be 313.107†	-14248.0	-10371.9	1.0872 ug/L	1.0872 ppb	13:01:42
2	Cd 226.502†	367.0	539.6	0.3130 ug/L	0.3130 ppb	13:02:02
2	Co 228.616†	384.4	420.2	4.8463 ug/L	4.8463 ppb	13:02:02
2	Cr 267.716†	3192.6	3080.1	49.180 ug/L	49.180 ppb	13:01:42
2	Cu 324.752†	8336.4	2784.1	13.209 ug/L	13.209 ppb	13:01:42
2	Mn 257.610†	1878143.5	1858198.9	2453.6 ug/L	2453.6 ppb	13:01:36
2	Mo 202.031†	107.2	93.3	13.861 ug/L	13.861 ppb	13:02:02
2	Ni 231.604†	437.9	352.0	11.200 ug/L	11.200 ppb	13:02:02

2	P 214.914†	1307.7	1110.3	777.54 ug/L	777.54 ppb	13:02:02
2	Pb 220.353†	1252.2	1282.0	188.71 ug/L	188.71 ppb	13:02:02
2	S 181.975 Axial†	68.7	37.8	66.565 ug/L	66.565 ppb	13:02:02
2	Sb 206.836†	45.0	20.0	-0.1847 ug/L	-0.1847 ppb	13:02:02
2	Se 196.026†	-325.3	-303.2	-42.623 ug/L	-42.623 ppb	13:02:02
2	Si 251.611†	119208.3	117479.1	4421.0 ug/L	4421.0 ppb	13:01:42
2	Sn 189.927†	63.6	54.9	9.1160 ug/L	9.1160 ppb	13:02:02
2	Ti 334.940†	1419139.7	1405573.0	2429.6 ug/L	2429.6 ppb	13:01:36
2	Tl 190.801†	-121.1	-88.0	-2.1740 ug/L	-2.1740 ppb	13:02:02
2	U 409.014†	-12756.1	-10543.3	-326.74 ug/L	-326.74 ppb	13:01:36
2	V 292.402†	3776.0	5054.8	26.844 ug/L	26.844 ppb	13:01:42
2	Zn 213.857†	23543.3	22683.1	263.15 ug/L	263.15 ppb	13:01:42
2	SiO2†	119953.6	118219.6	9467.1 ug/L	9467.1 ppb	13:02:43
3	Sc Radial	4533.5	4533.5	98.8 %		13:00:38
3	Y RADIAL	6450.1	6450.1	130.7 %		13:00:38
3	Al 396.153Radial†	5157.2	5304.6	4986.5 ug/L	4986.5 ppb	13:00:38
3	Ca 317.933Radial†	2824.2	2830.1	5002.4 ug/L	5002.4 ppb	13:00:58
3	Fe 238.204 Radial†	6788.7	6861.9	71895 ug/L	71895 ppb	13:00:38
3	K 766.490 Radial†	11853.5	9439.2	1805.1 ug/L	1805.1 ppb	13:00:38
3	Mg 279.077 IEC†	63.9	64.6	2382.2 ug/L	2382.2 ppb	13:00:58
3	Na 589.592 Radial†	3332.1	4176.9	1463.5 ug/L	1463.5 ppb	13:00:38
3	Sr 421.552†	2574.6	2579.5	19.668 ug/L	19.668 ppb	13:00:38
3	Sc 361.383	835610.9	835610.9	102.79 %		13:02:07
3	Y 371.029	921715.0	921715.0	133.69 %		13:02:07
3	Ag 328.068†	-4123.8	-4222.5	0.9099 ug/L	0.9099 ppb	13:02:12
3	As 188.979†	-9.3	8.0	42.320 ug/L	42.320 ppb	13:02:32
3	B 249.677†	-80.2	337.3	-2.2669 ug/L	-2.2669 ppb	13:02:12
3	Ba 233.527†	13114.6	12746.1	121.54 ug/L	121.54 ppb	13:02:12
3	Be 313.107†	-14340.9	-10222.6	1.1463 ug/L	1.1463 ppb	13:02:12
3	Cd 226.502†	399.7	565.2	0.7095 ug/L	0.7095 ppb	13:02:32
3	Co 228.616†	387.8	417.2	4.7741 ug/L	4.7741 ppb	13:02:32
3	Cr 267.716†	3240.1	3072.6	49.055 ug/L	49.055 ppb	13:02:12
3	Cu 324.752†	8278.5	2587.5	12.545 ug/L	12.545 ppb	13:02:12
3	Mn 257.610†	1905235.1	1852967.4	2446.7 ug/L	2446.7 ppb	13:02:07
3	Mo 202.031†	114.8	98.8	14.329 ug/L	14.329 ppb	13:02:32
3	Ni 231.604†	484.1	389.5	12.396 ug/L	12.396 ppb	13:02:32
3	P 214.914†	1297.4	1078.3	753.78 ug/L	753.78 ppb	13:02:32
3	Pb 220.353†	1241.1	1250.2	183.84 ug/L	183.84 ppb	13:02:32
3	S 181.975 Axial†	70.8	38.7	68.119 ug/L	68.119 ppb	13:02:32
3	Sb 206.836†	37.8	12.2	-3.4049 ug/L	-3.4049 ppb	13:02:32
3	Se 196.026†	-322.0	-294.4	-36.020 ug/L	-36.020 ppb	13:02:32
3	Si 251.611†	118445.2	114731.8	4317.6 ug/L	4317.6 ppb	13:02:12
3	Sn 189.927†	61.0	51.4	8.3339 ug/L	8.3339 ppb	13:02:32
3	Ti 334.940†	1442481.3	1404413.0	2427.6 ug/L	2427.6 ppb	13:02:07
3	Tl 190.801†	-121.1	-86.0	-1.4371 ug/L	-1.4371 ppb	13:02:32
3	U 409.014†	-12881.6	-10451.0	-323.92 ug/L	-323.92 ppb	13:02:07
3	V 292.402†	3868.9	5081.6	27.107 ug/L	27.107 ppb	13:02:12
3	Zn 213.857†	23484.0	22229.4	257.70 ug/L	257.70 ppb	13:02:12
3	SiO2†	117451.3	113767.8	9110.6 ug/L	9110.6 ppb	13:02:48

Mean Data: 247123003|954660|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Conc.	Sample	Std.Dev.	RSD
Sc 361.383	828517.6	101.92	%	0.873				0.86%
Sc Radial	4540.1	99.0	%	0.48				0.49%
Y 371.029	912503.2	132.36	%	1.282				0.97%
Y RADIAL	6449.8	130.7	%	1.25				0.96%
Ag 328.068†	-4226.4	0.9209	ug/L	0.20443	0.9209	ppb	0.20443	22.20%
Al 396.153Radial†	5302.6	4984.6	ug/L	4.83	4984.6	ppb	4.83	0.10%
As 188.979†	4.9	40.602	ug/L	4.2703	40.602	ppb	4.2703	10.52%
B 249.677†	347.8	-1.9877	ug/L	0.24411	-1.9877	ppb	0.24411	12.28%
Ba 233.527†	12836.5	122.39	ug/L	1.107	122.39	ppb	1.107	0.90%
Be 313.107†	-10265.5	1.1330	ug/L	0.04083	1.1330	ppb	0.04083	3.60%
Ca 317.933Radial†	2831.3	5004.6	ug/L	2.46	5004.6	ppb	2.46	0.05%
Cd 226.502†	555.0	0.5511	ug/L	0.20987	0.5511	ppb	0.20987	38.08%
Co 228.616†	414.4	4.6977	ug/L	0.19811	4.6977	ppb	0.19811	4.22%
Cr 267.716†	3079.6	49.160	ug/L	0.0960	49.160	ppb	0.0960	0.20%
Cu 324.752†	2695.0	12.907	ug/L	0.3362	12.907	ppb	0.3362	2.60%
Fe 238.204 Radial†	6871.1	71992	ug/L	119.6	71992	ppb	119.6	0.17%
K 766.490 Radial†	9470.2	1811.1	ug/L	17.03	1811.1	ppb	17.03	0.94%

Mg 279.077 IEC†	63.8	2352.1 ug/L	43.06	2352.1 ppb	43.06	1.83%
Mn 257.610†	1857121.6	2452.1 ug/L	4.92	2452.1 ppb	4.92	0.20%
Mo 202.031†	96.7	14.150 ug/L	0.2528	14.150 ppb	0.2528	1.79%
Na 589.592 Radial†	4182.0	1465.3 ug/L	11.76	1465.3 ppb	11.76	0.80%
Ni 231.604†	378.7	12.051 ug/L	0.7409	12.051 ppb	0.7409	6.15%
P 214.914†	1098.2	768.62 ug/L	12.937	768.62 ppb	12.937	1.68%
Pb 220.353†	1271.3	187.08 ug/L	2.807	187.08 ppb	2.807	1.50%
S 181.975 Axial†	39.1	68.811 ug/L	2.6598	68.811 ppb	2.6598	3.87%
Sb 206.836†	14.4	-2.5403 ug/L	2.06392	-2.5403 ppb	2.06392	81.25%
Se 196.026†	-299.3	-39.810 ug/L	3.4081	-39.810 ppb	3.4081	8.56%
Si 251.611†	115749.4	4355.9 ug/L	56.67	4355.9 ppb	56.67	1.30%
Sn 189.927†	51.8	8.4179 ug/L	0.66015	8.4179 ppb	0.66015	7.84%
Sr 421.552†	2595.7	19.792 ug/L	0.1940	19.792 ppb	0.1940	0.98%
Ti 334.940†	1405674.2	2429.8 ug/L	2.28	2429.8 ppb	2.28	0.09%
Tl 190.801†	-89.4	-2.7071 ug/L	1.60438	-2.7071 ppb	1.60438	59.27%
U 409.014†	-10509.8	-325.71 ug/L	1.554	-325.71 ppb	1.554	0.48%
V 292.402†	5081.3	27.081 ug/L	0.2258	27.081 ppb	0.2258	0.83%
Zn 213.857†	22482.9	260.75 ug/L	2.783	260.75 ppb	2.783	1.07%
SiO2†	115793.8	9272.8 ug/L	180.41	9272.8 ppb	180.41	1.95%

Sequence No.: 8

Sample ID: 247123004|954660|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 43

Date Collected: 3/17/2010 13:04:59

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247123004|954660|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4407.4	4407.4	96.1 %		13:06:51
1	Y RADIAL	6111.2	6111.2	123.9 %		13:06:51
1	Al 396.153Radial†	3432.6	3658.7	3439.3 ug/L	3439.3 ppb	13:06:51
1	Ca 317.933Radial†	1743.4	1786.8	3158.3 ug/L	3158.3 ppb	13:07:11
1	Fe 238.204 Radial†	6529.5	6788.5	71126 ug/L	71126 ppb	13:06:51
1	K 766.490 Radial†	10043.8	7898.7	1510.7 ug/L	1510.7 ppb	13:06:51
1	Mg 279.077 IEC†	53.3	55.4	2035.1 ug/L	2035.1 ppb	13:07:11
1	Na 589.592 Radial†	3363.3	4305.9	1508.7 ug/L	1508.7 ppb	13:06:51
1	Sr 421.552†	1766.1	1812.5	13.823 ug/L	13.823 ppb	13:06:51
1	Sc 361.383	821228.0	821228.0	101.02 %		13:08:09
1	Y 371.029	876410.0	876410.0	127.12 %		13:08:09
1	Ag 328.068†	-3959.5	-4130.1	1.1204 ug/L	1.1204 ppb	13:08:14
1	As 188.979†	-41.3	-23.9	35.444 ug/L	35.444 ppb	13:08:34
1	B 249.677†	-63.0	353.0	-1.7049 ug/L	-1.7049 ppb	13:08:14
1	Ba 233.527†	19231.3	19024.5	180.26 ug/L	180.26 ppb	13:08:14
1	Be 313.107†	-18829.9	-14910.5	2.0440 ug/L	2.0440 ppb	13:08:14
1	Cd 226.502†	387.1	559.5	0.7110 ug/L	0.7110 ppb	13:08:34
1	Co 228.616†	424.7	460.2	3.2607 ug/L	3.2607 ppb	13:08:34
1	Cr 267.716†	1390.7	1297.1	25.112 ug/L	25.112 ppb	13:08:14
1	Cu 324.752†	7471.4	1929.7	10.306 ug/L	10.306 ppb	13:08:14
1	Mn 257.610†	1597256.7	1580563.7	2087.9 ug/L	2087.9 ppb	13:08:09
1	Mo 202.031†	78.2	64.5	11.235 ug/L	11.235 ppb	13:08:34
1	Ni 231.604†	347.5	262.5	8.3511 ug/L	8.3511 ppb	13:08:34
1	P 214.914†	1099.7	904.7	623.68 ug/L	623.68 ppb	13:08:34
1	Pb 220.353†	147.8	189.1	19.868 ug/L	19.868 ppb	13:08:34
1	S 181.975 Axial†	69.5	38.6	68.326 ug/L	68.326 ppb	13:08:34
1	Sb 206.836†	45.6	20.6	-4.2002 ug/L	-4.2002 ppb	13:08:34
1	Se 196.026†	-311.1	-289.2	-34.401 ug/L	-34.401 ppb	13:08:34
1	Si 251.611†	123921.9	122171.3	4597.6 ug/L	4597.6 ppb	13:08:14
1	Sn 189.927†	58.9	50.3	7.8011 ug/L	7.8011 ppb	13:08:34
1	Ti 334.940†	2164047.0	2143264.3	3704.2 ug/L	3704.2 ppb	13:08:09
1	Tl 190.801†	-141.0	-107.8	-0.9333 ug/L	-0.9333 ppb	13:08:34
1	U 409.014†	-11404.6	-9208.4	-286.25 ug/L	-286.25 ppb	13:08:09
1	V 292.402†	3156.1	4441.9	20.786 ug/L	20.786 ppb	13:08:14
1	Zn 213.857†	34480.6	33515.0	394.18 ug/L	394.18 ppb	13:08:14
1	SiO2†	126156.8	124386.5	9961.0 ug/L	9961.0 ppb	13:09:41
2	Sc Radial	4494.2	4494.2	98.0 %		13:07:16
2	Y RADIAL	6155.8	6155.8	124.8 %		13:07:16
2	Al 396.153Radial†	3411.0	3567.6	3353.8 ug/L	3353.8 ppb	13:07:16
2	Ca 317.933Radial†	1759.3	1768.0	3125.1 ug/L	3125.1 ppb	13:07:36
2	Fe 238.204 Radial†	6454.7	6581.0	68952 ug/L	68952 ppb	13:07:16
2	K 766.490 Radial†	10008.4	7660.6	1465.2 ug/L	1465.2 ppb	13:07:16
2	Mg 279.077 IEC†	52.4	53.5	1962.2 ug/L	1962.2 ppb	13:07:36
2	Na 589.592 Radial†	3281.5	4154.7	1455.8 ug/L	1455.8 ppb	13:07:16
2	Sr 421.552†	1755.1	1765.8	13.466 ug/L	13.466 ppb	13:07:16
2	Sc 361.383	823162.4	823162.4	101.26 %		13:08:40
2	Y 371.029	877990.0	877990.0	127.35 %		13:08:40
2	Ag 328.068†	-3874.0	-4036.5	0.9313 ug/L	0.9313 ppb	13:08:45
2	As 188.979†	-46.6	-28.9	32.077 ug/L	32.077 ppb	13:09:05
2	B 249.677†	-157.1	260.2	-3.9504 ug/L	-3.9504 ppb	13:08:45
2	Ba 233.527†	19022.8	18773.8	177.85 ug/L	177.85 ppb	13:08:45
2	Be 313.107†	-18398.7	-14440.9	2.2341 ug/L	2.2341 ppb	13:08:45
2	Cd 226.502†	371.3	543.0	0.6964 ug/L	0.6964 ppb	13:09:05
2	Co 228.616†	427.2	461.7	3.3369 ug/L	3.3369 ppb	13:09:05
2	Cr 267.716†	1388.9	1292.1	24.816 ug/L	24.816 ppb	13:08:45
2	Cu 324.752†	7270.3	1713.6	9.4763 ug/L	9.4763 ppb	13:08:45
2	Mn 257.610†	1600065.7	1579622.3	2086.5 ug/L	2086.5 ppb	13:08:40
2	Mo 202.031†	65.9	52.2	9.9841 ug/L	9.9841 ppb	13:09:05
2	Ni 231.604†	361.3	275.4	8.7616 ug/L	8.7616 ppb	13:09:05

2	P 214.914†	1112.1	914.4	632.84 ug/L	632.84 ppb	13:09:05
2	Pb 220.353†	155.3	196.2	21.252 ug/L	21.252 ppb	13:09:05
2	S 181.975 Axial†	66.1	35.1	62.048 ug/L	62.048 ppb	13:09:05
2	Sb 206.836†	48.3	23.2	-3.1333 ug/L	-3.1333 ppb	13:09:05
2	Se 196.026†	-305.8	-283.2	-35.684 ug/L	-35.684 ppb	13:09:05
2	Si 251.611†	122171.9	120154.8	4521.7 ug/L	4521.7 ppb	13:08:45
2	Sn 189.927†	52.4	43.7	6.4437 ug/L	6.4437 ppb	13:09:05
2	Ti 334.940†	2166477.7	2140630.8	3699.7 ug/L	3699.7 ppb	13:08:40
2	Tl 190.801†	-141.0	-107.4	-0.8441 ug/L	-0.8441 ppb	13:09:05
2	U 409.014†	-11467.9	-9244.3	-287.09 ug/L	-287.09 ppb	13:08:40
2	V 292.402†	3212.3	4490.1	21.474 ug/L	21.474 ppb	13:08:45
2	Zn 213.857†	33981.4	32941.9	387.58 ug/L	387.58 ppb	13:08:45
2	SiO2†	124706.5	122660.8	9822.8 ug/L	9822.8 ppb	13:09:46
3	Sc Radial	4552.2	4552.2	99.2 %		13:07:42
3	Y RADIAL	6262.8	6262.8	126.9 %		13:07:42
3	Al 396.153Radial†	3451.7	3564.4	3350.7 ug/L	3350.7 ppb	13:07:42
3	Ca 317.933Radial†	1747.0	1732.8	3062.9 ug/L	3062.9 ppb	13:08:02
3	Fe 238.204 Radial†	6583.6	6627.0	69434 ug/L	69434 ppb	13:07:42
3	K 766.490 Radial†	10080.8	7603.6	1454.3 ug/L	1454.3 ppb	13:07:42
3	Mg 279.077 IEC†	49.8	50.1	1833.1 ug/L	1833.1 ppb	13:08:02
3	Na 589.592 Radial†	3326.2	4157.2	1456.6 ug/L	1456.6 ppb	13:07:42
3	Sr 421.552†	1768.9	1756.9	13.399 ug/L	13.399 ppb	13:07:42
3	Sc 361.383	827970.4	827970.4	101.85 %		13:09:11
3	Y 371.029	883651.9	883651.9	128.17 %		13:09:11
3	Ag 328.068†	-4035.5	-4172.8	0.3775 ug/L	0.3775 ppb	13:09:16
3	As 188.979†	-43.6	-25.8	33.906 ug/L	33.906 ppb	13:09:36
3	B 249.677†	-116.0	301.4	-2.8739 ug/L	-2.8739 ppb	13:09:16
3	Ba 233.527†	19237.4	18875.5	178.81 ug/L	178.81 ppb	13:09:16
3	Be 313.107†	-19172.3	-15095.0	1.9448 ug/L	1.9448 ppb	13:09:16
3	Cd 226.502†	399.7	568.7	1.0202 ug/L	1.0202 ppb	13:09:36
3	Co 228.616†	420.1	452.3	3.0970 ug/L	3.0970 ppb	13:09:36
3	Cr 267.716†	1397.6	1292.7	24.873 ug/L	24.873 ppb	13:09:16
3	Cu 324.752†	7375.2	1775.0	9.7021 ug/L	9.7021 ppb	13:09:16
3	Mn 257.610†	1606310.3	1576577.5	2082.5 ug/L	2082.5 ppb	13:09:11
3	Mo 202.031†	68.7	54.6	10.225 ug/L	10.225 ppb	13:09:36
3	Ni 231.604†	347.4	259.7	8.2612 ug/L	8.2612 ppb	13:09:36
3	P 214.914†	1108.8	904.8	625.23 ug/L	625.23 ppb	13:09:36
3	Pb 220.353†	171.2	210.9	23.454 ug/L	23.454 ppb	13:09:36
3	S 181.975 Axial†	68.3	36.9	65.210 ug/L	65.210 ppb	13:09:36
3	Sb 206.836†	49.0	23.6	-2.9098 ug/L	-2.9098 ppb	13:09:36
3	Se 196.026†	-307.2	-282.8	-34.004 ug/L	-34.004 ppb	13:09:36
3	Si 251.611†	124727.8	121963.6	4589.8 ug/L	4589.8 ppb	13:09:16
3	Sn 189.927†	64.7	55.6	9.0726 ug/L	9.0726 ppb	13:09:36
3	Ti 334.940†	2176493.9	2138040.8	3695.2 ug/L	3695.2 ppb	13:09:11
3	Tl 190.801†	-136.4	-102.1	1.1484 ug/L	1.1484 ppb	13:09:36
3	U 409.014†	-11359.1	-9071.8	-281.93 ug/L	-281.93 ppb	13:09:11
3	V 292.402†	3244.5	4503.3	21.524 ug/L	21.524 ppb	13:09:16
3	Zn 213.857†	34522.5	33278.2	391.58 ug/L	391.58 ppb	13:09:16
3	SiO2†	127956.7	125136.7	10021 ug/L	10021 ppb	13:09:51

Mean Data: 247123004|954660|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	824120.3	101.38 %	0.427			0.42%
Sc Radial	4484.6	97.8 %	1.59			1.62%
Y 371.029	879350.6	127.55 %	0.552			0.43%
Y RADIAL	6176.6	125.2 %	1.58			1.26%
Ag 328.068†	-4113.1	0.8097 ug/L	0.38605	0.8097 ppb	0.38605	47.68%
Al 396.153Radial†	3596.9	3381.3 ug/L	50.31	3381.3 ppb	50.31	1.49%
As 188.979†	-26.2	33.809 ug/L	1.6853	33.809 ppb	1.6853	4.98%
B 249.677†	304.9	-2.8431 ug/L	1.12307	-2.8431 ppb	1.12307	39.50%
Ba 233.527†	18891.2	178.97 ug/L	1.213	178.97 ppb	1.213	0.68%
Be 313.107†	-14815.5	2.0743 ug/L	0.14704	2.0743 ppb	0.14704	7.09%
Ca 317.933Radial†	1762.5	3115.5 ug/L	48.45	3115.5 ppb	48.45	1.56%
Cd 226.502†	557.1	0.8092 ug/L	0.18291	0.8092 ppb	0.18291	22.60%
Co 228.616†	458.1	3.2315 ug/L	0.12257	3.2315 ppb	0.12257	3.79%
Cr 267.716†	1294.0	24.934 ug/L	0.1572	24.934 ppb	0.1572	0.63%
Cu 324.752†	1806.1	9.8281 ug/L	0.42897	9.8281 ppb	0.42897	4.36%
Fe 238.204 Radial†	6665.5	69837 ug/L	1142.2	69837 ppb	1142.2	1.64%
K 766.490 Radial†	7721.0	1476.7 ug/L	29.96	1476.7 ppb	29.96	2.03%

Mg 279.077 IEC†	53.0	1943.4 ug/L	102.31	1943.4 ppb	102.31	5.26%
Mn 257.610†	1578921.2	2085.7 ug/L	2.80	2085.7 ppb	2.80	0.13%
Mo 202.031†	57.1	10.481 ug/L	0.6639	10.481 ppb	0.6639	6.33%
Na 589.592 Radial†	4206.0	1473.7 ug/L	30.34	1473.7 ppb	30.34	2.06%
Ni 231.604†	265.9	8.4580 ug/L	0.26674	8.4580 ppb	0.26674	3.15%
P 214.914†	907.9	627.25 ug/L	4.905	627.25 ppb	4.905	0.78%
Pb 220.353†	198.7	21.524 ug/L	1.8084	21.524 ppb	1.8084	8.40%
S 181.975 Axial†	36.9	65.195 ug/L	3.1391	65.195 ppb	3.1391	4.81%
Sb 206.836†	22.4	-3.4144 ug/L	0.68957	-3.4144 ppb	0.68957	20.20%
Se 196.026†	-285.1	-34.696 ug/L	0.8777	-34.696 ppb	0.8777	2.53%
Si 251.611†	121429.9	4569.7 ug/L	41.74	4569.7 ppb	41.74	0.91%
Sn 189.927†	49.9	7.7725 ug/L	1.31464	7.7725 ppb	1.31464	16.91%
Sr 421.552†	1778.4	13.563 ug/L	0.2279	13.563 ppb	0.2279	1.68%
Ti 334.940†	2140645.3	3699.7 ug/L	4.51	3699.7 ppb	4.51	0.12%
Tl 190.801†	-105.8	-0.2096 ug/L	1.17696	-0.2096 ppb	1.17696	561.40%
U 409.014†	-9174.8	-285.09 ug/L	2.767	-285.09 ppb	2.767	0.97%
V 292.402†	4478.4	21.261 ug/L	0.4125	21.261 ppb	0.4125	1.94%
Zn 213.857†	33245.0	391.11 ug/L	3.324	391.11 ppb	3.324	0.85%
SiO2†	124061.3	9935.0 ug/L	101.67	9935.0 ppb	101.67	1.02%

Sequence No.: 9

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/17/2010 13:12:02

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	4433.3	4433.3	96.6 %		13:13:55
1	Y RADIAL	4714.9	4714.9	95.55 %		13:13:55
1	Al 396.153Radial†	5087.0	5349.8	5005.2 ug/L	5005.2 ppb	13:13:55
1	Ca 317.933Radial†	2774.2	2842.9	5025.1 ug/L	5025.1 ppb	13:14:15
1	Fe 238.204 Radial†	461.3	469.5	4934.9 ug/L	4934.9 ppb	13:14:15
1	K 766.490 Radial†	28043.5	26463.6	5063.6 ug/L	5063.6 ppb	13:13:55
1	Mg 279.077 IEC†	132.0	136.6	5196.9 ug/L	5196.9 ppb	13:14:15
1	Na 589.592 Radial†	26488.7	28215.5	9886.3 ug/L	9886.3 ppb	13:13:55
1	Sr 421.552†	63934.7	66133.6	505.18 ug/L	505.18 ppb	13:13:55
1	Sc 361.383	809666.5	809666.5	99.599 %		13:15:12
1	Y 371.029	673978.3	673978.3	97.758 %		13:15:12
1	Ag 328.068†	97511.6	97693.9	504.61 ug/L	504.61 ppb	13:15:17
1	As 188.979†	869.1	889.6	499.30 ug/L	499.30 ppb	13:15:37
1	B 249.677†	17099.9	17584.2	489.83 ug/L	489.83 ppb	13:15:17
1	Ba 233.527†	53620.9	53824.4	504.90 ug/L	504.90 ppb	13:15:17
1	Be 313.107†	1173827.4	1182285.6	505.79 ug/L	505.79 ppb	13:15:12
1	Cd 226.502†	34537.9	34853.4	504.90 ug/L	504.90 ppb	13:15:17
1	Co 228.616†	19608.8	19727.7	512.61 ug/L	512.61 ppb	13:15:17
1	Cr 267.716†	37521.1	37592.7	505.78 ug/L	505.78 ppb	13:15:17
1	Cu 324.752†	155133.2	150292.0	497.45 ug/L	497.45 ppb	13:15:17
1	Mn 257.610†	380307.0	381288.3	502.29 ug/L	502.29 ppb	13:15:12
1	Mo 202.031†	5662.9	5672.8	499.30 ug/L	499.30 ppb	13:15:37
1	Ni 231.604†	16070.5	16053.8	510.83 ug/L	510.83 ppb	13:15:17
1	P 214.914†	3506.3	3336.6	2415.8 ug/L	2415.8 ppb	13:15:37
1	Pb 220.353†	3194.4	3250.0	502.86 ug/L	502.86 ppb	13:15:37
1	S 181.975 Axial†	581.7	553.9	987.97 ug/L	987.97 ppb	13:15:37
1	Sb 206.836†	1211.0	1191.4	511.27 ug/L	511.27 ppb	13:15:37
1	Se 196.026†	586.0	607.1	521.09 ug/L	521.09 ppb	13:15:37
1	Si 251.611†	67276.4	67049.2	2517.1 ug/L	2517.1 ppb	13:15:17
1	Sn 189.927†	2200.2	2201.1	496.20 ug/L	496.20 ppb	13:15:37
1	Ti 334.940†	282101.8	284325.7	491.20 ug/L	491.20 ppb	13:15:17
1	Tl 190.801†	1265.2	1302.1	504.63 ug/L	504.63 ppb	13:15:37
1	U 409.014†	14704.2	16844.5	507.03 ug/L	507.03 ppb	13:15:17
1	V 292.402†	61299.3	62863.9	508.93 ug/L	508.93 ppb	13:15:17
1	Zn 213.857†	42828.6	42384.0	507.37 ug/L	507.37 ppb	13:15:17
1	SiO2†	66776.4	66550.1	5315.9 ug/L	5315.9 ppb	13:16:45
2	Sc Radial	4383.2	4383.2	95.5 %		13:14:20
2	Y RADIAL	4704.7	4704.7	95.35 %		13:14:20
2	Al 396.153Radial†	5048.6	5369.9	5024.6 ug/L	5024.6 ppb	13:14:20
2	Ca 317.933Radial†	2743.0	2843.1	5025.5 ug/L	5025.5 ppb	13:14:40
2	Fe 238.204 Radial†	450.2	463.4	4870.1 ug/L	4870.1 ppb	13:14:40
2	K 766.490 Radial†	27804.1	26544.9	5079.1 ug/L	5079.1 ppb	13:14:20
2	Mg 279.077 IEC†	130.6	136.6	5199.1 ug/L	5199.1 ppb	13:14:40
2	Na 589.592 Radial†	26320.8	28353.2	9934.6 ug/L	9934.6 ppb	13:14:20
2	Sr 421.552†	63277.6	66202.5	505.71 ug/L	505.71 ppb	13:14:20
2	Sc 361.383	819711.0	819711.0	100.83 %		13:15:43
2	Y 371.029	682766.0	682766.0	99.033 %		13:15:43
2	Ag 328.068†	99405.4	98372.3	508.07 ug/L	508.07 ppb	13:15:48
2	As 188.979†	882.6	892.4	500.86 ug/L	500.86 ppb	13:16:08
2	B 249.677†	17545.7	17815.9	496.32 ug/L	496.32 ppb	13:15:48
2	Ba 233.527†	54264.8	53803.3	504.70 ug/L	504.70 ppb	13:15:48
2	Be 313.107†	1186055.2	1179970.6	504.81 ug/L	504.81 ppb	13:15:43
2	Cd 226.502†	34944.2	34831.5	504.59 ug/L	504.59 ppb	13:15:48
2	Co 228.616†	19895.6	19770.8	513.70 ug/L	513.70 ppb	13:15:48
2	Cr 267.716†	37986.9	37593.0	505.78 ug/L	505.78 ppb	13:15:48
2	Cu 324.752†	158908.9	152127.9	503.51 ug/L	503.51 ppb	13:15:48
2	Mn 257.610†	383888.7	380161.5	500.80 ug/L	500.80 ppb	13:15:43
2	Mo 202.031†	5602.3	5543.1	487.89 ug/L	487.89 ppb	13:16:08
2	Ni 231.604†	16326.0	16109.5	512.60 ug/L	512.60 ppb	13:15:48

2	P 214.914†	3460.7	3248.1	2347.9 ug/L	2347.9 ppb	13:16:08
2	Pb 220.353†	3153.7	3170.4	490.55 ug/L	490.55 ppb	13:16:08
2	S 181.975 Axial†	577.9	542.9	968.44 ug/L	968.44 ppb	13:16:08
2	Sb 206.836†	1212.2	1177.7	505.20 ug/L	505.20 ppb	13:16:08
2	Se 196.026†	579.3	593.3	509.42 ug/L	509.42 ppb	13:16:08
2	Si 251.611†	68467.1	67402.4	2530.6 ug/L	2530.6 ppb	13:15:48
2	Sn 189.927†	2180.5	2154.5	485.72 ug/L	485.72 ppb	13:16:08
2	Ti 334.940†	286831.6	285545.6	493.30 ug/L	493.30 ppb	13:15:48
2	Tl 190.801†	1263.7	1285.0	498.08 ug/L	498.08 ppb	13:16:08
2	U 409.014†	15158.2	17113.7	515.17 ug/L	515.17 ppb	13:15:48
2	V 292.402†	62351.2	63153.0	511.10 ug/L	511.10 ppb	13:15:48
2	Zn 213.857†	43473.1	42496.2	508.72 ug/L	508.72 ppb	13:15:48
2	SiO2†	67618.4	66563.6	5317.3 ug/L	5317.3 ppb	13:16:50
3	Sc Radial	4207.6	4207.6	91.7 %		13:14:45
3	Y RADIAL	4532.8	4532.8	91.86 %		13:14:45
3	Al 396.153Radial†	4888.4	5415.7	5067.4 ug/L	5067.4 ppb	13:14:45
3	Ca 317.933Radial†	2746.3	2966.4	5243.5 ug/L	5243.5 ppb	13:15:05
3	Fe 238.204 Radial†	456.2	489.5	5143.7 ug/L	5143.7 ppb	13:15:05
3	K 766.490 Radial†	27173.9	27071.9	5180.0 ug/L	5180.0 ppb	13:14:45
3	Mg 279.077 IEC†	126.5	137.9	5246.0 ug/L	5246.0 ppb	13:15:05
3	Na 589.592 Radial†	25355.6	28450.3	9968.6 ug/L	9968.6 ppb	13:14:45
3	Sr 421.552†	60927.0	66402.9	507.23 ug/L	507.23 ppb	13:14:45
3	Sc 361.383	818756.7	818756.7	100.72 %		13:16:14
3	Y 371.029	682059.8	682059.8	98.930 %		13:16:14
3	Ag 328.068†	97354.2	96450.6	498.26 ug/L	498.26 ppb	13:16:19
3	As 188.979†	890.1	900.8	505.55 ug/L	505.55 ppb	13:16:39
3	B 249.677†	17087.3	17381.0	484.14 ug/L	484.14 ppb	13:16:19
3	Ba 233.527†	53378.4	52985.9	497.04 ug/L	497.04 ppb	13:16:19
3	Be 313.107†	1187164.4	1182443.0	505.84 ug/L	505.84 ppb	13:16:14
3	Cd 226.502†	34418.7	34350.1	497.58 ug/L	497.58 ppb	13:16:19
3	Co 228.616†	19499.2	19400.2	504.11 ug/L	504.11 ppb	13:16:19
3	Cr 267.716†	37327.7	36982.4	497.60 ug/L	497.60 ppb	13:16:19
3	Cu 324.752†	154785.3	148217.3	490.59 ug/L	490.59 ppb	13:16:19
3	Mn 257.610†	383953.9	380669.9	501.49 ug/L	501.49 ppb	13:16:14
3	Mo 202.031†	5675.6	5622.4	494.89 ug/L	494.89 ppb	13:16:39
3	Ni 231.604†	15986.4	15791.2	502.47 ug/L	502.47 ppb	13:16:19
3	P 214.914†	3506.7	3297.9	2387.8 ug/L	2387.8 ppb	13:16:39
3	Pb 220.353†	3214.3	3234.2	500.40 ug/L	500.40 ppb	13:16:39
3	S 181.975 Axial†	591.0	556.7	992.94 ug/L	992.94 ppb	13:16:39
3	Sb 206.836†	1219.0	1185.8	508.82 ug/L	508.82 ppb	13:16:39
3	Se 196.026†	584.7	599.4	515.27 ug/L	515.27 ppb	13:16:39
3	Si 251.611†	66954.7	65979.9	2476.9 ug/L	2476.9 ppb	13:16:19
3	Sn 189.927†	2214.3	2190.6	493.86 ug/L	493.86 ppb	13:16:39
3	Ti 334.940†	281021.4	280108.4	483.94 ug/L	483.94 ppb	13:16:19
3	Tl 190.801†	1272.5	1295.2	501.98 ug/L	501.98 ppb	13:16:39
3	U 409.014†	14717.7	16694.0	502.48 ug/L	502.48 ppb	13:16:19
3	V 292.402†	61143.2	62025.6	502.14 ug/L	502.14 ppb	13:16:19
3	Zn 213.857†	42796.4	41874.7	501.25 ug/L	501.25 ppb	13:16:19
3	SiO2†	66893.5	65922.1	5265.7 ug/L	5265.7 ppb	13:16:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	816044.7	100.38 %	0.682			0.68%
Sc Radial	4341.4	94.6 %	2.58			2.73%
Y 371.029	679601.4	98.574 %	0.7082			0.72%
Y RADIAL	4650.8	94.25 %	2.074			2.20%
Ag 328.068†	97505.6	503.65 ug/L	4.975	503.65 ppb	4.975	0.99%
QC value within limits for Ag 328.068 Recovery = 100.73%						
Al 396.153Radial†	5378.4	5032.4 ug/L	31.80	5032.4 ppb	31.80	0.63%
QC value within limits for Al 396.153Radial Recovery = 100.65%						
As 188.979†	894.3	501.90 ug/L	3.253	501.90 ppb	3.253	0.65%
QC value within limits for As 188.979 Recovery = 100.38%						
B 249.677†	17593.7	490.10 ug/L	6.098	490.10 ppb	6.098	1.24%
QC value within limits for B 249.677 Recovery = 98.02%						
Ba 233.527†	53537.9	502.21 ug/L	4.480	502.21 ppb	4.480	0.89%
QC value within limits for Ba 233.527 Recovery = 100.44%						
Be 313.107†	1181566.4	505.48 ug/L	0.583	505.48 ppb	0.583	0.12%
QC value within limits for Be 313.107 Recovery = 101.10%						
Ca 317.933Radial†	2884.1	5098.0 ug/L	125.96	5098.0 ppb	125.96	2.47%

QC value within limits for Ca 317.933 Radial Recovery = 101.96%

Cd 226.502†	34678.3	502.36 ug/L	4.140	502.36 ppb	4.140	0.82%
QC value within limits for Cd 226.502 Recovery = 100.47%						
Co 228.616†	19632.9	510.14 ug/L	5.254	510.14 ppb	5.254	1.03%
QC value within limits for Co 228.616 Recovery = 102.03%						
Cr 267.716†	37389.4	503.05 ug/L	4.722	503.05 ppb	4.722	0.94%
QC value within limits for Cr 267.716 Recovery = 100.61%						
Cu 324.752†	150212.4	497.18 ug/L	6.465	497.18 ppb	6.465	1.30%
QC value within limits for Cu 324.752 Recovery = 99.44%						
Fe 238.204 Radial†	474.1	4982.9 ug/L	142.98	4982.9 ppb	142.98	2.87%
QC value within limits for Fe 238.204 Radial Recovery = 99.66%						
K 766.490 Radial†	26693.5	5107.6 ug/L	63.22	5107.6 ppb	63.22	1.24%
QC value within limits for K 766.490 Radial Recovery = 102.15%						
Mg 279.077 IEC†	137.0	5214.0 ug/L	27.75	5214.0 ppb	27.75	0.53%
QC value within limits for Mg 279.077 IEC Recovery = 104.28%						
Mn 257.610†	380706.6	501.52 ug/L	0.746	501.52 ppb	0.746	0.15%
QC value within limits for Mn 257.610 Recovery = 100.30%						
Mo 202.031†	5612.8	494.03 ug/L	5.754	494.03 ppb	5.754	1.16%
QC value within limits for Mo 202.031 Recovery = 98.81%						
Na 589.592 Radial†	28339.7	9929.8 ug/L	41.35	9929.8 ppb	41.35	0.42%
QC value within limits for Na 589.592 Radial Recovery = 99.30%						
Ni 231.604†	15984.8	508.63 ug/L	5.409	508.63 ppb	5.409	1.06%
QC value within limits for Ni 231.604 Recovery = 101.73%						
P 214.914†	3294.2	2383.8 ug/L	34.11	2383.8 ppb	34.11	1.43%
QC value within limits for P 214.914 Recovery = 95.35%						
Pb 220.353†	3218.2	497.94 ug/L	6.510	497.94 ppb	6.510	1.31%
QC value within limits for Pb 220.353 Recovery = 99.59%						
S 181.975 Axial†	551.1	983.12 ug/L	12.954	983.12 ppb	12.954	1.32%
QC value within limits for S 181.975 Axial Recovery = 98.31%						
Sb 206.836†	1184.9	508.43 ug/L	3.050	508.43 ppb	3.050	0.60%
QC value within limits for Sb 206.836 Recovery = 101.69%						
Se 196.026†	599.9	515.26 ug/L	5.832	515.26 ppb	5.832	1.13%
QC value within limits for Se 196.026 Recovery = 103.05%						
Si 251.611†	66810.5	2508.2 ug/L	27.90	2508.2 ppb	27.90	1.11%
QC value within limits for Si 251.611 Recovery = 100.33%						
Sn 189.927†	2182.1	491.93 ug/L	5.505	491.93 ppb	5.505	1.12%
QC value within limits for Sn 189.927 Recovery = 98.39%						
Sr 421.552†	66246.3	506.04 ug/L	1.068	506.04 ppb	1.068	0.21%
QC value within limits for Sr 421.552 Recovery = 101.21%						
Ti 334.940†	283326.5	489.48 ug/L	4.912	489.48 ppb	4.912	1.00%
QC value within limits for Ti 334.940 Recovery = 97.90%						
Tl 190.801†	1294.1	501.56 ug/L	3.296	501.56 ppb	3.296	0.66%
QC value within limits for Tl 190.801 Recovery = 100.31%						
U 409.014†	16884.1	508.23 ug/L	6.429	508.23 ppb	6.429	1.26%
QC value within limits for U 409.014 Recovery = 101.65%						
V 292.402†	62680.9	507.39 ug/L	4.673	507.39 ppb	4.673	0.92%
QC value within limits for V 292.402 Recovery = 101.48%						
Zn 213.857†	42251.6	505.78 ug/L	3.980	505.78 ppb	3.980	0.79%
QC value within limits for Zn 213.857 Recovery = 101.16%						
SiO2†	66345.2	5299.6 ug/L	29.38	5299.6 ppb	29.38	0.55%
QC value within limits for SiO2 Recovery = 99.10%						

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/17/2010 13:19:05

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4299.3	4299.3	93.7 %		13:21:18
1	Y RADIAL	4747.7	4747.7	96.22 %		13:20:58
1	Al 396.153Radial†	-71.1	10.0	9.4036 ug/L	9.4036 ppb	13:21:18
1	Ca 317.933Radial†	17.7	-9.0	-15.861 ug/L	-15.861 ppb	13:21:18
1	Fe 238.204 Radial†	9.8	2.6	26.719 ug/L	26.719 ppb	13:21:18
1	K 766.490 Radial†	2671.7	295.1	56.562 ug/L	56.562 ppb	13:20:58
1	Mg 279.077 IEC†	3.6	3.8	142.82 ug/L	142.82 ppb	13:21:18
1	Na 589.592 Radial†	-949.8	-208.4	-73.020 ug/L	-73.020 ppb	13:20:58
1	Sr 421.552†	31.7	8.0	0.0616 ug/L	0.0616 ppb	13:20:58
1	Sc 361.383	775115.8	775115.8	95.349 %		13:22:15
1	Y 371.029	655272.0	655272.0	95.045 %		13:22:15
1	Ag 328.068†	133.7	-70.4	-0.3493 ug/L	-0.3493 ppb	13:22:15
1	As 188.979†	-19.5	-3.4	-1.8867 ug/L	-1.8867 ppb	13:22:35
1	B 249.677†	-321.4	78.3	2.1864 ug/L	2.1864 ppb	13:22:35
1	Ba 233.527†	-3.1	-15.7	-0.1479 ug/L	-0.1479 ppb	13:22:35
1	Be 313.107†	-3745.5	-199.2	-0.0852 ug/L	-0.0852 ppb	13:22:15
1	Cd 226.502†	-160.3	8.2	0.1154 ug/L	0.1154 ppb	13:22:35
1	Co 228.616†	-44.7	-7.0	-0.1826 ug/L	-0.1826 ppb	13:22:35
1	Cr 267.716†	86.7	11.4	0.1586 ug/L	0.1586 ppb	13:22:35
1	Cu 324.752†	5230.0	18.9	0.0685 ug/L	0.0685 ppb	13:22:15
1	Mn 257.610†	423.2	-107.1	-0.1442 ug/L	-0.1442 ppb	13:22:35
1	Mo 202.031†	9.5	-2.9	-0.2510 ug/L	-0.2510 ppb	13:22:35
1	Ni 231.604†	100.8	24.3	0.7736 ug/L	0.7736 ppb	13:22:35
1	P 214.914†	180.2	5.1	3.8114 ug/L	3.8114 ppb	13:22:35
1	Pb 220.353†	-55.6	-15.5	-2.4015 ug/L	-2.4015 ppb	13:22:35
1	S 181.975 Axial†	30.7	2.1	3.7082 ug/L	3.7082 ppb	13:22:35
1	Sb 206.836†	26.9	3.7	1.5343 ug/L	1.5343 ppb	13:22:35
1	Se 196.026†	-23.3	-5.7	-4.6303 ug/L	-4.6303 ppb	13:22:35
1	Si 251.611†	472.1	-3.1	-0.1147 ug/L	-0.1147 ppb	13:22:35
1	Sn 189.927†	14.3	7.0	1.5827 ug/L	1.5827 ppb	13:22:35
1	Ti 334.940†	-1072.6	-37.6	-0.0753 ug/L	-0.0753 ppb	13:22:15
1	Tl 190.801†	-30.0	0.4	0.1374 ug/L	0.1374 ppb	13:22:35
1	U 409.014†	-2239.9	-268.1	-8.1013 ug/L	-8.1013 ppb	13:22:15
1	V 292.402†	-1344.5	-92.4	-0.7585 ug/L	-0.7585 ppb	13:22:15
1	Zn 213.857†	604.1	16.5	0.1900 ug/L	0.1900 ppb	13:22:35
1	SiO2†	510.6	40.2	3.2256 ug/L	3.2256 ppb	13:23:46
2	Sc Radial	4328.9	4328.9	94.4 %		13:21:43
2	Y RADIAL	4766.8	4766.8	96.61 %		13:21:23
2	Al 396.153Radial†	-85.7	-5.0	-4.6762 ug/L	-4.6762 ppb	13:21:43
2	Ca 317.933Radial†	13.2	-13.9	-24.567 ug/L	-24.567 ppb	13:21:43
2	Fe 238.204 Radial†	7.9	0.5	5.1039 ug/L	5.1039 ppb	13:21:43
2	K 766.490 Radial†	2527.8	123.1	23.622 ug/L	23.622 ppb	13:21:23
2	Mg 279.077 IEC†	0.5	0.5	18.442 ug/L	18.442 ppb	13:21:43
2	Na 589.592 Radial†	-971.0	-223.9	-78.456 ug/L	-78.456 ppb	13:21:23
2	Sr 421.552†	6.9	-18.4	-0.1407 ug/L	-0.1407 ppb	13:21:23
2	Sc 361.383	805460.4	805460.4	99.081 %		13:22:40
2	Y 371.029	682217.2	682217.2	98.953 %		13:22:40
2	Ag 328.068†	217.9	9.3	0.0538 ug/L	0.0538 ppb	13:22:40
2	As 188.979†	-18.2	-1.4	-0.7635 ug/L	-0.7635 ppb	13:23:00
2	B 249.677†	-343.5	68.7	1.9226 ug/L	1.9226 ppb	13:23:00
2	Ba 233.527†	15.3	2.9	0.0263 ug/L	0.0263 ppb	13:23:00
2	Be 313.107†	-3800.4	-106.6	-0.0458 ug/L	-0.0458 ppb	13:22:40
2	Cd 226.502†	-179.9	-5.2	-0.0773 ug/L	-0.0773 ppb	13:23:00
2	Co 228.616†	-52.0	-12.7	-0.3289 ug/L	-0.3289 ppb	13:23:00
2	Cr 267.716†	78.2	-0.6	-0.0054 ug/L	-0.0054 ppb	13:23:00
2	Cu 324.752†	5246.7	-170.9	-0.5616 ug/L	-0.5616 ppb	13:22:40
2	Mn 257.610†	415.5	-131.5	-0.1734 ug/L	-0.1734 ppb	13:23:00
2	Mo 202.031†	12.5	-0.2	-0.0196 ug/L	-0.0196 ppb	13:23:00
2	Ni 231.604†	89.3	8.7	0.2763 ug/L	0.2763 ppb	13:23:00

2	P 214.914†	183.3	1.1	0.9075 ug/L	0.9075 ppb	13:23:00
2	Pb 220.353†	-56.0	-13.7	-2.1141 ug/L	-2.1141 ppb	13:23:00
2	S 181.975 Axial†	28.2	-1.7	-2.9745 ug/L	-2.9745 ppb	13:23:00
2	Sb 206.836†	25.4	1.1	0.4493 ug/L	0.4493 ppb	13:23:00
2	Se 196.026†	-17.7	0.9	0.7407 ug/L	0.7407 ppb	13:23:00
2	Si 251.611†	500.3	6.7	0.2525 ug/L	0.2525 ppb	13:23:00
2	Sn 189.927†	3.8	-4.1	-0.9287 ug/L	-0.9287 ppb	13:23:00
2	Ti 334.940†	-1149.7	-73.1	-0.1280 ug/L	-0.1280 ppb	13:22:40
2	Tl 190.801†	-30.8	0.7	0.2861 ug/L	0.2861 ppb	13:23:00
2	U 409.014†	-2294.6	-234.8	-7.0926 ug/L	-7.0926 ppb	13:22:40
2	V 292.402†	-1359.1	-54.0	-0.4453 ug/L	-0.4453 ppb	13:22:40
2	Zn 213.857†	619.3	7.9	0.0936 ug/L	0.0936 ppb	13:23:00
2	SiO2†	508.6	18.0	1.4407 ug/L	1.4407 ppb	13:24:06
3	Sc Radial	4361.4	4361.4	95.1 %		13:22:08
3	Y RADIAL	4889.2	4889.2	99.09 %		13:21:48
3	Al 396.153Radial†	-82.9	-1.4	-1.3854 ug/L	-1.3854 ppb	13:22:08
3	Ca 317.933Radial†	19.2	-7.6	-13.512 ug/L	-13.512 ppb	13:22:08
3	Fe 238.204 Radial†	10.4	3.1	32.644 ug/L	32.644 ppb	13:22:08
3	K 766.490 Radial†	2613.6	193.4	37.086 ug/L	37.086 ppb	13:21:48
3	Mg 279.077 IEC†	4.1	4.2	159.14 ug/L	159.14 ppb	13:22:08
3	Na 589.592 Radial†	-991.7	-238.0	-83.400 ug/L	-83.400 ppb	13:21:48
3	Sr 421.552†	13.1	-11.9	-0.0911 ug/L	-0.0911 ppb	13:21:48
3	Sc 361.383	768353.4	768353.4	94.517 %		13:23:05
3	Y 371.029	650782.8	650782.8	94.393 %		13:23:05
3	Ag 328.068†	169.7	-31.0	-0.1449 ug/L	-0.1449 ppb	13:23:05
3	As 188.979†	-20.4	-4.6	-2.5392 ug/L	-2.5392 ppb	13:23:25
3	B 249.677†	-365.7	28.4	0.7903 ug/L	0.7903 ppb	13:23:25
3	Ba 233.527†	5.8	-6.4	-0.0607 ug/L	-0.0607 ppb	13:23:25
3	Be 313.107†	-3770.3	-260.0	-0.1113 ug/L	-0.1113 ppb	13:23:05
3	Cd 226.502†	-167.0	-0.4	-0.0109 ug/L	-0.0109 ppb	13:23:25
3	Co 228.616†	-46.5	-9.4	-0.2431 ug/L	-0.2431 ppb	13:23:25
3	Cr 267.716†	93.2	19.0	0.2616 ug/L	0.2616 ppb	13:23:25
3	Cu 324.752†	5267.4	106.7	0.3603 ug/L	0.3603 ppb	13:23:05
3	Mn 257.610†	424.3	-102.0	-0.1375 ug/L	-0.1375 ppb	13:23:25
3	Mo 202.031†	19.5	7.8	0.6899 ug/L	0.6899 ppb	13:23:25
3	Ni 231.604†	66.8	-10.7	-0.3407 ug/L	-0.3407 ppb	13:23:25
3	P 214.914†	168.9	-5.2	-4.0256 ug/L	-4.0256 ppb	13:23:25
3	Pb 220.353†	-60.7	-21.4	-3.3085 ug/L	-3.3085 ppb	13:23:25
3	S 181.975 Axial†	31.0	2.7	4.7454 ug/L	4.7454 ppb	13:23:25
3	Sb 206.836†	19.8	-3.6	-1.5057 ug/L	-1.5057 ppb	13:23:25
3	Se 196.026†	-24.9	-7.6	-6.1863 ug/L	-6.1863 ppb	13:23:25
3	Si 251.611†	485.9	15.9	0.5880 ug/L	0.5880 ppb	13:23:25
3	Sn 189.927†	2.8	-5.0	-1.1238 ug/L	-1.1238 ppb	13:23:25
3	Ti 334.940†	-1104.4	-81.2	-0.1510 ug/L	-0.1510 ppb	13:23:05
3	Tl 190.801†	-22.3	8.3	3.1780 ug/L	3.1780 ppb	13:23:25
3	U 409.014†	-2268.9	-319.5	-9.6538 ug/L	-9.6538 ppb	13:23:05
3	V 292.402†	-1352.1	-112.8	-0.9114 ug/L	-0.9114 ppb	13:23:05
3	Zn 213.857†	609.0	27.2	0.3254 ug/L	0.3254 ppb	13:23:25
3	SiO2†	491.1	24.3	1.9271 ug/L	1.9271 ppb	13:24:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	782976.5	96.316 %	2.4311			2.52%
Sc Radial	4329.9	94.4 %	0.68			0.72%
Y 371.029	662757.3	96.130 %	2.4660			2.57%
Y RADIAL	4801.2	97.30 %	1.555			1.60%
Ag 328.068†	-30.7	-0.1468 ug/L	0.20154	-0.1468 ppb	0.20154	137.32%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	1.2	1.1140 ug/L	7.36519	1.1140 ppb	7.36519	661.15%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-3.1	-1.7298 ug/L	0.89817	-1.7298 ppb	0.89817	51.92%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	58.5	1.6331 ug/L	0.74173	1.6331 ppb	0.74173	45.42%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-6.4	-0.0608 ug/L	0.08711	-0.0608 ppb	0.08711	143.31%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-188.6	-0.0808 ug/L	0.03299	-0.0808 ppb	0.03299	40.84%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-10.2	-17.980 ug/L	5.8239	-17.980 ppb	5.8239	32.39%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd	226.502†	0.9	0.0091 ug/L	0.09791	0.0091 ppb	0.09791	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	-9.7	-0.2515 ug/L	0.07349	-0.2515 ppb	0.07349	29.22%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	10.0	0.1383 ug/L	0.13466	0.1383 ppb	0.13466	97.39%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-15.1	-0.0443 ug/L	0.47116	-0.0443 ppb	0.47116	>999.9%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	2.1	21.489 ug/L	14.4959	21.489 ppb	14.4959	67.46%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	203.8	39.090 ug/L	16.5612	39.090 ppb	16.5612	42.37%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	2.8	106.80 ug/L	76.955	106.80 ppb	76.955	72.05%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	-113.5	-0.1517 ug/L	0.01908	-0.1517 ppb	0.01908	12.57%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	1.6	0.1398 ug/L	0.49029	0.1398 ppb	0.49029	350.82%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	-223.4	-78.292 ug/L	5.1918	-78.292 ppb	5.1918	6.63%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	7.4	0.2364 ug/L	0.55819	0.2364 ppb	0.55819	236.15%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	0.3	0.2311 ug/L	3.96204	0.2311 ppb	3.96204	>999.9%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-16.9	-2.6080 ug/L	0.62343	-2.6080 ppb	0.62343	23.90%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	1.0	1.8264 ug/L	4.18992	1.8264 ppb	4.18992	229.41%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	0.4	0.1593 ug/L	1.54060	0.1593 ppb	1.54060	967.37%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	-4.1	-3.3587 ug/L	3.63438	-3.3587 ppb	3.63438	108.21%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	6.5	0.2419 ug/L	0.35152	0.2419 ppb	0.35152	145.29%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	-0.7	-0.1566 ug/L	1.50944	-0.1566 ppb	1.50944	963.77%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-7.4	-0.0568 ug/L	0.10542	-0.0568 ppb	0.10542	185.70%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-64.0	-0.1181 ug/L	0.03878	-0.1181 ppb	0.03878	32.83%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	3.1	1.2005 ug/L	1.71419	1.2005 ppb	1.71419	142.79%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-274.2	-8.2826 ug/L	1.29015	-8.2826 ppb	1.29015	15.58%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-86.4	-0.7051 ug/L	0.23761	-0.7051 ppb	0.23761	33.70%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	17.2	0.2030 ug/L	0.11642	0.2030 ppb	0.11642	57.34%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		27.5	2.1978 ug/L	0.92271	2.1978 ppb	0.92271	41.98%
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

ICPMS #5 Daily Performance Report

Sample ID: Sample

Sample Date/Time: Sunday, March 14, 2010 11:58:55

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.727

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	4344.7	4344.661	102.190	2.4
Mg	24.0	57874.6	57874.597	279.872	0.5
Co	58.9	95822.5	95822.502	542.987	0.6
Rh	102.9	192187.5	192187.532	550.696	0.3
In	114.9	259301.9	259301.918	2508.171	1.0
Pb	208.0	270867.8	270867.784	2517.185	0.9
[> Ba	137.9	253974.9	253974.928	2526.033	1.0
[Ba++	69.0	4284.8	0.017	0.000	2.7
[> Ce	139.9	311107.6	311107.628	2260.344	0.7
[CeO	155.9	7066.4	0.023	0.001	2.5
Bkgd	220.0	18.9	18.900	4.219	22.3

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
7.25	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	7.0	5122.6
Co	59	13	7.8	92442.1
In	115	13	9.0	252013.1

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	581	2050	0.723
Be	9.0	9.0	2033	2075	0.674
Mg	24.0	24.0	5683	2080	0.619
Mg	25.0	24.9	5935	2080	0.670
Mg	26.0	26.0	6142	2080	0.660
Co	58.9	58.9	14189	2110	0.639
Rh	102.9	102.9	24872	2160	0.661
In	114.9	114.9	27786	2180	0.657
Ce	139.9	139.9	33870	2200	0.668
Pb	206.0	206.0	49948	2295	0.615
Pb	207.0	207.0	50171	2240	0.654
Pb	208.0	208.0	50451	2265	0.710
U	238.1	238.0	57725	2275	0.752

ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Sunday, March 14, 2010 12:03:57

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100314\Blank.001

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		431565	
[Ni	60		ug/L		151	
[> Ge	74		ug/L		473467	
| As	75		ug/L		-363	
| Se	77		ug/L		5749	
| Se	82		ug/L		6	
[Kr	83		ug/L		171	
[> Lu	175		ug/L		550229	
[Tl	205		ug/L		955	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Simple Linear	
Ni	60	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9						
| > Sc	45						
[Ni	60						
[> Ge	74						
| As	75						
| Se	77						
| Se	82						
[Kr	83						
[> Lu	175						
[Tl	205						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Blank

Report Date/Time: Sunday, March 14, 2010 12:04:37

Page 1

ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Sunday, March 14, 2010 12:07:34

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100314\Standard 1.002

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	10.000	ug/L	1.948	4523	0.010
Sc	45		ug/L		432658	432657.677
Ni	60	10.000	ug/L	0.792	20437	0.047
Ge	74		ug/L		480037	480036.526
As	75	10.000	ug/L	4.869	15721	0.034
Se	77		ug/L		6965	0.002
Se	82	10.000	ug/L	5.923	1525	0.003
Kr	83		ug/L		168	-0.000
Lu	175		ug/L		556263	556262.670
Tl	205	10.000	ug/L	2.980	273048	0.489

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

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45					
Ni	60					
Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
Lu	175					
Tl	205					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 1

Report Date/Time: Sunday, March 14, 2010 12:08:11

Page 1

ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Sunday, March 14, 2010 12:11:09

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100314\Standard 2.003

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	100.030	ug/L	1.817	45863	0.107
Sc	45		ug/L		427194	427193.961
Ni	60	99.966	ug/L	3.521	193636	0.453
Ge	74		ug/L		464369	464369.452
As	75	99.978	ug/L	2.284	151950	0.328
Se	77		ug/L		17314	0.025
Se	82	99.979	ug/L	1.921	14406	0.031
Kr	83		ug/L		195	0.000
Lu	175		ug/L		531941	531941.388
Tl	205	99.855	ug/L	1.925	2269710	4.266

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	0.9999

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						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 2

Report Date/Time: Sunday, March 14, 2010 12:11:46

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ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Sunday, March 14, 2010 12:14:44

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Vanl soil.mth

Dataset File: C:\elandata\Dataset\100314\QC Std 1.004

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	50.468	ug/L	3.513	24144	0.054
Sc	45		ug/L		445708	445708.346
Ni	60	51.840	ug/L	1.859	104849	0.235
Ge	74		ug/L		492925	492924.558
As	75	50.438	ug/L	1.081	81195	0.165
Se	77		ug/L		11741	0.012
Se	82	52.520	ug/L	1.443	8037	0.016
Kr	83		ug/L		175	-0.000
Lu	175		ug/L		552470	552469.587
Tl	205	51.232	ug/L	1.069	1210042	2.189

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9	100.937					
Sc	45		103.3				
Ni	60	103.679					
Ge	74		104.1				
As	75	100.877					
Se	77						
Se	82	105.040					
Kr	83						
Lu	175		100.4				
Tl	205	102.464					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 1

Report Date/Time: Sunday, March 14, 2010 12:15:22

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Sunday, March 14, 2010 12:18:22

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100314\QC Std 2.005

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	-0.011	ug/L	50.347	14	-0.000
> Sc	45		ug/L		449249	449249.068
[Ni	60	-0.016	ug/L	11.390	124	-0.000
> Ge	74		ug/L		480501	480500.538
[As	75	-0.008	ug/L	3529.938	-375	-0.000
[Se	77		ug/L		7267	0.003
[Se	82	0.068	ug/L	280.717	16	0.000
[Kr	83		ug/L		171	-0.000
> Lu	175		ug/L		538720	538719.978
[Tl	205	0.338	ug/L	0.869	8710	0.014

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9						
> Sc	45		104.1				
[Ni	60						
> Ge	74		101.5				
[As	75						
[Se	77						
[Se	82						
[Kr	83						
> Lu	175		97.9				
[Tl	205						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 2

Report Date/Time: Sunday, March 14, 2010 12:19:02

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ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Sunday, March 14, 2010 12:22:00

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Vanl soil.mth

Dataset File: C:\elandata\Dataset\100314\QC Std 3.006

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.486	ug/L	4.345	274	0.001
Sc	45		ug/L		484916	484915.965
Ni	60	1.985	ug/L	1.655	4532	0.009
Ge	74		ug/L		529618	529617.563
As	75	5.636	ug/L	1.535	9389	0.018
Se	77		ug/L		6068	-0.001
Se	82	5.377	ug/L	1.919	890	0.002
Kr	83		ug/L		162	-0.000
Lu	175		ug/L		585133	585132.683
Tl	205	1.244	ug/L	1.679	32115	0.053

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
Be	9	97.182					
Sc	45		112.4				
Ni	60	99.265					
Ge	74		111.9				
As	75	112.724					
Se	77						
Se	82	107.538					
Kr	83						
Lu	175		106.3				
Tl	205	124.407					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 3

Report Date/Time: Sunday, March 14, 2010 12:22:38

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ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Sunday, March 14, 2010 12:25:36

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100314\QC Std 4.007

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.099	ug/L	19.608	58	0.000
Sc	45		ug/L		391439	391439.115
Ni	60	3.290	ug/L	1.157	5975	0.015
Ge	74		ug/L		429787	429786.577
As	75	0.275	ug/L	147.343	54	0.001
Se	77		ug/L		7742	0.006
Se	82	-1.400	ug/L	5.270	-182	-0.000
Kr	83		ug/L		422	0.001
Lu	175		ug/L		484692	484692.490
Tl	205	0.076	ug/L	3.208	2418	0.003

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
Be	9						
Sc	45		90.7				
Ni	60	99.410					
Ge	74		90.8				
As	75						
Se	77						
Se	82						
Kr	83						
Lu	175		88.1				
Tl	205						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 4

Report Date/Time: Sunday, March 14, 2010 12:26:15

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ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Sunday, March 14, 2010 12:29:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100314\QC Std 5.008

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	20.620	ug/L	3.361	9031	0.022
Sc	45		ug/L		407628	407627.846
Ni	60	21.402	ug/L	6.354	39628	0.097
Ge	74		ug/L		428552	428551.916
As	75	20.664	ug/L	1.056	28727	0.068
Se	77		ug/L		9586	0.010
Se	82	19.538	ug/L	1.560	2603	0.006
Kr	83		ug/L		427	0.001
Lu	175		ug/L		491253	491253.053
Tl	205	21.043	ug/L	2.481	442490	0.899

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
Be	9	103.101					
Sc	45		94.5				
Ni	60	91.816					
Ge	74		90.5				
As	75	103.319					
Se	77						
Se	82	97.690					
Kr	83						
Lu	175		89.3				
Tl	205	105.213					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 5

Report Date/Time: Sunday, March 14, 2010 12:29:52

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ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Sunday, March 14, 2010 12:32:51

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Vanl soil.mth

Dataset File: C:\elandata\Dataset\100314\QC Std 6.009

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	50.255	ug/L	1.574	24478	0.054
Sc	45		ug/L		453557	453556.799
Ni	60	47.325	ug/L	0.526	97452	0.215
Ge	74		ug/L		497243	497242.607
As	75	47.336	ug/L	0.386	76844	0.155
Se	77		ug/L		12913	0.014
Se	82	49.944	ug/L	1.752	7709	0.015
Kr	83		ug/L		162	-0.000
Lu	175		ug/L		562403	562402.818
Tl	205	48.316	ug/L	5.441	1160673	2.064

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9	100.510				
Sc	45		105.1			
Ni	60	94.651				
Ge	74		105.0			
As	75	94.671				
Se	77					
Se	82	99.887				
Kr	83					
Lu	175		102.2			
Tl	205	96.632				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Sunday, March 14, 2010 12:33:30

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ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Sunday, March 14, 2010 12:36:30

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Vanl soil.mth

Dataset File: C:\elandata\Dataset\100314\QC Std 7.010

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	-0.001	ug/L	348.317	19	-0.000
[> Sc	45		ug/L		445412	445412.225
[Ni	60	-0.033	ug/L	15.796	90	-0.000
[> Ge	74		ug/L		478421	478420.993
[As	75	0.532	ug/L	37.252	472	0.002
[Se	77		ug/L		10055	0.009
[Se	82	0.080	ug/L	86.072	17	0.000
[Kr	83		ug/L		153	-0.000
[> Lu	175		ug/L		536857	536857.138
[Tl	205	0.342	ug/L	8.366	8780	0.015

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9						
[> Sc	45		103.2				
[Ni	60						
[> Ge	74		101.0				
[As	75						
[Se	77						
[Se	82						
[Kr	83						
[> Lu	175		97.6				
[Tl	205						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Sunday, March 14, 2010 12:37:10

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ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Sunday, March 14, 2010 12:54:37

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Vanl soil.mth

Dataset File: C:\elandata\Dataset\100314\QC Std 6.015

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	49.645	ug/L	5.052	24502	0.053
> Sc	45		ug/L		460075	460074.710
[Ni	60	47.314	ug/L	3.118	98766	0.214
[> Ge	74		ug/L		499684	499683.863
| As	75	47.546	ug/L	2.150	77544	0.156
| Se	77		ug/L		14379	0.017
| Se	82	50.274	ug/L	3.488	7795	0.016
[Kr	83		ug/L		169	-0.000
[> Lu	175		ug/L		552328	552328.284
[Ti	205	46.907	ug/L	2.350	1107703	2.004

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	
Ti	205Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9	99.290					
[> Sc	45		106.6				
[Ni	60	94.628					
[> Ge	74		105.5				
| As	75	95.093					
| Se	77						
| Se	82	100.548					
[Kr	83						
[> Lu	175		100.4				
[Ti	205	93.814					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Sunday, March 14, 2010 12:55:16

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ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Sunday, March 14, 2010 12:58:16

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100314\QC Std 7.016

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.007	ug/L	51.589	16	-0.000
> Sc	45		ug/L		456395	456394.653
Ni	60	-0.031	ug/L	11.861	97	-0.000
> Ge	74		ug/L		486461	486460.776
As	75	0.071	ug/L	404.059	-259	0.000
Se	77		ug/L		10602	0.010
Se	82	-0.005	ug/L	1454.503	5	-0.000
Kr	83		ug/L		167	-0.000
> Lu	175		ug/L		545300	545300.362
Tl	205	0.452	ug/L	5.898	11479	0.019

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9					
> Sc	45		105.8			
Ni	60					
> Ge	74		102.7			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		99.1			
Tl	205					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Sunday, March 14, 2010 12:58:55

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ICPMS#5 - Summary Report

Sample ID: 1202046547

Sample Date/Time: Sunday, March 14, 2010 13:01:54

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 954662|2|baj

Method File: c:\elandata\Method\Vanl soil.mth

Dataset File: C:\elandata\Dataset\100314\1202046547.017

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	-0.003	ug/L	311.906	18	-0.000
| > Sc	45		ug/L		454713	454713.367
[Ni	60	0.037	ug/L	6.936	236	0.000
[> Ge	74		ug/L		479744	479744.114
| As	75	0.245	ug/L	30.980	17	0.001
| Se	77		ug/L		6623	0.002
| Se	82	0.023	ug/L	547.952	9	0.000
[Kr	83		ug/L		165	-0.000
[> Lu	175		ug/L		545701	545700.535
[Tl	205	0.257	ug/L	4.572	6939	0.011

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[Be	9					
| > Sc	45		105.4			
[Ni	60					
[> Ge	74		101.3			
| As	75					
| Se	77					
| Se	82					
[Kr	83					
[> Lu	175		99.2			
[Tl	205					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202046547

Report Date/Time: Sunday, March 14, 2010 13:02:34

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ICPMS#5 - Summary Report

Sample ID: 1202046552

Sample Date/Time: Sunday, March 14, 2010 13:05:34

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 954662|40|baj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100314\1202046552.018

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	21.411	ug/L	3.539	11624	0.023
Sc	45		ug/L		505125	505125.168
Ni	60	35.974	ug/L	3.430	82493	0.163
Ge	74		ug/L		505782	505782.387
As	75	29.788	ug/L	2.044	49041	0.098
Se	77		ug/L		17819	0.023
Se	82	84.074	ug/L	0.295	13198	0.026
Kr	83		ug/L		160	-0.000
Lu	175		ug/L		576722	576722.296
Tl	205	35.798	ug/L	1.629	882971	1.529

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
Sc	45		117.0				
Ni	60						
Ge	74		106.8				
As	75						
Se	77						
Se	82						
Kr	83						
Lu	175		104.8				
Tl	205						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202046552

Report Date/Time: Sunday, March 14, 2010 13:06:14

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ICPMS#5 - Summary Report

Sample ID: 1202046548

Sample Date/Time: Sunday, March 14, 2010 13:12:55

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 954662[2]baj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100314\1202046548.020

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	4.446	ug/L	4.407	2483	0.005
Sc	45		ug/L		515701	515701.101
Ni	60	5.285	ug/L	3.242	12530	0.024
Ge	74		ug/L		467316	467315.608
As	75	4.355	ug/L	1.126	6318	0.014
Se	77		ug/L		4750	-0.002
Se	82	1.281	ug/L	41.350	192	0.000
Kr	83		ug/L		402	0.000
Lu	175		ug/L		621790	621790.270
Tl	205	0.193	ug/L	3.395	6198	0.008

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9					
Sc	45		119.5			
Ni	60					
Ge	74		98.7			
As	75					
Se	77					
Se	82					
Kr	83					
Lu	175		113.0			
Tl	205					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202046548

Report Date/Time: Sunday, March 14, 2010 13:13:35

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ICPMS#5 - Summary Report

Sample ID: 1202046550

Sample Date/Time: Sunday, March 14, 2010 13:16:34

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 954662|2|baj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100314\1202046550.021

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	25.606	ug/L	0.591	13966	0.027
Sc	45		ug/L		507443	507442.609
Ni	60	25.121	ug/L	2.851	57947	0.114
Ge	74		ug/L		458768	458768.305
As	75	39.232	ug/L	1.237	58697	0.129
Se	77		ug/L		5390	-0.000
Se	82	9.937	ug/L	1.953	1419	0.003
Kr	83		ug/L		425	0.001
Lu	175		ug/L		623849	623848.532
Tl	205	41.543	ug/L	0.986	1108180	1.775

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9					
Sc	45		117.6			
Ni	60					
Ge	74		96.9			
As	75					
Se	77					
Se	82					
Kr	83					
Lu	175		113.4			
Tl	205					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202046550

Report Date/Time: Sunday, March 14, 2010 13:17:13

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ICPMS#5 - Summary Report

Sample ID: 1202046551

Sample Date/Time: Sunday, March 14, 2010 13:20:13

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 954662|2|baj

Method File: c:\elandata\Method\Natl soil.mth

Dataset File: C:\elandata\Dataset\100314\1202046551.022

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	26.398	ug/L	3.455	14559	0.028
|> Sc	45		ug/L		513507	513507.188
[Ni	60	27.959	ug/L	4.666	65204	0.127
[> Ge	74		ug/L		452481	452481.435
| As	75	40.826	ug/L	1.931	60250	0.134
| Se	77		ug/L		5164	-0.001
| Se	82	10.360	ug/L	3.436	1459	0.003
[Kr	83		ug/L		450	0.001
[> Lu	175		ug/L		624897	624897.012
[Tl	205	43.310	ug/L	2.340	1157039	1.850

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9						
|> Sc	45		119.0				
[Ni	60						
[> Ge	74		95.6				
| As	75						
| Se	77						
| Se	82						
[Kr	83						
[> Lu	175		113.6				
[Tl	205						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202046551

Report Date/Time: Sunday, March 14, 2010 13:20:52

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ICPMS#5 - Summary Report

Sample ID: 1202046549

Sample Date/Time: Sunday, March 14, 2010 13:23:52

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 954662|10|baj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100314\1202046549.023

Concentration Results

	Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.989	ug/L		6.901	487	0.001
>	Sc	45		ug/L			441043	441043.044
[	Ni	60	1.411	ug/L		6.147	2972	0.006
>	Ge	74		ug/L			448898	448898.359
|	As	75	1.283	ug/L		18.008	1550	0.004
|	Se	77		ug/L			5045	-0.001
|	Se	82	0.302	ug/L		54.618	47	0.000
[	Kr	83		ug/L			188	0.000
>	Lu	175		ug/L			540552	540552.395
|	Tl	205	0.288	ug/L		4.301	7586	0.012

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		102.2				
	Ni	60					
> Ge	74		94.8				
	As	75					
	Se	77					
	Se	82					
	Kr	83					
> Lu	175		98.2				
	Tl	205					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202046549

Report Date/Time: Sunday, March 14, 2010 13:24:32

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ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Sunday, March 14, 2010 13:27:31

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100314\QC Std 8.024

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	50.531	ug/L	1.940	24669	0.054
Sc	45		ug/L		454649	454649.140
Ni	60	46.887	ug/L	3.065	96743	0.213
Ge	74		ug/L		475065	475065.446
As	75	48.668	ug/L	2.542	75479	0.160
Se	77		ug/L		12077	0.013
Se	82	51.159	ug/L	0.357	7546	0.016
Kr	83		ug/L		145	-0.000
Lu	175		ug/L		558513	558513.237
Tl	205	47.375	ug/L	2.271	1131239	2.024

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9	101.062					
Sc	45		105.3				
Ni	60	93.774					
Ge	74		100.3				
As	75	97.335					
Se	77						
Se	82	102.318					
Kr	83						
Lu	175		101.5				
Tl	205	94.750					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 8

Report Date/Time: Sunday, March 14, 2010 13:28:09

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ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Sunday, March 14, 2010 13:31:09

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\VanI soil.mth

Dataset File: C:\elandata\Dataset\100314\QC Std 9.025

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.007	ug/L	156.854	16	-0.000
Sc	45		ug/L		442680	442679.546
Ni	60	-0.028	ug/L	9.982	98	-0.000
Ge	74		ug/L		462788	462788.279
As	75	0.599	ug/L	10.348	554	0.002
Se	77		ug/L		8608	0.006
Se	82	0.119	ug/L	72.434	22	0.000
Kr	83		ug/L		152	-0.000
Lu	175		ug/L		524470	524469.849
Tl	205	0.390	ug/L	6.416	9655	0.017

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
Sc	45		102.6				
Ni	60						
Ge	74		97.7				
As	75						
Se	77						
Se	82						
Kr	83						
Lu	175		95.3				
Tl	205						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Sunday, March 14, 2010 13:31:49

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ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Sunday, March 14, 2010 14:07:54

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\VanI soil.mth

Dataset File: C:\elandata\Dataset\100314\QC Std 6.035

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	54.520	ug/L	2.301	25350	0.059
|>	Sc	45		ug/L		433100	433100.129
[	Ni	60	47.511	ug/L	2.513	93410	0.215
[>	Ge	74		ug/L		449424	449424.413
|	As	75	48.540	ug/L	1.562	71226	0.159
|	Se	77		ug/L		10656	0.012
|	Se	82	51.308	ug/L	0.677	7159	0.016
[	Kr	83		ug/L		149	-0.000
[>	Lu	175		ug/L		534293	534292.571
[	Tl	205	48.724	ug/L	1.465	1113063	2.082

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	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9	109.041					
|>	Sc	45		100.4				
[	Ni	60	95.023					
[>	Ge	74		94.9				
|	As	75	97.080					
|	Se	77						
|	Se	82	102.616					
[	Kr	83						
[>	Lu	175		97.1				
[	Tl	205	97.447					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Sunday, March 14, 2010 14:08:33

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ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Sunday, March 14, 2010 14:11:33

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\VanI soil.mth

Dataset File: C:\elandata\Dataset\100314\QC Std 7.036

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	-0.010	ug/L	94.743	14	-0.000
[> Sc	45		ug/L		425602	425602.378
[Ni	60	-0.033	ug/L	2.799	86	-0.000
[> Ge	74		ug/L		430061	430061.234
[As	75	0.212	ug/L	141.639	-30	0.001
[Se	77		ug/L		6793	0.004
[Se	82	-0.017	ug/L	1007.103	3	-0.000
[Kr	83		ug/L		155	-0.000
[> Lu	175		ug/L		513732	513732.166
[Tl	205	0.284	ug/L	5.817	7116	0.012

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9						
[> Sc	45		98.6				
[Ni	60						
[> Ge	74		90.8				
[As	75						
[Se	77						
[Se	82						
[Kr	83						
[> Lu	175		93.4				
[Tl	205						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Sunday, March 14, 2010 14:12:12

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ICPMS#5 - Summary Report

Sample ID: 247123001

Sample Date/Time: Sunday, March 14, 2010 14:15:13

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 954662[2]ba]

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100314\247123001.037

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.455	ug/L	4.811	786	0.002
Sc	45		ug/L		490057	490057.475
Ni	60	10.780	ug/L	0.822	24116	0.049
Ge	74		ug/L		419818	419818.235
As	75	5.649	ug/L	7.145	7456	0.019
Se	77		ug/L		3592	-0.004
Se	82	0.925	ug/L	46.550	125	0.000
Kr	83		ug/L		268	0.000
Lu	175		ug/L		556084	556083.557
Tl	205	0.661	ug/L	2.782	16656	0.028

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
Sc	45		113.6				
Ni	60						
Ge	74		88.7				
As	75						
Se	77						
Se	82						
Kr	83						
Lu	175		101.1				
Tl	205						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 247123001

Report Date/Time: Sunday, March 14, 2010 14:15:53

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ICPMS#5 - Summary Report

Sample ID: 247123002

Sample Date/Time: Sunday, March 14, 2010 14:18:54

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 954662|2|baj

Method File: c:\elandata\Method\Vanl soil.mth

Dataset File: C:\elandata\Dataset\100314\247123002.038

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.028	ug/L	1.432	1008	0.002
Sc	45		ug/L		454333	454333.443
Ni	60	2.185	ug/L	5.218	4655	0.010
Ge	74		ug/L		421897	421897.271
As	75	11.580	ug/L	2.265	15706	0.038
Se	77		ug/L		3361	-0.004
Se	82	0.799	ug/L	6.403	109	0.000
Kr	83		ug/L		295	0.000
Lu	175		ug/L		565343	565342.620
Tl	205	0.265	ug/L	4.733	7373	0.011

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		105.3			
Ni	60					
Ge	74		89.1			
As	75					
Se	77					
Se	82					
Kr	83					
Lu	175		102.7			
Tl	205					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 247123002

Report Date/Time: Sunday, March 14, 2010 14:19:35

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ICPMS#5 - Summary Report

Sample ID: 247123003

Sample Date/Time: Sunday, March 14, 2010 14:22:36

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 954662|2|ba|

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100314\247123003.039

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.688	ug/L	2.966	871	0.002
> Sc	45		ug/L		469595	469594.695
[Ni	60	5.111	ug/L	2.872	11045	0.023
[> Ge	74		ug/L		423888	423887.971
| As	75	8.954	ug/L	1.255	12129	0.029
| Se	77		ug/L		3623	-0.004
| Se	82	1.092	ug/L	16.994	149	0.000
[Kr	83		ug/L		276	0.000
[> Lu	175		ug/L		567671	567671.328
[Tl	205	0.224	ug/L	2.688	6414	0.010

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		108.8			
[Ni	60					
[> Ge	74		89.5			
| As	75					
| Se	77					
| Se	82					
[Kr	83					
[> Lu	175		103.2			
[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

Sample ID: 247123003

Report Date/Time: Sunday, March 14, 2010 14:23:17

Page 1

ICPMS#5 - Summary Report

Sample ID: 247123004

Sample Date/Time: Sunday, March 14, 2010 14:26:16

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 954662|2|baj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100314\247123004.040

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.193	ug/L	6.518	1097	0.002
Sc	45		ug/L		457968	457967.884
Ni	60	2.186	ug/L	3.765	4695	0.010
Ge	74		ug/L		430084	430084.020
As	75	5.174	ug/L	1.769	6970	0.017
Se	77		ug/L		3520	-0.004
Se	82	0.808	ug/L	9.853	113	0.000
Kr	83		ug/L		266	0.000
Lu	175		ug/L		556240	556240.017
Tl	205	0.086	ug/L	2.132	3015	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
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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9					
Sc	45		106.1			
Ni	60					
Ge	74		90.8			
As	75					
Se	77					
Se	82					
Kr	83					
Lu	175		101.1			
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

Sample ID: 247123004

Report Date/Time: Sunday, March 14, 2010 14:26:56

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ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Sunday, March 14, 2010 14:33:36

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100314\QC Std 6.042

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	52.818	ug/L	2.707	24787	0.057
Sc	45		ug/L		437138	437137.604
Ni	60	46.232	ug/L	3.936	91699	0.210
Ge	74		ug/L		447127	447127.052
As	75	48.309	ug/L	2.657	70518	0.159
Se	77		ug/L		10690	0.012
Se	82	51.626	ug/L	2.873	7166	0.016
Kr	83		ug/L		145	-0.000
Lu	175		ug/L		530478	530477.888
Tl	205	48.296	ug/L	0.346	1095370	2.063

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
Be	9	105.636					
Sc	45		101.3				
Ni	60	92.465					
Ge	74		94.4				
As	75	96.619					
Se	77						
Se	82	103.251					
Kr	83						
Lu	175		96.4				
Tl	205	96.591					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Sunday, March 14, 2010 14:34:14

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Sunday, March 14, 2010 14:37:14

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\VanI soil.mth

Dataset File: C:\elandata\Dataset\100314\QC Std 7.043

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.015	ug/L	66.784	12	-0.000
Sc	45		ug/L		436277	436276.595
Ni	60	-0.027	ug/L	13.473	100	-0.000
Ge	74		ug/L		441477	441476.692
As	75	0.105	ug/L	170.174	-188	0.000
Se	77		ug/L		7108	0.004
Se	82	0.226	ug/L	12.523	36	0.000
Kr	83		ug/L		134	-0.000
Lu	175		ug/L		516710	516709.945
Tl	205	0.289	ug/L	6.786	7281	0.012

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	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
Sc	45		101.1				
Ni	60						
Ge	74		93.2				
As	75						
Se	77						
Se	82						
Kr	83						
Lu	175		93.9				
Tl	205						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Sunday, March 14, 2010 14:37:54

Page 1

=====
Analysis BegunLogged In Analyst: Administrator
Spectrometer Model: FIMS-100, S/N B050-9550Technique: AA FIMS-MHS
Autosampler Model: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\030310S1.SIF

Batch ID:

Results Data Set: 030310S2

Results Library: C:\data-AA\Administrator\Results\Results.mdb

=====
Method Loaded

Method Name: SOIL

Method Last Saved: 3/3/2010 10:11:36

Method Description: 7471A, ILM04 ANALYST JXL

Sequence No.: 1

Autosampler Location: 1

Sample ID: Calib Blank

Date Collected: 3/3/2010 10:13:42

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]	0.0003	0.0015	0.0003	10:14:33	Yes
2		[0.00]	0.0004	0.0024	0.0004	10:15:03	Yes
Mean:		[0.00]	0.0003				
SD:		0.00	0.0000				
%RSD:		0.00	10.19				

Auto-zero performed.

Sequence No.: 2

Autosampler Location: 2

Sample ID: S0.2

Date Collected: 3/3/2010 10:15:22

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]	0.0024	0.0159	0.0028	10:16:12	Yes
2		[0.2]	0.0024	0.0153	0.0027	10:16:42	Yes
Mean:		[0.2]	0.0024				
SD:		0.0	0.0000				
%RSD:		0.0	1.30				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01199 Intercept: 0.00000

Sequence No.: 3

Autosampler Location: 3

Sample ID: S0.5

Date Collected: 3/3/2010 10:17:01

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	0.0370	0.0065	10:17:51	Yes
2		[0.5]	0.0060	0.0364	0.0064	10:18:21	Yes
Mean:		[0.5]	0.0061				
SD:		0.0	0.0000				
%RSD:		0.0	0.79				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999984 Slope: 0.01215 Intercept: -0.00001

Sequence No.: 4

Autosampler Location: 4

Sample ID: S2.0

Date Collected: 3/3/2010 10:18:41

Analyst:

Data Type: Original

S5.0	0.0612	5.0	5.109	0.00	0.3
S10.0	0.1186	10.0	9.939	0.00	0.8

Correlation Coef.: 0.999871 Slope: 0.01190 Intercept: 0.00040

Sequence No.: 7

Autosampler Location: 9

Sample ID: ICV

Date Collected: 3/3/2010 10:23:43

Analyst:

Data Type: Original

Replicate Data: ICV

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.247	5.247	0.0628	0.3568	0.0632	10:24:34	Yes
2	5.221	5.221	0.0625	0.3522	0.0629	10:25:04	Yes
Mean:	5.234	5.234	0.0627				
SD:	0.018	0.018	0.0002				
%RSD:	0.349	0.349	0.35				

QC value within limits for Hg 253.7 Recovery = 104.68%

All analyte(s) passed QC.

Sequence No.: 8

Autosampler Location: 10

Sample ID: ICB

Date Collected: 3/3/2010 10:25:24

Analyst:

Data Type: Original

Replicate Data: ICB

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.019	-0.019	0.0002	0.0031	0.0005	10:26:15	Yes
2	-0.018	-0.018	0.0002	0.0031	0.0005	10:26:45	Yes
Mean:	-0.019	-0.019	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	2.119	2.119	2.61				

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: 3/3/2010 10:27:05

Analyst:

Data Type: Original

Replicate Data: CRDL

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.181	0.181	0.0026	0.0161	0.0029	10:27:57	Yes
2	0.184	0.184	0.0026	0.0166	0.0029	10:28:27	Yes
Mean:	0.182	0.182	0.0026				
SD:	0.002	0.002	0.0000				
%RSD:	0.919	0.919	0.78				

QC value within limits for Hg 253.7 Recovery = 91.22%

All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/3/2010 10:28:47

Analyst:

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.204	5.204	0.0623	0.3526	0.0627	10:29:37	Yes
2	5.190	5.190	0.0621	0.3480	0.0625	10:30:07	Yes
Mean:	5.197	5.197	0.0622				
SD:	0.011	0.011	0.0001				
%RSD:	0.202	0.202	0.20				

QC value within limits for Hg 253.7 Recovery = 103.94%

All analyte(s) passed QC.

Sequence No.: 11

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/3/2010 10:30:26

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.028	-0.028	0.0001	0.0021	0.0004	10:31:17	Yes
2	-0.028	-0.028	0.0001	0.0023	0.0004	10:31:47	Yes
Mean:	-0.028	-0.028	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.065	2.065	10.10				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 12

Autosampler Location: 12

Sample ID: 1202056217|958773|1

Date Collected: 3/3/2010 10:32:06

Analyst: JXL

Data Type: Original

Replicate Data: 1202056217|958773|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.033	-0.033	0.0000	0.0021	0.0004	10:32:58	Yes
2	-0.035	-0.035	-0.0000	0.0018	0.0003	10:33:28	Yes
Mean:	-0.034	-0.034	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	5.031	5.031	>999.9%				

Sequence No.: 13

Autosampler Location: 13

Sample ID: 1202056218|958773|1

Date Collected: 3/3/2010 10:33:48

Analyst: JXL

Data Type: Original

Replicate Data: 1202056218|958773|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.121	2.121	0.0256	0.1448	0.0260	10:34:39	Yes
2	2.111	2.111	0.0255	0.1431	0.0259	10:35:09	Yes
Mean:	2.116	2.116	0.0256				
SD:	0.007	0.007	0.0001				
%RSD:	0.328	0.328	0.32				

Sequence No.: 14

Autosampler Location: 14

Sample ID: 246960001|958773|1

Date Collected: 3/3/2010 10:35:29

Analyst: JXL

Data Type: Original

Replicate Data: 246960001|958773|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.944	0.944	0.0116	0.0670	0.0120	10:36:20	Yes
2	0.929	0.929	0.0115	0.0650	0.0118	10:36:50	Yes
Mean:	0.937	0.937	0.0115				
SD:	0.011	0.011	0.0001				
%RSD:	1.137	1.137	1.10				

Sequence No.: 15

Autosampler Location: 15

Sample ID: 1202056219|958773|1

Date Collected: 3/3/2010 10:37:09

Analyst: JXL

Data Type: Original

Replicate Data: 1202056219|958773|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------

Replicate Data: 246960003|958773|1

Repl	SampleConc	StdndConc	BlndCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.376	0.376	0.0049	0.0290	0.0052	10:46:16	Yes
2	0.374	0.374	0.0048	0.0286	0.0052	10:46:46	Yes
Mean:	0.375	0.375	0.0049				
SD:	0.002	0.002	0.0000				
%RSD:	0.430	0.430	0.39				

Sequence No.: 21

Sample ID: 246960004|958773|1

Analyst: JXL

Autosampler Location: 21

Date Collected: 3/3/2010 10:47:05

Data Type: Original

Replicate Data: 246960004|958773|1

Repl	SampleConc	StdndConc	BlndCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.263	0.263	0.0035	0.0213	0.0039	10:47:56	Yes
2	0.264	0.264	0.0035	0.0215	0.0039	10:48:26	Yes
Mean:	0.264	0.264	0.0035				
SD:	0.001	0.001	0.0000				
%RSD:	0.260	0.260	0.23				

Sequence No.: 22

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/3/2010 10:48:45

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdndConc	BlndCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.389	5.389	0.0645	0.3604	0.0649	10:49:35	Yes
2	5.345	5.345	0.0640	0.3545	0.0643	10:50:05	Yes
Mean:	5.367	5.367	0.0642				
SD:	0.031	0.031	0.0004				
%RSD:	0.580	0.580	0.58				

QC value within limits for Hg 253.7 Recovery = 107.34%
All analyte(s) passed QC.

Sequence No.: 23

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/3/2010 10:50:24

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdndConc	BlndCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.031	-0.031	0.0000	0.0019	0.0004	10:51:15	Yes
2	-0.033	-0.033	0.0000	0.0015	0.0003	10:51:45	Yes
Mean:	-0.032	-0.032	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.469	4.469	93.69				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24

Sample ID: 246960005|958773|1

Analyst: JXL

Autosampler Location: 22

Date Collected: 3/3/2010 10:52:04

Data Type: Original

Replicate Data: 246960005|958773|1

Repl	SampleConc	StdndConc	BlndCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.488	0.488	0.0062	0.0362	0.0065	10:52:55	Yes
2	0.482	0.482	0.0061	0.0353	0.0065	10:53:25	Yes

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.192	1.192	0.0146	0.0820	0.0149	11:01:20	Yes
2	1.179	1.179	0.0144	0.0812	0.0148	11:01:50	Yes
Mean:	1.186	1.186	0.0145				
SD:	0.009	0.009	0.0001				
%RSD:	0.760	0.760	0.74				

Sequence No.: 30
Sample ID: 246960011|958773|1
Analyst: JXL

Autosampler Location: 28
Date Collected: 3/3/2010 11:02:09
Data Type: Original

Replicate Data: 246960011|958773|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.441	0.441	0.0057	0.0327	0.0060	11:03:00	Yes
2	0.436	0.436	0.0056	0.0321	0.0059	11:03:29	Yes
Mean:	0.439	0.439	0.0056				
SD:	0.004	0.004	0.0000				
%RSD:	0.803	0.803	0.75				

Sequence No.: 31
Sample ID: 246960012|958773|1
Analyst: JXL

Autosampler Location: 29
Date Collected: 3/3/2010 11:03:49
Data Type: Original

Replicate Data: 246960012|958773|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.718	0.718	0.0089	0.0511	0.0093	11:04:40	Yes
2	0.713	0.713	0.0089	0.0507	0.0092	11:05:09	Yes
Mean:	0.716	0.716	0.0089				
SD:	0.003	0.003	0.0000				
%RSD:	0.483	0.483	0.46				

Sequence No.: 32
Sample ID: 246960013|958773|1
Analyst: JXL

Autosampler Location: 30
Date Collected: 3/3/2010 11:05:29
Data Type: Original

Replicate Data: 246960013|958773|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.647	0.647	0.0081	0.0460	0.0084	11:06:20	Yes
2	0.637	0.637	0.0080	0.0452	0.0083	11:06:50	Yes
Mean:	0.642	0.642	0.0080				
SD:	0.007	0.007	0.0001				
%RSD:	1.135	1.135	1.08				

Sequence No.: 33
Sample ID: 246960014|958773|1
Analyst: JXL

Autosampler Location: 31
Date Collected: 3/3/2010 11:07:09
Data Type: Original

Replicate Data: 246960014|958773|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.707	0.707	0.0088	0.0501	0.0092	11:07:59	Yes
2	0.710	0.710	0.0088	0.0496	0.0092	11:08:29	Yes
Mean:	0.708	0.708	0.0088				
SD:	0.002	0.002	0.0000				
%RSD:	0.247	0.247	0.24				

Sequence No.: 34
Sample ID: CCV

Autosampler Location: 7
Date Collected: 3/3/2010 11:08:48

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.271	5.271	0.0631	0.3492	0.0634	11:09:38	Yes
2	5.231	5.231	0.0626	0.3449	0.0630	11:10:08	Yes
Mean:	5.251	5.251	0.0629				
SD:	0.028	0.028	0.0003				
%RSD:	0.539	0.539	0.54				

QC value within limits for Hg 253.7 Recovery = 105.01%
All analyte(s) passed QC.

=====

Sequence No.: 35

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/3/2010 11:10:27

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.036	-0.036	-0.0000	0.0014	0.0003	11:11:18	Yes
2	-0.039	-0.039	-0.0001	0.0012	0.0003	11:11:48	Yes
Mean:	-0.037	-0.037	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	5.352	5.352	59.05				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

=====

Sequence No.: 36

Autosampler Location: 32

Sample ID: 1202056583|958957|1

Date Collected: 3/3/2010 11:12:07

Analyst: JXL

Data Type: Original

Replicate Data: 1202056583|958957|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.032	-0.032	0.0000	0.0016	0.0004	11:12:58	Yes
2	-0.038	-0.038	-0.0000	0.0014	0.0003	11:13:28	Yes
Mean:	-0.035	-0.035	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	11.21	11.21	341.06				

=====

Sequence No.: 37

Autosampler Location: 33

Sample ID: 1202056584|958957|1

Date Collected: 3/3/2010 11:13:47

Analyst: JXL

Data Type: Original

Replicate Data: 1202056584|958957|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.237	2.237	0.0270	0.1503	0.0274	11:14:38	Yes
2	2.230	2.230	0.0269	0.1479	0.0273	11:15:08	Yes
Mean:	2.233	2.233	0.0270				
SD:	0.005	0.005	0.0001				
%RSD:	0.229	0.229	0.23				

=====

Sequence No.: 38

Autosampler Location: 34

Sample ID: 248088001|958957|1

Date Collected: 3/3/2010 11:15:28

Analyst: JXL

Data Type: Original

Replicate Data: 248088001|958957|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.409	0.409	0.0053	0.0306	0.0056	11:16:19	Yes

Replicate Data: 1202056586|958957|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.433	2.433	0.0293	0.1633	0.0297	11:24:46	Yes
2	2.411	2.411	0.0291	0.1600	0.0294	11:25:16	Yes
Mean:	2.422	2.422	0.0292				
SD:	0.016	0.016	0.0002				
%RSD:	0.643	0.643	0.63				

Sequence No.: 44

Autosampler Location: 40

Sample ID: 1202056588|958957|1

Date Collected: 3/3/2010 11:25:36

Analyst: JXL

Data Type: Original

Replicate Data: 1202056588|958957|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.412	2.412	0.0291	0.1622	0.0294	11:26:27	Yes
2	2.422	2.422	0.0292	0.1620	0.0296	11:26:57	Yes
Mean:	2.417	2.417	0.0292				
SD:	0.007	0.007	0.0001				
%RSD:	0.294	0.294	0.29				

Sequence No.: 45

Autosampler Location: 41

Sample ID: 1202056587|958957|5

Date Collected: 3/3/2010 11:27:16

Analyst: JXL

Data Type: Original

Replicate Data: 1202056587|958957|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.022	0.022	0.0007	0.0050	0.0010	11:28:07	Yes
2	0.023	0.023	0.0007	0.0049	0.0010	11:28:37	Yes
Mean:	0.023	0.023	0.0007				
SD:	0.001	0.001	0.0000				
%RSD:	2.240	2.240	0.90				

Sequence No.: 46

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/3/2010 11:28:56

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.342	5.342	0.0640	0.3540	0.0643	11:29:47	Yes
2	5.306	5.306	0.0635	0.3490	0.0639	11:30:17	Yes
Mean:	5.324	5.324	0.0637				
SD:	0.026	0.026	0.0003				
%RSD:	0.483	0.483	0.48				

QC value within limits for Hg 253.7 Recovery = 106.48%
All analyte(s) passed QC.

Sequence No.: 47

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/3/2010 11:30:36

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.037	-0.037	-0.0000	0.0009	0.0003	11:31:27	Yes
2	-0.037	-0.037	-0.0000	0.0010	0.0003	11:31:57	Yes
Mean:	-0.037	-0.037	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.764	0.764	9.47				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 48

Sample ID: 1202055908|958623|1

Analyst: JXL

Autosampler Location: 42

Date Collected: 3/3/2010 11:32:16

Data Type: Original

Replicate Data: 1202055908|958623|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.035	-0.035	-0.0000	0.0012	0.0003	11:33:07	Yes
2	-0.034	-0.034	-0.0000	0.0015	0.0003	11:33:37	Yes
Mean:	-0.034	-0.034	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	2.434	2.434	124.53				

Sequence No.: 49

Sample ID: 1202055909|958623|10

Analyst: JXL

Autosampler Location: 43

Date Collected: 3/3/2010 11:33:56

Data Type: Original

Replicate Data: 1202055909|958623|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.777	3.777	0.0453	0.2485	0.0457	11:34:47	Yes
2	3.780	3.780	0.0454	0.2467	0.0457	11:35:17	Yes
Mean:	3.778	3.778	0.0454				
SD:	0.002	0.002	0.0000				
%RSD:	0.047	0.047	0.05				

Sequence No.: 50

Sample ID: 247123001|958623|1

Analyst: JXL

Autosampler Location: 44

Date Collected: 3/3/2010 11:35:37

Data Type: Original

Replicate Data: 247123001|958623|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.019	-0.019	0.0002	0.0025	0.0005	11:36:27	Yes
2	-0.018	-0.018	0.0002	0.0024	0.0005	11:36:57	Yes
Mean:	-0.019	-0.019	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	4.176	4.176	5.18				

Sequence No.: 51

Sample ID: 1202055910|958623|1

Analyst: JXL

Autosampler Location: 45

Date Collected: 3/3/2010 11:37:17

Data Type: Original

Replicate Data: 1202055910|958623|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.013	-0.013	0.0002	0.0032	0.0006	11:38:07	Yes
2	-0.018	-0.018	0.0002	0.0022	0.0005	11:38:37	Yes
Mean:	-0.016	-0.016	0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	23.12	23.12	20.46				

Sequence No.: 52

Sample ID: 1202055911|958623|1

Analyst: JXL

Autosampler Location: 46

Date Collected: 3/3/2010 11:38:57

Data Type: Original

Replicate Data: 1202055911|958623|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored

1	2.314	2.314	0.0279	0.1539	0.0283	11:39:48	Yes
2	2.306	2.306	0.0278	0.1519	0.0282	11:40:18	Yes
Mean:	2.310	2.310	0.0279				
SD:	0.006	0.006	0.0001				
%RSD:	0.246	0.246	0.24				

Sequence No.: 53

Autosampler Location: 47

Sample ID: 1202055913|958623|1

Date Collected: 3/3/2010 11:40:38

Analyst: JXL

Data Type: Original

Replicate Data: 1202055913|958623|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.333	2.333	0.0282	0.1547	0.0285	11:41:30	Yes
2	2.327	2.327	0.0281	0.1538	0.0284	11:42:00	Yes
Mean:	2.330	2.330	0.0281				
SD:	0.004	0.004	0.0000				
%RSD:	0.175	0.175	0.17				

Sequence No.: 54

Autosampler Location: 48

Sample ID: 1202055912|958623|5

Date Collected: 3/3/2010 11:42:20

Analyst: JXL

Data Type: Original

Replicate Data: 1202055912|958623|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.029	-0.029	0.0001	0.0020	0.0004	11:43:12	Yes
2	-0.031	-0.031	0.0000	0.0018	0.0004	11:43:41	Yes
Mean:	-0.030	-0.030	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.240	4.240	34.47				

Sequence No.: 55

Autosampler Location: 49

Sample ID: 247123002|958623|1

Date Collected: 3/3/2010 11:44:02

Analyst: JXL

Data Type: Original

Replicate Data: 247123002|958623|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.023	-0.023	0.0001	0.0024	0.0005	11:44:53	Yes
2	-0.024	-0.024	0.0001	0.0025	0.0005	11:45:23	Yes
Mean:	-0.023	-0.023	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.389	4.389	9.86				

Sequence No.: 56

Autosampler Location: 50

Sample ID: 247123003|958623|1

Date Collected: 3/3/2010 11:45:43

Analyst: JXL

Data Type: Original

Replicate Data: 247123003|958623|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.016	0.016	0.0006	0.0050	0.0009	11:46:34	Yes
2	0.010	0.010	0.0005	0.0042	0.0009	11:47:04	Yes
Mean:	0.013	0.013	0.0006				
SD:	0.004	0.004	0.0000				
%RSD:	30.52	30.52	8.40				

Sequence No.: 57

Autosampler Location: 51

Sample ID: 247123004|958623|1

Date Collected: 3/3/2010 11:47:24

Analyst: JXL

Data Type: Original

Replicate Data: 247123004|958623|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.024	-0.024	0.0001	0.0025	0.0005	11:48:14	Yes
2	-0.027	-0.027	0.0001	0.0022	0.0004	11:48:44	Yes
Mean:	-0.026	-0.026	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	8.103	8.103	25.24				

Sequence No.: 58

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/3/2010 11:49:04

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.438	5.438	0.0651	0.3542	0.0654	11:49:55	Yes
2	5.431	5.431	0.0650	0.3514	0.0654	11:50:25	Yes
Mean:	5.435	5.435	0.0651				
SD:	0.005	0.005	0.0001				
%RSD:	0.086	0.086	0.09				

QC value within limits for Hg 253.7 Recovery = 108.69%
All analyte(s) passed QC.

Sequence No.: 59

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/3/2010 11:50:43

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.025	-0.025	0.0001	0.0028	0.0004	11:51:34	Yes
2	-0.033	-0.033	0.0000	0.0019	0.0004	11:52:04	Yes
Mean:	-0.029	-0.029	0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	18.63	18.63	115.75				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 60

Sample ID: 247249001|958623|1

Analyst: JXL

Autosampler Location: 52

Date Collected: 3/3/2010 11:52:23

Data Type: Original

Replicate Data: 247249001|958623|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.114	0.114	0.0018	0.0116	0.0021	11:53:15	Yes
2	0.106	0.106	0.0017	0.0107	0.0020	11:53:44	Yes
Mean:	0.110	0.110	0.0017				
SD:	0.006	0.006	0.0001				
%RSD:	5.589	5.589	4.28				

Sequence No.: 61

Sample ID: 247249002|958623|1

Analyst: JXL

Autosampler Location: 53

Date Collected: 3/3/2010 11:54:04

Data Type: Original

Replicate Data: 247249002|958623|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.208	1.208	0.0148	0.0816	0.0151	11:54:55	Yes
2	1.203	1.203	0.0147	0.0804	0.0151	11:55:25	Yes
Mean:	1.205	1.205	0.0147				

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID:	954659.0	Verified by:		Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
Analyst:	Bryan Davis			LCS	1202046546	Metals Soil LCS SRM ICP/Hg	U1062540-I	.523	g
Method:	SW846 3050B			MS	1202046544	Metals Spike Mix I	U11268741-01	.25	mL
Lab SOP:	GL-MA-E-009 REV# 19			MS	1202046544	Metals Spike Mix II	U11268744-06	.25	mL
Instrument:	Sartorius Balance B-001			MSD	1202046545	Metals Spike Mix I	U11268741-01	.25	mL
				MSD	1202046545	Metals Spike Mix II	U11268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202046541 MB	16-MAR-2010 15:56:00	Soil	0.523	50	95.60229	
1202046546 LCS	16-MAR-2010 15:56:00	Soil	0.523	50	95.60229	
247097001	16-MAR-2010 15:56:00	Soil	0.513	50	97.46589	
1202046542 DUP (247097001)	16-MAR-2010 15:56:00	Soil	0.513	50	97.46589	
1202046543 SDILT (247097001)	16-MAR-2010 15:56:00	Soil	0.513	50	97.46589	
1202046544 MS (247097001)	16-MAR-2010 15:56:00	Soil	0.543	50	92.08103	
1202046545 MSD (247097001)	16-MAR-2010 15:56:00	Soil	0.515	50	97.08738	
247097002	16-MAR-2010 15:56:00	Soil	0.596	50	83.89262	
247097003	16-MAR-2010 15:56:00	Soil	0.51	50	98.03922	
247097004	16-MAR-2010 15:56:00	Soil	0.528	50	94.69697	
247097005	16-MAR-2010 15:56:00	Soil	0.548	50	91.24088	
247097006	16-MAR-2010 15:56:00	Soil	0.582	50	85.91065	
247097007	16-MAR-2010 15:56:00	Soil	0.51	50	98.03922	
247097008	16-MAR-2010 15:56:00	Soil	0.578	50	86.50519	
247097009	16-MAR-2010 15:56:00	Soil	0.531	50	94.16196	
247123001	16-MAR-2010 15:56:00	Soil	0.556	50	89.92806	
247123002	16-MAR-2010 15:56:00	Soil	0.557	50	89.76661	
247123003	16-MAR-2010 15:56:00	Soil	0.546	50	91.57509	
247123004	16-MAR-2010 15:56:00	Soil	0.542	50	92.25092	

Reagent/Solvent Lot ID	Description	Amount	Comments:
1265209	HYDROCHLORIC ACID	10 mL	The QC sample is a fine grey solid with rocks.
1268732	Nitric Acid CONC.	1.25 mL	

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GEL Laboratories LLC

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 954661.0 Verified by: _____ Lab SOP: GL-MA-E-009 REV# 19
 Analyst: Anthony Green Instrument: BAL-001
 Method: SW846 3050B

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202046547 MB	23-FEB-2010 08:00:00	0.505	50	99.0099	
1202046552 LCS	23-FEB-2010 08:00:00	0.503	50	99.40358	
247097001	23-FEB-2010 08:00:00	0.507	50	98.61933	
1202046548 DUP (247097001)	23-FEB-2010 08:00:00	0.5	50	100	
1202046549 SDILT (247097001)	23-FEB-2010 08:00:00	0.507	50	98.61933	
1202046550 MS (247097001)	23-FEB-2010 08:00:00	0.52	50	96.15385	
1202046551 MSD (247097001)	23-FEB-2010 08:00:00	0.505	50	99.0099	
247097002	23-FEB-2010 08:00:00	0.506	50	98.81423	
247097003	23-FEB-2010 08:00:00	0.539	50	92.76438	
247097004	23-FEB-2010 08:00:00	0.513	50	97.46589	
247097005	23-FEB-2010 08:00:00	0.514	50	97.27626	
247097006	23-FEB-2010 08:00:00	0.514	50	97.27626	
247097007	23-FEB-2010 08:00:00	0.51	50	98.03922	
247097008	23-FEB-2010 08:00:00	0.556	50	89.92806	
247097009	23-FEB-2010 08:00:00	0.533	50	93.80863	
247123001	23-FEB-2010 08:00:00	0.531	50	94.16196	
247123002	23-FEB-2010 08:00:00	0.513	50	97.46589	
247123003	23-FEB-2010 08:00:00	0.529	50	94.51796	
247123004	23-FEB-2010 08:00:00	0.512	50	97.65625	

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202046552	Metals Soil LCS SRM ICPMS	UI062540-MS	.503	g	
MS	1202046550	ICP-MS Spike for soil products.	UI091015-A	.5	mL	Sample 247097001 consist of gray, soil.
MS	1202046550	ICP-MS Spike for Soil Products	UI091015-B	.5	mL	
MSD	1202046551	ICP-MS Spike for soil products.	UI091015-A	.5	mL	
MSD	1202046551	ICP-MS Spike for Soil Products	UI091015-B	.5	mL	
REGNT All		Hydrogen Peroxide 30%	1250038-02	1.5	mL	
REGNT All		Nitric Acid CONC.	1268732	5	mL	

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID:	958622.0	Verified by:	
Analyst:	Tara Griffin		
Method:	SW846 7471A Prep		
Lab SOP:	GL-MA-E-010 REV# 23		
Instrument:	BAL-002		
Type	Sample Id	Description	Serial Number
LCS	1202055909	Metals LCS Soil SRM	UI031809A
MS	1202055911	Mercury soil working intermediate standard for MS	WHG100302-14
MSD	1202055913	Mercury soil working intermediate standard for MS	WHG100302-14
			Spike Amount
			Spike Units
			g
			.203
			mL
			.3
			mL
			.3
			mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202055908 MB	02-MAR-2010 14:35:00	Soil	0.576	30	52.08333	
1202055909 LCS	02-MAR-2010 14:35:00	Soil	0.203	30	147.78325	
247123001	02-MAR-2010 14:35:00	Soil	0.527	30	56.926	
1202055910 DUP (247123001)	02-MAR-2010 14:35:00	Soil	0.547	30	54.84461	
1202055911 MS (247123001)	02-MAR-2010 14:35:00	Soil	0.501	30	59.88024	
1202055913 MSD (247123001)	02-MAR-2010 14:35:00	Soil	0.523	30	57.36138	
1202055912 SDILT (247123001)	02-MAR-2010 14:35:00	Soil	0.527	30	56.926	
247123002	02-MAR-2010 14:35:00	Soil	0.528	30	56.81818	
247123003	02-MAR-2010 14:35:00	Soil	0.508	30	59.05512	
247123004	02-MAR-2010 14:35:00	Soil	0.524	30	57.25191	
247249001	02-MAR-2010 14:35:00	Soil	0.56	30	53.57143	
247249002	02-MAR-2010 14:35:00	Soil	0.534	30	56.17978	
247249003	02-MAR-2010 14:35:00	Soil	0.519	30	57.80347	
247249004	02-MAR-2010 14:35:00	Soil	0.554	30	54.15162	
247249005	02-MAR-2010 14:35:00	Soil	0.543	30	55.24862	
247255001	02-MAR-2010 14:35:00	Soil	0.527	30	56.926	
247255002	02-MAR-2010 14:35:00	Soil	0.533	30	56.28518	
247255003	02-MAR-2010 14:35:00	Soil	0.58	30	51.72414	
247255004	02-MAR-2010 14:35:00	Soil	0.518	30	57.91506	
247255005	02-MAR-2010 14:35:00	Soil	0.55	30	54.54545	

Reagent/Solvent Lot ID	Description	Amount	Comments:
1255532-C	Hg reducing agent	2 mL	Sample 247123001 is a light brown rocky soil.
1274391-1	NITRIC ACID	.375 mL	Digestion Start Date: 02-MAR-10 14:35
1277235-A	Hydrochloric Acid Conc.	1.125 mL	Digestion End Date: 02-MAR-10 15:05
1277238-C	5% KMnO4 solution	7.5 mL	

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GEL Laboratories LLC

DATA EXCEPTION REPORT

Mo.Day Yr. 14-MAR-10	Division: Industrial	Quality Criteria: Specifications	Type: Process			
Instrument Type: ICP/MS	Test / Method: SW846 3050B/6020	Matrix Type: Solid	Client Code: LANL			
Batch ID: 954662	Sample Numbers: See Below					
Potentially affected work order(s)(SDG): 247097(10-1833),247123(10-1848)						
Application Issues: Failed Recovery for MS/PS Container scanning event for custody missed						
Specification and Requirements Exception Description:		DER Disposition:				
1. Failed Recovery for MS/PS: QC 1202046550MS 2. Container scanning event for custody missed: 247097 009		Sample was in the custody of the ICP-MS lab at all times. The matrix spike recovery failed outside of the control limits for 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:

Elizabeth Janssen 15-MAR-10

Data Validator/Group Leader:

Paul Boyd 15-MAR-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:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L +/- 0.5% IN 5% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

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: 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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H₂O(NH₄)₂SiF₆
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H₂O(NH₄)₂SiF₆
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 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: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H2O/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H2O/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Standard Logbook

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: UI100217-48 **Opened:** 04-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 17-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 04-MAR-11 **Lot Number :** 1018878
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: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100312-40 **Opened:** 14-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 12-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 14-MAR-11 **Lot Number :** 1018981
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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100312-41 **Opened:** 14-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 12-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 14-MAR-11 **Lot Number :** 1018981
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: Q2SI
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: UI1268741-01 **Opened:** 11-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI1268744-06 **Opened:** 11-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UMS100226-01 **Opened:** 26-FEB-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 26-FEB-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-104JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
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

Standard Logbook

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: IHG100302-01 **Opened:** 02-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 02-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 03-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100302-02 **Opened:** 02-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 02-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 03-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

Standard Logbook

Serial ID: WHG100302-07 **Opened:** 02-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 02-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 09-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.
IHG100302-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100302-08 **Opened:** 02-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 02-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 09-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.
IHG100302-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100302-09 **Opened:** 02-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 02-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 09-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100302-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100302-10 **Opened:** 02-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 02-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 09-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100302-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: WHG100302-11 **Opened:** 02-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALSL10.0 **Received:** 02-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 09-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100302-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100302-12 **Opened:** 02-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 02-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 09-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100302-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100302-14 **Opened:** 02-MAR-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 02-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 09-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100316-42 **Opened:** 16-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 17-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1285629
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.
WI100316-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100316-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100316-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100316-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100316-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100316-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100316-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100316-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100316-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100316-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100316-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100316-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100316-43 **Opened:** 16-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 17-MAR-10 **Solvent :** 3%HCL and 1%HNO3 --1285629
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

Serial ID: WI100316-44 **Opened:** 16-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 17-MAR-10 **Solvent :** 3%HCL and 1 %HNO3-1285629
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

Serial ID: WI100316-45 **Opened:** 16-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 17-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1285629
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: WI100316-46 **Opened:** 16-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 17-MAR-10 **Solvent :** 3%HCL AND 1%HNO3-1285629
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals

Standard Logbook

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
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: WI100316-47 Opened: 16-MAR-10 Balance Id : 216
 Name: PQL Working Standard Received: 30-JUN-09 Pipet Id : 3581809
 Type: Working Expires: 17-MAR-10 Solvent : 3%HCL &1%HNO3-1285629
 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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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
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: WMS100314-04 **Opened:** 14-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 14-MAR-10 **Balance Id :** 4025216
Type: Working **Expires:** 15-MAR-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1281622
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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
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: WMS100314-04A **Opened:** 14-MAR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 14-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 15-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1281622
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100314-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100314-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100314-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100314-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100314-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100314-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100314-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100314-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100314-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100314-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100314-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100314-05 **Opened:** 14-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 14-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 15-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1281622
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100314-06 **Opened:** 14-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 14-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 15-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1281622
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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: WMS100314-07 **Opened:** 14-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 14-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 15-MAR-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1281622
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100314-08 **Opened:** 14-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 14-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 15-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1281622
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: 100202 Opened: 02-FEB-10 Lot Number : 200930201
Name: I-HCL Received: 02-FEB-10
Type: Reagent/Solvent Expires: 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP Opened: 16-APR-09 Lot Number : H02026 L
Name: I-HNO3 Received: 02-APR-09
Type: Reagent/Solvent Expires: 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A Opened: 20-JUL-09 Lot Number : 41226920
Name: B-KMnO4(VWR)-MER Received: 20-JUL-09
Type: Reagent/Solvent Expires: 20-JUL-10
Employee: Tara Griffin Verified: 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1228372-A Opened: 12-NOV-09 Lot Number : 49215936
Name: B-NH2OH.HCl-MER Received: 12-NOV-09
Type: Reagent/Solvent Expires: 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxylamine Hydrochloride
Comments: None

Serial ID: 1250038-02 Opened: 04-JAN-10 Lot Number : ZU74081198 mL
Name: B-H2O2 Received: 04-JAN-10
Type: Reagent/Solvent Expires: 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Standard Logbook

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1268732 **Opened:** 11-FEB-10 **Lot Number :** H12022 L
Name: I-HNO3 **Received:** 11-FEB-10
Type: Reagent/Solvent **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

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

Standard Logbook

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: 1281622 **Opened:** 08-MAR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 08-MAR-10
Type: Reagent/Solvent **Expires:** 15-MAR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Serial ID: 1285629 **Opened:** 15-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 05-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 21-MAR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

General Chemistry Analysis

Case Narrative

**General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1848**

Method/Analysis Information

Product: Cyanide, Total

Analytical Batch: 954509 **Method:** SW9012A Cyanide and Total

Prep Batch : 954508 **Method:** SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
247123001	RE15-10-8198
247123002	RE15-10-8200
247123003	RE15-10-8199
247123004	RE15-10-8201
1202046116	Method Blank (MB)
1202046117	247123001(RE15-10-8198) Sample Duplicate (DUP)
1202046118	247123002(RE15-10-8200) Sample Duplicate (DUP)
1202046119	247123001(RE15-10-8198) Matrix Spike (MS)
1202046120	247123002(RE15-10-8200) Matrix Spike (MS)
1202046121	247123001(RE15-10-8198) Matrix Spike Duplicate (MSD)
1202046122	247123002(RE15-10-8200) Matrix Spike Duplicate (MSD)
1202046123	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: 247123001 (RE15-10-8198) and 247123002 (RE15-10-8200).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement

The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement

The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202046117 (RE15-10-8198), 1202046118 (RE15-10-8200), 247123001 (RE15-10-8198) and 247123002 (RE15-10-8200).

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: 1202046123 (LCS).

Sample Re-analysis

The following sample was re-analyzed due to instrument failure: 1202046123 (LCS).

Miscellaneous Information

Data Exception (DER) Documentation

A DER was not required for this SDG.

Additional Comments

Additional comments were not required for this SDG.

Electronic Packaging Comment

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

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.


Certification Statement

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

Review Validation:

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

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

Reviewer:  Date: 13Mar10

Sample Data Summary

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Certificate of Analysis Report for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1848 GEL Work Order: 247123

The Qualifiers in this report are defined as follows:

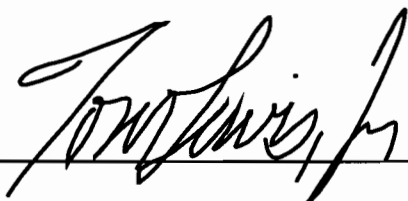
- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by

A handwritten signature in black ink, appearing to read 'Valerie Davis', is written over a horizontal line.

GEL LABORATORIES LLC

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Certificate of Analysis

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

Report Date: March 9, 2010

Client SDG: 10-1848

Client Sample ID: RE15-10-8198
Sample ID: 247123001
Matrix: R
Collect Date: 11-FEB-10 12:00
Receive Date: 16-FEB-10
Collector: Client
Moisture: .451%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	68.3	251	ug/kg	1	AXC2	02/25/10	1249	954509	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/24/10	1530	954508

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

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

Report Date: March 9, 2010

Client SDG: 10-1848

Client Sample ID: RE15-10-8200
Sample ID: 247123002
Matrix: R
Collect Date: 11-FEB-10 12:00
Receive Date: 16-FEB-10
Collector: Client
Moisture: 1.39%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	67.6	249	ug/kg	1	AXC2	02/25/10	1256	954509	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/24/10	1530	954508

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory

Address : PO Box 1663

TA-03, SM271, Drop Pt. 02U, Rm111

Los Alamos, New Mexico 87545

Contact: Ms. Joylene Valdez

Project: LANL ER Project

Report Date: March 9, 2010

Client SDG: 10-1848

Client Sample ID: RE15-10-8199
Sample ID: 247123003
Matrix: R
Collect Date: 11-FEB-10 12:00
Receive Date: 16-FEB-10
Collector: Client
Moisture: 2.01%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	69.4	255	ug/kg	1	AXC2	02/25/10	1300	954509	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/24/10	1530	954508

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

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

Report Date: March 9, 2010

Client SDG: 10-1848

Client Sample ID: RE15-10-8201
Sample ID: 247123004
Matrix: R
Collect Date: 11-FEB-10 12:00
Receive Date: 16-FEB-10
Collector: Client
Moisture: 1.4%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	61.6	226	ug/kg	1	AXC2	02/25/10	1301	954509	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/24/10	1530	954508

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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QC Summary

Report Date: March 9, 2010

Page 1 of 2

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

Contact: Ms. Joylene Valdez

Workorder: 247123

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Flow Injection Analysis											
Batch	954509										
QC1202046117	247123001	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A		AXC2	02/25/10	12:50
QC1202046118	247123002	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			02/25/10	12:57
QC1202046123	LCS										
Cyanide, Total	67900				69000	ug/kg	102	(32%-157%)		02/25/10	12:42
QC1202046116	MB										
Cyanide, Total			U		250	ug/kg				02/25/10	12:30
QC1202046119	247123001	MS									
Cyanide, Total	4410	U	ND		4630	ug/kg	105	(26%-158%)		02/25/10	12:54
QC1202046120	247123002	MS									
Cyanide, Total	4530	U	ND		4410	ug/kg	97.4	(26%-158%)		02/25/10	12:58
QC1202046121	247123001	MSD									
Cyanide, Total	4830	U	ND		4930	ug/kg	6.28	102	(0%-30%)	02/25/10	12:55
QC1202046122	247123002	MSD									
Cyanide, Total	4880	U	ND		3670	ug/kg	18.3	75.3	(0%-30%)	02/25/10	12:59

Notes:

RER is calculated at the 95% confidence level (2-sigma).

The Qualifiers in this report are defined as follows:

** Analyte is a surrogate compound

< Result is less than value reported

> Result is greater than value reported

A The TIC is a suspected aldol-condensation product

B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

BD Results are either below the MDC or tracer recovery is low

C Analyte has been confirmed by GC/MS analysis

D Results are reported from a diluted aliquot of the sample

E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range

E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

E Organics--Concentration of the target analyte exceeds the instrument calibration range

F Estimated Value

H Analytical holding time was exceeded

J Value is estimated

M M if above MDC and less than LLD

M Matrix Related Failure

N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based

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QC Summary

Workorder: 247123

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
		on nearest internal standard response factor									
N/A		RPD or %Recovery limits do not apply.									
ND		Analyte concentration is not detected above the detection limit									
NJ		Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier									
P		Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%									
R		Sample results are rejected									
U		Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.									
UI		Gamma Spectroscopy--Uncertain identification									
X		Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier									
Y		QC Samples were not spiked with this compound									
Z		Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.									
^		RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.									
d		5-day BOD--The 2:1 depletion requirement was not met for this sample									
h		Preparation or preservation holding time was exceeded									

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 09-MAR-2010 08:51

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1848

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	25-FEB-2010 12:24:32	OM_2-25-2010_12-14-00	148	150	98.7	(90%-110%)	Yes
CCV	25-FEB-2010 12:38:49	OM_2-25-2010_12-14-00	103	100	103	(90%-110%)	Yes
CCV	25-FEB-2010 12:51:15	OM_2-25-2010_12-14-00	104	100	104	(90%-110%)	Yes
CCV	25-FEB-2010 13:03:40	OM_2-25-2010_12-14-00	104	100	104	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	25-FEB-2010 12:26:22	OM_2-25-2010_12-14-00	0.328	10	Yes
CCB	25-FEB-2010 12:40:39	OM_2-25-2010_12-14-00	-2.01	10	Yes
CCB	25-FEB-2010 12:53:06	OM_2-25-2010_12-14-00	-0.919	10	Yes
CCB	25-FEB-2010 13:05:30	OM_2-25-2010_12-14-00	-1.35	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5
 Batch: 954508
 Lab SOP: GL-GC-E-067 REV# 13

Verified by: _____

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202046123	URF1200957-01	.25	g
MS	1202046119	URF1269274-02	.025	mL
MS	1202046120	URF1269274-02	.025	mL
MSD	1202046121	URF1269274-02	.025	mL
MSD	1202046122	URF1269274-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202046116		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.5 g	25 mL	50	SOIL
LCS	1202046123		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.25 g	25 mL	100	SOIL
SAMPLE	247103001		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	247103002		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	247103003		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	247103004		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	247103005		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	247103006		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	247103007		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	247103008		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	247103009		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	247103010		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	247103011		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	247103012		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	247103013		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	247103014		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	247103015		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	247123001		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.5 g	25 mL	50	SOIL
DUP	1202046117	247123001	SW846 9010B Prep	24-FEB-2010 15:30	>12	0.5 g	25 mL	50	SOIL
MS	1202046119	247123001	SW846 9010B Prep	24-FEB-2010 15:30	>12	0.57 g	25 mL	43.85965	SOIL
MSD	1202046121	247123001	SW846 9010B Prep	24-FEB-2010 15:30	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	247123002		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.51 g	25 mL	49.01961	SOIL
DUP	1202046118	247123002	SW846 9010B Prep	24-FEB-2010 15:30	>12	0.58 g	25 mL	43.10345	SOIL
MS	1202046120	247123002	SW846 9010B Prep	24-FEB-2010 15:30	>12	0.56 g	25 mL	44.64286	SOIL
MSD	1202046122	247123002	SW846 9010B Prep	24-FEB-2010 15:30	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	247123003		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.5 g	25 mL	50	SOIL
SAMPLE	247123004		SW846 9010B Prep	24-FEB-2010 15:30	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	247273002		SW846 9010C Distillation	24-FEB-2010 15:30	>12	0.55 g	25 mL	45.45455	SLUDGE

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
1273851-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN100224-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1270663-C	1.25 mL	0.8N H3NO3S	
1260189-C	2.5 mL	50% H2SO4 CN Prep	
1270669-C	1 mL	51% MgCl2 Soln	
1270661-C	1.25 mL	Bismuth Nitrate Solution	

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/25/2010 12:17:22	OM_2-25-2010_12-14-00
150 ppb		1	axc2	2/25/2010 12:18:14	OM_2-25-2010_12-14-00
100 ppb		1	axc2	2/25/2010 12:19:07	OM_2-25-2010_12-14-00
50 ppb		1	axc2	2/25/2010 12:20:00	OM_2-25-2010_12-14-00
10 ppb		1	axc2	2/25/2010 12:20:53	OM_2-25-2010_12-14-00
CRDL 5.0 ppb		1	axc2	2/25/2010 12:21:47	OM_2-25-2010_12-14-00
ICAL-00		1	axc2	2/25/2010 12:22:41	OM_2-25-2010_12-14-00
ICV		1	axc2	2/25/2010 12:24:32	OM_2-25-2010_12-14-00
ICB		1	axc2	2/25/2010 12:26:22	OM_2-25-2010_12-14-00
CRDL		1	axc2	2/25/2010 12:28:12	OM_2-25-2010_12-14-00
1202046116	954509	1	axc2	2/25/2010 12:30:02	OM_2-25-2010_12-14-00
1202046123*	954509	25	axc2	2/25/2010 12:30:55	OM_2-25-2010_12-14-00
247103001	954509	1	axc2	2/25/2010 12:31:48	OM_2-25-2010_12-14-00
247103002	954509	1	axc2	2/25/2010 12:32:41	OM_2-25-2010_12-14-00
247103003	954509	1	axc2	2/25/2010 12:33:34	OM_2-25-2010_12-14-00
247103004	954509	1	axc2	2/25/2010 12:34:27	OM_2-25-2010_12-14-00
247103005	954509	1	axc2	2/25/2010 12:35:20	OM_2-25-2010_12-14-00
247103006	954509	1	axc2	2/25/2010 12:36:12	OM_2-25-2010_12-14-00
247103007	954509	1	axc2	2/25/2010 12:37:04	OM_2-25-2010_12-14-00
247103008	954509	1	axc2	2/25/2010 12:37:57	OM_2-25-2010_12-14-00
CCV		1	axc2	2/25/2010 12:38:49	OM_2-25-2010_12-14-00
CCB		1	axc2	2/25/2010 12:40:39	OM_2-25-2010_12-14-00
1202046123	954509	25	axc2	2/25/2010 12:42:29	OM_2-25-2010_12-14-00
247103009	954509	1	axc2	2/25/2010 12:43:21	OM_2-25-2010_12-14-00
247103010	954509	1	axc2	2/25/2010 12:44:13	OM_2-25-2010_12-14-00
247103011	954509	1	axc2	2/25/2010 12:45:05	OM_2-25-2010_12-14-00
247103012	954509	1	axc2	2/25/2010 12:45:56	OM_2-25-2010_12-14-00
247103013	954509	1	axc2	2/25/2010 12:46:48	OM_2-25-2010_12-14-00
247103014	954509	1	axc2	2/25/2010 12:47:42	OM_2-25-2010_12-14-00
247103015	954509	1	axc2	2/25/2010 12:48:35	OM_2-25-2010_12-14-00
247123001	954509	1	axc2	2/25/2010 12:49:29	OM_2-25-2010_12-14-00
1202046117	954509	1	axc2	2/25/2010 12:50:22	OM_2-25-2010_12-14-00
CCV		1	axc2	2/25/2010 12:51:15	OM_2-25-2010_12-14-00
CCB		1	axc2	2/25/2010 12:53:06	OM_2-25-2010_12-14-00
1202046119	954509	1	axc2	2/25/2010 12:54:54	OM_2-25-2010_12-14-00
1202046121	954509	1	axc2	2/25/2010 12:55:47	OM_2-25-2010_12-14-00
247123002	954509	1	axc2	2/25/2010 12:56:40	OM_2-25-2010_12-14-00
1202046118	954509	1	axc2	2/25/2010 12:57:33	OM_2-25-2010_12-14-00
1202046120	954509	1	axc2	2/25/2010 12:58:26	OM_2-25-2010_12-14-00
1202046122	954509	1	axc2	2/25/2010 12:59:18	OM_2-25-2010_12-14-00
247123003	954509	1	axc2	2/25/2010 13:00:11	OM_2-25-2010_12-14-00
247123004	954509	1	axc2	2/25/2010 13:01:03	OM_2-25-2010_12-14-00
247273002	954509	1	axc2	2/25/2010 13:01:56	OM_2-25-2010_12-14-00
1202049712	955983	1	axc2	2/25/2010 13:02:48	OM_2-25-2010_12-14-00
CCV		1	axc2	2/25/2010 13:03:40	OM_2-25-2010_12-14-00
CCB		1	axc2	2/25/2010 13:05:30	OM_2-25-2010_12-14-00
1202049725	955983	1	axc2	2/25/2010 13:07:17	OM_2-25-2010_12-14-00
247046002	955983	1	axc2	2/25/2010 13:08:11	OM_2-25-2010_12-14-00
1202049713	955983	1	axc2	2/25/2010 13:09:06	OM_2-25-2010_12-14-00
1202049717	955983	1	axc2	2/25/2010 13:09:59	OM_2-25-2010_12-14-00
1202049721	955983	1	axc2	2/25/2010 13:10:52	OM_2-25-2010_12-14-00
247261003	955983	1	axc2	2/25/2010 13:11:45	OM_2-25-2010_12-14-00
1202049714	955983	1	axc2	2/25/2010 13:12:39	OM_2-25-2010_12-14-00
1202049718	955983	1	axc2	2/25/2010 13:13:32	OM_2-25-2010_12-14-00
1202049722	955983	1	axc2	2/25/2010 13:14:25	OM_2-25-2010_12-14-00
247394001	955983	1	axc2	2/25/2010 13:15:18	OM_2-25-2010_12-14-00
CCV		1	axc2	2/25/2010 13:16:10	OM_2-25-2010_12-14-00
CCB		1	axc2	2/25/2010 13:18:01	OM_2-25-2010_12-14-00

247402001	955983	1	axc2	2/25/2010	13:19:49	OM_2-25-2010_12-14-00
247402002	955983	1	axc2	2/25/2010	13:20:42	OM_2-25-2010_12-14-00
247402004	955983	1	axc2	2/25/2010	13:21:34	OM_2-25-2010_12-14-00
247431001	955983	1	axc2	2/25/2010	13:22:27	OM_2-25-2010_12-14-00
247438001	955983	1	axc2	2/25/2010	13:23:19	OM_2-25-2010_12-14-00
1202049715	955983	1	axc2	2/25/2010	13:24:10	OM_2-25-2010_12-14-00
1202049719	955983	1	axc2	2/25/2010	13:25:05	OM_2-25-2010_12-14-00
1202049723	955983	1	axc2	2/25/2010	13:25:59	OM_2-25-2010_12-14-00
247441001	955983	1	axc2	2/25/2010	13:26:53	OM_2-25-2010_12-14-00
247449001	955983	1	axc2	2/25/2010	13:27:47	OM_2-25-2010_12-14-00
CCV		1	axc2	2/25/2010	13:28:39	OM_2-25-2010_12-14-00
CCB		1	axc2	2/25/2010	13:30:29	OM_2-25-2010_12-14-00
247505001	955983	1	axc2	2/25/2010	13:32:20	OM_2-25-2010_12-14-00
1202049716	955983	1	axc2	2/25/2010	13:33:12	OM_2-25-2010_12-14-00
1202049720	955983	1	axc2	2/25/2010	13:34:06	OM_2-25-2010_12-14-00
1202049724	955983	1	axc2	2/25/2010	13:34:59	OM_2-25-2010_12-14-00
247505002	955983	1	axc2	2/25/2010	13:35:52	OM_2-25-2010_12-14-00
247505003	955983	1	axc2	2/25/2010	13:36:45	OM_2-25-2010_12-14-00
247505004	955983	1	axc2	2/25/2010	13:37:38	OM_2-25-2010_12-14-00
247505005	955983	1	axc2	2/25/2010	13:38:30	OM_2-25-2010_12-14-00
247533001	955983	1	axc2	2/25/2010	13:39:22	OM_2-25-2010_12-14-00
247533002	955983	1	axc2	2/25/2010	13:40:14	OM_2-25-2010_12-14-00
CCV		1	axc2	2/25/2010	13:41:07	OM_2-25-2010_12-14-00
CCB		1	axc2	2/25/2010	13:42:58	OM_2-25-2010_12-14-00
247548001	955983	1	axc2	2/25/2010	13:44:45	OM_2-25-2010_12-14-00
247548002	955983	1	axc2	2/25/2010	13:45:40	OM_2-25-2010_12-14-00
247273002	954509	2	axc2	2/25/2010	13:46:32	OM_2-25-2010_12-14-00
247533001	955983	10	axc2	2/25/2010	13:47:24	OM_2-25-2010_12-14-00
247533002	955983	25	axc2	2/25/2010	13:48:16	OM_2-25-2010_12-14-00
CCV		1	axc2	2/25/2010	13:49:09	OM_2-25-2010_12-14-00
CCB		1	axc2	2/25/2010	13:50:59	OM_2-25-2010_12-14-00

Author: axc2

Date : 2/25/2010

Original Run Filename: OM_2-25-2010_12-14-00.OMN created 2/25/2010 12:14:00
 Original Run Author's Signature: [axc2]
 Current Run Filename: OM_2-25-2010_12-14-00.OMN last modified 2/25/2010 13:52:05
 Current Run Author's Signature: [axc2]
 Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
 Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE		Detection Time	ADF	MDF	Description
			Conc. (ug/L)	Area (Vs)				
WCN100225-01	1	S1	200	9.64	2/25/2010@12:17:22			200 ppb
WCN100225-02	1	S2	150	7.20	2/25/2010@12:18:14			150 ppb
WCN100225-03	1	S3	100	4.68	2/25/2010@12:19:07			100 ppb
WCN100225-04	1	S4	50.0	2.51	2/25/2010@12:20:00			50 ppb
WCN100225-05	1	S5	10.0	0.629	2/25/2010@12:20:53			10 ppb
WCN100225-06	1	S6	5.00	0.384	2/25/2010@12:21:47			CRDL 5.0 ppb
WCN100225-08	1	S7	0.00	0.0380	2/25/2010@12:22:41			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99976 > 0.99500					
Message			Pass					
Action			Continue					
WCN100225-07	1	S8	148	7.12	2/25/2010@12:24:32			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			-1.2 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-1.2 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100225-08	1	S7	0.328	0.111	2/25/2010@12:26:22			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			0.328 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.328 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100225-06	1	S6	6.32	0.395	2/25/2010@12:28:12			CRDL
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			6.32 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			6.32 > 2.50					
Message			Pass					
Action			None					
1202046116|954509|MB	1	1	-1.07	0.0449	2/25/2010@12:30:02			
1202046123|LCS	1	2	492	23.4	2/25/2010@12:30:55		25.00	
247103001	1	3	2.33	0.206	2/25/2010@12:31:48			
247103002	1	4	-2.02	-4.98e-4	2/25/2010@12:32:41			
247103003	1	5	1.28	0.156	2/25/2010@12:33:34			
247103004	1	6	-0.839	0.0556	2/25/2010@12:34:27			
247103005	1	7	-0.982	0.0489	2/25/2010@12:35:20			
247103006	1	8	-0.483	0.0725	2/25/2010@12:36:12			
247103007	1	9	0.0851	0.0994	2/25/2010@12:37:04			
247103008	1	10	-2.02	-2.21e-4	2/25/2010@12:37:57			
WCN100225-03	1	S3	103	4.99	2/25/2010@12:38:49			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					
WCN100225-08	1	S7	-2.01	2.30e-4	2/25/2010@12:40:39			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.01 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.01 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202046123||LCS	1	2	27.6	1.41	2/25/2010@12:42:29		25.00	
247103009	1	11	0.343	0.112	2/25/2010@12:43:21			
247103010	1	12	-0.641	0.0650	2/25/2010@12:44:13			
247103011	1	13	1.10	0.148	2/25/2010@12:45:05			
247103012	1	14	0.143	0.102	2/25/2010@12:45:56			
247103013	1	15	-2.03	-7.26e-4	2/25/2010@12:46:48			
247103014	1	16	0.252	0.107	2/25/2010@12:47:42			
247103015	1	17	-0.684	0.0630	2/25/2010@12:48:35			
247123001	1	18	-1.43	0.0275	2/25/2010@12:49:29			
1202046117||DUP	1	19	-2.01	2.15e-4	2/25/2010@12:50:22			
WCN100225-03	1	S3	104	5.03	2/25/2010@12:51:15			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					
WCN100225-08	1	S7	-0.919	0.0518	2/25/2010@12:53:06			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.919 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.919 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202046119||MS	1	20	105	5.07	2/25/2010@12:54:54			
1202046121||MSD	1	21	102	4.93	2/25/2010@12:55:47			
247123002	1	22	-1.18	0.0395	2/25/2010@12:56:40			
1202046118||DUP	1	23	-1.98	0.00160	2/25/2010@12:57:33			
1202046120||MS	1	24	97.4	4.71	2/25/2010@12:58:26			
1202046122||MSD	1	25	75.3	3.66	2/25/2010@12:59:18			
247123003	1	26	-1.24	0.0366	2/25/2010@13:00:11			
247123004	1	27	-1.41	0.0287	2/25/2010@13:01:03			
247273002	1	28	218	10.4	2/25/2010@13:01:56			
1202049712|955983|MB	1	29	0.307	0.110	2/25/2010@13:02:48			
WCN100225-03	1	S3	104	5.04	2/25/2010@13:03:40			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100225-08	1	S7	-1.35	0.0312	2/25/2010@13:05:30			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit						
Result:		-1.35 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.35 > -5.00				
Message		CCB Passed				
Action		Continue				
1202049725||LCS	1	30	53.2	2.62	2/25/2010@13:07:17	
247046002	1	31	-1.20	0.0386	2/25/2010@13:08:11	
1202049713||DUP	1	32	-1.16	0.0403	2/25/2010@13:09:06	
1202049717||MS	1	33	110	5.30	2/25/2010@13:09:59	
1202049721||MSD	1	34	112	5.43	2/25/2010@13:10:52	
247261003	1	35	-1.14	0.0416	2/25/2010@13:11:45	
1202049714||DUP	1	36	-1.44	0.0273	2/25/2010@13:12:39	
1202049718||MS	1	37	111	5.38	2/25/2010@13:13:32	
1202049722||MSD	1	38	105	5.05	2/25/2010@13:14:25	
247394001	1	39	-1.18	0.0397	2/25/2010@13:15:18	
WCN100225-03	1	S3	105	5.07	2/25/2010@13:16:10	CCV
Known Conc:			100			
DQM Test: > + Percent Relative Difference						
Result:		5.0 < 10.0				
Message		CCV Passed				
Action		Continue				
DQM Test: < - Percent Relative Difference						
Result:		5.0 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100225-08	1	S7	-1.41	0.0283	2/25/2010@13:18:01	CCB
Known Conc:			0.00			
DQM Test: > + Concentration Limit						
Result:		-1.41 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.41 > -5.00				
Message		CCB Passed				
Action		Continue				
247402001	1	40	-1.02	0.0469	2/25/2010@13:19:49	
247402002	1	41	-0.885	0.0535	2/25/2010@13:20:42	
247402004	1	42	-0.633	0.0654	2/25/2010@13:21:34	
247431001	1	43	-1.65	0.0173	2/25/2010@13:22:27	
247438001	1	44	-1.24	0.0365	2/25/2010@13:23:19	
1202049715||DUP	1	45	-1.40	0.0289	2/25/2010@13:24:10	
1202049719||MS	1	46	99.6	4.82	2/25/2010@13:25:05	
1202049723||MSD	1	47	111	5.37	2/25/2010@13:25:59	
247441001	1	48	-1.19	0.0390	2/25/2010@13:26:53	
247449001	1	49	0.0261	0.0966	2/25/2010@13:27:47	
WCN100225-03	1	S3	103	5.00	2/25/2010@13:28:39	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				
WCN100225-08	1	S7	-1.29	0.0343	2/25/2010@13:30:29	CCB
Known Conc:			0.00			
DQM Test: > + Concentration Limit						
Result:		-1.29 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.29 > -5.00				
Message		CCB Passed				
Action		Continue				

247505001	1	50	-0.496	0.0719	2/25/2010@13:32:20			
1202049716||DUP	1	51	-1.17	0.0398	2/25/2010@13:33:12			
1202049720||MS	1	52	96.2	4.65	2/25/2010@13:34:06			
1202049724||MSD	1	53	100	4.83	2/25/2010@13:34:59			
247505002	1	54	-1.29	0.0342	2/25/2010@13:35:52			
247505003	1	55	-1.28	0.0346	2/25/2010@13:36:45			
247505004	1	56	-1.98	0.00137	2/25/2010@13:37:38			
247505005	1	57	-1.07	0.0448	2/25/2010@13:38:30			
247533001	1	58	476	22.7	2/25/2010@13:39:22			
247533002	1	59	1.91e+3	90.9	2/25/2010@13:40:14			
WCN100225-03	1	S3	110	5.30	2/25/2010@13:41:07			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			9.9 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			9.9 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100225-08	1	S7	-0.877	0.0538	2/25/2010@13:42:58			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-0.877 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.877 > -5.00					
Message			CCB Passed					
Action			Continue					
247548001	1	60	-1.11	0.0426	2/25/2010@13:44:45			
247548002	1	61	1.17	0.151	2/25/2010@13:45:40			
247273002|954509|	1	28	106	5.10	2/25/2010@13:46:32		2.00	
247533001|955983|	1	58	43.8	2.17	2/25/2010@13:47:24		10.00	
247533002	1	59	183	8.78	2/25/2010@13:48:16		25.00	
WCN100225-03	1	S3	104	5.01	2/25/2010@13:49:09			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			3.7 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			3.7 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100225-08	1	S7	-0.996	0.0482	2/25/2010@13:50:59			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-0.996 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.996 > -5.00					
Message			CCB Passed					
Action			Continue					

Analyte Properties Table for OM_2-25-2010_12-14-00.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

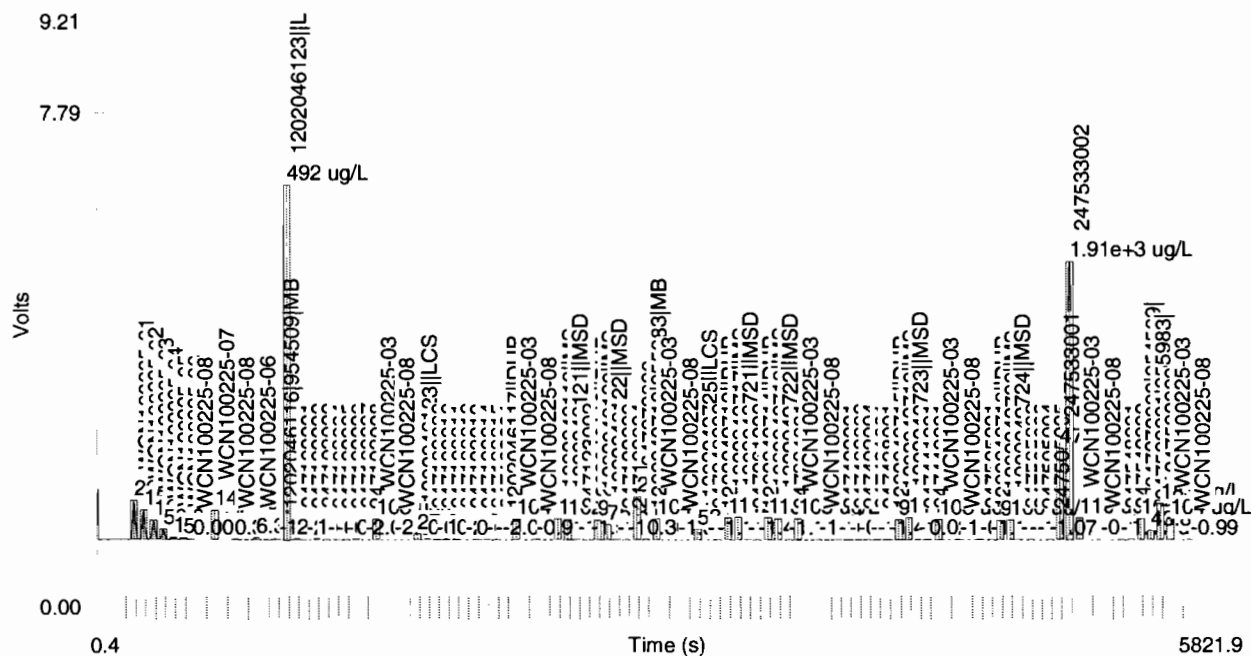
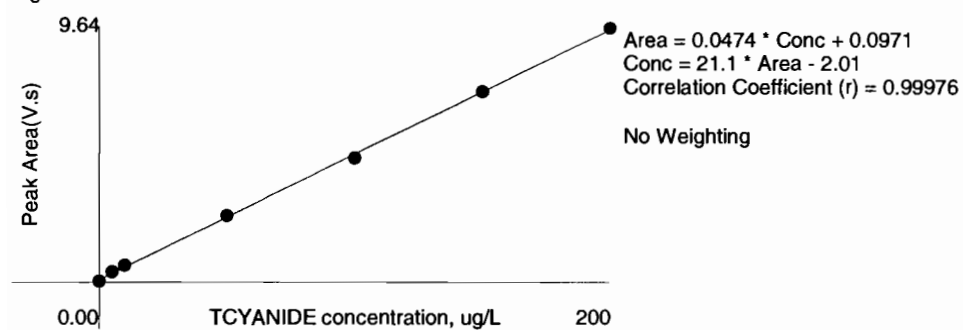


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.64	0.609	-0.7	2/25/2010	12:18:25
2	150	1	7.20	0.459	0.0	2/25/2010	12:19:17
3	100	1	4.68	0.300	3.2	2/25/2010	12:20:10
4	50.0	1	2.51	0.160	-1.8	2/25/2010	12:21:03
5	10.0	1	0.629	0.0395	-10.1	2/25/2010	12:21:56
6	5.00	1	0.384	0.0226	-14.9	2/25/2010	12:22:50
7	0.00	1	0.0380	0.00110		2/25/2010	12:23:44

Figure 1: TCYANIDE



RADIOLOGICAL ANALYSIS

**Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1848**

Method/Analysis Information

Procedure: **Dry Weight-Percent Moisture**

Analytical Method:

Analytical Batch Number: 955036

Sample ID	Client ID
247123001	RE15-10-8198
247123002	RE15-10-8200
247123003	RE15-10-8199
247123004	RE15-10-8201
1202047470	247123001(RE15-10-8198) 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:

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Quality Control (QC) Information:

Designated QC

The following sample was used for QC: 247123001 (RE15-10-8198). The QC was from LANL work order 247123.

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: LSC, Tritium Dist, Solid
Analytical Method: EPA 906.0 Modified
Analytical Batch Number: 959453

Sample ID	Client ID
247123001	RE15-10-8198
247123002	RE15-10-8200
247123003	RE15-10-8199
247123004	RE15-10-8201
1202057816	Method Blank (MB)
1202057817	247123001(RE15-10-8198) Sample Duplicate (DUP)
1202057818	Laboratory Control Sample (LCS)
1202058689	247123001(RE15-10-8198) Matrix Spike (MS)

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. The initial Calibration was performed in August 2009.

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: 247123001 (RE15-10-8198). The QC was from LANL work order 247123.

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 1202058689 (RE15-10-8198) was recounted due to low recovery.

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: _____

Randy Walker 3/8/18

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

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

Certificate of Analysis Report for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1848 GEL Work Order: 247123

The Qualifiers in this report are defined as follows:

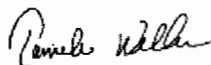
- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.

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 9, 2010

Client Sample ID: RE15-10-8198
Sample ID: 247123001
Matrix: R
Collect Date: 11-FEB-10
Receive Date: 16-FEB-10
Collector: Client
Moisture: .451%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Liquid Scintillation Analysis												
<i>LSC, Tritium Dist, Solid "As Received"</i>												
Tritium		7.45	4.61	+/-1.77	6.00	pCi/g		KXK2	03/04/10	0747	959453	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	EPA 906.0 Modified

Notes:

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

The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.

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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 9, 2010

Client Sample ID: RE15-10-8198
Sample ID: 247123001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time Batch	Mtd.
-----------	-----------	--------	----	-----	----	-------	----	---------	------	------------	------

ND Analyte concentration is not detected above the detection limit

NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%

R Sample results are rejected

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

UI Gamma Spectroscopy--Uncertain identification

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Y QC Samples were not spiked with this compound

Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

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 9, 2010

Client Sample ID: RE15-10-8200
Sample ID: 247123002
Matrix: R
Collect Date: 11-FEB-10
Receive Date: 16-FEB-10
Collector: Client
Moisture: 1.39%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Liquid Scintillation Analysis												
<i>LSC, Tritium Dist, Solid "As Received"</i>												
Tritium		180	4.63	+/-21.3	6.00	pCi/g		KXK2	03/04/10	0834	959453	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	EPA 906.0 Modified

Notes:

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

The Qualifiers in this report are defined as follows :

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 - BD Results are either below the MDC or tracer recovery is low
 - C Analyte has been confirmed by GC/MS analysis
 - D Results are reported from a diluted aliquot of the sample
 - E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
 - E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
 - E Organics--Concentration of the target analyte exceeds the instrument calibration range
 - F Estimated Value
 - H Analytical holding time was exceeded
 - J Value is estimated
 - M M if above MDC and less than LLD
 - M Matrix Related Failure
 - N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).
- Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit

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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 9, 2010

Client Sample ID: RE15-10-8200 Project: LANL01004
Sample ID: 247123002 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
-----------	-----------	--------	----	-----	----	-------	----	---------	------	------	-------	------

NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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 9, 2010

Client Sample ID: RE15-10-8199
Sample ID: 247123003
Matrix: R
Collect Date: 11-FEB-10
Receive Date: 16-FEB-10
Collector: Client
Moisture: 2.01%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Liquid Scintillation Analysis												
<i>LSC, Tritium Dist, Solid "As Received"</i>												
Tritium		476	4.63	+/-55.6	6.00	pCi/g		KXK2	03/04/10	0921	959453	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	EPA 906.0 Modified

Notes:

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

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 - C Analyte has been confirmed by GC/MS analysis
 - D Results are reported from a diluted aliquot of the sample
 - E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
 - E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
 - E Organics--Concentration of the target analyte exceeds the instrument calibration range
 - F Estimated Value
 - H Analytical holding time was exceeded
 - J Value is estimated
 - M M if above MDC and less than LLD
 - M Matrix Related Failure
 - N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).
- Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit

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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 9, 2010

Client Sample ID: RE15-10-8199
Sample ID: 247123003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time Batch	Mtd.
-----------	-----------	--------	----	-----	----	-------	----	---------	------	------------	------

NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%

R Sample results are rejected

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

UI Gamma Spectroscopy--Uncertain identification

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Y QC Samples were not spiked with this compound

Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

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 9, 2010

Client Sample ID: RE15-10-8201
Sample ID: 247123004
Matrix: R
Collect Date: 11-FEB-10
Receive Date: 16-FEB-10
Collector: Client
Moisture: 1.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
<i>"As Received"</i>												
Rad Liquid Scintillation Analysis												
<i>LSC, Tritium Dist, Solid "As Received"</i>												
Tritium		80.6	4.65	+/-9.79	6.00	pCi/g		KXK2	03/04/10	1008	959453	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	EPA 906.0 Modified

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
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 - C Analyte has been confirmed by GC/MS analysis
 - D Results are reported from a diluted aliquot of the sample
 - E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
 - E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
 - E Organics--Concentration of the target analyte exceeds the instrument calibration range
 - F Estimated Value
 - H Analytical holding time was exceeded
 - J Value is estimated
 - M M if above MDC and less than LLD
 - M Matrix Related Failure
 - N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).
- Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit

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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 9, 2010

Client Sample ID: RE15-10-8201 Project: LANL01004
Sample ID: 247123004 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
-----------	-----------	--------	----	-----	----	-------	----	---------	------	------	-------	------

NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%

R Sample results are rejected

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

UI Gamma Spectroscopy--Uncertain identification

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Y QC Samples were not spiked with this compound

Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 9, 2010

Page 1 of 2

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico
Contact: Ms. Joylene Valdez
Workorder: 247123

Parmname	NOM	Sample Qual	QC	Units	RER	REC %	Range	Anlst	Date Time
Rad Liquid Scintillation									
Batch	959453								
QC1202057817	247123001	DUP							
Tritium			7.45	7.87	pCi/g	0.0592	(0-1)	KXK2	03/04/1011:42
		TPU:	+/-1.77	+/-1.82					
QC1202057818	LCS								
Tritium	34.0			36.3	pCi/g	107	(80%-120%)		03/04/1012:56
		TPU:		+/-5.51					
QC1202057816	MB								
Tritium		U	-0.076		pCi/g				03/04/1010:55
		TPU:		+/-1.32					
QC1202058689	247123001	MS							
Tritium	34.2		7.45	35.0	pCi/g	80.5	(75%-125%)		03/05/1016:54
		TPU:	+/-1.77	+/-5.53					

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.
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- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

GEL LABORATORIES LLC

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

QC Summary

Workorder: 247123

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
UI	Gamma Spectroscopy--Uncertain identification									
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier									
Y	QC Samples were not spiked with this compound									
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.									
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.									
d	5-day BOD--The 2:1 depletion requirement was not met for this sample									
h	Preparation or preservation holding time was exceeded									

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

** Indicates analyte is a surrogate compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 959453 Product: H3 Date: 3/6/10
4/3/10

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)			N/A
If activity less 10" MDA/ MDC, error is 150% or less of sample activity. If greater 10" MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits.	✓		
Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5" MDA/ MDC, then RPD is 100% or less. If greater 5" MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%.	✓		
Or meets the client's required RER acceptance criteria.			
Tracer yield is 15-125% . Carrier yield 25-125%.			
Or meets the client's contract acceptance criteria.			nta
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.	✓		
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms.			
All line outs initialed and dated.	✓		
No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [Signature] 3/6/10

Secondary Review Performed By: [Signature] 3/9/10

LANL

3/3319-3/16

7/3/10 Page 1023 of 1049

Tritium Que Sheet

02-MAR-10

Batch #: 959453

Analyst: KXK2 First Client Due Date 16-MAR-10

Internal Due Date: 09-MAR-10

Spike Isotope: Hydrogen-3

Spike Code: 0134-K

Expiration Date: 3/27/10 Vol: 0.1

LCS Isotope: Hydrogen-3

LCS Code: 0134-K

Expiration Date: 3/27/10 Vol: 0.1

Prep Date: 3/2/10

Initials: *Yuf* Pipet ID: 2970968

Witness: *Yuf* 3/2/10

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)	Dist Vol (mL)
247123001-1	RE15-10-8198	SAMPLE		6 pCi/g	SOIL	LANL010	11-FEB-10	10	352	15	50	3.254		13
247123002-1	RE15-10-8200	SAMPLE		6 pCi/g	SOIL	LANL010	11-FEB-10	10	353	21	50	3.251		13
247123003-1	RE15-10-8199	SAMPLE		6 pCi/g	SOIL	LANL010	11-FEB-10	10	354	30	50	3.259		13
247123004-1	RE15-10-8201	SAMPLE		6 pCi/g	SOIL	LANL010	11-FEB-10	10	355	11	50	3.252		13
1202057816-1	MB for batch 959453	MB		6 pCi/g	SOIL	QC ACCOUNT		10	356	16	50	3.259		13
1202057817-1	RE15-10-8198(247123001DUP)	DUP		6 pCi/g	SOIL	QC ACCOUNT	11-FEB-10	10	357	16	50	3.251		13
1202058689-1	RE15-10-8198(247123001MS)	MS		6 pCi/g	SOIL	QC ACCOUNT	11-FEB-10	10	358	136	50	3.254		13
1202057818-1	LCS for batch 959453	LCS		6 pCi/g	SOIL	QC ACCOUNT		10	359	151	50	3.259		13

8

Bkg Rack # ~~457~~ 35-1/50-1
#314/10

Guillev 3/16/10

Comments:

Bkg prepared with dead water? Yes/No

Instrument Used (circle as appropriate): LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4140127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656, Orange DG6095168

Calibration Used : Ecoscint Ultra 10 mL/sample/13 mL Ecoscint Ultra
Data Reviewed By: *Yuf* 3/6/10

GEL Laboratories LLC, Radiochemistry Division

Page 1 of 1

Ultra

Pipet, 5.0 ml Stddev : +/-	0.025729	ml
----------------------------	----------	----

Half-life of Tritium :	12.32	years
------------------------	-------	-------

Sample Characteristics			Total Sample Volume (L)	Sample Aliquot G	Sample Aliquot StDev. G	Distilled Sample Counted L	Sample Counted StDev. L	Rig number	Sample Date/Time
Pos.	Sample ID								
1	247123001.1	0.0500	3.2540	3.5568E-03	0.0100	2.5729E-05	15	2/11/2010 12:00	
2	247123002.1	0.0500	3.2510	3.5663E-03	0.0100	2.5729E-05	21	2/11/2010 12:00	
3	247123003.1	0.0500	3.2590	3.5571E-03	0.0100	2.5729E-05	36B	2/11/2010 12:00	
4	247123004.1	0.0500	3.2520	3.5644E-03	0.0100	2.5729E-05	111	2/11/2010 12:00	
5	1202057816.1	0.0500	3.2590	3.5571E-03	0.0100	2.5729E-05	116	3/2/2010 0:00	
6	1202057817.1	0.0500	3.2510	3.5663E-03	0.0100	2.5729E-05	116B	2/11/2010 12:00	
7	1202058689.1	0.0500	3.2540	3.5568E-03	0.0100	2.5729E-05	136	2/11/2010 12:00	
8	1202057818.1	0.0500	3.2590	3.5571E-03	0.0100	2.5729E-05	151	3/2/2010 0:00	

Count raw Data				Background				Calibration Data				Detector Efficiency				Backgrounds	
Pos.	Rack	Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack	Position #	Count Start Date/Time
1	35-2		45	114.7	4.69	2.73	45	3/4/2010 7:47	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1827	0.00792		35-1	3/4/2010 7:00
2	35-3		45	115.8	49.98	2.73	45	3/4/2010 8:34	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1820	0.00792		35-1	3/4/2010 7:00
3	35-4		45	116.7	127.44	2.73	45	3/4/2010 9:21	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1815	0.00792		35-1	3/4/2010 7:00
4	35-5		45	117	23.76	2.73	45	3/4/2010 10:08	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1813	0.00792		35-1	3/4/2010 7:00
5	35-6		45	115.8	2.71	2.73	45	3/4/2010 10:55	1.000	LSCGOLD	8/20/2009	8/31/2010	0.1820	0.00792		35-1	3/4/2010 7:00
6	35-7		45	117.6	4.78	2.73	45	3/4/2010 11:42	0.997	LSCGOLD	8/20/2009	8/31/2010	0.1809	0.00792		35-1	3/4/2010 7:00
7	50-2		15	114.9	15.67	4.80	15	3/5/2010 16:54	0.997	LSCBLUE	8/21/2009	8/31/2010	0.2159	0.00792		50-1	3/5/2010 16:38
8	28-2		15	114.8	12.33	2.73	45	3/4/2010 12:56	1.000	LSCGOLD	8/20/2009	8/31/2010	0.1826	0.00792		35-1	3/4/2010 7:00

PAGE: 1

ID: TRITIUM

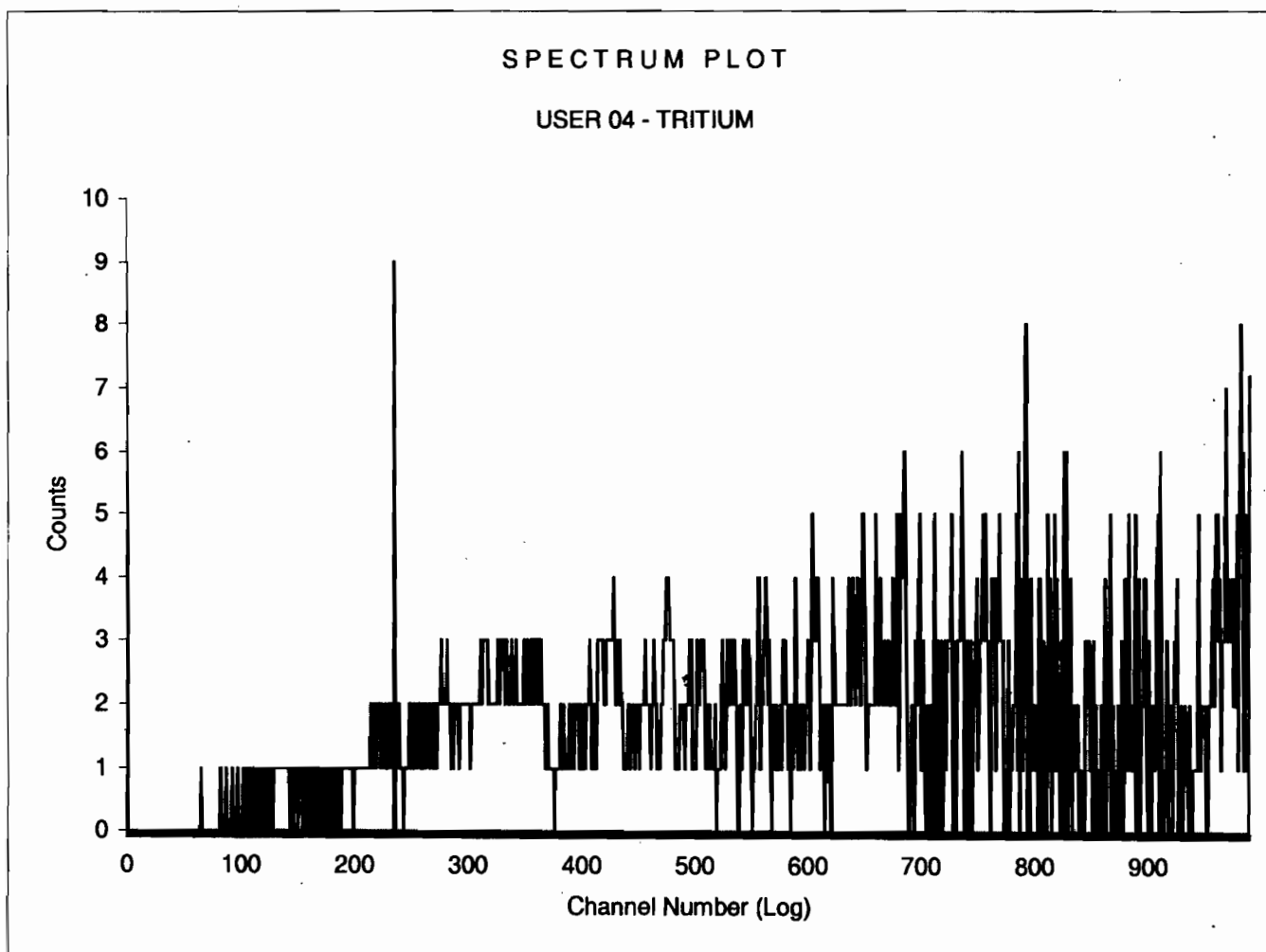
4 MAR 2010 06:57

USER: 4 COMMENT: GOLD
 PRESET TIME : 45.00
 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

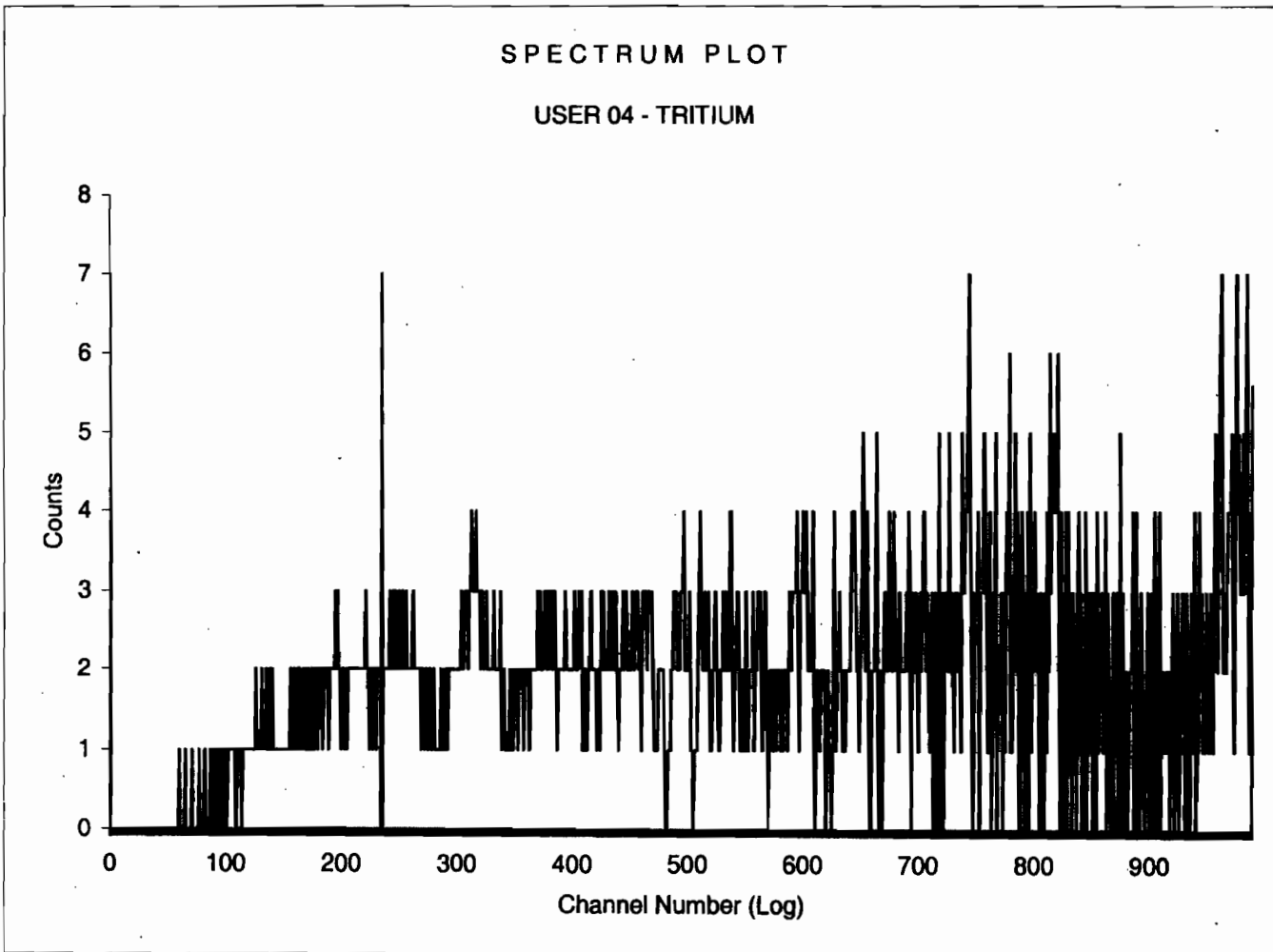
CHAN: 0.0 - 235.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0
 CHAN: 0.0 - 1000.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1		WIND2		LUMEX %	ELAPSED TIME
				CPM	%ERROR	CPM	%ERROR		
1	35-1	45.00	116.3	2.73	18.25	41.80	4.62	0.31	46.43
2	35-2	45.00	114.7	4.69	13.83	46.00	4.40	0.23	93.37
3	35-3	45.00	115.8	49.98	4.22	109.58	2.85	0.10	140.31
4	35-4	45.00	116.7	127.44	2.64	217.24	2.02	0.04	187.24
5	35-5	45.00	117.0	23.76	6.12	72.80	3.50	0.14	234.20
6	35-6	45.00	115.8	2.71	18.25	40.98	4.66	0.23	281.14
7	35-7	45.00	117.6	4.78	13.70	47.84	4.31	0.24	328.11

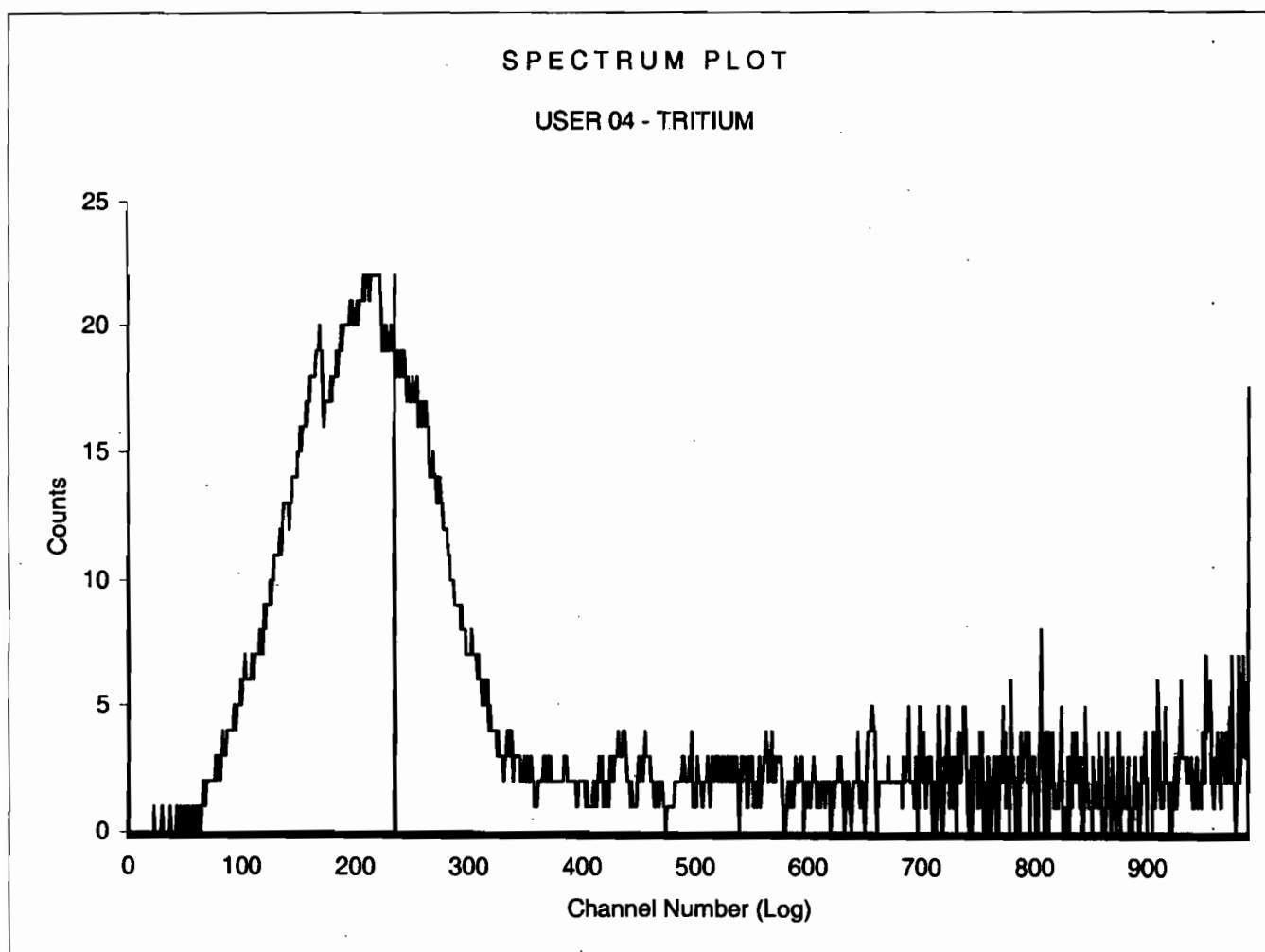
Sample Count Start Time:	4 Mar 2010 07:00:25		
Data Capture Date	04 Mar 2010 07:45:36		
User Filename	S04030435-1A.XLS		
	U04030435-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GOLD		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	35-1	45.00
H#, Total Counts:	116.3	2009	
Win1: Tritium - Start, End, Counts:	0	235	115
Win2: - Start, End, Counts:	0	990	1689



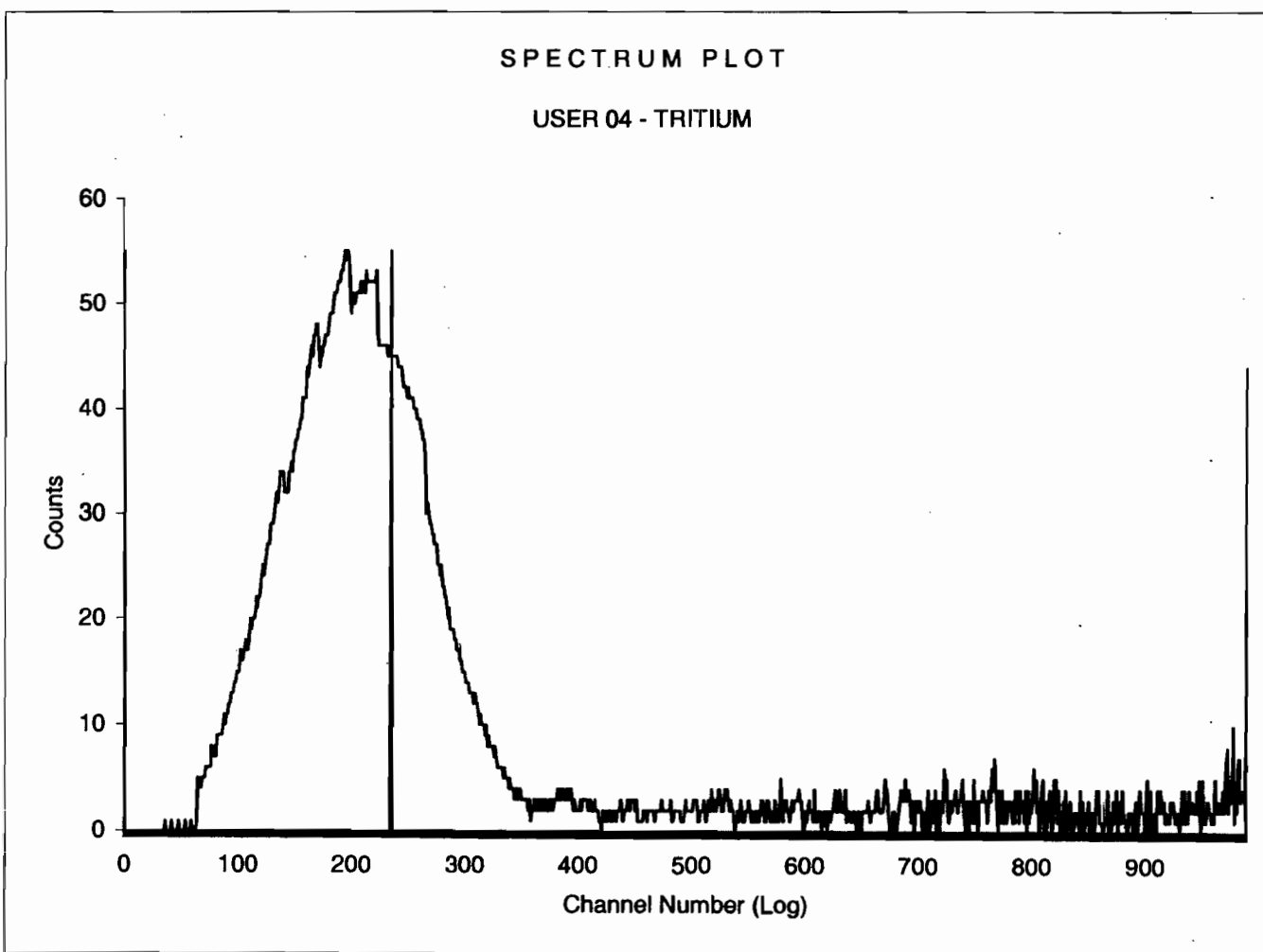
Sample Count Start Time:	4 Mar 2010 07:47:21		
Data Capture Date	04 Mar 2010 08:32:33		
User Filename	S04030435-2A.XLS		
	U04030435-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GOLD		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	35-2	45.00
H#, Total Counts:	114.7	2222	
Win1: Tritium - Start, End, Counts:	0	235	213
Win2: - Start, End, Counts:	0	990	1862



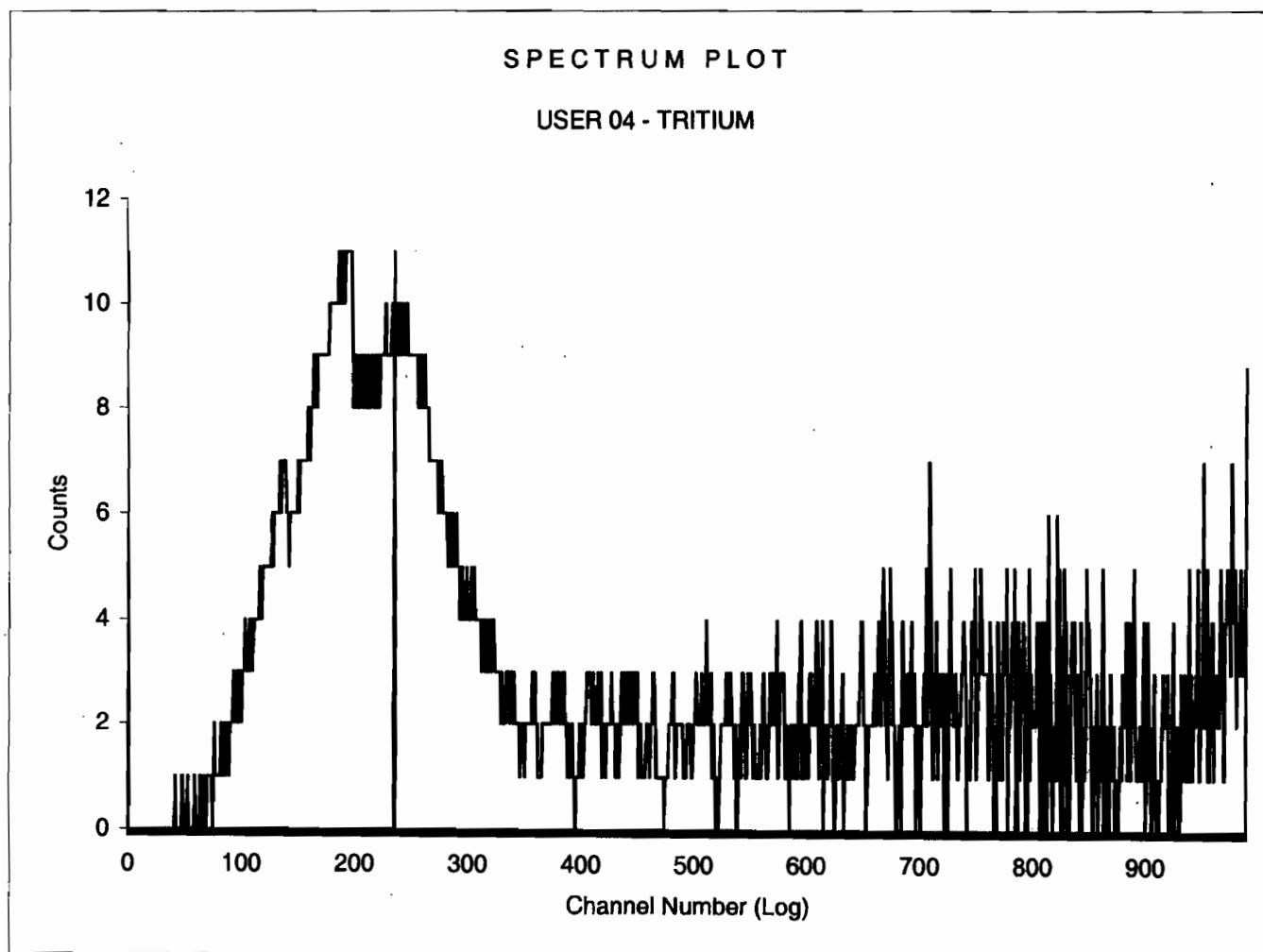
Sample Count Start Time:	4 Mar 2010 08:34:18		
Data Capture Date	04 Mar 2010 09:19:29		
User Filename	S04030435-3A.XLS		
	U04030435-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GOLD		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	35-3	45.00
H#, Total Counts:	115.8	5115	
Win1: Tritium - Start, End, Counts:	0	235	2267
Win2: - Start, End, Counts:	0	990	4746



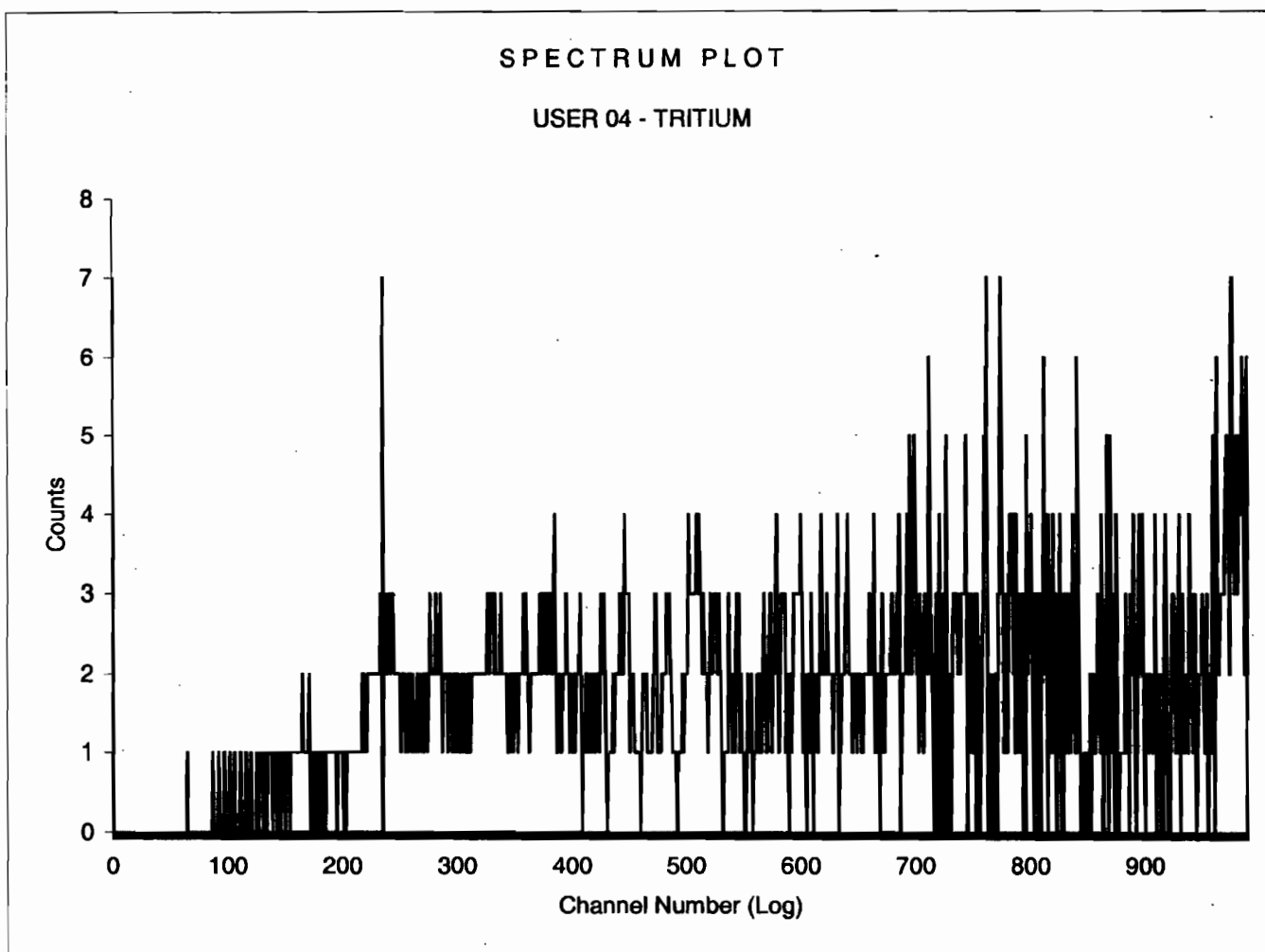
Sample Count Start Time:	4 Mar 2010 09:21:13		
Data Capture Date	04 Mar 2010 10:06:50		
User Filename	S04030435-4A.XLS		
	U04030435-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GOLD		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	35-4	45.00
H#, Total Counts:	116.7	9928	
Win1: Tritium - Start, End, Counts:	0	235	5748
Win2: - Start, End, Counts:	0	990	9562



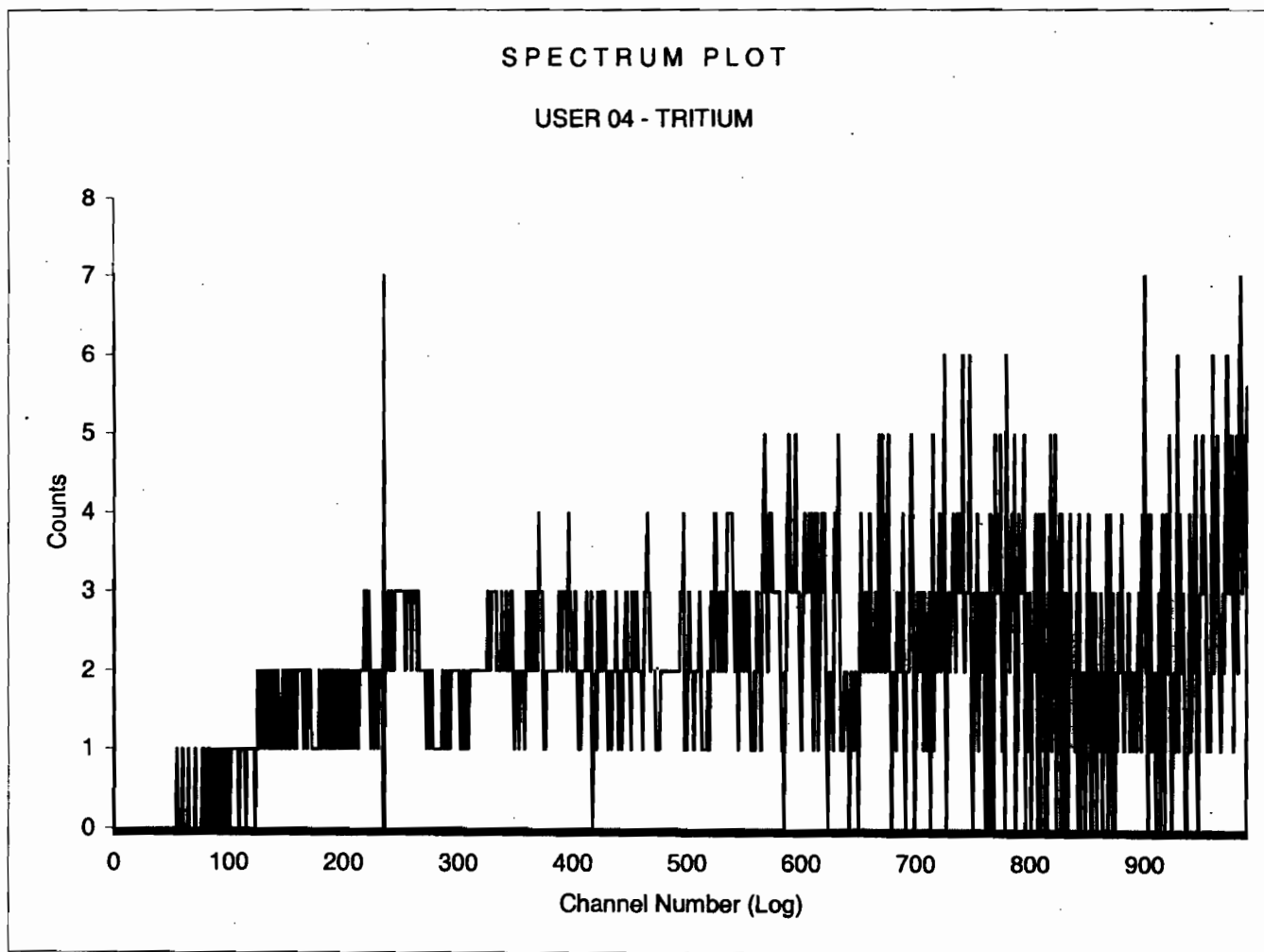
Sample Count Start Time:	4 Mar 2010 10:08:11		
Data Capture Date	04 Mar 2010 10:53:23		
User Filename	S04030435-5A.XLS		
	U04030435-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GOLD		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	35-5	45.00
H#, Total Counts:	117.0	3396	
Win1: Tritium - Start, End, Counts:	0	235	1079
Win2: - Start, End, Counts:	0	990	3074



Sample Count Start Time:	4 Mar 2010 10:55:07		
Data Capture Date	04 Mar 2010 11:40:19		
User Filename	S04030435-6A.XLS		
	U04030435-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GOLD		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	35-6	45.00
H#, Total Counts:	115.8	1964	
Win1: Tritium - Start, End, Counts:	0	235	125
Win2: - Start, End, Counts:	0	990	1677



Sample Count Start Time:	4 Mar 2010 11:42:06
Data Capture Date	04 Mar 2010 12:27:17
User Filename	S04030435-7A.XLS
	U04030435-1A.XLS
Spectrum Type	Log Counts
User Number	04
User Id	TRITIUM
User Comment	GOLD
Scintillator	LIQUID
Sample, Rack-Pos, Time:	7 35-7 45.00
H#, Total Counts:	117.6 2273
Win1: Tritium - Start, End, Counts:	0 235 217
Win2: - Start, End, Counts:	0 990 1981



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ID: TRITIUM

4 MAR 2010 12:38

USER: 3 COMMENT: GOLD
 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

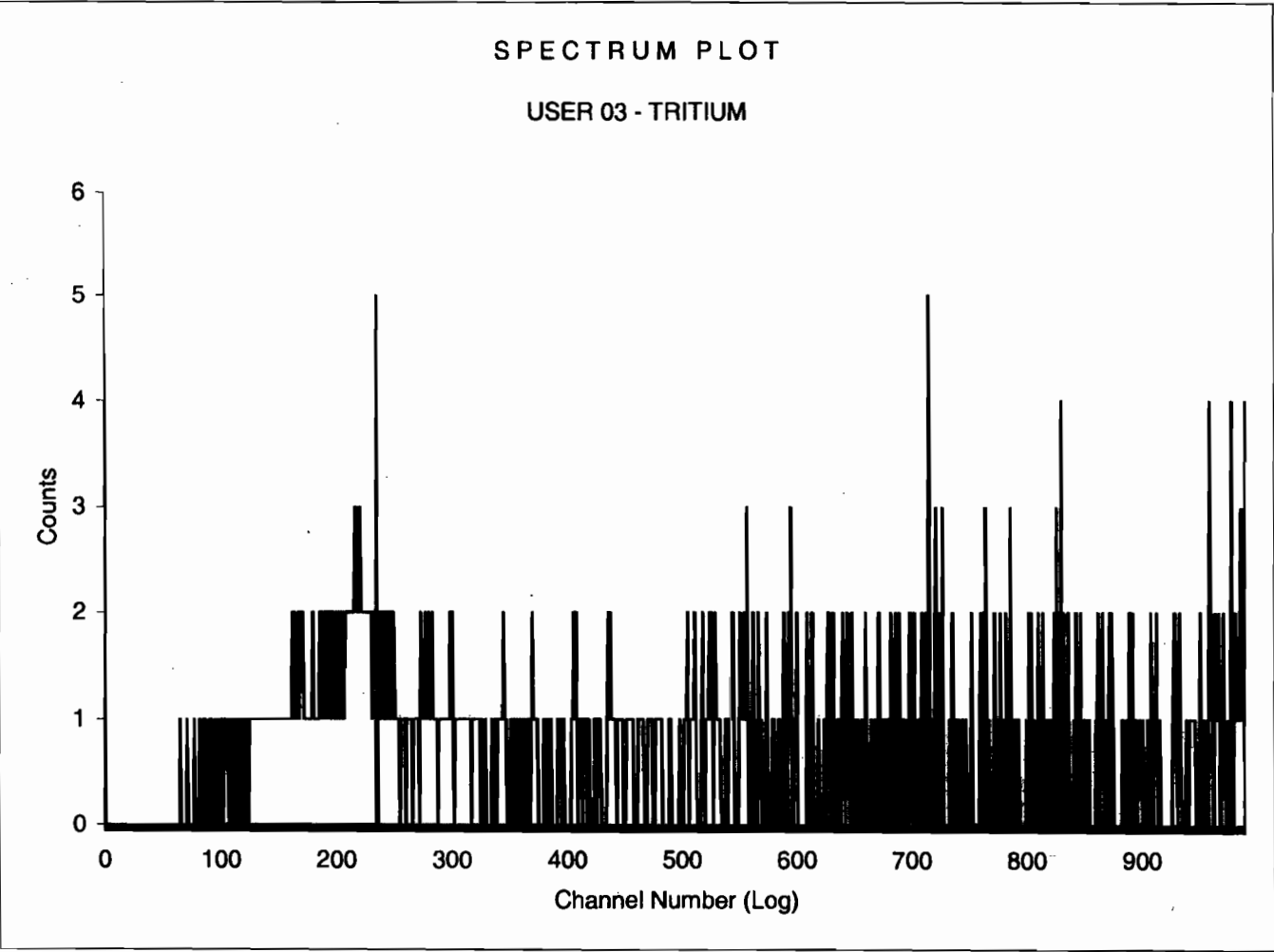
CHAN: 0.0 - 235.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0
 CHAN: 0.0 - 1000.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1		WIND2		LUMEX %	ELAPSED TIME
				CPM	%ERROR	CPM	%ERROR		
1	28-1	15.00	116.7	13.40	14.11	56.27	6.88	0.20	15.83
2	28-2	15.00	114.8	12.33	14.70	54.80	6.98	0.18	32.12

3/6/10

Sample Count Start Time: 4 Mar 2010 12:56:56
Data Capture Date 04 Mar 2010 13:12:20
User Filename S03030428-2B.XLS

Spectrum Type	Log Counts
User Number	03
User Id	TRITIUM
User Comment	GOLD
Scintillator	LIQUID
Sample, Rack-Pos, Time:	2 28-2 15.00
H#, Total Counts:	114.8 910
Win1: Tritium - Start, End, Counts:	0 235 187
Win2: - Start, End, Counts:	0 990 733



PAGE: 1

ID: TRITIUM

5 MAR 2010 16:47

USER: 5 COMMENT: BLUE
 PRESET TIME : 15.00
 DATA CALC : CPM H# : YES SAMPLE REPEATS: 1 PRINTER : EDIT
 COUNT BLANK : NO IC# : NO REPLICATES : 1 RS232 : EDIT
 TWO PHASE : NO ADC : NO CYCLE REPEATS : 1 DISK : OFF
 SCINTILLATOR: LIQUID LUMEX: YES LOW SAMPLE REJ: 0 RWM LIST : OFF
 LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

CHAN: 20.0 - 270.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0
 CHAN: 0.0 - 990.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

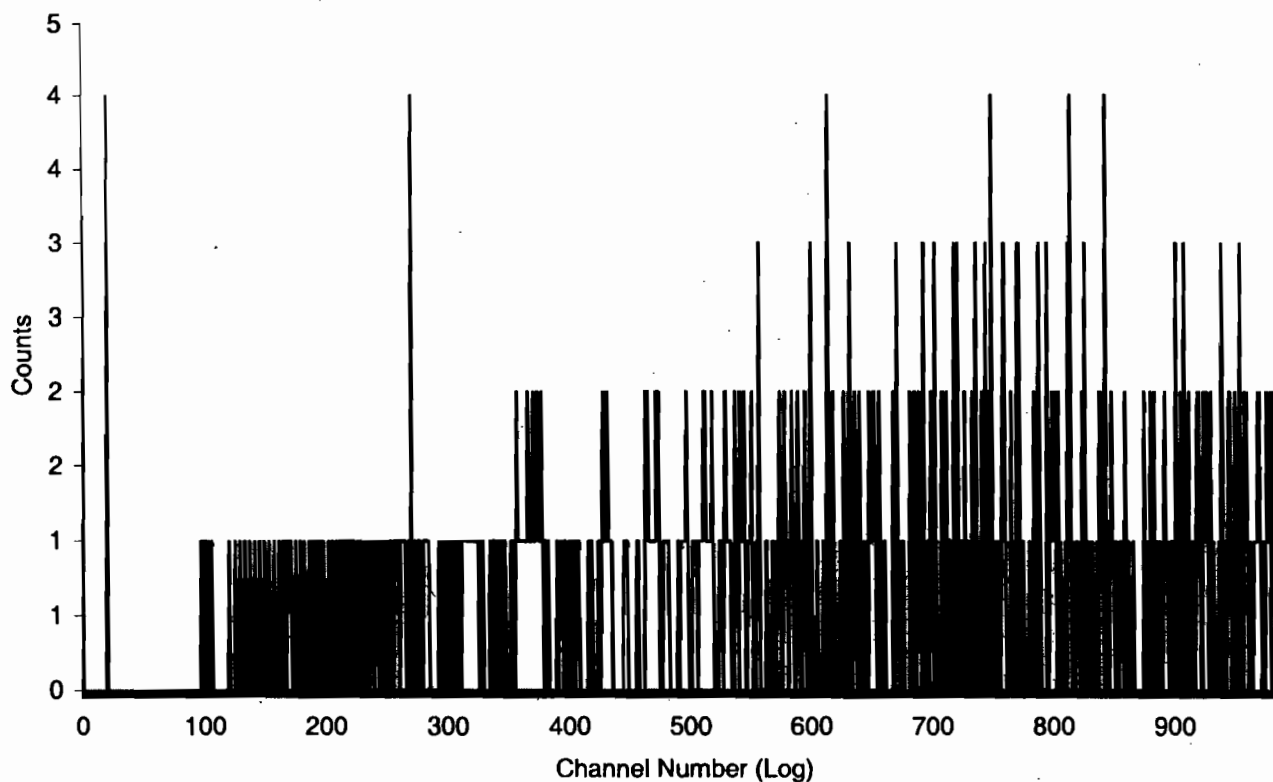
ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	WIND1		WIND2		LUMEX %	ELAPSED TIME
				CPM	%ERROR	CPM	%ERROR		
1	50-1	15.00	115.1	4.80	24.06	40.87	8.10	0.85	15.84
2	50-2	15.00	114.9	15.67	13.13	52.07	7.17	0.67	32.17

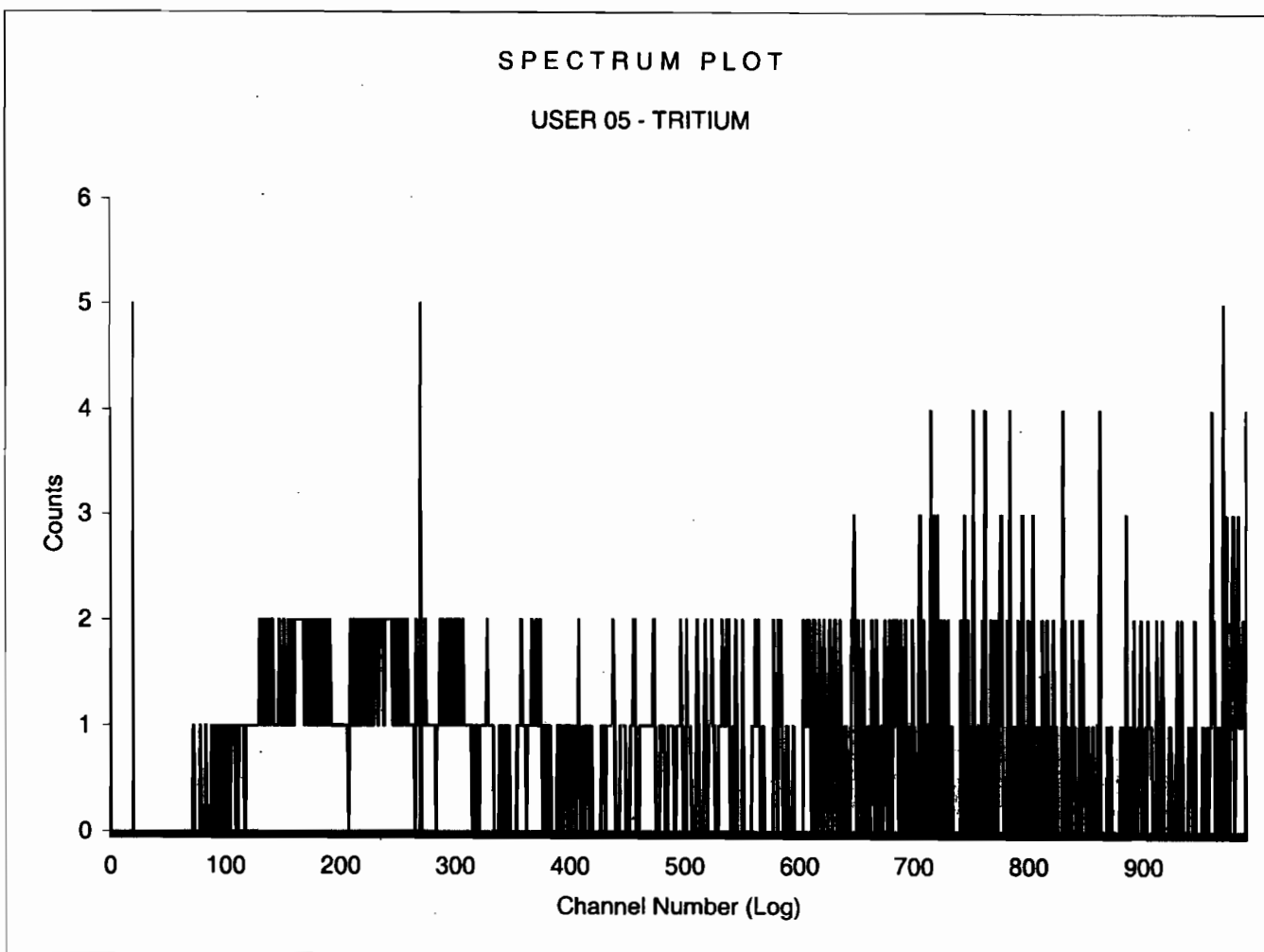
Sample Count Start Time:	5 Mar 2010 16:38:05		
Data Capture Date	05 Mar 2010 16:52:32		
User Filename	S05030550-1A.XLS		
	U05030550-1A.XLS		
Spectrum Type	Log Counts		
User Number	05		
User Id	TRITIUM		
User Comment	BLUE		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	50-1	15.00
H#, Total Counts:	115.1	787	
Win1: Tritium - Start, End, Counts:	20	270	72
Win2: - Start, End, Counts:	0	990	615

SPECTRUM PLOT

USER 05 - TRITIUM



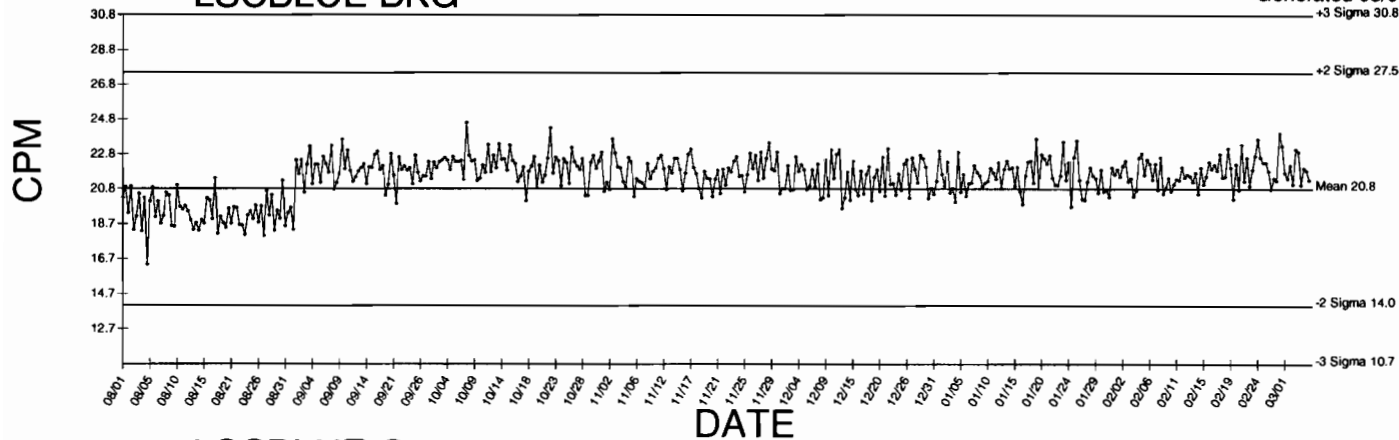
Sample Count Start Time:	5 Mar 2010 16:54:25		
Data Capture Date	05 Mar 2010 17:08:51		
User Filename	S05030550-2A.XLS		
	U05030550-1A.XLS		
Spectrum Type	Log Counts		
User Number	05		
User Id	TRITIUM		
User Comment	BLUE		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	50-2	15.00
H#, Total Counts:	114.9	853	
Win1: Tritium - Start, End, Counts:	20	270	236
Win2: - Start, End, Counts:	0	990	784



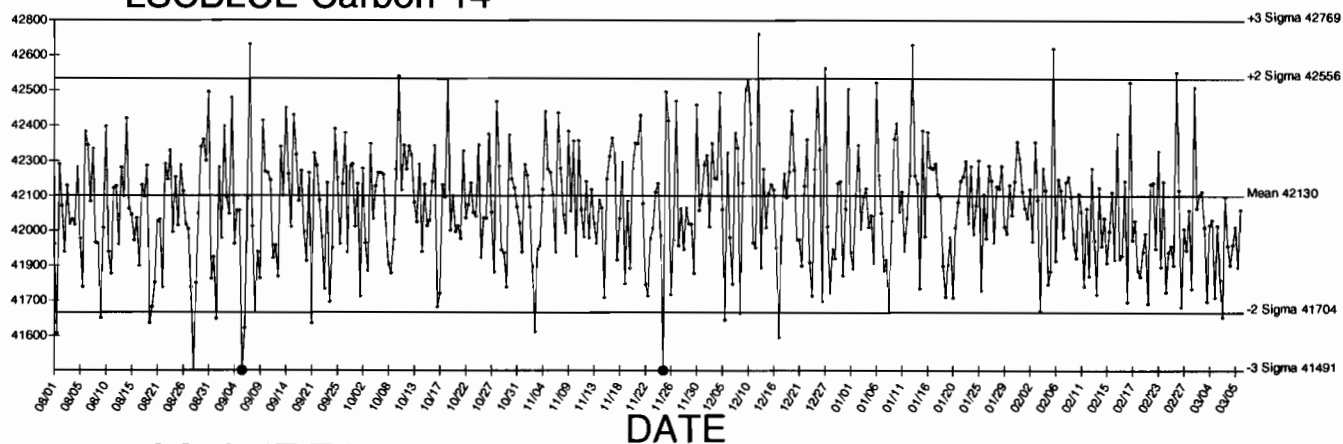
BACKGROUND AND EFFICIENCY DATA

LSCBLUE BKG

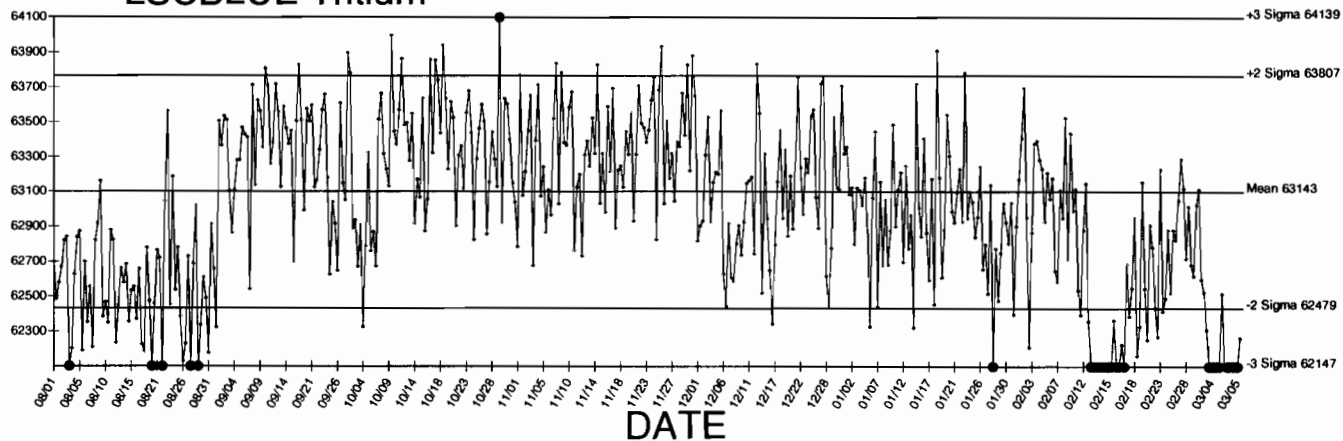
Generated 03/05/2010



LSCBLUE Carbon-14



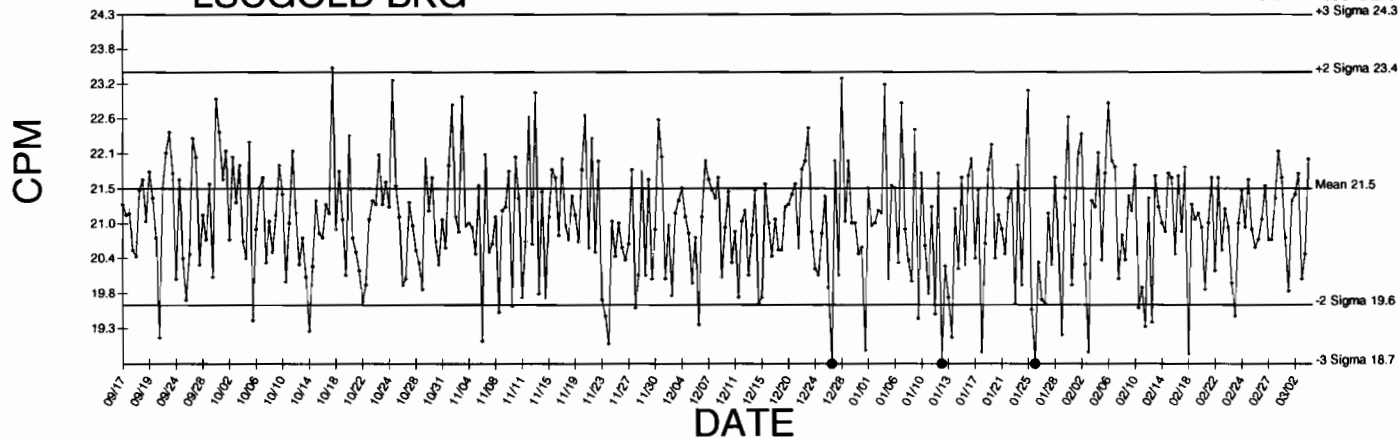
LSCBLUE Tritium



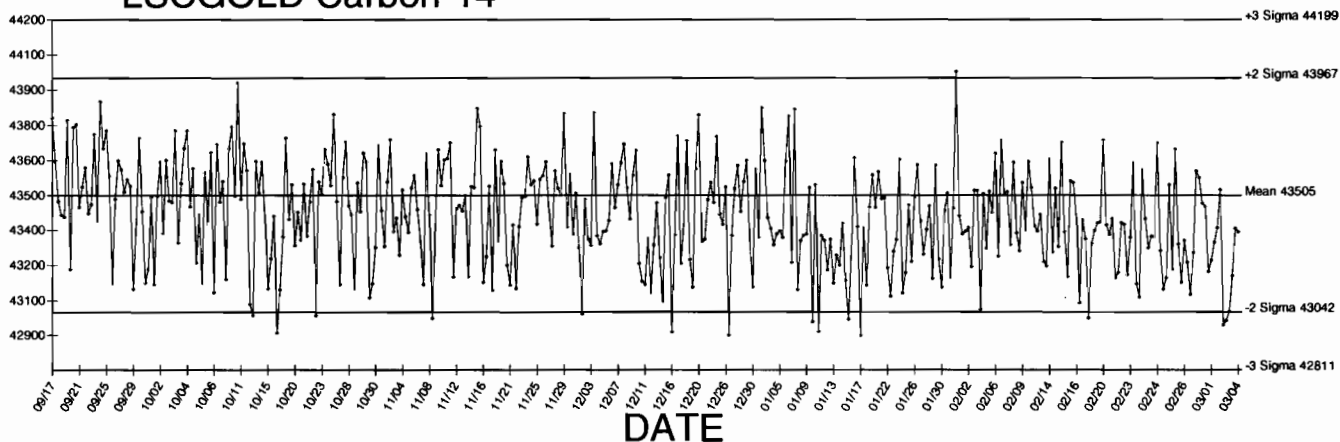
● Denotes Outlier

LSCGOLD BKG

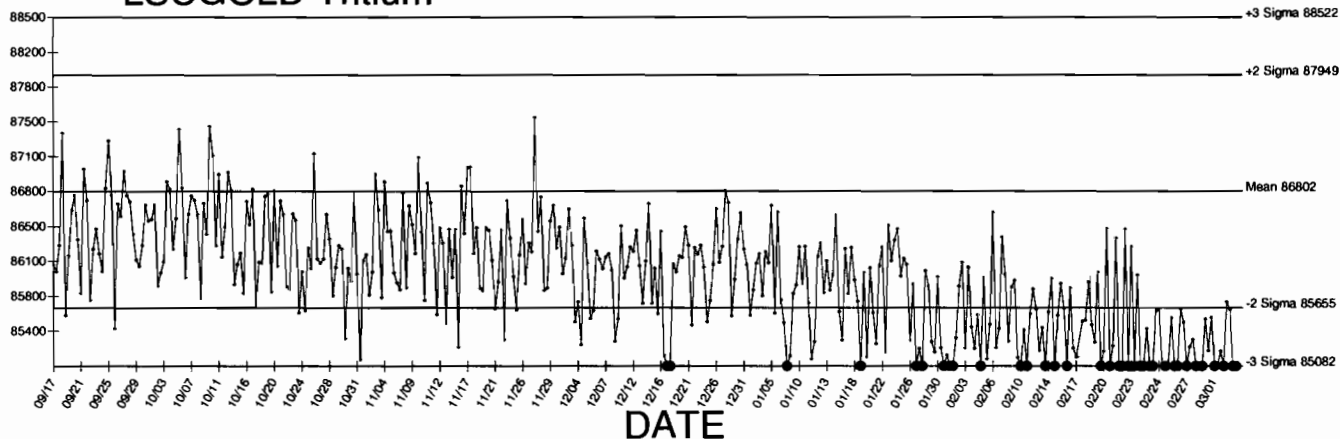
Generated 03/04/2010



LSCGOLD Carbon-14



LSCGOLD Tritium



● Denotes Outlier

STANDARDS DATA

0134



CALIBRATION
No. 0146

Description Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY-64
Chemical form: water Batch: 111

Measurement Reference time: 1200 GMT on 1 March 1996
Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water
which is equivalent to: 13.19 microcuries per gram of water
or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement

This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than $\pm 2.5\%$

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99.7% confidence level, and the estimated systematic uncertainties.

Purity No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data Half-life of tritium: 12.43 ± 0.11 years
Maximum beta energy of tritium: 18.6 keV

Remarks: The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = 3.7×10^{10} becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = 3.7×10^4 Bq = 37 kilobecquerels (kBq)
1 kilobecquerel (kBq) = 27.027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved
signatory

W. F. Case
Page 1045 of 1049
W.F. Case

Standard Traceability Log Rad

Source Material Info		A Solution Material Info	
Parent Code:	0134	Isotope:	Tritium
Prepared By:	Angela Johnson	Prepared By:	Angela Johnson
Carrier Conc:	DI WATER	Prep Date:	02/21/2001
Reference Date:	03/01/1996	Verification Date:	09/10/2008
Ampoule Mass (g):	5 g	Expiration Date:	03/27/2010
Uncertainty:	+/- 2.5 %	Primary Code:	0134-A
LogBook No:	RC S 023 061	Dilution(mL):	100 mL
		Mass of Parent(g):	3.3659 g
		Density(g/mL):	1.0004
		Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

$(\text{Mass of parent(g)}) * (\text{Parm Activity (kBq/g)}) * (\text{conversion dpm to kBq}) / (\text{Dilution Vol}) = \text{Parent Activity (dpm/mL)}$
$(\text{Mass of parent(g)}) * (\text{Parm Activity (kBq/g)}) * (\text{conversion dpm to kBq}) / \text{Density (g/mL)} / (\text{Dilution Vol}) = \text{Parent Activity (dpm/g)}$
$(3.3659 \text{ g}) * (488 \text{ kBq/g}) * (60000 \text{ dpm/kBq}) / (100 \text{ mL}) = 985535.5200 \text{ dpm/mL}$
$(3.3659 \text{ g}) * (488 \text{ kBq/g}) * (60000 \text{ dpm/kBq}) / (1.0004 \text{ g/mL}) / (100 \text{ mL}) = 985180.3116 \text{ dpm/g}$

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	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	0.380548	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	2709.776428
Mean Value (Counting) =	2709.776428		104.954429	Pass		
Stdev =	31.53347278		0.01163693	Rule 3 (Pass/Fail)		

Certificate Value = 2581.86 dpm/mL
 Lower Limit = 2646.709482 dpm/mL
 Upper Limit = 2772.843373 dpm/mL
 Rule 1 Pass/Fail Fail
 Two sigma = 63.06694556 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 Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

$$\text{Source dpm/g} = (A - B)/(C)(D)$$

where:

A = Ver. source cpm,
 B = BKG cpm,
 C = System efficiency, (cpm/dpm), and
 D = mass used for standard verification.

Reference RAD SOP M-001

Henry D. Johnson 4/9/09
 Amanda J. Fehr 4/9/09

RUNLOGS

Instrument Run Log

Instrument Type: LSC

Batch ID: 959453

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
247123001	SAMPLE	KXK2	LSCGOLD	04-MAR-10 07:47	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
247123002	SAMPLE	KXK2	LSCGOLD	04-MAR-10 08:34	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
247123003	SAMPLE	KXK2	LSCGOLD	04-MAR-10 09:21	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
247123004	SAMPLE	KXK2	LSCGOLD	04-MAR-10 10:08	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
1202057816	MB	KXK2	LSCGOLD	04-MAR-10 10:55	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
1202057817	DUP	KXK2	LSCGOLD	04-MAR-10 11:42	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
1202057818	LCS	KXK2	LSCGOLD	04-MAR-10 12:56	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
1202058689	MS	KXK2	LSCBLUE	05-MAR-10 16:54	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00