

Tuesday, March 02, 2010

REQUEST NUMBER: 10-2202

Page 1 of 1

**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: 10-2202  
Per Agreement Number: 126310011  
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples  
according to the schedule indicated:

SHIP DATE: 3/2/2010

TURNAROUND/REPORT DUE: 4/1/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background  
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE36-10-8466	R	2/25/2010	
	EPA:901.1	1	RE36-10-8466	R	2/25/2010	
	EPA:906.0	1	RE36-10-8466	R	2/25/2010	
	HASL-300:AM-241	1	RE36-10-8466	R	2/25/2010	

HASL-300:ISOPU	1	RE36-10-8466	R	2/25/2010
HASL-300:ISOU	1	RE36-10-8466	R	2/25/2010
SW-846:6010B	1	RE36-10-8466	R	2/25/2010
SW-846:6020	1	RE36-10-8466	R	2/25/2010
SW-846:6850	1	RE36-10-8466	R	2/25/2010
SW-846:7471A	1	RE36-10-8466	R	2/25/2010
SW-846:8082	1	RE36-10-8466	R	2/25/2010
SW-846:8260B	1	RE36-10-8466	R	2/25/2010
SW-846:8270C	1	RE36-10-8466	R	2/25/2010
SW-846:8321A_MOD	1	RE36-10-8466	R	2/25/2010
SW-846:9012A	1	RE36-10-8466	R	2/25/2010
SW-846:9045C	1	RE36-10-8466	R	2/25/2010

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2202C

LOS ALAMOS

REQUEST NUMBER: 10-2202

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 4/1/2010

General Engineering Laboratories, Inc., Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8466	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8466	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8466	1	POLY	AM241+GS+ISOPU+ ISOU	None	R
RE36-10-8466	1	POLY	H3	Ice	R
RE36-10-8466	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8466	1	POLY	Perchlorate+CN+N03+ pH	Ice	R

Relinquished By:

Date

Time

Received By:

Date

Time

 3/2/10 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: 2511

EVENT NAME: 4th Qtr. FY09 - SWMU 36-003(a) - Threemile Canyon

SAMPLE ID: RE36-10-8466

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/25/2010		MEDIA: OBT3		AMh	
TIME COLLECTED (HH:MM)		1444		SUB-MEDIA: TUFF 1		n/a	
PRS ID: 36-003(a)		ok		SAMPLE TECH CODE: HA		ok	
LOCATION ID: 36-610881		↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE: GENERIC		↓		FIELD PREP: NA		↓	
TOP DEPTH: 0		1.5		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH: 0		2.5		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R				EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NO/NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

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

SAMPLE DESC: Brown, moist sandy soil

SAMPLE COMMENTS:

n/a

LOCATION DESC: 3a-1

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 41 dpm  
Beta/Gamma = 2050 dpm

PID  $\frac{\text{Ambient Reading}}{2.25/10} = \text{ppm}$

COLLECTED BY (PRINT)

Daniel Byers

REVIEWED BY (PRINT)

J. Branch

RELINQUISHED BY (Printed Name) J. Branch (Signature) <i>[Signature]</i>	Date/Time 2/25/10 1530	RECEIVED BY (Printed Name) <i>[Signature]</i> (Signature) <i>[Signature]</i>	Date/Time 2/25/10 1530
RELINQUISHED BY	Date/Time	RECEIVED BY	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-10-7450	RE-10-7501	RE-36-10-8273
- 7435	- 7444	- 7451
- 7407	- 7437	- 8274
- 7525	- 7442	- 8276
- 7443	- 8287	- 7439
- 7445	- 8279	- 7449
- 7447	- 8291	- 8280
- 8292	- 7421	- 7524
- 7441	- 7422	- 8466
- 7438	- 8278	- 7440
- 7448	- 8277	- 7452
- 8288	- 8275	- 7436

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):

RE-36-10-8295 (FTB)  
- 7543 (FTB)  
- 8294 (FR)  
- 7536 (FR)  
- 7537 (FR)

Reason: Quality Control samples

.....

Print Last Name Branch

Signature 

Date 2/25/2010



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00076

Client Sample ID: RE36-10-8466

Sample Collection Date: 02/25/10 14:44

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00076-036

Date Received: 02/26/10 00:00

Report Date: 03/01/10 13:38

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	YPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	116.45	47.80	37.82	49.88		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	81.19	20.48	17.51	22.77		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	-0.03	33.60	0.11	33.60		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	21.82	7.84	1.16	7.86		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.07	0.14	0.11	0.14		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	0.23	0.12	0.09	0.12		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.00	0.00	0.06	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
SU-152	0.05	0.06	0.31	0.06		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	0.95	0.39	0.11	0.39		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	2.70	0.95	0.28	0.96		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	0.83	0.45	0.36	0.45		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	4.05	2.37	0.95	2.54		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.11	0.17	0.08	0.17		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
NOTES: % Moisture: 1.59										

*Matthew J. Edler*  
Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # E87558

## DATA VALIDATION COVER SHEET

5114-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2202 VALIDATION DATE: 5/6/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

## Section II. Completeness Check

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

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

1. The ICAL and ICV RRFs were <0.05 for trichlorotrifluoroethane. The associated sample result was an ND and, thus, was qualified R,V7b.
2. The ICV and/or CCV %Ds were >20% for acetone and trichlorotrifluoroethane. The associated sample results were NDs and, thus, were qualified UJ,V7c.
3. The bromorfluorobenzene surrogate %Rs were > the laboratory's UAL for the MS and MSD. Since these are QC samples, no sample data were qualified.

Reviewed by: Monica Dymerski Level I Date: 05/07/10

VALIDATOR'S SIGNATURE:

Eric T. Mink

DATE: 5/6/10

# **VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST**


5114-2

## **Volatile Organic Compound (VOC) 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, V9	J-, V9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

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

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. The sample result is $\leq 5X$ (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was $> 5X$ (10X for common laboratory contaminants).	N/A	J, V4a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. The sample result is $\leq 5X$ the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	19. The quantitating IS are count is $< 10\%$ of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	20. The IS area count for the quantitating IS is $< 50\%$ but $> 10\%$ for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

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

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

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

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

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

SDG Number: 10-2202  
 Lab Sample ID: 248526001  
 Client ID: RE36-10-8466  
 Batch ID: 963809  
 Run Date: 03/11/2010 22:35  
 Prep Date: 03/11/2010 10:13  
 Data File: 031110V55B437.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 12.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.388	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.342	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.342	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.342	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.342	1.14
67-64-1	Acetone	U	5.71	ug/kg	1.89	5.71 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
74-88-4	Iodomethane	U	5.71	ug/kg	1.83	5.71
75-09-2	Methylene chloride	U	5.71	ug/kg	2.28	5.71
75-15-0	Carbon disulfide	U	5.71	ug/kg	1.43	5.71
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.342	1.14
78-93-3	2-Butanone	U	5.71	ug/kg	1.71	5.71
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.342	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.377	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.342	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.342	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.377	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.342	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone	U	5.71	ug/kg	1.43	5.71
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.342	1.14
591-78-6	2-Hexanone	U	5.71	ug/kg	1.71	5.71
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.342	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.342	1.14



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

Page 2 of 2

SDG Number: 10-2202  
 Lab Sample ID: 248526001

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 12.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8466  
 Batch ID: 963809  
 Run Date: 03/11/2010 22:35  
 Prep Date: 03/11/2010 10:13  
 Data File: 031110V5\5B437.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.342	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.342	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.342	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.342	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane <i>Trichlorotrifluoroethane</i>	U	5.71	ug/kg	1.83	5.71 R,V7b
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14

## Tentatively Identified Compound Summary

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

ETM  
5/6/10

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

Records Use only

**Section I.**REQUEST NUMBER: 10-2202 VALIDATION DATE: 5/6/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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


**Section II. Completeness Check**

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

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

- The ICV and/or CCV %Ds were >20% for pyridine; 2-methyl-4,6-dinitrophenol; bis(2-chloroethyl)ether; bis(2-chloroisopropyl)ether; benzyl alcohol; m,p-cresols; 2,4-dimethylphenol; o-nitroaniline and 2,4-dinitrophenol. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
- The 2-fluorophenol and phenol-d5 surrogate %Rs were < the laboratory's LALs but  $\geq 10\%$  for the sample. The associated sample results were NDs and, thus, were qualified UJ,SV3a. The nitrobenzene-d5 surrogate %R was < the laboratory's LALs but  $\geq 10\%$  for the sample. Since there was only one surrogate outlier for the base/neutral fraction, no sample data were qualified. The phenol-d5 and nitrobenzene-d5 surrogate %Rs were < the laboratory's LALs but  $\geq 10\%$  for the MS. Since this was a QC sample, no sample data were qualified.
- The LCS %Rs were < the laboratory's LAL but  $\geq 10\%$  for 2,4-dimethylphenol and benzyl alcohol. The associated sample results were NDs and, thus, were qualified UJ,SV12a.
- It should be noted that a few MS/MSD %Rs and RPDs were not within the laboratory's QC limits. It should also be noted that the MS/MSD analyses were performed on a LANL sample from a different RN and the parent sample raw data were not included in the data package. However, MS/MSD analyses are not required for this analysis and, thus, no sample data were qualified.

Reviewed by: Monica Dymerski Level I Date: 05/07/10

DATA VALIDATION COVER SHEET	
5115-1	Records Use only
Data Validation Cover Sheet	 Los Alamos NATIONAL LABORATORY EST. 1943
VALIDATOR'S SIGNATURE: <u>Eric T. Mink</u> DATE: <u>5/6/10</u>	
Form 5115-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

# SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST


5115-2

## Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist


Records Use only




Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

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

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13. The sample result is $\leq 5X$ (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminants).	N/A	J, SV4a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15. The sample result is $\leq 5X$ the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	20. The quantitating IS area count is $<10\%$ of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

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

Yes   No   N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

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

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

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

SDG Number: 10-2202  
Lab Sample ID: 248526001

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Allquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8466  
Batch ID: 963133  
Run Date: 03/22/2010 00:55  
Prep Date: 03/10/2010 12:14  
Data File: s6c2125.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	380	ug/kg	76.1	380
108-95-2	Phenol	U	380	ug/kg	76.1	380 UJ,SV3a
95-57-8	2-Chlorophenol	U	380	ug/kg	76.1	380 UJ,SV3a
106-46-7	1,4-Dichlorobenzene	U	380	ug/kg	76.1	380
621-64-7	N-Nitrosodipropylamine	U	380	ug/kg	76.1	380
59-50-7	4-Chloro-3-methylphenol	U	380	ug/kg	76.1	380 UJ,SV3a
83-32-9	Acenaphthene	U	38.0	ug/kg	12.6	38.0
121-14-2	2,4-Dinitrotoluene	U	380	ug/kg	38.0	380
100-02-7	4-Nitrophenol	U	380	ug/kg	126	380 UJ,SV3a
87-86-5	Pentachlorophenol	U	380	ug/kg	95.1	380 UJ,SV3a
129-00-0	Pyrene	J	23.1	ug/kg	11.4	38.0
110-86-1	Pyridine	U	380	ug/kg	76.1	380 UJ,SV7c
62-53-3	Aniline	U	380	ug/kg	114	380
111-44-4	bis(2-Chloroethyl) ether	U	380	ug/kg	76.1	380 UJ,SV7c
541-73-1	1,3-Dichlorobenzene	U	380	ug/kg	76.1	380
100-51-6	Benzyl alcohol	U	380	ug/kg	114	380 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	380	ug/kg	76.1	380
108-60-1	bis(2-Chloroisopropyl)ether	U	380	ug/kg	76.1	380 UJ,SV7c
95-48-7	o-Cresol	U	380	ug/kg	76.1	380 UJ,SV3a
65794-96-9	m,p-Cresols	U	380	ug/kg	114	380 UJ,SV7c
67-72-1	Hexachloroethane	U	380	ug/kg	76.1	380
98-95-3	Nitrobenzene	U	380	ug/kg	76.1	380
78-59-1	Isophorone	U	380	ug/kg	76.1	380
88-75-5	2-Nitrophenol	U	380	ug/kg	76.1	380 UJ,SV3a
105-67-9	2,4-Dimethylphenol	U	380	ug/kg	133	380 UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	380	ug/kg	76.1	380
120-83-2	2,4-Dichlorophenol	U	380	ug/kg	76.1	380 UJ,SV3a
65-85-0	Benzoic acid	U	761	ug/kg	190	761 UJ,SV3a
91-20-3	Naphthalene	U	38.0	ug/kg	11.4	38.0
106-47-8	4-Chloroaniline	U	380	ug/kg	76.1	380
87-68-3	Hexachlorobutadiene	U	380	ug/kg	76.1	380
91-57-6	2-Methylnaphthalene	U	38.0	ug/kg	7.61	38.0
77-47-4	Hexachlorocyclopentadiene	U	380	ug/kg	76.1	380
88-06-2	2,4,6-Trichlorophenol	U	380	ug/kg	76.1	380 UJ,SV3a
95-95-4	2,4,5-Trichlorophenol	U	380	ug/kg	76.1	380 UJ,SV3a
91-58-7	2-Chloronaphthalene	U	38.0	ug/kg	12.6	38.0
88-74-4	2-Nitroaniline	U	380	ug/kg	76.1	380 UJ,SV7c
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	380	ug/kg	76.1	380

ETM  
5/6/10



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

SDG Number: 10-2202  
Lab Sample ID: 248526001

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	380	ug/kg	76.1	380
606-20-2	2,6-Dinitrotoluene	U	380	ug/kg	38.0	380
208-96-8	Acenaphthylene	U	38.0	ug/kg	11.4	38.0
51-28-5	2,4-Dinitrophenol	U	761	ug/kg	145	761 UJ,SV7c
132-64-9	Dibenzofuran	U	380	ug/kg	76.1	380
84-66-2	Diethylphthalate	U	380	ug/kg	76.1	380
86-73-7	Fluorene	U	38.0	ug/kg	11.4	38.0
7005-72-3	4-Chlorophenylphenylether	U	380	ug/kg	76.1	380
534-52-1	2-Methyl-4,6-dinitrophenol	U	380	ug/kg	76.1	380 UJ,SV7c
100-01-6	4-Nitroaniline	U	380	ug/kg	114	380
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	380	ug/kg	76.1	380
122-66-7	Azobenzene	U	380	ug/kg	76.1	380
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	380	ug/kg	76.1	380
118-74-1	Hexachlorobenzene	U	380	ug/kg	76.1	380
85-01-8	Phenanthrene	U	38.0	ug/kg	11.4	38.0
120-12-7	Anthracene	U	38.0	ug/kg	7.61	38.0
84-74-2	Di-n-butylphthalate	U	380	ug/kg	76.1	380
206-44-0	Fluoranthene	J	12.3	ug/kg	11.4	38.0
85-68-7	Butylbenzylphthalate	U	380	ug/kg	76.1	380
56-55-3	Benzo(a)anthracene	U	38.0	ug/kg	11.4	38.0
91-94-1	3,3'-Dichlorobenzidine	U	380	ug/kg	114	380
218-01-9	Chrysene	U	38.0	ug/kg	11.4	38.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	380	ug/kg	76.1	380
117-84-0	Di-n-octylphthalate	U	380	ug/kg	76.1	380
205-99-2	Benzo(b)fluoranthene	U	38.0	ug/kg	11.4	38.0
207-08-9	Benzo(k)fluoranthene	U	38.0	ug/kg	11.4	38.0
50-32-8	Benzo(a)pyrene	U	38.0	ug/kg	11.4	38.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.0	ug/kg	11.4	38.0
53-70-3	Dibenzo(a,h)anthracene	U	38.0	ug/kg	11.4	38.0
191-24-2	Benzo(ghi)perylene	U	38.0	ug/kg	11.4	38.0
120-82-1	1,2,4-Trichlorobenzene	U	380	ug/kg	76.1	380

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	178	ug/kg		JA
559-74-0	Friedelan-3-one	9.83	696	ug/kg	97	NJ

ETM  
5/6/10

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

SDG Number: 10-2202  
Lab Sample ID: 248526001

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Allquot: 30 g  
Column: J&W DB-SMS

Matrix: R  
%Moisture: 12.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.9	300	ug/kg		J
	Unknown	12.3	259	ug/kg		J

ETM  
5/6/10

## DATA VALIDATION COVER SHEET

5121-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2202 VALIDATION DATE: 5/6/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

## Section II. Completeness Check

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

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


1. It should be noted that the MS/MSD analyses were performed on a LANL sample from a different RN. Also, the raw data for the parent sample was not provided in the data package. No sample data were qualified.

Reviewed by: Monica Dymerski Level I Date: 05/07/10


VALIDATOR'S SIGNATURE:

Eric T. Mink


DATE: 5/6/10

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

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

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

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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	
<b>5121-2</b>  <b>LC/MS/MS Perchlorate Analytical Data Validation Checklist</b>	Records Use only  

Yes   No   N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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: 263904  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE36-10-8466  
 Date Received: 03-MAR-10  
 GEL Job No (SDG): 10-2202  
 GEL Sample ID: 248526001  
 Date Filtered: 15-MAR-10  
 Injection Volume (uL): 20  
 %Solids: 88

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.571	2.28	0.571	ug/kg	U	1	23-MAR-10 20:42	per0323041a
	Perchlorate Isotope Ratio						1	23-MAR-10 20:42	per0323041a
14797-73-0	Perchlorate-101	.571	2.28	0.571	ug/kg	U	1	23-MAR-10 20:42	per0323041a
	Perchlorate-O(18)			6.65	ug/kg		1	23-MAR-10 20:42	per0323041a

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

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

## DATA VALIDATION COVER SHEET

5122-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2202 VALIDATION DATE: 5/6/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

## Section II. Completeness Check


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


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

- The LCS %R was <10% for tetryl. The associated sample result was an ND and, thus, was qualified R,HE12. The LCS %Rs were < the laboratory's LALs but ≥10% for 4-amino-2,6-dinitrotoluene, 2-amino-4,6-dinitrotoluene and 2,6-dinitrotolunene. The associated sample results were NDs and, thus, were qualified UJ,HE12a.
- The sample was analyzed >1X but ≤2X the method specific HT for the primary analyses. The associated sample results were NDs and, thus, were qualified UJ,HE9.
- The ICAL RRF was <0.05 but ≥0.01 for 2-amino-4,6-dinitrotoluene. The associated sample result was an ND and, thus, was qualified UJ,HE7b.
- The CCV %D was >20% with a positive bias for RDX. The associated sample result was an ND and, thus, was not qualified.
- The MSD %R was > the laboratory's UAL TATB. The associated sample result was an ND and, thus, was not qualified.
- It should be noted that the raw ICAL data from the instrument used for the secondary HE analysis was not reported in the data package. Thus, surrogate RT criteria could not be evaluated. No sample data were qualified as a result.


Reviewed by: Monica Dymerski Level I Date: 05/07/10




DATA VALIDATION COVER SHEET	
5122-1	Records Use only
Data Validation Cover Sheet	
VALIDATOR'S SIGNATURE: <u>Eli T. Mich</u> DATE: <u>5/6/10</u>	
Form 5122-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

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


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

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

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

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

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

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

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8466

Lab Code: GEL

GEL Job No (SDG) 10-2202

Matrix: SOIL

GEL Sample ID: 248526001

Sample Amount 2

Moisture: 12.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0420020.wiff

Date Analyzed: 20-APR-10 22:31

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	UJ,HE9	500	HU
121-14-2	2,4-Dinitrotoluene		500	HU
121-82-4	RDX		500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene		500	HU
2691-41-0	HMX		500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	▽	500	HU
479-45-8	Tetryl	R,HE12	500	HU
606-20-2	2,6-Dinitrotoluene	UJ,HE9	500	HU
78-11-5	PETN		1000	HU
88-72-2	o-Nitrotoluene		500	HU
98-95-3	Nitrobenzene		500	HU
99-08-1	m-Nitrotoluene		500	HU
99-35-4	1,3,5-Trinitrobenzene		500	HU
99-65-0	m-Dinitrobenzene		500	HU
99-99-0	p-Nitrotoluene	▽	500	HU

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8466

Lab Code: GEL

GEL Job No (SDG) 10-2202

Matrix: SOIL

GEL Sample ID: 248526001

Sample Amount 2

Moisture: 12.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090068.wiff

Date Analyzed: 10-APR-10 00:47

Units: ug/kg

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

\*Concentration =

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

ETM  
5/6/10

## DATA VALIDATION COVER SHEET

5116-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2202 VALIDATION DATE: 5/6/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- |   |  |   |  |
|---|--|---|--|
| <input type="checkbox"/> TPH-GRO                | <input type="checkbox"/> HIGH EXPLOSIVES | <input type="checkbox"/> DIOXIN FURANS          | <input type="checkbox"/> LCMSMS PERCHLORATES       |
| <input type="checkbox"/> TPH-DRO                | <input type="checkbox"/> METALS          | <input type="checkbox"/> PCB CONGENERS          | <input checked="" type="checkbox"/> ORGANOCHLORINE |
| <input type="checkbox"/> GENERAL CHEMISTRY      | <input type="checkbox"/> RADIOCHEMISTRY  | <input type="checkbox"/> LCMSMS HIGH EXPLOSIVES | PESTICIDES/POLYCHLORINATED BIPHENYLS               |
| <input type="checkbox"/> OTHER (DESCRIBE): 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. The 4CMX surrogate %Rs were < the laboratory's LAL but  $\geq 10\%$  on both columns for the sample. The sample was analyzed at a dilution and, thus, no sample data were qualified. The 4CMX surrogate %Rs on both columns and decachlorobiphenyl surrogate on only one column were < the laboratory's LALs but  $\geq 10\%$  for the MSD. Since this was a QC sample, no sample data were qualified.
2. The MSD %Rs and MS/MSD RPDs for aroclor-1016 and aroclor-1260 were outside the laboratory acceptance limits. The MS/MSD analyses were performed on a LANL sample from a different RN and the raw data for the parent sample were not provided in the data package. However, MS/MSD analyses are not required for this analysis and, thus, no sample data were qualified.

Reviewed by: Monica Dymerski Level I Date: 05/07/10

VALIDATOR'S SIGNATURE:

Eric T. Mink

DATE: 5/6/10





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


5116-2

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

Records Use only



Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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	
<b>5116-2</b>  <b>Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist</b>	Records Use only  

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21. The surrogate is < the Lower Acceptance Level (LAL) but $\geq 10\%R$ . Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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	
<b>5116-2</b>  <b>Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist</b>	Records Use only  

Yes   No   N/A (Check One)			Assign Qualifier Listed Below If Criterion = Yes	
			Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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: 10-2202  
Lab Sample ID: 248526001


Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8082  
Inst: ECD8A.I  
Analyst: JAOC  
Aliquot: 30.01 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 12.4  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 10  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8466  
Batch ID: 966420  
Run Date: 03/19/2010 17:40  
Prep Date: 03/18/2010 10:57  
Data File: 051f5101.d  
051b5101.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	38.0	ug/kg	12.7	38.0	1
11104-28-2	Aroclor-1221	U	38.0	ug/kg	12.7	38.0	1
11141-16-5	Aroclor-1232	U	38.0	ug/kg	12.7	38.0	1
53469-21-9	Aroclor-1242	U	38.0	ug/kg	12.7	38.0	1
12672-29-6	Aroclor-1248	U	38.0	ug/kg	12.7	38.0	1
11097-69-1	Aroclor-1254	U	38.0	ug/kg	12.7	38.0	1
11096-82-5	Aroclor-1260	U	38.0	ug/kg	12.7	38.0	1

ETM  
5/6/10


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

Section I.			
REQUEST NUMBER: <u>10-2202</u>	VALIDATION DATE: <u>5/6/10</u>	LAB CODE: <u>GEL</u>	
CONTRACT LABORATORY NAME: <u>GEL Laboratories LLC</u>			
VALIDATOR: <u>Eric T. Mink</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):


1. In the MB, K was detected. The associated sample result was a detect >50X the MB concentration and, thus, was not qualified, based on professional judgment.
2. In the CCB, K was detected. The associated sample result was a detect >5X the blank concentration and, thus, was not qualified.
3. The MS %R was < the laboratory's LAL but  $\geq 10\%$  for Na. The associated sample result was a detect and, thus, was qualified J-,I6a. The MS %Rs were > the laboratory's UAL for Ba, Ca, Pb, Mg, K and Zn. The associated sample results were detects and, thus, were qualified J+,I6b. The MS %Rs were also > the laboratory's UAL for Al, Fe and Mn. However, the associated parent sample concentrations were >4X the spike concentrations. Thus, the associated sample results were not qualified, based on professional judgment.
4. The duplicate RPD for Ca was >35% and both the parent sample and duplicate sample results were  $\geq 5X$  the PQL. The associated sample result was a detect and, thus, was qualified J,I10a.

DATA VALIDATION COVER SHEET	
5118-1	Records Use only
Data Validation Cover Sheet	 Los Alamos NATIONAL LABORATORY EST. 1943
5. It should be noted that the CVAA matrix QC analyses were performed on a LANL sample from different a RN and that the raw data for the parent sample were not included in the data package. No sample data were qualified.	
<u>Reviewed by: Monica Dymerski</u> <u>Level I</u> <u>Date: 05/07/10</u>	
VALIDATOR'S SIGNATURE: <u>Eli T. Mikh</u> DATE: <u>5/6/10</u>	
Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project




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


Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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	
<b>5118-2</b>  <b>Metals Analytical Data Validation Checklist</b>	Records Use only  

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

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

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

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

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

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

SDG No: 10-2202

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248526001

BASIS: Dry Weight

DATE COLLECTED 25-FEB-10

CLIENT ID: RE36-10-8466

LEVEL: Low

DATE RECEIVED 03-MAR-10

MATRIX: SOIL

%SOLIDS: 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2210000	ug/Kg	*N	7360	21700	21700	1	P	HSC	03/30/10 21:46	033010B-1	962575
7440-36-0	Antimony	1080	ug/Kg	U	357	1080	1080	1	P	HSC	03/30/10 21:46	033010B-1	962575
7440-38-2	Arsenic	0.855	mg/kg	J	0.227	1.13	1.13	2	MS	SKJ	04/14/10 02:06	100413-2	962569
7440-39-3	Barium J+,I6b	37400	ug/Kg	*N	108	541	541	1	P	HSC	03/30/10 21:46	033010B-1	962575
7440-41-7	Beryllium	0.460	mg/kg		0.0227	0.113	0.113	2	MS	SKJ	04/14/10 02:06	100413-2	962569
7440-43-9	Cadmium	541	ug/Kg	U	108	541	541	1	P	HSC	03/30/10 21:46	033010B-1	962575
7440-70-2	Calcium J+,I6b	320000	ug/Kg	*N	8660	27100	27100	1	P	HSC	03/30/10 21:46	033010B-1	962575
7440-47-3	Chromium	17300	ug/Kg	*	162	541	541	1	P	HSC	03/30/10 21:46	033010B-1	962575
7440-48-4	Cobalt	1720	ug/Kg		162	541	541	1	P	HSC	03/30/10 21:46	033010B-1	962575
7440-50-8	Copper	3160	ug/Kg		325	1080	1080	1	P	HSC	03/30/10 21:46	033010B-1	962575
7439-89-6	Iron	7510000	ug/Kg	*	8660	27100	27100	1	P	HSC	03/30/10 21:46	033010B-1	962575
7439-92-1	Lead J+,I6b	4740	ug/Kg	*N	271	1080	1080	1	P	HSC	03/30/10 21:46	033010B-1	962575
7439-95-4	Magnesium J+,I6b	378000	ug/Kg	*N	9200	32500	32500	1	P	HSC	03/30/10 21:46	033010B-1	962575
7439-96-5	Manganese	296000	ug/Kg	*	217	1080	1080	1	P	HSC	03/30/10 21:46	033010B-1	962575
7439-97-6	Mercury	10.4	ug/kg	J	4.29	12.6	12.6	1	AV	JXL1	03/17/10 14:27	031710S1-3	964749
7440-02-0	Nickel	3.22	mg/kg		0.113	0.454	0.454	2	MS	SKJ	04/14/10 02:06	100413-2	962569
7440-09-7	Potassium J+,I6b	1030000	ug/Kg	*N	6930	27100	27100	1	P	HSC	03/30/10 21:46	033010B-1	962575
7782-49-2	Selenium	1.13	mg/kg	U	0.567	1.13	1.13	2	MS	SKJ	04/14/10 02:06	100413-2	962569
7440-22-4	Silver	541	ug/Kg	U	108	541	541	1	P	HSC	03/30/10 21:46	033010B-1	962575
7440-23-5	Sodium J-,I6a	1720000	ug/Kg	N	7580	27100	27100	1	P	HSC	03/30/10 21:46	033010B-1	962575
7440-28-0	Thallium	0.227	mg/kg	U	0.0681	0.227	0.227	2	MS	SKJ	04/14/10 02:06	100413-2	962569
7440-61-1	Uranium	0.579	mg/kg		0.015	0.0454	0.0454	2	MS	SKJ	04/14/10 02:06	100413-2	962569
7440-62-2	Vanadium	7270	ug/Kg		108	541	541	1	P	HSC	03/30/10 21:46	033010B-1	962575
7440-66-6	Zinc J+,I6b	37700	ug/Kg	*N	357	1080	1080	1	P	HSC	03/30/10 21:46	033010B-1	962575

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
962569	962563	SW846 3050B	0.503	g	50	mL	03/16/10	AXG2
962575	962573	SW846 3050B	0.527	g	50	mL	03/16/10	AXG2
964749	964748	SW846 7471A Prep	0.543	g	30	mL	03/16/10	TXB3

ETM  
5/6/10

## DATA VALIDATION COVER SHEET

5120-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2202 VALIDATION DATE: 5/6/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

## Section II. Completeness Check

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


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

1. It should be noted that all the matrix QC analyses were performed on LANL samples from different RNs. No sample data were qualified.


Reviewed by: Monica Dymerski Level I Date: 05/07/10

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

Eric T. MinkDATE: 5/6/10


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

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

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

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



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

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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 29, 2010

Client SDG: 10-2202

Client Sample ID: RE36-10-8466  
Sample ID: 248526001  
Matrix: R  
Collect Date: 25-FEB-10 12:00  
Receive Date: 03-MAR-10  
Collector: Client  
Moisture: 12.4%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.2C	H	6.83	0.010	0.100	SU	1	TXT1	03/05/10	1544	961563	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	71.9	264	ug/kg	1	AXC2	03/10/10	1212	961284	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.342	1.14	mg/kg	1	GXM	03/25/10	1851	968241	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/24/10	1411	968239
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	0837	961282

### The following Analytical Methods were performed

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

ETM  
5/6/10

## DATA VALIDATION COVER SHEET

5119-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2202 VALIDATION DATE: 5/6/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

## Section II. Completeness Check

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

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

1. The gamma spec Bi-211, Cd-109 and Ra-224 sample results were rejected by the laboratory due to spectral interference and, thus, were qualified R,R5a. In the QC samples, several results were also rejected by the laboratory. No sample data were qualified as a result.
2. It should be noted that no MS analysis was performed for tritium. An LCS was analyzed, met acceptance criteria and, thus, no sample data were qualified.
3. It should be noted that all the duplicate analyses were performed on LANL samples from different RNs. No sample data were qualified.


Reviewed by: Monica Dymerski Level I Date: 05/07/10

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


Eric T. MinkDATE: 5/6/10

Form 5119-1, Revision 0.0


LOS ALAMOS  
Environmental Restoration Project

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

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

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

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

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2	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 type="checkbox"/>	<input checked="" type="checkbox"/>	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

# GEL LABORATORIES LLC

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 30, 2010

Client Sample ID: RE36-10-8466  
Sample ID: 248526001  
Matrix: R  
Collect Date: 25-FEB-10  
Receive Date: 03-MAR-10  
Collector: Client  
Moisture: 12.4%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
<b>Gravimetric Solids</b>												
<i>"As Received"</i>												
<b>Rad Alpha Spec Analysis</b>												
<i>AM241 "Dry Weight Corrected"</i>												
Americium-241	U	-0.00204	0.0205	+/-0.002	0.050	pCi/g		MXE1	03/25/10	2213	965494	2
<i>ISOPU "Dry Weight Corrected"</i>												
Plutonium-238	U	-0.00237	0.0213	+/-0.00498	0.050	pCi/g		MXE1	03/25/10	2023	965495	3
Plutonium-239/240	U	0.0025	0.018	+/-0.00322	0.050	pCi/g						
<i>ISOU "Dry Weight Corrected"</i>												
Uranium-233/234		0.961	0.125	+/-0.0964	0.100	pCi/g		MXE1	03/29/10	1238	965496	4
Uranium-235/236	U	0.0657	0.0763	+/-0.0196	0.100	pCi/g						
Uranium-238		0.811	0.0878	+/-0.0844	0.100	pCi/g						
<b>Rad Gamma Spec Analysis</b>												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Americium-241	U	-0.00644	0.081	+/-0.0263	0.200	pCi/g		MXR1	03/19/10	2043	961099	5
Bismuth-211	UI	4.71	R,R5a	0.345	+/-0.338	pCi/g						
Bismuth-214		1.62		0.105	+/-0.128	pCi/g						
Cadmium-109	UI	4.54	R,R5a	0.768	+/-0.446	pCi/g						
Cerium-139	U	-0.00338		0.0438	+/-0.0128	pCi/g						
Cesium-134	U	0.0524		0.094	+/-0.0265	pCi/g						
Cesium-137	U	-0.0439		0.076	+/-0.0228	pCi/g						
Cobalt-60	U	-0.0164		0.0754	+/-0.0238	pCi/g						
Europium-152	U	-0.00356		0.158	+/-0.0522	pCi/g						
Lanthanum-140	U	-0.182		0.209	+/-0.0751	pCi/g						
Lead-212		2.15		0.0866	+/-0.136	pCi/g						
Lead-214		1.71		0.125	+/-0.131	pCi/g						
Mercury-203	U	0.0483		0.0718	+/-0.0208	pCi/g						
Potassium-40		35.8		0.558	+/-1.80	pCi/g						
Radium-223	U	0.234		1.02	+/-0.327	pCi/g						
Radium-224	UI	4.76	R,R5a	0.929	+/-0.738	pCi/g						
Radium-226		1.62		0.105	+/-0.128	pCi/g						
Radium-228		2.39		0.244	+/-0.221	pCi/g						
Ruthenium-106	U	-0.0471		0.570	+/-0.168	pCi/g						

# GEL LABORATORIES LLC

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

## Certificate of Analysis

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

Report Date: March 30, 2010

Client Sample ID: RE36-10-8466  
Sample ID: 248526001

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gamma Spec Analysis</b>												
<i>GAMMA SPEC "Dry Weight Corrected"</i>												
Sodium-22	U	-0.0177	0.0836	+/-0.0261	0.080	pCi/g						
Strontium-85	U	0.0446	0.0693	+/-0.0219		pCi/g						
Thallium-208		0.652	0.0553	+/-0.0553	0.080	pCi/g						
Thorium-227	U	-0.0699	0.393	+/-0.121		pCi/g						
Thorium-231	U	0.234	1.02	+/-0.327		pCi/g						
Thorium-234		1.54	0.811	+/-0.472	2.00	pCi/g						
Tin-113	U	-0.0436	0.0757	+/-0.0236	0.100	pCi/g						
Uranium-235	U	-0.0248	0.286	+/-0.0835	0.500	pCi/g						
Yttrium-88	U	0.00749	0.0647	+/-0.019	0.100	pCi/g						
<b>Rad Liquid Scintillation Analysis</b>												
<i>H3 "As Received"</i>												
Tritium	U	-96.8	175	+/-42.6	250	pCi/L		GXR1	03/26/10	1200	964063	6

### The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.7	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	91.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	76.3	(50%-105%)

### Notes:

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

The Qualifiers in this report are defined as follows :

- \*\* Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

ETM  
5/6/10



Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2202C

LOS ALAMOS

REQUEST NUMBER: 10-2202

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 4/1/2010

General Engineering Laboratories, Inc., Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

248524

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8466	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8466	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8466	1	POLY	AM241+GS+ISOPU+ ISOU	None	R
RE36-10-8466	1	POLY	H3	Ice	R
RE36-10-8466	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8466	1	POLY	Perchlorate+CN+N03+ pH	Ice	R

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By: Date

Time

Remarks:

Printed Name

Signature

Tuesday, March 02, 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: 10-2202

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples  
according to the schedule indicated:

**SHIP DATE: 3/2/2010**

**TURNAROUND/REPORT DUE: 4/1/2010**

**TURNAROUND REQ'D: 30 Days**

**RAD SCREENING: Yes, Below Background**

**LAB REQUEST COMMENTS:**

LANL ER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA-300.0	1	RE36-10-8466	R	2/25/2010	
	EPA-901.1	1	RE36-10-8466	R	2/25/2010	
	EPA-908.0	1	RE36-10-8466	R	2/25/2010	
	HASL-300/AM-241	1	RE36-10-8466	R	2/25/2010	

HASL-300:ISOPU	1	RE36-10-8466	R	2/25/2010
HASL-300:ISOU	1	RE36-10-8466	R	2/25/2010
SW-846:6010B	1	RE36-10-8466	R	2/25/2010
SW-846:6020	1	RE36-10-8466	R	2/25/2010
SW-846:6850	1	RE36-10-8466	R	2/25/2010
SW-846:7471A	1	RE36-10-8466	R	2/25/2010
SW-846:8082	1	RE36-10-8466	R	2/25/2010
SW-846:8260B	1	RE36-10-8466	R	2/25/2010
SW-846:8270C	1	RE36-10-8466	R	2/25/2010
SW-846:8321A_MOD	1	RE36-10-8466	R	2/25/2010
SW-846:9012A	1	RE36-10-8466	R	2/25/2010
SW-846:9045C	1	RE36-10-8466	R	2/25/2010

Final Page of REQUEST NUMBER 10-2202



March 10, 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: 248526  
SDG: 10-2202

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 03, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Sincerely,

Valerie Davis  
Project Manager

Purchase Order: 72733-001-09  
Chain of Custody: 10-2202  
Enclosures

**Los Alamos National Laboratory (72733-001-09)**  
**LANL ER Project**  
**Work Order #: 248526**  
**SDG: 10-2202**

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# CASE NARRATIVE

**Case Narrative for  
Los Alamos National Laboratory (72733-001-09)  
LANL ER Project  
Workorder #: 248526  
SDG # : 10-2202**

**March 10, 2010**

**Laboratory Identification:**

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

**Summary**

**Sample receipt** The sample arrived at GEL Laboratories LLC, Charleston, South Carolina on March 03, 2010 for analysis. The sample was prepared/analyzed within the required holding time. Shipping container temperature was checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The sample was 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 14,15,17C temperatures. Shipping container temperature was within specification (0 - 6C).

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

<u>Laboratory ID</u>	<u>Client ID</u>
248526001	RE36-10-8466

**Case Narrative**

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

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

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



Valerie Davis

Project Manager

# CHAIN OF CUSTODY AND SUPPORTING DOCUMENTATION

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2202C

LOS ALAMOS

REQUEST NUMBER: 10-2202

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 4/1/2010

General Engineering Laboratories, Inc., Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

248526

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8466	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8466	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8466	1	POLY	AM241+GS+ISOPU+ ISOU	None	R
RE36-10-8466	1	POLY	H3	Ice	R
RE36-10-8466	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8466	1	POLY	Perchlorate+CN+N03+ pH	Ice	R

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By: Date

Time

Remarks:

Printed Name

Signature

Tuesday, March 02, 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: 10-2202  
Per Agreement Number: 126310011  
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples  
according to the schedule indicated:

**SHIP DATE: 3/2/2010**  
**TURNAROUND/REPORT DUE: 4/1/2010**  
**TURNAROUND REQ'D: 30 Days**

**RAD SCREENING: Yes, Below Background**  
**LAB REQUEST COMMENTS:**

LANL ER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE36-10-8466	R	2/25/2010	
	EPA:901.1	1	RE36-10-8466	R	2/25/2010	
	EPA:906.0	1	RE36-10-8466	R	2/25/2010	
	HASL-300-AM-241	1	RE36-10-8466	R	2/25/2010	

HASL-300:ISOPU	1	RE36-10-8466	R	2/25/2010
HASL-300:ISOU	1	RE36-10-8466	R	2/25/2010
SW-846:6010B	1	RE36-10-8466	R	2/25/2010
SW-846:6020	1	RE36-10-8466	R	2/25/2010
SW-846:6850	1	RE36-10-8466	R	2/25/2010
SW-846:7471A	1	RE36-10-8466	R	2/25/2010
SW-846:8082	1	RE36-10-8466	R	2/25/2010
SW-846:8260B	1	RE36-10-8466	R	2/25/2010
SW-846:8270C	1	RE36-10-8466	R	2/25/2010
SW-846:8321A_MOD	1	RE36-10-8466	R	2/25/2010
SW-846:9012A	1	RE36-10-8466	R	2/25/2010
SW-846:9045C	1	RE36-10-8466	R	2/25/2010

Final Page of REQUEST NUMBER 10-2202



Laboratories LLC

## SAMPLE RECEIPT &amp; REVIEW FORM

Client: LANL			SDG/ARCOC/Work Order: 10-2202		
Received By: Patricia Dover-Dent			Date Received: 3/3/10		
Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.		
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: 60cpm		
Classified Radioactive II by RSO?		X			
COC/Samples marked containing PCBs?		X			
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:		
Samples identified as Foreign Soil?		X			

Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken    damaged container    leaking container    other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags    blue ice    dry ice    none    other 1-5    14,15,17
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken    damaged container    leaking container    other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: 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: <b>No time on Chain of Custody.</b>
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

## Comments:

## Fed Ex Tracking Numbers:

7209 7850 3083 1C    7209 7850 3061 2C    7209 7850 3028 17C  
 7209 7850 3040 1C    7209 7850 3072 3C  
 7209 7850 3094 1C    7209 7850 3120 4C  
 7209 7850 3109 2C    7209 7850 3110 5C  
 7209 7850 3039 2C    7209 7850 3153 5C  
 7209 7850 3050 2C    7209 7850 3006 14C  
 7209 7850 3142 2C    7209 7850 2992 14C  
 7209 7850 3131 2C    7209 7850 3071 15C

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: 02MAR10  
ACTWGT: 49.0 LB MAN  
CAD: 0014176/CAFE2450  
  
BILL SENDER

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

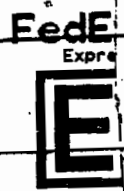
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GENERAL ENGINEERING LAB  
2040 SAVAGE RD

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GENERAL ENGINEERING LAB  
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CHARLESTON SC 29407  
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REF: 6B010AMR3A0532VA00



WED - 03MAR A1  
1 of 3  
IPSH 7209 7850 3083  
2263  
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TRKH 7209 7850 3040  
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LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
  
LOS ALAMOS, NM 87545  
UNITED STATES US

CAD: 0014176/CAFE2450  
  
BILL SENDER

LOS ALAMOS, NM 87545  
UNITED STATES US

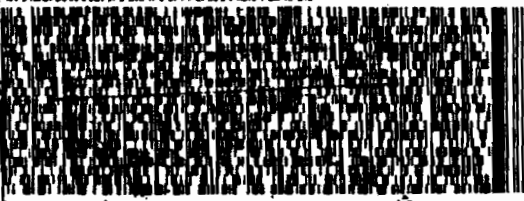
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REF: 6B010AMR3A05529E00



1 of 3  
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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: 02MAR10  
ACTWGT: 49.0 LB MAN  
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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: 02MAR10  
ACTWGT: 49.0 LB MAN  
CAD: 0014176/CAFE2450

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TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

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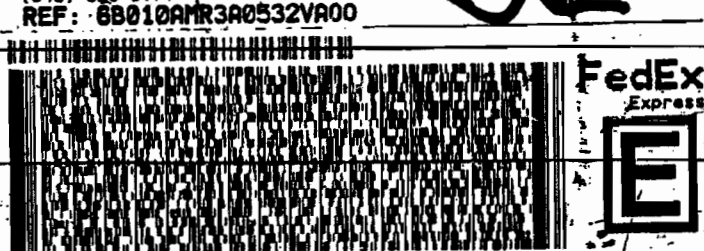
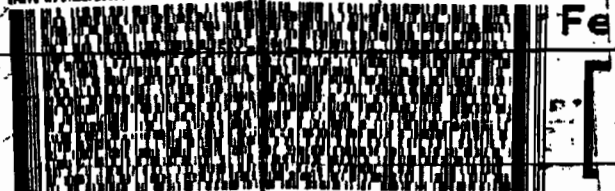
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ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

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UNITED STATES US

SHIP DATE: 02MAR10  
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JOYLENE VALDEZ  
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 02MAR10  
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BILL SENDER

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GENERAL ENGINEERING LAB  
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TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
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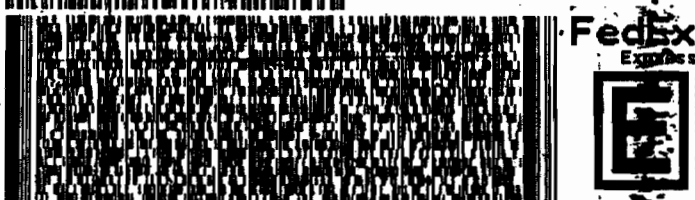
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ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
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TA00 BLDG 1237 DPU 03

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UNITED STATES US

SHIP DATE: 02MAR10  
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LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

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UNITED STATES US

SHIP DATE: 02MAR10  
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GENERAL ENGINEERING LAB  
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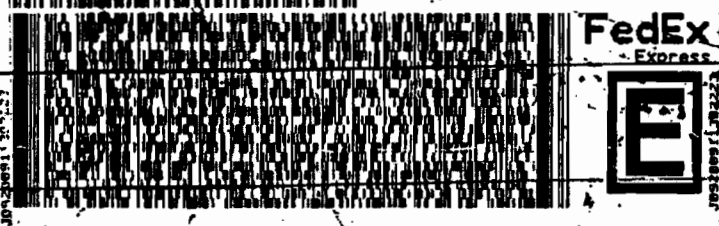
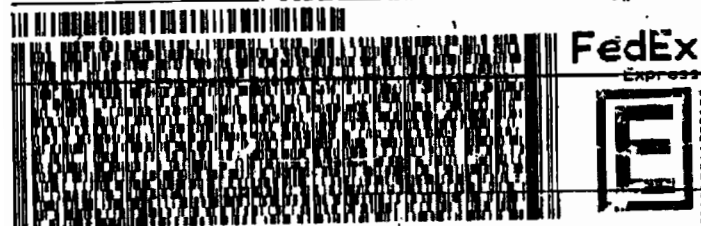
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(843) 556-8171  
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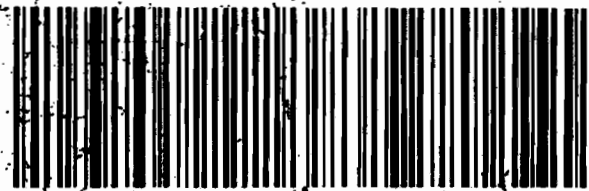
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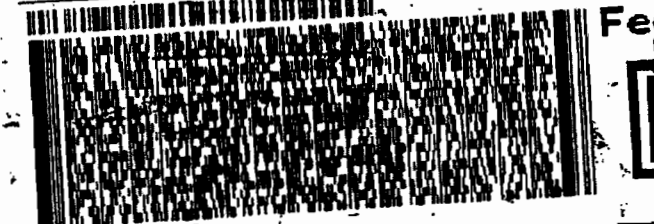
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LOS ALAMOS NATL LAB  
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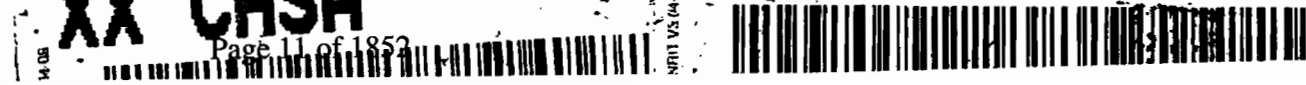
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1 of 3  
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PRIORITY OVERNIGHT

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TAGO BLDG 1237 DPU 03

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UNITED STATES US

SHIP DATE: 02MAR10  
ACTNGT: 21 0218 MON  
CRD: 00141757CAFE2450

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TO VALERIE DAVIS

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REF: 68010AMR3A0532VA00

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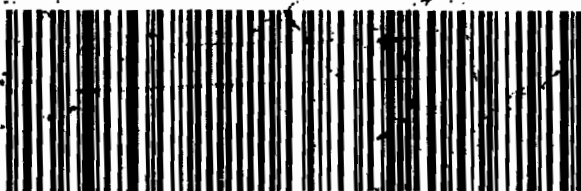
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0263

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WED 03MAR A1  
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# **Data Review Qualifier Definitions**

## Data Review Qualifier Definitions

Qualifier Explanation

\* A quality control analyte recovery is outside of specified acceptance criteria

\*\* Analyte is a surrogate compound

< Result is less than value reported

> Result is greater than value reported

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL

A The TIC is a suspected aldol-condensation product

B Target analyte was detected in the associated blank

B Metals-Either presence of analyte detected in the associated blank, or  
MDL/IDL < sample value < PQL

BD Results are either below the MDC or tracer recovery is low

C Analyte has been confirmed by GC/MS analysis

D Results are reported from a diluted aliquot of the sample

d 5-day BOD-The 2:1 depletion requirement was not met for this sample

E Organics-Concentration of the target analyte exceeds the instrument calibration range

E Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

H Analytical holding time was exceeded

h Preparation or preservation holding time was exceeded

J Value is estimated

N Metals-The Matrix spike sample recovery is not within specified control limits

N Organics-Presumptive evidence based on mass spectral library search to make a tentative  
identification of the analyte (TIC). Quantitation is based on nearest internal standard  
response factor

N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration  
by 4X or more

ND Analyte concentration is not detected above the reporting limit

UI Gamma Spectroscopy-Uncertain identification

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Y QC Samples were not spiked with this compound

Z Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

# **GC/MS Volatile Analysis**

# Case Narrative



**ChemStation Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2202**

**Method/Analysis Information**

Procedure: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer  
Analytical Method: SW846 8260B  
Prep Method: SW846 5030  
Analytical Batch Number: 963809  
Prep Batch Number: 963808

**Sample Analysis**

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

<b>Sample ID</b>	<b>Client ID</b>
248526001	RE36-10-8466
1202076531	Method Blank (MB)
1202076532	Laboratory Control Sample (LCS)
1202076533	Laboratory Control Sample (LCS)
1202067628	248526001(RE36-10-8466) Post Spike (PS)
1202067629	248526001(RE36-10-8466) Post Spike Duplicate (PSD)

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

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

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

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

**Calibration Information**

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

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

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

**Initial Calibration**

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

**Continuing Calibration Verification Requirements**

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

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

The MB analyzed with this SDG met the acceptance criteria.

**Surrogate Recoveries**

QC samples 1202067628 (RE36-10-8466MS) and 1202067629 (RE36-10-8466MSD) recovered above the limits for Bromofluorobenzene. The parent sample recovered near the upper end of the limits. The results are reported. See DER 807173.

**Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

**QC Sample Designation**

Sample 248526001 (RE36-10-8466) was designated for spike analysis in this SDG.

**Matrix Spike (PS) Recovery Statement**

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

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

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

**Relative Percent Difference (RPD) Statement**

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

**Internal Standard (ISTD) Acceptance**

The internal standard responses in all client and quality control samples met the required acceptance criteria.

**Technical Information****Holding Time Specifications**

GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All confirmation analyses for internal standard and/or surrogate recovery failures were performed outside of the 14 day holding time due to instrument capacity. The re-analyses were performed within two times the collection date.

**Sample Preservation and Integrity**

All samples met the sample preservation and integrity requirements.

**Sample Dilutions**

The samples in this SDG did not require dilutions.

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

Re-analyses were not required for samples in this SDG.

### **Miscellaneous Information**

#### **Electronic Packaging Comment**

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

#### **Data Exception (DER) Documentation**

DER # 807173 was generated for samples in this SDG.

#### **Manual Integrations**

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

#### **TIC Comment**

Tentatively identified compounds (TIC) were required for this sample delivery group/work order. The tentatively identified compounds included some silanols. These compounds were due to column or septum bleed and were not native to the affected samples. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

#### **Additional Comments**

Additional comments were not required for this SDG.

#### **Residual Chlorine**

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

#### **System Configuration**

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

<b>Instrument ID</b>	<b>Instrument</b>	<b>System Configuration</b>	<b>Column ID</b>	<b>Column Description</b>	<b>P &amp; T Trap</b>
VOA5.I	Gas Chromatograph/Mass Spectrometer	HP6890N/HP5975	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

#### **Certification Statement**

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

## **GEL LABORATORIES LLC**

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

### **Certificate of Analysis Report for**

**LANL010 Los Alamos National Laboratory (72733-001-09)**

**Client SDG: 10-2202 GEL Work Order: 248526**

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

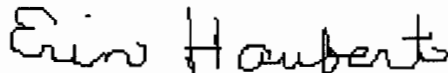
- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a surrogate compound
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

**Review/Validation**

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

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

**Signature:**



**Name: Erin Haubert**

**Date: 29 MAR 2010**

**Title: Data Validator**

# Sample Data Summary

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

<b>SDG Number:</b> 10-2202	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248526001	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 12.4
<b>Client ID:</b> RE36-10-8466	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 963809	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Run Date:</b> 03/11/2010 22:35	<b>Inst:</b> VOA5.I	<b>Dilution:</b> 1
<b>Prep Date:</b> 03/11/2010 10:13	<b>Analyst:</b> CDS1	<b>Purge Vol:</b> 5 mL
<b>Data File:</b> 031110V55B437.D	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.388	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.342	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.342	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.342	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.342	1.14
67-64-1	Acetone	U	5.71	ug/kg	1.89	5.71
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
74-88-4	Iodomethane	U	5.71	ug/kg	1.83	5.71
75-09-2	Methylene chloride	U	5.71	ug/kg	2.28	5.71
75-15-0	Carbon disulfide	U	5.71	ug/kg	1.43	5.71
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.342	1.14
78-93-3	2-Butanone	U	5.71	ug/kg	1.71	5.71
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.342	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.377	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.342	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.342	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.377	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.342	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone	U	5.71	ug/kg	1.43	5.71
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.342	1.14
591-78-6	2-Hexanone	U	5.71	ug/kg	1.71	5.71
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.342	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.342	1.14

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2202  
Lab Sample ID: 248526001  
  
Client ID: RE36-10-8466  
Batch ID: 963809  
Run Date: 03/11/2010 22:35  
Prep Date: 03/11/2010 10:13  
Data File: 031110V55B437.D

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.I  
Analyst: CDS1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 12.4  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.342	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.342	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.342	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.342	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.71	ug/kg	1.83	5.71
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14

**Tentatively Identified Compound Summary**

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

# **Quality Control Summary**



Volatile  
Surrogate Recovery Report

Page 1 of 1

SDG Number: 10-2202

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202076532	LCS for batch 963808	70	80	119
1202076533	LCS for batch 963808	68	80	119
1202076531	MB for batch 963808	68	80	123
248526001	RE36-10-8466	67	78	123
1202067628	RE36-10-8466PS	66	80	131 *
1202067629	RE36-10-8466PSD	67	81	131 *

## Surrogate

## Acceptance Limits

DCED4 = 1,2-Dichloroethane-d4

(66%-134%)

TOL = Toluene-d8

(71%-128%)

BFB = Bromofluorobenzene

(65%-130%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

**Volatile**  
**Quality Control Summary**  
**Spike Recovery Report**

SDG Number: 10-2202

Sample Type: Post Spike

Client ID: RE36-10-8466PS

Matrix: R

Lab Sample ID: 1202067628

%Moisture: 12.4

Instrument: VOA5.I

Analysis Date: 03/11/2010 23:01

Dilution: 1

Analyst: CDS1

Prep Batch ID: 963808

Purge Vol: 5 mL

Batch ID: 963809

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS Dichlorodifluoromethane	50.0	0.00	U 48.0	96	39-148
74-87-3	PS Chloromethane	50.0	0.00	U 49.5	99	42-131
75-01-4	PS Vinyl chloride	50.0	0.00	U 51.8	104	50-127
74-83-9	PS Bromomethane	50.0	0.00	U 50.6	101	26-135
75-00-3	PS Chloroethane	50.0	0.00	U 49.0	98	54-128
75-69-4	PS Trichlorofluoromethane	50.0	0.00	U 47.1	94	55-138
67-64-1	PS Acetone	250	0.00	U 119	48	20-144
75-35-4	PS 1,1-Dichloroethylene	50.0	0.00	U 45.9	92	55-128
74-88-4	PS Iodomethane	250	0.00	U 230	92	47-132
75-09-2	PS Methylene chloride	50.0	0.00	U 47.0	94	56-123
75-15-0	PS Carbon disulfide	250	0.00	U 237	95	53-133
156-60-5	PS trans-1,2-Dichloroethylene	50.0	0.00	U 47.3	95	57-119
75-34-3	PS 1,1-Dichloroethane	50.0	0.00	U 48.3	97	62-125
78-93-3	PS 2-Butanone	250	0.00	U 150	60	30-150
156-59-2	PS cis-1,2-Dichloroethylene	50.0	0.00	U 47.2	94	60-124
594-20-7	PS 2,2-Dichloropropane	50.0	0.00	U 44.3	89	56-129
67-66-3	PS Chloroform	50.0	0.00	U 46.7	93	62-120
74-97-5	PS Bromochloromethane	50.0	0.00	U 48.2	96	51-135
71-55-6	PS 1,1,1-Trichloroethane	50.0	0.00	U 45.3	91	58-129
563-58-6	PS 1,1-Dichloropropene	50.0	0.00	U 44.6	89	59-126
56-23-5	PS Carbon tetrachloride	50.0	0.00	U 44.5	89	55-132
107-06-2	PS 1,2-Dichloroethane	50.0	0.00	U 46.7	93	54-121

## Volatile

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Sample Type: Post Spike

Client ID: RE36-10-8466PS

Matrix: R

Lab Sample ID: 1202067628

% Moisture: 12.4

Instrument: VOA5.I

Analysis Date: 03/11/2010 23:01

Dilution: 1

Analyst: CDS1

Prep Batch II 963808

Purge Vol: 5 mL

Batch ID: 963809

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS Benzene	50.0	0.00	U 44.8	90	58-120
79-01-6	PS Trichloroethylene	50.0	0.00	U 42.7	85	54-130
78-87-5	PS 1,2-Dichloropropane	50.0	0.00	U 45.7	91	59-121
75-27-4	PS Bromodichloromethane	50.0	0.00	U 47.4	95	57-130
74-95-3	PS Dibromomethane	50.0	0.00	U 47.8	96	57-124
108-10-1	PS 4-Methyl-2-pentanone	250	0.00	U 224	90	40-137
10061-01-5	PS cis-1,3-Dichloropropylene	50.0	0.00	U 44.9	90	50-131
108-88-3	PS Toluene	50.0	0.00	U 41.8	84	54-119
10061-02-6	PS trans-1,3-Dichloropropylene	50.0	0.00	U 45.3	91	47-133
79-00-5	PS 1,1,2-Trichloroethane	50.0	0.00	U 44.6	89	60-130
591-78-6	PS 2-Hexanone	250	0.00	U 154	62	30-139
142-28-9	PS 1,3-Dichloropropane	50.0	0.00	U 44.9	90	59-125
127-18-4	PS Tetrachloroethylene	50.0	0.00	U 38.2	76	50-126
124-48-1	PS Dibromochloromethane	50.0	0.00	U 45.2	90	54-131
106-93-4	PS 1,2-Dibromoethane	50.0	0.00	U 43.9	88	55-127
108-90-7	PS Chlorobenzene	50.0	0.00	U 40.1	80	50-130
100-41-4	PS Ethylbenzene	50.0	0.00	U 37.5	75	50-121
179601-23-1	PS m,p-Xylenes	100	0.00	U 77.2	77	47-125
95-47-6	PS o-Xylene	50.0	0.00	U 37.8	76	51-127
100-42-5	PS Styrene	50.0	0.00	U 39.7	79	41-136
75-25-2	PS Bromoform	50.0	0.00	U 50.2	100	48-143
79-34-5	PS 1,1,2,2-Tetrachloroethane	50.0	0.00	U 44.4	89	52-129

## Volatile

Page 3 of 6

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Sample Type: Post Spike

Client ID: RE36-10-8466PS

Matrix: R

Lab Sample ID: 1202067628

%Moisture: 12.4

Instrument: VOA5.I

Analysis Date: 03/11/2010 23:01

Dilution: 1

Analyst: CDS1

Pren Batch II 963808

Purge Vol: 5 mL

Batch ID: 963809

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS 1,2,3-Trichloropropane	50.0	0.00 U	47.9	96	56-139
108-86-1	PS Bromobenzene	50.0	0.00 U	40.5	81	54-125
103-65-1	PS n-Propylbenzene	50.0	0.00 U	38.6	77	46-127
95-49-8	PS 2-Chlorotoluene	50.0	0.00 U	39.5	79	47-130
98-82-8	PS Isopropylbenzene	50.0	0.00 U	41.5	83	42-126
108-67-8	PS 1,3,5-Trimethylbenzene	50.0	0.00 U	38.0	76	44-132
106-43-4	PS 4-Chlorotoluene	50.0	0.00 U	38.7	77	46-127
98-06-6	PS tert-Butylbenzene	50.0	0.00 U	35.4	71	48-136
95-63-6	PS 1,2,4-Trimethylbenzene	50.0	0.00 U	38.0	76	42-132
135-98-8	PS sec-Butylbenzene	50.0	0.00 U	34.6	69	47-130
99-87-6	PS 4-Isopropyltoluene	50.0	0.00 U	33.8	68	36-142
541-73-1	PS 1,3-Dichlorobenzene	50.0	0.00 U	35.1	70	41-130
106-46-7	PS 1,4-Dichlorobenzene	50.0	0.00 U	34.6	69	41-126
104-51-8	PS n-Butylbenzene	50.0	0.00 U	29.9	60	37-136
96-12-8	PS 1,2-Dibromo-3-chloropropane	50.0	0.00 U	37.3	75	42-143
630-20-6	PS 1,1,1,2-Tetrachloroethane	50.0	0.00 U	42.1	84	58-127
95-50-1	PS 1,2-Dichlorobenzene	50.0	0.00 U	34.3	69	42-128

## Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Sample Type: Post Spike Duplicate

Client ID: RE36-10-8466PSD

Matrix: R

Lab Sample ID:1202067629

%Moisture: 12.4

Instrument: VOA5.I

Analysis Date: 03/11/2010 23:28

Dilution: 1

Analyst: CDS1

Pren Batch II 963808

Purge Vol: 5 mL

Batch ID: 963809

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD Dichlorodifluoromethane	50.0	0.00	U 46.6	93	39-148	3	0-19
74-87-3	PSD Chloromethane	50.0	0.00	U 49.2	98	42-131	0	0-23
75-01-4	PSD Vinyl chloride	50.0	0.00	U 50.5	101	50-127	3	0-23
74-83-9	PSD Bromomethane	50.0	0.00	U 49.4	99	26-135	2	0-22
75-00-3	PSD Chloroethane	50.0	0.00	U 47.3	95	54-128	4	0-25
75-69-4	PSD Trichlorofluoromethane	50.0	0.00	U 46.3	93	55-138	2	0-21
67-64-1	PSD Acetone	250	0.00	U 110	44	20-144	8	0-22
75-35-4	PSD 1,1-Dichloroethylene	50.0	0.00	U 45.4	91	55-128	1	0-20
74-88-4	PSD Iodomethane	250	0.00	U 228	91	47-132	1	0-20
75-09-2	PSD Methylene chloride	50.0	0.00	U 46.0	92	56-123	2	0-20
75-15-0	PSD Carbon disulfide	250	0.00	U 233	93	53-133	2	0-22
156-60-5	PSD trans-1,2-Dichloroethylene	50.0	0.00	U 46.2	92	57-119	2	0-20
75-34-3	PSD 1,1-Dichloroethane	50.0	0.00	U 48.2	96	62-125	0	0-20
78-93-3	PSD 2-Butanone	250	0.00	U 139	55	30-150	8	0-21
156-59-2	PSD cis-1,2-Dichloroethylene	50.0	0.00	U 46.5	93	60-124	2	0-20
594-20-7	PSD 2,2-Dichloropropane	50.0	0.00	U 43.9	88	56-129	1	0-20
67-66-3	PSD Chloroform	50.0	0.00	U 46.3	93	62-120	1	0-25
74-97-5	PSD Bromochloromethane	50.0	0.00	U 47.1	94	51-135	2	0-20
71-55-6	PSD 1,1,1-Trichloroethane	50.0	0.00	U 44.9	90	58-129	1	0-20
563-58-6	PSD 1,1-Dichloropropene	50.0	0.00	U 44.1	88	59-126	1	0-20
56-23-5	PSD Carbon tetrachloride	50.0	0.00	U 43.9	88	55-132	1	0-20
107-06-2	PSD 1,2-Dichloroethane	50.0	0.00	U 46.4	93	54-121	1	0-20

## Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Sample Type: Post Spike Duplicate

Client ID: RE36-10-8466PSD

Matrix: R

Lab Sample ID: 1202067629

% Moisture: 12.4

Instrument: VOA5.I

Analysis Date: 03/11/2010 23:28

Dilution: 1

Analyst: CDS1

Prep Batch II 963808

Purge Vol: 5 mL

Batch ID: 963809

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD Benzene	50.0	0.00	U 44.0	88	58-120	2	0-20
79-01-6	PSD Trichloroethylene	50.0	0.00	U 42.5	85	54-130	1	0-23
78-87-5	PSD 1,2-Dichloropropane	50.0	0.00	U 45.4	91	59-121	1	0-20
75-27-4	PSD Bromodichloromethane	50.0	0.00	U 46.9	94	57-130	1	0-20
74-95-3	PSD Dibromomethane	50.0	0.00	U 46.5	93	57-124	3	0-20
108-10-1	PSD 4-Methyl-2-pentanone	250	0.00	U 210	84	40-137	7	0-25
10061-01-5	PSD cis-1,3-Dichloropropylene	50.0	0.00	U 44.5	89	50-131	1	0-20
108-88-3	PSD Toluene	50.0	0.00	U 41.3	83	54-119	1	0-23
10061-02-6	PSD trans-1,3-Dichloropropylene	50.0	0.00	U 44.5	89	47-133	2	0-24
79-00-5	PSD 1,1,2-Trichloroethane	50.0	0.00	U 43.2	86	60-130	3	0-20
591-78-6	PSD 2-Hexanone	250	0.00	U 141	56	30-139	9	0-21
142-28-9	PSD 1,3-Dichloropropane	50.0	0.00	U 44.1	88	59-125	2	0-20
127-18-4	PSD Tetrachloroethylene	50.0	0.00	U 38.3	77	50-126	0	0-20
124-48-1	PSD Dibromochloromethane	50.0	0.00	U 44.6	89	54-131	1	0-23
106-93-4	PSD 1,2-Dibromoethane	50.0	0.00	U 43.0	86	55-127	2	0-23
108-90-7	PSD Chlorobenzene	50.0	0.00	U 39.9	80	50-130	1	0-24
100-41-4	PSD Ethylbenzene	50.0	0.00	U 37.5	75	50-121	0	0-24
179601-23-1	PSD m,p-Xylenes	100	0.00	U 77.8	78	47-125	1	0-25
95-47-6	PSD o-Xylene	50.0	0.00	U 38.3	77	51-127	1	0-24
100-42-5	PSD Styrene	50.0	0.00	U 39.5	79	41-136	1	0-24
75-25-2	PSD Bromoform	50.0	0.00	U 48.2	96	48-143	4	0-20
79-34-5	PSD 1,1,2,2-Tetrachloroethane	50.0	0.00	U 43.1	86	52-129	3	0-20

## Volatile

Page 6 of 6

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Sample Type: Post Spike Duplicate

Client ID: RE36-10-8466PSD

Matrix: R

Lab Sample ID: 1202067629

%Moisture: 12.4

Instrument: VOA5.I

Analysis Date: 03/11/2010 23:28

Dilution: 1

Analyst: CDS1

Pre Batch II 963808

Purge Vol: 5 mL

Batch ID: 963809

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD 1,2,3-Trichloropropane	50.0	0.00	U 45.5	91	56-139	5	0-34
108-86-1	PSD Bromobenzene	50.0	0.00	U 41.3	83	54-125	2	0-22
103-65-1	PSD n-Propylbenzene	50.0	0.00	U 38.7	77	46-127	0	0-25
95-49-8	PSD 2-Chlorotoluene	50.0	0.00	U 40.6	81	47-130	3	0-24
98-82-8	PSD Isopropylbenzene	50.0	0.00	U 41.5	83	42-126	0	0-22
108-67-8	PSD 1,3,5-Trimethylbenzene	50.0	0.00	U 38.4	77	44-132	1	0-25
106-43-4	PSD 4-Chlorotoluene	50.0	0.00	U 39.2	78	46-127	1	0-26
98-06-6	PSD tert-Butylbenzene	50.0	0.00	U 35.6	71	48-136	0	0-24
95-63-6	PSD 1,2,4-Trimethylbenzene	50.0	0.00	U 37.9	76	42-132	0	0-26
135-98-8	PSD sec-Butylbenzene	50.0	0.00	U 34.6	69	47-130	0	0-27
99-87-6	PSD 4-Isopropyltoluene	50.0	0.00	U 34.3	69	36-142	2	0-27
541-73-1	PSD 1,3-Dichlorobenzene	50.0	0.00	U 35.0	70	41-130	0	0-25
106-46-7	PSD 1,4-Dichlorobenzene	50.0	0.00	U 35.4	71	41-126	2	0-25
104-51-8	PSD n-Butylbenzene	50.0	0.00	U 30.0	60	37-136	1	0-29
96-12-8	PSD 1,2-Dibromo-3-chloropropane	50.0	0.00	U 35.8	72	42-143	4	0-21
630-20-6	PSD 1,1,1,2-Tetrachloroethane	50.0	0.00	U 42.2	84	58-127	0	0-20
95-50-1	PSD 1,2-Dichlorobenzene	50.0	0.00	U 34.4	69	42-128	0	0-24

## Volatile

Page 1 of 3

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963808

Matrix: SOIL

Lab Sample ID: 1202076532

Instrument: VOA5.I

Analysis Date: 03/11/2010 19:30

Dilution: 1

Analyst: CDS1

Pren Batch II 963808

Purge Vol: 5 mL

Batch ID: 963809

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS Dichlorodifluoromethane	50.0	0.0	54.7	109	52-151
74-87-3	LCS Chloromethane	50.0	0.0	54.0	108	56-130
75-01-4	LCS Vinyl chloride	50.0	0.0	56.7	113	66-130
74-83-9	LCS Bromomethane	50.0	0.0	54.2	108	70-126
75-00-3	LCS Chloroethane	50.0	0.0	53.2	106	67-129
75-69-4	LCS Trichlorofluoromethane	50.0	0.0	54.8	110	73-143
67-64-1	LCS Acetone	250	0.0	225	90	30-140
75-35-4	LCS 1,1-Dichloroethylene	50.0	0.0	52.4	105	71-129
74-88-4	LCS Iodomethane	250	0.0	258	103	72-125
75-09-2	LCS Methylene chloride	50.0	0.0	52.1	104	64-121
75-15-0	LCS Carbon disulfide	250	0.0	271	109	70-133
156-60-5	LCS trans-1,2-Dichloroethylene	50.0	0.0	53.5	107	73-120
75-34-3	LCS 1,1-Dichloroethane	50.0	0.0	54.5	109	73-120
78-93-3	LCS 2-Butanone	250	0.0	238	95	32-145
156-59-2	LCS cis-1,2-Dichloroethylene	50.0	0.0	53.5	107	74-124
594-20-7	LCS 2,2-Dichloropropane	50.0	0.0	52.9	106	73-134
67-66-3	LCS Chloroform	50.0	0.0	53.2	106	74-120
74-97-5	LCS Bromochloromethane	50.0	0.0	54.5	109	73-122
71-55-6	LCS 1,1,1-Trichloroethane	50.0	0.0	54.1	108	74-132
563-58-6	LCS 1,1-Dichloropropene	50.0	0.0	53.6	107	79-128
56-23-5	LCS Carbon tetrachloride	50.0	0.0	55.0	110	75-135
107-06-2	LCS 1,2-Dichloroethane	50.0	0.0	53.4	107	65-120



## Volatile

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963808

Matrix: SOIL

Lab Sample ID: 1202076532

Instrument: VOA5.I

Analysis Date: 03/11/2010 19:30

Dilution: 1

Analyst: CDS1

Pre Batch II 963808

Purge Vol: 5 mL

Batch ID: 963809

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS Benzene	50.0	0.0	51.5	103	74-120
79-01-6	LCS Trichloroethylene	50.0	0.0	52.0	104	77-124
78-87-5	LCS 1,2-Dichloropropane	50.0	0.0	52.9	106	73-120
75-27-4	LCS Bromodichloromethane	50.0	0.0	56.2	112	75-128
74-95-3	LCS Dibromomethane	50.0	0.0	55.6	111	75-120
108-10-1	LCS 4-Methyl-2-pentanone	250	0.0	259	104	63-133
10061-01-5	LCS cis-1,3-Dichloropropylene	50.0	0.0	53.9	108	78-127
108-88-3	LCS Toluene	50.0	0.0	48.8	98	74-120
10061-02-6	LCS trans-1,3-Dichloropropylene	50.0	0.0	53.3	107	70-125
79-00-5	LCS 1,1,2-Trichloroethane	50.0	0.0	50.7	101	75-120
591-78-6	LCS 2-Hexanone	250	0.0	230	92	40-153
142-28-9	LCS 1,3-Dichloropropane	50.0	0.0	51.6	103	73-120
127-18-4	LCS Tetrachloroethylene	50.0	0.0	48.7	97	72-126
124-48-1	LCS Dibromochloromethane	50.0	0.0	55.0	110	74-126
106-93-4	LCS 1,2-Dibromoethane	50.0	0.0	51.6	103	79-120
108-90-7	LCS Chlorobenzene	50.0	0.0	49.5	99	76-120
100-41-4	LCS Ethylbenzene	50.0	0.0	47.6	95	74-120
179601-23-1	LCS m,p-Xylenes	100	0.0	99.0	99	76-120
95-47-6	LCS o-Xylene	50.0	0.0	49.6	99	76-122
100-42-5	LCS Styrene	50.0	0.0	53.0	106	75-125
75-25-2	LCS Bromoform	50.0	0.0	55.6	111	68-135
79-34-5	LCS 1,1,2,2-Tetrachloroethane	50.0	0.0	48.9	98	72-122

## Volatile

Page 3 of 3

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963808

Matrix: SOIL

Lab Sample ID: 1202076532

Instrument: VOA5.I

Analysis Date: 03/11/2010 19:30

Dilution: 1

Analyst: CDS1

Pre Batch II 963808

Purge Vol: 5 mL

Batch ID: 963809

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS 1,2,3-Trichloropropane	50.0	0.0	49.9	100	72-129
108-86-1	LCS Bromobenzene	50.0	0.0	48.5	97	74-120
103-65-1	LCS n-Propylbenzene	50.0	0.0	47.7	95	70-120
95-49-8	LCS 2-Chlorotoluene	50.0	0.0	48.5	97	70-120
98-82-8	LCS Isopropylbenzene	50.0	0.0	48.9	98	60-121
108-67-8	LCS 1,3,5-Trimethylbenzene	50.0	0.0	49.0	98	71-121
106-43-4	LCS 4-Chlorotoluene	50.0	0.0	47.6	95	71-120
98-06-6	LCS tert-Butylbenzene	50.0	0.0	46.2	92	75-123
95-63-6	LCS 1,2,4-Trimethylbenzene	50.0	0.0	48.8	98	73-120
135-98-8	LCS sec-Butylbenzene	50.0	0.0	48.3	97	74-123
99-87-6	LCS 4-Isopropyltoluene	50.0	0.0	48.9	98	76-127
541-73-1	LCS 1,3-Dichlorobenzene	50.0	0.0	47.9	96	75-120
106-46-7	LCS 1,4-Dichlorobenzene	50.0	0.0	47.6	95	73-120
104-51-8	LCS n-Butylbenzene	50.0	0.0	46.9	94	73-128
96-12-8	LCS 1,2-Dibromo-3-chloropropane	50.0	0.0	48.9	98	69-136
630-20-6	LCS 1,1,1,2-Tetrachloroethane	50.0	0.0	52.1	104	75-124
95-50-1	LCS 1,2-Dichlorobenzene	50.0	0.0	48.4	97	75-120

Volatile

Page 1 of 1

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963808

Matrix: SOIL

Lab Sample ID: 1202076533

Instrument: VOA5.I

Analysis Date: 03/11/2010 19:56

Dilution: 1

Analyst: CDS1

Pren Batch II 963808

Purge Vol: 5 mL

Batch ID: 963809

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS 1,1,2-Trichloro-1,2,2-Trifluor Trichlorotrifluoroethane	250	0.0	324	130	67-140

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2202	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 963808	Instrument ID:	VOA5.I	Data File:	031110V55B433BS2.D
Lab Sample ID:	1202076531	Prep Date:	03/11/2010 16:00	Analyzed:	03/11/10 20:49
Column:	DB-624				

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 963808	1202076532	031110V55B430L2.D	03/11/10	1930
02 LCS for batch 963808	1202076533	031110V55B431SHL2.D	03/11/10	1956
03 RE36-10-8466	248526001	031110V55B437.D	03/11/10	2235
04 RE36-10-8466PS	1202067628	031110V55B438.D	03/11/10	2301
05 RE36-10-8466PSD	1202067629	031110V55B439.D	03/11/10	2328

## Instrument Performance Check

## BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2202

Instrument ID: VOA5.I

Injection Date/Time: 03-MAR-10 11:00

Column Description: DB-624

Lab File ID 030310V5\5A301.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.2
75	30.0 - 60.0% of mass 95	45.2
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	77.7
175	5.0 - 9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	96.2
177	5.0 - 9.0% of mass 176	6.3

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W5VM100303-01	030310V5\5A303.D	03-MAR-10 11:52
ICALMIX[A]	W5VM100303-02	030310V5\5A304.D	03-MAR-10 12:18
ICALMIX[A]	W5VM100303-03	030310V5\5A305.D	03-MAR-10 12:43
ICALMIX[A]	W5VM100303-04	030310V5\5A306.D	03-MAR-10 13:09
ICALMIX[A]	W5VM100303-05	030310V5\5A307.D	03-MAR-10 13:35
ICALMIX[A]	W5VM100303-06	030310V5\5A308.D	03-MAR-10 14:01
ICALMIX[A]	W5VM100303-07	030310V5\5A309.D	03-MAR-10 14:26
ICALMIX[A]	W5VM100303-08	030310V5\5A311.D	03-MAR-10 15:18
ICVMIX[A]01	W5VM100303-10	030310V5\5A313.D	03-MAR-10 16:10
ICALMIX[B]	W5VM100303-11	030310V5\5A315.D	03-MAR-10 17:01
ICALMIX[B]	W5VM100303-12	030310V5\5A316.D	03-MAR-10 17:27
ICALMIX[B]	W5VM100303-13	030310V5\5A317.D	03-MAR-10 17:52
ICALMIX[B]	W5VM100303-14	030310V5\5A318.D	03-MAR-10 18:18
ICALMIX[B]	W5VM100303-15	030310V5\5A319.D	03-MAR-10 18:44
ICALMIX[B]	W5VM100303-16	030310V5\5A320.D	03-MAR-10 19:10
ICALMIX[B]	W5VM100303-17	030310V5\5A321.D	03-MAR-10 19:35
ICVMIX[B]02	W5VM100303-18	030310V5\5A323.D	03-MAR-10 20:27

## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2202

Instrument ID: VOA5.I

Injection Date/Time: 11-MAR-10 18:10

Column Description: DB-624

Lab File ID 031110V5\5B427.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.3
75	30.0 - 60.0% of mass 95	45.5
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7.5
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	76.9
175	5.0 - 9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	97.9
177	5.0 - 9.0% of mass 176	6.7

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]02	W5VM100311-05	031110V5\5B428.D	11-MAR-10 18:37
BLK01LCS	1202076532	031110V5\5B430L2.D	11-MAR-10 19:30
CCVCCV 5G - SOIL MIX[B]UV	W5VM100311-08	031110V5\5B431.D	11-MAR-10 19:56
BLK01SLCS	1202076533	031110V5\5B431SHL2.D	11-MAR-10 19:56
BLK01	1202076531	031110V5\5B433BS2.D	11-MAR-10 20:49
RE36-10-8466	248526001	031110V5\5B437.D	11-MAR-10 22:35
RE36-10-8466MS	1202067628	031110V5\5B438.D	11-MAR-10 23:01
RE36-10-8466MSD	1202067629	031110V5\5B439.D	11-MAR-10 23:28

Internal Standard  
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA5.I

GC Column: DB-624

Client SDG: 10-2202

STD Analysis Time: 11-MAR-10 18:37

Data File: C:\msdchem\1\DATA\031110V5\SB428.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1441756		8.39	1055756		11.1	524091		13.4
Upper Limit	2883512		8.89	2111512		11.6	1048182		13.9
Lower Limit	720878		7.89	527878		10.6	262046		12.9
Sample ID									
BLK01LCS	1386649		8.39	1061215		11.1	547349		13.4
BLK01SLCS	1439092		8.39	1070189		11.1	529829		13.4
BLK01	1409057		8.39	1049412		11.1	504287		13.4
RE36-10-8466	1421542		8.39	1051754		11.1	496058		13.4
RE36-10-8466MS	1406465		8.39	1018044		11.1	448747		13.4
RE36-10-8466MSD	1397470		8.39	1014836		11.1	448622		13.4

Area Upper Limit = +100% of internal standard area

Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT

RT Lower Limit = - 0.50 minutes of internal standard RT

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

\* Value outside of QC Limits

# Sample Data



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

SDG Number: 10-2202  
 Lab Sample ID: 248526001

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 12.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8466  
 Batch ID: 963809  
 Run Date: 03/11/2010 22:35  
 Prep Date: 03/11/2010 10:13  
 Data File: 031110V55B437.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.388	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.342	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.342	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.342	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.342	1.14
67-64-1	Acetone	U	5.71	ug/kg	1.89	5.71
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
74-88-4	Iodomethane	U	5.71	ug/kg	1.83	5.71
75-09-2	Methylene chloride	U	5.71	ug/kg	2.28	5.71
75-15-0	Carbon disulfide	U	5.71	ug/kg	1.43	5.71
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.342	1.14
78-93-3	2-Butanone	U	5.71	ug/kg	1.71	5.71
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.342	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.377	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.342	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.342	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.377	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.342	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone	U	5.71	ug/kg	1.43	5.71
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.342	1.14
591-78-6	2-Hexanone	U	5.71	ug/kg	1.71	5.71
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.342	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.342	1.14

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2202  
Lab Sample ID: 248526001  
  
Client ID: RE36-10-8466  
Batch ID: 963809  
Run Date: 03/11/2010 22:35  
Prep Date: 03/11/2010 10:13  
Data File: 031110V5SB437.D

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.I  
Analyst: CDS1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 12.4  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.342	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.342	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.342	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.342	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.71	ug/kg	1.83	5.71
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14

**Tentatively Identified Compound Summary**

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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B437.D  
Acq On : 11 Mar 2010 10:35 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248526001|963809|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 17 15:24:13 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	8.391	8.387	1.000	96	1421542	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1051754	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	496058	50.00	ug/L	0.00
82) B Fluorobenzene	8.391	8.391	1.000	96	1421542	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1051754	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	496058	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	230487	33.50	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	=	67.00%		
43) Toluene-d8	9.721	9.721	0.872	98	1055557	39.24	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	=	78.48%		
61) Bromofluorobenzene	12.260	12.260	0.914	95	613506	61.66	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	=	123.32%		
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.960	4.900	0.591	50	377	Below Cal		83
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.867	5.866	0.699	59	353	N.D.		
9) Acetone	6.184	6.174	0.737	43	2100	N.D.		
10) 1,1-Dichloroethylene	0.000	6.156	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.467	6.464	0.771	41	1063	N.D.		
13) Methyl acetate	6.184	6.365	0.737	43	2100	N.D.		
14) Carbon disulfide	6.439	6.435	0.767	76	453	N.D.		
15) Methylene chloride	6.542	6.538	0.780	84	5368	N.D.		
16) tert-Butyl methyl ether	0.000	6.640	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.807	6.969	0.811	43	3408	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	7.461	7.450	0.889	43	122	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	0.000	7.924	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.005	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.207	8.203	0.978	78	238	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D. d		
33) n-Butyl alcohol	8.384	8.377	0.999	56	7987	Below Cal	#	19
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.826	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B437.D  
Acq On : 11 Mar 2010 10:35 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248526001|963809|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 17 15:24:13 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	9.487	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.791	9.788	0.879	91	5065	N.D.	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	10.294	10.279	0.924	43	109	N.D.	
48) 1,3-Dichloropropane	0.000	10.364	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	0.000	11.174	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.146	11.181	1.000	91	4642	N.D.	
55) m,p-Xylenes	11.280	11.280	1.012	106	910	N.D.	
56) o-Xylene	11.708	11.701	1.051	106	109	N.D.	
57) Styrene	0.000	11.715	0.000		0	N.D.	
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	12.246	12.016	0.913	105	112	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	0.000	12.465	0.000		0	N.D.	
65) n-Propylbenzene	12.415	12.415	0.926	91	562	N.D.	
66) 1,3,5-Trimethylbenzene	12.564	12.564	0.937	105	1029	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.702	12.698	0.947	91	404	N.D.	
69) tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	12.953	12.956	0.966	105	3139	N.D.	
71) sec-Butylbenzene	13.112	13.119	0.978	105	637	N.D.	
72) 4-Isopropyltoluene	13.232	13.229	0.987	119	1950	N.D.	
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	13.441	0.000		0	N.D.	
75) n-Butylbenzene	13.653	13.653	1.018	91	1469	N.D.	
76) 1,2-Dichlorobenzene	0.000	13.858	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	244	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.989	15.988	1.192	128	6039	0.38 ug/L	70
81) 1,2,3-Trichlorobenzene	16.298	16.291	1.215	180	244	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.082	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.163	0.000		0	N.D.	
88) Allyl chloride	6.450	6.425	0.769	41	163	N.D.	
89) tert-Butyl Alcohol	6.464	6.460	0.770	59	142	N.D.	
90) Acrylonitrile	0.000	6.747	0.000		0	N.D.	
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	7.461	7.383	0.889	43	122	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B437.D  
Acq On : 11 Mar 2010 10:35 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248526001|963809|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 17 15:24:13 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

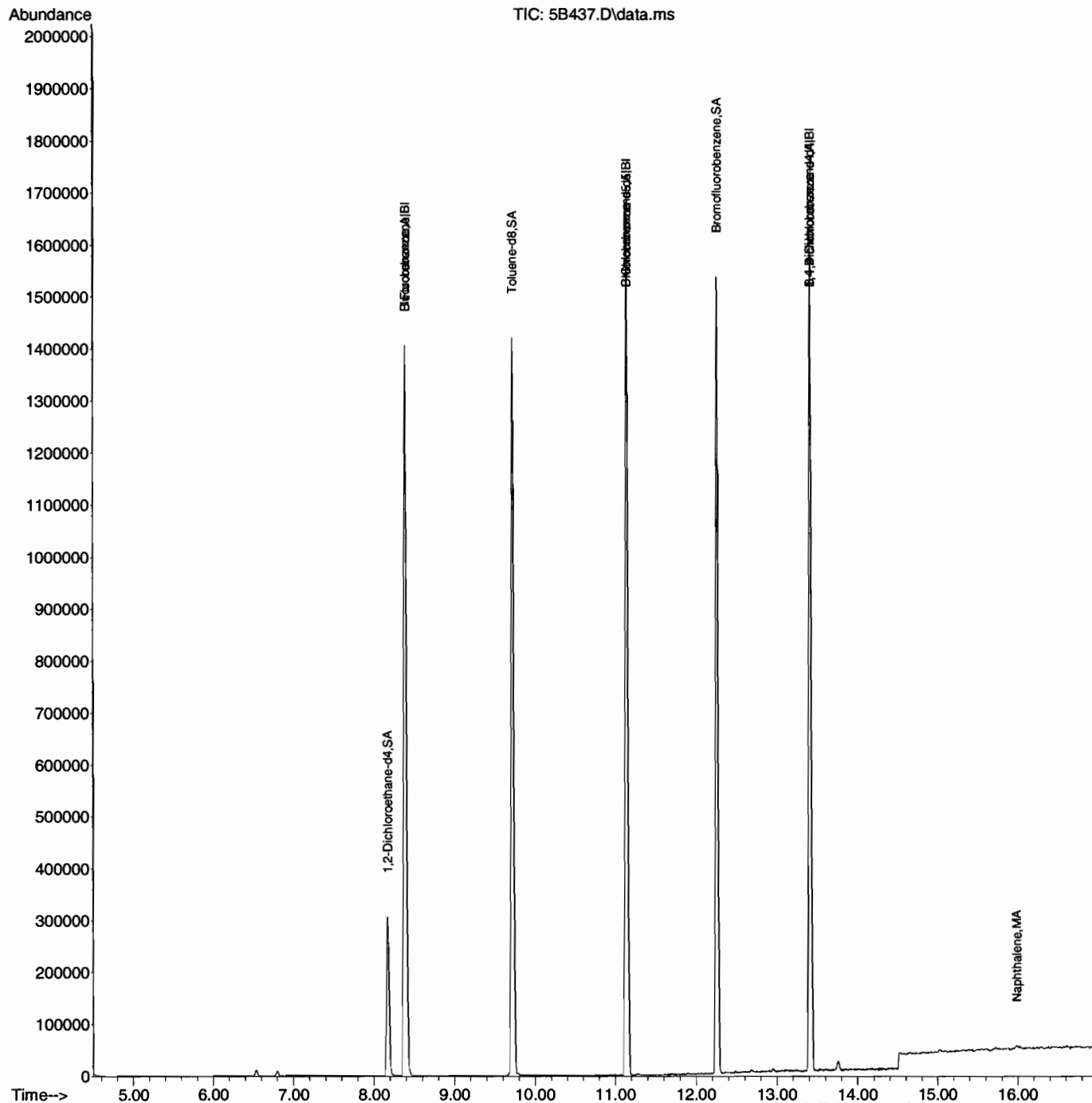
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.698	7.680	0.917	41	266	N.D.	
97) Tetrahydrofuran	7.719	7.716	0.920	42	1200	N.D.	
98) Isobutyl alcohol	7.733	7.857	0.922	41	107	N.D.	
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.	
100) Methyl methacrylate	0.000	8.801	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	0.000	9.342	0.000		0m	N.D.	d
104) Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	12.136	0.000		0	N.D.	
108) Cyclohexanone	0.000	12.267	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	12.412	0.000		0	N.D.	
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.551	13.565	1.010	91	1141	N.D.	
112) bis(2-Chloroisopropyl)...	13.936	13.929	1.039	45	119	N.D.	

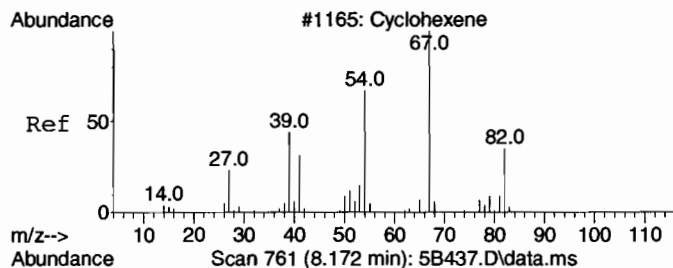
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B437.D  
Acq On : 11 Mar 2010 10:35 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248526001|963809|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 37 Sample Multiplier: 1

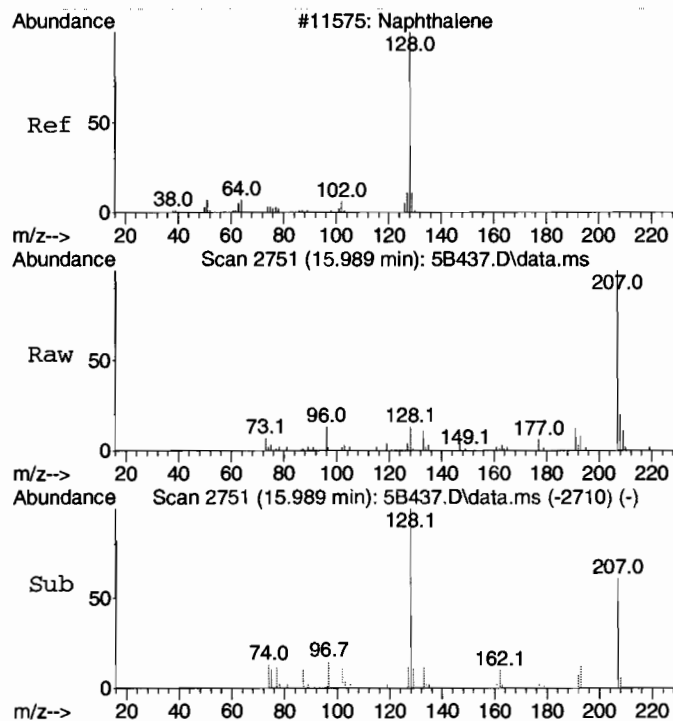
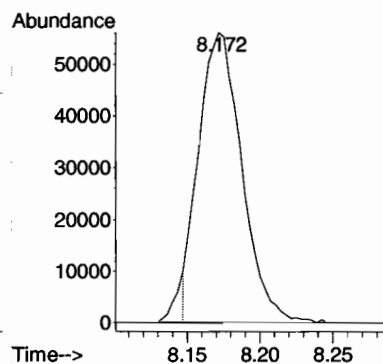
Quant Time: Mar 17 15:24:13 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE





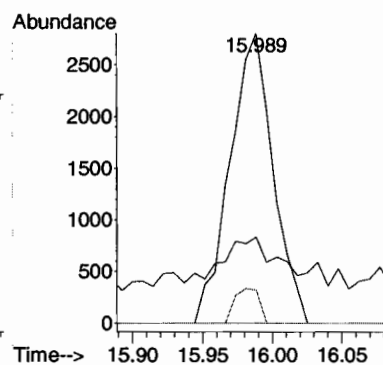
#32 BEFORE analyst DELETION  
Cyclohexene  
Concen: 12.13 ug/L  
RT: 8.172 min Scan# 761  
Delta R.T. -0.074 min  
Lab File: 5B437.D  
Acq: 11 Mar 2010 10:35 pm

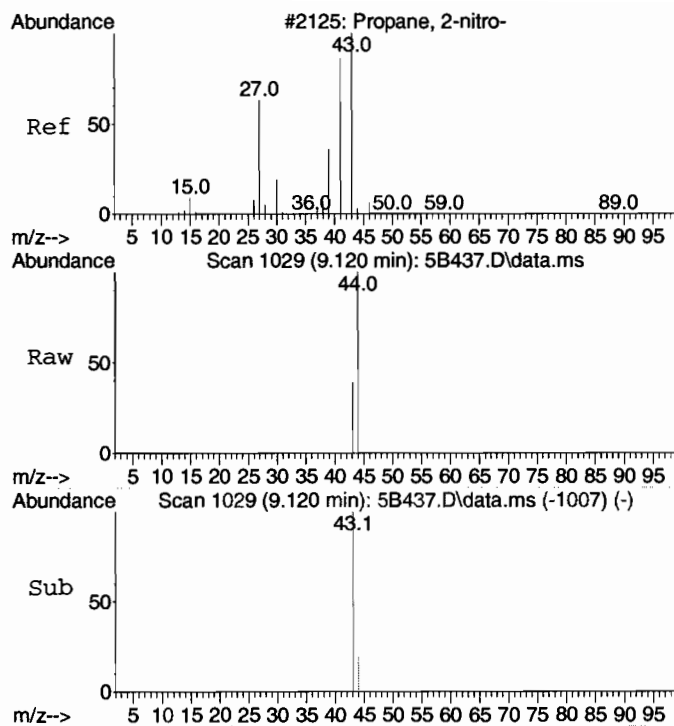
Tgt Ion: 67 Resp: 115964  
Ion Ratio Lower Upper  
67 100  
54 0.0 46.3 106.3#



#80  
Naphthalene  
Concen: 0.38 ug/L  
RT: 15.989 min Scan# 2751  
Delta R.T. 0.001 min  
Lab File: 5B437.D  
Acq: 11 Mar 2010 10:35 pm

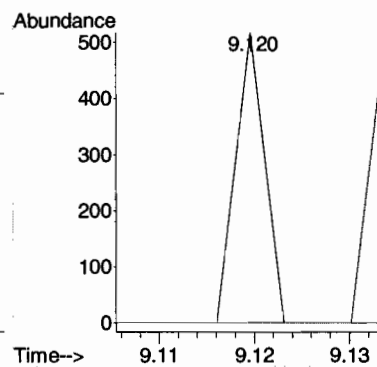
Tgt Ion: 128 Resp: 6039  
Ion Ratio Lower Upper  
128 100  
127 30.5 0.0 42.4  
129 6.7 0.0 40.8





#102 BEFORE analyst DELETION  
 2-Nitropropane  
 Concen: 6.96 ug/L  
 RT: 9.120 min Scan# 1029  
 Delta R.T. -0.222 min  
 Lab File: 5B437.D  
 Acq: 11 Mar 2010 10:35 pm

Tgt Ion: 43 Resp: 110  
 Ion Ratio Lower Upper  
 43 100  
 41 99.1 52.5 112.5





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B437.D  
Acq On : 11 Mar 2010 10:35 pm  
Operator : CDS1  
Sample : |248526001|963809|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 37 Sample Multiplier: 1  
  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
  
TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

No Library Search Compounds Detected

\*\*\*\*\*

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B437.D  
Acq On : 11 Mar 2010 10:35 pm  
Operator : CDS1  
Sample : |248526001|963809|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--
					# RT Resp Conc

# Standards

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

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

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

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

## Calibration History Report VOA5

GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M

Last Update : Tue Mar 09 07:08:19 2010

Integrator : (RTE Integrator)

Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\030310V5\5A311.D

Injection Date	Mix	Calibration File
3 Mar 2010 3:18 pm	A	C:\msdchem\1\DATA\030310V5\5A311.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\030310V5\5A315.D

Injection Date	Mix	Calibration File
3 Mar 2010 11:52 am	A	C:\msdchem\1\DATA\030310V5\5A303.D
3 Mar 2010 5:01 pm	B	C:\msdchem\1\DATA\030310V5\5A315.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\030310V5\5A316.D

Injection Date	Mix	Calibration File
3 Mar 2010 12:18 pm	A	C:\msdchem\1\DATA\030310V5\5A304.D
3 Mar 2010 5:27 pm	B	C:\msdchem\1\DATA\030310V5\5A316.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\030310V5\5A317.D

Injection Date	Mix	Calibration File
3 Mar 2010 12:43 pm	A	C:\msdchem\1\DATA\030310V5\5A305.D
3 Mar 2010 5:52 pm	B	C:\msdchem\1\DATA\030310V5\5A317.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\030310V5\5A318.D

Injection Date	Mix	Calibration File
3 Mar 2010 1:09 pm	A	C:\msdchem\1\DATA\030310V5\5A306.D
3 Mar 2010 6:18 pm	B	C:\msdchem\1\DATA\030310V5\5A318.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\030310V5\5A319.D

Injection Date	Mix	Calibration File
3 Mar 2010 1:35 pm	A	C:\msdchem\1\DATA\030310V5\5A307.D
3 Mar 2010 6:44 pm	B	C:\msdchem\1\DATA\030310V5\5A319.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\030310V5\5A320.D

Injection Date	Mix	Calibration File
3 Mar 2010 2:01 pm	A	C:\msdchem\1\DATA\030310V5\5A308.D
3 Mar 2010 7:10 pm	B	C:\msdchem\1\DATA\030310V5\5A320.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\030310V5\5A321.D

Injection Date	Mix	Calibration File
3 Mar 2010 2:26 pm	A	C:\msdchem\1\DATA\030310V5\5A309.D
3 Mar 2010 7:35 pm	B	C:\msdchem\1\DATA\030310V5\5A321.D

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Response Factor Report VOA5  
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Last Update : Tue Mar 09 07:08:19 2010  
Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration:  $y = \text{concentration ratio}$ ,  $x = \text{response ratio}$ .  $y = b + m_1(x) + m_2(xE2)$

b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r <sup>2</sup>
2)MA	Dichlorodifluoromethane	0.1071911	0.1343128 0.1106837	0.1140372	0.1271918	0.1076299	0.1161426	0.1167	AVRG		8.8231
3)MPA	Chloromethane 0.0020   0.1467   0.00	261159	10037 510887	13766	31895	57674	114670		LNIR		0.9998
4)MCA	Vinyl chloride	0.1157351	0.1366188 0.1183938	0.1281019	0.1255313	0.1197165	0.1183782	0.1232	AVRG		5.9617
5)MA	Bromomethane	0.1170655	0.1239625 0.1206884	0.1169147	0.1094959	0.1165166	0.1190689	0.1177	AVRG		3.7964
6)MA	Chloroethane	0.1233612	0.1370210 0.1233229	0.1216074	0.1215156	0.1214055	0.1263787	0.1249	AVRG		4.4855
7)MA	Trichlorofluoromethane	0.2117030	0.2153456 0.2117388	0.2178553	0.2129630	0.2104313	0.2210791	0.2144	AVRG		1.8020
8)MA	Ethyl ether	0.1947530	0.1871370 0.1794319	0.1767368	0.1717271	0.1985778	0.1841458	0.1846	AVRG		5.2291
9)MA	Acetone	0.1463100	0.1866060 0.1376620	0.1644416	0.1375065	0.1478785	0.1253868	0.1494	AVRG		13.6035
10)MCA	1,1-Dichloroethylene	0.2389821	0.2398002 0.2445433	0.2409558	0.2398242	0.2475025	0.2208403	0.2389	AVRG		3.5757
11)MA	Iodomethane	0.2471140	0.2444391 0.2442657	0.2568896	0.2483905	0.2612671	0.2249439	0.2468	AVRG		4.6894
12)MA	Acetonitrile	0.0283547	0.0347170 0.0256546	0.0322725	0.0285058	0.0304863	0.0249732	0.0293	AVRG		11.9223
13)MA	Methyl acetate	0.1652002	0.1815060 0.1485899	0.1773876	0.1581228	0.1758673	0.1361690	0.1633	AVRG		10.2209
14)MA	Carbon disulfide	0.4578684	0.5050741 0.4584238	0.5194211	0.5014662	0.5065645	0.4033217	0.4789	AVRG		8.5995
15)MA	Methylene chloride 0.0023   0.1884   0.00	347452	11571 651820	21218	39402	76880	131269		LNIR		0.9995
16)MA	tert-Butyl methyl ether	0.5036196	0.4725751 0.4964892	0.5978178	0.4559781	0.5175164	0.4382739	0.4975	AVRG		10.4953



Method File : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Last Update : Tue Mar 09 07:08:19 2010  
Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration:  $y = \text{concentration ratio}$ ,  $x = \text{response ratio}$ .  $y = b + m_1(x) + m_2(xE_2)$

b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/ $r^2$
17)MA	trans-1,2-Dichloroethylene	0.2628117	0.2484881 0.2644957	0.2741276	0.2591751	0.2691941	0.2403411	0.2598	AVRG		4.5316
18)MA	Vinyl acetate	0.4300924	0.4257145 0.3838583	0.3882024	0.3995826	0.4134088	0.4228412	0.4091	AVRG		4.5605
19)MPA	1,1-Dichloroethane	0.3302035	0.3142904 0.3294966	0.3229238	0.3125231	0.3367887	0.3058631	0.3217	AVRG		3.4802
20)MA	2-Butanone	0.1882036	0.1936957 0.1818946	0.1811767	0.1647833	0.1816863	0.1545487	0.1780	AVRG		7.6550
21)MA	cis-1,2-Dichloroethylene	0.3090002	0.2816842 0.3063284	0.3216599	0.2968513	0.3189112	0.2809374	0.3022	AVRG		5.4422
22)MA	2,2-Dichloropropane	0.2371246	0.2583557 0.2337214	0.2487143	0.2316248	0.2394110	0.2202251	0.2385	AVRG		5.1515
23)MA	Bromochloromethane	0.0955632	0.0843041 0.0945829	0.0899282	0.0830960	0.0936185	0.0838221	0.0893	AVRG		6.1291
24)MCA	Chloroform	0.2968630	0.2880392 0.2933504	0.2944044	0.2766864	0.2987853	0.2690593	0.2882	AVRG		3.8825
25)MA	1,1,1-Trichloroethane	0.2446109	0.2341424 0.2416415	0.2408483	0.2355644	0.2432168	0.2237423	0.2377	AVRG		3.0518
26)MA	Cyclohexane	0.3362899	0.3377261 0.3291308	0.3632086	0.3428843	0.3469778	0.3103599	0.3381	AVRG		4.8083
27)MA	1,2-Dichloropropene	0.2203338	0.2256423 0.2134343	0.2194822	0.2171957	0.2254819	0.2043886	0.2180	AVRG		3.3958
28)MA	Carbon tetrachloride	0.2111430	0.1982649 0.2090476	0.2143055	0.1985177	0.2044374	0.1914744	0.2039	AVRG		4.0179
29)SA	1,2-Dichloroethane-d4	0.2469049	0.2369252 0.2490915	0.2336174	0.2380253	0.2497712	0.2396695	0.2420	AVRG		2.6779
30)MA	1,2-Dichloroethane	0.2554033	0.2479518 0.2486772	0.2572257	0.2440949	0.2612232	0.2285764	0.2490	AVRG		4.3389
31)MA	Benzene	0.7207210	0.7418443 0.7026943	0.7731024	0.7153431	0.7479119	0.6649804	0.7238	AVRG		4.8270

Response Factor Report VOA5  
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Method File : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M

Last Update : Tue Mar 09 07:08:19 2010

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration:  $y = \text{concentration ratio}$ ,  $x = \text{response ratio}$ .  $y = b + m_1(x) + m_2(xE2)$

b		Compound	8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r <sup>2</sup>
		m1   m2	6	7								
32)MA		Cyclohexene	0.3339520	0.3123061 0.3234949	0.3866319	0.3393842	0.3509290	0.3080677	0.3364	AVRG		7.9572
33)MA		n-Butyl alcohol	19260 1408012	34213 2352134	56344	121141	269492	466484		LINR	#	0.9947
34)MA		Trichloroethylene	0.1724887	0.1816132 0.1698750	0.1780411	0.1681998	0.1729789	0.1601051	0.1719	AVRG		4.0477
35)MA		1,2-Dichloropropane	0.2087711	0.2111626 0.2051990	0.2097606	0.1902748	0.2128689	0.1930853	0.2044	AVRG		4.4358
36)MA		Methylcyclohexane	0.3125154	0.3236754 0.2954954	0.3376340	0.3191597	0.3187083	0.2915431	0.3141	AVRG		5.1167
37)MA		Dibromomethane	0.1147921	0.0958611 0.1112747	0.1022045	0.0940684	0.1106872	0.0984524	0.1039	AVRG		7.9840
38)MA		Bromodichloromethane	0.2331295	0.1958516 0.2322850	0.2002811	0.2032170	0.2187202	0.2032823	0.2124	AVRG		7.3274
39)MA		2-Chloroethylvinyl ether	0.0686203	0.0564924 0.0652642	0.0601502	0.0771933	0.0701491	0.0593383	0.0653	AVRG		11.1044
40)MA		cis-1,3-Dichloropropylene	0.3125399	0.2818987 0.3029780	0.2841853	0.2759376	0.3026459	0.2752061	0.2908	AVRG		5.1555
42)MA		4-Methyl-2-pentanone	0.1271094	0.1231600 0.1177079	0.1229976	0.1118485	0.1258398	0.1083137	0.1196	AVRG		6.0173
43)SA		Toluene-d8	1.2721004	1.2715773 1.2960357	1.2614345	1.2794096	1.2985942	1.2717942	1.2787	AVRG		1.0765
44)MCA		Toluene	1.0348743	1.1518044 0.9819176	1.1664465	1.0787639	1.0942945	1.0060419	1.0734	AVRG		6.5499
45)MA		trans-1,3-Dichloropropyl	0.3858636	0.3568487 0.3673651	0.3722761	0.3512502	0.3821534	0.3436649	0.3656	AVRG		4.3186
46)MA		1,1,2-Trichloroethane	0.1865070	0.1809477 0.1759586	0.1909377	0.1747003	0.1892881	0.1696366	0.1811	AVRG		4.4615
47)MA		2-Hexanone	0.3467953	0.3284339 0.3313724	0.3316048	0.3042837	0.3395084	0.2907043	0.3247	AVRG		6.1423

Response Factor Report VOA5  
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M

Last Update : Tue Mar 09 07:08:19 2010

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration:  $y = \text{concentration ratio}$ ,  $x = \text{response ratio}$ .  $y = b + m_1(x) + m_2(xE2)$

b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r <sup>2</sup>
48)MA	1,3-Dichloropropane	0.4018238	0.3986847 0.3753277	0.3941649	0.3766925	0.4132373	0.3644275	0.3892	AVRG		4.4680
49)MA	Tetrachloroethylene	0.1886479	0.2101304 0.1744663	0.2182619	0.2019552	0.1998049	0.1830335	0.1966	AVRG		7.8477
50)MA	Dibromochloromethane	0.2419406	0.2023411 0.2365549	0.2093074	0.1956150	0.2219088	0.2007112	0.2155	AVRG		8.4921
51)MA	1,2-Dibromoethane	0.2238521	0.2177735 0.2124675	0.2045353	0.1960736	0.2183057	0.1960958	0.2099	AVRG		5.3073
52)MPA	Chlorobenzene	0.6872590	0.7408323 0.6366570	0.7386193	0.6950357	0.7183845	0.6572330	0.6963	AVRG		5.6932
53)MA	1,1,1,2-Tetrachloroethane	0.2494816	0.2332060 0.2379202	0.2374976	0.2252816	0.2425499	0.2251908	0.2359	AVRG		3.7523
54)MCA	Ethylbenzene	1.1606703	1.3980293 1.0780788	1.3671495	1.2021431	1.2341387	1.1328429	1.2247	AVRG		9.7166
55)MA	m,p-Xylenes	0.4618127	0.4755362 0.4281219	0.4871003	0.4628331	0.4838482	0.4481627	0.4639	AVRG		4.4913
56)MA	o-Xylene	0.4689336	0.4805646 0.4384802	0.4947283	0.4674384	0.4872624	0.4439087	0.4688	AVRG		4.5189
57)MA	Styrene	0.7780846	0.6852095 0.7485180	0.6985634	0.6741433	0.7377851	0.6904055	0.7161	AVRG		5.4221
59)MPA	Bromoform	0.3074710	0.2425130 0.2932519	0.2628946	0.2525902	0.2877580	0.2590520	0.2722	AVRG		8.8146
60)MA	Isopropylbenzene	2.2318182	2.3943888 2.0444667	2.5037151	2.3076026	2.3716419	2.2055021	2.2942	AVRG		6.5198
61)SA	Bromofluorobenzene	0.9869307	1.0123469 0.9932836	1.0080037	1.0035486	1.0238053	0.9924612	1.0029	AVRG		1.2932
62)MPA	1,1,2,2-Tetrachloroethane	0.5917981	0.6871449 0.5341051	0.6275343	0.5716073	0.6108623	0.5337210	0.5938	AVRG		9.1753
63)MA	1,2,3-Trichloropropane	0.1663007	0.1542994 0.1462352	0.1701851	0.1567715	0.1717308	0.1442981	0.1585	AVRG		7.0291

Method File : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Last Update : Tue Mar 09 07:08:19 2010  
Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration:  $y = \text{concentration ratio}$ ,  $x = \text{response ratio}$ .  $y = b + m_1(x) + m_2(xE2)$

Compound			1	2	3	4	5	Avg	Curve	Exp	%RSD/r <sup>2</sup>
b	m1	m2	7								
64)MA Bromobenzene			0.6486814 0.5243606	0.6270489	0.5549342	0.5944725	0.5351627	0.5771	AVRG		8.2053
65)MA n-Propylbenzene			3.1428673 2.4230362	3.0740107	2.7659361	2.7519459	2.6123049	2.7698	AVRG		9.3207
66)MA 1,3,5-Trimethylbenzene			2.1140806 1.7809313	2.1176062	1.9345676	1.9838360	1.8693101	1.9593	AVRG		6.3245
67)MA 2-Chlorotoluene			0.6336821 0.5174526	0.6149888	0.5712532	0.5980658	0.5347064	0.5751	AVRG		7.4098
68)MA 4-Chlorotoluene			2.0033682 1.5676196	1.9506321	1.7393299	1.7773161	1.6165466	1.7610	AVRG		9.3178
69)MA tert-Butylbenzene			0.5220044 0.3925972	0.5067096	0.4594991	0.4418889	0.4115510	0.4510	AVRG		10.7312
70)MA 1,2,4-Trimethylbenzene			2.1474948 1.8420857	2.1428091	1.9400417	2.0243304	1.8983398	1.9934	AVRG		5.9008
71)MA sec-Butylbenzene			2.7713754 2.2728207	2.7409960	2.5556188	2.5245775	2.4127685	2.5353	AVRG		6.9611
72)MA 4-Isopropyltoluene			2.1276691 1.8512791	2.1644277	1.9988403	2.0283563	1.9476327	2.0151	AVRG		5.2660
73)MA 1,3-Dichlorobenzene			1.2393706 1.0114602	1.1735978	1.0546701	1.1091368	1.0209850	1.0958	AVRG		7.6742
74)MA 1,4-Dichlorobenzene			1.2623150 1.0206465	1.1764354	1.0887098	1.1479739	1.0224741	1.1140	AVRG		7.8575
75)MA n-Butylbenzene			2.2862752 1.7525689	2.2057605	1.9471241	1.9465316	1.8399483	1.9788	AVRG		9.8883
76)MA 1,2-Dichlorobenzene			1.1619981 0.9895673	1.1046351	1.0096084	1.0812630	0.9841815	1.0534	AVRG		6.2618
77)MA 1,2-Dibromo-3-chloroprop			0.1466513 0.1082926	0.1103702	0.0987550	0.1134385	0.0964579	0.1130	AVRG		14.6986
78)MA 1,2,4-Trichlorobenzene			0.7703834 0.6948904	0.7294288	0.6781382	0.7096930	0.6624167	0.7094	AVRG		5.0317

Response Factor Report VOA5  
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Last Update : Tue Mar 09 07:08:19 2010  
Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration:  $y = \text{concentration ratio}$ ,  $x = \text{response ratio}$ .  $y = b + m_1(x) + m_2(xE2)$

b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r <sup>2</sup>
79)MA	Hexachlorobutadiene	0.4278299	0.4733681 0.4047082	0.4525326	0.4213133	0.4251323	0.4112408	0.4309	AVRG		5.5882
80)MA	Naphthalene	1.7289583	1.6207382 1.6143553	1.6540963	1.4827854	1.6683802	1.5100228	1.6113	AVRG		5.4224
81)MA	1,2,3-Trichlorobenzene	0.6423302	0.6276676 0.6195878	0.6346658	0.5810652	0.6448961	0.5831963	0.6191	AVRG		4.3026
83)B	Chlorotrifluoroethylene	0.0735216	0.0835210 0.0860804	0.0722722	0.0684897	0.0802235	0.0986873	0.0804	AVRG		12.7622
84)B	2-Chloro-1,1,1-trifluoro	0.1183741	0.1102455 0.1256300	0.1129374	0.1103017	0.1195944	0.1242927	0.1173	AVRG		5.4176
85)B	Acrolein -0.0097   0.0306   0.00	221757	2624 537267	5641	16329	36743	72786		LINR		0.9903
86)B	Trichlorotrifluoroethane	0.0405821	0.0459929 0.0499271	0.0456091	0.0440692	0.0471327	0.0405003	0.0448	AVRG		7.6523
87)B	Isopropyl Alcohol	0.0156865	0.0132039 0.0168508	0.0133281	0.0136177	0.0152807	0.0167250	0.0150	AVRG		10.5258
88)B	Allyl chloride	0.3013963	0.3545867 0.3247091	0.3325385	0.3315882	0.3447311	0.3139613	0.3291	AVRG		5.4472
89)B	tert-Butyl Alcohol	0.0229193	0.0182895 0.0244880	0.0196806	0.0209845	0.0227963	0.0247242	0.0220	AVRG		11.0285
90)B	Acrylonitrile	0.0699699	0.0715226 0.0753880	0.0684122	0.0745782	0.0754865	0.0711180	0.0724	AVRG		3.8849
91)B	Isopropyl ether	0.7352384	0.7025458 0.7994663	0.6794811	0.6820459	0.7654787	0.7924311	0.7367	AVRG		6.8556
92)B	2-Chloro-1,3-butadiene	0.2159482	0.1980383 0.2496900	0.1966904	0.2032729	0.2213056	0.2015126	0.2124	AVRG		8.8880
93)B	Ethyl tert-butyl ether	0.5377480	0.4313279 0.6133655	0.4816021	0.5236631	0.5726499	0.5688029	0.5327	AVRG		11.4695
94)B	Ethyl acetate	0.1873901	0.2038656 0.1978070	0.1859171	0.1985214	0.2051710	0.1930163	0.1960	AVRG		3.8432

Response Factor Report VOA5  
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Last Update : Tue Mar 09 07:08:19 2010  
Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration:  $y = \text{concentration ratio}$ ,  $x = \text{response ratio}$ .  $y = b + m_1(x) + m_2(xE2)$

b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r <sup>2</sup>
95)B	Propionitrile	0.0274167	0.0254057 0.0295674	0.0261084	0.0287780	0.0296110	0.0280571	0.0278	AVRG		5.8911
96)B	Methacrylonitrile	0.1462335	0.1576755 0.1544466	0.1461036	0.1559698	0.1612840	0.1496123	0.1530	AVRG		3.8305
97)B	Tetrahydrofuran	0.0649169	0.0717706 0.0687676	0.0675774	0.0711026	0.0723381	0.0676879	0.0692	AVRG		3.8938
98)B	Isobutyl alcohol	0.0077815	0.0071325 0.0076959	0.0063262	0.0072331	0.0073822	0.0074520	0.0073	AVRG	#	6.6246
99)B	Methyl tert-amyl ether	0.4244686	0.3693071 0.4894317	0.3868580	0.4285646	0.4452561	0.4538868	0.4283	AVRG		9.4811
100)B	Methyl methacrylate	0.1178945	0.1081095 0.1241707	0.1026339	0.1134532	0.1237597	0.1183364	0.1155	AVRG		6.9053
101)B	1,4-Dioxane	0.0021058	0.0019460 0.0022074	0.0018691	0.0020607	0.0021756	0.0020610	0.0021	AVRG	#	5.8304
102)B	2-Nitropropane	483598	8038 1057258	15631	44649	93248	187428		LINR		0.9974
104)B	Ethyl methacrylate	0.3067238	0.2614159 0.3151848	0.2550206	0.2945269	0.3244650	0.3086265	0.2951	AVRG		9.0970
106)B	1-Chlorohexane	0.4829755	0.5235250 0.5218822	0.4770701	0.4681758	0.5166419	0.5271408	0.5025	AVRG		5.0286
107)B	cis-1,4-Dichloro-2-buten	0.1870322	0.1796601 0.1976993	0.1700290	0.1860859	0.2007261	0.1875530	0.1870	AVRG		5.5493
108)B	Cyclohexanone		0.0139831	0.0143555	0.0153783	0.0164251	0.0167053	0.0154	AVRG		7.8679
109)B	trans-1,4-Dichloro-2-but	0.1744505	0.1664803 0.1845150	0.1640418	0.1749215	0.1913325	0.1771113	0.1761	AVRG		5.4159
110)B	Pentachloroethane	0.2461688	0.2534545 0.2701388	0.1993333	0.2360493	0.2598436	0.2423291	0.2439	AVRG		9.3035
111)B	Benzyl chloride	0.8579629	0.8960861 0.8906143	0.8542224	0.9170528	0.9675422	0.8839666	0.8953	AVRG		4.3075

Response Factor Report VOA5  
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M

Last Update : Tue Mar 09 07:08:19 2010

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration:  $y = \text{concentration ratio}, x = \text{response ratio. } y = b + m_1(x) + m_2(xE2)$

Compound		8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r <sup>2</sup>
b	m1   m2	6	7								
12)B	bis(2-Chloroisopropyl)et	0.3165820	0.3441093	0.3217389	0.3317707	0.3404966	0.3253184	0.3294	AVRG		3.0276

18#) = Out of Range

## Continuing Calibration Summary

Client SDG: 10-2202

Instrument ID: VOA5.1

Injection Date 03-MAR-10 16:10

Data File: 030310V5\A313.D

Init. Cal. Date(s) 03-MAR-10 11:52 - 03-MAR-10 19:3

Lab Sample ID W5VM100303-10

Quant Type ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S 1,2-Dichloroethane-d4	0.242	0.24421		.01		0.91322	30		Averaged	
S Toluene-d8	1.2787	1.27452		.01		-0.32689	30		Averaged	
S Bromofluorobenzene	1.0029	0.99178		.01		-1.10878	30		Averaged	
Dichlorodifluoromethane	0.1167	0.10877		.01		-6.7952	30		Averaged	
Chloromethane	50	47.23	50			-5.54	30		Linear	spcc
Vinyl chloride	0.1232	0.11935		.01		-3.125	20		Averaged	ccc
Bromomethane	0.1177	0.1182		.01		0.42481	30		Averaged	
Chloroethane	0.1249	0.12029		.01		-3.69095	30		Averaged	
Trichlorofluoromethane	0.2144	0.21193		.01		-1.15205	30		Averaged	
Ethyl ether	0.1846	0.17033		.01		-7.73023	30		Averaged	
1,1-Dichloroethylene	0.2389	0.22217		.01		-7.00293	20		Averaged	ccc
Acetone	0.1494	0.11803		.01		-20.99732	40		Averaged	
Iodomethane	0.2468	0.23547		.01		-4.59076	30		Averaged	
Methyl acetate	0.1633	0.14216		.01		-12.9455	40		Averaged	
Carbon disulfide	0.4789	0.4718		.01		-1.48256	30		Averaged	
Acetonitrile	0.0293	0.02521		.01		-13.95904	30		Averaged	
Methylene chloride	50	47.91	50			-4.18	30		Linear	
tert-Butyl methyl ether	0.4975	0.4619		.01		-7.15578	30		Averaged	
trans-1,2-Dichloroethylene	0.2598	0.24929		.01		-4.04542	30		Averaged	
Vinyl acetate	0.4091	0.41961		.01		2.56905	40		Averaged	
1,1-Dichloroethane	0.3217	0.31699		.1		-1.4641	30		Averaged	spcc
2-Butanone	0.178	0.14855		.01		-16.54494	40		Averaged	
2,2-Dichloropropane	0.2385	0.22482		.01		-5.73585	30		Averaged	
cis-1,2-Dichloroethylene	0.3022	0.29612		.01		-2.01191	30		Averaged	
Chloroform	0.2882	0.28311		.01		-1.76613	20		Averaged	ccc
Bromochloromethane	0.0893	0.09141		.01		2.36282	30		Averaged	
1,1,1-Trichloroethane	0.2377	0.23371		.01		-1.67859	30		Averaged	
Cyclohexane	0.3381	0.32396		.01		-4.18219	30		Averaged	
1,1-Dichloropropene	0.218	0.20984		.01		-3.74312	30		Averaged	
Carbon tetrachloride	0.2039	0.20004		.01		-1.89308	30		Averaged	
Benzene	0.7238	0.68663		.01		-5.1354	30		Averaged	
1,2-Dichloroethane	0.249	0.23966		.01		-3.751	30		Averaged	
Cyclohexene	0.3364	0.31082		.01		-7.60404	30		Averaged	
n-Butyl alcohol	5000	4684.67	5000			-6.3066	40		Linear	
Trichloroethylene	0.1719	0.16611		.01		-3.36824	30		Averaged	
Methylcyclohexane	0.3141	0.28966		.01		-7.78096	30		Averaged	
1,2-Dichloropropane	0.2044	0.1998		.01		-2.25049	20		Averaged	ccc



## Continuing Calibration Summary

Instrument ID: VOA5.1

Injection Date 03-MAR-10 16:10

Data File: 030310V5\5A313.D

Init. Cal. Date(s) 03-MAR-10 11:52 03-MAR-10 19:3

Lab Sample ID W5VM100303-10

Quant Type ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1039	0.10512		.01		1.17421	30		Averaged	
Bromodichloromethane	0.2124	0.22108		.01		4.08663	30		Averaged	
2-Chloroethylvinyl ether	0.0653	0.06282		.01		-3.79786	30		Averaged	
cis-1,3-Dichloropropylene	0.2908	0.28903		.01		-0.60867	30		Averaged	
4-Methyl-2-pentanone	0.1196	0.1091		.01		-8.77926	40		Averaged	
Toluene	1.0734	0.98913		.01		-7.85075	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3656	0.35772		.01		-2.15536	30		Averaged	
1,1,2-Trichloroethane	0.1811	0.17385		.01		-4.00331	30		Averaged	
2-Hexanone	0.3247	0.27267		.01		-16.02402	40		Averaged	
Tetrachloroethylene	0.1966	0.1809		.01		-7.98576	30		Averaged	
1,3-Dichloropropane	0.3892	0.36897		.01		-5.19784	30		Averaged	
Dibromochloromethane	0.2155	0.21995		.01		2.06497	30		Averaged	
1,2-Dibromoethane	0.2099	0.20474		.01		-2.45831	30		Averaged	
Chlorobenzene	0.6963	0.65948		.3		-5.28795	30		Averaged	spcc
Ethylbenzene	1.2247	1.10154		.01		-10.05634	20		Averaged	ccc
1,1,1,2-Tetrachloroethane	0.2359	0.23427		.01		-0.69097	30		Averaged	
m,p-Xylenes	0.4639	0.43751		.01		-5.68873	30		Averaged	
o-Xylene	0.4688	0.44327		.01		-5.44582	30		Averaged	
Styrene	0.7161	0.73277		.01		2.32789	30		Averaged	
Bromoform	0.2722	0.28094		.1		3.21087	30		Averaged	spcc
Isopropylbenzene	2.2942	2.10689		.01		-8.1645	30		Averaged	
1,1,2,2-Tetrachloroethane	0.5938	0.5349		.3		-9.91916	30		Averaged	spcc
n-Propylbenzene	2.7698	2.4928		.01		-10.00072	30		Averaged	
1,2,3-Trichloropropane	0.1585	0.14961		.01		-5.60883	30		Averaged	
Bromobenzene	0.5771	0.53865		.01		-6.66262	30		Averaged	
1,3,5-Trimethylbenzene	1.9593	1.81472		.01		-7.37917	30		Averaged	
2-Chlorotoluene	0.5751	0.532		.01		-7.49435	30		Averaged	
4-Chlorotoluene	1.761	1.61118		.01		-8.50767	30		Averaged	
tert-Butylbenzene	0.451	0.39993		.01		-11.32373	30		Averaged	
1,2,4-Trimethylbenzene	1.9934	1.86402		.01		-6.49042	30		Averaged	
sec-Butylbenzene	2.5353	2.31846		.01		-8.55283	30		Averaged	
4-Isopropyltoluene	2.0151	1.87648		.01		-6.87906	30		Averaged	
1,3-Dichlorobenzene	1.0958	1.02852		.01		-6.13981	30		Averaged	
1,4-Dichlorobenzene	1.114	1.04673		.01		-6.0386	30		Averaged	
n-Butylbenzene	1.9788	1.7573		.01		-11.19365	30		Averaged	
1,2-Dichlorobenzene	1.0534	0.99705		.01		-5.34934	30		Averaged	
1,2-Dibromo-3-chloropropane	0.113	0.10451		.01		-7.51327	30		Averaged	

## Continuing Calibration Summary

Instrument ID: VOA5.I

Injection Date 03-MAR-10 16:10

Data File: 030310V5\5A313.D

Init. Cal. Date(s) 03-MAR-10 11:52 03-MAR-10 19:3

Lab Sample ID W5VM100303-10 Quant Type ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.7094	0.69168		.01		-2.49789	30		Averaged
Hexachlorobutadiene	0.4309	0.41116		.01		-4.58111	30		Averaged
Naphthalene	1.6113	1.57133		.01		-2.48061	30		Averaged
1,2,3-Trichlorobenzene	0.6191	0.62516		.01		0.97884	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\  
Data File : 5A313.D  
Acq On : 3 Mar 2010 4:10 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100303-10|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[A] 0220-01C+0301-01  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 09 07:22:02 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	8.391	8.387	1.000	96	1746399	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1312296	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.416	13.413	1.000	152	682831	50.00	ug/L	0.00
82) B Fluorobenzene	8.391	8.391	1.000	96	1746399	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1312296	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.416	13.413	1.000	152	682831	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	426493	50.46	ug/L	0.00
43) Toluene-d8	9.724	9.721	0.873	98	1672551	49.84	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	677221	49.45	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.668	4.668	0.556	85	189950	46.58	ug/L	96
3) Chloromethane	4.900	4.900	0.584	50	245590	47.23	ug/L	97
4) Vinyl chloride	5.041	5.041	0.601	62	208439	48.43	ug/L	97
5) Bromomethane	5.434	5.423	0.648	94	206417	50.22	ug/L	99
6) Chloroethane	5.504	5.504	0.656	64	210081	48.14	ug/L	99
7) Trichlorofluoromethane	5.705	5.695	0.680	101	370114	49.41	ug/L	99
8) Ethyl ether	5.867	5.866	0.699	59	297471	46.12	ug/L	97
9) Acetone	6.174	6.174	0.736	43	1030674	197.52	ug/L	99
10) 1,1-Dichloroethylene	6.156	6.156	0.734	61	387994	46.49	ug/L	99
11) Iodomethane	6.361	6.357	0.758	142	2056129	238.56	ug/L	99
12) Acetonitrile	6.464	6.464	0.770	41	1100599	1076.16	ug/L	98
13) Methyl acetate	6.365	6.365	0.759	43	1241350	217.69	ug/L	99
14) Carbon disulfide	6.435	6.435	0.767	76	4119792	246.31	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	319169	47.91	ug/L	99
16) tert-Butyl methyl ether	6.641	6.640	0.791	73	806665	46.43	ug/L	99
17) trans-1,2-Dichloroethy...	6.715	6.715	0.800	61	435366	47.98	ug/L	99
18) Vinyl acetate	6.969	6.969	0.831	43	3664023	256.42	ug/L	100
19) 1,1-Dichloroethane	7.072	7.068	0.843	63	553584	49.26	ug/L	100
20) 2-Butanone	7.450	7.450	0.888	43	1297140	208.64	ug/L	100
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895	61	517143	48.99	ug/L	100
22) 2,2-Dichloropropane	7.514	7.514	0.895	77	392633	47.14	ug/L	98
23) Bromochloromethane	7.723	7.719	0.920	128	159635	51.20	ug/L	98
24) Chloroform	7.702	7.701	0.918	83	494431	49.12	ug/L	100
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	408147	49.16	ug/L	99
26) Cyclohexane	7.924	7.924	0.944	56	565761	47.91	ug/L	99
27) 1,1-Dichloropropene	8.009	8.005	0.954	75	366466	48.13	ug/L	99
28) Carbon tetrachloride	8.023	8.020	0.956	117	349351	49.06	ug/L	100
30) 1,2-Dichloroethane	8.235	8.235	0.981	62	418545	48.12	ug/L	100
31) Benzene	8.200	8.203	0.977	78	1199124	47.43	ug/L	100
32) Cyclohexene	8.250	8.246	0.983	67	542810	46.20	ug/L	99
33) n-Butyl alcohol	8.377	8.377	0.998	56	1150973	4684.67	ug/L	99
34) Trichloroethylene	8.678	8.677	1.034	95	290093	48.32	ug/L	99
35) 1,2-Dichloropropane	8.929	8.932	1.064	63	348926	48.86	ug/L	100
36) Methylcyclohexane	8.830	8.826	1.052	83	505866	46.11	ug/L	98
37) Dibromomethane	9.063	9.059	1.080	93	183578	50.58	ug/L	99
38) Bromodichloromethane	9.113	9.112	1.086	83	386094	52.04	ug/L	99
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	548585	240.47	ug/L	100
40) cis-1,3-Dichloropropylene	9.484	9.487	1.130	75	504766	49.70	ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\  
Data File : 5A313.D  
Acq On : 3 Mar 2010 4:10 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100303-10|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[A] 0220-01C+0301-01  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 09 07:22:02 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	9.530	9.526	0.855	58	715875	228.12	ug/L	99
44) Toluene	9.788	9.788	0.878	91	1298029	46.07	ug/L	100
45) trans-1,3-Dichloroprop...	9.968	9.968	0.895	75	469439	48.92	ug/L	99
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	228140	47.99	ug/L	98
47) 2-Hexanone	10.280	10.279	0.923	43	1789138	209.96	ug/L	100
48) 1,3-Dichloropropane	10.364	10.364	0.930	76	484201	47.40	ug/L	99
49) Tetrachloroethylene	10.290	10.290	0.924	164	237399	46.00	ug/L	99
50) Dibromochloromethane	10.584	10.583	0.950	129	288635	51.04	ug/L	99
51) 1,2-Dibromoethane	10.775	10.771	0.967	107	268682	48.78	ug/L	98
52) Chlorobenzene	11.174	11.174	1.003	112	865428	47.36	ug/L	99
53) 1,1,1,2-Tetrachloroethane	11.217	11.216	1.007	131	307438	49.66	ug/L	100
54) Ethylbenzene	11.181	11.181	1.003	91	1445541	44.97	ug/L	99
55) m,p-Xylenes	11.280	11.280	1.012	106	1148282	94.31	ug/L	99
56) o-Xylene	11.701	11.701	1.050	106	581707	47.28	ug/L	99
57) Styrene	11.715	11.715	1.051	104	961606	51.16	ug/L	94
59) Bromoform	12.005	12.005	0.895	173	191832	51.60	ug/L	100
60) Isopropylbenzene	12.016	12.016	0.896	105	1438651	45.92	ug/L	100
62) 1,1,2,2-Tetrachloroethane	12.352	12.348	0.921	83	365248	45.04	ug/L	100
63) 1,2,3-Trichloropropane	12.451	12.454	0.928	110	102156	47.18	ug/L #	93
64) Bromobenzene	12.465	12.465	0.929	156	367810	46.67	ug/L	98
65) n-Propylbenzene	12.419	12.415	0.926	91	1702161	45.00	ug/L	99
66) 1,3,5-Trimethylbenzene	12.564	12.564	0.936	105	1239147	46.31	ug/L	100
67) 2-Chlorotoluene	12.599	12.596	0.939	126	363269	46.25	ug/L #	80
68) 4-Chlorotoluene	12.698	12.698	0.946	91	1100162	45.75	ug/L	100
69) tert-Butylbenzene	12.903	12.900	0.962	134	273083	44.34	ug/L	99
70) 1,2,4-Trimethylbenzene	12.957	12.956	0.966	105	1272813	46.76	ug/L	99
71) sec-Butylbenzene	13.119	13.119	0.978	105	1583116	45.72	ug/L	99
72) 4-Isopropyltoluene	13.232	13.229	0.986	119	1281322	46.56	ug/L	100
73) 1,3-Dichlorobenzene	13.353	13.349	0.995	146	702303	46.93	ug/L	100
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	714738	46.98	ug/L	99
75) n-Butylbenzene	13.653	13.653	1.018	91	1199936	44.40	ug/L	100
76) 1,2-Dichlorobenzene	13.858	13.858	1.033	146	680815	47.33	ug/L	100
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	71362	46.23	ug/L	97
78) 1,2,4-Trichlorobenzene	15.620	15.619	1.164	180	472299	48.75	ug/L	99
79) Hexachlorobutadiene	15.686	15.686	1.169	225	280754	47.71	ug/L	98
80) Naphthalene	15.989	15.988	1.192	128	1072953	48.76	ug/L	100
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.214	180	426882	50.49	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	5.967	6.082	0.711		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.		
87) Isopropyl Alcohol	6.167	6.163	0.735		0m	N.D.	d	
88) Allyl chloride	6.464	6.425	0.770		0m	N.D.	d	
89) tert-Butyl Alcohol	6.460	6.460	0.770		0m	N.D.	d	
90) Acrylonitrile	6.683	6.747	0.796		0m	N.D.	d	
91) Isopropyl ether	6.916	6.920	0.824		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	7.033	7.104	0.838		0m	N.D.	d	
93) Ethyl tert-butyl ether	7.196	7.192	0.858		0m	N.D.	d	
94) Ethyl acetate	7.376	7.383	0.879		0m	N.D.	d	
95) Propionitrile	7.663	7.585	0.913		0m	N.D.	d	
96) Methacrylonitrile	7.673	7.680	0.914		0m	N.D.	d	
97) Tetrahydrofuran	7.712	7.716	0.919		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\  
Data File : 5A313.D  
Acq On : 3 Mar 2010 4:10 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100303-10|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[A] 0220-01C+0301-01  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 09 07:22:02 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98) Isobutyl alcohol	7.673	7.857	0.914		0m	N.D.	d
99) Methyl tert-amyl ether	8.119	8.122	0.968		0m	N.D.	d
100) Methyl methacrylate	8.830	8.801	1.052		0m	N.D.	d
101) 1,4-Dioxane	9.056	8.957	1.079		0m	N.D.	d
102) 2-Nitropropane	9.353	9.342	1.115		0m	N.D.	d
104) Ethyl methacrylate	9.869	9.859	0.886		0m	N.D.	d
106) 1-Chlorohexane	11.050	10.980	0.824		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	12.012	12.136	0.895		0m	N.D.	d
108) Cyclohexanone	12.267	12.267	0.914		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	12.415	12.412	0.925		0m	N.D.	d
110) Pentachloroethane	13.020	13.017	0.970		0m	N.D.	d
111) Benzyl chloride	13.558	13.565	1.011		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	13.926	13.929	1.038		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

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Data Path : C:\msdchem\1\DATA\030310V5\  
Data File : 5A313.D  
Acq On : 3 Mar 2010 4:10 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100303-10|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[A] 0220-01C+0301-01  
ALS Vial : 13 Sample Multiplier: 1
```

[illegible]

## Continuing Calibration Summary

Client SDG: 10-2202

Instrument ID: VOA5.I

Injection Date: 03-MAR-10 20:27

Data File: 030310V5\5A323.D

Init. Cal. Date(s) 03-MAR-10 11:52 - 03-MAR-10 19:3

Lab Sample ID W5VM100303-18

Quant Type ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.242	0.24732		.01		2.19835	30		Averaged
S Toluene-d8	1.2787	1.27239		.01		-0.49347	30		Averaged
S Bromofluorobenzene	1.0029	1.00377		.01		0.08675	30		Averaged
Chlorotrifluoroethylene	0.0804	0.08935		.01		11.13184	30		Averaged
2-Chloro-1,1,1-trifluoroethane	0.1173	0.12314		.01		4.97869	30		Averaged
Trichlorotrifluoroethane	0.0448	0.04225		.01		-5.69196	30		Averaged
Acrolein	250	209.83	250			-16.068	30		Linear
Isopropyl Alcohol	0.015	0.01636		.01		9.06667	40		Averaged
Allyl chloride	0.3291	0.29416		.01		-10.61683	30		Averaged
tert-Butyl Alcohol	0.022	0.02431		.01		10.5	40		Averaged
Acrylonitrile	0.0724	0.0686		.01		-5.24862	30		Averaged
Isopropyl ether	0.7367	0.73607		.01		-0.08552	30		Averaged
2-Chloro-1,3-butadiene	0.2124	0.22289		.01		4.93879	30		Averaged
Ethyl tert-butyl ether	0.5327	0.57757		.01		8.42313	30		Averaged
Ethyl acetate	0.196	0.17171		.01		-12.39286	40		Averaged
Propionitrile	0.0278	0.02682		.01		-3.52518	30		Averaged
Methacrylonitrile	0.153	0.14244		.01		-6.90196	30		Averaged
Tetrahydrofuran	0.0692	0.0645		.01		-6.79191	30		Averaged
Isobutyl alcohol	0.0073	0.00698		.01		-4.38356	40		Averaged
Methyl tert-amyl ether	0.4283	0.46461		.01		8.4777	30		Averaged
Methyl methacrylate	0.1155	0.1132		.01		-1.99134	30		Averaged
1,4-Dioxane	0.0021	0.00194		.01		-7.61905	40		Averaged
2-Nitropropane	250	229.4	250			-8.24	30		Linear
Ethyl methacrylate	0.2951	0.29405		.01		-0.35581	30		Averaged
1-Chlorohexane	0.5025	0.46939		.01		-6.58905	30		Averaged
cis-1,4-Dichloro-2-butene	0.187	0.18605		.01		-0.50802	30		Averaged
Cyclohexanone	0.0154	0.03579		.01		132.4026	40	*	Averaged
trans-1,4-Dichloro-2-butene	0.1761	0.17466		.01		-0.81772	30		Averaged
Pentachloroethane	0.2439	0.16659		.01		-31.69742	30	*	Averaged
Benzyl chloride	0.8953	0.78208		.01		-12.64604	30		Averaged
bis(2-Chloroisopropyl)ether	0.3294	0.30154		.01		-8.4578	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\  
Data File : 5A323.D  
Acq On : 3 Mar 2010 8:27 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100303-18|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[B] 0215-08A+0125-08E  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 07:08:25 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	8.387	8.387	1.000	96	1707267	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1280650	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	656283	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1707267	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1280650	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	656283	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.168	8.172	0.974	65	422235	51.10	ug/L	0.00
43) Toluene-d8	9.721	9.721	0.872	98	1629487	49.75	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	658756	50.04	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.608	4.668	0.549		0m	N.D.	d	
3) Chloromethane	4.890	4.900	0.583		0m	N.D.	d	
4) Vinyl chloride	5.041	5.041	0.601		0m	N.D.	d	
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.866	5.866	0.699		0m	N.D.	d	
9) Acetone	6.160	6.174	0.734		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.082	6.156	0.725		0m	N.D.	d	
11) Iodomethane	6.354	6.357	0.758		0m	N.D.	d	
12) Acetonitrile	6.340	6.464	0.756		0m	N.D.	d	
13) Methyl acetate	6.361	6.365	0.758		0m	N.D.	d	
14) Carbon disulfide	6.421	6.435	0.766		0m	N.D.	d	
15) Methylene chloride	6.538	6.538	0.779		0m	N.D.	d	
16) tert-Butyl methyl ether	6.644	6.640	0.792		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.793	6.969	0.810		0m	N.D.	d	
19) 1,1-Dichloroethane	7.100	7.068	0.847		0m	N.D.	d	
20) 2-Butanone	7.380	7.450	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	7.482	7.507	0.892		0m	N.D.	d	
22) 2,2-Dichloropropane	7.514	7.514	0.896		0m	N.D.	d	
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	7.967	7.924	0.950		0m	N.D.	d	
27) 1,1-Dichloropropene	8.122	8.005	0.968		0m	N.D.	d	
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.207	8.203	0.978		0m	N.D.	d	
32) Cyclohexene	8.249	8.246	0.984		0m	N.D.	d	
33) n-Butyl alcohol	8.384	8.377	1.000		0m	N.D.	d	
34) Trichloroethylene	8.684	8.677	1.035		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.840	8.826	1.054		0m	N.D.	d	
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	9.685	9.487	1.155		0m	N.D.	d	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\  
Data File : 5A323.D  
Acq On : 3 Mar 2010 8:27 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100303-18|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[B] 0215-08A+0125-08E  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 07:08:25 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
42) 4-Methyl-2-pentanone	9.519	9.526	0.854		0m	N.D.	d
44) Toluene	9.788	9.788	0.878		0m	N.D.	d
45) trans-1,3-Dichloroprop...	9.965	9.968	0.894		0m	N.D.	d
46) 1,1,2-Trichloroethane	10.290	10.173	0.924		0m	N.D.	d
47) 2-Hexanone	10.276	10.279	0.922		0m	N.D.	d
48) 1,3-Dichloropropane	10.364	10.364	0.930		0m	N.D.	d
49) Tetrachloroethylene	10.290	10.290	0.924		0m	N.D.	d
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	11.178	11.174	1.003		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	11.209	11.216	1.006		0m	N.D.	d
54) Ethylbenzene	11.209	11.181	1.006		0m	N.D.	d
55) m,p-Xylenes	11.284	11.280	1.013		0m	N.D.	d
56) o-Xylene	0.000	11.701	0.000		0	N.D.	
57) Styrene	11.712	11.715	1.051		0m	N.D.	d
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	12.019	12.016	0.896		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921		0m	N.D.	d
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	12.458	12.465	0.929		0m	N.D.	d
65) n-Propylbenzene	12.412	12.415	0.925		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	12.567	12.564	0.937		0m	N.D.	d
67) 2-Chlorotoluene	12.599	12.596	0.939		0m	N.D.	d
68) 4-Chlorotoluene	12.702	12.698	0.947		0m	N.D.	d
69) tert-Butylbenzene	12.900	12.900	0.962		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	12.953	12.956	0.966		0m	N.D.	d
71) sec-Butylbenzene	13.116	13.119	0.978		0m	N.D.	d
72) 4-Isopropyltoluene	13.324	13.229	0.993		0m	N.D.	d
73) 1,3-Dichlorobenzene	13.356	13.349	0.996		0m	N.D.	d
74) 1,4-Dichlorobenzene	13.434	13.441	1.002		0m	N.D.	d
75) n-Butylbenzene	13.650	13.653	1.018		0m	N.D.	d
76) 1,2-Dichlorobenzene	13.851	13.858	1.033		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	15.620	15.619	1.165		0m	N.D.	d
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.988	15.988	1.192		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	16.284	16.291	1.214		0m	N.D.	d
83) Chlorotrifluoroethylene	4.608	4.608	0.549	116	457640	166.70	ug/L 98
84) 2-Chloro-1,1,1-trifluo...	5.111	5.111	0.609	118	630710	157.42	ug/L 99
85) Acrolein	6.078	6.082	0.725	56	203044	209.83	ug/L 100
86) Trichlorotrifluoroethane	6.071	6.071	0.724	85	360646	235.60	ug/L 99
87) Isopropyl Alcohol	6.163	6.163	0.735	45	1396118	2733.84	ug/L 100
88) Allyl chloride	6.425	6.425	0.766	41	2511086	223.48	ug/L 100
89) tert-Butyl Alcohol	6.457	6.460	0.770	59	2075409	2764.91	ug/L 91
90) Acrylonitrile	6.743	6.747	0.804	53	585578	237.02	ug/L 99
91) Isopropyl ether	6.916	6.920	0.825	45	1256662	49.96	ug/L 100
92) 2-Chloro-1,3-butadiene	7.104	7.104	0.847	53	380533	52.48	ug/L 99
93) Ethyl tert-butyl ether	7.192	7.192	0.857	59	986070	54.21	ug/L 100
94) Ethyl acetate	7.380	7.383	0.880	43	1465750	219.06	ug/L 100
95) Propionitrile	7.585	7.585	0.904	54	228923	240.74	ug/L 99
96) Methacrylonitrile	7.677	7.680	0.915	41	1215874	232.67	ug/L 99
97) Tetrahydrofuran	7.712	7.716	0.919	42	550635	233.15	ug/L 100

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\  
Data File : 5A323.D  
Acq On : 3 Mar 2010 8:27 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100303-18|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[B] 0215-08A+0125-08E  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 07:08:25 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

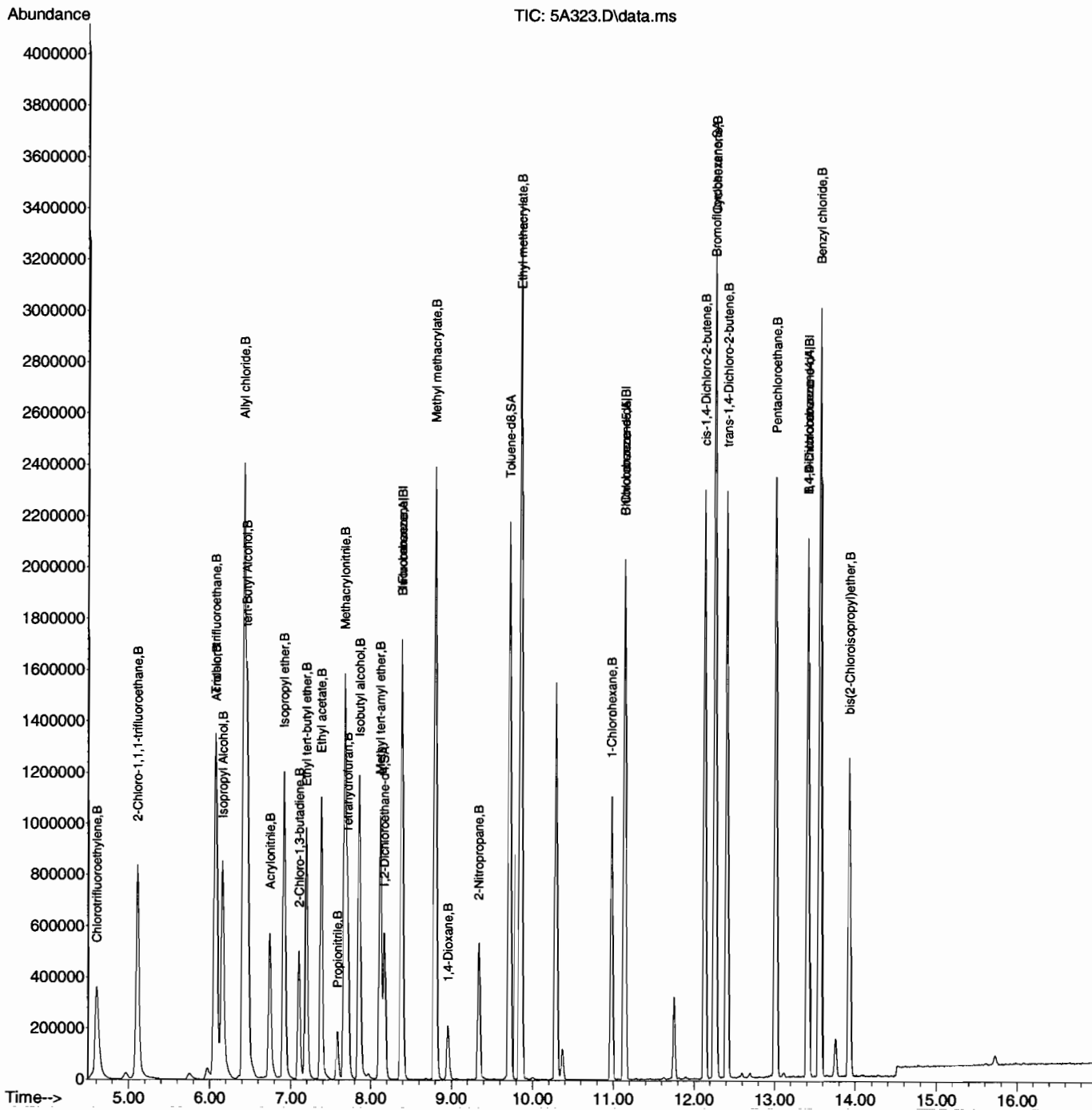
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98) Isobutyl alcohol	7.861	7.857	0.937	41	595640	2394.15	ug/L	98
99) Methyl tert-amyl ether	8.119	8.122	0.968	73	793220	54.25	ug/L	99
100) Methyl methacrylate	8.801	8.801	1.049	69	966318	245.07	ug/L	100
101) 1,4-Dioxane	8.957	8.957	1.068	88	165981	2358.78	ug/L	99
102) 2-Nitropropane	9.339	9.342	1.113	43	457968	229.40	ug/L	100
104) Ethyl methacrylate	9.859	9.859	0.885	69	1882867	249.08	ug/L	100
106) 1-Chlorohexane	10.976	10.980	0.818	55	308055	46.71	ug/L	100
107) cis-1,4-Dichloro-2-butene	12.136	12.136	0.905	53	610518	248.78	ug/L	99
108) Cyclohexanone	12.267	12.267	0.915	42	587226	2910.89	ug/L	99 E
109) trans-1,4-Dichloro-2-b...	12.412	12.412	0.925	53	573129	247.92	ug/L	99
110) Pentachloroethane	13.017	13.017	0.970	167	546649	170.75	ug/L	99
111) Benzyl chloride	13.565	13.565	1.011	91	2566329	218.37	ug/L	100
112) bis(2-Chloroisopropyl)...	13.925	13.929	1.038	45	989493	228.84	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\  
Data File : 5A323.D  
Acq On : 3 Mar 2010 8:27 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100303-18|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[B] 0215-08A+0125-08E  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 07:08:25 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE



## Continuing Calibration Summary

Client SDG: 10-2202

Instrument ID: VOA5.1

Injection Date: 11-MAR-10 18:37

Data File: 031110V5\5B428.D

Init. Cal. Date(s) 03-MAR-10 11:52 - 03-MAR-10 19:3

Lab Sample ID W5VM100311-05

Quant Type ISTD

Method:030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S 1,2-Dichloroethane-d4	0.242	0.1588		.01		-34.38017	30	*	Averaged	
S Toluene-d8	1.2787	1.03273		.01		-19.23594	30		Averaged	
S Bromofluorobenzene	1.0029	1.18564		.01		18.22116	30		Averaged	
Dichlorodifluoromethane	0.1167	0.12674		.01		8.60326	30		Averaged	
Chloromethane	50	54.55	50			9.1	30		Linear	spcc
Vinyl chloride	0.1232	0.1345		.01		9.17208	20		Averaged	ccc
Bromomethane	0.1177	0.13076		.01		11.09601	30		Averaged	
Chloroethane	0.1249	0.13318		.01		6.6293	30		Averaged	
Trichlorofluoromethane	0.2144	0.23135		.01		7.90578	30		Averaged	
Ethyl ether	0.1846	0.18631		.01		0.92633	30		Averaged	
1,1-Dichloroethylene	0.2389	0.24867		.01		4.08958	20		Averaged	ccc
Acetone	0.1494	0.14261		.01		-4.54485	40		Averaged	
Iodomethane	0.2468	0.24412		.01		-1.0859	30		Averaged	
Methyl acetate	0.1633	0.15054		.01		-7.81384	40		Averaged	
Carbon disulfide	0.4789	0.48598		.01		1.47839	30		Averaged	
Acetonitrile	0.0293	0.02612		.01		-10.85324	30		Averaged	
Methylene chloride	50	47.34	50			-5.32	30		Linear	
tert-Butyl methyl ether	0.4975	0.44626		.01		-10.2995	30		Averaged	
trans-1,2-Dichloroethylene	0.2598	0.26354		.01		1.43957	30		Averaged	
Vinyl acetate	0.4091	0.43046		.01		5.22122	40		Averaged	
1,1-Dichloroethane	0.3217	0.32481		.1		0.96674	30		Averaged	spcc
2-Butanone	0.178	0.18798		.01		5.60674	40		Averaged	
2,2-Dichloropropane	0.2385	0.23705		.01		-0.60797	30		Averaged	
cis-1,2-Dichloroethylene	0.3022	0.29852		.01		-1.21774	30		Averaged	
Chloroform	0.2882	0.27976		.01		-2.92852	20		Averaged	ccc
Bromochloromethane	0.0893	0.08765		.01		-1.8477	30		Averaged	
1,1,1-Trichloroethane	0.2377	0.23914		.01		0.60581	30		Averaged	
Cyclohexane	0.3381	0.3444		.01		1.86335	30		Averaged	
1,1-Dichloropropene	0.218	0.21985		.01		0.84862	30		Averaged	
Carbon tetrachloride	0.2039	0.21003		.01		3.00638	30		Averaged	
Benzene	0.7238	0.68767		.01		-4.99171	30		Averaged	
1,2-Dichloroethane	0.249	0.23671		.01		-4.93574	30		Averaged	
Cyclohexene	0.3364	0.33926		.01		0.85018	30		Averaged	
n-Butyl alcohol	5000	4795.29	5000			-4.0942	40		Linear	
Trichloroethylene	0.1719	0.16532		.01		-3.82781	30		Averaged	
Methylcyclohexane	0.3141	0.30946		.01		-1.47724	30		Averaged	
1,2-Dichloropropane	0.2044	0.19532		.01		-4.44227	20		Averaged	ccc

## Continuing Calibration Summary

Instrument ID: VOA5.I

Injection Date: 11-MAR-10 18:37

Data File: 031110V5\5B428.D

Init. Cal. Date(s): 03-MAR-10 11:52 03-MAR-10 19:3

Lab Sample ID: W5VM100311-05

Quant Type: ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1039	0.10255		.01		-1.29933	30		Averaged	
Bromodichloromethane	0.2124	0.21037		.01		-0.95574	30		Averaged	
2-Chloroethylvinyl ether	0.0653	0.06018		.01		-7.84074	30		Averaged	
cis-1,3-Dichloropropylene	0.2908	0.28182		.01		-3.08803	30		Averaged	
4-Methyl-2-pentanone	0.1196	0.1212		.01		1.33779	40		Averaged	
Toluene	1.0734	0.99934		.01		-6.89957	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3656	0.35376		.01		-3.23851	30		Averaged	
1,1,2-Trichloroethane	0.1811	0.16751		.01		-7.50414	30		Averaged	
2-Hexanone	0.3247	0.35654		.01		9.80597	40		Averaged	
Tetrachloroethylene	0.1966	0.18478		.01		-6.01221	30		Averaged	
1,3-Dichloropropane	0.3892	0.36353		.01		-6.59558	30		Averaged	
Dibromochloromethane	0.2155	0.2129		.01		-1.2065	30		Averaged	
1,2-Dibromoethane	0.2099	0.19679		.01		-6.24583	30		Averaged	
Chlorobenzene	0.6963	0.64504		.3		-7.36177	30		Averaged	spcc
Ethylbenzene	1.2247	1.12128		.01		-8.44452	20		Averaged	ccc
1,1,1,2-Tetrachloroethane	0.2359	0.22846		.01		-3.15388	30		Averaged	
m,p-Xylenes	0.4639	0.43891		.01		-5.38694	30		Averaged	
o-Xylene	0.4688	0.43851		.01		-6.46118	30		Averaged	
Styrene	0.7161	0.7034		.01		-1.7735	30		Averaged	
Bromoform	0.2722	0.28132		.1		3.35048	30		Averaged	spcc
Isopropylbenzene	2.2942	2.23311		.01		-2.6628	30		Averaged	
1,1,2,2-Tetrachloroethane	0.5938	0.54218		.3		-8.69316	30		Averaged	spcc
n-Propylbenzene	2.7698	2.65017		.01		-4.31908	30		Averaged	
1,2,3-Trichloropropane	0.1585	0.14707		.01		-7.21136	30		Averaged	
Bromobenzene	0.5771	0.52316		.01		-9.34673	30		Averaged	
1,3,5-Trimethylbenzene	1.9593	1.89754		.01		-3.15215	30		Averaged	
2-Chlorotoluene	0.5751	0.54004		.01		-6.09633	30		Averaged	
4-Chlorotoluene	1.761	1.61917		.01		-8.05395	30		Averaged	
tert-Butylbenzene	0.451	0.4193		.01		-7.02882	30		Averaged	
1,2,4-Trimethylbenzene	1.9934	1.91793		.01		-3.78599	30		Averaged	
sec-Butylbenzene	2.5353	2.48132		.01		-2.12914	30		Averaged	
4-Isopropyltoluene	2.0151	1.97494		.01		-1.99295	30		Averaged	
1,3-Dichlorobenzene	1.0958	1.00532		.01		-8.25698	30		Averaged	
1,4-Dichlorobenzene	1.114	1.01786		.01		-8.63016	30		Averaged	
n-Butylbenzene	1.9788	1.88873		.01		-4.55175	30		Averaged	
1,2-Dichlorobenzene	1.0534	0.96363		.01		-8.52193	30		Averaged	
1,2-Dibromo-3-chloropropane	0.113	0.10007		.01		-11.44248	30		Averaged	

## Continuing Calibration Summary

Instrument ID: VOA5.I

Injection Date 11-MAR-10 18:37

Data File: 031110V5\5B428.D

Init. Cal. Date(s) 03-MAR-10 11:52 03-MAR-10 19:3

Lab Sample ID W5VM100311-05 Quant Type ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.7094	0.66802		.01		-5.8331	30		Averaged
Hexachlorobutadiene	0.4309	0.41897		.01		-2.76862	30		Averaged
Naphthalene	1.6113	1.4826		.01		-7.98734	30		Averaged
1,2,3-Trichlorobenzene	0.6191	0.58011		.01		-6.29785	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B428.D  
Acq On : 11 Mar 2010 6:37 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100311-05|CCV|1|VOA|1|  
Misc : CCV 5mL - MIX[A] 0222-07B+0106-07D  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 11 18:51:14 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	8.387	8.387	1.000	96	1441756	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1055756	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	524091	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1441756	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1055756	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	524091	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	228957	32.81	ug/L	0.00
43) Toluene-d8	9.721	9.721	0.872	98	1090314	40.38	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	621381	59.11	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	182732	54.28	ug/L	98
3) Chloromethane	4.900	4.900	0.584	50	233701	54.55	ug/L	97
4) Vinyl chloride	5.041	5.041	0.601	62	193909	54.58	ug/L	99
5) Bromomethane	5.433	5.423	0.648	94	188527	55.56	ug/L	100
6) Chloroethane	5.504	5.504	0.656	64	192013	53.30	ug/L	100
7) Trichlorofluoromethane	5.695	5.695	0.679	101	333546	53.94	ug/L	100
8) Ethyl ether	5.866	5.866	0.699	59	268610	50.45	ug/L	100
9) Acetone	6.174	6.174	0.736	43	1028060	238.64	ug/L	99
10) 1,1-Dichloroethylene	6.152	6.156	0.734	61	358523	52.04	ug/L	99
11) Iodomethane	6.357	6.357	0.758	142	1759794	247.32	ug/L	99
12) Acetonitrile	6.464	6.464	0.771	41	941583	1115.21	ug/L	98
13) Methyl acetate	6.365	6.365	0.759	43	1085179	230.51	ug/L	99
14) Carbon disulfide	6.435	6.435	0.767	76	3503341	253.71	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	260398	47.34	ug/L	95
16) tert-Butyl methyl ether	6.637	6.640	0.791	73	643399	44.85	ug/L	99
17) trans-1,2-Dichloroethy...	6.715	6.715	0.801	61	379954	50.72	ug/L	98
18) Vinyl acetate	6.969	6.969	0.831	43	3103087	263.05	ug/L	98
19) 1,1-Dichloroethane	7.068	7.068	0.843	63	468302	50.48	ug/L	99
20) 2-Butanone	7.450	7.450	0.888	43	1355138	264.03	ug/L	98
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895	61	430398	49.39	ug/L	98
22) 2,2-Dichloropropane	7.510	7.514	0.895	77	341772	49.71	ug/L	96
23) Bromochloromethane	7.723	7.719	0.921	128	126373	49.09	ug/L	96
24) Chloroform	7.698	7.701	0.918	83	403350	48.54	ug/L	100
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	344779	50.31	ug/L	99
26) Cyclohexane	7.924	7.924	0.945	56	496547	50.93	ug/L	99
27) 1,1-Dichloropropene	8.002	8.005	0.954	75	316965	50.42	ug/L	97
28) Carbon tetrachloride	8.020	8.020	0.956	117	302807	51.51	ug/L	100
30) 1,2-Dichloroethane	8.232	8.235	0.981	62	341271	47.53	ug/L	99
31) Benzene	8.200	8.203	0.978	78	991454	47.50	ug/L	96
32) Cyclohexene	8.246	8.246	0.983	67	489131	50.43	ug/L	99
33) n-Butyl alcohol	8.373	8.377	0.998	56	972434	4795.29	ug/L	98
34) Trichloroethylene	8.677	8.677	1.035	95	238358	48.09	ug/L	99
35) 1,2-Dichloropropane	8.928	8.932	1.065	63	281599	47.77	ug/L	100
36) Methylcyclohexane	8.829	8.826	1.053	83	446170	49.26	ug/L	98
37) Dibromomethane	9.063	9.059	1.081	93	147851	49.35	ug/L	99
38) Bromodichloromethane	9.109	9.112	1.086	83	303297	49.52	ug/L	99
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	433859	230.36	ug/L	99
40) cis-1,3-Dichloropropylene	9.487	9.487	1.131	75	406315	48.46	ug/L	96

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B428.D  
Acq On : 11 Mar 2010 6:37 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100311-05|CCV|1|VOA|1|  
Misc : CCV 5mL - MIX[A] 0222-07B+0106-07D  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 11 18:51:14 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	9.526	9.526	0.855	58	639779	253.41	ug/L	97
44) Toluene	9.788	9.788	0.878	91	1055054	46.55	ug/L	100
45) trans-1,3-Dichloroprop...	9.968	9.968	0.895	75	373483	48.38	ug/L	98
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	176853	46.24	ug/L	99
47) 2-Hexanone	10.279	10.279	0.923	43	1882072	274.54	ug/L	99
48) 1,3-Dichloropropane	10.364	10.364	0.930	76	383794	46.70	ug/L	97
49) Tetrachloroethylene	10.293	10.290	0.924	164	195084	46.99	ug/L	99
50) Dibromochloromethane	10.583	10.583	0.950	129	224766	49.40	ug/L	100
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	207763	46.88	ug/L	99
52) Chlorobenzene	11.170	11.174	1.003	112	681003	46.32	ug/L	99
53) 1,1,1,2-Tetrachloroethane	11.216	11.216	1.007	131	241198	48.43	ug/L	99
54) Ethylbenzene	11.178	11.181	1.003	91	1183795	45.78	ug/L	99
55) m,p-Xylenes	11.280	11.280	1.012	106	926774	94.61	ug/L	100
56) o-Xylene	11.697	11.701	1.050	106	462963	46.77	ug/L	100
57) Styrene	11.712	11.715	1.051	104	742617	49.11	ug/L	93
59) Bromoform	12.005	12.005	0.895	173	147437	51.67	ug/L	100
60) Isopropylbenzene	12.012	12.016	0.896	105	1170353	48.67	ug/L	100
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	284154	45.65	ug/L	100
63) 1,2,3-Trichloropropane	12.454	12.454	0.929	110	77079	46.38	ug/L #	85
64) Bromobenzene	12.465	12.465	0.929	156	274185	45.33	ug/L	98
65) n-Propylbenzene	12.415	12.415	0.926	91	1388930	47.84	ug/L	99
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	994483	48.42	ug/L	100
67) 2-Chlorotoluene	12.596	12.596	0.939	126	283029	46.95	ug/L #	79
68) 4-Chlorotoluene	12.698	12.698	0.947	91	848594	45.97	ug/L	100
69) tert-Butylbenzene	12.903	12.900	0.962	134	219752	46.48	ug/L	98
70) 1,2,4-Trimethylbenzene	12.956	12.956	0.966	105	1005171	48.11	ug/L	99
71) sec-Butylbenzene	13.115	13.119	0.978	105	1300438	48.94	ug/L	99
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	1035049	49.00	ug/L	99
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	526880	45.87	ug/L	100
74) 1,4-Dichlorobenzene	13.437	13.441	1.002	146	533453	45.68	ug/L	100
75) n-Butylbenzene	13.653	13.653	1.018	91	989865	47.72	ug/L	100
76) 1,2-Dichlorobenzene	13.858	13.858	1.033	146	505028	45.74	ug/L	99
77) 1,2-Dibromo-3-chloropr...	14.704	14.704	1.096	157	52446	44.27	ug/L	94
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	350102	47.08	ug/L	99
79) Hexachlorobutadiene	15.686	15.686	1.169	225	219576	48.62	ug/L	98
80) Naphthalene	15.988	15.988	1.192	128	777016	46.01	ug/L	100
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	304032	46.85	ug/L	98
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	0.000	6.082	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.		
87) Isopropyl Alcohol	6.166	6.163	0.735		0m	N.D.	d	
88) Allyl chloride	6.464	6.425	0.771		0m	N.D.	d	
89) tert-Butyl Alcohol	6.467	6.460	0.771		0m	N.D.	d	
90) Acrylonitrile	6.640	6.747	0.792		0m	N.D.	d	
91) Isopropyl ether	6.966	6.920	0.831		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	7.044	7.104	0.840		0m	N.D.	d	
93) Ethyl tert-butyl ether	7.072	7.192	0.843		0m	N.D.	d	
94) Ethyl acetate	7.390	7.383	0.881		0m	N.D.	d	
95) Propionitrile	7.669	7.585	0.914		0m	N.D.	d	
96) Methacrylonitrile	7.680	7.680	0.916		0m	N.D.	d	
97) Tetrahydrofuran	7.691	7.716	0.917		0m	N.D.	d	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B428.D  
Acq On : 11 Mar 2010 6:37 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100311-05|CCV|1|VOA|1|  
Misc : CCV 5mL - MIX[A] 0222-07B+0106-07D  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 11 18:51:14 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

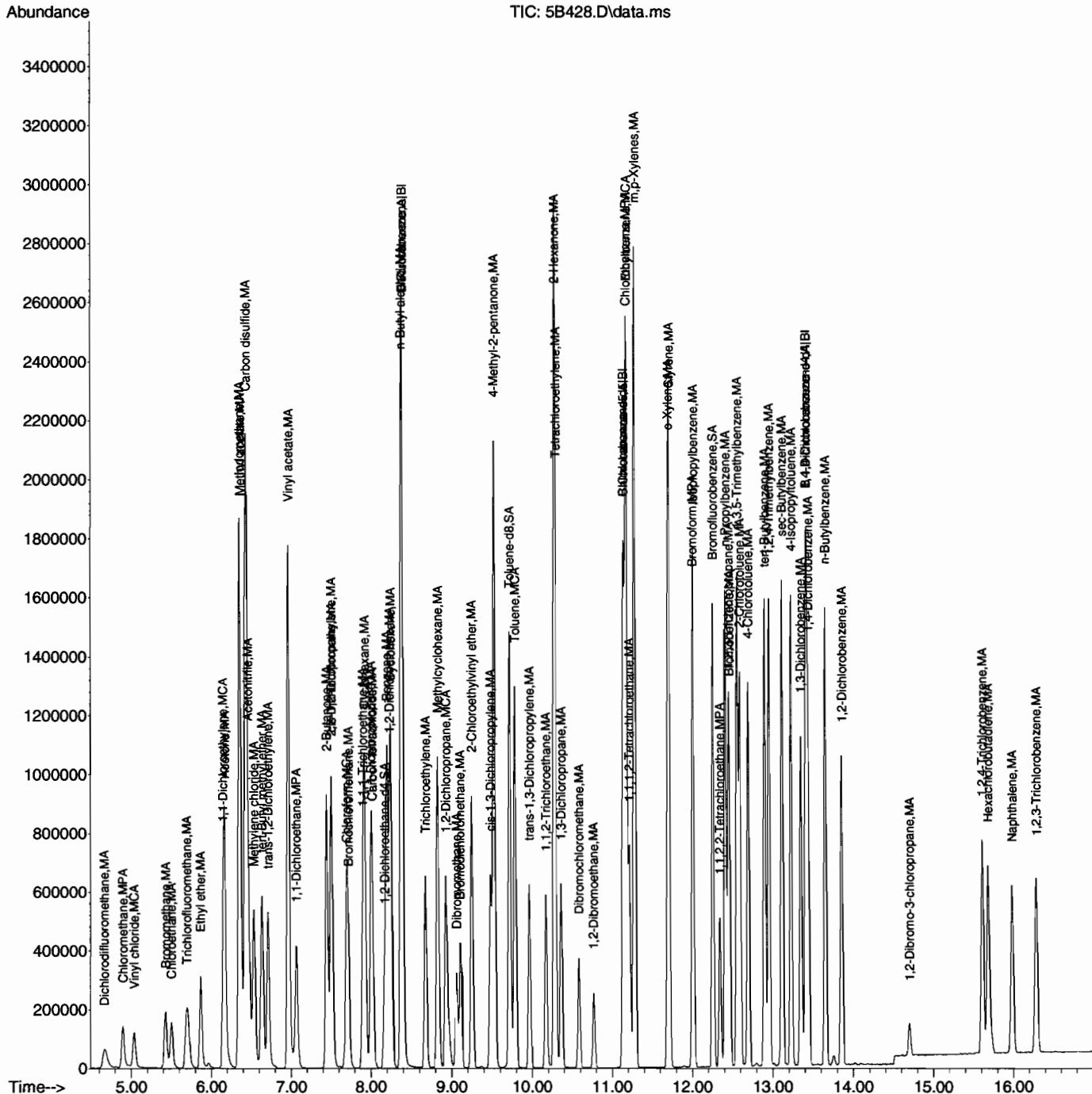
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98) Isobutyl alcohol	7.680	7.857	0.916		0m	N.D.	d
99) Methyl tert-amyl ether	8.200	8.122	0.978		0m	N.D.	d
100) Methyl methacrylate	8.829	8.801	1.053		0m	N.D.	d
101) 1,4-Dioxane	9.063	8.957	1.081		0m	N.D.	d
102) 2-Nitropropane	9.119	9.342	1.087		0m	N.D.	d
104) Ethyl methacrylate	9.855	9.859	0.884		0m	N.D.	d
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	12.009	12.136	0.895		0m	N.D.	d
108) Cyclohexanone	12.412	12.267	0.925		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	12.415	12.412	0.926		0m	N.D.	d
110) Pentachloroethane	13.020	13.017	0.971		0m	N.D.	d
111) Benzyl chloride	13.575	13.565	1.012		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	13.922	13.929	1.038		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B428.D  
Acq On : 11 Mar 2010 6:37 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100311-05|CCV|1|VOA|1|  
Misc : CCV 5mL - MIX[A] 0222-07B+0106-07D  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 11 18:51:14 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE



## Continuing Calibration Summary

Client SDG: 10-2202

Instrument ID: VOA5.I

Injection Date: 11-MAR-10 19:56

Data File: 031110V5\B431.D

Init. Cal. Date(s): 03-MAR-10 11:52 - 03-MAR-10 19:3

Lab Sample ID: W5VM100311-08

Quant Type: ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.242	0.16373		.01		-32.34298	30	*	Averaged
S Toluene-d8	1.2787	1.01687		.01		-20.47626	30		Averaged
S Bromofluorobenzene	1.0029	1.18842		.01		18.49835	30		Averaged
Trichlorotrifluoroethane	0.0448	0.05813		.01		29.75446	30		Averaged
Acrolein	250	257.73	250			3.092	30		Linear
Allyl chloride	0.3291	0.29162		.01		-11.38864	30		Averaged
Acrylonitrile	0.0724	0.07195		.01		-0.62155	30		Averaged
2-Chloro-1,3-butadiene	0.2124	0.27049		.01		27.34934	30		Averaged
Ethyl acetate	0.196	0.18144		.01		-7.42857	40		Averaged
Propionitrile	0.0278	0.0283		.01		1.79856	30		Averaged
Methacrylonitrile	0.153	0.15087		.01		-1.39216	30		Averaged
Tetrahydrofuran	0.0692	0.06829		.01		-1.31503	30		Averaged
Isobutyl alcohol	0.0073	0.00752		.01		3.0137	40		Averaged
Methyl methacrylate	0.1155	0.11605		.01		0.47619	30		Averaged
1,4-Dioxane	0.0021	0.00199		.01		-5.2381	40		Averaged
2-Nitropropane	250	244.45	250			-2.22	30		Linear
Ethyl methacrylate	0.2951	0.30487		.01		3.31074	30		Averaged
cis-1,4-Dichloro-2-butene	0.187	0.20881		.01		11.6631	30		Averaged
Cyclohexanone	0.0154	0.06185		.01		301.62338	40	*	Averaged
trans-1,4-Dichloro-2-butene	0.1761	0.19457		.01		10.48836	30		Averaged
Pentachloroethane	0.2439	0.29092		.01		19.27839	30		Averaged
Benzyl chloride	0.8953	0.97985		.01		9.44376	30		Averaged
bis(2-Chloroisopropyl)ether	0.3294	0.31357		.01		-4.80571	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B431.D  
Acq On : 11 Mar 2010 7:56 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100311-08|CCV|1|VOA|1|VOA8260BS|  
Misc : CCV 5G - SOIL MIX[B]UVM100215-08B  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 11 22:16:51 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	8.388	8.387	1.000	96	1439092	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1070189	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	529829	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1439092	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1070189	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	529829	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	235628	33.83	ug/L	0.00
43) Toluene-d8	9.721	9.721	0.872	98	1088246	39.76	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	629657	59.25	ug/L	0.00
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.678	4.668	0.558		0m	N.D.	d	
3) Chloromethane	5.051	4.900	0.602		0m	N.D.	d	
4) Vinyl chloride	5.031	5.041	0.600		0m	N.D.	d	
5) Bromomethane	5.423	5.423	0.647		0m	N.D.	d	
6) Chloroethane	5.494	5.504	0.655		0m	N.D.	d	
7) Trichlorofluoromethane	5.695	5.695	0.679		0m	N.D.	d	
8) Ethyl ether	5.867	5.866	0.699		0m	N.D.	d	
9) Acetone	6.167	6.174	0.735		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.149	6.156	0.733		0m	N.D.	d	
11) Iodomethane	6.354	6.357	0.758		0m	N.D.	d	
12) Acetonitrile	6.421	6.464	0.766		0m	N.D.	d	
13) Methyl acetate	6.365	6.365	0.759		0m	N.D.	d	
14) Carbon disulfide	6.425	6.435	0.766		0m	N.D.	d	
15) Methylene chloride	6.545	6.538	0.780		0m	N.D.	d	
16) tert-Butyl methyl ether	6.637	6.640	0.791		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	6.701	6.715	0.799		0m	N.D.	d	
18) Vinyl acetate	6.962	6.969	0.830		0m	N.D.	d	
19) 1,1-Dichloroethane	7.111	7.068	0.848		0m	N.D.	d	
20) 2-Butanone	7.507	7.450	0.895		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	7.698	7.701	0.918		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	7.924	7.924	0.945		0m	N.D.	d	
27) 1,1-Dichloropropene	7.999	8.005	0.954		0m	N.D.	d	
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.204	8.203	0.978		0m	N.D.	d	
32) Cyclohexene	8.172	8.246	0.974		0m	N.D.	d	
33) n-Butyl alcohol	8.391	8.377	1.000		0m	N.D.	d	
34) Trichloroethylene	8.688	8.677	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.805	8.826	1.050		0m	N.D.	d	
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	9.477	9.487	1.130		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B431.D  
Acq On : 11 Mar 2010 7:56 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100311-08|CCV|1|VOA|1|VOA8260BS|  
Misc : CCV 5G - SOIL MIX[B]UVM100215-08B  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 11 22:16:51 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
42) 4-Methyl-2-pentanone	9.516	9.526	0.854		0m	N.D.	d
44) Toluene	9.791	9.788	0.879		0m	N.D.	d
45) trans-1,3-Dichloroprop...	9.968	9.968	0.895		0m	N.D.	d
46) 1,1,2-Trichloroethane	10.294	10.173	0.924		0m	N.D.	d
47) 2-Hexanone	10.283	10.279	0.923		0m	N.D.	d
48) 1,3-Dichloropropane	10.364	10.364	0.930		0m	N.D.	d
49) Tetrachloroethylene	10.290	10.290	0.924		0m	N.D.	d
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	11.171	11.174	1.003		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	11.217	11.216	1.007		0m	N.D.	d
54) Ethylbenzene	11.181	11.181	1.003		0m	N.D.	d
55) m,p-Xylenes	11.277	11.280	1.012		0m	N.D.	d
56) o-Xylene	11.698	11.701	1.050		0m	N.D.	d
57) Styrene	11.719	11.715	1.052		0m	N.D.	d
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	12.012	12.016	0.896		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921		0m	N.D.	d
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	12.461	12.465	0.929		0m	N.D.	d
65) n-Propylbenzene	12.412	12.415	0.925		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	12.557	12.564	0.936		0m	N.D.	d
67) 2-Chlorotoluene	12.599	12.596	0.939		0m	N.D.	d
68) 4-Chlorotoluene	12.698	12.698	0.947		0m	N.D.	d
69) tert-Butylbenzene	12.907	12.900	0.962		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	12.953	12.956	0.966		0m	N.D.	d
71) sec-Butylbenzene	13.116	13.119	0.978		0m	N.D.	d
72) 4-Isopropyltoluene	13.232	13.229	0.987		0m	N.D.	d
73) 1,3-Dichlorobenzene	13.342	13.349	0.995		0m	N.D.	d
74) 1,4-Dichlorobenzene	13.434	13.441	1.002		0m	N.D.	d
75) n-Butylbenzene	13.657	13.653	1.018		0m	N.D.	d
76) 1,2-Dichlorobenzene	13.851	13.858	1.033		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164		0m	N.D.	d
79) Hexachlorobutadiene	15.686	15.686	1.169		0m	N.D.	d
80) Naphthalene	15.981	15.988	1.191		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	6.082	6.082	0.725	56	213396	257.73	ug/L 99
86) Trichlorotrifluoroethane	6.071	6.071	0.724	85	418293	324.18	ug/L 99
87) Isopropyl Alcohol	0.000	6.163	0.000		0m	N.D.	d
88) Allyl chloride	6.421	6.425	0.766	41	2098318	221.54	ug/L 93
89) tert-Butyl Alcohol	6.460	6.460	0.770	59	114	N.D.	
90) Acrylonitrile	6.743	6.747	0.804	53	517679	248.59	ug/L 99
91) Isopropyl ether	7.097	6.920	0.846	45	216	N.D.	
92) 2-Chloro-1,3-butadiene	7.104	7.104	0.847	53	389253	63.69	ug/L 99
93) Ethyl tert-butyl ether	7.373	7.192	0.879	59	106	N.D.	
94) Ethyl acetate	7.380	7.383	0.880	43	1305533	231.48	ug/L 99
95) Propionitrile	7.581	7.585	0.904	54	203662	254.08	ug/L 99
96) Methacrylonitrile	7.680	7.680	0.916	41	1085546	246.44	ug/L 100
97) Tetrahydrofuran	7.712	7.716	0.919	42	491383	246.84	ug/L 98

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B431.D  
Acq On : 11 Mar 2010 7:56 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100311-08|CCV|1|VOA|1|VOA8260BS|  
Misc : CCV 5G - SOIL MIX[B]UVM100215-08B  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 11 22:16:51 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

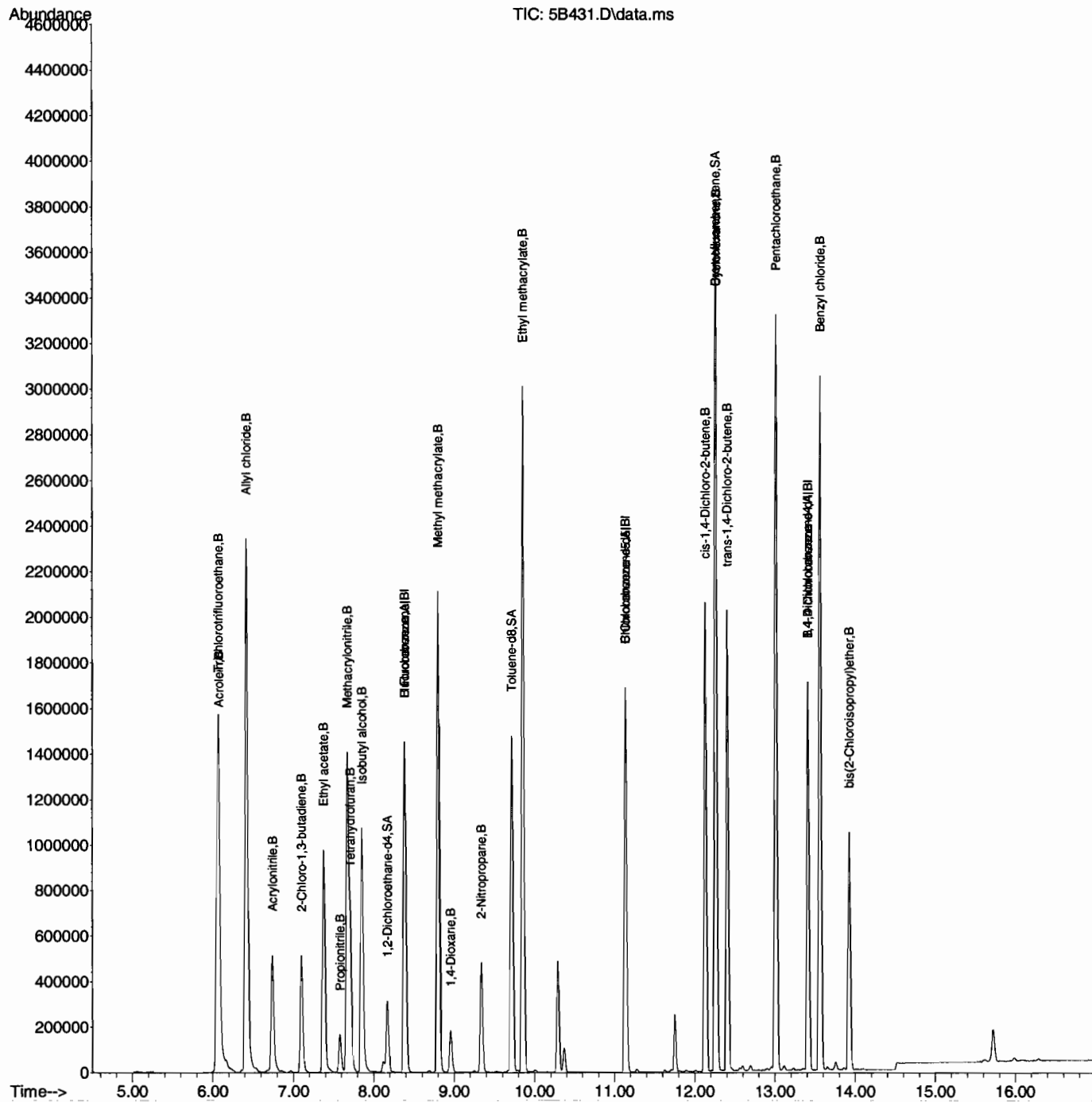
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98) Isobutyl alcohol	7.857	7.857	0.937	41	541026	2579.87	ug/L	100
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.		
100) Methyl methacrylate	8.801	8.801	1.049	69	835042	251.24	ug/L	97
101) 1,4-Dioxane	8.957	8.957	1.068	88	143234	2414.84	ug/L	99
102) 2-Nitropropane	9.342	9.342	1.114	43	412147	244.45	ug/L	100
104) Ethyl methacrylate	9.859	9.859	0.885	69	1631317	258.24	ug/L	98
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.		
107) cis-1,4-Dichloro-2-butene	12.136	12.136	0.905	53	553173	279.21	ug/L	99
108) Cyclohexanone	12.267	12.267	0.915	42	819306	5030.63	ug/L	96 E
109) trans-1,4-Dichloro-2-b...	12.408	12.412	0.925	53	515435	276.18	ug/L	99
110) Pentachloroethane	13.017	13.017	0.970	167	770694	298.19	ug/L	99
111) Benzyl chloride	13.565	13.565	1.011	91	2595755	273.59	ug/L	100
112) bis(2-Chloroisopropyl)...	13.925	13.929	1.038	45	830705	237.97	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B431.D  
Acq On : 11 Mar 2010 7:56 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100311-08|CCV|1|VOA|1|VOA8260BS|  
Misc : CCV 5G - SOIL MIX[B]UVM100215-08B  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 11 22:16:51 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE



# Quality Control Data

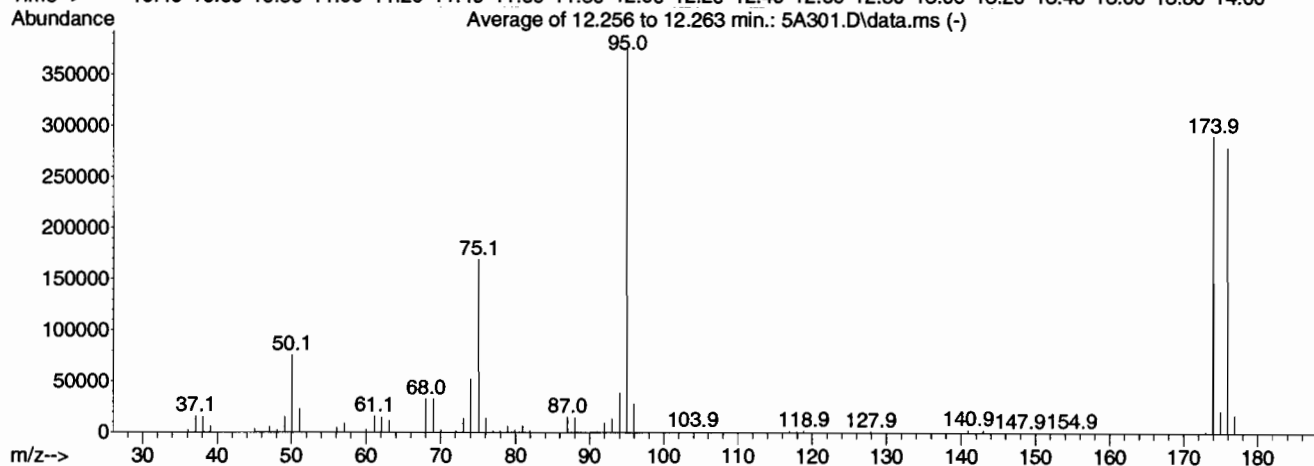
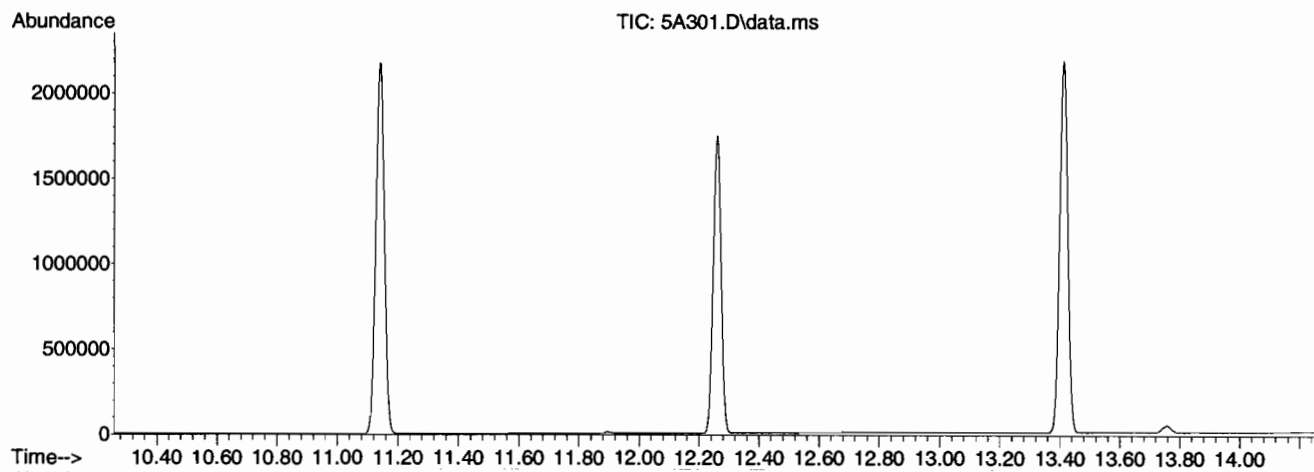


Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\  
Data File : 5A301.D  
Acq On : 3 Mar 2010 11:00 am  
Operator : CDS1  
Sample : |UVM100203-02|BFB|1|VOA|1|VOA8260BL|  
Misc : BFB 5mL N/A  
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Title : Volatile Organics 8260B SubList :  
Last Update : Fri Mar 05 15:47:51 2010



Spectrum Information: Average of 12.256 to 12.263 min.

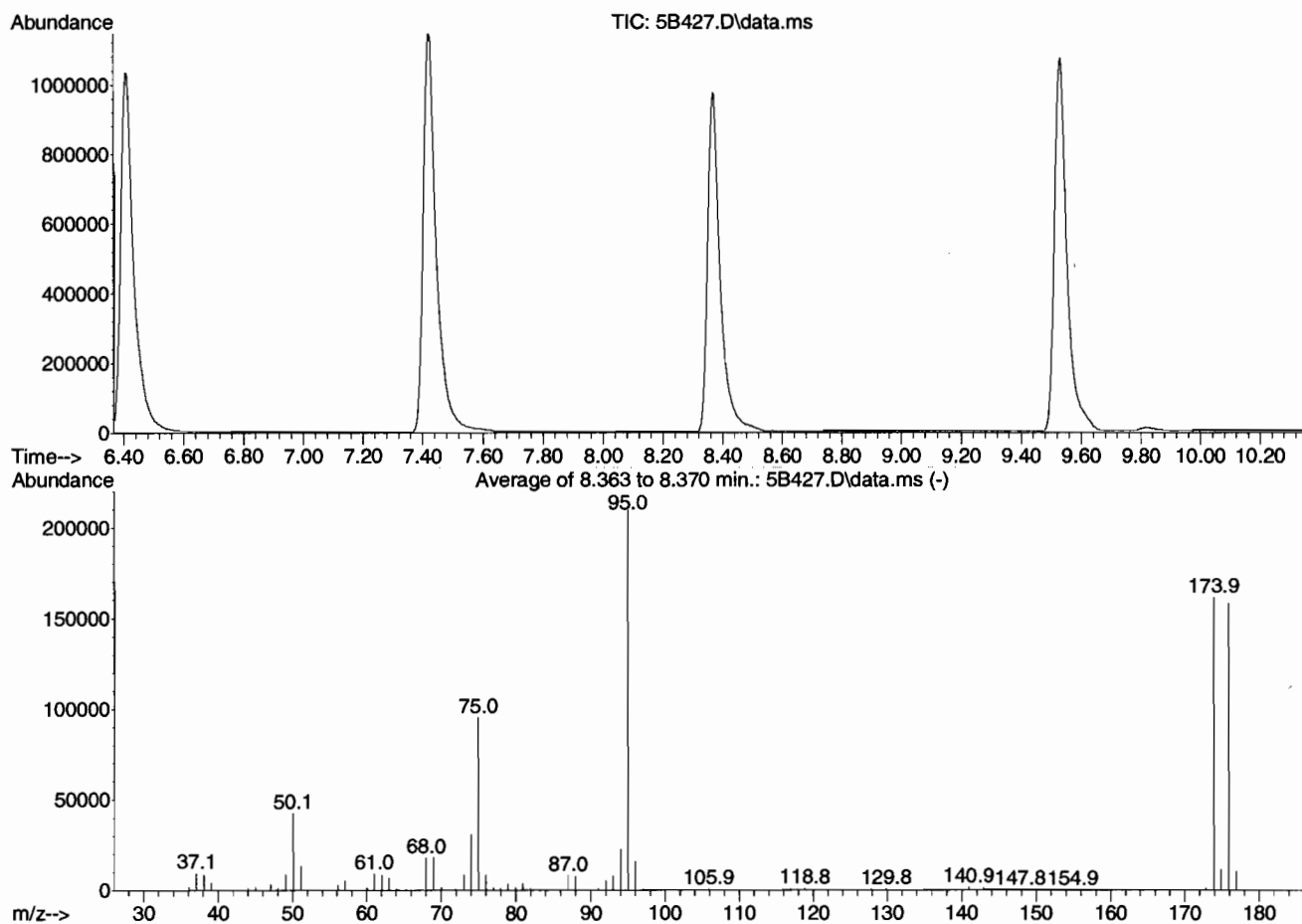
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	75616	PASS
75	95	30	60	45.2	169109	PASS
95	95	100	100	100.0	373952	PASS
96	95	5	9	7.4	27492	PASS
173	174	0.00	2	0.6	1817	PASS
174	95	50	100	77.7	290688	PASS
175	174	5	9	7.4	21371	PASS
176	174	95	101	96.2	279659	PASS
177	176	5	9	6.3	17646	PASS

Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B427.D  
Acq On : 11 Mar 2010 6:10 pm  
Operator : CDS1  
Sample : |UVM100217-02|BFB2|1|VOA|1|VOA8260BL|  
Misc : BFB 5mL N/A  
ALS Vial : 27 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\DATA\030310V5\Methods\VOA5-8260-030310.M  
Title : Volatile Organics 8260B SubList :  
Last Update : Tue Mar 09 07:08:19 2010



Spectrum Information: Average of 8.363 to 8.370 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.3	42483	PASS
75	95	30	60	45.5	95384	PASS
95	95	100	100	100.0	209792	PASS
96	95	5	9	7.5	15782	PASS
173	174	0.00	2	0.6	1035	PASS
174	95	50	100	76.9	161429	PASS
175	174	5	9	7.1	11511	PASS
176	174	95	101	97.9	158059	PASS
177	176	5	9	6.7	10528	PASS

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

SDG Number: 10-2202

Matrix: SOIL

Lab Sample ID: 1202076531

Client Sample: QC for batch 963808

Client: LANL010

Project: QC

Client ID: MB for batch 963808

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 963809

Inst: VOA5.I

Dilution: 1

Run Date: 03/11/2010 20:49

Analyst: CDS1

Purge Vol: 5 mL

Prep Date: 03/11/2010 16:00

Aliquot: 5 g

Final Volume: 5 mL

Data File: 031110V5\5B433BS2.D

Column: DB-624

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

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

SDG Number: 10-2202

Matrix: SOIL

Lab Sample ID: 1202076531

Client Sample: QC for batch 963808

Client: LANL010

Project: QC

Client ID: MB for batch 963808

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 963809

Inst: VOA5.I

Dilution: 1

Run Date: 03/11/2010 20:49

Analyst: CDS1

Purge Vol: 5 mL

Prep Date: 03/11/2010 16:00

Aliquot: 5 g

Final Volume: 5 mL

Data File: 031110V55B433BS2.D

Column: DB-624

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

**Tentatively Identified Compound Summary**

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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B433BS2.D  
Acq On : 11 Mar 2010 8:49 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076531|963809|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 19 16:48:49 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	8.388	8.387	1.000	96	1409057	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1049412	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	504287	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1409057	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1049412	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	504287	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	232334	34.07	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	=	68.14%		
43) Toluene-d8	9.724	9.721	0.873	98	1075273	40.07	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	=	80.14%		
61) Bromofluorobenzene	12.263	12.260	0.914	95	621482	61.44	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	=	122.88%		
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.890	4.900	0.583	50	550	Below Cal		97
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	0.000	5.866	0.000		0	N.D.		
9) Acetone	6.181	6.174	0.737	43	1139	N.D.		
10) 1,1-Dichloroethylene	0.000	6.156	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.464	6.464	0.771	41	233	N.D.		
13) Methyl acetate	6.202	6.365	0.739	43	107	N.D.		
14) Carbon disulfide	6.436	6.435	0.767	76	525	N.D.		
15) Methylene chloride	6.538	6.538	0.779	84	3681	N.D.		
16) tert-Butyl methyl ether	0.000	6.640	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.789	6.969	0.809	43	112	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	7.691	7.450	0.917	43	117	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	0.000	7.924	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.005	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.200	8.203	0.978	78	115	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D.	d	
33) n-Butyl alcohol	8.388	8.377	1.000	56	8386	N.D.		
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.826	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B433BS2.D  
Acq On : 11 Mar 2010 8:49 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076531|963809|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 19 16:48:49 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	9.487	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.792	9.788	0.879	91	5697	N.D.	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	10.276	10.279	0.922	43	366	N.D.	
48) 1,3-Dichloropropane	0.000	10.364	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	0.000	11.174	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.142	11.181	1.000	91	3625	N.D.	
55) m,p-Xylenes	0.000	11.280	0.000		0	N.D.	
56) o-Xylene	0.000	11.701	0.000		0	N.D.	
57) Styrene	0.000	11.715	0.000		0	N.D.	
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	12.263	12.016	0.914	105	400	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	0.000	12.465	0.000		0	N.D.	
65) n-Propylbenzene	12.412	12.415	0.925	91	629	N.D.	
66) 1,3,5-Trimethylbenzene	12.553	12.564	0.936	105	426	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.688	12.698	0.946	91	1413	N.D.	
69) tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	12.950	12.956	0.965	105	896	N.D.	
71) sec-Butylbenzene	13.109	13.119	0.977	105	662	N.D.	
72) 4-Isopropyltoluene	13.144	13.229	0.980	119	829	N.D.	
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	13.448	13.441	1.003	146	363	N.D.	
75) n-Butylbenzene	13.646	13.653	1.017	91	2282	N.D.	
76) 1,2-Dichlorobenzene	13.858	13.858	1.033	146	106	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	505	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.981	15.988	1.191	128	4948	0.30 ug/L	67
81) 1,2,3-Trichlorobenzene	16.284	16.291	1.214	180	262	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.082	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.163	0.000		0	N.D.	
88) Allyl chloride	6.453	6.425	0.769	41	363	N.D.	
89) tert-Butyl Alcohol	0.000	6.460	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.747	0.000		0	N.D.	
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	0.000	7.383	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B433BS2.D  
Acq On : 11 Mar 2010 8:49 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076531|963809|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 19 16:48:49 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

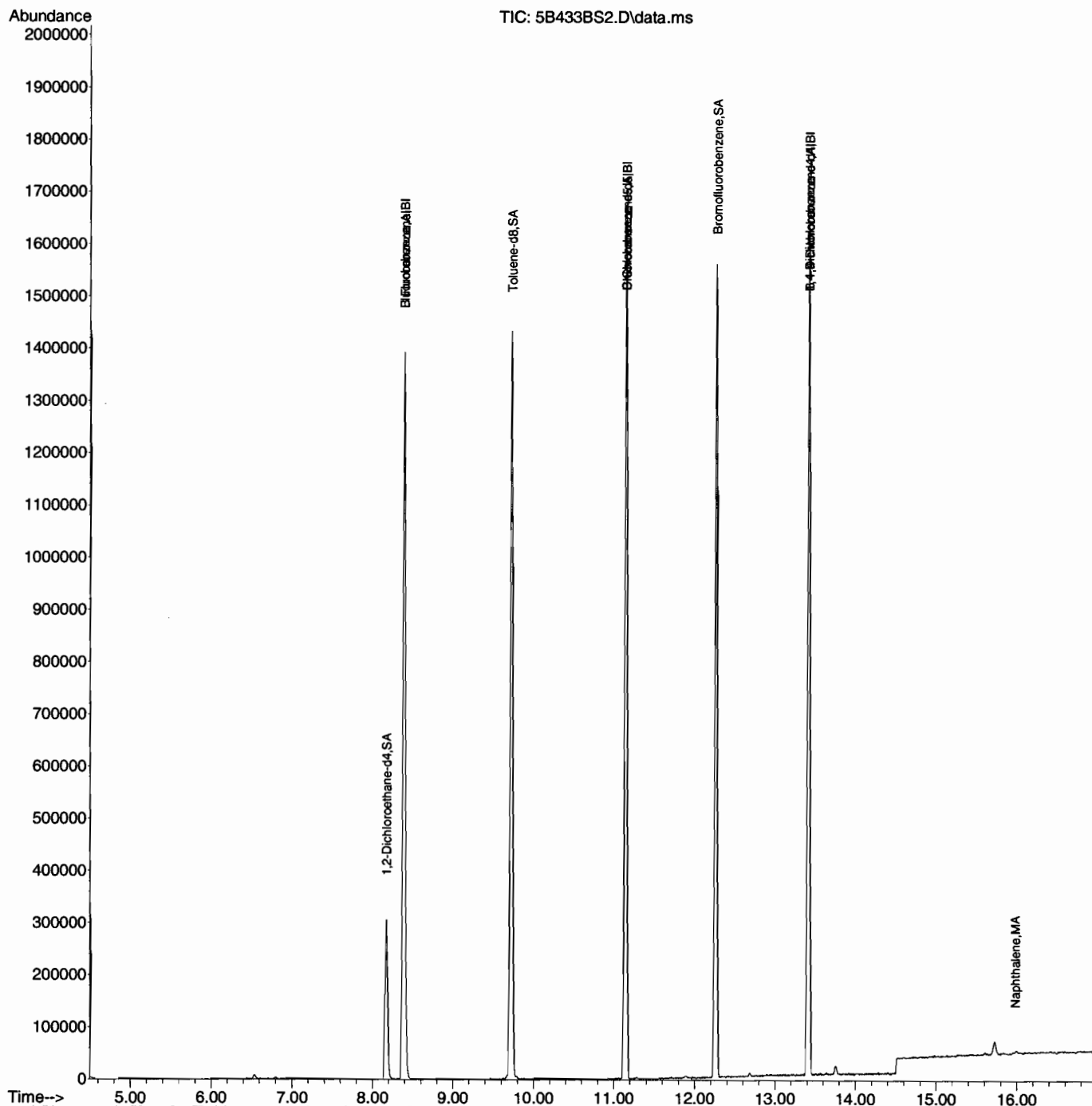
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.680	7.680	0.916	41	112	N.D.	
97) Tetrahydrofuran	7.712	7.716	0.919	42	296	N.D.	
98) Isobutyl alcohol	7.847	7.857	0.935	41	148	N.D.	
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.	
100) Methyl methacrylate	0.000	8.801	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	0.000	9.342	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	12.136	0.000		0	N.D.	
108) Cyclohexanone	12.263	12.267	0.914	42	292	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	12.412	0.000		0	N.D.	
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.565	13.565	1.011	91	2789	N.D.	
112) bis(2-Chloroisopropyl)...	13.936	13.929	1.039	45	127	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

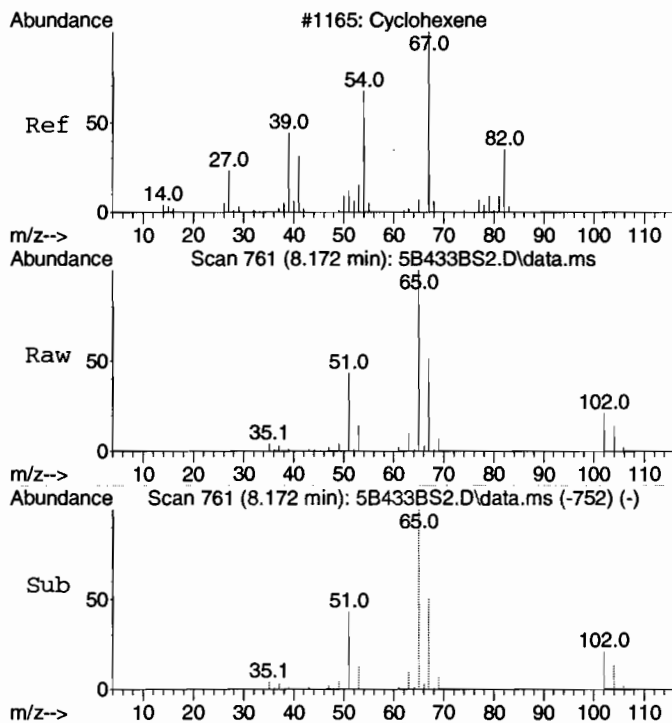
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B433BS2.D  
Acq On : 11 Mar 2010 8:49 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076531|963809|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 19 16:48:49 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

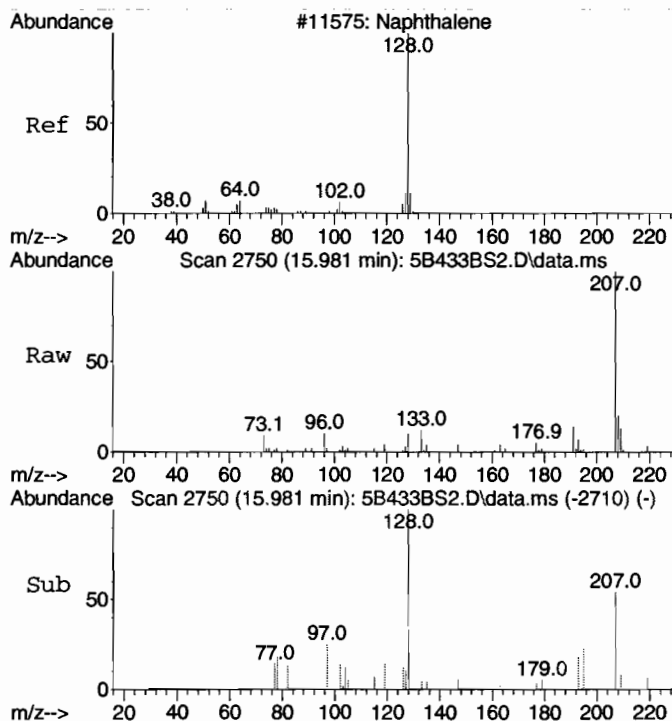
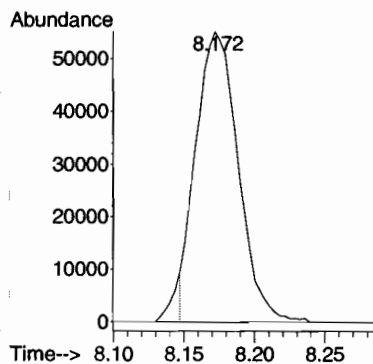






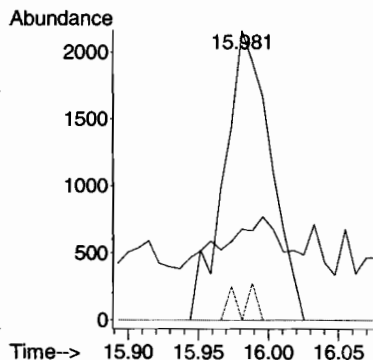
#32 BEFORE analyst DELETION  
Cyclohexene  
Concen: 12.08 ug/L  
RT: 8.172 min Scan# 761  
Delta R.T. -0.074 min  
Lab File: 5B433BS2.D  
Acq: 11 Mar 2010 8:49 pm

Tgt Ion: 67 Resp: 114552  
Ion Ratio Lower Upper  
67 100  
54 0.0 46.3 106.3#



#80  
Naphthalene  
Concen: 0.30 ug/L  
RT: 15.981 min Scan# 2750  
Delta R.T. -0.007 min  
Lab File: 5B433BS2.D  
Acq: 11 Mar 2010 8:49 pm

Tgt Ion: 128 Resp: 4948  
Ion Ratio Lower Upper  
128 100  
127 31.4 0.0 42.4  
129 4.7 0.0 40.8



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B433BS2.D  
Acq On : 11 Mar 2010 8:49 pm  
Operator : CDS1  
Sample : |1202076531|963809|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 33 Sample Multiplier: 1  
  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
  
TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

No Library Search Compounds Detected

\*\*\*\*\*

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B433BS2.D  
Acq On : 11 Mar 2010 8:49 pm  
Operator : CDS1  
Sample : |1202076531|963809|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
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**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2202  
 Lab Sample ID: 1202076532  
 Client Sample: QC for batch 963808  
 Client ID: LCS for batch 963808  
 Batch ID: 963809  
 Run Date: 03/11/2010 19:30  
 Prep Date: 03/11/2010 16:00  
 Data File: 031110V55B430L2.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: SOIL  
 Project: QC  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		54.7	ug/kg	0.340	1.00
74-87-3	Chloromethane		54.0	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		56.7	ug/kg	0.300	1.00
74-83-9	Bromomethane		54.2	ug/kg	0.300	1.00
75-00-3	Chloroethane		53.2	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		54.8	ug/kg	0.300	1.00
67-64-1	Acetone		225	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		52.4	ug/kg	0.300	1.00
74-88-4	Iodomethane		258	ug/kg	1.60	5.00
75-09-2	Methylene chloride		52.1	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		271	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		53.5	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		54.5	ug/kg	0.300	1.00
78-93-3	2-Butanone		238	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		53.5	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		52.9	ug/kg	0.300	1.00
67-66-3	Chloroform		53.2	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		54.5	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		54.1	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		53.6	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		55.0	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		53.4	ug/kg	0.300	1.00
71-43-2	Benzene		51.5	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		52.0	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		52.9	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		56.2	ug/kg	0.300	1.00
74-95-3	Dibromomethane		55.6	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		259	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		53.9	ug/kg	0.300	1.00
108-88-3	Toluene		48.8	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		53.3	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		50.7	ug/kg	0.300	1.00
591-78-6	2-Hexanone		230	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		51.6	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		48.7	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		55.0	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		51.6	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		49.5	ug/kg	0.300	1.00

Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2202  
Lab Sample ID: 1202076532  
Client Sample: QC for batch 963808  
Client ID: LCS for batch 963808  
Batch ID: 963809  
Run Date: 03/11/2010 19:30  
Prep Date: 03/11/2010 16:00  
Data File: 031110V5\5B430L2.D

Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.I  
Analyst: CDS1  
Aliquot: 5 g  
Column: DB-624

Matrix: SOIL  
Project: QC  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		47.6	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		99.0	ug/kg	0.300	2.00
95-47-6	o-Xylene		49.6	ug/kg	0.300	1.00
100-42-5	Styrene		53.0	ug/kg	0.300	1.00
75-25-2	Bromoform		55.6	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		48.9	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		49.9	ug/kg	0.300	1.00
108-86-1	Bromobenzene		48.5	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		47.7	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		48.5	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		48.9	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		49.0	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		47.6	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		46.2	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		48.8	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		48.3	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		48.9	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		47.9	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		47.6	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		46.9	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		48.9	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.00	ug/kg	1.60	5.00
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane		52.1	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		48.4	ug/kg	0.300	1.00

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B430L2.D  
Acq On : 11 Mar 2010 7:30 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076532|963809|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[A] 0305-01A+0310-01  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 11 20:01:58 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev (Min)
Internal Standards								
1) Fluorobenzene	8.391	8.387	1.000	96	1386649	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1061215	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	547349	50.00	ug/L	0.00
82) B Fluorobenzene	8.391	8.391	1.000	96	1386649	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1061215	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	547349	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	235720	35.12	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	=	70.24%		
43) Toluene-d8	9.721	9.721	0.872	98	1087748	40.08	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	=	80.16%		
61) Bromofluorobenzene	12.260	12.260	0.914	95	654795	59.64	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	=	119.28%		
Target Compounds								
2) Dichlorodifluoromethane	4.668	4.668	0.556	85	176941	54.65	ug/L	96
3) Chloromethane	4.900	4.900	0.584	50	222681	54.04	ug/L	97
4) Vinyl chloride	5.041	5.041	0.601	62	193796	56.72	ug/L	98
5) Bromomethane	5.423	5.423	0.646	94	177016	54.24	ug/L	98
6) Chloroethane	5.504	5.504	0.656	64	184286	53.18	ug/L	100
7) Trichlorofluoromethane	5.695	5.695	0.679	101	326111	54.83	ug/L	99
8) Ethyl ether	5.867	5.866	0.699	59	269631	52.65	ug/L	98
9) Acetone	6.174	6.174	0.736	43	930185	224.50	ug/L	100
10) 1,1-Dichloroethylene	6.152	6.156	0.733	61	347472	52.44	ug/L	99
11) Iodomethane	6.358	6.357	0.758	142	1763200	257.65	ug/L	100
12) Acetonitrile	6.460	6.464	0.770	41	1026161	1263.69	ug/L	98
13) Methyl acetate	6.361	6.365	0.758	43	1169954	258.39	ug/L	99
14) Carbon disulfide	6.435	6.435	0.767	76	3604824	271.43	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	275071	52.05	ug/L	96
16) tert-Butyl methyl ether	6.637	6.640	0.791	73	722954	52.40	ug/L	100
17) trans-1,2-Dichloroethy...	6.715	6.715	0.800	61	385486	53.50	ug/L	99
18) Vinyl acetate	6.969	6.969	0.831	43	3455496	304.57	ug/L	98
19) 1,1-Dichloroethane	7.068	7.068	0.842	63	485931	54.46	ug/L	100
20) 2-Butanone	7.450	7.450	0.888	43	1173879	237.80	ug/L	98
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895	61	448226	53.48	ug/L	98
22) 2,2-Dichloropropane	7.514	7.514	0.895	77	349516	52.85	ug/L	97
23) Bromochloromethane	7.719	7.719	0.920	128	134920	54.50	ug/L	96
24) Chloroform	7.698	7.701	0.917	83	425070	53.19	ug/L	99
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	356485	54.08	ug/L	99
26) Cyclohexane	7.924	7.924	0.944	56	507394	54.12	ug/L	98
27) 1,1-Dichloropropene	8.002	8.005	0.954	75	324202	53.63	ug/L	98
28) Carbon tetrachloride	8.020	8.020	0.956	117	311227	55.04	ug/L	100
30) 1,2-Dichloroethane	8.232	8.235	0.981	62	368974	53.43	ug/L	99
31) Benzene	8.200	8.203	0.977	78	1033953	51.51	ug/L	96
32) Cyclohexene	8.246	8.246	0.983	67	479480	51.40	ug/L	99
33) n-Butyl alcohol	8.377	8.377	0.998	56	1095478	5623.96	ug/L	100
34) Trichloroethylene	8.677	8.677	1.034	95	247664	51.95	ug/L	100
35) 1,2-Dichloropropane	8.932	8.932	1.064	63	299839	52.88	ug/L	100
36) Methylcyclohexane	8.830	8.826	1.052	83	442573	50.81	ug/L	98
37) Dibromomethane	9.063	9.059	1.080	93	160209	55.60	ug/L	100

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B430L2.D  
Acq On : 11 Mar 2010 7:30 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076532|963809|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[A] 0305-01A+0310-01  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 11 20:01:58 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	9.109	9.112	1.086	83	331213	56.23 ug/L	100
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	405524	223.87 ug/L	100
40) cis-1,3-Dichloropropylene	9.487	9.487	1.131	75	434541	53.89 ug/L	98
42) 4-Methyl-2-pentanone	9.530	9.526	0.855	58	657972	259.27 ug/L	98
44) Toluene	9.788	9.788	0.878	91	1111832	48.80 ug/L	100
45) trans-1,3-Dichloroprop...	9.968	9.968	0.895	75	413602	53.30 ug/L	99
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	194928	50.70 ug/L	99
47) 2-Hexanone	10.279	10.279	0.923	43	1583538	229.80 ug/L	99
48) 1,3-Dichloropropane	10.364	10.364	0.930	76	426435	51.62 ug/L	99
49) Tetrachloroethylene	10.294	10.290	0.924	164	203170	48.69 ug/L	99
50) Dibromochloromethane	10.587	10.583	0.950	129	251556	55.00 ug/L	100
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	229835	51.60 ug/L	100
52) Chlorobenzene	11.174	11.174	1.003	112	731586	49.50 ug/L	99
53) 1,1,1,2-Tetrachloroethane	11.217	11.216	1.007	131	260992	52.13 ug/L	99
54) Ethylbenzene	11.178	11.181	1.003	91	1236809	47.58 ug/L	99
55) m,p-Xylenes	11.280	11.280	1.012	106	974964	99.02 ug/L	100
56) o-Xylene	11.698	11.701	1.050	106	493292	49.58 ug/L	99
57) Styrene	11.715	11.715	1.051	104	805864	53.02 ug/L	93
59) Bromoform	12.005	12.005	0.895	173	165589	55.57 ug/L	100
60) Isopropylbenzene	12.012	12.016	0.896	105	1227006	48.86 ug/L	100
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	317758	48.88 ug/L	100
63) 1,2,3-Trichloropropane	12.454	12.454	0.929	110	86607	49.90 ug/L #	89
64) Bromobenzene	12.461	12.465	0.929	156	306166	48.47 ug/L	100
65) n-Propylbenzene	12.415	12.415	0.926	91	1447514	47.74 ug/L	99
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	1051321	49.02 ug/L	100
67) 2-Chlorotoluene	12.599	12.596	0.939	126	305617	48.54 ug/L #	80
68) 4-Chlorotoluene	12.698	12.698	0.947	91	918293	47.63 ug/L	99
69) tert-Butylbenzene	12.903	12.900	0.962	134	227982	46.17 ug/L	98
70) 1,2,4-Trimethylbenzene	12.956	12.956	0.966	105	1065461	48.83 ug/L	99
71) sec-Butylbenzene	13.116	13.119	0.978	105	1340969	48.32 ug/L	100
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	1079075	48.92 ug/L	99
73) 1,3-Dichlorobenzene	13.353	13.349	0.996	146	574592	47.90 ug/L	100
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	580494	47.60 ug/L	100
75) n-Butylbenzene	13.653	13.653	1.018	91	1015819	46.90 ug/L	100
76) 1,2-Dichlorobenzene	13.855	13.858	1.033	146	558496	48.43 ug/L	99
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	60469	48.87 ug/L	98
78) 1,2,4-Trichlorobenzene	15.620	15.619	1.165	180	387147	49.85 ug/L	100
79) Hexachlorobutadiene	15.686	15.686	1.169	225	226659	48.05 ug/L	98
80) Naphthalene	15.988	15.988	1.192	128	898908	50.96 ug/L	100
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	357824	52.80 ug/L	99
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.082	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.	
87) Isopropyl Alcohol	6.174	6.163	0.736		0m	N.D. d	
88) Allyl chloride	6.460	6.425	0.770		0m	N.D. d	
89) tert-Butyl Alcohol	6.471	6.460	0.771		0m	N.D. d	
90) Acrylonitrile	6.641	6.747	0.791		0m	N.D. d	
91) Isopropyl ether	6.927	6.920	0.826		0m	N.D. d	
92) 2-Chloro-1,3-butadiene	7.037	7.104	0.839		0m	N.D. d	
93) Ethyl tert-butyl ether	7.189	7.192	0.857		0m	N.D. d	
94) Ethyl acetate	7.383	7.383	0.880		0m	N.D. d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B430L2.D  
Acq On : 11 Mar 2010 7:30 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076532|963809|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[A] 0305-01A+0310-01  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 11 20:01:58 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	7.670	7.585	0.914		0m	N.D.	d
96) Methacrylonitrile	7.670	7.680	0.914		0m	N.D.	d
97) Tetrahydrofuran	7.705	7.716	0.918		0m	N.D.	d
98) Isobutyl alcohol	7.670	7.857	0.914		0m	N.D.	d
99) Methyl tert-amyl ether	8.126	8.122	0.968		0m	N.D.	d
100) Methyl methacrylate	8.830	8.801	1.052		0m	N.D.	d
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	9.392	9.342	1.119		0m	N.D.	d
104) Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	12.009	12.136	0.895		0m	N.D.	d
108) Cyclohexanone	12.362	12.267	0.922		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	12.415	12.412	0.926		0m	N.D.	d
110) Pentachloroethane	13.017	13.017	0.970		0m	N.D.	d
111) Benzyl chloride	13.558	13.565	1.011		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	13.887	13.929	1.035		0m	N.D.	d

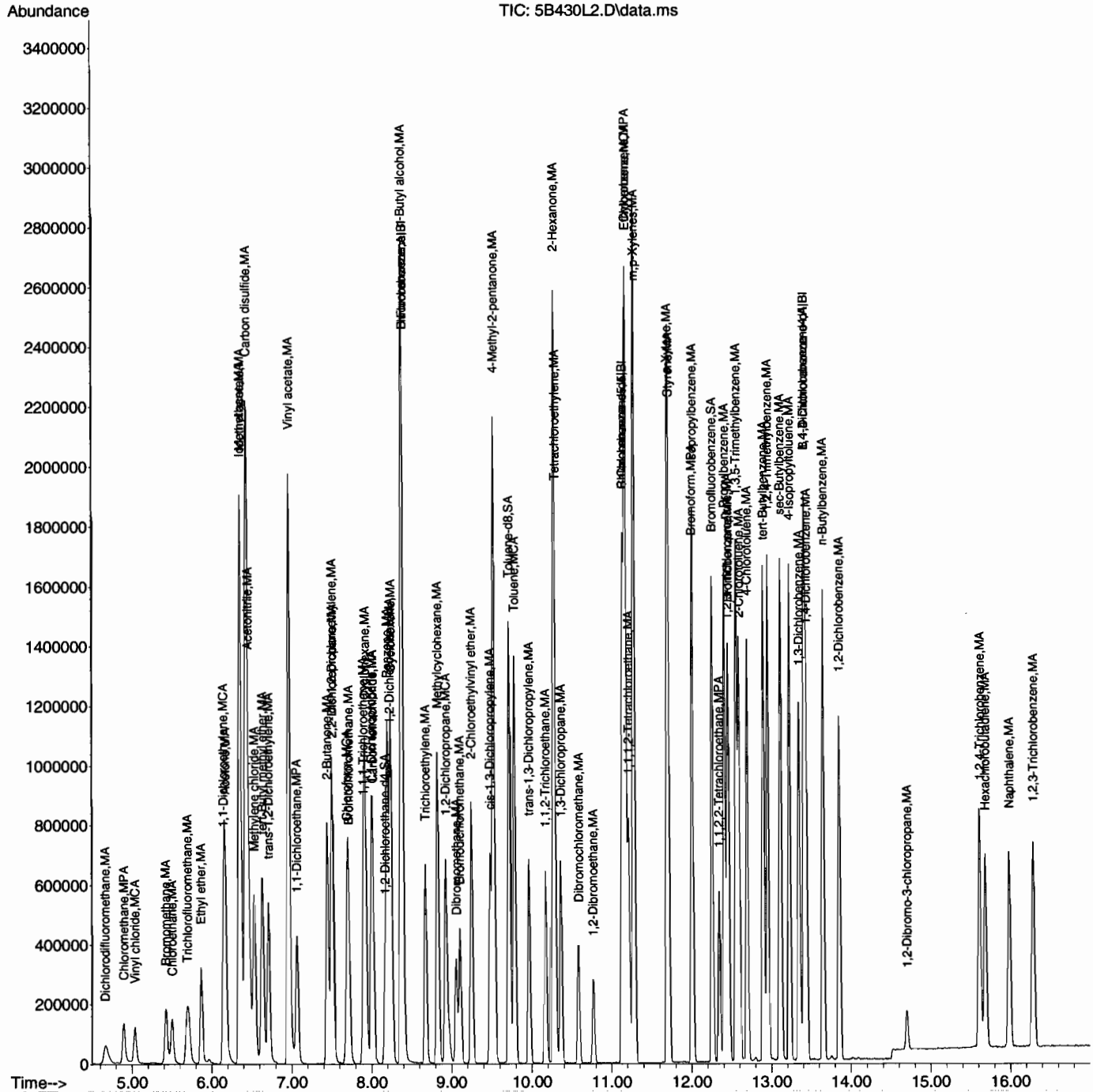
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B430L2.D  
Acq On : 11 Mar 2010 7:30 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076532|963809|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[A] 0305-01A+0310-01  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 11 20:01:58 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE



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

Page 1 of 2

SDG Number: 10-2202

Matrix: SOIL

Lab Sample ID: 1202076533

Client Sample: QC for batch 963808

Client: LANL010

Project: QC

Client ID: LCS for batch 963808

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 963809

Inst: VOA5.1

Dilution: 1

Run Date: 03/11/2010 19:56

Analyst: CDS1

Purge Vol: 5 mL

Prep Date: 03/11/2010 16:00

Aliquot: 5 g

Final Volume: 5 mL

Data File: 031110V55B431SHL2.D

Column: DB-624

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

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

SDG Number: 10-2202

Matrix: SOIL

Lab Sample ID: 1202076533

Client Sample: QC for batch 963808

Client: LANL010

Project: QC

Client ID: LCS for batch 963808

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 963809

Inst: VOA5.1

Dilution: 1

Run Date: 03/11/2010 19:56

Analyst: CDS1

Purge Vol: 5 mL

Prep Date: 03/11/2010 16:00

Aliquot: 5 g

Final Volume: 5 mL

Data File: 031110V5\SB431SHL2.D

Column: DB-624

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane		324	ug/kg	1.60	5.00
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B431SHL2.D  
Acq On : 11 Mar 2010 7:56 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076533|963809|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[B ]UVM100215-08B  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 11 22:16:51 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	8.388	8.387	1.000	96	1439092	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1070189	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	529829	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1439092	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1070189	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	529829	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	235628	33.83	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	=	67.66%		
43) Toluene-d8	9.721	9.721	0.872	98	1088246	39.76	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	=	79.52%		
61) Bromofluorobenzene	12.260	12.260	0.914	95	629657	59.25	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	=	118.50%		
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.678	4.668	0.558		0m	N.D.	d	
3) Chloromethane	5.051	4.900	0.602		0m	N.D.	d	
4) Vinyl chloride	5.031	5.041	0.600		0m	N.D.	d	
5) Bromomethane	5.423	5.423	0.647		0m	N.D.	d	
6) Chloroethane	5.494	5.504	0.655		0m	N.D.	d	
7) Trichlorofluoromethane	5.695	5.695	0.679		0m	N.D.	d	
8) Ethyl ether	5.867	5.866	0.699		0m	N.D.	d	
9) Acetone	6.167	6.174	0.735		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.149	6.156	0.733		0m	N.D.	d	
11) Iodomethane	6.354	6.357	0.758		0m	N.D.	d	
12) Acetonitrile	6.421	6.464	0.766		0m	N.D.	d	
13) Methyl acetate	6.365	6.365	0.759		0m	N.D.	d	
14) Carbon disulfide	6.425	6.435	0.766		0m	N.D.	d	
15) Methylene chloride	6.545	6.538	0.780		0m	N.D.	d	
16) tert-Butyl methyl ether	6.637	6.640	0.791		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	6.701	6.715	0.799		0m	N.D.	d	
18) Vinyl acetate	6.962	6.969	0.830		0m	N.D.	d	
19) 1,1-Dichloroethane	7.111	7.068	0.848		0m	N.D.	d	
20) 2-Butanone	7.507	7.450	0.895		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	7.698	7.701	0.918		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	7.924	7.924	0.945		0m	N.D.	d	
27) 1,1-Dichloropropene	7.999	8.005	0.954		0m	N.D.	d	
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.204	8.203	0.978		0m	N.D.	d	
32) Cyclohexene	8.172	8.246	0.974		0m	N.D.	d	
33) n-Butyl alcohol	8.391	8.377	1.000		0m	N.D.	d	
34) Trichloroethylene	8.688	8.677	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.805	8.826	1.050		0m	N.D.	d	
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B431SHL2.D  
Acq On : 11 Mar 2010 7:56 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076533|963809|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[B]UVM100215-08B  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 11 22:16:51 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103		0m	N.D.	d
40) cis-1,3-Dichloropropylene	9.477	9.487	1.130		0m	N.D.	d
42) 4-Methyl-2-pentanone	9.516	9.526	0.854		0m	N.D.	d
44) Toluene	9.791	9.788	0.879		0m	N.D.	d
45) trans-1,3-Dichloroprop...	9.968	9.968	0.895		0m	N.D.	d
46) 1,1,2-Trichloroethane	10.294	10.173	0.924		0m	N.D.	d
47) 2-Hexanone	10.283	10.279	0.923		0m	N.D.	d
48) 1,3-Dichloropropane	10.364	10.364	0.930		0m	N.D.	d
49) Tetrachloroethylene	10.290	10.290	0.924		0m	N.D.	d
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	11.171	11.174	1.003		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	11.217	11.216	1.007		0m	N.D.	d
54) Ethylbenzene	11.181	11.181	1.003		0m	N.D.	d
55) m,p-Xylenes	11.277	11.280	1.012		0m	N.D.	d
56) o-Xylene	11.698	11.701	1.050		0m	N.D.	d
57) Styrene	11.719	11.715	1.052		0m	N.D.	d
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	12.012	12.016	0.896		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921		0m	N.D.	d
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	12.461	12.465	0.929		0m	N.D.	d
65) n-Propylbenzene	12.412	12.415	0.925		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	12.557	12.564	0.936		0m	N.D.	d
67) 2-Chlorotoluene	12.599	12.596	0.939		0m	N.D.	d
68) 4-Chlorotoluene	12.698	12.698	0.947		0m	N.D.	d
69) tert-Butylbenzene	12.907	12.900	0.962		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	12.953	12.956	0.966		0m	N.D.	d
71) sec-Butylbenzene	13.116	13.119	0.978		0m	N.D.	d
72) 4-Isopropyltoluene	13.232	13.229	0.987		0m	N.D.	d
73) 1,3-Dichlorobenzene	13.342	13.349	0.995		0m	N.D.	d
74) 1,4-Dichlorobenzene	13.434	13.441	1.002		0m	N.D.	d
75) n-Butylbenzene	13.657	13.653	1.018		0m	N.D.	d
76) 1,2-Dichlorobenzene	13.851	13.858	1.033		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164		0m	N.D.	d
79) Hexachlorobutadiene	15.686	15.686	1.169		0m	N.D.	d
80) Naphthalene	15.981	15.988	1.191		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	6.082	6.082	0.725	56	213396	257.73 ug/L	99
86) Trichlorotrifluoroethane	6.071	6.071	0.724	85	418293	324.18 ug/L	99
87) Isopropyl Alcohol	0.000	6.163	0.000		0m	N.D.	d
88) Allyl chloride	6.421	6.425	0.766	41	2098318	221.54 ug/L	93
89) tert-Butyl Alcohol	6.460	6.460	0.770	59	114	N.D.	
90) Acrylonitrile	6.743	6.747	0.804	53	517679	248.59 ug/L	99
91) Isopropyl ether	7.097	6.920	0.846	45	216	N.D.	
92) 2-Chloro-1,3-butadiene	7.104	7.104	0.847	53	389253	63.69 ug/L	99
93) Ethyl tert-butyl ether	7.373	7.192	0.879	59	106	N.D.	
94) Ethyl acetate	7.380	7.383	0.880	43	1305533	231.48 ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B431SHL2.D  
Acq On : 11 Mar 2010 7:56 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076533|963809|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[B ]UVM100215-08B  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 11 22:16:51 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95) Propionitrile	7.581	7.585	0.904	54	203662	254.08	ug/L	99
96) Methacrylonitrile	7.680	7.680	0.916	41	1085546	246.44	ug/L	100
97) Tetrahydrofuran	7.712	7.716	0.919	42	491383	246.84	ug/L	98
98) Isobutyl alcohol	7.857	7.857	0.937	41	541026	2579.87	ug/L	100
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.		
100) Methyl methacrylate	8.801	8.801	1.049	69	835042	251.24	ug/L	97
101) 1,4-Dioxane	8.957	8.957	1.068	88	143234	2414.84	ug/L	99
102) 2-Nitropropane	9.342	9.342	1.114	43	412147	244.45	ug/L	100
104) Ethyl methacrylate	9.859	9.859	0.885	69	1631317	258.24	ug/L	98
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.		
107) cis-1,4-Dichloro-2-butene	12.136	12.136	0.905	53	553173	279.21	ug/L	99
108) Cyclohexanone	12.267	12.267	0.915	42	819306	5030.63	ug/L	96 E
109) trans-1,4-Dichloro-2-b...	12.408	12.412	0.925	53	515435	276.18	ug/L	99
110) Pentachloroethane	13.017	13.017	0.970	167	770694	298.19	ug/L	99
111) Benzyl chloride	13.565	13.565	1.011	91	2595755	273.59	ug/L	100
112) bis(2-Chloroisopropyl)...	13.925	13.929	1.038	45	830705	237.97	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B431SHL2.D  
Acq On : 11 Mar 2010 7:56 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076533|963809|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[B]UVM100215-08B  
ALS Vial : 31 Sample Multiplier: 1

TIC: 5B431SHL2.D\data.ms

Abundance

Time-->

5.00 6.00 7.00 8.00 9.00 10.00 11.00 12.00 13.00 14.00 15.00 16.00

Acrolein, B

Allyl chloride, B

Acrylonitrile, B

2-Chloro-1,3-butadiene, B

Ethyl acetate, B

Propionitrile, B

Methacrylonitrile, B

Isobutyl alcohol, B

1,2-Dichloroethane-d4, SA

1,4-Dioxane, B

2-Nitropropane, B

Toluene-d8, SA

Ethyl methacrylate, B

Bis(2-chloroisopropyl) ether, B

Bis(2-chloroisopropyl) ether, SA

cis-1,4-Dichloro-2-butene, B

trans-1,4-Dichloro-2-butene, B

Bis(2-chloroisopropyl) ether, SA

Pentachloroethane, B

Benzyl chloride, B

bis(2-Chloroisopropyl) ether, B

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

SDG Number: 10-2202	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 1202067628	Date Received: 03/03/2010 08:50	%Moisture: 12.4
Client Sample: QC for batch 963808	Client: LANL010	Project: QC
Client ID: RE36-10-8466PS	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963809	Inst: VOA5.I	Dilution: 1
Run Date: 03/11/2010 23:01	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/11/2010 10:14	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031110V5SB438.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		54.8	ug/kg	0.388	1.14
74-87-3	Chloromethane		56.5	ug/kg	0.342	1.14
75-01-4	Vinyl chloride		59.1	ug/kg	0.342	1.14
74-83-9	Bromomethane		57.8	ug/kg	0.342	1.14
75-00-3	Chloroethane		55.9	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane		53.7	ug/kg	0.342	1.14
67-64-1	Acetone		136	ug/kg	1.89	5.71
75-35-4	1,1-Dichloroethylene		52.4	ug/kg	0.342	1.14
74-88-4	Iodomethane		263	ug/kg	1.83	5.71
75-09-2	Methylene chloride		53.7	ug/kg	2.28	5.71
75-15-0	Carbon disulfide		271	ug/kg	1.43	5.71
156-60-5	trans-1,2-Dichloroethylene		54.0	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane		55.2	ug/kg	0.342	1.14
78-93-3	2-Butanone		171	ug/kg	1.71	5.71
156-59-2	cis-1,2-Dichloroethylene		53.9	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane		50.6	ug/kg	0.342	1.14
67-66-3	Chloroform		53.2	ug/kg	0.342	1.14
74-97-5	Bromochloromethane		55.0	ug/kg	0.377	1.14
71-55-6	1,1,1-Trichloroethane		51.7	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene		50.9	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride		50.7	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane		53.3	ug/kg	0.342	1.14
71-43-2	Benzene		51.1	ug/kg	0.342	1.14
79-01-6	Trichloroethylene		48.8	ug/kg	0.377	1.14
78-87-5	1,2-Dichloropropane		52.1	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane		54.1	ug/kg	0.342	1.14
74-95-3	Dibromomethane		54.5	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone		256	ug/kg	1.43	5.71
10061-01-5	cis-1,3-Dichloropropylene		51.3	ug/kg	0.342	1.14
108-88-3	Toluene		47.7	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene		51.7	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane		50.8	ug/kg	0.342	1.14
591-78-6	2-Hexanone		176	ug/kg	1.71	5.71
142-28-9	1,3-Dichloropropane		51.2	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene		43.6	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane		51.6	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane		50.1	ug/kg	0.342	1.14
108-90-7	Chlorobenzene		45.8	ug/kg	0.342	1.14



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

SDG Number: 10-2202	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 1202067628	Date Received: 03/03/2010 08:50	%Moisture: 12.4
Client Sample: QC for batch 963808	Client: LANL010	Project: QC
Client ID: RE36-10-8466PS	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963809	Inst: VOAS.I	Dilution: 1
Run Date: 03/11/2010 23:01	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/11/2010 10:14	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031110V55B438.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		42.8	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes		88.1	ug/kg	0.342	2.28
95-47-6	o-Xylene		43.1	ug/kg	0.342	1.14
100-42-5	Styrene		45.3	ug/kg	0.342	1.14
75-25-2	Bromoform		57.3	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane		50.6	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane		54.7	ug/kg	0.342	1.14
108-86-1	Bromobenzene		46.2	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene		44.0	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene		45.1	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene		47.3	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene		43.4	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene		44.2	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene		40.5	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene		43.4	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene		39.5	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene		38.6	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene		40.0	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene		39.5	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene		34.1	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane		42.6	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.71	ug/kg	1.83	5.71
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane		48.0	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene		39.1	ug/kg	0.342	1.14

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B438.D  
Acq On : 11 Mar 2010 11:01 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202067628|963809|1|VOA|D|VOA8260BS|  
Misc : LANL 5G - SOIL MS 248526001 MIX[A]  
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 12 07:26:20 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	8.387	8.387	1.000	96	1406465	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1018044	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	448747	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1406465	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1018044	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	448747	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	225156	33.08	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	66.16%			
43) Toluene-d8	9.721	9.721	0.872	98	1042281	40.03	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	80.06%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	589348	65.48	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	130.96%#			
Target Compounds								QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	157628	48.00	ug/L	97
3) Chloromethane	4.900	4.900	0.584	50	207049	49.48	ug/L	97
4) Vinyl chloride	5.041	5.041	0.601	62	179424	51.77	ug/L	100
5) Bromomethane	5.423	5.423	0.647	94	167490	50.60	ug/L	99
6) Chloroethane	5.504	5.504	0.656	64	172215	49.00	ug/L	100
7) Trichlorofluoromethane	5.695	5.695	0.679	101	283908	47.07	ug/L	100
8) Ethyl ether	5.866	5.866	0.699	59	250517	48.23	ug/L	100
9) Acetone	6.170	6.174	0.736	43	500370	119.07	ug/L	99
10) 1,1-Dichloroethylene	6.156	6.156	0.734	61	308555	45.91	ug/L	100
11) Iodomethane	6.358	6.357	0.758	142	1598908	230.35	ug/L	99
12) Acetonitrile	6.460	6.464	0.770	41	893284	1084.55	ug/L	98
13) Methyl acetate	6.365	6.365	0.759	43	1253721	272.99	ug/L	99
14) Carbon disulfide	6.435	6.435	0.767	76	3198258	237.43	ug/L	100
15) Methylene chloride	6.534	6.538	0.779	84	252294	47.01	ug/L	95
16) tert-Butyl methyl ether	6.637	6.640	0.791	73	636254	45.47	ug/L	100
17) trans-1,2-Dichloroethy...	6.715	6.715	0.801	61	345725	47.31	ug/L	98
18) Vinyl acetate	6.969	6.969	0.831	43	376786	32.74	ug/L	99
19) 1,1-Dichloroethane	7.068	7.068	0.843	63	437401	48.33	ug/L	99
20) 2-Butanone	7.450	7.450	0.888	43	749573	149.71	ug/L	99
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895	61	401252	47.20	ug/L	98
22) 2,2-Dichloropropane	7.510	7.514	0.895	77	297433	44.34	ug/L	96
23) Bromochloromethane	7.719	7.719	0.920	128	120972	48.17	ug/L	97
24) Chloroform	7.698	7.701	0.918	83	378118	46.65	ug/L	100
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	302931	45.31	ug/L	99
26) Cyclohexane	7.924	7.924	0.945	56	384041	40.38	ug/L	98
27) 1,1-Dichloropropene	8.009	8.005	0.955	75	273315	44.57	ug/L	97
28) Carbon tetrachloride	8.020	8.020	0.956	117	254949	44.45	ug/L	100
30) 1,2-Dichloroethane	8.235	8.235	0.982	62	327166	46.71	ug/L	99
31) Benzene	8.204	8.203	0.978	78	911621	44.78	ug/L	96
32) Cyclohexene	8.246	8.246	0.983	67	392973	41.53	ug/L	99
33) n-Butyl alcohol	8.377	8.377	0.999	56	877062	4430.33	ug/L	97
34) Trichloroethylene	8.677	8.677	1.035	95	206680	42.74	ug/L	99
35) 1,2-Dichloropropane	8.928	8.932	1.065	63	262701	45.68	ug/L	99
36) Methylcyclohexane	8.829	8.826	1.053	83	296417	33.55	ug/L	99
37) Dibromomethane	9.059	9.059	1.080	93	139550	47.75	ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B438.D  
Acq On : 11 Mar 2010 11:01 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202067628|963809|1|VOA|D|VOA8260BS|  
Misc : LANL 5G - SOIL MS 248526001 MIX[A]  
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 12 07:26:20 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	9.109	9.112	1.086	83	283288	47.42	ug/L	99
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	325119	176.96	ug/L	99
40) cis-1,3-Dichloropropylene	9.484	9.487	1.131	75	367485	44.93	ug/L	97
42) 4-Methyl-2-pentanone	9.530	9.526	0.855	58	545547	224.09	ug/L	96
44) Toluene	9.788	9.788	0.878	91	913917	41.81	ug/L	100
45) trans-1,3-Dichloroprop...	9.968	9.968	0.895	75	336983	45.27	ug/L	98
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	164303	44.55	ug/L	98
47) 2-Hexanone	10.279	10.279	0.923	43	1016866	153.82	ug/L	98
48) 1,3-Dichloropropane	10.361	10.364	0.930	76	355729	44.89	ug/L	97
49) Tetrachloroethylene	10.290	10.290	0.924	164	152884	38.19	ug/L	99
50) Dibromochloromethane	10.584	10.583	0.950	129	198389	45.22	ug/L	100
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	187435	43.86	ug/L	100
52) Chlorobenzene	11.174	11.174	1.003	112	568804	40.12	ug/L	99
53) 1,1,1,2-Tetrachloroethane	11.217	11.216	1.007	131	202008	42.06	ug/L	99
54) Ethylbenzene	11.178	11.181	1.003	91	935189	37.50	ug/L	99
55) m,p-Xylenes	11.280	11.280	1.012	106	729535	77.23	ug/L	100
56) o-Xylene	11.701	11.701	1.050	106	360405	37.76	ug/L	98
57) Styrene	11.715	11.715	1.051	104	578681	39.69	ug/L	93
59) Bromoform	12.002	12.005	0.895	173	122627	50.19	ug/L	99
60) Isopropylbenzene	12.012	12.016	0.896	105	853682	41.46	ug/L	100
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	236447	44.37	ug/L	100
63) 1,2,3-Trichloropropane	12.454	12.454	0.929	110	68142	47.89	ug/L	93
64) Bromobenzene	12.461	12.465	0.929	156	209869	40.52	ug/L	96
65) n-Propylbenzene	12.415	12.415	0.926	91	958746	38.57	ug/L	99
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	668360	38.01	ug/L	100
67) 2-Chlorotoluene	12.596	12.596	0.939	126	204039	39.53	ug/L	# 79
68) 4-Chlorotoluene	12.695	12.698	0.946	91	611914	38.72	ug/L	99
69) tert-Butylbenzene	12.900	12.900	0.962	134	143478	35.44	ug/L	99
70) 1,2,4-Trimethylbenzene	12.956	12.956	0.966	105	680147	38.02	ug/L	98
71) sec-Butylbenzene	13.116	13.119	0.978	105	787031	34.59	ug/L	99
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	611370	33.80	ug/L	99
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	344948	35.07	ug/L	99
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	345949	34.60	ug/L	99
75) n-Butylbenzene	13.653	13.653	1.018	91	530408	29.87	ug/L	99
76) 1,2-Dichlorobenzene	13.855	13.858	1.033	146	324178	34.29	ug/L	100
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	37852	37.31	ug/L	94
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	138185	21.70	ug/L	99
79) Hexachlorobutadiene	15.686	15.686	1.169	225	66663	17.24	ug/L	99
80) Naphthalene	15.988	15.988	1.192	128	380636	26.32	ug/L	99
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	112005	20.16	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	0.000	6.082	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.		
87) Isopropyl Alcohol	6.167	6.163	0.735		0m	N.D.	d	
88) Allyl chloride	6.460	6.425	0.770		0m	N.D.	d	
89) tert-Butyl Alcohol	6.464	6.460	0.771		0m	N.D.	d	
90) Acrylonitrile	6.633	6.747	0.791		0m	N.D.	d	
91) Isopropyl ether	6.916	6.920	0.825		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.		
93) Ethyl tert-butyl ether	7.061	7.192	0.842		0m	N.D.	d	
94) Ethyl acetate	7.334	7.383	0.874		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B438.D  
Acq On : 11 Mar 2010 11:01 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202067628|963809|1|VOA|D|VOA8260BS|  
Misc : LANL 5G - SOIL MS 248526001 MIX[A]  
ALS Vial : 38 Sample Multiplier: 1

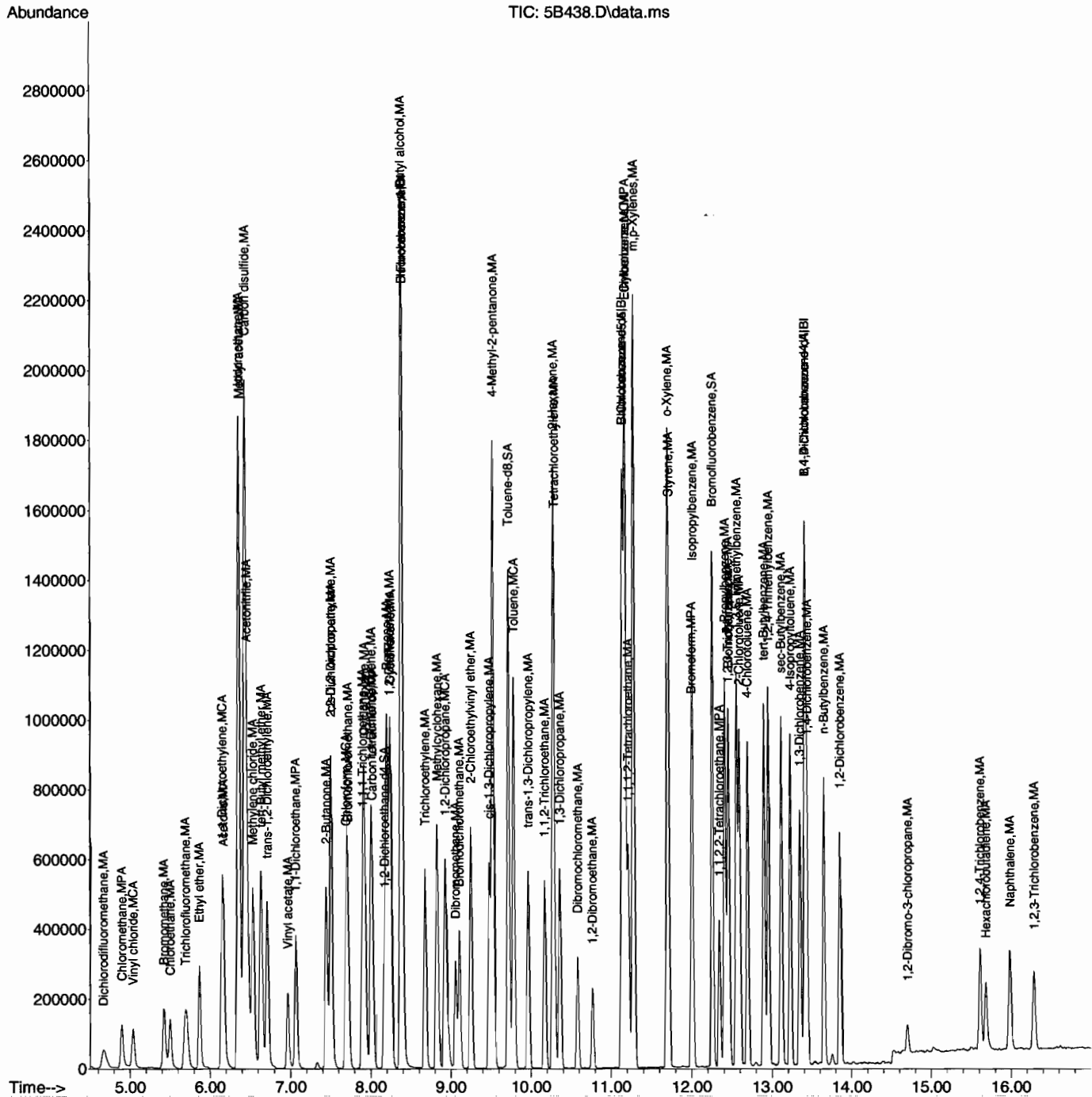
Quant Time: Mar 12 07:26:20 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	7.447	7.585	0.888		0m	N.D.	d
96) Methacrylonitrile	7.510	7.680	0.895		0m	N.D.	d
97) Tetrahydrofuran	7.705	7.716	0.919		0m	N.D.	d
98) Isobutyl alcohol	7.864	7.857	0.938		0m	N.D.	d
99) Methyl tert-amyl ether	8.119	8.122	0.968		0m	N.D.	d
100) Methyl methacrylate	8.829	8.801	1.053		0m	N.D.	d
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	9.321	9.342	1.111		0m	N.D.	d
104) Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106) 1-Chlorohexane	11.047	10.980	0.824		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	12.012	12.136	0.896		0m	N.D.	d
108) Cyclohexanone	12.408	12.267	0.925		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	12.412	12.412	0.925		0m	N.D.	d
110) Pentachloroethane	13.017	13.017	0.970		0m	N.D.	d
111) Benzyl chloride	13.565	13.565	1.011		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	13.932	13.929	1.039		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

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Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B438.D  
Acq On    : 11 Mar 2010  11:01 pm  
Operator  : CDS1  
InstName  : VOA5  
Sample    : |1202067628|963809|1|VOA|D|VOA8260BS|  
Misc      : LANL 5G - SOIL MS 248526001 MIX[A]  
ALS Vial  : 38      Sample Multiplier: 1
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Quant Time: Mar 12 07:26:20 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE



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

<b>SDG Number:</b> 10-2202	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 1202067629	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 12.4
<b>Client Sample:</b> QC for batch 963808	<b>Client:</b> LANL010	<b>Project:</b> QC
<b>Client ID:</b> RE36-10-8466PSD	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 963809	<b>Inst:</b> VOA5.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/11/2010 23:28	<b>Analyst:</b> CDS1	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/11/2010 10:15	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 031110V55B439.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		53.2	ug/kg	0.388	1.14
74-87-3	Chloromethane		56.2	ug/kg	0.342	1.14
75-01-4	Vinyl chloride		57.6	ug/kg	0.342	1.14
74-83-9	Bromomethane		56.4	ug/kg	0.342	1.14
75-00-3	Chloroethane		54.0	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane		52.8	ug/kg	0.342	1.14
67-64-1	Acetone		125	ug/kg	1.89	5.71
75-35-4	1,1-Dichloroethylene		51.8	ug/kg	0.342	1.14
74-88-4	Iodomethane		261	ug/kg	1.83	5.71
75-09-2	Methylene chloride		52.5	ug/kg	2.28	5.71
75-15-0	Carbon disulfide		266	ug/kg	1.43	5.71
156-60-5	trans-1,2-Dichloroethylene		52.7	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane		55.0	ug/kg	0.342	1.14
78-93-3	2-Butanone		158	ug/kg	1.71	5.71
156-59-2	cis-1,2-Dichloroethylene		53.0	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane		50.1	ug/kg	0.342	1.14
67-66-3	Chloroform		52.8	ug/kg	0.342	1.14
74-97-5	Bromochloromethane		53.7	ug/kg	0.377	1.14
71-55-6	1,1,1-Trichloroethane		51.2	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene		50.4	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride		50.1	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane		52.9	ug/kg	0.342	1.14
71-43-2	Benzene		50.2	ug/kg	0.342	1.14
79-01-6	Trichloroethylene		48.5	ug/kg	0.377	1.14
78-87-5	1,2-Dichloropropane		51.8	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane		53.5	ug/kg	0.342	1.14
74-95-3	Dibromomethane		53.1	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone		239	ug/kg	1.43	5.71
10061-01-5	cis-1,3-Dichloropropylene		50.8	ug/kg	0.342	1.14
108-88-3	Toluene		47.1	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene		50.8	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane		49.3	ug/kg	0.342	1.14
591-78-6	2-Hexanone		161	ug/kg	1.71	5.71
142-28-9	1,3-Dichloropropane		50.4	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene		43.7	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane		50.9	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane		49.1	ug/kg	0.342	1.14
108-90-7	Chlorobenzene		45.5	ug/kg	0.342	1.14

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

SDG Number: 10-2202	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 1202067629	Date Received: 03/03/2010 08:50	%Moisture: 12.4
Client Sample: QC for batch 963808	Client: LANL010	Project: QC
Client ID: RE36-10-8466PSD	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963809	Inst: VOA5.I	Dilution: 1
Run Date: 03/11/2010 23:28	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/11/2010 10:15	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031110V55B439.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		42.8	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes		88.8	ug/kg	0.342	2.28
95-47-6	o-Xylene		43.7	ug/kg	0.342	1.14
100-42-5	Styrene		45.1	ug/kg	0.342	1.14
75-25-2	Bromoform		55.0	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane		49.1	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane		51.9	ug/kg	0.342	1.14
108-86-1	Bromobenzene		47.1	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene		44.2	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene		46.3	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene		47.3	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene		43.8	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene		44.7	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene		40.6	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene		43.3	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene		39.5	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene		39.2	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene		40.0	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene		40.4	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene		34.3	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane		40.8	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.71	ug/kg	1.83	5.71
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane		48.2	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene		39.3	ug/kg	0.342	1.14

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B439.D  
Acq On : 11 Mar 2010 11:28 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202067629|963809|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MSD 248526001 MIX[A]  
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 12 07:26:22 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	8.387	8.387	1.000	96	1397470	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1014836	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	448622	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1397470	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1014836	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	448622	50.00	ug/L	0.00

System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	225275	33.31	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	=	66.62%		
43) Toluene-d8	9.721	9.721	0.872	98	1051412	40.51	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	=	81.02%		
61) Bromofluorobenzene	12.260	12.260	0.914	95	587938	65.34	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	=	130.68%#		

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.678	4.668	0.558	85	151974	46.58	ug/L	97
3) Chloromethane	4.900	4.900	0.584	50	204728	49.24	ug/L	97
4) Vinyl chloride	5.041	5.041	0.601	62	173849	50.48	ug/L	98
5) Bromomethane	5.433	5.423	0.648	94	162572	49.43	ug/L	98
6) Chloroethane	5.504	5.504	0.656	64	165072	47.27	ug/L	100
7) Trichlorofluoromethane	5.705	5.695	0.680	101	277515	46.30	ug/L	99
8) Ethyl ether	5.866	5.866	0.699	59	242372	46.96	ug/L	99
9) Acetone	6.170	6.174	0.736	43	457627	109.60	ug/L	99
10) 1,1-Dichloroethylene	6.152	6.156	0.734	61	303148	45.40	ug/L	99
11) Iodomethane	6.361	6.357	0.758	142	1574147	228.24	ug/L	99
12) Acetonitrile	6.460	6.464	0.770	41	836131	1021.70	ug/L	98
13) Methyl acetate	6.365	6.365	0.759	43	1196120	262.13	ug/L	99
14) Carbon disulfide	6.435	6.435	0.767	76	3118813	233.02	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	245546	46.03	ug/L	95
16) tert-Butyl methyl ether	6.637	6.640	0.791	73	614459	44.19	ug/L	100
17) trans-1,2-Dichloroethy...	6.715	6.715	0.801	61	335170	46.16	ug/L	98
18) Vinyl acetate	6.969	6.969	0.831	43	330052	28.87	ug/L	97
19) 1,1-Dichloroethane	7.068	7.068	0.843	63	433530	48.21	ug/L	100
20) 2-Butanone	7.450	7.450	0.888	43	689581	138.61	ug/L	99
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895	61	392369	46.46	ug/L	98
22) 2,2-Dichloropropane	7.510	7.514	0.895	77	292525	43.89	ug/L	96
23) Bromochloromethane	7.723	7.719	0.921	128	117505	47.09	ug/L	97
24) Chloroform	7.701	7.701	0.918	83	372806	46.29	ug/L	99
25) 1,1,1-Trichloroethane	7.906	7.906	0.943	97	298297	44.90	ug/L	99
26) Cyclohexane	7.928	7.924	0.945	56	379143	40.12	ug/L	98
27) 1,1-Dichloropropene	8.005	8.005	0.954	75	268816	44.12	ug/L	97
28) Carbon tetrachloride	8.020	8.020	0.956	117	250001	43.87	ug/L	98
30) 1,2-Dichloroethane	8.235	8.235	0.982	62	322667	46.36	ug/L	99
31) Benzene	8.200	8.203	0.978	78	889984	43.99	ug/L	96
32) Cyclohexene	8.246	8.246	0.983	67	384983	40.95	ug/L	99
33) n-Butyl alcohol	8.377	8.377	0.999	56	818631	4159.24	ug/L	99
34) Trichloroethylene	8.677	8.677	1.035	95	204201	42.50	ug/L	99
35) 1,2-Dichloropropane	8.928	8.932	1.065	63	259393	45.39	ug/L	100
36) Methylcyclohexane	8.829	8.826	1.053	83	292313	33.30	ug/L	98
37) Dibromomethane	9.059	9.059	1.080	93	135100	46.52	ug/L	99



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B439.D  
Acq On : 11 Mar 2010 11:28 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202067629|963809|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MSD 248526001 MIX[A]  
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 12 07:26:22 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	9.109	9.112	1.086	83	278404	46.90	ug/L	99
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	309964	169.79	ug/L	99
40) cis-1,3-Dichloropropylene	9.484	9.487	1.131	75	361985	44.54	ug/L	98
42) 4-Methyl-2-pentanone	9.526	9.526	0.855	58	508608	209.58	ug/L	97
44) Toluene	9.788	9.788	0.878	91	899930	41.30	ug/L	100
45) trans-1,3-Dichloroprop...	9.965	9.968	0.894	75	330525	44.54	ug/L	99
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	158695	43.16	ug/L	98
47) 2-Hexanone	10.279	10.279	0.923	43	929644	141.07	ug/L	98
48) 1,3-Dichloropropane	10.364	10.364	0.930	76	348716	44.14	ug/L	98
49) Tetrachloroethylene	10.290	10.290	0.924	164	152953	38.33	ug/L	100
50) Dibromochloromethane	10.583	10.583	0.950	129	195099	44.61	ug/L	100
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	183163	43.00	ug/L	100
52) Chlorobenzene	11.171	11.174	1.003	112	563323	39.86	ug/L	99
53) 1,1,1,2-Tetrachloroethane	11.216	11.216	1.007	131	202110	42.22	ug/L	99
54) Ethylbenzene	11.178	11.181	1.003	91	932341	37.51	ug/L	99
55) m,p-Xylenes	11.280	11.280	1.012	106	732194	77.76	ug/L	99
56) o-Xylene	11.701	11.701	1.050	106	364277	38.29	ug/L	100
57) Styrene	11.715	11.715	1.051	104	573639	39.47	ug/L	92
59) Bromoform	12.005	12.005	0.895	173	117778	48.22	ug/L	100
60) Isopropylbenzene	12.012	12.016	0.896	105	853475	41.46	ug/L	98
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	229384	43.05	ug/L	99
63) 1,2,3-Trichloropropane	12.454	12.454	0.929	110	64672	45.46	ug/L	98
64) Bromobenzene	12.465	12.465	0.929	156	213842	41.30	ug/L	99
65) n-Propylbenzene	12.415	12.415	0.926	91	962225	38.72	ug/L	99
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	674874	38.39	ug/L	100
67) 2-Chlorotoluene	12.596	12.596	0.939	126	209421	40.58	ug/L	# 83
68) 4-Chlorotoluene	12.698	12.698	0.947	91	619238	39.19	ug/L	99
69) tert-Butylbenzene	12.900	12.900	0.962	134	143864	35.55	ug/L	99
70) 1,2,4-Trimethylbenzene	12.953	12.956	0.966	105	677980	37.91	ug/L	99
71) sec-Butylbenzene	13.116	13.119	0.978	105	787488	34.62	ug/L	99
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	620588	34.32	ug/L	99
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	344380	35.03	ug/L	99
74) 1,4-Dichlorobenzene	13.437	13.441	1.002	146	353645	35.38	ug/L	99
75) n-Butylbenzene	13.653	13.653	1.018	91	533389	30.04	ug/L	99
76) 1,2-Dichlorobenzene	13.855	13.858	1.033	146	325191	34.41	ug/L	99
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	36300	35.79	ug/L	97
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	140070	22.01	ug/L	99
79) Hexachlorobutadiene	15.686	15.686	1.169	225	68673	17.76	ug/L	96
80) Naphthalene	15.988	15.988	1.192	128	376750	26.06	ug/L	99
81) 1,2,3-Trichlorobenzene	16.284	16.291	1.214	180	112697	20.29	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	0.000	6.082	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.		
87) Isopropyl Alcohol	6.170	6.163	0.736		0m	N.D.	d	
88) Allyl chloride	6.460	6.425	0.770		0m	N.D.	d	
89) tert-Butyl Alcohol	6.467	6.460	0.771		0m	N.D.	d	
90) Acrylonitrile	6.633	6.747	0.791		0m	N.D.	d	
91) Isopropyl ether	6.920	6.920	0.825		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.		
93) Ethyl tert-butyl ether	7.068	7.192	0.843		0m	N.D.	d	
94) Ethyl acetate	7.383	7.383	0.880		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B439.D  
Acq On : 11 Mar 2010 11:28 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202067629|963809|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MSD 248526001 MIX[A]  
ALS Vial : 39 Sample Multiplier: 1

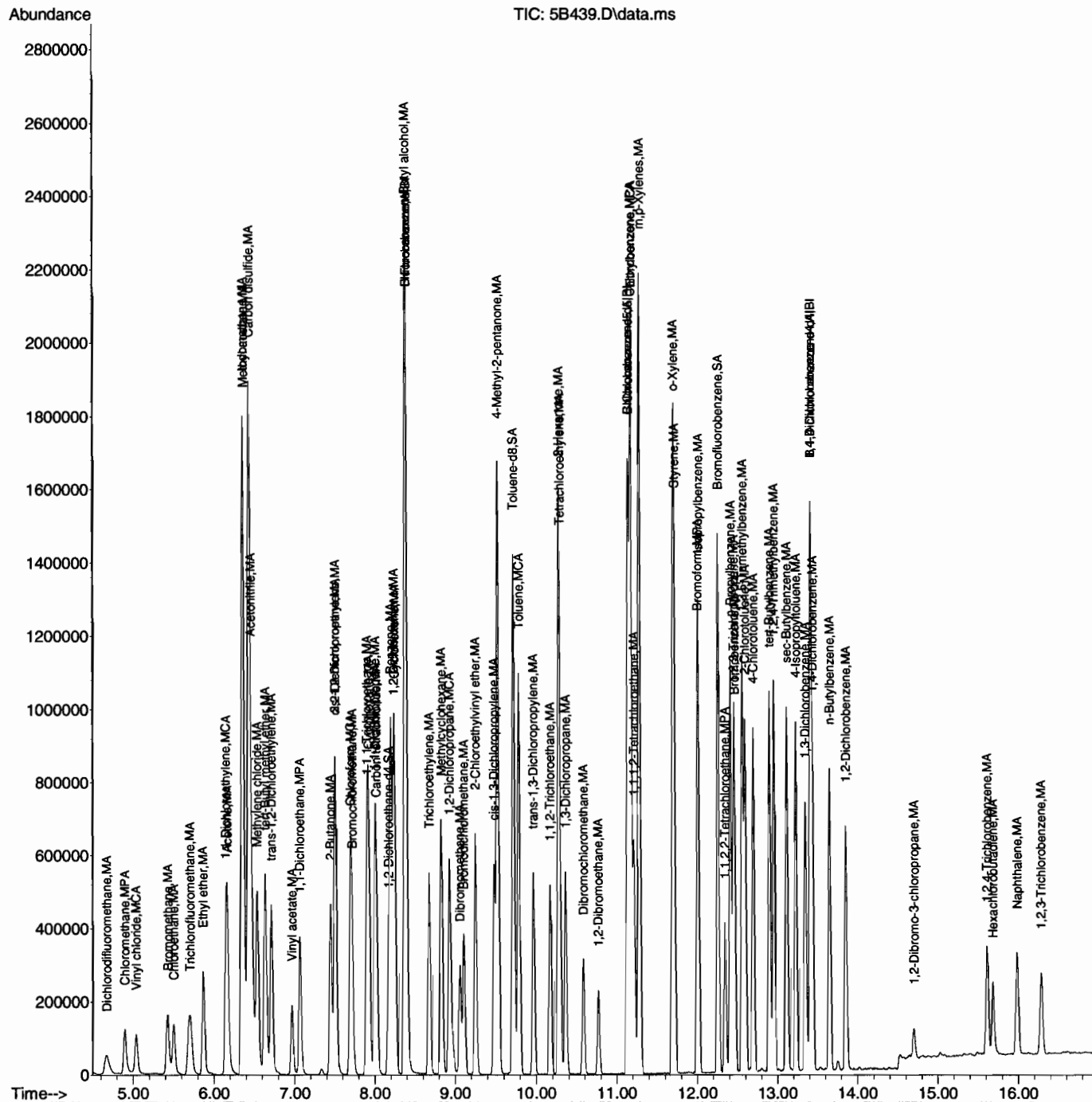
Quant Time: Mar 12 07:26:22 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	7.454	7.585	0.889		0m	N.D.	d
96) Methacrylonitrile	7.602	7.680	0.906		0m	N.D.	d
97) Tetrahydrofuran	7.705	7.716	0.919		0m	N.D.	d
98) Isobutyl alcohol	7.680	7.857	0.916		0m	N.D.	d
99) Methyl tert-amyl ether	8.122	8.122	0.968		0m	N.D.	d
100) Methyl methacrylate	8.829	8.801	1.053		0m	N.D.	d
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	9.356	9.342	1.116		0m	N.D.	d
104) Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	12.016	12.136	0.896		0m	N.D.	d
108) Cyclohexanone	12.415	12.267	0.926		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	12.412	12.412	0.925		0m	N.D.	d
110) Pentachloroethane	13.024	13.017	0.971		0m	N.D.	d
111) Benzyl chloride	13.568	13.565	1.012		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	13.929	13.929	1.038		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B439.D  
Acq On : 11 Mar 2010 11:28 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202067629|963809|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MSD 248526001 MIX[A]  
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 12 07:26:22 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE



# Miscellaneous

# Prep Logbook

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

**Batch ID:** 963808      Verified by: \_\_\_\_\_  
**Analyst:** Crystal Stacey  
**Method:** SW846 5030  
**Lab SOP:** GL-OA-E-038 REV# 14  
**Instrument:** Sartorius Balance B-001

Type      Sample Id      Description      Serial Number      Spike Amount      Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202067627 MB	11-MAR-2010 06:00:00	Soil	5	5	1	
1202067630 LCS	11-MAR-2010 06:00:00	Soil	5	5	1	
1202067631 LCS	11-MAR-2010 06:00:00	Soil	5	5	1	
248517001	11-MAR-2010 10:00:00	Soil	5	5	1	
248519001	11-MAR-2010 10:01:00	Soil	5	5	1	
248519002	11-MAR-2010 10:02:00	Soil	5	5	1	
248519003	11-MAR-2010 10:03:00	Soil	5	5	1	
248519004	11-MAR-2010 10:04:00	Soil	5	5	1	
248519005	11-MAR-2010 10:05:00	Soil	5	5	1	
248519006	11-MAR-2010 10:06:00	Soil	5	5	1	
248519007	11-MAR-2010 10:07:00	Soil	5	5	1	
248519008	11-MAR-2010 10:08:00	Soil	5	5	1	
248519009	11-MAR-2010 10:09:00	Soil	5	5	1	
248519010	11-MAR-2010 10:10:00	Soil	5	5	1	
248519011	11-MAR-2010 10:11:00	Soil	5	5	1	
248519012	11-MAR-2010 10:12:00	Misc Solid	5	5	1	
248526001	11-MAR-2010 10:13:00	Soil	5	5	1	
1202067628 PS (248526001)	11-MAR-2010 10:14:00	Soil	5	5	1	
1202067629 PSD (248526001)	11-MAR-2010 10:15:00	Soil	5	5	1	
1202076531 MB	11-MAR-2010 16:00:00	Soil	5	5	1	
1202076532 LCS	11-MAR-2010 16:00:00	Soil	5	5	1	
1202076533 LCS	11-MAR-2010 16:00:00	Soil	5	5	1	

Reagent/Solvent Lot ID      Description      Amount      Comments:

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Date: 3/3/2010 Method 8260/624 Operator: cds1  
REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
Daily Instrument Readings: \_\_\_\_\_  
Multiplier Voltage: 1412

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

CALIBRATION & CC INFORMATION:

Initial Calibration Date: \_\_\_\_\_

(See pg. \_\_\_\_\_ for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a

CI test lot # n/a

Sequence Number: 03310V5

Daily Standard	Solution ID#	Volume Added for Purge (ul)	Blk/MS/	CCV	LCS	BFB
IS UVM100203-01	1	1	1			
SS UVM100203-02	1	1	1			
Long ICV W5VM100303-10					5+5	
BFB UVM100203-02						1
Short ICV W5VM100303-18					5+5	

Purge Amount

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

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	CI test (Y/N)	Acceptance ble(O/X)	Comments
3 Mar 2010	11:00	5A301.D	UVM100203-02	BLANK	BFB		1	N/A	1	w	CDS1	N/A	O	
3 Mar 2010	11:26	5A302.D	120206-0000	BLANK	BLANK	5ML	1	N/A	2	w	CDS1	N/A	X	clean-up blank
3 Mar 2010	11:52	5A303.D	W5VM100303-01	VSTD001L	ICAL	5ul ea.	1	N/A	3	w	CDS1	N/A	O	UVM100106-02D+UVM100222-02A
3 Mar 2010	12:18	5A304.D	W5VM100303-02	VSTD002L	ICAL	5ul ea.	1	N/A	4	w	CDS1	N/A	O	UVM100106-03D+UVM100222-03A
3 Mar 2010	12:43	5A305.D	W5VM100303-03	VSTD005L	ICAL	5ul ea.	1	N/A	5	w	CDS1	N/A	O	UVM100106-04D+UVM100222-04A
3 Mar 2010	13:09	5A306.D	W5VM100303-04	VSTD010L	ICAL	5ul ea.	1	N/A	6	w	CDS1	N/A	O	UVM100106-05D+UVM100222-05A
3 Mar 2010	13:35	5A307.D	W5VM100303-05	VSTD020L	ICAL	5ul ea.	1	N/A	7	w	CDS1	N/A	O	UVM100106-06D+UVM100222-06A
3 Mar 2010	14:01	5A308.D	W5VM100303-06	VSTD050L	ICAL	5ul ea.	1	N/A	8	w	CDS1	N/A	O	UVM100106-07D+UVM100222-07A
3 Mar 2010	14:26	5A309.D	W5VM100303-07	VSTD100L	ICAL	5ul ea.	1	N/A	9	w	CDS1	N/A	O	UVM100106-08D+UVM100222-08A
3 Mar 2010	14:52	5A310.D	120206-0000	BLANK	BLANK	5mL	1	N/A	10	w	CDS1	N/A	X	clean-up blank
3 Mar 2010	15:18	5A311.D	W5VM100303-08	VSTD0005L	ICAL	5ul ea.	1	N/A	11	w	CDS1	N/A	O	UVM100106-01D+UVM100222-01A
3 Mar 2010	15:44	5A312.D	W5VM100303-09	ICV	LCS	5ul ea.	1	N/A	12	w	CDS1	N/A	X	UVM100126-02E+IVM100301-01 ketones low
3 Mar 2010	16:10	5A313.D	W5VM100303-10	ICV	LCS	5ul ea.	1	N/A	13	w	CDS1	N/A	O	UVM100220-01C+IVM100301-01
3 Mar 2010	16:35	5A314.D	120206-0000	BLANK	BLANK	5ML	1	N/A	14	w	CDS1	N/A	X	clean-up blank
3 Mar 2010	17:01	5A315.D	W5VM100303-11	VSTD005S	ICAL	5ul ea.	1	N/A	15	w	CDS1	N/A	O	UVM100215-01+UVM100227-01A
3 Mar 2010	17:27	5A316.D	W5VM100303-12	VSTD010S	ICAL	5ul ea.	1	N/A	16	w	CDS1	N/A	O	UVM100215-02+UVM100227-02A
3 Mar 2010	17:52	5A317.D	W5VM100303-13	VSTD025S	ICAL	5ul ea.	1	N/A	17	w	CDS1	N/A	O	UVM100215-03+UVM100227-03A
3 Mar 2010	18:18	5A318.D	W5VM100303-14	VSTD050S	ICAL	5ul ea.	1	N/A	18	w	CDS1	N/A	O	UVM100215-04+UVM100227-04A
3 Mar 2010	18:44	5A319.D	W5VM100303-15	VSTD100S	ICAL	5ul ea.	1	N/A	19	w	CDS1	N/A	O	UVM100215-05+UVM100227-05A
3 Mar 2010	19:10	5A320.D	W5VM100303-16	VSTD250S	ICAL	5ul ea.	1	N/A	20	w	CDS1	N/A	O	UVM100215-06+UVM100227-06A
3 Mar 2010	19:35	5A321.D	W5VM100303-17	VSTD500S	ICAL	5ul ea.	1	N/A	21	w	CDS1	N/A	O	UVM100215-07+UVM100227-07A
3 Mar 2010	20:01	5A322.D	120206-0000	BLANK	BLANK	5mL	1	N/A	22	w	CDS1	N/A	X	clean-up blank
3 Mar 2010	20:27	5A323.D	W5VM100303-18	ICV	ICV	5ul ea.	1	N/A	23	w	CDS1	N/A	O	UVM100215-08A+UVM100125-08E

Date: 3/11/2010 Method 8260/624 Operator: CDS1  
REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
Daily Instrument Readings: \_\_\_\_\_  
Multiplier Voltage: 1412

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/3/2010

(See pg. 43 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a

Cl test lot # n/a

Sequence Number: 031110V5pm

Daily Standard Volume Added for Purge (ul)

Soln ID#	CCV	W5VM100311-05	IS	UVM100203-01	5+5	MS/	LCS	BFB
CCV	1	1	1	1	1			
SS	1	1	1	1	1			
LCS/MS	W5VM100311-06/07				5+5			
BFB	UVM100217-02				1			
SHORT	W5VM100311-08				5	5		

Purge Amount

5 Water Purge Vol:

5 Soil Purge Wt.

Mid level ext. MeOH Vol:

ul

Methanol Lot #

X Heated Purge

Analysis			Wt.(g) or Dil.										AS		Matrix Analyst		Cl test		Accepta	
Date	Time	Data File	Lab Sample ID	Client	Batch #	Vol(ml/ul)	Factor	pH	Slot #	w	or	s	Analyst	(Y/N)	ble(O/X)	Comments				
3/11/2010	18:10	5B427.D	UVM100217-02	-----	BFB2	5ML	1	N/A	27	W			CDS1	N/A	O					
3/11/2010	18:37	5B428.D	W5VM100311-05	-----	CCV	5ML	1	N/A	28	W			CDS1	N/A	O	UVM100222-07B+UVM100106-07D				
3/11/2010	19:03	5B429.D	W5VM100311-06	-----	LCS	5ML	1	N/A	29	W			CDS1	N/A	O	UVM100305-01A+IVM100310-01				
3/11/2010	19:30	5B430.D	W5VM100311-07	-----	LCS	5G	1	N/A	30	S			CDS1	N/A	O	UVM100305-01A+IVM100310-01				
3/11/2010	19:56	5B431.D	W5VM100311-08	-----	CCV/lcs	5G	1	N/A	31	S			CDS1	N/A	O	UVM100215-08B				
3/11/2010	20:23	5B432.D	120206-----	-----	BLANK	5ML	1	N/A	32	W			CDS1	N/A	O					
3/11/2010	20:49	5B433.D	120206-----	-----	BLANK	5G	1	N/A	33	S			CDS1	N/A	O					
3/11/2010	21:15	5B434.D	248519010	LANL	963809	5G	1	N/A	34	S			CDS1	N/A	O	SS high--conf. by 5B530				
3/11/2010	21:42	5B435.D	248519011	LANL	963809	5G	1	N/A	35	S			CDS1	N/A	O	IS low, SS high--conf. by 5B531				
3/11/2010	22:08	5B436.D	248519012	LANL	963809	5G	1	N/A	36	S			CDS1	N/A	O					
3/11/2010	22:35	5B437.D	248526001	LANL	963809	5G	1	N/A	37	S			CDS1	N/A	O					
3/11/2010	23:01	5B438.D	1202067628	LANL	963809	5G	1	N/A	38	S			CDS1	N/A	O	MS 248526001 SS high conf. in MSD				
3/11/2010	23:28	5B439.D	1202067629	LANL	963809	5G	1	N/A	39	S			CDS1	N/A	O	MSD 248526001 SS high conf. in MS				
3/11/2010	23:54	5B440.D	1202068375	LANL	964134	5G	1	N/A	40	S			CDS1	N/A	O	MS 248394001				
3/12/2010	0:20	5B441.D	1202068376	LANL	964134	5G	1	N/A	41	S			CDS1	N/A	O	MSD 248394001				
3/12/2010	0:46	5B442.D	120206-----	-----	BLANK	5ML	1	N/A	42	W			CDS1	N/A	X	clean-up blank				
3/12/2010	1:13	5B443.D	248394001	LANL	964134	5G	1	N/A	43	S			CDS1	N/A	X	SS high--see 5B508				
3/12/2010	1:39	5B444.D	248394002	LANL	964134	5G	1	N/A	44	S			CDS1	N/A	X	SS high--see 5B509				
3/12/2010	2:05	5B445.D	248394003	LANL	964134	5G	1	N/A	45	S			CDS1	N/A	X	SS high--see 5B510				
3/12/2010	2:32	5B446.D	248394004	LANL	964134	5G	1	N/A	46	S			CDS1	N/A	X	SS high--see 5B511				
3/12/2010	2:58	5B447.D	248394005	LANL	964134	5G	1	N/A	47	S			CDS1	N/A	X	SS high--see 5B512				
3/12/2010	3:24	5B448.D	248394006	LANL	964134	5G	1	N/A	48	S			CDS1	N/A	X	SS high--see 5B513				

**DATA EXCEPTION REPORT**

<b>Mo. Day Yr.</b> 20-MAR-10	<b>Division:</b> Federal	<b>Quality Criteria:</b> SOP	<b>Type:</b> Process			
<b>Instrument Type:</b> VOA GC/MS	<b>Test / Method:</b> 8260	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL010			
<b>Batch ID:</b> 963809	<b>Sample Numbers:</b> See Below					
<b>Potentially affected work order(s)(SDG):</b> 248517(10-2198),248519(10-2199),248526(10-2202)						
<b>Application Issues:</b> Failed Recovery for Surrogate or Tracer Other						
<b>Specification and Requirements Exception Description:</b>		<b>DER Disposition:</b>				
1. The recovery for one or more surrogates was outside of acceptance limits in the following samples: 248519001-011, 248517001, 248526001MS, 248526001MSD  2. The recovery for one or more internal standards was outside of acceptance limits in the following samples: 248519001, 248519003, 248519004, 248519007, 248519008, 248519009, 248519011, 248517001		1,2. All samples were re-analyzed with similar recoveries for internal standards and/or surrogates. It is believed that matrix interference was demonstrated. The data were reported.				

**Originator's Name:**

Crystal Stacey 20-MAR-10

**Data Validator/Group Leader:**

Kelle Bellamy 22-MAR-10



# **GC/MS Semivolatile Analysis**

**Semi-Volatile Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 09-2202**

**Method/Analysis Information**

<b>Procedure:</b>	<b>Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry</b>
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	875168
Prep Batch Number:	875164

**Sample Analysis**

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

<b>Sample ID</b>	<b>Client ID</b>
231296002	RC54-09-5741
1201857215	Method Blank (MB)
1201857216	Laboratory Control Sample (LCS)
1201857217	231306001(CAMO-09-6002) Matrix Spike (MS)
1201857218	231306001(CAMO-09-6002) Matrix Spike Duplicate (MSD)

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

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 22.

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

**Calibration Information**

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

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

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C,

Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

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

#### **Initial Calibration**

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

#### **CCV Requirements**

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

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

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

The MB analyzed with this SDG met the acceptance criteria.

##### **Surrogate Recoveries**

Sample 231296002 recovered multiple surrogates outside of the established acceptance limits. Please see the QC Summary for specific values. Since the surrogate failure was confirmed by re-extraction and analysis in batch 876228, the failures were attributed to matrix interference. The original data were reported and the re-extracted raw data have been placed in the Miscellaneous Section of the data report.

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

The LCS spike recoveries met the acceptance limits.

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

Sample 231306001 (CAMO-09-6002) was selected for analysis as the matrix spike and matrix spike duplicate.

##### **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 MS(1201857217)/MSD(1201857218) RPD values were not within the acceptance limits. Please see the QC Summary for specific values. Because the individual MS(1201857217)/MSD(1201857218) spike recoveries met acceptance criteria, the data were reported.

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

The internal standard responses were not acceptance criteria for sample 231296002. The sample was re-analyzed and again failed to meet internal standard acceptance criteria. The original data were reported and the re-analysis raw data have been placed in the Miscellaneous Section of the data report.

## **Technical Information**

### **Holding Time Specifications**

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

### **Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

### **Sample Dilutions**

The samples in this SDG did not require dilutions.

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

Sample 231296002 recovered multiple surrogates outside of the established acceptance limits. Please see the QC Summary for specific values. Since the surrogate failure was confirmed by re-extraction and analysis in batch 876228, the failures were attributed to matrix interference. The original data were reported and the re-extracted raw data have been placed in the Miscellaneous Section of the data report.

## **Miscellaneous Information**

### **Nonconformance (NCR) Documentation**

The following NCR was generated for this SDG: 701169. It is located in the Miscellaneous Section of the data report.

### **Manual Integrations**

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

### **Electronic Package Comment**

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

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

## **System Configuration**

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

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

**Certification Statement**

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

**Review Validation:**

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

Reviewer: Dan Rouhani Date: 3-30-10

## Roadmap for LANL 10-2202 SVOA

This roadmap was analyzed by llo00884 on 03-25-2010, 20:09.

This roadmap was reviewed by bar00895 on 03-29-2010, 08:42.

This roadmap was packaged by CHA01131 on 03-29-2010, 15:05.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
<input type="checkbox"/>	N	/chem/MSD6.i/s032110.b/s6c2125.d	248526001	22-MAR-2010	00:55	10-2202.sub	RE36-10-8466	1	963133	fail istd, surr-MS/

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
<input type="checkbox"/>	N	/chem/MSD6.i/s032110.b/s6c2126.d	1202066183	ms	22-MAR-2010	01:18	10-2202.sub	RE36-10-8466MS	1	963133	fail istd, surr
<input type="checkbox"/>	N	/chem/MSD6.i/s032110.b/s6c2127.d	1202066184	msd	22-MAR-2010	01:42	10-2202.sub	RE36-10-8466MSD	1	963133	fail istd, surr
<input type="checkbox"/>	Y	/chem/MSD6.i/s032110.b/s6c2108-3.d	1202066181	mb	21-MAR-2010	18:13	10-2302.sub	SBLK01	1.00000	963133	
<input type="checkbox"/>	Y	/chem/MSD6.i/s032110.b/s6c2109-3.d	1202066182	lcs	21-MAR-2010	18:37	10-2302.sub	SBLK01LCS	1.00000	963133	

# Sample Data Summary



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

SDG Number: 10-2202  
Lab Sample ID: 248526001

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	380	ug/kg	76.1	380
108-95-2	Phenol	U	380	ug/kg	76.1	380
95-57-8	2-Chlorophenol	U	380	ug/kg	76.1	380
106-46-7	1,4-Dichlorobenzene	U	380	ug/kg	76.1	380
621-64-7	N-Nitrosodipropylamine	U	380	ug/kg	76.1	380
59-50-7	4-Chloro-3-methylphenol	U	380	ug/kg	76.1	380
83-32-9	Acenaphthene	U	38.0	ug/kg	12.6	38.0
121-14-2	2,4-Dinitrotoluene	U	380	ug/kg	38.0	380
100-02-7	4-Nitrophenol	U	380	ug/kg	126	380
87-86-5	Pentachlorophenol	U	380	ug/kg	95.1	380
129-00-0	Pyrene	J	23.1	ug/kg	11.4	38.0
110-86-1	Pyridine	U	380	ug/kg	76.1	380
62-53-3	Aniline	U	380	ug/kg	114	380
111-44-4	bis(2-Chloroethyl) ether	U	380	ug/kg	76.1	380
541-73-1	1,3-Dichlorobenzene	U	380	ug/kg	76.1	380
100-51-6	Benzyl alcohol	U	380	ug/kg	114	380
95-50-1	1,2-Dichlorobenzene	U	380	ug/kg	76.1	380
108-60-1	bis(2-Chloroisopropyl)ether	U	380	ug/kg	76.1	380
95-48-7	o-Cresol	U	380	ug/kg	76.1	380
65794-96-9	m,p-Cresols	U	380	ug/kg	114	380
67-72-1	Hexachloroethane	U	380	ug/kg	76.1	380
98-95-3	Nitrobenzene	U	380	ug/kg	76.1	380
78-59-1	Isophorone	U	380	ug/kg	76.1	380
88-75-5	2-Nitrophenol	U	380	ug/kg	76.1	380
105-67-9	2,4-Dimethylphenol	U	380	ug/kg	133	380
111-91-1	bis(2-Chloroethoxy)methane	U	380	ug/kg	76.1	380
120-83-2	2,4-Dichlorophenol	U	380	ug/kg	76.1	380
65-85-0	Benzoic acid	U	761	ug/kg	190	761
91-20-3	Naphthalene	U	38.0	ug/kg	11.4	38.0
106-47-8	4-Chloroaniline	U	380	ug/kg	76.1	380
87-68-3	Hexachlorobutadiene	U	380	ug/kg	76.1	380
91-57-6	2-Methylnaphthalene	U	38.0	ug/kg	7.61	38.0
77-47-4	Hexachlorocyclopentadiene	U	380	ug/kg	76.1	380
88-06-2	2,4,6-Trichlorophenol	U	380	ug/kg	76.1	380
95-95-4	2,4,5-Trichlorophenol	U	380	ug/kg	76.1	380
91-58-7	2-Chloronaphthalene	U	38.0	ug/kg	12.6	38.0
88-74-4	2-Nitroaniline	U	380	ug/kg	76.1	380
99-09-2	<i>o</i> -Nitroaniline	U	380	ug/kg	76.1	380
	3-Nitroaniline					

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2202	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248526001	Date Received: 03/03/2010 08:50	%Moisture: 12.4
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8466	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963133	Inst: MSD6.I	Dilution: 1
Run Date: 03/22/2010 00:55	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:14	Aliquot: 30 g	Final Volume: 1 mL
Data File: s6c2125.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<i>m-Nitroaniline</i>						
131-11-3	Dimethylphthalate	U	380	ug/kg	76.1	380
606-20-2	2,6-Dinitrotoluene	U	380	ug/kg	38.0	380
208-96-8	Acenaphthylene	U	38.0	ug/kg	11.4	38.0
51-28-5	2,4-Dinitrophenol	U	761	ug/kg	145	761
132-64-9	Dibenzofuran	U	380	ug/kg	76.1	380
84-66-2	Diethylphthalate	U	380	ug/kg	76.1	380
86-73-7	Fluorene	U	38.0	ug/kg	11.4	38.0
7005-72-3	4-Chlorophenylphenylether	U	380	ug/kg	76.1	380
534-52-1	2-Methyl-4,6-dinitrophenol	U	380	ug/kg	76.1	380
100-01-6	4-Nitroaniline	U	380	ug/kg	114	380
<i>p-Nitroaniline</i>						
122-39-4	Diphenylamine	U	380	ug/kg	76.1	380
122-66-7	Azobenzene	U	380	ug/kg	76.1	380
<i>1,2-Diphenylhydrazine</i>						
101-55-3	4-Bromophenylphenylether	U	380	ug/kg	76.1	380
118-74-1	Hexachlorobenzene	U	380	ug/kg	76.1	380
85-01-8	Phenanthrene	U	38.0	ug/kg	11.4	38.0
120-12-7	Anthracene	U	38.0	ug/kg	7.61	38.0
84-74-2	Di-n-butylphthalate	U	380	ug/kg	76.1	380
206-44-0	Fluoranthene	J	12.3	ug/kg	11.4	38.0
85-68-7	Butylbenzylphthalate	U	380	ug/kg	76.1	380
56-55-3	Benzo(a)anthracene	U	38.0	ug/kg	11.4	38.0
91-94-1	3,3'-Dichlorobenzidine	U	380	ug/kg	114	380
218-01-9	Chrysene	U	38.0	ug/kg	11.4	38.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	380	ug/kg	76.1	380
117-84-0	Di-n-octylphthalate	U	380	ug/kg	76.1	380
205-99-2	Benzo(b)fluoranthene	U	38.0	ug/kg	11.4	38.0
207-08-9	Benzo(k)fluoranthene	U	38.0	ug/kg	11.4	38.0
50-32-8	Benzo(a)pyrene	U	38.0	ug/kg	11.4	38.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.0	ug/kg	11.4	38.0
53-70-3	Dibenzo(a,h)anthracene	U	38.0	ug/kg	11.4	38.0
191-24-2	Benzo(ghi)perylene	U	38.0	ug/kg	11.4	38.0
120-82-1	1,2,4-Trichlorobenzene	U	380	ug/kg	76.1	380

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	178	ug/kg		JA
559-74-0	Friedelan-3-one	9.83	696	ug/kg	97	NJ

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

SDG Number: 10-2202  
Lab Sample ID: 248526001

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
Tentatively Identified Compound Summary							
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit	Qual
	Unknown		11.9	300	ug/kg		J
	Unknown		12.3	259	ug/kg		J

# QC Summary

Semi-Volatile  
Surrogate Recovery Report

Page 1 of 1

SDG Number: 10-2202

Matrix Type: SOLID

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

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202066181	MB for batch 963130	54	53	49	62	74	79
1202066182	LCS for batch 963130	50	47	48	56	69	67
248526001	RE36-10-8466	26 *	26 *	22 *	34	43	49
1202066183	RE36-10-8466MS	31	31 *	27 *	36	45	42
1202066184	RE36-10-8466MSD	39	37	33	39	45	44

## Surrogate

## Acceptance Limits

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

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963130

Matrix: SOIL

Lab Sample ID:1202066182

Instrument: MSD6.I

Analysis Date: 03/21/2010 18:37

Dilution: 1

Analyst: NAG1

Preb Batch II 963130

Inj. Vol: .5 uL

Batch ID: 963133

CAS No	Parname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS N-Methyl-N-nitrosomethylam	1670	0.0	662	40	22-114
108-95-2	LCS Phenol	1670	0.0	796	48	39-104
95-57-8	LCS 2-Chlorophenol	1670	0.0	856	51	40-107
106-46-7	LCS 1,4-Dichlorobenzene	1670	0.0	851	51	33-108
621-64-7	LCS N-Nitrosodipropylamine	1670	0.0	769	46	34-113
59-50-7	LCS 4-Chloro-3-methylphenol	1670	0.0	891	53	42-114
83-32-9	LCS Acenaphthene	1670	0.0	838	50	40-105
121-14-2	LCS 2,4-Dinitrotoluene	1670	0.0	947	57	49-112
100-02-7	LCS 4-Nitrophenol	1670	0.0	659	40	24-113
87-86-5	LCS Pentachlorophenol	1670	0.0	1130	68	27-116
129-00-0	LCS Pyrene	1670	0.0	972	58	42-113
110-86-1	LCS Pyridine	1670	0.0	679	41	8-125
62-53-3	LCS Aniline	1670	0.0	747	45	18-126
111-44-4	LCS bis(2-Chloroethyl) ether	1670	0.0	738	44	32-103
541-73-1	LCS 1,3-Dichlorobenzene	1670	0.0	842	50	32-108
100-51-6	LCS Benzyl alcohol	1670	0.0	428	26 *	27-108
95-50-1	LCS 1,2-Dichlorobenzene	1670	0.0	915	55	35-111
108-60-1	LCS bis(2-Chloroisopropyl)ether	1670	0.0	707	42	28-117
95-48-7	LCS o-Cresol	1670	0.0	798	48	39-111
65794-96-9	LCS m,p-Cresols	1670	0.0	912	55	45-121
67-72-1	LCS Hexachloroethane	1670	0.0	748	45	30-109
98-95-3	LCS Nitrobenzene	1670	0.0	863	52	33-116

## Semi-Volatile

Page 2 of 4

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963130

Matrix: SOIL

Lab Sample ID: 1202066182

Instrument: MSD6.I

Analysis Date: 03/21/2010 18:37

Dilution: 1

Analyst: NAG1

Pren Batch II 963130

Inj. Vol: .5 uL

Batch ID: 963133

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS Isophorone	1670	0.0	844	51	35-113
88-75-5	LCS 2-Nitrophenol	1670	0.0	872	52	31-117
105-67-9	LCS 2,4-Dimethylphenol	1670	0.0	440	26 *	32-112
111-91-1	LCS bis(2-Chloroethoxy)methane	1670	0.0	804	48	34-110
120-83-2	LCS 2,4-Dichlorophenol	1670	0.0	894	54	34-116
65-85-0	LCS Benzoic acid	3330	0.0	1760	53	22-138
91-20-3	LCS Naphthalene	1670	0.0	814	49	35-103
106-47-8	LCS 4-Chloroaniline	1670	0.0	831	50	20-118
87-68-3	LCS Hexachlorobutadiene	1670	0.0	1020	61	31-117
91-57-6	LCS 2-Methylnaphthalene	1670	0.0	868	52	38-115
77-47-4	LCS Hexachlorocyclopentadiene	1670	0.0	763	46	22-140
88-06-2	LCS 2,4,6-Trichlorophenol	1670	0.0	943	57	40-110
95-95-4	LCS 2,4,5-Trichlorophenol	1670	0.0	980	59	43-113
91-58-7	LCS 2-Chloronaphthalene	1670	0.0	883	53	37-111
88-74-4	LCS 2-Nitroaniline <i>o</i> -Nitroaniline	1670	0.0	713	43	41-113
99-09-2	LCS 3-Nitroaniline <i>m</i> -Nitroaniline	1670	0.0	754	45	34-125
131-11-3	LCS Dimethylphthalate	1670	0.0	1070	64	48-122
606-20-2	LCS 2,6-Dinitrotoluene	1670	0.0	990	59	47-107
208-96-8	LCS Acenaphthylene	1670	0.0	947	57	44-110
51-28-5	LCS 2,4-Dinitrophenol	1670	0.0	937	56	18-127
132-64-9	LCS Dibenzofuran	1670	0.0	971	58	49-115
84-66-2	LCS Diethylphthalate	1670	0.0	1100	66	51-126

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963130

Matrix: SOIL

Lab Sample ID: 1202066182

Instrument: MSD6.I

Analysis Date: 03/21/2010 18:37

Dilution: 1

Analyst: NAG1

Pren Batch II 963130

Inj. Vol: .5 uL

Batch ID: 963133

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS Fluorene	1670	0.0	925	56	43-109
7005-72-3	LCS 4-Chlorophenylphenylether	1670	0.0	1040	62	45-115
534-52-1	LCS 2-Methyl-4,6-dinitrophenol	1670	0.0	964	58	32-117
100-01-6	LCS 4-Nitroaniline <i>p</i> -Nitroaniline	1670	0.0	908	54	33-148
122-39-4	LCS Diphenylamine	1670	0.0	975	59	46-114
122-66-7	LCS Azobenzene <i>1,2</i> -Diphenylhydrazine	1670	0.0	883	53	38-123
101-55-3	LCS 4-Bromophenylphenylether	1670	0.0	1080	65	40-119
118-74-1	LCS Hexachlorobenzene	1670	0.0	1140	68	43-111
85-01-8	LCS Phenanthrene	1670	0.0	954	57	46-107
120-12-7	LCS Anthracene	1670	0.0	913	55	46-110
84-74-2	LCS Di-n-butylphthalate	1670	0.0	1040	62	52-132
206-44-0	LCS Fluoranthene	1670	0.0	1030	62	51-115
85-68-7	LCS Butylbenzylphthalate	1670	0.0	961	58	47-137
56-55-3	LCS Benzo(a)anthracene	1670	0.0	959	58	50-108
91-94-1	LCS 3,3'-Dichlorobenzidine	1670	0.0	944	57	36-103
218-01-9	LCS Chrysene	1670	0.0	989	59	48-111
117-81-7	LCS bis(2-Ethylhexyl)phthalate	1670	0.0	950	57	48-139
117-84-0	LCS Di-n-octylphthalate	1670	0.0	895	54	42-141
205-99-2	LCS Benzo(b)fluoranthene	1670	0.0	942	57	49-114
207-08-9	LCS Benzo(k)fluoranthene	1670	0.0	1070	64	50-116
50-32-8	LCS Benzo(a)pyrene	1670	0.0	989	59	54-114
193-39-5	LCS Indeno(1,2,3-cd)pyrene	1670	0.0	1090	65	53-120



## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963130

Matrix: SOIL

Lab Sample ID: 1202066182

Instrument: MSD6.I

Analysis Date: 03/21/2010 18:37

Dilution: 1

Analyst: NAG1

Pre Batch ID: 963130

Inj. Vol: .5 uL

Batch ID: 963133

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS Dibenzo(a,h)anthracene	1670	0.0	1100	66	53-121
191-24-2	LCS Benzo(ghi)perylene	1670	0.0	1070	64	50-121
120-82-1	LCS 1,2,4-Trichlorobenzene	1670	0.0	963	58	32-114

## Semi-Volatile

Page 1 of 8

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Sample Type: Matrix Spike

Client ID: RE36-10-8466MS

Matrix: R

Lab Sample ID: 1202066183

%Moisture: 12.4

Instrument: MSD6.I

Analysis Date: 03/22/2010 01:18

Dilution: 1

Analyst: NAG1

Pre Batch ID: 963130

Inj. Vol: .5 uL

Batch ID: 963133

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS N-Methyl-N-nitrosomethylam	1900	0.00 U	435	23 *	27-98
108-95-2	MS Phenol	1900	0.00 U	586	31 *	33-94
95-57-8	MS 2-Chlorophenol	1900	0.00 U	617	32	29-96
106-46-7	MS 1,4-Dichlorobenzene	1900	0.00 U	422	22 *	27-96
621-64-7	MS N-Nitrosodipropylamine	1900	0.00 U	561	29	29-102
59-50-7	MS 4-Chloro-3-methylphenol	1900	0.00 U	710	37	29-110
83-32-9	MS Acenaphthene	1900	0.00 U	597	31	17-109
121-14-2	MS 2,4-Dinitrotoluene	1900	0.00 U	709	37	33-107
100-02-7	MS 4-Nitrophenol	1900	0.00 U	639	34	15-110
87-86-5	MS Pentachlorophenol	1900	0.00 U	781	41	23-110
129-00-0	MS Pyrene	1900	23.1 J	663	34	24-118
110-86-1	MS Pyridine	1900	0.00 U	408	21 *	25-102
62-53-3	MS Aniline	1900	0.00 U	447	24	18-109
111-44-4	MS bis(2-Chloroethyl) ether	1900	0.00 U	451	24 *	29-96
541-73-1	MS 1,3-Dichlorobenzene	1900	0.00 U	405	21 *	26-97
100-51-6	MS Benzyl alcohol	1900	0.00 U	0.00	0 *	19-112
95-50-1	MS 1,2-Dichlorobenzene	1900	0.00 U	482	25 *	30-97
108-60-1	MS bis(2-Chloroisopropyl)ether	1900	0.00 U	448	24 *	28-103
95-48-7	MS o-Cresol	1900	0.00 U	1040	55	32-107
65794-96-9	MS m,p-Cresols	1900	0.00 U	743	39	33-115
67-72-1	MS Hexachloroethane	1900	0.00 U	318	17 *	25-100
98-95-3	MS Nitrobenzene	1900	0.00 U	542	28	27-106

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 2 of 8

SDG Number: 10-2202

Sample Type: Matrix Spike

Client ID: RE36-10-8466MS

Matrix: R

Lab Sample ID: 1202066183

%Moisture: 12.4

Instrument: MSD6.I

Analysis Date: 03/22/2010 01:18

Dilution: 1

Analyst: NAG1

Pre Batch ID: 963130

Inj. Vol: .5 uL

Batch ID: 963133

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS Isophorone	1900	0.00 U	587	31	29-104
88-75-5	MS 2-Nitrophenol	1900	0.00 U	657	35	26-102
105-67-9	MS 2,4-Dimethylphenol	1900	0.00 U	539	28	22-104
111-91-1	MS bis(2-Chloroethoxy)methane	1900	0.00 U	590	31	27-101
120-83-2	MS 2,4-Dichlorophenol	1900	0.00 U	734	39	26-103
65-85-0	MS Benzoic acid	3800	0.00 U	1540	40	13-131
91-20-3	MS Naphthalene	1900	0.00 U	544	29	23-103
106-47-8	MS 4-Chloroaniline	1900	0.00 U	600	32	26-103
87-68-3	MS Hexachlorobutadiene	1900	0.00 U	565	30	28-101
91-57-6	MS 2-Methylnaphthalene	1900	0.00 U	628	33	27-106
77-47-4	MS Hexachlorocyclopentadiene	1900	0.00 U	360	19 *	24-117
88-06-2	MS 2,4,6-Trichlorophenol	1900	0.00 U	720	38	26-105
95-95-4	MS 2,4,5-Trichlorophenol	1900	0.00 U	755	40	30-110
91-58-7	MS 2-Chloronaphthalene	1900	0.00 U	653	34	28-102
88-74-4	MS 2-Nitroaniline o-Nitroaniline	1900	0.00 U	580	31 *	33-106
99-09-2	MS 3-Nitroaniline m-Nitroaniline	1900	0.00 U	614	32 *	33-116
131-11-3	MS Dimethylphthalate	1900	0.00 U	771	41	38-113
606-20-2	MS 2,6-Dinitrotoluene	1900	0.00 U	709	37	29-107
208-96-8	MS Acenaphthylene	1900	0.00 U	686	36	25-108
51-28-5	MS 2,4-Dinitrophenol	1900	0.00 U	858	45	14-102
132-64-9	MS Dibenzofuran	1900	0.00 U	749	39	35-112
84-66-2	MS Diethylphthalate	1900	0.00 U	757	40	36-122

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Client ID: RE36-10-8466MS

Lab Sample ID: 1202066183

Instrument: MSD6.I

Analyst: NAG1

Inj. Vol: .5 uL

Sample Type: Matrix Spike

Matrix: R

%Moisture: 12.4

Analysis Date: 03/22/2010 01:18

Dilution: 1

Pre Batch ID: 963130

Batch ID: 963133

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS Fluorene	1900	0.00 U	676	36	33-105
7005-72-3	MS 4-Chlorophenylphenylether	1900	0.00 U	771	41	30-110
534-52-1	MS 2-Methyl-4,6-dinitrophenol	1900	0.00 U	800	42	26-97
100-01-6	MS 4-Nitroaniline <i>p</i> -Nitroaniline	1900	0.00 U	793	42	28-135
122-39-4	MS Diphenylamine	1900	0.00 U	710	37	33-109
122-66-7	MS Azobenzene <i>1,2-Diphenylhydrazine</i>	1900	0.00 U	651	34	31-113
101-55-3	MS 4-Bromophenylphenylether	1900	0.00 U	781	41	31-109
118-74-1	MS Hexachlorobenzene	1900	0.00 U	702	37	37-99
85-01-8	MS Phenanthrene	1900	0.00 U	667	35	29-109
120-12-7	MS Anthracene	1900	0.00 U	698	37	19-118
84-74-2	MS Di-n-butylphthalate	1900	0.00 U	698	37 *	39-123
206-44-0	MS Fluoranthene	1900	12.3 J	713	37	33-114
85-68-7	MS Butylbenzylphthalate	1900	0.00 U	645	34 *	35-131
56-55-3	MS Benzo(a)anthracene	1900	0.00 U	653	34	30-111
91-94-1	MS 3,3'-Dichlorobenzidine	1900	0.00 U	531	28 *	30-124
218-01-9	MS Chrysene	1900	0.00 U	656	34	32-108
117-81-7	MS bis(2-Ethylhexyl)phthalate	1900	0.00 U	638	34 *	37-129
117-84-0	MS Di-n-octylphthalate	1900	0.00 U	758	40	31-143
205-99-2	MS Benzo(b)fluoranthene	1900	0.00 U	683	36	29-118
207-08-9	MS Benzo(k)fluoranthene	1900	0.00 U	769	40	32-118
50-32-8	MS Benzo(a)pyrene	1900	0.00 U	678	36	33-115
193-39-5	MS Indeno(1,2,3-cd)pyrene	1900	0.00 U	529	28 *	29-114

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Client ID: RE36-10-8466MS

Lab Sample ID: 1202066183

Instrument: MSD6.I

Analyst: NAG1

Inj. Vol: .5 uL

Sample Type: Matrix Spike

Matrix: R

%Moisture: 12.4

Analysis Date: 03/22/2010 01:18

Dilution: 1

Prep Batch ID: 963130

Batch ID: 963133

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS Dibenzo(a,h)anthracene	1900	0.00 U	576	30	27-119
191-24-2	MS Benzo(ghi)perylene	1900	0.00 U	457	24 *	28-112
120-82-1	MS 1,2,4-Trichlorobenzene	1900	0.00 U	591	31	28-99

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Sample Type: Matrix Spike Duplicate

Client ID: RE36-10-8466MSD

Matrix: R

Lab Sample ID: 1202066184

%Moisture: 12.4

Instrument: MSD6.I

Analysis Date: 03/22/2010 01:42

Dilution: 1

Analyst: NAG1

Prep Batch ID: 963130

Inj. Vol: .5 uL

Batch ID: 963133

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1900	0.00 U	598	31	27-98	31 *	0-30
108-95-2	MSD Phenol	1900	0.00 U	763	40	33-94	26	0-30
95-57-8	MSD 2-Chlorophenol	1900	0.00 U	773	41	29-96	23	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1900	0.00 U	523	28	27-96	21	0-30
621-64-7	MSD N-Nitrosodipropylamine	1900	0.00 U	695	37	29-102	21	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1900	0.00 U	774	41	29-110	9	0-30
83-32-9	MSD Acenaphthene	1900	0.00 U	633	33	17-109	6	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1900	0.00 U	770	41	33-107	8	0-30
100-02-7	MSD 4-Nitrophenol	1900	0.00 U	675	36	15-110	6	0-30
87-86-5	MSD Pentachlorophenol	1900	0.00 U	866	46	23-110	10	0-30
129-00-0	MSD Pyrene	1900	23.1 J	721	37	24-118	8	0-30
110-86-1	MSD Pyridine	1900	0.00 U	323	17 *	25-102	23	0-30
62-53-3	MSD Aniline	1900	0.00 U	356	19	18-109	23	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1900	0.00 U	581	31	29-96	25	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1900	0.00 U	532	28	26-97	27	0-30
100-51-6	MSD Benzyl alcohol	1900	0.00 U	0.00	0 *	19-112	0	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1900	0.00 U	605	32	30-97	23	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1900	0.00 U	542	29	28-103	19	0-30
95-48-7	MSD o-Cresol	1900	0.00 U	1200	63	32-107	15	0-30
65794-96-9	MSD m,p-Cresols	1900	0.00 U	798	42	33-115	7	0-30
67-72-1	MSD Hexachloroethane	1900	0.00 U	402	21 *	25-100	23	0-30
98-95-3	MSD Nitrobenzene	1900	0.00 U	698	37	27-106	25	0-30

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 6 of 8

SDG Number: 10-2202

Sample Type: Matrix Spike Duplicate

Client ID: RE36-10-8466MSD

Matrix: R

Lab Sample ID: 1202066184

%Moisture: 12.4

Instrument: MSD6.I

Analysis Date: 03/22/2010 01:42

Dilution: 1

Analyst: NAG1

Pre Batch II 963130

Inj. Vol: .5 uL

Batch ID: 963133

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1900	0.00 U	711	37	29-104	19	0-30
88-75-5	MSD 2-Nitrophenol	1900	0.00 U	797	42	26-102	19	0-30
105-67-9	MSD 2,4-Dimethylphenol	1900	0.00 U	826	43	22-104	42 *	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1900	0.00 U	724	38	27-101	20	0-30
120-83-2	MSD 2,4-Dichlorophenol	1900	0.00 U	760	40	26-103	4	0-30
65-85-0	MSD Benzoic acid	3800	0.00 U	1980	52	13-131	25	0-30
91-20-3	MSD Naphthalene	1900	0.00 U	623	33	23-103	14	0-30
106-47-8	MSD 4-Chloroaniline	1900	0.00 U	249	13 *	26-103	83 *	0-30
87-68-3	MSD Hexachlorobutadiene	1900	0.00 U	652	34	28-101	14	0-30
91-57-6	MSD 2-Methylnaphthalene	1900	0.00 U	687	36	27-106	9	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1900	0.00 U	432	23 *	24-117	18	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1900	0.00 U	826	43	26-105	14	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1900	0.00 U	797	42	30-110	5	0-30
91-58-7	MSD 2-Chloronaphthalene	1900	0.00 U	708	37	28-102	8	0-30
88-74-4	MSD 2-Nitroaniline <i>o</i> -Nitroaniline	1900	0.00 U	634	33	33-106	9	0-30
99-09-2	MSD 3-Nitroaniline <i>m</i> -Nitroaniline	1900	0.00 U	538	28 *	33-116	13	0-30
131-11-3	MSD Dimethylphthalate	1900	0.00 U	865	46	38-113	12	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1900	0.00 U	773	41	29-107	9	0-30
208-96-8	MSD Acenaphthylene	1900	0.00 U	734	39	25-108	7	0-30
51-28-5	MSD 2,4-Dinitrophenol	1900	0.00 U	939	49	14-102	9	0-30
132-64-9	MSD Dibenzofuran	1900	0.00 U	799	42	35-112	7	0-30
84-66-2	MSD Diethylphthalate	1900	0.00 U	823	43	36-122	8	0-30

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Sample Type: Matrix Spike Duplicate

Client ID: RE36-10-8466MSD

Matrix: R

Lab Sample ID: 1202066184

%Moisture: 12.4

Instrument: MSD6.I

Analysis Date: 03/22/2010 01:42

Dilution: 1

Analyst: NAG1

Pren Batch II 963130

Inj. Vol: .5 uL

Batch ID: 963133

CAS No	Parname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD Fluorene	1900	0.00	U	703	37	33-105	4	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	1900	0.00	U	825	43	30-110	7	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	1900	0.00	U	817	43	26-97	2	0-30
100-01-6	MSD 4-Nitroaniline <i>p</i> -Nitroaniline	1900	0.00	U	777	41	28-135	2	0-30
122-39-4	MSD Diphenylamine	1900	0.00	U	711	37	33-109	0	0-30
122-66-7	MSD Azobenzene <i>1,2</i> -Diphenylhydrazine	1900	0.00	U	676	36	31-113	4	0-30
101-55-3	MSD 4-Bromophenylphenylether	1900	0.00	U	782	41	31-109	0	0-30
118-74-1	MSD Hexachlorobenzene	1900	0.00	U	655	34 *	37-99	7	0-30
85-01-8	MSD Phenanthrene	1900	0.00	U	675	36	29-109	1	0-30
120-12-7	MSD Anthracene	1900	0.00	U	696	37	19-118	0	0-30
84-74-2	MSD Di-n-butylphthalate	1900	0.00	U	705	37 *	39-123	1	0-30
206-44-0	MSD Fluoranthene	1900	12.3	J	680	35	33-114	5	0-30
85-68-7	MSD Butylbenzylphthalate	1900	0.00	U	741	39	35-131	14	0-30
56-55-3	MSD Benzo(a)anthracene	1900	0.00	U	648	34	30-111	1	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	1900	0.00	U	369	19 *	30-124	36 *	0-30
218-01-9	MSD Chrysene	1900	0.00	U	672	35	32-108	2	0-30
117-81-7	MSD bis(2-Ethylhexyl)phthalate	1900	0.00	U	697	37	37-129	9	0-30
117-84-0	MSD Di-n-octylphthalate	1900	0.00	U	1060	56	31-143	33 *	0-30
205-99-2	MSD Benzo(b)fluoranthene	1900	0.00	U	727	38	29-118	6	0-30
207-08-9	MSD Benzo(k)fluoranthene	1900	0.00	U	843	44	32-118	9	0-30
50-32-8	MSD Benzo(a)pyrene	1900	0.00	U	660	35	33-115	3	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	1900	0.00	U	390	21 *	29-114	30	0-30



## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Sample Type: Matrix Spike Duplicate

Client ID: RE36-10-8466MSD

Matrix: R

Lab Sample ID:1202066184

%Moisture: 12.4

Instrument: MSD6.I

Analysis Date: 03/22/2010 01:42

Dilution: 1

Analyst: NAG1

Prep Batch II 963130

Inj. Vol: .5 uL

Batch ID: 963133

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1900	0.00 U	436	23 *	27-119	28	0-30
191-24-2	MSD Benzo(ghi)perylene	1900	0.00 U	314	17 *	28-112	37 *	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1900	0.00 U	682	36	28-99	14	0-30

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2202	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 963130	Instrument ID:	MSD6.I	Data File:	s6c2108-1.d
Lab Sample ID:	1202066181	Prep Date:	03/10/2010 12:14	Analyzed:	03/21/10 18:13
Column:	J&W DB-5MS	Level:	LOW		

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

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 963130	1202066182	s6c2109-1.d	03/21/10	1837
02 RE36-10-8466	248526001	s6c2125.d	03/22/10	0055
03 RE36-10-8466MS	1202066183	s6c2126.d	03/22/10	0118
04 RE36-10-8466MSD	1202066184	s6c2127.d	03/22/10	0142

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2202

Instrument ID: MSD6.I

Injection Date/Time: 16-MAR-10 08:42

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD6.i/s031610.b/s6c1601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	53.3
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	50.4
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	52
197	0 - 1% of mass 198	0.8
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	22.3
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	76.8
442	Greater than 40% of mass 198	55.2
443	17 - 23% of mass 442	18.9

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100309-08	s6c1603.d	16-MAR-10 09:18
MEGA010	WBN100309-07	s6c1604.d	16-MAR-10 09:47
MEGA020	WBN100309-06	s6c1605.d	16-MAR-10 10:17
MEGA040	WBN100309-05.1	s6c1606.d	16-MAR-10 10:48
MEGA050	WBN100309-04	s6c1607.d	16-MAR-10 11:18
MEGA080	WBN100309-03	s6c1608.d	16-MAR-10 11:48
MEGA100	WBN100309-02	s6c1609.d	16-MAR-10 12:18
MEGA120	WBN100309-01	s6c1610.d	16-MAR-10 12:48
MEGAICV	WBN100309-09.1	s6c1612.d	16-MAR-10 13:40

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2202

Instrument ID: MSD6.I

Injection Date/Time: 16-MAR-10 16:06

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD6.i/s031610.b/s6c1613.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	46.4
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43.8
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	48.2
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.4
365	Greater than 1% of mass 198	2.1
441	Present, but less than mass 443	74.3
442	Greater than 40% of mass 198	65.5
443	17 - 23% of mass 442	19.6

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN100312-01	s6c1615.d	16-MAR-10 16:42
AP020	WBN100312-02	s6c1616.d	16-MAR-10 17:06
AP040	WBN100312-03.1	s6c1617.d	16-MAR-10 17:30
AP050	WBN100312-04	s6c1618.d	16-MAR-10 17:53
AP080	WBN100312-05	s6c1619.d	16-MAR-10 18:16
AP100	WBN100312-06	s6c1620.d	16-MAR-10 18:40
AP120	WBN100312-07	s6c1621.d	16-MAR-10 19:04
APICV	WBN100312-08.1	s6c1635.d	17-MAR-10 00:41

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2202

Instrument ID: MSD6.I

Injection Date/Time: 21-MAR-10 16:41

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD6.i/s032110.b/s6c2104.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	38.5
68	Less than 2% of mass 69	1.7
69	Mass 69 Relative Abundance	38.8
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	45.6
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	25.5
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	74.5
442	Greater than 40% of mass 198	81.6
443	17 - 23% of mass 442	19.5

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-05.3	s6c2105.d	21-MAR-10 16:55
APCVS	WBN100312-03.3	s6c2106.d	21-MAR-10 17:25
SBLK01	1202066181	s6c2108-1.d	21-MAR-10 18:13
SBLK01LCS	1202066182	s6c2109-1.d	21-MAR-10 18:37
RE36-10-8466	248526001	s6c2125.d	22-MAR-10 00:55
RE36-10-8466MS	1202066183	s6c2126.d	22-MAR-10 01:18
RE36-10-8466MSD	1202066184	s6c2127.d	22-MAR-10 01:42

Internal Standard  
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2202

Instrument: MSD6.I

STD Analysis Time: 21-MAR-10 16:55

GC Column: J&W DB-5MS

Data File: s6c2105.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	534666		3.82	1941232		4.69	1147252		5.93	1917801		7.09	1700059		9.49	1455801		11.1
Upper Limit	1069332		4.32	3882464		5.19	2294504		6.43	3835602		7.59	3400118		9.99	2911602		11.6
Lower Limit	267333		3.32	970616		4.19	573626		5.43	958901		6.59	850030		8.99	727901		10.6
Sample ID																		
BLK01	295580		3.82	1018109		4.69	646278		5.93	1121980		7.09	1078901		9.49	985086		11.1
BLK01LCS	284919		3.83	1047683		4.69	641307		5.94	1110497		7.1	1005420		9.49	866256		11.1
RE36-10-8466	358288		3.83	1344279		4.69	842373		5.94	1501960		7.1	1034305		9.49	563046	*	11.1
RE36-10-8466MS	301304		3.83	1168255		4.69	729368		5.94	1290719		7.1	1135062		9.5	771370		11.1
RE36-10-8466MSD	391553		3.82	1498428		4.69	896237		5.94	1588885		7.1	1235314		9.5	636926	*	11.1

Area Upper Limit = +100% of internal standard area  
Area Lower Limit = - 50% of internal standard area  
RT Upper Limit = + 0.50 minutes of internal standard RT  
RT Lower Limit = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk  
\* Value outside of QC Limits

# Sample Data

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

SDG Number: 10-2202  
Lab Sample ID: 248526001

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
% Moisture: 12.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8466  
Batch ID: 963133  
Run Date: 03/22/2010 00:55  
Prep Date: 03/10/2010 12:14  
Data File: s6c2125.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	380	ug/kg	76.1	380
108-95-2	Phenol	U	380	ug/kg	76.1	380
95-57-8	2-Chlorophenol	U	380	ug/kg	76.1	380
106-46-7	1,4-Dichlorobenzene	U	380	ug/kg	76.1	380
621-64-7	N-Nitrosodipropylamine	U	380	ug/kg	76.1	380
59-50-7	4-Chloro-3-methylphenol	U	380	ug/kg	76.1	380
83-32-9	Acenaphthene	U	38.0	ug/kg	12.6	38.0
121-14-2	2,4-Dinitrotoluene	U	380	ug/kg	38.0	380
100-02-7	4-Nitrophenol	U	380	ug/kg	126	380
87-86-5	Pentachlorophenol	U	380	ug/kg	95.1	380
129-00-0	Pyrene	J	23.1	ug/kg	11.4	38.0
110-86-1	Pyridine	U	380	ug/kg	76.1	380
62-53-3	Aniline	U	380	ug/kg	114	380
111-44-4	bis(2-Chloroethyl) ether	U	380	ug/kg	76.1	380
541-73-1	1,3-Dichlorobenzene	U	380	ug/kg	76.1	380
100-51-6	Benzyl alcohol	U	380	ug/kg	114	380
95-50-1	1,2-Dichlorobenzene	U	380	ug/kg	76.1	380
108-60-1	bis(2-Chloroisopropyl)ether	U	380	ug/kg	76.1	380
95-48-7	o-Cresol	U	380	ug/kg	76.1	380
65794-96-9	m,p-Cresols	U	380	ug/kg	114	380
67-72-1	Hexachloroethane	U	380	ug/kg	76.1	380
98-95-3	Nitrobenzene	U	380	ug/kg	76.1	380
78-59-1	Isophorone	U	380	ug/kg	76.1	380
88-75-5	2-Nitrophenol	U	380	ug/kg	76.1	380
105-67-9	2,4-Dimethylphenol	U	380	ug/kg	133	380
111-91-1	bis(2-Chloroethoxy)methane	U	380	ug/kg	76.1	380
120-83-2	2,4-Dichlorophenol	U	380	ug/kg	76.1	380
65-85-0	Benzoic acid	U	761	ug/kg	190	761
91-20-3	Naphthalene	U	38.0	ug/kg	11.4	38.0
106-47-8	4-Chloroaniline	U	380	ug/kg	76.1	380
87-68-3	Hexachlorobutadiene	U	380	ug/kg	76.1	380
91-57-6	2-Methylnaphthalene	U	38.0	ug/kg	7.61	38.0
77-47-4	Hexachlorocyclopentadiene	U	380	ug/kg	76.1	380
88-06-2	2,4,6-Trichlorophenol	U	380	ug/kg	76.1	380
95-95-4	2,4,5-Trichlorophenol	U	380	ug/kg	76.1	380
91-58-7	2-Chloronaphthalene	U	38.0	ug/kg	12.6	38.0
88-74-4	2-Nitroaniline	U	380	ug/kg	76.1	380
99-09-2	<i>o</i> -Nitroaniline	U	380	ug/kg	76.1	380
	3-Nitroaniline					



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

SDG Number: 10-2202  
Lab Sample ID: 248526001

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	380	ug/kg	76.1	380
606-20-2	2,6-Dinitrotoluene	U	380	ug/kg	38.0	380
208-96-8	Acenaphthylene	U	38.0	ug/kg	11.4	38.0
51-28-5	2,4-Dinitrophenol	U	761	ug/kg	145	761
132-64-9	Dibenzofuran	U	380	ug/kg	76.1	380
84-66-2	Diethylphthalate	U	380	ug/kg	76.1	380
86-73-7	Fluorene	U	38.0	ug/kg	11.4	38.0
7005-72-3	4-Chlorophenylphenylether	U	380	ug/kg	76.1	380
534-52-1	2-Methyl-4,6-dinitrophenol	U	380	ug/kg	76.1	380
100-01-6	4-Nitroaniline	U	380	ug/kg	114	380
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	380	ug/kg	76.1	380
122-66-7	Azobenzene	U	380	ug/kg	76.1	380
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	380	ug/kg	76.1	380
118-74-1	Hexachlorobenzene	U	380	ug/kg	76.1	380
85-01-8	Phenanthrene	U	38.0	ug/kg	11.4	38.0
120-12-7	Anthracene	U	38.0	ug/kg	7.61	38.0
84-74-2	Di-n-butylphthalate	U	380	ug/kg	76.1	380
206-44-0	Fluoranthene	J	12.3	ug/kg	11.4	38.0
85-68-7	Butylbenzylphthalate	U	380	ug/kg	76.1	380
56-55-3	Benzo(a)anthracene	U	38.0	ug/kg	11.4	38.0
91-94-1	3,3'-Dichlorobenzidine	U	380	ug/kg	114	380
218-01-9	Chrysene	U	38.0	ug/kg	11.4	38.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	380	ug/kg	76.1	380
117-84-0	Di-n-octylphthalate	U	380	ug/kg	76.1	380
205-99-2	Benzo(b)fluoranthene	U	38.0	ug/kg	11.4	38.0
207-08-9	Benzo(k)fluoranthene	U	38.0	ug/kg	11.4	38.0
50-32-8	Benzo(a)pyrene	U	38.0	ug/kg	11.4	38.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.0	ug/kg	11.4	38.0
53-70-3	Dibenzo(a,h)anthracene	U	38.0	ug/kg	11.4	38.0
191-24-2	Benzo(ghi)perylene	U	38.0	ug/kg	11.4	38.0
120-82-1	1,2,4-Trichlorobenzene	U	380	ug/kg	76.1	380

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	178	ug/kg		JA
559-74-0	Friedelan-3-one	9.83	696	ug/kg	97	NJ

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

SDG Number: 10-2202  
Lab Sample ID: 248526001

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
Tentatively Identified Compound Summary							
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit	Qual
	Unknown		11.9	300	ug/kg		J
	Unknown		12.3	259	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032110.b/s6c2125.d  
 Lab Smp Id: 248526001 Client Smp ID: RE36-10-8466  
 Inj Date : 22-MAR-2010 00:55  
 Operator : nagl Inst ID: MSD6.i  
 Smp Info : |248526001|963133|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100319-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 23-Mar-2010 10:53 nat00999 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 22  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2202.sub  
 Target Version: 3.50  
 Processing Host: hpc1p1

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	12.38630	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4		152	3.828	3.822	(1.000)	358288	40.0000	
* 29 Naphthalene-d8		136	4.693	4.687	(1.000)	1344279	40.0000	
* 46 Acenaphthene-d10		164	5.940	5.934	(1.000)	842373	40.0000	
* 67 Phenanthrene-d10		188	7.098	7.093	(1.000)	1501960	40.0000	
* 91 Chrysene-d12		240	9.492	9.486	(1.000)	1034305	40.0000	
* 98 Perylene-d12		264	11.086	11.075	(1.000)	563046	40.0000	
\$ 3 2-Fluorophenol		112	3.022	3.005	(0.789)	254876	25.5898	974 (R)
\$ 5 Phenol-d5		99	3.546	3.534	(0.926)	331198	26.1475	995 (R)
\$ 20 Nitrobenzene-d5		82	4.187	4.181	(0.892)	141674	11.0248	419 (R)
\$ 39 2-Fluorobiphenyl		172	5.434	5.422	(0.915)	373800	17.1993	654
\$ 60 2,4,6-Tribromophenol		329	6.528	6.522	(1.099)	101797	43.0647	1640
\$ 81 p-Terphenyl-d14		244	8.469	8.463	(0.892)	439204	24.3682	927

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng/ul)	(ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
79 Pyrene	202	8.363	8.357	(0.881)	19145	0.60720	23.1 (a)
76 Fluoranthene	202	8.151	8.139	(1.148)	11988	0.32300	12.3 (a)

#### QC Flag Legend

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

## ION RATIO REPORT

## SV REPORT

Data file: s6c2125.d

Report Date: 03/22/2010 20:28

Lab. ID: 248526001

SampleType: SAMPLE

Injection Date: 22-MAR-2010 00:55

Operator: nagl

Instrument: MSD6.i

Sample Info: |248526001|963133|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100319-01

Comment:

Method used: /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2202

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	20735	4.19	4.06	80-120	100	(T)
42	12348	4.19	4.06	40-100	60	(T)
-----						
22 Isophorone				CAS#: 78-59-1		
82	141674	4.19	4.35	80-120	100	(T)
138	7380	4.69	4.35	0- 50	5	(T)
-----						
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	781788	5.94	5.53	80-120	100	(T)
164	842373	5.94	5.53	4- 64	108	(QT)
127	420	5.94	5.53	8- 68	0	(QT)
-----						
43 Dimethylphthalate				CAS#: 131-11-3		
163	153633	5.94	5.70	80-120	100	(T)
164	842373	5.94	5.70	0- 41	548	(QT)
-----						
45 Acenaphthylene				CAS#: 208-96-8		
152	19691	5.43	5.83	80-120	100	(T)
151	19115	5.43	5.83	0- 50	97	(QT)
153	6366	5.43	5.83	0- 44	32	(T)
-----						
48 2,4-Dinitrophenol				CAS#: 51-28-5		
184	287	6.22	5.96	80-120	100	(T)
154	260	6.19	5.96	718-778	91	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	111501	5.94	6.05	80-120	100	(T)
89	1613	5.94	6.05	39- 99	1	(QT)
63	1982	5.94	6.05	20- 80	2	(QT)
-----						
53 Fluorene		CAS#: 86-73-7				
166	7257	5.94	6.34	80-120	100	(T)
165	111261	5.94	6.34	60-120	1533	(QT)
167	556	5.94	6.34	0- 44	8	(T)
-----						
55 2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1				
198	541	6.53	6.36	80-120	100	(T)
105	619	6.53	6.36	9- 69	114	(QT)
51	1558	6.53	6.35	28- 88	288	(QT)
-----						
68 Phenanthrene		CAS#: 85-01-8				
178	11392	7.12	7.11	80-120	100	( )
179	3742	7.12	7.11	0- 46	33	( )
176	2581	7.12	7.11	0- 49	23	( )
-----						
69 Anthracene		CAS#: 120-12-7				
178	11392	7.12	7.15	80-120	100	( )
179	3742	7.12	7.15	0- 47	33	( )
176	2581	7.12	7.15	0- 49	23	( )
-----						
76 Fluoranthene		CAS#: 206-44-0				
202	11988	8.15	8.14	80-120	100	( )
203	2318	8.15	8.14	0- 48	19	( )
101	1163	8.15	8.14	0- 41	10	( )
-----						
79 Pyrene		CAS#: 129-00-0				
202	19145	8.36	8.36	80-120	100	( )
200	3924	8.36	8.36	0- 51	20	( )
101	2035	8.36	8.36	0- 43	11	( )
-----						
92 Chrysene		CAS#: 218-01-9				
228	7969	9.49	9.51	80-120	100	( )
229	3745	9.49	9.51	0- 51	47	( )
226	1543	9.48	9.51	0- 59	19	( )
-----						
95 Benzo(b) fluoranthene		CAS#: 205-99-2				
252	5599	10.60	10.59	80-120	100	( )
253	1231	10.60	10.59	0- 52	22	( )
125	257	10.56	10.59	0- 40	5	( )
-----						
96 Benzo(k) fluoranthene		CAS#: 207-08-9				
252	5599	10.60	10.62	80-120	100	( )
253	1234	10.60	10.62	0- 52	22	( )
125	257	10.56	10.62	0- 39	5	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032110.b/s6c2125.d  
Lab Smp Id: 248526001 Client Smp ID: RE36-10-8466  
Inj Date : 22-MAR-2010 00:55  
Operator : nagl Inst ID: MSD6.i  
Smp Info : |248526001|963133|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100319-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 23-Mar-2010 10:53 nat00999 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 22  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2202.sub  
Target Version: 3.50  
Processing Host: hpc1p1

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	12.38630	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.828	2191719	40.000
* 91 Chrysene-d12	9.492	2664168	40.000
* 98 Perylene-d12	11.086	1504477	40.000

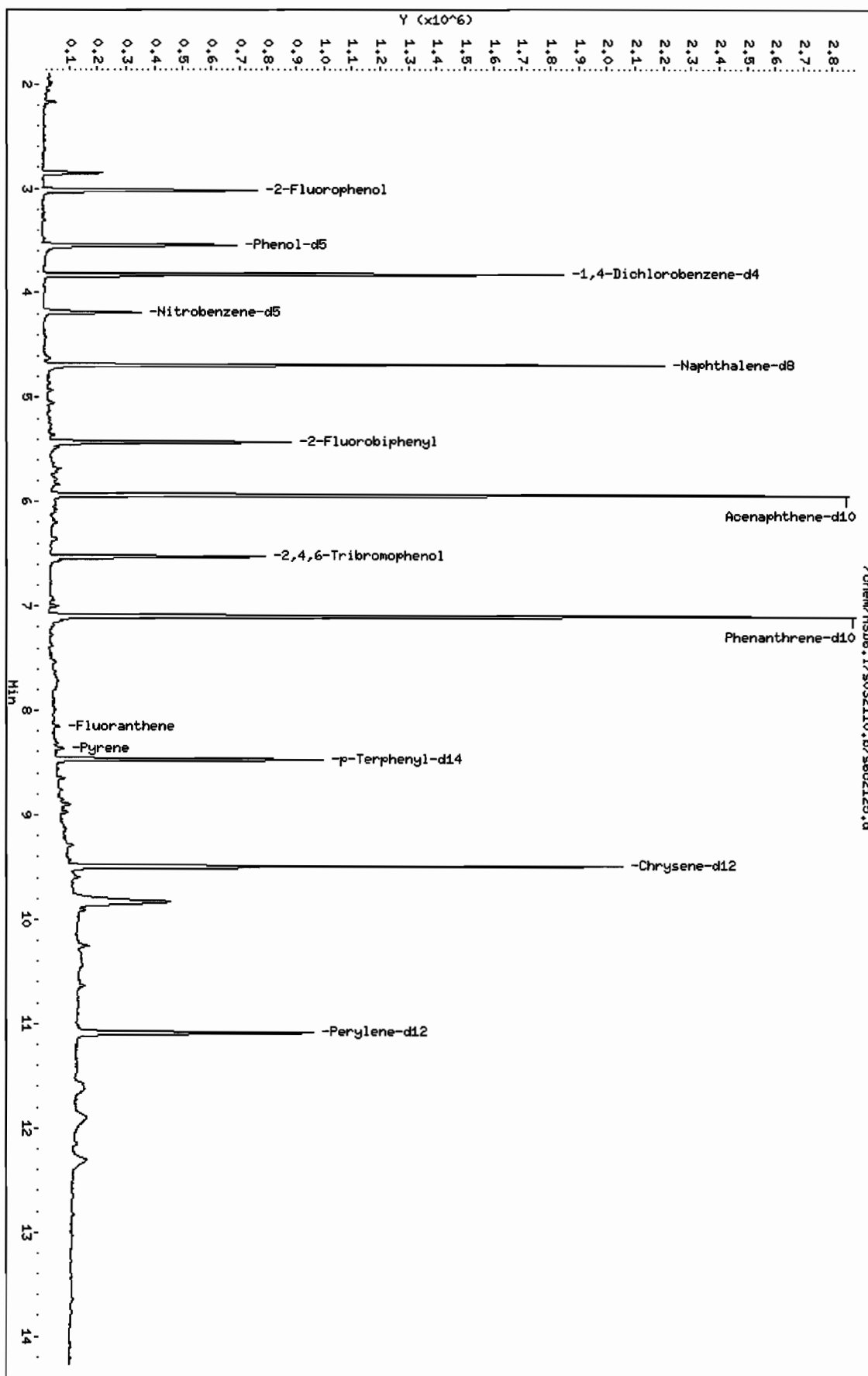
CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

RT	AREA	CONCENTRATIONS		QUAL	QUANT		CPND #
		ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
====	====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate							
				CAS #:			
2.852	255873	4.66981419	178	0		0	10
Friedelan-3-one							
				CAS #: 559-74-0			
9.833	1218567	18.2956403	696	97	NIST05.L	176566	91
Unknown							
				CAS #:			
11.898	296745	7.88965531	300	0		0	98
Unknown							
				CAS #:			
12.304	255580	6.79517480	258	0		0	98



Data File: /chem/HSD6.i/s032110.b/s6c2125.d  
Date : 22-MAR-2010 00:55  
Client ID: REC6-10-8466  
Sample Info: 124852600119631311|SVH11|LNL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-SHS

Instrument: HSD6.i  
Operator: nag1  
Column diameter: 0.20



Date : 22-MAR-2010 00:55

Client ID: RE36-10-8466

Instrument: MSD6.i

Sample Info: 1248526001/96313311/SVH11/LANL

Volume Injected (uL): 0.5

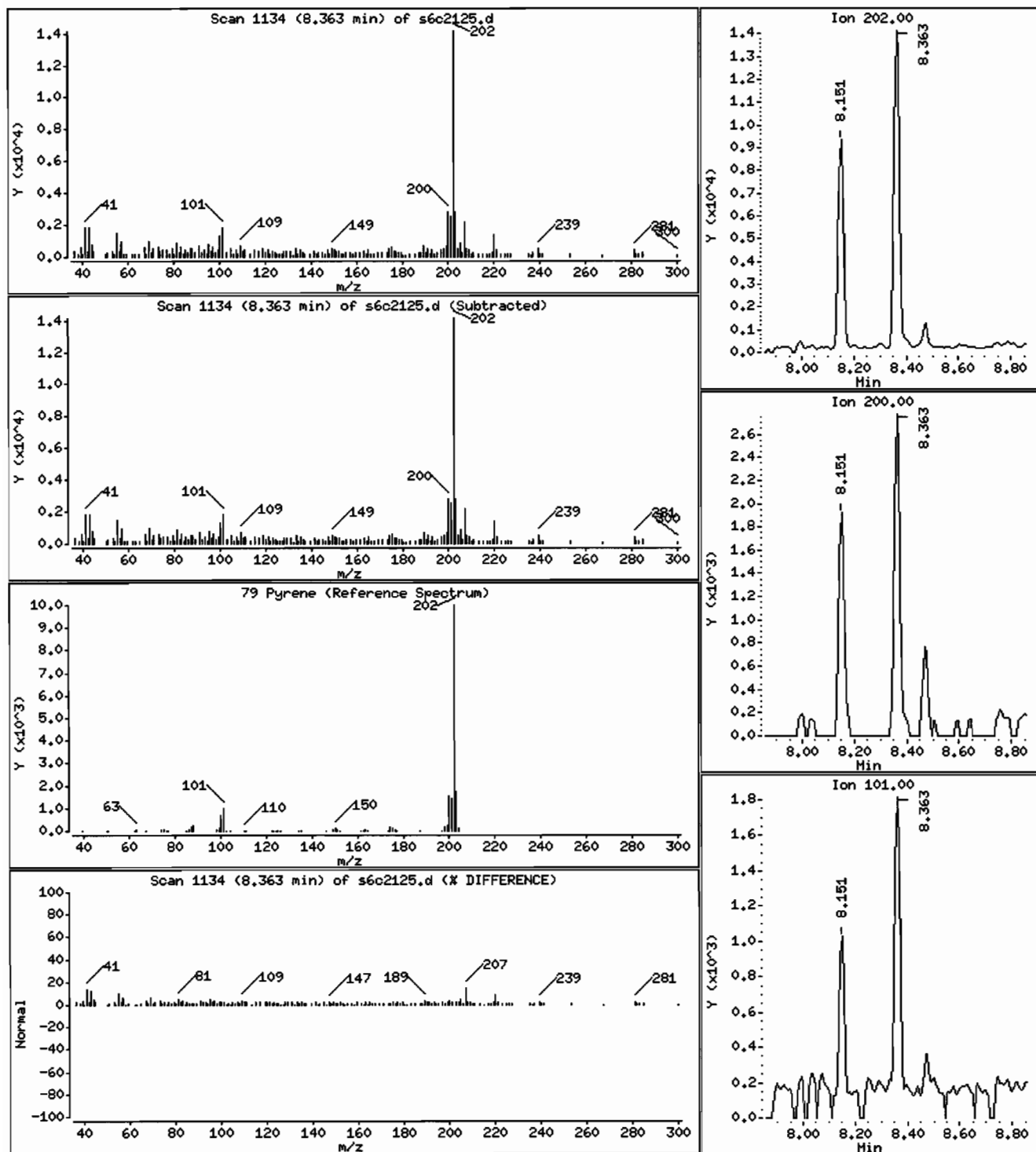
Operator: nag1

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

Column diameter: 0.20

79 Pyrene

Concentration: 23.1 ug/Kg



Date : 22-MAR-2010 00:55

Client ID: RE36-10-8466

Instrument: HSD6.i

Sample Info: I248526001I9631331IISVHI1ILANL

Volume Injected (uL): 0.5

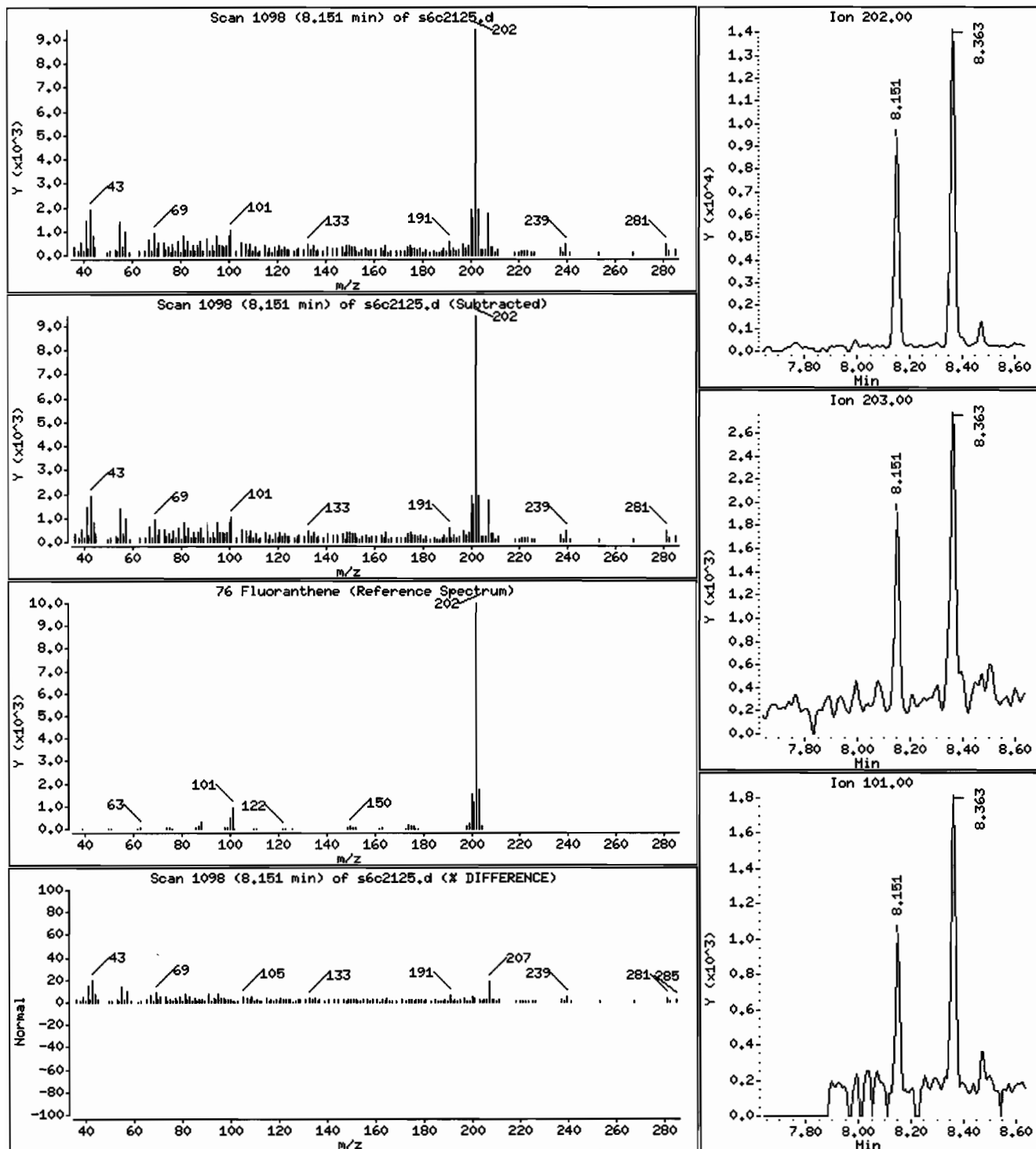
Operator: nag1

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

Column diameter: 0.20

76 Fluoranthene

Concentration: 12.3 ug/Kg



Date : 22-MAR-2010 00:55

Client ID: RE36-10-8466

Instrument: MSD6.i

Sample Info: 12485260011963133111SVH111LANL

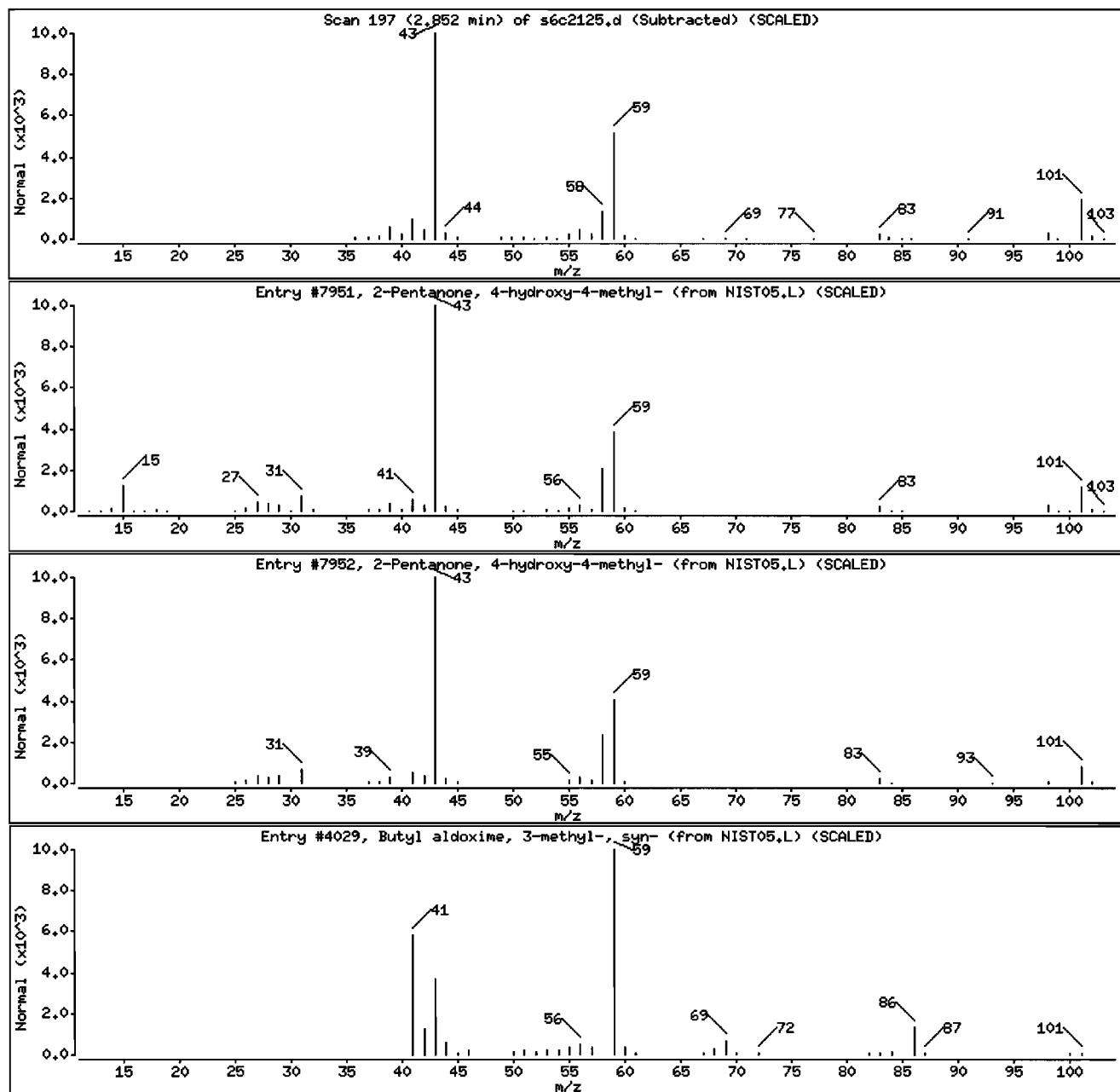
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	45	C6H12O2	116
Butyl aldoxime, 3-methyl-, syn-	5780-40-5	NIST05.L	4029	32	C5H11NO	101



Date : 22-MAR-2010 00:55

Client ID: RE36-10-8466

Instrument: MSD6.i

Sample Info: I248526001196313311SVH111LANL

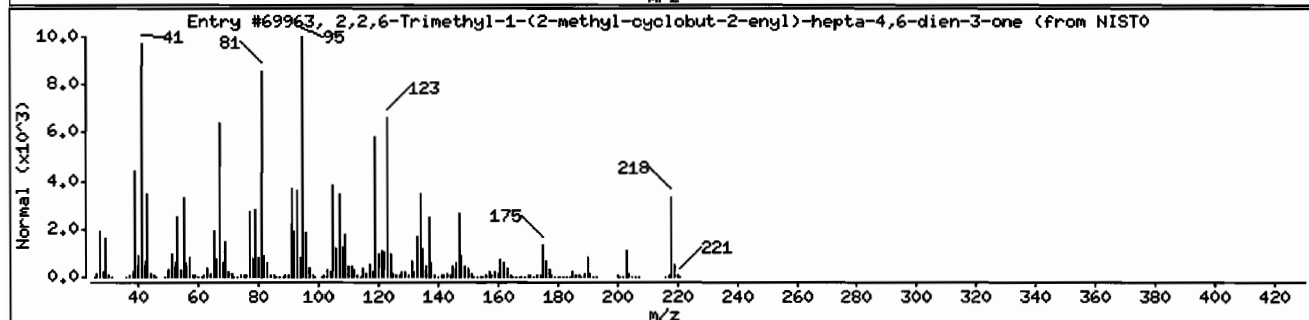
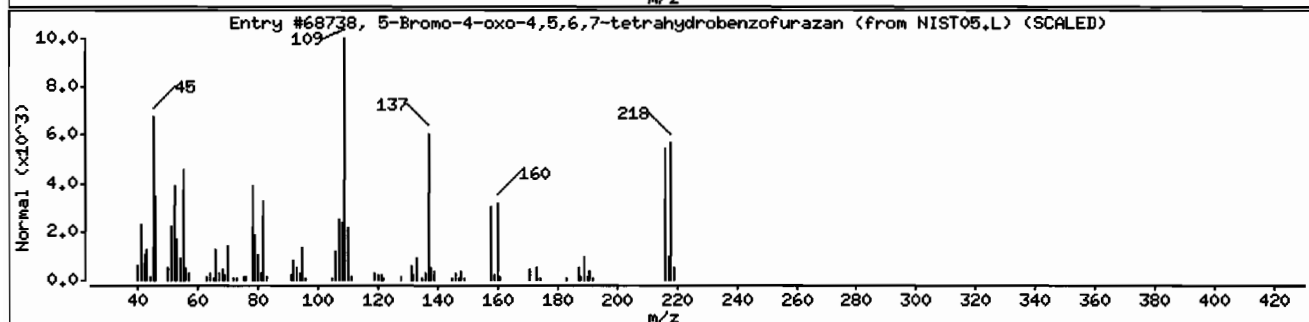
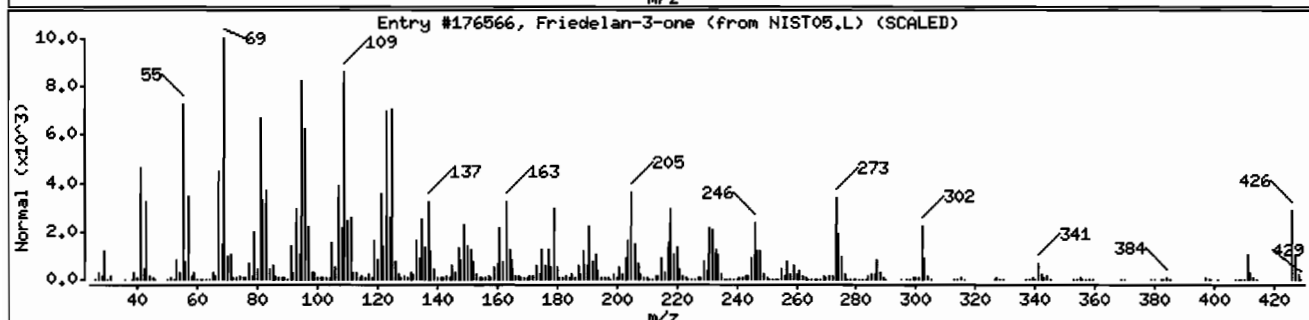
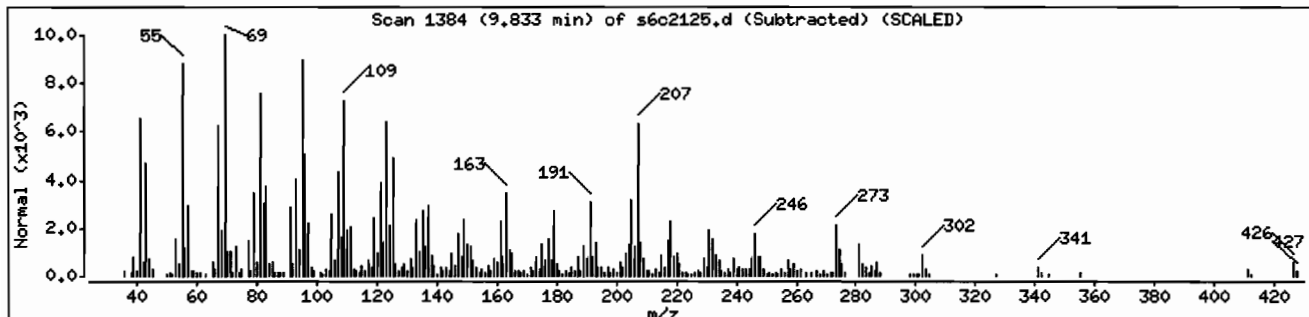
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Friedelan-3-one	559-74-0	NIST05.L	176566	97	C30H50O	426
5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	300574-36-1	NIST05.L	68738	90	C6H5BrN2O2	216
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-yl	1000188-72-8	NIST05.L	69963	56	C15H22O	218



Date : 22-MAR-2010 00:55

Client ID: RE36-10-8466

Instrument: HSD6.i

Sample Info: 124852600196313311SVH111LANL

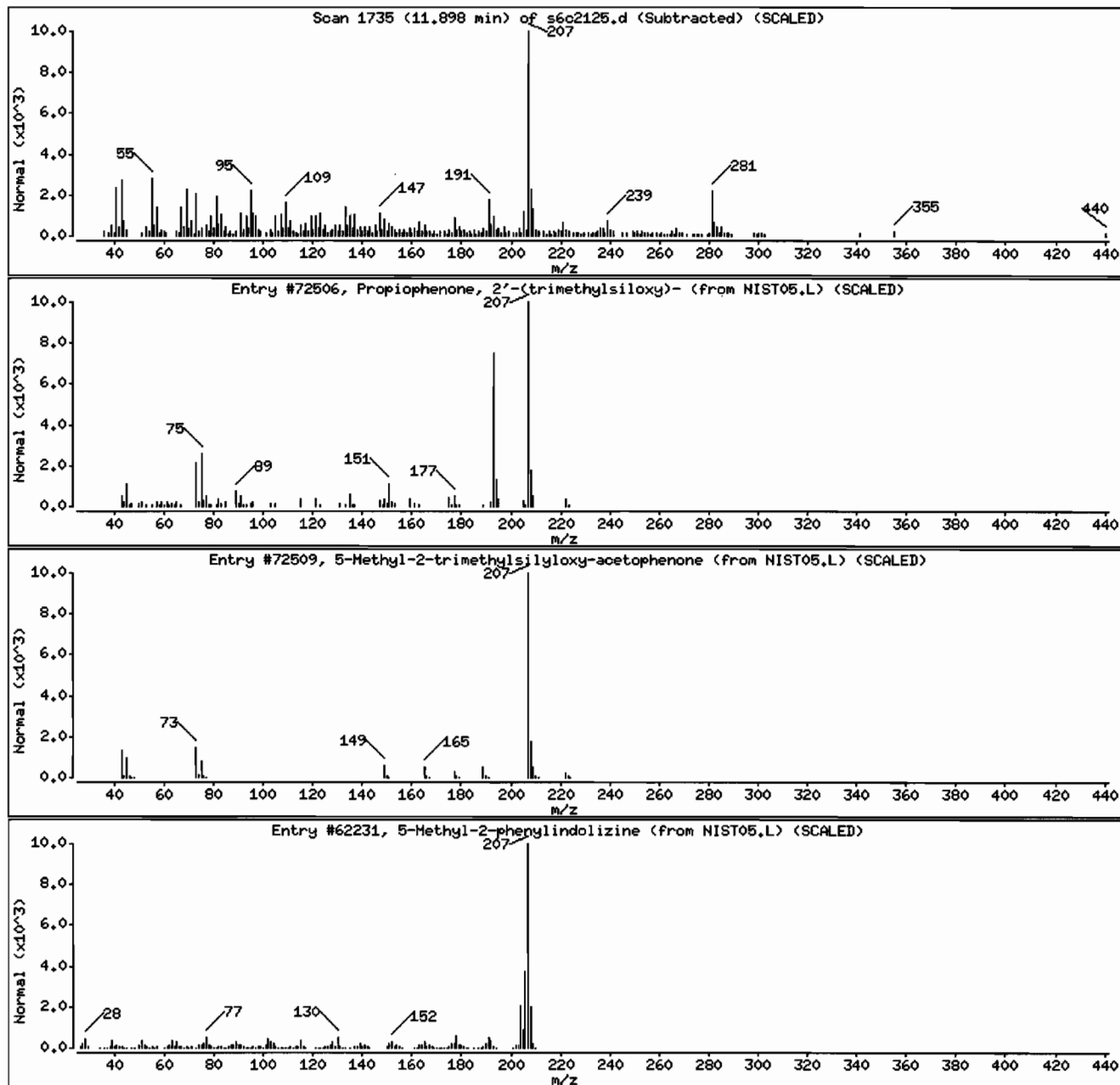
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propiophenone, 2'-(trimethylsiloxy)-	33342-87-9	NIST05.L	72506	53	C <sub>12</sub> H <sub>18</sub> O <sub>2</sub> Si	222
5-Methyl-2-trimethylsilyloxy-acetophenone	97389-69-0	NIST05.L	72509	49	C <sub>12</sub> H <sub>18</sub> O <sub>2</sub> Si	222
5-Methyl-2-phenylindolizine	36944-99-7	NIST05.L	62231	49	C <sub>15</sub> H <sub>13</sub> N	207



Date : 22-MAR-2010 00:55

Client ID: RE36-10-8466

Instrument: MSD6.i

Sample Info: I248526001196313311SVHI11LANL

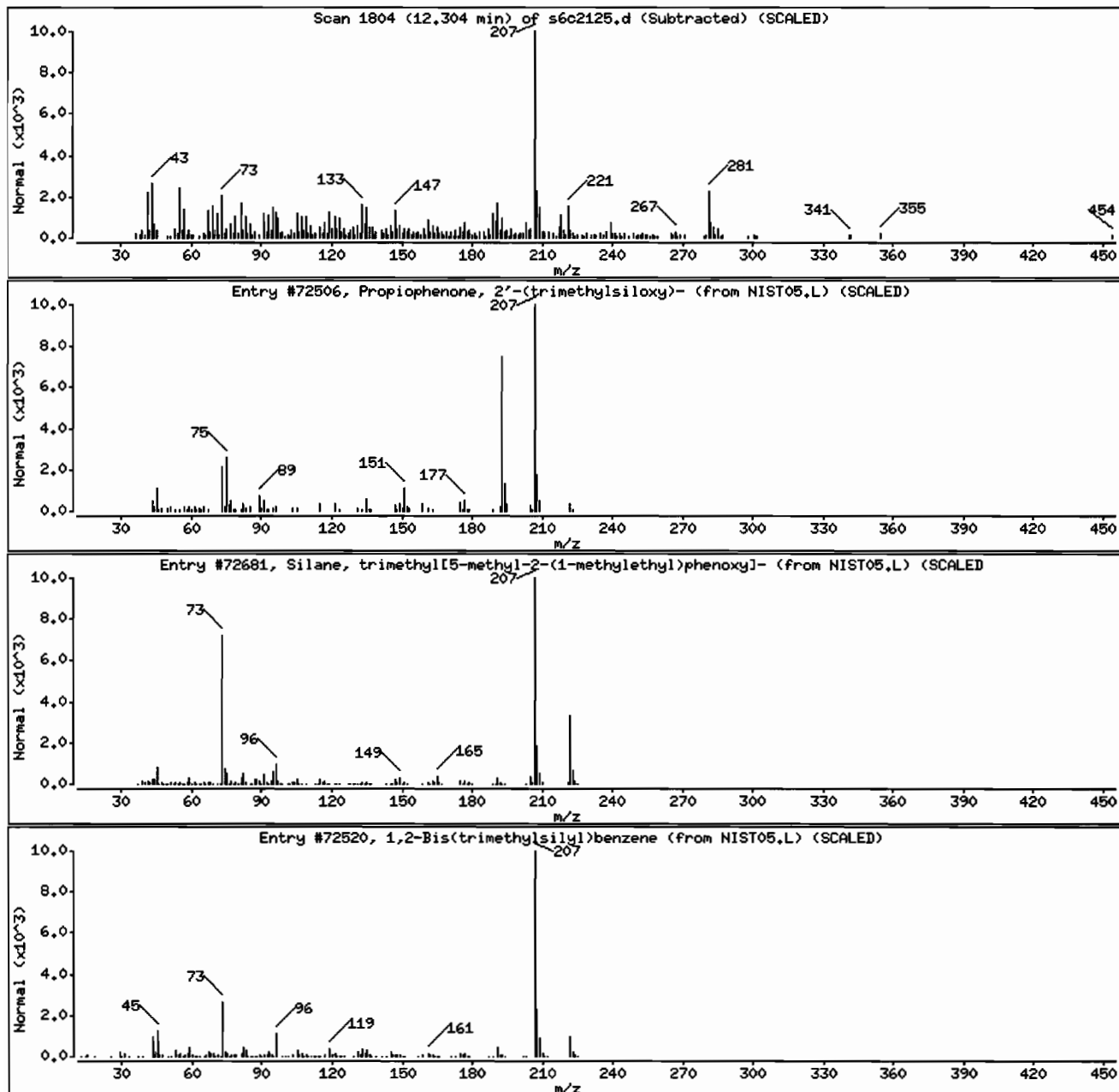
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propiophenone, 2'-(trimethylsiloxy)-	33342-87-9	NIST05.L	72506	64	C <sub>12</sub> H <sub>18</sub> O <sub>2</sub> Si	222
Silane, trimethyl[5-methyl-2-(1-methylet	55012-80-1	NIST05.L	72681	58	C <sub>13</sub> H <sub>22</sub> O <sub>2</sub> Si	222
1,2-Bis(trimethylsilyl)benzene	17151-09-6	NIST05.L	72520	53	C <sub>12</sub> H <sub>22</sub> Si <sub>2</sub>	222



# Standard Data



SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol		10	20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenylether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidine		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625									
Calibration Standard Concentration Levels*									
		Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene			500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625									
Calibration Standard Concentration Levels*									
PEST MIX		Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate			10	20	40	50	80	100	120
Triethylphosphorothioate			10	20	40	50	80	100	120
Thionazin			10	20	40	50	80	100	120
Sulfotepp			10	20	40	50	80	100	120
Phorate			10	20	40	50	80	100	120
Dimethoate			10	20	40	50	80	100	120
Disulfoton			10	20	40	50	80	100	120
Methyl parathion			10	20	40	50	80	100	120
Famphur			10	20	40	50	80	100	120
Parathion			10	20	40	50	80	100	120

SW846 8270/EPA 625									
Calibration Standard Concentration Levels*									
NEVADA MIX		Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether			10	20	40	50	80	100	120
4-Chlorothiophenol			10	20	40	50	80	100	120
4-Chlorothioanisole			10	20	40	50	80	100	120
Phthalic acid			10	20	40	50	80	100	120
Hydroxymethyl phthalimide			10	20	40	50	80	100	120
Diphenyl sulfide			10	20	40	50	80	100	120
Diphenyl disulfide			10	20	40	50	80	100	120
Phenyl sulfone			10	20	40	50	80	100	120
Octachlorostyrene			10	20	40	50	80	100	120
Thiophenol			10	20	40	50	80	100	120
2,2'-Dichlorobenzil			10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide			10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120
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SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol	10	20	40	50	80	100	120	
Quinoline	10	20	40	50	80	100	120	
2,4-Toluene diisocyanate	10	20	40	50	80	100	120	
1-Nitropyrene	10	20	40	50	80	100	120	
5-Methylchrysene	10	20	40	50	80	100	120	
Benzo(j)fluoranthene	10	20	40	50	80	100	120	
Dibenzo(a,h)pyrene	10	20	40	50	80	100	120	
Dibenzo(a,h)acridine	10	20	40	50	80	100	120	
Dibenzo(a,i)acridine	10	20	40	50	80	100	120	
Dibenzo(a,i)pyrene	10	20	40	50	80	100	120	
Dibenzo(a,l)pyrene	10	20	40	50	80	100	120	
7H-Dibenzo(c,g)carbazole	10	20	40	50	80	10	120	

All values are mg/L without the prep factor.

# Indicates the calibration verification concentration level used

\* Usual calibration levels using SCAN methodology

\*\* This analyte included in this level at special client request.

(0210/Full list)

Report Date: 22-Mar-2010 16:37

### Calibration History

Method : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m  
Start Cal Date: 16-MAR-2010 09:18  
End Cal Date : 17-MAR-2010 04:51

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
16-MAR-2010 09:18	MEGA	/chem/MSD6.i/s031610.b/s6c1603.d
Cal Level: 2 , Cal Amount: 10.00000		
17-MAR-2010 02:32	NEV	/chem/MSD6.i/s031610.b/s6c1640.d
16-MAR-2010 22:16	HEX	/chem/MSD6.i/s031610.b/s6c1629.d
16-MAR-2010 19:27	PEST	/chem/MSD6.i/s031610.b/s6c1622.d
16-MAR-2010 16:42	AP12	/chem/MSD6.i/s031610.b/s6c1615.d
16-MAR-2010 09:47	MEGA	/chem/MSD6.i/s031610.b/s6c1604.d
Cal Level: 3 , Cal Amount: 20.00000		
17-MAR-2010 02:55	NEV	/chem/MSD6.i/s031610.b/s6c1641.d
16-MAR-2010 22:40	HEX	/chem/MSD6.i/s031610.b/s6c1630.d
16-MAR-2010 19:51	PEST	/chem/MSD6.i/s031610.b/s6c1623.d
16-MAR-2010 17:06	AP12	/chem/MSD6.i/s031610.b/s6c1616.d
16-MAR-2010 10:17	MEGA	/chem/MSD6.i/s031610.b/s6c1605.d
Cal Level: 4 , Cal Amount: 40.00000		
17-MAR-2010 03:19	NEV	/chem/MSD6.i/s031610.b/s6c1642.d
16-MAR-2010 23:05	HEX	/chem/MSD6.i/s031610.b/s6c1631.d
16-MAR-2010 20:16	PEST	/chem/MSD6.i/s031610.b/s6c1624.d
16-MAR-2010 17:30	AP12	/chem/MSD6.i/s031610.b/s6c1617.d
16-MAR-2010 10:48	MEGA	/chem/MSD6.i/s031610.b/s6c1606.d
Cal Level: 5 , Cal Amount: 50.00000		
17-MAR-2010 03:42	NEV	/chem/MSD6.i/s031610.b/s6c1643.d
16-MAR-2010 23:30	HEX	/chem/MSD6.i/s031610.b/s6c1632.d
16-MAR-2010 20:39	PEST	/chem/MSD6.i/s031610.b/s6c1625.d
16-MAR-2010 17:53	AP12	/chem/MSD6.i/s031610.b/s6c1618.d
16-MAR-2010 11:18	MEGA	/chem/MSD6.i/s031610.b/s6c1607.d
Cal Level: 6 , Cal Amount: 80.00000		
17-MAR-2010 04:05	NEV	/chem/MSD6.i/s031610.b/s6c1644.d
16-MAR-2010 23:53	HEX	/chem/MSD6.i/s031610.b/s6c1633.d
16-MAR-2010 21:04	PEST	/chem/MSD6.i/s031610.b/s6c1626.d
16-MAR-2010 18:16	AP12	/chem/MSD6.i/s031610.b/s6c1619.d
16-MAR-2010 11:48	MEGA	/chem/MSD6.i/s031610.b/s6c1608.d
Cal Level: 7 , Cal Amount: 100.00000		

17-MAR-2010 04:28	NEV	/chem/MSD6.i/s031610.b/s6c1645.d
17-MAR-2010 00:17	HEX	/chem/MSD6.i/s031610.b/s6c1634.d
16-MAR-2010 21:29	PEST	/chem/MSD6.i/s031610.b/s6c1627.d
16-MAR-2010 18:40	AP12	/chem/MSD6.i/s031610.b/s6c1620.d
16-MAR-2010 12:18	MEGA	/chem/MSD6.i/s031610.b/s6c1609.d

Cal Level: 8 , Cal Amount: 120.00000		
17-MAR-2010 04:51	NEV	/chem/MSD6.i/s031610.b/s6c1646.d
16-MAR-2010 21:52	PEST	/chem/MSD6.i/s031610.b/s6c1628.d
16-MAR-2010 19:04	AP12	/chem/MSD6.i/s031610.b/s6c1621.d
16-MAR-2010 12:48	MEGA	/chem/MSD6.i/s031610.b/s6c1610.d

# Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
21-MAR-2010 17:25	AP12	/chem/MSD6.i/s032110.b/s6c2106.d
Ccal Level: 4 , Ccal Amount: 40.0		
21-MAR-2010 16:55	MEGA	/chem/MSD6.i/s032110.b/s6c2105.d
Ccal Level: 4 , Ccal Amount: 40.0		
21-MAR-2010 09:45	MEGA	/chem/MSD6.i/s032110.b/s6c2103.d
Ccal Level: 4 , Ccal Amount: 40.0		
21-MAR-2010 09:12	MEGA	/chem/MSD6.i/s032110.b/s6c2102.d

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 16-MAR-2010 09:18  
 End Cal Date : 17-MAR-2010 04:51  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 22-Mar-2010 16:37 jen00986

## Calibration File Names:

Level 1: /chem/MSD6.i/s031610.b/s6c1603.d  
 Level 2: /chem/MSD6.i/s031610.b/s6c1640.d  
 Level 3: /chem/MSD6.i/s031610.b/s6c1641.d  
 Level 4: /chem/MSD6.i/s031610.b/s6c1642.d  
 Level 5: /chem/MSD6.i/s031610.b/s6c1643.d  
 Level 6: /chem/MSD6.i/s031610.b/s6c1644.d  
 Level 7: /chem/MSD6.i/s031610.b/s6c1645.d  
 Level 8: /chem/MSD6.i/s031610.b/s6c1646.d

Compound	1	Level 1	10	Level 2	20	Level 3	40	Level 4	50	Level 5	80	Curve	b	Coefficients m1	m2	%RSD or R^2
1 N-Methyl-N-nitrosomethylamine	++++	0.81792	0.82056	0.78930	0.79192	0.76046	AVRG	0.77557	5.19380							
2 Pyridine	++++	1.11606	1.14524	1.09549	1.10183	1.07067	AVRG	1.10526	3.40288							
4 Aniline	++++	1.15602	0.70476	0.66890	0.68894	0.64499	AVRG	0.66950	5.53075							
209 Benzaldehyde	++++	1.13309	1.08471	1.00392	0.97767	0.86499	AVRG	0.96016	12.85923							
6 Phenol	++++	1.61272	1.56254	1.44105	1.45641	1.36160	AVRG	1.43150	8.74973							



## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 16-MAR-2010 09:18  
 End Cal Date : 17-MAR-2010 04:51  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 22-Mar-2010 16:37 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
100	100	120									
Level 7	Level 8										
7 bis(2-Chloroethyl) ether	++++	1.19254	1.18236	1.09028	1.09625	1.00058	AVRG		1.06440		9.77817
	0.95191	0.93692									
8 2-Chlorophenol	++++	1.26962	1.28222	1.17814	1.18825	1.10696	AVRG		1.16424		7.83127
	1.06189	1.06261									
203 n-Decane	++++	1.96779	1.93918	1.70280	1.68456	1.47743	AVRG		1.69067		14.13608
	1.37227	++++									
9 1,3-Dichlorobenzene	++++	1.44879	1.44947	1.30584	1.30842	1.19897	AVRG				
	1.15341	1.11325							1.28259		10.51030
11 1,4-Dichlorobenzene	++++	1.42133	1.40639	1.25708	1.27799	1.16100	AVRG		1.24541		10.83313
	1.09866	1.09543									
12 Benzyl alcohol	++++	0.85394	0.86245	0.80492	0.83695	0.79588	AVRG		0.81825		3.95576
	0.79193	0.78165									
13 1,2-Dichlorobenzene	++++	1.34498	1.29593	1.11046	1.13364	1.03705	AVRG		1.12890		12.62648
	0.99051	0.98974									
14 bis(2-Chloroisopropyl) ether	++++	2.53022	2.53492	2.29878	2.31844	2.11439	AVRG		2.23712		11.38315
	1.96542	1.89769									
15 o-Cresol	++++	1.01324	0.99090	0.86659	0.89293	0.83096	AVRG		0.88788		9.44602
	0.81771	0.80283									

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	RSD or R <sup>2</sup>
	100 Level 7	120 Level 8									
16 Acetophenone	++++ 1.11097	1.46180 1.11114	1.39429	1.25730	1.25356	1.14795	AVRG		1.24814		11.07970
17 N-Nitrosodipropylamine	++++ 0.89995	1.04632 0.90020	1.03866	0.98744	1.01348	0.95067	AVRG		0.97668		6.28044
18 m,p-Cresols	++++ 1.21737	1.32601 1.21749	1.35004	1.26915	1.31796	1.25447	AVRG		1.27893		4.16878
19 Hexachloroethane	++++ 0.48359	0.59901 0.46860	0.59645	0.55146	0.55577	0.50879	AVRG		0.53767		9.68345
21 Nitrobenzene	++++ 0.30203	0.41616 0.28967	0.40868	0.35909	0.36547	0.32858	AVRG		0.35281		13.92765
22 Isophorone	++++ 0.60504	0.76756 0.57972	0.76141	0.67508	0.70486	0.64538	AVRG		0.67701		10.74431
23 2-Nitrophenol	++++ 0.13113	0.18755 0.12806	0.16925	0.15697	0.15800	0.13948	AVRG		0.15292		14.07952
24 2,4-Dimethylphenol	++++ 966250	128503 ++++	217256	416723	533570	827995	WLNLR	-0.14975	0.25299		0.99406
25 bis(2-Chloroethoxy)methane	++++ 0.32172	0.43560 0.30463	0.42444	0.37400	0.37627	0.33980	AVRG		0.36806		13.49875

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
26 2,4-Dichlorophenol	++++ 0.22233	0.28833 0.21321	0.28887	0.25784	0.26048	0.23660	AVRG		0.25252		11.88589
27 Benzoic acid	++++ 0.19885	++++ 0.20819	0.15188	0.16162	0.20350	0.20115	AVRG		0.18753		12.92549
28 1,2,4-Trichlorobenzene	++++ 0.24757	0.33900 0.23474	0.33884	0.29761	0.29991	0.26567	AVRG		0.28905		14.39082
30 Naphthalene	1.17741 ++++	1.03786 ++++	1.00687	0.84879	0.85336	++++	AVRG		0.98486		14.01214
204 alpha-Terpineol	++++ 0.24448	0.33608 0.23009	0.33453	0.29084	0.29286	0.26114	AVRG		0.28429		14.63166
31 4-Chloroaniline	++++ 0.38534	0.47746 0.36929	0.49291	0.44934	0.45825	0.40866	AVRG		0.43446		10.86864
189 Caprolactam	++++ 0.09092	0.10378 0.09292	0.10570	0.09999	0.09912	0.09284	AVRG		0.09790		5.90407
32 Hexachlorobutadiene	++++ 0.14051	0.19255 0.13534	0.18969	0.16950	0.16919	0.15167	AVRG		0.16407		13.75956
33 4-Chloro-3-methylphenol	++++ 0.24213	0.32043 0.23028	0.30822	0.27683	0.28548	0.25715	AVRG		0.27436		12.15912

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
34 2-Methylnaphthalene	0.72925 ++++	0.65481 ++++	0.63621 ++++	0.55294 ++++	0.56663 ++++	0.49402 ++++	AVRG		0.60564		13.89123
35 1-Methylnaphthalene	0.70436 ++++	0.66500 ++++	0.61927 ++++	0.53454 ++++	0.53753 ++++	0.47391 ++++	AVRG		0.58910		14.96497
36 Hexachlorocyclopentadiene	++++ 0.18872	0.25218 ++++	0.24426 ++++	0.26357 ++++	0.23616 ++++	0.19125 ++++	AVRG		0.22936		13.87544
208 1,1'-Biphenyl	++++ 0.96643	1.34441 0.94136	1.27102 0.94136	1.12196 0.94136	1.11758 0.94136	1.01987 0.94136	AVRG		1.11180		13.65187
205 2,3-Dichloroaniline	++++ 0.45417	0.61240 0.44760	0.60292 0.44760	0.54053 0.44760	0.53714 0.44760	0.47736 0.44760	AVRG		0.52459		12.87597
37 2,4,6-Trichlorophenol	++++ 0.28219	0.38108 0.30558	0.37793 0.30558	0.32193 0.30558	0.36706 0.30558	0.30741 0.30558	AVRG		0.33474		11.93741
38 2,4,5-Trichlorophenol	++++ 0.34748	0.37129 0.30293	0.37911 0.30293	0.38732 0.30293	0.34179 0.30293	0.35266 0.30293	AVRG		0.35465		8.00704
40 2-Chloronaphthalene	1.19201 0.80529	1.10470 0.79483	1.08122 0.79483	0.97966 0.79483	0.96619 0.79483	0.86532 0.79483	AVRG		0.97365		14.96311
42 o-Nitroaniline	++++ 0.31294	0.36102 0.31605	0.36661 0.31605	0.34980 0.31605	0.35607 0.31605	0.33160 0.31605	AVRG		0.34201		6.37491

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
41 m-Nitroaniline	++++ 0.24489	0.23455 0.23973	0.26751	0.26609	0.27182	0.25408	AVRG		0.25409		5.81743
43 Dimethylphthalate	++++ 0.99525	1.30419 0.96796	1.28387	1.15700	1.15779	1.04419	AVRG		1.13004		11.83407
44 2,6-Dinitrotoluene	++++ 0.23916	0.30420 0.23864	0.29865	0.27654	0.28158	0.25526	AVRG		0.27058		9.91397
45 Acenaphthylene	1.85647 1.24637	1.73104 ++++	1.67326	1.48789	1.47507	1.32790	AVRG		1.54257		14.31335
47 Acenaphthene	1.28627 ++++	1.05044 ++++	1.03429	0.91274	0.90543	++++	AVRG		1.03783		14.85478
48 2,4-Dinitrophenol	226466 ++++	280792 1.49805	23383	83099	110420	178844	LINR	0.14548	0.11086		0.99537
49 Dibenzofuran	1.08151 ++++	1.05151 0.36954	1.45690	1.29929	1.28456	1.15301	AVRG		1.26069		13.90416
50 2,4-Dinitrotoluene	0.32724 ++++	0.33221 1.30298	0.37982	0.36276	0.37594	0.34784	AVRG		0.35648		5.89787
51 Diethylphthalate	0.94857	0.91864	1.28452	1.13974	1.14323	1.01648	AVRG		1.10774		13.84255

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
	100	120									
	Level 7	Level 8									
52 4-Nitrophenol	++++ 0.18356	0.20176 0.18929	0.19292	0.19251	0.19939	0.18710	AVRG		0.19236		3.37304
53 Fluorene	1.38576 0.91808	1.24024 ++++	1.19555	1.05553	1.05905	0.97044	AVRG		1.11781		14.68974
54 4-Chlorophenylphenylether	++++ 0.46826	0.61669 0.46745	0.60649	0.55132	0.54613	0.49714	AVRG		0.53621		11.44943
55 2-Methyl-4,6-dinitrophenol	++++ 377022	19709 458868	42715	133111	183242	300925	LINR	0.11116	0.10470		0.99841
56 p-Nitroaniline	++++ 0.20310	0.18685 0.21295	0.19668	0.22186	0.22558	0.21140	AVRG		0.20835		6.60344
133 Diphenylamine	++++ 0.45816	0.59755 0.45986	0.58488	0.51490	0.52719	0.49057	AVRG		0.51902		10.72829
58 1,2-Diphenylhydrazine	++++ 0.59712	0.81379 0.58414	0.80943	0.71643	0.71366	0.64914	AVRG		0.69767		13.33528
59 Tributylphosphate	++++ 0.98767	1.48756 ++++	1.31745	1.19079	1.17530	1.07632	AVRG		1.20585		14.71177
61 4-Bromophenylphenylether	++++ 0.15758	0.18913 0.16024	0.19414	0.17251	0.17518	0.16699	AVRG		0.17368		7.95612

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
63 Hexachlorobenzene	++++ 0.15325	0.17986 0.15146	0.18314	0.16397	0.16914	0.16087	AVRG		0.16595		7.37947
207 Atrazine	++++ ++++	0.05303 ++++	0.05040	0.04601	0.04433	0.03650	AVRG		0.04606		13.80997
65 Pentachlorophenol	++++ 0.09437	0.08594 0.09548	0.09329	0.09347	0.09827	0.09698	AVRG		0.09397		4.23639
206 n-Octadecane	++++ ++++	0.53452 ++++	0.53921	0.46736	0.45674	0.40532	AVRG		0.48063		11.74926
68 Phenanthrene	1.18955 ++++	1.04058 ++++	1.01586	0.88259	0.91454	0.80483	AVRG		0.97466		14.00439
69 Anthracene	1.17774 ++++	1.06636 ++++	1.01144	0.91703	0.90561	0.81316	AVRG		0.98189		13.26811
72 Di-n-butylphthalate	++++ ++++	1.28361 ++++	1.29174	1.09885	1.06066	0.94298	AVRG		1.13557		13.23540
76 Fluoranthene	1.20011 0.79997	1.09187 ++++	1.06525	0.96204	0.95592	0.84379	AVRG		0.98842		14.28401
77 Benzidine	++++ 0.43042	0.40621 0.42719	0.45200	0.39954	0.40216	0.42655	AVRG		0.42058		4.50256

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
79 Pyrene	1.35186 1.08124	1.32429 1.07630	1.37915 1.07630	1.14942 1.07630	1.19852 1.07630	1.19422 1.07630	AVRG AVRG		1.21938		9.78236
85 Butylbenzylphthalate	++++ 0.53615	0.60942 0.53958	0.68418 0.53958	0.57419 0.53958	0.59563 0.53958	0.59071 0.53958	AVRG AVRG		0.58998		8.46660
89 Benzo(a)anthracene	1.23844 0.98276	1.07586 0.95356	1.08943 0.95356	0.99635 0.95356	1.02654 0.95356	0.99275 0.95356	AVRG AVRG		1.04446		8.71633
90 3,3'-Dichlorobenzidine	++++ 0.28534	0.28634 0.28530	0.34000 0.28530	0.31737 0.28530	0.30439 0.28530	0.29332 0.28530	AVRG AVRG		0.30172		6.84952
92 Chrysene	1.21905 0.83298	1.11052 0.83097	1.09284 0.83097	0.99293 0.75843	1.00791 0.78894	0.89389 0.76390	AVRG AVRG		0.99764		14.00287
93 bis(2-Ethylhexyl)phthalate	++++ 0.69996	0.87792 0.68939	0.94166 0.68939	0.75843 0.68939	0.78894 0.68939	0.76390 0.68939	AVRG AVRG		0.78860		11.64783
94 Di-n-octylphthalate	++++ 1.35710	1.50498 1.54699	1.84996 1.54699	1.38120 1.05565	1.53446 1.10684	1.53965 1.12171	AVRG AVRG		1.53062		10.51568
95 Benzo(b)fluoranthene	1.06453 1.04658	1.04231 1.07946	1.18249 1.13298	1.05565 1.00215	1.10684 1.05846	1.12171 0.96843	AVRG AVRG		1.08744		4.38133
96 Benzo(k)fluoranthene	1.13857 0.91790	1.15145 0.97630	1.13298 0.97630	1.00215 0.97630	1.05846 0.97630	0.96843 0.97630	AVRG AVRG		1.04328		8.61578



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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
97 Benzo(a)pyrene	0.91272 0.87668	0.95091 0.87161	0.96305	0.93841	0.94477	0.90966	AVRG		0.92098		3.70068
99 Indeno(1,2,3-cd)pyrene	0.82214 0.81655	0.91774 0.75359	0.83742	0.89629	0.86445	0.85264	AVRG		0.84510		6.01764
100 Dibenzo(a,h)anthracene	0.65413 0.65411	0.74504 0.60951	0.67287	0.73440	0.69759	0.67777	AVRG		0.68068		6.53700
101 Benzo(ghi)perylene	0.72104 0.68866	0.79945 0.62705	0.72249	0.76566	0.71838	0.73009	AVRG		0.72160		7.04885
102 1,4-Dioxane	++++ 0.31161	0.40364 0.30837	0.39108	0.35833	0.36073	0.32452	AVRG		0.35119		10.77795
103 Methyl methacrylate	++++ 0.16911	0.21508 0.17292	0.20768	0.19444	0.19248	0.17684	AVRG		0.18979		9.29691
104 Ethyl methacrylate	++++ 0.73535	0.94302 0.73626	0.90271	0.84859	0.85171	0.77200	AVRG		0.82709		9.86302
105 2-Picoline	++++ 1.05418	1.41751 1.05943	1.35879	1.23892	1.24366	1.11707	AVRG		1.21280		11.79135
106 N-Nitrosomethylethylamine	++++ 0.50151	0.58418 0.50138	0.57876	0.54352	0.54304	0.51432	AVRG		0.53810		6.38520

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
107 Methyl methanesulfonate	++++ 0.55158	0.64507 0.54936	0.64908 0.59792	0.61336 0.54460	0.60691 0.55515	0.56546 0.50996	AVRG		0.59726		7.07556
108 N-Nitrosodiethylamine	++++ 0.50185	0.60002 0.50111	0.59792 0.50996	0.54460 0.50996	0.55515 0.50996	0.50996 0.50996	AVRG		0.54437		7.84567
109 Ethyl Methanesulfonate	++++ 0.67400	0.77937 0.67651	0.78398 0.67651	0.73252 0.67651	0.74517 0.67651	0.68922 0.67651	AVRG		0.72583		6.44394
110 Pentachloroethane	++++ 0.30477	0.36537 0.30069	0.35868 0.30069	0.33978 0.30069	0.34412 0.30069	0.31859 0.30069	AVRG		0.33314		7.67816
111 N-Nitrosopyrrolidine	++++ 0.52363	0.65147 0.52349	0.65118 0.52349	0.60564 0.52349	0.59568 0.52349	0.54014 0.52349	AVRG		0.58446		9.60255
113 N-Nitrosomorpholine	++++ 0.60862	0.77690 0.59644	0.75720 0.59644	0.69860 0.59644	0.69697 0.59644	0.63076 0.59644	AVRG		0.68078		10.46970
114 o-Toluidine	++++ 1.51078	2.05374 1.51005	1.96418 1.51005	1.78212 1.51005	1.74117 1.51005	1.58116 1.51005	AVRG		1.73474		12.47332
115 N-Nitrosopiperidine	++++ 0.14357	0.16517 0.14183	0.16671 0.14183	0.15400 0.14183	0.15626 0.14183	0.14779 0.14183	AVRG		0.15362		6.43146
116 a,a-Dimethylphenethylamine	++++ 0.84727	0.84998 0.81794	0.91437 0.81794	0.90226 0.81794	0.91158 0.81794	0.87133 0.81794	AVRG		0.87353		4.25275

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
100	Level 7	120 Level 8									
117 Triethylphosphorothioate	++++ 0.13034	0.16227 0.12625	0.15179	0.14508	0.14517	0.13799	AVRG		0.14270		8.68942
118 2,6-Dichlorophenol	++++ 0.22683	0.27261 0.22120	0.26747	0.24661	0.24973	0.23288	AVRG		0.24533		8.04029
119 Hexachloropropene	++++ 0.13062	0.12422 0.12490	0.14505	0.13455	0.13486	0.13756	AVRG		0.13311		5.48816
120 p-Phenylenediamine	++++ 0.24844	0.34413 ++++	0.36083	0.31398	0.29301	0.26154	AVRG		0.30365		14.69115
121 N-Nitrosodi-n-butylamine	++++	0.30402 ++++	0.30501	0.24131	0.24260	0.22117	AVRG		0.26282		14.83811
122 Safrrole	++++ 0.19239	0.24219 0.18963	0.23822	0.21649	0.21692	0.20189	AVRG		0.21396		9.73528
123 1,2,4,5-Tetrachlorobenzene	++++ 0.40150	0.51062 0.39571	0.49855	0.44614	0.45393	0.42366	AVRG		0.44716		10.00072
124 Isosafrole	++++ 0.32525	0.39056 0.32217	0.38828	0.35693	0.35264	0.33685	AVRG		0.35324		7.88298
125 1,4-Naphthoquinone	++++ 0.26871	0.44627 0.26396	0.42913	0.36710	0.34310	0.27951	AVRG		0.34254		22.12484

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 16-MAR-2010 09:18  
 End Cal Date : 17-MAR-2010 04:51  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 22-Mar-2010 16:37 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
126 m-Dinitrobenzene	++++ 0.17688	0.19457 0.17754	0.20451 0.17754	0.19900 0.17754	0.20530 0.17754	0.18435 0.17754	AVRG		0.19174		6.33347
127 Pentachlorobenzene	++++ 0.33716	0.43110 0.33489	0.41421 0.33489	0.37919 0.33489	0.37551 0.33489	0.35401 0.33489	AVRG		0.37515		9.84443
128 1-Naphthylamine	++++ 0.80481	1.01413 0.80092	1.02551 0.80092	0.91517 0.80092	0.89074 0.80092	0.84391 0.80092	AVRG		0.89931		10.26327
129 2-Naphthylamine	++++ 0.81714	1.06923 0.82229	1.09028 0.82229	0.96961 0.82229	0.93134 0.82229	0.88633 0.82229	AVRG		0.94089		11.64761
130 2,3,4,6-Tetrachlorophenol	++++ 0.26048	0.28320 0.26802	0.29838 0.26802	0.27851 0.26802	0.29220 0.26802	0.26438 0.26802	AVRG		0.27788		5.16598
131 5-Nitro-o-toluidine	++++ 0.28937	0.30371 0.29520	0.33910 0.29520	0.30524 0.29520	0.30826 0.29520	0.30565 0.29520	AVRG		0.30665		5.15108
132 Thionazin	++++ 0.15141	0.18517 0.14819	0.17934 0.14819	0.16941 0.14819	0.16728 0.14819	0.15846 0.14819	AVRG		0.16561		8.34122
134 Sulfotepp	++++ 0.07503	0.08460 0.07583	0.08173 0.07583	0.08195 0.07583	0.08009 0.07583	0.07824 0.07583	AVRG		0.07964		4.35673
135 Phorate	++++ 0.35382	0.45146 0.34151	0.42713 0.34151	0.42213 0.34151	0.39953 0.34151	0.37573 0.34151	AVRG		0.39590		10.25989

## GEL Laboratories LLC

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 Integrator : HP RTE  
 Method file : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 22-Mar-2010 16:37 jen00986

Compound	1	10	20	40	50	80	Curve	b	ml	m2	%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6					
	100	120									
	Level 7	Level 8									
136 1,3,5-Trinitrobenzene	++++	0.14215	0.17801	0.16278	0.16019	0.15578					
	0.15027	0.14373				AVRG		0.15613			7.94442
137 Phenacetin	++++	0.31318	0.31793	0.28873	0.29334	0.28901					
	0.27803	0.27408				AVRG		0.29347			5.64036
138 Diallyate	++++	0.28920	0.27813	0.25090	0.24969	0.23408					
	0.22095	0.21741				AVRG		0.24862			10.98494
139 Dimethoate	++++	0.27336	0.26946	0.26875	0.26784	0.25717					
	0.24705	0.24235				AVRG		0.26085			4.66441
140 4-Aminobiphenyl	++++	0.55261	0.60071	0.58243	0.60084	0.53773					
	0.49732	0.48294				AVRG		0.55066			8.65686
141 Pentachloronitrobenzene	++++	0.07818	0.07606	0.06875	0.06554	0.05850					
	0.05467	++++				AVRG		0.06695			13.96038
142 Pronamide	++++	0.30552	0.28970	0.25313	0.24216	0.21416					
	++++	++++				AVRG		0.26094			14.10331
143 Dinoseb	++++	26789	59526	194494	260402	434843					
	550419	666120				LINR	0.12393	0.15282			0.99867
144 Disulfoton	++++	0.33440	0.31848	0.31065	0.30032	0.28000					
	0.26612	0.25293				AVRG		0.29470			9.99476

## GEL Laboratories LLC

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Method file : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m  
Cal Date : 22-Mar-2010 16:37 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	or R <sup>2</sup>	%RSD
	Level 7	120 Level 8										
145 Methyl parathion	++++ 0.20697	0.23174 0.20133	0.22766	0.22643	0.22704	0.21420	AVRG		0.21934			5.38336
146 4-Nitroquinoline-1-oxide	++++ 0.02090	0.03620 0.01975	0.04258	0.03229	0.02624	0.02359	AVRG		0.02879			29.56738
147 Methapyrilene	++++ 0.37265	0.50709 0.36578	0.51231	0.47429	0.44273	0.38752	AVRG		0.43748			14.35658
148 Isodrin	++++ 0.09732	0.12789 0.09486	0.12550	0.11252	0.11113	0.10270	AVRG		0.11028			11.76979
149 Aramite	++++ 0.04334	0.04987 0.04247	0.05241	0.05098	0.04801	0.04511	AVRG		0.04746			8.18427
150 Kepone	++++ 0.07353	0.08033 0.07232	0.08350	0.07854	0.07324	0.07530	AVRG		0.07668			5.48032
151 p- (Dimethylamino)azobenzene	++++ 0.28883	0.35661 0.27624	0.32327	0.31849	0.32153	0.28722	AVRG		0.31031			8.98103
152 Chlorobenzilate	++++ 0.27932	0.34601 0.26590	0.29739	0.29945	0.30335	0.27160	AVRG		0.29472			9.12242
153 3,3'-Dimethylbenzidine	++++ 0.56416	0.63324 0.54908	0.65171	0.60049	0.59103	0.56476	AVRG		0.59350			6.40934

## GEL Laboratories LLC

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 Integrator : HP RTE  
 Method file : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 22-Mar-2010 16:37 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
100	Level 7	120 Level 8									
154 Famphur	++++ 0.41231	0.44294 0.39369	0.43580	0.46237	0.43998	0.43138	AVRG		0.43121		5.16049
155 2-Acetylaminofluorene	++++ 0.35179	0.28561 0.35001	0.37666	0.36505	0.36381	0.34665	AVRG		0.34851		8.50665
157 7,12Dimethylbenz(a)anthracene	++++ 0.46390	0.51449 0.44355	0.49379	0.48383	0.50239	0.49617	AVRG		0.48545		5.00153
158 3-Methylcholanthrene	++++ 0.39610	0.35367 0.40256	0.42677	0.41143	0.40554	0.40467	AVRG		0.40010		5.65129
26 Phthalic anhydride	++++ 556029	27295 682236	87036	200557	277210	460400	LINR	0.03349	0.14624		0.99669
173 Carbazole	1.01509 0.66795	0.74843 ++++	0.72374	0.75388	0.76522	0.69273	AVRG		0.76672		14.99112
174 Hexachlorophene	++++ 0.05947	0.04741 ++++	0.06158	++++	0.06384	0.06162	AVRG		0.05878		11.13226
179 Dibenzo(a,e)pyrene	++++ 0.31678	0.36049 0.29389	0.28249	0.34513	0.30393	0.34223	AVRG		0.32071		9.10777
185 (2,3-Dibromopropyl)phosphate	++++ ++++	++++ ++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00

## GEL Laboratories LLC

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 Method file : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 22-Mar-2010 16:37 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
184 p-Benzoquinone	++++ 0.22851	0.20897 0.25291	0.35254	0.17686	0.22912	0.25164	AVRG	0.24293			22.61358
191 Parathion	++++ 0.05714	0.06141 0.05627	0.06185	0.06208	0.06168	0.05986	AVRG	0.06004			3.99838
192 Methoxychlor	++++ 0.60574	0.71007 0.57499	0.76187	0.67557	0.67506	0.65556	AVRG	0.65555			9.36899
210 m-Toluidine	++++ 1.82362	1.67718 ++++	1.91596	1.79952	2.07052	1.85391	AVRG	1.85679			7.05627
211 p-Toluidine	++++ 1.16108	1.47044 ++++	1.37288	1.42100	1.28519	1.31427	AVRG	1.33748			8.21058
212 Cis Diallate	++++ 0.27521	0.29467 0.27193	0.31145	0.29067	0.29841	0.28191	AVRG	0.28918			4.80566
213 Trans Diallate	++++ 0.25994	0.34024 0.25578	0.32722	0.29518	0.29375	0.27539	AVRG	0.29250			10.98494
214 1,4-Dinitrobenzene	++++ 0.25743	0.27003 0.25119	0.28077	0.27490	0.28781	0.26587	AVRG	0.26971			4.75195
215 2-Ethoxyethanol	++++ 0.66248	0.75153 0.66748	0.75427	0.72199	0.73882	0.68817	AVRG	0.71211			5.48996



## GEL Laboratories LLC

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 Integrator : HP RTE  
 Method file : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 22-Mar-2010 16:37 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
	100	120									
	Level 7	Level 8									
216 Methylenebis (2-chloroaniline)	++++	0.14670	0.14448	0.16081	0.16367	0.16247					
	0.16353	0.15734					AVRG		0.15700		5.16494
229 2,2'-Dichlorobenzil	++++	0.75519	0.72438	0.63746	0.67020	++++					
	0.60843	0.58423					AVRG		0.66332		10.03522
230 4-Chlorothioanisole	++++	0.25858	0.25840	0.25992	0.26979	++++					
	0.24846	0.24389					AVRG		0.25651		3.57209
231 4-Chlorothiophenol	++++	20380	113799	319351	419370	++++					
	924542	1190062					LINR	0.19963	0.21635		0.99920
232 bis (p-Chlorophenyl) sulfone	++++	0.42993	0.41812	0.36485	0.38196	++++					
	0.35821	0.34208					AVRG		0.38252		9.09627
233 bis (p-Chlorophenyl) disulfide	++++	0.18867	0.16361	0.14247	0.15771	++++					
	0.13916	0.13446					AVRG		0.15435		13.09397
234 Diphenyl disulfide	++++	0.25253	0.23711	0.22392	0.22770	++++					
	0.20985	0.20621					AVRG		0.22622		7.62190
235 Diphenyl sulfide	++++	0.81794	0.80171	0.75220	0.72922	++++					
	0.67001	0.65856					AVRG		0.73827		8.91554
236 Phenyl sulfone	++++	0.47552	0.46096	0.43737	0.43617	++++					
	0.40374	0.40017					AVRG		0.43565		6.89465

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 Cal Date : 22-Mar-2010 16:37 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
237 Hydroxymethyl phthalimide	++++	38588	80856	126016	157606	++++	LINR	-0.21210	0.09455		0.99652
238 Phthalic acid	++++	19671	59106	176058	250394	++++	LINR	0.26696	0.14514		0.99255
239 Thiophenol	++++	62327	207465	508832	672604	++++	LINR	0.09119	1.06115		0.99838
240 bis(Chloromethyl)ether	++++	0.97516	0.91313	0.87686	0.87662	++++	AVRG		0.86789		8.80685
241 Octachlorostyrene	++++	0.05974	0.05913	0.05893	0.06005	++++	AVRG		0.05855		2.50376
M 225 Trichlorophenols	++++	0.05689	0.05659	0.05659	0.05659	0.33004	AVRG		0.34470		8.43399
M 226 Tetrachlorophenols	++++	0.31483	0.30425	0.29838	0.27851	0.26438	AVRG		0.27788		5.16598
M 227 Benzo (b, k) fluoranthene	++++	0.26048	0.26802	1.15773	1.02890	1.04507	AVRG		1.06536		5.16433
M 228 TTO Sum Semivolatiles	++++	0.98224	1.02788	++++	++++	++++	AVRG		0.000e+00		0.000e+00

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
\$ 3 2-Fluorophenol	++++ 1.02412	1.17799 1.01478	1.21081 1.02412	1.12585 1.02412	1.16530 1.02412	1.06488 1.02412	AVRG		1.11196		7.01882
\$ 5 Phenol-d5	++++ 1.31463	1.53055 1.30976	1.52276 1.30976	1.42264 1.30976	1.44854 1.30976	1.34995 1.30976	AVRG		1.41412		6.55306
\$ 187 2-Chlorophenol-d4	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+00		0.000e+00
\$ 188 1,2-Dichlorobenzene-d4	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+00		0.000e+00
\$ 20 Nitrobenzene-d5	++++ 0.33590	0.43556 0.32456	0.43337 0.32456	0.38834 0.32456	0.39802 0.32456	0.36088 0.32456	AVRG		0.38237		11.53560
\$ 39 2-Fluorobiphenyl	++++ 0.89495	1.22526 0.86381	1.18747 0.86381	1.05919 0.86381	1.04982 0.86381	0.94356 0.86381	AVRG		1.03201		13.55845
\$ 60 2,4,6-Tribromophenol	++++ 0.10877	0.11014 0.11433	0.11537 0.11433	0.11089 0.11433	0.11508 0.11433	0.11113 0.11433	AVRG		0.11225		2.35114
\$ 81 p-Terphenyl-di4	++++ 0.64309	0.73264 0.67033	0.77308 0.67033	0.65971 0.67033	0.68870 0.67033	0.71170 0.67033	AVRG		0.69704		6.50888

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Cal Date : 22-Mar-2010 16:37 jen00986

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

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-MAR-2010 13:40  
Lab File ID: s6c1612.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
Analysis Type: Init. Cal. Times: 09:18 03:19  
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD  
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
\$ 3 2-Fluorophenol	1.11196	1.12168	1.12168	0.000	0.87417	60.00000	Averaged
\$ 5 Phenol-d5	1.41412	1.37076	1.37076	0.000	-3.06618	60.00000	Averaged
\$ 20 Nitrobenzene-d5	0.38237	0.38375	0.38375	0.000	0.36085	60.00000	Averaged
\$ 39 2-Fluorobiphenyl	1.03201	1.06678	1.06678	0.000	3.36917	60.00000	Averaged
\$ 60 2,4,6-Tribromophenol	0.11225	0.11519	0.11519	0.000	2.62633	60.00000	Averaged
\$ 81 p-Terphenyl-d14	0.69704	0.79497	0.79497	0.000	14.04962	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.77557	0.72913	0.72913	0.000	-5.98844	60.00000	Averaged
2 Pyridine	1.10526	0.87234	0.87234	0.000	-21.07309	60.00000	Averaged
4 Aniline	0.66950	0.60777	0.60777	0.000	-9.21935	60.00000	Averaged
6 Phenol	1.43150	1.41995	1.41995	0.001	-0.80724	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06440	0.94128	0.94128	0.000	-11.56744	60.00000	Averaged
8 2-Chlorophenol	1.16424	1.11829	1.11829	0.000	-3.94731	60.00000	Averaged
203 n-Decane	1.69067	1.54455	1.54455	0.000	-8.64282	60.00000	Averaged
9 1,3-Dichlorobenzene	1.28259	1.28904	1.28904	0.000	0.50225	60.00000	Averaged
11 1,4-Dichlorobenzene	1.24541	1.21952	1.21952	0.001	-2.07919	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.12890	1.06600	1.06600	0.000	-5.57188	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.23712	2.09235	2.09235	0.000	-6.47116	60.00000	Averaged
12 Benzyl alcohol	0.81825	0.80249	0.80249	0.000	-1.92556	60.00000	Averaged
15 o-Cresol	0.88788	0.81788	0.81788	0.000	-7.88416	60.00000	Averaged
18 m,p-Cresols	1.27893	1.27505	1.27505	0.000	-0.30315	60.00000	Averaged
17 N-Nitrosodipropylamine	0.97668	0.94425	0.94425	0.050	-3.31985	60.00000	Averaged spcc
19 Hexachloroethane	0.53767	0.51894	0.51894	0.000	-3.48261	60.00000	Averaged
21 Nitrobenzene	0.35281	0.34682	0.34682	0.000	-1.69798	60.00000	Averaged
22 Isophorone	0.67701	0.62895	0.62895	0.000	-7.09880	60.00000	Averaged
23 2-Nitrophenol	0.15292	0.16307	0.16307	0.001	6.63474	20.00000	Averaged ccc
24 2,4-Dimethylphenol	41.38180	40.00000	0.29961	0.000	3.45451	60.00000	Wt Linear
25 bis(2-Chloroethoxy)methane	0.36806	0.34233	0.34233	0.000	-6.99093	60.00000	Averaged
26 2,4-Dichlorophenol	0.25252	0.26160	0.26160	0.001	3.59413	20.00000	Averaged ccc
27 Benzoic acid	0.18753	0.19379	0.19379	0.000	3.33592	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.28905	0.28858	0.28858	0.000	-0.16362	60.00000	Averaged
30 Naphthalene	0.98486	0.79921	0.79921	0.000	-18.85032	60.00000	Averaged
204 alpha-Terpineol	0.28429	0.25507	0.25507	0.000	-10.27705	60.00000	Averaged
31 4-Chloroaniline	0.43446	0.43164	0.43164	0.000	-0.64988	60.00000	Averaged
32 Hexachlorobutadiene	0.16407	0.16530	0.16530	0.001	0.75184	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.27436	0.27921	0.27921	0.001	1.76856	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.60564	0.55335	0.55335	0.000	-8.63470	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-MAR-2010 13:40  
Lab File ID: s6c1612.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
Analysis Type: Init. Cal. Times: 09:18 03:19  
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD  
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.58910	0.52291	0.52291	0.000	-11.23674	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.22936	0.18652	0.18652	0.050	-18.67482	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.52459	0.51110	0.51110	0.000	-2.57171	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.33474	0.32662	0.32662	0.001	-2.42453	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.35465	0.40021	0.40021	0.000	12.84507	60.00000	Averaged
40 2-Chloronaphthalene	0.97365	0.93597	0.93597	0.000	-3.87057	60.00000	Averaged
42 o-Nitroaniline	0.34201	0.32847	0.32847	0.000	-3.95892	60.00000	Averaged
41 m-Nitroaniline	0.25409	0.25677	0.25677	0.000	1.05507	60.00000	Averaged
43 Dimethylphthalate	1.13004	1.08997	1.08997	0.000	-3.54579	60.00000	Averaged
44 2,6-Dinitrotoluene	0.27058	0.26832	0.26832	0.000	-0.83186	60.00000	Averaged
50 2,4-Dinitrotoluene	0.35648	0.35493	0.35493	0.000	-0.43442	60.00000	Averaged
45 Acenaphthylene	1.54257	1.46080	1.46080	0.000	-5.30128	60.00000	Averaged
47 Acenaphthene	1.03783	0.85181	0.85181	0.001	-17.92376	20.00000	Averaged ccc
48 2,4-Dinitrophenol	46.32757	40.00000	0.11227	0.050	15.81891	60.00000	Linear spcc
49 Dibenzofuran	1.26069	1.27158	1.27158	0.000	0.86401	60.00000	Averaged
51 Diethylphthalate	1.10774	1.08784	1.08784	0.000	-1.79621	60.00000	Averaged
52 4-Nitrophenol	0.19236	0.19555	0.19555	0.050	1.66021	60.00000	Averaged spcc
53 Fluorene	1.11781	1.00173	1.00173	0.000	-10.38406	60.00000	Averaged
54 4-Chlorophenylphenylether	0.53621	0.52718	0.52718	0.000	-1.68531	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	53.31509	40.00000	0.12791	0.000	33.28773	60.00000	Linear
56 p-Nitroaniline	0.20835	0.21709	0.21709	0.000	4.19498	60.00000	Averaged
133 Diphenylamine	0.51902	0.51728	0.51728	0.001	-0.33469	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.69767	0.67966	0.67966	0.000	-2.58092	60.00000	Averaged
61 4-Bromophenylphenylether	0.17368	0.16740	0.16740	0.000	-3.61790	60.00000	Averaged
63 Hexachlorobenzene	0.16595	0.16267	0.16267	0.000	-1.98022	60.00000	Averaged
65 Pentachlorophenol	0.09397	0.10258	0.10258	0.001	9.16648	20.00000	Averaged ccc
206 n-Octadecane	0.48063	0.43611	0.43611	0.000	-9.26268	60.00000	Averaged
68 Phenanthrene	0.97466	0.84202	0.84202	0.000	-13.60887	60.00000	Averaged
69 Anthracene	0.98189	0.86400	0.86400	0.000	-12.00660	60.00000	Averaged
72 Di-n-butylphthalate	1.13557	1.00857	1.00857	0.000	-11.18389	60.00000	Averaged
76 Fluoranthene	0.98842	0.88230	0.88230	0.001	-10.73646	20.00000	Averaged ccc
79 Pyrene	1.21938	1.19482	1.19482	0.000	-2.01369	60.00000	Averaged
85 Butylbenzylphthalate	0.58998	0.57132	0.57132	0.000	-3.16294	60.00000	Averaged
89 Benzo(a)anthracene	1.04446	0.93343	0.93343	0.000	-10.63003	60.00000	Averaged
92 Chrysene	0.99764	0.88878	0.88878	0.000	-10.91116	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.78860	0.68724	0.68724	0.000	-12.85331	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-MAR-2010 13:40  
Lab File ID: s6c1612.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
Analysis Type: Init. Cal. Times: 09:18 03:19  
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD  
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
94 Di-n-octylphthalate	1.53062	1.45980	1.45980	0.001	-4.62716	20.00000	Averaged ccc
95 Benzo(b)fluoranthene	1.08744	1.04680	1.04680	0.000	-3.73780	60.00000	Averaged
96 Benzo(k)fluoranthene	1.04328	1.00268	1.00268	0.000	-3.89200	60.00000	Averaged
97 Benzo(a)pyrene	0.92098	0.86170	0.86170	0.001	-6.43663	20.00000	Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.84510	0.68869	0.68869	0.000	-18.50875	60.00000	Averaged
100 Dibenzo(a,h)anthracene	0.68068	0.54838	0.54838	0.000	-19.43674	60.00000	Averaged
101 Benzo(ghi)perylene	0.72160	0.57432	0.57432	0.000	-20.41069	60.00000	Averaged
126 m-Dinitrobenzene	0.19174	0.20089	0.20089	0.000	4.77491	60.00000	Averaged
130 2,3,4,6-Tetrachlorophenol	0.27788	0.27031	0.27031	0.000	-2.72357	60.00000	Averaged
143 Dinoseb	45.06416	40.00000	0.15323	0.000	12.66041	60.00000	Linear
173 Carbazole	0.76672	0.77286	0.77286	0.000	0.80138	60.00000	Averaged
184 p-Benzoquinone	0.24293	0.15889	0.15889	0.000	-34.59747	60.00000	Averaged
192 Methoxychlor	0.66555	0.59810	0.59810	0.000	-10.13445	60.00000	Averaged
211 p-Toluidine	1.33748	1.16997	1.16997	0.000	-12.52380	60.00000	Averaged
210 m-Toluidine	1.85679	1.79116	1.79116	0.000	-3.53432	60.00000	Averaged
215 2-Ethoxyethanol	0.71211	0.71416	0.71416	0.000	0.28894	60.00000	Averaged
179 Dibenzo(a,e)pyrene	0.32071	0.16099	0.16099	0.000	-49.80217	60.00000	Averaged
26 Phthalic anhydride	53.63299	40.00000	0.19118	0.000	34.08247	60.00000	Linear
214 1,4-Dinitrobenzene	0.26971	0.26900	0.26900	0.000	-0.26254	60.00000	Averaged
216 Methylenebis(2-chloroanilin	0.15700	0.15460	0.15460	0.000	-1.53152	60.00000	Averaged
M 225 Trichlorophenols	0.34470	0.36342	0.36342	0.000	5.43080	60.00000	Averaged
M 226 Tetrachlorophenols	0.27788	0.27031	0.27031	0.000	-2.72357	60.00000	Averaged
M 227 Benzo(b,k)fluoranthene	1.06536	1.02474	1.02474	0.000	-3.81330	60.00000	Averaged

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Data file : /chem/MSD6.i/s031610.b/s6c1612.d  
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGAICV  
Inj Date : 16-MAR-2010 13:40  
Operator : nagl Inst ID: MSD6.i  
Smp Info : |WBN100309-09.1|040 PPM|1|SVM|1|MEGAICV  
Misc Info : |MSD8270|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 17-Mar-2010 09:42 nat00999 Quant Type: ISTD  
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d  
Als bottle: 11 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: MEGA.sub  
Target Version: 3.50  
Processing Host: hpclp1

Compounds	QUANT SIG						AMOUNTS	
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	=====	==	=====	=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	152	3.963	3.963	(1.000)		456524	40.0000	
* 29 Naphthalene-d8	136	4.834	4.834	(1.000)		1718025	40.0000	
* 46 Acenaphthene-d10	164	6.093	6.093	(1.000)		1004258	40.0000	
* 67 Phenanthrene-d10	188	7.269	7.269	(1.000)		1718283	40.0000	
* 91 Chrysene-d12	240	9.698	9.698	(1.000)		1300638	40.0000	
* 98 Perylene-d12	264	11.398	11.398	(1.000)		952660	40.0000	
\$ 3 2-Fluorophenol	112	3.140	3.140	(0.792)		512074	40.0000	40.3
\$ 5 Phenol-d5	99	3.669	3.669	(0.926)		625784	40.0000	38.8
\$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.895)		659299	40.0000	40.1
\$ 39 2-Fluorobiphenyl	172	5.575	5.575	(0.915)		1071322	40.0000	41.3
\$ 60 2,4,6-Tribromophenol	329	6.692	6.692	(1.098)		115684	40.0000	41.0
\$ 81 p-Terphenyl-d14	244	8.657	8.657	(0.893)		1033963	40.0000	45.6
1 N-Methyl-N-nitrosomethylamine	74	2.452	2.452	(0.619)		332865	40.0000	37.6
2 Pyridine	79	2.481	2.481	(0.626)		398246	40.0000	31.6
4 Aniline	66	3.746	3.746	(0.945)		277463	40.0000	36.3
6 Phenol	94	3.681	3.681	(0.929)		648240	40.0000	39.7
7 bis(2-Chloroethyl) ether	63	3.763	3.763	(0.950)		429717	40.0000	35.4
8 2-Chlorophenol	128	3.828	3.828	(0.966)		510524	40.0000	38.4
203 n-Decane	43	3.810	3.810	(0.961)		705124	40.0000	36.5
9 1,3-Dichlorobenzene	146	3.928	3.928	(0.991)		588476	40.0000	40.2
11 1,4-Dichlorobenzene	146	3.975	3.975	(1.003)		556738	40.0000	39.2
13 1,2-Dichlorobenzene	146	4.081	4.081	(1.030)		486655	40.0000	37.8
14 bis(2-Chloroisopropyl) ether	45	4.104	4.104	(1.036)		955210	40.0000	37.4
12 Benzyl alcohol	108	4.028	4.028	(1.016)		366356	40.0000	39.2
15 o-Cresol	107	4.075	4.075	(1.028)		373380	40.0000	36.8
18 m,p-Cresols	107	4.181	4.181	(1.055)		582091	40.0000	39.9



Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE		CAL-AMT (ng/ul)	ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.204	4.204	(1.061)	431074		40.0000	38.7
19 Hexachloroethane	117	4.310	4.310	(1.088)	236910		40.0000	38.6
21 Nitrobenzene	77	4.340	4.340	(0.898)	595845		40.0000	39.3
22 Isophorone	82	4.498	4.498	(0.931)	1080551		40.0000	37.2
23 2-Nitrophenol	139	4.557	4.557	(0.943)	280151		40.0000	42.6
24 2,4-Dimethylphenol	122	4.546	4.546	(0.940)	514742		40.0000	41.4
25 bis(2-Chloroethoxy)methane	93	4.616	4.616	(0.955)	588138		40.0000	37.2
26 2,4-Dichlorophenol	162	4.716	4.716	(0.976)	449433		40.0000	41.4
27 Benzoic acid	105	4.604	4.604	(0.953)	332933		40.0000	41.3
28 1,2,4-Trichlorobenzene	180	4.781	4.781	(0.989)	495781		40.0000	39.9
30 Naphthalene	128	4.851	4.851	(1.004)	1373063		40.0000	32.4
204 alpha-Terpineol	59	4.822	4.822	(0.998)	438221		40.0000	35.9
31 4-Chloroaniline	127	4.863	4.863	(1.006)	741569		40.0000	39.7
32 Hexachlorobutadiene	225	4.910	4.910	(1.016)	283988		40.0000	40.3
33 4-Chloro-3-methylphenol	107	5.169	5.169	(1.069)	479692		40.0000	40.7
34 2-Methylnaphthalene	142	5.328	5.328	(1.102)	950663		40.0000	36.5
35 1-Methylnaphthalene	142	5.404	5.404	(1.118)	898368		40.0000	35.5
36 Hexachlorocyclopentadiene	237	5.434	5.434	(0.892)	187318		40.0000	32.5
205 2,3-Dichloroaniline	161	5.528	5.528	(0.907)	513274		40.0000	39.0
37 2,4,6-Trichlorophenol	196	5.516	5.516	(0.905)	328015		40.0000	39.0
38 2,4,5-Trichlorophenol	196	5.545	5.545	(0.910)	401913		40.0000	45.1
40 2-Chloronaphthalene	162	5.687	5.687	(0.933)	939951		40.0000	38.4
42 o-Nitroaniline	65	5.740	5.740	(0.942)	329871		40.0000	38.4
41 m-Nitroaniline	138	6.040	6.040	(0.991)	257868		40.0000	40.4
43 Dimethylphthalate	163	5.851	5.851	(0.960)	1094609		40.0000	38.6
44 2,6-Dinitrotoluene	165	5.910	5.910	(0.970)	269467		40.0000	39.7
50 2,4-Dinitrotoluene	165	6.204	6.204	(1.018)	356439		40.0000	39.8
45 Acenaphthylene	152	5.993	5.993	(0.984)	1467016		40.0000	37.9
47 Acenaphthene	154	6.116	6.116	(1.004)	855440		40.0000	32.8
48 2,4-Dinitrophenol	184	6.110	6.110	(1.003)	112751		40.0000	46.3
49 Dibenzofuran	168	6.245	6.245	(1.025)	1276999		40.0000	40.3
51 Diethylphthalate	149	6.363	6.363	(1.044)	1092470		40.0000	39.3
52 4-Nitrophenol	139	6.122	6.122	(1.005)	196387		40.0000	40.7
53 Fluorene	166	6.504	6.504	(1.068)	1005998		40.0000	35.8
54 4-Chlorophenylphenylether	204	6.481	6.481	(1.064)	529421		40.0000	39.3
55 2-Methyl-4,6-dinitrophenol	198	6.522	6.522	(0.897)	219793		40.0000	53.3
56 p-Nitroaniline	138	6.504	6.504	(1.068)	218010		40.0000	41.7
133 Diphenylamine	169	6.569	6.569	(0.904)	888833		40.0000	39.9
58 1,2-Diphenylhydrazine	77	6.604	6.604	(0.909)	1167855		40.0000	39.0
61 4-Bromophenylphenylether	248	6.869	6.869	(0.945)	287633		40.0000	38.6
63 Hexachlorobenzene	284	6.940	6.940	(0.955)	279510		40.0000	39.2
65 Pentachlorophenol	266	7.087	7.087	(0.975)	176266		40.0000	43.7
206 n-Octadecane	57	7.081	7.081	(0.974)	749361		40.0000	36.3
68 Phenanthrene	178	7.292	7.292	(1.003)	1446824		40.0000	34.6
69 Anthracene	178	7.334	7.334	(1.009)	1484597		40.0000	35.2
72 Di-n-butylphthalate	149	7.692	7.692	(1.058)	1733003		40.0000	35.5
76 Fluoranthene	202	8.339	8.339	(1.147)	1516040		40.0000	35.7

Compounds	QUANT SIG			RESPONSE	AMOUNTS	
	MASS	RT	EXP RT REL RT		CAL-AMT (ng/ul)	ON-COL (ng/ul)
79 Pyrene	202	8.557	8.557 (0.882)	1554030	40.0000	39.2
85 Butylbenzylphthalate	149	9.092	9.092 (0.938)	743080	40.0000	38.7
89 Benzo(a)anthracene	228	9.681	9.681 (0.998)	1214059	40.0000	35.7
92 Chrysene	228	9.722	9.722 (1.002)	1155983	40.0000	35.6
93 bis(2-Ethylhexyl)phthalate	149	9.616	9.616 (0.992)	893848	40.0000	34.8
94 Di-n-octylphthalate	149	10.280	10.280 (0.902)	1390689	40.0000	38.1
95 Benzo(b)fluoranthene	252	10.875	10.875 (0.954)	997243	40.0000	38.5
96 Benzo(k)fluoranthene	252	10.910	10.910 (0.957)	955210	40.0000	38.4
97 Benzo(a)pyrene	252	11.322	11.322 (0.993)	820904	40.0000	37.4
99 Indeno(1,2,3-cd)pyrene	276	13.204	13.204 (1.158)	656083	40.0000	32.6
100 Dibenzo(a,h)anthracene	278	13.221	13.221 (1.160)	522415	40.0000	32.2
101 Benzo(ghi)perylene	276	13.757	13.757 (1.207)	547130	40.0000	31.8
126 m-Dinitrobenzene	168	5.893	5.893 (0.967)	201747	40.0000	41.9
130 2,3,4,6-Tetrachlorophenol	232	6.316	6.316 (1.037)	271462	40.0000	38.9
143 Dinoseb	211	7.210	7.210 (0.992)	263293	40.0000	45.1
173 Carbazole	167	7.451	7.451 (1.025)	1327998	40.0000	40.3
184 p-Benzoquinone	54	3.446	3.446 (0.869)	72535	40.0000	26.2
192 Methoxychlor	227	9.569	9.569 (0.987)	777910	40.0000	35.9
211 p-Toluidine	106	4.246	4.246 (1.071)	534121	40.0000	35.0 (H)
210 m-Toluidine	106	4.263	4.263 (1.076)	817708	40.0000	38.6
215 2-Ethoxyethanol	59	2.293	2.293 (0.578)	326033	40.0000	40.1
179 Dibenzo(a,e)pyrene	302	17.974	17.974 (1.577)	153366	40.0000	20.1
26 Phthalic anhydride	104	5.369	5.369 (1.111)	328450	40.0000	53.6
214 1,4-Dinitrobenzene	75	5.834	5.834 (0.958)	270150	40.0000	39.9
216 Methylenebis(2-chloroaniline)	231	9.628	9.628 (0.993)	201073	40.0000	39.4
M 225 Trichlorophenols	196			729928	80.0000	84.3
M 226 Tetrachlorophenols	232			271462	40.0000	38.9
M 227 Benzo(b,k)fluoranthene	252			1952453	80.0000	76.9

#### QC Flag Legend

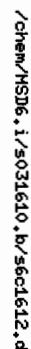
H - Operator selected an alternate compound hit.

Page 1

Instrument: MSD6.1

Sample Info: IWBNI00309-09.11040 PPH11SVH11MEGAICV

Operator: nag1  
Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 17-MAR-2010 00:41  
Lab File ID: s6c1635.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
Analysis Type: Init. Cal. Times: 09:18 03:19  
Lab Sample ID: WBN100312-08.1 Quant Type: ISTD  
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.96016	0.81875	0.81875	0.000	-14.72761	60.00000	Averaged
16 Acetophenone	1.24814	1.25263	1.25263	0.000	0.35947	60.00000	Averaged
189 Caprolactam	0.09790	0.10379	0.10379	0.000	6.01713	60.00000	Averaged
208 1,1'-Biphenyl	1.11180	1.18809	1.18809	0.000	6.86162	60.00000	Averaged
207 Atrazine	0.04606	0.04863	0.04863	0.000	5.59576	60.00000	Averaged
77 Benzidine	0.42058	0.38100	0.38100	0.000	-9.41199	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.30172	0.29115	0.29115	0.000	-3.50494	60.00000	Averaged
102 1,4-Dioxane	0.35119	0.42489	0.42489	0.000	20.98835	60.00000	Averaged
103 Methyl methacrylate	0.18979	0.23586	0.23586	0.000	24.27101	60.00000	Averaged
104 Ethyl methacrylate	0.82709	0.99246	0.99246	0.000	19.99468	60.00000	Averaged
105 2-Picoline	1.21280	1.17717	1.17717	0.000	-2.93779	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.53810	0.51671	0.51671	0.000	-3.97561	60.00000	Averaged
107 Methyl methanesulfonate	0.59726	0.64303	0.64303	0.000	7.66352	60.00000	Averaged
108 N-Nitrosodiethylamine	0.54437	0.51427	0.51427	0.000	-5.53074	60.00000	Averaged
109 Ethyl Methanesulfonate	0.72583	0.86252	0.86252	0.000	18.83349	60.00000	Averaged
110 Pentachloroethane	0.33314	0.46050	0.46050	0.000	38.22991	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.58446	0.54601	0.54601	0.000	-6.57949	60.00000	Averaged
113 N-Nitrosomorpholine	0.68078	0.67817	0.67817	0.000	-0.38364	60.00000	Averaged
114 o-Toluidine	1.73474	1.71282	1.71282	0.000	-1.26373	60.00000	Averaged
115 N-Nitrosopiperidine	0.15362	0.15537	0.15537	0.000	1.14048	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.87353	0.84296	0.84296	0.000	-3.49989	60.00000	Averaged
118 2,6-Dichlorophenol	0.24533	0.25532	0.25532	0.000	4.07128	60.00000	Averaged
119 Hexachloropropene	0.13311	0.21102	0.21102	0.000	58.53040	60.00000	Averaged
120 p-Phenylenediamine	0.30365	0.25418	0.25418	0.000	-16.29271	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.26282	0.23622	0.23622	0.000	-10.12220	60.00000	Averaged
122 Safrole	0.21396	0.24803	0.24803	0.000	15.92258	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44716	0.49965	0.49965	0.000	11.73987	60.00000	Averaged
124 Isosafrole	0.35324	0.46919	0.46919	0.000	32.82296	60.00000	Averaged
125 1,4-Naphthoquinone	0.34254	0.36074	0.36074	0.000	5.31328	60.00000	Averaged
127 Pentachlorobenzene	0.37515	0.39513	0.39513	0.000	5.32511	60.00000	Averaged
128 1-Naphthylamine	0.89931	0.86590	0.86590	0.000	-3.71571	60.00000	Averaged
129 2-Naphthylamine	0.94089	0.95153	0.95153	0.000	1.13110	60.00000	Averaged
131 5-Nitro-o-toluidine	0.30665	0.29799	0.29799	0.000	-2.82387	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.15613	0.20859	0.20859	0.000	33.60060	60.00000	Averaged
137 Phenacetin	0.29347	0.31337	0.31337	0.000	6.77907	60.00000	Averaged
138 Diallylate	0.24862	0.23882	0.23882	0.000	-3.94194	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 17-MAR-2010 00:41  
 Lab File ID: s6c1635.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
 Analysis Type: Init. Cal. Times: 09:18 03:19  
 Lab Sample ID: WBN100312-08.1 Quant Type: ISTD  
 Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.28918	0.35766	0.35766	0.000	23.68031	60.00000	Averaged
213 Trans Diallate	0.29250	0.28097	0.28097	0.000	-3.94194	60.00000	Averaged
140 4-Aminobiphenyl	0.55066	0.60803	0.60803	0.000	10.41902	60.00000	Averaged
141 Pentachloronitrobenzene	0.06695	0.07174	0.07174	0.000	7.16089	60.00000	Averaged
142 Pronamide	0.26094	0.27195	0.27195	0.000	4.22099	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02879	0.02702	0.02702	0.000	-6.14630	60.00000	Averaged
147 Methapyrilene	0.43748	0.36011	0.36011	0.000	-17.68475	60.00000	Averaged
148 Isodrin	0.11028	0.10672	0.10672	0.000	-3.22110	60.00000	Averaged
149 Aramite	0.04746	0.04804	0.04804	0.000	1.23400	60.00000	Averaged
150 Kepone	0.07668	0.07470	0.07470	0.000	-2.58614	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31031	0.32655	0.32655	0.000	5.23269	60.00000	Averaged
152 Chlorobenzilate	0.29472	0.31516	0.31516	0.000	6.93640	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.59350	0.56147	0.56147	0.000	-5.39699	60.00000	Averaged
155 2-Acetylaminofluorene	0.34851	0.33367	0.33367	0.000	-4.25802	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.48545	0.50464	0.50464	0.000	3.95471	60.00000	Averaged
158 3-Methylcholanthrene	0.40010	0.40383	0.40383	0.000	0.93137	60.00000	Averaged

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Data file : /chem/MSD6.i/s031610.b/s6c1635.d  
Lab Smp Id: WBN100312-08.1 Client Smp ID: APICV  
Inj Date : 17-MAR-2010 00:41  
Operator : nagl Inst ID: MSD6.i  
Smp Info : |WBN100312-08.1|40 PPM|1|SVM|1|APICV  
Misc Info : |MSD8270|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 17-Mar-2010 09:44 nat00999 Quant Type: ISTD  
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d  
Als bottle: 34 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AP12.sub  
Target Version: 3.50  
Processing Host: hpclp1

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.969	3.969	(1.000)	439915	40.0000	
* 29 Naphthalene-d8	136	4.840	4.840	(1.000)	1539251	40.0000	
* 46 Acenaphthene-d10	164	6.098	6.098	(1.000)	929656	40.0000	
* 67 Phenanthrene-d10	188	7.281	7.281	(1.000)	1586415	40.0000	
* 91 Chrysene-d12	240	9.704	9.704	(1.000)	1243348	40.0000	
* 98 Perylene-d12	264	11.422	11.422	(1.000)	840077	40.0000	
209 Benzaldehyde	77	3.698	3.698	(0.932)	360181	40.0000	34.1
16 Acetophenone	105	4.222	4.222	(1.064)	551051	40.0000	40.1
189 Caprolactam	113	5.116	5.116	(1.057)	159753	40.0000	42.4
208 1,1'-Biphenyl	154	5.663	5.663	(0.929)	1104517	40.0000	42.7
207 Atrazine	173	6.981	6.981	(0.959)	77154	40.0000	42.2
77 Benzidine	184	8.439	8.439	(0.870)	473712	40.0000	36.2
90 3,3'-Dichlorobenzidine	252	9.639	9.639	(0.993)	361998	40.0000	38.6
102 1,4-Dioxane	88	2.310	2.310	(0.582)	186917	40.0000	48.4
103 Methyl methacrylate	100	2.304	2.304	(0.581)	103758	40.0000	49.7
104 Ethyl methacrylate	69	2.669	2.669	(0.672)	436599	40.0000	48.0
105 2-Picoline	93	2.863	2.863	(0.721)	517853	40.0000	38.8
106 N-Nitrosomethylethylamine	88	2.904	2.904	(0.732)	227308	40.0000	38.4
107 Methyl methanesulfonate	80	3.063	3.063	(0.772)	282879	40.0000	43.1
108 N-Nitrosodiethylamine	102	3.299	3.299	(0.831)	226233	40.0000	37.8
109 Ethyl Methanesulfonate	79	3.457	3.457	(0.871)	379437	40.0000	47.5
110 Pentachloroethane	167	3.798	3.798	(0.957)	202582	40.0000	55.3
111 N-Nitrosopyrrolidine	100	4.210	4.210	(1.061)	240197	40.0000	37.4 (Q)
113 N-Nitrosomorpholine	56	4.234	4.234	(1.067)	298338	40.0000	39.8
114 o-Toluidine	106	4.251	4.251	(1.071)	753495	40.0000	39.5
115 N-Nitrosopiperidine	114	4.451	4.451	(0.920)	239154	40.0000	40.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
116 a,a-Dimethylphenethylamine	58	4.710	4.710	(0.973)	1297528	40.0000	38.6
118 2,6-Dichlorophenol	162	4.881	4.881	(1.008)	393003	40.0000	41.6
119 Hexachloropropene	213	4.910	4.910	(1.015)	324808	40.0000	63.4
120 p-Phenylenediamine	108	5.122	5.122	(1.058)	391247	40.0000	33.5
121 N-Nitrosodi-n-butylamine	84	5.087	5.087	(1.051)	363602	40.0000	36.0 (Q)
122 Safrole	162	5.251	5.251	(1.085)	381780	40.0000	46.4
123 1,2,4,5-Tetrachlorobenzene	216	5.457	5.457	(0.895)	464506	40.0000	44.7
124 Isosafrole	162	5.622	5.622	(0.922)	436182	40.0000	53.1
125 1,4-Naphthoquinone	158	5.816	5.816	(0.954)	335363	40.0000	42.1
127 Pentachlorobenzene	250	6.216	6.216	(1.019)	367336	40.0000	42.1
128 1-Naphthylamine	143	6.310	6.310	(1.035)	804986	40.0000	38.5
129 2-Naphthylamine	143	6.363	6.363	(1.043)	884595	40.0000	40.4
131 5-Nitro-o-toluidine	152	6.504	6.504	(1.067)	277025	40.0000	38.9
136 1,3,5-Trinitrobenzene	75	6.757	6.757	(0.928)	330916	40.0000	53.4
137 Phenacetin	108	6.798	6.798	(0.934)	497127	40.0000	42.7 (Q)
138 Diallate	86	6.787	6.787	(0.932)	378872	40.0000	38.4
212 Cis Diallate	86	6.863	6.863	(0.943)	85109	6.00000	7.4
213 Trans Diallate	86	6.787	6.787	(0.932)	378872	34.0000	32.6
140 4-Aminobiphenyl	169	7.092	7.092	(0.974)	964585	40.0000	44.2
141 Pentachloronitrobenzene	237	7.110	7.110	(0.977)	113813	40.0000	42.9 (Q)
142 Pronamide	173	7.110	7.110	(0.977)	431425	40.0000	41.7
146 4-Nitroquinoline-1-oxide	101	7.951	7.951	(1.092)	42870	40.0000	37.5
147 Methapyrilene	58	7.986	7.986	(1.097)	571288	40.0000	32.9
148 Isodrin	193	8.210	8.210	(1.128)	169307	40.0000	38.7
149 Aramite	185	8.616	8.616	(1.183)	76213	40.0000	40.5
150 Kepone	272	9.204	9.204	(1.264)	118500	40.0000	39.0
151 p-(Dimethylamino)azobenzene	120	8.792	8.792	(0.906)	406018	40.0000	42.1
152 Chlorobenzilate	251	8.828	8.828	(0.910)	391852	40.0000	42.8
153 3,3'-Dimethylbenzidine	212	9.116	9.116	(0.939)	698099	40.0000	37.8
155 2-Acetylaminofluorene	181	9.363	9.363	(0.965)	414870	40.0000	38.3
157 7,12Dimethylbenz(a)anthracene	256	10.869	10.869	(0.952)	423939	40.0000	41.6
158 3-Methylcholanthrene	268	11.839	11.839	(1.037)	339249	40.0000	40.4 (Q)

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s031610.b/s601635.d

Date: 17-MAR-2010 00:41

Client ID: APICV

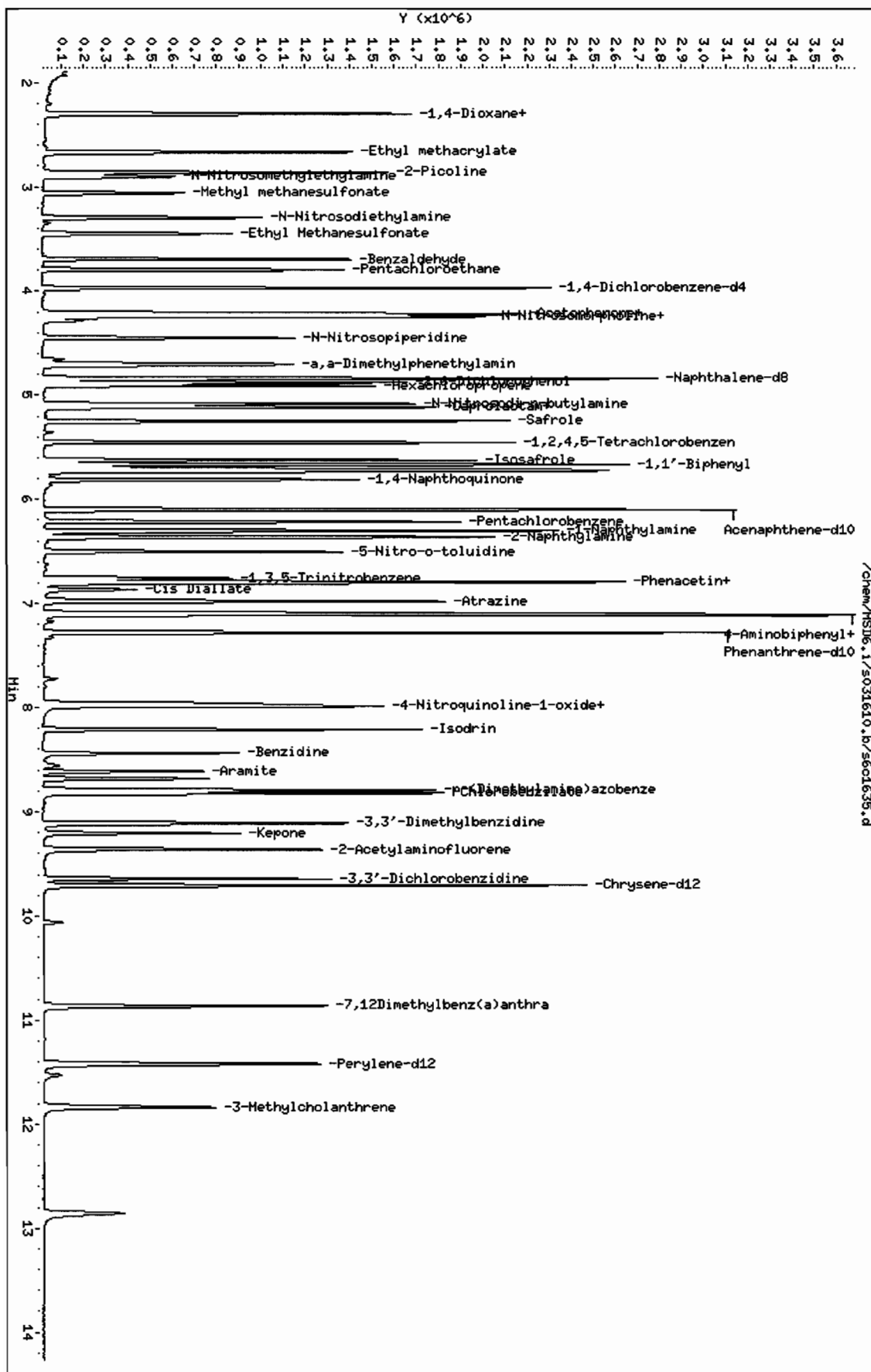
Sample Info: IIBN100312-08.1140 PPH11SVH11APICV

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20





GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-MAR-2010 16:55  
Lab File ID: s6c2105.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
Analysis Type: Init. Cal. Times: 09:18 04:51  
Lab Sample ID: WBN100309-05.3 Quant Type: ISTD  
Method: /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
\$ 3 2-Fluorophenol	1.11196	0.96065	0.96065	0.000	-13.60715	60.00000	Averaged
\$ 5 Phenol-d5	1.41412	1.16974	1.16974	0.000	-17.28117	60.00000	Averaged
\$ 20 Nitrobenzene-d5	0.38237	0.32731	0.32731	0.000	-14.40069	60.00000	Averaged
\$ 39 2-Fluorobiphenyl	1.03201	1.00349	1.00349	0.000	-2.76315	60.00000	Averaged
\$ 60 2,4,6-Tribromophenol	0.11225	0.11301	0.11301	0.000	0.68496	60.00000	Averaged
\$ 81 p-Terphenyl-d14	0.69704	0.66428	0.66428	0.000	-4.69965	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.77557	0.63282	0.63282	0.000	-18.40584	60.00000	Averaged
2 Pyridine	1.10526	0.88236	0.88236	0.000	-20.16652	60.00000	Averaged
4 Aniline	0.66950	0.53240	0.53240	0.000	-20.47730	60.00000	Averaged
6 Phenol	1.43150	1.16058	1.16058	0.001	-18.92560	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06440	0.82856	0.82856	0.000	-22.15722	60.00000	Averaged
8 2-Chlorophenol	1.16424	1.02048	1.02048	0.000	-12.34839	60.00000	Averaged
203 n-Decane	1.69067	1.17894	1.17894	0.000	-30.26796	60.00000	Averaged
9 1,3-Dichlorobenzene	1.28259	1.19910	1.19910	0.000	-6.50966	60.00000	Averaged
11 1,4-Dichlorobenzene	1.24541	1.19175	1.19175	0.001	-4.30833	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.12890	1.09847	1.09847	0.000	-2.69597	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.23712	1.58250	1.58250	0.000	-29.26188	60.00000	Averaged
12 Benzyl alcohol	0.81825	0.52838	0.52838	0.000	-35.42479	60.00000	Averaged
15 o-Cresol	0.88788	0.78193	0.78193	0.000	-11.93277	60.00000	Averaged
18 m,p-Cresols	1.27893	1.00178	1.00178	0.000	-21.67010	60.00000	Averaged
17 N-Nitrosodipropylamine	0.97668	0.78596	0.78596	0.050	-19.52676	60.00000	Averaged spcc
19 Hexachloroethane	0.53767	0.46827	0.46827	0.000	-12.90759	60.00000	Averaged
21 Nitrobenzene	0.35281	0.31106	0.31106	0.000	-11.83375	60.00000	Averaged
22 Isophorone	0.67701	0.58258	0.58258	0.000	-13.94865	60.00000	Averaged
23 2-Nitrophenol	0.15292	0.14359	0.14359	0.001	-6.09830	20.00000	Averaged ccc
24 2,4-Dimethylphenol	22.00765	40.00000	0.17708	0.000	-44.98088	60.00000	Wt Linear
25 bis(2-Chloroethoxy)methane	0.36806	0.31623	0.31623	0.000	-14.08209	60.00000	Averaged
26 2,4-Dichlorophenol	0.25252	0.23742	0.23742	0.001	-5.97996	20.00000	Averaged ccc
27 Benzoic acid	0.18753	0.16659	0.16659	0.000	-11.16588	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.28905	0.29550	0.29550	0.000	2.23141	60.00000	Averaged
30 Naphthalene	0.98486	0.79476	0.79476	0.000	-19.30257	60.00000	Averaged
204 alpha-Terpineol	0.28429	0.23014	0.23014	0.000	-19.04631	60.00000	Averaged
31 4-Chloroaniline	0.43446	0.40753	0.40753	0.000	-6.20020	60.00000	Averaged
32 Hexachlorobutadiene	0.16407	0.17721	0.17721	0.001	8.01114	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.27436	0.25140	0.25140	0.001	-8.36934	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.60564	0.51205	0.51205	0.000	-15.45399	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-MAR-2010 16:55  
Lab File ID: s6c2105.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
Analysis Type: Init. Cal. Times: 09:18 04:51  
Lab Sample ID: WBN100309-05.3 Quant Type: ISTD  
Method: /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.58910	0.51601	0.51601	0.000	-12.40785	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.22936	0.21991	0.21991	0.050	-4.11646	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.52459	0.51051	0.51051	0.000	-2.68386	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.33474	0.34583	0.34583	0.001	3.31164	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.35465	0.35514	0.35514	0.000	0.13718	60.00000	Averaged
40 2-Chloronaphthalene	0.97365	0.89595	0.89595	0.000	-7.98001	60.00000	Averaged
42 o-Nitroaniline	0.34201	0.26639	0.26639	0.000	-22.10984	60.00000	Averaged
41 m-Nitroaniline	0.25409	0.21215	0.21215	0.000	-16.50876	60.00000	Averaged
43 Dimethylphthalate	1.13004	1.08467	1.08467	0.000	-4.01476	60.00000	Averaged
44 2,6-Dinitrotoluene	0.27058	0.25949	0.25949	0.000	-4.09836	60.00000	Averaged
50 2,4-Dinitrotoluene	0.35648	0.33044	0.33044	0.000	-7.30330	60.00000	Averaged
45 Acenaphthylene	1.54257	1.36377	1.36377	0.000	-11.59144	60.00000	Averaged
47 Acenaphthene	1.03783	0.88922	0.88922	0.001	-14.31979	20.00000	Averaged ccc
48 2,4-Dinitrophenol	48.68772	40.00000	0.11881	0.050	21.71930	60.00000	Linear spcc
49 Dibenzofuran	1.26069	1.18033	1.18033	0.000	-6.37444	60.00000	Averaged
51 Diethylphthalate	1.10774	1.04469	1.04469	0.000	-5.69133	60.00000	Averaged
52 4-Nitrophenol	0.19236	0.16742	0.16742	0.050	-12.96467	60.00000	Averaged spcc
53 Fluorene	1.11781	1.01115	1.01115	0.000	-9.54196	60.00000	Averaged
54 4-Chlorophenylphenylether	0.53621	0.53643	0.53643	0.000	0.04054	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	46.73119	40.00000	0.11068	0.000	16.82799	60.00000	Linear
56 p-Nitroaniline	0.20835	0.17551	0.17551	0.000	-15.76024	60.00000	Averaged
133 Diphenylamine	0.51902	0.48547	0.48547	0.001	-6.46302	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.69767	0.57245	0.57245	0.000	-17.94821	60.00000	Averaged
61 4-Bromophenylphenylether	0.17368	0.18458	0.18458	0.000	6.27834	60.00000	Averaged
63 Hexachlorobenzene	0.16595	0.18708	0.18708	0.000	12.72714	60.00000	Averaged
65 Pentachlorophenol	0.09397	0.10239	0.10239	0.001	8.95779	20.00000	Averaged ccc
206 n-Octadecane	0.48063	0.36644	0.36644	0.000	-23.75735	60.00000	Averaged
68 Phenanthrene	0.97466	0.86751	0.86751	0.000	-10.99367	60.00000	Averaged
69 Anthracene	0.98189	0.86532	0.86532	0.000	-11.87243	60.00000	Averaged
72 Di-n-butylphthalate	1.13557	1.00013	1.00013	0.000	-11.92686	60.00000	Averaged
76 Fluoranthene	0.98842	0.93683	0.93683	0.001	-5.21901	20.00000	Averaged ccc
79 Pyrene	1.21938	1.10459	1.10459	0.000	-9.41325	60.00000	Averaged
85 Butylbenzylphthalate	0.58998	0.51119	0.51119	0.000	-13.35426	60.00000	Averaged
89 Benzo(a)anthracene	1.04446	0.94875	0.94875	0.000	-9.16379	60.00000	Averaged
92 Chrysene	0.99764	0.91662	0.91662	0.000	-8.12083	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.78860	0.67230	0.67230	0.000	-14.74710	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-MAR-2010 16:55  
Lab File ID: s6c2105.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
Analysis Type: Init. Cal. Times: 09:18 04:51  
Lab Sample ID: WBN100309-05.3 Quant Type: ISTD  
Method: /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
94 Di-n-octylphthalate	1.53062	1.27015	1.27015	0.001	-17.01758	20.00000	Averaged ccc
95 Benzo(b)fluoranthene	1.08744	1.04326	1.04326	0.000	-4.06318	60.00000	Averaged
96 Benzo(k)fluoranthene	1.04328	0.99113	0.99113	0.000	-4.99890	60.00000	Averaged
97 Benzo(a)pyrene	0.92098	0.88547	0.88547	0.001	-3.85532	20.00000	Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.84510	0.78027	0.78027	0.000	-7.67189	60.00000	Averaged
100 Dibenzo(a,h)anthracene	0.68068	0.64000	0.64000	0.000	-5.97574	60.00000	Averaged
101 Benzo(ghi)perylene	0.72160	0.64543	0.64543	0.000	-10.55585	60.00000	Averaged
126 m-Dinitrobenzene	0.19174	0.18013	0.18013	0.000	-6.05534	60.00000	Averaged
130 2,3,4,6-Tetrachlorophenol	0.27788	0.25389	0.25389	0.000	-8.63324	60.00000	Averaged
143 Dinoseb	47.77820	40.00000	0.16360	0.000	19.44549	60.00000	Linear
173 Carbazole	0.76672	0.70459	0.70459	0.000	-8.10367	60.00000	Averaged
184 p-Benzoquinone	0.24293	0.18226	0.18226	0.000	-24.97665	60.00000	Averaged
192 Methoxychlor	0.66555	0.66828	0.66828	0.000	0.41083	60.00000	Averaged
211 p-Toluidine	1.33748	1.22738	1.22738	0.000	-8.23170	60.00000	Averaged
210 m-Toluidine	1.85679	1.31370	1.31370	0.000	-29.24888	60.00000	Averaged
215 2-Ethoxyethanol	0.71211	0.50810	0.50810	0.000	-28.64825	60.00000	Averaged
179 Dibenzo(a,e)pyrene	0.32071	0.28713	0.28713	0.000	-10.46797	60.00000	Averaged
26 Phthalic anhydride	22.21587	40.00000	0.07632	0.000	-44.46033	60.00000	Linear
214 1,4-Dinitrobenzene	0.26971	0.21240	0.21240	0.000	-21.25093	60.00000	Averaged
216 Methylenebis(2-chloroanilin	0.15700	0.10365	0.10365	0.000	-33.98100	60.00000	Averaged
M 225 Trichlorophenols	0.34470	0.35048	0.35048	0.000	1.67856	60.00000	Averaged
M 226 Tetrachlorophenols	0.27788	0.25389	0.25389	0.000	-8.63324	60.00000	Averaged
M 227 Benzo(b,k)fluoranthene	1.06536	1.01719	1.01719	0.000	-4.52134	60.00000	Averaged

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Data file : /chem/MSD6.i/s032110.b/s6c2105.d  
 Lab Smp Id: WBN100309-05.3 Client Smp ID: MEGACVS  
 Inj Date : 21-MAR-2010 16:55  
 Operator : nagl Inst ID: MSD6.i  
 Smp Info : |WBN100309-05.3|40 PPM|1|SVM|1|MEGACVS  
 Misc Info : |MSD8270|WBN100319-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 22-Mar-2010 16:50 jen00986 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 2 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: MEGA.sub  
 Target Version: 3.50  
 Processing Host: hpclp1

Compounds	QUANT SIG			REL RT	RESPONSE	AMOUNTS	
	MASS	RT	EXP RT			CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	152	3.822	3.822	(1.000)	534666	40.0000	
* 29 Naphthalene-d8	136	4.687	4.687	(1.000)	1941232	40.0000	
* 46 Acenaphthene-d10	164	5.934	5.934	(1.000)	1147252	40.0000	
* 67 Phenanthrene-d10	188	7.093	7.093	(1.000)	1917801	40.0000	
* 91 Chrysene-d12	240	9.486	9.486	(1.000)	1700059	40.0000	
* 98 Perylene-d12	264	11.075	11.075	(1.000)	1455801	40.0000	
\$ 3 2-Fluorophenol	112	3.005	3.005	(0.786)	513629	40.0000	34.6
\$ 5 Phenol-d5	99	3.534	3.534	(0.925)	625421	40.0000	33.1
\$ 20 Nitrobenzene-d5	82	4.181	4.181	(0.892)	635384	40.0000	34.2
\$ 39 2-Fluorobiphenyl	172	5.422	5.422	(0.914)	1151260	40.0000	38.9
\$ 60 2,4,6-Tribromophenol	329	6.522	6.522	(1.099)	129656	40.0000	40.3
\$ 81 p-Terphenyl-d14	244	8.463	8.463	(0.892)	1129310	40.0000	38.1
1 N-Methyl-N-nitrosomethylamine	74	2.310	2.310	(0.604)	338349	40.0000	32.6
2 Pyridine	79	2.340	2.340	(0.612)	471770	40.0000	31.9
4 Aniline	66	3.604	3.604	(0.943)	284657	40.0000	31.8
6 Phenol	94	3.546	3.546	(0.928)	620524	40.0000	32.4
7 bis(2-Chloroethyl) ether	63	3.622	3.622	(0.948)	443004	40.0000	31.1
8 2-Chlorophenol	128	3.681	3.681	(0.963)	545614	40.0000	35.1
203 n-Decane	43	3.669	3.669	(0.960)	630339	40.0000	27.9
9 1,3-Dichlorobenzene	146	3.787	3.787	(0.991)	641119	40.0000	37.4
11 1,4-Dichlorobenzene	146	3.834	3.834	(1.003)	637190	40.0000	38.3
13 1,2-Dichlorobenzene	146	3.934	3.934	(1.029)	587313	40.0000	38.9
14 bis(2-Chloroisopropyl) ether	45	3.963	3.963	(1.037)	846108	40.0000	28.3
12 Benzyl alcohol	108	3.887	3.887	(1.017)	282509	40.0000	25.8
15 o-Cresol	107	3.940	3.940	(1.031)	418071	40.0000	35.2
18 m,p-Cresols	107	4.040	4.040	(1.057)	535619	40.0000	31.3

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
17 N-Nitrosodipropylamine	70	4.063	4.063	(1.063)	420228	40.0000	32.2
19 Hexachloroethane	117	4.163	4.163	(1.089)	250367	40.0000	34.8
21 Nitrobenzene	77	4.199	4.199	(0.896)	603839	40.0000	35.3
22 Isophorone	82	4.352	4.352	(0.928)	1130914	40.0000	34.4
23 2-Nitrophenol	139	4.410	4.410	(0.941)	278750	40.0000	37.6
24 2,4-Dimethylphenol	122	4.404	4.404	(0.940)	343748	40.0000	22.0 (H)
25 bis(2-Chloroethoxy)methane	93	4.469	4.469	(0.954)	613883	40.0000	34.4
26 2,4-Dichlorophenol	162	4.569	4.569	(0.975)	460891	40.0000	37.6
27 Benzoic acid	105	4.463	4.463	(0.952)	323395	40.0000	35.5
28 1,2,4-Trichlorobenzene	180	4.634	4.634	(0.989)	573632	40.0000	40.9
30 Naphthalene	128	4.699	4.699	(1.002)	1542806	40.0000	32.3
204 alpha-Terpineol	59	4.681	4.681	(0.999)	446760	40.0000	32.4
31 4-Chloroaniline	127	4.716	4.716	(1.006)	791103	40.0000	37.5
32 Hexachlorobutadiene	225	4.763	4.763	(1.016)	344004	40.0000	43.2
33 4-Chloro-3-methylphenol	107	5.028	5.028	(1.073)	488020	40.0000	36.6
34 2-Methylnaphthalene	142	5.181	5.181	(1.105)	994000	40.0000	33.8
35 1-Methylnaphthalene	142	5.251	5.251	(1.120)	1001692	40.0000	35.0
36 Hexachlorocyclopentadiene	237	5.281	5.281	(0.890)	252297	40.0000	38.4
205 2,3-Dichloroaniline	161	5.375	5.375	(0.906)	585683	40.0000	38.9
37 2,4,6-Trichlorophenol	196	5.369	5.369	(0.905)	396749	40.0000	41.3
38 2,4,5-Trichlorophenol	196	5.393	5.393	(0.909)	407435	40.0000	40.0
40 2-Chloronaphthalene	162	5.528	5.528	(0.932)	1027885	40.0000	36.8
42 o-Nitroaniline	65	5.587	5.587	(0.942)	305621	40.0000	31.2
41 m-Nitroaniline	138	5.887	5.887	(0.992)	243385	40.0000	33.4
43 Dimethylphthalate	163	5.704	5.704	(0.961)	1244388	40.0000	38.4
44 2,6-Dinitrotoluene	165	5.757	5.757	(0.970)	297696	40.0000	38.4
50 2,4-Dinitrotoluene	165	6.051	6.051	(1.020)	379100	40.0000	37.1
45 Acenaphthylene	152	5.834	5.834	(0.983)	1564583	40.0000	35.4
47 Acenaphthene	154	5.957	5.957	(1.004)	1020155	40.0000	34.3
48 2,4-Dinitrophenol	184	5.957	5.957	(1.004)	136310	40.0000	48.7
49 Dibenzofuran	168	6.081	6.081	(1.025)	1354136	40.0000	37.4
51 Diethylphthalate	149	6.204	6.204	(1.046)	1198523	40.0000	37.7
52 4-Nitrophenol	139	5.975	5.975	(1.007)	192075	40.0000	34.8
53 Fluorene	166	6.340	6.340	(1.068)	1160039	40.0000	36.2
54 4-Chlorophenylphenylether	204	6.316	6.316	(1.064)	615421	40.0000	40.0
55 2-Methyl-4,6-dinitrophenol	198	6.357	6.357	(0.896)	212264	40.0000	46.7
56 p-Nitroaniline	138	6.340	6.340	(1.068)	201354	40.0000	33.7
133 Diphenylamine	169	6.404	6.404	(0.903)	931040	40.0000	37.4
58 1,2-Diphenylhydrazine	77	6.440	6.440	(0.908)	1097847	40.0000	32.8
61 4-Bromophenylphenylether	248	6.704	6.704	(0.945)	353994	40.0000	42.5
63 Hexachlorobenzene	284	6.769	6.769	(0.954)	358774	40.0000	45.1
65 Pentachlorophenol	266	6.916	6.916	(0.975)	196357	40.0000	43.6
206 n-Octadecane	57	6.916	6.916	(0.975)	702768	40.0000	30.5
68 Phenanthrene	178	7.110	7.110	(1.002)	1663705	40.0000	35.6
69 Anthracene	178	7.151	7.151	(1.008)	1659507	40.0000	35.2
72 Di-n-butylphthalate	149	7.516	7.516	(1.060)	1918050	40.0000	35.2
76 Fluoranthene	202	8.139	8.139	(1.148)	1796663	40.0000	37.9

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
79 Pyrene	202	8.357	8.357	(0.881)	1877873	40.0000	36.2
85 Butylbenzylphthalate	149	8.892	8.892	(0.937)	869058	40.0000	34.6
89 Benzo(a)anthracene	228	9.475	9.475	(0.999)	1612927	40.0000	36.3
92 Chrysene	228	9.510	9.510	(1.002)	1558306	40.0000	36.8
93 bis(2-Ethylhexyl)phthalate	149	9.416	9.416	(0.993)	1142956	40.0000	34.1
94 Di-n-octylphthalate	149	10.045	10.045	(0.907)	1849079	40.0000	33.2
95 Benzo(b)fluoranthene	252	10.586	10.586	(0.956)	1518779	40.0000	38.4
96 Benzo(k)fluoranthene	252	10.622	10.622	(0.959)	1442886	40.0000	38.0
97 Benzo(a)pyrene	252	11.004	11.004	(0.994)	1289068	40.0000	38.4
99 Indeno(1,2,3-cd)pyrene	276	12.733	12.733	(1.150)	1135915	40.0000	36.9
100 Dibenzo(a,h)anthracene	278	12.751	12.751	(1.151)	931714	40.0000	37.6
101 Benzo(ghi)perylene	276	13.245	13.245	(1.196)	939619	40.0000	35.8
126 m-Dinitrobenzene	168	5.740	5.740	(0.967)	206650	40.0000	37.6
130 2,3,4,6-Tetrachlorophenol	232	6.157	6.157	(1.038)	291275	40.0000	36.5
143 Dinoseb	211	7.040	7.040	(0.993)	313751	40.0000	47.8
173 Carbazole	167	7.269	7.269	(1.025)	1351257	40.0000	36.8
184 p-Benzoquinone	54	3.310	3.310	(0.866)	97447	40.0000	30.0
192 Methoxychlor	227	9.363	9.363	(0.987)	1136120	40.0000	40.2
211 p-Toluidine	106	4.099	4.099	(1.072)	656238	40.0000	36.7
210 m-Toluidine	106	4.122	4.122	(1.078)	702389	40.0000	28.3
215 2-Ethoxyethanol	59	2.152	2.152	(0.563)	271664	40.0000	28.5
179 Dibenzo(a,e)pyrene	302	17.092	17.092	(1.543)	418010	40.0000	35.8
26 Phthalic anhydride	104	5.216	5.216	(1.113)	148158	40.0000	22.2
214 1,4-Dinitrobenzene	75	5.681	5.681	(0.957)	243672	40.0000	31.5
216 Methylenebis(2-chloroaniline)	231	9.422	9.422	(0.993)	176211	40.0000	26.4
M 225 Trichlorophenols	196				804184	80.0000	81.3
M 226 Tetrachlorophenols	232				291275	40.0000	36.5
M 227 Benzo(b,k)fluoranthene	252				2961665	80.0000	76.4

#### QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s032110.b/s6c2105.d

Date: 21-MAR-2010 16:55

Client ID: HEGACVS

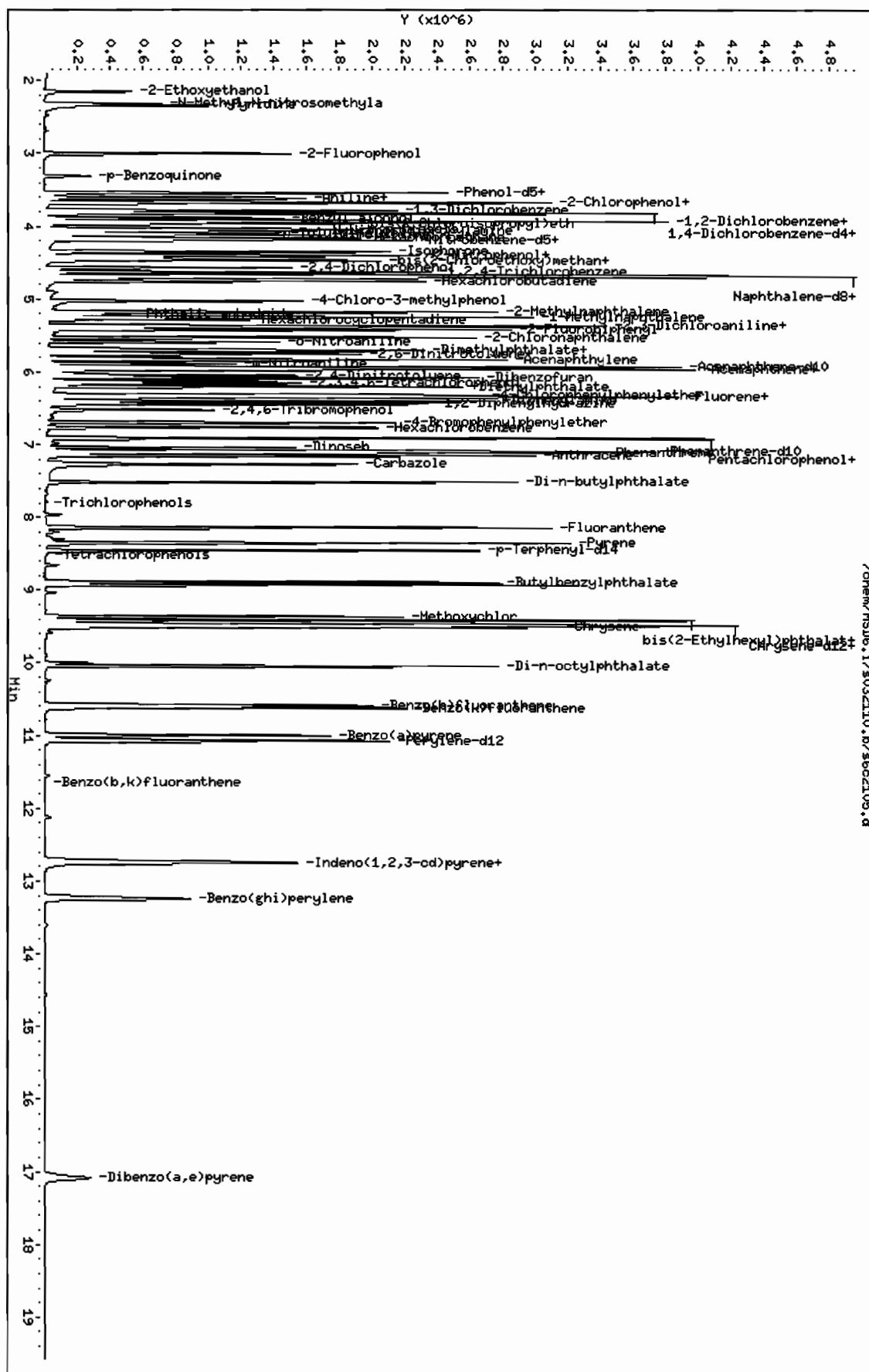
Sample Info: IWBNI00309-05.3140 PPH11(SW11)HEGACVS

Column phase: J&W DB-SMS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-MAR-2010 17:25  
Lab File ID: s6c2106.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
Analysis Type: Init. Cal. Times: 09:18 04:51  
Lab Sample ID: WBN100312-03.3 Quant Type: ISTD  
Method: /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.96016	0.82971	0.82971	0.000	-13.58644	60.00000	Averaged
16 Acetophenone	1.24814	1.10817	1.10817	0.000	-11.21462	60.00000	Averaged
189 Caprolactam	0.09790	0.08510	0.08510	0.000	-13.06826	60.00000	Averaged
208 1,1'-Biphenyl	1.11180	1.03258	1.03258	0.000	-7.12590	60.00000	Averaged
207 Atrazine	0.04606	0.04307	0.04307	0.000	-6.48930	60.00000	Averaged
77 Benzidine	0.42058	0.32338	0.32338	0.000	-23.11220	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.30172	0.30501	0.30501	0.000	1.08782	60.00000	Averaged
102 1,4-Dioxane	0.35119	0.31412	0.31412	0.000	-10.55380	60.00000	Averaged
103 Methyl methacrylate	0.18979	0.17904	0.17904	0.000	-5.66374	60.00000	Averaged
104 Ethyl methacrylate	0.82709	0.70443	0.70443	0.000	-14.83028	60.00000	Averaged
105 2-Picoline	1.21280	1.07113	1.07113	0.000	-11.68111	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.53810	0.43620	0.43620	0.000	-18.93719	60.00000	Averaged
107 Methyl methanesulfonate	0.59726	0.50777	0.50777	0.000	-14.98385	60.00000	Averaged
108 N-Nitrosodiethylamine	0.54437	0.46036	0.46036	0.000	-15.43237	60.00000	Averaged
109 Ethyl Methanesulfonate	0.72583	0.58375	0.58375	0.000	-19.57389	60.00000	Averaged
110 Pentachloroethane	0.33314	0.32493	0.32493	0.000	-2.46565	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.58446	0.48322	0.48322	0.000	-17.32271	60.00000	Averaged
113 N-Nitrosomorpholine	0.68078	0.56865	0.56865	0.000	-16.47190	60.00000	Averaged
114 o-Toluidine	1.73474	1.53414	1.53414	0.000	-11.56395	60.00000	Averaged
115 N-Nitrosopiperidine	0.15362	0.13579	0.13579	0.000	-11.60327	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.87353	0.69602	0.69602	0.000	-20.32165	60.00000	Averaged
118 2,6-Dichlorophenol	0.24533	0.22751	0.22751	0.000	-7.26428	60.00000	Averaged
119 Hexachloropropene	0.13311	0.13428	0.13428	0.000	0.88136	60.00000	Averaged
120 p-Phenylenediamine	0.30365	0.26583	0.26583	0.000	-12.45526	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.26282	0.21147	0.21147	0.000	-19.53920	60.00000	Averaged
122 Safrole	0.21396	0.20376	0.20376	0.000	-4.76733	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44716	0.45265	0.45265	0.000	1.22739	60.00000	Averaged
124 Isosafrole	0.35324	0.30917	0.30917	0.000	-12.47602	60.00000	Averaged
125 1,4-Naphthoquinone	0.34254	0.31757	0.31757	0.000	-7.28919	60.00000	Averaged
127 Pentachlorobenzene	0.37515	0.38944	0.38944	0.000	3.80820	60.00000	Averaged
128 1-Naphthylamine	0.89931	0.77893	0.77893	0.000	-13.38571	60.00000	Averaged
129 2-Naphthylamine	0.94089	0.83899	0.83899	0.000	-10.82941	60.00000	Averaged
131 5-Nitro-o-toluidine	0.30665	0.25938	0.25938	0.000	-15.41355	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.15613	0.13028	0.13028	0.000	-16.56095	60.00000	Averaged
137 Phenacetin	0.29347	0.24455	0.24455	0.000	-16.66896	60.00000	Averaged
138 Diallylate	0.24862	0.21271	0.21271	0.000	-14.44434	60.00000	Averaged



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-MAR-2010 17:25  
 Lab File ID: s6c2106.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
 Analysis Type: Init. Cal. Times: 09:18 04:51  
 Lab Sample ID: WBN100312-03.3 Quant Type: ISTD  
 Method: /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.28918	0.22085	0.22085	0.000	-23.62867	60.00000	Averaged
213 Trans Diallate	0.29250	0.25025	0.25025	0.000	-14.44434	60.00000	Averaged
140 4-Aminobiphenyl	0.55066	0.46267	0.46267	0.000	-15.97776	60.00000	Averaged
141 Pentachloronitrobenzene	0.06695	0.06834	0.06834	0.000	2.08638	60.00000	Averaged
142 Pronamide	0.26094	0.25459	0.25459	0.000	-2.43292	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02879	0.02770	0.02770	0.000	-3.78261	60.00000	Averaged
147 Methapyrilene	0.43748	0.35715	0.35715	0.000	-18.36230	60.00000	Averaged
148 Isodrin	0.11028	0.10820	0.10820	0.000	-1.88610	60.00000	Averaged
149 Aramite	0.04746	0.04501	0.04501	0.000	-5.16338	60.00000	Averaged
150 Kepone	0.07668	0.07686	0.07686	0.000	0.23499	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31031	0.25155	0.25155	0.000	-18.93676	60.00000	Averaged
152 Chlorobenzilate	0.29472	0.28379	0.28379	0.000	-3.70640	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.59350	0.55013	0.55013	0.000	-7.30690	60.00000	Averaged
155 2-Acetylaminofluorene	0.34851	0.35273	0.35273	0.000	1.21131	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.48545	0.44976	0.44976	0.000	-7.35187	60.00000	Averaged
158 3-Methylcholanthrene	0.40010	0.39792	0.39792	0.000	-0.54712	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032110.b/s6c2106.d  
Lab Smp Id: WBN100312-03.3 Client Smp ID: APCVS  
Inj Date : 21-MAR-2010 17:25  
Operator : nagl Inst ID: MSD6.i  
Smp Info : |WBN100312-03.3|40 PPM|1|SVM|1|APCVS  
Misc Info : |MSD8270|WBN100319-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 22-Mar-2010 16:46 jen00986 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 3 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AP12.sub  
Target Version: 3.50  
Processing Host: hpclp1

Compounds	QUANT SIG			AMOUNTS		
	MASS	RT	EXP RT REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.828	3.828 (1.000)	416421	40.0000	
* 29 Naphthalene-d8	136	4.692	4.692 (1.000)	1419043	40.0000	
* 46 Acenaphthene-d10	164	5.939	5.939 (1.000)	898081	40.0000	
* 67 Phenanthrene-d10	188	7.098	7.098 (1.000)	1555023	40.0000	
* 91 Chrysene-d12	240	9.492	9.492 (1.000)	1427556	40.0000	
* 98 Perylene-d12	264	11.086	11.086 (1.000)	1248253	40.0000	
209 Benzaldehyde	77	3.557	3.557 (0.929)	345508	40.0000	34.6
16 Acetophenone	105	4.081	4.081 (1.066)	461465	40.0000	35.5 (H)
189 Caprolactam	113	4.963	4.963 (1.058)	120764	40.0000	34.8
208 1,1'-Biphenyl	154	5.510	5.510 (0.928)	927339	40.0000	37.1
207 Atrazine	173	6.810	6.810 (0.959)	66972	40.0000	37.4
77 Benzidine	184	8.245	8.245 (0.869)	461638	40.0000	30.8
90 3,3'-Dichlorobenzidine	252	9.433	9.433 (0.994)	435412	40.0000	40.4 (H)
102 1,4-Dioxane	88	2.163	2.163 (0.565)	130807	40.0000	35.8
103 Methyl methacrylate	100	2.157	2.157 (0.564)	74558	40.0000	37.7
104 Ethyl methacrylate	69	2.534	2.534 (0.662)	293339	40.0000	34.1
105 2-Picoline	93	2.728	2.728 (0.713)	446040	40.0000	35.3
106 N-Nitrosomethylethylamine	88	2.769	2.769 (0.723)	181643	40.0000	32.4
107 Methyl methanesulfonate	80	2.928	2.928 (0.765)	211445	40.0000	34.0
108 N-Nitrosodiethylamine	102	3.163	3.163 (0.826)	191705	40.0000	33.8
109 Ethyl Methanesulfonate	79	3.316	3.316 (0.866)	243087	40.0000	32.2 (H)
110 Pentachloroethane	167	3.651	3.651 (0.954)	135307	40.0000	39.0
111 N-Nitrosopyrrolidine	100	4.069	4.069 (1.063)	201222	40.0000	33.1 (Q)
113 N-Nitrosomorpholine	56	4.087	4.087 (1.068)	236796	40.0000	33.4 (H)
114 o-Toluidine	106	4.104	4.104 (1.072)	638847	40.0000	35.4 (H)
115 N-Nitrosopiperidine	114	4.304	4.304 (0.917)	192697	40.0000	35.4

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
116 a,a-Dimethylphenethylamine	58	4.551	4.551	(0.970)	987678	40.0000	31.9
118 2,6-Dichlorophenol	162	4.734	4.734	(1.009)	322848	40.0000	37.1
119 Hexachloropropene	213	4.757	4.757	(1.014)	190551	40.0000	40.4
120 p-Phenylenediamine	108	4.969	4.969	(1.059)	377228	40.0000	35.0
121 N-Nitrosodi-n-butylamine	84	4.939	4.939	(1.053)	300085	40.0000	32.2 (QH)
122 Safrole	162	5.104	5.104	(1.088)	289146	40.0000	38.1
123 1,2,4,5-Tetrachlorobenzene	216	5.304	5.304	(0.893)	406513	40.0000	40.5
124 Isosafrole	162	5.469	5.469	(0.921)	277661	40.0000	35.0 (H)
125 1,4-Naphthoquinone	158	5.657	5.657	(0.952)	285204	40.0000	37.1
127 Pentachlorobenzene	250	6.051	6.051	(1.019)	349749	40.0000	41.5 (H)
128 1-Naphthylamine	143	6.145	6.145	(1.035)	699545	40.0000	34.6 (H)
129 2-Naphthylamine	143	6.198	6.198	(1.044)	753485	40.0000	35.7 (H)
131 5-Nitro-o-toluidine	152	6.339	6.339	(1.067)	232945	40.0000	33.8 (H)
136 1,3,5-Trinitrobenzene	75	6.592	6.592	(0.929)	202581	40.0000	33.4
137 Phenacetin	108	6.633	6.633	(0.935)	380284	40.0000	33.3 (QH)
138 Diallyl	86	6.616	6.616	(0.932)	330771	40.0000	34.2 (H)
212 Cis Diallyl	86	6.692	6.692	(0.943)	51514	6.00000	4.6
213 Trans Diallyl	86	6.616	6.616	(0.932)	330771	34.0000	29.1 (H)
140 4-Aminobiphenyl	169	6.922	6.922	(0.975)	719467	40.0000	33.6
141 Pentachloronitrobenzene	237	6.933	6.933	(0.977)	106278	40.0000	40.8 (Q)
142 Pronamide	173	6.933	6.933	(0.977)	395889	40.0000	39.0 (H)
146 4-Nitroquinoline-1-oxide	101	7.763	7.763	(1.094)	43080	40.0000	38.5 (H)
147 Methapyrilene	58	7.798	7.798	(1.099)	555374	40.0000	32.6 (H)
148 Isodrin	193	8.016	8.016	(1.129)	168246	40.0000	39.2 (H)
149 Aramite	185	8.422	8.422	(1.186)	69984	40.0000	37.9 (H)
150 Kepone	272	8.998	8.998	(1.268)	119519	40.0000	40.1
151 p- (Dimethylamino)azobenzene	120	8.598	8.598	(0.906)	359103	40.0000	32.4 (H)
152 Chlorobenzilate	251	8.627	8.627	(0.909)	405130	40.0000	38.5
153 3,3'-Dimethylbenzidine	212	8.910	8.910	(0.939)	785344	40.0000	37.1 (H)
155 2-Acetylaminofluorene	181	9.157	9.157	(0.965)	503546	40.0000	40.5
157 7,12Dimethylbenz(a)anthracene	256	10.574	10.574	(0.954)	561409	40.0000	37.0 (H)
158 3-Methylcholanthrene	268	11.468	11.468	(1.034)	496699	40.0000	39.8 (QH)

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.  
H - Operator selected an alternate compound hit.

Data File: /chem/HSD6.i/s032110.k/s6c2106.d

Date: 21-HR-2010 17:25

Client ID: APCVS

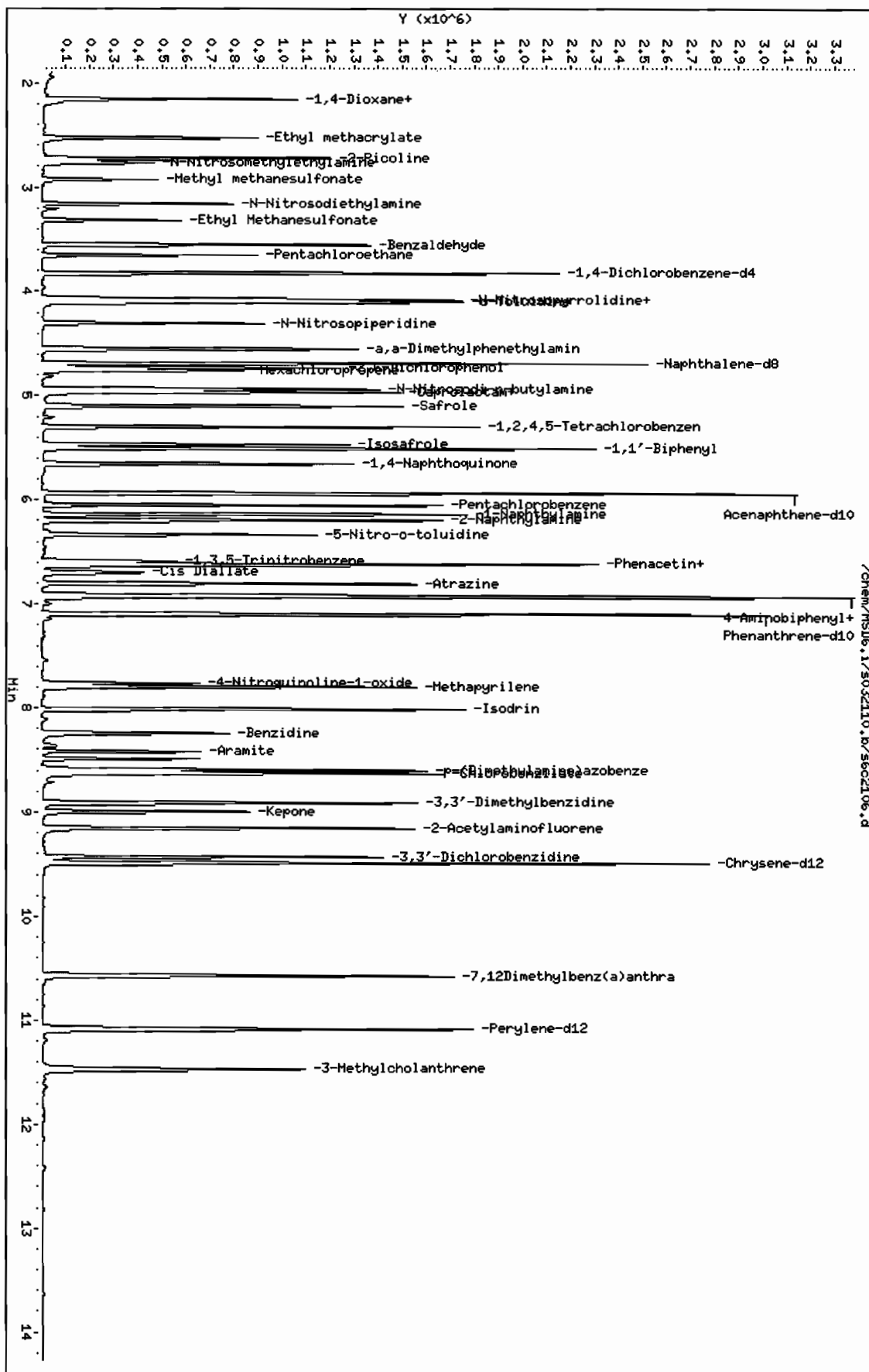
Sample Info: ILMN100312-03.3140 PPH11ISM11APCVS

Column phase: J&W DB-5MS

Instrument: HSD6.i

Operator: nag1

Column diameter: 0.20



# QC Data

Data File: /chem/MSD6.i/s031610.b/s6c1601.d

Page 1

Date : 16-MAR-2010 08:42

Client ID: DFTPP

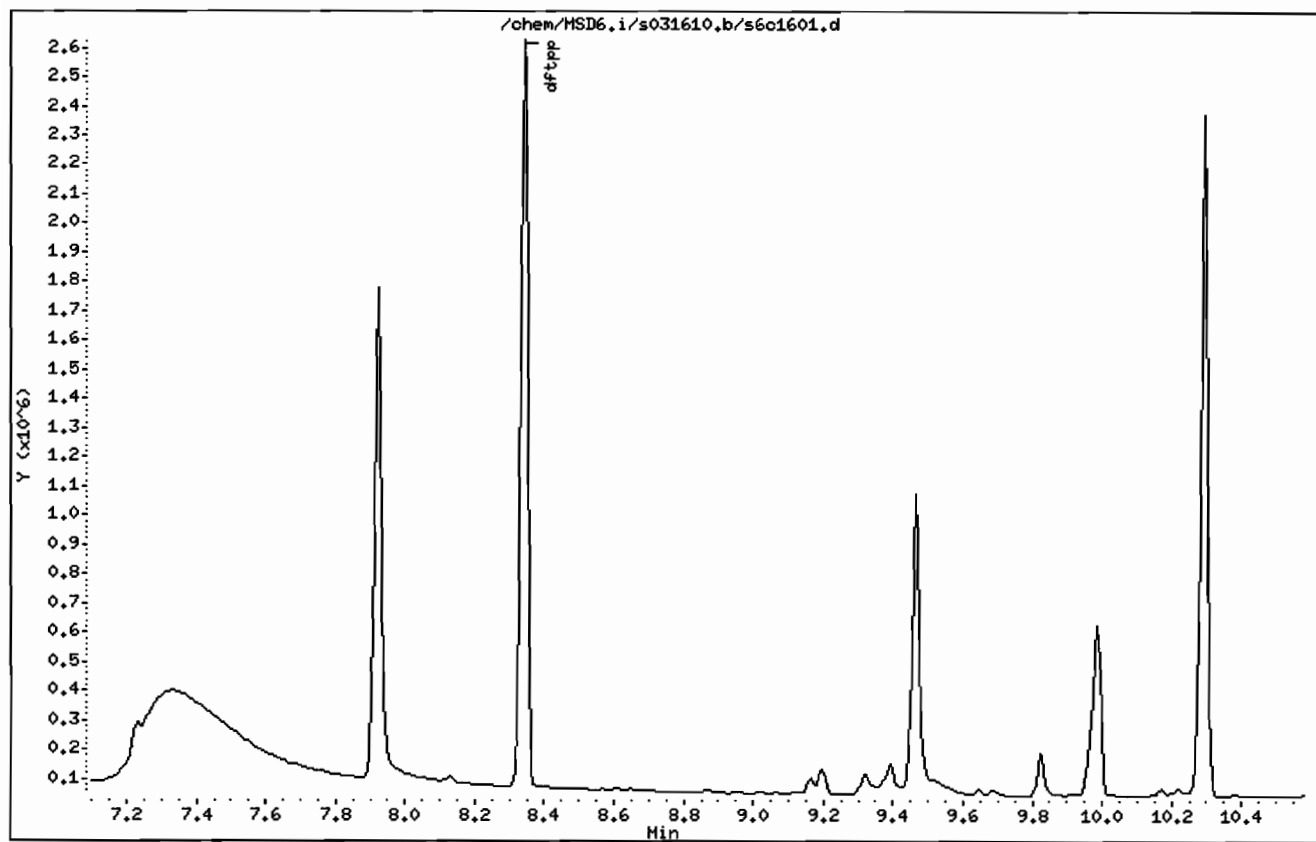
Instrument: MSD6.i

Sample Info: IWBNI00306-01.2\DFTPP\1\SVHF\1\1\DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20



Date : 16-MAR-2010 08:42

Client ID: DFTPP

Instrument: MSD6.i

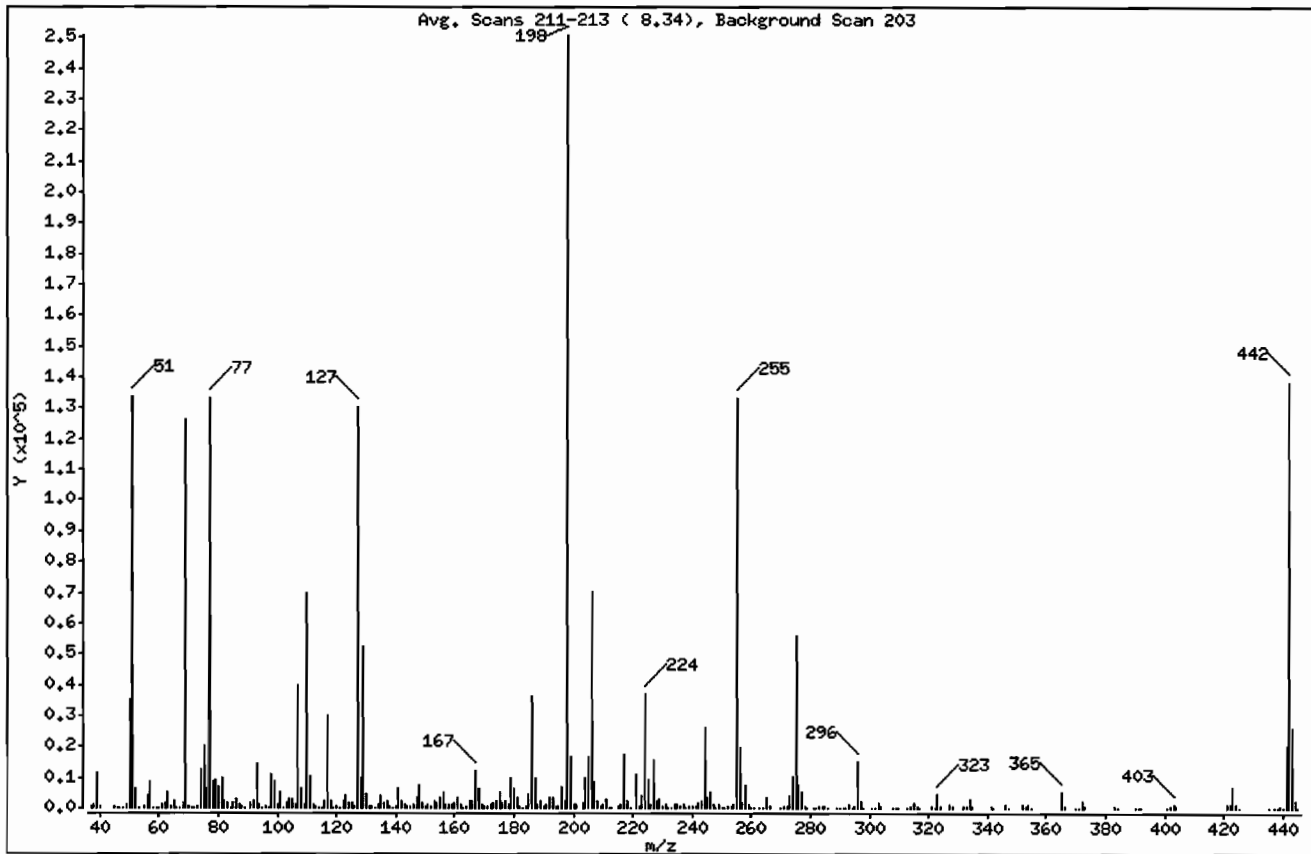
Sample Info: IWBNI00306-01.2\|DFTPP\1\|SVMF\1\|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	53.30
68	Less than 2.00% of mass 69	0.78 ( 1.54)
69	Mass 69 relative abundance	50.41
70	Less than 2.00% of mass 69	0.28 ( 0.56)
127	40.00 - 60.00% of mass 198	52.01
197	Less than 1.00% of mass 198	0.84
199	5.00 - 9.00% of mass 198	6.75
275	10.00 - 30.00% of mass 198	22.34
365	Greater than 1.00% of mass 198	2.18
441	Present, but less than mass 443	8.03
442	Greater than 40.00% of mass 198	55.21
443	17.00 - 23.00% of mass 442	10.46 ( 18.94)

Date : 16-MAR-2010 08:42

Client ID: DFTPP

Instrument: HSD6.i

Sample Info: IWBNI00306-01.2IDFTPP11SVMF11IDFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c1601.d

Spectrum: Avg. Scans 211-213 ( 8.34), Background Scan 203

Location of Maximum: 198.00

Number of points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	539	120.00	690	197.00	2101	282.00	175
38.00	1021	121.00	284	198.00	250688	283.00	581
39.00	11554	122.00	2497	199.00	16920	284.00	435
40.00	474	123.00	4070	200.00	1419	285.00	830
45.00	300	124.00	1835	201.00	1008	286.00	97
46.00	46	125.00	1582	203.00	2006	289.00	199
47.00	60	126.00	769	204.00	9820	290.00	99
48.00	25	127.00	130384	205.00	16848	291.00	153
49.00	905	128.00	9814	206.00	70072	292.00	220
50.00	35064	129.00	52280	207.00	8715	293.00	1013
51.00	133568	130.00	4484	208.00	2324	294.00	236
52.00	6515	131.00	816	209.00	743	295.00	313
53.00	284	132.00	347	210.00	990	296.00	14707
55.00	376	133.00	28	211.00	2712	297.00	2266
56.00	3828	134.00	1402	212.00	148	298.00	198
57.00	8839	135.00	3990	213.00	284	301.00	142
58.00	228	136.00	1606	215.00	822	302.00	270
59.00	27	137.00	2099	216.00	1420	303.00	1812
60.00	108	138.00	482	217.00	17528	304.00	512
61.00	1396	139.00	258	218.00	2263	308.00	203
62.00	1919	140.00	663	219.00	261	309.00	114
63.00	5112	141.00	6250	221.00	11113	310.00	110
64.00	635	142.00	2224	222.00	580	313.00	93
65.00	2325	143.00	1420	223.00	3783	314.00	744
66.00	149	144.00	488	224.00	36608	315.00	1650
67.00	103	145.00	350	225.00	8974	316.00	843
68.00	1952	146.00	1154	226.00	893	317.00	116
69.00	126368	147.00	3460	227.00	15730	321.00	466
70.00	702	148.00	7480	228.00	2314	322.00	243
71.00	66	149.00	1592	229.00	3106	323.00	4480
72.00	95	150.00	434	230.00	397	324.00	777
73.00	837	151.00	889	231.00	1211	327.00	865
74.00	12548	152.00	496	232.00	91	328.00	383
75.00	20072	153.00	2051	233.00	286	332.00	333
76.00	6493	154.00	1643	234.00	1082	333.00	429



Date : 16-MAR-2010 08:42

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBNI00306-01.21DFTPP11SVMF111DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c1601.d

Spectrum: Avg. Scans 211-213 ( 8.34), Background Scan 203

Location of Maximum: 198.00

Number of points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	133056	155.00	3537	235.00	1238	334.00	2708
78.00	8864	156.00	5472	236.00	768	335.00	749
79.00	8991	157.00	1057	237.00	1331	341.00	581
80.00	6867	158.00	1121	238.00	239	342.00	43
81.00	9608	159.00	928	239.00	633	346.00	972
82.00	2327	160.00	1972	240.00	459	347.00	145
83.00	1949	161.00	3180	241.00	862	352.00	1224
84.00	261	162.00	886	242.00	1802	353.00	739
85.00	1469	163.00	271	243.00	2025	354.00	1267
86.00	2809	164.00	438	244.00	26176	355.00	268
87.00	1114	165.00	2425	245.00	3604	365.00	5468
88.00	433	166.00	2061	246.00	5257	366.00	789
89.00	231	167.00	12297	247.00	1192	370.00	107
91.00	1935	168.00	6571	248.00	227	371.00	268
92.00	2326	169.00	1233	249.00	956	372.00	2160
93.00	14334	170.00	433	250.00	234	373.00	460
94.00	1077	171.00	659	251.00	256	383.00	543
95.00	133	172.00	1265	252.00	384	384.00	118
96.00	674	173.00	1486	253.00	717	390.00	253
97.00	121	174.00	2557	254.00	1407	391.00	132
98.00	11118	175.00	5058	255.00	133184	392.00	111
99.00	8880	176.00	1554	256.00	19792	401.00	115
100.00	944	177.00	2489	257.00	1568	402.00	760
101.00	5006	178.00	902	258.00	7663	403.00	1027
102.00	281	179.00	9717	259.00	1235	404.00	326
103.00	1616	180.00	6606	260.00	239	421.00	927
104.00	3089	181.00	3260	261.00	257	422.00	875
105.00	2736	182.00	564	263.00	87	423.00	6945
106.00	1065	183.00	288	264.00	119	424.00	1275
107.00	39496	184.00	841	265.00	3196	425.00	105
108.00	6480	185.00	4847	266.00	506	435.00	219
109.00	1157	186.00	36512	270.00	248	437.00	226
110.00	69912	187.00	10075	271.00	298	438.00	232
111.00	10462	188.00	1064	272.00	473	439.00	357
112.00	1431	189.00	2374	273.00	3934	440.00	227

Date : 16-MAR-2010 08:42

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBNI00306-01.2|DFTPP|1|SVHF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c1601.d

Spectrum: Avg. Scans 211-213 ( 8.34), Background Scan 203

Location of Maximum: 198.00

Number of points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	400	190.00	463	274.00	10466	441.00	20128
114.00	154	191.00	1185	275.00	55992	442.00	138368
115.00	109	192.00	3223	276.00	7246	443.00	26216
116.00	2178	193.00	3395	277.00	4967	444.00	2405
117.00	30184	194.00	756	278.00	826	445.00	105
118.00	2298	195.00	517	279.00	213		
119.00	256	196.00	7034	281.00	100		

Data File: /chem/HSD6.i/s031610.b/s6c1613.d

Page 1

Date : 16-MAR-2010 16:06

Client ID: DFTPP

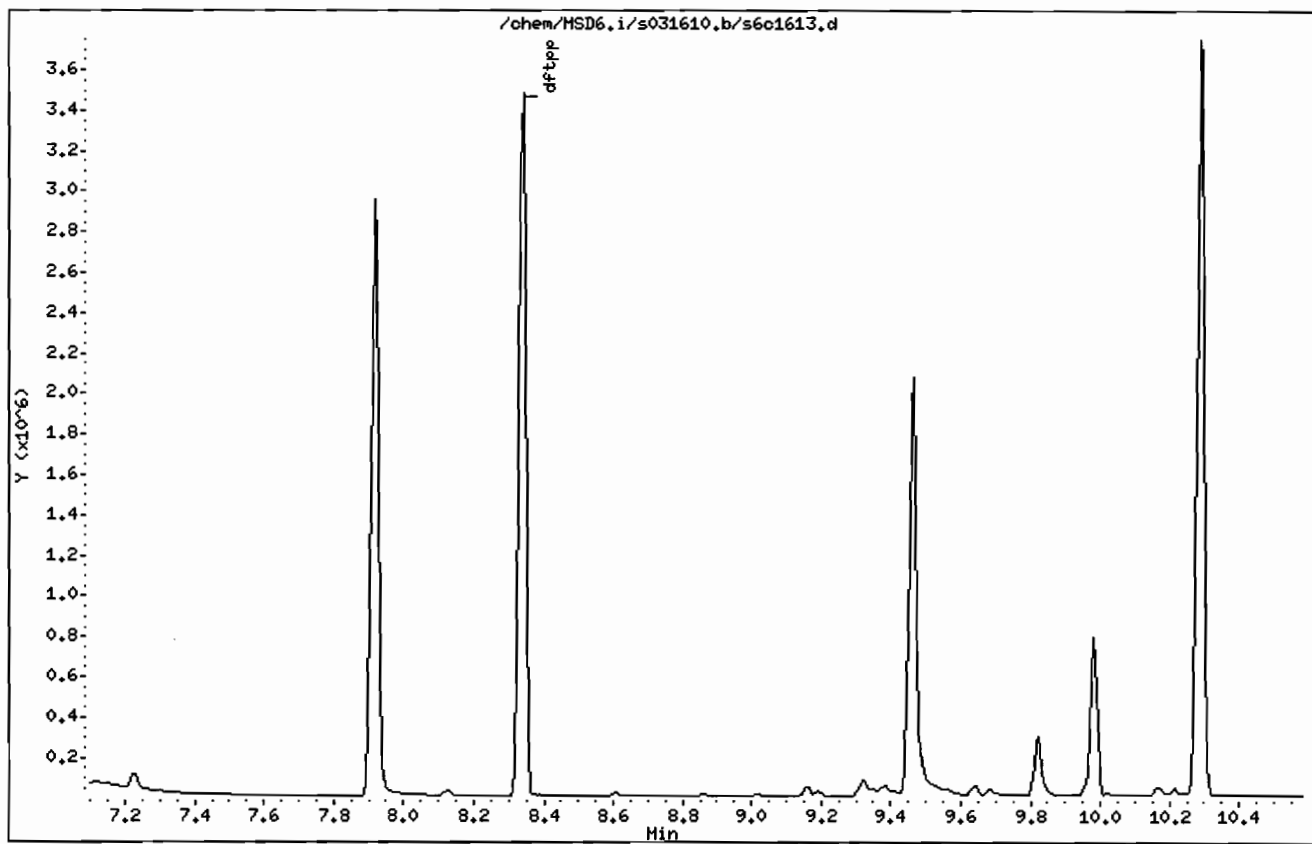
Instrument: HSD6.i

Sample Info: IWBH100306-01.2\DFTPP\1\SVHF\1\1\DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20



Date : 16-MAR-2010 16:06

Client ID: DFTPP

Instrument: MSD6.i

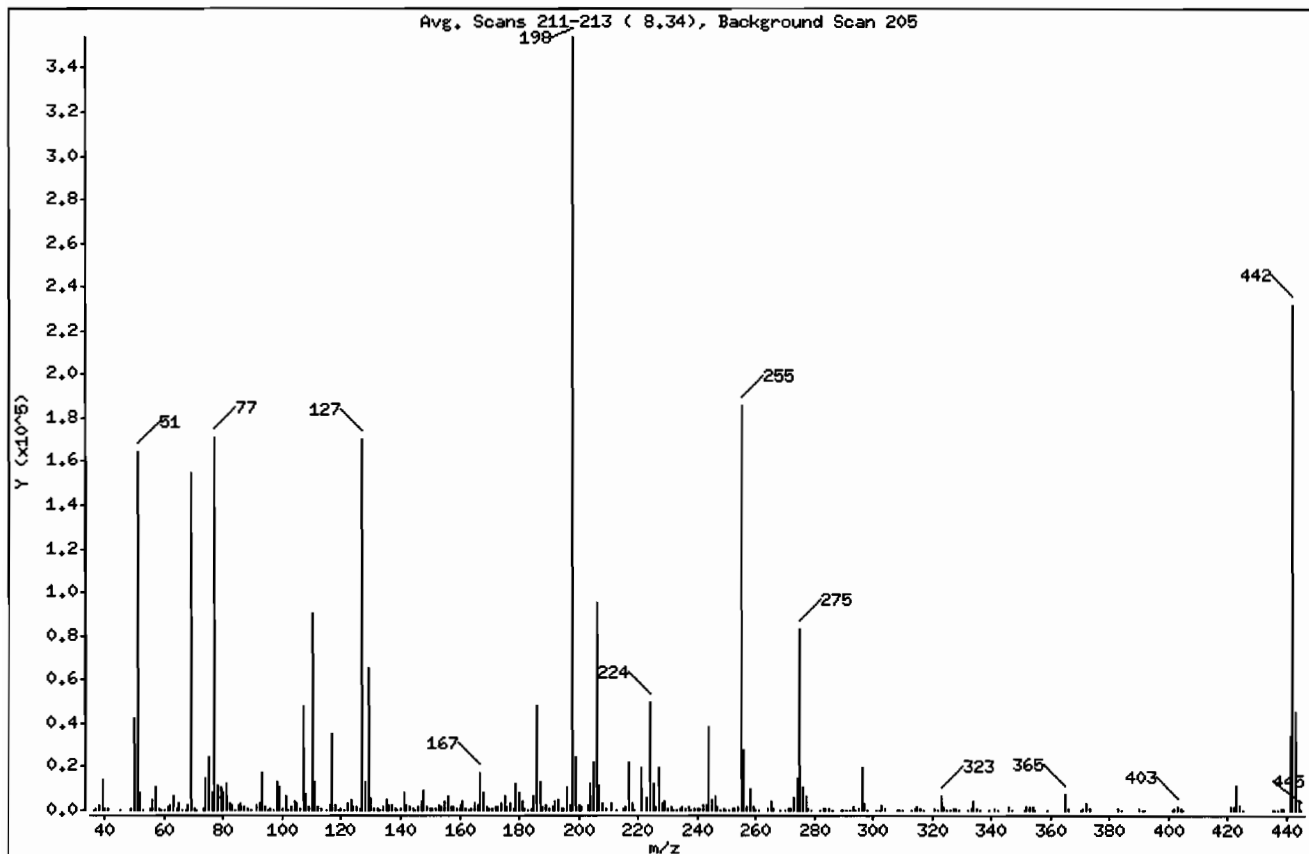
Sample Info: IMBN100306-01,2IDFTPP11SVMF11IDFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	46.37
68	Less than 2.00% of mass 69	0.69 ( 1.58)
69	Mass 69 relative abundance	43.77
70	Less than 2.00% of mass 69	0.27 ( 0.61)
127	40.00 - 60.00% of mass 198	48.16
197	Less than 1.00% of mass 198	0.72
199	5.00 - 9.00% of mass 198	6.92
275	10.00 - 30.00% of mass 198	23.38
365	Greater than 1.00% of mass 198	2.06
441	Present, but less than mass 443	9.55
442	Greater than 40.00% of mass 198	65.47
443	17.00 - 23.00% of mass 442	12.86 ( 19.65)

Date : 16-MAR-2010 16:06

Client ID: DFTPP

Instrument: HSD6.i

Sample Info: IWBH100306-01.2IDFTPP11ISVHF11IDFTPP

Operator: nag1

Column phase: Phenomenex ZB-5HS

Column diameter: 0.20

Data File: s6c1613.d

Spectrum: Avg. Scans 211-213 ( 8.34), Background Scan 205

Location of Maximum: 198.00

Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	365	123.00	4688	200.00	2049	291.00	95
37.00	686	124.00	1969	201.00	1887	292.00	268
38.00	2219	125.00	2034	203.00	2289	293.00	1469
39.00	14217	126.00	969	204.00	12413	294.00	360
40.00	662	127.00	170560	205.00	22120	295.00	415
41.00	451	128.00	12972	206.00	94880	296.00	19192
45.00	343	129.00	65336	207.00	11802	297.00	2923
49.00	1033	130.00	5614	208.00	3327	298.00	205
50.00	42256	131.00	1072	209.00	988	301.00	261
51.00	164224	132.00	586	211.00	3614	302.00	347
52.00	8273	133.00	265	213.00	247	303.00	2358
53.00	361	134.00	1727	215.00	826	304.00	634
55.00	615	135.00	4970	216.00	1782	308.00	279
56.00	4569	136.00	2207	217.00	22368	309.00	172
57.00	10965	137.00	2269	218.00	2954	310.00	279
58.00	541	138.00	648	219.00	312	313.00	172
59.00	160	139.00	341	221.00	19520	314.00	916
60.00	185	140.00	679	223.00	5297	315.00	2018
61.00	1949	141.00	7898	224.00	49688	316.00	1164
62.00	2059	142.00	2664	225.00	12403	317.00	239
63.00	6240	143.00	1748	226.00	1307	321.00	668
64.00	905	144.00	480	227.00	19504	322.00	322
65.00	3077	145.00	407	228.00	2871	323.00	6305
66.00	225	146.00	1518	229.00	4196	324.00	1298
67.00	216	147.00	4305	230.00	634	325.00	44
68.00	2445	148.00	9003	231.00	1804	326.00	156
69.00	155008	149.00	1778	232.00	342	327.00	1043
70.00	947	150.00	449	233.00	316	328.00	530
71.00	201	151.00	1098	234.00	1167	329.00	108
73.00	1127	152.00	658	235.00	1577	332.00	394
74.00	14976	153.00	2511	236.00	873	333.00	734
75.00	24336	154.00	1999	237.00	1570	334.00	3934
76.00	8200	155.00	4297	238.00	231	335.00	1090
77.00	171200	156.00	6528	239.00	790	336.00	90
78.00	11711	157.00	1348	240.00	604	339.00	45

Date : 16-MAR-2010 16:06

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: INBN100306-01.2IDFTPP11SVMF11IDFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c1613.d

Spectrum: Avg. Scans 211-213 ( 8.34), Background Scan 205

Location of Maximum: 198.00

Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	10991	158.00	1467	241.00	1051	341.00	791
80.00	8089	159.00	1196	242.00	2678	342.00	112
81.00	12006	160.00	2557	243.00	2830	346.00	1303
82.00	3062	161.00	3725	244.00	38552	347.00	236
83.00	2754	162.00	1103	245.00	5015	351.00	51
84.00	311	163.00	384	246.00	6837	352.00	1714
85.00	2148	164.00	520	247.00	1386	353.00	1258
86.00	2960	165.00	2927	248.00	316	354.00	1807
87.00	1512	166.00	2460	249.00	1167	355.00	303
88.00	490	167.00	16936	250.00	324	359.00	50
89.00	261	168.00	7860	251.00	332	365.00	7286
91.00	2590	169.00	1424	252.00	511	366.00	1134
92.00	2914	170.00	561	253.00	815	370.00	153
93.00	17192	171.00	668	254.00	1800	371.00	455
94.00	1273	172.00	1340	255.00	185344	372.00	2898
95.00	330	173.00	1876	256.00	27576	373.00	675
96.00	904	174.00	3377	257.00	1895	383.00	836
97.00	358	175.00	6789	258.00	10115	384.00	240
98.00	12960	176.00	2015	259.00	1699	390.00	414
99.00	10708	177.00	3013	260.00	258	391.00	350
100.00	942	178.00	1036	261.00	383	392.00	234
101.00	6393	179.00	11838	264.00	435	401.00	184
102.00	360	180.00	8500	265.00	3865	402.00	1191
103.00	1979	181.00	4159	266.00	588	403.00	1692
104.00	4113	182.00	603	268.00	160	404.00	639
105.00	3560	183.00	335	270.00	275	405.00	87
106.00	1067	184.00	1026	271.00	443	421.00	1562
107.00	48096	185.00	6230	272.00	556	422.00	1423
108.00	7432	186.00	48112	273.00	5738	423.00	11200
109.00	1348	187.00	13352	274.00	15003	424.00	2246
110.00	90080	188.00	1313	275.00	82816	425.00	236
111.00	13316	189.00	2686	276.00	10769	435.00	42
112.00	1579	190.00	445	277.00	6686	436.00	161
113.00	490	191.00	1473	278.00	1075	437.00	275
115.00	181	192.00	4225	279.00	229	438.00	434

Date : 16-MAR-2010 16:06

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBNI00306-01.21DFTPP11ISVMFI11DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c1613.d

Spectrum: Avg. Scans 211-213 ( 8.34), Background Scan 205

Location of Maximum: 198.00

Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	2631	193.00	4772	282.00	109	439.00	605
117.00	34760	194.00	868	283.00	778	441.00	33840
118.00	2557	195.00	649	284.00	498	442.00	231872
119.00	366	196.00	10847	285.00	1031	443.00	45560
120.00	634	197.00	2536	286.00	215	444.00	4334
121.00	221	198.00	354176	289.00	202	445.00	211
122.00	3127	199.00	24520	290.00	227		

Data File: /chem/HSD6.i/s032110,b/s6c2104,d

Page 1

Date : 21-MAR-2010 16:41

Client ID: DFTPP

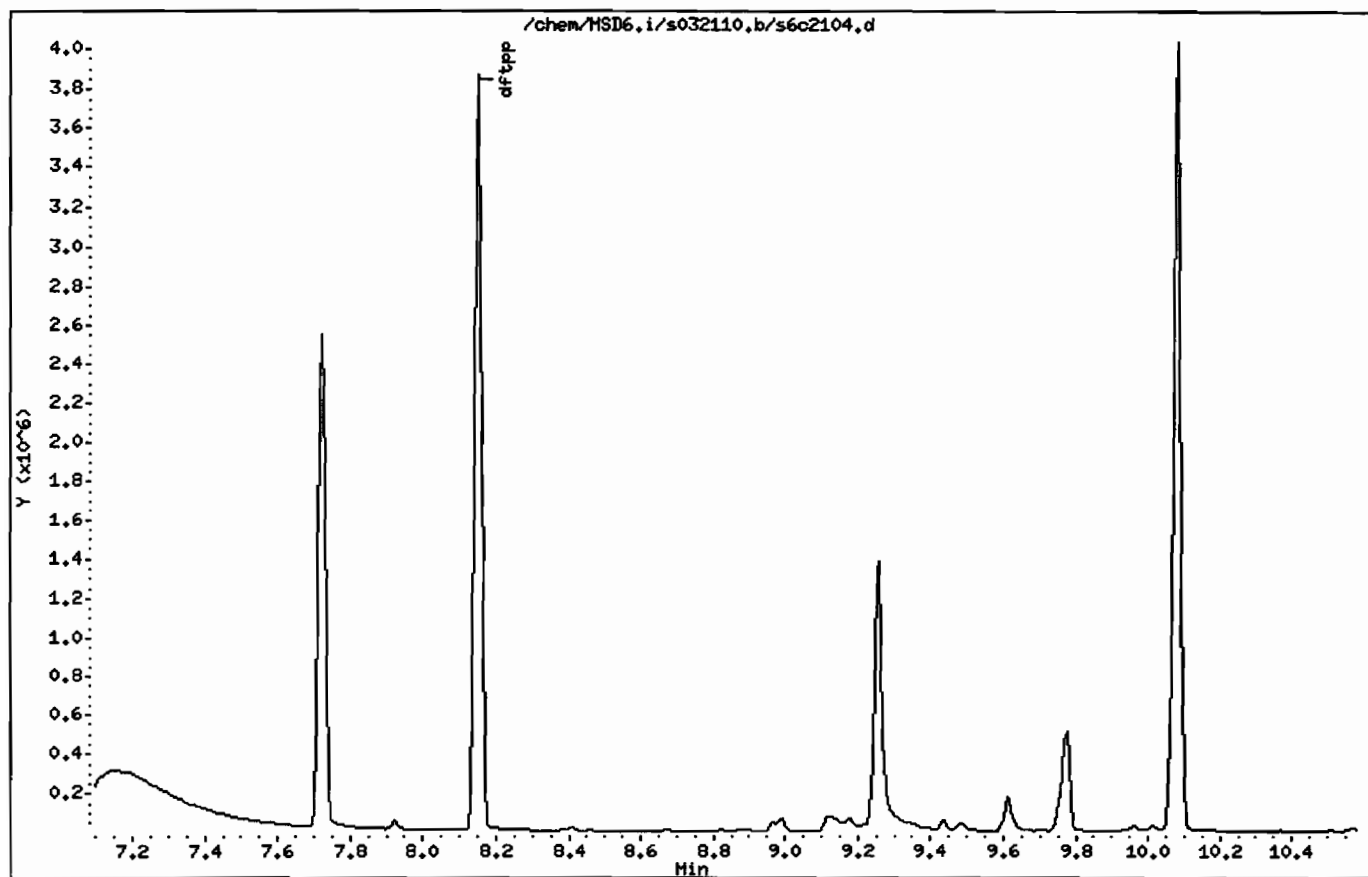
Instrument: HSD6.i

Sample Info: IWBH100306-01,21DFTPP11ISVHF11DFTPP

Operator: nag1

Column phase: Phenomenex ZB-EHS

Column diameter: 0,20





Data File: /chem/HSD6.i/s032110.b/s6c2104.d

Page 2

Date : 21-MAR-2010 16:41

Client ID: DFTPP

Instrument: HSD6.i

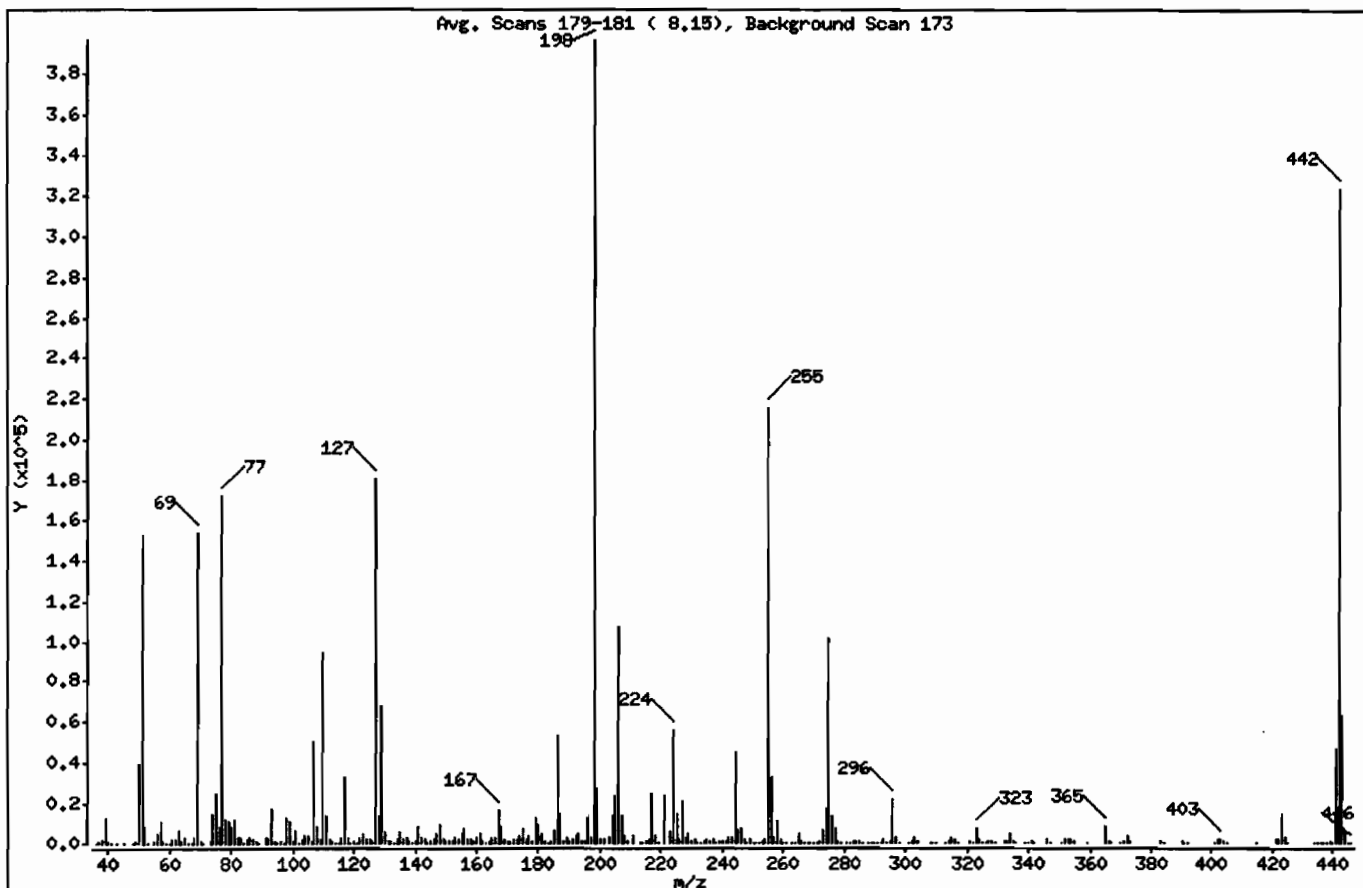
Sample Info: IWBNI00306-01.2IDFTPP11SVHF11IDFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.47
68	Less than 2.00% of mass 69	0.68 ( 1.75)
69	Mass 69 relative abundance	38.77
70	Less than 2.00% of mass 69	0.19 ( 0.50)
127	40.00 - 60.00% of mass 198	45.57
197	Less than 1.00% of mass 198	0.68
199	5.00 - 9.00% of mass 198	6.81
275	10.00 - 30.00% of mass 198	25.52
365	Greater than 1.00% of mass 198	2.19
441	Present, but less than mass 443	11.82
442	Greater than 40.00% of mass 198	81.56
443	17.00 - 23.00% of mass 442	15.88 ( 19.47)

Data File: /chem/MSD6.i/s032110.b/s6c2104.d

Page 3

Date : 21-MAR-2010 16:41

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBH100306-01.2\DFTPP\1\SVHF\1\1\DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c2104.d

Spectrum: Avg. Scans 179-181 ( 8.15), Background Scan 173

Location of Maximum: 198.00

Number of points: 322

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	81	124.00	2103	206.00	106904	294.00	441
37.00	701	125.00	2083	207.00	13526	295.00	528
38.00	2017	126.00	1001	208.00	3236	296.00	22152
39.00	13113	127.00	180800	209.00	1048	297.00	3023
40.00	721	128.00	13793	211.00	4008	298.00	238
41.00	323	129.00	67928	213.00	342	301.00	347
43.00	108	130.00	5779	214.00	46	302.00	474
45.00	374	131.00	1109	215.00	1032	303.00	2864
48.00	46	132.00	699	216.00	2047	304.00	871
49.00	985	133.00	201	217.00	24688	308.00	309
50.00	39480	134.00	1871	218.00	3230	309.00	206
51.00	152576	135.00	5321	219.00	327	310.00	277
52.00	7867	136.00	2003	221.00	23536	313.00	222
53.00	419	137.00	2686	223.00	5923	314.00	1161
55.00	694	138.00	600	224.00	56112	315.00	2782
56.00	4494	139.00	368	225.00	14430	316.00	1473
57.00	10715	140.00	930	226.00	1819	317.00	280
58.00	494	141.00	8108	227.00	21160	321.00	677
59.00	249	142.00	2647	228.00	3089	322.00	415
60.00	119	143.00	1758	229.00	4754	323.00	7650
61.00	1957	144.00	446	230.00	699	324.00	1496
62.00	2013	145.00	518	231.00	2157	325.00	169
63.00	6340	146.00	1555	232.00	404	326.00	165
64.00	752	147.00	4264	233.00	428	327.00	1303
65.00	2875	148.00	9072	234.00	1261	328.00	778
66.00	220	149.00	1980	235.00	1544	329.00	103
67.00	132	150.00	587	236.00	1150	332.00	521
68.00	2688	151.00	1159	237.00	1996	333.00	737
69.00	153792	152.00	833	238.00	260	334.00	4836
70.00	771	153.00	2762	239.00	819	335.00	1281
71.00	222	154.00	2099	240.00	649	336.00	159
73.00	1309	155.00	4846	241.00	1308	339.00	184
74.00	14751	156.00	7246	242.00	2736	340.00	91
75.00	24712	157.00	1548	243.00	2993	341.00	758
76.00	8555	158.00	1676	244.00	44400	342.00	259

Date : 21-MAR-2010 16:41

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBNI00306-01,2IDFTPP11|SVHF11|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-SHS

Column diameter: 0.20

Data File: s602104.d

Spectrum: Avg. Scans 179-181 ( 8.15), Background Scan 173

Location of Maximum: 198.00

Number of points: 322

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	171648	159.00	1236	245.00	6054	346.00	1510
78.00	11757	160.00	2531	246.00	7582	347.00	324
79.00	10956	161.00	4313	247.00	1498	351.00	170
80.00	8503	162.00	1187	248.00	365	352.00	2239
81.00	12214	163.00	359	249.00	1500	353.00	1538
82.00	2874	164.00	508	250.00	345	354.00	2281
83.00	2924	165.00	3049	251.00	393	355.00	593
84.00	185	166.00	2867	252.00	422	359.00	91
85.00	1986	167.00	16656	253.00	1010	365.00	8679
86.00	3188	168.00	7776	254.00	1796	366.00	1364
87.00	1516	169.00	1508	255.00	215808	367.00	86
88.00	617	170.00	575	256.00	32600	370.00	187
89.00	319	171.00	781	257.00	2512	371.00	597
91.00	2520	172.00	1632	258.00	11031	372.00	3461
92.00	3011	173.00	1920	259.00	1735	373.00	960
93.00	17104	174.00	3473	260.00	323	383.00	1078
94.00	1210	175.00	7097	261.00	372	384.00	311
95.00	257	176.00	2135	263.00	101	390.00	538
96.00	1159	177.00	3606	264.00	335	391.00	375
97.00	432	178.00	1281	265.00	4531	392.00	214
98.00	12656	179.00	12835	266.00	568	401.00	269
99.00	10579	180.00	9029	267.00	156	402.00	1389
100.00	984	181.00	4583	268.00	139	403.00	2077
101.00	6389	182.00	760	269.00	120	404.00	771
102.00	405	183.00	349	270.00	342	405.00	45
103.00	2134	184.00	1027	271.00	454	415.00	174
104.00	4056	185.00	6457	272.00	615	421.00	2041
105.00	3931	186.00	52768	273.00	6535	422.00	2078
106.00	1261	187.00	14655	274.00	17496	423.00	14798
107.00	49904	188.00	1303	275.00	101256	424.00	3007
108.00	8054	189.00	2967	276.00	13311	425.00	338
109.00	1776	190.00	690	277.00	7621	434.00	47
110.00	94152	191.00	1559	278.00	1284	435.00	106
111.00	14147	192.00	4080	279.00	318	436.00	325
112.00	1760	193.00	4590	281.00	28	437.00	243

Data File: /chem/MSD6.i/s032110.b/s6c2104.d

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Date : 21-MAR-2010 16:41

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBH100306-01.21DFTPP11SVHF11DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c2104.d

Spectrum: Avg. Scans 179-181 ( 8.15), Background Scan 173

Location of Maximum: 198.00

Number of points: 322

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	569	194.00	1170	282.00	321	438.00	199
114.00	160	195.00	829	283.00	983	439.00	596
115.00	287	196.00	12543	284.00	736	440.00	283
116.00	2775	197.00	2707	285.00	1304	441.00	46912
117.00	32632	198.00	396736	286.00	253	442.00	323584
118.00	2548	199.00	27032	288.00	41	443.00	62992
119.00	434	200.00	2185	289.00	282	444.00	5731
120.00	629	201.00	2056	290.00	267	445.00	335
121.00	259	203.00	2622	291.00	184	446.00	43
122.00	2905	204.00	13557	292.00	449		
123.00	4814	205.00	23616	293.00	1572		

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

SDG Number: 10-2202

Matrix: SOIL

Lab Sample ID: 1202066181

Client Sample: QC for batch 963130

Client: LANL010

Project: QC

Client ID: MB for batch 963130

Method: SW846 8270C

SOP Ref: GL-OA-E-009

Batch ID: 963133

Inst: MSD6.I

Dilution: 1

Run Date: 03/21/2010 18:13

Analyst: NAG1

Inj. Vol: .5 uL

Prep Date: 03/10/2010 12:14

Aliquot: 30 g

Final Volume: 1 mL

Data File: s6c2108-1.d

Column: J&amp;W DB-5MS

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	333	ug/kg	66.7	333

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

SDG Number: 10-2202		Matrix: SOIL
Lab Sample ID: 1202066181		
Client Sample: QC for batch 963130	Client: LANL010	Project: QC
Client ID: MB for batch 963130	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963133	Inst: MSD6.I	Dilution: 1
Run Date: 03/21/2010 18:13	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:14	Aliquot: 30 g	Final Volume: 1 mL
Data File: s6c2108-1.d	Column: J&W DB-5MS	Level: LOW

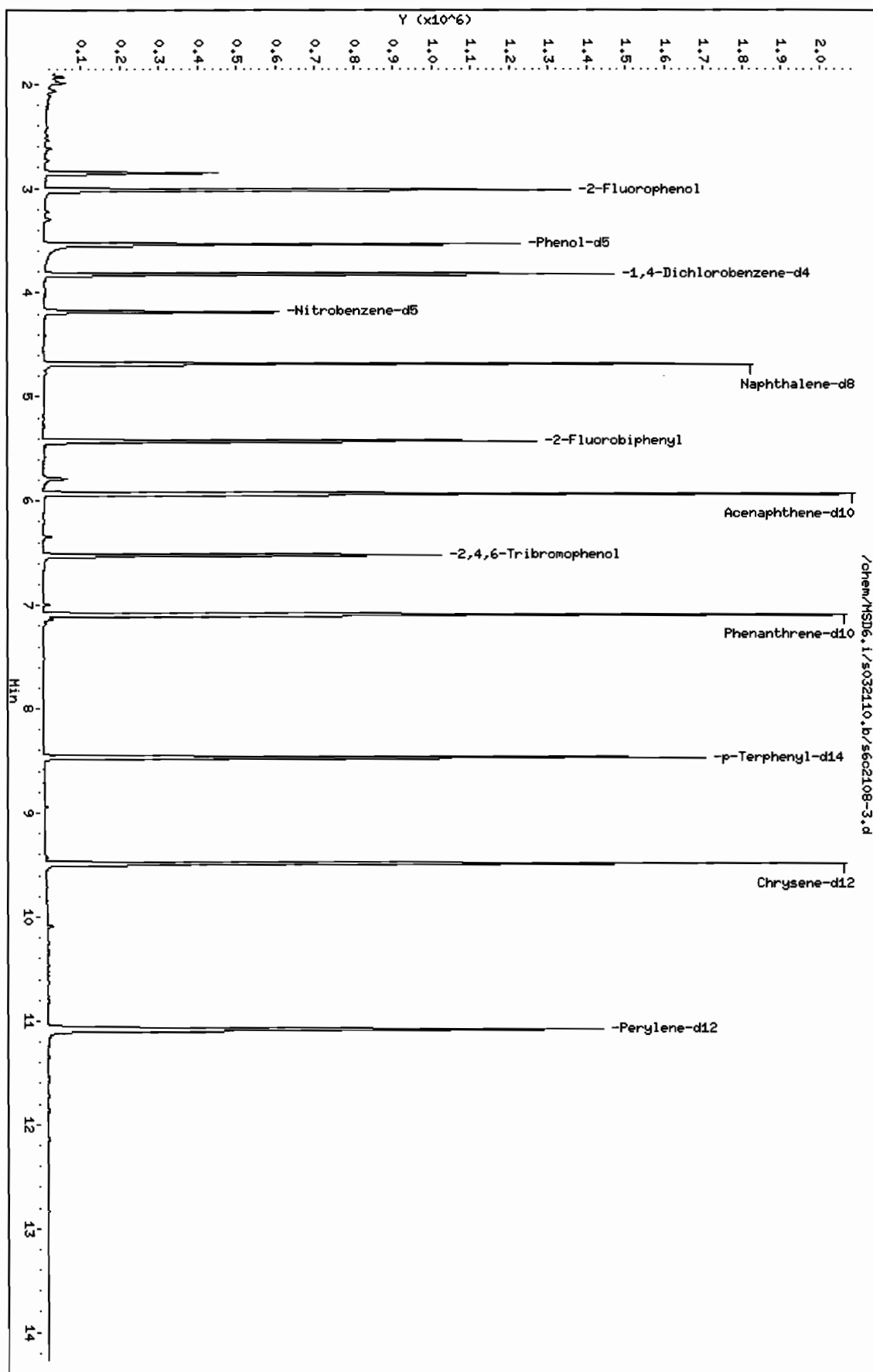
CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
122-39-4	<i>p</i> -Nitroaniline					
	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
101-55-3	<i>1,2</i> -Diphenylhydrazine					
	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	397	ug/kg		JA

Data File: /chem/MSD6.i/s032110.b/sec2108-3.d  
Date: 21-MAR-2010 18:13  
Client ID: SBLK01  
Sample Info: 14202066481196313311/SVH111MB  
Volume Injected (uL): 0.5  
Column phase: JSM DB-SHS

Instrument: MSD6.i  
Operator: nag1  
Column diameter: 0.20



Date: 21-MAR-2010 18:13

Client ID: SBLK01

Instrument: MSD6.i

Sample Info: I1202066181I963133I1ISVHI1MB

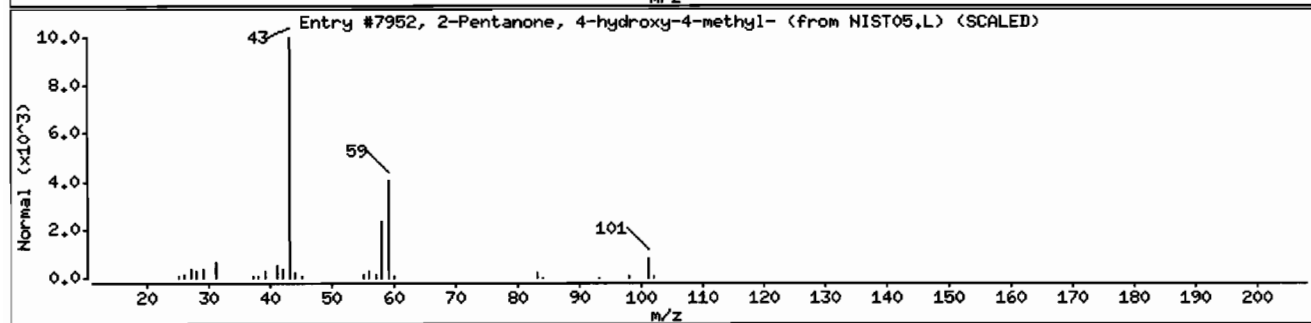
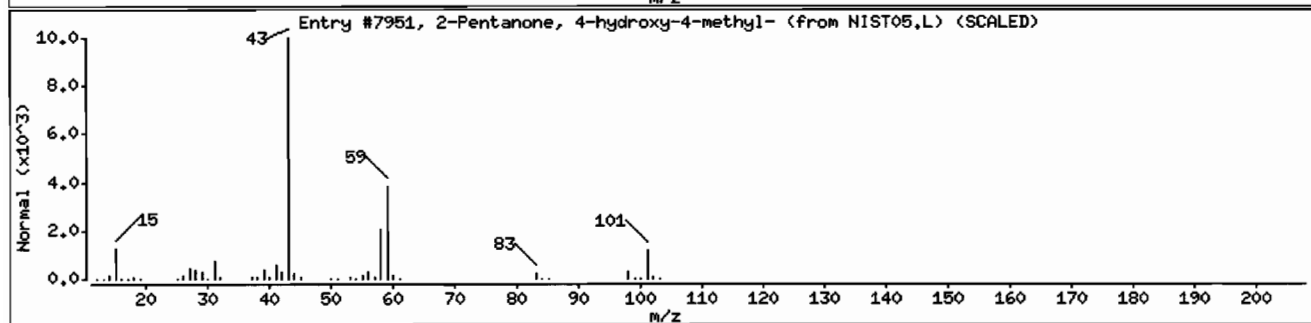
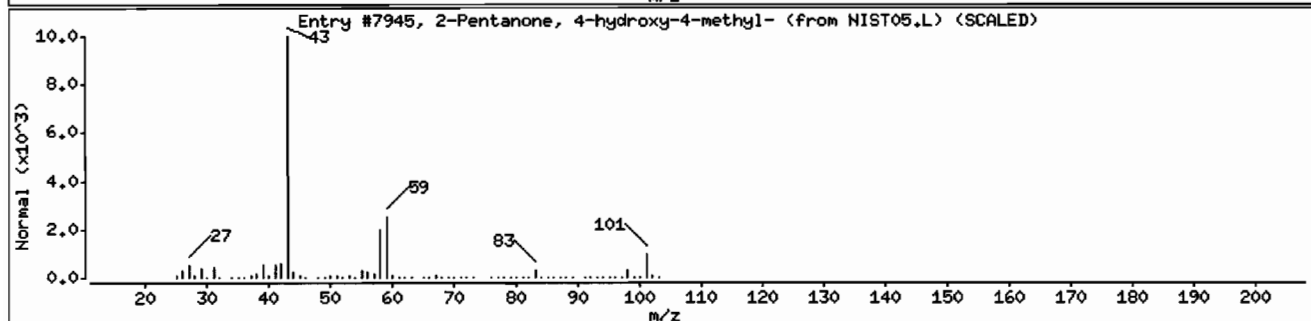
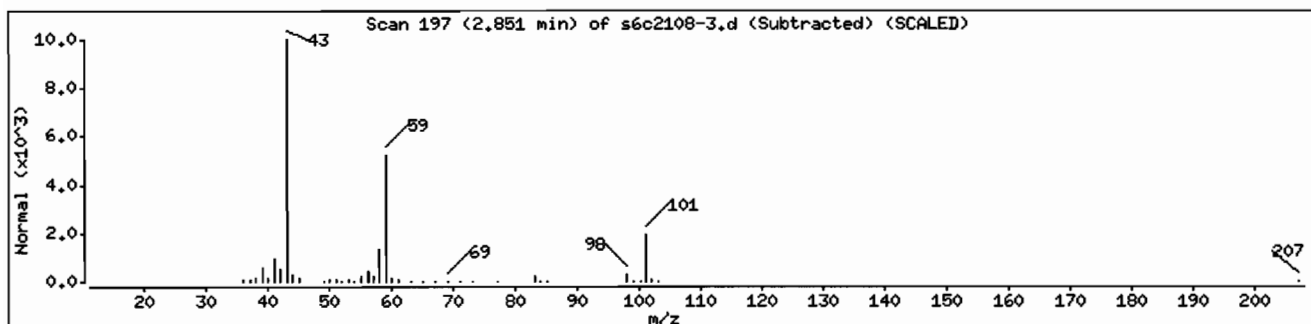
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	45	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	40	C6H12O2	116





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

SDG Number: 10-2202

Matrix: SOIL

Lab Sample ID: 1202066182

Client Sample: QC for batch 963130

Client: LANL010

Project: QC

Client ID: LCS for batch 963130

Method: SW846 8270C

SOP Ref: GL-OA-E-009

Batch ID: 963133

Inst: MSD6.I

Dilution: 1

Run Date: 03/21/2010 18:37

Analyst: NAG1

Inj. Vol: .5 uL

Prep Date: 03/10/2010 12:14

Aliquot: 30 g

Final Volume: 1 mL

Data File: s6c2109-1.d

Column: J&amp;W DB-5MS

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		662	ug/kg	66.7	333
108-95-2	Phenol		796	ug/kg	66.7	333
95-57-8	2-Chlorophenol		856	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		851	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		769	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		891	ug/kg	66.7	333
83-32-9	Acenaphthene		838	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		947	ug/kg	33.3	333
100-02-7	4-Nitrophenol		659	ug/kg	110	333
87-86-5	Pentachlorophenol		1130	ug/kg	83.3	333
129-00-0	Pyrene		972	ug/kg	10.0	33.3
110-86-1	Pyridine		679	ug/kg	66.7	333
62-53-3	Aniline		747	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		738	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		842	ug/kg	66.7	333
100-51-6	Benzyl alcohol		428	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		915	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		707	ug/kg	66.7	333
95-48-7	o-Cresol		798	ug/kg	66.7	333
65794-96-9	m,p-Cresols		912	ug/kg	100	333
67-72-1	Hexachloroethane		748	ug/kg	66.7	333
98-95-3	Nitrobenzene		863	ug/kg	66.7	333
78-59-1	Isophorone		844	ug/kg	66.7	333
88-75-5	2-Nitrophenol		872	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		440	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		804	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		894	ug/kg	66.7	333
65-85-0	Benzoic acid		1760	ug/kg	167	667
91-20-3	Naphthalene		814	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		831	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1020	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		868	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		763	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		943	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		980	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		883	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		713	ug/kg	66.7	333
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline		754	ug/kg	66.7	333

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2202  
Lab Sample ID: 1202066182  
Client Sample: QC for batch 963130  
Client ID: LCS for batch 963130  
Batch ID: 963133  
Run Date: 03/21/2010 18:37  
Prep Date: 03/10/2010 12:14  
Data File: s6c2109-1.d

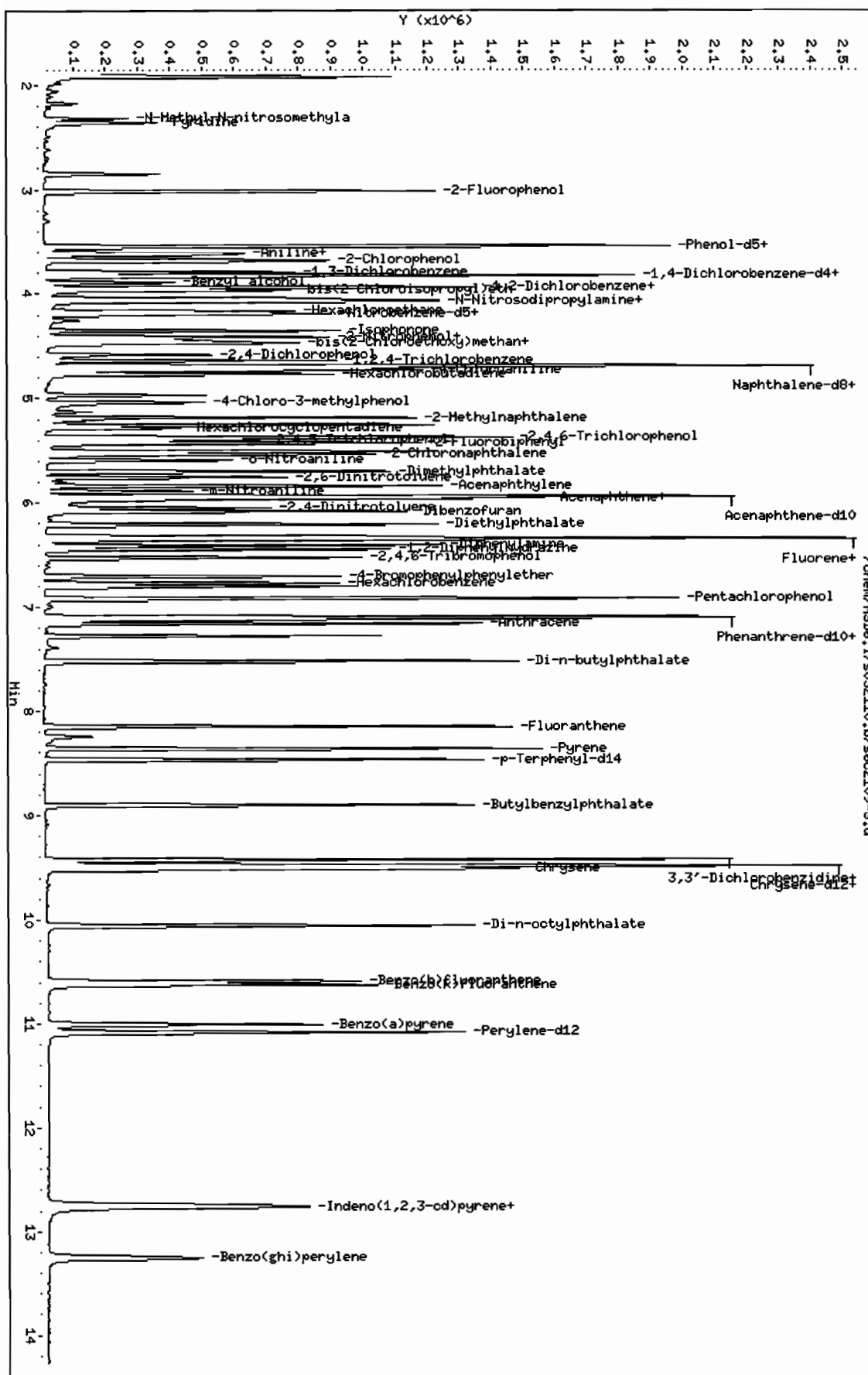
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: SOIL  
Project: QC  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate		1070	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		990	ug/kg	33.3	333
208-96-8	Acenaphthylene		947	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		937	ug/kg	127	667
132-64-9	Dibenzofuran		971	ug/kg	66.7	333
84-66-2	Diethylphthalate		1100	ug/kg	66.7	333
86-73-7	Fluorene		925	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1040	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		964	ug/kg	66.7	333
100-01-6	4-Nitroaniline		908	ug/kg	100	333
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine		975	ug/kg	66.7	333
122-66-7	Azobenzene		883	ug/kg	66.7	333
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1080	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1140	ug/kg	66.7	333
85-01-8	Phenanthrene		954	ug/kg	10.0	33.3
120-12-7	Anthracene		913	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1040	ug/kg	66.7	333
206-44-0	Fluoranthene		1030	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		961	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		959	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		944	ug/kg	100	333
218-01-9	Chrysene		989	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		950	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		895	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		942	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1070	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		989	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1090	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1100	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1070	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		963	ug/kg	66.7	333

Data File: /chem/MSD6.i/s032110.b/s6c2109-3.d  
 Date: 21-MAR-2010 18:37  
 Client ID: SBLK01LCS  
 Sample Info: 11202066182196313111SM11LCS  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-SMS

Instrument: MSD6.1  
 Operator: nag1  
 Column diameter: 0.20



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

<b>SDG Number:</b> 10-2202	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 1202066183	<b>Date Received:</b> 03/03/2010 08:50	<b>% Moisture:</b> 12.4
<b>Client Sample:</b> QC for batch 963130	<b>Client:</b> LANL010	<b>Project:</b> QC
<b>Client ID:</b> RE36-10-8466MS	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963133	<b>Inst:</b> MSD6.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 01:18	<b>Analyst:</b> NAG1	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:14	<b>Aliquot:</b> 30 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s6c2126.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		435	ug/kg	76.1	380
108-95-2	Phenol		586	ug/kg	76.1	380
95-57-8	2-Chlorophenol		617	ug/kg	76.1	380
106-46-7	1,4-Dichlorobenzene		422	ug/kg	76.1	380
621-64-7	N-Nitrosodipropylamine		561	ug/kg	76.1	380
59-50-7	4-Chloro-3-methylphenol		710	ug/kg	76.1	380
83-32-9	Acenaphthene		597	ug/kg	12.6	38.0
121-14-2	2,4-Dinitrotoluene		709	ug/kg	38.0	380
100-02-7	4-Nitrophenol		639	ug/kg	126	380
87-86-5	Pentachlorophenol		781	ug/kg	95.1	380
129-00-0	Pyrene		663	ug/kg	11.4	38.0
110-86-1	Pyridine		408	ug/kg	76.1	380
62-53-3	Aniline		447	ug/kg	114	380
111-44-4	bis(2-Chloroethyl) ether		451	ug/kg	76.1	380
541-73-1	1,3-Dichlorobenzene		405	ug/kg	76.1	380
100-51-6	Benzyl alcohol	U	380	ug/kg	114	380
95-50-1	1,2-Dichlorobenzene		482	ug/kg	76.1	380
108-60-1	bis(2-Chloroisopropyl)ether		448	ug/kg	76.1	380
95-48-7	o-Cresol		1040	ug/kg	76.1	380
65794-96-9	m,p-Cresols		743	ug/kg	114	380
67-72-1	Hexachloroethane	J	318	ug/kg	76.1	380
98-95-3	Nitrobenzene		542	ug/kg	76.1	380
78-59-1	Isophorone		587	ug/kg	76.1	380
88-75-5	2-Nitrophenol		657	ug/kg	76.1	380
105-67-9	2,4-Dimethylphenol		539	ug/kg	133	380
111-91-1	bis(2-Chloroethoxy)methane		590	ug/kg	76.1	380
120-83-2	2,4-Dichlorophenol		734	ug/kg	76.1	380
65-85-0	Benzoic acid		1540	ug/kg	190	761
91-20-3	Naphthalene		544	ug/kg	11.4	38.0
106-47-8	4-Chloroaniline		600	ug/kg	76.1	380
87-68-3	Hexachlorobutadiene		565	ug/kg	76.1	380
91-57-6	2-Methylnaphthalene		628	ug/kg	7.61	38.0
77-47-4	Hexachlorocyclopentadiene	J	360	ug/kg	76.1	380
88-06-2	2,4,6-Trichlorophenol		720	ug/kg	76.1	380
95-95-4	2,4,5-Trichlorophenol		755	ug/kg	76.1	380
91-58-7	2-Chloronaphthalene		653	ug/kg	12.6	38.0
88-74-4	2-Nitroaniline		580	ug/kg	76.1	380
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline		614	ug/kg	76.1	380

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

SDG Number: 10-2202	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 1202066183	Date Received: 03/03/2010 08:50	%Moisture: 12.4
Client Sample: QC for batch 963130	Client: LANL010	Project: QC
Client ID: RE36-10-8466MS	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963133	Inst: MSD6.I	Dilution: 1
Run Date: 03/22/2010 01:18	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:14	Aliquot: 30 g	Final Volume: 1 mL
Data File: s6c2126.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<i>m-Nitroaniline</i>						
131-11-3	Dimethylphthalate		771	ug/kg	76.1	380
606-20-2	2,6-Dinitrotoluene		709	ug/kg	38.0	380
208-96-8	Acenaphthylene		686	ug/kg	11.4	38.0
51-28-5	2,4-Dinitrophenol		858	ug/kg	145	761
132-64-9	Dibenzofuran		749	ug/kg	76.1	380
84-66-2	Diethylphthalate		757	ug/kg	76.1	380
86-73-7	Fluorene		676	ug/kg	11.4	38.0
7005-72-3	4-Chlorophenylphenylether		771	ug/kg	76.1	380
534-52-1	2-Methyl-4,6-dinitrophenol		800	ug/kg	76.1	380
100-01-6	4-Nitroaniline		793	ug/kg	114	380
<i>p-Nitroaniline</i>						
122-39-4	Diphenylamine		710	ug/kg	76.1	380
122-66-7	Azobenzene		651	ug/kg	76.1	380
<i>1,2-Diphenylhydrazine</i>						
101-55-3	4-Bromophenylphenylether		781	ug/kg	76.1	380
118-74-1	Hexachlorobenzene		702	ug/kg	76.1	380
85-01-8	Phenanthrene		667	ug/kg	11.4	38.0
120-12-7	Anthracene		698	ug/kg	7.61	38.0
84-74-2	Di-n-butylphthalate		698	ug/kg	76.1	380
206-44-0	Fluoranthene		713	ug/kg	11.4	38.0
85-68-7	Butylbenzylphthalate		645	ug/kg	76.1	380
56-55-3	Benzo(a)anthracene		653	ug/kg	11.4	38.0
91-94-1	3,3'-Dichlorobenzidine		531	ug/kg	114	380
218-01-9	Chrysene		656	ug/kg	11.4	38.0
117-81-7	bis(2-Ethylhexyl)phthalate		638	ug/kg	76.1	380
117-84-0	Di-n-octylphthalate		758	ug/kg	76.1	380
205-99-2	Benzo(b)fluoranthene		683	ug/kg	11.4	38.0
207-08-9	Benzo(k)fluoranthene		769	ug/kg	11.4	38.0
50-32-8	Benzo(a)pyrene		678	ug/kg	11.4	38.0
193-39-5	Indeno(1,2,3-cd)pyrene		529	ug/kg	11.4	38.0
53-70-3	Dibenzo(a,h)anthracene		576	ug/kg	11.4	38.0
191-24-2	Benzo(ghi)perylene		457	ug/kg	11.4	38.0
120-82-1	1,2,4-Trichlorobenzene		591	ug/kg	76.1	380

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032110.b/s6c2126.d  
 Lab Smp Id: 1202066183 Client Smp ID: RE36-10-8466MS  
 Inj Date : 22-MAR-2010 01:18  
 Operator : nagl Inst ID: MSD6.i  
 Smp Info : |1202066183|963133|1|SVM|1|MS  
 Misc Info : |MSD8270\_S|WBN100319-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 23-Mar-2010 10:53 nat00999 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 23 QC Sample: MS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2202.sub  
 Target Version: 3.50  
 Processing Host: hpclp1

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	12.38630	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4		152	3.828	3.822	(1.000)	301304	40.0000	
* 29 Naphthalene-d8		136	4.692	4.687	(1.000)	1168255	40.0000	
* 46 Acenaphthene-d10		164	5.939	5.934	(1.000)	729368	40.0000	
* 67 Phenanthrene-d10		188	7.098	7.093	(1.000)	1290719	40.0000	
* 91 Chrysene-d12		240	9.498	9.486	(1.000)	1135062	40.0000	
* 98 Perylene-d12		264	11.092	11.075	(1.000)	771370	40.0000	
\$ 3 2-Fluorophenol		112	3.022	3.005	(0.789)	260338	31.0816	1180
\$ 5 Phenol-d5		99	3.545	3.534	(0.926)	327263	30.7232	1170(R)
\$ 20 Nitrobenzene-d5		82	4.187	4.181	(0.892)	149918	13.4242	511(R)
\$ 39 2-Fluorobiphenyl		172	5.434	5.422	(0.915)	335877	17.8488	679
\$ 60 2,4,6-Tribromophenol		329	6.533	6.522	(1.100)	91786	44.8457	1710
\$ 81 p-Terphenyl-d14		244	8.475	8.463	(0.892)	410656	20.7617	790

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
6 Phenol	94	3.557	3.546	(0.929)	166212	15.4143	586 (R)
8 2-Chlorophenol	128	3.692	3.681	(0.965)	142113	16.2049	616
11 1,4-Dichlorobenzene	146	3.840	3.834	(1.003)	103941	11.0797	422 (R)
17 N-Nitrosodipropylamine	70	4.063	4.063	(1.061)	108477	14.7449	561 (Q)
28 1,2,4-Trichlorobenzene	180	4.639	4.634	(0.989)	131104	15.5298	591
33 4-Chloro-3-methylphenol	107	5.045	5.028	(1.075)	149470	18.6534	710
47 Acenaphthene	154	5.963	5.957	(1.004)	296891	15.6886	597
50 2,4-Dinitrotoluene	165	6.057	6.051	(1.020)	121123	18.6341	709
52 4-Nitrophenol	139	5.998	5.975	(1.010)	58915	16.7967	639
65 Pentachlorophenol	266	6.928	6.916	(0.976)	62275	20.5380	781
79 Pyrene	202	8.369	8.357	(0.881)	602596	17.4152	662
2 Pyridine	79	2.357	2.340	(0.616)	89302	10.7264	408 (R)
4 Aniline	66	3.610	3.604	(0.943)	59313	11.7613	447
7 bis(2-Chloroethyl) ether	63	3.628	3.622	(0.948)	95039	11.8536	451 (R)
9 1,3-Dichlorobenzene	146	3.792	3.787	(0.991)	102816	10.6421	405 (R)
13 1,2-Dichlorobenzene	146	3.940	3.934	(1.029)	107804	12.6775	482 (R)
14 bis(2-Chloroisopropyl) ether	45	3.969	3.963	(1.037)	198352	11.7707	448 (QR)
15 o-Cresol	107	3.951	3.940	(1.032)	182422	27.2759	1040 (Q)
18 m,p-Cresols	107	4.045	4.040	(1.057)	188246	19.5405	743
19 Hexachloroethane	117	4.169	4.163	(1.089)	33831	8.35325	318 (aR)
21 Nitrobenzene	77	4.204	4.199	(0.896)	146695	14.2363	542
22 Isophorone	82	4.351	4.352	(0.927)	304850	15.4175	586
23 2-Nitrophenol	139	4.416	4.410	(0.941)	77069	17.2559	656
24 2,4-Dimethylphenol	122	4.416	4.404	(0.941)	148854	14.1556	538 (Q)
25 bis(2-Chloroethoxy)methane	93	4.475	4.469	(0.954)	166718	15.5089	590
26 2,4-Dichlorophenol	162	4.575	4.569	(0.975)	142199	19.2805	734
27 Benzoic acid	105	4.463	4.463	(0.951)	221597	40.4585	1540 (Q)
30 Naphthalene	128	4.704	4.699	(1.002)	411015	14.2891	544
31 4-Chloroaniline	127	4.722	4.716	(1.006)	200123	15.7712	600
32 Hexachlorobutadiene	225	4.769	4.763	(1.016)	71194	14.8576	565
34 2-Methylnaphthalene	142	5.187	5.181	(1.105)	292174	16.5176	628
36 Hexachlorocyclopentadiene	237	5.287	5.281	(0.890)	39568	9.46124	360 (aR)
37 2,4,6-Trichlorophenol	196	5.375	5.369	(0.905)	115521	18.9263	720
38 2,4,5-Trichlorophenol	196	5.410	5.393	(0.911)	128296	19.8391	755
40 2-Chloronaphthalene	162	5.539	5.528	(0.933)	304646	17.1595	653
42 o-Nitroaniline	65	5.598	5.587	(0.943)	95123	15.2531	580 (R)
41 m-Nitroaniline	138	5.892	5.887	(0.992)	74766	16.1370	614 (R)
43 Dimethylphthalate	163	5.704	5.704	(0.960)	417457	20.2597	771
44 2,6-Dinitrotoluene	165	5.763	5.757	(0.970)	91926	18.6322	709
45 Acenaphthylene	152	5.839	5.834	(0.983)	507310	18.0360	686
48 2,4-Dinitrophenol	184	5.963	5.957	(1.004)	33813	22.5458	858 (Q)
49 Dibenzofuran	168	6.086	6.081	(1.025)	452538	19.6861	749
51 Diethylphthalate	149	6.210	6.204	(1.046)	401823	19.8935	757
53 Fluorene	166	6.345	6.340	(1.068)	362375	17.7789	676
54 4-Chlorophenylphenylether	204	6.328	6.316	(1.065)	198120	20.2630	771
55 2-Methyl-4,6-dinitrophenol	198	6.363	6.357	(0.896)	56016	21.0266	800
56 p-Nitroaniline	138	6.345	6.340	(1.068)	79224	20.8538	793

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng/ul)	(ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
133 Diphenylamine	169	6.416	6.404	(0.904)	312538	18.6616	710
58 1,2-Diphenylhydrazine	77	6.451	6.440	(0.909)	385441	17.1213	651
61 4-Bromophenylphenylether	248	6.710	6.704	(0.945)	115084	20.5350	781
63 Hexachlorobenzene	284	6.775	6.769	(0.954)	98842	18.4578	702 (R)
68 Phenanthrene	178	7.122	7.110	(1.003)	550983	17.5192	666
69 Anthracene	178	7.163	7.151	(1.009)	581227	18.3447	698
72 Di-n-butylphthalate	149	7.522	7.516	(1.060)	671998	18.3393	698 (R)
76 Fluoranthene	202	8.151	8.139	(1.148)	597592	18.7366	713
85 Butylbenzylphthalate	149	8.904	8.892	(0.937)	283866	16.9557	645 (R)
89 Benzo (a) anthracene	228	9.486	9.475	(0.999)	508429	17.1545	653
90 3,3'-Dichlorobenzidine	252	9.439	9.433	(0.994)	119418	13.9477	531 (R)
92 Chrysene	228	9.522	9.510	(1.002)	487805	17.2312	656
93 bis (2-Ethylhexyl)phthalate	149	9.427	9.416	(0.993)	375435	16.7772	638 (R)
94 Di-n-octylphthalate	149	10.063	10.045	(0.907)	587982	19.9202	758
95 Benzo (b) fluoranthene	252	10.598	10.586	(0.955)	376361	17.9471	683
96 Benzo (k) fluoranthene	252	10.633	10.622	(0.959)	406814	20.2205	769
97 Benzo (a) pyrene	252	11.016	11.004	(0.993)	316599	17.8262	678
99 Indeno (1,2,3-cd) pyrene	276	12.757	12.733	(1.150)	226466	13.8960	529 (R)
100 Dibenzo (a,h) anthracene	278	12.774	12.751	(1.152)	198811	15.1460	576
101 Benzo (ghi) perylene	276	13.262	13.245	(1.196)	167247	12.0187	457 (R)
1 N-Methyl-N-nitrosomethylamine	74	2.322	2.310	(0.607)	66864	11.4452	435 (R)

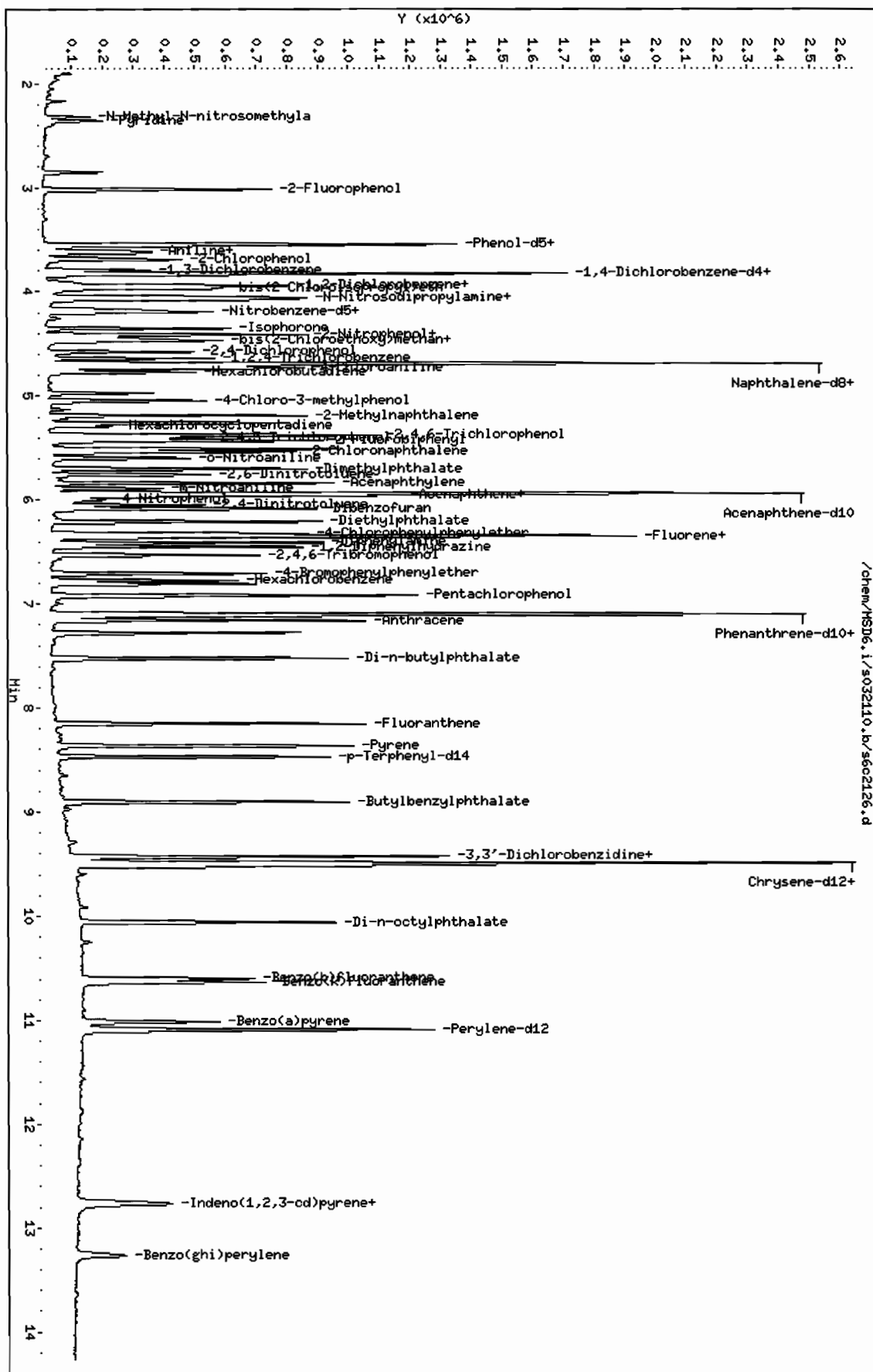
#### QC Flag Legend

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



Data File: /chem/MSD6.1/s032110.b/s602126.d  
 Date : 22-MAR-2010 01:18  
 Client ID: REC6-10-846MS  
 Sample Info: 11202066183196313311SVH11.MS  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: MSD6.1  
 Operator: nag1  
 Column diameter: 0.20



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

SDG Number: 10-2202	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 1202066184	Date Received: 03/03/2010 08:50	%Moisture: 12.4
Client Sample: QC for batch 963130	Client: LANL010	Project: QC
Client ID: RE36-10-8466MSD	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963133	Inst: MSD6.I	Dilution: 1
Run Date: 03/22/2010 01:42	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:14	Aliquot: 30.03 g	Final Volume: 1 mL
Data File: s6c2127.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		598	ug/kg	76.0	380
108-95-2	Phenol		763	ug/kg	76.0	380
95-57-8	2-Chlorophenol		773	ug/kg	76.0	380
106-46-7	1,4-Dichlorobenzene		523	ug/kg	76.0	380
621-64-7	N-Nitrosodipropylamine		695	ug/kg	76.0	380
59-50-7	4-Chloro-3-methylphenol		774	ug/kg	76.0	380
83-32-9	Acenaphthene		633	ug/kg	12.5	38.0
121-14-2	2,4-Dinitrotoluene		770	ug/kg	38.0	380
100-02-7	4-Nitrophenol		675	ug/kg	125	380
87-86-5	Pentachlorophenol		866	ug/kg	95.0	380
129-00-0	Pyrene		721	ug/kg	11.4	38.0
110-86-1	Pyridine	J	323	ug/kg	76.0	380
62-53-3	Aniline	J	356	ug/kg	114	380
111-44-4	bis(2-Chloroethyl) ether		581	ug/kg	76.0	380
541-73-1	1,3-Dichlorobenzene		532	ug/kg	76.0	380
100-51-6	Benzyl alcohol	U	380	ug/kg	114	380
95-50-1	1,2-Dichlorobenzene		605	ug/kg	76.0	380
108-60-1	bis(2-Chloroisopropyl)ether		542	ug/kg	76.0	380
95-48-7	o-Cresol		1200	ug/kg	76.0	380
65794-96-9	m,p-Cresols		798	ug/kg	114	380
67-72-1	Hexachloroethane		402	ug/kg	76.0	380
98-95-3	Nitrobenzene		698	ug/kg	76.0	380
78-59-1	Isophorone		711	ug/kg	76.0	380
88-75-5	2-Nitrophenol		797	ug/kg	76.0	380
105-67-9	2,4-Dimethylphenol		826	ug/kg	133	380
111-91-1	bis(2-Chloroethoxy)methane		724	ug/kg	76.0	380
120-83-2	2,4-Dichlorophenol		760	ug/kg	76.0	380
65-85-0	Benzoic acid		1980	ug/kg	190	760
91-20-3	Naphthalene		623	ug/kg	11.4	38.0
106-47-8	4-Chloroaniline	J	249	ug/kg	76.0	380
87-68-3	Hexachlorobutadiene		652	ug/kg	76.0	380
91-57-6	2-Methylnaphthalene		687	ug/kg	7.60	38.0
77-47-4	Hexachlorocyclopentadiene		432	ug/kg	76.0	380
88-06-2	2,4,6-Trichlorophenol		826	ug/kg	76.0	380
95-95-4	2,4,5-Trichlorophenol		797	ug/kg	76.0	380
91-58-7	2-Chloronaphthalene		708	ug/kg	12.5	38.0
88-74-4	2-Nitroaniline		634	ug/kg	76.0	380
	o-Nitroaniline					
99-09-2	3-Nitroaniline		538	ug/kg	76.0	380

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

SDG Number: 10-2202	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 1202066184	Date Received: 03/03/2010 08:50	%Moisture: 12.4
Client Sample: QC for batch 963130	Client: LANL010	Project: QC
Client ID: RE36-10-8466MSD	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963133	Inst: MSD6.I	Dilution: 1
Run Date: 03/22/2010 01:42	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:14	Aliquot: 30.03 g	Final Volume: 1 mL
Data File: s6c2127.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate		865	ug/kg	76.0	380
606-20-2	2,6-Dinitrotoluene		773	ug/kg	38.0	380
208-96-8	Acenaphthylene		734	ug/kg	11.4	38.0
51-28-5	2,4-Dinitrophenol		939	ug/kg	144	760
132-64-9	Dibenzofuran		799	ug/kg	76.0	380
84-66-2	Diethylphthalate		823	ug/kg	76.0	380
86-73-7	Fluorene		703	ug/kg	11.4	38.0
7005-72-3	4-Chlorophenylphenylether		825	ug/kg	76.0	380
534-52-1	2-Methyl-4,6-dinitrophenol		817	ug/kg	76.0	380
100-01-6	4-Nitroaniline		777	ug/kg	114	380
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine		711	ug/kg	76.0	380
122-66-7	Azobenzene		676	ug/kg	76.0	380
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		782	ug/kg	76.0	380
118-74-1	Hexachlorobenzene		655	ug/kg	76.0	380
85-01-8	Phenanthrene		675	ug/kg	11.4	38.0
120-12-7	Anthracene		696	ug/kg	7.60	38.0
84-74-2	Di-n-butylphthalate		705	ug/kg	76.0	380
206-44-0	Fluoranthene		680	ug/kg	11.4	38.0
85-68-7	Butylbenzylphthalate		741	ug/kg	76.0	380
56-55-3	Benzo(a)anthracene		648	ug/kg	11.4	38.0
91-94-1	3,3'-Dichlorobenzidine	J	369	ug/kg	114	380
218-01-9	Chrysene		672	ug/kg	11.4	38.0
117-81-7	bis(2-Ethylhexyl)phthalate		697	ug/kg	76.0	380
117-84-0	Di-n-octylphthalate		1060	ug/kg	76.0	380
205-99-2	Benzo(b)fluoranthene		727	ug/kg	11.4	38.0
207-08-9	Benzo(k)fluoranthene		843	ug/kg	11.4	38.0
50-32-8	Benzo(a)pyrene		660	ug/kg	11.4	38.0
193-39-5	Indeno(1,2,3-cd)pyrene		390	ug/kg	11.4	38.0
53-70-3	Dibenzo(a,h)anthracene		436	ug/kg	11.4	38.0
191-24-2	Benzo(ghi)perylene		314	ug/kg	11.4	38.0
120-82-1	1,2,4-Trichlorobenzene		682	ug/kg	76.0	380

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032110.b/s6c2127.d  
Lab Smp Id: 1202066184 Client Smp ID: RE36-10-8466MSD  
Inj Date : 22-MAR-2010 01:42  
Operator : nagl Inst ID: MSD6.i  
Smp Info : |1202066184|963133|1|SVM|1|MSD  
Misc Info : |MSD8270\_S|WBN100319-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 23-Mar-2010 10:53 nat00999 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 24 QC Sample: MSD  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2202.sub  
Target Version: 3.50  
Processing Host: hpclp1

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	12.38630	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG						CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE		ON-COLUMN	FINAL
	=====	==	=====	=====	=====		(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.822	3.822	(1.000)	391553		40.0000	
* 29 Naphthalene-d8	136	4.692	4.687	(1.000)	1498428		40.0000	
* 46 Acenaphthene-d10	164	5.939	5.934	(1.000)	896237		40.0000	
* 67 Phenanthrene-d10	188	7.104	7.093	(1.000)	1588885		40.0000	
* 91 Chrysene-d12	240	9.498	9.486	(1.000)	1235314		40.0000	
* 98 Perylene-d12	264	11.092	11.075	(1.000)	636926		40.0000	
\$ 3 2-Fluorophenol	112	3.022	3.005	(0.791)	427215		39.2488	1490
\$ 5 Phenol-d5	99	3.546	3.534	(0.928)	515828		37.2639	1420
\$ 20 Nitrobenzene-d5	82	4.187	4.181	(0.892)	239114		16.6932	634
\$ 39 2-Fluorobiphenyl	172	5.434	5.422	(0.915)	448458		19.3943	737
\$ 60 2,4,6-Tribromophenol	329	6.534	6.522	(1.100)	113826		45.2595	1720
\$ 81 p-Terphenyl-d14	244	8.475	8.463	(0.892)	477817		22.1968	844

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
6 Phenol	94	3.557	3.546	(0.931)	281360	20.0789	763
8 2-Chlorophenol	128	3.693	3.681	(0.966)	231715	20.3320	773
11 1,4-Dichlorobenzene	146	3.834	3.834	(1.003)	167663	13.7529	523
17 N-Nitrosodipropylamine	70	4.063	4.063	(1.063)	174778	18.2812	695 (Q)
28 1,2,4-Trichlorobenzene	180	4.640	4.634	(0.989)	194314	17.9455	682
33 4-Chloro-3-methylphenol	107	5.045	5.028	(1.075)	209404	20.3746	774
47 Acenaphthene	154	5.963	5.957	(1.004)	387535	16.6656	633
50 2,4-Dinitrotoluene	165	6.057	6.051	(1.020)	161862	20.2652	770
52 4-Nitrophenol	139	5.998	5.975	(1.010)	76565	17.7644	675
65 Pentachlorophenol	266	6.934	6.916	(0.976)	85024	22.7785	866
79 Pyrene	202	8.369	8.357	(0.881)	714633	18.9770	721
2 Pyridine	79	2.381	2.340	(0.623)	91916	8.49567	323 (aR)
4 Aniline	66	3.634	3.604	(0.951)	61350	9.36129	356 (aQ)
7 bis(2-Chloroethyl) ether	63	3.622	3.622	(0.948)	159240	15.2832	581 (Q)
9 1,3-Dichlorobenzene	146	3.787	3.787	(0.991)	175780	14.0007	532
13 1,2-Dichlorobenzene	146	3.940	3.934	(1.031)	175880	15.9158	605
14 bis(2-Chloroisopropyl)ether	45	3.969	3.963	(1.038)	312069	14.2505	542 (Q)
15 o-Cresol	107	3.951	3.940	(1.034)	274614	31.5965	1200 (Q)
18 m,p-Cresols	107	4.045	4.040	(1.058)	262774	20.9897	798
19 Hexachloroethane	117	4.163	4.163	(1.089)	55617	10.5673	402 (R)
21 Nitrobenzene	77	4.198	4.199	(0.895)	242621	18.3574	698
22 Isophorone	82	4.351	4.352	(0.927)	474596	18.7134	711
23 2-Nitrophenol	139	4.416	4.410	(0.941)	120064	20.9591	797
24 2,4-Dimethylphenol	122	4.416	4.404	(0.941)	262846	21.7448	826 (Q)
25 bis(2-Chloroethoxy)methane	93	4.475	4.469	(0.954)	262572	19.0436	724
26 2,4-Dichlorophenol	162	4.581	4.569	(0.976)	189243	20.0052	760
27 Benzoic acid	105	4.475	4.463	(0.954)	365071	51.9667	1980 (Q)
30 Naphthalene	128	4.704	4.699	(1.002)	604998	16.3985	623 (Q)
31 4-Chloroaniline	127	4.710	4.716	(1.004)	106758	6.55950	249 (aR)
32 Hexachlorobutadiene	225	4.769	4.763	(1.016)	105456	17.1584	652
34 2-Methylnaphthalene	142	5.187	5.181	(1.105)	410202	18.0803	687
36 Hexachlorocyclopentadiene	237	5.287	5.281	(0.890)	58386	11.3615	432 (R)
37 2,4,6-Trichlorophenol	196	5.375	5.369	(0.905)	162979	21.7301	826
38 2,4,5-Trichlorophenol	196	5.410	5.393	(0.911)	166656	20.9727	797
40 2-Chloronaphthalene	162	5.540	5.528	(0.933)	406653	18.6405	708
42 o-Nitroaniline	65	5.598	5.587	(0.943)	127925	16.6936	634
41 m-Nitroaniline	138	5.892	5.887	(0.992)	80598	14.1569	538 (R)
43 Dimethylphthalate	163	5.704	5.704	(0.960)	576454	22.7672	865
44 2,6-Dinitrotoluene	165	5.763	5.757	(0.970)	123244	20.3289	773
45 Acenaphthylene	152	5.839	5.834	(0.983)	667663	19.3174	734
48 2,4-Dinitrophenol	184	5.963	5.957	(1.004)	46944	24.7177	939 (Q)
49 Dibenzofuran	168	6.087	6.081	(1.025)	594169	21.0348	799
51 Diethylphthalate	149	6.210	6.204	(1.046)	537350	21.6500	823
53 Fluorene	166	6.345	6.340	(1.068)	463259	18.4967	703
54 4-Chlorophenylphenylether	204	6.328	6.316	(1.065)	260935	21.7186	825
55 2-Methyl-4,6-dinitrophenol	198	6.363	6.357	(0.896)	70904	21.4950	817
56 p-Nitroaniline	138	6.345	6.340	(1.068)	95489	20.4553	777

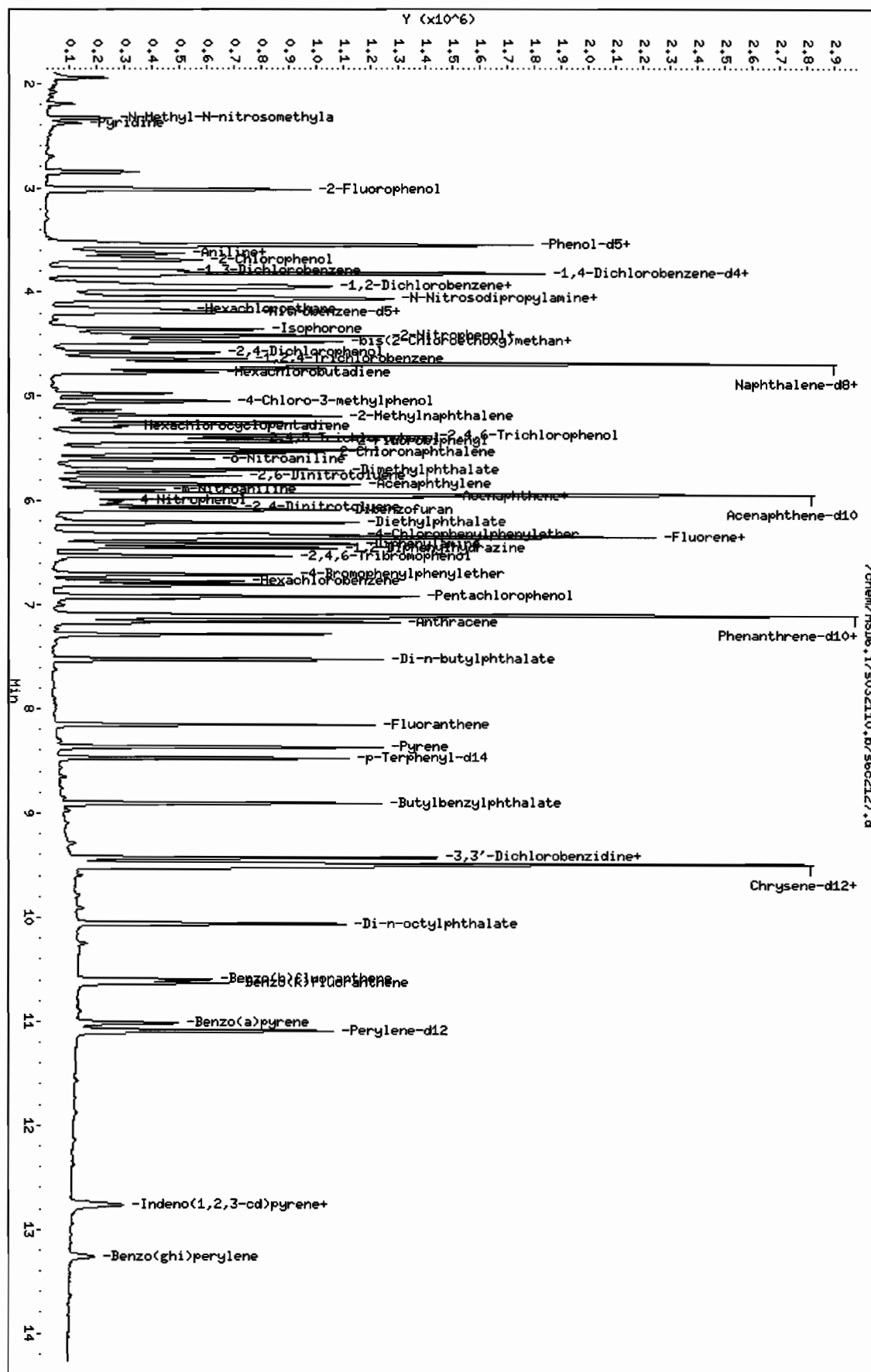
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.416	6.404	(0.903)	385462	18.6968	711
58 1,2-Diphenylhydrazine	77	6.451	6.440	(0.908)	492994	17.7893	676
61 4-Bromophenylphenylether	248	6.710	6.704	(0.945)	141952	20.5760	782
63 Hexachlorobenzene	284	6.775	6.769	(0.954)	113641	17.2391	655 (R)
68 Phenanthrene	178	7.122	7.110	(1.002)	687486	17.7574	675
69 Anthracene	178	7.163	7.151	(1.008)	713779	18.3007	696
72 Di-n-butylphthalate	149	7.528	7.516	(1.060)	836234	18.5388	705 (R)
76 Fluoranthene	202	8.151	8.139	(1.147)	702111	17.8826	680
85 Butylbenzylphthalate	149	8.904	8.892	(0.937)	355016	19.4847	740
89 Benzo (a) anthracene	228	9.486	9.475	(0.999)	549951	17.0496	648
90 3,3'-Dichlorobenzidine	252	9.439	9.433	(0.994)	90489	9.71114	369 (aR)
92 Chrysene	228	9.522	9.510	(1.002)	544803	17.6828	672
93 bis(2-Ethylhexyl)phthalate	149	9.427	9.416	(0.993)	446743	18.3436	697 (R)
94 Di-n-octylphthalate	149	10.063	10.045	(0.907)	676798	27.7692	1060
95 Benzo (b) fluoranthene	252	10.598	10.586	(0.955)	331144	19.1241	727
96 Benzo (k) fluoranthene	252	10.633	10.622	(0.959)	368645	22.1911	843
97 Benzo (a) pyrene	252	11.016	11.004	(0.993)	254793	17.3744	660
99 Indeno (1,2,3-cd) pyrene	276	12.757	12.733	(1.150)	138062	10.2597	390 (R)
100 Dibenzo (a,h) anthracene	278	12.774	12.751	(1.152)	124469	11.4840	436 (R)
101 Benzo (ghi) perylene	276	13.263	13.245	(1.196)	94984	8.26654	314 (R)
1 N-Methyl-N-nitrosomethylamine	74	2.340	2.310	(0.612)	119394	15.7264	598

#### QC Flag Legend

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

Data File: /chem/HSD6.i/s032110.b/sec2127.d  
 Date: 22-MAR-2010 01:42  
 Client ID: REC6-10-846HSD  
 Sample Info: 112020618419631311|SM11|HSD  
 Volume Injected (uL): 0.5  
 Column phase: J&M DB-SHS

Instrument: HSD6.i  
 Operator: nag1  
 Column diameter: 0.20



# Miscellaneous Data



# Prep Logbook

## Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 963130 Verified by: \_\_\_\_\_  
Analyst: Joshua McCartney Lab SOP: GL-OA-E-010 REV# 18  
Method: SW846 3550B Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)	Comments:
1202066181 MB	10-MAR-2010 12:14:00	30	1	0.03333	Verified By: RWH Final Solvent: CH2Cl2
1202066182 LCS	10-MAR-2010 12:14:00	30	1	0.03333	
248514001	10-MAR-2010 12:14:00	30.02	1	0.03331	
248514002	10-MAR-2010 12:14:00	30.04	1	0.03329	
248514003	10-MAR-2010 12:14:00	30.07	1	0.03326	
248517001	10-MAR-2010 12:14:00	30.03	1	0.0333	
248519001	10-MAR-2010 12:14:00	30	1	0.03333	
248519002	10-MAR-2010 12:14:00	30.01	1	0.03332	
248519003	10-MAR-2010 12:14:00	30.09	1	0.03323	
248519004	10-MAR-2010 12:14:00	30.03	1	0.0333	
248519005	10-MAR-2010 12:14:00	30	1	0.03333	
248519006	10-MAR-2010 12:14:00	30	1	0.03333	
248519007	10-MAR-2010 12:14:00	30.09	1	0.03323	
248519008	10-MAR-2010 12:14:00	30.09	1	0.03323	
248519009	10-MAR-2010 12:14:00	30.06	1	0.03327	
248519010	10-MAR-2010 12:14:00	30.09	1	0.03323	
248519011	10-MAR-2010 12:14:00	30.03	1	0.0333	
248526001	10-MAR-2010 12:14:00	30	1	0.03333	
1202066183 MS (248526001)	10-MAR-2010 12:14:00	30	1	0.03333	
1202066184 MSD (248526001)	10-MAR-2010 12:14:00	30.03	1	0.0333	
Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202066182	BNA LCS w/o Benzidine 50ppm	UE100302-14	1	mL
LCS	1202066182	BENZIDINE LCS	UE100302-22	1	mL
MS	1202066183	BNA LCS w/o Benzidine 50ppm	UE100302-14	1	mL
MS	1202066183	BENZIDINE LCS	UE100302-22	1	mL
MSD	1202066184	BNA LCS w/o Benzidine 50ppm	UE100302-14	1	mL
MSD	1202066184	BENZIDINE LCS	UE100302-22	1	mL
SURR	All	BNA for all Surrogate	UE100301-10	1	mL
REGNT	All	Acetone	1273739-B1	150	mL
REGNT	All	Methylene Chloride	1281955-D	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

## GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD6

DATE: 03/16/2010 METHOD: See raw data OPERATOR: nagl REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT: 1239699-D  
Multiplier Voltage: 1576 Emv Extr. Injection Volume: 0.5, 1.0 ul  
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01  
CALIBRATION & QC INFORMATION:  
Initial Calibration Dates: See Calibration History and Standard Logbook.  
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s031610.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6c1601-D.d	WBN100306-01.2	nag1	16-MAR-2010 08:42	DFTPP	s031610	1.0	DFTPP	MEGA
s6c1601.d	WBN100306-01.2	nag1	16-MAR-2010 08:42	DFTPP	s031610	1.0	DFTPP	MEGA
s6c1602.d	INSTBLK	nag1	16-MAR-2010 08:55		s031610	1.0		
s6c1603.d	WBN100309-08	nag1	16-MAR-2010 09:18	001 PPM	s031610	1.0	MEGA001	
s6c1604-RQ.d	WBN100309-07	nag1	16-MAR-2010 09:47	010 PPM	s031610	1.0	MEGA010	
s6c1604.d	WBN100309-07	nag1	16-MAR-2010 09:47	010 PPM	s031610	1.0	MEGA010	
s6c1605.d	WBN100309-06	nag1	16-MAR-2010 10:17	020 PPM	s031610	1.0	MEGA020	
s6c1606.d	WBN100309-05.1	nag1	16-MAR-2010 10:48	040 PPM	s031610	1.0	MEGA040	
s6c1607.d	WBN100309-04	nag1	16-MAR-2010 11:18	050 PPM	s031610	1.0	MEGA050	
s6c1608.d	WBN100309-03	nag1	16-MAR-2010 11:48	080 PPM	s031610	1.0	MEGA080	
s6c1609.d	WBN100309-02	nag1	16-MAR-2010 12:18	100 PPM	s031610	1.0	MEGA100	
s6c1610.d	WBN100309-01	nag1	16-MAR-2010 12:48	120 PPM	s031610	1.0	MEGA120	
s6c1611.d	INSTBLK	nag1	16-MAR-2010 13:16		s031610	1.0		
s6c1612-BOE.d	WBN100309-09.1	nag1	16-MAR-2010 13:40	040 PPM	s031610	1.0	MEGA1CV	
s6c1612-D.d	WBN100309-09.1	nag1	16-MAR-2010 13:40	040 PPM	s031610	1.0	MEGA1CV	
s6c1612.d	WBN100309-09.1	nag1	16-MAR-2010 13:40	040 PPM	s031610	1.0	MEGA1CV	
s6c1613-D.d	WBN100306-01.2	nag1	16-MAR-2010 16:06	DFTPP	s031610	1.0	DFTPP	AP/PEST/HEX
s6c1613.d	WBN100306-01.2	nag1	16-MAR-2010 16:06	DFTPP	s031610	1.0	DFTPP	AP/PEST/HEX
s6c1614.d	INSTBLK	nag1	16-MAR-2010 16:19		s031610	1.0		

s6c1615.d	WBN100312-01	nag1	16-MAR-2010 16:42	110 PPM	s031610		1.0 AP010	
s6c1616.d	WBN100312-02	nag1	16-MAR-2010 17:06	120 PPM	s031610		1.0 AP020	
s6c1617.d	WBN100312-03.1	nag1	16-MAR-2010 17:30	140 PPM	s031610		1.0 AP040	
s6c1618.d	WBN100312-04	nag1	16-MAR-2010 17:53	150 PPM	s031610		1.0 AP050	
s6c1619.d	WBN100312-05	nag1	16-MAR-2010 18:16	180 PPM	s031610		1.0 AP080	
s6c1620.d	WBN100312-06	nag1	16-MAR-2010 18:40	1100 PPM	s031610		1.0 AP100	
s6c1621.d	WBN100312-07	nag1	16-MAR-2010 19:04	120 PPM	s031610		1.0 AP120	
s6c1622.d	WBN100304-25	nag1	16-MAR-2010 19:27	110 PPM	s031610		1.0 PEST010	
s6c1623.d	WBN100304-24	nag1	16-MAR-2010 19:51	120 PPM	s031610		1.0 PEST020	
s6c1624.d	WBN100304-23.1	nag1	16-MAR-2010 20:16	140 PPM	s031610		1.0 PEST040	
s6c1625.d	WBN100304-22	nag1	16-MAR-2010 20:39	150 PPM	s031610		1.0 PEST050	
s6c1626.d	WBN100304-21	nag1	16-MAR-2010 21:04	180 PPM	s031610		1.0 PEST080	
s6c1627.d	WBN100304-20	nag1	16-MAR-2010 21:29	1100 PPM	s031610		1.0 PEST100	
s6c1628.d	WBN100304-19	nag1	16-MAR-2010 21:52	120 PPM	s031610		1.0 PEST120	
s6c1629.d	WBN100304-16	nag1	16-MAR-2010 22:16	1500 PPM	s031610		1.0 HEX500	
s6c1630.d	WBN100304-15	nag1	16-MAR-2010 22:40	1000 PPM s031610		1.0 HEX1000		
s6c1631.d	WBN100304-14	nag1	16-MAR-2010 23:05	1250 PPM s031610		1.0 HEX1250		
s6c1632.d	WBN100304-15	nag1	16-MAR-2010 23:30	1500 PPM s031610		1.0 HEX1500		
s6c1633.d	WBN100304-16	nag1	16-MAR-2010 23:53	1750 PPM s031610		1.0 HEX1750		
s6c1634.d	UBN100304-16	nag1	17-MAR-2010 00:17	2000 PPM s031610		1.0 HEX2000		
s6c1635-D.d	WBN100312-08.1	nag1	17-MAR-2010 00:41	140 PPM	s031710		1.0 APICV	
s6c1635.d	WBN100312-08.1	nag1	17-MAR-2010 00:41	140 PPM	s031710		1.0 APICV	
s6c1636-D.d	WBN100304-26.1	nag1	17-MAR-2010 01:05	140 PPM	s031710		1.0 PESTICV	
s6c1636.d	WBN100304-26.1	nag1	17-MAR-2010 01:05	140 PPM	s031710		1.0 PESTICV	
s6c1637-D.d	WBN100304-14	nag1	17-MAR-2010 01:30	1250 PPM s031710		1.0 HEX1250		
s6c1637.d	WBN100304-14	nag1	17-MAR-2010 01:30	1250 PPM s031710		1.0 HEX1250		
s6c1638-D.d	WBN100306-01.2	nag1	17-MAR-2010 01:55	DFTPP	s031610		1.0 DFTPP	NEV

s6c1638.d	WEN100306-01.2	nagl	17-MAR-2010 01:55	DFTPP	s031610	1.0 DFTPP	NEV	
s6c1639.d	INSTBLK	nagl	17-MAR-2010 02:08		s031610	1.0		
s6c1640.d	WEN100127-01	nagl	17-MAR-2010 02:32	10 PPM	s031610	1.0 NEV010		
s6c1641.d	WEN100127-02	nagl	17-MAR-2010 02:55	20 PPM	s031610	1.0 NEV020		
s6c1642.d	WEN100127-03	nagl	17-MAR-2010 03:19	40 PPM	s031610	1.0 NEV040		
s6c1643.d	WEN100127-04	nagl	17-MAR-2010 03:42	50 PPM	s031610	1.0 NEV050		
s6c1644.d	WEN100127-05	nagl	17-MAR-2010 04:05	80 PPM	s031610	1.0 NEV080		
s6c1645.d	WEN100127-06	nagl	17-MAR-2010 04:28	100 PPM	s031610	1.0 NEV100		
s6c1646.d	WEN100127-07	nagl	17-MAR-2010 04:51	120 PPM	s031610	1.0 NEV120		
s6c1647.d	WEN100127-03	nagl	17-MAR-2010 05:14	40 PPM	s031610	1.0 NEVcvs		

Instrument Batch: /chem/MSD6.i/s031610.b

# GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD6

DATE: 03/21/2010 METHOD: See raw data OPERATOR: nagl REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT: 1239699-D  
Multiplier Voltage: 1576 Emv Extr. Injection Volume: 0.5, 1.0 ul  
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01  
CALIBRATION & QC INFORMATION:  
Initial Calibration Dates: See Calibration History and Standard Logbook.  
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s032110.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
Is6c2101.d	WBN100306-01.2	inag1	21-MAR-2010 08:53	IDFTPP	Is032110	1.0	IDFTPP	IDUSE
Is6c2102.d	WBN100309-05.3	inag1	21-MAR-2010 09:12	140 PPM	Is032110	1.0	MEGACVS	IDUSE
Is6c2103.d	WBN100309-05.3	inag1	21-MAR-2010 09:45	140 PPM	Is032110	1.0	MEGACVS	IDUSE
Is6c2104.d	WBN100306-01.2	inag1	21-MAR-2010 16:41	IDFTPP	Is032110	1.0	IDFTPP	
Is6c2105.d	WBN100309-05.3	inag1	21-MAR-2010 16:55	140 PPM	Is032110	1.0	MEGACVS	pass 534666
Is6c2106.d	WBN100312-03.3	inag1	21-MAR-2010 17:25	140 PPM	Is032110	1.0	APCVS	
Is6c2107.d	WBN100304-26.3	inag1	21-MAR-2010 17:49	140 PPM	Is032110	1.0	PESTCVS	
Is6c2108-1.d	1202066181	inag1	21-MAR-2010 18:13	963133	110-2198	1.0	MB	
Is6c2108-2.d	1202066181	inag1	21-MAR-2010 18:13	963133	110-2199	1.0	MB	
Is6c2108-3.d	1202066181	inag1	21-MAR-2010 18:13	963133	110-2302	1.0	MB	
Is6c2108.d	1202066181	inag1	21-MAR-2010 18:13	963133	110-2196	1.0	MB	
Is6c2109-1.d	1202066182	inag1	21-MAR-2010 18:37	963133	110-2198	1.0	LCS	<5% fail
Is6c2109-2.d	1202066182	inag1	21-MAR-2010 18:37	963133	110-2199	1.0	LCS	<5% fail
Is6c2109-3.d	1202066182	inag1	21-MAR-2010 18:37	963133	110-2302	1.0	LCS	<5% fail
Is6c2109.d	1202066182	inag1	21-MAR-2010 18:37	963133	110-2196	1.0	LCS	<5% fail
Is6c2110.d	1248514001	inag1	21-MAR-2010 19:00	963133	110-2196	1.0	LANL	
Is6c2111.d	1248514002	inag1	21-MAR-2010 19:24	963133	110-2196	1.0	LANL	IDUSE fail istd-rr 4x
Is6c2112.d	1248514003	inag1	21-MAR-2010 19:48	963133	110-2196	1.0	LANL	IDUSE fail istd-rr 4x
Is6c2113.d	1248517001	inag1	21-MAR-2010 20:12	963133	110-2198	1.0	LANL	

s6c2114.d	248519001	nag1	21-MAR-2010 20:35	963133	10-2199	1.0 LANL	DUSE fail istd-rr 4x	
s6c2115.d	248519002	nag1	21-MAR-2010 20:58	963133	10-2199	1.0 LANL	DUSE fail istd-rr 4x	
s6c2116.d	248519003	nag1	21-MAR-2010 21:22	963133	10-2199	1.0 LANL	DUSE fail istd-rr 4x	
s6c2117.d	248519004	nag1	21-MAR-2010 21:46	963133	10-2199	1.0 LANL	DUSE fail istd-rr 4x	
s6c2118.d	248519005	nag1	21-MAR-2010 22:09	963133	10-2199	1.0 LANL		
s6c2119.d	248519006	nag1	21-MAR-2010 22:33	963133	10-2199	1.0 LANL	DUSE fail istd-rr 4x	
s6c2120.d	248519007	nag1	21-MAR-2010 22:57	963133	10-2199	1.0 LANL	DUSE fail istd-rr 4x	
s6c2121.d	248519008	nag1	21-MAR-2010 23:20	963133	10-2199	1.0 LANL		
s6c2122.d	248519009	nag1	21-MAR-2010 23:44	963133	10-2199	1.0 LANL		
s6c2123.d	248519010	nag1	22-MAR-2010 00:07	963133	10-2199	1.0 LANL	DUSE fail istd	
s6c2124.d	248519011	nag1	22-MAR-2010 00:31	963133	10-2199	1.0 LANL		
s6c2125.d	248526001	nag1	22-MAR-2010 00:55	963133	10-2202	1.0 LANL	fail istd,surr-MS/MSD confirm	
s6c2126.d	1202066183	nag1	22-MAR-2010 01:18	963133	10-2202	1.0 MS	fail istd,surr	
s6c2127.d	1202066184	nag1	22-MAR-2010 01:42	963133	10-2202	1.0 MSD	fail istd,surr	
s6c2128.d	248842004	nag1	22-MAR-2010 02:06	965425	10-2302	10.0 LANL	DUSE-fail istd s6c2318	
s6c2129.d	248842005	nag1	22-MAR-2010 02:29	965425	10-2302	1.0 LANL	DUSE-rr of s6c2026-still fail surr-RX	
s6c2130.d	248842006	nag1	22-MAR-2010 02:53	965425	10-2302	1.0 LANL	DUSE-rr of s6c2027-still fail surr-RX	
s6c2131.d	248842007	nag1	22-MAR-2010 03:17	965425	10-2302	10.0 LANL	DUSE-fail istd s6c2319	
s6c2132.d	248842008	nag1	22-MAR-2010 03:40	965425	10-2302	10.0 LANL	DUSE-fail istd s6c2320	
s6c2133.d	248842009	nag1	22-MAR-2010 04:03	965425	10-2302	10.0 LANL	DUSE-fail istd s6c2321	
s6c2134.d	248842010	nag1	22-MAR-2010 04:27	965425	10-2302	10.0 LANL	DUSE- fail istd s6c2322	

Instrument Batch: /chem/MSD6.i/s032110.b

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### DATA EXCEPTION REPORT

<b>Mo.Day Yr.</b> 25-MAR-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> SEMIVOA GC/MS	<b>Test / Method:</b> SW846 8270C	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 963133	<b>Sample Numbers:</b> See Below		
<p><b>Potentially affected work order(s)(SDG):</b> 248514(10-2196),248517(10-2198),248519(10-2199),248526(10-2202)</p> <p><b>Application Issues:</b>  Failed Recovery for MS/PS  Failed RPD for MS/MSD, or PS/PSD  Failed Recovery for LCS/LCSD  Failed Yield for Surrogates  Failed Recovery for MSD/PSD</p>			
<b>Specification and Requirements</b>		<b>DER Disposition:</b>	
<b>Exception Description:</b>			
<p>1. Sample 248526001 and the MS(1202066183) recovered surrogates outside of the established acceptance limits. Please see the QC Summary report for the specific failures.</p> <p>2. The LCS(1202066182) recovered 2,4-Dimethylphenol at 26% (limits are 32%-112%) and Benzyl alcohol at 26% (limits are 27%-108%).</p> <p>3. The MS(1202066183) and MSD(1202066184) recovered multiple spike analytes outside of the established acceptance limits. Please see the QC Summary report for the specific failures.</p> <p>4. Multiple MS(1202066183)/MSD(1202066184) RPD values were outside of the established acceptance limits. Please see the QC Summary report for the specific failures.</p>		<p>1. Since the MS displayed similar surrogate recoveries to the associated parent sample and the MS and MSD both displayed multiple spike failures, the surrogate failures were attributed to matrix interference and the data were reported.</p> <p>2. The LCS failures represent less than 5% of the total requested spike analyte list. That satisfied the acceptance criteria for the client and the data results have been reported. Please note that Benzyl alcohol is stated in the Method as displaying erratic chromatographic behavior. This may account for the low recoveries of the analytes in the LCS (as well as in the MS and MSD).</p> <p>3. Since the MSD displayed similar recoveries to the MS, the failures were attributed to matrix interference and the data were reported. Please note that Benzyl alcohol is known to be a poor responder as stated in the Method and is subject to erratic chromatography behavior. This may account for the low recoveries of the analytes in the MS and MSD (as well as in the LCS).</p> <p>4. The RPD failures were attributed to matrix interference and the data were reported.</p>	

**Originator's Name:**

Lloyd O Fox

25-MAR-10

**Data Validator/Group Leader:**

Daniel Beacham

30-MAR-10

# LC/MS/MS PERCHLORATE ANALYSIS



**Perchlorate by LC/MSMS  
Los Alamos National Laboratory (LANL)  
SDG 10-2202**

**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:** 963906

**Prep Batch Number:** 963904

**Sample Analysis**

<b>Sample ID</b>	<b>Client ID</b>
248526001	RE36-10-8466
1202067836	Interference Check Sample (ICS)
1202067829	Method Blank (MB)
1202067830	Laboratory Control Sample (LCS)
1202067831	248534001(RE11-10-1794) Matrix Spike (MS)
1202067832	248534001(RE11-10-1794) Matrix Spike Duplicate (MSD)

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

**Preparation/Analytical Method Verification**

**SOP Reference**

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

**Calibration Information**

**Initial Calibration**

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

**CCV Requirements**

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

**CCB Requirements**

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

10-2202-PERLCMS

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**CCV Requirements**

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

**Low Level Standard (CRI) Requirements**

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

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

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

**Interference Check Sample (ICS)**

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

**Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

**QC Sample Designation**

Client sample 248534001 (RE11-10-1794) from SDG 10-2208 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.

10-2202-PERLCMS

Page 2 of 4

**Sample Dilutions**

The samples in this SDG did not require dilutions.

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

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

**Miscellaneous Information****Data Exception (DER) Documentation**

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

**Manual Integrations**

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

**Method Comments**

The sample in this SDG was not originally analyzed using EPA Method 314.0.

**Additional Comments**

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

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

**Perchlorate Isotope Ratio**

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

**System Configuration**

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

### **Chromatographic Columns**

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

Dionex: IonPac AG-16 2 x 50 mm.

### **Certification Statement**

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

### **Review Validation:**

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

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

Reviewer: Herbert H. Mauer Date: 03/26/10

# 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: 963904

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-8466

Date Received: 03-MAR-10

GEL Job No (SDG): 10-2202

GEL Sample ID: 248526001

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.571	2.28	0.571	ug/kg	U	1	23-MAR-10 20:42	per0323041a
	Perchlorate Isotope Ratio						1	23-MAR-10 20:42	per0323041a
14797-73-0	Perchlorate-101	.571	2.28	0.571	ug/kg	U	1	23-MAR-10 20:42	per0323041a
	Perchlorate-O(18)			6.65	ug/kg		1	23-MAR-10 20:42	per0323041a

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

\*Concentration =

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

# QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-2202

Extract Batch Code: 263904

Date Filtered: 15-MAR-10

Matrix: SOIL

Sample ID: 1202067830

Analyte <sup>^</sup>	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2	ug/kg	99.8		70 - 130
Perchlorate Isotope Ratio		3.29				-
Perchlorate-101	2.00	1.83	ug/kg	91.4		70 - 130
Perchlorate-O(18)		4.94	ug/kg			-

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



Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-2202

Extract Batch Code: 963904

Date Filtered: 15-MAR-10

Matrix: SOIL

Sample ID: 1202067836

Analyte <sup>^</sup>	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.12	ug/kg	106		70 - 130
Perchlorate Isotope Ratio		2.88				
Perchlorate-101	2.00	2.22	ug/kg	111		70 - 130
Perchlorate-O(18)		4.96	ug/kg			

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

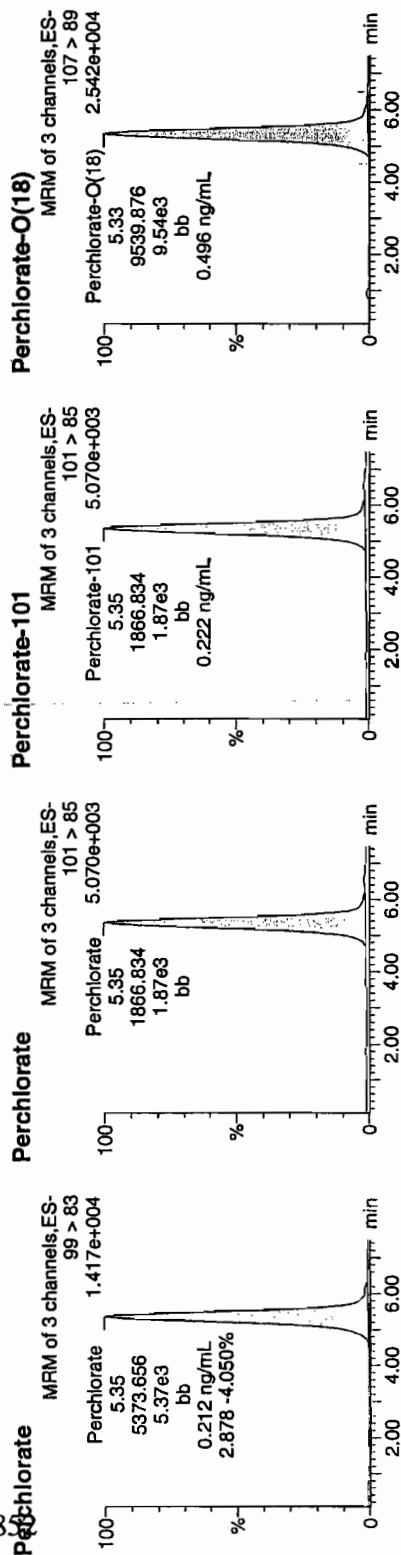
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Name: per0323040a  
Date: 23-Mar-2010  
Time: 20:31:52  
ID: 1202067836  
Vial: 2:1,C

19120 | 963406 | 5070 | 7.65 | 1.1  
33-34-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202067836	Perchlorate	99 > 83	5.35	5373.656	5373.656	bb	-	-	0.2124	106.22	6.22	236.840	2.88
1202067836	Perchlorate-101	101 > 85	5.35	1866.834	1866.834	bb	-	-	0.2224	111.20	11.20	406.015	
1202067836	Perchlorate-O(18)	107 > 89	5.33	9539.876	9539.876	bb	-	-	0.4956	99.12	-0.88	576.388	

$$\frac{5373.656}{1866.834} = 2.8785$$

✓  
-  
MUT  
3/24/10

**Perchlorate Spike/Spike Duplicate Summary**

**Lab Name:** General Engineering Laboratories

**Lab Code:** GEL

**Extract Batch Code:** 963904

**GEL Job No (SDG):** 10-2202

**Date Extracted:** 15-MAR-10

**GEL MS/PS ID:** 1202067831

**Client ID:** RE11-10-1794

**GEL MSD/PSD ID:** 1202067832

**QC Type:** MS

Compound <sup>^</sup>	Spike Added	Sample Conc	Units	MS Conc	MS Rec	#	MSD Conc	MSD Rec	#	RPD	#	RPD Limit	Recovery Limit
Perchlorate	2.20	0.493	ug/kg	2.61	96		2.52	92		3.46		30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3.2			2.94			0			-
Perchlorate-101	2.20	0.541	ug/kg	2.45	86.9		2.58	92.6		4.94		30	75 - 125
Perchlorate-O(18)	0	5.23	ug/kg	5.30			5.17			2.42			-

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

**Comments:**

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2202

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	23-MAR-10	per0323001a	IPB001
Perchlorate-101	0.00	0	NA	23-MAR-10	per0323001a	IPB001
Perchlorate	0.00	0	NA	23-MAR-10	per0323002a	IPB001
Perchlorate-101	0.00	0	NA	23-MAR-10	per0323002a	IPB001

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

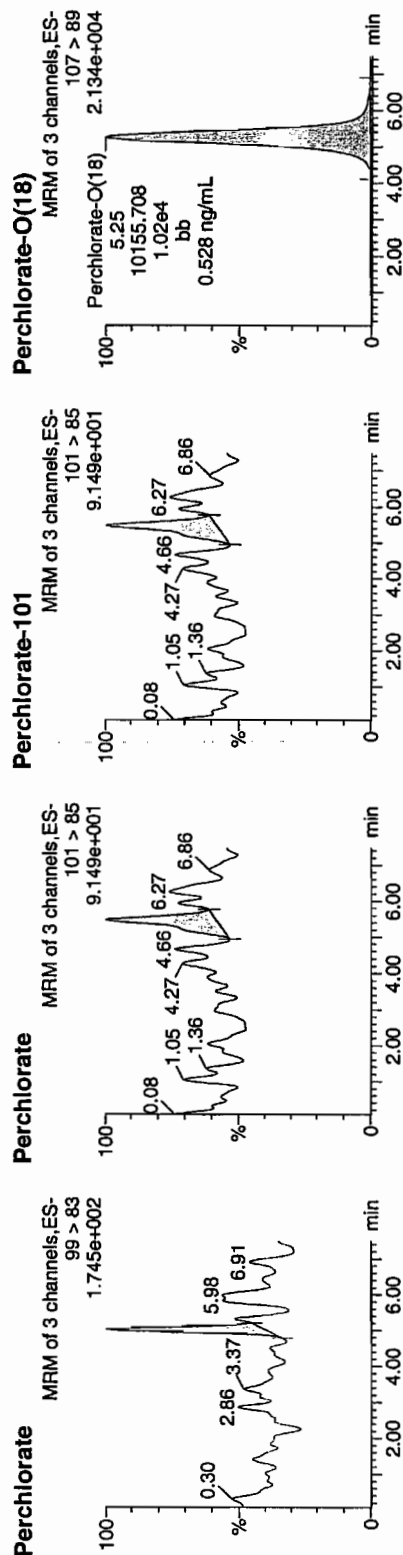
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Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032310a.mdb 24 Mar 2010 08:57:43  
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032310a.cdb 24 Mar 2010 11:22:00

Name: per0323001a  
Date: 23-Mar-2010  
Time: 13:39:15  
ID: IPB001  
Vial: 1:1,A

03-24-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
IPB001	Perchlorate	99 > 83	5.02	18.993	18.993	bb			0.0008			21.485	1.52
IPB001	Perchlorate-101	101 > 85	5.47	12.514	12.514	bb			0.0015			15.456	
IPB001	Perchlorate-O(18)	107 > 89	5.25	10155.708	10155.708	bb			0.5276	105.52	5.52	532.996	

0.994  
20.0500  
1.017  
3/24/10

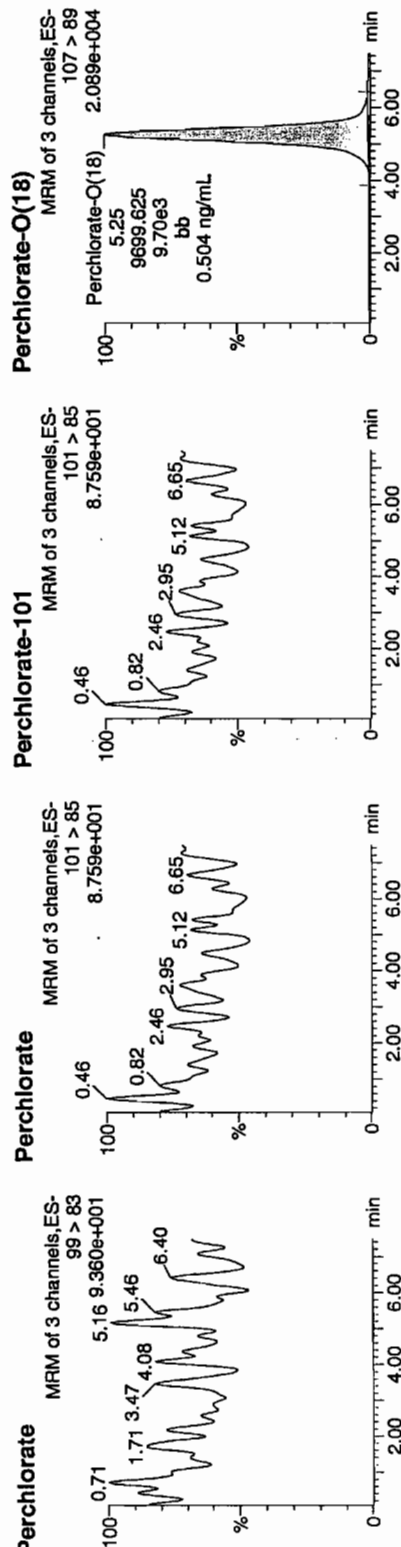
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Page 2 of 1852  
Name: per0323002a  
Date: 23-Mar-2010  
Time: 13:49:59  
ID: IPB001  
Vial: 1:1,A

03-24-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	5.25	9699.625	9699.625	bb			0.5039	100.78	0.78	896.157	0.00

107  
3/24/10

## Perchlorate Continuing Calibration Blank

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

Lab Name: General Engineering LaboratoriesGEL Job No.(SDG): 10-2202Lab Code: GELReporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	23-MAR-10	per0323008a	IPB002
Perchlorate-101	0.00	0	NA	23-MAR-10	per0323008a	IPB002
Perchlorate	0.00	0	NA	23-MAR-10	per0323010a	IPB003
Perchlorate-101	0.00	0	NA	23-MAR-10	per0323010a	IPB003
Perchlorate	0.00	0	NA	23-MAR-10	per0323023a	IPB004
Perchlorate-101	0.00	0	NA	23-MAR-10	per0323023a	IPB004
Perchlorate	0.00	0	NA	23-MAR-10	per0323036a	IPB005
Perchlorate-101	0.00	0	NA	23-MAR-10	per0323036a	IPB005
Perchlorate	0.00	0	NA	23-MAR-10	per0323048a	IPB006
Perchlorate-101	0.00	0	NA	23-MAR-10	per0323048a	IPB006

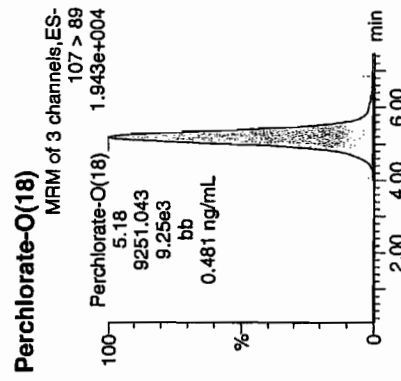
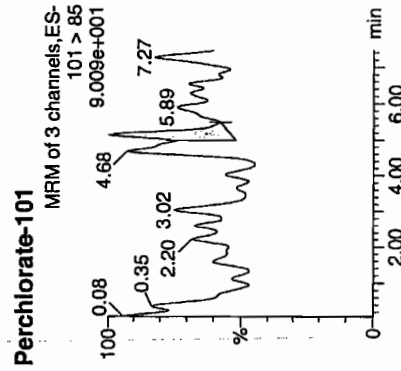
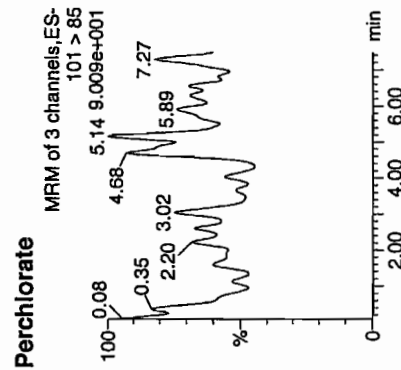
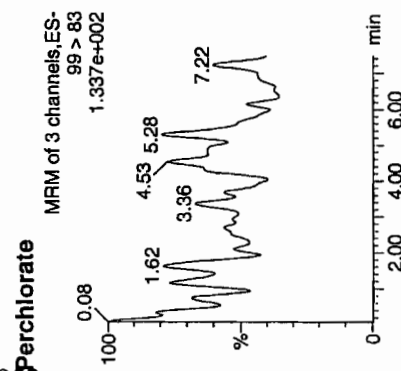
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

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Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Page Name: per0323008a  
Date: 23-Mar-2010  
Time: 14:53:07  
ID: IPB002  
Vial: 1:1,A

03.24.10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											
IPB002	Perchlorate-101	101 > 85	5.14	10.282	10.282	db			0.0012	96.12	-3.88	10.098	0.00
IPB002	Perchlorate-O(18)	107 > 89	5.18	9251.043	9251.043	bb			0.4806	✓		536.190	

100%  
3/24/10



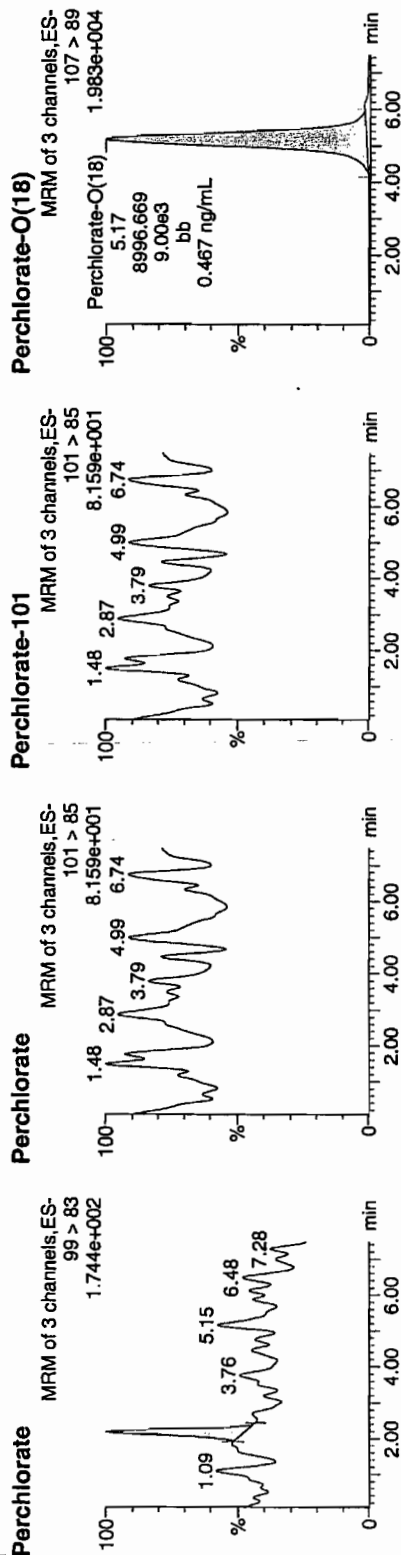
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

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Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Page Name: per0323010a  
Date: 23-Mar-2010  
Time: 15:14:12  
ID: IPB003  
Vial: 1:1,A

03.2410



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N/Ion Ratio
IPB003	Perchlorate	99 > 83	2.18	19.309	19.309	bb			0.0008			17.365
IPB003	Perchlorate-101	101 > 85										
IPB003	Perchlorate-O(18)	107 > 89	5.17	8996.669	8996.669	bb			0.4674	93.47	-6.53	1789.5...

24/3/24/20

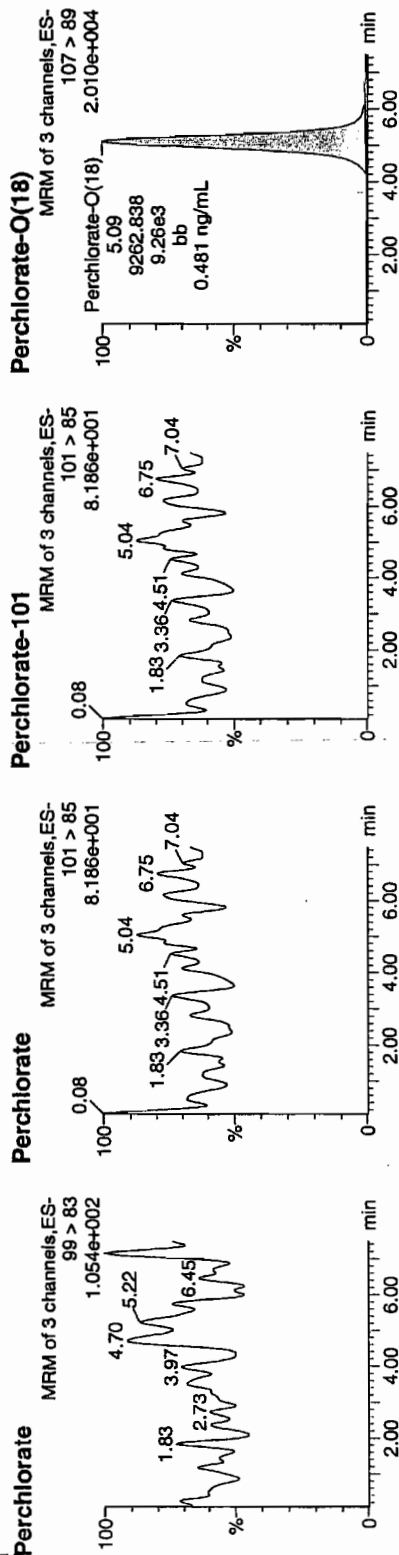
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

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Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Sample Name: per0323023a  
Date: 23-Mar-2010  
Time: 17:31:40  
ID: IPB004  
Vial: 1:1,A

Chen  
3/24/10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	5.09	9262.838	9262.838	bb			0.4812	✓ 96.24	✓ -3.76	374.465	

Left  
3/24/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Sample Name: per0323036a

Date: 23-Mar-2010

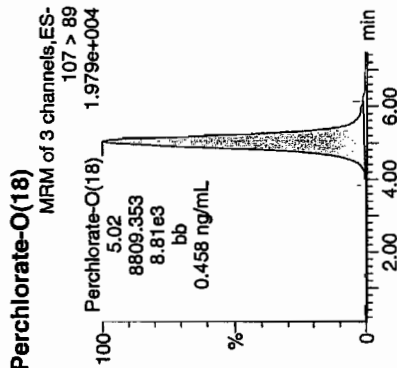
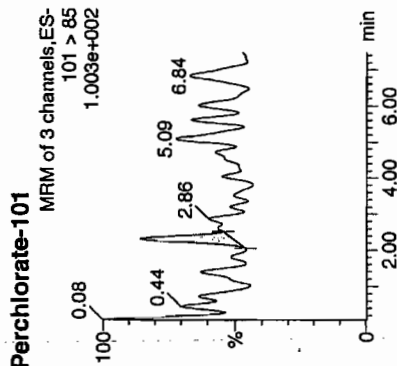
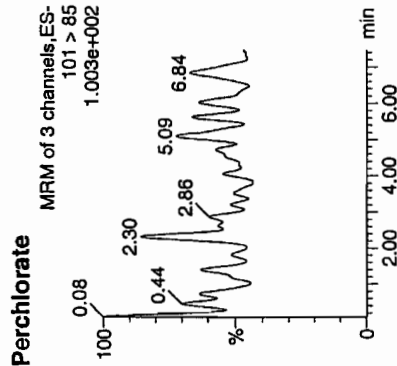
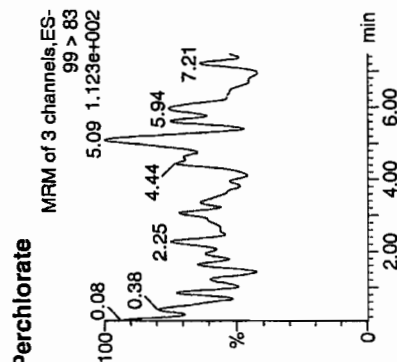
Time: 19:49:23

ID: IPB005

Vial: 1:1,A

85

Perchlorate



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85	2.30	7.245	7.245	bb			0.0009	✓ 91.53	-8.47	16.434	
IPB005	Perchlorate-O(18)	107 > 89	5.02	8809.353	8809.353	bb			0.4576	✓		717.166	

μA  
3/24/10

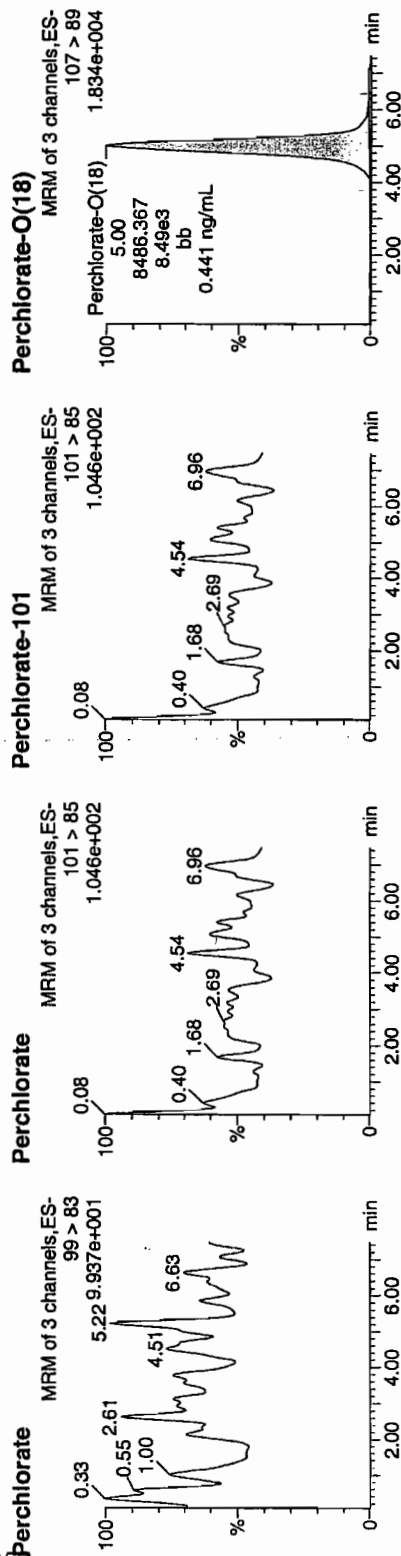
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

File Name: per0323048a  
Date: 23-Mar-2010  
Time: 21:56:41  
ID: IPB006  
Vial: 1:1,A

03.24.10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	IS/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	5.00	8486.367	8486.367	bb			0.4409	88.17	-11.83	2084.5...	

107 >  
3/24/10

Nairb.ref

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

Updated 20 April '95

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

QUATRO ULTIMA: nairb\_01\_08\_08.cal

Calibration Report - MS1 Static

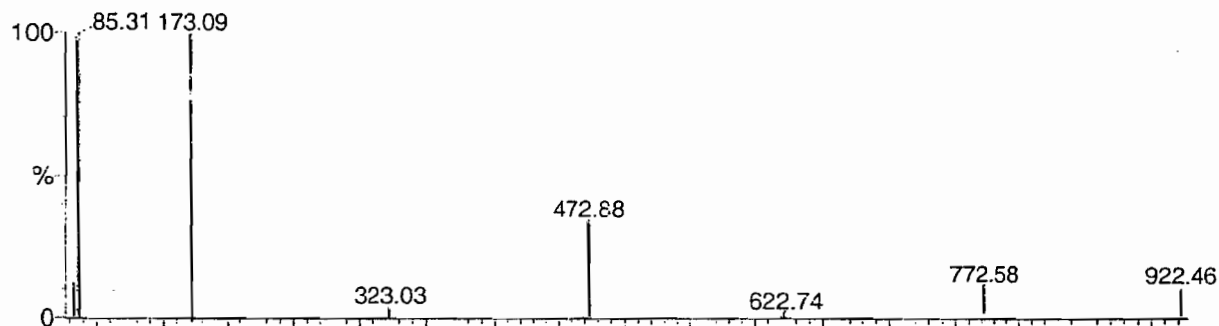
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

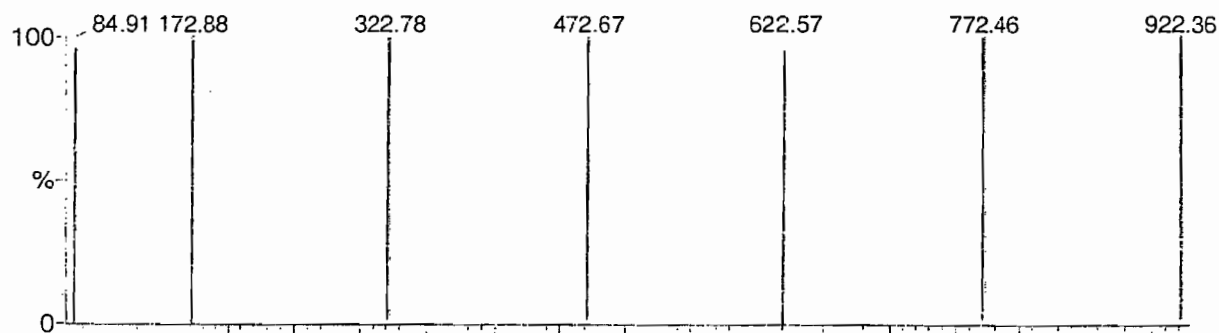
PEAKS HIGHLIGHTED BY CURVED 01-07-03

Data file: STATMS1 - Uncalibrated

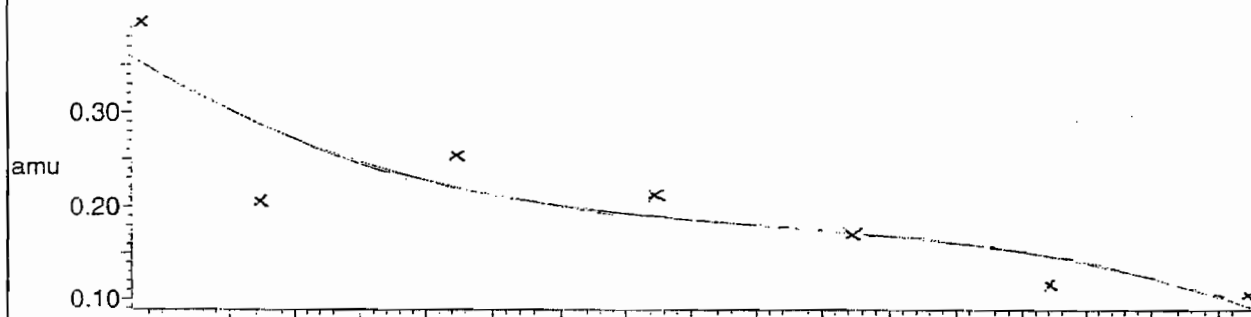
7 matches of 7 tested references



Reference file: Nairb

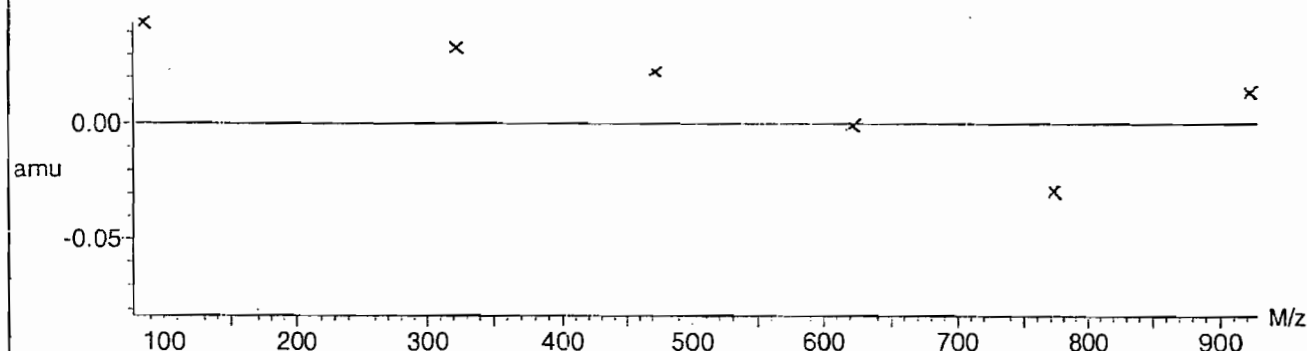


Mass difference (Raw - Ref mass)



Residuals

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



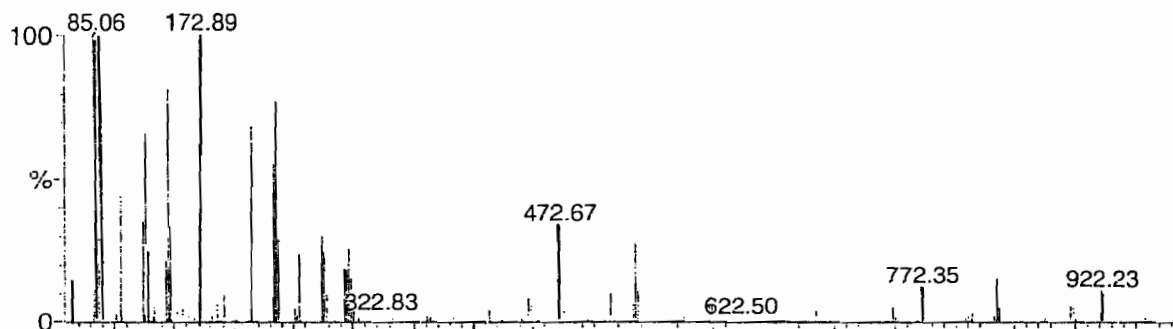
Calibration Report - MS1 Scanning

Page 1 of 1

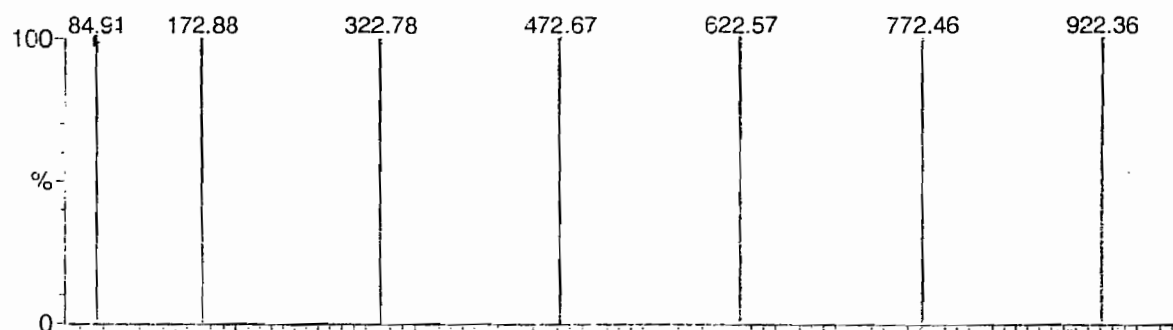
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Data file: SCNMS1 - Uncalibrated

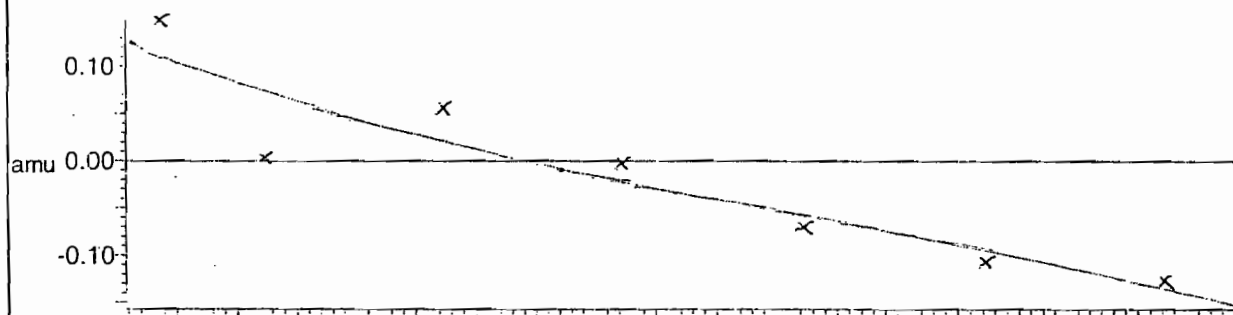
7 matches of 7 tested references



Reference file: Nairb

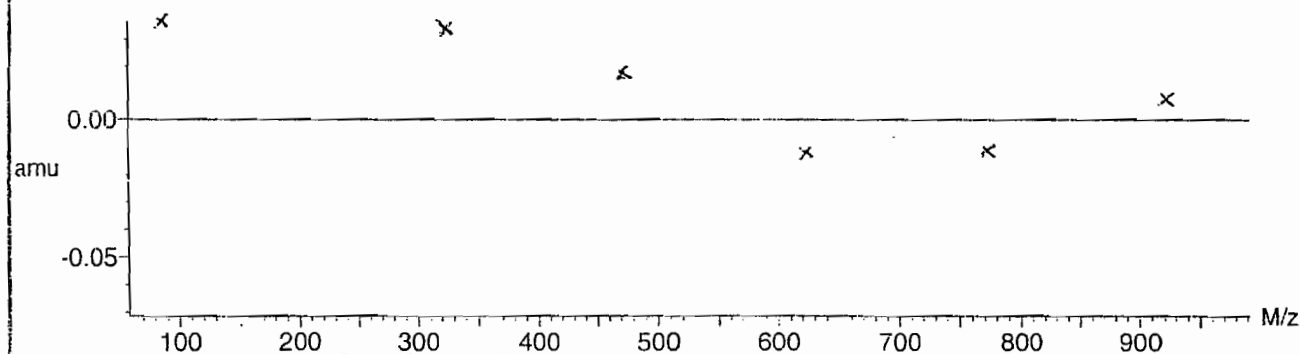


Mass difference (Raw - Ref mass)



Residuals

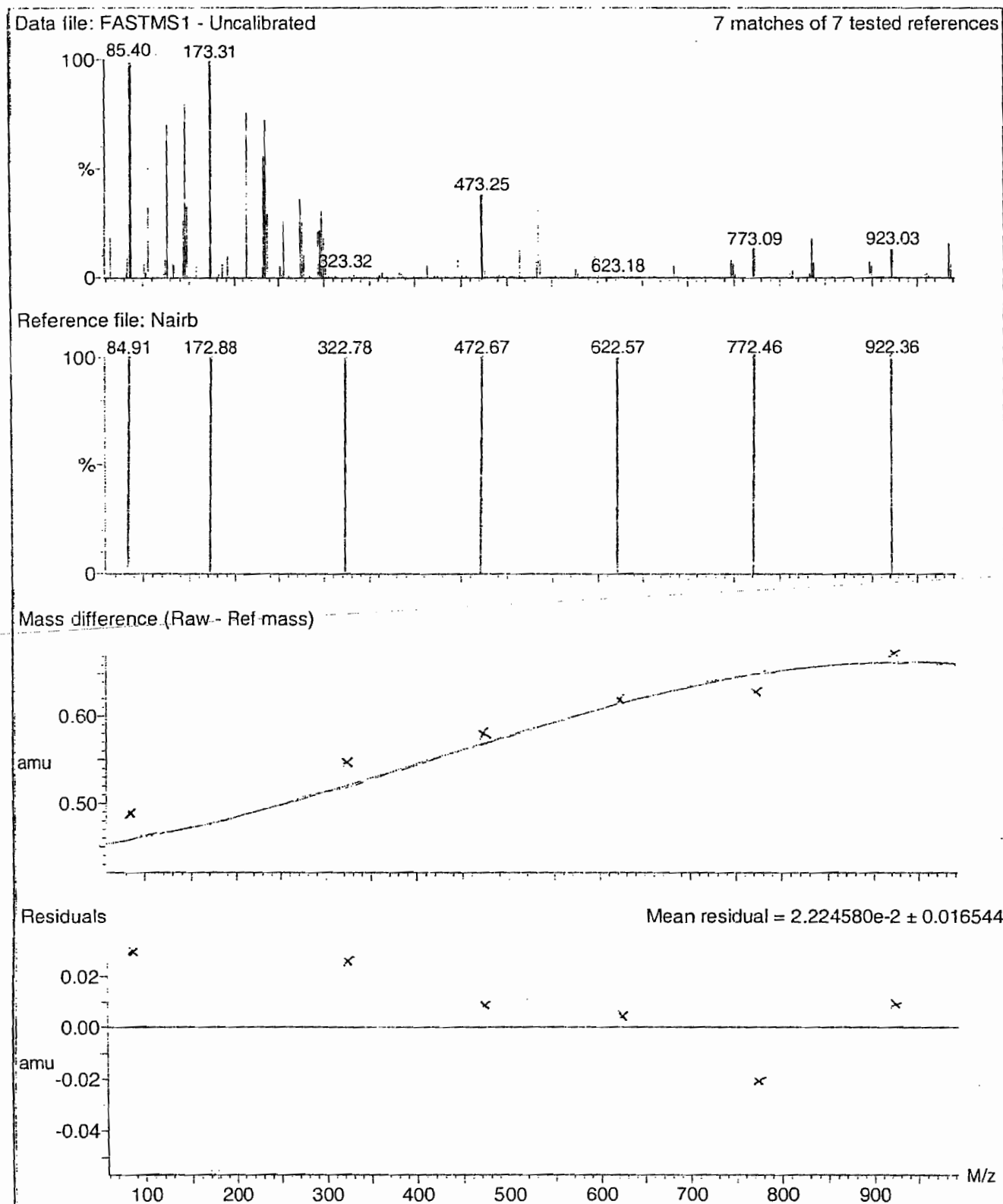
Mean residual =  $2.732691 \times 10^{-2} \pm 0.020653$



Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

Printed: Tue Jan 08 12:21:04 2008

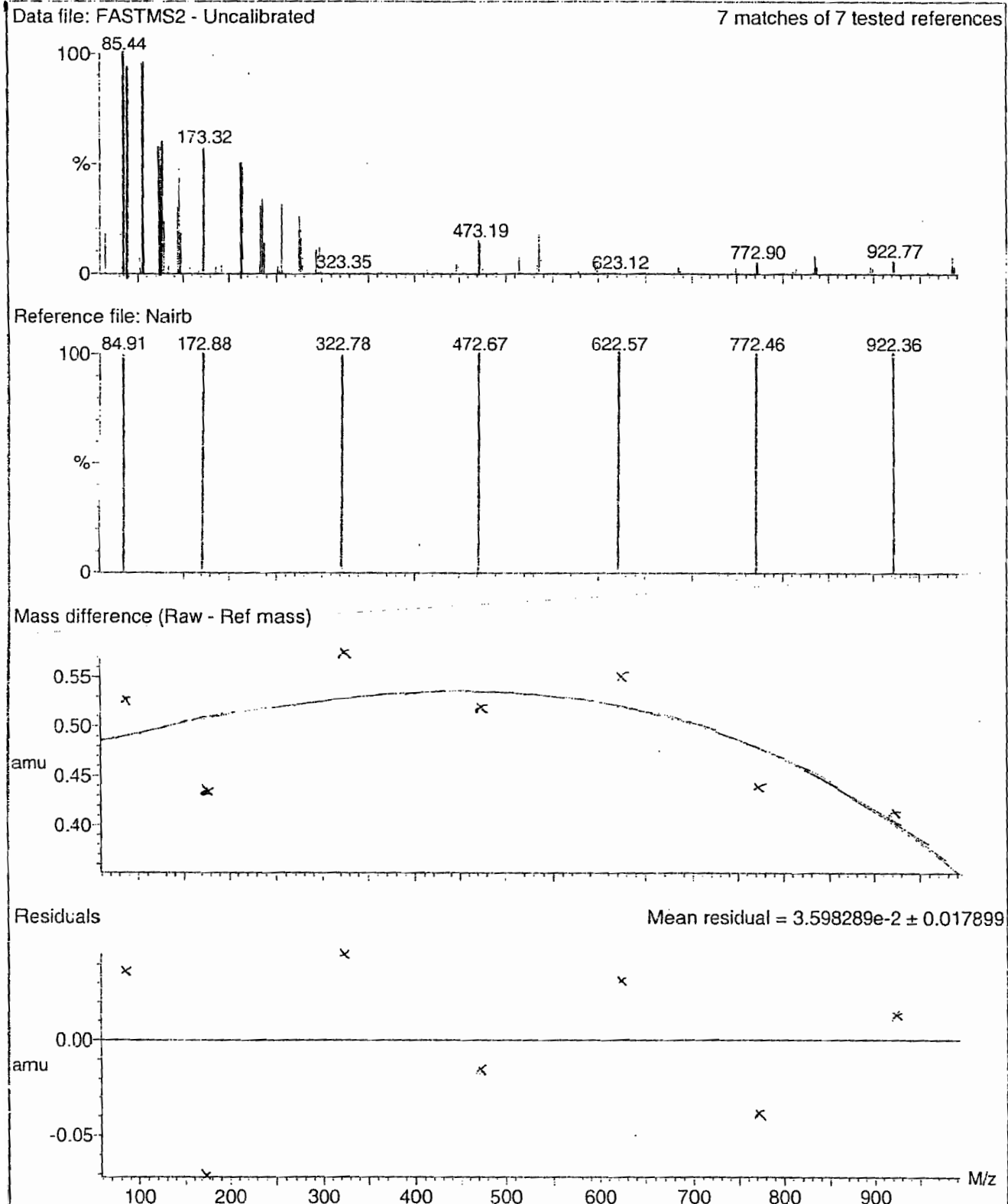




Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

Printed: Tue Jan 08 12:23:51 2008



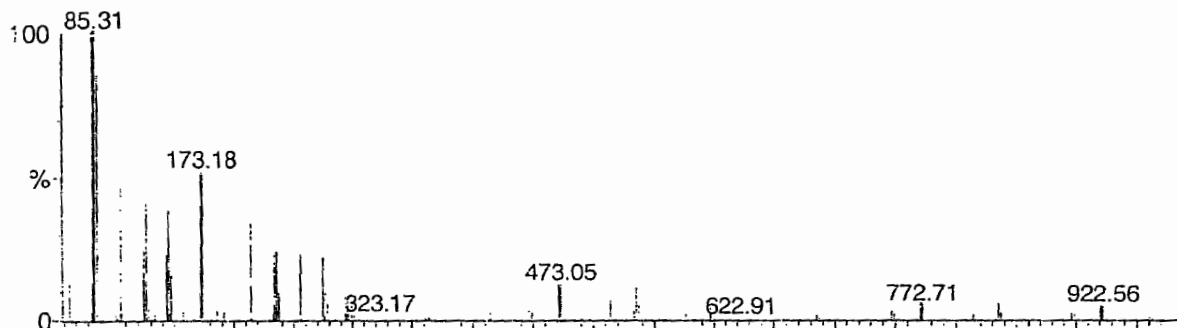
Calibration Report - MS2 Scanning

Page 1 of 1

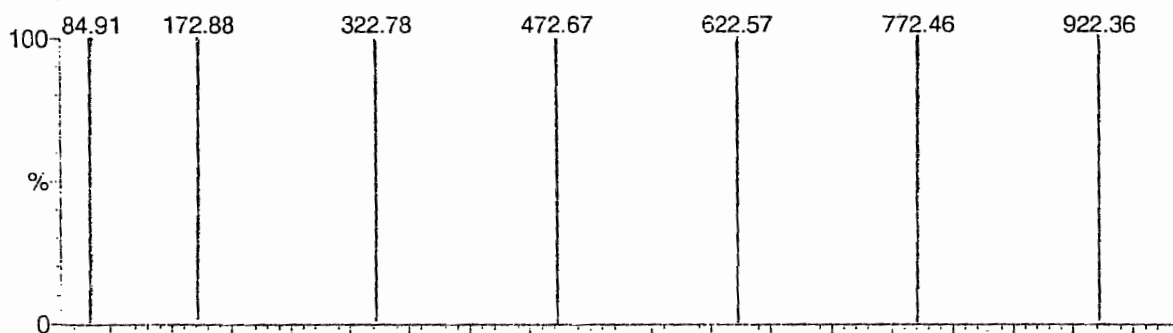
Printed: Tue Jan 08 12:22:56 2008

Data file: SCNMS2 - Uncalibrated

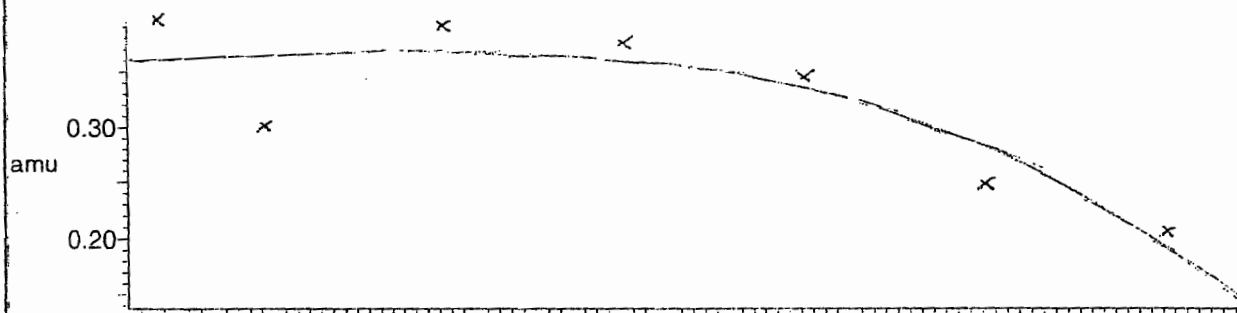
7 matches of 7 tested references



Reference file: Nairb

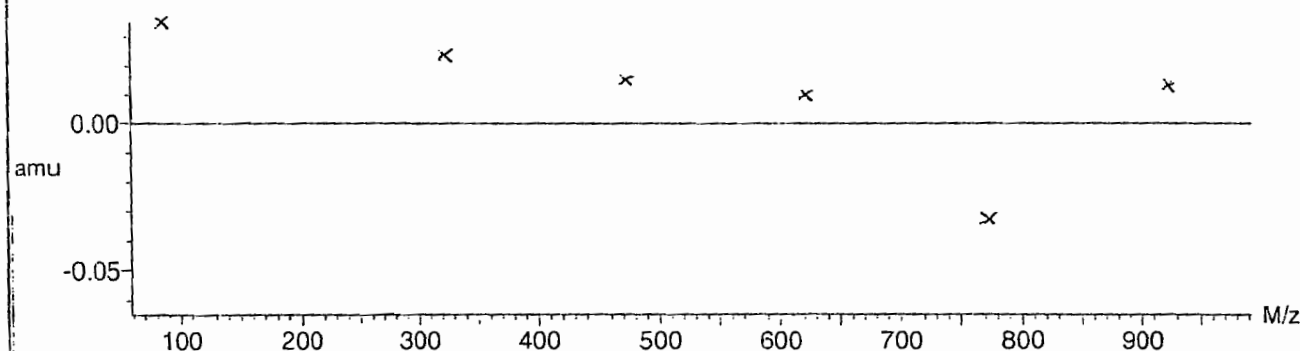


Mass difference (Raw - Ref mass)



Residuals

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



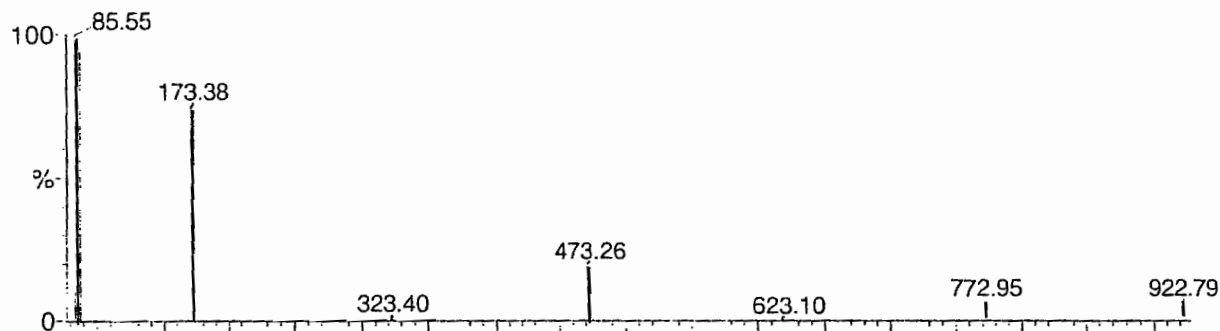
Calibration Report - MS2 Static

Page 1 of 1

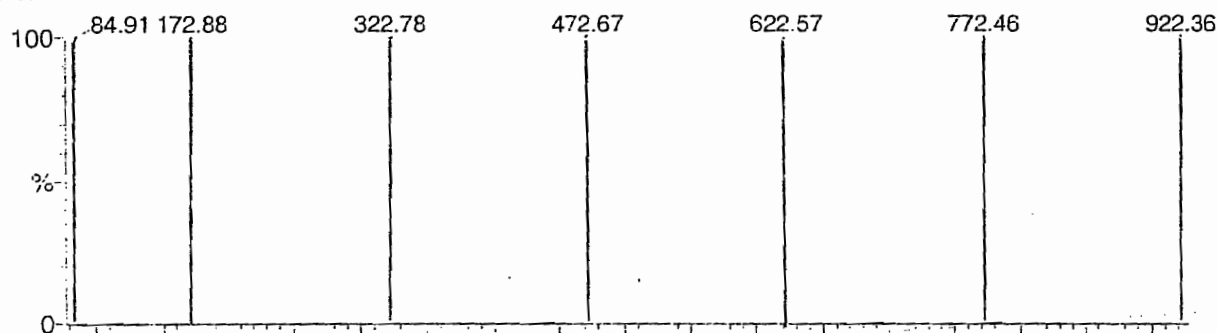
Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

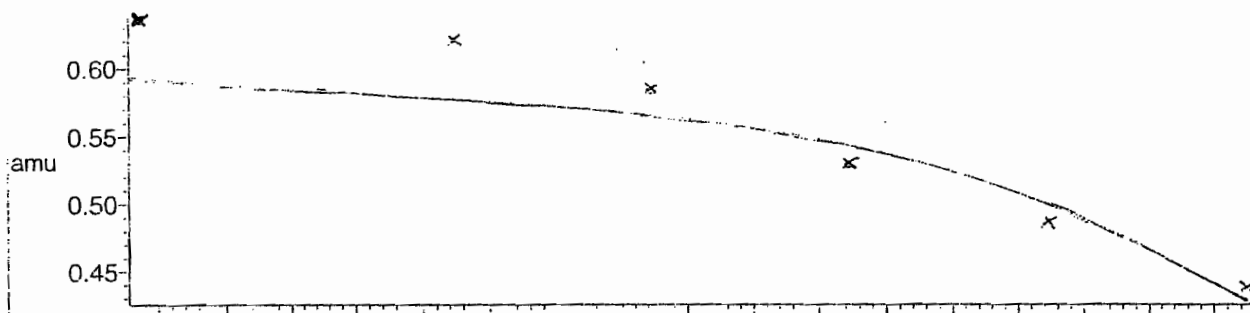
7 matches of 7 tested references



Reference file: Nairb

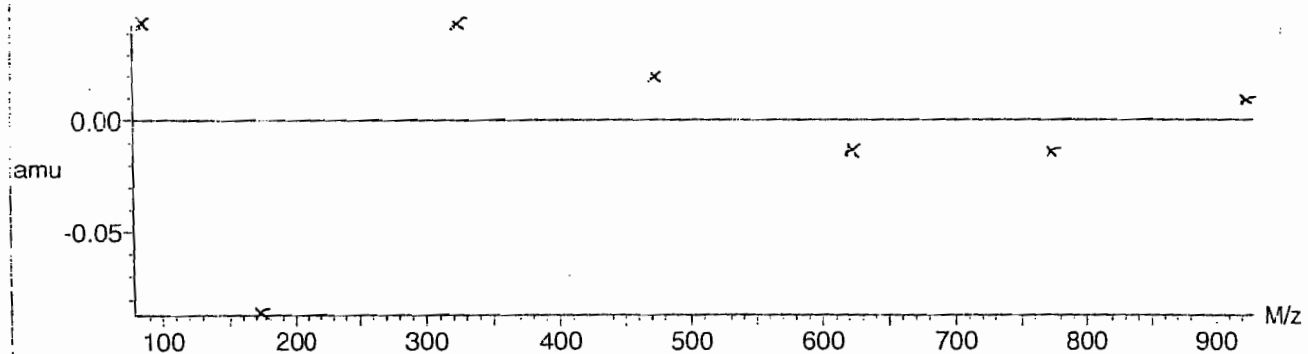


Mass difference (Raw - Ref mass)



Residuals

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



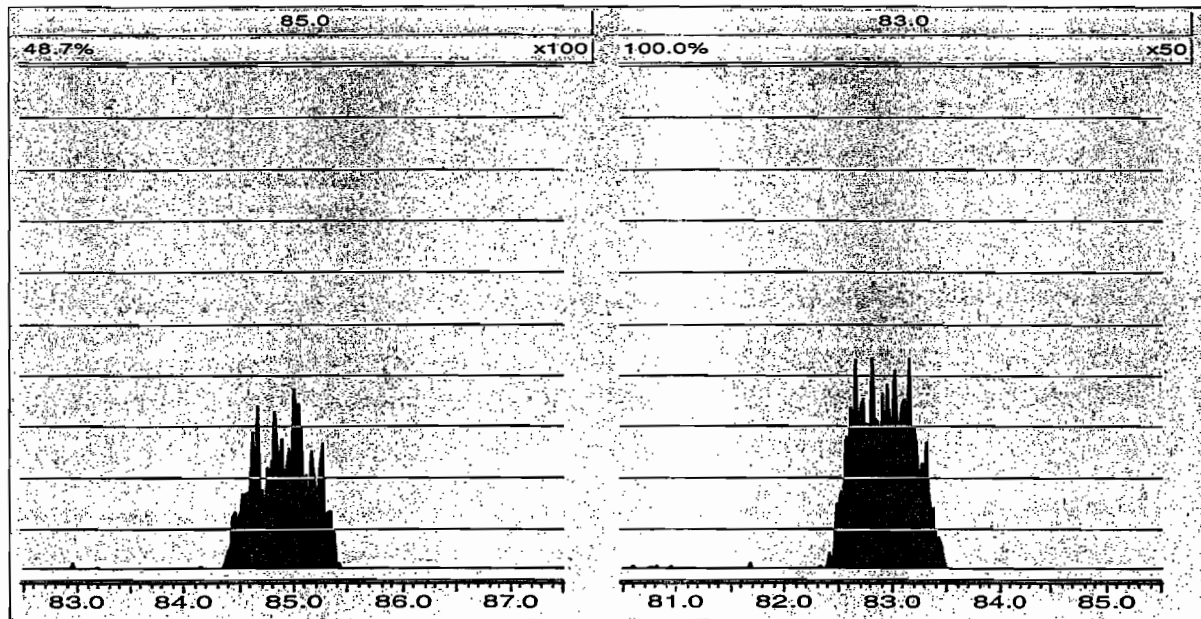
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

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

Printed: Tuesday, March 23, 2010 11:26:54 Eastern Standard Time



Perchlorate RT And Area Summary

GEL Job No.(SDG): 10-2202

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS

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

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	per0323006a	23-MAR-10	10086.3				
Lower Area Limit			5043.15				
Upper Area Limit			20172.6				
1202067829	per0323038a	23-MAR-10 20:10	8748.51	5.02	4.97355	.991	
1202067830	per0323039a	23-MAR-10 20:21	9502.29	5.02	5.04805	1.006	
1202067836	per0323040a	23-MAR-10 20:31	9539.88	5.33	5.34617	1.003	
248526001	per0323041a	23-MAR-10 20:42	11214.9	5	5.03567	1.007	

# 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: 963904

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-8466

Date Received: 03-MAR-10

GEL Job No (SDG): 10-2202

GEL Sample ID: 248526001

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.571	2.28	0.571	ug/kg	U	1	23-MAR-10 20:42	per0323041a
	Perchlorate Isotope Ratio						1	23-MAR-10 20:42	per0323041a
14797-73-0	Perchlorate-101	.571	2.28	0.571	ug/kg	U	1	23-MAR-10 20:42	per0323041a
	Perchlorate-O(18)			6.65	ug/kg		1	23-MAR-10 20:42	per0323041a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids  
Aliquot

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
 Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

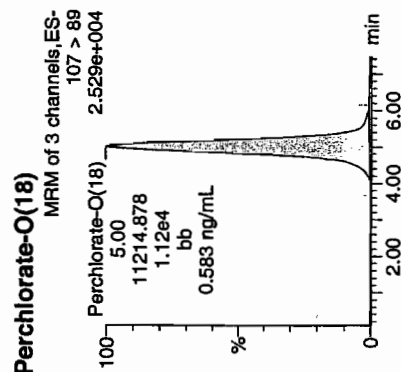
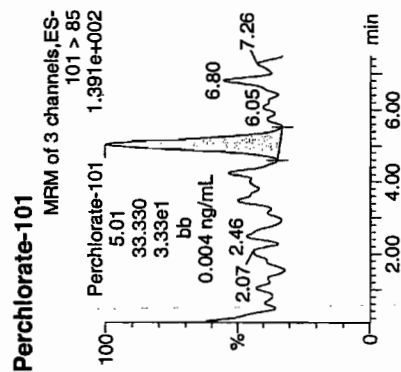
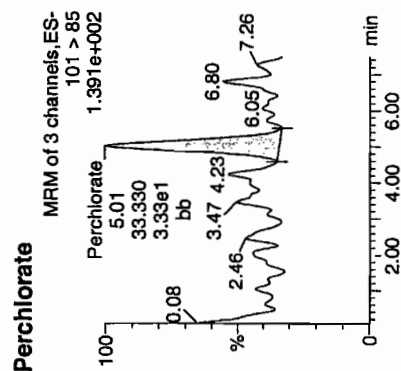
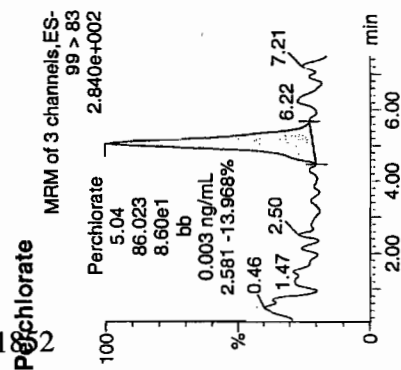
Name: per0323041a

Date: 23-Mar-2010

Time: 20:42:31

ID#2485260

Vial: 2:1,D



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N:Ion Ratio
248526001	Perchlorate	99 > 83	5.04	86.023	86.023	bb			0.0034		20.067	2.58
248526001	Perchlorate-101	101 > 85	5.01	33.330 ✓	33.330	bb			0.0040		39.867	
248526001	Perchlorate-O(18)	107 > 89	5.00	11214.878	11214.878	bb			0.5826 ✓	116.52	16.52	2510.7...

4/24/60



# STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-2202

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 23-MAR-10

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

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

Parname Perchlorate

Coefficient of Determination:

Calibration Curve: 25295.24

Response Type: External Standard

Curve Type: RF

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-2202

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 23-MAR-10

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

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

Parname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 8393.716

Response Type: External Standard

Curve Type: RF

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

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032310a.mdb 24 Mar 2010 08:57:43  
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032310a.cdb 24 Mar 2010 11:22:00

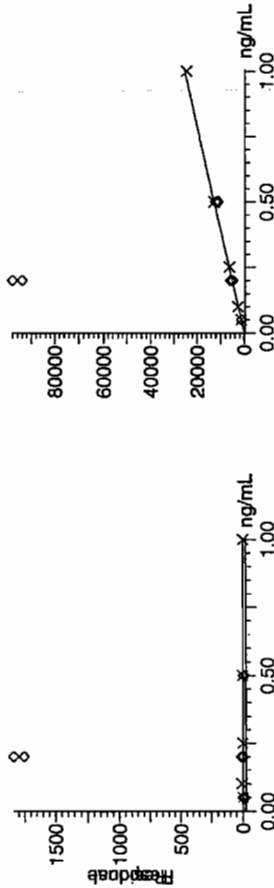
Compound name: Perchlorate

Response Factor: 25295.2

RRF SD: 1130.93, % Relative SD: 4.47091

Response type: External Std, Area

Curve type: RF



Curved  
03-24-10

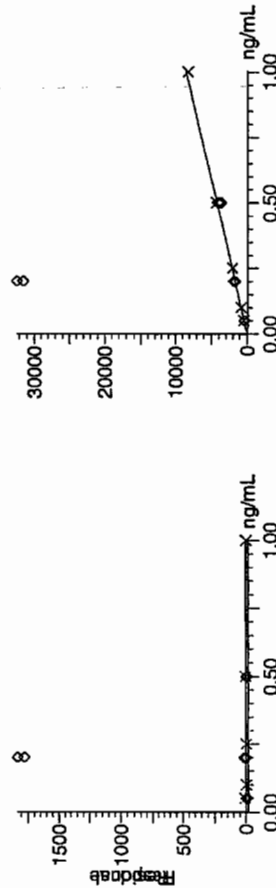
Compound name: Perchlorate-101

Response Factor: 8393.72

RRF SD: 437.587, % Relative SD: 5.21327

Response type: External Std, Area

Curve type: RF



Net  
5/24/10

# Quantify Calibration Report MassLynx 4.0 SP4

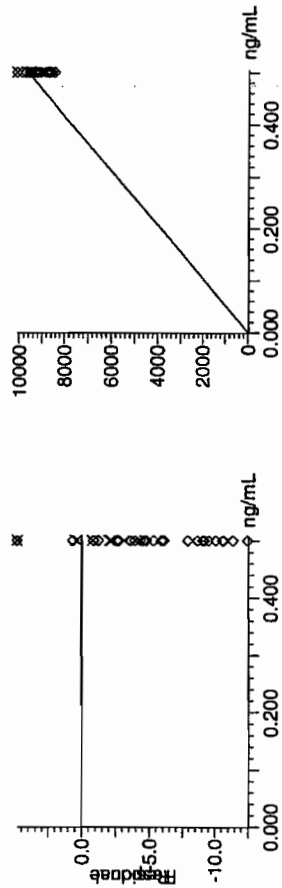
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time

Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Compound name: Perchlorate-O(18)  
 Response Factor: 19249.4  
 RRF SD: 555.246, % Relative SD: 2.88449  
 Response type: External Std, Area  
 Curve type: RF



Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2202

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.48	96.97	23-MAR-10 15:03	per0323009a
Perchlorate Isotope Ratio		3.03		23-MAR-10 15:03	per0323009a
Perchlorate-101	.5	.48	96.53	23-MAR-10 15:03	per0323009a

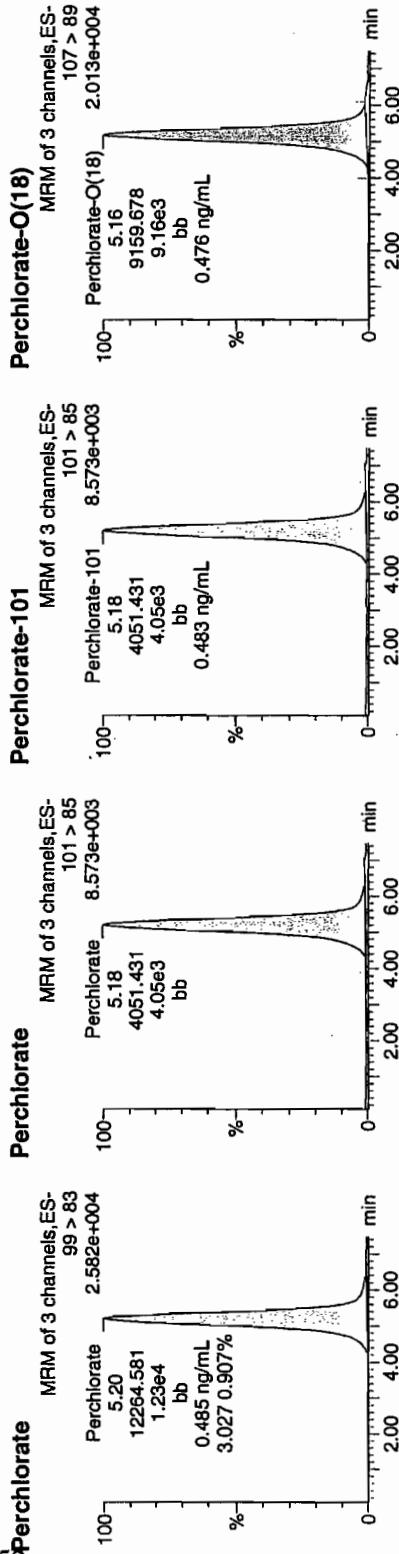
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Page Name: per0323009a  
Date: 23-Mar-2010  
Time: 15:03:40  
ID: WCL100318-06ICV  
Vial: 1:2,A

Perchlorate  
03/24/10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06ICV	Perchlorate	99 > 83	5.20	12264.581	12264.581	bb			0.4849	96.97	-3.03	1378.0...	3.03
WCL100318-06ICV	Perchlorate-101	101 > 85	5.18	4051.431	4051.431	bb			0.4827	96.53	-3.47	355.606	
WCL100318-06ICV	Perchlorate-O(18)	107 > 89	5.16	9159.678	9159.678	bb			0.4758	95.17	-4.83	2068.4...	

12264.581  
25295.2 = 0.4349

107 > 89  
3/24/10

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2202

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.48	95.38	23-MAR-10 17:21	per0323022a
Perchlorate Isotope Ratio		2.91		23-MAR-10 17:21	per0323022a
Perchlorate-101	.5	.49	98.76	23-MAR-10 17:21	per0323022a
Perchlorate	.5	.47	94.9	23-MAR-10 19:38	per0323035a
Perchlorate Isotope Ratio		3.02		23-MAR-10 19:38	per0323035a
Perchlorate-101	.5	.47	94.61	23-MAR-10 19:38	per0323035a
Perchlorate	.5	.45	89.63	23-MAR-10 21:45	per0323047a
Perchlorate Isotope Ratio		3		23-MAR-10 21:45	per0323047a
Perchlorate-101	.5	.45	90.13	23-MAR-10 21:45	per0323047a



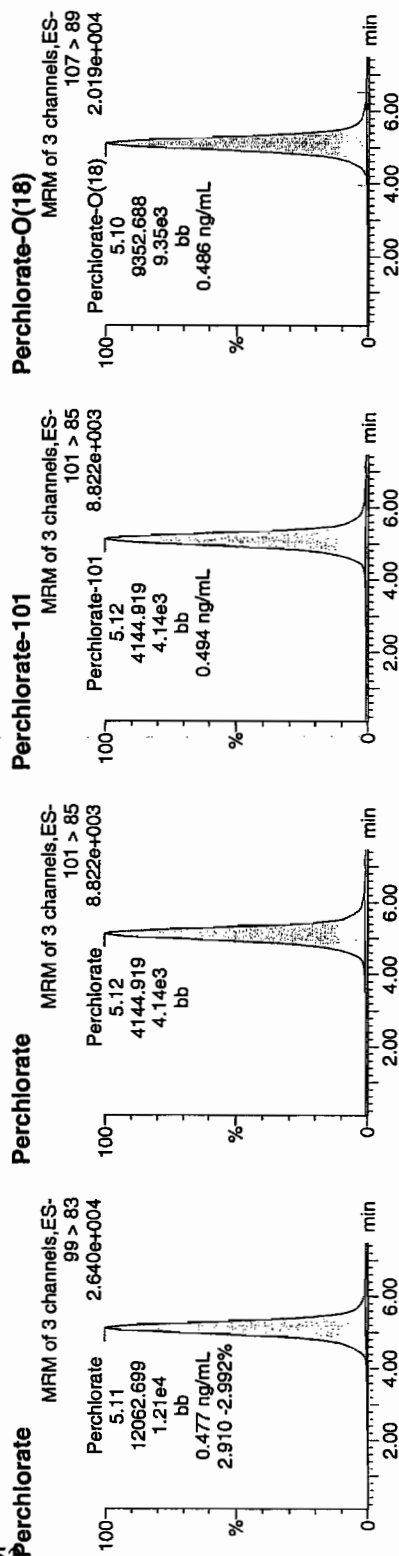
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Sample Name: per0323022a  
Date: 23-Mar-2010  
Time: 17:21:07  
ID: WCL100318-06CCV  
Vial: 1:2,A

*Per0323022a*  
*03-24-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	5.11	12062.699	12062.699	bb			0.4769	95.38	-4.62	529.251	2.91
WCL100318-06CCV	Perchlorate-101	101 > 85	5.12	4144.919	4144.919	bb			0.4938	98.76	-1.24	1253.7...	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	5.10	9352.688	9352.688	bb			0.4859	97.17	-2.83	4169.6...	

*WCL*  
*3/24/10*

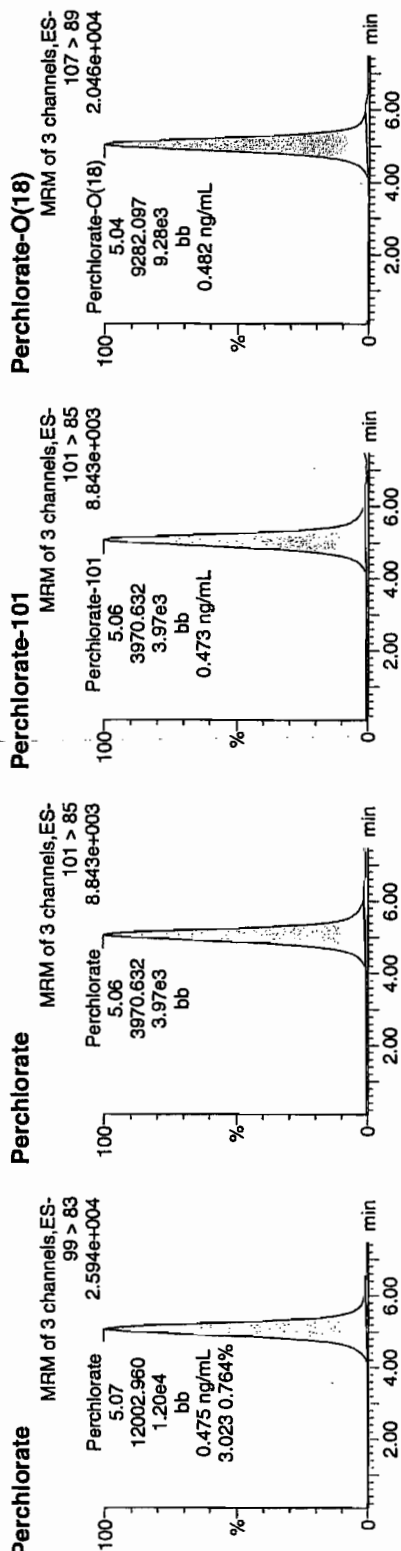
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Per Name: per0323035a  
Date: 23-Mar-2010  
Time: 19:38:34  
ID: WCL100318-06CCV  
Vial: 1:2,A

Pass  
03/24/10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	5.07	12002.960	12002.960	bb			0.4745	94.90	-5.10	616.512	3.02
WCL100318-06CCV	Perchlorate-101	101 > 85	5.06	3970.632	3970.632	bb			0.4730	94.61	-5.39	452.449	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	5.04	9282.097	9282.097	bb			0.4822	96.44	-3.56	3720.7...	

3/24/10

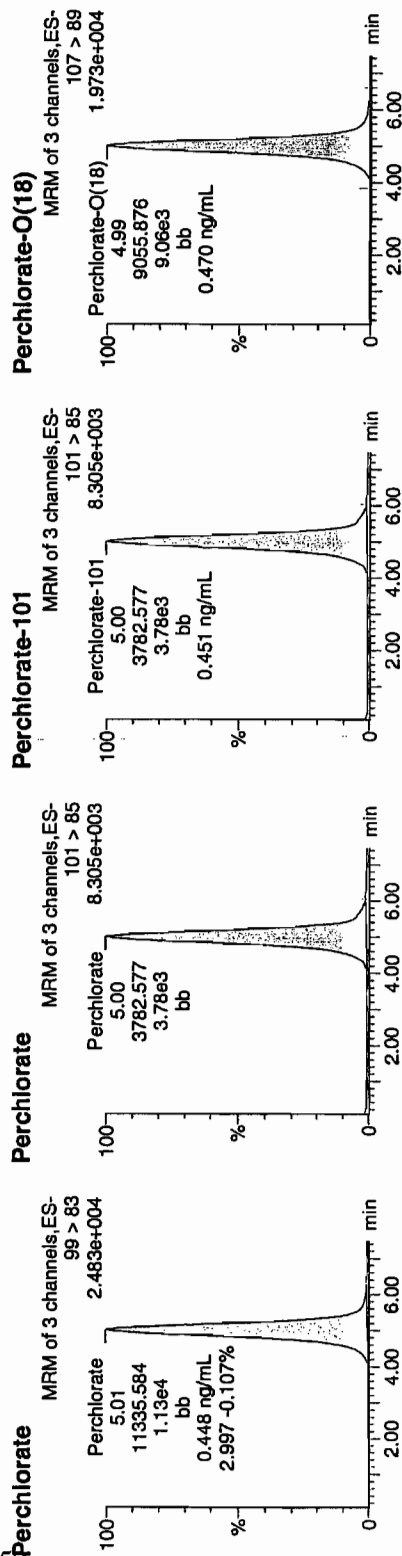
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Name: per0323047a  
Date: 23-Mar-2010  
Time: 21:45:54  
ID: WCL100318-06CCV  
Vial: 1:2,A

Pur  
and  
03.24.10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	5.01	11335.584	11335.584	bb			0.4481	89.63	-10.37	1115.2...	3.00
WCL100318-06CCV	Perchlorate-101	101 > 85	5.00	3782.577	3782.577	bb			0.4506	90.13	-9.87	63.479	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	4.99	9055.876	9055.876	bb			0.4705	94.09	-5.91	1544.7...	

μm  
3/24/10

Perchlorate MDL Verification

GEL Job No.(SDG): 10-2202

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	93.95	23-MAR-10 15:24	per0323011a
Perchlorate Isotope Ratio		3.19		23-MAR-10 15:24	per0323011a
Perchlorate-101	.05	.04	88.79	23-MAR-10 15:24	per0323011a
Perchlorate	.05	.05	101.01	23-MAR-10 17:42	per0323024a
Perchlorate Isotope Ratio		3.24		23-MAR-10 17:42	per0323024a
Perchlorate-101	.05	.05	93.96	23-MAR-10 17:42	per0323024a
Perchlorate	.05	.05	97.38	23-MAR-10 19:59	per0323037a
Perchlorate Isotope Ratio		3		23-MAR-10 19:59	per0323037a
Perchlorate-101	.05	.05	97.85	23-MAR-10 19:59	per0323037a
Perchlorate	.05	.05	97.41	23-MAR-10 22:07	per0323049a
Perchlorate Isotope Ratio		3.29		23-MAR-10 22:07	per0323049a

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

GEL Job No.(SDG): 10-2202

Perchlorate-101	.05	.04	89.34	23-MAR-10 22:07	per0323049a
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**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Sample Name: per0323011a

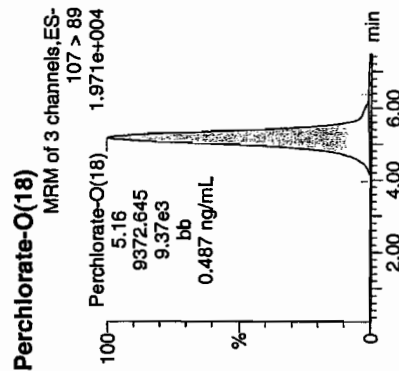
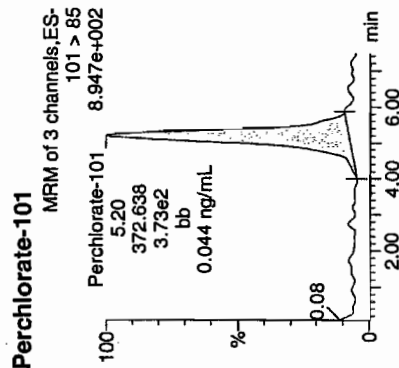
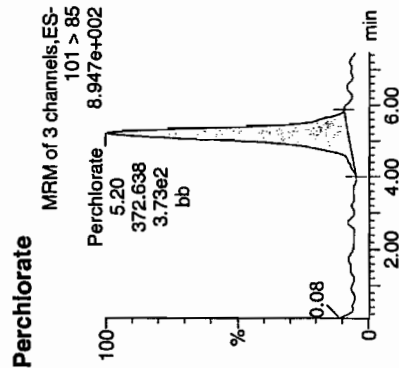
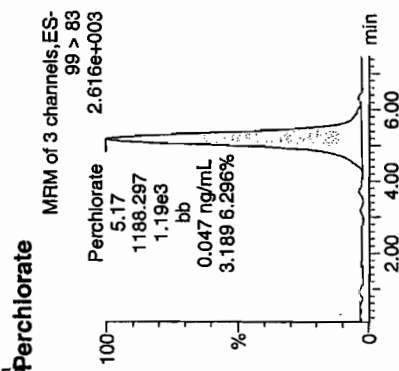
Date: 23-Mar-2010

Time: 15:24:45

ID: WCL100318-07CRI

Vial: 1:2,B

Pass  
and  
03-24-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	5.17	1188.297	1188.297	bb			0.0470	93.95	-6.05	325.902	3.19
WCL100318-07CRI	Perchlorate-101	101 > 85	5.20	372.638	372.638	bb			0.0444	88.79	-11.21	51.409	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	5.16	9372.645	9372.645	bb			0.4869	97.38	-2.62	1314.8...	

1188.297  
372.638  
3.189e6

✓  
3/24/10

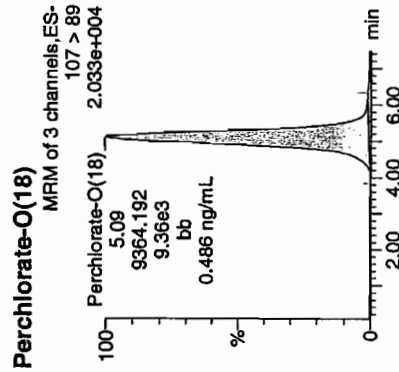
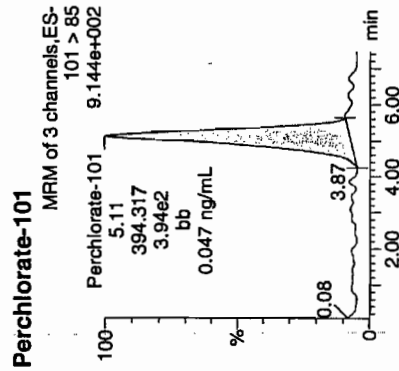
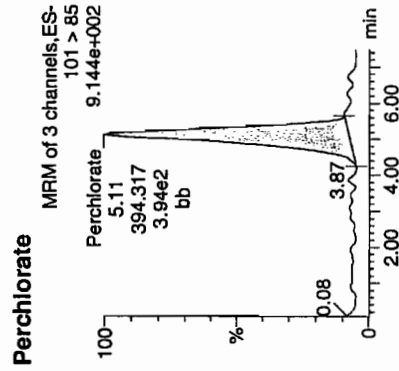
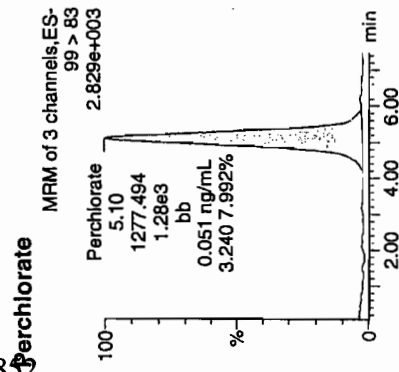
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Name: per0323024a  
Date: 23-Mar-2010  
Time: 17:42:12  
ID: WCL100318-07CRI  
Vial: 1:2,B

*Pass*  
*Ans*  
*32410*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	5.10	1277.494	1277.494	bb			0.0505	101.01	1.01	331.749	3.24
WCL100318-07CRI	Perchlorate-101	101 > 85	5.11	394.317	394.317	bb			0.0470	93.96	-6.04	42.882	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	5.09	9364.192	9364.192	bb			0.4865	97.29	-2.71	2599.5...	

*1077*  
*3/24/10*

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

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Sample Name: per0323037a

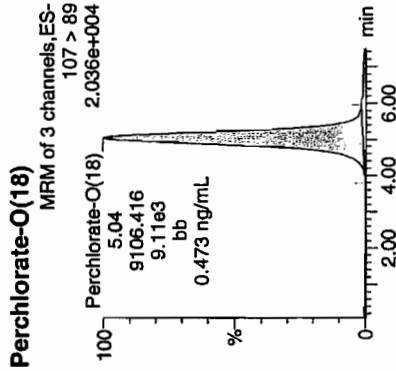
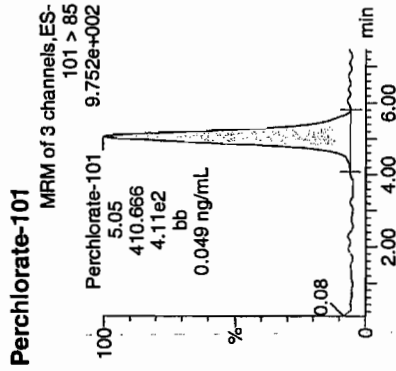
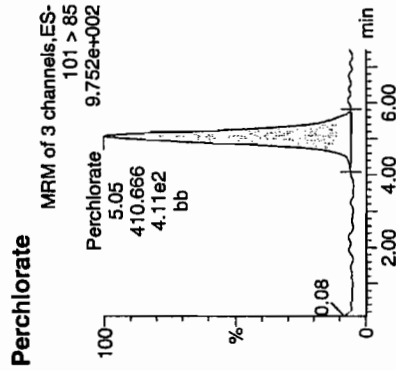
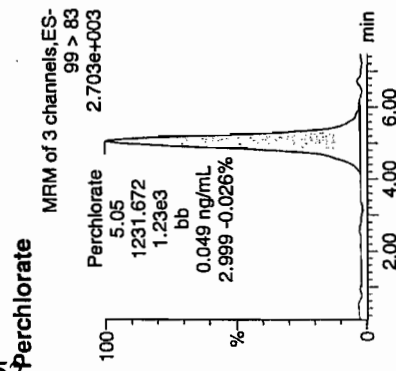
Date: 23-Mar-2010

Time: 19:59:55

ID: WCL100318-07CRI

Vial: 1:2,B

Pure  
0324-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	5.05	1231.672	1231.672	bb			-0.0487	97.38	-2.62	385.021	3.00
WCL100318-07CRI	Perchlorate-101	101 > 85	5.05	410.666	410.666	bb			0.0489	97.85	-2.15	151.745	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	5.04	9106.416	9106.416	bb			0.4731	94.62	-5.38	683.640	

107  
3/24/10



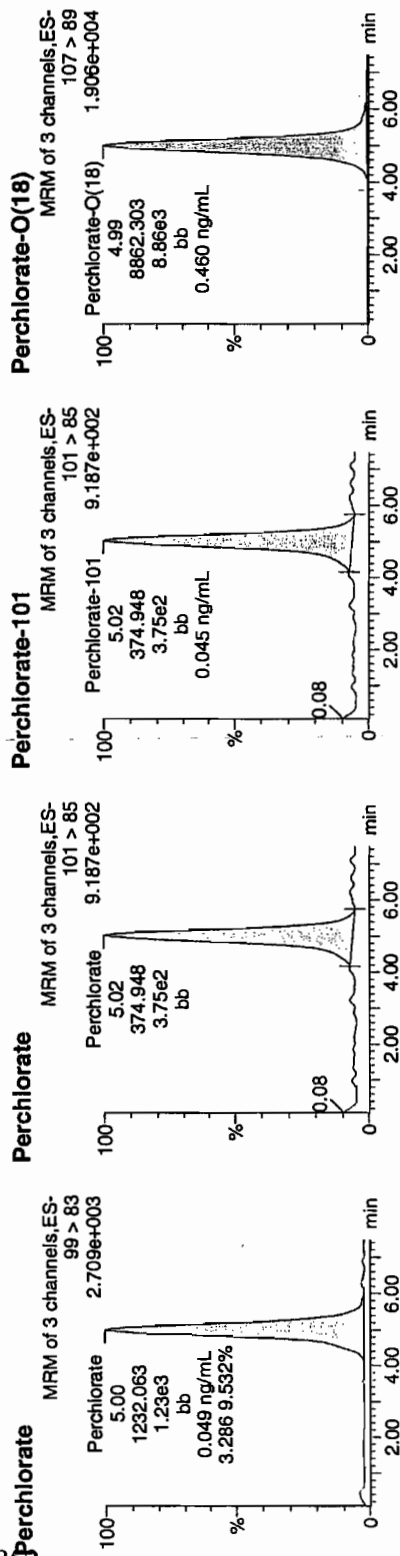
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Sample Name: per0323049a  
Date: 23-Mar-2010  
Time: 22:07:13  
ID: WCL100318-07CRI  
Vial: 1:2,B

*Perchlorate*  
*03-24-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	5.00	1232.063	1232.063	bb			-0.0487	97.41	-2.59	34.220	3.29
WCL100318-07CRI	Perchlorate-101	101 > 85	5.02	374.948	374.948	bb			0.0447	89.34	-10.66	55.467	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	4.99	8862.303	8862.303	bb			0.4604	92.08	-7.92	455.097	

*3/24/10*

# QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 963904

Extraction Type: Solid Prep

Client Sample No.

MB

Date Received: 15-MAR-10

GEL Job No (SDG): 10-2202

GEL Sample ID: 1202067829

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 100

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	23-MAR-10 20:10	per0323038a
	Perchlorate Isotope Ratio						1	23-MAR-10 20:10	per0323038a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	23-MAR-10 20:10	per0323038a
	Perchlorate-O(18)			4.54	ug/kg		1	23-MAR-10 20:10	per0323038a

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

\*Concentration =

Instrument Value X Concentrated Extract Volume X 1  
Aliquot %Solids

# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
 Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Name: per0323038a

Date: 23-Mar-2010

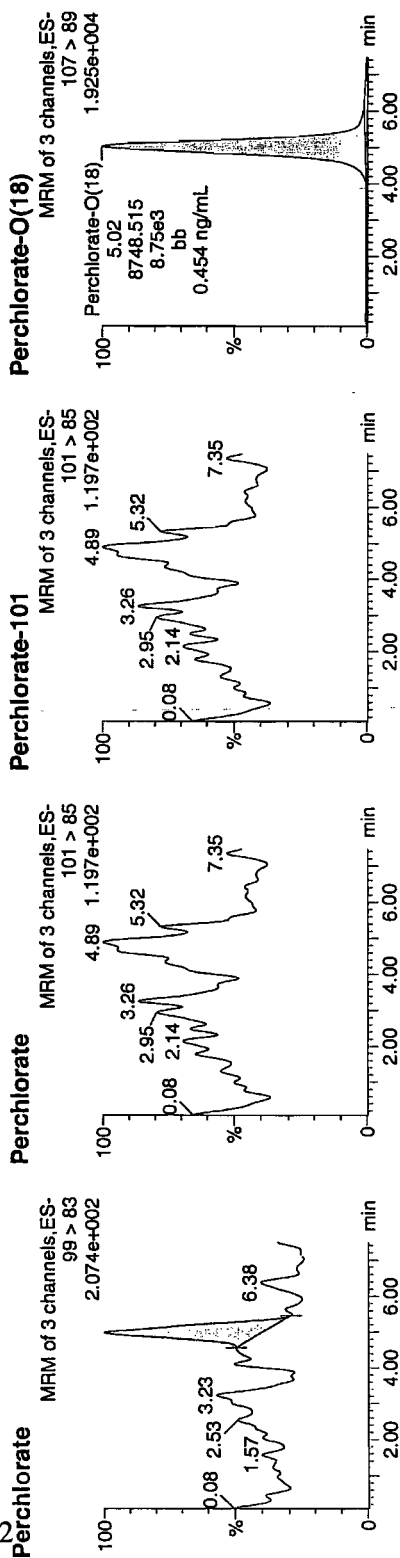
Time: 20:10:29

ID: 1202067829

Vol: 2:1,A

03-24-10

LAJOL 963106 | 5070 | MB | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202067829	Perchlorate	99 > 83	4.97	48.670	48.670	bb			0.0019			15.572	0.00
1202067829	Perchlorate-101	101 > 85											
1202067829	Perchlorate-O(18)	107 > 89	5.02	8748.515	8748.515	bb			0.4545	✓ 90.90	-9.10	2181.8...	

MBT  
3/24/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 963904

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

LCS

Date Received: 15-MAR-10

GEL Job No (SDG): 10-2202

GEL Sample ID: 1202067830

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	2.00	ug/kg	J	1	23-MAR-10 20:21	per0323039a
	Perchlorate Isotope Ratio			3.29			1	23-MAR-10 20:21	per0323039a
14797-73-0	Perchlorate-101	.5	2	1.83	ug/kg	J	1	23-MAR-10 20:21	per0323039a
	Perchlorate-O(18)			4.94	ug/kg		1	23-MAR-10 20:21	per0323039a

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

\*Concentration =

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Name: per0323039a

Date: 23-Mar-2010

Time: 20:21:20

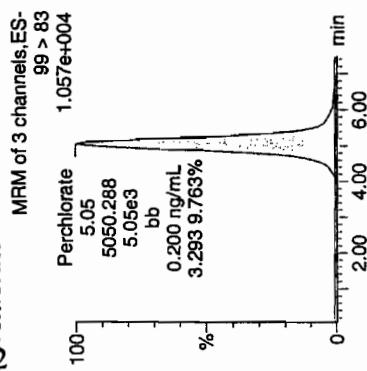
ID: 1202067830

Val: 2:1,B

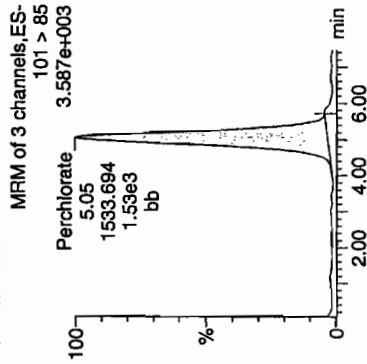
6000  
03-24-10

117.12 | 96.3930 | 30.70 | 11.125 |

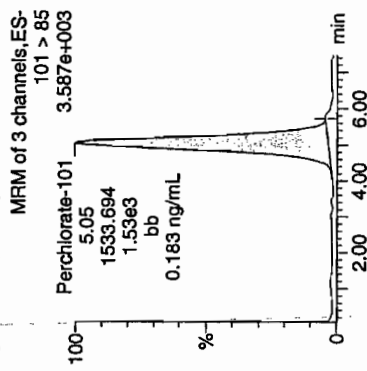
**Perchlorate**



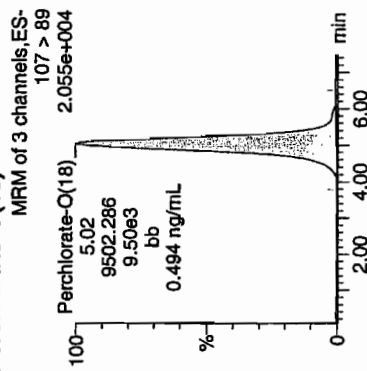
**Perchlorate**



**Perchlorate-101**



**Perchlorate-O(18)**



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202067830	Perchlorate	99 > 83	5.05	5050.288	5050.288	bb			0.1997	99.83	-0.17	868.246	3.29
1202067830	Perchlorate-101	101 > 85	5.05	1533.694	1533.694	bb			0.1827	91.36	-8.64	240.199	
1202067830	Perchlorate-O(18)	107 > 89	5.02	9502.286	9502.286	bb			0.4936	98.73	-1.27	2247.4...	

5050.288  
2525.14

0.1997

117.12  
30.70

# 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: 963904 Verified by: Lab SOP: GL-OA-E-067 REV# 6  
 Analyst: Kaylie Westmoreland Instrument: MicroMass Quatro Ultima  
 Method: SW846 6850 Modified

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202067829 MB	15-MAR-2010 13:31:00	2	20	10
1202067830 LCS	15-MAR-2010 13:31:00	2	20	10
248526001	15-MAR-2010 13:31:00	2	20	10
248531001	15-MAR-2010 13:31:00	2	20	10
248531002	15-MAR-2010 13:31:00	2	20	10
248531003	15-MAR-2010 13:31:00	2	20	10
248531004	15-MAR-2010 13:31:00	2	20	10
248531005	15-MAR-2010 13:31:00	2	20	10
248531006	15-MAR-2010 13:31:00	2	20	10
248531007	15-MAR-2010 13:31:00	2	20	10
248531008	15-MAR-2010 13:31:00	2	20	10
248531009	15-MAR-2010 13:31:00	2	20	10
248531010	15-MAR-2010 13:31:00	2	20	10
248534001	15-MAR-2010 13:31:00	2	20	10
1202067831 MS (248534001)	15-MAR-2010 13:31:00	2	20	10
1202067832 MSD (248534001)	15-MAR-2010 13:31:00	2	20	10
248534002	15-MAR-2010 13:31:00	2	20	10
248534003	15-MAR-2010 13:31:00	2	20	10
248534004	15-MAR-2010 13:31:00	2	20	10
248534005	15-MAR-2010 13:31:00	2	20	10
248534006	15-MAR-2010 13:31:00	2	20	10
248534007	15-MAR-2010 13:31:00	2	20	10
248534008	15-MAR-2010 13:31:00	2	20	10
248534009	15-MAR-2010 13:31:00	2	20	10
1202067836 LCS	15-MAR-2010 13:31:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments
LCS	1202067836	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL	Desulting Cartridges used: 100223-1-Ba & 100216-1-H
LCS	1202067836	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL	
MS	1202067831	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL	
MSD	1202067832	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL	



GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/23/10

Extr. Injection Volume: 20uL

Sequence Number: per032310a

Initial Calibration Date: 03/23/10

Method: EPA 6850-Modified

Int. Std.: UCL100210-01

Mobile Phase Lot#: 1278668, 1284736

Standard-Samp Reagent Lot#: 1271949

Reviewed BY: *μH*

Date: 3/24/10

SOP: GL-OA-E-067 Rev.6

Alt Check Std. ID: WCL100318-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0323001a	IPB001	CWW	3/23/2010 13:39			1		USE	B
per0323002a	IPB001	CWW	3/23/2010 13:49			1		USE	B
per0323003a	WCLICAL-01	CWW	3/23/2010 14:00			1		USE	I
per0323004a	WCLICAL-02	CWW	3/23/2010 14:11			1		USE	I
per0323005a	WCLICAL-03	CWW	3/23/2010 14:21			1		USE	I
per0323006a	WCLICAL-04	CWW	3/23/2010 14:32			1		USE	I
per0323007a	WCLICAL-05	CWW	3/23/2010 14:42			1		USE	I
per0323008a	IPB002	CWW	3/23/2010 14:53			1		USE	B
per0323009a	WCLICV	CWW	3/23/2010 15:03			1		USE	C
per0323010a	IPB003	CWW	3/23/2010 15:14			1		USE	B
per0323011a	WCLCRI	CWW	3/23/2010 15:24			1		USE	C
per0323012a	1202067837	CWW	3/23/2010 15:35	963910	10-2211	1	LANL	USE	S
per0323013a	1202067838	CWW	3/23/2010 15:46	963910	10-2211	1	LANL	USE	S
per0323014a	1202067841	CWW	3/23/2010 15:56	963910	10-2211	1	LANL	USE	S
per0323015a	248527002	CWW	3/23/2010 16:07	963910	10-2211	1	LANL	USE	S
per0323016a	1202067839	CWW	3/23/2010 16:17	963910	10-2211	1	LANL	USE	S
per0323017a	1202067840	CWW	3/23/2010 16:28	963910	10-2211	1	LANL	USE	S
per0323018a	248527003	CWW	3/23/2010 16:38	963910	10-2211	1	LANL	USE	S
per0323019a	248527004	CWW	3/23/2010 16:49	963910	10-2211	1	LANL	USE	S
per0323020a	248527005	CWW	3/23/2010 17:00	963910	10-2211	1	LANL	USE	S
per0323021a	248527006	CWW	3/23/2010 17:10	963910	10-2211	1	LANL	USE	S
per0323022a	WCLCCV	CWW	3/23/2010 17:21			1		USE	C
per0323023a	IPB004	CWW	3/23/2010 17:31			1		USE	B
per0323024a	WCLCRI	CWW	3/23/2010 17:42			1		USE	C
per0323025a	248527007	CWW	3/23/2010 17:52	963910	10-2211	1	LANL	USE	S
per0323026a	248527008	CWW	3/23/2010 18:03	963910	10-2211	1	LANL	USE	S
per0323027a	248527009	CWW	3/23/2010 18:13	963910	10-2211	1	LANL	USE	S
per0323028a	248527010	CWW	3/23/2010 18:24	963910	10-2211	1	LANL	USE	S
per0323029a	248527011	CWW	3/23/2010 18:34	963910	10-2211	1	LANL	USE	S

per0323030a	248527012	CWW	3/23/2010 18:45	963910	10-2211	1	LANL	USE	S
per0323031a	248527013	CWW	3/23/2010 18:56	963910	10-2211	1	LANL	USE	S
per0323032a	248527014	CWW	3/23/2010 19:06	963910	10-2211	1	LANL	USE	S
per0323033a	248527015	CWW	3/23/2010 19:17	963910	10-2211	1	LANL	USE	S
per0323034a	248527016	CWW	3/23/2010 19:27	963910	10-2211	1	LANL	USE	S
per0323035a	WCLCCV	CWW	3/23/2010 19:38			1		USE	C
per0323036a	IPB005	CWW	3/23/2010 19:49			1		USE	B
per0323037a	WCLCRI	CWW	3/23/2010 19:59			1		USE	C
per0323038a	1202067829	CWW	3/23/2010 20:10	963906	VARIOUS	1	LANL	USE	S
per0323039a	1202067830	CWW	3/23/2010 20:21	963906	VARIOUS	1	LANL	USE	S
per0323040a	1202067836	CWW	3/23/2010 20:31	963906	VARIOUS	1	LANL	USE	S
per0323041a	248526001	CWW	3/23/2010 20:42	963906	10-2202	1	LANL	USE	S
per0323042a	248531001	CWW	3/23/2010 20:53	963906	10-2205	1	LANL	USE	S
per0323043a	248531002	CWW	3/23/2010 21:03	963906	10-2205	1	LANL	USE	S
per0323044a	248531003	CWW	3/23/2010 21:14	963906	10-2205	1	LANL	USE	S
per0323045a	248531004	CWW	3/23/2010 21:24	963906	10-2205	1	LANL	USE	S
per0323046a	248531005	CWW	3/23/2010 21:35	963906	10-2205	1	LANL	USE	S
per0323047a	WCLCCV	CWW	3/23/2010 21:45			1		USE	C
per0323048a	IPB006	CWW	3/23/2010 21:56			1		USE	B
per0323049a	WCLCRI	CWW	3/23/2010 22:07			1		USE	C
per0323050a	248531006	CWW	3/23/2010 22:17	963906	10-2205	1	LANL	USE	S
per0323051a	248531007	CWW	3/23/2010 22:28	963906	10-2205	1	LANL	USE	S
per0323052a	248531008	CWW	3/23/2010 22:38	963906	10-2205	1	LANL	USE	S
per0323053a	248531009	CWW	3/23/2010 22:49	963906	10-2205	1	LANL	USE	S
per0323054a	248531010	CWW	3/23/2010 23:00	963906	10-2205	1	LANL	USE	S
per0323055a	248534001	CWW	3/23/2010 23:10	963906	10-2208	1	LANL	USE	S
per0323056a	1202067831	CWW	3/23/2010 23:21	963906	10-2208	1	LANL	USE	S
per0323057a	1202067832	CWW	3/23/2010 23:31	963906	10-2208	1	LANL	USE	S
per0323058a	WCLCCV	CWW	3/23/2010 23:42			1		USE	C
per0323059a	IPB007	CWW	3/23/2010 23:53			1		USE	B
per0323060a	WCLCRI	CWW	3/24/2010 0:03			1		USE	C
per0323061a	248534002	CWW	3/24/2010 0:14	963906	10-2208	1	LANL	USE	S
per0323062a	248534003	CWW	3/24/2010 0:24	963906	10-2208	1	LANL	USE	S
per0323063a	248534004	CWW	3/24/2010 0:35	963906	10-2208	1	LANL	USE	S
per0323064a	248534005	CWW	3/24/2010 0:46	963906	10-2208	1	LANL	USE	S
per0323065a	248534006	CWW	3/24/2010 0:56	963906	10-2208	1	LANL	USE	S
per0323066a	248534007	CWW	3/24/2010 1:07	963906	10-2208	1	LANL	USE	S

per0323067a	248534008	CWW	3/24/2010 1:17	963906	10-2208	1	LANL	USE	S
per0323068a	248534009	CWW	3/24/2010 1:28	963906	10-2208	1	LANL	USE	S
per0323069a	WCLCCV	CWW	3/24/2010 1:38			1		USE	C
per0323070a	IPB008	CWW	3/24/2010 1:49			1		USE	B
per0323071a	WCLCRI	CWW	3/24/2010 2:00			1		USE	C
per0323072a	1202063747	CWW	3/24/2010 2:11	962130	10-2194	1	LANL	USE	S
per0323073a	1202063748	CWW	3/24/2010 2:21	962130	10-2194	1	LANL	USE	S
per0323074a	1202063751	CWW	3/24/2010 2:32	962130	10-2194	1	LANL	USE	S
per0323075a	248511001	CWW	3/24/2010 2:42	962130	10-2194	1	LANL	DUSE-DL	S
per0323076a	1202063749	CWW	3/24/2010 2:53	962130	10-2194	1	LANL	DUSE-DL	S
per0323077a	1202063750	CWW	3/24/2010 3:03	962130	10-2194	1	LANL	DUSE-DL	S
per0323078a	248511002	CWW	3/24/2010 3:14	962130	10-2194	1	LANL	DUSE-RA	S
per0323079a	248511003	CWW	3/24/2010 3:24	962130	10-2194	1	LANL	USE	S
per0323080a	248511004	CWW	3/24/2010 3:35	962130	10-2194	1	LANL	USE	S
per0323081a	248511005	CWW	3/24/2010 3:45	962130	10-2194	1	LANL	USE	S
per0323082a	WCLCCV	CWW	3/24/2010 3:56			1		USE	C
per0323083a	IPB009	CWW	3/24/2010 4:07			1		USE	B
per0323084a	WCLCRI	CWW	3/24/2010 4:17			1		USE	C
per0323085a	248511006	CWW	3/24/2010 4:28	962130	10-2194	1	LANL	DUSE-DL	S
per0323086a	248511007	CWW	3/24/2010 4:39	962130	10-2194	1	LANL	DUSE-RA	S
per0323087a	248511008	CWW	3/24/2010 4:49	962130	10-2194	1	LANL	USE	S
per0323088a	248511009	CWW	3/24/2010 5:00	962130	10-2194	1	LANL	USE	S
per0323089a	248511010	CWW	3/24/2010 5:10	962130	10-2194	1	LANL	USE	S
per0323090a	248511011	CWW	3/24/2010 5:21	962130	10-2194	1	LANL	USE	S
per0323091a	248511012	CWW	3/24/2010 5:31	962130	10-2194	1	LANL	USE	S
per0323092a	248511013	CWW	3/24/2010 5:42	962130	10-2194	1	LANL	USE	S
per0323093a	248511014	CWW	3/24/2010 5:52	962130	10-2194	1	LANL	USE	S
per0323094a	248511015	CWW	3/24/2010 6:03	962130	10-2194	1	LANL	USE	S
per0323095a	WCLCCV	CWW	3/24/2010 6:14			1		USE	C
per0323096a	IPB010	CWW	3/24/2010 6:25			1		USE	B
per0323097a	WCLCRI	CWW	3/24/2010 6:35			1		USE	C
per0323098a	248511016	CWW	3/24/2010 6:46	962130	10-2194	1	LANL	USE	S
per0323099a	248511017	CWW	3/24/2010 6:57	962130	10-2194	1	LANL	USE	S
per0323100a	248511018	CWW	3/24/2010 7:07	962130	10-2194	1	LANL	USE	S
per0323101a	248511019	CWW	3/24/2010 7:18	962130	10-2194	1	LANL	USE	S
per0323102a	248511020	CWW	3/24/2010 7:28	962130	10-2194	1	LANL	USE	S
per0323103a	WCLCCV	CWW	3/24/2010 7:40			1		USE	C

per0323104a	IPB011	CWW	3/24/2010 7:51	1	USE	B
per0323105a	WCLCRI	CWW	3/24/2010 8:02	1	USE	C

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

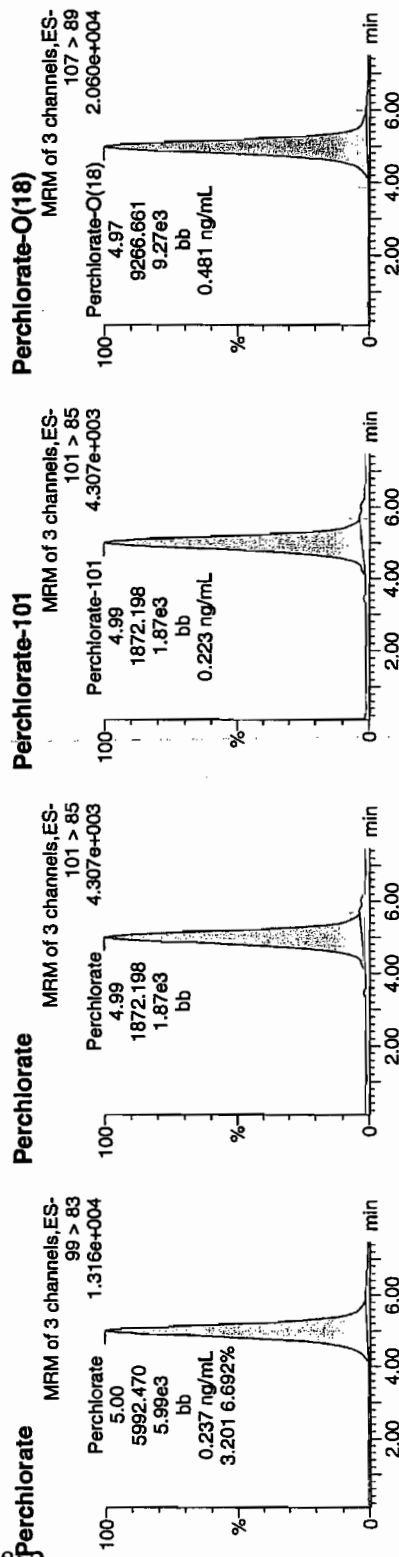
Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Name: per0323056a  
Date: 23-Mar-2010  
Time: 23:21:07  
ID: 1202067831  
Vial: 2:3,D

333  
03-24-10

16320 | 963906 | 30720 | 115 | 1 | 1



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
1202067831	Perchlorate	99 > 83	5.00	5992.470	5992.470	bb			0.2369	118.45	18.45	976.418	3.20
1202067831	Perchlorate-101	101 > 85	4.99	1872.198	1872.198	bb			0.2230	111.52	11.52	104.548	
1202067831	Perchlorate-O(18)	107 > 89	4.97	9266.661	9266.661	bb			0.4814	96.28	-3.72	1956.2...	

$$\frac{5992.470}{25295.2} = 0.2369$$

11577  
3/24/10

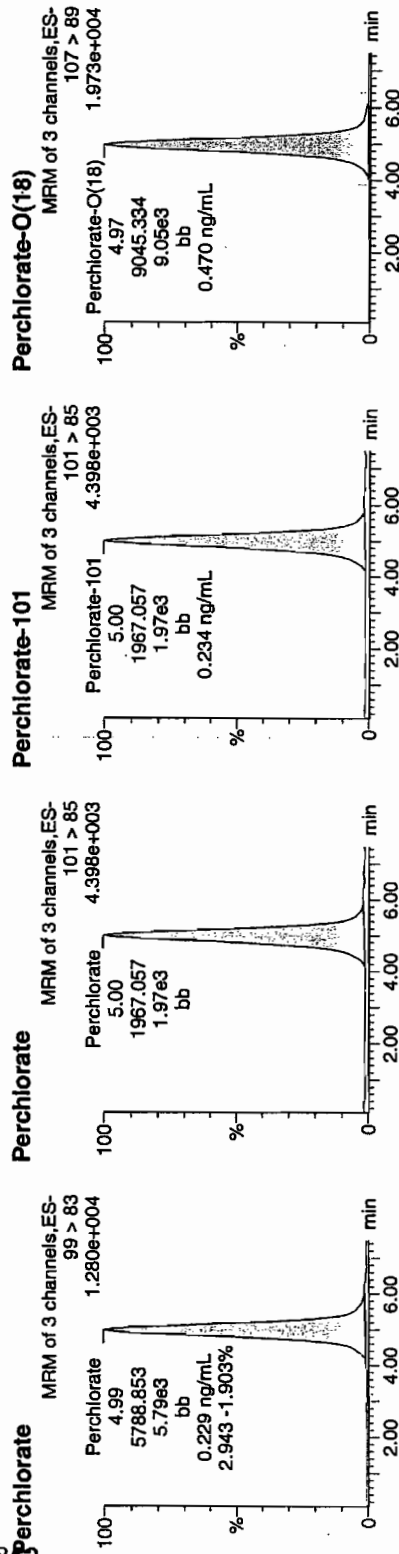
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032310a.qld

Last Altered: Wednesday, March 24, 2010 11:23:49 AM Eastern Standard Time  
Printed: Wednesday, March 24, 2010 11:25:25 AM Eastern Standard Time

Sample Name: per0323057a  
Date: 23-Mar-2010  
Time: 23:31:55  
ID: 1202067832  
Vial: 2:3.E

1202067832  
1202067832  
1202067832



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202067832	Perchlorate	99 > 83	4.99	5788.853	5788.853	bb			0.2289	114.43	14.43	102.306	2.94
1202067832	Perchlorate-101	101 > 85	5.00	1967.057	1967.057	bb			0.2343	117.17	17.17	200.250	
1202067832	Perchlorate-O(18)	107 > 89	4.97	9045.334	9045.334	bb			0.4699	93.98	-6.02	1865.8...	

$$\frac{5788.853}{1967.057} = 2.9429$$

1202067832  
1202067832

## 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 10-2202**

**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:** 961033

**Prep Batch Number:** 961016

**Sample Analysis**

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

<b>Sample ID</b>	<b>Client ID</b>
248526001	RE36-10-8466
1202061319	Method Blank (MB)
1202061320	Laboratory Control Sample (LCS)
1202061321	248526001(RE36-10-8466) Matrix Spike (MS)
1202061322	248526001(RE36-10-8466) Matrix Spike Duplicate (MSD)

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

**Primary Analyte Analysis**

**Calibration Information**

**Initial Calibration**

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

**Calibration Verification Standard Requirements**

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

**Calibration Blank Requirements**

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

### **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 did not meet acceptance criteria for the recovery of multiple spiked analytes. Please refer to Form 3 of the data package for a list of recoveries. The MS and MSD had passing recoveries for these analytes. The data are reported. Please see data exception report 822434.

#### **QC Sample Designation**

Sample 248526001 (RE36-10-8466) was chosen for matrix spike and matrix spike duplicate analysis.

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

The MS spike recoveries were within the established acceptance limits.

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

The MSD spike recoveries were within the established acceptance limits.

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

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

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

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

### **Technical Information**

#### **Holding Time Specifications**

Samples and QC 1202061321 (RE36-10-8466MS), 1202061322 (RE36-10-8466MSD) and 248526001 (RE36-10-8466) were analyzed out of holding for the Primary analyte analysis. The analytical holding times for the samples in this batch were exceeded due to limitations of instrument capacity. However, these samples were analyzed within two times the analytical holding time of the method. The client was notified of this situation and is in agreement to receive these qualified data. The data are reported. Please see data exception report 822434. 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**

Samples and QC 1202061321 (RE36-10-8466MS), 1202061322 (RE36-10-8466MSD) and 248526001 (RE36-10-8466) were re-analyzed for failing Internal Standard Recoveries in the CRI in the initial analyses. The re-analysis passed acceptance criteria and is reported.

#### **Secondary Analyte Analysis**

#### **Calibration Information**

##### **Initial Calibration**

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

##### **Calibration Verification Standard Requirements**

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

##### **Calibration Blank Requirements**

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

##### **CRI Requirements**

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

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

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

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

##### **Surrogate Recoveries**

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

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

The LCS spike recoveries were within the established acceptance limits.

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

Sample 248526001 (RE36-10-8466) was chosen for matrix spike and matrix spike duplicate analysis.

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

The MS recovered TATB at 161%. The limits are 29-155%. The LCS and the MSD had passing criteria for TATB. TATB was not detected in the parent sample. The data are considered unaffected and are reported. Please see data exception report 822434.

##### **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 standards were not added to the secondary analyte extracts.

### **Technical Information**

#### **Holding Time Specifications**

All samples in this SDG in this analytical batch for this analysis 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 822434 was generated for this SDG.

The LCS did not meet acceptance criteria for the recovery of multiple spiked analytes. Please refer to Form 3 of the data package for a list of recoveries. The MS and MSD had passing recoveries for these analytes. The data are reported.

The MS recovered TATB at 161%. The limits are 29-155%. The LCS and the MSD had passing criteria for TATB. TATB was not detected in the parent sample. The data are considered unaffected and are reported.

Samples and QC 1202061321 (RE36-10-8466MS), 1202061322 (RE36-10-8466MSD) and 248526001 (RE36-10-8466) were analyzed out of holding for the Primary analyte analysis. The analytical holding times for the samples in this batch were exceeded due to limitations of instrument capacity. However, these samples were analyzed within two times the analytical holding time of the method. The client was notified of this situation and is in agreement to receive these qualified data. The data are reported.

#### **Manual Integrations**

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

#### **Flagging Convention**

The sample was 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: Herbert M. Mauer Date: 04/30/10

# SAMPLE DATA SUMMARY

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8466

Lab Code: GEL

GEL Job No (SDG) 10-2202

Matrix: SOIL

GEL Sample ID: 248526001

Sample Amount 2

Moisture: 12.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0420020.wiff

Date Analyzed: 20-APR-10 22:31

Units: ug/kg

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

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8466

Lab Code: GEL

GEL Job No (SDG) 10-2202

Matrix: SOIL

GEL Sample ID: 248526001

Sample Amount 2

Moisture: 12.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090068.wiff

Date Analyzed: 10-APR-10 00:47

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): 10-2202

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
248526001	RE36-10-8466	98	70 - 144	
248526001	RE36-10-8466	98.4	70 - 144	
1202061319	MB for batch 961016	104	70 - 144	
1202061319	MB for batch 961016	108	70 - 144	
1202061320	LCS for batch 961016	83.6	70 - 144	
1202061320	LCS for batch 961016	99.2	70 - 144	
1202061321	RE36-10-8466(248526001MS)	94.8	70 - 144	
1202061321	RE36-10-8466(248526001MS)	96.4	70 - 144	
1202061322	RE36-10-8466(248526001MSD)	102	70 - 144	
1202061322	RE36-10-8466(248526001MSD)	96	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) 10-2202

Extract Batch Code: 961016

Date Extracted: 10-MAR-10

GEL LCS ID: 1202061320

GEL LCSDUP ID:

Analysis Date/Time: 16-APR-10 14:41

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
HMX	5000	4990	99.8								58 - 138
Nitrobenzene	5000	4530	90.6								71 - 122
PETN	5000	5320	106								64 - 137
2,4,6-Trinitrotoluene	5000	4030	80.6								73 - 149
4-Amino-2,6-dinitrotoluene	5000	3920	78.4	*							84 - 130
2-Amino-4,6-dinitrotoluene	5000	4000	80	*							90 - 130
2,6-Dinitrotoluene	5000	4230	84.6	*							89 - 120
2,4-Dinitrotoluene	5000	4770	95.4								87 - 137
1,3,5-Trinitrobenzene	5000	3530	70.6								69 - 126
RDX	5000	6110	122								81 - 137
Tetryl	5000	204	4.08	*							51 - 112
m-Dinitrobenzene	5000	5290	106								83 - 122
m-Nitrotoluene	5000	4880	97.6								73 - 118
o-Nitrotoluene	5000	5170	103								72 - 119
p-Nitrotoluene	5000	4920	98.4								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) 10-2202

Extract Batch Code: 961016

Date Extracted: 10-MAR-10

GEL LCS ID: 1202061320

GEL LCSDUP ID:

Analysis Date/Time: 09-APR-10 19:01

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	4790	95.8					52 - 114
2,6-Diamino-4-nitrotoluene	5000	5090	102					64 - 122
TATB	5000	4710	94.2					28 - 162
3,5-Dinitroaniline	5000	4980	99.6					70 - 127
tris(o-cresyl) phosphate	5000	4920	98.4					84 - 119

# 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: RE36-10-8466

Lab Code: GEL

GEL Job No (SDG) 10-2202

Extract Batch Code: 961016

Date Extracted: 10-MAR-10

GEL Spike ID: 1202061321

GEL SpikeDup ID: 1202061322

Analysis Date/Time: 20-APR-10 22:57

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
1,3,5-Trinitrobenzene	5000	0	5520	110	5010	100	9.69	30	50 – 140
2,4,6-Trinitrotoluene	5000	0	5190	104	4810	96.2	7.6	30	76 – 144
2,4-Dinitrotoluene	5000	0	5500	110	5010	100	9.32	30	86 – 135
2,6-Dinitrotoluene	5000	13.4	4930	98.3	4920	98.1	.203	30	90 – 118
2-Amino-4,6-dinitrotoluene	5000	0	5360	107	5350	107	.187	30	85 – 137
4-Amino-2,6-dinitrotoluene	5000	0	5710	114	5680	114	.527	30	72 – 143
HMX	5000	0	4820	96.4	5020	100	4.07	30	51 – 144
Nitrobenzene	5000	0	4510	90.2	4660	93.2	3.27	30	70 – 122
PETN	5000	0	5400	108	5020	100	7.29	30	60 – 140
RDX	5000	0	5880	118	4980	99.6	16.6	30	59 – 152
Tetryl	5000	0	5010	100	4160	83.2	18.5	30	36 – 124
m-Dinitrobenzene	5000	2.76	5350	107	4930	98.5	8.17	30	85 – 118
m-Nitrotoluene	5000	0	4210	84.2	4500	90	6.66	30	70 – 120
o-Nitrotoluene	5000	0	4710	94.2	4680	93.6	.639	30	69 – 123
p-Nitrotoluene	5000	0	4360	87.2	4640	92.8	6.22	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: RE36-10-8466

Lab Code: GEL

GEL Job No (SDG) 10-2202

Extract Batch Code: 961016

Date Extracted: 10-MAR-10

GEL Spike ID: 1202061321

GEL SpikeDup ID: 1202061322

Analysis Date/Time: 10-APR-10 01:02

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
tris(o-cresyl) phosphate	5000	0	5170	103	5100	102	1.36	30	72 - 127
2,4-Diamino-6-nitrotoluene	5000	0	4070	81.4	3670	73.4	10.3	26	34 - 135
2,6-Diamino-4-nitrotoluene	5000	0	4340	86.8	4330	86.6	.231	30	55 - 130
TATB	5000	0	8040	161 *	7080	142	12.7	30	29 - 155
3,5-Dinitroaniline	5000	0	4040	80.8	4330	86.6	6.93	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): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 15-APR-10 10:07

GEL Data File: EXP0415001.wiff

Instrument ID: LCMSMS

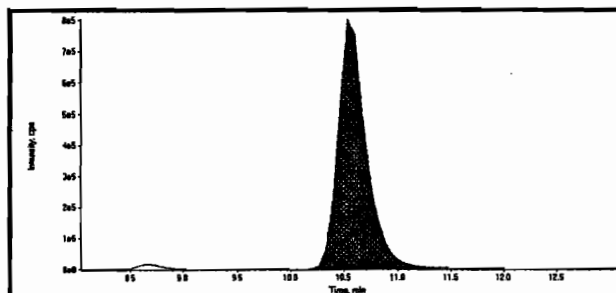
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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

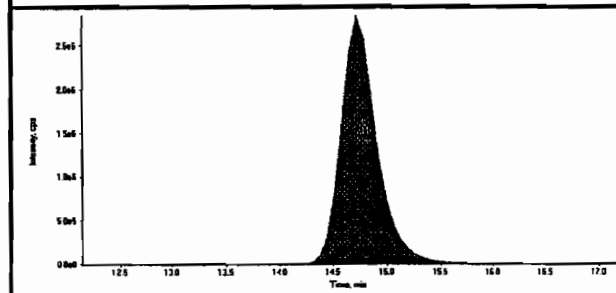
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

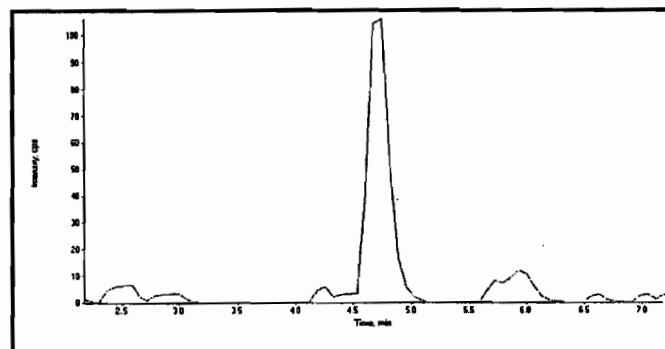
Data File	EXP0415001.wiff	Acquisition Date	4/15/2010 10:07:41 AM
Sample Name	XIBLK01	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



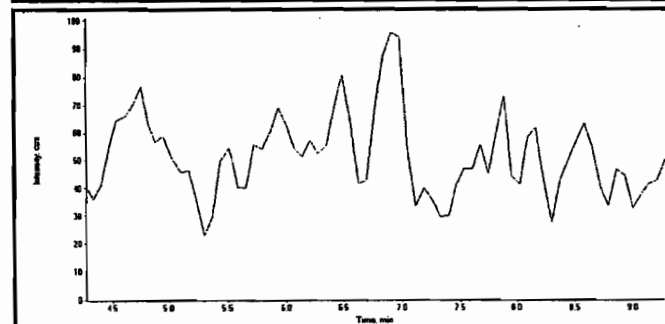
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	14900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	66100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten signature: LER 4/23/10*  
*Handwritten signature: HMC 04/23/10*



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415001.wiff	<b>Acquisition Date</b>	4/15/2010 10:07:41 AM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

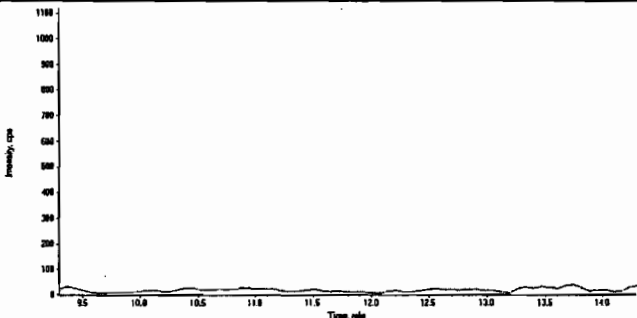
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

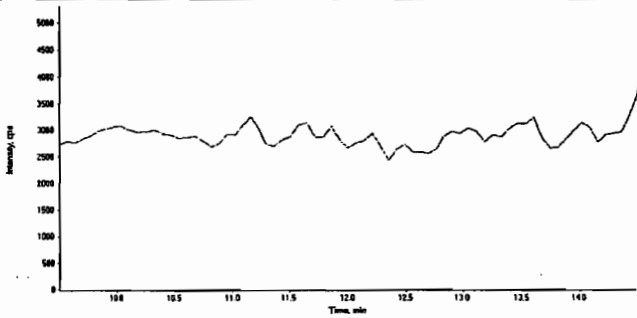
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415001.wiff	<b>Acquisition Date</b>	4/15/2010 10:07:41 AM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

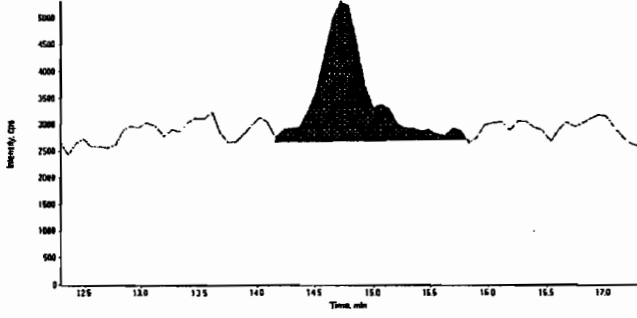
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

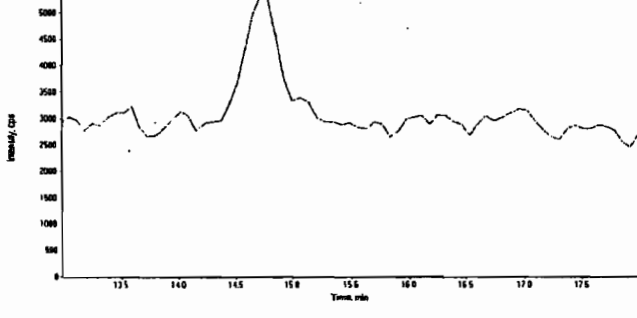
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.7
	<b>Area Counts:</b>	7.61e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

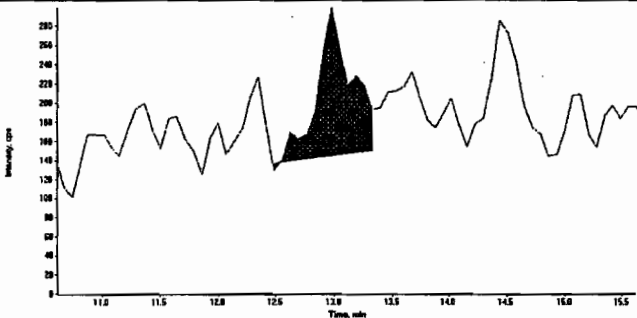
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

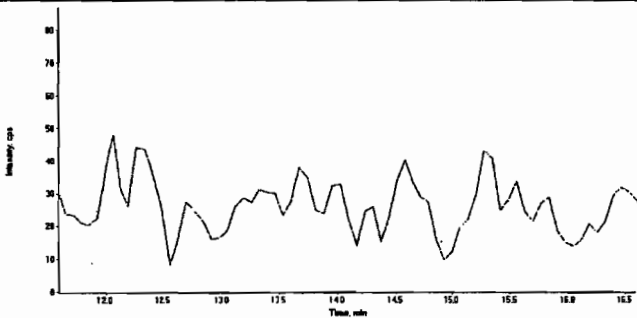
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415001.wiff	<b>Acquisition Date</b>	4/15/2010 10:07:41 AM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

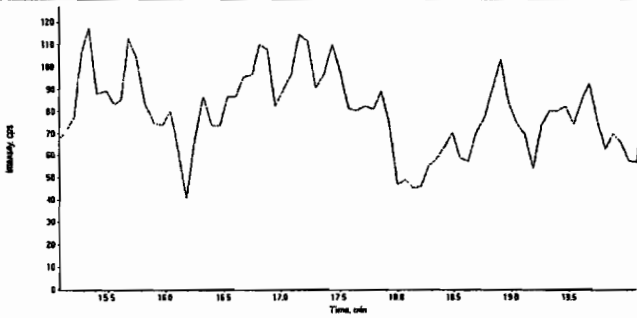
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.0
	Area Counts:	3.16e+003
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

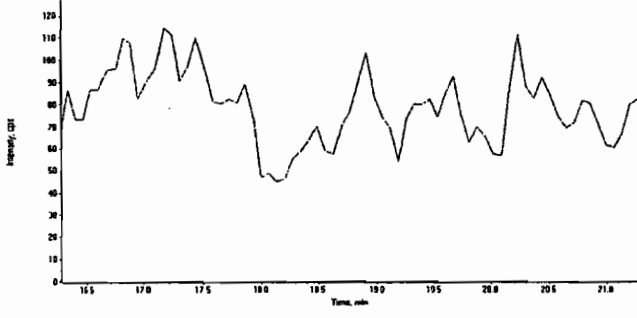
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

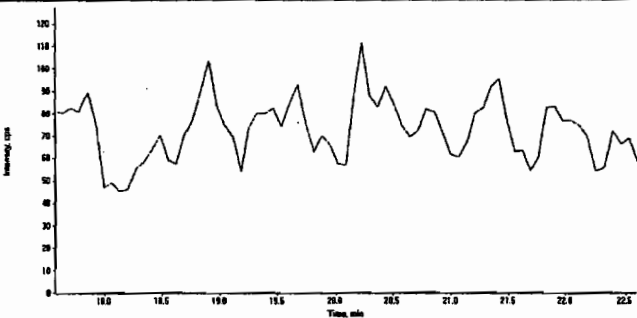
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

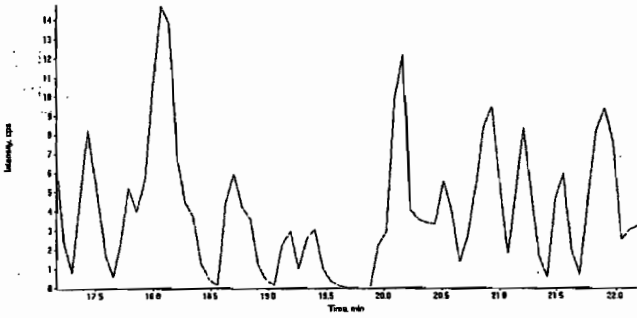
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LCMSMS#3

<b>Data File</b>	EXP0415001.wiff	<b>Acquisition Date</b>	4/15/2010 10:07:41 AM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 15-APR-10 10:33

GEL Data File: EXP0415002.wiff

Instrument ID: LCMSMS

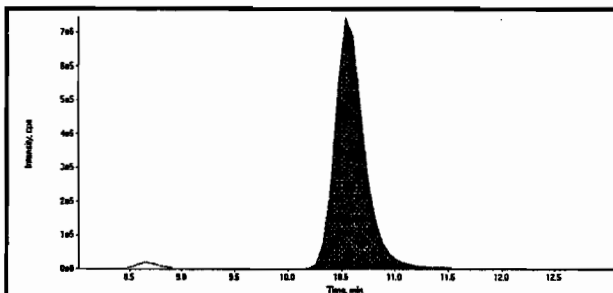
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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

GEL Laboratories, LLC  
GEL SOP\_GL-OA-E-056, Method 8321A-Modified

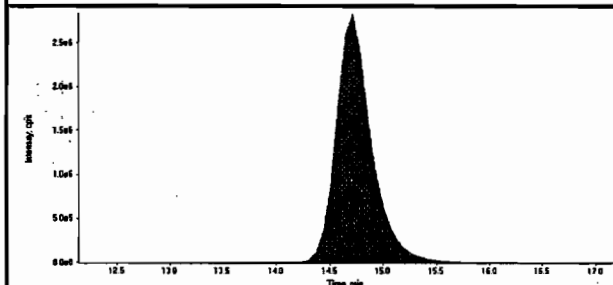
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415002.wiff	Acquisition Date	4/15/2010 10:33:25 AM
Sample Name	XIBLK01	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



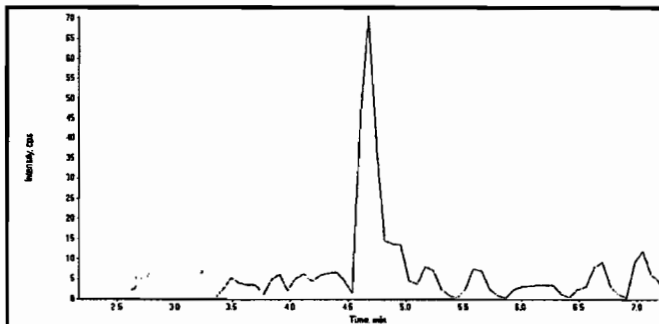
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	14400000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

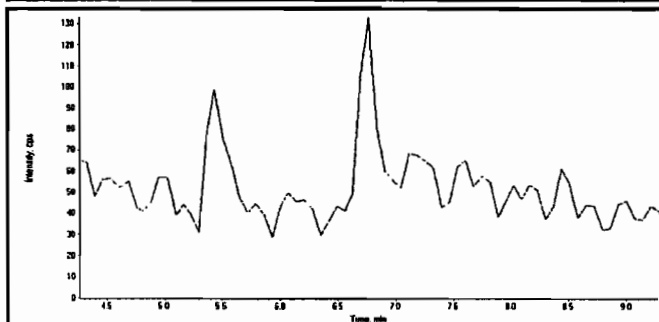


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	65600000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten signatures and dates:*  
Haw 8/12/10  
Jen 8/23/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415002.wiff	<b>Acquisition Date</b>	4/15/2010 10:33:25 AM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

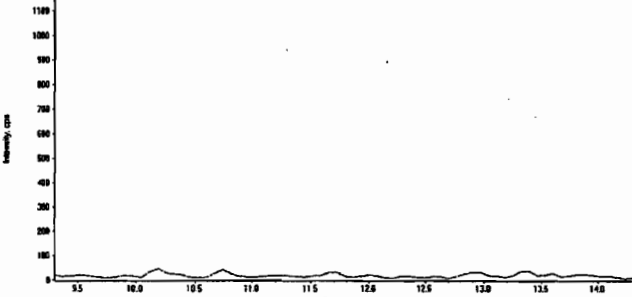
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

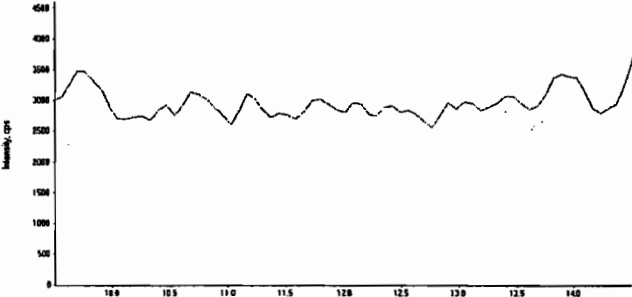
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415002.wiff	<b>Acquisition Date</b>	4/15/2010 10:33:25 AM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

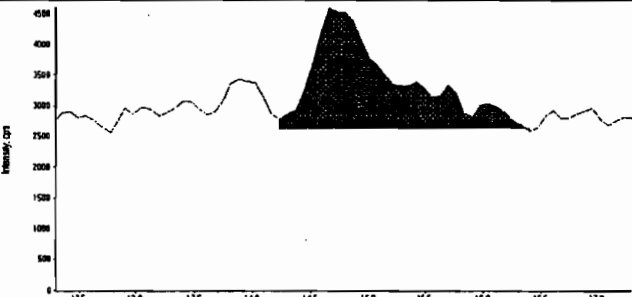
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

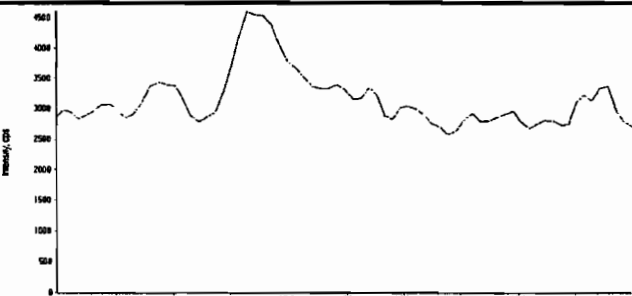
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.6
	Area Counts:	1.01e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415002.wiff	<b>Acquisition Date</b>	4/15/2010 10:33:25 AM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

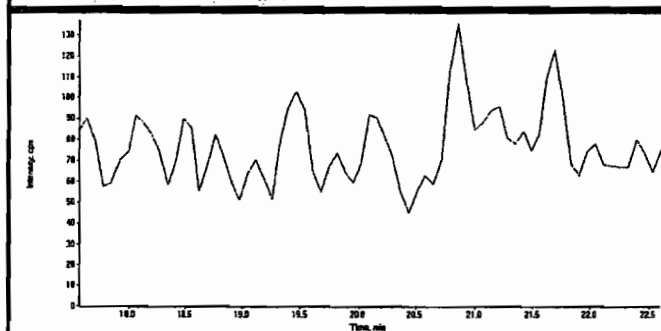
  

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

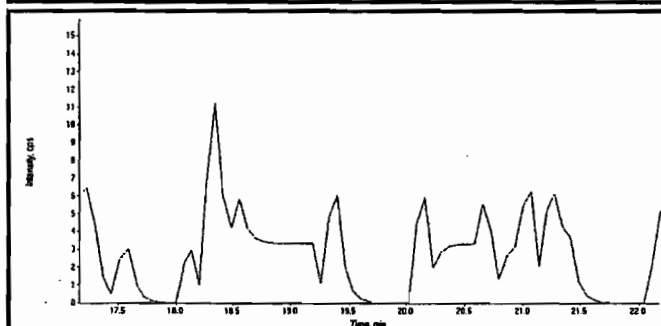
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415002.wiff	Acquisition Date	4/15/2010 10:33:25 AM
Sample Name	XIBLK01	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 20-APR-10 14:19

GEL Data File: EXP0420001.wiff

Instrument ID: LCMSMS

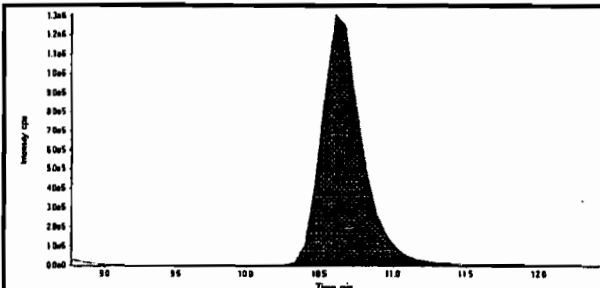
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
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	.257
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	1.61

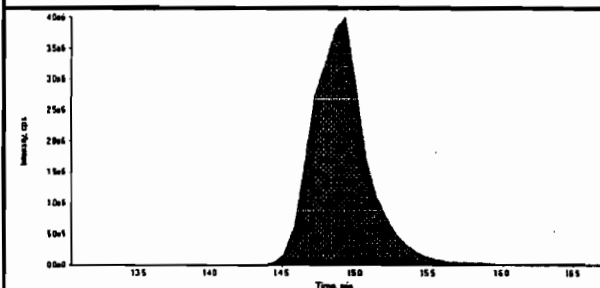
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

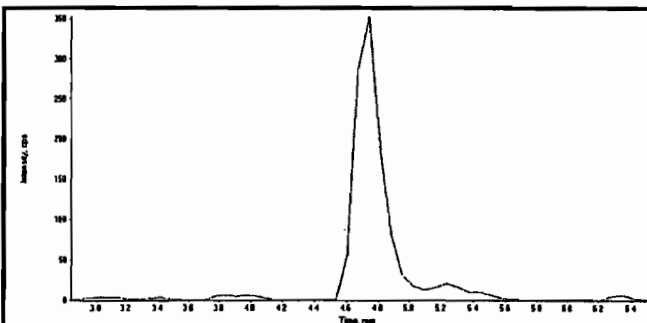
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Sample Name	XIBLK01	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



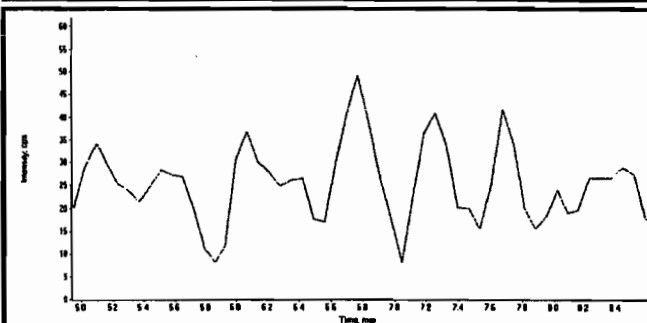
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	25300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	102000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

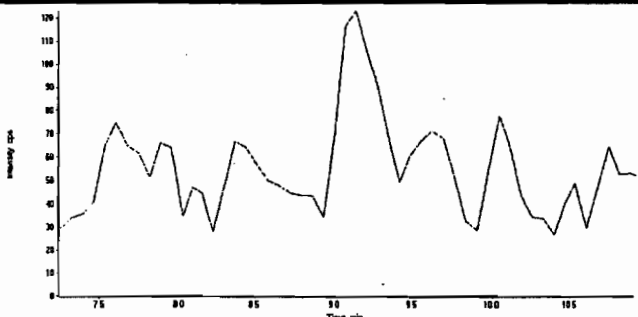
*Handwritten:*  
4/29/10  
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4/28/10

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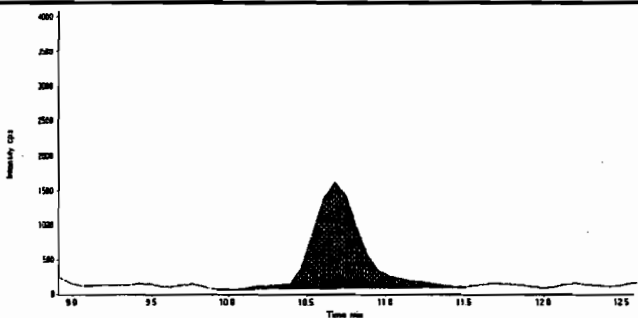
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420001.wiff	Acquisition Date	4/20/2010 2:19:05 PM
Sample Name	XIBLK01	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

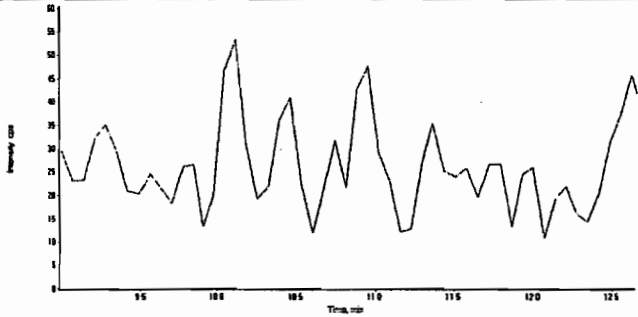
  

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.07
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

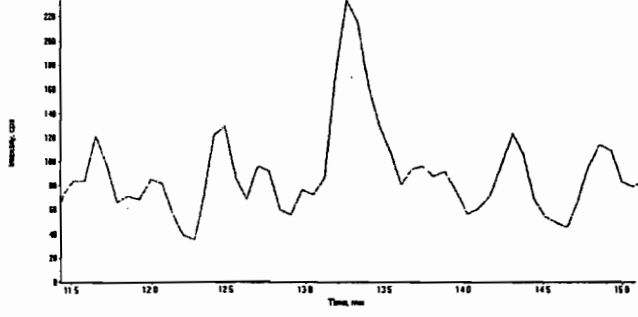
  

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	3.35e+004
	Manual Modification	No
	Amount:	0.257 (ng/mL)
	% Accuracy:	N/A

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

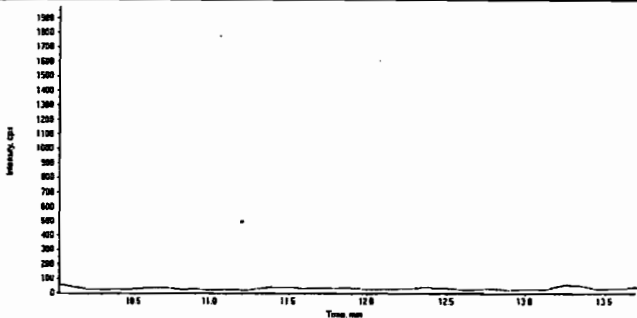
	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.3
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

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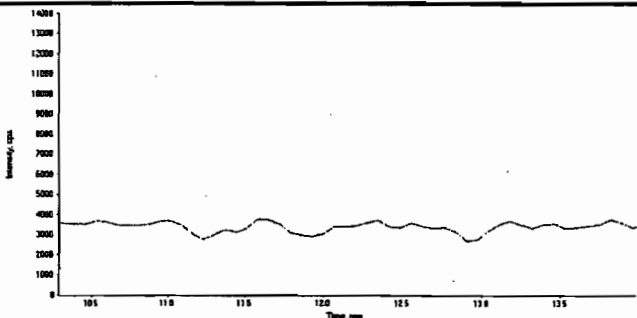
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420001.wiff	<b>Acquisition Date</b>	4/20/2010 2:19:05 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

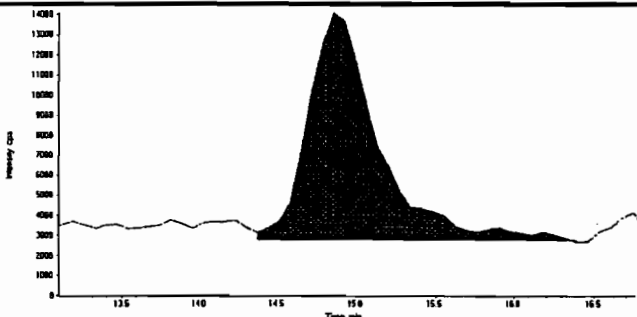
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

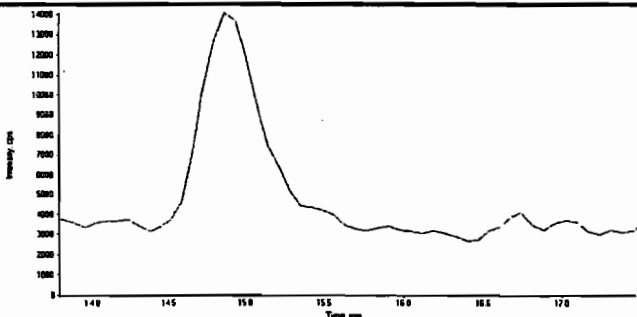
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	14.9
	Area Counts:	3.56e+005
	Manual Modification	No
	Amount:	1.61 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420001.wiff	<b>Acquisition Date</b>	4/20/2010 2:19:05 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	19.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420001.wiff	<b>Acquisition Date</b>	4/20/2010 2:19:05 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



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Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 20-APR-10 14:44

GEL Data File: EXP0420002.wiff

Instrument ID: LCMSMS

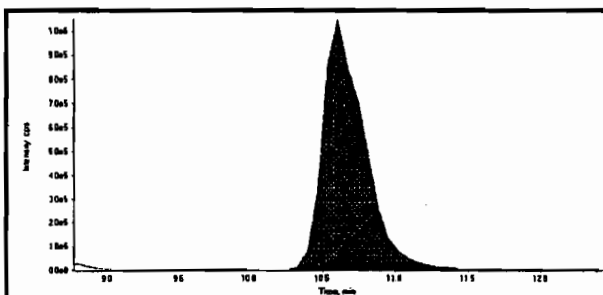
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	.765
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	.341
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

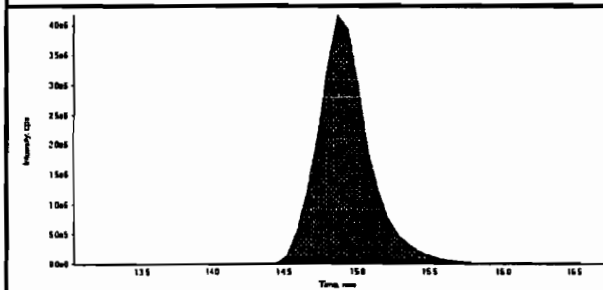
GEL Laboratories, LLC  
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Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

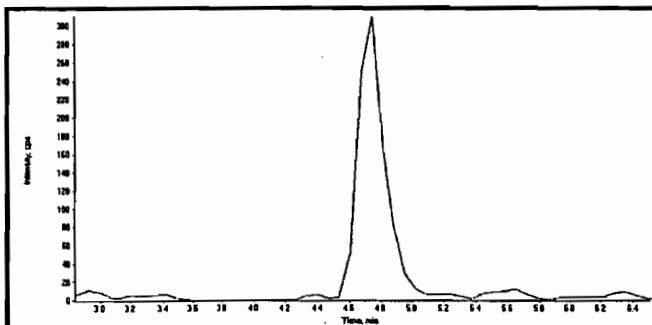
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Sample Name	XIBLK01	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



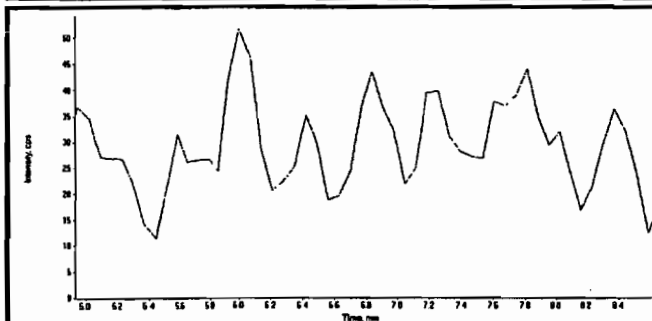
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	21100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	101000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

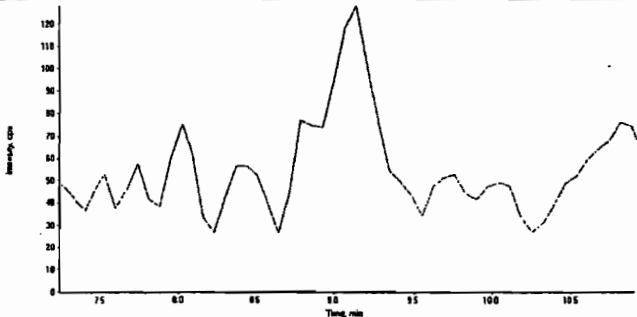
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 04/29/10  
 4/28/10

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GEL SOP GL-OA-E-056, Method 8321A-Modified

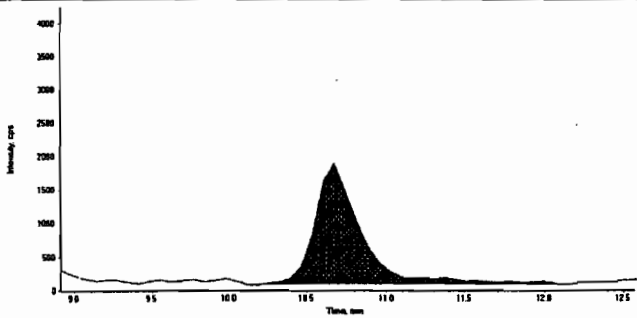
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LCMSMS#3

<b>Data File</b>	EXP0420002.wiff	<b>Acquisition Date</b>	4/20/2010 2:44:57 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

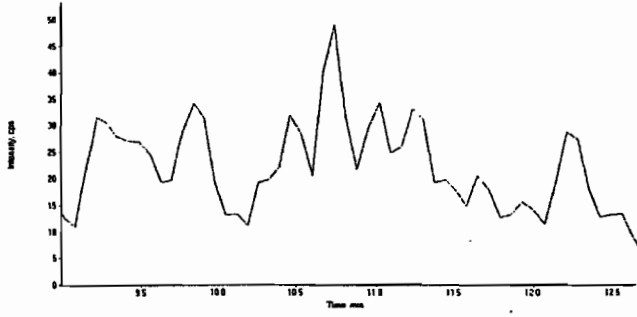
  

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

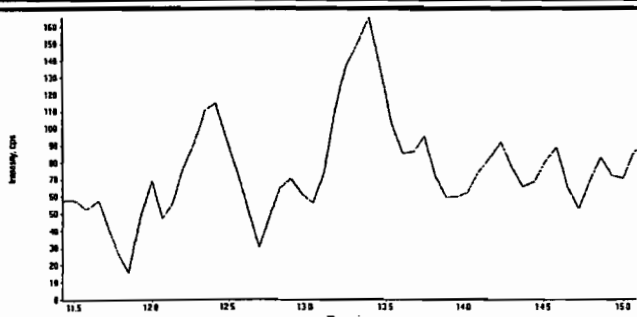
  

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	3.71e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	0.341 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

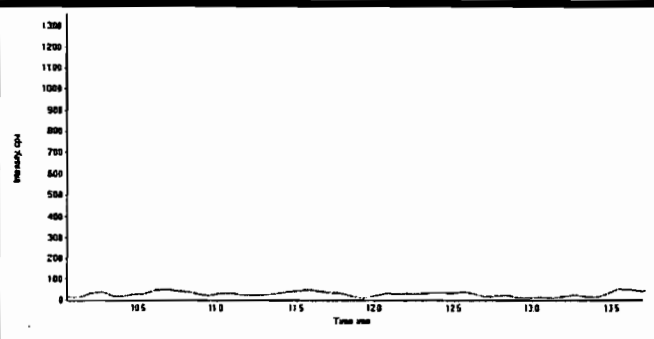
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

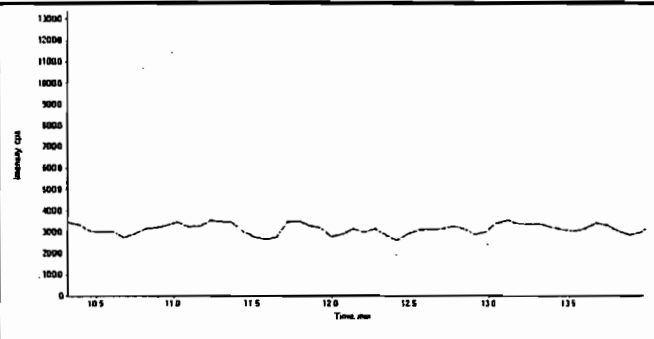
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420002.wiff	<b>Acquisition Date</b>	4/20/2010 2:44:57 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

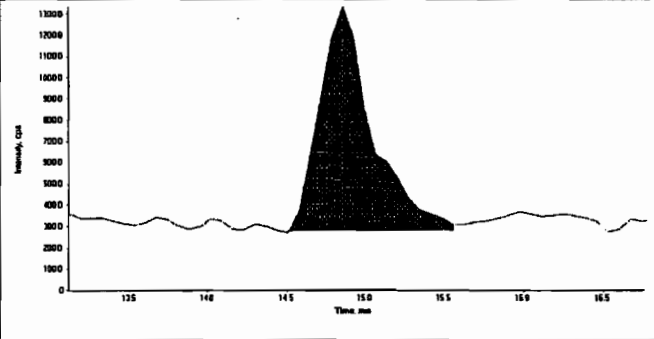
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

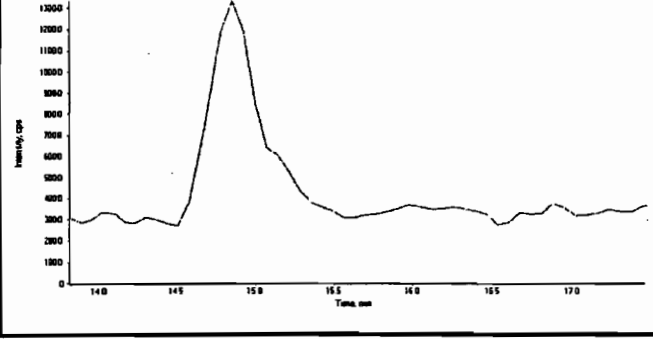
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	14.9
	Area Counts:	2.47e+005
	Manual Modification	No
	Amount:	0.765 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420002.wiff	<b>Acquisition Date</b>	4/20/2010 2:44:57 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	19.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420002.wiff	<b>Acquisition Date</b>	4/20/2010 2:44:57 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 09-APR-10 07:14

GEL Data File: EXS04090001.wiff

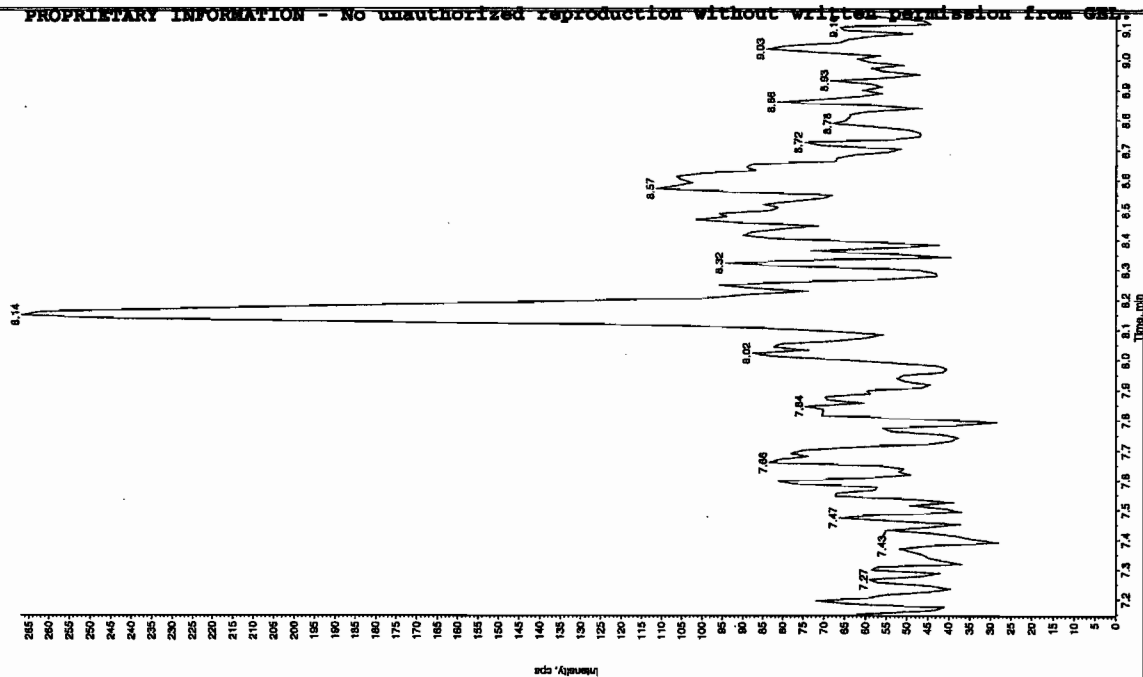
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
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	2.08
TATB	0	0

See 4/12/10

Sample Name: "XIBLX01" Sample ID: "111111" File: "EXS04090001.wif"  
Peak Name: "35-Dinitrophenol" Mass(es): "182.0460 amu"  
Comment: "LCMSEXP\_B" Annotation: ""  
Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 7:14:41 AM  
Modified: No

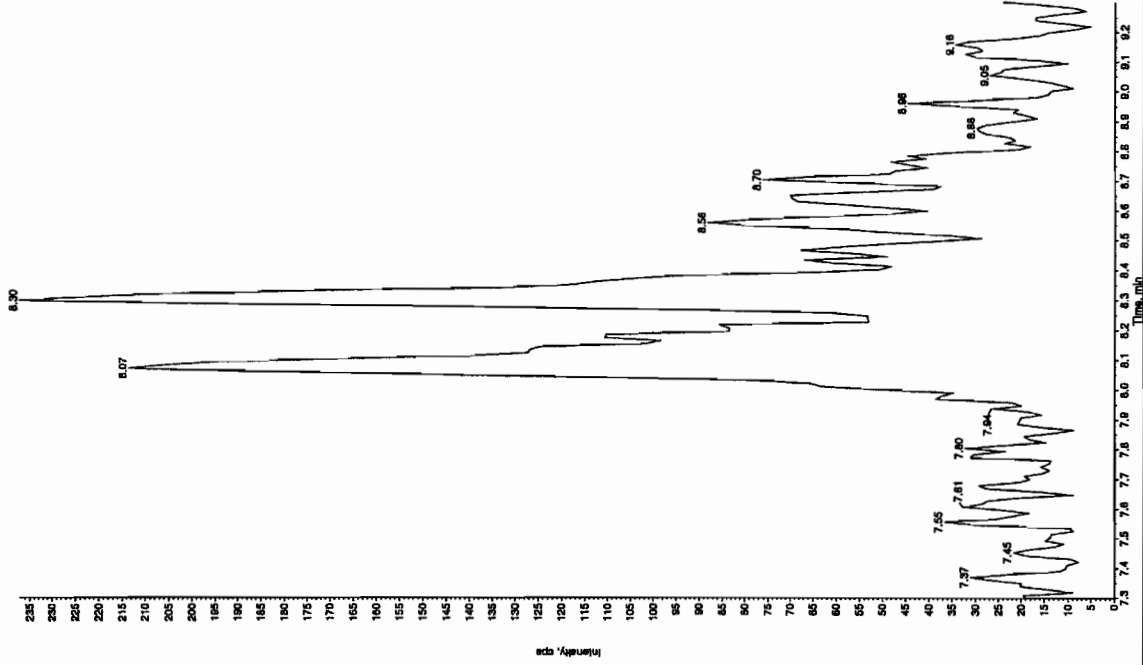




Sample Name: "XIBLK01" Sample ID: "111LER" File: "EXS04090001.wiff"  
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"  
Comment: "LCMSEXP\_B" Annotation: ""  
Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A ng/mL  
Calculated Conc: 0.00  
Acq. Date: 4/9/2010  
Acq. Time: 7:14:41 AM  
Modified: No

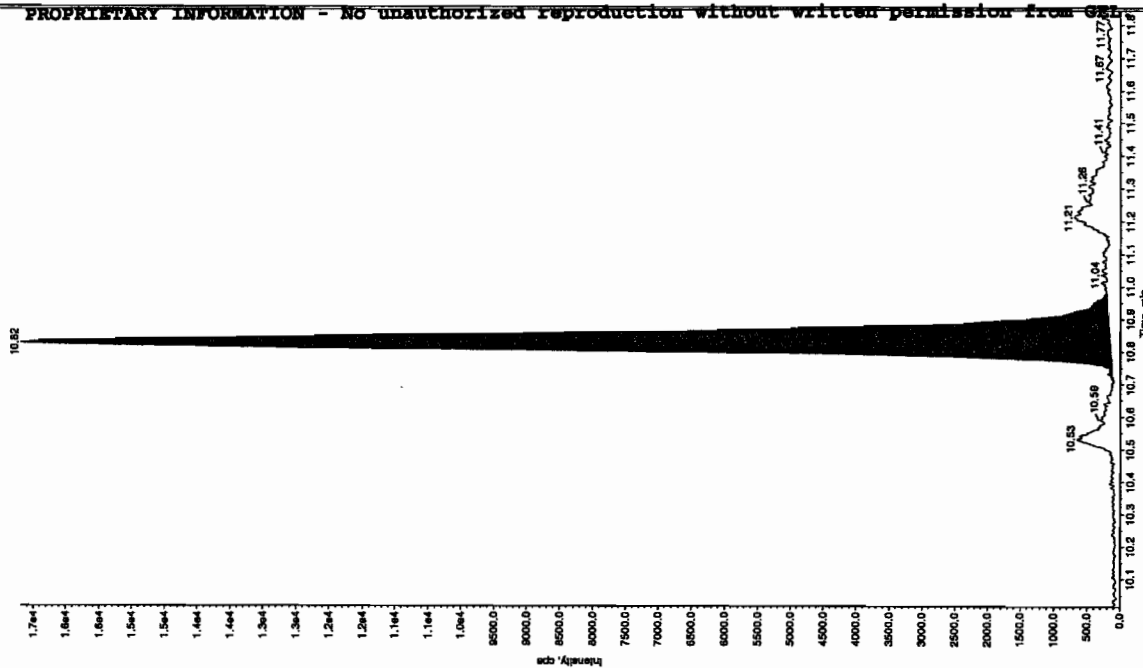


Sample Name: "XIBLK01" Sample ID: "111LER" File: "EXS04090001.wiff"  
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"  
Comment: "LCMSEXP\_B" Annotation: ""  
Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A ng/mL  
Calculated Conc: 0.00  
Acq. Date: 4/9/2010  
Acq. Time: 7:14:41 AM  
Modified: No



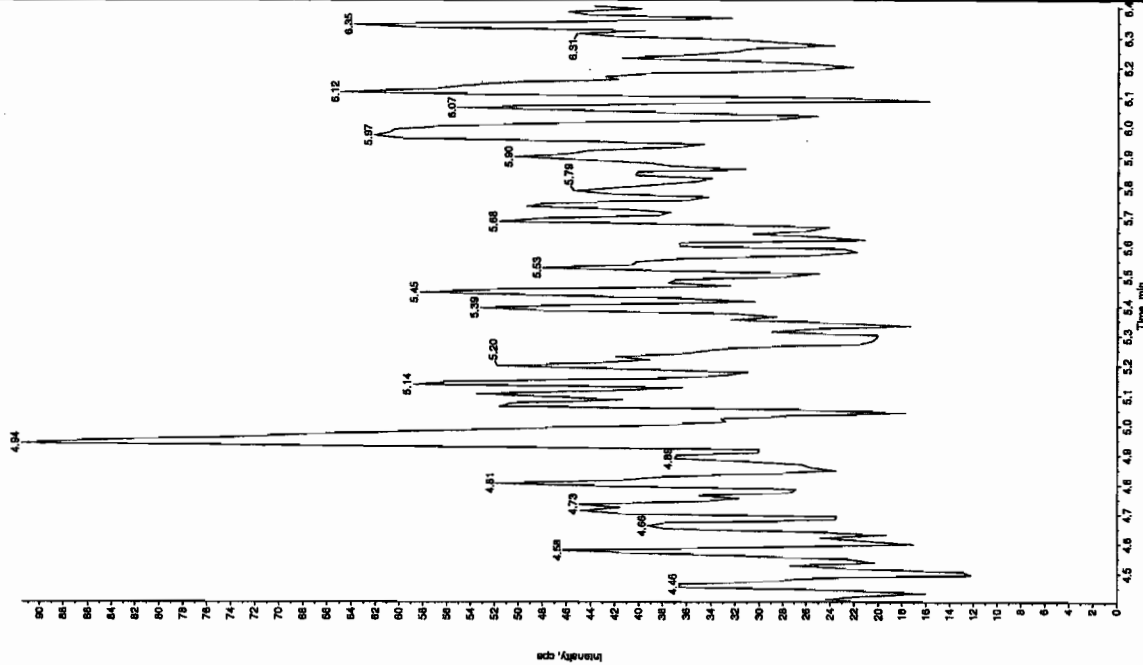
Sample Name: "XIELK01" Sample ID: "111LRF" File: "EXS04050001.wif"  
 Peak Name: "bis(o-cresyl) phosphate" Mass(es): "369.1810 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 2.08  
 Acq. Date: 4/9/2010  
 Acq. Time: 7:14:41 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3.00 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 6.47e+004 counts  
 Height: 16537.569 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



Sample Name: "XIELK01" Sample ID: "111LRF" File: "EXS04050001.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0460 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/9/2010  
 Acq. Time: 7:14:41 AM  
 Modified: No



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 09-APR-10 07:30

GEL Data File: EXS04090002.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	1.56
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Jan 4/12/10

Sample Name: "XBLK01" Sample ID: "111ER" File: "EXS04090002.wif"

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

Comment: "LCMS EXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

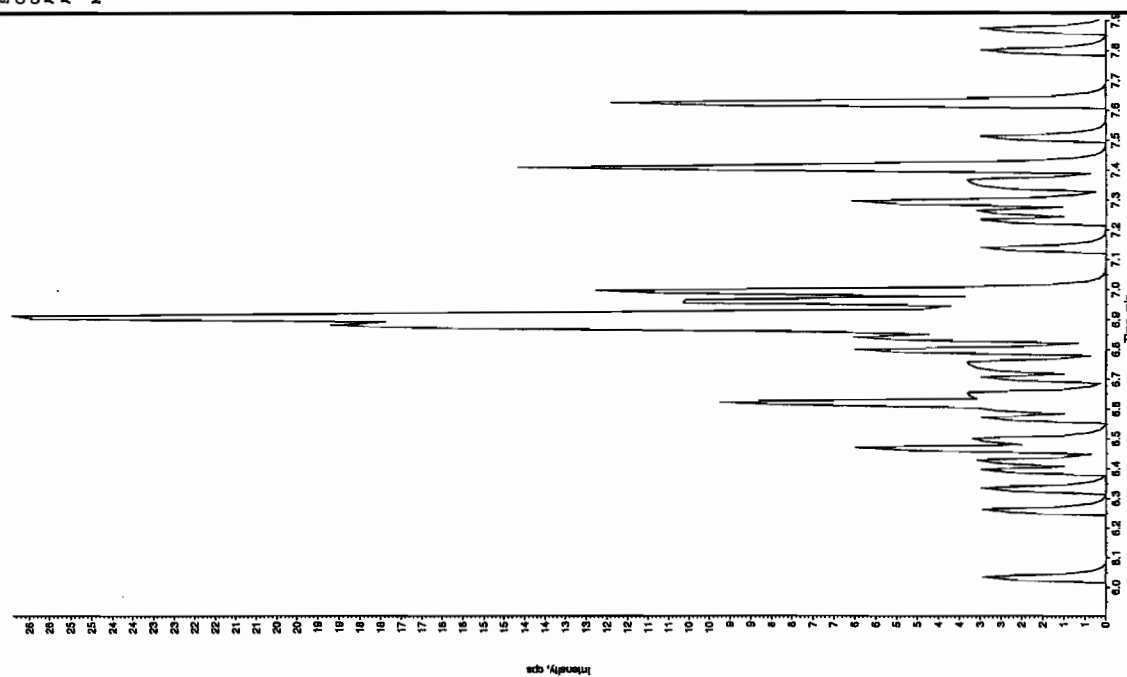
Concentration: 0.00 ng/mL

Calculated Conc: 0.00

Acq. Date: 4/9/2010

Acq. Time: 7:30:29 AM

Modified: No



Sample Name: "XBLK01" Sample ID: "111ER" File: "EXS04090002.wif"

Peak Name: "TATB" Mass(es): "267.2204.9 amu"

Comment: "LCMS EXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: 0.00 ng/mL

Calculated Conc: 0.00

Acq. Date: 4/9/2010

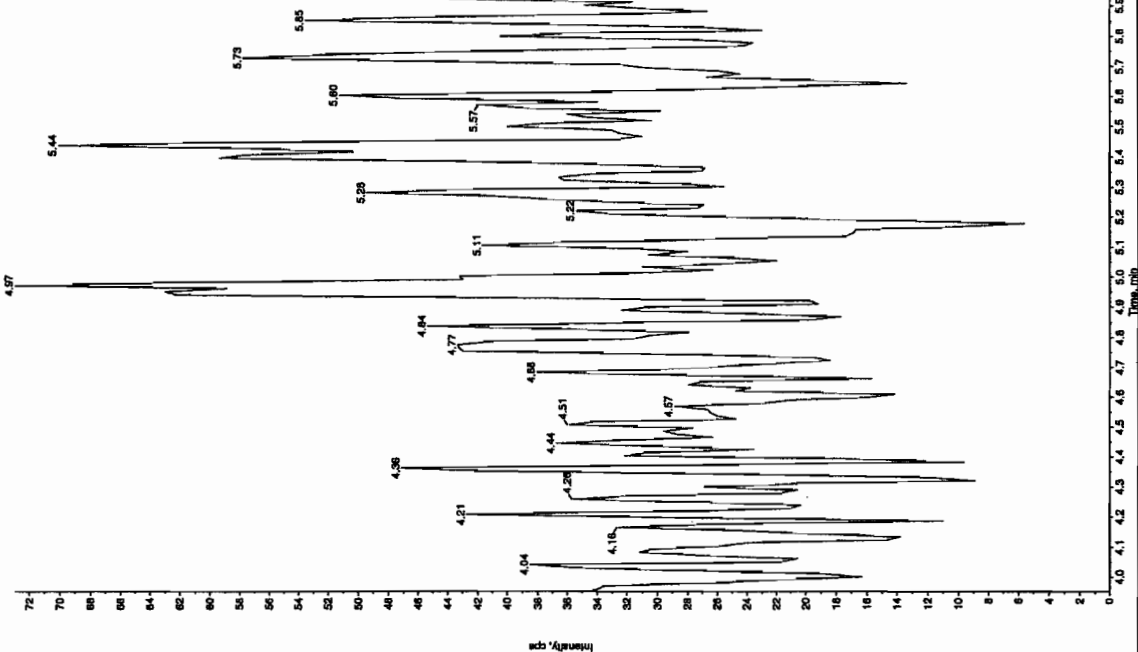
Acq. Time: 7:30:29 AM

Modified: No

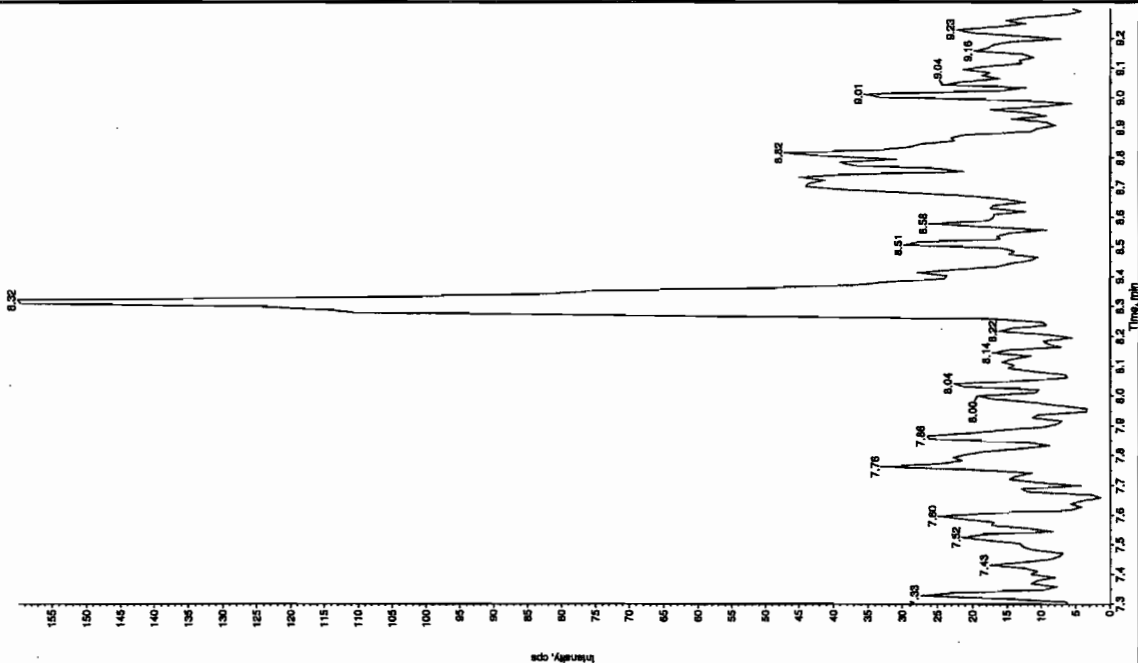


Jan 4/12/10

Sample Name: "XIBLK01" Sample ID: "11LER" File: "EX04080002.wif"  
 Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "168.046.0 amu"  
 Comment: "LCMSEXP\_3" Annotation: "1"  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 7:30:29 AM  
 Modified: No

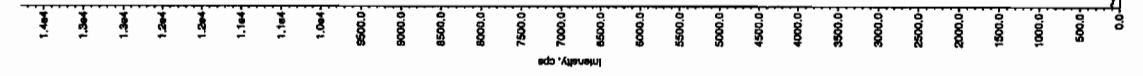


Sample Name: "XIBLK01" Sample ID: "11LER" File: "EX04080002.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1151.9 amu"  
 Comment: "LCMSEXP\_3" Annotation: "1"  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 7:30:29 AM  
 Modified: No



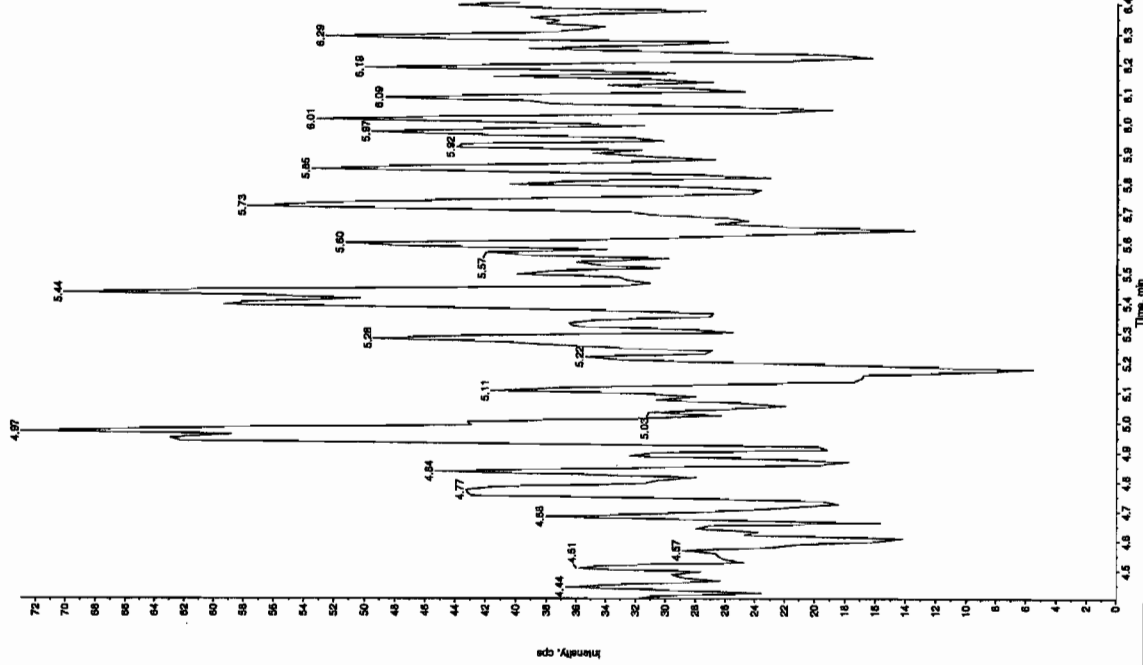
Sample Name: "XIBLK01" Sample ID: "1111ER" File: "EXS04090002.wif"  
 Peak Name: "bis(o-cresyl) phosphine" Mass(es): "369.181.0 amu"

Comment: "LCMS-EXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 1.56 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 7:30:29 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 5.40e+004 counts  
 Height: 13667.690 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



Sample Name: "XIBLK01" Sample ID: "1111ER" File: "EXS04090002.wif"  
 Peak Name: "24-Dinitro-6-nitrotoluene" Mass(es): "160.046.0 amu"

Comment: "LCMS-EXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 7:30:29 AM  
 Modified: No



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 15-APR-10 13:35

GEL Data File: EXP0415009.wiff

Instrument ID: LCMSMS

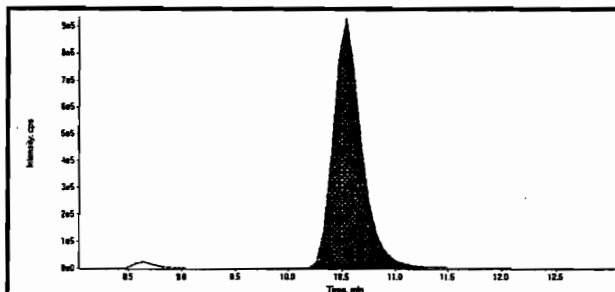
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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

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GEL SOP GL-OA-E-056, Method 8321A-Modified

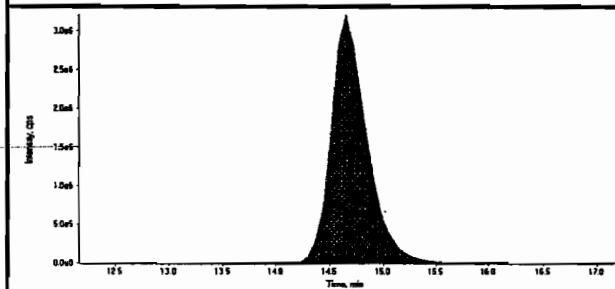
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415009.wiff	Acquisition Date	4/15/2010 1:35:02 PM
Sample Name	XIBLK02	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



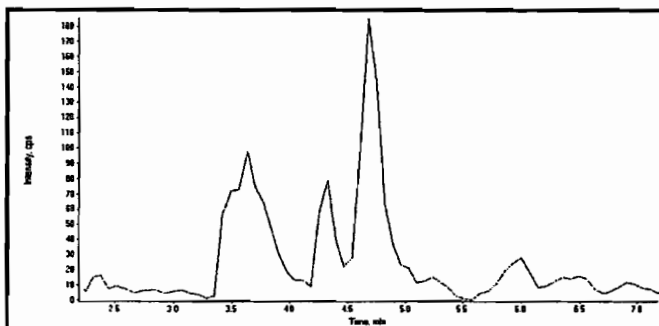
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	17200000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

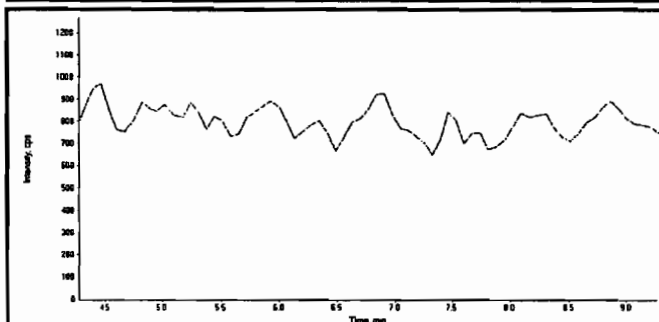


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.60
Area Counts:	75000000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten signatures and dates:*  
HMC 04/23/10  
LER 4/23/10



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415009.wiff	<b>Acquisition Date</b>	4/15/2010 1:35:02 PM
<b>Sample Name</b>	XIBLK02	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

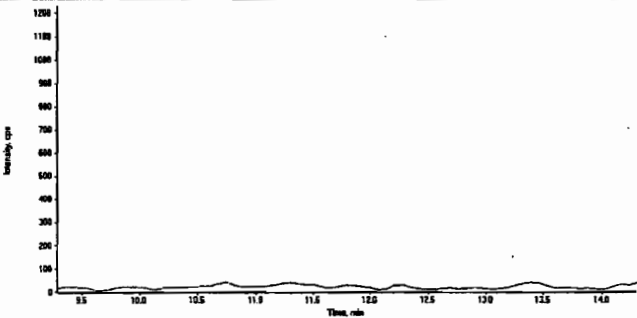
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	7.76e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

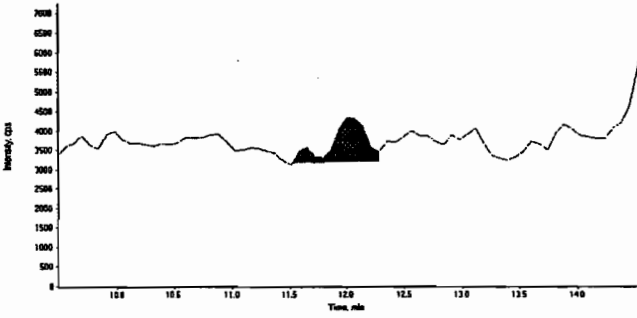
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415009.wiff	<b>Acquisition Date</b>	4/15/2010 1:35:02 PM
<b>Sample Name</b>	XIBLK02	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

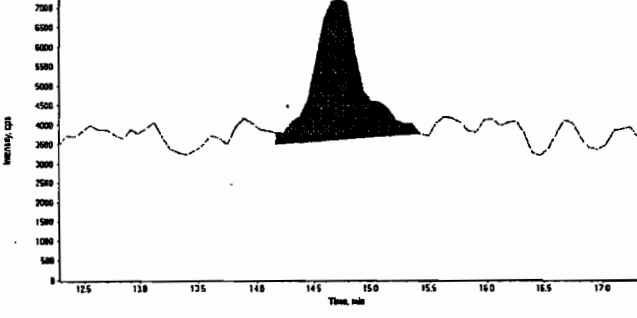
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

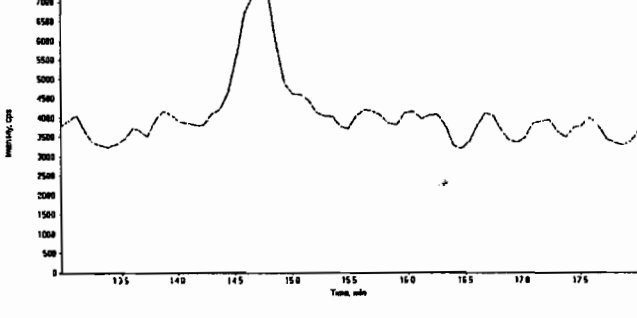
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.0
	<b>Area Counts:</b>	2.48e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.7
	<b>Area Counts:</b>	1.08e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415009.wiff	<b>Acquisition Date</b>	4/15/2010 1:35:02 PM
<b>Sample Name</b>	XIBLK02	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.1
	<b>Area Counts:</b>	1.11e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

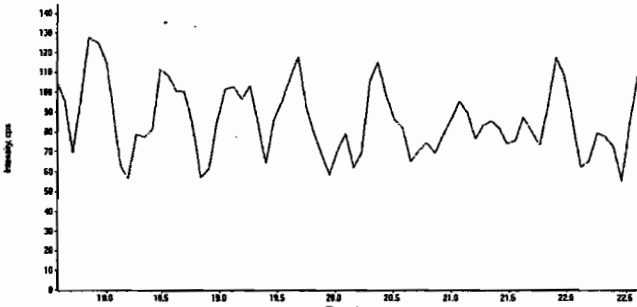
  

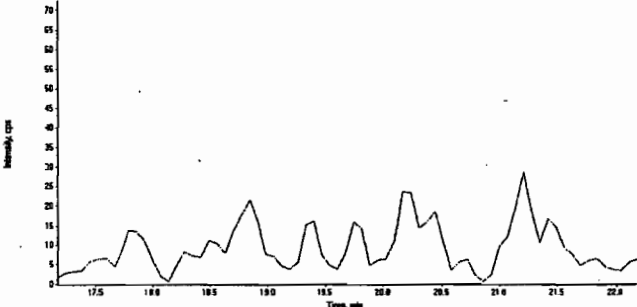
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415009.wiff	Acquisition Date	4/15/2010 1:35:02 PM
Sample Name	XIBLK02	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER.	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 15-APR-10 14:27

GEL Data File: EXP0415011.wiff

Instrument ID: LCMSMS

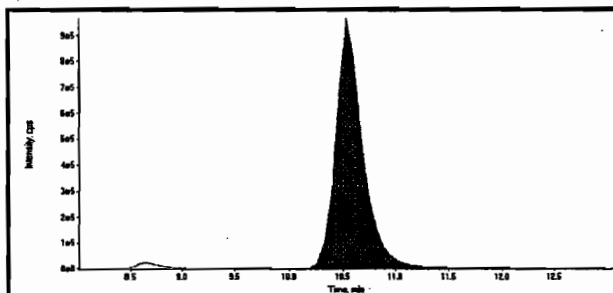
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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	4.37
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

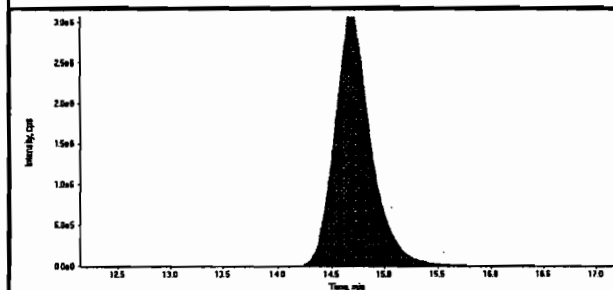
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

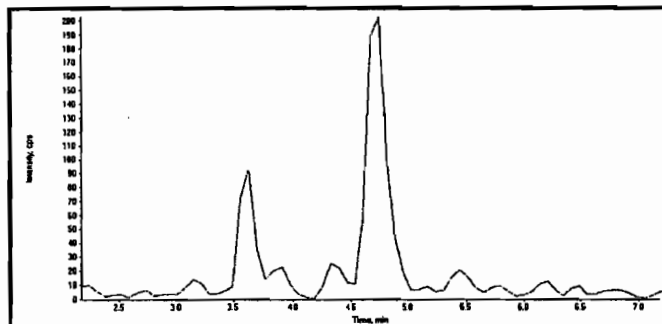
Data File	EXP0415011.wiff	Acquisition Date	4/15/2010 2:27:07 PM
Sample Name	XIBLK03	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



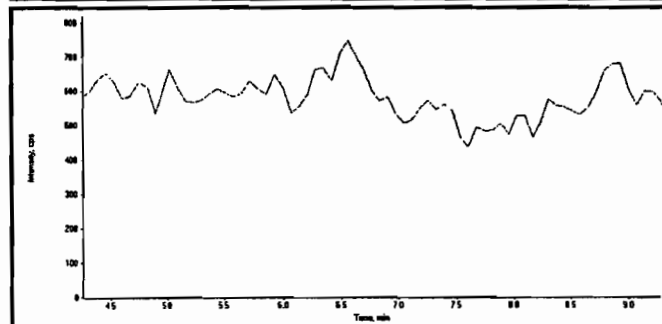
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	17200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.60
Area Counts:	74900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415011.wiff	<b>Acquisition Date</b>	4/15/2010 2:27:07 PM
<b>Sample Name</b>	XIBLK03	<b>Acquisition Method</b>	8321.dam
<b>Batch/Dilution/Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	9.00
	<b>Area Counts:</b>	1.86e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.6
	<b>Area Counts:</b>	2.36e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	4.37 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.1
	<b>Area Counts:</b>	5.58e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415011.wiff	<b>Acquisition Date</b>	4/15/2010 2:27:07 PM
<b>Sample Name</b>	XIBLK03	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.7
	<b>Area Counts:</b>	1.16e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415011.wiff	<b>Acquisition Date</b>	4/15/2010 2:27:07 PM
<b>Sample Name</b>	XIBLK03	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.1
	<b>Area Counts:</b>	1.23e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

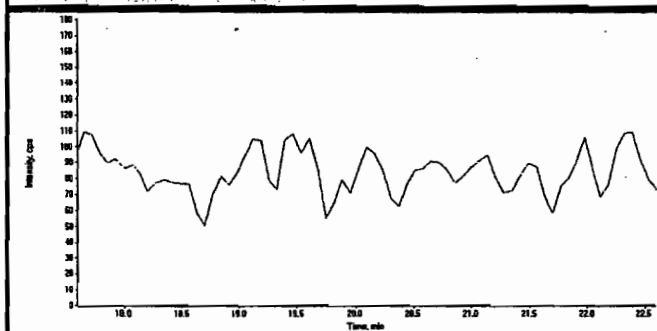
  

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

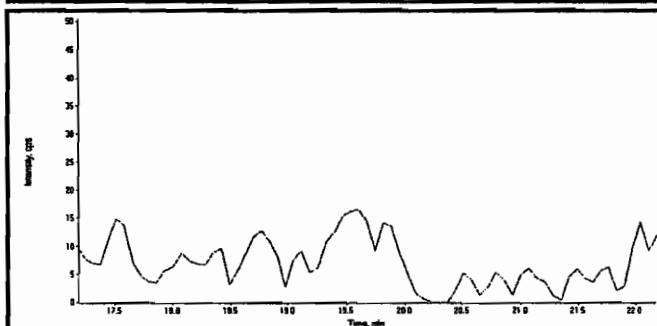
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415011.wiff	Acquisition Date	4/15/2010 2:27:07 PM
Sample Name	XIBLK03	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 15-APR-10 16:10

GEL Data File: EXP0415015.wiff

Instrument ID: LCMSMS

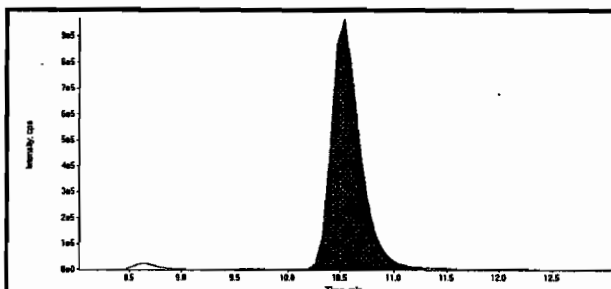
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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	4.34
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

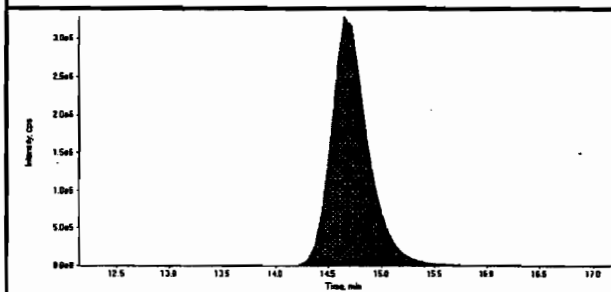
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

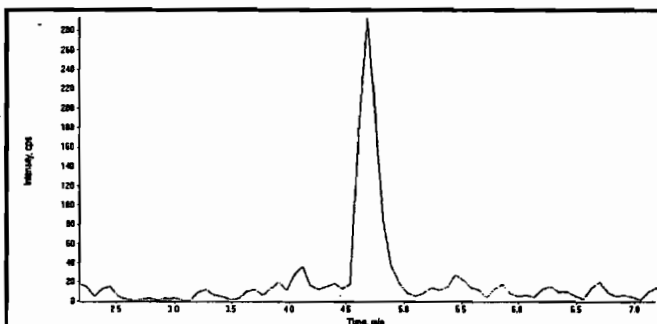
Data File	EXP0415015.wiff	Acquisition Date	4/15/2010 4:10:55 PM
Sample Name	XIBLK04	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



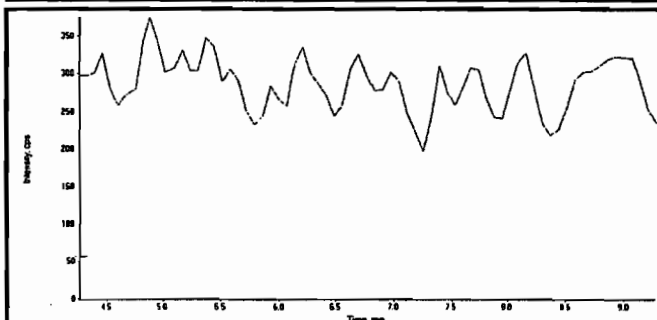
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	18200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.60
Area Counts:	79300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415015.wiff	<b>Acquisition Date</b>	4/15/2010 4:10:55 PM
<b>Sample Name</b>	XIBLK04	<b>Acquisition Method</b>	8321.dam
<b>Batch/Dilution/Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.6
	<b>Area Counts:</b>	2.11e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	4.34 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

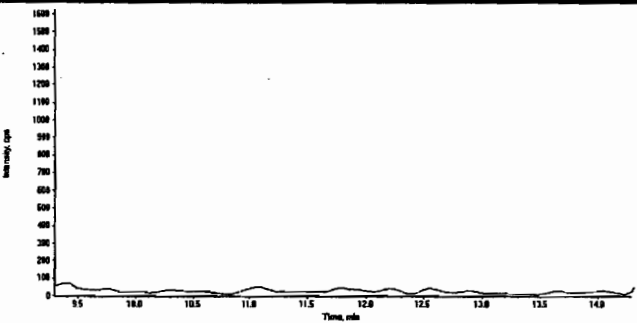
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.1
	<b>Area Counts:</b>	2.79e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

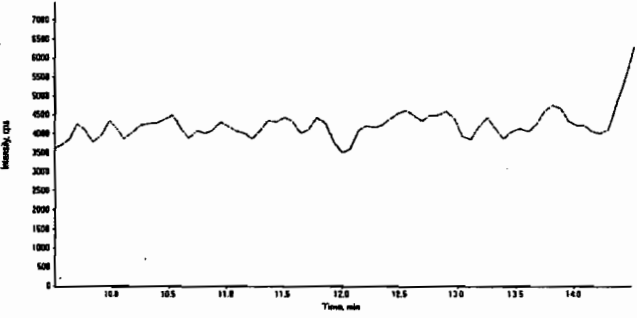
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415015.wiff	<b>Acquisition Date</b>	4/15/2010 4:10:55 PM
<b>Sample Name</b>	XIBLK04	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

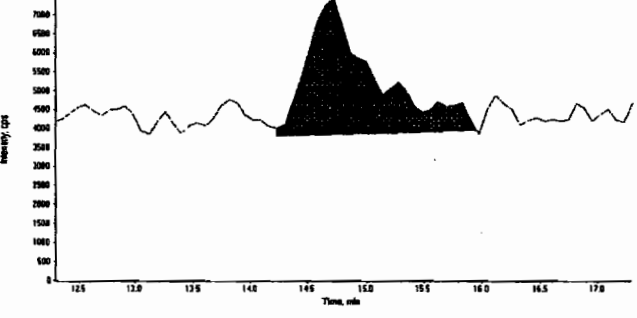
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

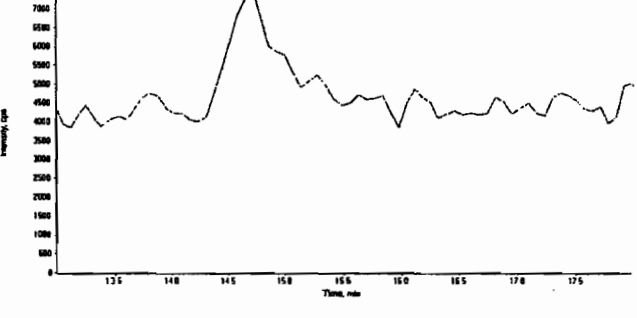
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.7
	Area Counts:	1.49e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415015.wiff	<b>Acquisition Date</b>	4/15/2010 4:10:55 PM
<b>Sample Name</b>	XIBLK04	<b>Acquisition Method</b>	8321.dam
<b>Batch/Dilution/Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	6.69e+003
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

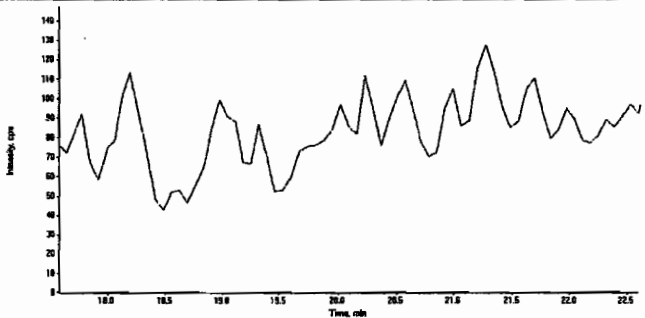
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

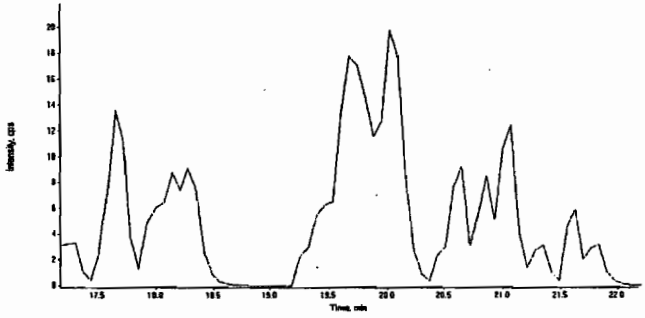
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415015.wiff	<b>Acquisition Date</b>	4/15/2010 4:10:55 PM
<b>Sample Name</b>	XIBLK04	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 15-APR-10 17:02

GEL Data File: EXP0415017.wiff

Instrument ID: LCMSMS

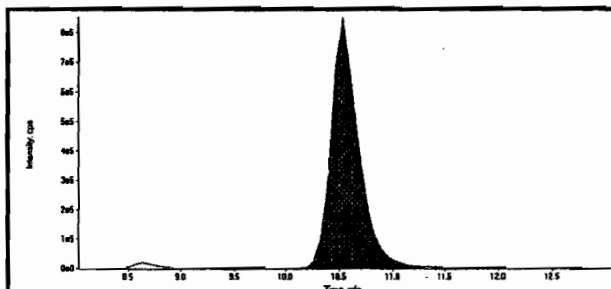
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

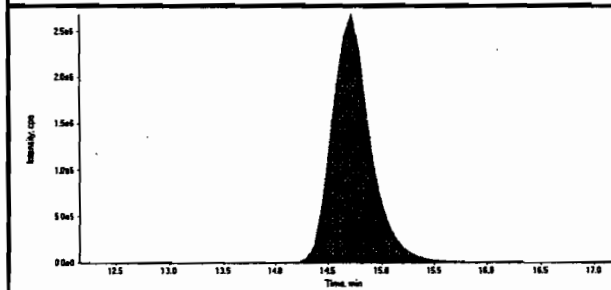
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415017.wiff	Acquisition Date	4/15/2010 5:02:43 PM
Sample Name	XIBLK05	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



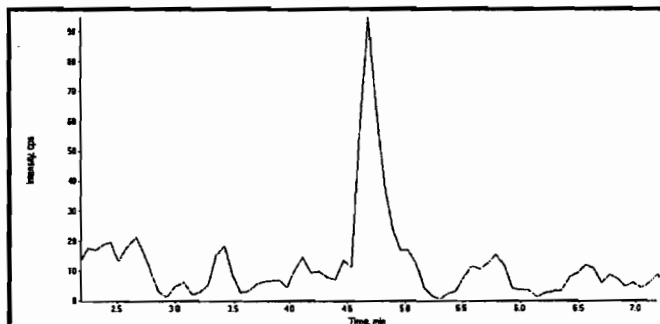
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	15200000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

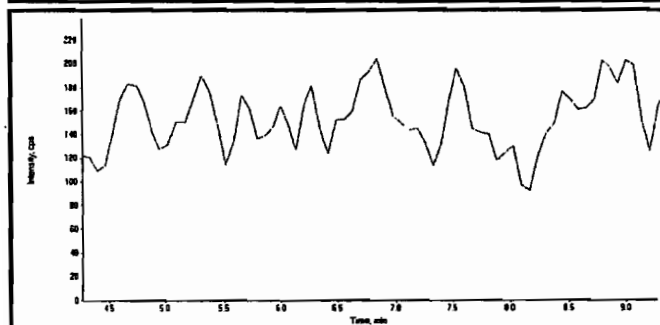


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	66500000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten:* Hmx 04/23/10 Lar 4/23/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415017.wiff	<b>Acquisition Date</b>	4/15/2010 5:02:43 PM
<b>Sample Name</b>	XIBLK05	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

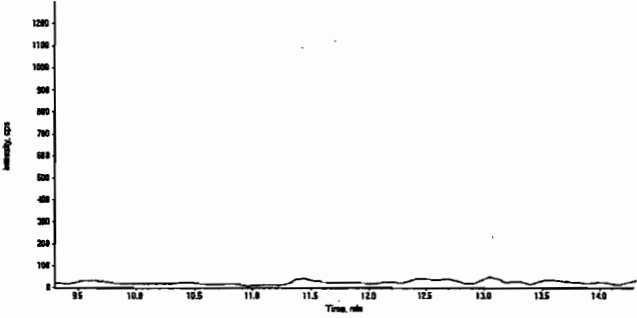
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

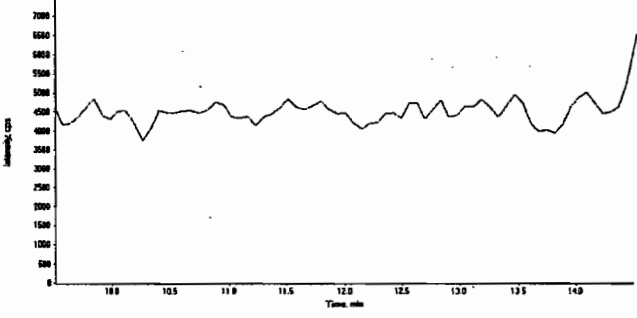
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415017.wiff	<b>Acquisition Date</b>	4/15/2010 5:02:43 PM
<b>Sample Name</b>	XIBLK05	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

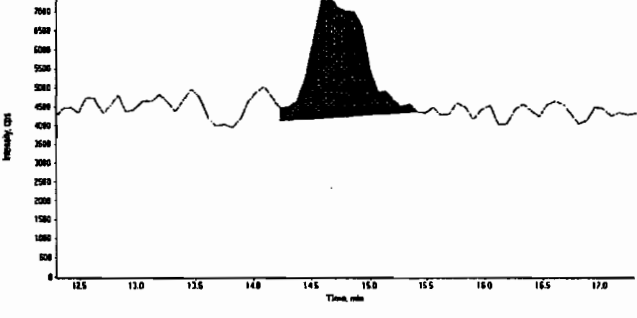
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

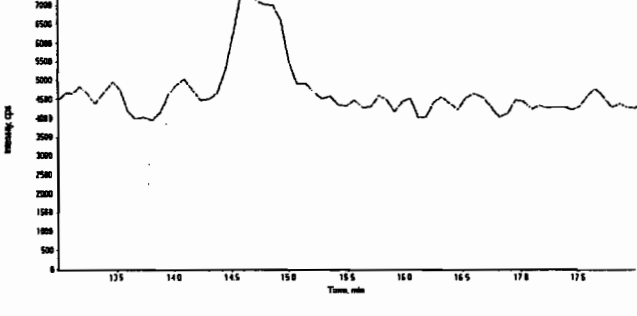
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.6
	<b>Area Counts:</b>	1.04e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415017.wiff	<b>Acquisition Date</b>	4/15/2010 5:02:43 PM
<b>Sample Name</b>	XIBLK05	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415017.wiff	<b>Acquisition Date</b>	4/15/2010 5:02:43 PM
<b>Sample Name</b>	XIBLK05	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 15-APR-10 17:54

GEL Data File: EXP0415019.wiff

Instrument ID: LCMSMS

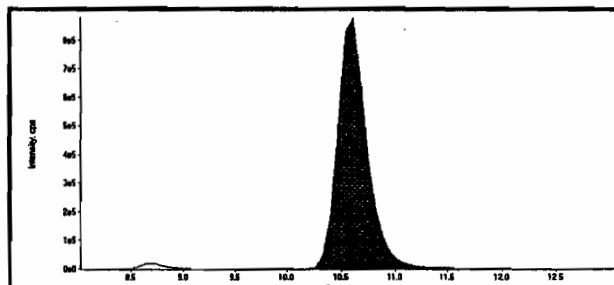
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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	4.35
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

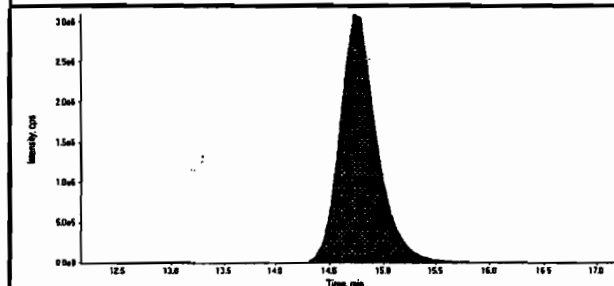
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

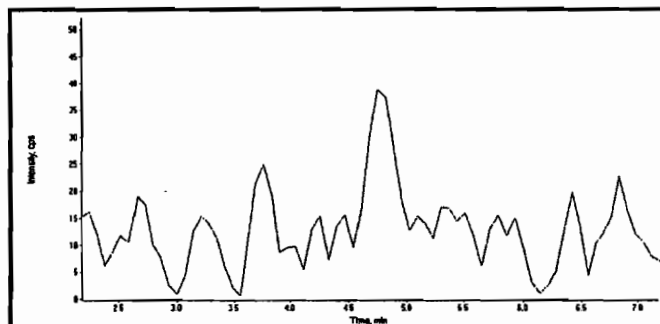
Data File	EXP0415019.wiff	Acquisition Date	4/15/2010 5:54:33 PM
Sample Name	XIBLK06	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



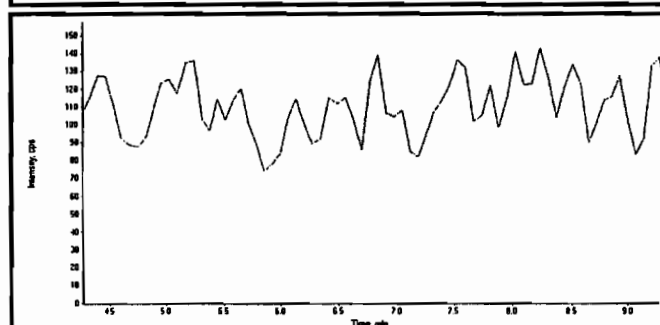
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	16700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	75000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten signature: HMX 04/23/10 LER 4/23/10*



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415019.wiff	<b>Acquisition Date</b>	4/15/2010 5:54:33 PM
<b>Sample Name</b>	XIBLK06	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.6
	Area Counts:	2.08e+004
	Manual Modification	No
	Amount:	4.35 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

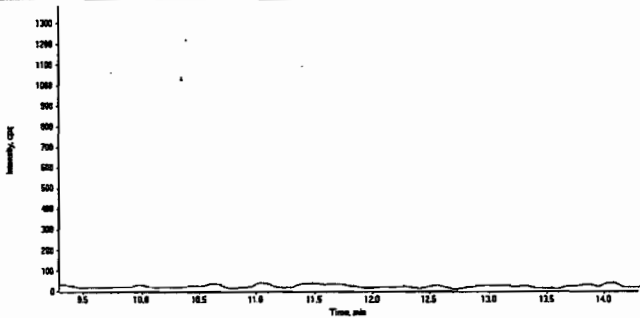
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

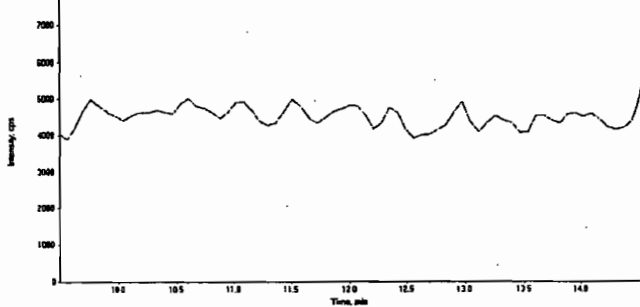
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415019.wiff	Acquisition Date	4/15/2010 5:54:33 PM
Sample Name	XIBLK06	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

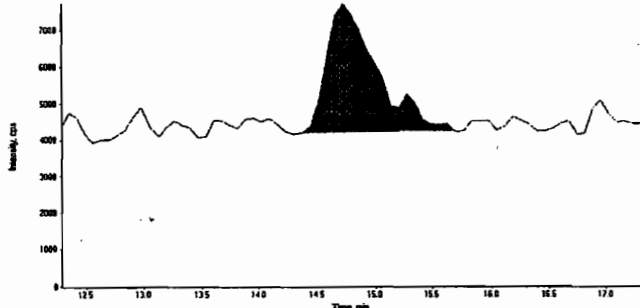
  

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

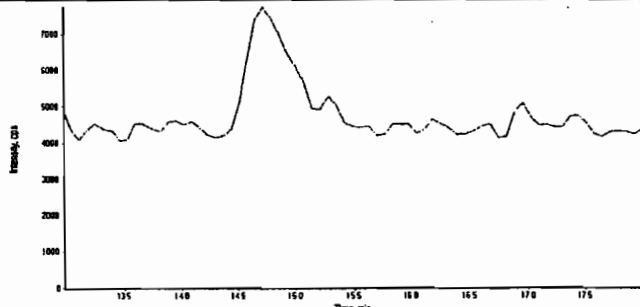
  

	Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.7
	Area Counts:	1.07e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415019.wiff	<b>Acquisition Date</b>	4/15/2010 5:54:33 PM
<b>Sample Name</b>	XIBLK06	<b>Acquisition Method</b>	8321.dam
<b>Batch/Dilution/Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

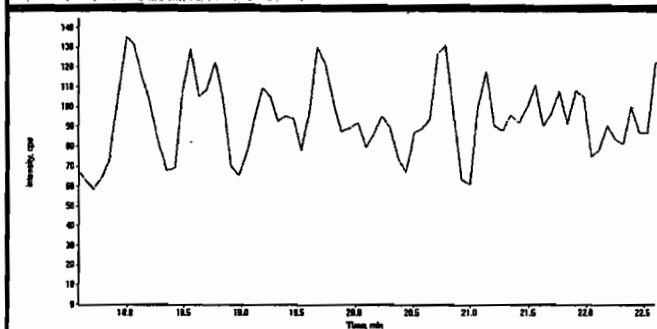
  

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

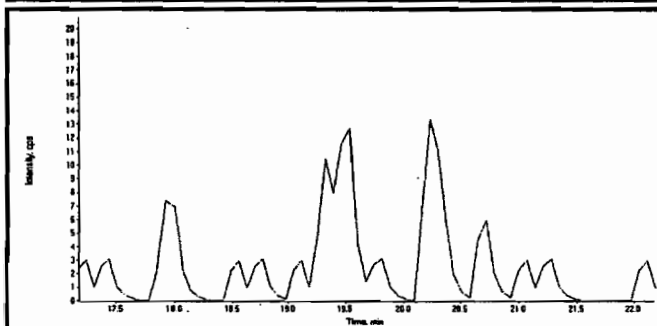
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415019.wiff	Acquisition Date	4/15/2010 5:54:33 PM
Sample Name	XIBLK06	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 15-APR-10 18:46

GEL Data File: EXP0415021.wiff

Instrument ID: LCMSMS

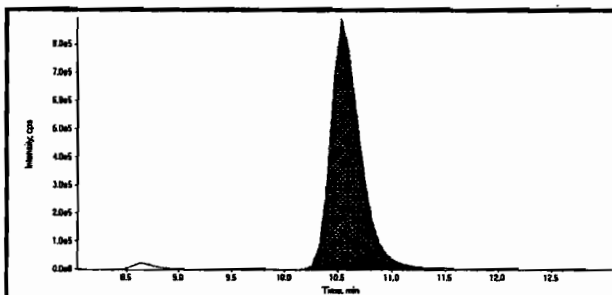
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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

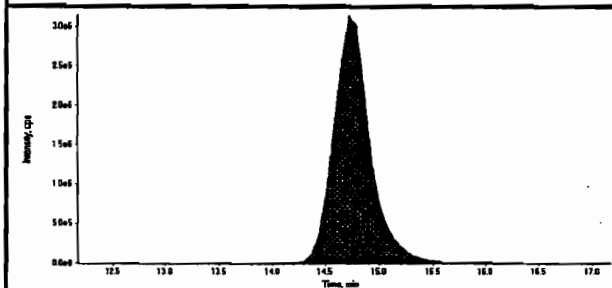
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

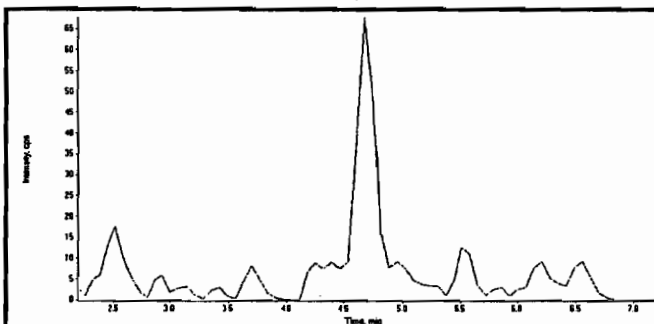
Data File	EXP0415021.wiff	Acquisition Date	4/15/2010 6:46:25 PM
Sample Name	XIBLK07	Acquisition Method	8321.dam
Batch/Dilution/Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



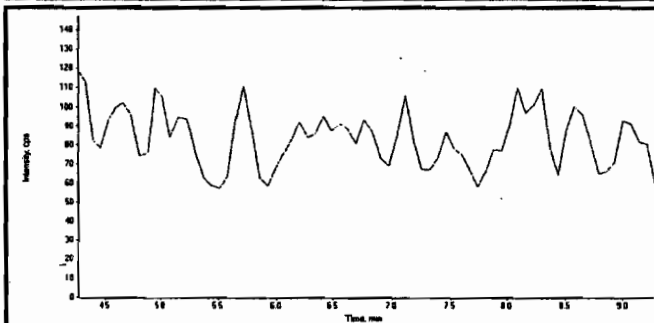
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	17100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	74400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten signature:* HMX 04/23/10  
RDX 4/23/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415021.wiff	<b>Acquisition Date</b>	4/15/2010 6:46:25 PM
<b>Sample Name</b>	XIBLK07	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

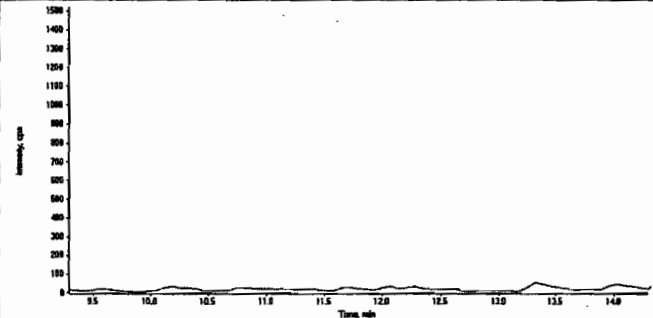
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

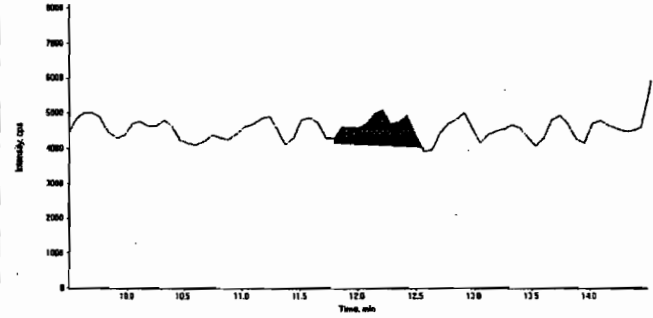
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LCMSMS#3

Data File	EXP0415021.wiff	Acquisition Date	4/15/2010 6:46:25 PM
Sample Name	XIBLK07	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

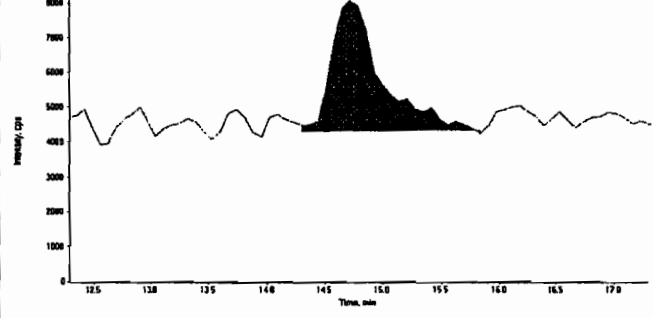
  

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

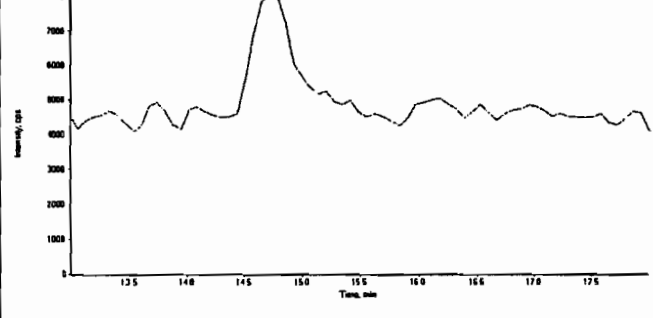
  

	Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.2
	Area Counts:	2.76e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.7
	Area Counts:	1.14e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415021.wiff	<b>Acquisition Date</b>	4/15/2010 6:46:25 PM
<b>Sample Name</b>	XIBLK07	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

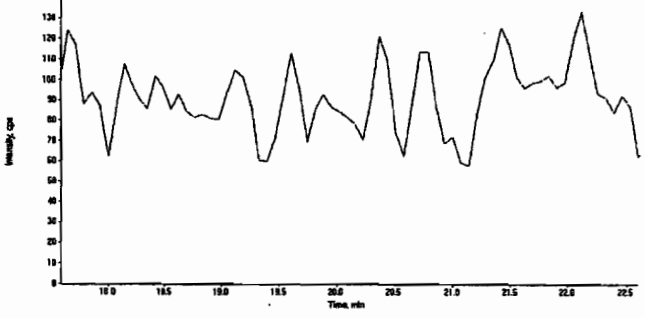
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

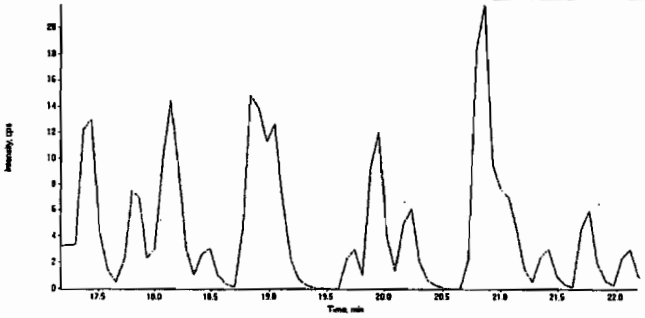
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LCMSMS#3

<b>Data File</b>	EXP0415021.wiff	<b>Acquisition Date</b>	4/15/2010 6:46:25 PM
<b>Sample Name</b>	XIBLK07	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 15-APR-10 20:04

GEL Data File: EXP0415024.wiff

Instrument ID: LCMSMS

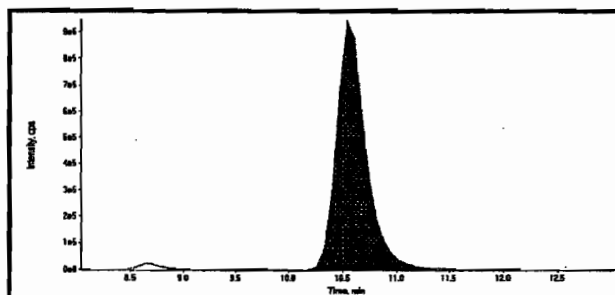
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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	4.38
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

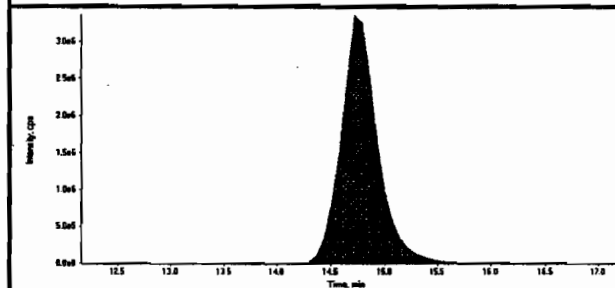
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

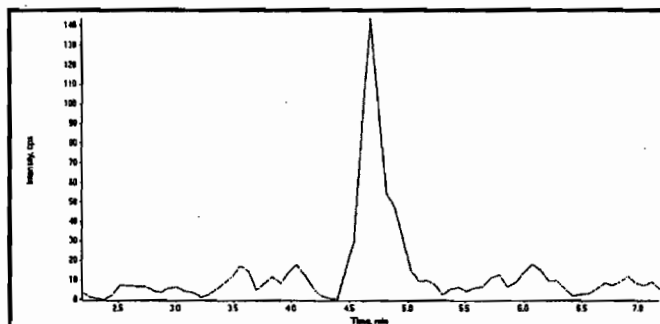
Data File	EXP0415024.wiff	Acquisition Date	4/15/2010 8:04:18 PM
Sample Name	XIBLK08	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



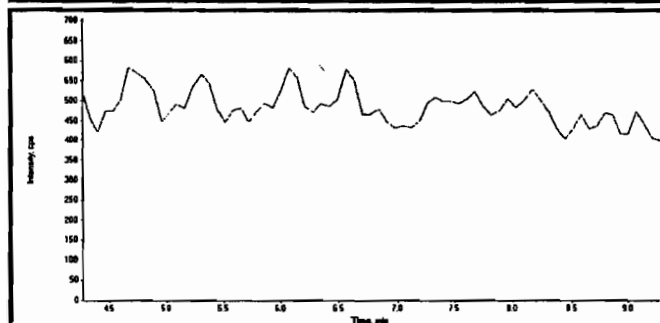
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	17900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	78900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4/15/2010  
4/15/2010

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415024.wiff	<b>Acquisition Date</b>	4/15/2010 8:04:18 PM
<b>Sample Name</b>	XIBLK08	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.6
	Area Counts:	2.58e+004
	Manual Modification	No
	Amount:	4.38 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

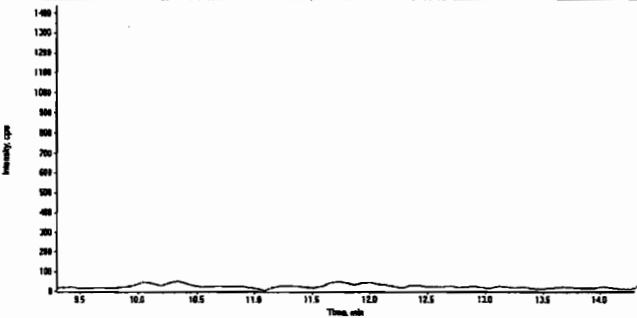
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	2.92e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

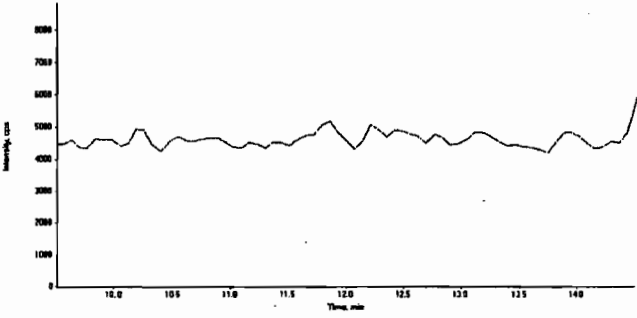
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415024.wiff	<b>Acquisition Date</b>	4/15/2010 8:04:18 PM
<b>Sample Name</b>	XIBLK08	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

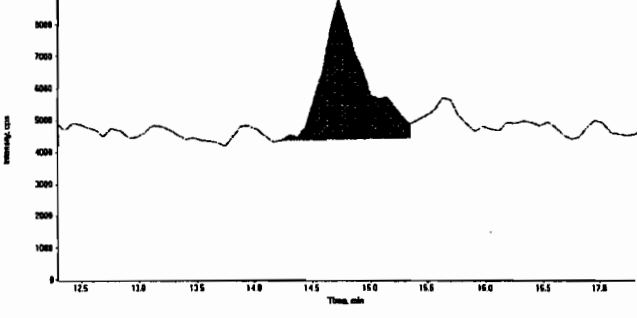
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

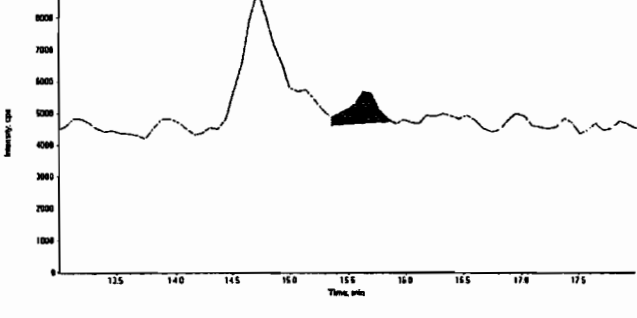
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.7
	Area Counts:	1.12e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

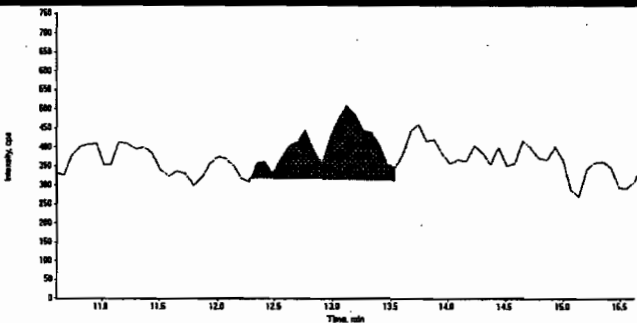
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.6
	Area Counts:	1.80e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

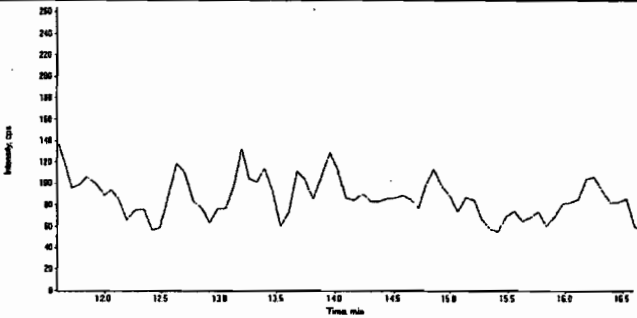
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LCMSMS#3

<b>Data File</b>	EXP0415024.wiff	<b>Acquisition Date</b>	4/15/2010 8:04:18 PM
<b>Sample Name</b>	XIBLK08	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

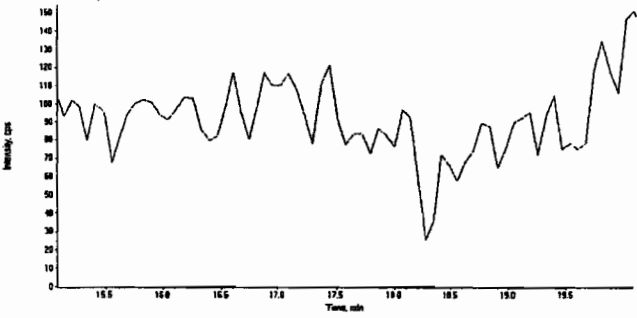
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	6.87e+003
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

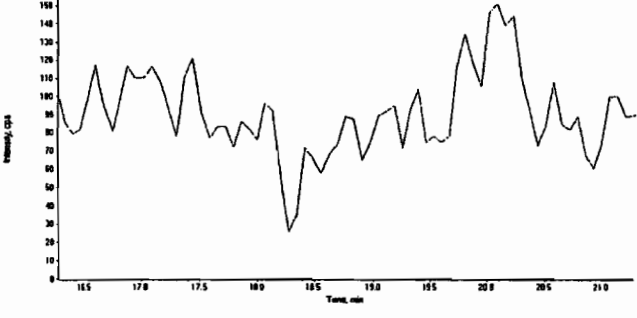
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

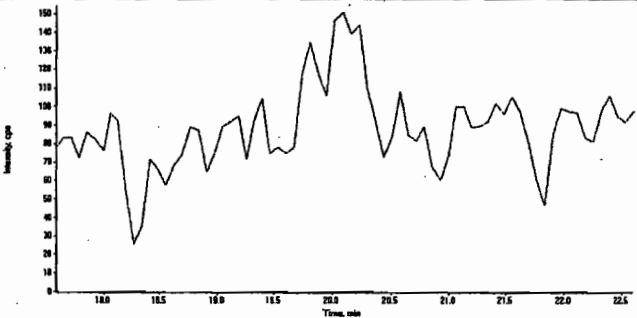
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

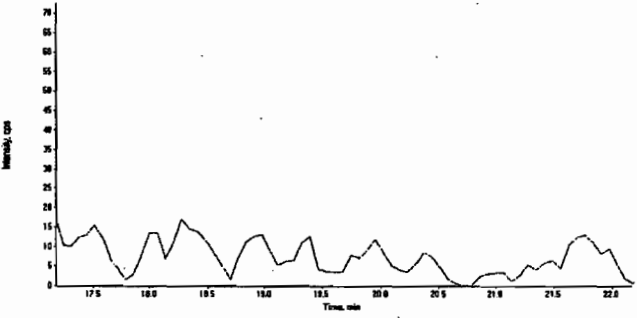
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LCMSMS#3

<b>Data File</b>	EXP0415024.wiff	<b>Acquisition Date</b>	4/15/2010 8:04:18 PM
<b>Sample Name</b>	XIBLK08	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 15-APR-10 23:05

GEL Data File: EXP0415031.wiff

Instrument ID: LCMSMS

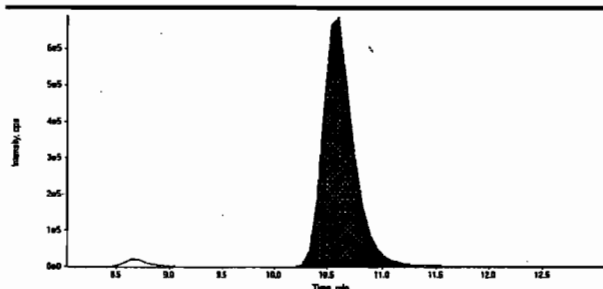
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

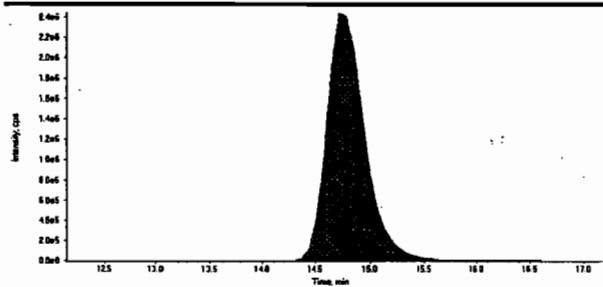
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LCMSMS#3

Data File	EXP0415031.wiff	Acquisition Date	4/15/2010 11:05:36 PM
Sample Name	XIBLK09	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



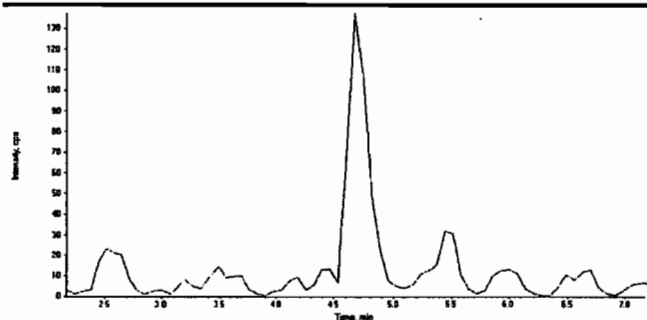
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	13600000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

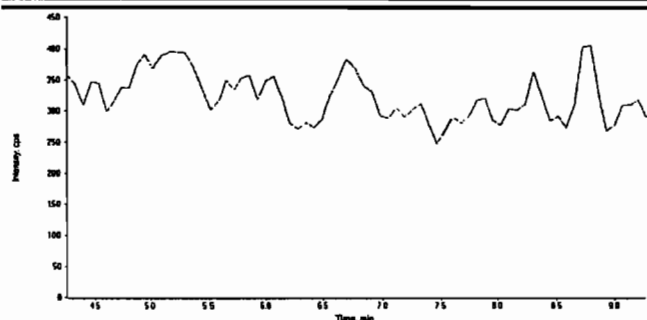


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	59500000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



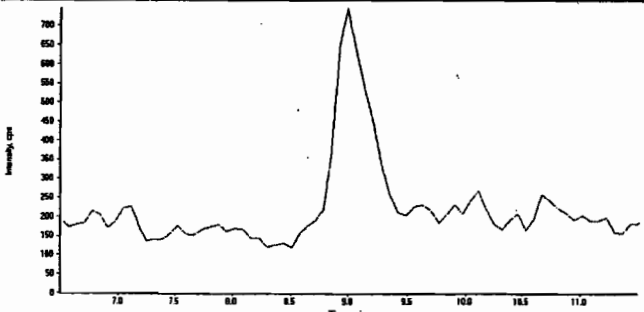
Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

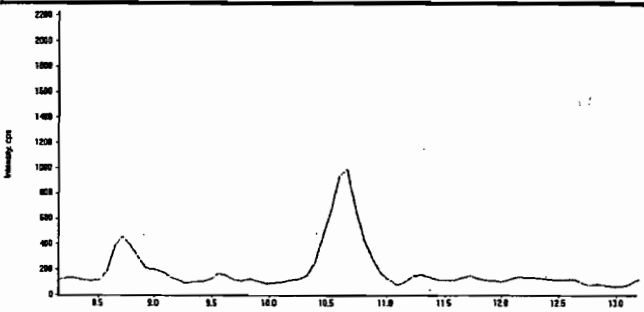
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4/15/2010  
Jae  
4/15/2010

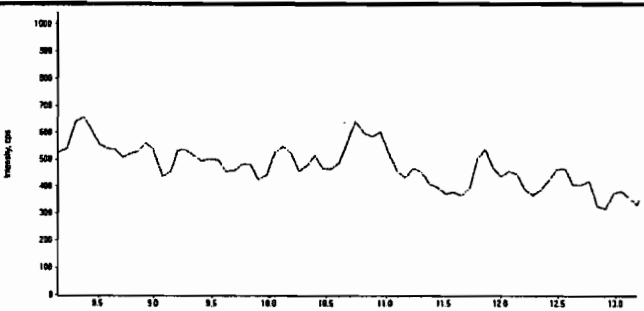
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

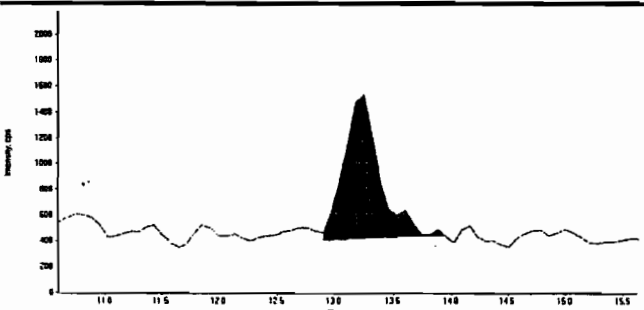
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415031.wiff	Acquisition Date	4/15/2010 11:05:36 PM
Sample Name	XIBLK09	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

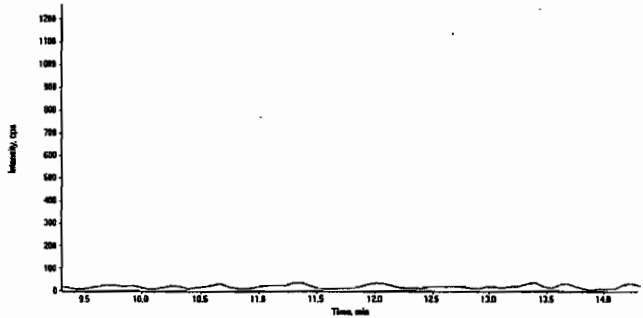
	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	13.3
	Area Counts:	2.37e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

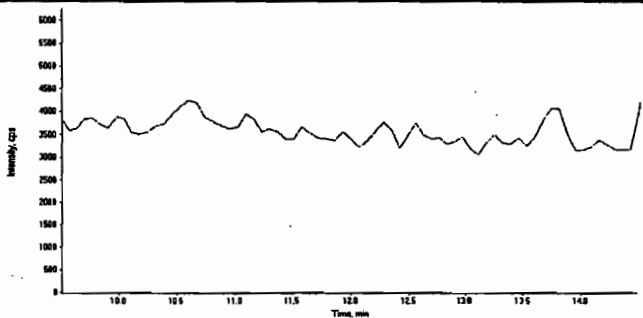
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415031.wiff	Acquisition Date	4/15/2010 11:05:36 PM
Sample Name	XIBLK09	Acquisition Method	8321.dam
Batch/Dilution/Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

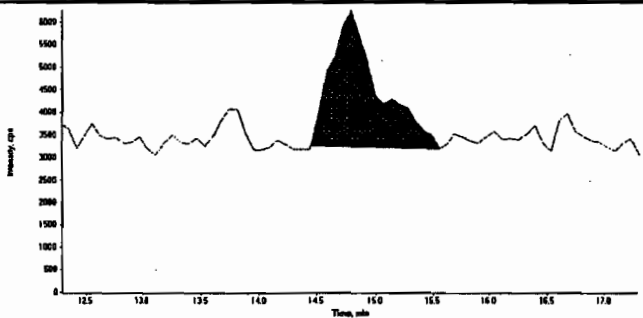
  

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

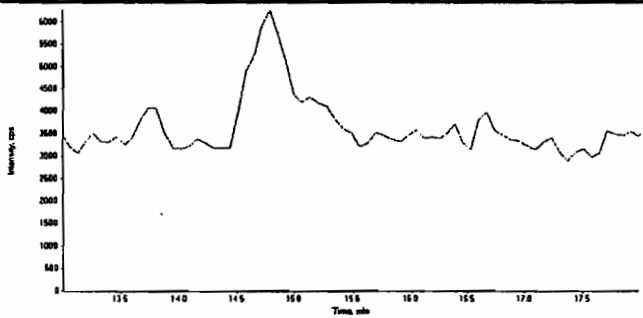
  

	Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.8
	Area Counts:	8.79e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

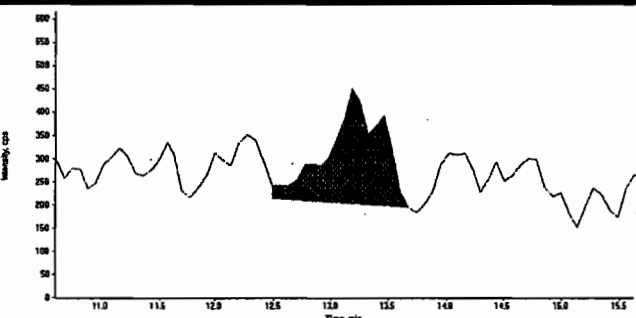
	Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

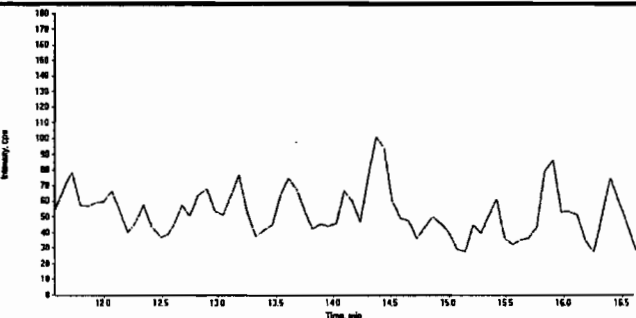
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415031.wiff	Acquisition Date	4/15/2010 11:05:36 PM
Sample Name	XIBLK09	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

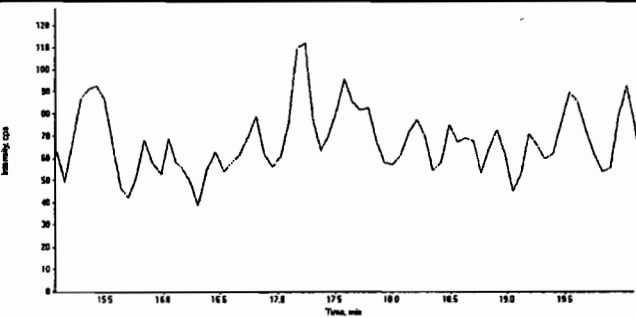
  

	Compound Name:	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	8.08e+003
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

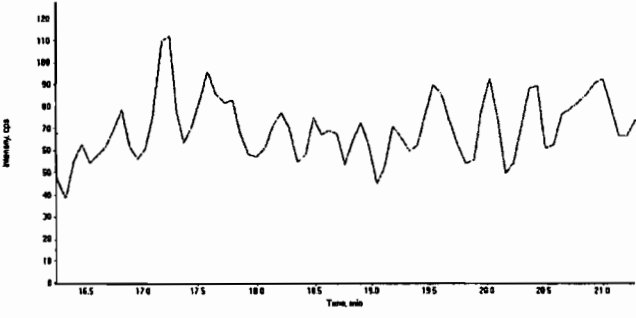
  

	Compound Name:	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

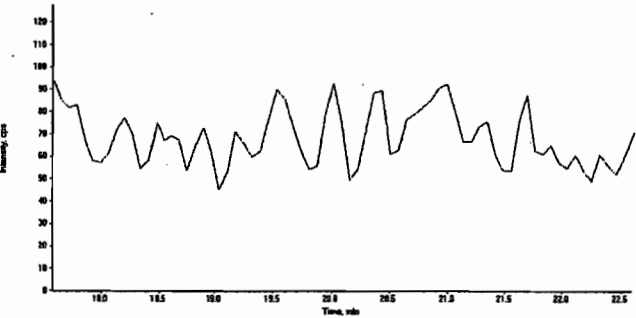
  

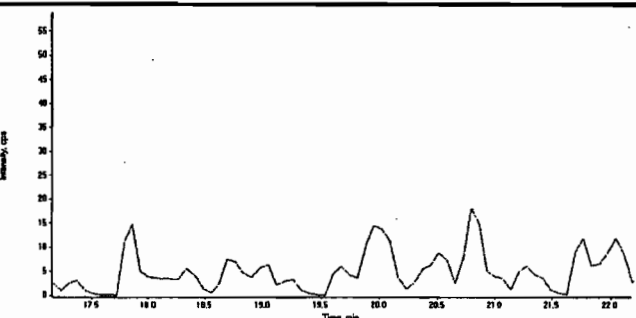
	Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415031.wiff	Acquisition Date	4/15/2010 11:05:36 PM
Sample Name	XIBLK09	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

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Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 16-APR-10 04:43

GEL Data File: EXP0415044.wiff

Instrument ID: LCMSMS

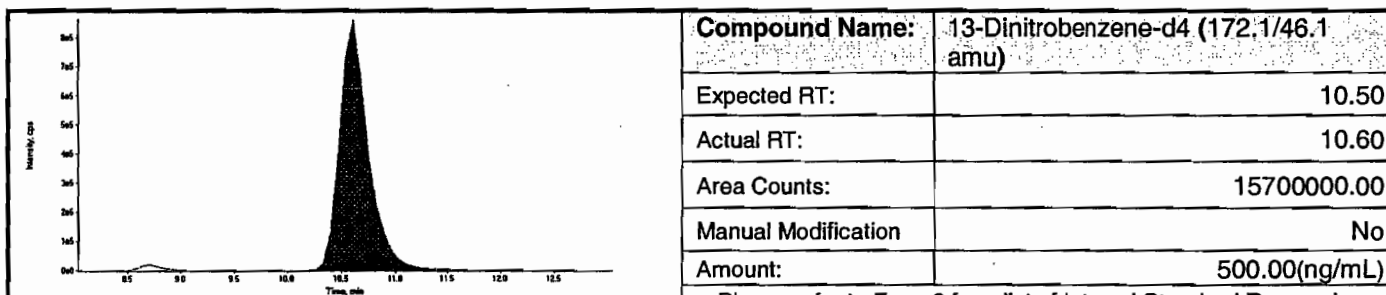
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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	4.4
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

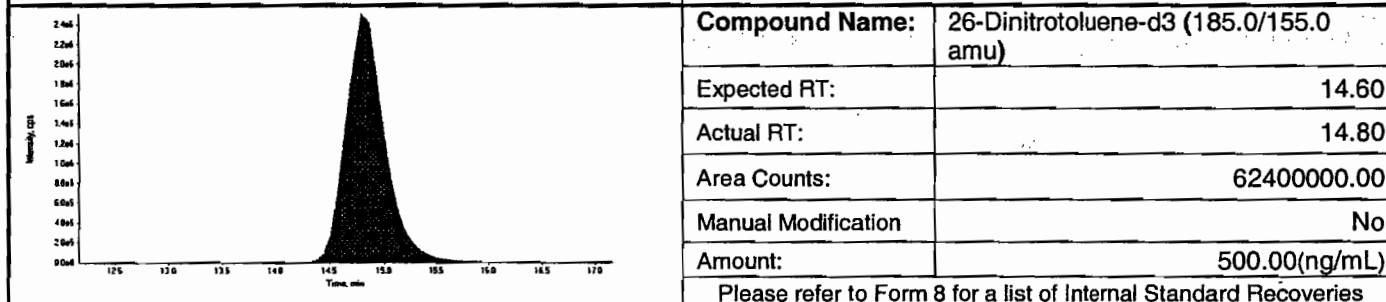
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

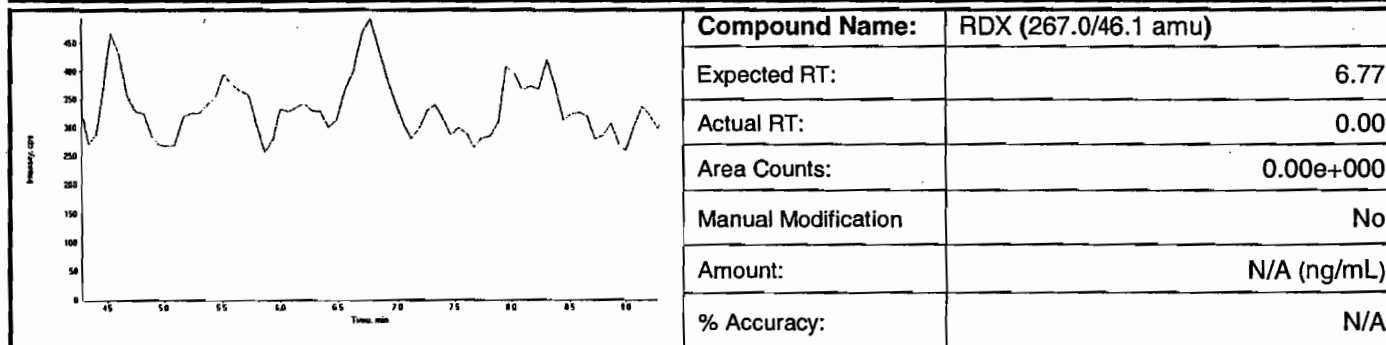
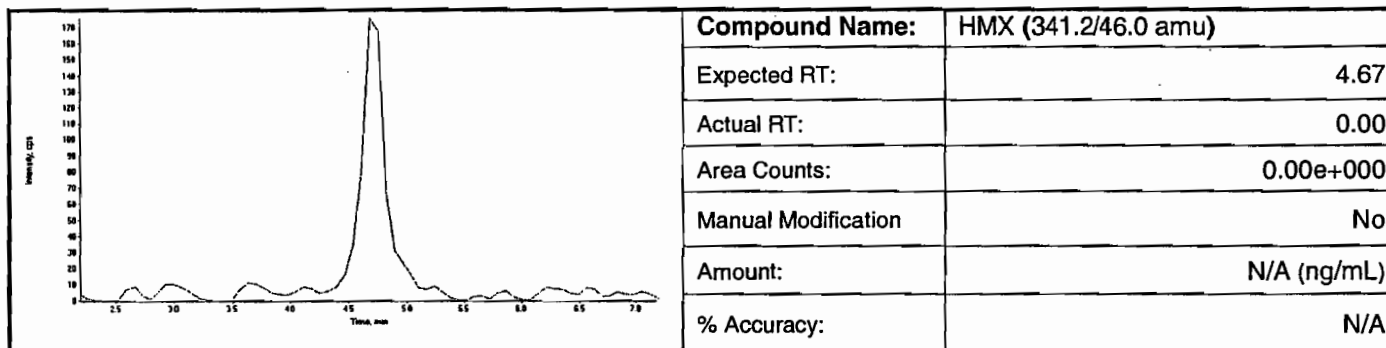
Data File	EXP0415044.wiff	Acquisition Date	4/16/2010 4:43:22 AM
Sample Name	XIBLK10	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



Please refer to Form 8 for a list of Internal Standard Recoveries



Please refer to Form 8 for a list of Internal Standard Recoveries



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4/16/2010  
LER  
4/23/10



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415044.wiff	<b>Acquisition Date</b>	4/16/2010 4:43:22 AM
<b>Sample Name</b>	XIBLK10	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.6
	<b>Area Counts:</b>	2.46e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	4.40 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

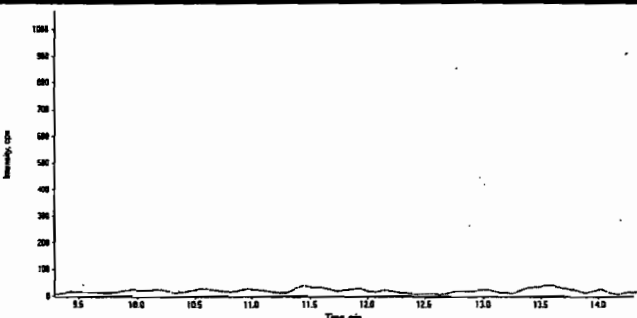
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	3.19e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

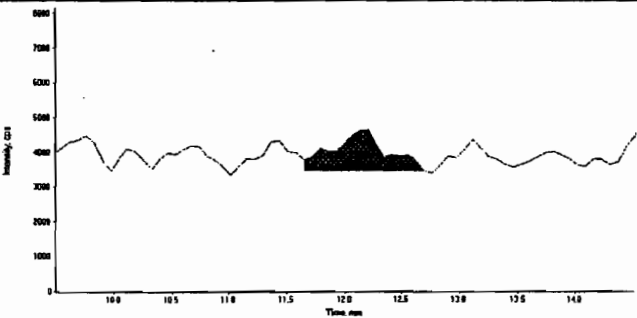
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415044.wiff	Acquisition Date	4/16/2010 4:43:22 AM
Sample Name	XIBLK10	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

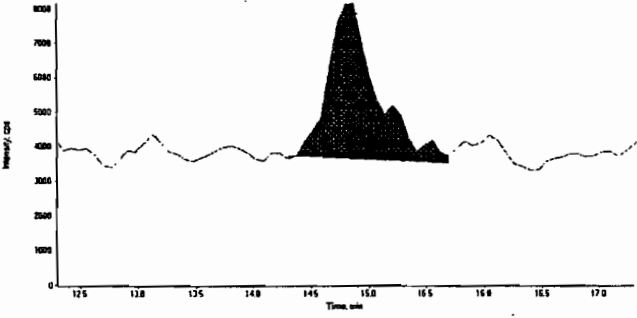
  

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

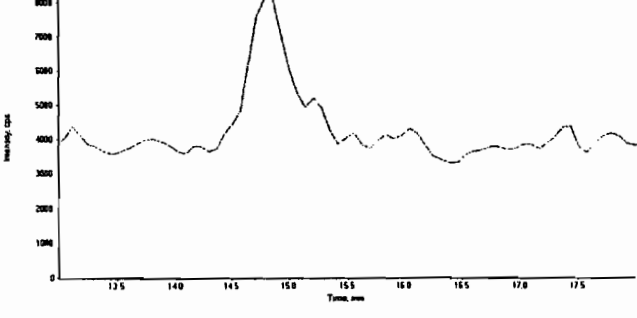
  

	Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.2
	Area Counts:	4.12e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.9
	Area Counts:	1.36e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415044.wiff	<b>Acquisition Date</b>	4/16/2010 4:43:22 AM
<b>Sample Name</b>	XIBLK10	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	6.06e+003
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415044.wiff	Acquisition Date	4/16/2010 4:43:22 AM
Sample Name	XIBLK10	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 16-APR-10 10:20

GEL Data File: EXP0415057.wiff

Instrument ID: LCMSMS

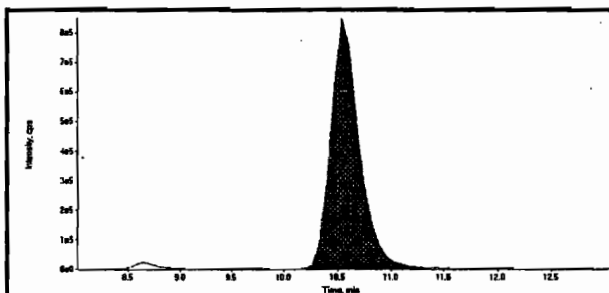
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Tetryl	0	0
m-Dinitrobenzene	0	4.4
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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

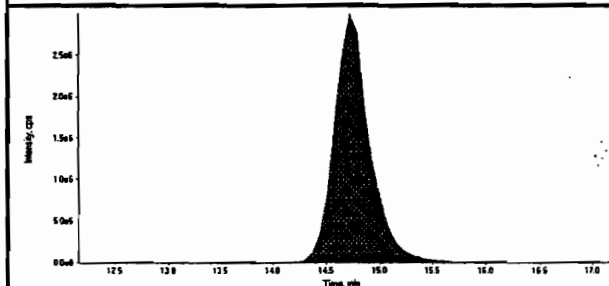
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

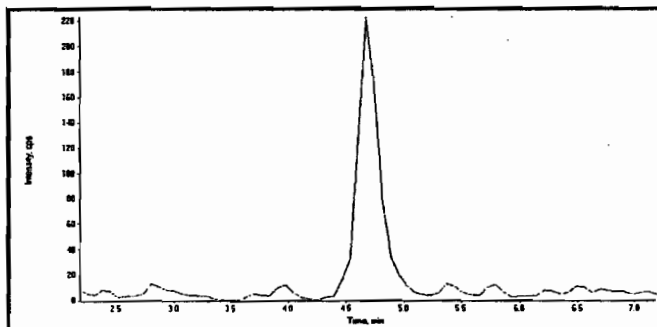
Data File	EXP0415057.wiff	Acquisition Date	4/16/2010 10:20:56 AM
Sample Name	XIBLK11	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



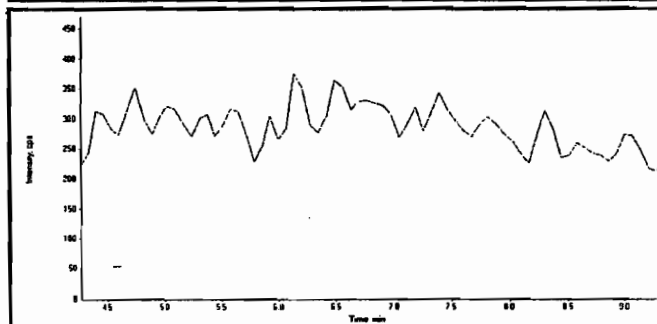
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	15800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	69200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten signature and date: 4/23/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415057.wiff	<b>Acquisition Date</b>	4/16/2010 10:20:56 AM
<b>Sample Name</b>	XIBLK11	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.6
	<b>Area Counts:</b>	2.47e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	4.40 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

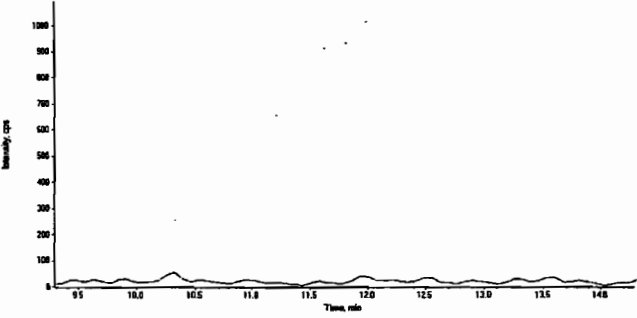
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	3.48e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

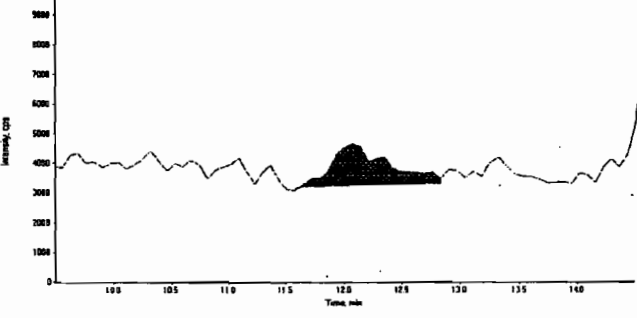
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415057.wiff	<b>Acquisition Date</b>	4/16/2010 10:20:56 AM
<b>Sample Name</b>	XIBLK11	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

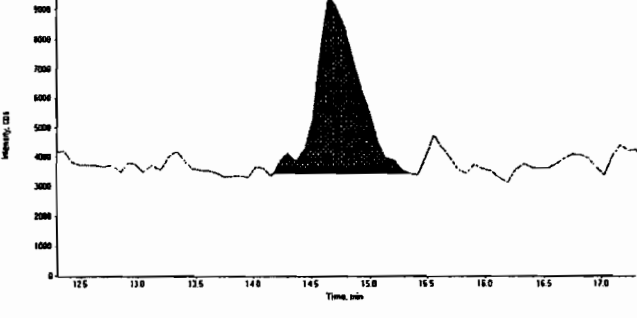
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

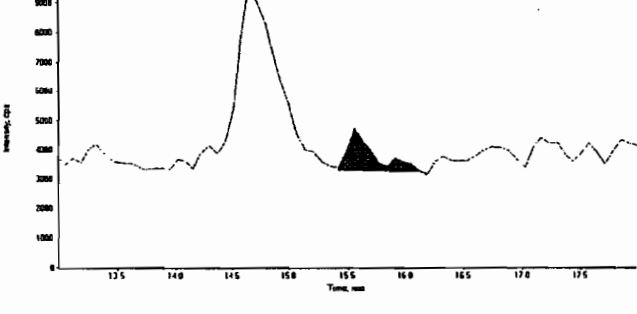
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	5.00e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.6
	<b>Area Counts:</b>	1.53e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	15.6
	<b>Area Counts:</b>	2.41e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415057.wiff	<b>Acquisition Date</b>	4/16/2010 10:20:56 AM
<b>Sample Name</b>	XIBLK11	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	3.37e+003
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

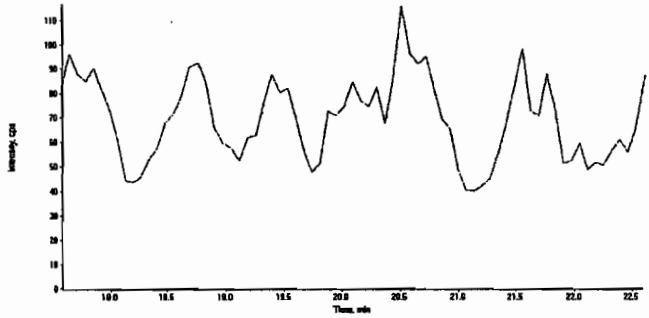
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

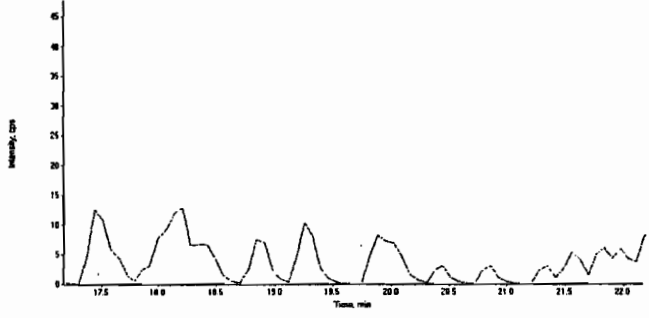
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415057.wiff	Acquisition Date	4/16/2010 10:20:56 AM
Sample Name	XIBLK11	Acquisition Method	8321.dam
Batch/Dilution/Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 16-APR-10 13:23

GEL Data File: EXP0415064.wiff

Instrument ID: LCMSMS

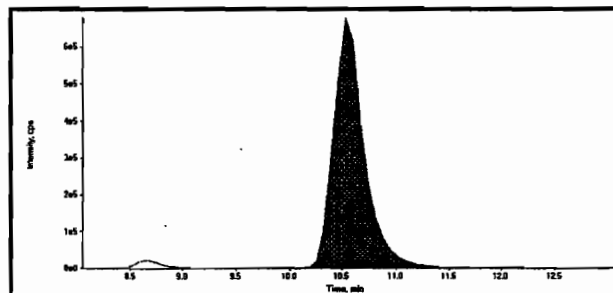
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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	4.41
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

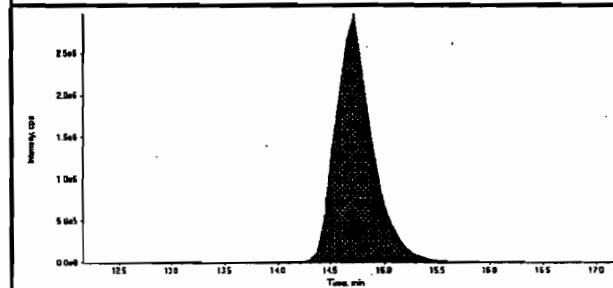
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

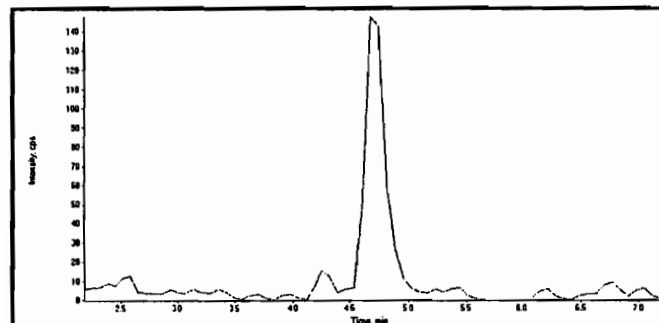
Data File	EXP0415064.wiff	Acquisition Date	4/16/2010 1:23:06 PM
Sample Name	XIBLK12	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



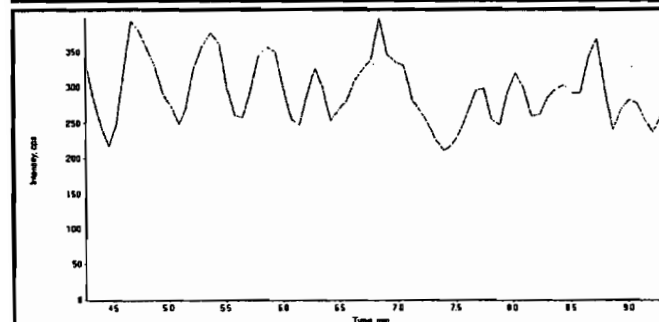
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	13500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	70400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDY (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*4/16/2010  
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4/23/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415064.wiff	<b>Acquisition Date</b>	4/16/2010 1:23:06 PM
<b>Sample Name</b>	XIBLK12	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.6
	<b>Area Counts:</b>	2.21e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	4.41 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

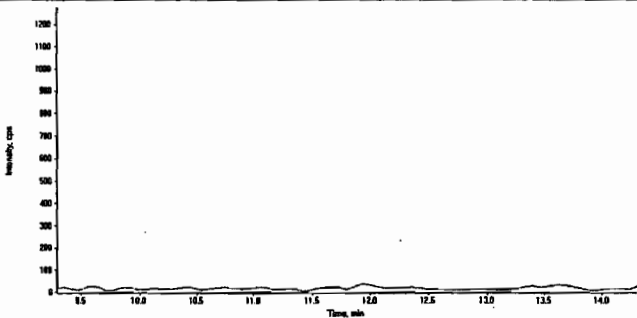
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	3.14e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

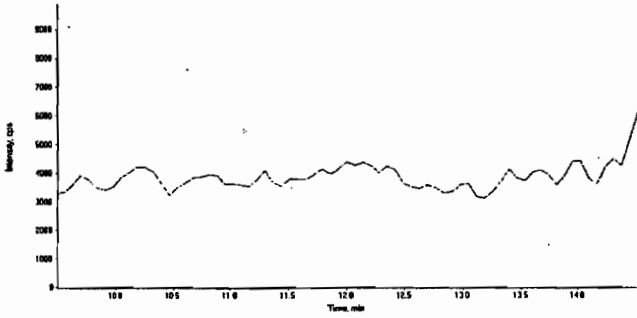
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415064.wiff	<b>Acquisition Date</b>	4/16/2010 1:23:06 PM
<b>Sample Name</b>	XIBLK12	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

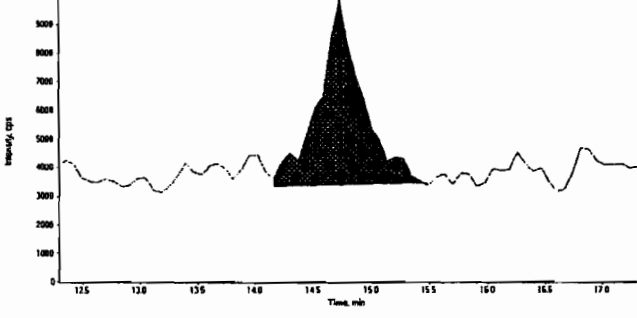
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

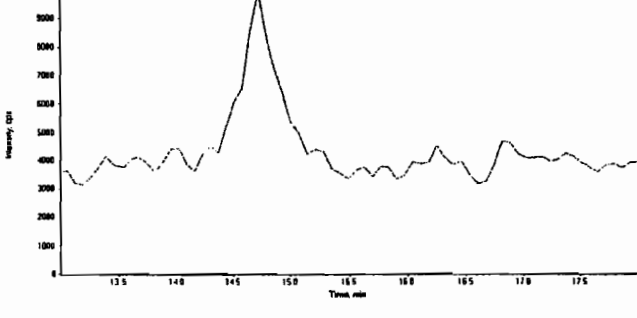
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.7
	<b>Area Counts:</b>	1.72e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415064.wiff	<b>Acquisition Date</b>	4/16/2010 1:23:06 PM
<b>Sample Name</b>	XIBLK12	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	6.78e+003
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

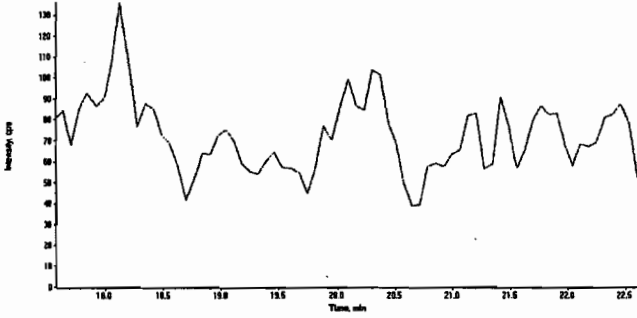
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

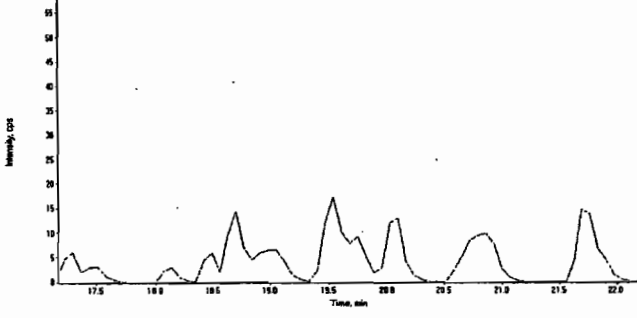
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LCMSMS#3

<b>Data File</b>	EXP0415064.wiff	<b>Acquisition Date</b>	4/16/2010 1:23:06 PM
<b>Sample Name</b>	XIBLK12	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 16-APR-10 19:00

GEL Data File: EXP0415077.wiff

Instrument ID: LCMSMS

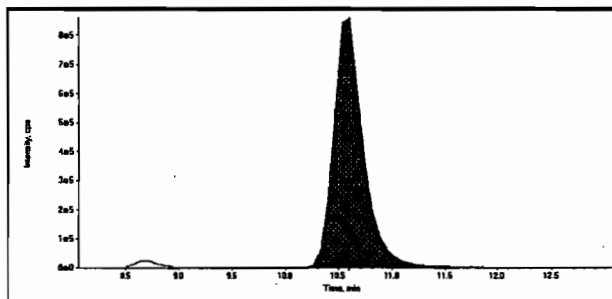
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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	4.36
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

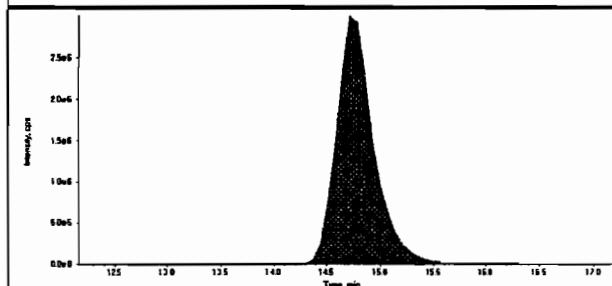
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415077.wiff	Acquisition Date	4/16/2010 7:00:54 PM
Sample Name	XIBLK13	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



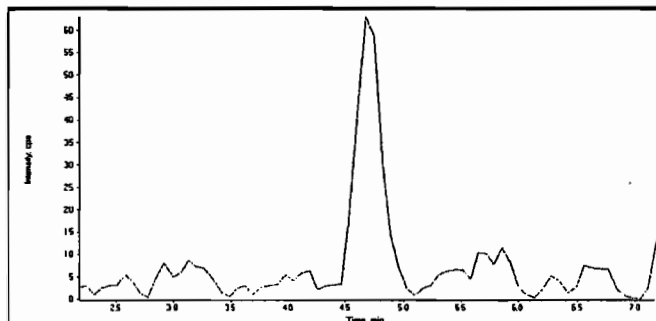
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	16700000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

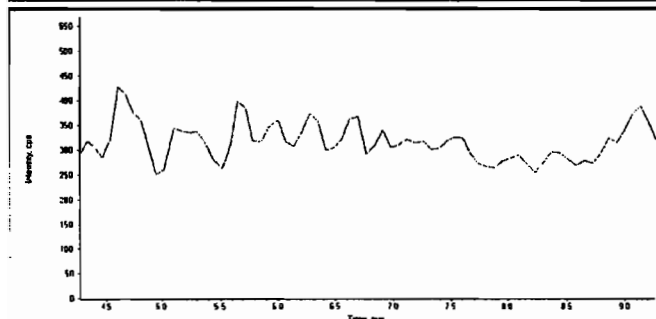


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	72500000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



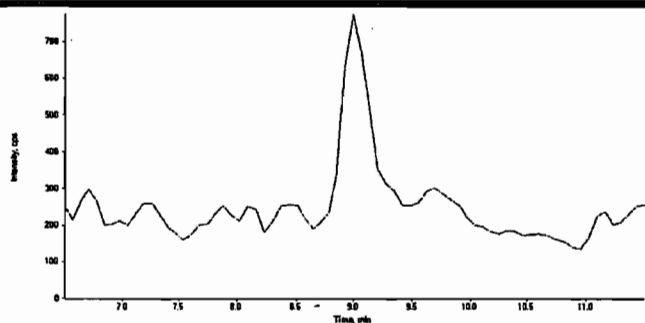
Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten signatures and dates:*  
 4/23/10  
 4/23/10

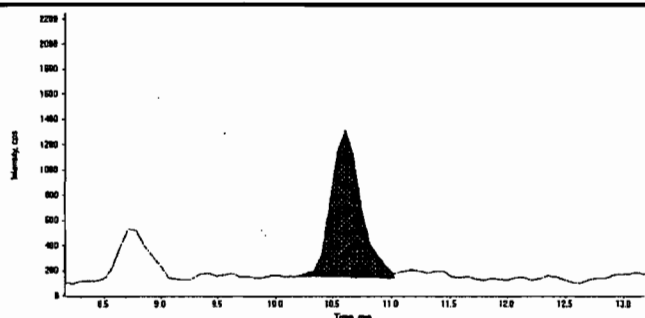
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

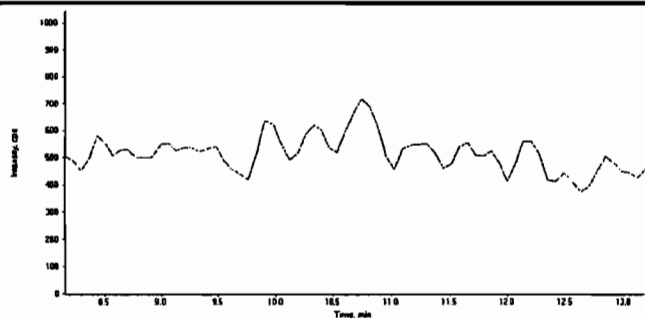
Data File	EXP0415077.wiff	Acquisition Date	4/16/2010 7:00:54 PM
Sample Name	XIBLK13	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



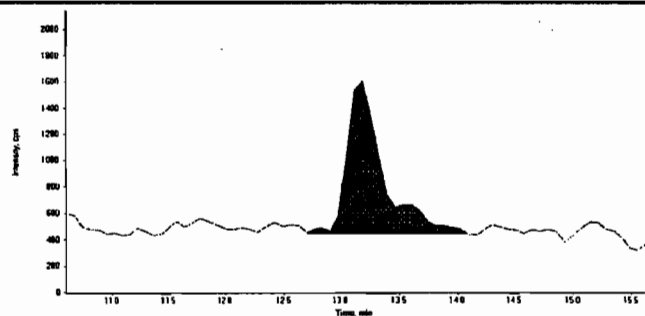
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.6
Area Counts:	2.14e+004
Manual Modification	No
Amount:	4.36 (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.55e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415077.wiff	<b>Acquisition Date</b>	4/16/2010 7:00:54 PM
<b>Sample Name</b>	XIBLK13	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	8.06e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.8
	<b>Area Counts:</b>	2.06e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

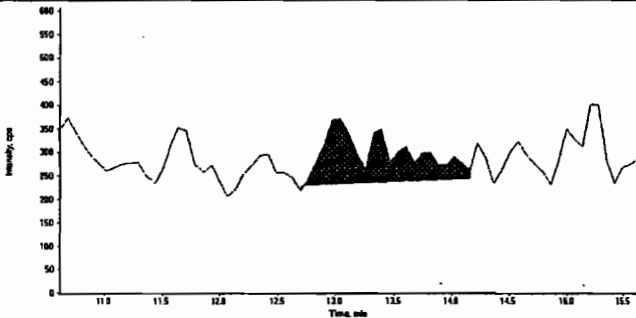
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

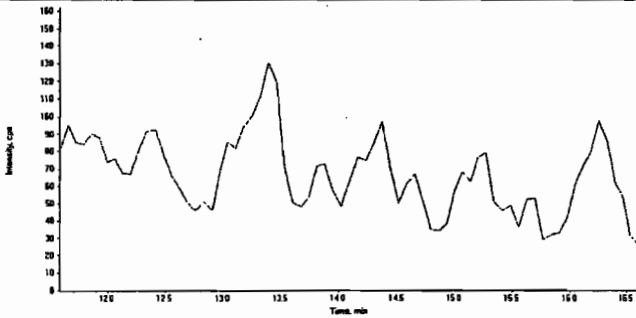
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415077.wiff	<b>Acquisition Date</b>	4/16/2010 7:00:54 PM
<b>Sample Name</b>	XIBLK13	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

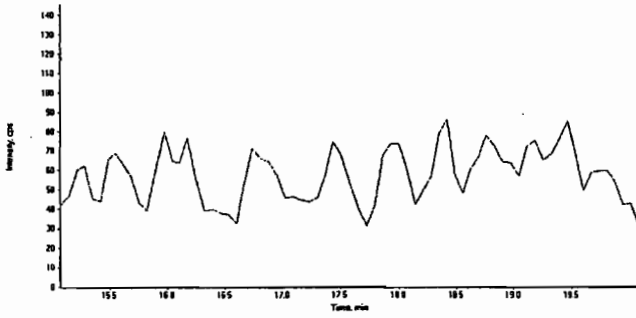
  

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.0
	Area Counts:	5.60e+003
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

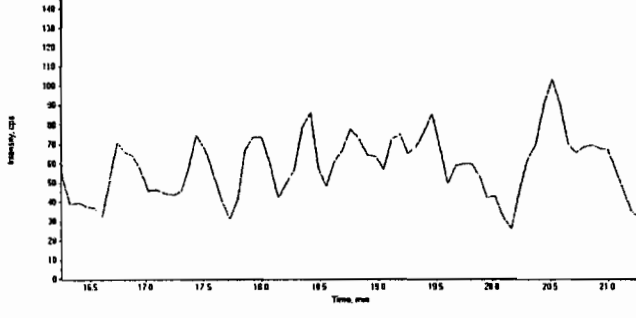
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

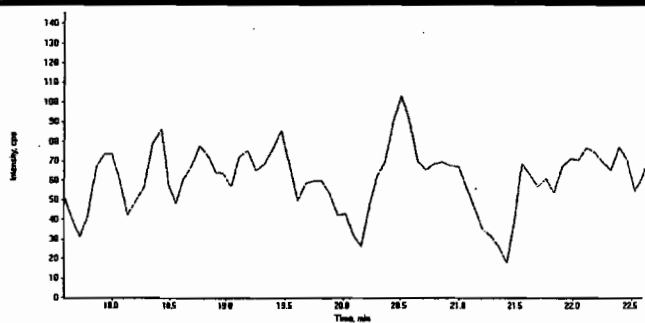
  

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

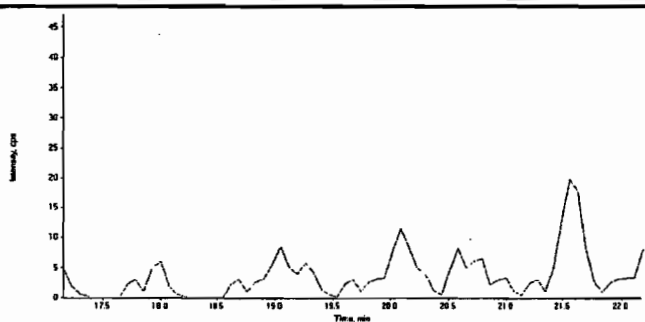
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415077.wiff	Acquisition Date	4/16/2010 7:00:54 PM
Sample Name	XIBLK13	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 20-APR-10 17:46

GEL Data File: EXP0420009.wiff

Instrument ID: LCMSMS

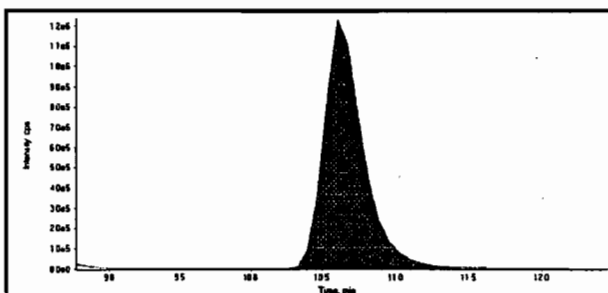
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	.929
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	.28
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

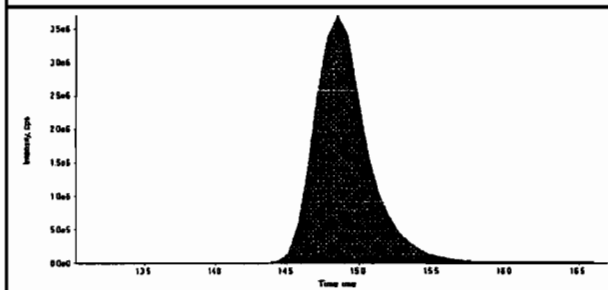
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

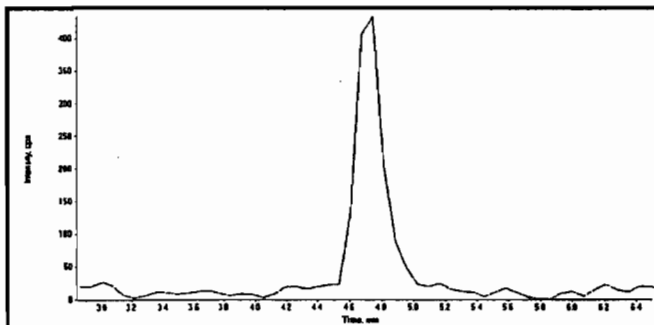
Data File	EXP0420009.wiff	Acquisition Date	4/20/2010 5:46:16 PM
Sample Name	XIBLK02	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



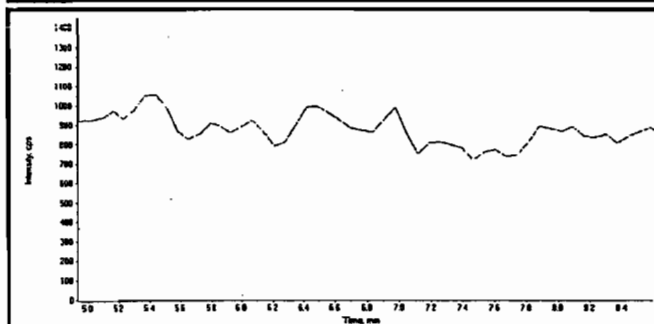
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	22900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	93600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*See 4/29/10 HMX 04/29/10*



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420009.wiff	Acquisition Date	4/20/2010 5:46:16 PM
Sample Name	XIBLK02	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.07
	Actual RT:	9.07
	Area Counts:	3.30e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	3.30e+004
	Manual Modification	No
	Amount:	0.280 (ng/mL)
	% Accuracy:	N/A

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

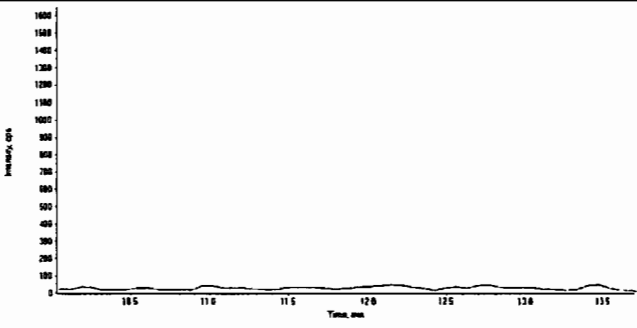
	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	4.16e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

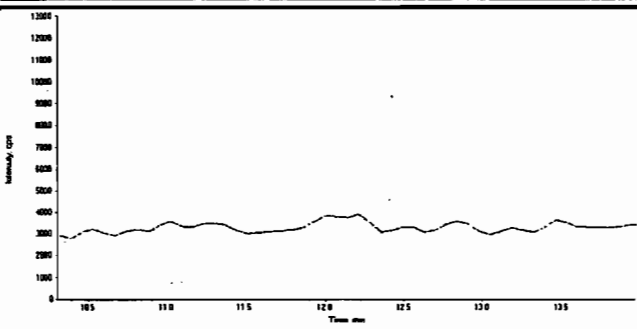
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420009.wiff	<b>Acquisition Date</b>	4/20/2010 5:46:16 PM
<b>Sample Name</b>	XIBLK02	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

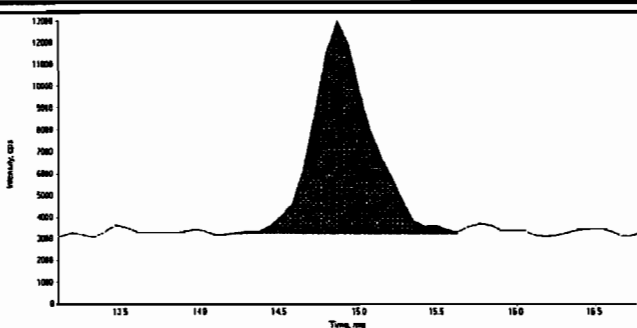
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.9
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

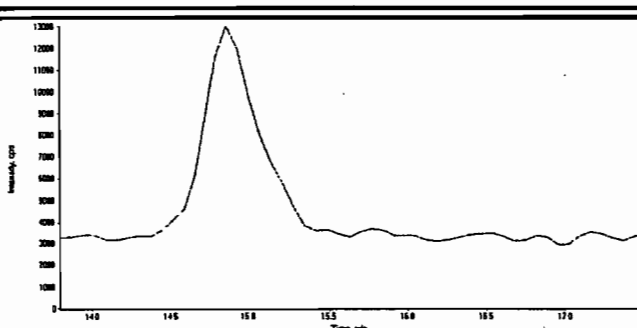
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.9
	<b>Actual RT:</b>	14.9
	<b>Area Counts:</b>	2.48e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	0.929 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420009.wiff	<b>Acquisition Date</b>	4/20/2010 5:46:16 PM
<b>Sample Name</b>	XIBLK02	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

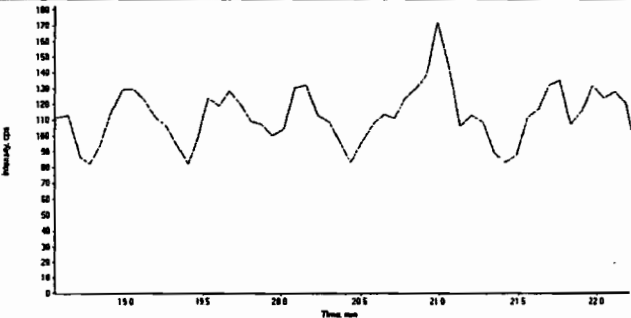
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	19.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

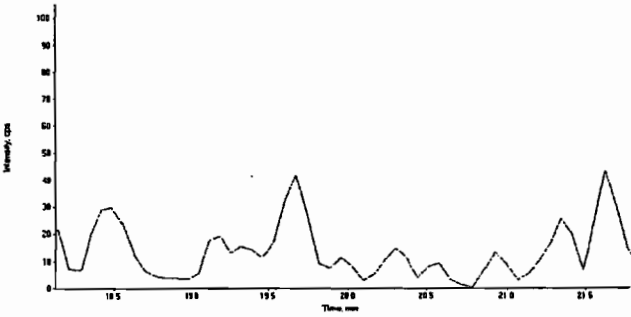
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420009.wiff	Acquisition Date	4/20/2010 5:46:16 PM
Sample Name	XIBLK02	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.4
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	20.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 20-APR-10 18:38

GEL Data File: EXP0420011.wiff

Instrument ID: LCMSMS

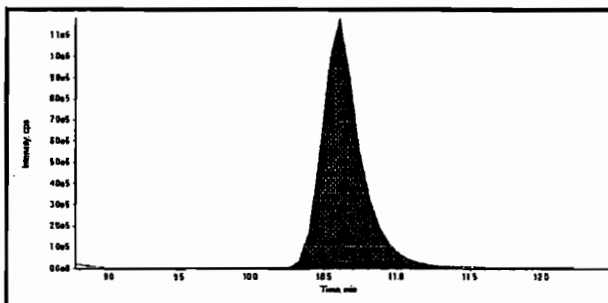
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
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	.266
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	1.09
2-Amino-4,6-dinitrotoluene	0	0

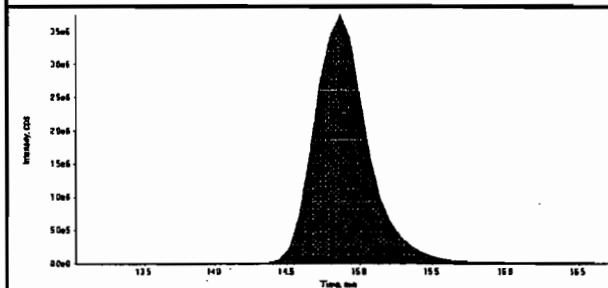
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

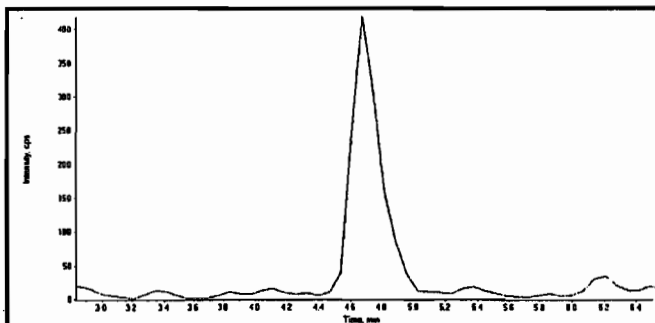
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Sample Name	XIBLK03	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



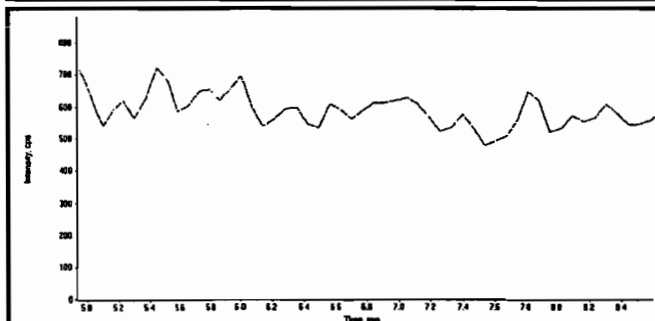
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	21800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	96200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*How 04/29/10*  
*Jan 4/29/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420011.wiff	<b>Acquisition Date</b>	4/20/2010 6:38:17 PM
<b>Sample Name</b>	XIBLK03	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.0
	<b>Actual RT:</b>	0.0
	<b>Area Counts:</b>	0.00e+00
	<b>Manual Modification</b>	N
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.
	<b>Actual RT:</b>	10.
	<b>Area Counts:</b>	2.98e+00
	<b>Manual Modification</b>	N
	<b>Amount:</b>	0.266 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.1
	<b>Actual RT:</b>	0.0
	<b>Area Counts:</b>	0.00e+00
	<b>Manual Modification</b>	N
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

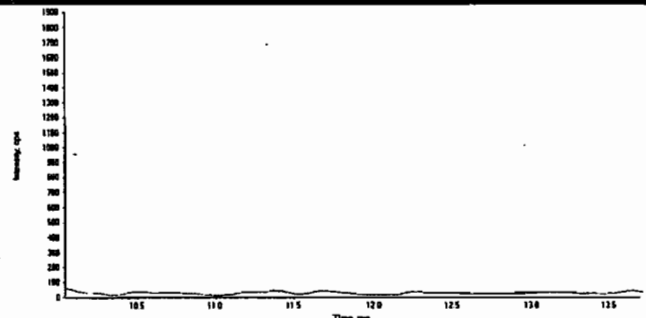
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	4.64e+004
	<b>Manual Modification</b>	N
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

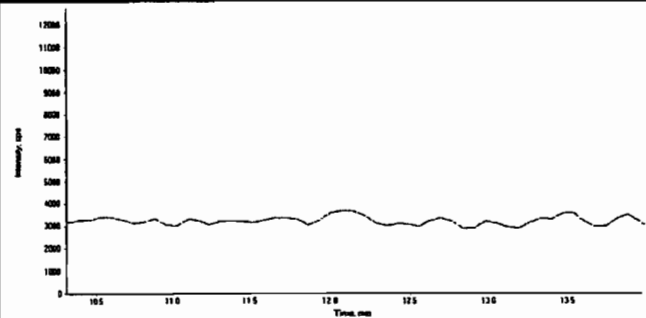
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420011.wiff	<b>Acquisition Date</b>	4/20/2010 6:38:17 PM
<b>Sample Name</b>	XIBLK03	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

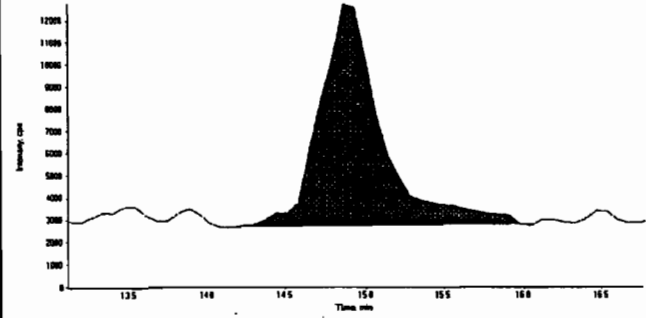
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

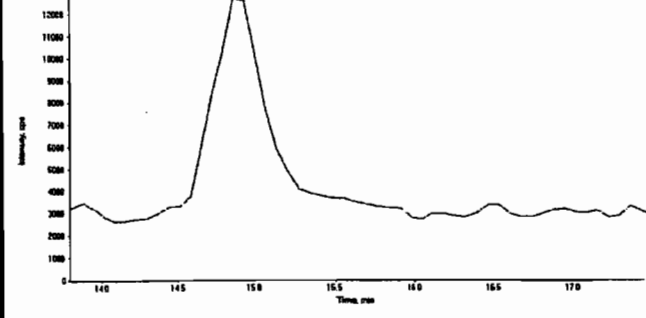
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	14.9
	Area Counts:	2.74e+005
	Manual Modification	No
	Amount:	1.09 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420011.wiff	<b>Acquisition Date</b>	4/20/2010 6:38:17 PM
<b>Sample Name</b>	XIBLK03	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420011.wiff	<b>Acquisition Date</b>	4/20/2010 6:38:17 PM
<b>Sample Name</b>	XIBLK03	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 21-APR-10 00:15

GEL Data File: EXP0420024.wiff

Instrument ID: LCMSMS

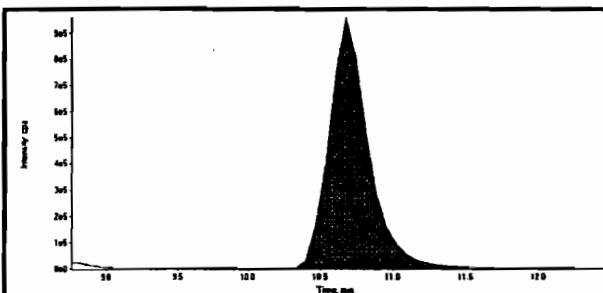
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	.812
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	.326
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0

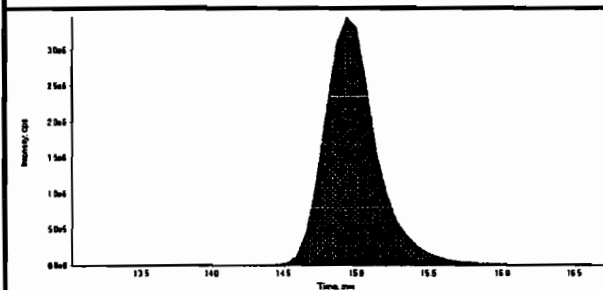
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

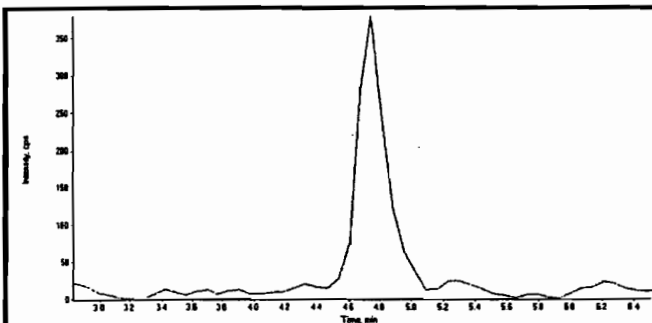
Data File	EXP0420024.wiff	Acquisition Date	4/21/2010 12:15:34 AM
Sample Name	XIBLK04	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



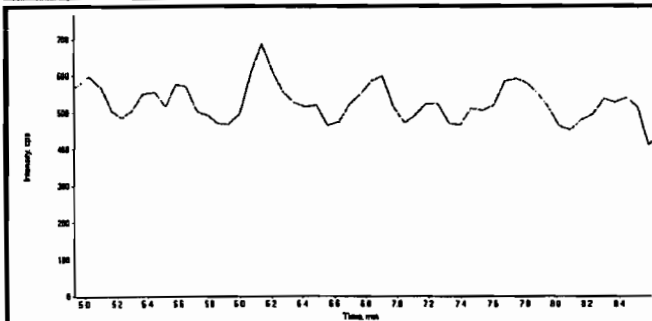
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	18300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	86800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten:*  
4/21/10  
LER  
4/22/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420024.wiff	Acquisition Date	4/21/2010 12:15:34 AM
Sample Name	XIBLK04	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.07
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	3.07e+004
	Manual Modification	No
	Amount:	0.326 (ng/mL)
	% Accuracy:	N/A

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

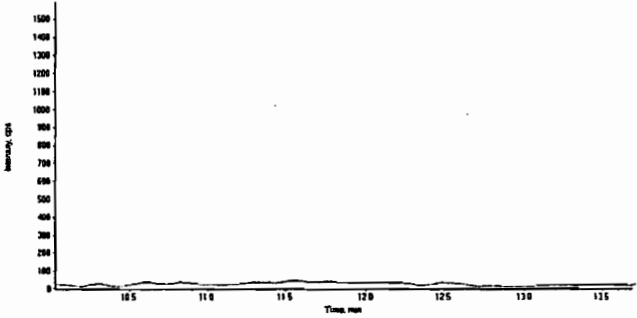
	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	3.61e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

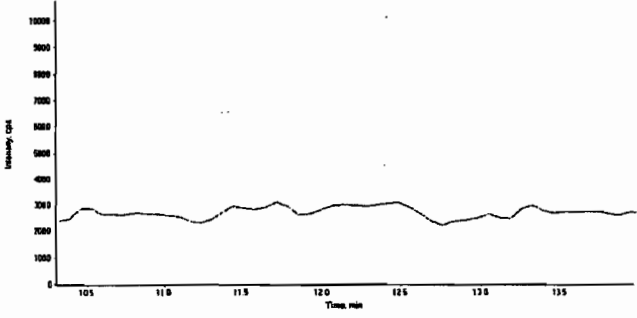
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420024.wiff	Acquisition Date	4/21/2010 12:15:34 AM
Sample Name	XIBLK04	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

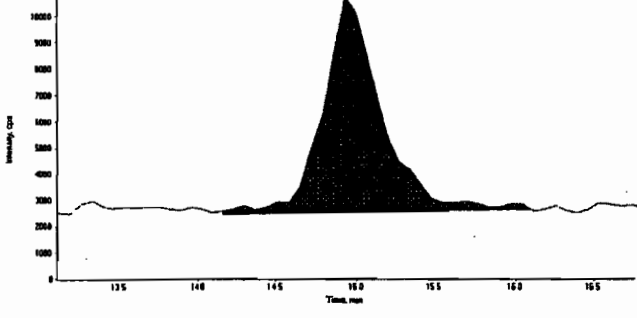
  

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

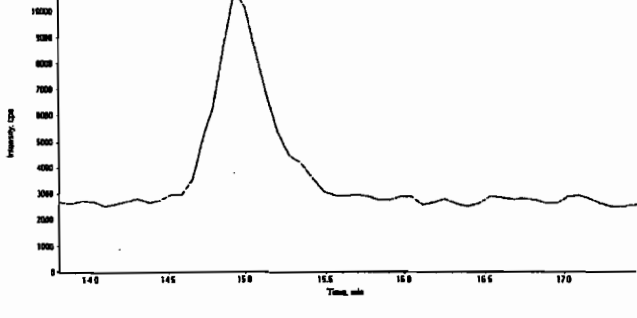
  

	Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	14.9
	Area Counts:	2.17e+005
	Manual Modification	No
	Amount:	0.812 (ng/mL)
	% Accuracy:	N/A

	Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420024.wiff	<b>Acquisition Date</b>	4/21/2010 12:15:34 AM
<b>Sample Name</b>	XIBLK04	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420024.wiff	Acquisition Date	4/21/2010 12:15:34 AM
Sample Name	XIBLK04	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.4
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	20.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 09-APR-10 09:36

GEL Data File: EXS04090010.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	13
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

See 4/12/10

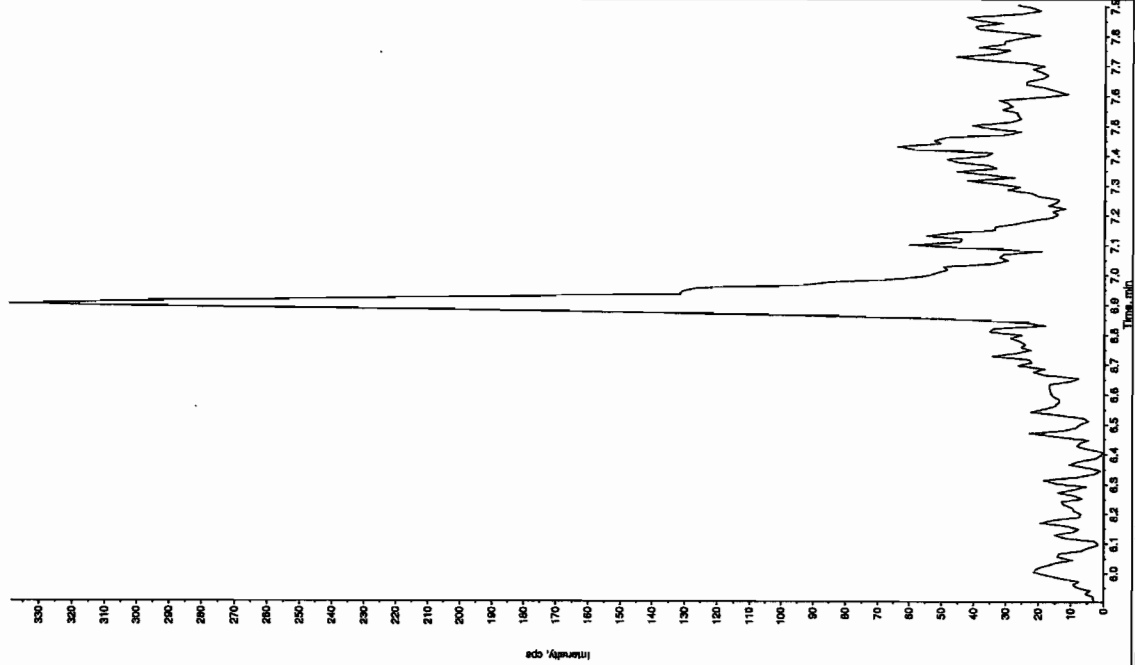
PROPRIETARY INFORMATION No unauthorized reproduction without written permission from GVI

Sample Name: "XIBLK02" Sample ID: "111ER" File: "EXS04060010.wif"  
Peak Name: "35-Dinitrophenol" 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: 4/9/2010  
Acq. Time: 9:36:11 AM  
Modified: No



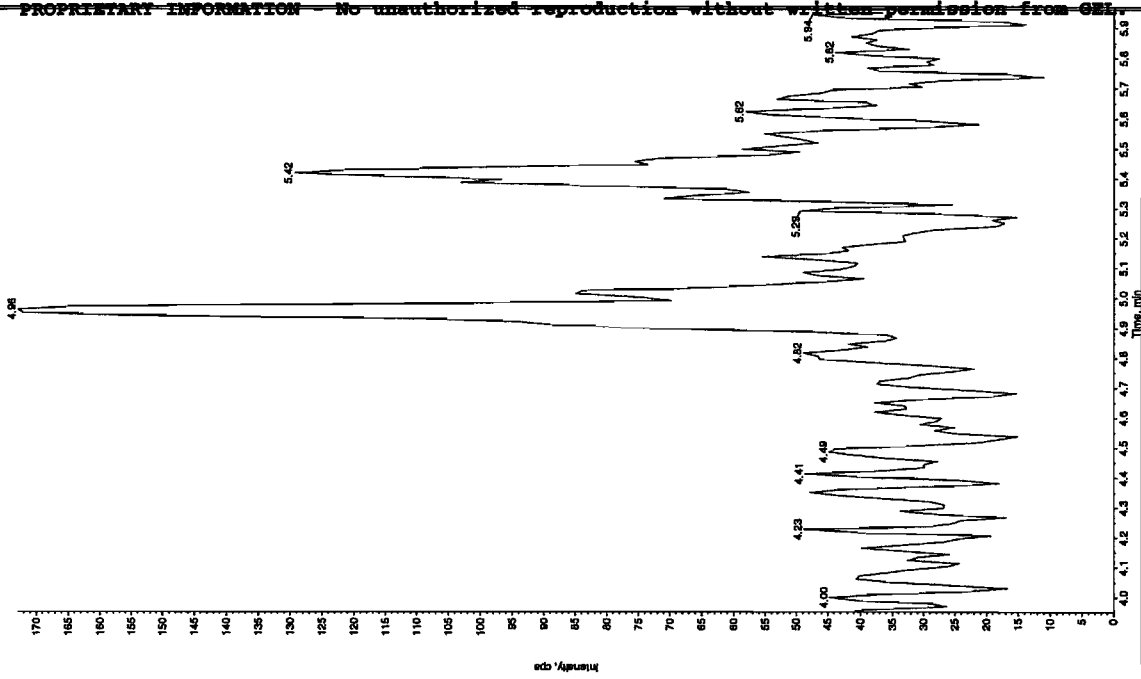
HW-04/12/10

Sample Name: "XIBLK02" Sample ID: "111ER" File: "EXS04060010.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: 4/9/2010  
Acq. Time: 9:36:11 AM  
Modified: No

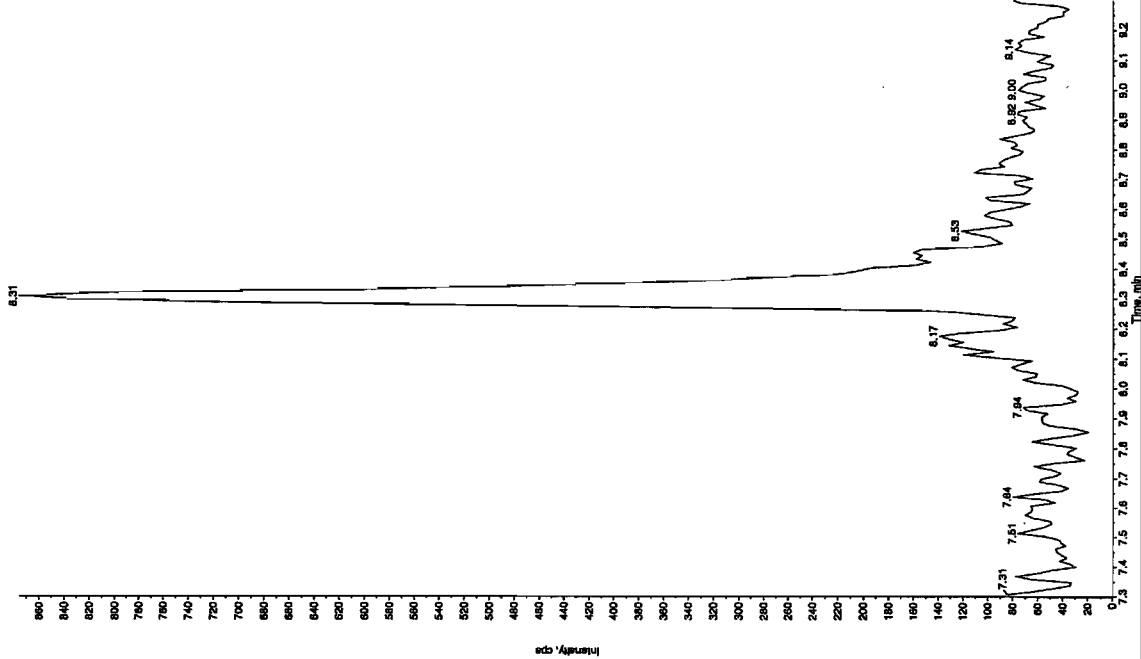


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK02" Sample ID: "111LER" File: "EXS04090010.wif"  
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/9/2010  
 Acq. Time: 9:36:11 AM  
 Modified: No



Sample Name: "XIBLK02" Sample ID: "111LER" File: "EXS04090010.wif"  
 Peak Name: "24-Dinitrotoluene" Mass(es): "182.1715.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/9/2010  
 Acq. Time: 9:36:11 AM  
 Modified: No



Sample Name: "XIBLK02" Sample ID: "J1LER" File: "EXS04090010.wif"  
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

Calculated Conc: 13.0 ng/mL

Acq. Date: 4/9/2010

Acq. Time: 9:36:11 AM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 8000.0 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 30.0 points

ST Window: 30.0 sec

Expected RT: 10.8 min

Use Relative RT: No

Int. Type: Valley

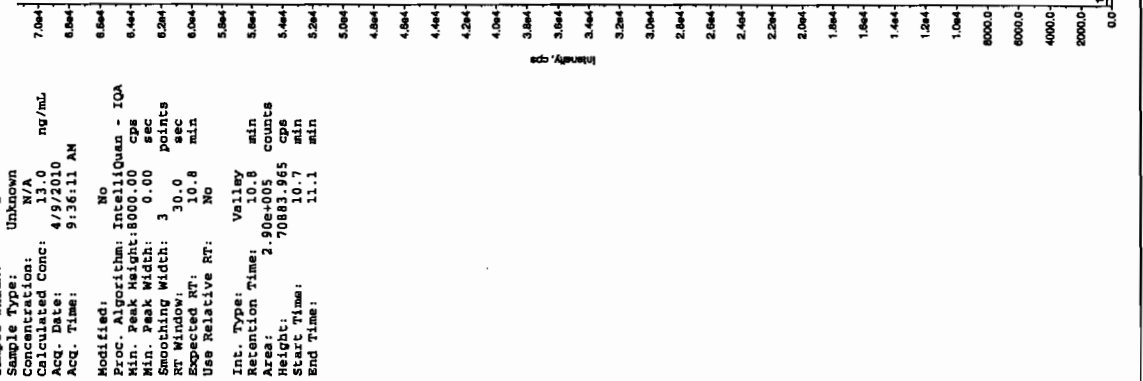
Retention Time: 10.8 min

Area: 2.90e+005 counts

Height: 70883.965 cps

Start Time: 10.7 min

End Time: 11.1 min



Sample Name: "XIBLK02" Sample ID: "J1LER" File: "EXS04090010.wif"  
Peak Name: "2,4-Dinitro-6-nitrotoluene" Mass(es): "166.046.0 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

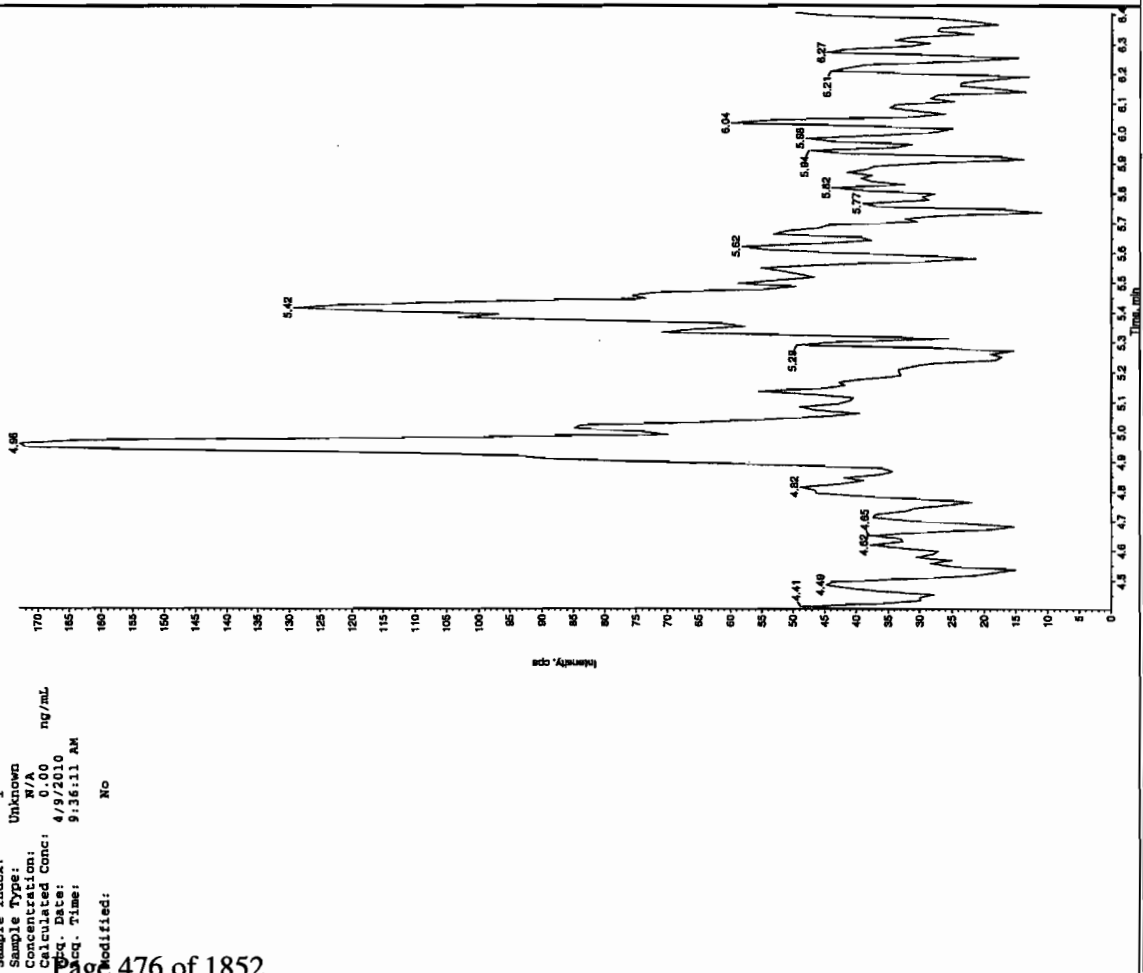
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/9/2010

Acq. Time: 9:36:11 AM

Modified: No



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

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 09-APR-10 10:07

GEL Data File: EXS04090012.wiff

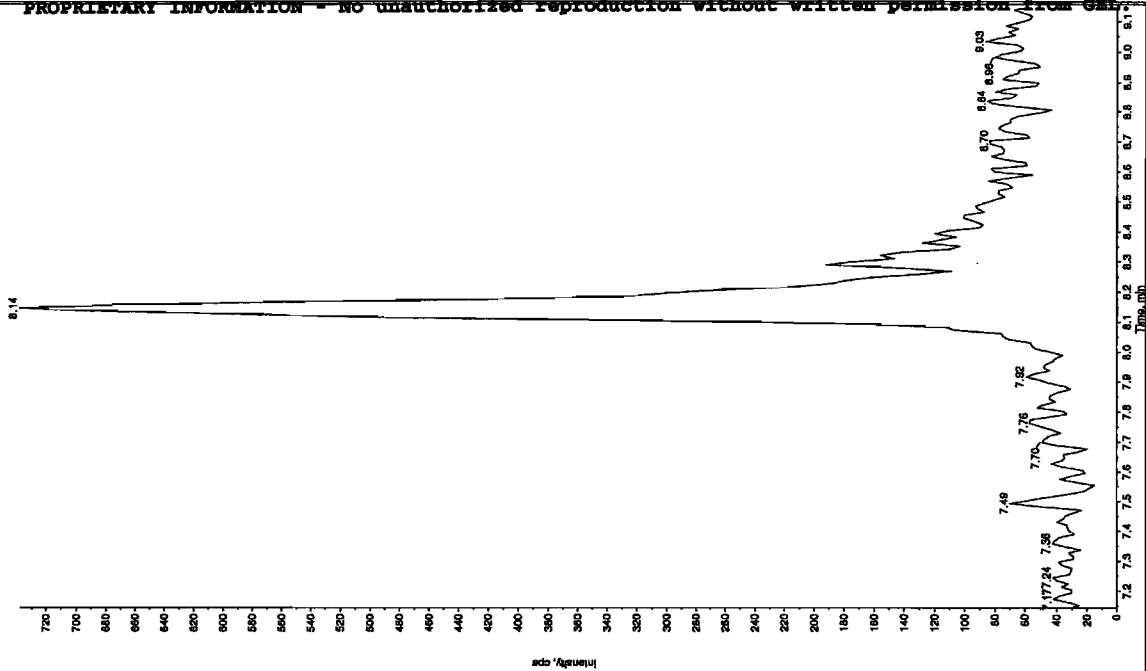
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	7.48
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

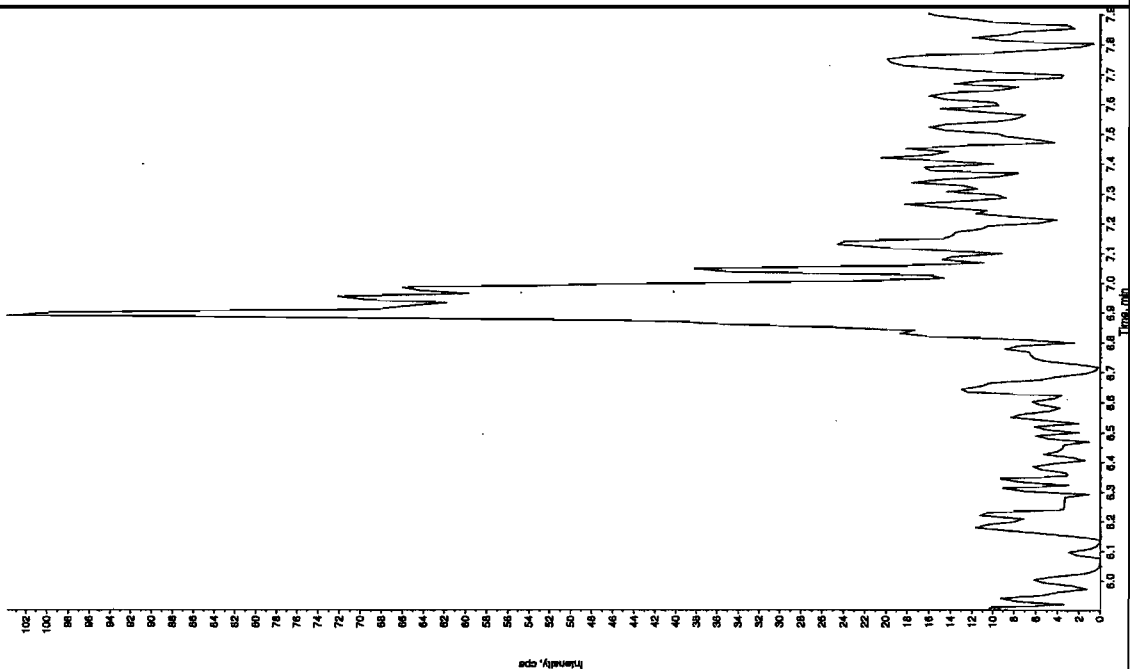
Scan 4/12/10

Sample Name: "XIBLK03" Sample ID: "111LER" File: "EX504090012.wif"  
Peak Name: "35-Dinitroaniline" Mass(es): "182.0460 amu"  
Comment: "LCMSEXP\_B" Annotation: "  
Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 10:07:35 AM  
Modified: No



Scan 04/12/10

Sample Name: "XIBLK03" Sample ID: "111LER" File: "EX504090012.wif"  
Peak Name: "TATB" Mass(es): "237.22049 amu"  
Comment: "LCMSEXP\_B" Annotation: "  
Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 10:07:35 AM  
Modified: No



Sample Name: 'XIBLX03' Sample ID: '111111' File: 'EXS04090012.wif'

Peak Name: '3,4-Dinitrofluorene' Mass(es): '182.1/151.9 amu'

Comment: 'LCMSEXP\_B' Annotation: ''

Sample Index: 1

Sample Type: Unknown

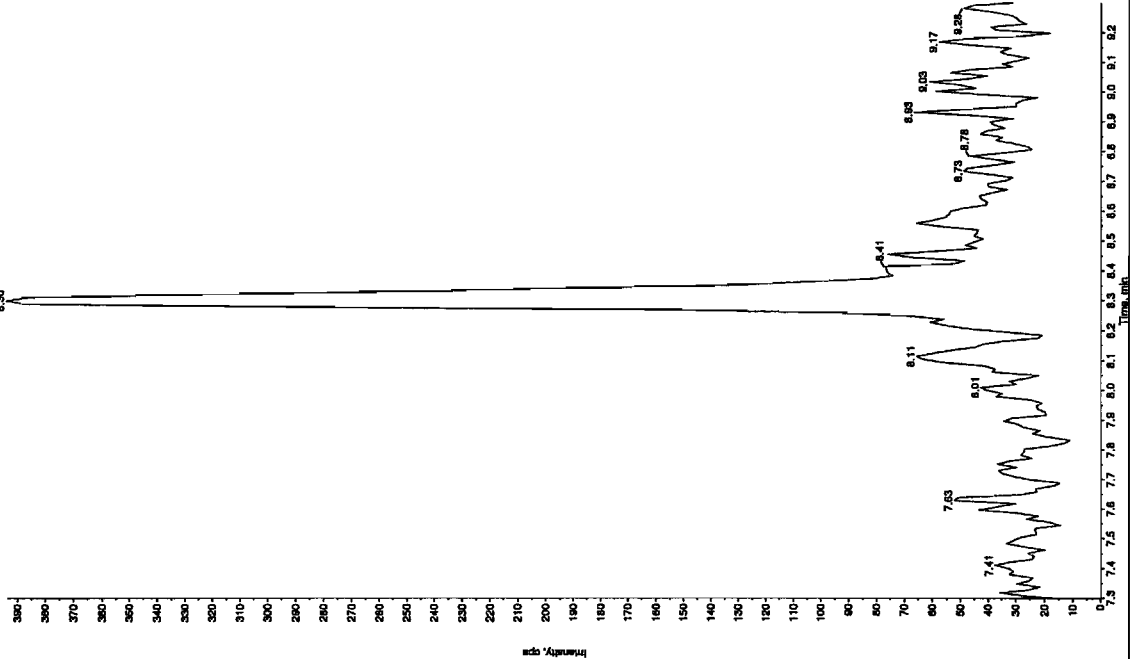
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/9/2010

Acq. Time: 10:07:35 AM

Modified: No



Sample Name: 'XIBLX03' Sample ID: '111111' File: 'EXS04090012.wif'

Peak Name: '2,6-Dinitro-4-nitrofluorene' Mass(es): '165.0/46.0 amu'

Comment: 'LCMSEXP\_B' Annotation: ''

Sample Index: 1

Sample Type: Unknown

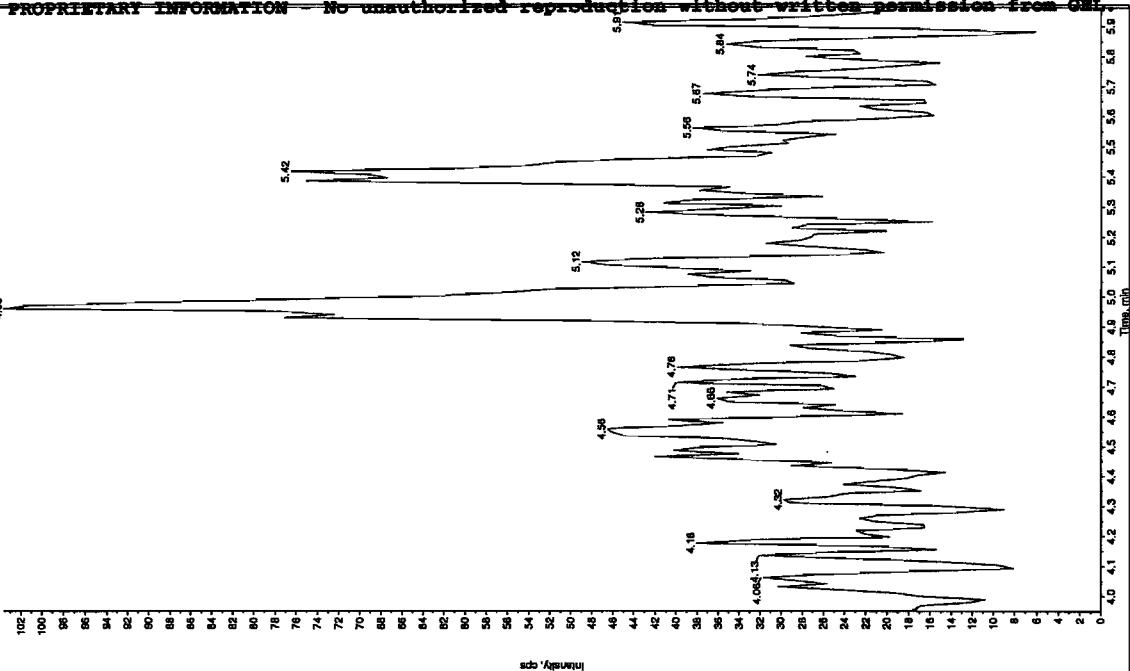
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/9/2010

Acq. Time: 10:07:35 AM

Modified: No



Sample Name: 'XIBLK03' Sample ID: '11LER' File: 'EXS04060012.wif'

Peak Name: 'tris(2-cyanoethyl) phosphite' Mass(es): '369.1/91.0 amu'

Comment: 'LCMSEXP\_B' Annotation: ''

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

Calculated Conc: 7.48 ng/mL

Acq. Date: 4/9/2010

Acq. Time: 10:07:35 AM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 8000.00 cps

Min. Peak Width: 0.00 sec

Smoother Width: 3.00 points

RT Window: 30.0 sec

Expected RT: 10.8 min

Use Relative RT: No

Int. Type: Valley

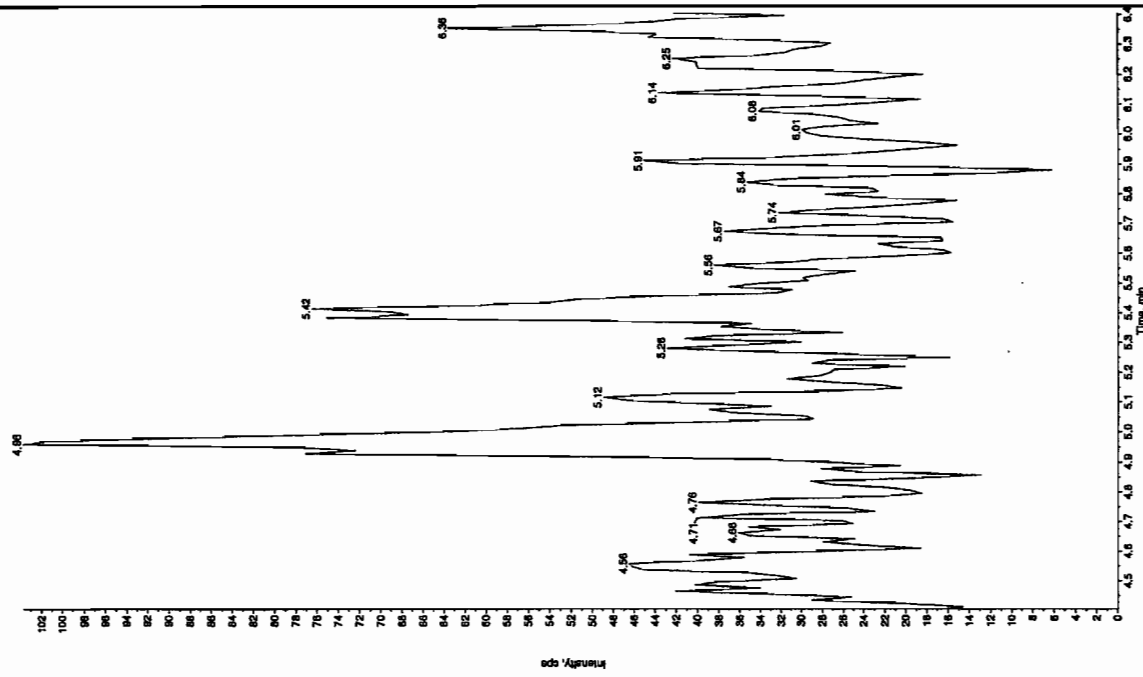
Retention Time: 10.8 min

Area: 1.76e+005 counts

Height: 43686.192 cps

Start Time: 10.7 min

End Time: 11.1 min





4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 09-APR-10 13:31

GEL Data File: EXS04090025.wiff

Instrument ID: LCMSMS

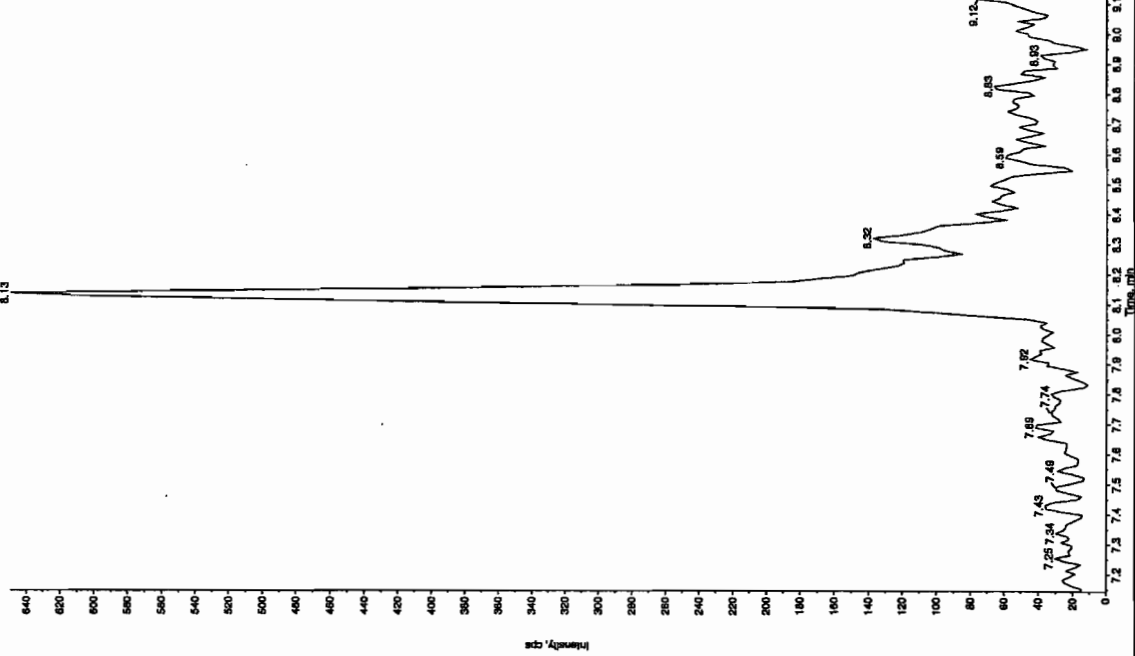
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	4.56
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Rea 4/12/10

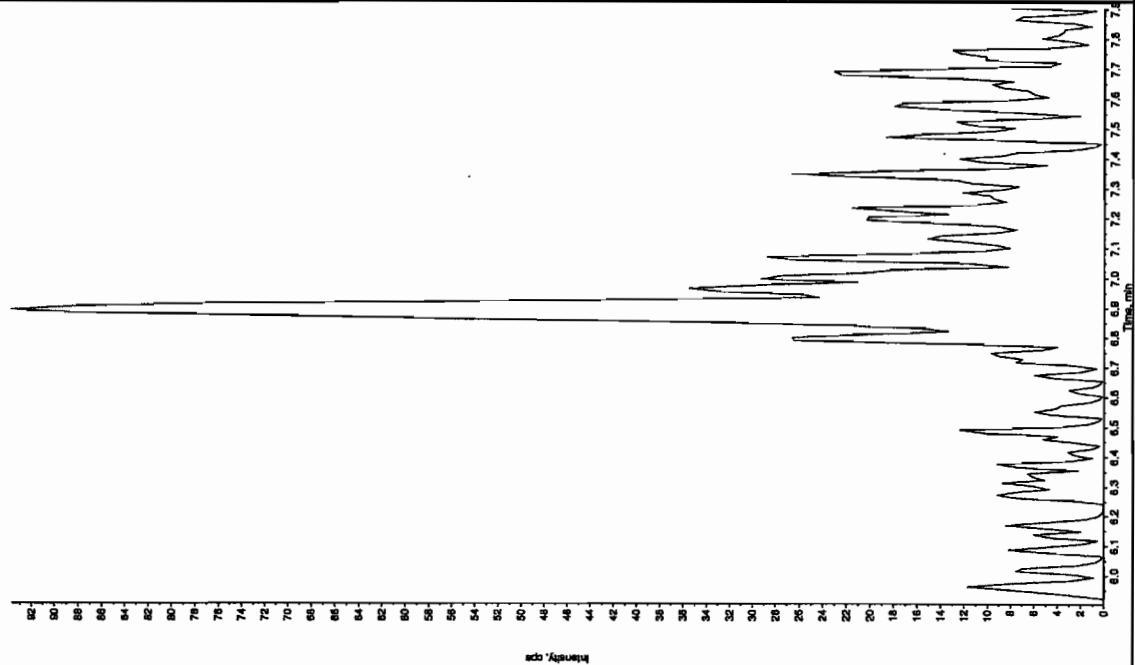
PROPRIETARY INFORMATION No unauthorized reproduction without written permission from GSK

Sample Name: "XIBLK04" Sample ID: "111LRF" File: "EXSD04090025.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: 4/9/2010  
Acq. Time: 1:31:51 PM  
Modified: No

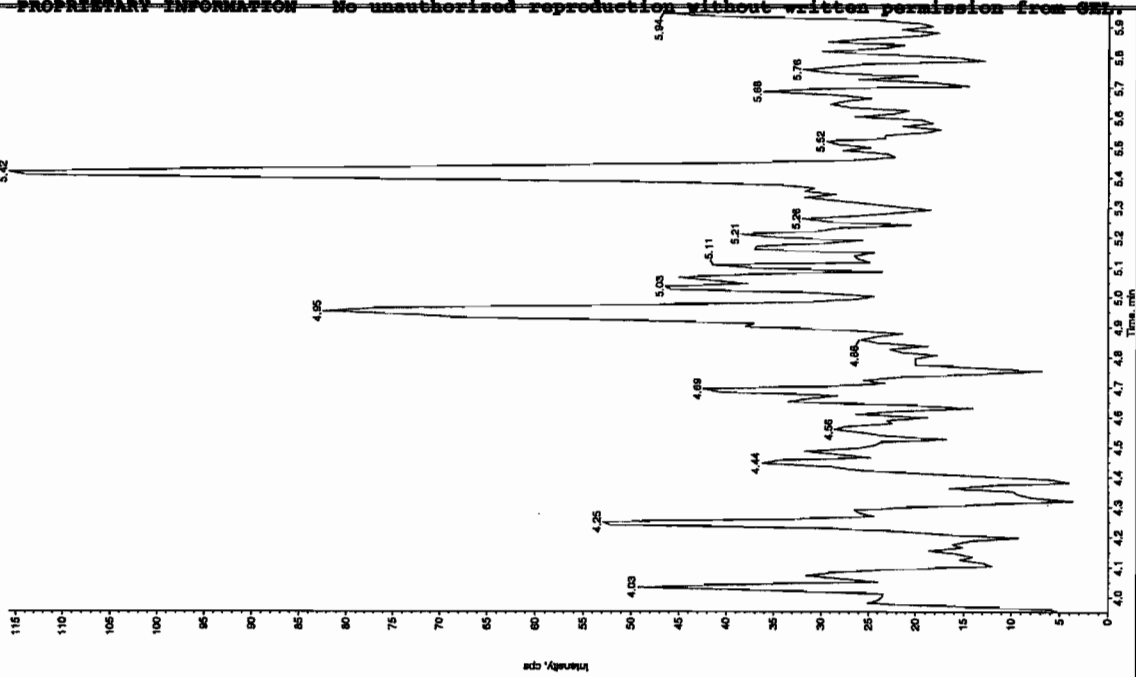


Amw 04/12/10

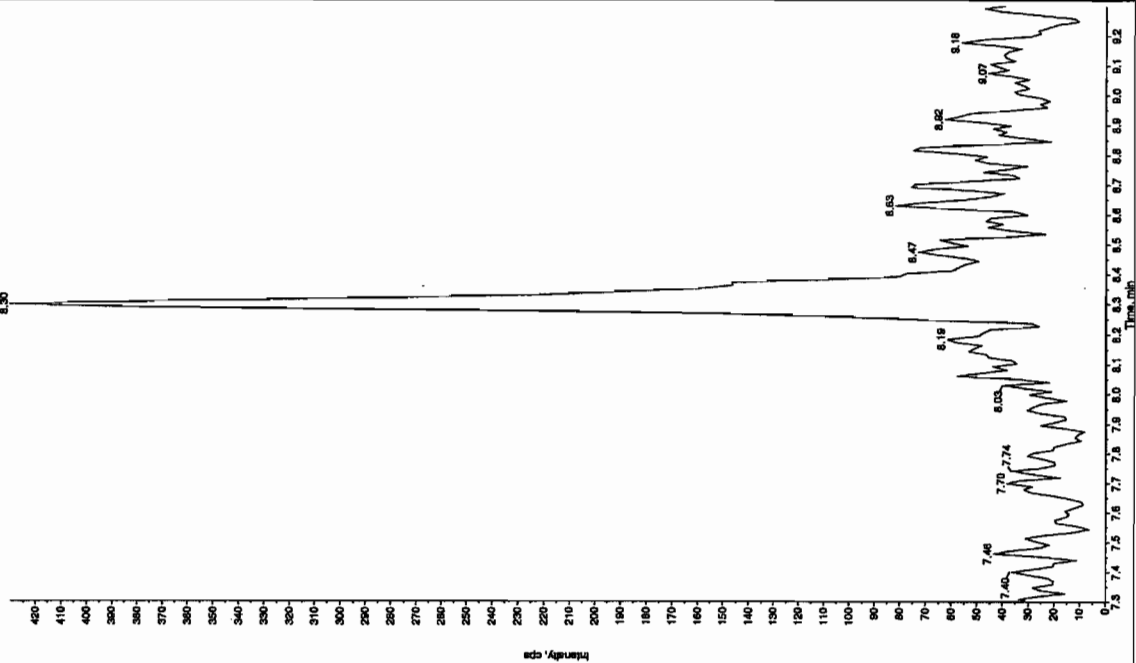
Sample Name: "XIBLK04" Sample ID: "111LRF" File: "EXSD04090025.wif"  
Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
Comment: "LCMSEXP\_B" Annotation: ""  
Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 1:31:51 PM  
Modified: No



Sample Name: "XIELK04" Sample ID: "111LER" File: "EXS04090025.wif"  
 Peak Name: "26-Diamino-4-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  
 Acq. Date: 4/9/2010  
 Acq. Time: 1:31:51 PM  
 Modified: No

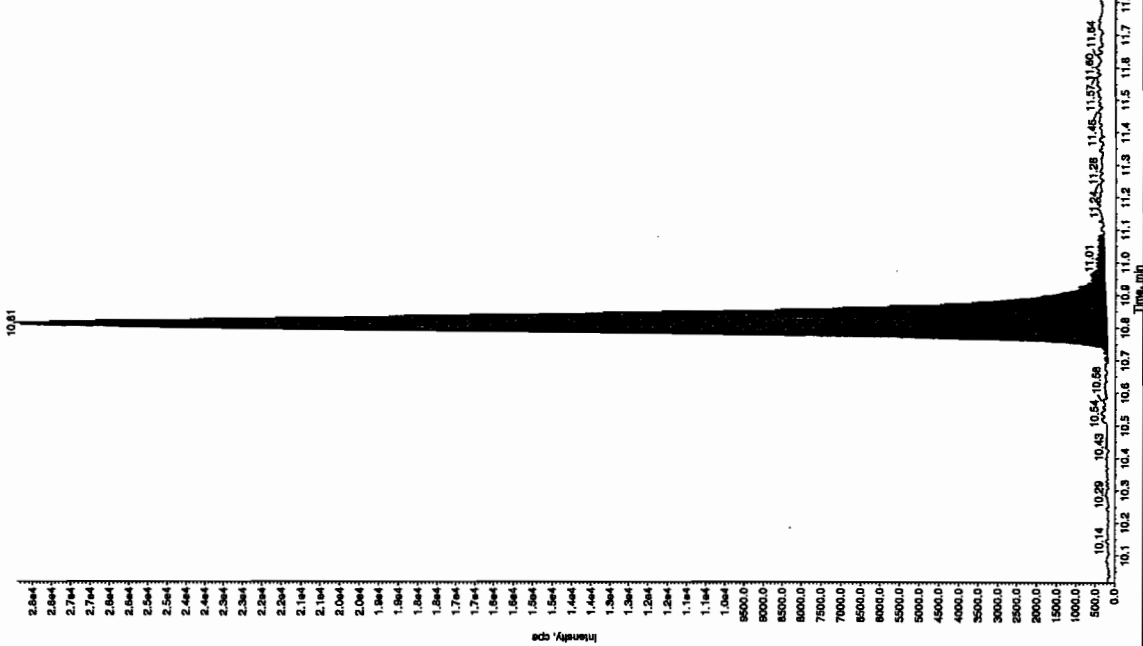


Sample Name: "XIELK04" Sample ID: "111LER" File: "EXS04090025.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1151.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 1:31:51 PM  
 Modified: No



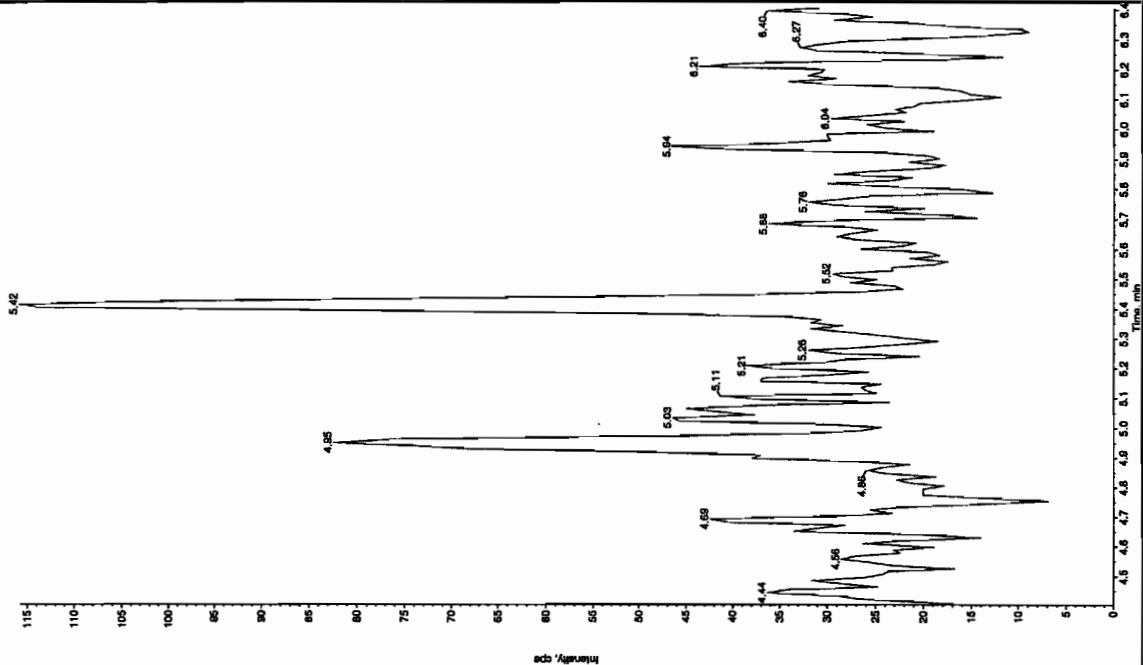
Sample Name: "XIBLK04" Sample ID: "11LER" File: "EXS04090025.wif"  
Peak Name: "11s(o-cresyl) phosphate" Mass(es): "389.1910 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: 4.56 ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 1:31:51 PM  
Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 8000.00 cps  
Min. Peak Width: 0.00 sec  
Scan Rate: 30.0 scans/sec  
RT Window: 10.8 min  
Expected RT: No  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 10.8 min  
Area: 1.16e+005 counts  
Height: 28150.688 cps  
Start Time: 10.7 min  
End Time: 11.1 min



Sample Name: "XIBLK04" Sample ID: "11LER" File: "EXS04090025.wif"  
Peak Name: "24-Diamino-6-nitrothiophene" Mass(es): "165.046.0 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: 0.00 ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 1:31:51 PM  
Modified: No



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 09-APR-10 16:56

GEL Data File: EXS04090038.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.81
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

San 4/12/10

Sample Name: "XIBLK05" Sample ID: "T11ER" File: "EXS04080038.wif"

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

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

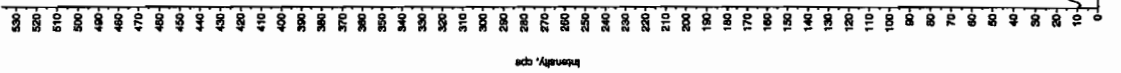
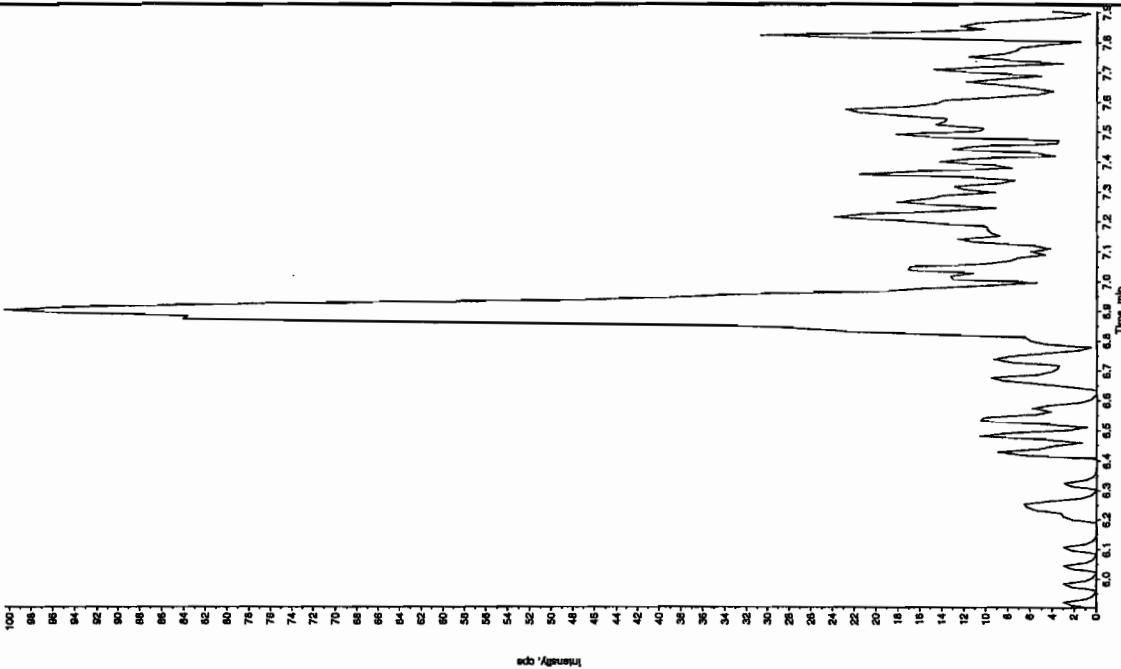
Concentration: N/A ng/mL

Calculated Conc: 0.00

Acq. Date: 4/9/2010

Acq. Time: 4:56:00 PM

Modified: No



Sample Name: "XIBLK05" Sample ID: "T11ER" File: "EXS04080038.wif"

Peak Name: "35-Dinitroaniline" Mass(es): "182.0/165.0 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: N/A ng/mL

Calculated Conc: 0.00

Acq. Date: 4/9/2010

Acq. Time: 4:56:00 PM

Modified: No

San 4/12/10

Sample Name: "XIBLX05" Sample ID: "111ER" File: "EXS04090038.will"  
 Peak Name: "28-Dinitro-4-nitrotoluene" Mass(es): "166.046.0 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

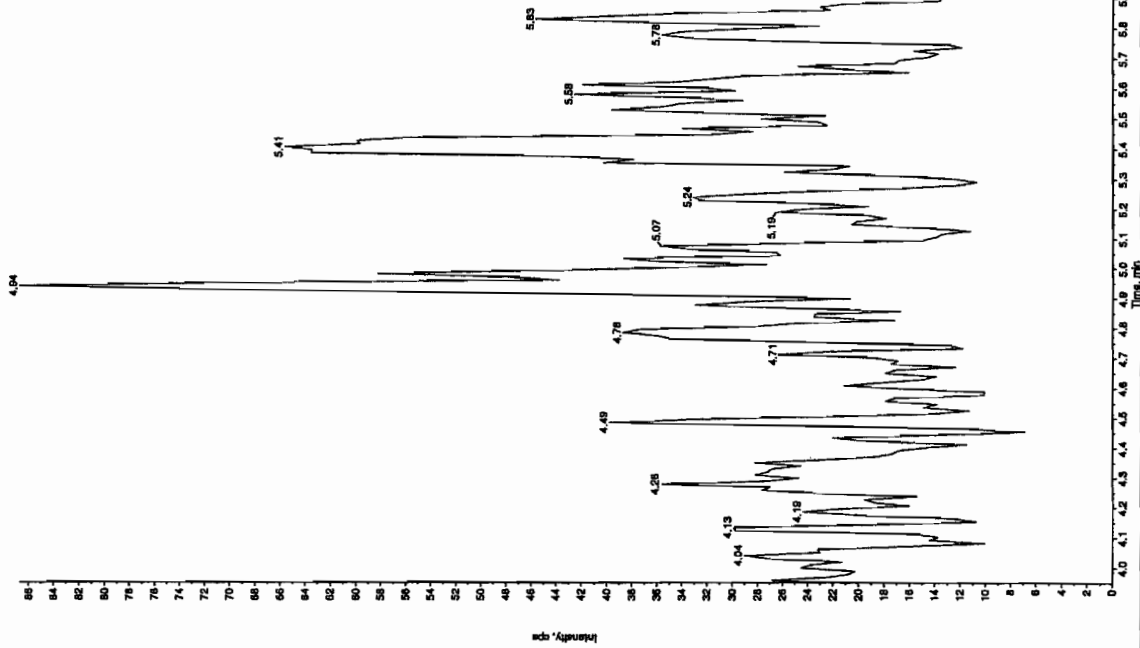
Concentration: N/A ng/mL

Calculated Conc: 4/9/2010

Acq. Date: 4/9/2010

Acq. Time: 4:56:00 PM

Modified: No



Sample Name: "XIBLX05" Sample ID: "111ER" File: "EXS04090038.will"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1151.9 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

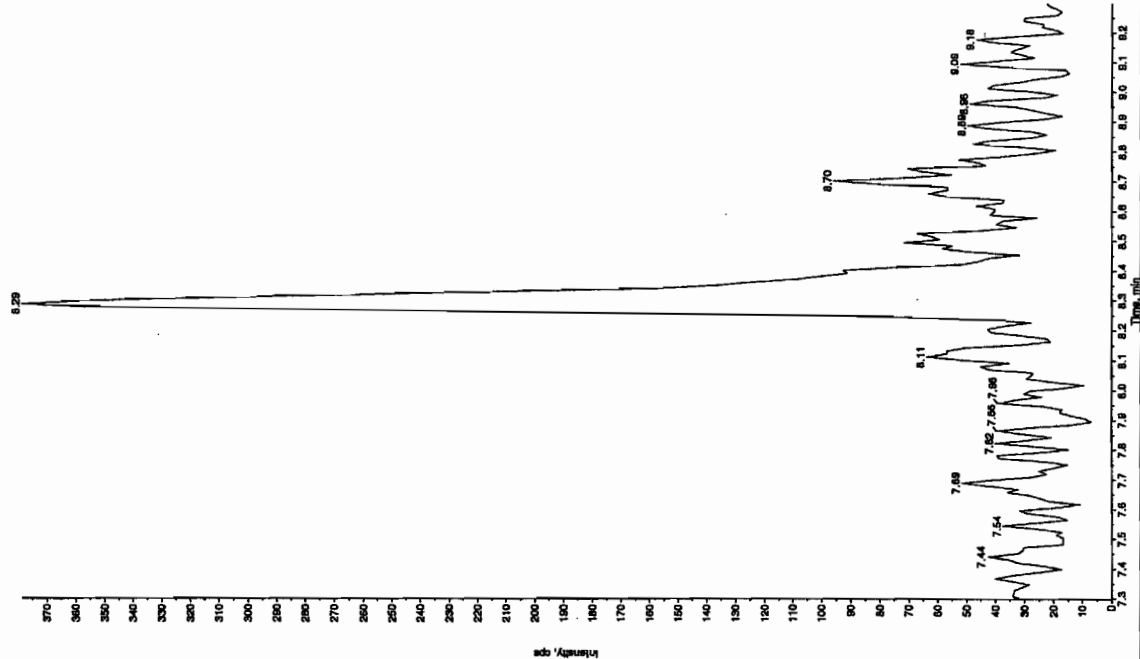
Concentration: N/A ng/mL

Calculated Conc: 6.00

Acq. Date: 4/9/2010

Acq. Time: 4:56:00 PM

Modified: No



Sample Name: "XIBLK05" Sample ID: "11LER" File: "EXS04080038.wif"

Peak Name: "tri(n-octyl) phosphite" Mass(es): "365.1/91.0 amu"

Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1

Sample Type: Unknown

Concentration: 3.81 ng/mL

Calculated Conc: 4/9/2010

Acq. Time: 4:56:00 PM

Modified: No

Proc. Algorithm: IntStitch - IQA

Min. Peak Height: 8000.00 cps

Min. Peak Width: 3.00 sec

Smoothing Width: 3.00 points

RT Window: 30.0 sec

Expected RT: 10.8 min

Use Relative RT: No

Int. Type: Valley

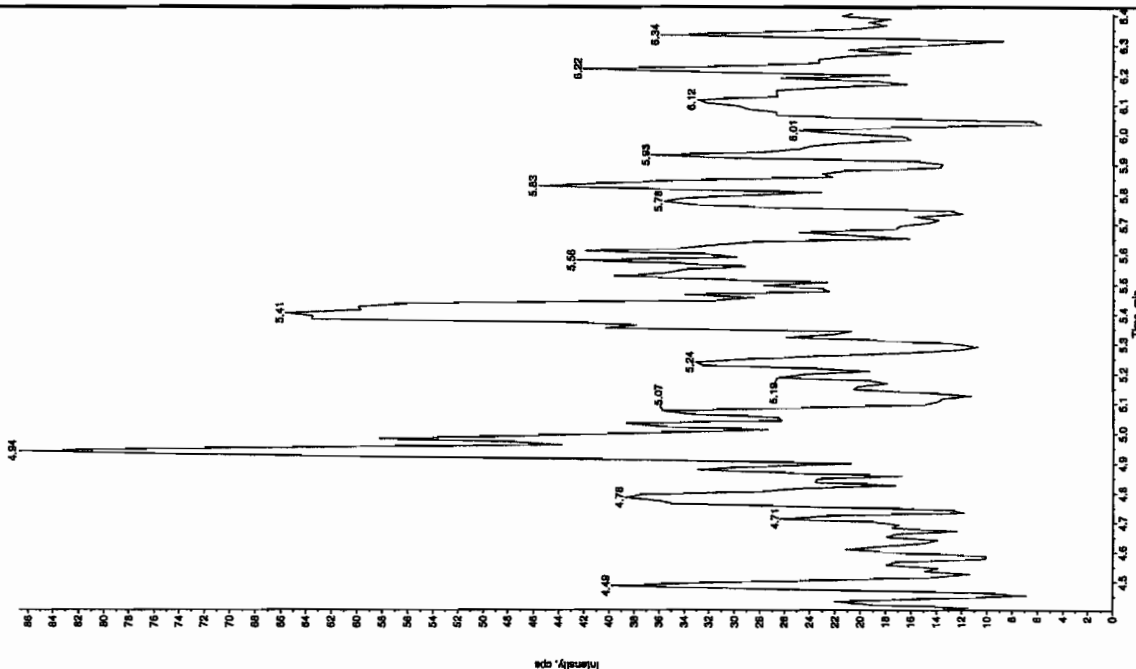
Retention Time: 10.8 min

Area: 1.00e+005 counts

Height: 25470.665 cps

Start Time: 10.7 min

End Time: 11.0 min





4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 09-APR-10 18:30

GEL Data File: EXS04090044.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

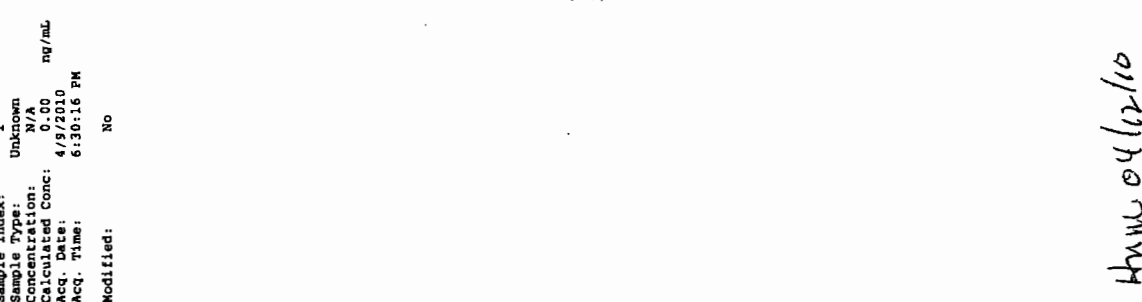
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	1.88
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Jan 4/12/10

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Sample Name: "XIBLK05" Sample ID: "11LER" File: "EX304030044.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: 4/9/2010  
Acq. Time: 6:30:16 PM  
Modified: No

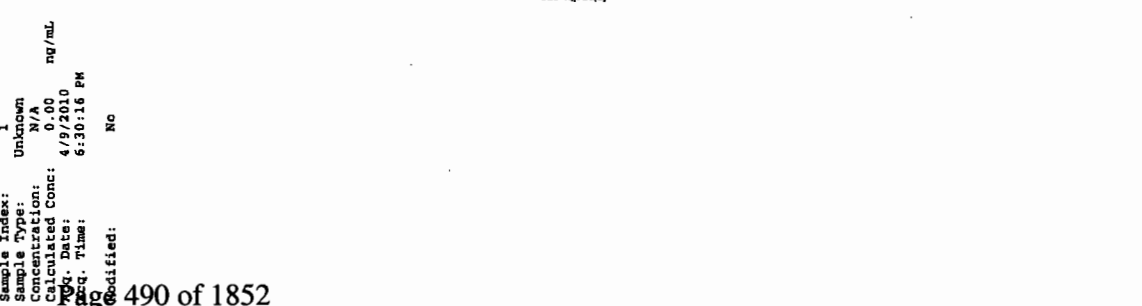
Intensity, cps



Jan 04/12/10

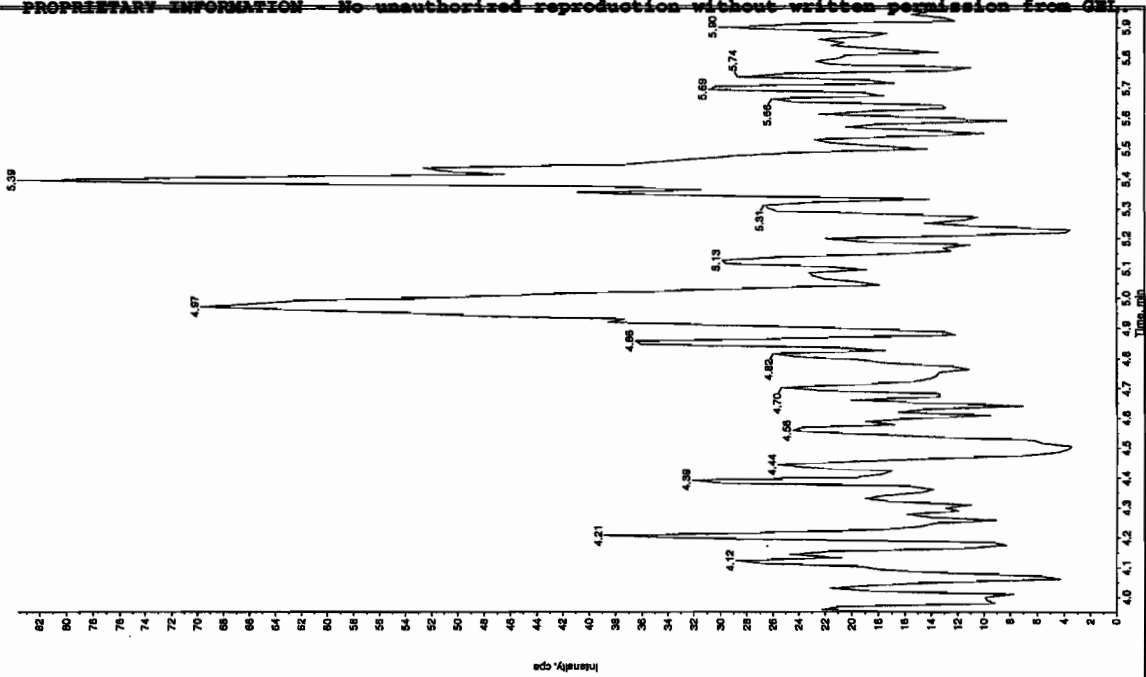
Sample Name: "XIBLK05" Sample ID: "11LER" File: "EX304030044.wif"  
Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
Comment: "LCMSEXP\_B" Annotation: ""  
Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 6:30:16 PM  
Modified: No

Intensity, cps

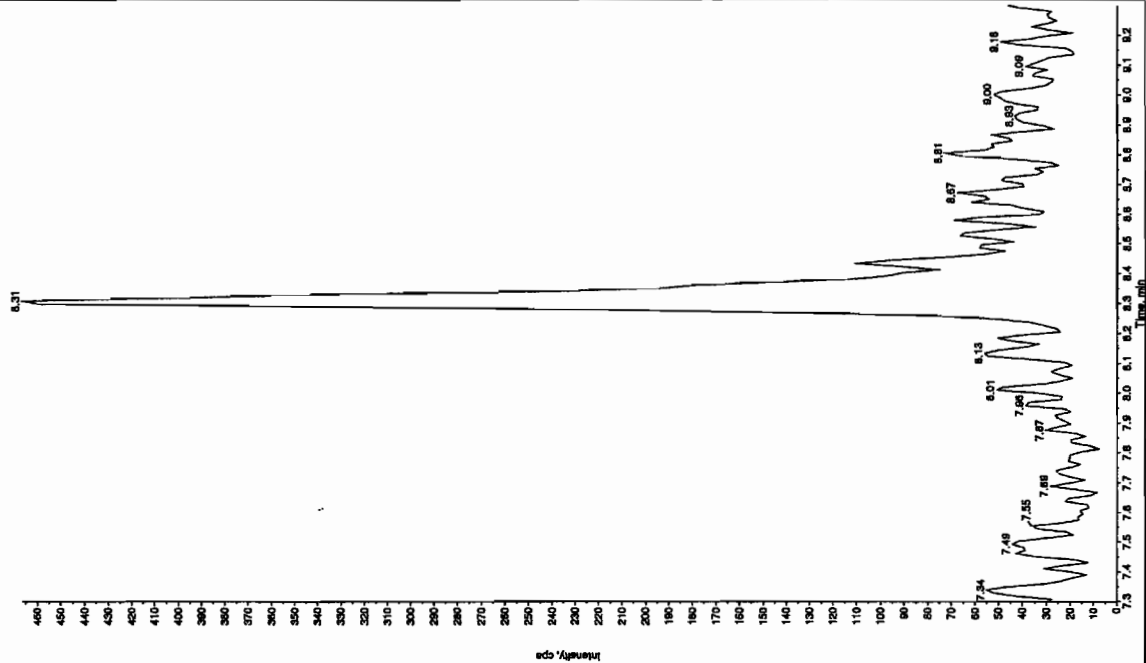


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Sample Name: "XIBLK06" Sample ID: "1111ER" File: "EXS04080044.wif"  
 Peak Name: "28-Dinitro-4-nitrotoluene" Mass(es): "168.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 6:30:16 PM  
 Modified: No

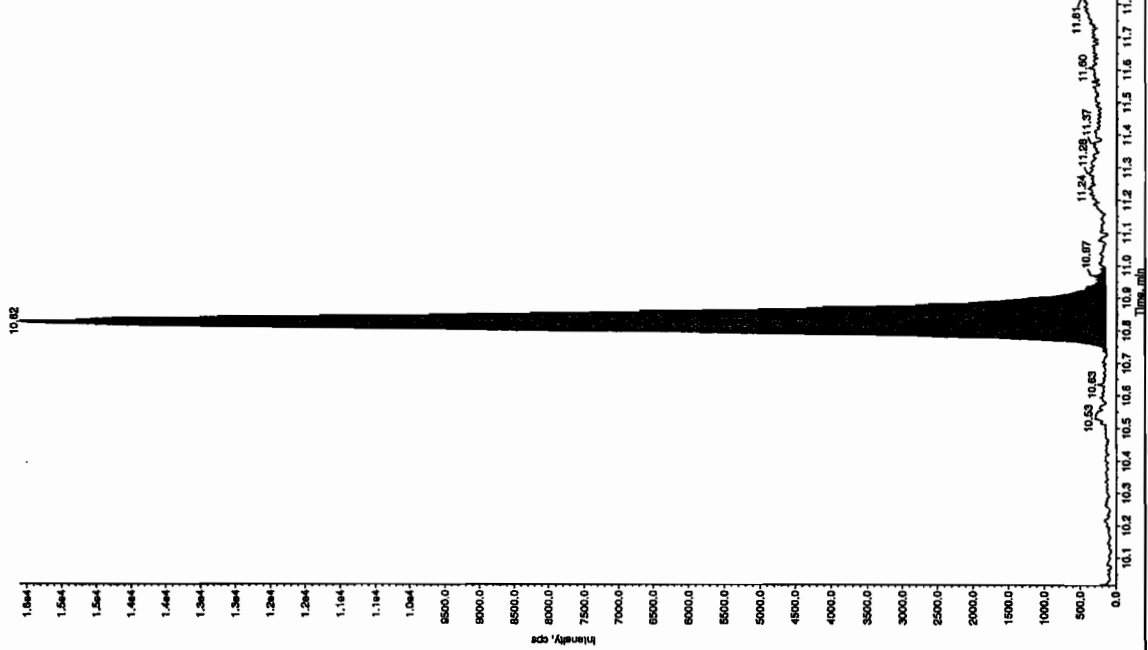


Sample Name: "XIBLK06" Sample ID: "1111ER" File: "EXS04080044.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.151.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: "  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 6:30:16 PM  
 Modified: No



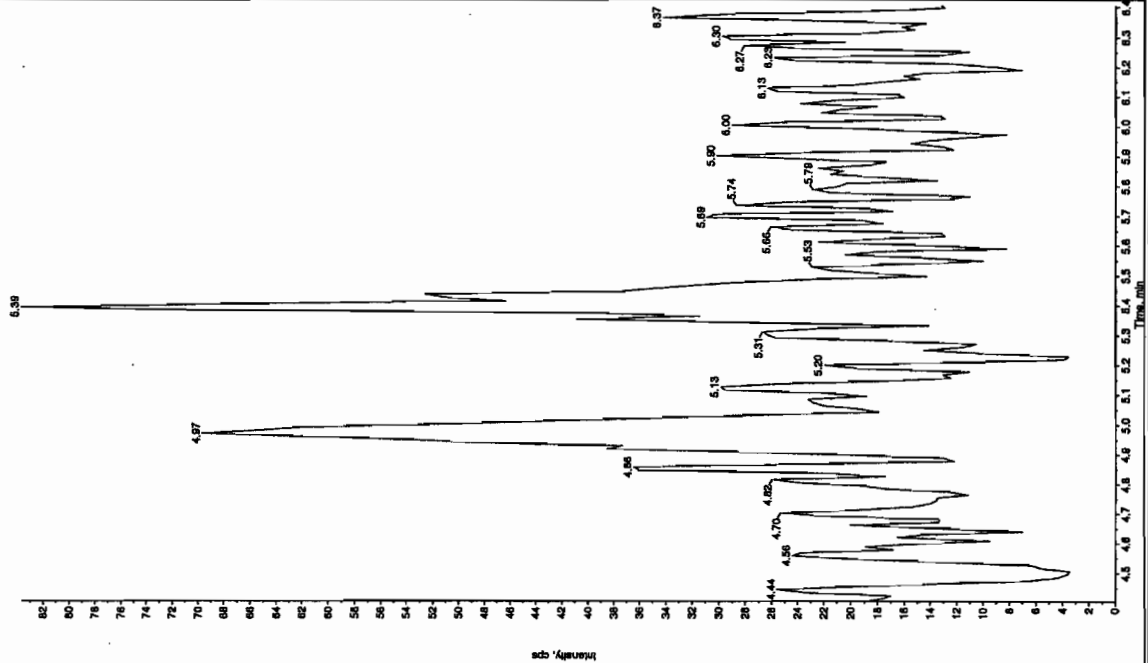
Sample Name: "YIELK06" Sample ID: "11LEF" File: "EXS04090044.wif"  
 Peak Name: "tris-(o-cresyl) phosphate" Mass(es): "369.151.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 1.88  
 Acq. Date: 4/9/2010  
 Acq. Time: 6:30:16 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 3.00 sec  
 Smoothing Width: 30.0 points  
 Peak Width: 30.0 sec  
 Expected RT: 10.8 min  
 Use relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 6.06e+004 counts  
 Height: 15453.811 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



Sample Name: "YIELK06" Sample ID: "11LEF" File: "EXS04090044.wif"  
 Peak Name: "24-Diamino-6-nitrothiophene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/9/2010  
 Acq. Time: 6:30:16 PM  
 Modified: No



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 09-APR-10 20:20

GEL Data File: EXS04090051.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
tris(o-cresyl) phosphate	0	4.71
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

2011 4/12/10

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Sample Name: "XIBLX07" Sample ID: "1111ER" File: "EXS04090051.wif"

Peak Name: "36-Dinitroaniline" Mass(es): "182.046.0 amu"

Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1

Sample Type: Unknown

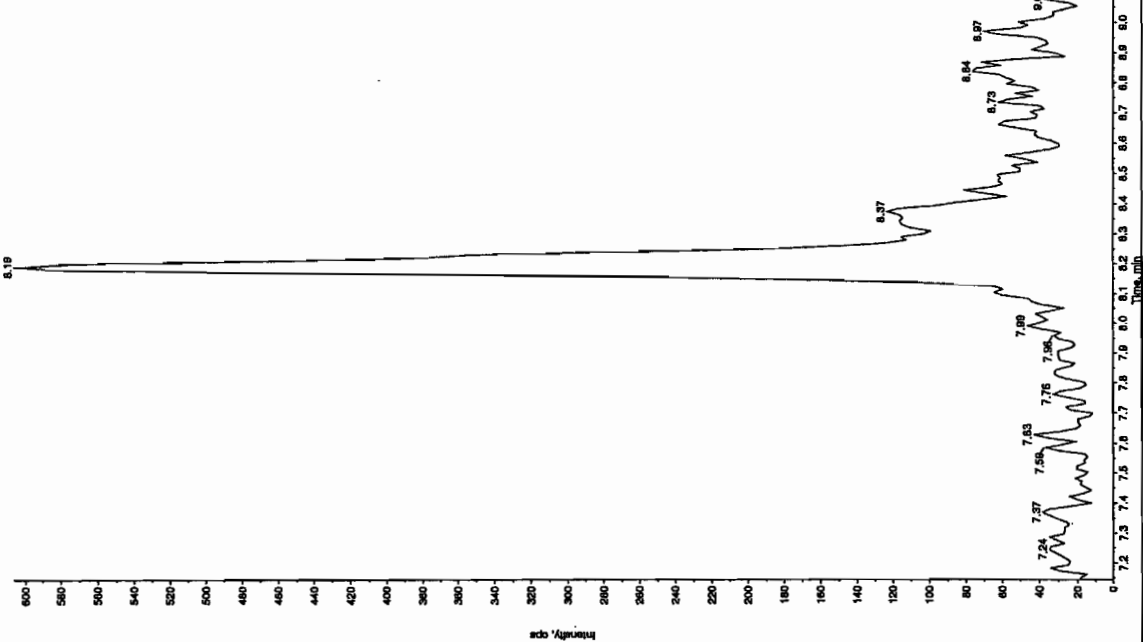
Concentration: N/A ng/mL

Calculated Conc: 0.00

Acq. Date: 4/9/2010

Acq. Time: 8:20:11 PM

Modified: No



4/12/10

Sample Name: "XIBLX07" Sample ID: "1111ER" File: "EXS04090051.wif"

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

Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1

Sample Type: Unknown

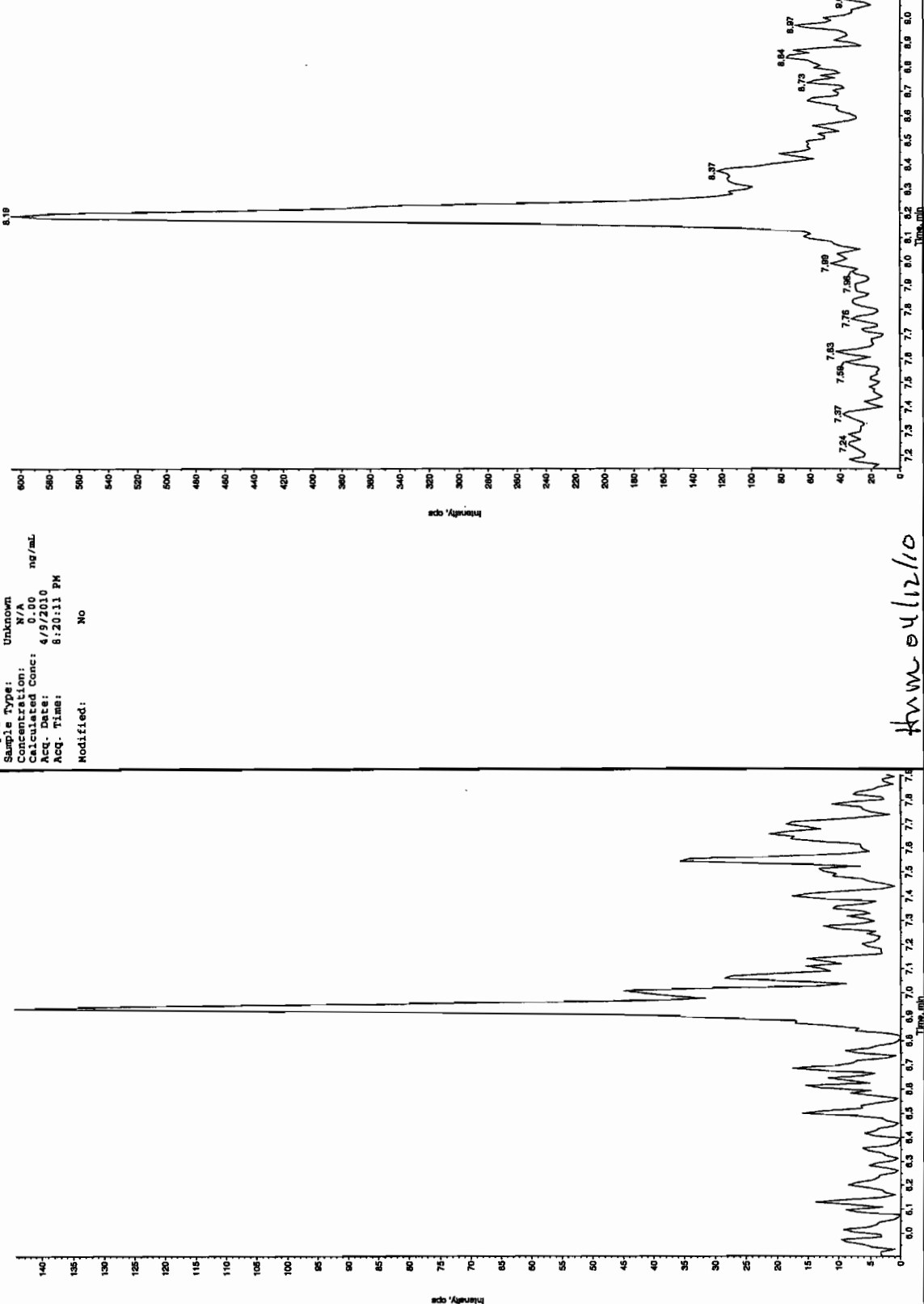
Concentration: N/A ng/mL

Calculated Conc: 0.00

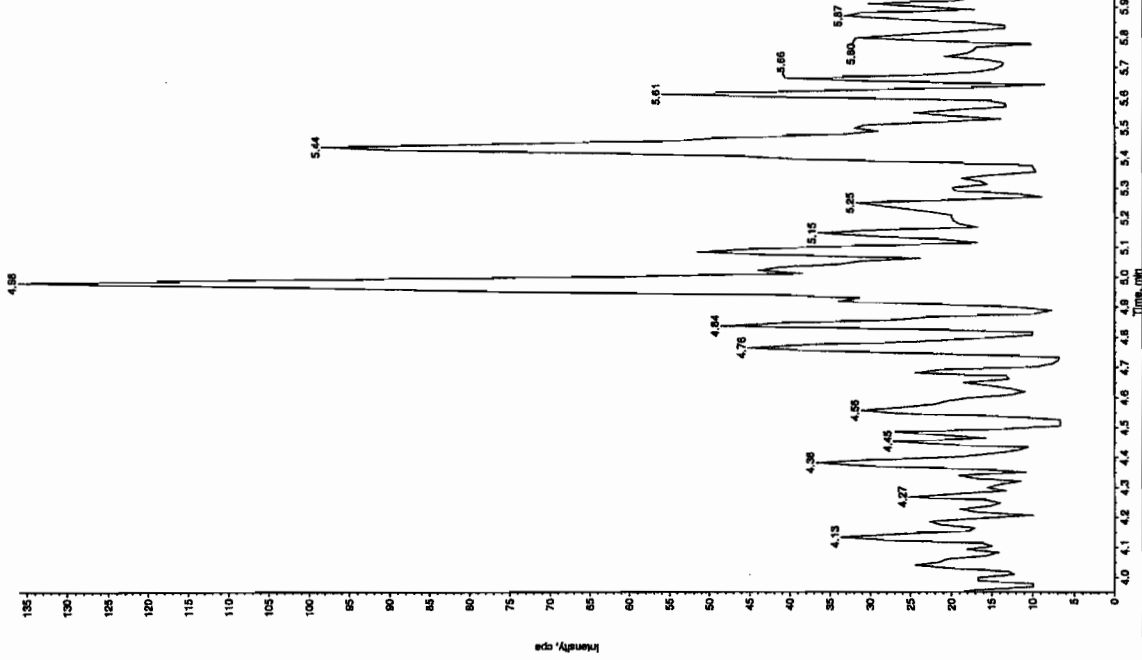
Acq. Date: 4/9/2010

Acq. Time: 8:20:11 PM

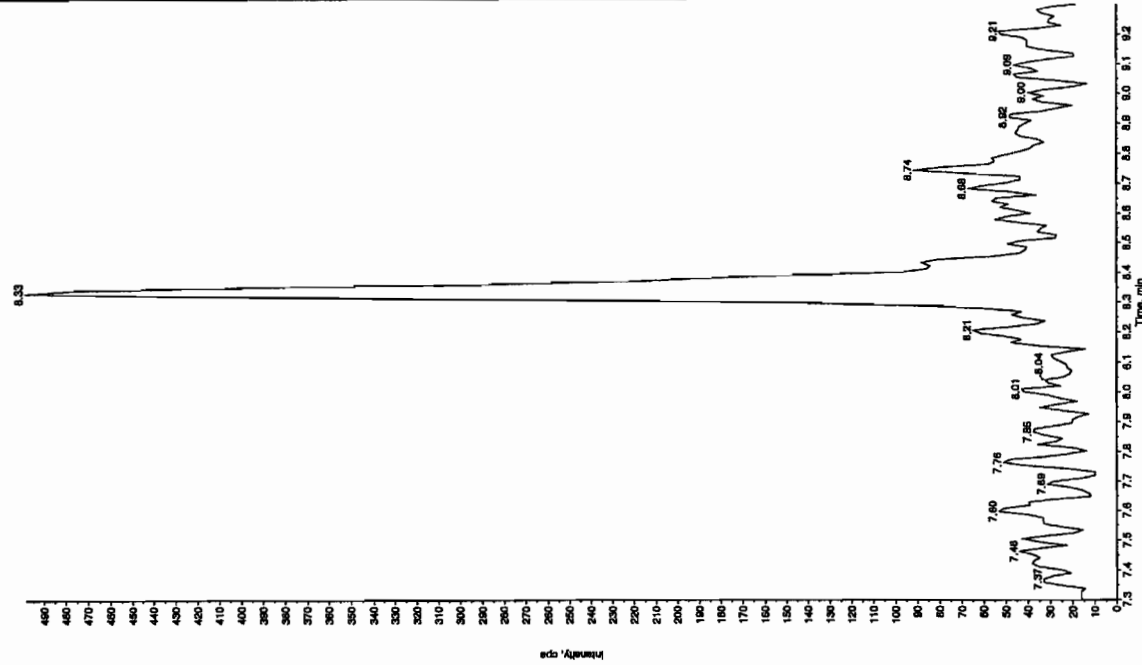
Modified: No



Sample Name: "XBLX07" Sample ID: "111LER" File: "EXS04090051.wif"  
 Peak Name: "25-Dinitro-4-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A mg/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/9/2010  
 Acq. Time: 8:20:11 PM  
 Modified: No

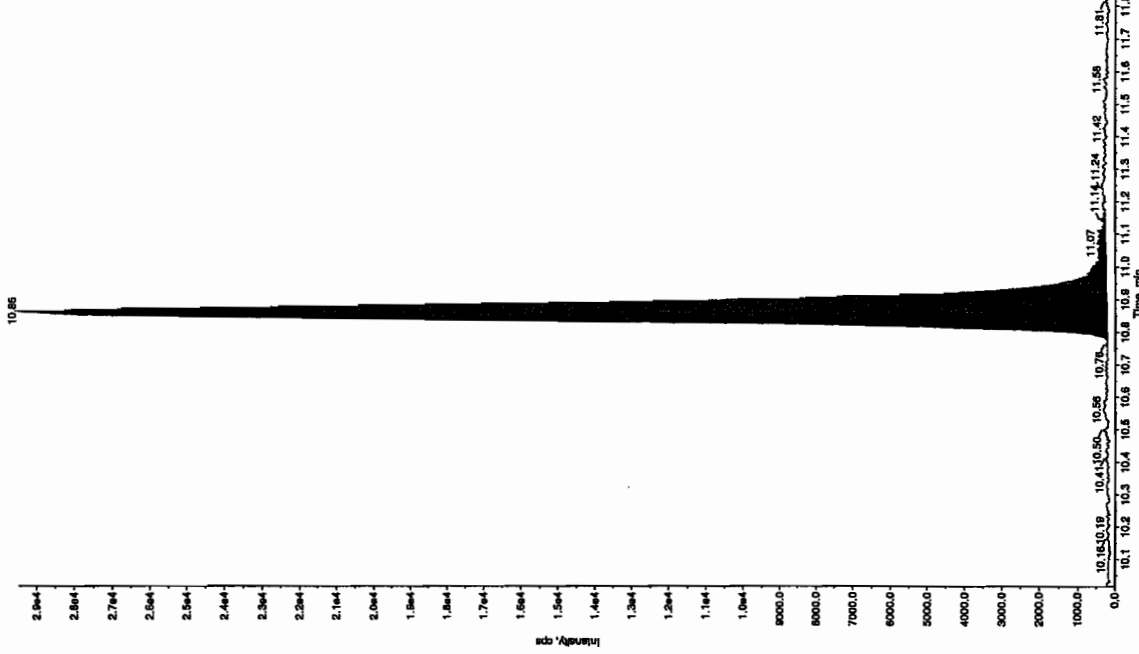


Sample Name: "XBLX07" Sample ID: "111LER" File: "EXS04090051.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1151.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A mg/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/9/2010  
 Acq. Time: 8:20:11 PM  
 Modified: No



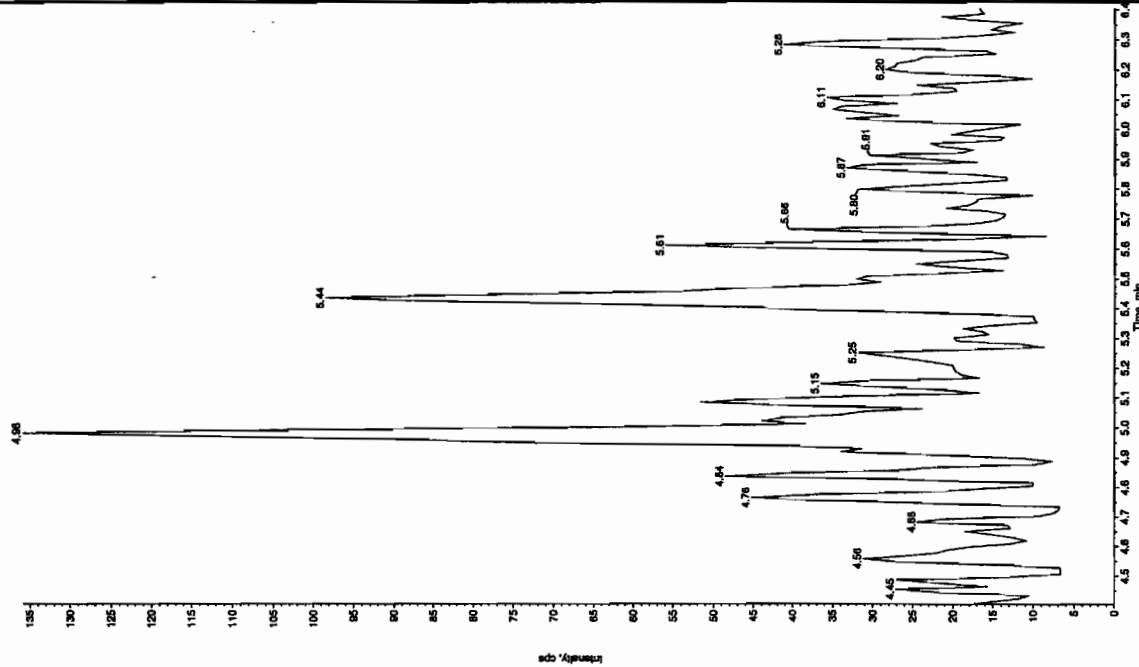
Sample Name: "XIBLK07" Sample ID: "11LER" File: "EXS04090051.wif"  
 Peak Name: "1,6-di-tert-butylphosphazene" Mass(es): "369.161.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 4.71 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 8:20:11 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Weight: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.9 min  
 Area: 1.19e+005 counts  
 Height: 29275.728 cps  
 Start Time: 10.8 min  
 End Time: 11.2 min



Sample Name: "XIBLK07" Sample ID: "11LER" File: "EXS04090051.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  
 Acq. Date: 4/9/2010  
 Acq. Time: 8:20:11 PM  
 Modified: No





4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 09-APR-10 23:44

GEL Data File: EXS04090064.wiff

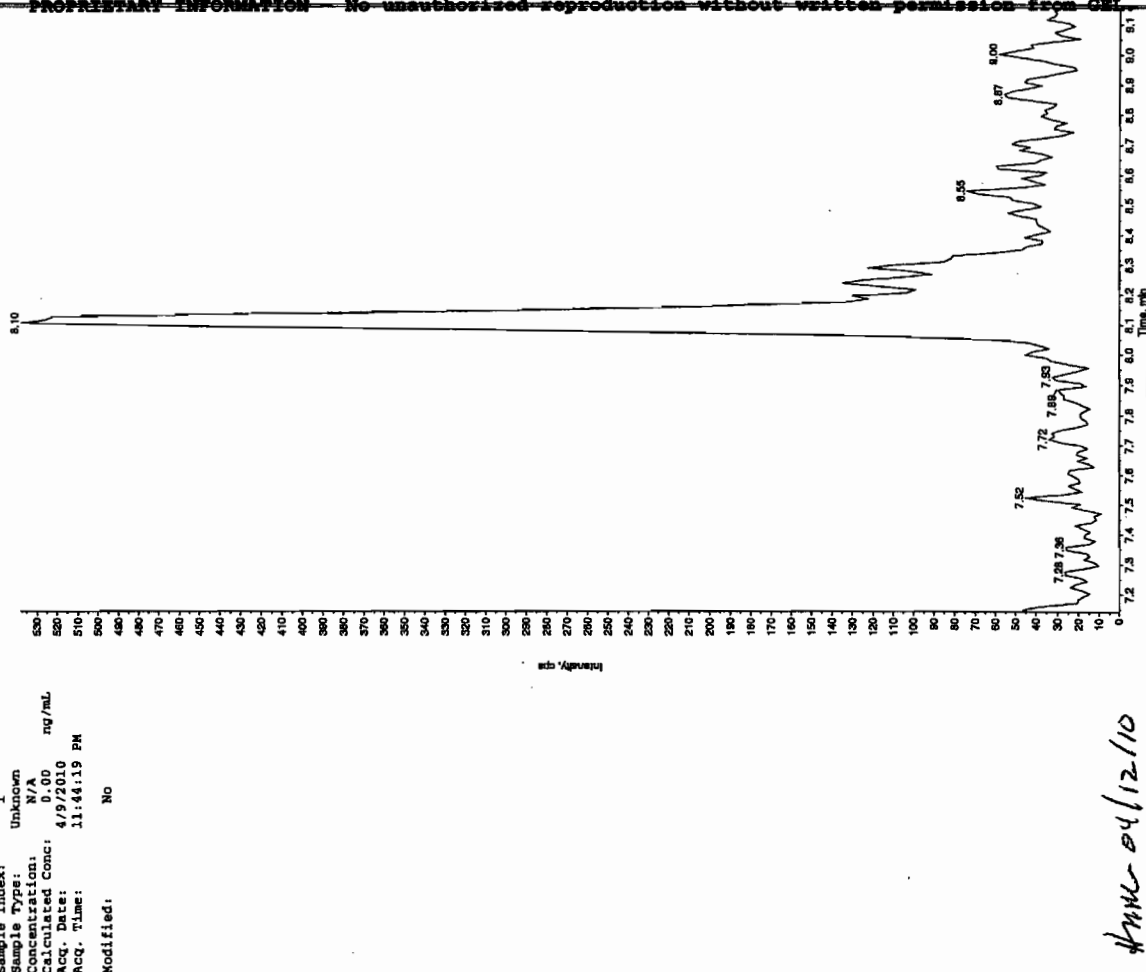
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

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

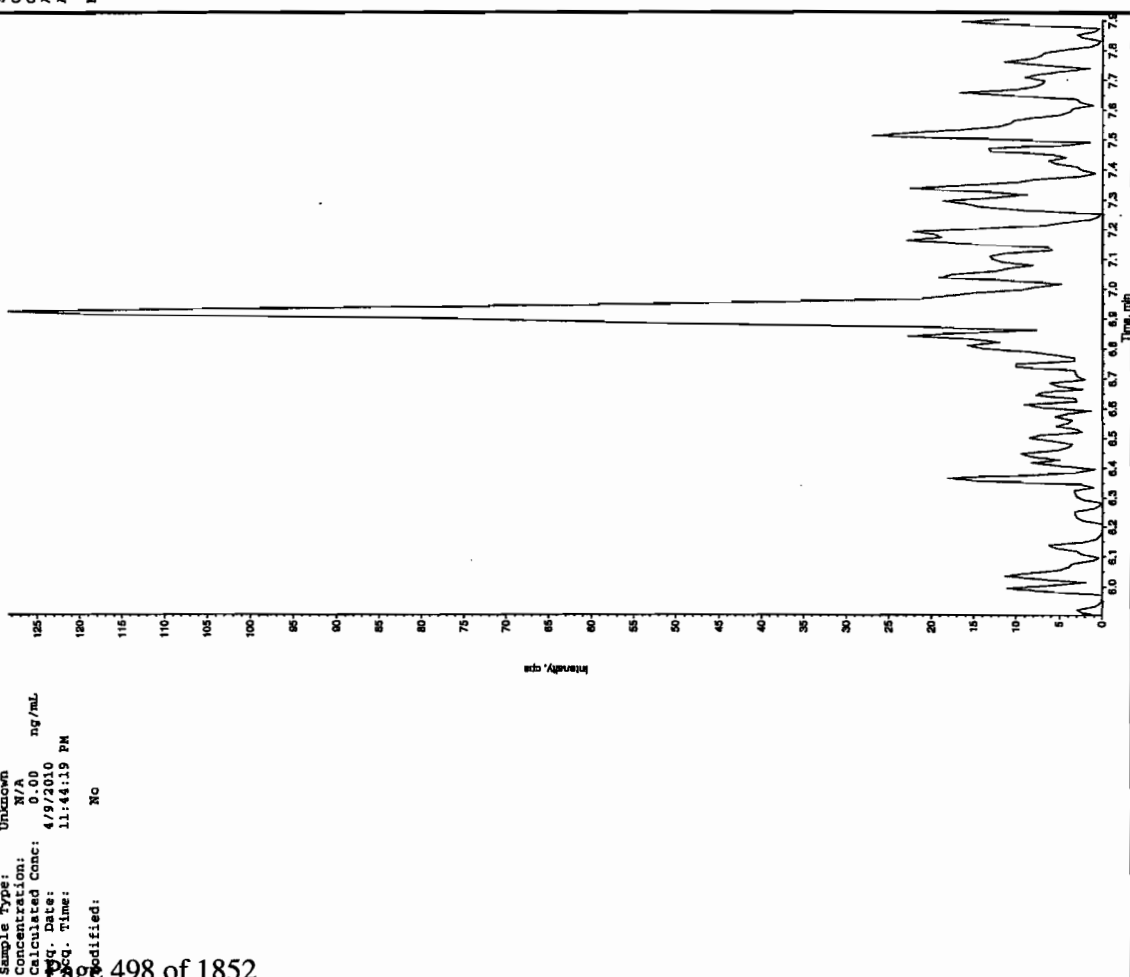
Jan 4/12/10

Sample Name: "XIBLX08" Sample ID: "111LRF" File: "EXS04090064.wiff"  
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: 4/9/2010  
Acq. Time: 11:44:19 PM  
Modified: No



4mm-04/12/10

Sample Name: "XIBLX08" Sample ID: "111LRF" File: "EXS04090064.wiff"  
Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
Comment: "LCMSEXP\_B" Annotation: ""  
Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 11:44:19 PM  
Modified: No



Sample Name: "XIBLX08" Sample ID: "11LER" File: "EXS04090064.wif"  
Peak Name: "26-Diamino-4-nitrobenzene" Mass(es): "166.046.0 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A ng/mL  
Calculated Conc: 0.00  
Acq. Date: 4/9/2010  
Acq. Time: 11:44:19 PM  
Modified: No

Intensity, cps

Time, min

5.90 5.02 5.27 5.19 4.91 4.80 4.54 4.33 4.40 4.15 4.02 5.73 5.85

Sample Name: "XIBLX08" Sample ID: "11LER" File: "EXS04090064.wif"  
Peak Name: "34-Dinitrotoluene" Mass(es): "182.17131.9 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A ng/mL  
Calculated Conc: 0.00  
Acq. Date: 4/9/2010  
Acq. Time: 11:44:19 PM  
Modified: No

Intensity, cps

Time, min

8.24 7.23 7.51 7.85 7.70 7.87 8.64 8.91 8.95 8.00 8.23

Sample Name: "XBLK08" Sample ID: "11LER" File: "EX04090064.wif"  
 Peak Name: "bis(2-ethyl) phosphatidyl" Mass(es): "369.191.0 amu"  
 Comment: "LCMSXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

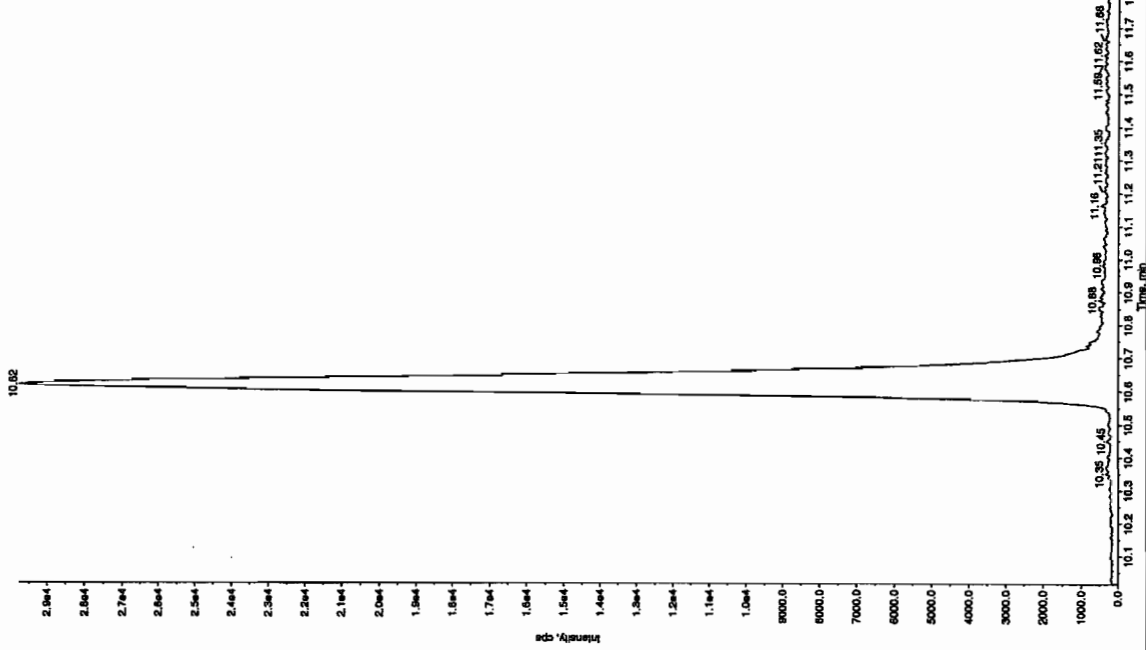
Concentration: N/A ng/mL

Calculated Conc: 0.00

Acq. Date: 4/9/2010

Acq. Time: 11:44:19 PM

Modified: No



Sample Name: "XBLK08" Sample ID: "11LER" File: "EX04090064.wif"  
 Peak Name: "24-Diamino-6-nitrobluene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

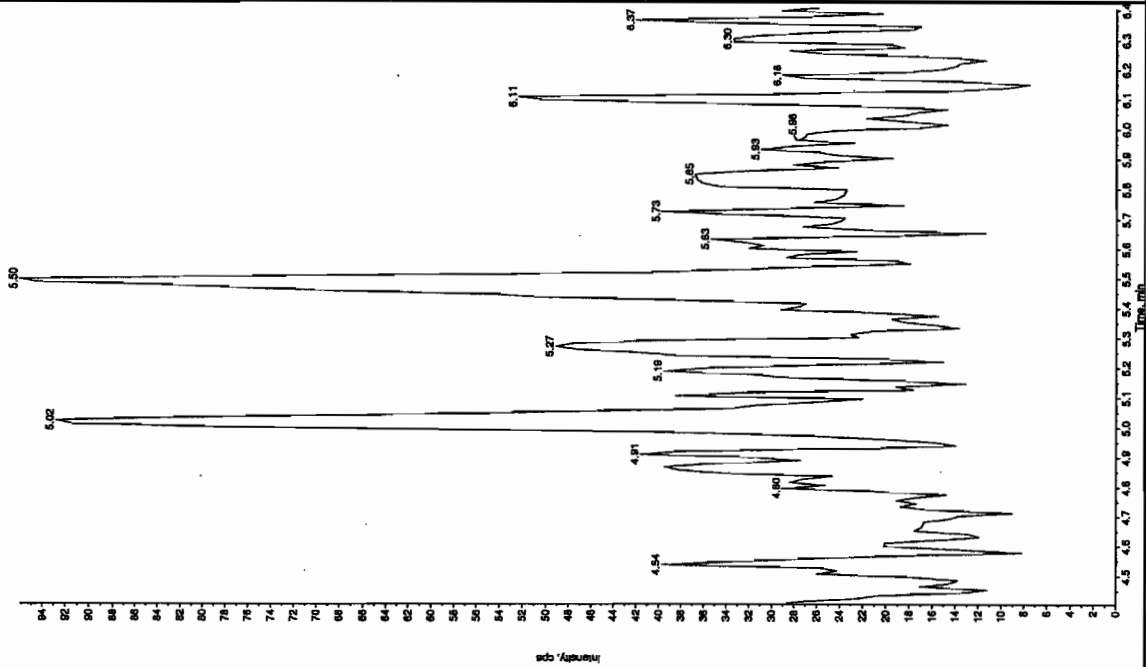
Concentration: N/A ng/mL

Calculated Conc: 0.00

Acq. Date: 4/9/2010

Acq. Time: 11:44:19 PM

Modified: No



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2202

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 10-APR-10 01:49

GEL Data File: EXS04090072.wiff

Instrument ID: LCMSMS

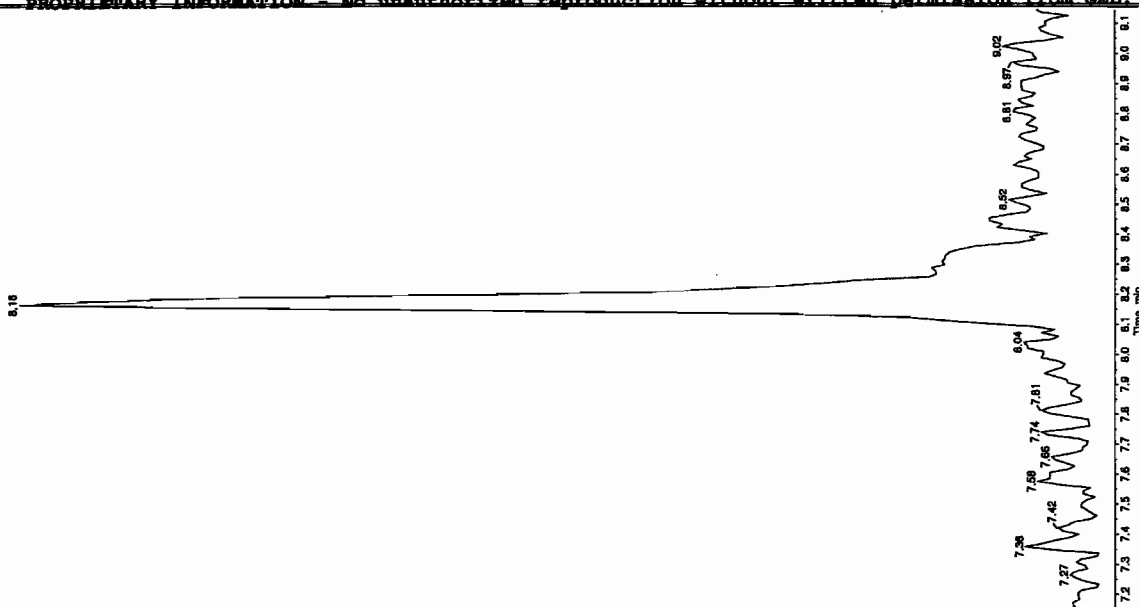
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
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	6.03
TATB	0	0

Jan 4/12/10

Sample Name: "XIBLK09" Sample ID: "11LEF" File: "EXS04090072.wif"  
Peak Name: "35-Dinitroanthracene" 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: 4/10/2010  
Acq. Time: 1:49:58 AM  
Modified: No

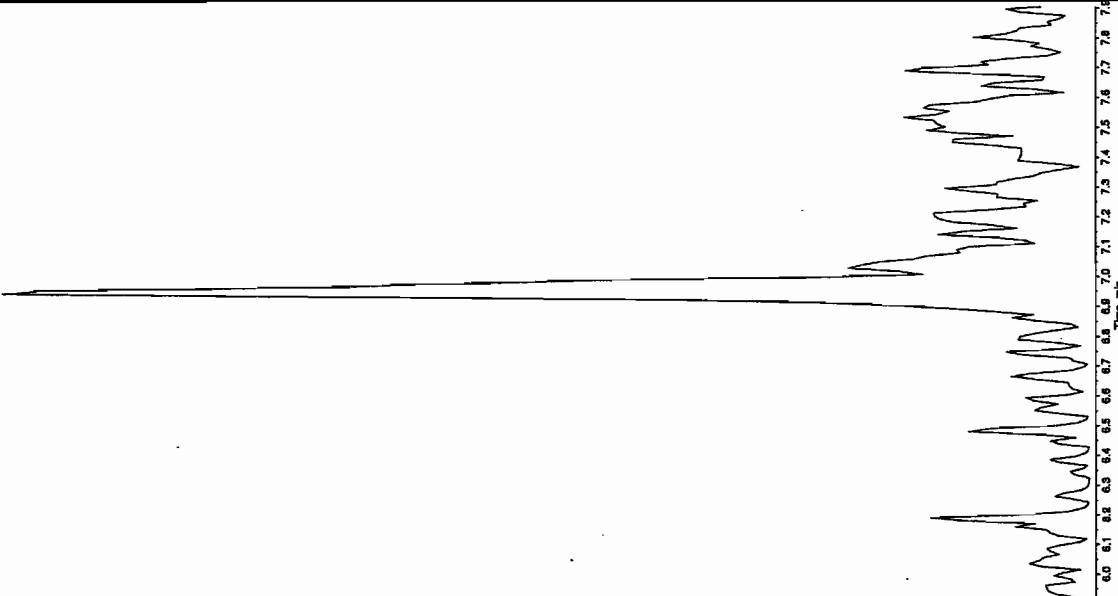
Intensity, cps



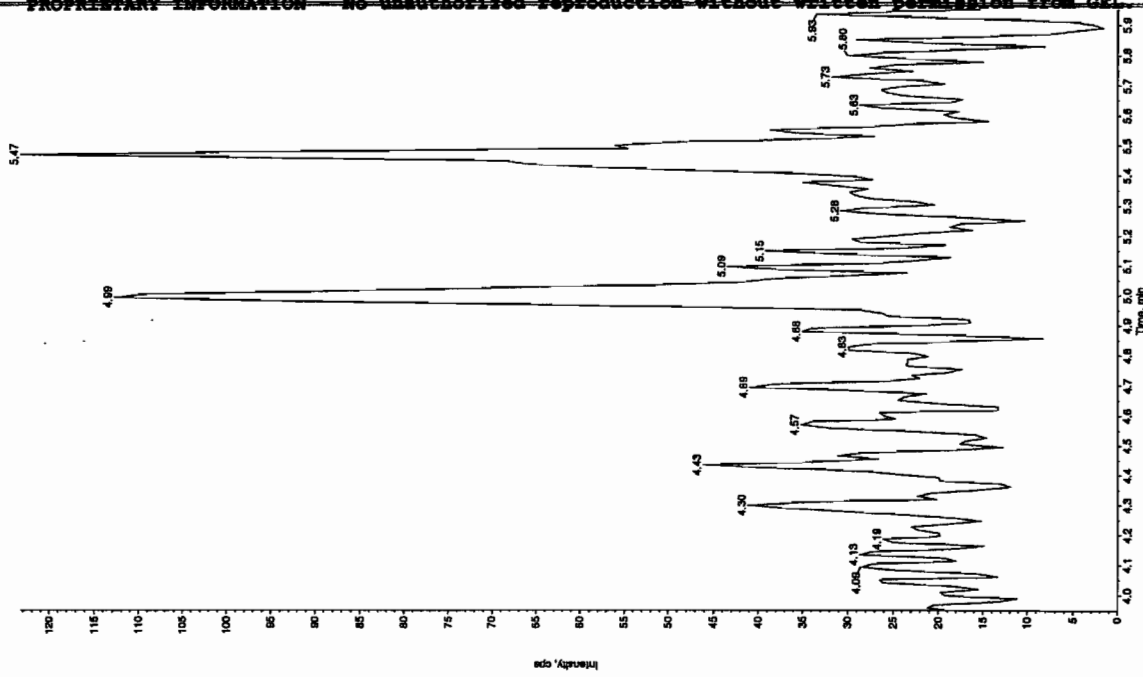
Jan-04/12/10

Sample Name: "XIBLK09" Sample ID: "11LEF" File: "EXS04090072.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: 4/10/2010  
Acq. Time: 1:49:58 AM  
Modified: No

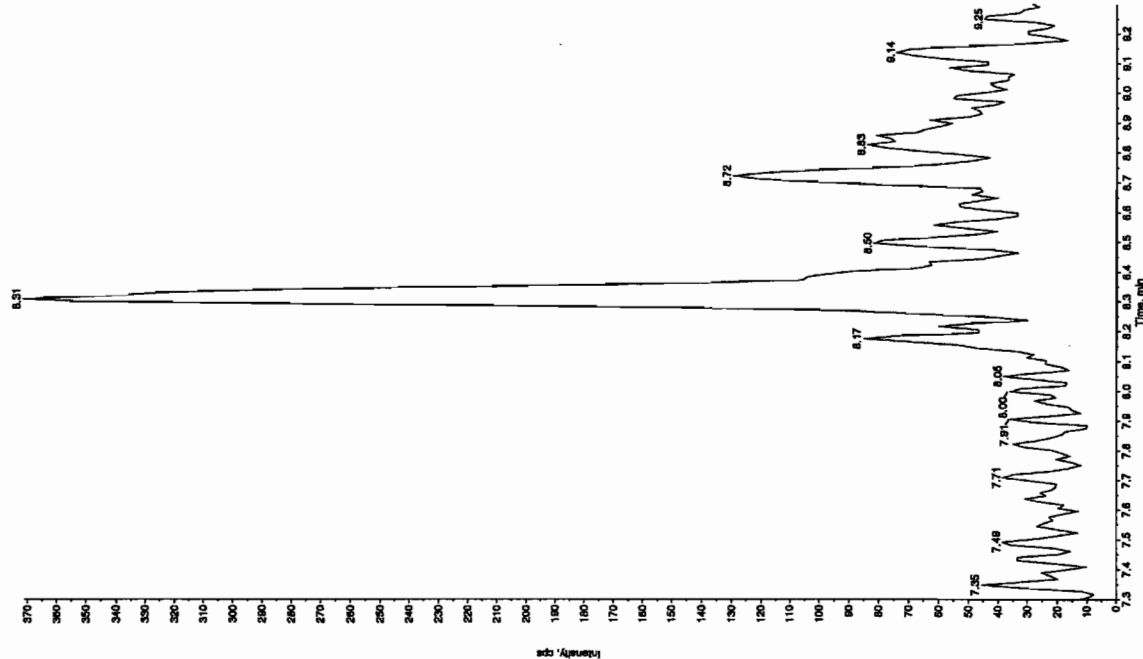
Intensity, cps



Sample Name: "XIBLK08" Sample ID: "1111ER" File: "EXSD4090072.wif"  
 Peak Name: "28-Diamino-4-nitrotoluene" Mass(es): "156.046.0 amu"  
 Comment: "LCMSDEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 mg/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 1:49:58 AM  
 Modified: No



Sample Name: "XIBLK08" Sample ID: "1111ER" File: "EXSD4090072.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.151.9 amu"  
 Comment: "LCMSDEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ug/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 1:49:58 AM  
 Modified: No



Sample Name: "XIBLK09" Sample ID: "11LER" File: "EXS04090072.wif"

Peak Name: "tris(o-cresyl) phosphite" Mass(es): "369.191.0 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: 6.03 ng/mL

Calculated Conc: 6.03

Acq. Date: 4/10/2010

Acq. Time: 1:49:58 AM

Modified: No

Proc. Algorithm: IntellQuan - IQA

Min. Peak Height: 8000.00 cps

Min. Peak Width: 3.00 sec

Smoothing Width: 30.0 points

Expected RT: 10.8 min

Use Relative RT: No

Int. Type: Valley

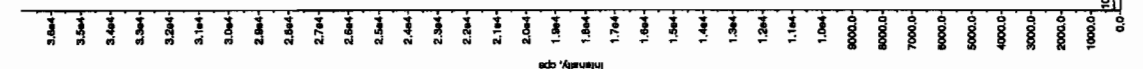
Retention Time: 10.7 min

Area: 1.45e+005 counts

Height: 36728.577 cps

Start Time: 10.6 min

End Time: 11.0 min



Sample Name: "XIBLK09" Sample ID: "11LER" File: "EXS04090072.wif"

Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "156.046.0 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: 0.00 ng/mL

Calculated Conc: 0.00

Acq. Date: 4/10/2010

Acq. Time: 1:49:58 AM

Modified: No

Proc. Algorithm: IntellQuan - IQA

Min. Peak Height: 8000.00 cps

Min. Peak Width: 3.00 sec

Smoothing Width: 30.0 points

Expected RT: 10.8 min

Use Relative RT: No

Int. Type: Valley

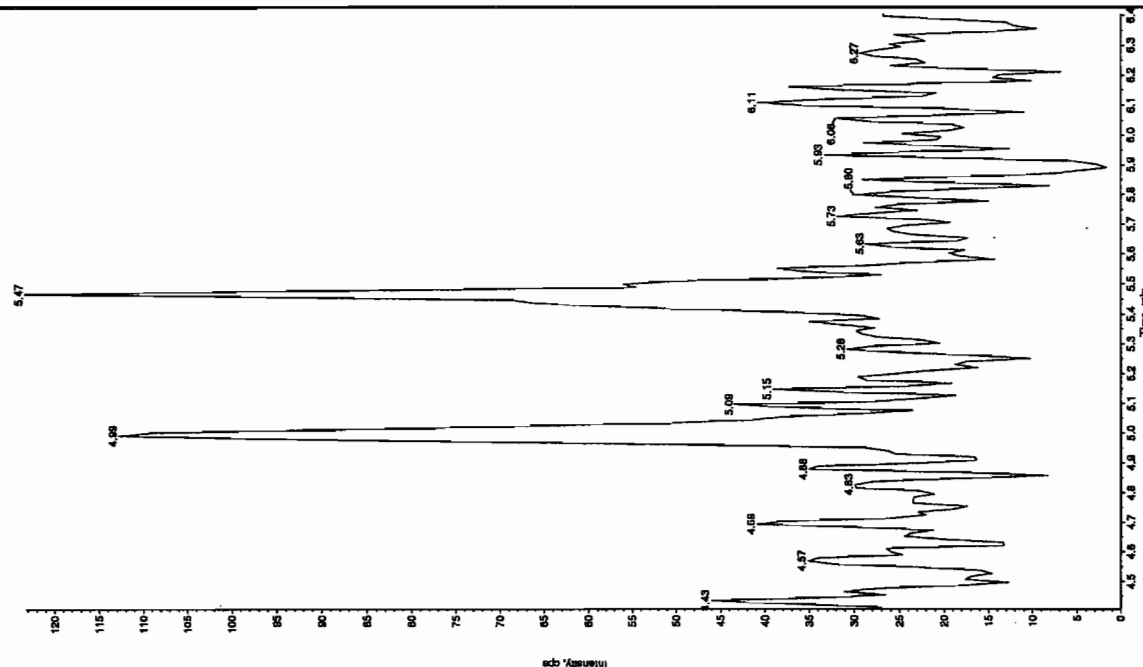
Retention Time: 10.7 min

Area: 1.45e+005 counts

Height: 36728.577 cps

Start Time: 10.6 min

End Time: 11.0 min





Nairb.ref

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

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

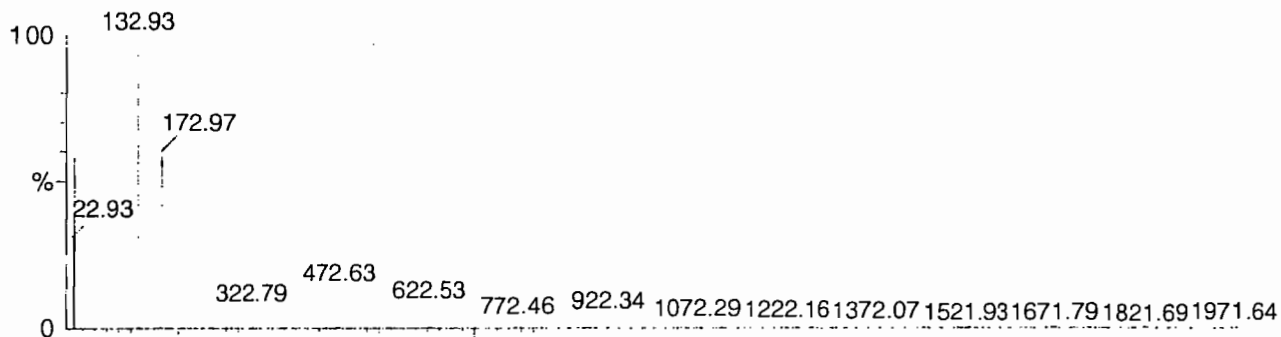
Calibration Report - MS1 Static

Page 1 of 1

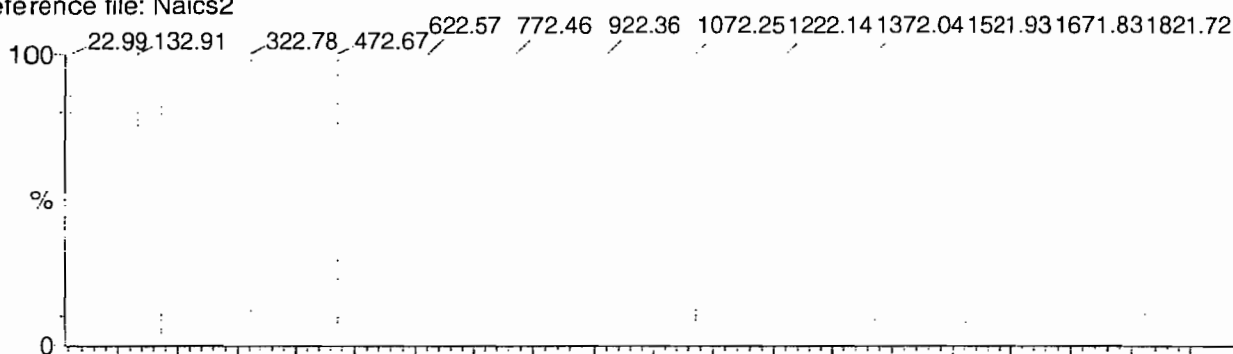
Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

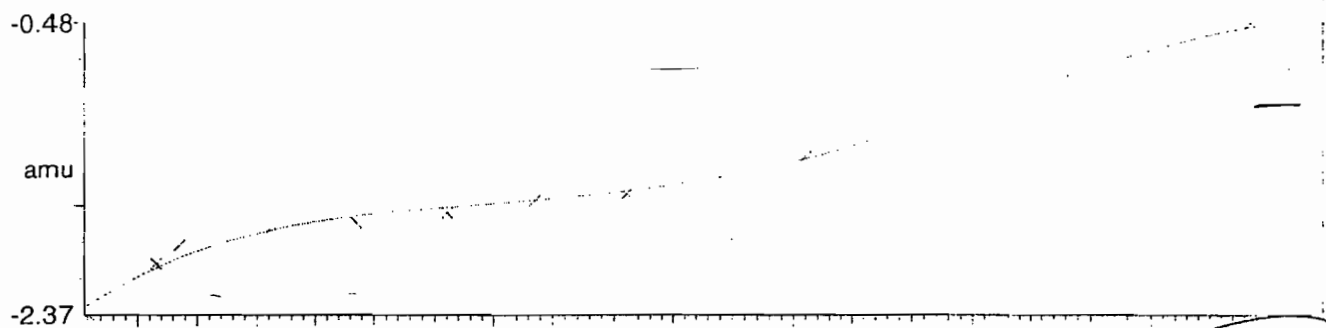
15 matches of 15 tested references



Reference file: Naics2

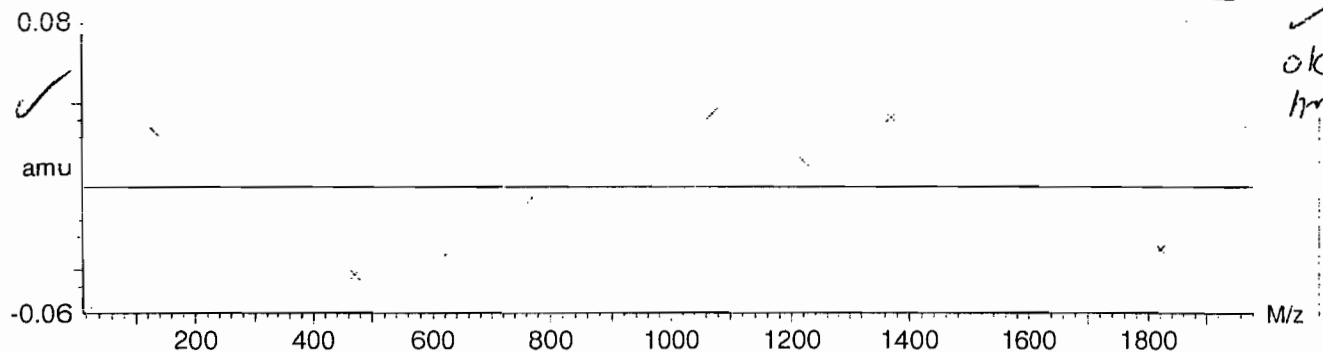


Mass difference (Raw - Ref mass)



Residuals

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



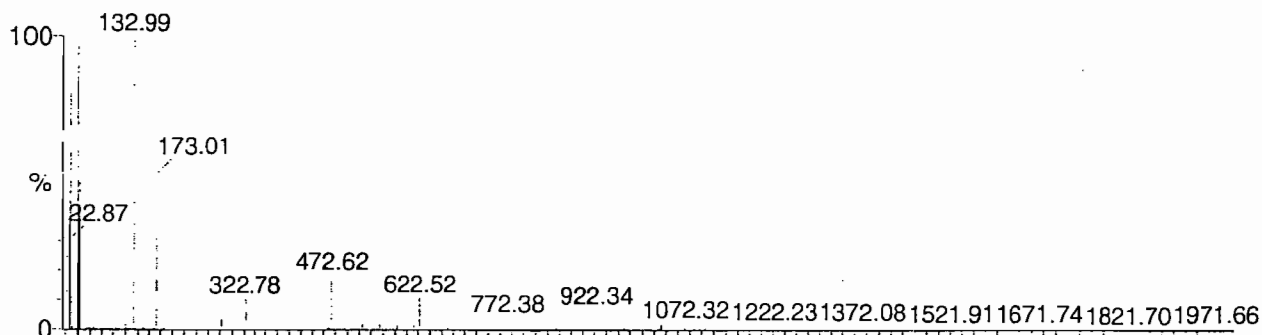
Calibration Report - MS1 Scanning

Page 1 of 1

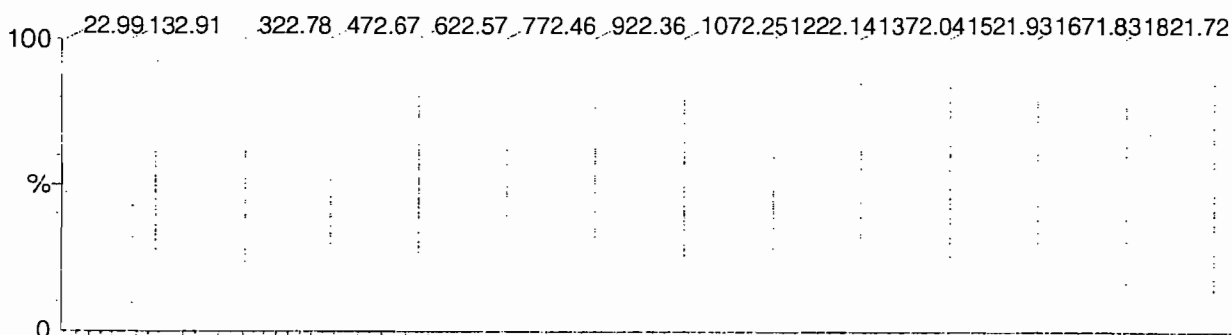
Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

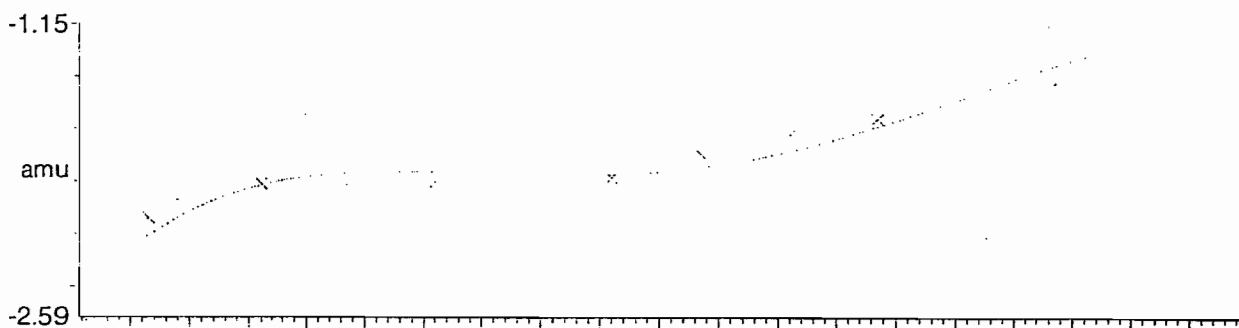
15 matches of 15 tested references



Reference file: Naics2

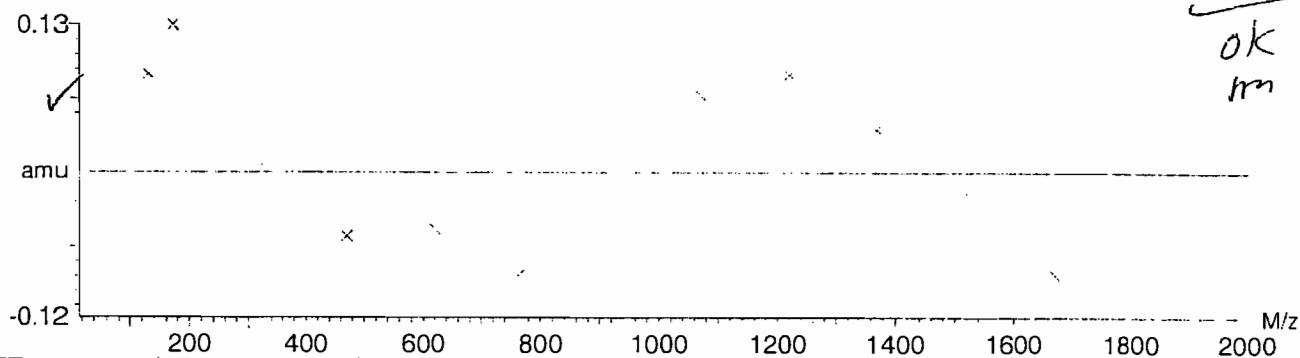


Mass difference (Raw - Ref mass)



Residuals

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



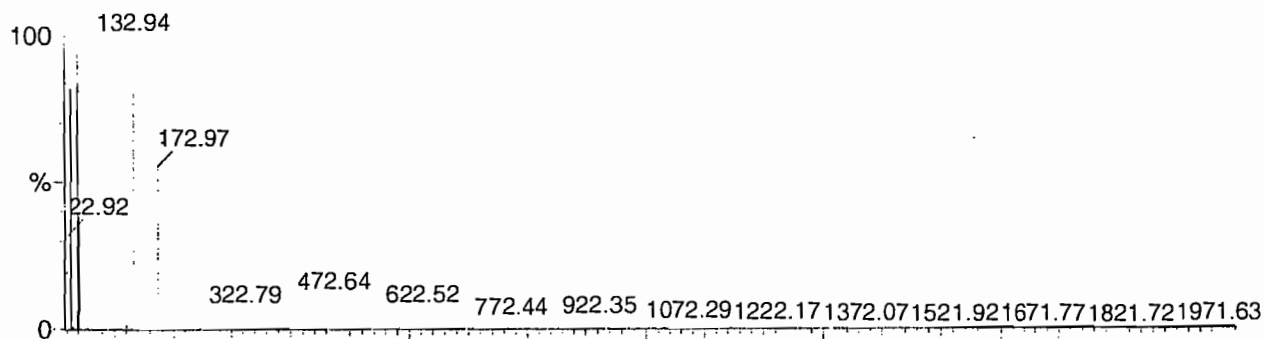
Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

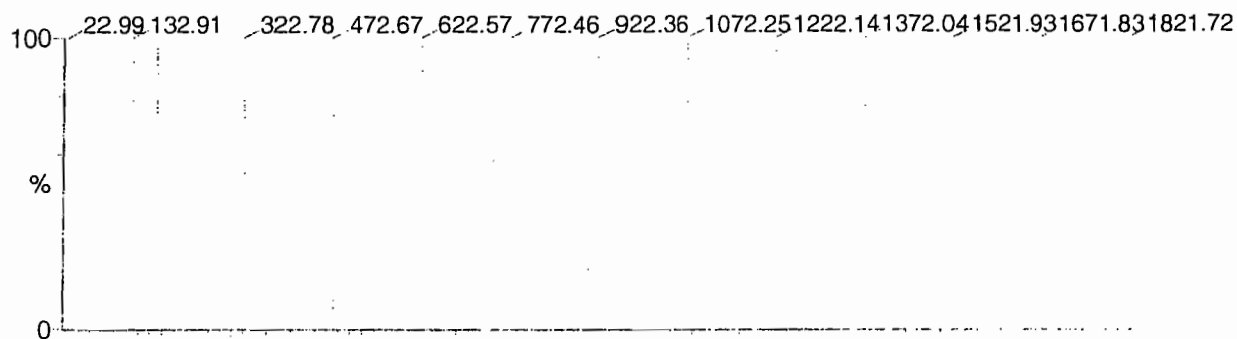
Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

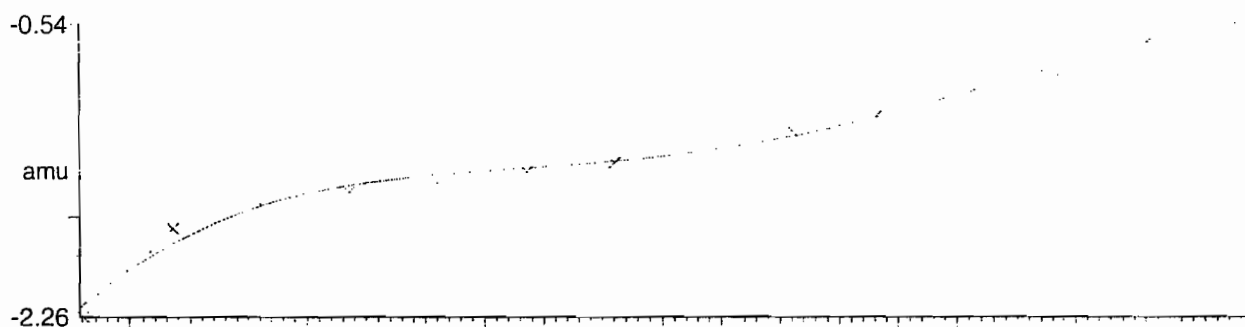
15 matches of 15 tested references



Reference file: Naics2

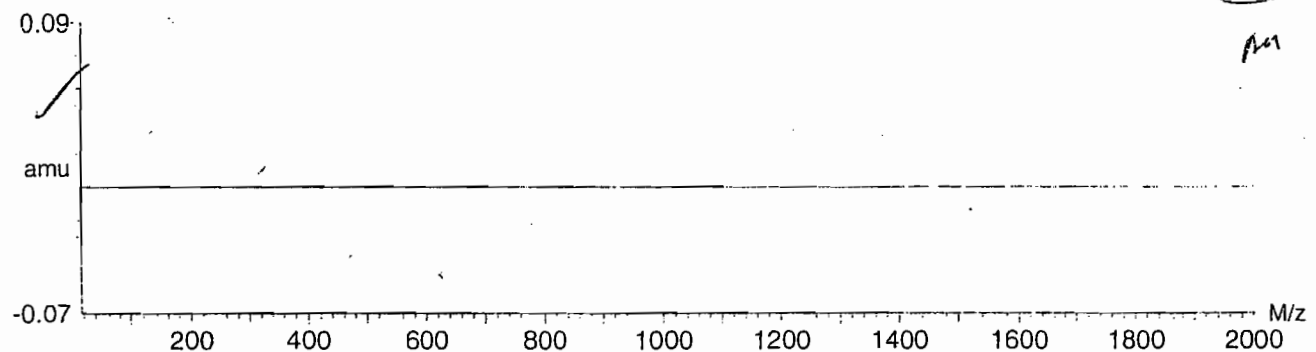


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $3.486639e-9 \pm 0.040487$

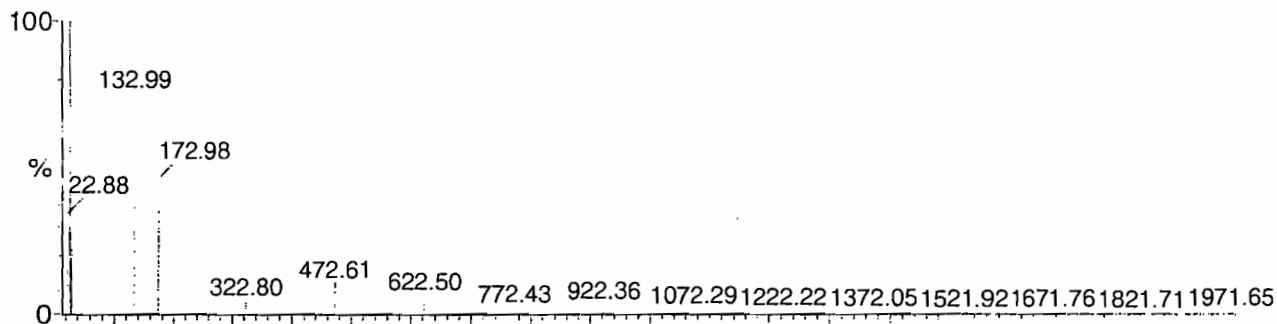


Calibration Report - MS2 Static

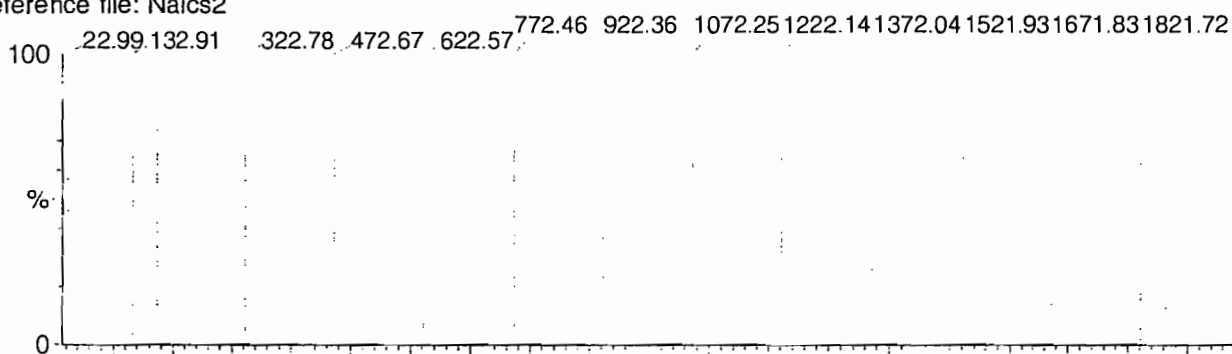
Page 1 of 1

Printed: Fri Aug 25 10:52:54 2006

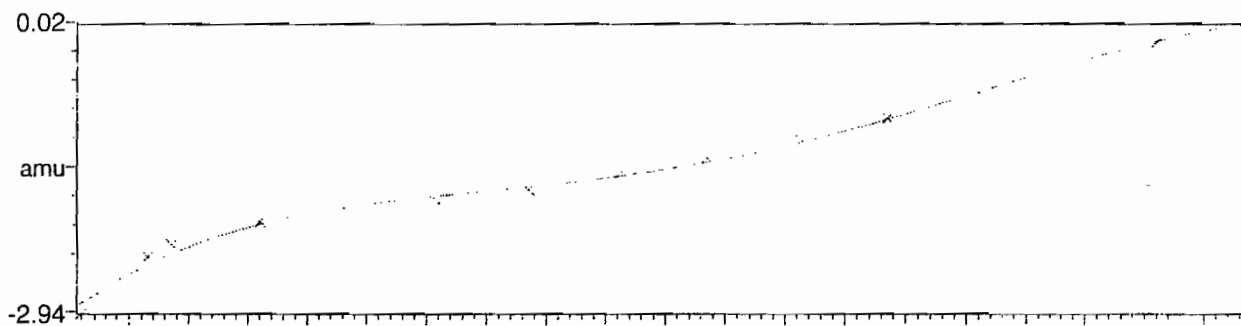
Data file: STATMS2 - Calibrated 15 matches of 15 tested references:



Reference file: Naics2

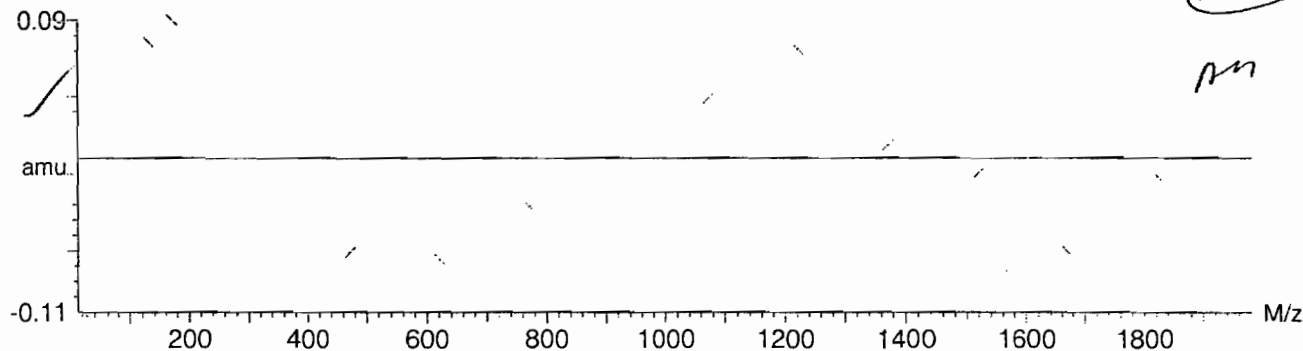


Mass difference (Raw - Ref mass)



Residuals

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



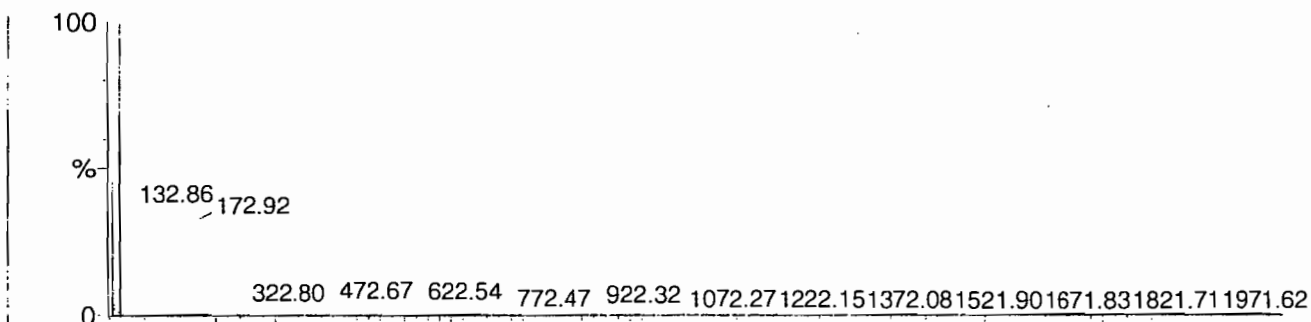
Calibration Report - MS2 Scanning

Page 1 of 1

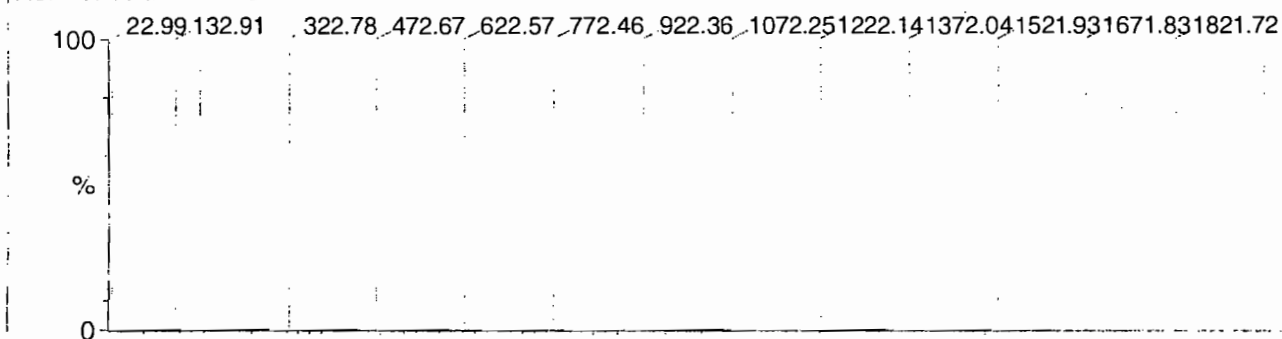
Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

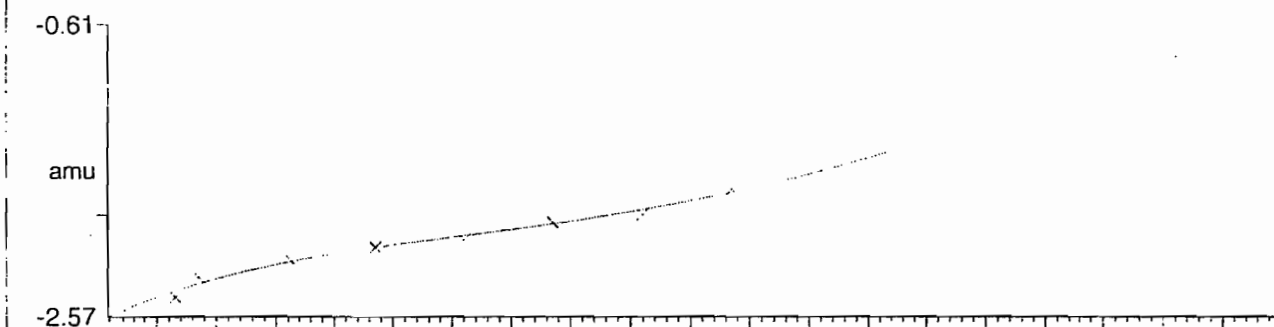
14 matches of 15 tested references



Reference file: Naics2

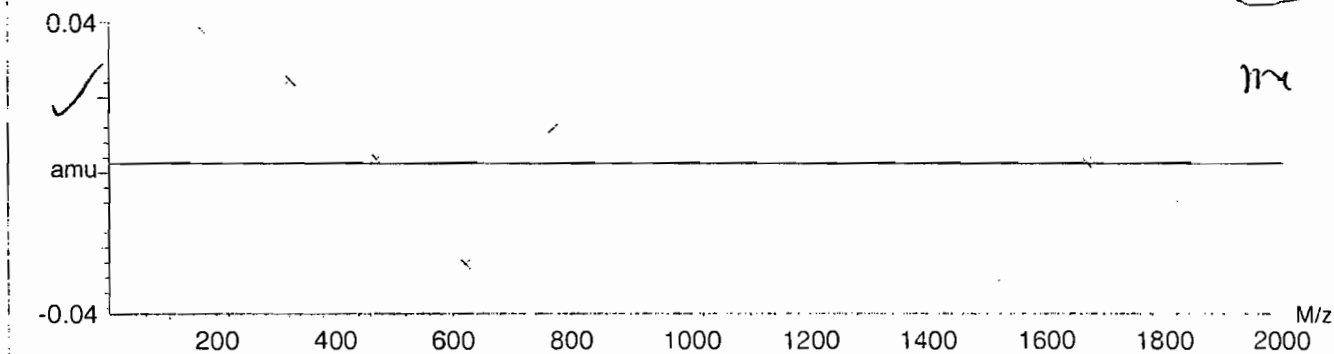


Mass difference (Raw - Ref mass)



Residuals

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



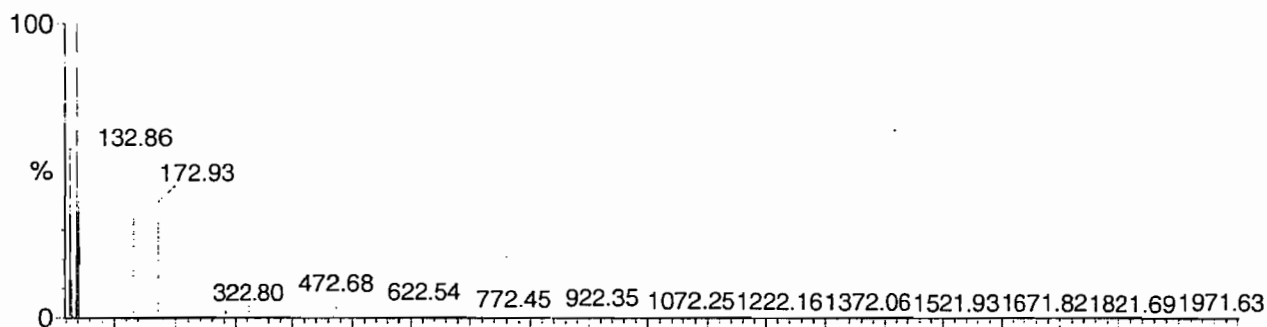
Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

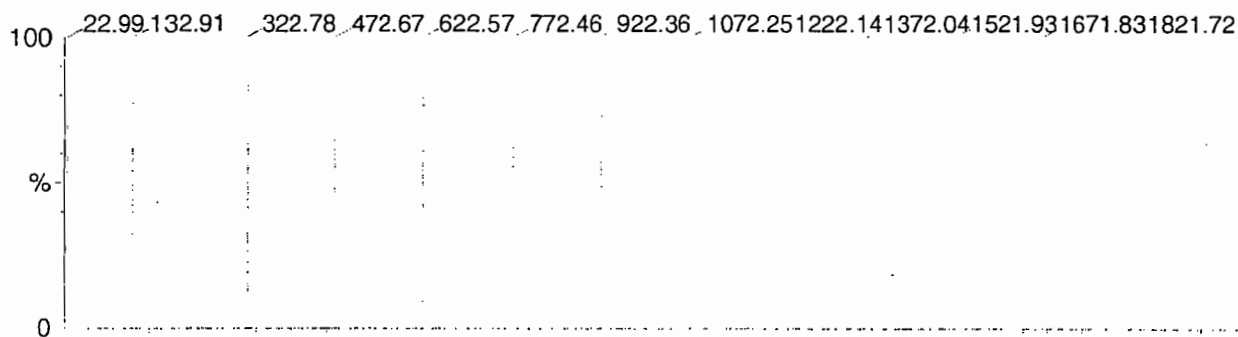
Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

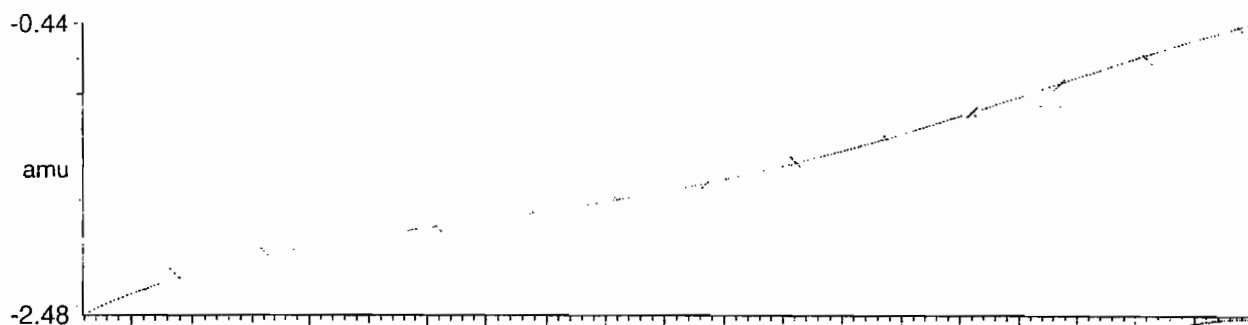
14 matches of 15 tested references



Reference file: Naics2

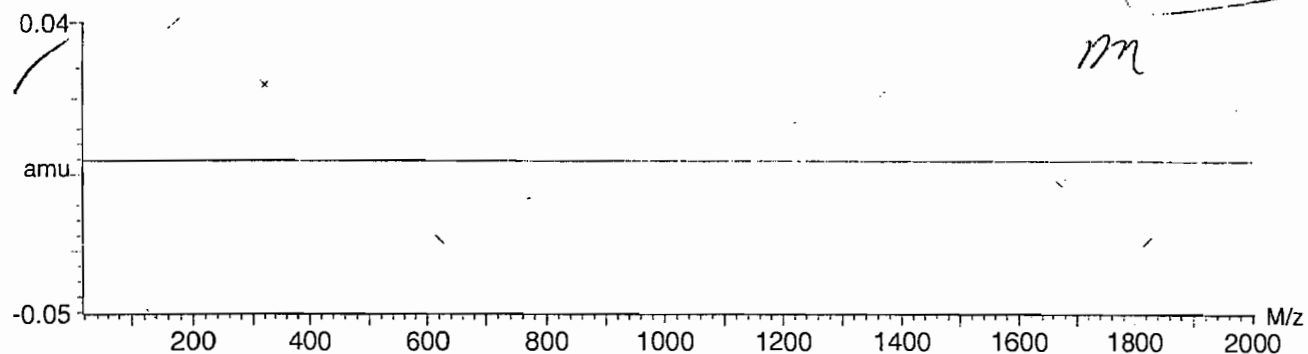


Mass difference (Raw - Ref mass)



Residuals

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



# High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

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) #
			16516666.667	10.5	73466666.667	14.65
Upper Limit			21471666.6671	11	95506666.6671	15.15
Lower Limit			11561666.6669	10	51426666.6669	14.15
MB for batch 961016	16-apr-10 14:15	EXP0415066.w	13900000	10.5	59200000	14.7
LCS for batch 961016	16-apr-10 14:41	EXP0415067.w	13600000	10.5	67200000	14.6

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			23400000	10.617	102216666.667	14.867
Upper Limit			30420000	11.117	132881666.667	15.367
Lower Limit			16380000	10.117	71551666.6669	14.367
RE36-10-8466	20-apr-10 22:31	EXP0420020.w	19900000	10.6	89600000	14.9
RE36-10-8466(248526001MS)	20-apr-10 22:57	EXP0420021.w	18400000	10.6	84100000	14.9
RE36-10-8466(248526001MSD)	20-apr-10 23:23	EXP0420022.w	19900000	10.7	85300000	14.9

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

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

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

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

RT Upper Limit = +0.5 of average multipoint RT

RT Lower Limit = -0.5 of average multipoint RT

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

\* Values outside of QC limits



# SAMPLE DATA

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8466

Lab Code: GEL

GEL Job No (SDG) 10-2202

Matrix: SOIL

GEL Sample ID: 248526001

Sample Amount 2

Moisture: 12.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0420020.wiff

Date Analyzed: 20-APR-10 22:31

Units: ug/kg

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

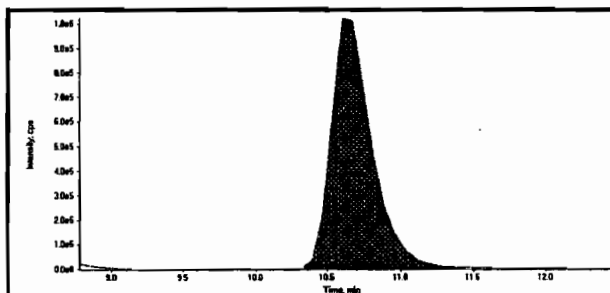
\*Concentration =

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

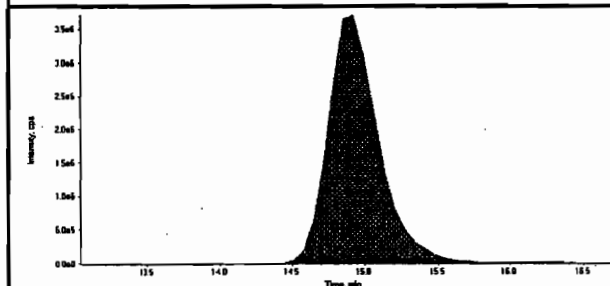
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

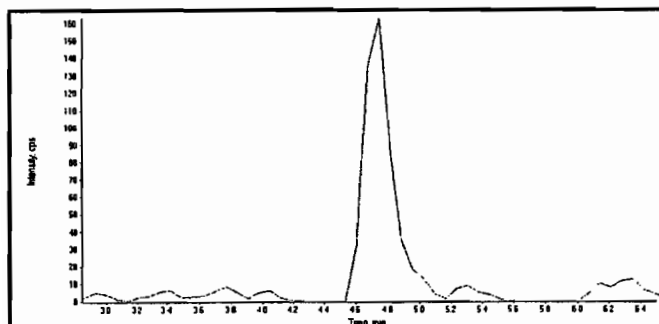
Data File	EXP0420020.wiff	Acquisition Date	4/20/2010 10:31:47 PM
Sample Name	248526001	Acquisition Method	8321.dam
Batch Dilution Analyst	961033 2 LER	Result Table	042010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



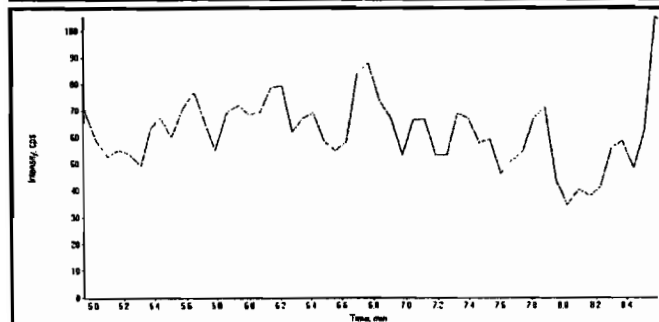
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	19900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	89600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



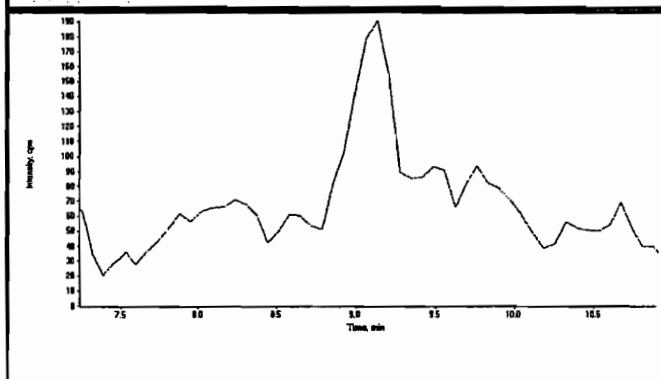
Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Har*  
*4/20/10*  
*HMX*  
*04/20/10*

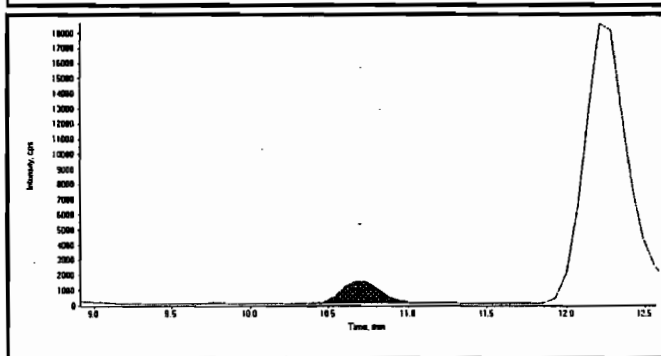
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

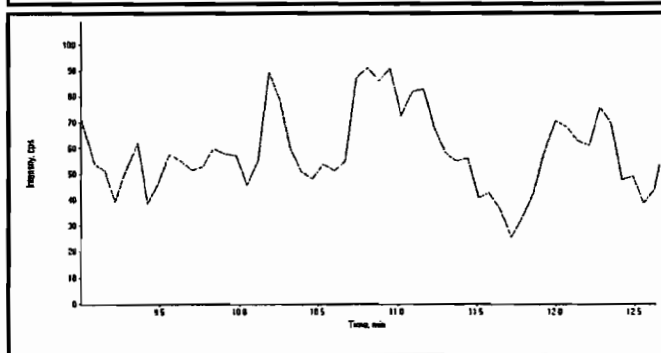
Data File	EXP0420020.wiff	Acquisition Date	4/20/2010 10:31:47 PM
Sample Name	248526001	Acquisition Method	8321.dam
Batch Dilution Analyst	961033 2 LER	Result Table	042010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



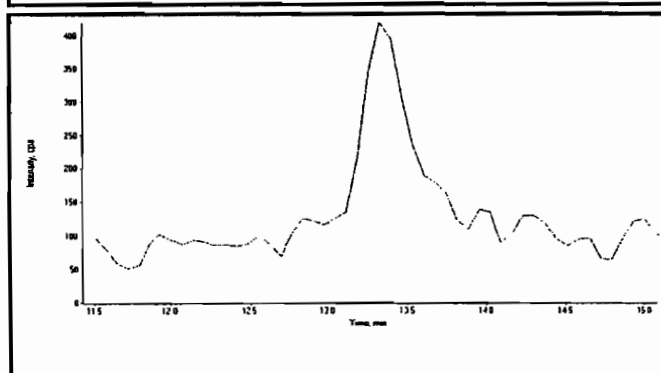
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.07
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	2.83e+004
Manual Modification	No
Amount:	0.276 (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



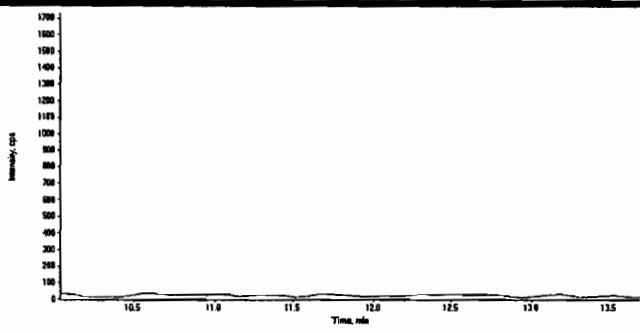
Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

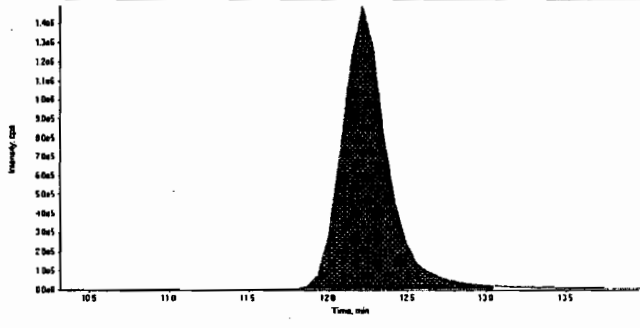
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420020.wiff	Acquisition Date	4/20/2010 10:31:47 PM
Sample Name	248526001	Acquisition Method	8321.dam
Batch Dilution Analyst	961033 2 LER	Result Table	042010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

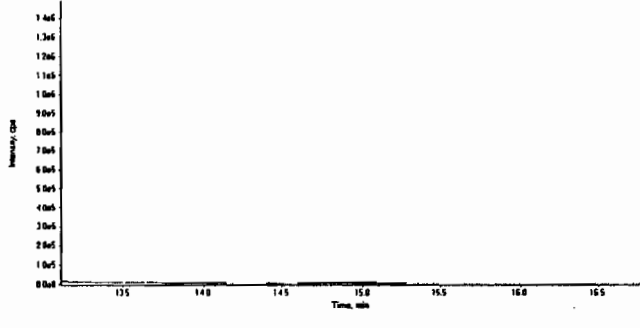
  

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

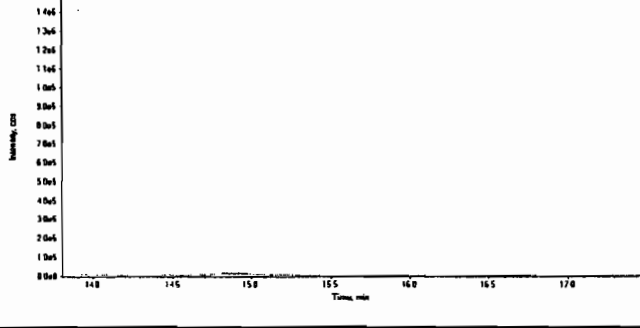
  

	Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.2
	Area Counts:	2.96e+007
	Manual Modification	No
	Amount:	245. (ng/mL)
	% Accuracy:	N/A

	Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	14.9
	Area Counts:	2.82e+005
	Manual Modification	No
	Amount:	1.34 (ng/mL)
	% Accuracy:	N/A

	Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321 A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420020.wiff	<b>Acquisition Date</b>	4/20/2010 10:31:47 PM
<b>Sample Name</b>	248526001	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	961033 2 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	19.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420020.wiff	<b>Acquisition Date</b>	4/20/2010 10:31:47 PM
<b>Sample Name</b>	248526001	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	961033 2 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8466

Lab Code: GEL

GEL Job No (SDG) 10-2202

Matrix: SOIL

GEL Sample ID: 248526001

Sample Amount 2

Moisture: 12.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090068.wiff

Date Analyzed: 10-APR-10 00:47

Units: ug/kg

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

\*Concentration =

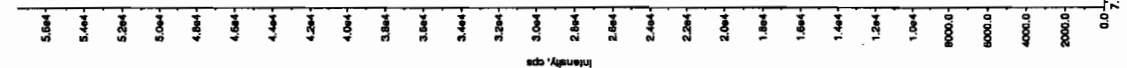
Instrument	X	<u>Concentrated Extract Volume</u>	X	Dilution
Value		<u>Sample Amount</u>		Factor



See 4/12/10

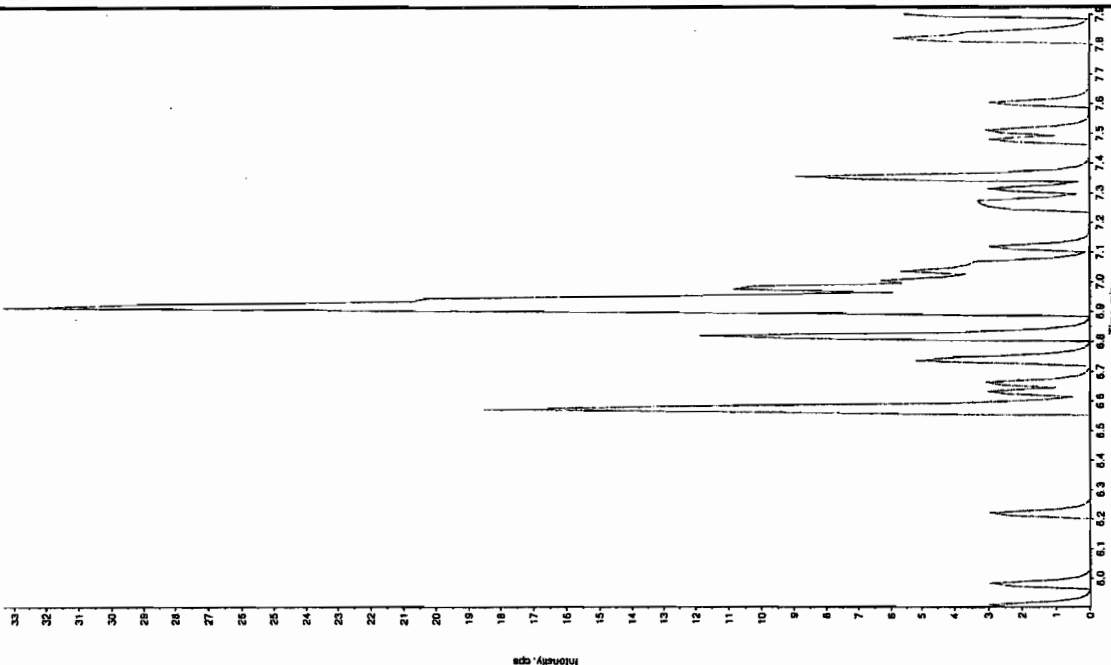
Sample Name: "248526001" Sample ID: "96103312L" File: "EXS04090068.wif"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 12:47:09 AM  
 Modified: Yes



Sample Name: "248526001" Sample ID: "96103312L" File: "EXS04090068.wif"  
 Peak Name: "TATB" Mass(es): "257.2/204.9 amu"  
 Comment: "LCX832125" Annotation: "

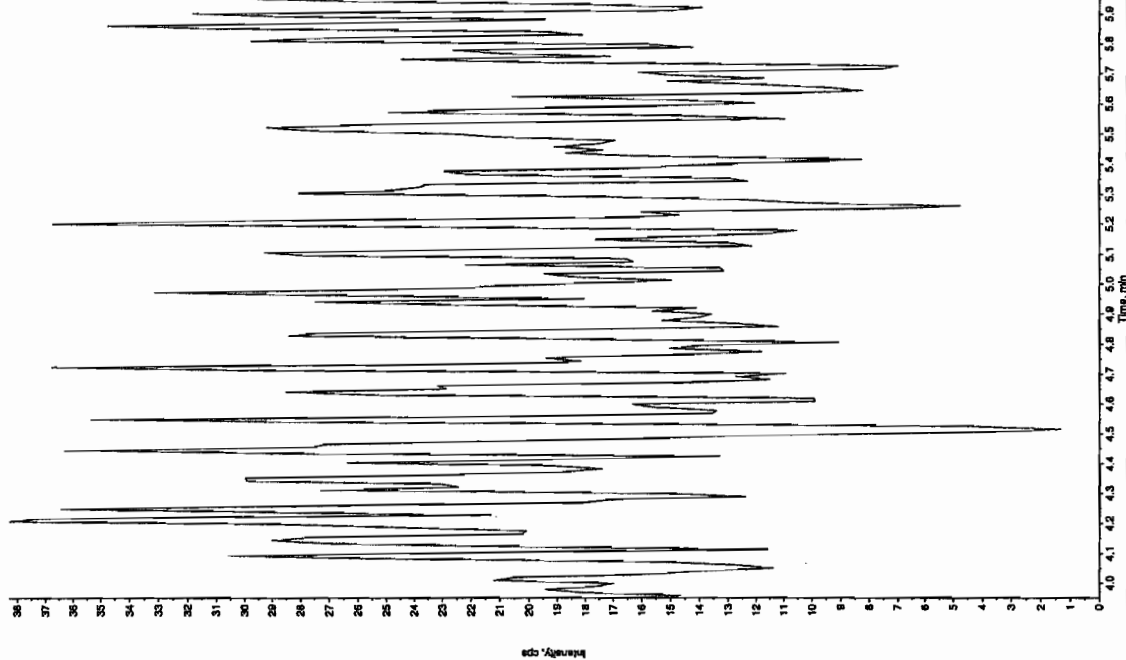
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 12:47:09 AM  
 Modified: No



See 4/12/10

Sample Name: "24852601" Sample ID: "95103321" File: "EXS04090068.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCX632125" Annotation: "

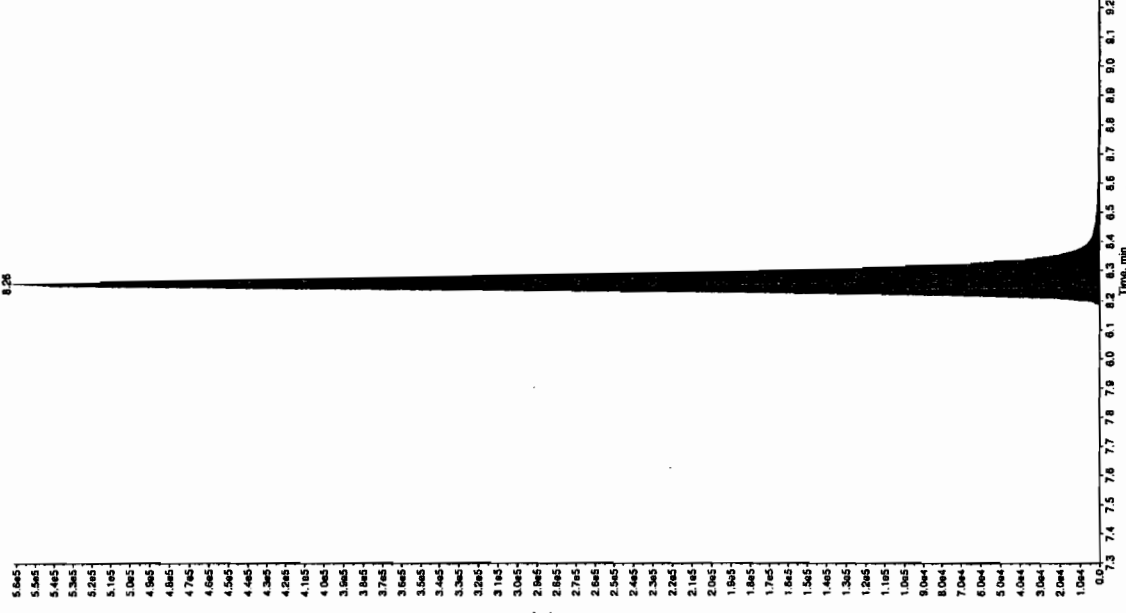
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 12:47:09 AM  
 Modified: No



Sample Name: "24852601" Sample ID: "95103321" File: "EXS04090068.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCX632125" Annotation: "

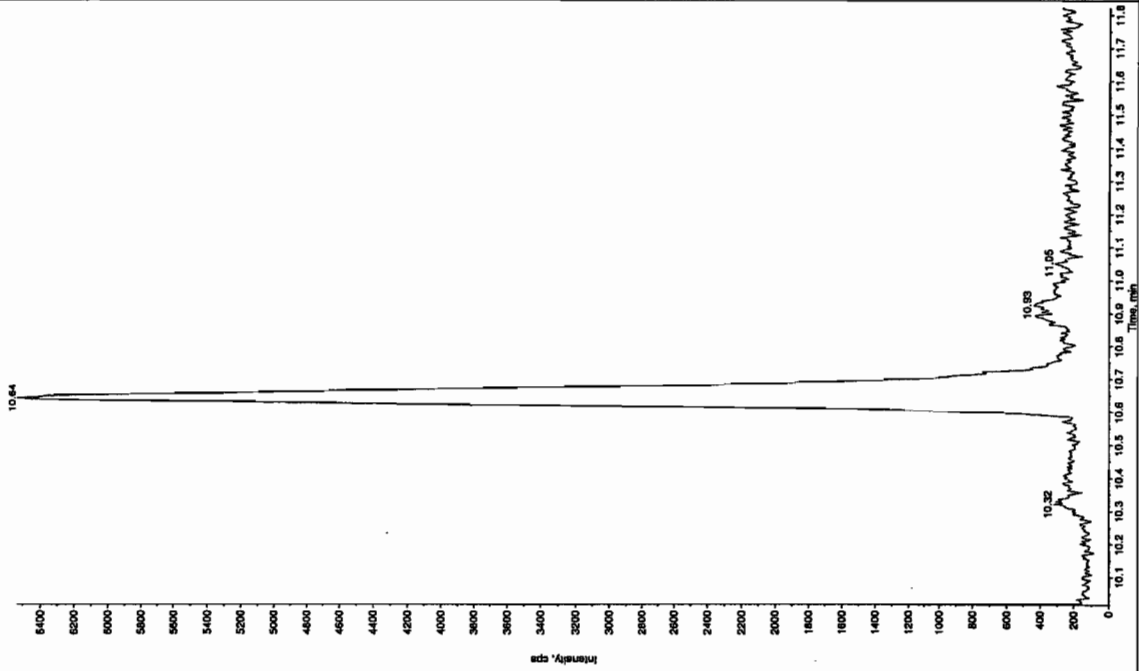
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 12:47:09 AM  
 Modified: No

Proc. Algorithm: IntelliQuan - IOA  
 Peak Height: 1460.00 cps  
 Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Window: 30.0 sec  
 Expected RT: 8.30 min  
 Relative RT: No  
 Type: Valley  
 Retention Time: 8.26 min  
 Area: 2.21e+006 counts  
 Height: 3613 cps  
 Start Time: 8.12 min  
 End Time: 8.74 min



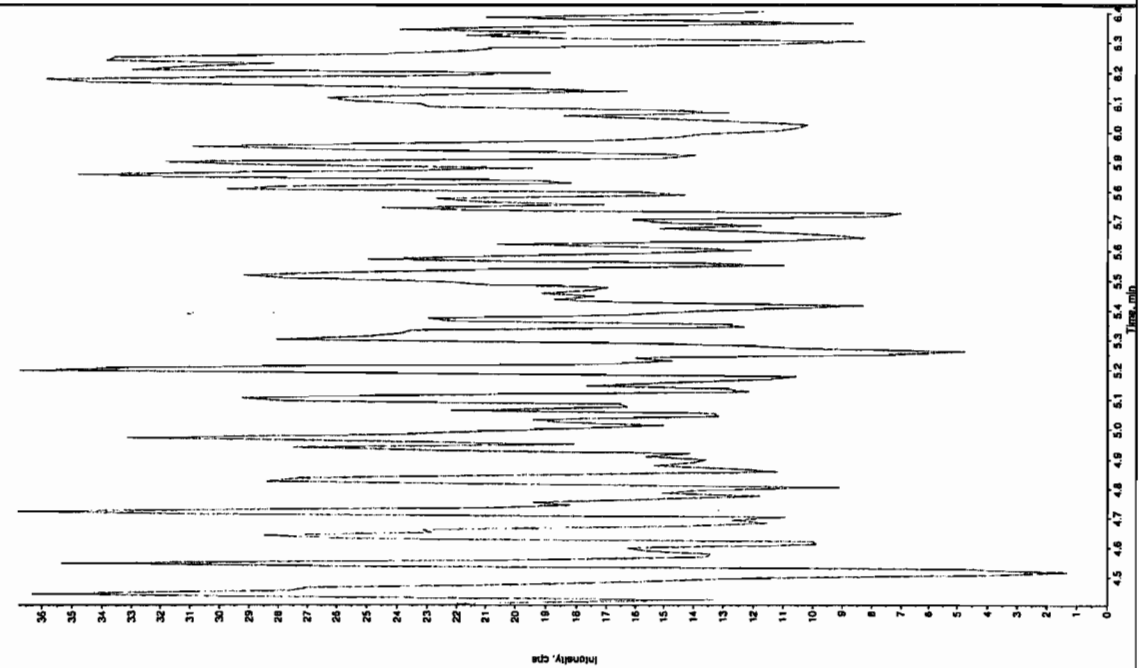
Sample Name: "246525001" Sample ID: "96103321.ER" File: "EXS04090068.wif"  
 Peak Name: "tris(2-cresyl) phosphate" Mass(es): "389.191.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 12:47:09 AM  
 Modified: No



Sample Name: "246525001" Sample ID: "96103321.ER" File: "EXS04090068.wif"  
 Peak Name: "2,4-Dinitro-6-nitrotoluene" Mass(es): "156.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 12:47:09 AM  
 Modified: No



# STANDARDS DATA

SW846 8321A Modified-Explosives  
Calibration Standard Concentration Levels

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

All values are ug/L without the prep factor

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

Calibration Levels 8321A-Modified-EXPL.xls

# Explosives Initial Calibration Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2202

Lab Code: GEL

Run Date: 09-APR-10.15-APR-10.20-APR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Parname	50	51	52	53	54	55	Ave RF	RSD	Q
2-Amino-4,6-dinitrotoluene	.017	.018	.019	.02	.019	.02	0.019	5.27	
Calibration Level:	EXP0415003.wi	EXP0415004.wi	EXP0415005.wi	EXP0415006.wi	EXP0415007.wi	EXP0415008.wi			
Data File:									

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: 10-2202

Lab Code: GEL

Run Date: 09-APR-10.15-APR-10.20-APR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

Phenomenex Ultracarb 5 ODS(20)

HPLC Column:

Calibration Type: Linear

Parname	50	51	52	53	54	55	Slope	Intercept	COD	Q
Calibration Level:	EXP0415003.w	EXP0415004.w	EXP0415005.w	EXP0415006.w	EXP0415007.w	EXP0415008.w				
Data File:										
2,4-Dinitrotoluene	867000	1320000	6590000	12700000	23100000	31000000	.201	.004	.9975	
2,6-Dinitrotoluene	2230000	4090000	16300000	32600000	64900000	76800000	.519	.015	.9989	
3,4-Dinitrotoluene	1280000	2680000	10100000	19600000	38300000	49000000	.645	.006	.9996	
4-Amino-2,6-dinitrotoluene	1700000	3380000	12800000	27100000	51600000	67400000	.442	.004	.9991	
HMX	831000	1760000	6640000	13400000	26200000	35900000	1.02	.003	.9994	
Nitrobenzene	77500	169000	654000	1230000	2760000	3530000	.103	-.001	.9995	
PETN	14800	29600	126000	246000	478000	609000	.004	0	.9995	
RDX	453000	926000	3250000	6800000	13900000	17500000	.513	.005	.9996	

Linear fit:  $Y = mx + b$

where b is Intercept and m is slope

COD is Coefficient of Determination

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

\* Values outside of QC Limit

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2202

Lab Code: GEL

Run Date: 09-APR-10.15-APR-10.20-APR-10.

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HP/LC Column:

Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	50	51	52	53	54	55	X	X^2	Intercept	COD	Q
Data File:	EXP0415003.wiff	EXP0415004.wiff	EXP0415005.wiff	EXP0415006.wiff	EXP0415007.wiff	EXP0415008.wiff					
Parname:											
1,3,5-Trinitrobenzene	6270000	1260000	4710000	8490000	13900000	167000000	.035	7.66	-1.44	.9996	
2,4,6-Trinitrotoluene	1220000	2370000	8050000	14600000	22700000	262000000	.045	2.88	-.594	.999	
Tetryl	2050000	4060000	1490000	2990000	6000000	74300000	-.02	2.53	-.176	.9998	
m-Dinitrobenzene	2530000	520000	1830000	3570000	6830000	80900000	-.027	3.2	-.41	.9996	
m-Nitrotoluene	21000	42200	167000	350000	704000	912000	0	.00581	0	.9997	
o-Nitrotoluene	27900	53800	227000	473000	918000	1170000	0	.0082	0	.9996	
p-Nitrotoluene	14800	30500	123000	256000	492000	601000	0	.00471	0	.9998	

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



041510ICAL

Peak Name: 13-Dinitrobenzene-d4  
 Use as Internal Standard  
 Q1/Q3 Masses: 172.05/46.10 amu  
 Peak Name: 26-Dinitrotoluene-d3  
 Use as Internal Standard  
 Q1/Q3 Masses: 184.99/155.00 amu

Peak Name: HMX  
 Internal Standard: 13-Dinitrobenzene-d4  
 Q1/Q3 Masses: 341.20/46.00 amu

Fit	Linear	Weighting	None	Iterate	No
Intercept		0.00321			
Slope		1.02			
Correlation coefficient		0.9994			
Use Area					

Peak Name: RDX  
 Internal Standard: 13-Dinitrobenzene-d4  
 Q1/Q3 Masses: 267.01/46.10 amu

Fit	Linear	Weighting	None	Iterate	No
Intercept		0.00478			
Slope		0.513			
Correlation coefficient		0.9996			
Use Area					

Peak Name: 135-Trinitrobenzene  
 Internal Standard: 13-Dinitrobenzene-d4  
 Q1/Q3 Masses: 212.97/182.80 amu

Fit	Quadratic	Weighting	None	Iterate	No
a0		0.035			
a1		7.66			
a2		-1.44			
Correlation coefficient		0.9996			
Use Area					

Peak Name: 13-Dinitrobenzene  
 Internal Standard: 13-Dinitrobenzene-d4  
 Q1/Q3 Masses: 167.95/137.90 amu

Fit	Quadratic	Weighting	None	Iterate	No
a0		-0.0265			

Page 1

*for 01/23/10*

*for 04/23/10*

041510ICAL

a1 3.2  
a2 -0.41  
Correlation coefficient 0.9996  
Use Area

Peak Name: Tetra1  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 240.95/180.80 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-0.0195			
a1	2.53			
a2	-0.176			
Correlation coefficient 0.9998				
Use Area				

Peak Name: 246-Trinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 227.12/209.80 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	0.0447			
a1	2.88			
a2	-0.594			
Correlation coefficient 0.9990				
Use Area				

Peak Name: Nitrobenzene  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 123.04/46.00 amu

Fit	Linear	Weighting	None	Iterate No
Intercept		-0.00109		
Slope	0.103			
Correlation coefficient 0.9995				
Use Area				

Peak Name: 34-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Linear	Weighting	None	Iterate No
Intercept		0.00614		
Slope	0.645			

Page 2

041510ICAL

Correlation coefficient 0.9996  
Use Area

Peak Name: 26-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Linear	Weighting	None	Iterate	No
Intercept		0.0148			
Slope		0.519			
Correlation coefficient		0.9989			
Use Area					

Peak Name: 24-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Linear	Weighting	None	Iterate	No
Intercept		0.00445			
Slope		0.201			
Correlation coefficient		0.9975			
Use Area					

Peak Name: 4-Amino-26-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 197.02/167.00 amu

Fit	Linear	Weighting	None	Iterate	No
Intercept		0.00386			
Slope		0.442			
Correlation coefficient		0.9991			
Use Area					

Peak Name: 2-Amino-46-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 197.02/180.00 amu

Fit	Mean Response Factor	Weighting	None	Iterate	No
Factor	0.0187				
Standard deviation	0.000985				
%RSD	5.27				
Use Area					

Peak Name: 2-Nitrotoluene

041510ICAL

Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 137.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-4.27e-005			
a1	0.0082			
a2	-0.000221			
Correlation coefficient 0.9996				
Use Area				

Peak Name: 4-Nitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 137.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-5.61e-005			
a1	0.00471			
a2	-0.000341			
Correlation coefficient 0.9998				
Use Area				

Peak Name: 3-Nitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 137.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	6.71e-006			
a1	0.00581			
a2	0.000115			
Correlation coefficient 0.9997				
Use Area				

Peak Name: PETN  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 361.06/62.00 amu

Fit	Linear	Weighting	None	Iterate No
Intercept		6.18e-005		
Slope	0.00403			
Correlation coefficient 0.9995				
Use Area				

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

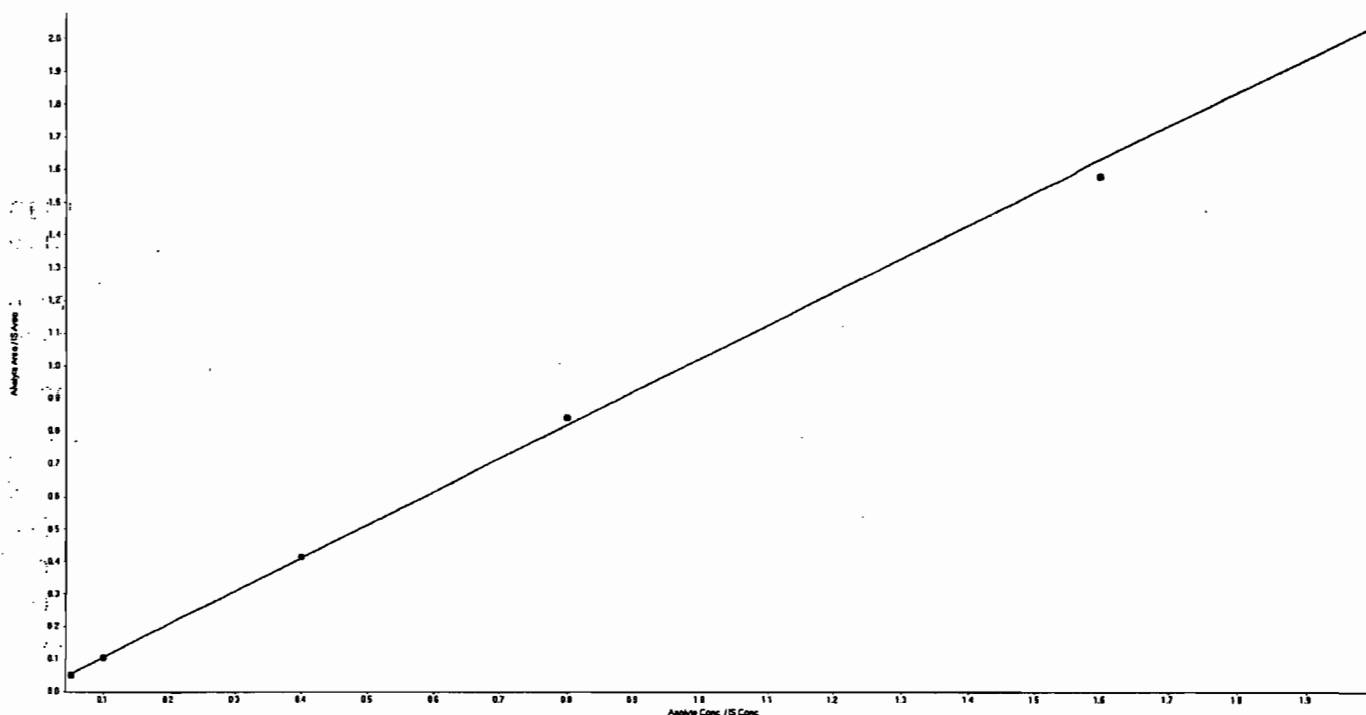
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

041510.rdb

Analyte Name: HMX

Regression Equation:  $y = 1.02 x + 0.00321$  ( $r = 0.9994$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	23.21	92.8
50	49.57	99.1
200	201.75	100.9
400	409.94	102.5
800	773.96	96.7
1000	1016.57	101.7



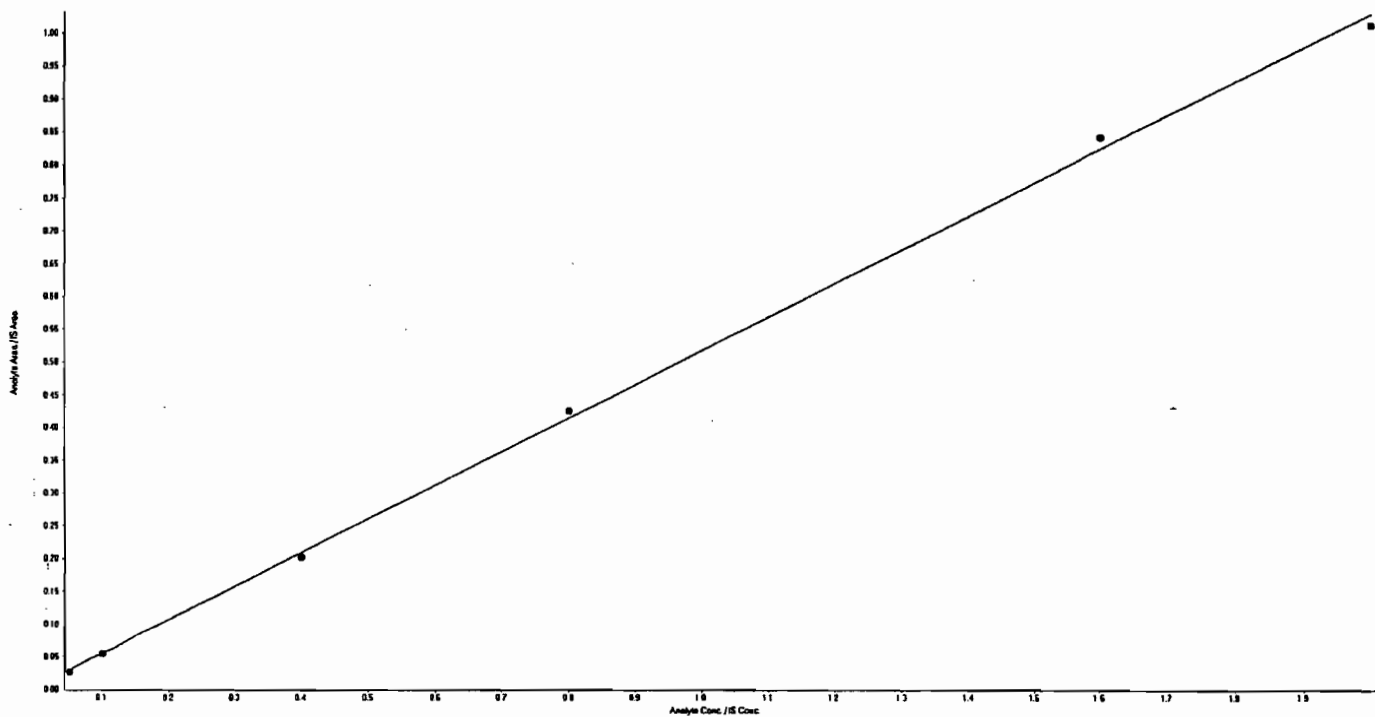
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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: RDX

Regression Equation:  $y = 0.513x + 0.00478$  ( $r = 0.9996$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	22.20	88.8
50	48.80	97.6
200	192.85	96.4
400	410.51	102.6
800	816.45	102.1
1000	984.20	98.4



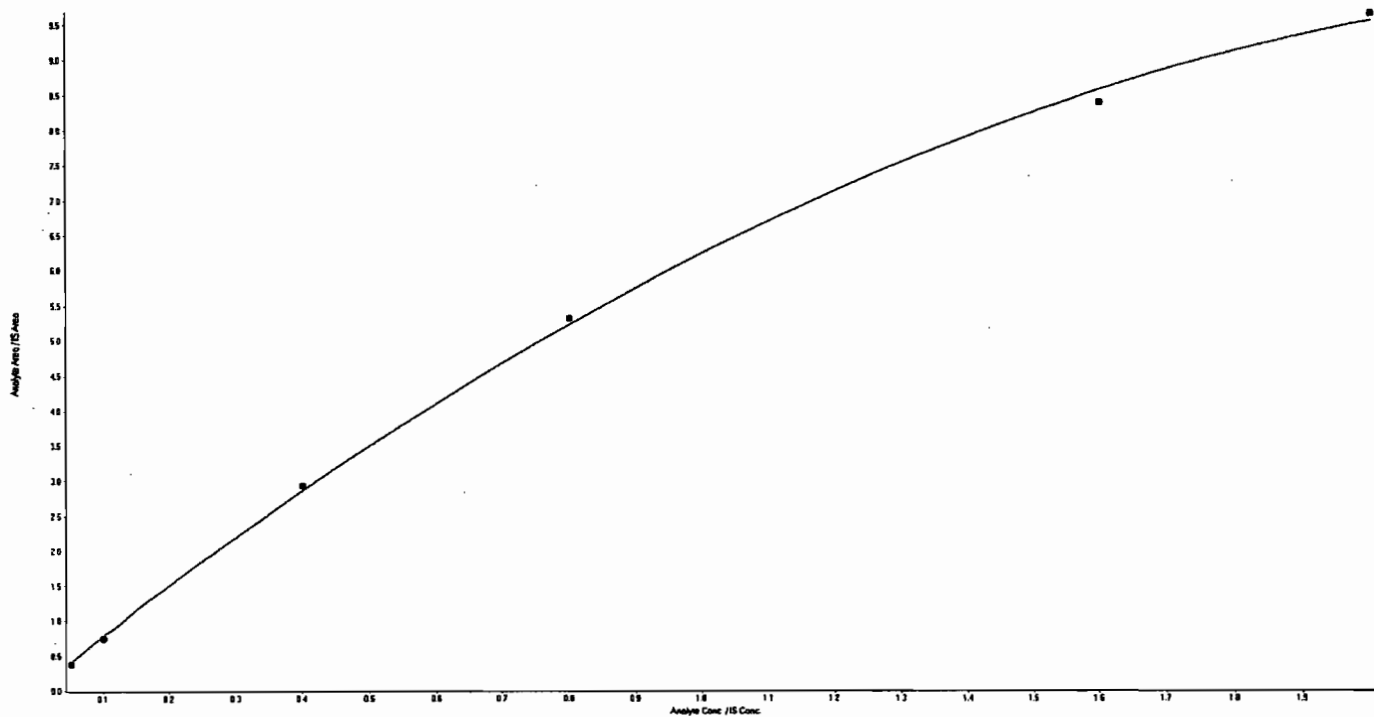
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: 135-Trinitrobenzene

Regression Equation:  $y = -1.44 x^2 + 7.66 x + 0.035$  ( $r = 0.9996$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	22.81	91.2
50	47.16	94.3
200	205.62	102.8
400	407.70	101.9
800	771.39	96.4
1000	1027.28	102.7



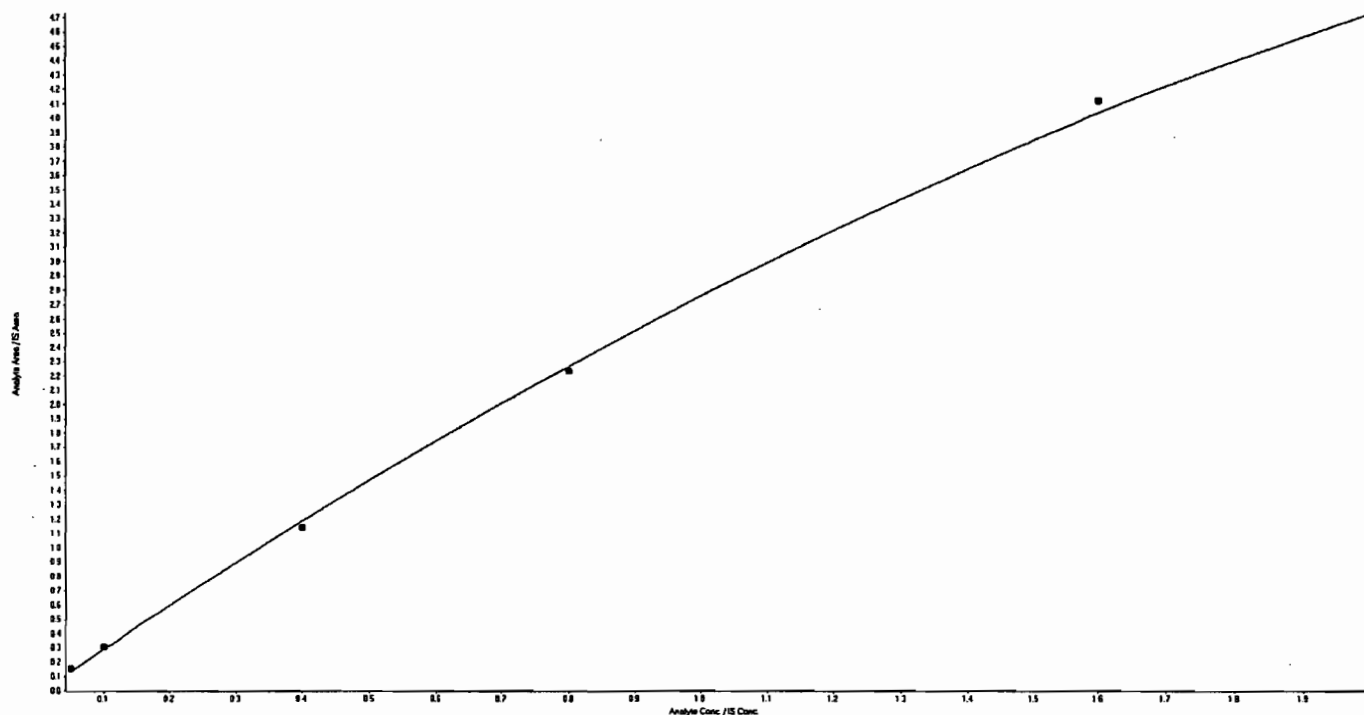
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: 13-Dinitrobenzene

Regression Equation:  $y = -0.41 x^2 + 3.2 x + -0.0265$  ( $r = 0.9996$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	28.40	113.6
50	53.05	106.1
200	192.08	96.0
400	393.60	98.4
800	822.94	102.9
1000	984.77	98.5





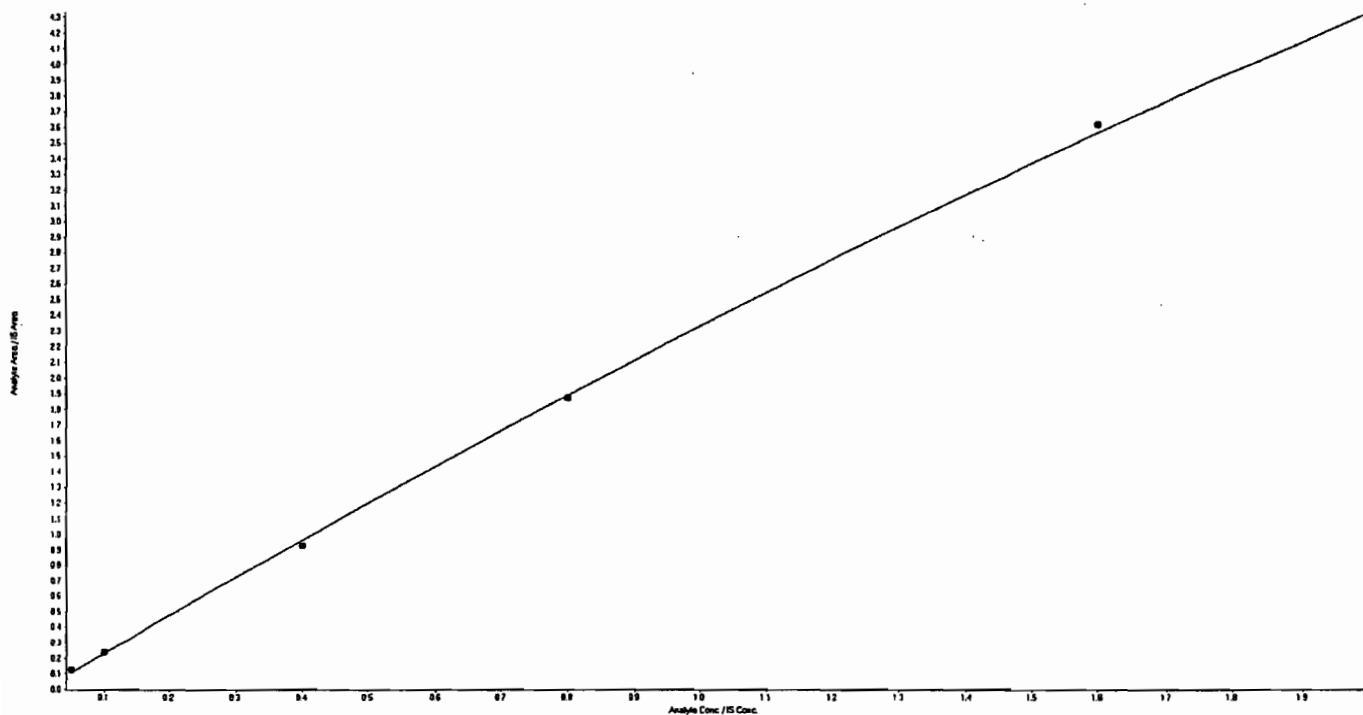
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: Tetryl

Regression Equation:  $y = -0.176x^2 + 2.53x - 0.0195$  ( $r = 0.9998$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	28.71	114.8
50	51.78	103.6
200	192.93	96.5
400	396.12	99.0
800	813.89	101.7
1000	991.58	99.2



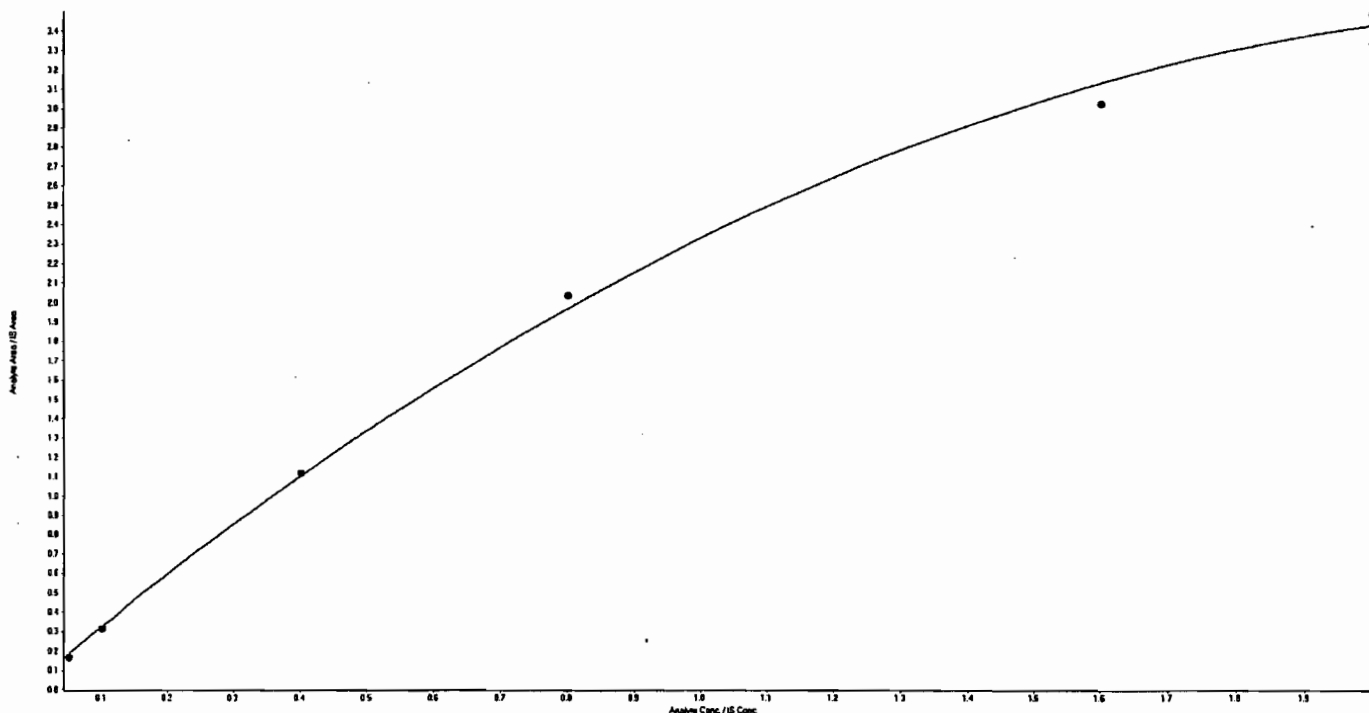
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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: 246-Trinitrotoluene

Regression Equation:  $y = -0.594 x^2 + 2.88 x + 0.0447$  ( $r = 0.9990$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	21.79	87.1
50	47.74	95.5
200	202.87	101.4
400	417.45	104.4
800	748.56	93.6
1000	1067.10	106.7



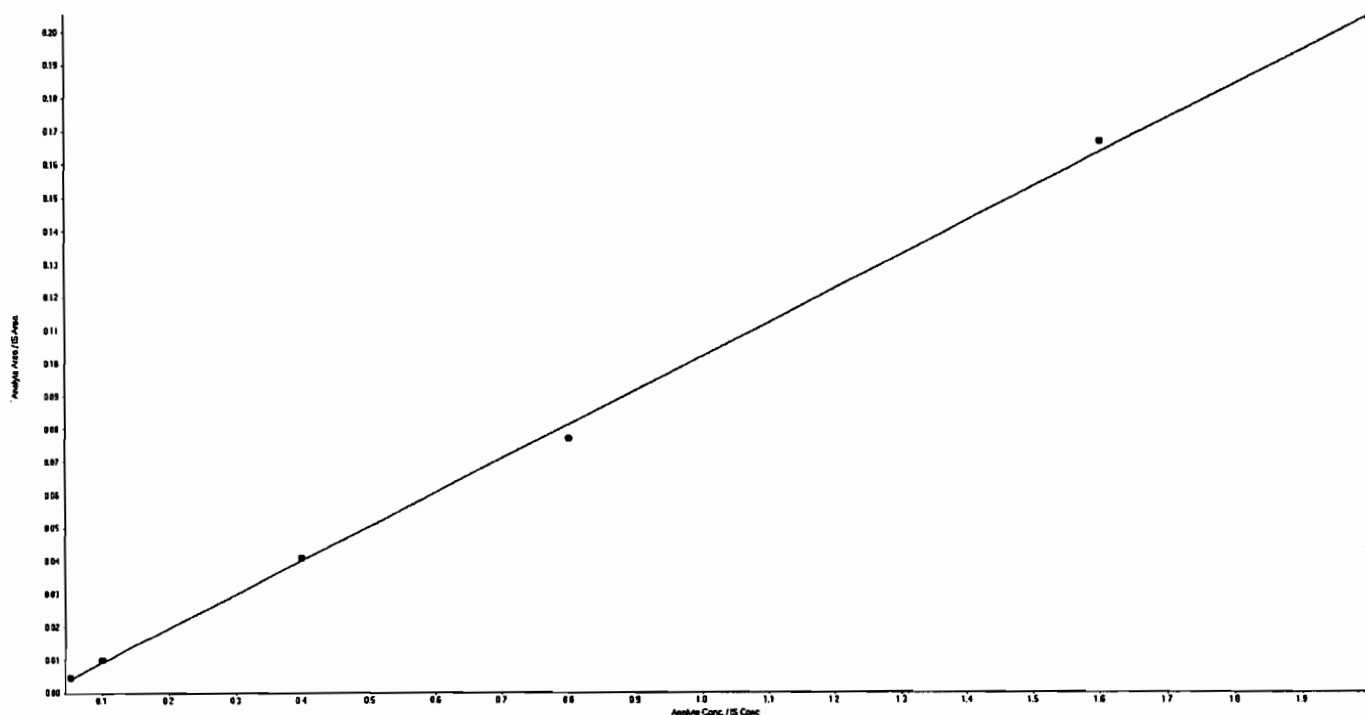
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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: Nitrobenzene

Regression Equation:  $y = 0.103x + -0.00109$  ( $r = 0.9995$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	28.17	112.7
50	53.97	107.9
200	203.53	101.8
400	378.57	94.6
800	815.80	102.0
1000	994.95	99.5



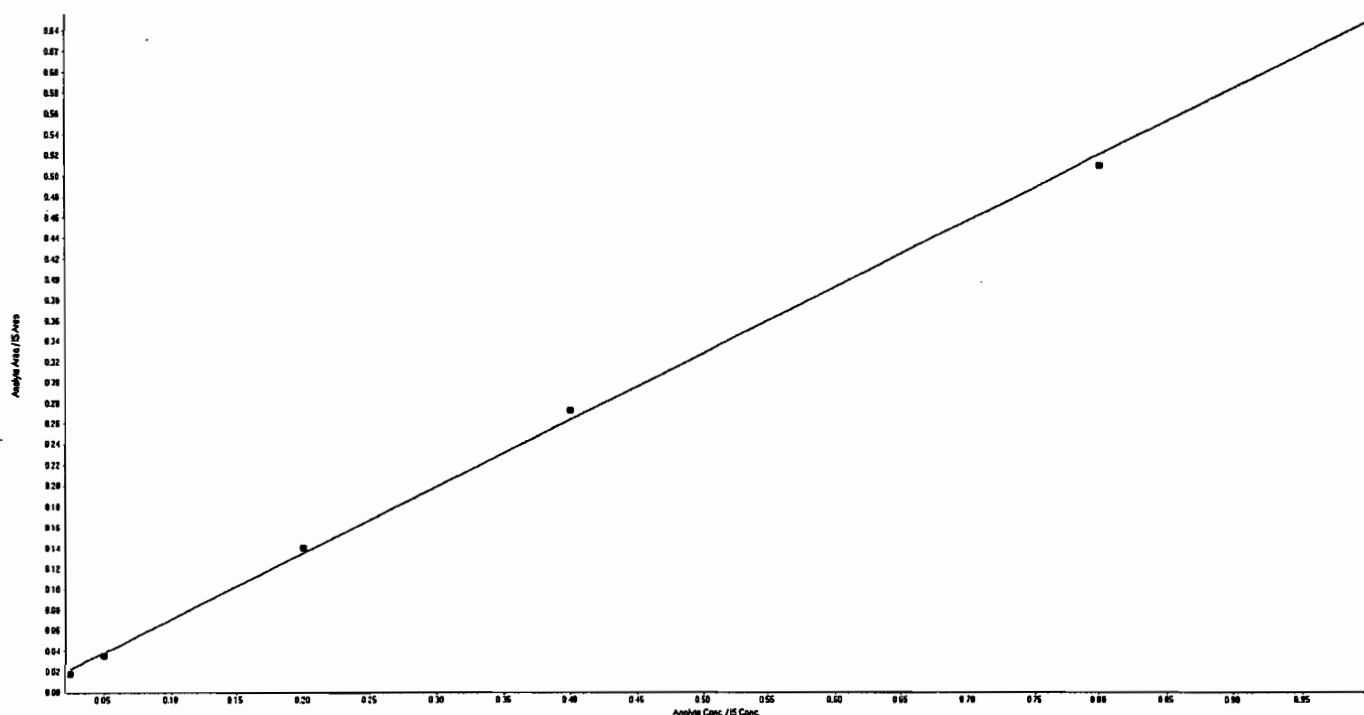
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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: 34-dinitrotoluene

Regression Equation:  $y = 0.645x + 0.00614$  ( $r = 0.9996$ )

Expected Concentration	Calculated Concentration	% Accuracy
12.5	8.95	71.6
25	22.89	91.6
100	103.77	103.8
200	206.98	103.5
400	391.32	97.8
500	503.60	100.7



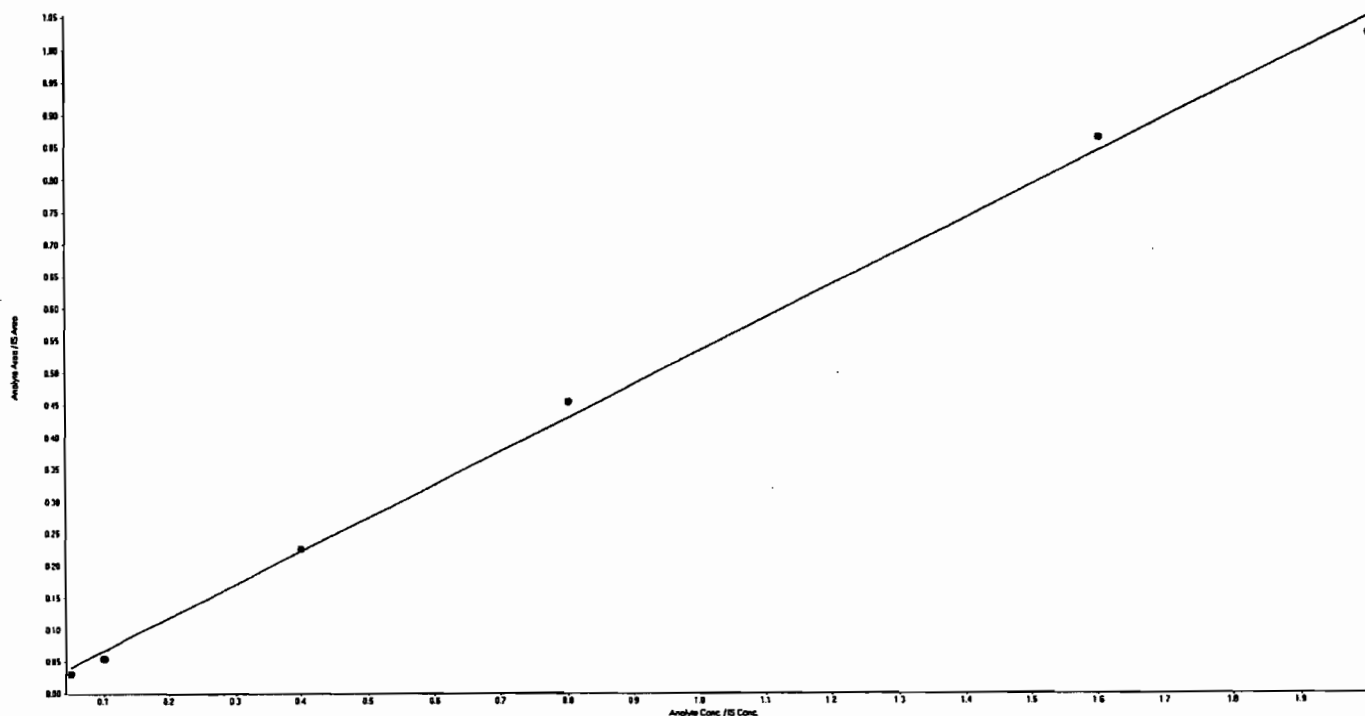
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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: 26-dinitrotoluene

Regression Equation:  $y = 0.519x + 0.0148$  ( $r = 0.9989$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	15.37	61.5
50	38.13	76.3
200	203.13	101.6
400	423.68	105.9
800	819.75	102.5
1000	974.94	97.5



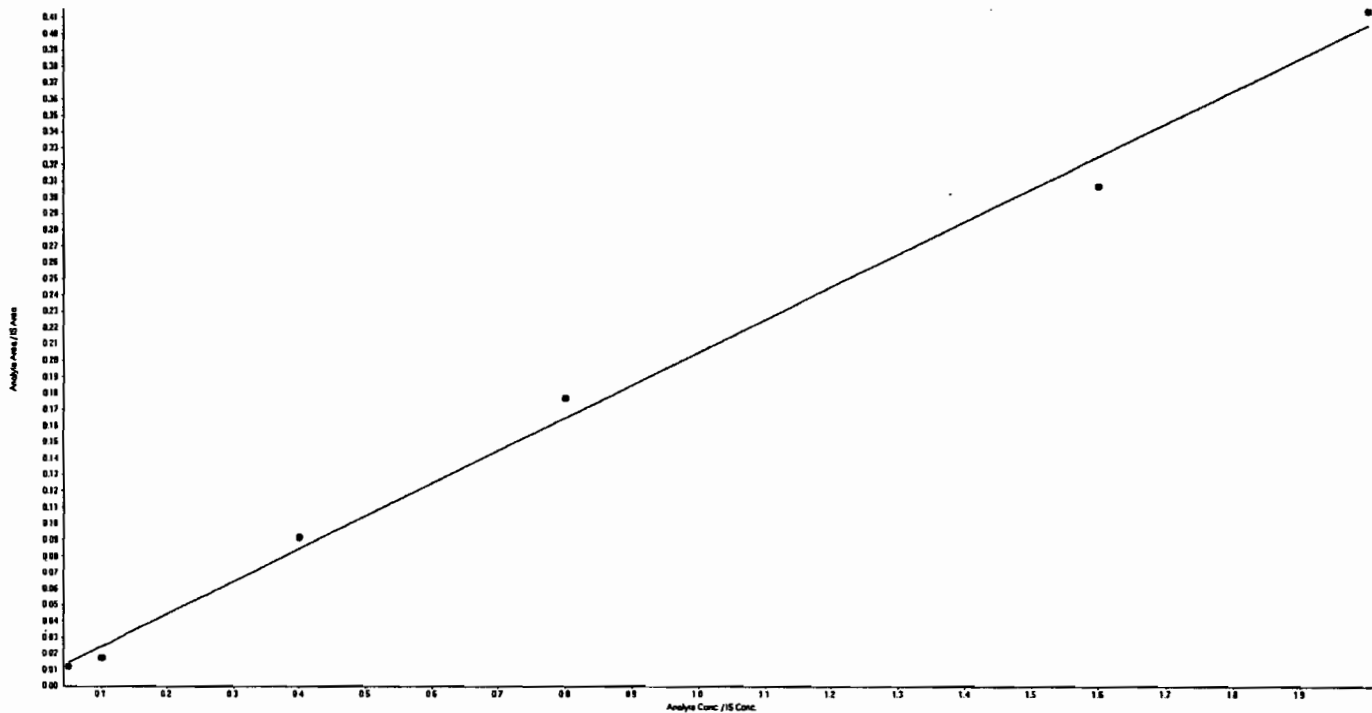
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LCMSMS#3

Analyte Name: 24-dinitrotoluene

Regression Equation:  $y = 0.201x + 0.00445$  ( $r = 0.9975$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	18.76	75.0
50	32.56	65.1
200	216.87	108.4
400	430.36	107.6
800	754.67	94.3
1000	1021.77	102.2



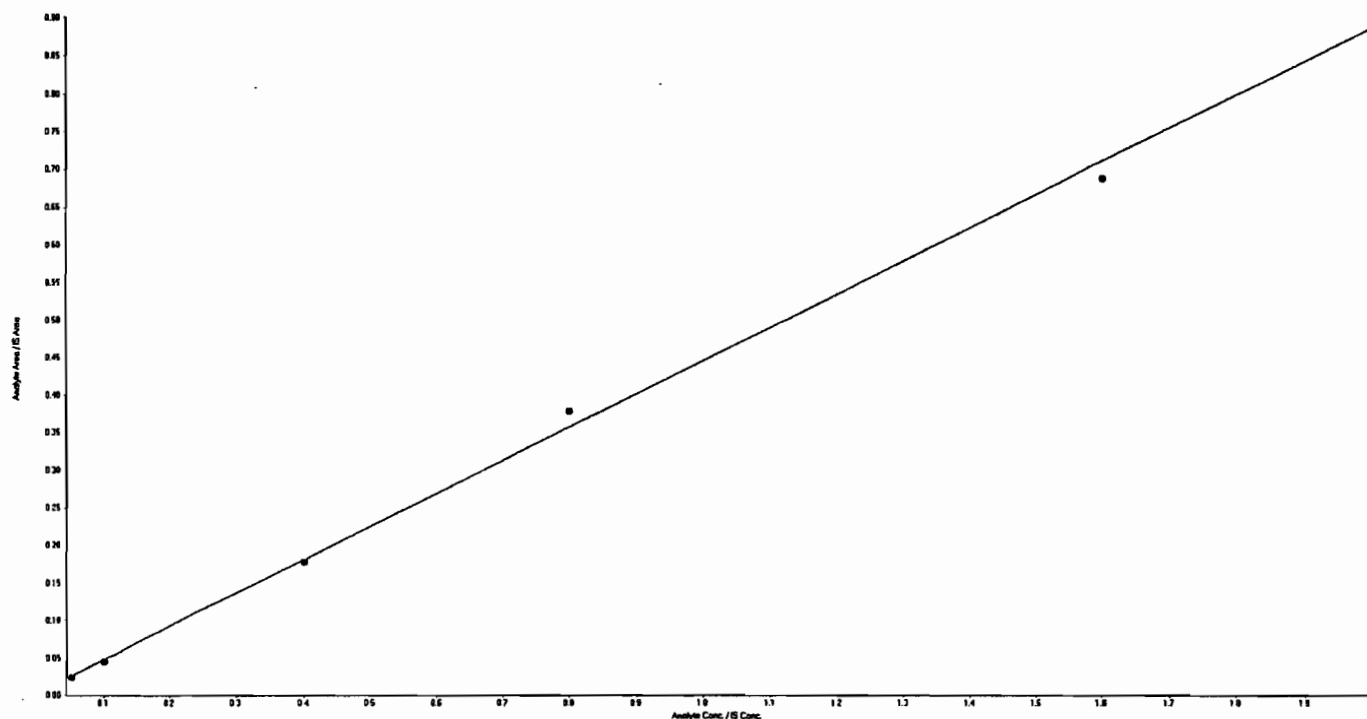
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LCMSMS#3

Analyte Name: 4-Amino-2,6-dinitrotoluene

Regression Equation:  $y = 0.442x + 0.00386$  ( $r = 0.9991$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	22.27	89.1
50	46.50	93.0
200	196.33	98.2
400	423.88	106.0
800	772.93	96.6
1000	1013.08	101.3



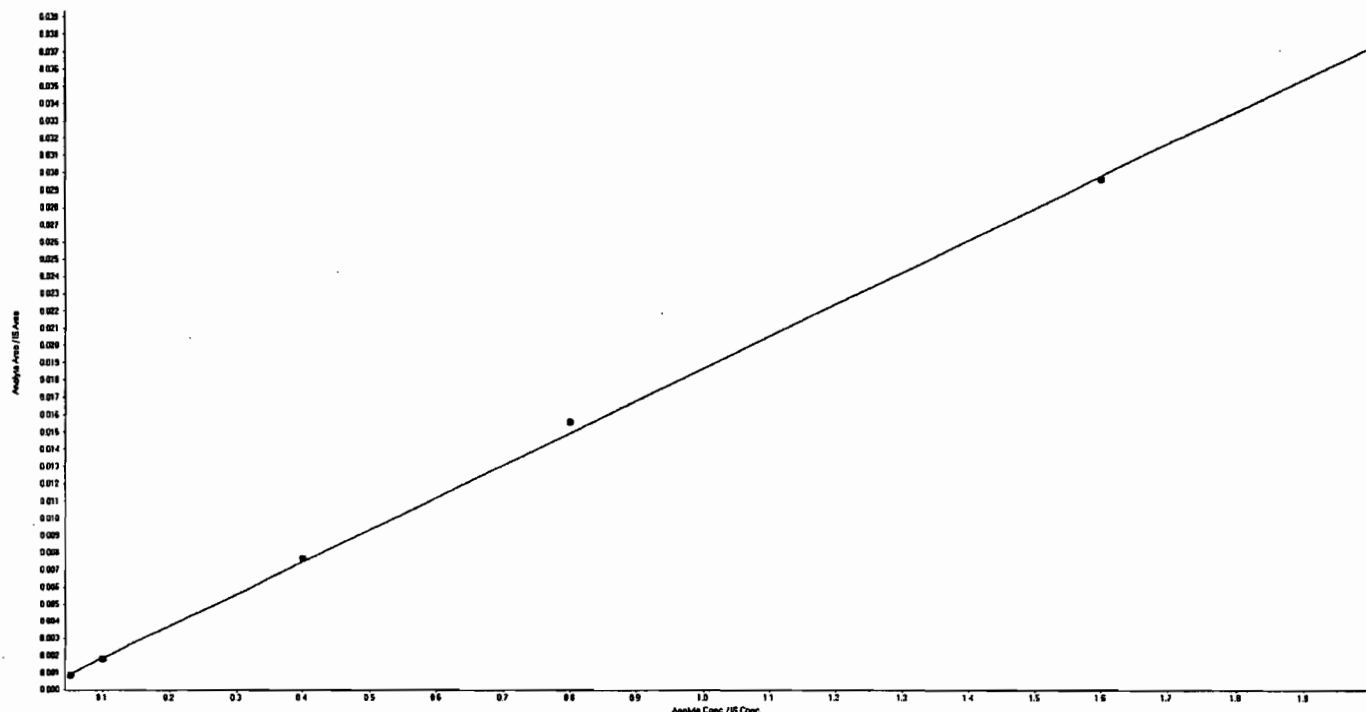
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Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: 2-Amino-4,6-dinitrotoluene

Regression Equation:  $y = 0.0187x$  (std. dev. = 0.000985)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.74	91.0
50	48.81	97.6
200	204.97	102.5
400	417.42	104.4
800	795.55	99.4
1000	1051.25	105.1





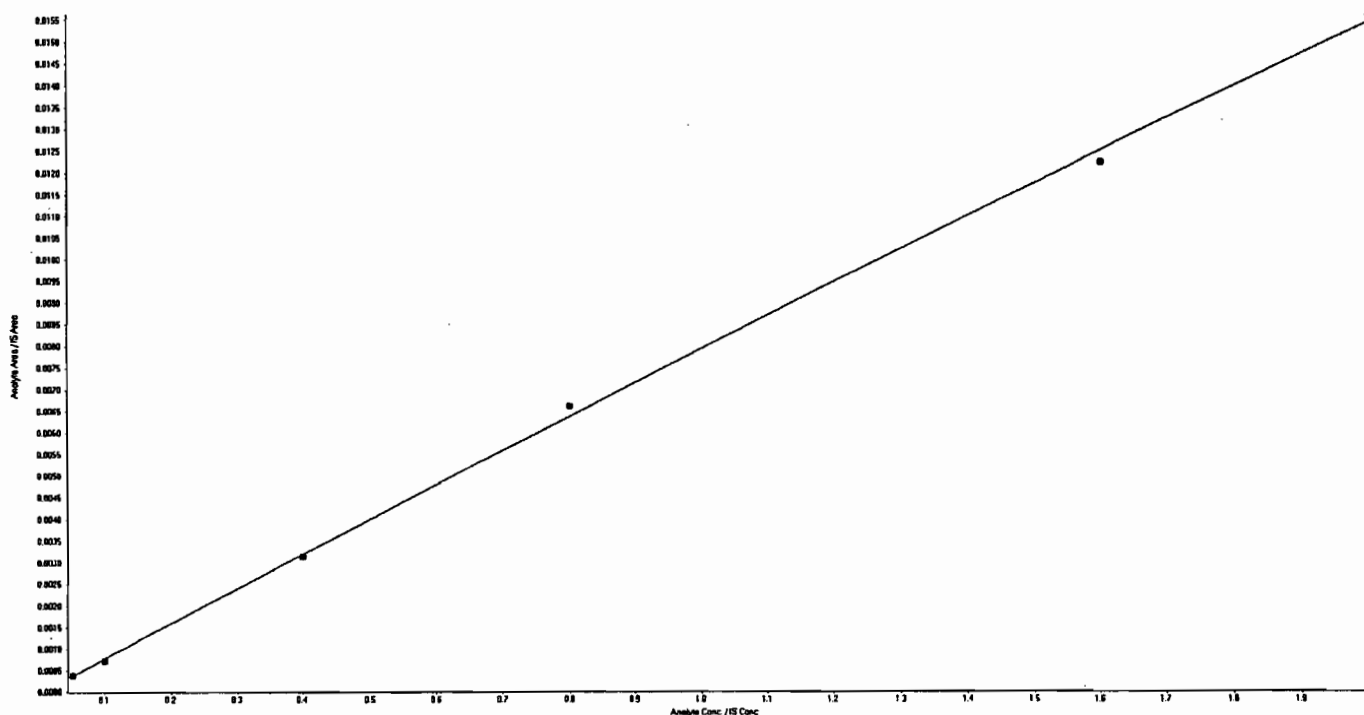
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Printed: 22/04/2010 4:04:00 PM  
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Analyte Name: 2-Nitrotoluene

Regression Equation:  $y = -0.000221 x^2 + 0.0082 x + -4.27e-005$  ( $r = 0.9996$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	26.12	104.5
50	46.36	92.7
200	196.64	98.3
400	414.45	103.6
800	781.93	97.7
1000	1009.54	101.0



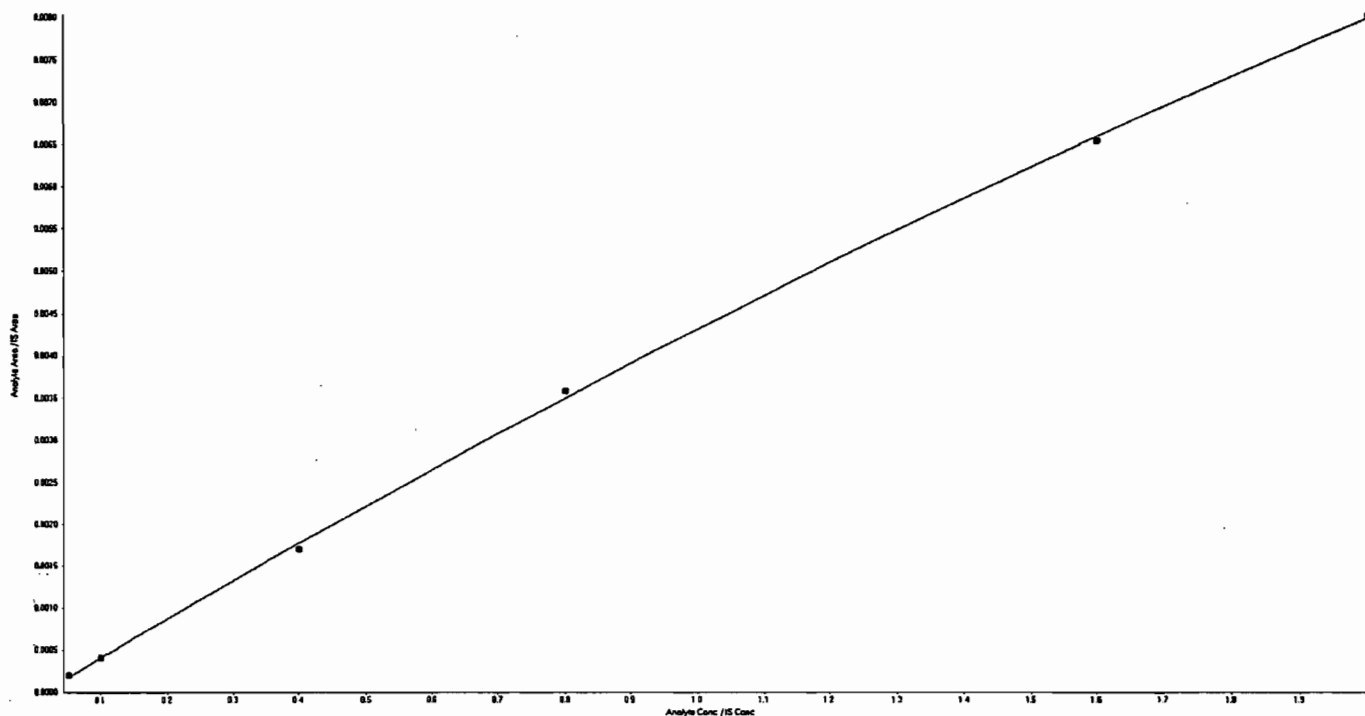
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Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: 4-Nitrotoluene

Regression Equation:  $y = -0.000341 x^2 + 0.00471 x + -5.61e-005$  ( $r = 0.9998$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	27.70	110.8
50	49.39	98.8
200	191.73	95.9
400	410.15	102.5
800	792.37	99.0
1000	1003.71	100.4



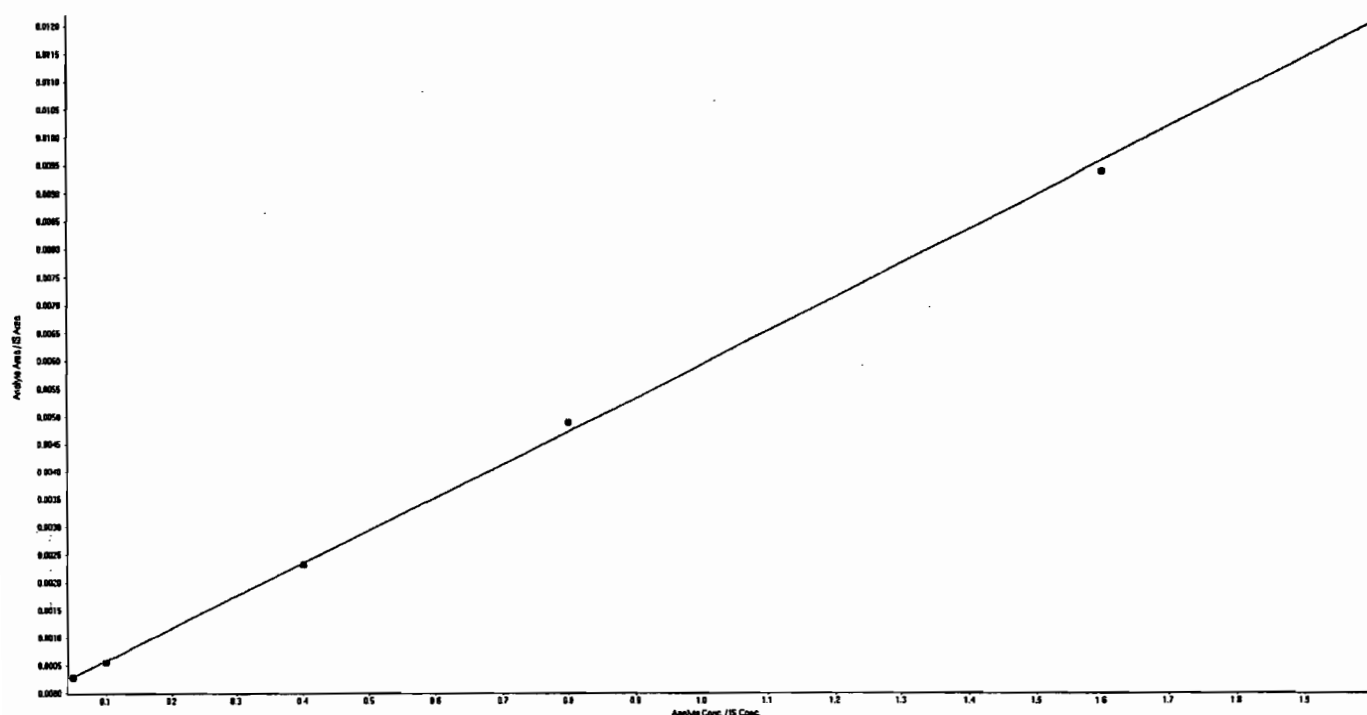
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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: 3-Nitrotoluene

Regression Equation:  $y = 0.000115 x^2 + 0.00581 x + 6.71e-006$  ( $r = 0.9997$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	24.38	97.5
50	47.62	95.2
200	197.68	98.8
400	413.33	103.3
800	783.56	97.9
1000	1008.41	100.8



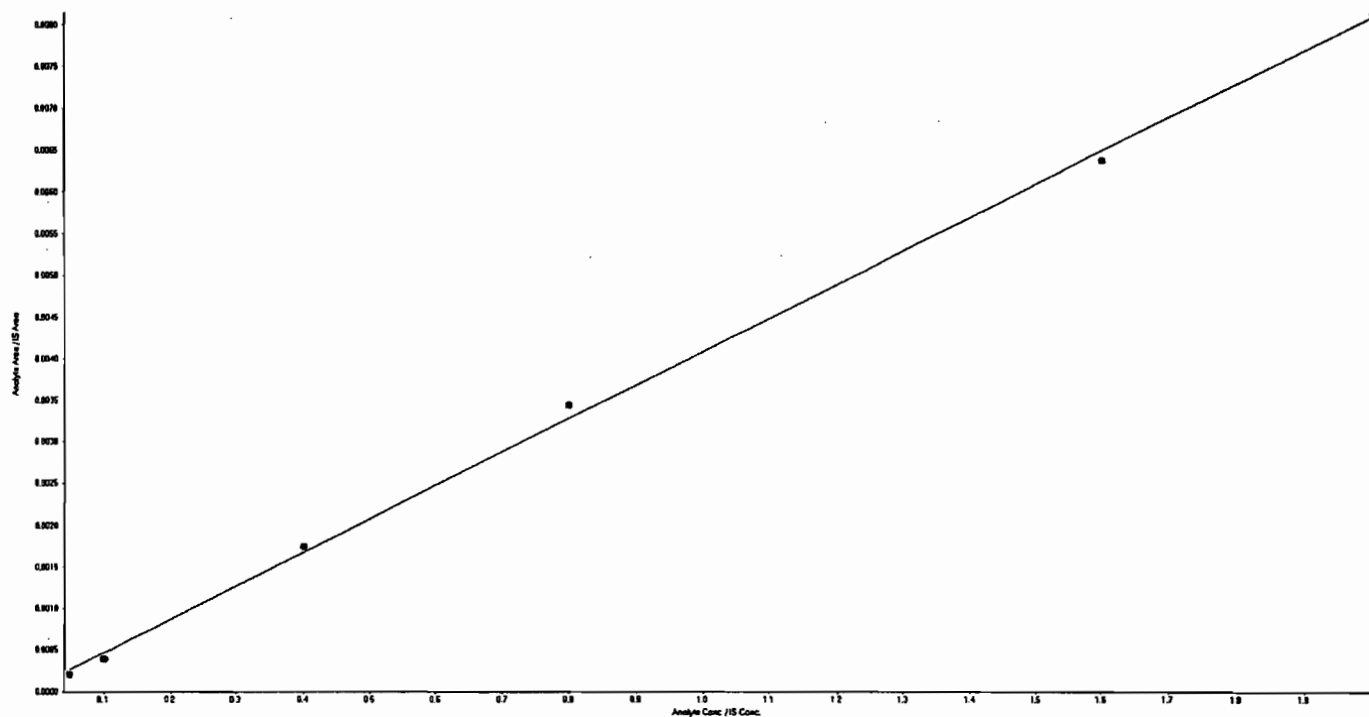
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: PETN

Regression Equation:  $y = 0.00403x + 6.18e-005$  ( $r = 0.9995$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	17.73	70.9
50	41.26	82.5
200	208.61	104.3
400	419.29	104.8
800	784.66	98.1
1000	1003.45	100.3



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0415010.wiff

Analysis Date: 15-APR-10 14:01

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	577	96	
2,4,6-Trinitrotoluene	600	546	91	
2,4-Dinitrotoluene	600	585	98	
2,6-Dinitrotoluene	600	553	92	
2-Amino-4,6-dinitrotoluene	600	500	83	
3,4-Dinitrotoluene	300	294	98	
4-Amino-2,6-dinitrotoluene	600	575	96	
HMX	600	488	81	
Nitrobenzene	600	623	104	
PETN	600	536	89	
RDX	600	589	98	
Tetryl	600	585	98	
m-Dinitrobenzene	600	591	99	
m-Nitrotoluene	600	495	83	
o-Nitrotoluene	600	526	88	
p-Nitrotoluene	600	570	95	

Recovery Limits:

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

Other Target Analytes 80-120%

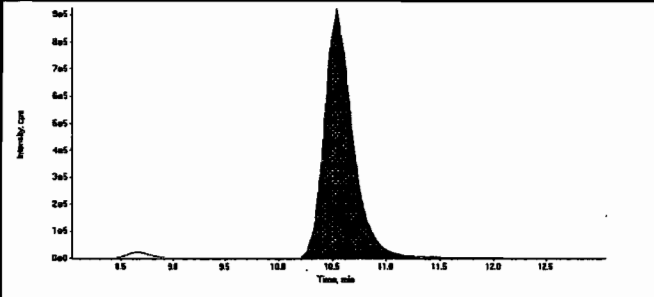
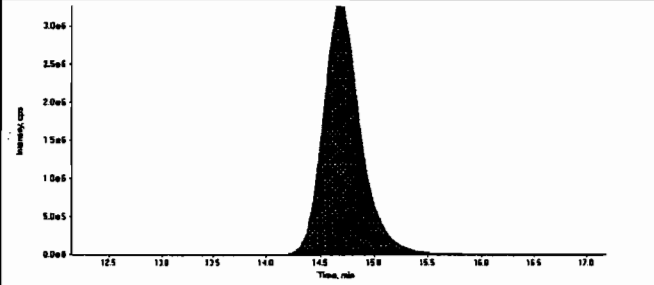
# Column used to flag Recovery outside of Limits

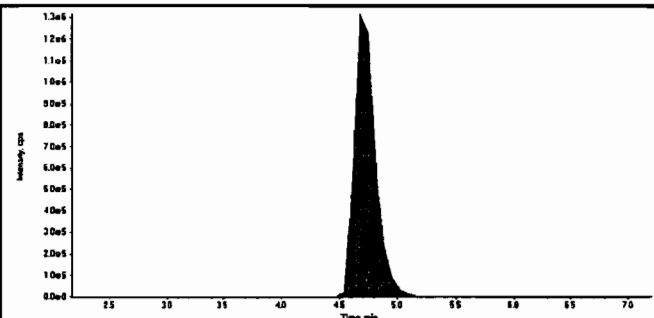
\* Value outside of Recovery Limits

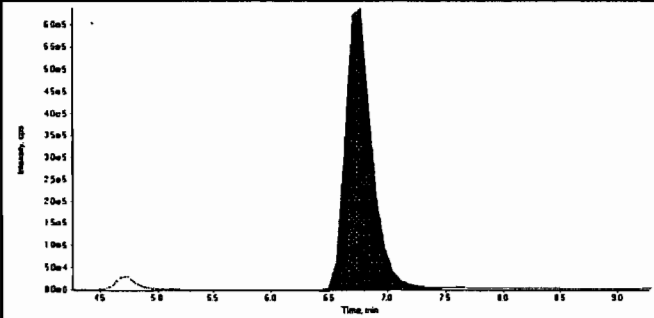
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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

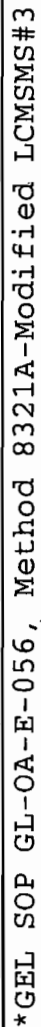
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Sample Name	WXX100415-56ICV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
	Expected RT:	10.50
	Actual RT:	10.50
	Area Counts:	16900000.00
	Manual Modification	No
	Amount:	500.00(ng/mL)
	Please refer to Form 8 for a list of Internal Standard Recoveries	
	Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
	Expected RT:	14.60
	Actual RT:	14.60
	Area Counts:	80800000.00
	Manual Modification	Yes
	Amount:	500.00(ng/mL)
	Please refer to Form 8 for a list of Internal Standard Recoveries	

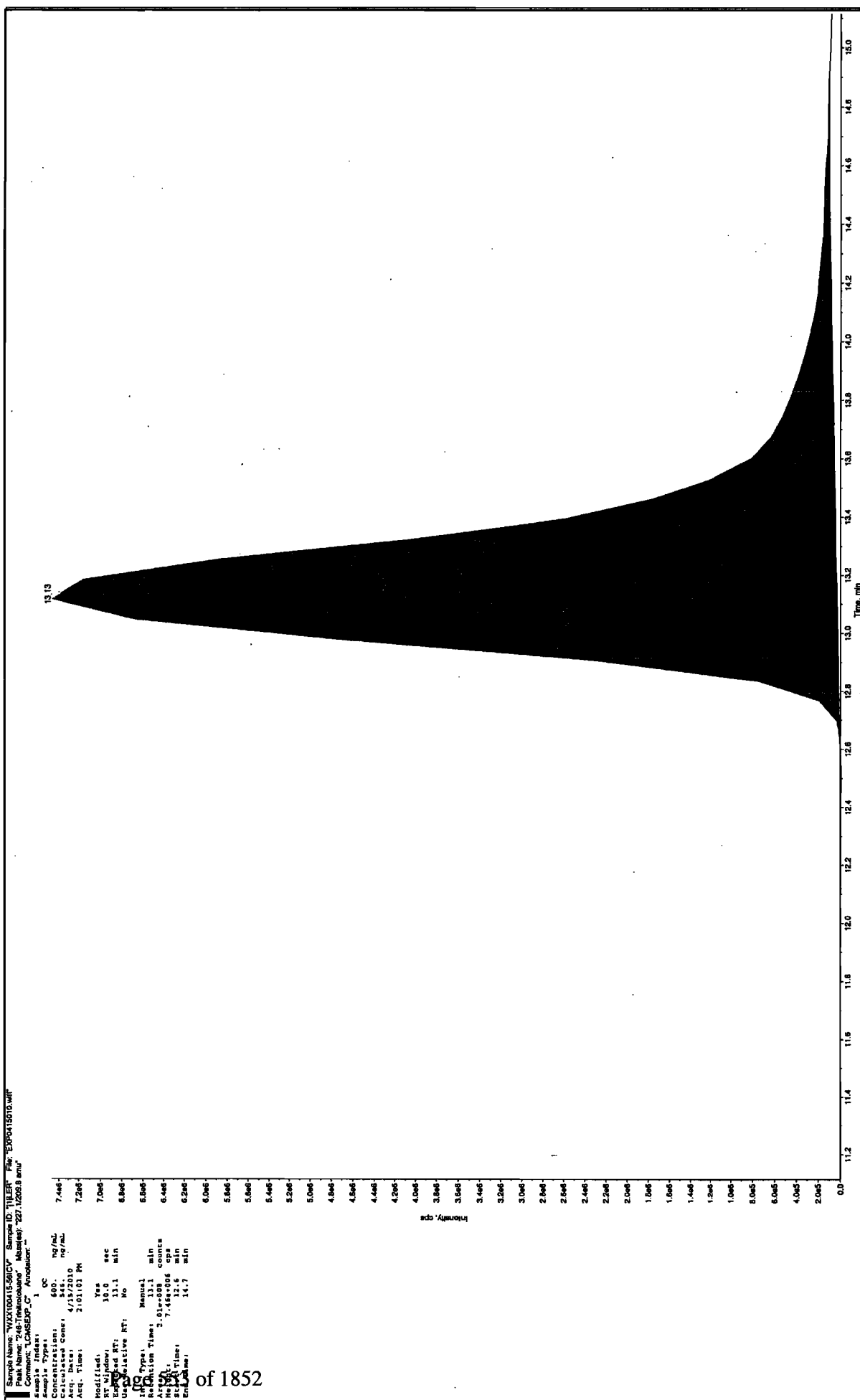
	Compound Name:	HMX (341.2/46.0 amu)
	Expected RT:	4.67
	Actual RT:	4.67
	Area Counts:	1.69e+007
	Manual Modification	No
	Amount:	488. (ng/mL)
	% Accuracy:	81.40

	Compound Name:	RDX (267.0/46.1 amu)
	Expected RT:	6.77
	Actual RT:	6.77
	Area Counts:	1.03e+007
	Manual Modification	No
	Amount:	589. (ng/mL)
	% Accuracy:	98.20

*Handwritten signature and date:*  
4/23/10





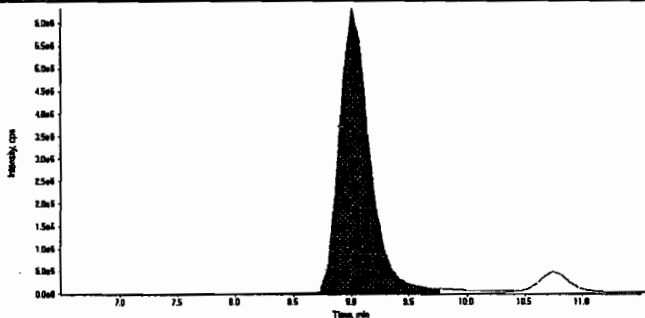


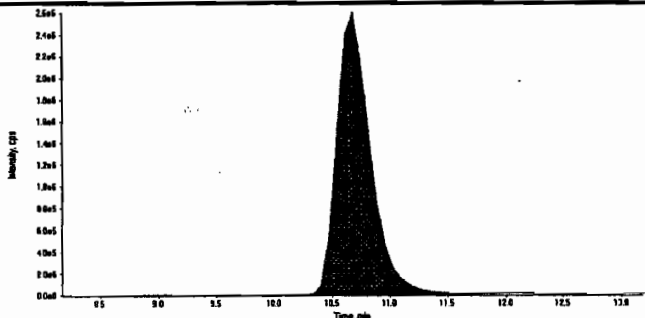
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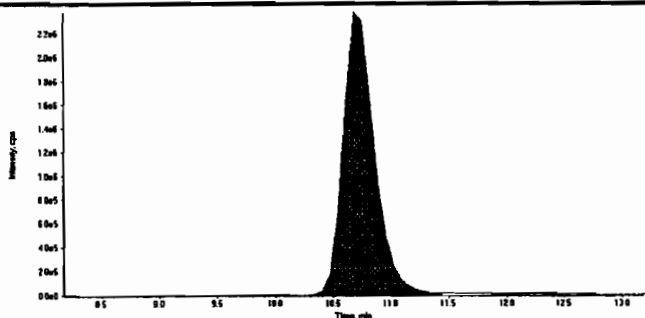
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

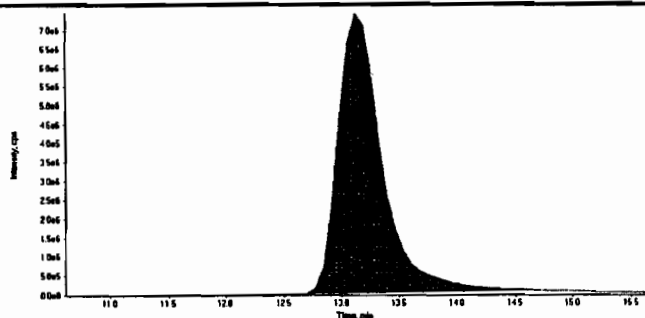
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LCMSMS#3

Data File	EXP0415010.wiff	Acquisition Date	4/15/2010 2:01:01 PM
Sample Name	WXX100415-56ICV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	9.00
	Area Counts:	1.18e+008
	Manual Modification	No
	Amount:	577. (ng/mL)
	% Accuracy:	96.20

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	5.39e+007
	Manual Modification	No
	Amount:	591. (ng/mL)
	% Accuracy:	98.60

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	4.57e+007
	Manual Modification	No
	Amount:	585. (ng/mL)
	% Accuracy:	97.50

	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	2.01e+008
	Manual Modification	Yes
	Amount:	546. (ng/mL)
	% Accuracy:	91.00

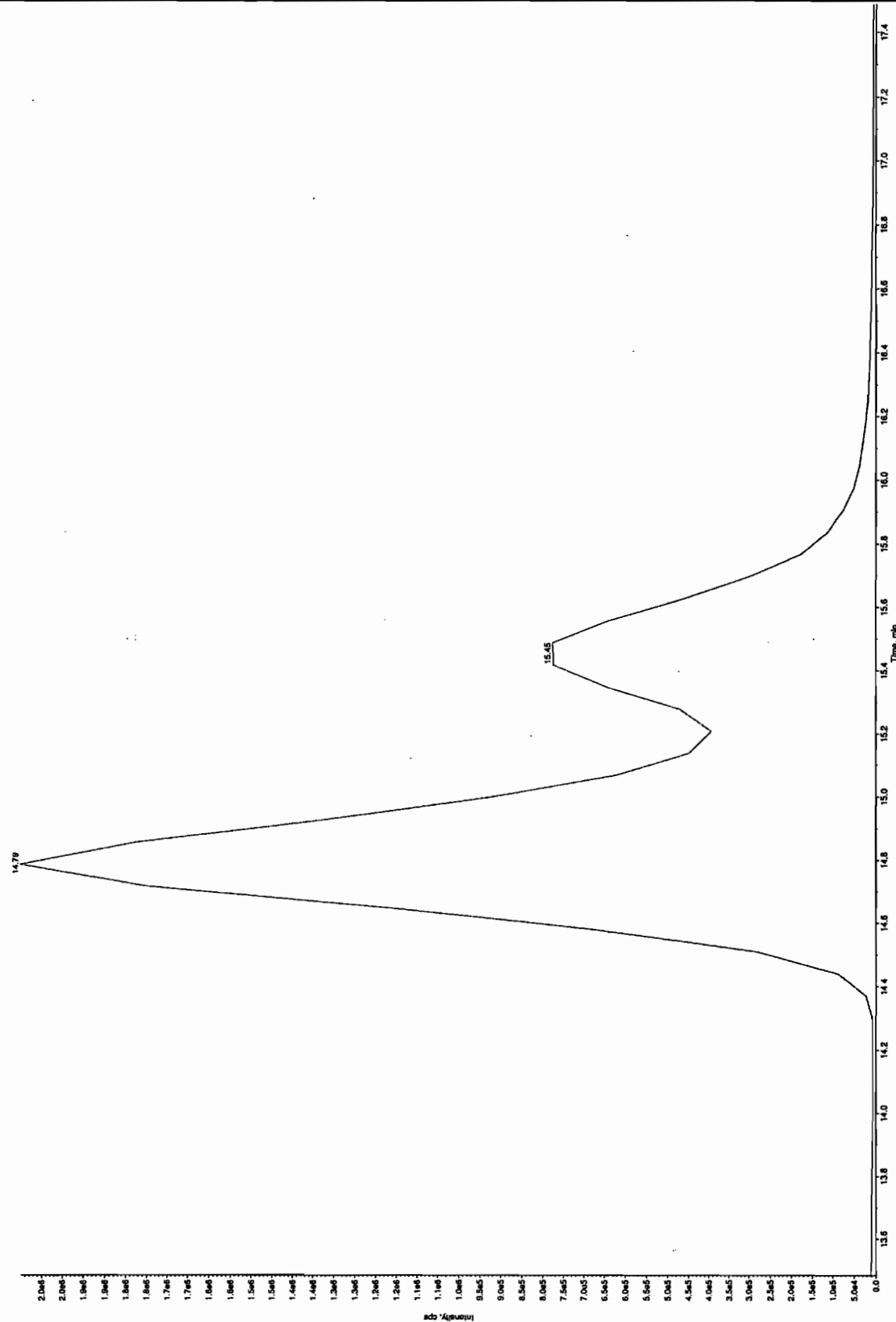
Before Jan 4/23/10

Sample Name: "WXX100415-561C" Sample ID: "111ER" File: "EXP015010.wif"

Peak Name: "24-dinitrofluorene" Mass(es): "162.046.0 amu"

Comment: "LCMS20\_C" Annotation:

Sample Matrix: 1 QC  
 Concentration: 800. ng/mL  
 Calculated Conc: 477.52010 ng/mL  
 Acq. Time: 21.01.01 PM  
 Method: No



after Scan 4/23/10

Sample Name: "W2X100415-581CV" Sample ID: "11ER" File: "E250415010.wif"

Comment: "LCMS-EXP\_C" Annotation: "

Peak Name: "24-dinitrofluorene" Mass(es): "182.046.0 amu"

Sample Type: "QC"

Concentration: "600. ng/mL"

Calculated Conc: "99.0 ng/mL"

Acq. Date: "4/15/10"

Acq. Time: "21:01:01 PM"

Method: "Yes"

Modified: "3/11/10"

Acq. Date: "4/15/10"

Acq. Time: "15:5 min"

Unit Relative RT: "No"

Sample Type: "Manual"

Injection Time: "13.5 min"

Acquisition Time: "1.94e+007 counts"

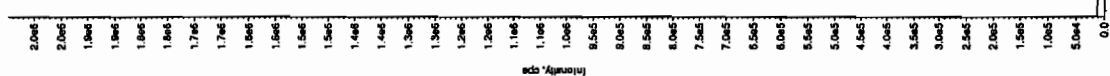
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Peak Time: "15.2 min"

Width: "16.3 min"

14.78

15.45



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415010.wiff	<b>Acquisition Date</b>	4/15/2010 2:01:01 PM
<b>Sample Name</b>	WXX100415-56ICV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.8
	Area Counts:	2.16e+006
	Manual Modification	No
	Amount:	623. (ng/mL)
	% Accuracy:	104.00

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.0
	Area Counts:	3.11e+007
	Manual Modification	No
	Amount:	294. (ng/mL)
	% Accuracy:	98.00

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.8
	Area Counts:	4.76e+007
	Manual Modification	No
	Amount:	553. (ng/mL)
	% Accuracy:	92.10

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.5
	Area Counts:	1.94e+007
	Manual Modification	Yes
	Amount:	585. (ng/mL)
	% Accuracy:	97.50



after run 4/23/00

Sample Name: "XXXX00410-560Y" Sample ID: "11LEP" File: "E004105010.wif"  
 Acquisition: "LCMSMS" Concentration: "187.01600 mg/L" Method: "LCMSMS" Annotation: "1"

Sample Index: 1  
 Sample Type: QC  
 Concentration: 187.01600 mg/L  
 Acquisition Date: 4/15/2010  
 Acquisition Time: 2:01:01 PM  
 Inlet: Yes  
 Inlet Temp: 30.0 sec  
 Inlet Pressure: 14.1 min  
 Inlet Flow: 1.51e+006 counts  
 Inlet Volume: 5.98e+004 cps  
 Inlet Time: 15.0 min  
 Inlet Temp: 15.0 min

Page 1 of 1852

13.11

14.10

Time, min

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415010.wiff	<b>Acquisition Date</b>	4/15/2010 2:01:01 PM
<b>Sample Name</b>	WXX100415-56ICV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	4.14e+007
	Manual Modification	No
	Amount:	575. (ng/mL)
	% Accuracy:	95.80

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	14.1
	Area Counts:	1.51e+006
	Manual Modification	Yes
	Amount:	500. (ng/mL)
	% Accuracy:	83.30

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.6
	Area Counts:	6.74e+005
	Manual Modification	No
	Amount:	526. (ng/mL)
	% Accuracy:	87.70

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.8
	Area Counts:	3.94e+005
	Manual Modification	No
	Amount:	570. (ng/mL)
	% Accuracy:	95.00

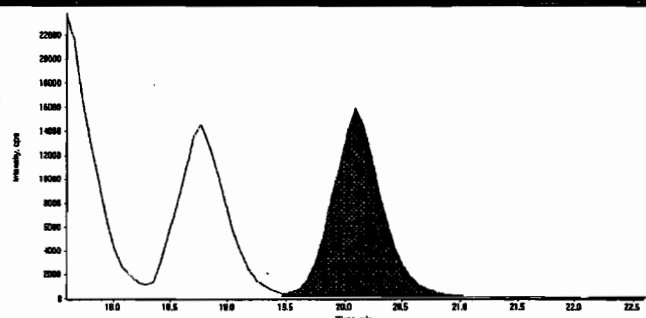


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GEL SOP GL-OA-E-056, Method 8321A-Modified

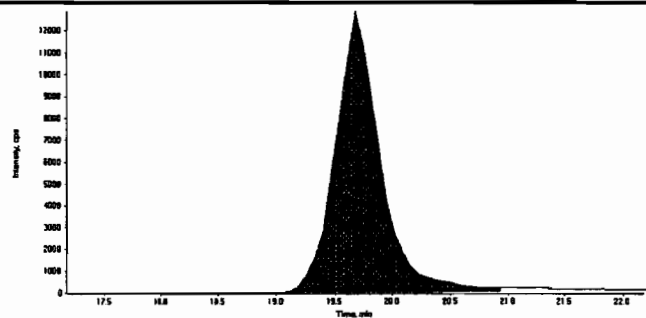
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LCMSMS#3

Data File	EXP0415010.wiff	Acquisition Date	4/15/2010 2:01:01 PM
Sample Name	WXX100415-56ICV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	20.1
	Area Counts:	4.75e+005
	Manual Modification	No
	Amount:	495. (ng/mL)
	% Accuracy:	82.50

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	19.7
	Area Counts:	3.54e+005
	Manual Modification	No
	Amount:	536. (ng/mL)
	% Accuracy:	89.30

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/15/10  
 Time of Injection 1401  
 Standard Number WXX100415-56ICV  
 Data File EXP0415010a

HMX	81.4
RDX	98.2
135-Trinitrobenzene	96.2
13-Dinitrobenzene	98.6
Tetryl	97.5
246-Trinitrotoluene	91.0
Nitrobenzene	104.0
34-dinitrotoluene	98.0
26-dinitrotoluene	92.1
24-dinitrotoluene	97.5
4-Amino-26-dinitrotoluene	95.8
2-Amino-46-dinitrotoluene	83.3
2-Nitrotoluene	87.7
4-Nitrotoluene	95.0
3-Nitrotoluene	82.5
PETN	89.3

TOTAL

✓ 1488.1

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AVERAGE

✓ 93.0

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

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 4/22/10

Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2202

Lab Code: GEL

Run Date: 09-APR-10.15-APR-10.20-APR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:		50	51	52	53	54	55	Ave RF	RSD	Q
Data File:		EXP0420003.wi	EXP0420004.wi	EXP0420005.wi	EXP0420006.wi	EXP0420007.wi	EXP0420008.wi			
Parname										
2,4-Dinitrotoluene		.239	.203	.195	.209	.21	.174	0.205	10.3	
2-Amino-4,6-dinitrotoluene		.016	.014	.016	.015	.016	.016	0.016	5.56	
HMX		.944	1.21	1.05	1.01	1.27	.97	1.076	12.4	
RDX		.446	.506	.631	.55	.678	.508	0.553	15.7	
Tetryl		2.09	2.06	2.2	1.97	2.29	1.88	2.082	7.28	
m-Dinitrobenzene		2.45	2.69	3.02	2.61	2.46	2.23	2.577	10.5	

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

\* Values outside of QC Limit

Explosives Initial Calibration Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2202

Lab Code: GEL

Run Date: 09-APR-10.15-APR-10.20-APR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Linear

Parname	50	51	52	53	54	55	Slope	Intercept	COD	Q
Calibration Level:	EXP0420003.w	EXP0420004.w	EXP0420005.w	EXP0420006.w	EXP0420007.w	EXP0420008.w				
Data File:										
1,3,5-Trinitrobenzene	8870000	17200000	57700000	102000000	170000000	188000000	5.36	.169	.9995	
3,4-Dinitrotoluene	1720000	3960000	14000000	28600000	51900000	65800000	.66	.006	.9983	
4-Amino-2,6-dinitrotoluene	2090000	5020000	17600000	37200000	61500000	87700000	.423	.005	.9988	
Nitrobenzene	118000	272000	917000	2120000	3840000	4770000	.112	0	.9928	
PETN	20800	46500	180000	330000	700000	939000	.005	0	.999	
m-Nitrotoluene	31700	65200	271000	522000	1090000	1380000	.007	0	.9982	
o-Nitrotoluene	42200	99700	340000	647000	1470000	1910000	.01	0	.9975	
p-Nitrotoluene	23800	49100	181000	379000	742000	954000	.005	0	.9989	

Linear fit:  $Y = mx + b$

where b is Intercept and m is slope

COD is Coefficient of Determination

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

\* Values outside of QC Limit

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2202

Lab Code: GEL

Run Date: 09-APR-10.15-APR-10.20-APR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	50	51	52	53	54	55	X	X^2	Intercept	COD	Q
Data File:	EXP0420003.wiff	EXP0420004.wiff	EXP0420005.wiff	EXP0420006.wiff	EXP0420007.wiff	EXP0420008.wiff					
Parname:											
2,4,6-Trinitrotoluene	16300000	32000000	113000000	190000000	267000000	299000000	.001	3	-.766	.9999	
2,6-Dinitrotoluene	3090000	6530000	25700000	45300000	77100000	102000000	.002	.612	-.059	.9999	

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

042010ICAL

Peak Name: 13-Dinitrobenzene-d4  
Use as Internal Standard  
Q1/Q3 Masses: 172.05/46.10 amu  
Peak Name: 26-Dinitrotoluene-d3  
Use as Internal Standard  
Q1/Q3 Masses: 184.99/155.00 amu

Peak Name: HMX  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 341.20/46.00 amu

Fit Factor	Mean Response	Factor	Weighting	None	Iterate	No
Standard deviation		0.133				
%RSD		12.4				
Use Area						

Peak Name: RDX  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 267.01/46.10 amu

Fit Factor	Mean Response	Factor	Weighting	None	Iterate	No
Standard deviation		0.0866				
%RSD		15.7				
Use Area						

Peak Name: 135-Trinitrobenzene  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 212.97/182.80 amu

Fit Intercept	Linear	Weighting	None	Iterate	No
Slope		0.169			
Correlation coefficient		5.36			
Use Area		0.9995			

Peak Name: 13-Dinitrobenzene  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 167.95/137.90 amu

Fit Factor	Mean Response	Factor	Weighting	None	Iterate	No
Standard deviation		0.271				

*Handwritten:*  
Jury 01/28/10  
HMX 01/29/10

042010ICAL

%RSD 10.5  
Use Area

Peak Name: Tetra1  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 240.95/180.80 amu

Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	2.08			
Standard deviation	0.152			
%RSD	7.28			
Use Area				

Peak Name: 246-Trinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 227.12/209.80 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	0.00125			
a1	3			
a2	-0.766			
Correlation coefficient	0.9999			
Use Area				

Peak Name: Nitrobenzene  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 123.04/46.00 amu

Fit	Linear	Weighting	None	Iterate No
Intercept	-7.36e-005			
Slope	0.112			
Correlation coefficient	0.9928			
Use Area				

Peak Name: 34-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Linear	Weighting	None	Iterate No
Intercept	0.00621			
Slope	0.66			
Correlation coefficient	0.9983			
Use Area				

Page 2

042010ICAL

Peak Name: 26-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	weighting	None	Iterate No
a0	0.00151			
a1	0.612			
a2	-0.0585			
Correlation coefficient 0.9999				
Use Area				

Peak Name: 24-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	0.205			
Standard deviation	0.0212			
%RSD	10.3			
Use Area				

Peak Name: 4-Amino-26-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 197.02/167.00 amu

Fit	Linear	weighting	None	Iterate No
Intercept	0.00487			
Slope	0.423			
Correlation coefficient 0.9988				
Use Area				

Peak Name: 2-Amino-46-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 197.02/180.00 amu

Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	0.0155			
Standard deviation	0.000861			
%RSD	5.56			
Use Area				

Peak Name: 2-Nitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 137.00/46.00 amu



042010ICAL

Fit Linear Weighting None Iterate No  
Intercept -0.000364  
Slope 0.00961  
Correlation coefficient 0.9975  
Use Area

Peak Name: 4-Nitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 137.00/46.00 amu

Fit Linear Weighting None Iterate No  
Intercept -5.35e-005  
Slope 0.00481  
Correlation coefficient 0.9989  
Use Area

Peak Name: 3-Nitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 137.00/46.00 amu

Fit Linear Weighting None Iterate No  
Intercept -0.000131  
Slope 0.007  
Correlation coefficient 0.9982  
Use Area

Peak Name: PETN  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 361.06/62.00 amu

Fit Linear Weighting None Iterate No  
Intercept -0.000128  
Slope 0.00467  
Correlation coefficient 0.9990  
Use Area

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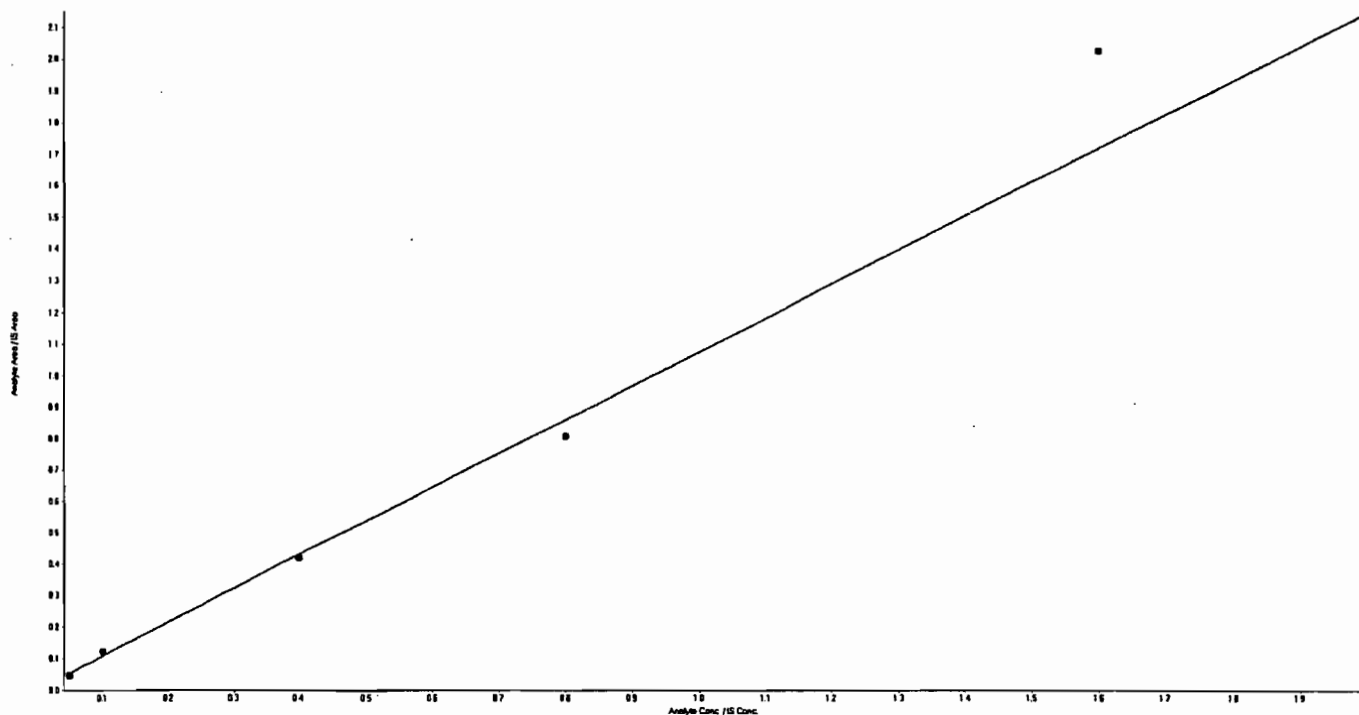
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LCMSMS#3

042010.rdb

Analyte Name: HMX

Regression Equation:  $y = 1.07x$  (std. dev. = 0.133)

Expected Concentration	Calculated Concentration	% Accuracy
25	21.97	87.9
50	56.29	112.6
200	195.16	97.6
400	374.92	93.7
800	943.21	117.9
1000	903.20	90.3



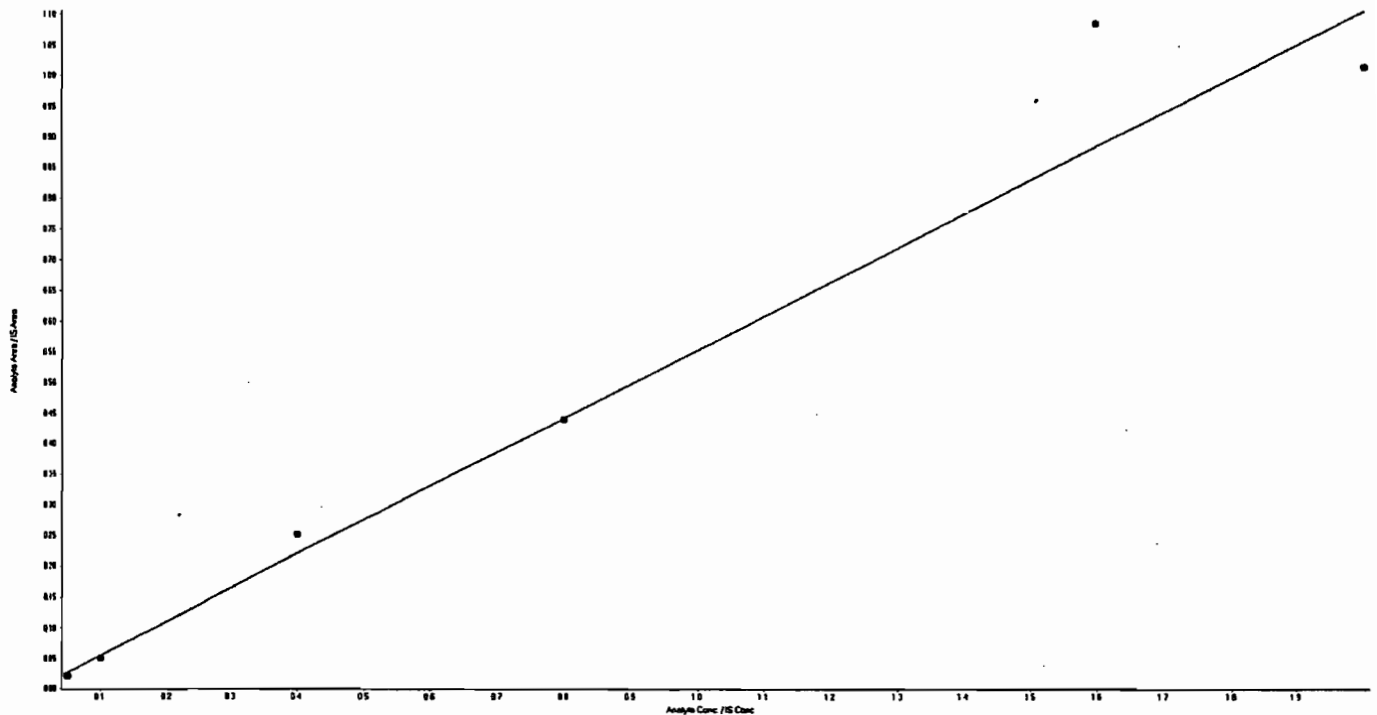
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LCMSMS#3

Analyte Name: RDX

Regression Equation:  $y = 0.553 x$  (std. dev. = 0.0866)

Expected Concentration	Calculated Concentration	% Accuracy
25	20.15	80.6
50	45.74	91.5
200	227.96	114.0
400	397.87	99.5
800	981.23	122.7
1000	918.34	91.8



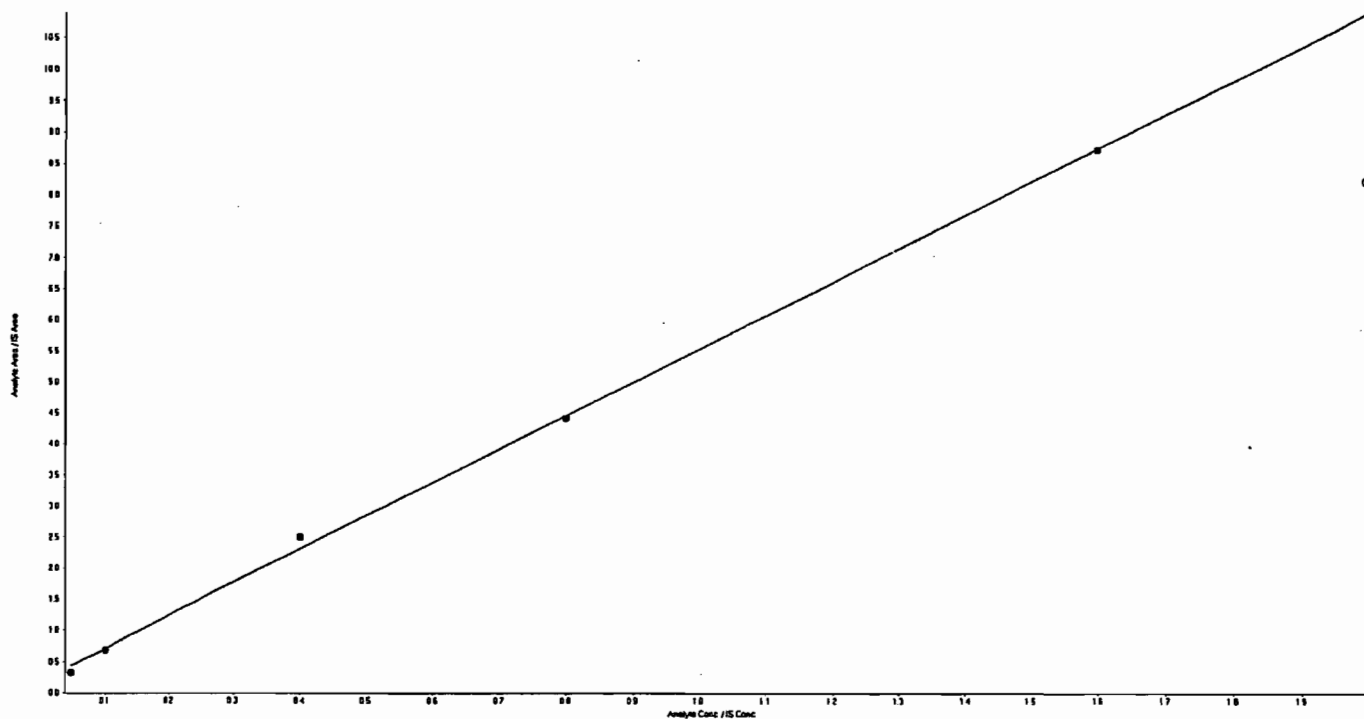
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LCMSMS#3

Analyte Name: 135-Trinitrobenzene

Regression Equation:  $y = 5.36x + 0.169$  ( $r = 0.9995$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	15.11	60.5
50	48.52	97.0
200	217.02	108.5
400	396.40	99.1
800	797.95	99.7



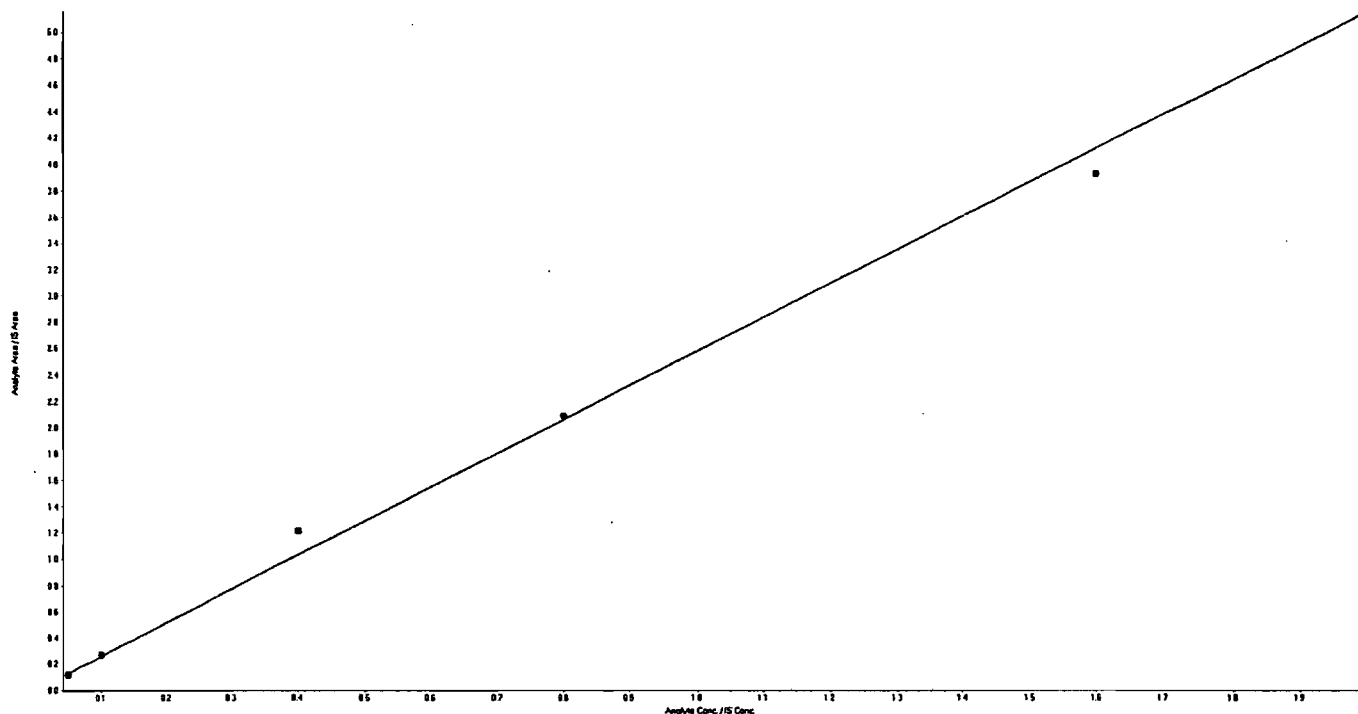
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LCMSMS#3

Analyte Name: 13-Dinitrobenzene

Regression Equation:  $y = 2.58 x$  (std. dev. = 0.271)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.78	95.1
50	52.24	104.5
200	234.72	117.4
400	405.22	101.3
800	762.14	95.3
1000	864.77	86.5



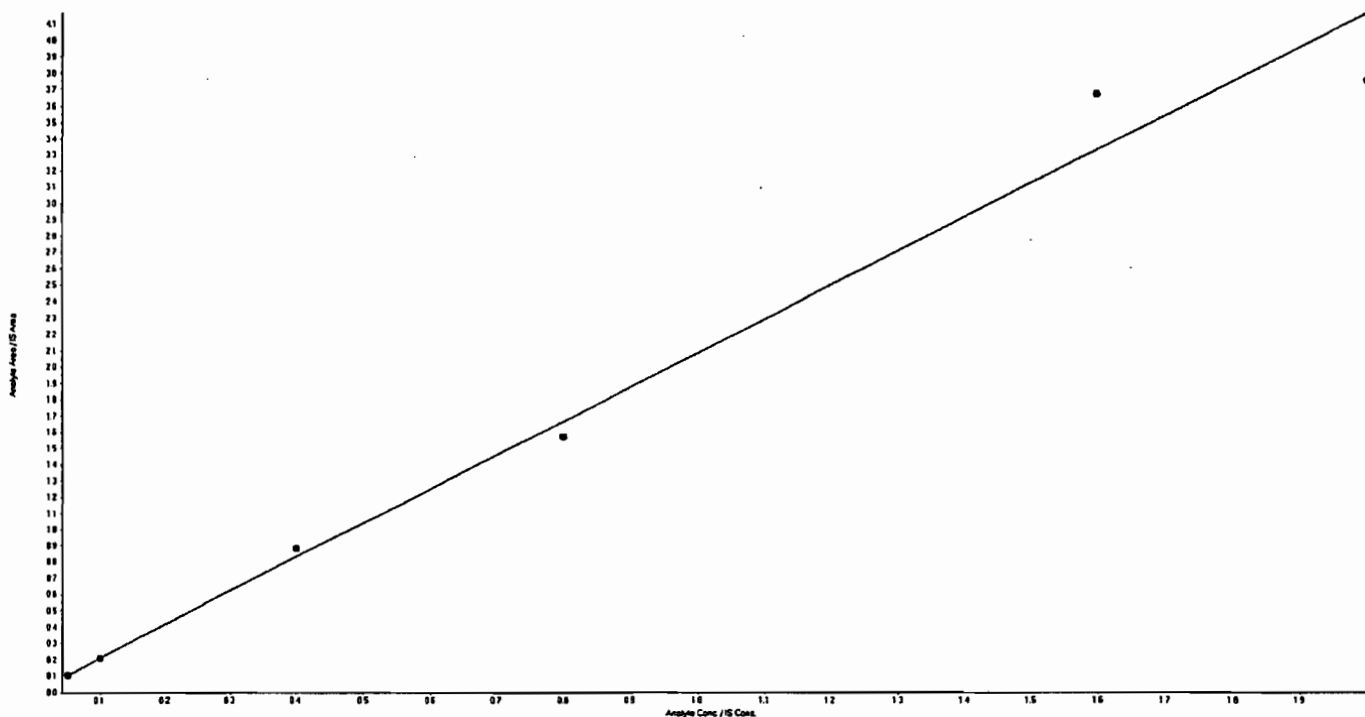
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Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: Tetryl

Regression Equation:  $y = 2.08x$  (std. dev. = 0.152)

Expected Concentration	Calculated Concentration	% Accuracy
25	25.13	100.5
50	49.47	98.9
200	211.40	105.7
400	377.69	94.4
800	881.74	110.2
1000	902.01	90.2



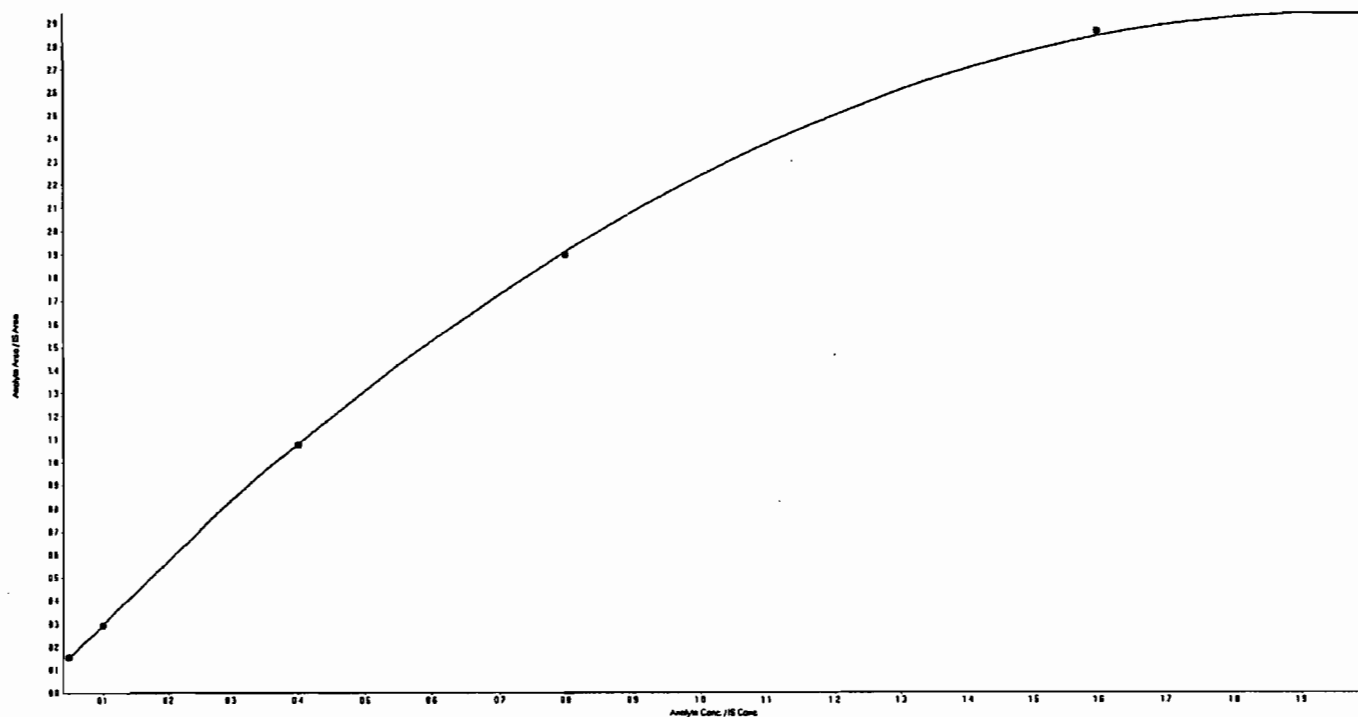
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Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: 246-Trinitrotoluene

Regression Equation:  $y = -0.766 x^2 + 3 x + 0.00125$  ( $r = 0.9999$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	26.14	104.6
50	49.80	99.6
200	199.55	99.8
400	396.28	99.1
800	820.60	102.6
1000	914.99	91.5



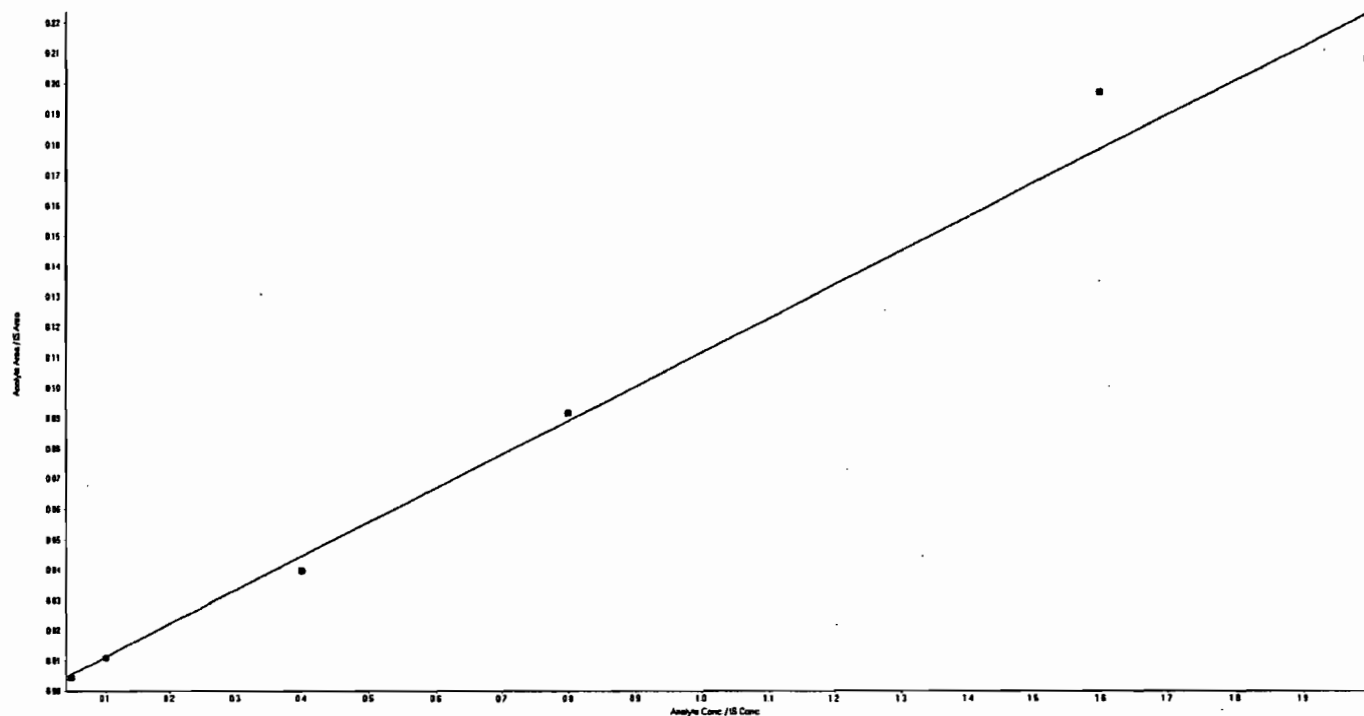
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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: Nitrobenzene

Regression Equation:  $y = 0.112x + -7.36e-005$  ( $r = 0.9928$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	20.12	80.5
50	49.14	98.3
200	177.86	88.9
400	411.03	102.8
800	883.32	110.4
1000	933.52	93.4





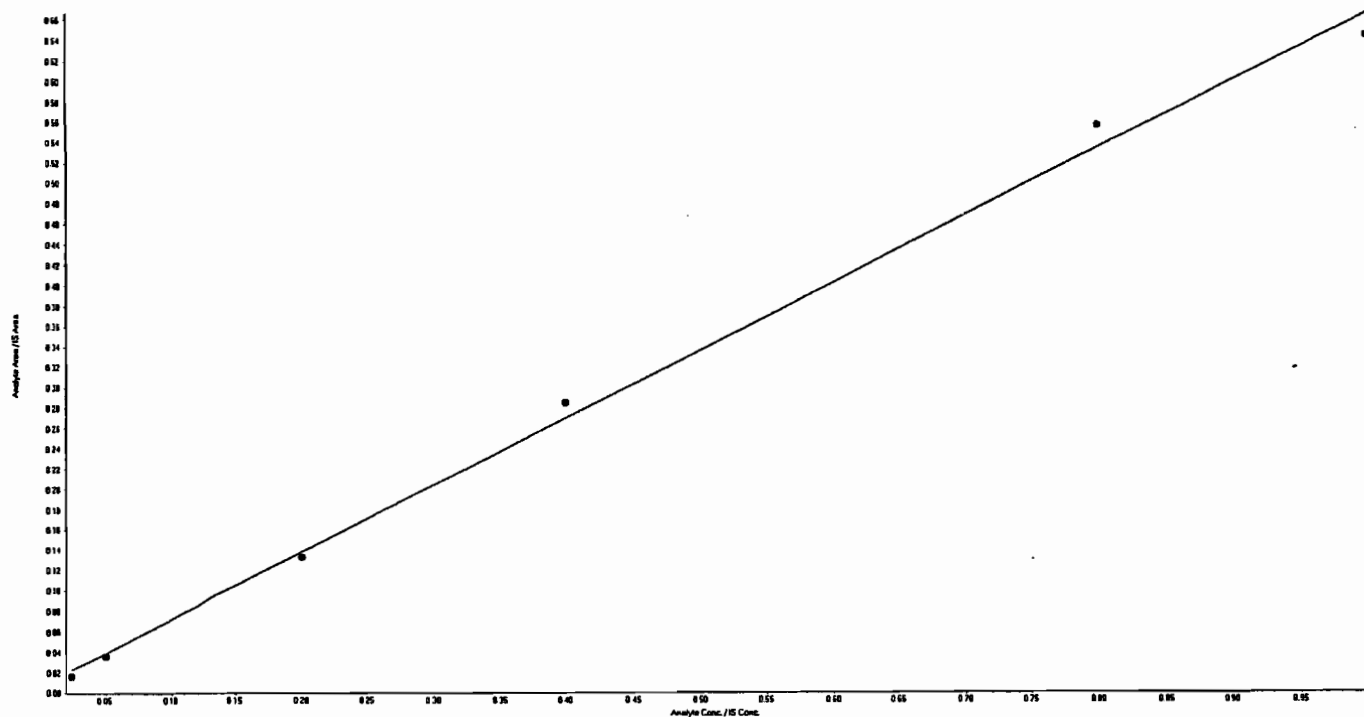
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Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: 34-dinitrotoluene

Regression Equation:  $y = 0.66x + 0.00621$  ( $r = 0.9983$ )

Expected Concentration	Calculated Concentration	% Accuracy
12.5	7.78	62.2
25	22.73	90.9
100	95.92	95.9
200	211.19	105.6
400	416.54	104.1
500	483.34	96.7



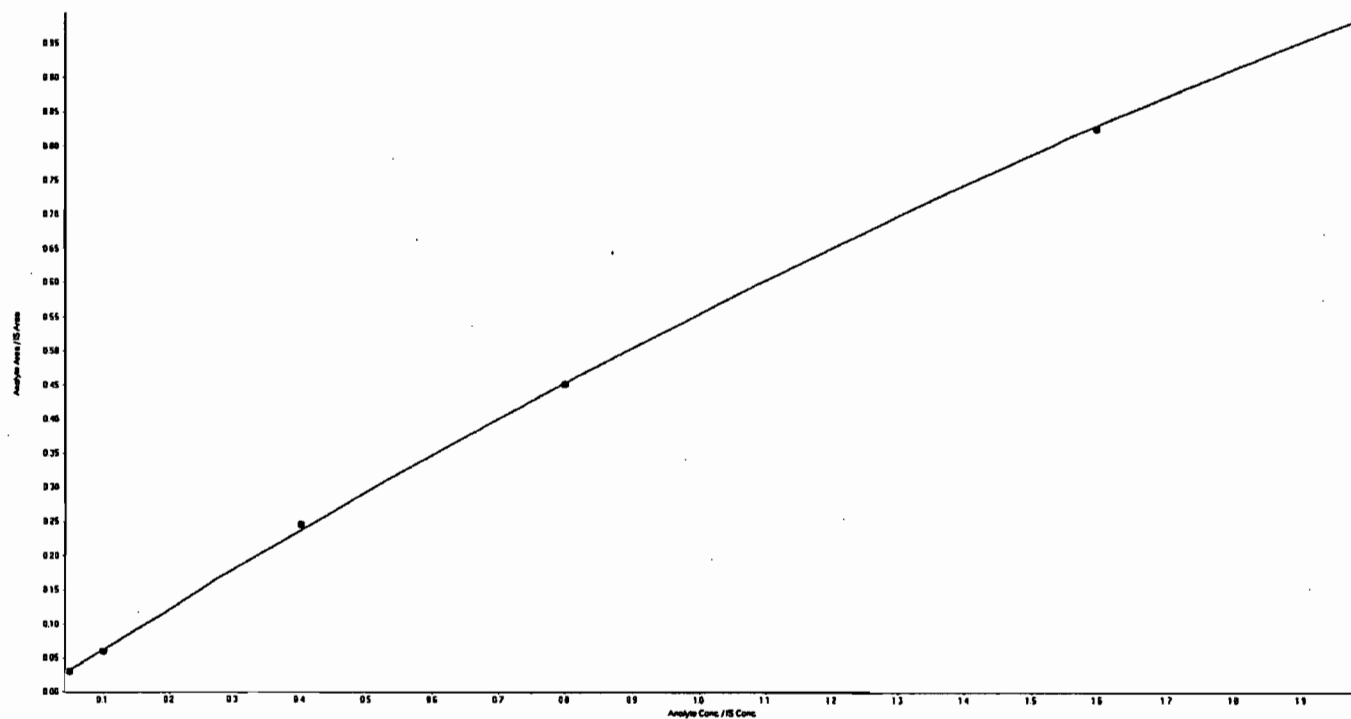
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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: 26-dinitrotoluene

Regression Equation:  $y = -0.0585 x^2 + 0.612 x + 0.00151$  ( $r = 0.9999$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	23.08	92.3
50	48.08	96.2
200	206.95	103.5
400	398.53	99.6
800	794.68	99.3
1000	1003.75	100.4



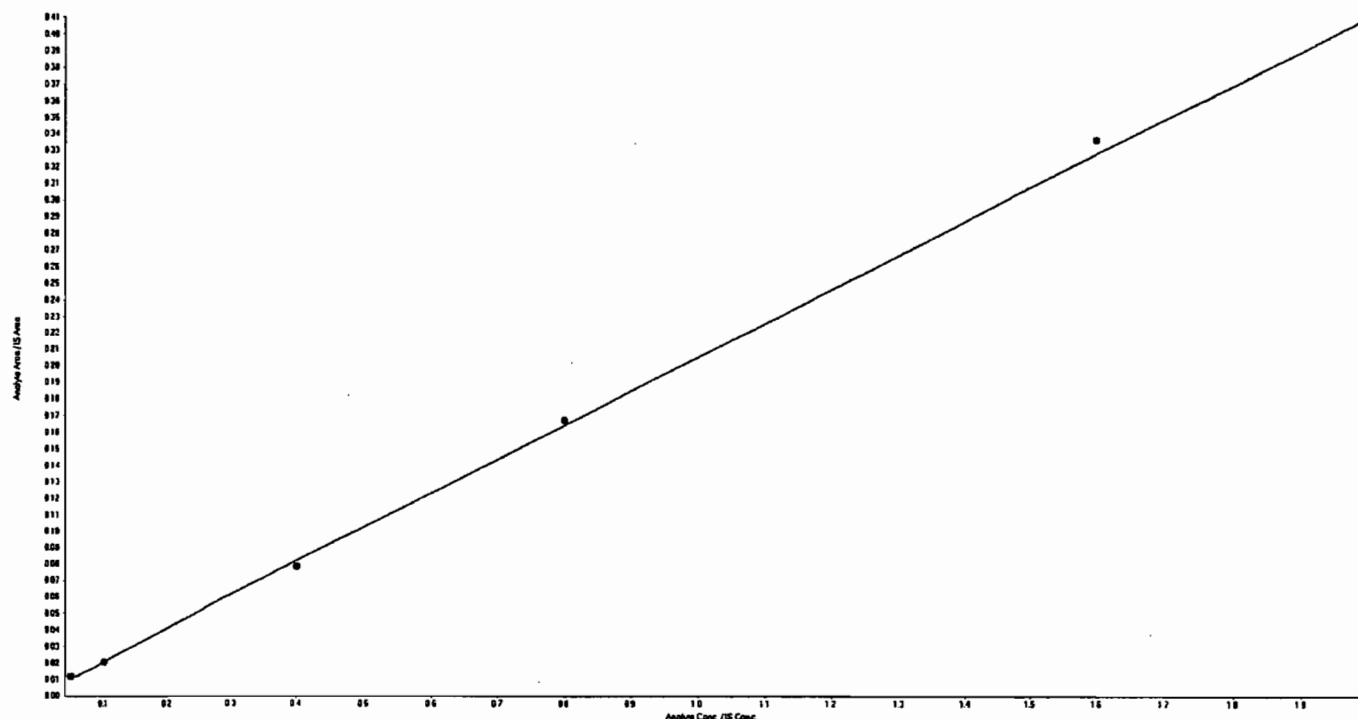
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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: 24-dinitrotoluene

Regression Equation:  $y = 0.205 x$  (std. dev. = 0.0212)

Expected Concentration	Calculated Concentration	% Accuracy
25	29.12	116.5
50	49.48	99.0
200	190.53	95.3
400	407.68	101.9
800	819.95	102.5
1000	848.75	84.9



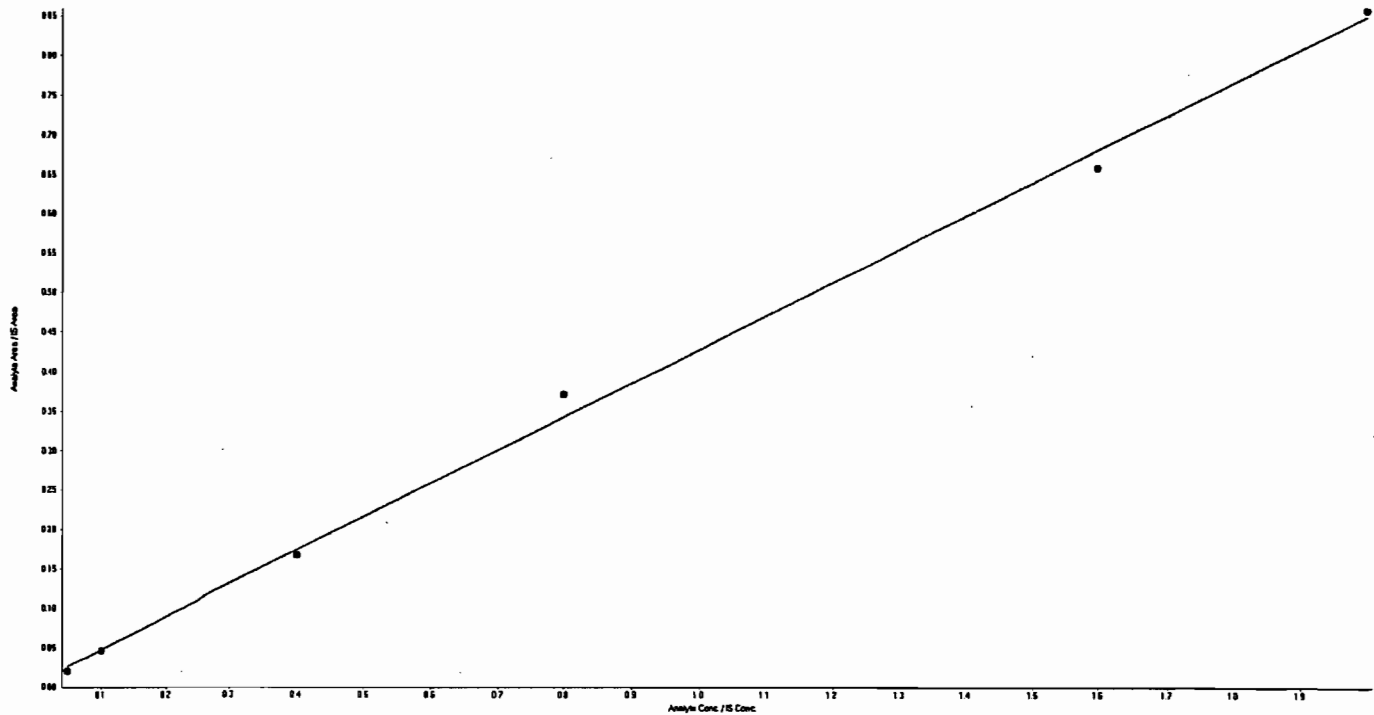
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: 4-Amino-26-dinitrotoluene

Regression Equation:  $y = 0.423x + 0.00487$  ( $r = 0.9988$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	17.94	71.8
50	48.56	97.1
200	191.88	95.9
400	433.47	108.4
800	773.30	96.7
1000	1009.84	101.0



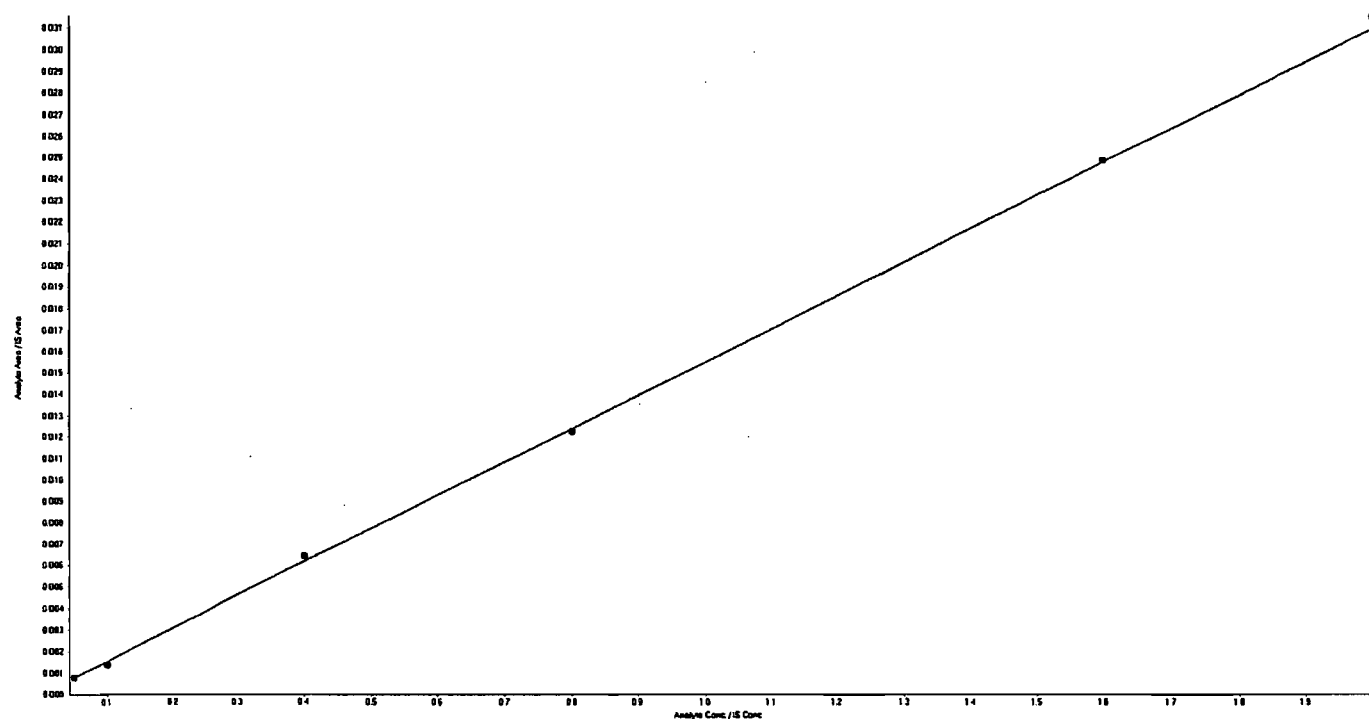
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: 2-Amino-4,6-dinitrotoluene

Regression Equation:  $y = 0.0155 x$  (std. dev. = 0.000861)

Expected Concentration	Calculated Concentration	% Accuracy
25	26.30	105.2
50	44.85	89.7
200	208.15	104.1
400	395.59	98.9
800	801.88	100.2
1000	1018.99	101.9



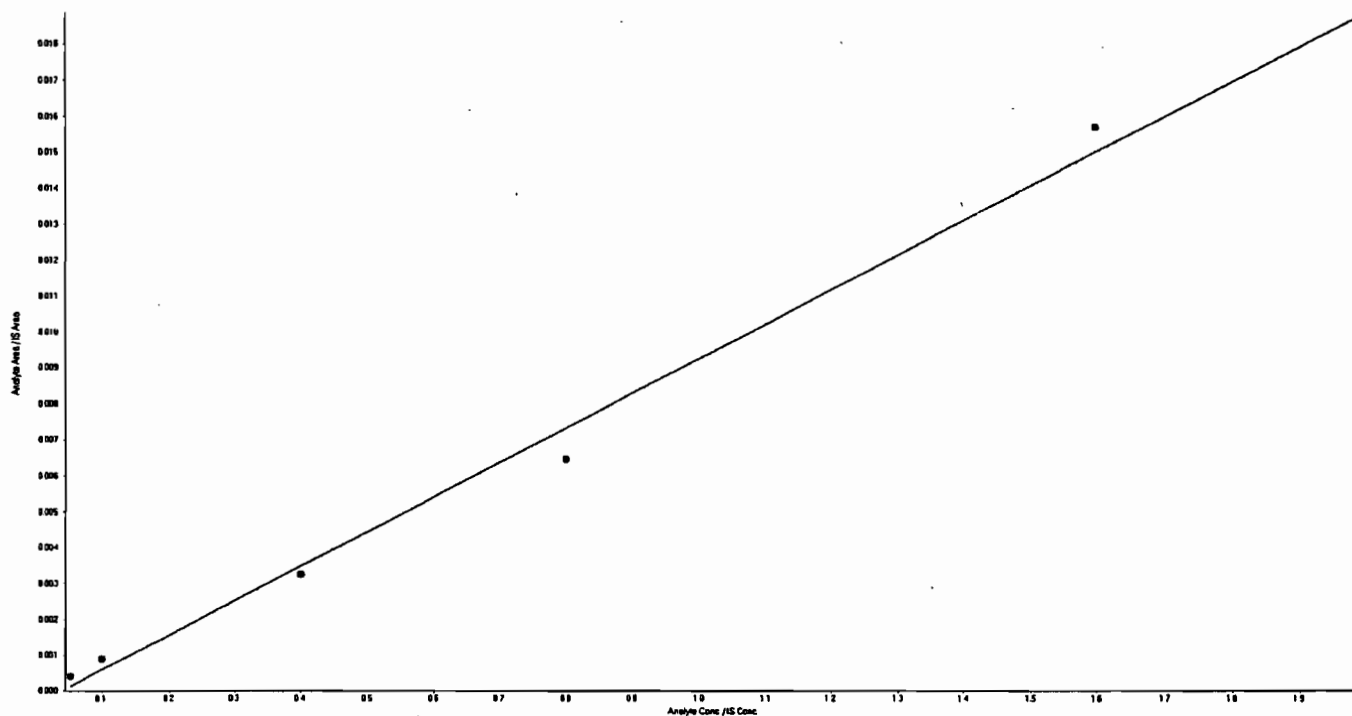
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: 2-Nitrotoluene

Regression Equation:  $y = 0.00961x + -0.000364$  ( $r = 0.9975$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	40.01	160.0
50	66.43	132.9
200	187.42	93.7
400	354.47	88.6
800	835.68	104.5
1000	990.98	99.1



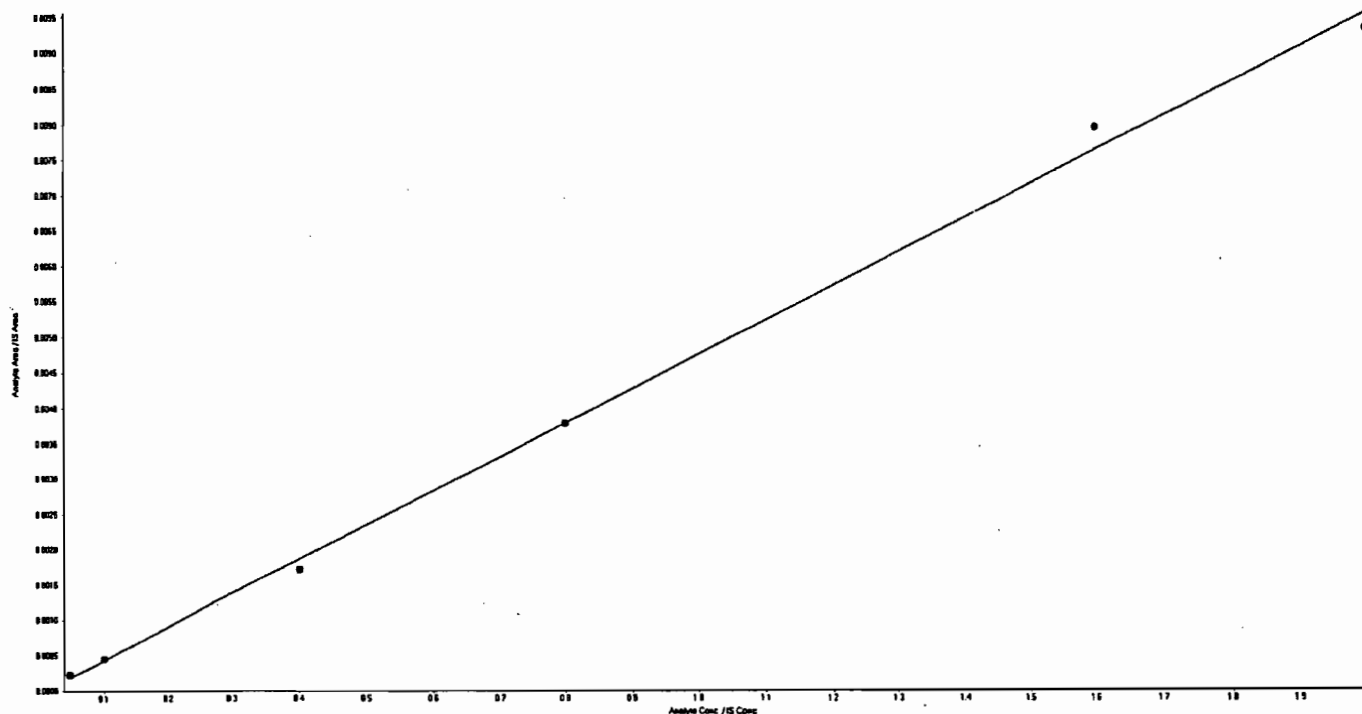
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: 4-Nitrotoluene

Regression Equation:  $y = 0.00481x + -5.35e-005$  ( $r = 0.9989$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	29.27	117.1
50	52.35	104.7
200	184.53	92.3
400	399.15	99.8
800	832.47	104.1
1000	977.23	97.7



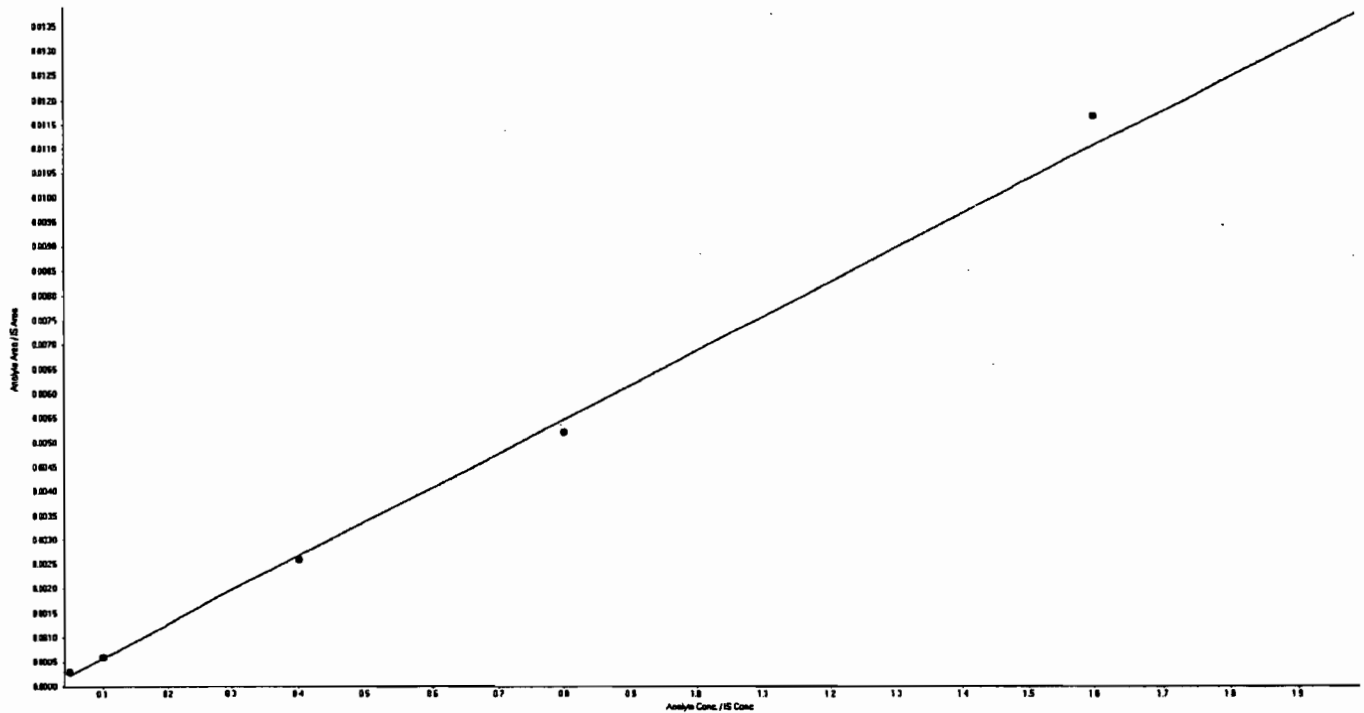
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: 3-Nitrotoluene

Regression Equation:  $y = 0.007x + -0.000131$  ( $r = 0.9982$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	31.06	124.2
50	51.93	103.9
200	193.71	96.9
400	381.07	95.3
800	843.24	105.4
1000	973.99	97.4





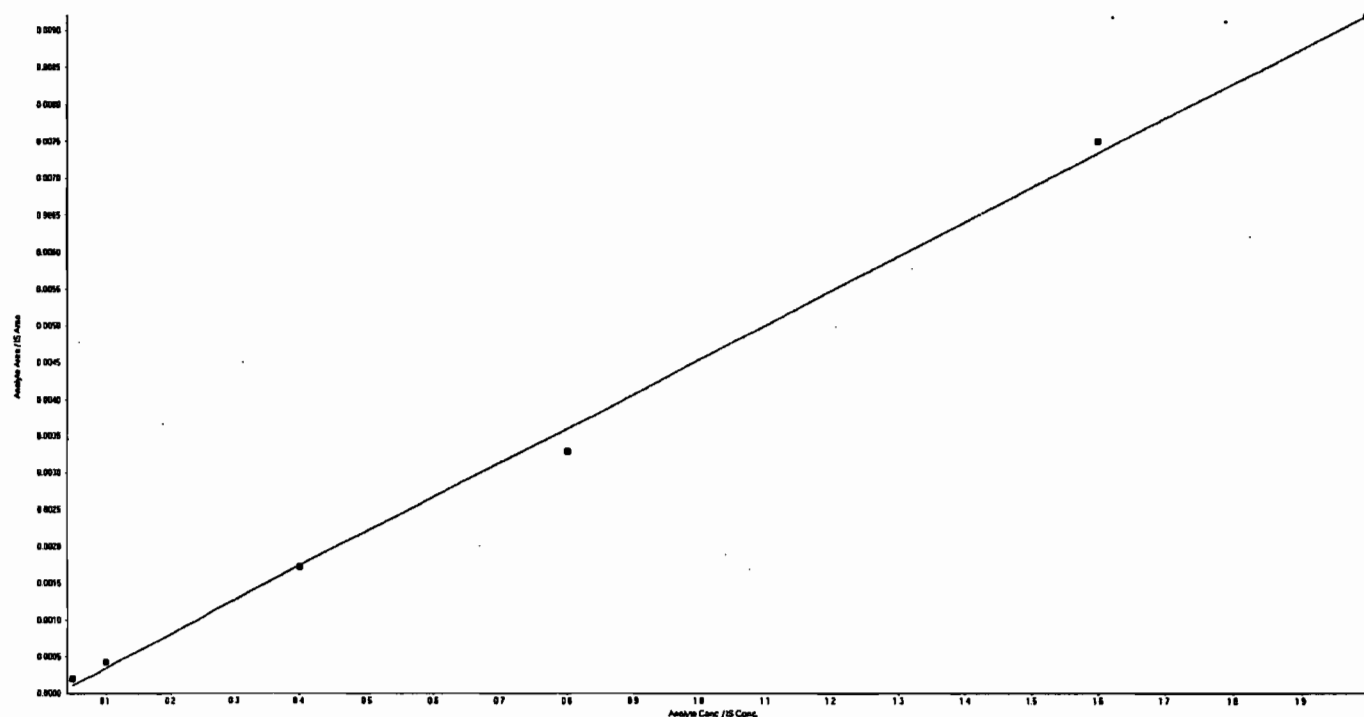
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: PETN

Regression Equation:  $y = 0.00467x + -0.000128$  ( $r = 0.9990$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	35.10	140.4
50	59.36	118.7
200	197.38	98.7
400	366.63	91.7
800	816.93	102.1
1000	999.61	100.0



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0420010.wiff

Analysis Date: 20-APR-10 18:12

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	542	90	
2,4,6-Trinitrotoluene	600	557	93	
2,4-Dinitrotoluene	600	620	103	
2,6-Dinitrotoluene	600	571	95	
2-Amino-4,6-dinitrotoluene	600	624	104	
3,4-Dinitrotoluene	300	295	98	
4-Amino-2,6-dinitrotoluene	600	675	113	
HMX	600	503	84	
Nitrobenzene	600	583	97	
PETN	600	587	98	
RDX	600	557	93	
Tetryl	600	611	102	
m-Dinitrobenzene	600	564	94	
m-Nitrotoluene	600	622	104	
o-Nitrotoluene	600	601	100	
p-Nitrotoluene	600	659	110	

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%

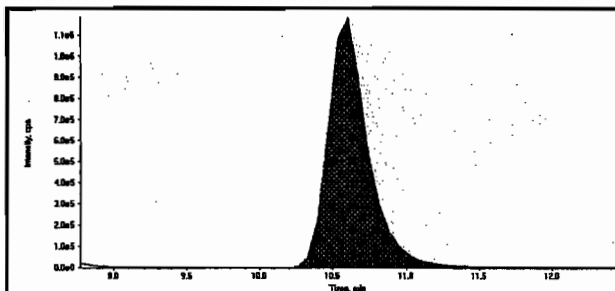
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

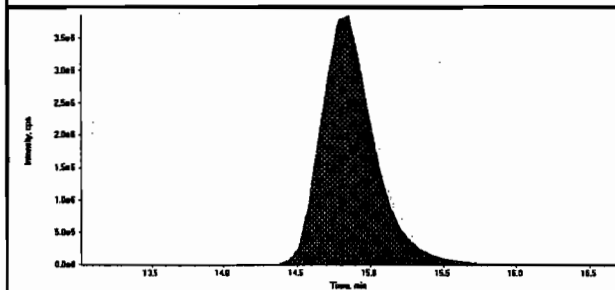
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

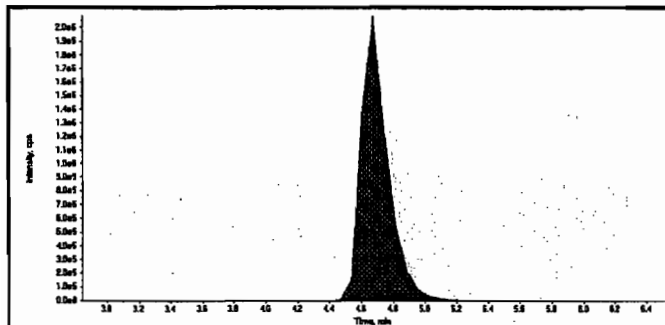
Data File	EXP0420010.wiff	Acquisition Date	4/20/2010 6:12:10 PM
Sample Name	WXX100420-56ICV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



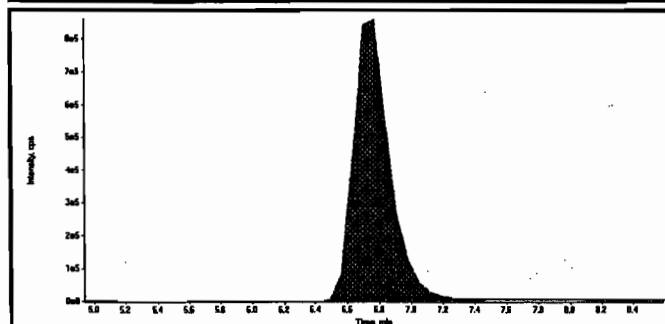
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	22500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	97300000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

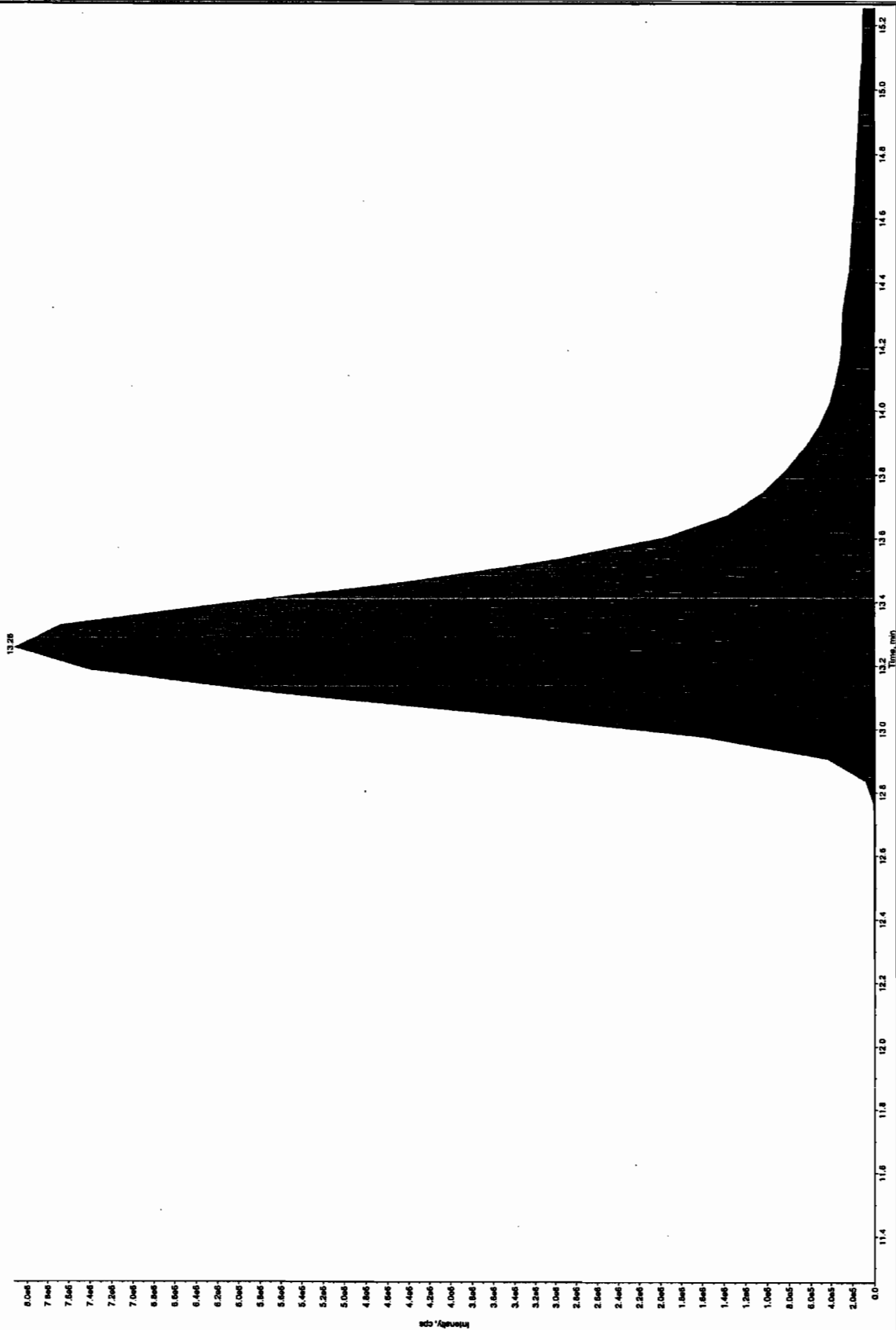


Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	2.43e+007
Manual Modification	No
Amount:	503. (ng/mL)
% Accuracy:	83.80



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.39e+007
Manual Modification	No
Amount:	557. (ng/mL)
% Accuracy:	92.80

*San 4/20/10 HMX 04/24/10*



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420010.wiff	<b>Acquisition Date</b>	4/20/2010 6:12:10 PM
<b>Sample Name</b>	WXX100420-561CV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	9.07
	<b>Area Counts:</b>	1.35e+008
	<b>Manual Modification</b>	No
	<b>Amount:</b>	542. (ng/mL)
	<b>% Accuracy:</b>	90.40

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	6.54e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	564. (ng/mL)
	<b>% Accuracy:</b>	94.00

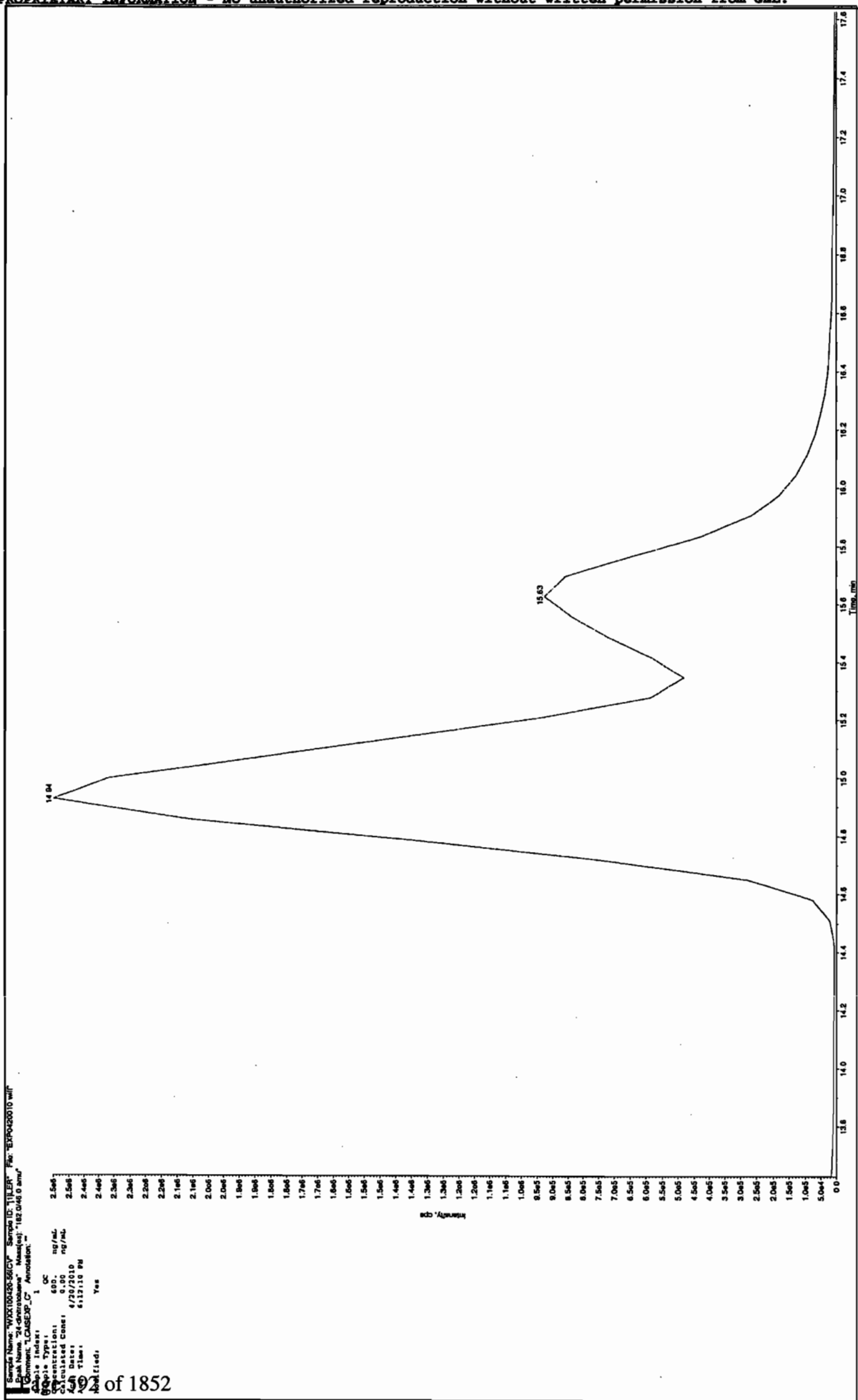
  

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	10.8
	<b>Area Counts:</b>	5.72e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	611. (ng/mL)
	<b>% Accuracy:</b>	102.00

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	2.33e+008
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	557. (ng/mL)
	<b>% Accuracy:</b>	92.80

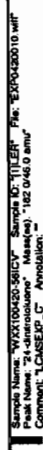
Before Jan 4/28/10



Sample Name: WXX100435-561V Sample ID: 111517 File: EXP000010.wif  
 Peak Name: "14.040000000000000000" Name: "14.040000000000000000"  
 Abundance: 2.5e6  
 Retention Time: 14.04  
 Peak Type: 1  
 Concentration: 600.000 ng/mL  
 Calculated Conc: 600.000 ng/mL  
 Acquisition Time: 6/27/2010 10:00:00 PM  
 Acquired: 6/27/2010 10:00:00 PM  
 Notified: Yes

02 of 1852





\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420010.wiff	<b>Acquisition Date</b>	4/20/2010 6:12:10 PM
<b>Sample Name</b>	WXX100420-56ICV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	11.9
	Area Counts:	2.93e+006
	Manual Modification	No
	Amount:	583. (ng/mL)
	% Accuracy:	97.20

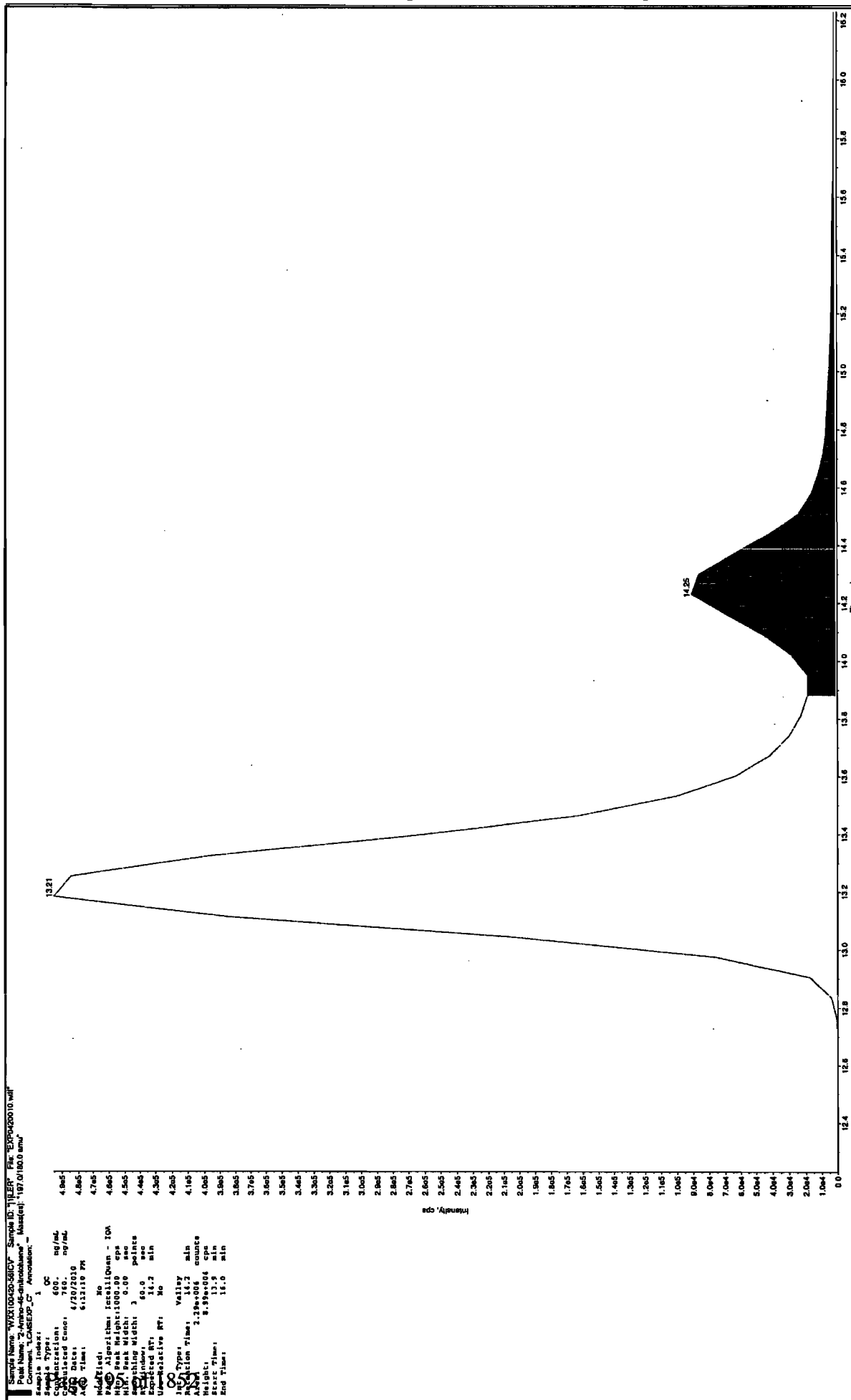
	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.1
	Area Counts:	3.85e+007
	Manual Modification	No
	Amount:	295. (ng/mL)
	% Accuracy:	98.30

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	14.9
	Area Counts:	6.08e+007
	Manual Modification	No
	Amount:	571. (ng/mL)
	% Accuracy:	95.20

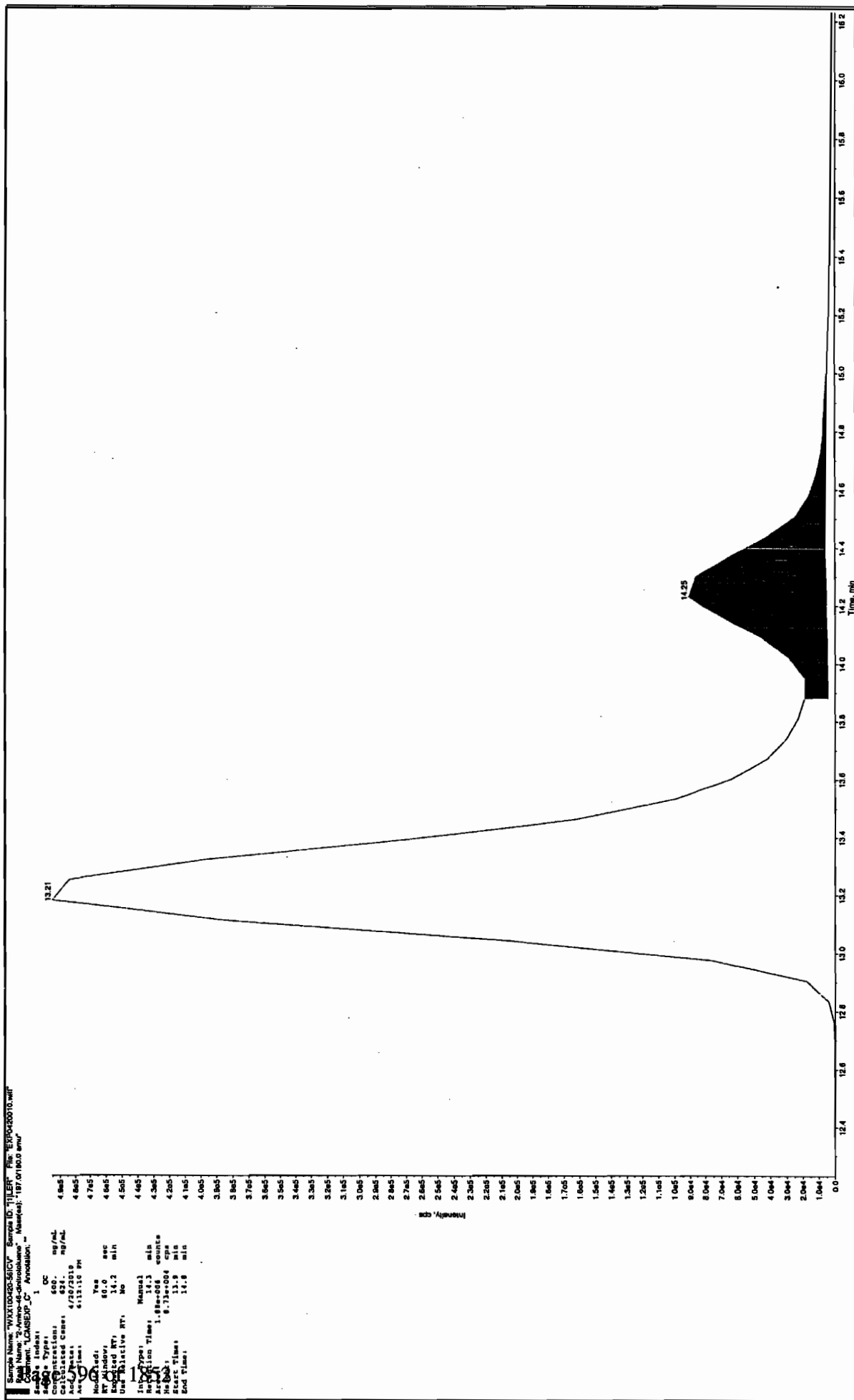
  

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	15.6
	Area Counts:	2.47e+007
	Manual Modification	Yes
	Amount:	620. (ng/mL)
	% Accuracy:	103.00



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/28/10

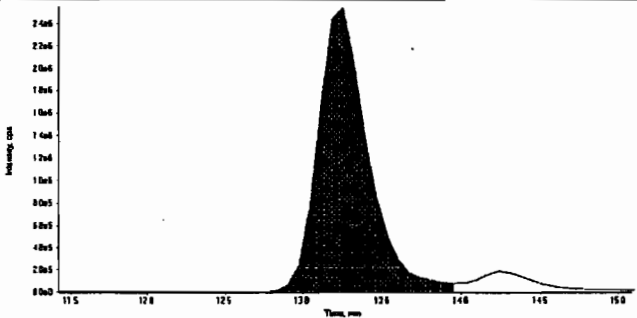


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

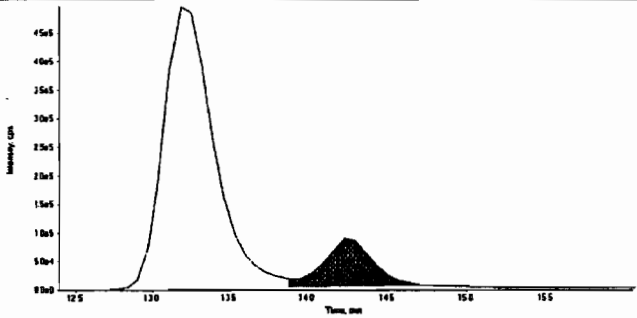
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420010.wiff	<b>Acquisition Date</b>	4/20/2010 6:12:10 PM
<b>Sample Name</b>	WXX100420-56ICV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

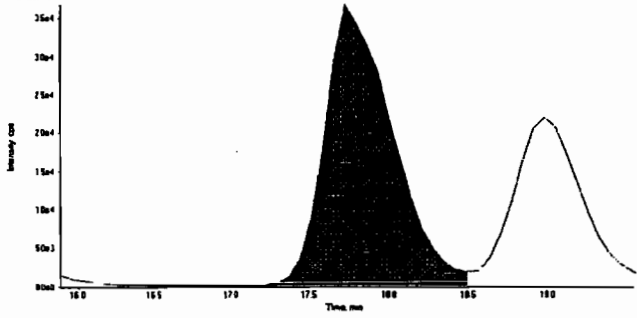
  

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	5.61e+007
	Manual Modification	No
	Amount:	675. (ng/mL)
	% Accuracy:	113.00

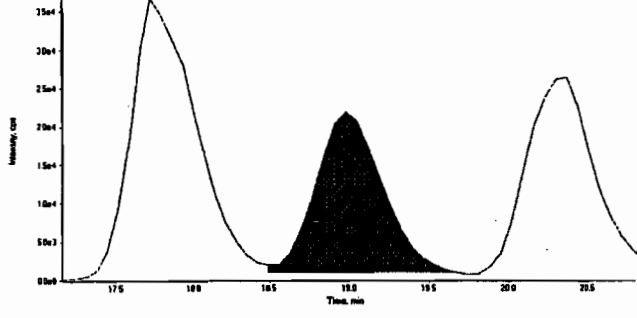
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.3
	Area Counts:	1.88e+006
	Manual Modification	Yes
	Amount:	624. (ng/mL)
	% Accuracy:	104.00

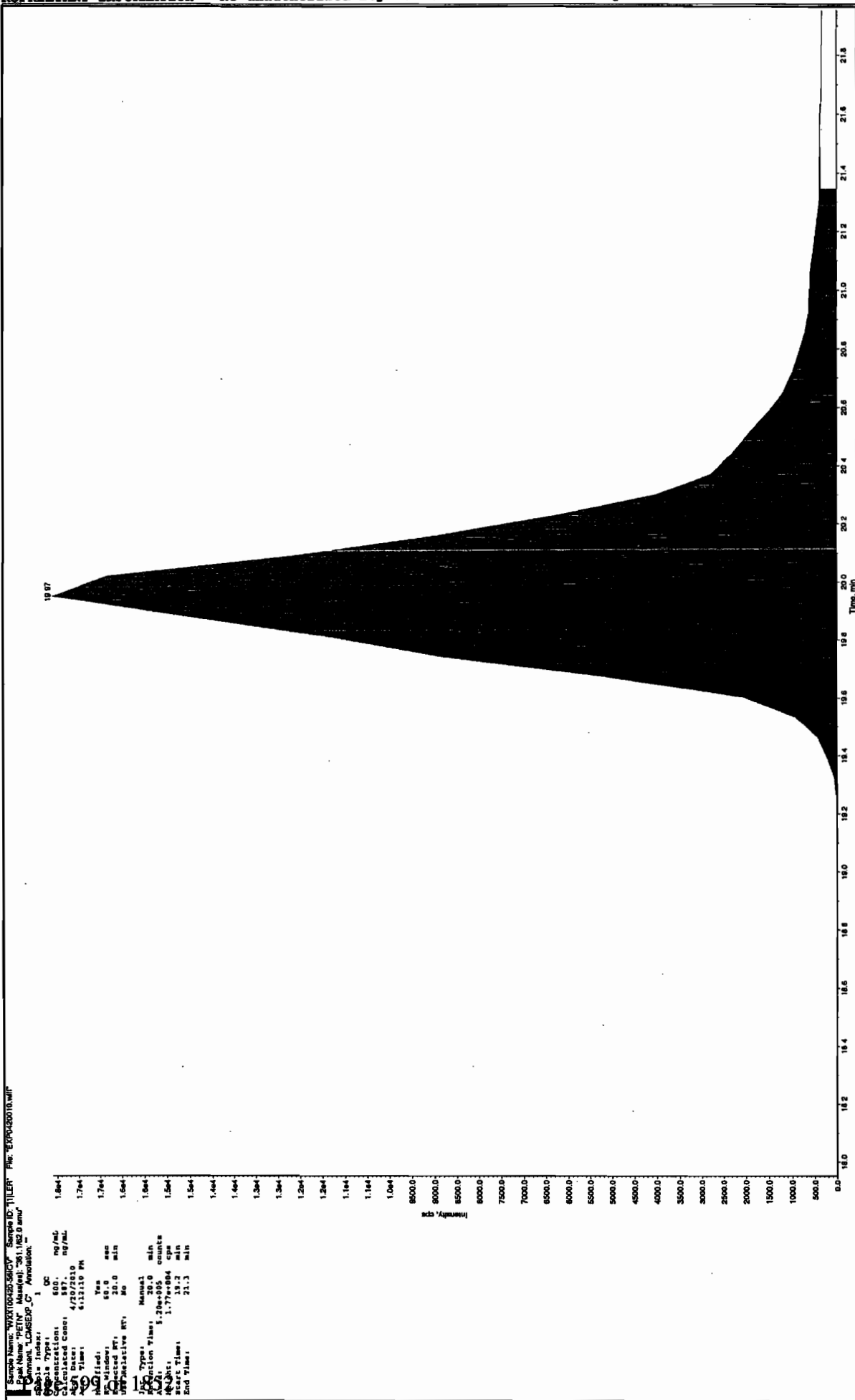
	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	17.7
	Area Counts:	1.09e+006
	Manual Modification	No
	Amount:	601. (ng/mL)
	% Accuracy:	100.00

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	19.0
	Area Counts:	6.12e+005
	Manual Modification	No
	Amount:	659. (ng/mL)
	% Accuracy:	110.00



after Dec 4/29/10



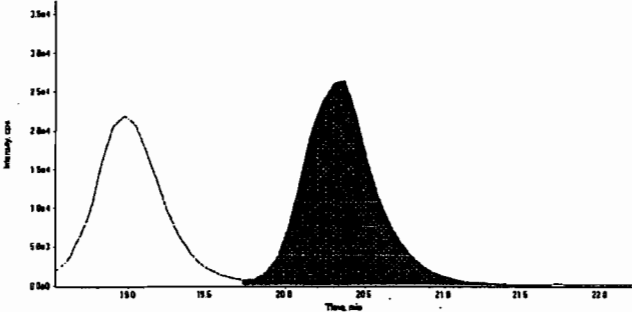
Sample Name: WAX100120-5610V Sample ID: TILER File: EXP012010.wiff  
 Peak Name: "PETN" Mass(es): 261.142.0 amu  
 Concentration: 1.00  
 Calculated Conc: 600.0 ng/mL  
 Measured Conc: 497.0 ng/mL  
 Ret Time: 613.110 PM  
 Method: Yes  
 Modified: Yes  
 Start Time: 18.2 min  
 End Time: 21.3 min  
 Acquisition Time: 30.0 min  
 Type: Manual  
 Acquisition Time: 5.20e+005 counts  
 Ret. Time: 1.77e+004 cps  
 Start Time: 18.2 min  
 End Time: 21.3 min

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

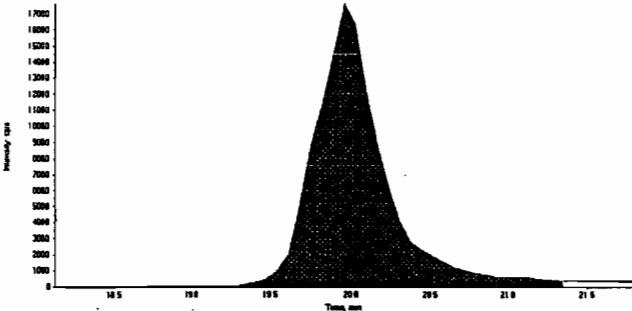
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420010.wiff	<b>Acquisition Date</b>	4/20/2010 6:12:10 PM
<b>Sample Name</b>	WXX100420-561CV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	20.4
	<b>Area Counts:</b>	8.35e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	622. (ng/mL)
	<b>% Accuracy:</b>	104.00

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	20.0
	<b>Area Counts:</b>	5.20e+005
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	587. (ng/mL)
	<b>% Accuracy:</b>	97.80



GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/20/10  
 Time of Injection 1812  
 Standard Number WXX100420-56ICV  
 Data File EXP0420010a

HMX	83.8
RDX	92.8
135-Trinitrobenzene	90.4
13-Dinitrobenzene	94.0
Tetryl	102.0
246-Trinitrotoluene	92.8
Nitrobenzene	97.2
34-dinitrotoluene	98.3
26-dinitrotoluene	95.2
24-dinitrotoluene	103.0
4-Amino-26-dinitrotoluene	113.0
2-Amino-46-dinitrotoluene	104.0
2-Nitrotoluene	100.0
4-Nitrotoluene	110.0
3-Nitrotoluene	104.0
PETN	97.8

TOTAL

✓ 1578.3

*done 04/24/10*

AVERAGE

✓ 98.6

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Jan  
4/28/10*

Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2202

Lab Code: GEL

Run Date: 09-APR-10.15-APR-10.20-APR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HP/LC 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:	EXS04090003.wiff	EXS04090004.wiff	EXS04090005.wiff	EXS04090006.wiff	EXS04090007.wiff	EXS04090008.wiff	EXS04090009.wiff					
Parname:												
2,4-Diamino-6-nitrotoluene	112000	220000	544000	1100000	1620000	2230000	4010000	-24500	2380	-1.179	.9997	
2,6-Diamino-4-nitrotoluene	147000	294000	719000	1410000	1970000	2660000	4780000	11600	2860	-1.237	.9999	
3,4-Dinitrotoluene	210000	426000	1050000	2120000	3190000	4160000	7740000	-52900	9640	-1.85	.9984	
3,5-Dinitroaniline	359000	708000	1780000	3300000	5260000	6700000	11100000	-93100	7830	-1.11	.9995	
TATB	38200	78800	218000	443000	728000	975000	1920000	-24000	1000	-0.014	.9997	
tris(o-cresyl) phosphate	1060000	2050000	5040000	9430000	13600000	17700000	28800000	21900	20600	-3.12	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

040910ICAL

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

Fit	Quadratic	Weighting	None	Iterate No
a0	-2.4e+004			
a1	1e+003			
a2	-0.0139			
Correlation coefficient 0.9997				
Use Area				

Peak Name: 35-Dinitroaniline  
No Internal Standard  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-9.31e+004			
a1	7.83e+003			
a2	-1.11			
Correlation coefficient 0.9995				
Use Area				

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

Fit	Quadratic	Weighting	None	Iterate No
a0	-5.29e+004			
a1	9.64e+003			
a2	-1.85			
Correlation coefficient 0.9984				
Use Area				

Peak Name: 26-Diamino-4-nitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	1.16e+004			
a1	2.86e+003			
a2	-0.237			
Correlation coefficient 0.9999				
Use Area				

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

Page 1

*har*  
4/12/10

*har*  
04/12/10

040910ICAL

Fit Quadratic Weighting None Iterate No

a0 -2.45e+004  
a1 2.38e+003  
a2 -0.179

Correlation coefficient 0.9997  
Use Area

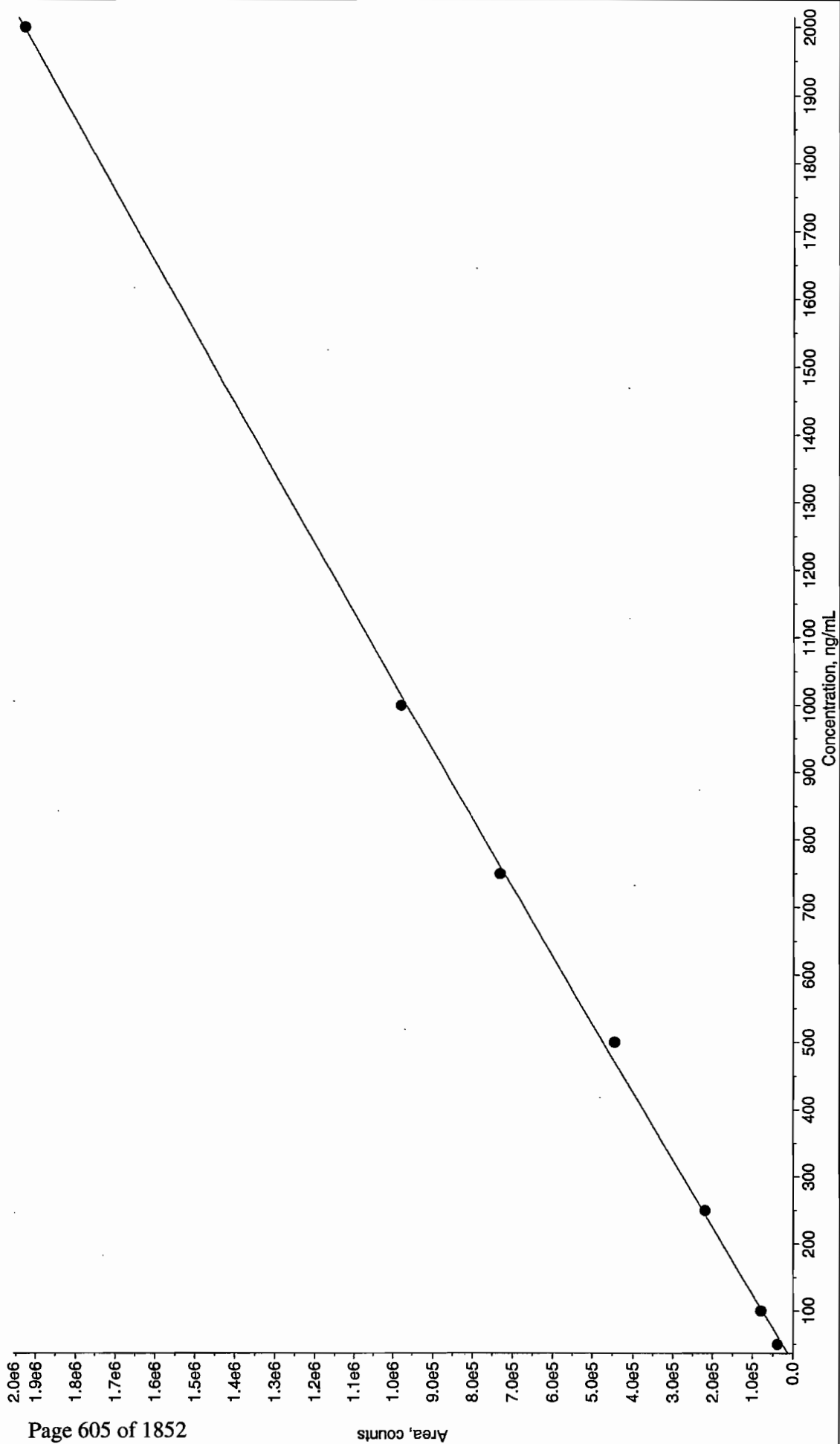
Peak Name: tris(o-cresyl) phosphate  
No Internal Standard  
Q1/Q3 Masses: 369.15/91.00 amu

Fit Quadratic Weighting None Iterate No

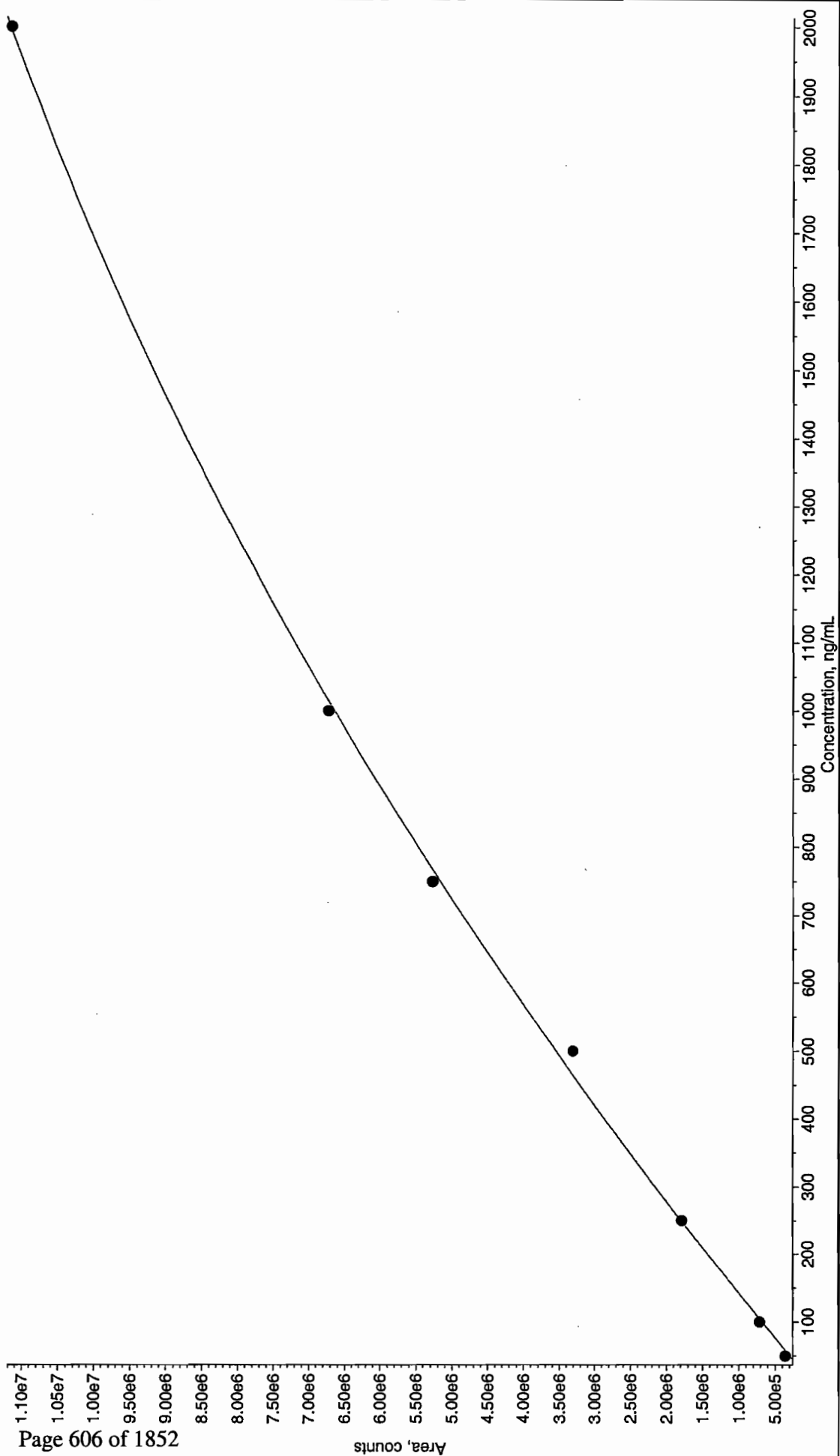
a0 2.19e+004  
a1 2.06e+004  
a2 -3.12

Correlation coefficient 1.0000  
Use Area

040910.rdb (TATB): "Quadratic" Regression ("No" weighting):  $y = -0.0139 x^2 + 1e+003 x + -2.4e+004$  ( $r = 0.9997$ )

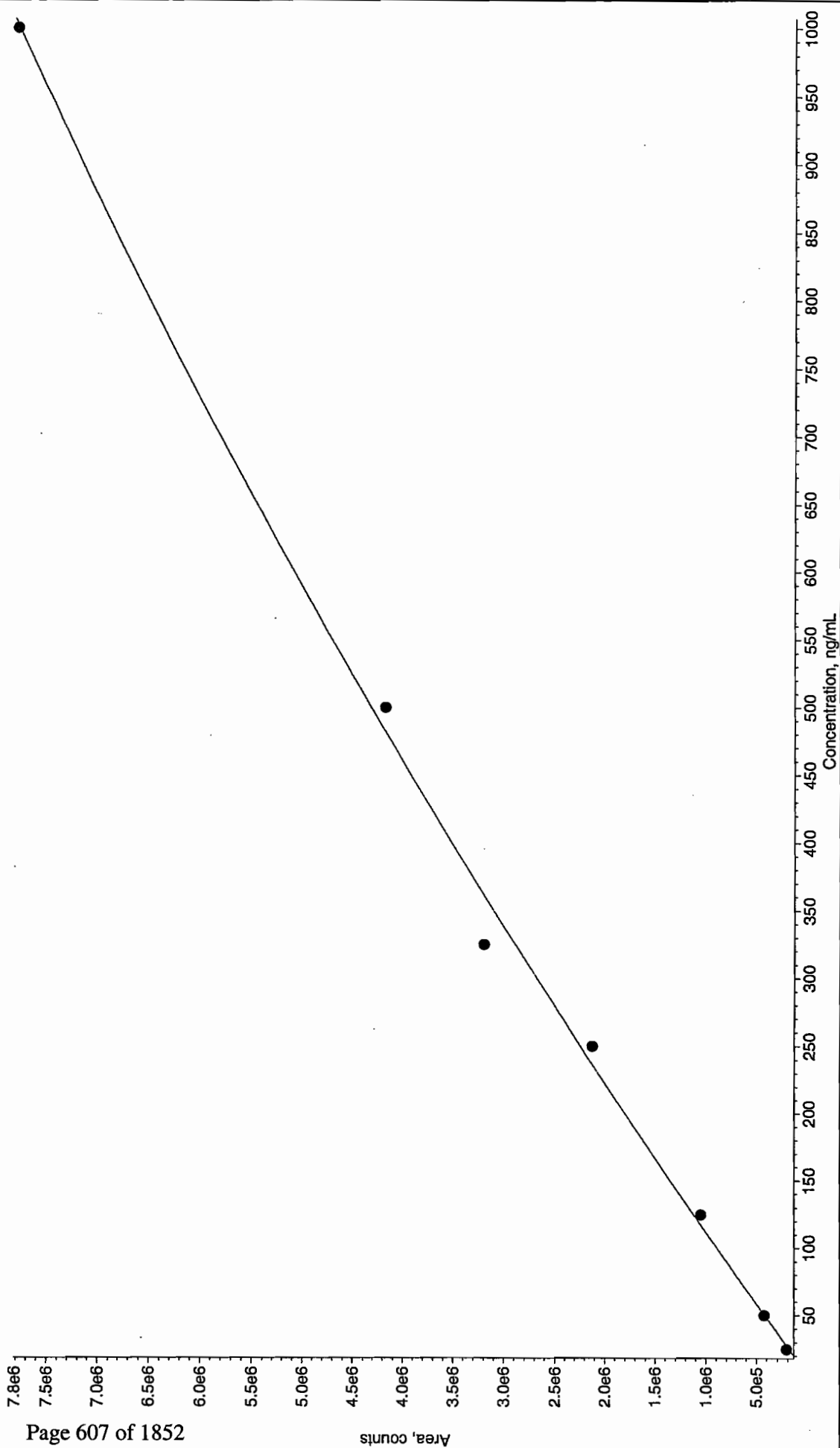


040910.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting):  $y = -1.11 x^2 + 7.83e+003 x + -9.31e+004$  ( $r = 0.9995$ )

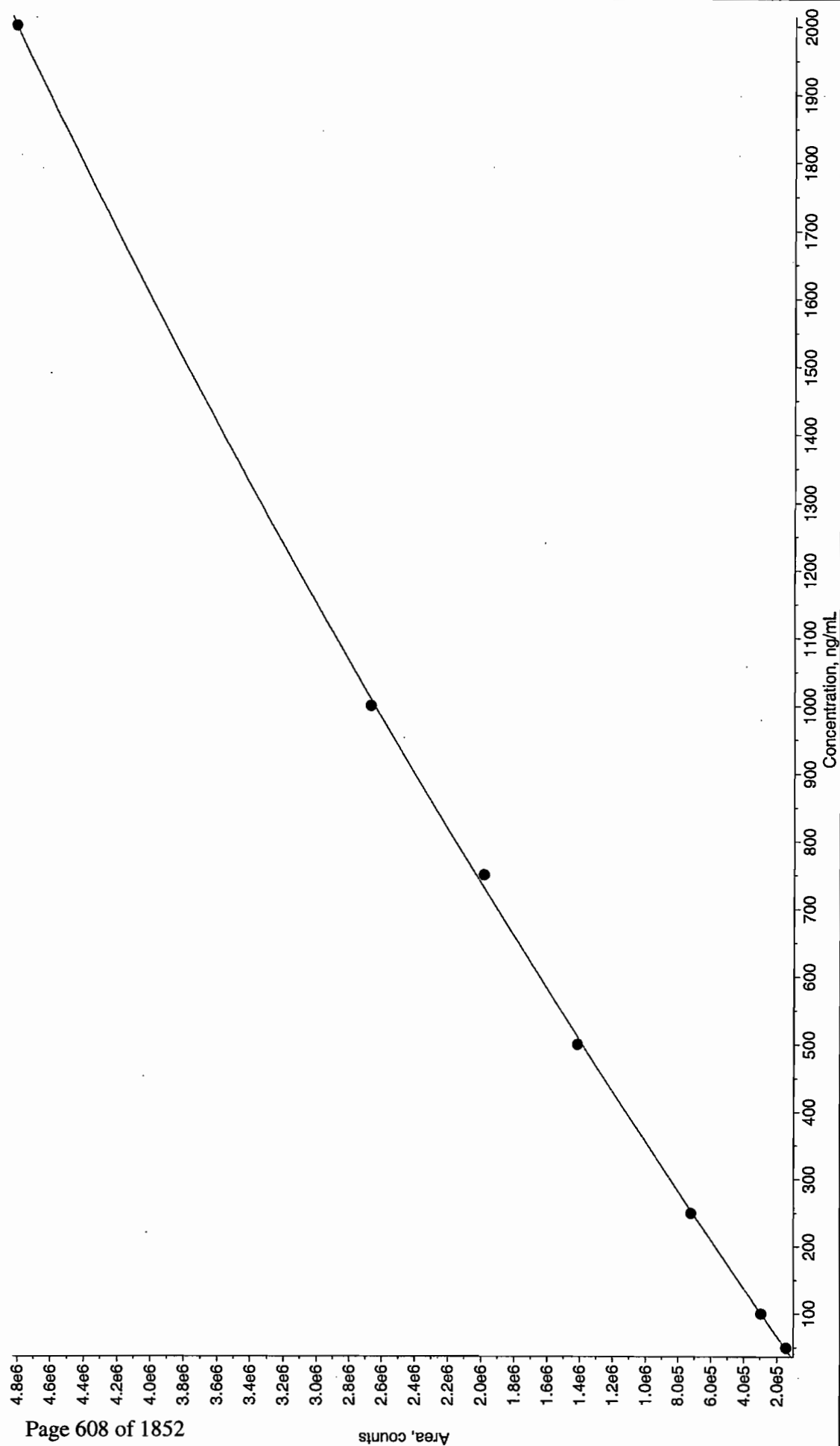


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

040910.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -1.85 x^2 + 9.64e+003 x + -5.29e+004$  ( $r = 0.9984$ )

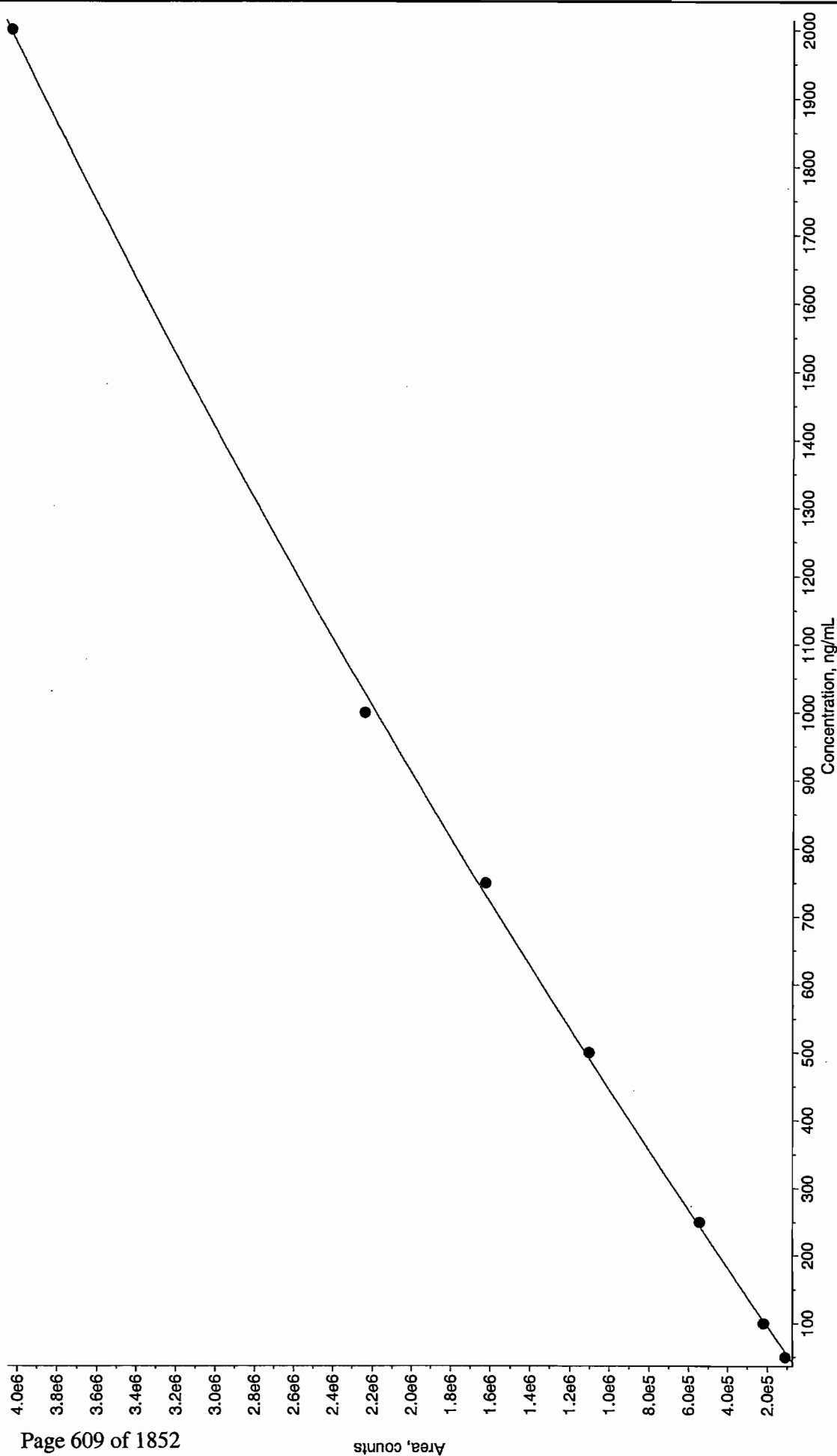


040910.rdb (26-Diamino-4-nitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -0.237 x^2 + 2.86e+003 x + 1.16e+004$  ( $r = 0.9999$ )

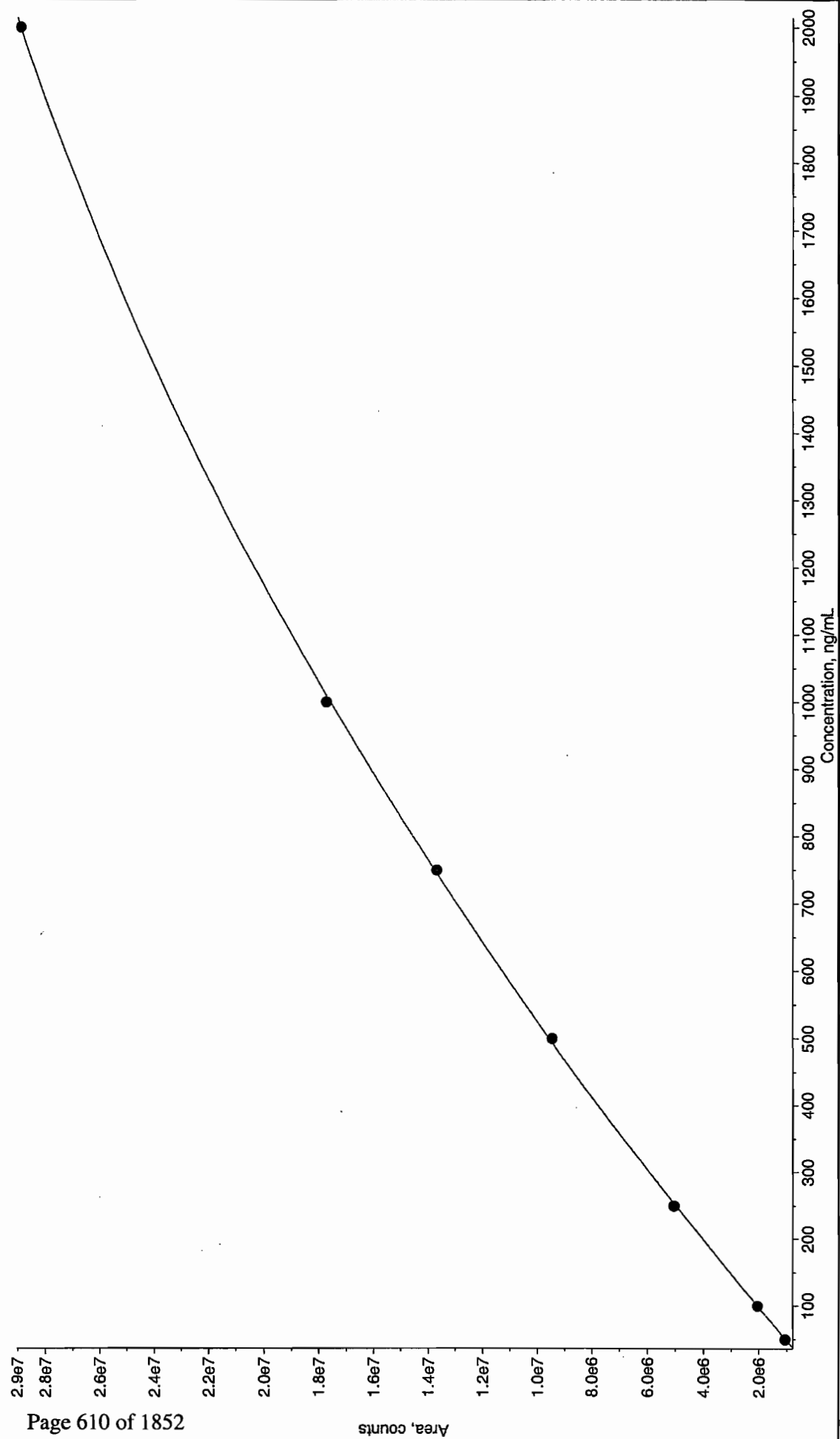




040910.rdb (24-Diamino-6-nitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -0.179 x^2 + 2.38e+003 x + -2.45e+004$  ( $r = 0.9997$ )



040910.rdb (tris(o-cresyl) phosphate): "Quadratic" Regression ("No" weighting):  $y = -3.12 x^2 + 2.06e+004 x + 2.19e+004$  ( $r = 1.0000$ )



Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS04090011.wiff

Analysis Date: 09-APR-10 09:51

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	462	92	
2,6-Diamino-4-nitrotoluene	500	477	95	
3,4-Dinitrotoluene	250	230	92	
3,5-Dinitroaniline	500	456	91	
TATB	500	482	97	
tris(o-cresyl) phosphate	500	504	101	

Recovery Limits:

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

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

See 4/12/10

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

Sample Name: "WXX100409-261CV" Sample ID: "111LEF" File: "EXS04090011.wiff"

Peak Name: "3S-Dinitroanthracene" Mass(es): "182.046.0 amu"

Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC

Concentration: 500. ng/mL

Calculated Conc: 456. ng/mL

Acq. Date: 4/9/2010

Acq. Time: 9:51:53 AM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 2000.00 cps

Min. Peak Width: 3.00 sec

Smoothing Width: 15.0 points

RT Window: 15.0 sec

Expected RT: 8.14 min

Use Relative RT: No

Int. Type: Valley

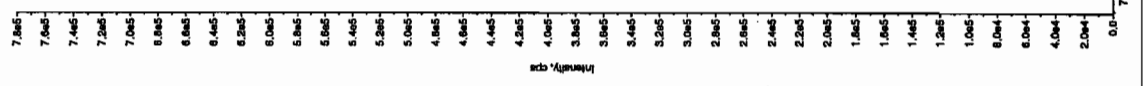
Retention Time: 8.14 min

Area: 3.24e+005 counts

Height: 779844.666 cps

Start Time: 8.03 min

End Time: 8.26 min



Sample Name: "WXX100409-261CV" Sample ID: "111LEF" File: "EXS04090011.wiff"

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: 482. ng/mL

Acq. Date: 4/9/2010

Acq. Time: 9:51:53 AM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 2500.00 cps

Min. Peak Width: 3.00 sec

Smoothing Width: 30.0 points

RT Window: 30.0 sec

Expected RT: 6.90 min

Use Relative RT: No

Int. Type: Valley

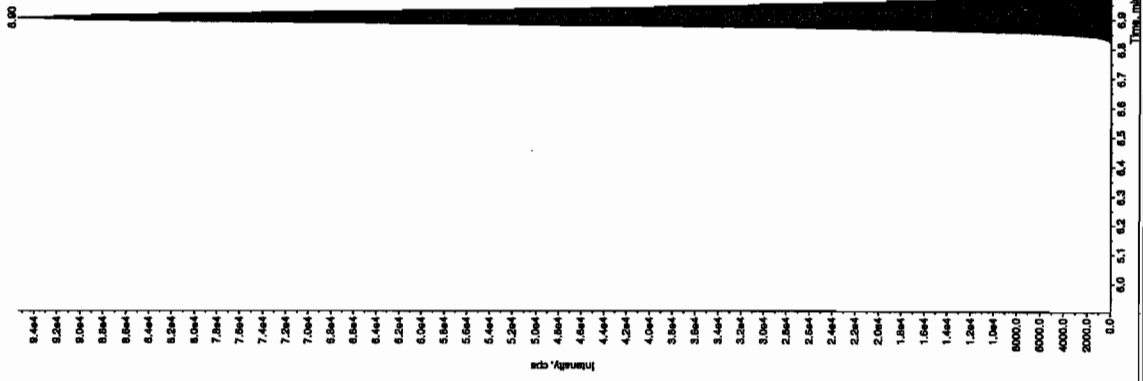
Retention Time: 6.90 min

Area: 4.55e+005 counts

Height: 95236.343 cps

Start Time: 6.81 min

End Time: 7.64 min



See 4/12/10

Sample Name: "WXX100409-26(CV)" Sample ID: "11LEF" File: "EXS04090011.wif"

Peak Name: "26-Dinitro-4-nitrotoluene" Mass(es): "166.046.0 amu"

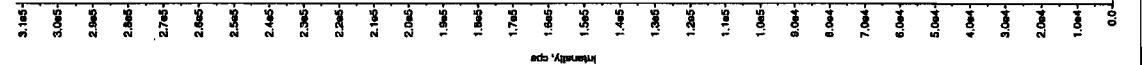
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 477. ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 9:51:53 AM

Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 450.0 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 30.0 points  
RT Window: 30.0 sec  
Expected RT: 4.95 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 4.95 min  
Area: 1.32e+006 counts  
Height: 311597.504 cps  
Start Time: 4.85 min  
End Time: 5.23 min



Sample Name: "WXX100409-26(CV)" Sample ID: "11LEF" File: "EXS04090011.wif"

Peak Name: "34-Dinitrotoluene" Mass(es): "182.1151.9 amu"

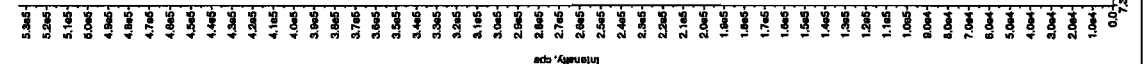
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC  
Concentration: 250. ng/mL  
Calculated Conc: 230. ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 9:51:53 AM

Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 160.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 30.0 points  
RT Window: 30.0 sec  
Expected RT: 8.30 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 8.30 min  
Area: 2.07e+006 counts  
Height: 531213.501 cps  
Start Time: 8.23 min  
End Time: 8.67 min



Sample Name: "WXX100409-26CV" Sample ID: "11LER" File: "EXS04090011.wif"

Peak Name: "bis(o-cresyl) phosphate" Mass(es): "368.191.0 amu"

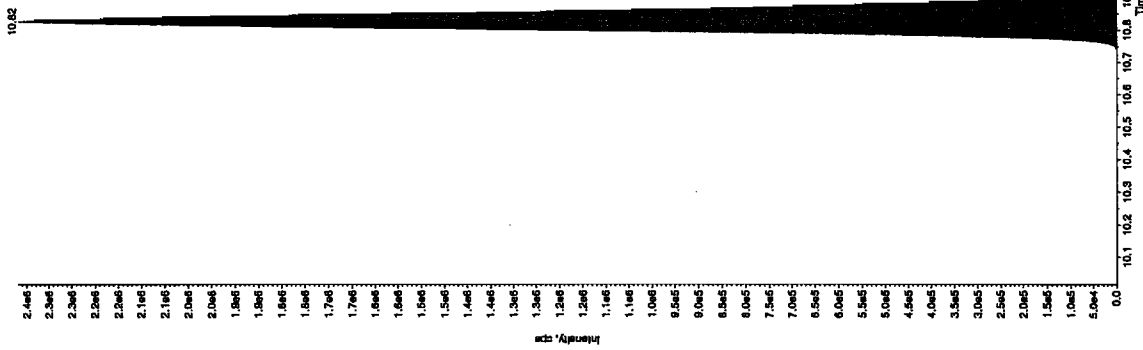
Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 504. ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 9:51:53 AM

Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 800.00 cps  
Min. Peak Width: 3.00 sec  
Smoother Width: 3.00 points  
QF Window: 30.0 sec  
Expected RT: 10.8 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 10.8 min  
Area: 9.61e+006 counts  
Height: 2366707.275 cps  
Start Time: 10.7 min  
End Time: 11.2 min



Sample Name: "WXX100409-26CV" Sample ID: "11LER" File: "EXS04090011.wif"

Peak Name: "2A-Diamino-6-nitrofluorene" Mass(es): "166.046.0 amu"

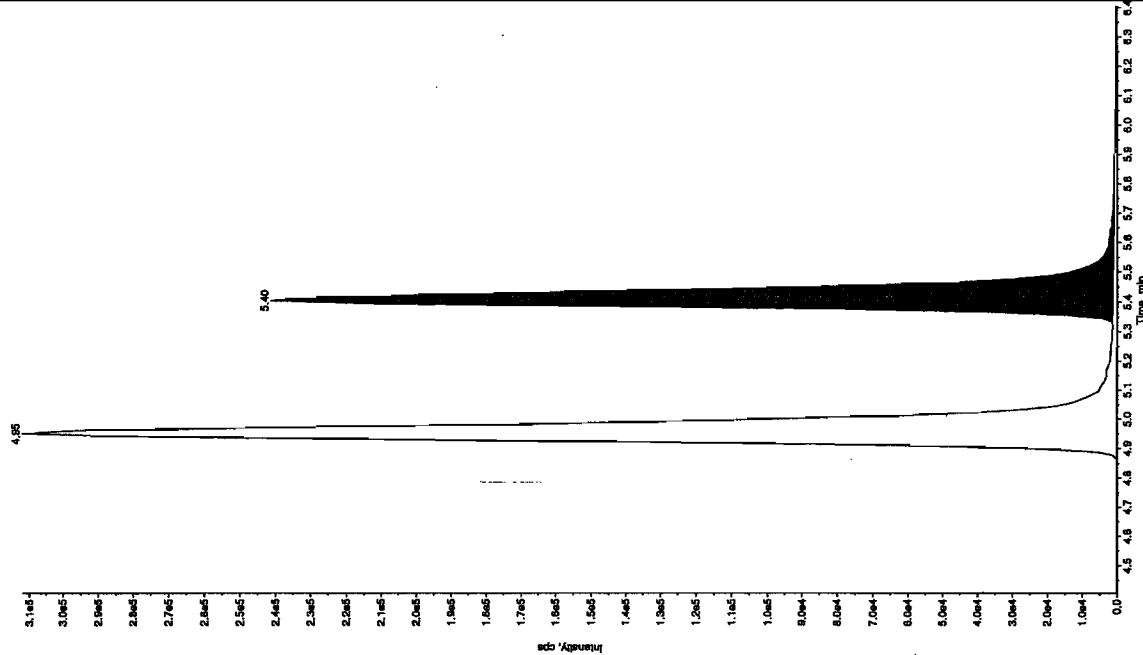
Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 462. ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 9:51:53 AM

Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 350.00 cps  
Min. Peak Width: 3.00 sec  
Smoother Width: 3.00 points  
QF Window: 30.0 sec  
Expected RT: 5.40 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 5.40 min  
Area: 1.04e+006 counts  
Height: 239969.345 cps  
Start Time: 5.32 min  
End Time: 5.63 min



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415012.wiff

Analysis Date: 15-APR-10 14:53

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	36.2	91	
2,4,6-Trinitrotoluene	40	38	95	
2,4-Dinitrotoluene	40	31.4	79	
2,6-Dinitrotoluene	40	33.2	83	
2-Amino-4,6-dinitrotoluene	40	33.9	85	
3,4-Dinitrotoluene	20	16.9	85	
4-Amino-2,6-dinitrotoluene	40	35.7	89	
HMX	40	38	95	
Nitrobenzene	40	43.3	108	
PETN	40	36.7	92	
RDX	40	37	93	
Tetryl	40	38.5	96	
m-Dinitrobenzene	40	38.9	97	
m-Nitrotoluene	40	38.1	95	
o-Nitrotoluene	40	41.4	104	
p-Nitrotoluene	40	40.9	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%

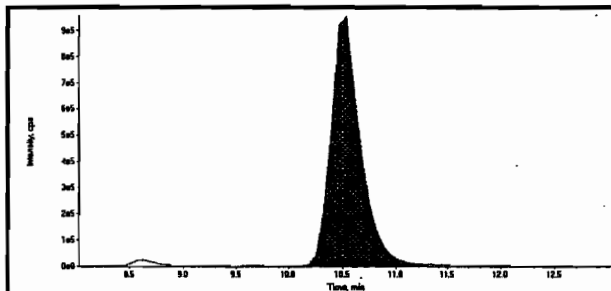
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

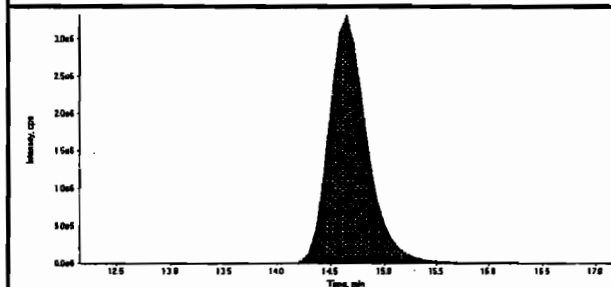
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415012.wiff	Acquisition Date	4/15/2010 2:53:00 PM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



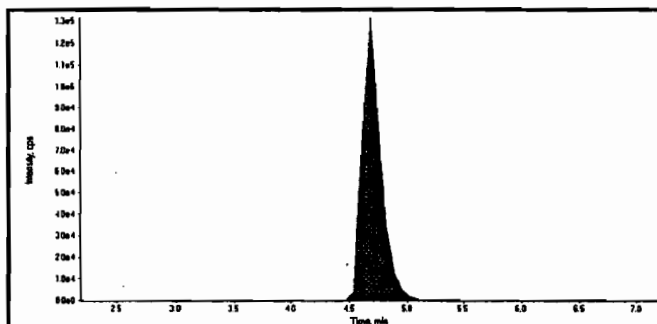
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	18300000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

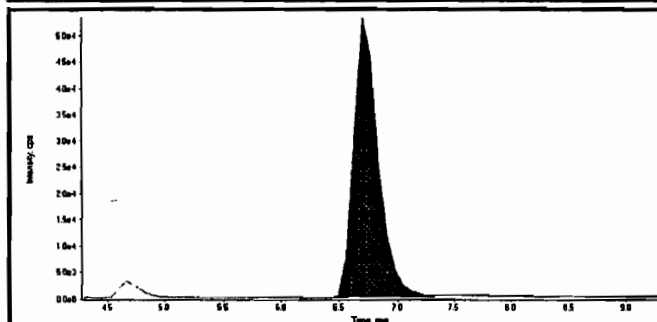


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.60
Area Counts:	81400000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.47e+006
Manual Modification	No
Amount:	38.0 (ng/mL)
% Accuracy:	94.90



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.70
Area Counts:	7.82e+005
Manual Modification	No
Amount:	37.0 (ng/mL)
% Accuracy:	92.60

*Handwritten:* HMC 04/23/10  
Ler 4/23/10



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415012.wiff	<b>Acquisition Date</b>	4/15/2010 2:53:00 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	9.00
	<b>Area Counts:</b>	1.06e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	36.2 (ng/mL)
	<b>% Accuracy:</b>	90.60

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.6
	<b>Area Counts:</b>	4.02e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	38.9 (ng/mL)
	<b>% Accuracy:</b>	97.30

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	3.18e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	38.5 (ng/mL)
	<b>% Accuracy:</b>	96.30

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.1
	<b>Area Counts:</b>	2.12e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	38.0 (ng/mL)
	<b>% Accuracy:</b>	95.00

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415012.wiff	<b>Acquisition Date</b>	4/15/2010 2:53:00 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.7
	Area Counts:	1.43e+005
	Manual Modification	No
	Amount:	43.3 (ng/mL)
	% Accuracy:	108.00

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.0
	Area Counts:	2.28e+006
	Manual Modification	No
	Amount:	16.9 (ng/mL)
	% Accuracy:	84.60

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.8
	Area Counts:	4.01e+006
	Manual Modification	No
	Amount:	33.2 (ng/mL)
	% Accuracy:	82.90

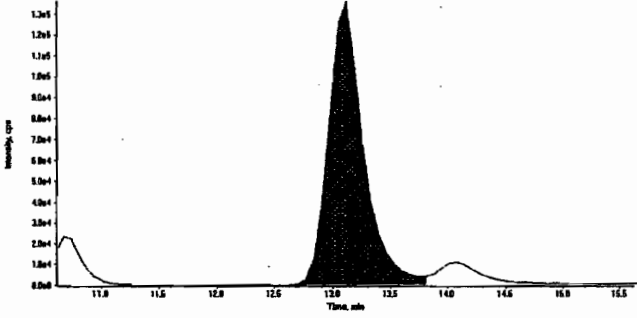
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.4
	Area Counts:	1.39e+006
	Manual Modification	No
	Amount:	31.4 (ng/mL)
	% Accuracy:	78.50

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

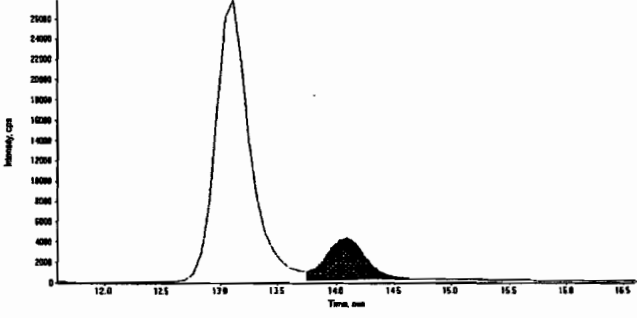
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415012.wiff	<b>Acquisition Date</b>	4/15/2010 2:53:00 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

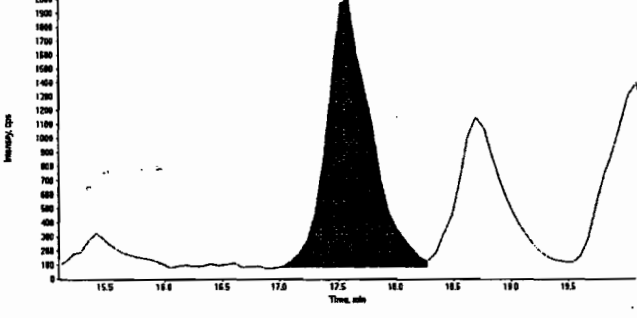
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	2.89e+006
	Manual Modification	No
	Amount:	35.7 (ng/mL)
	% Accuracy:	89.30

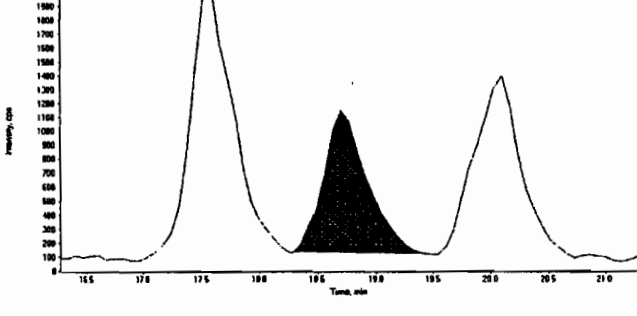
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	14.1
	Area Counts:	1.03e+005
	Manual Modification	No
	Amount:	33.9 (ng/mL)
	% Accuracy:	84.60

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.6
	Area Counts:	5.17e+004
	Manual Modification	No
	Amount:	41.4 (ng/mL)
	% Accuracy:	104.00

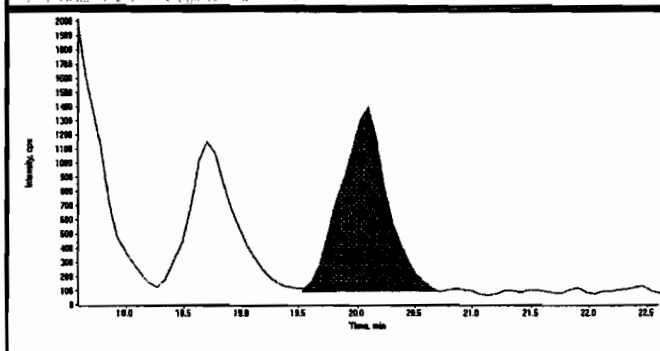
  

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.7
	Area Counts:	2.66e+004
	Manual Modification	No
	Amount:	40.9 (ng/mL)
	% Accuracy:	102.00

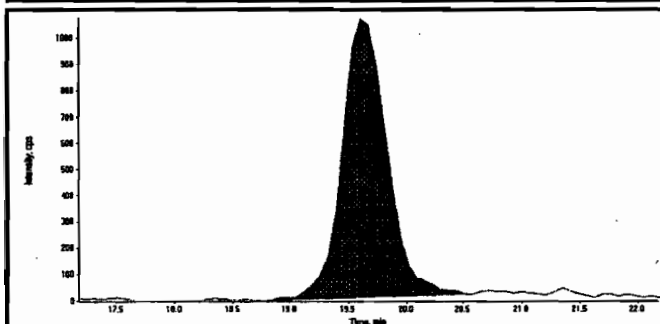
GEL Laboratories, LLC  
 GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
 LCMSMS#3

Data File	EXP0415012.wiff	Acquisition Date	4/15/2010 2:53:00 PM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.1
Area Counts:	3.67e+004
Manual Modification	No
Amount:	38.1 (ng/mL)
% Accuracy:	95.40



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.6
Area Counts:	2.91e+004
Manual Modification	No
Amount:	36.7 (ng/mL)
% Accuracy:	91.80

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/15/10  
 Time of Injection 1453  
 Standard Number WXX100415-57CRI  
 Data File EXP0415012a

HMX	94.9
RDX	92.6
135-Trinitrobenzene	90.6
13-Dinitrobenzene	97.3
Tetryl	96.3
246-Trinitrotoluene	95.0
Nitrobenzene	108.0
34-dinitrotoluene	84.6
26-dinitrotoluene	82.9
24-dinitrotoluene	78.5
4-Amino-26-dinitrotoluene	89.3
2-Amino-46-dinitrotoluene	84.6
2-Nitrotoluene	104.0
4-Nitrotoluene	102.0
3-Nitrotoluene	95.4
PETN	91.8

TOTAL

✓ 1487.8

AVERAGE

✓ 93.0

*Hmm-04/23/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*OK*  
*4/23/10*

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0415023.wiff

Analysis Date: 15-APR-10 19:38

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	525	87	
2,4,6-Trinitrotoluene	600	545	91	
2,4-Dinitrotoluene	600	570	95	
2,6-Dinitrotoluene	600	570	95	
2-Amino-4,6-dinitrotoluene	600	593	99	
3,4-Dinitrotoluene	300	291	97	
4-Amino-2,6-dinitrotoluene	600	640	107	
HMX	600	520	87	
Nitrobenzene	600	601	100	
PETN	600	663	111	
RDX	600	629	105	
Tetryl	600	529	88	
m-Dinitrobenzene	600	543	91	
m-Nitrotoluene	600	613	102	
o-Nitrotoluene	600	592	99	
p-Nitrotoluene	600	629	105	

Recovery Limits:

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

Other Target Analytes 80-120%

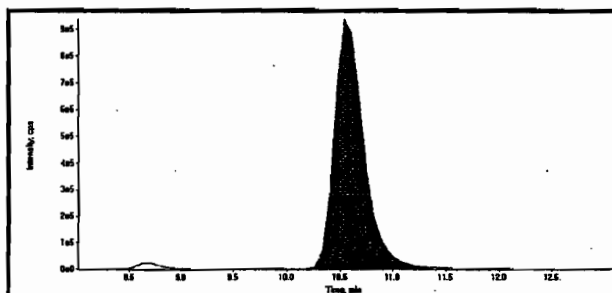
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

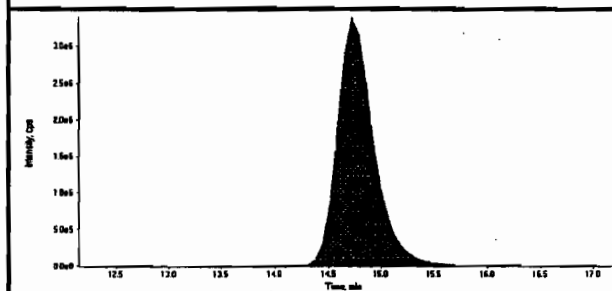
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415023.wiff	Acquisition Date	4/15/2010 7:38:20 PM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



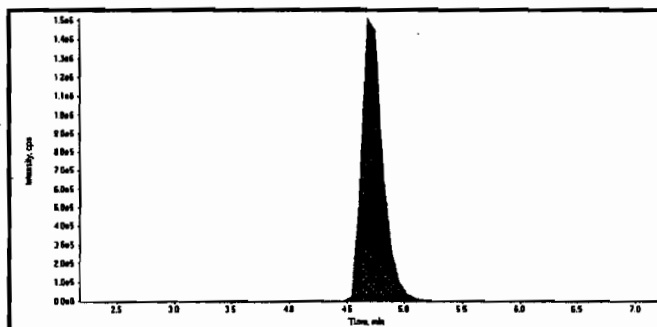
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	18500000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

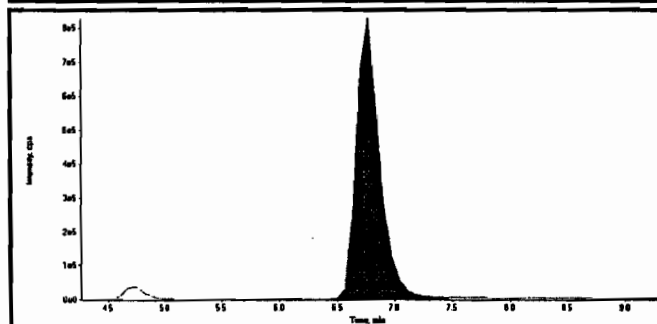


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	82900000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.97e+007
Manual Modification	No
Amount:	520. (ng/mL)
% Accuracy:	86.70



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.21e+007
Manual Modification	No
Amount:	629. (ng/mL)
% Accuracy:	105.00

*Shm*  
*04/23/10*

*Shm*  
*4/23/10*

Before scan 42310

Sample Name: W00100415-540001 Sample ID: T11ER File: EXP0415023.wif  
Peak Name: 246-Tribromobenzene Message: 221.1209.9 amu

Sample Index: 1

Sample Type: 1

Concentration: 600. ng/ml

Calculated Conc: 471.1010 ng/ml

Acq. Date: 7/18/2010

Acq. Time: 7:18:10 PM

Peak Name: 246-Tribromobenzene

Peak Height: 1000.00 cps

Peak Width: 0.00 sec

Peak Area: 10.0 points

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after run 4/23/10

Sample Name: "WXX100415-SEC01" Sample ID: "111ER" File: "EXP041523.wif"

Peak Name: "2465-Tetracycline" Mass(es): "227.1208.8 amu"

Comment: "LCMS00\_C" Annotation:

Sample Type: 1 QC

Concentration: 600 ng/mL

Calculated Conc: 600 ng/mL

Acq. Date: 4/17/2010

Acq. Time: 7:18:10 PM

Acq. Method: Yes

Acq. Method: 35.0 sec

Acq. Method: 11.3 min

Acq. Method: No

Acq. Method: Manual

Acq. Method: Manual

Acq. Method: Manual

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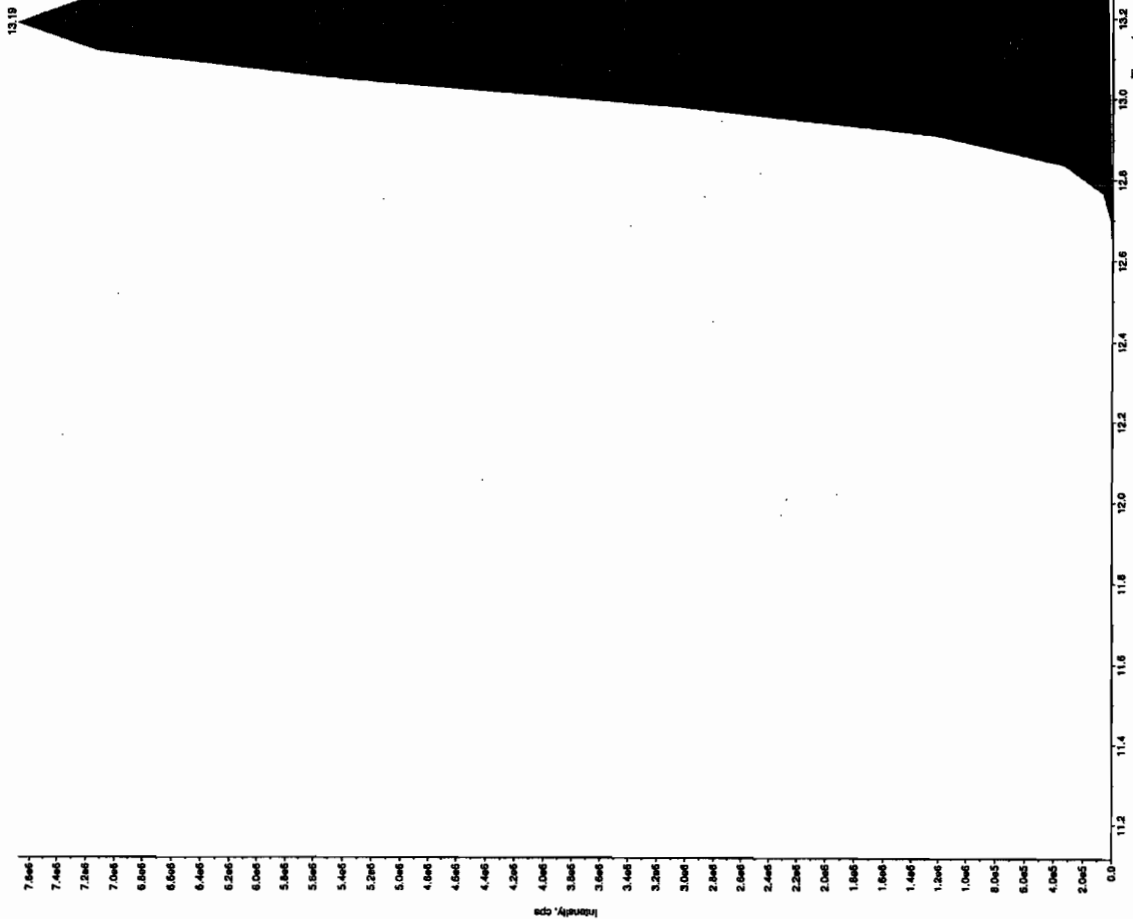
Acq. Method: Manual

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\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415023.wiff	<b>Acquisition Date</b>	4/15/2010 7:38:20 PM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	9.00
	<b>Area Counts:</b>	1.20e+008
	<b>Manual Modification</b>	No
	<b>Amount:</b>	525. (ng/mL)
	<b>% Accuracy:</b>	87.40

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	5.50e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	543. (ng/mL)
	<b>% Accuracy:</b>	90.60

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	4.56e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	529. (ng/mL)
	<b>% Accuracy:</b>	88.20

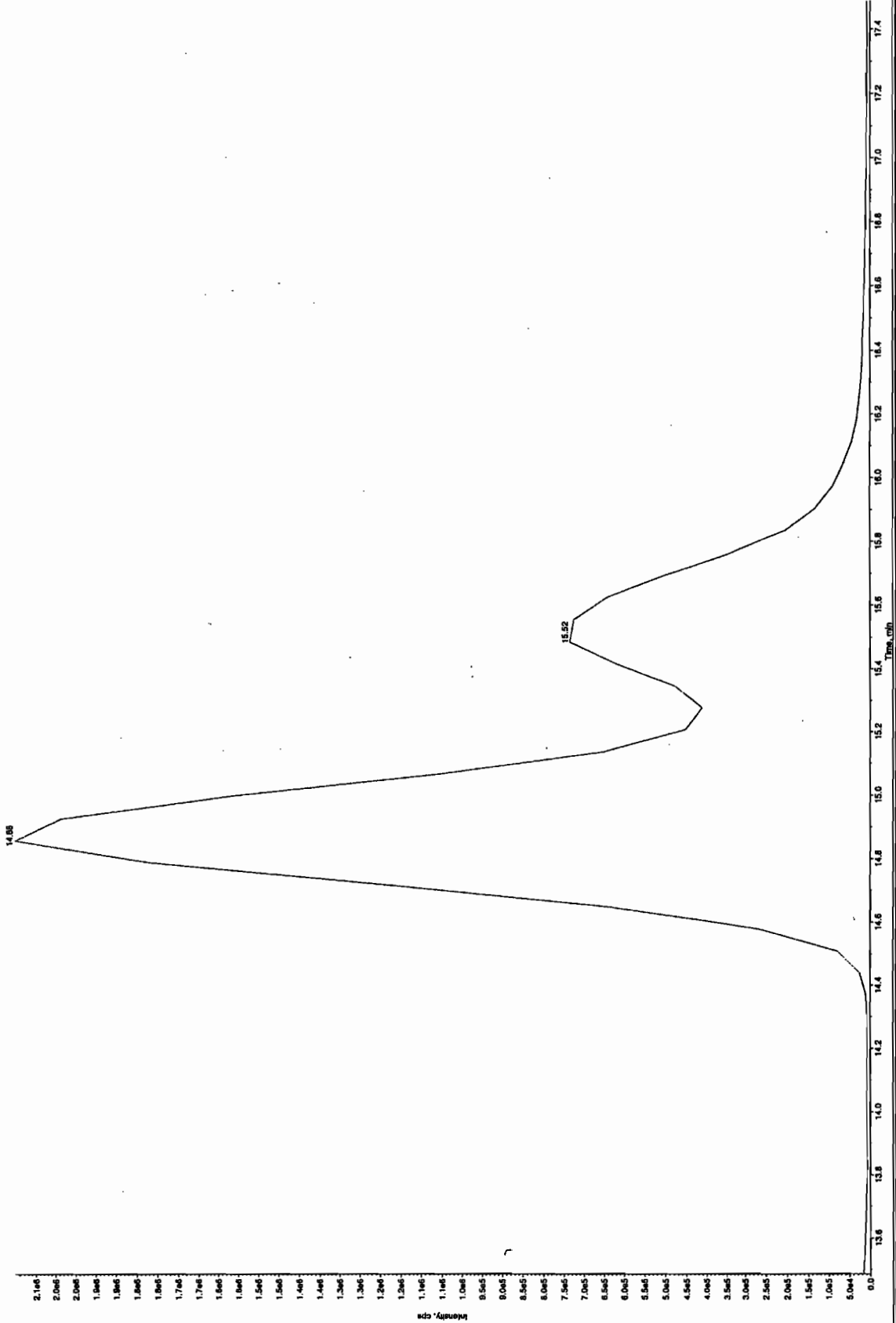
  

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	2.06e+008
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	545. (ng/mL)
	<b>% Accuracy:</b>	90.80

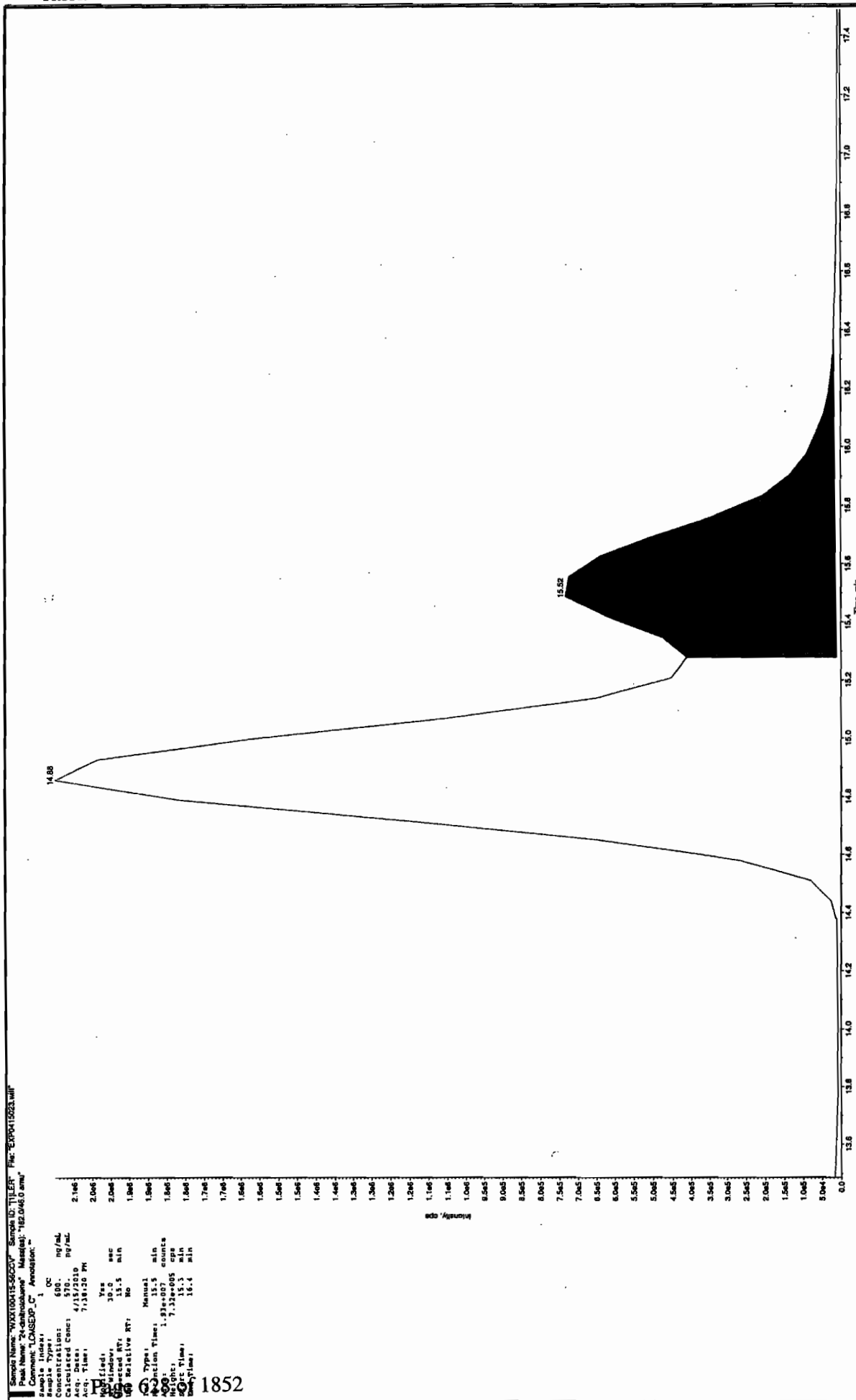
Before Jan 4/23/10

Sample Name: "W1010013-560CY" Sample ID: "T11ER" File: "EXP0115023.wif"  
 Peak Name: "24-dibromobenzene" Mass(es): "182.044.0 amu"  
 Comment: "LCMS/MS C" Acquisition:

Sample Type: 505. ng/mL  
 Concentration: 0.50 ng/mL  
 Calculated Conc: 4.11E-05  
 Acq. Time: 7.13E+00 PM  
 Inj. Time: 7.13E+00 PM  
 Inj. Vol: 10  
 Inj. Temp: 100



after Jan 4/23/10



Sample Name: "WXX100415-5620V" Sample ID: "TJLER" File: "EXP041523.mpl"

Peak Name: "24-dinitrofluorene" Mass(es): "182.046.0 amu"

Comment: "LCMSEXP\_C" Annotation: "

Sample Type: "1 QC"

Concentration: 600. ng/mL

Calculated Conc: 570. ng/mL

Acq. Date: 4/7/2010

Acq. Time: 7:38:20 PM

Modified: Yes

Revised: Yes

Relative RT: 15.5 min

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\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415023.wiff	<b>Acquisition Date</b>	4/15/2010 7:38:20 PM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	11.8
	<b>Area Counts:</b>	2.28e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	601. (ng/mL)
	<b>% Accuracy:</b>	100.00

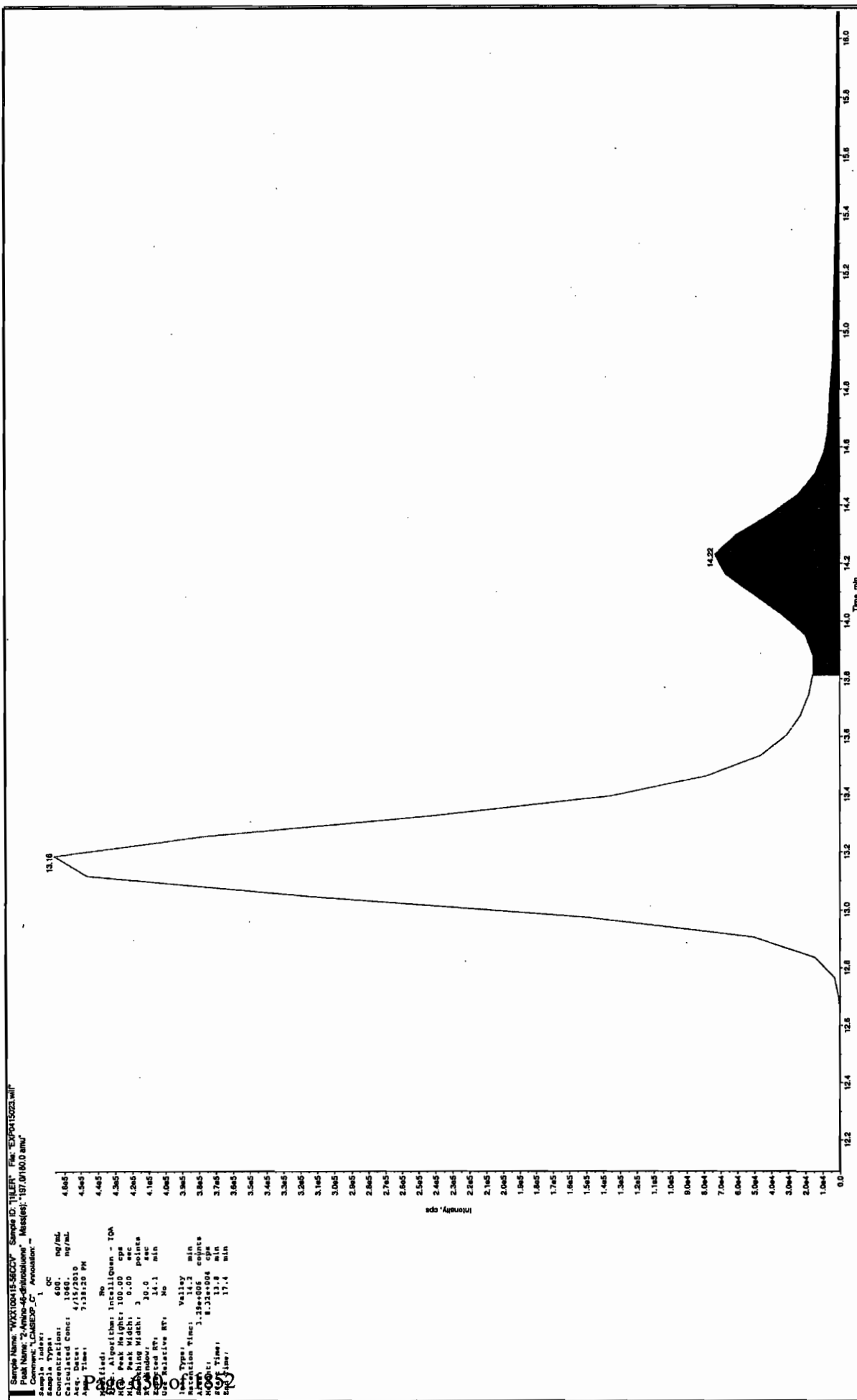
	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	3.16e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	291. (ng/mL)
	<b>% Accuracy:</b>	97.10

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.9
	<b>Area Counts:</b>	5.03e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	570. (ng/mL)
	<b>% Accuracy:</b>	95.00

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	15.5
	<b>Area Counts:</b>	1.93e+007
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	570. (ng/mL)
	<b>% Accuracy:</b>	95.00

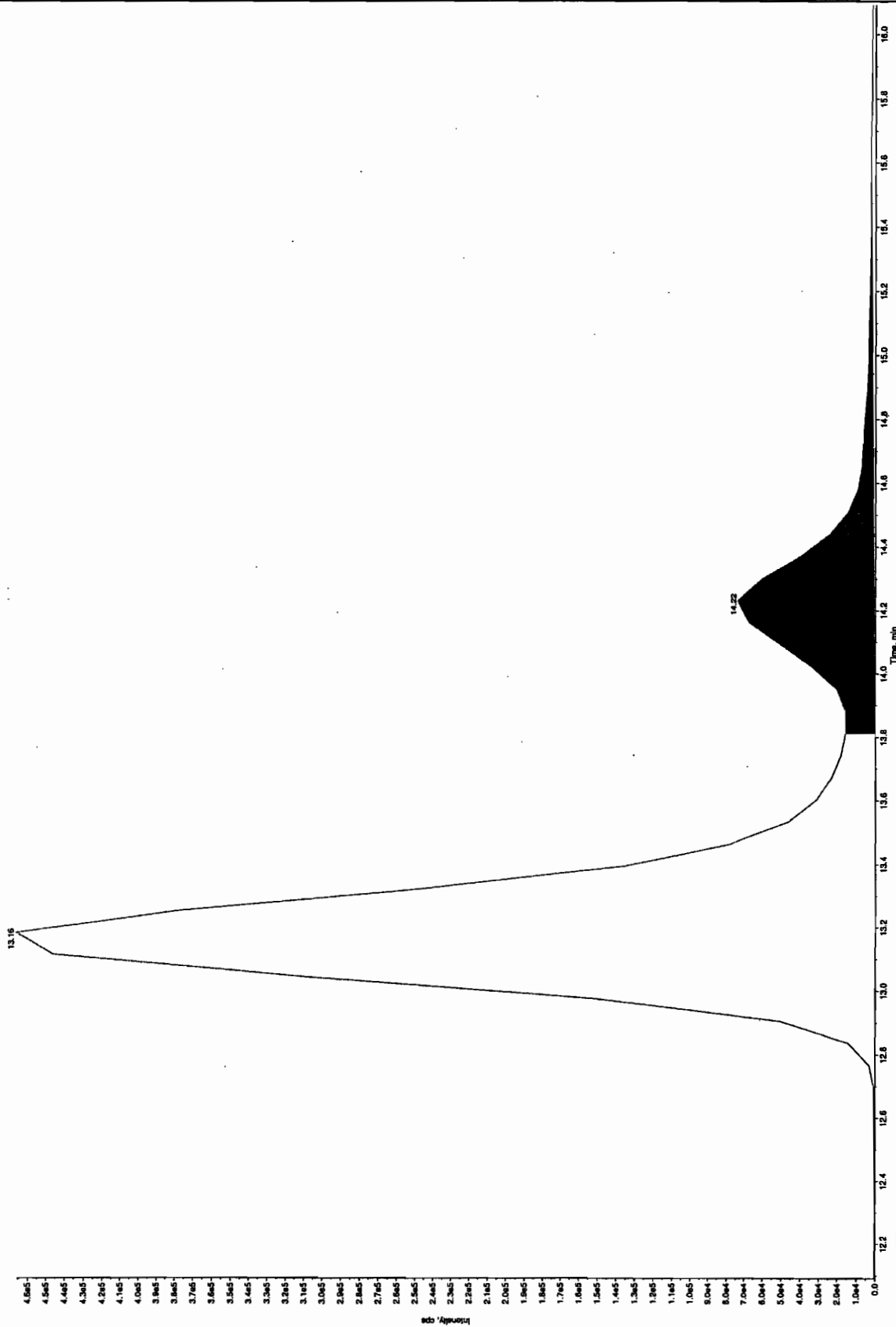


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/23/10

Sample Name: "WXX100415-5625" Sample ID: "JLEP" File: "EPR0415023.wif"  
 Peak Name: "X-Amino-4S-dihydroquinone" Mass(es): "197.0/160.0 amu"  
 Comment: "LCMSXP\_C" Annotation: -

Sample Index: 1  
 Sample Name: "WXX100415-5625" Sample ID: "JLEP" File: "EPR0415023.wif"  
 Concentration: 600 ng/mL  
 Calculated Conc: 551 ng/mL  
 Acq. Date: 4/23/2010  
 Acq. Time: 7:18:20 PM  
 Method: Yes  
 Window: 10.0 sec  
 Expected RT: 14.1 min  
 Observed RT: 14.1 min  
 Relative RT: 100  
 Type: Manual  
 Injection Time: 14.2 min  
 Sample Volume: 1.0 µL  
 Flow Rate: 1.0 µL/min  
 Inlet Pressure: 11.8 min  
 Outlet Pressure: 13.5 min  
 Total Time: 15.5 min



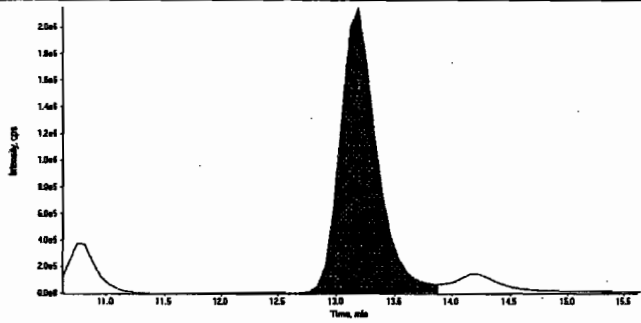
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

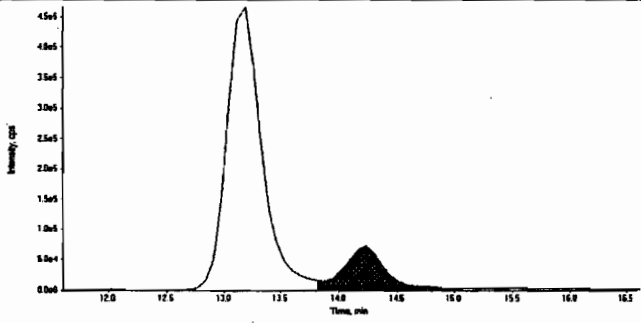
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415023.wiff	<b>Acquisition Date</b>	4/15/2010 7:38:20 PM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

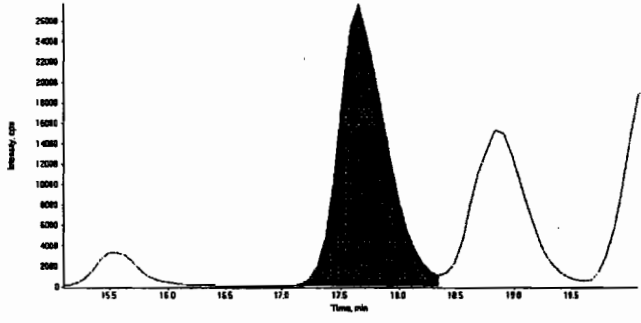
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	4.73e+007
	Manual Modification	No
	Amount:	640. (ng/mL)
	% Accuracy:	107.00

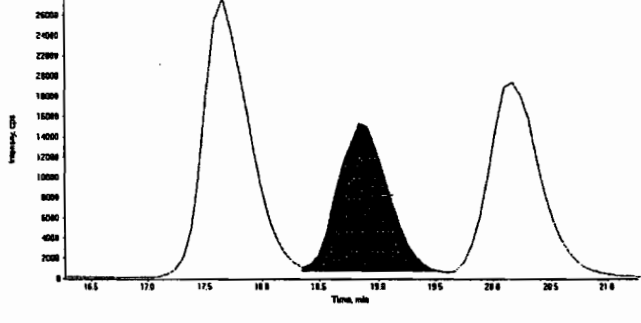
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	14.2
	Area Counts:	1.84e+006
	Manual Modification	Yes
	Amount:	593. (ng/mL)
	% Accuracy:	98.80

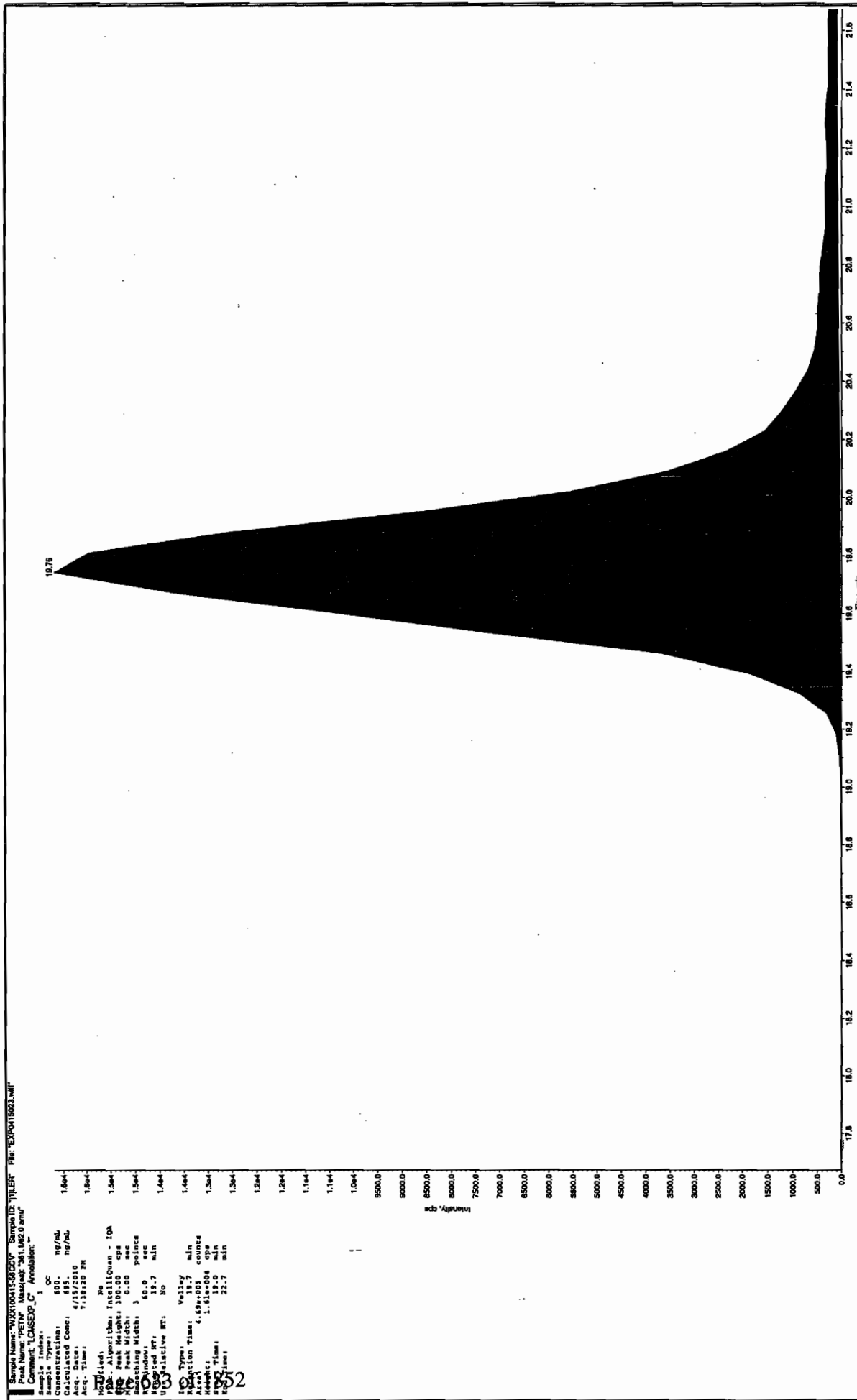
	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.6
	Area Counts:	7.76e+005
	Manual Modification	No
	Amount:	592. (ng/mL)
	% Accuracy:	98.70

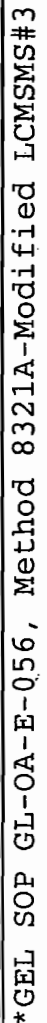
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.8
	Area Counts:	4.42e+005
	Manual Modification	No
	Amount:	629. (ng/mL)
	% Accuracy:	105.00



Before Jan 4/23/10



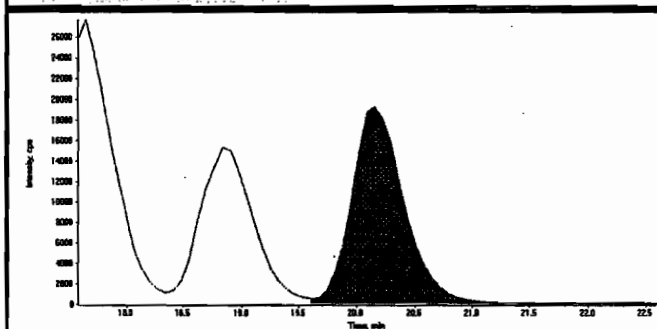
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



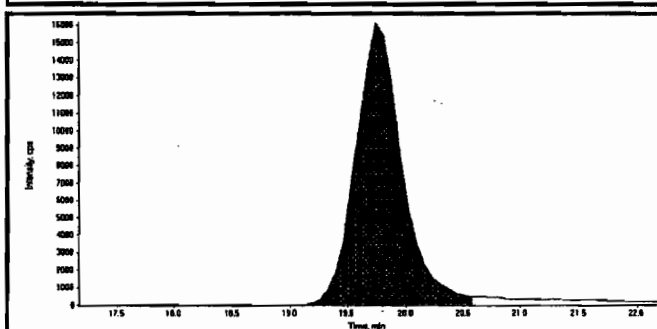
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415023.wiff	Acquisition Date	4/15/2010 7:38:20 PM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	6.05e+005
Manual Modification	No
Amount:	613. (ng/mL)
% Accuracy:	102.00



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.8
Area Counts:	4.48e+005
Manual Modification	Yes
Amount:	663. (ng/mL)
% Accuracy:	111.00

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/15/10  
 Time of Injection 1938  
 Standard Number WXX100415-56CCV  
 Data File EXP0415023a

HMX	86.7
RDX	105.0
135-Trinitrobenzene	87.4
13-Dinitrobenzene	90.6
Tetryl	88.2
246-Trinitrotoluene	90.8
Nitrobenzene	100.0
34-dinitrotoluene	97.1
26-dinitrotoluene	95.0
24-dinitrotoluene	95.0
4-Amino-26-dinitrotoluene	107.0
2-Amino-46-dinitrotoluene	98.8
2-Nitrotoluene	98.7
4-Nitrotoluene	105.0
3-Nitrotoluene	102.0
PETN	111.0

TOTAL

✓ 1558.3

*hm 04/23/10*

AVERAGE

✓ 97.4

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Lar*  
*4/22/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415025.wiff

Analysis Date: 15-APR-10 20:30

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	38.5	96	
2,4,6-Trinitrotoluene	40	37.9	95	
2,4-Dinitrotoluene	40	34.4	86	
2,6-Dinitrotoluene	40	29.9	75	
2-Amino-4,6-dinitrotoluene	40	36.5	91	
3,4-Dinitrotoluene	20	16.9	85	
4-Amino-2,6-dinitrotoluene	40	38.1	95	
HMX	40	41.3	103	
Nitrobenzene	40	44.6	112	
PETN	40	36	90	
RDX	40	41.4	104	
Tetryl	40	38.9	97	
m-Dinitrobenzene	40	41.3	103	
m-Nitrotoluene	40	38.5	96	
o-Nitrotoluene	40	44.9	112	
p-Nitrotoluene	40	45.7	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%

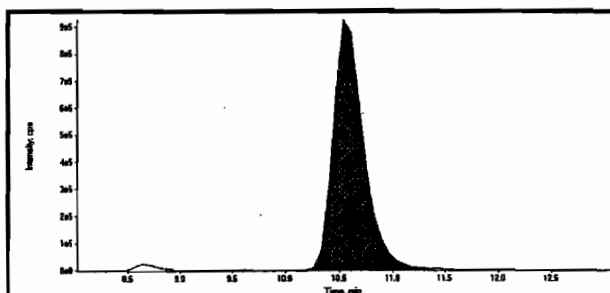
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

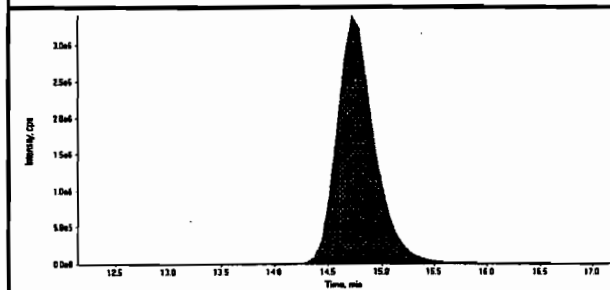
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

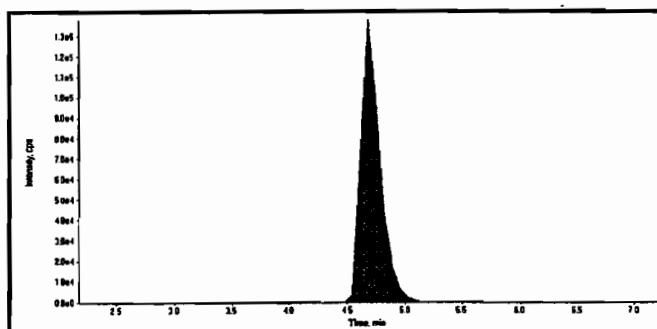
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Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



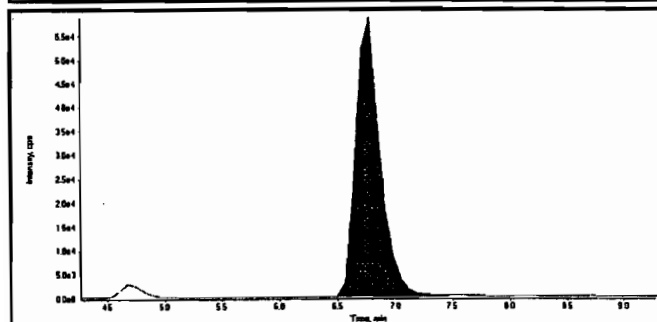
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	18400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	82600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.61e+006
Manual Modification	No
Amount:	41.3 (ng/mL)
% Accuracy:	103.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	8.72e+005
Manual Modification	No
Amount:	41.4 (ng/mL)
% Accuracy:	104.00

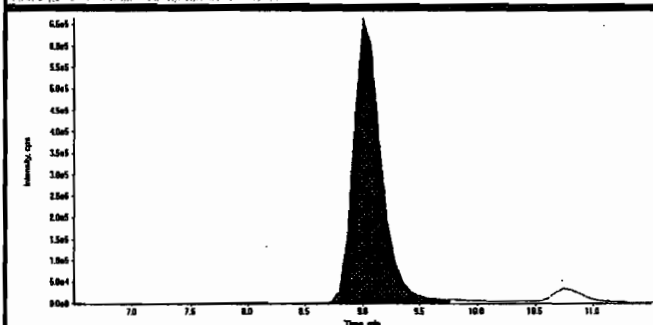
*Handwritten:* HMX 04/23/10

*Handwritten:* LER 4/27/10

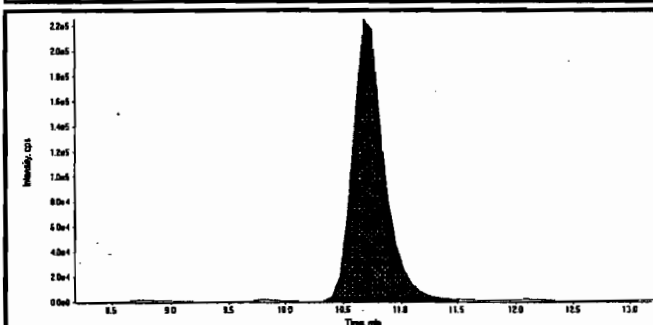
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

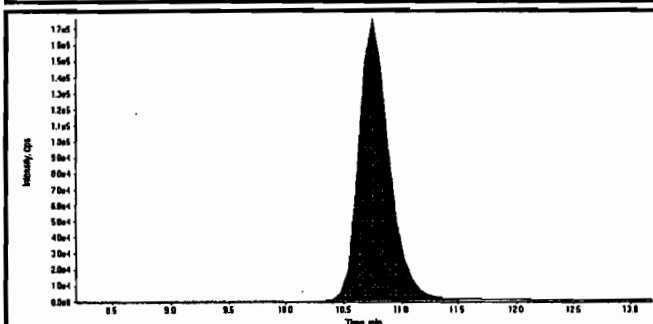
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Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



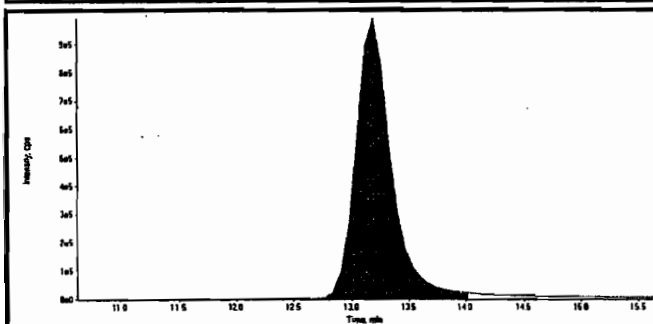
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.00
Area Counts:	1.14e+007
Manual Modification	No
Amount:	38.5 (ng/mL)
% Accuracy:	96.20



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	4.32e+006
Manual Modification	No
Amount:	41.3 (ng/mL)
% Accuracy:	103.00



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	3.25e+006
Manual Modification	No
Amount:	38.9 (ng/mL)
% Accuracy:	97.30



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.15e+007
Manual Modification	No
Amount:	37.9 (ng/mL)
% Accuracy:	94.70

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415025.wiff	<b>Acquisition Date</b>	4/15/2010 8:30:11 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch/Dilution/Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.8
	Area Counts:	1.49e+005
	Manual Modification	No
	Amount:	44.6 (ng/mL)
	% Accuracy:	112.00

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	2.31e+006
	Manual Modification	No
	Amount:	16.9 (ng/mL)
	% Accuracy:	84.50

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.9
	Area Counts:	3.79e+006
	Manual Modification	No
	Amount:	29.9 (ng/mL)
	% Accuracy:	74.60

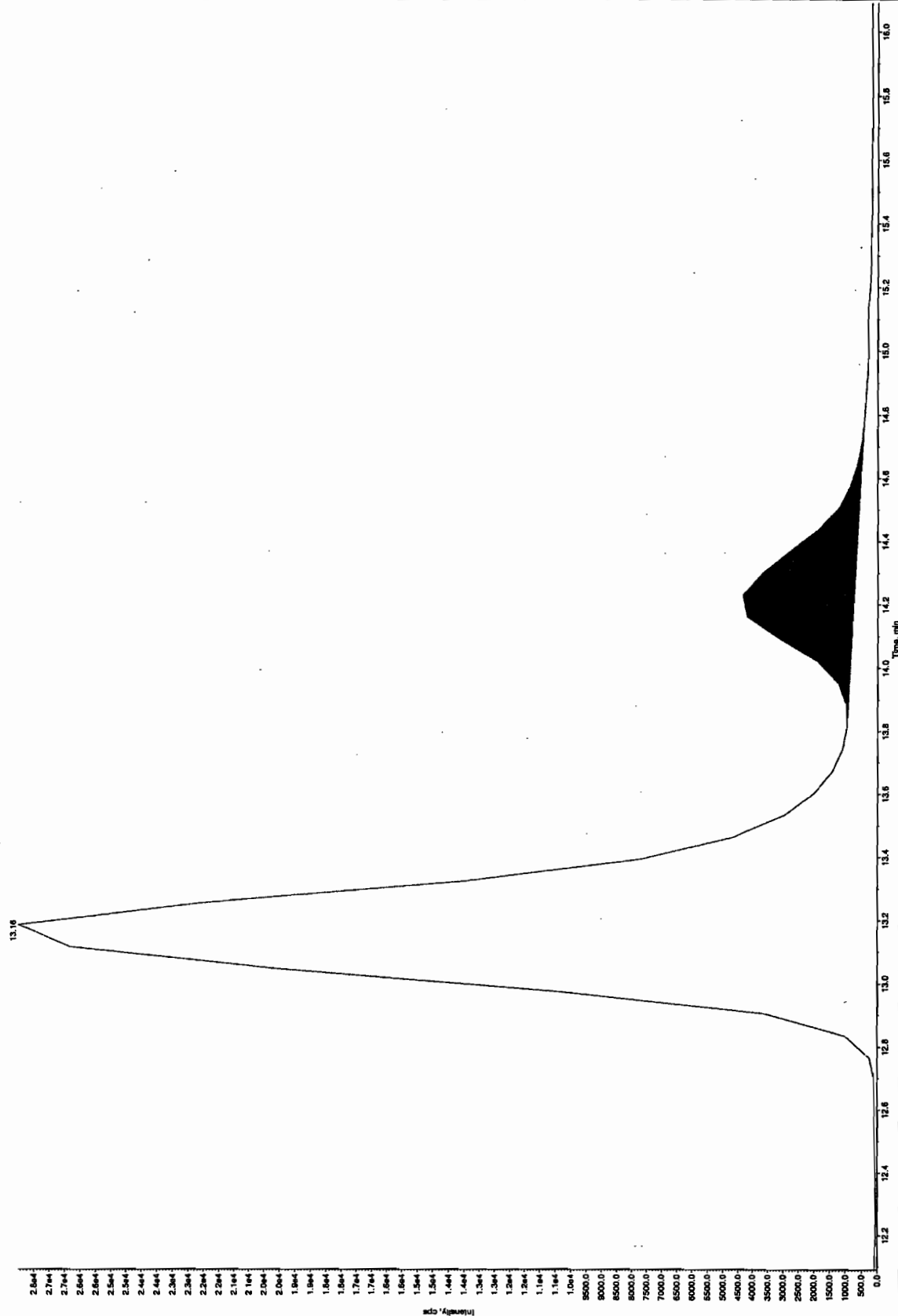
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.6
	Area Counts:	1.51e+006
	Manual Modification	No
	Amount:	34.4 (ng/mL)
	% Accuracy:	86.10



Before Jan 4/23/10

Sample Name: "WXX1004115-57GR" Sample ID: "115GR" File: "EXP041502E.wif"  
 Lab Name: "GEL" Sample Location: "GEL" Sample Date: "4/15/2010" Sample Time: "8:10:11 PM" Sample Weight: "1.0000 g" Sample Volume: "1.0000 mL" Sample Concentration: "1.0000 mg/mL" Sample Purity: "100.00%" Sample Matrix: "None" Sample Container: "Vial" Sample Seal: "Cap" Sample Label: "None" Sample Notes: "None" Sample Status: "OK" Sample Comments: "None" Sample Results: "None" Sample Summary: "None" Sample Footer: "None"

Sample Indent: 1 OC  
 Sample Type: 40.7  
 Concentration: 40.7  
 Acq. Date: 4/15/2010  
 Acq. Time: 8:10:11 PM  
 Peak: 13.16  
 Peak Height: 100.00 cps  
 Peak Width: 0.00 sec  
 Peak Area: 100.00  
 Peak Relative RT: 14.1 min  
 Peak Type: Valley  
 Peak Time: 14.2 min  
 Peak Height: 1.62e-004 counts  
 Peak Area: 3.58e-003 cps  
 Peak Relative RT: 14.8 min  
 Peak Time: 14.8 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/23/10

Sample Name: WAX100115-STORE Sample ID: 111571 File: EXP0415025.wif

Sample Concentration: 16.5 ng/mL

Sample Index: 1

Sample Type: GC

Concentration: 16.5 ng/mL

Acq. Date: 4/15/2010

Acq. Time: 8:10:11 PM

Method: Yes

Window: 10.0 sec

Acquired RT: 14.1 min

Relative RT: No

Manual

Type: Manual

Injection Time: 11.2 min

1.13e+005 counts

2.4e4

4.23e+003 cps

1.1e4

15.3 min

15.3 min

15.3 min

15.3 min

15.3 min

15.3 min

15.3 min

15.3 min

15.3 min

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15.3 min

15.3 min

15.3 min

15.3 min

15.3 min

15.3 min

15.3 min

15.3 min

15.3 min

13.16

2.8e4

2.7e4

2.6e4

2.5e4

2.4e4

2.3e4

2.2e4

2.1e4

2.0e4

1.9e4

1.8e4

1.7e4

1.6e4

1.5e4

1.4e4

1.3e4

1.2e4

1.1e4

1.0e4

9000.0

8000.0

7000.0

6000.0

5000.0

4000.0

3000.0

2000.0

1000.0

500.0

0.0

Intensity, cps

12.2

12.4

12.6

12.8

13.0

13.2

13.4

13.6

13.8

14.0

14.2

14.4

14.6

14.8

15.0

15.2

15.4

15.6

15.8

16.0

16.2

16.4

16.6

16.8

17.0

17.2

14.21

Intensity, cps

14.0

14.2

14.4

14.6

14.8

15.0

15.2

15.4

15.6

15.8

16.0

16.2

16.4

16.6

16.8

17.0

17.2

17.4

17.6

17.8

18.0

18.2

18.4

18.6

18.8

19.0

19.2

19.4

19.6

19.8

20.0

20.2

20.4

20.6

20.8

21.0

21.2

21.4

21.6

21.8

22.0

22.2

22.4

22.6

22.8

23.0

23.2

23.4

23.6

23.8

24.0

24.2

24.4

24.6

24.8

25.0

13.16

Intensity, cps

13.0

13.2

13.4

13.6

13.8

14.0

14.2

14.4

14.6

14.8

15.0

15.2

15.4

15.6

15.8

16.0

16.2

16.4

16.6

16.8

17.0

17.2

17.4

17.6

17.8

18.0

18.2

18.4

18.6

18.8

19.0

19.2

19.4

19.6

19.8

20.0

20.2

20.4

20.6

20.8

21.0

21.2

21.4

21.6

21.8

22.0

22.2

22.4

22.6

22.8

23.0

23.2

23.4

23.6

23.8

24.0

13.16

Intensity, cps

13.0

13.2

13.4

13.6

13.8

14.0

14.2

14.4

14.6

14.8

15.0

15.2

15.4

15.6

15.8

16.0

16.2

16.4

16.6

16.8

17.0

17.2

17.4

17.6

17.8

18.0

18.2

18.4

18.6

18.8

19.0

19.2

19.4

19.6

19.8

20.0

20.2

20.4

20.6

20.8

21.0

21.2

21.4

21.6

21.8

22.0

22.2

22.4

22.6

22.8

23.0

23.2

23.4

23.6

23.8

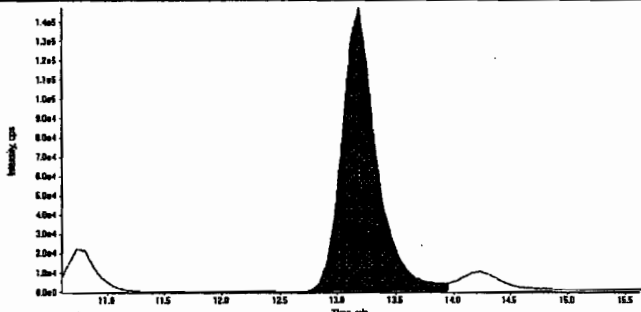
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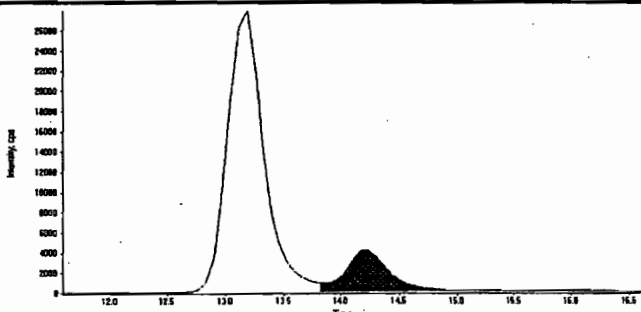
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

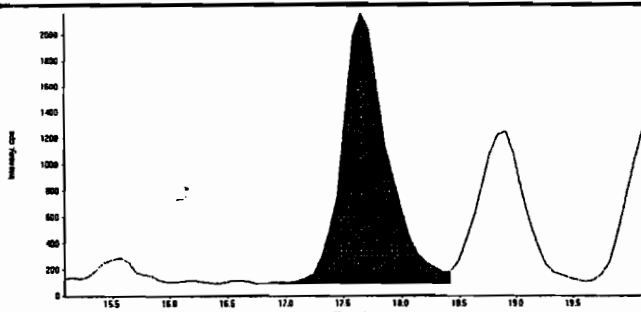
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

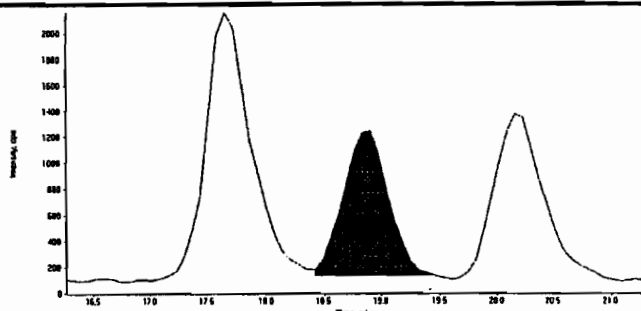
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LCMSMS#3

Data File	EXP0415025.wiff	Acquisition Date	4/15/2010 8:30:11 PM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	3.10e+006
	Manual Modification	No
	Amount:	38.1 (ng/mL)
	% Accuracy:	95.20

	Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	14.2
	Area Counts:	1.13e+005
	Manual Modification	Yes
	Amount:	36.5 (ng/mL)
	% Accuracy:	91.30

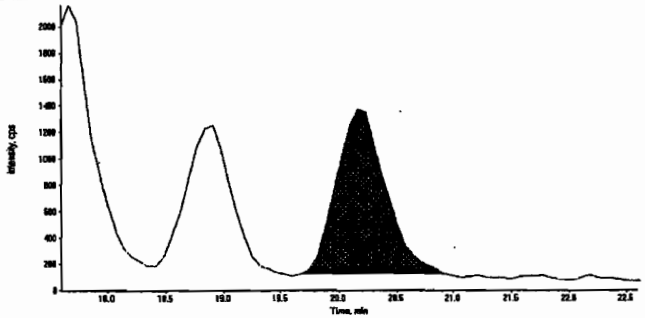
	Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.6
	Area Counts:	5.72e+004
	Manual Modification	No
	Amount:	44.9 (ng/mL)
	% Accuracy:	112.00

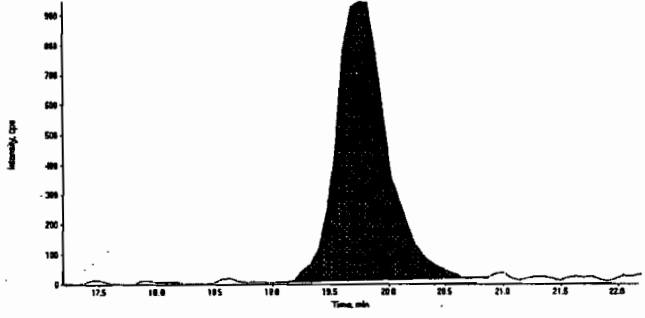
	Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.9
	Area Counts:	3.08e+004
	Manual Modification	No
	Amount:	45.7 (ng/mL)
	% Accuracy:	114.00

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415025.wiff	Acquisition Date	4/15/2010 8:30:11 PM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	20.2
	Area Counts:	3.76e+004
	Manual Modification	No
	Amount:	38.5 (ng/mL)
	% Accuracy:	96.30

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	19.7
	Area Counts:	2.91e+004
	Manual Modification	No
	Amount:	36.0 (ng/mL)
	% Accuracy:	90.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/15/10  
 Time of Injection 2030  
 Standard Number WXX100415-57CRI  
 Data File EXP0415025a

HMX	103.0
RDX	104.0
135-Trinitrobenzene	96.2
13-Dinitrobenzene	103.0
Tetryl	97.3
246-Trinitrotoluene	94.7
Nitrobenzene	112.0
34-dinitrotoluene	84.5
26-dinitrotoluene	74.6
24-dinitrotoluene	86.1
4-Amino-26-dinitrotoluene	95.2
2-Amino-46-dinitrotoluene	91.3
2-Nitrotoluene	112.0
4-Nitrotoluene	114.0
3-Nitrotoluene	96.3
PETN	90.0

TOTAL

✓ 1554.2 *Hmm 04/23/10*

AVERAGE

✓ 97.1	ICV Limits 85-115%
	CRI Limits 70-130%
	CCV Limits 85-115%
No single analyte > +/- 60%	

*Far 4/23/10*

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0415030.wiff

Analysis Date: 15-APR-10 22:39

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	635	106	
2,4,6-Trinitrotoluene	600	620	103	
2,4-Dinitrotoluene	600	631	105	
2,6-Dinitrotoluene	600	558	93	
2-Amino-4,6-dinitrotoluene	600	607	101	
3,4-Dinitrotoluene	300	289	96	
4-Amino-2,6-dinitrotoluene	600	660	110	
HMX	600	563	94	
Nitrobenzene	600	623	104	
PETN	600	708	118	
RDX	600	672	112	
Tetryl	600	647	108	
m-Dinitrobenzene	600	618	103	
m-Nitrotoluene	600	545	91	
o-Nitrotoluene	600	586	98	
p-Nitrotoluene	600	618	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%

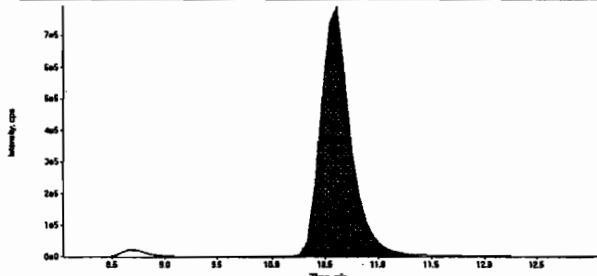
# Column used to flag Recovery outside of Limits

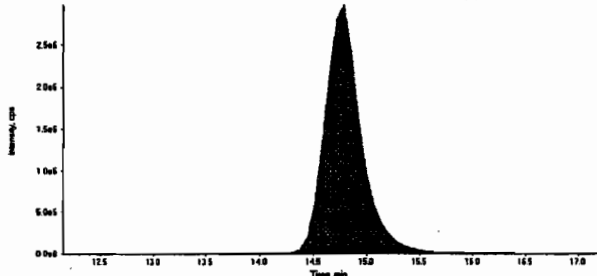
\* Value outside of Recovery Limits

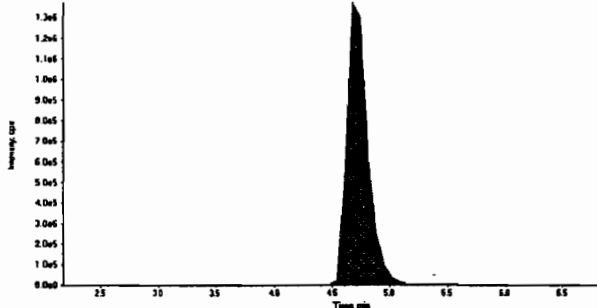
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

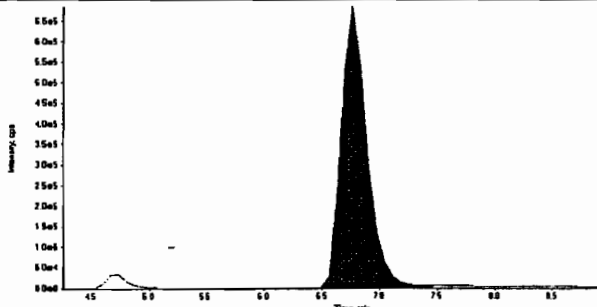
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LCMSMS#3

Data File	EXP0415030.wiff	Acquisition Date	4/15/2010 10:39:38 PM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
	Expected RT:	10.50
	Actual RT:	10.60
	Area Counts:	15500000.00
	Manual Modification	No
	Amount:	500.00(ng/mL)
	Please refer to Form 8 for a list of Internal Standard Recoveries	

	Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
	Expected RT:	14.60
	Actual RT:	14.80
	Area Counts:	71300000.00
	Manual Modification	Yes
	Amount:	500.00(ng/mL)
	Please refer to Form 8 for a list of Internal Standard Recoveries	

	Compound Name:	HMX (341.2/46.0 amu)
	Expected RT:	4.67
	Actual RT:	4.67
	Area Counts:	1.79e+007
	Manual Modification	No
	Amount:	563. (ng/mL)
	% Accuracy:	93.80

	Compound Name:	RDX (267.0/46.1 amu)
	Expected RT:	6.77
	Actual RT:	6.77
	Area Counts:	1.08e+007
	Manual Modification	No
	Amount:	672. (ng/mL)
	% Accuracy:	112.00

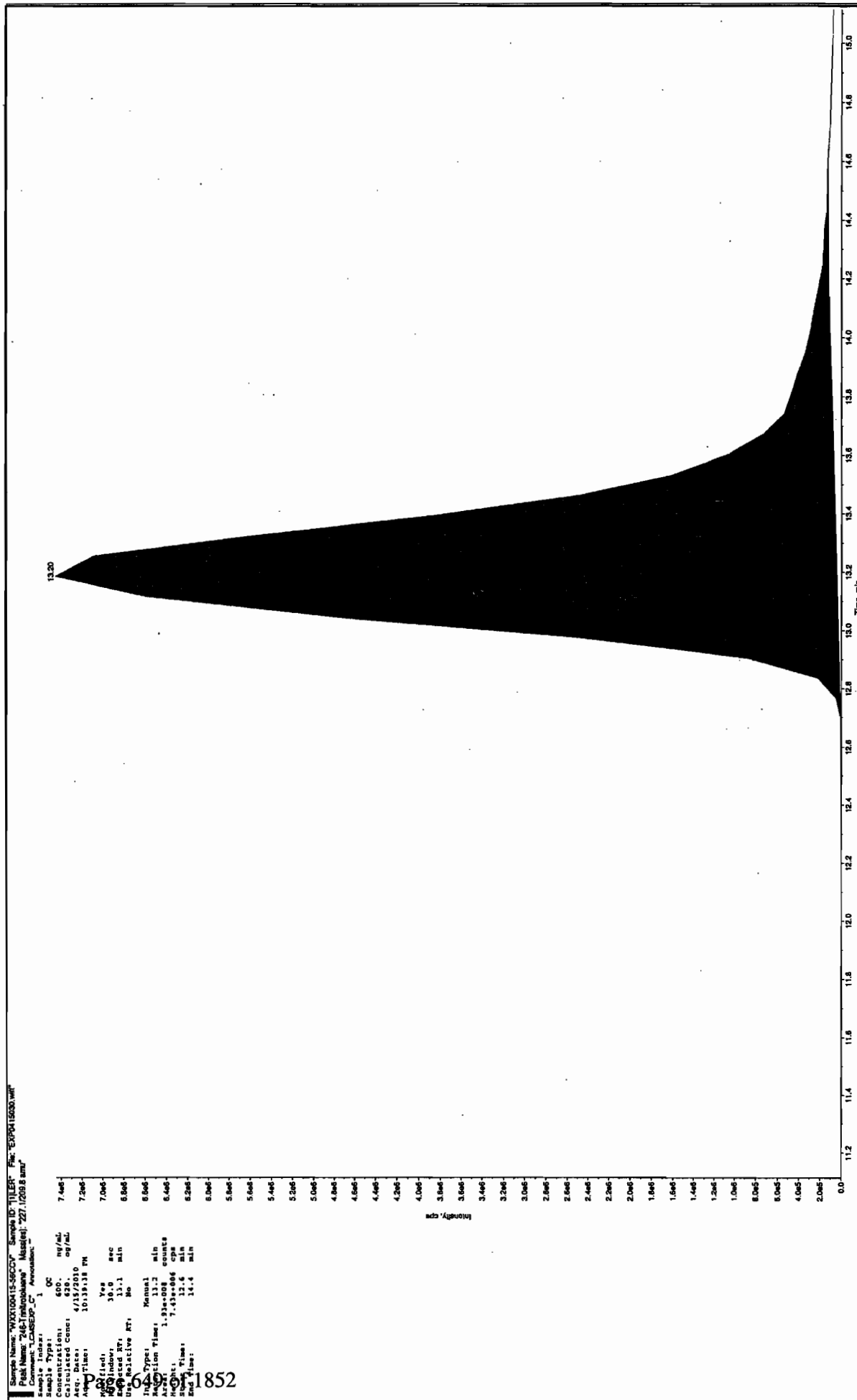
*hmc 04/23/10*

*Ler 4/23/10*





after scan 4/23/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415030.wiff	<b>Acquisition Date</b>	4/15/2010 10:39:38 PM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch/Dilution/Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	9.07
	<b>Area Counts:</b>	1.16e+008
	<b>Manual Modification</b>	No
	<b>Amount:</b>	635. (ng/mL)
	<b>% Accuracy:</b>	106.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	5.13e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	618. (ng/mL)
	<b>% Accuracy:</b>	103.00

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	4.60e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	647. (ng/mL)
	<b>% Accuracy:</b>	108.00

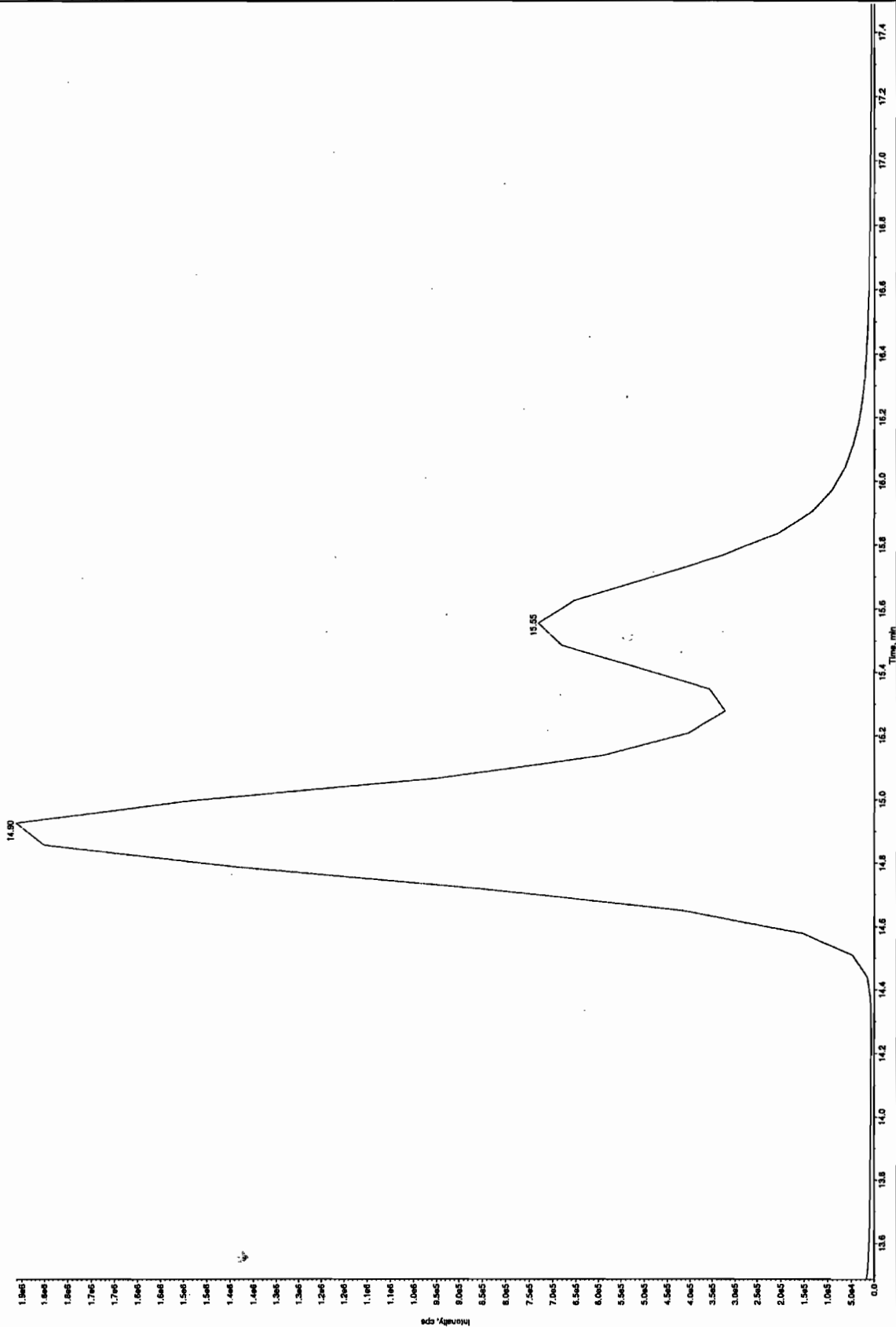
  

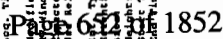
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	1.93e+008
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	620. (ng/mL)
	<b>% Accuracy:</b>	103.00

Before Jan 4/23/10

Sample Name: WAX100415.562CV Sample ID: 111ER File: E:\P0415000.vmr  
 Peak Name: 24-dinitrofluorene Mass(es): 182.0460 amu  
 Comment: "LCHABEP\_C" Annotation: "

Sample Type: 1 OC  
 Concentration: 600. ng/mL  
 Calculated Conc: 0.00 ng/mL  
 Acc. Base: 4.01581E-05  
 Peak Time: 3.01581E-05 PM  
 Peak ID: No





\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415030.wiff	<b>Acquisition Date</b>	4/15/2010 10:39:38 PM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	11.9
	<b>Area Counts:</b>	1.98e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	623. (ng/mL)
	<b>% Accuracy:</b>	104.00

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	2.70e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	289. (ng/mL)
	<b>% Accuracy:</b>	96.20

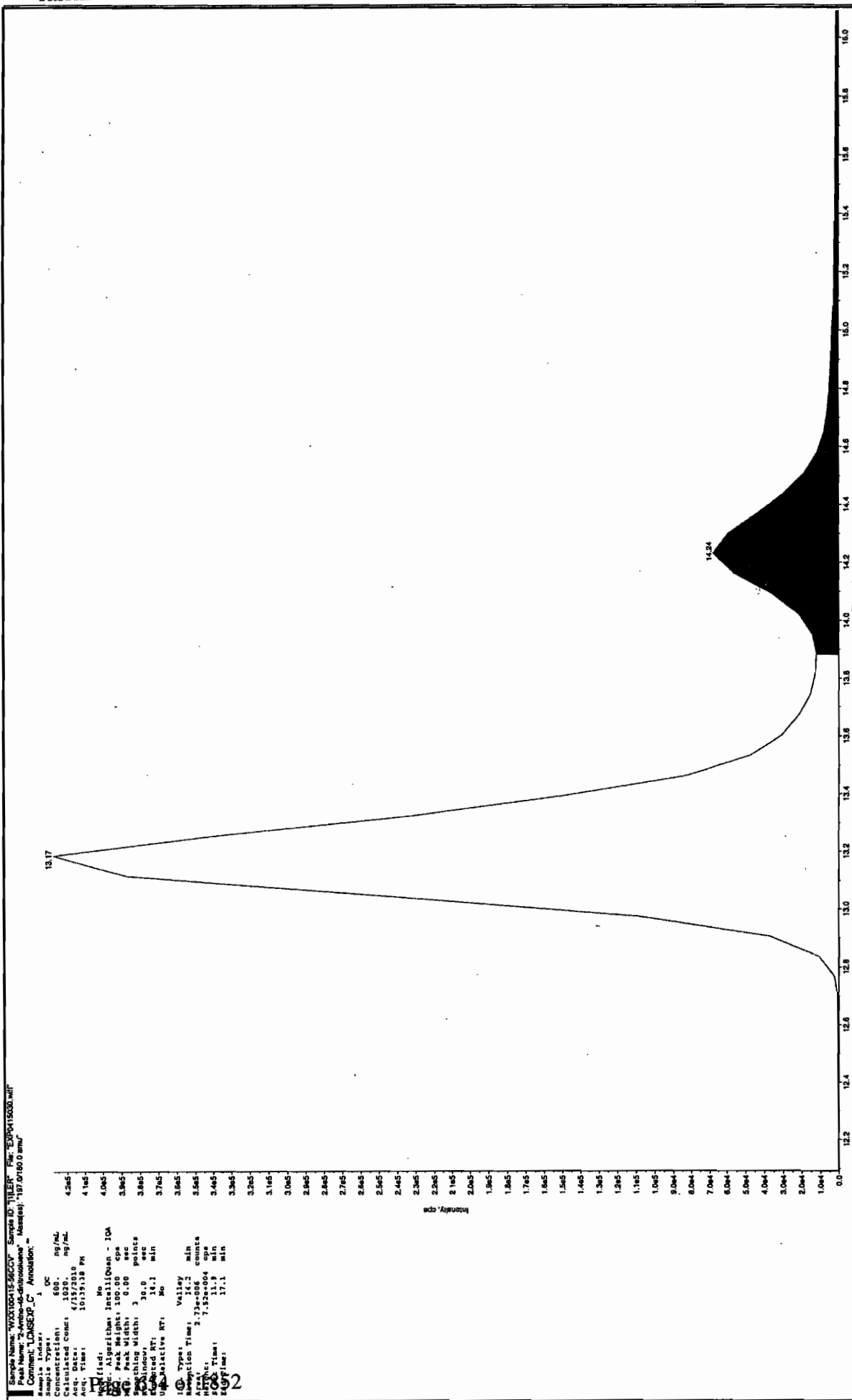
  

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.9
	<b>Area Counts:</b>	4.23e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	558. (ng/mL)
	<b>% Accuracy:</b>	93.00

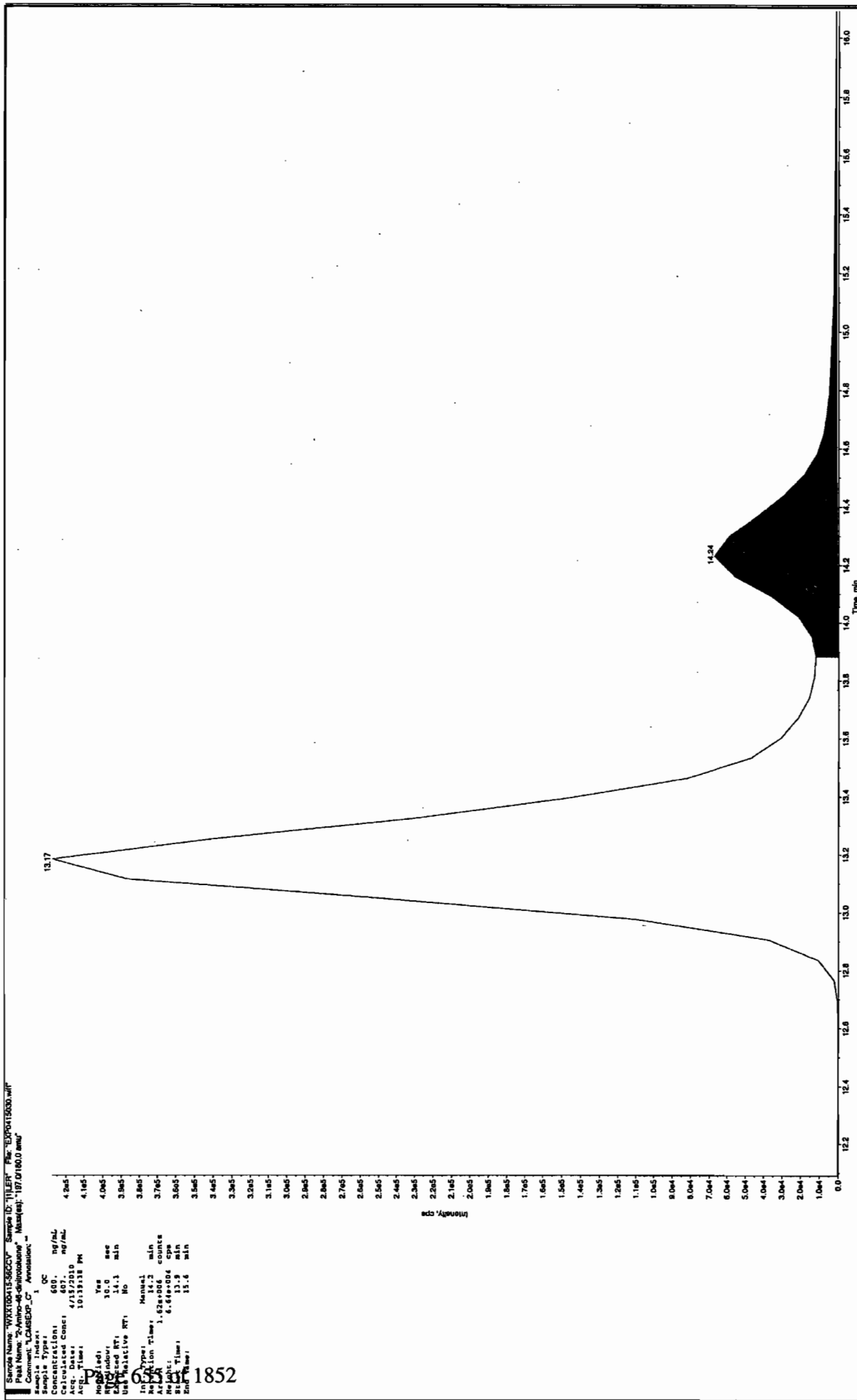
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	15.5
	<b>Area Counts:</b>	1.84e+007
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	631. (ng/mL)
	<b>% Accuracy:</b>	105.00

Before Jan 4/23/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after run 4/23/10

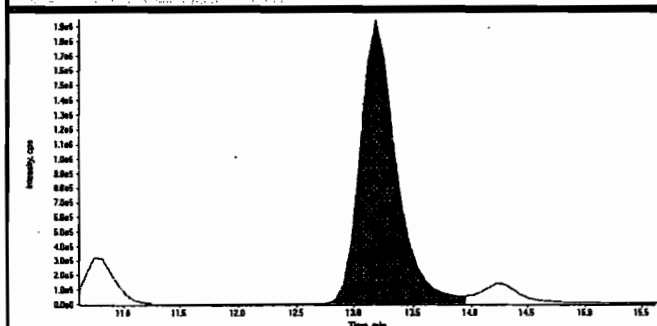


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

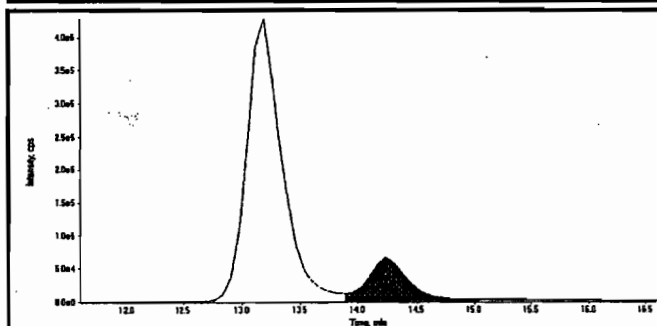
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

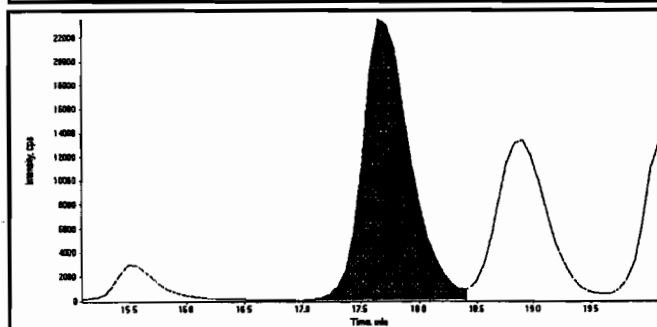
Data File	EXP0415030.wiff	Acquisition Date	4/15/2010 10:39:38 PM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



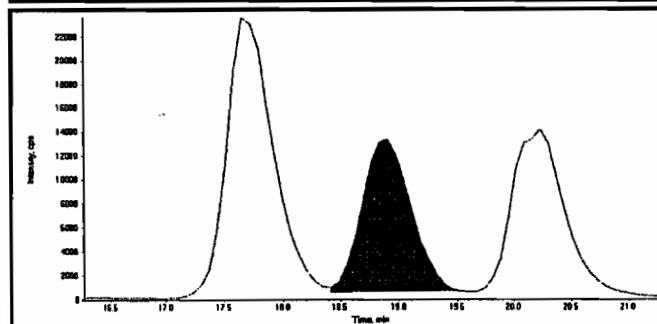
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	4.19e+007
Manual Modification	No
Amount:	660. (ng/mL)
% Accuracy:	110.00



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	14.2
Area Counts:	1.62e+006
Manual Modification	Yes
Amount:	607. (ng/mL)
% Accuracy:	101.00



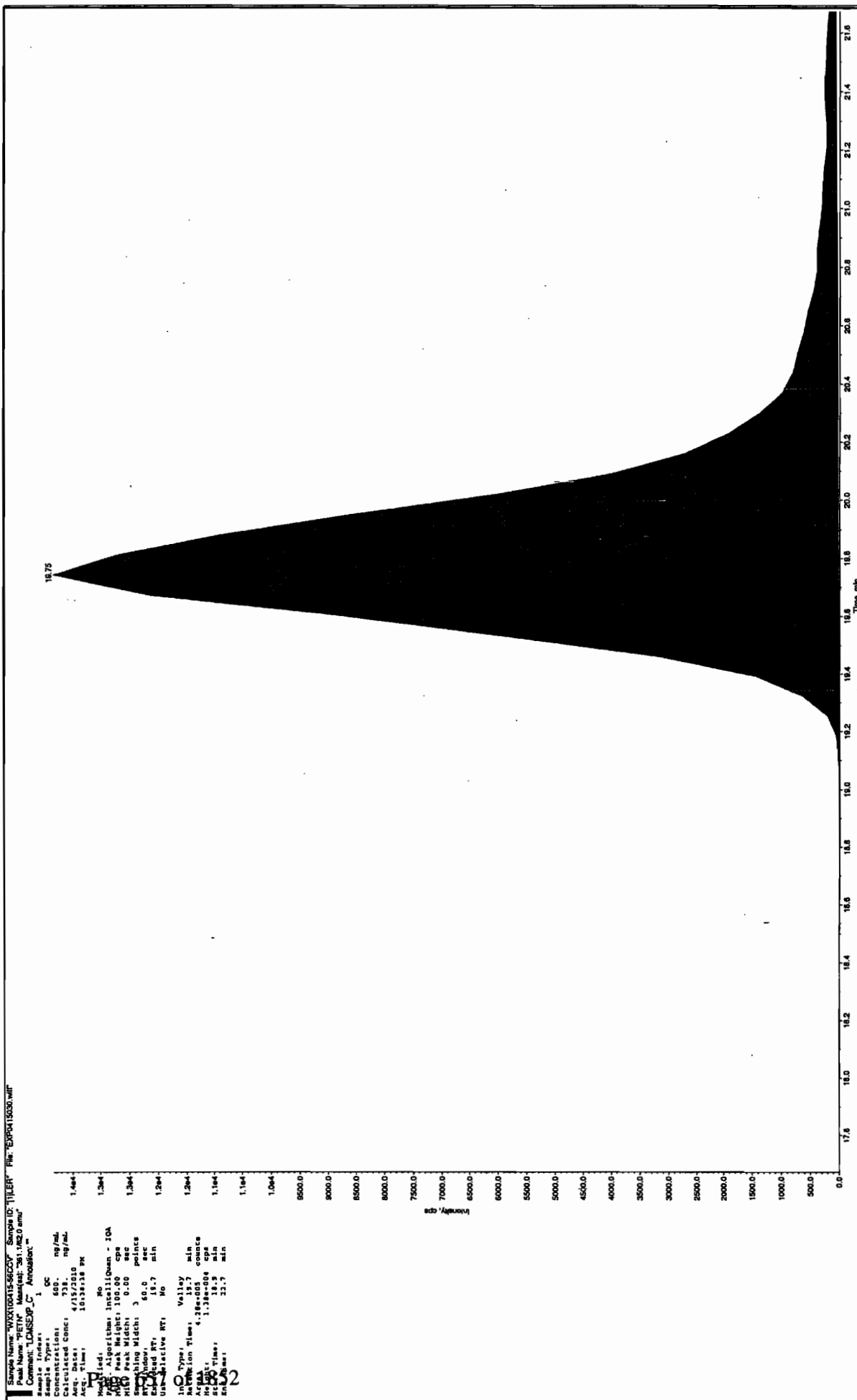
Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.6
Area Counts:	6.60e+005
Manual Modification	No
Amount:	586. (ng/mL)
% Accuracy:	97.60



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.9
Area Counts:	3.74e+005
Manual Modification	No
Amount:	618. (ng/mL)
% Accuracy:	103.00

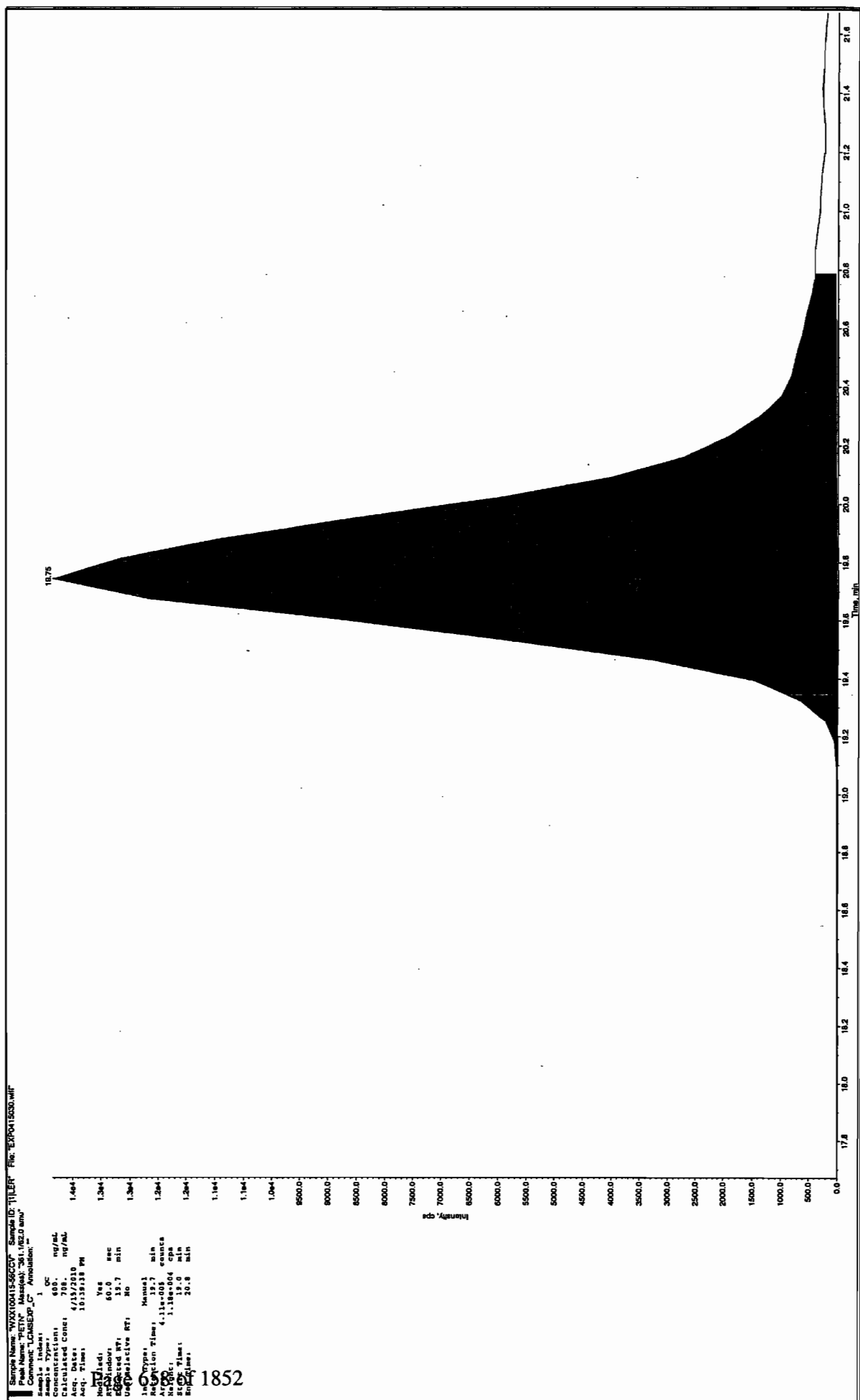


Before day 4/23/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/23/10

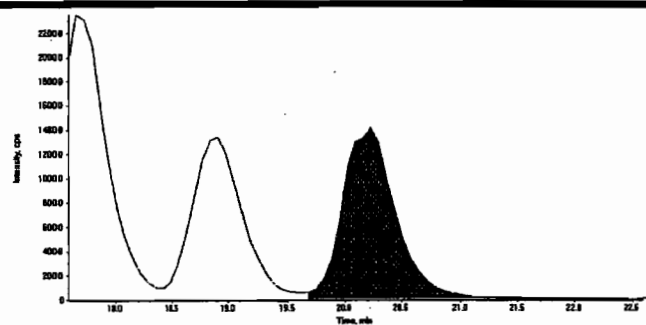


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

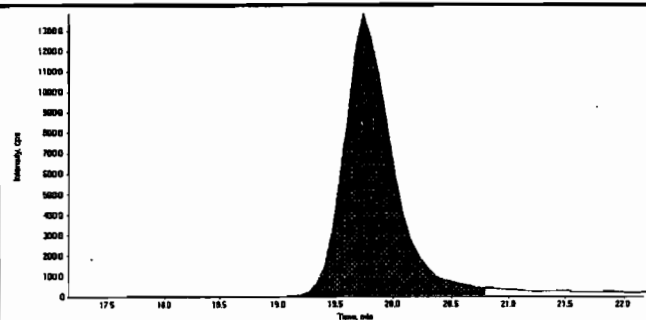
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415030.wiff	Acquisition Date	4/15/2010 10:39:38 PM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	4.62e+005
Manual Modification	No
Amount:	545. (ng/mL)
% Accuracy:	90.90



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.7
Area Counts:	4.11e+005
Manual Modification	Yes
Amount:	708. (ng/mL)
% Accuracy:	118.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/15/10  
 Time of Injection 2239  
 Standard Number WXX100415-56CCV  
 Data File EXP0415030a

HMX	93.8
RDX	112.0
135-Trinitrobenzene	106.0
13-Dinitrobenzene	103.0
Tetryl	108.0
246-Trinitrotoluene	103.0
Nitrobenzene	104.0
34-dinitrotoluene	96.2
26-dinitrotoluene	93.0
24-dinitrotoluene	105.0
4-Amino-26-dinitrotoluene	110.0
2-Amino-46-dinitrotoluene	101.0
2-Nitrotoluene	97.6
4-Nitrotoluene	103.0
3-Nitrotoluene	90.9
PETN	118.0

TOTAL

1644.5

*hmm 04/17/10*

AVERAGE

102.8

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Jan 4/15/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415032.wiff

Analysis Date: 15-APR-10 23:31

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	40	100	
2,4,6-Trinitrotoluene	40	40.3	101	
2,4-Dinitrotoluene	40	28.6	72	
2,6-Dinitrotoluene	40	33.6	84	
2-Amino-4,6-dinitrotoluene	40	37.9	95	
3,4-Dinitrotoluene	20	17.2	86	
4-Amino-2,6-dinitrotoluene	40	42.6	107	
HMX	40	48.3	121	
Nitrobenzene	40	47.8	119	
PETN	40	46.6	116	
RDX	40	41.6	104	
Tetryl	40	41	103	
m-Dinitrobenzene	40	43.7	109	
m-Nitrotoluene	40	44.7	112	
o-Nitrotoluene	40	44.7	112	
p-Nitrotoluene	40	46.3	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%

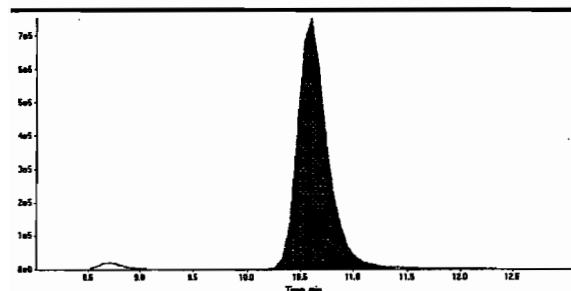
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

EL Laboratories, LLC  
 EL SOP GL-OA-E-056, Method 8321A-Modified

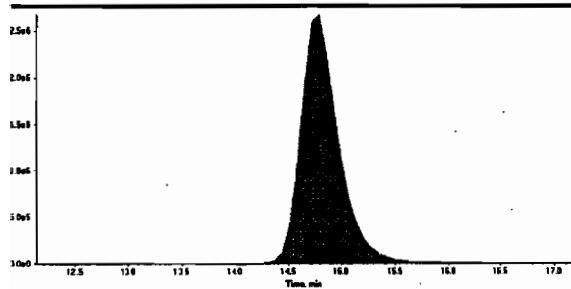
Printed: 22/04/2010 4:04:00 PM  
 LCMSMS#3

File	EXP0415032.wiff	Acquisition Date	4/15/2010 11:31:31 PM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch/Dilution/Analyst	11/LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



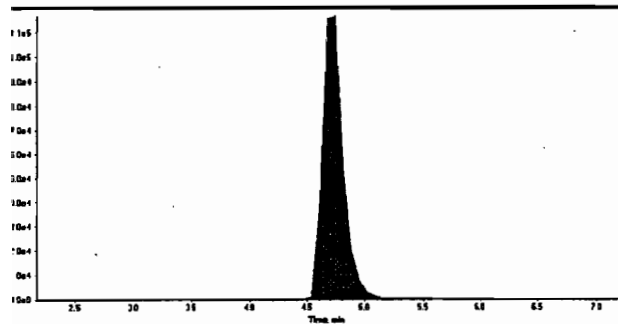
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	14800000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

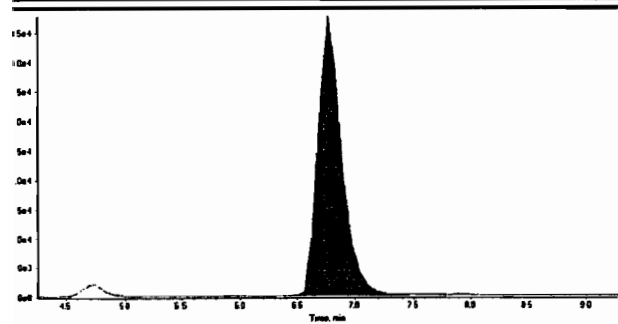


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	66800000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	1.50e+006
Manual Modification	No
Amount:	48.3 (ng/mL)
% Accuracy:	121.00



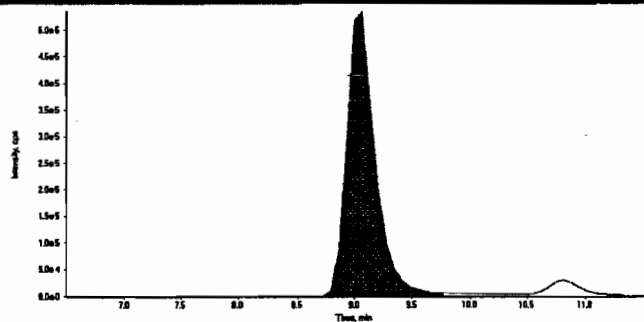
Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	7.00e+005
Manual Modification	No
Amount:	41.6 (ng/mL)
% Accuracy:	104.00

*Handwritten notes:*  
 done 04/23/10  
 Jan 4/23/10

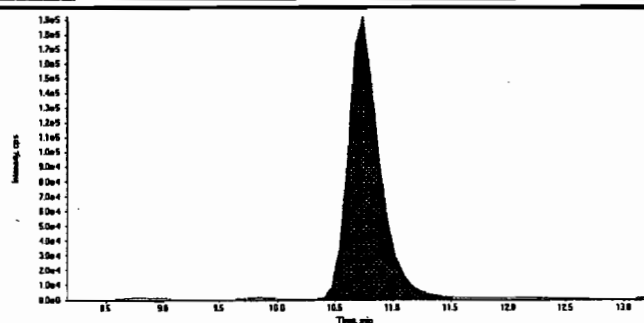
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

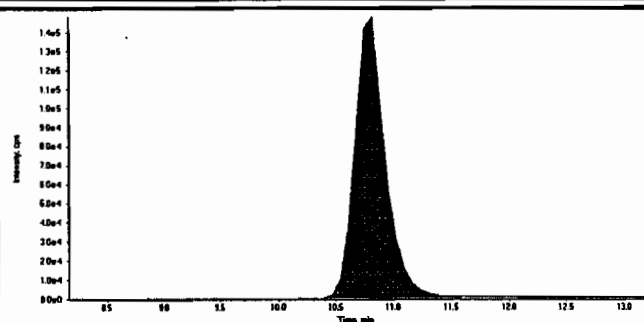
Data File	EXP0415032.wiff	Acquisition Date	4/15/2010 11:31:31 PM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch/Dilution/Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



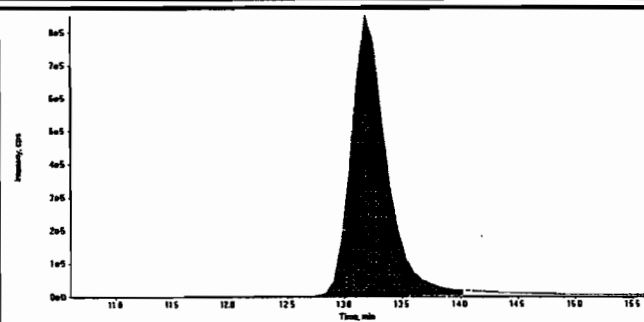
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.07
Area Counts:	9.42e+006
Manual Modification	No
Amount:	40.0 (ng/mL)
% Accuracy:	100.00



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	3.68e+006
Manual Modification	No
Amount:	43.7 (ng/mL)
% Accuracy:	109.00



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.8
Area Counts:	2.75e+006
Manual Modification	No
Amount:	41.0 (ng/mL)
% Accuracy:	103.00

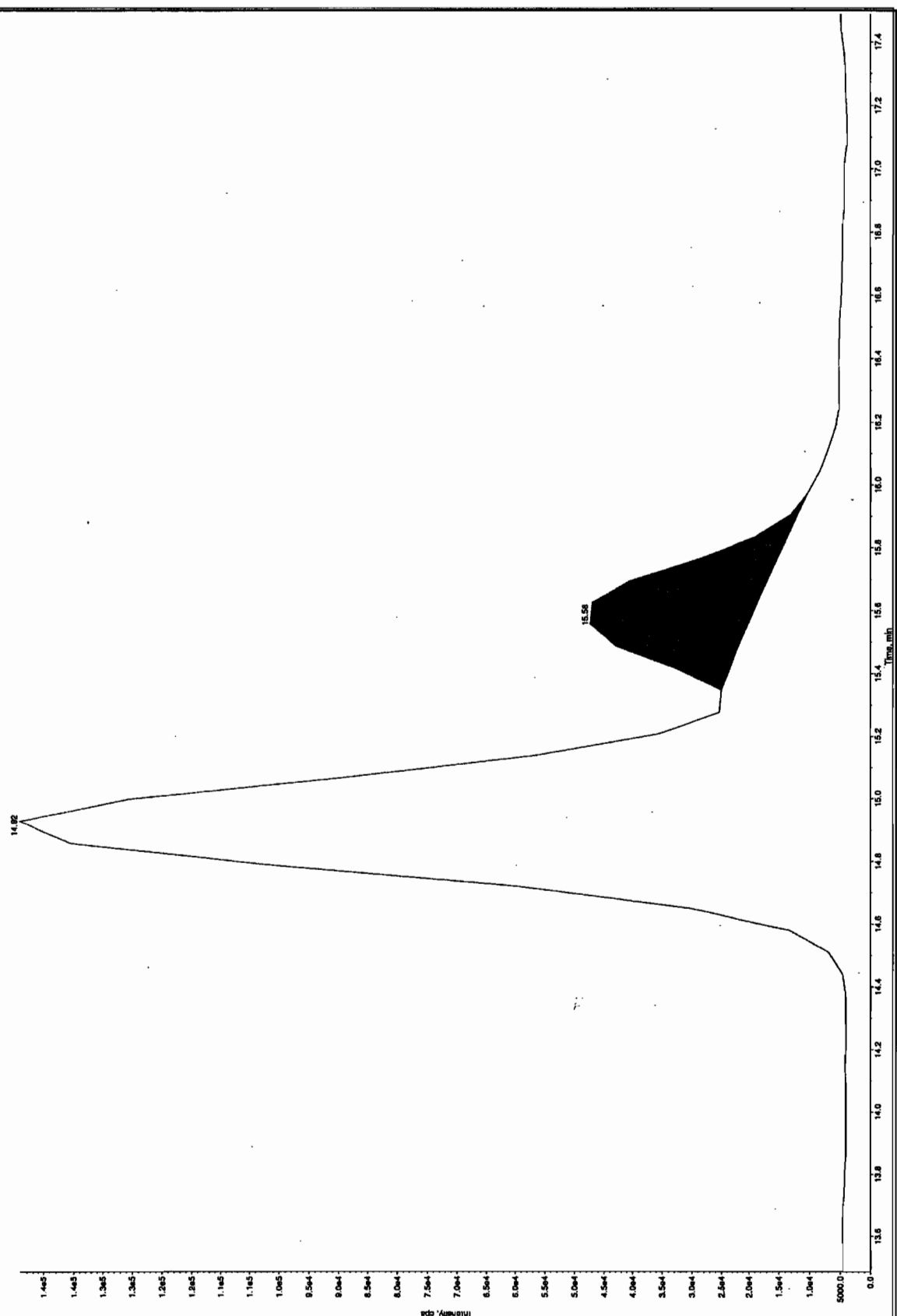


Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	1.82e+007
Manual Modification	No
Amount:	40.3 (ng/mL)
% Accuracy:	101.00

Before Jan 4123/10

Sample Name: 8321A-E-056 Sample ID: 8321A-E-056 File: 8321A-E-056.mf  
 Peak Name: "14.82" Mass: 142.040 amu  
 Comment: "LDAEXP\_C" Annotation: "

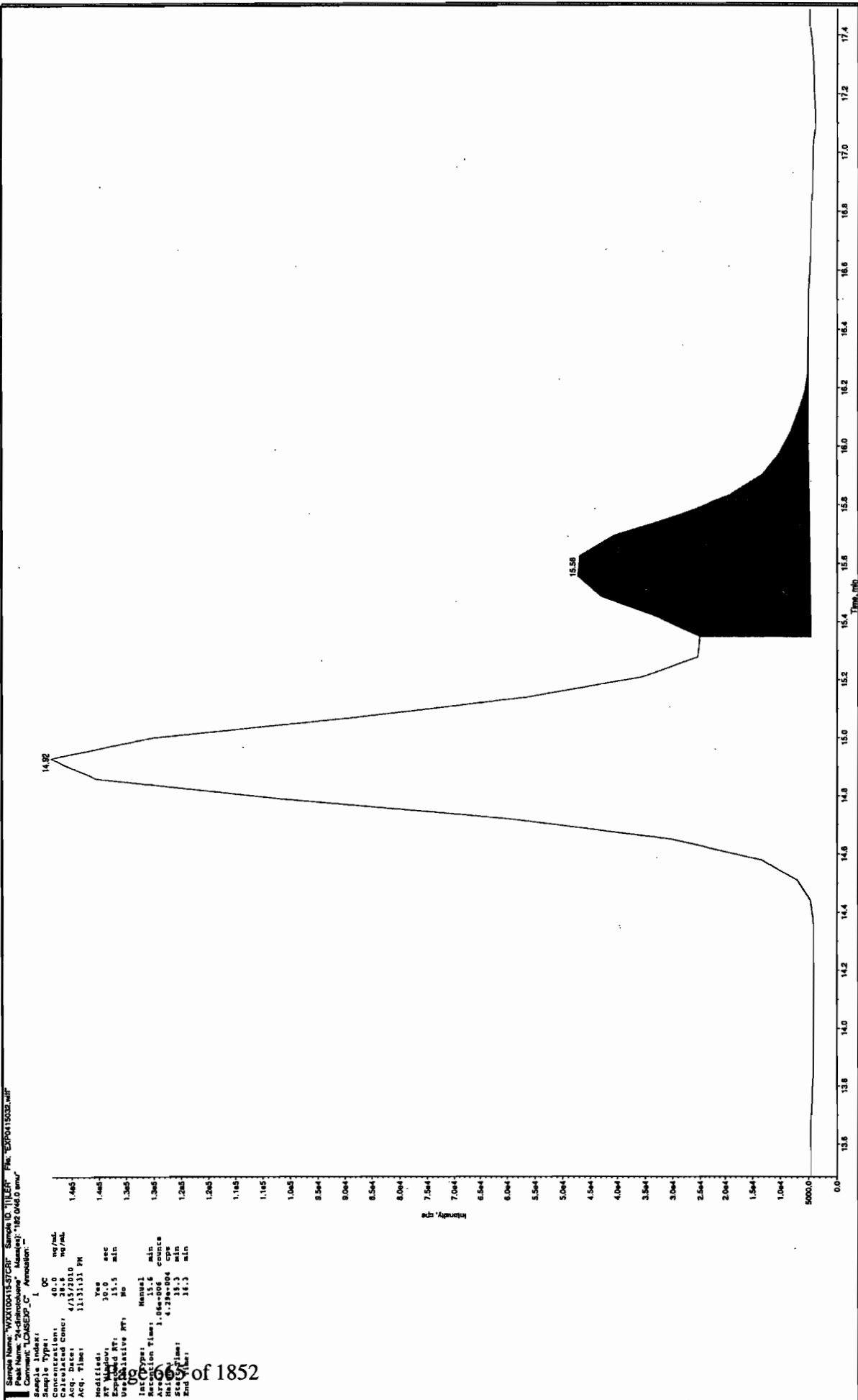
Sample Index: 1  
 Sample Type: OC  
 Acquisition: 4/15/2010  
 Calculated Count: 9.27 mg/mL  
 Acq. Date: 4/15/2010  
 Acq. Time: 11:11:31 PM  
 Modified: No  
 Prec. Algorithm: IntelliQuan - ICA  
 Min Peak Height: 1000 cps  
 Min Peak Width: 3 sec  
 RT Window: 30.0 sec  
 Expected RT: 15.5 min  
 Unassigned RT: No  
 Inj. Type: Valley  
 Retention Time: 13.6 min  
 Area: 5.46e+003 counts  
 Peak Width: 2.71 min  
 Start Time: 15.3 min  
 End Time: 16.0 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



after 4/23/10



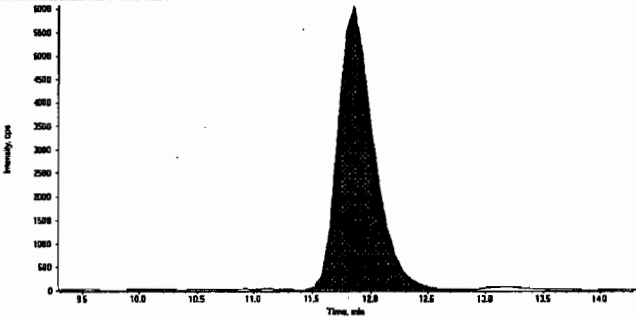
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

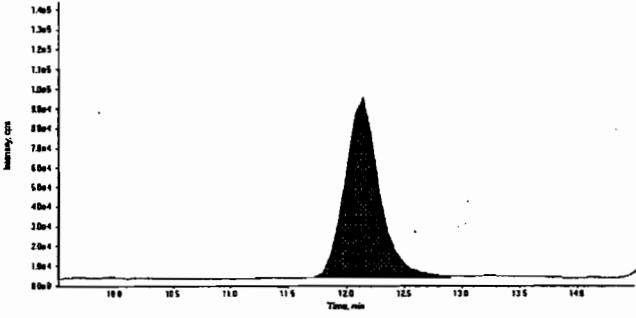
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415032.wiff	Acquisition Date	4/15/2010 11:31:31 PM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

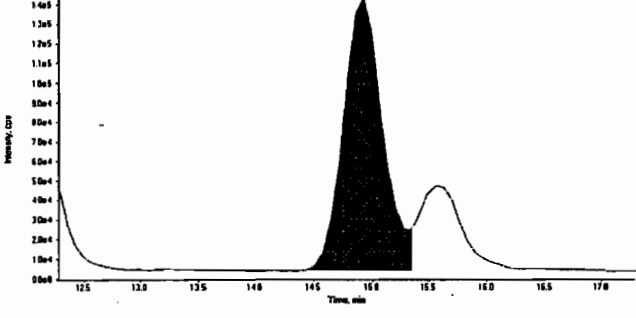
  

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.9
	Area Counts:	1.29e+005
	Manual Modification	No
	Amount:	47.8 (ng/mL)
	% Accuracy:	119.00

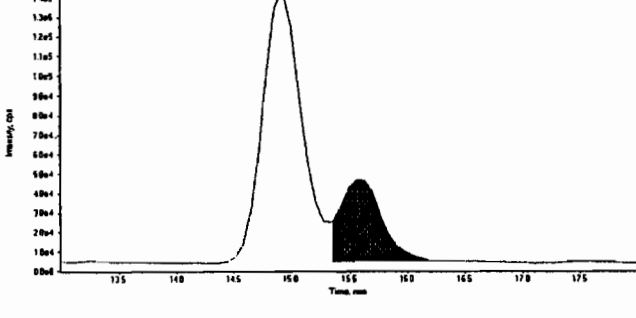
  

	Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	1.89e+006
	Manual Modification	No
	Amount:	17.2 (ng/mL)
	% Accuracy:	85.80

	Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.9
	Area Counts:	3.32e+006
	Manual Modification	No
	Amount:	33.6 (ng/mL)
	% Accuracy:	84.00

	Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.6
	Area Counts:	1.06e+006
	Manual Modification	Yes
	Amount:	28.6 (ng/mL)
	% Accuracy:	71.50

Before Jan 4/23/10

Sample Name: "WXX100415-5708" Sample ID: "TULER" File: "EXP015002.mf"

Peak Name: "2-Amino-6-dimethylbenzoic acid" Mass(es): "197.07100.0 amu"

Sample Index: 1

Sample Type: QC

Concentration: 40.0 ng/mL

Acquisition Date: 4/13/2010

Acq. Time: 11:11:31 PM

Method: 8

Peak Name: "2-Amino-6-dimethylbenzoic acid"

Peak Height: 100.00 cps

Min. Peak Width: 0.00 sec

Peak Width: 10.0 points

Retention Time: 14.3 min

Use Relative RT: No

Int. Type: Valley

Retention Time: 14.3 min

Area: 6.78e+006 counts

Height: 3.30e+003 cps

Width: 11.0 min

Area: 14.8 min

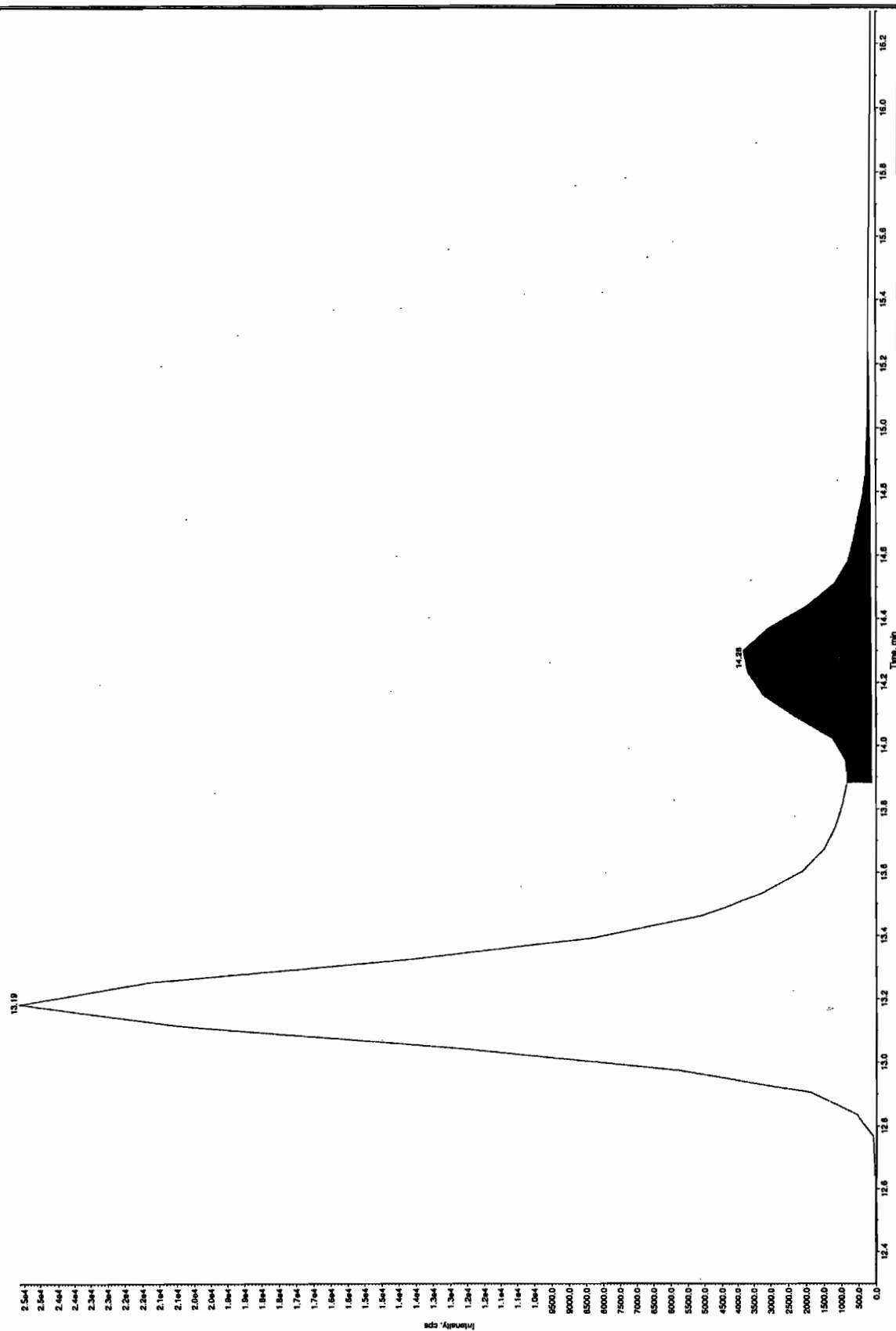
13.19

14.28

Intensity, cps

Time, min

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



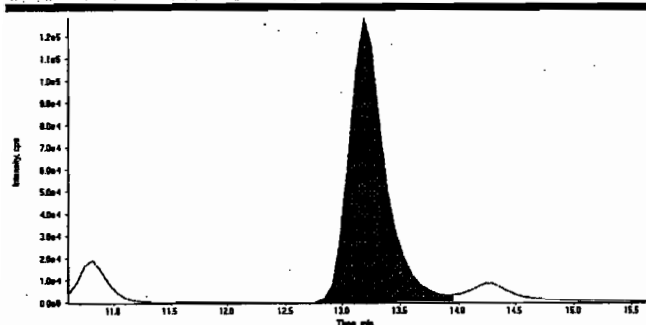
Sample Name: "XXXX004153701" Sample ID: "TILEP" File: "EXP015032.wif"  
 Post Name: "XXXX004153701" Method: "18/0180.0 am"  
 Sample Index: 1 Acquisition:  
 Sample Type: OC  
 Concentration: 40.0 ng/mL  
 Acquisition Date: 4/15/2010  
 Acquisition Time: 11:31:11 PM  
 Acq. Time: 2.464  
 Modified: Yes  
 Expanded RT: 14.3 min  
 Use of Active RT: No  
 Manual: 14.3 min  
 Retention Time: 14.3 min  
 Area: 9.47e+004 counts  
 Height: 3.73e+003 cps  
 Width: 0.3 min  
 End of Run: 13.1 min

after Jan 4/23/10

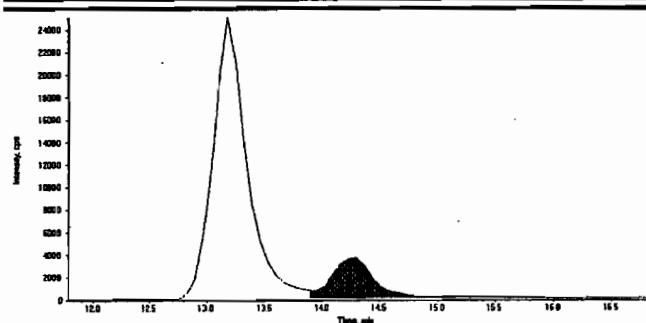
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

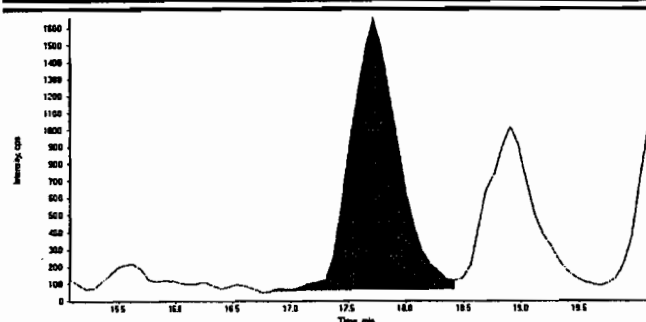
Data File	EXP0415032.wiff	Acquisition Date	4/15/2010 11:31:31 PM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



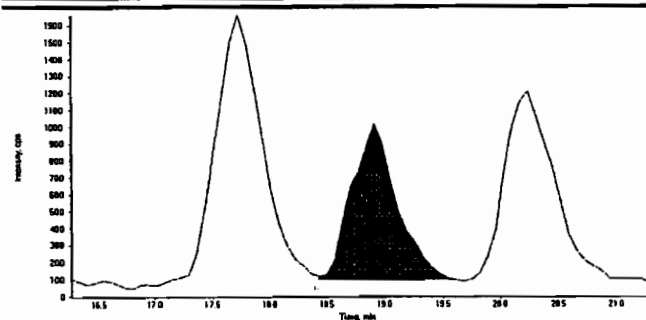
Compound Name:	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.78e+006
Manual Modification	No
Amount:	42.6 (ng/mL)
% Accuracy:	107.00



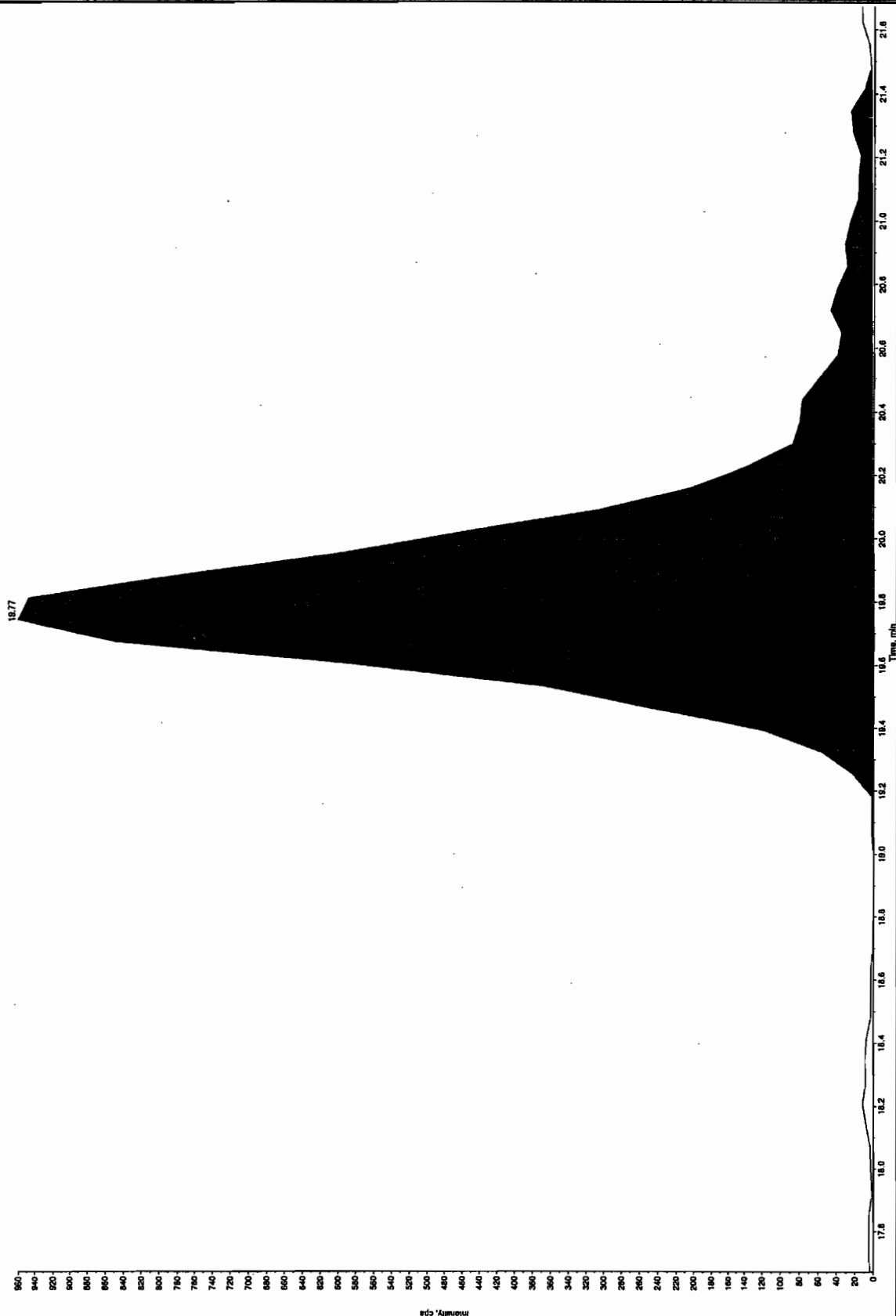
Compound Name:	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	14.3
Area Counts:	9.47e+004
Manual Modification	Yes
Amount:	37.9 (ng/mL)
% Accuracy:	94.80



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.7
Area Counts:	4.60e+004
Manual Modification	No
Amount:	44.7 (ng/mL)
% Accuracy:	112.00



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.9
Area Counts:	2.52e+004
Manual Modification	No
Amount:	46.3 (ng/mL)
% Accuracy:	116.00



Sample Name: WXYZ10015-57CH1 Sample ID: T1LER File: EXP0415032.wif  
 Peak Name: T1LER  
 Count: 1  
 Concentration: 40.0 ng/mL  
 Acq. Date: 4/15/2010  
 Acq. Time: 11:31:31 PM  
 Modified: No  
 Pres. Algorithm: Intelligent - IQA  
 Min Peak Height: 100.00 cps  
 Min Peak Width: 0.00 sec  
 RT Tolerance: 0.00 min  
 RT Window: 60.0 sec  
 Expected RT: 19.7 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 18.77 min  
 Area: 3.03e+004 counts  
 Height: 9.39e+002 cps  
 Ret. Time: 18.77 min  
 End Time: 21.5 min

Before Jan 4/23/10

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/23/10

Sample Name: WXX00115-0701 Sample ID: 11111111 File: EXP00115032.wif

Peak Name: "PE1(N" Mass(es): 381.1822.0 amu

Comment: "LCMSDEUP\_C" Annotation: "

Sample Index: 1

Concentration: 40.0 ng/mL

Calculated Conc: 46.6 ng/mL

Acq. Date: 4/15/2010

Acq. Time: 11:11:11 PM

Modified: Yes

RT Window: 60.0 sec

Unscheduled RT: No

Injection Type: Manual

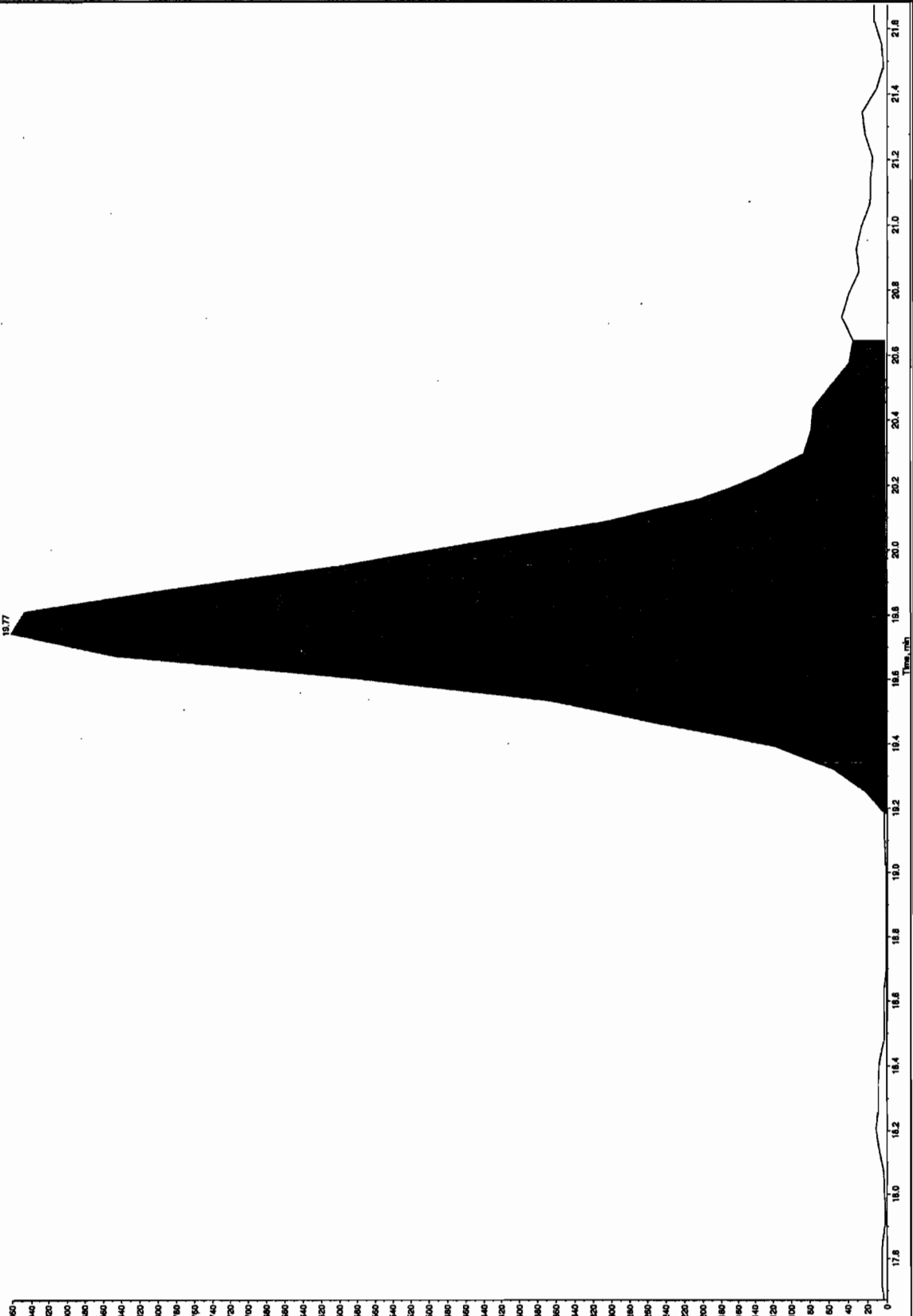
Injection Time: 13.2 min

Retention Time: 2.928-3.04 min

Heads: 3.59e+002 cps

End Time: 13.2 min

End Date: 20.6 min



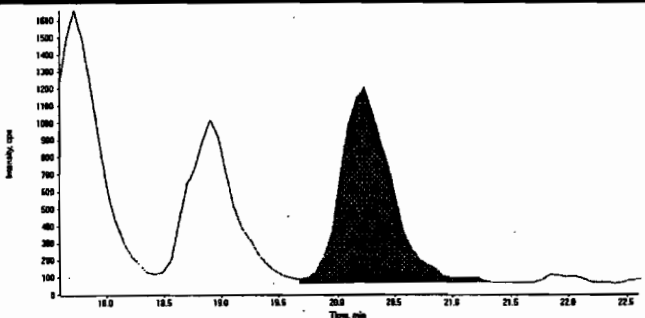
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

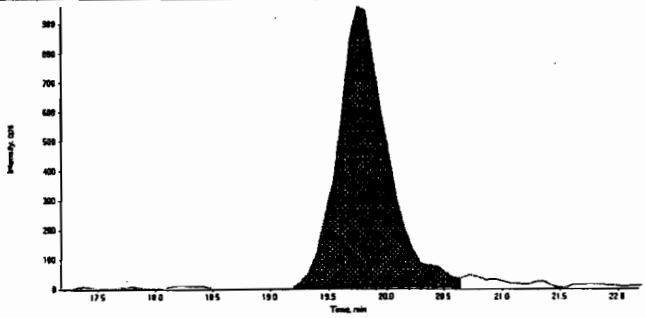
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415032.wiff	<b>Acquisition Date</b>	4/15/2010 11:31:31 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	20.2
	<b>Area Counts:</b>	3.52e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	44.7 (ng/mL)
	<b>% Accuracy:</b>	112.00

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	19.8
	<b>Area Counts:</b>	2.92e+004
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	46.6 (ng/mL)
	<b>% Accuracy:</b>	116.00



GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/15/10  
 Time of Injection 2331  
 Standard Number WXX100415-57CRI  
 Data File EXP0415032a

HMX	121.0
RDX	104.0
135-Trinitrobenzene	100.0
13-Dinitrobenzene	109.0
Tetryl	103.0
246-Trinitrotoluene	101.0
Nitrobenzene	119.0
34-dinitrotoluene	85.8
26-dinitrotoluene	84.0
24-dinitrotoluene	71.5
4-Amino-26-dinitrotoluene	107.0
2-Amino-46-dinitrotoluene	94.8
2-Nitrotoluene	112.0
4-Nitrotoluene	116.0
3-Nitrotoluene	112.0
PETN	116.0

TOTAL

✓ 1656.1 *done 04/27/10*

AVERAGE

✓ 103.5	ICV Limits 85-115%
	CRI Limits 70-130%
	CCV Limits 85-115%
No single analyte > +/- 60%	

*San  
4/27/10*

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0415043.wiff

Analysis Date: 16-APR-10 04:17

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	653	109	
2,4,6-Trinitrotoluene	600	588	98	
2,4-Dinitrotoluene	600	592	99	
2,6-Dinitrotoluene	600	572	95	
2-Amino-4,6-dinitrotoluene	600	602	100	
3,4-Dinitrotoluene	300	261	87	
4-Amino-2,6-dinitrotoluene	600	624	104	
HMX	600	608	101	
Nitrobenzene	600	628	105	
PETN	600	756	126	
RDX	600	680	113	
Tetryl	600	640	107	
m-Dinitrobenzene	600	588	98	
m-Nitrotoluene	600	568	95	
o-Nitrotoluene	600	584	97	
p-Nitrotoluene	600	660	110	

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%

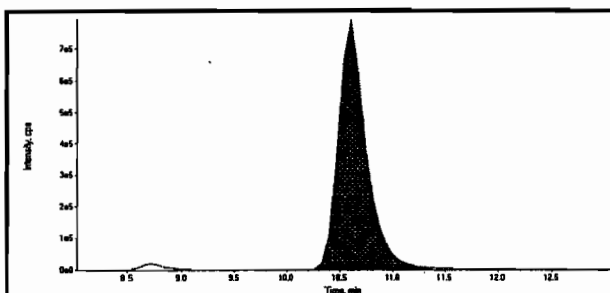
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321 A-Modified

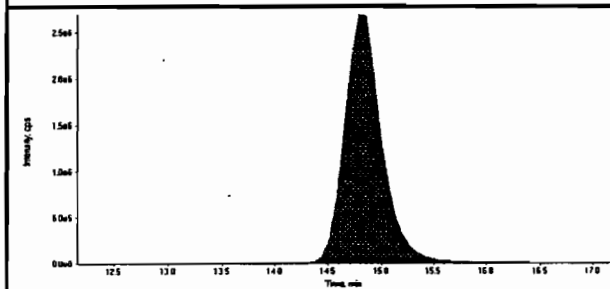
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415043.wiff	Acquisition Date	4/16/2010 4:17:22 AM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



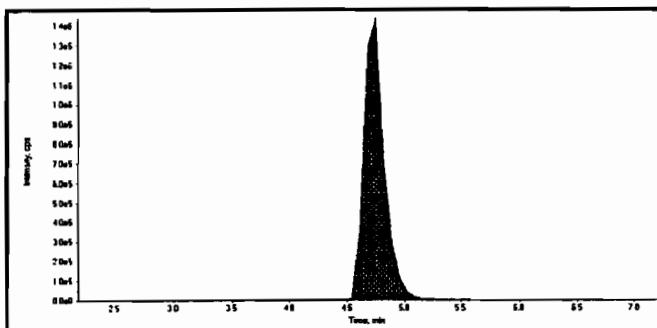
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	14500000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

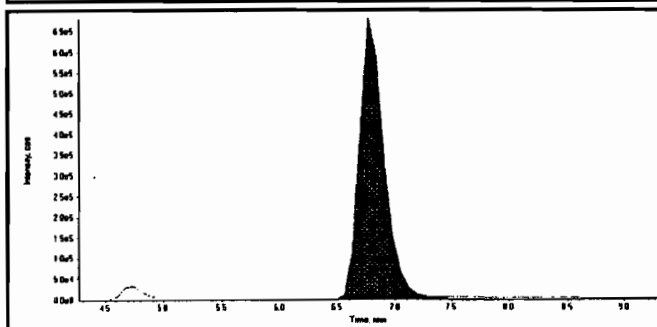


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	66000000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	1.81e+007
Manual Modification	No
Amount:	608. (ng/mL)
% Accuracy:	101.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.02e+007
Manual Modification	No
Amount:	680. (ng/mL)
% Accuracy:	113.00

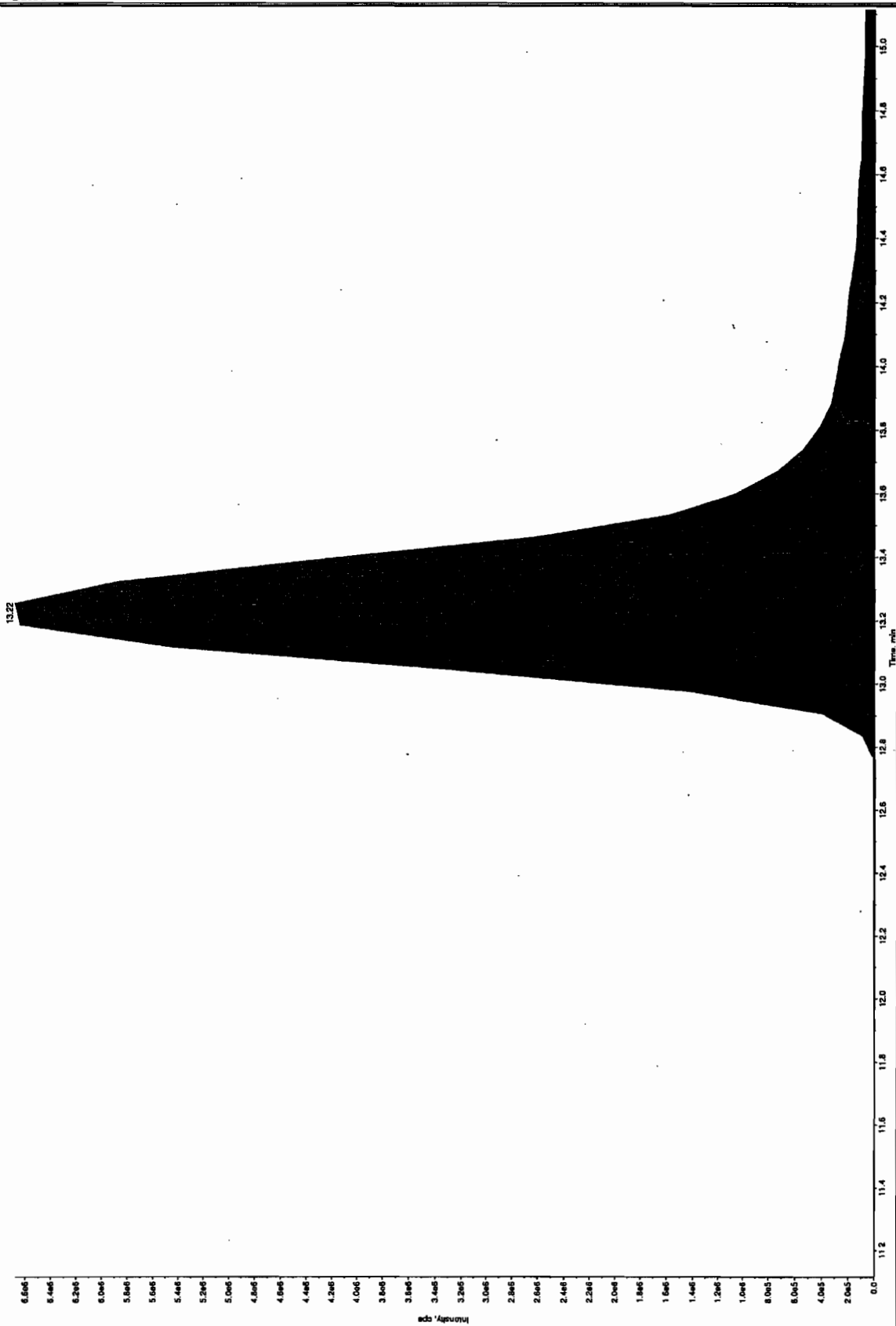
*Hum*  
04/23/10

*Lar*  
4/23/10

Began Jan 4/23/10

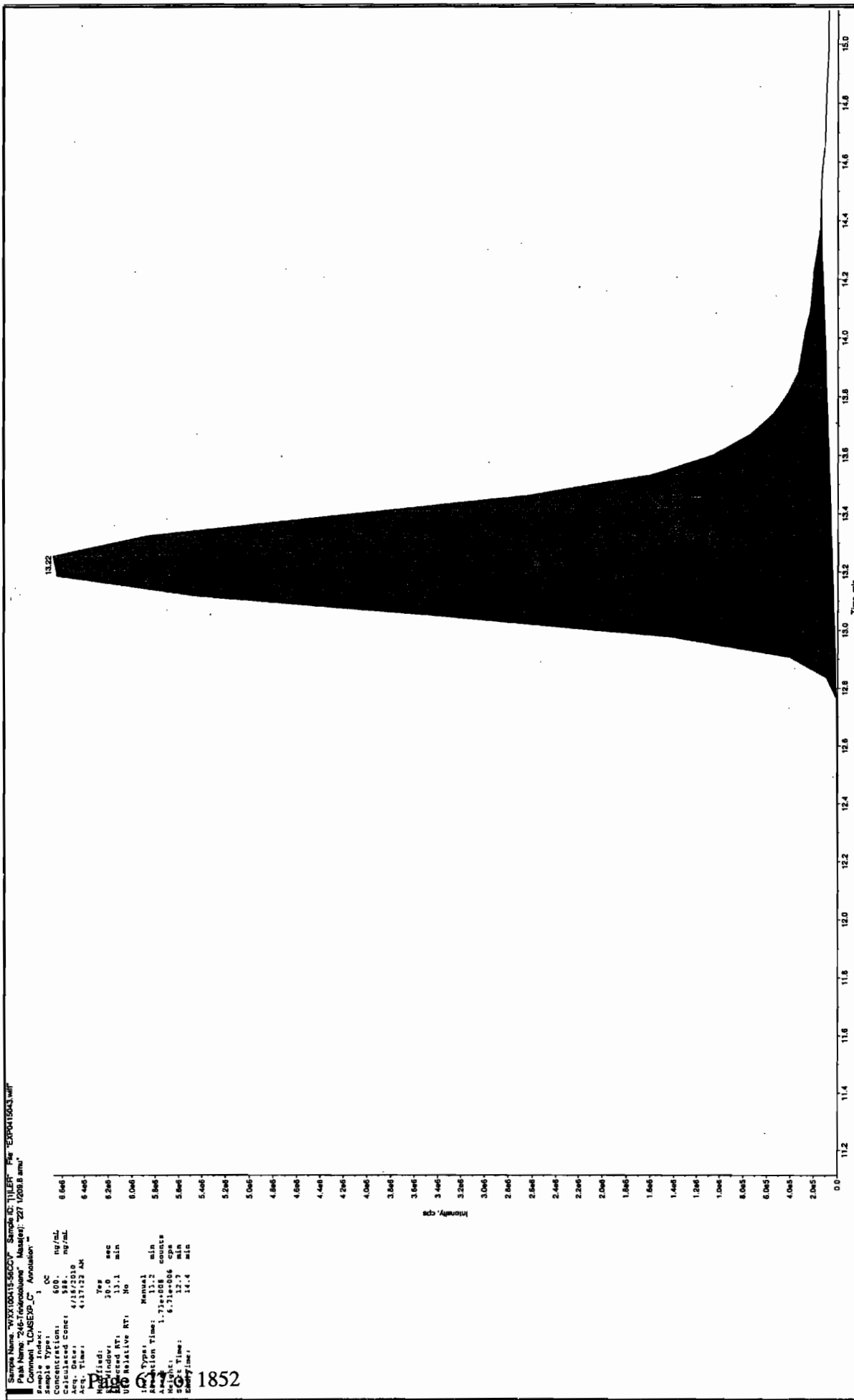
Sample Name: WXYZ10015-50005 Sample ID: JULEY File: E590415043.wif  
 Acquisition Method: 2017.1029.8.mtd  
 Count: LCMSMS\_C1 Annotation: "

Sample Index: 6505  
 Concentration: 6505 ng/mL  
 Acquisition Date: 4/16/2010  
 Acquisition Time: 4:17:22 AM  
 Peak Height: 1000.00 cps  
 Peak Width: 0.00 sec  
 Peak Area: 10.0 cps  
 Peak RT: 13.1 min  
 Peak Type: Valley  
 Retention Time: 13.1 min  
 Peak Height: 1000.00 cps  
 Peak Width: 0.00 sec  
 Peak Area: 10.0 cps  
 Peak RT: 13.1 min  
 Peak Type: Valley  
 Retention Time: 13.1 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/23/60



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415043.wiff	<b>Acquisition Date</b>	4/16/2010 4:17:22 AM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	9.07
	<b>Area Counts:</b>	1.10e+008
	<b>Manual Modification</b>	No
	<b>Amount:</b>	653. (ng/mL)
	<b>% Accuracy:</b>	109.00

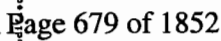
	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	4.60e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	588. (ng/mL)
	<b>% Accuracy:</b>	98.00

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.8
	<b>Area Counts:</b>	4.25e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	640. (ng/mL)
	<b>% Accuracy:</b>	107.00

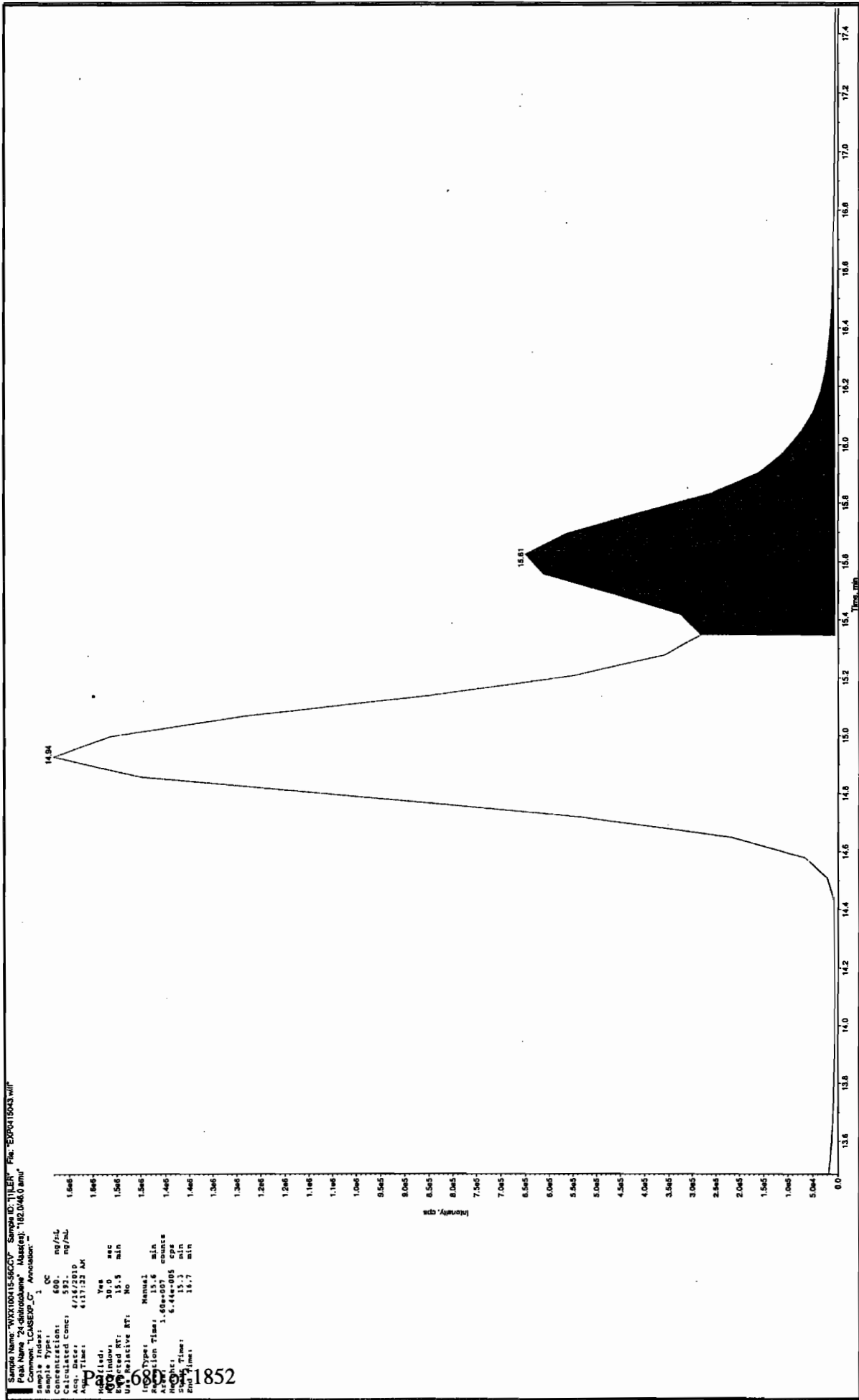
  

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	1.73e+008
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	588. (ng/mL)
	<b>% Accuracy:</b>	98.00



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/23/10



Sample Name: WXX100415-5620V Sample ID: 11187 File: E00415043.wif

Peak Name: 24-dinitrophenol Masses: 182.0460 amu

Comment: LCMSEXP\_C Annotation: -

Sample Index: 1

Sample Type: GC

Concentration: 500 ng/mL

Acq. Date: 4/24/2010

Acq. Time: 4:11:32 AM

Injection Volume: 1.000

Injection Type: Manual

Retention Time: 15.6 min

Acquisition Time: 1.460

Acquisition Rate: 1.460

Start Time: 15.3 min

End Time: 16.7 min

Page 600 of 1852

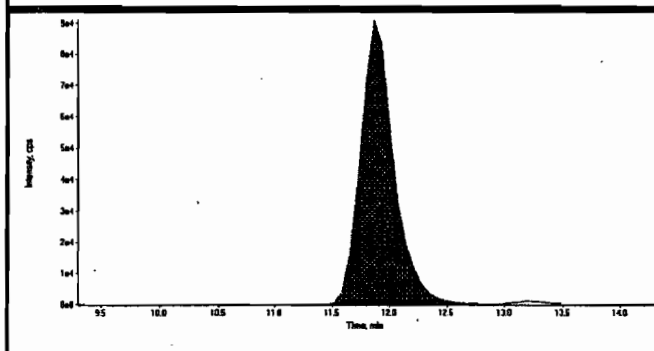
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



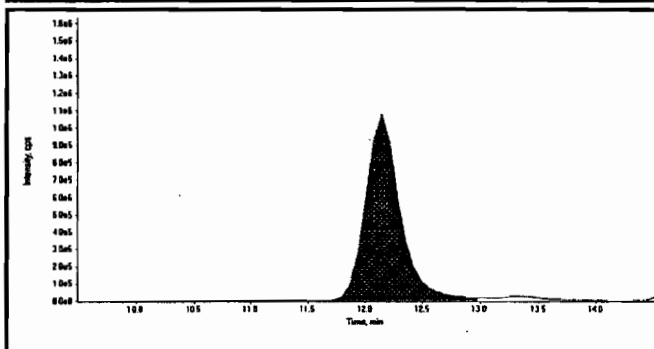
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

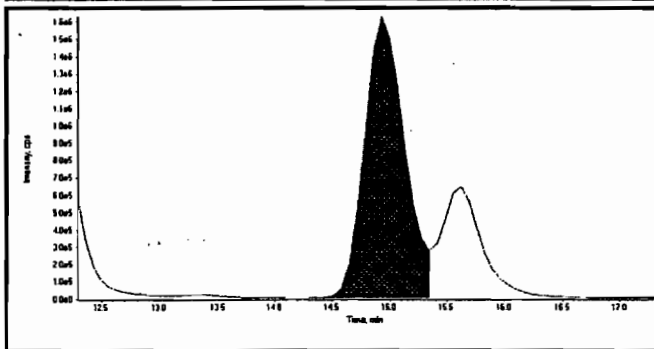
Data File	EXP0415043.wiff	Acquisition Date	4/16/2010 4:17:22 AM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



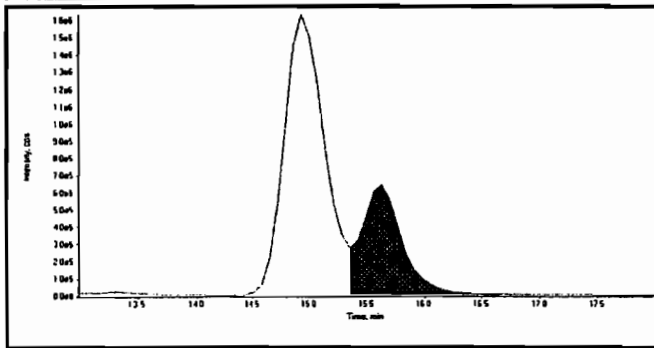
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	1.86e+006
Manual Modification	No
Amount:	628. (ng/mL)
% Accuracy:	105.00



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	2.26e+007
Manual Modification	No
Amount:	261. (ng/mL)
% Accuracy:	86.90

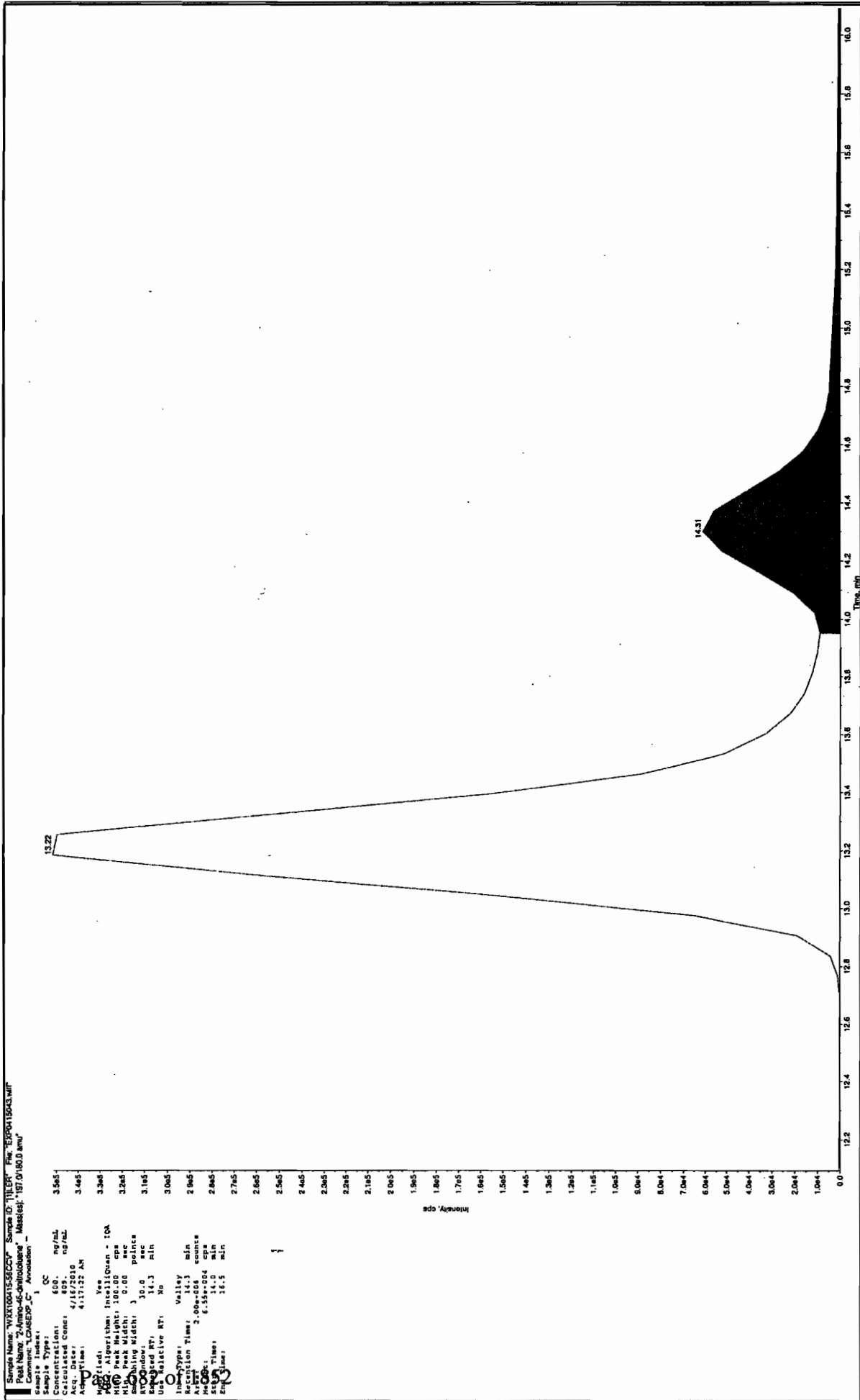


Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	4.02e+007
Manual Modification	No
Amount:	572. (ng/mL)
% Accuracy:	95.30

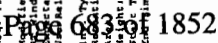


Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.6
Area Counts:	1.60e+007
Manual Modification	Yes
Amount:	592. (ng/mL)
% Accuracy:	98.60

Before Run 4/23/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



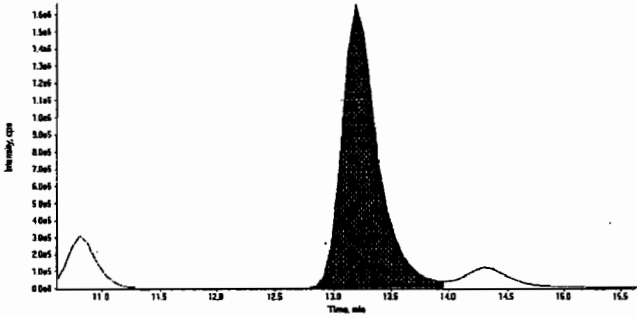
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

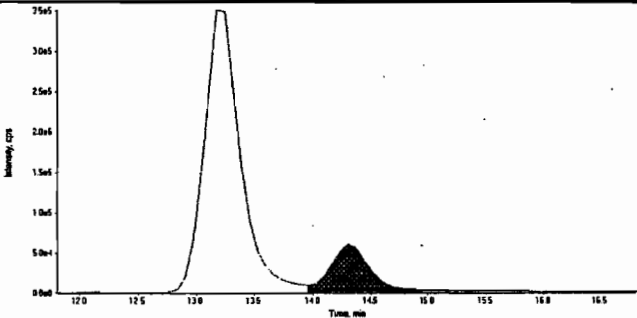
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415043.wiff	<b>Acquisition Date</b>	4/16/2010 4:17:22 AM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

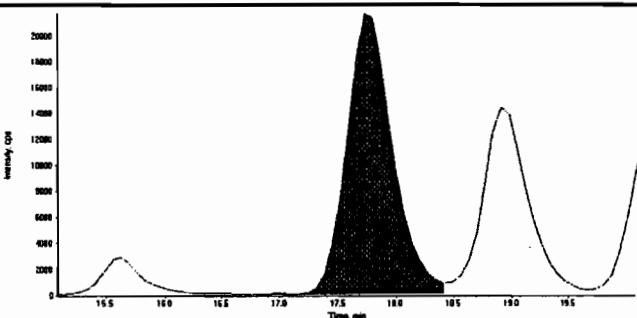
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	3.67e+007
	Manual Modification	No
	Amount:	624. (ng/mL)
	% Accuracy:	104.00

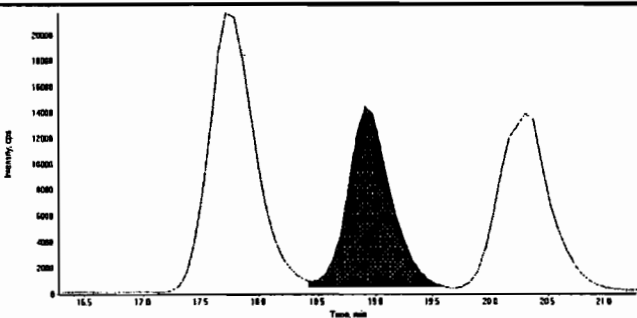
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.3
	Actual RT:	14.3
	Area Counts:	1.49e+006
	Manual Modification	Yes
	Amount:	602. (ng/mL)
	% Accuracy:	100.00

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.7
	Area Counts:	6.10e+005
	Manual Modification	No
	Amount:	584. (ng/mL)
	% Accuracy:	97.30

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.9
	Area Counts:	3.68e+005
	Manual Modification	No
	Amount:	660. (ng/mL)
	% Accuracy:	110.00

Before Scan 4123100

Sample Name: WXX100415-5622V Sample ID: 111ER File: EXP0415043.wif

Cal Name: WXX100415-5622V Sample ID: 111ER File: EXP0415043.wif

Concentration: 400 ng/mL

Acquisition Date: 4/16/2010

Acquisition Time: 4:17:32 AM

Sample Index: 1

Sample Type: DC

Concentration: 400 ng/mL

Acquisition Date: 4/16/2010

Acquisition Time: 4:17:32 AM

Sample Index: 1

Sample Type: DC

Concentration: 400 ng/mL

Acquisition Date: 4/16/2010

Acquisition Time: 4:17:32 AM

Sample Index: 1

Sample Type: DC

Concentration: 400 ng/mL

Acquisition Date: 4/16/2010

Acquisition Time: 4:17:32 AM

Sample Index: 1

Sample Type: DC

Concentration: 400 ng/mL

Acquisition Date: 4/16/2010

Acquisition Time: 4:17:32 AM

Sample Index: 1

Sample Type: DC

Concentration: 400 ng/mL

Acquisition Date: 4/16/2010

Acquisition Time: 4:17:32 AM

Sample Index: 1

Sample Type: DC

Concentration: 400 ng/mL

Acquisition Date: 4/16/2010

Acquisition Time: 4:17:32 AM

Sample Index: 1

Sample Type: DC

Concentration: 400 ng/mL

Acquisition Date: 4/16/2010

Acquisition Time: 4:17:32 AM

Sample Index: 1

Sample Type: DC

Concentration: 400 ng/mL

Acquisition Date: 4/16/2010

Acquisition Time: 4:17:32 AM

Sample Index: 1

Sample Type: DC

Concentration: 400 ng/mL

Acquisition Date: 4/16/2010

Acquisition Time: 4:17:32 AM

Sample Index: 1

Sample Type: DC

Concentration: 400 ng/mL

Acquisition Date: 4/16/2010

Acquisition Time: 4:17:32 AM

Sample Index: 1

Sample Type: DC

Concentration: 400 ng/mL

Acquisition Date: 4/16/2010

Acquisition Time: 4:17:32 AM

Sample Index: 1

Sample Type: DC

Concentration: 400 ng/mL

Acquisition Date: 4/16/2010

Acquisition Time: 4:17:32 AM

Sample Index: 1

Sample Type: DC

Concentration: 400 ng/mL

Acquisition Date: 4/16/2010

Acquisition Time: 4:17:32 AM

Sample Index: 1

Sample Type: DC

Concentration: 400 ng/mL

Acquisition Date: 4/16/2010

Acquisition Time: 4:17:32 AM

Sample Index: 1

Sample Type: DC

Concentration: 400 ng/mL

Acquisition Date: 4/16/2010

Acquisition Time: 4:17:32 AM

Sample Index: 1

Sample Type: DC

Concentration: 400 ng/mL

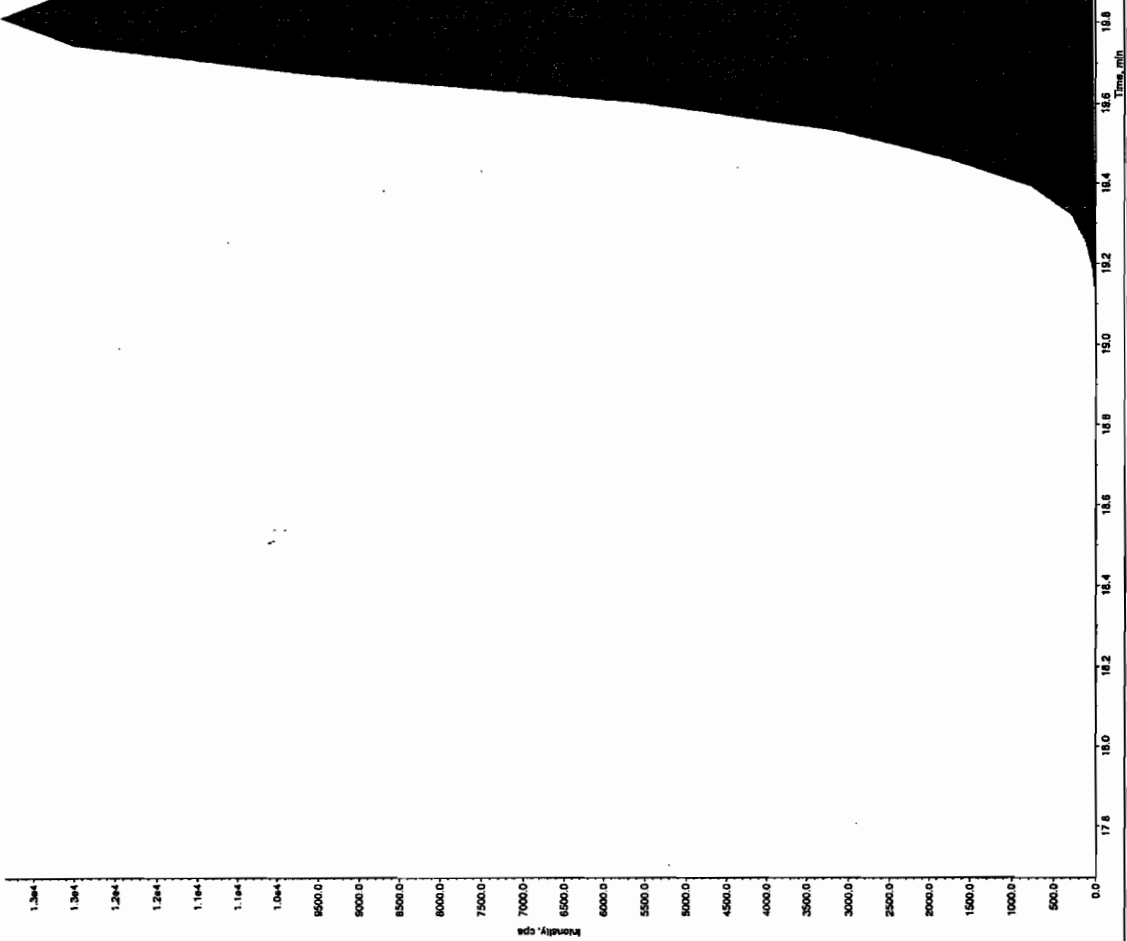
Acquisition Date: 4/16/2010

Acquisition Time: 4:17:32 AM

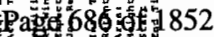
Sample Index: 1

Sample Type: DC

19.81



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

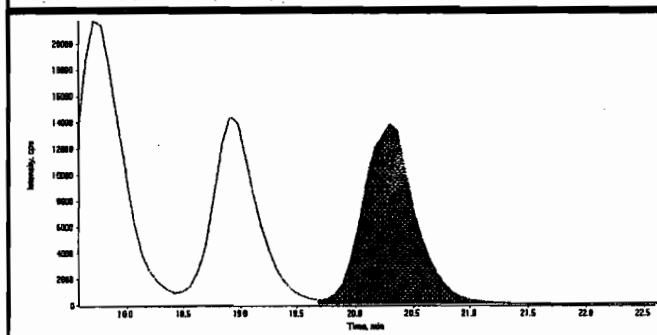


\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#3

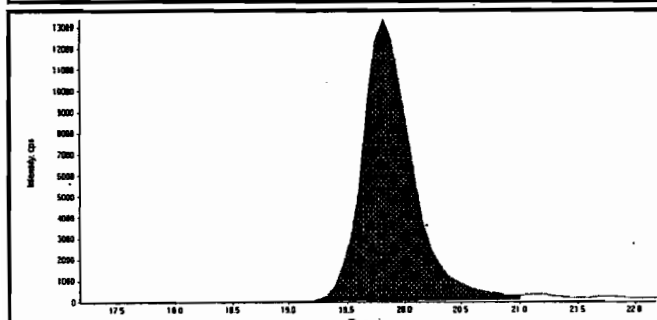
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415043.wiff	Acquisition Date	4/16/2010 4:17:22 AM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.3
Area Counts:	4.46e+005
Manual Modification	No
Amount:	568. (ng/mL)
% Accuracy:	94.70



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.8
Area Counts:	4.06e+005
Manual Modification	Yes
Amount:	756. (ng/mL)
% Accuracy:	126.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/16/10  
 Time of Injection 0417  
 Standard Number WXX100415-56CCV  
 Data File EXP0415043a

HMX	101.0
RDX	113.0
135-Trinitrobenzene	109.0
13-Dinitrobenzene	98.0
Tetryl	107.0
246-Trinitrotoluene	98.0
Nitrobenzene	105.0
34-dinitrotoluene	86.9
26-dinitrotoluene	95.3
24-dinitrotoluene	98.6
4-Amino-26-dinitrotoluene	104.0
2-Amino-46-dinitrotoluene	100.0
2-Nitrotoluene	97.3
4-Nitrotoluene	110.0
3-Nitrotoluene	94.7
PETN	126.0

TOTAL

✓ 1643.8

*hmm 04/23/10*

AVERAGE

✓ 102.7

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Jan 4/23/10*



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415045.wiff

Analysis Date: 16-APR-10 05:09

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	40.2	100	
2,4,6-Trinitrotoluene	40	39.1	98	
2,4-Dinitrotoluene	40	34.2	86	
2,6-Dinitrotoluene	40	32.6	82	
2-Amino-4,6-dinitrotoluene	40	38.6	97	
3,4-Dinitrotoluene	20	18.2	91	
4-Amino-2,6-dinitrotoluene	40	41.4	104	
HMX	40	45.4	114	
Nitrobenzene	40	46.4	116	
PETN	40	47.4	118	
RDX	40	44.6	112	
Tetryl	40	43.3	108	
m-Dinitrobenzene	40	44.3	111	
m-Nitrotoluene	40	44.7	112	
o-Nitrotoluene	40	43.9	110	
p-Nitrotoluene	40	46.7	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 50-150%

Other Target Analytes 70-130%

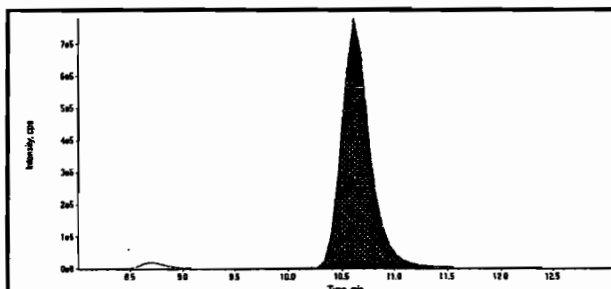
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

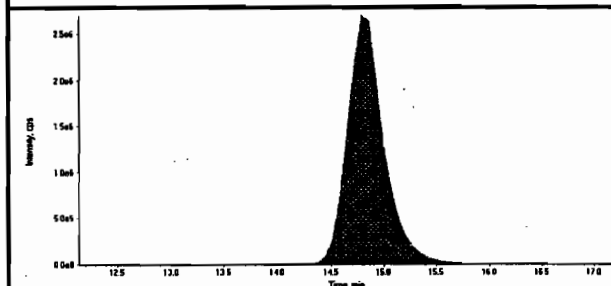
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

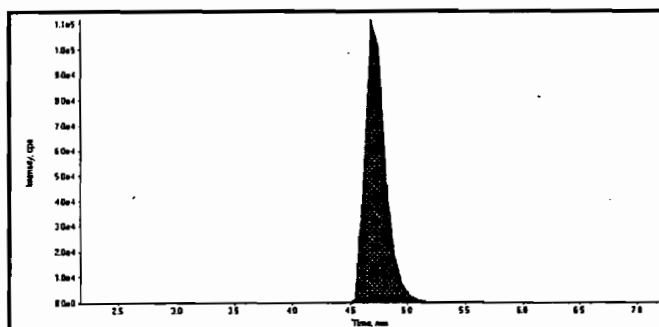
Data File	EXP0415045.wiff	Acquisition Date	4/16/2010 5:09:20 AM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



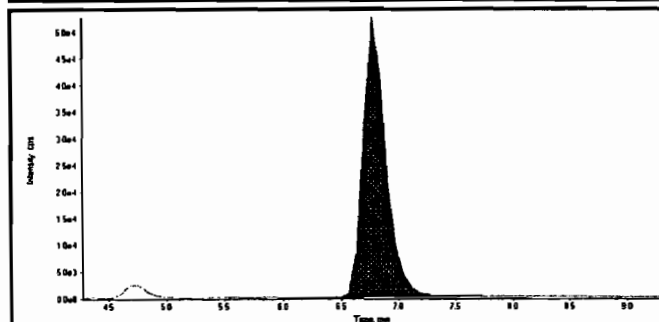
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	14700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	65400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.41e+006
Manual Modification	No
Amount:	45.4 (ng/mL)
% Accuracy:	114.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	7.44e+005
Manual Modification	No
Amount:	44.6 (ng/mL)
% Accuracy:	112.00

*shmc  
04/23/10  
Lar  
4/23/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415045.wiff	<b>Acquisition Date</b>	4/16/2010 5:09:20 AM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	9.07
	<b>Area Counts:</b>	9.42e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	40.2 (ng/mL)
	<b>% Accuracy:</b>	100.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	3.73e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	44.3 (ng/mL)
	<b>% Accuracy:</b>	111.00

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.8
	<b>Area Counts:</b>	2.91e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	43.3 (ng/mL)
	<b>% Accuracy:</b>	108.00

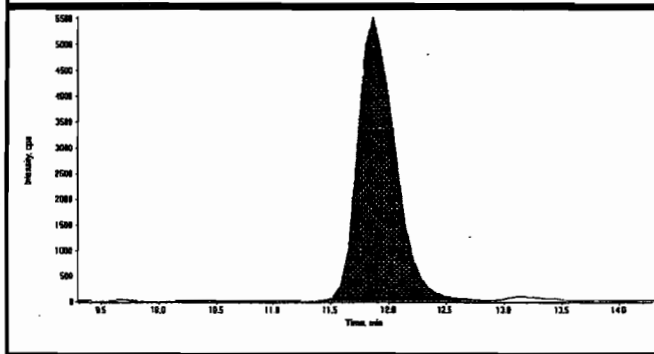
  

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	1.74e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	39.1 (ng/mL)
	<b>% Accuracy:</b>	97.70

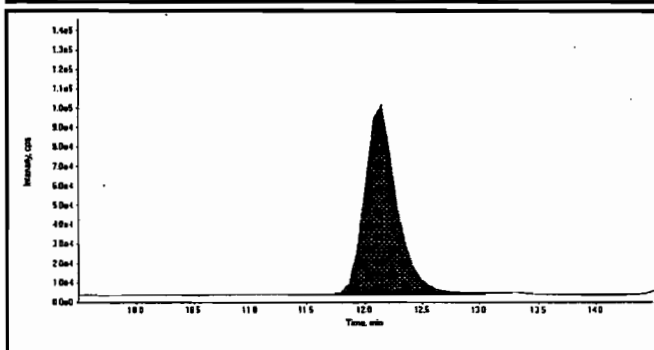
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

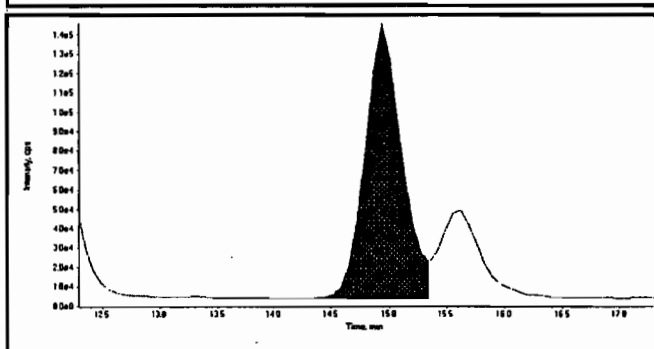
Data File	EXP0415045.wiff	Acquisition Date	4/16/2010 5:09:20 AM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



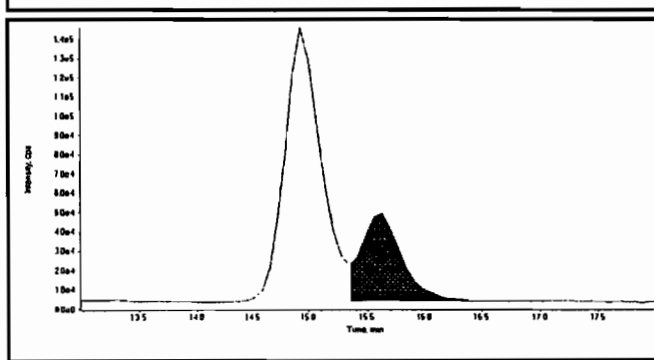
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	1.25e+005
Manual Modification	No
Amount:	46.4 (ng/mL)
% Accuracy:	116.00



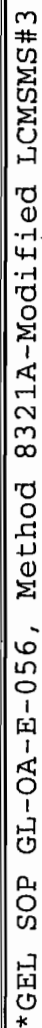
Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	1.93e+006
Manual Modification	No
Amount:	18.2 (ng/mL)
% Accuracy:	90.90



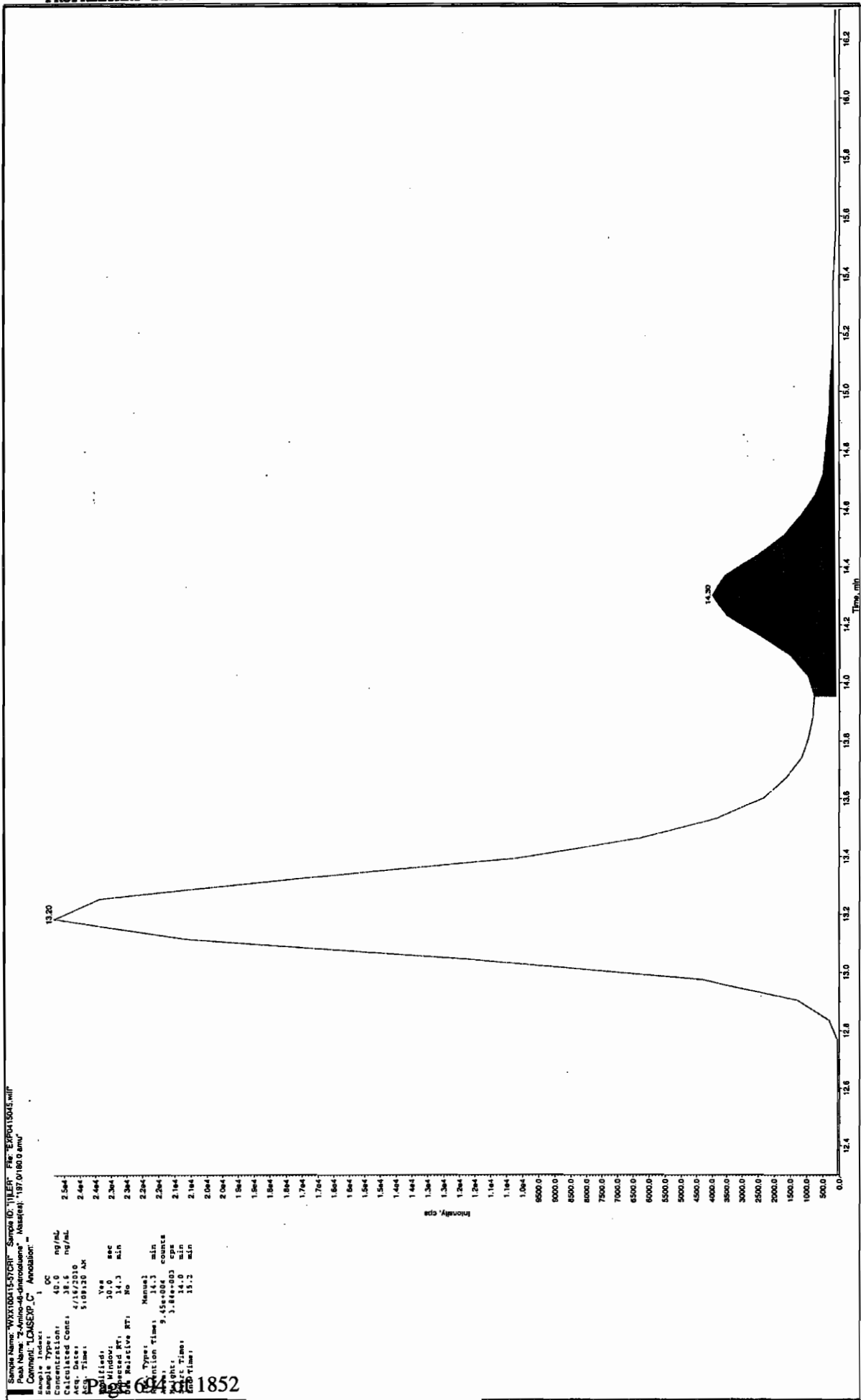
Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	3.18e+006
Manual Modification	No
Amount:	32.6 (ng/mL)
% Accuracy:	81.50



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.6
Area Counts:	1.19e+006
Manual Modification	No
Amount:	34.2 (ng/mL)
% Accuracy:	85.50



after Ran 4/23/10



Sample Name: WXX000153701R Sample ID: T11ER File: EXP015045.wif  
Peak Name: 2-Amino-6-chloroquinoline Mass(es): 197.01800 amu  
Comment: LONCEP\_C Annotation: -

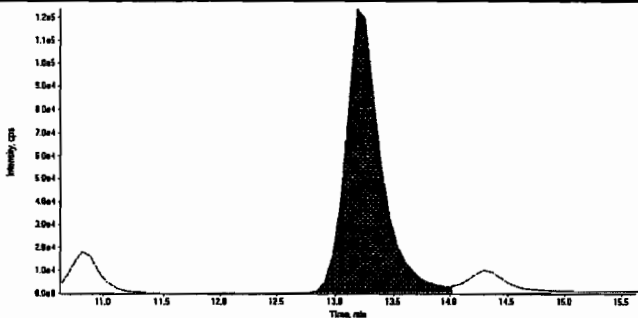
1 QC  
Concentration: 40.0 ng/mL  
Calculated Conc: 39.8 ng/mL  
Sample Type: 4/1/2010  
Acq. Date: 5/09/10 AM  
Acq. Time: 2:44:24  
Yrs: 10  
Mths: 04  
Dys: 14  
Rel. RT: 14.3 min  
No. 2344  
Type: Manual  
Acquisition time: 14.3 min  
Height: 9.45e+004 counts  
Weight: 3.84e+003 cps  
Acq. Time: 14.0 min  
Run Time: 15.5 min

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

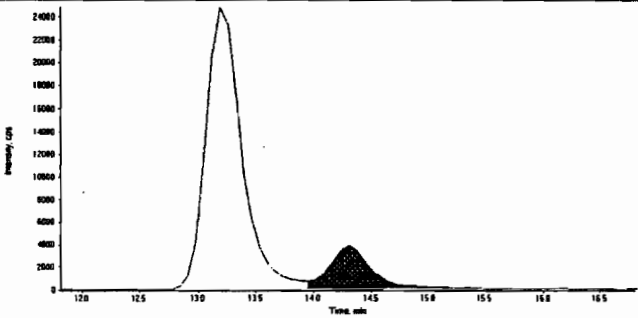
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415045.wiff	<b>Acquisition Date</b>	4/16/2010 5:09:20 AM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

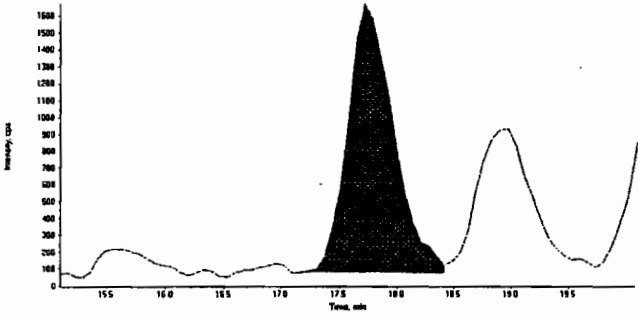
  

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	2.65e+006
	Manual Modification	No
	Amount:	41.4 (ng/mL)
	% Accuracy:	104.00

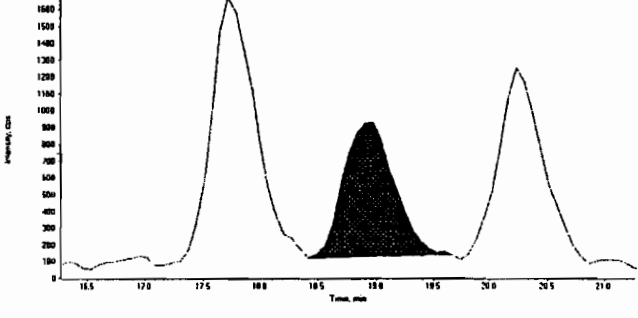
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.3
	Actual RT:	14.3
	Area Counts:	9.45e+004
	Manual Modification	Yes
	Amount:	38.6 (ng/mL)
	% Accuracy:	96.60

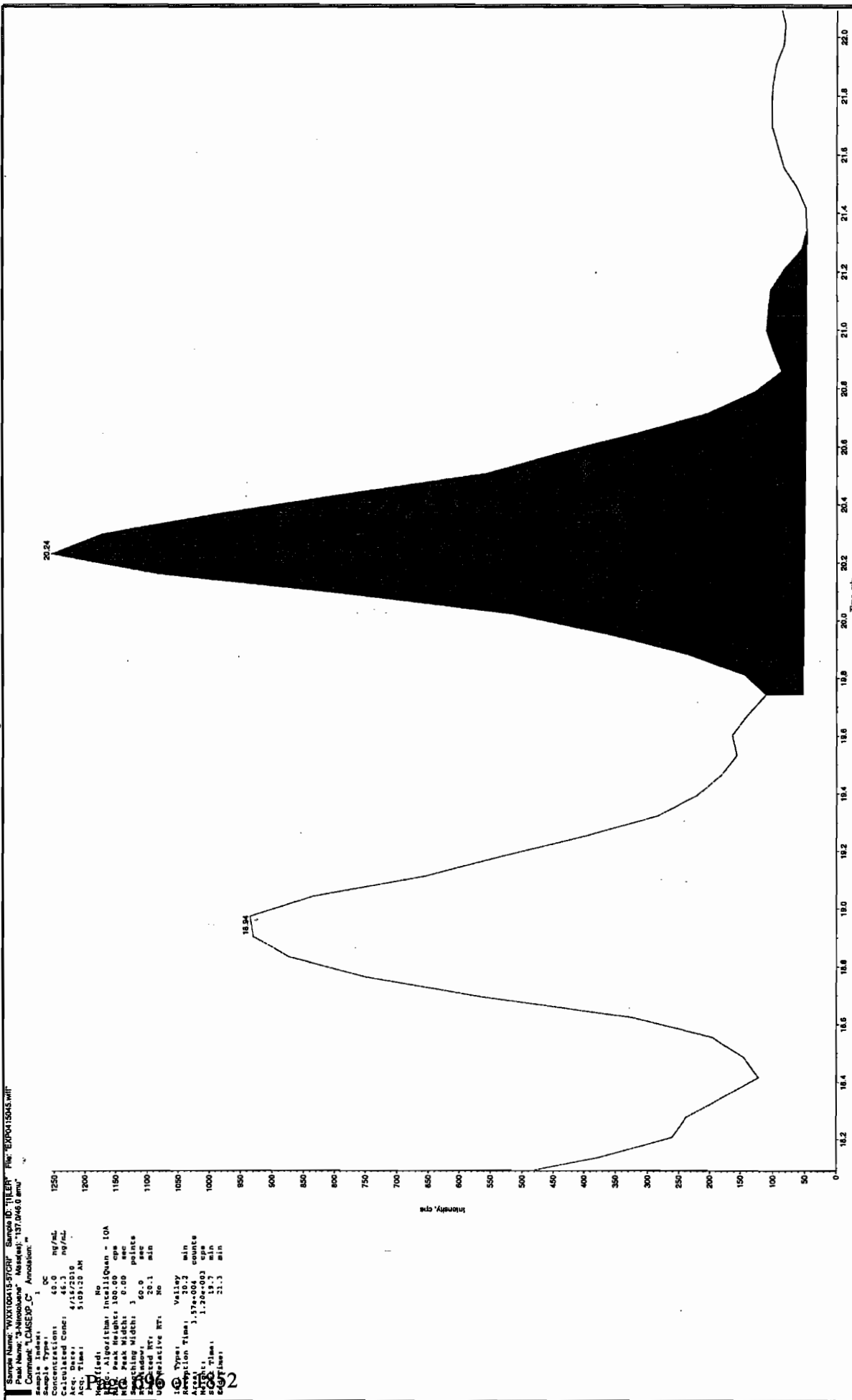
  

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.7
	Area Counts:	4.42e+004
	Manual Modification	No
	Amount:	43.9 (ng/mL)
	% Accuracy:	110.00

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	19.0
	Area Counts:	2.49e+004
	Manual Modification	No
	Amount:	46.7 (ng/mL)
	% Accuracy:	117.00

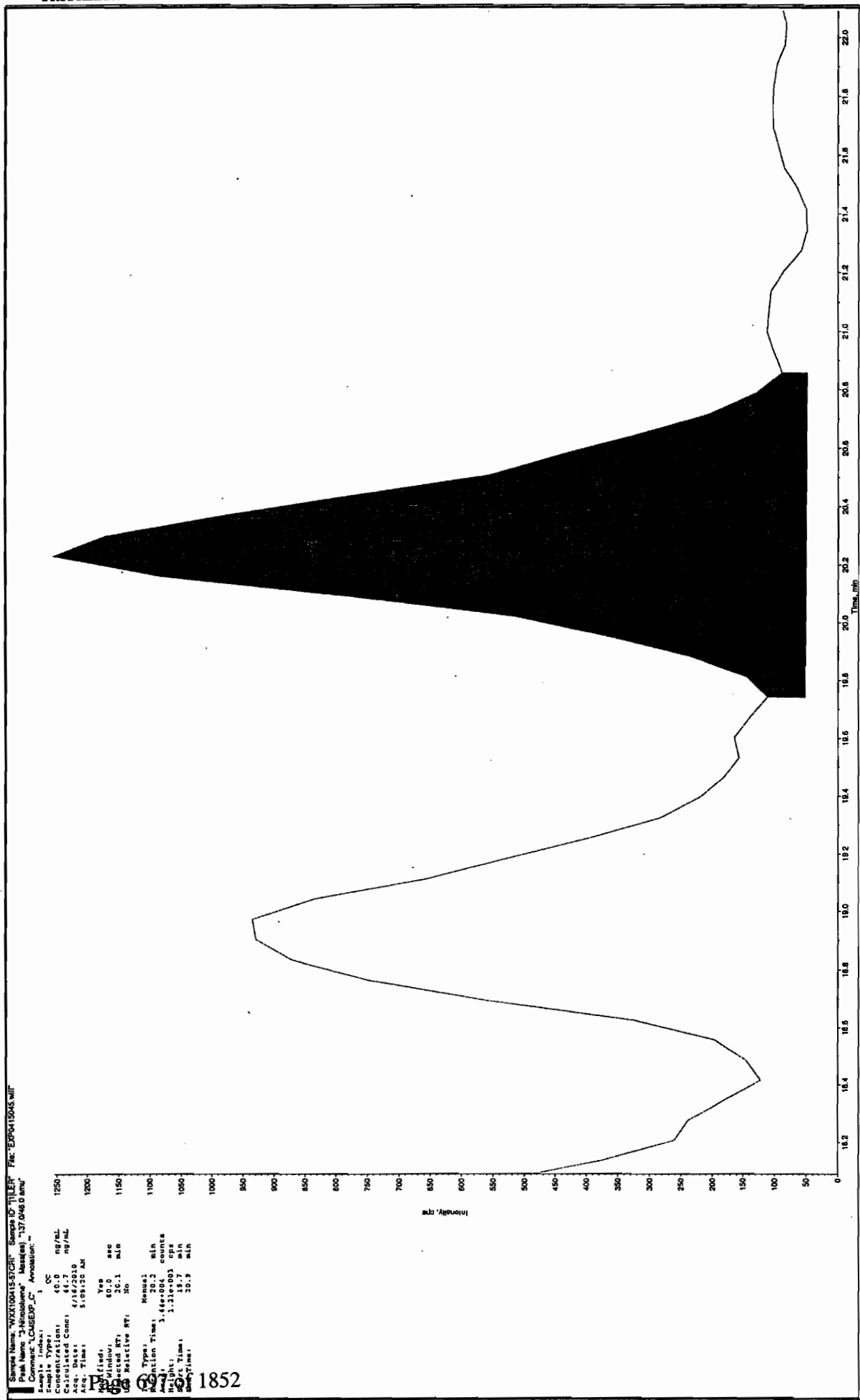
Before Jan 4/23/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



after Dec 4/23/10



Sample Name: WXX100415-57C11 Sample ID: 111111 File: EXP0415045.will  
Peak Name: "3-Methylolurea" Mass(es): "137.046 0 amu"  
Comment: "LCMS-EXP\_C" Annotation: --

Sample Index: 1 QC  
Concentration: 40.0 ng/mL  
Calculated Conc: 44.7 ng/mL  
Acq. Date: 11/19/2010  
Acq. Time: 5:09:12 AM  
Verified: Yes  
No Window: 100%  
No Relative RT: 20.1 min  
Type: Manual  
Injection Time: 3.44e+004 counts  
Height: 1.21e+003 cps  
Acq. Time: 19.7 min  
Entry Time: 20.3 min

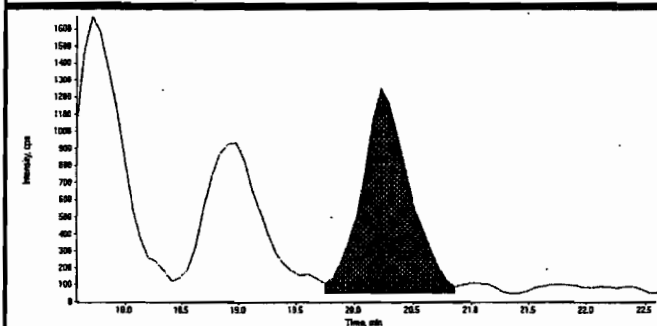
1852

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

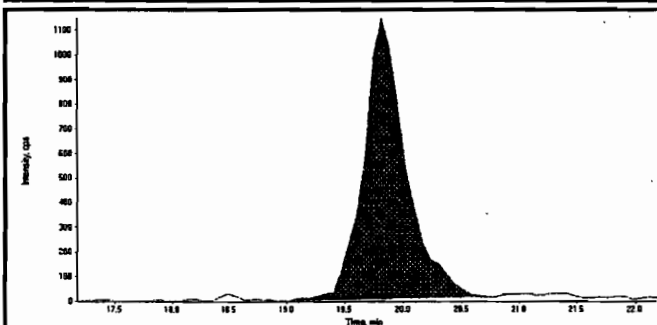
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415045.wiff	Acquisition Date	4/16/2010 5:09:20 AM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	3.44e+004
Manual Modification	Yes
Amount:	44.7 (ng/mL)
% Accuracy:	112.00



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.8
Area Counts:	2.90e+004
Manual Modification	No
Amount:	47.4 (ng/mL)
% Accuracy:	118.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/16/10  
 Time of Injection 0509  
 Standard Number WXX100415-57CRI  
 Data File EXP0415045a

HMX	114.0
RDX	112.0
135-Trinitrobenzene	100.0
13-Dinitrobenzene	111.0
Tetryl	108.0
246-Trinitrotoluene	97.7
Nitrobenzene	116.0
34-dinitrotoluene	90.9
26-dinitrotoluene	81.5
24-dinitrotoluene	85.5
4-Amino-26-dinitrotoluene	104.0
2-Amino-46-dinitrotoluene	96.6
2-Nitrotoluene	110.0
4-Nitrotoluene	117.0
3-Nitrotoluene	112.0
PETN	118.0

TOTAL

✓ 1674.2

*hmm 04/23/10*

AVERAGE

✓ 104.6

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

*for 4/23/10*

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0415056.wiff

Analysis Date: 16-APR-10 09:54

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	636	106	
2,4,6-Trinitrotoluene	600	617	103	
2,4-Dinitrotoluene	600	623	104	
2,6-Dinitrotoluene	600	588	98	
2-Amino-4,6-dinitrotoluene	600	632	105	
3,4-Dinitrotoluene	300	292	97	
4-Amino-2,6-dinitrotoluene	600	685	114	
HMX	600	662	110	
Nitrobenzene	600	573	96	
PETN	600	719	120	
RDX	600	704	117	
Tetryl	600	674	112	
m-Dinitrobenzene	600	560	93	
m-Nitrotoluene	600	648	108	
o-Nitrotoluene	600	647	108	
p-Nitrotoluene	600	696	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 70-130%

Other Target Analytes 80-120%

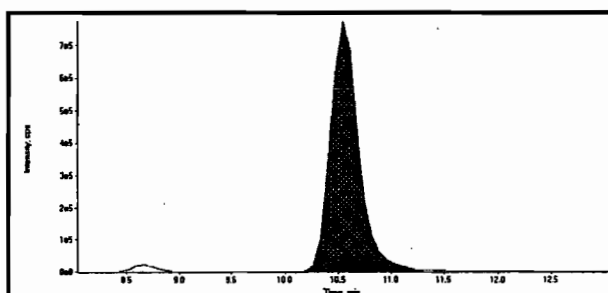
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

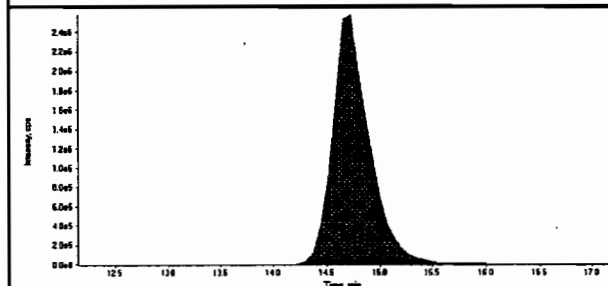
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415056.wiff	Acquisition Date	4/16/2010 9:54:54 AM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



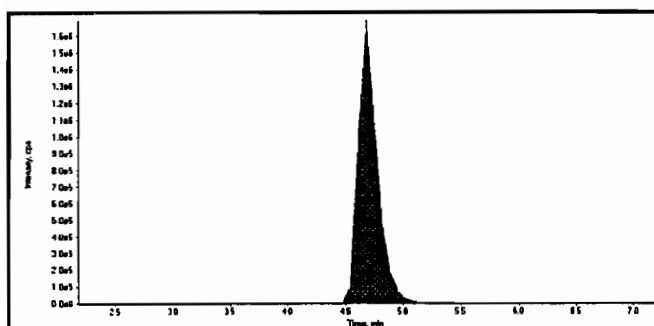
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	14500000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

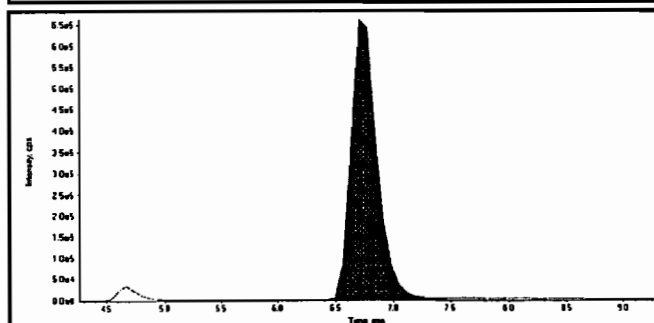


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	62300000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.96e+007
Manual Modification	No
Amount:	662. (ng/mL)
% Accuracy:	110.00

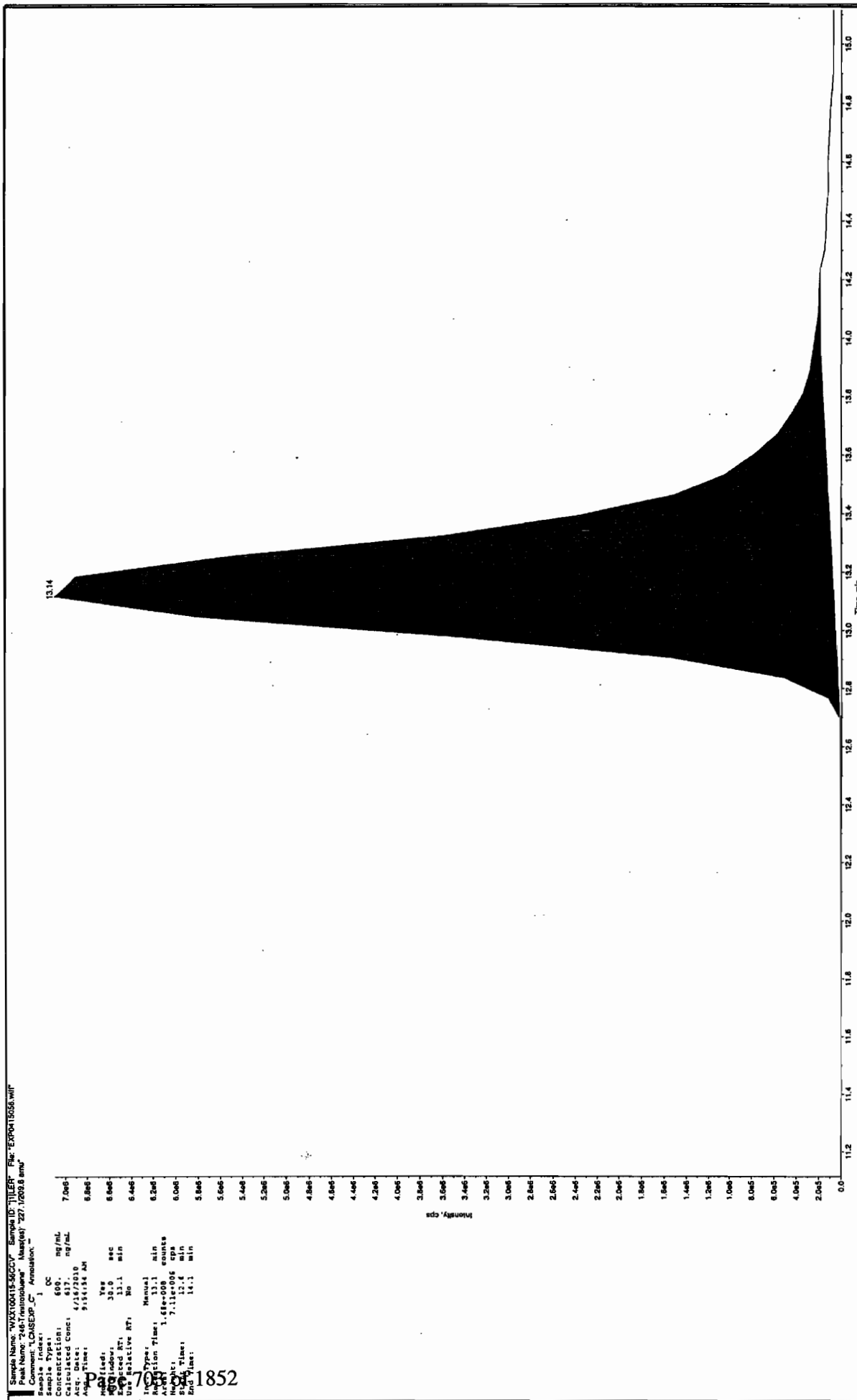


Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.70
Area Counts:	1.05e+007
Manual Modification	No
Amount:	704. (ng/mL)
% Accuracy:	117.00

*Handwritten notes:*  
HMX 04/23/10  
LER 4/23/10



after Jan 4/23/10



Sample Name: "WXX1004115-56C0" Sample ID: "111111" File: "EXP041556.wif"

Peak Name: "246-Triethylamine" Mass(es): "227.1209.8 amu"

Comment: "LCMS-EXP\_C" Annotation: "1 QC"

Sample Type: "1 QC"

Concentration: 600, ng/mL

Calculated Conc: 417, ng/mL

Acq. Date: 4/14/2010

Acq. Time: 9:14:54 AM

Method: "Yes"

Injection Volume: 33.1 µL

Injection Speed: 33.1 µL/min

Injection Volume: 33.1 µL

Injection Speed: 33.1 µL/min

Injection Volume: 33.1 µL

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Injection Speed: 33.1 µL/min

Injection Volume: 33.1 µL

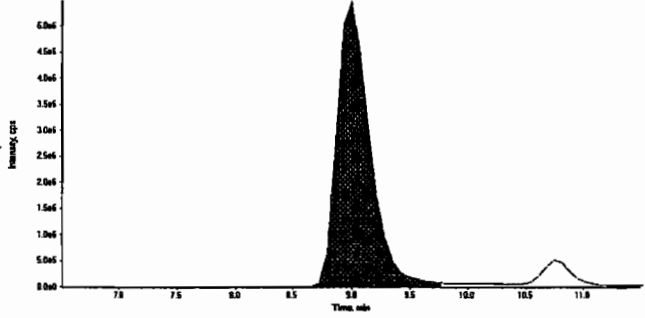
Injection Speed: 33.1 µL/min

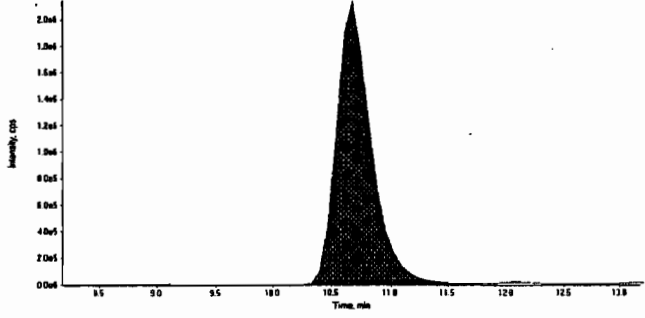
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

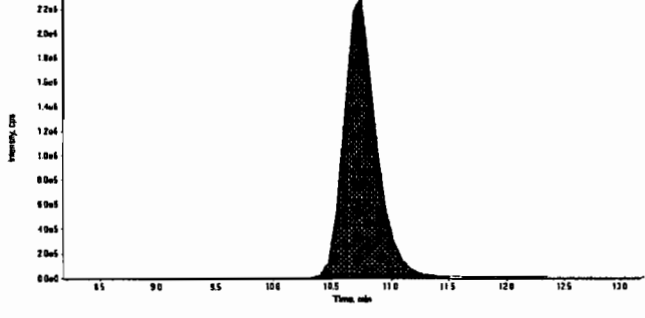
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

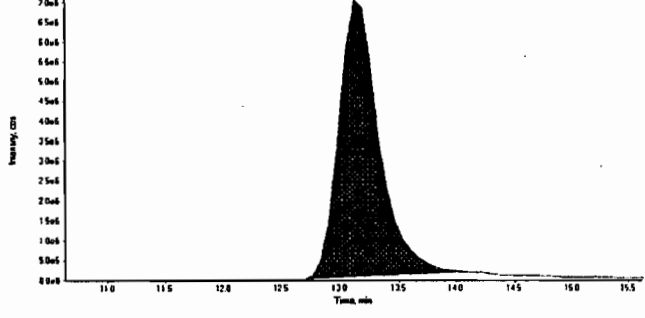
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415056.wiff	Acquisition Date	4/16/2010 9:54:54 AM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch/Dilution/Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	9.00
	Area Counts:	1.08e+008
	Manual Modification	No
	Amount:	636. (ng/mL)
	% Accuracy:	106.00

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	4.41e+007
	Manual Modification	No
	Amount:	560. (ng/mL)
	% Accuracy:	93.40

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	4.45e+007
	Manual Modification	No
	Amount:	674. (ng/mL)
	% Accuracy:	112.00

	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	1.68e+008
	Manual Modification	Yes
	Amount:	617. (ng/mL)
	% Accuracy:	103.00



Before Jan 4/2010

Sample Name: "VWXT0015-5600" Sample ID: "1118" File: "EXP015056.wif"

Peak Name: "24-dibromobenzene" Mass(es): "182.046.0 amu"

Comment: "LCMS00\_C" Annotation: "

Sample Type: 1 OC

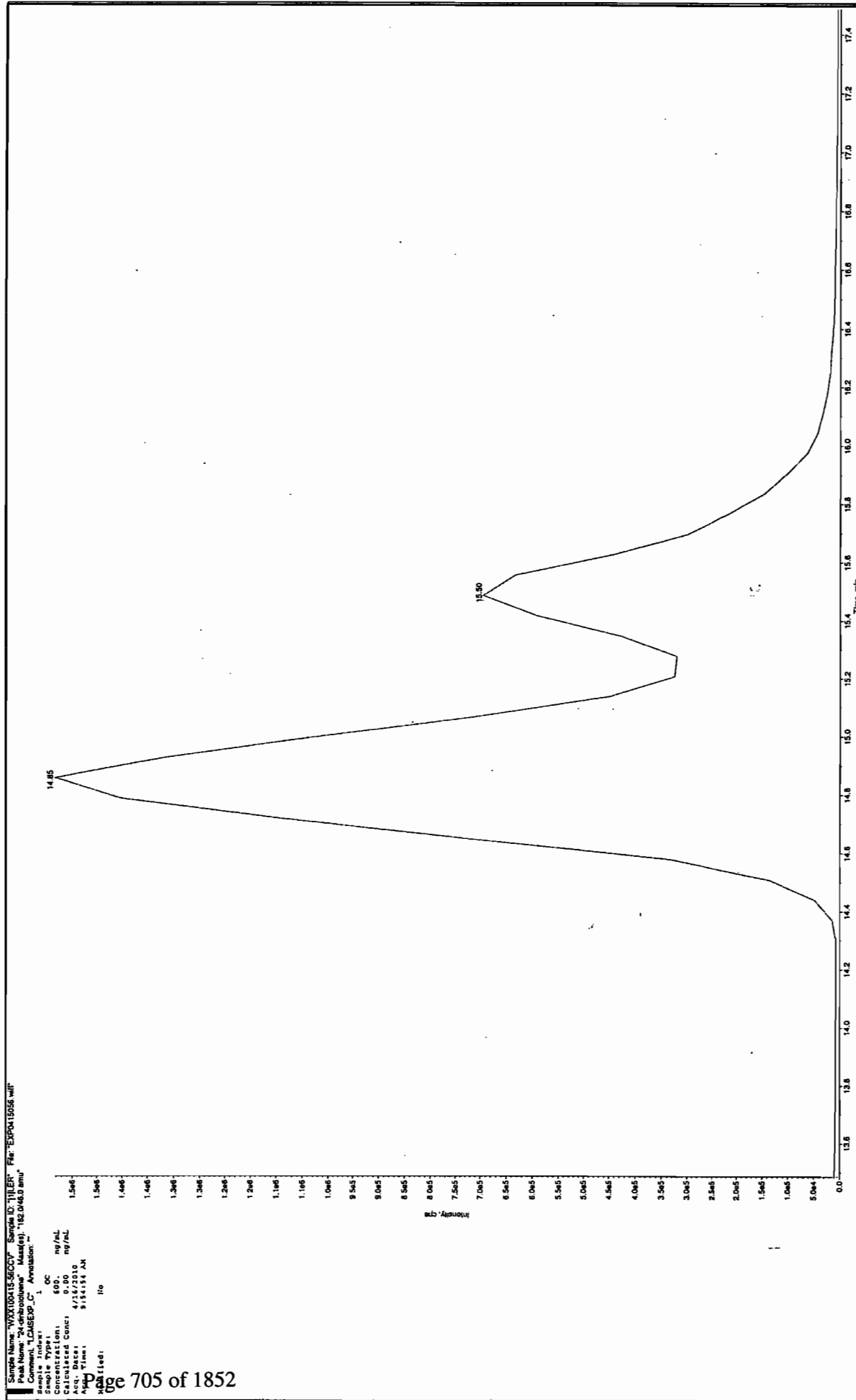
Concentration: 600. ng/mL

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/24/2010

Acq. Time: 9:14:15.4 AM

Acq. File: No



after Day 4/23/10

Sample Name: "WAX100415-562CV" Sample ID: "111ER" File: "E200415058.wif"

Peak Name: "24-dinitrofluorene" Mass(es): "182.046.0 amu"

Comment: "LCMS-EXP\_C" Annotation: "

Sample Type: "QC"

Concentration: 400. ng/mL

Calculated Conc: 471.010 ng/mL

Acquired Time: 9/14/14 AM

AcqTime: 15.08

Applied: Yes

Applied: 30 sec

Applied: 15.5 min

Use Relative RT: No

Int Type: Manual

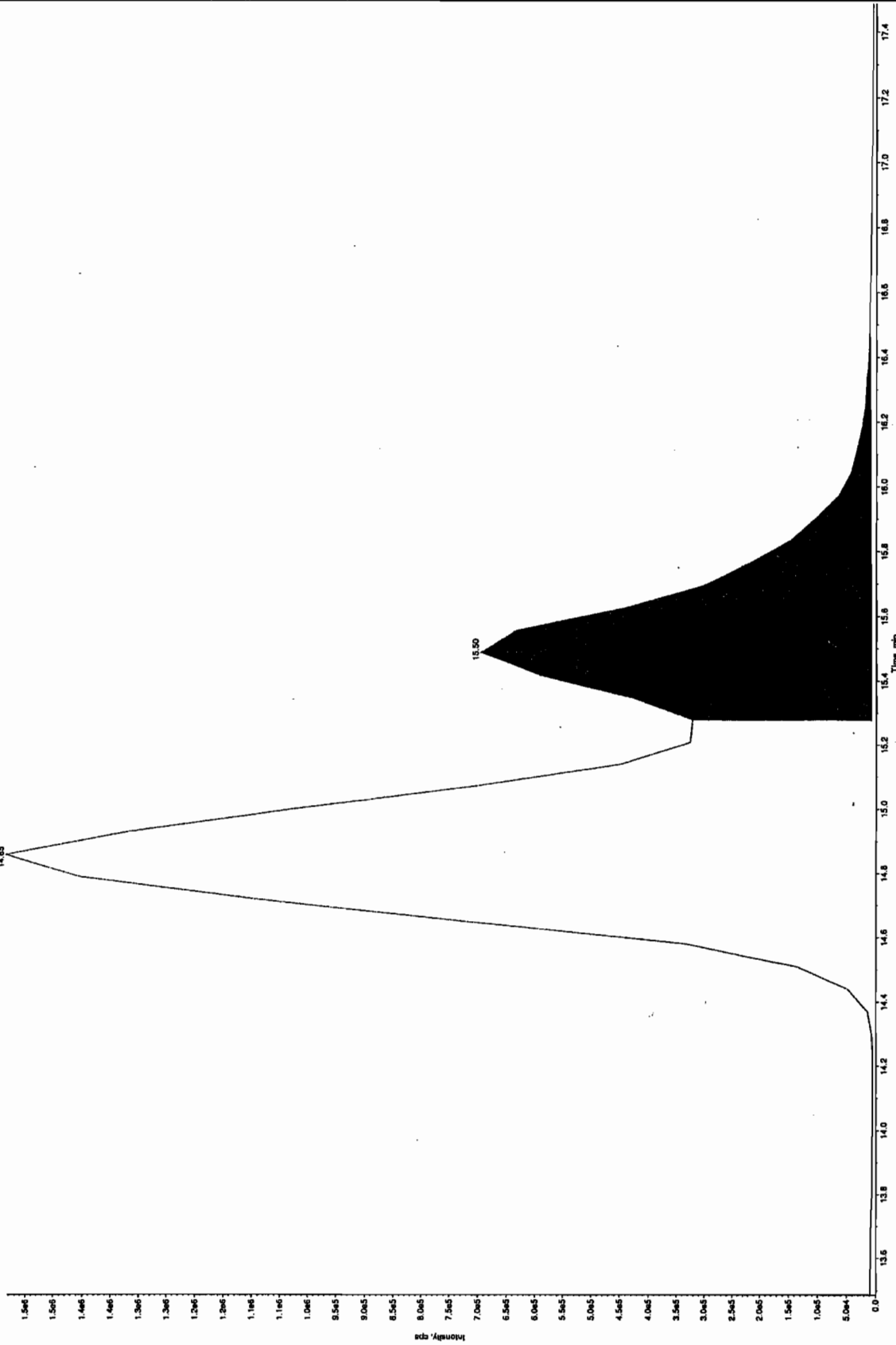
Int Time: 15.5 min

Area: 1.59e+007 counts

Height: 6.88e+005 cps

Retention Time: 15.5 min

Width: 14.5 min

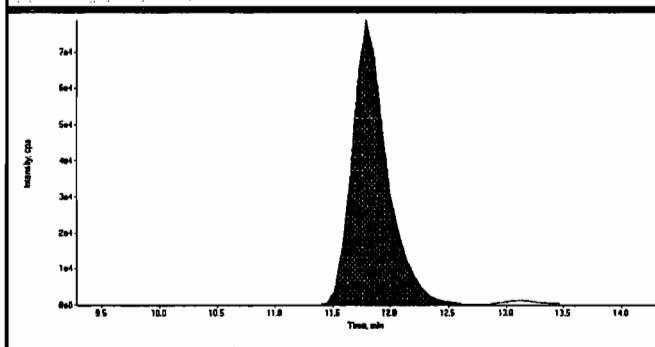


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

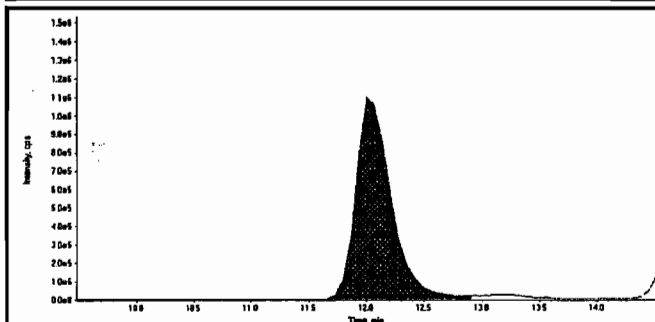
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

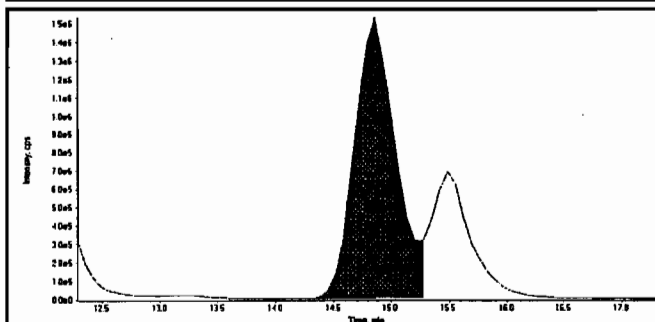
Data File	EXP0415056.wiff	Acquisition Date	4/16/2010 9:54:54 AM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



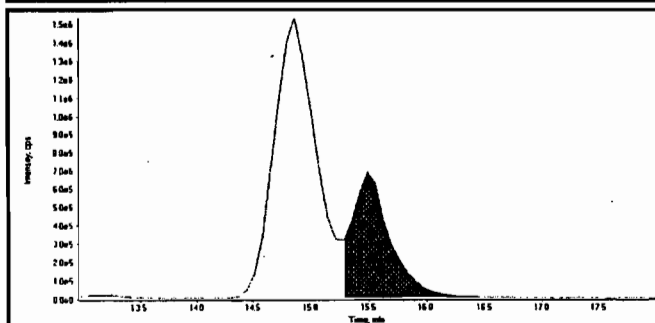
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.8
Area Counts:	1.70e+006
Manual Modification	No
Amount:	573. (ng/mL)
% Accuracy:	95.50



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.0
Area Counts:	2.39e+007
Manual Modification	No
Amount:	292. (ng/mL)
% Accuracy:	97.40



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	3.90e+007
Manual Modification	No
Amount:	588. (ng/mL)
% Accuracy:	98.10



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.5
Area Counts:	1.59e+007
Manual Modification	Yes
Amount:	623. (ng/mL)
% Accuracy:	104.00

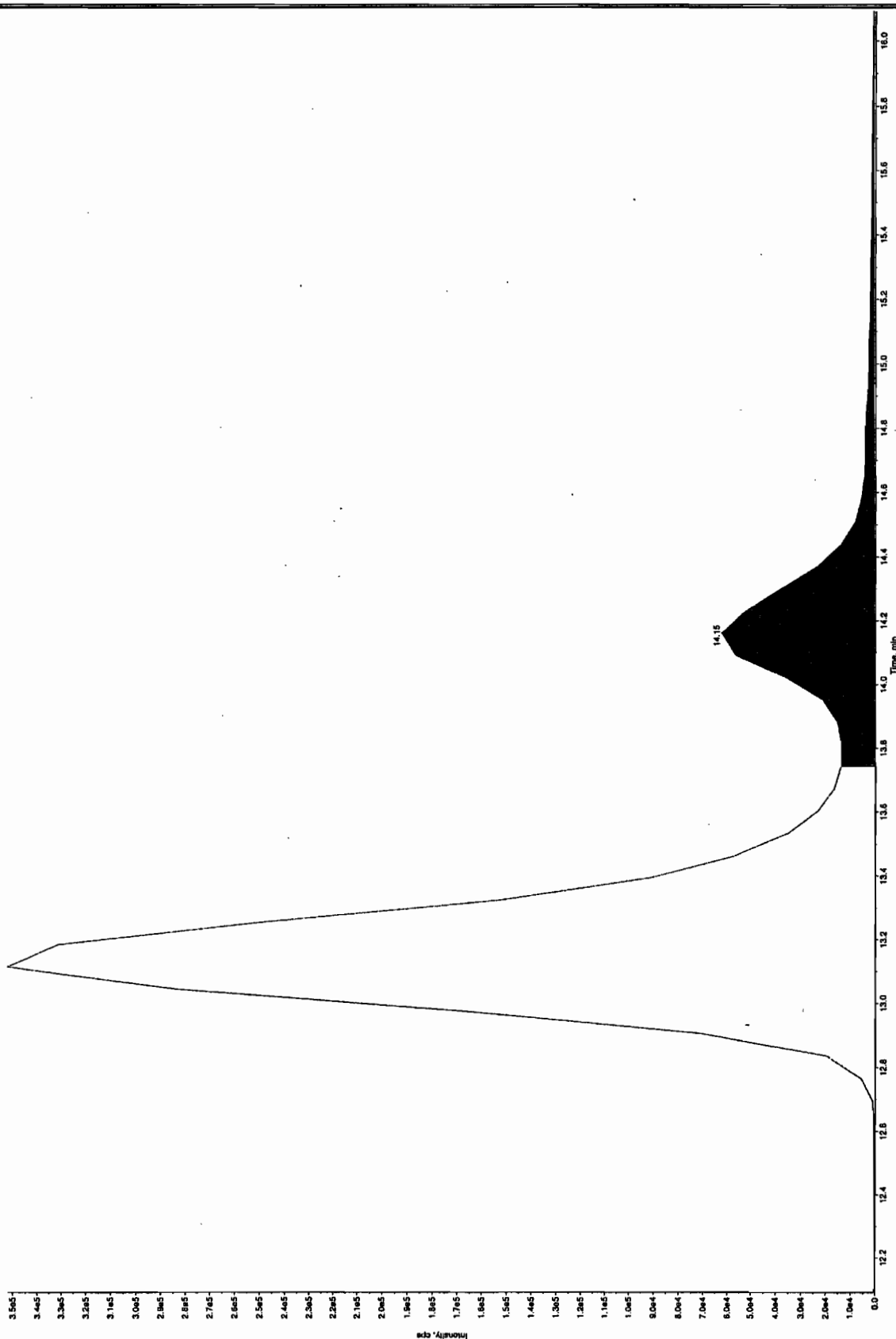
Before Jan 4/23/10

Sample Name: WXX100415-060V Sample ID: 111ER File: EXP0415058.wif

Peak Name: 2-Amino-48-dehydrokynure Mass(es): 197.04100.0 amu

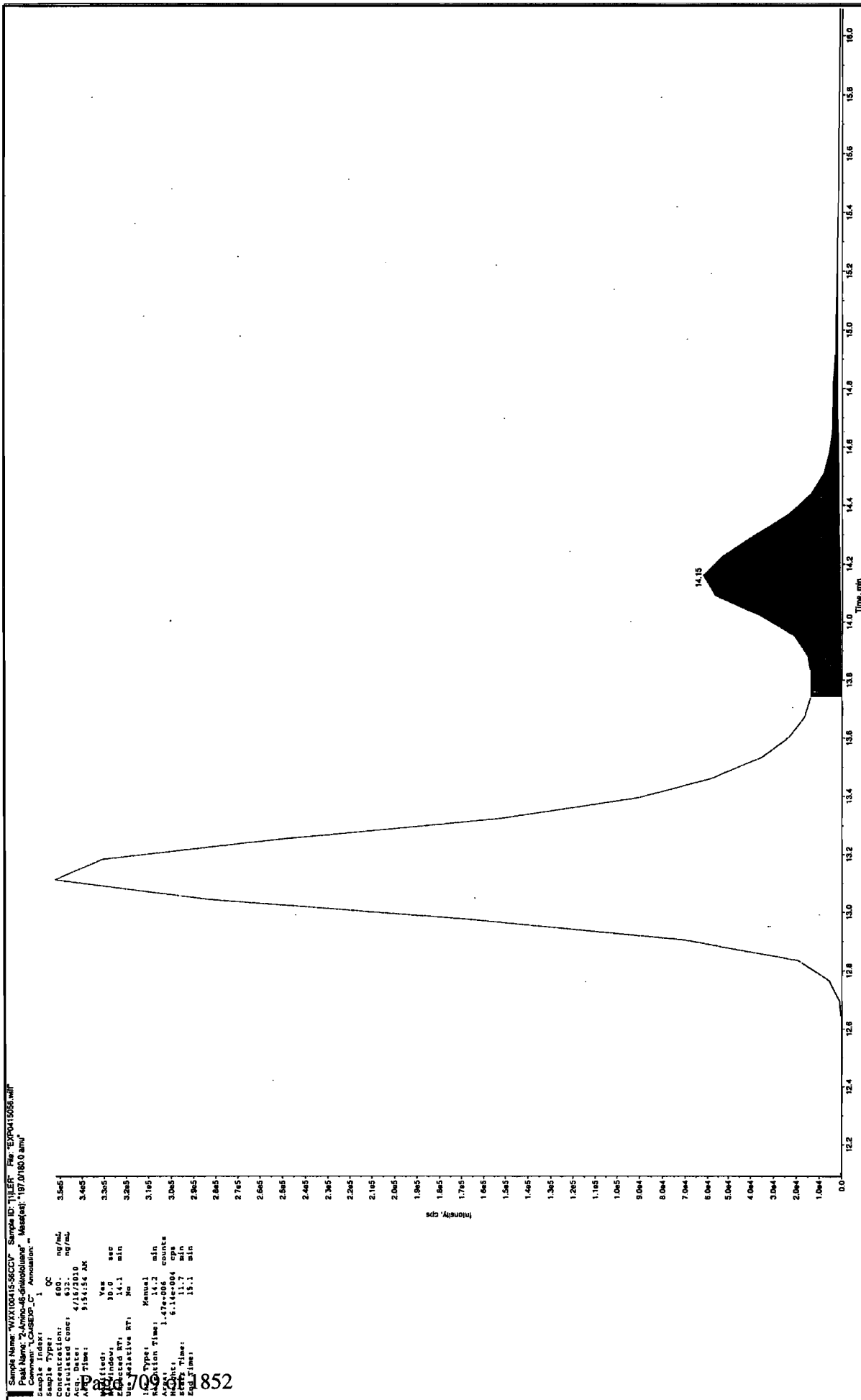
Comment: LCMSREF\_C Annotation: -

Sample Index: 1  
 Acquisition: 1  
 Concentration: 400 ng/mL  
 Acq. Date: 4/16/2010  
 Acq. Time: 5:44:55 AM  
 Method: No  
 Algorithm: IntelliQuan - IGA  
 Peak Width: 10.0 sec  
 Peak Width: 3.000 points  
 Smoothing Width: 30.0 sec  
 Retention RT: 14.1 min  
 Retention RT: 14.1 min  
 IIC Type: Valley  
 Retention Time: 14.2 min  
 Peak Width: 3.43 sec  
 Peak Width: 6.11 sec  
 Peak Width: 13.7 min  
 Peak Width: 16.4 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/23/10

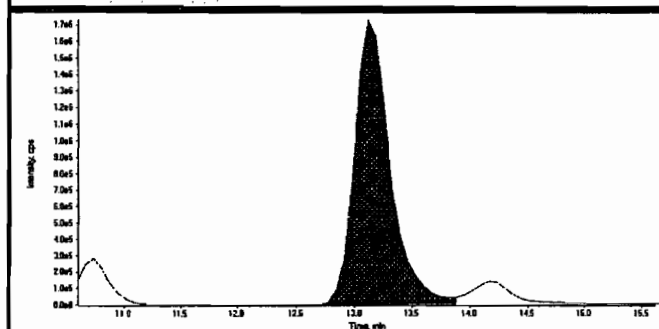


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

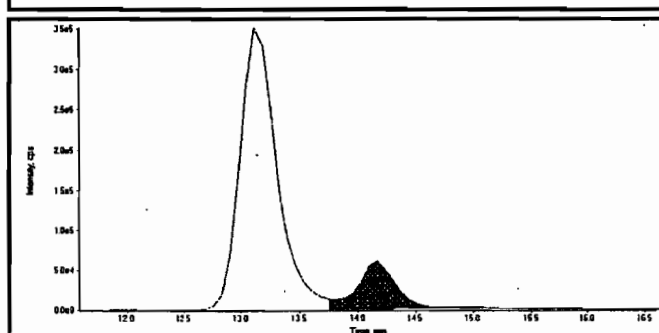
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

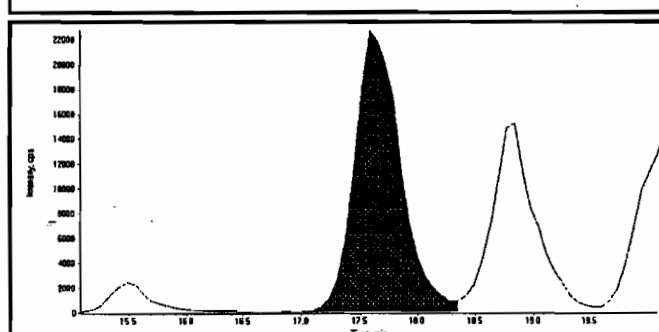
Data File	EXP0415056.wiff	Acquisition Date	4/16/2010 9:54:54 AM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



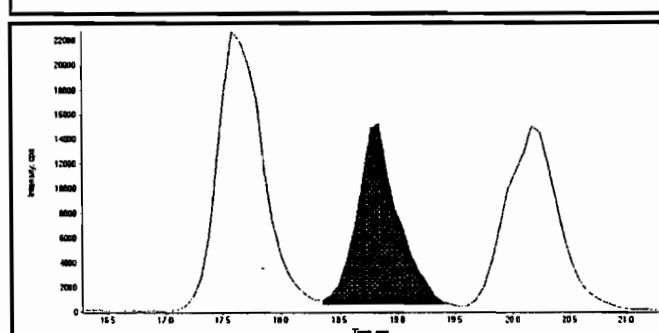
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	3.80e+007
Manual Modification	No
Amount:	685. (ng/mL)
% Accuracy:	114.00



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	14.2
Area Counts:	1.47e+006
Manual Modification	Yes
Amount:	632. (ng/mL)
% Accuracy:	105.00



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.6
Area Counts:	6.35e+005
Manual Modification	No
Amount:	647. (ng/mL)
% Accuracy:	108.00



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.8
Area Counts:	3.64e+005
Manual Modification	No
Amount:	696. (ng/mL)
% Accuracy:	116.00

Before Jan 4/2010

Sample Name: WAX10013-562Cv Sample ID: 111ER File: E050415636.vnt

Peak Name: PETN Mass(es): 361.162.0 amu

Comment: LCMSEXP\_CV Annotation: --

Sample Type: 1 QC

Concentration: 600. ng/mL

Calculated Conc: 747. ng/mL

Acq. Time: 4/12/2010

Acq. Time: 9:51:54 AM

Method: No

Integration: 100.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

Retention Time: 600. sec

Use Relative RT: No

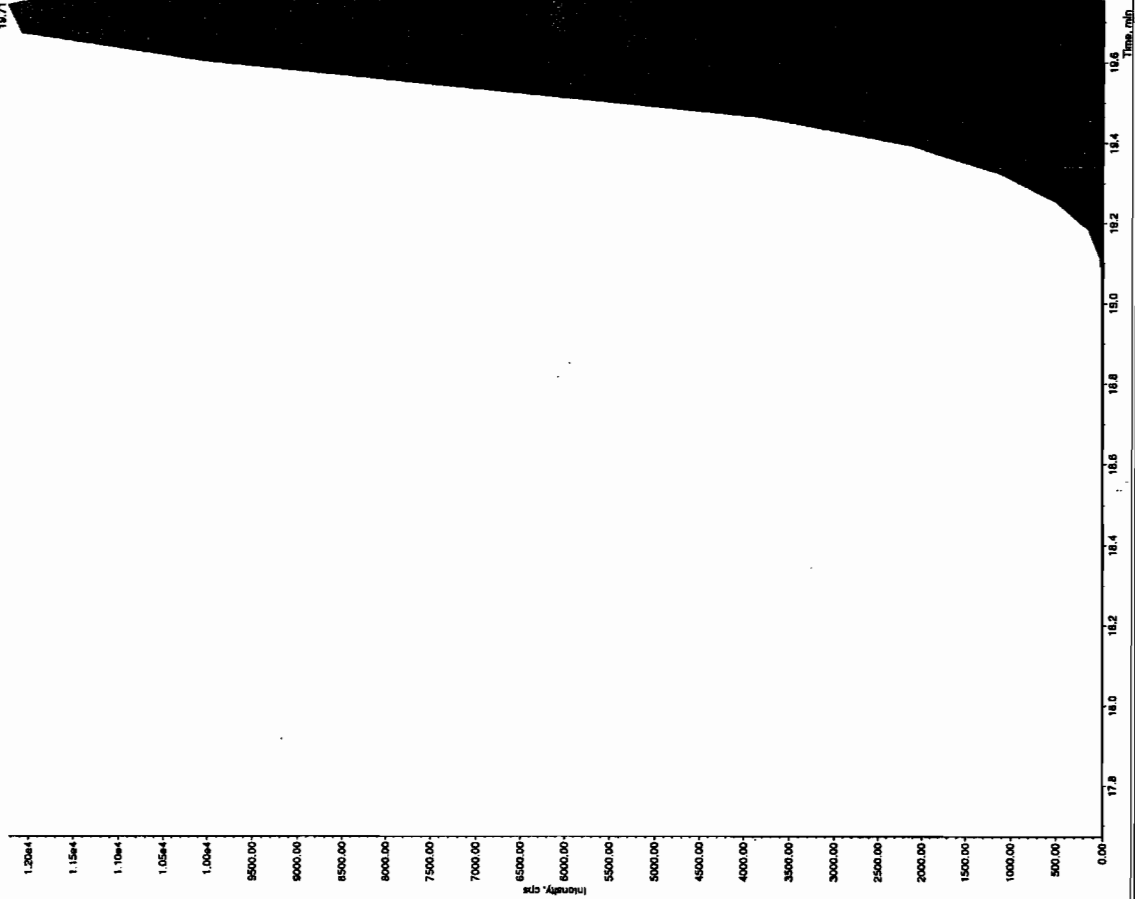
Peak Type: Valley

Acquisition Time: 3.75e+005 counts

Area: 1.22e+004 cps

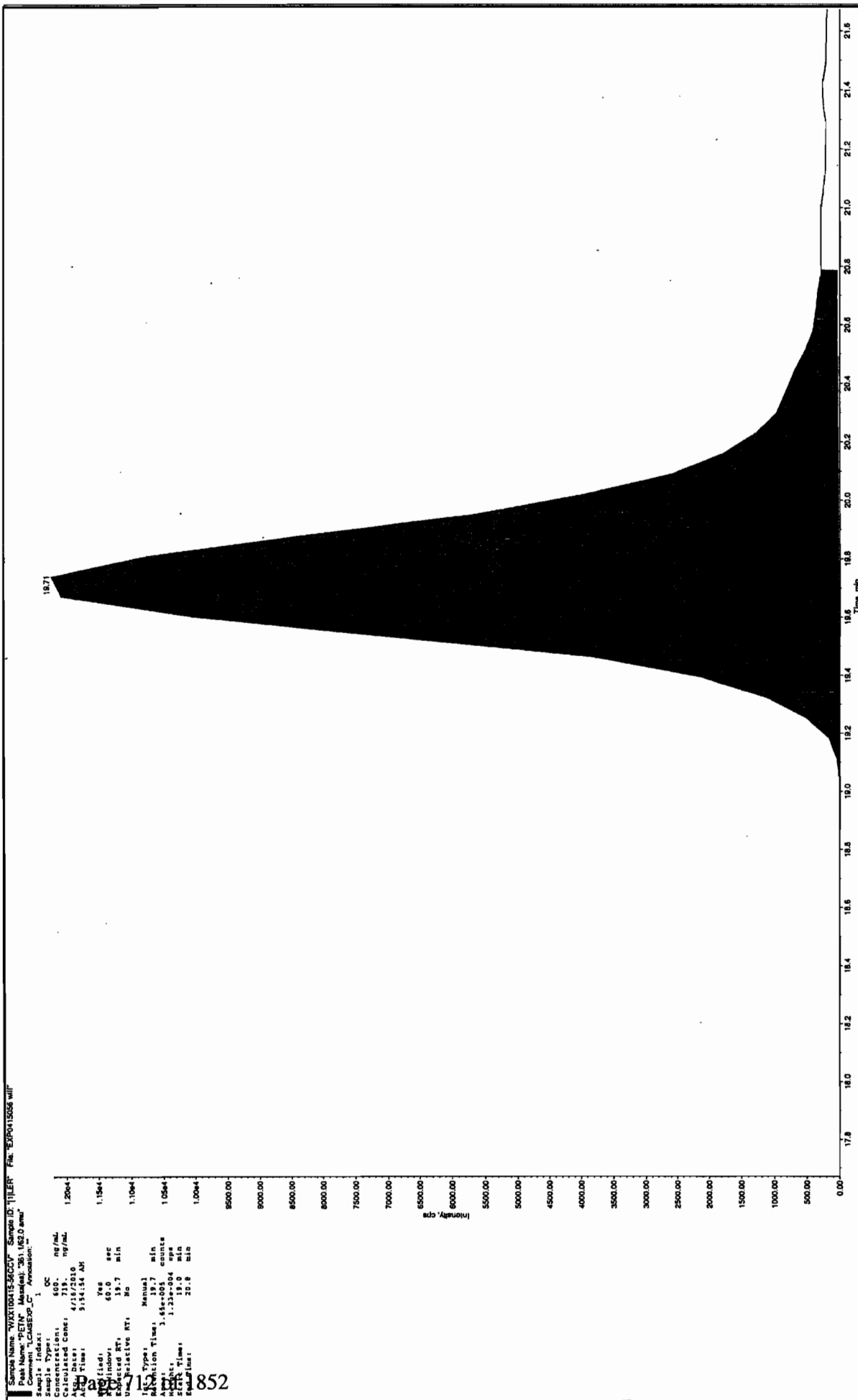
Peak Time: 18.8 min

Run Time: 22.8 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Run 4/23/10



Sample Name: "WAX (00415-3600)" Sample ID: "HILF" File: "EXP0415006.wif"

Peak Name: "PEIN" Method: "351.182.0 nm"

Comment: "LCASEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: 500 ng/mL

Calculated Conc: 719 ng/mL

Date: 4/18/2010

Acq. Time: 9:34:16 AM

Verified: Yes

Window: 60.0 sec

Expected RT: 19.7 min

Observed RT: 19.7 min

Integration RT: 19.7 min

Integration Type: Manual

Integration Time: 19.7 min

Integration Start: 19.0 min

Integration End: 20.8 min

Integration Time: 19.7 min

Integration Time: 19.7 min

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Integration Time: 19.7 min

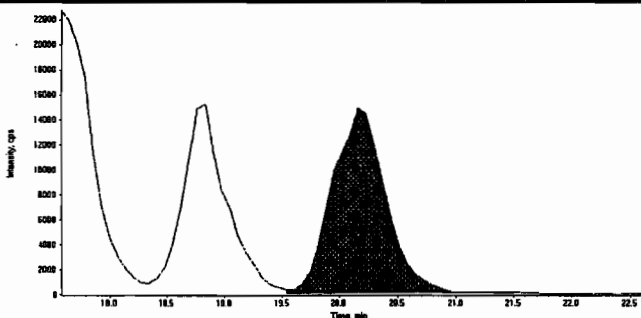


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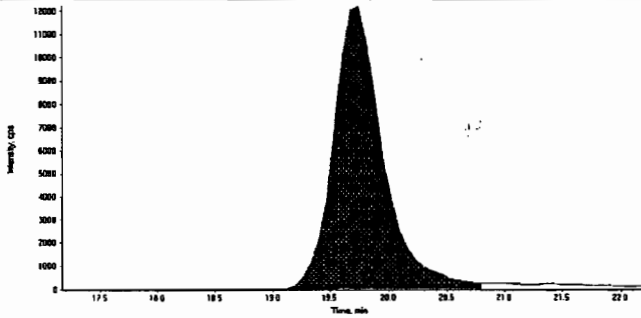
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415056.wiff	<b>Acquisition Date</b>	4/16/2010 9:54:54 AM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch/Dilution/Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	20.2
	<b>Area Counts:</b>	4.81e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	648. (ng/mL)
	<b>% Accuracy:</b>	108.00

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	19.7
	<b>Area Counts:</b>	3.65e+005
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	719. (ng/mL)
	<b>% Accuracy:</b>	120.00

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/16/10  
 Time of Injection 0954  
 Standard Number WXX100415-56CCV  
 Data File EXP0415056a

HMX	110.0
RDX	117.0
135-Trinitrobenzene	106.0
13-Dinitrobenzene	93.4
Tetryl	112.0
246-Trinitrotoluene	103.0
Nitrobenzene	95.5
34-dinitrotoluene	97.4
26-dinitrotoluene	98.1
24-dinitrotoluene	104.0
4-Amino-26-dinitrotoluene	114.0
2-Amino-46-dinitrotoluene	105.0
2-Nitrotoluene	108.0
4-Nitrotoluene	116.0
3-Nitrotoluene	108.0
PETN	120.0

TOTAL

1707.4

AVERAGE

106.7

*Handwritten: 106.7*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Handwritten signature*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415058.wiff

Analysis Date: 16-APR-10 10:46

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	36	90	
2,4,6-Trinitrotoluene	40	42.2	106	
2,4-Dinitrotoluene	40	37.3	93	
2,6-Dinitrotoluene	40	37.8	95	
2-Amino-4,6-dinitrotoluene	40	37.3	93	
3,4-Dinitrotoluene	20	21.6	108	
4-Amino-2,6-dinitrotoluene	40	39.7	99	
HMX	40	46.5	116	
Nitrobenzene	40	47.9	120	
PETN	40	41.4	103	
RDX	40	43.1	108	
Tetryl	40	40.4	101	
m-Dinitrobenzene	40	42.3	106	
m-Nitrotoluene	40	42	105	
o-Nitrotoluene	40	46.5	116	
p-Nitrotoluene	40	49	123	

Recovery Limits:

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

Other Target Analytes 70-130%

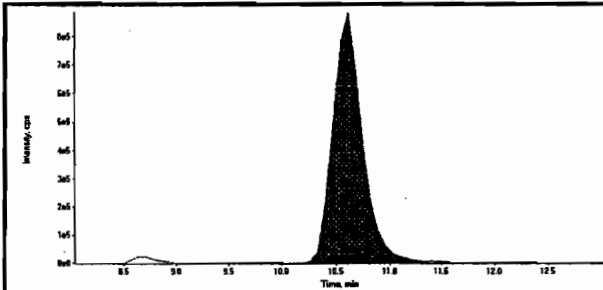
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

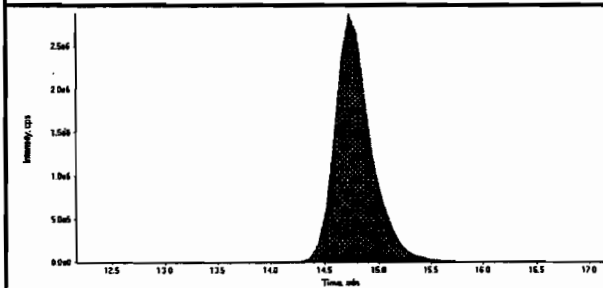
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415058.wiff	Acquisition Date	4/16/2010 10:46:59 AM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



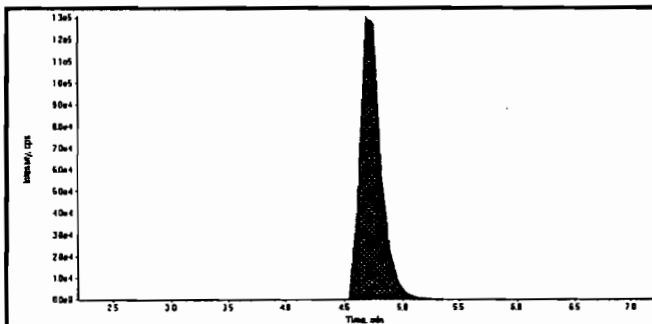
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	16900000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

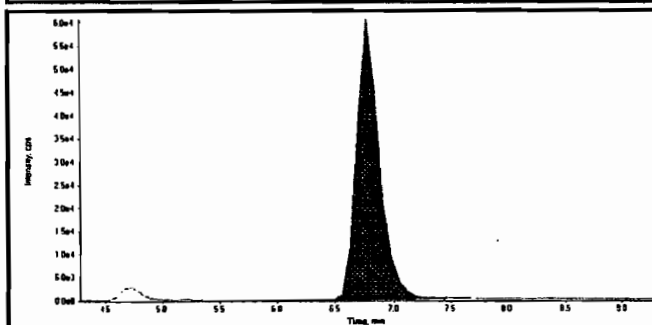


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	67100000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.66e+006
Manual Modification	No
Amount:	46.5 (ng/mL)
% Accuracy:	116.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	8.30e+005
Manual Modification	No
Amount:	43.1 (ng/mL)
% Accuracy:	108.00

*Handwritten:*  
Hmw 04/23/10  
Jee 4/23/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415058.wiff	<b>Acquisition Date</b>	4/16/2010 10:46:59 AM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	9.00
	Area Counts:	9.81e+006
	Manual Modification	No
	Amount:	36.0 (ng/mL)
	% Accuracy:	90.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	4.08e+006
	Manual Modification	No
	Amount:	42.3 (ng/mL)
	% Accuracy:	106.00

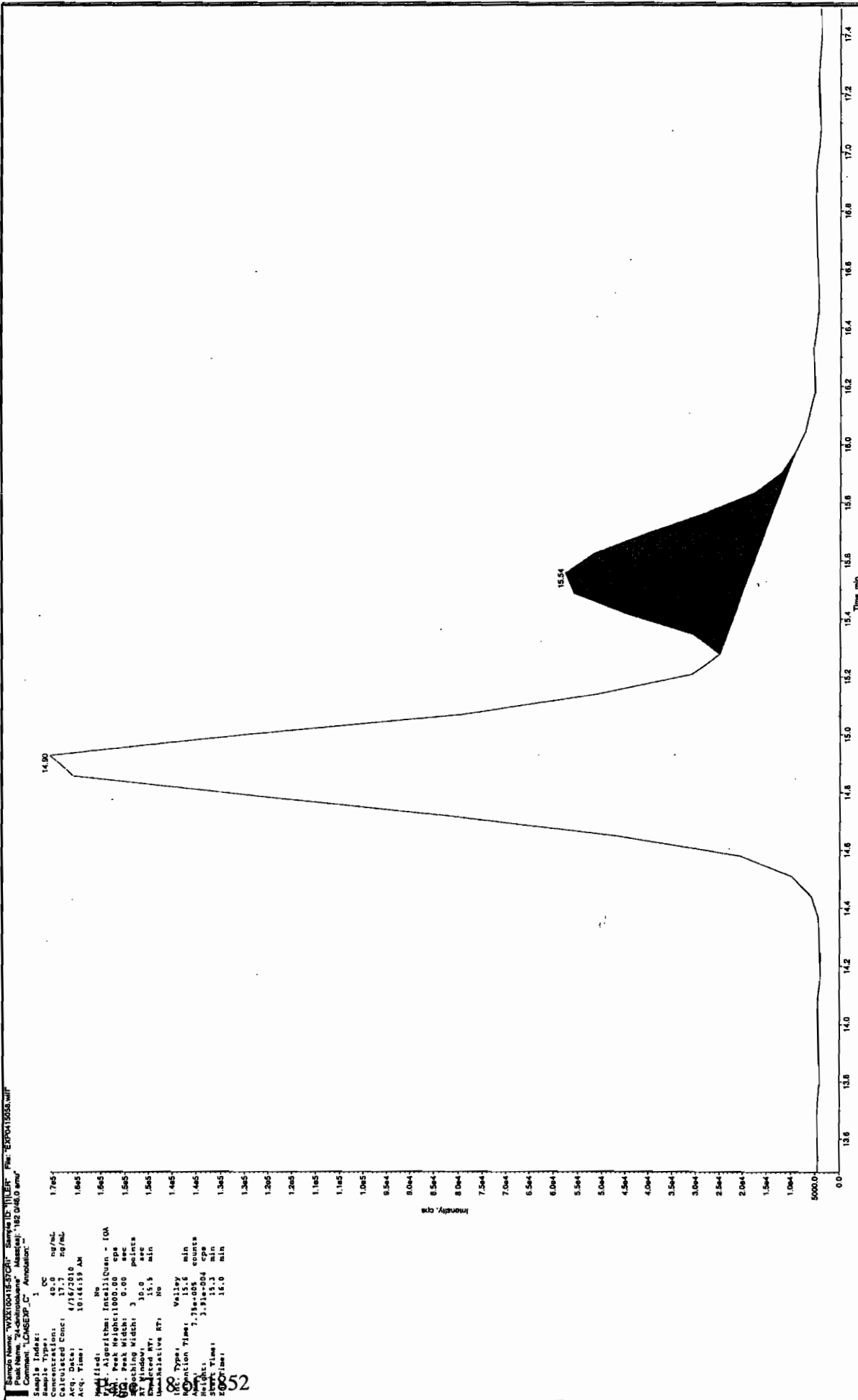
  

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	3.11e+006
	Manual Modification	No
	Amount:	40.4 (ng/mL)
	% Accuracy:	101.00

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	1.91e+007
	Manual Modification	No
	Amount:	42.2 (ng/mL)
	% Accuracy:	106.00

Began Jan 4/23/10



Sample Name: W2X100418.S (GEL) Sample ID: 11111111 File: EXP011555.wif

Peak Name: 24-dinitrophenol Mass (cal): 182.046.0 amu

Comment: "LMSXP\_C" Annotation:

Sample Index: 1

Concentration: 40.0 ng/mL

Calculated Conc: 17.7 ng/mL

Acq. Date: 4/16/2010

Acq. Time: 10:44:59 AM

Method: No

Int. Algorithm: IntelliQuan - 10A

Peak Width: 100.0 cps

Peak Height: 100.0 cps

Sampling Width: 3.000 points

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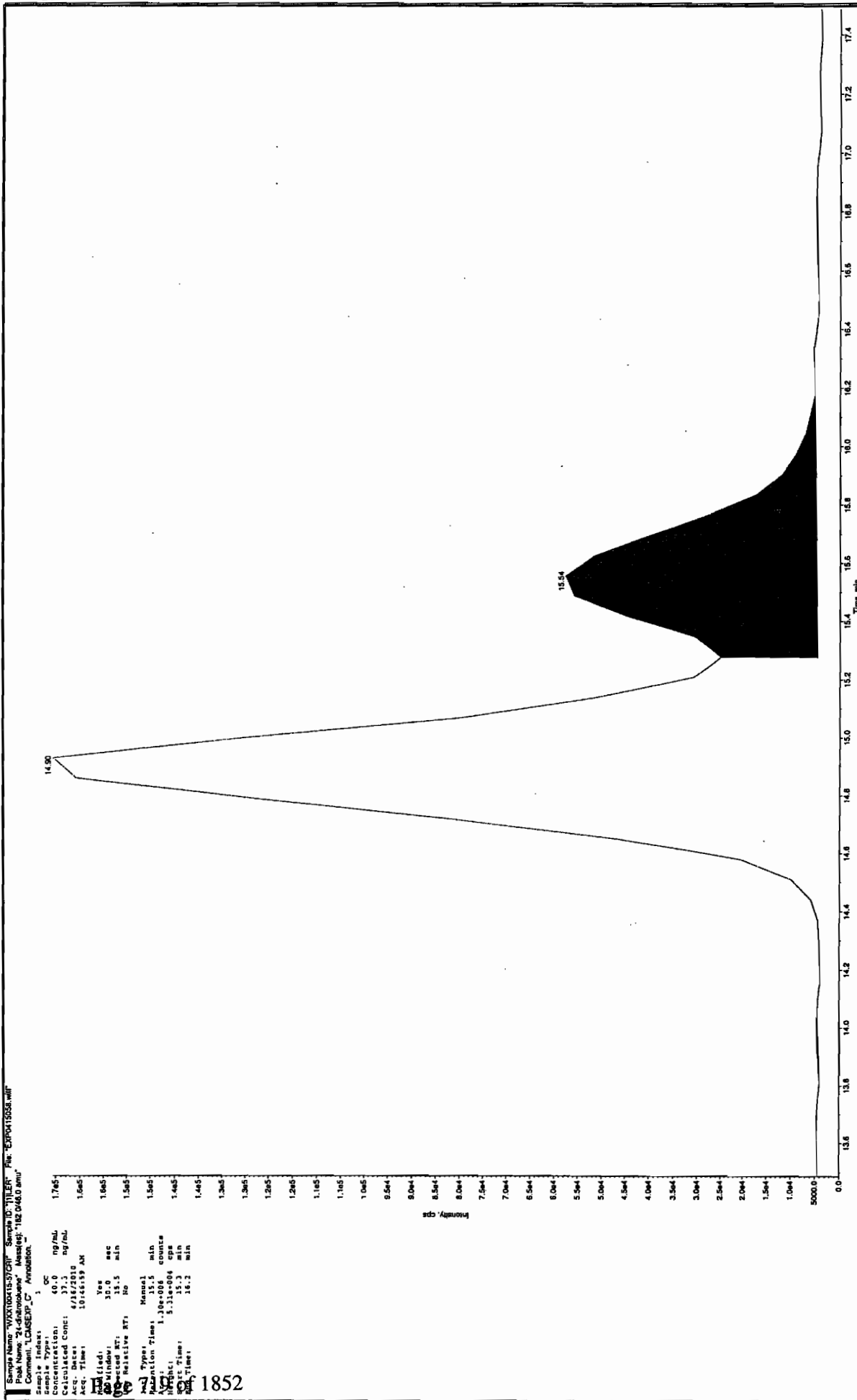
Unlabeled RT: 15.3 min

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Unlabeled RT: 15.3 min

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415058.wiff	<b>Acquisition Date</b>	4/16/2010 10:46:59 AM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.8
	Area Counts:	1.49e+005
	Manual Modification	No
	Amount:	47.9 (ng/mL)
	% Accuracy:	120.00

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	2.28e+006
	Manual Modification	No
	Amount:	21.6 (ng/mL)
	% Accuracy:	108.00

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.9
	Area Counts:	3.63e+006
	Manual Modification	No
	Amount:	37.8 (ng/mL)
	% Accuracy:	94.50

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.5
	Area Counts:	1.30e+006
	Manual Modification	Yes
	Amount:	37.3 (ng/mL)
	% Accuracy:	93.30



Before Jan 4/23/10

Sample Name: "WXT10013-37CH" Sample ID: "1111" File: "EXP0115035.wif"

Peak Name: "7-Amino-8-estradiolone" Mass(es): "197.0/180.0 amu"

Comment: "LCMS-EXP\_C" Acquisition: "1"

Sample Type: "1" OC

Concentration: 40.0 ng/mL

Calculated Conc: 39.0 ng/mL

Acq. Date: 4/15/09

Acq. Time: 10:46:18 AM

Peak: 2.464

Modified: No

Integ. Algorithm: Invert@un - 10A

Integ. Peak Width: 10.00 sec

Integ. Peak Width: 3.00 sec

Integ. Peak Width: 30.0 sec

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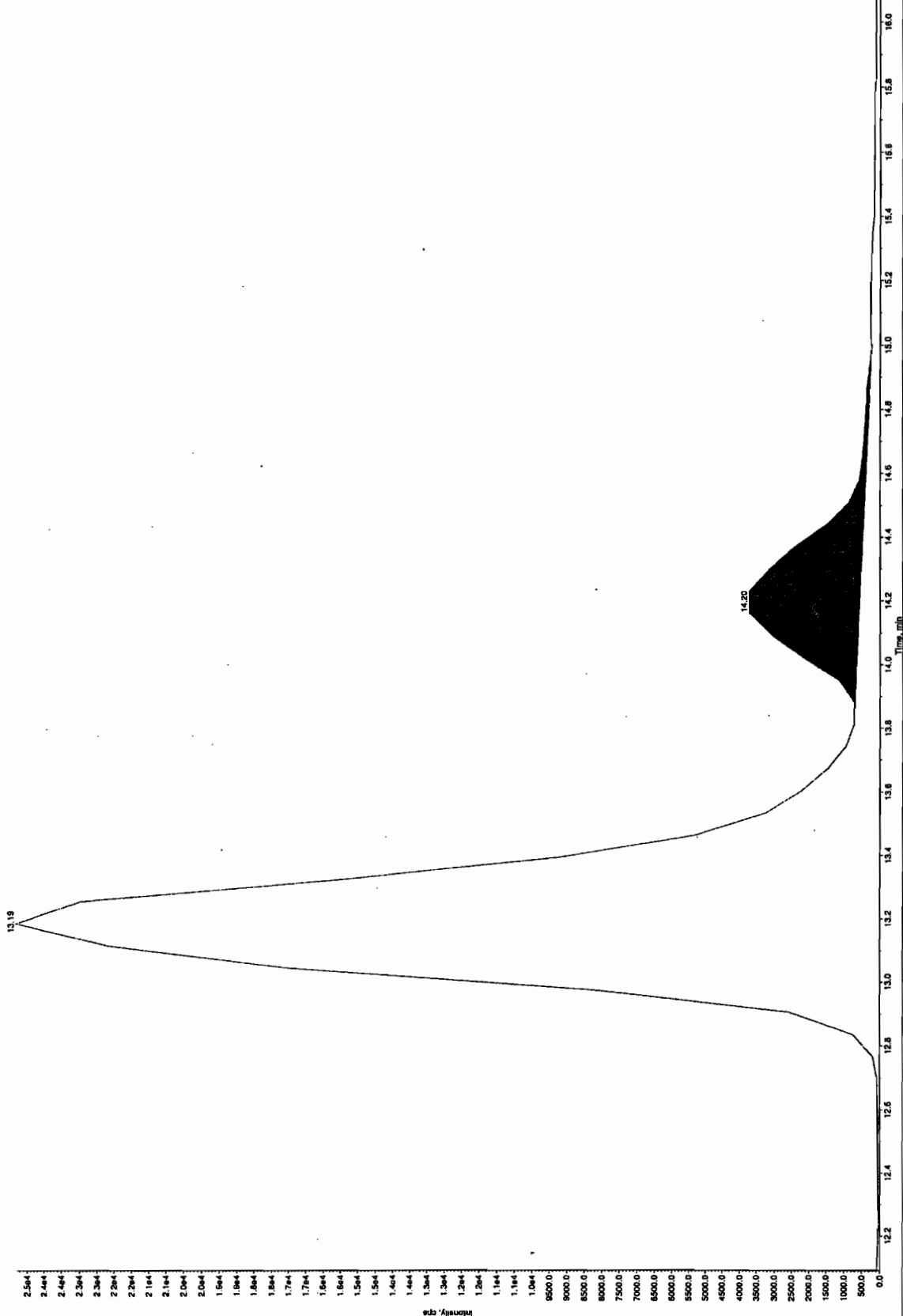
Integ. Peak Width: 10.00 sec

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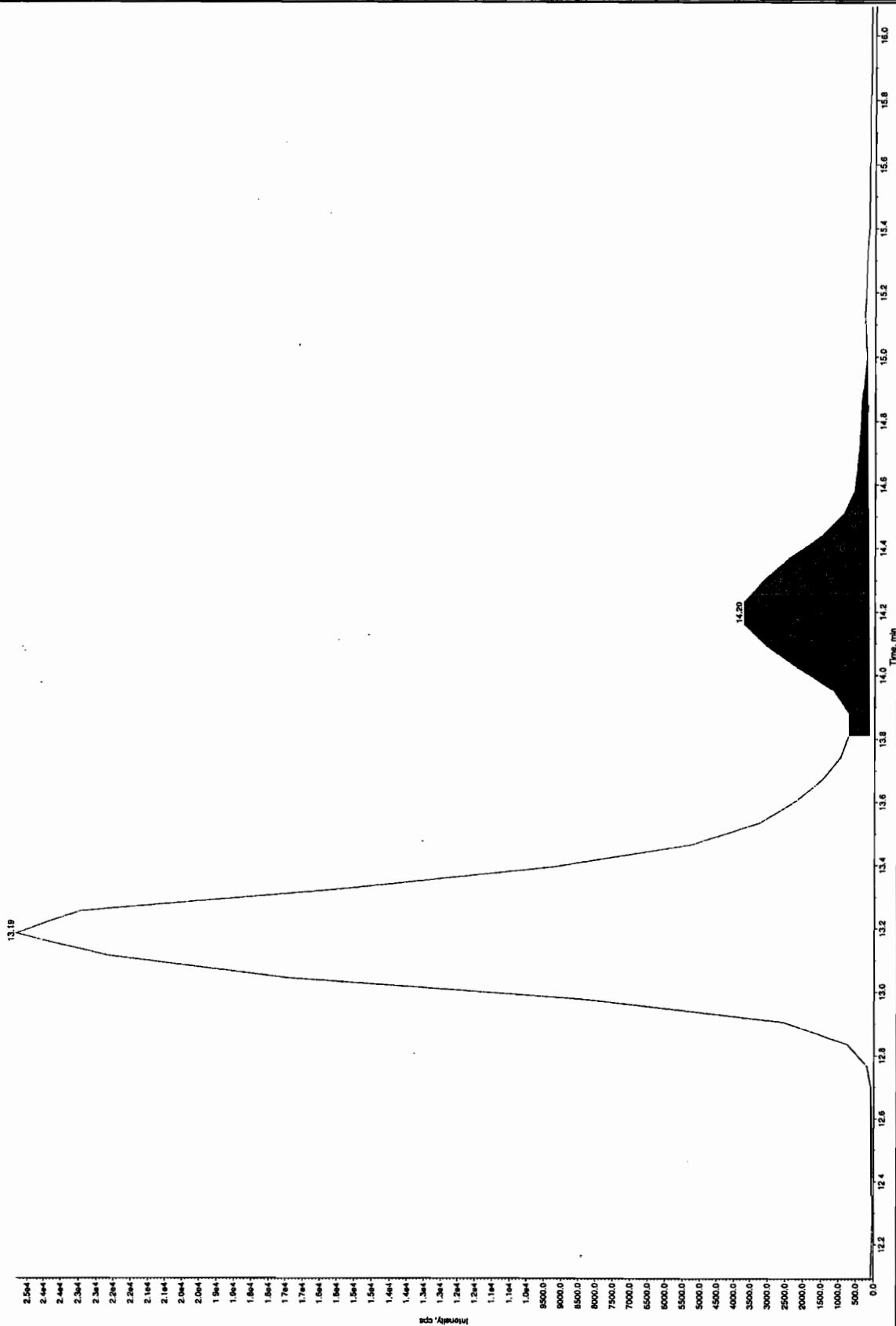


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/23/10

Sample Name: "WXX100415-57CR" Sample ID: "TILER" File: "EXP0415058.wif"  
 Concentration: 40.0 ng/mL  
 Acquisition Date: 4/18/2010  
 Acquisition Time: 10:46:15 AM

Sample Index: 1  
 Sample Type: DC  
 Concentration: 40.0 ng/mL  
 Acquisition Date: 4/18/2010  
 Acquisition Time: 10:46:15 AM  
 Method: Yes  
 Window: 30.0 sec  
 Filtered RT: 14.1 min  
 UPLC Relative RT: No  
 Injection Type: Manual  
 Injection Time: 14.1 min  
 Acquisition Time: 9.16e-004 counts  
 Acquisition Time: 3.59e-003 cps  
 Acquisition Time: 15.0 min



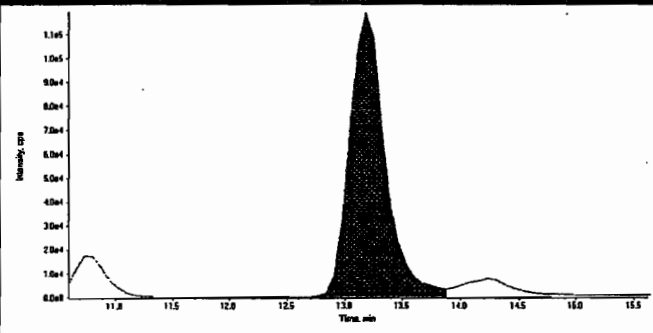
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

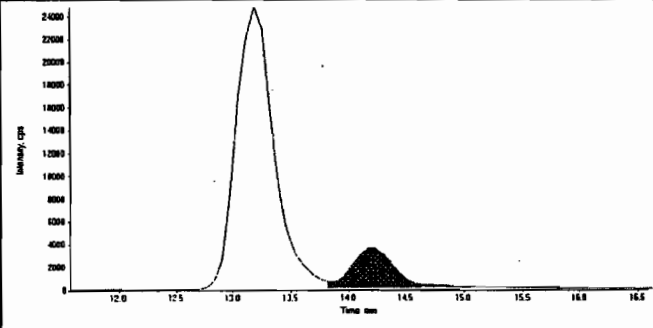
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415058.wiff	<b>Acquisition Date</b>	4/16/2010 10:46:59 AM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

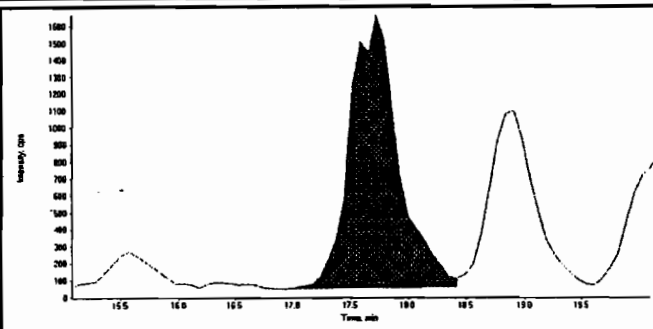
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	2.62e+006
	Manual Modification	No
	Amount:	39.7 (ng/mL)
	% Accuracy:	99.40

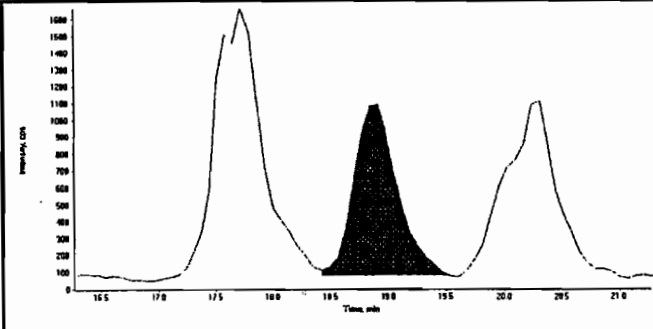
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	14.2
	Area Counts:	9.36e+004
	Manual Modification	Yes
	Amount:	37.3 (ng/mL)
	% Accuracy:	93.40

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.7
	Area Counts:	4.82e+004
	Manual Modification	No
	Amount:	46.5 (ng/mL)
	% Accuracy:	116.00

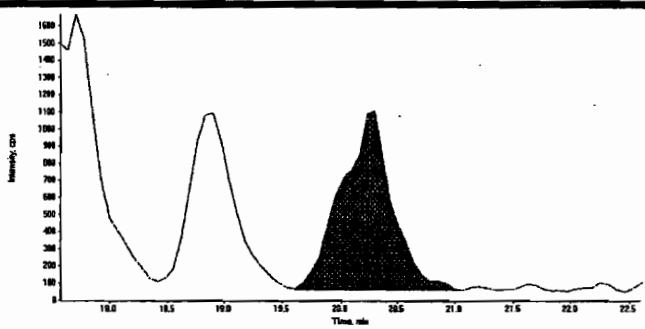
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.9
	Area Counts:	2.70e+004
	Manual Modification	No
	Amount:	49.0 (ng/mL)
	% Accuracy:	123.00

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

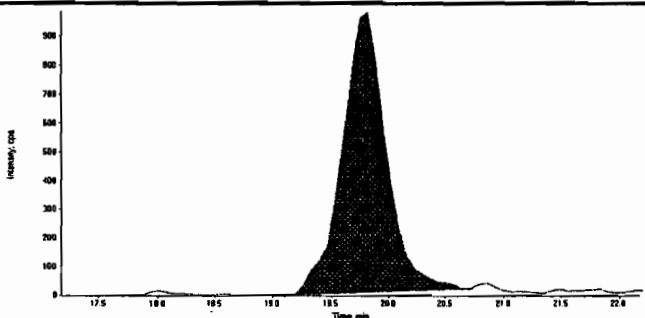
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415058.wiff	Acquisition Date	4/16/2010 10:46:59 AM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch/Dilution/Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	20.3
	Area Counts:	3.32e+004
	Manual Modification	No
	Amount:	42.0 (ng/mL)
	% Accuracy:	105.00

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	19.8
	Area Counts:	2.65e+004
	Manual Modification	No
	Amount:	41.4 (ng/mL)
	% Accuracy:	103.00

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/16/10  
 Time of Injection 1046  
 Standard Number WXX100415-57CRI  
 Data File EXP0415058a

HMX	116.0
RDX	108.0
135-Trinitrobenzene	90.0
13-Dinitrobenzene	106.0
Tetryl	101.0
246-Trinitrotoluene	106.0
Nitrobenzene	120.0
34-dinitrotoluene	108.0
26-dinitrotoluene	94.5
24-dinitrotoluene	93.3
4-Amino-26-dinitrotoluene	99.4
2-Amino-46-dinitrotoluene	93.4
2-Nitrotoluene	116.0
4-Nitrotoluene	123.0
3-Nitrotoluene	105.0
PETN	103.0

TOTAL

✓ 1682.6	hmm 04/23/10
	ICV Limits 85-115%
✓ 105.2	CRI Limits 70-130%
	CCV Limits 85-115%
No single analyte > +/- 60%	

AVERAGE

*For 4/23/10*

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0415063.wiff

Analysis Date: 16-APR-10 12:57

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	644	107	
2,4,6-Trinitrotoluene	600	631	105	
2,4-Dinitrotoluene	600	610	102	
2,6-Dinitrotoluene	600	642	107	
2-Amino-4,6-dinitrotoluene	600	580	97	
3,4-Dinitrotoluene	300	239	80	
4-Amino-2,6-dinitrotoluene	600	605	101	
HMX	600	646	108	
Nitrobenzene	600	579	97	
PETN	600	710	118	
RDX	600	748	125	
Tetryl	600	587	98	
m-Dinitrobenzene	600	564	94	
m-Nitrotoluene	600	606	101	
o-Nitrotoluene	600	538	90	
p-Nitrotoluene	600	610	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%

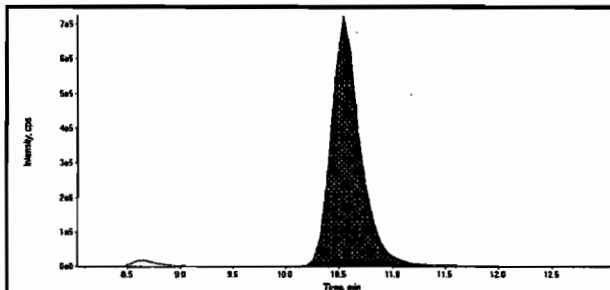
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

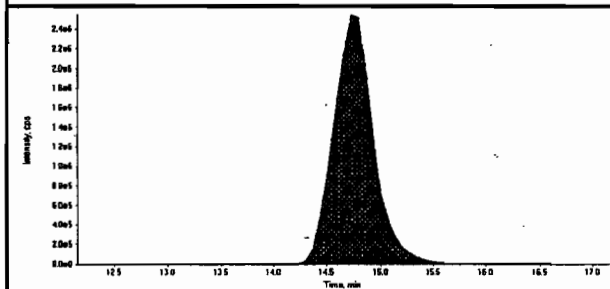
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415063.wiff	Acquisition Date	4/16/2010 12:57:07 PM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



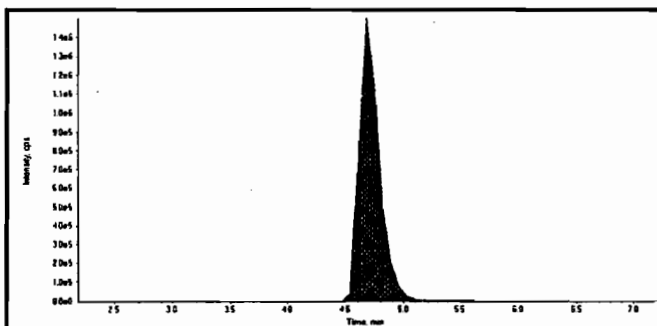
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	13700000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

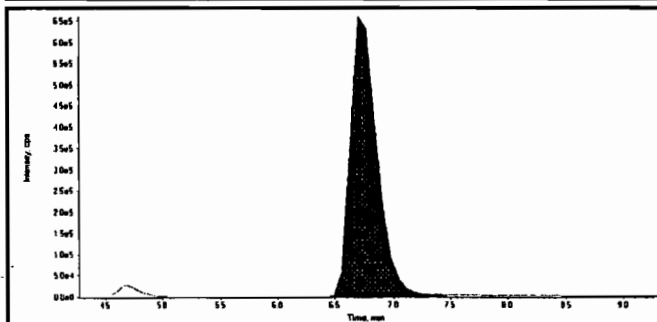


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	66000000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.80e+007
Manual Modification	No
Amount:	646. (ng/mL)
% Accuracy:	108.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.70
Area Counts:	1.06e+007
Manual Modification	No
Amount:	748. (ng/mL)
% Accuracy:	125.00

*ler*  
4/23/10

*Hum*  
04/23/10

Before Run 4/23/10

Sample Name: WVK100415-560007 Sample ID: TILLER File: EXP0415003.wif  
 Acquisition Method: 2271209.0 and  
 Comment: LCMSEXP\_C1 Annotation:

Sample Index: 1

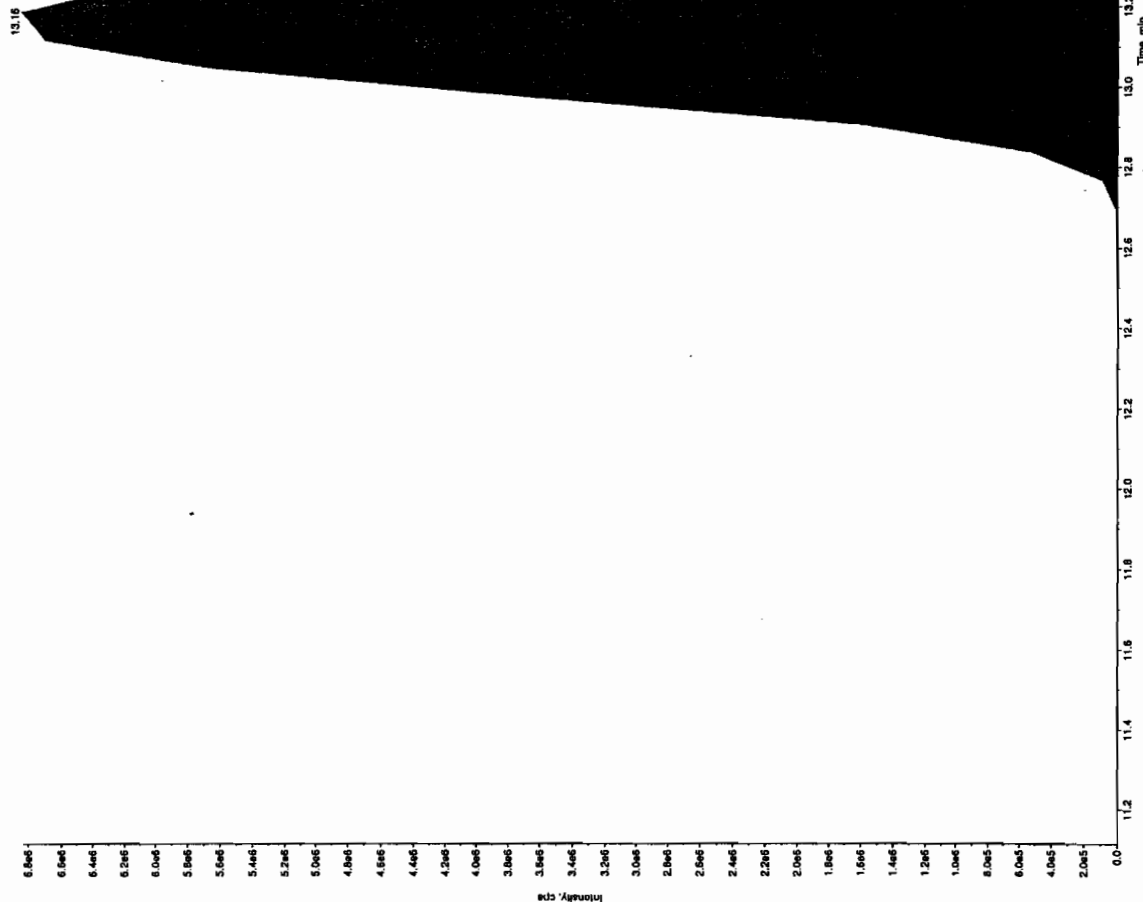
Sample Type: GC  
 Concentration: 505 ng/mL  
 Acquisition Date: 4/16/2010  
 Acquisition Time: 13:57:07 PM

Method: No  
 Peak Height: 100.00 cps  
 Peak Width: 0.00 sec  
 Retention Time: 13.1 min

Integration: No  
 Integrated RT: 13.1 min  
 Unintegrated RT: No

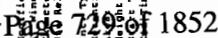
Integration Type: Valley  
 Retention Time: 13.2 min  
 Area: 1.96e+008 counts  
 Height: 6.51e+006 cps  
 Width: 13.2 min  
 Elution: 16.3 min

Page: 128 of 352



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3





\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415063.wiff	Acquisition Date	4/16/2010 12:57:07 PM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	9.00
	Area Counts:	1.03e+008
	Manual Modification	No
	Amount:	644. (ng/mL)
	% Accuracy:	107.00

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	4.18e+007
	Manual Modification	No
	Amount:	564. (ng/mL)
	% Accuracy:	93.90

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	3.70e+007
	Manual Modification	No
	Amount:	587. (ng/mL)
	% Accuracy:	97.90

	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	1.81e+008
	Manual Modification	Yes
	Amount:	631. (ng/mL)
	% Accuracy:	105.00

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415063.wiff	Acquisition Date	4/16/2010 12:57:07 PM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.9
	Area Counts:	1.62e+006
	Manual Modification	No
	Amount:	579. (ng/mL)
	% Accuracy:	96.50

	Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	2.08e+007
	Manual Modification	No
	Amount:	239. (ng/mL)
	% Accuracy:	79.80

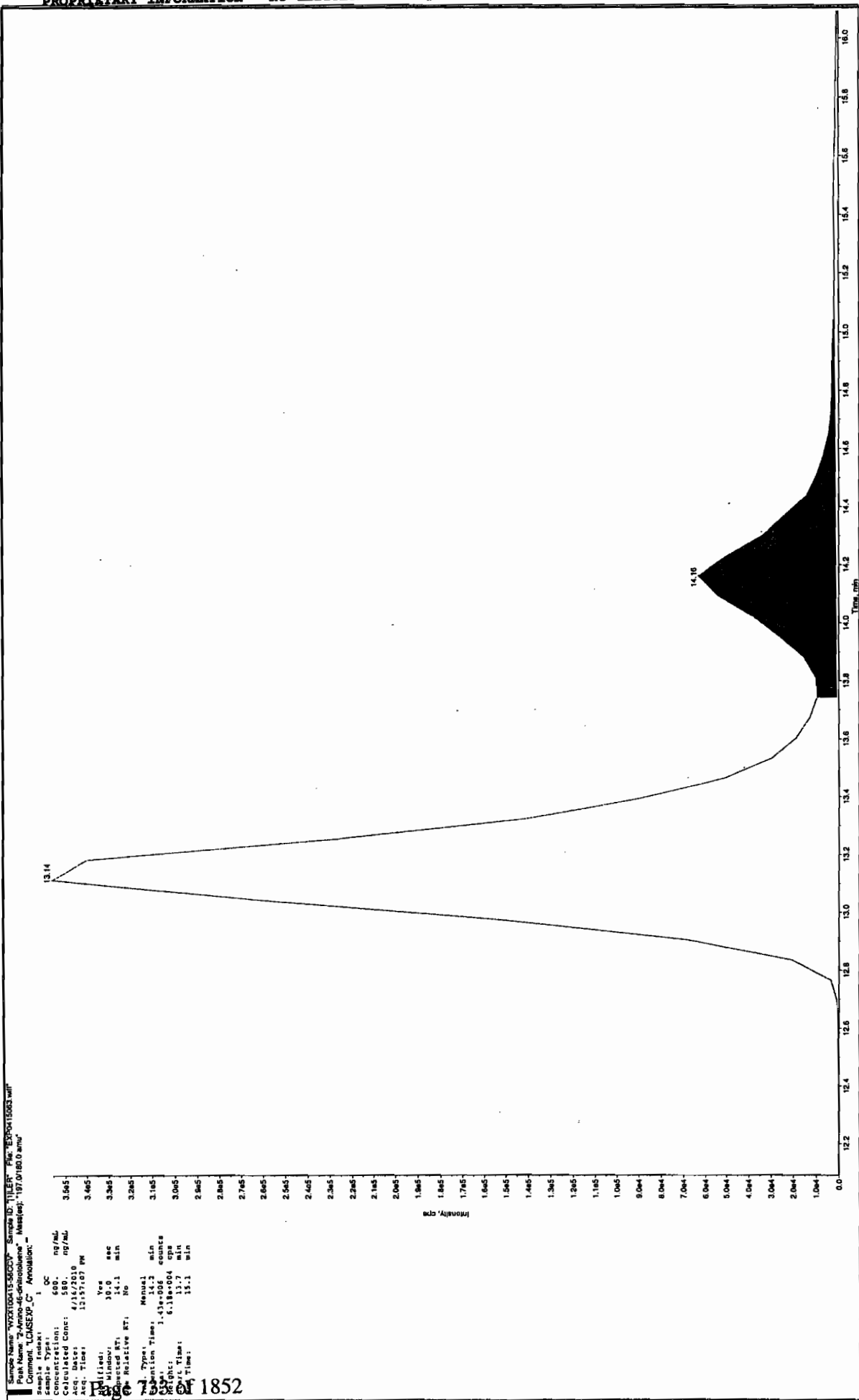
	Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.9
	Area Counts:	4.49e+007
	Manual Modification	No
	Amount:	642. (ng/mL)
	% Accuracy:	107.00

	Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.5
	Area Counts:	1.65e+007
	Manual Modification	No
	Amount:	610. (ng/mL)
	% Accuracy:	102.00



after Jan 4/23/10



Sample Name: "VXZ100415-54020" Sample ID: "TLER" File: "EXP0415003.wif"

Peak Name: "2-Amino-45-dinitrobenzene" Mass(es): "197.0180.0 amu"

Comment: "LCMEXP\_C" Annotation: "

Sample Index: 1 QC

Concentration: 600. ng/mL

Calculated Conc: 580. ng/mL

Acq. Date: 4/16/2010

Acq. Time: 13:19:01 PM

Integrator: Yes

Window: 30.0 sec

Integration: 1.0 min

Relative RT: No

Manual

Type: 1.0 min

Integration Time: 1.0 min

Height: 1.43e+005 counts

Weight: 6.18e+004 cps

Export Time: 13.7 min

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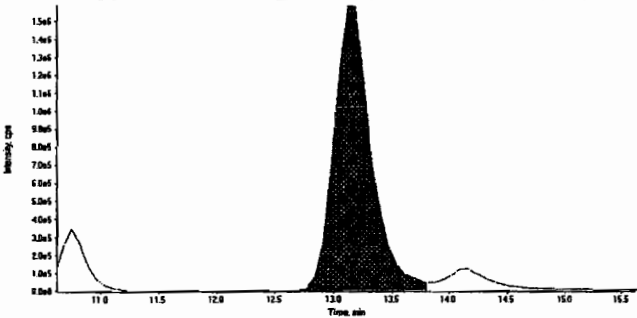
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

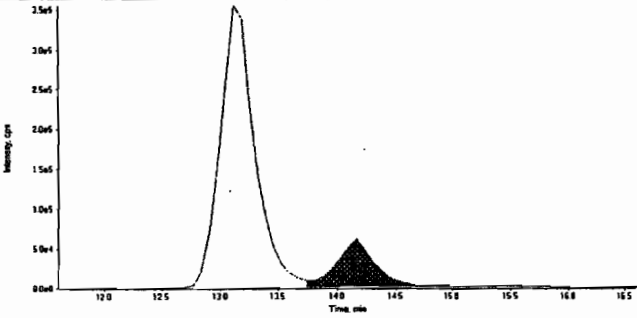
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415063.wiff	<b>Acquisition Date</b>	4/16/2010 12:57:07 PM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

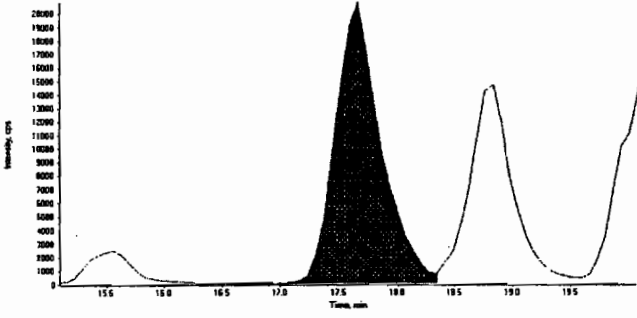
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	3.56e+007
	Manual Modification	No
	Amount:	605. (ng/mL)
	% Accuracy:	101.00

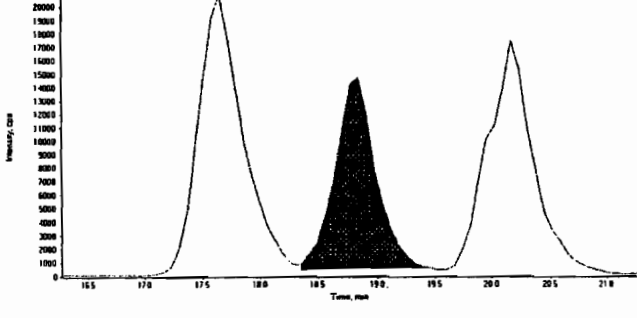
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	14.2
	Area Counts:	1.43e+006
	Manual Modification	Yes
	Amount:	580. (ng/mL)
	% Accuracy:	96.60

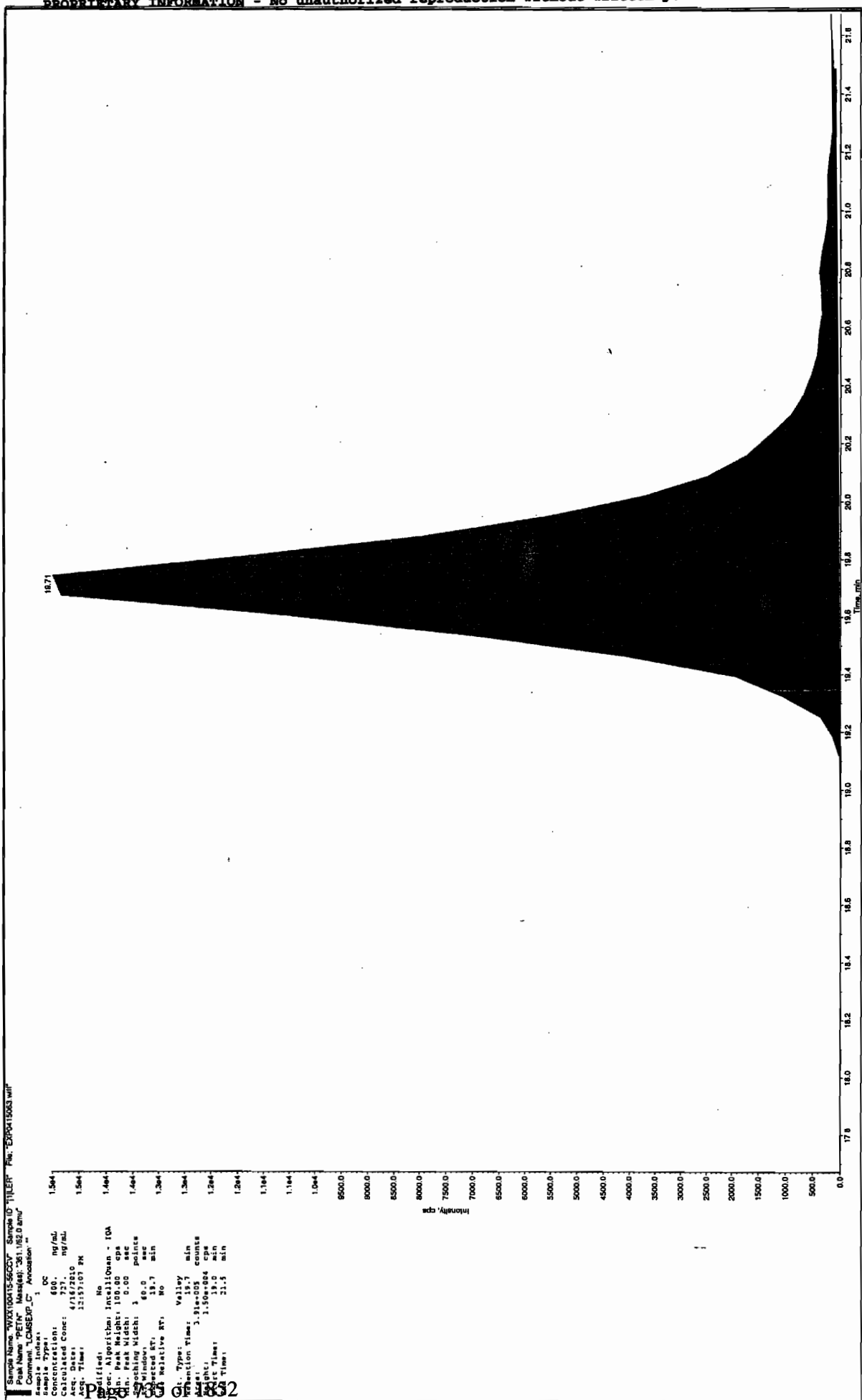
  

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.6
	Area Counts:	5.63e+005
	Manual Modification	No
	Amount:	538. (ng/mL)
	% Accuracy:	89.60

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.8
	Area Counts:	3.43e+005
	Manual Modification	No
	Amount:	610. (ng/mL)
	% Accuracy:	102.00

Before Jan 4/23/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



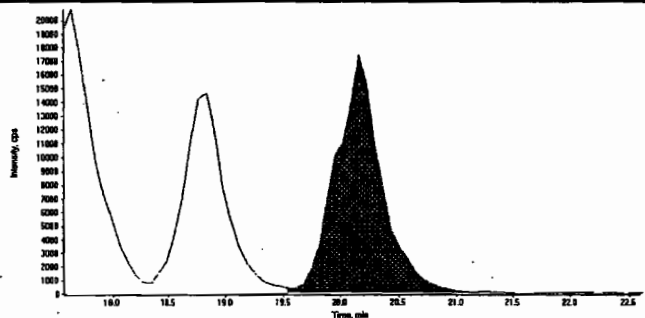


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

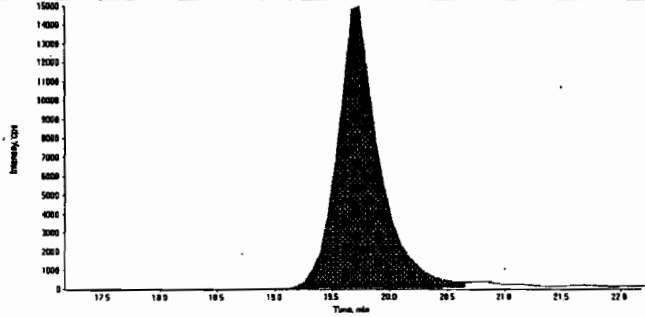
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415063.wiff	Acquisition Date	4/16/2010 12:57:07 PM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	20.2
	Area Counts:	4.76e+005
	Manual Modification	No
	Amount:	606. (ng/mL)
	% Accuracy:	101.00

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	19.7
	Area Counts:	3.82e+005
	Manual Modification	Yes
	Amount:	710. (ng/mL)
	% Accuracy:	118.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/16/10  
 Time of Injection 1257  
 Standard Number WXX100415-56CCV  
 Data File EXP0415063a

HMX	108.0
RDX	125.0
135-Trinitrobenzene	107.0
13-Dinitrobenzene	93.9
Tetryl	97.9
246-Trinitrotoluene	105.0
Nitrobenzene	96.5
34-dinitrotoluene	79.8
26-dinitrotoluene	107.0
24-dinitrotoluene	102.0
4-Amino-26-dinitrotoluene	101.0
2-Amino-46-dinitrotoluene	96.6
2-Nitrotoluene	89.6
4-Nitrotoluene	102.0
3-Nitrotoluene	101.0
PETN	118.0

TOTAL

1630.3

*done 04/23/10*

AVERAGE

101.9

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Jan 4/23/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415065.wiff

Analysis Date: 16-APR-10 13:49

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	32.3	81	
2,4,6-Trinitrotoluene	40	30.6	77	
2,4-Dinitrotoluene	40	28.5	71	
2,6-Dinitrotoluene	40	35.4	89	
2-Amino-4,6-dinitrotoluene	40	36.8	92	
3,4-Dinitrotoluene	20	15.1	75	
4-Amino-2,6-dinitrotoluene	40	30.4	76	
HMX	40	45.5	114	
Nitrobenzene	40	37.4	93	
PETN	40	32.2	81	
RDX	40	38.2	96	
Tetryl	40	34.3	86	
m-Dinitrobenzene	40	38.8	97	
m-Nitrotoluene	40	38.9	97	
o-Nitrotoluene	40	36.2	91	
p-Nitrotoluene	40	46.3	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%

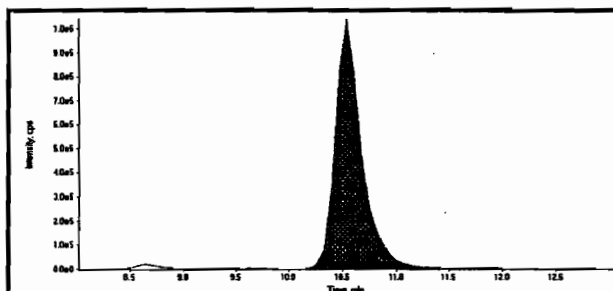
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

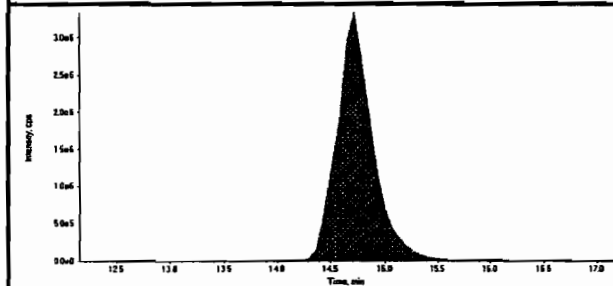
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

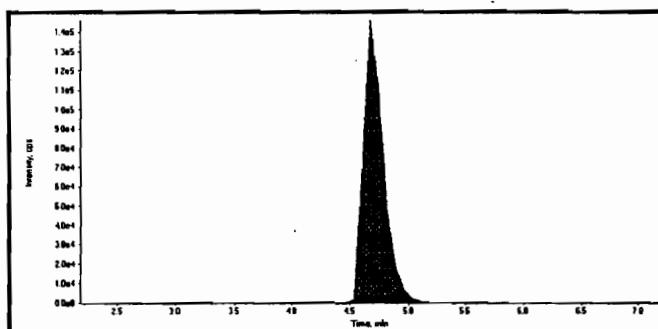
Data File	EXP0415065.wiff	Acquisition Date	4/16/2010 1:49:00 PM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch/Dilution/Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



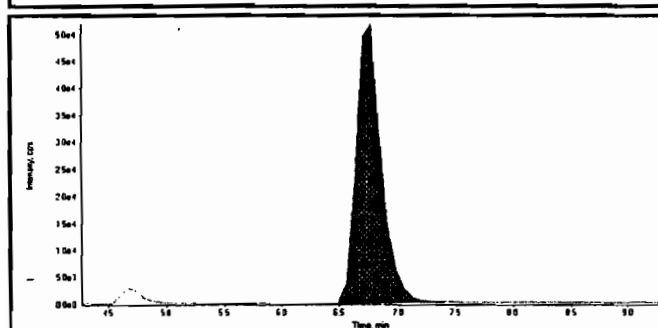
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	17800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	76300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.71e+006
Manual Modification	No
Amount:	45.5 (ng/mL)
% Accuracy:	114.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	7.84e+005
Manual Modification	No
Amount:	38.2 (ng/mL)
% Accuracy:	95.60

*Handwritten signature and date:*  
4/23/10 Hnm

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415065.wiff	<b>Acquisition Date</b>	4/16/2010 1:49:00 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	9.00
	<b>Area Counts:</b>	9.33e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	32.3 (ng/mL)
	<b>% Accuracy:</b>	80.80

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	3.90e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	38.8 (ng/mL)
	<b>% Accuracy:</b>	96.90

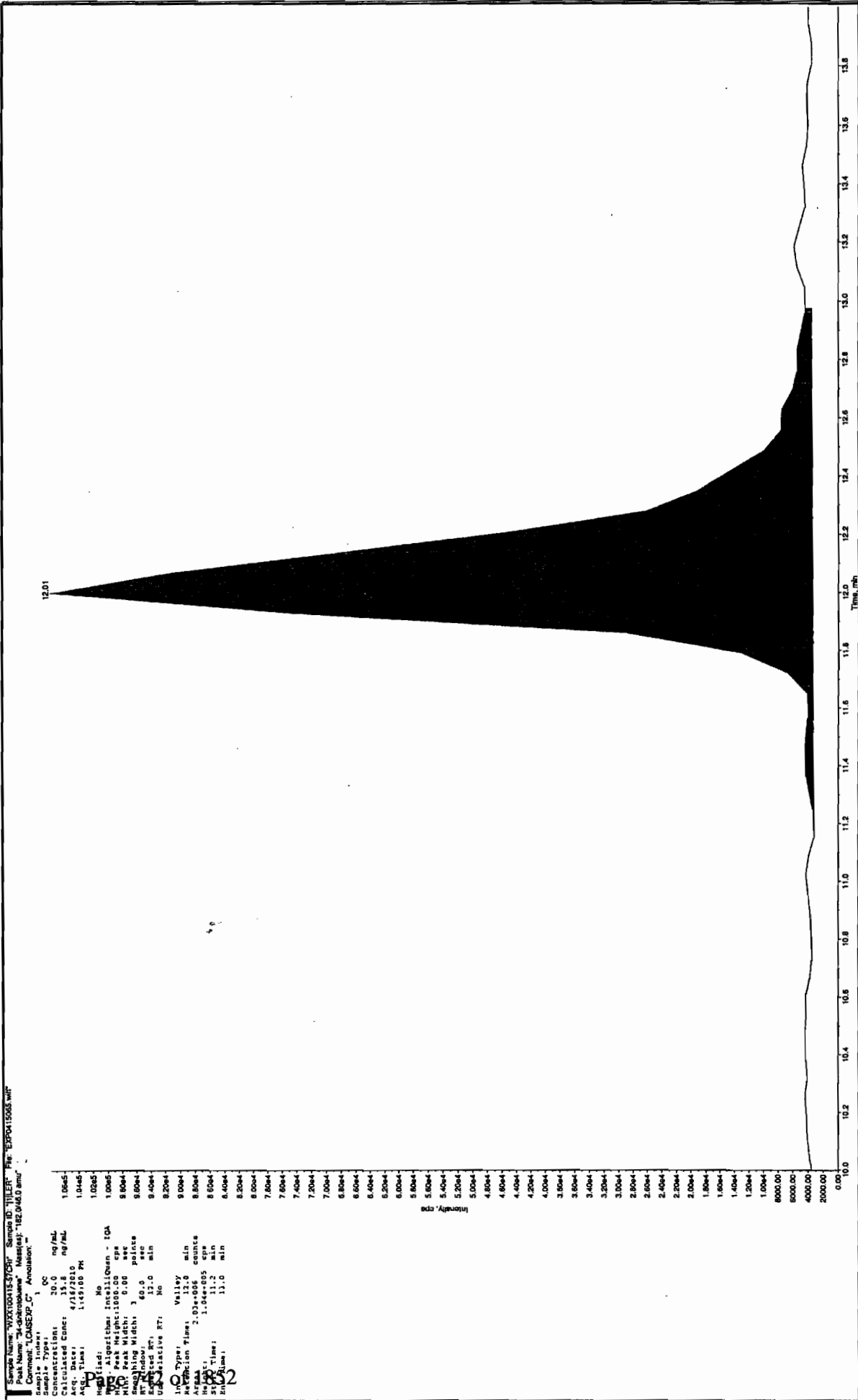
  

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	2.72e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	34.3 (ng/mL)
	<b>% Accuracy:</b>	85.70

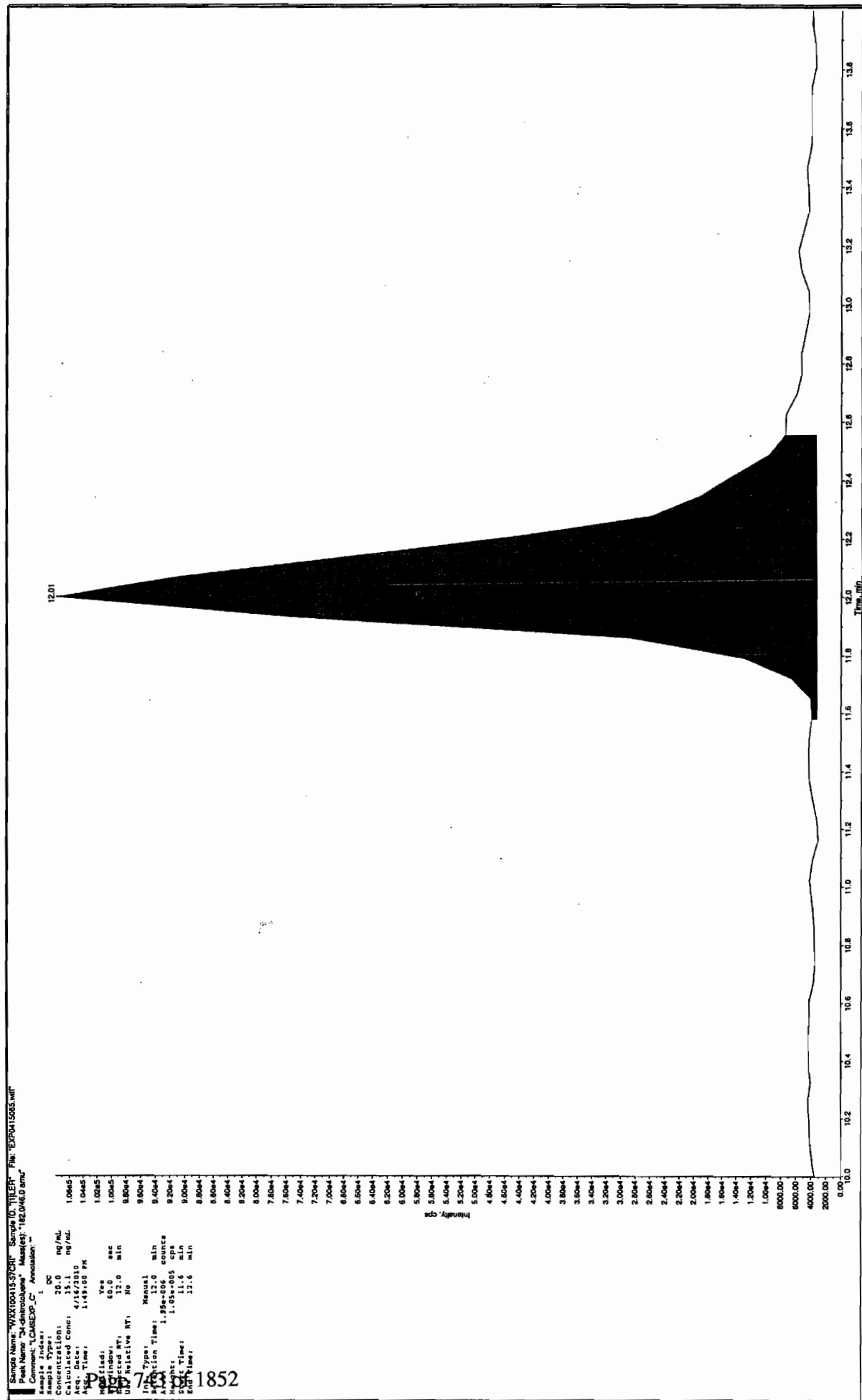
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.1
	<b>Area Counts:</b>	1.67e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	30.6 (ng/mL)
	<b>% Accuracy:</b>	76.50

Before Jan 4/2010



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Dec 4/23/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415065.wiff	<b>Acquisition Date</b>	4/16/2010 1:49:00 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	11.8
	<b>Area Counts:</b>	1.18e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	37.4 (ng/mL)
	<b>% Accuracy:</b>	93.40

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.0
	<b>Area Counts:</b>	1.95e+006
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	15.1 (ng/mL)
	<b>% Accuracy:</b>	75.30

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.8
	<b>Area Counts:</b>	3.94e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	35.4 (ng/mL)
	<b>% Accuracy:</b>	88.60

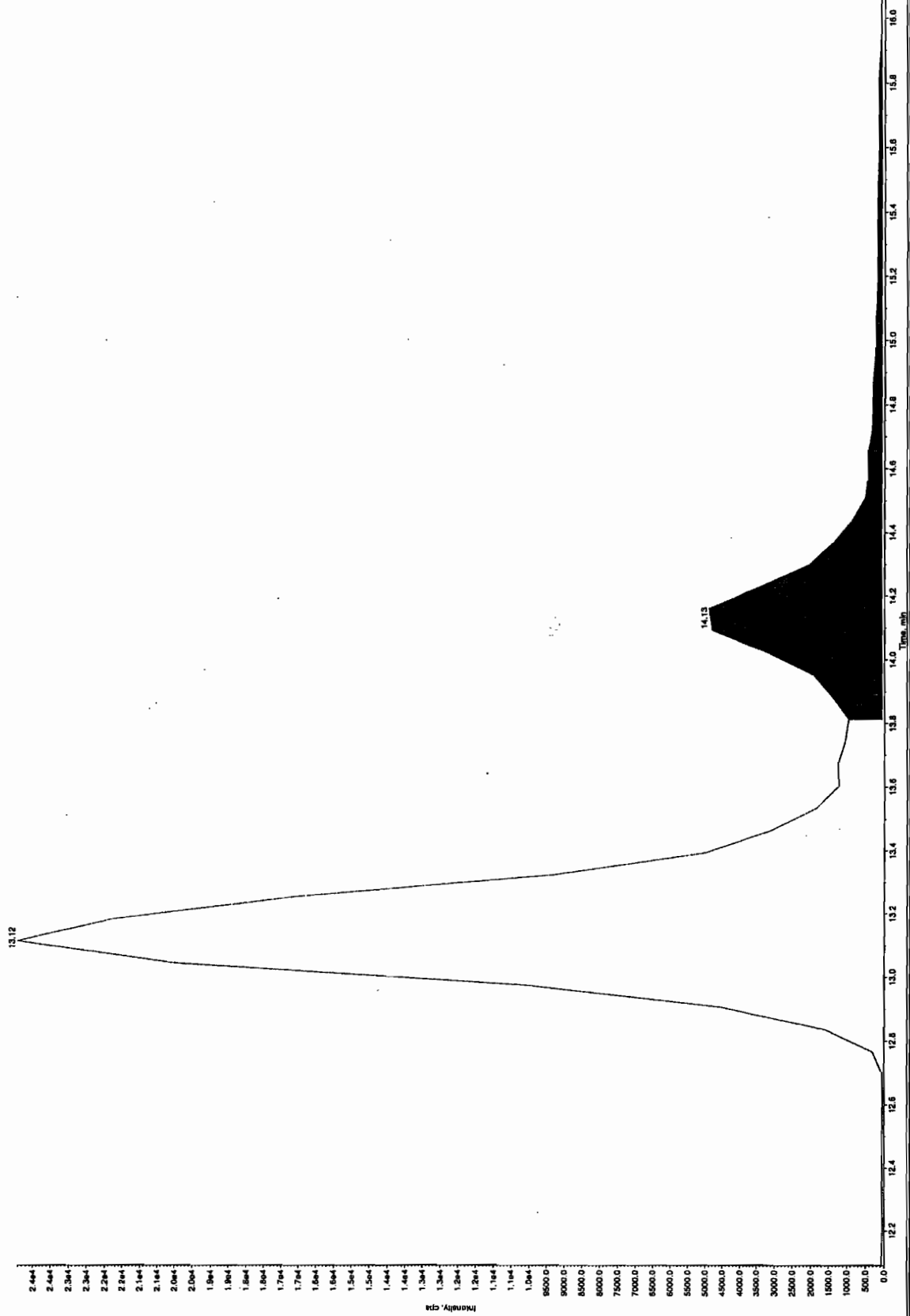
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	15.5
	<b>Area Counts:</b>	1.22e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	28.5 (ng/mL)
	<b>% Accuracy:</b>	71.40



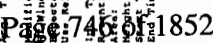
Before Dec 4/23/10

Sample Name: WXX100415-57011 Sample ID: TILER File: EX0415063.wif  
 Peak Name: 2-Amino-6-deutroketone Mass(es): 197.0/180.0 amu  
 Comment: LCMS-EXP\_C Annotation: =

Sample Index: 1  
 Concentration: 40.0 ng/mL  
 Acq. Date: 4/16/2010  
 Acq. Time: 1:09:00 PM  
 Method: No  
 Algorithm: IntelliQuan - 10A  
 Peak Weight: 100.00 cps  
 Peak Height: 100.00 cps  
 Peak Width: 3.00 points  
 Peak Area: 30.0 sec  
 Peak RT: 14.1 min  
 Expected RT: 30  
 Type: Valley  
 Retention Time: 14.2 min  
 Peak Width: 1.17 sec  
 Peak Area: 4.79e+003 cps  
 Peak Height: 13.8 min  
 Peak RT: 16.1 min  
 Peak Area: 16.1 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415065.wiff	<b>Acquisition Date</b>	4/16/2010 1:49:00 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	2.35e+006
	Manual Modification	No
	Amount:	30.4 (ng/mL)
	% Accuracy:	75.90

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	14.1
	Area Counts:	1.05e+005
	Manual Modification	Yes
	Amount:	36.8 (ng/mL)
	% Accuracy:	92.10

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.6
	Area Counts:	4.20e+004
	Manual Modification	No
	Amount:	36.2 (ng/mL)
	% Accuracy:	90.50

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.7
	Area Counts:	2.89e+004
	Manual Modification	No
	Amount:	46.3 (ng/mL)
	% Accuracy:	116.00

Before Jan 4/23/10

Sample Name: WY210015-57C8 Sample ID: YLIER File: EXP015655.wif  
 Date: 4/16/2010 1:49:00 PM  
 Comment: LCMSEXP.DT Annotation: 1

Sample Index: 1

Sample Type: OC

Concentration: 42.5 ng/mL

Calculated Conc: 32.5 ng/mL

Acq. Date: 4/16/2010

Acq. Time: 1:49:00 PM

Method: No

Peak Algorithm: IntelliQwen - IQA

Peak Height: 100.00 cps

Peak Width: 0.08 sec

Peak Width: 1.00 sec

Peak Width: 1.00 sec

Peak Width: 1.00 sec

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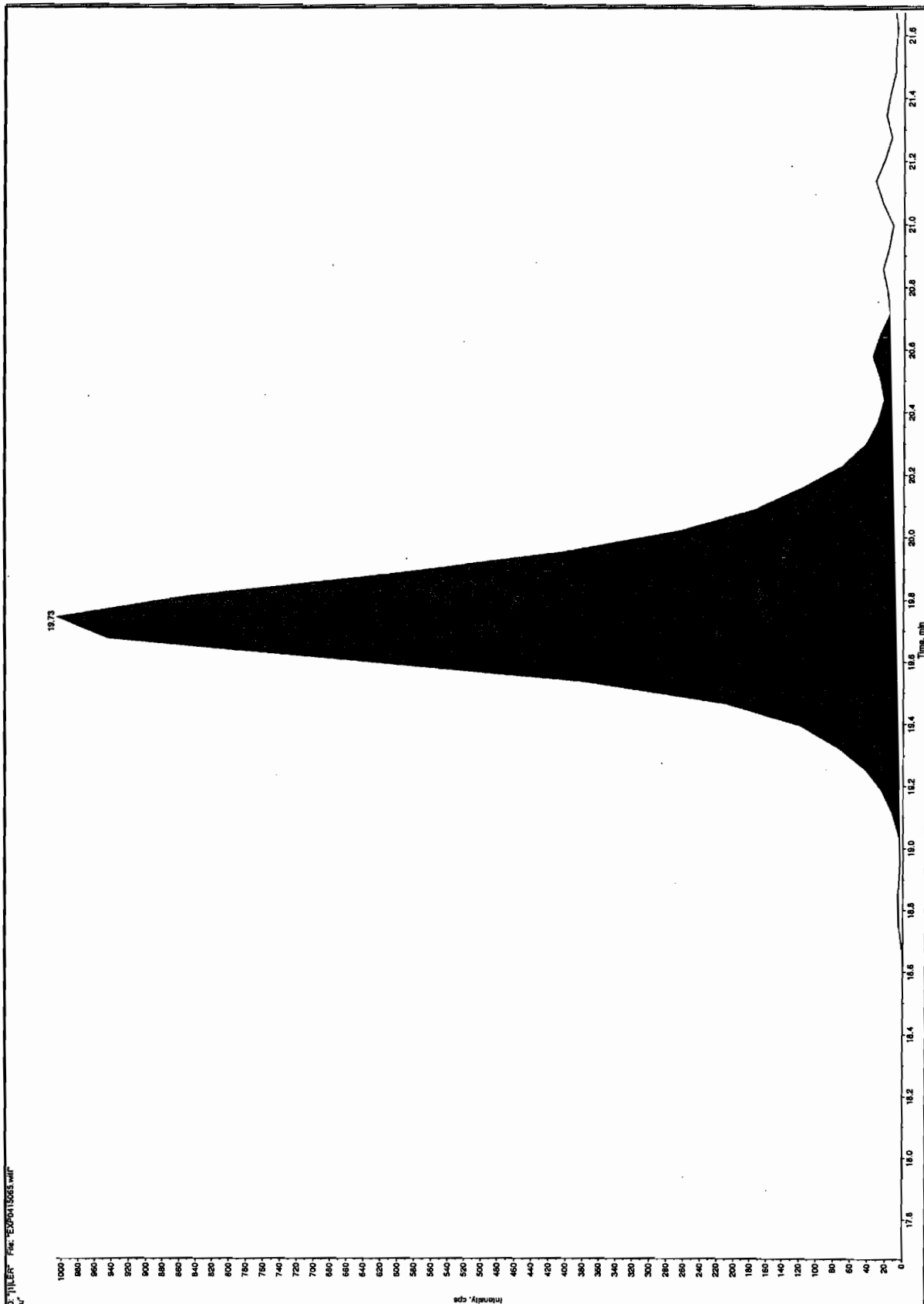
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Peak Width: 1.00 sec

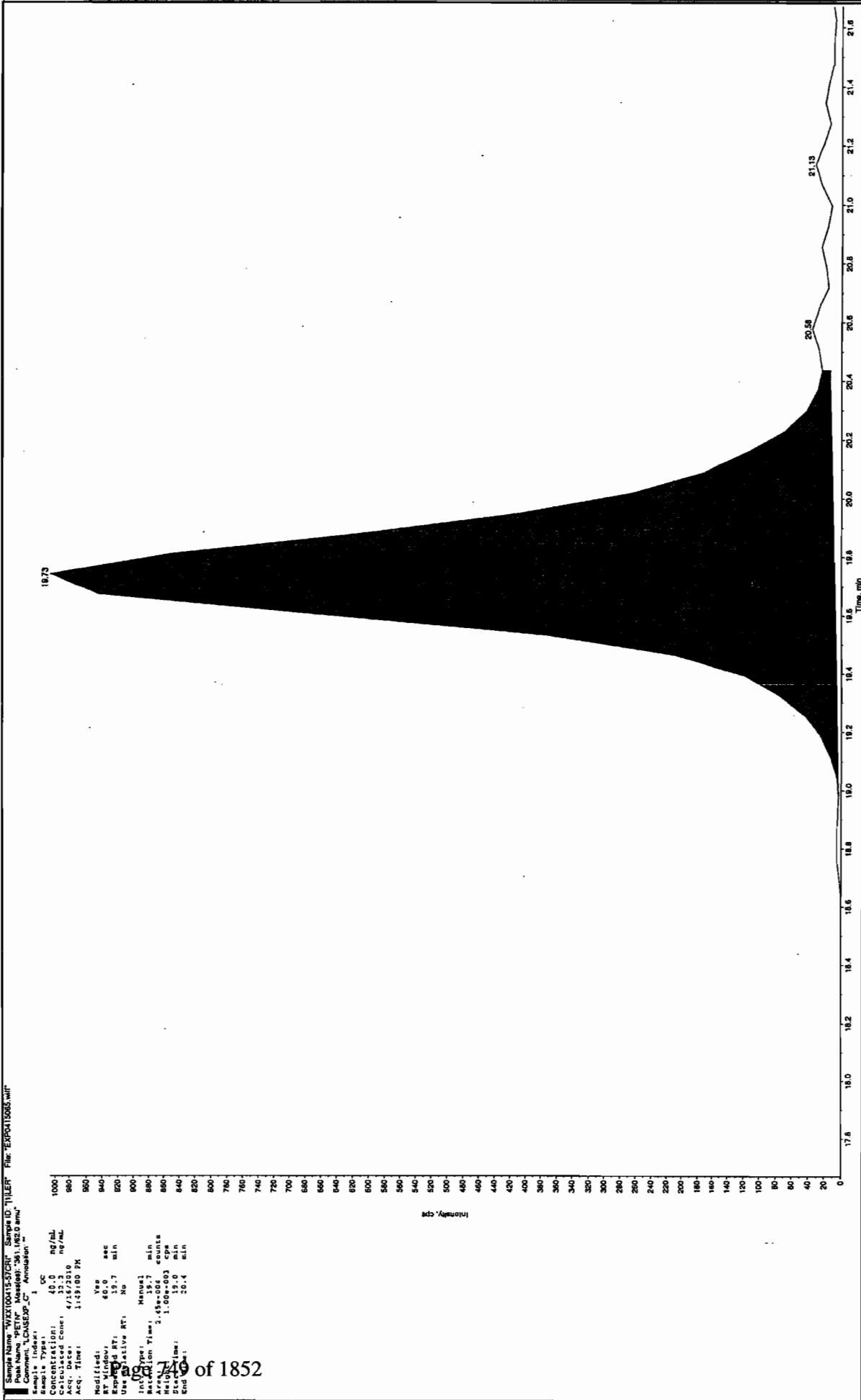
Peak Width: 1.00 sec

Peak Width: 1.00 sec



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/28/10

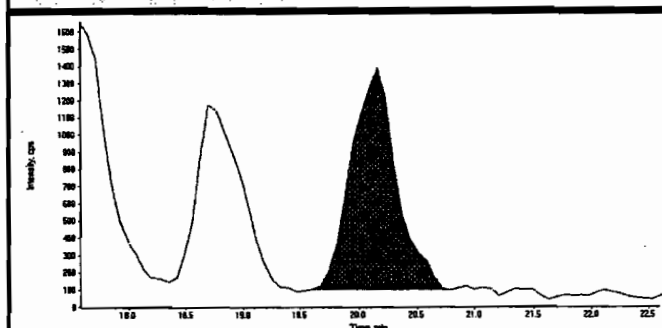


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

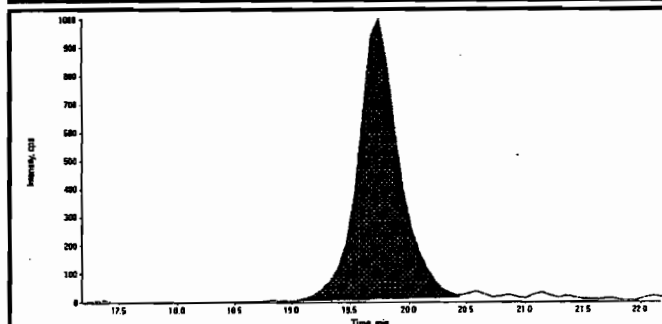
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415065.wiff	Acquisition Date	4/16/2010 1:49:00 PM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	3.51e+004
Manual Modification	No
Amount:	38.9 (ng/mL)
% Accuracy:	97.30



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.7
Area Counts:	2.45e+004
Manual Modification	Yes
Amount:	32.2 (ng/mL)
% Accuracy:	80.60

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/16/10  
 Time of Injection 1349  
 Standard Number WXX100415-57CRI  
 Data File EXP0415065a

HMX	114.0
RDX	95.6
135-Trinitrobenzene	80.8
13-Dinitrobenzene	96.9
Tetryl	85.7
246-Trinitrotoluene	76.5
Nitrobenzene	93.4
34-dinitrotoluene	75.3
26-dinitrotoluene	88.6
24-dinitrotoluene	71.4
4-Amino-26-dinitrotoluene	75.9
2-Amino-46-dinitrotoluene	92.1
2-Nitrotoluene	90.5
4-Nitrotoluene	116.0
3-Nitrotoluene	97.3
PETN	80.6

TOTAL

1430.6

*Handwritten:* HMM 04/23/10

AVERAGE

89.4

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Handwritten:* Lar 4/23/10

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0415076.wiff

Analysis Date: 16-APR-10 18:34

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	522	87	
2,4,6-Trinitrotoluene	600	541	90	
2,4-Dinitrotoluene	600	623	104	
2,6-Dinitrotoluene	600	565	94	
2-Amino-4,6-dinitrotoluene	600	609	102	
3,4-Dinitrotoluene	300	258	86	
4-Amino-2,6-dinitrotoluene	600	554	92	
HMX	600	545	91	
Nitrobenzene	600	584	97	
PETN	600	631	105	
RDX	600	518	86	
Tetryl	600	518	86	
m-Dinitrobenzene	600	506	84	
m-Nitrotoluene	600	652	109	
o-Nitrotoluene	600	575	96	
p-Nitrotoluene	600	665	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 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

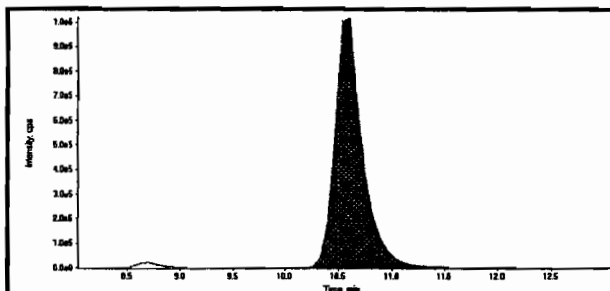
\* Value outside of Recovery Limits



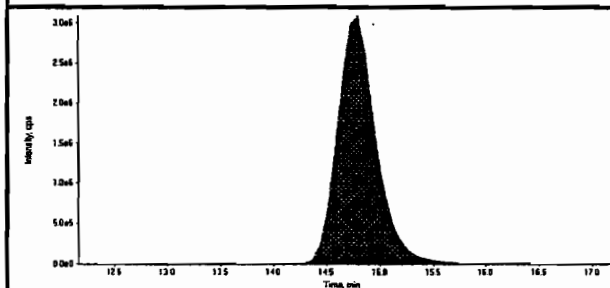
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

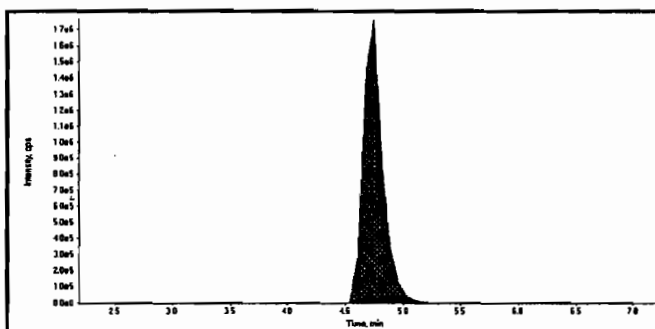
Data File	EXP0415076.wiff	Acquisition Date	4/16/2010 6:34:58 PM
Sample Name	WXX100416-56CCV	Acquisition Method	8321.dam
Batch/Dilution/Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



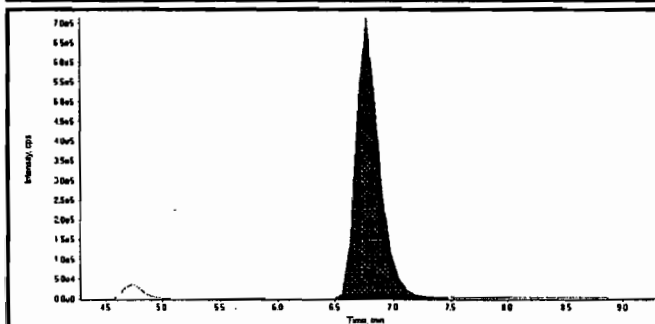
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	18600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	77800000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	2.07e+007
Manual Modification	No
Amount:	545. (ng/mL)
% Accuracy:	90.80

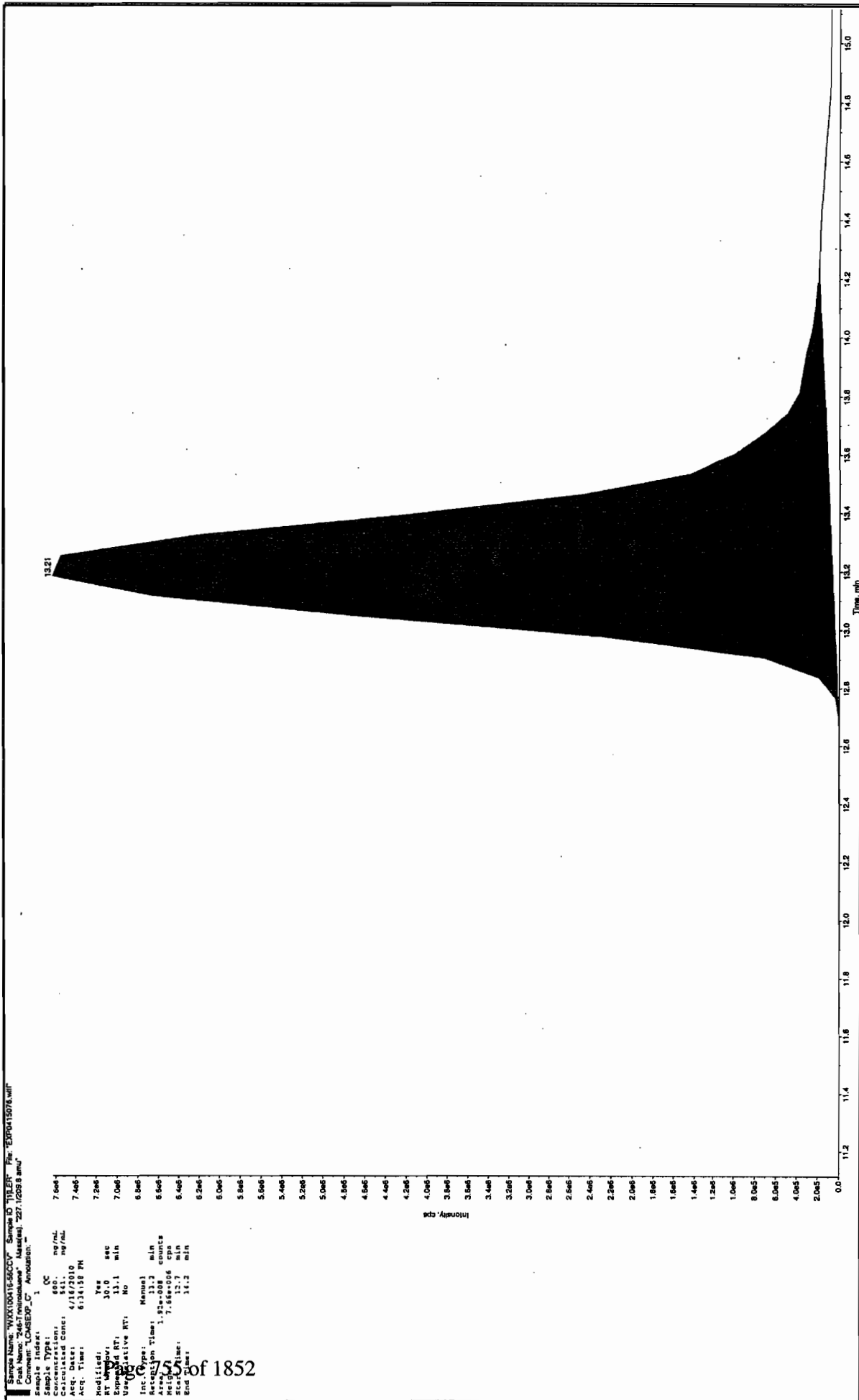


Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	9.96e+006
Manual Modification	No
Amount:	518. (ng/mL)
% Accuracy:	86.30

*Handwritten:*  
4/16/2010  
Jen  
4/16/2010



after Jan 4/23/10



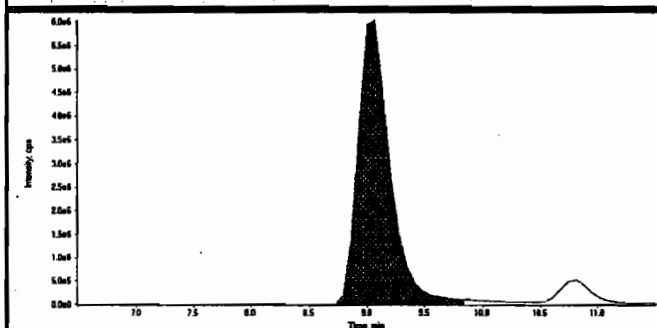
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

Sample Name: WVK10015-560V Sample ID: 101560V File: EXP015078.wiff  
 Peak Name: "246.7 m/z (molecular ion)" Mass(es): 223.12058 amu  
 Comment: "LCMSMS#3" Annotation: "  
 Sample Index: 1  
 Sample Type: QC  
 Sample Date: 4/16/2010  
 Acq. Date: 6/14/10 PM  
 Acq. Time: 7.24e  
 Modified: Yes  
 RT Method: 10.0 sec  
 Expanded RT: 13.1 min  
 Repetitive RT: No  
 Int. Type: Manual  
 Acquisition Time: 13.2 min  
 Retention Time: 13.2 min  
 Start Time: 7.16e+006 cps  
 End Time: 13.2 min  
 End Time: 14.2 min

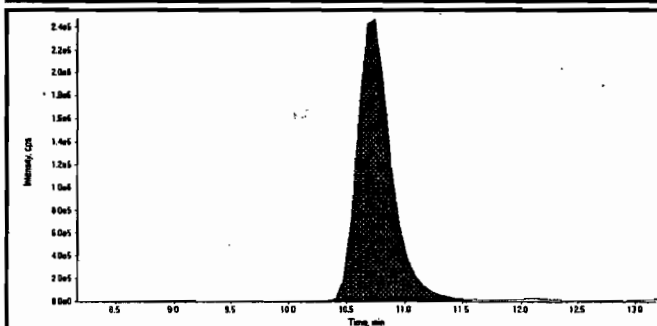
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

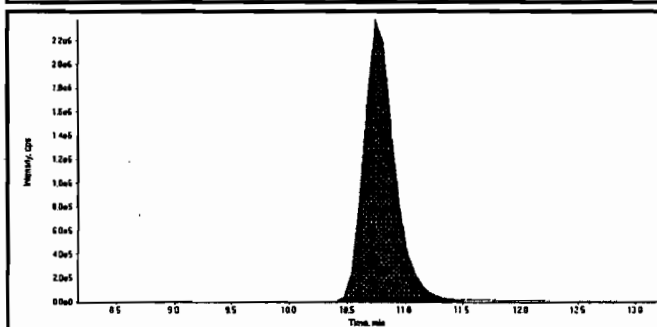
Data File	EXP0415076.wiff	Acquisition Date	4/16/2010 6:34:58 PM
Sample Name	WXX100416-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



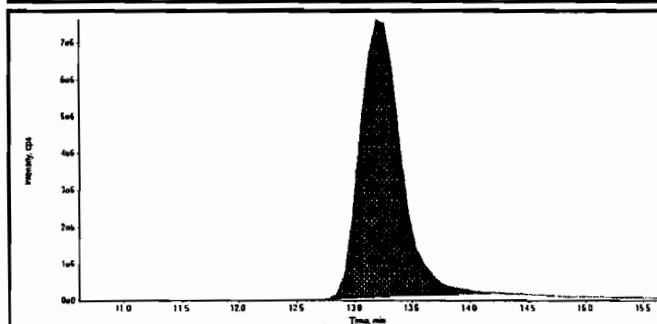
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.07
Area Counts:	1.20e+008
Manual Modification	No
Amount:	522. (ng/mL)
% Accuracy:	86.90



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	5.18e+007
Manual Modification	No
Amount:	506. (ng/mL)
% Accuracy:	84.40



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	4.48e+007
Manual Modification	No
Amount:	518. (ng/mL)
% Accuracy:	86.40



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	1.92e+008
Manual Modification	Yes
Amount:	541. (ng/mL)
% Accuracy:	90.20

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415076.wiff	<b>Acquisition Date</b>	4/16/2010 6:34:58 PM
<b>Sample Name</b>	WXX100416-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	11.9
	<b>Area Counts:</b>	2.22e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	584. (ng/mL)
	<b>% Accuracy:</b>	97.40

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	2.63e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	258. (ng/mL)
	<b>% Accuracy:</b>	85.90

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.9
	<b>Area Counts:</b>	4.67e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	565. (ng/mL)
	<b>% Accuracy:</b>	94.10

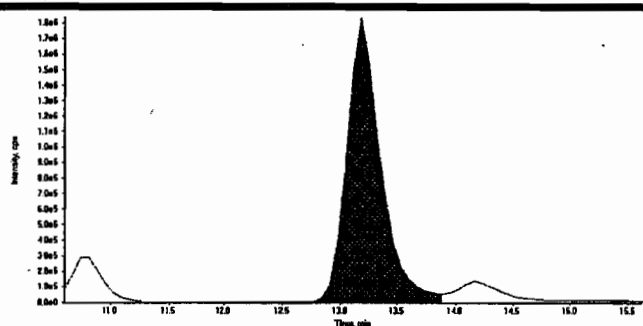
  

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	15.6
	<b>Area Counts:</b>	1.98e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	623. (ng/mL)
	<b>% Accuracy:</b>	104.00

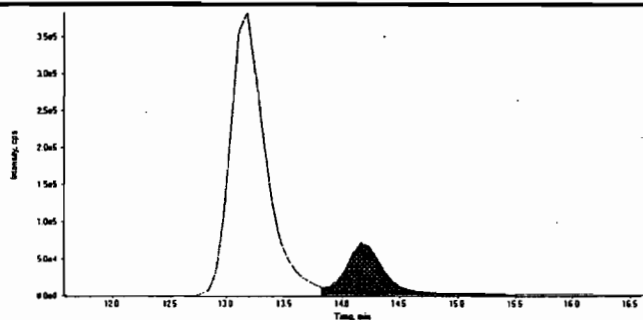
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

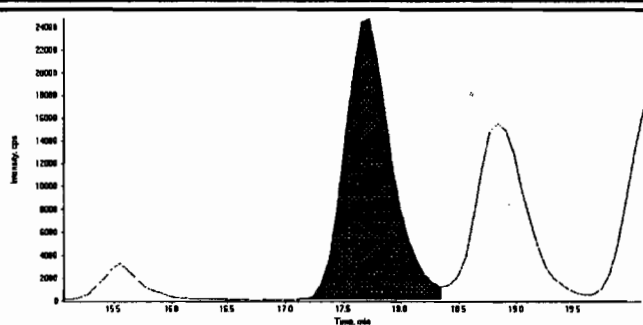
Data File	EXP0415076.wiff	Acquisition Date	4/16/2010 6:34:58 PM
Sample Name	WXX100416-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



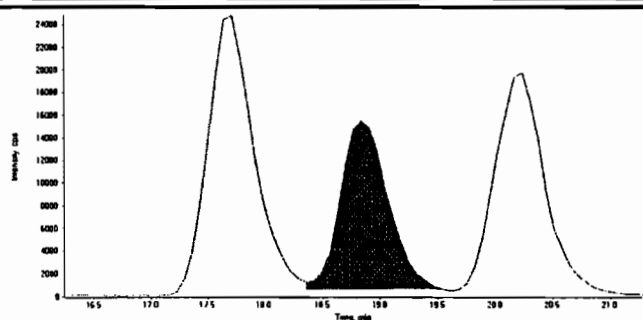
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	3.84e+007
Manual Modification	No
Amount:	554. (ng/mL)
% Accuracy:	92.40



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	14.2
Area Counts:	1.77e+006
Manual Modification	No
Amount:	609. (ng/mL)
% Accuracy:	102.00

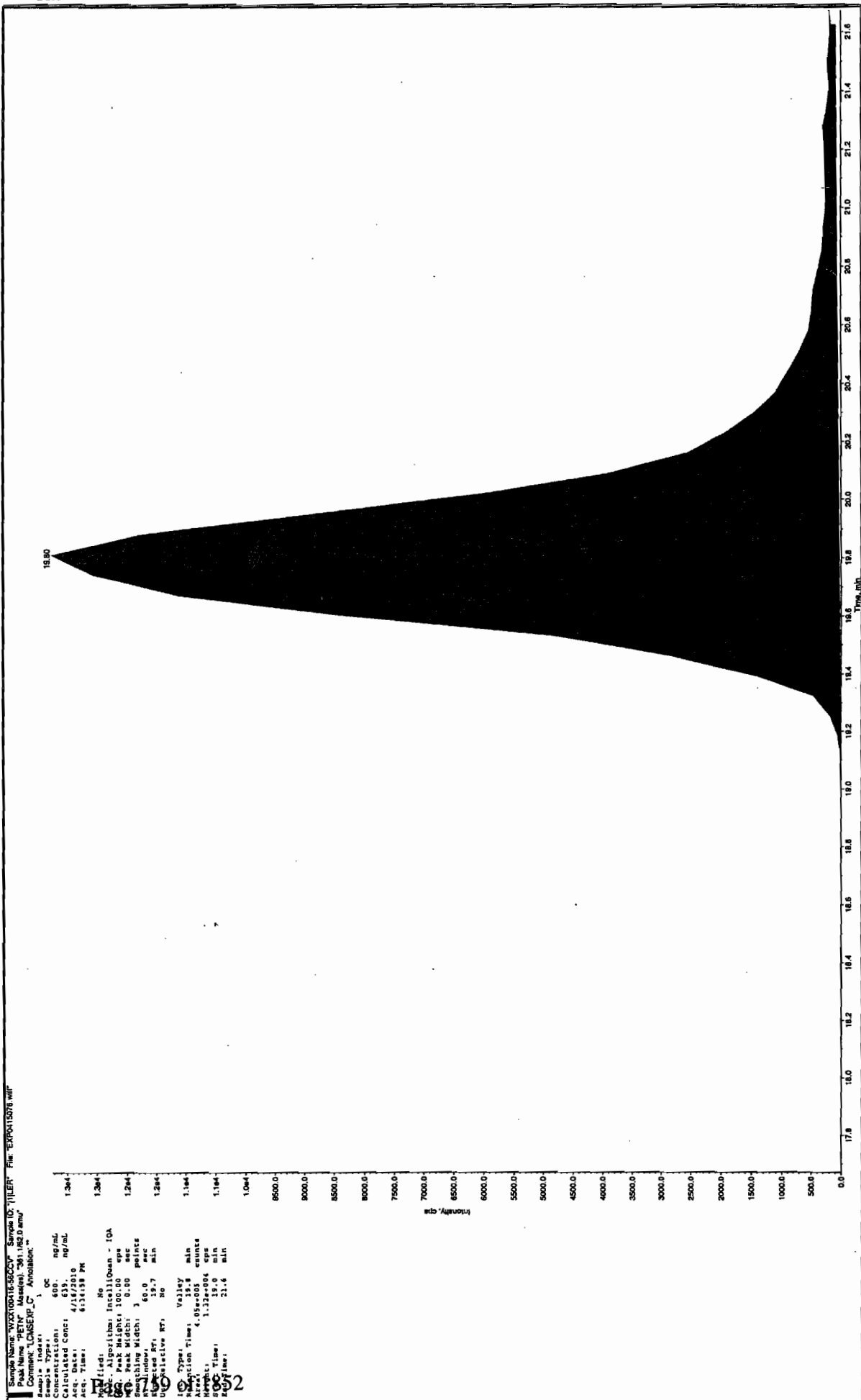


Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.7
Area Counts:	7.07e+005
Manual Modification	No
Amount:	575. (ng/mL)
% Accuracy:	95.80



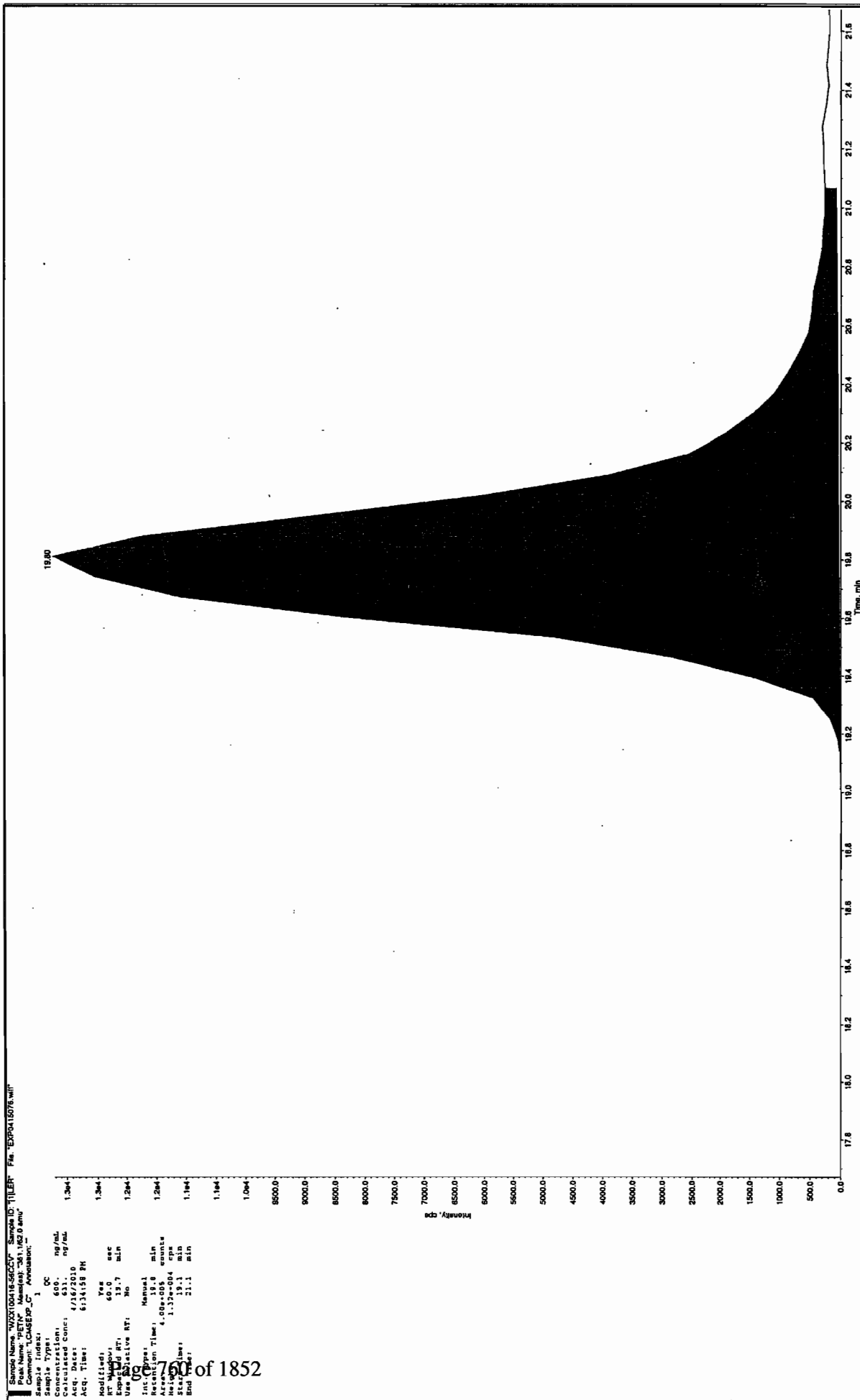
Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.8
Area Counts:	4.36e+005
Manual Modification	No
Amount:	665. (ng/mL)
% Accuracy:	111.00

Before Jan 4/23/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Dec 4/23/10



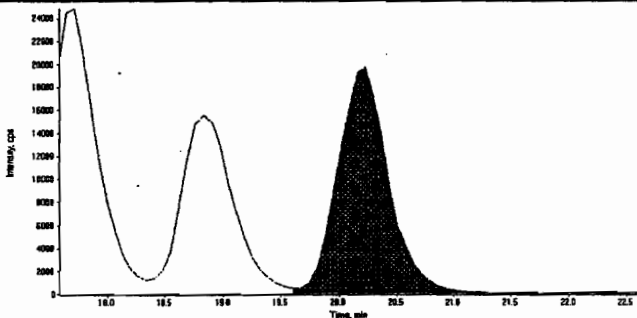
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

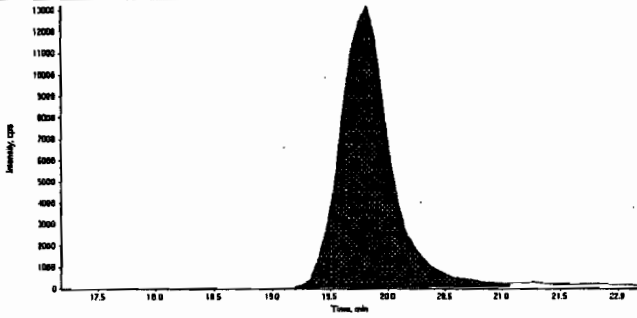


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415076.wiff	Acquisition Date	4/16/2010 6:34:58 PM
Sample Name	WXX100416-56CCV	Acquisition Method	8321.dam
Batch/Dilution/Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	20.2
	Area Counts:	6.05e+005
	Manual Modification	No
	Amount:	652. (ng/mL)
	% Accuracy:	109.00

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	19.8
	Area Counts:	4.00e+005
	Manual Modification	Yes
	Amount:	631. (ng/mL)
	% Accuracy:	105.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/16/10  
 Time of Injection 1834  
 Standard Number WXX100416-56CCV  
 Data File EXP0415076a

HMX	90.8
RDX	86.3
135-Trinitrobenzene	86.9
13-Dinitrobenzene	84.4
Tetryl	86.4
246-Trinitrotoluene	90.2
Nitrobenzene	97.4
34-dinitrotoluene	85.9
26-dinitrotoluene	94.1
24-dinitrotoluene	104.0
4-Amino-26-dinitrotoluene	92.4
2-Amino-46-dinitrotoluene	102.0
2-Nitrotoluene	95.8
4-Nitrotoluene	111.0
3-Nitrotoluene	109.0
PETN	105.0

TOTAL

✓ 1521.6 *Handwritten signature*

AVERAGE

✓ 95.1	ICV Limits 85-115%
	CRI Limits 70-130%
	CCV Limits 85-115%
No single analyte > +/- 60%	

*Handwritten signature*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415078.wiff

Analysis Date: 16-APR-10 19:26

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	39.3	98	
2,4,6-Trinitrotoluene	40	42.4	106	
2,4-Dinitrotoluene	40	34.6	86	
2,6-Dinitrotoluene	40	31.9	80	
2-Amino-4,6-dinitrotoluene	40	36.5	91	
3,4-Dinitrotoluene	20	19.5	98	
4-Amino-2,6-dinitrotoluene	40	42.6	107	
HMX	40	45	113	
Nitrobenzene	40	47.9	120	
PETN	40	49.4	124	
RDX	40	51.4	128	
Tetryl	40	36.7	92	
m-Dinitrobenzene	40	40.8	102	
m-Nitrotoluene	40	44.8	112	
o-Nitrotoluene	40	34.2	86	
p-Nitrotoluene	40	35.1	88	

Recovery Limits:

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

Other Target Analytes 70-130%

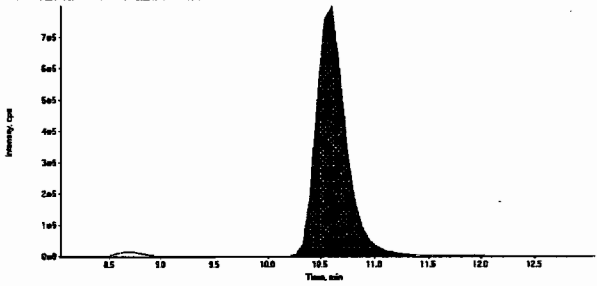
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

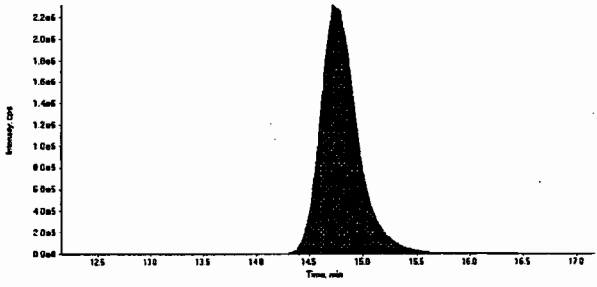
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

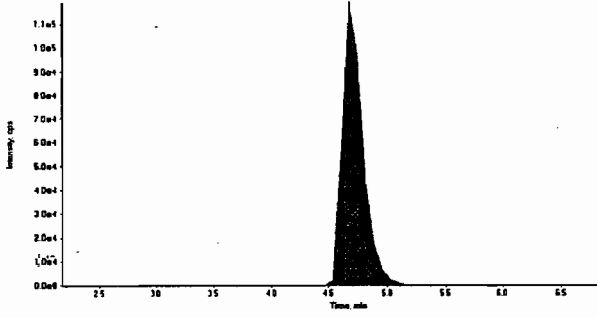
Data File	EXP0415078.wiff	Acquisition Date	4/16/2010 7:26:48 PM
Sample Name	WXX100416-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	<b>Compound Name:</b>	13-Dinitrobenzene-d4 (172.1/46.1 amu)
	Expected RT:	10.50
	Actual RT:	10.60
	Area Counts:	15300000.00
	Manual Modification	No
	Amount:	500.00(ng/mL)

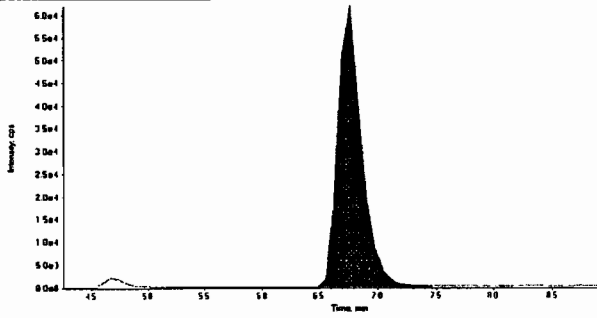
Please refer to Form 8 for a list of Internal Standard Recoveries

	<b>Compound Name:</b>	26-Dinitrotoluene-d3 (185.0/155.0 amu)
	Expected RT:	14.60
	Actual RT:	14.70
	Area Counts:	55600000.00
	Manual Modification	No
	Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

	<b>Compound Name:</b>	HMX (341.2/46.0 amu)
	Expected RT:	4.67
	Actual RT:	4.67
	Area Counts:	1.45e+006
	Manual Modification	No
	Amount:	45.0 (ng/mL)

% Accuracy: 113.00

	<b>Compound Name:</b>	RDX (267.0/46.1 amu)
	Expected RT:	6.77
	Actual RT:	6.77
	Area Counts:	8.79e+005
	Manual Modification	No
	Amount:	51.4 (ng/mL)

% Accuracy: 128.00

*Handwritten signatures and dates:*  
4/16/2010  
4/16/2010

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415078.wiff	<b>Acquisition Date</b>	4/16/2010 7:26:48 PM
<b>Sample Name</b>	WXX100416-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	9.00
	<b>Area Counts:</b>	9.60e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	39.3 (ng/mL)
	<b>% Accuracy:</b>	98.20

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	3.54e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	40.8 (ng/mL)
	<b>% Accuracy:</b>	102.00

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	2.52e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	36.7 (ng/mL)
	<b>% Accuracy:</b>	91.70

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	1.58e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	42.4 (ng/mL)
	<b>% Accuracy:</b>	106.00

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415078.wiff	<b>Acquisition Date</b>	4/16/2010 7:26:48 PM
<b>Sample Name</b>	WXX100416-57ÇRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.9
	Area Counts:	1.34e+005
	Manual Modification	No
	Amount:	47.9 (ng/mL)
	% Accuracy:	120.00

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	1.74e+006
	Manual Modification	No
	Amount:	19.5 (ng/mL)
	% Accuracy:	97.70

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.9
	Area Counts:	2.66e+006
	Manual Modification	No
	Amount:	31.9 (ng/mL)
	% Accuracy:	79.70

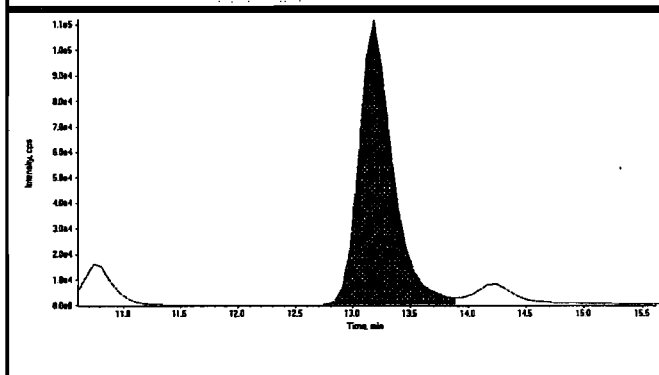
  

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.5
	Area Counts:	1.02e+006
	Manual Modification	No
	Amount:	34.6 (ng/mL)
	% Accuracy:	86.40

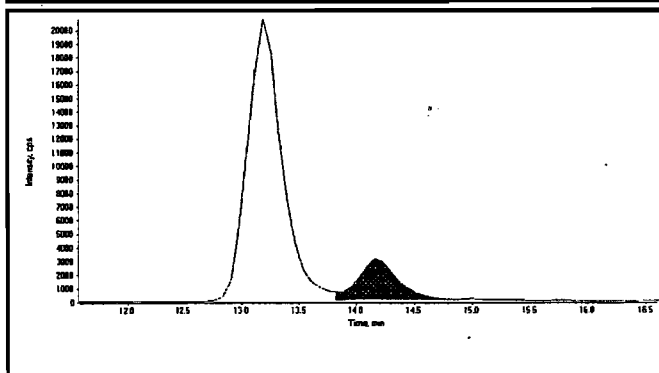
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

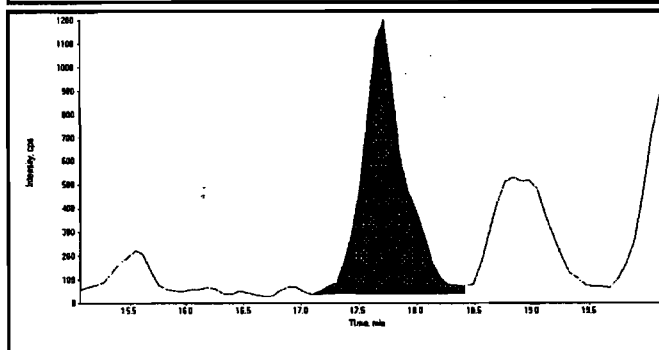
Data File	EXP0415078.wiff	Acquisition Date	4/16/2010 7:26:48 PM
Sample Name	WXX100416-57CRI	Acquisition Method	8321.dam
Batch/Dilution/Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



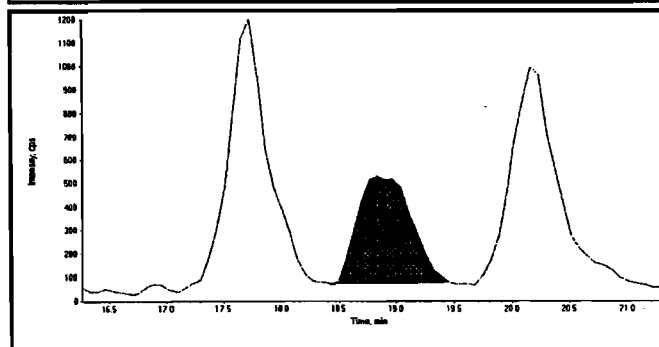
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.31e+006
Manual Modification	No
Amount:	42.6 (ng/mL)
% Accuracy:	107.00



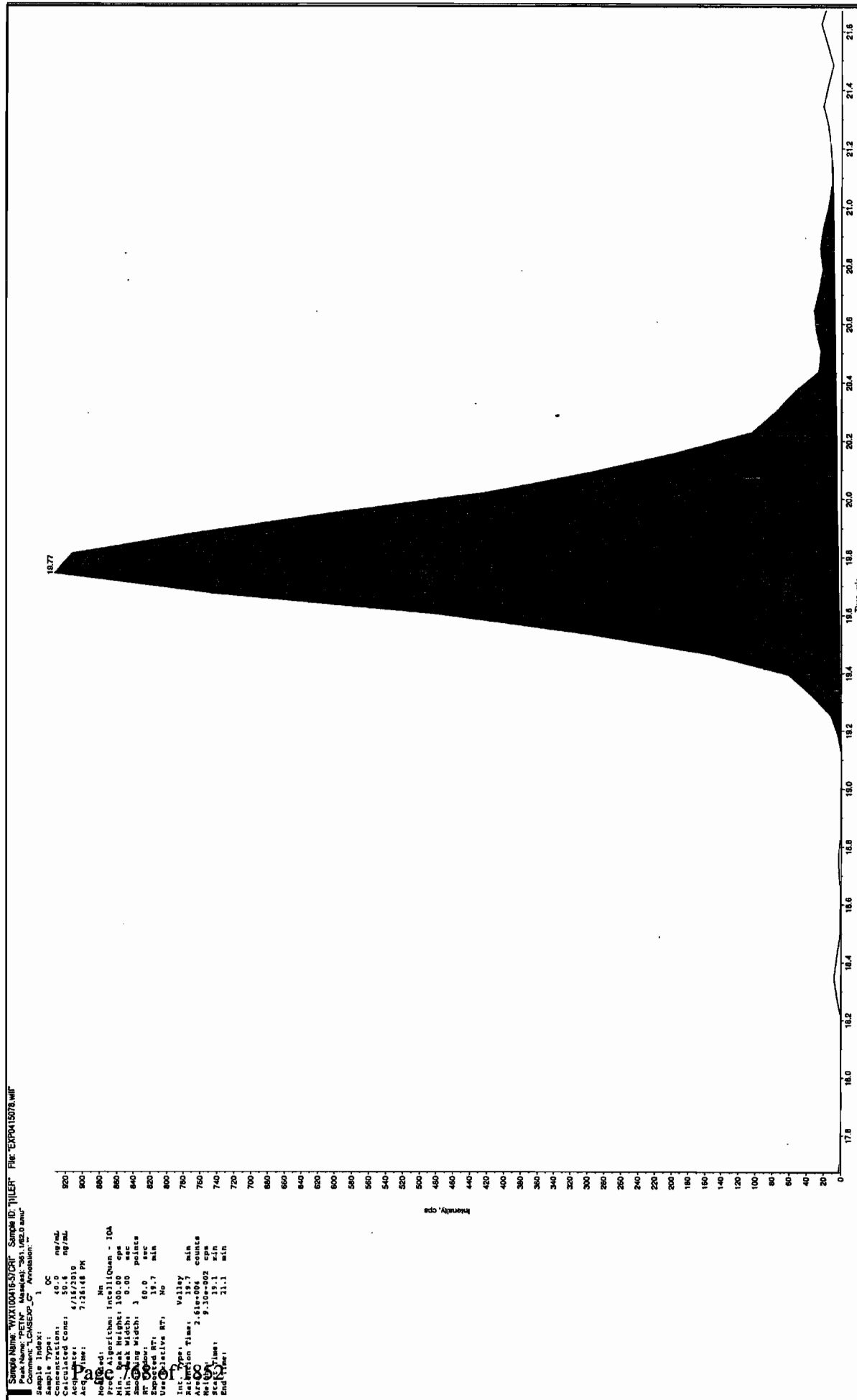
Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	14.2
Area Counts:	7.58e+004
Manual Modification	No
Amount:	36.5 (ng/mL)
% Accuracy:	91.20



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.7
Area Counts:	2.87e+004
Manual Modification	No
Amount:	34.2 (ng/mL)
% Accuracy:	85.50



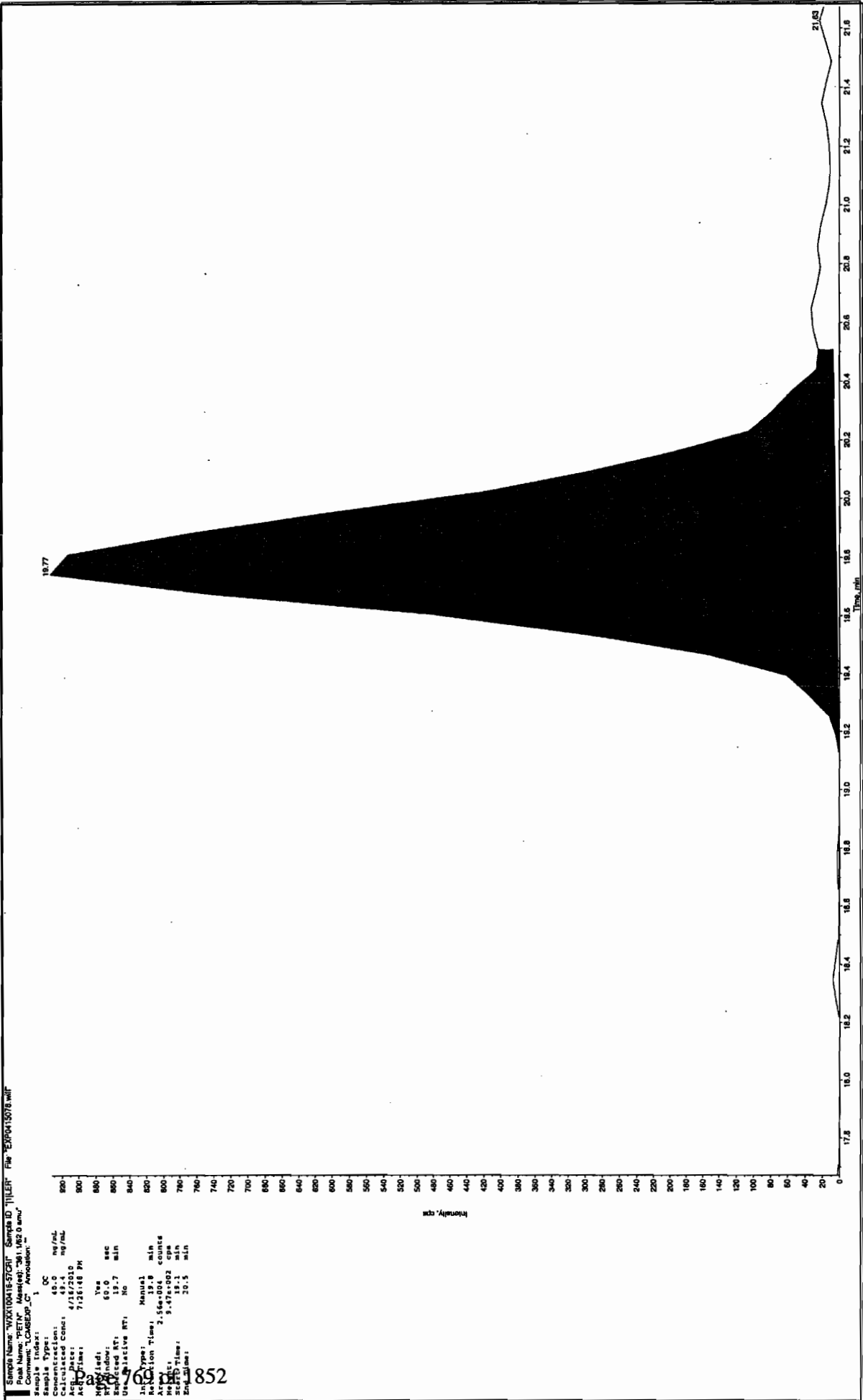
Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.8
Area Counts:	1.52e+004
Manual Modification	No
Amount:	35.1 (ng/mL)
% Accuracy:	87.80



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



after Jan 4/23/10

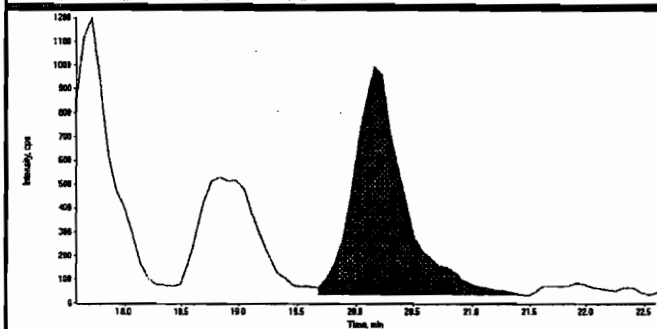


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

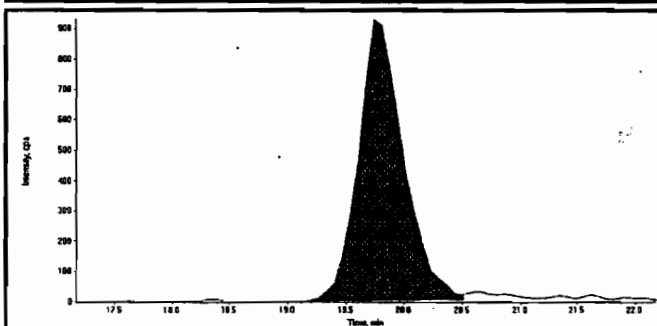
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415078.wiff	Acquisition Date	4/16/2010 7:26:48 PM
Sample Name	WXX100416-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	2.93e+004
Manual Modification	No
Amount:	44.8 (ng/mL)
% Accuracy:	112.00



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.8
Area Counts:	2.56e+004
Manual Modification	Yes
Amount:	49.4 (ng/mL)
% Accuracy:	124.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/16/10  
 Time of Injection 1926  
 Standard Number WXX100416-57CRI  
 Data File EXP0415078a

HMX	113.0
RDX	128.0
135-Trinitrobenzene	98.2
13-Dinitrobenzene	102.0
Tetryl	91.7
246-Trinitrotoluene	106.0
Nitrobenzene	120.0
34-dinitrotoluene	97.7
26-dinitrotoluene	79.7
24-dinitrotoluene	86.4
4-Amino-26-dinitrotoluene	107.0
2-Amino-46-dinitrotoluene	91.2
2-Nitrotoluene	85.5
4-Nitrotoluene	87.8
3-Nitrotoluene	112.0
PETN	124.0

TOTAL

✓ 1630.2

*Ammonium*

AVERAGE

✓ 101.9

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Lau*  
*4/20/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0420012.wiff

Analysis Date: 20-APR-10 19:04

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	39.6	99	
2,4,6-Trinitrotoluene	40	42.4	106	
2,4-Dinitrotoluene	40	44.7	112	
2,6-Dinitrotoluene	40	41.2	103	
2-Amino-4,6-dinitrotoluene	40	31.5	79	
3,4-Dinitrotoluene	20	15.8	79	
4-Amino-2,6-dinitrotoluene	40	35.5	89	
HMX	40	46.2	115	
Nitrobenzene	40	33.7	84	
PETN	40	54.2	136	
RDX	40	43.8	109	
Tetryl	40	46.1	115	
m-Dinitrobenzene	40	42.3	106	
m-Nitrotoluene	40	41.3	103	
o-Nitrotoluene	40	51.9	130	
p-Nitrotoluene	40	38.8	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%

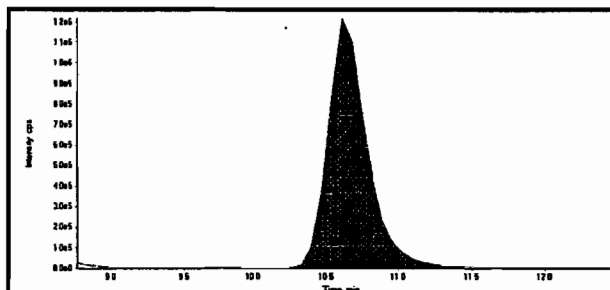
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

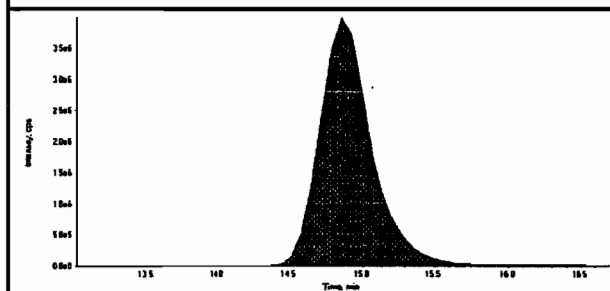
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420012.wiff	Acquisition Date	4/20/2010 7:04:13 PM
Sample Name	WXX100420-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



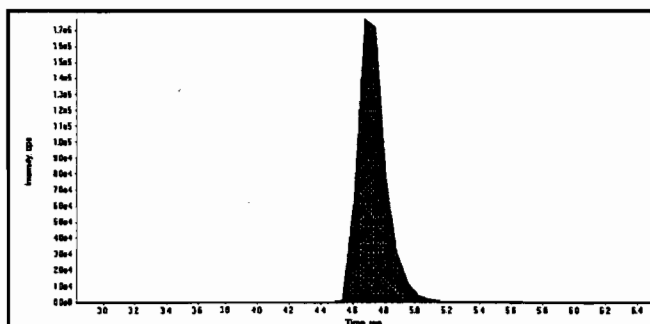
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	22900000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

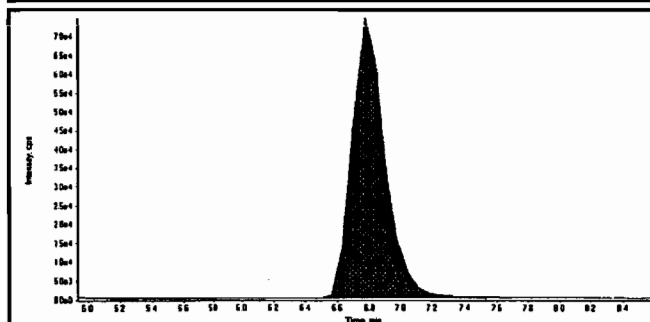


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	99300000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



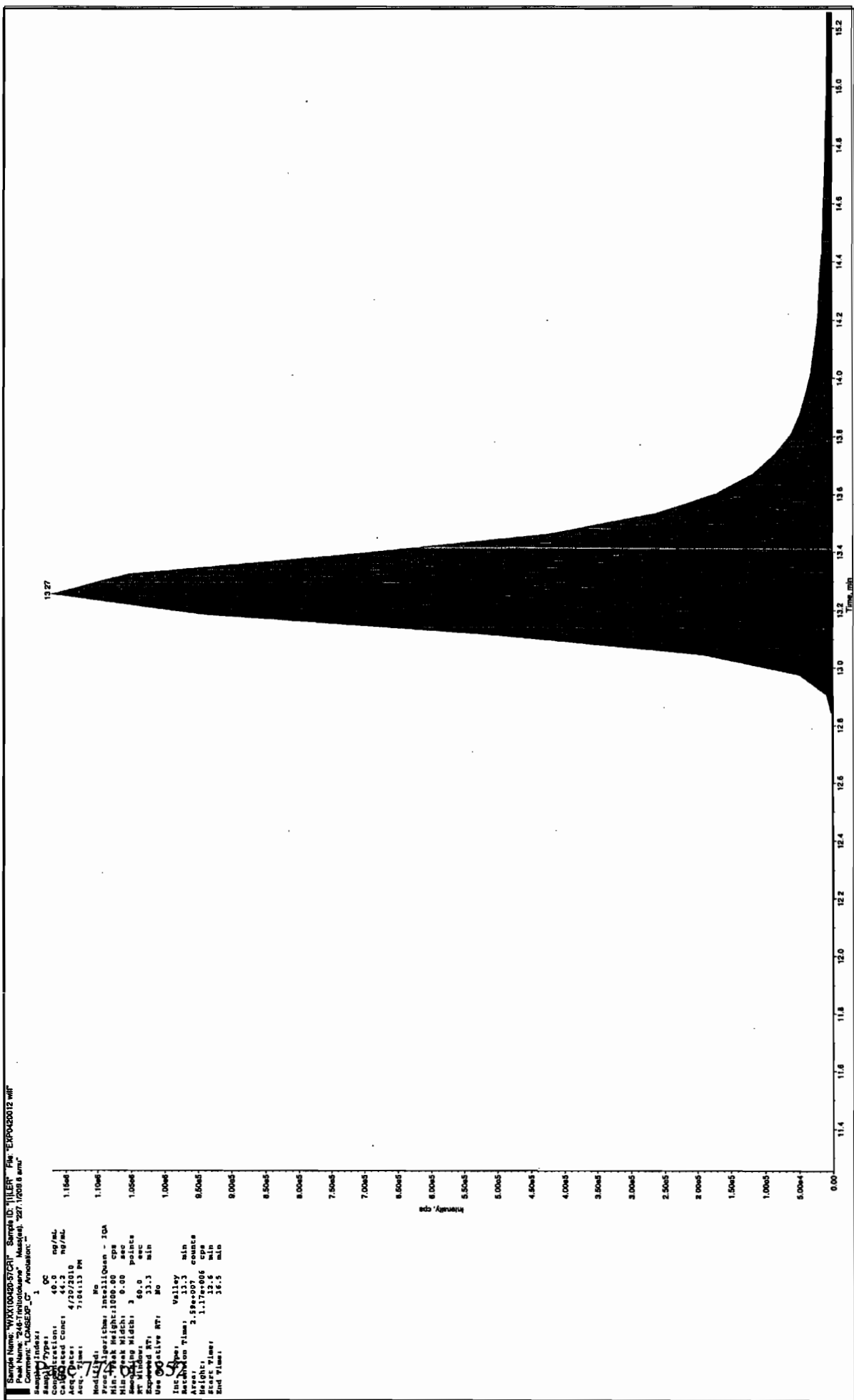
Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	2.27e+006
Manual Modification	No
Amount:	46.2 (ng/mL)
% Accuracy:	115.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.11e+006
Manual Modification	No
Amount:	43.8 (ng/mL)
% Accuracy:	109.00

*Law*  
*4/29/10* *thru* *5/4/10*

Before Jan 4/28/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420012.wiff	<b>Acquisition Date</b>	4/20/2010 7:04:13 PM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	9.07
	<b>Area Counts:</b>	1.36e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	39.6 (ng/mL)
	<b>% Accuracy:</b>	99.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	4.98e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	42.3 (ng/mL)
	<b>% Accuracy:</b>	106.00

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	10.8
	<b>Area Counts:</b>	4.39e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	46.1 (ng/mL)
	<b>% Accuracy:</b>	115.00

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	2.48e+007
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	42.4 (ng/mL)
	<b>% Accuracy:</b>	106.00



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420012.wiff	<b>Acquisition Date</b>	4/20/2010 7:04:13 PM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	11.9
	Area Counts:	1.71e+005
	Manual Modification	No
	Amount:	33.7 (ng/mL)
	% Accuracy:	84.30

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.1
	Area Counts:	2.69e+006
	Manual Modification	No
	Amount:	15.8 (ng/mL)
	% Accuracy:	79.00

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	15.0
	Area Counts:	5.12e+006
	Manual Modification	No
	Amount:	41.2 (ng/mL)
	% Accuracy:	103.00

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	15.6
	Area Counts:	1.82e+006
	Manual Modification	No
	Amount:	44.7 (ng/mL)
	% Accuracy:	112.00



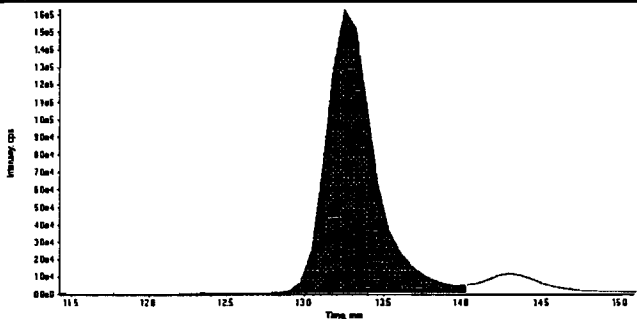


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

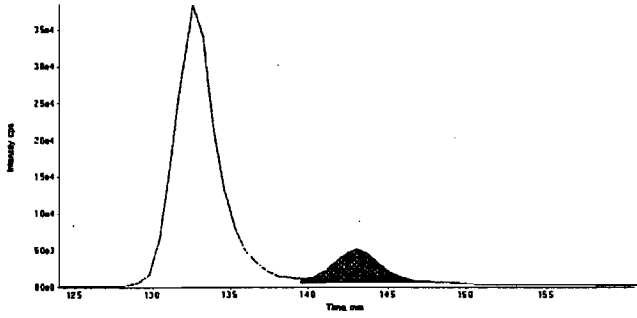
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LCMSMS#3

<b>Data File</b>	EXP0420012.wiff	<b>Acquisition Date</b>	4/20/2010 7:04:13 PM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

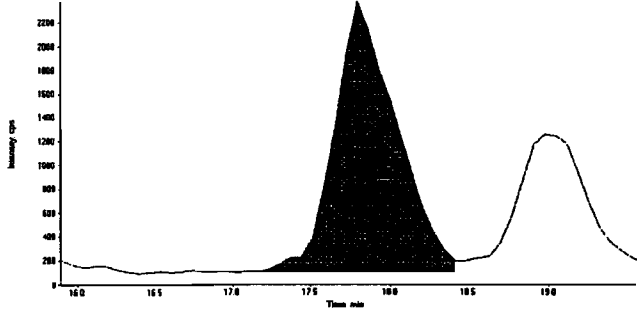
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	3.46e+006
	Manual Modification	No
	Amount:	35.5 (ng/mL)
	% Accuracy:	88.70

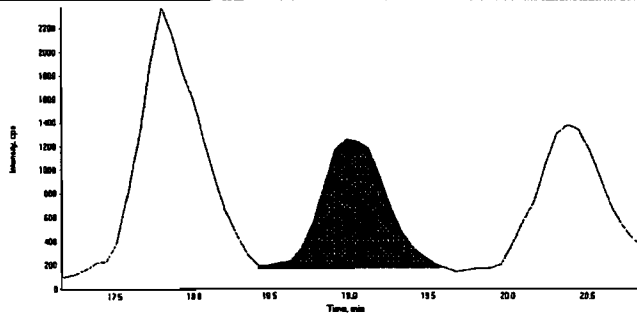
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.3
	Area Counts:	9.69e+004
	Manual Modification	Yes
	Amount:	31.5 (ng/mL)
	% Accuracy:	78.80

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	17.8
	Area Counts:	6.28e+004
	Manual Modification	No
	Amount:	51.9 (ng/mL)
	% Accuracy:	130.00

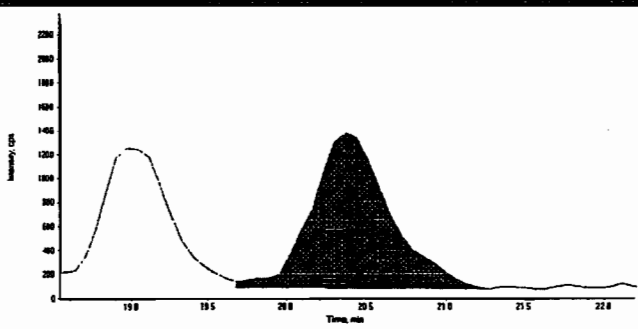
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	19.0
	Area Counts:	3.17e+004
	Manual Modification	No
	Amount:	38.8 (ng/mL)
	% Accuracy:	97.00

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

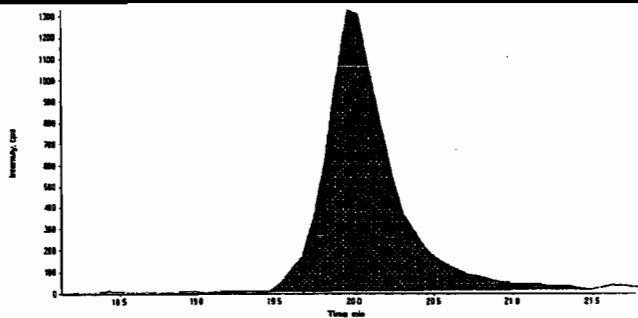
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LCMSMS#3

Data File	EXP0420012.wiff	Acquisition Date	4/20/2010 7:04:13 PM
Sample Name	WXX100420-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.4
	Actual RT:	20.4
	Area Counts:	4.44e+004
	Manual Modification	No
	Amount:	41.3 (ng/mL)
	% Accuracy:	103.00

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	20.0
	Actual RT:	20.0
	Area Counts:	3.75e+004
	Manual Modification	No
	Amount:	54.2 (ng/mL)
	% Accuracy:	136.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/20/10  
 Time of Injection 1904  
 Standard Number WXX100420-57CRI  
 Data File EXP0420012a

HMX	115.0
RDX	109.0
135-Trinitrobenzene	99.0
13-Dinitrobenzene	106.0
Tetryl	115.0
246-Trinitrotoluene	106.0
Nitrobenzene	84.3
34-dinitrotoluene	79.0
26-dinitrotoluene	103.0
24-dinitrotoluene	112.0
4-Amino-26-dinitrotoluene	88.7
2-Amino-46-dinitrotoluene	78.8
2-Nitrotoluene	130.0
4-Nitrotoluene	97.0
3-Nitrotoluene	103.0
PETN	136.0

TOTAL

1661.8

*Handwritten:* HMM 04/29/10

AVERAGE

103.9

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

*Handwritten:* Jan 4/28/10

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0420023.wiff

Analysis Date: 20-APR-10 23:49

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	631	105	
2,4,6-Trinitrotoluene	600	567	95	
2,4-Dinitrotoluene	600	595	99	
2,6-Dinitrotoluene	600	555	93	
2-Amino-4,6-dinitrotoluene	600	603	101	
3,4-Dinitrotoluene	300	288	96	
4-Amino-2,6-dinitrotoluene	600	694	116	
HMX	600	610	102	
Nitrobenzene	600	650	108	
PETN	600	624	104	
RDX	600	748	125	
Tetryl	600	664	111	
m-Dinitrobenzene	600	599	100	
m-Nitrotoluene	600	528	88	
o-Nitrotoluene	600	583	97	
p-Nitrotoluene	600	573	96	

Recovery Limits:

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

Other Target Analytes 80-120%

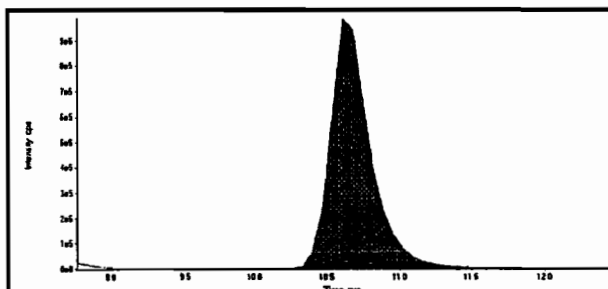
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

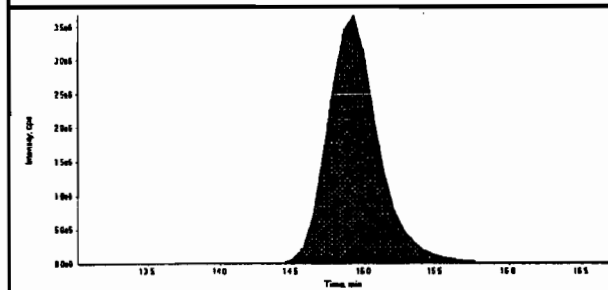
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420023.wiff	Acquisition Date	4/20/2010 11:49:37 PM
Sample Name	WXX100420-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



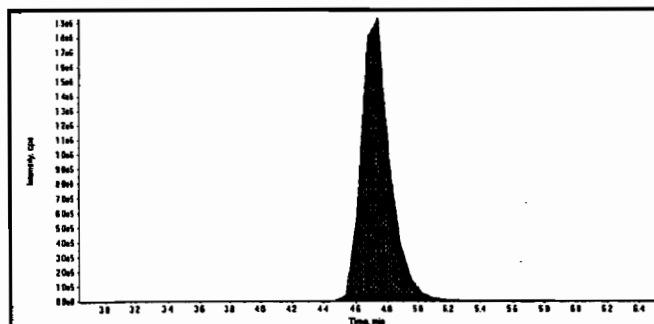
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	19000000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

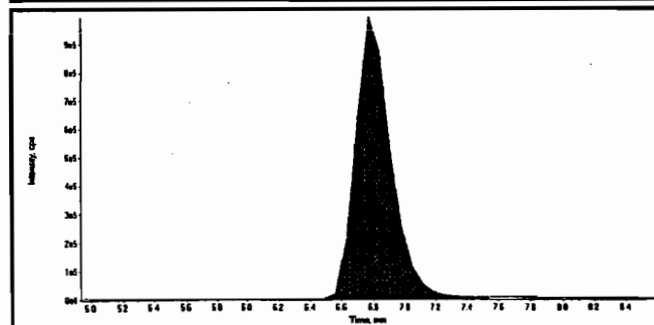


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	89500000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	2.48e+007
Manual Modification	No
Amount:	610. (ng/mL)
% Accuracy:	102.00

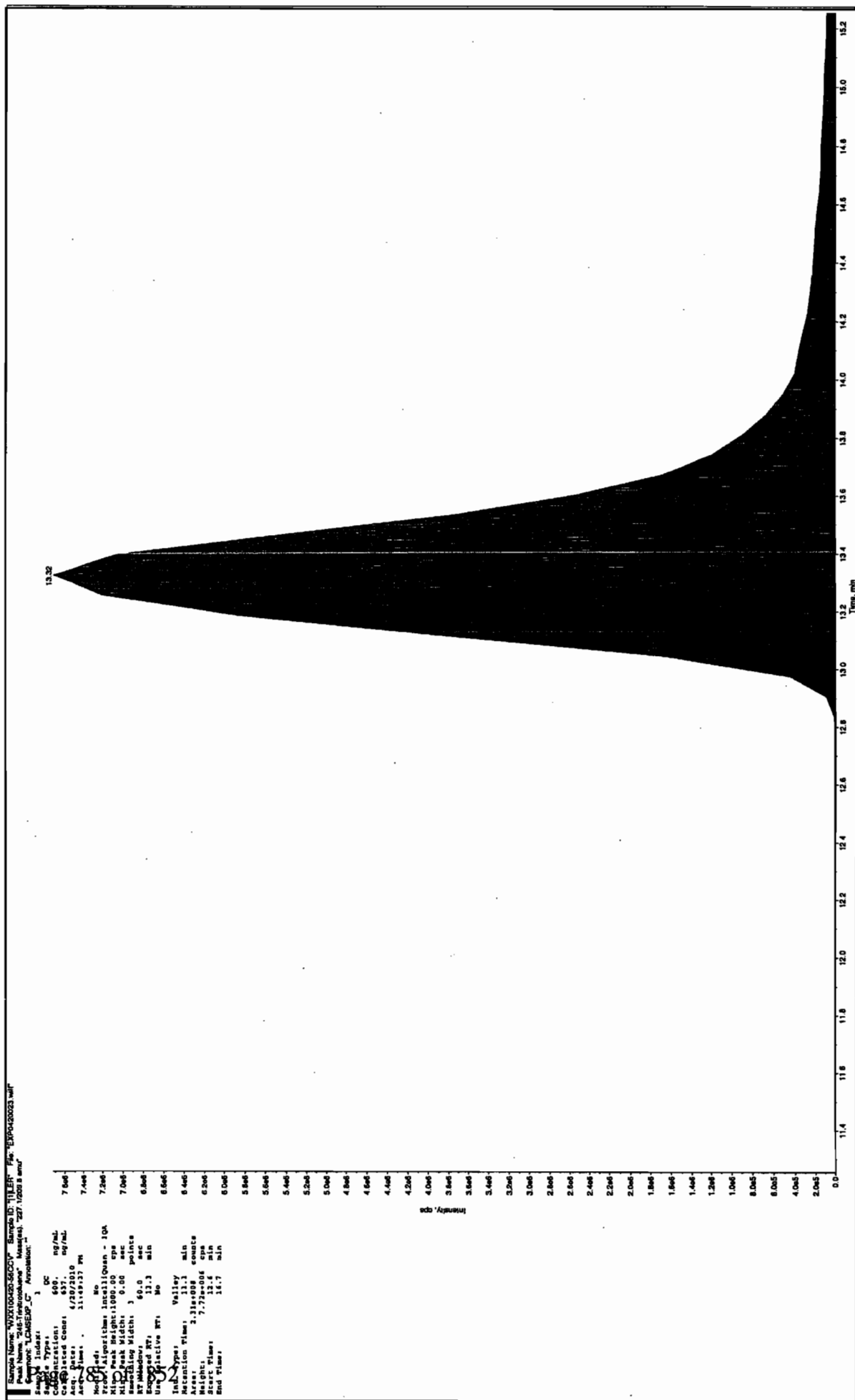


Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.57e+007
Manual Modification	No
Amount:	748. (ng/mL)
% Accuracy:	125.00

*For 4/29/10*  
*4/24/10*



Before Dec 4/28/10



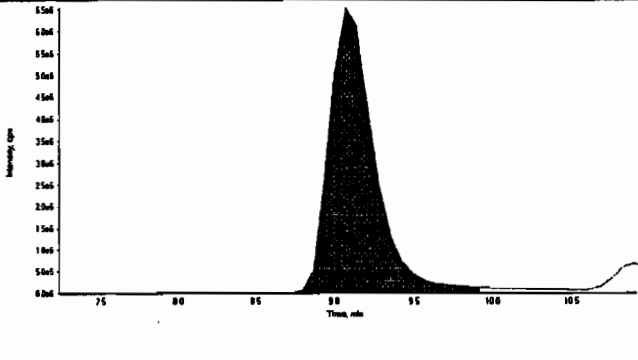
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

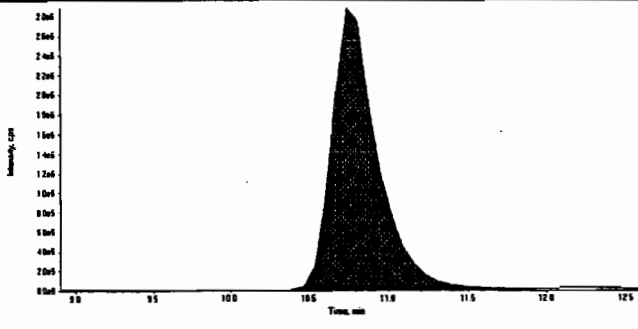


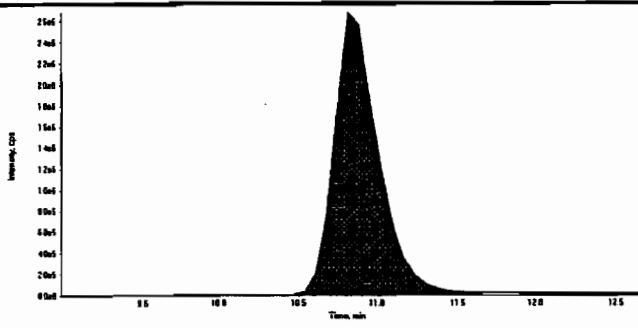
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

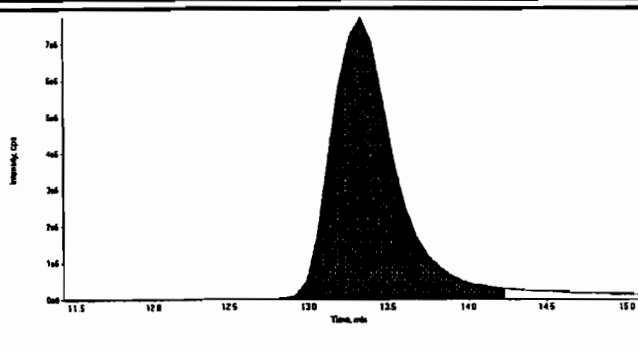
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420023.wiff	Acquisition Date	4/20/2010 11:49:37 PM
Sample Name	WXX100420-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

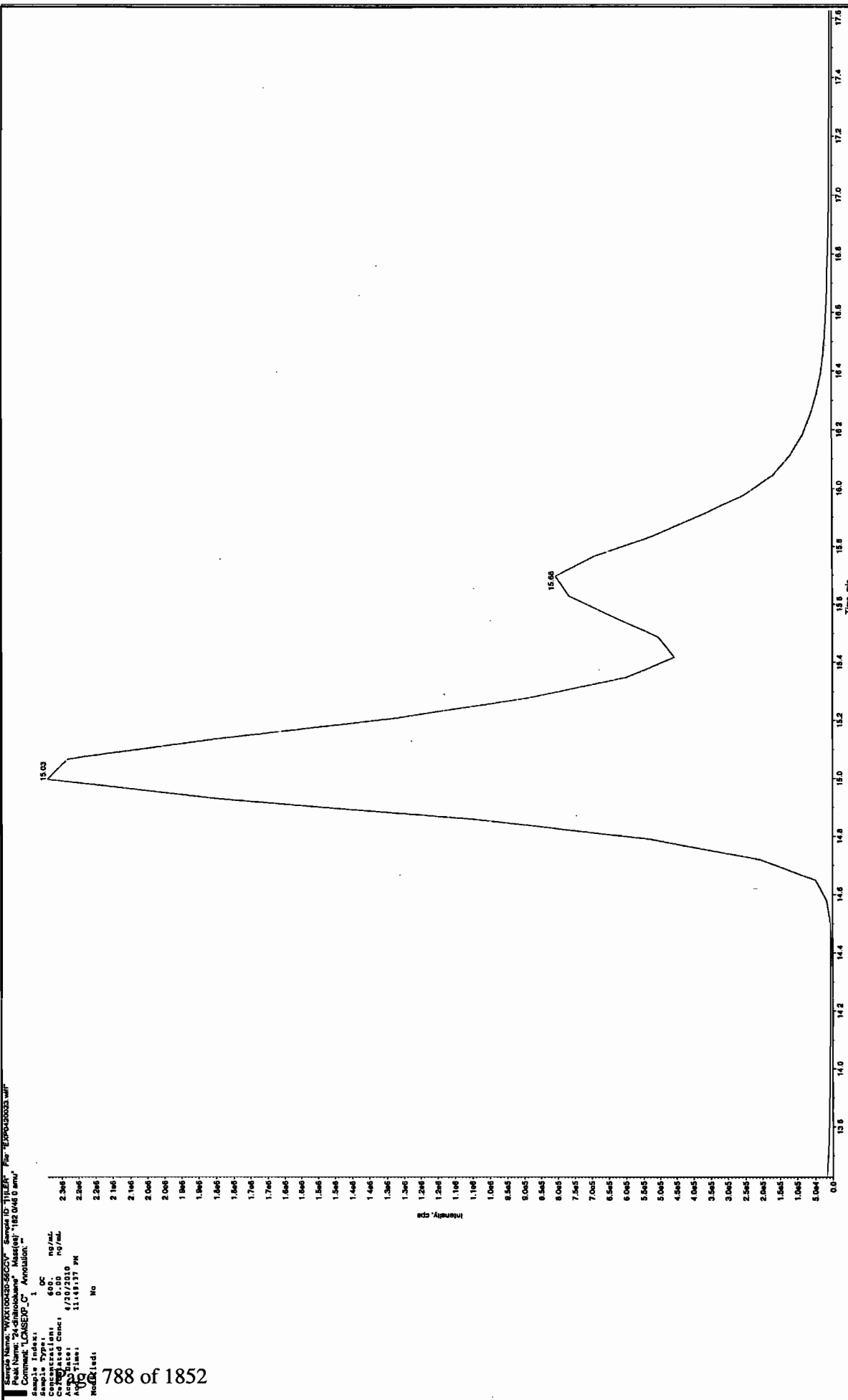
	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.07
	Actual RT:	9.07
	Area Counts:	1.32e+008
	Manual Modification	No
	Amount:	631. (ng/mL)
	% Accuracy:	105.00

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	5.85e+007
	Manual Modification	No
	Amount:	599. (ng/mL)
	% Accuracy:	99.80

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.8
	Actual RT:	10.8
	Area Counts:	5.25e+007
	Manual Modification	No
	Amount:	664. (ng/mL)
	% Accuracy:	111.00

	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	2.16e+008
	Manual Modification	Yes
	Amount:	567. (ng/mL)
	% Accuracy:	94.50

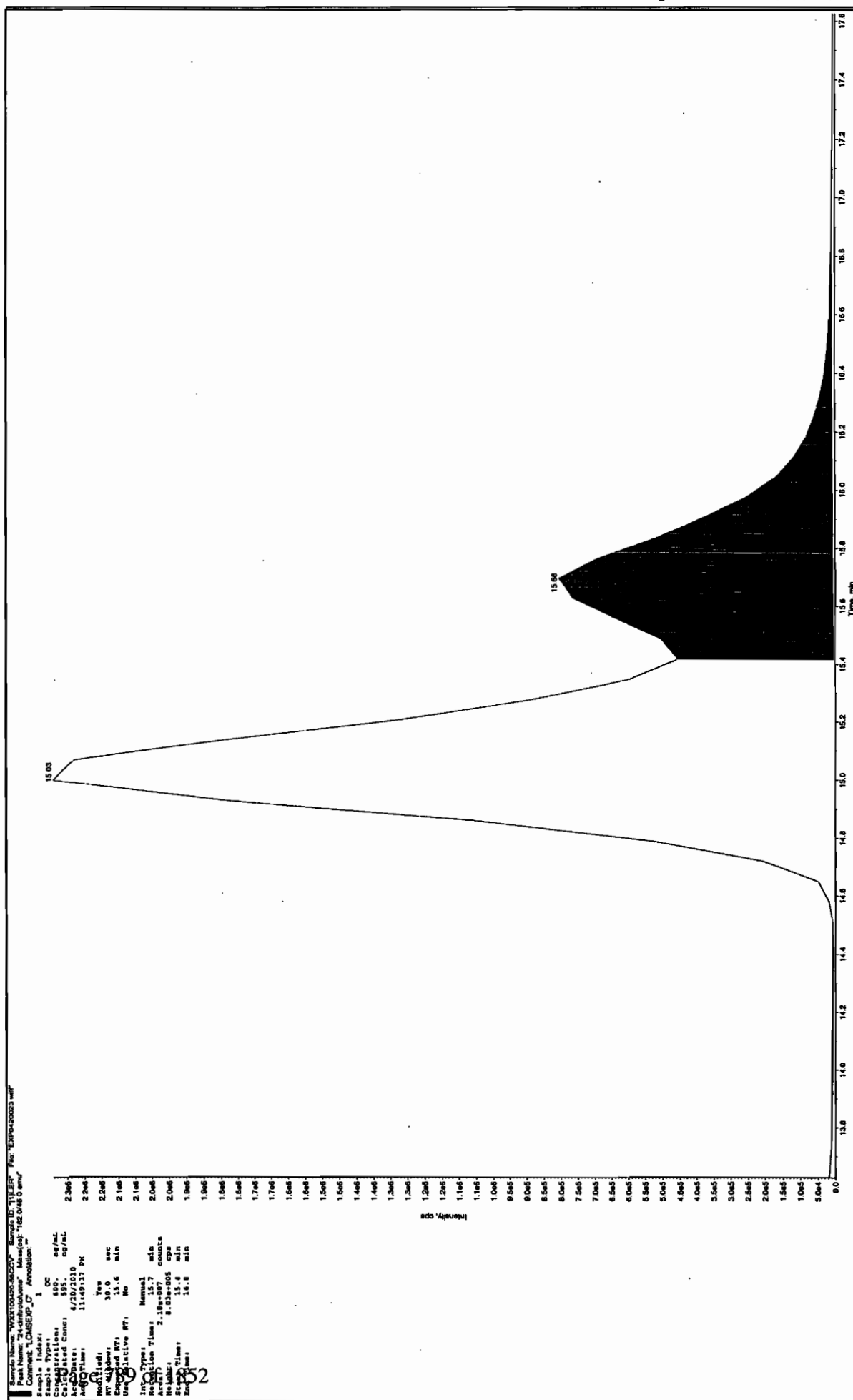
Before Jan 4/28/10



788 of 1852

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/28/10



\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
 GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
 LCMSMS#3

<b>Data File</b>	EXP0420023.wiff	<b>Acquisition Date</b>	4/20/2010 11:49:37 PM
<b>Sample Name</b>	WXX100420-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.9
	<b>Actual RT:</b>	11.9
	<b>Area Counts:</b>	2.75e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	650. (ng/mL)
	<b>% Accuracy:</b>	108.00

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.1
	<b>Actual RT:</b>	12.2
	<b>Area Counts:</b>	3.45e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	288. (ng/mL)
	<b>% Accuracy:</b>	95.80

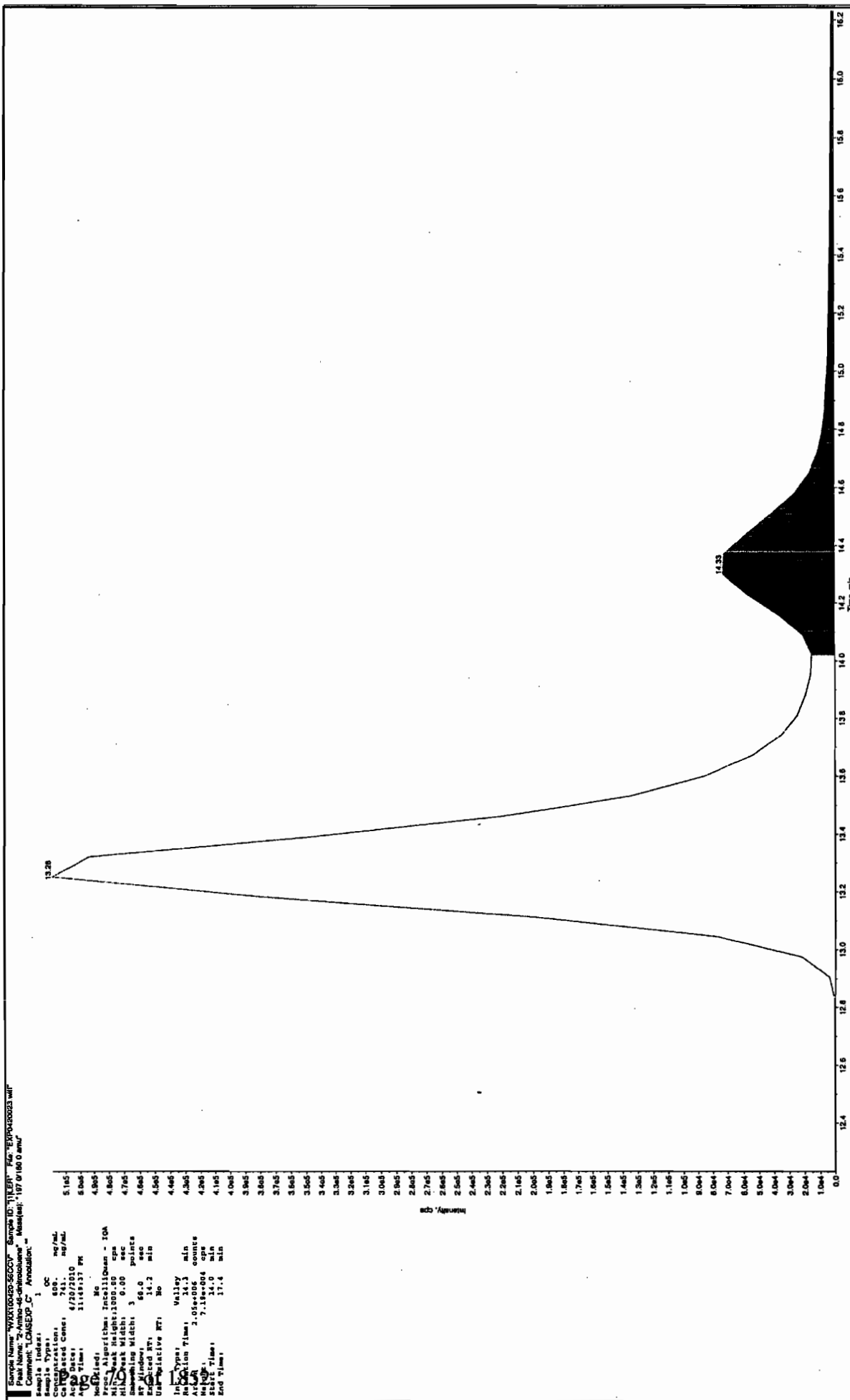
  

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.9
	<b>Actual RT:</b>	15.0
	<b>Area Counts:</b>	5.45e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	555. (ng/mL)
	<b>% Accuracy:</b>	92.50

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.6
	<b>Actual RT:</b>	15.7
	<b>Area Counts:</b>	2.18e+007
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	595. (ng/mL)
	<b>% Accuracy:</b>	99.10

Before Jan 4/28/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3





GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420023.wiff	<b>Acquisition Date</b>	4/20/2010 11:49:37 PM
<b>Sample Name</b>	WXX100420-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	5.29e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	694. (ng/mL)
	<b>% Accuracy:</b>	116.00

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	14.3
	<b>Area Counts:</b>	1.67e+006
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	603. (ng/mL)
	<b>% Accuracy:</b>	101.00

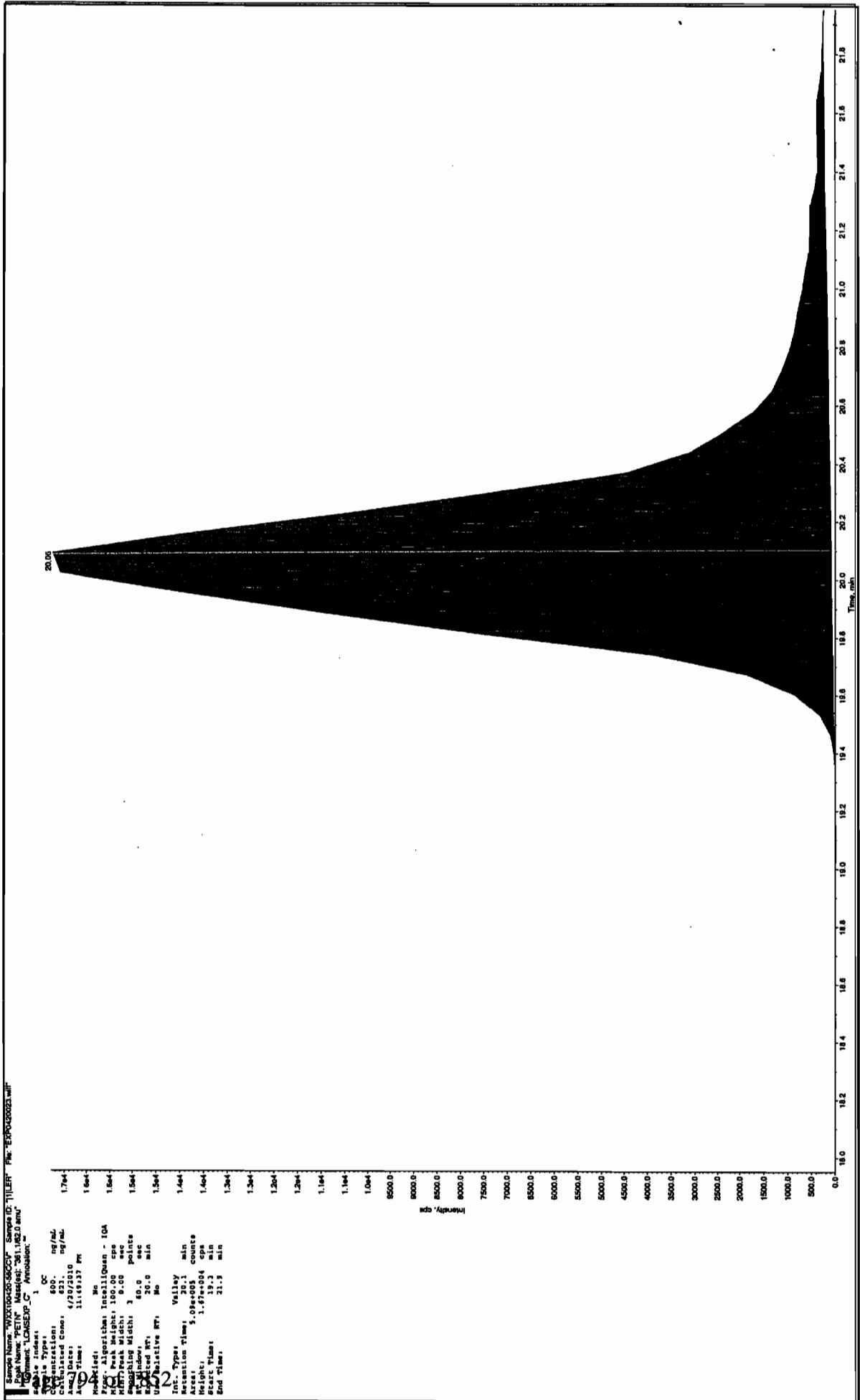
  

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	17.9
	<b>Area Counts:</b>	9.70e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	583. (ng/mL)
	<b>% Accuracy:</b>	97.10

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	19.0
	<b>Actual RT:</b>	19.0
	<b>Area Counts:</b>	4.88e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	573. (ng/mL)
	<b>% Accuracy:</b>	95.50

Before Jan 4/12/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after den 4/19/10

Sample Name: WXX100435-56557 Sample ID: 11187 File: E59435033.mlf

Method: 8321A-Modified LCMSMS#3

Acquisition: 1

Sample Index: 1

Sample Type: DC

Concentration: 450.00 ng/ml

Acquisition Date: 4/20/2010

Acquisition Time: 11:49:37 PM

Method: 8321A-Modified

Acquisition RT: 20.0 min

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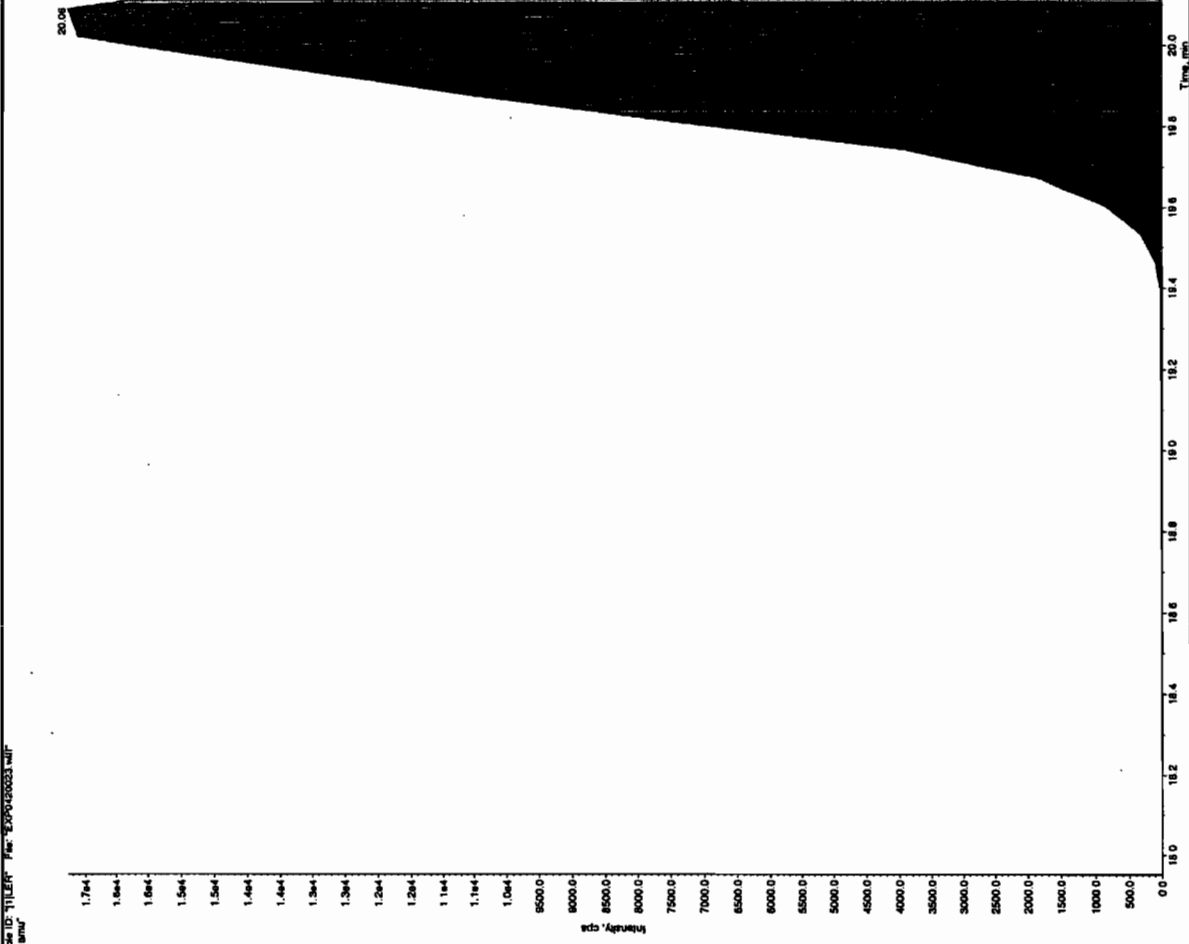
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Acquisition RT: 20.0 min

Acquisition RT: 20.0 min

Acquisition RT: 20.0 min

Acquisition RT: 20.0 min



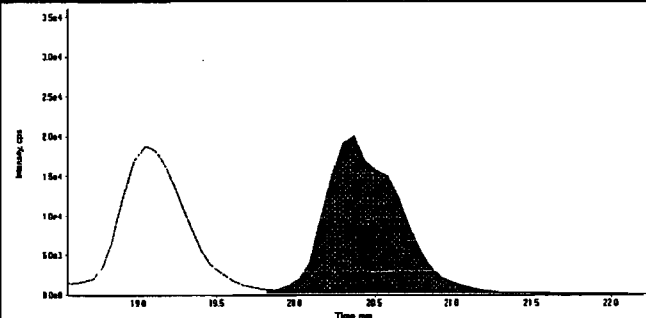
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

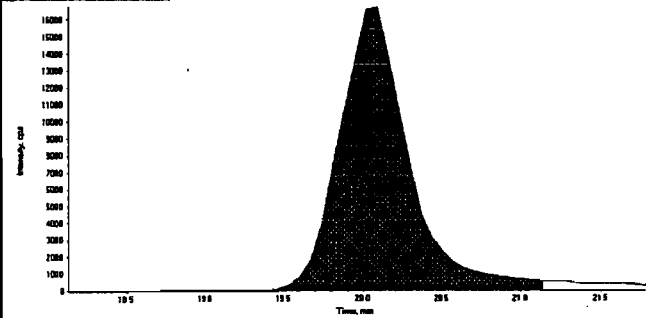
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420023.wiff	<b>Acquisition Date</b>	4/20/2010 11:49:37 PM
<b>Sample Name</b>	WXX100420-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	20.4
	<b>Area Counts:</b>	6.50e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	528. (ng/mL)
	<b>% Accuracy:</b>	88.00

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	20.1
	<b>Area Counts:</b>	5.10e+005
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	624. (ng/mL)
	<b>% Accuracy:</b>	104.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/20/10  
 Time of Injection 2349  
 Standard Number WXX100420-56CCV  
 Data File EXP0420023a

HMX	102.0
RDX	125.0
135-Trinitrobenzene	105.0
13-Dinitrobenzene	99.8
Tetryl	111.0
246-Trinitrotoluene	94.5
Nitrobenzene	108.0
34-dinitrotoluene	95.8
26-dinitrotoluene	92.5
24-dinitrotoluene	99.1
4-Amino-26-dinitrotoluene	116.0
2-Amino-46-dinitrotoluene	101.0
2-Nitrotoluene	97.1
4-Nitrotoluene	95.5
3-Nitrotoluene	88.0
PETN	104.0

TOTAL

1634.3

*dhm 04/29/10*

AVERAGE

102.1

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Lar 4/28/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0420025.wiff

Analysis Date: 21-APR-10 00:41

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	40.3	101	
2,4,6-Trinitrotoluene	40	40.1	100	
2,4-Dinitrotoluene	40	38.9	97	
2,6-Dinitrotoluene	40	37.2	93	
2-Amino-4,6-dinitrotoluene	40	38.7	97	
3,4-Dinitrotoluene	20	15.7	79	
4-Amino-2,6-dinitrotoluene	40	40	100	
HMX	40	46.7	117	
Nitrobenzene	40	35.1	88	
PETN	40	56.8	142	
RDX	40	50.2	126	
Tetryl	40	49.5	124	
m-Dinitrobenzene	40	41.7	104	
m-Nitrotoluene	40	42.4	106	
o-Nitrotoluene	40	51	127	
p-Nitrotoluene	40	39.3	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 50-150%

Other Target Analytes 70-130%

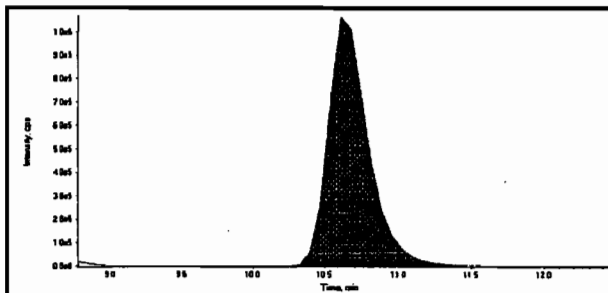
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

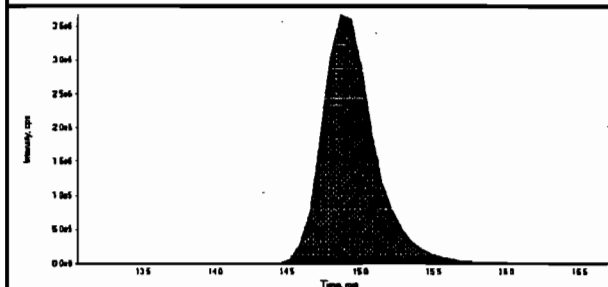
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420025.wiff	Acquisition Date	4/21/2010 12:41:22 AM
Sample Name	WXX100420-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



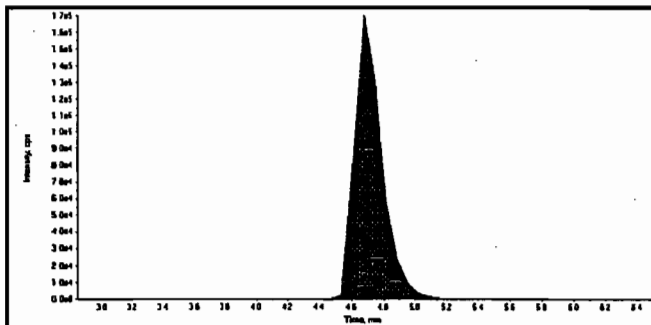
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	20300000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

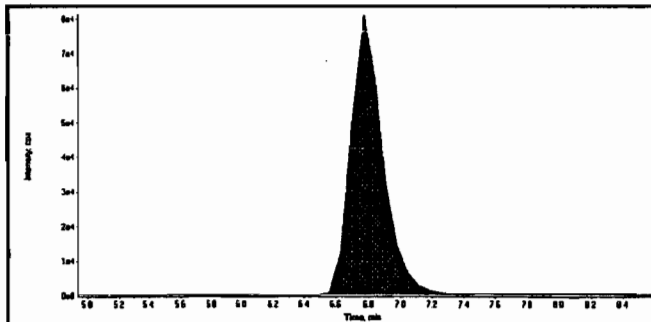


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	90500000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

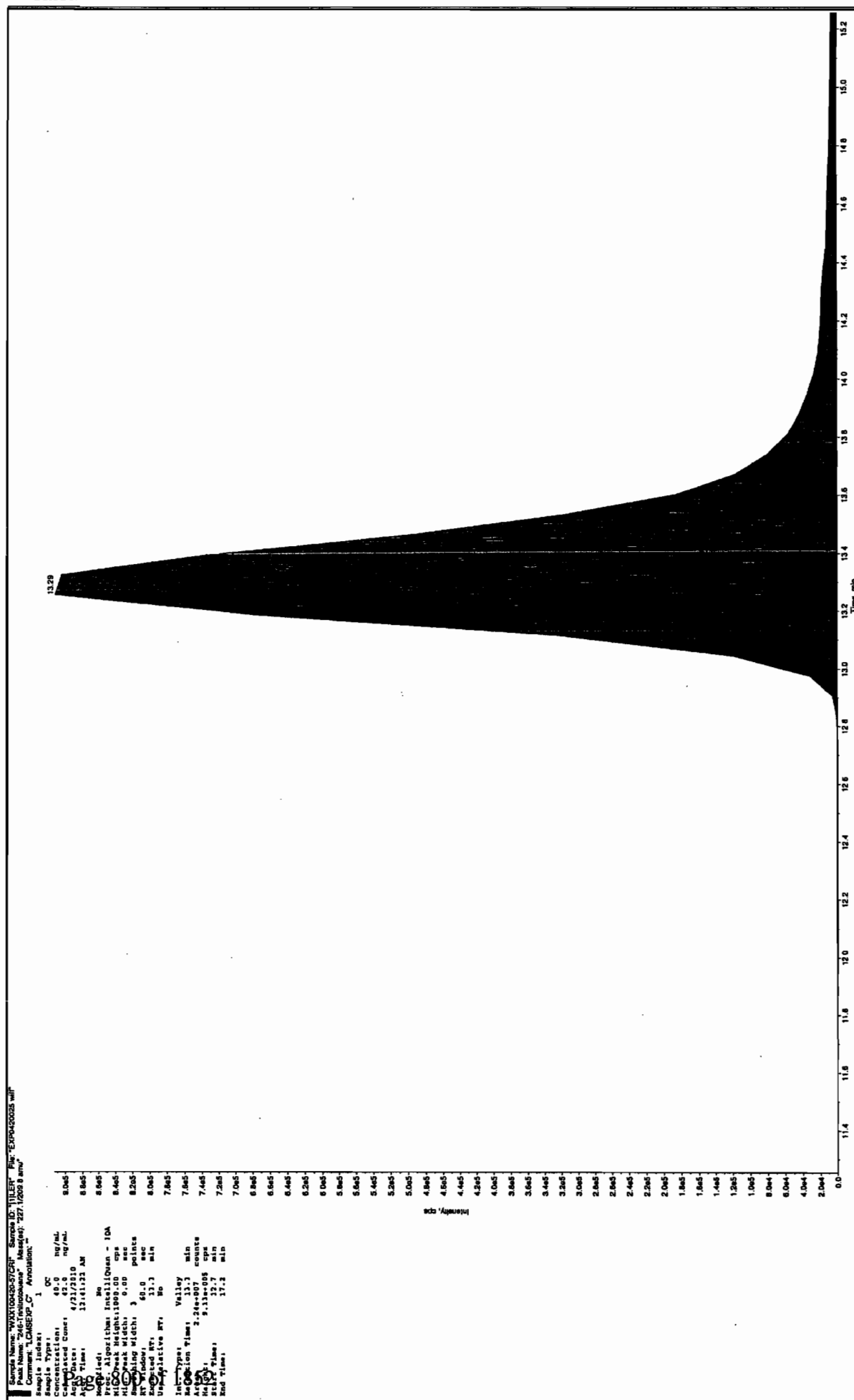


Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	2.03e+006
Manual Modification	No
Amount:	46.7 (ng/mL)
% Accuracy:	117.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.13e+006
Manual Modification	No
Amount:	50.2 (ng/mL)
% Accuracy:	126.00

*Handwritten:* JLR 4/29/10 #HMX 04/29/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

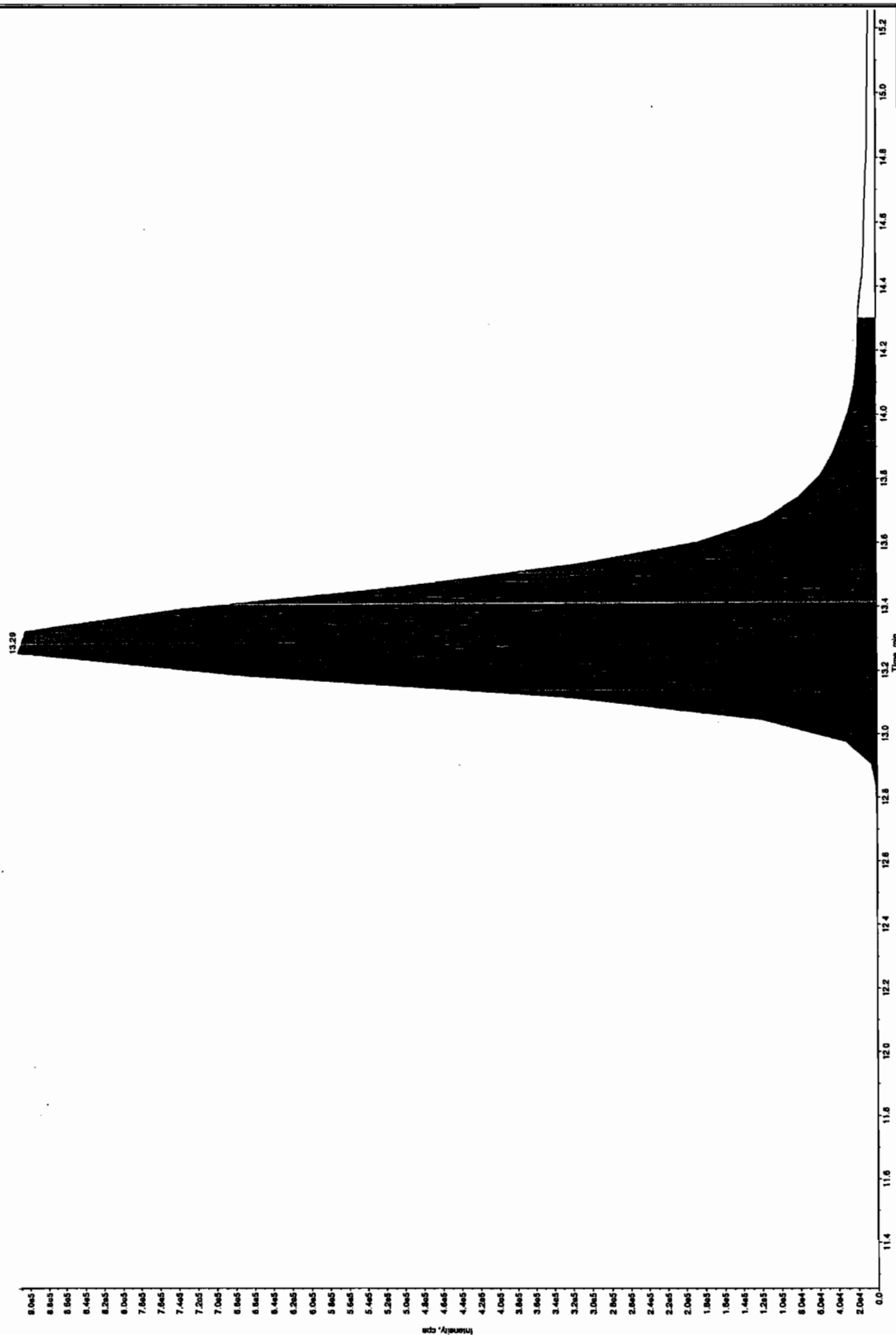


after Jan 4/28/10

Sample Name: "WXX100450-37C50" Sample ID: "111111" File: "E004-00028.wif"  
 Peak Name: "246-Tetraol" Mass: 227.12018 m/z  
 Comment: "LONEXP" Acquisition: "1"

Concentration: 40.0 ng/mL  
 Acquisition Date: 4/21/2010  
 Time: 12:41:22 AM  
 Method: Yes  
 Sample Type: Yes  
 Inlet: Yes  
 Inlet Temp: 13.3 min  
 Inlet Flow: 1.0 mL/min  
 Inlet Pressure: 14.3 min

Injection Time: 13.3 min  
 Inlet Temp: 13.3 min  
 Inlet Flow: 1.0 mL/min  
 Inlet Pressure: 14.3 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420025.wiff	<b>Acquisition Date</b>	4/21/2010 12:41:22 AM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	9.07
	<b>Area Counts:</b>	1.22e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	40.3 (ng/mL)
	<b>% Accuracy:</b>	101.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	4.35e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	41.7 (ng/mL)
	<b>% Accuracy:</b>	104.00

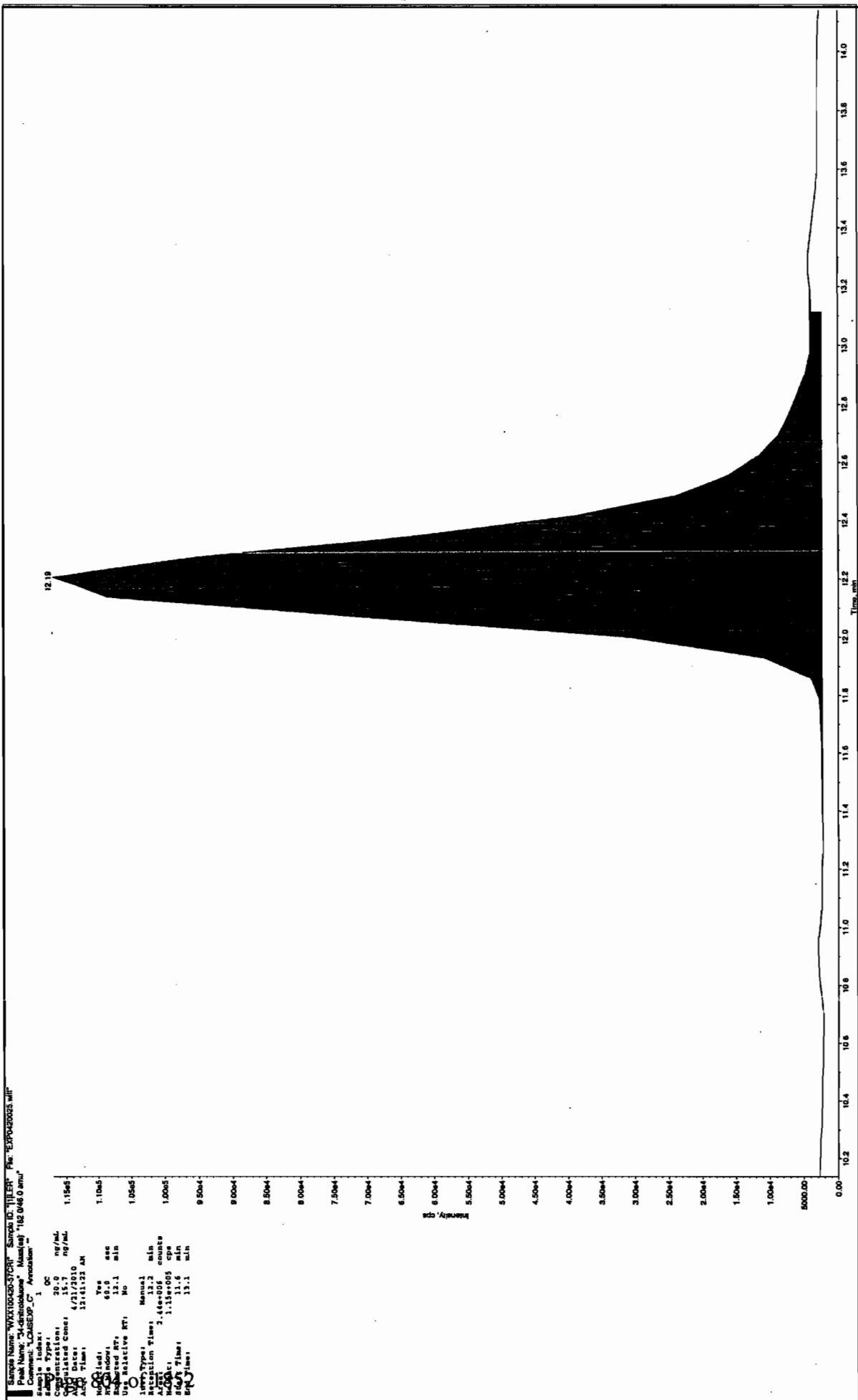
  

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	10.9
	<b>Area Counts:</b>	4.18e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	49.5 (ng/mL)
	<b>% Accuracy:</b>	124.00

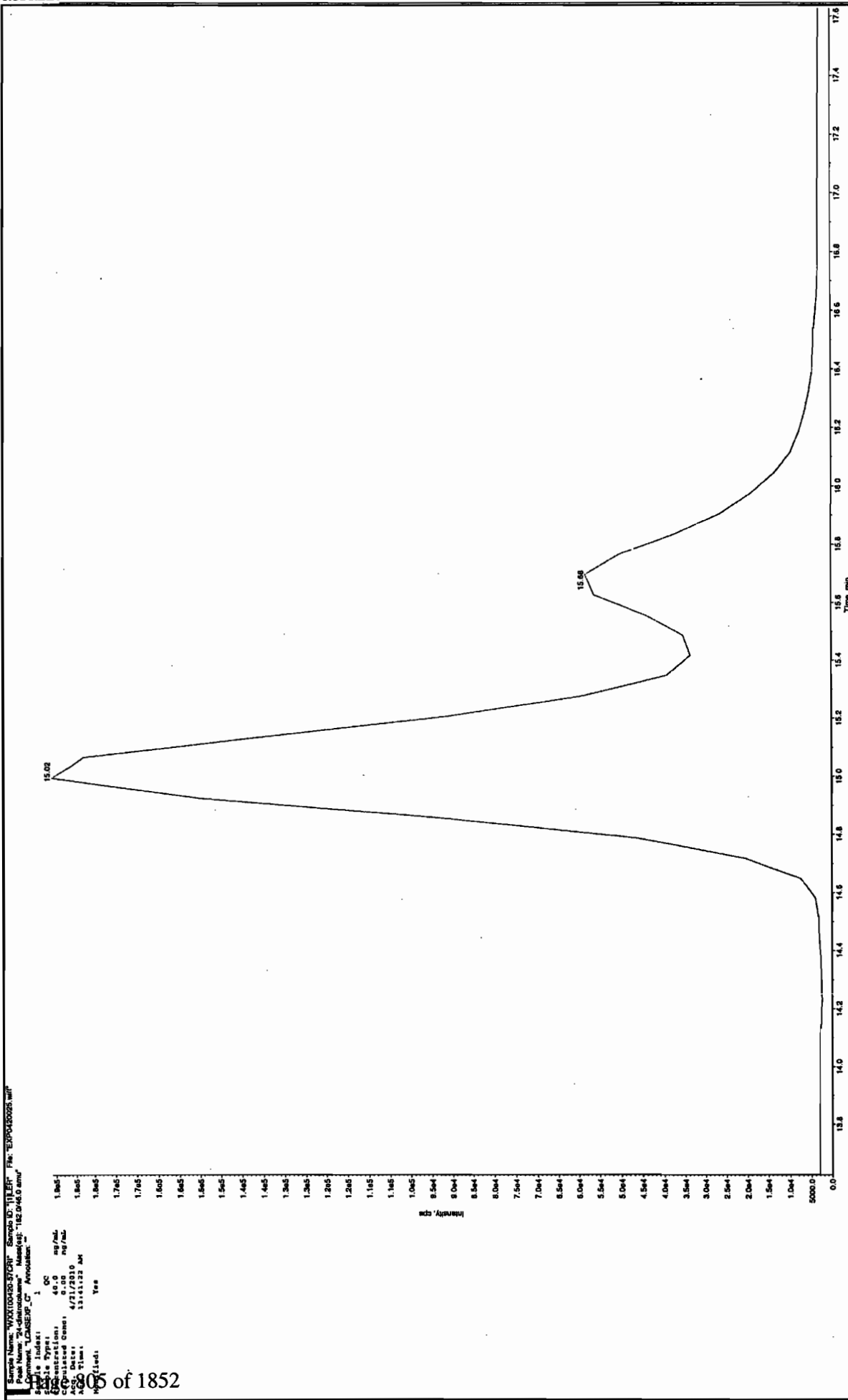
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	2.15e+007
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	40.1 (ng/mL)
	<b>% Accuracy:</b>	100.00





\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

Before Dec 4/81/10



Sample Name: "WXX100430-300" Sample ID: "1118" File: "EXP043025.mpl"  
 Peak Name: "24-dinitrophenol" Mass(es): "182.0946.0 amu"  
 Acquisition: "LCCMSMS\_01" Annotation: "1"  
 Sample Type: "QC"  
 Concentration: 45.0 ng/mL  
 Concentrated Gens: 0.00 ng/mL  
 Date: 4/7/2010  
 Time: 13:41:22 AM  
 Method: Yes



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420025.wiff	<b>Acquisition Date</b>	4/21/2010 12:41:22 AM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	11.9
	Area Counts:	1.58e+005
	Manual Modification	No
	Amount:	35.1 (ng/mL)
	% Accuracy:	87.90

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.2
	Area Counts:	2.44e+006
	Manual Modification	Yes
	Amount:	15.7 (ng/mL)
	% Accuracy:	78.60

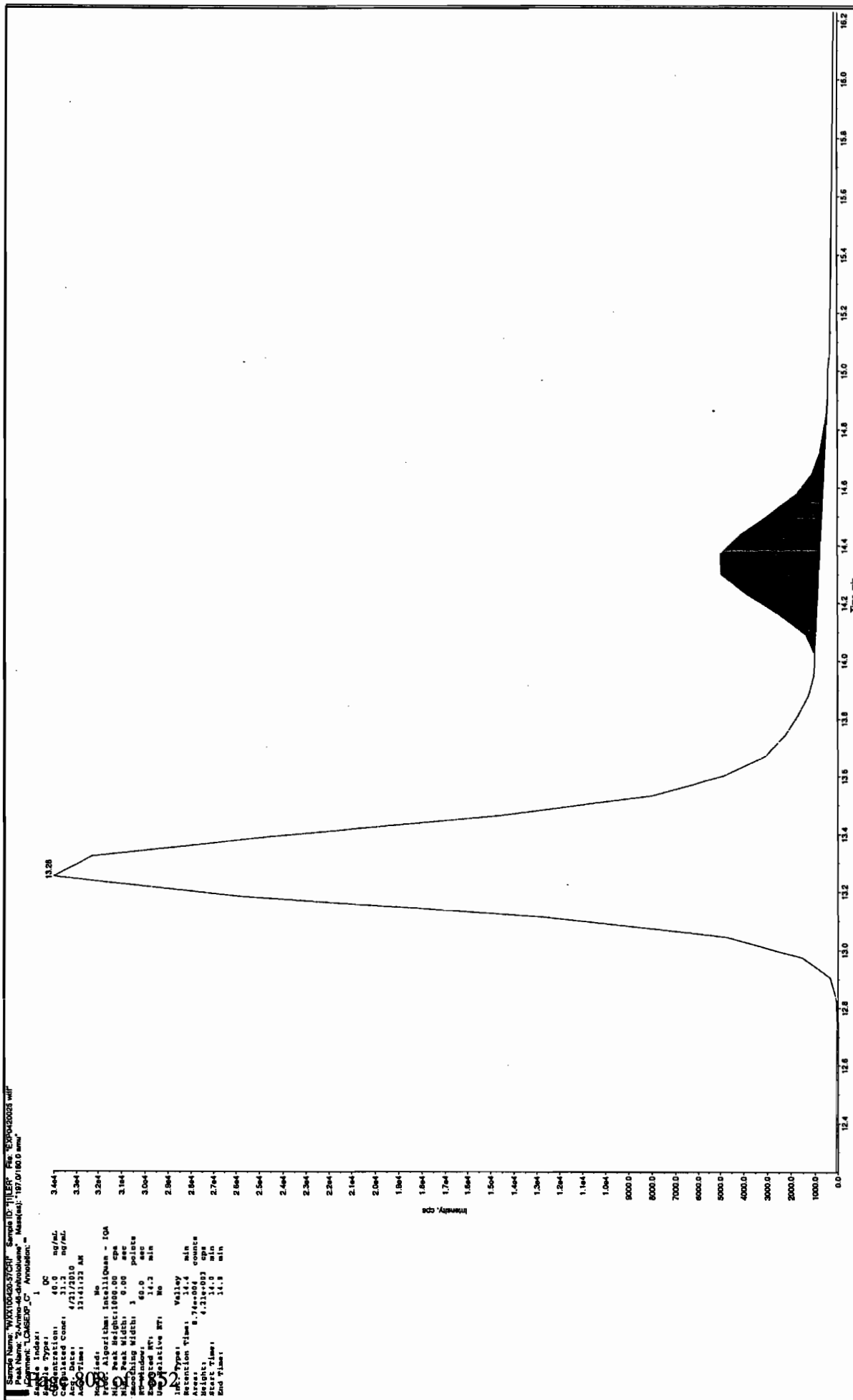
  

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	15.0
	Area Counts:	4.23e+006
	Manual Modification	No
	Amount:	37.2 (ng/mL)
	% Accuracy:	92.90

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.7
	Actual RT:	15.7
	Area Counts:	1.45e+006
	Manual Modification	Yes
	Amount:	38.9 (ng/mL)
	% Accuracy:	97.30

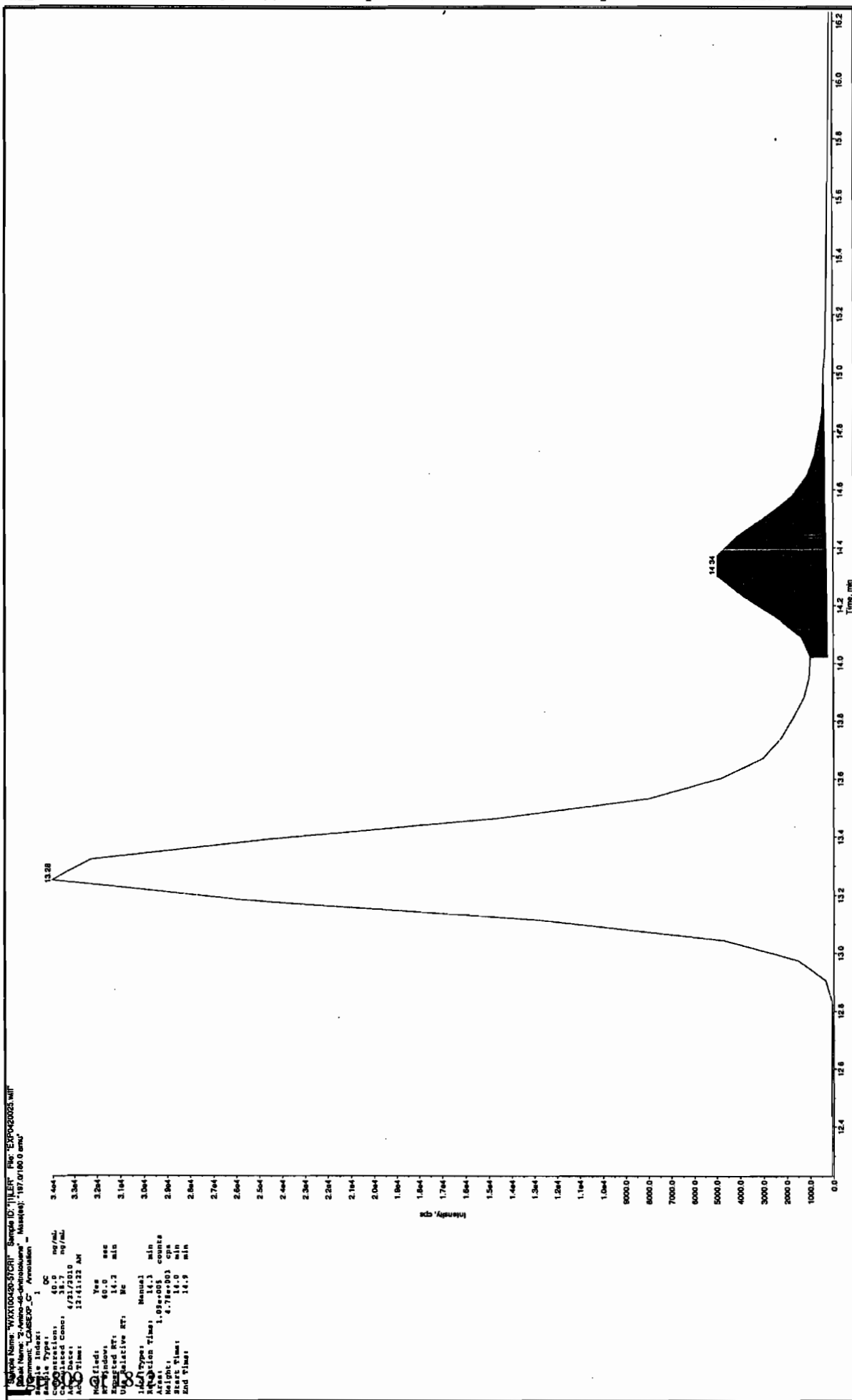
Before 4/28/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



after Jan 4/2010

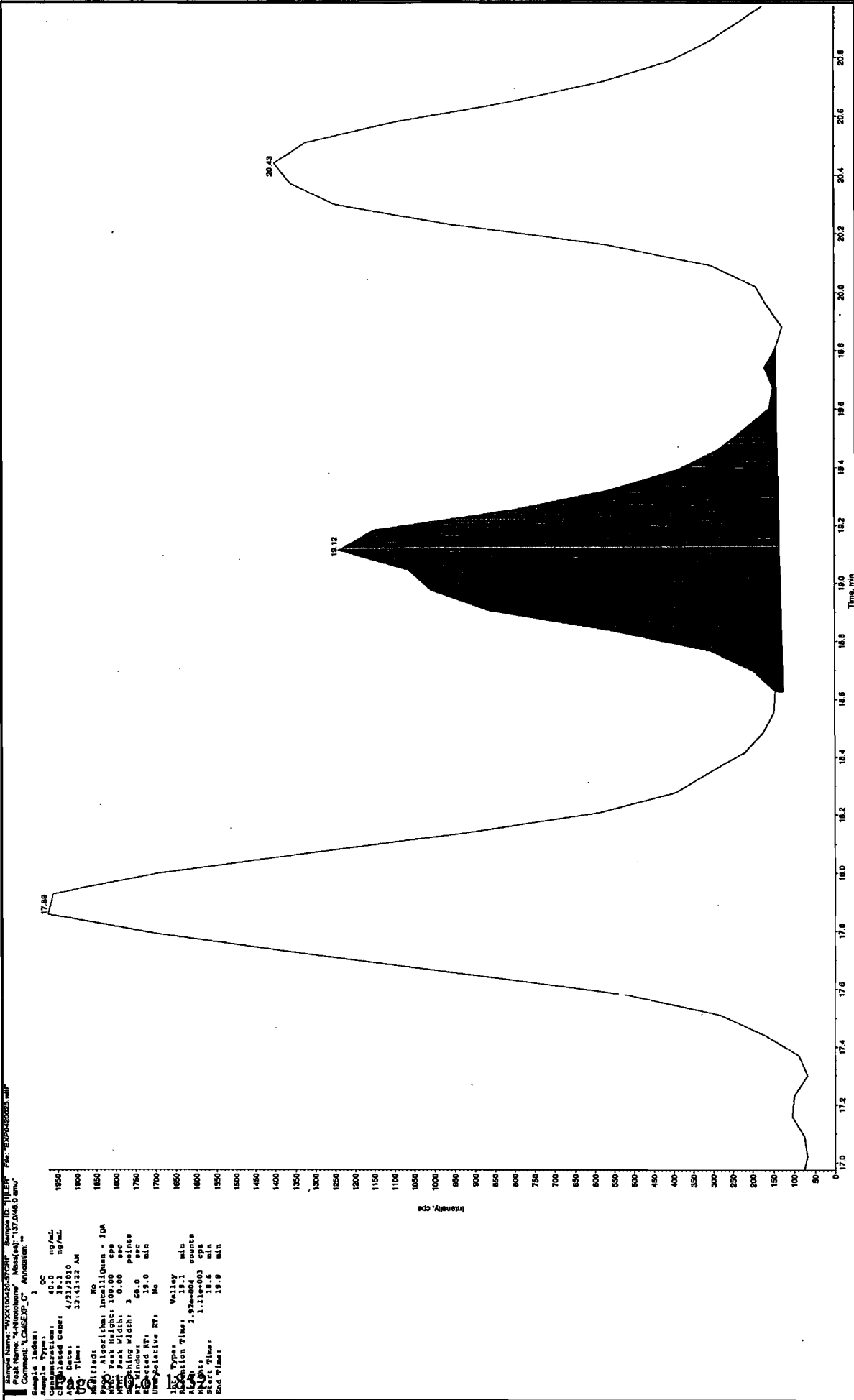


Sample Name: "WXX100480-57CR" Sample ID: "JILLER" File: "EXP0420025.wif"  
 Data Name: "2-Amino-46-antibiotin" Mass(es): "187.07160.0 amu"  
 Instrument: "LCMS-2010" Acquisition: "1.00"

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\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

Before Jan 4/28/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
 GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
 LCMSMS#3

<b>Data File</b>	EXP0420025.wiff	<b>Acquisition Date</b>	4/21/2010 12:41:22 AM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	3.51e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	40.0 (ng/mL)
	<b>% Accuracy:</b>	100.00

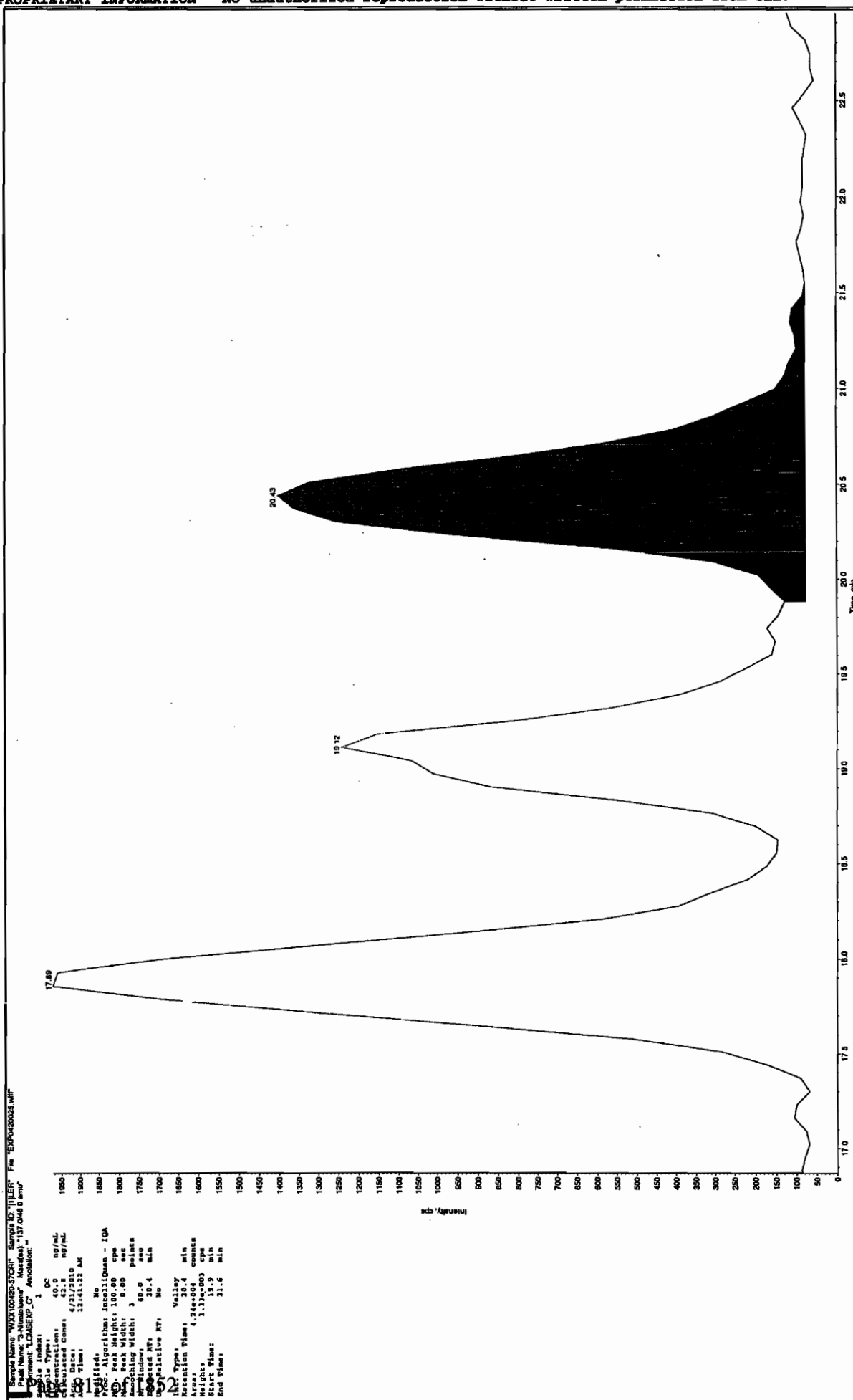
	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	14.3
	<b>Area Counts:</b>	1.09e+005
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	38.7 (ng/mL)
	<b>% Accuracy:</b>	96.90

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	17.9
	<b>Area Counts:</b>	5.58e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	51.0 (ng/mL)
	<b>% Accuracy:</b>	127.00

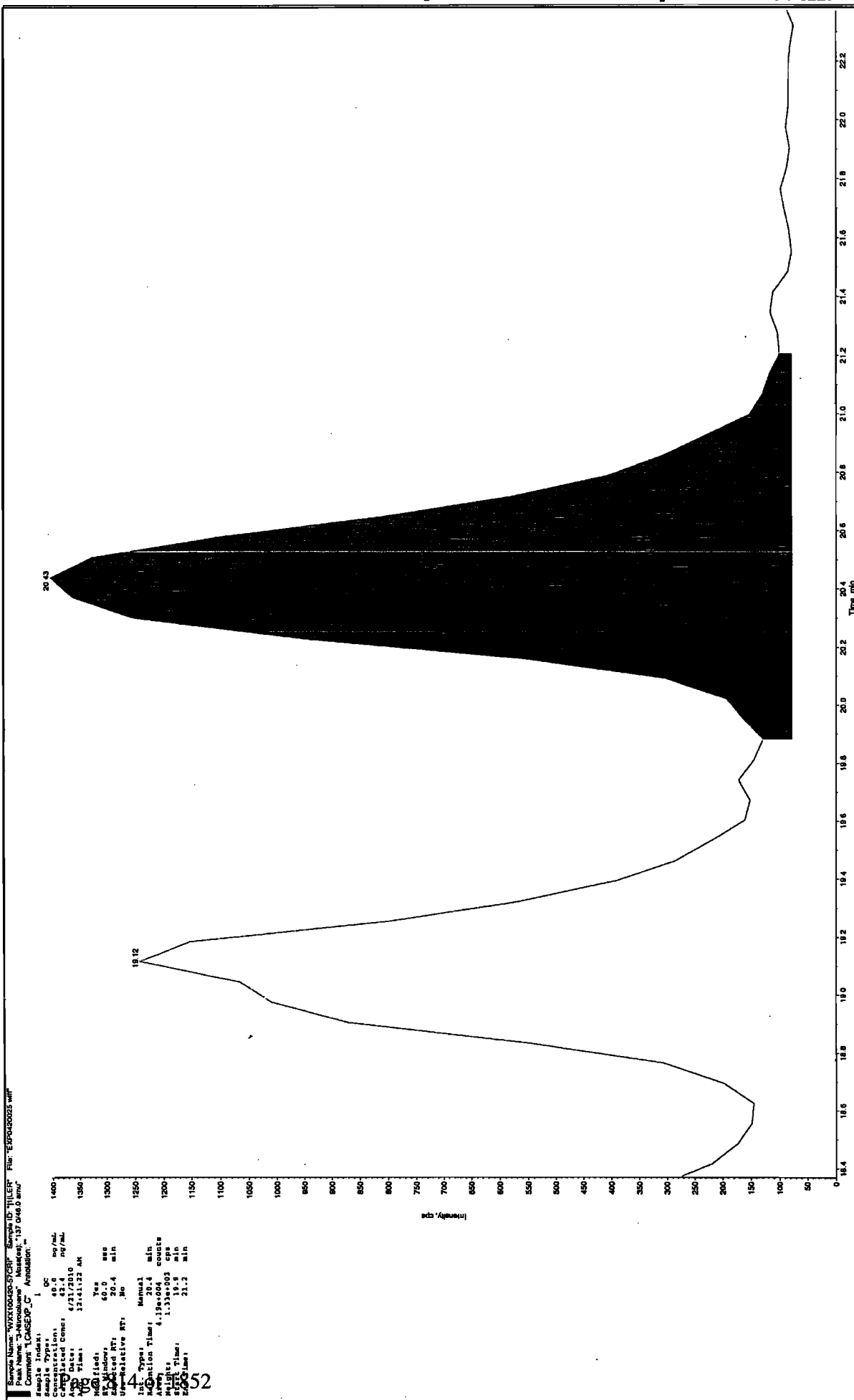
  

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	19.0
	<b>Actual RT:</b>	19.1
	<b>Area Counts:</b>	2.94e+004
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	39.3 (ng/mL)
	<b>% Accuracy:</b>	98.20



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

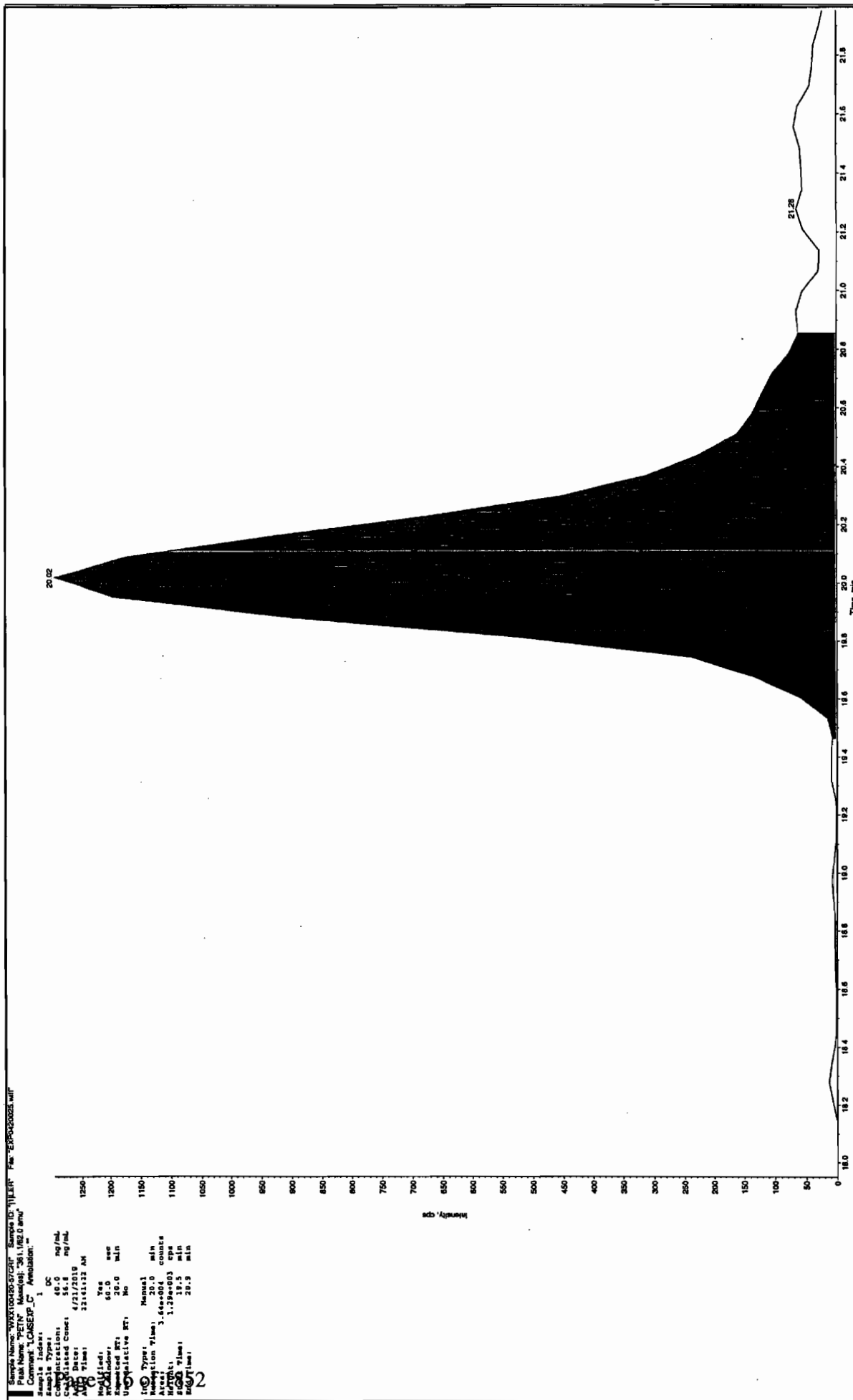
after den 4/19/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



after den 4/29/20



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

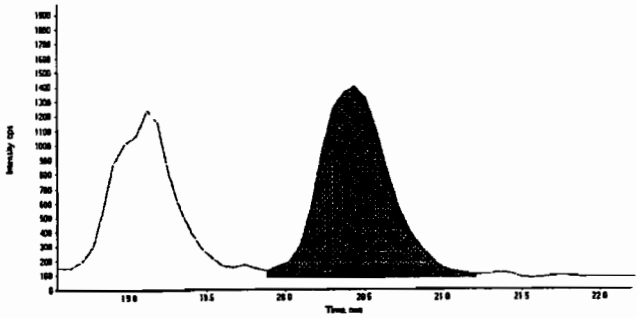


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

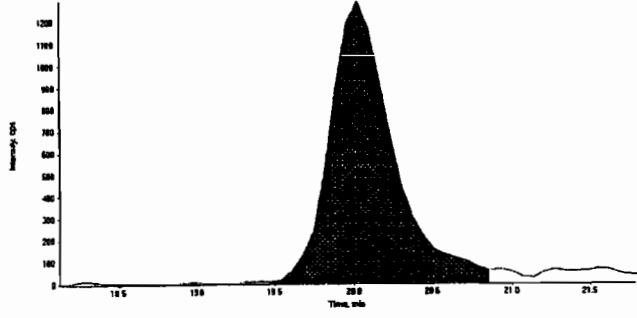
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LCMSMS#3

<b>Data File</b>	EXP0420025.wiff	<b>Acquisition Date</b>	4/21/2010 12:41:22 AM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	20.4
	<b>Area Counts:</b>	4.19e+004
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	42.4 (ng/mL)
	<b>% Accuracy:</b>	106.00

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	20.0
	<b>Area Counts:</b>	3.64e+004
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	56.8 (ng/mL)
	<b>% Accuracy:</b>	142.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/21/10  
 Time of Injection 0041  
 Standard Number WXX100420-57CRI  
 Data File EXP0420025a

HMX	117.0
RDX	126.0
135-Trinitrobenzene	101.0
13-Dinitrobenzene	104.0
Tetryl	124.0
246-Trinitrotoluene	100.0
Nitrobenzene	87.9
34-dinitrotoluene	78.6
26-dinitrotoluene	92.9
24-dinitrotoluene	97.3
4-Amino-26-dinitrotoluene	100.0
2-Amino-46-dinitrotoluene	96.9
2-Nitrotoluene	127.0
4-Nitrotoluene	98.2
3-Nitrotoluene	106.0
PETN	142.0

TOTAL

✓ 1698.8

AVERAGE

✓ 106.2

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Lau*  
*4/28/10*

*Amc*  
*4/29/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04090013.wiff

Analysis Date: 09-APR-10 10:23

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	98	98	
2,6-Diamino-4-nitrotoluene	100	83.7	84	
3,4-Dinitrotoluene	50	49	98	
3,5-Dinitroaniline	100	102	102	
TATB	100	102	102	
tris(o-cresyl) phosphate	100	104	104	

Recovery Limits:

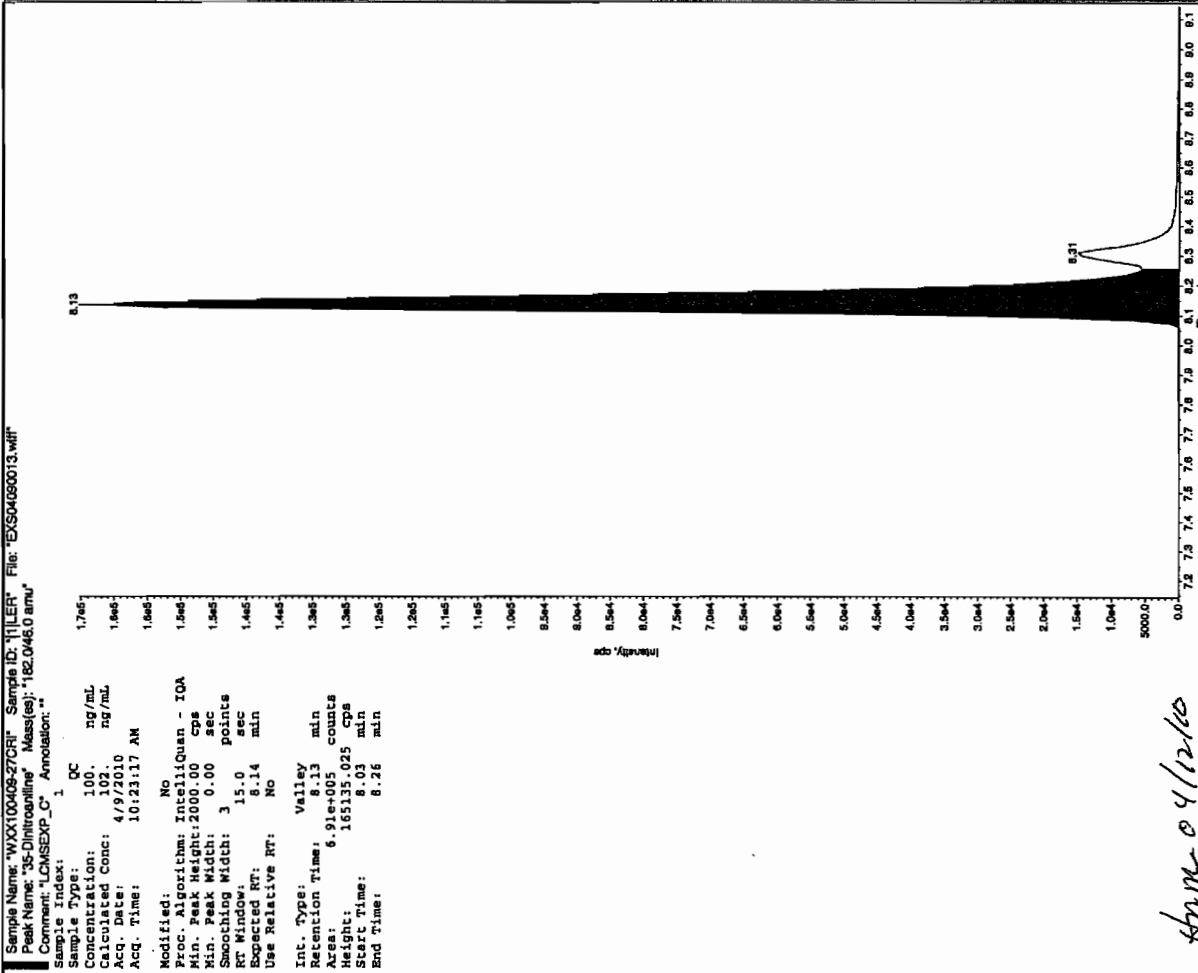
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

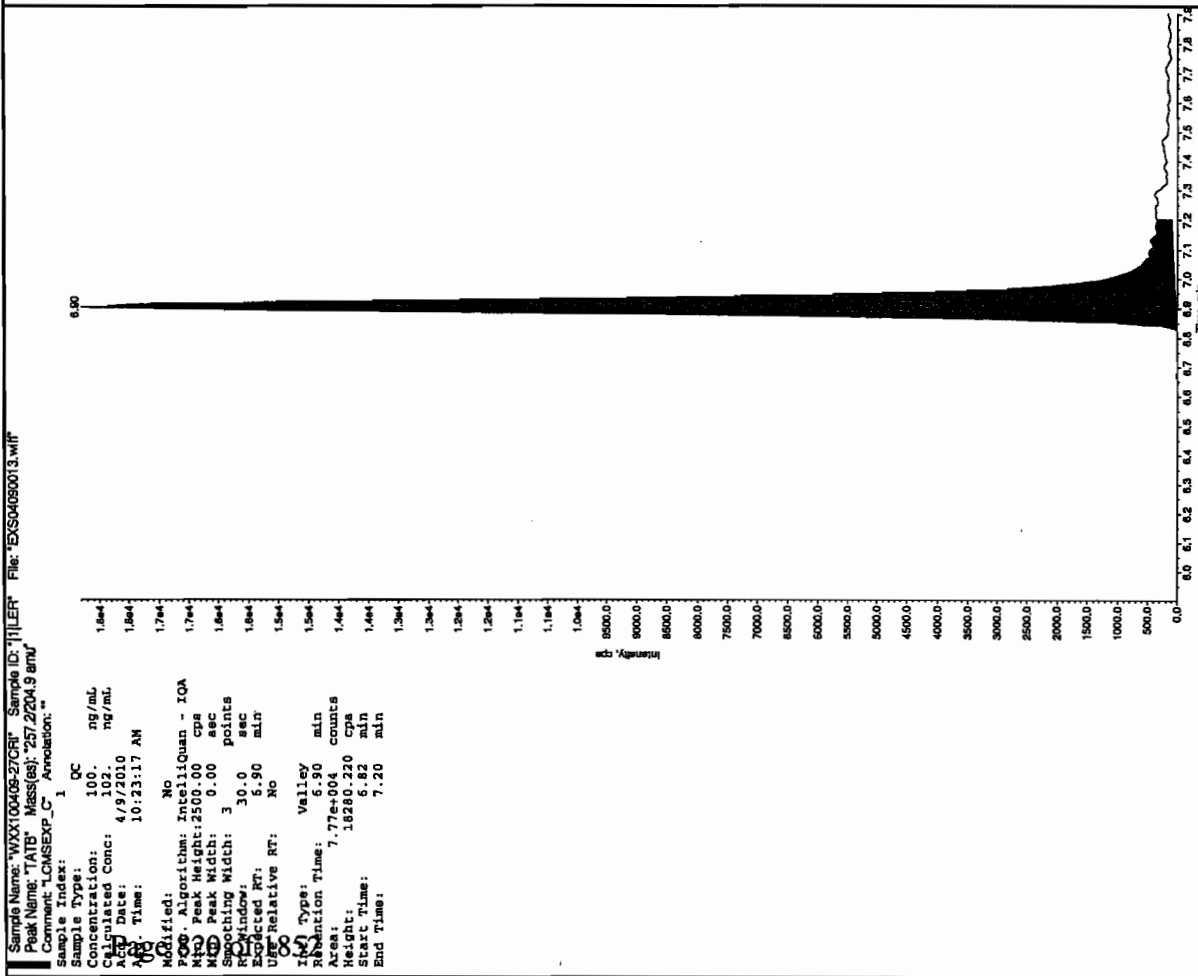
# Column used to flag Recovery outside of Limits

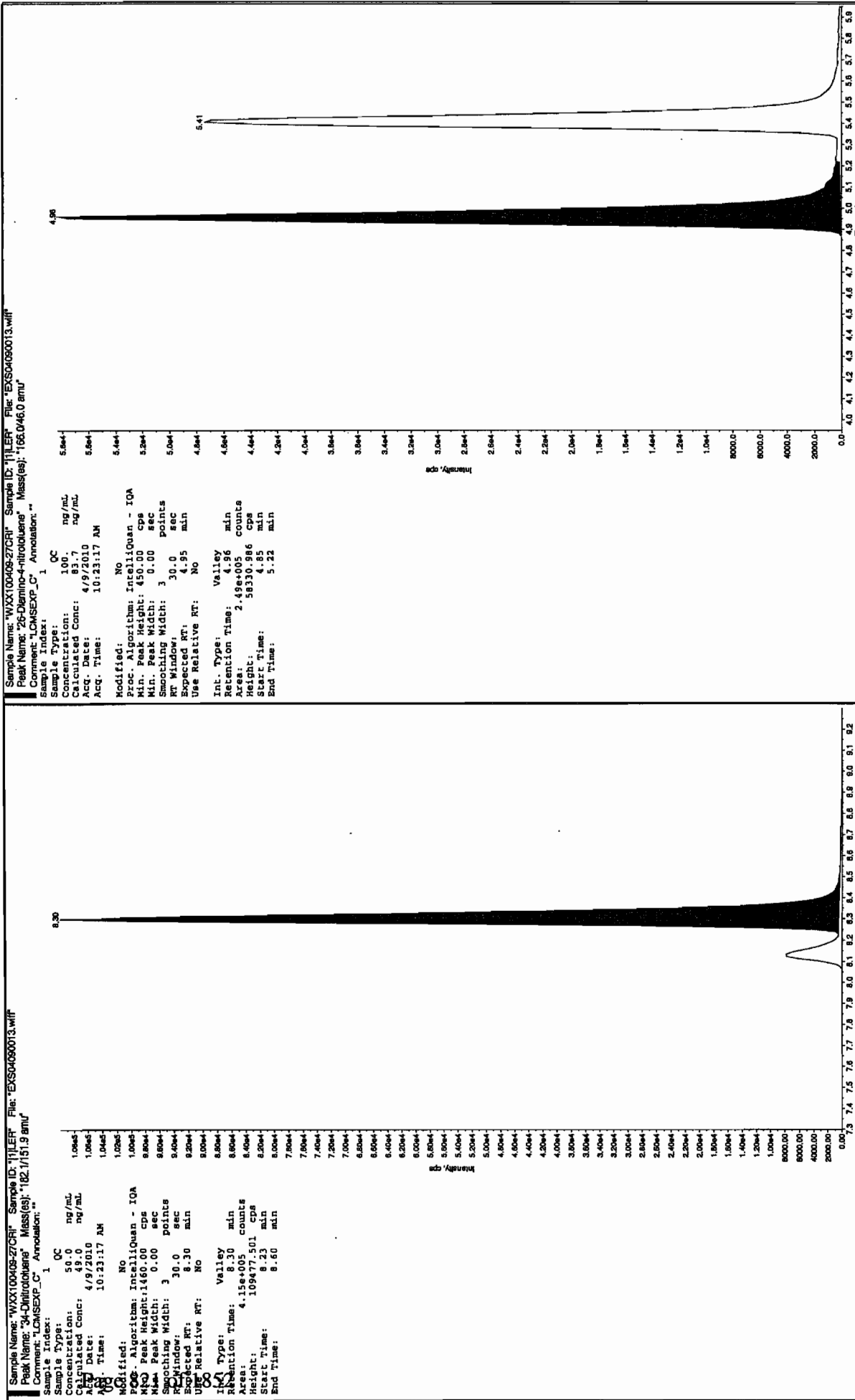
\* Value outside of Recovery Limits

Jan 4/12/10



Ann 04/12/10





Sample Name: WXX100409-27CR1 Sample ID: 111ER File: EXS04090013.wif

Peak Name: 166.046.0 emu Mass(es): 166.046.0 emu

Comment: LCMSEXP\_C Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 100. ng/mL

Calculated Conc: 104. ng/mL

Acq. Date: 4/9/2010

Acq. Time: 10:23:17 AM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 100.0 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 10.6 min

Use Relative RT: No

Int. Type: Valley

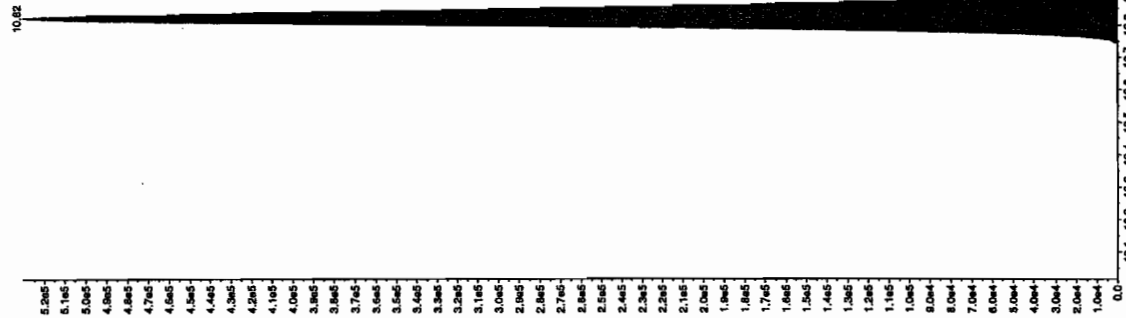
Retention Time: 10.8 min

Area: 2.13e+006 counts

Height: 529692.078 cps

Start Time: 10.7 min

End Time: 11.2 min



Sample Name: WXX100409-27CR1 Sample ID: 111ER File: EXS04090013.wif

Peak Name: 24-Diamino-6-nitroindole Mass(es): 166.046.0 emu

Comment: LCMSEXP\_C Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 100. ng/mL

Calculated Conc: 98.0 ng/mL

Acq. Date: 4/9/2010

Acq. Time: 10:23:17 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: 5.40 min

Use Relative RT: No

Int. Type: Valley

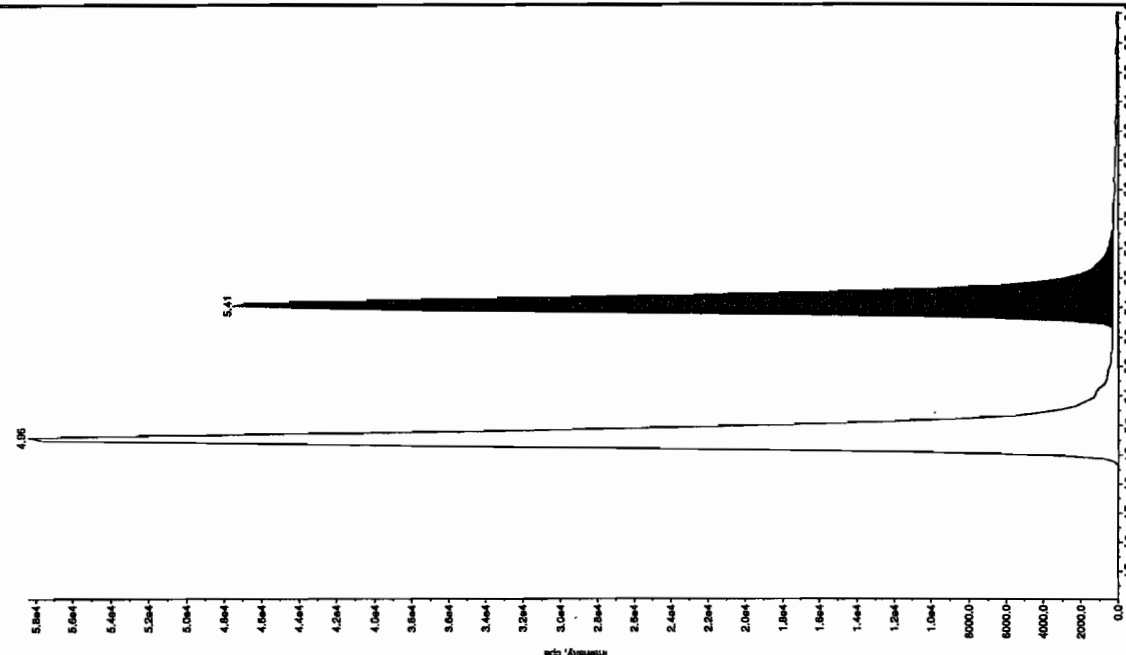
Retention Time: 5.41 min

Area: 2.07e+005 counts

Height: 47109.501 cps

Start Time: 5.31 min

End Time: 5.68 min



7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04090024.wiff

Analysis Date: 09-APR-10 13:16

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	489	98	
2,6-Diamino-4-nitrotoluene	500	521	104	
3,4-Dinitrotoluene	250	232	93	
3,5-Dinitroaniline	500	500	100	
TATB	500	508	102	
tris(o-cresyl) phosphate	500	507	101	

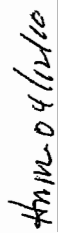
Recovery Limits:

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

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

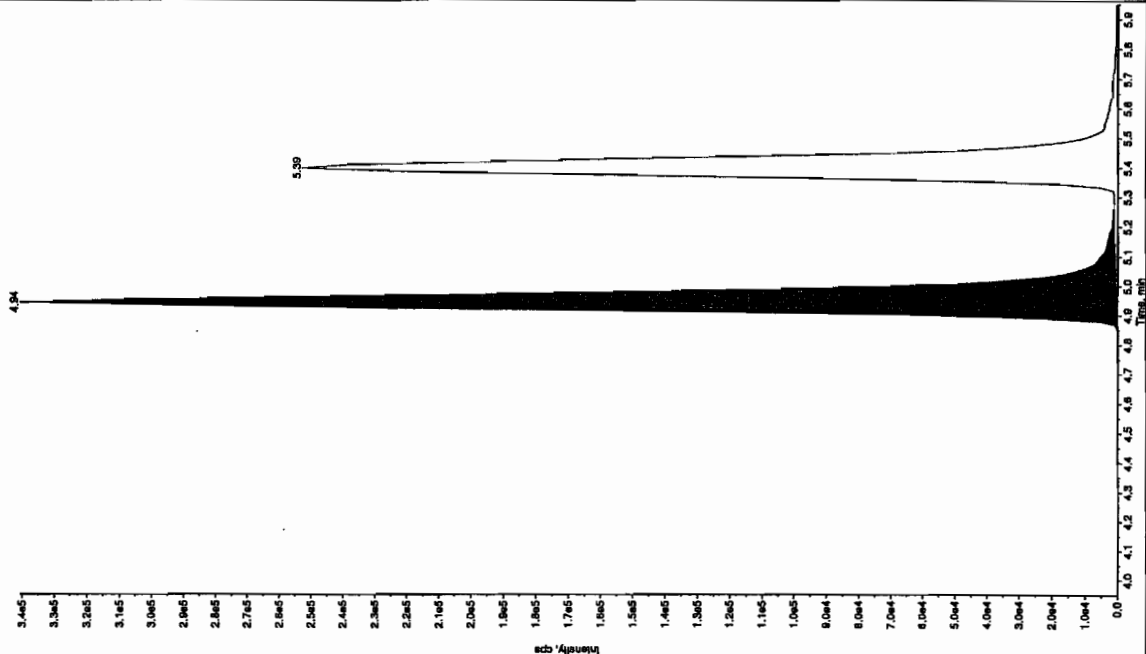
\* Value outside of Recovery Limits





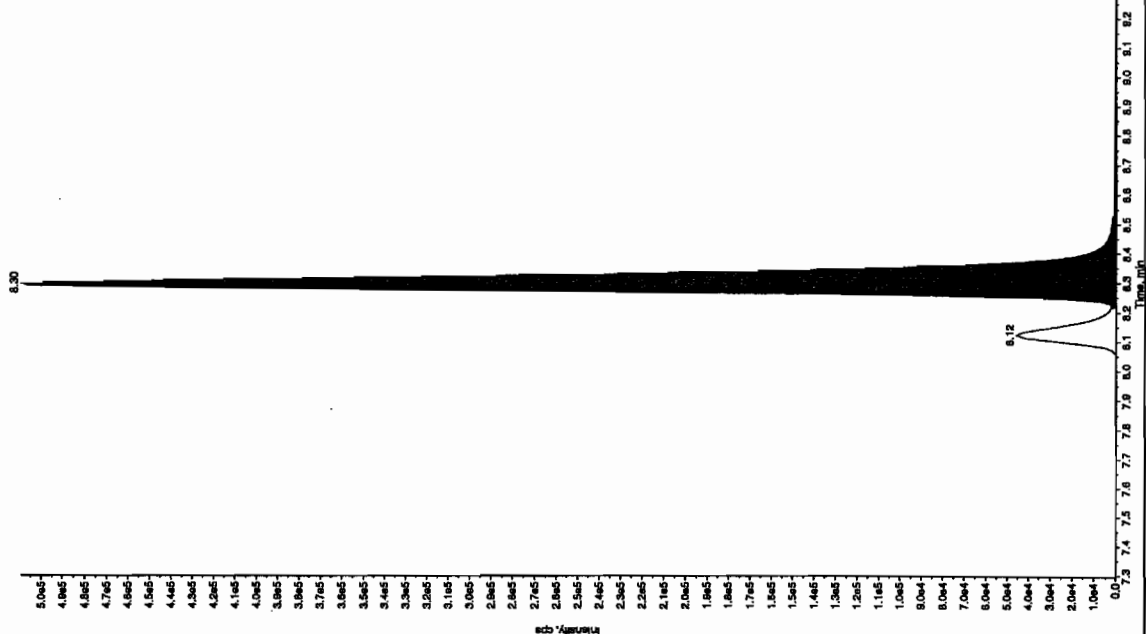
Sample Name: "WXX100409-260V" Sample ID: "111LER" File: "EXS04090024.wif"  
 Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

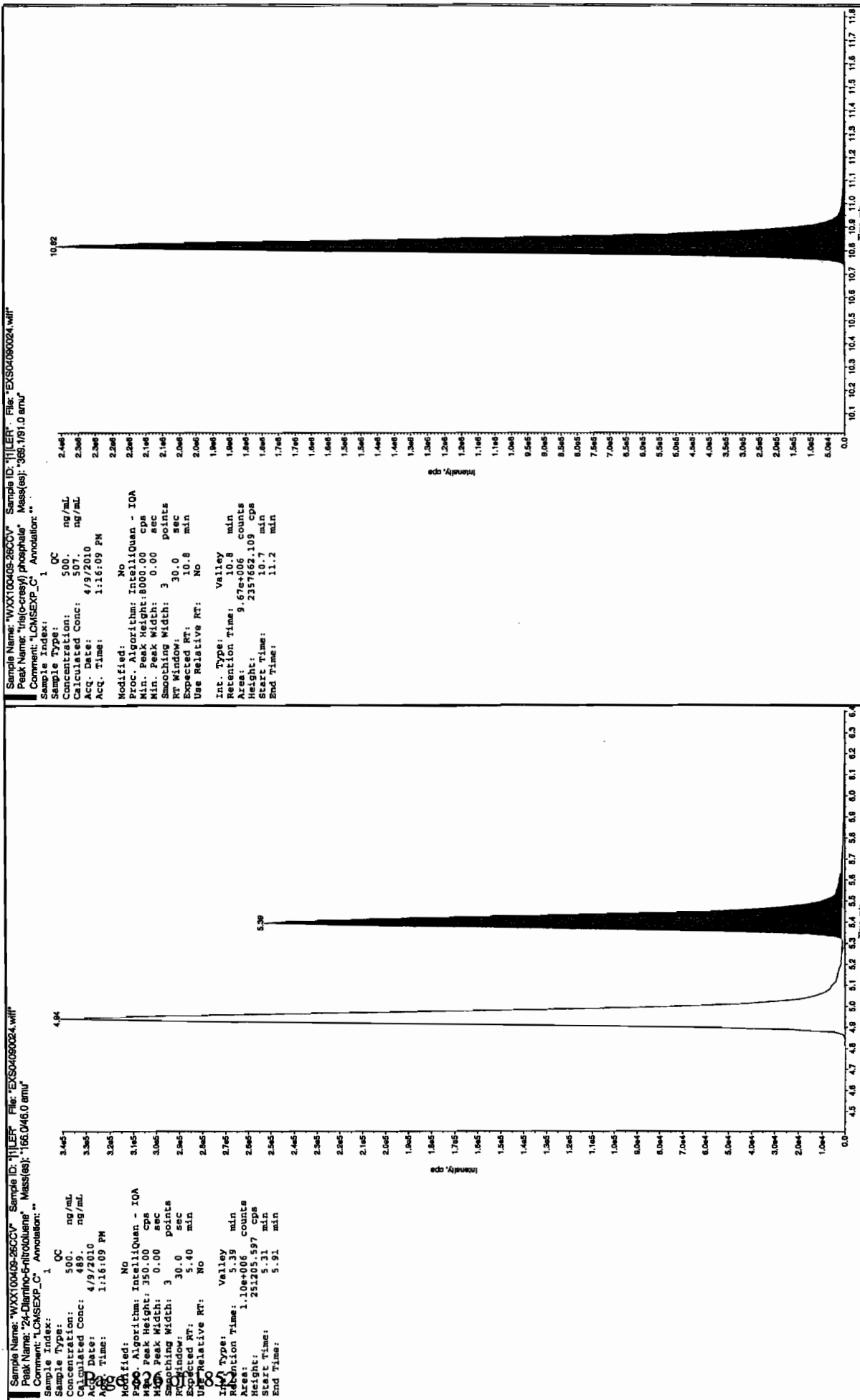
Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 521. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 1:16:09 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 4.95 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.94 min  
 Area: 1.44e+006 counts  
 Height: 340326.263 cps  
 Start Time: 4.84 min  
 End Time: 5.24 min



Sample Name: "WXX100409-260V" Sample ID: "111LER" File: "EXS04090024.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.115.1 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 250. ng/mL  
 Calculated Conc: 232. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 1:16:09 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 1450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 8.30 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.30 min  
 Area: 2.08e+006 counts  
 Height: 509094.351 cps  
 Start Time: 8.22 min  
 End Time: 8.77 min





7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04090026.wiff

Analysis Date: 09-APR-10 13:47

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	101	101	
2,6-Diamino-4-nitrotoluene	100	84.4	84	
3,4-Dinitrotoluene	50	50.1	100	
3,5-Dinitroaniline	100	103	103	
TATB	100	106	106	
tris(o-cresyl) phosphate	100	103	103	

Recovery Limits:

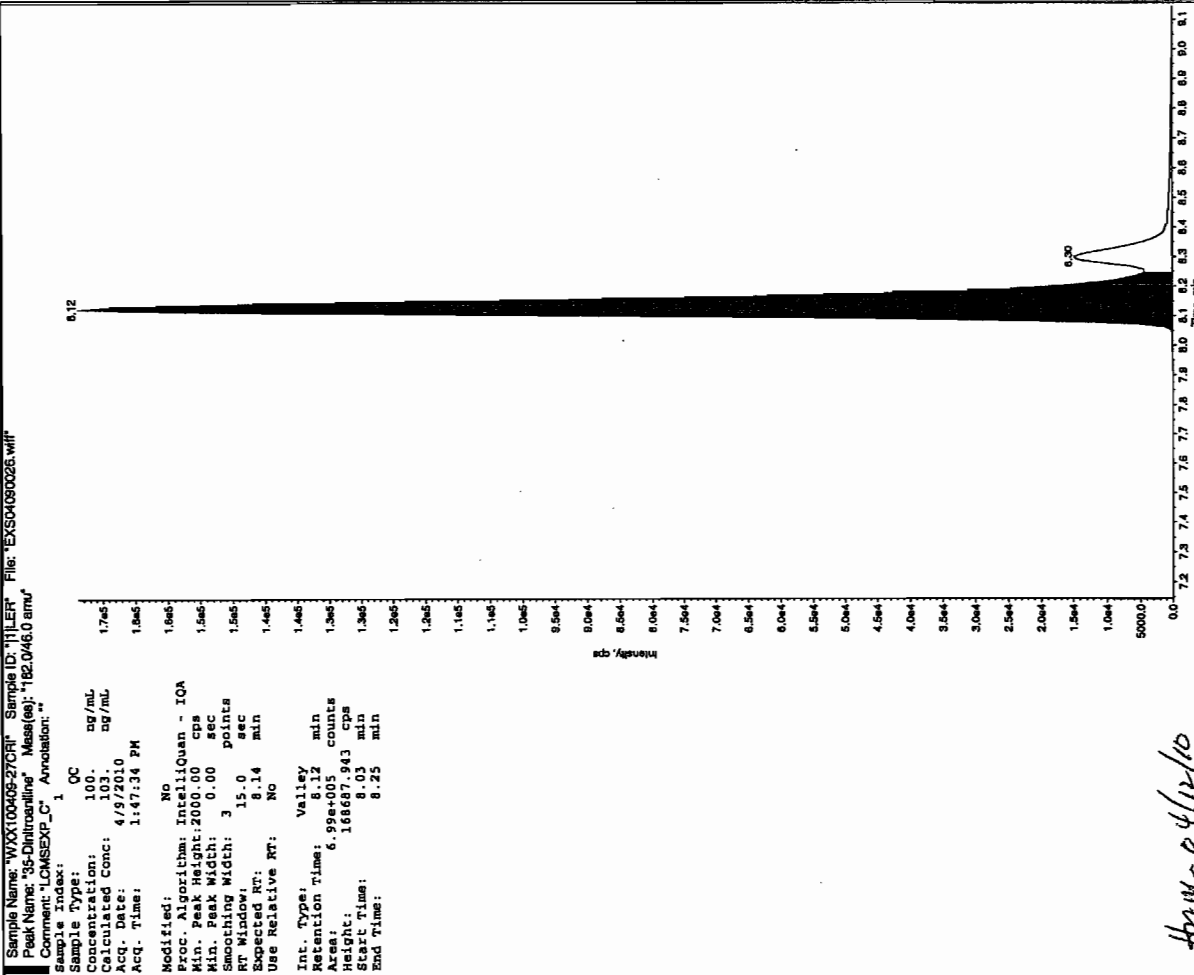
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

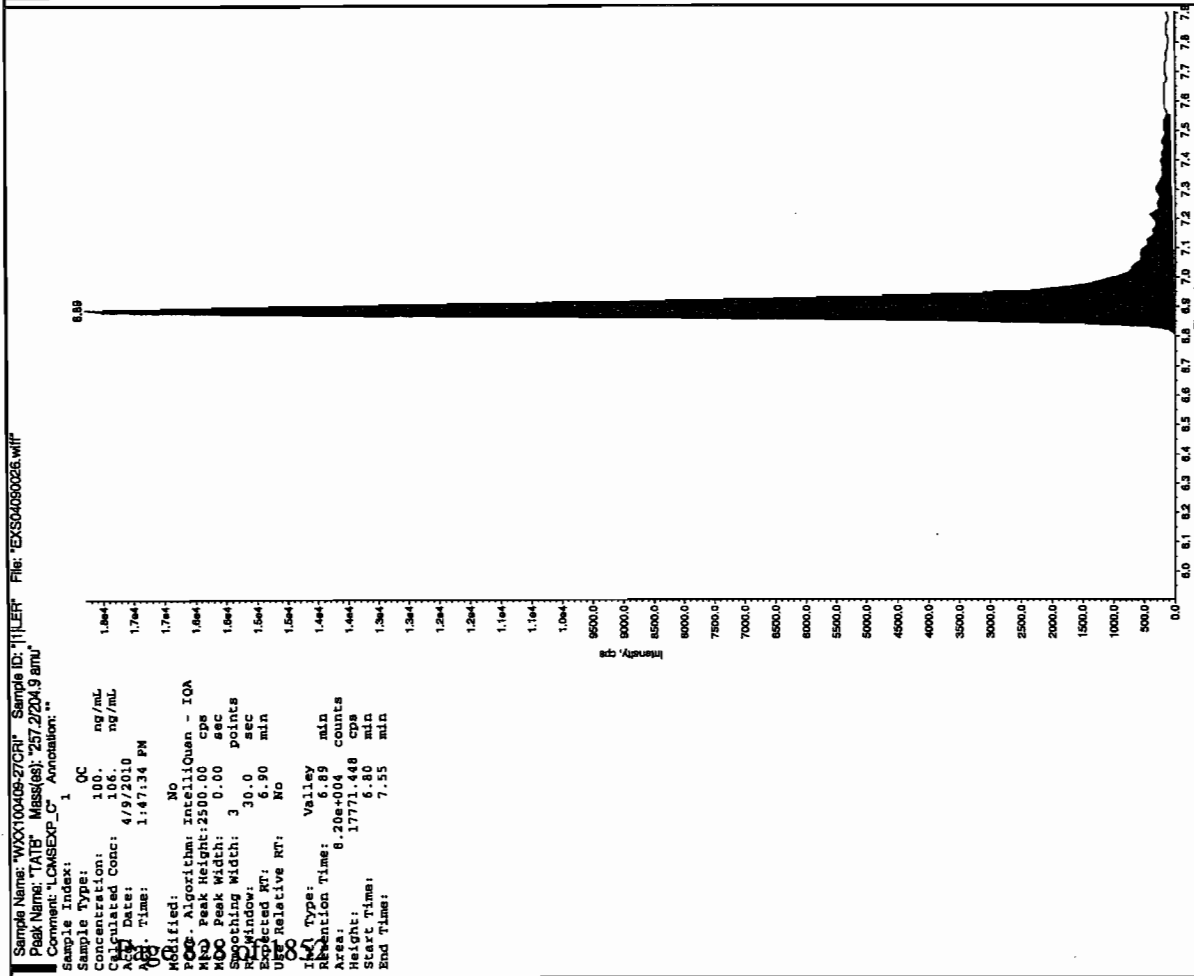
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Scan 4/12/10



Scan 04/12/10



Sample Name: "WXX100409-27QRI" Sample ID: "11LIER" File: "EXS04090026.wif"

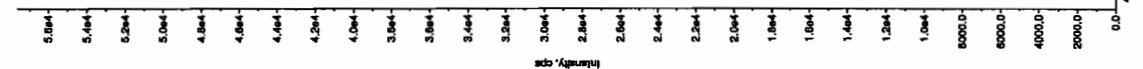
Peak Name: "26-Dinitro-4-nitrotoluene" Mass(es): "166.046.0 amu"

Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 84.4 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 1:47:34 PM

Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 3.00 sec  
 Smoothing Width: 30.0 points  
 Acq. Window: 30.0 sec  
 Expected RT: 4.95 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 4.94 min  
 Area: 2.51e+005 counts  
 Height: 57584.732 cps  
 Start Time: 4.82 min  
 End Time: 5.24 min



Sample Name: "WXX100409-27QRI" Sample ID: "11LIER" File: "EXS04090026.wif"

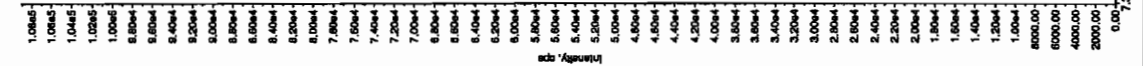
Peak Name: "34-Dinitrotoluene" Mass(es): "182.151.3 amu"

Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 50.0 ng/mL  
 Calculated Conc: 50.1 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 1:47:34 PM

Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 3.00 sec  
 Smoothing Width: 30.0 points  
 Acq. Window: 30.0 sec  
 Expected RT: 8.30 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 8.29 min  
 Area: 4.25e+005 counts  
 Height: 108659.401 cps  
 Start Time: 8.22 min  
 End Time: 8.58 min



Sample Name: "WXX100409-27.CRI" Sample ID: "JLIER" File: "EX504090026.wif"

Peak Name: "Tris(o-cresyl) phosphite" Mass(es): "359.1/51.0 amu"

Comment: "LCMSXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC

Concentration: 100. ng/mL

Calculated Conc: 103. ng/mL

Acq. Date: 4/9/2010

Acq. Time: 1:47:34 PM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 800.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 30.0 points

Expected RT: 10.8 min

Use Relative RT: No

Int. Type: Valley

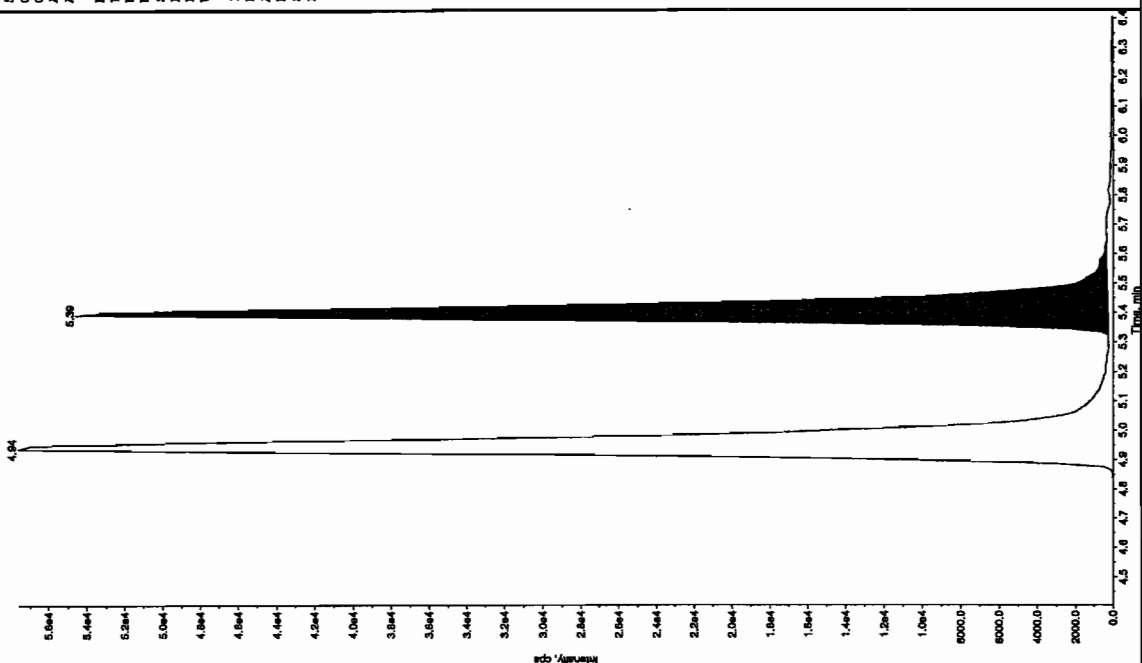
Retention Time: 10.8 min

Area: 2.11e+006 counts

Height: 542095.947 cps

Start Time: 10.7 min

End Time: 11.1 min



Sample Name: "WXX100409-27.CRI" Sample ID: "JLIER" File: "EX504090026.wif"

Peak Name: "24-Diamino-6-Intimidazole" Mass(es): "166.0/46.0 amu"

Comment: "LCMSXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC

Concentration: 100. ng/mL

Calculated Conc: 101. ng/mL

Acq. Date: 4/9/2010

Acq. Time: 1:47:34 PM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 350.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 30.0 points

Expected RT: 5.40 min

Use Relative RT: No

Int. Type: Valley

Retention Time: 5.39 min

Area: 2.15e+005 counts

Height: 54232.807 cps

Start Time: 5.28 min

End Time: 5.55 min

**7A**  
**Explosives Continuing Calibration Verification**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04090037.wiff

Analysis Date: 09-APR-10 16:40

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	489	98	
2,6-Diamino-4-nitrotoluene	500	476	95	
3,4-Dinitrotoluene	250	234	94	
3,5-Dinitroaniline	500	483	97	
TATB	500	490	98	
tris(o-cresyl) phosphate	500	499	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

Jan 4/12/10

Sample Name: "WXX100409-260CV" Sample ID: "11LER" File: "EXS04090037.wif"

Peak Name: "5S-Dihydroline" Mass(es): "182.046.0 amu"

Comment: "LCMSEXP-C" Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 500. ng/mL

Calculated Conc: 483. ng/mL

Acq. Date: 4/9/2010

Acq. Time: 4:40:18 PM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 2000.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 15.0 sec

Expected RT: 8.14 min

Use Relative RT: No

Int. Type: Valley

Retention Time: 8.13 min

Area: 3.43e+006 counts

Height: 825812.988 cps

Start Time: 8.03 min

End Time: 8.25 min

Sample Name: "WXX100409-260CV" Sample ID: "11LER" File: "EXS04090037.wif"

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

Comment: "LCMSEXP-C" Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 500. ng/mL

Calculated Conc: 479. ng/mL

Acq. Date: 4/9/2010

Acq. Time: 4:40:18 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: 6.90 min

Use Relative RT: No

Int. Type: Valley

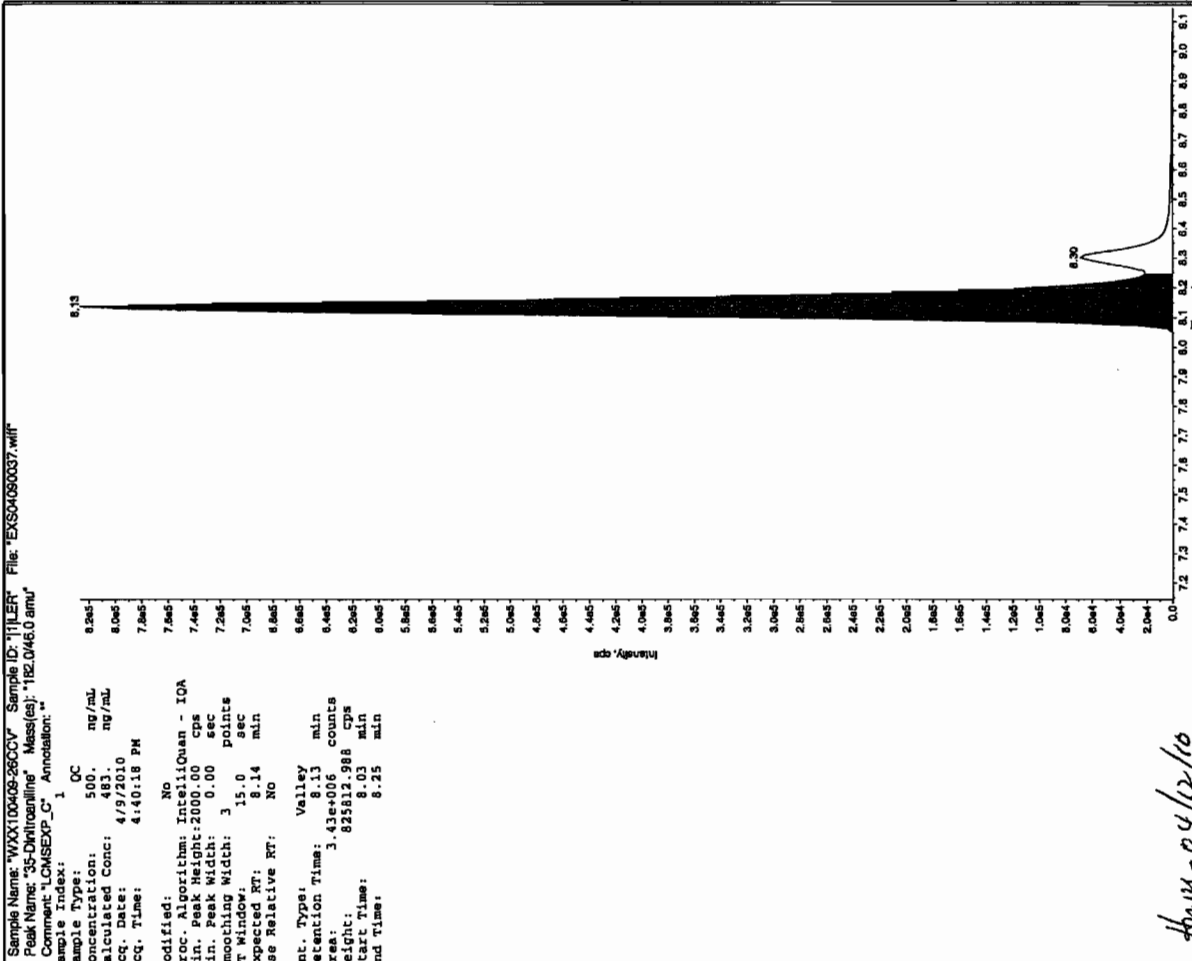
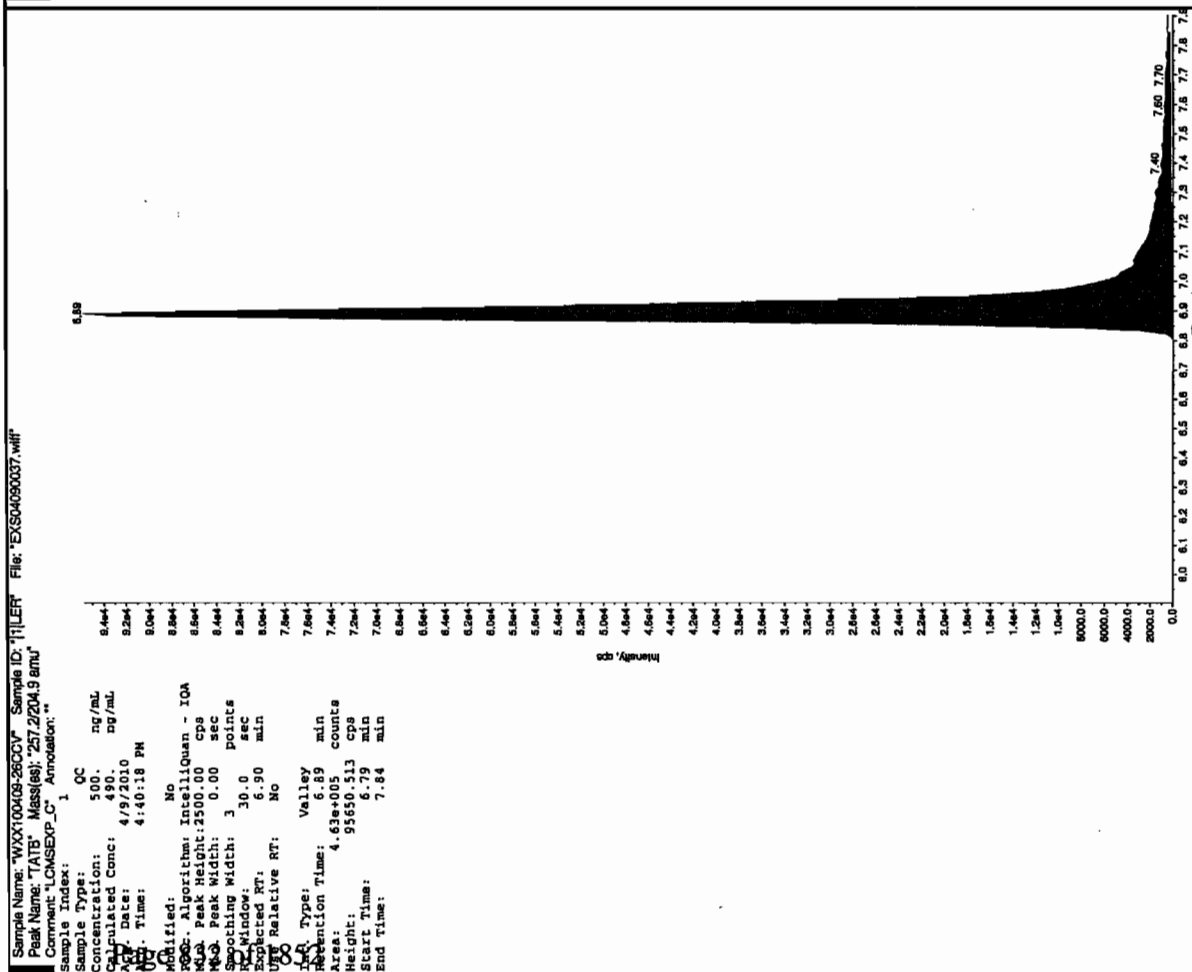
Retention Time: 6.89 min

Area: 4.63e+005 counts

Height: 55850.513 cps

Start Time: 6.79 min

End Time: 7.84 min



Jan 4/12/10



Sample Name: "WXX100409-260CV" Sample ID: "11LER" File: "EXS04090037.wif"

Peak Name: "26-Dinitro-4-nitrotoluene" Mass(es): "186.046.0 amu"

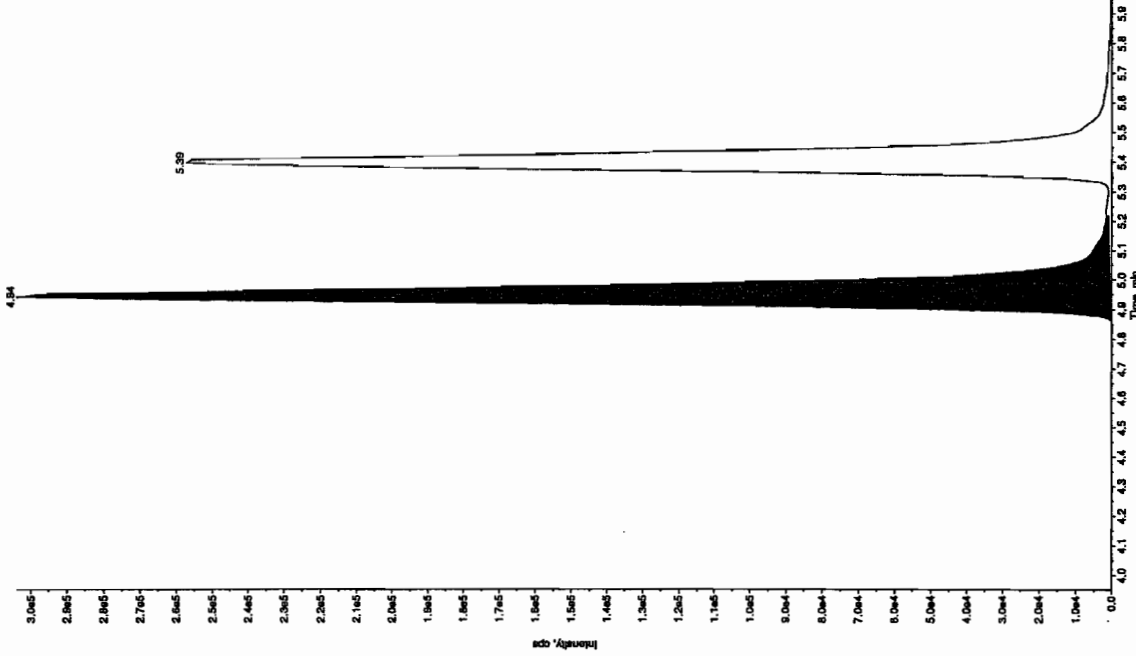
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 476. ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 4:40:18 PM

Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 430.00 cps  
Min. Peak Width: 3.00 points  
Smoothing Width: 30.0 sec  
RT Window: 30.0 min  
Expected RT: 4.95 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 4.94 min  
Area: 1.32e+006 counts  
Height: 303445.587 cps  
Start Time: 4.85 min  
End Time: 5.22 min



Sample Name: "WXX100409-260CV" Sample ID: "11LER" File: "EXS04090037.wif"

Peak Name: "34-Dinitrotoluene" Mass(es): "182.17151.9 amu"

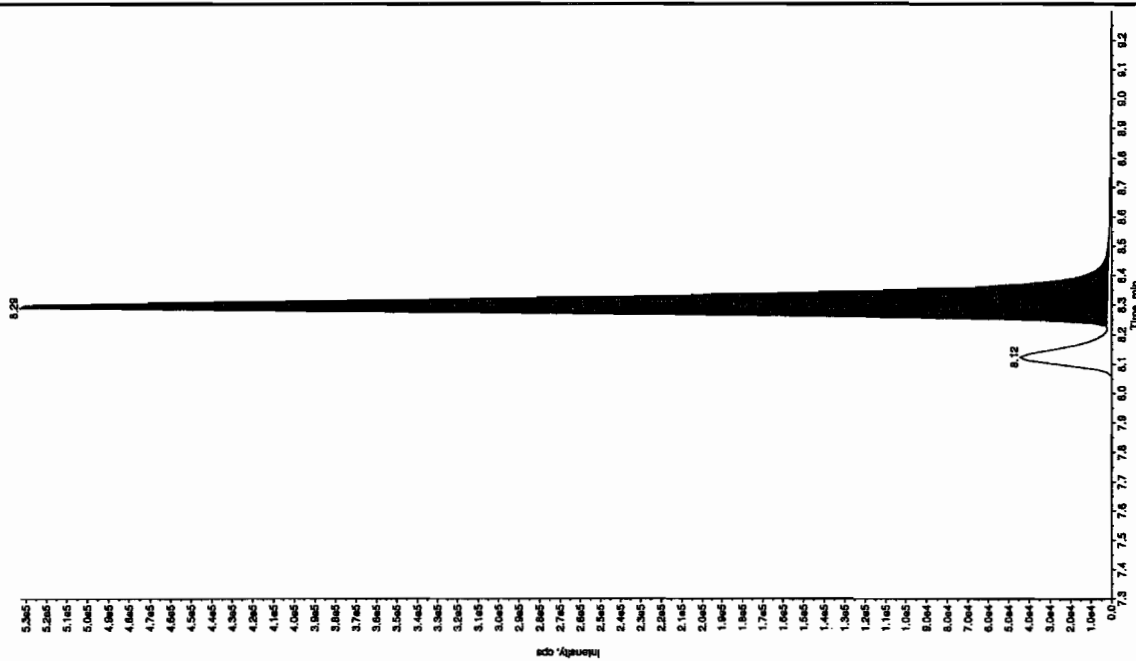
Comment: "LCMSEXP\_C" Annotation: ""

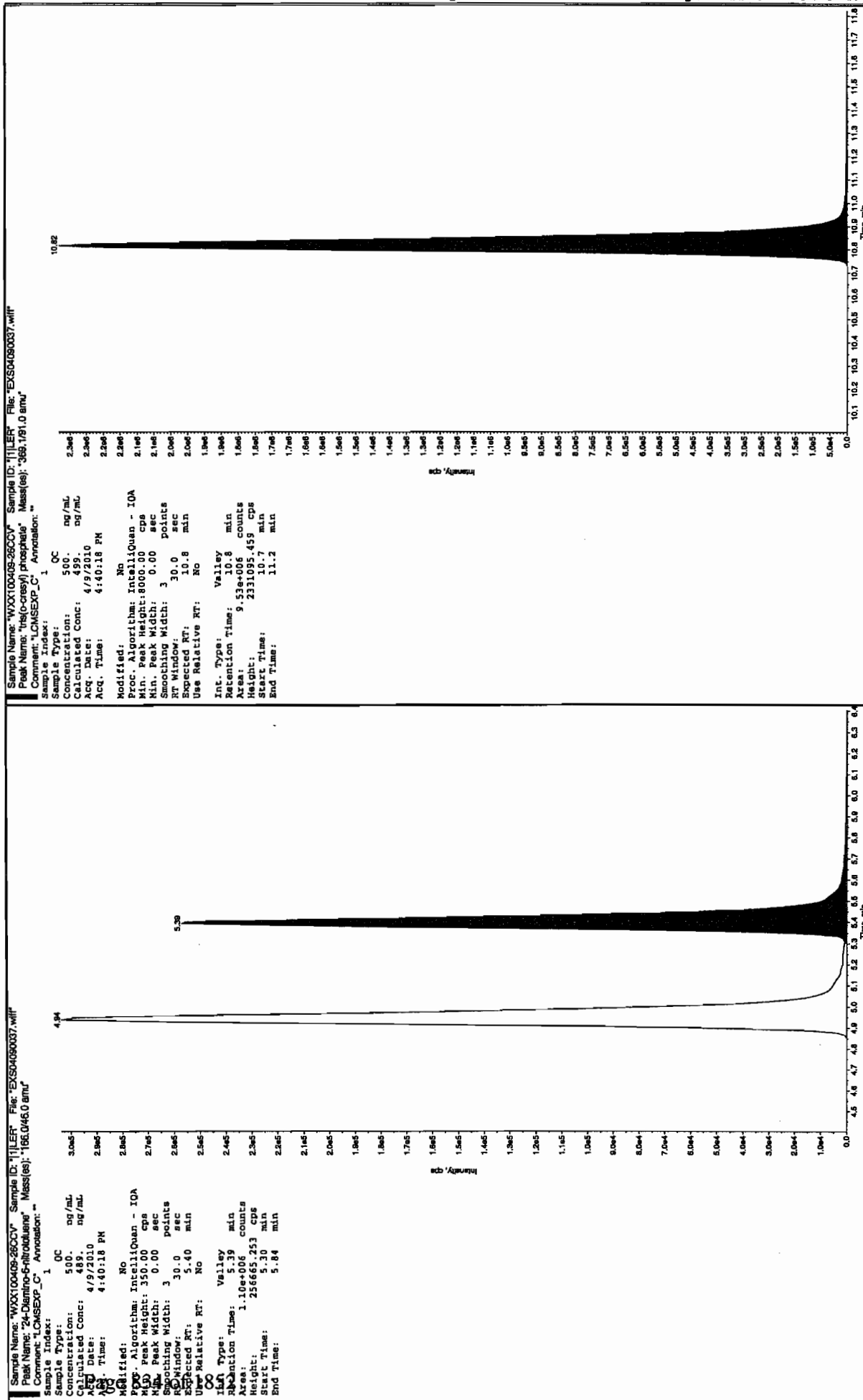
Sample Index: 1

Sample Type: QC  
Concentration: 250. ng/mL  
Calculated Conc: 234. ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 4:40:18 PM

Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 1460.00 cps  
Min. Peak Width: 3.00 points  
Smoothing Width: 30.0 sec  
RT Window: 30.0 min  
Expected RT: 8.20 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 8.29 min  
Area: 2.10e+006 counts  
Height: 530511.414 cps  
Start Time: 8.22 min  
End Time: 8.59 min





7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04090039.wiff

Analysis Date: 09-APR-10 17:11

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	100	100	
2,6-Diamino-4-nitrotoluene	100	93.3	93	
3,4-Dinitrotoluene	50	49.5	99	
3,5-Dinitroaniline	100	108	108	
TATB	100	105	105	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:

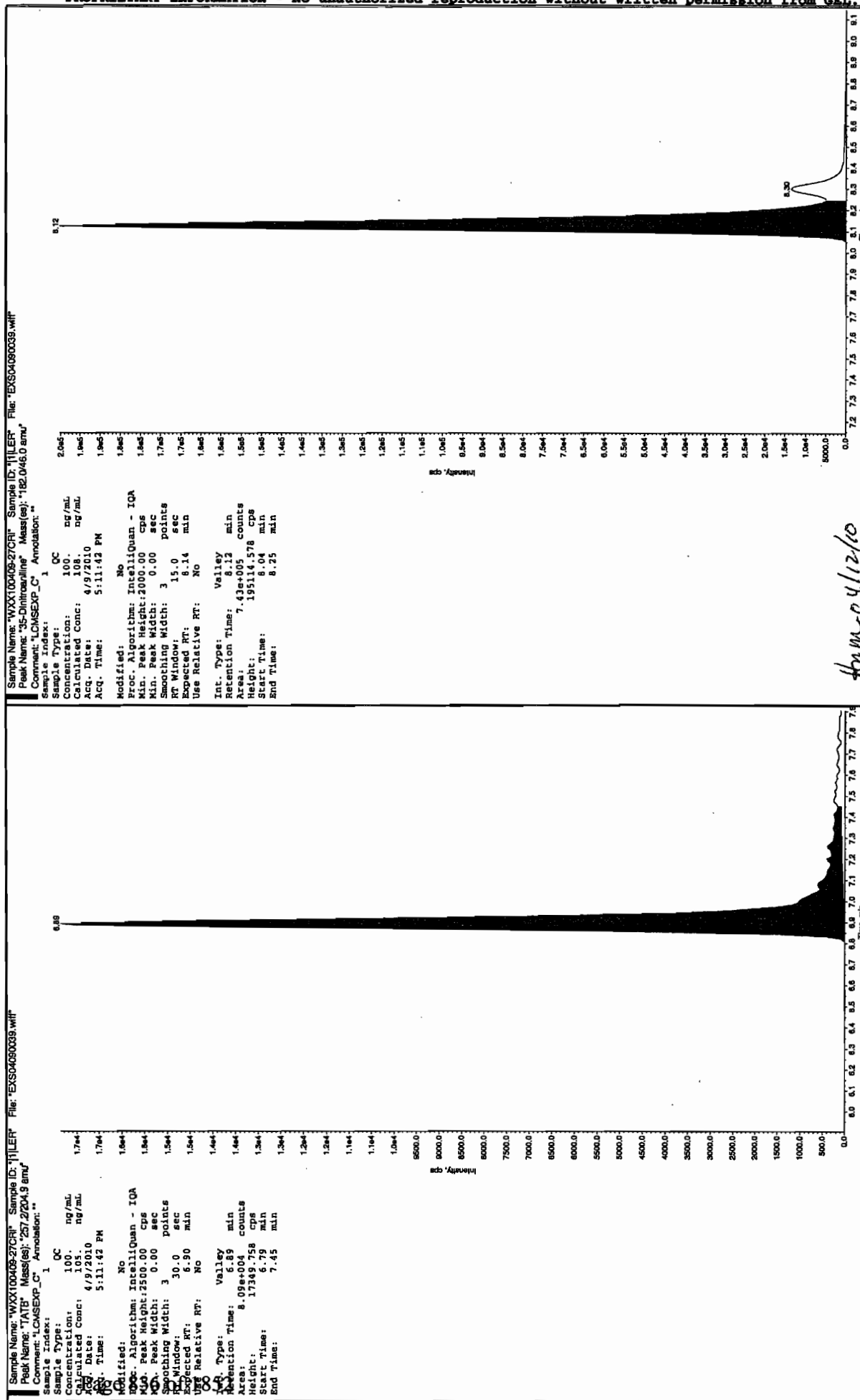
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

San 4/12/10



San 4/12/10

Sample Name: "WXX100409-27CR1" Sample ID: "11JLRF" File: "EX504090039.wif"

Peak Name: "26-Diethyl-4-nitrofluorene" Mass(es): "166.046.0 amu"

Comment: "LCMSXPC\_C" Annotation: ""

Sample Index: 1

Sample Type: QC

Concentration: 100. ng/mL

Calculated Conc: 93.3 ng/mL

Acq. Date: 4/9/2010

Acq. Time: 5:11:42 PM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 450.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 30.0 points

RT Window: 30.0 sec

Expected RT: 4.95 min

Use Relative RT: No

Int. Type: Valley

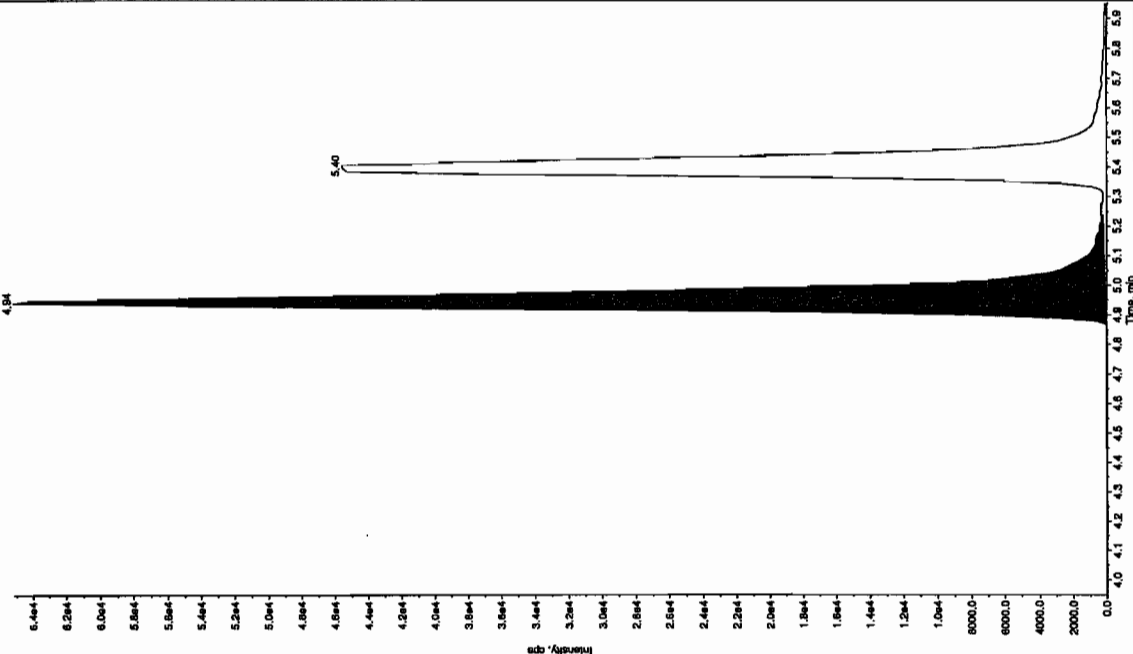
Retention Time: 4.94 min

Area: 2.76e+005 counts

Height: 65123.627 cps

Start Time: 4.85 min

End Time: 5.24 min



Sample Name: "WXX100409-27CR1" Sample ID: "11JLRF" File: "EX504090039.wif"

Peak Name: "34-Dinitrofluorene" Mass(es): "182.151.9 amu"

Comment: "LCMSXPC\_C" Annotation: ""

Sample Index: 1

Sample Type: QC

Concentration: 50.0 ng/mL

Calculated Conc: 49.5 ng/mL

Acq. Date: 4/9/2010

Acq. Time: 5:11:42 PM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 1460.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 30.0 points

RT Window: 30.0 sec

Expected RT: 8.30 min

Use Relative RT: No

Int. Type: Valley

Retention Time: 8.29 min

Area: 4.18e+005 counts

Height: 107415.909 cps

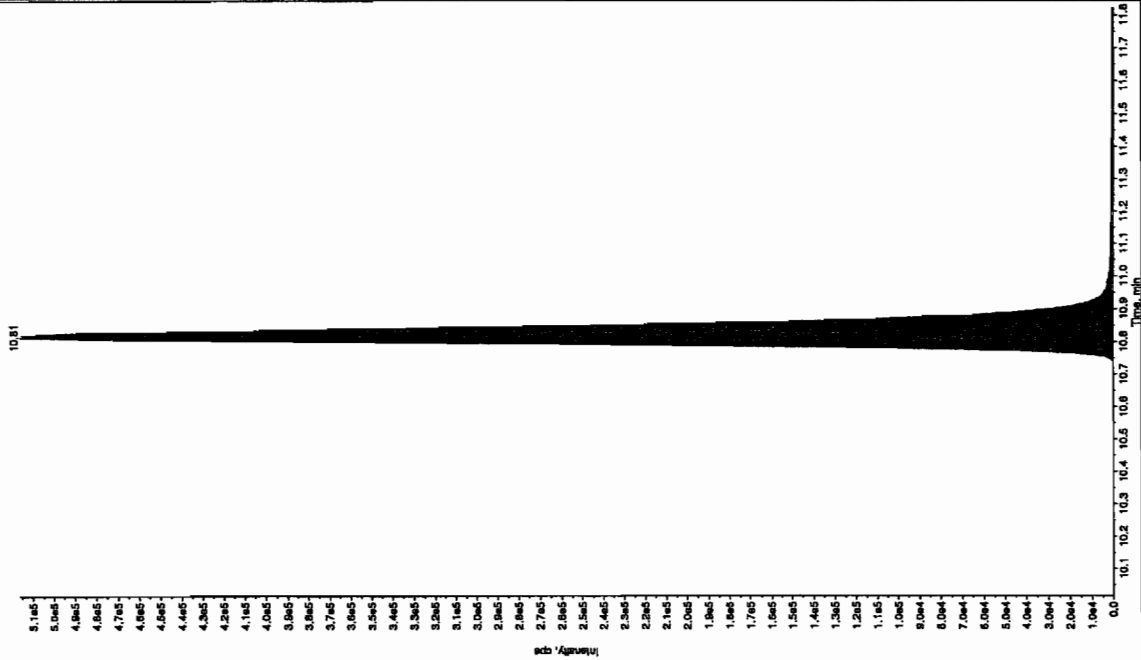
Start Time: 8.22 min

End Time: 8.57 min



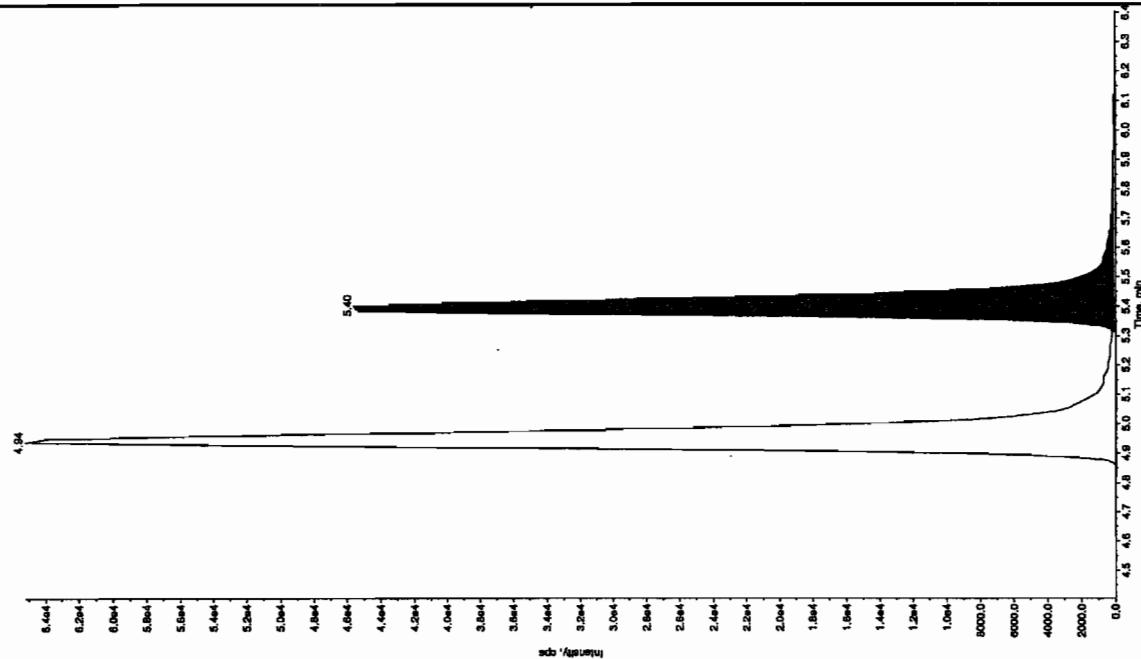
Sample Name: "WXX100409-27CPI" Sample ID: "11LER" File: "EXS04090039.wif"  
 Peak Name: "his-(o-cresyl) phosphate" Mass(es): "369.191.0 amu"  
 Comment: "LCMS-EXP-C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 102. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 5:11:42 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 2.08e+006 counts  
 Height: 515762.024 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



Sample Name: "WXX100409-27CPI" Sample ID: "11LER" File: "EXS04090039.wif"  
 Peak Name: "24-Diamino-6-nitrothiols" Mass(es): "166.046.0 amu"  
 Comment: "LCMS-EXP-C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 100. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 5:11:42 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 RT Window: 30.0 sec  
 Expected RT: 5.40 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.40 min  
 Area: 3.12e+005 counts  
 Height: 45472.590 cps  
 Start Time: 5.31 min  
 End Time: 5.52 min



7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04090050.wiff

Analysis Date: 09-APR-10 20:04

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	565	113	
2,6-Diamino-4-nitrotoluene	500	531	106	
3,4-Dinitrotoluene	250	242	97	
3,5-Dinitroaniline	500	520	104	
TATB	500	503	101	
tris(o-cresyl) phosphate	500	507	101	

Recovery Limits:

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

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

See 4/12/10

Sample Name: "WXX100409-26CCV" Sample ID: "11LER" File: "EXS04090050.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: 503. ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 8:04:29 PM

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: 3.00 sec

Expected RT: 6.30 min

Use Relative RT: No

Int. Type: Valley

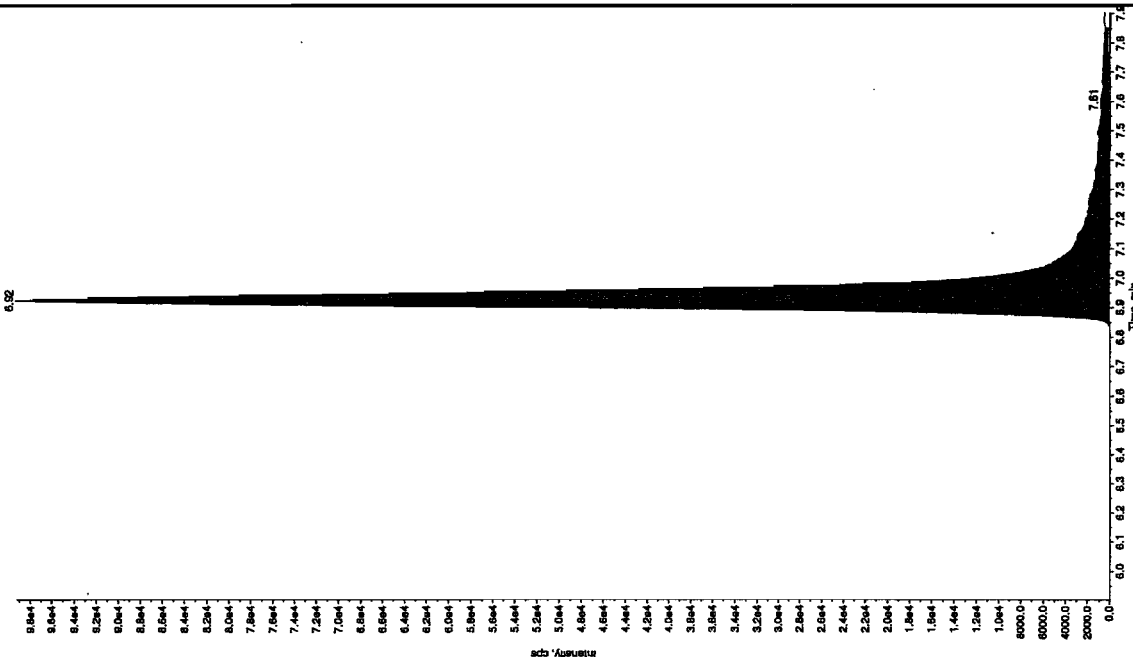
Retention Time: 6.32 min

Area: 4.75e+005 counts

Height: 99179.520 cps

Start Time: 6.83 min

End Time: 7.85 min



Sample Name: "WXX100409-26CCV" Sample ID: "11LER" File: "EXS04090050.wif"

Peak Name: "35-Dinitroaniline" Mass(es): "182.0/160.0 amu"

Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 520. ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 8:06:29 PM

Modified: No

PROC Algorithm: IntelliQuan - IQA

Min. Peak Height: 2000.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 15.0 sec

Expected RT: 8.14 min

Use Relative RT: No

Int. Type: Valley

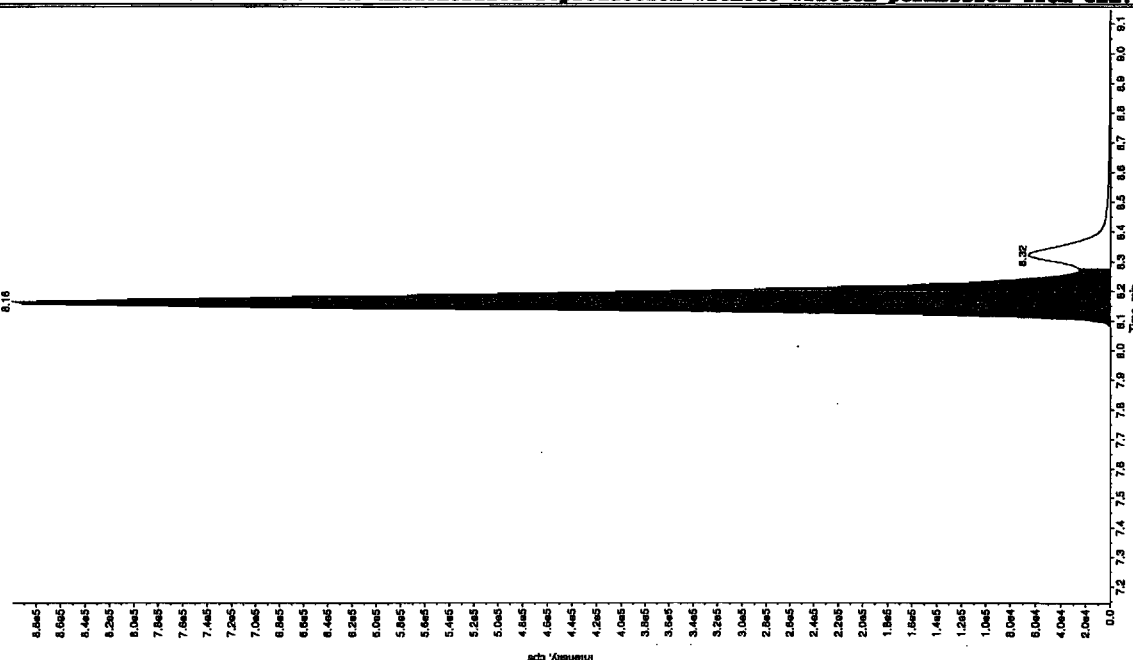
Retention Time: 8.16 min

Area: 3.67e+006 counts

Height: 898750.000 cps

Start Time: 8.03 min

End Time: 8.28 min



See 4/12/10



Sample Name: "WXX100408-26OCV" Sample ID: "11LER" File: "EXS04080050.wif"

Peak Name: "26-Dinitro-4-nitrotoluene" Mass(es): "186.046.0 amu"

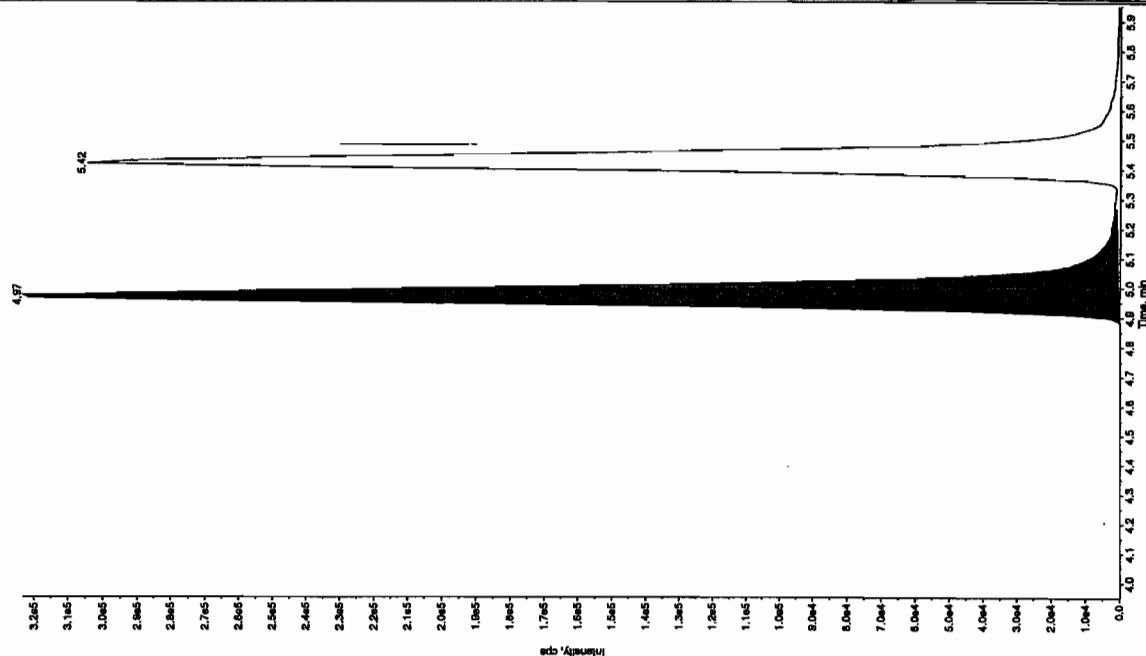
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 531. ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 8:04:29 PM

Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 450.00 cps  
Min. Peak Width: 3.00 points  
Smoothing Width: 30.0 sec  
Expected RT: 4.95 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 4.97 min  
Area: 1.46e+006 counts  
Height: 322838.928 cps  
Start Time: 4.87 min  
End Time: 5.27 min



Sample Name: "WXX100408-26OCV" Sample ID: "11LER" File: "EXS04080050.wif"

Peak Name: "34-Dinitrotoluene" Mass(es): "182.1151.9 amu"

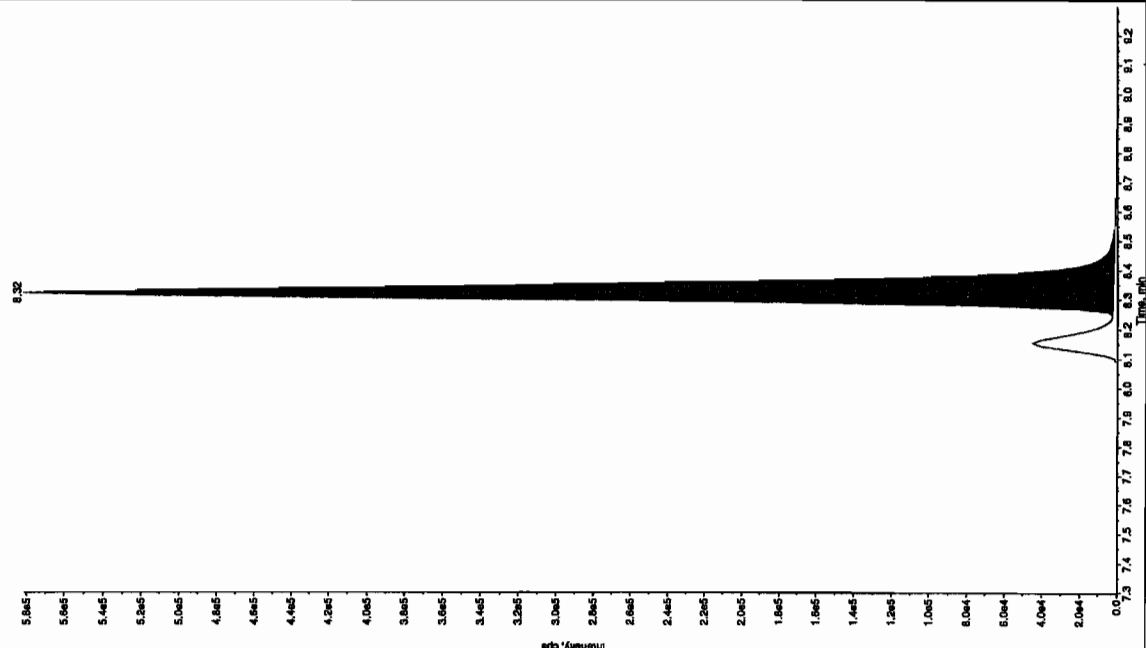
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC  
Concentration: 250. ng/mL  
Calculated Conc: 242. ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 8:04:29 PM

Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 1460.00 cps  
Min. Peak Width: 3.00 points  
Smoothing Width: 30.0 sec  
Expected RT: 8.30 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 8.32 min  
Area: 2.17e+006 counts  
Height: 578844.971 cps  
Start Time: 8.25 min  
End Time: 8.67 min



Sample Name: "WXX100405-260CV" Sample ID: "11LER" File: "EXS04090050.wif"

Peak Name: "tris(p-cresyl) phosphate" Mass(es): "369.1/91.0 amu"

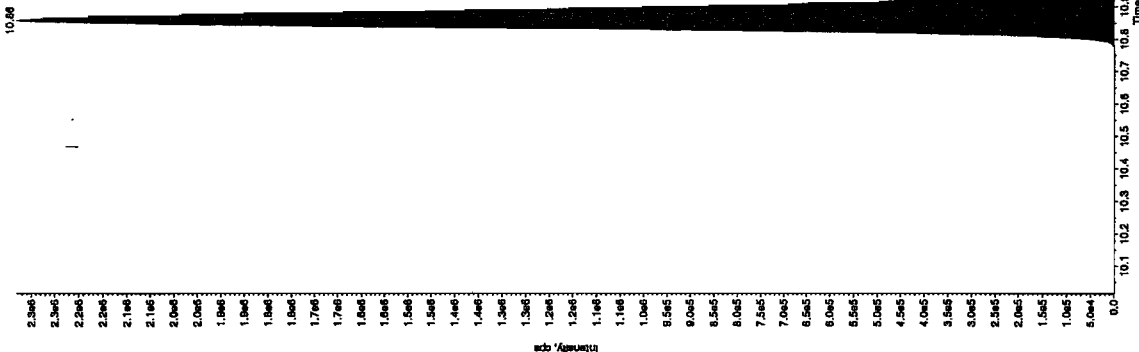
Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 507. ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 8:04:29 PM

Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 8000.00 cps  
Max. Peak Width: 3.00 sec  
Smoothing Width: 3.00 points  
Ex. Window: 30.0 sec  
Expected RT: 10.8 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 10.9 min  
Area: 9.68e+006 counts  
Height: 2329265.625 cps  
Start Time: 10.8 min  
End Time: 11.3 min



Sample Name: "WXX100405-260CV" Sample ID: "11LER" File: "EXS04090050.wif"

Peak Name: "2,4-Diamino-6-Phenylthiazine" Mass(es): "162.0/46.0 amu"

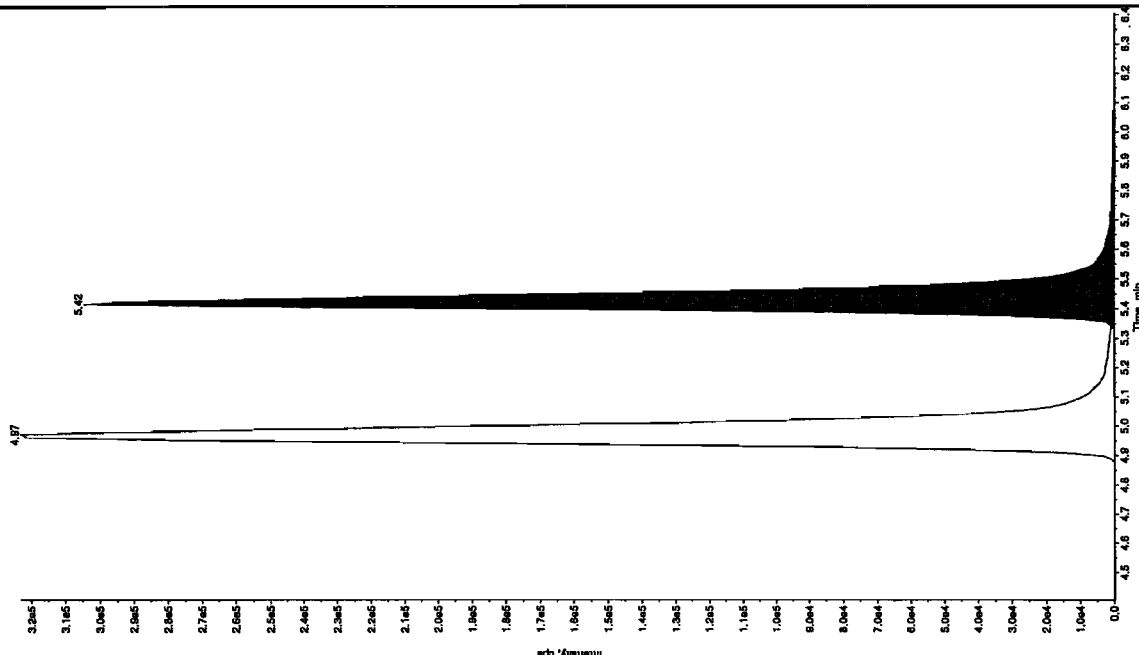
Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 565. ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 8:04:29 PM

Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 350.00 cps  
Max. Peak Width: 3.00 sec  
Smoothing Width: 3.00 points  
Ex. Window: 30.0 sec  
Expected RT: 5.40 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 5.42 min  
Area: 1.26e+006 counts  
Height: 304161.041 cps  
Start Time: 5.33 min  
End Time: 6.04 min



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04090052.wiff

Analysis Date: 09-APR-10 20:35

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	101	101	
2,6-Diamino-4-nitrotoluene	100	94.7	95	
3,4-Dinitrotoluene	50	50.3	101	
3,5-Dinitroaniline	100	105	105	
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 Jan 4/12/10

Sample Name: "WXX100409-27CR1" Sample ID: "11LER" File: "EXS04090052.wif"

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

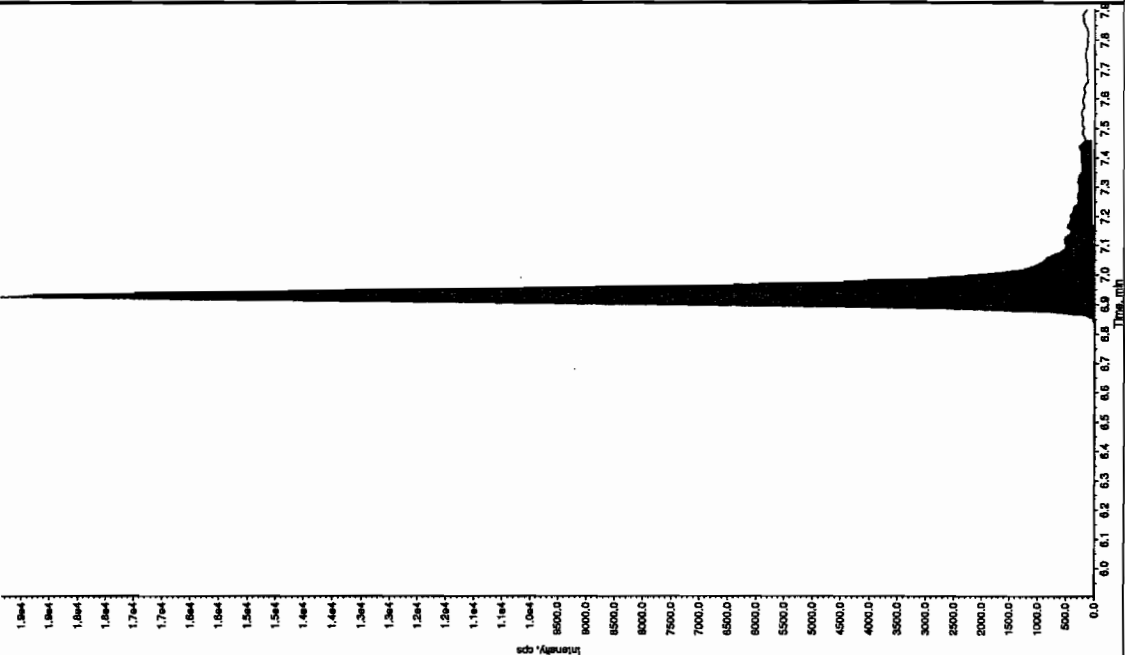
Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC  
Concentration: 100. ng/mL  
Calculated Conc: 105. ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 8:35:54 PM

Modified: No  
IntelliQuan: IQA  
Min. Peak Height: 2500.00 cps  
Min. Peak Width: 3.00 sec  
Smoothing Width: 30.0 points  
RT Window: 6.30 min  
Expected RT: 6.30 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 6.92 min  
Area: 8.47e+004 counts  
Height: 19329.411 cps  
Start Time: 6.82 min  
End Time: 7.46 min



Sample Name: "WXX100409-27CR1" Sample ID: "11LER" File: "EXS04090052.wif"

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

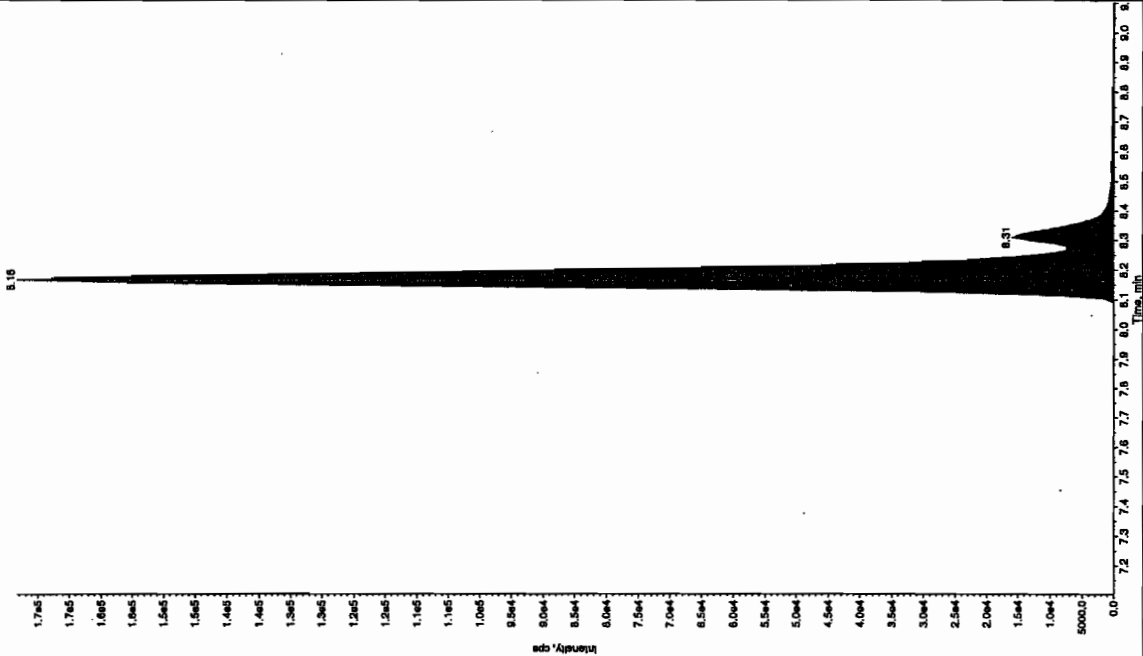
Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC  
Concentration: 100. ng/mL  
Calculated Conc: 115. ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 8:35:54 PM

Modified: Yes  
IntelliQuan: IQA  
Min. Peak Height: 2000.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3.00 points  
RT Window: 15.0 sec  
Expected RT: 8.10 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 8.16 min  
Area: 7.91e+005 counts  
Height: 173280.121 cps  
Start Time: 8.05 min  
End Time: 8.88 min



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

4/12/10

After Jan 4/12/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL

Sample Name: "WXX100409-270R" Sample ID: "J1LER" File: "EXS0400062.wif"

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

Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC

Concentration: 100. ng/mL

Calculated Conc: 105. ng/mL

Acq. Date: 4/9/2010

Acq. Time: 8:35:54 PM

Modified: Yes

RT Window: 15.0 sec

Expected RT: 8.10 min

Use Relative RT: No

Int. Type: Manual

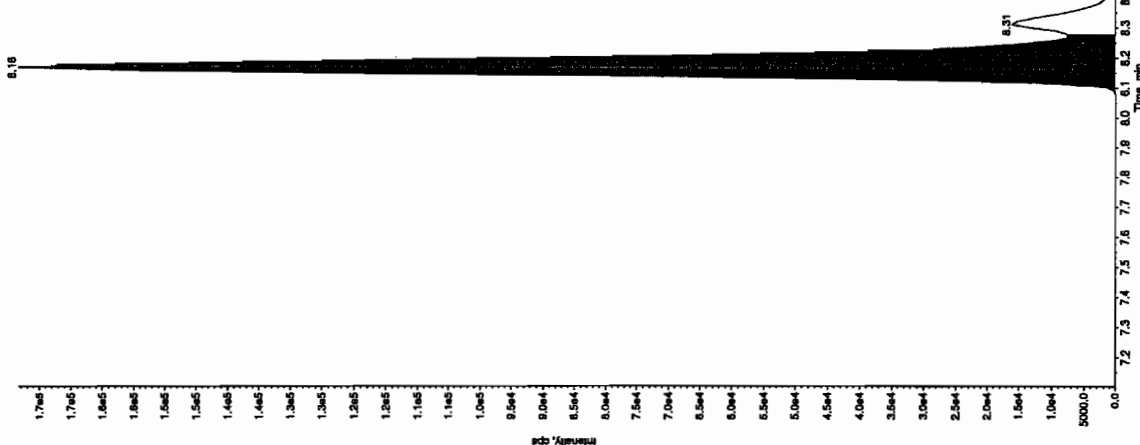
Retention Time: 8.17 min

Area: 7.17e+005 counts

Height: 173797.588 cps

Start Time: 8.07 min

End Time: 8.28 min



Sample Name: "WXX100409-270R" Sample ID: "J1LER" File: "EXS0400062.wif"

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

Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC

Concentration: 100. ng/mL

Calculated Conc: 109. ng/mL

Acq. Date: 4/9/2010

Acq. Time: 8:35:54 PM

Modified: No

RT Window: 30.0 sec

Expected RT: 6.90 min

Use Relative RT: No

Int. Type: Valley

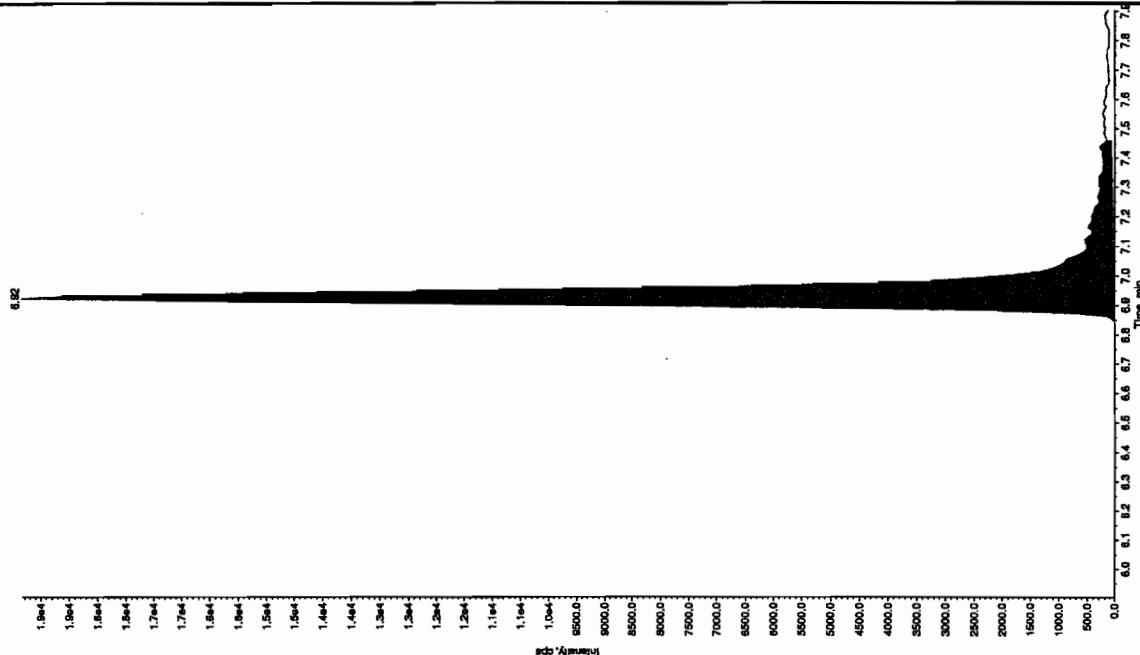
Retention Time: 6.92 min

Area: 8.47e+004 counts

Height: 19329.411 cps

Start Time: 6.82 min

End Time: 7.46 min



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

Sample Name: "WXX100409-270R" Sample ID: "H1LER" File: "EXS04090032.wif"

Peak Name: "26-Dinitro-4-nitrotoluene" Mass(es): "186.046.0 amu"

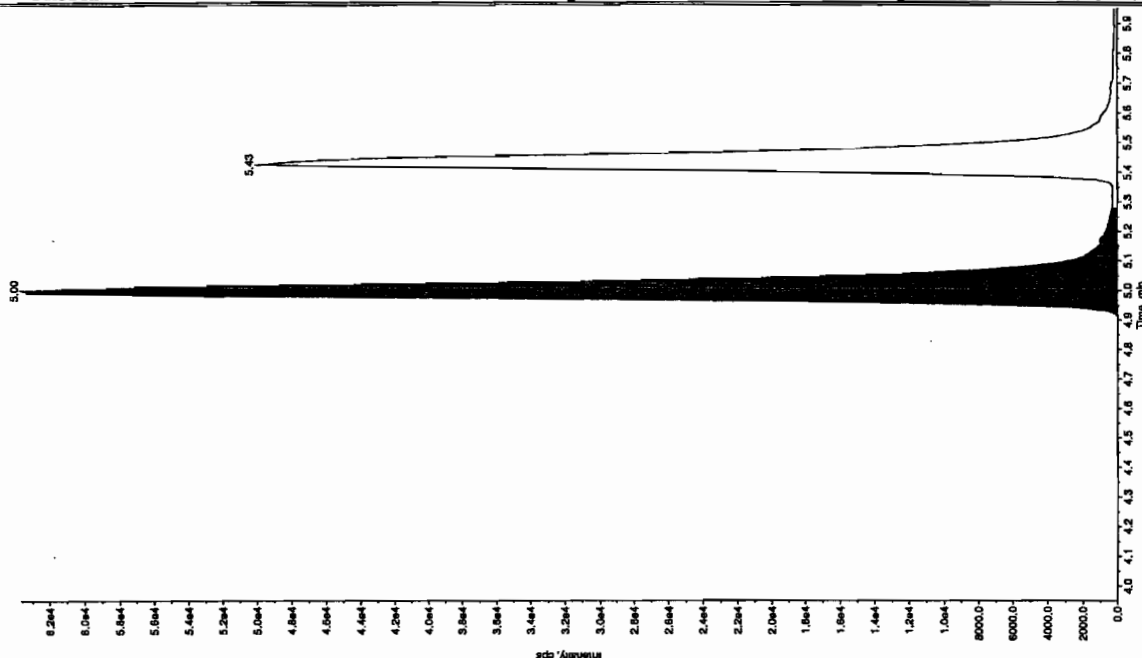
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC  
Concentration: 100. ng/mL  
Calculated Conc: 94.7 ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 8:35:54 PM

Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 450.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 4.95 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 5.00 min  
Area: 2.80e+005 counts  
Height: 63629.604 cps  
Start Time: 4.90 min  
End Time: 5.28 min



Sample Name: "WXX100409-270R" Sample ID: "H1LER" File: "EXS04090032.wif"

Peak Name: "34-Dinitrotoluene" Mass(es): "182.1451.9 amu"

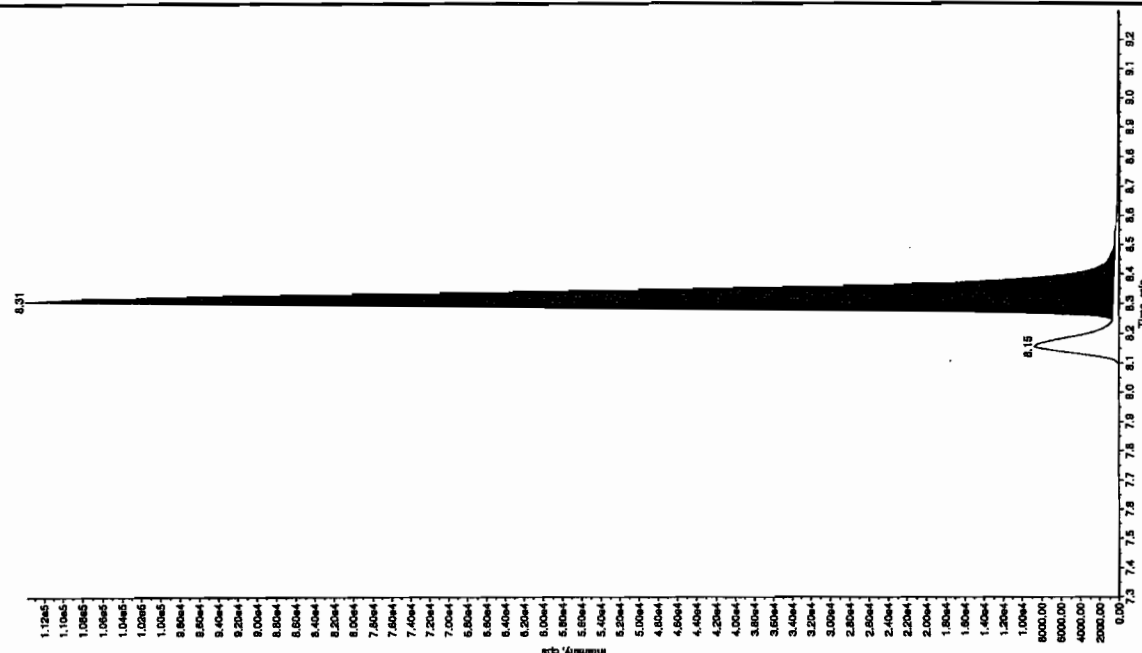
Comment: "LCMSEXP\_C" Annotation: ""

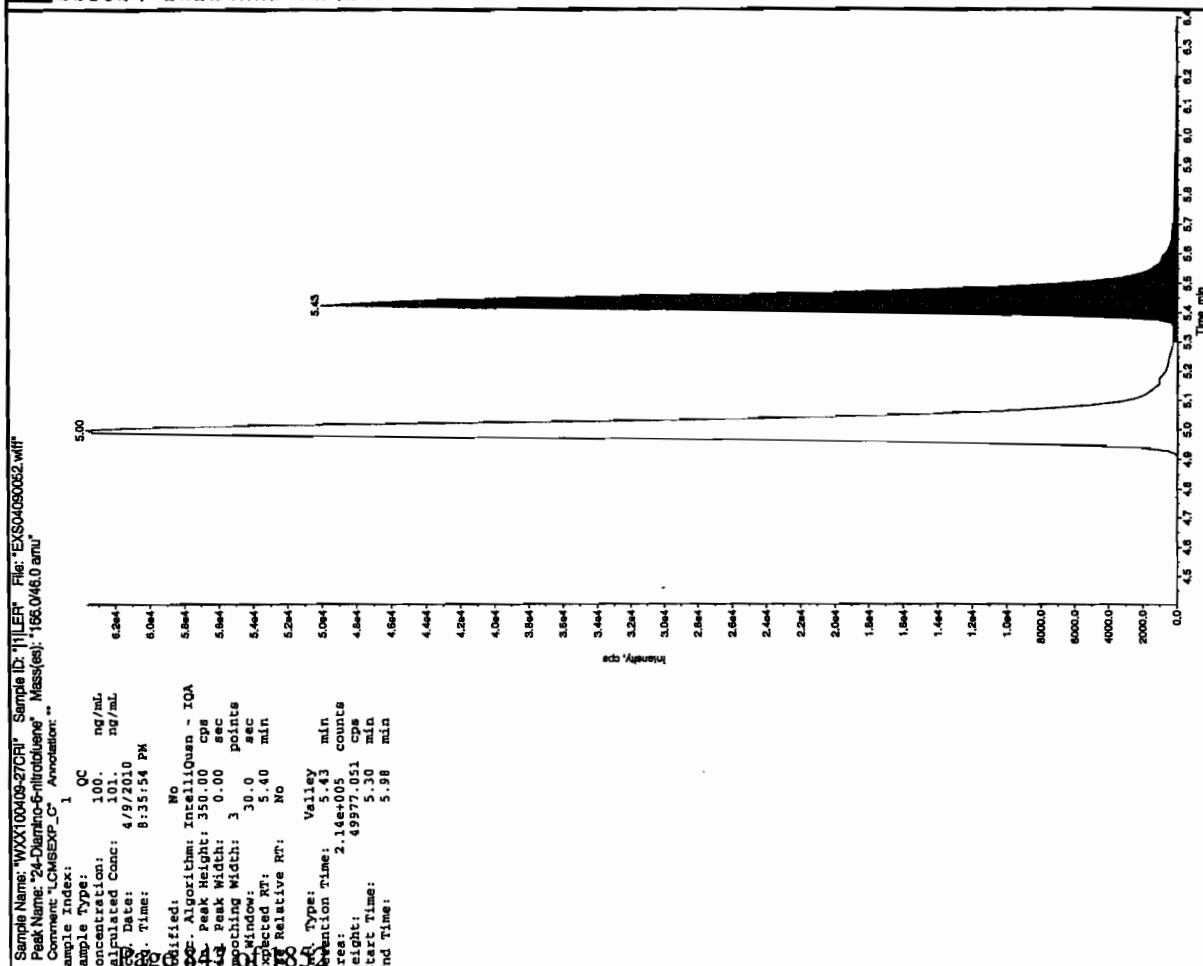
Sample Index: 1

Sample Type: QC  
Concentration: 50.0 ng/mL  
Calculated Conc: 50.3 ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 8:35:54 PM

Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 1460.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 8.30 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 8.31 min  
Area: 4.27e+005 counts  
Height: 113157.799 cps  
Start Time: 8.25 min  
End Time: 8.56 min





7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04090063.wiff

Analysis Date: 09-APR-10 23:28

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	458	92	
2,6-Diamino-4-nitrotoluene	500	485	97	
3,4-Dinitrotoluene	250	227	91	
3,5-Dinitroaniline	500	437	87	
TATB	500	458	92	
tris(o-cresyl) phosphate	500	502	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%

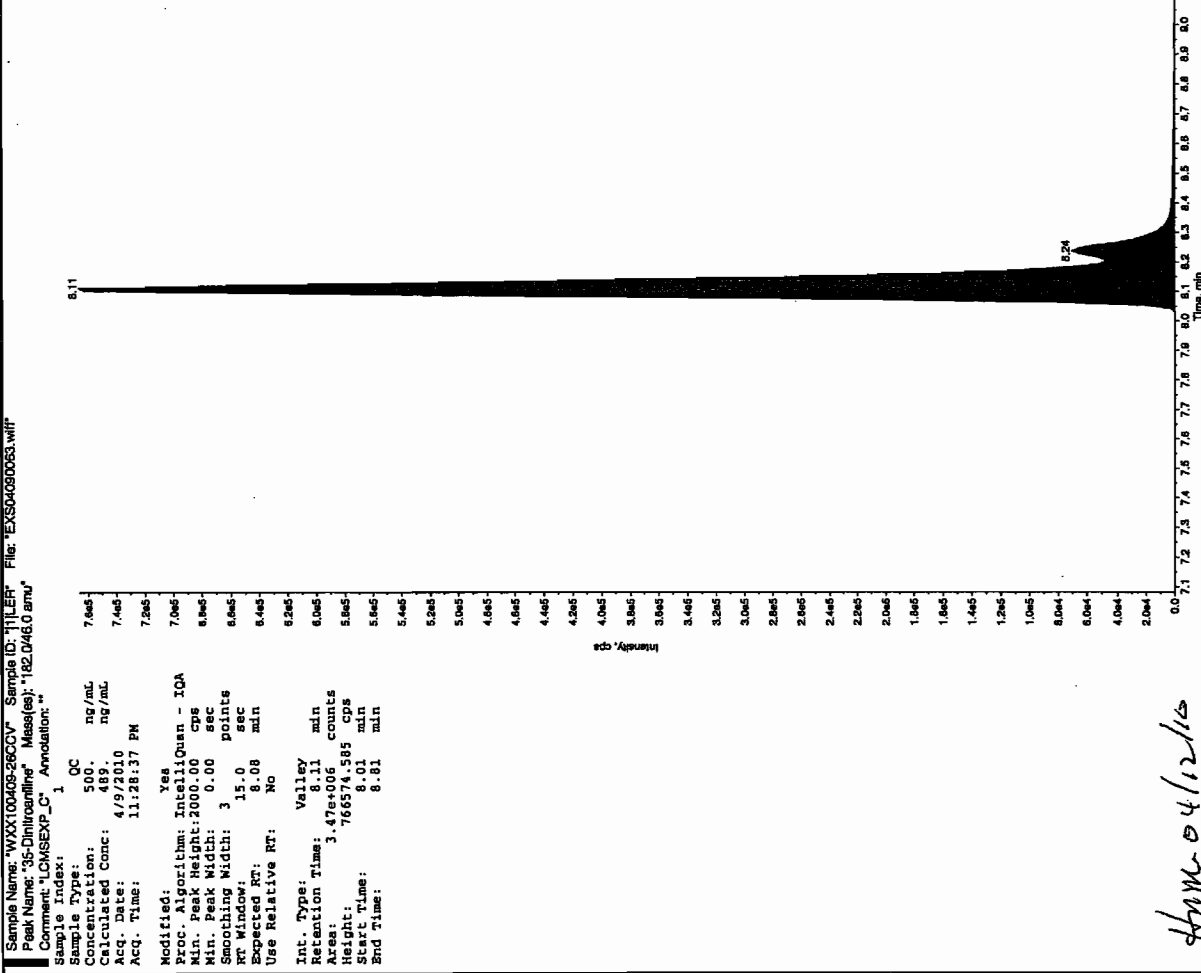
Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

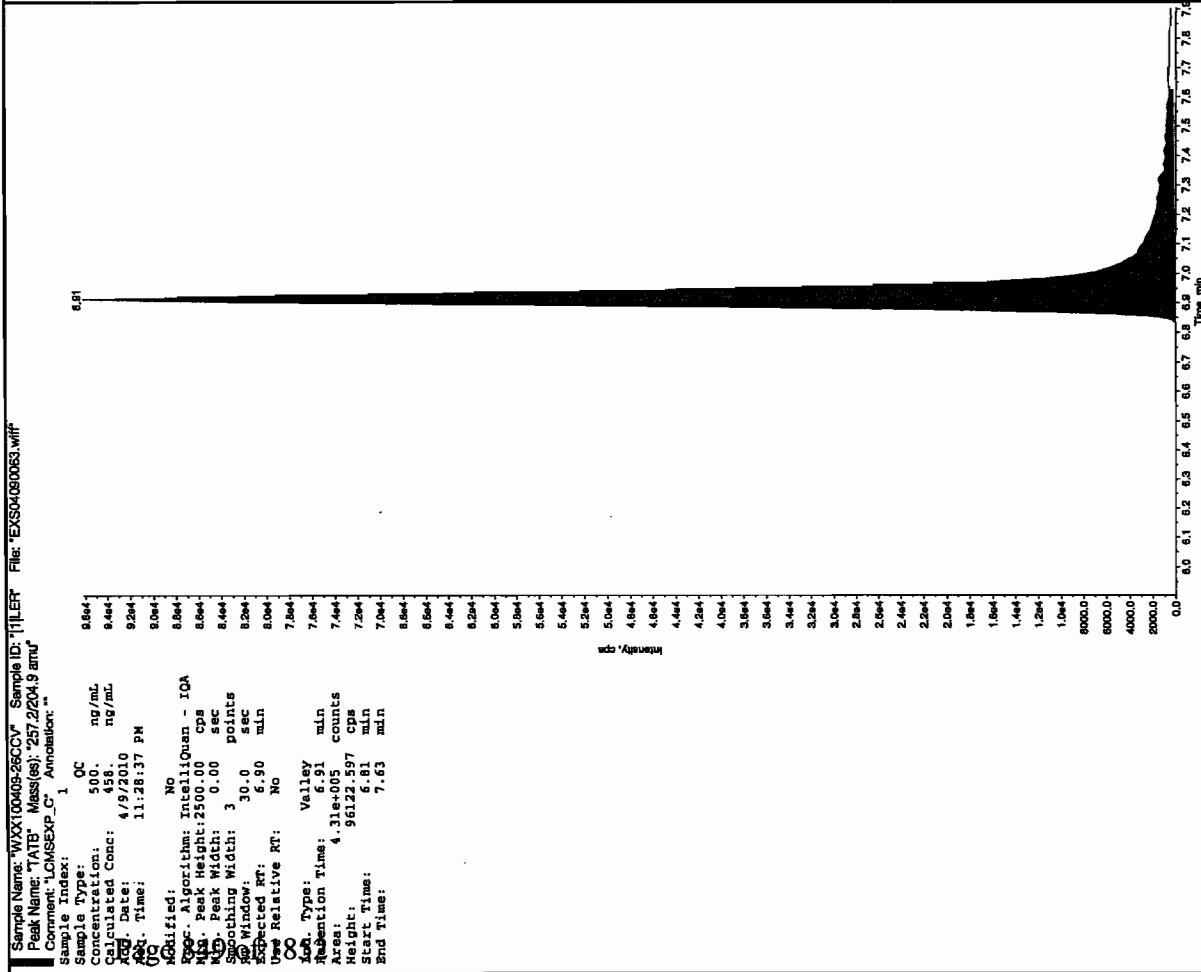
\* Value outside of Recovery Limits



Before den 4/12/10



den 04/12/10



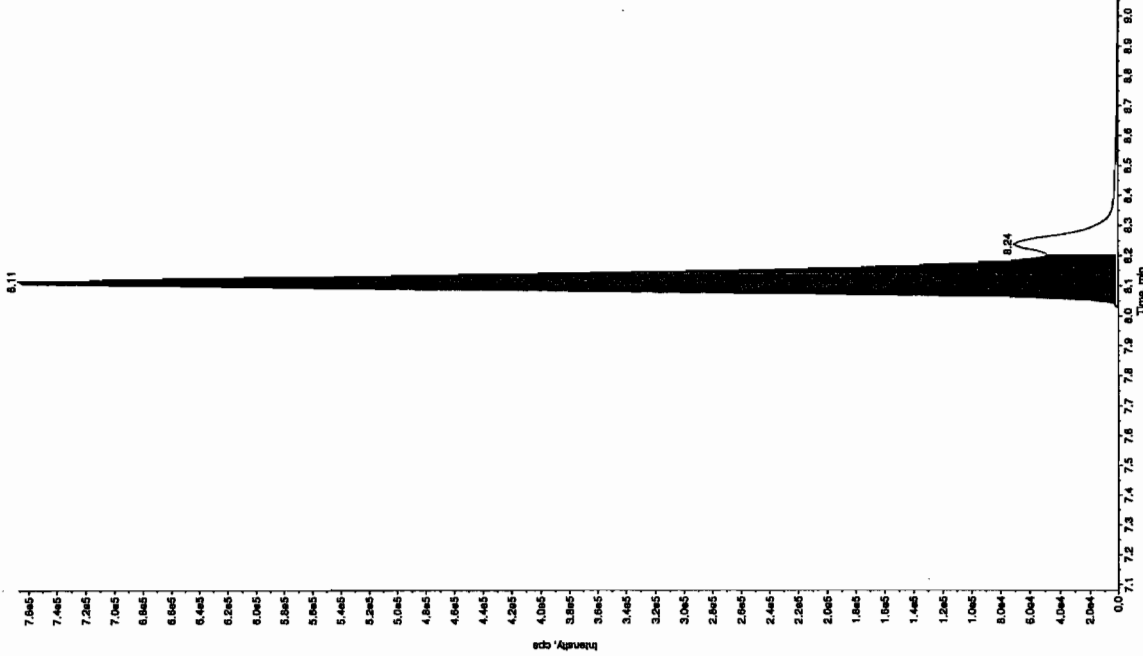
after Jan 4/12/10

Sample Name: "WXX100409-26C0V" Sample ID: "111ER" File: "EXSM080063.wif"

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

Comment: "LCMSSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 437. ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 11:28:37 PM  
Modified: Yes  
RT Window: 15.0 sec  
Expected RT: 8.08 min  
Use Relative RT: No  
Int. Type: Manual  
Retention Time: 8.11 min  
Peak Height: 3.12e+006 counts  
Start Time: 777261.753 cps  
End Time: 8.21 min

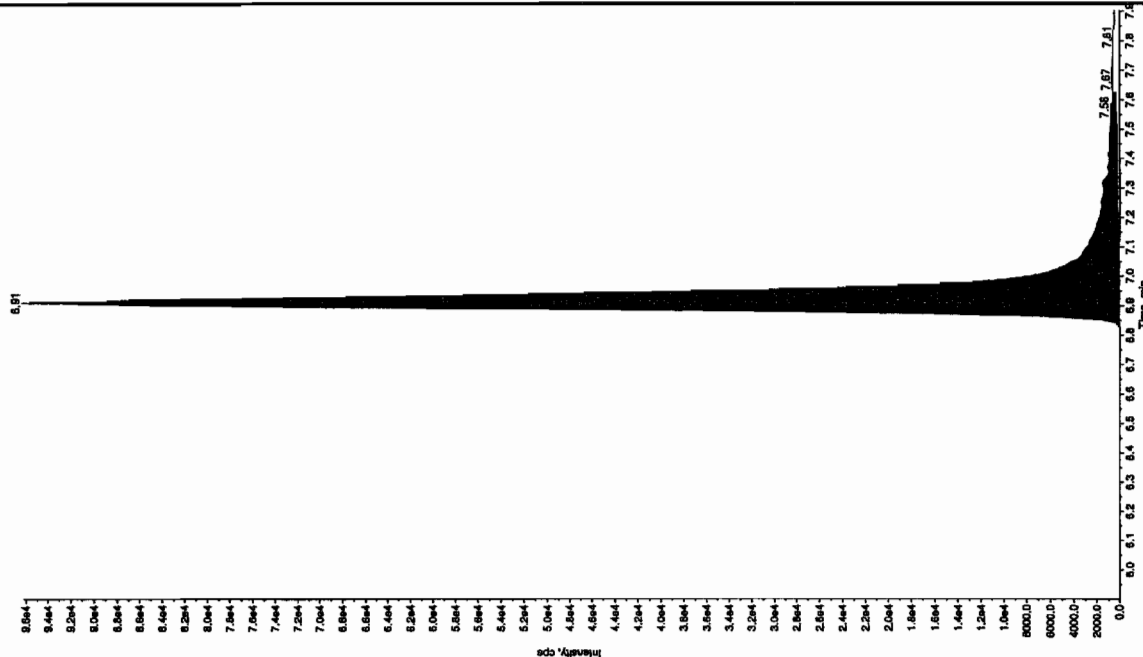


Sample Name: "WXX100409-26C0V" Sample ID: "111ER" File: "EXSM080063.wif"

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

Comment: "LCMSSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 458. ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 11:28:37 PM  
Modified: No  
Int. Type: IntelliQuan - IQA  
Retention Time: 7.58 min  
Peak Height: 2500.00 cps  
Smoother Width: 0.00 sec  
Smoother Width: 30.0 points  
Expected RT: 6.90 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 7.61 min  
Peak Height: 4.31e+005 counts  
Start Time: 96122.597 cps  
End Time: 7.63 min



Sample Name: "WXX100409-280CV" Sample ID: "11LEF" File: "EXS04090063.wif"

Peak Name: "26-Dienino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"

Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 500. ng/mL

Calculated Conc: 485. ng/mL

Acq. Date: 4/9/2010

Acq. Time: 11:28:37 PM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 450.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 4.95 min

Use Relative RT: No

Int. Type: Valley

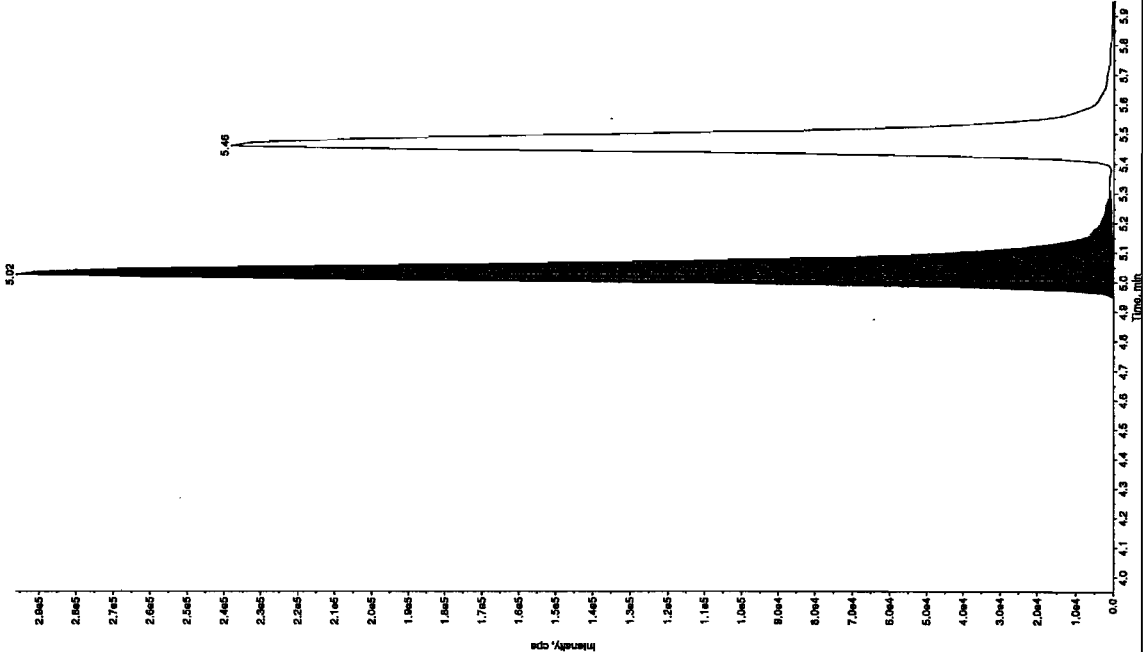
Retention Time: 5.02 min

Area: 1.34e+006 counts

Height: 295689.270 cps

Start Time: 4.93 min

End Time: 5.31 min



Sample Name: "WXX100409-280CV" Sample ID: "11LEF" File: "EXS04090063.wif"

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

Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 250. ng/mL

Calculated Conc: 227. ng/mL

Acq. Date: 4/9/2010

Acq. Time: 11:28:37 PM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 160.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 8.30 min

Use Relative RT: No

Int. Type: Valley

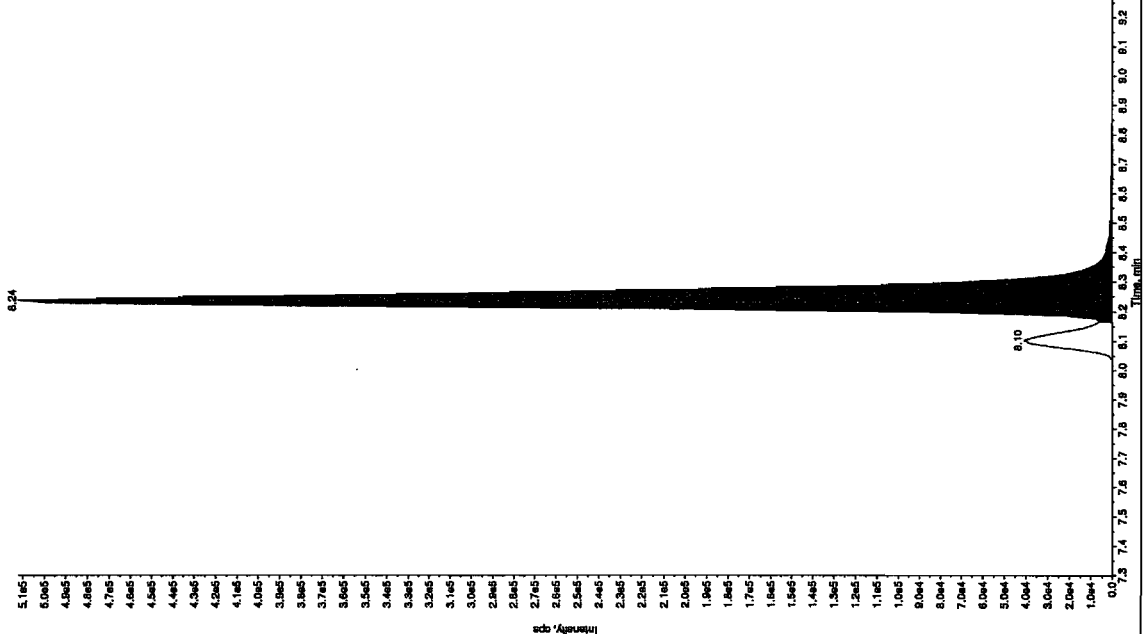
Retention Time: 8.24 min

Area: 2.03e+006 counts

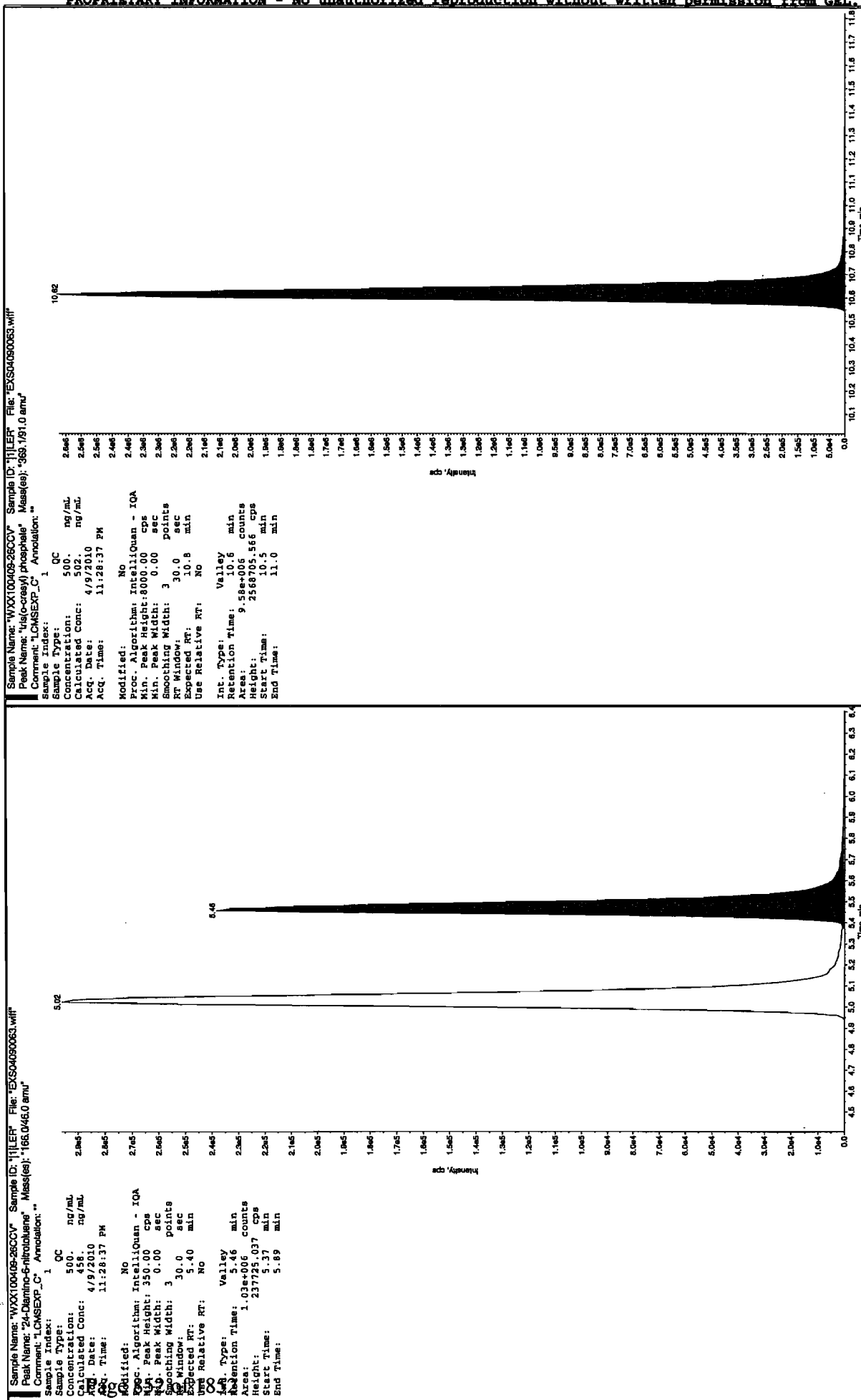
Height: 511503.784 cps

Start Time: 8.16 min

End Time: 8.76 min



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



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04090065.wiff

Analysis Date: 10-APR-10 00:00

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	96.4	96	
2,6-Diamino-4-nitrotoluene	100	85.8	86	
3,4-Dinitrotoluene	50	46.7	93	
3,5-Dinitroaniline	100	92.4	92	
TATB	100	98	98	
tris(o-cresyl) phosphate	100	107	107	

Recovery Limits:

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

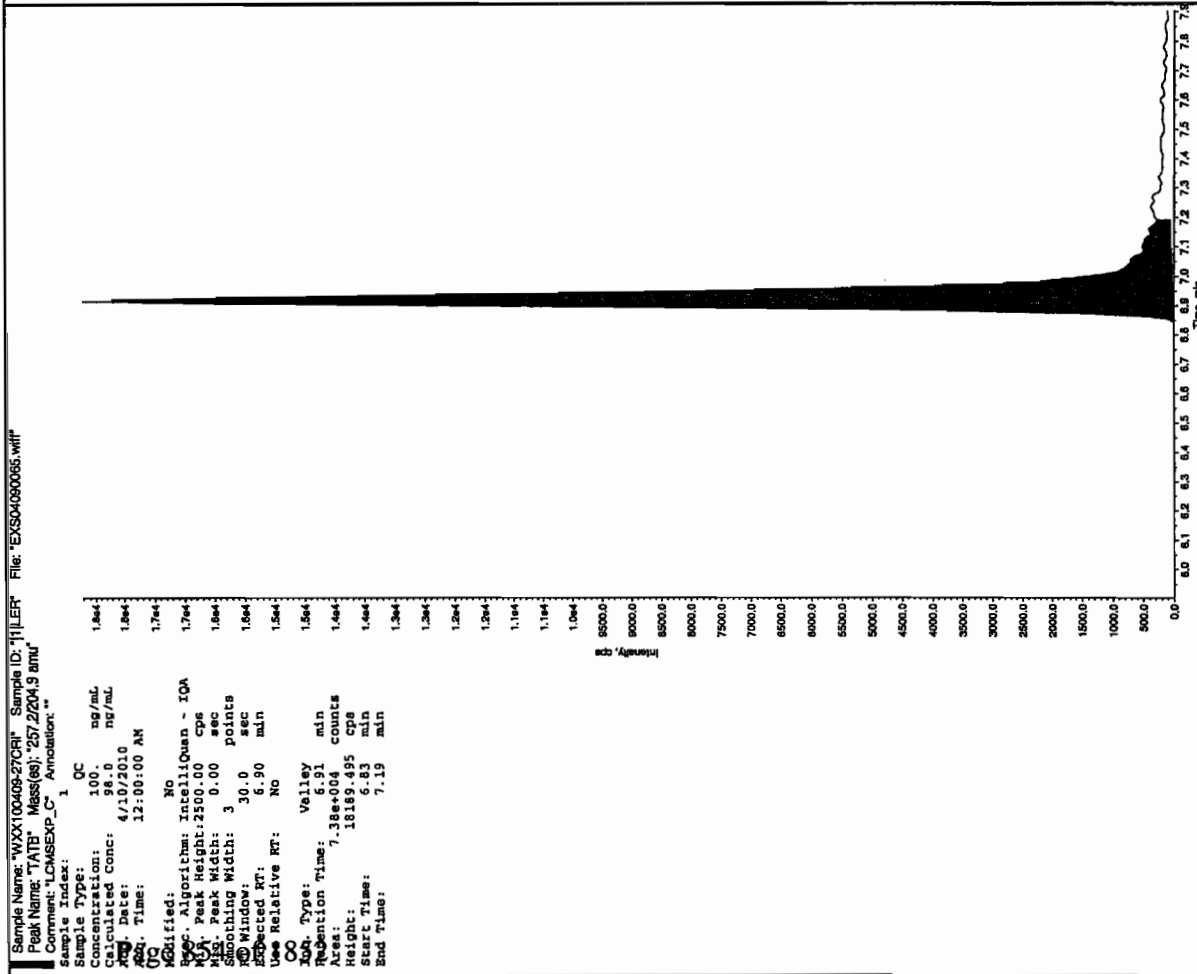
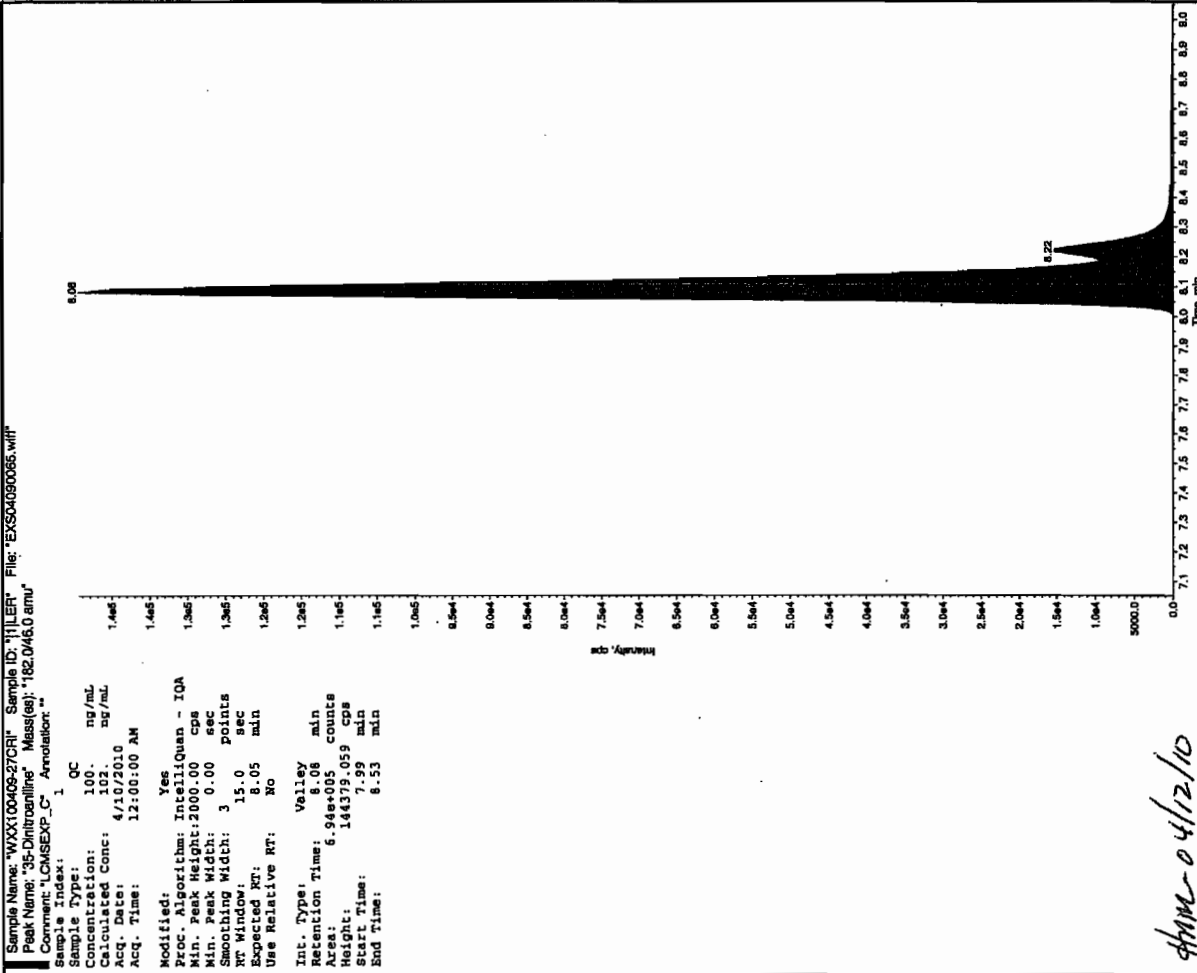
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

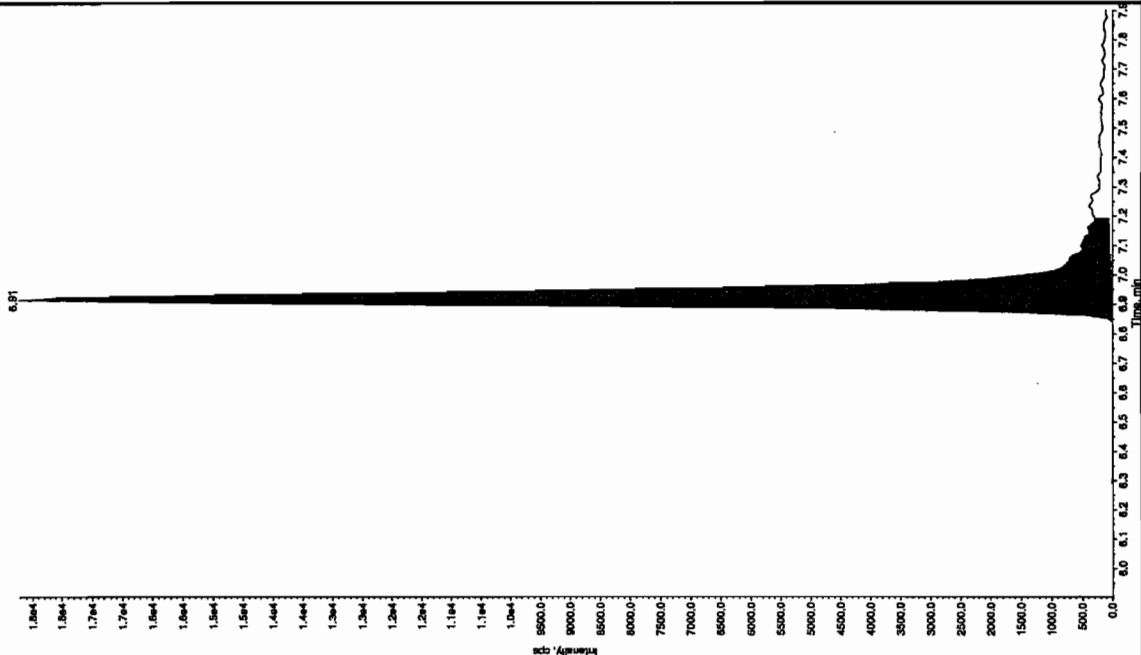
\* Value outside of Recovery Limits

Before Jan 4/12/10

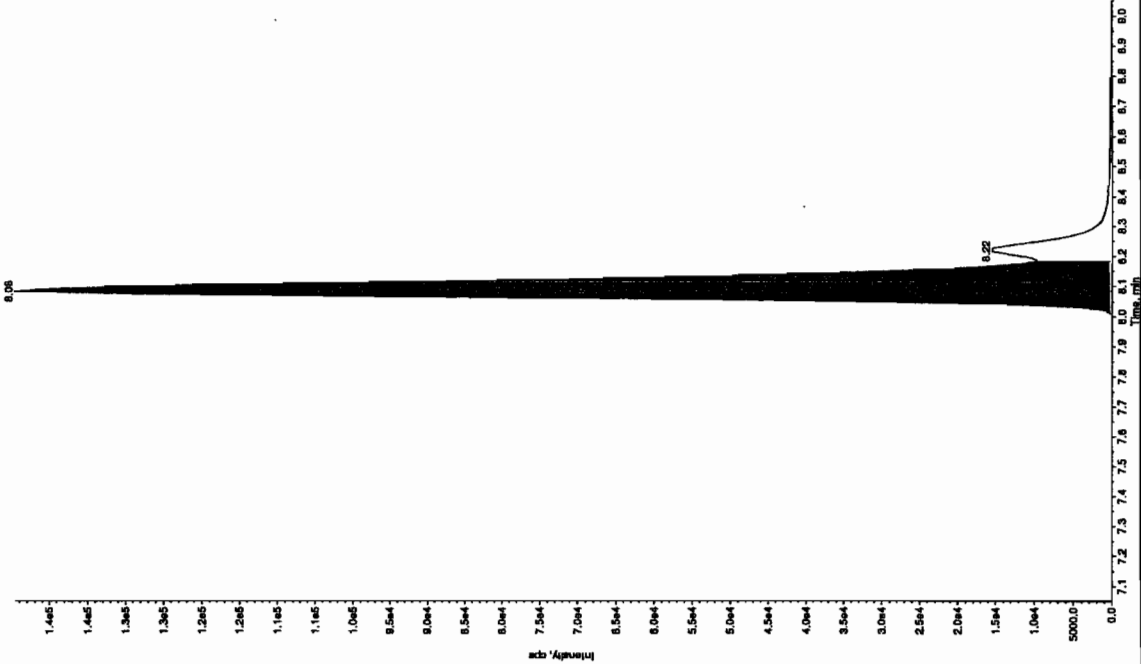


after Jan 4/10/10

Sample Name: "WXX100409-27C91" Sample ID: "11LER" File: "EXS04090065.wif"  
Peak Name: "TAIB" Mass(es): "257.2/204.9 amu"  
Comment: "LCMSEXP\_C" Annotation: ""  
Sample Index: 1  
Sample Type: QC  
Concentration: 100. ng/mL  
Calculated Conc: 98.0 ng/mL  
Acq. Date: 4/10/2010  
Acq. Time: 12:00:00 AM  
Modified: No  
RT Window: 15.0 sec  
Expected RT: 8.05 min  
Use Relative RT: No  
Int. Type: Manual  
Retention Time: 8.09 min  
Area: 6.21e+005 counts  
Height: 145332.096 cps  
Start Time: 8.01 min  
End Time: 8.19 min

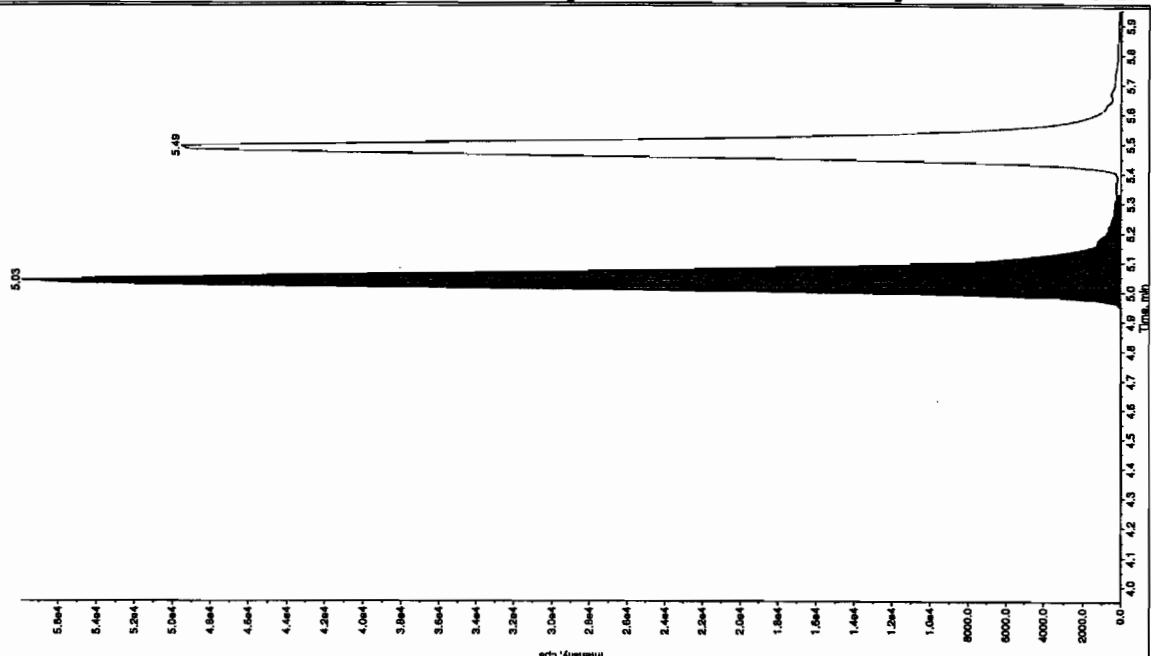


Sample Name: "WXX100409-27C91" Sample ID: "11LER" File: "EXS04090065.wif"  
Peak Name: "35-Dihydroquinoline" Mass(es): "182.0/46.0 amu"  
Comment: "LCMSEXP\_C" Annotation: ""  
Sample Index: 1  
Sample Type: QC  
Concentration: 100. ng/mL  
Calculated Conc: 92.4 ng/mL  
Acq. Date: 4/10/2010  
Acq. Time: 12:00:00 AM  
Modified: Yes  
RT Window: 15.0 sec  
Expected RT: 8.05 min  
Use Relative RT: No  
Int. Type: Manual  
Retention Time: 8.09 min  
Area: 6.21e+005 counts  
Height: 145332.096 cps  
Start Time: 8.01 min  
End Time: 8.19 min



Sample Name: "WXX100409-270R" Sample ID: "11LER" File: "EXS04090065.wif"  
 Peak Name: "26-Dinitro-4-nitrotoluene" Mass(es): "186.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1 QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 85.8 ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 12:00:00 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 4.95 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.03 min  
 Area: 2.55e+005 counts  
 Height: 57887.180 cps  
 Start Time: 4.88 min  
 End Time: 5.33 min



Sample Name: "WXX100409-270R" Sample ID: "11LER" File: "EXS04090065.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.151.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

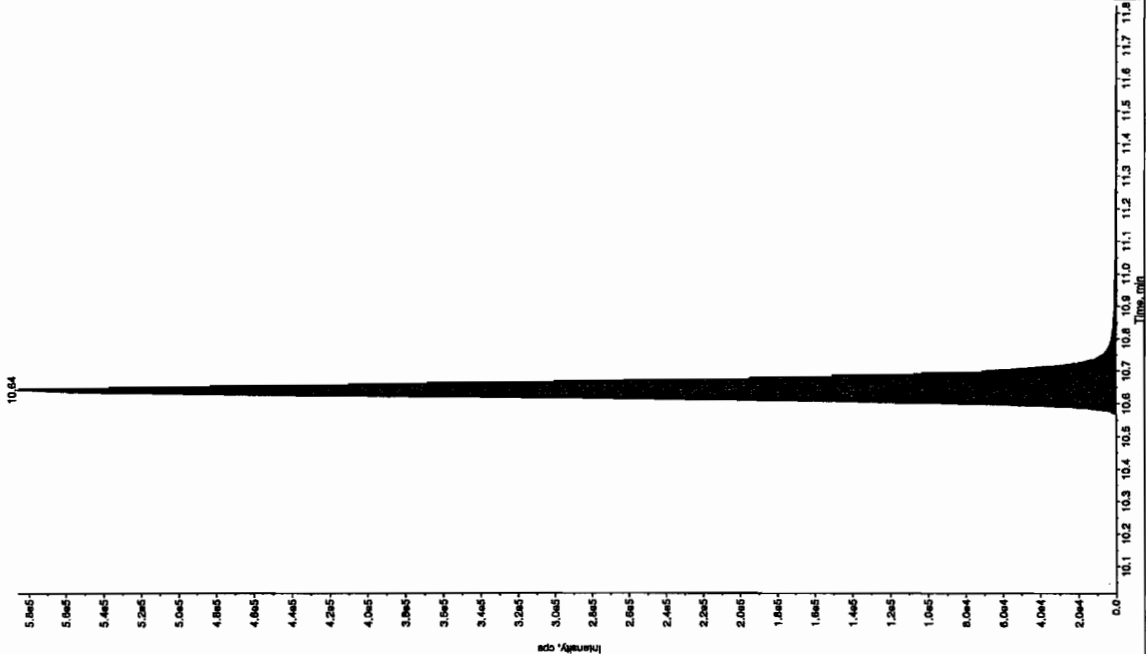
Sample Index: 1 QC  
 Concentration: 50.0 ng/mL  
 Calculated Conc: 46.7 ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 12:00:00 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 8.30 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.22 min  
 Area: 3.93e+005 counts  
 Height: 104849.785 cps  
 Start Time: 8.15 min  
 End Time: 8.39 min





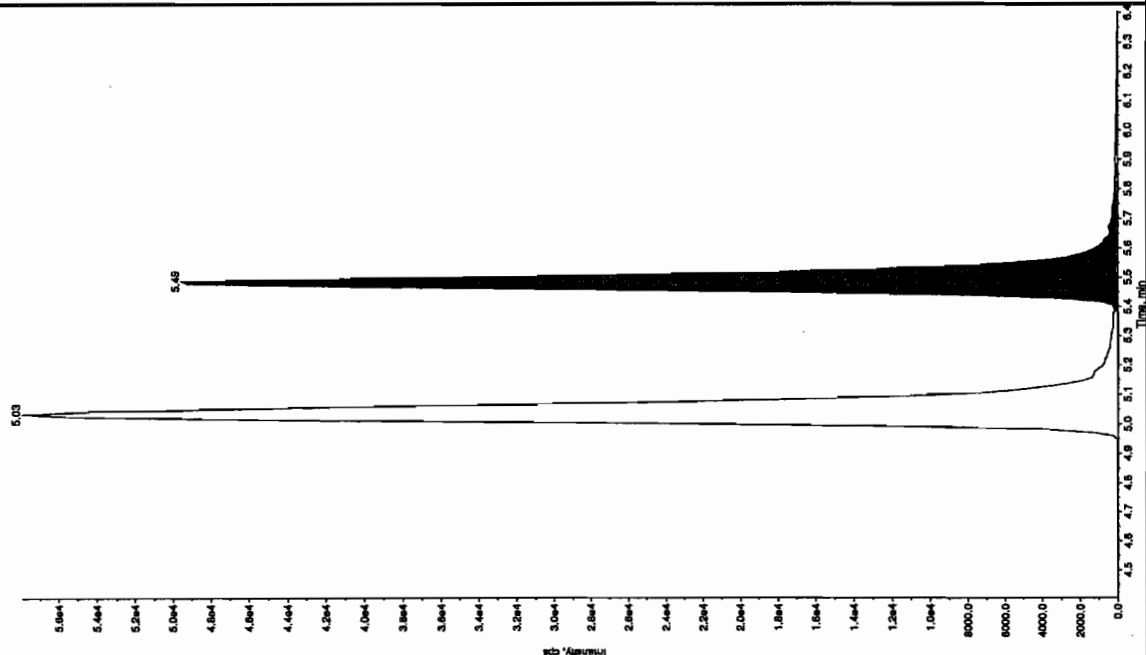
Sample Name: "WXX100409-27CR1" Sample ID: "111ER" File: "EXS04090085.wif"  
 Peak Name: "tris(o-cresyl) phosphite" Mass(es): "369.1/91.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 107. ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 12:00:00 AM  
 Modified: NO  
 QC 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: 10.8 min  
 Use Relative RT: NO  
 Int. Type: Valley  
 Retention Time: 10.6 min  
 Area: 2.18e+006 counts  
 Height: 585488.098 cps  
 Start Time: 10.5 min  
 End Time: 11.0 min



Sample Name: "WXX100409-27CR1" Sample ID: "111ER" File: "EXS04090085.wif"  
 Peak Name: "24-Dinitro-5-nitrofluorene" Mass(es): "166.0/66.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 96.4 ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 12:00:00 AM  
 Modified: NO  
 QC Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 RT Window: 30.0 sec  
 Expected RT: 5.40 min  
 Use Relative RT: NO  
 Int. Type: Valley  
 Retention Time: 5.49 min  
 Area: 2.03e+005 counts  
 Height: 49435.459 cps  
 Start Time: 5.38 min  
 End Time: 5.67 min



7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04090071.wiff

Analysis Date: 10-APR-10 01:34

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	442	88	
2,6-Diamino-4-nitrotoluene	500	436	87	
3,4-Dinitrotoluene	250	202	81	
3,5-Dinitroaniline	500	447	89	
TATB	500	491	98	
tris(o-cresyl) phosphate	500	509	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

Sen 4/12/10

Sample Name: "WXX100408-2600V" Sample ID: "11LER" File: "EX504080071.wif"

Peak Name: "3S-Dinitrofluorene" Mass(es): "182.046.0 amu"

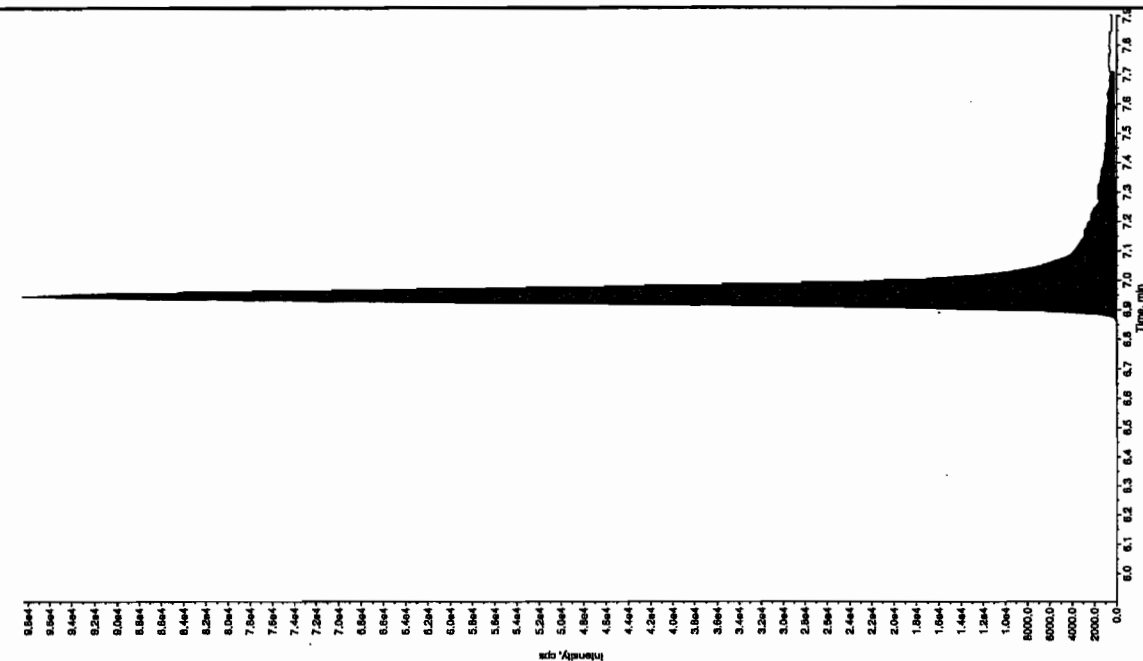
Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 447. ng/mL  
Acq. Date: 4/10/2010  
Acq. Time: 1:34:16 AM

Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 2000.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 15.0 sec  
Expected RT: 8.14 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 8.17 min  
Area: 3.18e+006 counts  
Height: 772719.971 cps  
Start Time: 8.07 min  
End Time: 8.27 min



Sample Name: "WXX100408-2600V" Sample ID: "11LER" File: "EX504080071.wif"

Peak Name: "IATB" Mass(es): "257.204.9 amu"

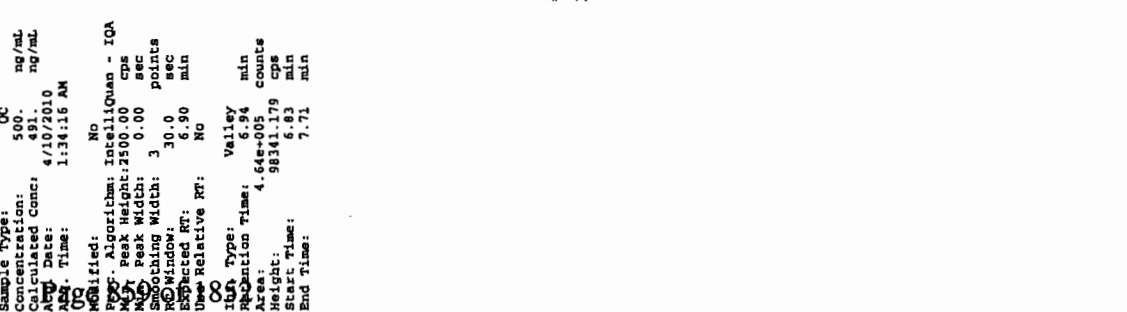
Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 491. ng/mL  
Acq. Date: 4/10/2010  
Acq. Time: 1:34:16 AM

Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 2500.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 6.90 min  
Use Relative RT: No

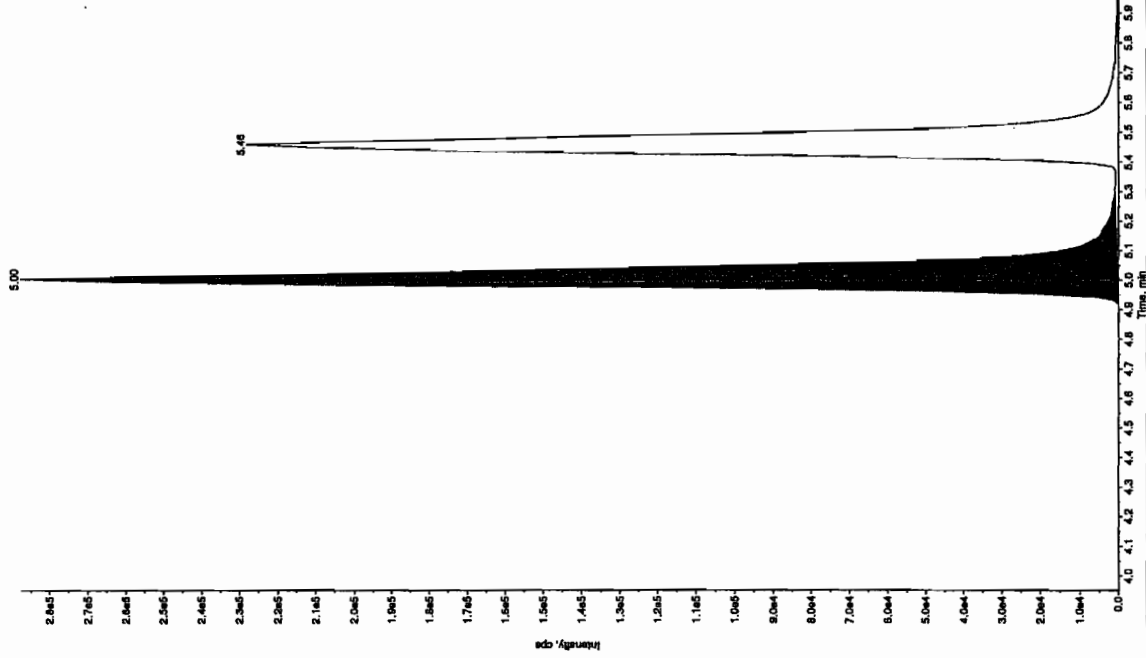
Int. Type: Valley  
Retention Time: 6.94 min  
Area: 4.64e+005 counts  
Height: 98341.179 cps  
Start Time: 6.83 min  
End Time: 7.11 min



Amu 4/12/10

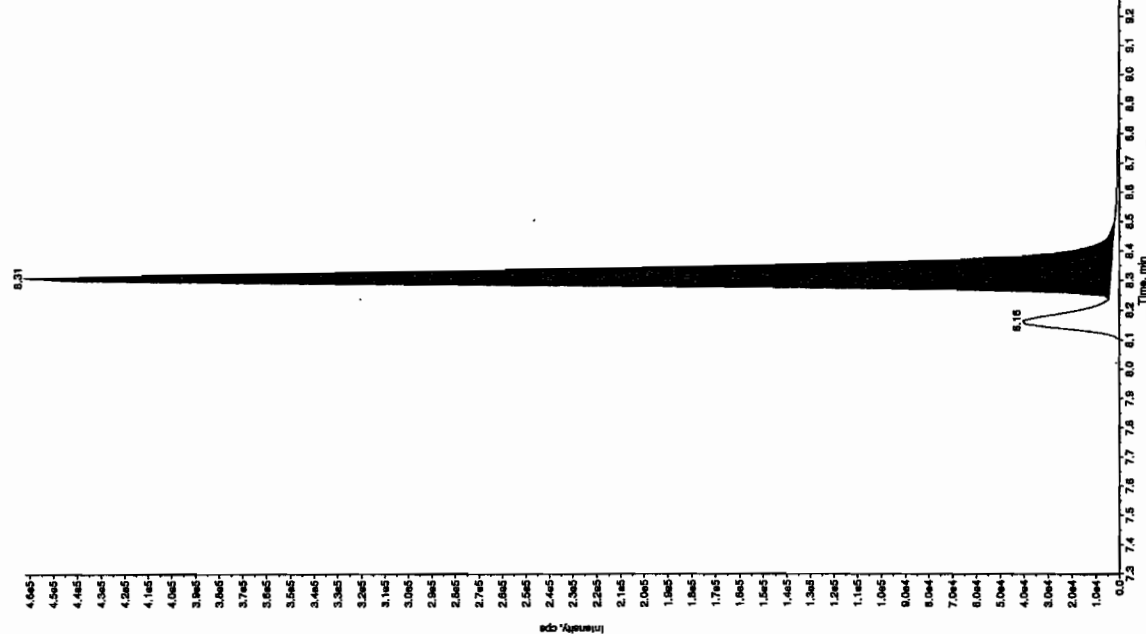
Sample Name: WXX100409-28CCV Sample ID: "111ER" File: "EXS04090071.wif"  
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/166.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 436. ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 1:34:16 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 4.95 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.00 min  
 Area: 1.21e+006 counts  
 Height: 287288.300 cps  
 Start Time: 4.91 min  
 End Time: 5.30 min



Sample Name: WXX100409-28CCV Sample ID: "111ER" File: "EXS04090071.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/181.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 250. ng/mL  
 Calculated Conc: 202. ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 1:34:16 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 160.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 8.30 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.31 min  
 Area: 1.82e+006 counts  
 Height: 458054.504 cps  
 Start Time: 8.24 min  
 End Time: 8.52 min



Sample Name: "WXX100408-260CV" Sample ID: "11LER" File: "EXS04080071.wif"

Peak Name: "bis(o-cresyl) phosphide" Mass(es): "369.1/91.0 amu"

Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 500. ng/mL

Calculated Conc: 509. ng/mL

Acq. Date: 4/10/2010

Acq. Time: 1:34:16 AM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 8000.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 30.0 points

Window: 30.0 sec

Expected RT: 10.8 min

Use Relative RT: No

Int. Type: Valley

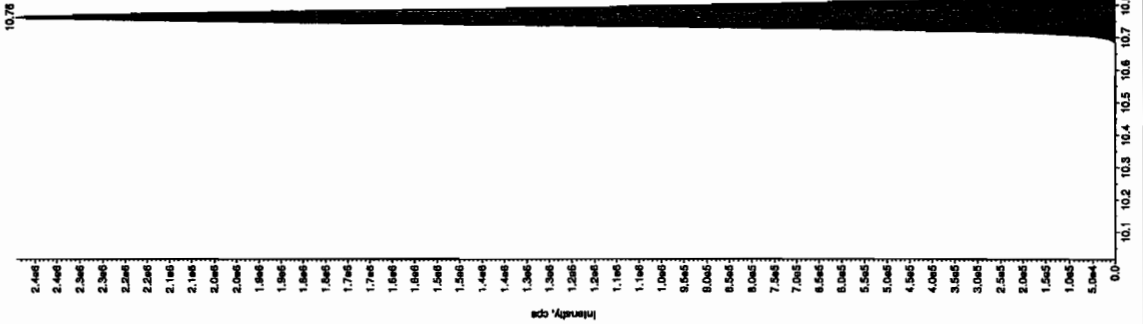
Retention Time: 10.8 min

Area: 9.70e+006 counts

Height: 2439225.342 cps

Start Time: 10.7 min

End Time: 11.2 min



Sample Name: "WXX100408-260CV" Sample ID: "11LER" File: "EXS04080071.wif"

Peak Name: "24-Diamino-Fluorotoluene" Mass(es): "166.0/46.0 amu"

Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 500. ng/mL

Calculated Conc: 442. ng/mL

Acq. Date: 4/10/2010

Acq. Time: 1:34:16 AM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 350.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 30.0 points

Window: 30.0 sec

Expected RT: 5.46 min

Use Relative RT: No

Int. Type: Valley

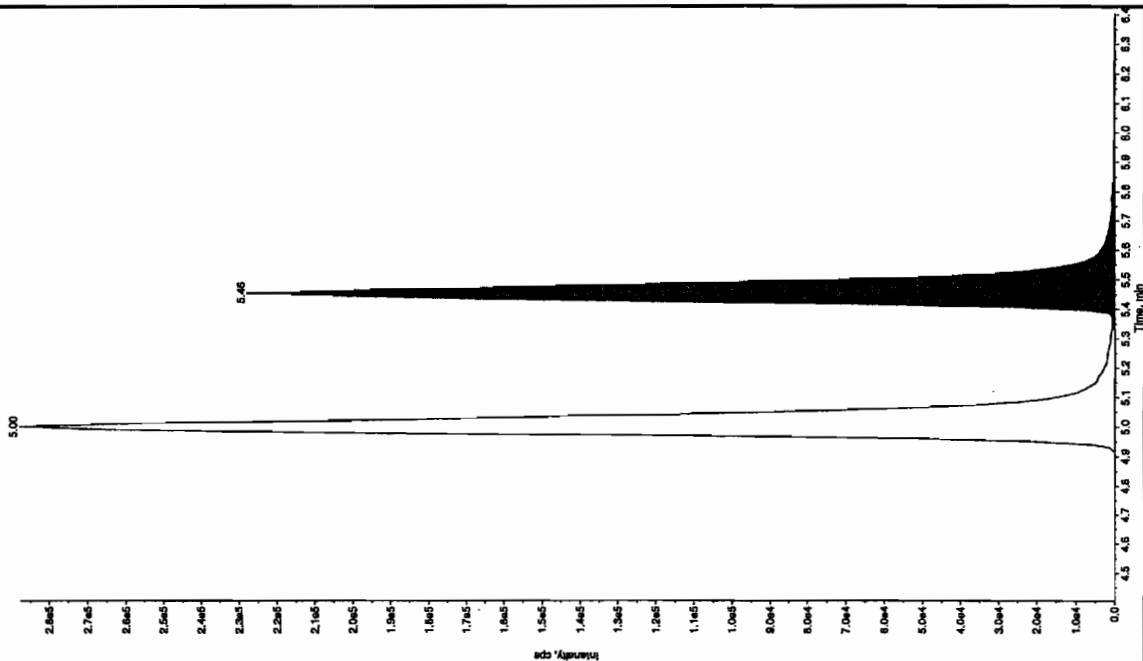
Retention Time: 5.46 min

Area: 9.92e+005 counts

Height: 227511.795 cps

Start Time: 5.33 min

End Time: 6.18 min



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2202

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04090073.wiff

Analysis Date: 10-APR-10 02:05

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	100	100	
2,6-Diamino-4-nitrotoluene	100	78	78	
3,4-Dinitrotoluene	50	47.5	95	
3,5-Dinitroaniline	100	96.6	97	
TATB	100	107	107	
tris(o-cresyl) phosphate	100	104	104	

Recovery Limits:

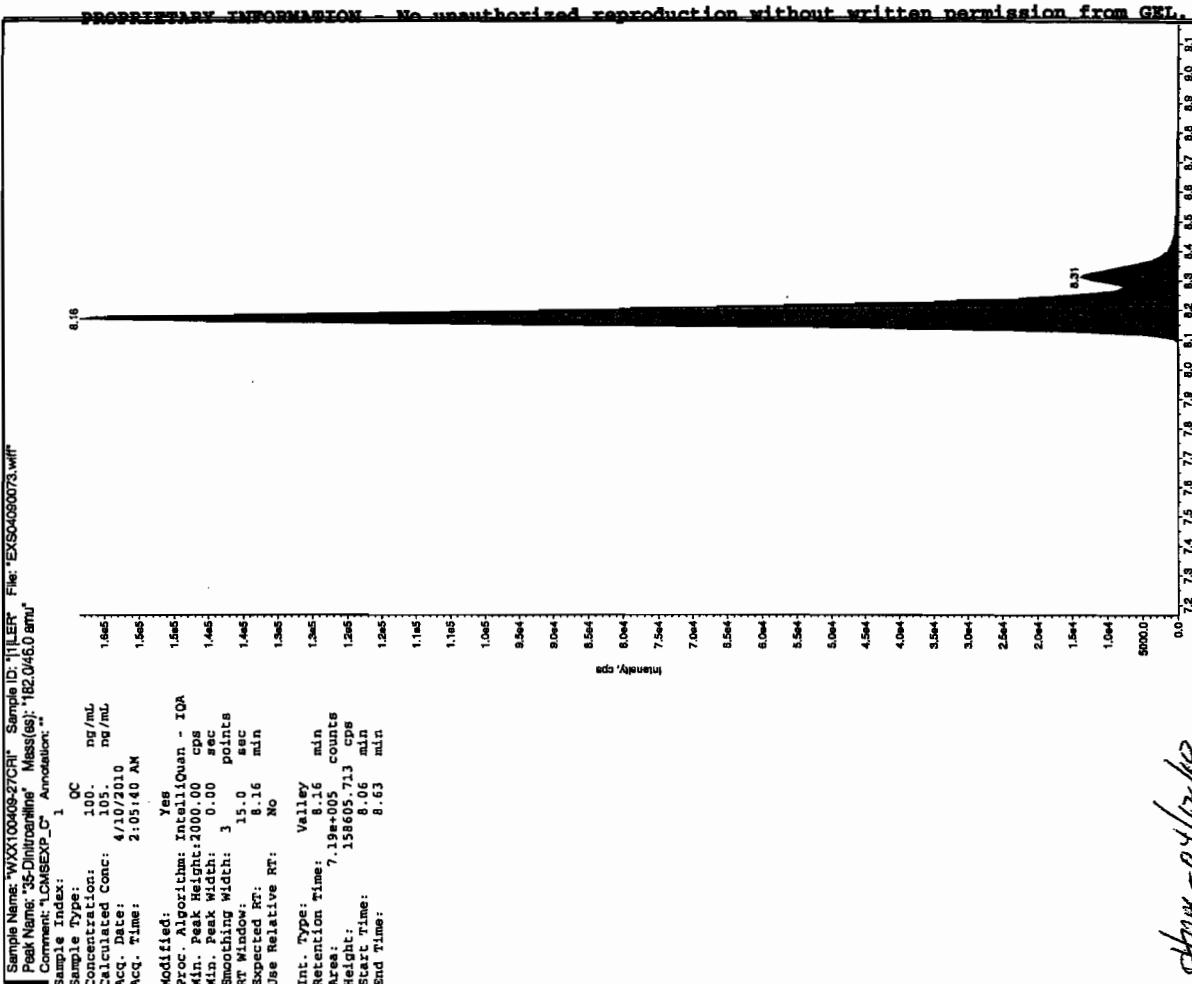
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 50-150%

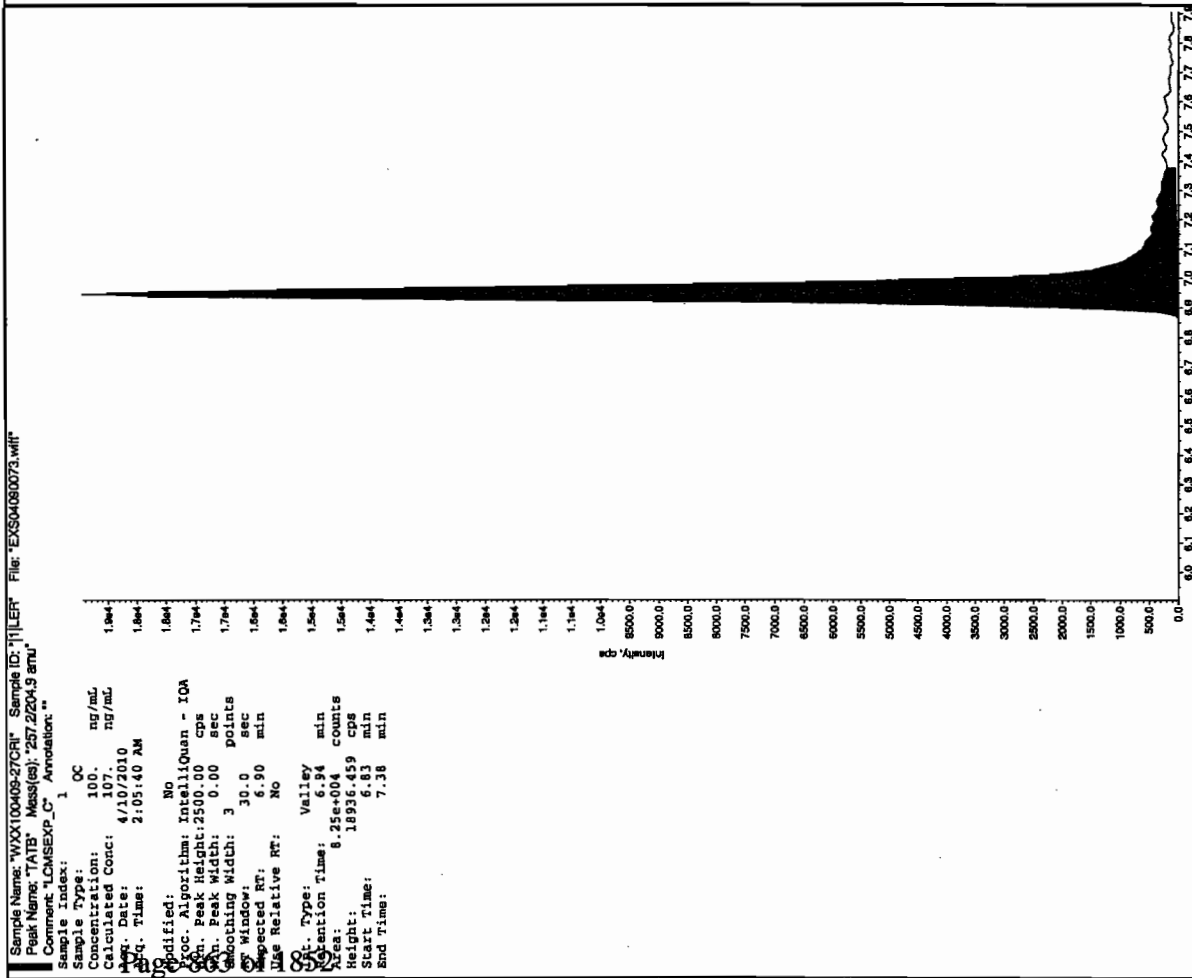
Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits



04/12/20



offer Dec 4/10

PROPRIETARY INFORMATION No unauthorized reproduction without written permission from GEL

Sample Name: "WXX100408-27C91" Sample ID: "111ER" File: "EXS04080073.wif"

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

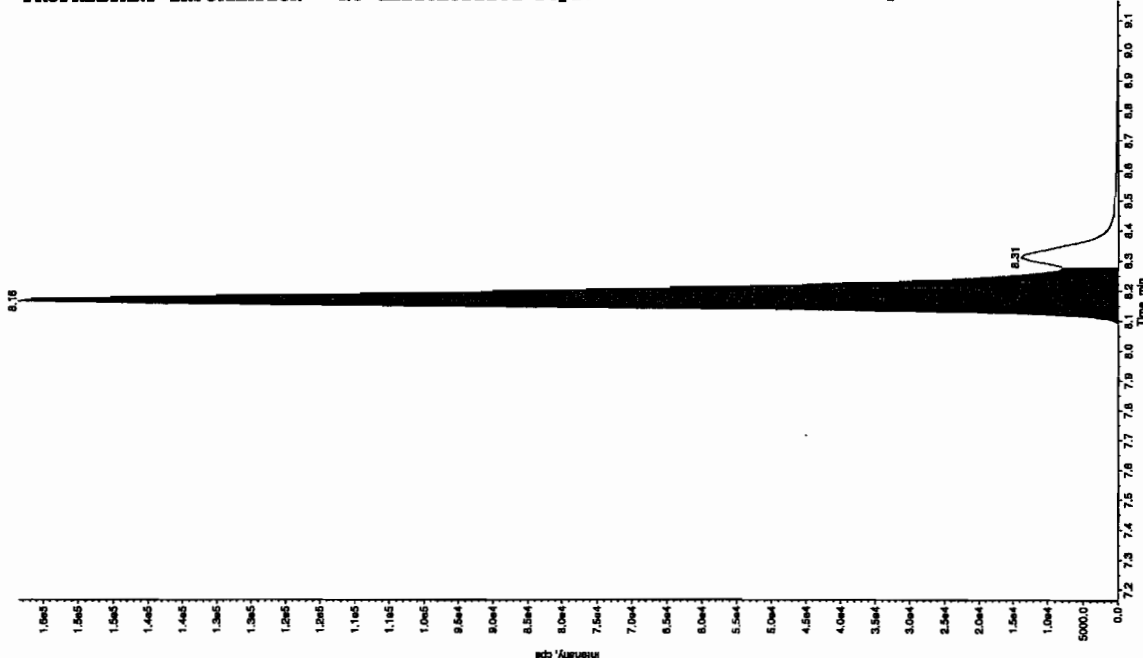
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC  
Concentration: 100. ng/mL  
Calculated Conc: 96.6 ng/mL  
Acq. Date: 4/10/2010  
Acq. Time: 2:05:40 AM

Modified: Yes  
RT Window: 15.0 sec  
Expected RT: 8.16 min  
Use Relative RT: No

Int. Type: Manual  
Retention Time: 8.17 min  
Area: 6.52e+005 counts  
Height: 160848.041 cps  
Start Time: 8.08 min  
End Time: 8.28 min



Sample Name: "WXX100408-27C91" Sample ID: "111ER" File: "EXS04080073.wif"

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

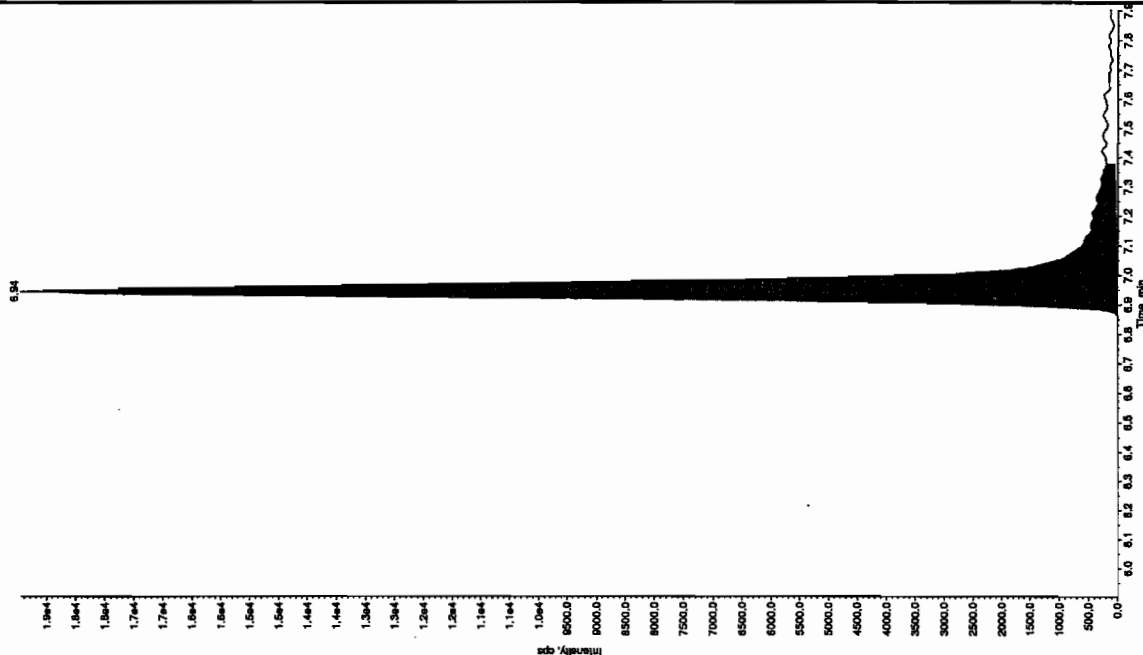
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC  
Concentration: 100. ng/mL  
Calculated Conc: 107. ng/mL  
Acq. Date: 4/10/2010  
Acq. Time: 2:05:40 AM

Modified: No  
Proc. Algorithm: IntelliQuan - TOA  
Scan. Peak Height: 2500.00 cps  
Scan. Peak Width: 3.00 sec  
Sweeping Width: 30.0 points  
RT Window: 30.0 sec  
Expected RT: 6.90 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 6.94 min  
Area: 8.25e+004 counts  
Height: 18936.459 cps  
Start Time: 6.83 min  
End Time: 7.38 min



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



Sample Name: WXX100409-270R1 Sample ID: 1111ER1 File: EXS04090073.wif

Peak Name: 25-Dinitrofluorene Mass(es): 186.046.0 amu

Comment: LCMSEXP\_C Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 100. ng/mL

Calculated Conc: 78.0 ng/mL

Acq. Date: 4/10/2010

Acq. Time: 2:05:40 AM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 450.00 cps

Min. Peak Width: 0.00 sec

Min. Peak Width: 30.0 points

Acq. Window: 30.0 sec

Expected RT: 4.95 min

Use Relative RT: No

Int. Type: Valley

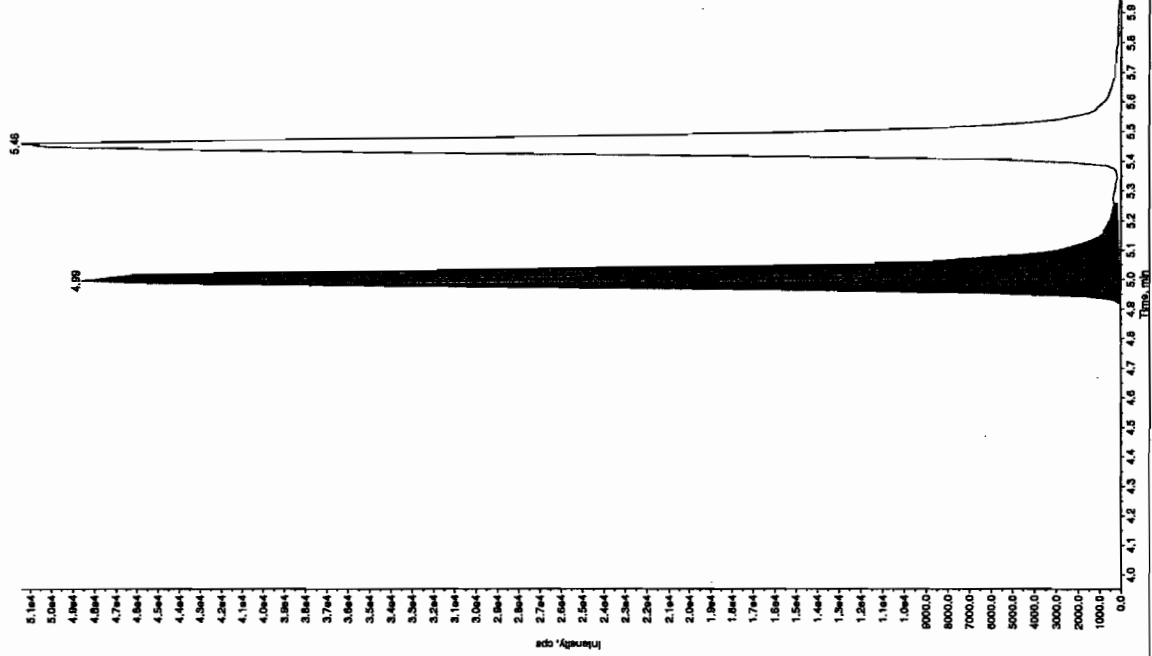
Retention Time: 4.99 min

Area: 2.33e+005 counts

Height: 48520.115 cps

Start Time: 4.88 min

End Time: 5.26 min



Sample Name: WXX100409-270R1 Sample ID: 1111ER1 File: EXS04090073.wif

Peak Name: 34-Dinitrofluorene Mass(es): 182.151.9 amu

Comment: LCMSEXP\_C Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 50.0 ng/mL

Calculated Conc: 47.5 ng/mL

Acq. Date: 4/10/2010

Acq. Time: 2:05:40 AM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 1460.00 cps

Min. Peak Width: 0.00 sec

Min. Peak Width: 30.0 points

Acq. Window: 30.0 sec

Expected RT: 8.30 min

Use Relative RT: No

Int. Type: Valley

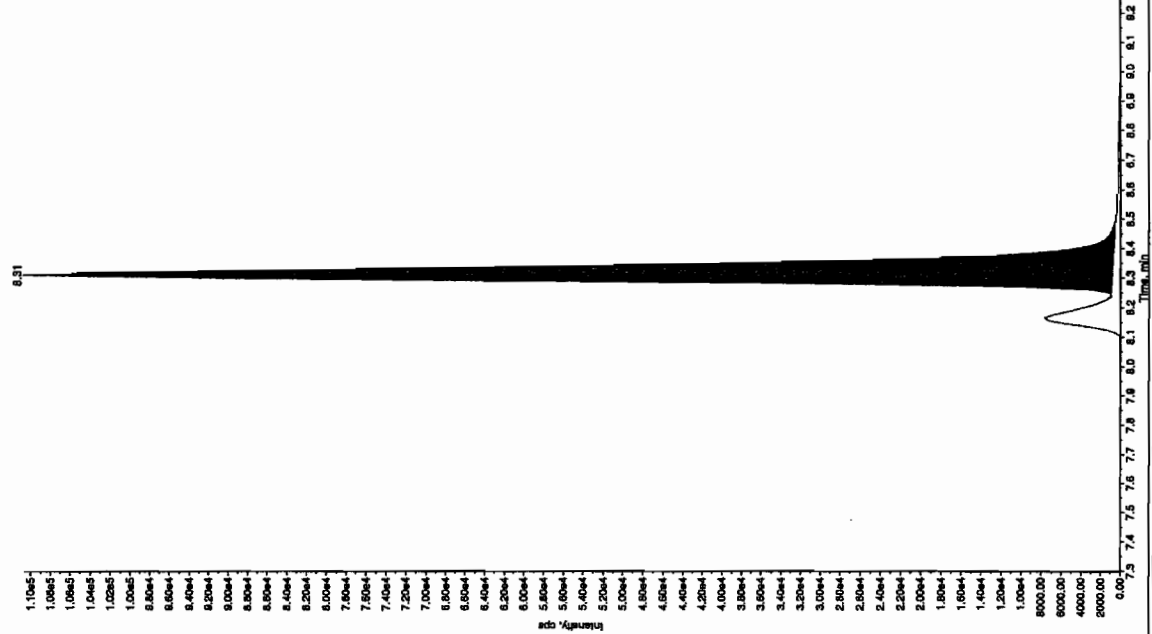
Retention Time: 8.31 min

Area: 4.01e+005 counts

Height: 109693.222 cps

Start Time: 8.24 min

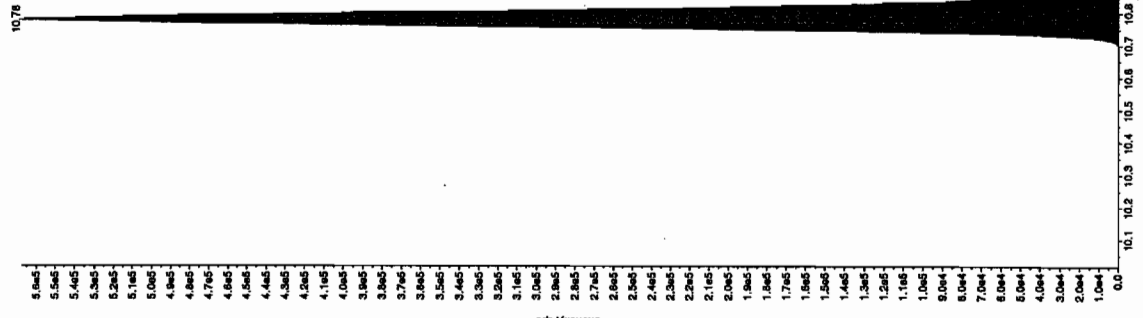
End Time: 8.52 min



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

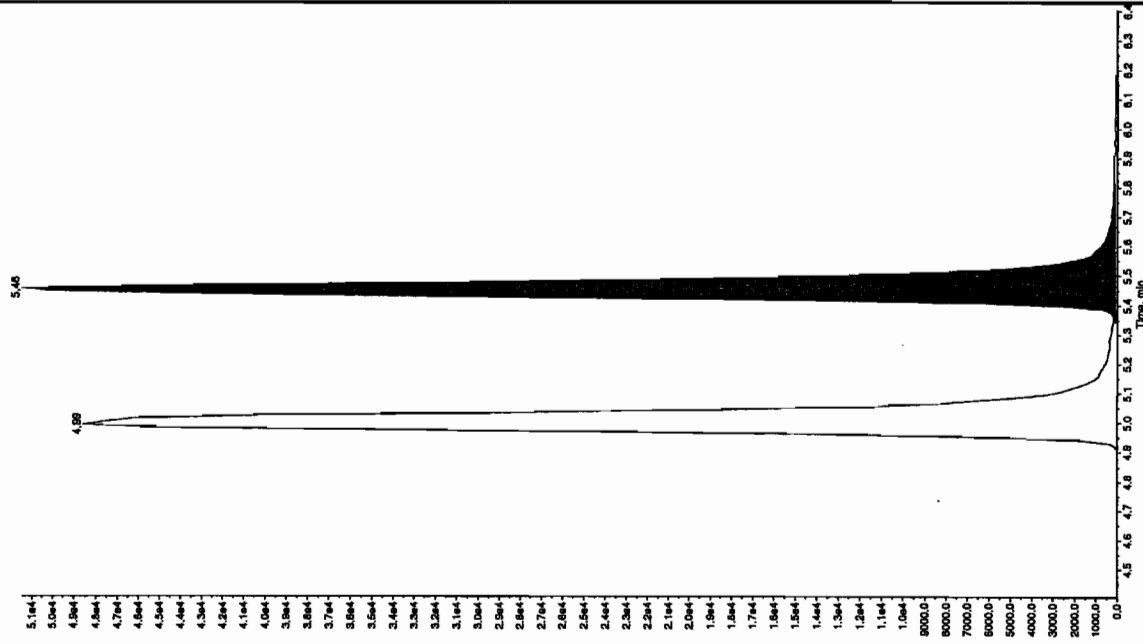
Sample Name: "WXX100409-27C1" Sample ID: "11LER" File: "EXS04090073.wif"  
Peak Name: "bis(4-oxo-5-phenyl-1,3,4-oxadiazol-2-yl) phosphine" Mass(es): "369.161.0 amu"  
Comment: "LGANSEXP\_C" Annotation: ""

Sample Index: 1 QC  
Sample Type: Concentration: 100. ng/mL  
Calculated Conc: 104. ng/mL  
Acq. Date: 4/10/2010  
Acq. Time: 2:05:40 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 8000.00 cps  
Min. Peak Width: 0.00 sec  
Smoother Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 10.8 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 10.8 min  
Area: 2.13e+006 counts  
Height: 566894.653 cps  
Start Time: 10.7 min  
End Time: 11.2 min



Sample Name: "WXX100409-27C1" Sample ID: "11LER" File: "EXS04090073.wif"  
Peak Name: "24-Diamino-6-nitrophenol" Mass(es): "166.046.0 amu"  
Comment: "LGANSEXP\_C" Annotation: ""

Sample Index: 1 QC  
Sample Type: Concentration: 100. ng/mL  
Calculated Conc: 100. ng/mL  
Acq. Date: 4/10/2010  
Acq. Time: 2:05:40 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 350.00 cps  
Min. Peak Width: 0.00 sec  
Smoother Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 5.46 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 5.46 min  
Area: 2.13e+005 counts  
Height: 51318.535 cps  
Start Time: 5.34 min  
End Time: 5.63 min



# QUALITY CONTROL DATA

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 961016

Lab Code: GEL

GEL Job No (SDG) 10-2202

Matrix: SOIL

GEL Sample ID: 1202061319

Sample Amount 2

Moisture:

Amount Units g

Date Received: 04-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415066.wiff

Date Analyzed: 16-APR-10 14:15

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

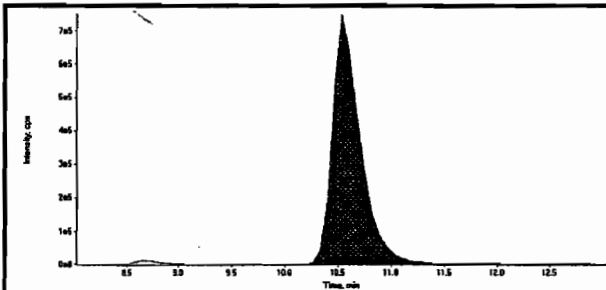
\*Concentration =

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

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

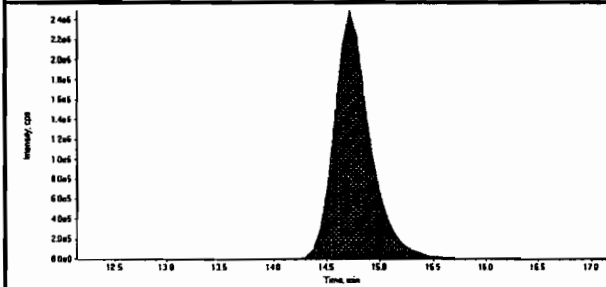
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415066.wiff	Acquisition Date	4/16/2010 2:15:06 PM
Sample Name	1202061319	Acquisition Method	8321.dam
Batch Dilution Analyst	961033 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



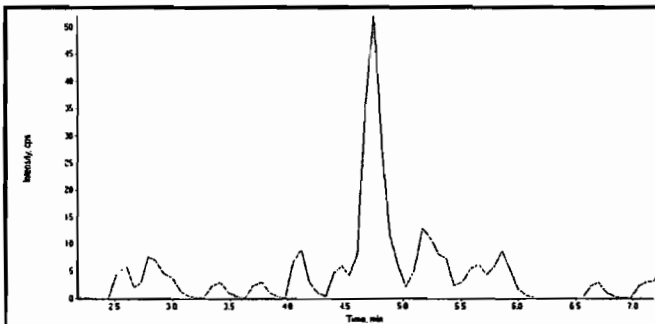
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	13900000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

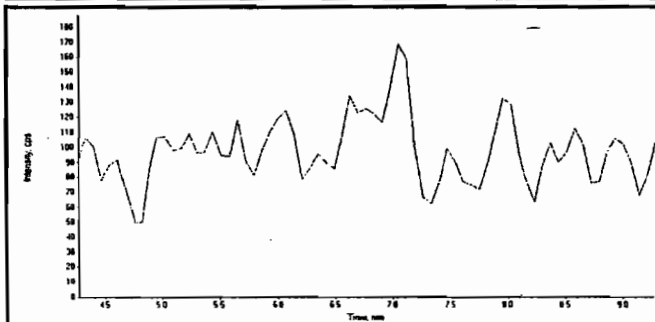


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	59200000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*LER*  
4/23/10

*4/23/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415066.wiff	<b>Acquisition Date</b>	4/16/2010 2:15:06 PM
<b>Sample Name</b>	1202061319	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	961033 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

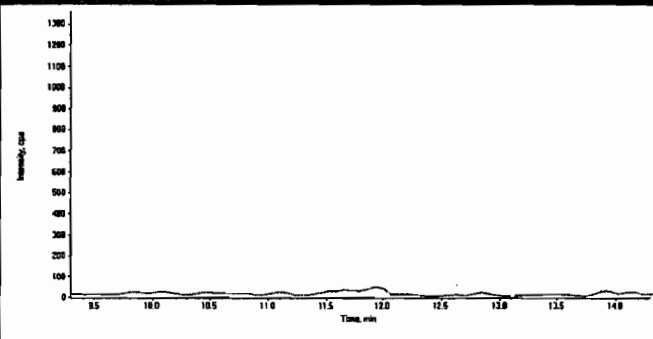
  

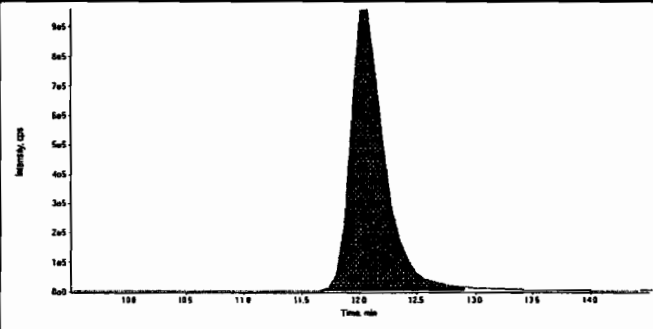
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

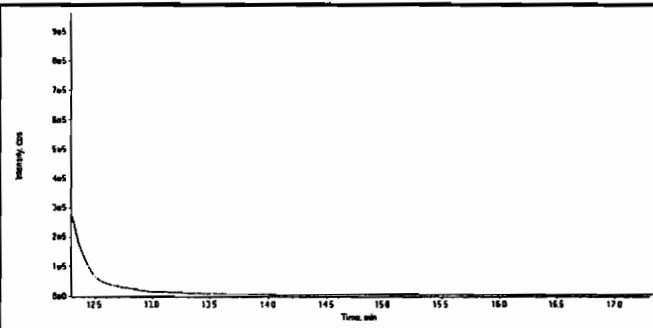
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

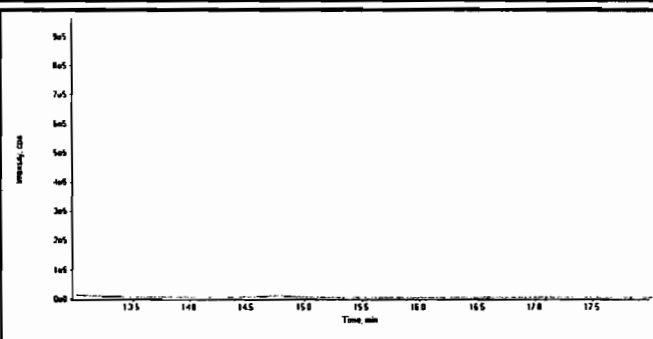
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415066.wiff	Acquisition Date	4/16/2010 2:15:06 PM
Sample Name	1202061319	Acquisition Method	8321.dam
Batch Dilution Analyst	961033 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	2.03e+007
	Manual Modification	No
	Amount:	261. (ng/mL)
	% Accuracy:	N/A

	Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.7
	Area Counts:	1.55e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415066.wiff	<b>Acquisition Date</b>	4/16/2010 2:15:06 PM
<b>Sample Name</b>	1202061319	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	961033 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	4.19e+003
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

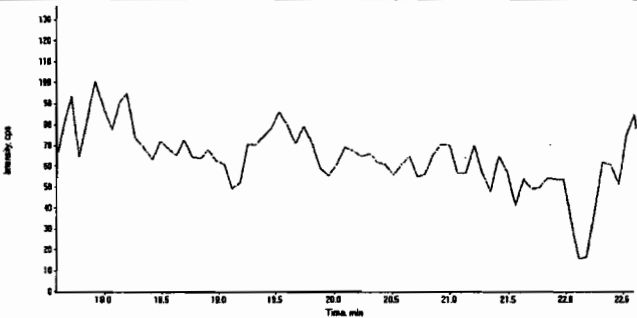


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

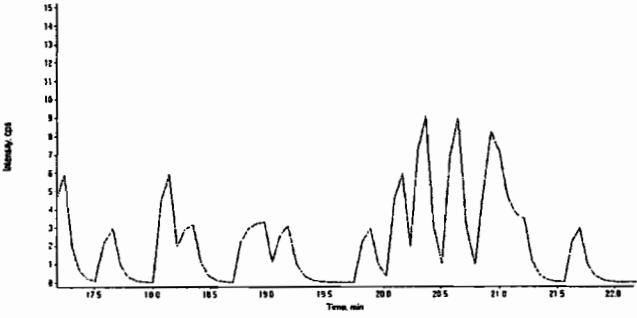
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415066.wiff	<b>Acquisition Date</b>	4/16/2010 2:15:06 PM
<b>Sample Name</b>	1202061319	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	961033 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 961016

Lab Code: GEL

GEL Job No (SDG) 10-2202

Matrix: SOIL

GEL Sample ID: 1202061319

Sample Amount 2

Moisture:

Amount Units g

Date Received: 04-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090045.wiff

Date Analyzed: 09-APR-10 18:45

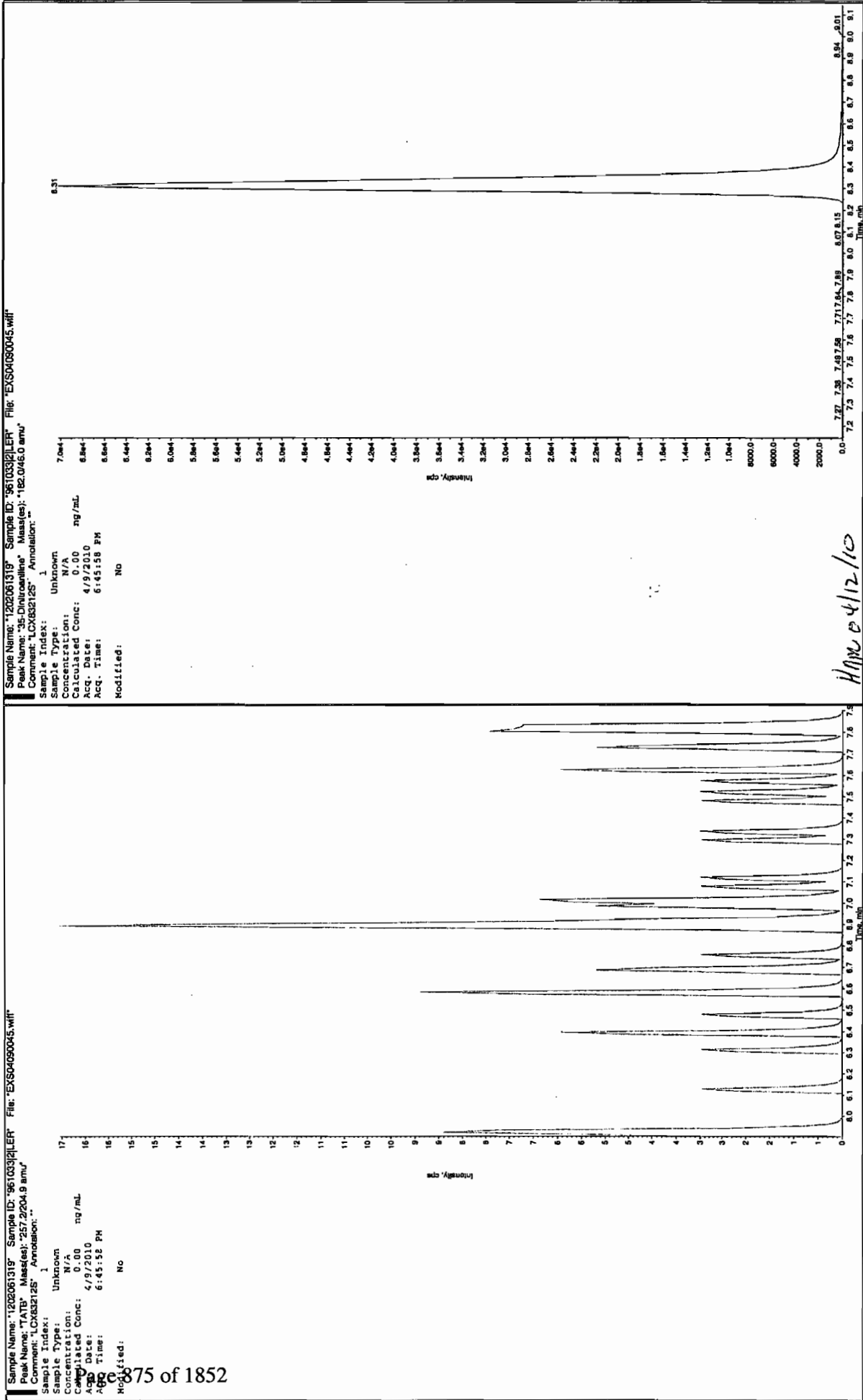
Units: ug/kg

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

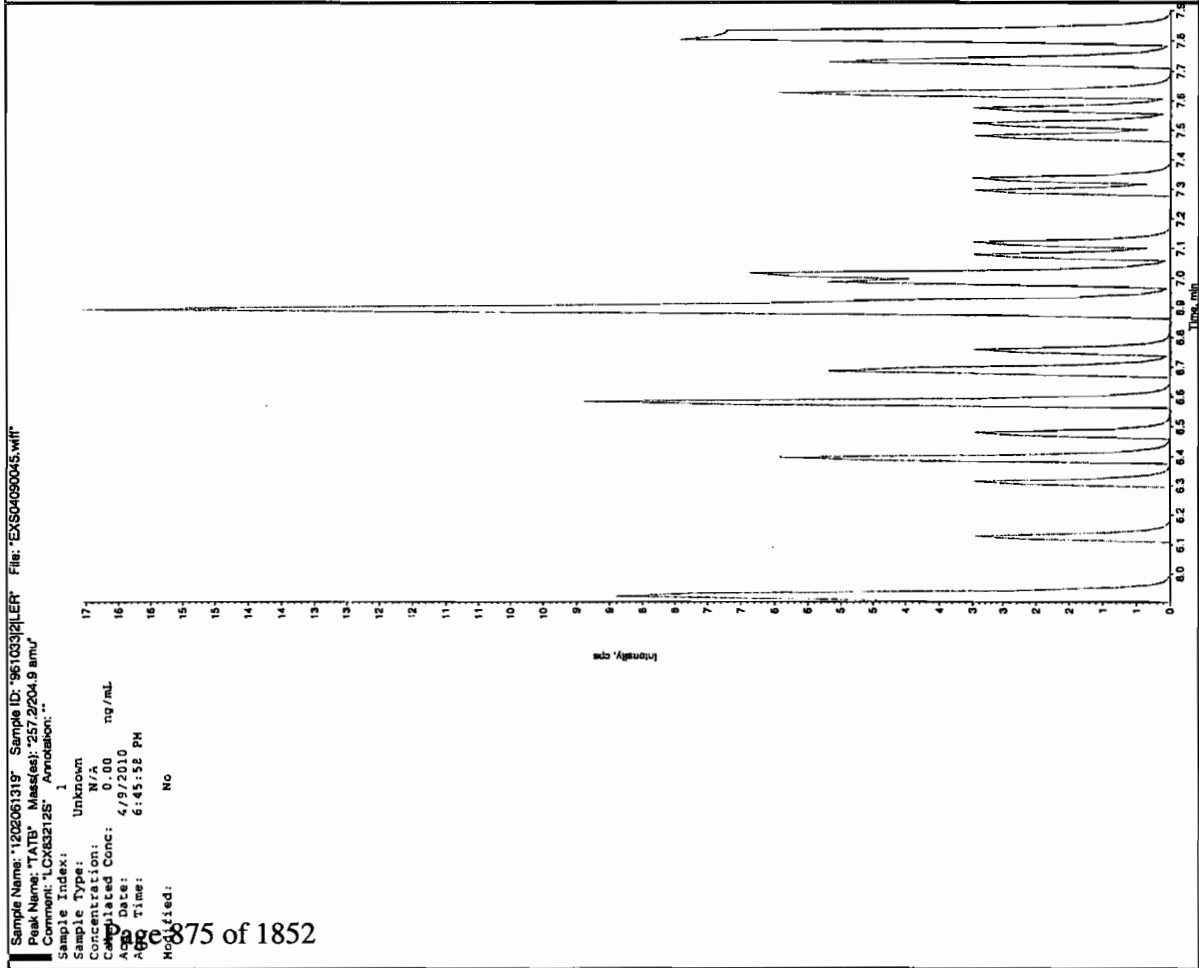
\*Concentration =

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

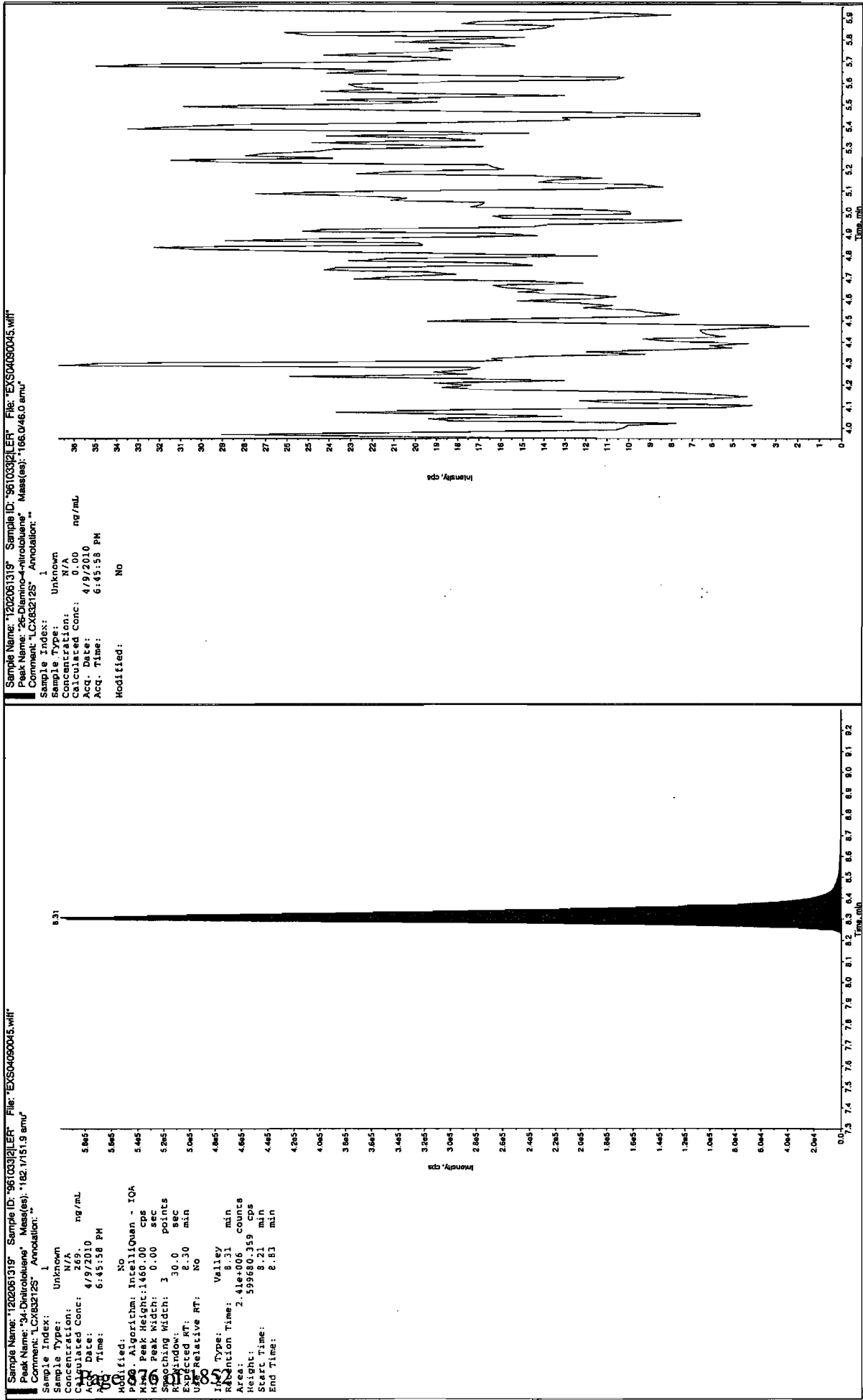
Rec 4/12/10



HPM 04/12/10

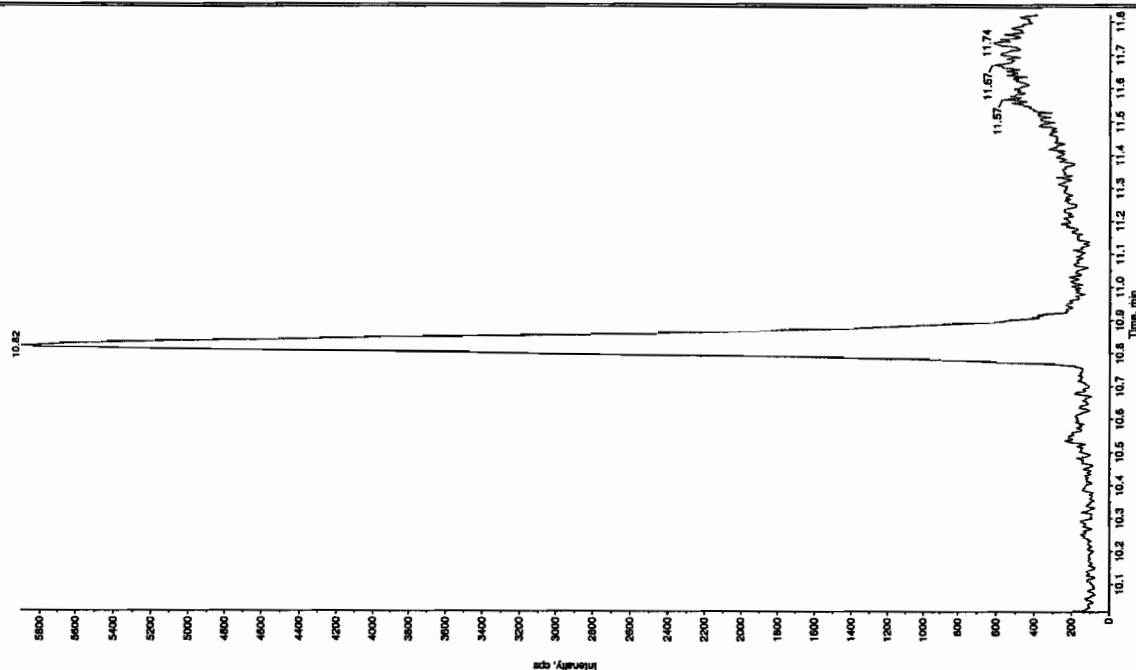


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



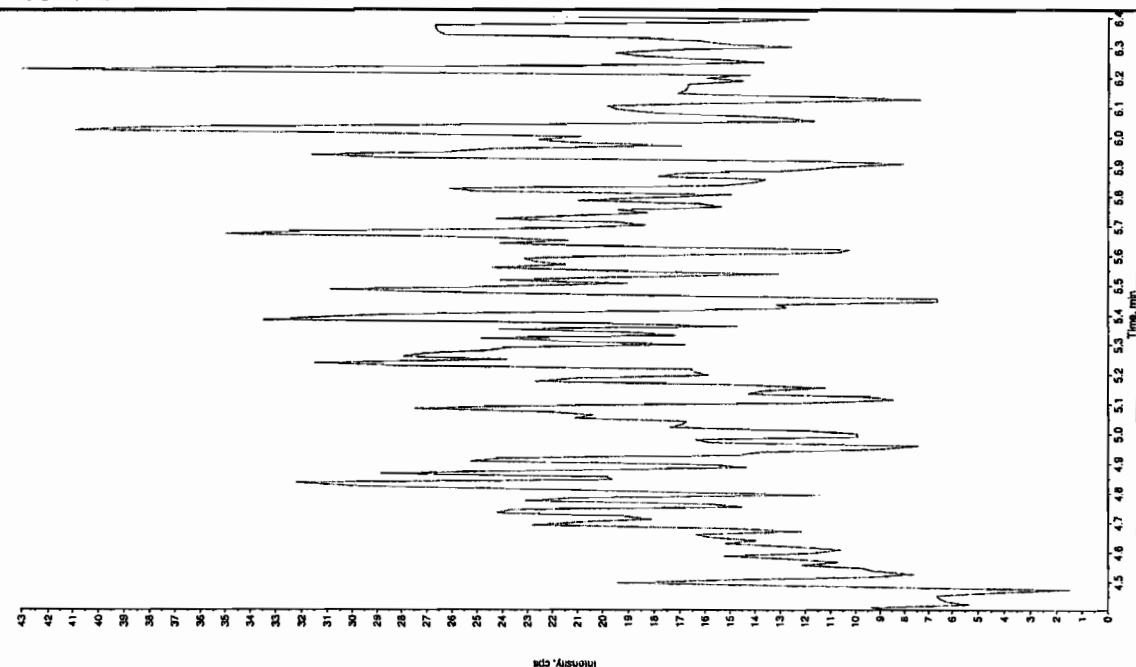
Sample Name: "1202061319" Sample ID: "961033121" File: "EXS04090045.wif"  
 Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1610 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 6:45:56 PM  
 Modified: No



Sample Name: "1202061319" Sample ID: "961033121" File: "EXS04090045.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" 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: 4/9/2010  
 Acq. Time: 6:45:56 PM  
 Modified: No



\*GEL 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 961016

Lab Code: GEL

GEL Job No (SDG) 10-2202

Matrix: SOIL

GEL Sample ID: 1202061320

Sample Amount 2

Moisture:

Amount Units g

Date Received: 04-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415067.wiff

Date Analyzed: 16-APR-10 14:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4030	
121-14-2	2,4-Dinitrotoluene	4770	
121-82-4	RDX	6110	
19406-51-0	4-Amino-2,6-dinitrotoluene	3920	
2691-41-0	HMX	4990	
35572-78-2	2-Amino-4,6-dinitrotoluene	4000	
479-45-8	Tetryl	204	J
606-20-2	2,6-Dinitrotoluene	4230	
78-11-5	PETN	5320	
88-72-2	o-Nitrotoluene	5170	
98-95-3	Nitrobenzene	4530	
99-08-1	m-Nitrotoluene	4880	
99-35-4	1,3,5-Trinitrobenzene	3530	
99-65-0	m-Dinitrobenzene	5290	
99-99-0	p-Nitrotoluene	4920	

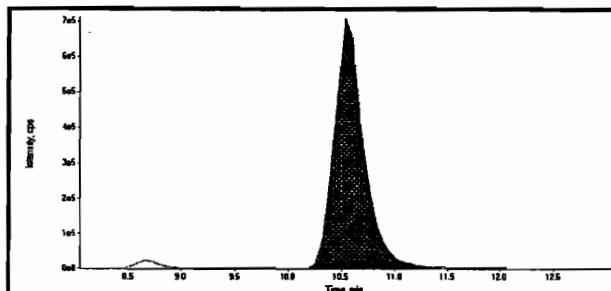
\*Concentration =

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

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

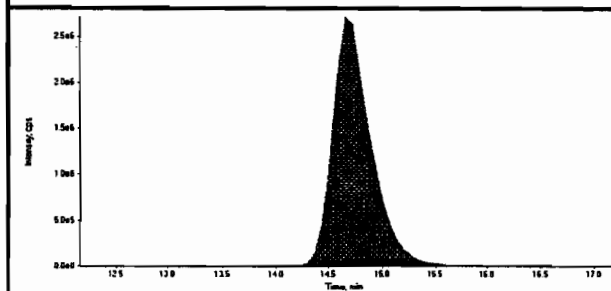
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415067.wiff	Acquisition Date	4/16/2010 2:41:01 PM
Sample Name	1202061320	Acquisition Method	8321.dam
Batch Dilution Analyst	961033 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



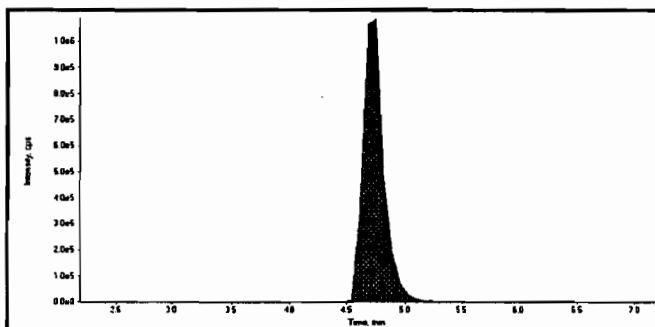
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	13600000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

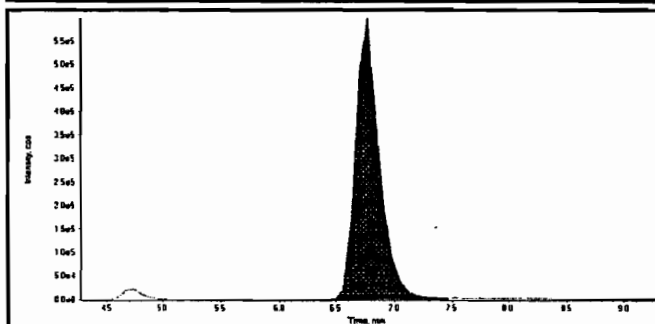


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.60
Area Counts:	67200000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	1.39e+007
Manual Modification	No
Amount:	499. (ng/mL)
% Accuracy:	N/A

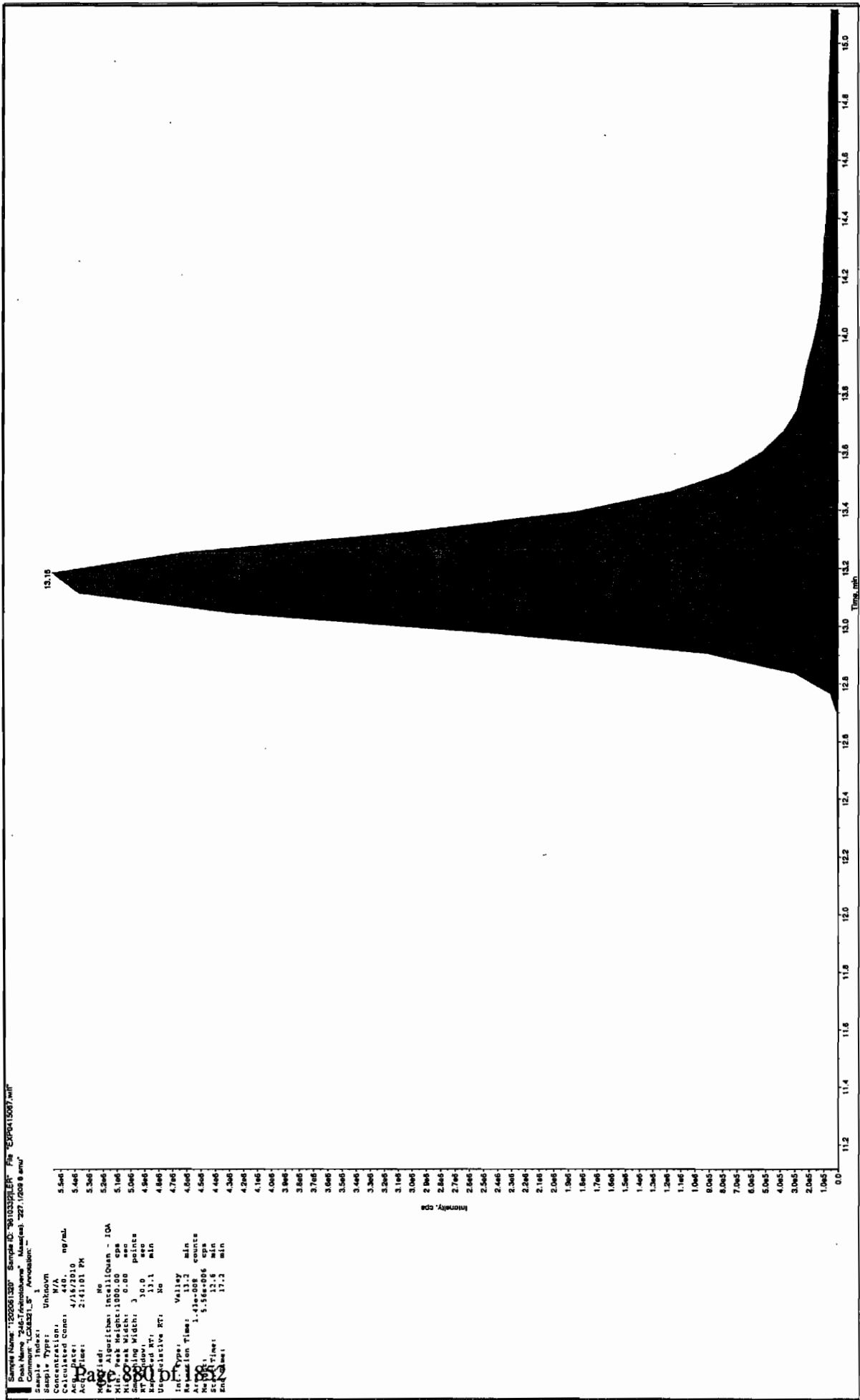


Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	8.58e+006
Manual Modification	No
Amount:	611. (ng/mL)
% Accuracy:	N/A

*San*  
*4/23/10*

*4/16/10*  
*2/23/10*

Before Jan 4/23/10



Sample Name: 1005041237 Sample ID: 9810330114 File: 1005041237.mf  
 Comment: "LCK8321\_5" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Calculated Conc: 410. ng/mL  
 Acq Date: 4/16/2010  
 Acq Time: 2:41:01 PM  
 Method: No  
 Pre-Algorithm: Intelliquan - IQA  
 Min. Peak Height: 1000.00 cps  
 Min. Peak Width: 3.00 points  
 ST Width: 10.0 sec  
 Expected RT: 13.1 min  
 Deviation RT: No  
 In Type: Valley  
 Retention Time: 13.2 min  
 Area: 1.41e05 counts  
 Area Under Curve: 4.5e4 cps  
 Scale Time: 12.6 min  
 End Time: 17.2 min

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

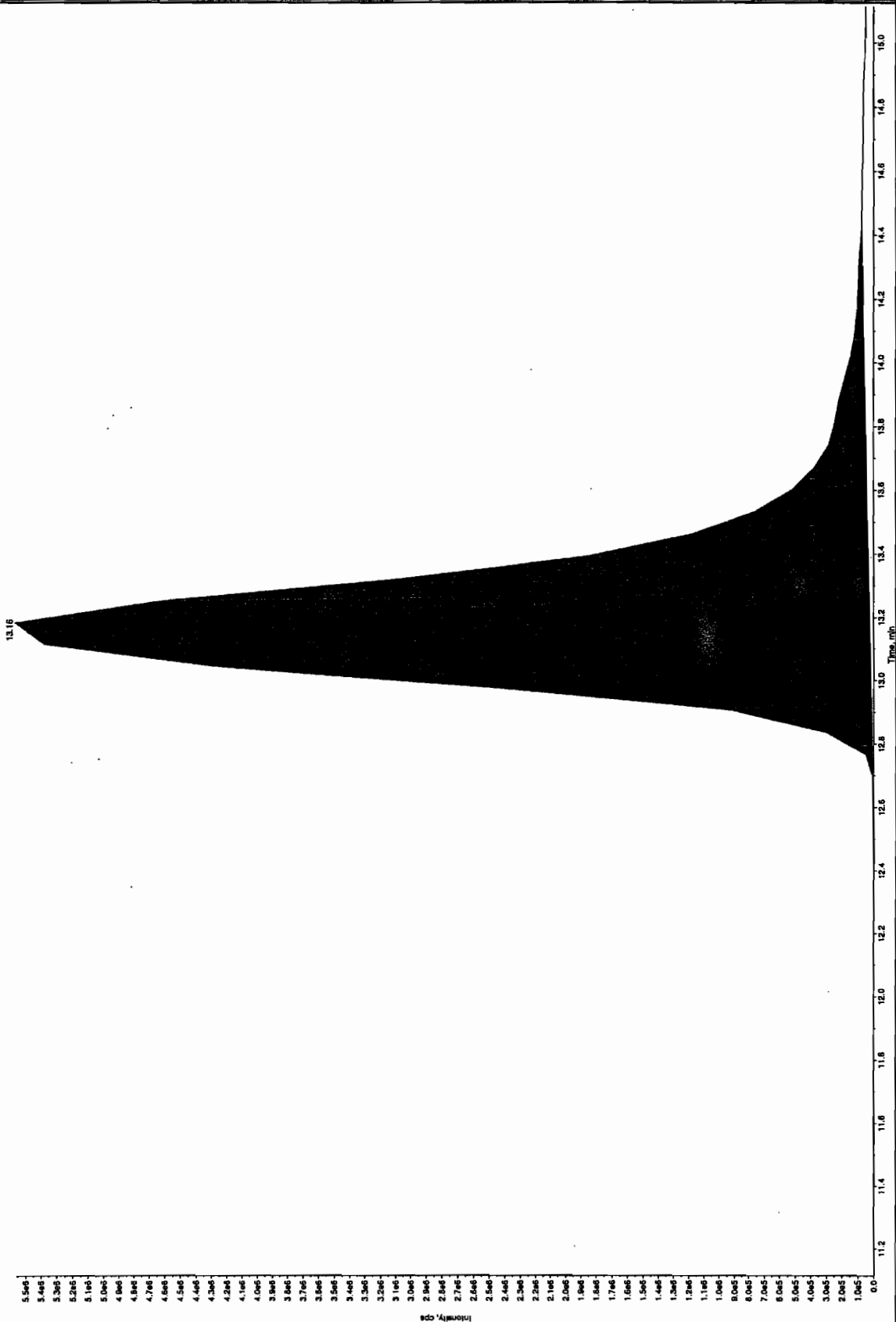


after Jan 4/23/10

Sample Name: 102051207 Sample ID: 102051207 File: 102051207.mlf  
 Sample Path: 102051207 Method: 221.1205.8.mlf  
 Common: 102051207 Acquisition: 1

Sample Index: 1  
 Sample Type: Unknown  
 Calculated Conc: 403. ng/mL  
 Acq. Date: 4/16/2010  
 Acq. Time: 2:41:01 PM  
 Method: Yes  
 Method ID: 102051207  
 Method RT: 13.1 min  
 Method Relative RT: No  
 Method Type: Manual  
 Method Time: 13.2 min  
 Method Count: 4800  
 Method Error: 1.31e+008  
 Method Error: 5.6e+006  
 Method Error: 12.4 min  
 Method Error: 14.4 min

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\*GEL, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415067.wiff	<b>Acquisition Date</b>	4/16/2010 2:41:01 PM
<b>Sample Name</b>	1202061320	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	961033 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	9.00
	<b>Area Counts:</b>	6.42e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	353. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	3.93e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	529. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	1.13e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	20.4 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	1.33e+008
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	403. (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415067.wiff	<b>Acquisition Date</b>	4/16/2010 2:41:01 PM
<b>Sample Name</b>	1202061320	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	961033 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	11.8
	<b>Area Counts:</b>	1.25e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	453. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	1.85e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	209. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.9
	<b>Area Counts:</b>	3.05e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	423. (ng/mL)
	<b>% Accuracy:</b>	N/A

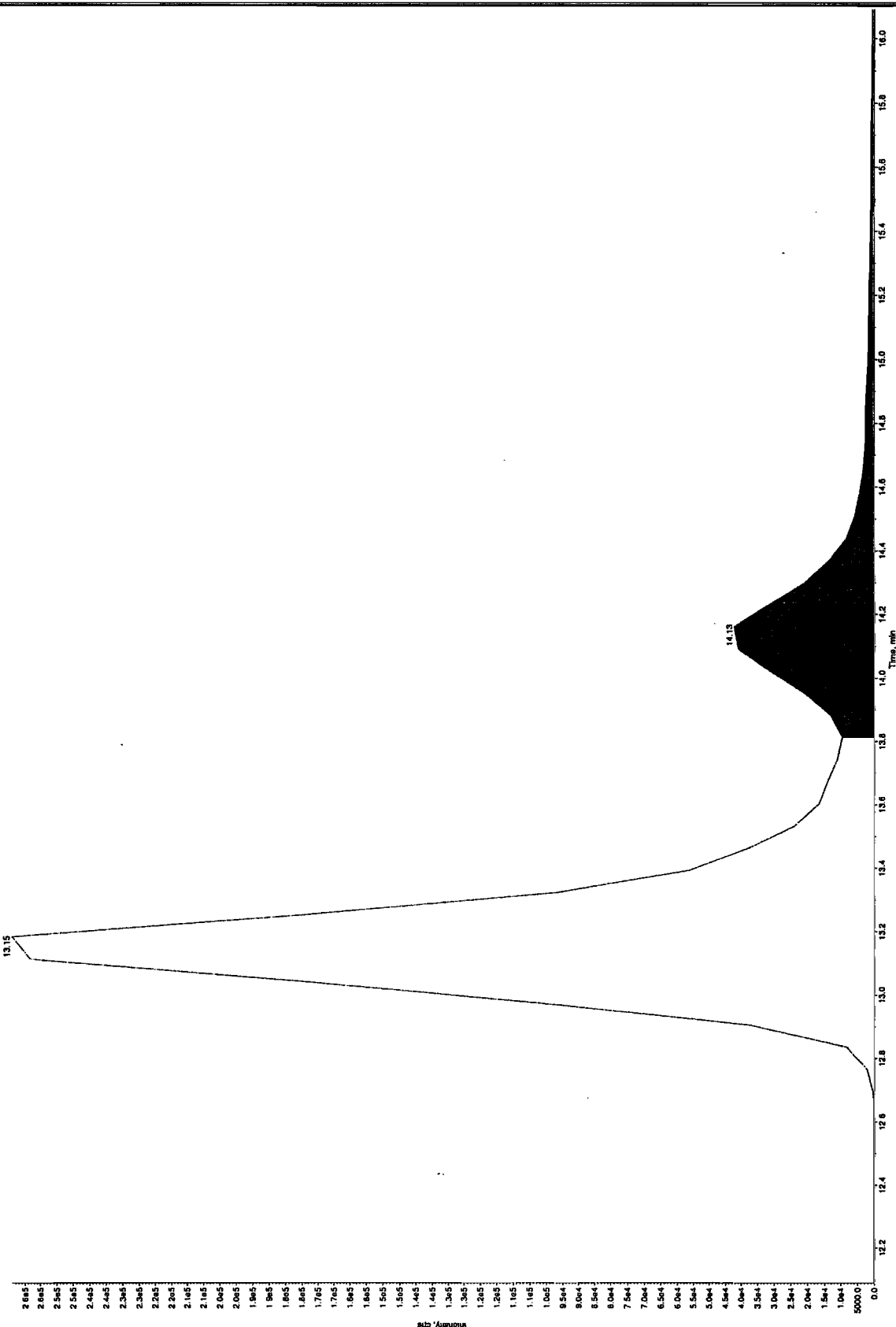
  

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	15.5
	<b>Area Counts:</b>	1.32e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	477. (ng/mL)
	<b>% Accuracy:</b>	N/A

Before Jan 4/23/10

Sample Name: 12020813207 Sample ID: 98103315067 File: EXP0115067.MIF  
 Peak Name: 2-Amino-45-dihydroxylamine Mass(es): 167.0180 0 amu  
 Comment: 12020813207 Annotation: -

Sample Index: 1  
 Sample Name: 12020813207  
 Concentration: 443.1 ng/mL  
 Acquisition Date: 4/16/2010  
 Acquisition Time: 2:41:01 PM  
 Method: 8321A  
 Method Type: Valley  
 Method Name: 8321A  
 Method Version: 1.11e-004  
 Method Date: 4/20e-004  
 Method Time: 11.8 min  
 Method Size: 14.5 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after scan 4/23/10

Sample Name: "20051307" Sample ID: "00103201.EP" File: "E:\P015067.mf"

Peak Name: "Z-Amino-4-dehydrocholic" Mass(es): "197.0180.0 amu"

Comment: "LC0321\_5" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: 400.00 ng/mL

Acq Date: 4/16/2010

Acq Time: 2:41:01 PM

Method: 2.00

Injection: 1

Injection Volume: 10.0 µL

Injection Speed: 14.1 min

Injection Temperature: 2.40

Injection Type: Manual

Injection Port: 14.1 min

Injection Volume: 10.0 µL

Injection Speed: 14.1 min

Injection Temperature: 2.40

Injection Type: Manual

Injection Port: 14.1 min

Injection Volume: 10.0 µL

Injection Speed: 14.1 min

Injection Temperature: 2.40

Injection Type: Manual

Injection Port: 14.1 min

Injection Volume: 10.0 µL

Injection Speed: 14.1 min

Injection Temperature: 2.40

Injection Type: Manual

Injection Port: 14.1 min

Injection Volume: 10.0 µL

Injection Speed: 14.1 min

Injection Temperature: 2.40

Injection Type: Manual

Injection Port: 14.1 min

Injection Volume: 10.0 µL

Injection Speed: 14.1 min

Injection Temperature: 2.40

Injection Type: Manual

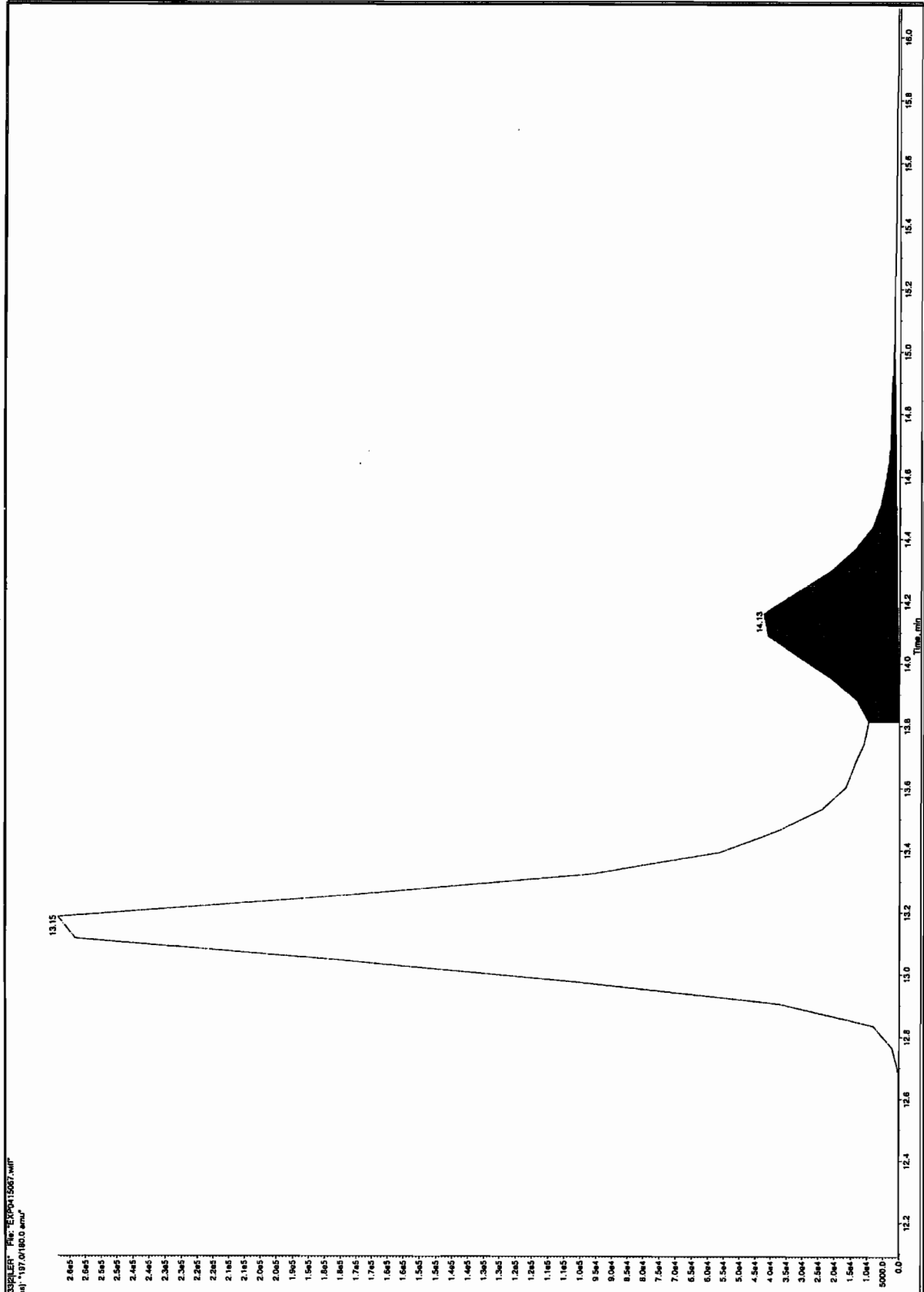
Injection Port: 14.1 min

Injection Volume: 10.0 µL

Injection Speed: 14.1 min

Injection Temperature: 2.40

Injection Type: Manual

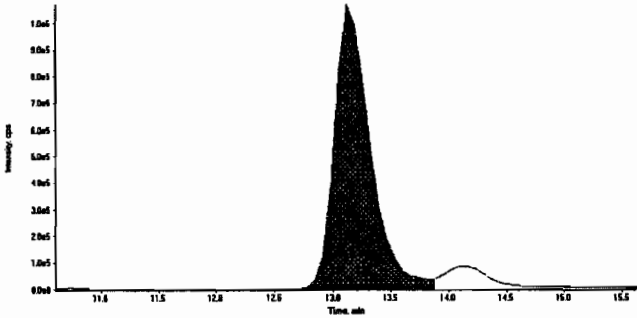


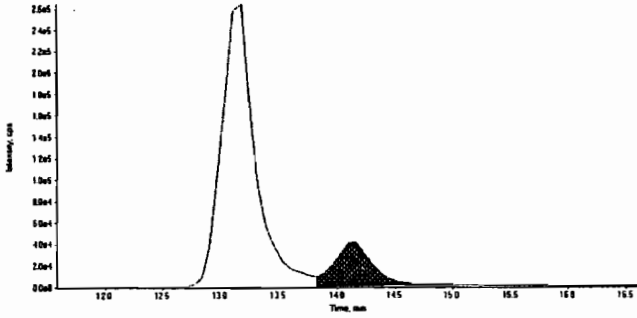
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

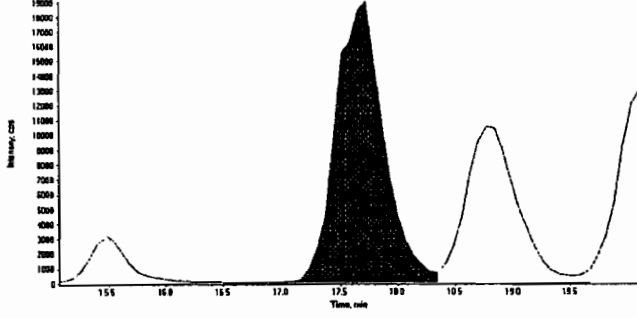
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

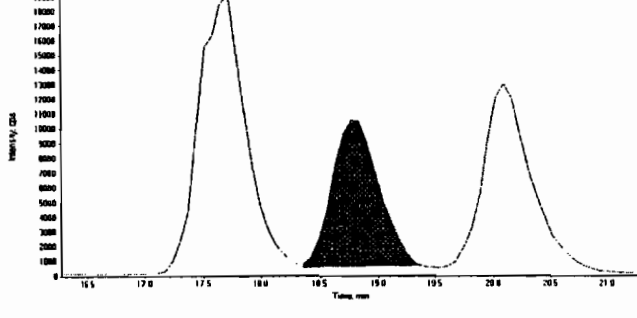
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415067.wiff	Acquisition Date	4/16/2010 2:41:01 PM
Sample Name	1202061320	Acquisition Method	8321.dam
Batch Dilution Analyst	961033 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

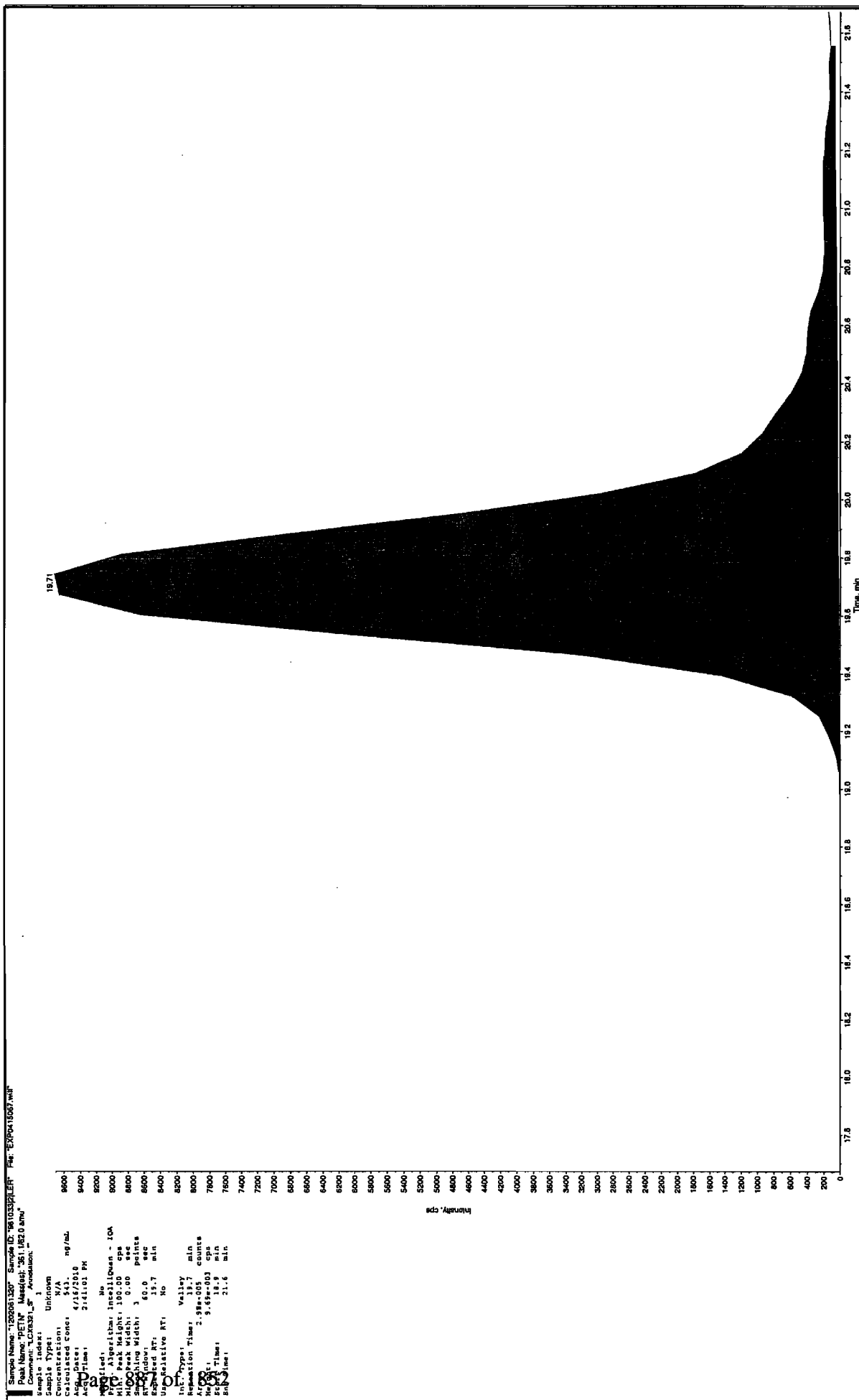
	Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	2.36e+007
	Manual Modification	No
	Amount:	392. (ng/mL)
	% Accuracy:	N/A

	Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	14.1
	Area Counts:	1.01e+006
	Manual Modification	Yes
	Amount:	400. (ng/mL)
	% Accuracy:	N/A

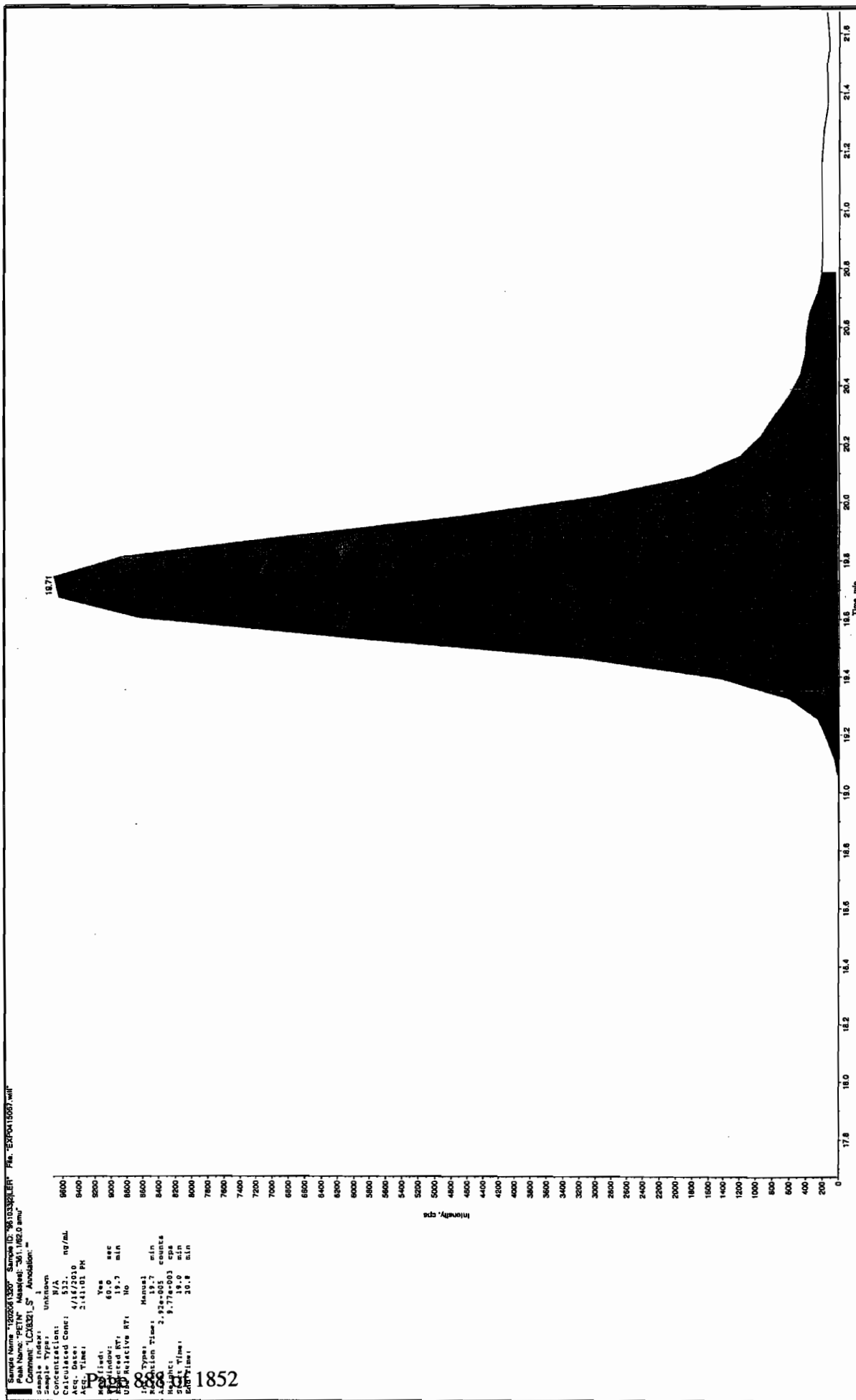
	Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.7
	Area Counts:	5.51e+005
	Manual Modification	No
	Amount:	517. (ng/mL)
	% Accuracy:	N/A

	Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.8
	Area Counts:	2.86e+005
	Manual Modification	No
	Amount:	492. (ng/mL)
	% Accuracy:	N/A

Before Jan 4/23/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



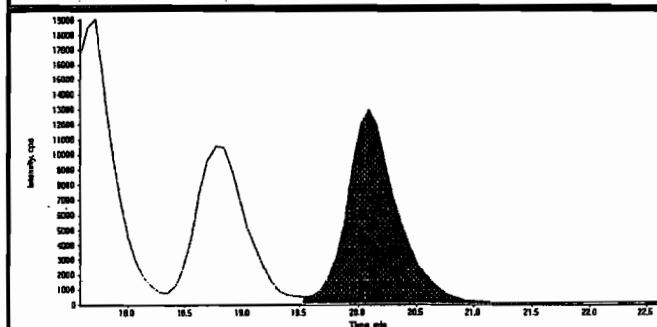
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



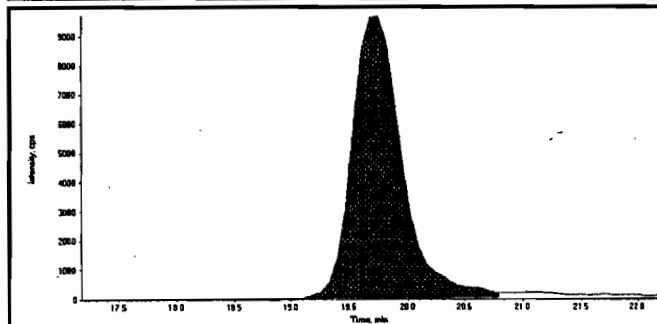
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415067.wiff	Acquisition Date	4/16/2010 2:41:01 PM
Sample Name	1202061320	Acquisition Method	8321.dam
Batch Dilution Analyst	961033 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.1
Area Counts:	3.89e+005
Manual Modification	No
Amount:	488. (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.7
Area Counts:	2.92e+005
Manual Modification	Yes
Amount:	532. (ng/mL)
% Accuracy:	N/A

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 961016

Lab Code: GEL

GEL Job No (SDG) 10-2202

Matrix: SOIL

GEL Sample ID: 1202061320

Sample Amount 2

Moisture:

Amount Units g

Date Received: 04-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090046.wiff

Date Analyzed: 09-APR-10 19:01

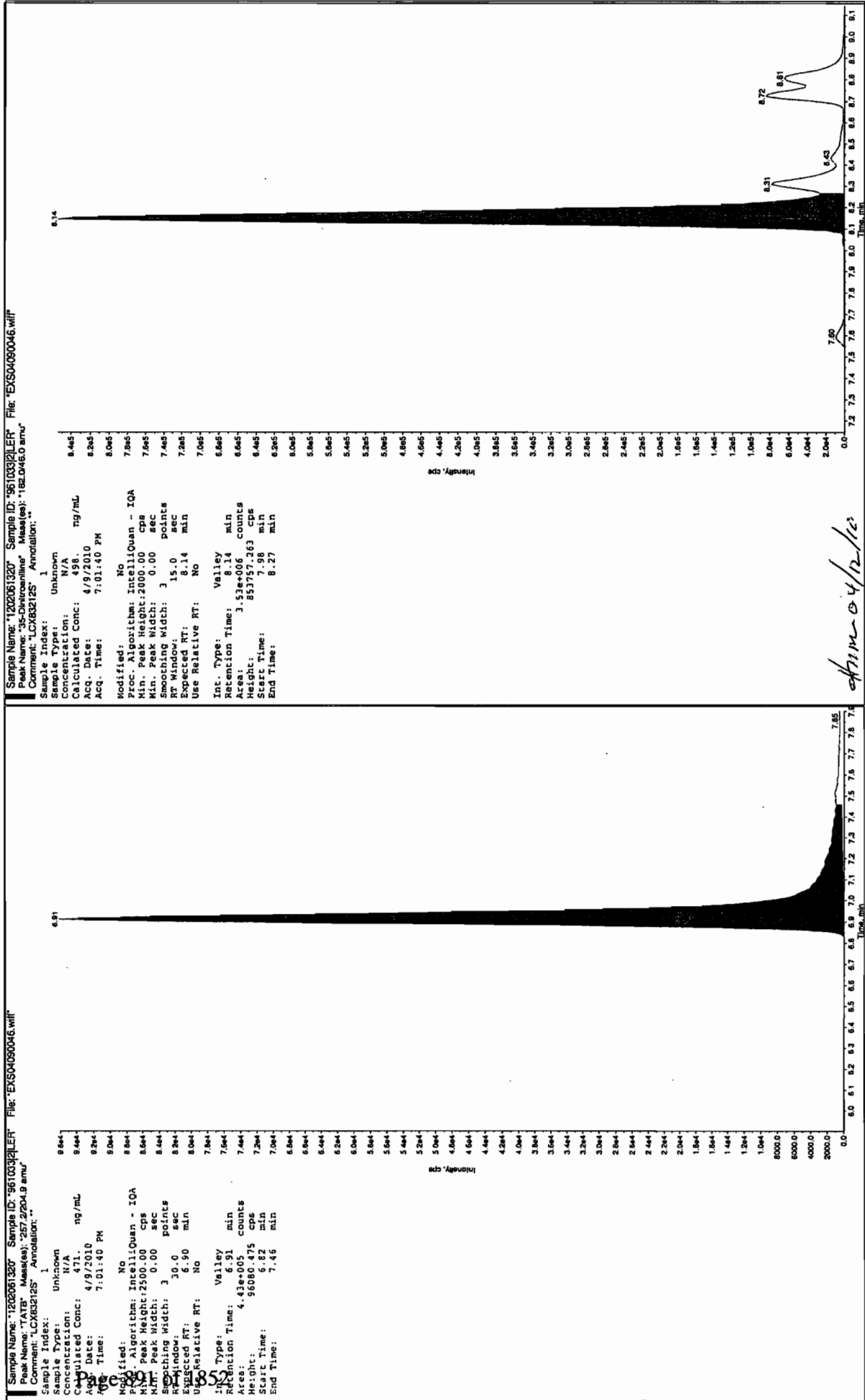
Units: ug/kg

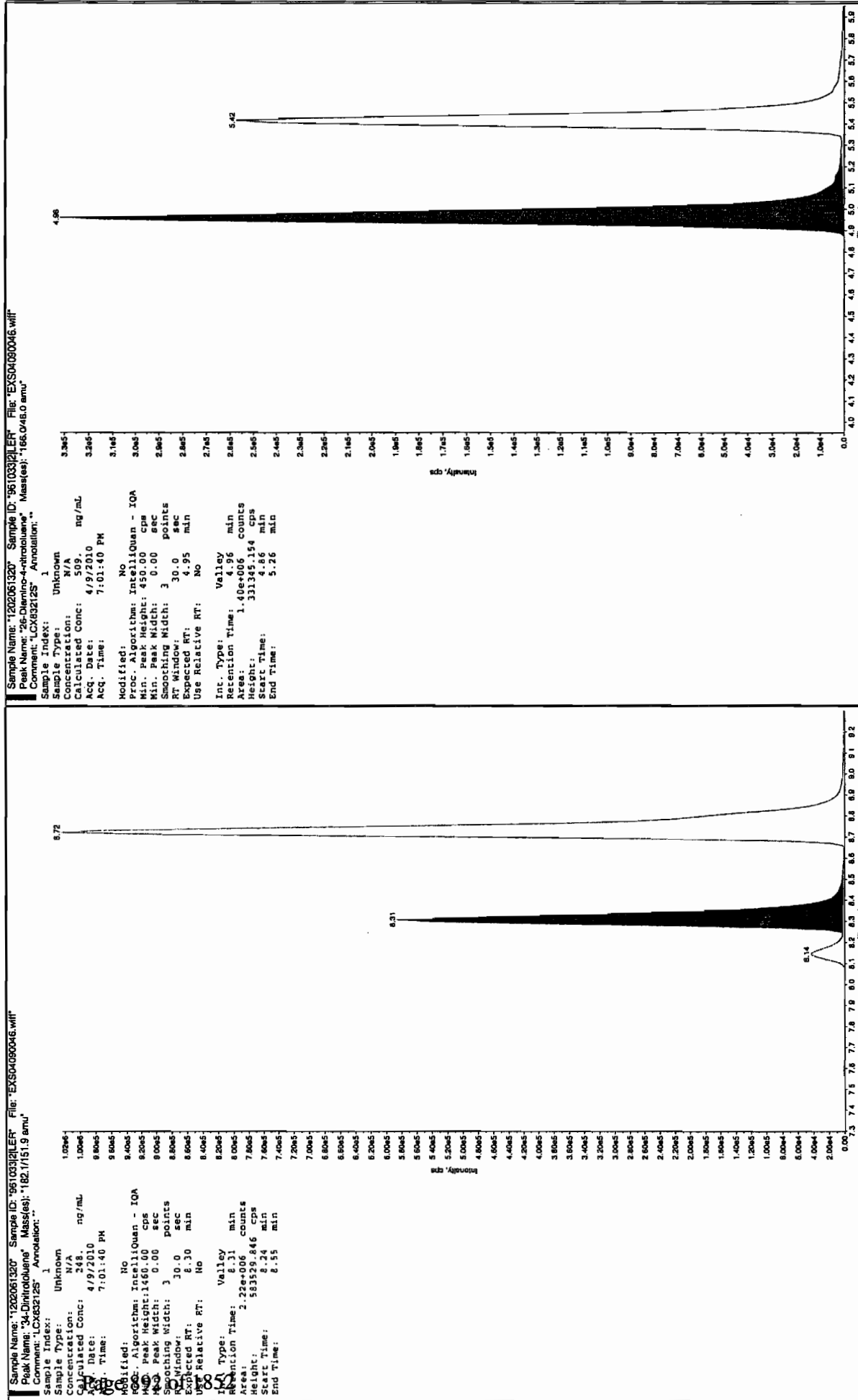
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	4710	
59229-75-3	2,6-Diamino-4-nitrotoluene	5090	
618-87-1	3,5-Dinitroaniline	4980	
6629-29-4	2,4-Diamino-6-nitrotoluene	4790	
78-30-8	tris(o-cresyl) phosphate	4920	

\*Concentration =

Instrument X Concentrated Extract Volume X Dilution  
Value Sample Amoun Factor

Run 4/12/10

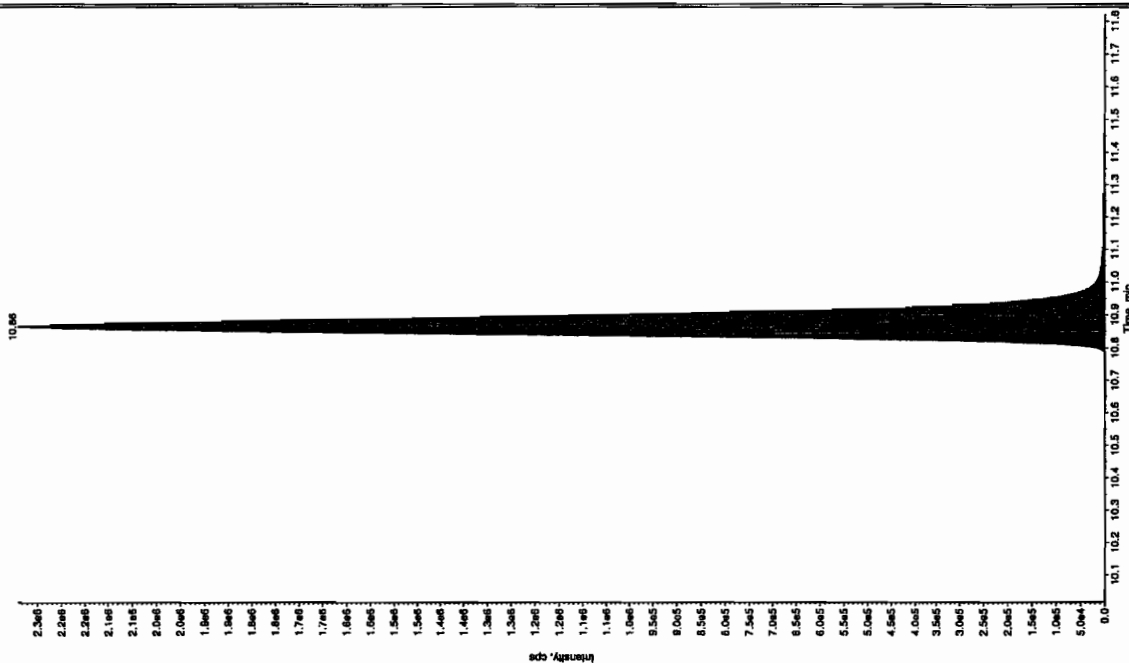




Sample Name: "1202061320" Sample ID: "96103321ER" File: "EXS04090046.wif"  
 Peak Name: "thio(cresyl) phosphate" Mass(es): "365.191.0 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1

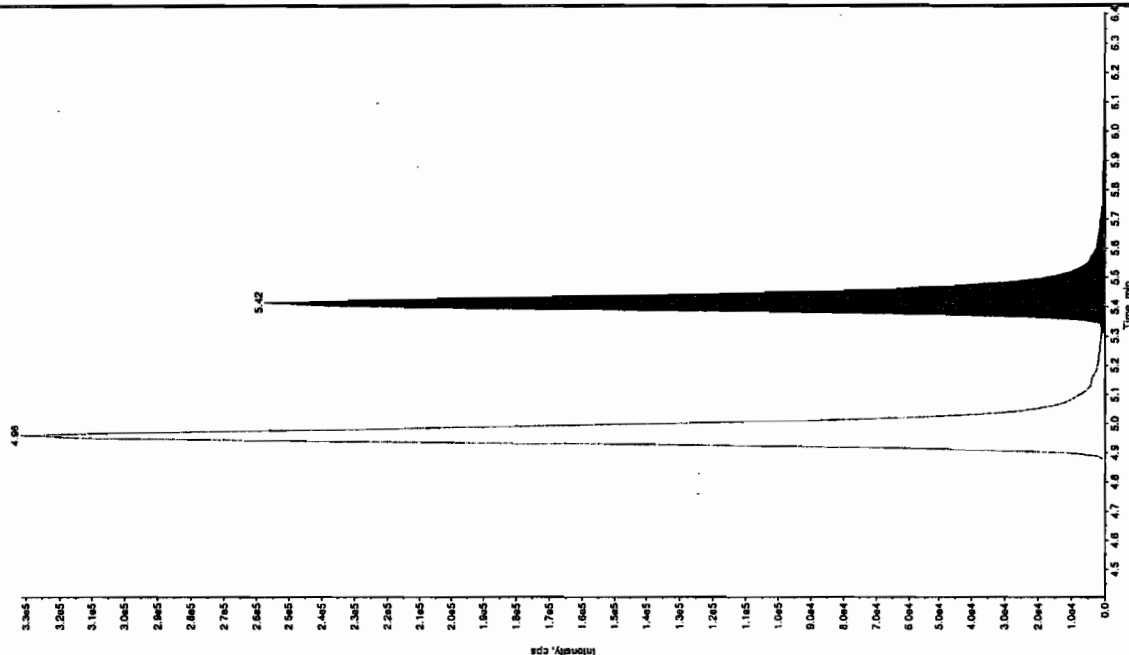
Sample Type: Unknown  
 Concentration: 492 ng/mL  
 Calculated Conc: 4/9/2010  
 Acq. Date: 7:01:40 PM  
 Acq. Time: 7:01:40 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Inc. Type: Valley  
 Retention Time: 10.9 min  
 Area: 5.4e+06 counts  
 Height: 2288997 cps  
 Start Time: 10.8 min  
 End Time: 11.2 min



Sample Name: "1202061320" Sample ID: "96103321ER" File: "EXS04090046.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1

Sample Type: Unknown  
 Concentration: 473 ng/mL  
 Calculated Conc: 4/9/2010  
 Acq. Date: 7:01:40 PM  
 Acq. Time: 7:01:40 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.40 min  
 Use Relative RT: No  
 Inc. Type: Valley  
 Retention Time: 5.42 min  
 Area: 1.07e+06 counts  
 Height: 356965.576 cps  
 Start Time: 5.31 min  
 End Time: 5.68 min



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

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8466(248526001MS)

Lab Code: GEL

GEL Job No (SDG) 10-2202

Matrix: SOIL

GEL Sample ID: 1202061321

Sample Amount 2

Moisture: 12.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0420021.wiff

Date Analyzed: 20-APR-10 22:57

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5190	H
121-14-2	2,4-Dinitrotoluene	5500	H
121-82-4	RDX	5880	H
19406-51-0	4-Amino-2,6-dinitrotoluene	5710	H
2691-41-0	HMX	4820	H
35572-78-2	2-Amino-4,6-dinitrotoluene	5360	H
479-45-8	Tetryl	5010	H
606-20-2	2,6-Dinitrotoluene	4930	H
78-11-5	PETN	5400	H
88-72-2	o-Nitrotoluene	4710	H
98-95-3	Nitrobenzene	4510	H
99-08-1	m-Nitrotoluene	4210	H
99-35-4	1,3,5-Trinitrobenzene	5520	H
99-65-0	m-Dinitrobenzene	5350	H
99-99-0	p-Nitrotoluene	4360	H

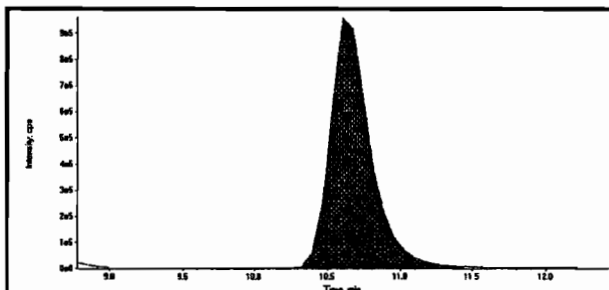
\*Concentration =

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

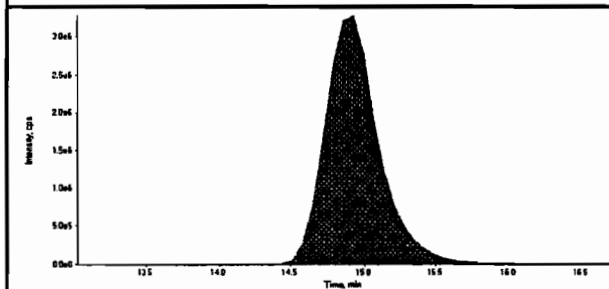
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

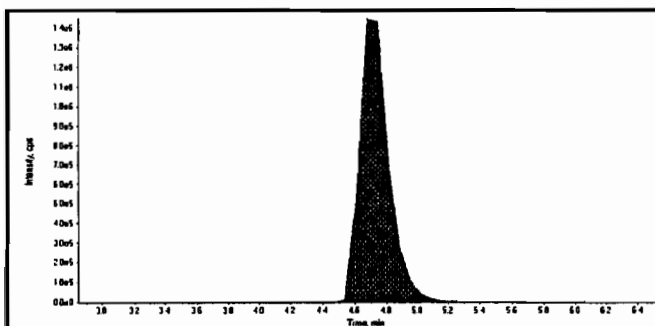
Data File	EXP0420021.wiff	Acquisition Date	4/20/2010 10:57:42 PM
Sample Name	1202061321	Acquisition Method	8321.dam
Batch Dilution Analyst	961033 2 LER	Result Table	042010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



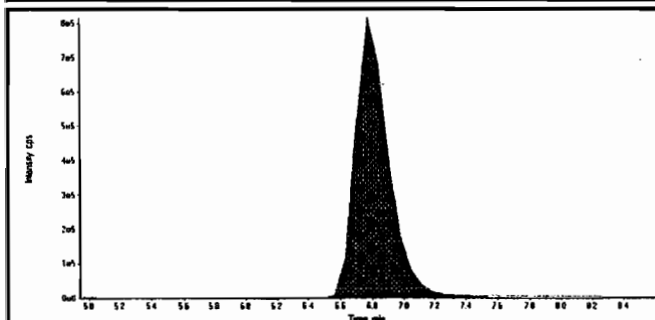
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	18400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	84100000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



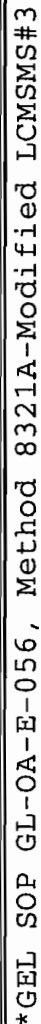
Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.91e+007
Manual Modification	No
Amount:	482. (ng/mL)
% Accuracy:	N/A



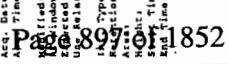
Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.20e+007
Manual Modification	No
Amount:	588. (ng/mL)
% Accuracy:	N/A

*LER* 4/29/10

*Amc* 04/29/10







\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420021.wiff	Acquisition Date	4/20/2010 10:57:42 PM
Sample Name	1202061321	Acquisition Method	8321.dam
Batch Dilution Analyst	961033 2 LER	Result Table	042010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.07
	Actual RT:	9.07
	Area Counts:	1.12e+008
	Manual Modification	No
	Amount:	552. (ng/mL)
	% Accuracy:	N/A

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	5.08e+007
	Manual Modification	No
	Amount:	535. (ng/mL)
	% Accuracy:	N/A

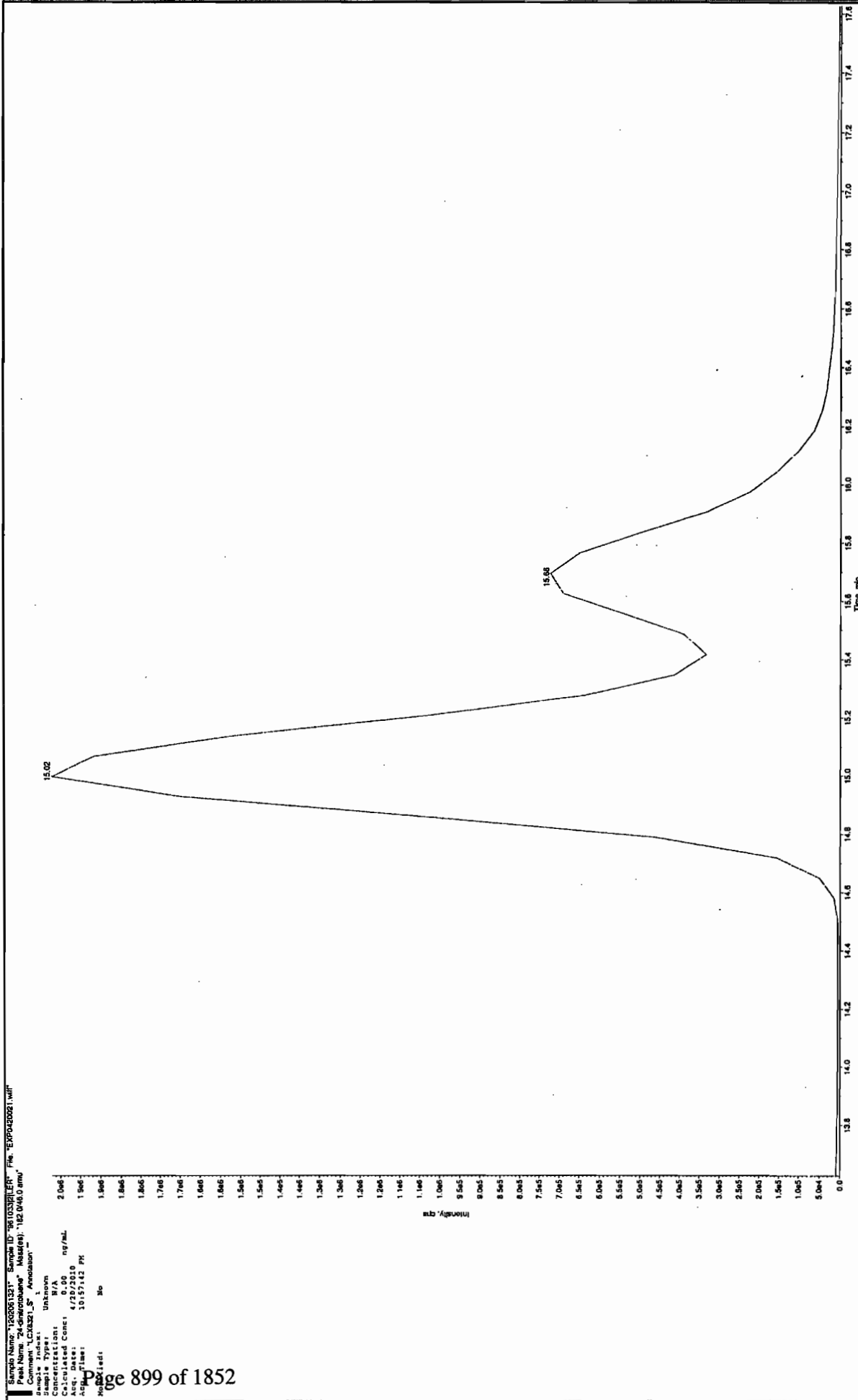
  

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.8
	Actual RT:	10.8
	Area Counts:	3.84e+007
	Manual Modification	No
	Amount:	501. (ng/mL)
	% Accuracy:	N/A

	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	1.93e+008
	Manual Modification	Yes
	Amount:	519. (ng/mL)
	% Accuracy:	N/A

Before Jan 4/28/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420021.wiff	<b>Acquisition Date</b>	4/20/2010 10:57:42 PM
<b>Sample Name</b>	1202061321	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	961033 2 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	11.9
	Area Counts:	1.85e+006
	Manual Modification	No
	Amount:	451. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.2
	Area Counts:	2.68e+007
	Manual Modification	No
	Amount:	237. (ng/mL)
	% Accuracy:	N/A

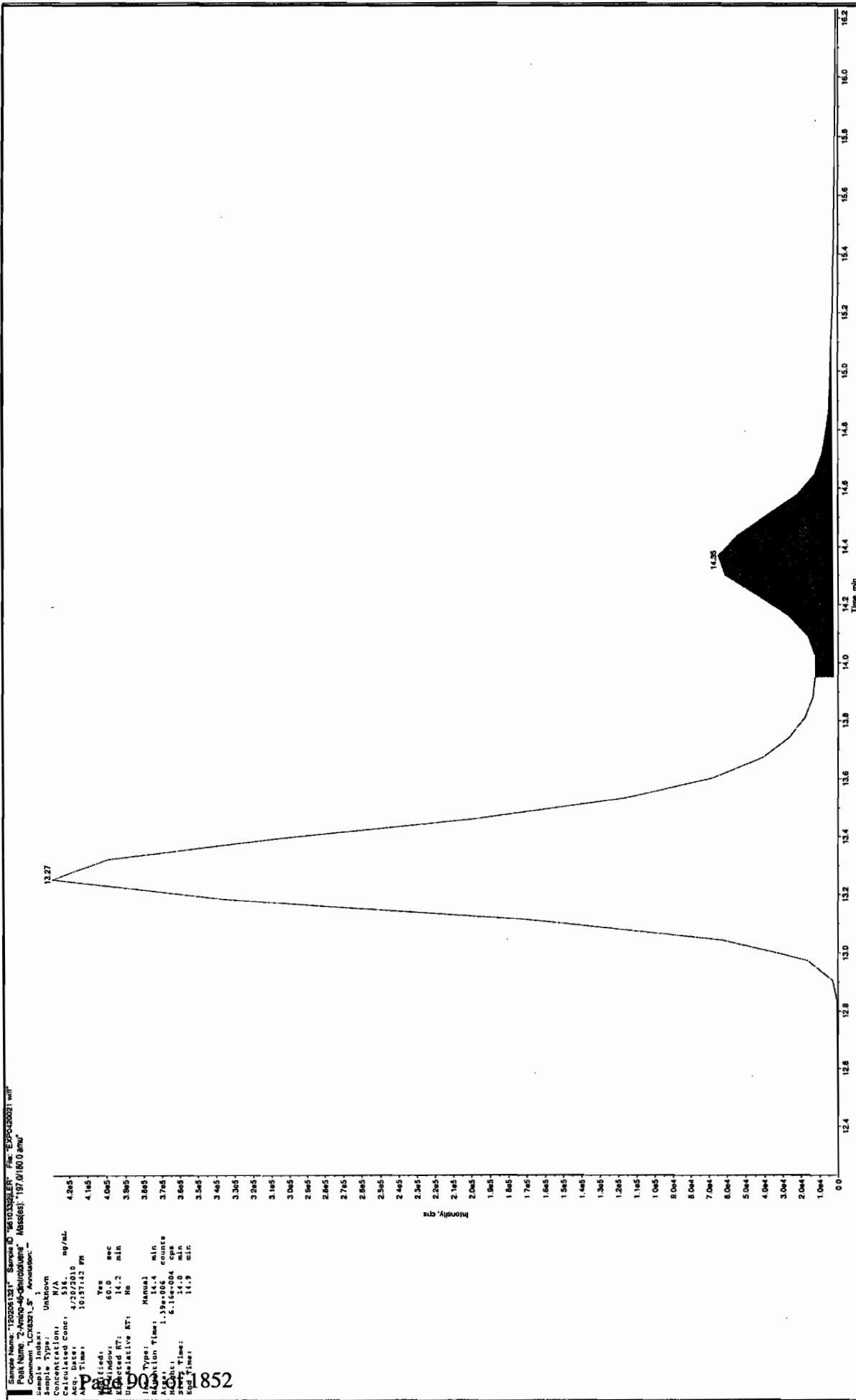
	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	15.0
	Area Counts:	4.61e+007
	Manual Modification	No
	Amount:	493. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	15.7
	Area Counts:	1.90e+007
	Manual Modification	Yes
	Amount:	550. (ng/mL)
	% Accuracy:	N/A



after Dec 4/28/10

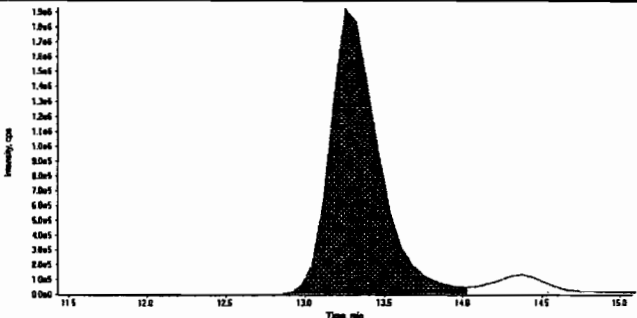


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

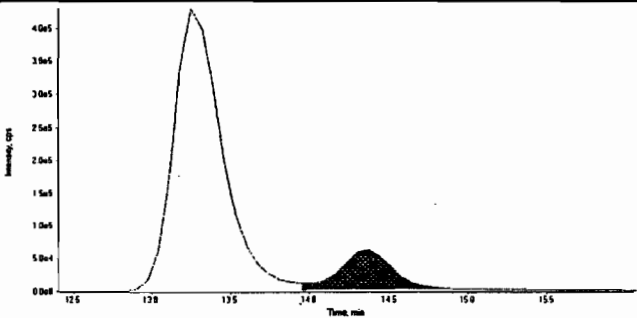
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420021.wiff	<b>Acquisition Date</b>	4/20/2010 10:57:42 PM
<b>Sample Name</b>	1202061321	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	961033 2 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

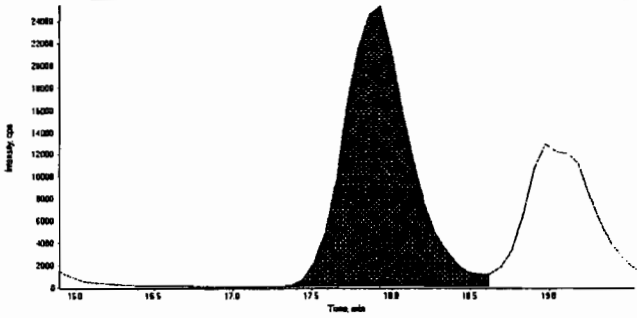
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	4.10e+007
	Manual Modification	No
	Amount:	571. (ng/mL)
	% Accuracy:	N/A

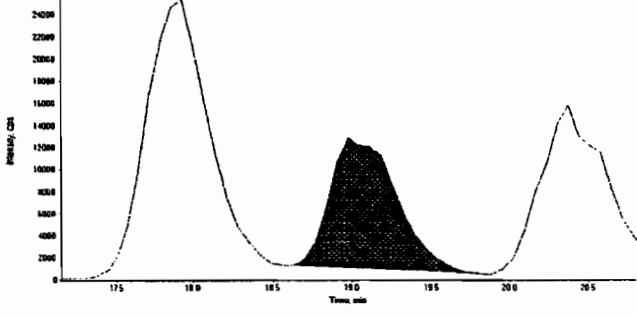
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.4
	Area Counts:	1.39e+006
	Manual Modification	Yes
	Amount:	536. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	17.9
	Area Counts:	7.30e+005
	Manual Modification	No
	Amount:	471. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	19.0
	Area Counts:	3.48e+005
	Manual Modification	No
	Amount:	436. (ng/mL)
	% Accuracy:	N/A



Before 8/29/10

Sample Name: 120001201 Sample ID: 98103501 File: EXP042001.wit

Peak Name: "PEP" Mass(es): 361.182.0 amu

Comment: "LCMS1.L" Annotation: 1

Sample Type: Unknown

Concentration: 552. ng/mL

Acq. Date: 4/20/2010

Acq. Time: 10:57:02 PM

Method: Me

Integrator: IncoIntegrator - 10A

Peak Width: 1.00 sec

Peak Width: 3.00 points

Peak Width: 60.0 sec

Peak Width: 10.0 min

Peak Width: 1.00 min

Peak Width: 1.00 min

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Peak Width: 1.00 min

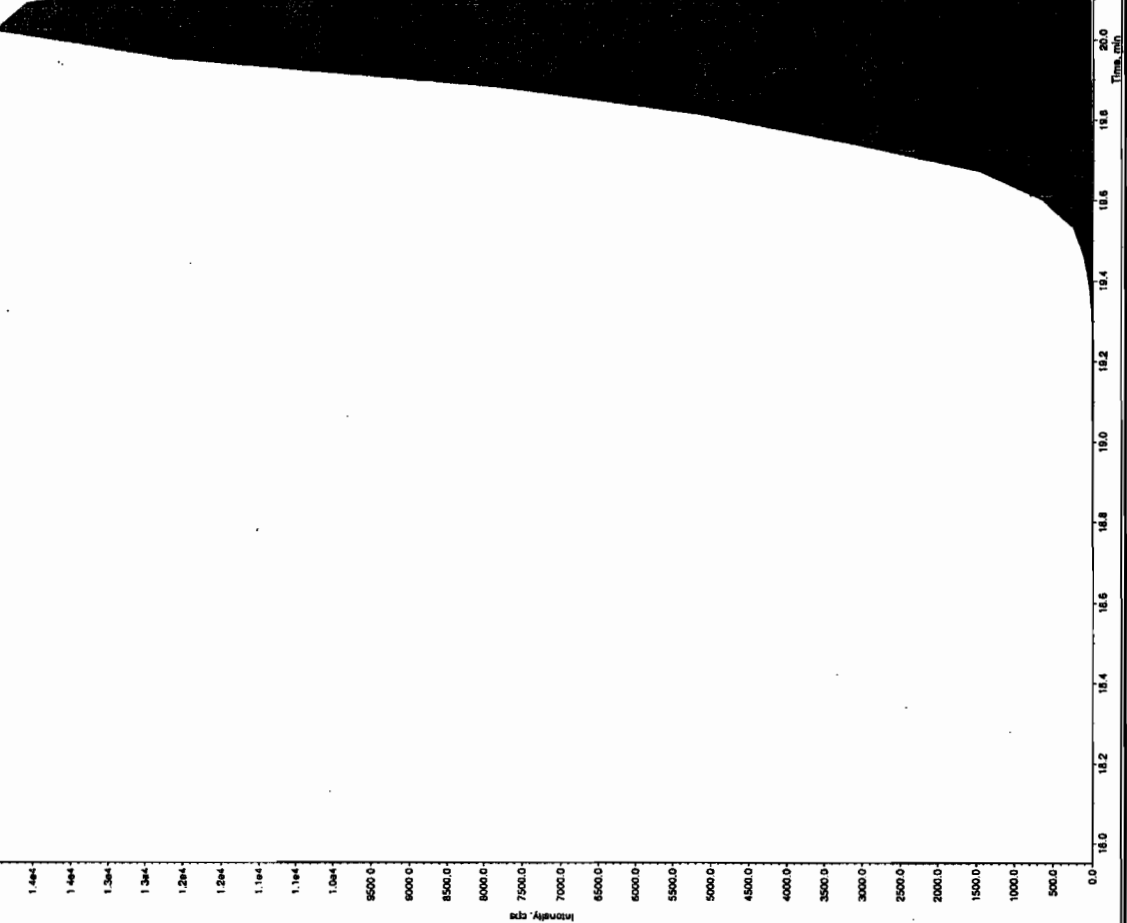
Peak Width: 1.00 min

Peak Width: 1.00 min

Peak Width: 1.00 min

Peak Width: 1.00 min

20.04



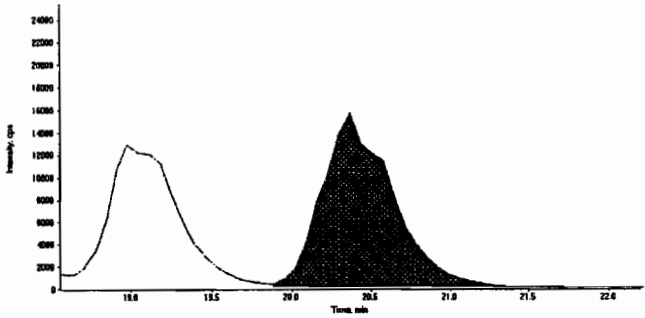
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

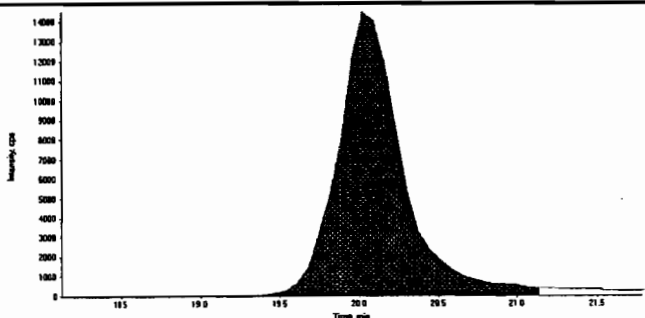


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420021.wiff	Acquisition Date	4/20/2010 10:57:42 PM
Sample Name	1202061321	Acquisition Method	8321.dam
Batch Dilution Analyst	961033 2 LER	Result Table	042010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.4
	Actual RT:	20.4
	Area Counts:	4.85e+005
	Manual Modification	No
	Amount:	421. (ng/mL)
	% Accuracy:	N/A

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	20.0
	Actual RT:	20.0
	Area Counts:	4.13e+005
	Manual Modification	Yes
	Amount:	540. (ng/mL)
	% Accuracy:	N/A

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8466(248526001MS)

Lab Code: GEL

GEL Job No (SDG) 10-2202

Matrix: SOIL

GEL Sample ID: 1202061321

Sample Amount 2

Moisture: 12.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090069.wiff

Date Analyzed: 10-APR-10 01:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	8040	
59229-75-3	2,6-Diamino-4-nitrotoluene	4340	
618-87-1	3,5-Dinitroaniline	4040	
6629-29-4	2,4-Diamino-6-nitrotoluene	4070	
78-30-8	tris(o-cresyl) phosphate	5170	

\*Concentration =

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

Before Scan 4/12/10

Sample Name: "1202061321" Sample ID: "96103321ER" File: "EXS04090068.wif"

Peak Name: "LCX832125" Mass(es): "182.0465.0 amu"

Comment: "LCX832125" Annotation: "

Sample Index: 1

Sample Type: Unknown

Concentration: 427. ng/mL

Acq. Date: 4/10/2010

Acq. Time: 1:02:51 AM

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: 8.11 min

Use Relative RT: No

Int. Type: Valley

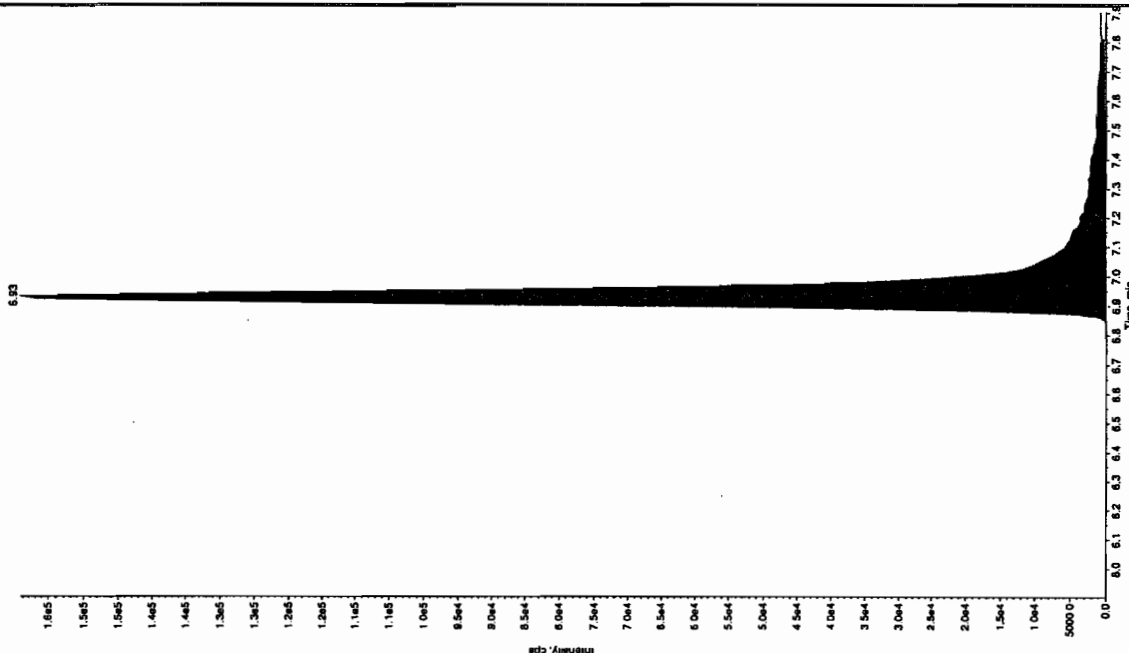
Retention Time: 8.12 min

Area: 3.05e+006 counts

Height: 678054.382 cps

Start Time: 8.05 min

End Time: 8.33 min



After Scan 4/12/10

Sample Name: "1202061321" Sample ID: "96103321ER" File: "EXS04090068.wif"

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

Comment: "LCX832125" Annotation: "

Sample Index: 1

Sample Type: Unknown

Concentration: 804. ng/mL

Acq. Date: 4/10/2010

Acq. Time: 1:02:51 AM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 2500.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 6.90 min

Use Relative RT: No

Int. Type: Valley

Retention Time: 6.93 min

Area: 7.21e+005 counts

Height: 159381.454 cps

Start Time: 6.83 min

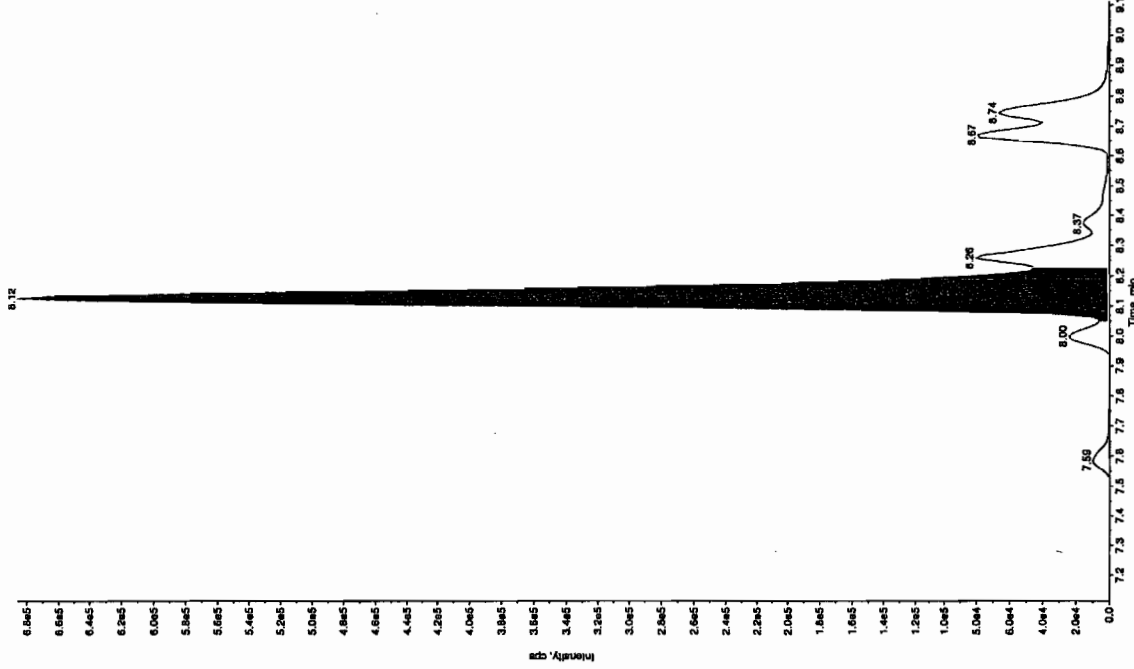
End Time: 7.81 min

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

after 8/12/10

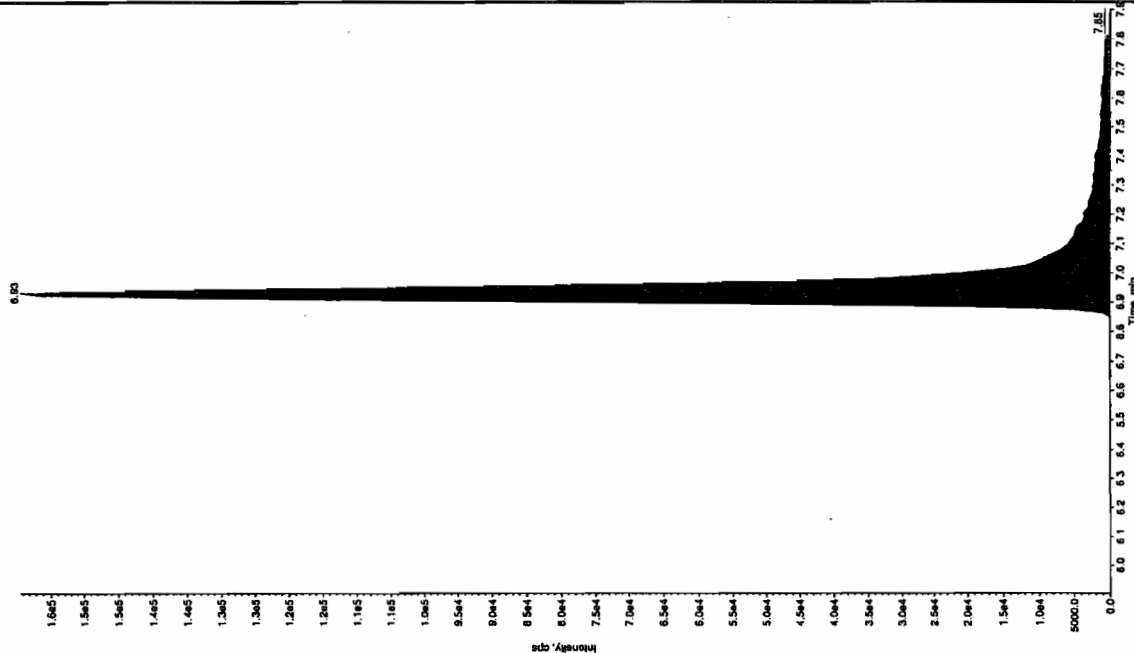
Sample Name: "1202061321" Sample ID: "961033212L" File: "EX504080056.wif"  
Peak Name: "35-Dinitroaniline" Mass(es): "182.0460 amu"  
Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 404. ng/mL  
Acq. Date: 4/10/2010  
Acq. Time: 1:02:51 AM  
Modified: Yes  
RT Window: 15.0 sec  
Expected RT: 8.11 min  
Use Relative RT: No  
Int. Type: Manual  
Retention Time: 8.11 min  
Peak Height: 2.89e+005 counts  
Peak Area: 687685.645 cps  
Start Time: 8.05 min  
End Time: 8.23 min



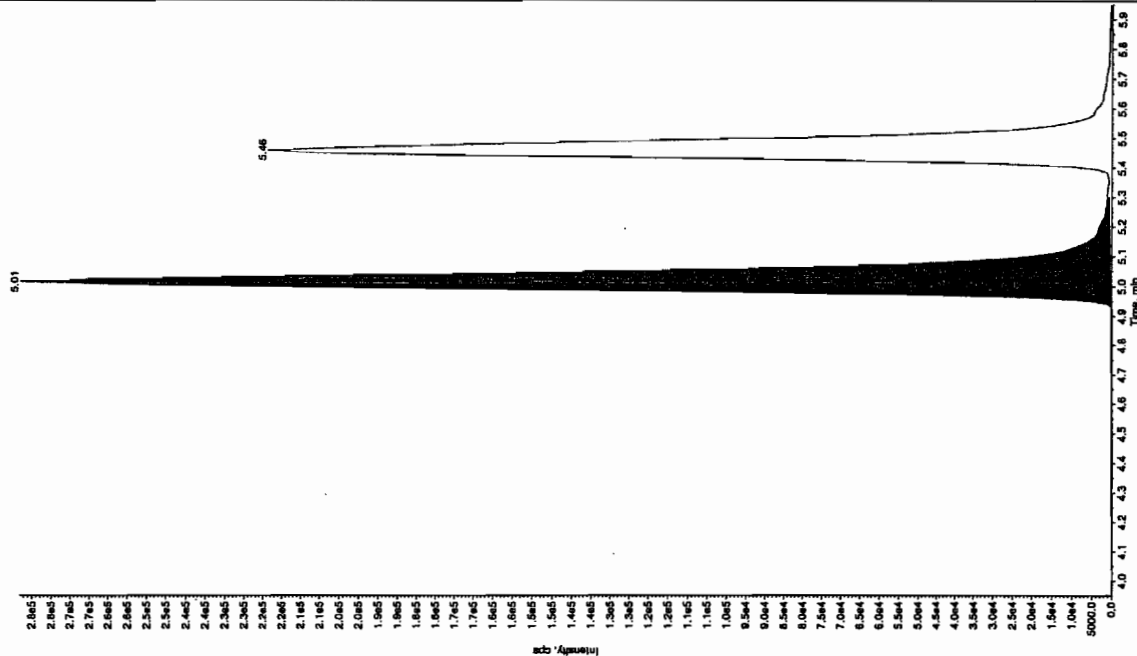
Sample Name: "1202061321" Sample ID: "961033212L" File: "EX504080056.wif"  
Peak Name: "35-Dinitroaniline" Mass(es): "182.0460 amu"  
Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 804. ng/mL  
Acq. Date: 4/10/2010  
Acq. Time: 1:02:51 AM  
Modified: No  
RT Window: 30.0 sec  
Expected RT: 8.90 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 6.93 min  
Peak Height: 7.71e+005 counts  
Peak Area: 159381.454 cps  
Start Time: 6.83 min  
End Time: 7.81 min



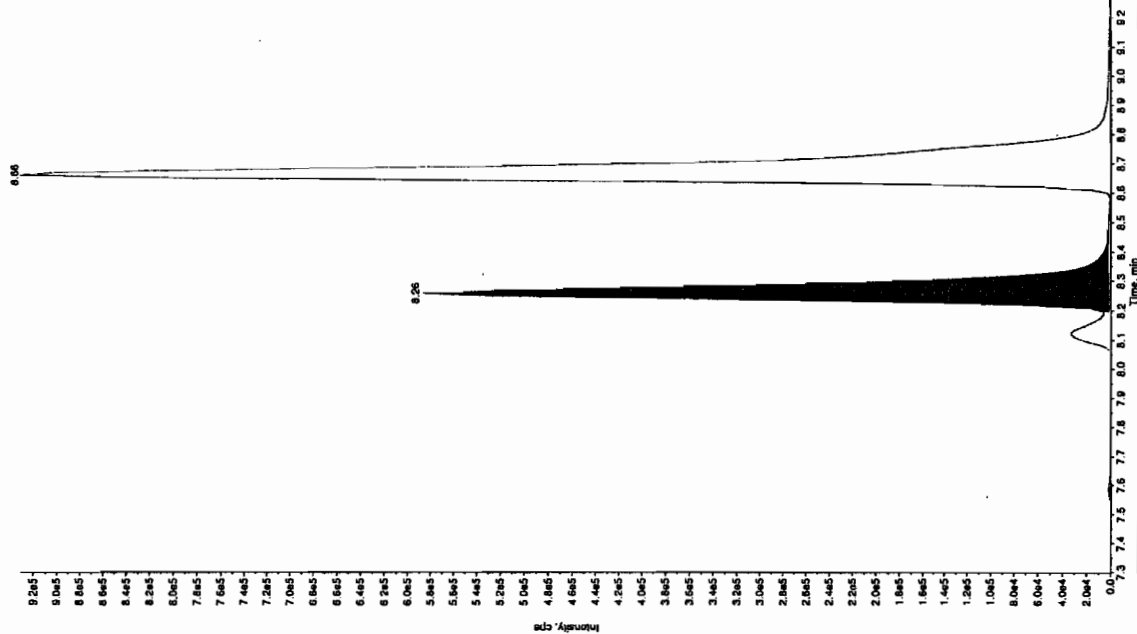
Sample Name: "1202061321" Sample ID: "9610332121" File: "EXS04090069.wif"  
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/168.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 434.  
 Acq. Date: 4/10/2010  
 Acq. Time: 1:02:51 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 RT Window: 30.0 sec  
 Expected RT: 4.95 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.01 min  
 Area: 1.21e+006 counts  
 Height: 282709.717 cps  
 Start Time: 4.92 min  
 End Time: 5.30 min



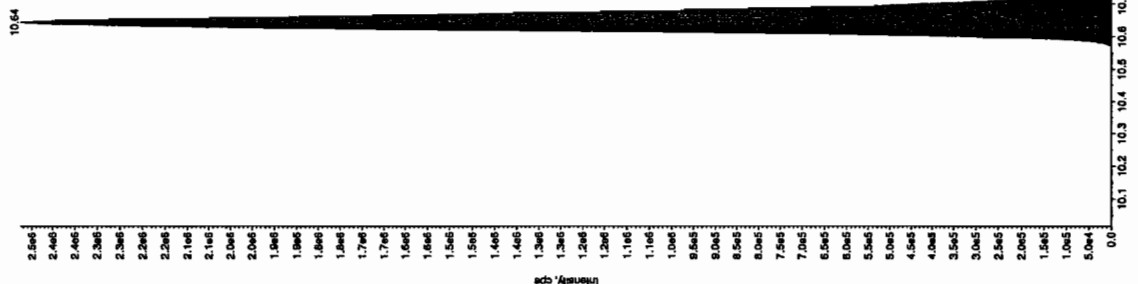
Sample Name: "1202061321" Sample ID: "9610332121" File: "EXS04090069.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 241.  
 Acq. Date: 4/10/2010  
 Acq. Time: 1:02:51 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1480.00 cps  
 Min. Peak Width: 3.00 sec  
 Smoothing Width: 30.0 points  
 RT Window: 30.0 sec  
 Expected RT: 8.30 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.26 min  
 Area: 2.16e+006 counts  
 Height: 585498.718 cps  
 Start Time: 8.20 min  
 End Time: 8.50 min



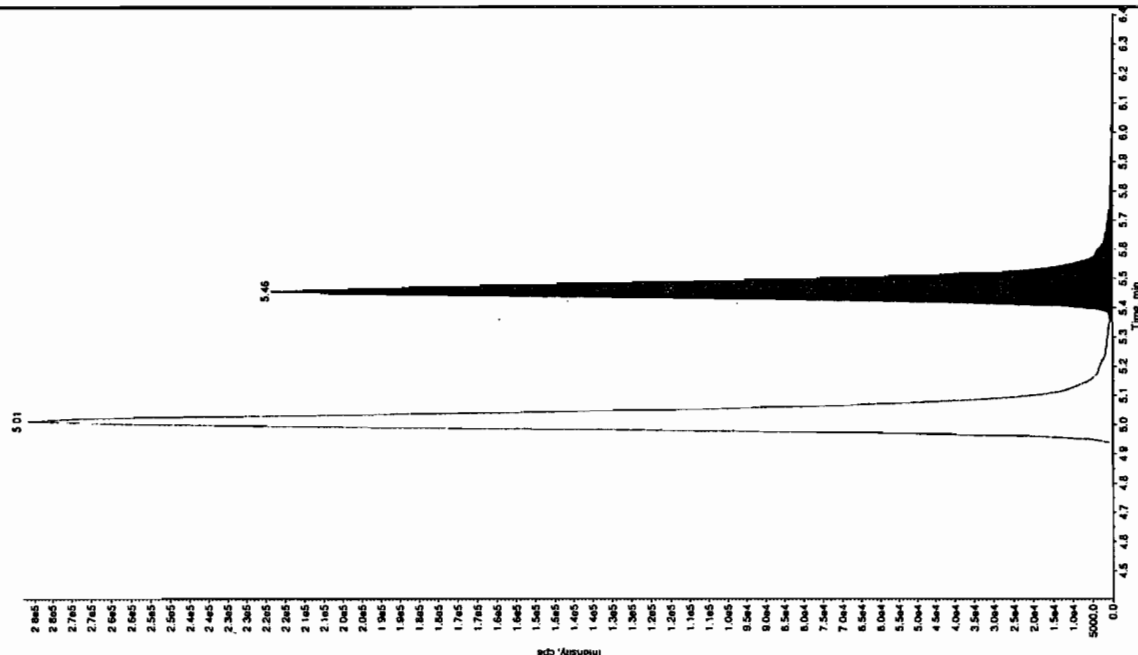
Sample Name: "1202051321" Sample ID: "96103321" File: "EXS04090069.wif"  
 Peak Name: "1202051321" Mass(es): "365.191.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 517.00 ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 1:02:51 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: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.6 min  
 Area: 9.85e+006 counts  
 Height: 2474429.199 cps  
 Start Time: 10.5 min  
 End Time: 11.0 min



Sample Name: "1202051321" Sample ID: "96103321" File: "EXS04090069.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 2765.00 ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 1:02:51 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.40 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.46 min  
 Area: 9.15e+005 counts  
 Height: 218390.884 cps  
 Start Time: 5.33 min  
 End Time: 5.58 min





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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8466(248526001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-2202

Matrix: SOIL

GEL Sample ID: 1202061322

Sample Amount 2

Moisture: 12.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0420022.wiff

Date Analyzed: 20-APR-10 23:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4810	H
121-14-2	2,4-Dinitrotoluene	5010	H
121-82-4	RDX	4980	H
19406-51-0	4-Amino-2,6-dinitrotoluene	5680	H
2691-41-0	HMX	5020	H
35572-78-2	2-Amino-4,6-dinitrotoluene	5350	H
479-45-8	Tetryl	4160	H
606-20-2	2,6-Dinitrotoluene	4920	H
78-11-5	PETN	5020	H
88-72-2	o-Nitrotoluene	4680	H
98-95-3	Nitrobenzene	4660	H
99-08-1	m-Nitrotoluene	4500	H
99-35-4	1,3,5-Trinitrobenzene	5010	H
99-65-0	m-Dinitrobenzene	4930	H
99-99-0	p-Nitrotoluene	4640	H

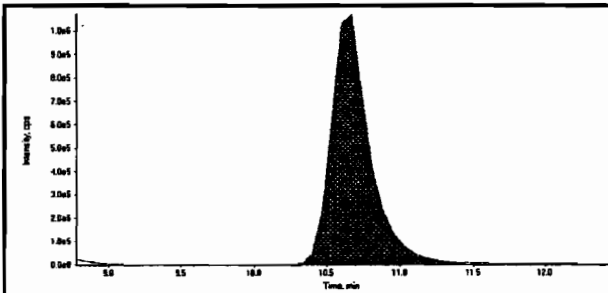
\*Concentration =

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

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

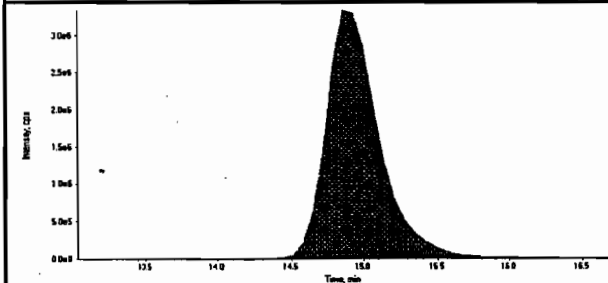
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420022.wiff	Acquisition Date	4/20/2010 11:23:37 PM
Sample Name	1202061322	Acquisition Method	8321.dam
Batch Dilution Analyst	961033 2 LER	Result Table	042010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



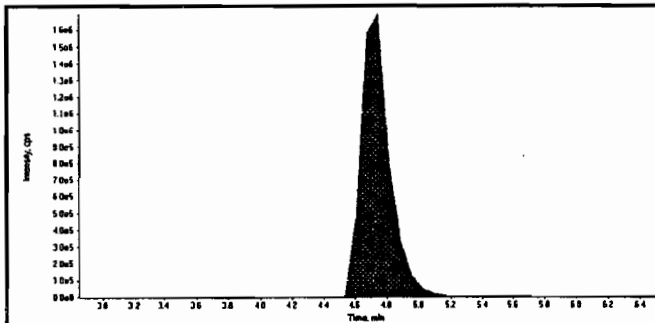
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	19900000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

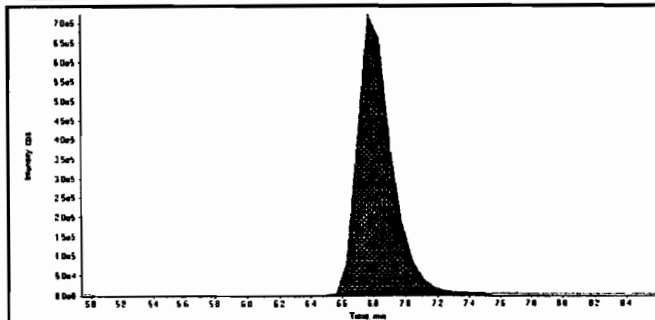


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	85300000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	2.14e+007
Manual Modification	No
Amount:	502. (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.09e+007
Manual Modification	No
Amount:	498. (ng/mL)
% Accuracy:	N/A

*San 4/29/10*

*Hime 4/29/10*

Before Jan 4/28/10

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

Sample Name: 1208041327 Sample ID: 98103391 EPR File: E2P0400022.wif

Peak Name: 248 Trichlorobenzene Mass(es): 227.1258.8 amu

Comment: LCM8321\_S Acquisition: 1

Sample Index: 1

Concentration: 7.0e5

Acq. Date: 4/22/2010

Acq. Time: 11:23:17 PM

Concentration: 510.0

Acq. Date: 4/22/2010

Acq. Time: 11:23:17 PM

Concentration: 510.0

Acq. Date: 4/22/2010

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Concentration: 510.0

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Concentration: 510.0

Acq. Date: 4/22/2010

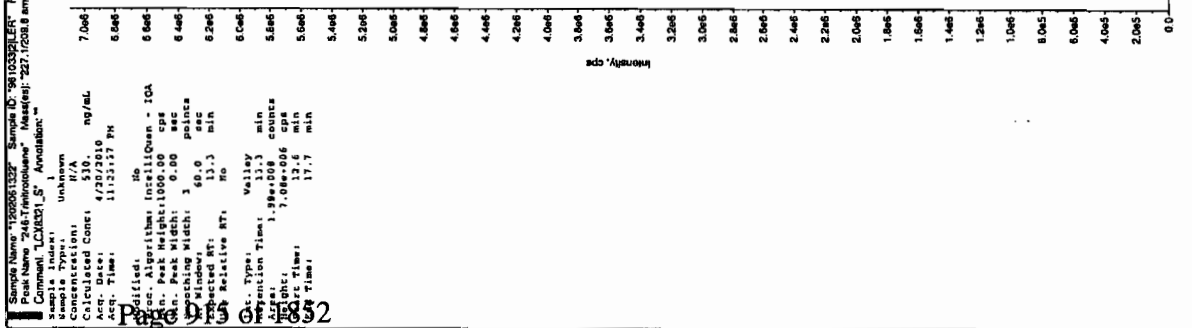
Acq. Time: 11:23:17 PM

Concentration: 510.0

Acq. Date: 4/22/2010

Acq. Time: 11:23:17 PM

Concentration: 510.0



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

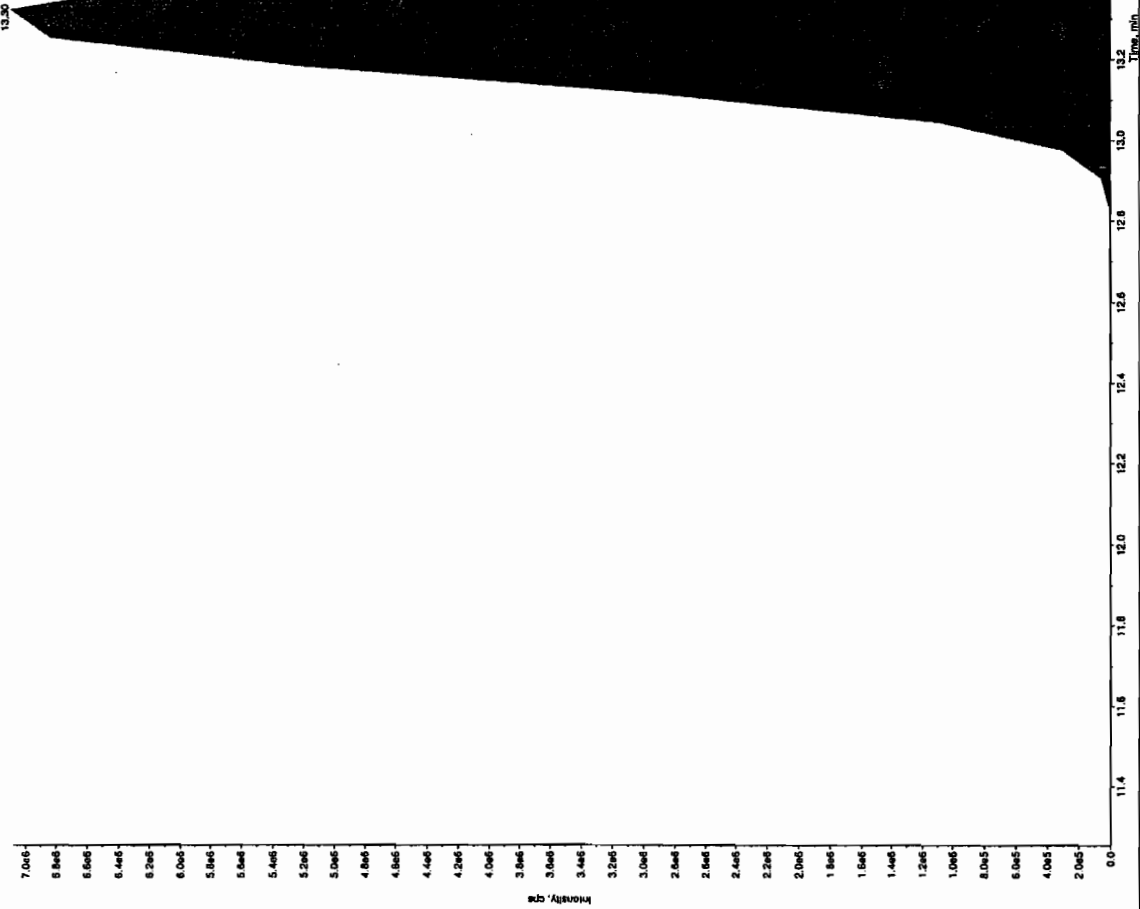
after Jan 4/28/00

Sample Name: "1200051327" Sample ID: "81033911" File: "EXP04120022.wif"

Peak Name: "246-Tributylamine" Mass(es): "227 1209.8 amu"

Comment: "LCMS31\_5" Annotation: --

Sample Index: 1  
 Concentration: 7006  
 Calculated Conc: 481. ng/mL  
 Acq. Date: 4/29/2010  
 Acq. Time: 11:23:17 PM  
 Modified: Yes  
 Sample Window: 60.0 sec  
 Expected RT: 13.3 min  
 Relative RT: No  
 Data Type: Manual  
 Injection Time: 13.3 min  
 Sample Concentration: 7.14e+006 cps  
 Light: 13.8 min  
 End Time: 14.3 min



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420022.wiff	<b>Acquisition Date</b>	4/20/2010 11:23:37 PM
<b>Sample Name</b>	1202061322	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	961033 2 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.07
	Actual RT:	9.07
	Area Counts:	1.10e+008
	Manual Modification	No
	Amount:	501. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.8
	Area Counts:	5.05e+007
	Manual Modification	No
	Amount:	493. (ng/mL)
	% Accuracy:	N/A

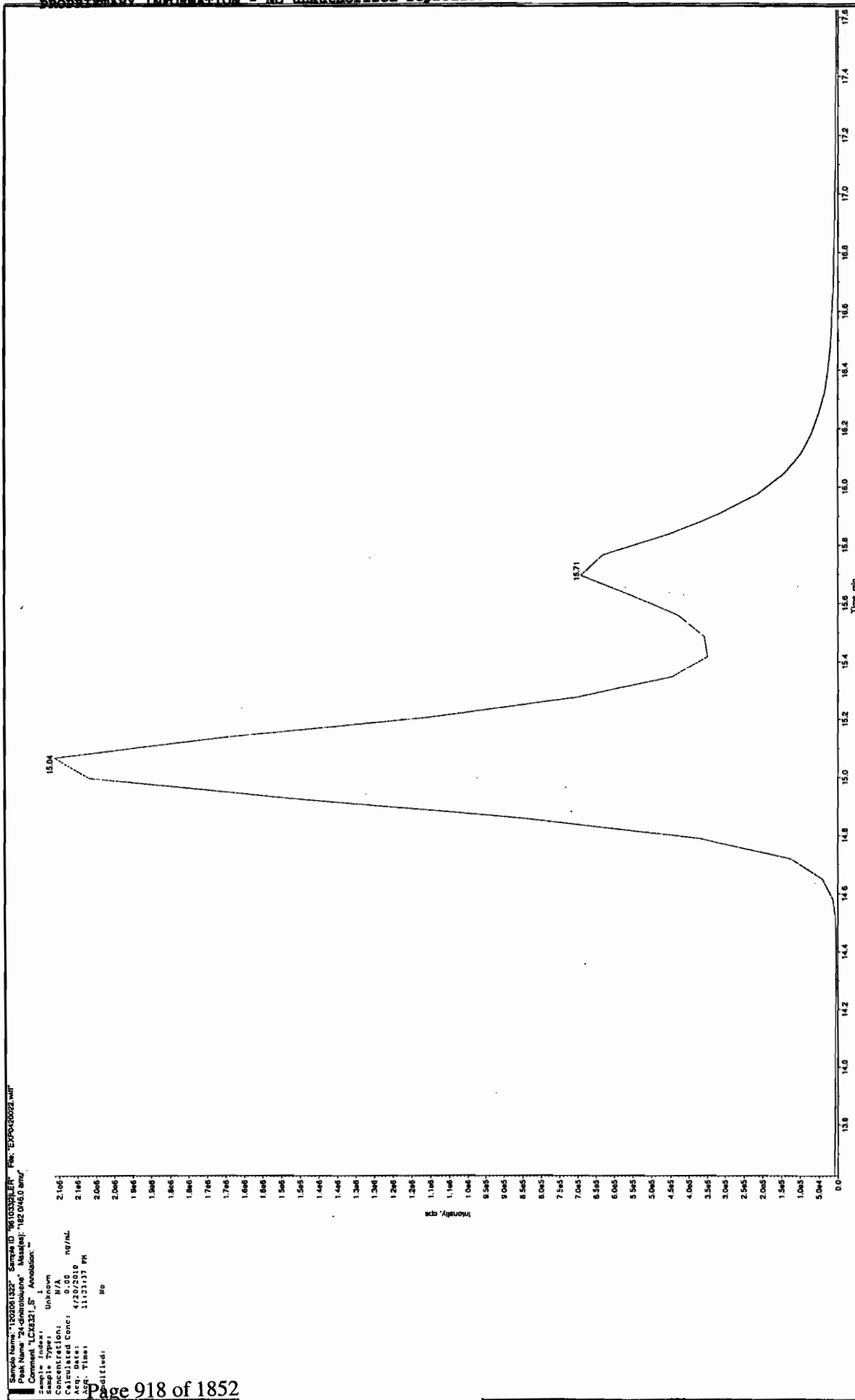
  

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.8
	Actual RT:	10.9
	Area Counts:	3.44e+007
	Manual Modification	No
	Amount:	416. (ng/mL)
	% Accuracy:	N/A

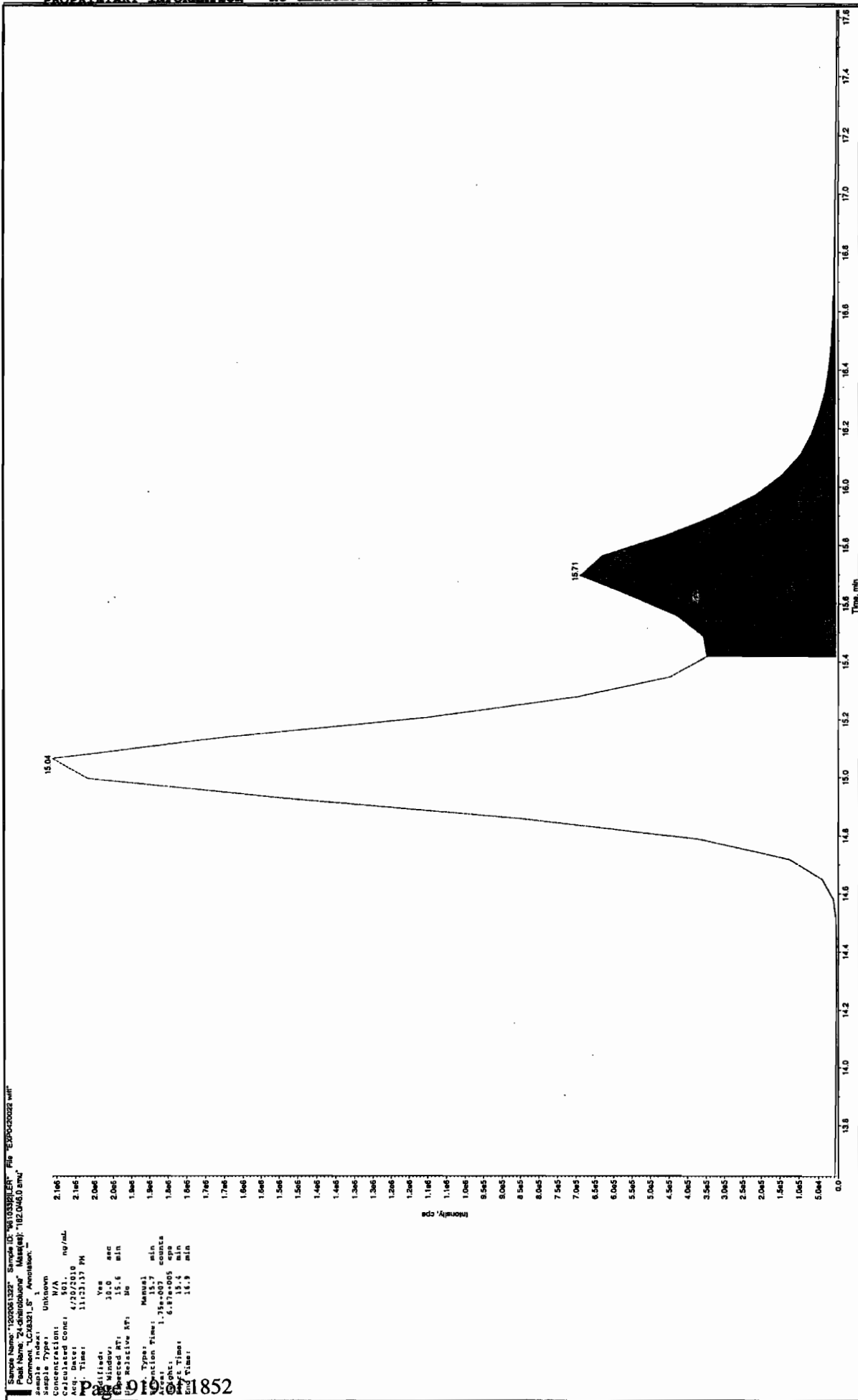
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	1.86e+008
	Manual Modification	Yes
	Amount:	481. (ng/mL)
	% Accuracy:	N/A

Before Jan 4/28/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after den 4/28/10



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420022.wiff	<b>Acquisition Date</b>	4/20/2010 11:23:37 PM
<b>Sample Name</b>	1202061322	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	961033 2 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	11.9
	Area Counts:	2.07e+006
	Manual Modification	No
	Amount:	466. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.2
	Area Counts:	2.94e+007
	Manual Modification	No
	Amount:	256. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	15.1
	Area Counts:	4.67e+007
	Manual Modification	No
	Amount:	492. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	15.7
	Area Counts:	1.75e+007
	Manual Modification	Yes
	Amount:	501. (ng/mL)
	% Accuracy:	N/A



Before Jan 4/28/10

Sample Name: "120206122" Sample ID: "95103321ER" File: "EXP000022.wif"  
 Peak Name: "2-Amino-4-ethoxyphenol" Mass(es): 197.07180 0 g/mol

Sample Index: 1

Sample Type: Unknown

Concentration: 3.6e5

Acq. Date: 4/28/2010

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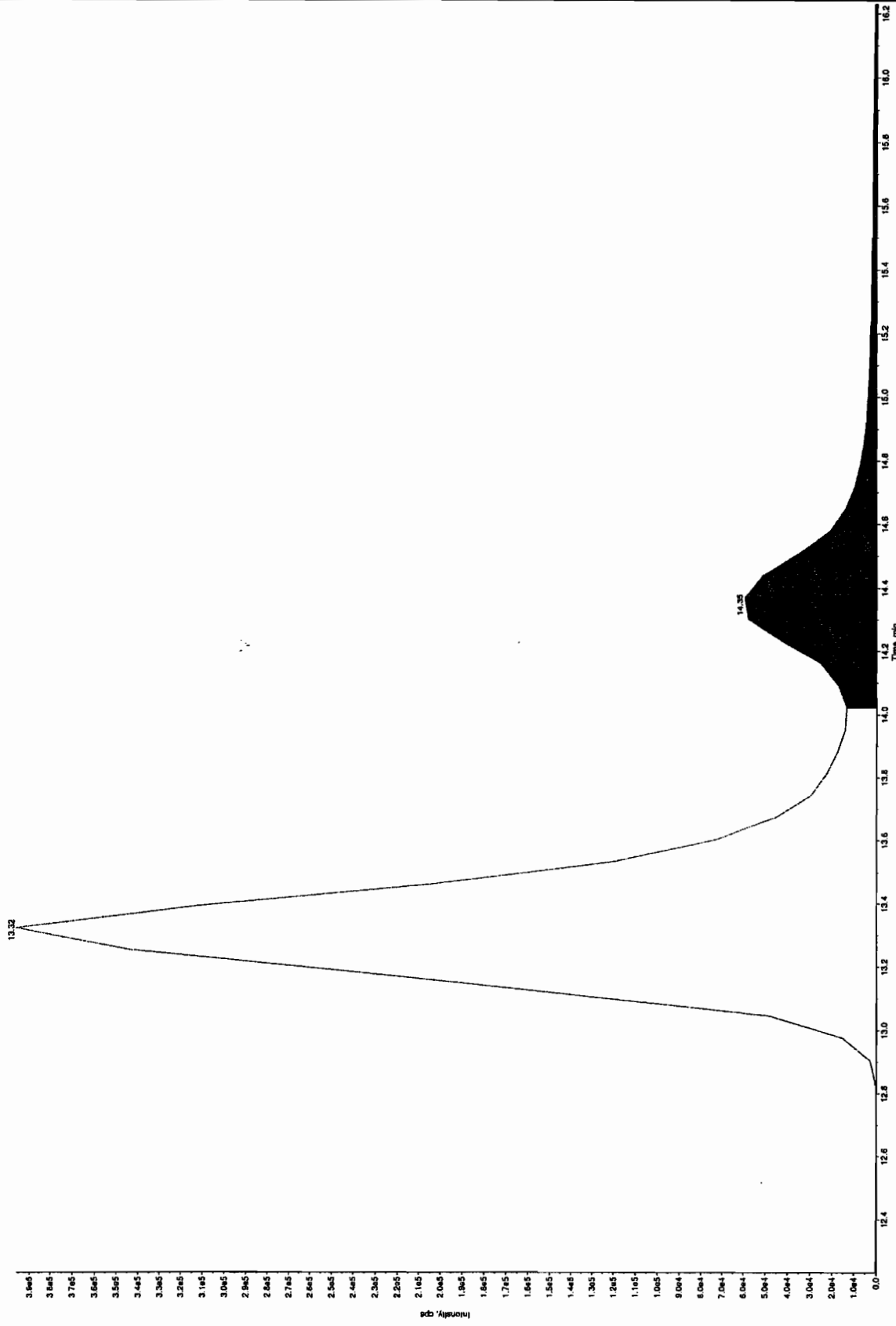
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Acq. Time: 11:23:37 PM



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Dec. 4/28/10

Sample Name: "12000122" Sample ID: "61035114" File: "EPO-20022.mlf"  
 Peak Name: "Peak-1" Method: "MS/MS" Mass(es): "157.0160 amu"

Sample Index: "1" Acquisition: "1"

Sample Type: "Unknown"

Concentration: "N/A" ng/mL

Acquisition Date: "4/20/2010"

Acquisition Time: "11:21:37 PM"

Acquisition Time: "11:21:37 PM"

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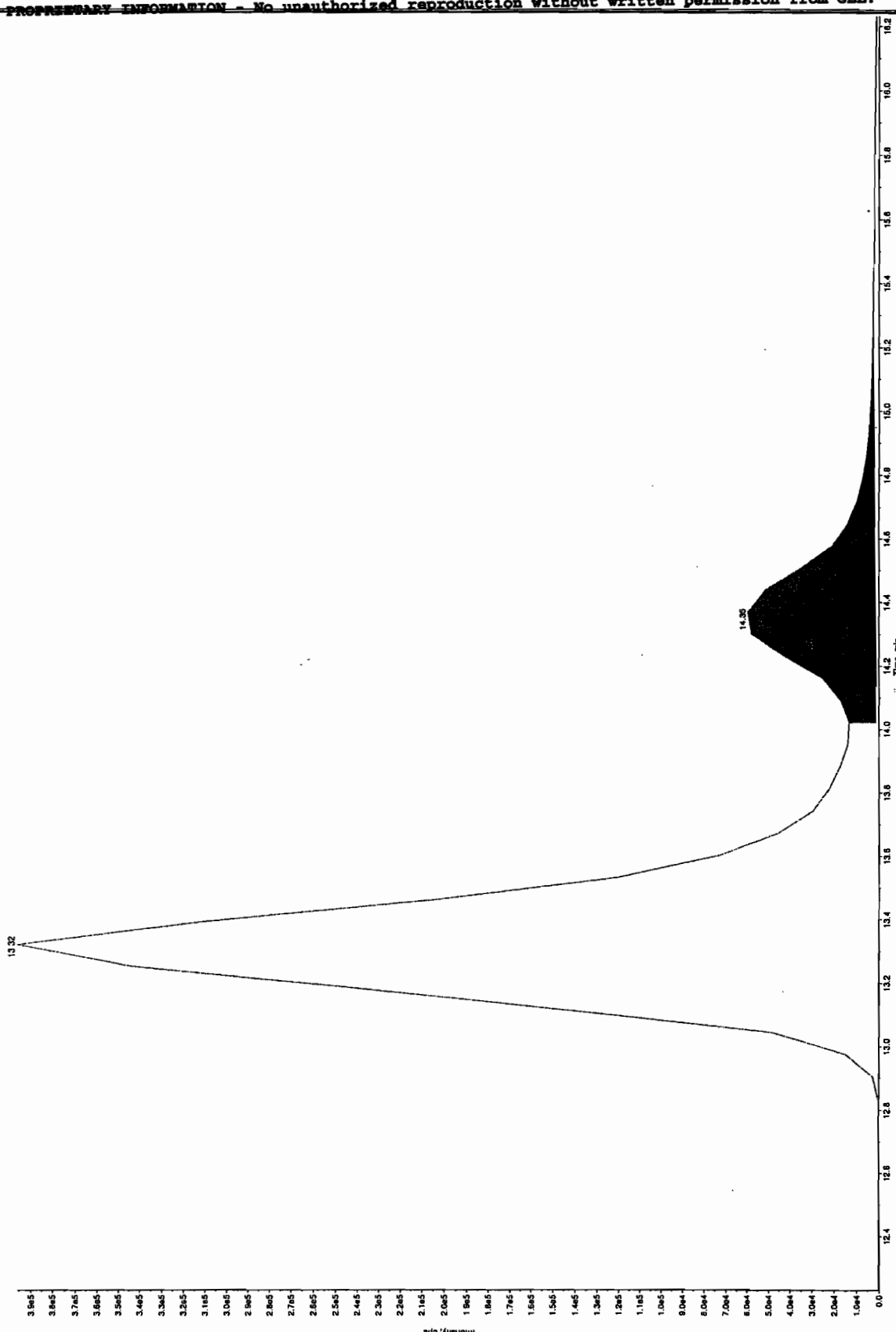
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Acquisition Time: "11:21:37 PM"



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420022.wiff	<b>Acquisition Date</b>	4/20/2010 11:23:37 PM
<b>Sample Name</b>	1202061322	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	961033 2 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	4.14e+007
	Manual Modification	No
	Amount:	568. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.3
	Area Counts:	1.41e+006
	Manual Modification	Yes
	Amount:	535. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	17.9
	Area Counts:	7.36e+005
	Manual Modification	No
	Amount:	468. (ng/mL)
	% Accuracy:	N/A

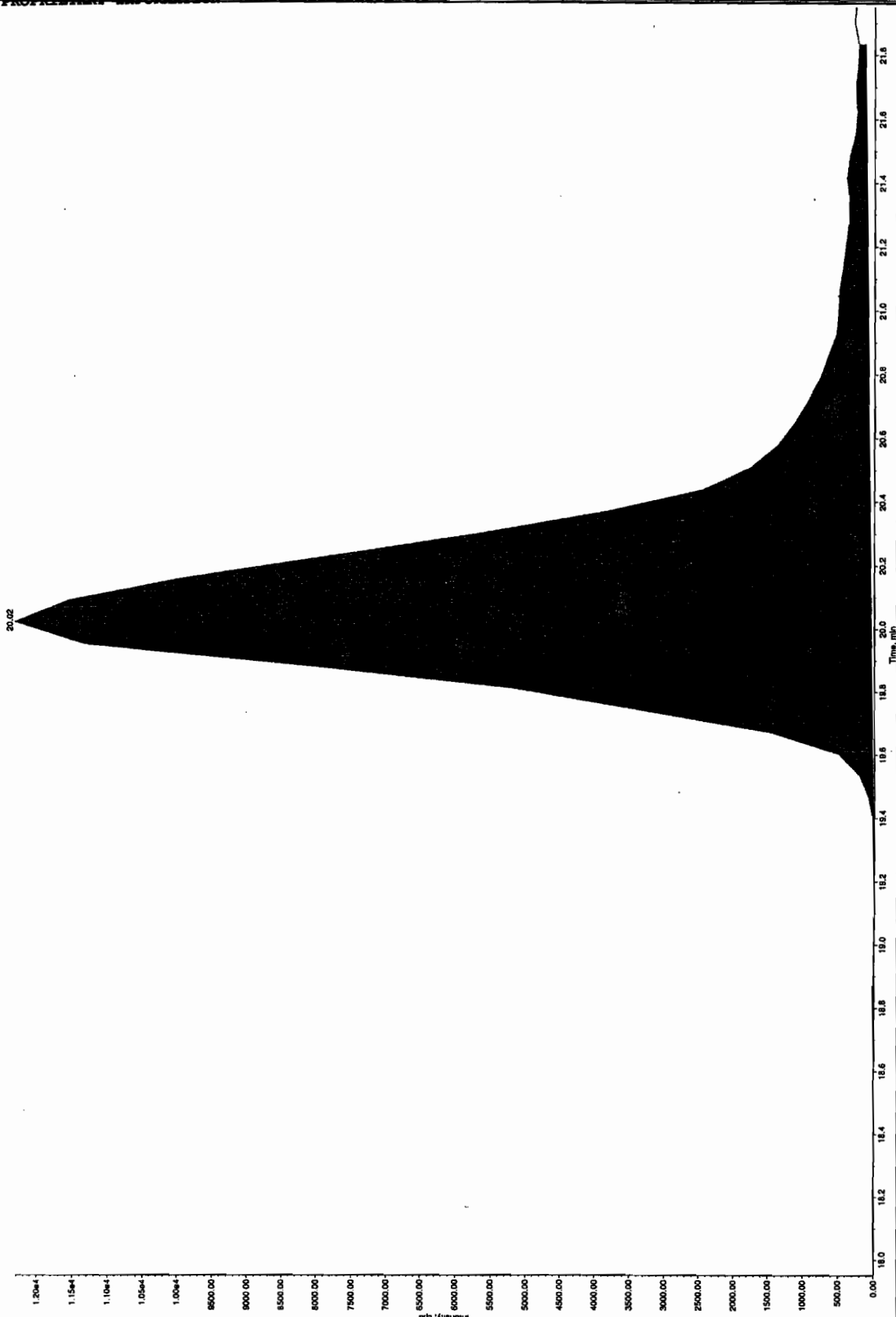
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	19.0
	Area Counts:	3.77e+005
	Manual Modification	No
	Amount:	464. (ng/mL)
	% Accuracy:	N/A

Before den 4/19/10

Sample Name: 102001327 - Sample ID: 9810201327.F - File: 9810201327.wif  
 Peak Name: RT: 18.56(6) - 20.11(2) min  
 Concentration: 1.0044  
 Sample Index: 1

Sample Type: Unknown  
 Concentration: 1.0044  
 Acq. Date: 4/20/2010  
 Acq. Time: 11:22:37 PM

Modified: No  
 Gross Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 100.00 cps  
 Min. Peak Width: 0.00 sec  
 Retention Width: 1.00 sec  
 Retention RT: 20.0 min  
 Use Relative RT: No  
 Peak Type: Valley  
 Retention Time: 20.0 min  
 Height: 3.88e-005 counts  
 Area: 1.23e-004 cps  
 Peak Time: 18.56 min  
 Peak Width: 21.8 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after dea-419/10

Sample Name: 1202051227 - Sample ID: 98103391ER - File: E5F0420022.wif

Peak Name: "PETN" Mass(es): 361.062.0 amu

Comment: "LCX8321\_5" - Analysis: -

Sample Type: Unknown

Concentration: 1.2064

Calculated Conc: 1.2064

Acq. Rate: 49752.0

Time: 11:22:37 PM

Modified: Yes

Acq. Window: 60.0 sec

Integration: 20.0 min

Relative RT: No

Type: Manual

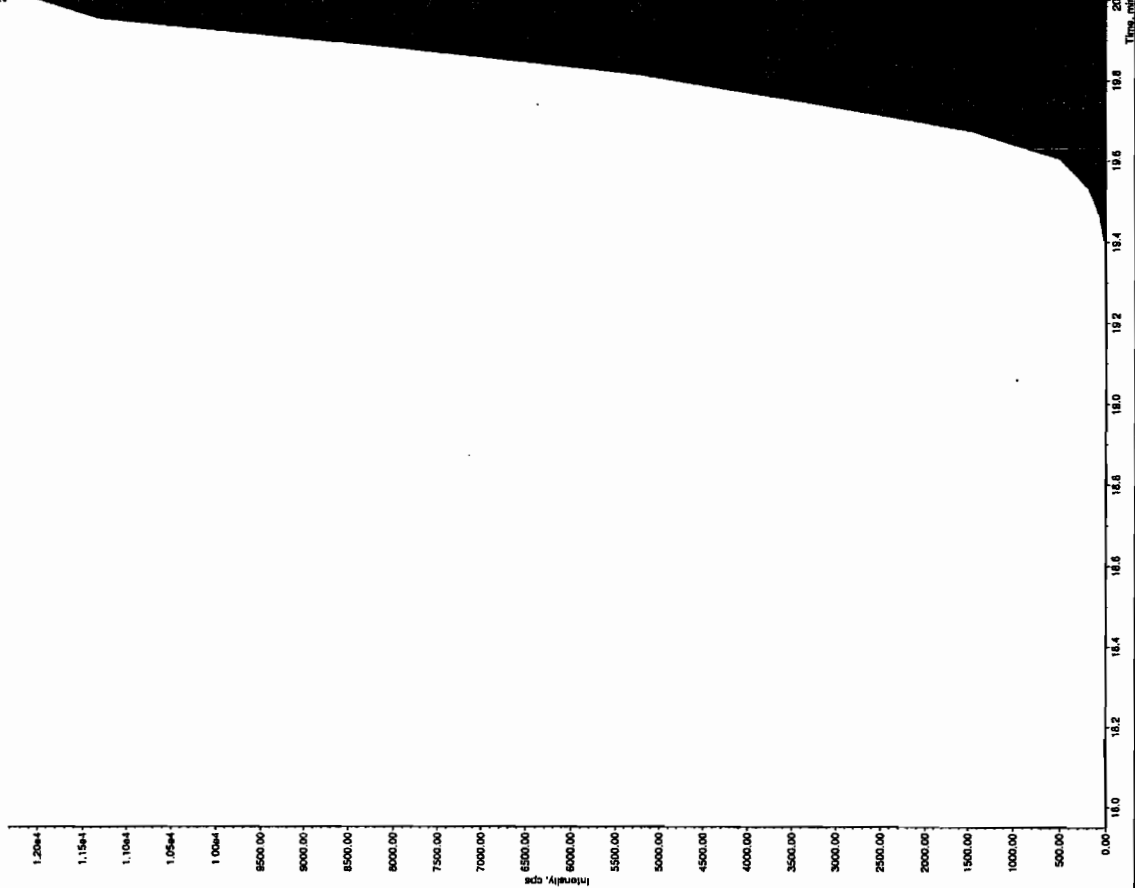
Integration Time: 3.89e+005 counts

Height: 1.13e+004 cps

Start Time: 19.3 min

End Time: 21.3 min

20.02



Peak 1: 20.02 min, 1.2064

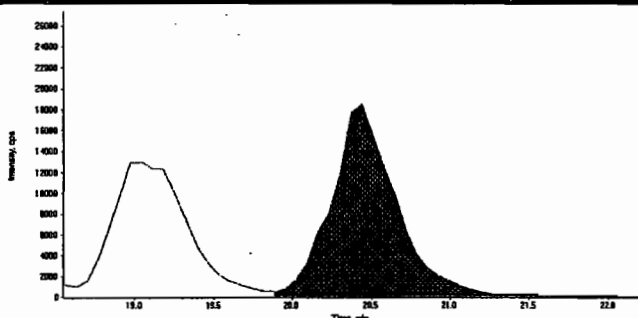
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

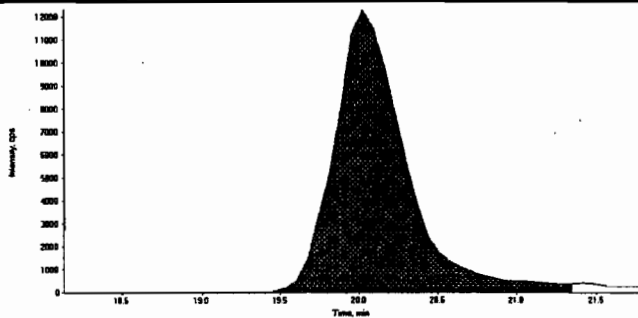
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420022.wiff	<b>Acquisition Date</b>	4/20/2010 11:23:37 PM
<b>Sample Name</b>	1202061322	<b>Acquisition Method</b>	8321.dam
<b>Batch/Dilution/Analyst</b>	961033 2 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	20.4
	<b>Area Counts:</b>	5.27e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	450. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	20.0
	<b>Area Counts:</b>	3.89e+005
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	502. (ng/mL)
	<b>% Accuracy:</b>	N/A

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8466(248526001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-2202

Matrix: SOIL

GEL Sample ID: 1202061322

Sample Amount 2

Moisture: 12.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090070.wiff

Date Analyzed: 10-APR-10 01:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	7080	
59229-75-3	2,6-Diamino-4-nitrotoluene	4330	
618-87-1	3,5-Dinitroaniline	4330	
6629-29-4	2,4-Diamino-6-nitrotoluene	3670	
78-30-8	tris(o-cresyl) phosphate	5100	

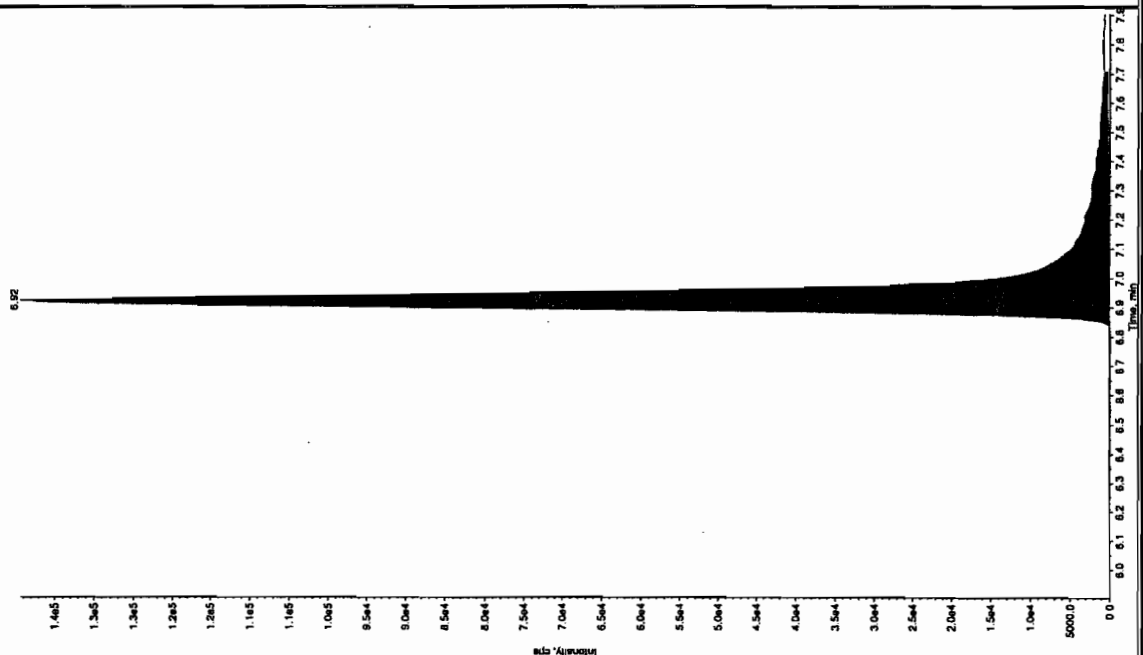
\*Concentration =

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

Before Jan 4/12/10

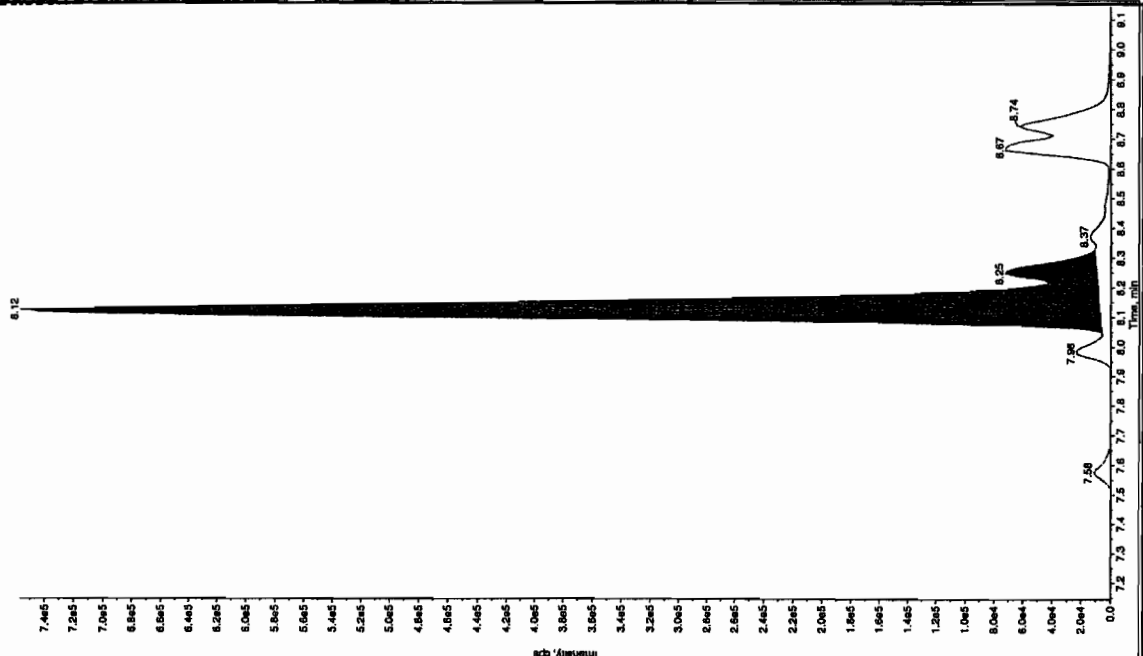
Sample Name: "1202061322" Sample ID: "951033121" File: "EX504090070.wif"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
 Comment: "LCX83212S" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 708. ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 1:18:34 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2500.00 cps  
 Min. Peak Width: 3.00 sec  
 Smoothing Width: 30.0 points  
 Peak Window: 30.0 sec  
 Expected RT: 6.90 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 6.92 min  
 Area: 6.76e+005 counts  
 Height: 139365.204 cps  
 Start Time: 6.79 min  
 End Time: 7.71 min



Sample Name: "1202061322" Sample ID: "951033121" File: "EX504090070.wif"

Peak Name: "3S-Dinitroaniline" Mass(es): "182.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 460. ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 1:18:34 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2000.00 cps  
 Min. Peak Width: 3.00 sec  
 Smoothing Width: 30.0 points  
 Peak Window: 30.0 sec  
 Expected RT: 8.14 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.12 min  
 Area: 3.27e+006 counts  
 Height: 750094.299 cps  
 Start Time: 8.04 min  
 End Time: 8.33 min

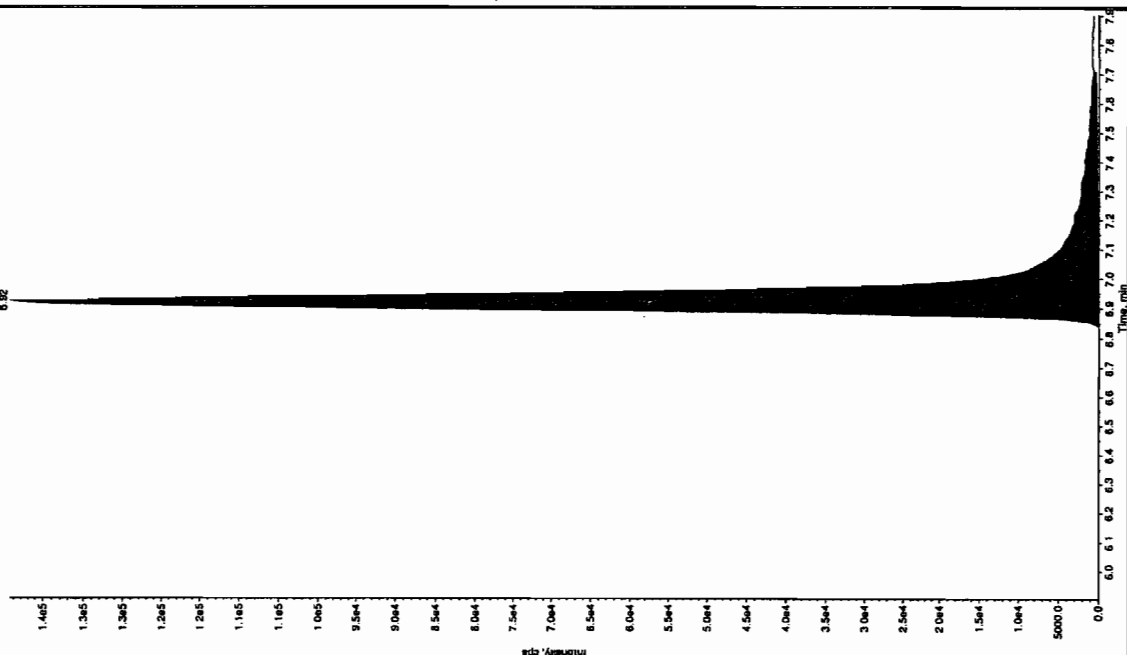


After 04/12/10

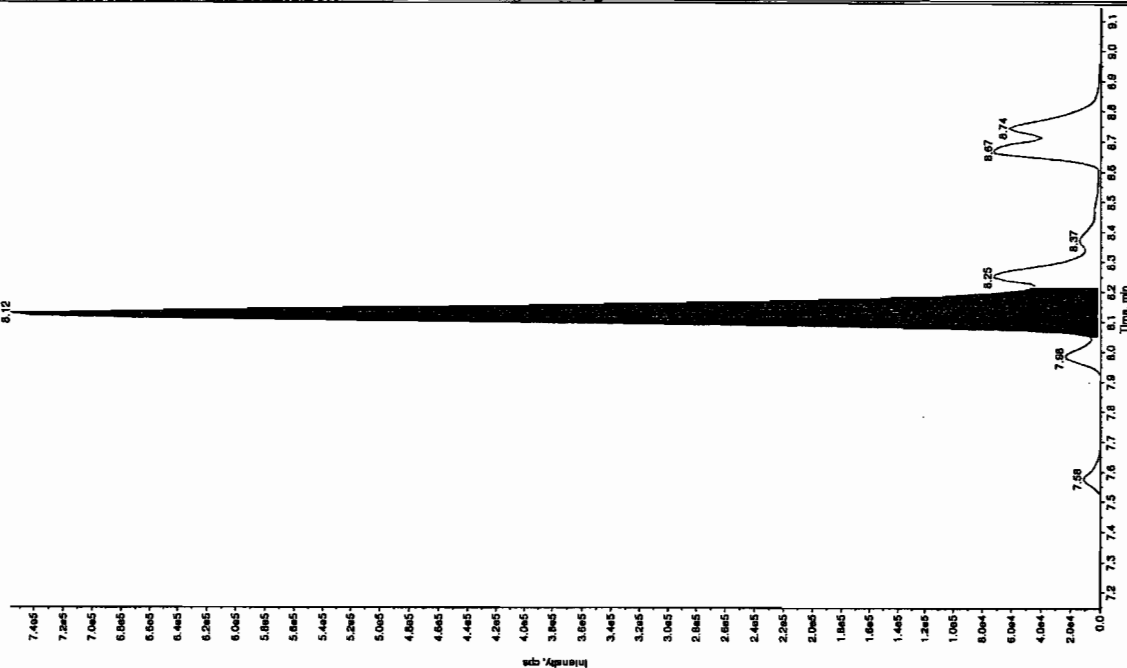


after 2024-11-10

Sample Name: "1202061322" Sample ID: "96103321ER" File: "EXS04080070.wif"  
Peak Name: "1A1B" Mass(es): "257.2204.9 amu"  
Comment: "LCX83212S" Annotation: ""  
Sample Index: 1  
Sample Type: Unknown  
Acq. Date: 4/10/2010  
Acq. Time: 1:18:34 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 2500.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
Window: 30.0 sec  
Expected RT: 6.90 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 6.76 min  
Area: 139165.304 counts  
Height: 139165.304 cps  
Start Time: 6.79 min  
End Time: 7.71 min

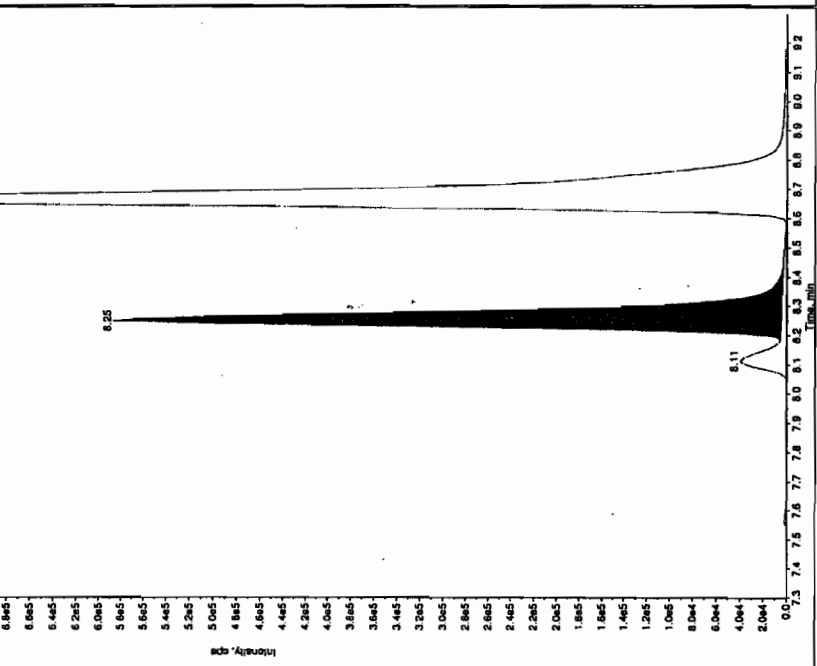


Sample Name: "1202061322" Sample ID: "96103321ER" File: "EXS04080070.wif"  
Peak Name: "35-Dinitroaniline" Mass(es): "182.0465.0 amu"  
Comment: "LCX83212S" Annotation: ""  
Sample Index: 1  
Sample Type: Unknown  
Acq. Date: 4/10/2010  
Acq. Time: 1:18:34 AM  
Modified: Yes  
RT Window: 15.0 sec  
Expected RT: 8.14 min  
Use Relative RT: No  
Int. Type: Manual  
Retention Time: 8.12 min  
Area: 3.09e+006 counts  
Height: 763170.628 cps  
Start Time: 8.03 min  
End Time: 8.22 min



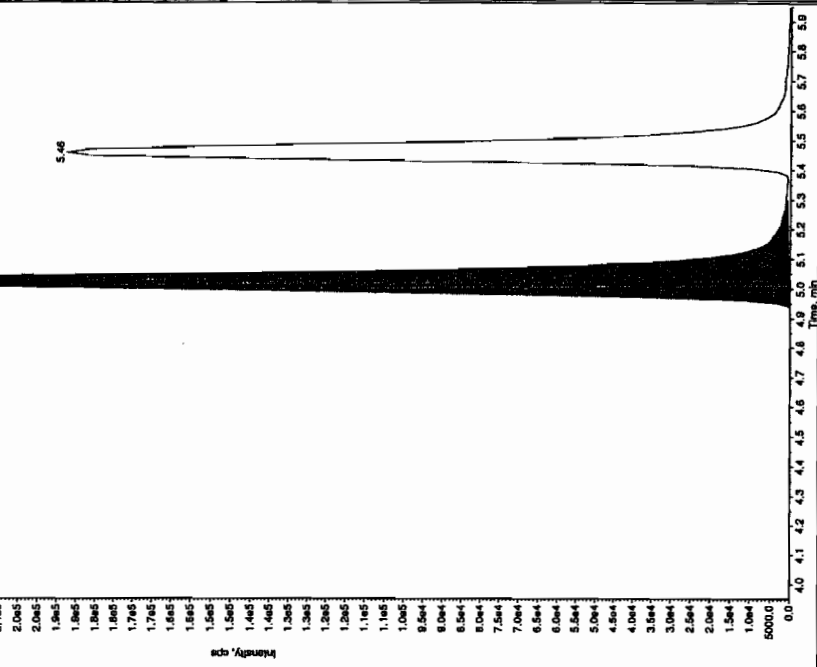
Sample Name: "1202061322" Sample ID: "951033125" File: "EX504090070.wif"  
 Peak Name: "24-Dinitrotoluene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 240. ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 1:18:34 AM  
 Modified: No  
 Proc. Algorithm: InCellQuan - IOA  
 Min. Peak Height: 14600 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 RT Window: 30.0 sec  
 Expected RT: 8.30 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.25 min  
 Area: 2.16e+006 counts  
 Height: 582142.560 cps  
 Start Time: 8.18 min  
 End Time: 8.47 min



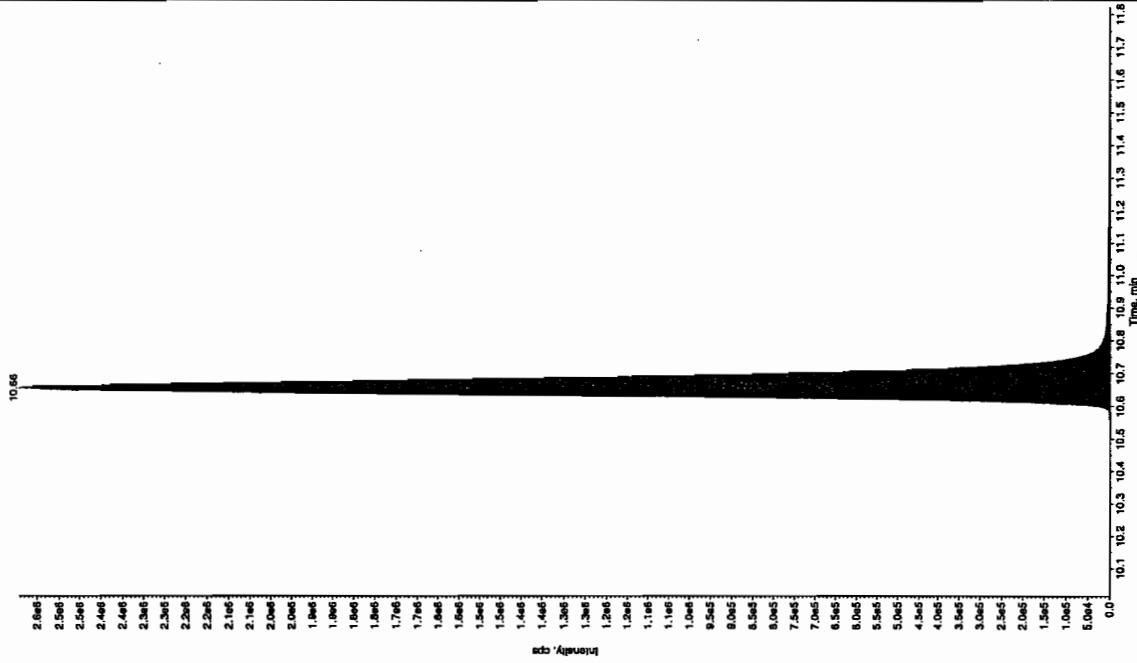
Sample Name: "1202061322" Sample ID: "951033125" File: "EX504090070.wif"  
 Peak Name: "26-Dinitro-4-nitrotoluene" Mass(es): "166.0/165.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 433. ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 1:18:34 AM  
 Modified: No  
 Proc. Algorithm: InCellQuan - IOA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 RT Window: 30.0 sec  
 Expected RT: 4.95 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.02 min  
 Area: 1.21e+006 counts  
 Height: 282724.379 cps  
 Start Time: 4.92 min  
 End Time: 5.30 min



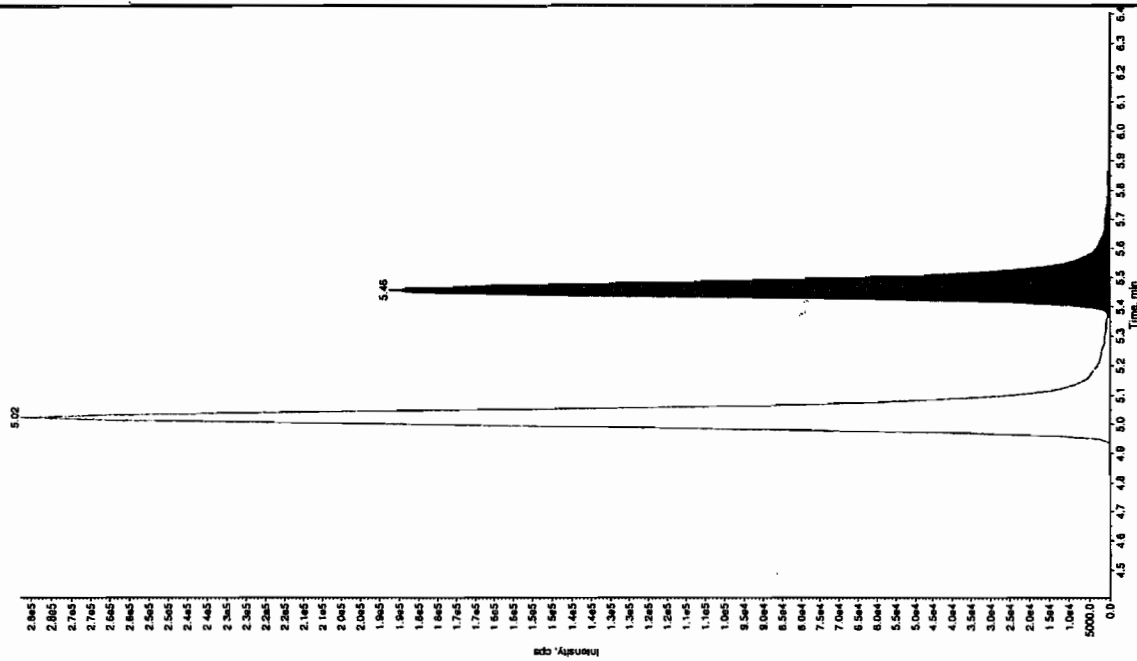
Sample Name: "1202051322" Sample ID: "9610332121" File: "EXS04090070.wif"  
 Peak Name: "tris(o-cresyl) phosphate" Mass(es): 366.191.0 amu  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 510. ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 1:18:34 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Peak Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.7 min  
 Area: 9.72e+006 counts  
 Height: 259156.982 cps  
 Start Time: 10.6 min  
 End Time: 11.1 min



Sample Name: "1202051322" Sample ID: "9610332121" File: "EXS04090070.wif"  
 Peak Name: "24-Diamino-Enilololene" Mass(es): 165.046.0 amu  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 367. ng/mL  
 Acq. Date: 4/10/2010  
 Acq. Time: 1:18:34 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Peak Window: 30.0 sec  
 Expected RT: 5.40 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.46 min  
 Area: 8.24e+005 counts  
 Height: 187161.530 cps  
 Start Time: 5.36 min  
 End Time: 6.01 min



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

# MISCELLANEOUS DATA

# Prep Logbook

## Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 961016 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)	Serial Number	Spike Amt	Units	Comments:
1202061319 MB	10-MAR-2010 20:36:00	2	10	5	DCX100225-03	.1	mL	Final Solvent: ACN
1202061320 LCS	10-MAR-2010 20:36:00	2	10	5	UXX100223-02.03	1	mL	
248514001	10-MAR-2010 20:36:00	2	10	5	DCX100225-03	.1	mL	
248514002	10-MAR-2010 20:36:00	2	10	5	UXX100223-02.03	1	mL	
248514003	10-MAR-2010 20:36:00	2	10	5	DCX100225-03	.1	mL	
248517001	10-MAR-2010 20:36:00	2	10	5	UXX100223-02.03	1	mL	
248519001	10-MAR-2010 20:36:00	2	10	5	DCX100225-03	.1	mL	
248519002	10-MAR-2010 20:36:00	2	10	5	UXX100223-02.03	1	mL	
248519003	10-MAR-2010 20:36:00	2	10	5	DCX100225-03	.1	mL	
248519004	10-MAR-2010 20:36:00	2	10	5	UXX100223-02.03	1	mL	
248519005	10-MAR-2010 20:36:00	2	10	5	DCX100225-03	.1	mL	
248519006	10-MAR-2010 20:36:00	2	10	5	UXX100223-02.03	1	mL	
248519007	10-MAR-2010 20:36:00	2	10	5	DCX100225-03	.1	mL	
248519008	10-MAR-2010 20:36:00	2	10	5	UXX100223-02.03	1	mL	
248519009	10-MAR-2010 20:36:00	2	10	5	DCX100225-03	.1	mL	
248519010	10-MAR-2010 20:36:00	2	10	5	UXX100223-02.03	1	mL	
248519011	10-MAR-2010 20:36:00	2	10	5	DCX100225-03	.1	mL	
248526001	10-MAR-2010 20:36:00	2	10	5	UXX100223-02.03	1	mL	
1202061321 MS (248526001)	10-MAR-2010 20:36:00	2	10	5	DCX100225-03	.1	mL	
1202061322 MSD (248526001)	10-MAR-2010 20:36:00	2	10	5	UXX100223-02.03	1	mL	
1202061322 MSD (248526001)	10-MAR-2010 20:36:00	2	10	5	DCX100225-03	.1	mL	
Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:		
LCS	1202061320	8321 Explosives LCS	DCX100225-03	.1	mL	Final Solvent: ACN		
LCS	1202061320	8321 LANL Explosives Mix 10mg/L	UXX100223-02.03	1	mL			
MS	1202061321	8321 Explosives LCS	DCX100225-03	.1	mL			
MS	1202061321	8321 LANL Explosives Mix 10mg/L	UXX100223-02.03	1	mL			
MSD	1202061322	8321 Explosives LCS	DCX100225-03	.1	mL			
MSD	1202061322	8321 LANL Explosives Mix 10mg/L	UXX100223-02.03	1	mL			
SURR	All	3,4-Dinitrotoluene (8330 Sur.) 100ppm	DCX100309-02	.05	mL			

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#3

Date: 4/15/10  
 Extr. Injection Volume: 10uL  
 Sequence Number: 041510  
 Initial Calibration Date: 041510  
 Method: 8321A-Modified  
 Int. Std.: UXX100324-02.3  
 Mobile Phase Lot#: 1301905, 1297752  
 Standard-Samp Reagent Lot#: 1293274, 1299881

Reviewed BY: *hnm*  
 Date: *04/23/10*

SOP: GL-OA-E-056 Rev.12  
 Alt Check Std. ID: WXX100415-56

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXP0415001.wiff	XIBLK01	LER	4/15/2010 10:07			1		USE	B
EXP0415002.wiff	XIBLK01	LER	4/15/2010 10:33			1		USE	B
EXP0415003.wiff	WXXICAL-50	LER	4/15/2010 10:59			1		USE	I
EXP0415004.wiff	WXXICAL-51	LER	4/15/2010 11:25			1		USE	I
EXP0415005.wiff	WXXICAL-52	LER	4/15/2010 11:51			1		USE	I
EXP0415006.wiff	WXXICAL-53	LER	4/15/2010 12:17			1		USE	I
EXP0415007.wiff	WXXICAL-54	LER	4/15/2010 12:43			1		USE	I
EXP0415008.wiff	WXXICAL-55	LER	4/15/2010 13:09			1		USE	I
EXP0415009.wiff	XIBLK02	LER	4/15/2010 13:35			1		USE	B
EXP0415010.wiff	WXXICV	LER	4/15/2010 14:01			1		USE	C
EXP0415011.wiff	XIBLK03	LER	4/15/2010 14:27			1		USE	B
EXP0415012.wiff	WXXCRI	LER	4/15/2010 14:53			1		USE	C
EXP0415013.wiff	1202045807	LER	4/15/2010 15:19	954365	10-1872	2	LANL	USE	S
EXP0415014.wiff	247200001	LER	4/15/2010 15:45	954365	10-1872	20	LANL	USE	S
EXP0415015.wiff	XIBLK04	LER	4/15/2010 16:10			1		USE	B
EXP0415016.wiff	247200002	LER	4/15/2010 16:36	954365	10-1872	20	LANL	USE	S
EXP0415017.wiff	XIBLK05	LER	4/15/2010 17:02			1		USE	B
EXP0415018.wiff	247200006	LER	4/15/2010 17:28	954365	10-1872	20	LANL	USE	S
EXP0415019.wiff	XIBLK06	LER	4/15/2010 17:54			1		USE	B
EXP0415020.wiff	247200007	LER	4/15/2010 18:20	954365	10-1872	2	LANL	USE	S
EXP0415021.wiff	XIBLK07	LER	4/15/2010 18:46			1		USE	B
EXP0415022.wiff	1202055010	LER	4/15/2010 19:12	958251	10-2065	2	LANL	USE	S
EXP0415023.wiff	WXXCCV	LER	4/15/2010 19:38			1		USE	C
EXP0415024.wiff	XIBLK08	LER	4/15/2010 20:04			1		USE	B
EXP0415025.wiff	WXXCRI	LER	4/15/2010 20:30			1		USE	C
EXP0415026.wiff	248048017	LER	4/15/2010 20:56	958251	10-2065	2	LANL	USE	S
EXP0415027.wiff	248048018	LER	4/15/2010 21:22	958251	10-2065	2	LANL	USE	S
EXP0415028.wiff	248048019	LER	4/15/2010 21:47	958251	10-2065	2	LANL	USE	S
EXP0415029.wiff	248048020	LER	4/15/2010 22:13	958251	10-2065	2	LANL	USE	S
EXP0415030.wiff	WXXCCV	LER	4/15/2010 22:39			1		USE	C

EXP0415031.wiff	XIBLK09	LER	4/15/2010 23:05				1		USE
EXP0415032.wiff	WXXCRI	LER	4/15/2010 23:31				1		USE
EXP0415033.wiff	1202061204	LER	4/15/2010 23:57	960986	10-2193		2	LANL	USE
EXP0415034.wiff	1202061205	LER	4/16/2010 0:23	960986	10-2193		2	LANL	DUSE-RA
EXP0415035.wiff	248506001	LER	4/16/2010 0:49	960986	10-2193		2	LANL	USE
EXP0415036.wiff	1202061206	LER	4/16/2010 1:15	960986	10-2193		2	LANL	DUSE-RA
EXP0415037.wiff	1202061207	LER	4/16/2010 1:41	960986	10-2193		2	LANL	DUSE-RA
EXP0415038.wiff	248506002	LER	4/16/2010 2:07	960986	10-2193		2	LANL	USE
EXP0415039.wiff	248506003	LER	4/16/2010 2:33	960986	10-2193		2	LANL	USE
EXP0415040.wiff	248506004	LER	4/16/2010 2:59	960986	10-2193		2	LANL	USE
EXP0415041.wiff	248506005	LER	4/16/2010 3:25	960986	10-2193		2	LANL	USE
EXP0415042.wiff	248506006	LER	4/16/2010 3:51	960986	10-2193		2	LANL	USE
EXP0415043.wiff	WXXCCV	LER	4/16/2010 4:17				1		USE
EXP0415044.wiff	XIBLK10	LER	4/16/2010 4:43				1		USE
EXP0415045.wiff	WXXCRI	LER	4/16/2010 5:09				1		USE
EXP0415046.wiff	248506007	LER	4/16/2010 5:35	960986	10-2193		2	LANL	USE
EXP0415047.wiff	248506008	LER	4/16/2010 6:01	960986	10-2193		2	LANL	USE
EXP0415048.wiff	248506009	LER	4/16/2010 6:27	960986	10-2193		2	LANL	USE
EXP0415049.wiff	248506010	LER	4/16/2010 6:53	960986	10-2193		2	LANL	USE
EXP0415050.wiff	248506011	LER	4/16/2010 7:19	960986	10-2193		2	LANL	USE
EXP0415051.wiff	248506012	LER	4/16/2010 7:45	960986	10-2193		2	LANL	USE
EXP0415052.wiff	248506013	LER	4/16/2010 8:11	960986	10-2193		2	LANL	USE
EXP0415053.wiff	248506014	LER	4/16/2010 8:37	960986	10-2193		2	LANL	USE
EXP0415054.wiff	248506015	LER	4/16/2010 9:02	960986	10-2193		2	LANL	USE
EXP0415055.wiff	248506016	LER	4/16/2010 9:28	960986	10-2193		2	LANL	USE
EXP0415056.wiff	WXXCCV	LER	4/16/2010 9:54				1		USE
EXP0415057.wiff	XIBLK11	LER	4/16/2010 10:20				1		USE
EXP0415058.wiff	WXXCRI	LER	4/16/2010 10:46				1		USE
EXP0415059.wiff	248506017	LER	4/16/2010 11:13	960986	10-2193		2	LANL	USE
EXP0415060.wiff	248506018	LER	4/16/2010 11:39	960986	10-2193		2	LANL	USE
EXP0415061.wiff	248506019	LER	4/16/2010 12:05	960986	10-2193		2	LANL	USE
EXP0415062.wiff	248506020	LER	4/16/2010 12:31	960986	10-2193		2	LANL	USE
EXP0415063.wiff	WXXCCV	LER	4/16/2010 12:57				1		USE
EXP0415064.wiff	XIBLK12	LER	4/16/2010 13:23				1		USE
EXP0415065.wiff	WXXCRI	LER	4/16/2010 13:49				1		USE
EXP0415066.wiff	1202061319	LER	4/16/2010 14:15	961033	VARIOUS		2	LANL	USE
EXP0415067.wiff	1202061320	LER	4/16/2010 14:41	961033	VARIOUS		2	LANL	USE

EXP0415068.wiff	LER	4/16/2010 15:06	961033	10-2196	2	LANL	USE	S
EXP0415069.wiff	LER	4/16/2010 15:32	961033	10-2196	2	LANL	USE	S
EXP0415070.wiff	LER	4/16/2010 15:58	961033	10-2196	2	LANL	USE	S
EXP0415071.wiff	LER	4/16/2010 16:24	961033	10-2198	2	LANL	USE	S
EXP0415072.wiff	LER	4/16/2010 16:50	961033	10-2199	2	LANL	USE	S
EXP0415073.wiff	LER	4/16/2010 17:17	961033	10-2199	2	LANL	USE	S
EXP0415074.wiff	LER	4/16/2010 17:43	961033	10-2199	2	LANL	USE	S
EXP0415075.wiff	LER	4/16/2010 18:08	961033	10-2199	2	LANL	USE	S
EXP0415076.wiff	LER	4/16/2010 18:34	961033	10-2199	2	LANL	USE	S
EXP0415077.wiff	LER	4/16/2010 19:00			1		USE	C
EXP0415078.wiff	LER	4/16/2010 19:26			1		USE	B
EXP0415079.wiff	LER	4/16/2010 19:52	961033	10-2199	2	LANL	DUSE-RA	C
EXP0415080.wiff	LER	4/16/2010 20:18	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415081.wiff	LER	4/16/2010 20:44	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415082.wiff	LER	4/16/2010 21:10	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415083.wiff	LER	4/16/2010 21:36	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415084.wiff	LER	4/16/2010 22:02	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415085.wiff	LER	4/16/2010 22:28	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415086.wiff	LER	4/16/2010 22:54	961033	10-2202	2	LANL	DUSE-RA	S
EXP0415087.wiff	LER	4/16/2010 23:20	961033	10-2202	2	LANL	DUSE-RA	S
EXP0415088.wiff	LER	4/16/2010 23:46	961033	10-2202	2	LANL	DUSE-RA	S
EXP0415089.wiff	LER	4/17/2010 0:12			1		DUSE	C
EXP0415090.wiff	LER	4/17/2010 0:38			1		DUSE	B
EXP0415091.wiff	LER	4/17/2010 1:04			1		DUSE	C
EXP0415092.wiff	LER	4/17/2010 1:30	958251	10-2065	2	LANL	DUSE-RA	S
EXP0415093.wiff	LER	4/17/2010 1:56	958251	10-2065	20	LANL	DUSE-RA	S
EXP0415094.wiff	LER	4/17/2010 2:22			1		DUSE	B
EXP0415095.wiff	LER	4/17/2010 2:48	958251	10-2065	2	LANL	DUSE-RA	S
EXP0415096.wiff	LER	4/17/2010 3:14			1		DUSE	C
EXP0415097.wiff	LER	4/17/2010 3:40			1		DUSE	B
EXP0415098.wiff	LER	4/17/2010 4:06			1		DUSE	C
EXP0415099.wiff	LER	4/17/2010 4:32	961091	VARIOUS	2	LANL	DUSE-RA	S
EXP0415100.wiff	LER	4/17/2010 4:58	961091	VARIOUS	2	LANL	DUSE-RA	S
EXP0415101.wiff	LER	4/17/2010 5:24	961091	10-2225	2	LANL	DUSE-RA	S
EXP0415102.wiff	LER	4/17/2010 5:50	961091	10-2219	2	LANL	DUSE-RA	S
EXP0415103.wiff	LER	4/17/2010 6:16	961091	10-2219	2	LANL	DUSE-RA	S
EXP0415104.wiff	LER	4/17/2010 6:42	961091	10-2219	2	LANL	DUSE-RA	S



EXP0415105.wiff	248546009	LER	4/17/2010 7:08	961091	10-2219	2	LANL	DUSE-RA	S
EXP0415106.wiff	WXXCCV	LER	4/17/2010 7:34			1		USE	C
EXP0415107.wiff	XIBLK17	LER	4/17/2010 8:00			1		USE	B
EXP0415108.wiff	WXXCRI	LER	4/17/2010 8:26			1		USE	C
EXP0415109.wiff	1202057288	LER	4/17/2010 8:52	959257	10-2128	2	LANL	USE	S
EXP0415110.wiff	1202057289	LER	4/17/2010 9:18	959257	10-2128	2	LANL	USE	S
EXP0415111.wiff	248232001	LER	4/17/2010 9:44	959257	10-2128	2	LANL	USE	S
EXP0415112.wiff	1202057290	LER	4/17/2010 10:10	959257	10-2128	2	LANL	USE	S
EXP0415113.wiff	1202057291	LER	4/17/2010 10:36	959257	10-2128	2	LANL	USE	S
EXP0415114.wiff	248232002	LER	4/17/2010 11:01	959257	10-2128	2	LANL	USE	S
EXP0415115.wiff	248232003	LER	4/17/2010 11:27	959257	10-2128	2	LANL	USE	S
EXP0415116.wiff	248232004	LER	4/17/2010 11:53	959257	10-2128	2	LANL	USE	S
EXP0415117.wiff	248232005	LER	4/17/2010 12:19	959257	10-2128	2	LANL	USE	S
EXP0415118.wiff	248232006	LER	4/17/2010 12:45	959257	10-2128	2	LANL	USE	S
EXP0415119.wiff	WXXCCV	LER	4/17/2010 13:11			1		USE	C
EXP0415120.wiff	XIBLK18	LER	4/17/2010 13:37			1		USE	B
EXP0415121.wiff	WXXCRI	LER	4/17/2010 14:03			1		USE	C
EXP0415122.wiff	248232007	LER	4/17/2010 14:29	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415123.wiff	248232008	LER	4/17/2010 14:55	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415124.wiff	248232009	LER	4/17/2010 15:21	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415125.wiff	248232010	LER	4/17/2010 15:47	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415126.wiff	248232011	LER	4/17/2010 16:13	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415127.wiff	248232012	LER	4/17/2010 16:39	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415128.wiff	248232013	LER	4/17/2010 17:05	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415129.wiff	248232014	LER	4/17/2010 17:31	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415130.wiff	248232015	LER	4/17/2010 17:57	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415131.wiff	248232016	LER	4/17/2010 18:23	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415132.wiff	WXXCCV	LER	4/17/2010 18:49			1		DUSE	C
EXP0415133.wiff	XIBLK19	LER	4/17/2010 19:15			1		DUSE	B
EXP0415134.wiff	WXXCRI	LER	4/17/2010 19:40			1		DUSE	C
EXP0415135.wiff	248232017	LER	4/17/2010 20:07	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415136.wiff	248232018	LER	4/17/2010 20:33	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415137.wiff	248232019	LER	4/17/2010 20:59	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415138.wiff	248232020	LER	4/17/2010 21:24	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415139.wiff	WXXCCV	LER	4/17/2010 21:50			1		DUSE	C
EXP0415140.wiff	XIBLK20	LER	4/17/2010 22:16			1		DUSE	B
EXP0415141.wiff	WXXCRI	LER	4/17/2010 22:42			1		DUSE	C

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#3

Date: 4/20/10  
 Extr. Injection Volume: 10uL  
 Sequence Number: 042010  
 Initial Calibration Date: 042010  
 Method: 8321A-Modified  
 Int. Std.: UXX100412-01.1  
 Mobile Phase Lot#: 1301905, 1297752  
 Standard-Samp Reagent Lot#: 1299881, 1293274  
 Reviewed BY: *HLM*  
 Date: *04/29/10*  
 SOP: GL-OA-E-056 Rev.12  
 Alt Check Std. ID: WXX100420-56

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXP0420001.wiff	XIBLK01	LER	4/20/2010 14:19			1		USE	B
EXP0420002.wiff	XIBLK01	LER	4/20/2010 14:44			1		USE	B
EXP0420003.wiff	WXXICAL-50	LER	4/20/2010 15:10			1		USE	I
EXP0420004.wiff	WXXICAL-51	LER	4/20/2010 15:36			1		USE	I
EXP0420005.wiff	WXXICAL-52	LER	4/20/2010 16:02			1		USE	I
EXP0420006.wiff	WXXICAL-53	LER	4/20/2010 16:28			1		USE	I
EXP0420007.wiff	WXXICAL-54	LER	4/20/2010 16:54			1		USE	I
EXP0420008.wiff	WXXICAL-55	LER	4/20/2010 17:20			1		USE	I
EXP0420009.wiff	XIBLK02	LER	4/20/2010 17:46			1		USE	B
EXP0420010.wiff	WXXICV	LER	4/20/2010 18:12			1		USE	C
EXP0420011.wiff	XIBLK03	LER	4/20/2010 18:38			1		USE	B
EXP0420012.wiff	WXXCRI	LER	4/20/2010 19:04			1		USE	C
EXP0420013.wiff	248519005	LER	4/20/2010 19:30	961033	10-2199	2	LANL	USE	S
EXP0420014.wiff	248519006	LER	4/20/2010 19:56	961033	10-2199	2	LANL	USE	S
EXP0420015.wiff	248519007	LER	4/20/2010 20:22	961033	10-2199	2	LANL	USE	S
EXP0420016.wiff	248519008	LER	4/20/2010 20:48	961033	10-2199	2	LANL	USE	S
EXP0420017.wiff	248519009	LER	4/20/2010 21:13	961033	10-2199	2	LANL	USE	S
EXP0420018.wiff	248519010	LER	4/20/2010 21:39	961033	10-2199	2	LANL	USE	S
EXP0420019.wiff	248519011	LER	4/20/2010 22:05	961033	10-2199	2	LANL	USE	S
EXP0420020.wiff	248526001	LER	4/20/2010 22:31	961033	10-2202	2	LANL	USE	S
EXP0420021.wiff	1202061321	LER	4/20/2010 22:57	961033	10-2202	2	LANL	USE	S
EXP0420022.wiff	1202061322	LER	4/20/2010 23:23	961033	10-2202	2	LANL	USE	S
EXP0420023.wiff	WXXCCV	LER	4/20/2010 23:49			1		USE	C
EXP0420024.wiff	XIBLK04	LER	4/21/2010 0:15			1		USE	B
EXP0420025.wiff	WXXCRI	LER	4/21/2010 0:41			1		USE	C
EXP0420026.wiff	248048006	LER	4/21/2010 1:07	958251	10-2065	2	LANL	USE	S
EXP0420027.wiff	248048011	LER	4/21/2010 1:33	958251	10-2065	20	LANL	USE	S
EXP0420028.wiff	XIBLK05	LER	4/21/2010 1:59			1		USE	B
EXP0420029.wiff	248048012	LER	4/21/2010 2:25	958251	10-2065	2	LANL	USE	S
EXP0420030.wiff	1202061439	LER	4/21/2010 2:51	961091	VARIOUS	2	LANL	USE	S

EXP0420031.wiff	1202061440	LER	4/21/2010 3:17	961091	VARIOUS	2	LANL	USE	S
EXP0420032.wiff	248542003	LER	4/21/2010 3:43	961091	10-2225	2	LANL	USE	S
EXP0420033.wiff	248546004	LER	4/21/2010 4:08	961091	10-2219	2	LANL	USE	S
EXP0420034.wiff	1202061441	LER	4/21/2010 4:34	961091	10-2219	2	LANL	USE	S
EXP0420035.wiff	1202061442	LER	4/21/2010 5:00	961091	10-2219	2	LANL	USE	S
EXP0420036.wiff	WXXCCV	LER	4/21/2010 5:26			1		USE	C
EXP0420037.wiff	XIBLK06	LER	4/21/2010 5:52			1		USE	B
EXP0420038.wiff	WXXCRI	LER	4/21/2010 6:18			1		USE	C
EXP0420039.wiff	248546009	LER	4/21/2010 6:44	961091	10-2219	2	LANL	USE	S
EXP0420040.wiff	248232007	LER	4/21/2010 7:10	959257	10-2128	2	LANL	USE	S
EXP0420041.wiff	248232008	LER	4/21/2010 7:36	959257	10-2128	2	LANL	USE	S
EXP0420042.wiff	248232009	LER	4/21/2010 8:02	959257	10-2128	2	LANL	USE	S
EXP0420043.wiff	248232010	LER	4/21/2010 8:28	959257	10-2128	2	LANL	USE	S
EXP0420044.wiff	248232011	LER	4/21/2010 8:54	959257	10-2128	2	LANL	USE	S
EXP0420045.wiff	248232012	LER	4/21/2010 9:20	959257	10-2128	2	LANL	USE	S
EXP0420046.wiff	248232013	LER	4/21/2010 9:46	959257	10-2128	2	LANL	USE	S
EXP0420047.wiff	248232014	LER	4/21/2010 10:12	959257	10-2128	2	LANL	USE	S
EXP0420048.wiff	248232015	LER	4/21/2010 10:38	959257	10-2128	2	LANL	USE	S
EXP0420049.wiff	WXXCCV	LER	4/21/2010 11:04			1		USE	C
EXP0420050.wiff	XIBLK07	LER	4/21/2010 11:30			1		USE	B
EXP0420051.wiff	WXXCRI	LER	4/21/2010 11:56			1		USE	C
EXP0420052.wiff	248232016	LER	4/21/2010 12:22	959257	10-2128	2	LANL	USE	S
EXP0420053.wiff	248232017	LER	4/21/2010 12:48	959257	10-2128	2	LANL	USE	S
EXP0420054.wiff	248232018	LER	4/21/2010 13:14	959257	10-2128	2	LANL	USE	S
EXP0420055.wiff	248232019	LER	4/21/2010 13:39	959257	10-2128	2	LANL	USE	S
EXP0420056.wiff	248232020	LER	4/21/2010 14:05	959257	10-2128	2	LANL	USE	S
EXP0420057.wiff	WXXCCV	LER	4/21/2010 14:31			1		USE	C
EXP0420058.wiff	XIBLK08	LER	4/21/2010 14:57			1		USE	B
EXP0420059.wiff	WXXCRI	LER	4/21/2010 15:23			1		USE	C
EXP0420060.wiff	1202064978	LER	4/21/2010 15:49	962559	10-2248	2	LANL	DUSE-RA	S
EXP0420061.wiff	1202064979	LER	4/21/2010 16:15	962559	10-2248	2	LANL	DUSE-RA	S
EXP0420062.wiff	1202066190	LER	4/21/2010 16:41	962559	10-2248	2	LANL	USE	S
EXP0420063.wiff	248664002	LER	4/21/2010 17:07	962559	10-2248	2	LANL	USE	S
EXP0420064.wiff	248664007	LER	4/21/2010 17:33	962559	10-2248	2	LANL	DUSE-RA	S
EXP0420065.wiff	248664012	LER	4/21/2010 17:59	962559	10-2248	2	LANL	USE	S
EXP0420066.wiff	248664018	LER	4/21/2010 18:25	962559	10-2248	2	LANL	USE	S
EXP0420067.wiff	WXXCCV	LER	4/21/2010 18:51			1		USE	C

EXP0420068.wiff	XIBLK09	LER	4/21/2010 19:17				1		USE
EXP0420069.wiff	WXXCRI	LER	4/21/2010 19:43				1		USE
EXP0420070.wiff	1202064537	LER	4/21/2010 20:09	962415	10-2233		2	LANL	USE
EXP0420071.wiff	1202064538	LER	4/21/2010 20:35	962415	10-2233		2	LANL	USE
EXP0420072.wiff	248628002	LER	4/21/2010 21:01	962415	10-2233		2	LANL	USE
EXP0420073.wiff	1202064539	LER	4/21/2010 21:27	962415	10-2233		2	LANL	USE
EXP0420074.wiff	1202064540	LER	4/21/2010 21:53	962415	10-2233		2	LANL	USE
EXP0420075.wiff	248628003	LER	4/21/2010 22:19	962415	10-2233		2	LANL	USE
EXP0420076.wiff	248628004	LER	4/21/2010 22:45	962415	10-2233		2	LANL	USE
EXP0420077.wiff	248628005	LER	4/21/2010 23:11	962415	10-2233		2	LANL	USE
EXP0420078.wiff	248628006	LER	4/21/2010 23:36	962415	10-2233		2	LANL	DUSE-RA
EXP0420079.wiff	248628007	LER	4/22/2010 0:02	962415	10-2233		2	LANL	USE
EXP0420080.wiff	WXXCCV	LER	4/22/2010 0:28				1		USE
EXP0420081.wiff	XIBLK10	LER	4/22/2010 0:54				1		USE
EXP0420082.wiff	WXXCRI	LER	4/22/2010 1:20				1		USE
EXP0420083.wiff	248628008	LER	4/22/2010 1:46	962415	10-2233		2	LANL	USE
EXP0420084.wiff	248628009	LER	4/22/2010 2:12	962415	10-2233		2	LANL	USE
EXP0420085.wiff	248628010	LER	4/22/2010 2:38	962415	10-2233		2	LANL	USE
EXP0420086.wiff	248628011	LER	4/22/2010 3:04	962415	10-2233		2	LANL	USE
EXP0420087.wiff	248628012	LER	4/22/2010 3:30	962415	10-2233		2	LANL	USE
EXP0420088.wiff	248628013	LER	4/22/2010 3:56	962415	10-2233		2	LANL	USE
EXP0420089.wiff	248628014	LER	4/22/2010 4:22	962415	10-2233		2	LANL	USE
EXP0420090.wiff	248628015	LER	4/22/2010 4:48	962415	10-2233		2	LANL	USE
EXP0420091.wiff	WXXCCV	LER	4/22/2010 5:14				1		USE
EXP0420092.wiff	XIBLK11	LER	4/22/2010 5:40				1		USE
EXP0420093.wiff	WXXCRI	LER	4/22/2010 6:06				1		USE
EXP0420094.wiff	1202061205	LER	4/22/2010 6:32	960986	10-2193		2	LANL	USE
EXP0420095.wiff	1202061206	LER	4/22/2010 6:58	960986	10-2193		2	LANL	DUSE-RA
EXP0420096.wiff	1202061207	LER	4/22/2010 7:24	960986	10-2193		2	LANL	DUSE-RA
EXP0420097.wiff	1202057290	LER	4/22/2010 7:50	959257	10-2128		2	LANL	USE
EXP0420098.wiff	248232020	LER	4/22/2010 8:16	959257	10-2128		20	LANL	DUSE-RA
EXP0420099.wiff	WXXCCV	LER	4/22/2010 8:42				1		USE
EXP0420100.wiff	XIBLK12	LER	4/22/2010 9:08				1		USE
EXP0420101.wiff	WXXCRI	LER	4/22/2010 9:34				1		USE
EXP0420102.wiff	1202064978	LER	4/22/2010 10:00	962559	10-2248		2	LANL	USE
EXP0420103.wiff	1202064979	LER	4/22/2010 10:26	962559	10-2248		2	LANL	USE
EXP0420104.wiff	248664007	LER	4/22/2010 10:52	962559	10-2248		2	LANL	USE

EXP0420105.wiff	1202064538	LER	4/22/2010 11:18	962415	10-2233	2	LANL	DUSE-MISC	S
EXP0420106.wiff	248628006	LER	4/22/2010 11:44	962415	10-2233	2	LANL	USE	S
EXP0420107.wiff	WXXCCV	LER	4/22/2010 12:10			1		USE	C
EXP0420108.wiff	XIBLK13	LER	4/22/2010 12:36			1		USE	B
EXP0420109.wiff	WXXCRI	LER	4/22/2010 13:02			1		USE	C

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 04/09/10

Extr. Injection Volume: 10ul

Sequence Number: 040910exs

Initial Calibration Date: 040910

Method: 8321A-Modified

Int. Std.: N/A

Mobile Phase Lot#: 1269686, 1293224

Standard-Samp Reagent Lot#: 1292884, 1284736

Reviewed By: *hmc*

Date: 04/12/10

SOP: GL-OA-E-056 Rev.12

Alt Check Std. ID: WXX100409-26

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DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS04090001.wiff	XIBLK01	LER	4/9/2010 7:14			1		USE	B
EXS04090002.wiff	XIBLK01	LER	4/9/2010 7:30			1		USE	B
EXS04090003.wiff	WXXICAL-19	LER	4/9/2010 7:46			1		USE	I
EXS04090004.wiff	WXXICAL-20	LER	4/9/2010 8:01			1		USE	I
EXS04090005.wiff	WXXICAL-21	LER	4/9/2010 8:17			1		USE	I
EXS04090006.wiff	WXXICAL-22	LER	4/9/2010 8:33			1		USE	I
EXS04090007.wiff	WXXICAL-23	LER	4/9/2010 8:49			1		USE	I
EXS04090008.wiff	WXXICAL-24	LER	4/9/2010 9:04			1		USE	I
EXS04090009.wiff	WXXICAL-25	LER	4/9/2010 9:20			1		USE	I
EXS04090010.wiff	XIBLK02	LER	4/9/2010 9:36			1		USE	B
EXS04090011.wiff	WXXICV	LER	4/9/2010 9:51			1		USE	C
EXS04090012.wiff	XIBLK03	LER	4/9/2010 10:07			1		USE	B
EXS04090013.wiff	WXXCRI	LER	4/9/2010 10:23			1		USE	C
EXS04090014.wiff	1202061204	LER	4/9/2010 10:39	960986	10-2193	2	LANL	USE	S
EXS04090015.wiff	1202061205	LER	4/9/2010 10:54	960986	10-2193	2	LANL	USE	S
EXS04090016.wiff	248506001	LER	4/9/2010 11:10	960986	10-2193	2	LANL	USE	S
EXS04090017.wiff	1202061206	LER	4/9/2010 11:26	960986	10-2193	2	LANL	USE	S
EXS04090018.wiff	1202061207	LER	4/9/2010 11:41	960986	10-2193	2	LANL	USE	S
EXS04090019.wiff	248506002	LER	4/9/2010 11:57	960986	10-2193	2	LANL	USE	S
EXS04090020.wiff	248506003	LER	4/9/2010 12:13	960986	10-2193	2	LANL	USE	S
EXS04090021.wiff	248506004	LER	4/9/2010 12:29	960986	10-2193	2	LANL	USE	S
EXS04090022.wiff	248506005	LER	4/9/2010 12:44	960986	10-2193	2	LANL	USE	S
EXS04090023.wiff	248506006	LER	4/9/2010 13:00	960986	10-2193	2	LANL	USE	S
EXS04090024.wiff	WXXCCV	LER	4/9/2010 13:16			1		USE	C
EXS04090025.wiff	XIBLK04	LER	4/9/2010 13:31			1		USE	B
EXS04090026.wiff	WXXCRI	LER	4/9/2010 13:47			1		USE	C
EXS04090027.wiff	248506007	LER	4/9/2010 14:03	960986	10-2193	2	LANL	USE	S
EXS04090028.wiff	248506008	LER	4/9/2010 14:18	960986	10-2193	2	LANL	USE	S
EXS04090029.wiff	248506009	LER	4/9/2010 14:34	960986	10-2193	2	LANL	USE	S
EXS04090030.wiff	248506010	LER	4/9/2010 14:50	960986	10-2193	2	LANL	USE	S

EXS04090031.wiff	248506011	LER	4/9/2010 15:06	960986	10-2193	2	LANL	USE	S
EXS04090032.wiff	248506012	LER	4/9/2010 15:21	960986	10-2193	2	LANL	USE	S
EXS04090033.wiff	248506013	LER	4/9/2010 15:37	960986	10-2193	2	LANL	USE	S
EXS04090034.wiff	248506014	LER	4/9/2010 15:53	960986	10-2193	2	LANL	USE	S
EXS04090035.wiff	248506015	LER	4/9/2010 16:08	960986	10-2193	2	LANL	USE	S
EXS04090036.wiff	248506016	LER	4/9/2010 16:24	960986	10-2193	2	LANL	USE	S
EXS04090037.wiff	WXXCCV	LER	4/9/2010 16:40			1		USE	C
EXS04090038.wiff	XIBLK05	LER	4/9/2010 16:56			1		USE	B
EXS04090039.wiff	WXXCRI	LER	4/9/2010 17:11			1		USE	C
EXS04090040.wiff	248506017	LER	4/9/2010 17:27	960986	10-2193	2	LANL	USE	S
EXS04090041.wiff	248506018	LER	4/9/2010 17:43	960986	10-2193	2	LANL	USE	S
EXS04090042.wiff	248506019	LER	4/9/2010 17:58	960986	10-2193	2	LANL	USE	S
EXS04090043.wiff	248506020	LER	4/9/2010 18:14	960986	10-2193	2	LANL	USE	S
EXS04090044.wiff	XIBLK06	LER	4/9/2010 18:30			1		USE	B
EXS04090045.wiff	1202061319	LER	4/9/2010 18:45	961033	VARIOUS	2	LANL	USE	S
EXS04090046.wiff	1202061320	LER	4/9/2010 19:01	961033	VARIOUS	2	LANL	USE	S
EXS04090047.wiff	248514001	LER	4/9/2010 19:17	961033	10-2196	2	LANL	USE	S
EXS04090048.wiff	248514002	LER	4/9/2010 19:33	961033	10-2196	2	LANL	USE	S
EXS04090049.wiff	248514003	LER	4/9/2010 19:48	961033	10-2196	2	LANL	USE	S
EXS04090050.wiff	WXXCCV	LER	4/9/2010 20:04			1		USE	C
EXS04090051.wiff	XIBLK07	LER	4/9/2010 20:20			1		USE	B
EXS04090052.wiff	WXXCRI	LER	4/9/2010 20:35			1		USE	C
EXS04090053.wiff	248517001	LER	4/9/2010 20:51	961033	10-2198	2	LANL	USE	S
EXS04090054.wiff	248519001	LER	4/9/2010 21:07	961033	10-2199	2	LANL	USE	S
EXS04090055.wiff	248519002	LER	4/9/2010 21:23	961033	10-2199	2	LANL	USE	S
EXS04090056.wiff	248519003	LER	4/9/2010 21:38	961033	10-2199	2	LANL	USE	S
EXS04090057.wiff	248519004	LER	4/9/2010 21:54	961033	10-2199	2	LANL	USE	S
EXS04090058.wiff	248519005	LER	4/9/2010 22:10	961033	10-2199	2	LANL	USE	S
EXS04090059.wiff	248519006	LER	4/9/2010 22:25	961033	10-2199	2	LANL	USE	S
EXS04090060.wiff	248519007	LER	4/9/2010 22:41	961033	10-2199	2	LANL	USE	S
EXS04090061.wiff	248519008	LER	4/9/2010 22:57	961033	10-2199	2	LANL	USE	S
EXS04090062.wiff	248519009	LER	4/9/2010 23:12	961033	10-2199	2	LANL	USE	S
EXS04090063.wiff	WXXCCV	LER	4/9/2010 23:28			1		USE	C
EXS04090064.wiff	XIBLK08	LER	4/9/2010 23:44			1		USE	B
EXS04090065.wiff	WXXCRI	LER	4/10/2010 0:00			1		USE	C
EXS04090066.wiff	248519010	LER	4/10/2010 0:15	961033	10-2199	2	LANL	USE	S
EXS04090067.wiff	248519011	LER	4/10/2010 0:31	961033	10-2199	2	LANL	USE	S

EXS040900068.wiff	248526001	LER	4/10/2010 0:47	961033	10-2202	2	LANL	USE	S
EXS040900069.wiff	1202061321	LER	4/10/2010 1:02	961033	10-2202	2	LANL	USE	S
EXS040900070.wiff	1202061322	LER	4/10/2010 1:18	961033	10-2202	2	LANL	USE	S
EXS040900071.wiff	WXXCCV	LER	4/10/2010 1:34			1		USE	C
EXS040900072.wiff	XIBLK09	LER	4/10/2010 1:49			1		USE	B
EXS040900073.wiff	WXXCRI	LER	4/10/2010 2:05			1		USE	C



GEL Laboratories LLC  
Form GEL-DER

DER Report No.: 822434  
Revision No.: 1

# DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 29-APR-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> LC-MS/MS	<b>Test / Method:</b> SW846 8321A Modified	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 961033	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG):</b> 248514(10-2196), 248517(10-2198), 248519(10-2199), 248526(10-2202)			
<b>Application Issues:</b> Sample Analyzed out of Holding Failed Recovery for LCS/LCSD			
<b>Specification and Requirements</b> <b>Exception Description:</b>		<b>DER Disposition:</b>	
<p>1. The analytical holding times for the following samples were exceeded due to limitations of instrument capacity: 248519005, 248519006, 248519007, 248519008, 248519009, 248519010, 248519011, 248526001, 1202061321(MS), and 1202061322(MSD).</p> <p>2. The LCS(1202061320) did not meet acceptance criteria for the recovery of multiple spiked analytes. Please refer to Form 3 of the data package for a list of recoveries.</p> <p>3. The MS(1202061321) did not meet acceptance criteria for the recovery of TATB at 161%. The limits are 29-155%.</p>		<p>1. These samples were analyzed within two times the analytical holding time of the method. The client was notified of this situation and is in agreement to receive these qualified data. The discrepancy is noted in the case narrative.</p> <p>2. The MS(1202061321) and MSD(1202061322) had passing recoveries for these analytes. The data are reported.</p> <p>3. The LCS(1202061320) and the MSD(1202061322) had passing criteria for TATB. TATB was not detected in the parent sample. The data are considered unaffected and are reported.</p>	

**Originator's Name:**

Lynne Russell

29-APR-10

**Data Validator/Group Leader:**

Herbert Maier

29-APR-10

GC  
SEMIVOLATILE  
PCB  
ANALYSIS

**PCB Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2202**

**Method/Analysis Information**

**Procedure:** Analysis of Polychlorinated Biphenyls byECD  
**Analytical Method:** SW846 8082  
**Prep Method:** SW846 3550B  
**Analytical Batch Number:** 966420  
**Prep Batch Number:** 966418

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 8082:

<b>Sample ID</b>	<b>Client ID</b>
248526001	RE36-10-8466
1202073937	Method Blank (MB)
1202073938	Laboratory Control Sample (LCS)
1202073939	248526001(RE36-10-8466) Matrix Spike (MS)
1202073940	248526001(RE36-10-8466) 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 calibration verification standards (CVS, ICV, or CCV) requirements have been met for this SDG.

One of five peaks failed in the Aroclor-1016 and Aroclor-1260 standards bracketing the samples in this SDG; however, the average concentration of the five quantitated peaks met the acceptance criteria.

Surrogate recovery did not meet the acceptance criteria in the standards bracketing the samples in this SDG; however, this non-compliance has no adverse effects on the data.

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

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

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

##### **Surrogate Recoveries**

Samples 1202073940 (RE36-10-8466MSD) and 248526001 (RE36-10-8466) did not meet the surrogate recovery acceptance criteria due to dilution and matrix interference. See DER #807691 located in the Miscellaneous Data section.

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

The LCS spike recoveries met the acceptance limits.

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

Sample 248526001 (RE36-10-8466) 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 recovery for this SDG was not within the established acceptance limits due to dilution and sample matrix interference. See DER #807691 located in the Miscellaneous Data section.

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

The RPD between the MS and MSD did not meet the acceptance limits due to dilution and sample matrix interference. See DER #807691 located in the Miscellaneous Data section.

#### **Technical Information**

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

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

##### **Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

##### **Sample Dilutions**

Samples 1202073939 (RE36-10-8466MS), 1202073940 (RE36-10-8466MSD) and 248526001 (RE36-10-8466) were diluted at 1:10 due to the oily matrix of the extracts.

##### **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. DER # 807691 was generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

### **Manual Integrations**

Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

### **Additional Comments**

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported 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:

<b>Instrument ID</b>	<b>Instrument</b>	<b>System Configuration</b>	<b>Column ID</b>	<b>Column Description</b>
ECD8A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD8A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

### **Certification Statement**

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

**Review Validation**

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

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

Reviewer: Andy Whittick

Date: 3-29-2010

## Roadmap for LANL 10-2202 PCB

This roadmap was analyzed by jen01212 on 03-22-2010, 14:30.

This roadmap was packaged by yml on 03-29-2010, 15:21.

Front Sample Column

exclude	manual	datafile	smplid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
<input type="checkbox"/>	N	/chem/ecd8a.i/031910.b/051f5101.d	248526001	sample	19-MAR-2010	17:40	10-2202.sub	RE36-10-8466	10.00000	966420	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smplid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
<input type="checkbox"/>	N	/chem/ecd8a.i/031910.b/051b5101.d	248526001	sample	19-MAR-2010	17:40	10-2202.sub	RE36-10-8466	10.00000	966420	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smplid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
<input type="checkbox"/>	N	/chem/ecd8a.i/031910.b/0262601-4.d	1202073937	mb	19-MAR-2010	12:23	10-2202.sub	PBLK01	1.00000	966420	
<input type="checkbox"/>	N	/chem/ecd8a.i/031910.b/027f2701-4.d	1202073938	lcs	19-MAR-2010	12:35	10-2202.sub	PBLK01LCS	1.00000	966420	
<input type="checkbox"/>	N	/chem/ecd8a.i/031910.b/052f5201.d	1202073939	ms	19-MAR-2010	17:52	10-2202.sub	RE36-10-8466MS	10.00000	966420	UPLOAD BOTH, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd8a.i/031910.b/053f5301.d	1202073940	msd	19-MAR-2010	18:05	10-2202.sub	RE36-10-8466MSD	10.00000	966420	UPLOAD BOTH, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smplid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
<input type="checkbox"/>	N	/chem/ecd8a.i/031910.b/026b2601-4.d	1202073937	mb	19-MAR-2010	12:23	10-2202.sub	PBLK01	1.00000	966420	
<input type="checkbox"/>	N	/chem/ecd8a.i/031910.b/027b2701-4.d	1202073938	lcs	19-MAR-2010	12:35	10-2202.sub	PBLK01LCS	1.00000	966420	
<input type="checkbox"/>	N	/chem/ecd8a.i/031910.b/052b5201.d	1202073939	ms	19-MAR-2010	17:52	10-2202.sub	RE36-10-8466MS	10.00000	966420	UPLOAD BOTH, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd8a.i/031910.b/053b5301.d	1202073940	msd	19-MAR-2010	18:05	10-2202.sub	RE36-10-8466MSD	10.00000	966420	UPLOAD BOTH, USE HIGHER



# SAMPLE DATA SUMMARY

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

SDG Number: 10-2202  
Lab Sample ID: 248526001

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8082  
Inst: ECD8A.I  
Analyst: JAOC  
Aliquot: 30.01 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
% Moisture: 12.4  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 10  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8466  
Batch ID: 966420  
Run Date: 03/19/2010 17:40  
Prep Date: 03/18/2010 10:57  
Data File: 051f5101.d  
051b5101.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	38.0	ug/kg	12.7	38.0	1
11104-28-2	Aroclor-1221	U	38.0	ug/kg	12.7	38.0	1
11141-16-5	Aroclor-1232	U	38.0	ug/kg	12.7	38.0	1
53469-21-9	Aroclor-1242	U	38.0	ug/kg	12.7	38.0	1
12672-29-6	Aroclor-1248	U	38.0	ug/kg	12.7	38.0	1
11097-69-1	Aroclor-1254	U	38.0	ug/kg	12.7	38.0	1
11096-82-5	Aroclor-1260	U	38.0	ug/kg	12.7	38.0	1

# QUALITY CONTROL SUMMARY

**PCB**  
**Surrogate Recovery Report**

Page 1 of 1

SDG Number: 10-2202

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 #
1202073937	MB for batch 966418	71	75	94	98
1202073938	LCS for batch 966418	76	80	97	103
248526001	RE36-10-8466	29 * D	26 * D	33 D	32 D
1202073939	RE36-10-8466MS	37 D	33 D	37 D	36 D
1202073940	RE36-10-8466MSD	29 * D	26 * D	31 D	29 * D

**Surrogate**

4CMX = 4cmx

DCB = Decachlorobiphenyl

**Acceptance Limits**

(32%-120%)

(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: 10-2202

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 966418

Matrix: SOIL

Lab Sample ID:1202073938

Instrument: ECD8A.I

Analysis Date: 03/19/2010 12:35

Dilution: 1

Analyst: JAOC

Prep Batch ID 966418

Inj. Vol: 1 uL

Batch ID: 966420

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	25.5	77	39-102
11096-82-5	LCS Aroclor-1260	33.3	0.0	31.1	93	45-118

## PCB

Page 1 of 2

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Client ID: RE36-10-8466MS

Lab Sample ID:1202073939

Instrument: ECD8A.I

Analyst: JAOC

Inj. Vol: 1 uL

Sample Type: Matrix Spike

Matrix: R

%Moisture: 12.4

Analysis Date: 03/19/2010 17:52

Dilution: 10

Prep Batch II 966418

Batch ID: 966420

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS Aroclor-1016	38.0	0.00 U	17.9	47	23-119
11096-82-5	MS Aroclor-1260	38.0	0.00 U	17.6	46	28-124

PCB

Page 2 of 2

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2202

Sample Type: Matrix Spike Duplicate

Client ID: RE36-10-8466MSD

Matrix: R

Lab Sample ID:1202073940

%Moisture: 12.4

Instrument: ECD8A.I

Analysis Date: 03/19/2010 18:05

Dilution: 10

Analyst: JAO

Prep Batch II 966418

Inj. Vol: 1 uL

Batch ID: 966420

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	Acceptance RPD	Acceptance Limits
12674-11-2	MSD Aroclor-1016	38.0	0.00 U	0.00	0 *	23-119	200 *	0-28
11096-82-5	MSD Aroclor-1260	38.0	0.00 U	0.00	0 *	28-124	200 *	0-30

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2202	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 966418	Instrument ID:	ECD8A.J_2	Data File:	026b2601-1.d
Lab Sample ID:	1202073937		ECD8A.J_1		026f2601-1.d
Column:	CLP2	Prep Date:	03/18/2010 10:57	Analyzed:	03/19/10 12:23
	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 966418	1202073938	027f2701-1.d 027b2701-1.d	03/19/10	1235
02 RE36-10-8466	248526001	051f5101.d 051b5101.d	03/19/10	1740
03 RE36-10-8466MS	1202073939	052f5201.d 052b5201.d	03/19/10	1752
04 RE36-10-8466MSD	1202073940	053f5301.d 053b5301.d	03/19/10	1805



**SAMPLE  
DATA**

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

Page 1 of 1

SDG Number: 10-2202  
Lab Sample ID: 248526001

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8082  
Inst: ECD8A.I  
Analyst: JAOC  
Aliquot: 30.01 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 12.4  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 10  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8466  
Batch ID: 966420  
Run Date: 03/19/2010 17:40  
Prep Date: 03/18/2010 10:57  
Data File: 051f5101.d  
051b5101.d

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	38.0	ug/kg	12.7	38.0	1
11104-28-2	Aroclor-1221	U	38.0	ug/kg	12.7	38.0	1
11141-16-5	Aroclor-1232	U	38.0	ug/kg	12.7	38.0	1
53469-21-9	Aroclor-1242	U	38.0	ug/kg	12.7	38.0	1
12672-29-6	Aroclor-1248	U	38.0	ug/kg	12.7	38.0	1
11097-69-1	Aroclor-1254	U	38.0	ug/kg	12.7	38.0	1
11096-82-5	Aroclor-1260	U	38.0	ug/kg	12.7	38.0	1

Data File: /chem/ecd8a.i/031910.b/051f5101.d  
Report Date: 22-Mar-2010 13:18

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/051f5101.d  
Lab Smp Id: 248526001 Client Smp ID: RE36-10-8466  
Inj Date : 19-MAR-2010 17:40  
Operator : JAOC Inst ID: ecd8a.i  
Smp Info : |248526001|10|  
Misc Info : |ECD82P\_1S|966420|SVA|LANL|SOIL|RE36-10-8466|||  
Comment :  
Method : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m  
Meth Date : 22-Mar-2010 08:33 jen01212 Quant Type: ESTD  
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d  
Als bottle: 51  
Dil Factor: 10.00000  
Integrator: Falcon Compound Sublist: 10-2202.sub  
Target Version: 3.50 Sample Matrix: Soil

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

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	12.38630	% 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						
2.250	2.248	0.002	717655 5.74302	2.2	80.00- 120.00	100.00(R)
-----						
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
6.239	6.239	0.000	541260 6.57260	2.5	80.00- 120.00	100.00
-----						

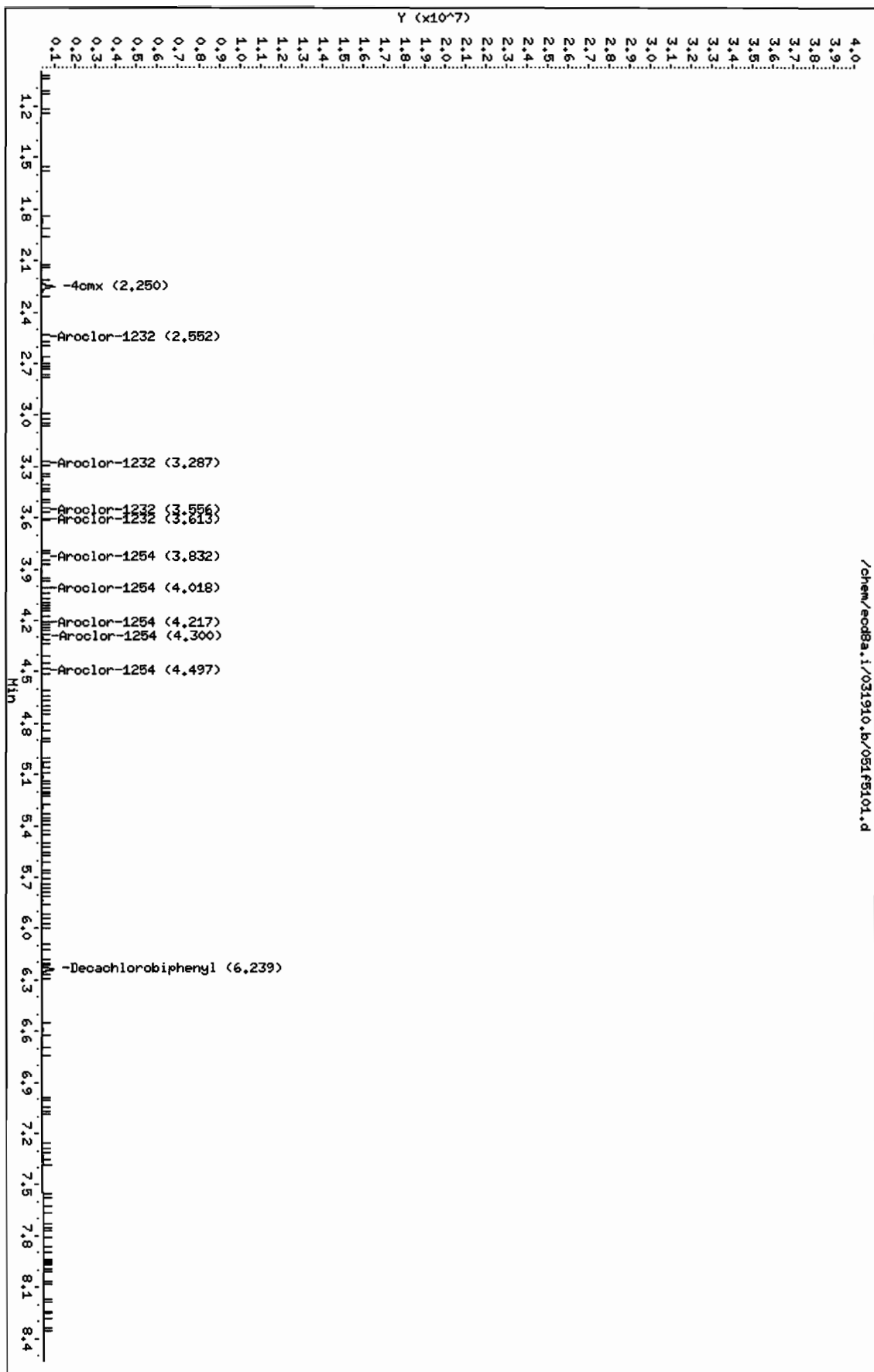
QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecob8a.i/031910.b/051f5101.d  
Date: 19-MAR-2010 17:40  
Client ID: RE36-10-8466  
Sample Info: 1248626001101  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: ecob8a.i  
Operator: JHOC  
Column diameter: 0.25

Page 1



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecd8a.i/031910.b/051b5101.d  
Lab Smp Id: 248526001 Client Smp ID: RE36-10-8466  
Inj Date : 19-MAR-2010 17:40  
Operator : JAOC Inst ID: ecd8a.i  
Smp Info : |248526001|10|  
Misc Info : |ECD82P\_1S|966420|SVA|LANL|SOIL|RE36-10-8466|||  
Comment :  
Method : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m  
Meth Date : 22-Mar-2010 07:51 jen01212 Quant Type: ESTD  
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d  
Als bottle: 51  
Dil Factor: 10.00000  
Integrator: Falcon Compound Sublist: 10-2202.sub  
Target Version: 3.50 Sample Matrix: Soil

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

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	12.38630	% 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		
2.478	2.477	0.001	439794 5.26183	2.0	80.00- 120.00	100.00(R)	
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.824	0.000	374052 6.31286	2.4	80.00- 120.00	100.00	
-----							

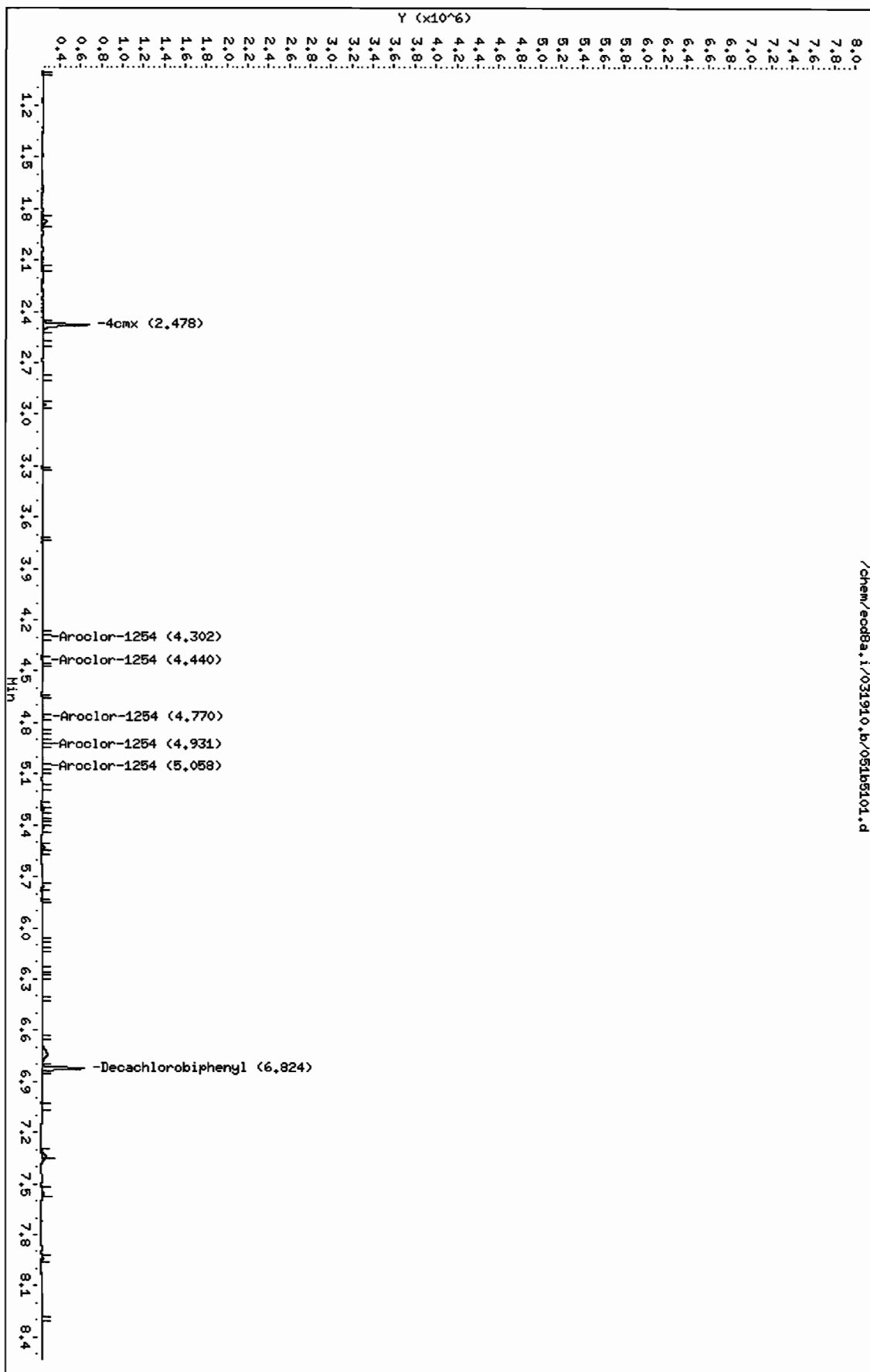
QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecod8a.i/031910.b/051b5101.d  
Date : 19-MAR-2010 17:40  
Client ID: RE36-10-8466  
Sample Info: 1248526001101  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: ecod8a.i  
Operator: JHOC  
Column diameter: 0.25

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# STANDARDS DATA

Report Date: 19-Mar-2010 11:23

### Calibration History

Method : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m

Start Cal Date: 03-FEB-2010 10:24

End Cal Date : 18-MAR-2010 07:15

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
23-FEB-2010 10:43	AR1221	/chem/ecd8a.i/022310.b/013f1301.d
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028f2801.d
09-MAR-2010 10:41	AR1248	/chem/ecd8a.i/030910.b/013f1301.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014f1401.d
09-MAR-2010 09:27	AR1254	/chem/ecd8a.i/030910.b/007f0701.d
18-MAR-2010 06:25	AR1660	/chem/ecd8a.i/031810.b/002f0201.d

Cal Level: 2 , Cal Amount: 250.00000		
23-FEB-2010 10:55	AR1221	/chem/ecd8a.i/022310.b/014f1401.d
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029f2901.d
09-MAR-2010 10:53	AR1248	/chem/ecd8a.i/030910.b/014f1401.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015f1501.d
09-MAR-2010 09:39	AR1254	/chem/ecd8a.i/030910.b/008f0801.d
18-MAR-2010 06:38	AR1660	/chem/ecd8a.i/031810.b/003f0301.d

Cal Level: 3 , Cal Amount: 500.00000		
23-FEB-2010 11:07	AR1221	/chem/ecd8a.i/022310.b/015f1501.d
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030f3001.d
09-MAR-2010 11:05	AR1248	/chem/ecd8a.i/030910.b/015f1501.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016f1601.d
09-MAR-2010 09:51	AR1254	/chem/ecd8a.i/030910.b/009f0901.d
18-MAR-2010 06:50	AR1660	/chem/ecd8a.i/031810.b/004f0401.d

Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036f3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034f3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031f3101.d
23-FEB-2010 11:20	AR1221	/chem/ecd8a.i/022310.b/016f1601.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026f2601.d
09-MAR-2010 11:18	AR1248	/chem/ecd8a.i/030910.b/016f1601.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017f1701.d
09-MAR-2010 10:04	AR1254	/chem/ecd8a.i/030910.b/010f1001.d
18-MAR-2010 07:02	AR1660	/chem/ecd8a.i/031810.b/005f0501.d

Cal Level: 5 , Cal Amount: 4000.00000		
23-FEB-2010 11:32	AR1221	/chem/ecd8a.i/022310.b/017f1701.d
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032f3201.d
09-MAR-2010 11:30	AR1248	/chem/ecd8a.i/030910.b/017f1701.d



03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018f1801.d
09-MAR-2010 10:16	AR1254	/chem/ecd8a.i/030910.b/011f1101.d
18-MAR-2010 07:15	AR1660	/chem/ecd8a.i/031810.b/006f0601.d

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 10:52	AR1660	/chem/ecd8a.i/031910.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 09:54	AR1660	/chem/ecd8a.i/031910.b/017f1701.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 09:20	AR1660	/chem/ecd8a.i/031910.b/015f1501.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 08:18	AR1268	/chem/ecd8a.i/031910.b/010f1001.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 08:05	AR1262	/chem/ecd8a.i/031910.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 07:53	AR1221	/chem/ecd8a.i/031910.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 07:41	AR1242	/chem/ecd8a.i/031910.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 07:28	AR1232	/chem/ecd8a.i/031910.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 07:16	AR1248	/chem/ecd8a.i/031910.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 07:03	AR1242	/chem/ecd8a.i/031910.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 06:39	AR1660	/chem/ecd8a.i/031910.b/002f0201.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 06:51	AR1254	/chem/ecd8a.i/031910.b/003f0301.d

Report Date: 19-Mar-2010 11:23

### Calibration History

Method : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m  
Start Cal Date: 03-FEB-2010 10:24  
End Cal Date : 18-MAR-2010 07:15

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
23-FEB-2010 10:43	AR1221	/chem/ecd8a.i/022310.b/013b1301.d
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028b2801.d
09-MAR-2010 10:41	AR1248	/chem/ecd8a.i/030910.b/013b1301.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014b1401.d
09-MAR-2010 09:27	AR1254	/chem/ecd8a.i/030910.b/007b0701.d
18-MAR-2010 06:25	AR1660	/chem/ecd8a.i/031810.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
23-FEB-2010 10:55	AR1221	/chem/ecd8a.i/022310.b/014b1401.d
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029b2901.d
09-MAR-2010 10:53	AR1248	/chem/ecd8a.i/030910.b/014b1401.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015b1501.d
09-MAR-2010 09:39	AR1254	/chem/ecd8a.i/030910.b/008b0801.d
18-MAR-2010 06:38	AR1660	/chem/ecd8a.i/031810.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
23-FEB-2010 11:07	AR1221	/chem/ecd8a.i/022310.b/015b1501.d
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030b3001.d
09-MAR-2010 11:05	AR1248	/chem/ecd8a.i/030910.b/015b1501.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016b1601.d
09-MAR-2010 09:51	AR1254	/chem/ecd8a.i/030910.b/009b0901.d
18-MAR-2010 06:50	AR1660	/chem/ecd8a.i/031810.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036b3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034b3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031b3101.d
23-FEB-2010 11:20	AR1221	/chem/ecd8a.i/022310.b/016b1601.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026b2601.d
09-MAR-2010 11:18	AR1248	/chem/ecd8a.i/030910.b/016b1601.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017b1701.d
09-MAR-2010 10:04	AR1254	/chem/ecd8a.i/030910.b/010b1001.d
18-MAR-2010 07:02	AR1660	/chem/ecd8a.i/031810.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
23-FEB-2010 11:32	AR1221	/chem/ecd8a.i/022310.b/017b1701.d
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032b3201.d
09-MAR-2010 11:30	AR1248	/chem/ecd8a.i/030910.b/017b1701.d
03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018b1801.d
09-MAR-2010 10:16	AR1254	/chem/ecd8a.i/030910.b/011b1101.d
18-MAR-2010 07:15	AR1660	/chem/ecd8a.i/031810.b/006b0601.d

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 4

+-----+-----+-----+		
Ccal Level: 4 , Ccal Amount: 1000		
+=====+		
19-MAR-2010 10:52  AR1660	/chem/ecd8a.i/031910.b/021b2101.d	
+-----+-----+-----+		
Ccal Level: 4 , Ccal Amount: 1000		
+=====+		
19-MAR-2010 09:54  AR1660	/chem/ecd8a.i/031910.b/017b1701.d	
+-----+-----+-----+		
Ccal Level: 4 , Ccal Amount: 1000		
+=====+		
19-MAR-2010 09:20  AR1660	/chem/ecd8a.i/031910.b/015b1501.d	
+-----+-----+-----+		
Ccal Level: 4 , Ccal Amount: 1000		
+=====+		
19-MAR-2010 08:18  AR1268	/chem/ecd8a.i/031910.b/010b1001.d	
+-----+-----+-----+		
Ccal Level: 4 , Ccal Amount: 1000		
+=====+		
19-MAR-2010 08:05  AR1262	/chem/ecd8a.i/031910.b/009b0901.d	
+-----+-----+-----+		
Ccal Level: 4 , Ccal Amount: 1000		
+=====+		
19-MAR-2010 07:53  AR1221	/chem/ecd8a.i/031910.b/008b0801.d	
+-----+-----+-----+		
Ccal Level: 4 , Ccal Amount: 1000		
+=====+		
19-MAR-2010 07:41  AR1242	/chem/ecd8a.i/031910.b/007b0701.d	
+-----+-----+-----+		
Ccal Level: 4 , Ccal Amount: 1000		
+=====+		
19-MAR-2010 07:28  AR1232	/chem/ecd8a.i/031910.b/006b0601.d	
+-----+-----+-----+		
Ccal Level: 4 , Ccal Amount: 1000		
+=====+		
19-MAR-2010 07:16  AR1248	/chem/ecd8a.i/031910.b/005b0501.d	
+-----+-----+-----+		
Ccal Level: 4 , Ccal Amount: 1000		
+=====+		
19-MAR-2010 07:03  AR1242	/chem/ecd8a.i/031910.b/004b0401.d	
+-----+-----+-----+		
Ccal Level: 4 , Ccal Amount: 1000		
+=====+		
19-MAR-2010 06:51  AR1254	/chem/ecd8a.i/031910.b/003b0301.d	
+-----+-----+-----+		
Ccal Level: 4 , Ccal Amount: 1000		
+=====+		
19-MAR-2010 06:39  AR1660	/chem/ecd8a.i/031910.b/002b0201.d	
+-----+-----+-----+		

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m  
 Quant Method : ESTD Target Version : 3.50  
 Last Update : 19-Mar-2010 11:00 Number of Cpnds : 15  
 Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events Values

```

-----
Initial:Start Threshold      758.000000
Initial:End Threshold        379.000000
Initial:Area Threshold       734.000000
Initial:P-P Resolution       1.000000
Initial:Bunch Factor         2.000000
Initial:Negative Peaks       OFF
Initial:Tension              1.500000
    6.500:Bunch Factor       2.000000
  
```

Compound	RT	RT Window	RF
1 Aroclor-1016	2.806	2.776-2.836	4.772e+03
	3.157	3.127-3.187	5.397e+03
	3.300	3.270-3.330	2.352e+03
	3.392	3.362-3.422	2.192e+03
	3.555	3.525-3.585	3.079e+03
2 Aroclor-1221	2.389	2.359-2.419	1.568e+03
	2.504	2.474-2.534	9.154e+02
	2.535	2.505-2.565	3.573e+03
3 Aroclor-1232	2.535	2.505-2.565	2.601e+03
	2.806	2.776-2.836	2.261e+03
	3.301	3.271-3.331	1.243e+03
	3.555	3.525-3.585	1.479e+03
4 Aroclor-1242	3.617	3.587-3.647	9.227e+02
	2.806	2.776-2.836	3.974e+03
	3.158	3.128-3.188	4.796e+03
	3.393	3.363-3.423	1.805e+03
	3.410	3.380-3.440	1.889e+03
5 Aroclor-1248	3.555	3.525-3.585	2.645e+03
	3.143	3.113-3.173	2.721e+03
	3.393	3.363-3.423	3.402e+03
	3.555	3.525-3.585	4.371e+03
	3.861	3.831-3.891	5.250e+03
	4.020	3.990-4.050	4.212e+03

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m

Compound	RT	RT Window	RF
6 Aroclor-1254	3.831	3.801-3.861	4.334e+03
	4.018	3.988-4.048	5.767e+03
	4.214	4.184-4.244	4.459e+03
	4.301	4.271-4.331	7.522e+03
	4.496	4.466-4.526	5.749e+03
7 Aroclor-1260	4.429	4.399-4.459	5.890e+03
	4.625	4.595-4.655	8.495e+03
	4.900	4.870-4.930	5.066e+03
	5.072	5.042-5.102	5.329e+03
	5.483	5.453-5.513	5.641e+03
8 Aroclor-1262	4.331	4.301-4.361	3.367e+03
	4.429	4.399-4.459	5.243e+03
	4.625	4.595-4.655	7.103e+03
	4.901	4.871-4.931	8.580e+03
	5.073	5.043-5.103	7.966e+03
9 Aroclor-1268	5.507	5.477-5.537	1.632e+04
	5.534	5.504-5.564	1.572e+04
	5.667	5.637-5.697	1.207e+04
	5.914	5.884-5.944	6.023e+03
	6.110	6.080-6.140	3.601e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	2.248	2.218-2.278	1.250e+05
\$ 12 Decachlorobiphenyl	6.239	6.209-6.269	8.235e+04
13 4,4'-DDT	4.852	4.832-4.872	2.393e+04
14 4,4'-DDD	4.658	4.638-4.678	1.570e+05
15 4,4'-DDE	4.234	4.214-4.254	1.340e+05

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m  
 Quant Method : ESTD Target Version : 3.50  
 Last Update : 19-Mar-2010 11:01 Number of Cpnds : 15  
 Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	733.000000
Initial:End Threshold	366.500000
Initial:Area Threshold	522.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	2.000000
9.000:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.548	3.518-3.578	3.678e+03
	3.648	3.618-3.678	2.551e+03
	3.724	3.694-3.754	1.492e+03
	3.799	3.769-3.829	1.478e+03
	3.995	3.965-4.025	2.025e+03
2 Aroclor-1221	2.718	2.688-2.748	9.481e+02
	2.831	2.801-2.861	5.911e+02
	2.878	2.848-2.908	2.179e+03
3 Aroclor-1232	3.196	3.166-3.226	1.515e+03
	3.550	3.520-3.580	1.744e+03
	3.649	3.619-3.679	1.176e+03
	3.725	3.695-3.755	7.101e+02
4 Aroclor-1242	3.800	3.770-3.830	6.182e+02
	3.196	3.166-3.226	2.677e+03
	3.549	3.519-3.579	3.126e+03
	3.648	3.618-3.678	2.127e+03
	3.996	3.966-4.026	1.703e+03
5 Aroclor-1248	4.085	4.055-4.115	1.567e+03
	3.647	3.617-3.677	1.329e+03
	3.799	3.769-3.829	2.249e+03
	3.995	3.965-4.025	2.790e+03
	4.274	4.244-4.304	3.273e+03
	4.305	4.275-4.335	3.592e+03

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m

Compound	RT	RT Window	RF
6 Aroclor-1254	4.302	4.272-4.332	3.117e+03
	4.441	4.411-4.471	3.478e+03
	4.770	4.740-4.800	4.832e+03
	4.931	4.901-4.961	3.494e+03
	5.057	5.027-5.087	2.202e+03
7 Aroclor-1260	4.908	4.878-4.938	3.939e+03
	5.057	5.027-5.087	4.730e+03
	5.374	5.344-5.404	3.587e+03
	5.581	5.551-5.611	3.712e+03
	6.012	5.982-6.042	5.841e+03
8 Aroclor-1262	4.909	4.879-4.939	3.276e+03
	5.058	5.028-5.088	3.827e+03
	5.374	5.344-5.404	5.446e+03
	5.582	5.552-5.612	5.047e+03
	6.010	5.980-6.040	7.196e+03
9 Aroclor-1268	6.008	5.978-6.038	1.138e+04
	6.040	6.011-6.070	1.041e+04
	6.219	6.189-6.249	8.192e+03
	6.415	6.386-6.446	4.057e+03
	6.645	6.615-6.675	2.464e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	2.477	2.447-2.507	8.358e+04
\$ 12 Decachlorobiphenyl	6.824	6.794-6.854	5.925e+04
13 4,4'-DDT	5.323	5.303-5.343	1.460e+04
14 4,4'-DDD	5.102	5.082-5.122	1.001e+05
15 4,4'-DDE	4.691	4.671-4.711	8.898e+04

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24  
 End Cal Date : 18-MAR-2010 07:15  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m  
 Cal Date : 19-Mar-2010 11:00 jam00798  
 Curve Type : Average

## Calibration File Names:

Level 1: /chem/ecd8a.i/022310.b/013f1301.d  
 Level 2: /chem/ecd8a.i/022310.b/014f1401.d  
 Level 3: /chem/ecd8a.i/022310.b/015f1501.d  
 Level 4: /chem/ecd8a.i/020310a.b/036f3601.d  
 Level 5: /chem/ecd8a.i/022310.b/017f1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	5919	5050	4827	4394	3671	4772	17.374
(2)	6305	5464	5600	5079	4539	5397	12.103
(3)	2780	2401	2389	2196	1992	2352	12.417
(4)	2749	2248	2191	2001	1769	2192	16.589
(5)	3808	3166	3086	2824	2511	3079	15.627
2 Aroclor-1221(1)	1843	1746	1580	1468	1203	1568	15.964
(2)	1118	1046	917	835	660	915	19.675
(3)	4334	3992	3544	3325	2672	3573	17.859
3 Aroclor-1232(1)	++++	++++	++++	2601	++++	2601	0.000
(2)	++++	++++	++++	2261	++++	2261	0.000
(3)	++++	++++	++++	1243	++++	1243	0.000
(4)	++++	++++	++++	1479	++++	1479	0.000
(5)	++++	++++	++++	923	++++	923	0.000
4 Aroclor-1242(1)	4726	4372	4070	3706	2998	3974	16.680
(2)	5172	5152	4949	4680	4027	4796	9.873
(3)	2139	1968	1820	1683	1417	1805	15.251
(4)	2229	2050	1908	1759	1500	1889	14.735
(5)	3065	2855	2678	2500	2127	2645	13.507
5 Aroclor-1248(1)	3009	2847	2875	2619	2254	2721	10.891
(2)	3979	3666	3503	3232	2633	3402	14.930
(3)	4974	4644	4593	4148	3497	4371	13.049
(4)	5772	5534	5553	5051	4341	5250	10.905
(5)	4772	4453	4399	4004	3430	4212	12.231
6 Aroclor-1254(1)	4848	4583	4256	4143	3840	4334	9.026
(2)	6355	6045	5692	5573	5168	5767	7.878
(3)	4755	4649	4399	4320	4170	4459	5.382
(4)	7994	7880	7432	7366	6934	7522	5.676
(5)	6153	6013	5632	5615	5334	5749	5.750



GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24  
 End Cal Date : 18-MAR-2010 07:15  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m  
 Cal Date : 19-Mar-2010 11:00 jam00798  
 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
=====							
7 Aroclor-1260(1)	7147	5970	6060	5488	4785	5890	14.695
(2)	10103	8518	8810	7994	7052	8495	13.185
(3)	6142	5086	5206	4683	4213	5066	14.134
(4)	6261	5444	5587	4872	4481	5329	12.849
(5)	6525	5540	5787	5277	5076	5641	9.964
8 Aroclor-1262(1)	3851	3558	3311	3256	2859	3367	10.954
(2)	5935	5551	5239	5102	4386	5243	10.995
(3)	7996	7523	7022	6963	6012	7103	10.414
(4)	9555	9028	8567	8433	7318	8580	9.694
(5)	8875	8357	7946	7802	6850	7966	9.421
9 Aroclor-1268(1)	++++	++++	++++	16324	++++	16324	0.000
(2)	++++	++++	++++	15723	++++	15723	0.000
(3)	++++	++++	++++	12075	++++	12075	0.000
(4)	++++	++++	++++	6023	++++	6023	0.000
(5)	++++	++++	++++	36012	++++	36012	0.000
M 10 Aroclor-Total	++++	++++	++++	++++	++++	++++	++++
13 4,4'-DDT	++++	++++	++++	23929	++++	23929	0.000
14 4,4'-DDD	++++	++++	++++	157020	++++	157020	0.000
15 4,4'-DDE	++++	++++	++++	133975	++++	133975	0.000
=====							
\$ 11 4cmx	136153	126431	127871	122774	111579	124961	7.155
\$ 12 Decachlorobiphenyl	95355	82633	85082	76716	71970	82351	10.796

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24  
 End Cal Date : 18-MAR-2010 07:15  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m  
 Cal Date : 19-Mar-2010 11:01 jam00798  
 Curve Type : Average

## Calibration File Names:

Level 1: /chem/ecd8a.i/022310.b/013b1301.d  
 Level 2: /chem/ecd8a.i/022310.b/014b1401.d  
 Level 3: /chem/ecd8a.i/022310.b/015b1501.d  
 Level 4: /chem/ecd8a.i/020310a.b/036b3601.d  
 Level 5: /chem/ecd8a.i/022310.b/017b1701.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)	3858	3610	3858	3627	3436	3678	4.905
(2)	2824	2559	2590	2465	2318	2551	7.270
(3)	1619	1461	1511	1446	1422	1492	5.243
(4)	1671	1484	1494	1405	1335	1478	8.500
(5)	2238	2022	2057	1951	1857	2025	6.982
2 Aroclor-1221(1)	1008	1017	964	925	826	948	8.179
(2)	642	644	604	571	494	591	10.518
(3)	2384	2349	2220	2116	1827	2179	10.256
3 Aroclor-1232(1)	++++	++++	++++	1515	++++	1515	0.000
(2)	++++	++++	++++	1744	++++	1744	0.000
(3)	++++	++++	++++	1176	++++	1176	0.000
(4)	++++	++++	++++	710	++++	710	0.000
(5)	++++	++++	++++	618	++++	618	0.000
4 Aroclor-1242(1)	2949	2857	2758	2609	2213	2677	10.779
(2)	3213	3196	3180	3232	2808	3126	5.721
(3)	2287	2232	2178	2099	1842	2127	8.178
(4)	1820	1782	1741	1678	1497	1703	7.463
(5)	1675	1595	1607	1522	1434	1567	5.872
5 Aroclor-1248(1)	1413	1408	1337	1299	1188	1329	6.944
(2)	2387	2358	2277	2198	2024	2249	6.480
(3)	2920	2903	2849	2753	2523	2790	5.825
(4)	3350	3368	3334	3259	3054	3273	3.955
(5)	3677	3689	3657	3584	3353	3592	3.894
6 Aroclor-1254(1)	3242	3137	3080	3079	3045	3117	2.483
(2)	3591	3494	3433	3454	3418	3478	1.994
(3)	4854	4823	4800	4853	4830	4832	0.471
(4)	3516	3466	3440	3510	3538	3494	1.145
(5)	2281	2214	2159	2166	2188	2202	2.240

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24  
 End Cal Date : 18-MAR-2010 07:15  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m  
 Cal Date : 19-Mar-2010 11:01 jam00798  
 Curve Type : Average

	100.000	250.000	500.000	1000.000	4000.000		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
7 Aroclor-1260(1)	4310	3885	4025	3827	3646	3939	6.300
(2)	5135	4638	4867	4591	4421	4730	5.847
(3)	3916	3515	3674	3464	3365	3587	5.999
(4)	4033	3615	3813	3590	3510	3712	5.689
(5)	6224	5645	6036	5678	5624	5841	4.664
8 Aroclor-1262(1)	3545	3367	3269	3249	2948	3276	6.635
(2)	4038	3929	3844	3825	3498	3827	5.277
(3)	5683	5613	5515	5463	4958	5446	5.255
(4)	5266	5178	5090	5067	4633	5047	4.838
(5)	7327	7356	7286	7270	6740	7196	3.572
9 Aroclor-1268(1)	++++	++++	++++	11384	++++	11384	0.000
(2)	++++	++++	++++	10412	++++	10412	0.000
(3)	++++	++++	++++	8192	++++	8192	0.000
(4)	++++	++++	++++	4057	++++	4057	0.000
(5)	++++	++++	++++	24640	++++	24640	0.000
M 10 Aroclor-Total	++++	++++	++++	++++	++++	++++	++++
13 4,4'-DDT	++++	++++	++++	14596	++++	14596	0.000
14 4,4'-DDD	++++	++++	++++	100145	++++	100145	0.000
15 4,4'-DDE	++++	++++	++++	88982	++++	88982	0.000
\$ 11 4cmx	83925	81585	84996	84651	82754	83582	1.685
\$ 12 Decachlorobiphenyl	64763	57453	61017	56769	56260	59252	6.076

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.: 10-2202  
 Instrument ID: ECD8A Calibration Date: 03/19/10 Time: 0639  
 Lab File ID: 002F0201 Init. Calib. Date(s): 03/18/10 03/18/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4286.357	0.01	-10.2	15.0
(2)	5397.398	5060.097	0.01	-6.2	15.0
(3)	2351.643	2193.525	0.01	-6.7	15.0
(4)	2191.567	1985.533	0.01	-9.4	15.0
(5)	3078.945	2834.632	0.01	-7.9	15.0
Aroclor-1260	5890.060	5979.285	0.01	1.5	15.0
(2)	8495.287	8802.241	0.01	3.6	15.0
(3)	5066.269	5196.891	0.01	2.6	15.0
(4)	5329.016	5493.408	0.01	3.1	15.0
(5)	5640.982	6142.364	0.01	8.9	15.0
4cmx	124961.40	128759.27	0.01	3.0	15.0
Decachlorobiphenyl	82351.042	90323.340	0.01	9.7	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.: 10-2202  
 Instrument ID: ECD8A Calibration Date: 03/19/10 Time: 0639  
 Lab File ID: 002B0201 Init. Calib. Date(s): 03/18/10 03/18/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3917.511	0.01	6.5	15.0
(2)	2551.186	2562.521	0.01	0.4	15.0
(3)	1492.032	1521.811	0.01	2.0	15.0
(4)	1477.704	1479.544	0.01	0.1	15.0
(5)	2024.804	2055.367	0.01	1.5	15.0
Aroclor-1260	3938.505	4402.018	0.01	11.8	15.0
(2)	4730.476	5307.034	0.01	12.2	15.0
(3)	3586.650	4021.025	0.01	12.1	15.0
(4)	3712.238	4180.664	0.01	12.6	15.0
(5)	5841.333	6615.558	0.01	13.2	15.0
4cmx	83582.102	91464.330	0.01	9.4	15.0
Decachlorobiphenyl	59252.492	66216.290	0.01	11.8	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.: 10-2202  
 Instrument ID: ECD8A Calibration Date: 03/19/10 Time: 1157  
 Lab File ID: 024F2401 Init. Calib. Date(s): 03/18/10 03/18/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4613.032	0.01	-3.3	15.0
(2)	5397.398	5689.003	0.01	5.4	15.0
(3)	2351.643	2400.712	0.01	2.1	15.0
(4)	2191.567	2129.382	0.01	-2.8	15.0
(5)	3078.945	3082.144	0.01	0.1	15.0
Aroclor-1260	5890.060	6070.707	0.01	3.1	15.0
(2)	8495.287	9081.858	0.01	6.9	15.0
(3)	5066.269	5383.035	0.01	6.2	15.0
(4)	5329.016	5825.588	0.01	9.3	15.0
(5)	5640.982	6272.339	0.01	11.2	15.0
4cmx	124961.40	127278.54	0.01	1.8	15.0
Decachlorobiphenyl	82351.042	92907.720	0.01	12.8	15.0

FORM VII PEST